

V-band Waveguide Directional Coupler

WR-15/18dB Coupling

Model: TDC-050075-20-15

TDC-050075-20-15 is a V-band, four-port waveguide directional coupler that delivers a 18 dB nominal coupling level and 22 dB typical directivity across the full waveguide band from 50 to 75 GHz. The interfaces of the coupler are WR-15 waveguides with UG-385/U-M anti-cocking flanges.

Features:

- Operating Frequency 50 to 75 GHz
- Full Band Operation
- Low Insertion Loss
- Moderate Directivity

Applications:

- Test Labs
- Instrumentations
- Sub-assemblies

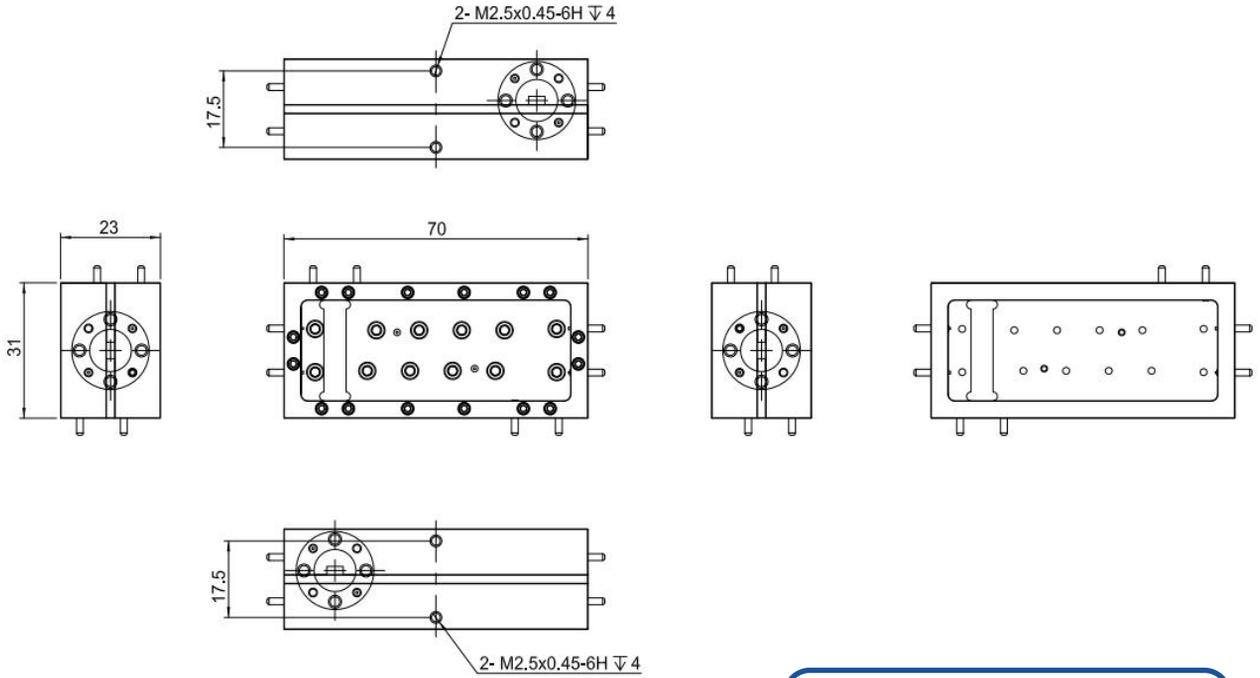
电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
工作频率 Frequency Range	50		75	GHz
插入损耗 Insertion Loss		0.5		dB
耦合度 Coupling		18		dB
隔离度 Isolation	40			dB
方向性 Directivity		22		dB
输入驻波 Input VSWR		1.1		:1
输出驻波 Output VSWR		1.1		:1
耐功率 Power Handling		TBD		W

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
波导接口 Waveguide Connectors	WR-15/UG-385/U	
耦合接口 Coupled Port	WR-15/UG-385/U	
尺寸 Size	70*31*23	mm

外形图 Outline Drawing: Unit:mm



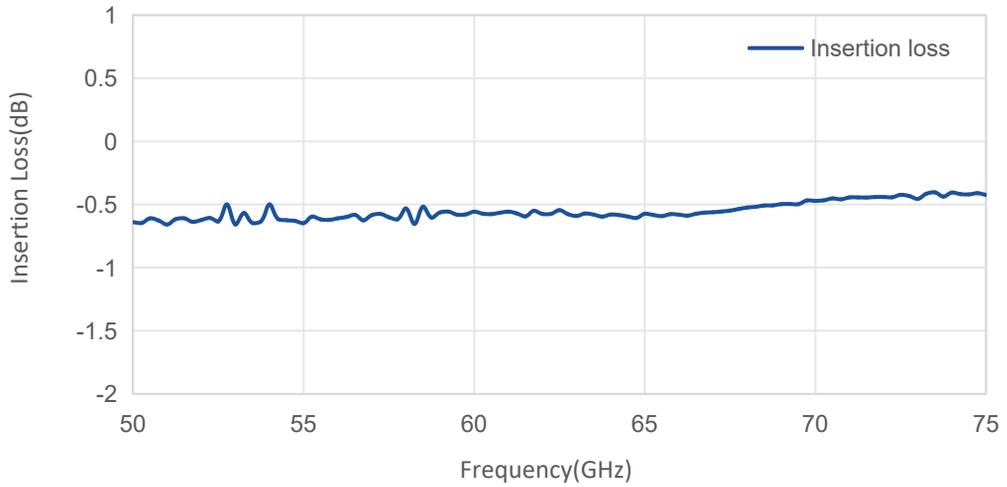
ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

