

NIC10G

Dual 10GbE XMC Card with Front or Rear I/O

Key Specifications

IEEE 802.3ae 10GBASE-SR over LC connector

IEEE 802.3ak 10GBASE-CR or 10GSFP+Cu

- VITA 42.0 XMC
- XMC Connector P15 VITA 42.3 – 8 Lane PCIe
- XMC Connector P16 VITA 42.6-X12d + X8d pattern mapping

The NIC10G is a dual port 10GbE XMC featuring the Intel 82599ES Dual 10GbE controller. The NIC10G meets customer and applications needs for 10GbE network support via a host or carrier card. The NIC10G is offered in air cooled models with front or rear I/O and a conduction cooled rear I/O option. The front I/O ports support SFP+ transceivers for 10GBASE-SR, 10GBASE-LR, 10GSFP+Cu with direct attach copper cable. The rear I/O ports support CX4 and KX4.

The Intel 82599ES supports a number of features including flow control support, integrated IPsec security engines, optimized queues, IPv6 offloading, advanced filtering capabilities and Tx/Rx IP, TCP and UDP checksum offloading capability. The 82559ES

also has integrated a PCI Express Gen 2 interface supporting up to 8 Lanes.

The NIC10G is VITA 42.0 XMC compliant and the XMC connectors support VITA standards for PCI Express and pattern mapping. Driver support for Microsoft Windows, Linux and VxWorks operating systems.

Why choose Abaco Network Interface Cards?

Abaco's Intelligent Platforms business has a wealth of expertise in Military, Commercial and Telecommunications markets. This makes us unique in the embedded computing industry – we understand application requirements and we know communication protocols.

Our line of Network Interface Cards is unmatched. Not only is our product selection extensive, but the products themselves provide configuration flexibility, and performance. Our Network Interface Cards are available offer a wide variety of supported media types and connectors.

Call Abaco's knowledgeable sales team for help selecting the network interface card that best meets your application requirements.

FEATURES:

- Two 10GbE ports
- Front or Rear I/O
- XMC Form Factor
- Intel 82599ES Dual 10GbE Controller
- Air and conduction cooled versions
- Supports Jumbo Frames
- 128 Transmit Queues
- 64-bit address support
- Dual SFP+ ports on front panel supporting 10GBASE-SR, 10GBASE-LR, 10GSFP+Cu
- Bi-color LED for 10Gb/s Link status and Activity per port
- Eight (8) Lanes PCI-Express (Gen2)
- Support for Data Center Bridging (DCB) (802.1Qaz, 802.1Qbb, 802.1p)
- Rear I/O supports CX4 and KX4
- 802.1q VLAN support
- Support for Microsoft® Windows®, Linux® and VxWorks®
- RoHS compliant
- Option for PXE Boot

NIC10G Dual 10GbE XMC Card with Front or Rear I/O

Specifications

- 802.3ae 10GBASE-SR over LC connector
- 802.3ak 10GBASE-CR or 10GSFP+Cu
- CX4 signaling support
- KX4 signaling rear I/O support
- VITA 42.0 XMC
- XMC Connector P15 VITA 42.3- 8 Lane PCIe
- XMC Connector P16 VITA 42.6-X12d + X8d pattern mapping
- 8 Lane PCI-Express (Gen 2)

Front Panel Connectors

- Dual SFP+ Cages
- Supported Media includes 10GBASE-SR, 10GBASE-LR, 10GSFP+Cu

Weight

- NIC10G-00 with out SFP+ 0.206lbs
- NIC10G-00 with SFP+ 0.304lbs
- NIC10G-10 0.188lbs

Form Factor

- XMC (2.91" W x 5.47" L)

Power

- Estimated at 9.2W for front panel version w/o SFP+ transceivers populated
- Estimated at 9.2W for rear I/O models

MTBF

- 902,679 hours for the NIC10G-10 per MILD-HDBK-217FN2, 25 degrees C
- 552,250 hours for the NIC10G-00 per MIL-HDBK-217FN2, 25 degrees C (not including the SFP+'s)

Operating Temperature

- Operating: 0°C to +60°C for air cooled models
- Operating -40°C to +85°C for conduction cooled model

