

D-band Dual Directional Waveguide Coupler

WR-6.5/20 dB Coupling

Model: TDC-110170-20-06

TDC-110170-20-06 is a D-band, four-port waveguide dual directional coupler that delivers a 20 dB nominal coupling level and 50 dB typical isolation 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:

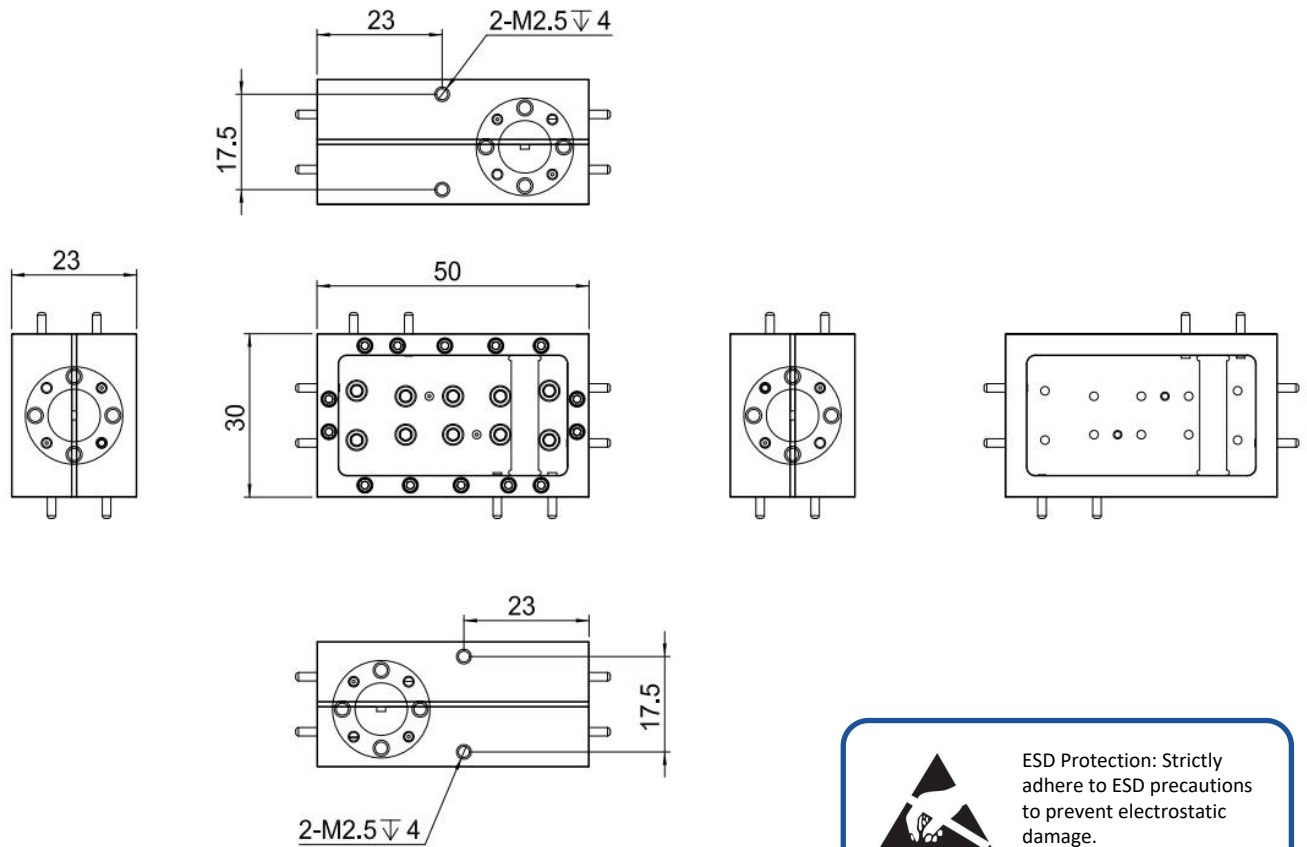

参数 Parameter	Min	Typ	Max	单位 Units
工作频率 Frequency Range	110		170	GHz
插入损耗 Insertion Loss		1		dB
耦合度 Coupling		20		dB
耦合精度 Coupling Accuracy		±2		dB
隔离度 Isolation		50		dB
方向性 Directivity		30		dB
主线驻波 Main Line VSWR		1.1		:1
耦合口驻波 Coupling Port VSWR		1.1		:1

