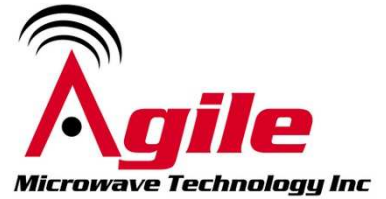


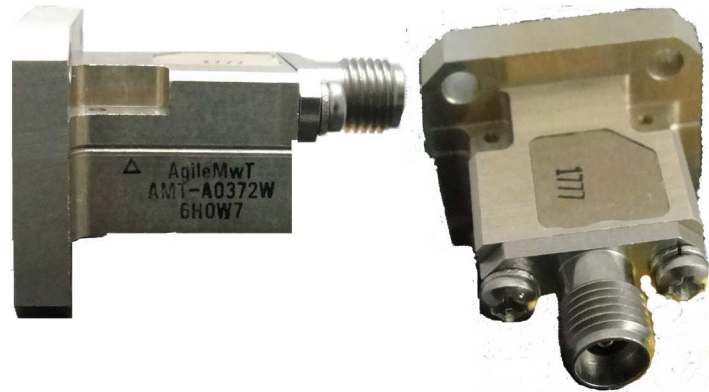
AMT-A0372W 27 GHz to 30 GHz Ka Band Low Noise Amplifier with Integrated Bias-Tee



Data Sheet

Features

- 27 GHz to 30 GHz Frequency Range
- Gain 22 dB Typical
- Gain Flatness ± 0.5 dB Typical
- 1.7 dB Typical Noise Figure
- VSWR 1.8:1 typical
- P1dB +10 dBm typ
- Integrated Bias-Tee
- Internally Regulated
- Operates from Single +6 Supply at RFout
- Unconditionally Stable
- Compact Size



Description

The AMT-A0372W is a Low Noise amplifier with WR-34 waveguide Input and an integrated Bias-Tee at the RF output in a compact size. The performance is achieved through the use of AMTI's proprietary matching technology and latest in GaAs technology. The amplifier I/Os are Internally matched to 50 Ohms. The AMT-A0372W is ideal for use as low noise input stage for Communication systems or where ultra broadband amplification are required without adding significant noise in a Hi-Rel communications system for Commercial or Military applications

Applications

- Receiver LNA
- Radar
- Phased Array
- Lab Applications
- Wideband Gain Block

MAXIMUM RATINGS¹

Parameter	Symbol	Units	MIN	MAX
Operating Temperature – Case	T_{MO}	$^{\circ}C$	-40	+85
Storage Temperature - Case	T_{MS}	$^{\circ}C$	-40	+125
RF Input power (CW)	P_{in}	dBm		+18
Die $T_{Junction}$	T_J	$^{\circ}C$		+150
Positive Supply Voltage @ RF out	V_{+SS}	V		+8

Appropriate Heat sink must be used

1.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.

