



## QDE- QDES Distribution Amplifier:

### Features:

- ▶ 1-way or 2-way models
- ▶ Push-pull technology to 550 MHz
- ▶ Plug-in hybrids & accessories
- ▶ Variable gain & tilt controls
- ▶ Variety of gains available
- ▶ Test points (-30 dB) located at the input & output ports to monitor forward & return signal status
- ▶ Special power-doubled models
- ▶ Housing provides efficient thermal capability & stringent RFI shielding
- ▶ Operates safely at ambient temperatures of +120°F (+48°C)
- ▶ Meets FCC CLI regulations
- ▶ External Class II UL approved power transformer with 35 volt-ampere rating

### QDE

- ▶ QDE may be configured as one or two-stage hybrid amplifier
- ▶ Single-stage unit provides 28 dB of gain while two-stage unit offers multiple gains (31, 35, or 38 dB) and exhibits reduced noise figure with enhanced distortion specifications
- ▶ 2-way versions have options for passive return path (-2 dB) or 20 dB gain return amplifier
- ▶ Plug-in return attenuators & pads available

### QDES

- ▶ Special 550 MHz QDES models offer a single power-doubled hybrid of 18 or 20 dB gain in both 1-way & 2-way versions
- ▶ 5-200 MHz, 43 dB gain push-pull model also available for return path applications
- ▶ An input pad & EQ are used to set the signal levels on all QDES amplifiers - there are no tilt or gain controls



## QDE - QDES Specifications

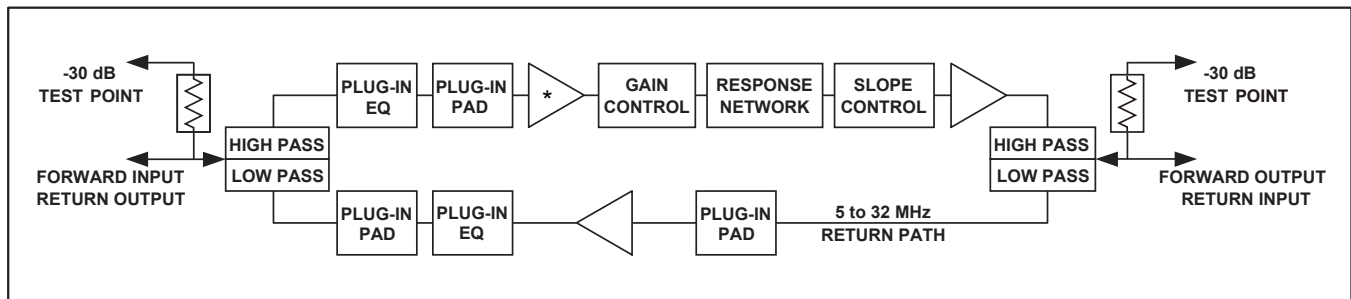
SPECIFICATIONS	1-WAY			2-WAY			
	Push-Pull	Push-Pull	Power-Doubled	Push-Pull	Push-Pull	Power-Doubled	
BANDWIDTH (MHz)	50-450	50-550	50-550	50-450	50-550	50-550	
FREQUENCY RESPONSE	+/- 1 dB	+/- 1 dB	+/- 1 dB	+/- 1 dB	+/- 1 dB	+/- 1 dB	
GAINS AVAILABLE (dB)	(28), 31, 35, 38	(28), 31, 35, 38	17, 19, 21	(28), 31, 35, 38	(28), 31, 35, 38	17, 19, 21	
CHANNEL LOADING	60	77	77	60	77	77	
RETURN LOSS	16 dB	16 dB	16 dB	16 dB	16 dB	16 dB	
GAIN CONTROL RANGE	6	6	QDES - n/a	6	6	QDES - n/a	
SLOPE CONTROL 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	CROSS MODULATION (-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 <sup>(1)</sup>	(.34*), .44	(.34*), .44	.44	(.34*), .44	(.34*), .44	.44	
POWER DISSIPATION (Watts) <sup>(1)</sup>	(16*), 20	(16*), 20	20	(16*), 20	(16*), 20	20	
OPERATING TEMPERATURE	0°C to +50°C (+32°F to +122°F)						
HUMIDITY	20%-55% (without condensation)						
DIMENSIONS	8.25"H x 5.0"W x 2.26"D (20.96H x 12.7W x 5.74D cm)						
WEIGHT	4.0 lbs (1.81 kg)						
<b>NOTES:</b> * Specifications shown are for single-hybrid models. Input hybrid shown below is jumpered. High gain hybrid at output stage only. (1) Power dissipation measured at 110V input to UL approved power transformer. DC amperes is load on internal voltage regulator.							

## QDE- QDES Distribution Amplifier:

### Ordering Information

<b>Example Part Number: QDE550 - 14 P 2W</b>	
	1    2   3   4
1: Frequency: 450 = 450 MHz 550 = 550 MHz	
2: Gain (See Specifications Table)	
3: Output Technology: dash[-] = Push-Pull P = Power-Doubled	
4: Amplifier Configuration: 2W = 2-way Blank = 1-way	
Part Number	Description
<b>Options &amp; Spares</b>	
QDERA-20H	20 dB Transistor Return Amplifier, Low Current (50 mA DC @ 24 VDC)
QEE-450-dB	450 MHz EQ - 6, 12, 18, 24 dB
QEE 550-dB	550 MHz EQ - 3, 6, 9, 12, 15, 18, 21 & 24 dB
SXP-**	Plug-in Attenuator Pads, ** = 0-20 dB in 1 dB steps
#952	Class II, 35VA Power Transformer

### Functional Schematic



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Specifications subject to change without notice.

