

DSED CzechLight Optical Amplifier EDFA

The CzechLight Amplifier (CLA) is an optical amplifier designed to amplify signals in optical networks. Its EDFA (Erbium Doped Fiber Amplifier) configurations, with low

noise in the C band, makes it ideal as an affordable solution for amplifying multiple signals in DWDM systems, in both metropolitan and long-haul networks.



INTELDAT manufactures the DSED CLA under license from



Features

- Multi-channel amplification with gain flattening in C band DWDM
- Low noise figure
- Redundant power supply: 230V AC and 48V DC
- Various operating modes independently selectable for each amplifier:
 - AGC (Automatic Gain Control)
 - APC (Automatic power Control)
 - ACC (Automatic Current Control)
- Configuration on demand (Preamp + Booster, Single Booster, Single Preamp, 2x In-Line, 4x In-Line...)
- LCD display and control panel for local control and monitoring
- Key Lock Switch for Enable/Disable optical power EDFA output
- Microprocessor-based control board with Linux operation system
- Remote management
- WEB based CLA EDFA control and monitoring
 - CLI via SSH
 - SNMP package
 - E-mail critical warning messages
 - Optional remote-control GSM/GPRS/UMTS/Wi-Fi
- Management control of all-important parameters:
 - EDFA Input and Output optical powers
 - Laser diode currents control
 - Alarms control, temperatures monitoring
 - Power supply and fan speed monitoring

Specifications

Parameters	Unit	Specifications
Management interfaces		2x Ethernet 10/100 Mbit RJ45 ports 1 x RS 232 port 2x USB port
Monitor ports		SC/APC 1 % of power output
Power supply	kW	dual PSU 100 - 230V AC and 48V DC (max 150 W)
Dimension	mm	chassis 1U max 2 x EDFA: 435 x 345 x 44 (W x D x H)
	mm	chassis 1U max 4 x EDFA: 435 x 460 x 44 (W x D x H)
Working Temperature	°C	+5 to +60
Optical Connectors		SC/APC

Optical Characteristic of Pre-Amplifier

Parameters	Units	Specifications		
		Min	Type	Max
Signal Wavelength	nm	1530		1563
Input optical power	dBm	-30		-5
Nominal Gain	dB		20	
Gain flatness	dB		1.0	2.0
Saturated output power	dBm	15		
Noise figure	dB		4.3	4.8
PMD	ps			0.5
PDL	dB			0.5

Optical Characteristic of Booster

Parameters	Units	Specifications		
		Min	Type	Max
Signal Wavelength	nm	1535		1563
Input optical power	dBm	-20		10
Nominal Gain	dB		20	
Gain flatness	dB		1.0	2.0
Saturated output power	dBm	+20		
Noise figure	dB		5	5.5
PMD	ps			0.5
PDL	dB			0.5

Optical Characteristic of In-Line Amplifier

Parameters	Units	Specifications		
		Min	Type	Max
Signal Wavelength	nm	1530		1563
Input optical power	dBm	-30		-5
Nominal Gain	dB		30	
Gain flatness	dB		0.8	2.0
Saturated output power	dBm	+20		
Noise figure	dB		4.3	5.5
PMD	ps			0.5
PDL	dB			0.5

ORDERING CODES

DSED: CzechLight Optical Amplifier EDFA

DS	ED	-	EDFA	-	✓	-	PS1	-	PS2	
										Configuration Type
					PB01F					Preamp + Booster (2x EDFA)
					DI01F					Dual In-Line Amplifier (2x EDFA)
					DPB01F					Dual Preamp + Booster (4x EDFA)
					QI01F					Quad In-Line Amplifier (4x EDFA)
Example										
DS	ED	-	EDFA	-	DPB01F	-	PS1	-	PS2	INTELDAT CzechLight optical amplifier DWDM dual preamp + booster (4x EDFA)