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Find the *Power General FLU2-40-6* at our website: ***Click HERE***

Erbium-Doped Fiber Amplifiers

OAB Series

JDS Uniphase Instrumentation Erbium-Doped Fiber Amplifiers (EDFAs) amplify optical signals across the EDFA window (1528-1610 nm). Through optimization of amplifier gain, noise figure, and saturated output power, the OAB series will expand your test capabilities in systems, components or sub-assembly manufacturing as well as research and development environments.

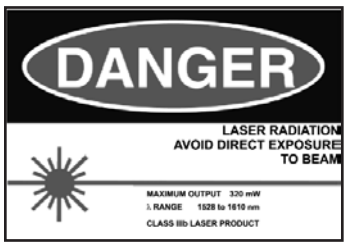
The amplifiers incorporate a unique design to produce maximum signal gain and saturated output power in the 1550 and 1590 nm test bands while minimizing noise figure.

The amplifiers are offered in C-band, L-band, and C+L-band versions in pre-amplifier, booster, or in-line amplifier configurations.

The compact benchtop or rack-mountable unit incorporates a user-friendly front panel housing an LCD displaying input/output power, current control, and an optical interface.



Safety Information



Key Features & Benefits

Wide choice of wavelengths C, L, and C+L-bands

High output power and gain

Mid-span access

Compact benchtop design with rack-mount kit

Single channel and multichannel (DWDM) capabilities

RS232 remote control

FDA[1], CE and cULus compliant

Applications

Pre-amp, booster, in-line amplifier emulation

DWDM transmission, for multichannel applications

Sonet/SDH systems, for single channel applications

1. FDA CFR21: 1040.10

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Technical Specifications

MODEL	OAB1550	OAB1552			OAB1554	OAB1546	OAB1558
Test band	C-band						
Amplifier type	Pre-amp[1]	Booster	Booster high power	Booster high power	In-line[1]	Mid-span access booster DWDM	Booster DWDM
Operating wavelength range	1528-1565 nm			1528-1563 nm	1528-1565 nm	1540-1560 nm	1528-1563 nm
Input signal	Single channel					Multichannel (DWDM)	
Saturated output power (minimum)[2]	14 dBm	17 dBm	20 dBm	24 dBm	17 dBm	17 dBm	21 dBm
Noise figure (maximum)[3]	3.3 dB	4.5 dB	5 dB	5 dB	3.8 dB	5.5 dB	
Small signal gain (minimum)[4]	37 dB	30 dB	32 dB	36 dB	35 dB	23 dB (MS loss ≤ 10 dB)	25 dB
Spectral gain flatness (maximum) (p-p)[5]	NA					1.6 dB (1540-1560 nm)	1.4 dB (1528-1563 nm)
PDL (maximum)	0.2 dB			0.3 dB	0.2 dB	0.3 dB	0.25 dB
PMD (maximum)	0.5 ps	0.4 ps	0.4 ps	0.45 ps	0.5 ps	0.6 ps	0.65 ps
Input/output isolation (minimum)	NA/32 dB	45/32 dB			32/32 dB	32/32 dB	
Optical interface	FC/HPC, FC/APC, SC/HPC, SC/APC						
Packaging	half rack benchtop and 19 inch rack-mount kit						
Dimensions W x H x D	21.2 x 8.9 x 35.5 cm						
Weight	< 4 kg						
Operating temperature	0 to 50 °C						
Storage temperature	- 40 to 70 °C						
Humidity	maximum 95 % RH non-condensing from 0-45 °C						

All specifications guaranteed at 1550 nm and at 23 °C.

1. Input and output monitor available on custom orders.
2. Measured at 1550 nm at P_{in} = - 4 dBm (pre-amp, inline, and booster), P_{in} = - 6 dBm (mid-span).
3. Noise figure measured at P_{in} = - 20 dBm (in-line), P_{in}= - 4 dBm (booster), P_{in}= - 6 dBm (mid-span), P_{in}= - 30 dBm (pre-amp).
4. Small signal gain measured at P_{in} = - 20 dBm (in-line and booster) P_{in} = - 6 dBm (mid-span), P_{in}= - 4 dBm (booster DWDM), P_{in}= - 30 dBm (pre-amp).
5. Flatness optimized for P_{in}= - 6 dBm (mid-span), P_{in}= -4 dBm (booster DWDM).

