

# C-Band Benchtop Fiber Amplifiers

## KPS-BT-C and KPS-BT2-C Series

The KPS-BT-C and KPS-BT2-C fiber amplifiers operate in the C-band wavelength region from 1529 to 1565nm. Several output saturation powers with different optical configurations are available. High output powers **up to 37dBm** are efficiently achieved thanks to Keopsys **VSP®** (V-groove Side Pumping) technology.

These turnkey microprocessor controlled benchtop versions manage alarms and status indicators and maintain constant pump current or output power. Integrated GPIB interface enables easy control, diagnostic and data acquisition. It also offers automatic power control (APC) and automatic current control (ACC) for any input signal power variation within the specified input signal power range.

### Features

- Saturated output power from 10 to 37 dBm
- Wide Bandwidth
- Turnkey devices
- Input and Output photodiodes
- Isolated input and output ports
- Microprocessor control of operating parameters and alarms
- Automatic power control (APC)
- Automatic current control (ACC)
- GPIB remote control
- Tabletop or rack-mountable unit

KPS-BT2-C Series



KPS-BT-C Series



### Applications

- C-Band data transmission
- Free space transmission
- Power booster for tunable laser sources
- Pre-amplifier and in-line amplifier
- Telcordia component testing
- Non linear effect study

# High Power Preamplified Booster

## KPS-BT-C-HPFA and KPS-BT2-C-HPFA Series

With integrated preamplifier, these two stages High Power Fiber Amplifiers ensure low noise figure combined with high output powers delivered by the booster stage. Our **VSP®** (V-groove side pumping) technology provide high efficiency and high output saturation power up to 37dBm in very compact and cost effective designs.

### Features

- Saturated output power from 21 to 37dBm
- Bandwidth 1535-1565nm
- Preamplified Booster
- Low noise figure
- Input and output monitor photodiodes
- GPIB interface

### SPECIFICATIONS (at 25°C)

OPTICAL							NOTES	
Optical Bandwidth	1535nm - 1565nm							
Saturated Output Power	21	23	25	27	30	33	37dBm	at Pin= -3dBm
Optical Input Power	From -15dBm to 0dBm							
Noise Figure	<5.0	<5.0	<5.0	<5.5	<6.0	<7.0	< 8.0dB	at Pin= -10dBm @1550nm
Small Signal Gain	>35	>35	>35	>40	>40	>40	>45dB	at Pin= -30dBm @1550nm
Gain Variation	< 1.5dB						at Pin= -3dBm	
Polarization Dependent Gain	< 0.5dB							
Polarization Mode Dispersion	< 1ps						Low PMD (<0.5ps) option available	
Optical Isolation	> 30dB							
Return Loss	< -40dB							

#### ORDERING INFORMATION

Part Numbering for tabletop unit	KPS-BT-C-xx-PB-yy	xx : Output power in dBm (1)
Part Numbering for rack-mountable unit	KPS-BT2-C-xx-PB-yy	yy : FA for FC/APC, SA for SC/APC FC for FC/SPC, SC for SC/SPC (2)

- (1) 33dBm and 37dBm output power on BT2 version only  
 (2) SPC connectors up to 23dBm only

# High Power Booster

## KPS-BT-C-HPFB and KPS-BT2-C-HPFB Series

These economical, single stage, high power boosters are the ideal choice to amplify input signals around 0dBm. Through the use of our **VSP®** technology, they provide very high saturated output power.

### Features

- Saturated output power from 18 to 30 dBm
- Bandwidth : 1535-1565 nm
- Booster only
- Input and output monitor photodiodes
- GPIB interface

### SPECIFICATIONS (at 25°C)

OPTICAL							NOTES
Optical Bandwidth	1535nm - 1565nm						
Saturated Output Power	18	21	23	25	27	30dBm	at Pin= 0dBm
Optical Input Power	From -3dBm to +3dBm						
Noise Figure	<7.0	<7.0	<8.0	<8.0	<8.5	<9.0dB	at Pin= -3dBm @1550nm
Small Signal Gain	>30	>30	>35	>35	>40	>40dB	at Pin= -30dBm @1550nm
Gain Variation	< 1.5dB						at Pin= 0dBm
Polarization Dependent Gain	< 0.5dB						
Polarization Mode Dispersion	< 1ps						Low PMD (<0.5ps) option available
Optical Isolation	> 30dB						
Return Loss	< -40dB						

#### ORDERING INFORMATION

Part Numbering for tabletop unit	KPS-BT-C-xx-BO-yy	xx : Output power in dBm
Part Numbering for rack-mountable unit	KPS-BT2-C-xx-BO-yy	yy : FA for FC/APC, SA for SC/APC FC for FC/SPC, SC for SC/SPC (2)

- (2) SPC connectors up to 23dBm only

# Standard Fiber Amplifier

## KPS-BT-C-SFA and KPS-BT2-C-SFA Series

The Standard Fiber Amplifier series offer cost effective solutions for applications requiring preamplifiers, in line amplifiers or moderate power boosters. They cover the entire C-band range and provide low gain variation in single channel applications.

### Features

- Saturated output power from 10 to 18dBm
- Wide bandwidth
- Wide dynamic range
- GPIB interface

## SPECIFICATIONS (at 25°C)

OPTICAL		NOTES
Optical Bandwidth	1529nm - 1562nm	
Saturated Output Power	10 13 15 18dBm	at Pin= 0dBm
Optical Input Power	From -15dBm to 0dBm	
Noise Figure	< 5dB	at Pin= -3dBm @1550nm
Small Signal Gain	>20 >20 >30 >30dB	at Pin= -30dBm @1550nm
Gain Variation	< 1.5dB	at Pin= 0dBm
Polarization Dependent Gain	< 0.5dB	
Polarization Mode Dispersion	< 1ps	Low PMD (<0.5ps) option available
Optical Isolation	> 30dB	
Return Loss	< -40dB	

### ORDERING INFORMATION

Part Numbering for tabletop unit	KPS-BT-C-xx-Sd-yy	xx : Output power in dBm
Part Numbering for rack-mountable unit	KPS-BT2-C-xx-Sd-yy	yy : FA for FC/APC, SA for SC/APC FC for FC/SPC, SC for SC/SPC

## GENERAL SPECIFICATIONS

### TABLETOP BENCHTOP



ELECTRICAL		NOTES
AC Voltage	85-264V	47 to 63Hz
Power Consumption	Between 30W to 100W	Depending on Output Power

GENERAL	
Operating Case Temperature	+18°C / +35°C
Storage Temperature	-20°C / +55°C
Size	160mm x 260mm x 380mm
Fiber Type	SMF-28
Standard Connector	FC/APC

## RACK MOUNTABLE BENCHTOP



ELECTRICAL		NOTES
AC Voltage	85-264V	47 to 63Hz
Power Consumption	Between 30W to 100W	Depending on Output Power

GENERAL	
Operating Case Temperature	+15°C / +35°C
Storage Temperature	-20°C / +55°C
Size	88mm x 427mm x 386mm
Fiber Type	SMF-28
Standard Connector	FC/APC

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**All products comply with IEC 60825-1 and FDA (21 CFR Subchapter J) laser safety standards.**

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