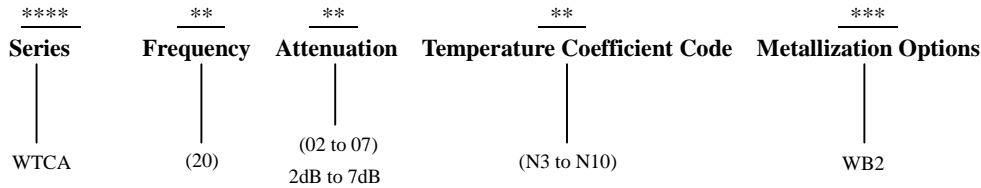
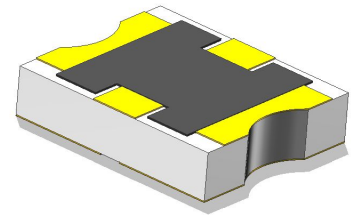


Part No. Descriptions


| 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) |
|---------------|-----------------------|------------------|------------------------------|---|---------------------------|-----------------------|---------------------------|
| WTCA2002N*WB2 | DC-20 | 2 | N3~N7 | -0.003~ -0.007 | 1.2 | 200 | ±0.5 |
| WTCA2003N*WB2 | DC-20 | 3 | N3~N9 | -0.003~ -0.009 | 1.2 | 200 | ±0.5 |
| WTCA2004N*WB2 | DC-20 | 4 | N3~N9 | -0.003~ -0.009 | 1.2 | 200 | ±0.5 |
| WTCA2005N*WB2 | DC-20 | 5 | N3~N10 | -0.003~ -0.010 | 1.2 | 200 | ±0.5 |
| WTCA2006N*WB2 | DC-20 | 6 | N3~N10 | -0.003~ -0.010 | 1.2 | 200 | ±0.5 |
| WTCA2007N*WB2 | DC-20 | 7 | N3~N10 | -0.003~ -0.010 | 1.2 | 200 | ±0.5 |

General Specifications

- | | |
|--|---|
| 1. Frequency Range | DC to 20GHz |
| 2. Attenuation | 2dB |
| 3. Attenuation Accuracy | at 25°C ±0.5dB@1GHz |
| 4. VSWR | at 25°C 1.55:1 Max. over DC-6GHz 1.40:1 Max. over 6-12.4GHz 1.55:1 Max. over 12.4-20GHz |
| 5. Nominal Impedance | 50 Ohms |
| 6. Power Rating | 200 mW CW |
| 7. Power Derating | 100% @ 125°C Derates to 0% @ 150°C |
| 8. Operating Temperature | -55°C to +150°C |
| 9. Temperature Coefficient over Operating Temperature Range: See Table Above. | Temperature Coefficient Tolerance: ±0.001dB/dB/°C. |
| 10. Substrate: Alumina (Al ₂ O ₃) | |
| 11. Resistive material: Thick film | |
| 12. Terminal material: Thick film, Input, Output and front Ground all made by gold, Back Ground made by Pd/Ag. | |
| 13. Protective Coating: Thick film (ethyl acetate) | |
| 14. Package Outline: See Sheet 4. | |
| 15. Workmanship: per MIL-PRF-55342. | |
| 16. RoHS Compliant. | |
| 17. 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

