

DATA SHEET

1RU SINGLE CHANNEL COMPACT EDFA

DESCRIPTION

The 1RU single channel compact EDFA is a high stability output power EDFA. The stability pump laser and unique ATC (automatic temperature control) and AGC (automatic gain control) circuit are employed in it as the key components to ensure the high stability and reliability of output power. The unique optical circuit design ensures the excellent optical character. The high stability and high precision MPU system are employed to ensure the control adjustment and display are intelligent and user-friendly. Professional design GFF (gain flattening filter) with excellent optical path design provides the best optimization on flatness and noise. It can provide 40~80 channels, and flatness above 35nm.

The optical circuit is designed especially for digital optical fiber communication system including lower noise figure, high output booster and high sensitivity pre-amplifier (to improve the system loss budget) and broad input power range and output power that can be modified easily.



KEY FEATURES

Low noise figure: typical figure is under 4.5dB

Redundancy hot swappable power module:
supported 110/220VAC and -48VDC (or a mix)

Works for 19' or 21' racks

OLED display shows and controls the system parameters, LED status indication shows the alarm status.

Support ETH, RS232 ports by RJ45

Network Management interface supporting SNMP via Ethernet port

AGC (Automatic Gain Control) or APC (Automatic Power Control) on optical output

APPLICATIONS

DWDM/CATV/SDH

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1RU SINGLE CHANNEL COMPACT EDFA

ENVIRONMENTAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Operation Temperature	-5	25	+60	°C
Storage Temperature	-40	-----	+80	°C
Operation Humidity*	5	-----	85	%
Storage Humidity	5	-----	85	%

(*) not condensing

OPERATING SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Supply Voltage		-48 (*)		V
Power Dissipation		18		W

(*) in alternative 100VAC, 220VAC

OPTICAL SPECIFICATIONS

BOOSTER

Parameter	Min.	Typ.	Max.	Unit
Wavelength	1530	1550	1565	nm
Input Power	-6		6	dBm
Output Power			20	dBm
Output Power Variation	-0.5		0.5	dB
Noise Figure			4.5	dB
PMD			0.5	ps
PDG			0.3	dB
Return Loss	-45			dB

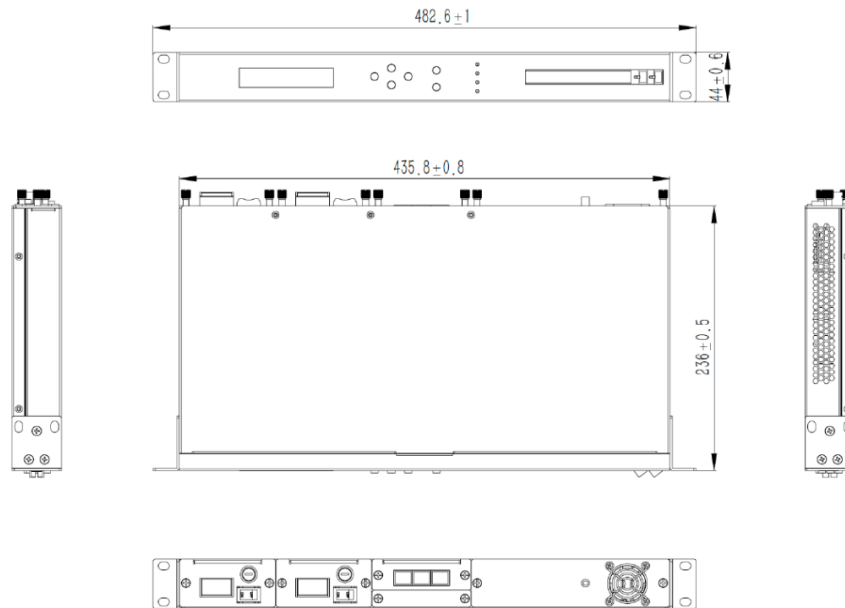
PREAMPLIFIER

Parameter	Min.	Typ.	Max.	Unit
Wavelength		1550.12		nm
Input Power	-45		-25	dBm
Output Power	-20		0	dBm
Output Power Variation	-0.5		0.5	dB
Gain		25		dB
Noise Figure		5.0	5.5	dB
Return Loss	-45			dB

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1RU SINGLE CHANNEL COMPACT EDFA

