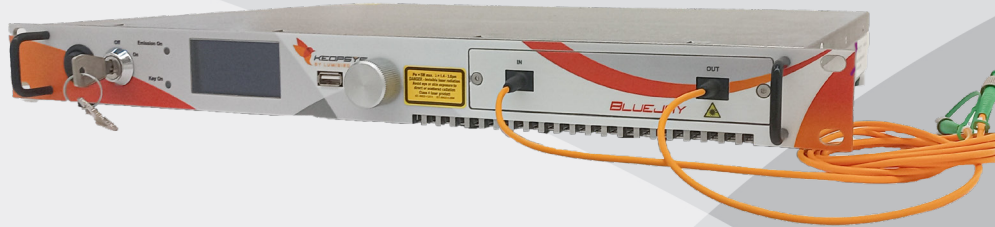


CEFA-C-BD

CW Erbium Fiber Amplifier C-band Bi-Directional
1 or 2 bi-directional amplifiers in a 1U benchtop



B130

MAIN FEATURES

- One or two bi-directional amplifiers in one rack
- Up to 5 dBm of saturated output power
- Homogenized pumping of the gain media
- Low input power range
- Low ASE
- USB and Ethernet ports

MAIN APPLICATIONS

- **TWO WAY OPTICAL FREQUENCY COMPARISONS**
- **OPTICAL REFERENCE FREQUENCY DISSEMINATION**
- **TEMPORAL VARIATION OF FUNDAMENTAL CONSTANT**
- **ATOMIC CLOCK COMPARISON**
- **RELATIVISTIC GEODESY**

“

The CEFA-C-BD series are Erbium Fiber Amplifiers for bi-directional amplification.

They are designed to amplify very weak optical signals, down to -60 dBm and can deliver a saturated output power up to +5 dBm. They offer a very low noise figure and a high optical signal to noise ratio at the output.

The CEFA-C-BD amplifiers are real bi-directional fiber amplifiers, which means that the two 1550 nm signals are travelling in the same optical path. This unique optical design is therefore interesting for application requiring the same propagation time in both directions.

The CEFA-C-BD series are available in 1U turnkey benchtops and can integrate one or two BD amplifiers in the same 1U rack. The amplifiers can be controlled via the front panel or remotely via serial USB and Ethernet ports.

”

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CEFA-C-BD

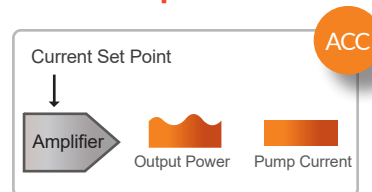
CW Erbium Fiber Amplifier C-band Bi-Directional
1 or 2 bi-directional amplifiers in a 1U benchtop



SPECIFICATIONS

CEFA-C-BD	
Mode of operation	CW
Wavelength range (nm)	1540 – 1565
Saturated output power (dBm)	Up to 5
Input power range (dBm)	-50 to -10 (option IP1: -60 to -10)
Number of independant amplifiers	1 or 2
Gain (dB)	12 to 21
Polarization	Random
Output power monitoring	Automatic Current Control, ACC
Output power stability over 1 hour (% rms)	< 1
Fiber type	SMF 28 or equivalent
Input/output termination	FC/APC

Mode of operation



ACC (Automatic Current Control)

EASY TO USE !



```

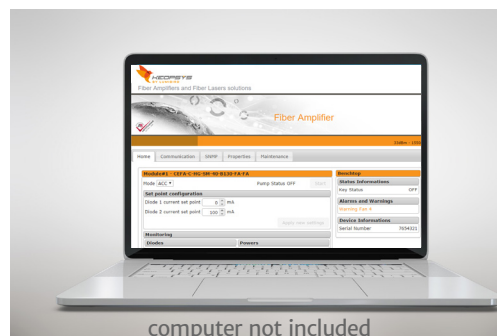
APC/Pump ON  5.003
Set Point   : 20.0dBm
Laser Diode : 820mA

Power Out   : 20.0dBm

Status OK   Options
    
```

Front panel control

- User-friendly and turnkey benchtop
- Dial and front panel display for easy control and monitoring of the product



computer not included

Remote control

- USB port
- Web server, Telnet, SSH protocols
- GUI available (option)

Reliability

All our fiber lasers and fiber amplifiers are manufactured according to our ISO certified quality management system, which places the needs and values of customers and partners at the heart of our organization. Throughout the manufacturing process, our components and systems are subjected to rigorous tests and inspections, which guarantees their robustness and reliability in the most demanding environments. Countless units operate continuously without maintenance around the world. The ISO 9001 certificates can be downloaded from our website.



