

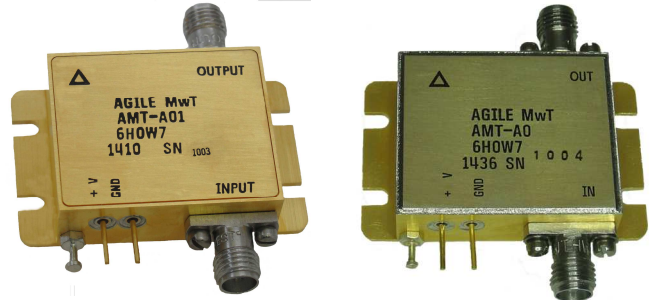
AMT-A0341 0.1 GHz to 20 GHz Broadband LNA with Medium Power & 2W CW /10W Pulsed Limiter



Data Sheet

Features

- 0.1 GHz to 20 GHz Frequency Range
- Typical P1dB power > +22 dBm
- Gain 33 dB Typical
- Gain Flatness ± 1.5 dB Typical
- 2.7 dB Typical Noise Figure
- Integrated 2W CW & 10W Pulsed Limiter
- Internally Regulated
- Operates from Single +12V Supply
- Unconditionally Stable



Laser Sealed Hermetic

Description

The AMT-A0341 is a +22 dBm P1dB Broadband medium power amplifier with Low Noise Figure and integrated Limiter 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 and DC Blocked. The AMT-A0341 is ideal for use as medium power with low noise for test equipment, Communication systems or where broadband amplification and power are required without adding significant noise in a Hi-Rel communications system for Commercial or Military applica-

Applications

- Test Equipment
- Communication Systems
- EW Systems
- Lab Applications
- Radar

MAXIMUM RATINGS¹

EAR99 NLR

Parameter	Symbol	Units	MIN	MAX
Operating Temperature – Case	T _{MO}	° C	-40	+85
Storage Temperature - Case	T _{MS}	° C	-40	+125
RF Input power (CW/Pulsed)	P _{in}	dBm		+33 / +40
Die T _{Junction}	T _J	° C		+150
Positive Supply Voltage	V _{+SS}	V		+15

