



## QDAXS 750 & 870 Distribution Amplifier:

### Features:

- ▶ 750-870 MHz, 2-way models
- ▶ Updated versions of ATX's standard MDU fully 2-way amplifiers with more bandwidth & higher slope capability
- ▶ Amplifier options: Silicon power-doubled, Silicon quadra-powered, GaAs power-doubled, & cascaded GaAs power-doubled technology
- ▶ Power-doubled versions provide 3.0 dBmV additional output over conventional push-pull types
- ▶ Quadra-powered versions provide 5.0 additional output over conventional push-pull types
- ▶ Built in fixed interstage equalization & interstage slope & gain controls allows up to 10 dB of output slope
- ▶ Plug-in pads & EQs are used at the amplifier input to provide uniform carrier-to-noise performance at all frequencies
- ▶ Plug-in hybrids & accessories includes external Class II UL approved power transformer
- ▶ Variable gain & tilt controls
- ▶ 5-40 MHz, 2-way return path has a sweep insertion test point & plug-in pads & EQ
- ▶ Optional return amplifier activated by inserting return hybrid IC
- ▶ Maximum total loop gain of 55 dB recommended for 2-way amplifiers
- ▶ Housing provides efficient thermal capability & stringent RFI shielding
- ▶ Operates safely at ambient temperatures of +120°F (+48°C)
- ▶ Meets FCC CLI regulations



## QDAXS Specifications

SPECIFICATIONS	750 2-WAY		870 2-WAY				RETURN AMPLIFIERS	
	Power-Doubled	Quadra-Power	Power-Doubled	Quadra-Power	GaAs GP	GaAs CGP	Standard Push-Pull	Low Current Push-Pull
BANDWIDTH (MHz)	54 to 750	54 to 750	54 to 870	54 to 870	54 to 870	54 to 870	5 to 40	5 to 40
FREQUENCY RESPONSE	+/- 0.5 dB	+/- 0.5 dB	+/- 0.5 dB	+/- 0.5 dB	+/- 0.5 dB	+/- 0.5 dB	+/- 1.5 dB	+/- 1.5 dB
GAINS AVAILABLE (dB)	30, 33, 36	27, 31	30, 33, 36	27, 31	29, 33, 36	31, 34, 36	16, 20	16, 23
CHANNEL LOADING	110	110	128	128	128	132	6	6
RETURN LOSS (Worst Case)	14 dB	14 dB	14 dB	14 dB	14 dB	14 dB	16 dB	16 dB
GAIN CONTROL RANGE	3	3	3	3	3	3	6	6
SLOPE CONTROL RANGE	+/- 2.0	+/- 2.0	+/- 2.0	+/- 2.0	+/- 2.0	+/- 2.0	n/a	n/a
OUTPUT LEVELS (dBmV)	44 / 34	44 / 34	44 / 34	44 / 34	44 / 34	51 / 41	48	48
DISTORTIONS	CROSS MOD. (-dB)	n/a	n/a	n/a	n/a	n/a	79	63
	COMP. TR. BT. (-dB)	68	71	63	66	71	60	n/a
	COMP. 2nd ORD. (-dB)	71	72	67	68	69	64	72
NOISE FIGURE	6 dB	6 dB	7 dB	7 dB	7 dB	6.5 dB	8 dB	6 dB
DC AMPERES @ 24 VDC	.66	1.10	.66	1.10	.66	.79	.22	.13
POWER DISSIPATION (Watts) <sup>(1)</sup>	27	44	27	44	27	32	8	5

**NOTES:**

(1) Power dissipation measured at 120-volt input to UL approved power transformer. DC amperes is internal voltage regulator load.

(2) QDAXRA-23 specification is for discrete second order beats - not composite second order.

## QDAXS 750 & 870 Distribution Amplifier:

### Ordering Information

<b>Example Part Number: QDAXS870 - 33 P 2W</b>	
$\begin{array}{c} \hline 1 \quad 2 \quad 3 \\ \hline \end{array}$	
1: Frequency: 750 = 750 MHz 870 = 870 MHz	
2: Gain (See Specifications Table)	
3: Output Technology: P = Power-Doubled Q = Quadra-Power GP = GaAs Power-Doubled CGP = Cascaded GaAs Power-Doubled	
Part Number	Description
Options & Spares	
QDAXRA-16	16 dB Return Amplifier
QDAXRA-16L	16 dB Return Amplifier
QDAXRA-20	20 dB Return Amplifier
QDAXRA-23L	23 dB Return Amplifier
QLX 750-dB	Forward EQ Values from 0-24 dB in 2.0 dB steps
QLX 870-dB	Forward EQ Values from 0-24 dB in 2.0 dB steps
QEE 42-dB	Reverse EQ Value
SXP-TY-**	Plug-in Attenuator Pads, ** = 0-20 dB in 1 dB steps
#951	120 Volts to 26 Volts, 60 Hz AC Power Transformer, 50 VA Rating (included with QDAX)
<p>#951 Transformer</p>	
EPS 267 ND	External Universal AC Power Supply, 100-240 VAC, 50-60 Hz Input, 24 VDC Output
<b>Shipping Weight</b>	7.5 lbs (3.40 kg)
<b>Dimensions</b>	9.125"H x 7.0"W x 3.562"D (23.18H x 17.78W x 9.05D cm)
<b>NOTES:</b>	
All 2-way amplifiers with a forward gain of 35 dB or more require the use of QDAXRA-16 return amplifiers only.	
Quadra-powered amplifiers must use QDAXRA-**L return amplifiers only.	

### Functional Schematic

