

ATC AT Series 0603

RF/Microwave Attenuator

- Thin Film Design
- Power Rating: 1 watt
- Frequency Response
+/- 0.5 dB
- Characterized to 20 GHz
- CPW and Microstrip Applications
- EIA 0603 SMT
- Highest Power in Class
- ALN construction
- Balanced PI design
- Non-Magnetic
- RoHs compliant

ATC's new RF/Microwave SMT Attenuator Series (AT) is manufactured with the highest quality materials for reliable and repeatable performance. These devices are constructed with Aluminum Nitride (AlN) and are available in a standard EIA 0603 case size. The AT Series exhibits excellent performance characteristics for the most demanding RF/Microwave applications.

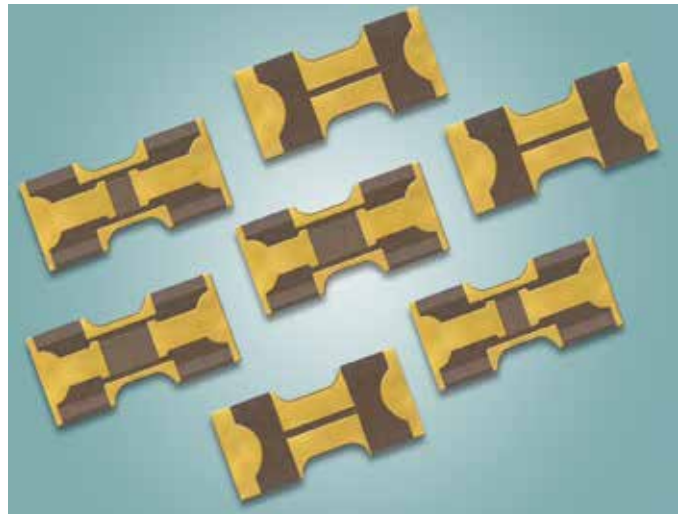
The AT provides virtually flat loss over a broad frequency spectrum and is ideal where low noise, low inductance and low parasitic capacitance is required. Thin film metallization provides for very stable characteristics over temperature and time. Its balanced PI design provides even current distribution and accurate attenuation characteristics from DC to 20 GHz. It is designed to meet a wide range of RF and microwave large and small signal level applications. The AT is ideal for impedance matching, input padding, signal level tuning, and many other critical RF/Microwave applications. The AT is rated highest power in class and is suitable for microstrip and CPW applications.

The non-magnetic termination is available providing a range of attachment options such as eutectic die-bonding, conductive epoxies, and soldering. The AT is fully compatible with high speed automated pick-and-place processing.

Typical applications: Telecommunications, Satellite Communications, Cellular Base Stations, Microwave Radio, ISM, RF/Microwave Power, Military /Aerospace, Test and Measurement.

Functional applications: Impedance Matching, Input Padding, Signal Level Tuning, Signal Conditioning.

Note: Consult Factory for other attenuation values, termination styles and case sizes.



ENVIRONMENTAL SPECIFICATIONS

OPERATING TEMPERATURE: -55°C to +150°C

100% inspection Per MIL-STD-883

ELECTRICAL AND MECHANICAL SPECIFICATIONS

NOMINAL IMPEDANCE: 50 ohms

FREQUENCY RANGE: DC to 20 GHz

VALUES AVAILABLE: 3dB, 6dB, 10dB

INPUT POWER CW:

1W: 3dB, 6dB

0.75W: 10dB

VSWR: 1.25:1 typical

ATTENUATION ACCURACY (dB):

