



AmpliTech APTW5-10701280-40K10-WR75-D6 Ku-Band Waveguide Low Noise SATCOM Amplifier Instructions

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Key Parameters

Parameter	Unit	Minimum	Typical	Maximum	Notes
Frequency	GHz	10.70	–	12.8	Customizable
Gain	dB		42	–	Customizable
Gain Flatness	dB	–	±0.5	±1.0	Customizable
In/Out VSWR	:1	–	1.3	1.5	Customizable
Output P1dB	dBm	+10	+15	–	Customizable
DC Power	V@mA	+12	+15	+16	@190 mA
Noise Figure	K		35	40	@23OC
Outline/Package	–	–	–	–	WR75+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

Product Features

- Frequency Range = 10.7-12.8 GHz
- WR75 waveguide input
- 40K Noise Temperature Max
- 35K Noise Temperature Typ
- Typical Gain 42 dB
- Gain Flatness < ± 0.5 dB type
- 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

Product Description

The product is a high gain low noise amplifier with superb flatness and excellent Insertion Loss & Return Loss due to our unique non-isolator design. It's primary use for In-Flight Entertainment, and SATCOM applications such as military and civil Satellite

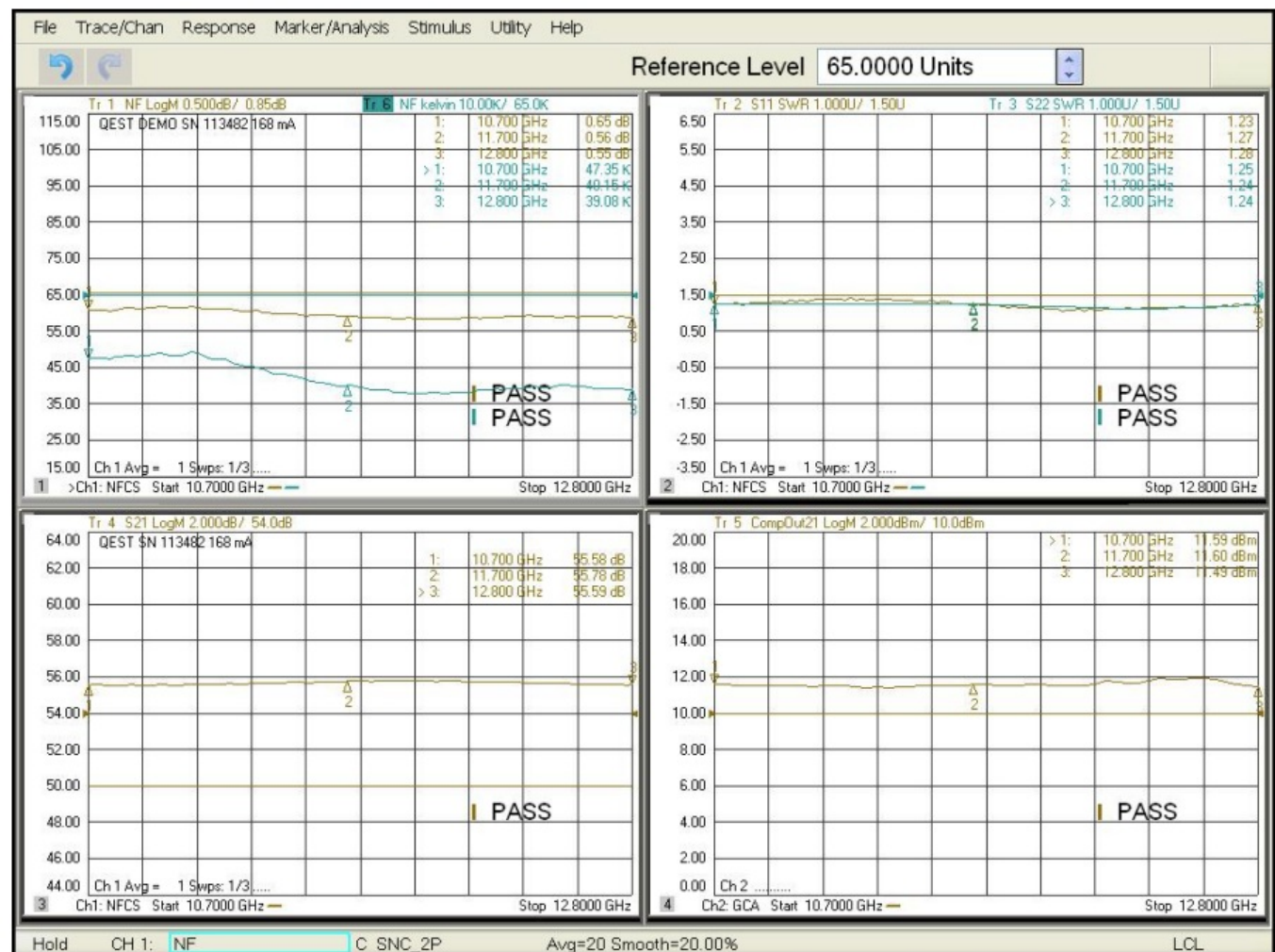
Downlinks. This particular frequency range is also widely used for Direct Broadcasting of Radio and TV in Europe.