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

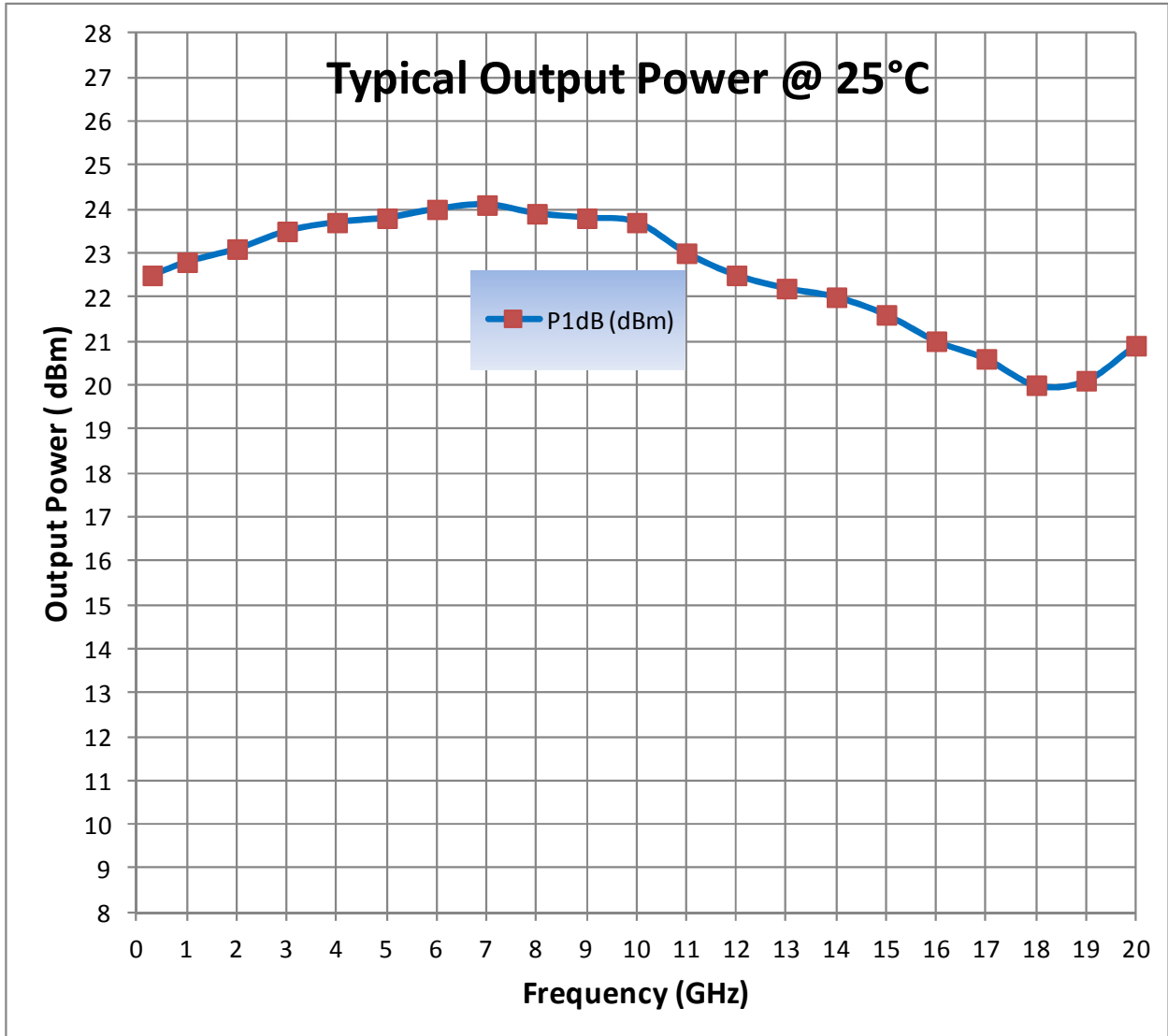
Parameter	Conditions	Units	MIN	Typical	MAX
Frequency Range		GHz	0.1		20
Gain	Small Signal	dB	28	33	
Gain Flatness		dB		±1.5	±3
Noise Figure	0.5 to 15 GHz	dB		2.2	3
Noise Figure	15 to 18 GHz	dB		2.7	4
Noise Figure	18 to 20 GHz	dB		4	5.2
RF Input Power Protection Limiter	CW -Continuous Short period	dBm			+33
RF Input Power Protection Limiter	Pulsed – Pulse width 100uS 10% Duty Cycle	dBm			+40
Output Power (P1dB)	0.1 to 16 GHz, measured @10GHz	dBm	+19	+22	
Output Power (P1dB)	16 to 20 GHz	dBm	+18	+21	
OIP3	OPI3 @ 10 GHz Two tone F1-F2= 10MHz	dB		30	
RF Input Impedance	Reference to 50 ohms VSWR			1.8:1	2.4:1
RF Output Impedance	Reference to 50 ohms VSWR			1.8:1	2.4:1
Supply Voltage Positive:		V		+12	
Supply Current Positive:	Small signal	mA		280	350

Notes:

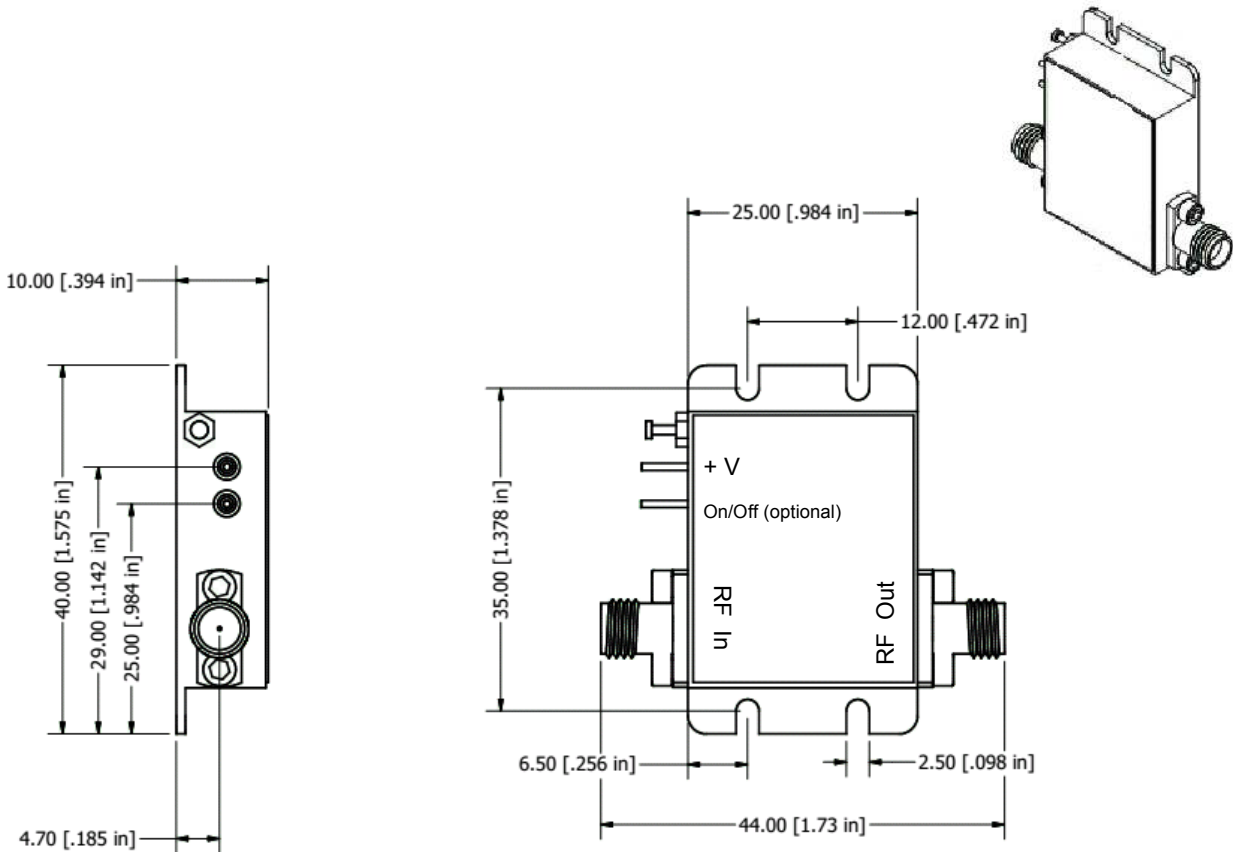
1/ Unconditional Stability

Customized configurations of the above specifications are available

Typical P1dB @ 23°C



Package Outline M020: SMA Connectorized mm(inches)



Field replaceable SMA Connectors, Removable Ground slug

Note: The unit must be attached to proper heat sink

Model Number	Description	Hermeticity	Package
AMT-A0341	SMA Female	Non-Hermetic	Outline: M020
AMT-A0341-H	SMA Female	Hermetic Laser Weld Tested to Leak Rate 2.0×10^{-8}	Outline: M020

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.

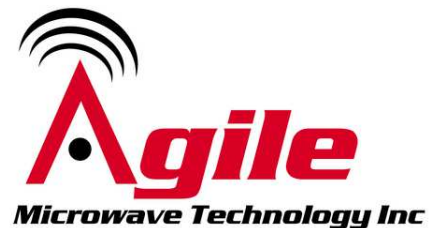
- Add additional functionality: Input limiter, Temperature compensation, Amplitude/Phase matching, Amplitude/Phase Tracking, Automatic Gain control, Gain sloping, Bypass path, Specific supply voltage, Regulation, Power detector, Health status, and others
- Integrated: Filters, Switches, Limiter, Digital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