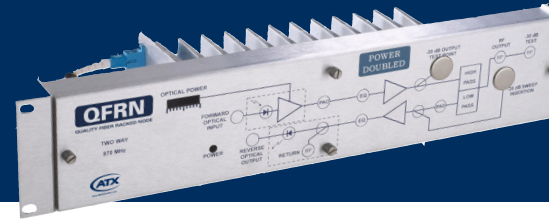


Q-SERIES® Optical

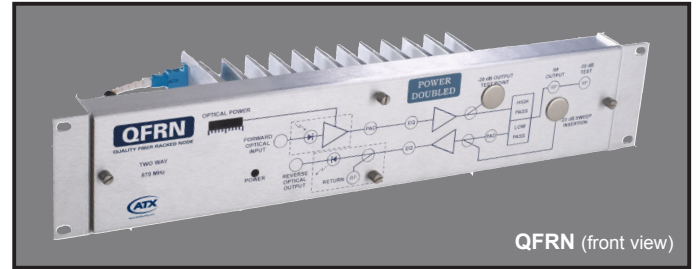
Fiber Optic Products



QFRN Headend Fiber Node:

Features:

- ▶ 870 MHz or 200 MHz dual node 2RU versions
- ▶ 870 MHz 2-way
 - ▶ Integral optical power meter
 - ▶ Plug-in interstage EQ & pad
 - ▶ Reverse sweep insertion test point
- ▶ 870 MHz & 200 MHz 1-way
 - ▶ Plug-in accessories
 - ▶ Variable gain & tilt controls
- ▶ 10 segment LED optical power indicator has three colours to indicate low or high optical power conditions for trouble shooting
- ▶ Standard QRAM optional output duplex filter may be inserted
- ▶ Separate port provided for retrieving the 5-40 MHz return path signals
- ▶ Optional internal splitters provide two or four independent output ports (QRAM870-2S & QRAM870-4S)
- ▶ Order the new QRAM870-20TP, a -20 dB plug-in test point to feed status monitoring systems. The test point option feeds outport port #3 for full-time automated signal monitoring.
- ▶ Once the amplifier is installed and the RF cables connected, all the adjustments & options are front accessible
- ▶ Utilizes external 120 to 26 VAC class II, 60 Hz UL power transformer (included)
- ▶ Additional DC powering ports (+27 VDC) provided for applications requiring alternate or backup power



QFRN (front view)

QFRN Specifications

SPECIFICATIONS	Dual 1-Way	1-Way	2-Way		RETURN	
BANDWIDTH	5 to 200 MHz	54 to 1000 MHz	54 to 1000 MHz		5 to 42 MHz	
FREQUENCY RESPONSE	+/- 0.5 dB	+/- 0.5 dB	+/- 0.5 dB		+/-0.25 dB	
GAIN CONTROL RANGE	6 dB	6 dB	PAD		PAD	
SLOPE CONTROL RANGE	6 dB	6 dB	EQ		EQ	
RETURN LOSS	14 dB	14 dB	14 dB		16 dB	
TEST POINTS	-20 +/- 1 dB	-20 +/- 1 dB	-20 +/- 1 dB		-20 +/- 0.5 dB	
TECHNOLOGY	PP	GP	GP		FP	DFB
OUTPUT LEVELS (870 MHz)	24	35	40	44	1 mw	2 mw
CHANNEL LOADING (Analog)	10	77	77	77	1	4
COMP. TR. BT. (-dB)	94	82	82	74	n/a	n/a
COMP. 2nd ORD. (-dB)	84	77	77	73	-49 ⁽²⁾	> -65
CARRIER TO NOISE RATIO (dB)	53	53	53	53	n/a	n/a
DC CUR. @ 24 VDC (Amps)	.22	.66	.66	.66	0.18	0.18
POWER DISSIPATION (Watts) ⁽³⁾	9	27	27	27	7	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 47 and 49 with push-pull technology are suitable for end-of-line usage and with using 9 dB sloped output 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. Multiple gain models show minimum specifications, call for exact data.

