| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DNU | | | | | R29 | | | | | | | | | |
| | | DNU | | | | | T29 | | | | | | | | | |
| | | RREF_TL | | | | | T30 | | | | | | | | | |
| GXB_L1 | | REFCLK3Ln | | | | | W23 | | | | | | | | | |
| GXB_L1 | | REFCLK3Lp | | | | | W22 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L11n | | | | | U27 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L11p | | | | | U28 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L11p,GXB_REFCLK_L11p | | | | | V30 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L11n,GXB_REFCLK_L11n | | | | | V29 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L10n | | | | | W27 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L10p | | | | | W28 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L10p,GXB_REFCLK_L10p | | | | | Y30 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L10n,GXB_REFCLK_L10n | | | | | Y29 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L9n | | | | | AA27 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L9p | | | | | AA28 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L9p,GXB_REFCLK_L9p | | | | | AB30 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L9n,GXB_REFCLK_L9n | | | | | AB29 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L8n | | | | | AC27 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L8p | | | | | AC28 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L8p,GXB_REFCLK_L8p | | | | | AD30 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L8n,GXB_REFCLK_L8n | | | | | AD29 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L7n | | | | | AE27 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L7p | | | | | AE28 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L7p,GXB_REFCLK_L7p | | | | | AF30 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L7n,GXB_REFCLK_L7n | | | | | AF29 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L6n | | | | | AG27 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L6p | | | | | AG28 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L6p,GXB_REFCLK_L6p | | | | | AH30 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L6n,GXB_REFCLK_L6n | | | | | AH29 | | | | | | | | | |
| GXB_L1 | | REFCLK2Ln | | | | | AA23 | | | | | | | | | |
| GXB_L1 | | REFCLK2Lp | | | | | AA22 | | | | | | | | | |
| | | DNU | | | | | AJ28 | | | | | | | | | |
| 3A | | TDO | | TDO | | | AF25 | | | | | | | | | |
| 3A | | TMS | | TMS | | | AK29 | | | | | | | | | |
| 3A | | TCK | | TCK | | | AH25 | | | | | | | | | |
| 3A | | TDI | | TDI | | | AG25 | | | | | | | | | |
| 3A | | DCLK | | DCLK | | | AK27 | | | | | | | | | |
| 3A | | nCSO | | DATA4 | | | AJ27 | | | | | | | | | |
| 3A | | AS_DATA3 | | DATA3 | | | AK28 | | | | | | | | | |
| 3A | | AS_DATA2 | | DATA2 | | | AE25 | | | | | | | | | |
| 3A | | AS_DATA1 | | DATA1 | | | AC25 | | | | | | | | | |
| 3A | | AS_DATA0,ASDO | | DATA0 | | | AK26 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | RZQ_0 | | DIFFIO_TX_B1n | DIFFOUT_B1n | AD25 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK0n | | DIFFIO_RX_B2n | DIFFOUT_B2n | AE24 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK0p | | DIFFIO_RX_B2p | DIFFOUT_B2p | AF24 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK1n | | DIFFIO_RX_B4n | DIFFOUT_B4n | AJ25 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK1p | | DIFFIO_RX_B4p | DIFFOUT_B4p | AK25 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT1,FPLL_BL_CLKOUTn | | DIFFIO_TX_B5n | DIFFOUT_B5n | AD23 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT0,FPLL_BL_CLKOUTp,FPLL_BL_FB0 | | DIFFIO_TX_B5p | DIFFOUT_B5p | AE23 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT3,FPLL_BL_FBn | | DIFFIO_RX_B6n | DIFFOUT_B6n | AG24 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT2,FPLL_BL_FBp,FPLL_BL_FB1 | | DIFFIO_RX_B6p | DIFFOUT_B6p | AH24 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | VREFB3AN0 | | | | AD24 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK2n | | DIFFIO_RX_B7n | DIFFOUT_B7n | AJ24 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK2p | | DIFFIO_RX_B7p | DIFFOUT_B7p | AK24 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B8n | DIFFOUT_B8n | AC22 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B8p | DIFFOUT_B8p | AC21 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK3n | | DIFFIO_RX_B9n | DIFFOUT_B9n | AG23 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK3p | | DIFFIO_RX_B9p | DIFFOUT_B9p | AH23 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B10n | DIFFOUT_B10n | AE21 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B10p | DIFFOUT_B10p | AD22 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B11n | DIFFOUT_B11n | AK23 | DQSn1B/QK1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B11p | DIFFOUT_B11p | AK22 | DQS1B/CQ1B/CQn1B/QKn1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B12n | DIFFOUT_B12n | AJ22 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B12p | DIFFOUT_B12p | AJ21 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B13n | DIFFOUT_B13n | AF22 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B13p | DIFFOUT_B13p | AG22 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B14n | DIFFOUT_B14n | AE18 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B14p | DIFFOUT_B14p | AF18 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B15n | DIFFOUT_B15n | AK21 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B15p | DIFFOUT_B15p | AK20 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B16n | DIFFOUT_B16n | AH21 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B16p | DIFFOUT_B16p | AH20 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B17n | DIFFOUT_B17n | AF21 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B17p | DIFFOUT_B17p | AG21 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B18n | DIFFOUT_B18n | AD21 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B18p | DIFFOUT_B18p | AD20 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B19n | DIFFOUT_B19n | AJ19 | DQSn2B/QK2B | DQSn1B/QK1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B19p | DIFFOUT_B19p | AK19 | DQS2B/CQ2B/CQn2B/QKn2B | DQS1B/CQ1B/CQn1B/QKn1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B20n | DIFFOUT_B20n | AG20 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B20p | DIFFOUT_B20p | AG19 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B21n | DIFFOUT_B21n | AG18 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B21p | DIFFOUT_B21p | AH18 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B22n | DIFFOUT_B22n | AD19 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B22p | DIFFOUT_B22p | AD18 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B23n | DIFFOUT_B23n | AF19 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B23p | DIFFOUT_B23p | AE20 | DQ2B | DQ1B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B24n | DIFFOUT_B24n | AE15 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B24p | DIFFOUT_B24p | AE14 | DQ3B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B25n | DIFFOUT_B25n | AJ18 | DQ3B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B25p | DIFFOUT_B25p | AK18 | DQ3B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B26n | DIFFOUT_B26n | AK15 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B26p | DIFFOUT_B26p | AK14 | DQ3B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B27n | DIFFOUT_B27n | AK17 | DQSn3B/QK3B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B27p | DIFFOUT_B27p | AK16 | DQS3B/CQ3B/CQn3B/QKn3B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B28n | DIFFOUT_B28n | AC15 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B28p | DIFFOUT_B28p | AD15 | DQ3B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B29n | DIFFOUT_B29n | AJ16 | DQ3B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B29p | DIFFOUT_B29p | AJ15 | DQ3B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | VREFB3BN0 | | | | AD16 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | | | AD17 | DQ3B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B30n | DIFFOUT_B30n | AH17 | DQ3B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B30p | DIFFOUT_B30p | AH16 | DQ3B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B31p | DIFFOUT_B31p | AG17 | DQ4B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B32n | DIFFOUT_B32n | AG14 | DQ4B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B32p | DIFFOUT_B32p | AH14 | DQ4B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B33p | DIFFOUT_B33p | AE17 | DQ4B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B34n | DIFFOUT_B34n | AF16 | DQSn4B/QK4B | DQSn2B/QK2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B34p | DIFFOUT_B34p | AG16 | DQS4B/CQ4B/CQn4B/QKn4B | DQS2B/CQ2B/CQn2B/QKn2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B35p | DIFFOUT_B35p | AD14 | DQ4B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B36n | DIFFOUT_B36n | AF15 | DQ4B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B36p | DIFFOUT_B36p | AG15 | DQ4B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B37p | DIFFOUT_B37p | AD13 | DQ4B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B38n | DIFFOUT_B38n | AB13 | DQ4B | DQ2B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B38p | DIFFOUT_B38p | AC13 | DQ4B | DQ2B | | | | | | | |
| 3D | VREFB3DN0 | IO | VREFB3DN0 | | | | AE12 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK4n | | DIFFIO_RX_B76n | DIFFOUT_B76n | AJ13 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK4p | | DIFFIO_RX_B76p | DIFFOUT_B76p | AK13 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3D | VREFB3DN0 | IO | CLK5n | | DIFFIO_RX_B78n | DIFFOUT_B78n | AH12 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK5p | | DIFFIO_RX_B78p | DIFFOUT_B78p | AJ12 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT1,FPLL_BC_CLKOUTn | | DIFFIO_TX_B79n | DIFFOUT_B79n | AB12 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT0,FPLL_BC_CLKOUTp,FPLL_BC_FB0 | | DIFFIO_TX_B79p | DIFFOUT_B79p | AC12 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT3,FPLL_BC_FBn | | DIFFIO_RX_B80n | DIFFOUT_B80n | AH13 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT2,FPLL_BC_FBp,FPLL_BC_FB1 | | DIFFIO_RX_B80p | DIFFOUT_B80p | AG12 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK6n | | DIFFIO_RX_B82n | DIFFOUT_B82n | AF13 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK6p | | DIFFIO_RX_B82p | DIFFOUT_B82p | AF12 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK7n | | DIFFIO_RX_B84n | DIFFOUT_B84n | AD12 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK7p | | DIFFIO_RX_B84p | DIFFOUT_B84p | AD11 | | | | | | | | | |
| | | VCCD_FPLL | | | | | AB15 | | | | | | | | | |
| | | VCCA_FPLL | | | | | AB16 | | | | | | | | | |
| | | DNU | | | | | AC16 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA10 | DIFFIO_TX_B146p | DIFFOUT_B146p | AC10 | DQ5B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA11 | DIFFIO_RX_B147n | DIFFOUT_B147n | AE10 | DQ5B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA5 | DIFFIO_RX_B147p | DIFFOUT_B147p | AF10 | DQ5B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA6 | DIFFIO_TX_B148p | DIFFOUT_B148p | AD10 | DQ5B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA12 | DIFFIO_RX_B149n | DIFFOUT_B149n | AG11 | DQSn5B/QK5B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA13 | DIFFIO_RX_B149p | DIFFOUT_B149p | AH11 | DQS5B/CQ5B/CQn5B/QKn5B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA7 | DIFFIO_TX_B150n | DIFFOUT_B150n | AK12 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA8 | DIFFIO_TX_B150p | DIFFOUT_B150p | AK11 | DQ5B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA14 | DIFFIO_RX_B151n | DIFFOUT_B151n | AG10 | DQ5B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA15 | DIFFIO_RX_B151p | DIFFOUT_B151p | AH10 | DQ5B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA9 | DIFFIO_TX_B152n | DIFFOUT_B152n | AE9 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | CLKUSR | DIFFIO_TX_B152p | DIFFOUT_B152p | AF9 | DQ5B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_RX_B153n | DIFFOUT_B153n | AK10 | DQ5B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_RX_B153p | DIFFOUT_B153p | AK9 | DQ5B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | PR_ERROR | DIFFIO_TX_B154n | DIFFOUT_B154n | AJ10 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | PR_READY | DIFFIO_TX_B154p | DIFFOUT_B154p | AJ9 | DQ6B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | PR_DONE | DIFFIO_RX_B155n | DIFFOUT_B155n | AG9 | DQ6B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | PR_REQUEST | DIFFIO_RX_B155p | DIFFOUT_B155p | AH9 | DQ6B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B156n | DIFFOUT_B156n | AD9 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B156p | DIFFOUT_B156p | AC8 | DQ6B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | CvP_CONFDONE | DIFFIO_RX_B157n | DIFFOUT_B157n | AK8 | DQSn6B/QK6B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | CRC_ERROR | DIFFIO_RX_B157p | DIFFOUT_B157p | AK7 | DQS6B/CQ6B/CQn6B/QKn6B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DEV_OE | DIFFIO_TX_B158n | DIFFOUT_B158n | AK6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DEV_CLRn | DIFFIO_TX_B158p | DIFFOUT_B158p | AK5 | DQ6B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | INIT_DONE | DIFFIO_RX_B159n | DIFFOUT_B159n | AG8 | DQ6B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | nCEO | DIFFIO_RX_B159p | DIFFOUT_B159p | AH8 | DQ6B | | | | | | | | |
| 4A | VREFB4AN0 | IO | VREFB4AN0 | | | | AC9 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | | | AE8 | DQ6B | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK11n | | DIFFIO_RX_B160n | DIFFOUT_B160n | AJ4 | DQ6B | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK11p | | DIFFIO_RX_B160p | DIFFOUT_B160p | AK4 | DQ6B | | | | | | | | |
| 4A | VREFB4AN0 | IO | FPLL_BR_CLKOUT1,FPLL_BR_CLKOUTn | | DIFFIO_TX_B161n | DIFFOUT_B161n | AJ7 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | FPLL_BR_CLKOUT0,FPLL_BR_CLKOUTp,FPLL_BR_FB0 | | DIFFIO_TX_B161p | DIFFOUT_B161p | AJ6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | FPLL_BR_CLKOUT3,FPLL_BR_FBn | | DIFFIO_RX_B162n | DIFFOUT_B162n | AG6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | FPLL_BR_CLKOUT2,FPLL_BR_FBp,FPLL_BR_FB1 | | DIFFIO_RX_B162p | DIFFOUT_B162p | AH6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK10n | | DIFFIO_RX_B164n | DIFFOUT_B164n | AF7 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK10p | | DIFFIO_RX_B164p | DIFFOUT_B164p | AG7 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK9n | | DIFFIO_RX_B166n | DIFFOUT_B166n | AE6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK9p | | DIFFIO_RX_B166p | DIFFOUT_B166p | AF6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B167n | DIFFOUT_B167n | AC7 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | RZQ_1 | | DIFFIO_TX_B167p | DIFFOUT_B167p | AD7 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK8n | | DIFFIO_RX_B168n | DIFFOUT_B168n | AC6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK8p | | DIFFIO_RX_B168p | DIFFOUT_B168p | AD6 | | | | | | | | | |
| | | RREF_BR | | | | | AK2 | | | | | | | | | |
| | | DNU | | | | | AJ3 | | | | | | | | | |
| | | DNU | | | | | AK3 | | | | | | | | | |
| GXB_R0 | | REFCLK0Rp | | | | | AA9 | | | | | | | | | |
| GXB_R0 | | REFCLK0Rn | | | | | AA8 | | | | | | | | | |
| GXB_R0 | | GXB_RX_R0n,GXB_REFCLK_R0n | | | | | AH2 | | | | | | | | | |
| GXB_R0 | | GXB_RX_R0p,GXB_REFCLK_R0p | | | | | AH1 | | | | | | | | | |
| GXB_R0 | | GXB_TX_R0p | | | | | AG3 | | | | | | | | | |
| GXB_R0 | | GXB_TX_R0n | | | | | AG4 | | | | | | | | | |
| GXB_R0 | | GXB_RX_R1n,GXB_REFCLK_R1n | | | | | AF2 | | | | | | | | | |
| GXB_R0 | | GXB_RX_R1p,GXB_REFCLK_R1p | | | | | AF1 | | | | | | | | | |
| GXB_R0 | | GXB_TX_R1p | | | | | AE3 | | | | | | | | | |
| GXB_R0 | | GXB_TX_R1n | | | | | AE4 | | | | | | | | | |
| GXB_R0 | | GXB_RX_R2n,GXB_REFCLK_R2n | | | | | AD2 | | | | | | | | | |
| GXB_R0 | | GXB_RX_R2p,GXB_REFCLK_R2p | | | | | AD1 | | | | | | | | | |
| GXB_R0 | | GXB_TX_R2p | | | | | AC3 | | | | | | | | | |
| GXB_R0 | | GXB_TX_R2n | | | | | AC4 | | | | | | | | | |
| | | GND | | | | | AB2 | | | | | | | | | |
| | | GND | | | | | AB1 | | | | | | | | | |
| | | DNU | | | | | AA3 | | | | | | | | | |
| | | DNU | | | | | AA4 | | | | | | | | | |
| | | GND | | | | | Y2 | | | | | | | | | |
| | | GND | | | | | Y1 | | | | | | | | | |
| | | DNU | | | | | W3 | | | | | | | | | |
| | | DNU | | | | | W4 | | | | | | | | | |
| | | GND | | | | | V2 | | | | | | | | | |
| | | GND | | | | | V1 | | | | | | | | | |
| | | DNU | | | | | U3 | | | | | | | | | |
| | | DNU | | | | | U4 | | | | | | | | | |
| | | GND | | | | | W9 | | | | | | | | | |
| | | GND | | | | | W8 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R4 | | | | HPS_DM_4 | HPS_DM_4 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R5 | | | | HPS_DQ_39 | HPS_DQ_39 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | P7 | | | | HPS_DQ_37 | HPS_DQ_37 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | N7 | | | | HPS_DQ_38 | HPS_DQ_38 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R7 | | | | HPS_DQ_36 | HPS_DQ_36 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R3 | | | | HPS_DQS_4 | HPS_DQS_4 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI13 | | | | | T7 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R2 | | | | HPS_DQS#_4 | HPS_DQS#_4 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | T8 | | | | HPS_DQ_35 | HPS_DQ_35 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R1 | | | | HPS_DQ_33 | HPS_DQ_33 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | M6 | | | | HPS_DQ_34 | HPS_DQ_34 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | T1 | | | | HPS_DQ_32 | HPS_DQ_32 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI12 | | | | | N6 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI11 | | | | | N3 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | P4 | | | | HPS_DM_3 | HPS_DM_3 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI10 | | | | | P3 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | N5 | | | | HPS_DQ_31 | HPS_DQ_31 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | N2 | | | | HPS_DQ_29 | HPS_DQ_29 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R6 | | | | HPS_DQ_30 | HPS_DQ_30 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | P1 | | | | HPS_DQ_28 | HPS_DQ_28 | | | | |
| 6B | VREFB6BN0_HPS | VREFB6BN0_HPS | | | | | T6 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | M2 | | | | HPS_DQS_3 | HPS_DQS_3 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI9 | | | | | L1 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | M3 | | | | HPS_DQS#_3 | HPS_DQS#_3 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | M1 | | | | HPS_DQ_27 | HPS_DQ_27 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | L4 | | | | HPS_DQ_25 | HPS_DQ_25 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | U9 | | | | HPS_DQ_26 | HPS_DQ_26 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | K4 | | | | HPS_DQ_24 | HPS_DQ_24 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI8 | | | | | T9 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI7 | | | | | K1 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | L3 | | | | HPS_DM_2 | HPS_DM_2 | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6B | VREFB6BN0_HPS | HPS_GPI6 | | | | | J1 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | K3 | | | | HPS_DQ_23 | HPS_DQ_23 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | N4 | | | | HPS_DQ_21 | HPS_DQ_21 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | J8 | | | | HPS_DQ_22 | HPS_DQ_22 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | M5 | | | | HPS_DQ_20 | HPS_DQ_20 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI5 | | | | | K8 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | G8 | | | | HPS_DQS_2 | HPS_DQS_2 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | J2 | | | | HPS_RESET# | HPS_RESET# | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | F8 | | | | HPS_DQS# 2 | HPS_DQS# 2 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | K2 | | | | HPS_DQ_19 | HPS_DQ_19 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | J4 | | | | HPS_DQ_17 | HPS_DQ_17 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R9 | | | | HPS_DQ_18 | HPS_DQ_18 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | J3 | | | | HPS_DQ_16 | HPS_DQ_16 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI4 | | | | | P9 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_GPI3 | | | | | D1 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E3 | | | | HPS_DM_1 | HPS_DM_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_GPI2 | | | | | C1 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F3 | | | | HPS_DQ_15 | HPS_DQ_15 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F1 | | | | HPS_DQ_13 | HPS_DQ_13 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | M7 | | | | HPS_DQ_14 | HPS_DQ_14 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G1 | | | | HPS_DQ_12 | HPS_DQ_12 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | L7 | | | | HPS_CKE_0 | HPS_CKE_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D2 | | | | HPS_DQS_1 | HPS_DQS_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A2 | | | | HPS_CKE_1 | HPS_CKE_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E1 | | | | HPS_DQS# 1 | HPS_DQS# 1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B1 | | | | HPS_DQ_11 | HPS_DQ_11 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A3 | | | | HPS_DQ_9 | HPS_DQ_9 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G2 | | | | HPS_DQ_10 | HPS_DQ_10 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B3 | | | | HPS_DQ_8 | HPS_DQ_8 | | | | |
| 6A | VREFB6AN0_HPS | HPS_GPI1 | | | | | H3 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_GPI0 | | | | | H4 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | K5 | | | | HPS_DM_0 | HPS_DM_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | K6 | | | | HPS_DQ_7 | HPS_DQ_7 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D3 | | | | HPS_DQ_5 | HPS_DQ_5 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A4 | | | | HPS_DQ_6 | HPS_DQ_6 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C3 | | | | HPS_DQ_4 | HPS_DQ_4 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B4 | | | | HPS_ODT_1 | HPS_ODT_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A5 | | | | HPS_DQS_0 | HPS_DQS_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G3 | | | | HPS_ODT_0 | HPS_ODT_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B6 | | | | HPS_DQS#_0 | HPS_DQS#_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G4 | | | | HPS_DQ_3 | HPS_DQ_3 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C4 | | | | HPS_DQ_1 | HPS_DQ_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E7 | | | | HPS_DQ_2 | HPS_DQ_2 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D4 | | | | HPS_DQ_0 | HPS_DQ_0 | | | | |
| 6A | VREFB6AN0_HPS | VREFB6AN0_HPS | | | | | K7 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F5 | | | | HPS_A_0 | HPS_CA_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E4 | | | | HPS_A_1 | HPS_CA_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B7 | | | | HPS_A_4 | HPS_CA_4 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G5 | | | | HPS_A_2 | HPS_CA_2 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A6 | | | | HPS_A_5 | HPS_CA_5 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | H6 | | | | HPS_A_3 | HPS_CA_3 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G6 | | | | HPS_CK | HPS_CK | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A8 | | | | HPS_A_6 | HPS_CA_6 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G7 | | | | HPS_CK# | HPS_CK# | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A7 | | | | HPS_A_7 | HPS_CA_7 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A10 | | | | HPS_BA_1 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | H7 | | | | HPS_BA_0 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A9 | | | | HPS_BA_2 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E6 | | | | HPS_CAS# | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D5 | | | | HPS_RAS# | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D6 | | | | HPS_A_8 | HPS_CA_8 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | J6 | | | | HPS_A_10 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C6 | | | | HPS_A_9 | HPS_CA_9 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | J7 | | | | HPS_A_11 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C9 | | | | HPS_CS#_0 | HPS_CS#_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D7 | | | | HPS_A_12 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C10 | | | | HPS_CS#_1 | HPS_CS#_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C7 | | | | HPS_A_13 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D9 | | | | HPS_A_14 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B9 | | | | HPS_WE# | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D8 | | | | HPS_A_15 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_RZQ_0 | | | | | B10 | | | | | | | | | |
| | | DNU | | | | | F7 | | | | | | | | | |
| | | GND | | | | | P9 | | | | | | | | | |
| | | GND | | | | | F10 | | | | | | | | | |
| 7A | | HPS_nRST | | | | | M9 | | | | | | | | | |
| 7A | | HPS_nPOR | | | | | H10 | | | | | | | | | |
| 7A | | HPS_TDO | | | | | N9 | | | | | | | | | |
| | | VCCRSTCLK_HPS | | | | | H9 | | | | | | | | | |
| 7A | | HPS_TMS | | | | | L9 | | | | | | | | | |
| 7A | | HPS_TCK | | | | | J11 | | | | | | | | | |
| 7A | | HPS_TRST | | | | | K9 | | | | | | | | | |
| 7A | | HPS_TDI | | | | | H11 | | | | | | | | | |
| | | GND | | | | | A12 | | | | | | | | | |
| 7A | | HPS_PORSEL | | | | | A13 | | | | | | | | | |
| 7A | | HPS_CLK1 | | | | | A11 | | | | | | | | | |
| 7A | | HPS_CLK2 | | | | | A14 | | | | | | | | | |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_CLK | | | | | A15 | | | | | | TRACE_CLK | | | HPS_GPIO48 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D0 | | | | | K10 | | | | | | TRACE_D0 | SPIS0_CLK | UART0_RX | HPS_GPIO49 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D1 | | | | | A16 | | | | | | TRACE_D1 | SPIS0_MOSI | UART0_TX | HPS_GPIO50 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D2 | | | | | L10 | | | | | | TRACE_D2 | SPIS0_MISO | I2C1_SDA | HPS_GPIO51 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D3 | | | | | A18 | | | | | | TRACE_D3 | SPIS0_SS0 | I2C1_SCL | HPS_GPIO52 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D4 | | | | | L11 | | | | | | TRACE_D4 | SPIS1_CLK | | HPS_GPIO53 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D5 | | | | | A17 | | | | | | TRACE_D5 | SPIS1_MOSI | | HPS_GPIO54 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D6 | | | | | M11 | | | | | | TRACE_D6 | SPIS1_SS0 | I2C0_SDA | HPS_GPIO55 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D7 | | | | | B15 | | | | | | TRACE_D7 | SPIS1_MISO | I2C0_SCL | HPS_GPIO56 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_CLK | | | | | A20 | | | | | | SPIM0_CLK | I2C1_SDA | UART0_CTS | HPS_GPIO57 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_MOSI | | | | | B16 | | | | | | SPIM0_MOSI | I2C1_SCL | UART0_RTS | HPS_GPIO58 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_MISO | | | | | A19 | | | | | | SPIM0_MISO | | UART1_CTS | HPS_GPIO59 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_SS0,BOOTSEL0 | | | | | B13 | | | | | | SPIM0_SS0 | | UART1_RTS | HPS_GPIO60 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART0_RX | | | | | M12 | | | | | | UART0_RX | | SPIM0_SS1 | HPS_GPIO61 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART0_TX,CLKSEL1 | | | | | B12 | | | | | | UART0_TX | | SPIM1_SS1 | HPS_GPIO62 |
| 7A | VREFB7A7B7C7D7EN0_HPS | I2C0_SDA | | | | | N12 | | | | | | I2C0_SDA | UART1_RX | SPIM1_CLK | HPS_GPIO63 |
| 7A | VREFB7A7B7C7D7EN0_HPS | I2C0_SCL | | | | | B18 | | | | | | I2C0_SCL | UART1_TX | SPIM1_MOSI | HPS_GPIO64 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART0_RX* | | | | | C11 | | | | | | | UART0_RX | SPIM1_MISO | HPS_GPIO65 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART0_TX*,CLKSEL0 | | | | | B19 | | | | | | | UART0_TX | SPIM1_SS0 | HPS_GPIO66 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS1_CLK | | | | | D10 | | | | | | SPIS1_CLK | SPIM1_CLK | | HPS_GPIO67 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS1_MOSI | | | | | F11 | | | | | | SPIS1_MOSI | SPIM1_MOSI | | HPS_GPIO68 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS1_MISO | | | | | J10 | | | | | | SPIS1_MISO | SPIM1_MISO | | HPS_GPIO69 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS1_SS0 | | | | | G11 | | | | | | SPIS1_SS0 | SPIM1_SS0 | | HPS_GPIO70 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART1_RX | | | | | J9 | | | | | | UART1_RX | SPIM1_SS1 | | HPS_GPIO62 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART1_TX | | | | | A21 | | | | | | UART1_TX | SPIM0_CLK | | HPS_GPIO63 |
| 7A | VREFB7A7B7C7D7EN0_HPS | I2C1_SDA | | | | | E10 | | | | | | I2C1_SDA | SPIM0_MOSI | | HPS_GPIO64 |
| 7A | VREFB7A7B7C7D7EN0_HPS | I2C1_SCL | | | | | A22 | | | | | | I2C1_SCL | SPIM0_MISO | | HPS_GPIO65 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_SS0 | | | | | E9 | | | | | | | SPIM0_SS0 | | HPS_GPIO66 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS0_CLK | | | | | D11 | | | | | | SPIS0_CLK | SPIM0_SS1 | | HPS_GPIO67 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS0_MOSI | | | | | P12 | | | | | | SPIS0_MOSI | | | HPS_GPIO68 |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS0_MISO | | | | | E11 | | | | | | SPIS0_MISO | | | HPS_GPIO69 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS0_SS0 | | | | | P13 | | | | | | SPIS0_SS0 | | | HPS_GPIO70 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_ALE | | | | | A23 | | | | | | NAND_ALE | RGMII1_TX_CLK | QSPI_SS3 | HPS_GPIO14 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_CE | | | | | C22 | | | | | | NAND_CE | RGMII1_TXD0 | USB1_D0 | HPS_GPIO15 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_CLE | | | | | B22 | | | | | | NAND_CLE | RGMII1_TXD1 | USB1_D1 | HPS_GPIO16 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_RE | | | | | D21 | | | | | | NAND_RE | RGMII1_TXD2 | USB1_D2 | HPS_GPIO17 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_RB | | | | | A24 | | | | | | NAND_RB | RGMII1_TXD3 | USB1_D3 | HPS_GPIO18 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ0 | | | | | C12 | | | | | | NAND_DQ0 | RGMII1_RXD0 | | HPS_GPIO19 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ1 | | | | | B24 | | | | | | NAND_DQ1 | RGMII1_MDIO | I2C3_SDA | HPS_GPIO20 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ2 | | | | | D12 | | | | | | NAND_DQ2 | RGMII1_MDC | I2C3_SCL | HPS_GPIO21 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ3 | | | | | C15 | | | | | | NAND_DQ3 | RGMII1_RX_CTL | USB1_D4 | HPS_GPIO22 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ4 | | | | | C14 | | | | | | NAND_DQ4 | RGMII1_TX_CTL | USB1_D5 | HPS_GPIO23 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ5 | | | | | C16 | | | | | | NAND_DQ5 | RGMII1_RX_CLK | USB1_D6 | HPS_GPIO24 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ6 | | | | | C13 | | | | | | NAND_DQ6 | RGMII1_RXD1 | USB1_D7 | HPS_GPIO25 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ7 | | | | | C18 | | | | | | NAND_DQ7 | RGMII1_RXD2 | | HPS_GPIO26 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_WP | | | | | K12 | | | | | | NAND_WP | RGMII1_RXD3 | QSPI_SS2 | HPS_GPIO27 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_WE,BOOTSEL2 | | | | | C17 | | | | | | NAND_WE | QSPI_SS1 | | HPS_GPIO28 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_IO0 | | | | | J12 | | | | | | QSPI_IO0 | | USB1_CLK | HPS_GPIO29 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_IO1 | | | | | B21 | | | | | | QSPI_IO1 | | USB1_STP | HPS_GPIO30 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_IO2 | | | | | C20 | | | | | | QSPI_IO2 | | USB1_DIR | HPS_GPIO31 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_IO3 | | | | | C21 | | | | | | QSPI_IO3 | | USB1_NXT | HPS_GPIO32 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_SS0,BOOTSEL1 | | | | | C19 | | | | | | QSPI_SS0 | | | HPS_GPIO33 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_CLK | | | | | A25 | | | | | | QSPI_CLK | | | HPS_GPIO34 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_SS1 | | | | | B25 | | | | | | QSPI_SS1 | | | HPS_GPIO35 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_CMD | | | | | D13 | | | | | | SDMMC_CMD | USB0_D0 | | HPS_GPIO36 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_PWREN | | | | | K13 | | | | | | SDMMC_PWREN | USB0_D1 | | HPS_GPIO37 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D0 | | | | | D14 | | | | | | SDMMC_D0 | USB0_D2 | | HPS_GPIO38 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D1 | | | | | L13 | | | | | | SDMMC_D1 | USB0_D3 | | HPS_GPIO39 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D4 | | | | | E13 | | | | | | SDMMC_D4 | USB0_D4 | | HPS_GPIO40 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D5 | | | | | N13 | | | | | | SDMMC_D5 | USB0_D5 | | HPS_GPIO41 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D6 | | | | | F13 | | | | | | SDMMC_D6 | USB0_D6 | | HPS_GPIO42 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D7 | | | | | P14 | | | | | | SDMMC_D7 | USB0_D7 | | HPS_GPIO43 |
