Amplifier System

70 ±20 MHz
140 ± MHz
Up to 1 Watt Output

Frequency (MHz)	Impedance (Ohms)	Model Number
70 ±20	75	AR-2-70/75S
70 ±20	50	AR-2-70/50S
140 ±40	75	AR-2-140/75S
140 ±40	50	AR-2-140/50S

This independent dual-channel IF line driver amplifier system is designed to compensate for long IF cable run losses in terrestrial or stellite system applications. Available at 70 MHz or 140 MHz center frequencies, the amplifiers are designed either for 50 ohm or for 75 ohm cables. The amplifiers are gain matched with low noise figure and high dynamic range. The amplifiers are powered with two independent power supplies.

General Specifications

	70 ±20 (MHz)	140 ±40 (MHz)
Number of amplifiers	Two	Two
Gain	30 dB minimum	28 dB minimum
Gain flatness	±0.2 dB maximum	±0.2 dB maximum
Return loss (input/output)	20 dB minimum	18 dB minimum
Power output (1 dB compression point)	+20 dB minimum*	+18 dB minimum*
Noise figure	5 dB maximum	6 dB maximum

*+30 dBm power output (1 dB compression point) with Option 11.

Primary Power Requirements

Voltage ..... 90–250 VAC, 47–63 Hz
100, 220, 230/240 V optional (10 W typical), 250 VAC maximum

Physical

Weight ..... 30 pounds [13.6 kg] nominal
Overall dimensions..... 19" [482.6mm] x 1.75" [44.5mm] panel x 20" [508mm] deep
IF connectors, rear panel ..... BNC female

Environmental

Operating
- Ambient temperature ..... 0 to 50°C
- Relative humidity ..... Up to 95% at 30°C
- Atmospheric pressure..... Up to 10,000 feet

Nonoperating
- Ambient temperature ..... -50 to +70°C
- Relative humidity ..... Up to 95% at 40°C
- Atmospheric pressure..... Up to 40,000 feet
- Shock and vibration ..... Normal handling by commercial carriers

Options

1. Power supply diode summing and remote fault alarms.
- Front panel test points ..... Power supply “A” and “B” LEDs
- Remote alarms ..... Power supply “A” and “B” contact closures for fault condition
  Type DEM-9P connector rear panel (mating hardware provided)

11. +30 dBm power output (1 dB compression point). Input/output return loss specification: 17 dB minimum.

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