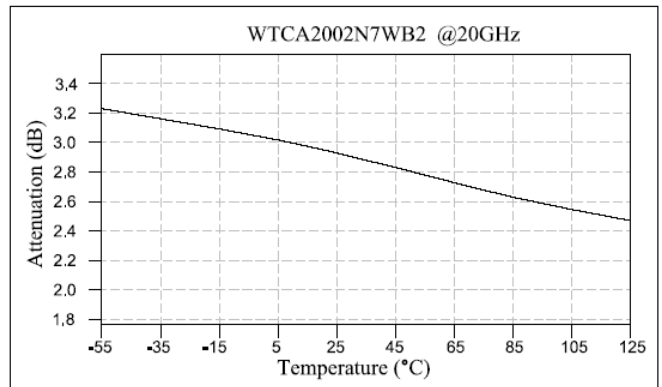
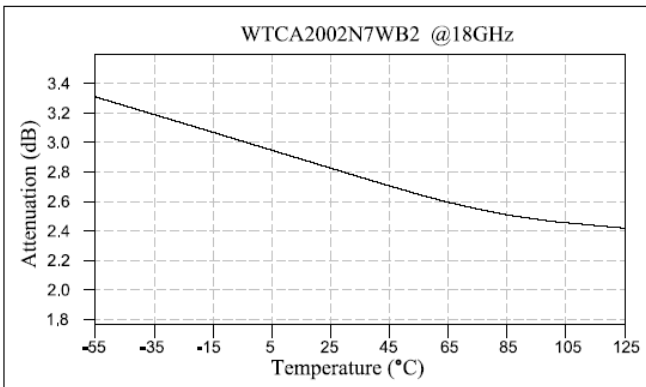
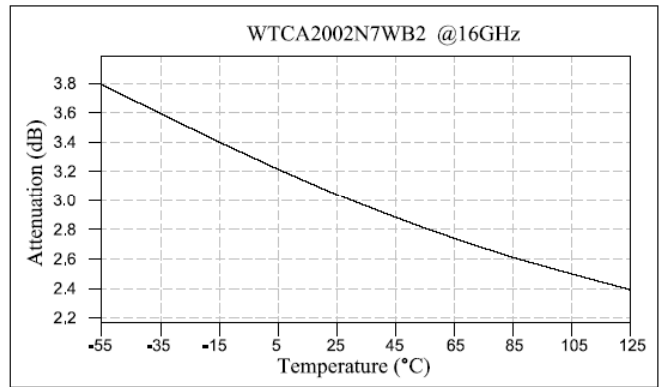
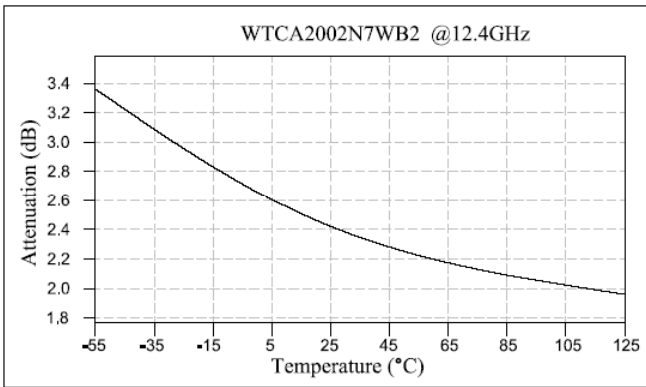
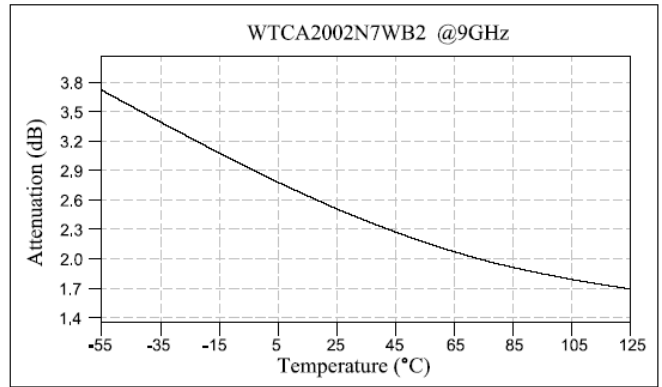
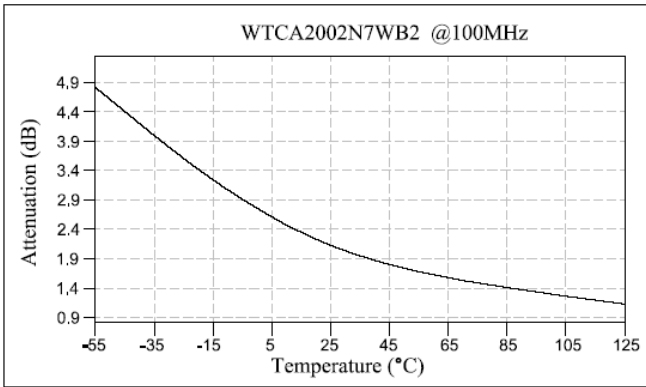
1. Sample inspect per ANSI/ASQC Z1.4 general inspection, LEVEL II, AQL = 1.0.
 - 1.1 Visual and mechanical examination for conformance to outline package requirements.
2. Select five (5) Units from lot measure attenuation from DC to 20GHz every 20°C over the temperature range -55°C to +125°C.
 - 2.1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

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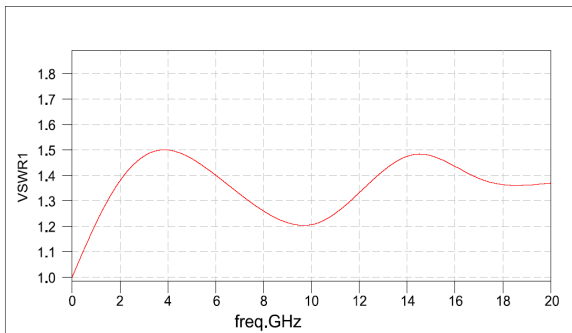
Add: 3F, Building 3, Southern District 2 of Zhongguan Honghualing Industrial Park, Xili, Nanshan, Shenzhen, China
Tel: 86-755-8355-1886 Fax: 86-755-8355-2533

For detailed performance specs & shopping online see Yantel web site : www.yantel-corp.com

