



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/ two-stage unit offers multiple gains (31, 35, or 38 dB) & 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 to 450	50 to 550	50 to 550	50 to 450	50 to 550	50 to 550	
FREQUENCY RESPONSE	+/- 1.0 dB	+/- 1.0 dB	+/- 1.0 dB	+/- 1.0 dB	+/- 1.0 dB	+/- 1.0 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 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 ⁽¹⁾	(.34*),.44	(.34*),.44	.44	(.34*),.44	(.34*),.44	.44	
POWER DISSIPATION (Watts) ⁽¹⁾	(16*),20	(16*),20	20	(16*),20	(16*),20	20	

NOTES:

- * 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 110-volt input to UL approved power transformer. DC amperes is load on internal voltage regulator.

QDE- QDES Distribution Amplifier:

Ordering Information

Example Part Number: QDE550 - 14 P 2W	
	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
Options & Spares	
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
SXP Pads 	
#952	Class 2, 35VA Power Transformer
Shipping Weight	4.0 lbs (1.81 kg)
Dimensions	8.25"H x 5.0"W x 2.26"D (20.96H x 12.7W x 5.74D cm)

Functional Schematic

