Amplifiers
1.3GHz

KEY FEATURES

On the receive direction, the amplifiers incorporate GaAs FET amplification along with SAW and dielectric resonator filtering; this results in a 1.5 dB noise figure and a +1 dBm input intercept point.

A combination of SAW and low-pass filtering reduces harmonic output to less than -40 dBc.

On the transmit direction, the amplifiers generate 5 W, making them the ideal solution for extending the range of spread spectrum radios.

The amplifiers are packaged in sealed, milled, aluminum housing, providing the utmost weather protection.

Temperature range from -40°C to +75°C

OVERVIEW

FreeWave Technologies Inc. provides amplifiers for Government, Military, and any qualified industry. 100% of our amplifiers are tested through 5 discreet stages to ensure quality and performance when installed.

The AAP Series of Bilateral Amplifiers are designed to improve the range of 1.3 GHz Spread Spectrum radios by amplifying both the transmitted and received signals right at the antenna, mitigating cable loss in a temperature range from –40°C to +75°C.

All radios are designed, manufactured, and tested in Boulder, Colorado.

TECHNICAL SPECIFICATIONS

TRANSMITTER

Frequency Range	1.35-1.39 GHz
Turn-On Transients	-70 dBc @ fc +/- 230 KHz
Input RF Power	160 mW to 330 mW
Harmonic Output	Less than -40 dBc
Output Power	5 Watts

RECEIVER

Intercept Point	+1 dBm referred to input
Noise Figure	1.5 dB maximum
Gain	7 dB minimum

POWER REQUIREMENTS

Supply Voltage	+10 to +14 VDC
Power Consumption	Peak Transmit: 3 A @ 12 VDC
	Receive: 60 mA @ 12 VDC

GENERAL INFORMATION

Operating Temperature	-40°C to +75°C
Enclosure	Milled aluminum with integrated bracket
Dimensions	63.5 W x 102 L x 21.3 H (mm)
Amplifier RF Connectors	To antenna: SMA female
	To modem: SMA female

INFORMATION TO ORDER

Model Number	**Description**
AAP-5W	Enclosed

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