

CXE850 OPTICAL RECEIVER WITH ETHERNET MANAGEMENT



The CXE850 is a 1 GHz fibre deep optical node. It is designed for cases which don't need optical transmitter and only a downstream signal is required. CXE850 can be monitored and controlled through standard Ethernet interface.

Alignment of the CXE850 is easy as no external plugs are needed. Fibre connector is on the housing wall, which makes the installation quick.

OLC as well as gain and slope adjustments use electrical controls that improve the reliability of the node and allow remote control of output level and slope. If there is a need for more outputs, internal splitter at output can be used.

Features

- OLC
- Adjustments without signal interruptions
- Low noise current density
- GaAs MESFET output amplifier
- 2nd output option
- No output plug-in needed in normal operation
- Excellent surge and ESD protection

Management features

- Led indicators for optical level and device status
- SNMP monitoring and configuration via standard Ethernet interface
- Web browser user interface for adjustment and software download
- DHCP client for automatic IP address assignment, with AutoIP
- Optical input power measurement with alarms
- RF output power measurement with alarm
- Internal temperature measurement with alarms
- Local power supply monitoring with alarm
- Monitoring of OLC, gain and slope settings with override possibility
- Uptime, total uptime and reset counters for power outage statistics
- Automatic alignment based on transmitter OMI and target output level
- Intelligent RF output level alarm limits setting

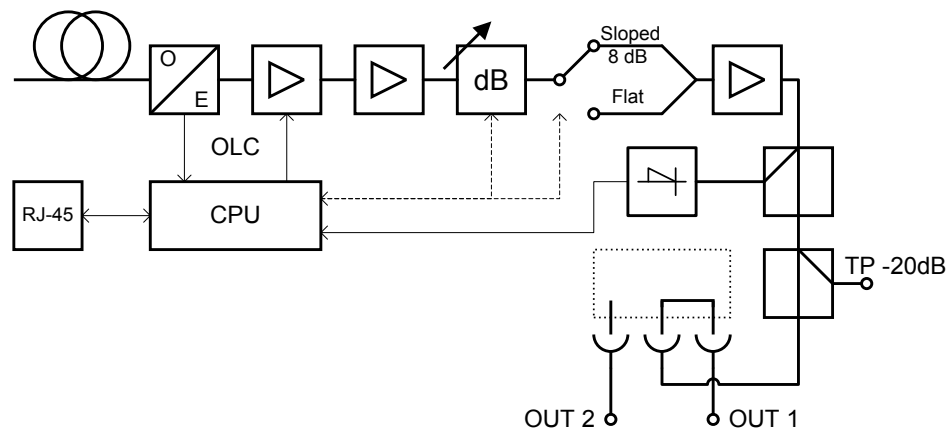
Technical specifications

Parameter	Specification	Note
Signal path		
Light wavelength	1290...1600 nm	
Optical input power range	-7...+1 dBm	1)
Frequency range	47...1006 MHz	
Return loss	18 dB	2)
OLC limited output level	112 dB μ V	3)
Gain limited output level (without OLC)	118 dB μ V	4)
Level adjustment	0...-15 dB	5)
Mid-stage slope	0 / 8 dB	6)
Flatness	\pm 0.5 dB	7)
Test point	-20 dB	7)
Noise current density	6 pA / \sqrt Hz	9)
CTB 42 channels	113 dB μ V	10)
CSO 42 channels	113 dB μ V	10)
XMOD 42 channels	110 dBuV	10)
Management		
Connection	10/100Base-T Auto-MDI/MDI-X	
Supported protocol	SNMPv1	
Supported MIBs	MIB-2: System TELESTE-ROOT-MIB TELESTE-COMMON-MIB TELESTE-TRAP-MIB TELESTE-CXE850-MIB SCTE-ROOT-MIB SCTE-HE-COMMON SCTE-HMS-ROOT-MIB SCTE-HMS-PROPERTY-MIB SCTE-HMS-ALARMS-MIB SCTE-HMS-COMMON-MIB SCTE-HMS-FIBERNODE-MIB	
General		
Power consumption	14 W	
Supply voltages	165...255 Vac	
Connectors, RF	F female	
Optics	SC/APC	
Ethernet	RJ-45	
Dimensions	182 (210) x 140 (148) x 84 mm	
Weight	1.6 kg	
Enclosure classification	IP31	11)
Operating temperature range	-40...+55 °C	
EMC compatibility	EN 50083-2 (IEC 60728-2)	
Safety	EN 60728-11	
ESD	4 kV	12)
Surge	6 kV	13)

Notes

- 1) OLC is operational within this input power range.
- 2) The limiting curve is defined at 40 MHz -1.5 dB / octave.
- 3) This is the maximum output level with OLC when OMI is 4.0 %. The level is available with the optical input power of -7...+1 dBm. The used wavelength is 1310 nm.
- 4) This level is available with optical input level of -2 dBm (OLC off and OMI 4%).
- 5) Step size is 1 dB.
- 6) Between 47...1000 MHz. Slope can be selected with jumper. There is no signal interruption during selection.
- 7) Typical value.
- 8) TP has a tolerance of ± 0.75 dB between 47...862 MHz and ± 1.0 dB between 862...1006 MHz.
- 9) This is a typical value at 862 MHz when the optical input power is -7 dBm. The value can be used for C/N calculations.
- 10) EN50083-3. Optical input power is -4 dBm and OMI is 4.0 %. The output is 8 dB cable equivalent sloped.
All results are typical values in room temperature, which can be used in system calculations.
XMOD is measured at the lowest channel.
The recommended maximum output level is 115 dBuV with 21 channels and sloped output.
- 11) When installed vertically connectors downward.
- 12) EN61000-4-2, contact discharge to enclosure and RF ports.
- 13) EN61000-4-5, 1.2 / 50 μ s pulse to RF ports.

Block diagram



Accessories

Second output can be added with the following plugs (nominal values listed):

AC6124	Splitter, 2 x 4 dB
AC6112	Tap, 1 / 12 dB
AC6116	Tap, 1 / 15 dB
AC6119	Tap, 1 / 20 dB
AC6128	Tap, 2 / 9 dB

These plugs and the F connector (KDC313) for the second output port can be ordered separately.