



### Product Features

- Frequency Range = 10.7 to 12.8 GHz
- WR-75 waveguide input
- **45K Noise Temperature = (0.63 dB)**
- **35K Noise Temperature = (0.50 dB)**
- Typical Gain 42 dB
- Gain Flatness <math>\pm 0.5</math> 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

### Key Parameters

Parameter	Unit	Minimum	Typical	Maximum	Notes
Frequency	GHz	10.7	-	12.8	Customizable
Gain	dB	40	42	-	Customizable
Gain Flatness	dB	-	$\pm 0.5$	$\pm 0.75$	Customizable
In/Out VSWR	-	-	1.30	1.5	Customizable
Output P1dB	dBm	+10	+135	-	Customizable
DC Power	V@mA	+12	+15	+24	@190 mA
Noise Figure	dB	-	0.50	0.63	@23°C
Outline/Package	-	-	-	-	WR75+D6

### Product Description

The product is a high gain low noise amplifier with surprisingly good flatness and excellent Insertion Loss and Return Loss due to our unique non-isolator design. It's primary use is for SATCOM applications, such as for military and civil Satellite Downlinks. This particular frequency range is also widely used for Direct Broadcasting of Radio and TV in Europe.

### Application

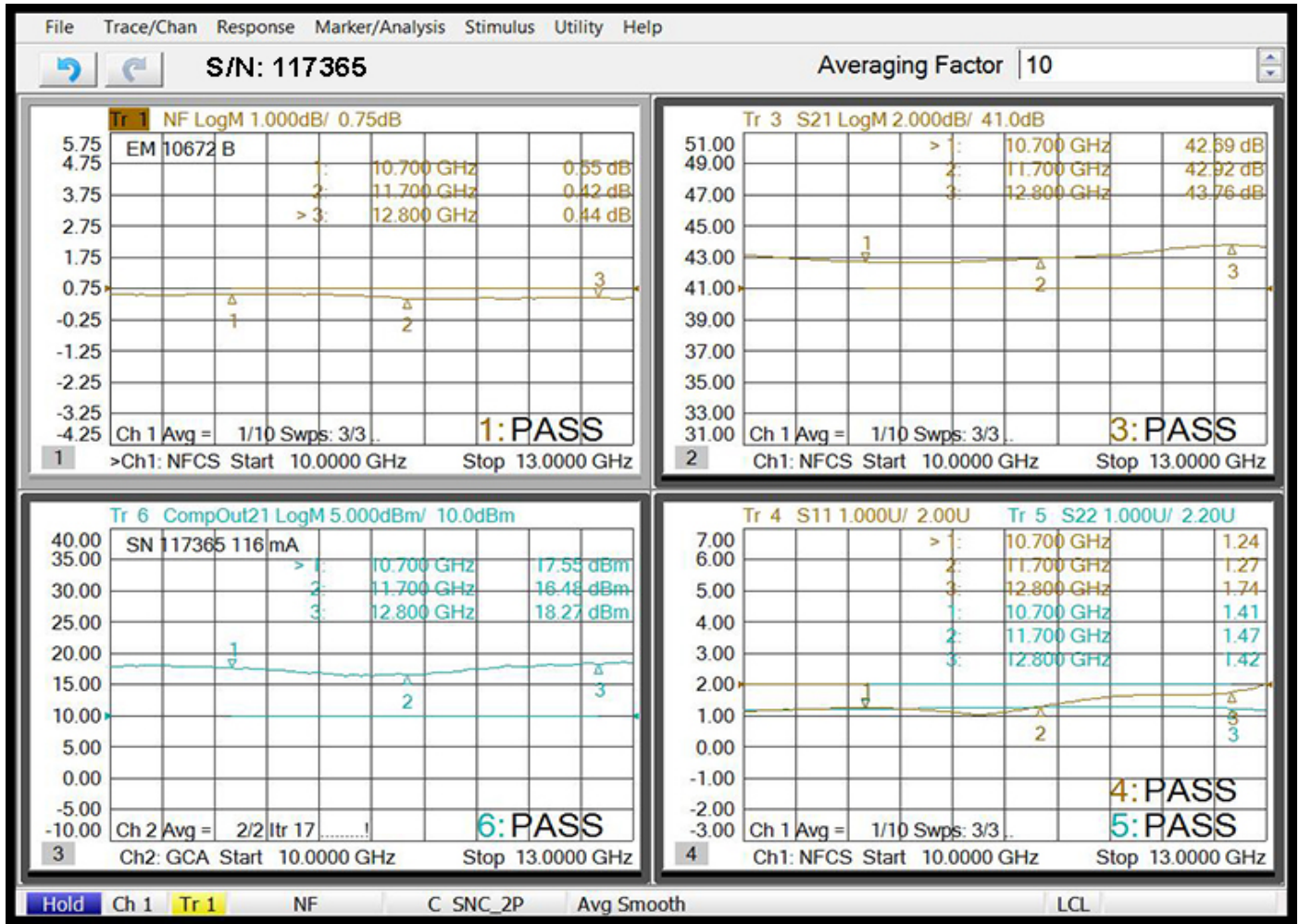
- Military
- Radar
- Weather Monitoring
- Air and Sea Traffic Control
- Satellite downlinks

### 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

\* 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.

Typical Measured Data



Outline Drawing

