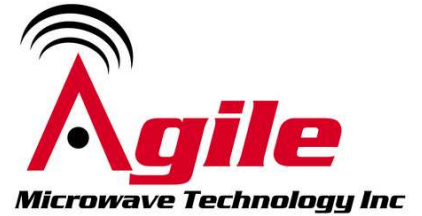


AMT-A0384 8 GHz to 12 GHz Broadband 20W Power Amplifier

Data Sheet



Features

- 8 GHz to 12 GHz Frequency Range
- Psat > +44 dBm(25W) Typical +43 dBm(20W) Min
- Small Signal Gain 51 dB typical
- Gain Flatness < ± 1.5 dB typ
- Optional : Isolator at the output
- Internally Regulated
- Operates from Single +28V Supply
- Unconditionally Stable
- State-of-the-Art GaN Technology



Description

The AMT-A0384 is a High power GaN amplifier with high output power 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 and are DC blocked. The AMT-A0384 is ideal for use as Power amplifier , or Driver amplifier in a Hi-Rel communications system for Commercial or Military applications

Applications

- Power Amplifier
- Driver Amplifier
- Tx systems
- Microwave Radio systems
- Test Equipment

MAXIMUM RATINGS¹

Unit must be attached to proper heatsink

Parameter	Symbol	Units	MIN	MAX
Operating Temperature – Case	T _{MO}	° C	-20	+75
Storage Temperature - Case	T _{MS}	° C	-40	+125
RF Input power (CW)	P _{in}	dBm		+20
Die T _{Junction}	T _J	° C		+150
Output Power In to VSWR				6:1
Positive Supply Voltage	V _{+SS}	V		+30V

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

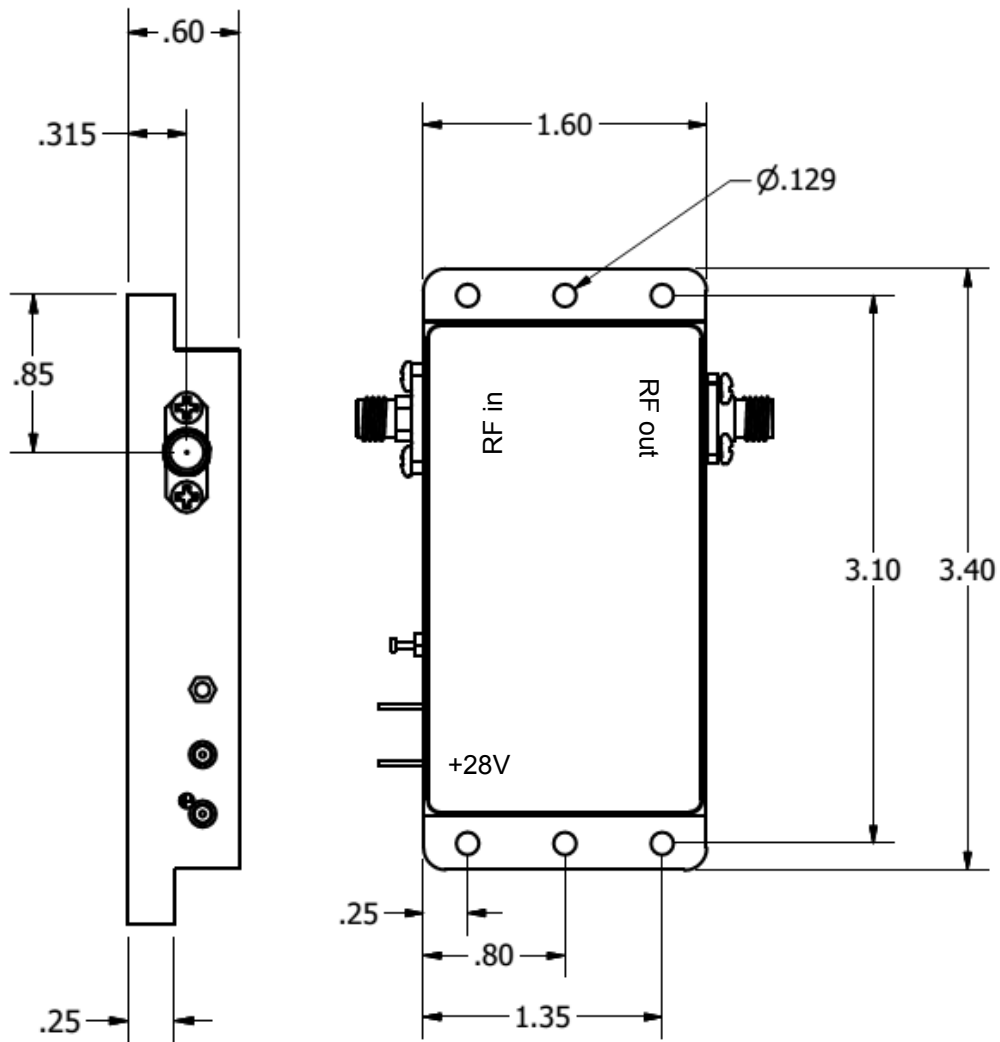
Parameter	Conditions	Units	MIN	Typical	MAX
Frequency Range		MHz	8000		12000
Gain	Small Signal	dB	48	51	
Gain Flatness		dB		±1.5	±2.5
Output Power (Psat)	Output power saturated	dBm	+43	+44	
OIP3	OIP3 measured @ 10000 MHz Two tone F1-F2=10MHz linear power level	dBm		+50	
Noise Figure		dB		3	6
RF Input Impedance	Reference to 50 ohms VSWR			1.5:1	2.0:1
RF Output Impedance	Reference to 50 ohms			1:8:1	2.6:1
Output Isolator (optional)	Output VSWR 1.8:1				
Supply Voltage Positive: Negative		V		+28V	
Supply Current Positive: Negative:		mA		2A	8A

Notes:

1/ Unconditionally Stable

Customized configurations of the above specifications are available

Package Outline: SMA Connectorized (inches)



Unit must be attached to proper heatsink

Model Number	Description	Hermeticity	Package
AMT-A0384	SMA Female	Non-Hermetic	Outline: M116

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.

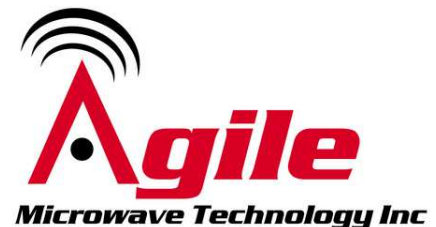
- Add additional functionality: Input limiter, Temperature compensation, Amplitude/Phase matching, Amplitude/Phase Tracking, Automatic Gain control, Gain sloping, Bypass path, Specific supply voltage, Regulation, Power detector, Health status, and others
- Integrated: Filters, Switches, Limiter, Digital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