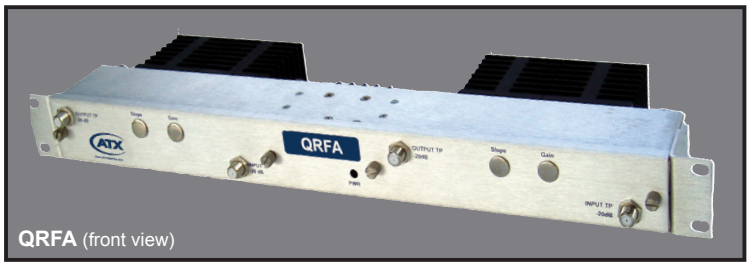
Q-SERIES® Amplifiers

Headend Amplifiers

QRFA Headend High Density Amplifier:

Features:

- Two 870 MHz amplifiers in 1RU with an external AC/DC power converter for highest density
- Module positions for up to two high-gain, high output headend amplifier modules
- RF amplifier modules can be changed from the front
- Pads & EQs accessible from the front (removable lid cover)
- Fixed or variable interstage gain & slope controls
- 20 dB directional coupler test points
- Gallium Arsenide (GaAS) hybrid technology provides the lowest noise figure & highest output capability
- Powering by 110 VAC or 24 VDC
- 120 VAC, 60 Hz, 50 VA external Class II UL approved transformer included
- Simultaneous dual powering options allow redundancy



QRFA (front view)

QRFA Specifications

SPECIFICATIONS	FIXED GAIN & TILT (Plug-in)				VARIABLE GAIN & TILT	
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	± .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
COMP. TR. BT. (-dBc) @ 43 dBmV(2)	68	66	68	68	68	68
COMP. 2nd ORD. (-dBc) @ 43 dBmV(2)	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(3) 1 or 2	.44/.88	.46/.92	.625/1.25	.625/1.25	.625/1.25	.625/1.25
WATTS DISSIPATION(3) 1 or 2	18/36	19/38	25/50	25/50	25/50	25/50
OPERATING TEMPERATURE	0^0C to +50^0C (+32^0F to +122^0F)					
HUMIDITY	20%-55% (without condensation)					
DIMENSIONS	1.75"H x 19.0W" x 5.0"D (4.45H x 48.26W x 12.7D cm)					
WEIGHT	5.5 lbs (2.5 kg)					

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) Distortions rated at 43 dBmV flat output with 128 analog channels.

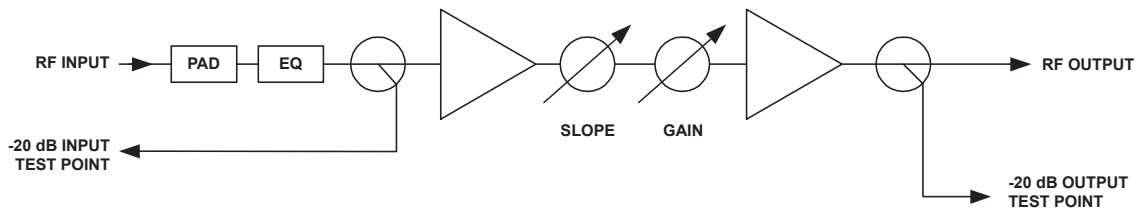
(3) Watts dissipation is measured at 120 VAC. DC amps & watts dissipated are shown for both one & two amplifiers in chassis.

Specifications subject to change without notice.

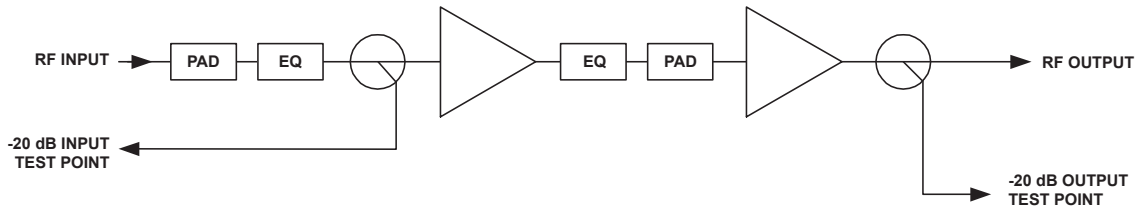
QRFA Headend High Density Amplifier:

Functional Schematics

Variable Slope & Gain Output Control



Pad & EQ Output Control



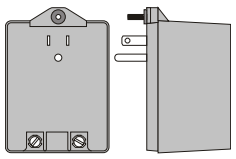
Ordering Information

Example Part Number: QRFA870- 34 GP/ 2 F
(1: 34, 2: 2, 3: F)

1: Gain (see Specifications Table)
2: Amplifier Modules (1 or 2)
3: 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.
#951	120 Volts to 26 Volts, 60 Hz AC Power Transformer, 50 VA Rating

#951 Transformer



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Printed in Canada
Rev. 05/15 (ANW0813)