ELECTRICAL SPECIFICATIONS @ 23°C

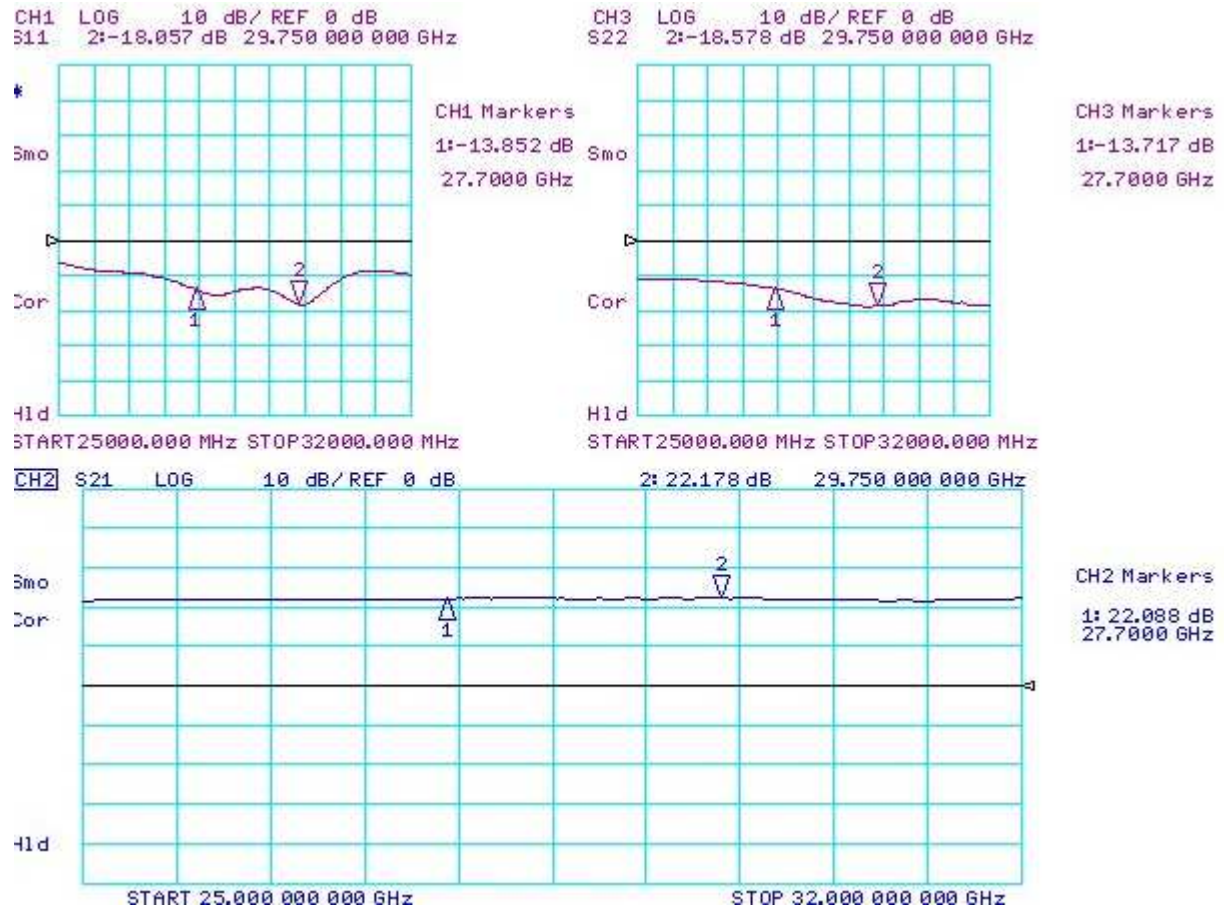
Parameter	Conditions	Units	MIN	Typical	MAX
Frequency Range	Usable to 31 GHz	GHz	27		30
Gain	Small Signal	dB	20	22	
Gain Flatness		dB		±0.5	±1
Noise Figure		dB		1.7	2.1
Output Power (P1dB)	@ 28 GHz	dBm		+12	
OIP3	OIP3 @ 10 GHz Two tone F1-F2= 10MHz	dB		22	
RF Input Impedance	Reference to 50 ohms VSWR			1.5:1	2.0:1
RF Output Impedance	Reference to 50 ohms VSWR			1.6:1	2.0:1
Supply Voltage Positive:		V		+ 6	
Supply Current Positive:	Small signal	mA		90	120

Notes:

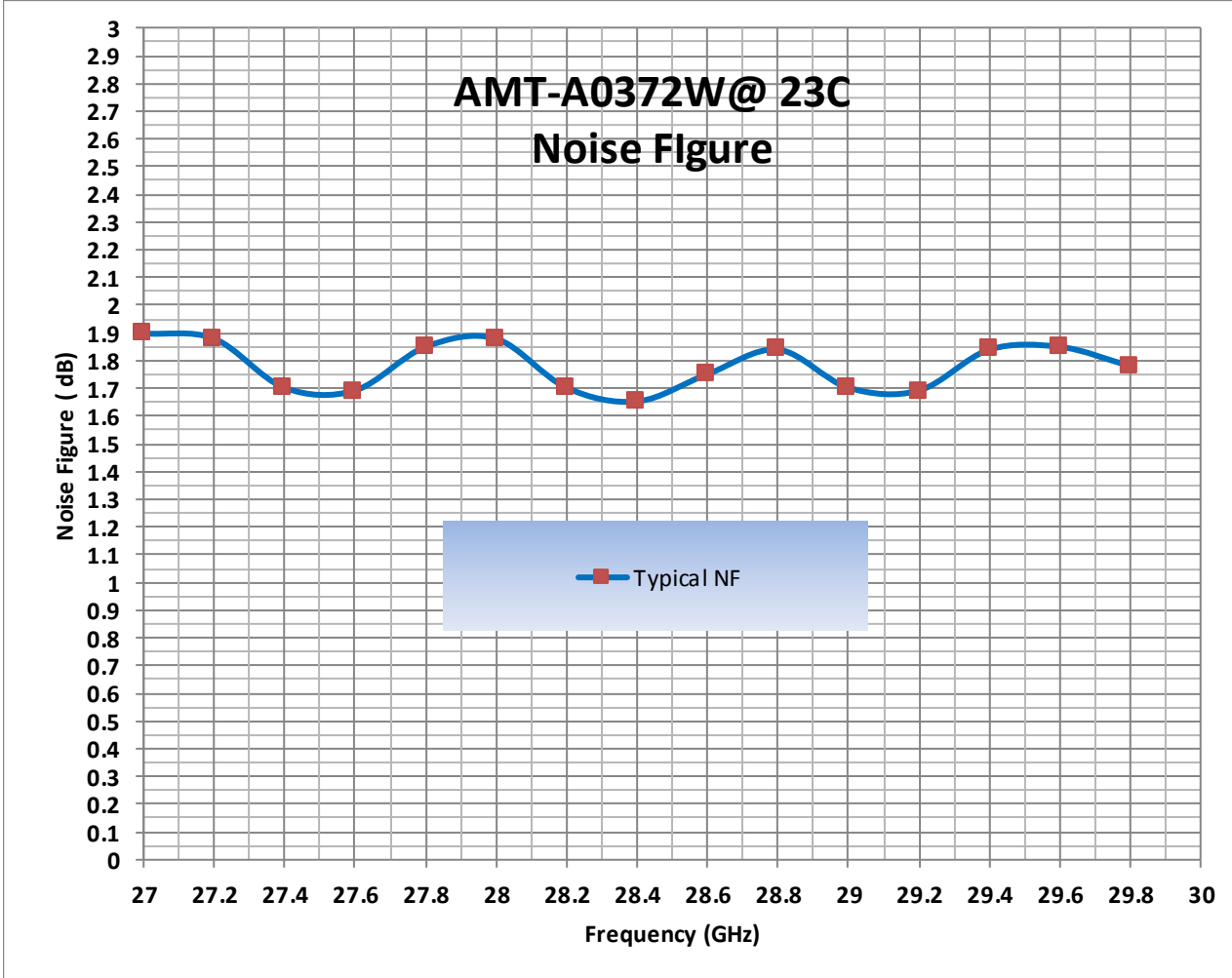
1/ Unconditional Stability

Customized configurations of the above specifications are available

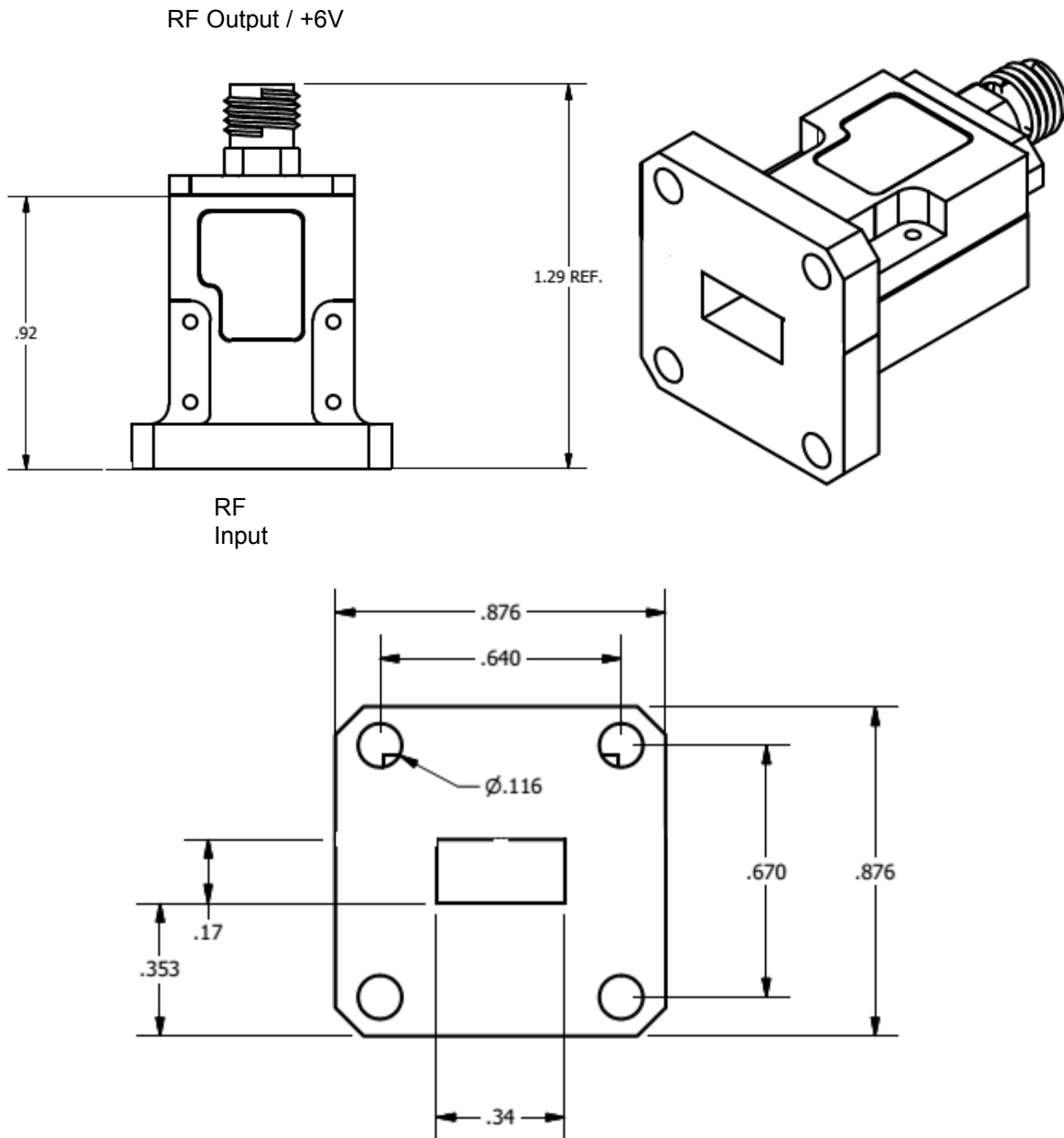
Typical S-Parameters @ 25°C



Typical Noise Figure @ 25°C



Package Outline M157: WR-34 waveguide Input (inches)



Field replaceable SMA Connectors

Model Number	Description	Hermeticity	Package
AMT-A0372W	WR-34 RFin 2.92mm Female RFout	Non-Hermetic	Outline: M157

Contact us for custom configurations and special requirements.

Our highly experienced team of engineers can quickly identify and implement innovative solutions using latest technology to improve performance and reduce cost.

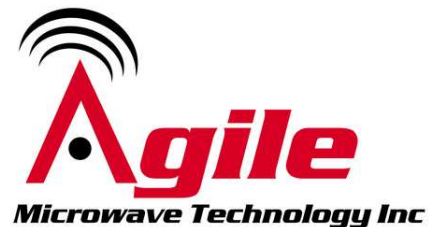
- Add additional functionality: Input limiter, Temperature compensation, Amplitude/Phase matching, Amplitude/Phase Tracking, Automatic Gain control, Gain sloping, Bypass path, Specific supply voltage, Regulation, Power detector, Health status, and others
- Integrated: Filters, Switches, Limiter, Digital attenuator, Phase shifter, Microcontroller, Multiple amplifiers, Switch matrix, Comb generators and others
- Mechanical: Custom packages - Surface Mount, Connectorized, Waveguide, Carrier, Drop-in, Hermetic and others

Agile Microwave Technology Inc is the logical choice for all your commercial or military RF/Microwave components/module requirements.

Contact Information:

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**ISO 9001:2015
Certified Company**



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