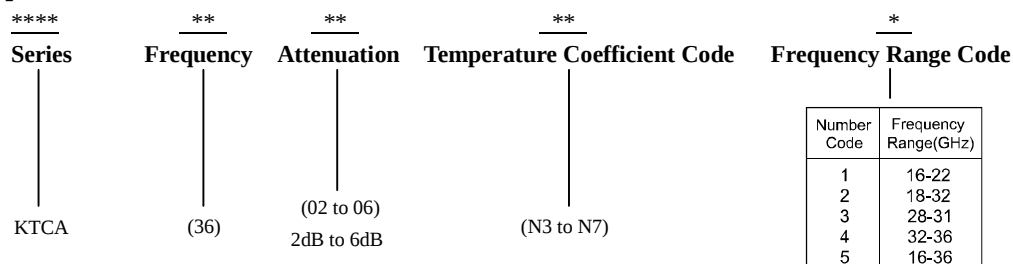
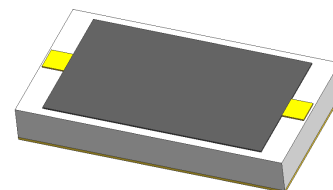


**High Frequency Temperature Compensation Attenuator      32~36GHz    50Ω    100mW**
**Part No. Descriptions**


| Part No.    | Frequency Range Code | Attenuation (dB) | Temperature Coefficient Code | Temperature Coefficient of Attenuation (dB/dB/°C) | Typ. VSWR (:1) @25°C | Max. Input Power (mW) | Attenuation Accuracy (dB) |
|-------------|----------------------|------------------|------------------------------|---------------------------------------------------|----------------------|-----------------------|---------------------------|
| KTCA3602N** | 16~36                | 2                | N3~N7                        | -0.003~ -0.007                                    | 1.35                 | 100                   | ±1.0                      |
| KTCA3603N** | 16~36                | 3                | N3~N7                        | -0.003~ -0.007                                    | 1.35                 | 100                   | ±1.0                      |
| KTCA3604N** | 16~36                | 4                | N3~N7                        | -0.003~ -0.007                                    | 1.35                 | 100                   | ±1.0                      |
| KTCA3605N** | 16~36                | 5                | N3~N7                        | -0.003~ -0.007                                    | 1.35                 | 100                   | ±1.0                      |
| KTCA3606N** | 16~36                | 6                | N3~N7                        | -0.003~ -0.007                                    | 1.35                 | 100                   | ±1.0                      |

**General Specifications**

- Frequency Range: 32 to 36GHz
- Attenuation: 5dB
- Attenuation Accuracy: at 25°C ±1.0dB Typical
- VSWR: at 25°C 1.35:1 Typical
- Nominal Impedance: 50 Ohms
- Power Rating: 100 mW CW
- Power Derating: 100% @ 100°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 (Al<sub>2</sub>O<sub>3</sub>)
- Resistive material: Thick film
- Terminal material: Thick film, Input, Output and front Ground all made by gold, Back Ground made by Pd/Ag.
- 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.



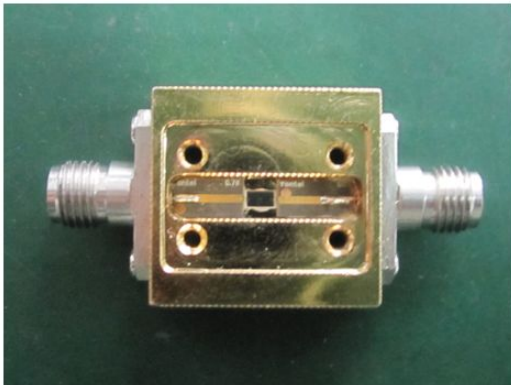
**Unit Marking**    dB Value (XX), Direction of Shift (N) and TCA Shift (X).  
Legibility and Permanency: per MIL-STD-130.

