

Q-SERIES® Amplifiers

Headend Amplifiers



QPAIR Redundant Amplifier System:

Features:

- ▶ Two amplifiers, two power supplies & one RF sensing redundancy switch in 1RU
- ▶ Monitors amplifiers & power supplies
- ▶ LED indicator & form C alarm contacts
- ▶ 100-240 VAC or -48 VAC power (40-60 VDC)
- ▶ Hot-swappable amplifier



Amplifier Specifications

PART NUMBER ⁽¹⁾	GAIN				GAIN/SLOPE CONT.		OUTPUT T.P. (dB)	I/O RL (dB)	CURRENT ⁽⁵⁾ (mA)	DISTORTIONS ⁽³⁾⁽⁴⁾				NOISE FIGURE (dB)	AMP TECH ⁽⁶⁾
	BW (MHz)	Gain ⁽²⁾ (dB)	Slope (dB)	Flat. (±dB)	Gain	Slope				Level (dBmV)	Slope (dB)	CTB (-dB)	CSO (-dB)		
							Plug-in								
QPAIR870-13G/*	40-870	13	-1/+5	.35	Pad	EQ	20 +/- 1	16	260	40	0	78	75	3.8	PP GaAs
QPAIR870-17G/*	40-870	17	-1/+5	.35	Pad	EQ	20 +/- 1	16	260	40	0	78.2	75.1	4	PP GaAs
QPAIR870-19GP/*	40-870	19	-1/+5	.35	Pad	EQ	20 +/- 1	16	375	40	0	77	73	5	GaAs PD
QPAIR870-23GP/*	40-870	23	-1/+5	.5	Pad	EQ	20 +/- 1	16	375	40	0	77	73	4	GaAs PD
QPAIR1000-13G/*	40-1000	13	-1/+1.5	.5	Pad	EQ	20 +/- 1	16	260	40	0	78	75	3.8	PP GaAs
QPAIR1000-17G/*	40-1000	17	-1/+1.5	.5	Pad	EQ	20 +/- 1	16	260	40	0	78	75	4	PP GaAs
QPAIR1000-19GP/*	40-1000	19	-1/+1.5	.5	Pad	EQ	20 +/- 1	16	375	40	0	77	73	5	GaAs PD
QPAIR1000-23GP/*	40-1000	23	-1/+1.5	.75	Pad	EQ	20 +/- 1	16	375	40	0	77	73	4	GaAs PD
QPAIR870-19GPH/*	40-870	19	-1/+1.5	.5	Pad	EQ	20 +/- 1	16	440	40	0	82	77	5	GaAs PDH
QPAIR1000-19GPH/*	40-1000	19	-1/+1.5	.5	Pad	EQ	20 +/- 1	16	440	40	0	81	75	5	GaAs PDH
QPAIR1000-23GPH/*	40-1000	23	-1/+1.5	.75	Pad	EQ	20 +/- 1	16	440	40	0	81	75	4	GaAs PDH

NOTES:

- (1) /* = Denotes the type of power supply: AC, 48, or AC/48
 (2) Gain specified at highest frequency.
 (3) Distortions measured with 50-550 MHz analog CW (6 MHz spacing) and 550-1000 MHz noise at -6 dBc (average power per 6 MHz).
 (4) Specified with 0 dB plug-in attenuators and 0 dB plug-in EQs.
 (5) DC load current at +24 VDC per module.
 (6) PP = Push-Pull; PD = Power-Doubled; GaAs = Gallium Arsenide; PDH = Power-Doubled High-Current
 Operating temperature: 0°C to +50°C (+32°F to +122°F)
 Humidity: 20-55% (without condensation)
 Dimensions: 1.75"H x 19.0"W x 5.0"D (4.45H x 48.26W x 12.7D cm)
 Weight: 4.6 lbs (2.1 kg)

Switch Specifications

SPECIFICATIONS	
SWITCHING TIME	100ms default delay - contact ATX for different delay times
ISOLATION	55 dB from 40-550 MHz; 50 dB from 550-1000 MHz
INSERTION LOSS	2 dB (1 dB on the input and 1 dB on the output)
RETURN LOSS	18 dB (min)
RF SENSITIVITY RANGE	+20 dBmV to +50 dBmV amplifier output monitoring
POWER DISSIPATION	6.3 watts normal mode, 8.5 watts in backup mode

QPAIR Redundant Amplifier System:

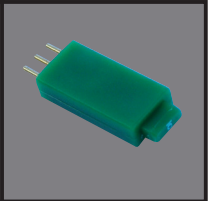
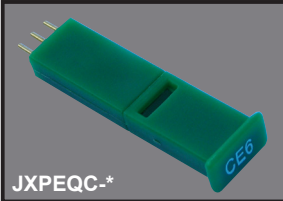
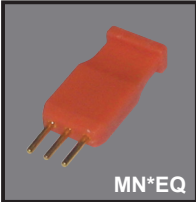
Ordering Information

Example Part Numbers:⁽¹⁾
QPAIR870-17G/AC
 1 2 3

- Module & Bandwidth: 870 = 870 MHz
1000 = 1000 MHz
- Gain (dB) & Amplifier Technology: See Specifications table for options.
- Powering Option: AC = 110-240 VAC
48 = -48 VDC (40-60 VDC)
AC/48 = 1 of each AC & DC inputs

Part Number	Description
Options	
IPB-* or MN*PAD	Plug-in Pad, * = 0-20 dB in 1 dB steps. Used in both the input & output.
QRFPAC1M	Replacement AC Power Supply.
QRFP481M	Replacement DC Power Supply.
DTS240250UC-P5-ET	External Universal AC Power Supply, 100-240 VAC, 47-63 Hz input, 24 VDC output (for redundant powering option only).
MN*EQ	1 GHz Cable Tilt EQ, * = 0-16 dB in 1 dB steps. 1" tall. Used at input & output.
JXPEQC 1000-*	1 GHz Cable Tilt EQ, * = 0-20 dB in 1 dB steps. 1.65" tall with breakaway tab to reduce to 1" tall. Used at input & output.
JXPEQL 1000-*	1 GHz Linear EQ, * = 02.0-08.0 dB in 1 dB steps. 1" tall. Used at input & output.

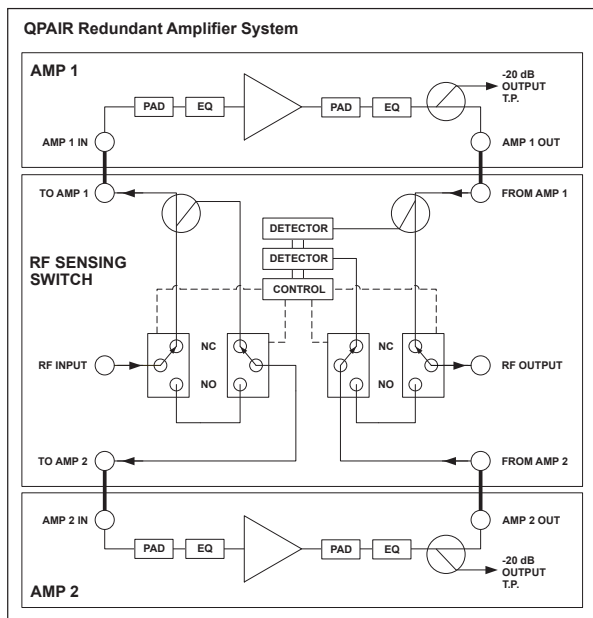
NOTE:
 (1) Order the Part Number in the left column of the Specifications table on previous page.



before breakaway

after breakaway

Functional Schematic



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Specifications subject to change without notice.

