

Microwave Temperature Compensation Attenuator					DC~18GHz	50Ω	200mW
Part No.	Descriptions						
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Series	Frequency	Attenuation	Temperature Coefficient Code	Metallization Options	Termination Plating Options		
MTCA	18	(01 to10) 1dB to 10dB	(N3 to N9)	Planar(no code), W1, W3, WB1 or G	(no code)=lead free or (S)=Lead(Pb)		

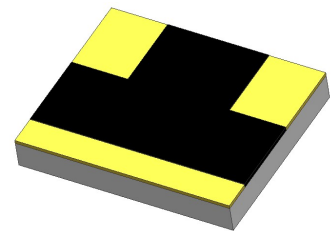
Metallization Options

- Planar(no code): planar terminal.
- Single wrap(W1): metallization wrap ground terminal.
- Triple wrap(W3): metallization wrap input, output and ground terminal.
- Wire bond(WB1): metallization wrap ground terminal, input and output terminal have gold metallization for wire bonding.
- Planar gold(G): planar terminal with gold metallization for wire bonding.

Part No.	Frequency Range (GHz)	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation (dB/dB/°C)	Max. VSWR (:1) @1GHz@25°C	Max. Input Power (mW)	Attenuation Accuracy (dB)
MTCA1801N*G	DC-18	1	N3~N7	-0.003~-0.007	1.20	200	±0.5
MTCA1802N*G	DC-18	2	N3~N9	-0.003~-0.009	1.20	200	±0.5
MTCA1803N*G	DC-18	3	N3~N9	-0.003~-0.009	1.20	200	±0.5
MTCA1804N*G	DC-18	4	N3~N9	-0.003~-0.009	1.20	200	±0.5
MTCA1805N*G	DC-18	5	N3~N9	-0.003~-0.009	1.20	200	±0.5
MTCA1806N*G	DC-18	6	N3~N9	-0.003~-0.009	1.20	200	±0.5
MTCA1807N*G	DC-18	7	N3~N9	-0.003~-0.009	1.20	200	±0.5
MTCA1808N*G	DC-18	8	N3~N9	-0.003~-0.009	1.20	200	±0.5
MTCA1809N*G	DC-18	9	N3~N9	-0.003~-0.009	1.20	200	±0.5
MTCA1810N*G	DC-18	10	N3~N9	-0.003~-0.009	1.20	200	±0.5

General Specifications

- Frequency Range: Planar gold series DC-18GHz (N3~N5); DC-12.4GHz (N6~N9)
- Attenuation: 3dB
- Attenuation Accuracy: at 25°C ±0.5dB @1GHz
- VSWR: at 25°C 1.20:1 @1GHz
- Nominal Impedance: 50 Ohms
- Power Rating: 200 mW CW
- Power Derating: 100% @ 125°C
Derates to 0% @ 150°C
- Operating Temperature: -55°C to +150°C
- Temperature Coefficient over Operating Temperature Range: See Table Above.
Temperature Coefficient Tolerance: ±0.001dB/dB/°C.
- Substrate: Alumina (Al₂O₃)
- Resistive material: Thick film
- Terminal material: Thick film, Input, Output and front Ground all made by gold.
- Protective Coating: Thick film (ethyl acetate)
- Package Outline: See Sheet 3.
- Workmanship: per MIL-PRF-55342.
- RoHS Compliant.
- Electrostatic Discharge Control: per MIL-STD-1686.



Unit Marking dB Value (XX), Direction of Shift (N) and TCA Shift (X).
Legibility and Permanency: per MIL-STD-130.

Quality Assurance

- Sample inspect per ANSI/ASQC Z1.4 general inspection, LEVEL II, AQL = 1.0.
 - 1.1 Visual and mechanical examination for conformance to outline package requirements.
- Select five (5) Units from lot measure attenuation from DC to 18GHz every 20°C over the temperature range -55°C to +125°C.
 - 2.1 Calculate, using linear regression, the slope of the curve.
 - 2.2 Calculate TCA using the following formula: TCA = Slope / Attenuation @ 25°C.
- Test data required for customer.

Notes on RF Testing and Circuit Layout**DC-18GHz Planar gold series Test Fixture****Planar gold Test Board****Connect test part to Test Fixture****Equipment Calibration****Room
Temperature
Test****High-Low
Temperature
Test**

- 1、 Download S2P documents in http://www.yantel-corp.com/en/products/products1_200.html
- 2、 DC-18GHz or 16-36GHz test fixture is rentable (only for Chinese customers) , otherwise please purchase them.

For any questions or needs, please feel free to contact inform@yantel-corp.com.