Application

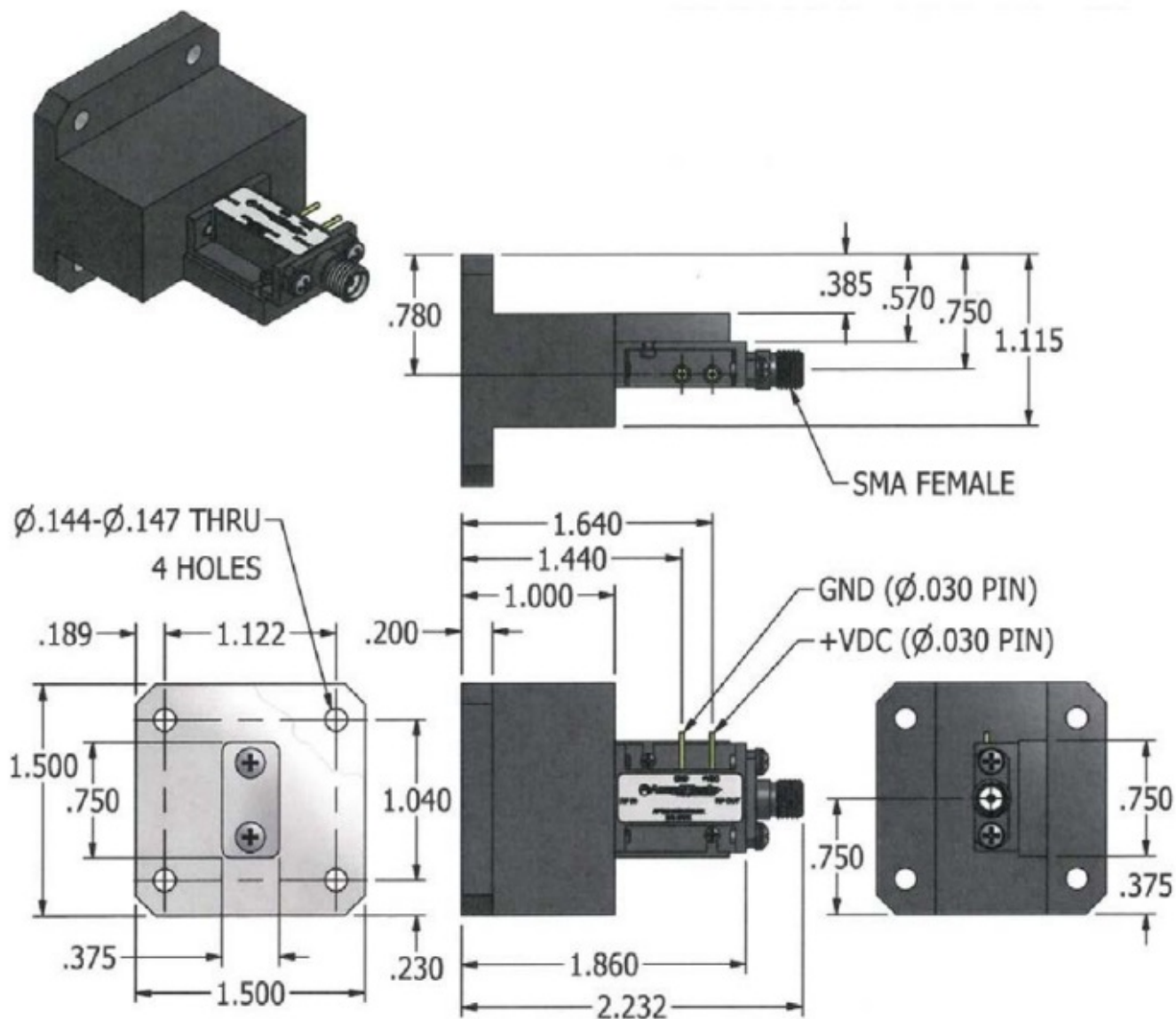
- Airline In-Flight Entertainment
- Radar
- Satellite Communication (SATCOM)
- Military Surveillance
- Test Equipment
- Cellular

* 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



Aplitic, Inc. 620 Johnson Avenue Bohemia, NY 11716 Phone: 631-521-7831 Fax: 1-631-521-7871
website: <http://www.amplitechinc.com>



Documents / Resources



[AmpliTech APTW5-10701280-40K10-WR75-D6 Ku-Band Waveguide Low Noise SATCOM Amplifier](#) [pdf] Instructions

APTW5-10701280-40K10-WR75-D6 Ku-Band Waveguide Low Noise SATCOM Amplifier, APT W5-10701280-40K10-WR75-D6, Ku-Band Waveguide Low Noise SATCOM Amplifier, SATCOM Amplifier, Amplifier

References

- [Amplitech Inc. - RF / Microwave Technology Experts](#)