DIMENSIONS



ORDERING INFORMATION

Jabil Part Number	Package	Gain	Output Power	Other Info
JP-EDFA-1RU-BOOSTER	1RU		20	
JP-EDFA-1RU-PREAMP	1RU	25	0	

CONTACT INFORMATION

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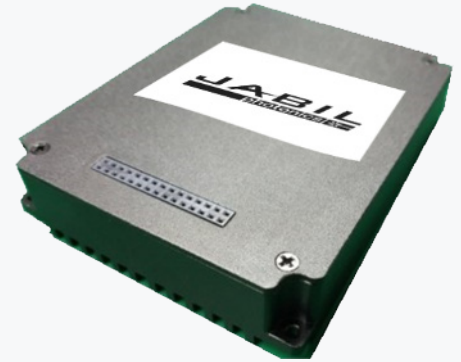
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DATA SHEET

25DBM DWDM EDFA MODULE

DESCRIPTION

Jabil Photonics DWDM EDFA module is designed for the DWDM system which has excellent optical performance with special optical design. It supports APC (Automatic Power Control), AGC (Auto Gain Control). The high stability and high precision MPU system to ensure the control, adjustment and monitor are intelligent and easy. Professional designed GFF (Gain Flattening Filter) and excellent optical design, ensure the best flatness and noise figure.



KEY FEATURES

Low noise figure: less than 5.5 dB at 0dBm input

Flatness: Typical 1dB, max 1.5dB

Full C-Band coverage: 40-96 channels

High stability and reliability: MTBF>100000 hours

Perfect status monitoring interface: RS-485 and RS-232

High precision AGC/APC circuit: power control accuracy type ± 0.1 dB

Low power consumption

Compatible with Telcordia GR-1312-CORE

APPLICATIONS

DWDM/CATV/SDH

Data center

DATA SHEET

25DBM DWDM EDFA MODULE

ENVIRONMENTAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Operation Temperature	0	25	+55	°C
Storage Temperature	-40	-----	+85	°C
Operation Humidity*	10	-----	85	%
Storage Humidity	5	-----	95	%

(*) not condensing

OPERATING SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Supply Voltage		5		V
Power Dissipation		18		W

OPTICAL SPECIFICATIONS

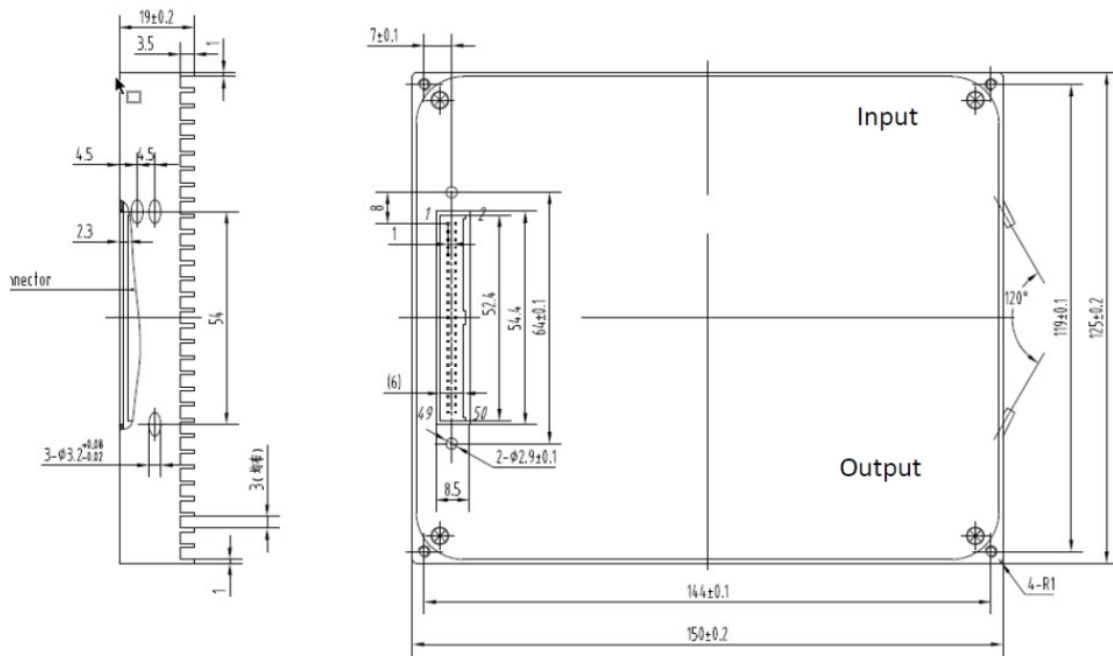
Parameter	Min.	Typ.	Max.	Unit
Wavelength	1529		1561	nm
Input Power	-20		0	dBm
Output Power			25	dBm
Output Power Variation	-0.5		0.5	dB
Gain		25		dB
Gain Flatness (peak to peak)		1.0	1.5	dB
Noise Figure			5.5	dB
Pump Leak @ Input/Output Port			-30	dBm
Isolation @ Input/Output Port	30			dB
PMD			0.5	ps
PDG			0.5	dB
Return Loss	40			dB
Input Pigtail (LC/UPC) (*)	-1	100	1	cm
Output Pigtail (LC/UPC) (*)	-1	100	1	cm