订货信息 Ordering Information:

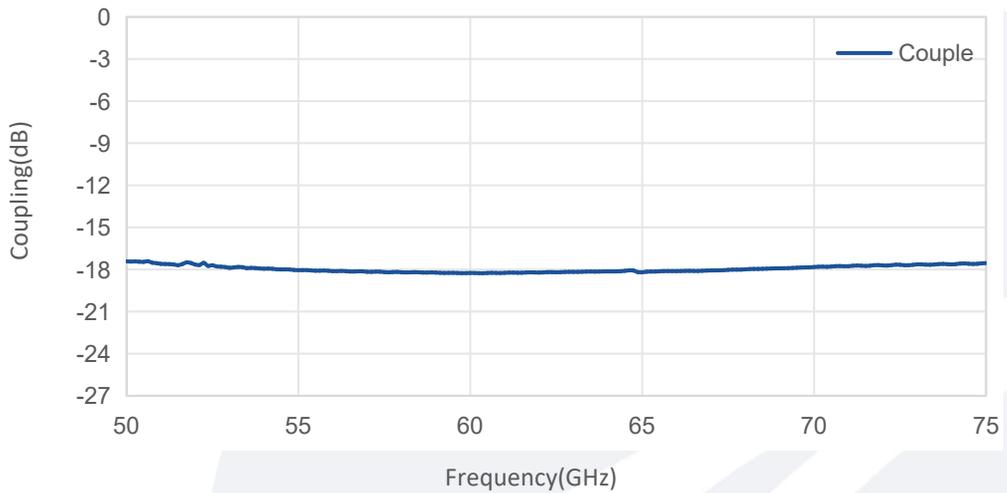
标准型号 Base Number	描述 Description	版本号 Revision
TDC-050075-20-15	V-band Waveguide Directional Coupler, 50-75GHz, Insertion Loss: 0.5dB Typ, Coupling: 18dB Typ, WR-15	Rev.1.0

典型曲线 Typical Performance Data:

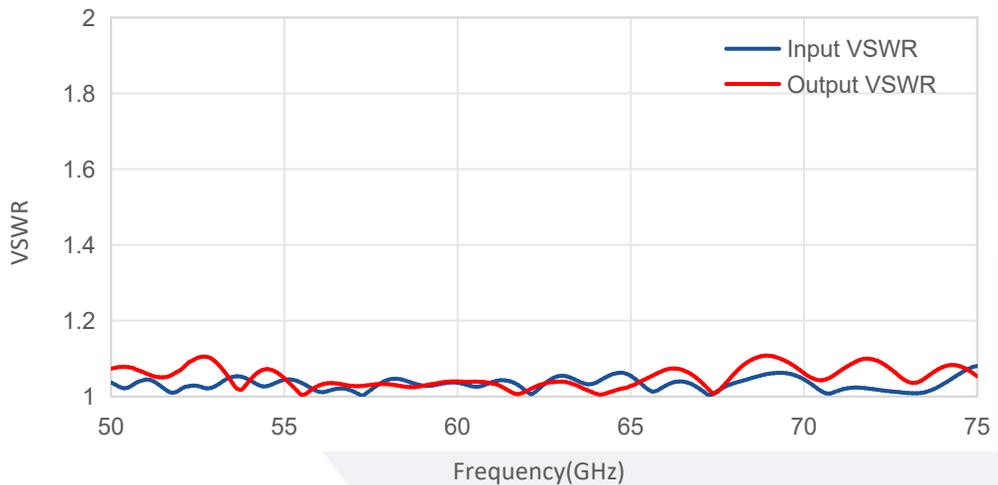
Insertion Loss vs Frequency



Coupling vs Frequency

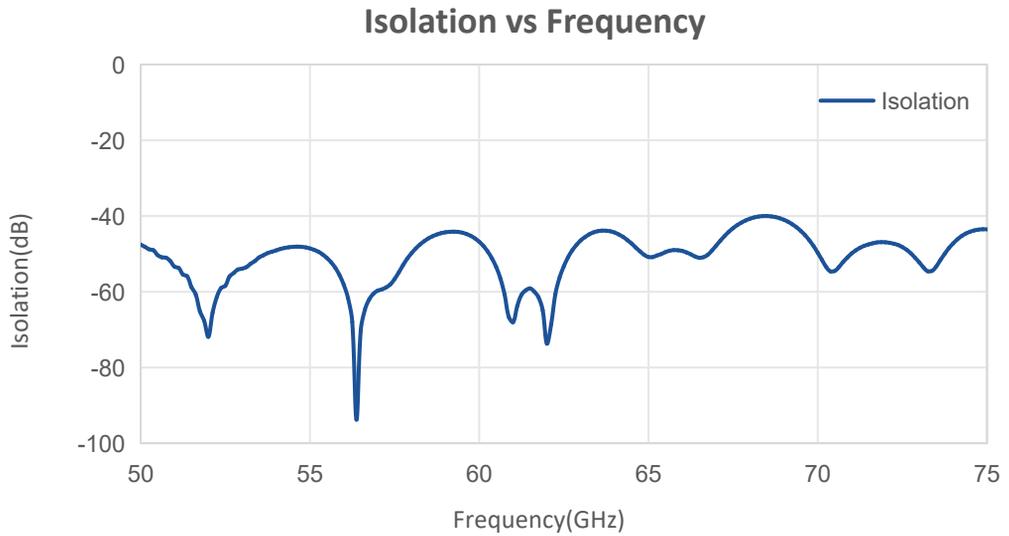


VSWR vs Frequency



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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