NC-SI OEM Commands

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Get PF MAC Address (Command=0x0, Parameter=0x0)

This command is used by the platform bmc to query any PF programmed MAC address.

For NVIDIA devices that support a single Physical Function for a multi-port NIC port, N MAC address shall be returned to Get PF #N MAC address command.

Get PF MAC Ads Command Format

Field	Bytes	Offset in NC-SI Command	Description
Parameter	1	22	0x0 = Get PF MAC Address
PIndex	1	23	This byte defines the PF Number to which the platform bmc intends to query the programmed MAC address. PF 0 is always available.

Get PF MAC Address Command Layout

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	NVIDIA Manufacture ID (IANA) = 0x8119			
20:23	Command rev=0x00	MLNX Cmd ID=0x00	Parameter=0x00	PF Index
24:27	Checksum 31:0			

Get PF MAC Address Response

The following is the returned value from the NVIDIA device to the "Get PF MAC Address" command.

Get PF MAC Address Response Format

Field	Bytes	Offset in NC-SI Command	Description
Response Code	2	17:16	0x8000 - Un-initialized - returned if the NVIDIA device does not have a default MAC address for the PF and the MAC address was not initialized.

Field	Bytes	Offset in NC-SI Command	Description
Reason Code	2	19:18	0x2 - shall be returned if the PF Index in the command is greater of the supported PFs by the NVIDIA device
Parameter	1	26	0x0 = Get PF MAC Address
PF Index	1	27	The NVIDIA device shall return the same PF index as sent in the Get PF MAC Address Command even if the index is out of range of the supported PFs by the NVIDIA device
MAC Address	6	33:28	PF MAC Address. Default is the production allocated MAC address from the NVIDIA device flash device.

Get PF MAC Address Response Layout

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	Response Code		Reason Code	
20:23	NVIDIA Manufacture ID (IANA) = 0x8119			
24:27	Command rev=0x00	MLNX Cmd ID=0x00	Parameter=0x00	PF Index
28:31	MAC Address (MSB)			
32:35	MAC Address (LSB)		Reserved	
36:39	Checksum 31:0			

Shutdown BlueField DPU OS (Command=0x12, Parameter=0x1A)

The Shutdown BlueField DPU OS command allows trusted platform bmc to send an OS Shutdown request to the embedded CPU on NVIDIA BlueField DPU Devices.

The Shutdown BlueField DPU OS command format is shown below.

Shutdown BlueField DPU OS Command Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	NVIDIA Manufacture ID (IANA) = 0x8119			
20:23	Command rev=0x00	MLNX Cmd ID=0x12	Parameter=0x1A	Reserved
24:27	Reserved			
28:31	Checksum 31:0			

This command has no input parameters. This command is a package command.

Shutdown BlueField DPU OS Response

NVIDIA BlueField DPU always receive and respond to Shutdown BlueField DPU OS command on supporting devices when the package ID matches. When the Shutdown BlueField DPU OS command is sent to a non-supporting device, or the command is received from an untrusted platform bmc, the command will fail with reason code 0x7FFF (Unsupported command).

Shutdown BlueField DPU OS Response Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	Response Code		Reason Code	
20:23	NVIDIA Manufacture ID (IANA) = 0x8119			
24:27	Command rev=0x00	MLNX Cmd ID=0x12	Parameter=0x1A	Reserved
28:31	Reserved			
32:35	Checksum 31:0			

Reset BlueField DPU (Command=0x12, Parameter=0xB)

The Reset BlueField DPU command allows the platform bmc to reset the NVIDIA BlueField DPU device. This command is only applicable to BlueField devices.

The Reset BlueField DPU command is addressed to the package only. When the internal reset is complete, the platform bmc should re-configure the device. This command is only supported starting from BlueField-2.

Reset BlueField DPU Format

Bytes/Bits	31:24	23:16	15:8	7:0	
0:15	NC-SI Header (OEM Command)				
16:19	NVIDIA Manufacture ID (IANA) = 0x8119				
20:23	Command rev=0x00	MLNX Cmd ID=0x12	Parameter=0x0B	NICR	Mode
24:27	Checksum 31:0				

The parameter description for Reset BlueField DPU command are provided below.