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CEFA-C-BO-HP

CW Erbium Fiber Amplifier C-Band Booster High Power



B130



B230



M102



M304



B150



B330



M413



PM14D



MAIN FEATURES

- Up to 43 dBm of saturated output power
- Polarization-maintaining (optional)
- Narrow linewidth amplification
- Single or multi EDFA benchtop or OEM module
- Very compact OEM module available
- Low power consumption
- High reliability

MAIN APPLICATIONS

- OPTICAL COMPONENT TESTING
- REMOTE SENSING (LiDAR)
- TEST AND MEASUREMENT
- MICROWAVE OPTICS
- NON-LINEAR OPTICS
- FREE SPACE COMMUNICATION

“

The CEFA-C-BO-HP series are Erbium Fiber Amplifiers designed for single channel amplification in the C-Band.

Their unique optical design allows the amplification of narrow linewidth sources with minimum power starting from +5 dBm. The series includes polarization maintaining models.

The wide range of operation makes these amplifiers suitable for many applications, such as remote sensing, tests and measurements, non linear optics, atom cooling, etc ...

The CEFA-C-BO-HP are available in single or multi EDFA benchtops up to 27 dBm or compact OEM modules. The benchtop platforms offer the possibility to control the amplifier via the front panel or remotely via serial USB and Ethernet ports. Both models offer robustness and reliability.

”

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CEFA-C-BO-HP

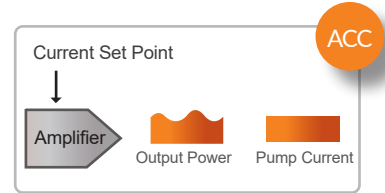
CW Erbium Fiber Amplifier C-Band Booster High Power



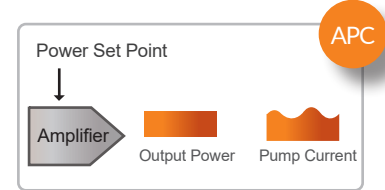
SPECIFICATIONS

	CEFA-C-BO-HP
Mode of operation	CW
Wavelength range (nm)	From 1540 to 1565 (depending on the model)
Saturated output power (dBm)	From 25 to 43
Input power range (dBm)	From 5 to 25 (depending on the model)
Narrow linewidth amplification (< 1 MHz)	Optional
Polarization	Random or linear (PER > 17 or 20 dB depending on models)
Input power monitoring	Yes
Output power monitoring	Optional, depending on the model
Control mode	ACC, APC if available
Output power stability over 1 hour (% rms)	< 1 or < 2 (depending on the model)
Output power tunability (%)	10 - 100 or 25 - 100 (depending on the model)
Fiber type	Single mode fiber, SMF or PM1550
Input / output termination	FC/APC, SC/APC or collimator (depending on the model)

Mode of operation



ACC (Automatic Current Control)



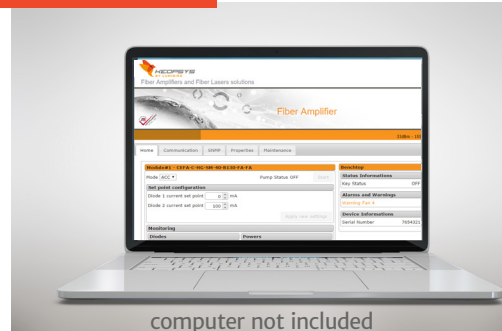
APC (Automatic Power Control)

EASY TO CONTROL !



Benchtop

Control box for modules



computer not included

Control of device

- User-friendly benchtop with dial and front panel display for easy control and monitoring of the product
- Modules with optional control box and cables for easy evaluation

Remote control

- USB port for benchtop
- Command set provided
- GUI available for modules and as an option for benchtops
- Web server, Telnet, SSH protocols for benchtops

Reliability

All our fiber lasers and fiber amplifiers are manufactured according to our ISO certified quality management system, which places the needs and values of customers and partners at the heart of our organization. Throughout the manufacturing process, our components and systems are subjected to rigorous tests and inspections, which guarantees their robustness and reliability in the most demanding environments. Countless units operate continuously without maintenance around the world. The ISO 9001 certificates can be downloaded from our website.



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CEFA-C-HG

CW Erbium Fiber Amplifier C-band High Gain



B130



B150



M160

MAIN FEATURES

- High sensitivity with very low input power (-50 dBm)
- High small signal gain up to 50 dB
- Near quantum-limited noise figure
- Polarization-maintaining (optional)
- Single or multi EDFA benchtop or OEM module versions available

MAIN APPLICATIONS

- HIGH SENSITIVITY OPTICAL PREAMPLIFICATION
- FIBER AND FREE-SPACE COMMUNICATION
- OPTICAL REMOTE SENSING
- TEST AND MEASUREMENT

“

The CEFA-C-HG series are Erbium Fiber Amplifiers designed for amplification on the C-Band of very weak optical signals, down to -50 dBm.