(*) Length defined from module box edge to LC/UPC end-face.

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25DBM DWDM EDFA MODULE

DIMENSIONS



ORDERING INFORMATION

Jabil Part Number	Package	Gain	Output Power	Other info
JP-EDFA-HGAIN-2525	CFP2	25 dB	25dBm	

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DATA SHEET

CFP2 PLUGGABLE EDFA

DESCRIPTION

The Jabil Photonics CFP2 form factor EDFA is a pluggable CFP2 product designed for single channel or C-band DWDM amplification in Telecom, Datacom or CATV applications. It is designed to be compatible with CFP2 MSA on mechanical and electrical interface.

The CFP2 EDFA supports the constant gain working mode and can monitor the input and output optical power in real time, supporting optical safety functionality by signal loss detection and alarm at any input port, fast power down control and reduced max output power in safe power mode.

Booster or preamplifier versions are available.



KEY FEATURES

CFP2 form factor, super compact form factor

1529-1561nm, DWDM Application

Preamplifier or Booster version

Output power up to 20dBm (Booster)

Output power up to 10dBm (Preamplifier)

Highly integrated passive component and ultra small form factor pump

Constant gain operation mode

Operating temperature -40°C to 65°C

APPLICATIONS

DWDM application with GFF

CATV

DATA SHEET

CFP2 PLUGGABLE EDFA

ENVIRONMENTAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Operation Temperature	-40	25	+65	°C
Storage Temperature	-40	-----	+85	°C
Operation Humidity*	5	-----	95	%
Storage Humidity	5	-----	95	%

(*) not condensing

OPERATING SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Supply Voltage	3.1	+3.3	+3.5	V
Power Dissipation	5.8	8	11	W

OPTICAL SPECIFICATIONS

PREAMPLIFIER

Parameter	Min.	Typ.	Max.	Unit
Wavelength	1529		1561	nm
Input Power	-35		-10	dBm
Output Power	-7		10	dBm
Output Power Variation	-0.3		0.3	dB
Gain		20		dB
Gain Flatness (peak to peak)			1.3	dB
Gain Accuracy	-0.5		0.5	dB
Noise Figure			6.0	dB
PDL			0.3	dB
PMD			0.5	ps
Return Loss	45			dB
LOSA		-37		dBm
Hysteresis		2		dB

