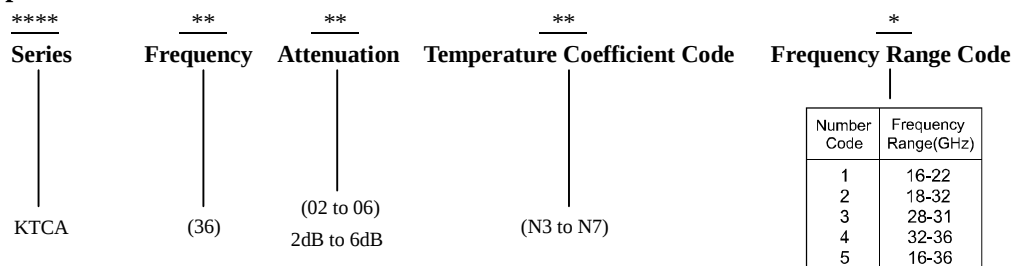
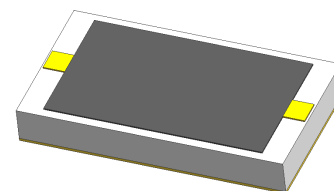


**Part No. Descriptions**


| 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**

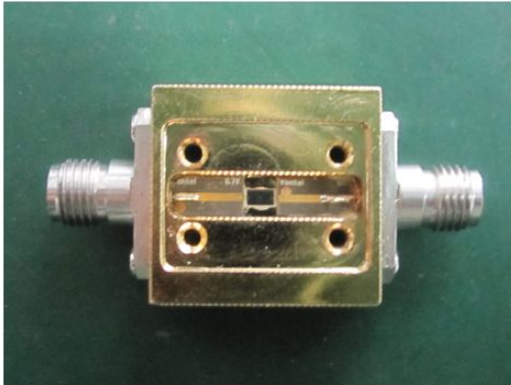
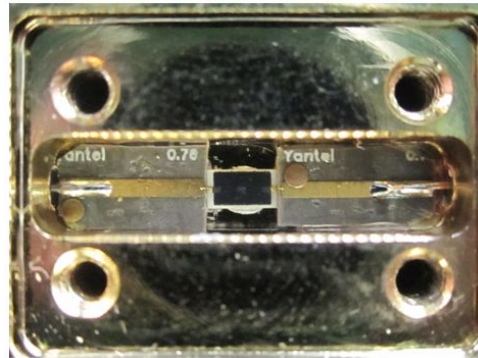
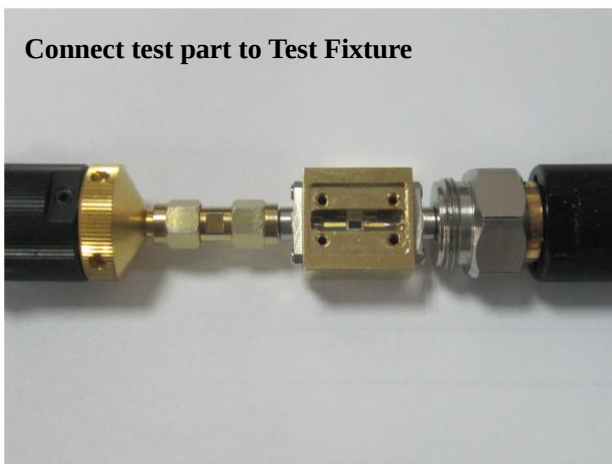
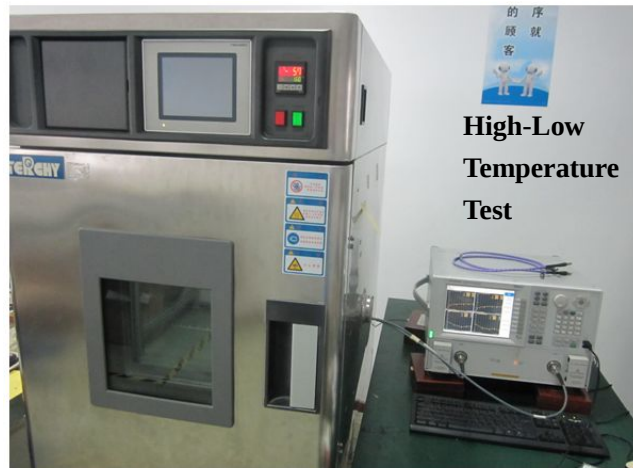
- |                                                                                                                |                                                    |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| 1. Frequency Range                                                                                             | 18 to 32GHz                                        |
| 2. Attenuation                                                                                                 | 6dB                                                |
| 3. Attenuation Accuracy                                                                                        | at 25°C ±1.0dB Typical                             |
| 4. VSWR                                                                                                        | at 25°C 1.35:1 Typical                             |
| 5. Nominal Impedance                                                                                           | 50 Ohms                                            |
| 6. Power Rating                                                                                                | 100 mW CW                                          |
| 7. Power Derating                                                                                              | 100% @ 100°C<br>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 <sub>2</sub> O <sub>3</sub> )                                                       |                                                    |
| 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 3.                                                                              |                                                    |
| 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 18 to 32GHz 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.