QFRN Headend Fiber Node:

Ordering Information

Example Part Number: QFRN870 A - 35 GP 2W
 1 2 3 4 5

1: Bandwidth: 200 = 200 MHz
 870 = 870 MHz
 1000 = 1000 MHz


2: A = SCAPC
 F = SCUPC
 (Other Connectors Available)

3: Output Level (See Specifications Table)

4: Output Technology: Blank = Push-Pull
 GP = Gallium Arsenide (GaAs) Double
 FP = Fabry-Perot
 DFB = Distributed Feedback

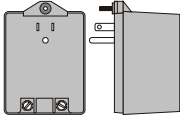
5: One-way (1W) or Two-way (2W)

Part Number	Description
Options for 1-way Models ONLY	
QRAM1000-2S	Two-way Splitter, 1000 MHz
QRAM1000-4S	Four-way Splitter, 1000 MHz
QRAM1000-20TP	-20 Test Point, Rear Output Port #3
(Only ONE of the above options may be used.)	
QRAM870-40/54-DF	Diplex Filter, 5-40 MHz, 54-870 MHz
QRAM870-62/85-DF	Diplex Filter, 5-62 MHz, 85-870 MHz
QRAM1000-42/54-DF	Diplex Filter, 5-40 MHz, 54-1000 MHz
QRAM1000-65/85-DF	Diplex Filter, 5-62 MHz, 85-1000 MHz
QEE200-**	200 MHz EQ for Dual Node. ** = 1.5-12 dB in 1.5 dB steps
Options for 2-way Models ONLY	
QFRL/FP1-23 OR 28	Fabry-Perot Return Laser
QFRL/DFB1-23 OR 28	DFB Return Laser
QLX860-xx (used in QFRN 2-way)	750 or 870 MHz EQs, xx = 0-24 dB in 2 dB steps
QLX1000-**	1000 MHz EQs ** = 1-22 dB in 1 dB steps
QEE (freq), dB	40 MHz, 1-12 dB in 1 dB steps
Options for Both Models	
SXP-TY-**	Plug-in Pad, ** = 0-20 dB in 1 dB steps



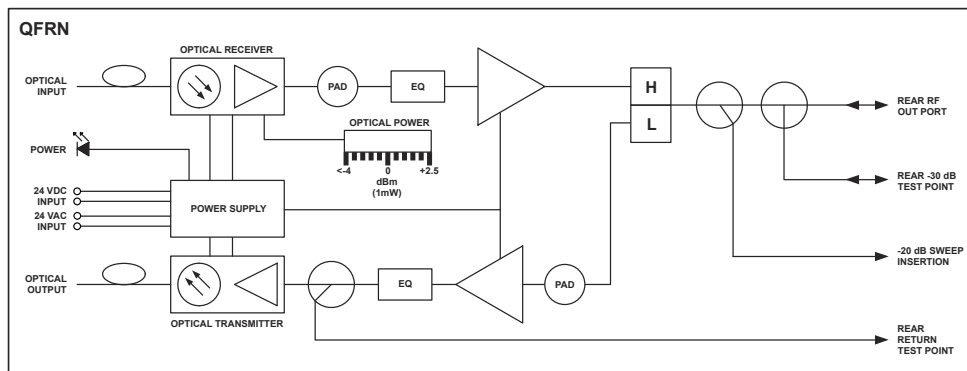
Part #951 (order for spares) 120 Volts to 26 Volts, 60 Hz AC Power Transformer, 50 VA Rating

#951 Transformer



Shipping Weight 7 lbs (3.18 kg)
Dimensions 3.5"H x 19.0"W x 3.4"D (8.89H x 48.26W x 8.64D cm)

Functional Schematic



Specifications subject to change without notice.

ISO
9001
REGISTERED