| 7C | VREFB7A7B7C7D7EN0_HPS | HPS_GPIO44 | | | | | G13 | | | | | | | USB0_CLK | | HPS_GPIO44 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_CCLK_OUT | | | | | J13 | | | | | | SDMMC_CCLK_OUT | USB0_STP | | HPS_GPIO45 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D2 | | | | | H13 | | | | | | SDMMC_D2 | USB0_DIR | | HPS_GPIO46 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D3 | | | | | H12 | | | | | | SDMMC_D3 | USB0_NXT | | HPS_GPIO47 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TX_CLK | | | | | L15 | | | | | | RGMII0_TX_CLK | | | HPS_GPIO0 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TXD0 | | | | | N15 | | | | | | RGMII0_TXD0 | USB1_D0 | | HPS_GPIO1 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TXD1 | | | | | K15 | | | | | | RGMII0_TXD1 | USB1_D1 | | HPS_GPIO2 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TXD2 | | | | | P15 | | | | | | RGMII0_TXD2 | USB1_D2 | | HPS_GPIO3 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TXD3 | | | | | D15 | | | | | | RGMII0_TXD3 | USB1_D3 | | HPS_GPIO4 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RXD0 | | | | | M15 | | | | | | RGMII0_RXD0 | USB1_D4 | | HPS_GPIO5 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_MDIO | | | | | E15 | | | | | | RGMII0_MDIO | USB1_D5 | I2C2_SDA | HPS_GPIO6 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_MDC | | | | | N16 | | | | | | RGMII0_MDC | USB1_D6 | I2C2_SCL | HPS_GPIO7 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RX_CTL | | | | | D17 | | | | | | RGMII0_RX_CTL | USB1_D7 | | HPS_GPIO8 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TX_CTL | | | | | M14 | | | | | | RGMII0_TX_CTL | | | HPS_GPIO9 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RX_CLK | | | | | D16 | | | | | | RGMII0_RX_CLK | USB1_CLK | | HPS_GPIO10 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RXD1 | | | | | L14 | | | | | | RGMII0_RXD1 | USB1_STP | | HPS_GPIO11 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RXD2 | | | | | F15 | | | | | | RGMII0_RXD2 | USB1_DIR | | HPS_GPIO12 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RXD3 | | | | | D19 | | | | | | RGMII0_RXD3 | USB1_NXT | | HPS_GPIO13 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_TX_CLK | | | | | E16 | | | | | | RGMII1_TX_CLK | | | HPS_GPIO48 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_TXD0 | | | | | D18 | | | | | | RGMII1_TXD0 | | | HPS_GPIO49 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_TXD1 | | | | | E19 | | | | | | RGMII1_TXD1 | | | HPS_GPIO50 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_TX_CTL | | | | | H15 | | | | | | RGMII1_TX_CTL | | | HPS_GPIO51 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_RXD0 | | | | | D20 | | | | | | RGMII1_RXD0 | | | HPS_GPIO52 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_RXD1 | | | | | H14 | | | | | | RGMII1_RXD1 | | | HPS_GPIO53 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_MDIO | | | | | F16 | | | | | | RGMII1_MDIO | SPIM0_CLK | SPIS0_CLK | HPS_GPIO54 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_MDC | | | | | J16 | | | | | | RGMII1_MDC | SPIM0_MOSI | SPIS0_MOSI | HPS_GPIO55 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_TXD2 | | | | | F17 | | | | | | RGMII1_TXD2 | SPIM0_MISO | SPIS0_MISO | HPS_GPIO56 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_TXD3 | | | | | H16 | | | | | | RGMII1_TXD3 | SPIM0_SS0 | SPIS0_SS0 | HPS_GPIO57 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_RX_CLK | | | | | L16 | | | | | | RGMII1_RX_CLK | SPIS1_CLK | SPIM1_CLK | HPS_GPIO58 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_RX_CTL | | | | | R16 | | | | | | RGMII1_RX_CTL | SPIS1_MOSI | SPIM1_MOSI | HPS_GPIO59 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_RXD2 | | | | | K16 | | | | | | RGMII1_RXD2 | SPIS1_MISO | SPIM1_MISO | HPS_GPIO60 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_RXD3 | | | | | P16 | | | | | | RGMII1_RXD3 | SPIS1_SS0 | SPIM1_SS0 | HPS_GPIO61 |
| | | VCCA_FPLL | | | | | T16 | | | | | | | | | |
| | | VCCD_FPLL | | | | | T15 | | | | | | | | | |
| | | DNU | | | | | G16 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK19p | | DIFFIO_RX_T31p | DIFFOUT_T31p | M17 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK19n | | DIFFIO_RX_T31n | DIFFOUT_T31n | N17 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK18p | | DIFFIO_RX_T33p | DIFFOUT_T33p | F18 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK18n | | DIFFIO_RX_T33n | DIFFOUT_T33n | G18 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT2,FPLL_TC_FBp,FPLL_TC_FB1 | | DIFFIO_RX_T35p | DIFFOUT_T35p | F19 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT3,FPLL_TC_FBn | | DIFFIO_RX_T35n | DIFFOUT_T35n | G19 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT0,FPLL_TC_CLKOUTp,FPLL_TC_FB0 | | DIFFIO_TX_T36p | DIFFOUT_T36p | J17 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT1,FPLL_TC_CLKOUTn | | DIFFIO_TX_T36n | DIFFOUT_T36n | J18 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK17p | | DIFFIO_RX_T37p | DIFFOUT_T37p | H18 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK17n | | DIFFIO_RX_T37n | DIFFOUT_T37n | H19 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK16p | | DIFFIO_RX_T39p | DIFFOUT_T39p | F20 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK16n | | DIFFIO_RX_T39n | DIFFOUT_T39n | G20 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | VREFB8DN0 | | | | G17 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T54p | DIFFOUT_T54p | J19 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T54n | DIFFOUT_T54n | K20 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T55p | DIFFOUT_T55p | P19 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T56p | DIFFOUT_T56p | J20 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T56n | DIFFOUT_T56n | H21 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T57p | DIFFOUT_T57p | N18 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T58p | DIFFOUT_T58p | D22 | DQS1T/CQ1T/CQn1T/QKn1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T58n | DIFFOUT_T58n | E22 | DQSn1T/QK1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T59p | DIFFOUT_T59p | M18 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T60p | DIFFOUT_T60p | A29 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T60n | DIFFOUT_T60n | B30 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T61p | DIFFOUT_T61p | L18 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T62p | DIFFOUT_T62p | C23 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T62n | DIFFOUT_T62n | D23 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | | | K19 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | VREFB8CN0 | | | | K18 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T63p | DIFFOUT_T63p | A28 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T63n | DIFFOUT_T63n | B28 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T64p | DIFFOUT_T64p | M19 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T65p | DIFFOUT_T65p | D24 | DQS2T/CQ2T/CQn2T/QKn2T | DQS1T/CQ1T/CQn1T/QKn1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T65n | DIFFOUT_T65n | E24 | DQSn2T/QK2T | DQSn1T/QK1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T66p | DIFFOUT_T66p | N19 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T67p | DIFFOUT_T67p | B27 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T67n | DIFFOUT_T67n | C27 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T68p | DIFFOUT_T68p | A26 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T68n | DIFFOUT_T68n | A27 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T69p | DIFFOUT_T69p | F21 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T69n | DIFFOUT_T69n | G21 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T70p | DIFFOUT_T70p | M20 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T71p | DIFFOUT_T71p | C26 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T71n | DIFFOUT_T71n | D26 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T72p | DIFFOUT_T72p | N20 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T73p | DIFFOUT_T73p | F22 | DQS3T/CQ3T/CQn3T/QKn3T | DQ1T | DQS1T/CQ1T/CQn1T/QKn1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T73n | DIFFOUT_T73n | G22 | DQSn3T/QK3T | DQ1T | DQSn1T/QK1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T74p | DIFFOUT_T74p | L21 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T75p | DIFFOUT_T75p | C24 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T75n | DIFFOUT_T75n | C25 | DQ3T | DQ1T | DQ1T | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T76p | DIFFOUT_T76p | K21 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T77p | DIFFOUT_T77p | K22 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T77n | DIFFOUT_T77n | J22 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T78p | DIFFOUT_T78p | G23 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T79p | DIFFOUT_T79p | M22 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T79n | DIFFOUT_T79n | L22 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T80p | DIFFOUT_T80p | J23 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T81p | DIFFOUT_T81p | E25 | DQS4T/CQ4T/CQn4T/QKn4T | DQS2T/CQ2T/CQn2T/QKn2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T81n | DIFFOUT_T81n | F24 | DQSn4T/QK4T | DQSn2T/QK2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T82p | DIFFOUT_T82p | H24 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T83p | DIFFOUT_T83p | N21 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T83n | DIFFOUT_T83n | M21 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T84p | DIFFOUT_T84p | K24 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T85p | DIFFOUT_T85p | F26 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T85n | DIFFOUT_T85n | F27 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | | | J24 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | VREFB8BN0 | | | | H22 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T86p | DIFFOUT_T86p | D27 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T86n | DIFFOUT_T86n | D28 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T87p | DIFFOUT_T87p | K25 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T87n | DIFFOUT_T87n | L24 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T88p | DIFFOUT_T88p | C28 | DQS5T/CQ5T/CQn5T/QKn5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T88n | DIFFOUT_T88n | C29 | DQSn5T/QK5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T89p | DIFFOUT_T89p | G24 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T89n | DIFFOUT_T89n | G25 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T90p | DIFFOUT_T90p | P21 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T90n | DIFFOUT_T90n | N22 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T91p | DIFFOUT_T91p | D30 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T91n | DIFFOUT_T91n | C30 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T92p | DIFFOUT_T92p | E28 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T92n | DIFFOUT_T92n | D29 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T93p | DIFFOUT_T93p | G26 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T93n | DIFFOUT_T93n | G27 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T94p | DIFFOUT_T94p | F30 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T94n | DIFFOUT_T94n | E30 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T95p | DIFFOUT_T95p | G29 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T95n | DIFFOUT_T95n | G30 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T96p | DIFFOUT_T96p | G28 | DQS6T/CQ6T/CQn6T/QKn6T | DQS3T/CQ3T/CQn3T/QKn3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T96n | DIFFOUT_T96n | F28 | DQSn6T/QK6T | DQSn3T/QK3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T97p | DIFFOUT_T97p | H27 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T97n | DIFFOUT_T97n | H28 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T98p | DIFFOUT_T98p | J30 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T98n | DIFFOUT_T98n | H30 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T99p | DIFFOUT_T99p | K28 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T99n | DIFFOUT_T99n | J28 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T100p | DIFFOUT_T100p | L30 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T100n | DIFFOUT_T100n | K30 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T101p | DIFFOUT_T101p | M27 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T101n | DIFFOUT_T101n | L27 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T102p | DIFFOUT_T102p | L28 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T102n | DIFFOUT_T102n | K29 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T103p | DIFFOUT_T103p | N30 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T103n | DIFFOUT_T103n | M30 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T104p | DIFFOUT_T104p | T24 | DQS7T/CQ7T/CQn7T/QKn7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T104n | DIFFOUT_T104n | T23 | DQSn7T/QK7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T105p | DIFFOUT_T105p | K26 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T105n | DIFFOUT_T105n | K27 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK23p | | DIFFIO_RX_T106p | DIFFOUT_T106p | P30 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK23n | | DIFFIO_RX_T106n | DIFFOUT_T106n | N29 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T107p | DIFFOUT_T107p | R22 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T107n | DIFFOUT_T107n | R23 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK22p | | DIFFIO_RX_T108p | DIFFOUT_T108p | R28 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK22n | | DIFFIO_RX_T108n | DIFFOUT_T108n | P28 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | VREFB8AN0 | | | | J26 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT2,FPLL_TL_FBp,FPLL_TL_FB1 | | DIFFIO_RX_T109p | DIFFOUT_T109p | N28 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT3,FPLL_TL_FBn | | DIFFIO_RX_T109n | DIFFOUT_T109n | M28 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT0,FPLL_TL_CLKOUTp,FPLL_TL_FB0 | | DIFFIO_TX_T110p | DIFFOUT_T110p | T25 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT1,FPLL_TL_CLKOUTn | | DIFFIO_TX_T110n | DIFFOUT_T110n | R26 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK21p | | DIFFIO_RX_T111p | DIFFOUT_T111p | R27 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK21n | | DIFFIO_RX_T111n | DIFFOUT_T111n | P27 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK20p | | DIFFIO_RX_T113p | DIFFOUT_T113p | P25 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK20n | | DIFFIO_RX_T113n | DIFFOUT_T113n | R25 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | RZQ_6 | | DIFFIO_TX_T114n | DIFFOUT_T114n | J25 | | | | | | | | | |
| 8A | | MSEL0 | | MSEL0 | | | P24 | | | | | | | | | |
| 8A | | MSEL1 | | MSEL1 | | | N26 | | | | | | | | | |
| 8A | | MSEL2 | | MSEL2 | | | M25 | | | | | | | | | |
| 8A | | MSEL3 | | MSEL3 | | | L25 | | | | | | | | | |
| 8A | | MSEL4 | | MSEL4 | | | N23 | | | | | | | | | |
| 8A | | CONF_DONE | | CONF_DONE | | | N25 | | | | | | | | | |
| 8A | | nSTATUS | | nSTATUS | | | M26 | | | | | | | | | |
| 8A | | nCE | | nCE | | | M24 | | | | | | | | | |
| 8A | | nCONFIG | | nCONFIG | | | M23 | | | | | | | | | |
| | | GND | | | | | T26 | | | | | | | | | |
| | | VCC_HPS | | | | | W11 | | | | | | | | | |
| | | GND | | | | | W10 | | | | | | | | | |
| | | GND | | | | | AA24 | | | | | | | | | |
| | | GND | | | | | AA29 | | | | | | | | | |
| | | GND | | | | | AA30 | | | | | | | | | |
| | | GND | | | | | AB22 | | | | | | | | | |
| | | GND | | | | | AB23 | | | | | | | | | |
| | | GND | | | | | AB24 | | | | | | | | | |
| | | GND | | | | | AB25 | | | | | | | | | |
| | | GND | | | | | AB26 | | | | | | | | | |
| | | GND | | | | | AB27 | | | | | | | | | |
| | | GND | | | | | AB28 | | | | | | | | | |
| | | GND | | | | | AC26 | | | | | | | | | |
| | | GND | | | | | AC29 | | | | | | | | | |
| | | GND | | | | | AC30 | | | | | | | | | |
| | | GND | | | | | AD27 | | | | | | | | | |
| | | GND | | | | | AD28 | | | | | | | | | |
| | | GND | | | | | AE26 | | | | | | | | | |
| | | GND | | | | | AE29 | | | | | | | | | |
| | | GND | | | | | AE30 | | | | | | | | | |
| | | GND | | | | | AF27 | | | | | | | | | |
| | | GND | | | | | AF28 | | | | | | | | | |
| | | GND | | | | | AG26 | | | | | | | | | |
| | | GND | | | | | AG29 | | | | | | | | | |
| | | GND | | | | | AG30 | | | | | | | | | |
| | | GND | | | | | AH27 | | | | | | | | | |
| | | GND | | | | | AH28 | | | | | | | | | |
| | | GND | | | | | AJ29 | | | | | | | | | |
| | | GND | | | | | AJ30 | | | | | | | | | |
| | | GND | | | | | R30 | | | | | | | | | |
| | | GND | | | | | T27 | | | | | | | | | |
| | | GND | | | | | T28 | | | | | | | | | |
| | | GND | | | | | U22 | | | | | | | | | |
| | | GND | | | | | U23 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GND | | | | | U24 | | | | | | | | | |
| | | GND | | | | | U25 | | | | | | | | | |
| | | GND | | | | | U26 | | | | | | | | | |
| | | GND | | | | | U29 | | | | | | | | | |
| | | GND | | | | | U30 | | | | | | | | | |
| | | GND | | | | | V23 | | | | | | | | | |
| | | GND | | | | | V27 | | | | | | | | | |
| | | GND | | | | | V28 | | | | | | | | | |
| | | GND | | | | | W24 | | | | | | | | | |
| | | GND | | | | | W29 | | | | | | | | | |
| | | GND | | | | | W30 | | | | | | | | | |
| | | GND | | | | | Y23 | | | | | | | | | |
| | | GND | | | | | Y25 | | | | | | | | | |
| | | GND | | | | | Y26 | | | | | | | | | |
| | | GND | | | | | Y27 | | | | | | | | | |
| | | GND | | | | | Y28 | | | | | | | | | |
| | | GND | | | | | AA1 | | | | | | | | | |
| | | GND | | | | | AA2 | | | | | | | | | |
| | | GND | | | | | AA7 | | | | | | | | | |
| | | GND | | | | | AB3 | | | | | | | | | |
| | | GND | | | | | AB4 | | | | | | | | | |
| | | GND | | | | | AB5 | | | | | | | | | |
| | | GND | | | | | AB6 | | | | | | | | | |
| | | GND | | | | | AC1 | | | | | | | | | |
| | | GND | | | | | AC2 | | | | | | | | | |
| | | GND | | | | | AC5 | | | | | | | | | |
| | | GND | | | | | AD3 | | | | | | | | | |
| | | GND | | | | | AD4 | | | | | | | | | |
| | | GND | | | | | AE1 | | | | | | | | | |
| | | GND | | | | | AE2 | | | | | | | | | |
| | | GND | | | | | AE5 | | | | | | | | | |
| | | GND | | | | | AF3 | | | | | | | | | |
| | | GND | | | | | AF4 | | | | | | | | | |
| | | GND | | | | | AG1 | | | | | | | | | |
| | | GND | | | | | AG2 | | | | | | | | | |
| | | GND | | | | | AG5 | | | | | | | | | |
| | | GND | | | | | AH3 | | | | | | | | | |
| | | GND | | | | | AH4 | | | | | | | | | |
| | | GND | | | | | AJ1 | | | | | | | | | |
| | | GND | | | | | AJ2 | | | | | | | | | |
| | | GND | | | | | T3 | | | | | | | | | |
| | | GND | | | | | T4 | | | | | | | | | |
| | | GND | | | | | U1 | | | | | | | | | |
| | | GND | | | | | U2 | | | | | | | | | |
| | | GND | | | | | U5 | | | | | | | | | |
| | | GND | | | | | U6 | | | | | | | | | |
| | | GND | | | | | V3 | | | | | | | | | |
| | | GND | | | | | V4 | | | | | | | | | |
| | | GND | | | | | V8 | | | | | | | | | |
| | | GND | | | | | W1 | | | | | | | | | |
| | | GND | | | | | W2 | | | | | | | | | |
| | | GND | | | | | W5 | | | | | | | | | |
| | | GND | | | | | W7 | | | | | | | | | |
| | | GND | | | | | Y3 | | | | | | | | | |
| | | GND | | | | | Y4 | | | | | | | | | |
| | | GND | | | | | Y6 | | | | | | | | | |
| | | GND | | | | | Y8 | | | | | | | | | |
| | | VCCP | | | | | AB10 | | | | | | | | | |
| | | VCCP | | | | | AB14 | | | | | | | | | |
| | | VCCP | | | | | AB17 | | | | | | | | | |
| | | VCCP | | | | | AB20 | | | | | | | | | |
| | | VCCP | | | | | AC19 | | | | | | | | | |
| | | VCCP | | | | | P10 | | | | | | | | | |
| | | VCCP | | | | | R17 | | | | | | | | | |
| | | VCCP | | | | | R21 | | | | | | | | | |
| | | VCCP | | | | | T10 | | | | | | | | | |
| | | VCCA_FPLL | | | | | V9 | | | | | | | | | |
| | | VCCA_FPLL | | | | | V22 | | | | | | | | | |
| | | VCCPLL_HPS | | | | | U10 | | | | | | | | | |
| | | VCCBAT | | | | | H25 | | | | | | | | | |
| | | VCC_AUX | | | | | AB11 | | | | | | | | | |
| | | VCC_AUX | | | | | AB18 | | | | | | | | | |
| | | VCC_AUX | | | | | R20 | | | | | | | | | |
| | | VCC_AUX_SHARED | | | | | R13 | | | | | | | | | |
| | | VCCD_FPLL | | | | | Y9 | | | | | | | | | |
| | | VCCD_FPLL | | | | | Y22 | | | | | | | | | |
| | | VCCA_GXBR0 | | | | | W6 | | | | | | | | | |
| | | VCCA_GXBL1 | | | | | W26 | | | | | | | | | |
| | | VCCH_GXBR0 | | | | | V7 | | | | | | | | | |
| | | VCCH_GXBL1 | | | | | V24 | | | | | | | | | |
| | | VCCL_GXBR0 | | | | | V5 | | | | | | | | | |
| | | VCCL_GXBR0 | | | | | V6 | | | | | | | | | |
| | | VCCL_GXBL1 | | | | | V25 | | | | | | | | | |
| | | VCCL_GXBL1 | | | | | V26 | | | | | | | | | |
| | | VCCR_GXBL | | | | | AA25 | | | | | | | | | |
| | | VCCR_GXBL | | | | | AA26 | | | | | | | | | |
| | | VCCR_GXBR | | | | | AA5 | | | | | | | | | |
| | | VCCR_GXBR | | | | | AA6 | | | | | | | | | |
| | | VCCT_GXBR0 | | | | | Y5 | | | | | | | | | |
| | | VCCT_GXBR0 | | | | | Y7 | | | | | | | | | |
| | | VCCT_GXBL1 | | | | | W25 | | | | | | | | | |
| | | VCCT_GXBL1 | | | | | Y24 | | | | | | | | | |
| | | VCC | | | | | AA10 | | | | | | | | | |
| | | VCC | | | | | AA12 | | | | | | | | | |
| | | VCC | | | | | AA14 | | | | | | | | | |
| | | VCC | | | | | AA16 | | | | | | | | | |
| | | VCC | | | | | AA18 | | | | | | | | | |
| | | VCC | | | | | AA19 | | | | | | | | | |
| | | VCC | | | | | AA20 | | | | | | | | | |
| | | VCC | | | | | T17 | | | | | | | | | |
| | | VCC | | | | | T19 | | | | | | | | | |
| | | VCC | | | | | T21 | | | | | | | | | |
| | | VCC | | | | | T22 | | | | | | | | | |
| | | VCC | | | | | U16 | | | | | | | | | |
| | | VCC | | | | | U18 | | | | | | | | | |
| | | VCC | | | | | U20 | | | | | | | | | |
| | | VCC | | | | | V15 | | | | | | | | | |
| | | VCC | | | | | V17 | | | | | | | | | |
| | | VCC | | | | | V19 | | | | | | | | | |
| | | VCC | | | | | V21 | | | | | | | | | |
| | | VCC | | | | | W12 | | | | | | | | | |
| | | VCC | | | | | W14 | | | | | | | | | |
| | | VCC | | | | | W18 | | | | | | | | | |
| | | VCC | | | | | W20 | | | | | | | | | |
| | | VCC | | | | | Y11 | | | | | | | | | |
| | | VCC | | | | | Y13 | | | | | | | | | |
| | | VCC | | | | | Y15 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | VCC | | | | | Y16 | | | | | | | | | |
| | | VCC | | | | | Y17 | | | | | | | | | |
| | | VCC | | | | | Y19 | | | | | | | | | |
| | | VCC | | | | | Y21 | | | | | | | | | |
| | | VCC | | | | | W16 | | | | | | | | | |
| | | VCC_HPS | | | | | R12 | | | | | | | | | |
| | | VCC_HPS | | | | | T11 | | | | | | | | | |
| | | VCC_HPS | | | | | T13 | | | | | | | | | |
| | | VCC_HPS | | | | | U12 | | | | | | | | | |
| | | VCC_HPS | | | | | U13 | | | | | | | | | |
| | | VCC_HPS | | | | | U14 | | | | | | | | | |
| | | VCC_HPS | | | | | V11 | | | | | | | | | |
| | | VCC_HPS | | | | | V13 | | | | | | | | | |
| | | VCCIO3A | | | | | AE19 | | | | | | | | | |
| | | VCCIO3A | | | | | AE22 | | | | | | | | | |
| | | VCCIO3A | | | | | AF26 | | | | | | | | | |
| | | VCCIO3A | | | | | AH19 | | | | | | | | | |
| | | VCCIO3A | | | | | AH22 | | | | | | | | | |
| | | VCCIO3A | | | | | AH26 | | | | | | | | | |
| | | VCCIO3B | | | | | AE13 | | | | | | | | | |
| | | VCCIO3B | | | | | AE16 | | | | | | | | | |
| | | VCCIO3B | | | | | AH15 | | | | | | | | | |
| | | VCCIO3D | | | | | AE11 | | | | | | | | | |
| | | VCCIO3D | | | | | AG13 | | | | | | | | | |
| | | VCCIO4A | | | | | AD5 | | | | | | | | | |
| | | VCCIO4A | | | | | AE7 | | | | | | | | | |
| | | VCCIO4A | | | | | AF5 | | | | | | | | | |
| | | VCCIO4A | | | | | AH5 | | | | | | | | | |
| | | VCCIO4A | | | | | AH7 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | C2 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | C5 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | C8 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | F2 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | F4 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | F6 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | H1 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | J5 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | L6 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | M4 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | N1 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | P6 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | T2 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | T5 | | | | | | | | | |
| | | VCCIO7A_HPS | | | | | B14 | | | | | | | | | |
| | | VCCIO7A_HPS | | | | | B17 | | | | | | | | | |
| | | VCCIO7A_HPS | | | | | G10 | | | | | | | | | |
| | | VCCIO7A_HPS | | | | | M10 | | | | | | | | | |
| | | VCCIO7B_HPS | | | | | B20 | | | | | | | | | |
| | | VCCIO7B_HPS | | | | | E12 | | | | | | | | | |
| | | VCCIO7C_HPS | | | | | E14 | | | | | | | | | |
| | | VCCIO7D_HPS | | | | | E18 | | | | | | | | | |
| | | VCCIO7D_HPS | | | | | J14 | | | | | | | | | |
| | | VCCIO7E_HPS | | | | | G15 | | | | | | | | | |
| | | VCCIO8A | | | | | F29 | | | | | | | | | |
| | | VCCIO8A | | | | | J27 | | | | | | | | | |
| | | VCCIO8A | | | | | J29 | | | | | | | | | |
| | | VCCIO8A | | | | | M29 | | | | | | | | | |
| | | VCCIO8A | | | | | N24 | | | | | | | | | |
| | | VCCIO8A | | | | | N27 | | | | | | | | | |
| | | VCCIO8B | | | | | E27 | | | | | | | | | |
| | | VCCIO8B | | | | | F25 | | | | | | | | | |
| | | VCCIO8B | | | | | K23 | | | | | | | | | |
| | | VCCIO8C | | | | | D25 | | | | | | | | | |
| | | VCCIO8C | | | | | F23 | | | | | | | | | |
| | | VCCIO8C | | | | | J21 | | | | | | | | | |
| | | VCCIO8C | | | | | L19 | | | | | | | | | |
| | | VCCIO8D | | | | | E21 | | | | | | | | | |
| | | VCCIO8D | | | | | K17 | | | | | | | | | |
| | | VCCPD3 | | | | | AB21 | | | | | | | | | |
| | | VCCPD3 | | | | | AC18 | | | | | | | | | |
| | | VCCPD3 | | | | | AC24 | | | | | | | | | |
| | | VCCPD4A | | | | | AB7 | | | | | | | | | |
| | | VCCPD6A6B_HPS | | | | | M8 | | | | | | | | | |
| | | VCCPD6A6B_HPS | | | | | N8 | | | | | | | | | |
| | | VCCPD6A6B_HPS | | | | | R8 | | | | | | | | | |
| | | VCCPD6A6B_HPS | | | | | U8 | | | | | | | | | |
| | | VCCPD7A_HPS | | | | | N11 | | | | | | | | | |
| | | VCCPD7B_HPS | | | | | L12 | | | | | | | | | |
| | | VCCPD7C_HPS | | | | | M13 | | | | | | | | | |
| | | VCCPD7D_HPS | | | | | M16 | | | | | | | | | |
| | | VCCPD7E_HPS | | | | | J15 | | | | | | | | | |
| | | VCCPD8 | | | | | P18 | | | | | | | | | |
| | | VCCPD8 | | | | | P22 | | | | | | | | | |
| | | VCCPD8 | | | | | R19 | | | | | | | | | |
| | | VCCPD8 | | | | | R24 | | | | | | | | | |
| | | VCCPGM | | | | | F12 | | | | | | | | | |
| | | VCCPGM | | | | | AD26 | | | | | | | | | |
| | | VCCRSTCLK_HPS | | | | | G9 | | | | | | | | | |
| | | VCC_HPS | | | | | R10 | | | | | | | | | |
| | | VCC_HPS | | | | | R11 | | | | | | | | | |
| | | VCC_HPS | | | | | R14 | | | | | | | | | |
| | | VCC_HPS | | | | | R15 | | | | | | | | | |
| | VREFB7A7B7C7D7EN0_HPS | VREFB7A7B7C7D7EN0_HPS | | | | | F14 | | | | | | | | | |
| | | GND | | | | | AA11 | | | | | | | | | |
| | | GND | | | | | AA13 | | | | | | | | | |
| | | GND | | | | | AA15 | | | | | | | | | |
| | | GND | | | | | AA17 | | | | | | | | | |
| | | GND | | | | | AA21 | | | | | | | | | |
| | | GND | | | | | AB19 | | | | | | | | | |
| | | GND | | | | | AB8 | | | | | | | | | |
| | | GND | | | | | AB9 | | | | | | | | | |
| | | GND | | | | | AC11 | | | | | | | | | |
| | | GND | | | | | AC14 | | | | | | | | | |
| | | GND | | | | | AC17 | | | | | | | | | |
| | | GND | | | | | AC20 | | | | | | | | | |
| | | GND | | | | | AC23 | | | | | | | | | |
| | | GND | | | | | AD8 | | | | | | | | | |
| | | GND | | | | | AF11 | | | | | | | | | |
| | | GND | | | | | AF14 | | | | | | | | | |
| | | GND | | | | | AF17 | | | | | | | | | |
| | | GND | | | | | AF20 | | | | | | | | | |
| | | GND | | | | | AF23 | | | | | | | | | |
| | | GND | | | | | AF8 | | | | | | | | | |
| | | GND | | | | | AJ11 | | | | | | | | | |
| | | GND | | | | | AJ14 | | | | | | | | | |
| | | GND | | | | | AJ17 | | | | | | | | | |
| | | GND | | | | | AJ20 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F896 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GND | | | | | AJ23 | | | | | | | | | |
| | | GND | | | | | AJ26 | | | | | | | | | |
| | | GND | | | | | AJ5 | | | | | | | | | |
| | | GND | | | | | AJ8 | | | | | | | | | |
| | | GND | | | | | B11 | | | | | | | | | |
| | | GND | | | | | B2 | | | | | | | | | |
| | | GND | | | | | B23 | | | | | | | | | |
| | | GND | | | | | B26 | | | | | | | | | |
| | | GND | | | | | B29 | | | | | | | | | |
| | | GND | | | | | B5 | | | | | | | | | |
| | | GND | | | | | B8 | | | | | | | | | |
| | | GND | | | | | E17 | | | | | | | | | |
| | | GND | | | | | E2 | | | | | | | | | |
| | | GND | | | | | E20 | | | | | | | | | |
| | | GND | | | | | E23 | | | | | | | | | |
| | | GND | | | | | E26 | | | | | | | | | |
| | | GND | | | | | E29 | | | | | | | | | |
| | | GND | | | | | E5 | | | | | | | | | |
| | | GND | | | | | E8 | | | | | | | | | |
| | | GND | | | | | G12 | | | | | | | | | |
| | | GND | | | | | G14 | | | | | | | | | |
| | | GND | | | | | H17 | | | | | | | | | |
| | | GND | | | | | H2 | | | | | | | | | |
| | | GND | | | | | H20 | | | | | | | | | |
| | | GND | | | | | H23 | | | | | | | | | |
| | | GND | | | | | H26 | | | | | | | | | |
| | | GND | | | | | H29 | | | | | | | | | |
| | | GND | | | | | H5 | | | | | | | | | |
| | | GND | | | | | H8 | | | | | | | | | |
| | | GND | | | | | K11 | | | | | | | | | |
| | | GND | | | | | K14 | | | | | | | | | |
| | | GND | | | | | L17 | | | | | | | | | |
| | | GND | | | | | L2 | | | | | | | | | |
| | | GND | | | | | L20 | | | | | | | | | |
| | | GND | | | | | L23 | | | | | | | | | |
| | | GND | | | | | L26 | | | | | | | | | |
| | | GND | | | | | L29 | | | | | | | | | |
| | | GND | | | | | L5 | | | | | | | | | |
| | | GND | | | | | L8 | | | | | | | | | |
| | | GND | | | | | N10 | | | | | | | | | |
| | | GND | | | | | N14 | | | | | | | | | |
| | | GND | | | | | P11 | | | | | | | | | |
| | | GND | | | | | P17 | | | | | | | | | |
| | | GND | | | | | V16 | | | | | | | | | |
| | | GND | | | | | P2 | | | | | | | | | |
| | | GND | | | | | P20 | | | | | | | | | |
| | | GND | | | | | P23 | | | | | | | | | |
| | | GND | | | | | P26 | | | | | | | | | |
| | | GND | | | | | P29 | | | | | | | | | |
| | | GND | | | | | P5 | | | | | | | | | |
| | | GND | | | | | P8 | | | | | | | | | |
| | | GND | | | | | R18 | | | | | | | | | |
| | | GND | | | | | T12 | | | | | | | | | |
| | | GND | | | | | T14 | | | | | | | | | |
| | | GND | | | | | T18 | | | | | | | | | |
| | | GND | | | | | T20 | | | | | | | | | |
| | | GND | | | | | U11 | | | | | | | | | |
| | | GND | | | | | U15 | | | | | | | | | |
| | | GND | | | | | U17 | | | | | | | | | |
| | | GND | | | | | U19 | | | | | | | | | |
| | | GND | | | | | U21 | | | | | | | | | |
| | | GND | | | | | U7 | | | | | | | | | |
| | | GND | | | | | V10 | | | | | | | | | |
| | | GND | | | | | V12 | | | | | | | | | |
| | | GND | | | | | V14 | | | | | | | | | |
| | | GND | | | | | V18 | | | | | | | | | |
| | | GND | | | | | V20 | | | | | | | | | |
| | | GND | | | | | Y14 | | | | | | | | | |
| | | GND | | | | | W13 | | | | | | | | | |
| | | GND | | | | | W15 | | | | | | | | | |
| | | GND | | | | | W17 | | | | | | | | | |
| | | GND | | | | | W19 | | | | | | | | | |
| | | GND | | | | | W21 | | | | | | | | | |
| | | GND | | | | | Y10 | | | | | | | | | |
| | | GND | | | | | Y12 | | | | | | | | | |
| | | GND | | | | | Y18 | | | | | | | | | |
| | | GND | | | | | Y20 | | | | | | | | | |

Notes:
(1) For more information about pin definitions and pin connection guidelines, refer to the Arria V Device Family Pin Connection Guidelines.
(2) GXB_REFCLK pin is not supported in current Quartus II version, but will be supported in future Quartus II release version.
(3) Pins with * contains similar name with other pins in the same column. For the selection of the HPS pins, refer to the "HPS Pin Mux Select x" columns.
(4) Pins with * are the 10 Gbps transceiver channels. For more information about the 10 Gbps transceiver channels clocking recommendation, refer to the Transceiver Clocking in Arria V Devices chapter.
(5) RESET pin is only applicable for DDR3 device.

