

Q-SERIES® Amplifiers

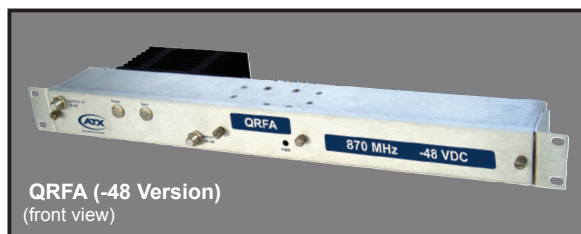
Headend Amplifiers



QRFA (-48 Version) Headend High-Density Amplifier:

Features:

- ▶ High output amplifier in 1RU for highest density
- ▶ Various gain options
- ▶ Modular RF module can be changed from the front
- ▶ Pads & EQs accessible from the front (removable lid cover)
- ▶ Fixed or variable interstage gain & slope controls
- ▶ Can be used in applications up to 870 MHz
- ▶ Designed to provide maximum output in a high-density chassis with optimized heat sinks
- ▶ Gallium Arsenide (GaAs) hybrid technology provides lowest noise figure & highest output capability
- ▶ Virtual transparency can be achieved in most applications
- ▶ Directional coupler test points
- ▶ Powering is by -48 VDC or +24 VDC
- ▶ Simultaneous dual power option allows powering redundancy
- ▶ Additional DC ports (+24 VDC) have been provided for those applications that require alternate or backup power



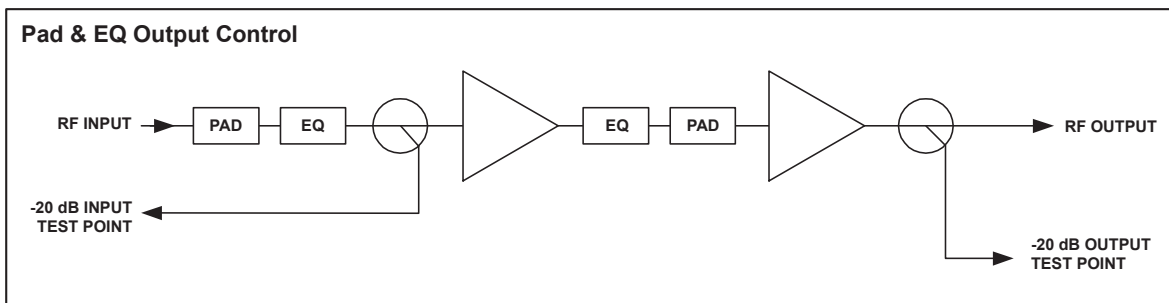
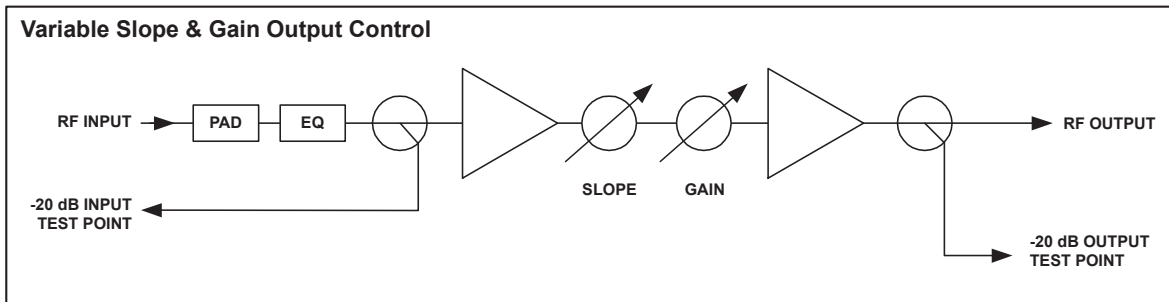
QRFA (-48 Version) Specifications

SPECIFICATIONS	FIXED GAIN & TILT (Plug-in)				VARIABLE GAIN & TILT	
	QRFA870- ⁽²⁾ GP/F/48				QRFA870- ⁽²⁾ GP/V/48	
GAINS AVAILABLE	18 dB	22 dB	30 dB	34 dB	28 dB	32 dB
TYPICAL OUTPUT LEVELS	43 dBmV	43 dBmV	43 dBmV	43 dBmV	43 dBmV	43 dBmV
GAIN CONTROL RANGE ⁽¹⁾	Pad	Pad	Pad	Pad	Variable 0-8 dB	Variable 0-8 dB
SLOPE CONTROL RANGE ⁽¹⁾	EQ	EQ	EQ	EQ	Variable 0-8 dB	Variable 0-8 dB
FREQUENCY RESPONSE ⁽¹⁾	± .5 dB	± .5 dB	± .5 dB	± .5 dB	± .5 dB	± .5 dB
TECHNOLOGY	GaAs PD	GaAs PD	GaAs PD	GaAs PD	GaAs PD	GaAs PD
RETURN LOSS	16 dB	16 dB	16 dB	16 dB	16 dB	16 dB
TEST POINTS (± 1 dB at 870 MHz)	-20 dB	-20 dB	-20 dB	-20 dB	-20 dB	-20 dB
CHANNEL LOADING	128	128	128	128	128	128
COMP. TR. BT. (-dBc) @ 43 dBmV FLAT OUTPUT	68	66	68	68	68	68
COMP. 2nd ORD. (-dBc) @ 43 dBmV FLAT OUTPUT	68	68	68	68	68	68
NOISE FIGURE	5.5 dB	7.5 dB	5.5 dB	5 dB	5.5 dB	5 dB
AMPS. @ 24 VDC ⁽²⁾	.44	.46	.71	.71	.71	.71
WATTS DISSIPATION ⁽²⁾	14	14	22	22	22	22

NOTES:
 (1) The QRFA models showing pad & EQ for gain control do not have variable controls. Level adjustments are made by use of plug-in pads & EQs.
 (2) Watts dissipation is measured at -48V.

QRFA (-48 Version) Headend High-Density Amplifier:

Functional Schematics



Ordering Information

Example Part Number: QRFA870- $\frac{32GP}{1} / \frac{V}{2} / 48$	
1: Gain (see Specifications Table)	
2: F = Fixed Control	
V = Variable Control	
Part Number	Description
Options & Spares	
IPB-**	Plug-in Pad, ** = 0-20 dB in 1 dB steps
MNxEQ	1000 MHz EQs, 0-16 dB in 1 dB steps. This EQ is used in the input of both versions and also used in the interstage of the fixed version.
Shipping Weight	5.5 lbs (2.5 kg)
Dimensions	1.75"H x 19.0"W x 5.0"D (4.45H x 48.26W x 12.7D cm)

Specifications subject to change without notice.