A near quantum-limited noise figure and a small gain up to 50 dB are achieved through a unique optical design.

Specially designed as a pre-amplification stage for fiber and free-space communication, these high-gain amplifiers are also suitable for remote sensing applications.

The optical design guarantees a very low noise figure and a low amplified spontaneous emission to achieve a high optical to signal to noise ratio.

The series also includes polarization maintaining fiber models.

The CEFA-C-HG are available in single or multi EDFA benchtops or compact OEM modules. The benchtop platform offers the possibility to monitor the amplifier via the front panel or remotely via serial USB and Ethernet ports. Both models offer robustness and reliability.

”

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CEFA-C-HG

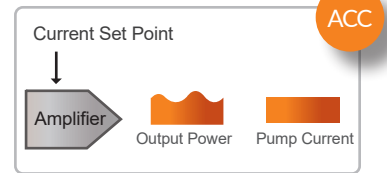
CW Erbium Fiber Amplifier C-band High Gain



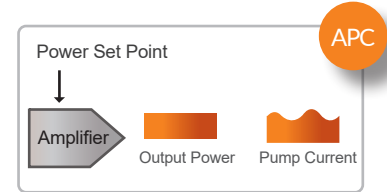
SPECIFICATIONS

	CHG40	CHG50
Mode of operation	CW	
Wavelength range (nm)	1529-1562	
Saturated output power at -6 dBm input (dBm)	15	20
Input power range (dBm)	-50 to 0	
Small signal gain at -40 dBm and 1530 nm input (dB)	> 40	> 50
Noise figure at -40 dBm and 1550 nm input (dB)	< 4 for SM, < 5 for PM	
Polarization	Random (SM) or linear (PM with PER > 20 dB)	
Control mode	ACC, APC	
Output power stability over 1 hour (% rms)	< 1	
Output power tunability (%)	10 to 100	
Input/output termination	FC/APC, SC/APC, FC/UPC, SC/UPC	

Mode of operation



ACC (Automatic Current Control)



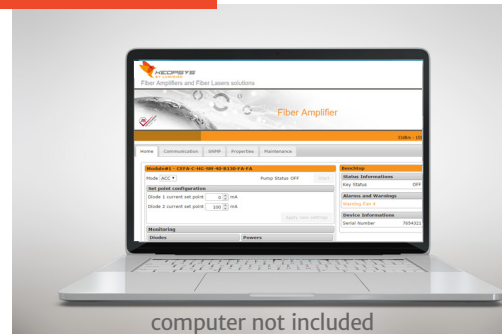
APC (Automatic Power Control)

EASY TO CONTROL !



Benchtop

Control box for modules



computer not included

Control of device

- User-friendly benchtop with dial and front panel display for easy control and monitoring of the product
- Modules with optional control box and cables for easy evaluation

Remote control

- RS232 interface and serial command set provided
- GUI available for modules and as an option for benchtops
- Web server, SNMP, Telnet, SSH protocols (depending on the benchtop model)

Reliability

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CEFA-C-PB-HP

CW Erbium Fiber Amplifier C-Band
Pre-Booster High Power



B130



B330/B331



M102



M304



B230



PM14D



M413



MAIN FEATURES

- Up to 43 dBm of saturated output power
- Low noise figure
- Pre-amplifier built-in for low power input
- Polarization-maintaining (optional)
- Narrow linewidth amplification
- Benchtop or OEM module versions available
- Low power consumption
- High reliability

MAIN APPLICATIONS

- OPTICAL COMPONENT TESTING
- ATOMIC COOLING
- QUANTUM OPTICS
- NANO TECHNOLOGIES
- TESTS AND MEASUREMENTS
- MICROWAVE OPTICS
- NON-LINEAR OPTICS
- FREE SPACE COMMUNICATIONS

“

The CEFA-C-PB-HP series are Erbium Fiber Amplifiers designed for single channel amplification in the C-Band.

The wide range of operation makes these amplifiers suitable for many applications, such as remote sensing, tests and measurements, non linear optics, etc.

These amplifiers can deliver a saturated output power up to 43 dBm. They include a pre-amplifier stage which allows them to be seeded with low input power (down to -20 dBm). They offer a very low noise figure and a high optical signal to noise ratio (OSNR) at the output.

Their unique optical design allows the amplification of narrow linewidth sources.

The series includes polarization maintaining models.

