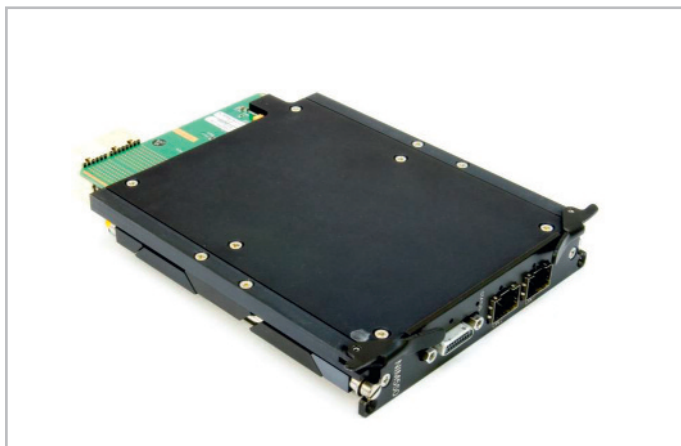


NIM550RC

3U CompactPCI Serial Interface Module



Overview

NIM550 is a network Ethernet-controller with two independent 10 GbE interfaces, implemented as SFP+ ports and routed to the front panel.

The Module is designed for the use in embedded systems with CANs and RS485/422 interfaces.

Features

- CPCI-S.0 3U/5HP, with heat spreader
- System bus: PCI-E x8/x4 Gen2 (up to 5 GT/s)
- SATA interface: Support of SATA-I and SATA-II modes
- Power supply: 12V \pm 10%
- Power consumption – no more than 18.4 W
- Operating temperature range: Commercial version – from 0 to +65°C, Industrial version –from –40 to +70°C
- Software compatibility: Astra Linux Special Edition 1.4 (64 bit), Linux Debian 8 (64 bit)
- MTBF: no less than 300 000 h

Technical Specifications

Form-factor

- CPCI-S.0 3U/5HP, with heat spreader

System Bus

- PCI-E x8/x4 Gen2 (up to 5 GT/s)

Ethernet 10 GB ports

- Two SFP+ channels with support of optical cable connections
- Support of 1 GbE (Gigabit Ethernet IEEE802.3z и Fiber Channel) and 10 GbE (IEEE 802.3ae10GBASE-SR/10GBASE-SW) modes

LED indication

- Operating modes of SFP+ network ports
- State of the SATA-port power supply source
- S5 (Soft Off) state by software system shutdown

SATA interface

- Connection of external SATA-SSD/HDD with power supply voltage of +5.0 V
- Support of SATA-I and SATA-II modes

Microcontroller

- Module's on-delay in accordance with the slot geographical address
- Managing power supply sources of the network controller and their states
- Output of diagnostics information upon user's request via a virtual COM-port (USB 2.0) and control of LEDs on the front panel
- Control of SATA interface settings
- Control of power supply to external SATA port
- Function of updating EEPROM network controller firmware via USB 2.0 bus
- Support of I2C System Management Bus (I2C bus, routed to the backplane)

Power supply and power consumption

- Power supply: 12V \pm 10%
- Maximum current: 1.7A
- Power consumption – no more than 18.4 W

Operating temperature range

- Commercial version: from 0 to +65°C
- Industrial version: from –40 to +70°C

Weight

- No more than: 210 g

Software compatibility

- Astra Linux Special Edition 1.4 (64 bit)
- Linux Debian 8 (64 bit)

MTBF

- No less than: 300 000 h

Resistance to mechanical stress

- Sinusoidal vibrations for frequencies from 10 to 150 Hz, with acceleration no more than 2g
- Single shocks with a duration of 11 ms, with peak acceleration of no more than 50g
- Multiple shocks with duration of 6 ms, with peak acceleration of no more than 25 g, number of shocks: 1000

