

X-Band Waveguide WR-112 SATCOM Low Noise Medium Power Amplifier APTW5-07250775-44K20-112



Applications

- Receiver Front End
- Radar Systems
- Satellite Communication (SATCOM)
- Test Equipment
- Telemetry
- VSAT terminals

Features

- 7.25 to 7.75 GHz Frequency Range
- Typical N.F. < 44 °K
- High Gain (54dB)
- Gain Flatness < ± 0.5 dB
- +33 dBm IP3
- Internal DC regulator
- Reverse Voltage Protection
- State-of-the-Art PHEMT Technology
- MIL-883, MIL-45208 construction and reliability
- Weatherproof package
- WR112G Input Flange

Product Description

The APTW5-07250775-44K20-112 is a Low Noise amplifier with right-angle WR-112G waveguide input flange and super low noise figure (<44°K) and high IP3 of +33 dBm. Other options are also available with custom flatness, VSWR, P1dB, and flanges. The high performance is an example of AmpliTech's industry-leading low noise design and technology.

Key Specifications at +23°C

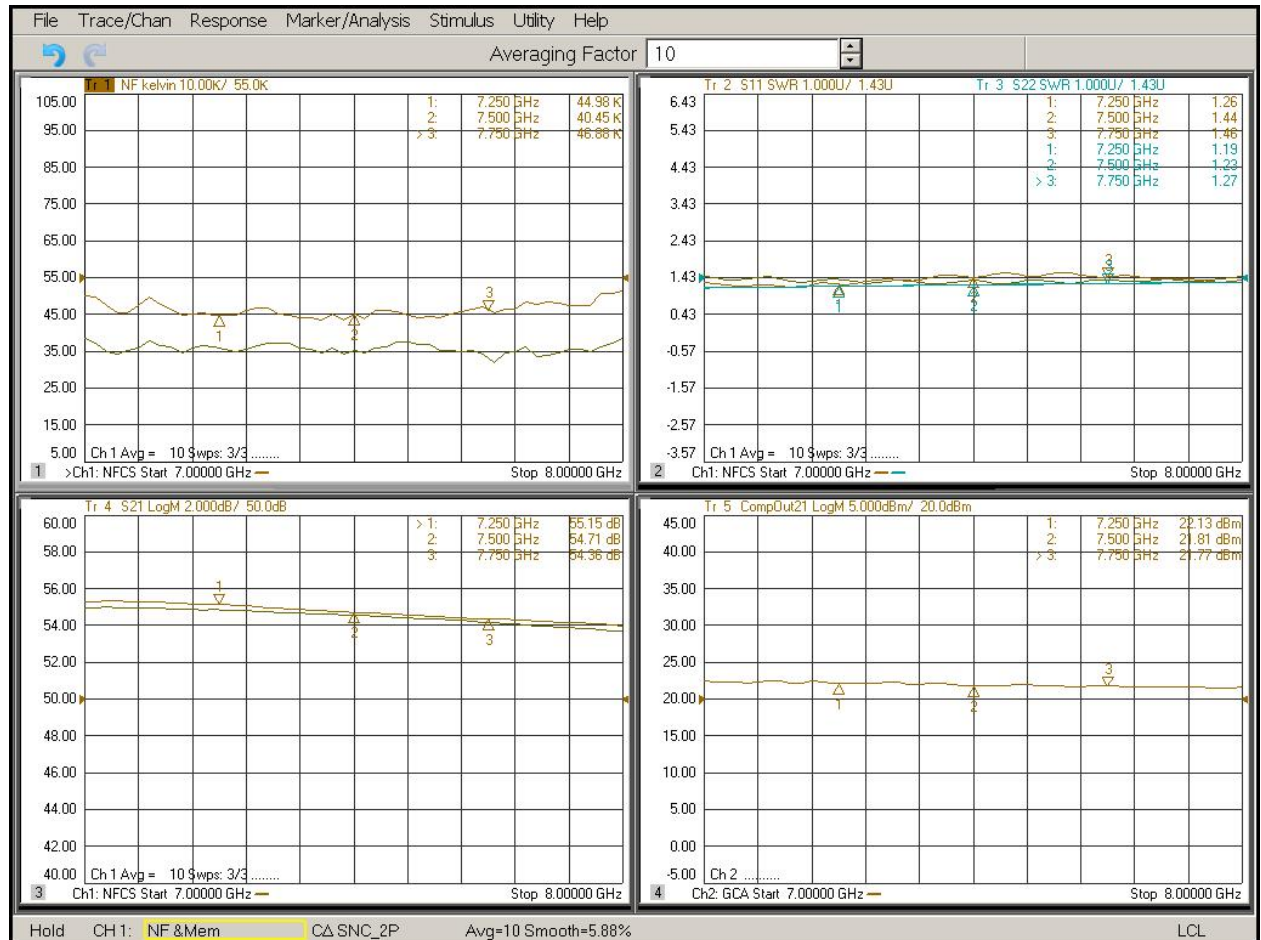
Parameter	Unit	Minimum	Typical	Maximum	Notes
Frequency	GHz	7.25	-	7.75	Customizable
Gain	dB	50	54	-	Customizable
Gain Flatness	dB	-	±0.5	±1.0	Customizable
In/Out VSWR	-	-	1.25	1.50	Customizable
Output P1dB	dBm	+20	+22	-	Customizable
DC Power	V@mA	+11	+12	+16	@175 mA
Noise Figure	°K	-	40	44	0.60 dB
Outline/Package	-	-	-	-	WR112+D6

Absolute Maximum Ratings*

Parameter	Unit	Minimum	Maximum	Notes
Operating Temperature (Case)	°C	-54	+85	95% humidity, non-condensing
Storage Temperature (Case)	°C	-54	+115	95% humidity, non-condensing
RF Input Power	dBm	-	+15	CW
Die Junction Temp (Tj)	°C	-	+150	For GaAs devices
Positive Supply Voltage	V	-	+16	At +V RF Output
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.

Typical Measured Data



Data taken with Agilent N5242 PNA-X Vector Network Analyzer

Outline Drawing