The CEFA-C-PB-HP are available in benchtops or compact OEM modules. The benchtop platforms offer the possibility to control the amplifier via the front panel or remotely via serial USB and Ethernet ports. Both models offer robustness and reliability.

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CEFA-C-PB-HP

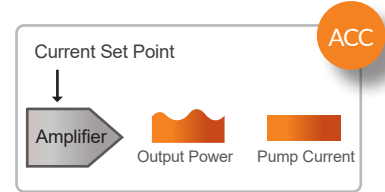
CW Erbium Fiber Amplifier C-Band
Pre-Booster High Power



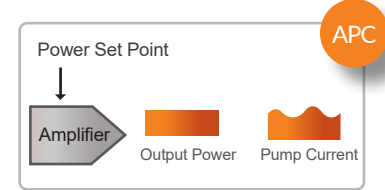
SPECIFICATIONS

	CEFA-C-PB-HP
Mode of operation	CW
Wavelength range (nm)	From 1540 to 1565 (depending on the model)
Saturated output power (dBm)	From 25 to 43
Input power range (dBm)	-20 to 0
Narrow linewidth amplification (< 1 MHz)	Optional
Polarization	Random or linear (PER > 17 or 20 dB depending on models)
Input power monitoring	Yes
Output power monitoring	Optional, depending on the model
Control mode	ACC, APC if available
Output power stability over 1 hour (% rms)	< 1 or < 2 (depending on the model)
Output power tunability (%)	10 - 100 or 25 - 100 (depending on the model)
Fiber type	Single mode fiber, SMF or PM1550
Input / output termination	FC/APC, SC/APC or collimator (depending on the model)

Mode of operation



ACC (Automatic Current Control)



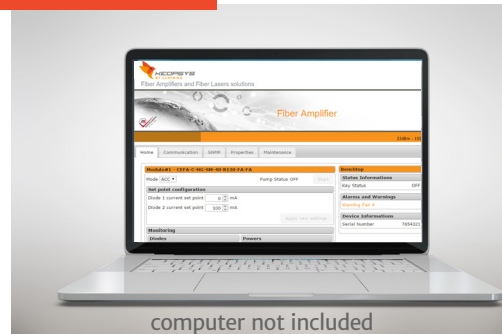
APC (Automatic Power Control)

EASY TO CONTROL !



Benchtop

Control box
for modules



computer not included

Control of device

- User-friendly benchtop with dial and front panel display for easy control and monitoring of the product
- Modules with optional control box and cables for easy evaluation

Remote control

- USB port for benchtop
- Command set provided
- GUI available for modules and as an option for benchtops
- Web server, Telnet, SSH protocols

Reliability

All our fiber lasers and fiber amplifiers are manufactured according to our ISO certified quality management system, which places the needs and values of customers and partners at the heart of our organization. Throughout the manufacturing process, our components and systems are subjected to rigorous tests and inspections, which guarantees their robustness and reliability in the most demanding environments. Countless units operate continuously without maintenance around the world. The ISO 9001 certificates can be downloaded from our website.



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CEFA-C-PB-LP

CW Erbium Fiber Amplifier C-Band Low Power



B130



B150



M160

MAIN FEATURES

- Up to 23 dBm of saturated output power
- Low noise figure
- Low power consumption
- Single or multi EDFA benchtop or OEM module versions available
- Polarization-maintaining (optional)
- Mid-stage access (optional)
- Wide range operating temperature (-20 °C to +65 °C for modules)

MAIN APPLICATIONS

- TEST AND MEASUREMENT
- LiDAR
- MICROWAVE OPTICS
- NANOTECHNOLOGY
- OPTICAL TRANSMISSION NETWORKS
- FTTH / CATV



The CEFA-C-PB-LP series are Erbium Fiber Amplifiers designed for single channel amplification in the C-Band.

These amplifiers can deliver a saturated output power up to 23 dBm. They include a pre-amplifier stage which allows them to be seeded with low input power (down to -20 dBm). They offer a very low noise figure and a high optical signal to noise ratio (OSNR) at the output.

The series includes polarization maintaining models. A mid stage access option is also available for adding a fiber component, like a DCM module.