Reset BlueField DPU Parameters

Field	Description
NICR	• 0 - NIC does not reset. Only the embedded CPU will reset. • 1 - Reset the embedded CPU and the NIC
Mode	This field defines the type of conditions to use before performing the internal reset • 0 - The internal reset will start after sending the response to this command • 1 - The internal reset will start only when all the hosts asserts their PERST# signals low • 2 - The internal reset will start only when all the hosts disabled their PCIe links. This may or may not include assertion of their respective PERST# signals low. • Other - Reserved

Reset BlueField DPU Response

The ConnectX shall always receive and respond to a Reset BlueField DPU command when the package ID matches, and with no checksum error.

Reset BlueField DPU Response Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	Response Code		Reason Code	

Bytes/Bits	31:24	23:16	15:8	7:0	
20:23	NVIDIA Manufacture ID (IANA) = 0x8119				
24:27	Command rev=0x00	MLNX Cmd ID=0x12	Parameter=0x0B	NICR	Mode
28:31	Checksum 31:0				

Set Host PCIe rshim access to BlueField DPU CPU (Command=0x12, Parameter=0x19)

The Set Host PCIe rshim access to BlueField DPU CPU command allows a trusted platform bmc to configure the BlueField DPU enablement state of the external Host PCIe rshim access to the embedded CPU.

The Set Host PCIe rshim access to BlueField DPU CPU command is a package command.

The action requires to reboot BlueField DPU to take effect.

Set Host PCIe rshim access to BlueField DPU CPU Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	NVIDIA Manufacture ID (IANA) = 0x8119			
20:23	Command rev=0x00	MLNX Cmd ID=0x12	Parameter=0x19	Reserved
24:27	Reserved			Host_Access_State
28:31	Checksum 31:0			

Set Host PCIe rshim access to BlueField DPU CPU Command Parameters

Field	Bytes	Offset in NC-SI Command	Description
Host_Access_State	1	27	Embedded CPU OS state • 0 - Disabled • 1 - Enabled • 2 - Locked (PF Enabled, access is disabled) • Other - reserved

Set Host PCIe rshim access to BlueField DPU CPU Response

BlueField DPU always receive and respond to Set Host PCIe rshim access to BlueField DPU CPU command when the package ID matches.

If the command is received from an untrusted platform bmc, the command will fail with reason code 0x7FFF (Unsupported command).

Set Host rshim Access to BlueField DPU CPU Response Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	Response Code		Reason Code	
20:23	NVIDIA Manufacture ID (IANA) = 0x8119			
24:27	Command rev=0x00	MLNX Cmd ID=0x12	Parameter=0x19	Reserved
28:31	Reserved			Host_Access_State
32:35	Checksum 31:0			

Set Dynamic Host PCIe rshim access to BlueField DPU CPU (Command=0x12, Parameter=0x1B)

The Set Dynamic Host PCIe rshim access to BlueField DPU CPU command allows a trusted platform bmc to configure the BlueField DPU runtime enablement state of the

external Host PCIe rshim access to the embedded CPU.

This command is only available when the non-volatile setting of the Host PCIe rshim access is set to either Enabled or Locked states (see definition in section "Set Host PCIe rshim access to BlueField DPU CPU").

The setting in this command is volatile. Upon device reset, the value of Host_RT_Access_State defaults to the non-volatile configuration (as defined in section "Set Host PCIe rshim access to BlueField DPU CPU").

Set Dynamic Host PCIe rshim access Access to BlueField DPU CPU Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	NVIDIA Manufacture ID (IANA) = 0x8119			
20:23	Command rev=0x00	MLNX Cmd ID=0x12	Parameter=0x1B	Reserved
24:27	Reserved			Host_RT_Access_State
28:31	Checksum 31:0			

Set Dynamic Host PCIe rshim access Access to BlueField DPU CPU Command Parameters

Field	Bytes	Offset in NC-SI Command	Description
Host_RT_Access_State	1	27	Embedded CPU OS state • 0 - Enabled • 1 - Locked • Other - reserved

Set Dynamic Host rshim Access to BlueField DPU CPU Response

BlueField DPU only receive and respond to Set Dynamic Host PCIe rshim access to BlueField DPU CPU Command when the package ID matches and the non-volatile setting of the Host PCIe rshim access is one of Enabled or Locked states.

