

W-band Waveguide Directional Coupler

WR-10/20 dB Coupling

Model: TC-075110-20-10

TC-075110-20-10 is a W-band, three-port waveguide directional coupler that delivers a 20 dB nominal coupling level and 30 dB typical directivity across the full waveguide band from 75 to 110 GHz. The interfaces of the coupler are WR-10 waveguides with UG-387/U-M anti-cocking flanges.

Features:

- Operating Frequency: 75 to 110 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	75		110	GHz
主线回波损耗 Main road Return Loss		-30		dB
副线回波损耗 Branch road Return Loss		-30		dB
插入损耗 Insertion Loss		0.5		dB
耦合度 Coupling		20		dB
方向性 Directivity		30		dB

环境和机械特性 Environmental And Physical Characteristics:

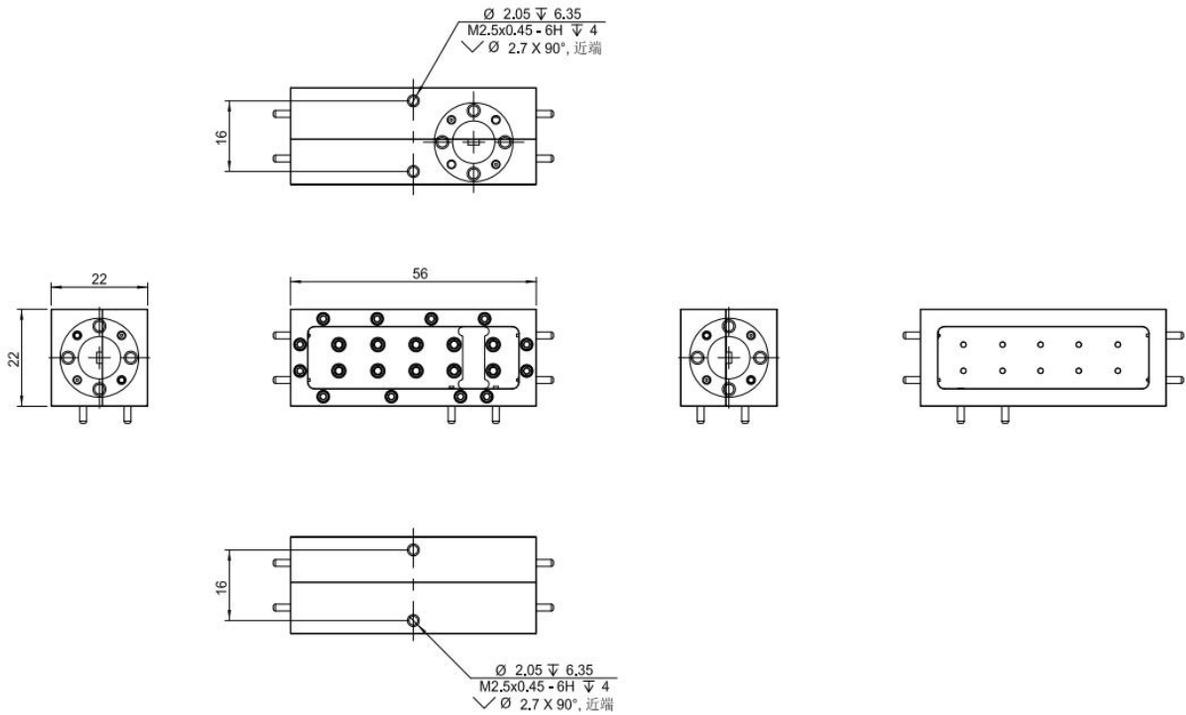
类型 Description	参数 Parameter	单位 Units
RF 输入/输出接口 RF Input/Output Connectors	WR-10/UG-387/U	
耦合接口 Coupled Port	WR-10/UG-387/U	
尺寸 Size	56*22*22	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	TBD
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm



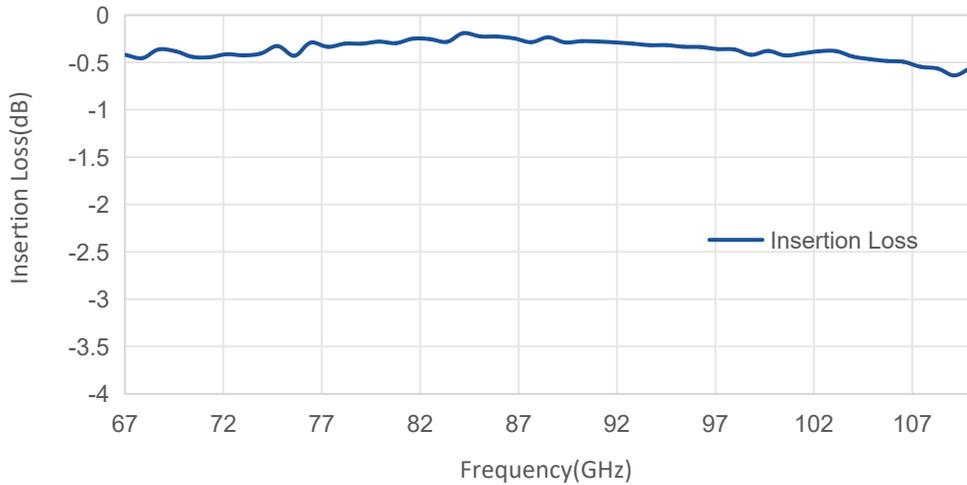
ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

订货信息 Ordering Information:

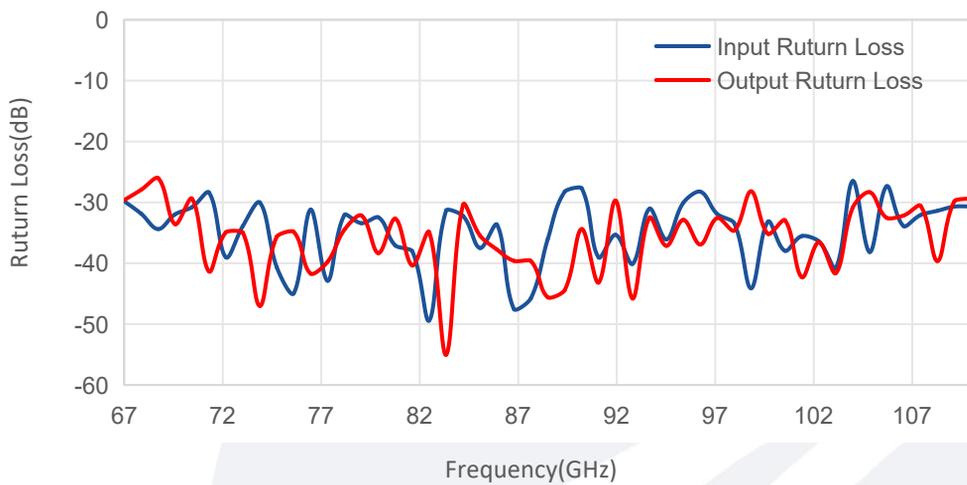
标准型号 Base Number	描述 Description	版本号 Revision
TC-075110-20-10	W-band Waveguide Directional Coupler, 75-110GHz, Insertion Loss: 0.5dB Typ, Coupling: 20dB Typ, WR-10	Rev.1.0

典型曲线 Typical Performance Data:

