

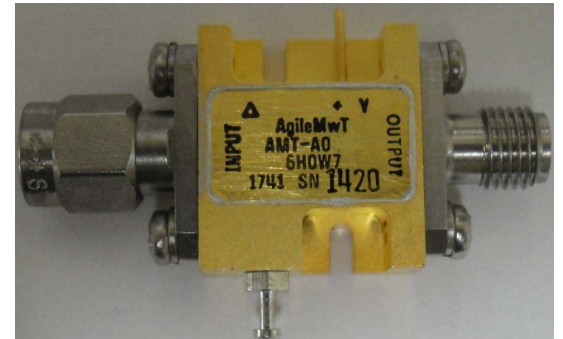
AMT-A0326 11.6 GHz to 13.7 GHz Ultra Low Noise Amplifier

Data Sheet



Features

- 11.6 GHz to 13.7 GHz Frequency Range
- **Typical Noise Figure 1.1 dB 1.3dBmax**
- Typical Gain 28 dB
- Gain Flatness $< \pm 1$ dB
- P1dB +14 dBm Typical
- VSWR 1.8:1 typical
- Internally Regulated
- Operates from a Single Supply
- Reverse Voltage protection



Description

The AMT-A0326 is a Ultra Low Noise amplifier with very low noise figure over the full frequency range. The performance is achieved through the use of AMTI's proprietary technology. The amplifier I/Os are Internally matched to 50 Ohms. The AMT-A0326 is ideal for use as Front End of receiver system, or where amplification is required without adding excessive noise in a Hi-Rel communications system for Commercial or Military applications.

Applications

- Receiver front end,
- Radar
- Communication systems
- Microwave Radio systems
- Test Equipment

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		+23
Die $T_{Junction}$	T_J	$^{\circ}C$		+150
Positive Supply Voltage	V_{+SS}	V		+15.5

Do NOT apply DC to RF Input

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		GHz	11.6		13.6
Gain	Small Signal	dB	27		30
Gain Flatness		dB		±1	±1.2
Input Power	CW, without damage	dBm	+20		
Output Power (P1dB)	1 dB compression point @ 12GHz	dBm	+12	+14	
OIP3	OIP3 @ 12 GHz Two tone F1-F2= 10MHz	dB		24	
Noise Figure		dB		1.1	1.3
RF Input Impedance	Reference to 50 ohms VSWR			1.8:1	2.2:1
RF Output Impedance	Reference to 50 ohms			1:8:1	2.2:1
Phased Matched	Phased matched to Golden unit within the lot	deg	-10		+10
Supply Voltage Positive:		V		+12 to +15V	
Supply Current Positive:		mA		80	120

Notes:

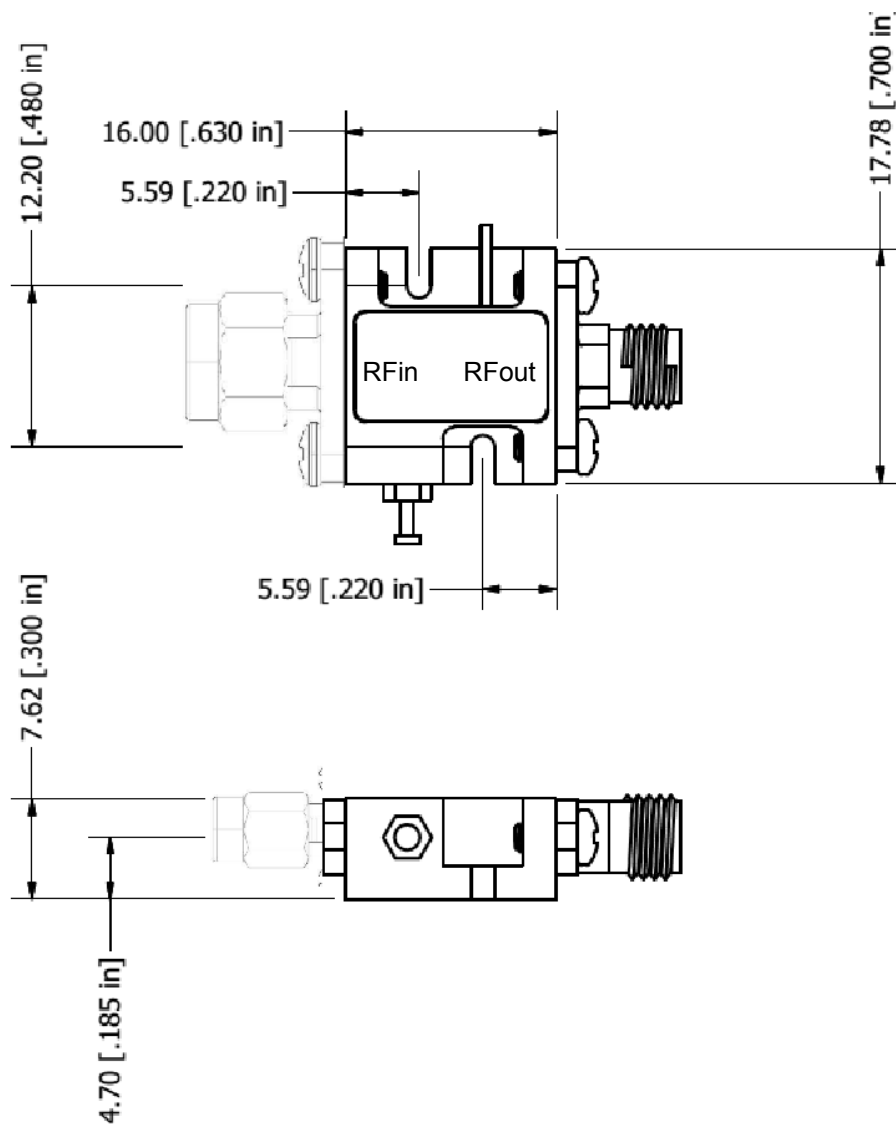
1/ Unconditional Stability

Note: Electrical Specifications Guaranteed only at +23 ° C

Test data provided by SN @ room S-Parameter over Frequency Range, P1dB @ 12 GHz, NF and Phase variation (Delta from golden unit in a set)

Customized configurations of the above specifications are available

**Package Outline: M088 SMA Connectorized (inches)
SMA Male input / Female output**



Housing: Aluminum Gold over Nickel plated

Model Number	Description	Hermeticity	Package
AMT-A0326	SMA Female	Non-Hermetic	Outline: M088

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.

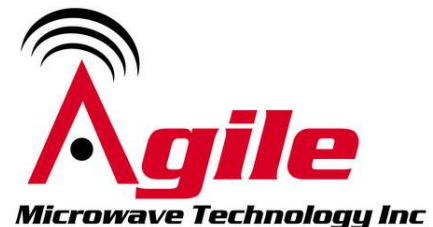
- Add additional functionality: Input limiter, Temperature compensation, Amplitude/Phase matching, Amplitude/Phase Tracking, Automatic Gain control, Gain sloping, Bypass path, Specific supply voltage, Regulation, Power detector, Health status, and others
- Integrated: Filters, Switches, Limiter, Digital 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:

**701 Cascade Pointe Lane
Cary, NC 27513**

**ISO 9001:2015
Certified Company**



Phone: (984) 228-8001

info@agilemwt.com

www.agilemwt.com

AMTI reserves the right to change at any time without notice the design, specifications, function/form or availability of its products described herein. The buyer/customer has the responsibility to validate the performance for their applications. No liability is assumed as result of use of this datasheet or product and no patent licenses are implied. AMTI reserves all rights.