Supported standards

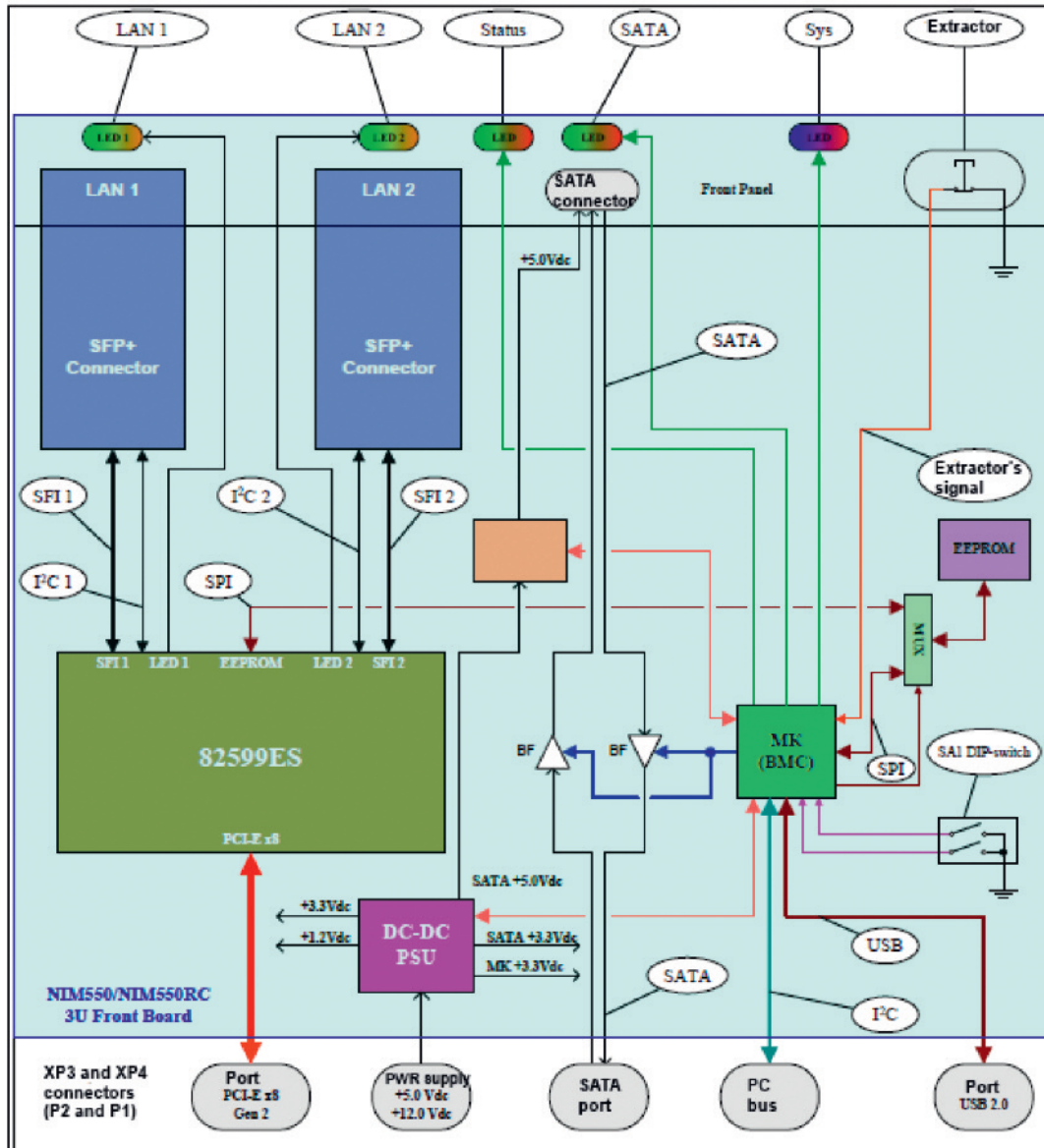
- PICMG® CPCI-S.0 R2.0, June 12, 2015, CompactPCI® Serial Specification
- PCI Express® Base Specification Revision 3.0, November 10, 2010
- SFF-8431 Specifications for Enhanced Small Form Factor Pluggable Module SFP+, Revision 4.1, 6th of July 2009
- INF-8074i Specification for SFP (Small Form factor Pluggable) Transceiver, Rev 1.0, May 12, 2001
- Universal Serial Bus Specification, Revision 2.0, April 27, 2000



NIM550RC

3U CompactPCI Serial Interface Module

Board Layout



NIM550RC

3U CompactPCI Serial Interface Module

Ordering Information

NIM550RC Configuration

NIM550RC - 01 \Options

Configurations

- | | |
|----|---|
| 01 | Commercial version: operating temperature range: from 0 to +65 °C |
| 02 | Industrial version: operating temperature range: from -40 to +70 °C |

Options

- | | |
|---------|-------------------|
| \Coated | Conformal coating |
|---------|-------------------|

Delivery checklist

NIM550RC delivery checklist contains:

1. NIM550RC Interface Module
2. Packaging

Corporate Offices

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Product specifications are subject to change without notice



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