If this command is received when the non-volatile setting is set to Disabled, this command shall fail with response code 0x0002 (command unavailable).

If the command is received from an untrusted platform bmc, the command will fail with reason code 0x7FFF (unsupported command).

The command enables toggling between enabled to locked without BlueField DPU reset

Set Dynamic Host rshim Access to BlueField DPU CPU Response Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	Response Code		Reason Code	
20:23	NVIDIA Manufacture ID (IANA) = 0x8119			
24:27	Command rev=0x00	MLNX Cmd ID=0x12	Parameter=0x1B	Reserved
28:31	Reserved			Host_RT_Access_State
32:35	Checksum 31:0			

Get Host PCIe rshim access to BlueField DPU CPU (Command=0x13, Parameter=0x19)

The Get Host PCIe rshim access to BlueField DPU CPU command allows the platform bmc (platform bmc) to query the BlueField DPU about the enablement state of the external Host PCIe rshim access to the embedded CPU.

The Get Host PCIe rshim access to BlueField DPU CPU command is a package command.

Get Host PCIe rshim access to BlueField DPU CPU Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	NVIDIA Manufacture ID (IANA) = 0x8119			
20:23	Command rev=0x00	MLNX Cmd ID=0x13	Parameter=0x19	Reserved
24:27	Checksum 31:0			

Get Host PCIe rshim access to BlueField DPU CPU Response

BlueField DPU always receive and respond to Get Host PCIe rshim access to BlueField DPU CPU Command when the package ID matches.

Get Host PCIe rshim access to BlueField DPU CPU Response

Field	Size	Offset in NC-SI Command	Description
Host_Access_State	1 byte	31	Embedded CPU OS state • 0 - Disabled • 1 - Enabled • Other - reserved

Get Host PCIe rshim access to BlueField DPU CPU Response Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	Response Code		Reason Code	
20:23	NVIDIA Manufacture ID (IANA) = 0x8119			
24:27	Command rev=0x00	MLNX Cmd ID=0x13	Parameter=0x19	Reserved
28:31	Reserved			Host_Access_State
32:35	Checksum 31:0			

Get Dynamic Host PCIe rshim access to BlueField DPU CPU (Command=0x13, Parameter=0x1B)

The Get Dynamic Host PCIe rshim access to BlueField DPU CPU command allows a trusted platform bmc (platform bmc) to query the BlueField DPU runtime enablement state of the external Host PCIe rshim access to the embedded CPU. This command is only available when the non-volatile setting of the Host PCIe rshim access is Get to either Enabled or Locked states (see definition in section "Set Dynamic Host PCIe rshim access to BlueField DPU CPU").

The Get Dynamic Host PCIe rshim access to BlueField DPU CPU command is a package command.

Get Dynamic Host PCIe rshim access to BlueField DPU CPU Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	NVIDIA Manufacture ID (IANA) = 0x8119			
20:23	Command rev=0x00	MLNX Cmd ID=0x13	Parameter=0x1B	Reserved
24:27	Checksum 31:0			

Get Dynamic Host PCIe rshim access to BlueField DPU CPU Response

BlueField DPU only receive and respond to Get Dynamic Host PCIe rshim access to BlueField DPU CPU Command when the package ID matches and the non-volatile setting of the Host PCIe rshim access is one of Enabled or Locked states.

If this command is received when the non-volatile setting is set to Disabled, this command shall fail with response code 0x0002 (Command Unavailable).

If the command is received from an untrusted platform bmc, the command will fail with reason code 0x7FFF (Unsupported command).

