

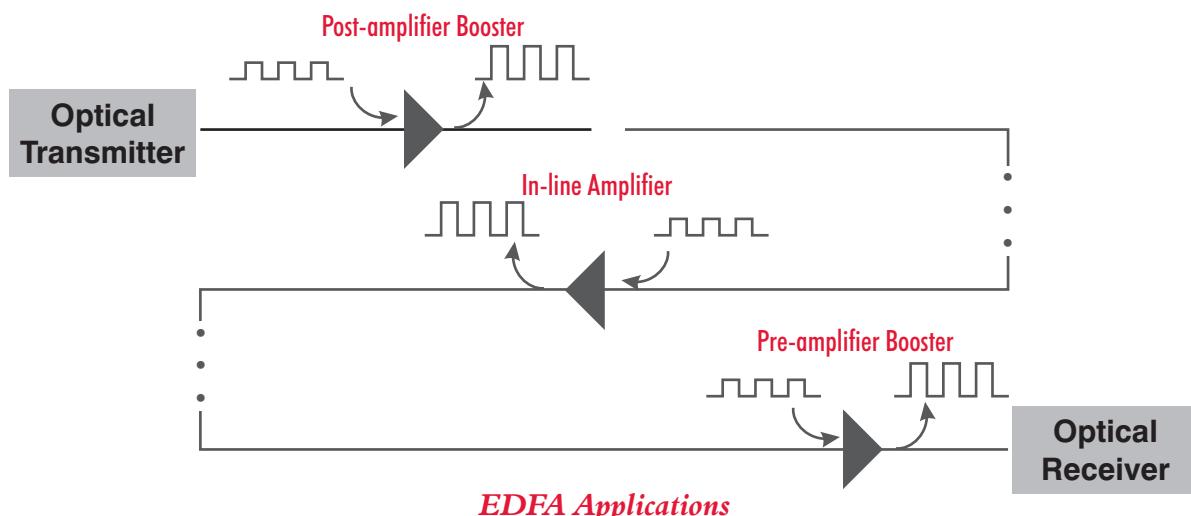
## High Power Erbium-doped Fiber Amplifier

- Amplifies optical signals in post-amp power booster, in-line power amplifier, or pre-amp booster applications.
- Model 6903 is optimized for DWDM applications.
- 980 nm input pumps and 1480 nm output pumps offer high performance with low noise.
- Optional alarms include pump temperature, pump bias current, input power, and output power.
- Provides low noise figures making these units ideal for DWDM applications.
- AC Power Supply Model complies with FCC and UL Requirements.



**Model 6903 EDFA**

The Force Model 6903 High Power Erbium-doped Fiber Amplifier (EDFA) is optimized for use in DWDM applications. As a mid-stage amplifier, Model 6903 receives the optical signal at its input and launches +22 dBm typical over a single-mode optical fiber, making it ideal for long-haul DWDM applications. A 980 nm pump is used at the input stage and a high output power 1480 nm pump is used in the subsequent stages to provide optimum performance with minimum noise. The Model 6903 EDFA may be controlled via the front panel LCD display or an RS-232 interface, and can run in AGC mode or automatic output power (AOPC) mode. Optional alarms include pump temperature, pump bias current, input power and output power. The Model 6903 High Power EDFA is ideal for long-haul DWDM telecommunications networks.



**EDFA Applications**

# Specifications and Ordering Information

## Optical Characteristics

	Min	Typ	Max	Units
DWDM Wavelength Band	1529		1561	nm
Pump Wavelength Booster	980/1480			nm
Optical Input Power	+3	+5		dBm
Optical Output Power	+22			dBm
Per Ch. Gain (for DWDM)	+20			dB
Noise Figure		5.5		dB
Gain Flatness		1.0		dB
Temperature Dependent Gain		0.5		dB
Polarization Dependence	0.3	0.5		dB
PMD	0.2	0.5		dB
Residual Pump Leakage	-20			dBm
Output Return Loss		55		dB
Input Isolation	30			dB
Output Isolation	30			dB
Input/Output Delay	10		150	ns

## Electrical Characteristics

	Min	Typ	Max	Units
Power Supply Voltage (AC)	110		220	VAC
Power Supply Frequency (AC)	47		60	Hz
Power Supply Voltage (DC)		-48		VDC
Fuse (5x20 mm or 3AG)		1.5		A

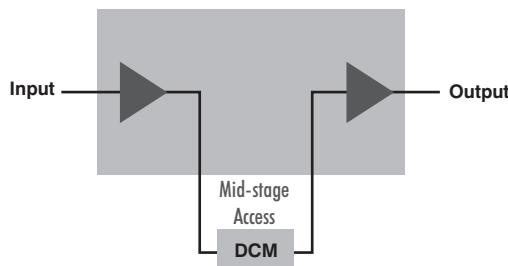
## Physical Characteristics

	Min	Typ	Max	Units
Weight		12		lbs.
		5.5		kg

Dimensions	19.0 x 9.0 x 1.75
	483 x 229 x 45 mm

## Environmental Characteristics

	Min	Typ	Max	Units
Operating Temperature Range	0		+55	°C
Storage Temperature Range	-20		+75	°C
Humidity (RH, non-condensing)	0		90	%



Model 6903 Connection with a DCM



Model 6903 Front and Rear Views

## EDFA P/N

EDFA Options	110-220 Volts AC	-48 Volts DC
SM, C-Band, +22 dBm Output, SC/APC Conn.	6903FB-SDSP/22	6903FA-SDSP/22



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