LNHP-PMFA-NMA Series

LOW NOISE, HIGH POWER-POLARIZATION MAINTAINING OPTICAL FIBER AMPLIFIERS

LNHP-PMFA-xx model without power monitor option

LNHP-PMFA-xx model with power monitor option

PriTel's LNHP-PMFA-NMA Series of Low-Noise High Power, Polarization Maintaining Optical Fiber Amplifiers are designed for R&D applications in 1550 nm telecommunications, fiber lasers, and optical switching. The input signal is first amplified in a low-noise preamplifier and then boosted in a power amplifier. The Noise Figure is determined by the preamplifier. There is no mid-stage access to the optical output from the preamplifier in the LNHPFA-NMA Series.

Available options are: Input/Output power monitors, and communications interfaces (USB or RS-232 or Ethernet).

Specifications

	LNHP-PMFA-23-NMA	LNHP-PMFA-30-NMA	LNHP-PMFA-33-NMA
Saturated output power	23 dBm	30 dBm	33 dBm
Small Signal gain	25 TO 45 dB (adjustable)	25 TO 50 dB (adjustable)	25 TO 50 dB (adjustable)
Optical noise figure	< 2.5 dB @ -30 dBm	< 4 dB @ -30 dBm	< 4.5 dB @ 0 dBm
Input power range	-30 to +10 dBm	-30 to +20 dBm	-30 to +20 dBm
Wavelength range	1528-1565 nm	1535-1565 nm	1535-1565 nm
Spectral gain flatness (single channel input)	0.5 dB typical	1.0 dB typical	1.0 dB typical
Minimum distortion-free pulse width (standard)	1.0 ps	1.5 ps	1.5 ps
Dimensions	10 cm x 26 cm x 36 cm	10 cm x 26 cm x 36 cm	10 cm x26 cm x 36 cm
Optical			
Gain medium	Er doped core pumped silica fibers for models	Er/Yb, double-clad silica fiber for models PMFA-24 to PMFA-33	
Pump source	Diode laser (910-980 nm)		
Connectors	FC/APC (other connectors available upon request)		
Environmental			
Operating temperature	+15 to 30°C		
Storage temperature	-20 to 50°C		
Electrical/ Mechanical			
Operating Voltage	85-264 VAC at 47-63		
Power consumption	< 50 W		

PriTel

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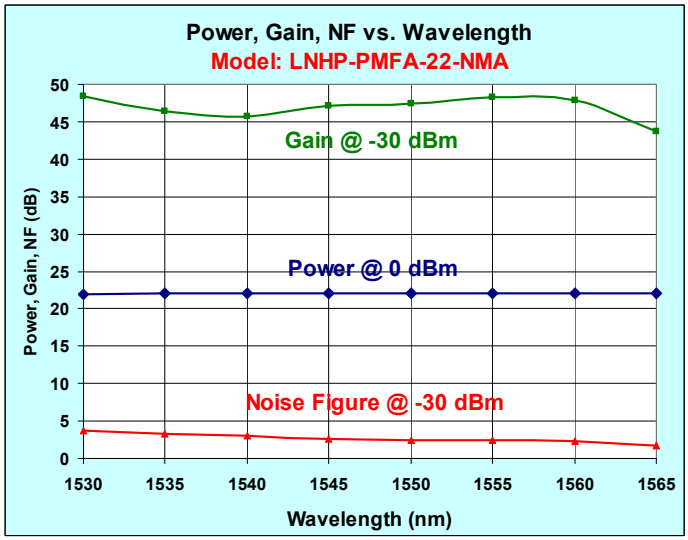
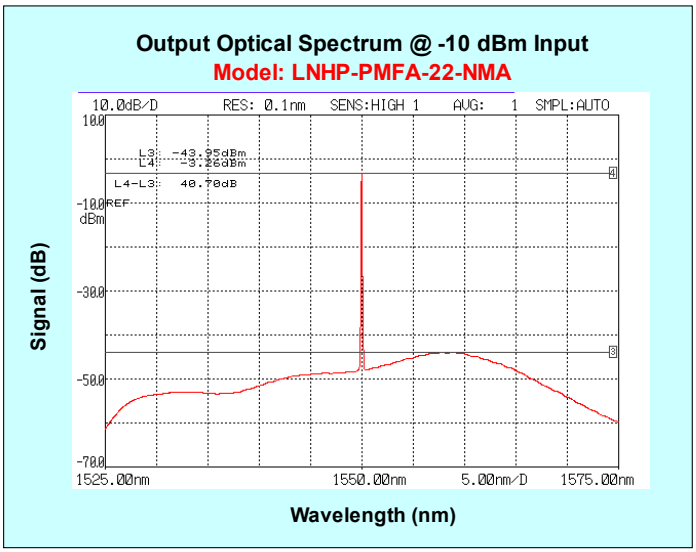
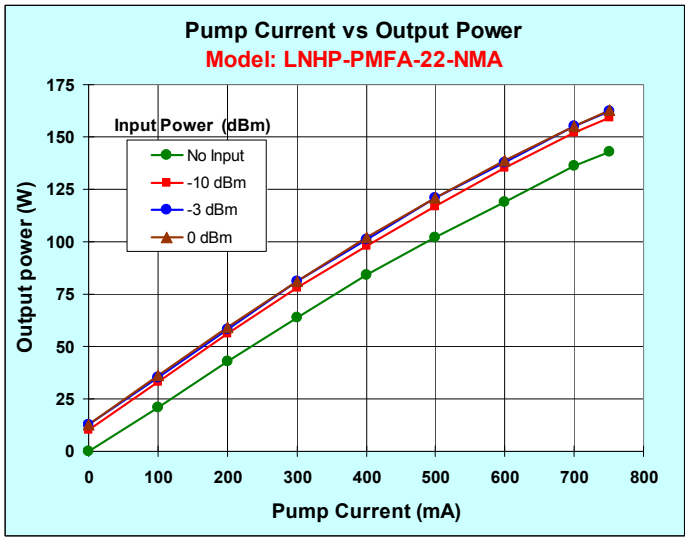
Typical Performance of Low Noise PM Optical Fiber Amplifiers

