

Part No.: TDC-003052-42N-300-SMD

## 42dB Directional Coupler 0.03-0.52GHz

### 电气特性 Electrical:

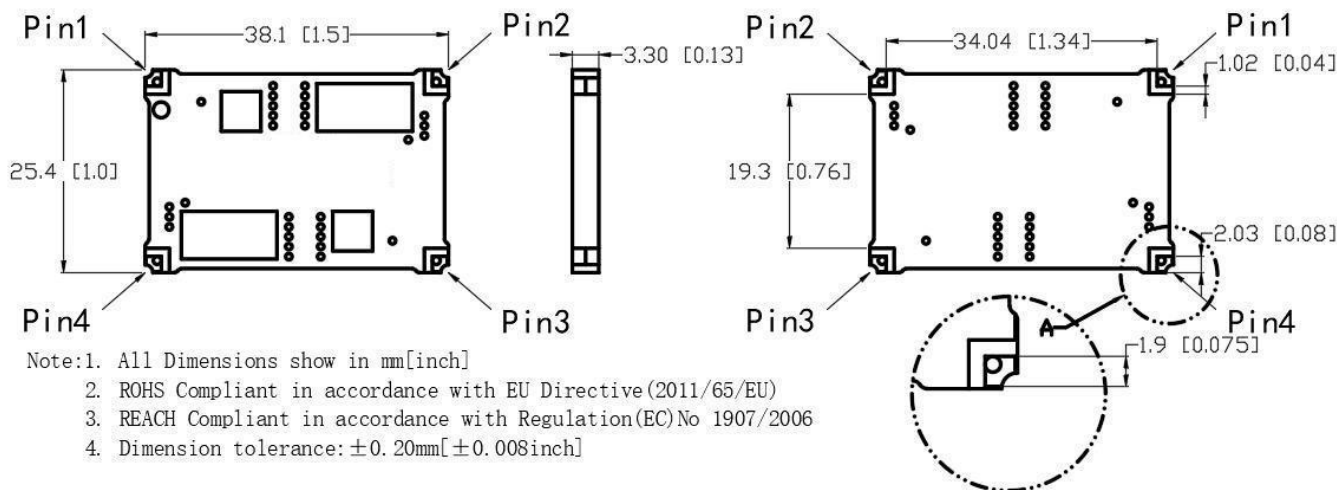
|                       |                       |
|-----------------------|-----------------------|
| 工作频率 Frequency Range: | 30-200MHz;200-520MHz  |
| 耦合度Coupling :         | 42 ± 1.2dB;42 ± 1.0dB |
| 插入损耗 Insertion Loss:  | 0.10dB ;0.25dB        |
| 驻波 VSWR:              | 1.10:1 Max            |
| 方向性 Directivity:      | 28.0dB 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° C - +105° C |
| 大小Size:                | 38.1mm*25.4mm    |
| 厚度Thickness:           | 3.3mm            |
| 相对湿度Relative Humidity: | 0 ~ 90%          |

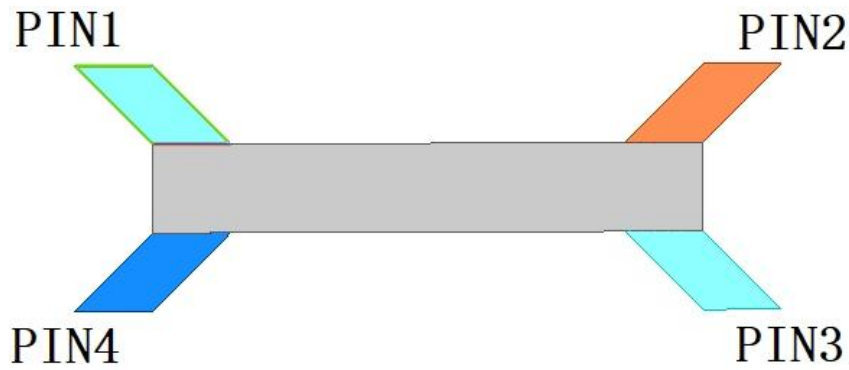
### 外形尺寸Outline Drawing:

