

## D-band Directional Waveguide Coupler

### WR-6.5/20dB Coupling

**Model: TC-110170-20-06**

TC-110170-20-06 is a D-band, 3-port waveguide directional coupler that delivers a 20 dB nominal coupling level and 30 dB typical directivity across the full waveguide band from 110 to 170 GHz. The interfaces of the coupler are WR-6.5 waveguides with UG-387/U-M anti-cocking flanges.

#### Features:

- Operating Frequency 110 to 170 GHz
- Full Band Operation
- Low Insertion Loss
- Moderate Directivity

#### Applications:

- Test Labs
- Instrumentations
- Sub-assemblies

### 电气特性 Electrical Characteristics:

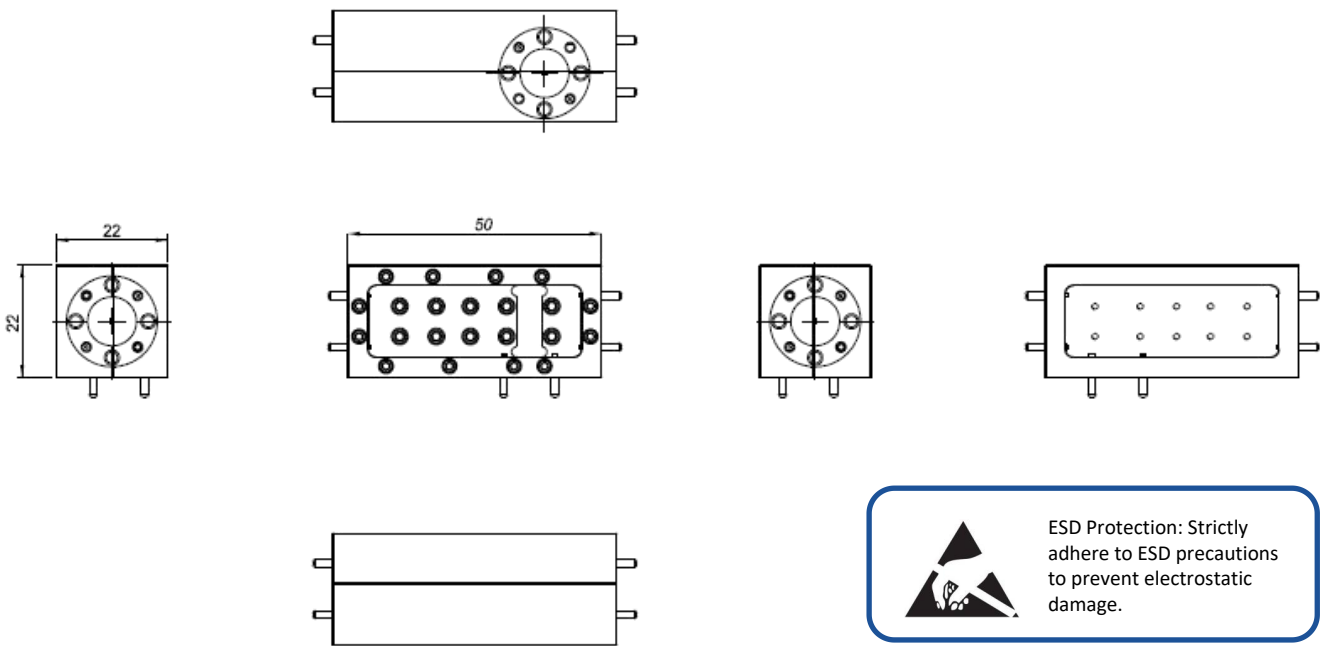
参数 Parameter	Min	Typ	Max	单位 Units
工作频率 Frequency Range	110		170	GHz
插入损耗 Insertion Loss		1		dB
耦合度 Coupling		20		dB
耦合精度 Coupling Accuracy		±2		dB
隔离度 Isolation		50		dB
方向性 Directivity		30		dB
主线驻波 Main Line VSWR		1.1		:1
耦合口驻波 Coupling Port VSWR		1.1		:1

