

**Part No.: TDC-003052-45N-300-SMD**

**45dB Directional Coupler 0.03-0.52GHz**

### 电气特性 Electrical:

工作频率 Frequency Range: 30-520MHz

耦合度 Coupling :  $45 \pm 1.0\text{dB}$

插入损耗 Insertion Loss: 0.2dB Max

驻波 VSWR: 1.10:1 Max

方向性 Directivity: 25.0dB Min

耐功率 Power Handling: 300 Watt

阻抗 Impedance: 50 OHMS

### 机械特性 Mechanical:

温度范围 Temperature Range:  $-55^{\circ}\text{C} - +105^{\circ}\text{C}$

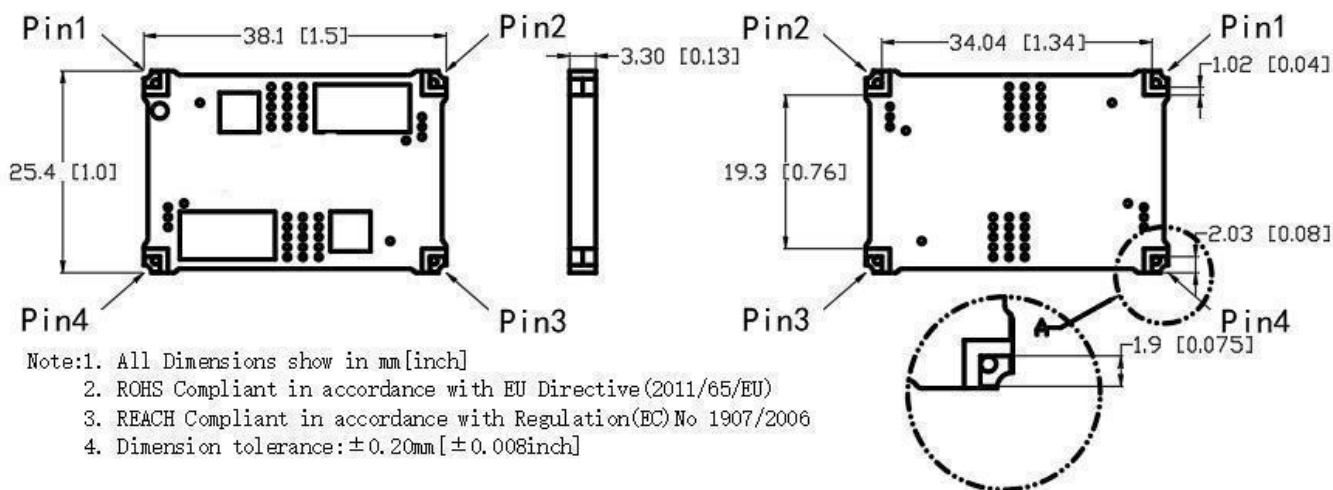
大小 Size: 38.1mm\*25.4mm

厚度 Thickness: 3.3mm

相对湿度 Relative Humidity: 0 ~ 90%

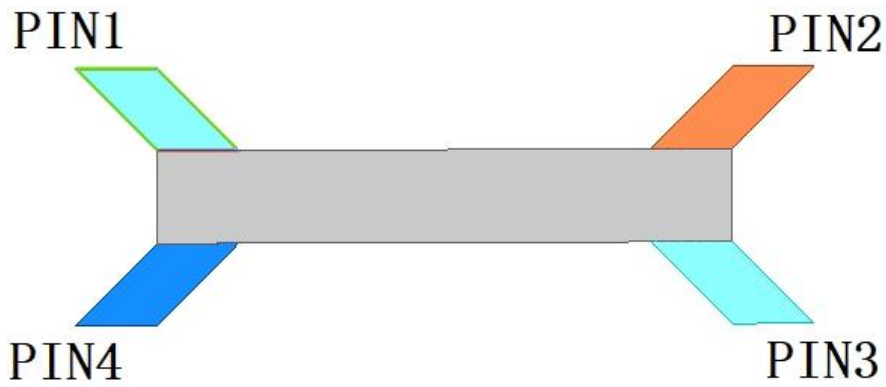
### 外形尺寸 Outline Drawing:

Unit: mm



## 端口配置表 Port Configuration Table:

### Hybrid Coupler Pin Configuration



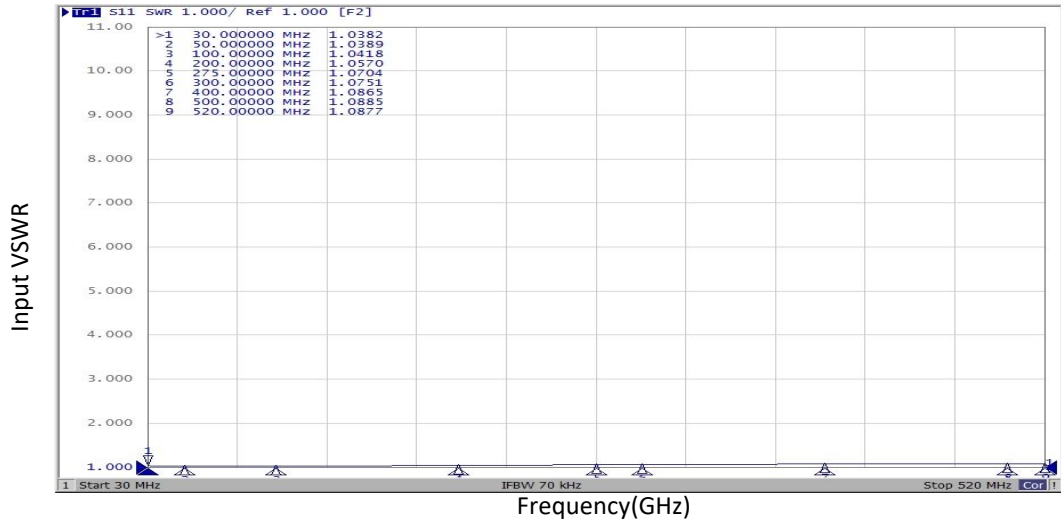
| PIN1         | PIN2              | PIN3         | PIN4              |
|--------------|-------------------|--------------|-------------------|
| Input        | Reflected Coupled | Transmission | Forward Coupled   |
| Transmission | Forward Coupled   | Input        | Reflected Coupled |

### Typical Performance Data

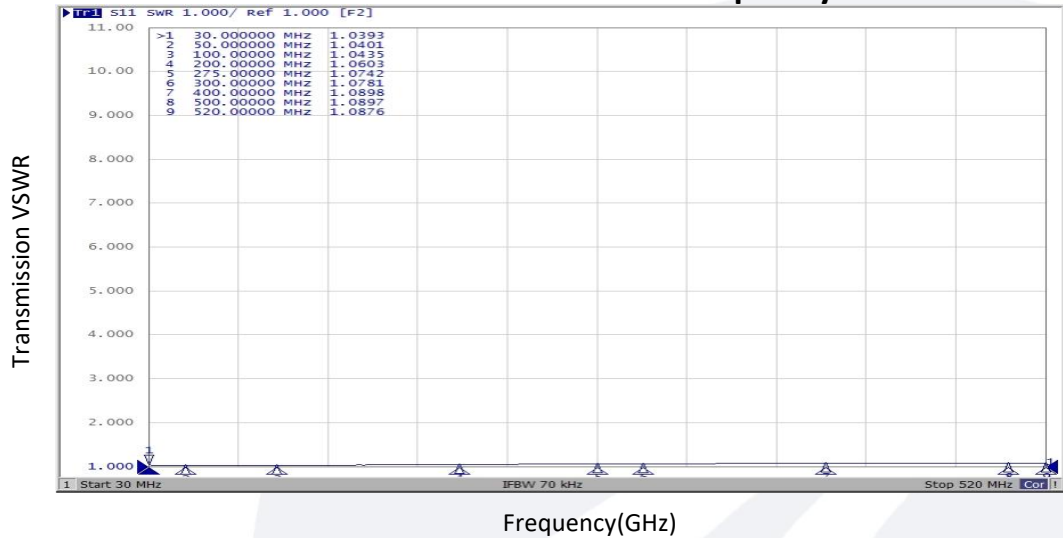
| Frequency      | MHz          | 30      | 50     | 100    | 200    | 275    | 300    | 400    | 500    | 520    |
|----------------|--------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| Coupling       | dB           | -45.84  | -44.57 | -44.83 | -45.05 | -44.70 | -44.74 | -44.44 | -44.16 | -44.19 |
| Insertion Loss | dB           | -0.0002 | -0.005 | -0.02  | -0.04  | -0.09  | -0.10  | -0.12  | -0.15  | -0.15  |
| Directivity    | dB           | -28.68  | -27.71 | -30.03 | -28.17 | -28.37 | -28.49 | -27.36 | -28.26 | -27.37 |
| VSWR           | Input        | /       | 1.04   | 1.04   | 1.04   | 1.06   | 1.07   | 1.08   | 1.09   | 1.09   |
|                | Transmission | /       | 1.04   | 1.04   | 1.04   | 1.06   | 1.07   | 1.08   | 1.09   | 1.09   |

