

Product Specification

M1500CB OSC EDFA, Single Channel, 13 dBm, for 1504.5–1517.5 nm

PN: FOA-M1500CB-ESC1C-AA011

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Customer: General

Product Features

- Up to 13 dBm output power in the 1504.5-1517.5 nm band
- Allows up to 16 dB reach extension for the OSC
- Low noise figure
- No signal distortion
- Low power consumption
- Optional integration within the UltraSpan product family
- APC control mode
- RoHS compliant and lead free
- Class 1M* laser safety classification



Applications

- Long repeaterless links (e.g. island hopping, desert ranges and oil rigs)
- Storage area networks (SANs), remote locations, disaster recovery
- Security-sensitive applications
- Traversing challenging spans within multi-spans links

The OSC EDFA is a micro-processor-controlled module for Optical Supervisory Channel Band (1504.5-1517.5 nm) amplification. The module contains one amplification stage.

Optical Specifications

Item	Parameters	Unit	Min	Typ.	Max	Notes
1	Wavelength Bandwidth	nm	1504.5		1517.5	
2	Number of channels				1	
3	Input Power Range	dBm	-2		+7	13dBm output power is assured in all input power range. If input power is lower than -2dBm pump current may reach EOL values.
4	Input LOS Threshold	dBm		-4		
5	Saturated output signal power	dBm	+13			
6	Noise Figure	dB			8	At input power of -2 dBm
7	Output Power setting accuracy	dB	-0.5		+1	
8	Input Power Monitor accuracy	dB	-0.5		+0.5	
9	Residual Pump Power at input/output	dBm			-25	
10	PDG + PDL	dB			0.3	
11	PMD	pSec			0.15	
12	Maximum ASE backward power out of input port	dBm			-20	
13	Mode of operation					APC only.
14	Optical Return Loss at input/output ports	dB	40			

Optical Ports

The OSC EDFA module is equipped with two optical ports as described in the following table:

Port	Description	Connector type	Color of plastic band near connector	Pigtail Length
Line In	Input of EDFA	LC/UPC	Black	100cm +/-5cm
Line Out	Output of EDFA	LC/UPC	White	100cm +/-5cm

Electrical Specifications

The maximum electrical ratings of the amplifier are defined in the following table

Parameter	Units	Specification			Notes
		Min.	Typ.	Max.	
Voltage	V	3.13	3.3	3.46	
Steady State Current	A			2.87	
Startup Current	A			4.5	
Power Consumption	W		5	9.5	

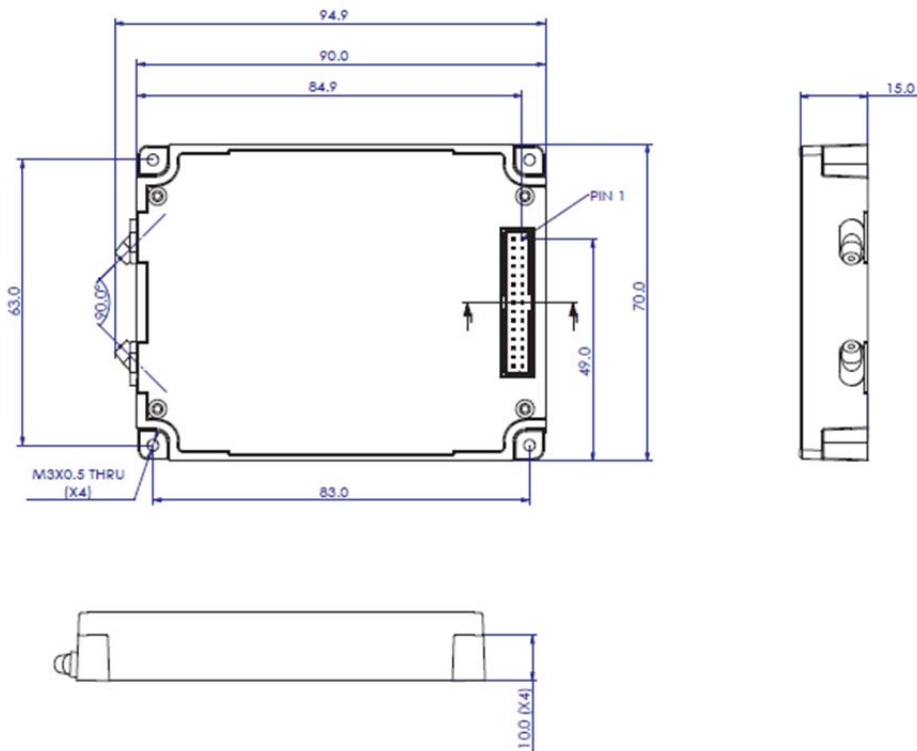
Electronic Pin-out

The Amplifier has one electrical connector: Samtec: ZLTMM-115-63-SM-D-330, Male.

Pin	Function	Pin	Function
1	+ 3.3V	2	+ 3.3V
3	N.C.	4	N.C.
5	Ground	6	Ground
7	Serial Input RS 232	8	Serial Output RS 232
9	Ground	10	Ground
11	N.C.	12	RESET Input (Active Low)
13	Pump Disable (Active High)	14	Output Power Mute Input (Active High)
15	Case Temperature Alarm (Active High)	16	Common Alarm (Active High)
17	N.C.	18	Pump Bias Alarm (Active High)
19	Loss of Input Alarm (Active High)	20	Loss of output alarm/Mute Alarm (Active High)
21	N/C	22	N/C
23	N/C	24	N/C
25	Ground	26	Ground
27	N.C.	28	N.C.
29	+ 3.3V	30	+ 3.3V

Mechanical Drawing

The following drawing shows the EDFA's width, height and length dimensions.




Environmental and Qualification

Parameter	Value/Range
Operating Case Temperature	0°C to +70°C
Operating Humidity	5 to 85%
Storage Temperature	-40°C to +85°C
Storage Humidity	5 to 95%
Qualification	Telcordia GR1312
Laser Safety	Class 1M*

* Class 1M products are not hazardous under normal circumstances, but may pose an eye hazard when the laser output is viewed with certain optical instruments (for example eye loupes, magnifiers and microscopes) within a distance of 100 mm

Ordering Information:



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Email orders to: sales@xsoptix.com
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