Intel® Stratix® 10 GX L-Tile Production Device Errata
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Intel® Stratix® 10 GX L-Tile Production Device Errata

This errata sheet provides information about known device issues affecting Intel® Stratix® 10 GX devices.

Device Errata for the Intel Stratix 10 GX 2800 and GX 2500 Devices

This section lists the errata that apply to the Intel Stratix 10 GX 2800 and GX 2500 L-Tile production devices. Each listed erratum has an associated status that identifies any planned fixes.

Table 1. Device Issues

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### Device Power Supply, Core, Configuration and I/O

### Power-on Configuration Intermittent Configuration Failures

#### Description

Your device may encounter intermittent configuration failures if it is not programmed with at least 256 kB of configuration data within 18 seconds after completion of the power up sequence. This erratum does not apply to FPGA reconfiguration, provided a successful configuration was completed after the power up sequence. If the nSTATUS pin remains low for 110 ms after toggling the nCONFIG pin from low to high, it may indicate you have encountered this issue. To confirm, toggle nCONFIG again and if the nSTATUS pin remains low for another 10 ms, then you have confirmed the failure.

**Note:** Configuration via Protocol (CvP) that uses an open or closed PCIe system must also adhere to the above requirements for successful configuration.

#### Workaround

**Hardware workaround:** Use a MOSFET as a switch to briefly toggle the VCCIO_SDM voltage level when the host is ready to configure the FPGA using an arrangement as shown in the figure below.

![Diagram](image)

**Figure 1. Hardware Workaround**
**Software workaround:** Configure your FPGA with a dummy design within 18 seconds of the power up sequence completion. When the system is ready to configure, then reconfigure with the full design. Note the following considerations regarding the software workaround:

- For Intel Quartus® Prime Pro Edition versions prior to 18.0:
  - You must use the same version of Intel Quartus Prime Pro Edition to create the first programmed bitstream and any subsequent programmed bitstreams.
- For Intel Quartus Prime Pro Edition version 18.0:
  - You can ensure compatibility of Intel Quartus Prime Pro Edition version 18.0 with future versions of Intel Quartus Prime Pro Edition by installing patch 0.13 for Microsoft® Windows® 10 or patch 0.13 for Linux®. To install patch 0.13, you must have Intel Quartus Prime Pro Edition version 18.0 installed. For more information, refer to the associated Knowledge Base entry.
- For Intel Quartus Prime Pro Edition versions after 18.0:
  - You can create subsequent configuration files with any Intel Quartus Prime Pro Edition version later than 18.0.

**Status**

Affects: Intel Stratix 10 GX 2800 and GX 2500 L-Tile production devices

Status: If you are using an Intel Stratix 10 GX 2800 or 2500 L-Tile device and a fix is required, move to the Intel Stratix 10 SX 2800/2500 L-Tile device, which is drop-in compatible.

**Device Security Features**

**Description**

If you intend to use the device security features, please contact Intel Premier Support.

**Status**

Affects: Intel Stratix 10 GX 2800 and GX 2500 L-Tile production devices

Status: No planned fix
## Revision History of Intel Stratix 10 GX L-Tile Production Device Errata

<table>
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<tr>
<th>Document Version</th>
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</table>
| 2018.10.05       | Made the following changes:  
|                  | • Updated the “Power-on Configuration Intermittent Configuration Failures” section. |
| 2018.07.09       | Made the following changes:  
|                  | • Updated the “Power-on Configuration Intermittent Configuration Failures” section. |
| 2018.02.05       | Initial release. |