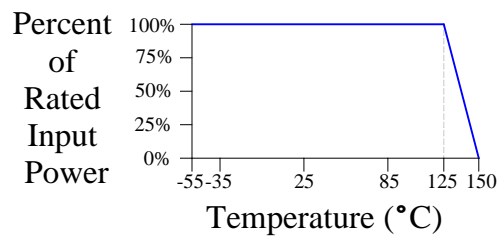
WTCA Response



Typical VSWR @25°C

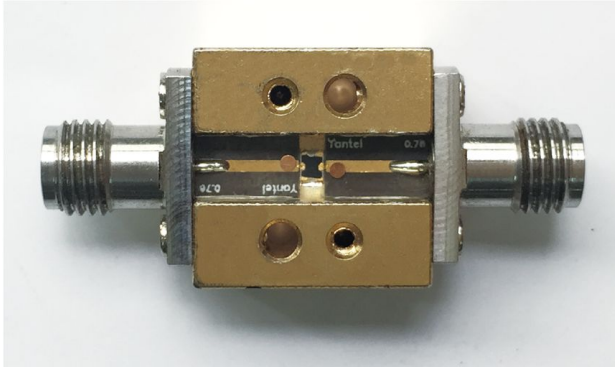


Power Rating & Derating Curve

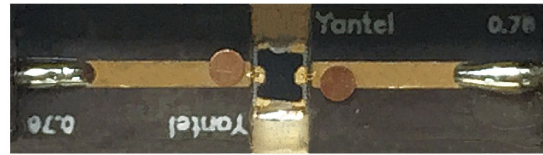


Notes on RF Testing and Circuit Layout

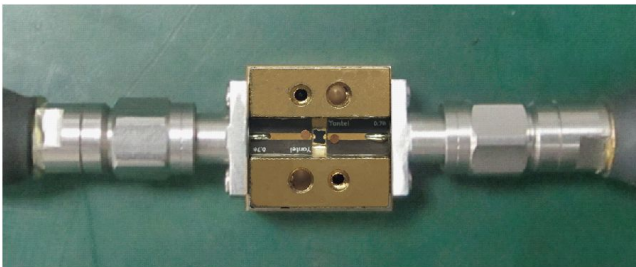
DC-20GHz WB2 series(for Gold Terminal type) Test Fixture



