

Intel Technical Advisory

TA-1181

5200 NE Elam Young Parkway
Hillsboro, OR 97124

January 20, 2023

RT3EX020E RAID cards shipped with incorrect, Legacy only FW.

Products Affected

Product Name			
The Intel® Data Center Blocks (Intel® DCB)	RT3EX020E		
	LCY1204IRA20606	LCY2208LRA4850H	LCY2224NX348509
	LCY1204KRA60501	LCY2208LRA4850I	LCY2224NX348509
	LCY1212IRA0960B	LCY2208LRA4850J	LCY2224NX348509
	LCY1212IRA0960C	LCY2216NX142500	LCY2224NX34850A
	LCY1212IRA0960D	LCY2216NX248500	LCY2224NX34850I
	LCY2208IRA17500	LCY2224NX120600	LCY2224NX34850N
	LCY2208IRA17501	LCY2224NX142500	LCY2312KRA18600
	LCY2208IRA18502	LCY2224NX342500	LCY2312LRA42000
	LCY2208IRA18601	LCY2224NX342501	LCY2312LRA46002
	LCY2208IRA18602	LCY2224NX342502	LCY2224NX3XX201
	LCY2208LRA4850G	LCY2224NX342503	LCY2224NX3XX502

Description

The RT3EX020E M.2 Boot RAID card should ship with FW 2.3.24.1008 however a number of cards shipped with Legacy only FW 2.3.0.1078

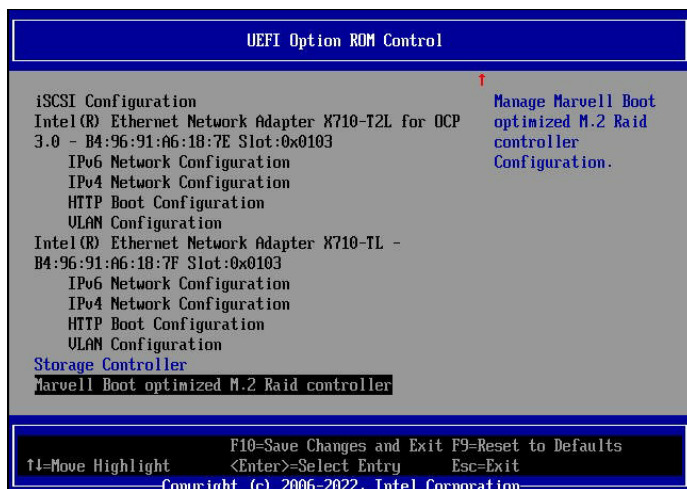
Root Cause

This is an incoming factory excursion resulting in some cards with the incorrect FW being placed in inventory and shipped to customers.

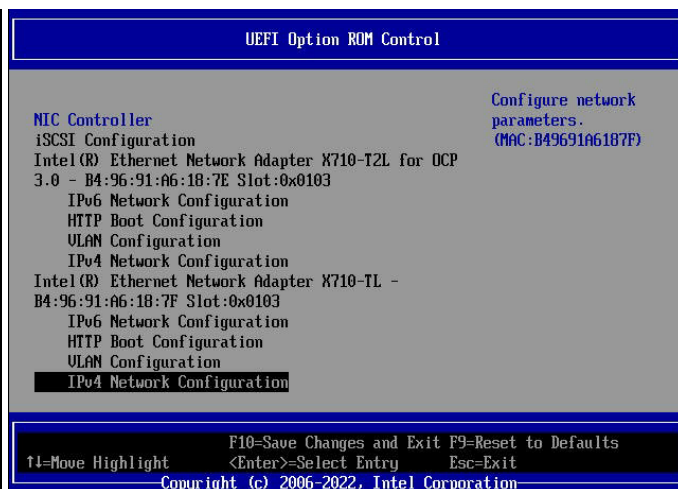
Impact Diagnostic:

The 2.3.0.1078 firmware lacks the uEFI Hii option ROM interface which allows the RAID card to be configured in BIOS setup. The 2.3.0.1078 firmware only has Legacy option ROM and POST configuration support.

To check what firmware version is installed, in BIOS setup navigate to ADVANCED > PCI Configuration > uEFI Option Rom control and scroll to the bottom of the screen. You should see the Marvell Boot optimized M.2 RAID controller.



