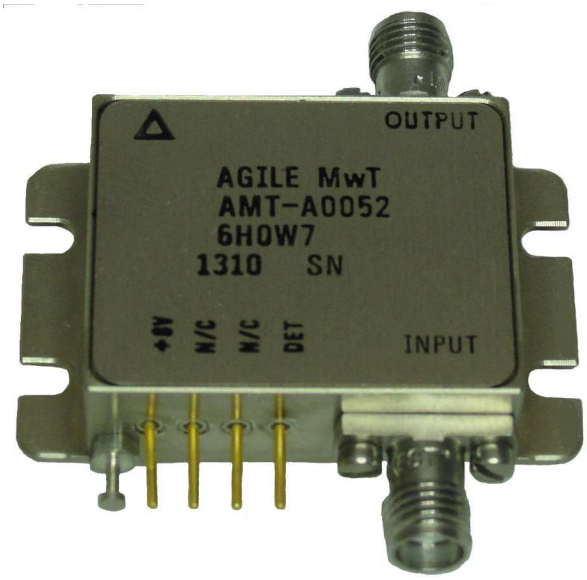
AMT-A0052 2.6 GHz to 2.8 GHz
Medium Power Amplifier 1W
Data Sheet

Agile Microwave Technology Inc

Features

- 2.6 GHz to 2.8 GHz Frequency Range
- Typical P1dB > +31 dBm
- Gain 33 dB
- Gain Flatness < ± 0.5 dB
- Internally Regulated
- Operates from a Single Supply
- Unconditionally Stable
- State-of-the-Art GaAs Technology



Description

The AMT-A0052 is a medium power amplifier with P1dB of greater then 1W. The performance is achieved through the use of AMTI's proprietary technology. The RF input output are internally matched to 50 Ohms and DC blocked. The AMT-A0052 is ideal for use where amplification with power is required in a Hi-Rel communications system for Commercial or Military applications

Applications

- Output Amplifier
- Driver Amplifier
- Communication systems
- Microwave Radio systems
- Test Equipment

MAXIMUM RATINGS[1]

Parameter	Symbol	Units	MIN	MAX
Operating Temperature – Case	T_{MO}	° C	-40	+85
Storage Temperature - Case	T_{MS}	° C	-55	+150
RF Input power (CW)	Pin	dBm		+30
Die $T_{Junction}$	T_J	° C		+150
Positive Supply Voltage	V_{+SS}	V		+12.5

Note: Control Pins should not be floating while biased

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.

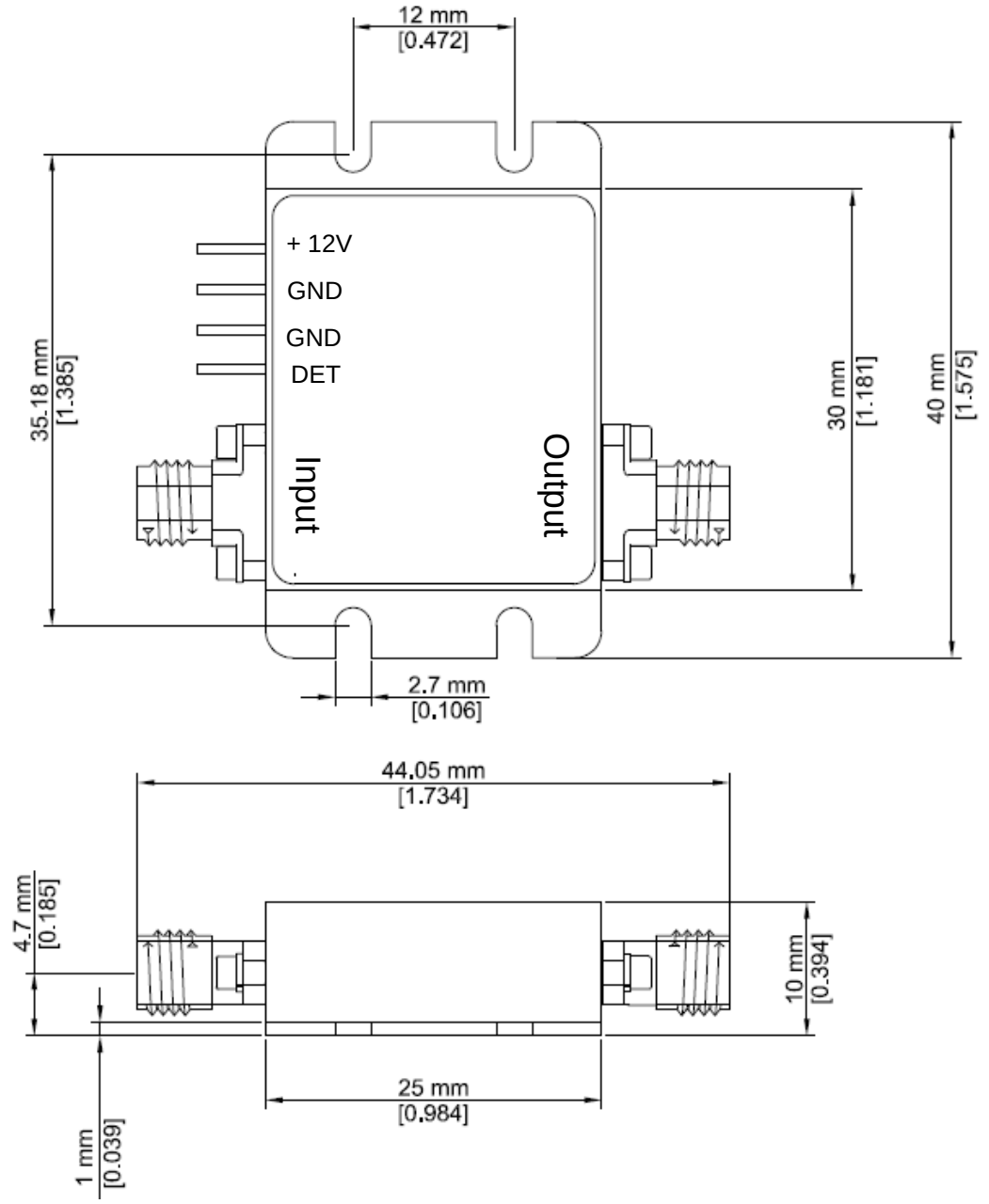
ELECTRICAL SPECIFICATIONS @ 23ºC

Parameter	Conditions	Units	MIN	Typical	MAX
Frequency Range		GHz	2.6		2.8
Gain	Small Signal with 0 Attenuation	dB	30	33	
Gain Flatness	Small Signal with 0 Attenuation	dB		±0.5	
Input Power	CW, without damage	dBm	+17		
Output Power (P1dB)	1 dB compression point @ 2.7 GHz	dBm	30	31	
OIP3	OPI3 measured @ 3 GHz Two tone F1-F2= 10MHz	dB		40	
Noise Figure		dB			6
RF Input Impedance	Reference to 50 ohms VSWR			1.8:1	2.0:1
RF Output Impedance	Reference to 50 ohms			1:9:1	2.0:1
Stability Factor K	Unconditionally Stable		1		
Stability Factor B1	Unconditionally Stable		0		
Supply Voltage Positive: Supply Current Positive:		V mA		+12V 400	 550

Notes:
1/ Unconditional Stability: (K > 1) and (B1 > 0)

Customized configurations of the above specifications are available

Package Outline: M010 SMA Connectorized mm (inches)



Model Number	Description	Hermeticity	Package
AMT-A0052	SMA Female	Non-Hermetic	Outline: M010

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.

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