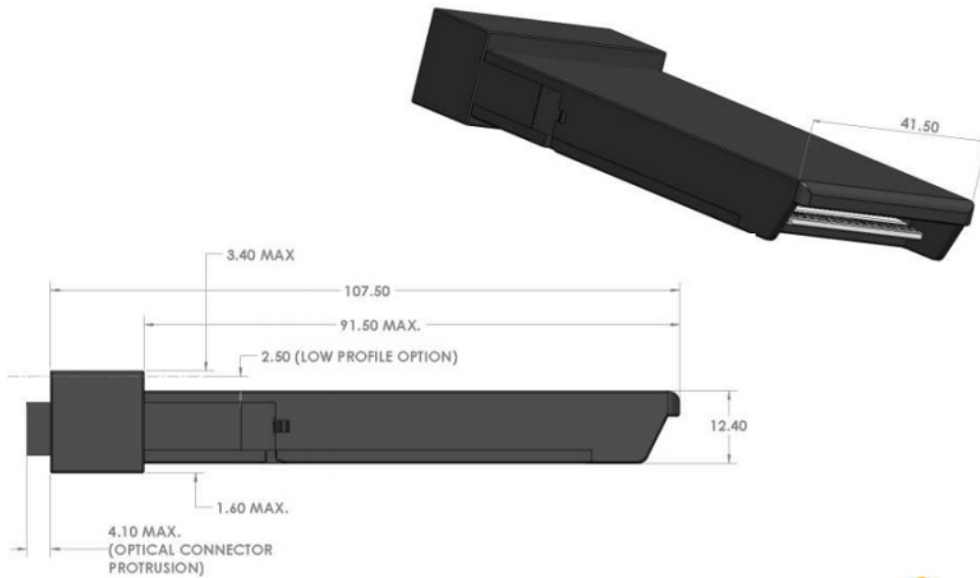
BOOSTER

Parameter	Min.	Typ.	Max.	Unit
Wavelength	1529		1561	nm
Input Power	-20		10	dBm
Output Power	0		20	dBm
Output Power Variation	-0.3		0.3	dB
Gain		20		dB
Gain Flatness (peak to peak)			1.3	dB
Gain Accuracy	-0.5		0.5	dB
Noise Figure			6.0	dB
PDL			0.3	dB
PMD			0.5	ps
Return Loss	45			dB
LOSA		-22		dBm
Hysteresis		2		dB

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CFP2 PLUGGABLE EDFA

DIMENSIONS



ORDERING INFORMATION

Jabil Part Number	Package	Gain	Output Power	Other info
JP-EDFA-CFP2-2010	CFP2	20 dB	10dBm	Preamplifier
JP-EDFA-CFP2-2020	CFP2	20 dB	20dBm	Booster

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DATA SHEET

DUAL MINI EDFA MODULE

DESCRIPTION

The Dual Channel EDFA is a super compact gain module with two independent inputs and outputs. These EDFAs share a dual uncooled 980nm pump laser. Each EDFA has independent control loop. The laser control loop and are working under APC mode. Each EDFA's output can be adjusted from 0 to 6dBm in 0.5dB step via I2C interface.



KEY FEATURES

Low noise figure: typical figure is under 4.5dB

1528nm to 1569nm, dual single channel

Each channel output power up to 6dBm

Two EDFAs inside one compact box

Provide APC/ACC operation mode

Temperature range -5 °C To 60°C

Form factor 55x40x12.5mm

APPLICATIONS

Ultra small package with dual EDFA inside

DATA SHEET

DUAL MINI EDFA MODULE

ENVIRONMENTAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Operation Temperature	0	25	+75	°C
Storage Temperature	-40	-----	+85	°C
Operation Humidity*	5	-----	95	%
Storage Humidity	5	-----	95	%

(*) not condensing

OPERATING SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Supply Voltage	3.15	3.3	3.45	V
Power Dissipation		5		W

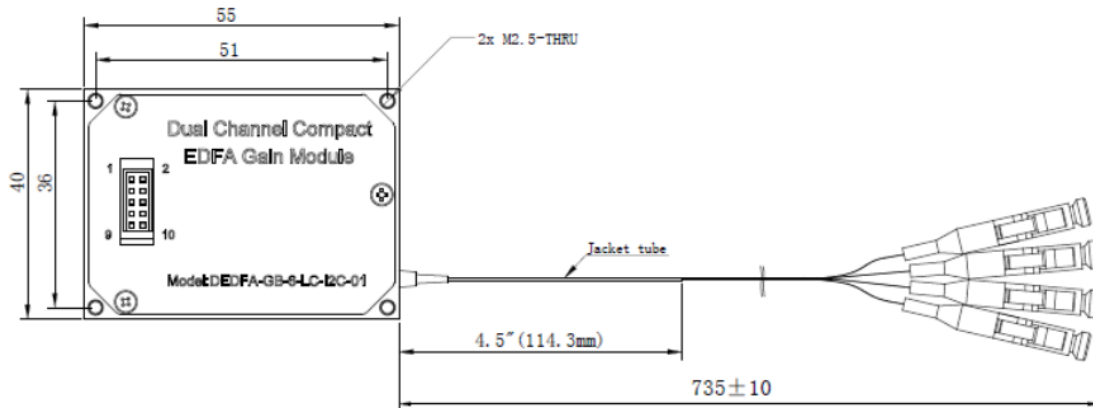
OPTICAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Wavelength	1528		1568.3	nm
Input Power	-16		-8	dBm
Output Power	0		8	dBm
Output Power Variation	-0.5		0.5	dB
Noise Figure			6	dB
Backward ASE power			-35	dB
Isolation @ Input/Output Port	35			dB
Return Loss	40			dB
PMD			0.3	ps
PDG			0.3	dB