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*30*23	mm

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm

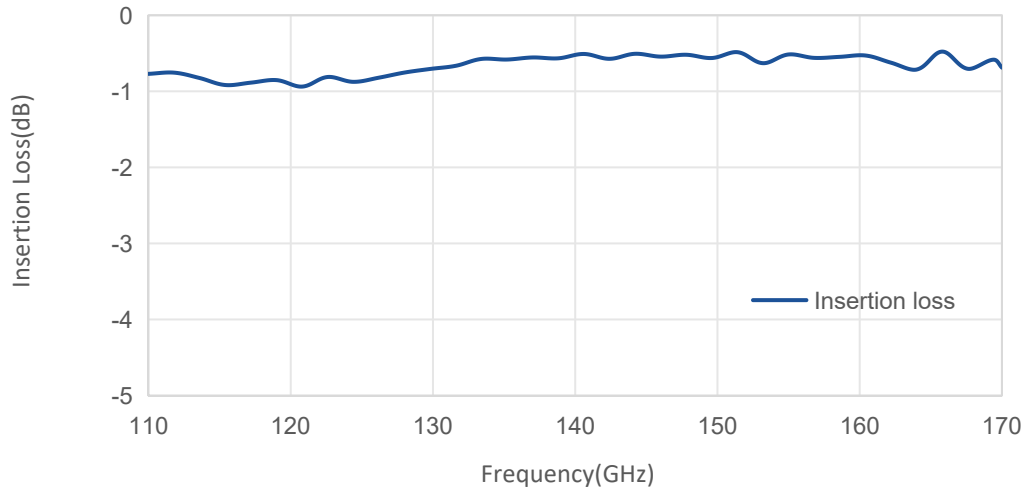
ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

订货信息 Ordering Information:

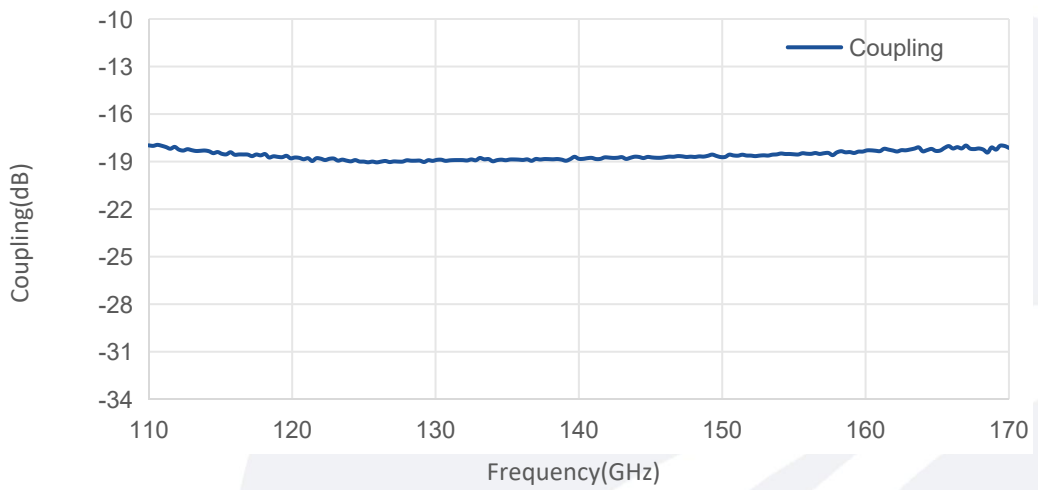
标准型号 Base Number	描述 Description	版本号 Revision
TDC-110170-20-06	D-band Dual Directional Waveguide Coupler,110-170GHz, Insertion Loss:1dB Typ, Coupling:20dB Typ,WR-6.5	Rev.1.0