The CEFA-C-PB-LP are available in single or multi EDFA benchtops or compact OEM modules. The benchtop platforms offer the possibility to control the amplifier via the front panel or remotely via serial USB and Ethernet ports. Both models offer robustness and reliability



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CEFA-C-PB-LP

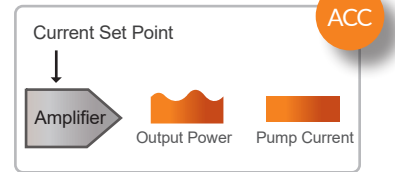
CW Erbium Fiber Amplifier C-Band Low Power



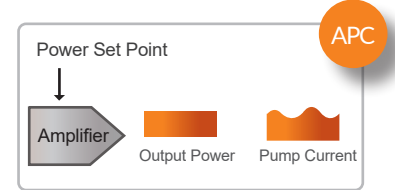
SPECIFICATIONS

	CPB15	CPB18	CPB21	CPB23
Mode of operation	CW			
Wavelength range (nm)	1529-1562			
Saturated output power at -6 dBm input (dBm)	15	18	21	23
Input power range (dBm)	-20 to 0			
Noise figure at -6 dBm and 1550 nm input (dB)	< 5 for SM, < 5.5 for PM			
Polarization	Random (SM) or linear (PM with PER > 20 dB)			
Control mode	ACC, APC			
Output power tunability (%)	10 to 100		30 to 100	
10 dB loss mid-stage access	Non applicable	Option		
Input/output termination	FC/APC, SC/APC, FC/UPC, SC/UPC			

Mode of operation



ACC (Automatic Current Control)



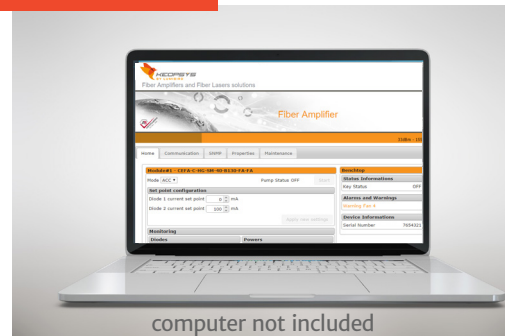
APC (Automatic Power Control)

EASY TO CONTROL !



Benchtop

Control box for modules



computer not included

Control of device

- User-friendly benchtop with dial and front panel display for easy control and monitoring of the product
- Modules with optional control box and cables for easy evaluation

Remote control

- USB port for benchtop
- Command set provided
- GUI available for modules and as an option for benchtops
- Web server, Telnet, SSH protocols

Reliability

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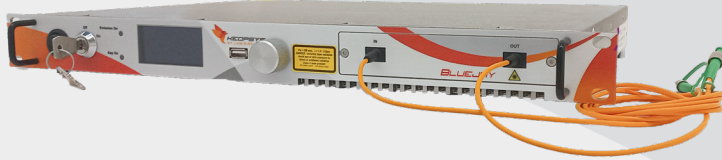


CEFA-C-WDM-LP

CW Erbium Fiber Amplifier C-Band
gain flattened low power



B130



M160 / M161



B150



MAIN FEATURES

- Up to 23 dBm of saturated output power
- Up to 39 nm of gain bandwidth
- Selection of 2 different bandwidths
- Gain flattened at +/- 0.75 dB typical
- Low noise figure
- Mid-stage access option
- Polarization-maintaining (optional)
- Low power consumption
- Single or multi EDFA benchtop or OEM module version available
- Wide range operating temperature (-20 °C to +65 °C for modules)

MAIN APPLICATIONS

- REGIONAL AND METRO DWDM NETWORKS
- FTTH/CATV NETWORKS
- FREE SPACE COMMUNICATION
- TEST AND MEASUREMENT

“

CEFA-C-WDM-LP Erbium doped fiber amplifiers provide amplification of multiple channels in the C-band, up to 23 dBm of saturated output power.

These amplifiers are optimized for use in Dense Wavelength Division Multiplexing applications. They provide dynamic gain control to operate at the point of optimum gain flatness.

Two different bandwidths are available to maintain a typical gain flatness of +/- 0.75 dB over 33 nm or +/- 1 dB over 39 nm on the C band. The automatic gain control mode maintains a nominal constant gain of 20 or 23 dB, depending on the model, over these two bandwidths.

The series include polarization-maintaining models and mid-stage access option.

The CEFA-C-WDM-LP are available in single or multi EDFA benchtops or compact OEM module. The benchtop platform offers the possibility to monitor the amplifier via the front panel or remotely via serial USB and Ethernet ports. Both models offer robustness and reliability.

