

**Part No.: TDC-002100-50N-300-SMD**

**50dB Directional Coupler 0.02-1GHz**

**电气特性 Electrical:**

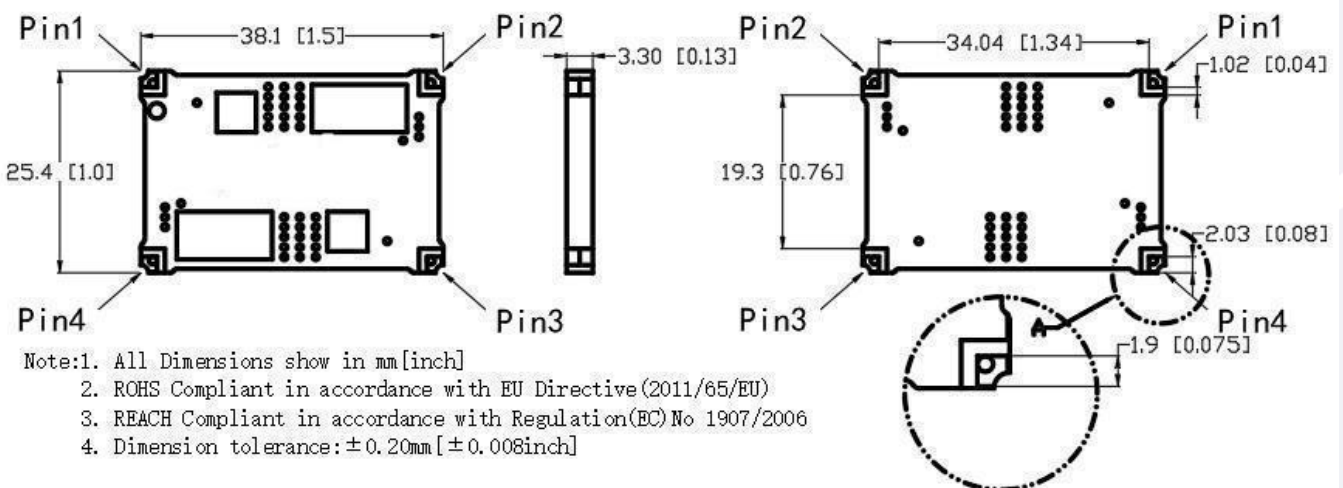
工作频率 Frequency Range: 20-1000MHz  
 耦合度 Coupling :  $50 \pm 1.0\text{dB}$   
 插入损耗 Insertion Loss: 0.3dB Max  
 驻波 VSWR: 1.20:1 Max  
 方向性 Directivity: 20.0dB Min  
 耐功率 Power Handling: 300 Watt  
 阻抗 Impedance: 50 OHMS

**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



- Note: 1. All Dimensions show in mm [inch]  
 2. ROHS Compliant in accordance with EU Directive (2011/65/EU)  
 3. REACH Compliant in accordance with Regulation (EC) No 1907/2006  
 4. Dimension tolerance:  $\pm 0.20\text{mm}$  [ $\pm 0.008\text{inch}$ ]