**Quality Assurance**

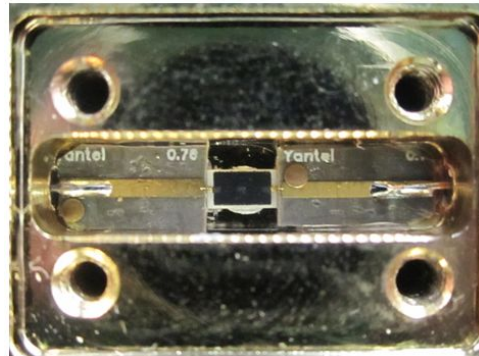
- Sample inspect per ANSI/ASQC Z1.4 general inspection, LEVEL II, AQL = 1.0.
  - Visual and mechanical examination for conformance to outline package requirements.
- Select five (5) Units from lot measure attenuation from 32 to 36GHz every 20°C over the temperature range -55°C to +125°C.
  - Calculate, using linear regression, the slope of the curve.
  - Calculate TCA using the following formula: TCA = Slope / Attenuation @ 25°C.
- Test data required for customer.

### Notes on RF Testing and Circuit Layout

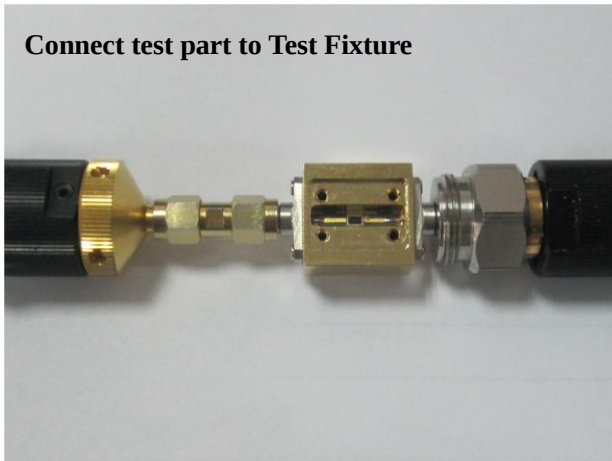
KTCA 16-36GHz series (for Gold Terminal type) Test Fixture



PCB Test Board



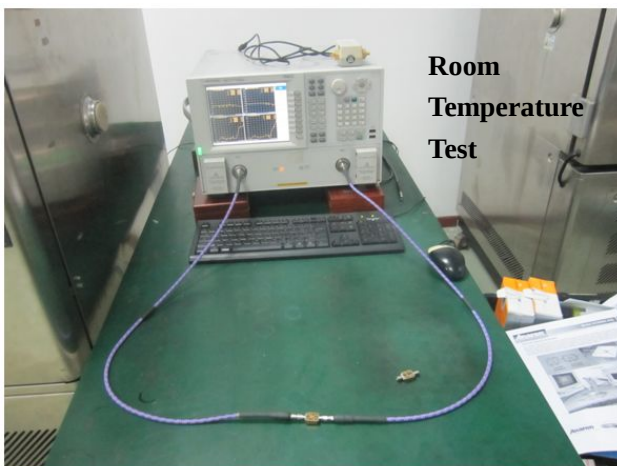
Connect test part to Test Fixture



Equipment Calibration



Room  
Temperature  
Test



High-Low  
Temperature  
Test



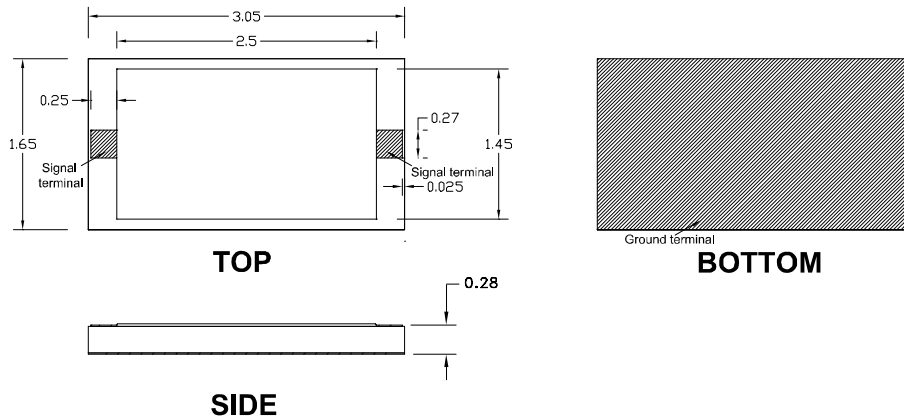
- 1、S2P documents are available for download
- 2、16-36GHz test fixture is rentable (only for Chinese customers) , otherwise please purchase them.