典型曲线 Typical Performance Data:

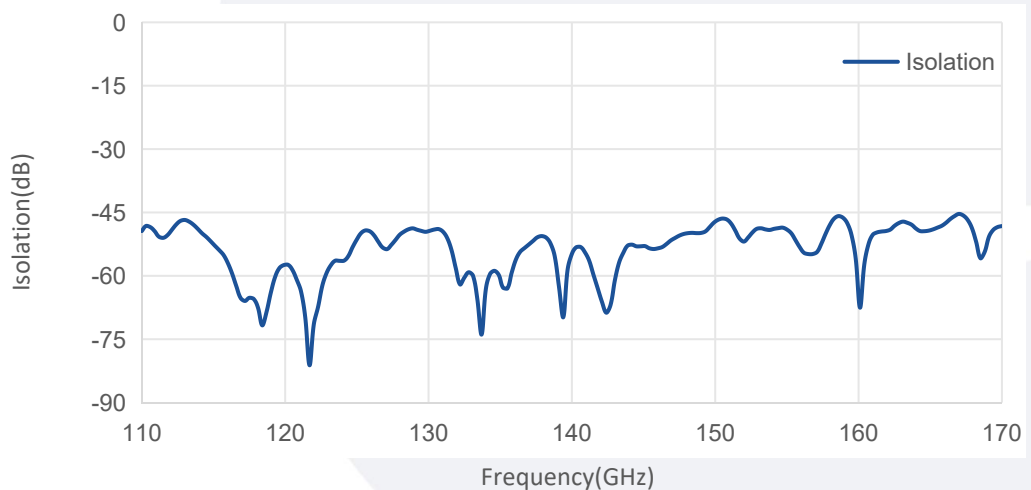
Insertion Loss vs Frequency



Coupling vs Frequency



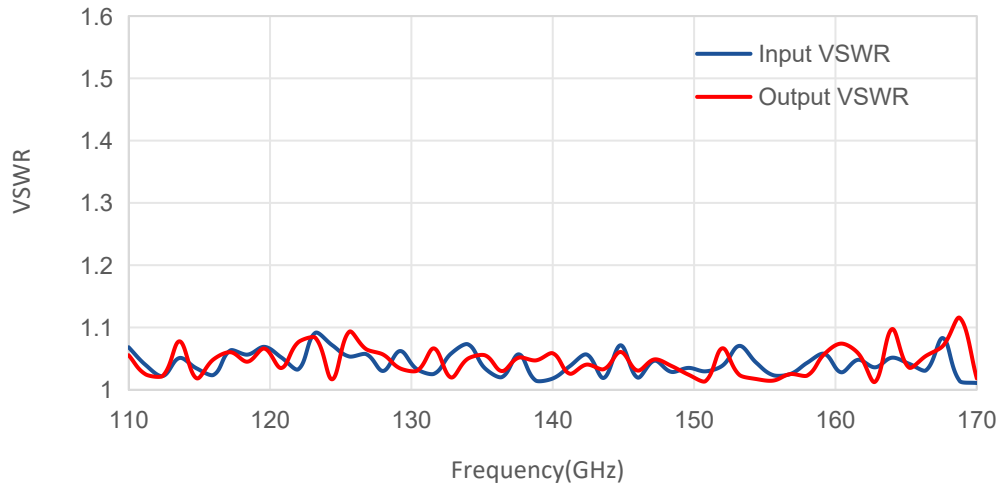
Isolation vs Frequency



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.

典型曲线 Typical Performance Data:

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.