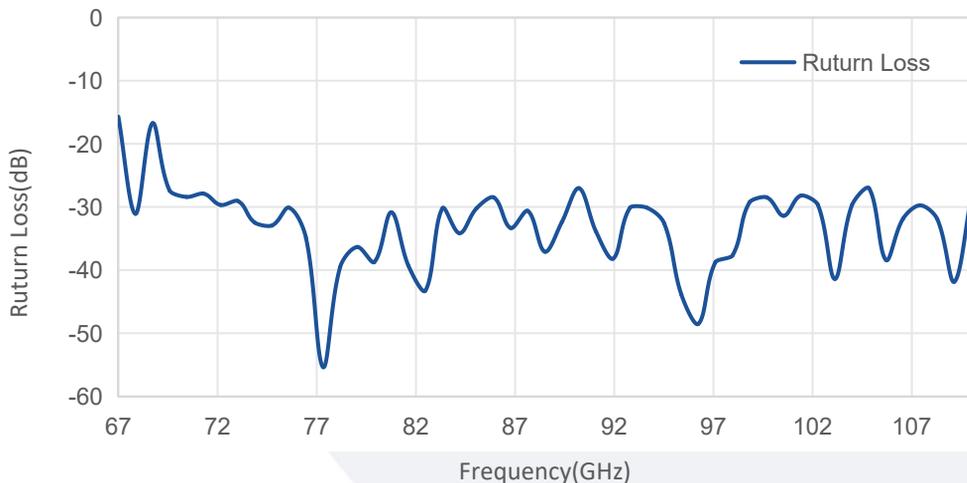
Insertion Loss vs Frequency



Main road Return Loss vs Frequency



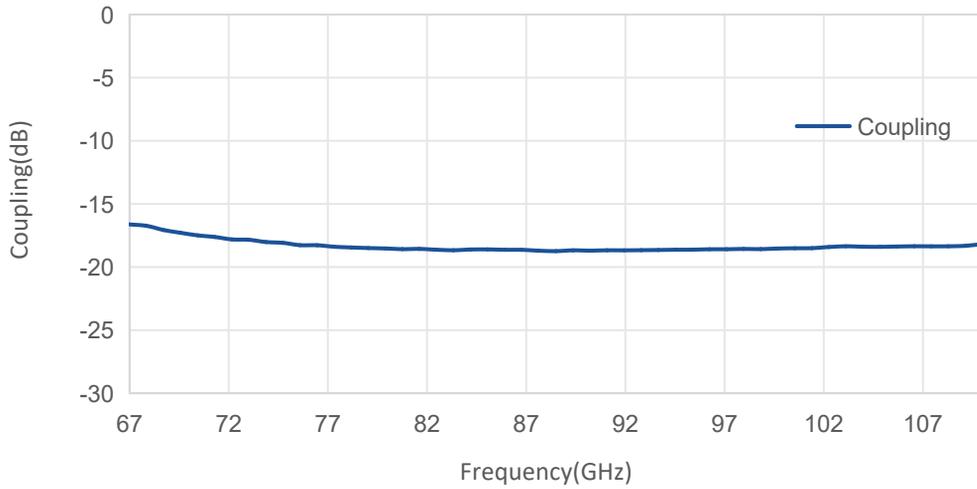
Branch road Return Loss vs Frequency



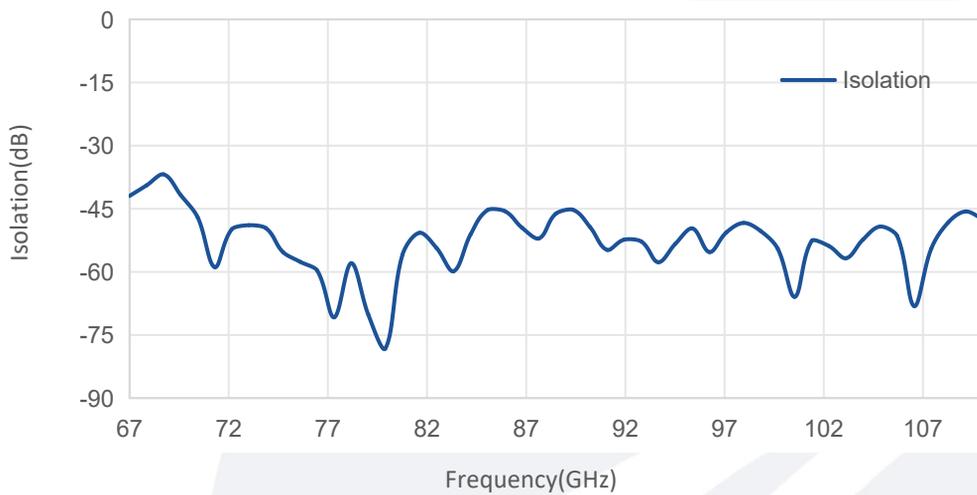
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

Coupling vs Frequency



Isolation vs Frequency



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