



## 100G EDFAMUX

Active MUX with built-in EDFAs and Tunable Dispersion Compensator, C-Band 100Ghz, Dual AC 100/240V. Built-in LAN+WLAN to access internal webserver for monitoring and configuration, 1RU 19" casing

### Product Description

This 100G EDFAMUX is a Passive Multiplexer with Active Components, which combines three devices into one rack unit. Typically, long distance projects require a 1RU standalone Passive MUX, a separate EDFA (amplifier), and a separate Dispersion Compensation unit. This EDFAMUX combines all of these features in a 1RU 19" casing, which requires less space and less patching. All of our mux/demux products are 100% compliant and provide a cost effective solution for your network upgrade needs. With our certification test program, we guarantee your product will work correctly the first time.

### Features:

- Supports 8x 100G communication lines from 5Km to 120Km and 16 x 100G communication lines from 5Km to 80Km
- 8 Channel and 16 Channel options
- Web and Console configuration
- Web, SNMP and Syslog Monitoring
- Monitor Port
- Auto Gain Control
- Default 2 x AC (100-240V), DC optional
- 19" 1U Rack Mount Form Factor
- Operating Temperature: -5 ~ 60°C
- UPC/LC Adapters with auto dust shutters



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*For your product safety, please read the following information carefully before any manipulation of the transceiver:*



#### **ESD**

*This transceiver is specified as ESD threshold 1kV for SFI pins and 2kV for all others electrical input pins, tested per MIL-STD-883G, Method 3015.4 /JESD22-A114-A (HBM). However, normal ESD precautions are still required during the handling of this module.*



#### **LASER SAFETY**

*This is a Class1 Laser Product according to IEC 60825-1:2007. This product complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated (June 24, 2007).*

**The optical ports of the module need to be terminated with an optical connector or with a dust plug in order to avoid contamination.**

## Order Information

Part Numbers	Descriptions
SKY-EDFAMUX-8X100G-20-80	8Ch Active MUX EDFAs and Tunable Dispersion Compensator, 8 x100G, 80km, Power Budget 18dB, Channels 20-27 C-Band 100Ghz
SKY-EDFAMUX-8X100G-28-80	8Ch Active MUX EDFAs and Tunable Dispersion Compensator, 8 x100G, 80km, Power Budget 18dB, Channels 28-35 C-Band 100Ghz
SKY-EDFAMUX-8X100G-36-80	8Ch Active MUX EDFAs and Tunable Dispersion Compensator, 8 x100G, 80km, Power Budget 18dB, Channels 36-43 C-Band 100Ghz
SKY-EDFAMUX-8X100G-44-80	8Ch Active MUX EDFAs and Tunable Dispersion Compensator, 8 x100G, 80km, Power Budget 18dB, Channels 44-51 C-Band 100Ghz
SKY-EDFAMUX-8X100G-20-120	8Ch Active MUX EDFAs and Tunable Dispersion Compensator, 8 x100G, 120km, Power Budget 35.5dB Channels 20-27 C-Band 100Ghz
SKY-EDFAMUX-8X100G-28-120	8Ch Active MUX EDFAs and Tunable Dispersion Compensator, 8 x100G, 120km, Power Budget 35.5dB Channels 28-35 C-Band 100Ghz
SKY-EDFAMUX-8X100G-36-120	8Ch Active MUX EDFAs and Tunable Dispersion Compensator, 8 x100G, 120km, Power Budget 35.5dB Channels 36-43 C-Band 100Ghz
SKY-EDFAMUX-8X100G-44-120	8Ch Active MUX EDFAs and Tunable Dispersion Compensator, 8 x100G, 120km, Power Budget 35.5dB Channels 44-51 C-Band 100Ghz
SKY-EDFAMUX-16X100G-20-40	16Ch Active MUX EDFAs and Tunable Dispersion Compensator, 16 x100G, 40km, Power Budget 18dB. Channels 20-35 C-Band 100Ghz
SKY-EDFAMUX-16X100G-43-40	16Ch Active MUX EDFAs and Tunable Dispersion Compensator, 16 x100G, 40km, Power Budget 18dB. Channels 43-58 C-Band 100Ghz
SKY-EDFAMUX-16X100G-20-80	16Ch Active MUX EDFAs and Tunable Dispersion Compensator, 16 x100G, 80km, Power Budget 18dB. Channels 20-35 C-Band 100Ghz
SKY-EDFAMUX-16X100G-43-80	16Ch Active MUX EDFAs and Tunable Dispersion Compensator, 16 x100G, 80km, Power Budget 18dB. Channels 43-58 C-Band 100Ghz
SKY-EDFAMUX-8X100G-28-120-DC	8Ch Active MUX EDFAs and Tunable Dispersion Compensator, 8 x100G, 120km, Power Budget 35.5dB Channels 28-35 C-Band 100Ghz
SKY-EDFAMUX-8X100G-28-80-DC	8Ch Active MUX EDFAs and Tunable Dispersion Compensator, 8 x100G, 80km, Power Budget 18dB, Channels 28-35 C-Band 100Ghz