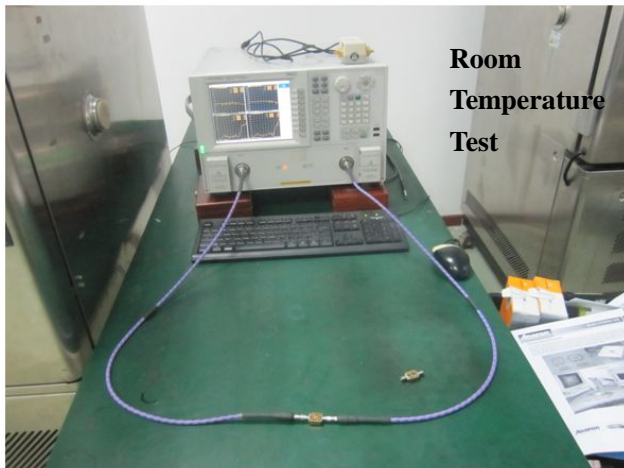
WB2 PCB Test Board



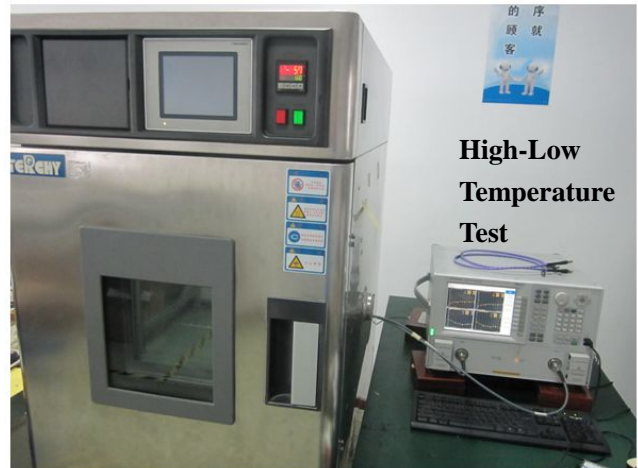
Connect test part to Test Fixture



Equipment Calibration



Room Temperature Test



High-Low Temperature Test

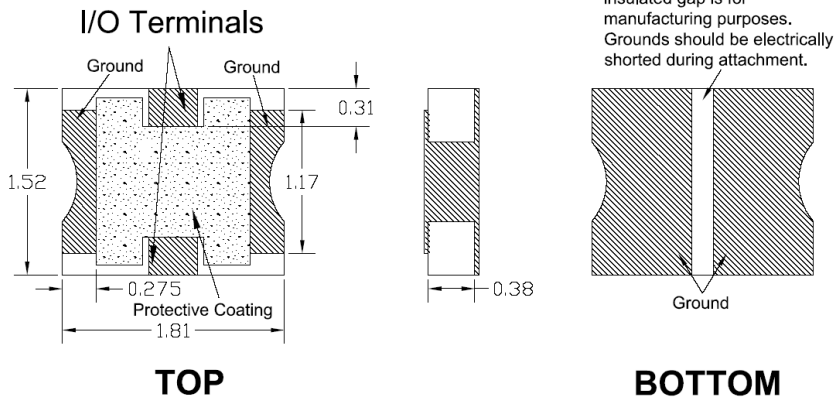
- 1、 S2P documents are available for download
- 2、 DC-20GHz or 16-36GHz test fixture is rentable (only for Chinese customers) , otherwise please purchase them.

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

Package Outlines

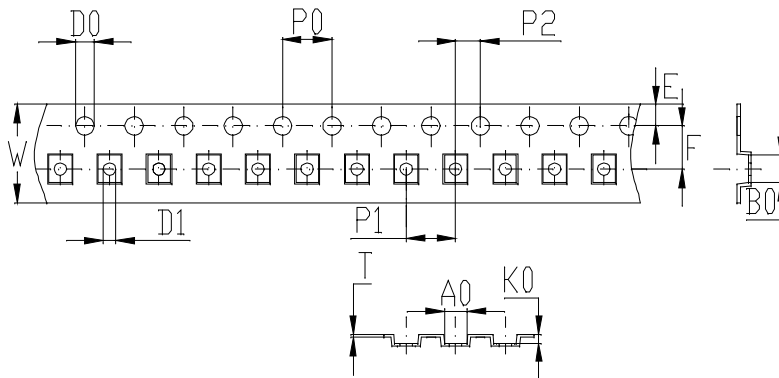
All dimensions shown in mm unless stated otherwise
 Note: Dimension tolerance in ± 0.10 otherwise mention.

Unit: mm



Tape & Reel Drawing

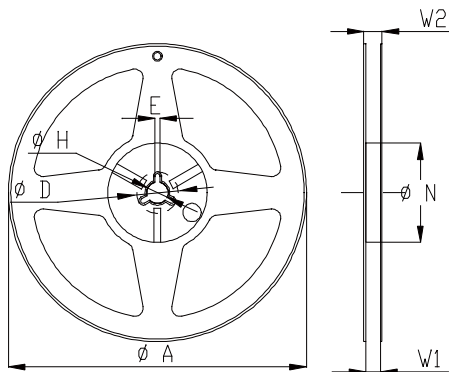
All dimensions shown in mm unless stated otherwise



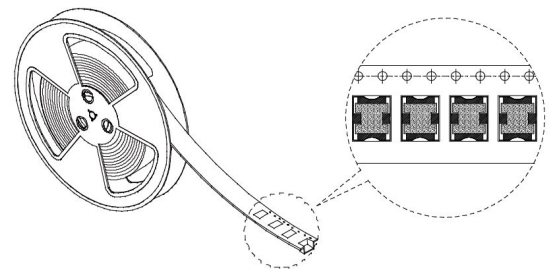
Notice:

- A.10 Sprocket hole pitch cumulative tolerance is 0.2mm.
- B. Carrier camber shall be not more than 1mm per 100mm through a length of 250mm.
- C. All dimensions meet EIA-418-B requirements.
- D. A0 & B0 measured as indicated.
- E. K0 measured from a place on the inside bottom of the pocket to top surface of carrier.
- F. Material: PS
- G. Thickness: 0.25 ± 0.05 mm
- H. 3000 units (maximum) / T&R

| | | | | | | |
|--------|----------------|-----------------|----------------|---------------|--------------------------|--------------------------|
| symbol | A0 | B0 | K0 | P0 | P1 | P2 |
| spec | 1.85 ± 0.1 | 2.25 ± 0.1 | 0.7 ± 0.1 | 4.0 ± 0.1 | 4.0 ± 0.1 | 2.0 ± 0.1 |
| symbol | W | T | E | F | D0 | D1 |
| spec | 8.0 ± 0.3 | 0.25 ± 0.05 | 1.75 ± 0.1 | 3.5 ± 0.1 | $\Phi 1.5^{+0.1}_{-0.0}$ | $\Phi 1.0^{+0.1}_{-0.0}$ |



| Symbol | Dimensions(mm) |
|--------|----------------|
| A | $180^{+0/-3}$ |
| N | $60^{+1/-0}$ |
| W1 | 9.0 ± 0.3 |
| W2 | 11 ± 1.0 |
| D | 25 ± 0.8 |
| H | 13 ± 0.2 |
| E | 3 ± 0.5 |



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