Suzhou Talent Microwave,Inc
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# High Power Directional Coupler

## 0.02-1GHz/50dB Coupling/N-K,SMA-K

## Model: TDC-20M010-50N-500

TDC-20M010-50N-500 is a high power directional coupler that delivers a 50 dB nominal coupling level and 18 dB minimum directivity across the full frequency range from 0.02 to 1GHz. It is a three-port passive device that can couple a portion of the power from the main transmission line to the auxiliary line in a directional manner.

### Features:

- Output Frequency: 0.02-1GHz
- Max Power: 500W(CW)
- Stackable mechanical design
- Low Insertion Loss
- Moderate Directivity
- 50 Ohm Matched Input / Output

### Applications:

- Test Labs
- Instrumentations
- Sub-assemblies

### Electrical Characteristics:

| Parameter | Min | Typ | Max | Units |
|---|---|---|---|---|
| Frequency Range | 0.02 | | 1 | GHz |
| Insertion Loss(Excl coupling) | | | 0.28 | dB |
| Coupling | | 50±1 | | dB |
| Coupling Flatness | | | ±1.8 | dB |
| Directivity | 18 | | | dB |
| Main Line VSWR | | | 1.3 | :1 |
| Power Handling | | | 500 | W |
| Impedance | | 50 | | Ohms |

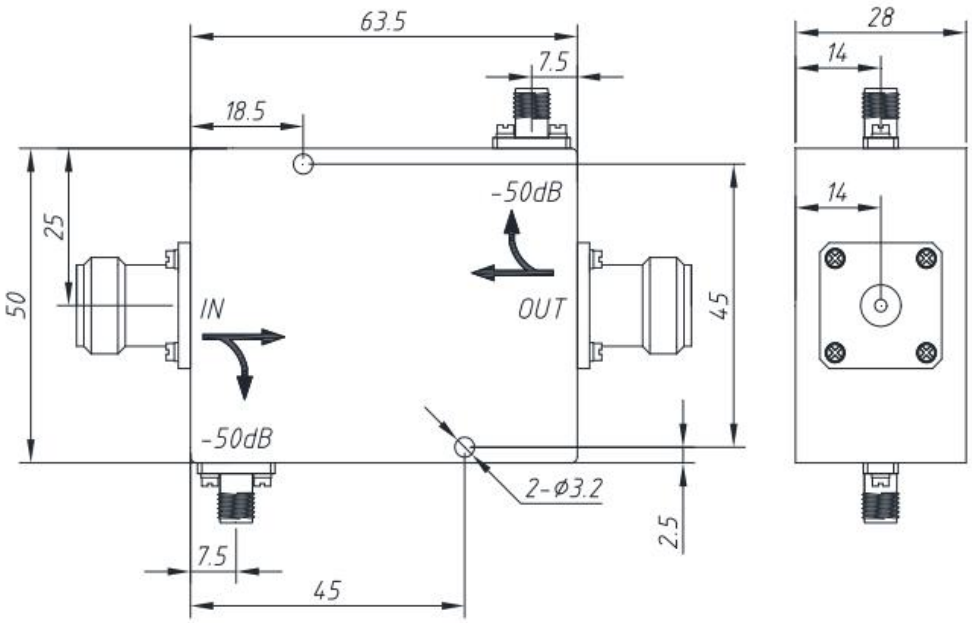
### Mechanical Specifications:

| Parameter | Value | Units |
|---|---|---|
| Operating Temperature | -55-+85 | ℃ |
| RF Connector | N-K(Main Line)、SMA-K（Coupling） | |
| Finish | Cavity: Silver plated<br>Cover plate: Conductive oxidation | |
| Size | 63.5*50*28 | mm |

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## Outline Drawing:

Unit:mm; Tolerance:±0.2mm




ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

## Ordering Information:

| Base Number | Description | Revision |
|---|---|---|
| TDC-20M010-50N-500 | High Power Directional Coupler<br>0.02-1 GHz, Coulping:50dB, N-K(主线)、SMA-K（副线） | Rev.1.0 |