HIPER Global

CompactPCI® Mezzanine Card

QUAD 2.5GBASE-T ETHERNET NIC AND M.2 NVME MASS STORAGE

PART NUMBER: 3U-MEZZ-NIC-M2NVME

- Mixed function mezzanine side card for CompactPCI® PlusIO and serial CPU boards
- Based on new mezzanine connectors HSE1/HSE2 (8 x PCIe® Gen3/4)
- Provides 2.5Gbps Ethernet front panel I/O (4 x RJ45)
- Provides mass storage capability (M.2 NVMe/ SATA)
- 8HP assembly together with CPU card

SPECIFICATION

Front Panel I/O	• 4 x RJ45 front panel receptacles • 2.5GBASE-T, 1000BASE-T, 100BASE-TX, 10BASE-T compliant data transfer rate (NBASE-T) • USB3 Type-A receptacle (5G or 10G, dependent on CPU carrier card)
Networking	• Four individual Intel® I225/226-IT networking interface controllers (NIC) • 2.5GBASE-T, 1000BASE-T, 100BASE-TX, 10BASE-T 802.3 specifications • -40°C to +85°C operating temperature 10M/100M/1G • -40°C to +70°C operating temperature 2.5G (I225) • -40°C to +85°C operating temperature 2.5G (I226) • UDP, TCP and IP checksum offload • 9KB Jumbo Frame support • Four transmit and four receive queues • IEEE 802.3az Energy Efficient Ethernet • Ultra-low power at cable disconnect (5mW) • Time Sensitive Networking (TSN) • IEEE 1588 - Basic time-sync (Precision Time Protocol) • IEEE 802.1AS-Rev - Higher precision time synchronization with multiple (dual) clock masters • IEEE 802.1Qav - Credit Based Shaping and Basic scheduling • IEEE 802.1Qbu - Frame Preemption • IEEE 802.1Qbv - Time Aware Shaper • IEEE 802.3br - Interspersing Express Traffic • PCIe® PTM for synchronization between the NIC and Host timers
Mass Storage Solutions	• M.2 (formerly known as NGFF) socket for an NVMe type SSD module up to 2280 size • PCI Express® Gen3 or Gen4 x4 interface (M-key socket) • Socket height 4.2H (double sided module allowed) • Capacity up to 4TB as of current • Suitable for operating system installation (boot device) • Autosensing low cost M.2 SATA SSD B-M key as alternate (w. SC5- PC7-FESTIVAL only)
Applications	• Industrial networks - IIoT - TSN • Router and gateway • Data acquisition • Edge computing
Regulation & Environmental	• Designed & manufactured in Germany • ISO 9001 certified quality management • Custom specific development on request • Long term availability • Coating, sealing, underfilling on request • RoHS compliant • Operating temperature -40°C to +85°C (industrial temperature range) • Storage temperature: -40°C to +85°C, max. gradient 5°C/min • Humidity 5% ... 95% RH non condensing • Altitude -300m ... +3000m • Shock 15g 0.33ms, 6g 6ms • Vibration 1g 5-2000Hz • EC Regulations EN55022, EN55024, EN60950-1 (UL60950-1/IEC60950-1) • MTBF tbd years

▮ The Power to Outperform

Would you like to find out more? Be sure to speak to our on-stand team or contact us via the details here and we would be happy to help.

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