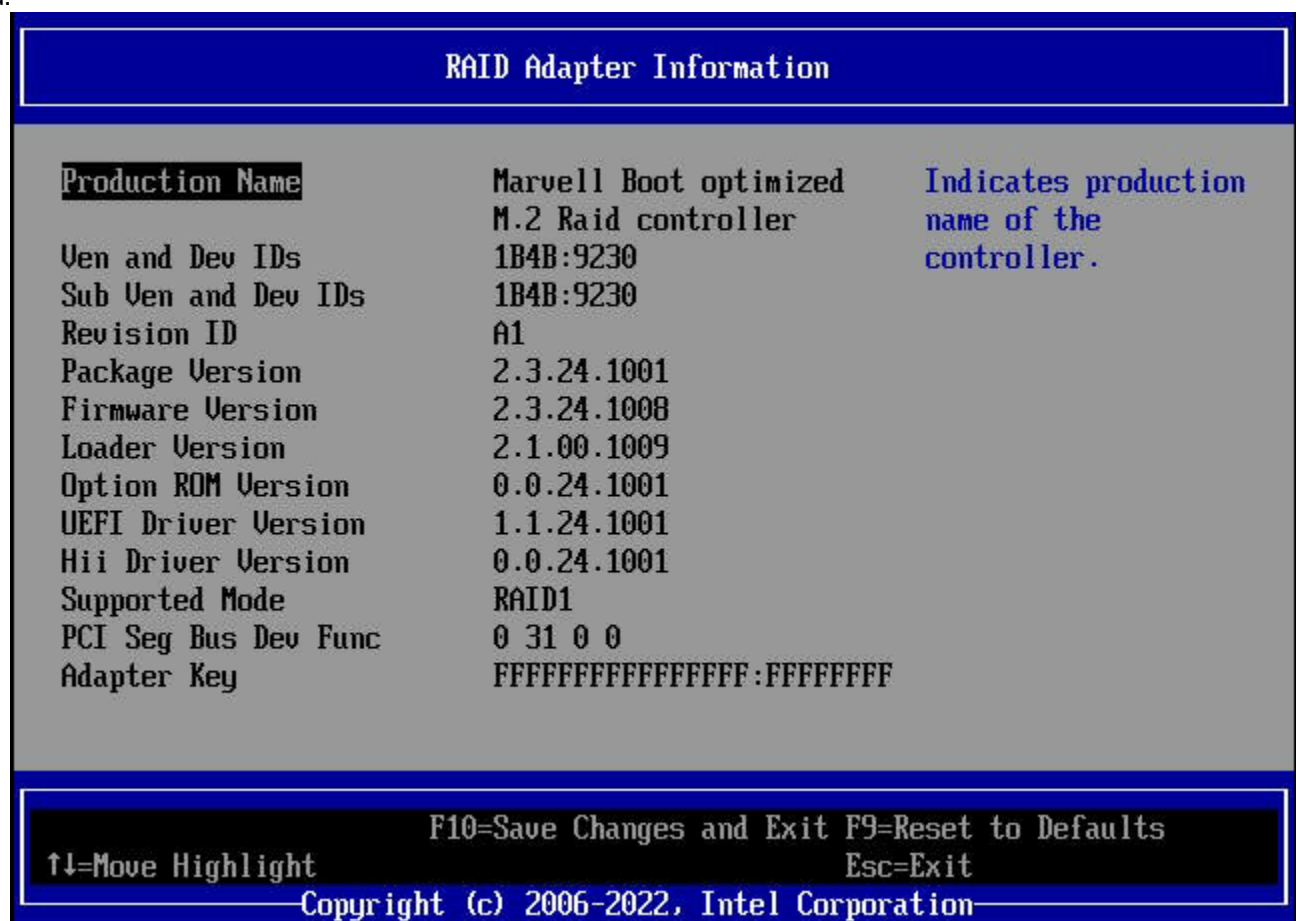
2.3.24.1008 FW



2.3.0.1078 FW

If this screen is not present, the FW needs to be updated to the 2.3.24.1008 FW to allow either Legacy or EFI Hii configuration as determined by the server's operational mode.

When updated, the firmware level can be displayed by pressing enter at the screen above to confirm the correct FW load.



Corrective Action / Resolution

A FW update package is currently available from Intel Customer Support team.
Web Posting of package is pending.

```
Searching for fs0:\startup.nsh
Located startup.nsh in fs0:\
+ ===== +
Type LINUX.nsh to boot to live linux for use with the MUCLI tool
Once Linux has booted type:
cd /run/initramfs/memory/data/mucli_utility/cli
To install the MUCLI driver type:
sh install.sh
Enter the MUCLI shell by Typing:
./mucli
once in the shell you can use several commands
help command
help
HBA info command
info -o hba
Drive info command
info -o pd
Flash drive FW commands
pdflash -i0 -f XC311132_XB4B1007_signed.bin
pdflash -i1 -f XC311132_XB4B1007_signed.bin
+ ===== +
Type RT3EX020E.nsh to load FW 2.3.24.1008 on to the M.2 RAID card
+ ===== +
Edit the last line of startup.nsh to autorun FW updates
FS0:\> _
```

```
Searching for fs0:\startup.nsh
Located startup.nsh in fs0:\
Turn off CPU access!!!
removing fs0:\U02000L_U02000S_9230_FW-2.3.24.1008\bin\setparm.nsh
- [ok]
=====
MARVELL FLASH TOOL
=====
>>The file name is ImageA1.bin and its size is 2097152.
Turn off CPU access!!!
0. Ven:DevID=1b4b:9230 SubVen:DevID=1b4b:9230 => Bus=31, Dev=0, Fun=0

Erase block 001ff000
Write address 001ff000

Write file is successful!!
Powering down in 5 seconds
removing fs0:\shell.flag
- [ok]
Stall for 10000000 uS
-
```

For CTO factory builds a 100% screen has been put in place to catch any system with this card assembled after 1/20/2023.

Contact your local Intel Sales Representative if you require more specific information about this issue.

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