For any questions or needs, please feel free to contact [inform@yantel-corp.com](mailto:inform@yantel-corp.com).

## Package Outlines

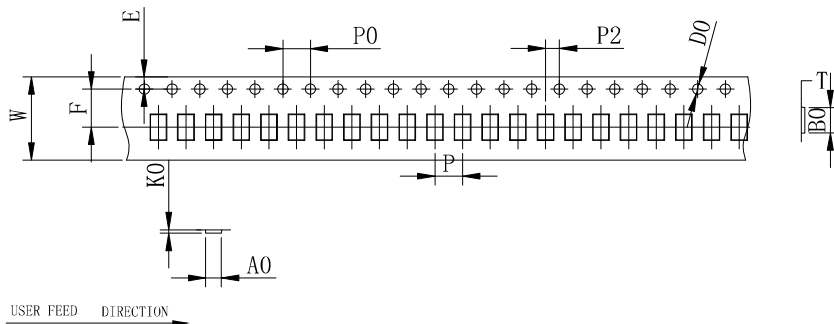
All dimensions shown in mm unless stated otherwise  
 Note: Dimension tolerance in  $\pm 0.10$  otherwise mention.

Unit: mm



## Tape & Reel Drawing

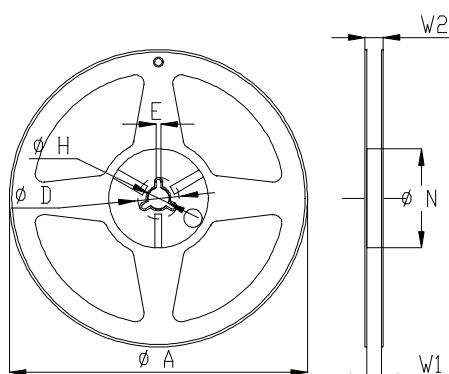
All dimensions shown in mm unless stated otherwise



## Remarks:

- 1>Total tolerance of any 10 sprocket holes is  $\leq \pm 0.20$ mm.
- 2>The thickness is measured on the margin of carrier tape.
- 3>Carrier camber should be not more than 1mm per 100mm through a length of 250mm.
- 4>The tolerance which is not marked is  $\pm 0.1$ mm.
- 5>A0, B0 are measured from 0.3mm above the bottom of the cavity. KO refers to the inside depth.
- 6>The angle R which is not marked on the cavity is  $0.2-0.3^\circ$ .
- 7>Draft angle which is not marked is  $3^\circ$ .
- 8>25 m/reel; 6000 units (maximum) / T&R

|        |                |                |                |               |                          |               |
|--------|----------------|----------------|----------------|---------------|--------------------------|---------------|
| symbol | A0             | B0             | K0             | P0            | P                        | P2            |
| spec   | $1.85 \pm 0.1$ | $3.2 \pm 0.1$  | $0.6 \pm 0.1$  | $4.0 \pm 0.1$ | $4.0 \pm 0.1$            | $2.0 \pm 0.1$ |
| symbol | W              | T              | E              | F             | D0                       |               |
| spec   | $12.0 \pm 0.3$ | $0.3 \pm 0.05$ | $1.75 \pm 0.1$ | $5.5 \pm 0.1$ | $\Phi 1.5^{+0.1}_{-0.0}$ |               |



| Symbol | Dimensions(mm) |
|--------|----------------|
| A      | $180^{+0/-3}$  |
| N      | $60^{+1/-0}$   |
| W1     | $12.0 \pm 0.3$ |
| W2     | $14 \pm 1.0$   |
| D      | $25 \pm 0.8$   |
| H      | $13 \pm 0.2$   |
| E      | $3 \pm 0.5$    |

