

### 3.4.3 PCIe Non-Transparent Bridge (NTB)

PCI Express Non-Transparent Bridge (NTB) acts as a gateway that enables high performance, low overhead communication between two intelligent subsystems, the local and the remote subsystems. The NTB allows a local processor to independently configure and control the local subsystem, provides isolation of the local host memory domain from the remote host memory domain while enabling status and data exchange between the two domains.

The PCI Express Port 3A of Intel® Xeon® Processor E5-2600 Product Families can be configured to be a transparent bridge or an NTB with x4/x8/x16 link width and Gen1/Gen2 3 link speed. This NTB port could be attached to another NTB port or PCI Express Root Port on another subsystem. NTB supports three 64bit BARs as configuration space or prefetchable memory windows that can access both 32bit and 64bit address space through 64bit BARs.

There are 3 NTB supported configurations:

- NTB Port to NTB Port Based Connection (Back-to-Back).
- NTB Port to Root Port Based Connection – Symmetric Configuration. The NTB port on the first system is connected to the root port of the second. The second system's NTB port is connected to the root port on the first system making this a fully symmetric configuration.
- NTB Port to Root Port Based Connection – Non-Symmetric Configuration. The root port on the first system is connected to the NTB port of the second system. It is not necessary for the first system to be an Intel® Xeon® Processor E5-2600 Product Families system.

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**Note:** When NTB is enabled, Spread Spectrum Clocking (SSC) is required to be disabled at each NTB link.

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### 3.4.4 PCIe SSD Support

The board supports PCIe SSD as cabled add-in card on existing PCIe slots. The x16 PCIe add-in card can support up to four x4 PCIe SSD 2.5" drives with mini-SAS HD cables connected to the hot-swap backplane.

The ingredients for PCIe SSD:

- PCIe SSD cabled add-in card: cable PCIe link through add-in card in existing PCIe slots, support x4 PCIe SSD 2.5" drives.
- Combo hot-swap backplane supporting SAS/SATA drives and PCIe
- Four x4 mini-SAS HD cables connecting add-in card and combo HSBP.
- 8 x 2.5" Drives: 4 SAS/SATA + 4 PCIe SSD 2.5"

Hot-plug and enclosure management features are not supported with PCIe SSD devices.

The PCIe SSD add-in-card needs to be used on electrically x 6 PCIe slot. On S2600CW2R and S2600CWTR, the add-in-card can be used on PCIe slot 2/4/5/6. On S2600CW2SR and S 600CWTSR, the add-in-card be used on PCIe slot 2/4/6 (PCIe slot 5 is electrically x8 bandwidth).