

CXE860 UNIVERSAL FIBRE OPTIC NODE

The CXE860 is an universal fibre deep optical node. It is designed for cases where high performance and cost effectiveness are a demand.

Features

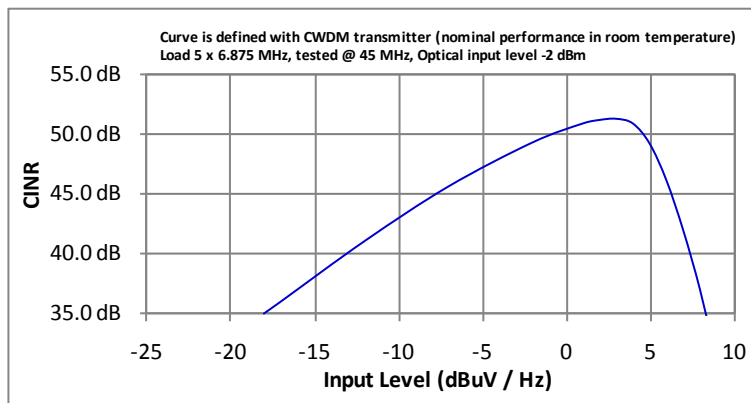
- 2 output level modes with different slopes
- 1006 MHz downstream
- 65 MHz upstream
- OLC
- Wide range of upstream laser wavelengths available
- Low noise current density
- GaAs MESFET output amplifier
- OMI test point
- Optical level measurement

Technical specifications

Parameter	Specification	Note
Downstream signal path		
Light wavelength	1290...1600 nm	
Optical input power range	-8...-2 dBm	1)
Frequency range	85...1006 MHz	
Return loss	18 dB	2)
OLC limited output level (low/high level)	100 / 108 dB μ V	3)
Level adjustment	0...-20 dB	4)
Interstage slope (low/high level)	9 / 11 dB	
Flatness	\pm 0.6 dB	5)
Test point	-20 dB	6)
Noise current density	6 pA / \sqrt Hz	7)
CTB 41 channels (low/high level)	100 / 108 dB μ V	8)
CSO 41 channels (low/high level)	100 / 108 dB μ V	8)
XMOD 41 channels (low/high level)	97 / 105 dB μ V	8)
Upstream signal path		
Frequency range	5...65 MHz	
Return loss	18 dB	
Input level	60.0 dB μ V	9)
Input level control	0...-20 dB	4)
CINR	> 49 dB	10)
Optical output power	+ 3 dBm	11)
OMI / Input test point	-10 dB	
General		
Power consumption (low/high level)	9.5 / 11 W	
Supply voltages	165...255 VAC / 26...65 VAC	12)
Optical connectors	SC/APC	
Output connector	Can be selected	
OMI test point connector	F- female	
Dimensions	182 (210) x 140 (148) x 84 mm	
Weight	1.6 kg	
Enclosure classification	IP43	
Operating temperature range	-40...+55 °C	
EMC compatibility	IEC 60728 -2	
Safety	IEC 60728 -11	
ESD	4 kV	
Surge	4 kV, IEC 60728-3	

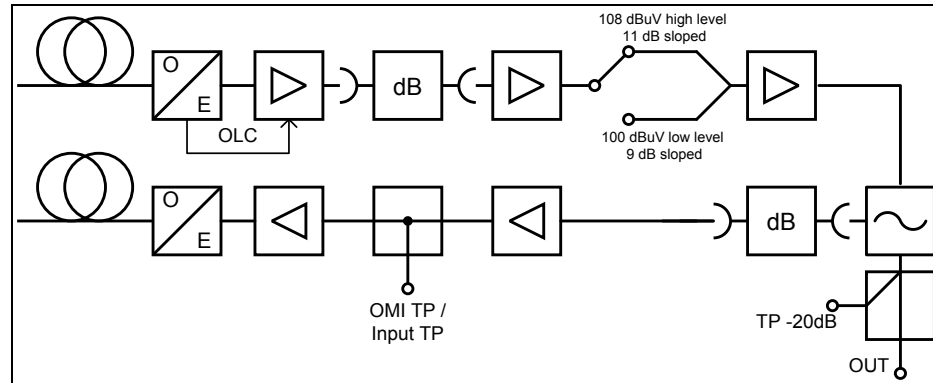
Notes

- 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 -8...-2 dBm. The used wavelength is 1310 nm.
- 4) JDA series attenuators are used.
- 5) Typical value.
- 6) TP is from a directional coupler and has a ± 1.0 dB tolerance.
- 7) Typical value when the optical input power is -8 dBm. This equals CNR of 45.0 dB (OMI 4%)
- 8) IEC60728-3. Optical input power is -4 dBm and OMI is 4.0 %. Nominal slopes are used. All results are typical values in room temperature, which can be used in system calculations. XMOD is measured at the lowest channel.
- 9) 4 % OMI can be reached with this input level if the input attenuator is having 0 dB value. 10% OMI needs 68 dB μ V.
- 10)



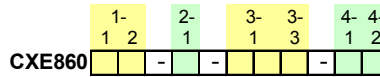
- 11) Output power for FP laser is +1 dBm. CWDM lasers are using +3 dBm.
- 12) There is no remote powering possibility through output RF ports.

Block diagram



Ordering information

CXE860 configuration map
 DOC0019917
 Rev 004



1-1 Platform type
A 1 GHz Standard
1-2 Power supply
A Local powering, euro plug (230 VAC)
B Remote powering (65 VAC)
C Local powering, UK plug (230 VAC)

2-1 Output connection
A PG11
B 5/8"
C IEC
D 3.5/12
E F

3-1 Return path transmitter
40 FP 1310 nm
DFB 1310 nm
CWDM 1450 nm
47 CWDM 1470 nm
49 CWDM 1490 nm
51 CWDM 1510 nm
53 CWDM 1530 nm
CWDM 1550 nm
57 CWDM 1570 nm
59 CWDM 1590 nm
61 CWDM 1610 nm
3-3 Optical connector for TX and RX
D SC/APC, 8 deg (2 pcs)

4-1 Reserved for future
X None
4-2 Reserved for future
X None