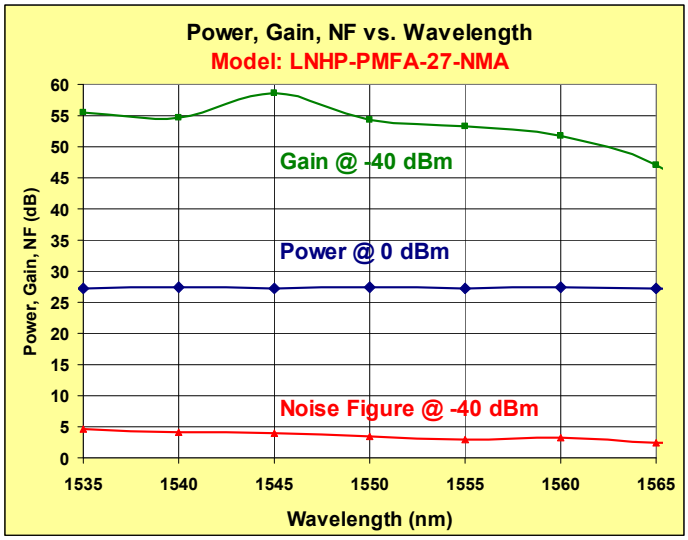
Er doped, Core Pumped Fibers

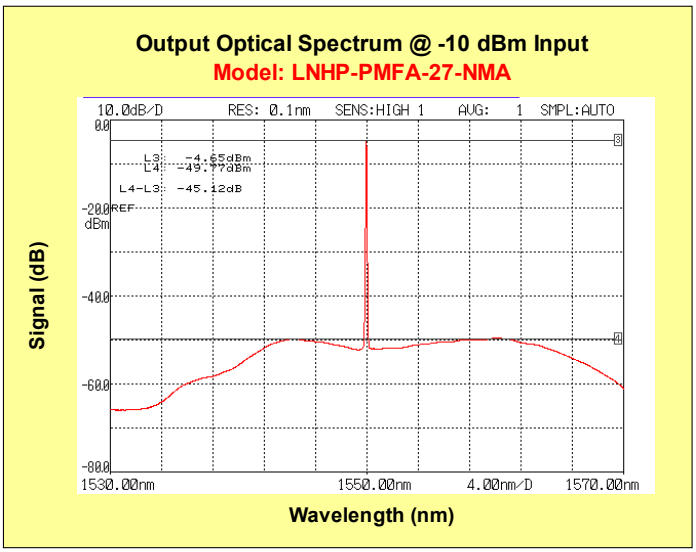


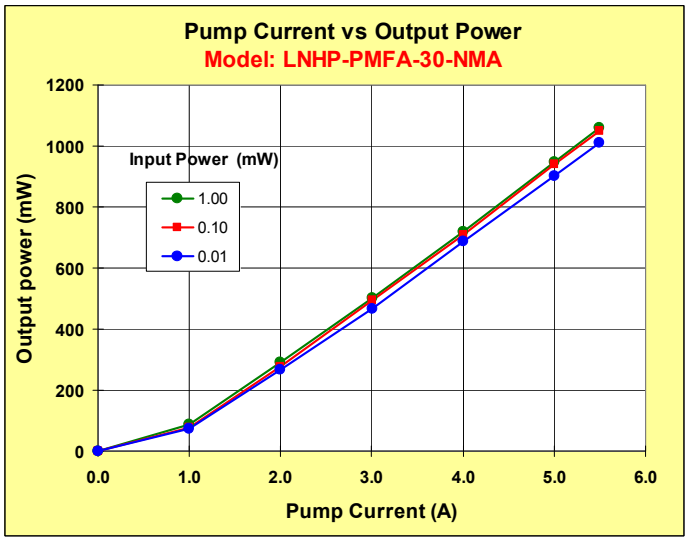




Er/Yb, Cladding Pumped Fibers







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