**端口配置表 Port Configuration Table:**

Hybrid Coupler Pin Configuration



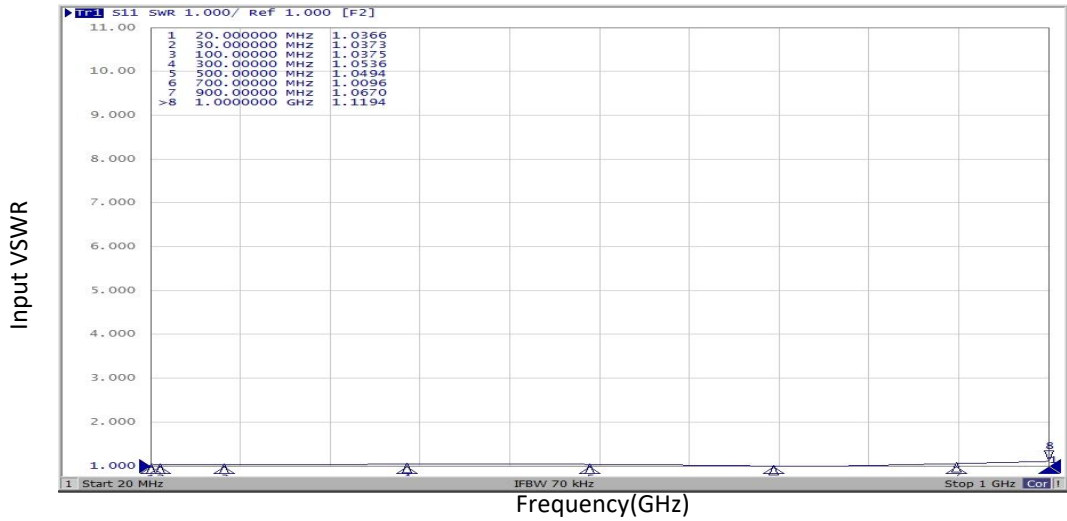
PIN1	PIN2	PIN3	PIN4
Input	Reflected Coupled	Transmission	Forward Coupled
Transmission	Forward Coupled	Input	Reflected Coupled

Typical Performance Data

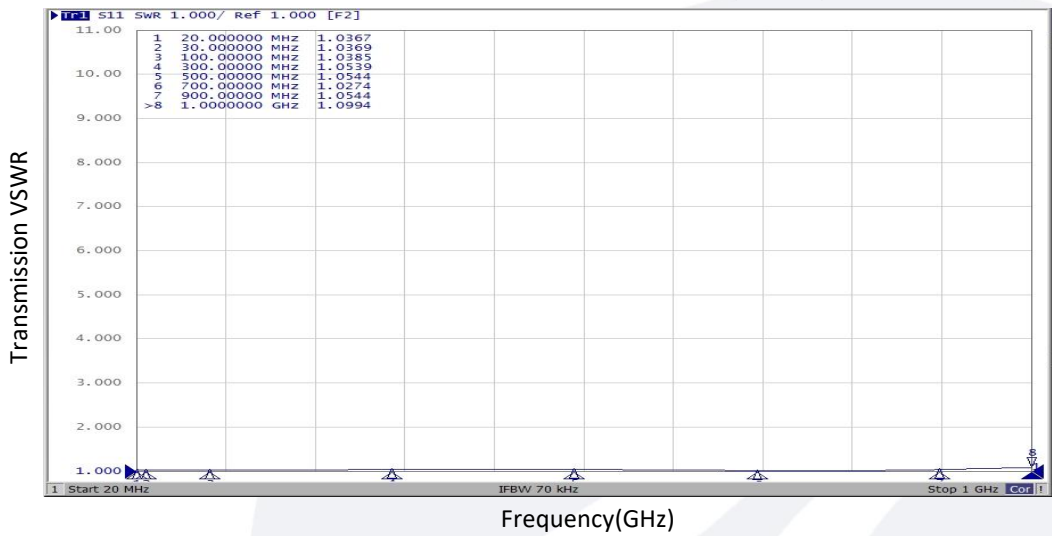
Frequency	MHz	20	30	100	300	500	700	900	1000	
Coupling	dB	-50.52	-19.39	-50.18	-50.25	-50.00	-49.92	-49.75	-50.46	
Insertion Loss	dB	-0.0002	-0.0002	-0.0002	-0.03	-0.07	-0.13	-0.21	-0.29	
Directivity	dB	27.06	30.09	28.56	27.55	25.39	24.34	20.60	21.39	
VSWR	Input	/	1.04	1.04	1.04	1.05	1.05	1.01	1.07	1.12
	Transmission	/	1.04	1.04	1.04	1.05	1.05	1.03	1.05	1.10

