

AMT-RM0509 5 GHz to 18 GHz 25W Broadband High Power Amplifier Rack Mount

Data Sheet



Features

- 5 GHz to 18 GHz Frequency Range
- Typical power $P_{sat} > +44.5$ dBm
- Gain 44 dB minimum
- Input/output N-Female Connectors
- Internally Regulated
- 2U Standard 19" Rackmount
- 120/240V Power Supply
- Unconditionally Stable
- State-of-the-Art GaN Technology



Description

The AMT-RM0509 is a Broadband 25 W power amplifier in a 2U Rackmount case. The performance is achieved through the use of AMTI's proprietary matching technology and latest in GaN technology. The amplifier I/Os are Internally matched to 50 Ohms and are DC blocked. The AMT-RM0509 is ideal for use as extending power range of test equipment, EW systems or where broadband amplification and power are required in a Hi-Rel communications system for Commercial or Military applications

Applications

- Test Equipment
- EW Systems
- Lab Applications

MAXIMUM RATINGS¹

Parameter	Symbol	Units	MIN	MAX
Operating Temperature Ambient	T_{MO}	° C	0	+40
Storage Temperature - Case	T_{MS}	° C	-20	+95
RF Input power (CW)	P_{in}	dBm		+20
Die $T_{Junction}$	T_J	° C		+150
Positive Supply Voltage	V_{+SS}	V	110V	240V

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	5		18
Gain	Small Signal	dB	44	48	
Gain Flatness		dB		±1.5	±2.3
Output Power (Psat)	Saturated Output power	dBm	44	44.5	
OIP3	OPI3 measured @ 10GHz Two tone F1-F2= 10MHz	dB		50	
Noise Figure		dB			8
RF Input Impedance	Reference to 50 ohms VSWR	dB		1.6:1	2.3:1
RF Output Impedance	Reference to 50 ohms VSWR	dB		1.8:1	2.5:1
Harmonic distortion	Measured at Pout 41 dBm	dBc	-15	-20	
IEEE-488 (GPIB)	Interface only to turn On/Off and provide temperature information				
Supply Voltage Positive: Supply Current Positive:	AC	V	110V		240V

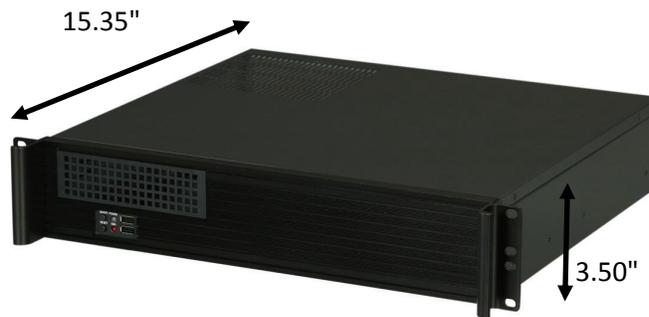
Notes:

1/ Unconditional Stability

Customized configurations of the above specifications are available

Package Outline: 2U 19" Rackmount Case

19.00" x 3.50" x 15.35"
482.6 mm x 88.9 mm x 389.9 mm



N-Female Connectors for Input and output

110/220 Power Supply

On / Off Switch

IEEE-488 (GPIB) connector

Model Number	Description	Hermeticity	Package
AMT-RM0509	N-Female	Non-Hermetic	Outline: RMXXX

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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