

Q-SERIES® Amplifiers

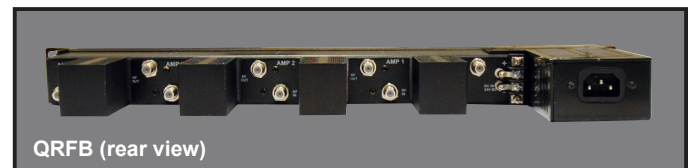
Headend Amplifiers



QRFB Headend Buffer Amplifier:

Features:

- ▶ High density solution for headend buffering & isolation when high rack space density is required
- ▶ 4 well-shielded modular amplifiers in 1RU with bandwidths up to 1 GHz
- ▶ Used anywhere gain with minimum distortion is required to buffer or isolate single channel/group of channels
- ▶ GaAs hybrid technology allows high output with low distortion
- ▶ Low noise figure allows lower input levels
- ▶ Plug-in independent modules with input/output front access Pad & EQ sockets
- ▶ -20 dB front access directional coupler test points
- ▶ Each hybrid has a separate heat sink for optimum cooling
- ▶ -48 VDC (40-60 VDC) or Universal switching power supply which can be used from 100-240 VAC at 50 or 60 Hz
- ▶ +24 VDC Terminal Block input for remote, redundant powering
- ▶ Ships with 0 dB Pad & EQ at all positions



QRFB Specifications

PART NUMBER ⁽¹⁾⁽²⁾⁽³⁾	GAIN SPEC.				RESP.CONT.		OUTPUT T.P.		I/O	CURRENT ⁽⁶⁾	DISTORTIONS				NOISE FIGURE	AMP TECH ⁽⁷⁾
	BW (MHz)	Gain ⁽⁴⁾ (dB)	Slope (dB)	Flat. (±dB)	Gain Cont.	Slope Cont.	IL (20.0±dB)	RL ⁽⁵⁾ (dB)			Reference Output Level (dBmV)	Ch. Load (#)	Ch. Slope (dB)	CTB (-dB)		
									Plug-In							
QRFB065-24/*	5-65	24	-1/+5	.35	PAD	N/A	.5	18	135	50	6	0	78	73	5.8	PP Si
QRFB065-29/*	5-65	29	-1/+5	.35	PAD	N/A	.5	18	135	50	6	0	76	73	5.7	PP Si
QRFB200-24/*	5-200	24	-1/+5	.5	PAD	N/A	.5	17	220	50	10	0	69	71	5.8	PP Si
QRFB200-29/*	5-200	29	-1/+5	.5	PAD	N/A	.5	17	220	50	10	0	69	71	5.7	PP Si
QRFB870-13G/*	40-870	13	-0/+1.5	.5	PAD	EQ	1	16	250	38	128	0	71	70	4.5	PP GaAs
QRFB870-17G/*	40-870	17	-0/+1.5	.5	PAD	EQ	1	16	250	38	128	0	69	71	4	PP GaAs
QRFB870-19GP/*	40-870	19	-0/+1.5	.5	PAD	EQ	1	16	360	40	128	0	70	69	4	PD GaAs
QRFB870-23GP/*	40-870	23	-0/+1.5	.75	PAD	EQ	1	16	360	40	128	0	68	70	6	PD GaAs
QRFB1000-13G/*	40-1000	13	-0/+2	.5	PAD	EQ	1	14.5	250	36	132	0	74	69	4.7	PP GaAs
QRFB1000-17G/*	40-1000	17	-0/+2	.5	PAD	EQ	1	14.5	250	36	132	0	72	72	4.2	PP GaAs
QRFB1000-19GP/*	40-1000	19	-0/+2	.5	PAD	EQ	1	14.5	360	38	132	0	73	71	4	PD GaAs
QRFB1000-23GP/*	40-1000	23	-0/+2	.75	PAD	EQ	1	14.5	360	38	132	0	71	71	6.5	PD GaAs

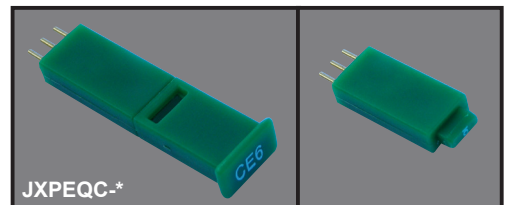
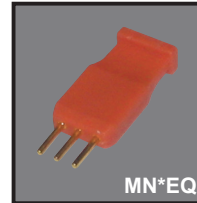
NOTES:

- * = Denotes the number of amplifiers.
- F Connector mating center conductor diameter: .025" - .042"
- All specifications listed include 20 dB output test point.
- Gain at highest specified frequency.
- Worst case return loss for input and output ports.
- DC load current at +24 VDC per module.
- PP = Push-Pull; PD = Power-Doubled; Si = Silicon; GaAs = Gallium Arsenide

QRFB Headend Buffer Amplifier:

Ordering Information

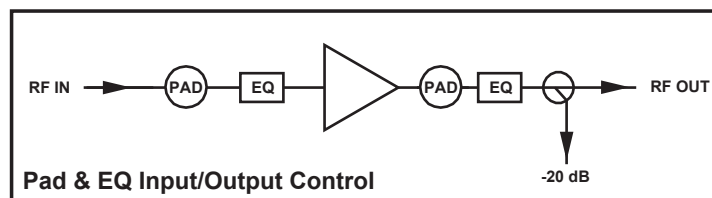
Example Part Numbers: ⁽¹⁾	
QRFB870-17G/4/AC	
1 2 3 4	
1. Module & Bandwidth:	870 = 870 MHz 1000 = 1000 MHz
2. Gain (dB) & Amplifier Technology:	See Specifications table for options.
3. Number of Amplifiers:	1-4
4. Powering Option:	AC = 110-240 VAC 48 = -48 VDC (40-60 VDC)
Part Number	Description
Options	
IPB-* or MN*PAD	Plug-in Pad, * = 0-20 dB in 1 dB steps. Used in both the input & output.
QRFBAC1M	Replacement AC Power Supply.
QRFB481M	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.
Shipping Weight	4.6 lbs (2.1 kg)
Dimensions	1.75"H x 19.0"W x 5.0"D (4.45H x 48.26W x 12.7D cm)
NOTES:	
(1) Order the Part Number in the left column of the Specifications table on previous page. ATX recommends using a 1RU spacer when stacking more than three of these chassis in adjacent positions in a rack.	



before breakaway

after breakaway

Functional Schematic



Specifications subject to change without notice.