”

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CEFA-C-WDM-LP

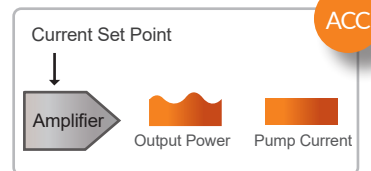
CW Erbium Fiber Amplifier C-Band
gain flattened low power



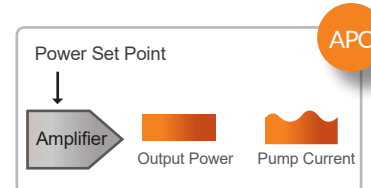
SPECIFICATIONS

	C-WDM21	C-WDM23
Mode of operation	CW	
Wavelength range (nm)	1529 - 1562 (BW00) or 1527 - 1566 (BW01)	
Composite saturated output power (dBm)	21	23
Composite input power range (dBm)	for BW00	-14 to -2
	for BW01	-11 to -1
Nominal signal gain (dB)	23 for BW00 and 20 for BW01	
Gain ripple (dB)	+/- 0.75 for BW00 and +/- 1 for BW01	
Polarization	Random or linear (PER > 20 dB)	
Noise figure at nominal gain (dB)	for BW00 @ 23 dB : < 5.5 for SM, < 6.5 for PM for BW01 @ 21 dB : < 6 for SM, < 7 for PM	
Control mode	ACC, APC, AGC	
5 dB loss mid-stage access (MSA option)	Yes	
Input/output fiber type	Single mode fiber, SMF or PANDA	
Input/output termination	FC/APC, SC/APC	

Mode of operation



ACC (Automatic Current Control)



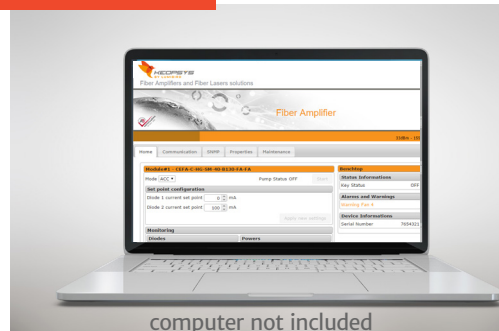
APC (Automatic Power Control)

EASY TO CONTROL !



Benchtop

Control box for modules



computer not included

Control of device

- User-friendly benchtop with dial and front panel display for easy control and monitoring of the product
- Modules with optional control box and cables for easy evaluation

Remote control

- USB port for benchtop
- Command set provided
- GUI available for modules and as an option for benchtops
- Web server, Telnet, SSH protocols for benchtops

Reliability

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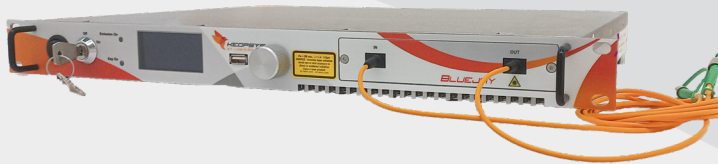
CEFA-L-HG

CW Erbium Fiber Amplifier L-Band High Gain



B130

M310



MAIN FEATURES

- High sensitivity with very low input power (-40 dBm)
- High signal gain up to 50 dB
- Optical bandwidth from 1570 to 1607 nm
- Near quantum-limited noise figure
- Polarization-maintaining (optional)
- Turnkey benchtop or OEM module versions available

MAIN APPLICATIONS

- **HIGH SENSITIVITY OPTICAL PREAMPLIFICATION**
- **FIBER AND FREE-SPACE COMMUNICATION**
- **OPTICAL REMOTE SENSING**
- **TEST AND MEASUREMENT**

“

The CEFA-L-HG series are Erbium Fiber Amplifiers designed for amplification on the L-Band of very weak optical signals, down to -40 dBm.

A near quantum-limited noise figure and a small gain up to 50 dB are achieved through a unique optical design.

Specially designed as a pre-amplification stage for fiber and free-space communication, these high-gain amplifiers are also suitable for remote sensing applications.

The optical design guarantees a very low noise figure and a low amplified spontaneous emission to achieve a high optical to signal to noise ratio (OSNR).

The series also includes polarization maintaining fiber models.

The CEFA-L-HG are available in benchtop or compact OEM modules. The benchtop platform offers the possibility to monitor the amplifier via the front panel or remotely via serial USB and Ethernet ports. Both models offer robustness and reliability.

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Many options and configurations are available. Please contact Lumibird to find the best match for your needs and compatibility between options.

CEFA-L-HG

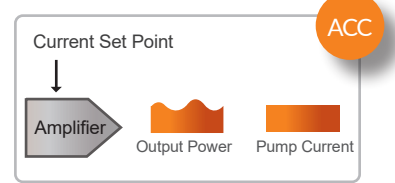
CW Erbium Fiber Amplifier L-Band High Gain



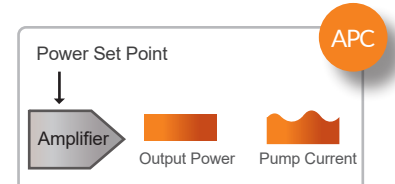
SPECIFICATIONS

	LHG 40	LHG 50
Mode of operation	CW	
Wavelength range (nm)	1570 -1607	1571-1603
Saturated output power at -6 dBm input (dBm)	20	23
Input power range (dBm)	- 40 to 0	
Small signal gain at -40 dBm input (dB)	> 40	> 50
Noise figure at -40 dBm and 1595 nm input (dB)	< 4.5 for SM, < 5.5 for PM	
Polarization	Random or linear (PER > 20 dB)	
Control mode	ACC, APC	
Output power stability over 1 hour (% rms)	< 1	
Output power tunability (%)	30 to 100	
Input/output termination	FC/APC, SC/APC, FC/UPC, SC/UPC	

Mode of operation



ACC (Automatic Current Control)



APC (Automatic Power Control)

EASY TO CONTROL !



