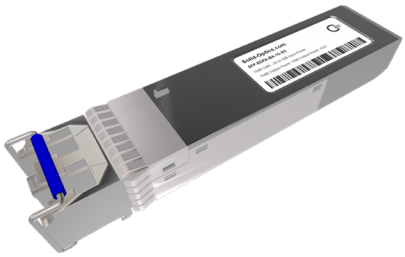


SFP+ – EDFA Booster

Tech Specs

SFP-EDFA-BA-15-SO

SFP+ Booster EDFA, 15dB Gain, -20 to 5dBm Input Power, 16dBm Output Power, AGC, Solid Optics

1. PRODUCT INTRODUCTION

The Solid Optics first-in-the-world plug-and-play SFP+ EDFA provides very stable optical output power over a wide operating temperature range, with significantly lower power consumption. It is internally supported with input and output isolators for system stability and optimum performance. It incorporates electrical control circuitry with a microprocessor, including photodiodes for monitoring the optical input and output power. Due to the small size and easy installation, the SFP+ EDFA is designed for amplification of optical signals at C-band in fiber optic communications system in 5G network, high speed datacenter, core networks, SDN and CATV networks.

2. PRODUCT SPECIFICATION & FEATURES

- Conventional SFP+compatible size and pin map
- Cost efficiency with pluggable type
- Space efficiency using remaining slot (No extra equipment required)
- EDFA module including micro process control circuit
- Uncooled 980 nm pump laser module
- Extremely lower the heat generation
- High saturation output power up to 19dBm
- Selectable output power
- Wide input dynamic range
- Control & monitoring by I2C
- LVTTL alarm
- Single + 3.3 V power supply

3. OPTICAL CHARACTERISTICS

Parameter	Symbol	Min.	Typ.	Max.	Unit
Signal Wavelength Range	λ	1527.99	-	1568.36	nm
Input Power	P_{IN}	-20	-	5	dBm
Saturation Output Power	P_{OUT}	-	16 (1)	-	dBm
Gain	G	-	15(1)	-	dB
Gain Setting Range	-	10	15	20	dB
Gain Flatness	G_{FLAT}	-	1	2	dB
Noise figure	NF	-	6	7	dB
Transient Performance(3) 1. Excursion Tr/Tf= 100us, 12dB Add/Drop 2. Gain Offset 3. Settling Time	TR - - -	 -3 -0.8 -	 - - -	 4 -0.8 500	 dB dB ms
Optical isolation	ISO	20	-	-	dB
Return loss	RL	40	-	-	dB
Polarization Mode Dispersion	PMD	-	-	0.5	ps
Polarization Dependent Gain	PDG	-	-	0.5	dB
Control Scheme	-		AGC		-

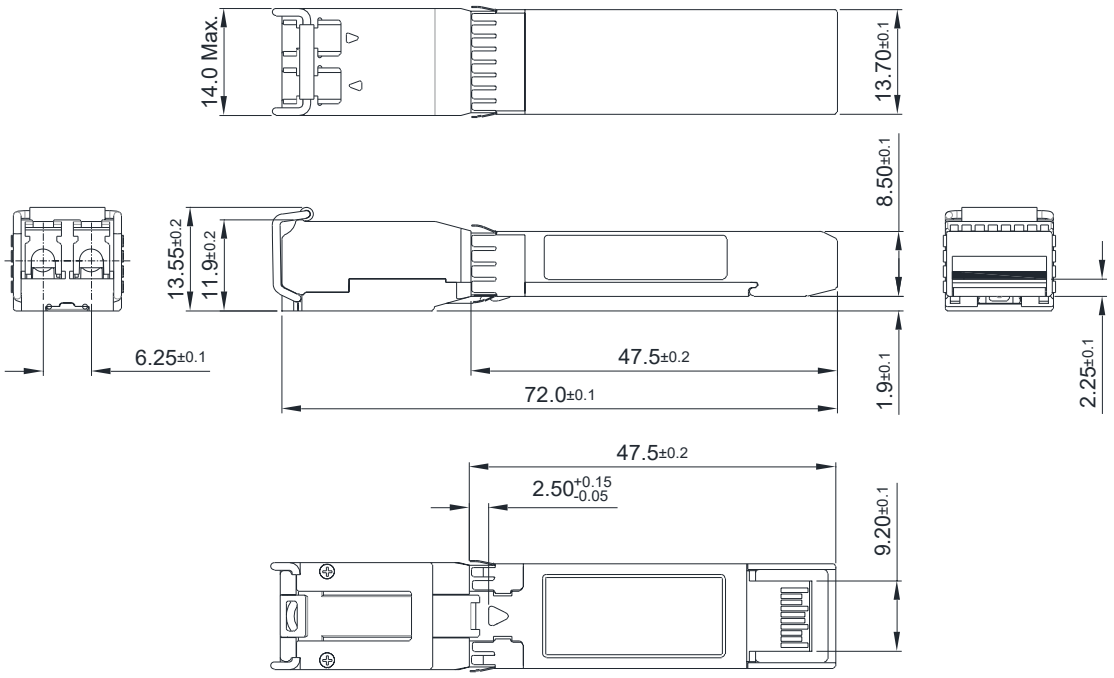
(1) Input power = +1dBm, set gain = 15dB, full wavelength range
(2) Input power = -10dBm, set gain = 20dB, full wavelength range
(3) at Typical gain. Excursion corresponds to Net Gain overshoot / undershoot

4. CONTROL & MONITORING FUNCTIONS

Parameter	Specification
Control Scheme	AGC with FLS*
Monitor	IPM / OPM / LD-Bias / Case-Temp
Alarm	LOS / LOP / LD-Bias / Gain

*FLS: Forced Laser Shutdown

5. MECHANICAL DIMENSION



(WxLxH = 14 X 72 X 8.5 [mm])

6. ELECTRIC & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification
Power Supply Voltage	+3.3V
Interface	I2C
Alarm	LVTTL
Operating Case Temperature	-5 ~ 75˚C
Storage Temperature	-40 ~ 85˚C
Storage Humidity	5 ~ 85% R.H
Power Consumption*	2.4 W

* in max. input power and full temperature range
* The cage with heatsink is recommended for normal operation.

7. WARNING & SYMBOLS

Solid Optics EU N.V. has tested the equipment based on European legislation. It is safe to use, doesn't intervene with other electronic devices and it is not affected by interference from other Electronic devices

Hazardous Goods; Our equipment complies with Directive 2011/65/EU (RoHS II) and 2002/95 EC (RoHS I).

Only (dis)connect the equipment in a EPA (ESD Protected Area) while using only certified equipment and taking all necessary precautions.

8. DISCLAIMER & COPYRIGHT

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Get in touch

EU Customer Support
+31 (0) 88 342 3776
info@solid-optics.com

US Customer Support
+1 855 678 4271
infous@solid-optics.com