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1152 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DNU | | | | | E33 | | | | | | | | | |
| | | DNU | | | | | F33 | | | | | | | | | |
| | | RREF_TL | | | | | F34 | | | | | | | | | |
| | | GND | | | | | R27 | | | | | | | | | |
| | | GND | | | | | R26 | | | | | | | | | |
| | | DNU | | | | | G31 | | | | | | | | | |
| | | DNU | | | | | G32 | | | | | | | | | |
| | | GND | | | | | H34 | | | | | | | | | |
| | | GND | | | | | H33 | | | | | | | | | |
| | | DNU | | | | | J31 | | | | | | | | | |
| | | DNU | | | | | J32 | | | | | | | | | |
| | | GND | | | | | K34 | | | | | | | | | |
| | | GND | | | | | K33 | | | | | | | | | |
| | | DNU | | | | | L31 | | | | | | | | | |
| | | DNU | | | | | L32 | | | | | | | | | |
| | | GND | | | | | M34 | | | | | | | | | |
| | | GND | | | | | M33 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L8n | | | | | N31 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L8p | | | | | N32 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L8p,GXB_REFCLK_L8p | | | | | P34 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L8n,GXB_REFCLK_L8n | | | | | P33 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L7n | | | | | R31 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L7p | | | | | R32 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L7p,GXB_REFCLK_L7p | | | | | T34 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L7n,GXB_REFCLK_L7n | | | | | T33 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L6n | | | | | U31 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L6p | | | | | U32 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L6p,GXB_REFCLK_L6p | | | | | V34 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L6n,GXB_REFCLK_L6n | | | | | V33 | | | | | | | | | |
| GXB_L1 | | REFCLK2Ln | | | | | U27 | | | | | | | | | |
| GXB_L1 | | REFCLK2Lp | | | | | U26 | | | | | | | | | |
| GXB_L0 | | REFCLK1Ln | | | | | W27 | | | | | | | | | |
| GXB_L0 | | REFCLK1Lp | | | | | W26 | | | | | | | | | |
| GXB_L0 | | GXB_TX_L5n | | | | | W31 | | | | | | | | | |
| GXB_L0 | | GXB_TX_L5p | | | | | W32 | | | | | | | | | |
| GXB_L0 | | GXB_RX_L5p,GXB_REFCLK_L5p | | | | | Y34 | | | | | | | | | |
| GXB_L0 | | GXB_RX_L5n,GXB_REFCLK_L5n | | | | | Y33 | | | | | | | | | |
| GXB_L0 | | GXB_TX_L4n | | | | | AA31 | | | | | | | | | |
| GXB_L0 | | GXB_TX_L4p | | | | | AA32 | | | | | | | | | |
| GXB_L0 | | GXB_RX_L4p,GXB_REFCLK_L4p | | | | | AB34 | | | | | | | | | |
| GXB_L0 | | GXB_RX_L4n,GXB_REFCLK_L4n | | | | | AB33 | | | | | | | | | |
| GXB_L0 | | GXB_TX_L3n | | | | | AC31 | | | | | | | | | |
| GXB_L0 | | GXB_TX_L3p | | | | | AC32 | | | | | | | | | |
| GXB_L0 | | GXB_RX_L3p,GXB_REFCLK_L3p | | | | | AD34 | | | | | | | | | |
| GXB_L0 | | GXB_RX_L3n,GXB_REFCLK_L3n | | | | | AD33 | | | | | | | | | |
| GXB_L0 | | GXB_TX_L2n | | | | | AE31 | | | | | | | | | |
| GXB_L0 | | GXB_TX_L2p | | | | | AE32 | | | | | | | | | |
| GXB_L0 | | GXB_RX_L2p,GXB_REFCLK_L2p | | | | | AF34 | | | | | | | | | |
| GXB_L0 | | GXB_RX_L2n,GXB_REFCLK_L2n | | | | | AF33 | | | | | | | | | |
| GXB_L0 | | GXB_TX_L1n | | | | | AG31 | | | | | | | | | |
| GXB_L0 | | GXB_TX_L1p | | | | | AG32 | | | | | | | | | |
| GXB_L0 | | GXB_RX_L1p,GXB_REFCLK_L1p | | | | | AH34 | | | | | | | | | |
| GXB_L0 | | GXB_RX_L1n,GXB_REFCLK_L1n | | | | | AH33 | | | | | | | | | |
| GXB_L0 | | GXB_TX_L0n | | | | | AJ31 | | | | | | | | | |
| GXB_L0 | | GXB_TX_L0p | | | | | AJ32 | | | | | | | | | |
| GXB_L0 | | GXB_RX_L0p,GXB_REFCLK_L0p | | | | | AK34 | | | | | | | | | |
| GXB_L0 | | GXB_RX_L0n,GXB_REFCLK_L0n | | | | | AK33 | | | | | | | | | |
| GXB_L0 | | REFCLK0Ln | | | | | AA28 | | | | | | | | | |
| GXB_L0 | | REFCLK0Lp | | | | | AA27 | | | | | | | | | |
| | | DNU | | | | | AL32 | | | | | | | | | |
| 3A | | TDO | | TDO | | | AM33 | | | | | | | | | |
| 3A | | TMS | | TMS | | | AD30 | | | | | | | | | |
| 3A | | TCK | | TCK | | | AM34 | | | | | | | | | |
| 3A | | TDI | | TDI | | | AN34 | | | | | | | | | |
| 3A | | DCLK | | DCLK | | | AP33 | | | | | | | | | |
| 3A | | nCSO | | DATA4 | | | AC26 | | | | | | | | | |
| 3A | | AS_DATA3 | | DATA3 | | | AL31 | | | | | | | | | |
| 3A | | AS_DATA2 | | DATA2 | | | AM32 | | | | | | | | | |
| 3A | | AS_DATA1 | | DATA1 | | | AN33 | | | | | | | | | |
| 3A | | AS_DATA0,ASDO | | DATA0 | | | AL30 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | RZQ_0 | | DIFFIO_TX_B1n | DIFFOUT_B1n | AM30 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK0n | | DIFFIO_RX_B2n | DIFFOUT_B2n | AF29 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK0p | | DIFFIO_RX_B2p | DIFFOUT_B2p | AG29 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK1n | | DIFFIO_RX_B4n | DIFFOUT_B4n | AH29 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK1p | | DIFFIO_RX_B4p | DIFFOUT_B4p | AH28 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT1,FPLL_BL_CLKOUTn | | DIFFIO_TX_B5n | DIFFOUT_B5n | AJ29 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT0,FPLL_BL_CLKOUTp,FPLL_BL_FB0 | | DIFFIO_TX_B5p | DIFFOUT_B5p | AK29 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT3,FPLL_BL_FBn | | DIFFIO_RX_B6n | DIFFOUT_B6n | AM31 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT2,FPLL_BL_FBp,FPLL_BL_FB1 | | DIFFIO_RX_B6p | DIFFOUT_B6p | AN32 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | VREFB3AN0 | | | | AC27 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK2n | | DIFFIO_RX_B7n | DIFFOUT_B7n | AG27 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK2p | | DIFFIO_RX_B7p | DIFFOUT_B7p | AH27 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B8n | DIFFOUT_B8n | AP32 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B8p | DIFFOUT_B8p | AP31 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK3n | | DIFFIO_RX_B9n | DIFFOUT_B9n | AG26 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK3p | | DIFFIO_RX_B9p | DIFFOUT_B9p | AH26 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B10n | DIFFOUT_B10n | AE26 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B10p | DIFFOUT_B10p | AF26 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B11n | DIFFOUT_B11n | AL29 | DQSn1B/QK1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B11p | DIFFOUT_B11p | AL28 | DQS1B/CQ1B/CQn1B/QKn1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B12n | DIFFOUT_B12n | AN30 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B12p | DIFFOUT_B12p | AP30 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B13n | DIFFOUT_B13n | AM28 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B13p | DIFFOUT_B13p | AM29 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B14n | DIFFOUT_B14n | AD27 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B14p | DIFFOUT_B14p | AE27 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B15n | DIFFOUT_B15n | AJ27 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B15p | DIFFOUT_B15p | AK27 | DQ1B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B16n | DIFFOUT_B16n | AP29 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B16p | DIFFOUT_B16p | AP28 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B17n | DIFFOUT_B17n | AL27 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B17p | DIFFOUT_B17p | AM27 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B18n | DIFFOUT_B18n | AE28 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B18p | DIFFOUT_B18p | AF28 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B19n | DIFFOUT_B19n | AJ26 | DQSn2B/QK2B | DQSn1B/QK1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B19p | DIFFOUT_B19p | AK26 | DQS2B/CQ2B/CQn2B/QKn2B | DQS1B/CQ1B/CQn1B/QKn1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B20n | DIFFOUT_B20n | AN27 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B20p | DIFFOUT_B20p | AP27 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B21n | DIFFOUT_B21n | AL26 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B21p | DIFFOUT_B21p | AM26 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B22n | DIFFOUT_B22n | AD29 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B22p | DIFFOUT_B22p | AE29 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B23n | DIFFOUT_B23n | AN26 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B23p | DIFFOUT_B23p | AP26 | DQ2B | DQ1B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B24n | DIFFOUT_B24n | AD26 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B24p | DIFFOUT_B24p | AE25 | DQ3B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B25n | DIFFOUT_B25n | AE24 | DQ3B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B25p | DIFFOUT_B25p | AF24 | DQ3B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B26n | DIFFOUT_B26n | AB24 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B26p | DIFFOUT_B26p | AB25 | DQ3B | DQ2B | DQ1B | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1152 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B27n | DIFFOUT_B27n | AC24 | DQSn3B/QK3B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B27p | DIFFOUT_B27p | AD24 | DQS3B/CQ3B/CQn3B/QKn3B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B28n | DIFFOUT_B28n | AH25 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B28p | DIFFOUT_B28p | AJ25 | DQ3B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B29n | DIFFOUT_B29n | AG24 | DQ3B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B29p | DIFFOUT_B29p | AH24 | DQ3B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | VREFB3BN0 | | | | AC25 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | | | AC23 | DQ3B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B30n | DIFFOUT_B30n | AL25 | DQ3B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B30p | DIFFOUT_B30p | AL24 | DQ3B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B31p | DIFFOUT_B31p | AJ24 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B32n | DIFFOUT_B32n | AE23 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B32p | DIFFOUT_B32p | AF23 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B33p | DIFFOUT_B33p | AD23 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B34n | DIFFOUT_B34n | AP25 | DQSn2B/QK4B | DQSn2B/QK2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B34p | DIFFOUT_B34p | AP24 | DQS4B/CQ4B/CQn4B/QKn4B | DQS2B/CQ2B/CQn2B/QKn2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B35p | DIFFOUT_B35p | AM25 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B36n | DIFFOUT_B36n | AM23 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B36p | DIFFOUT_B36p | AM24 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B37p | DIFFOUT_B37p | AB23 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B38n | DIFFOUT_B38n | AN23 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B38p | DIFFOUT_B38p | AP23 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B39p | DIFFOUT_B39p | AF22 | DQ5B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B40n | DIFFOUT_B40n | AG23 | DQ5B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B40p | DIFFOUT_B40p | AH23 | DQ5B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B41p | DIFFOUT_B41p | AE22 | DQ5B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B42n | DIFFOUT_B42n | AJ23 | DQSn5B/QK5B | DQ3B | DQSn1B/QK1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B42p | DIFFOUT_B42p | AJ22 | DQS5B/CQ5B/CQn5B/QKn5B | DQ3B | DQS1B/CQ1B/CQn1B/QKn1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B43p | DIFFOUT_B43p | AH22 | DQ5B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B44n | DIFFOUT_B44n | AG21 | DQ5B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B44p | DIFFOUT_B44p | AH21 | DQ5B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B45p | DIFFOUT_B45p | AC22 | DQ5B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B46n | DIFFOUT_B46n | AK23 | DQ5B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B46p | DIFFOUT_B46p | AL23 | DQ5B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B47n | DIFFOUT_B47n | AL22 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B47p | DIFFOUT_B47p | AM22 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B48n | DIFFOUT_B48n | AN21 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B48p | DIFFOUT_B48p | AP22 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B49p | DIFFOUT_B49p | AB21 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B50n | DIFFOUT_B50n | AE21 | DQSn6B/QK6B | DQSn3B/QK3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B50p | DIFFOUT_B50p | AE20 | DQS6B/CQ6B/CQn6B/QKn6B | DQS3B/CQ3B/CQn3B/QKn3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B51p | DIFFOUT_B51p | AL20 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B52n | DIFFOUT_B52n | AF20 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B52p | DIFFOUT_B52p | AG20 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | VREFB3CN0 | | | | AB22 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | | | AB20 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B53n | DIFFOUT_B53n | AK21 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B53p | DIFFOUT_B53p | AL21 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B54p | DIFFOUT_B54p | AH20 | DQ7B | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B55n | DIFFOUT_B55n | AJ20 | DQ7B | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B55p | DIFFOUT_B55p | AK20 | DQ7B | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B56p | DIFFOUT_B56p | AC21 | DQ7B | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B57n | DIFFOUT_B57n | AP21 | DQSn7B/QK7B | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B57p | DIFFOUT_B57p | AP20 | DQS7B/CQ7B/CQn7B/QKn7B | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B58p | DIFFOUT_B58p | AM20 | DQ7B | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B59n | DIFFOUT_B59n | AN20 | DQ7B | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B59p | DIFFOUT_B59p | AP19 | DQ7B | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B60p | DIFFOUT_B60p | AC19 | DQ7B | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B61n | DIFFOUT_B61n | AC20 | DQ7B | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B61p | DIFFOUT_B61p | AD20 | DQ7B | | | | | | | | |
| 3D | VREFB3DN0 | IO | VREFB3DN0 | | | | AD18 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK4n | | DIFFIO_RX_B76n | DIFFOUT_B76n | AH19 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK4p | | DIFFIO_RX_B76p | DIFFOUT_B76p | AJ19 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK5n | | DIFFIO_RX_B78n | DIFFOUT_B78n | AL19 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK5p | | DIFFIO_RX_B78p | DIFFOUT_B78p | AM19 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT1,FPLL_BC_CLKOUTn | | DIFFIO_TX_B79n | DIFFOUT_B79n | AE19 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT0,FPLL_BC_CLKOUTp,FPLL_BC_FB0 | | DIFFIO_TX_B79p | DIFFOUT_B79p | AF19 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT3,FPLL_BC_FBn | | DIFFIO_RX_B80n | DIFFOUT_B80n | AM18 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT2,FPLL_BC_FBp,FPLL_BC_FB1 | | DIFFIO_RX_B80p | DIFFOUT_B80p | AN18 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK6n | | DIFFIO_RX_B82n | DIFFOUT_B82n | AJ18 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK6p | | DIFFIO_RX_B82p | DIFFOUT_B82p | AK18 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK7n | | DIFFIO_RX_B84n | DIFFOUT_B84n | AF18 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | CLK7p | | DIFFIO_RX_B84p | DIFFOUT_B84p | AG18 | | | | | | | | | |
| | | VCCD_FPLL | | | | | AA17 | | | | | | | | | |
| | | VCCA_FPLL | | | | | AA18 | | | | | | | | | |
| | | DNU | | | | | AB19 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B93n | DIFFOUT_B93n | AD17 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B93p | DIFFOUT_B93p | AE17 | DQ8B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B94n | DIFFOUT_B94n | AE16 | DQ8B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B94p | DIFFOUT_B94p | AF16 | DQ8B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B95n | DIFFOUT_B95n | AB18 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B95p | DIFFOUT_B95p | AC18 | DQ8B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B96n | DIFFOUT_B96n | AF17 | DQSn8B/QK8B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B96p | DIFFOUT_B96p | AG17 | DQS8B/CQ8B/CQn8B/QKn8B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B97n | DIFFOUT_B97n | AH17 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B97p | DIFFOUT_B97p | AH16 | DQ8B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B98n | DIFFOUT_B98n | AJ16 | DQ8B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B98p | DIFFOUT_B98p | AJ17 | DQ8B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | VREFB4DN0 | | | | AB17 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | | | AC17 | DQ8B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B99n | DIFFOUT_B99n | AK17 | DQ8B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B99p | DIFFOUT_B99p | AL16 | DQ8B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B100n | DIFFOUT_B100n | AL17 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B100p | DIFFOUT_B100p | AM17 | DQ9B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B101n | DIFFOUT_B101n | AP17 | DQ9B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B101p | DIFFOUT_B101p | AP18 | DQ9B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B102n | DIFFOUT_B102n | AB16 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B102p | DIFFOUT_B102p | AC16 | DQ9B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B103n | DIFFOUT_B103n | AP16 | DQSn9B/QK9B | DQSn4B/QK4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B103p | DIFFOUT_B103p | AP15 | DQS9B/CQ9B/CQn9B/QKn9B | DQS4B/CQ4B/CQn4B/QKn4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B104n | DIFFOUT_B104n | AG15 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B104p | DIFFOUT_B104p | AH15 | DQ9B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B105n | DIFFOUT_B105n | AK15 | DQ9B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B105p | DIFFOUT_B105p | AL15 | DQ9B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B106n | DIFFOUT_B106n | AD15 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B106p | DIFFOUT_B106p | AE15 | DQ9B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B107n | DIFFOUT_B107n | AM16 | DQ9B | DQ4B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B107p | DIFFOUT_B107p | AN15 | DQ9B | DQ4B | | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B108n | DIFFOUT_B108n | AN14 | | | | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B108p | DIFFOUT_B108p | AP14 | DQ10B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B109n | DIFFOUT_B109n | AL14 | DQ10B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B109p | DIFFOUT_B109p | AM14 | DQ10B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B110p | DIFFOUT_B110p | AC15 | DQ10B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B111n | DIFFOUT_B111n | AJ14 | DQSn10B/QK10B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B111p | DIFFOUT_B111p | AK14 | DQS10B/CQ10B/CQn10B/QKn10B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B112p | DIFFOUT_B112p | AH14 | DQ10B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B113n | DIFFOUT_B113n | AH13 | DQ10B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B113p | DIFFOUT_B113p | AJ13 | DQ10B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | VREFB4CN0 | | | | AB15 | | | | | | | | | |
| 4C | VREFB4CN0 | IO | | | | | AC13 | DQ10B | DQ5B | DQ2B | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1152 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B114n | DIFFOUT_B114n | AC14 | DQ10B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B114p | DIFFOUT_B114p | AD14 | DQ10B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B115p | DIFFOUT_B115p | AF14 | DQ11B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B116n | DIFFOUT_B116n | AL13 | DQ11B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B116p | DIFFOUT_B116p | AM13 | DQ11B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B117p | DIFFOUT_B117p | AB14 | DQ11B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B118n | DIFFOUT_B118n | AJ12 | DQSn11B/QK11B | DQSn5B/QK5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B118p | DIFFOUT_B118p | AK12 | DQS11B/CQ11B/CQn11B/QKn11B | DQS5B/CQ5B/CQn5B/QKn5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B119p | DIFFOUT_B119p | AG14 | DQ11B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B120n | DIFFOUT_B120n | AE14 | DQ11B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B120p | DIFFOUT_B120p | AF13 | DQ11B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B121p | DIFFOUT_B121p | AB13 | DQ11B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B122n | DIFFOUT_B122n | AF12 | DQ11B | DQ5B | DQ2B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B122p | DIFFOUT_B122p | AG12 | DQ11B | DQ5B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B123p | DIFFOUT_B123p | AP13 | DQ12B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B124n | DIFFOUT_B124n | AN12 | DQ12B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B124p | DIFFOUT_B124p | AP12 | DQ12B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B125p | DIFFOUT_B125p | AE12 | DQ12B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B126n | DIFFOUT_B126n | AM12 | DQSn12B/QK12B | DQ6B | DQSn2B/QK2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B126p | DIFFOUT_B126p | AN11 | DQS12B/CQ12B/CQn12B/QKn12B | DQ6B | DQS2B/CQ2B/CQn2B/QKn2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B127p | DIFFOUT_B127p | AL11 | DQ12B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B128n | DIFFOUT_B128n | AG11 | DQ12B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B128p | DIFFOUT_B128p | AH11 | DQ12B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B129p | DIFFOUT_B129p | AD12 | DQ12B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B130n | DIFFOUT_B130n | AL10 | DQ12B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B130p | DIFFOUT_B130p | AM11 | DQ12B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B131n | DIFFOUT_B131n | AP11 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B131p | DIFFOUT_B131p | AP10 | DQ13B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B132n | DIFFOUT_B132n | AJ11 | DQ13B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B132p | DIFFOUT_B132p | AK11 | DQ13B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B133p | DIFFOUT_B133p | AB12 | DQ13B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B134n | DIFFOUT_B134n | AL9 | DQSn13B/QK13B | DQSn6B/QK6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B134p | DIFFOUT_B134p | AM10 | DQS13B/CQ13B/CQn13B/QKn13B | DQS6B/CQ6B/CQn6B/QKn6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B135p | DIFFOUT_B135p | AF11 | DQ13B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B136n | DIFFOUT_B136n | AF9 | DQ13B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B136p | DIFFOUT_B136p | AG9 | DQ13B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | VREFB4BN0 | | | | AA12 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | | | AC12 | DQ13B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B137n | DIFFOUT_B137n | AD9 | DQ13B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B137p | DIFFOUT_B137p | AE10 | DQ13B | DQ6B | DQ2B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B138p | DIFFOUT_B138p | AE11 | DQ14B | DQ7B | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B139n | DIFFOUT_B139n | AJ9 | DQ14B | DQ7B | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B139p | DIFFOUT_B139p | AK9 | DQ14B | DQ7B | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B140p | DIFFOUT_B140p | AB11 | DQ14B | DQ7B | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B141n | DIFFOUT_B141n | AH10 | DQSn14B/QK14B | DQ7B | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B141p | DIFFOUT_B141p | AH9 | DQS14B/CQ14B/CQn14B/QKn14B | DQ7B | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B142p | DIFFOUT_B142p | AE9 | DQ14B | DQ7B | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B143n | DIFFOUT_B143n | AC9 | DQ14B | DQ7B | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B143p | DIFFOUT_B143p | AC8 | DQ14B | DQ7B | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B144p | DIFFOUT_B144p | AC11 | DQ14B | DQ7B | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B145n | DIFFOUT_B145n | AB10 | DQ14B | DQ7B | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B145p | DIFFOUT_B145p | AC10 | DQ14B | DQ7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA10 | DIFFIO_TX_B146p | DIFFOUT_B146p | AP9 | DQ15B | DQ7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA11 | DIFFIO_RX_B147n | DIFFOUT_B147n | AN8 | DQ15B | DQ7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA5 | DIFFIO_RX_B147p | DIFFOUT_B147p | AN9 | DQ15B | DQ7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA6 | DIFFIO_TX_B148p | DIFFOUT_B148p | AF8 | DQ15B | DQ7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA12 | DIFFIO_RX_B149n | DIFFOUT_B149n | AL8 | DQSn15B/QK15B | DQSn7B/QK7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA13 | DIFFIO_RX_B149p | DIFFOUT_B149p | AM8 | DQS15B/CQ15B/CQn15B/QKn15B | DQS7B/CQ7B/CQn7B/QKn7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA7 | DIFFIO_TX_B150n | DIFFOUT_B150n | AP8 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA8 | DIFFIO_TX_B150p | DIFFOUT_B150p | AP7 | DQ15B | DQ7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA14 | DIFFIO_RX_B151n | DIFFOUT_B151n | AN6 | DQ15B | DQ7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA15 | DIFFIO_RX_B151p | DIFFOUT_B151p | AP6 | DQ15B | DQ7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA9 | DIFFIO_TX_B152n | DIFFOUT_B152n | AE7 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | CLKUSR | DIFFIO_TX_B152p | DIFFOUT_B152p | AF7 | DQ15B | DQ7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_RX_B153n | DIFFOUT_B153n | AL7 | DQ15B | DQ7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_RX_B153p | DIFFOUT_B153p | AM7 | DQ15B | DQ7B | | | | | | | |
| 4A | VREFB4AN0 | IO | | PR_ERROR | DIFFIO_TX_B154n | DIFFOUT_B154n | AJ8 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | PR_READY | DIFFIO_TX_B154p | DIFFOUT_B154p | AK8 | DQ16B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | PR_DONE | DIFFIO_RX_B155n | DIFFOUT_B155n | AN5 | DQ16B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | PR_REQUEST | DIFFIO_RX_B155p | DIFFOUT_B155p | AP5 | DQ16B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B156n | DIFFOUT_B156n | AD6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B156p | DIFFOUT_B156p | AE6 | DQ16B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | CvP_CONFDONE | DIFFIO_RX_B157n | DIFFOUT_B157n | AP4 | DQSn16B/QK16B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | CRC_ERROR | DIFFIO_RX_B157p | DIFFOUT_B157p | AP3 | DQS16B/CQ16B/CQn16B/QKn16B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DEV_OE | DIFFIO_TX_B158n | DIFFOUT_B158n | AM6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DEV_CLRn | DIFFIO_TX_B158p | DIFFOUT_B158p | AM5 | DQ16B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | INIT_DONE | DIFFIO_RX_B159n | DIFFOUT_B159n | AK6 | DQ16B | | | | | | | | |
| 4A | VREFB4AN0 | IO | | nCEO | DIFFIO_RX_B159p | DIFFOUT_B159p | AL6 | DQ16B | | | | | | | | |
| 4A | VREFB4AN0 | IO | VREFB4AN0 | | | | AC7 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | | | AD8 | DQ16B | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK11n | | DIFFIO_RX_B160n | DIFFOUT_B160n | AH7 | DQ16B | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK11p | | DIFFIO_RX_B160p | DIFFOUT_B160p | AJ7 | DQ16B | | | | | | | | |
| 4A | VREFB4AN0 | IO | FPLL_BR_CLKOUT1,FPLL_BR_CLKOUTn | | DIFFIO_TX_B161n | DIFFOUT_B161n | AG8 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | FPLL_BR_CLKOUT0,FPLL_BR_CLKOUTp,FPLL_BR_FB0 | | DIFFIO_TX_B161p | DIFFOUT_B161p | AH8 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | FPLL_BR_CLKOUT3,FPLL_BR_FBn | | DIFFIO_RX_B162n | DIFFOUT_B162n | AN3 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | FPLL_BR_CLKOUT2,FPLL_BR_FBp,FPLL_BR_FB1 | | DIFFIO_RX_B162p | DIFFOUT_B162p | AP2 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK10n | | DIFFIO_RX_B164n | DIFFOUT_B164n | AM4 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK10p | | DIFFIO_RX_B164p | DIFFOUT_B164p | AM3 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK9n | | DIFFIO_RX_B166n | DIFFOUT_B166n | AL4 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK9p | | DIFFIO_RX_B166p | DIFFOUT_B166p | AL5 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B167n | DIFFOUT_B167n | AF6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | RZQ_1 | | DIFFIO_TX_B167p | DIFFOUT_B167p | AG6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK8n | | DIFFIO_RX_B168n | DIFFOUT_B168n | AH6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | CLK8p | | DIFFIO_RX_B168p | DIFFOUT_B168p | AJ6 | | | | | | | | | |
| | | RREF_BR | | | | | AM1 | | | | | | | | | |
| | | DNU | | | | | AM2 | | | | | | | | | |
| | | DNU | | | | | AN2 | | | | | | | | | |
| | | GND | | | | | AA8 | | | | | | | | | |
| | | GND | | | | | AA7 | | | | | | | | | |
| | | GND | | | | | AK2 | | | | | | | | | |
| | | GND | | | | | AK1 | | | | | | | | | |
| | | DNU | | | | | AJ3 | | | | | | | | | |
| | | DNU | | | | | AJ4 | | | | | | | | | |
| | | GND | | | | | AH2 | | | | | | | | | |
| | | GND | | | | | AH1 | | | | | | | | | |
| | | DNU | | | | | AG3 | | | | | | | | | |
| | | DNU | | | | | AG4 | | | | | | | | | |
| | | GND | | | | | AF2 | | | | | | | | | |
| | | GND | | | | | AF1 | | | | | | | | | |
| | | DNU | | | | | AE3 | | | | | | | | | |
| | | DNU | | | | | AE4 | | | | | | | | | |
| | | GND | | | | | AD2 | | | | | | | | | |
| | | GND | | | | | AD1 | | | | | | | | | |
| | | DNU | | | | | AC3 | | | | | | | | | |
| | | DNU | | | | | AC4 | | | | | | | | | |
| | | GND | | | | | AB2 | | | | | | | | | |
| | | GND | | | | | AB1 | | | | | | | | | |
| | | DNU | | | | | AA3 | | | | | | | | | |
| | | DNU | | | | | AA4 | | | | | | | | | |
| | | GND | | | | | V2 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1152 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GND | | | | | Y1 | | | | | | | | | |
| | | DNU | | | | | W3 | | | | | | | | | |
| | | DNU | | | | | W4 | | | | | | | | | |
| | | GND | | | | | W8 | | | | | | | | | |
| | | GND | | | | | W7 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | T7 | | | | HPS_DM_4 | HPS_DM_4 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | T8 | | | | HPS_DQ_39 | HPS_DQ_39 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | U2 | | | | HPS_DQ_37 | HPS_DQ_37 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | V1 | | | | HPS_DQ_38 | HPS_DQ_38 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | U3 | | | | HPS_DQ_36 | HPS_DQ_36 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | T3 | | | | HPS_DQS_4 | HPS_DQS_4 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI13 | | | | | T1 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | T4 | | | | HPS_DQS#_4 | HPS_DQS#_4 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | U1 | | | | HPS_DQ_35 | HPS_DQ_35 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R1 | | | | HPS_DQ_33 | HPS_DQ_33 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | T5 | | | | HPS_DQ_34 | HPS_DQ_34 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R2 | | | | HPS_DQ_32 | HPS_DQ_32 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI12 | | | | | T6 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI11 | | | | | P1 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | P2 | | | | HPS_DM_3 | HPS_DM_3 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI10 | | | | | N1 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R3 | | | | HPS_DQ_31 | HPS_DQ_31 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | N4 | | | | HPS_DQ_29 | HPS_DQ_29 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | P7 | | | | HPS_DQ_30 | HPS_DQ_30 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | P4 | | | | HPS_DQ_28 | HPS_DQ_28 | | | | |