Get Dynamic Host PCIe rshim access to BlueField DPU CPU Response Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	Response Code		Reason Code	
20:23	NVIDIA Manufacture ID (IANA) = 0x8119			
24:27	Command rev=0x00	MLNX Cmd ID=0x13	Parameter=0x1B	Reserved
28:31	Reserved			Host_RT_Access_State
32:35	Checksum 31:0			

Get Dynamic Host PCIe rshim access to BlueField DPU CPU response Parameters

Field	Size	Offset in NC-SI Command	Description
Host_RT_Access_State	1 byte	31	Embedded CPU OS state • 0 - Enabled • 1 - Locked • Other - reserved

Set External Host Privileges (Command=0x12, Parameter=0x32) [to be put in Modes of Operation v4.10.0#.ModesofOperationv4.10.0-UsingPlatform-BMCNC-SIOEMCommands (moving to and from zero trust)]

The Set External Host Privileges command allows a trusted platform bmc to configure the mode settings of the BlueField DPU. The External Host Privileges settings are nonvolatile.

The Set External Host Privileges command is a package command.

Set External Host Privileges Format

Bytes/Bits	31:24				23:16			
0:15	NC-SI Header (OEM Command)							
16:19	NVIDIA Manufacture ID (IANA) = 0x8119							
20:23	Command rev=0x00				MLNX Cmd ID=0x12			
24:27	NIC RESET	NIC FW Update	PCC FW Update	Emb CPU Settings Change	Global Non-volatile Change	Network Port Parameters Change	External Host Parameters Change	NIC FLASH Access
28:31	Checksum 31:0							

Set External Host Privileges Command Parameters

Field	Size	Offset in NC-SI Command	Description
NIC RESET	2 bits	24.6	External Host ability to reset the NIC 0 - Default mode1 - Enabled2 - Disabled3 - Reserved
NIC FW Update	2 bits	24.4	External Host ability to update NIC FW 0 - Default mode1 - Enabled2 - Disabled3 - Reserved
PCC FW Update	2 bits	24.2	External Host ability to update PCC FW 0 - Default mode1 - Enabled2 - Disabled3 - Reserved
Emb CPU Settings Change	2 bits	24.0	External Host ability to modify the settings of the embedded CPU0 - Default mode1 - Enabled2 - Disabled3 - Reserved
Global Non-volatile Change	2 bits	25.6	External Host ability to modify global non-volatile settings0 - Default mode1 - Enabled2 - Disabled3 - Reserved
Network Port Parameters Change	2 bits	25.4	External Host ability to update Network Port parameters0 - Default mode1 - Enabled2 - Disabled3 - Reserved
External Host Parameters Change	2 bits	25.2	External Host ability to update the external host' settings0 - Default mode1 - Enabled2 - Disabled3 - Reserved
NIC FLASH Access	2 bits	25.0	External Host ability to access NIC FLASH memory0 - Default mode1 - Enabled2 - Disabled3 - Reserved

Set External Host Privileges Command Response

BlueField DPU always receive and respond to Set External Host Privileges Command when the package ID matches and the platform bmc is trusted.

Set External Host Privileges Response Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	Response Code		Reason Code	
20:23	NVIDIA Manufacture ID (IANA) = 0x8119			
24:27	Command rev=0x00	MLNX Cmd ID=0x12	Parameter=0x32	Reserved
28:31	Checksum 31:0			

Set BlueField DPU Mode (Command=0x12, Parameter=0x33)

<table>
<tr><th>From Mode</th><th>To Mode</th><th>Command</th></tr>
<tr><td>DPU Mode</td><td>NIC Mode</td><td>

Command = 0x12, Parameter = 0x33

<table>
<tr><th>Offset</th><th>31:24</th><th>23:16</th><th>15:8</th><th>7:0</th></tr>
<tr><td>0:15</td><td colspan="4">NC-SI OEM Header (OEM Command)</td></tr>
<tr><td>16:19</td><td colspan="4">Mellanox Manufacture ID (IANA) = 0x8119</td></tr>
<tr><td>20:23</td><td>Command rev=0x00</td><td>MLNX Cmd ID= 0x12</td><td>Parameter=0x33</td><td>Reserved</td></tr>
<tr><td>24:27</td><td colspan="3"></td><td>Offload engine</td></tr>
<tr><td>28:31</td><td colspan="4">Checksum 31:0</td></tr>
</table>

<table>
<tr><td>Offload engine</td><td>1 bit</td><td>27.0</td><td>0x0: Enabled – DPU Mode
0x1: Disabled – NIC Mode</td></tr>
</table>

For NIC Mode, set the offload engine bit to 0x1.