### 环境和机械特性 Environmental And Physical Characteristics:

类型 Description	参数 Parameter	单位 Units
操作温度 Operating Temperature	-40 To +85	°C
存储温度 Storage Temperature	-40 to +85	°C
输入/输出接口 Input/Output Connectors	WR-6.5/U-387/U	
隔离/耦合接口 Isolation/Coupling Port	WR-6.5/U-387/U	
尺寸 Size	50*22*22	mm

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm

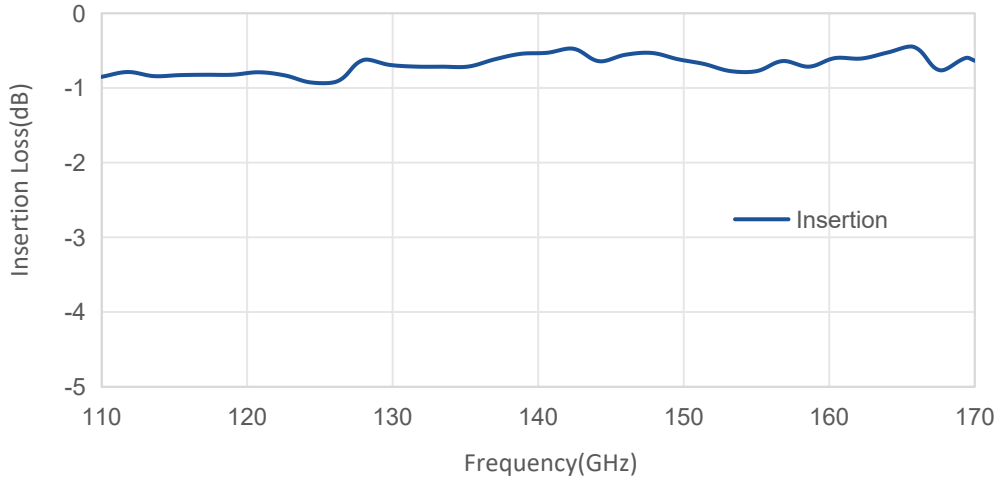


订货信息 Ordering Information:

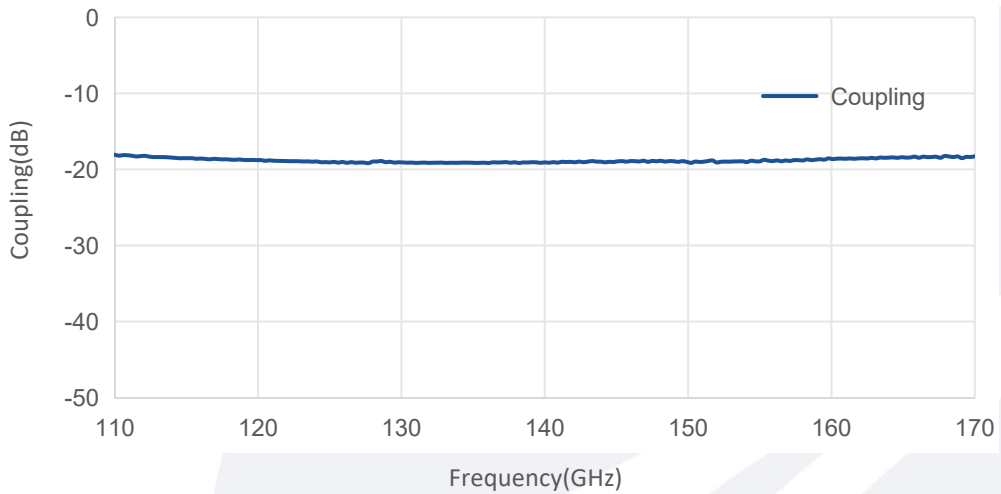
标准型号 Base Number	描述 Description	版本号 Revision
TC-110170-20-06	D-band Directional Waveguide Coupler, 110-170GHz, Insertion Loss:1dB Typ, Coupling:20dB Typ, WR-6.5	Rev.1.0

