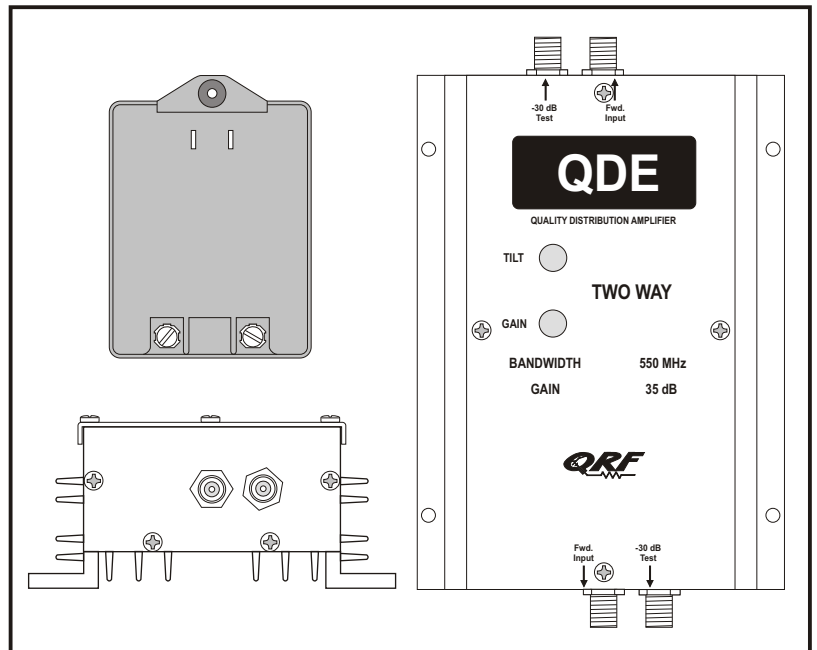


QDE • QDES

CATV Distribution Amplifier One-Way or Two-Way Models

** Features **

- Inexpensive one- or two-way amp
- Push-pull technology to 550 MHz
- Plug-in hybrids & accessories
- Variable gain & tilt controls
- Variety of gains available
- Special power-doubled models
- U.L. approved transformer



Quality RF Services' **QDE** is an inexpensive, high-quality distribution amplifier designed for the CATV market. The **QDE** design philosophy has been to provide a small state-of-the-art push-pull distribution amplifier with amenities and options of more expensive units but at a significant price reduction.

The **QDE** may be configured as a one or two-stage hybrid amplifier. The single stage unit provides 28 dB of gain at the most affordable price. The two-stage **QDE** offers multiple gains (31, 35 or 38 dB) and exhibits a reduced noise figure with enhanced distortion specifications.

To compensate for the wide range of input and output signal requirements encountered, both variable gain and tilt controls plus plug-in attenuator pads and fixed equalizers have been provided. Test points (-30 dB) are located at the input and output ports to monitor forward and return signal status.

Two way versions of the **QDE** have options of a passive return path (-2dB) or 20 dB gain return amplifier. Plug-in return attenuators and pads are available.

Special 550 MHz **QDES** models offer a single power-doubled

hybrid of 18 or 20 dB gain in both 1-way and 2-way versions. A 5 to 200 MHz, 43 dB gain push-pull model is also available for return path applications. **An input pad and equalizer are used to set the signal levels on all QDES amplifiers -- there are no tilt or gain controls.**

Mechanical design objectives for the **QDE** housing were efficient thermal capability and stringent RFI shielding. The **QDE & QDES** will operate safely at ambient temperatures of 120 degrees Fahrenheit and will adhere to FCC CLI regulations.