典型曲线 Typical Performance Data:

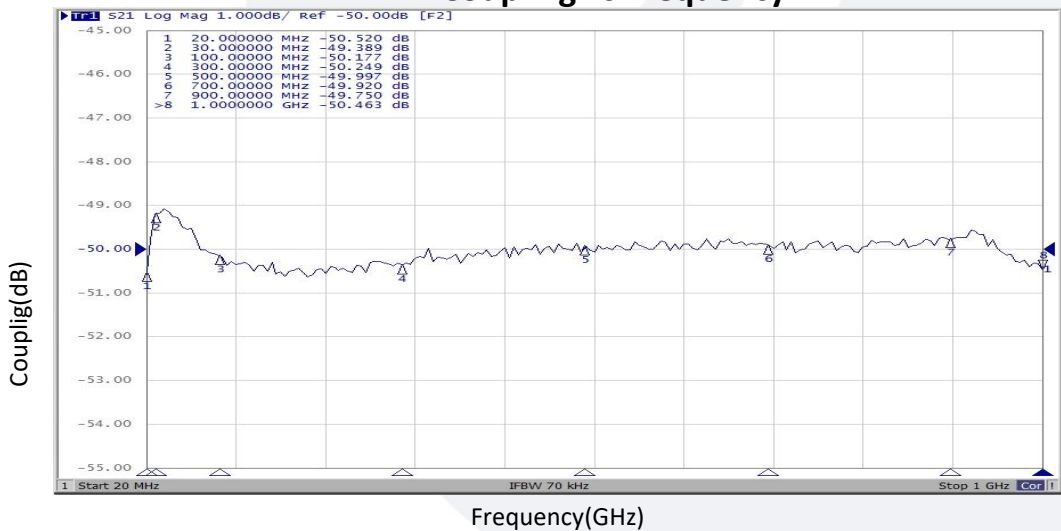
Input VSWR vs Frequency



Transmission VSWR vs Frequency

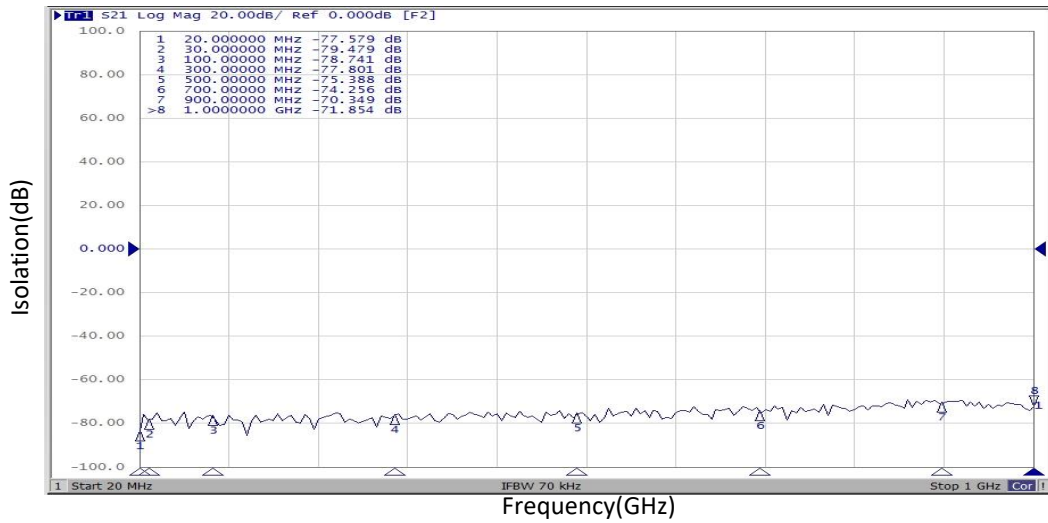


Coupling vs Frequency



典型曲线 Typical Performance Data:

Isolation vs Frequency



Insertion Loss vs Frequency