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DUAL MINI EDFA MODULE

DIMENSIONS



ORDERING INFORMATION

Jabil Part Number	Package	Gain	Output Power	Other Info
JP-EDFA-DUALMINI-2408	module	24 dB	8dBm	

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DATA SHEET

GPP PLATFORM (GENERAL PLUGGABLE PLATFORM)

DESCRIPTION

Jabil Photonics General Pluggable Platform (GPP) is an optical transmission platform with strong versatility, available in 1RU or 2RU variant, capable of hosting different service cards like amplification and optical MUX.

Remote configuration and monitoring is possible with SNMP MIB and graphical GUI. Fan cards and power supplies (-48VDC or 110-220VAC variants) are pluggable and full redundant.



KEY FEATURES

1RU (with three services slots) or 2RU (with seven service slots) version

Redundant hot swappable power module: supported 110/220VAC and -48VDC (or a mix)

Replaceable fan unit.

Replaceable Controller card.

Works for 19' or 21' racks

Network Management interface supporting SNMP via Ethernet port

Wide range of pluggable service cards available.

APPLICATIONS

DWDM

CATV

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GPP PLATFORM (GENERAL PLUGGABLE PLATFORM)

ENVIRONMENTAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Operation Temperature	-5	25	+55	°C
Storage Temperature	-40	-----	+85	°C
Operation Humidity*	5	-----	95	%
Storage Humidity	5	-----	95	%

(*) not condensing

OPERATING SPECIFICATIONS

Items	1RU GPP	2RU GPP
Power Supply	Dual -48V DC or Dual 110-220V AC	Dual -48V DC or Dual 110-220V AC
Interface Support	RS232, Ethernet	RS232, Ethernet
Ethernet Data Rate	10Mb/s, 100Mb/s	10Mb/s, 100Mb/s
Alarms Port/Display	RJ45 Output/LED	RJ45 Output/LED
Power Consumption	≤75W	≤250W

COMMON PARTS

No.	Items	AB	Description
1	2RU Chassis	FRM	<ol style="list-style-type: none"> Supports 7 service slots 2 power slots, 1 management slot, and 1 fan slot. All are front panel operations and are hot swappable. The chassis can recognize and accept different service card in different slot.
2	1RU Chassis	FRM	<ol style="list-style-type: none"> Supports 3 service slots 2 power slots, 1 management slot, and 1 fan slot. All are front panel operations and are hot swappable. The chassis can recognize and accept different service card in different slot.
3	Power Supply Module	PWR	Support dual power -48VDC, range -36~-72VDC, or dual power 110-220VAC
4	Fan Card Module	FCM	Intelligent temperature control system, the direction of the wind is right to left
5	Network Management Unit	NMU	One RJ45 network adapter and one Micro USB connector, where RJ45 is the network management interface and Micro USB is the local interface

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GPP PLATFORM (GENERAL PLUGGABLE PLATFORM)