The **QDE and QDES** both include an external Class II power transformer with 35 volt-ampere rating. This accomplishes two design objectives:

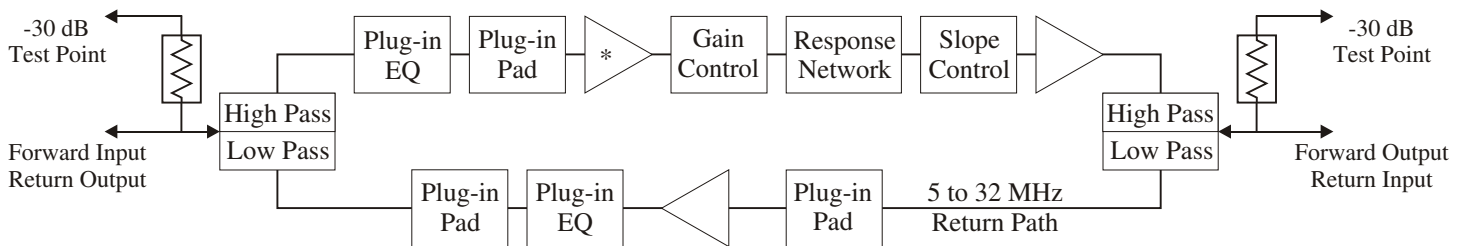
- A. Heat reduction within the amplifier housing.
- B. Use of U.L. approved power transformer.

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

QDE	ONE-WAY			TWO-WAY		
Bandwidth (MHz)	50 to 450	50 to 550	50 to 550	50 to 450	50 to 550	50 to 550
Freq. Response (dB)	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0
Gains Available (dB)	(28),31,35,38	(28),31,35,38	17, 19, 21	(28),31,35,38	(28),31,35,38	17, 19, 21
Channel Loading	60	77	77	60	77	77
Return Loss (dB)	16	16	16	16	16	16
Gain Cont. Range	6	6	QDES • N/A	6	6	QDES • N/A
Slope Cont. Range	6	6	QDES • N/A	6	6	QDES • N/A
Output Levels (dBmV)	46/41	44/39	44 Flat	46/41	44/39	44 Flat
Distortions:	Push-Pull	Push-Pull	Pwr Dbl	Push-Pull	Push-Pull	Pwr Dbl
Cross Mod. (-dB)	63	62	68, 67, 63	62	61	67, 66, 62
Comp. Tr. Bt. (-dB)	64	61	66, 64, 62	63	60	65, 63, 61
Comp. 2nd Ord. (-dB)	61	59	65, 60, 55	61	59	65, 60, 55
Noise Figure (dB)	(10*),7	(10.5*), 7.5	7, 8, 9	(10*),7	(10.5*), 7.5	7, 8, 9
DC Amperes @ 24 VDC **	(.34*), .44	(.34*), .44	0.44	(.34*), .44	(.34*), .44	0.44
Power Dissipation (Watts)**	(16*), 20	(16*), 20	20	(16*), 20	(16*), 20	20

* Specifications shown are for single-hybrid models. Input hybrid shown below is jumpered. High gain hybrid at output stage only.

** Power dissipation measured at 110-volt input to U.L. approved power transformer. DC amperes is load on internal voltage regulator.



ORDERING INFORMATION:

QDE 550 - 14 P 2W

1 2 3 4

1 = Frequency Range: **450, 550 MHz**

2 = Gain: **See chart above**

3 = Technology:

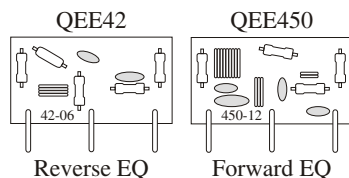
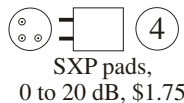
Push-Pull = dash (-)

Power-Doubled = P

4 = Amplifier Configuration:

Two-way = 2W

One-way = Blank



OPTIONS:

QDERA-20H 20 dB Transistor Return Amplifier, Low current. (50 mA DC @ 24 VDC)

QEE 450-dB 450 MHz - 6, 12, 18, 24 dB

QEE 550-dB 550 MHz - 3, 6, 9, 12, 15, 18, 21 & 24 dB

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

#952 Spare power transformer

Dimensions: 8.25" x 5.0" x 2.2"

Shipping Weight: 4.0 lbs.