

W-band Dual Directional Waveguide Coupler

WR-10/30 dB Coupling

Model: TDC-075110-30-10

TDC-075110-30-10 is a W-band, four-port waveguide dual directional coupler that delivers a 30 dB nominal coupling level and 60 dB typical isolation 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

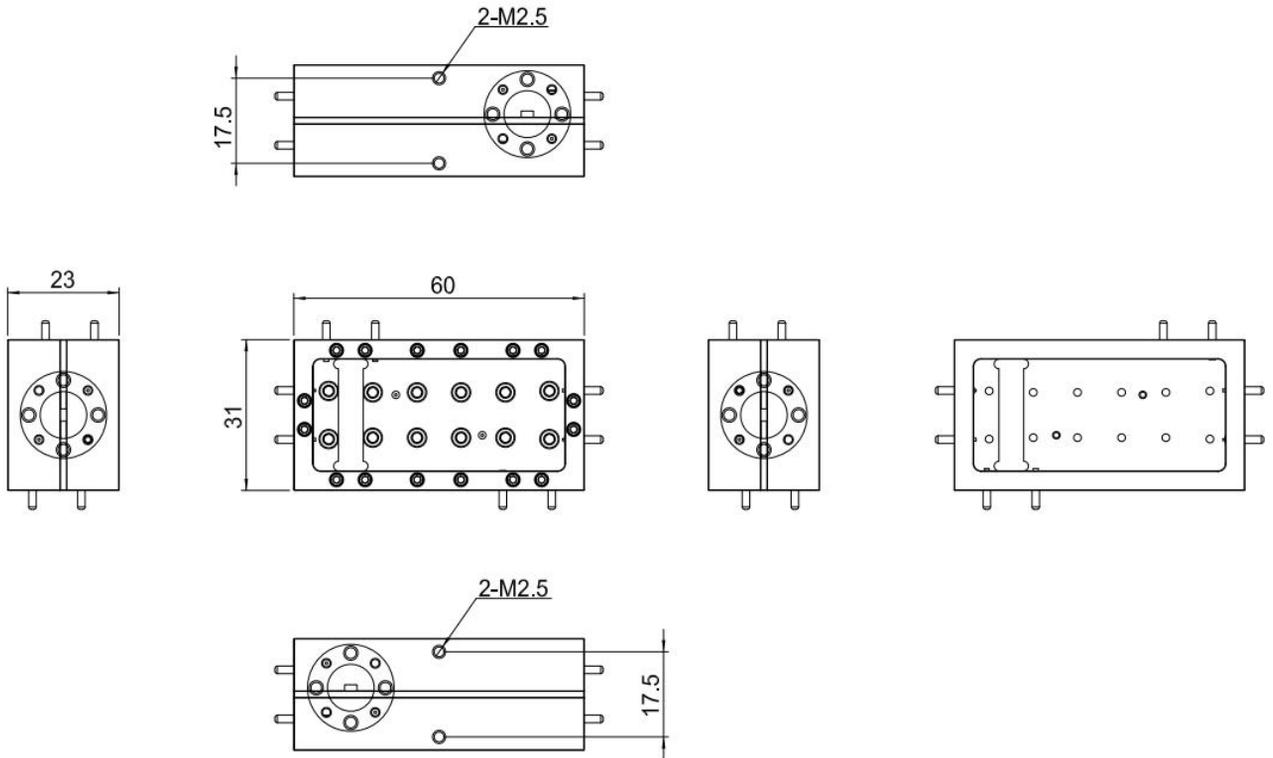
电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
工作频率 Frequency Range	75		110	GHz
插入损耗 Insertion Loss		0.5		dB
耦合度 Coupling		30		dB
隔离度 Isolation		60		dB
方向性 Directivity		30		dB
输入驻波 Input VSWR		1.1		:1
输出驻波 Output 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-10/U-387/U	
隔离/耦合接口 Isolation/Coupling Port	WR-10/U-387/U	
尺寸 Size	60*31*23	mm

外形图 Outline Drawing: Unit:mm



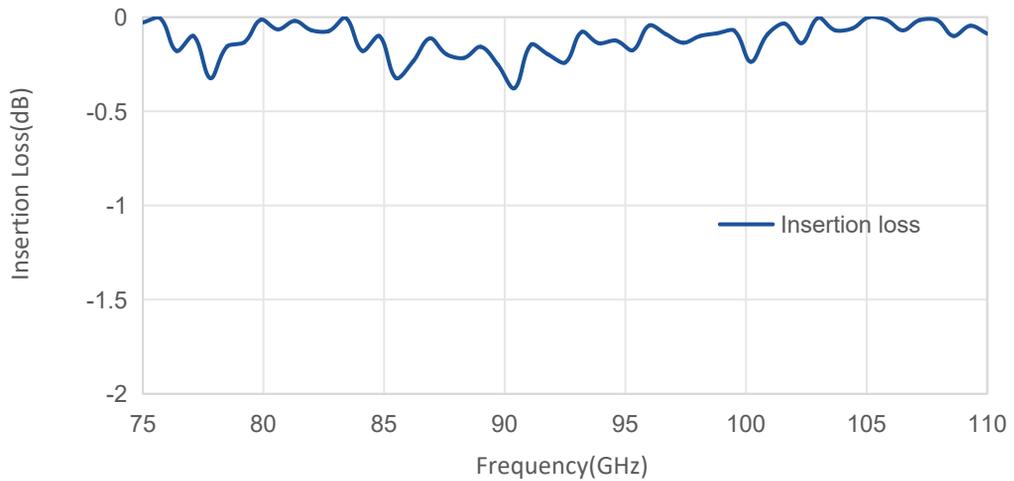
ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