Benchtop

Control box for modules



computer not included

Control of device

- User-friendly benchtop with dial and front panel display for easy control and monitoring of the product
- Modules with optional control box and cables for easy evaluation

Remote control

- USB port for benchtop
- Command set provided
- GUI available for modules and as an option for benchtops
- Web server, Telnet, SSH protocols for benchtop

Reliability

All our fiber lasers and fiber amplifiers are manufactured according to our ISO certified quality management system, which places the needs and values of customers and partners at the heart of our organization. Throughout the manufacturing process, our components and systems are subjected to rigorous tests and inspections, which guarantees their robustness and reliability in the most demanding environments. Countless units operate continuously without maintenance around the world. The ISO 9001 certificates can be downloaded from our website.



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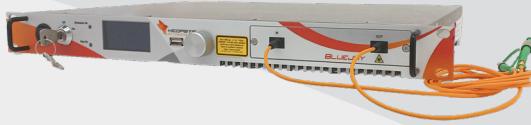
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CEFA-L-PB-HP

CW Erbium Fiber Amplifier L-Band Pre-Booster High Power



B130



B230



M304



MAIN FEATURES

- Up to 37 dBm of saturated output power
- Low noise figure
- Built-in pre-amplifier for low input power
- Narrow linewidth amplification
- Polarization-maintaining (optional)
- Benchtop or OEM module versions available
- Low power consumption
- High reliability

MAIN APPLICATIONS

- OPTICAL TRANSMISSION NETWORK
- FREE SPACE COMMUNICATION
- REMOTE SENSING (LiDAR)
- TEST AND MEASUREMENT
- NON-LINEAR OPTICS
- OPTICAL COMPONENT TESTING

“

The CEFA-L-PB-HP series are Erbium Fiber Amplifiers designed for single channel amplification in the L-Band.

The wide range of operation makes these amplifiers suitable for many applications, such as free-space communication, remote sensing, tests and measurements, non-linear optics, etc.

These amplifiers can deliver a saturated output power up to 37 dBm. They include a pre-amplifier stage which allows them to be seeded with low input power (down to -20 dBm). They offer a very low noise figure and a high optical signal to noise ratio (OSNR) at the output. Their unique optical design allows the amplification of narrow linewidth sources. The series includes polarization-maintaining models.

The CEFA-L-PB-HP are available in benchtops or compact OEM modules. The benchtop platforms offer the possibility to control the amplifier via the front panel or remotely via serial USB and Ethernet ports. Both models offer robustness and reliability.

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CEFA-L-PB-HP

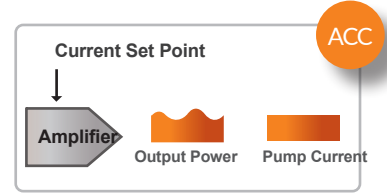
CW Erbium Fiber Amplifier L-Band Pre-Booster High Power



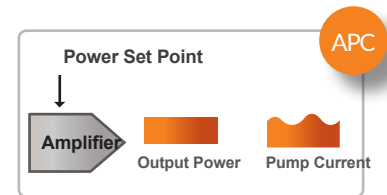
SPECIFICATIONS

	CEFA-L-PB-HP
Mode of operation	CW
Wavelength range (nm)	1565 - 1605
Saturated output power (dBm)	From 27 to 37
Input power range (dBm)	- 20 to 0
Narrow linewidth amplification (< 1 MHz)	Optional
Polarization	Random or linear (PER > 17 dB)
Input power monitoring	Yes
Output power monitoring	Included
Control mode	ACC and APC
Output power stability over 1 hour (% rms)	< 1 or < 2 (depending on the model)
Fiber type	Single mode fiber, SMF or PM1550
Input/output termination	FC/APC or SC/APC (depending on the model)

Mode of operation



ACC (Automatic Current Control)



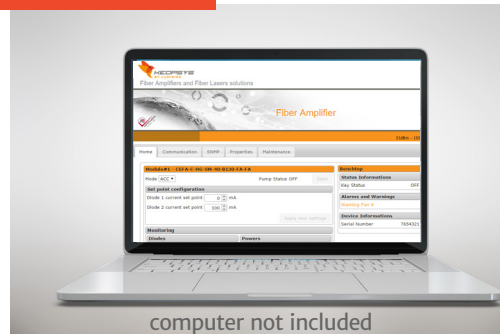
APC (Automatic Power Control)

EASY TO CONTROL !