Unit: mm



## 端口配置表 Port Configuration Table:

### Hybrid Coupler Pin Configuration



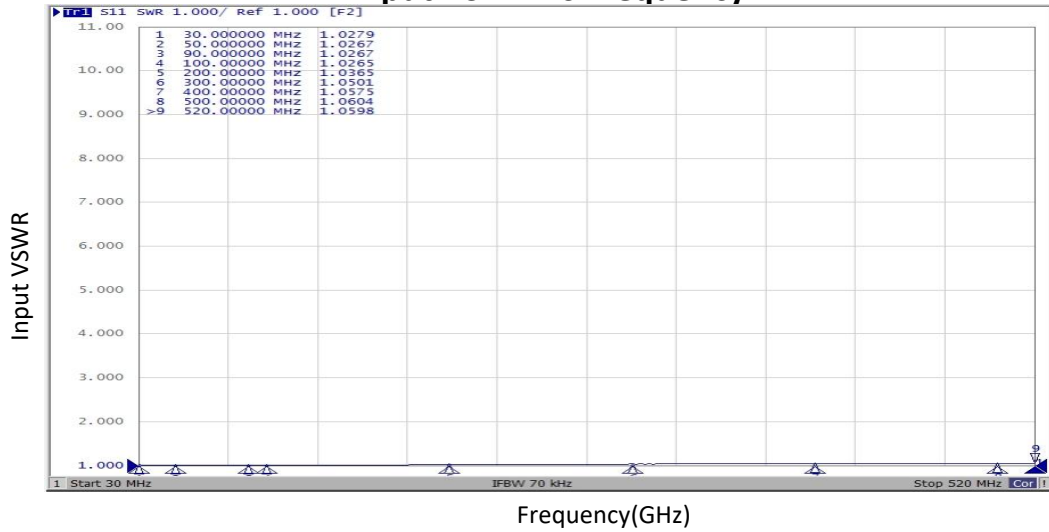
| PIN1         | PIN2              | PIN3         | PIN4              |
|--------------|-------------------|--------------|-------------------|
| Input        | Reflected Coupled | Transmission | Forward Coupled   |
| Transmission | Forward Coupled   | Input        | Reflected Coupled |

### Typical Performance Data

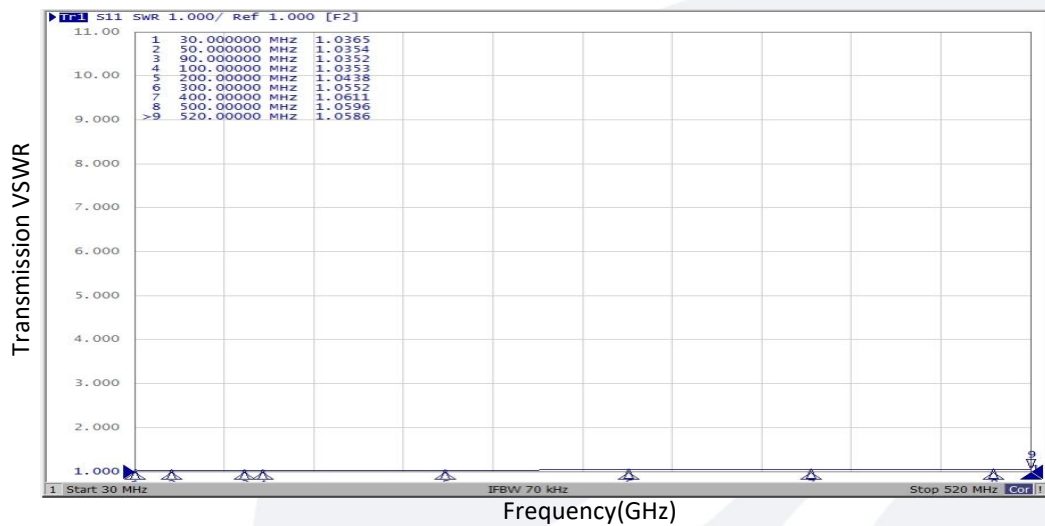
| Frequency      | MHz          | 30     | 50     | 90     | 100    | 200    | 300    | 400    | 500    | 520    |
|----------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Coupling       | dB           | -43.45 | -41.51 | -40.55 | -40.55 | -41.30 | -41.77 | -41.84 | -41.72 | -41.74 |
| Insertion Loss | dB           | -0.024 | -0.028 | -0.038 | -0.041 | -0.074 | -0.138 | -0.184 | -0.233 | -0.239 |
| Directivity    | dB           | -33.94 | -32.97 | -31.57 | -35.54 | -30.35 | -31.76 | -31.55 | -31.79 | -32.09 |
| VSWR           | Input        | /      | 1.03   | 1.03   | 1.03   | 1.03   | 1.04   | 1.05   | 1.06   | 1.06   |
|                | Transmission | /      | 1.04   | 1.04   | 1.04   | 1.04   | 1.04   | 1.05   | 1.05   | 1.05   |

