



Input equalizer and fixed attenuator options are available.

DESCRIPTION

The R.L. DRAKE models DA100042, DA100032, DA8642, DA8632, DA7543, and DA7533, are broadband distribution amplifiers designed for indoor use in both residential and commercial buildings where RF signal distribution in the frequency range of 49 to 1000 MHz is required. Each model provides a very low distortion signal for a cable TV "drop", the output of an SMATV headend, or a small CATV headend. The amps are suitable for both analog and digital - ATSC or QAM, amplification. 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 are used for low losses and maximum reliability.

All models include a 20 dB gain integrated active return path amplifier, and can provide a nominal unity gain passive return or no return path by selection with internal jumpers.

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.

SPECIFICATIONS COMMON TO ALL MODELS

- Forward Gain Adjustment Range: 10 dB minimum.
- Slope Control Adjustment (54 MHz): 10 dB minimum.
- Input/Output Impedances: 75 Ohms.
- Input and Output Monitor Ports: -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 amp-to-transformer cable.

- Operating Temperature Range: - 20 deg. to + 60 deg. C.
- Power Transformer: Supplied transformer has 120 VAC/ 60 Hz ±10% input requirement at 35 W. Output is 26.3 VAC with screw terminals for attaching power cable from amplifier. Supplied 120 VAC 3-wire line cord is six feet long.
- Size: 10.25" (26 cm) L x 7.25" (18.4 cm) W x 2.75" (7 cm) D.
- Weight: 6 lbs. 12 oz. (3.1 Kg), including AC adapter.

ADDITIONAL SPECIFICATIONS FOR SPECIFIC MODELS

	DA7533	DA7543	DA8632	DA8642	DA100032	DA100042
Frequency Coverage (fwd path):	49 to 750 MHz.	49 to 750 MHz.	49 to 860 MHz.	49 to 860 MHz.	49 to 1000 MHz	49 to 1000 MHz
Forward Gain:	33 dB.	43 dB.	32 dB.	42 dB.	32 dB	42 dB
Noise Figure:	7 dB maximum.	6.5 dB maximum.	7.5 dB maximum.	7 dB maximum.	8 dB maximum	7 dB max.
Return Loss, Input & Output:	14 dB.	14 dB.	12 dB.	12 dB.	12 dB	12 dB
Channel Loading:	110 CH.	110 CH.	129 CH.	129 CH	150 CH	150 CH
Output Level (maximum per channel for distortions listed below):	+44 dBmV.	+44 dBmV.	+40 dBmV.	+40 dBmV	+38dBmV	+38 dBmV
Input Level (maximum without using fixed input attenuator):	+18 dBmV.	+10 dBmV.	+16 dBmV.	+7 dBmV.	+12 dBmV	+7 dBmV
Optimum Input Level Range:	+10 dBmV to +15 dBmV.	+0 dBmV to +5 dBmV.	+7 dBmV to +12 dBmV.	-2 dBmV to + 5 dBmV.	+6 dBmV to +10 dBmV	-2 dBmV to +5 dBmV
Nonlinear Distortions-						
Composite Triple Beat:	- 58 dB.	- 58 dB.	- 60 dB.	- 60 dB.	-62 dB	-62 dB
Composite Second Order:	- 58 dB.	- 58 dB.	- 58 dB.	- 58 dB.	-60 dB	-60 dB
Cross-modulation:	- 62 dB.	- 62 dB.	- 64 dB.	- 64 dB.	-66 dB	-66 dB

Output levels listed above are for all analog and flat channel loading. Output levels could be significantly higher when some channels are QAM , 6 dB below analog, and when slope is applied.