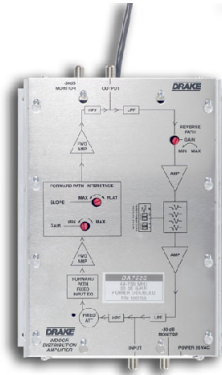




DA7533, DA7543, DA8632, DA8642
Professional Power Doubling Distribution Amplifiers



Transformer Power Supply

The R.L. Drake model DA7533, DA7543, DA8632 and DA8642 broadband distribution amplifiers are designed for indoor use in both residential and commercial buildings where RF signal distribution in the frequency range of 49 to 750 or 860 MHz is required. Each model incorporates a push-pull hybrid input preamp and a power doubled hybrid output amplifier to provide a very low distortion signal for a cable television "drop", the output of an SMATV headend, or a small CATV headend. The Gain and Slope controls both have a range of 10 dB minimum and operate between the preamp hybrid and the output hybrid to maintain a low noise figure over a wide range of gain and slope settings.

Double-sided, plated through hole, glass epoxy printed circuit boards, and SMT construction are used for low losses and maximum reliability.

The unit features three user selectable return path choices (internal jumper selectable):

- 1) No return path.
- 2) Passive return path with variable 10 dB attenuator.
- 3) Built in active return path.

Input and output test connectors are provided for convenient monitoring of the signal path. The amplifier circuitry is designed for maximum stability, low distortion, low noise figure, and is protected in a rugged aluminum housing.

The unit operates from a nominal 26 VAC provided by the supplied 120 VAC, 60 Hz input AC Adapter.



Power Doubling Distribution Amplifier Specifications

Specifications for the DA7533 and DA7543

	DA7533	DA7543
Frequency Coverage (forward path):	49 to 750 MHz	49 to 750 MHz
Gain (forward path):	33 dB	43 dB
Noise Figure:	7 dB max.	6.5 dB max.
Return Loss, Input and Output:	14 dB	14 dB
Input Level (max without using fixed input attenuator):	+20 dBmV	+10 dBmV
Optimum Input Level Range:	+10 dBmV to +15 dBmV	+10 dBmV to +5 dBmV
Forward Path Nonlinear Distortions: (110 channel loading, +44 dBmV output per channel)		
Composite Triple Beat:	-58 dB	-58 dB
Composite Second Order:	-58 dB	-58 dB
Cross-modulation:	-62 dB	-62 dB

Specifications for the DA8632 and DA8642:

	DA8632	DA8642
Frequency Coverage (forward path):	49 to 860 MHz	49 to 860 MHz
Gain (forward path):	32 dB	42dB
Noise Figure:	7.5 dB max.	7 dB max.
Return Loss, Input and Output:	12 dB	12 dB
Input Level (max without using fixed input attenuator):	+18 dBmV	+7 dBmV
Optimum Input Level Range:	+7 dBmV to +12 dBmV	-3 dBmV to +2 dBmV
Forward Path Nonlinear Distortions: (129 channel loading, +40 dBmV output per channel)		
Composite Triple Beat:	-60 dB	-60 dB
Composite Second Order:	-58 dB	-58 dB
Cross-modulation:	-64 dB	-64 dB

Specifications Common to all models:

Forward Gain Adjustment Range:	10 dB minimum
Slope Control Adjustment:	10 dB minimum (54 MHz)
Input/Output Impedances:	75 Ohms
Return Loss, Input and Output:	-30 dB
Fixed Input Attenuator:	Plug-in (SXP type) available
Fixed Input Equalizer:	Plug-in (QSA type) available
Hum Modulation:	-70 dB
Frequency Coverage (return path):	5 to 36 MHz
Active Return Path Gain:	20 dB minimum
Return Path Input Attenuator:	0 to 10 dB adjustable
RF Shielding:	Leakage complies with FCC Part 76
Power Requirement:	26 VAC from supplied transformer with six foot amplifier-to-transformer cable
Operating Temperature Range:	-20 degrees to +60 degrees C
Power Transformer:	Supplied transformer has 120 VAC/60 Hz \pm 10% input requirement at 35 W. Output is 26.3 VAC with screw terminals for attaching power cable from amplifier. Supplied 120-volt, 3-wire line cord is six-feet long.
Size (L x W x D):	10.25" (26 cm) x 7.25" (18.4 cm) x 2.75" (7 cm)
Weight:	6 lbs. 12 oz. (14.9 Kg), including AC adapter