| 6B | VREFB6BN0_HPS | VREFB6BN0_HPS | | | | | R7 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | L1 | | | | HPS_DQS_3 | HPS_DQS_3 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI9 | | | | | M3 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | M2 | | | | HPS_DQS#_3 | HPS_DQS#_3 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | N3 | | | | HPS_DQ_27 | HPS_DQ_27 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | K1 | | | | HPS_DQ_25 | HPS_DQ_25 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R4 | | | | HPS_DQ_26 | HPS_DQ_26 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | L2 | | | | HPS_DQ_24 | HPS_DQ_24 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI8 | | | | | P5 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI7 | | | | | H2 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | H1 | | | | HPS_DM_2 | HPS_DM_2 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI6 | | | | | J2 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | J1 | | | | HPS_DQ_23 | HPS_DQ_23 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | J3 | | | | HPS_DQ_21 | HPS_DQ_21 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | N5 | | | | HPS_DQ_22 | HPS_DQ_22 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | K3 | | | | HPS_DQ_20 | HPS_DQ_20 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI5 | | | | | P6 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | K4 | | | | HPS_DQS_2 | HPS_DQS_2 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | L3 | | | | HPS_RESET# | HPS_RESET# | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | L5 | | | | HPS_DQS#_2 | HPS_DQS#_2 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | M4 | | | | HPS_DQ_19 | HPS_DQ_19 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | L6 | | | | HPS_DQ_17 | HPS_DQ_17 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | N6 | | | | HPS_DQ_18 | HPS_DQ_18 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | M6 | | | | HPS_DQ_16 | HPS_DQ_16 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI4 | | | | | N7 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_GPI3 | | | | | G3 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F1 | | | | HPS_DM_1 | HPS_DM_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_GPI2 | | | | | H3 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G1 | | | | HPS_DQ_15 | HPS_DQ_15 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | H4 | | | | HPS_DQ_13 | HPS_DQ_13 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | K5 | | | | HPS_DQ_14 | HPS_DQ_14 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | J4 | | | | HPS_DQ_12 | HPS_DQ_12 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | K6 | | | | HPS_CKE_0 | HPS_CKE_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D1 | | | | HPS_DQS_1 | HPS_DQS_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E1 | | | | HPS_CKE_1 | HPS_CKE_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C1 | | | | HPS_DQS#_1 | HPS_DQS#_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E2 | | | | HPS_DQ_11 | HPS_DQ_11 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F3 | | | | HPS_DQ_9 | HPS_DQ_9 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | J6 | | | | HPS_DQ_10 | HPS_DQ_10 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F4 | | | | HPS_DQ_8 | HPS_DQ_8 | | | | |
| 6A | VREFB6AN0_HPS | HPS_GPI1 | | | | | J7 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_GPI0 | | | | | C2 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G4 | | | | HPS_DM_0 | HPS_DM_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G5 | | | | HPS_DQ_7 | HPS_DQ_7 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A2 | | | | HPS_DQ_5 | HPS_DQ_5 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | K7 | | | | HPS_DQ_6 | HPS_DQ_6 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B1 | | | | HPS_DQ_4 | HPS_DQ_4 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | L7 | | | | HPS_ODT_1 | HPS_ODT_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C3 | | | | HPS_DQS_0 | HPS_DQS_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E3 | | | | HPS_ODT_0 | HPS_ODT_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D4 | | | | HPS_DQS#_0 | HPS_DQS#_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E4 | | | | HPS_DQ_3 | HPS_DQ_3 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A4 | | | | HPS_DQ_1 | HPS_DQ_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | M8 | | | | HPS_DQ_2 | HPS_DQ_2 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A3 | | | | HPS_DQ_0 | HPS_DQ_0 | | | | |
| 6A | VREFB6AN0_HPS | VREFB6AN0_HPS | | | | | N9 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B4 | | | | HPS_A_0 | HPS_CA_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C4 | | | | HPS_A_1 | HPS_CA_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D5 | | | | HPS_A_4 | HPS_CA_4 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | J8 | | | | HPS_A_2 | HPS_CA_2 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E5 | | | | HPS_A_5 | HPS_CA_5 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | K8 | | | | HPS_A_3 | HPS_CA_3 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A6 | | | | HPS_CK | HPS_CK | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B5 | | | | HPS_A_6 | HPS_CA_6 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B7 | | | | HPS_CK# | HPS_CK# | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B6 | | | | HPS_A_7 | HPS_CA_7 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C7 | | | | HPS_BA_1 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G7 | | | | HPS_BA_0 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D6 | | | | HPS_BA_2 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G6 | | | | HPS_CAS# | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | H6 | | | | HPS_RAS# | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F6 | | | | HPS_A_8 | HPS_CA_8 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G8 | | | | HPS_A_10 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F7 | | | | HPS_A_9 | HPS_CA_9 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G9 | | | | HPS_A_11 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C8 | | | | HPS_CS#_0 | HPS_CS#_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E7 | | | | HPS_A_12 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D7 | | | | HPS_CS#_1 | HPS_CS#_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F8 | | | | HPS_A_13 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A8 | | | | HPS_A_14 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | J9 | | | | HPS_WE# | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A7 | | | | HPS_A_15 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_RZQ_0 | | | | | K9 | | | | | | | | | |
| | | DNU | | | | | U4 | | | | | | | | | |
| | | GND | | | | | G10 | | | | | | | | | |
| | | GND | | | | | H10 | | | | | | | | | |
| 7A | | HPS_nRST | | | | | P11 | | | | | | | | | |
| 7A | | HPS_nPOR | | | | | F9 | | | | | | | | | |
| 7A | | HPS_TDO | | | | | P10 | | | | | | | | | |
| | | VCCRSTCLK_HPS | | | | | E9 | | | | | | | | | |
| 7A | | HPS_TMS | | | | | A9 | | | | | | | | | |
| 7A | | HPS_TCK | | | | | C9 | | | | | | | | | |
| 7A | | HPS_TRST | | | | | B10 | | | | | | | | | |
| 7A | | HPS_TDI | | | | | D9 | | | | | | | | | |
| | | GND | | | | | N10 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1152 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A | | HPS_PORSEL | | | | | C10 | | | | | | | | | |
| 7A | | HPS_CLK1 | | | | | L9 | | | | | | | | | |
| 7A | | HPS_CLK2 | | | | | D10 | | | | | | | | | |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_CLK | | | | | A10 | | | | | | TRACE_CLK | | | HPS_GPIO48 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D0 | | | | | K10 | | | | | | TRACE_D0 | SPIS0_CLK | UART0_RX | HPS_GPIO49 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D1 | | | | | A11 | | | | | | TRACE_D1 | SPIS0_MOSI | UART0_TX | HPS_GPIO50 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D2 | | | | | J10 | | | | | | TRACE_D2 | SPIS0_MISO | I2C1_SDA | HPS_GPIO51 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D3 | | | | | A12 | | | | | | TRACE_D3 | SPIS0_SS0 | I2C1_SCL | HPS_GPIO52 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D4 | | | | | B12 | | | | | | TRACE_D4 | SPIS1_CLK | | HPS_GPIO53 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D5 | | | | | A12 | | | | | | TRACE_D5 | SPIS1_MOSI | | HPS_GPIO54 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D6 | | | | | C13 | | | | | | TRACE_D6 | SPIS1_SS0 | I2C0_SDA | HPS_GPIO55 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D7 | | | | | C11 | | | | | | TRACE_D7 | SPIS1_MISO | I2C0_SCL | HPS_GPIO56 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_CLK | | | | | L10 | | | | | | SPIM0_CLK | I2C1_SDA | UART0_CTS | HPS_GPIO57 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_MOSI | | | | | C12 | | | | | | SPIM0_MOSI | I2C1_SCL | UART0_RTS | HPS_GPIO58 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_MISO | | | | | L11 | | | | | | SPIM0_MISO | | UART1_CTS | HPS_GPIO59 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_SS0,BOOTSEL0 | | | | | E10 | | | | | | SPIM0_SS0 | | UART1_RTS | HPS_GPIO60 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART0_RX | | | | | E11 | | | | | | UART0_RX | | SPIM0_SS1 | HPS_GPIO61 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART0_TX,CLKSEL1 | | | | | F10 | | | | | | UART0_TX | | SPIM1_SS1 | HPS_GPIO62 |
| 7A | VREFB7A7B7C7D7EN0_HPS | I2C0_SDA | | | | | F11 | | | | | | I2C0_SDA | UART1_RX | SPIM1_CLK | HPS_GPIO63 |
| 7A | VREFB7A7B7C7D7EN0_HPS | I2C0_SCL | | | | | H11 | | | | | | I2C0_SCL | UART1_TX | SPIM1_MOSI | HPS_GPIO64 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART0_RX* | | | | | M10 | | | | | | | UART0_RX | SPIM1_MISO | HPS_GPIO65 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART0_TX*,CLKSEL0 | | | | | J11 | | | | | | | UART0_TX | SPIM1_SS0 | HPS_GPIO66 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS1_CLK | | | | | M11 | | | | | | SPIS1_CLK | SPIM1_CLK | | HPS_GPIO67 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS1_MOSI | | | | | D12 | | | | | | SPIS1_MOSI | SPIM1_MOSI | | HPS_GPIO68 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS1_MISO | | | | | E12 | | | | | | SPIS1_MISO | SPIM1_MISO | | HPS_GPIO69 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS1_SS0 | | | | | D13 | | | | | | SPIS1_SS0 | SPIM1_SS0 | | HPS_GPIO70 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART1_RX | | | | | F12 | | | | | | UART1_RX | SPIM1_SS1 | | HPS_GPIO62 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART1_TX | | | | | J12 | | | | | | UART1_TX | SPIM0_CLK | | HPS_GPIO63 |
| 7A | VREFB7A7B7C7D7EN0_HPS | I2C1_SDA | | | | | L12 | | | | | | I2C1_SDA | SPIM0_MOSI | | HPS_GPIO64 |
| 7A | VREFB7A7B7C7D7EN0_HPS | I2C1_SCL | | | | | K12 | | | | | | I2C1_SCL | SPIM0_MISO | | HPS_GPIO65 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_SS0 | | | | | M12 | | | | | | | SPIM0_SS0 | | HPS_GPIO66 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS0_CLK | | | | | F13 | | | | | | SPIS0_CLK | SPIM0_SS1 | | HPS_GPIO67 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS0_MOSI | | | | | G12 | | | | | | SPIS0_MOSI | | | HPS_GPIO68 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS0_MISO | | | | | G13 | | | | | | SPIS0_MISO | | | HPS_GPIO69 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS0_SS0 | | | | | H12 | | | | | | SPIS0_SS0 | | | HPS_GPIO70 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_ALE | | | | | A14 | | | | | | NAND_ALE | RGMII1_TX_CLK | QSPI_SS3 | HPS_GPIO14 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_CE | | | | | M13 | | | | | | NAND_CE | RGMII1_TXD0 | USB1_D0 | HPS_GPIO15 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_CLE | | | | | B14 | | | | | | NAND_CLE | RGMII1_TXD1 | USB1_D1 | HPS_GPIO16 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_RE | | | | | N13 | | | | | | NAND_RE | RGMII1_TXD2 | USB1_D2 | HPS_GPIO17 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_RB | | | | | B15 | | | | | | NAND_RB | RGMII1_TXD3 | USB1_D3 | HPS_GPIO18 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ0 | | | | | C14 | | | | | | NAND_DQ0 | RGMII1_RXD0 | | HPS_GPIO19 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ1 | | | | | C15 | | | | | | NAND_DQ1 | RGMII1_MDIO | I2C3_SDA | HPS_GPIO20 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ2 | | | | | D14 | | | | | | NAND_DQ2 | RGMII1_MDC | I2C3_SCL | HPS_GPIO21 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ3 | | | | | G14 | | | | | | NAND_DQ3 | RGMII1_RX_CTL | USB1_D4 | HPS_GPIO22 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ4 | | | | | N12 | | | | | | NAND_DQ4 | RGMII1_TX_CTL | USB1_D5 | HPS_GPIO23 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ5 | | | | | H14 | | | | | | NAND_DQ5 | RGMII1_RX_CLK | USB1_D6 | HPS_GPIO24 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ6 | | | | | P12 | | | | | | NAND_DQ6 | RGMII1_RXD1 | USB1_D7 | HPS_GPIO25 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ7 | | | | | K13 | | | | | | NAND_DQ7 | RGMII1_RXD2 | | HPS_GPIO26 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_WP | | | | | J14 | | | | | | NAND_WP | RGMII1_RXD3 | QSPI_SS2 | HPS_GPIO27 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_WE,BOOTSEL2 | | | | | L14 | | | | | | NAND_WE | QSPI_SS1 | | HPS_GPIO28 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_IO0 | | | | | K14 | | | | | | QSPI_IO0 | | USB1_CLK | HPS_GPIO29 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_IO1 | | | | | M14 | | | | | | QSPI_IO1 | | USB1_STP | HPS_GPIO30 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_IO2 | | | | | P14 | | | | | | QSPI_IO2 | | USB1_DIR | HPS_GPIO31 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_IO3 | | | | | N14 | | | | | | QSPI_IO3 | | USB1_NXT | HPS_GPIO32 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_SS0,BOOTSEL1 | | | | | R15 | | | | | | QSPI_SS0 | | | HPS_GPIO33 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_CLK | | | | | F14 | | | | | | QSPI_CLK | | | HPS_GPIO34 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_SS1 | | | | | D15 | | | | | | QSPI_SS1 | | | HPS_GPIO35 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_CMD | | | | | E15 | | | | | | SDMMC_CMD | USB0_D0 | | HPS_GPIO36 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_PWREN | | | | | J15 | | | | | | SDMMC_PWREN | USB0_D1 | | HPS_GPIO37 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D0 | | | | | F15 | | | | | | SDMMC_D0 | USB0_D2 | | HPS_GPIO38 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D1 | | | | | K15 | | | | | | SDMMC_D1 | USB0_D3 | | HPS_GPIO39 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D4 | | | | | E16 | | | | | | SDMMC_D4 | USB0_D4 | | HPS_GPIO40 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D5 | | | | | G15 | | | | | | SDMMC_D5 | USB0_D5 | | HPS_GPIO41 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D6 | | | | | F16 | | | | | | SDMMC_D6 | USB0_D6 | | HPS_GPIO42 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D7 | | | | | G16 | | | | | | SDMMC_D7 | USB0_D7 | | HPS_GPIO43 |
| 7C | VREFB7A7B7C7D7EN0_HPS | HPS_GPIO44 | | | | | H16 | | | | | | | USB0_CLK | | HPS_GPIO44 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_CCLK_OUT | | | | | M15 | | | | | | SDMMC_CCLK_OUT | USB0_STP | | HPS_GPIO45 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D2 | | | | | J16 | | | | | | SDMMC_D2 | USB0_DIR | | HPS_GPIO46 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D3 | | | | | L15 | | | | | | SDMMC_D3 | USB0_NXT | | HPS_GPIO47 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TX_CLK | | | | | A16 | | | | | | RGMII0_TX_CLK | | | HPS_GPIO0 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TXD0 | | | | | A17 | | | | | | RGMII0_TXD0 | USB1_D0 | | HPS_GPIO1 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TXD1 | | | | | A15 | | | | | | RGMII0_TXD1 | USB1_D1 | | HPS_GPIO2 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TXD2 | | | | | B17 | | | | | | RGMII0_TXD2 | USB1_D2 | | HPS_GPIO3 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TXD3 | | | | | C16 | | | | | | RGMII0_TXD3 | USB1_D3 | | HPS_GPIO4 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RXD0 | | | | | L16 | | | | | | RGMII0_RXD0 | USB1_D4 | | HPS_GPIO5 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_MDIO | | | | | C17 | | | | | | RGMII0_MDIO | USB1_D5 | I2C2_SDA | HPS_GPIO6 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_MDC | | | | | M16 | | | | | | RGMII0_MDC | USB1_D6 | I2C2_SCL | HPS_GPIO7 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RX_CTL | | | | | D17 | | | | | | RGMII0_RX_CTL | USB1_D7 | | HPS_GPIO8 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TX_CTL | | | | | E18 | | | | | | RGMII0_TX_CTL | | | HPS_GPIO9 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RX_CLK | | | | | D16 | | | | | | RGMII0_RX_CLK | USB1_CLK | | HPS_GPIO10 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RXD1 | | | | | F18 | | | | | | RGMII0_RXD1 | USB1_STP | | HPS_GPIO11 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RXD2 | | | | | F17 | | | | | | RGMII0_RXD2 | USB1_DIR | | HPS_GPIO12 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RXD3 | | | | | P16 | | | | | | RGMII0_RXD3 | USB1_NXT | | HPS_GPIO13 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_TX_CLK | | | | | G17 | | | | | | RGMII1_TX_CLK | | | HPS_GPIO48 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_TXD0 | | | | | N16 | | | | | | RGMII1_TXD0 | | | HPS_GPIO49 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_TXD1 | | | | | J17 | | | | | | RGMII1_TXD1 | | | HPS_GPIO50 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_TX_CTL | | | | | G18 | | | | | | RGMII1_TX_CTL | | | HPS_GPIO51 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_RXD0 | | | | | K17 | | | | | | RGMII1_RXD0 | | | HPS_GPIO52 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_RXD1 | | | | | H17 | | | | | | RGMII1_RXD1 | | | HPS_GPIO53 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_MDIO | | | | | L17 | | | | | | RGMII1_MDIO | SPIM0_CLK | SPIS0_CLK | HPS_GPIO54 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_MDC | | | | | N19 | | | | | | RGMII1_MDC | SPIM0_MOSI | SPIS0_MOSI | HPS_GPIO55 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_TXD2 | | | | | M17 | | | | | | RGMII1_TXD2 | SPIM0_MISO | SPIS0_MISO | HPS_GPIO56 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_TXD3 | | | | | N18 | | | | | | RGMII1_TXD3 | SPIM0_SS0 | SPIS0_SS0 | HPS_GPIO57 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_RX_CLK | | | | | M18 | | | | | | RGMII1_RX_CLK | SPIS1_CLK | SPIM1_CLK | HPS_GPIO58 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_RX_CTL | | | | | J18 | | | | | | RGMII1_RX_CTL | SPIS1_MOSI | SPIM1_MOSI | HPS_GPIO59 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_RXD2 | | | | | N17 | | | | | | RGMII1_RXD2 | SPIS1_MISO | SPIM1_MISO | HPS_GPIO60 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_RXD3 | | | | | K18 | | | | | | RGMII1_RXD3 | SPIS1_SS0 | SPIM1_SS0 | HPS_GPIO61 |
| | | VCCA_FPLL | | | | | T17 | | | | | | | | | |
| | | VCCD_FPLL | | | | | T16 | | | | | | | | | |
| | | DNU | | | | | P19 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK19p | | DIFFIO_RX_T31p | DIFFOUT_T31p | C18 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK19n | | DIFFIO_RX_T31n | DIFFOUT_T31n | D18 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK18p | | DIFFIO_RX_T33p | DIFFOUT_T33p | D19 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK18n | | DIFFIO_RX_T33n | DIFFOUT_T33n | E19 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT2,FPLL_TC_FBp,FPLL_TC_FB1 | | DIFFIO_RX_T35p | DIFFOUT_T35p | A18 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT3,FPLL_TC_FBn | | DIFFIO_RX_T35n | DIFFOUT_T35n | B19 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT0,FPLL_TC_CLKOUTp,FPLL_TC_FB0 | | DIFFIO_TX_T36p | DIFFOUT_T36p | G19 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT1,FPLL_TC_CLKOUTn | | DIFFIO_TX_T36n | DIFFOUT_T36n | H19 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK17p | | DIFFIO_RX_T37p | DIFFOUT_T37p | C20 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK17n | | DIFFIO_RX_T37n | DIFFOUT_T37n | D20 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK16p | | DIFFIO_RX_T39p | DIFFOUT_T39p | A20 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK16n | | DIFFIO_RX_T39n | DIFFOUT_T39n | A21 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | | | | | K19 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | VREFB8DN0 | | | | L19 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T54p | DIFFOUT_T54p | K20 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T54n | DIFFOUT_T54n | L20 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T55p | DIFFOUT_T55p | P20 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T56p | DIFFOUT_T56p | E20 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T56n | DIFFOUT_T56n | F20 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T57p | DIFFOUT_T57p | G20 | DQ1T | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1152 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T58p | DIFFOUT_T58p | B21 | DQS1T/CQ1T/CQn1T/QKn1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T58n | DIFFOUT_T58n | C21 | DQSn1T/QK1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T59p | DIFFOUT_T59p | N20 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T60p | DIFFOUT_T60p | H21 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T60n | DIFFOUT_T60n | J20 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T61p | DIFFOUT_T61p | E21 | DQ1T | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T62p | DIFFOUT_T62p | J21 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T62n | DIFFOUT_T62n | K21 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | | | N21 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | VREFB8CN0 | | | | P21 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T63p | DIFFOUT_T63p | M21 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T63n | DIFFOUT_T63n | M20 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T64p | DIFFOUT_T64p | F21 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T65p | DIFFOUT_T65p | D22 | DQS2T/CQ2T/CQn2T/QKn2T | DQS1T/CQ1T/CQn1T/QKn1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T65n | DIFFOUT_T65n | E22 | DQSn2T/QK2T | DQSn1T/QK1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T66p | DIFFOUT_T66p | N22 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T67p | DIFFOUT_T67p | A24 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T67n | DIFFOUT_T67n | A23 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T68p | DIFFOUT_T68p | E23 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T68n | DIFFOUT_T68n | F23 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T69p | DIFFOUT_T69p | G23 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T69n | DIFFOUT_T69n | H23 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T70p | DIFFOUT_T70p | P22 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T71p | DIFFOUT_T71p | G22 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T71n | DIFFOUT_T71n | H22 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T72p | DIFFOUT_T72p | J23 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T73p | DIFFOUT_T73p | K22 | DQS3T/CQ3T/CQn3T/QKn3T | DQ1T | DQS1T/CQ1T/CQn1T/QKn1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T73n | DIFFOUT_T73n | L22 | DQSn3T/QK3T | DQ1T | DQSn1T/QK1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T74p | DIFFOUT_T74p | N23 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T75p | DIFFOUT_T75p | L23 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T75n | DIFFOUT_T75n | M23 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T76p | DIFFOUT_T76p | K23 | DQ3T | DQ1T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T77p | DIFFOUT_T77p | B23 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T77n | DIFFOUT_T77n | C24 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T78p | DIFFOUT_T78p | M24 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T79p | DIFFOUT_T79p | C23 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T79n | DIFFOUT_T79n | D23 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T80p | DIFFOUT_T80p | G24 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T81p | DIFFOUT_T81p | C25 | DQS4T/CQ4T/CQn4T/QKn4T | DQS2T/CQ2T/CQn2T/QKn2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T81n | DIFFOUT_T81n | D24 | DQSn4T/QK4T | DQSn2T/QK2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T82p | DIFFOUT_T82p | P24 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T83p | DIFFOUT_T83p | E24 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T83n | DIFFOUT_T83n | D25 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T84p | DIFFOUT_T84p | H24 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T85p | DIFFOUT_T85p | A25 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T85n | DIFFOUT_T85n | A26 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | | | M25 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | VREFB8BN0 | | | | N25 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T86p | DIFFOUT_T86p | B26 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T86n | DIFFOUT_T86n | C26 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T87p | DIFFOUT_T87p | A27 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T87n | DIFFOUT_T87n | A28 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T88p | DIFFOUT_T88p | D26 | DQS5T/CQ5T/CQn5T/QKn5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T88n | DIFFOUT_T88n | E26 | DQSn5T/QK5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T89p | DIFFOUT_T89p | K24 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T89n | DIFFOUT_T89n | L24 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T90p | DIFFOUT_T90p | F26 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T90n | DIFFOUT_T90n | F25 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T91p | DIFFOUT_T91p | G26 | DQ5T | DQ2T | DQ1T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T91n | DIFFOUT_T91n | G25 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T92p | DIFFOUT_T92p | B27 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T92n | DIFFOUT_T92n | C28 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T93p | DIFFOUT_T93p | J25 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T93n | DIFFOUT_T93n | K25 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T94p | DIFFOUT_T94p | B29 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T94n | DIFFOUT_T94n | C29 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T95p | DIFFOUT_T95p | A29 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T95n | DIFFOUT_T95n | A30 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T96p | DIFFOUT_T96p | A31 | DQS6T/CQ6T/CQn6T/QKn6T | DQS3T/CQ3T/CQn3T/QKn3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T96n | DIFFOUT_T96n | B30 | DQSn6T/QK6T | DQSn3T/QK3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T97p | DIFFOUT_T97p | J26 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T97n | DIFFOUT_T97n | K26 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T98p | DIFFOUT_T98p | A33 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T98n | DIFFOUT_T98n | A32 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T99p | DIFFOUT_T99p | C33 | DQ6T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T99n | DIFFOUT_T99n | B32 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T100p | DIFFOUT_T100p | D27 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T100n | DIFFOUT_T100n | D28 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T101p | DIFFOUT_T101p | L26 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T101n | DIFFOUT_T101n | M26 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T102p | DIFFOUT_T102p | E27 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T102n | DIFFOUT_T102n | F27 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T103p | DIFFOUT_T103p | F28 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T103n | DIFFOUT_T103n | G28 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T104p | DIFFOUT_T104p | C32 | DQS7T/CQ7T/CQn7T/QKn7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T104n | DIFFOUT_T104n | C31 | DQSn7T/QK7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T105p | DIFFOUT_T105p | L27 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T105n | DIFFOUT_T105n | M28 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK23p | | DIFFIO_RX_T106p | DIFFOUT_T106p | D31 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK23n | | DIFFIO_RX_T106n | DIFFOUT_T106n | E31 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T107p | DIFFOUT_T107p | E30 | DQ7T | DQ3T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T107n | DIFFOUT_T107n | F29 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK22p | | DIFFIO_RX_T108p | DIFFOUT_T108p | G29 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK22n | | DIFFIO_RX_T108n | DIFFOUT_T108n | H29 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | VREFB8AN0 | | | | N26 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT2,FPLL_TL_FBp,FPLL_TL_FB1 | | DIFFIO_RX_T109p | DIFFOUT_T109p | J29 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT3,FPLL_TL_FBn | | DIFFIO_RX_T109n | DIFFOUT_T109n | J28 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT0,FPLL_TL_CLKOUTp,FPLL_TL_FB0 | | DIFFIO_TX_T110p | DIFFOUT_T110p | K29 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT1,FPLL_TL_CLKOUTn | | DIFFIO_TX_T110n | DIFFOUT_T110n | L29 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK21p | | DIFFIO_RX_T111p | DIFFOUT_T111p | J27 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK21n | | DIFFIO_RX_T111n | DIFFOUT_T111n | K28 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK20p | | DIFFIO_RX_T113p | DIFFOUT_T113p | H26 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK20n | | DIFFIO_RX_T113n | DIFFOUT_T113n | H27 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | RZQ_6 | | DIFFIO_TX_T114n | DIFFOUT_T114n | D29 | | | | | | | | | |
| 8A | | MSEL0 | | MSEL0 | | | B34 | | | | | | | | | |
| 8A | | MSEL1 | | MSEL1 | | | C34 | | | | | | | | | |
| 8A | | MSEL2 | | MSEL2 | | | D34 | | | | | | | | | |
| 8A | | MSEL3 | | MSEL3 | | | K30 | | | | | | | | | |
| 8A | | MSEL4 | | MSEL4 | | | D32 | | | | | | | | | |
| 8A | | CONF_DONE | | CONF_DONE | | | D33 | | | | | | | | | |
| 8A | | nSTATUS | | nSTATUS | | | N27 | | | | | | | | | |
| 8A | | nCE | | nCE | | | H30 | | | | | | | | | |
| 8A | | nCONFIG | | nCONFIG | | | M29 | | | | | | | | | |
| | | GND | | | | | F30 | | | | | | | | | |
| | | VCC_HPS | | | | | U16 | | | | | | | | | |
| | | GND | | | | | U15 | | | | | | | | | |
| | | GND | | | | | AA26 | | | | | | | | | |
| | | GND | | | | | AA29 | | | | | | | | | |
| | | GND | | | | | AA33 | | | | | | | | | |
| | | GND | | | | | AA34 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1152 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GND | | | | | AB27 | | | | | | | | | |
| | | GND | | | | | AB28 | | | | | | | | | |
| | | GND | | | | | AB30 | | | | | | | | | |
| | | GND | | | | | AB31 | | | | | | | | | |
| | | GND | | | | | AB32 | | | | | | | | | |
| | | GND | | | | | AC30 | | | | | | | | | |
| | | GND | | | | | AC33 | | | | | | | | | |
| | | GND | | | | | AC34 | | | | | | | | | |
| | | GND | | | | | AD31 | | | | | | | | | |
| | | GND | | | | | AD32 | | | | | | | | | |
| | | GND | | | | | AE30 | | | | | | | | | |
| | | GND | | | | | AE33 | | | | | | | | | |
| | | GND | | | | | AE34 | | | | | | | | | |
| | | GND | | | | | AF31 | | | | | | | | | |
| | | GND | | | | | AF32 | | | | | | | | | |
| | | GND | | | | | AG30 | | | | | | | | | |
| | | GND | | | | | AG33 | | | | | | | | | |
| | | GND | | | | | AG34 | | | | | | | | | |
| | | GND | | | | | AH31 | | | | | | | | | |
| | | GND | | | | | AH32 | | | | | | | | | |
| | | GND | | | | | AJ30 | | | | | | | | | |
| | | GND | | | | | AJ33 | | | | | | | | | |
| | | GND | | | | | AJ34 | | | | | | | | | |
| | | GND | | | | | AK31 | | | | | | | | | |
| | | GND | | | | | AK32 | | | | | | | | | |
| | | GND | | | | | AL33 | | | | | | | | | |
| | | GND | | | | | AL34 | | | | | | | | | |
| | | GND | | | | | E34 | | | | | | | | | |
| | | GND | | | | | F31 | | | | | | | | | |
| | | GND | | | | | F32 | | | | | | | | | |