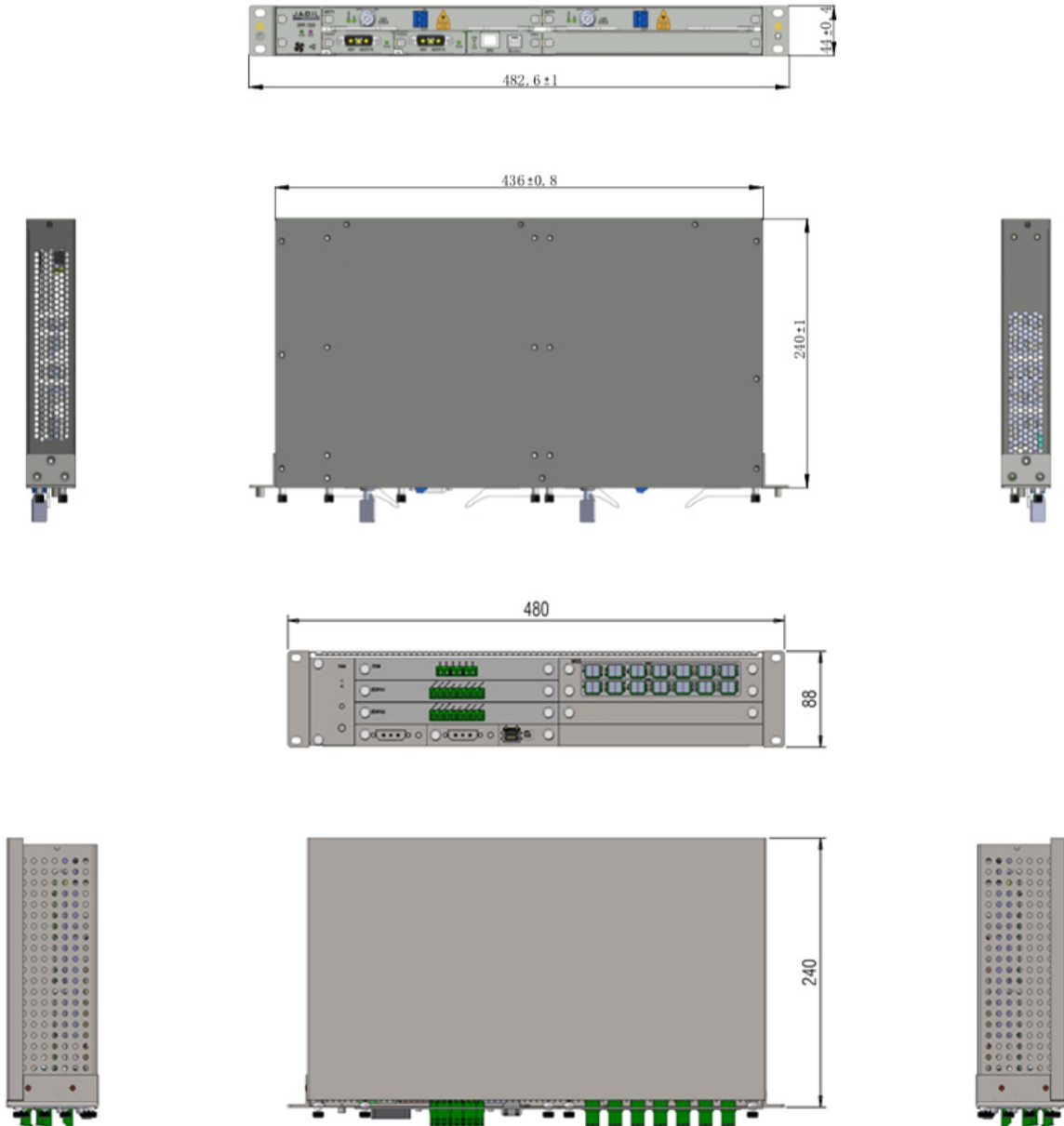
OPTICAL SPECIFICATIONS

Parameter	Min	Typical	Max	Unit	Note
Operating wavelength	1529		1561	nm	
Number of channels			40		
Polarization Mode Dispersion			0.3	dB	Across all sop
Polarization Dependent Gain			0.5	dB	Across all sop
Optical Return Loss	45			dB	
Pump leakage at Input & output			-30	dBm	
EDFA-Booster-2517					
Gain		25		dBm	
Input Power Range	-27		-8	dBm	
Signal Output Power		17			
Gain Flatness			1.5	dB	Peak to peak
Noise Figure			5.5	dB	@Input=-8dBm
EDFA-Pre-1122					
Gain		11		dBm	
Input Power Range	-7.5		+11.5	dBm	
Signal Output Power		22.5			
Gain Flatness			1.5	dB	Peak to peak
Noise Figure			6.0	dB	@Input=11.5dBm
EDFA-Booster-2021					
Gain		20		dBm	
Input Power Range	-20		-1	dBm	
Signal Output Power		21			
Gain Flatness			1.5	dB	Peak to peak
Noise Figure			6.0	dB	@Input=-1dBm

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GPP PLATFORM (GENERAL PLUGGABLE PLATFORM)

DIMENSIONS



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GPP PLATFORM (GENERAL PLUGGABLE PLATFORM)

