

M9038A-01

Information Only Service Note

Supersedes:
NONE

M9038A PXIe High Performance Embedded Controller: 6-Core

Serial Numbers: ALL

Manufacturing ID Number: ALL

Code 12 errors under Device Manager.

Parts Required:

P/N	Description	Qty.
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NONE

ADMINISTRATIVE INFORMATION

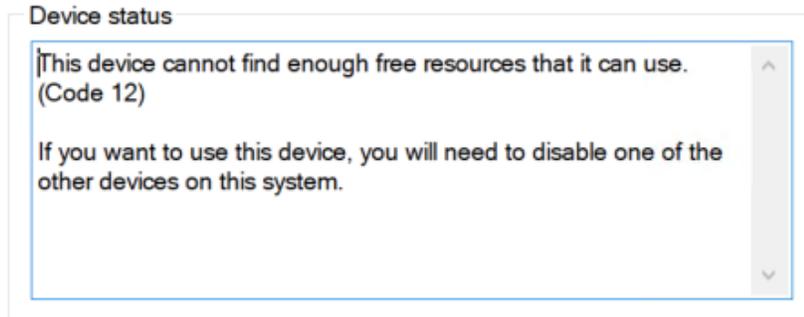
Calibration Required
 Calibration NOT Required

PRODUCT LINE: BL
AUTHOR: TP

ADDITIONAL INFORMATION:

Situation:

It has been found when the M9038A embedded controller is used with modules that request 32-bit prefetchable memory space, for example the M8195A, M9054A, M9155C, M9156C, M9168C, M9168E, M9169E, M9170A, M9185A, M9186A, or M9216A, user may run into PCIe enumeration issues that most often results in Code 12 errors in Windows Device Manager.

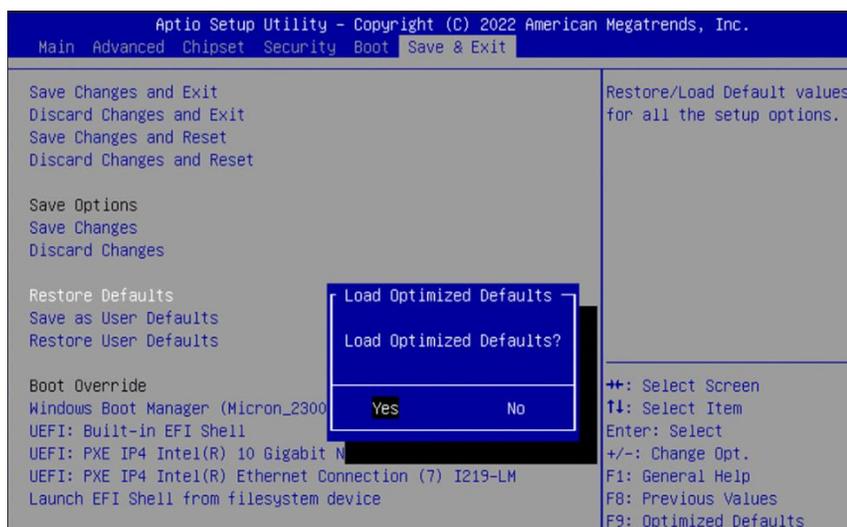


Solution/Action:

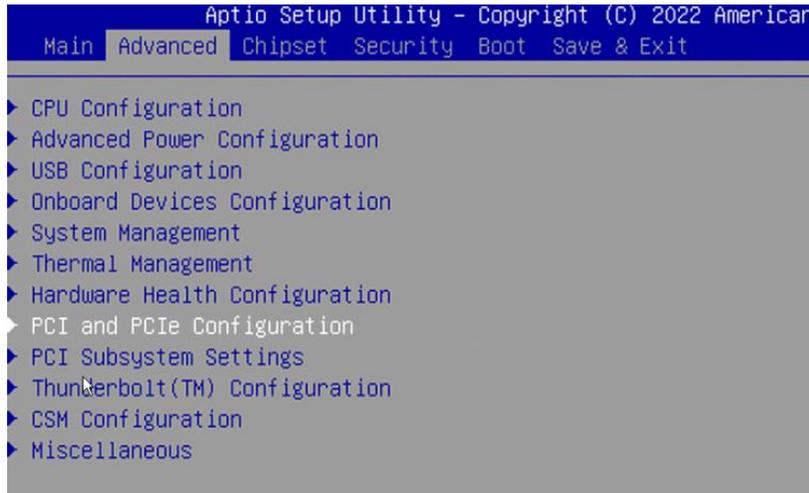
When working with modules that require 32-bit prefetchable memory space, the M9038A BIOS settings are not defaulted to support these. User would have to disable the "Above 4G Decoding" BIOS setting to support these modules. However, if the application has a high number of modules (more than 4 or 5) that require large memory space (for example M9111A, M9195x, M924x, M9336A, M941x, M9601A, or M9603A), the "Above 4G Decoding" BIOS setting may need to be enabled to enumerate them. Currently, there is no one size fits all setting available.

Follow the steps below to disable "Above 4G Decoding" BIOS setting for use with 32-bit prefetchable memory space modules. Repeat the steps below to re-enable "Above 4G Decoding" BIOS setting for use with configurations requiring large memory space.

1. Enter BIOS Setup, navigate the "Save & Exit" tab, enter "Restore Defaults", and choose "Yes" for Load Optimized Defaults.



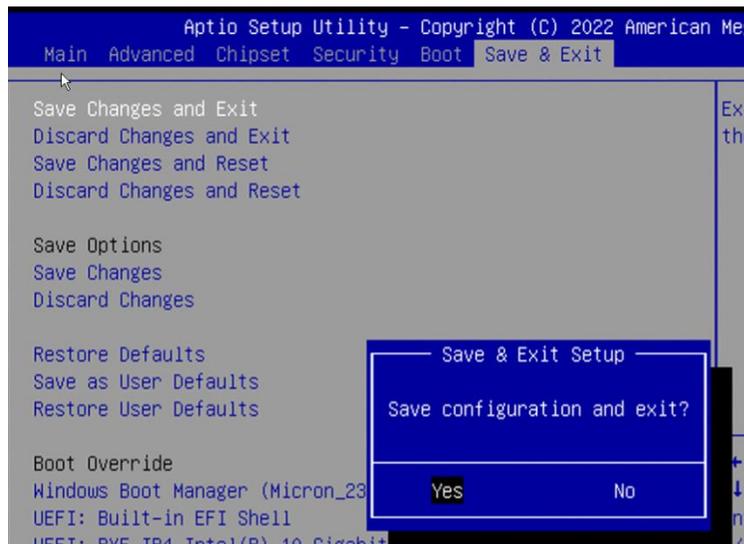
2. Navigate to "Advanced" tab and enter the "PCI and PCIe Configuration" menu.



3. Select "Disabled" or "Enabled" for the "Above 4G Decoding" option as needed.



4. Navigate to the "Save & Exit" Tab, press Enter for the first choice, and choose "Yes" to apply the new changes.



Revision History:

Date	Service Note Revision	Author	Reason for Change
29 Nov 2022	01	TP	As Published