Benchtop

Control box for modules



computer not included

Control of device

- User-friendly benchtop with dial and front panel display for easy control and monitoring of the product
- Modules with optional control box and cables for easy evaluation

Remote control

- USB port for benchtop
- Command set provided
- GUI available for modules and as an option for benchtops
- Web server, Telnet, SSH protocols

Reliability

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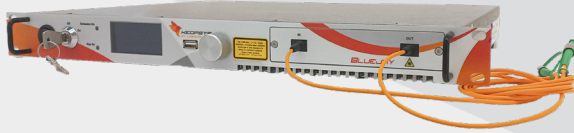
V2-0- Lumibird reserves the right to modify the specifications without prior notice. Photos are not contractual.

CEFA-L-PB-LP

CW Erbium Fiber Amplifier L-Band Low Power



B130



M160



M310



MAIN FEATURES

- Up to 23 dBm of saturated output power
- Low noise figure
- Low power consumption
- Benchtop or OEM module versions available
- Polarization-maintaining (optional)
- Mid-stage access (optional)
- Wide range operating temperature (-20 °C to +65 °C for modules)

MAIN APPLICATIONS

- OPTICAL TRANSMISSION NETWORKS
- TEST AND MEASUREMENT
- LiDAR
- SCIENTIFIC

“

The CEFA-L-PB-LP series are Erbium Fiber Amplifiers designed for single channel amplification in the L-Band.

These amplifiers can deliver a saturated output power up to 23 dBm. They include a pre-amplifier stage which allows them to be seeded with low input power (down to -20 dBm).

They offer a very low noise figure and a high optical signal to noise ratio (OSNR) at the output.

The CEFA-L-PB-LP are available in single or multi EDFA benchtops or compact OEM modules. The benchtop platforms offer the possibility to control the amplifier via the front panel or remotely via serial USB and Ethernet ports. Both models offer robustness and reliability.

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CEFA-L-PB-LP

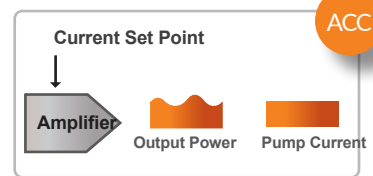
CW Erbium Fiber Amplifier L-Band Low Power



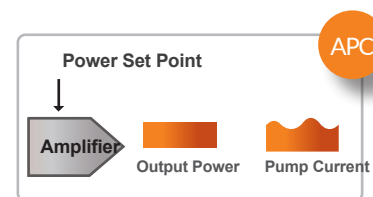
SPECIFICATIONS

	LPB 15	LPB18	LPB21	LPB23
Mode of operation	CW			
Wavelength range (nm)	1570 - 1603			
Saturated output power at - 6 dBm input (dBm)	15	18	21	23
Input power range (dBm)	- 20 to 0			
Noise figure at - 6 dBm and 1595 nm input (dB)	< 5.5 for SM, < 6.5 for PM			
Polarization	Random (SM) or linear (PM with PER > 20 dB)			
Control mode	ACC, APC			
Output power tunability (%)	30 to 100			
10 dB loss mid-stage access	Optional			
Input / Output termination	FC/APC, SC/APC, FC/UPC, SC/UPC			

Mode of operation



ACC (Automatic Current Control)



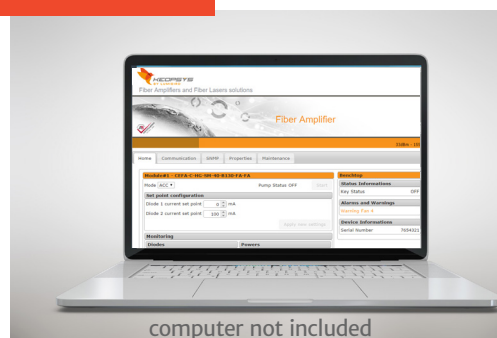
APC (Automatic Power Control)

EASY TO CONTROL !



Benchtop

Control box for modules



computer not included

Control of device

- User-friendly benchtop with dial and front panel display for easy control and monitoring of the product
- Modules with optional control box and cables for easy evaluation

Remote control

- USB port for benchtop
- Command set provided
- GUI available for modules and as an option for benchtops
- Web server, Telnet, SSH protocols

Reliability

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