



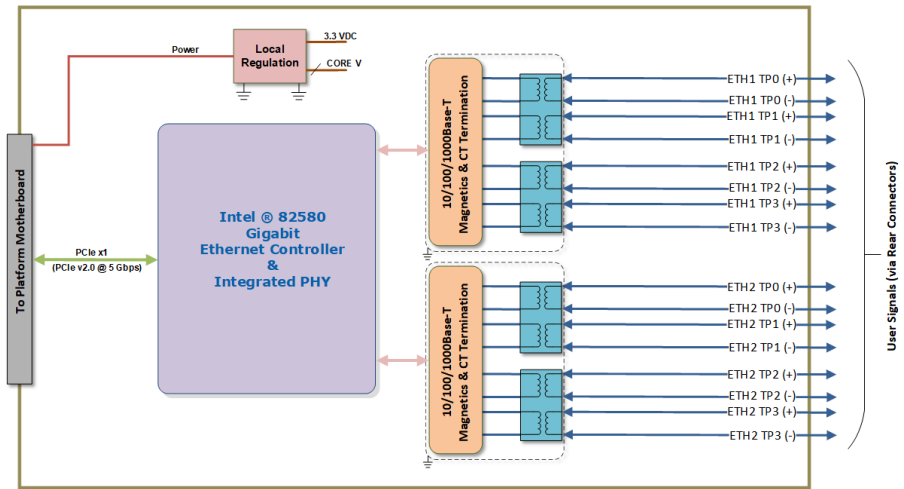
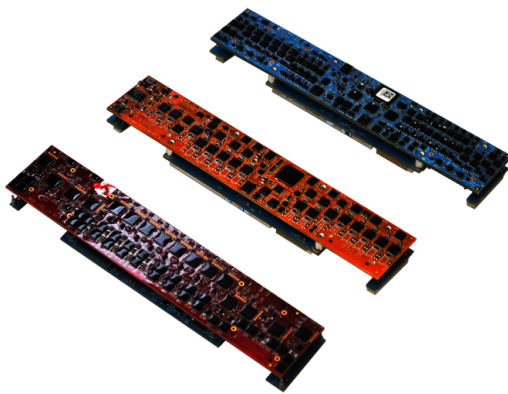
EM1 Ethernet NIC Interface Function Modules

2-Port 10/100/1000 Base-T Ethernet NIC, Intel® 82580DB, PCIe I/F to processor

The EM1 module integrates the Intel® 82580 GbE Controller with supporting magnetics and circuitry to provide dual-port gigabit (10/100/1000Base-T) Ethernet network controller functions. NAI Single Board Computer (SBC) boards are typically designed with dual-port NICs. The EM1, with direct-connect PCIe interface, allows for seamless SBC/processor configuration providing access to additional Ethernet communication port functions.

The EM1 is typically integrated/configured directly on NAI SBCs or multifunction I/O boards that support external module PCIe communications interface ports. Direct SBC/processor control of the EM1 is provided through the PCIe interface via the standard/default OS operation/drivers.

EM1 Dual-Port Gigabit Ethernet NIC Simplified Block Diagram



Specifications

Number of Channels	Dual-Port Gigabit Ethernet NIC (see following details)
Compatibility	PCIe x1 v2.0 (communications interface), 10/100/1000 Base-T
Physical Interface (PHY)	MDI (Copper) standard IEEE 802.3 Ethernet interface
Throughput	Full PCI Express (PCIe) v2.0 (@ 5.0 Gbps)
Maximum Data Rate	1000 bps
Standards Compliance	IEEE 802.3ab (1000 Base-T Gig-E), IEEE 802.3u (100 Base-TX Fast Ethernet), IEEE 802.3i (10 Base-T Ethernet), IEEE 802.3x (Flow control/full and half duplex)
Power	5 VDC @ 850 mA (typ.)
Ground	Signals are transformer isolated
Weight	1.5 oz. (42 g)

Architected for Versatility

NAI's Configurable Open Systems Architecture™ (COSA®) offers a choice of over 100 smart I/O, communications, or Ethernet switch functions, providing the highest packaging density and greatest flexibility of ruggedized embedded product solutions in the industry. Preexisting, fully-tested functions can be combined in an unlimited number of ways quickly and easily.

One-Source Efficiencies

Eliminate man-months of integration with a configured, field-proven system from NAI. Specification to deployment is a seamless experience as all design, state-of-the-art manufacturing, assembly and test are performed - by one trusted source. All facilities are located within the U.S. and optimized for high-mix/low volume production runs and extended lifecycle support.

Product Lifecycle Management

From design to production and beyond, NAI's product lifecycle management strategy ensures the long-term availability of COTS products through configuration management, technology refresh and obsolescence component purchase and storage.

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