

1550nm Semiconductor Optical Amplifier Module

1550nm Semiconductor Optical Amplifier (SOA) Module is a optic active product which can boost the intensity of optical signal in a fiber optic communication system. The SOA module intergrated with SOA driver, which can generate 5-500ns pulse width, the TEC and Thermistor built in to control the device temperature. It features high optical gain, high saturation output power, it's widely used in Optical Line Amplifier, Optic Non-linear Application and Optoelectronic Integration field, the output signal power can be customized.

Application:

Optical Line Amplifier
Optic Non-linear Application
Optoelectronic Integration
WDM System

Features:

High Optical Gain
Low Polarization Sensitivity
TEC and Thermistor Built In
High Reliability



Optical and Electrical Specification:

Parameter	Symbol	Min.	Tpy.	Max.	Unit
Center Wavelength	λ_c	1525	1550	1565	nm
3dB Wavelength Bandwidth	BW	40			nm
3dB Saturated Output Power	P			23	dBm
Input Optical Power	P	-25		10	dBm
Small Signal Gain @Pi=-25dBm	G	15			dB
Gain Ripple	ΔG		1.0	1.5	dB
Noise Figure			7.5	9	dB
Polarization Dependent Gain	PDG		0.5	1.0	dB
Pulse Extinction Ratio	ER	50			dB
SOA Operating Current	I _{op}		250	300	mA
TEC Current	I _{tec}			1.5	A
TEC Voltage	V _{tec}			3.5	V
TEC Set Temperature	T	15		35	°C
Switching Properties (Fall/Rise time)	Tr/Tf	2	3		ns
Pulse Frequency	F	1K		5M	Hz
Modulation Signal Format		TTL/LVTTL			-
Operating Temperature	T	-10		60	°C
Storage Temperature	T	-40		85	°C
Operating Humidity		5		90	%RH
Fiber Type		SMF-28e Fiber or PM 1550 Panda Fiber			

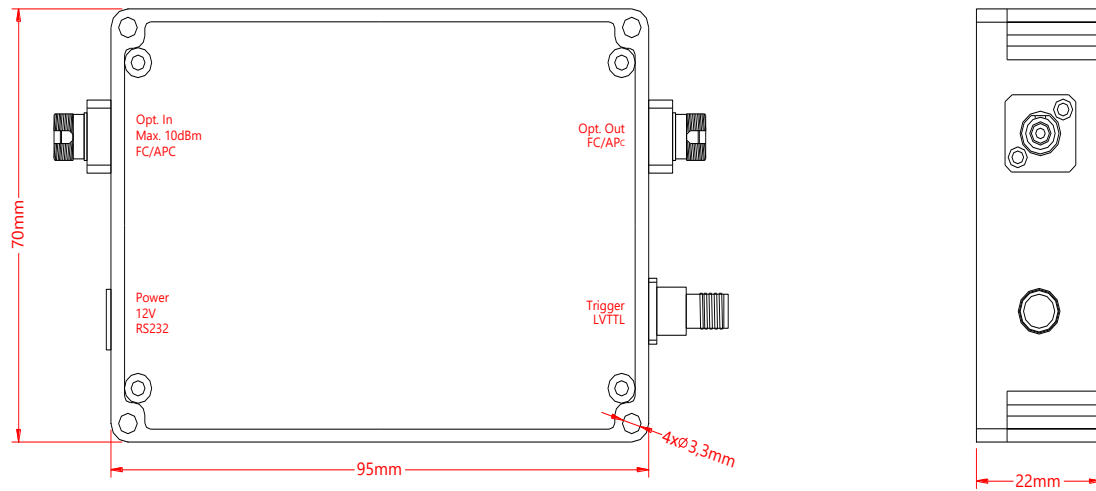
Pulse Signal Source Specification:

Parameter	Symbol	Min.	Tpy.	Max.	Unit	
Pulse Width	Pw	5		500	ns	
Pulse Width Turning Resolution			2.5		ns	
External Trigger Input	Signal Format	LVTTTL (5V)			-	
	Trigger Mode	Rising Edge Trigger			-	
	Coupling Mode	DC			-	
	Impedance	50			Ω	
External Pulse Trigger Input	High Level	Uh	2	3.8	4.5	V
	Low Level	Ul	0	0.4	0.6	V
Synchronous Signal Output		LVTTTL (5V)			-	
Electric Signal Connector		SMA			-	
Operating Voltage		DC 12±15%			V	
Operating Current		500, 1000			mA	
Communication Mode		RS232			-	

Notice: Above specifications are tested at in room temperature at 23°C.

Specifications may change without notice.

Drawing:



Ordering Information (Part Number):

SOAM-**WWWW**-**M**-**OO**-**CC**-**FF**-**CC**

WWWW	M	OO	CC	FF	CC
Wavelength	Laser Mode	Output Power	Operating Current	Fiber Type	Connector
1550 - 1550nm	C - CW P - Peak	05 - 5dBm 13 - 13dBm 23 - 23dBm SS - Specify	5H - 500mA 8H - 800mA 1T - 1000mA	SM - Non-PM Fiber PM - PM Fiber	FA - FC//APC FU - FC/UPC