</td></tr>
<tr><td>NIC Mode</td><td>DPU Mode</td><td>

Command = 0x12, Parameter = 0x33

<table>
<tr><th>bytes/bits</th><th>31:24</th><th>23:16</th><th>15:8</th><th>7:0</th></tr>
<tr><td>0:15</td><td colspan="4">NC-SI OEM Header (OEM Command)</td></tr>
</table>

</td></tr>
</table>

<table>
<tr><th>From Mode</th><th>To Mode</th><th>Command</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>bytes/bits</th><th>31:24</th><th>23:16</th><th>15:8</th><th>7:0</th></tr>
<tr><td>16:19</td><td colspan="4">Mellanox Manufacture ID (IANA) = 0x8119</td></tr>
<tr><td>20:23</td><td>Command rev=0x00</td><td>MLNX Cmd ID= 0x12</td><td>Parameter=0x33</td><td>Reserved</td></tr>
<tr><td>24:27</td><td colspan="3"></td><td>Offload engine</td></tr>
<tr><td>28:31</td><td colspan="4">Checksum 31:0</td></tr>
</table>
<table>
<tr><td>Offload engine</td><td>1 bit</td><td>27.0</td><td>0x0: Enabled - DPU Mode
0x1: Disabled - NIC Mode</td></tr>
</table>
For DPU Mode, set the offload engine bit to 0x0.
</td></tr>
<tr><td>DPU Mode</td><td>DPU Mode with Zero Trust</td><td>Roadmap</td></tr>
<tr><td>DPU Mode with Zero Trust</td><td>DPU Mode</td><td>Roadmap</td></tr>
<tr><td>DPU Mode with Zero Trust</td><td>NIC Mode</td><td>Not supported. Move from DPU Mode with Zero Trust to DPU Mode first, and then from DPU Mode to NIC Mode.
Perform a system-level reset when moving from Zero Trust to DPU Mode before configuring NIC Mode.
Ensure to disable Zero Trust configuration before transitioning to NIC Mode.
Operating in NIC Mode with Zero Trust (Restricted) configuration is not supported and may lead to undefined behavior.</td></tr>
</table>

Get BlueField DPU OS State (Command=0x13, Parameter=0x17)

The Get BlueField DPU OS State command allows the platform bmc (platform bmc) to query the BlueField DPU embedded CPU status from the NVIDIA BlueField DPU device.

The Get BlueField DPU OS State command is a package command.

Get BlueField DPU OS State Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	NVIDIA Manufacture ID (IANA) = 0x8119			
20:23	Command rev=0x00	MLNX Cmd ID=0x13	Parameter=0x17	Reserved
24:27	Checksum 31:0			

Get BlueField DPU OS State Response

BlueField DPU always receive and respond to Get Debug Info Command when the package ID matches.

Get BlueField DPU OS State Response

Field	Size	Offset in NC-SI Command	Description
OS_State	1 byte	31	Embedded CPU OS state • 0 - Reset/Boot-ROM • 1 - BL2 • 2 - BL31 • 3 - UEFI • 4 - OS starting • 5 - OS is running • 6 - Low-Power standby • 7 - Firmware update in progress • 8 - OS Crash Dump in progress • 9 - OS Crash Dump is complete • 10 - FW Fault Crash Dump in progress • 11 - FW Fault Crash Dump is complete • Other - reserved

Field	Size	Offset in NC-SI Command	Description
POST code	4 bytes	32	OS POST code as reported by the embedded CPU

Get BlueField DPU OS State Response Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	Response Code		Reason Code	
20:23	NVIDIA Manufacture ID (IANA) = 0x8119			
24:27	Command rev=0x00	MLNX Cmd ID=0x13	Parameter=0x17	Reserved
28:31	Reserved			OS_State
32:35	POST code			
36:39	Checksum 31:0			

Get External Host Privileges (Command=0x13, Parameter=0x32)

The Get External Host Privileges command allows a trusted platform bmc to query the external host privilege settings of the BlueField DPU.

