

Features

- Remote status monitoring and management
- Highly flexible, easily configurable support for transmission at 1310nm, 1550nm, or 1 of 10 CWDM wavelengths with optional SFP transceivers
- Optional RJ-45 upgrade kit
- Hot plug in/out

Monitoring and Control Module



The OE4130S Monitoring and Control Module permits monitoring and management of the VH4000 Virtual Hub from Aurora's Opti-Trace EMS software.

The OE4130S communicates with other plug-in modules that may be installed in the VHub via an I2C (inter-integrated circuit) bus, and its output is directed to a DR3000 series Digital Receiver installed in a chassis at the Headend (or to the next upstream node in a daisy-chained series of optical nodes). This output contains status and alarm information from the modules within the VHub. Input of management signals to the OE4130S comes from an NI3030 Network Interface Module installed in a chassis at the Headend (or from the previous node in a daisy-chained configuration of nodes). (While the output of the OE4130S is always required for monitoring the VHub at the Headend, an input signal to the OE4130S is only required if management of the VHub and its modules is needed in addition to monitoring.)

The module's optical transmit/receive ports are implemented with optional plug-in transceivers for ultimate flexibility and affordability. Conforming to the Small Form Factor Pluggable (SFP) Multisource Agreement, these state-of-the art transceivers are available in a variety of transmit/receive wavelengths, including dedicated 1310nm (for 10 and 40 km links), 1550nm (for links up to 40 km), and CWDM ITU grid (for links up to 40 km), all operating at data rates of 2.125 Gbps. Longer spans are supported by using Aurora's DX4515 Digital Transponder.

An optional RJ-45 Upgrade Kit is also available for the OE4130S. Installation of the kit permits an RJ-45 connector to be mounted on the OE4130S that supports 1Mbps backhaul of data from access services modules that may be installed in the VHub.

OE4130S

Product Specifications

Physical:

- Dimensions: 4.0" D x 1.8" H x 2.3" W (10.2 cm x 4.6 cm x 5.8 cm)
- Weight: 0.7 lbs (0.32 kg)

Environmental:

- Operating temperature range: -40° to +85°C (-40° to 185°F)
- Storage temperature range: -40° to +85°C (-40° to 185°F)
- Humidity: 5% to 95% non-condensing

Power Requirements:

- Powering: 24 V_{DC} (175 mA)
- Power consumption: 4.2 W

General:

- Hot plug-in/out
- Optical interface connectors: LC Duplex on SFP
- Optical transmission bit rate: 2.125 Gb/s

Optical:

The optical port facilities of the OE4130S can be populated with a variety of SFP (plug-in) transceivers depending on the network application. Please refer to the appropriate data sheets for the selected transceivers for detailed specifications. Following is a summary of available transceiver options (model numbers and brief descriptions) for these ports.

2.125 Gbps SFP Transceiver Options

- TR4000-PI (transmit at 1310nm for links up to 10 km)
- TR4040-PI (transmit at 1310nm for links up to 40 km)
- TR4540-0000-PI (transmit at 1550nm for links up to 40 km)
- TR4440B-xxxx-PI (transmit at CWDM wavelength of xxxx = 1430, 1450, 1470, ..., 1610 nm for links up to 40 km)

LED Indicators:

For SFP optical ports:

- TX: Green ON = OK; OFF = bad SFP or unit not powered
- RX: Green ON = signal good; OFF = LOS asserted; Blinking = high BER (excessive bit error rate)

For Ethernet port (100M and LINK indicators): *not currently used*

Ordering Information

Transceiver Plug-in Modules

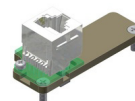
SFP modules must be ordered separately. Please refer to the above list of available transceivers and appropriate data sheets for specific complete model numbers and ordering information.

Node Monitoring and Control Module

OE4130S-00

RJ-45 Upgrade Kit

OE4130S-RJ45



All required parts and detailed instructions are provided with the kit so that it may also be installed in the field.



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