

QDE - Jr

CATV Distribution & Drop Amplifier

** Features **

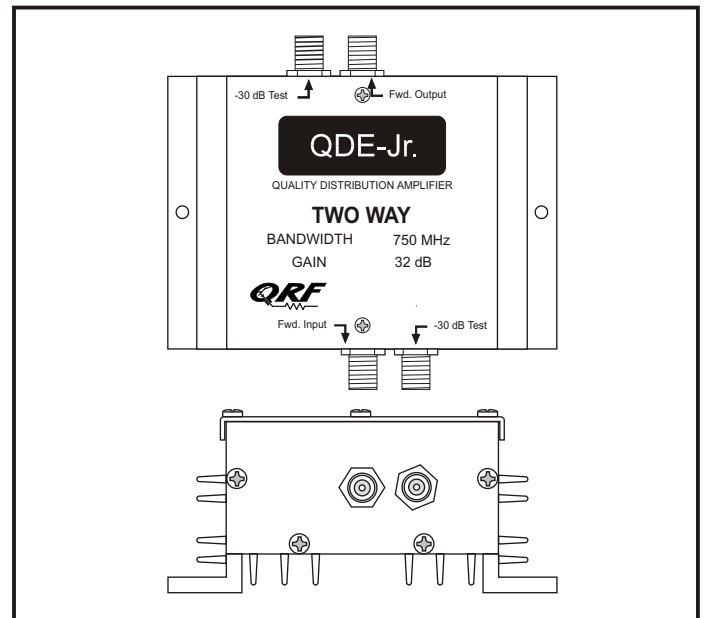
- **Push-pull technology to 860 MHz**
- **Inexpensive One- or Two-way amp**
- **5 to 30 or 5 to 40 MHz Return Path**
- **Fixed-tuned with pads & equalizers**
- **Gains: 17, 21, 25, or 32 dB**
- **Sub Return models for headends**
- **U.L. Approved Transformer**

Quality RF Services' **QDE-Jr** is a small, fixed-tuned amplifier designed to address multiple needs of the CATV market. The QDEJ is a single-hybrid RF amplifier configured to serve house drop or low-power distribution amplifier applications.

The **QDEJ** distribution amplifier is available with 13, 17, 21, 25 or 32 dB gain. A full range of input pads and equalizers are available for balancing signal conditions encountered in multi-dwelling applications. Test points are -30 dB at the input and output of the 25 and 32 dB gain models to monitor signal levels.

Two-way versions of the **QDE-Jr** include a passive return path with 2 dB loss or may have an optional plug-in transistor return amplifier with 20 dB of gain. The return amplifier may be ordered with the unit or may be installed easily by the user at any convenient time.

One-way **QDE-Jr "sub return"** versions are available in bandwidths from 5 to 50 MHz or 5 to 200 MHz with gains of 17, 21, 23, and 28 dB. One model includes an internal 45 MHz low-pass filter for I.F. or lower frequency specialty applications.



The 32 dB gain **750 MHz Jr** incorporates an 860 MHz hybrid in our standard 750 MHz chassis. Flatness and return loss above 750 MHz are diminished from normal 750 MHz parameters. This model performs better than low-cost transistor 1 GHz amplifiers. The higher gain of this model limits CTB performance for higher channel loading. The low-gain models are recommended for high channel loading performance.

The **QDE-Jr** mechanical design objectives were efficient thermal capability and stringent RFI shielding. These amplifiers will operate safely at ambient temperatures to 120 degrees Fahrenheit and will adhere to FCC CLI regulations.

The **QDE-Jr** amplifier utilizes an external Class II transformer. This accomplishes two objectives:

- A. Heat reduction within the amplifier housing.
- B. Use of UL approved powering

QRF continues to provide flexible and state-of-the-art technology at the lowest possible price.

Model	QDE-Jr Sub*		QDEJ450	QDEJ550	QDEJ750	QDEJ860	
Bandwidth (MHz)	5 to 45	5 to 200	40* to 450	40* to 550	40* to 750	40* to 860	
Freq. Response (dB)	+/-1	+/-1	+/-1	+/-1	+/-1	+/-2	
Gain Cont. Range	PAD	PAD	PAD	PAD	PAD	PAD	
Slope Cont. Range	N/A	N/A	EQ	EQ	EQ	N/A	
Return Loss (dB)	16	16	16	16	14	14	
Test Points (-30 dB, +/- 1 dB)	N/A	N/A	NO (YES)	NO (YES)	NO (YES)	NO	YES
Output Levels (dBmV Flat)	48	48	43	40	40	38	40
Input/Output Filters (MHz)	LPF(50)	N/A	30,40**	30, 40**	30, 40**	30, 40**	30, 40**
Gains Available (dB)	17, 20	17, 21	17,(32)	13,17,21,(25,32)	17, 21, 23	17, 21	28, 32
Channel Loading	4	26	60	77	110	128	49
Distortions:							
Cross Mod. (-dB)	79	63	64	65	58	68	66
Comp. Tr. Bt. (-dB)	86	70	65	64	58	62	67
Comp. 2nd Ord. (-dB)	N/A	N/A	63	61	54	63	59
Noise Figure (dB)	6.0	5.5	7.0	7.5	8.5	9.0	9.0
DC Cur. @ 24 VDC (Amps)	.22	.22	.22, (.34)	.22, (.34)	.22	.22	.34
Power Dissipation (Watts)***	12	12	12, (16)	12, (16)	12	12	16

Test points are not available on one-way amplifiers with gain below 22 dB. All two-way models may be ordered with or without test points. All models with gain of 25 dB or more have test points included.

Composite Triple Beat (CTB) and Cross Modulation (CM) specifications are given for two-way models. Add 1 dB for one-way amplifiers. (Two-way amp CTB is -65 dB, same hybrid in one-way amplifier has -66 dB CTB performance.)

* Lower limit of forward bandwidth for 1-way models. Two-way bandwidth will be 50 MHz to model upper limit.

** The return bandwidth is 5 to 30 MHz. Special orders for 5 to 40 MHz require minimum quantity order.

*** Power Dissipation at 120 VAC

ORDERING INFORMATION:

QDEJ 750 - 32 - 2W /2
1 2 3 4 5

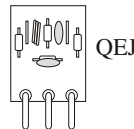
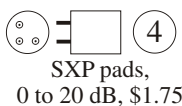
1 = Amplifier model
2 = Upper Frequency Limit

860 = 860 MHz
750 = 750 MHz
550 = 550 MHz
200 = 200 MHz
45 = 5 to 45 MHz

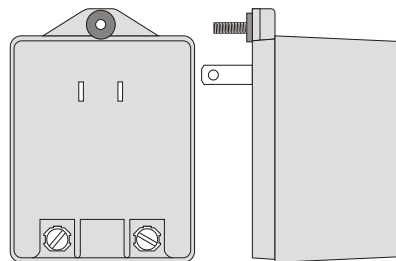
3 = Gain (See above gain specifications)

4 = One-way or Two-way option

5 = Test point options. With TP (/ 2) without (/ 1)



Part #953, 20 VA transformer



OPTIONS:

QDERA-20 . . . 20 dB Return Amplifier

QEJ-xxx-xx . . . Forward equalizer value in MHz and dB ratings.

SXP-** Plug-in attenuator pads values = 0 to 20 dB in increments of 1 dB.

#952 Spare 120/24 V, 35 VA power transformer.

#953 Spare 120/24 V, 20 VA power transformer.

Dimensions: 4.75" x 5.00" x 2.26"

Shipping Weight: 3.0 lbs.