

# NIM550

## 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

- Form-factor: CPCI-S.0 3U/4HP with forced air cooling
- System bus: PCI-E x8/x4 Gen2 (up to 5 GT/s)
- Power supply: 12V  $\pm$ 10%
- Power consumption – no more than 18.4 W
- Operating temperature range: Commercial version: from 0 to +70°C, industrial version: from –40 to +85°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/4HP with forced air cooling

#### 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

- of SFP+ network ports operating modes
- of S5 (Soft Off) state by software system shutdown

#### 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
- 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 +70°C
- Industrial version: from –40 to +85°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

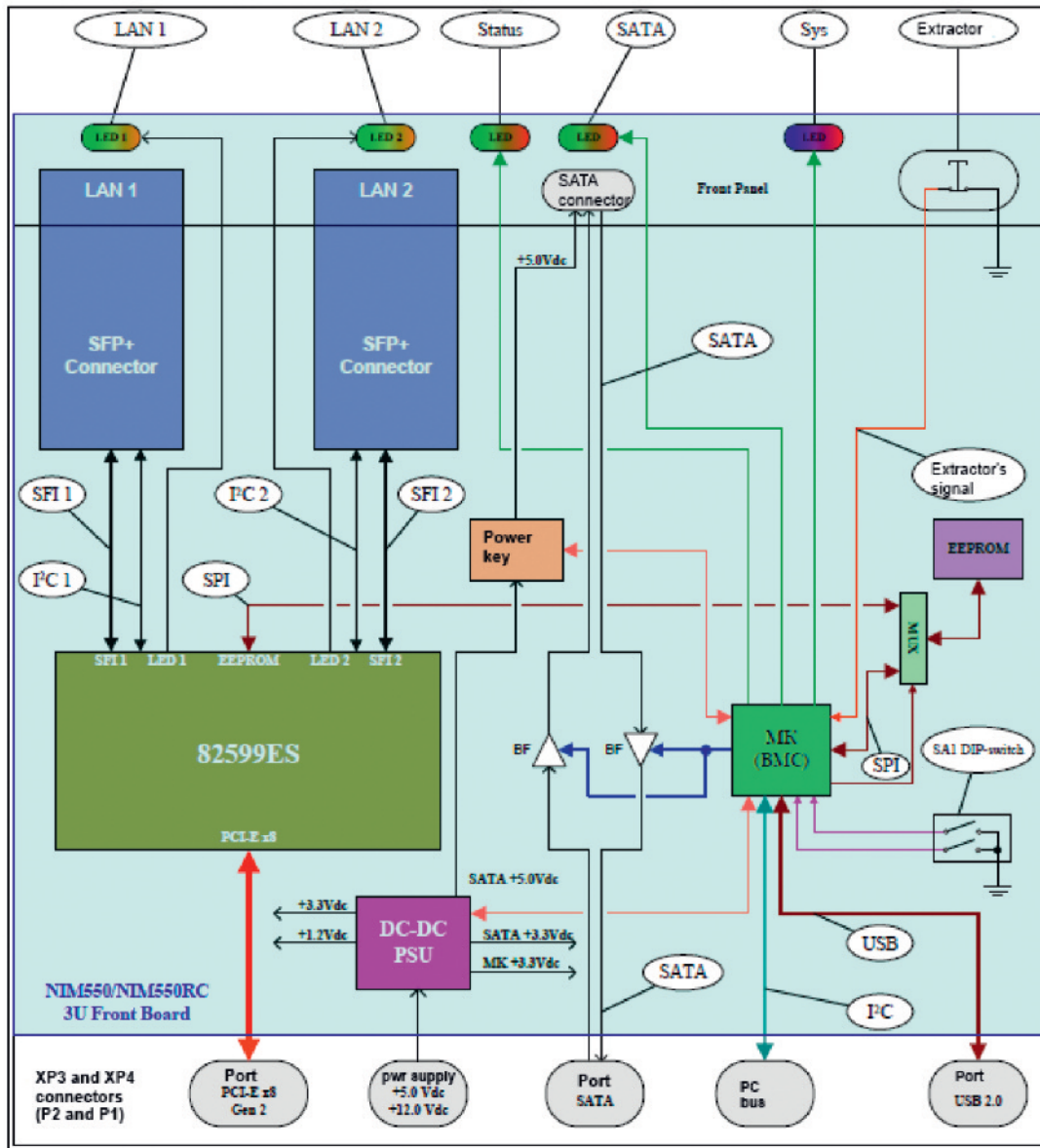
- PICMG® CPCI-S.0 R2.0, June 12, 2015, CompactPCI® Serial Specification
- PCI Express® Base Specification Revision 3.0, November 10, 2010
- SFF-8431 Specifications for Enhanced Small Form Factor Pluggable Module SFP+, Revision 4.1, 6th of July 2009
- INF-8074i Specification for SFP (Small Form factor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



# NIM550

## 3U CompactPCI Serial Interface Module

### Board Layout



Fastwel



Fastwel



Fastwel

# NIM550

## 3U CompactPCI Serial Interface Module

### Ordering Information

### NIM550 Configuration

#### NIM550 - 01 \Options

##### Configurations

- 01 Commercial version: operating temperature range: from 0 to + 70 °C
- 02 Industrial version: operating temperature range: from -40 to + 85 °C

##### Options

- \Coated Conformal coating

### Delivery checklist

**NIM550 delivery checklist contains:**

1. NIM550 Module
2. Packaging

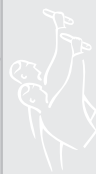
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Product specifications are subject to change without notice



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