| | | GND | | | | | G30 | | | | | | | | | |
| | | GND | | | | | G33 | | | | | | | | | |
| | | GND | | | | | G34 | | | | | | | | | |
| | | GND | | | | | H31 | | | | | | | | | |
| | | GND | | | | | H32 | | | | | | | | | |
| | | GND | | | | | J30 | | | | | | | | | |
| | | GND | | | | | J33 | | | | | | | | | |
| | | GND | | | | | J34 | | | | | | | | | |
| | | GND | | | | | K31 | | | | | | | | | |
| | | GND | | | | | K32 | | | | | | | | | |
| | | GND | | | | | L30 | | | | | | | | | |
| | | GND | | | | | L33 | | | | | | | | | |
| | | GND | | | | | L34 | | | | | | | | | |
| | | GND | | | | | M30 | | | | | | | | | |
| | | GND | | | | | M31 | | | | | | | | | |
| | | GND | | | | | M32 | | | | | | | | | |
| | | GND | | | | | N28 | | | | | | | | | |
| | | GND | | | | | N29 | | | | | | | | | |
| | | GND | | | | | N33 | | | | | | | | | |
| | | GND | | | | | N34 | | | | | | | | | |
| | | GND | | | | | P27 | | | | | | | | | |
| | | GND | | | | | P31 | | | | | | | | | |
| | | GND | | | | | P32 | | | | | | | | | |
| | | GND | | | | | R28 | | | | | | | | | |
| | | GND | | | | | R30 | | | | | | | | | |
| | | GND | | | | | R33 | | | | | | | | | |
| | | GND | | | | | R34 | | | | | | | | | |
| | | GND | | | | | T27 | | | | | | | | | |
| | | GND | | | | | T29 | | | | | | | | | |
| | | GND | | | | | T31 | | | | | | | | | |
| | | GND | | | | | T32 | | | | | | | | | |
| | | GND | | | | | U28 | | | | | | | | | |
| | | GND | | | | | U33 | | | | | | | | | |
| | | GND | | | | | U34 | | | | | | | | | |
| | | GND | | | | | V27 | | | | | | | | | |
| | | GND | | | | | V31 | | | | | | | | | |
| | | GND | | | | | V32 | | | | | | | | | |
| | | GND | | | | | W28 | | | | | | | | | |
| | | GND | | | | | W30 | | | | | | | | | |
| | | GND | | | | | W33 | | | | | | | | | |
| | | GND | | | | | W34 | | | | | | | | | |
| | | GND | | | | | Y27 | | | | | | | | | |
| | | GND | | | | | Y29 | | | | | | | | | |
| | | GND | | | | | Y31 | | | | | | | | | |
| | | GND | | | | | Y32 | | | | | | | | | |
| | | GND | | | | | AA1 | | | | | | | | | |
| | | GND | | | | | AA2 | | | | | | | | | |
| | | GND | | | | | AB3 | | | | | | | | | |
| | | GND | | | | | AB4 | | | | | | | | | |
| | | GND | | | | | AC1 | | | | | | | | | |
| | | GND | | | | | AC2 | | | | | | | | | |
| | | GND | | | | | AC5 | | | | | | | | | |
| | | GND | | | | | AD3 | | | | | | | | | |
| | | GND | | | | | AD4 | | | | | | | | | |
| | | GND | | | | | AE1 | | | | | | | | | |
| | | GND | | | | | AE2 | | | | | | | | | |
| | | GND | | | | | AE5 | | | | | | | | | |
| | | GND | | | | | AF3 | | | | | | | | | |
| | | GND | | | | | AF4 | | | | | | | | | |
| | | GND | | | | | AG1 | | | | | | | | | |
| | | GND | | | | | AG2 | | | | | | | | | |
| | | GND | | | | | AG5 | | | | | | | | | |
| | | GND | | | | | AH3 | | | | | | | | | |
| | | GND | | | | | AH4 | | | | | | | | | |
| | | GND | | | | | AJ1 | | | | | | | | | |
| | | GND | | | | | AJ2 | | | | | | | | | |
| | | GND | | | | | AJ5 | | | | | | | | | |
| | | GND | | | | | AK3 | | | | | | | | | |
| | | GND | | | | | AK4 | | | | | | | | | |
| | | GND | | | | | AL1 | | | | | | | | | |
| | | GND | | | | | AL2 | | | | | | | | | |
| | | GND | | | | | AL3 | | | | | | | | | |
| | | GND | | | | | AN1 | | | | | | | | | |
| | | GND | | | | | V3 | | | | | | | | | |
| | | GND | | | | | V4 | | | | | | | | | |
| | | GND | | | | | V7 | | | | | | | | | |
| | | GND | | | | | W1 | | | | | | | | | |
| | | GND | | | | | W2 | | | | | | | | | |
| | | GND | | | | | W5 | | | | | | | | | |
| | | GND | | | | | Y3 | | | | | | | | | |
| | | GND | | | | | Y4 | | | | | | | | | |
| | | GND | | | | | Y6 | | | | | | | | | |
| | | GND | | | | | Y8 | | | | | | | | | |
| | | VCCP | | | | | R18 | | | | | | | | | |
| | | VCCP | | | | | T21 | | | | | | | | | |
| | | VCCP | | | | | V25 | | | | | | | | | |
| | | VCCP | | | | | W10 | | | | | | | | | |
| | | VCCP | | | | | Y10 | | | | | | | | | |
| | | VCCP | | | | | Y12 | | | | | | | | | |
| | | VCCP | | | | | Y22 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1152 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | VCCP | | | | | Y24 | | | | | | | | | |
| | | VCCP | | | | | Y25 | | | | | | | | | |
| | | VCCA_FPLL | | | | | V26 | | | | | | | | | |
| | | VCCA_FPLL | | | | | V9 | | | | | | | | | |
| | | VCCA_FPLL | | | | | T26 | | | | | | | | | |
| | | VCCPLL_HPS | | | | | M9 | | | | | | | | | |
| | | VCCBAT | | | | | M27 | | | | | | | | | |
| | | VCC_AUX | | | | | AA24 | | | | | | | | | |
| | | VCC_AUX | | | | | Y11 | | | | | | | | | |
| | | VCC_AUX | | | | | R24 | | | | | | | | | |
| | | VCC_AUX_SHARED | | | | | R12 | | | | | | | | | |
| | | VCCD_FPLL | | | | | Y26 | | | | | | | | | |
| | | VCCD_FPLL | | | | | Y9 | | | | | | | | | |
| | | VCCD_FPLL | | | | | P26 | | | | | | | | | |
| | | VCCA_GXBL0 | | | | | Y28 | | | | | | | | | |
| | | VCCA_GXBR0 | | | | | Y7 | | | | | | | | | |
| | | VCCA_GXBL1 | | | | | T28 | | | | | | | | | |
| | | VCCH_GXBL0 | | | | | V28 | | | | | | | | | |
| | | VCCH_GXBR0 | | | | | V6 | | | | | | | | | |
| | | VCCH_GXBL1 | | | | | P28 | | | | | | | | | |
| | | VCCL_GXBL0 | | | | | V29 | | | | | | | | | |
| | | VCCL_GXBL0 | | | | | V30 | | | | | | | | | |
| | | VCCL_GXBR0 | | | | | V5 | | | | | | | | | |
| | | VCCL_GXBR0 | | | | | Y5 | | | | | | | | | |
| | | VCCL_GXBL1 | | | | | P29 | | | | | | | | | |
| | | VCCL_GXBL1 | | | | | P30 | | | | | | | | | |
| | | VCCR_GXBL | | | | | AA30 | | | | | | | | | |
| | | VCCR_GXBL | | | | | AB29 | | | | | | | | | |
| | | VCCR_GXBL | | | | | N30 | | | | | | | | | |
| | | VCCR_GXBL | | | | | R29 | | | | | | | | | |
| | | VCCR_GXBR | | | | | AA5 | | | | | | | | | |
| | | VCCR_GXBR | | | | | AB6 | | | | | | | | | |
| | | VCCR_GXBR | | | | | AB5 | | | | | | | | | |
| | | VCCT_GXBL0 | | | | | T30 | | | | | | | | | |
| | | VCCT_GXBL0 | | | | | U29 | | | | | | | | | |
| | | VCCT_GXBL0 | | | | | U30 | | | | | | | | | |
| | | VCCT_GXBR0 | | | | | W6 | | | | | | | | | |
| | | VCCT_GXBR0 | | | | | AA6 | | | | | | | | | |
| | | VCCT_GXBL1 | | | | | W29 | | | | | | | | | |
| | | VCCT_GXBL1 | | | | | Y30 | | | | | | | | | |
| | | VCC | | | | | AA20 | | | | | | | | | |
| | | VCC | | | | | T19 | | | | | | | | | |
| | | VCC | | | | | T23 | | | | | | | | | |
| | | VCC | | | | | T25 | | | | | | | | | |
| | | VCC | | | | | V24 | | | | | | | | | |
| | | VCC | | | | | U18 | | | | | | | | | |
| | | VCC | | | | | U20 | | | | | | | | | |
| | | VCC | | | | | U22 | | | | | | | | | |
| | | VCC | | | | | U24 | | | | | | | | | |
| | | VCC | | | | | V15 | | | | | | | | | |
| | | VCC | | | | | V17 | | | | | | | | | |
| | | VCC | | | | | V19 | | | | | | | | | |
| | | VCC | | | | | V20 | | | | | | | | | |
| | | VCC | | | | | V21 | | | | | | | | | |
| | | VCC | | | | | V22 | | | | | | | | | |
| | | VCC | | | | | V23 | | | | | | | | | |
| | | VCC | | | | | W16 | | | | | | | | | |
| | | VCC | | | | | W14 | | | | | | | | | |
| | | VCC | | | | | W20 | | | | | | | | | |
| | | VCC | | | | | W22 | | | | | | | | | |
| | | VCC | | | | | W24 | | | | | | | | | |
| | | VCC | | | | | Y13 | | | | | | | | | |
| | | VCC | | | | | Y14 | | | | | | | | | |
| | | VCC | | | | | Y15 | | | | | | | | | |
| | | VCC | | | | | Y16 | | | | | | | | | |
| | | VCC | | | | | Y17 | | | | | | | | | |
| | | VCC | | | | | Y19 | | | | | | | | | |
| | | VCC | | | | | Y21 | | | | | | | | | |
| | | VCC | | | | | Y23 | | | | | | | | | |
| | | VCC | | | | | W18 | | | | | | | | | |
| | | VCC_HPS | | | | | T11 | | | | | | | | | |
| | | VCC_HPS | | | | | U10 | | | | | | | | | |
| | | VCC_HPS | | | | | U12 | | | | | | | | | |
| | | VCC_HPS | | | | | U14 | | | | | | | | | |
| | | VCC_HPS | | | | | V11 | | | | | | | | | |
| | | VCC_HPS | | | | | V12 | | | | | | | | | |
| | | VCC_HPS | | | | | V13 | | | | | | | | | |
| | | VCC_HPS | | | | | W12 | | | | | | | | | |
| | | VCCIO3A | | | | | AF27 | | | | | | | | | |
| | | VCCIO3A | | | | | AF30 | | | | | | | | | |
| | | VCCIO3A | | | | | AH30 | | | | | | | | | |
| | | VCCIO3A | | | | | AJ28 | | | | | | | | | |
| | | VCCIO3A | | | | | AK30 | | | | | | | | | |
| | | VCCIO3A | | | | | AN29 | | | | | | | | | |
| | | VCCIO3B | | | | | AF25 | | | | | | | | | |
| | | VCCIO3B | | | | | AK24 | | | | | | | | | |
| | | VCCIO3B | | | | | AN24 | | | | | | | | | |
| | | VCCIO3C | | | | | AD21 | | | | | | | | | |
| | | VCCIO3C | | | | | AF21 | | | | | | | | | |
| | | VCCIO3C | | | | | AJ21 | | | | | | | | | |
| | | VCCIO3C | | | | | AM21 | | | | | | | | | |
| | | VCCIO3D | | | | | AE18 | | | | | | | | | |
| | | VCCIO3D | | | | | AH18 | | | | | | | | | |
| | | VCCIO3D | | | | | AL18 | | | | | | | | | |
| | | VCCIO4A | | | | | AD5 | | | | | | | | | |
| | | VCCIO4A | | | | | AE8 | | | | | | | | | |
| | | VCCIO4A | | | | | AF5 | | | | | | | | | |
| | | VCCIO4A | | | | | AH5 | | | | | | | | | |
| | | VCCIO4A | | | | | AK5 | | | | | | | | | |
| | | VCCIO4B | | | | | AD11 | | | | | | | | | |
| | | VCCIO4B | | | | | AF10 | | | | | | | | | |
| | | VCCIO4B | | | | | AJ10 | | | | | | | | | |
| | | VCCIO4B | | | | | AM9 | | | | | | | | | |
| | | VCCIO4C | | | | | AE13 | | | | | | | | | |
| | | VCCIO4C | | | | | AH12 | | | | | | | | | |
| | | VCCIO4C | | | | | AL12 | | | | | | | | | |
| | | VCCIO4D | | | | | AF15 | | | | | | | | | |
| | | VCCIO4D | | | | | AJ15 | | | | | | | | | |
| | | VCCIO4D | | | | | AM15 | | | | | | | | | |
| | | VCCIO4D | | | | | AN17 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | B3 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | C6 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | D3 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | D8 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | E6 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | F2 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | H5 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | H7 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | M7 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | L4 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1152 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | VCCIO6B_HPS | | | | | M1 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | N8 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | P3 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | R6 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | U5 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | V2 | | | | | | | | | |
| | | VCCIO7A_HPS | | | | | B9 | | | | | | | | | |
| | | VCCIO7A_HPS | | | | | D11 | | | | | | | | | |
| | | VCCIO7A_HPS | | | | | E13 | | | | | | | | | |
| | | VCCIO7A_HPS | | | | | K11 | | | | | | | | | |
| | | VCCIO7B_HPS | | | | | B13 | | | | | | | | | |
| | | VCCIO7B_HPS | | | | | L13 | | | | | | | | | |
| | | VCCIO7C_HPS | | | | | H15 | | | | | | | | | |
| | | VCCIO7D_HPS | | | | | E17 | | | | | | | | | |
| | | VCCIO7D_HPS | | | | | H18 | | | | | | | | | |
| | | VCCIO7E_HPS | | | | | L18 | | | | | | | | | |
| | | VCCIO8A | | | | | C27 | | | | | | | | | |
| | | VCCIO8A | | | | | C30 | | | | | | | | | |
| | | VCCIO8A | | | | | E29 | | | | | | | | | |
| | | VCCIO8A | | | | | E32 | | | | | | | | | |
| | | VCCIO8A | | | | | G27 | | | | | | | | | |
| | | VCCIO8A | | | | | K27 | | | | | | | | | |
| | | VCCIO8B | | | | | B24 | | | | | | | | | |
| | | VCCIO8B | | | | | F24 | | | | | | | | | |
| | | VCCIO8B | | | | | J24 | | | | | | | | | |
| | | VCCIO8C | | | | | B22 | | | | | | | | | |
| | | VCCIO8C | | | | | D21 | | | | | | | | | |
| | | VCCIO8C | | | | | G21 | | | | | | | | | |
| | | VCCIO8C | | | | | L21 | | | | | | | | | |
| | | VCCIO8D | | | | | B18 | | | | | | | | | |
| | | VCCIO8D | | | | | B20 | | | | | | | | | |
| | | VCCIO8D | | | | | H20 | | | | | | | | | |
| | | VCCPD3 | | | | | AA21 | | | | | | | | | |
| | | VCCPD3 | | | | | AA23 | | | | | | | | | |
| | | VCCPD3 | | | | | AB26 | | | | | | | | | |
| | | VCCPD3 | | | | | AC28 | | | | | | | | | |
| | | VCCPD4A | | | | | AB8 | | | | | | | | | |
| | | VCCPD4BCD | | | | | AA11 | | | | | | | | | |
| | | VCCPD4BCD | | | | | AA14 | | | | | | | | | |
| | | VCCPD4BCD | | | | | AA15 | | | | | | | | | |
| | | VCCPD4BCD | | | | | AB9 | | | | | | | | | |
| | | VCCPD6A6B_HPS | | | | | P9 | | | | | | | | | |
| | | VCCPD6A6B_HPS | | | | | R8 | | | | | | | | | |
| | | VCCPD6A6B_HPS | | | | | U7 | | | | | | | | | |
| | | VCCPD6A6B_HPS | | | | | U8 | | | | | | | | | |
| | | VCCPD7A_HPS | | | | | R11 | | | | | | | | | |
| | | VCCPD7B_HPS | | | | | R13 | | | | | | | | | |
| | | VCCPD7C_HPS | | | | | T15 | | | | | | | | | |
| | | VCCPD7D_HPS | | | | | R16 | | | | | | | | | |
| | | VCCPD7E_HPS | | | | | P17 | | | | | | | | | |
| | | VCCPD8 | | | | | P23 | | | | | | | | | |
| | | VCCPD8 | | | | | P25 | | | | | | | | | |
| | | VCCPD8 | | | | | R20 | | | | | | | | | |
| | | VCCPD8 | | | | | R22 | | | | | | | | | |
| | | VCCPGM | | | | | H13 | | | | | | | | | |
| | | VCCPGM | | | | | AC29 | | | | | | | | | |
| | | VCCRSTCLK_HPS | | | | | H9 | | | | | | | | | |
| | | VCC_HPS | | | | | R10 | | | | | | | | | |
| | | VCC_HPS | | | | | R14 | | | | | | | | | |
| | | VCC_HPS | | | | | T13 | | | | | | | | | |
| | | VCC_HPS | | | | | T9 | | | | | | | | | |
| | VREFB7A7B7C7D7EN0_HPS | VREFB7A7B7C7D7EN0_HPS | | | | | P15 | | | | | | | | | |
| | | GND | | | | | A19 | | | | | | | | | |
| | | GND | | | | | A22 | | | | | | | | | |
| | | GND | | | | | A5 | | | | | | | | | |
| | | GND | | | | | AA10 | | | | | | | | | |
| | | GND | | | | | AA13 | | | | | | | | | |
| | | GND | | | | | AA16 | | | | | | | | | |
| | | GND | | | | | AA19 | | | | | | | | | |
| | | GND | | | | | AA22 | | | | | | | | | |
| | | GND | | | | | AA25 | | | | | | | | | |
| | | GND | | | | | AA9 | | | | | | | | | |
| | | GND | | | | | AB7 | | | | | | | | | |
| | | GND | | | | | AC6 | | | | | | | | | |
| | | GND | | | | | AD10 | | | | | | | | | |
| | | GND | | | | | AD13 | | | | | | | | | |
| | | GND | | | | | AD16 | | | | | | | | | |
| | | GND | | | | | AD19 | | | | | | | | | |
| | | GND | | | | | AD22 | | | | | | | | | |
| | | GND | | | | | AD25 | | | | | | | | | |
| | | GND | | | | | AD28 | | | | | | | | | |
| | | GND | | | | | AD7 | | | | | | | | | |
| | | GND | | | | | AG10 | | | | | | | | | |
| | | GND | | | | | AG13 | | | | | | | | | |
| | | GND | | | | | AG16 | | | | | | | | | |
| | | GND | | | | | AG19 | | | | | | | | | |
| | | GND | | | | | AG22 | | | | | | | | | |
| | | GND | | | | | AG25 | | | | | | | | | |
| | | GND | | | | | AG28 | | | | | | | | | |
| | | GND | | | | | AG7 | | | | | | | | | |
| | | GND | | | | | AK10 | | | | | | | | | |
| | | GND | | | | | AK13 | | | | | | | | | |
| | | GND | | | | | AK16 | | | | | | | | | |
| | | GND | | | | | AK19 | | | | | | | | | |
| | | GND | | | | | AK22 | | | | | | | | | |
| | | GND | | | | | AK25 | | | | | | | | | |
| | | GND | | | | | AK28 | | | | | | | | | |
| | | GND | | | | | AK7 | | | | | | | | | |
| | | GND | | | | | AN10 | | | | | | | | | |
| | | GND | | | | | AN13 | | | | | | | | | |
| | | GND | | | | | AN16 | | | | | | | | | |
| | | GND | | | | | AN19 | | | | | | | | | |
| | | GND | | | | | AN22 | | | | | | | | | |
| | | GND | | | | | AN25 | | | | | | | | | |
| | | GND | | | | | AN28 | | | | | | | | | |
| | | GND | | | | | AN31 | | | | | | | | | |
| | | GND | | | | | AN4 | | | | | | | | | |
| | | GND | | | | | AN7 | | | | | | | | | |
| | | GND | | | | | B11 | | | | | | | | | |
| | | GND | | | | | B16 | | | | | | | | | |
| | | GND | | | | | B2 | | | | | | | | | |
| | | GND | | | | | B25 | | | | | | | | | |
| | | GND | | | | | B28 | | | | | | | | | |
| | | GND | | | | | B31 | | | | | | | | | |
| | | GND | | | | | B33 | | | | | | | | | |
| | | GND | | | | | B8 | | | | | | | | | |
| | | GND | | | | | C19 | | | | | | | | | |
| | | GND | | | | | C22 | | | | | | | | | |
| | | GND | | | | | C5 | | | | | | | | | |
| | | GND | | | | | D2 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1152 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GND | | | | | D30 | | | | | | | | | |
| | | GND | | | | | E14 | | | | | | | | | |
| | | GND | | | | | E25 | | | | | | | | | |
| | | GND | | | | | E28 | | | | | | | | | |
| | | GND | | | | | E8 | | | | | | | | | |
| | | GND | | | | | F19 | | | | | | | | | |
| | | GND | | | | | F22 | | | | | | | | | |
| | | GND | | | | | F5 | | | | | | | | | |
| | | GND | | | | | G11 | | | | | | | | | |
| | | GND | | | | | G2 | | | | | | | | | |
| | | GND | | | | | H25 | | | | | | | | | |
| | | GND | | | | | H28 | | | | | | | | | |
| | | GND | | | | | H8 | | | | | | | | | |
| | | GND | | | | | J13 | | | | | | | | | |
| | | GND | | | | | J19 | | | | | | | | | |
| | | GND | | | | | J22 | | | | | | | | | |
| | | GND | | | | | J5 | | | | | | | | | |
| | | GND | | | | | K16 | | | | | | | | | |
| | | GND | | | | | K2 | | | | | | | | | |
| | | GND | | | | | L25 | | | | | | | | | |
| | | GND | | | | | L28 | | | | | | | | | |
| | | GND | | | | | L8 | | | | | | | | | |
| | | GND | | | | | M19 | | | | | | | | | |
| | | GND | | | | | M22 | | | | | | | | | |
| | | GND | | | | | M5 | | | | | | | | | |
| | | GND | | | | | N11 | | | | | | | | | |
| | | GND | | | | | N15 | | | | | | | | | |
| | | GND | | | | | N2 | | | | | | | | | |
| | | GND | | | | | N24 | | | | | | | | | |
| | | GND | | | | | P13 | | | | | | | | | |
| | | GND | | | | | P18 | | | | | | | | | |
| | | GND | | | | | P8 | | | | | | | | | |
| | | GND | | | | | V18 | | | | | | | | | |
| | | GND | | | | | V14 | | | | | | | | | |
| | | GND | | | | | V16 | | | | | | | | | |
| | | GND | | | | | V8 | | | | | | | | | |
| | | GND | | | | | W11 | | | | | | | | | |
| | | GND | | | | | W13 | | | | | | | | | |
| | | GND | | | | | W15 | | | | | | | | | |
| | | GND | | | | | W17 | | | | | | | | | |
| | | GND | | | | | W19 | | | | | | | | | |
| | | GND | | | | | W21 | | | | | | | | | |
| | | GND | | | | | W23 | | | | | | | | | |
| | | GND | | | | | W25 | | | | | | | | | |
| | | GND | | | | | W9 | | | | | | | | | |
| | | GND | | | | | Y18 | | | | | | | | | |
| | | GND | | | | | Y20 | | | | | | | | | |
| | | GND | | | | | R17 | | | | | | | | | |
| | | GND | | | | | R19 | | | | | | | | | |
| | | GND | | | | | R21 | | | | | | | | | |
| | | GND | | | | | R23 | | | | | | | | | |
| | | GND | | | | | R25 | | | | | | | | | |
| | | GND | | | | | R5 | | | | | | | | | |
| | | GND | | | | | R9 | | | | | | | | | |
| | | GND | | | | | T10 | | | | | | | | | |
| | | GND | | | | | T12 | | | | | | | | | |
| | | GND | | | | | T14 | | | | | | | | | |
| | | GND | | | | | T18 | | | | | | | | | |
| | | GND | | | | | T2 | | | | | | | | | |
| | | GND | | | | | T20 | | | | | | | | | |
| | | GND | | | | | T22 | | | | | | | | | |
| | | GND | | | | | T24 | | | | | | | | | |
| | | GND | | | | | U11 | | | | | | | | | |
| | | GND | | | | | U13 | | | | | | | | | |
| | | GND | | | | | U17 | | | | | | | | | |
| | | GND | | | | | U19 | | | | | | | | | |
| | | GND | | | | | U21 | | | | | | | | | |
| | | GND | | | | | U23 | | | | | | | | | |
| | | GND | | | | | U25 | | | | | | | | | |
| | | GND | | | | | U6 | | | | | | | | | |
| | | GND | | | | | U9 | | | | | | | | | |
| | | GND | | | | | V10 | | | | | | | | | |

Notes:
(1) For more information about pin definitions and pin connection guidelines, refer to the Arria V Device Family Pin Connection Guidelines.
(2) GXB_REFCLK pin is not supported in current Quartus II version, but will be supported in future Quartus II release version.
(3) Pins with * contains similar name with other pins in the same column. For the selection of the HPS pins, refer to the "HPS Pin Mux Select x" columns.
(4) Pins with * are the 10 Gbps transceiver channels. For more information about the 10 Gbps transceiver channels clocking recommendation, refer to the Transceiver Clocking in Arria V Devices chapter.
(5) RESET pin is only applicable for DDR3 device.

| Bank Number | VREF | PinName/Function *(2)*, *(3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DNU | | | | | A38 | | | | | | | | | |
| | | DNU | | | | | B38 | | | | | | | | | |
| | | RREF_TL | | | | | B39 | | | | | | | | | |
| GXB_L2 | | REFCLK5Ln | | | | | U32 | | | | | | | | | |
| GXB_L2 | | REFCLK5Lp | | | | | U31 | | | | | | | | | |
| GXB_L2 | | GXB_TX_L17n | | | | | C36 | | | | | | | | | |
| GXB_L2 | | GXB_TX_L17p | | | | | C37 | | | | | | | | | |
| GXB_L2 | | GXB_RX_L17p,GXB_REFCLK_L17p | | | | | D39 | | | | | | | | | |
| GXB_L2 | | GXB_RX_L17n,GXB_REFCLK_L17n | | | | | D38 | | | | | | | | | |
| GXB_L2 | | GXB_TX_L16n | | | | | E36 | | | | | | | | | |
| GXB_L2 | | GXB_TX_L16p | | | | | E37 | | | | | | | | | |
| GXB_L2 | | GXB_RX_L16p,GXB_REFCLK_L16p | | | | | F39 | | | | | | | | | |
| GXB_L2 | | GXB_RX_L16n,GXB_REFCLK_L16n | | | | | F38 | | | | | | | | | |
| GXB_L2 | | GXB_TX_L15n | | | | | G36 | | | | | | | | | |
| GXB_L2 | | GXB_TX_L15p | | | | | G37 | | | | | | | | | |
| GXB_L2 | | GXB_RX_L15p,GXB_REFCLK_L15p | | | | | H39 | | | | | | | | | |
| GXB_L2 | | GXB_RX_L15n,GXB_REFCLK_L15n | | | | | H38 | | | | | | | | | |
| GXB_L2 | | GXB_TX_L14n | | | | | J36 | | | | | | | | | |
| GXB_L2 | | GXB_TX_L14p | | | | | J37 | | | | | | | | | |
| GXB_L2 | | GXB_RX_L14p,GXB_REFCLK_L14p | | | | | K39 | | | | | | | | | |
| GXB_L2 | | GXB_RX_L14n,GXB_REFCLK_L14n | | | | | K38 | | | | | | | | | |
| GXB_L2 | | GXB_TX_L13n | | | | | L36 | | | | | | | | | |
| GXB_L2 | | GXB_TX_L13p | | | | | L37 | | | | | | | | | |
| GXB_L2 | | GXB_RX_L13p,GXB_REFCLK_L13p | | | | | M39 | | | | | | | | | |
| GXB_L2 | | GXB_RX_L13n,GXB_REFCLK_L13n | | | | | M38 | | | | | | | | | |
| GXB_L2 | | GXB_TX_L12n | | | | | N36 | | | | | | | | | |
| GXB_L2 | | GXB_TX_L12p | | | | | N37 | | | | | | | | | |
| GXB_L2 | | GXB_RX_L12p,GXB_REFCLK_L12p | | | | | P39 | | | | | | | | | |
| GXB_L2 | | GXB_RX_L12n,GXB_REFCLK_L12n | | | | | P38 | | | | | | | | | |
| GXB_L2 | | REFCLK4Ln | | | | | W32 | | | | | | | | | |
| GXB_L2 | | REFCLK4Lp | | | | | W31 | | | | | | | | | |
| GXB_L1 | | REFCLK3Ln | | | | | AA32 | | | | | | | | | |
| GXB_L1 | | REFCLK3Lp | | | | | AA31 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L11n | | | | | R36 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L11p | | | | | R37 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L11p,GXB_REFCLK_L11p | | | | | T39 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L11n,GXB_REFCLK_L11n | | | | | T38 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L10n | | | | | U36 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L10p | | | | | U37 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L10p,GXB_REFCLK_L10p | | | | | V39 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L10n,GXB_REFCLK_L10n | | | | | V38 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L9n | | | | | W36 | | | | | | | | | |
| GXB_L1 | | GXB_TX_L9p | | | | | W37 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L9p,GXB_REFCLK_L9p | | | | | Y39 | | | | | | | | | |
| GXB_L1 | | GXB_RX_L9n,GXB_REFCLK_L9n | | | | | Y38 | | | | | | | | | |
| | | DNU | | | | | AA36 | | | | | | | | | |
| | | DNU | | | | | AA37 | | | | | | | | | |
| | | GND | | | | | AB39 | | | | | | | | | |
| | | GND | | | | | AB38 | | | | | | | | | |
| | | DNU | | | | | AC36 | | | | | | | | | |
| | | DNU | | | | | AC37 | | | | | | | | | |
| | | GND | | | | | AD39 | | | | | | | | | |
| | | GND | | | | | AD38 | | | | | | | | | |
| | | DNU | | | | | AE36 | | | | | | | | | |
| | | DNU | | | | | AE37 | | | | | | | | | |
| | | GND | | | | | AF39 | | | | | | | | | |
| | | GND | | | | | AF38 | | | | | | | | | |
| | | GND | | | | | AC32 | | | | | | | | | |
| | | GND | | | | | AC31 | | | | | | | | | |
| | | GND | | | | | AE32 | | | | | | | | | |
| | | GND | | | | | AE31 | | | | | | | | | |
| | | DNU | | | | | AG36 | | | | | | | | | |
| | | DNU | | | | | AG37 | | | | | | | | | |
| | | GND | | | | | AH39 | | | | | | | | | |
| | | GND | | | | | AH38 | | | | | | | | | |
| | | DNU | | | | | AJ36 | | | | | | | | | |
| | | DNU | | | | | AJ37 | | | | | | | | | |
| | | GND | | | | | AK39 | | | | | | | | | |
| | | GND | | | | | AK38 | | | | | | | | | |
| | | DNU | | | | | AL36 | | | | | | | | | |
| | | DNU | | | | | AL37 | | | | | | | | | |
| | | GND | | | | | AM39 | | | | | | | | | |
| | | GND | | | | | AM38 | | | | | | | | | |
| | | DNU | | | | | AN36 | | | | | | | | | |
| | | DNU | | | | | AN37 | | | | | | | | | |
| | | GND | | | | | AP39 | | | | | | | | | |
| | | GND | | | | | AP38 | | | | | | | | | |
| | | DNU | | | | | AR36 | | | | | | | | | |
| | | DNU | | | | | AR37 | | | | | | | | | |
| | | GND | | | | | AT39 | | | | | | | | | |
| | | GND | | | | | AT38 | | | | | | | | | |
| | | DNU | | | | | AU36 | | | | | | | | | |
| | | DNU | | | | | AU37 | | | | | | | | | |
| | | GND | | | | | AW37 | | | | | | | | | |
| | | GND | | | | | AW36 | | | | | | | | | |
| | | GND | | | | | AG33 | | | | | | | | | |
| | | GND | | | | | AG32 | | | | | | | | | |
| | | DNU | | | | | AH31 | | | | | | | | | |
| 3A | | TDO | | TDO | | | AT34 | | | | | | | | | |
| 3A | | TMS | | TMS | | | AM35 | | | | | | | | | |
| 3A | | TCK | | TCK | | | AV34 | | | | | | | | | |
| 3A | | TDI | | TDI | | | AT33 | | | | | | | | | |
| 3A | | DCLK | | DCLK | | | AW34 | | | | | | | | | |
| 3A | | nCSO | | DATA4 | | | AR34 | | | | | | | | | |
| 3A | | AS_DATA3 | | DATA3 | | | AU34 | | | | | | | | | |
| 3A | | AS_DATA2 | | DATA2 | | | AR33 | | | | | | | | | |
| 3A | | AS_DATA1 | | DATA1 | | | AU33 | | | | | | | | | |
| 3A | | AS_DATA0,ASDO | | DATA0 | | | AV33 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | RZQ_0 | | DIFFIO_TX_B1n | DIFFOUT_B1n | AN33 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B1p | DIFFOUT_B1p | AP33 | DQ1B | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK0n | | DIFFIO_RX_B2n | DIFFOUT_B2n | AN34 | DQ1B | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK0p | | DIFFIO_RX_B2p | DIFFOUT_B2p | AP34 | DQ1B | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B3n | DIFFOUT_B3n | AK32 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B3p | DIFFOUT_B3p | AL32 | DQ1B | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK1n | | DIFFIO_RX_B4n | DIFFOUT_B4n | AJ34 | DQSn1B/QK1B | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK1p | | DIFFIO_RX_B4p | DIFFOUT_B4p | AK34 | DQS1B/CQ1B/CQn1B/QKn1B | | | | | | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT1,FPLL_BL_CLKOUTn | | DIFFIO_TX_B5n | DIFFOUT_B5n | AL34 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT0,FPLL_BL_CLKOUTp,FPLL_BL_FB0 | | DIFFIO_TX_B5p | DIFFOUT_B5p | AM34 | DQ1B | | | | | | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT3,FPLL_BL_FBn | | DIFFIO_RX_B6n | DIFFOUT_B6n | AJ33 | DQ1B | | | | | | | | |
| 3A | VREFB3AN0 | IO | FPLL_BL_CLKOUT2,FPLL_BL_FBp,FPLL_BL_FB1 | | DIFFIO_RX_B6p | DIFFOUT_B6p | AK33 | DQ1B | | | | | | | | |
| 3A | VREFB3AN0 | IO | VREFB3AN0 | | | | AJ31 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | | | AK31 | DQ1B | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK2n | | DIFFIO_RX_B7n | DIFFOUT_B7n | AL33 | DQ1B | | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK2p | | DIFFIO_RX_B7p | DIFFOUT_B7p | AM33 | DQ1B | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B8n | DIFFOUT_B8n | AN32 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B8p | DIFFOUT_B8p | AP32 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK3n | | DIFFIO_RX_B9n | DIFFOUT_B9n | AT32 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | CLK3p | | DIFFIO_RX_B9p | DIFFOUT_B9p | AU32 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B10n | DIFFOUT_B10n | AL31 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B10p | DIFFOUT_B10p | AM31 | DQ2B | DQ1B | | | | | | | |

| Bank Number | VREF | PinName/Function *(2)*, *(3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B11n | DIFFOUT_B11n | AW33 | DQSn2B/QK2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B11p | DIFFOUT_B11p | AW32 | DQS2B/CQ2B/CQn2B/QKn2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B12n | DIFFOUT_B12n | AN31 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B12p | DIFFOUT_B12p | AP31 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B13n | DIFFOUT_B13n | AR31 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B13p | DIFFOUT_B13p | AT31 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B14n | DIFFOUT_B14n | AD29 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B14p | DIFFOUT_B14p | AE29 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B15n | DIFFOUT_B15n | AG30 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B15p | DIFFOUT_B15p | AH30 | DQ2B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B16n | DIFFOUT_B16n | AU31 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B16p | DIFFOUT_B16p | AV31 | DQ3B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B17n | DIFFOUT_B17n | AW30 | DQ3B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B17p | DIFFOUT_B17p | AW31 | DQ3B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B18n | DIFFOUT_B18n | AK30 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B18p | DIFFOUT_B18p | AL30 | DQ3B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B19n | DIFFOUT_B19n | AR30 | DQSn3B/QK3B | DQSn1B/QK1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B19p | DIFFOUT_B19p | AT30 | DQS3B/CQ3B/CQn3B/QKn3B | DQS1B/CQ1B/CQn1B/QKn1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B20n | DIFFOUT_B20n | AU30 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B20p | DIFFOUT_B20p | AV30 | DQ3B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B21n | DIFFOUT_B21n | AT29 | DQ3B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B21p | DIFFOUT_B21p | AU29 | DQ3B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B22n | DIFFOUT_B22n | AN30 | | | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_TX_B22p | DIFFOUT_B22p | AP30 | DQ3B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B23n | DIFFOUT_B23n | AN29 | DQ3B | DQ1B | | | | | | | |
| 3A | VREFB3AN0 | IO | | | DIFFIO_RX_B23p | DIFFOUT_B23p | AP29 | DQ3B | DQ1B | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B24n | DIFFOUT_B24n | AB29 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B24p | DIFFOUT_B24p | AC29 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B25n | DIFFOUT_B25n | AF28 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B25p | DIFFOUT_B25p | AG28 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B26n | DIFFOUT_B26n | AK29 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B26p | DIFFOUT_B26p | AL29 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B27n | DIFFOUT_B27n | AH28 | DQSn4B/QK4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B27p | DIFFOUT_B27p | AJ28 | DQS4B/CQ4B/CQn4B/QKn4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B28n | DIFFOUT_B28n | AD28 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B28p | DIFFOUT_B28p | AE28 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B29n | DIFFOUT_B29n | AB27 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B29p | DIFFOUT_B29p | AB28 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | VREFB3BN0 | | | | AL28 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | | | AM28 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B30n | DIFFOUT_B30n | AC27 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B30p | DIFFOUT_B30p | AD27 | DQ4B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B31n | DIFFOUT_B31n | AP28 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B31p | DIFFOUT_B31p | AR28 | DQ5B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B32n | DIFFOUT_B32n | AU28 | DQ5B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B32p | DIFFOUT_B32p | AV28 | DQ5B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B33n | DIFFOUT_B33n | AJ27 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B33p | DIFFOUT_B33p | AK27 | DQ5B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B34n | DIFFOUT_B34n | AW29 | DQSn5B/QK5B | DQSn2B/QK2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B34p | DIFFOUT_B34p | AW28 | DQS5B/CQ5B/CQn5B/QKn5B | DQS2B/CQ2B/CQn2B/QKn2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B35n | DIFFOUT_B35n | AP27 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B35p | DIFFOUT_B35p | AR27 | DQ5B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B36n | DIFFOUT_B36n | AT27 | DQ5B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B36p | DIFFOUT_B36p | AU27 | DQ5B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B37n | DIFFOUT_B37n | AM27 | | | | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_TX_B37p | DIFFOUT_B37p | AN27 | DQ5B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B38n | DIFFOUT_B38n | AV27 | DQ5B | DQ2B | DQ1B | | | | | | |