1 to 9 dB: ± 0.50

10 dB: ± 0.75

SUBSTRATE MATERIAL: AlN

RESISTORS: Tantalum Nitride

TERMINAL: Thin Film metal stack, Ni/Au



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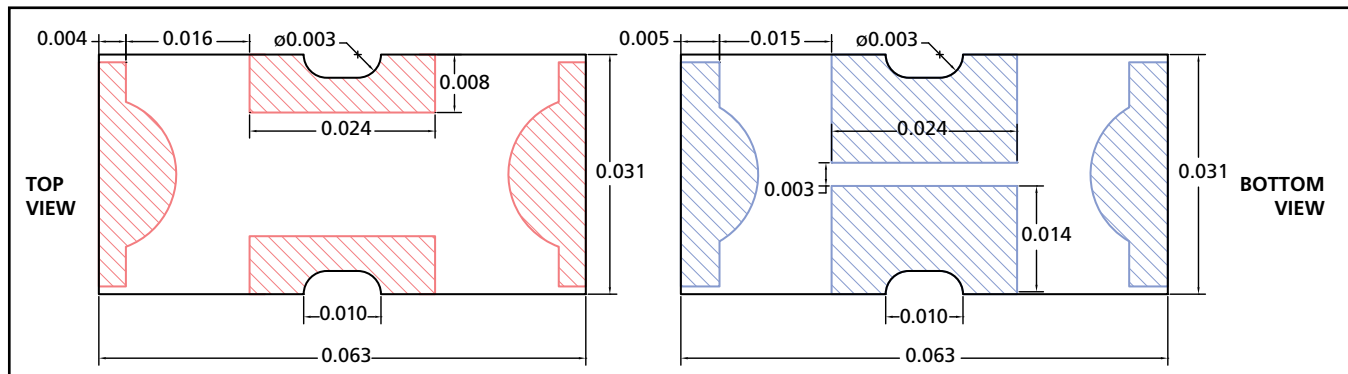
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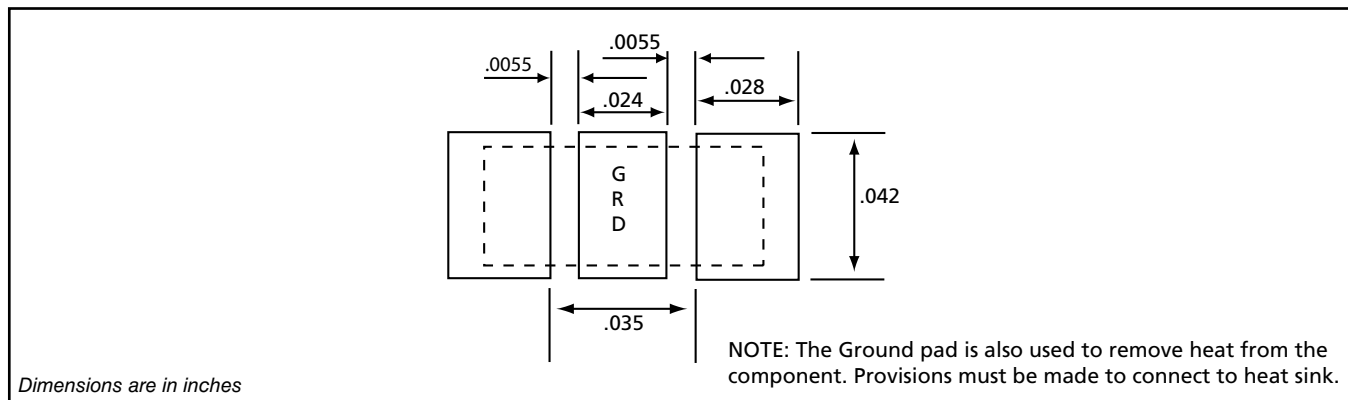
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Mechanical Configurations



Dimensions are in inches

Part Thickness .020 $\pm$.001 (all values)



Dimensions are in inches

ATC PART NUMBER CODE

Product Designation	ATC AT	0603	T	03	E	CA	T	D	Quantity
Case Size									D = 1000, B = 500, 7 = 100, 3 = 25
Power Rating:									Packaging
T = 1 W									T = Tape & Reel: 7" reel, 1000 pcs.
C = 3/4 W									C = Cap Pack, 100 pcs.
Attenuation:									S = Snippet
3 dB, 6 dB, 10 dB									Termination: CA = Non-Mag Gold
Configuration									
E = All Terminations wrapped and patterned ground plane									

The above part number refers to an ATC AT 0603 Case Size with an attenuation of 3dB, 1W Power Rating, wrapped and patterned ground plane configuration with Non-Mag Gold Termination and tape and reel packaging, 1000 pcs.

ATC accepts orders for our parts using designations **with** or **without** the "ATC" prefix. Both methods of defining the part number are equivalent, i.e., part numbers referenced with the "ATC" prefix are interchangeable to parts referenced without the "ATC" prefix. Customers are free to use either in specifying or procuring parts from American Technical Ceramics.

For additional information and catalogs contact your ATC representative or call direct at (+1-631) 622-4700.

Consult factory for additional performance data.

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