



Product Features

- Frequency Range = 7.1 to 8.5 GHz
- WR-112 waveguide input
- **40K Noise Temperature = (0.56 dB)**
- **35K Noise Temperature = (0.50 dB) across 7.7 GHz to 8.5 GHz band**
- Typical Gain 52 dB
- Gain Flatness < ± 1.0 dB typ
- Internal DC Regulator
- Reverse Voltage Protection
- State-of-the-Art PHEMT Technology
- MIL-883, MIL-45208 construction and reliability
- Compact Size
- Weatherproof package
- No isolator for best performance
- Pressurizable to 5 psi

Product Description

This product is a high gain ultra low noise amplifier with good Flatness and excellent Insertion Loss and Return Loss. It is primarily used by the military for SATCOM applications, such as Radar, Weather and Speed Monitoring. It's versatility also lends itself to use by civil applications such as traffic control and law enforcement when installed in speed and position detection systems.

Application

- Military
- Radar
- Weather Monitoring
- Air and Sea Traffic Control
- Satellite downlinks

** Stresses above those listed under "Absolute Maximum Rating" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability. All STANDARD units are packaged in Aluminum housings that are layered with electroless Nickel and then plated with Gold to eliminate contamination of other adjacent electronic components.*

Key Parameters

Parameter	Unit	Minimum	Typical	Maximum	Notes
Frequency	GHz	7.1	-	8.4	Customizable
Gain	dB	50	52	-	Customizable
Gain Flatness	dB	-	± 1.0	± 1.0	Customizable
In/Out VSWR	-	-	1.30	1.5	Customizable
Output P1dB	dBm	+10	+13.5	-	Customizable
DC Power	V@mA	+12	+15	+24	@190 mA
Noise Temp.	dB	-	40	50	@23°C
Outline/Package	-	-	-	-	WR112+D6

Absolute Maximum Ratings*

Parameters	Unit	Minimum	Maximum	Notes
Operating Temperature (Case)	°C	-40	+70	95% humidity, non-condensing
Storage Temperature (Case)	°C	-54	+85	95% humidity, non-condensing
RF Input Power	dBm	-	+16	CW
Die Junction Temp (Tj)	°C	-	+150	For GaAs devices
Positive Supply Voltage	V	-	+16	At +V DC terminal
Negative Voltage	V	-	-10	Reverse Voltage

Typical Measured Data



