**TRENTON SYSTEMS** *Engineered For Reliability*

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# Technical Information – Trenton PICMG 1.3 Backplanes Compatible with the THD8141 (8141-xxx) System Host Board

Trenton Systems recommends the PICMG 1.3 backplanes noted in green in the table below for use with the THD8141 PICMG 1.3 system host board. The SHB will also function with a wide variety of non-Trenton, industry standard PICMG 1.3 backplanes. However, some non-Trenton backplanes may not utilize the full capabilities of the Trenton THD8141 boards. The table below illustrates the THD8141 compatibility with the current listing of Trenton PICMG 1.3 backplanes. A "Yes" in the compatible column below means that all slots on the backplane will function with a THD8141 board. The clarification column explains any limitations of using a THD8141 single processor SHB with a particular backplane. Visit our website to learn about the latest Trenton PICMG 1.3 backplane availability listings.

| PICMG 1.3 Backplane | Compatible with THD8141 (i.e. all backplane slots are functional) | Why not or clarification |
|---|---|---|
| **2U Butterfly Backplanes** | | |
| BPC8219 | Yes | All card slots operate at PCIe Gen2 speed |
| BPX8087 | No | Multiple slots inactive due to no A1 link |
| BPG6741 | Not recommended | Card slots operate at Gen1 speeds only |
| BPX6736* | Not recommended | Card slots operate at Gen1 speeds only |
| **Multi-Segment Backplanes** | | |
| BP4FS6890 | Yes – Graphics Configuration only. Server Configuration is not recommended | Card slots operate at Gen1 speeds only. Erratic PCIe link widths in the server configuration |
| BP2S6929 | Yes | PCIe card slots operate at Gen1 speed |
| **Combo Backplanes** | | |
| BPC7041 | No | Multiple slots inactive due to no A1 link and no PCIe link expansion support |
| **Server-Class Backplanes** | | |
| BPX8093 | No, the THD8141 does not support the PEX10 for PCIe link expansion | PEX10 needed to provide the links for BP slots PCIe1 and PCIe2 |
| BPX6806* | Yes, need IOB33/MPE40 for PCIe1 slot | THD8141 provides x1 via IOB33/MPE40 |
| BPX6620 | No | EOL pending |
| BPX6610* | Not recommended | Erratic link to the PCIe2 card slot |
| BPX6571 | Not recommended | EOL |
| BPX3/14 | No | Multiple slots inactive due to no A1 link and no PCIe link expansion support |
| BPX3/8 | No | EOL |
| BPX6719 | No | EOL pending |
| BPX3/2* | Not recommended | Slot PCIe2 operates at Gen1 link speed |
| BPX5* | Not recommended | Card slots operate at Gen1 speeds only with erratic PCIe link widths |
| **Graphics-Class Backplanes** | | |
| BPG8194 | Yes | All slots operate at PCIe Gen3 speeds with PCIe 3.0 cards except slot PCIe1. Maximum PCIe1 slot speed is PCIe 2.0. |
| BPG8155 | Yes | All slots operate at PCIe Gen3 speeds with PCIe 3.0 cards except slot PCIe1. Maximum PCIe1 slot speed is PCIe 2.0. |
| BPG8150 | No, the THD8141 does not support the PEX10 for PCIe link expansion | PEX10 needed to provide the links for BP slots PCIe 1 and PCIe2 |
| BPG8032 | Yes | All slots operate at PCIe Gen2 speeds |
| BPG7087 | Yes, need IOB33/MPE40 for PCIe2 slot | THD8141 provides x1 via IOB33/MPE40 |
| BPG6615 | Not recommended | Erratic link to the PCIe2 card slot |
| BPG6600 | Not recommended | Slot PCIe2 operates at Gen1 link speed |
| BPG6544 | No | EOL pending |
| BPG6714 | No | EOL pending |
| BPG2/2* | Not recommended | Slot PCIe2 operates at Gen1 link speed |
| BPG4* | Not recommended | THD8141 provides x1 via IOB33/MPE40 |

*Backplane does not have an SHB edge connector D slot. The backplane will function OK, but the system designer should ensure the exposed SHB edge connector D pins are protected from potential damage

**NOTE:** Trenton SHBs that support the optional Ethernet routing to the card edge connectors support one backplane LAN interface. Some backplanes provide two optional LAN connectors as defined in the PICMG 1.3 specification, but *the second backplane LAN connector is not functional* with Trenton PICMG 1.3 system host boards.