ORDERING INFORMATION

Jabil Part Number	Description	Gain	Output Power	Other info
JP-1RU-SHELF	1RU Shelf GPP			
JP-2RU-SHELF	2RU Shelf GPP			
JP-AC-POW	AC Power GPP			
JP-DC-POW	DC Power GPP			
JP-NMU	NMU GPP			
JP-EDFA-BA-2517	EDFA-BST FGA 2517 for GPP	25	17	Booster
JP-EDFA-BA-2021	EDFA-BST FGA 2021 for GPP	20	21	Booster
JP-EDFA-BA-2017	EDFA-BST FGA 2017 for GPP	20	17	Booster
JP-EDFA-PA-1122	EDFA-Pre FGA 1122 for GPP	11	22	Preamplifier
JP-EDFA-PA-1522	EDFA-Pre FGA 1522 for GPP	15	22	Preamplifier
JP-EDFA-PA-1515	EDFA-Pre FGA 1515 for GPP	15	15	Preamplifier
JP-EDFA-BA-2020	EDFA-BST FGA 2020 for GPP	20	20	Booster
JP-EDFA-LA-1517	EDFA-LA-FGA 1517 for GPP	15	17	Line Amplifier
JP-EDFA-PA-1722	EDFA-Pre FGA 1722 for GPP	17	22	Preamplifier
JP-EDFA-PA-2020	EDFA-Pre FGA 2020 for GPP	20	20	Preamplifier
JP-EDFA-PA-1020	EDFA-Pre FGA 1020 for GPP	10	20	Preamplifier
JP-BD-MUX8-DEMUX8	8CH MUX&DEMUX for GPP			Mux/Demux
JP-BD-MUX40	40CH MUX for GPP			Mux
JP-BD-DEMUX40	40CH DEMUX for GPP			Demux

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DATA SHEET

SUPER MINI EDFA MODULE

DESCRIPTION

The Super Mini EDFA is a super compact gain module that supports APC/ACC working mode, can monitor and adjust the output optical power in real time, and can support real-time output LOS alarm and pump protection.



KEY FEATURES

Ultra compact size

Uncooled pump laser module

Extremely Low Power consumption

APPLICATIONS

Ultra small package

2.5/10/40/100G channel amplification

DATA SHEET

SUPER MINI EDFA MODULE

ENVIRONMENTAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Operation Temperature	0	25	+70	°C
Storage Temperature	-40	-----	+85	°C
Operation Humidity*	5	-----	85	%
Storage Humidity	5	-----	85	%

(*) not condensing

OPERATING SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Supply Voltage	3.15	3.3	3.46	V
Power Dissipation			0.75	W

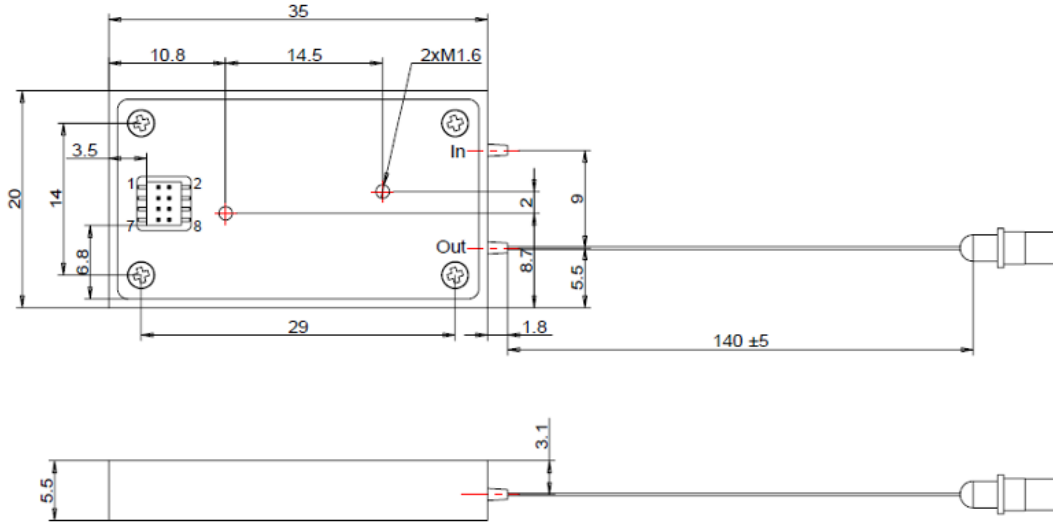
OPTICAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Wavelength	1528	1550	1568	nm
Input Power	-19		-5	dBm
Output Power	0		5	dBm
Output Power Variation	-0.1		0.1	dB
Noise Figure		5.5	6	dB
Isolation @ Input/Output Port	20			dB
Return Loss	40			dB
PMD			0.5	ps
PDG			0.3	dB