| 3B | VREFB3BN0 | IO | | | DIFFIO_RX_B38p | DIFFOUT_B38p | AW27 | DQ5B | DQ2B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B39n | DIFFOUT_B39n | AG27 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B39p | DIFFOUT_B39p | AH27 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B40n | DIFFOUT_B40n | AB25 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B40p | DIFFOUT_B40p | AC25 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B41n | DIFFOUT_B41n | AE27 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B41p | DIFFOUT_B41p | AF27 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B42n | DIFFOUT_B42n | AE25 | DQSn6B/QK6B | DQ3B | DQSn1B/QK1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B42p | DIFFOUT_B42p | AF25 | DQS6B/CQ6B/CQn6B/QKn6B | DQ3B | DQS1B/CQ1B/CQn1B/QKn1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B43n | DIFFOUT_B43n | AC24 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B43p | DIFFOUT_B43p | AD25 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B44n | DIFFOUT_B44n | AG26 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B44p | DIFFOUT_B44p | AH26 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B45n | DIFFOUT_B45n | AD26 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B45p | DIFFOUT_B45p | AE26 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B46n | DIFFOUT_B46n | AG25 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B46p | DIFFOUT_B46p | AH25 | DQ6B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B47n | DIFFOUT_B47n | AN26 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B47p | DIFFOUT_B47p | AP26 | DQ7B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B48n | DIFFOUT_B48n | AM25 | DQ7B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B48p | DIFFOUT_B48p | AN25 | DQ7B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B49n | DIFFOUT_B49n | AJ25 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B49p | DIFFOUT_B49p | AK25 | DQ7B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B50n | DIFFOUT_B50n | AT26 | DQSn7B/QK7B | DQSn3B/QK3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B50p | DIFFOUT_B50p | AU26 | DQS7B/CQ7B/CQn7B/QKn7B | DQS3B/CQ3B/CQn3B/QKn3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B51n | DIFFOUT_B51n | AR25 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B51p | DIFFOUT_B51p | AT25 | DQ7B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B52n | DIFFOUT_B52n | AW25 | DQ7B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B52p | DIFFOUT_B52p | AW26 | DQ7B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | VREFB3CN0 | | | | AK26 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | | | AL26 | DQ7B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B53n | DIFFOUT_B53n | AV25 | DQ7B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B53p | DIFFOUT_B53p | AV24 | DQ7B | DQ3B | DQ1B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B54n | DIFFOUT_B54n | AD23 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B54p | DIFFOUT_B54p | AD24 | DQ8B | DQ4B | DQ2B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B55n | DIFFOUT_B55n | AT24 | DQ8B | DQ4B | DQ2B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B55p | DIFFOUT_B55p | AU24 | DQ8B | DQ4B | DQ2B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B56n | DIFFOUT_B56n | AK24 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B56p | DIFFOUT_B56p | AL24 | DQ8B | DQ4B | DQ2B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B57n | DIFFOUT_B57n | AE24 | DQSn8B/QK8B | DQ4B | DQ2B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B57p | DIFFOUT_B57p | AF24 | DQS8B/CQ8B/CQn8B/QKn8B | DQ4B | DQ2B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B58n | DIFFOUT_B58n | AG24 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B58p | DIFFOUT_B58p | AH24 | DQ8B | DQ4B | DQ2B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B59n | DIFFOUT_B59n | AW23 | DQ8B | DQ4B | DQ2B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B59p | DIFFOUT_B59p | AW24 | DQ8B | DQ4B | DQ2B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B60n | DIFFOUT_B60n | AN24 | | | | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_TX_B60p | DIFFOUT_B60p | AP24 | DQ8B | DQ4B | DQ2B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B61n | DIFFOUT_B61n | AT23 | DQ8B | DQ4B | DQ2B | | | | | | |
| 3C | VREFB3CN0 | IO | | | DIFFIO_RX_B61p | DIFFOUT_B61p | AU23 | DQ8B | DQ4B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B62n | DIFFOUT_B62n | AN23 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B62p | DIFFOUT_B62p | AP23 | DQ9B | DQ4B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B63n | DIFFOUT_B63n | AD22 | DQ9B | DQ4B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B63p | DIFFOUT_B63p | AE23 | DQ9B | DQ4B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B64n | DIFFOUT_B64n | AK23 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B64p | DIFFOUT_B64p | AL23 | DQ9B | DQ4B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B65n | DIFFOUT_B65n | AT22 | DQSn9B/QK9B | DQSn4B/QK4B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B65p | DIFFOUT_B65p | AU22 | DQS9B/CQ9B/CQn9B/QKn9B | DQS4B/CQ4B/CQn4B/QKn4B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B66n | DIFFOUT_B66n | AV22 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B66p | DIFFOUT_B66p | AW22 | DQ9B | DQ4B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B67n | DIFFOUT_B67n | AV21 | DQ9B | DQ4B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B67p | DIFFOUT_B67p | AW21 | DQ9B | DQ4B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B68n | DIFFOUT_B68n | AG23 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B68p | DIFFOUT_B68p | AH23 | DQ9B | DQ4B | DQ2B | | | | | | |

| Bank Number | VREF | PinName/Function *(2)*, *(3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B69n | DIFFOUT_B69n | AE22 | DQ9B | DQ4B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B69p | DIFFOUT_B69p | AF22 | DQ9B | DQ4B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B70n | DIFFOUT_B70n | AN22 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B70p | DIFFOUT_B70p | AP22 | DQ10B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B71n | DIFFOUT_B71n | AW19 | DQ10B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B71p | DIFFOUT_B71p | AW20 | DQ10B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B72n | DIFFOUT_B72n | AK22 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B72p | DIFFOUT_B72p | AL22 | DQ10B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B73n | DIFFOUT_B73n | AR21 | DQSn10B/QK10B | DQ5B | DQSn2B/QK2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B73p | DIFFOUT_B73p | AT21 | DQS10B/CQ10B/CQn10B/QKn10B | DQ5B | DQS2B/CQ2B/CQn2B/QKn2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B74n | DIFFOUT_B74n | AG22 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B74p | DIFFOUT_B74p | AH22 | DQ10B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B75n | DIFFOUT_B75n | AT20 | DQ10B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_RX_B75p | DIFFOUT_B75p | AU20 | DQ10B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | VREFB3DN0 | | | | AJ21 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | | | | | AK21 | DQ10B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | CLK4n | | DIFFIO_RX_B76n | DIFFOUT_B76n | AU19 | DQ10B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | CLK4p | | DIFFIO_RX_B76p | DIFFOUT_B76p | AV19 | DQ10B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B77n | DIFFOUT_B77n | AM21 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B77p | DIFFOUT_B77p | AN21 | DQ11B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | CLK5n | | DIFFIO_RX_B78n | DIFFOUT_B78n | AE21 | DQ11B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | CLK5p | | DIFFIO_RX_B78p | DIFFOUT_B78p | AF21 | DQ11B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT1,FPLL_BC_CLKOUTn | | DIFFIO_TX_B79n | DIFFOUT_B79n | AD21 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT0,FPLL_BC_CLKOUTp,FPLL_BC_FB0 | | DIFFIO_TX_B79p | DIFFOUT_B79p | AC22 | DQ11B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT3,FPLL_BC_FBn | | DIFFIO_RX_B80n | DIFFOUT_B80n | AG21 | DQSn11B/QK11B | DQSn5B/QK5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | FPLL_BC_CLKOUT2,FPLL_BC_FBp,FPLL_BC_FB1 | | DIFFIO_RX_B80p | DIFFOUT_B80p | AH21 | DQS11B/CQ11B/CQn11B/QKn11B | DQS5B/CQ5B/CQn5B/QKn5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B81n | DIFFOUT_B81n | AN20 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B81p | DIFFOUT_B81p | AP20 | DQ11B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | CLK6n | | DIFFIO_RX_B82n | DIFFOUT_B82n | AC21 | DQ11B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | CLK6p | | DIFFIO_RX_B82p | DIFFOUT_B82p | AD20 | DQ11B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B83n | DIFFOUT_B83n | AG20 | | | | | | | | | |
| 3D | VREFB3DN0 | IO | | | DIFFIO_TX_B83p | DIFFOUT_B83p | AH20 | DQ11B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | CLK7n | | DIFFIO_RX_B84n | DIFFOUT_B84n | AK20 | DQ11B | DQ5B | DQ2B | | | | | | |
| 3D | VREFB3DN0 | IO | CLK7p | | DIFFIO_RX_B84p | DIFFOUT_B84p | AL20 | DQ11B | DQ5B | DQ2B | | | | | | |
| | | VCCD_FPLL | | | | | AB20 | | | | | | | | | |
| | | VCCA_FPLL | | | | | AB21 | | | | | | | | | |
| | | DNU | | | | | AE20 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B85n | DIFFOUT_B85n | AV18 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B85p | DIFFOUT_B85p | AW18 | DQ12B | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B86n | DIFFOUT_B86n | AG19 | DQ12B | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B86p | DIFFOUT_B86p | AH19 | DQ12B | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B87n | DIFFOUT_B87n | AN19 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B87p | DIFFOUT_B87p | AP19 | DQ12B | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B88n | DIFFOUT_B88n | AK19 | DQSn12B/QK12B | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B88p | DIFFOUT_B88p | AL19 | DQS12B/CQ12B/CQn12B/QKn12B | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B89n | DIFFOUT_B89n | AH18 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B89p | DIFFOUT_B89p | AJ18 | DQ12B | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B90n | DIFFOUT_B90n | AU18 | DQ12B | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B90p | DIFFOUT_B90p | AT19 | DQ12B | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B91n | DIFFOUT_B91n | AE19 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B91p | DIFFOUT_B91p | AF19 | DQ12B | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B92n | DIFFOUT_B92n | AW17 | DQ12B | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B92p | DIFFOUT_B92p | AW16 | DQ12B | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B93n | DIFFOUT_B93n | AK17 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B93p | DIFFOUT_B93p | AL17 | DQ13B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B94n | DIFFOUT_B94n | AT17 | DQ13B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B94p | DIFFOUT_B94p | AU17 | DQ13B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B95n | DIFFOUT_B95n | AC19 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B95p | DIFFOUT_B95p | AD19 | DQ13B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B96n | DIFFOUT_B96n | AP18 | DQSn13B/QK13B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B96p | DIFFOUT_B96p | AR18 | DQS13B/CQ13B/CQn13B/QKn13B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B97n | DIFFOUT_B97n | AD17 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B97p | DIFFOUT_B97p | AC18 | DQ13B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B98n | DIFFOUT_B98n | AD18 | DQ13B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B98p | DIFFOUT_B98p | AE18 | DQ13B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | VREFB4DN0 | | | | AF18 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | | | AG18 | DQ13B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B99n | DIFFOUT_B99n | AL18 | DQ13B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B99p | DIFFOUT_B99p | AM18 | DQ13B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B100n | DIFFOUT_B100n | AG17 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B100p | DIFFOUT_B100p | AH17 | DQ14B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B101n | DIFFOUT_B101n | AN17 | DQ14B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B101p | DIFFOUT_B101p | AP17 | DQ14B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B102n | DIFFOUT_B102n | AR16 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B102p | DIFFOUT_B102p | AT16 | DQ14B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B103n | DIFFOUT_B103n | AU16 | DQSn14B/QK14B | DQSn6B/QK6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B103p | DIFFOUT_B103p | AV16 | DQS14B/CQ14B/CQn14B/QKn14B | DQS6B/CQ6B/CQn6B/QKn6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B104n | DIFFOUT_B104n | AJ16 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B104p | DIFFOUT_B104p | AK16 | DQ14B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B105n | DIFFOUT_B105n | AN16 | DQ14B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B105p | DIFFOUT_B105p | AP16 | DQ14B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B106n | DIFFOUT_B106n | AL16 | | | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_TX_B106p | DIFFOUT_B106p | AM16 | DQ14B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B107n | DIFFOUT_B107n | AE17 | DQ14B | DQ6B | | | | | | | |
| 4D | VREFB4DN0 | IO | | | DIFFIO_RX_B107p | DIFFOUT_B107p | AF16 | DQ14B | DQ6B | | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B108n | DIFFOUT_B108n | AN15 | | | | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B108p | DIFFOUT_B108p | AP15 | DQ15B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B109n | DIFFOUT_B109n | AW14 | DQ15B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B109p | DIFFOUT_B109p | AW15 | DQ15B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B110n | DIFFOUT_B110n | AC16 | | | | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B110p | DIFFOUT_B110p | AD16 | DQ15B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B111n | DIFFOUT_B111n | AG16 | DQSn15B/QK15B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B111p | DIFFOUT_B111p | AH16 | DQS15B/CQ15B/CQn15B/QKn15B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B112n | DIFFOUT_B112n | AK15 | | | | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B112p | DIFFOUT_B112p | AL15 | DQ15B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B113n | DIFFOUT_B113n | AV13 | DQ15B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B113p | DIFFOUT_B113p | AW13 | DQ15B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | VREFB4CN0 | | | | AG15 | | | | | | | | | |
| 4C | VREFB4CN0 | IO | | | | | AH15 | DQ15B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B114n | DIFFOUT_B114n | AT15 | DQ15B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B114p | DIFFOUT_B114p | AU15 | DQ15B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B115n | DIFFOUT_B115n | AC15 | | | | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B115p | DIFFOUT_B115p | AD14 | DQ16B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B116n | DIFFOUT_B116n | AT14 | DQ16B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B116p | DIFFOUT_B116p | AU14 | DQ16B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B117n | DIFFOUT_B117n | AT13 | | | | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B117p | DIFFOUT_B117p | AU13 | DQ16B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B118n | DIFFOUT_B118n | AE16 | DQSn16B/QK16B | DQSn7B/QK7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B118p | DIFFOUT_B118p | AF15 | DQS16B/CQ16B/CQn16B/QKn16B | DQS7B/CQ7B/CQn7B/QKn7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B119n | DIFFOUT_B119n | AK14 | | | | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B119p | DIFFOUT_B119p | AL14 | DQ16B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B120n | DIFFOUT_B120n | AN14 | DQ16B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B120p | DIFFOUT_B120p | AP14 | DQ16B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B121n | DIFFOUT_B121n | AG14 | | | | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_TX_B121p | DIFFOUT_B121p | AH14 | DQ16B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B122n | DIFFOUT_B122n | AD15 | DQ16B | DQ7B | DQ3B | | | | | | |
| 4C | VREFB4CN0 | IO | | | DIFFIO_RX_B122p | DIFFOUT_B122p | AE15 | DQ16B | DQ7B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B123n | DIFFOUT_B123n | AP13 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B123p | DIFFOUT_B123p | AR13 | DQ17B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B124n | DIFFOUT_B124n | AE14 | DQ17B | DQ8B | DQ3B | | | | | | |

| Bank Number | VREF | PinName/Function *(2)*, *(3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B124p | DIFFOUT_B124p | AE13 | DQ17B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B125n | DIFFOUT_B125n | AT12 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B125p | DIFFOUT_B125p | AU12 | DQ17B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B126n | DIFFOUT_B126n | AV12 | DQSn17B/QK17B | DQ8B | DQSn3B/QK3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B126p | DIFFOUT_B126p | AW12 | DQS17B/CQ17B/CQn17B/QKn17B | DQ8B | DQS3B/CQ3B/CQn3B/QKn3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B127n | DIFFOUT_B127n | AL13 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B127p | DIFFOUT_B127p | AM13 | DQ17B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B128n | DIFFOUT_B128n | AW10 | DQ17B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B128p | DIFFOUT_B128p | AW11 | DQ17B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B129n | DIFFOUT_B129n | AN12 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B129p | DIFFOUT_B129p | AP12 | DQ17B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B130n | DIFFOUT_B130n | AH13 | DQ17B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B130p | DIFFOUT_B130p | AJ13 | DQ17B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B131n | DIFFOUT_B131n | AH12 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B131p | DIFFOUT_B131p | AJ12 | DQ18B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B132n | DIFFOUT_B132n | AF13 | DQ18B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B132p | DIFFOUT_B132p | AG13 | DQ18B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B133n | DIFFOUT_B133n | AU10 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B133p | DIFFOUT_B133p | AV10 | DQ18B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B134n | DIFFOUT_B134n | AT11 | DQSn18B/QK18B | DQSn8B/QK8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B134p | DIFFOUT_B134p | AU11 | DQS18B/CQ18B/CQn18B/QKn18B | DQS8B/CQ8B/CQn8B/QKn8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B135n | DIFFOUT_B135n | AK12 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B135p | DIFFOUT_B135p | AL12 | DQ18B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B136n | DIFFOUT_B136n | AC13 | DQ18B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B136p | DIFFOUT_B136p | AD13 | DQ18B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | VREFB4BN0 | | | | AN11 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | | | AP11 | DQ18B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B137n | DIFFOUT_B137n | AV9 | DQ18B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B137p | DIFFOUT_B137p | AW9 | DQ18B | DQ8B | DQ3B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B138n | DIFFOUT_B138n | AC12 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B138p | DIFFOUT_B138p | AD11 | DQ19B | DQ9B | DQ4B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B139n | DIFFOUT_B139n | AF12 | DQ19B | DQ9B | DQ4B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B139p | DIFFOUT_B139p | AG12 | DQ19B | DQ9B | DQ4B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B140n | DIFFOUT_B140n | AT9 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B140p | DIFFOUT_B140p | AU9 | DQ19B | DQ9B | DQ4B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B141n | DIFFOUT_B141n | AG11 | DQSn19B/QK19B | DQ9B | DQ4B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B141p | DIFFOUT_B141p | AH11 | DQS19B/CQ19B/CQn19B/QKn19B | DQ9B | DQ4B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B142n | DIFFOUT_B142n | AD12 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B142p | DIFFOUT_B142p | AE12 | DQ19B | DQ9B | DQ4B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B143n | DIFFOUT_B143n | AP10 | DQ19B | DQ9B | DQ4B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B143p | DIFFOUT_B143p | AR10 | DQ19B | DQ9B | DQ4B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B144n | DIFFOUT_B144n | AK11 | | | | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_TX_B144p | DIFFOUT_B144p | AL11 | DQ19B | DQ9B | DQ4B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B145n | DIFFOUT_B145n | AL10 | DQ19B | DQ9B | DQ4B | | | | | | |
| 4B | VREFB4BN0 | IO | | | DIFFIO_RX_B145p | DIFFOUT_B145p | AM10 | DQ19B | DQ9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B146n | DIFFOUT_B146n | AL9 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA10 | DIFFIO_TX_B146p | DIFFOUT_B146p | AM9 | DQ20B | DQ9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA11 | DIFFIO_RX_B147n | DIFFOUT_B147n | AW7 | DQ20B | DQ9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA5 | DIFFIO_RX_B147p | DIFFOUT_B147p | AW8 | DQ20B | DQ9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B148n | DIFFOUT_B148n | AV7 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA6 | DIFFIO_TX_B148p | DIFFOUT_B148p | AV6 | DQ20B | DQ9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA12 | DIFFIO_RX_B149n | DIFFOUT_B149n | AW6 | DQSn20B/QK20B | DQSn9B/QK9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA13 | DIFFIO_RX_B149p | DIFFOUT_B149p | AW5 | DQS20B/CQ20B/CQn20B/QKn20B | DQS9B/CQ9B/CQn9B/QKn9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA7 | DIFFIO_TX_B150n | DIFFOUT_B150n | AK9 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA8 | DIFFIO_TX_B150p | DIFFOUT_B150p | AK10 | DQ20B | DQ9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA14 | DIFFIO_RX_B151n | DIFFOUT_B151n | AU7 | DQ20B | DQ9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA15 | DIFFIO_RX_B151p | DIFFOUT_B151p | AU8 | DQ20B | DQ9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | DATA9 | DIFFIO_TX_B152n | DIFFOUT_B152n | AM9 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | CLKUSR | DIFFIO_TX_B152p | DIFFOUT_B152p | AP9 | DQ20B | DQ9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_RX_B153n | DIFFOUT_B153n | AT8 | DQ20B | DQ9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_RX_B153p | DIFFOUT_B153p | AR9 | DQ20B | DQ9B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | PR_ERROR | DIFFIO_TX_B154n | DIFFOUT_B154n | AH10 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | PR_READY | DIFFIO_TX_B154p | DIFFOUT_B154p | AJ10 | DQ21B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | PR_DONE | DIFFIO_RX_B155n | DIFFOUT_B155n | AF10 | DQ21B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | PR_REQUEST | DIFFIO_RX_B155p | DIFFOUT_B155p | AE11 | DQ21B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B156n | DIFFOUT_B156n | AK6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B156p | DIFFOUT_B156p | AL6 | DQ21B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | CvP_CONFDONE | DIFFIO_RX_B157n | DIFFOUT_B157n | AH6 | DQSn21B/QK21B | DQ10B | DQSn4B/QK4B | | | | | | |
| 4A | VREFB4AN0 | IO | | CRC_ERROR | DIFFIO_RX_B157p | DIFFOUT_B157p | AJ6 | DQS21B/CQ21B/CQn21B/QKn21B | DQ10B | DQS4B/CQ4B/CQn4B/QKn4B | | | | | | |
| 4A | VREFB4AN0 | IO | | DEV_OE | DIFFIO_TX_B158n | DIFFOUT_B158n | AH9 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | DEV_CLRn | DIFFIO_TX_B158p | DIFFOUT_B158p | AJ9 | DQ21B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | INIT_DONE | DIFFIO_RX_B159n | DIFFOUT_B159n | AM6 | DQ21B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | nCEO | DIFFIO_RX_B159p | DIFFOUT_B159p | AN6 | DQ21B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | VREFB4AN0 | | | | AH7 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | | | AH8 | DQ21B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | CLK11n | | DIFFIO_RX_B160n | DIFFOUT_B160n | AJ7 | DQ21B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | CLK11p | | DIFFIO_RX_B160p | DIFFOUT_B160p | AK7 | DQ21B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | FPLL_BR_CLKOUT1,FPLL_BR_CLKOUTn | | DIFFIO_TX_B161n | DIFFOUT_B161n | AL7 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | FPLL_BR_CLKOUT0,FPLL_BR_CLKOUTp,FPLL_BR_FB0 | | DIFFIO_TX_B161p | DIFFOUT_B161p | AM7 | DQ22B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | FPLL_BR_CLKOUT3,FPLL_BR_FBn | | DIFFIO_RX_B162n | DIFFOUT_B162n | AN8 | DQ22B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | FPLL_BR_CLKOUT2,FPLL_BR_FBp,FPLL_BR_FB1 | | DIFFIO_RX_B162p | DIFFOUT_B162p | AP8 | DQ22B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B163n | DIFFOUT_B163n | AT6 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B163p | DIFFOUT_B163p | AU6 | DQ22B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | CLK10n | | DIFFIO_RX_B164n | DIFFOUT_B164n | AR7 | DQSn22B/QK22B | DQSn10B/QK10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | CLK10p | | DIFFIO_RX_B164p | DIFFOUT_B164p | AT7 | DQS22B/CQ22B/CQn22B/QKn22B | DQS10B/CQ10B/CQn10B/QKn10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B165n | DIFFOUT_B165n | AK8 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B165p | DIFFOUT_B165p | AL8 | DQ22B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | CLK9n | | DIFFIO_RX_B166n | DIFFOUT_B166n | AV4 | DQ22B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | CLK9p | | DIFFIO_RX_B166p | DIFFOUT_B166p | AW4 | DQ22B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | | | DIFFIO_TX_B167n | DIFFOUT_B167n | AN7 | | | | | | | | | |
| 4A | VREFB4AN0 | IO | RZQ_1 | | DIFFIO_TX_B167p | DIFFOUT_B167p | AP7 | DQ22B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | CLK8n | | DIFFIO_RX_B168n | DIFFOUT_B168n | AP6 | DQ22B | DQ10B | DQ4B | | | | | | |
| 4A | VREFB4AN0 | IO | CLK8p | | DIFFIO_RX_B168p | DIFFOUT_B168p | AR6 | DQ22B | DQ10B | DQ4B | | | | | | |
| | | RREF_BR | | | | | AW2 | | | | | | | | | |
| | | DNU | | | | | AV3 | | | | | | | | | |
| | | DNU | | | | | AW3 | | | | | | | | | |
| | | GND | | | | | AF8 | | | | | | | | | |
| | | GND | | | | | AF7 | | | | | | | | | |
| | | GND | | | | | AU2 | | | | | | | | | |
| | | GND | | | | | AU1 | | | | | | | | | |
| | | DNU | | | | | AT3 | | | | | | | | | |
| | | DNU | | | | | AT4 | | | | | | | | | |
| | | GND | | | | | AR2 | | | | | | | | | |
| | | GND | | | | | AR1 | | | | | | | | | |
| | | DNU | | | | | AP3 | | | | | | | | | |
| | | DNU | | | | | AP4 | | | | | | | | | |
| | | GND | | | | | AN2 | | | | | | | | | |
| | | GND | | | | | AN1 | | | | | | | | | |
| | | DNU | | | | | AM3 | | | | | | | | | |
| | | DNU | | | | | AM4 | | | | | | | | | |
| | | GND | | | | | AL2 | | | | | | | | | |
| | | GND | | | | | AL1 | | | | | | | | | |
| | | DNU | | | | | AK3 | | | | | | | | | |
| | | DNU | | | | | AK4 | | | | | | | | | |
| | | GND | | | | | AJ2 | | | | | | | | | |
| | | GND | | | | | AJ1 | | | | | | | | | |
| | | DNU | | | | | AH3 | | | | | | | | | |
| | | DNU | | | | | AH4 | | | | | | | | | |
| | | GND | | | | | AG2 | | | | | | | | | |
| | | GND | | | | | AG1 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2)*, *(3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DNU | | | | | AF3 | | | | | | | | | |
| | | DNU | | | | | AF4 | | | | | | | | | |
| | | GND | | | | | AD9 | | | | | | | | | |
| | | GND | | | | | AD8 | | | | | | | | | |
| | | GND | | | | | AB9 | | | | | | | | | |
| | | GND | | | | | AB8 | | | | | | | | | |
| | | GND | | | | | AE2 | | | | | | | | | |
| | | GND | | | | | AE1 | | | | | | | | | |
| | | DNU | | | | | AD3 | | | | | | | | | |
| | | DNU | | | | | AD4 | | | | | | | | | |
| | | GND | | | | | AC2 | | | | | | | | | |
| | | GND | | | | | AC1 | | | | | | | | | |
| | | DNU | | | | | AB3 | | | | | | | | | |
| | | DNU | | | | | AB4 | | | | | | | | | |
| | | GND | | | | | AA2 | | | | | | | | | |
| | | GND | | | | | AA1 | | | | | | | | | |
| | | DNU | | | | | Y3 | | | | | | | | | |
| | | DNU | | | | | Y4 | | | | | | | | | |
| | | GND | | | | | W2 | | | | | | | | | |
| | | GND | | | | | W1 | | | | | | | | | |
| | | DNU | | | | | V3 | | | | | | | | | |
| | | DNU | | | | | V4 | | | | | | | | | |
| | | GND | | | | | U2 | | | | | | | | | |
| | | GND | | | | | U1 | | | | | | | | | |
| | | DNU | | | | | T3 | | | | | | | | | |
| | | DNU | | | | | T4 | | | | | | | | | |
| | | GND | | | | | R2 | | | | | | | | | |
| | | GND | | | | | R1 | | | | | | | | | |
| | | DNU | | | | | P3 | | | | | | | | | |
| | | DNU | | | | | P4 | | | | | | | | | |
| | | GND | | | | | Y9 | | | | | | | | | |
| | | GND | | | | | Y8 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | T7 | | | | HPS_DM_4 | HPS_DM_4 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | R6 | | | | HPS_DQ_39 | HPS_DQ_39 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | M1 | | | | HPS_DQ_37 | HPS_DQ_37 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | N1 | | | | HPS_DQ_38 | HPS_DQ_38 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | M2 | | | | HPS_DQ_36 | HPS_DQ_36 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | J1 | | | | HPS_DQS_4 | HPS_DQS_4 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI13 | | | | | K1 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | H1 | | | | HPS_DQS#_4 | HPS_DQS#_4 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | L1 | | | | HPS_DQ_35 | HPS_DQ_35 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | F1 | | | | HPS_DQ_33 | HPS_DQ_33 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | P6 | | | | HPS_DQ_34 | HPS_DQ_34 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | G1 | | | | HPS_DQ_32 | HPS_DQ_32 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI12 | | | | | R7 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI11 | | | | | J2 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | D1 | | | | HPS_DM_3 | HPS_DM_3 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI10 | | | | | K2 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | E1 | | | | HPS_DQ_31 | HPS_DQ_31 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | F2 | | | | HPS_DQ_29 | HPS_DQ_29 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | M3 | | | | HPS_DQ_30 | HPS_DQ_30 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | G2 | | | | HPS_DQ_28 | HPS_DQ_28 | | | | |
| 6B | VREFB6BN0_HPS | VREFB6BN0_HPS | | | | | M4 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | C2 | | | | HPS_DQS_3 | HPS_DQS_3 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI9 | | | | | B1 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | D2 | | | | HPS_DQS#_3 | HPS_DQS#_3 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | C1 | | | | HPS_DQ_27 | HPS_DQ_27 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | A3 | | | | HPS_DQ_25 | HPS_DQ_25 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | P7 | | | | HPS_DQ_26 | HPS_DQ_26 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | A2 | | | | HPS_DQ_24 | HPS_DQ_24 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI8 | | | | | N6 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI7 | | | | | K3 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | D3 | | | | HPS_DM_2 | HPS_DM_2 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI6 | | | | | K4 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | C3 | | | | HPS_DQ_23 | HPS_DQ_23 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | J4 | | | | HPS_DQ_21 | HPS_DQ_21 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | M5 | | | | HPS_DQ_22 | HPS_DQ_22 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | H3 | | | | HPS_DQ_20 | HPS_DQ_20 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI5 | | | | | L4 | | | | | | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | G4 | | | | HPS_DQS_2 | HPS_DQS_2 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | E3 | | | | HPS_RESET# | HPS_RESET# | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | H4 | | | | HPS_DQS#_2 | HPS_DQS#_2 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | F3 | | | | HPS_DQ_19 | HPS_DQ_19 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | K5 | | | | HPS_DQ_17 | HPS_DQ_17 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | N7 | | | | HPS_DQ_18 | HPS_DQ_18 | | | | |