## Mux Specifications

Parameter	100G 80km	100G 120km	Units
Channel Spacing	0.8	0.8	nm
Operation Wavelength Range	Default Ch 28-35	Default Ch 28-35	ITU 100 GHz
Channel Center Wavelength (CWL)	ITU $\pm$ 0.11	ITU $\pm$ 0.11	nm
Max Channel Insertion Loss	2.5	2.5	dB
Isolation – Adjacent Channel	30	30	dB
Isolation – Non-Adjacent Channel	45	45	dB
Return Loss @CWL	45	45	dB
Monitor Port	1%	1%	%

### EDFA Booster Specifications

Parameter	100G 80km	100G 120km	Units
EDFA Operating Mode	AGC	AGC	
Input Power Range	-15 - +8	-15 - +8	dBm
Typical Noise Figure	<4.5	<4.5	dB
Typical Pump Power	Adjustable 14-20	Adjustable 14-20	dB
Saturation	20	20	dBm

### EDFA Post Amp Specifications

Parameter	100G 80km	100G 120km	Units
EDFA Operating Mode	AGC	AGC	
Input Power Range	-15 to +8	-33 to -10	dBm
Typical Noise Figure	4.5	4.5	dB
Typical Pump Power	Adjustable 14-20	33	dB
Saturation	20	20	dBm

### Dispersion Compensator Specifications

Parameter	100G 80km	100G 120km	Units
DCM Type	Fiber Bragg Grating	Fiber Bragg Grating	
Dispersion Compensating	0 to -1300	-1000 to -2300	ps/nm
Insertion Loss	<4	<6.5	dB

### Casing Specifications

Parameter	100G 80km	100G 120km	Units
Input Power	100-240	100-240	AC/V
	36-72	36-72	DC/V
Dimensions	482.6*300*44mm	482.6*300*44mm	mm
Operating Temperature	-5 ~ 60	-5 ~ 60	°C
Power Consumption	<8	<12	W
Airflow	Side-to-Side	Side-to-Side	

## DWDM Wavelengths

### ITU 100GHz Channels

ITU Channel Number	Wavelength, nm	Frequency, THz	ITU Channel Number	Wavelength, nm	Frequency, THz
20	1561.42	192.0	40	1545.32	194.0
21	1560.61	192.1	41	1544.53	194.1
22	1559.79	192.2	42	1543.73	194.2
23	1558.98	192.3	43	1542.94	194.3
24	1558.17	192.4	44	1542.14	194.4
25	1557.36	192.5	45	1541.35	194.4
26	1556.55	192.6	46	1540.56	194.6
27	1555.75	192.7	47	1539.77	194.7
28	1554.94	192.8	48	1538.98	194.8
29	1554.13	192.9	49	1538.19	194.9
30	1553.33	193.0	50	1537.40	195.0
31	1552.52	193.1	51	1536.61	195.1
32	1551.72	193.2	52	1535.82	195.2
33	1550.92	193.3	53	1535.04	195.3
34	1550.12	193.4	54	1534.25	195.4
35	1549.32	193.5	55	1533.47	195.5
36	1548.51	193.6	56	1532.68	195.6
37	1547.72	193.7	57	1531.90	195.7
38	1546.92	193.8	58	1531.12	195.8
39	1546.12	193.9	59	1530.33	195.9

# About Skylane Optics

Skylane is a leading provider of transceivers for optical communication.

We offer an extensive portfolio for the enterprise, access, datacenter and metropolitan fiber optical market as well as for smart home applications and home networks.

We cover the European, South American and North American market with a strong partner network and have offices in Belgium, Brazil, Sweden and USA.

Our offerings are characterized by high quality and performance. In combination with our strong technical support, we enable our customers to build cost optimized network solutions.

We offer an extensive range of high-quality products including transceivers (Optical and copper), Active Optical Cable (AOC), Direct Attach Cable (DAC), Mux/Demux, Coding Box (TCS).

