



## BFM88-BFM89

**CWDM 8 to 16 channel optical multiplexer/de-  
multiplexer**

**A Synapse® product**

*Synapse*

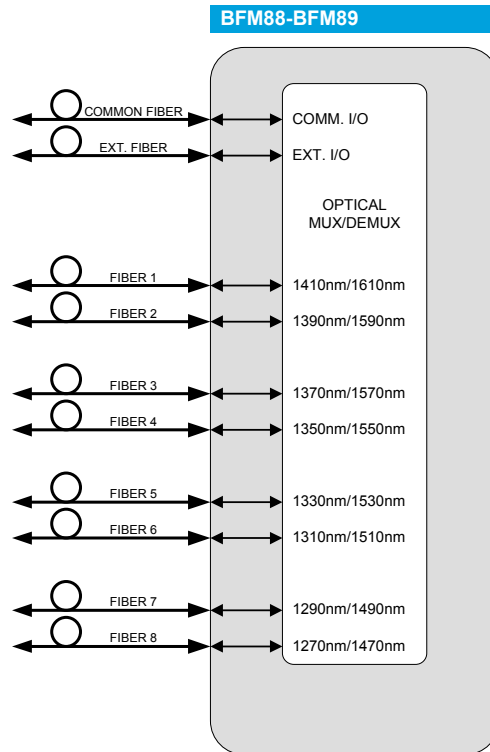


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Block Schematic & I/O panel



COMMON FIBER INPUT/OUTPUT  
EXTENDED FIBER INPUT/OUTPUT

FIBER INPUT/OUTPUT 1  
FIBER INPUT/OUTPUT 2

FIBER INPUT/OUTPUT 3  
FIBER INPUT/OUTPUT 4

FIBER INPUT/OUTPUT 5  
FIBER INPUT/OUTPUT 6

FIBER INPUT/OUTPUT 7  
FIBER INPUT/OUTPUT 8

BFM88/89



### Features

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The BFM88 and BFM89 are passive optical multiplexing/de-multiplexing modules onto single mode fibers. These modules allow you to multiplex or de-multiplex 8 wavelengths onto or from one fiber with use of CDWM technology. The BFM88 can handle 8 wavelengths from 1270nm to 1410nm and the BFM89 from 1470nm to 1610nm. An extra functionality added to these products is the option to have extended inputs/outputs. This will give you the opportunity to cascade two back panels. This enables users to mux/demux 16 channels onto one fiber, worlds most dense CWDM solution. Average fiber distance up to 15km with GFT80 + BFT88/BFT89 and GFR80 + BFR80 combo's at 3Gb/s.

- Up to 16ch 3Gb/s - HD-SDI CWDM system in only 1RU, world's most compact CWDM solution
- Bi-directional mux/demux of up to 16 wavelengths from 1270nm to 1610nm
- Expandable from 8 to 16 channels
- Low insertion loss
- High stability and reliability. Failsafe because back panel is passive
- fiber inputs/outputs on LC/LC connectors
- One common input/output for combined wavelengths
- Wide pass band
- Fiber protection on back panel
- Occupies only one back panel slot for every 8 channels
- Connector panel can also be used outside a Synapse frame (not sacrificing a slot)

#### Complementary cards

- GFT80 with BFT88/89 back panels
- GFR80 with BFR80 back panel

### Applications

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- High Density fiber transmission
- (Existing)Studio infrastructure
- OB I/O
- Line monitoring
- WDM network
- Telecommunication
- Fiber optical amplifiers
- Access Network

### Ordering information

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#### Standard I/O:

- **BFM88:** 8 channel fiber CWDM module with LC connectors 1270nm-1410nm
- **BFM89:** 8 channel fiber CWDM module with LC connectors 1470nm-1610nm

## Specifications

### Optical Connections

<b>Number of connections</b>	10
<b>Connector</b>	LC with PC/UPC polish

### Mux/demux optical

<b>Operating Wavelength</b>	ITU-T Grid - BFM88:1270nm, 1290nm, 1310nm, 1330nm, 1350nm, 1370nm,1390nm, 1410nm - BFM89: 1470nm, 1490nm, 1510nm, 1530nm, 1550nm, 1570nm,1590nm, 1610nm
<b>Passband@0.5dB</b>	>=14nm
<b>Channel spacing</b>	20 GHz
<b>Pass band</b>	+/-6.5nm
<b>Pass band Flatness</b>	<=0.5 dB
<b>Insertion Loss (dB)</b>	Typ. 4.3 dB Max. 5.0 dB
<b>Adjacent Isolation</b>	>30 dB
<b>Insertion Loss Temp. Sensitivity</b>	<0.005 dB/°C
<b>Wavelength Temperature Shifting</b>	<0.002 nm/ °C
<b>Polarization Dependent Loss</b>	<0.25 dB
<b>Polarization Mode Dispersion</b>	<0.15 ps
<b>Directivity</b>	>50 dB
<b>Return Loss</b>	>45 dB
<b>Power Handling</b>	300 mW

### Miscellaneous

<b>Weight</b>	Approx. 450g
<b>Operating Temperature</b>	0 °C to +70 °C
<b>Storage Temperature</b>	-40 °C to +85 °C
<b>Dimensions</b>	137 x 150 x 20 mm (HxWxD)