| 6B | VREFB6BN0_HPS | HPS_DDR | | | | | J5 | | | | HPS_DQ_16 | HPS_DQ_16 | | | | |
| 6B | VREFB6BN0_HPS | HPS_GPI4 | | | | | M6 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_GPI3 | | | | | C4 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E4 | | | | HPS_DM_1 | HPS_DM_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_GPI2 | | | | | B4 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F4 | | | | HPS_DQ_15 | HPS_DQ_15 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A5 | | | | HPS_DQ_13 | HPS_DQ_13 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | R9 | | | | HPS_DQ_14 | HPS_DQ_14 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A4 | | | | HPS_DQ_12 | HPS_DQ_12 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | R8 | | | | HPS_CKE_0 | HPS_CKE_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D5 | | | | HPS_DQS_1 | HPS_DQS_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F5 | | | | HPS_CKE_1 | HPS_CKE_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E6 | | | | HPS_DQS#_1 | HPS_DQS#_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G5 | | | | HPS_DQ_11 | HPS_DQ_11 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G6 | | | | HPS_DQ_9 | HPS_DQ_9 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | N8 | | | | HPS_DQ_10 | HPS_DQ_10 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | H6 | | | | HPS_DQ_8 | HPS_DQ_8 | | | | |
| 6A | VREFB6AN0_HPS | HPS_GPI1 | | | | | M7 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_GPI0 | | | | | B6 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C6 | | | | HPS_DM_0 | HPS_DM_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D6 | | | | HPS_DQ_7 | HPS_DQ_7 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A7 | | | | HPS_DQ_5 | HPS_DQ_5 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | L6 | | | | HPS_DQ_6 | HPS_DQ_6 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A6 | | | | HPS_DQ_4 | HPS_DQ_4 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | K6 | | | | HPS_ODT_1 | HPS_ODT_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F7 | | | | HPS_DQS_0 | HPS_DQS_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | H7 | | | | HPS_ODT_0 | HPS_ODT_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E7 | | | | HPS_DQS#_0 | HPS_DQS#_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G7 | | | | HPS_DQ_3 | HPS_DQ_3 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C7 | | | | HPS_DQ_1 | HPS_DQ_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | R10 | | | | HPS_DQ_2 | HPS_DQ_2 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D7 | | | | HPS_DQ_0 | HPS_DQ_0 | | | | |
| 6A | VREFB6AN0_HPS | VREFB6AN0_HPS | | | | | P10 | | | | | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | N9 | | | | HPS_A_0 | HPS_CA_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | M9 | | | | HPS_A_1 | HPS_CA_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A8 | | | | HPS_A_4 | HPS_CA_4 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | N10 | | | | HPS_A_2 | HPS_CA_2 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B7 | | | | HPS_A_5 | HPS_CA_5 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | M10 | | | | HPS_A_3 | HPS_CA_3 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A11 | | | | HPS_CK | HPS_CK | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B9 | | | | HPS_A_6 | HPS_CA_6 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | B10 | | | | HPS_CK# | HPS_CK# | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | A9 | | | | HPS_A_7 | HPS_CA_7 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C9 | | | | HPS_BA_1 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | L7 | | | | HPS_BA_0 | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D8 | | | | HPS_BA_2 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G9 | | | | HPS_CAS# | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | G8 | | | | HPS_RAS# | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D9 | | | | HPS_A_8 | HPS_CA_8 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | K7 | | | | HPS_A_10 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | C10 | | | | HPS_A_9 | HPS_CA_9 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | J7 | | | | HPS_A_11 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | H9 | | | | HPS_CS#_0 | HPS_CS#_0 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | F9 | | | | HPS_A_12 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | J9 | | | | HPS_CS#_1 | HPS_CS#_1 | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | E9 | | | | HPS_A_13 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D11 | | | | HPS_A_14 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | J8 | | | | HPS_WE# | | | | | |
| 6A | VREFB6AN0_HPS | HPS_DDR | | | | | D10 | | | | HPS_A_15 | | | | | |
| 6A | VREFB6AN0_HPS | HPS_RZQ_0 | | | | | K9 | | | | | | | | | |
| | | DNU | | | | | B12 | | | | | | | | | |
| | | GND | | | | | C11 | | | | | | | | | |
| | | GND | | | | | A12 | | | | | | | | | |
| 7A | | HPS_nRST | | | | | R11 | | | | | | | | | |
| 7A | | HPS_nPOR | | | | | K10 | | | | | | | | | |
| 7A | | HPS_TDO | | | | | T11 | | | | | | | | | |
| | | VCCRSTCLK_HPS | | | | | J10 | | | | | | | | | |
| 7A | | HPS_TMS | | | | | F10 | | | | | | | | | |
| 7A | | HPS_TCK | | | | | G10 | | | | | | | | | |
| 7A | | HPS_TRST | | | | | F11 | | | | | | | | | |
| 7A | | HPS_TDI | | | | | H10 | | | | | | | | | |
| | | GND | | | | | M11 | | | | | | | | | |
| 7A | | HPS_PORSEL | | | | | C12 | | | | | | | | | |
| 7A | | HPS_CLK1 | | | | | N11 | | | | | | | | | |
| 7A | | HPS_CLK2 | | | | | D12 | | | | | | | | | |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_CLK | | | | | J11 | | | | | | TRACE_CLK | | | HPS_GPIO48 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D0 | | | | | K12 | | | | | | TRACE_D0 | SPIS0_CLK | UART0_RX | HPS_GPIO49 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D1 | | | | | K11 | | | | | | TRACE_D1 | SPIS0_MOSI | UART0_TX | HPS_GPIO50 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D2 | | | | | J12 | | | | | | TRACE_D2 | SPIS0_MISO | I2C1_SDA | HPS_GPIO51 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D3 | | | | | H12 | | | | | | TRACE_D3 | SPIS0_SS0 | I2C1_SCL | HPS_GPIO52 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D4 | | | | | E12 | | | | | | TRACE_D4 | SPIS1_CLK | | HPS_GPIO53 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D5 | | | | | G11 | | | | | | TRACE_D5 | SPIS1_MOSI | | HPS_GPIO54 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D6 | | | | | F12 | | | | | | TRACE_D6 | SPIS1_SS0 | I2C0_SDA | HPS_GPIO55 |
| 7A | VREFB7A7B7C7D7EN0_HPS | TRACE_D7 | | | | | A13 | | | | | | TRACE_D7 | SPIS1_MISO | I2C0_SCL | HPS_GPIO56 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_CLK | | | | | P12 | | | | | | SPIM0_CLK | I2C1_SDA | UART0_CTS | HPS_GPIO57 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_MOSI | | | | | A14 | | | | | | SPIM0_MOSI | I2C1_SCL | UART0_RTS | HPS_GPIO58 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_MISO | | | | | N12 | | | | | | SPIM0_MISO | | UART1_CTS | HPS_GPIO59 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_SS0,BOOTSEL0 | | | | | B15 | | | | | | SPIM0_SS0 | | UART1_RTS | HPS_GPIO60 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART0_RX | | | | | B14 | | | | | | UART0_RX | | SPIM0_SS1 | HPS_GPIO61 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART0_TX,CLKSEL1 | | | | | A15 | | | | | | UART0_TX | | SPIM1_SS1 | HPS_GPIO62 |
| 7A | VREFB7A7B7C7D7EN0_HPS | I2C0_SDA | | | | | C13 | | | | | | I2C0_SDA | UART1_RX | SPIM1_CLK | HPS_GPIO63 |
| 7A | VREFB7A7B7C7D7EN0_HPS | I2C0_SCL | | | | | L13 | | | | | | I2C0_SCL | UART1_TX | SPIM1_MOSI | HPS_GPIO64 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART0_RX* | | | | | M12 | | | | | | | UART0_RX | SPIM1_MISO | HPS_GPIO65 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART0_TX*,CLKSEL0 | | | | | M13 | | | | | | | UART0_TX | SPIM1_SS0 | HPS_GPIO66 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS1_CLK | | | | | L12 | | | | | | SPIS1_CLK | SPIM1_CLK | | HPS_GPIO67 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS1_MOSI | | | | | E13 | | | | | | SPIS1_MOSI | SPIM1_MOSI | | HPS_GPIO68 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS1_MISO | | | | | F13 | | | | | | SPIS1_MISO | SPIM1_MISO | | HPS_GPIO69 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS1_SS0 | | | | | D13 | | | | | | SPIS1_SS0 | SPIM1_SS0 | | HPS_GPIO70 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART1_RX | | | | | G13 | | | | | | UART1_RX | SPIM1_SS1 | | HPS_GPIO62 |
| 7A | VREFB7A7B7C7D7EN0_HPS | UART1_TX | | | | | N13 | | | | | | UART1_TX | SPIM0_CLK | | HPS_GPIO63 |
| 7A | VREFB7A7B7C7D7EN0_HPS | I2C1_SDA | | | | | R13 | | | | | | I2C1_SDA | SPIM0_MOSI | | HPS_GPIO64 |
| 7A | VREFB7A7B7C7D7EN0_HPS | I2C1_SCL | | | | | M14 | | | | | | I2C1_SCL | SPIM0_MISO | | HPS_GPIO65 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIM0_SS0 | | | | | P13 | | | | | | | SPIM0_SS0 | | HPS_GPIO66 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS0_CLK | | | | | H13 | | | | | | SPIS0_CLK | SPIM0_SS1 | | HPS_GPIO67 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS0_MOSI | | | | | C14 | | | | | | SPIS0_MOSI | | | HPS_GPIO68 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS0_MISO | | | | | J13 | | | | | | SPIS0_MISO | | | HPS_GPIO69 |
| 7A | VREFB7A7B7C7D7EN0_HPS | SPIS0_SS0 | | | | | D14 | | | | | | SPIS0_SS0 | | | HPS_GPIO70 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_ALE | | | | | A16 | | | | | | NAND_ALE | RGMII1_TX_CLK | QSPI_SS3 | HPS_GPIO14 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_CE | | | | | P15 | | | | | | NAND_CE | RGMII1_TXD0 | USB1_D0 | HPS_GPIO15 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_CLE | | | | | A17 | | | | | | NAND_CLE | RGMII1_TXD1 | USB1_D1 | HPS_GPIO16 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_RE | | | | | R15 | | | | | | NAND_RE | RGMII1_TXD2 | USB1_D2 | HPS_GPIO17 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_RB | | | | | C16 | | | | | | NAND_RB | RGMII1_TXD3 | USB1_D3 | HPS_GPIO18 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ0 | | | | | G14 | | | | | | NAND_DQ0 | RGMII1_RXD0 | | HPS_GPIO19 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ1 | | | | | B17 | | | | | | NAND_DQ1 | RGMII1_MDIO | I2C3_SDA | HPS_GPIO20 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ2 | | | | | H14 | | | | | | NAND_DQ2 | RGMII1_MDC | I2C3_SCL | HPS_GPIO21 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ3 | | | | | L15 | | | | | | NAND_DQ3 | RGMII1_RX_CTL | USB1_D4 | HPS_GPIO22 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ4 | | | | | P14 | | | | | | NAND_DQ4 | RGMII1_TX_CTL | USB1_D5 | HPS_GPIO23 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ5 | | | | | K15 | | | | | | NAND_DQ5 | RGMII1_RX_CLK | USB1_D6 | HPS_GPIO24 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ6 | | | | | R14 | | | | | | NAND_DQ6 | RGMII1_RXD1 | USB1_D7 | HPS_GPIO25 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_DQ7 | | | | | K14 | | | | | | NAND_DQ7 | RGMII1_RXD2 | | HPS_GPIO26 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_WP | | | | | C15 | | | | | | NAND_WP | RGMII1_RXD3 | QSPI_SS2 | HPS_GPIO27 |
| 7B | VREFB7A7B7C7D7EN0_HPS | NAND_WE,BOOTSEL2 | | | | | L14 | | | | | | NAND_WE | QSPI_SS1 | | HPS_GPIO28 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_IO0 | | | | | D15 | | | | | | QSPI_IO0 | | USB1_CLK | HPS_GPIO29 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_IO1 | | | | | G15 | | | | | | QSPI_IO1 | | USB1_STP | HPS_GPIO30 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_IO2 | | | | | M15 | | | | | | QSPI_IO2 | | USB1_DIR | HPS_GPIO31 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_IO3 | | | | | H15 | | | | | | QSPI_IO3 | | USB1_NXT | HPS_GPIO32 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_SS0,BOOTSEL1 | | | | | N15 | | | | | | QSPI_SS0 | | | HPS_GPIO33 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_CLK | | | | | F15 | | | | | | QSPI_CLK | | | HPS_GPIO34 |
| 7B | VREFB7A7B7C7D7EN0_HPS | QSPI_SS1 | | | | | E15 | | | | | | QSPI_SS1 | | | HPS_GPIO35 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_CMD | | | | | D16 | | | | | | SDMMC_CMD | USB0_D0 | | HPS_GPIO36 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_PWREN | | | | | P16 | | | | | | SDMMC_PWREN | USB0_D1 | | HPS_GPIO37 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D0 | | | | | C17 | | | | | | SDMMC_D0 | USB0_D2 | | HPS_GPIO38 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D1 | | | | | N16 | | | | | | SDMMC_D1 | USB0_D3 | | HPS_GPIO39 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D4 | | | | | F16 | | | | | | SDMMC_D4 | USB0_D4 | | HPS_GPIO40 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D5 | | | | | G16 | | | | | | SDMMC_D5 | USB0_D5 | | HPS_GPIO41 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D6 | | | | | E16 | | | | | | SDMMC_D6 | USB0_D6 | | HPS_GPIO42 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D7 | | | | | H16 | | | | | | SDMMC_D7 | USB0_D7 | | HPS_GPIO43 |
| 7C | VREFB7A7B7C7D7EN0_HPS | HPS_GPIO44 | | | | | K16 | | | | | | | USB0_CLK | | HPS_GPIO44 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_CCLK_OUT | | | | | L16 | | | | | | SDMMC_CCLK_OUT | USB0_STP | | HPS_GPIO45 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D2 | | | | | J16 | | | | | | SDMMC_D2 | USB0_DIR | | HPS_GPIO46 |
| 7C | VREFB7A7B7C7D7EN0_HPS | SDMMC_D3 | | | | | M16 | | | | | | SDMMC_D3 | USB0_NXT | | HPS_GPIO47 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TX_CLK | | | | | R17 | | | | | | RGMII0_TX_CLK | | | HPS_GPIO0 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TXD0 | | | | | F17 | | | | | | RGMII0_TXD0 | USB1_D0 | | HPS_GPIO1 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TXD1 | | | | | P17 | | | | | | RGMII0_TXD1 | USB1_D1 | | HPS_GPIO2 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TXD2 | | | | | F18 | | | | | | RGMII0_TXD2 | USB1_D2 | | HPS_GPIO3 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TXD3 | | | | | E18 | | | | | | RGMII0_TXD3 | USB1_D3 | | HPS_GPIO4 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RXD0 | | | | | J17 | | | | | | RGMII0_RXD0 | USB1_D4 | | HPS_GPIO5 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_MDIO | | | | | B18 | | | | | | RGMII0_MDIO | USB1_D5 | I2C2_SDA | HPS_GPIO6 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_MDC | | | | | K17 | | | | | | RGMII0_MDC | USB1_D6 | I2C2_SCL | HPS_GPIO7 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RX_CTL | | | | | B19 | | | | | | RGMII0_RX_CTL | USB1_D7 | | HPS_GPIO8 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_TX_CTL | | | | | A18 | | | | | | RGMII0_TX_CTL | | | HPS_GPIO9 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RX_CLK | | | | | C18 | | | | | | RGMII0_RX_CLK | USB1_CLK | | HPS_GPIO10 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RXD1 | | | | | A19 | | | | | | RGMII0_RXD1 | USB1_STP | | HPS_GPIO11 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RXD2 | | | | | C19 | | | | | | RGMII0_RXD2 | USB1_DIR | | HPS_GPIO12 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII0_RXD3 | | | | | G18 | | | | | | RGMII0_RXD3 | USB1_NXT | | HPS_GPIO13 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_TX_CLK | | | | | D19 | | | | | | RGMII1_TX_CLK | | | HPS_GPIO48 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_TXD0 | | | | | H18 | | | | | | RGMII1_TXD0 | | | HPS_GPIO49 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_TXD1 | | | | | F19 | | | | | | RGMII1_TXD1 | | | HPS_GPIO50 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_TX_CTL | | | | | N18 | | | | | | RGMII1_TX_CTL | | | HPS_GPIO51 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_RXD0 | | | | | E19 | | | | | | RGMII1_RXD0 | | | HPS_GPIO52 |
| 7D | VREFB7A7B7C7D7EN0_HPS | RGMII1_RXD1 | | | | | M17 | | | | | | RGMII1_RXD1 | | | HPS_GPIO53 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_MDIO | | | | | J18 | | | | | | RGMII1_MDIO | SPIM0_CLK | SPIS0_CLK | HPS_GPIO54 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_MDC | | | | | L18 | | | | | | RGMII1_MDC | SPIM0_MOSI | SPIS0_MOSI | HPS_GPIO55 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_TXD2 | | | | | K18 | | | | | | RGMII1_TXD2 | SPIM0_MISO | SPIS0_MISO | HPS_GPIO56 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_TXD3 | | | | | M18 | | | | | | RGMII1_TXD3 | SPIM0_SS0 | SPIS0_SS0 | HPS_GPIO57 |

| Bank Number | VREF | PinName/Function *(2)*, *(3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_RX_CLK | | | | | G21 | | | | | | RGMII1_RX_CLK | SPIS1_CLK | SPIM1_CLK | HPS_GPIO58 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_RX_CTL | | | | | H19 | | | | | | RGMII1_RX_CTL | SPIS1_MOSI | SPIM1_MOSI | HPS_GPIO59 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_RXD2 | | | | | G20 | | | | | | RGMII1_RXD2 | SPIS1_MISO | SPIM1_MISO | HPS_GPIO60 |
| 7E | VREFB7A7B7C7D7EN0_HPS | RGMII1_RXD3 | | | | | G19 | | | | | | RGMII1_RXD3 | SPIS1_SS0 | SPIM1_SS0 | HPS_GPIO61 |
| 7G | VREFB7GN0 | IO | | | DIFFIO_RX_T16p | DIFFOUT_T16p | R19 | | | | | | | | | |
| 7G | VREFB7GN0 | IO | | | DIFFIO_RX_T16n | DIFFOUT_T16n | T19 | | | | | | | | | |
| 7G | VREFB7GN0 | IO | | | | | N19 | | | | | | | | | |
| 7G | VREFB7GN0 | IO | VREFB7GN0 | | | | P19 | | | | | | | | | |
| 7G | VREFB7GN0 | IO | | | DIFFIO_RX_T17p | DIFFOUT_T17p | U19 | | | | | | | | | |
| 7G | VREFB7GN0 | IO | | | DIFFIO_RX_T17n | DIFFOUT_T17n | U20 | | | | | | | | | |
| 7G | VREFB7GN0 | IO | | | DIFFIO_TX_T18p | DIFFOUT_T18p | L19 | | | | | | | | | |
| 7G | VREFB7GN0 | IO | | | DIFFIO_RX_T19p | DIFFOUT_T19p | P20 | | | | | | | | | |
| 7G | VREFB7GN0 | IO | | | DIFFIO_RX_T19n | DIFFOUT_T19n | R20 | | | | | | | | | |
| 7G | VREFB7GN0 | IO | | | DIFFIO_TX_T20p | DIFFOUT_T20p | M19 | | | | | | | | | |
| 7G | VREFB7GN0 | IO | | | DIFFIO_RX_T21p | DIFFOUT_T21p | L20 | | | | | | | | | |
| 7G | VREFB7GN0 | IO | | | DIFFIO_RX_T21n | DIFFOUT_T21n | M20 | | | | | | | | | |
| | | VCCA_FPLL | | | | | V20 | | | | | | | | | |
| | | VCCD_FPLL | | | | | V19 | | | | | | | | | |
| | | DNU | | | | | F20 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK19p | | DIFFIO_RX_T31p | DIFFOUT_T31p | C20 | DQ1T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | CLK19n | | DIFFIO_RX_T31n | DIFFOUT_T31n | D20 | DQ1T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T32p | DIFFOUT_T32p | N21 | DQ1T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T32n | DIFFOUT_T32n | P21 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK18p | | DIFFIO_RX_T33p | DIFFOUT_T33p | H21 | DQ1T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | CLK18n | | DIFFIO_RX_T33n | DIFFOUT_T33n | J21 | DQ1T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T34p | DIFFOUT_T34p | D21 | DQ1T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T34n | DIFFOUT_T34n | E21 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT2,FPLL_TC_FBp,FPLL_TC_FB1 | | DIFFIO_RX_T35p | DIFFOUT_T35p | A20 | DQS1T/CQ1T/CQn1T/QKn1T | DQS1T/CQ1T/CQn1T/QKn1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT3,FPLL_TC_FBn | | DIFFIO_RX_T35n | DIFFOUT_T35n | B21 | DQSn1T/QK1T | DQSn1T/QK1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT0,FPLL_TC_CLKOUTp,FPLL_TC_FB0 | | DIFFIO_TX_T36p | DIFFOUT_T36p | K21 | DQ1T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | FPLL_TC_CLKOUT1,FPLL_TC_CLKOUTn | | DIFFIO_TX_T36n | DIFFOUT_T36n | L21 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK17p | | DIFFIO_RX_T37p | DIFFOUT_T37p | A22 | DQ1T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | CLK17n | | DIFFIO_RX_T37n | DIFFOUT_T37n | A21 | DQ1T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T38p | DIFFOUT_T38p | R21 | DQ1T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T38n | DIFFOUT_T38n | T21 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | CLK16p | | DIFFIO_RX_T39p | DIFFOUT_T39p | B22 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | CLK16n | | DIFFIO_RX_T39n | DIFFOUT_T39n | C22 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | | | J22 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | VREFB8DN0 | | | | H22 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T40p | DIFFOUT_T40p | E22 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T40n | DIFFOUT_T40n | F22 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T41p | DIFFOUT_T41p | A23 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T41n | DIFFOUT_T41n | A24 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T42p | DIFFOUT_T42p | C23 | DQS2T/CQ2T/CQn2T/QKn2T | DQ1T | DQS1T/CQ1T/CQn1T/QKn1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T42n | DIFFOUT_T42n | D23 | DQSn2T/QK2T | DQ1T | DQSn1T/QK1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T43p | DIFFOUT_T43p | L22 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T43n | DIFFOUT_T43n | M22 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T44p | DIFFOUT_T44p | N22 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T44n | DIFFOUT_T44n | P22 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T45p | DIFFOUT_T45p | R22 | DQ2T | DQ1T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T45n | DIFFOUT_T45n | T22 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T46p | DIFFOUT_T46p | F23 | DQ3T | DQ2T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T46n | DIFFOUT_T46n | G23 | DQ3T | DQ2T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T47p | DIFFOUT_T47p | R23 | DQ3T | DQ2T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T47n | DIFFOUT_T47n | T23 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T48p | DIFFOUT_T48p | B24 | DQ3T | DQ2T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T48n | DIFFOUT_T48n | C24 | DQ3T | DQ2T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T49p | DIFFOUT_T49p | M23 | DQ3T | DQ2T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T49n | DIFFOUT_T49n | N23 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T50p | DIFFOUT_T50p | D24 | DQS3T/CQ3T/CQn3T/QKn3T | DQS2T/CQ2T/CQn2T/QKn2T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T50n | DIFFOUT_T50n | E24 | DQSn3T/QK3T | DQSn2T/QK2T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T51p | DIFFOUT_T51p | J23 | DQ3T | DQ2T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T51n | DIFFOUT_T51n | K23 | | | | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T52p | DIFFOUT_T52p | F24 | DQ3T | DQ2T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_RX_T52n | DIFFOUT_T52n | G24 | DQ3T | DQ2T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T53p | DIFFOUT_T53p | H24 | DQ3T | DQ2T | DQ1T | | | | | | |
| 8D | VREFB8DN0 | IO | | | DIFFIO_TX_T53n | DIFFOUT_T53n | J24 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T54p | DIFFOUT_T54p | T26 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T54n | DIFFOUT_T54n | T25 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T55p | DIFFOUT_T55p | G25 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T55n | DIFFOUT_T55n | H25 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T56p | DIFFOUT_T56p | N24 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T56n | DIFFOUT_T56n | P24 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T57p | DIFFOUT_T57p | R24 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T57n | DIFFOUT_T57n | T24 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T58p | DIFFOUT_T58p | A25 | DQS4T/CQ4T/CQn4T/QKn4T | DQ2T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T58n | DIFFOUT_T58n | B25 | DQSn4T/QK4T | DQ2T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T59p | DIFFOUT_T59p | K24 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T59n | DIFFOUT_T59n | L24 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T60p | DIFFOUT_T60p | D25 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T60n | DIFFOUT_T60n | E25 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T61p | DIFFOUT_T61p | P25 | DQ4T | DQ2T | DQ1T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T61n | DIFFOUT_T61n | R25 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T62p | DIFFOUT_T62p | C26 | DQ5T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T62n | DIFFOUT_T62n | D26 | DQ5T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | | | K25 | DQ5T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | VREFB8CN0 | | | | L25 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T63p | DIFFOUT_T63p | R26 | DQ5T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T63n | DIFFOUT_T63n | T27 | DQ5T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T64p | DIFFOUT_T64p | A26 | DQ5T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T64n | DIFFOUT_T64n | A27 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T65p | DIFFOUT_T65p | M26 | DQS5T/CQ5T/CQn5T/QKn5T | DQS3T/CQ3T/CQn3T/QKn3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T65n | DIFFOUT_T65n | N26 | DQSn5T/QK5T | DQSn3T/QK3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T66p | DIFFOUT_T66p | J26 | DQ5T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T66n | DIFFOUT_T66n | K26 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T67p | DIFFOUT_T67p | F26 | DQ5T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T67n | DIFFOUT_T67n | G26 | DQ5T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T68p | DIFFOUT_T68p | M25 | DQ5T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T68n | DIFFOUT_T68n | N25 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T69p | DIFFOUT_T69p | P27 | DQ6T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T69n | DIFFOUT_T69n | R27 | DQ6T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T70p | DIFFOUT_T70p | H27 | DQ6T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T70n | DIFFOUT_T70n | J27 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T71p | DIFFOUT_T71p | B27 | DQ6T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T71n | DIFFOUT_T71n | C27 | DQ6T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T72p | DIFFOUT_T72p | E27 | DQ6T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T72n | DIFFOUT_T72n | F27 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T73p | DIFFOUT_T73p | R28 | DQS6T/CQ6T/CQn6T/QKn6T | DQ3T | DQS2T/CQ2T/CQn2T/QKn2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T73n | DIFFOUT_T73n | T28 | DQSn6T/QK6T | DQ3T | DQSn2T/QK2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T74p | DIFFOUT_T74p | K27 | DQ6T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T74n | DIFFOUT_T74n | L27 | | | | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T75p | DIFFOUT_T75p | M27 | DQ6T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_RX_T75n | DIFFOUT_T75n | N27 | DQ6T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T76p | DIFFOUT_T76p | N28 | DQ6T | DQ3T | DQ2T | | | | | | |
| 8C | VREFB8CN0 | IO | | | DIFFIO_TX_T76n | DIFFOUT_T76n | P28 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T77p | DIFFOUT_T77p | L28 | DQ7T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T77n | DIFFOUT_T77n | M28 | DQ7T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T78p | DIFFOUT_T78p | H28 | DQ7T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T78n | DIFFOUT_T78n | J28 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T79p | DIFFOUT_T79p | C28 | DQ7T | DQ4T | DQ2T | | | | | | |

| Bank Number | VREF | PinName/Function *(2)*, *(3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T79n | DIFFOUT_T79n | D28 | DQ7T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T80p | DIFFOUT_T80p | F28 | DQ7T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T80n | DIFFOUT_T80n | G28 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T81p | DIFFOUT_T81p | R29 | DQS7T/CQ7T/CQn7T/QKn7T | DQS4T/CQ4T/CQn4T/QKn4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T81n | DIFFOUT_T81n | T29 | DQSn7T/QK7T | DQSn4T/QK4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T82p | DIFFOUT_T82p | J29 | DQ7T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T82n | DIFFOUT_T82n | K29 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T83p | DIFFOUT_T83p | M29 | DQ7T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T83n | DIFFOUT_T83n | N29 | DQ7T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T84p | DIFFOUT_T84p | F29 | DQ7T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T84n | DIFFOUT_T84n | G29 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T85p | DIFFOUT_T85p | B28 | DQ8T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T85n | DIFFOUT_T85n | C29 | DQ8T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | | | R30 | DQ8T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | VREFB8BN0 | | | | R31 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T86p | DIFFOUT_T86p | A29 | DQ8T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T86n | DIFFOUT_T86n | A28 | DQ8T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T87p | DIFFOUT_T87p | L30 | DQ8T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T87n | DIFFOUT_T87n | M30 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T88p | DIFFOUT_T88p | N30 | DQS8T/CQ8T/CQn8T/QKn8T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T88n | DIFFOUT_T88n | P30 | DQSn8T/QK8T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T89p | DIFFOUT_T89p | J30 | DQ8T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T89n | DIFFOUT_T89n | K30 | | | | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T90p | DIFFOUT_T90p | D30 | DQ8T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_RX_T90n | DIFFOUT_T90n | D29 | DQ8T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T91p | DIFFOUT_T91p | F30 | DQ8T | DQ4T | DQ2T | | | | | | |
| 8B | VREFB8BN0 | IO | | | DIFFIO_TX_T91n | DIFFOUT_T91n | G30 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T92p | DIFFOUT_T92p | B30 | DQ9T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T92n | DIFFOUT_T92n | C30 | DQ9T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T93p | DIFFOUT_T93p | E31 | DQ9T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T93n | DIFFOUT_T93n | F31 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T94p | DIFFOUT_T94p | B31 | DQ9T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T94n | DIFFOUT_T94n | A30 | DQ9T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T95p | DIFFOUT_T95p | A31 | DQ9T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T95n | DIFFOUT_T95n | A32 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T96p | DIFFOUT_T96p | A33 | DQS9T/CQ9T/CQn9T/QKn9T | DQS5T/CQ5T/CQn5T/QKn5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T96n | DIFFOUT_T96n | B33 | DQSn9T/QK9T | DQSn5T/QK5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T97p | DIFFOUT_T97p | H31 | DQ9T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T97n | DIFFOUT_T97n | J31 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T98p | DIFFOUT_T98p | C31 | DQ9T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T98n | DIFFOUT_T98n | D31 | DQ9T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T99p | DIFFOUT_T99p | C32 | DQ9T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T99n | DIFFOUT_T99n | D32 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T100p | DIFFOUT_T100p | N31 | DQ10T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T100n | DIFFOUT_T100n | P31 | DQ10T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T101p | DIFFOUT_T101p | J32 | DQ10T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T101n | DIFFOUT_T101n | K32 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T102p | DIFFOUT_T102p | M32 | DQ10T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T102n | DIFFOUT_T102n | N32 | DQ10T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T103p | DIFFOUT_T103p | J34 | DQ10T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T103n | DIFFOUT_T103n | K34 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T104p | DIFFOUT_T104p | L33 | DQS10T/CQ10T/CQn10T/QKn10T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_RX_T104n | DIFFOUT_T104n | M33 | DQSn10T/QK10T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T105p | DIFFOUT_T105p | L31 | DQ10T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T105n | DIFFOUT_T105n | M31 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK23p | | DIFFIO_RX_T106p | DIFFOUT_T106p | N34 | DQ10T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK23n | | DIFFIO_RX_T106n | DIFFOUT_T106n | N33 | DQ10T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T107p | DIFFOUT_T107p | L34 | DQ10T | DQ5T | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T107n | DIFFOUT_T107n | M34 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK22p | | DIFFIO_RX_T108p | DIFFOUT_T108p | E34 | DQ11T | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK22n | | DIFFIO_RX_T108n | DIFFOUT_T108n | F34 | DQ11T | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | | | J33 | DQ11T | | | | | | | | |