DATA SHEET

SUPER MINI EDFA MODULE

DIMENSIONS



ORDERING INFORMATION

Jabil Part Number	Package	Gain	Output Power	Other Info
JP-EDFA-SUPERMINI-2405	module	24 dB	5dBm	

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DATA SHEET

XFP AGC EDFA

DESCRIPTION

The Jabil Photonics XFP form factor EDFA is a pluggable EDFA product designed for single channel or full C-band 40/80/96 channels DWDM amplification in Telecom, Datacom or CATV applications. It is designed to be compatible with XFP MSA (INF-8077i) on mechanical and electrical interface, which allow it be plug-and-play in XFP cage.

The XFP EDFA supports the working mode of AGC and can monitor the input and output optical power in real time. Supports real-time input/output LOS alarm, pump protection and online firmware upgrade.



KEY FEATURES

XFP form factor, super compact form factor

1530-1568nm, DWDM Application

Output power up to 17dBm

Highly integrated passive component and ultra small form factor pump

APC and ACC operation mode

Operating temperature -5°C to 60°C

APPLICATIONS

DWDM application with GFF

CATV

DATA SHEET

XFP AGC EDFA

ENVIRONMENTAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Operation Temperature	-5	25	+70	°C
Storage Temperature	-40	-----	+85	°C
Operation Humidity*	5	-----	85	%
Storage Humidity	5	-----	85	%

(*) not condensing

OPERATING SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Supply Voltage	3.13	+3.3	+3.46	V
Power Dissipation		2	2.5	W

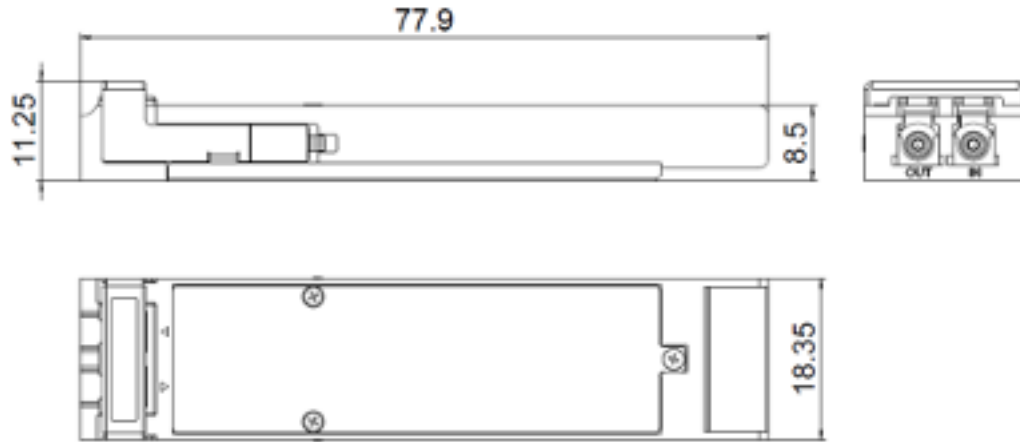
OPTICAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Wavelength	1528.77		1566.72	nm
Channel Number	1		16	
Input Power	-13		2	dBm
Output Power			17	dBm
Output Power Variation	-0.5		0.5	dB
Gain		15		dB
Gain Flatness (peak to peak)			4	dB
Gain Accuracy	-0.5		0.5	dB
Noise Figure			6.5	dB
Transient performance (*)			3	dB
Return Loss	40			dB
LOSA	-25			dBm
LOSD			-16	dBm
Hysteresis	0.5		3	dB

(*) 3dB add/drop of input

DATA SHEET
 XFP AGC EDFA

DIMENSIONS



ORDERING INFORMATION

Jabil Part Number	Package	Gain	Output Power	Other info
JP-EDFA-XFP-1517	XFP	15 dB	17dBm	

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