The Get External Host Privileges command is a package command.

Get External Host Privileges Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	NVIDIA Manufacture ID (IANA) = 0x8119			
20:23	Command rev=0x00	MLNX Cmd ID=0x13	Parameter=0x32	Reserved
24:27	Checksum 31:0			

Get External Host Privileges Response

The device responds to Get External Host Privileges Command if sent from a trusted platform bmc when the package ID matches. The returned response to Get External Host Privileges is described in the following table.

Get External Host Privileges Response Parameters

Field	Size	Offset in NC-SI Command	Description
NIC RESET	2 bits	28.6	External Host ability to reset the NIC 0 - Default mode1 - Enabled2 - Disabled3 - Reserved
NIC FW Update	2 bits	28.4	External Host ability to update NIC FW 0 - Default mode1 - Enabled2 - Disabled3 - Reserved
PCC FW Update	2 bits	28.2	External Host ability to update PCC FW 0 - Default mode1 - Enabled2 - Disabled3 - Reserved
Emb CPU Settings Change	2 bits	28.0	External Host ability to modify the settings of the embedded CPU0 - Default mode1 - Enabled2 - Disabled3 - Reserved
Global Non-volatile Change	2 bits	29.6	External Host ability to modify global non-volatile settings0 - Default mode1 - Enabled2 - Disabled3 - Reserved
Network Port Parameters Change	2 bits	29.4	External Host ability to update Network Port parameters0 - Default mode1 - Enabled2 - Disabled3 - Reserved
External Host Parameters Change	2 bits	29.2	External Host ability to update the external host' settings0 - Default mode1 - Enabled2 - Disabled3 - Reserved
NIC Flash Access	2 bits	29.0	External Host ability to access NIC FLASH memory0 - Default mode1 - Enabled2 - Disabled3 - Reserved

Get External Host Privileges Response Format

Bytes/Bits	31:24				23:16			
0:15	NC-SI Header (OEM Command)							
16:19	Response Code							
20:23	NVIDIA Manufacture ID (IANA) = 0x8119							
24:27	Command rev=0x00				MLNX Cmd ID=0x12			
28:31	NIC RESET	NIC FW Update	PCC FW Update	Emb CPU Settings Change	Global Non-volatile Change	Network Port Parameters Change	External Host Parameters Change	NIC Flash Access
32:35	Checksum 31:0							

Get BlueField Mode (Command=0x13, Parameter=0x33)

The Get BlueField Mode command allows a trusted platform bmc to query the mode settings of the BlueField DPU.

The Get BlueField Mode command is a package command.

Get BlueField Mode Format

Bytes/Bits	31:24	23:16	15:8	7:0
0:15	NC-SI Header (OEM Command)			
16:19	NVIDIA Manufacture ID (IANA) = 0x8119			
20:23	Command rev=0x00	MLNX Cmd ID=0x13	Parameter=0x33	Reserved
24:27	Checksum 31:0			

Get BlueField Mode Response

The device responds to Get BlueField Mode Command if sent from a trusted platform bmc when the package ID matches. The returned response to Get BlueField DPU Mode is described in the following table.

Get BlueField Mode response Parameters

Field	Size	Offset in NC-SI Command	Description
Offload engine	1 bit	31.0	Defines whether the Internal CPU is used as an offload engine • 0x0 - ENABLED • 0x1 - DISABLED

Get BlueField DPU Mode Response Format

Bytes/Bits	31:24	23:16	15:8	7:0			
0:15	NC-SI Header (OEM Command)						
16:19	Response Code		Reason Code				
20:23	NVIDIA Manufacture ID (IANA) = 0x8119						
24:27	Command rev=0x00	MLNX Cmd ID=0x12	Parameter=0x32	Reserved			
28:31	Reserved			Reserved	Reserved	Reserved	Rese
32:35	Checksum 31:0						

Notice

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