| 8A | VREFB8AN0 | IO | VREFB8AN0 | | | | H33 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT2,FPLL_TL_FBp,FPLL_TL_FB1 | | DIFFIO_RX_T109p | DIFFOUT_T109p | B34 | DQ11T | | | | | | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT3,FPLL_TL_FBn | | DIFFIO_RX_T109n | DIFFOUT_T109n | A35 | DQ11T | | | | | | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT0,FPLL_TL_CLKOUTp,FPLL_TL_FB0 | | DIFFIO_TX_T110p | DIFFOUT_T110p | C33 | DQ11T | | | | | | | | |
| 8A | VREFB8AN0 | IO | FPLL_TL_CLKOUT1,FPLL_TL_CLKOUTn | | DIFFIO_TX_T110n | DIFFOUT_T110n | D33 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK21p | | DIFFIO_RX_T111p | DIFFOUT_T111p | G34 | DQS11T/CQ11T/CQn11T/QKn11T | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK21n | | DIFFIO_RX_T111n | DIFFOUT_T111n | H34 | DQSn11T/QK11T | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T112p | DIFFOUT_T112p | F32 | DQ11T | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T112n | DIFFOUT_T112n | G32 | | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK20p | | DIFFIO_RX_T113p | DIFFOUT_T113p | C34 | DQ11T | | | | | | | | |
| 8A | VREFB8AN0 | IO | CLK20n | | DIFFIO_RX_T113n | DIFFOUT_T113n | D34 | DQ11T | | | | | | | | |
| 8A | VREFB8AN0 | IO | | | DIFFIO_TX_T114p | DIFFOUT_T114p | E33 | DQ11T | | | | | | | | |
| 8A | VREFB8AN0 | IO | RZQ_6 | | DIFFIO_TX_T114n | DIFFOUT_T114n | F33 | | | | | | | | | |
| 8A | | MSEL0 | | MSEL0 | | | H35 | | | | | | | | | |
| 8A | | MSEL1 | | MSEL1 | | | A34 | | | | | | | | | |
| 8A | | MSEL2 | | MSEL2 | | | D35 | | | | | | | | | |
| 8A | | MSEL3 | | MSEL3 | | | A37 | | | | | | | | | |
| 8A | | MSEL4 | | MSEL4 | | | P34 | | | | | | | | | |
| 8A | | CONF_DONE | | CONF_DONE | | | K35 | | | | | | | | | |
| 8A | | nSTATUS | | nSTATUS | | | F35 | | | | | | | | | |
| 8A | | nCE | | nCE | | | M35 | | | | | | | | | |
| 8A | | nCONFIG | | nCONFIG | | | A36 | | | | | | | | | |
| | | GND | | | | | P35 | | | | | | | | | |
| | | VCC_HPS | | | | | V16 | | | | | | | | | |
| | | GND | | | | | W16 | | | | | | | | | |
| | | GND | | | | | AA33 | | | | | | | | | |
| | | GND | | | | | AA35 | | | | | | | | | |
| | | GND | | | | | AA38 | | | | | | | | | |
| | | GND | | | | | AA39 | | | | | | | | | |
| | | GND | | | | | AB31 | | | | | | | | | |
| | | GND | | | | | AB32 | | | | | | | | | |
| | | GND | | | | | AB34 | | | | | | | | | |
| | | GND | | | | | AB36 | | | | | | | | | |
| | | GND | | | | | AB37 | | | | | | | | | |
| | | GND | | | | | AC33 | | | | | | | | | |
| | | GND | | | | | AC38 | | | | | | | | | |
| | | GND | | | | | AC39 | | | | | | | | | |
| | | GND | | | | | AD32 | | | | | | | | | |
| | | GND | | | | | AD36 | | | | | | | | | |
| | | GND | | | | | AD37 | | | | | | | | | |
| | | GND | | | | | AE33 | | | | | | | | | |
| | | GND | | | | | AE35 | | | | | | | | | |
| | | GND | | | | | AE38 | | | | | | | | | |
| | | GND | | | | | AE39 | | | | | | | | | |
| | | GND | | | | | AF31 | | | | | | | | | |
| | | GND | | | | | AF32 | | | | | | | | | |
| | | GND | | | | | AF34 | | | | | | | | | |
| | | GND | | | | | AF36 | | | | | | | | | |
| | | GND | | | | | AF37 | | | | | | | | | |
| | | GND | | | | | AG38 | | | | | | | | | |
| | | GND | | | | | AG39 | | | | | | | | | |
| | | GND | | | | | AH32 | | | | | | | | | |
| | | GND | | | | | AH33 | | | | | | | | | |
| | | GND | | | | | AH34 | | | | | | | | | |
| | | GND | | | | | AH35 | | | | | | | | | |
| | | GND | | | | | AH36 | | | | | | | | | |
| | | GND | | | | | AH37 | | | | | | | | | |
| | | GND | | | | | AJ35 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GND | | | | | AJ38 | | | | | | | | | |
| | | GND | | | | | AJ39 | | | | | | | | | |
| | | GND | | | | | AK36 | | | | | | | | | |
| | | GND | | | | | AK37 | | | | | | | | | |
| | | GND | | | | | AL35 | | | | | | | | | |
| | | GND | | | | | AL38 | | | | | | | | | |
| | | GND | | | | | AL39 | | | | | | | | | |
| | | GND | | | | | AM36 | | | | | | | | | |
| | | GND | | | | | AM37 | | | | | | | | | |
| | | GND | | | | | AN35 | | | | | | | | | |
| | | GND | | | | | AN38 | | | | | | | | | |
| | | GND | | | | | AN39 | | | | | | | | | |
| | | GND | | | | | AP36 | | | | | | | | | |
| | | GND | | | | | AP37 | | | | | | | | | |
| | | GND | | | | | AR35 | | | | | | | | | |
| | | GND | | | | | AR38 | | | | | | | | | |
| | | GND | | | | | AR39 | | | | | | | | | |
| | | GND | | | | | AT36 | | | | | | | | | |
| | | GND | | | | | AT37 | | | | | | | | | |
| | | GND | | | | | AU35 | | | | | | | | | |
| | | GND | | | | | AU38 | | | | | | | | | |
| | | GND | | | | | AU39 | | | | | | | | | |
| | | GND | | | | | AV35 | | | | | | | | | |
| | | GND | | | | | AV36 | | | | | | | | | |
| | | GND | | | | | AV37 | | | | | | | | | |
| | | GND | | | | | AV38 | | | | | | | | | |
| | | GND | | | | | AV39 | | | | | | | | | |
| | | GND | | | | | AW35 | | | | | | | | | |
| | | GND | | | | | AW38 | | | | | | | | | |
| | | GND | | | | | B36 | | | | | | | | | |
| | | GND | | | | | B37 | | | | | | | | | |
| | | GND | | | | | C35 | | | | | | | | | |
| | | GND | | | | | C38 | | | | | | | | | |
| | | GND | | | | | C39 | | | | | | | | | |
| | | GND | | | | | D36 | | | | | | | | | |
| | | GND | | | | | D37 | | | | | | | | | |
| | | GND | | | | | E35 | | | | | | | | | |
| | | GND | | | | | E38 | | | | | | | | | |
| | | GND | | | | | E39 | | | | | | | | | |
| | | GND | | | | | F36 | | | | | | | | | |
| | | GND | | | | | F37 | | | | | | | | | |
| | | GND | | | | | G35 | | | | | | | | | |
| | | GND | | | | | G38 | | | | | | | | | |
| | | GND | | | | | G39 | | | | | | | | | |
| | | GND | | | | | H36 | | | | | | | | | |
| | | GND | | | | | H37 | | | | | | | | | |
| | | GND | | | | | J35 | | | | | | | | | |
| | | GND | | | | | J38 | | | | | | | | | |
| | | GND | | | | | J39 | | | | | | | | | |
| | | GND | | | | | K36 | | | | | | | | | |
| | | GND | | | | | K37 | | | | | | | | | |
| | | GND | | | | | L35 | | | | | | | | | |
| | | GND | | | | | L38 | | | | | | | | | |
| | | GND | | | | | L39 | | | | | | | | | |
| | | GND | | | | | M36 | | | | | | | | | |
| | | GND | | | | | M37 | | | | | | | | | |
| | | GND | | | | | N35 | | | | | | | | | |
| | | GND | | | | | N38 | | | | | | | | | |
| | | GND | | | | | N39 | | | | | | | | | |
| | | GND | | | | | P36 | | | | | | | | | |
| | | GND | | | | | P37 | | | | | | | | | |
| | | GND | | | | | R34 | | | | | | | | | |
| | | GND | | | | | R38 | | | | | | | | | |
| | | GND | | | | | R39 | | | | | | | | | |
| | | GND | | | | | T32 | | | | | | | | | |
| | | GND | | | | | T36 | | | | | | | | | |
| | | GND | | | | | T37 | | | | | | | | | |
| | | GND | | | | | U33 | | | | | | | | | |
| | | GND | | | | | U35 | | | | | | | | | |
| | | GND | | | | | U38 | | | | | | | | | |
| | | GND | | | | | U39 | | | | | | | | | |
| | | GND | | | | | V32 | | | | | | | | | |
| | | GND | | | | | V34 | | | | | | | | | |
| | | GND | | | | | V36 | | | | | | | | | |
| | | GND | | | | | V37 | | | | | | | | | |
| | | GND | | | | | W33 | | | | | | | | | |
| | | GND | | | | | W38 | | | | | | | | | |
| | | GND | | | | | W39 | | | | | | | | | |
| | | GND | | | | | Y31 | | | | | | | | | |
| | | GND | | | | | Y32 | | | | | | | | | |
| | | GND | | | | | Y36 | | | | | | | | | |
| | | GND | | | | | Y37 | | | | | | | | | |
| | | GND | | | | | AA3 | | | | | | | | | |
| | | GND | | | | | AA4 | | | | | | | | | |
| | | GND | | | | | AA6 | | | | | | | | | |
| | | GND | | | | | AA8 | | | | | | | | | |
| | | GND | | | | | AB1 | | | | | | | | | |
| | | GND | | | | | AB2 | | | | | | | | | |
| | | GND | | | | | AB7 | | | | | | | | | |
| | | GND | | | | | AC3 | | | | | | | | | |
| | | GND | | | | | AC4 | | | | | | | | | |
| | | GND | | | | | AC8 | | | | | | | | | |
| | | GND | | | | | AD1 | | | | | | | | | |
| | | GND | | | | | AD2 | | | | | | | | | |
| | | GND | | | | | AD5 | | | | | | | | | |
| | | GND | | | | | AD7 | | | | | | | | | |
| | | GND | | | | | AE3 | | | | | | | | | |
| | | GND | | | | | AE4 | | | | | | | | | |
| | | GND | | | | | AE6 | | | | | | | | | |
| | | GND | | | | | AE8 | | | | | | | | | |
| | | GND | | | | | AF1 | | | | | | | | | |
| | | GND | | | | | AF2 | | | | | | | | | |
| | | GND | | | | | AF9 | | | | | | | | | |
| | | GND | | | | | AG3 | | | | | | | | | |
| | | GND | | | | | AG4 | | | | | | | | | |
| | | GND | | | | | AG5 | | | | | | | | | |
| | | GND | | | | | AG6 | | | | | | | | | |
| | | GND | | | | | AG7 | | | | | | | | | |
| | | GND | | | | | AG8 | | | | | | | | | |
| | | GND | | | | | AH1 | | | | | | | | | |
| | | GND | | | | | AH2 | | | | | | | | | |
| | | GND | | | | | AH5 | | | | | | | | | |
| | | GND | | | | | AJ3 | | | | | | | | | |
| | | GND | | | | | AJ4 | | | | | | | | | |
| | | GND | | | | | AK1 | | | | | | | | | |
| | | GND | | | | | AK2 | | | | | | | | | |
| | | GND | | | | | AK5 | | | | | | | | | |
| | | GND | | | | | AL3 | | | | | | | | | |
| | | GND | | | | | AL4 | | | | | | | | | |
| | | GND | | | | | AM1 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GND | | | | | AM2 | | | | | | | | | |
| | | GND | | | | | AM5 | | | | | | | | | |
| | | GND | | | | | AN3 | | | | | | | | | |
| | | GND | | | | | AN4 | | | | | | | | | |
| | | GND | | | | | AP1 | | | | | | | | | |
| | | GND | | | | | AP2 | | | | | | | | | |
| | | GND | | | | | AP5 | | | | | | | | | |
| | | GND | | | | | AR3 | | | | | | | | | |
| | | GND | | | | | AR4 | | | | | | | | | |
| | | GND | | | | | AT1 | | | | | | | | | |
| | | GND | | | | | AT2 | | | | | | | | | |
| | | GND | | | | | AT5 | | | | | | | | | |
| | | GND | | | | | AU3 | | | | | | | | | |
| | | GND | | | | | AU4 | | | | | | | | | |
| | | GND | | | | | AV1 | | | | | | | | | |
| | | GND | | | | | AV2 | | | | | | | | | |
| | | GND | | | | | N3 | | | | | | | | | |
| | | GND | | | | | N4 | | | | | | | | | |
| | | GND | | | | | P1 | | | | | | | | | |
| | | GND | | | | | P2 | | | | | | | | | |
| | | GND | | | | | P5 | | | | | | | | | |
| | | GND | | | | | R3 | | | | | | | | | |
| | | GND | | | | | R4 | | | | | | | | | |
| | | GND | | | | | R5 | | | | | | | | | |
| | | GND | | | | | T1 | | | | | | | | | |
| | | GND | | | | | T2 | | | | | | | | | |
| | | GND | | | | | T5 | | | | | | | | | |
| | | GND | | | | | U3 | | | | | | | | | |
| | | GND | | | | | U4 | | | | | | | | | |
| | | GND | | | | | U5 | | | | | | | | | |
| | | GND | | | | | U6 | | | | | | | | | |
| | | GND | | | | | V1 | | | | | | | | | |
| | | GND | | | | | V2 | | | | | | | | | |
| | | GND | | | | | V7 | | | | | | | | | |
| | | GND | | | | | W3 | | | | | | | | | |
| | | GND | | | | | W4 | | | | | | | | | |
| | | GND | | | | | W8 | | | | | | | | | |
| | | GND | | | | | Y1 | | | | | | | | | |
| | | GND | | | | | Y2 | | | | | | | | | |
| | | GND | | | | | Y5 | | | | | | | | | |
| | | GND | | | | | Y7 | | | | | | | | | |
| | | VCCP | | | | | AA21 | | | | | | | | | |
| | | VCCP | | | | | AA25 | | | | | | | | | |
| | | VCCP | | | | | AB15 | | | | | | | | | |
| | | VCCP | | | | | U10 | | | | | | | | | |
| | | VCCP | | | | | U16 | | | | | | | | | |
| | | VCCP | | | | | V25 | | | | | | | | | |
| | | VCCP | | | | | V27 | | | | | | | | | |
| | | VCCP | | | | | W10 | | | | | | | | | |
| | | VCCP | | | | | Y27 | | | | | | | | | |
| | | VCCA_FPLL | | | | | AC30 | | | | | | | | | |
| | | VCCA_FPLL | | | | | AC9 | | | | | | | | | |
| | | VCCA_FPLL | | | | | Y30 | | | | | | | | | |
| | | VCCA_FPLL | | | | | AA9 | | | | | | | | | |
| | | VCCA_FPLL | | | | | V31 | | | | | | | | | |
| | | VCCPLL_HPS | | | | | U8 | | | | | | | | | |
| | | VCCBAT | | | | | R33 | | | | | | | | | |
| | | VCC_AUX | | | | | AB14 | | | | | | | | | |
| | | VCC_AUX | | | | | AB26 | | | | | | | | | |
| | | VCC_AUX | | | | | U28 | | | | | | | | | |
| | | VCC_AUX_SHARED | | | | | U15 | | | | | | | | | |
| | | VCCD_FPLL | | | | | AD31 | | | | | | | | | |
| | | VCCD_FPLL | | | | | AE9 | | | | | | | | | |
| | | VCCD_FPLL | | | | | W30 | | | | | | | | | |
| | | VCCD_FPLL | | | | | W9 | | | | | | | | | |
| | | VCCD_FPLL | | | | | T31 | | | | | | | | | |
| | | VCCA_GXBL0 | | | | | AF33 | | | | | | | | | |
| | | VCCA_GXBR0 | | | | | AE7 | | | | | | | | | |
| | | VCCA_GXBL1 | | | | | AB33 | | | | | | | | | |
| | | VCCA_GXBR1 | | | | | AA7 | | | | | | | | | |
| | | VCCA_GXBL2 | | | | | Y33 | | | | | | | | | |
| | | VCCH_GXBL0 | | | | | AD33 | | | | | | | | | |
| | | VCCH_GXBR0 | | | | | AC7 | | | | | | | | | |
| | | VCCH_GXBL1 | | | | | Y33 | | | | | | | | | |
| | | VCCH_GXBR1 | | | | | W7 | | | | | | | | | |
| | | VCCH_GXBL2 | | | | | T33 | | | | | | | | | |
| | | VCCL_GXBL0 | | | | | AD34 | | | | | | | | | |
| | | VCCL_GXBL0 | | | | | AD35 | | | | | | | | | |
| | | VCCL_GXBR0 | | | | | AC5 | | | | | | | | | |
| | | VCCL_GXBR0 | | | | | AC6 | | | | | | | | | |
| | | VCCL_GXBL1 | | | | | Y34 | | | | | | | | | |
| | | VCCL_GXBL1 | | | | | Y35 | | | | | | | | | |
| | | VCCL_GXBR1 | | | | | W5 | | | | | | | | | |
| | | VCCL_GXBR1 | | | | | W6 | | | | | | | | | |
| | | VCCL_GXBL2 | | | | | T34 | | | | | | | | | |
| | | VCCL_GXBL2 | | | | | T35 | | | | | | | | | |
| | | VCCR_GXBL | | | | | U34 | | | | | | | | | |
| | | VCCR_GXBL | | | | | W34 | | | | | | | | | |
| | | VCCR_GXBL | | | | | AA34 | | | | | | | | | |
| | | VCCR_GXBL | | | | | AB35 | | | | | | | | | |
| | | VCCR_GXBL | | | | | AC35 | | | | | | | | | |
| | | VCCR_GXBL | | | | | AE34 | | | | | | | | | |
| | | VCCR_GXBL | | | | | AF35 | | | | | | | | | |
| | | VCCR_GXBR | | | | | V5 | | | | | | | | | |
| | | VCCR_GXBR | | | | | V6 | | | | | | | | | |
| | | VCCR_GXBR | | | | | Y6 | | | | | | | | | |
| | | VCCR_GXBR | | | | | AA5 | | | | | | | | | |
| | | VCCR_GXBR | | | | | AB5 | | | | | | | | | |
| | | VCCR_GXBR | | | | | AB6 | | | | | | | | | |
| | | VCCT_GXBL0 | | | | | AG35 | | | | | | | | | |
| | | VCCT_GXBL0 | | | | | AG34 | | | | | | | | | |
| | | VCCT_GXBR0 | | | | | AD6 | | | | | | | | | |
| | | VCCT_GXBR0 | | | | | AE5 | | | | | | | | | |
| | | VCCT_GXBL1 | | | | | W35 | | | | | | | | | |
| | | VCCT_GXBL1 | | | | | V35 | | | | | | | | | |
| | | VCCT_GXBR1 | | | | | AF5 | | | | | | | | | |
| | | VCCT_GXBR1 | | | | | AF6 | | | | | | | | | |
| | | VCCT_GXBL2 | | | | | R35 | | | | | | | | | |
| | | VCCT_GXBL2 | | | | | AC34 | | | | | | | | | |
| | | VCC | | | | | AA10 | | | | | | | | | |
| | | VCC | | | | | AA12 | | | | | | | | | |
| | | VCC | | | | | AA14 | | | | | | | | | |
| | | VCC | | | | | AA16 | | | | | | | | | |
| | | VCC | | | | | AA18 | | | | | | | | | |
| | | VCC | | | | | AA20 | | | | | | | | | |
| | | VCC | | | | | AA22 | | | | | | | | | |
| | | VCC | | | | | AA24 | | | | | | | | | |
| | | VCC | | | | | AA26 | | | | | | | | | |
| | | VCC | | | | | AB11 | | | | | | | | | |
| | | VCC | | | | | AB17 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2)*, *(3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | VCC | | | | | U18 | | | | | | | | | |
| | | VCC | | | | | V17 | | | | | | | | | |
| | | VCC | | | | | V22 | | | | | | | | | |
| | | VCC | | | | | V23 | | | | | | | | | |
| | | VCC | | | | | V29 | | | | | | | | | |
| | | VCC | | | | | W20 | | | | | | | | | |
| | | VCC | | | | | W18 | | | | | | | | | |
| | | VCC | | | | | W22 | | | | | | | | | |
| | | VCC | | | | | W24 | | | | | | | | | |
| | | VCC | | | | | W26 | | | | | | | | | |
| | | VCC | | | | | W28 | | | | | | | | | |
| | | VCC | | | | | Y11 | | | | | | | | | |
| | | VCC | | | | | Y15 | | | | | | | | | |
| | | VCC | | | | | Y17 | | | | | | | | | |
| | | VCC | | | | | Y19 | | | | | | | | | |
| | | VCC | | | | | Y23 | | | | | | | | | |
| | | VCC | | | | | Y25 | | | | | | | | | |
| | | VCC | | | | | Y29 | | | | | | | | | |
| | | VCC | | | | | Y21 | | | | | | | | | |
| | | VCC_HPS | | | | | U12 | | | | | | | | | |
| | | VCC_HPS | | | | | V11 | | | | | | | | | |
| | | VCC_HPS | | | | | V12 | | | | | | | | | |
| | | VCC_HPS | | | | | V13 | | | | | | | | | |
| | | VCC_HPS | | | | | V15 | | | | | | | | | |
| | | VCC_HPS | | | | | W12 | | | | | | | | | |
| | | VCC_HPS | | | | | W14 | | | | | | | | | |
| | | VCC_HPS | | | | | Y13 | | | | | | | | | |
| | | VCCIO3A | | | | | AH29 | | | | | | | | | |
| | | VCCIO3A | | | | | AJ30 | | | | | | | | | |
| | | VCCIO3A | | | | | AK35 | | | | | | | | | |
| | | VCCIO3A | | | | | AM30 | | | | | | | | | |
| | | VCCIO3A | | | | | AP35 | | | | | | | | | |
| | | VCCIO3A | | | | | AT35 | | | | | | | | | |
| | | VCCIO3B | | | | | AK28 | | | | | | | | | |
| | | VCCIO3B | | | | | AL27 | | | | | | | | | |
| | | VCCIO3B | | | | | AN28 | | | | | | | | | |
| | | VCCIO3B | | | | | AT28 | | | | | | | | | |
| | | VCCIO3C | | | | | AJ24 | | | | | | | | | |
| | | VCCIO3C | | | | | AL25 | | | | | | | | | |
| | | VCCIO3C | | | | | AM24 | | | | | | | | | |
| | | VCCIO3C | | | | | AP25 | | | | | | | | | |
| | | VCCIO3C | | | | | AR24 | | | | | | | | | |
| | | VCCIO3C | | | | | AU25 | | | | | | | | | |
| | | VCCIO3D | | | | | AJ22 | | | | | | | | | |
| | | VCCIO3D | | | | | AL21 | | | | | | | | | |
| | | VCCIO3D | | | | | AM22 | | | | | | | | | |
| | | VCCIO3D | | | | | AP21 | | | | | | | | | |
| | | VCCIO3D | | | | | AR22 | | | | | | | | | |
| | | VCCIO3D | | | | | AU21 | | | | | | | | | |
| | | VCCIO4A | | | | | AG10 | | | | | | | | | |
| | | VCCIO4A | | | | | AJ5 | | | | | | | | | |
| | | VCCIO4A | | | | | AL5 | | | | | | | | | |
| | | VCCIO4A | | | | | AM5 | | | | | | | | | |
| | | VCCIO4A | | | | | AR5 | | | | | | | | | |
| | | VCCIO4A | | | | | AU5 | | | | | | | | | |
| | | VCCIO4B | | | | | AK13 | | | | | | | | | |
| | | VCCIO4B | | | | | AM12 | | | | | | | | | |
| | | VCCIO4B | | | | | AN10 | | | | | | | | | |
| | | VCCIO4B | | | | | AN13 | | | | | | | | | |
| | | VCCIO4B | | | | | AR12 | | | | | | | | | |
| | | VCCIO4B | | | | | AT10 | | | | | | | | | |
| | | VCCIO4C | | | | | AJ15 | | | | | | | | | |
| | | VCCIO4C | | | | | AM15 | | | | | | | | | |
| | | VCCIO4C | | | | | AR15 | | | | | | | | | |
| | | VCCIO4C | | | | | AV15 | | | | | | | | | |
| | | VCCIO4D | | | | | AJ19 | | | | | | | | | |
| | | VCCIO4D | | | | | AK18 | | | | | | | | | |
| | | VCCIO4D | | | | | AM19 | | | | | | | | | |
| | | VCCIO4D | | | | | AN18 | | | | | | | | | |
| | | VCCIO4D | | | | | AR19 | | | | | | | | | |
| | | VCCIO4D | | | | | AT18 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | A10 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | C5 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | C8 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | F6 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | F8 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | J6 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | K8 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | M8 | | | | | | | | | |
| | | VCCIO6A_HPS | | | | | P9 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | B3 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | D4 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | G3 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | J3 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | L3 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | N2 | | | | | | | | | |
| | | VCCIO6B_HPS | | | | | N5 | | | | | | | | | |
| | | VCCIO7A_HPS | | | | | B13 | | | | | | | | | |
| | | VCCIO7A_HPS | | | | | E10 | | | | | | | | | |
| | | VCCIO7A_HPS | | | | | G12 | | | | | | | | | |
| | | VCCIO7A_HPS | | | | | K13 | | | | | | | | | |
| | | VCCIO7B_HPS | | | | | E14 | | | | | | | | | |
| | | VCCIO7B_HPS | | | | | J15 | | | | | | | | | |
| | | VCCIO7C_HPS | | | | | D17 | | | | | | | | | |
| | | VCCIO7D_HPS | | | | | B18 | | | | | | | | | |
| | | VCCIO7D_HPS | | | | | G17 | | | | | | | | | |
| | | VCCIO7E_HPS | | | | | J20 | | | | | | | | | |
| | | VCCIO7G | | | | | K19 | | | | | | | | | |
| | | VCCIO8A | | | | | B35 | | | | | | | | | |
| | | VCCIO8A | | | | | G31 | | | | | | | | | |
| | | VCCIO8A | | | | | G33 | | | | | | | | | |
| | | VCCIO8A | | | | | K31 | | | | | | | | | |
| | | VCCIO8A | | | | | K33 | | | | | | | | | |
| | | VCCIO8A | | | | | P33 | | | | | | | | | |
| | | VCCIO8B | | | | | E28 | | | | | | | | | |
| | | VCCIO8B | | | | | E30 | | | | | | | | | |
| | | VCCIO8B | | | | | H30 | | | | | | | | | |
| | | VCCIO8B | | | | | K28 | | | | | | | | | |
| | | VCCIO8C | | | | | C25 | | | | | | | | | |
| | | VCCIO8C | | | | | D27 | | | | | | | | | |
| | | VCCIO8C | | | | | F26 | | | | | | | | | |
| | | VCCIO8C | | | | | G27 | | | | | | | | | |
| | | VCCIO8C | | | | | J25 | | | | | | | | | |
| | | VCCIO8C | | | | | M24 | | | | | | | | | |
| | | VCCIO8D | | | | | C21 | | | | | | | | | |
| | | VCCIO8D | | | | | D22 | | | | | | | | | |
| | | VCCIO8D | | | | | F21 | | | | | | | | | |
| | | VCCIO8D | | | | | G22 | | | | | | | | | |
| | | VCCIO8D | | | | | K22 | | | | | | | | | |
| | | VCCIO8D | | | | | M21 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | VCCPD3 | | | | | AA27 | | | | | | | | | |
| | | VCCPD3 | | | | | AA28 | | | | | | | | | |
| | | VCCPD3 | | | | | AA29 | | | | | | | | | |
| | | VCCPD3 | | | | | AB22 | | | | | | | | | |
| | | VCCPD3 | | | | | AB23 | | | | | | | | | |
| | | VCCPD3 | | | | | AB24 | | | | | | | | | |
| | | VCCPD3 | | | | | AB30 | | | | | | | | | |
| | | VCCPD4A | | | | | AC10 | | | | | | | | | |
| | | VCCPD4A | | | | | AE10 | | | | | | | | | |
| | | VCCPD4BCD | | | | | AB12 | | | | | | | | | |
| | | VCCPD4BCD | | | | | AB13 | | | | | | | | | |
| | | VCCPD4BCD | | | | | AB16 | | | | | | | | | |
| | | VCCPD4BCD | | | | | AB18 | | | | | | | | | |
| | | VCCPD4BCD | | | | | AB19 | | | | | | | | | |
| | | VCCPD6A6B_HPS | | | | | L9 | | | | | | | | | |
| | | VCCPD6A6B_HPS | | | | | T10 | | | | | | | | | |
| | | VCCPD6A6B_HPS | | | | | T6 | | | | | | | | | |
| | | VCCPD6A6B_HPS | | | | | T8 | | | | | | | | | |
| | | VCCPD7A_HPS | | | | | R12 | | | | | | | | | |
| | | VCCPD7B_HPS | | | | | T14 | | | | | | | | | |
| | | VCCPD7C_HPS | | | | | R16 | | | | | | | | | |
| | | VCCPD7D_HPS | | | | | T17 | | | | | | | | | |
| | | VCCPD7E_HPS | | | | | R18 | | | | | | | | | |
| | | VCCPD7FG | | | | | U21 | | | | | | | | | |
| | | VCCPD8 | | | | | R32 | | | | | | | | | |
| | | VCCPD8 | | | | | T30 | | | | | | | | | |
| | | VCCPD8 | | | | | U22 | | | | | | | | | |
| | | VCCPD8 | | | | | U24 | | | | | | | | | |
| | | VCCPD8 | | | | | U26 | | | | | | | | | |
| | | VCCPD8 | | | | | U29 | | | | | | | | | |
| | | VCCPGM | | | | | J19 | | | | | | | | | |
| | | VCCPGM | | | | | AG29 | | | | | | | | | |
| | | VCCRSTCLK_HPS | | | | | L10 | | | | | | | | | |
| | | VCC_HPS | | | | | T13 | | | | | | | | | |
| | | VCC_HPS | | | | | U14 | | | | | | | | | |
| | | VCC_HPS | | | | | U9 | | | | | | | | | |
| | | VCC_HPS | | | | | V10 | | | | | | | | | |
| | VREFB7A7B7C7D7EN0_HPS | VREFB7A7B7C7D7EN0_HPS | | | | | P18 | | | | | | | | | |
| | | GND | | | | | AA11 | | | | | | | | | |
| | | GND | | | | | AA13 | | | | | | | | | |
| | | GND | | | | | AA15 | | | | | | | | | |
| | | GND | | | | | AA17 | | | | | | | | | |
| | | GND | | | | | AA19 | | | | | | | | | |
| | | GND | | | | | AA23 | | | | | | | | | |
| | | GND | | | | | AA30 | | | | | | | | | |
| | | GND | | | | | AB10 | | | | | | | | | |
| | | GND | | | | | AC11 | | | | | | | | | |
| | | GND | | | | | AC14 | | | | | | | | | |
| | | GND | | | | | AC17 | | | | | | | | | |
| | | GND | | | | | AC20 | | | | | | | | | |
| | | GND | | | | | AC23 | | | | | | | | | |
| | | GND | | | | | AC26 | | | | | | | | | |
| | | GND | | | | | AC28 | | | | | | | | | |
| | | GND | | | | | AD10 | | | | | | | | | |
| | | GND | | | | | AD30 | | | | | | | | | |
| | | GND | | | | | AE30 | | | | | | | | | |
| | | GND | | | | | AF11 | | | | | | | | | |
| | | GND | | | | | AF14 | | | | | | | | | |
| | | GND | | | | | AF17 | | | | | | | | | |
| | | GND | | | | | AF20 | | | | | | | | | |
| | | GND | | | | | AF23 | | | | | | | | | |
| | | GND | | | | | AF26 | | | | | | | | | |
| | | GND | | | | | AF29 | | | | | | | | | |
| | | GND | | | | | AF30 | | | | | | | | | |
| | | GND | | | | | AG31 | | | | | | | | | |
| | | GND | | | | | AG9 | | | | | | | | | |
| | | GND | | | | | AJ11 | | | | | | | | | |
| | | GND | | | | | AJ14 | | | | | | | | | |
| | | GND | | | | | AJ17 | | | | | | | | | |
| | | GND | | | | | AJ20 | | | | | | | | | |
| | | GND | | | | | AJ23 | | | | | | | | | |
| | | GND | | | | | AJ26 | | | | | | | | | |
| | | GND | | | | | AJ29 | | | | | | | | | |
| | | GND | | | | | AJ32 | | | | | | | | | |
| | | GND | | | | | AJ8 | | | | | | | | | |
| | | GND | | | | | AM11 | | | | | | | | | |
| | | GND | | | | | AM14 | | | | | | | | | |
| | | GND | | | | | AM17 | | | | | | | | | |
| | | GND | | | | | AM20 | | | | | | | | | |
| | | GND | | | | | AM23 | | | | | | | | | |
| | | GND | | | | | AM26 | | | | | | | | | |
| | | GND | | | | | AM29 | | | | | | | | | |
| | | GND | | | | | AM32 | | | | | | | | | |
| | | GND | | | | | AM8 | | | | | | | | | |
| | | GND | | | | | AR11 | | | | | | | | | |
| | | GND | | | | | AR14 | | | | | | | | | |
| | | GND | | | | | AR17 | | | | | | | | | |
| | | GND | | | | | AR20 | | | | | | | | | |
| | | GND | | | | | AR23 | | | | | | | | | |
| | | GND | | | | | AR26 | | | | | | | | | |
| | | GND | | | | | AR29 | | | | | | | | | |
| | | GND | | | | | AR32 | | | | | | | | | |
| | | GND | | | | | AR8 | | | | | | | | | |
| | | GND | | | | | AV11 | | | | | | | | | |
| | | GND | | | | | AV14 | | | | | | | | | |
| | | GND | | | | | AV17 | | | | | | | | | |
| | | GND | | | | | AV20 | | | | | | | | | |
| | | GND | | | | | AV23 | | | | | | | | | |
| | | GND | | | | | AV26 | | | | | | | | | |
| | | GND | | | | | AV29 | | | | | | | | | |
| | | GND | | | | | AV32 | | | | | | | | | |
| | | GND | | | | | AV5 | | | | | | | | | |
| | | GND | | | | | AV8 | | | | | | | | | |
| | | GND | | | | | B11 | | | | | | | | | |
| | | GND | | | | | B16 | | | | | | | | | |
| | | GND | | | | | B2 | | | | | | | | | |
| | | GND | | | | | B20 | | | | | | | | | |
| | | GND | | | | | B23 | | | | | | | | | |
| | | GND | | | | | B26 | | | | | | | | | |
| | | GND | | | | | B29 | | | | | | | | | |
| | | GND | | | | | B32 | | | | | | | | | |
| | | GND | | | | | B5 | | | | | | | | | |
| | | GND | | | | | B8 | | | | | | | | | |
| | | GND | | | | | E11 | | | | | | | | | |
| | | GND | | | | | E17 | | | | | | | | | |
| | | GND | | | | | E2 | | | | | | | | | |
| | | GND | | | | | E20 | | | | | | | | | |
| | | GND | | | | | E23 | | | | | | | | | |
| | | GND | | | | | E26 | | | | | | | | | |
| | | GND | | | | | E29 | | | | | | | | | |

| Bank Number | VREF | PinName/Function *(2), (3)* | Optional Function(s) | Configuration Function | Dedicated Tx/Rx Channel | Emulated LVDS Output Channel | F1517 *(4)* | DQS for X8/X9 | DQS for X16/ X18 | DQS for X32/ X36 | HMC pin assignment for DDR3 *(5)* | HMC pin assignment for LPDDR2 | HPS Pin Mux Select 3 | HPS Pin Mux Select 2 | HPS Pin Mux Select 1 | HPS Pin Mux Select 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GND | | | | | E32 | | | | | | | | | |
| | | GND | | | | | E5 | | | | | | | | | |
| | | GND | | | | | E8 | | | | | | | | | |
| | | GND | | | | | F14 | | | | | | | | | |
| | | GND | | | | | H11 | | | | | | | | | |
| | | GND | | | | | H17 | | | | | | | | | |
| | | GND | | | | | H2 | | | | | | | | | |
| | | GND | | | | | H20 | | | | | | | | | |
| | | GND | | | | | H23 | | | | | | | | | |
| | | GND | | | | | H26 | | | | | | | | | |
| | | GND | | | | | H29 | | | | | | | | | |
| | | GND | | | | | H32 | | | | | | | | | |
| | | GND | | | | | H5 | | | | | | | | | |
| | | GND | | | | | H8 | | | | | | | | | |
| | | GND | | | | | J14 | | | | | | | | | |
| | | GND | | | | | K20 | | | | | | | | | |
| | | GND | | | | | L11 | | | | | | | | | |
| | | GND | | | | | L17 | | | | | | | | | |
| | | GND | | | | | L2 | | | | | | | | | |
| | | GND | | | | | L23 | | | | | | | | | |
| | | GND | | | | | L26 | | | | | | | | | |
| | | GND | | | | | L29 | | | | | | | | | |
| | | GND | | | | | L32 | | | | | | | | | |
| | | GND | | | | | L5 | | | | | | | | | |
| | | GND | | | | | L8 | | | | | | | | | |
| | | GND | | | | | N14 | | | | | | | | | |
| | | GND | | | | | N17 | | | | | | | | | |
| | | GND | | | | | N20 | | | | | | | | | |
| | | GND | | | | | P11 | | | | | | | | | |
| | | GND | | | | | P23 | | | | | | | | | |
| | | GND | | | | | P26 | | | | | | | | | |
| | | GND | | | | | P29 | | | | | | | | | |
| | | GND | | | | | P32 | | | | | | | | | |
| | | GND | | | | | P8 | | | | | | | | | |
| | | GND | | | | | W21 | | | | | | | | | |
| | | GND | | | | | T12 | | | | | | | | | |
| | | GND | | | | | T15 | | | | | | | | | |
| | | GND | | | | | T16 | | | | | | | | | |
| | | GND | | | | | T18 | | | | | | | | | |
| | | GND | | | | | T20 | | | | | | | | | |
| | | GND | | | | | T9 | | | | | | | | | |
| | | GND | | | | | U11 | | | | | | | | | |
| | | GND | | | | | U13 | | | | | | | | | |
| | | GND | | | | | U17 | | | | | | | | | |
| | | GND | | | | | U23 | | | | | | | | | |
| | | GND | | | | | U25 | | | | | | | | | |
| | | GND | | | | | U27 | | | | | | | | | |
| | | GND | | | | | U30 | | | | | | | | | |
| | | GND | | | | | U7 | | | | | | | | | |
| | | GND | | | | | V14 | | | | | | | | | |
| | | GND | | | | | V9 | | | | | | | | | |
| | | GND | | | | | V18 | | | | | | | | | |
| | | GND | | | | | V21 | | | | | | | | | |
| | | GND | | | | | V24 | | | | | | | | | |
| | | GND | | | | | V26 | | | | | | | | | |
| | | GND | | | | | V28 | | | | | | | | | |
| | | GND | | | | | V30 | | | | | | | | | |
| | | GND | | | | | V8 | | | | | | | | | |
| | | GND | | | | | W27 | | | | | | | | | |
| | | GND | | | | | W11 | | | | | | | | | |
| | | GND | | | | | W13 | | | | | | | | | |
| | | GND | | | | | W15 | | | | | | | | | |
| | | GND | | | | | W17 | | | | | | | | | |
| | | GND | | | | | W19 | | | | | | | | | |
| | | GND | | | | | W23 | | | | | | | | | |
| | | GND | | | | | W25 | | | | | | | | | |
| | | GND | | | | | W29 | | | | | | | | | |
| | | GND | | | | | Y10 | | | | | | | | | |
| | | GND | | | | | Y12 | | | | | | | | | |
| | | GND | | | | | Y14 | | | | | | | | | |
| | | GND | | | | | Y16 | | | | | | | | | |
| | | GND | | | | | Y18 | | | | | | | | | |
| | | GND | | | | | Y20 | | | | | | | | | |
| | | GND | | | | | Y22 | | | | | | | | | |
| | | GND | | | | | Y24 | | | | | | | | | |
| | | GND | | | | | Y26 | | | | | | | | | |
| | | GND | | | | | Y28 | | | | | | | | | |

Notes:
(1) For more information about pin definitions and pin connection guidelines, refer to the Arria V Device Family Pin Connection Guidelines.
(2) GXB_REFCLK pin is not supported in current Quartus II version, but will be supported in future Quartus II release version.
(3) Pins with * contains similar name with other pins in the same column. For the selection of the HPS pins, refer to the "HPS Pin Mux Select x" columns.
(4) Pins with * are the 10 Gbps transceiver channels. For more information about the 10 Gbps transceiver channels clocking recommendation, refer to the Transceiver Clocking in Arria V Devices chapter.
(5) RESET pin is only applicable for DDR3 device.

| Version Number | Date | Changes Made |
|---|---|---|
| 1.0 | 4/19/2013 | Initial release. |
| 1.1 | 9/30/2014 | Remove corresponding bank number from VCCRSTCLK_HPS pin. |
| 1.2 | 7/31/2015 | Renamed the following columns:<br>- Renamed "DDR3/DDR2 hard memory PHY" to "HMC pin assignment for DDR3".<br>- Renamed "LPDDR2 hard memory PHY" to "HMC pin assignment for LPDDR2". |
| 1.3 | 12/23/2016 | -Renamed SDMMC_FB_CLK_IN to HPS_GPIO44. |
| | | |