**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.

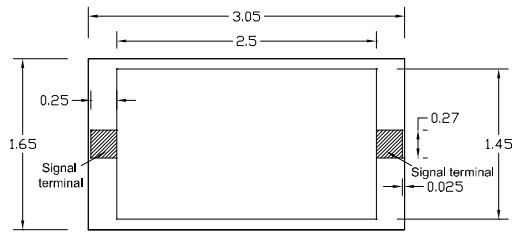
For any questions or needs, please feel free to contact [inform@yantel-corp.com](mailto:inform@yantel-corp.com).

## Package Outlines

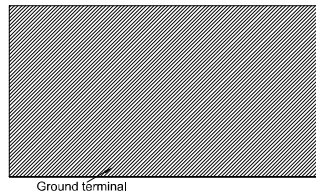
All dimensions shown in mm unless stated otherwise

Note: Dimension tolerance in  $\pm 0.10$  otherwise mention.

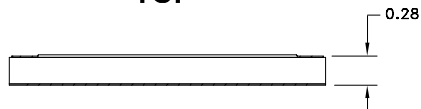
Unit: mm



**TOP**



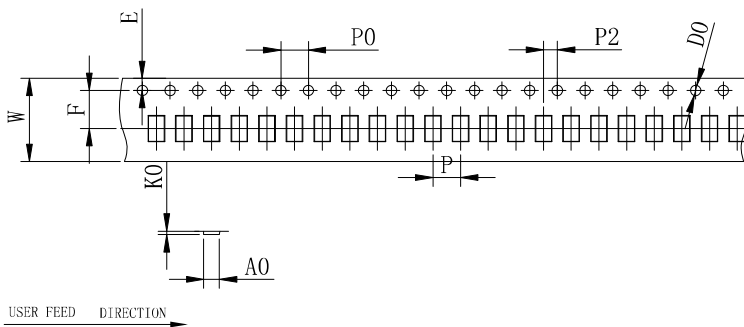
**BOTTOM**



**SIDE**

## Tape & Reel Drawing

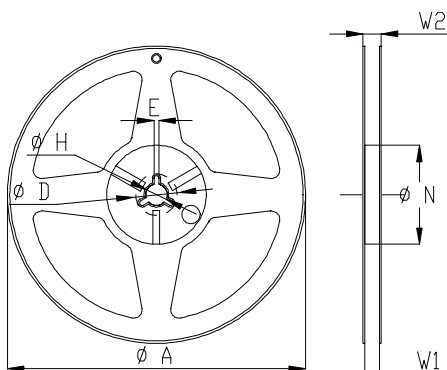
All dimensions shown in mm unless stated otherwise



## 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>AO,BO 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.
- 7>Draft angle which is not marked is 3°.
- 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      | $3 \pm 0.5$    |

