

AMT-BT0603 0.1 to 40 GHz Bench Top Broadband Low Noise Amplifier Flat Gain



Data Sheet

Features

- 0.1 to 40 GHz Frequency Range
- Gain 24 dB Typical
- Gain Flatness ± 1 dB Typical
- +15 dBm P1dB typical
- 110/220V AC Supply
- Compact Lightweight Design
- Unconditionally Stable



Description

The AMT-BTA0603 is a Bench Top Broadband Low noise with medium power amplifier 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-BT0603 is ideal for testing systems, Lab applications, or where broadband amplification and power are required without adding significant noise in a Hi-Rel communications system for Commercial or Military applications

Applications

- Lab Applications
- Testing

MAXIMUM RATINGS¹

Parameter	Symbol	Units	MIN	MAX
Operating Temperature – Case	T_{MO}	$^{\circ}C$	0	+75
Storage Temperature - Case	T_{MS}	$^{\circ}C$	-20	+95
RF Input power (CW)	P_{in}	dBm		+10
Die $T_{Junction}$	T_J	$^{\circ}C$		+150
Positive Supply Voltage	V_{+SS}	Voltage AC		240

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		40
Gain ²	Small Signal	dB	20	24	
Gain Flatness		dB		±1	±2.5
Noise Figure ²		dB		3	6
Output Power (P1dB)	@ 12GHz	dBm	10	15	
RF Input Impedance ²	Reference to 50 ohms VSWR			1.8:1	2.3:1
RF Output Impedance ²	Reference to 50 ohms VSWR			1.8:1	2..3:1
Supply Voltage Positive: :		V		110/220	

Notes:

1/ Unconditional Stability

2/ Above 500 MHz

Customized configurations of the above specifications are available

Package Outline Bench Top: 2.92mm Female Connector-



~ 6" x 4" x 2"

External AC adapter

Model Number	Description	Hermeticity	Package
AMT-BT0603	Single Amplifier 2.92mm Female	Non-Hermetic	Outline: Table top box

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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