

## PC5001

### Quad port 10GbE card for PCIe/104 and PCI/104-Express

#### Features:

- ★ Quad 10GbE ports on a PCIe/104 platform
- ★ Meets PCI-104-Express & PCIe/104 Specification Version 2.10
- ★ PCIe/104 Type 1 Connector pinout
- ★ Standard PCIe/104 Form factor (3.775" x 3.550")
- ★ Configured as two x8 PCIe lanes
- ★ PCIe x8 5GT/s Generation 2 speed (Gen 1 compatible)
- ★ PCIe/104 stack-up or stack-down flexibility
- ★ 10GbE ports support SFP+ transceivers
- ★ Supports 10GBASE-LR/SR or 10GSFP+Cu interfaces
- ★ 4 independent 10GbE channels
- ★ Supports Jumbo Frames
- ★ 64-bit Addressing
- ★ 128 Transmit Queues
- ★ Air-Cooled and Rugged, Conduction-Cooled available
- ★ Rigel's Standard 3 Year Warranty

Rigel's PC5001 Quad 10GbE card is the industry's most powerful, high-speed, multi-port, 10 Gigabit Ethernet interconnect solution for the PCIe/104 platform. The model PC5001 provides four full-speed and independent 10GbE ports. Each port supports 10GBASE-LR, 10GBASE-SR or 10GSFP+Cu connectivity using universal SFP+ cages.

The PC5001 features Intel's 3<sup>rd</sup> generation 10GbE controller, the 82599ES Dual-port 10GbE controller. The 4-port PC5001 utilizes two 82599ES controllers; each interfaced to the processor through a separate x8 lane PCI Express port. Each 82599ES controller is capable of negotiating the PCIe lanes down to x4, x2 or x1 as well if needed.

The 82599ES employs the latest in Intel's Virtualization Technology for Connectivity (VT-c) to streamline intelligent offloads and storage over Ethernet applications.

The PC5001's flexibility and state of the art design make it ideal for high-speed peer-to-peer communication applications among many others that require blistering performance.

Contact our experienced engineering team to learn more about the PC5001.

## Hardware Specifications

### PCIe Host Interface

- ★ PCIe Gen 2 (compatible with Gen 1)
- ★ Two x8 default PCIe configuration
- ★ PCIe Base Specification Rev 2.0
- ★ 100MHz PCIe Frequency
- ★ Port widths of x8, x4, x2 & x1 (each 82599ES controller)

### Ethernet

- ★ 2x Intel 82599ES controllers
- ★ 4 SFP+ pluggable interfaces
- ★ 10GBASE-LR, 10GBASE-SR or 10GSFP+Cu connectivity

### Memory

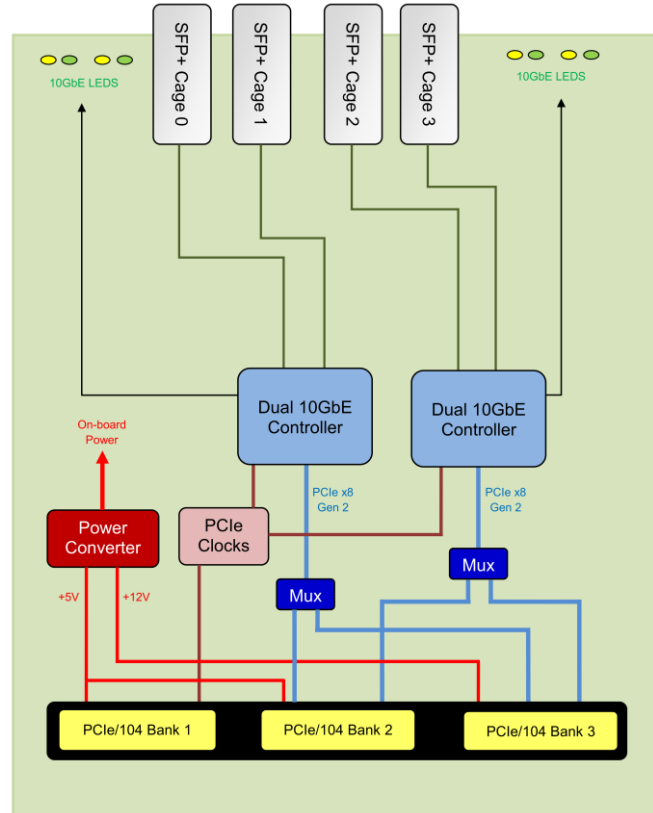
- ★ 8 Mbit Serial Flash for optional Boot ROM
- ★ 128 Kbit Serial EEPROM for configuration

### Miscellaneous

- ★ All power good LED
- ★ 16 Ethernet LEDs, Link, speed & Activity
- ★ Various software driver support

### Physical / Electrical / Environmental

- ★ Standard PCIe/104 form factor (3.775" x 3.550")
- ★ 2.7 oz / 77 grams (no SFP modules or Heatsink)
- ★ +5V Maximum / typical power : 3.2A/2.4A
- ★ Temperature:
  - Operating (standard) : 0°C to +70°C
  - Storage : -40°C to +85°C
- ★ Relative Humidity:
  - Operating: 5% to 95%, non-condensing
  - Storage: 5% to 95%, non-condensing



### Ordering Information

PC5001-x000

Base Model \_\_\_\_\_

Operating Temperature & Cooling Options \_\_\_\_\_

0 = 0°C to +70°C, Air Cooled  
 1 = -40°C to +85°C, Air Cooled  
 2 = -40°C to +85°C, Conduction Cooled  
 Z = Customer specific board configuration

Reserved \_\_\_\_\_

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At Rigel Engineering, we are dedicated to working directly with your Engineers and System Designers to provide the best possible solution that meets or exceeds your requirements.

*Custom solutions with off-the-shelf pricing*