**典型曲线 Typical Performance Data:**

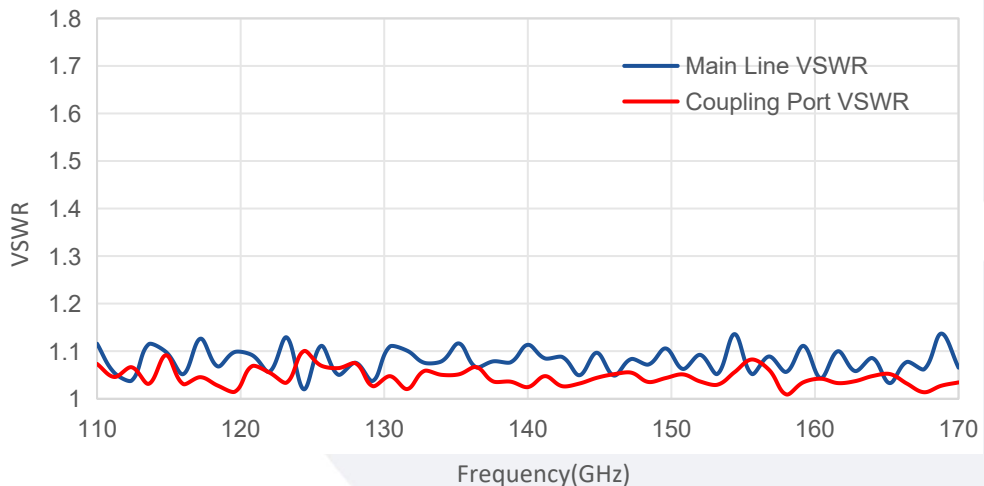
**Insertion Loss vs Frequency**



**Coupling vs Frequency**

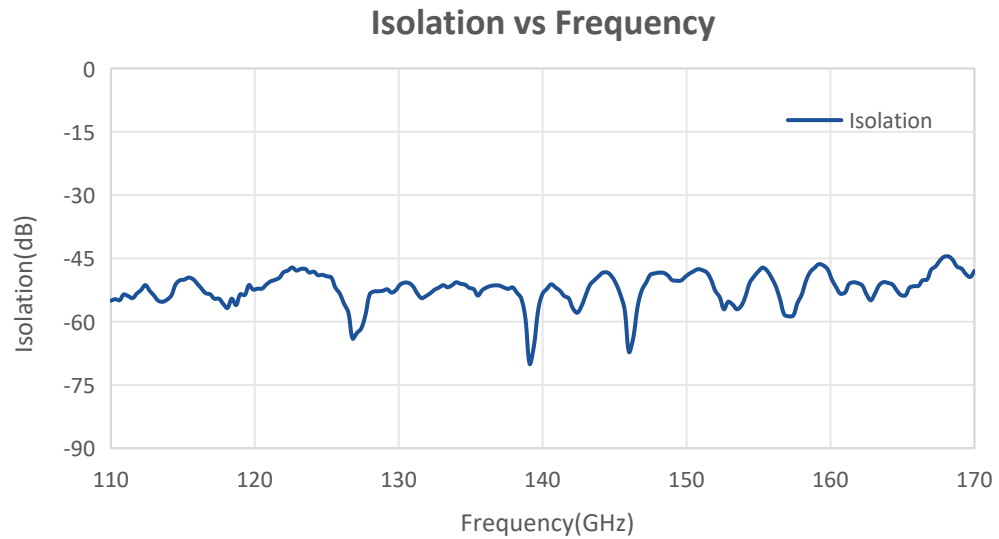


**VSWR vs Frequency**



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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