## 典型曲线 Typical Performance Data:

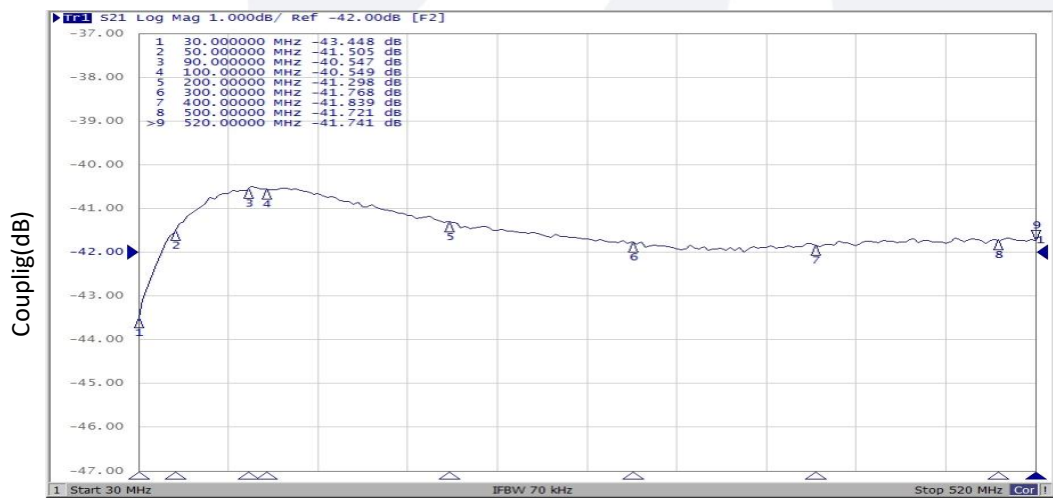
### Input VSWR vs Frequency



### Transmission VSWR vs Frequency

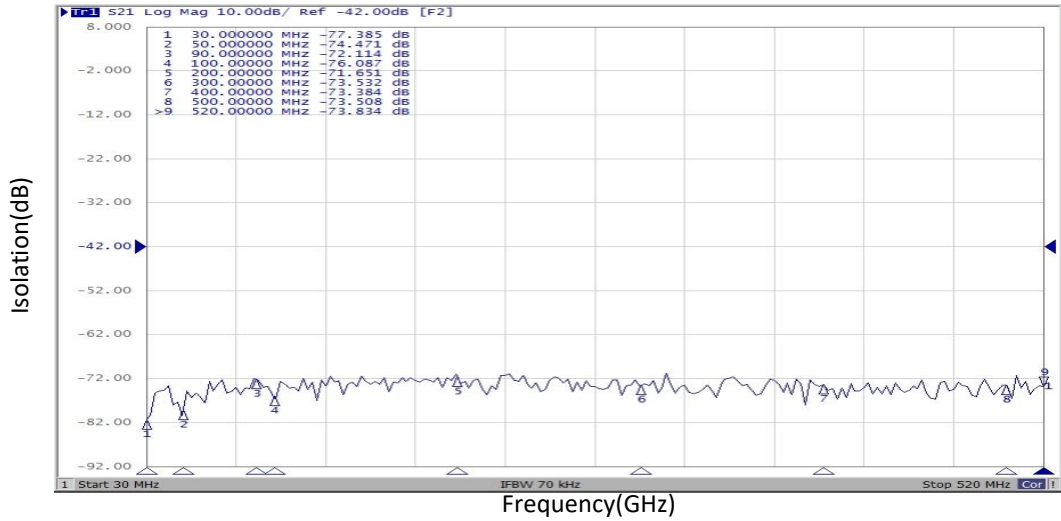


### Coupling vs Frequency



典型曲线 Typical Performance Data:

Isolation vs Frequency



Insertion Loss vs Frequency