## 典型曲线 Typical Performance Data:

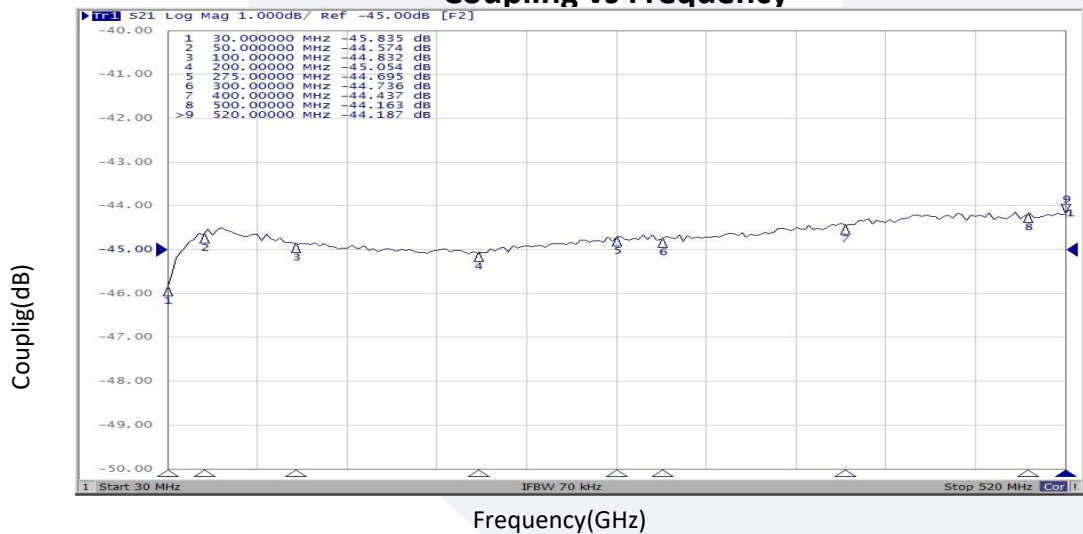
### Input VSWR vs Frequency



### Transmission VSWR vs Frequency

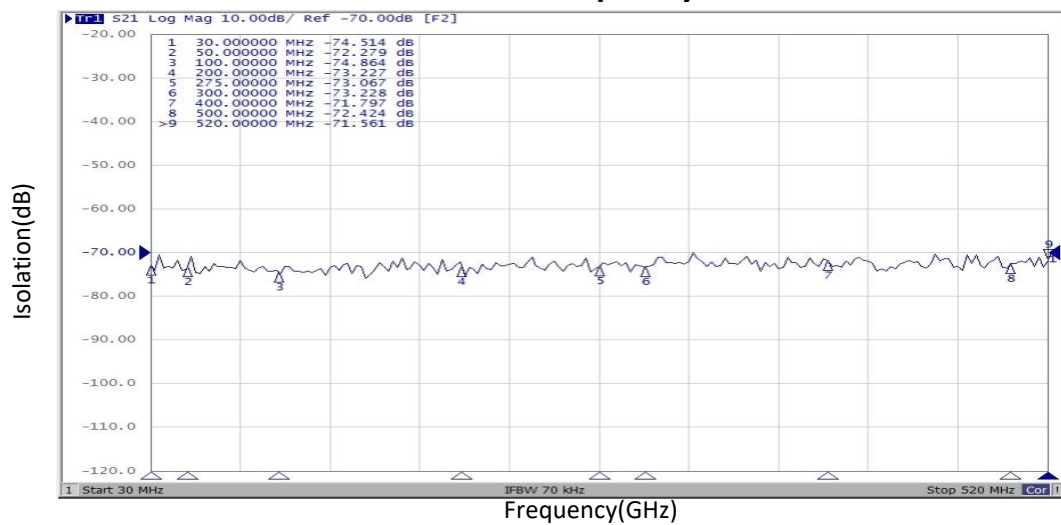


### Coupling vs Frequency



典型曲线 Typical Performance Data:

Isolation vs Frequency



Insertion Loss vs Frequency