订货信息 Ordering Information:

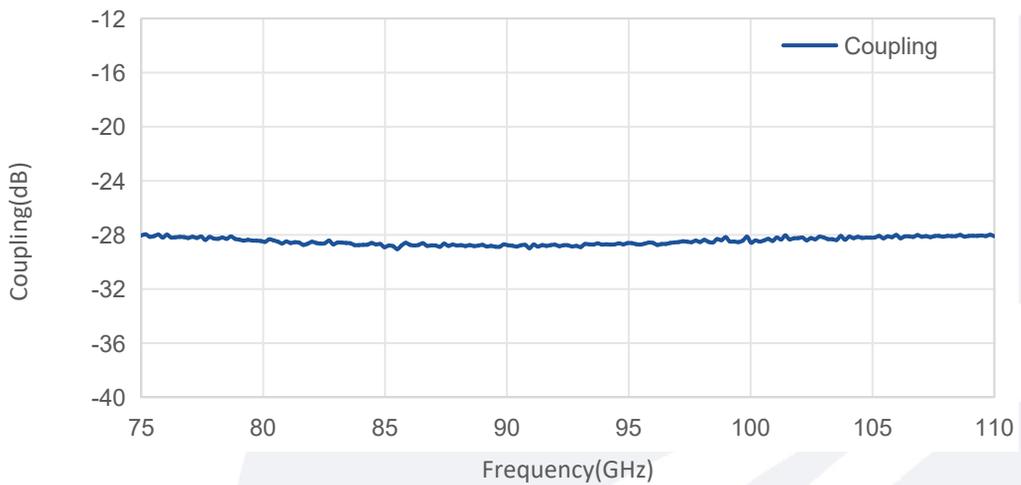
标准型号 Base Number	描述 Description	版本号 Revision
TDC-075110-30-10	W-band Dual Directional Waveguide Coupler, 75-110GHz, Insertion Loss: 0.5dB Typ, Coupling: 30dB Typ, WR-10	Rev.1.0

典型曲线 Typical Performance Data:

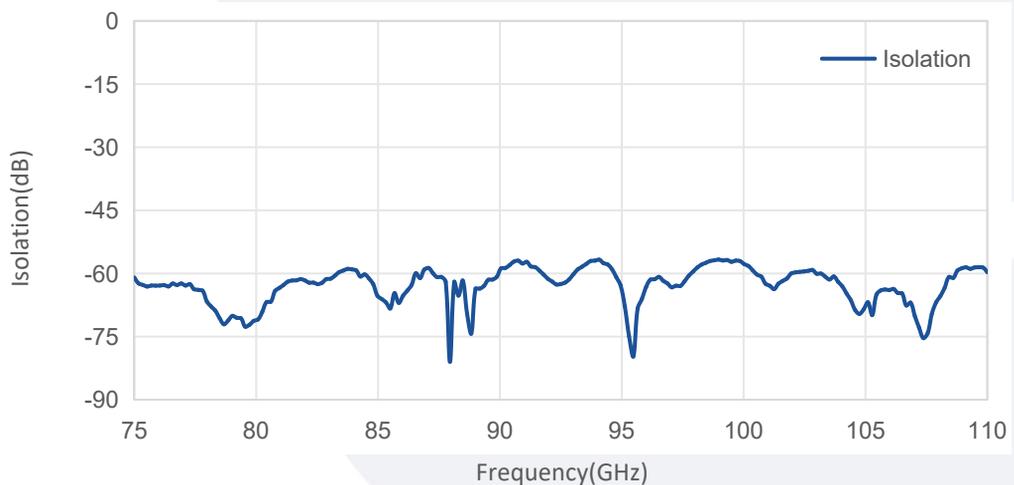
Insertion Loss vs Frequency



Coupling vs Frequency



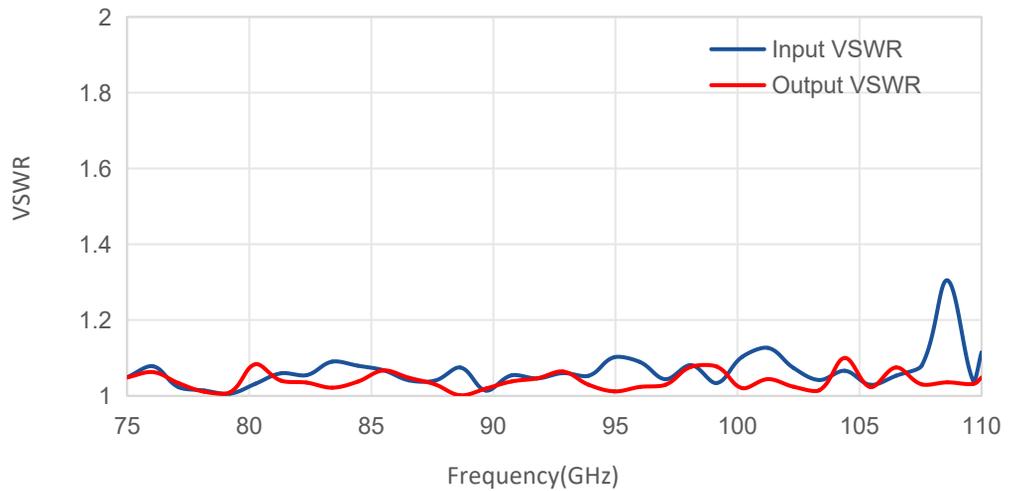
Isolation vs Frequency



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.