Sample Order: OAB1554+20FP0

OAB15 □ □ +2 □ □ □ □

code	band
4	C-band (red), 1540-1560 nm
5	C-band, 1528-1565 nm
6	C+L-band, 1530-1560 nm and 1570-1600 nm
9	L-band, 1565-1610 nm

code	connector type
FP	FC/HPC
FA	FC/APC
SC	SC/HPC
SU	SC/APC

code	description
0	Pre-amplifier
2	Booster
4	In-line
6	DWDM - mid-span access
8	DWDM - booster

code	output power
0	Standard output power
2	Booster high output power, ≥ 20 dBm (available for OAB1552)
4	Booster high output power, ≥ 22 dBm (available for OAB1592)
6	Booster high output power, ≥ 24 dBm (available for OAB1552)

code	characteristics
0	Unflattened
2	Gain flattened DWDM (available for OAB1546, OAB1558, OAB1596, OAB1598)

Standard Accessories

Part Number	Description
ED000899-A-00	Standard 19 inch rack-mount kit

Optional Accessories

Part Number	Description
ED000899-A-01	Rack-mount kit (Japan)

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Technical Specifications

MODEL	OAB1590	OAB1592		OAB1594	OAB1596	OAB1598	OAB1562	OAB1564
Test band	L-band						C+L-band	
Amplifier type	Pre-amp[1]	Booster	Booster high power	In-line[1]	Mid-span access DWDM	Booster DWDM	Booster	Inline1
Operating wavelength range	1565-1610 nm				1570-1603 nm		1530-1560 nm 1570-1600 nm	
Input signal	Single channel				Multichannel (DWDM)		Single channel	
Saturated output power (minimum)[2,3]	15 dBm	15 dBm	22 dBm	20 dBm	20 dBm	20 dBm	19 dBm	14 dBm
Noise figure (maximum)[4]	5 dB	5.5 dB			5.8 dB	5.5 dB	6.5 dB	
Small signal gain (minimum)[5]	24 dB	22 dB	29 dB	28 dB	22 dB (MS loss ≤ 7 dB)	20 dB	22 dB	20 dB
Spectral gain flatness (maximum) (p-p)[6]	NA				1.7 dB (1570-1603 nm)	1.7 dB (1570-1603 nm)	NA	
PDL (maximum)	< 0.3 dB						< 0.4 dB	
PMD (maximum)	0.6 ps	0.6 ps	0.8 ps	0.6 ps	0.9 ps		0.7 ps	
Input/output isolation (minimum)	NA/40 dB	40/40 dB					40/40 dB	
Optical interface	FC/HPC, FC/APC, SC/HPC, SC/APC							
Packaging	half rack benchtop and 19 inch rack-mount kit							
Dimensions W x H x D	21.2 x 8.9 x 35.5 cm							
Weight	< 4 kg							
Operating temperature	0 to 50 °C							
Storage temperature	- 40 to 70 °C							
Humidity	maximum 95 % RH non-condensing from 0 to 45 °C							

All specifications guaranteed at 1590 nm/1550 nm (C+L-band) and at 1590 nm (L-band) at 23 °C.

1. Input and output monitor available on custom orders.
2. Measured at 1590 nm at P_{in} = 0 dBm (pre-amp, in-line, and booster), P_{in} = - 2 dBm (mid-span).
3. C+L-band saturation power measured at P_{in}= - 4 dBm (1550 nm), P_{in}= 0 dBm (1590 nm).
4. Noise figure measured for L-band at P_{in} = - 20 dBm (pre-amp, in-line), P_{in}= - 4 dBm (mid-span, booster), P_{in} = 0 dBm (booster DWDM) and for the C+L-band at , P_{in} = - 20 dBm booster, inline).
5. Small signal gain measured for L-band at P_{in} = - 20 dBm (pre-amp, in-line and booster), P_{in} = - 2 dBm (mid-span), P_{in}= 0 dBm (booster DWDM), and for the C+L-band at P_{in} = - 20 dBm (booster, inline).
6. Flatness optimized for P_{in} = - 2 dBm (mid-span), P_{in} = 0 dBm (booster DWDM).

Ordering Information

Indicate your requirements by selecting one option from each configuration table. Print the corresponding codes in the available boxes to form your part number.

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