



QFMN Fiber Mini Node Distribution Amplifier:

Features:

- ▶ 870 MHz 2-way fiber node
- ▶ Forward optical input detector will accept 1310 nm or 1550 nm laser inputs at a nominal 0 dBm light level for best RF performance
- ▶ 870 MHz version can provide high RF output slope capability
- ▶ Wide ranges of RF output signal levels can be set using the built-in gain & slope potentiometers
- ▶ 5-42 MHz 2-way return path has built-in gain potentiometer to set input level to the driver amplifier for the return laser
- ▶ Factory selected plug-in pad after the driver hybrid is provided to set the laser input to its optimum RF derive level
- ▶ Mechanical design objectives for QFMN housing provide efficient thermal capability & stringent RFI shielding
- ▶ Both nodes operate safely at ambient temperatures of +120°F (+48°C) & meet FCC CLI regulations
- ▶ GaAs hybrid technology
- ▶ Gain & slope controls
- ▶ 10 segment LED power meter
- ▶ Cost-effective, "ready-to-go", 2-way node
- ▶ Includes external Class II UL approved power transformer



QFMN Specifications

SPECIFICATIONS	FORWARD	RETURN LASER ⁽²⁾
	QFMN	Fabry-Perot
BANDWIDTH (MHz)	54 to 870	5 to 42
FREQUENCY RESPONSE	+/- 0.5 dB	+/- 0.25 dB
CHANNEL LOADING	79	1
GAIN CONTROL RANGE	10 dB	20 dB
SLOPE CONTROL RANGE	18 dB	Fixed
GAIN	n/a	17
OUTPUT LEVELS ⁽¹⁾	45	1 mW
DISTORTIONS	COMP. TR. BT. (-dB)	n/a
	COMP. 2nd ORD. (-dB)	65
CARRIER TO NOISE (dB)	53	n/a
RETURN LOSS (Worst Case)	15 dB	15 dB
DC AMPERES @ 24 VDC	.66	0.18
POWER DISSIPATION (Watts) ⁽³⁾	27	7

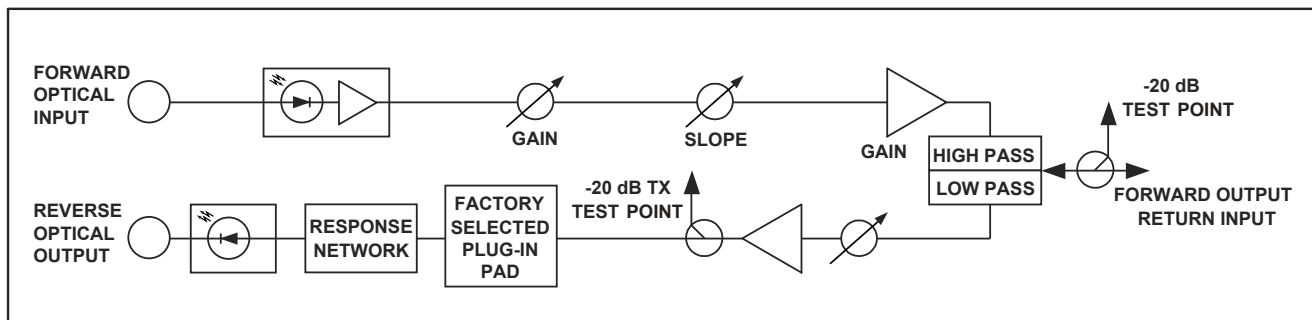
NOTES:
 All forward node specifications are based on 1 mW (0dBm) optical power input with 3.7% OMI per channel.
 (1) Output levels of 45 dBmV with GaAs push-pull technology are suitable for 8 dB sloped output with output levels set at 37/45 dBmV referenced from 54 MHz to 870 MHz.
 (2) Return laser specification is for discrete 2nd order beats, not composite second order.
 (3) Power dissipation is measured at 120 VAC.

QFMN Fiber Mini Node Distribution Amplifier:

Ordering Information

Example Part Number: QFMN870 A -45 G 2W	
1 2 3 4 5	
1: Frequency Range: 870 = 870 MHz	
2: Connector Type: A = SC/APC F = SC/UPC	
3: Output Level (See Specifications Table)	
4: Technology: no letter = Silicon Push-Pull G = GaAs Push-Pull	
5: Amplifier Configuration: 2W = 2-Way	
Part Number	Description
Options & Spares	
#951	120 to 26 VAC, 60 Hz AC Power Transformer, 50 VA Rating
#951 Transformer	
Shipping Weight	7.5 lbs (3.40 kg)
Dimensions	8.375"H x 5.0"W x 2.25"D (21.27H x 12.7W x 5.72D cm)

Functional Schematic



Specifications subject to change without notice.