Storage Temperature

- -55°C to +125°C

Relative Humidity all Models

- Operating: 5% to 95%, non-condensing
- Storage: 5% to 95%, non-condensing

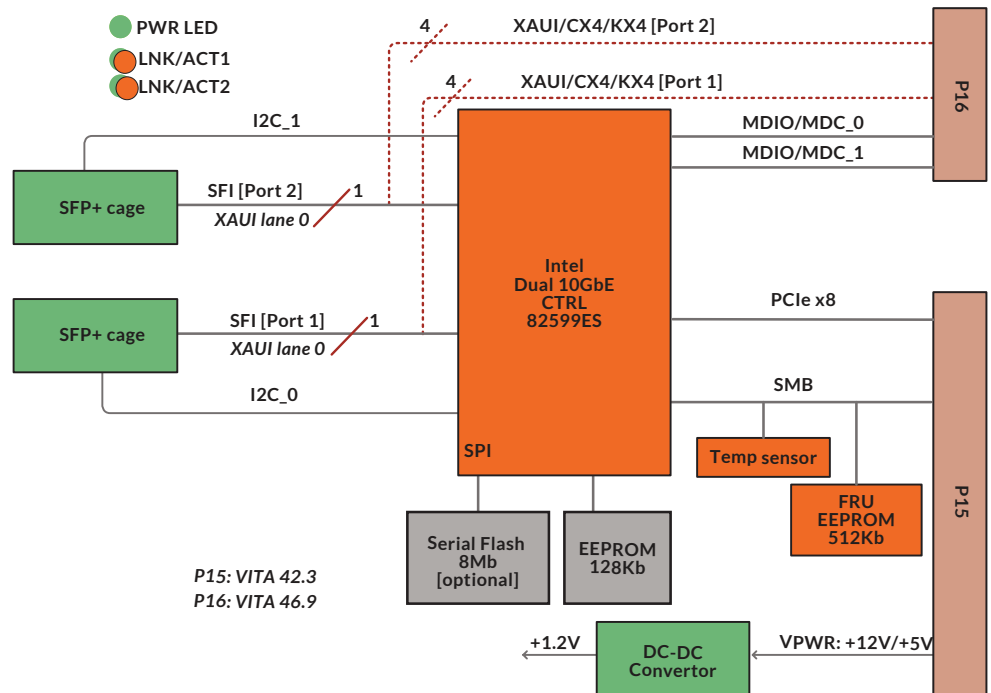
Certifications

- European Union (CE Mark) - EN55024:1998/A1:2001/A2:2003 ITE immunity characteristics
- European Union (CE Mark) - EN55022: 2006/A1:2007 Class A ITE emissions requirements
- United States FCC 47 FR Part 15, Class A emissions
- Canada - ICES-003, issue 4
- Japan - VCCI Class A ITE emissions
- Australia - AS/NZS CISPR 22:2006 Class ITE emissions requirements

Safety

- UL60950-1 (Second Edition); CSA C22.2 No. 60950-1-07; EN60950-1 :2006 Low Voltage
- EN300 386v1.4.1 EMC requirements for Telecom equipment

Block diagram



Ordering information

NIC10G-00	XMC with Dual 10GbE SFP+ ports, front panel (SFP+ transceivers not included)
NIC10G-10	XMC with Dual 10GbE CX4/KX4 ports, rear I/O
NIC10G-11	XMC with dual 10GbE CX4/KX4 ports, rear I/O, conduction cooled
NIC10G-11-CC	XMC with dual 10GbE CX4/KX4 ports, rear I/O, conduction cooled and polyurethane conformal coating
NIC10G-11-CCA	XMC with dual 10GbE CX4/KX4 ports, rear I/O, conduction cooled and acrylic conformal coating
SFP-0A	10GBASE-SR SFP+ Transceiver
SFP-0B	10GBASE-LR SFP+ Transceiver
SFP-0C	10GSFP+Cu; SFP+ w/Direct Attached Copper

Notes: Boards can be ordered with polyurethane (-CC suffix) or acrylic (-CCA) conformal coating. PXE boot support is an orderable option.

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