

## W-band Dual Directional Waveguide Coupler

### WR-10/20 dB Coupling

**Model: TDC-075110-20-10**

TDC-075110-20-10 is a W-band, four-port waveguide dual directional coupler that delivers a 20 dB nominal coupling level and 35 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

#### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency Range	75		110	GHz
Insertion Loss		1		dB
Coupling		20		dB
Directivity		35		dB
Input VSWR		1.1		:1
Output VSWR		1.1		:1

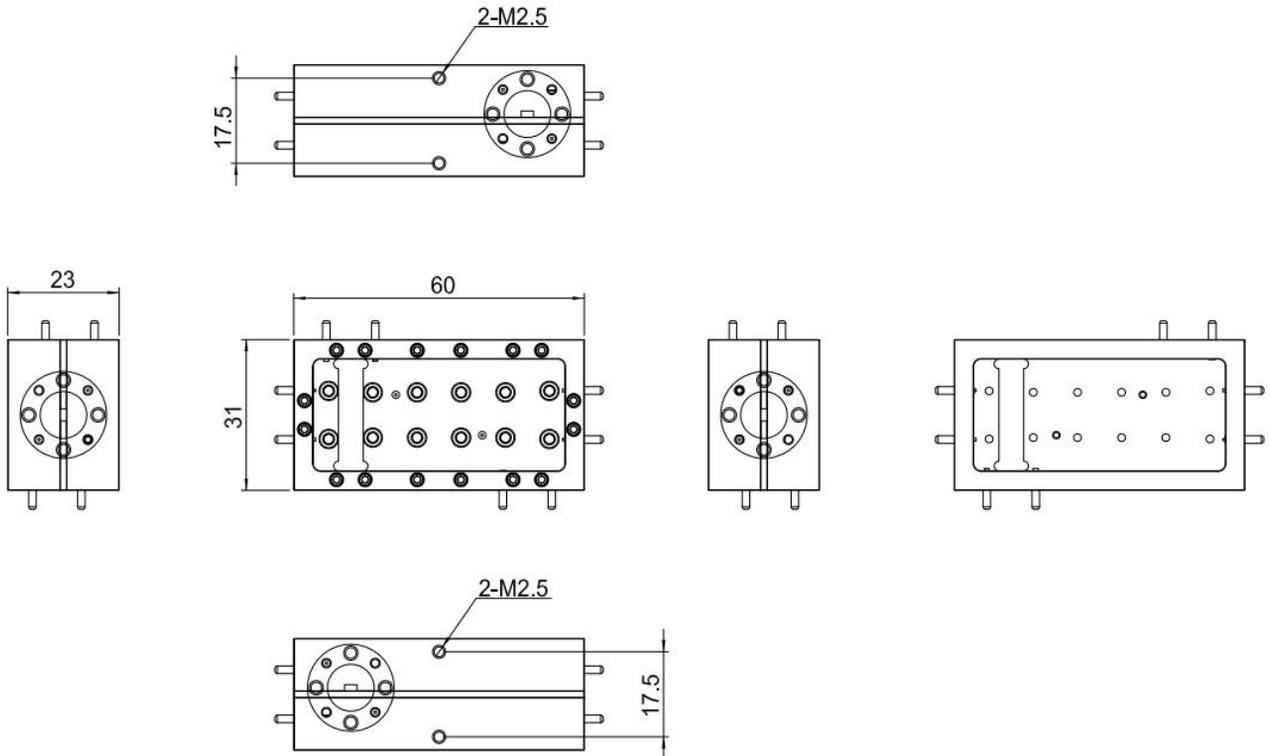
#### Environmental And Physical Characteristics:

Description	Parameter	Units
Operating Temperature	-40 To +85	°C
Storage Temperature	-40 to +85	°C
Input/Output Connectors	WR-10/U-387/U	
Isolation/Coupling Port	WR-10/U-387/U	
Size	60*31*23	mm

**Outline Drawing:**

Unit:mm

**Regulatory Compliance:**



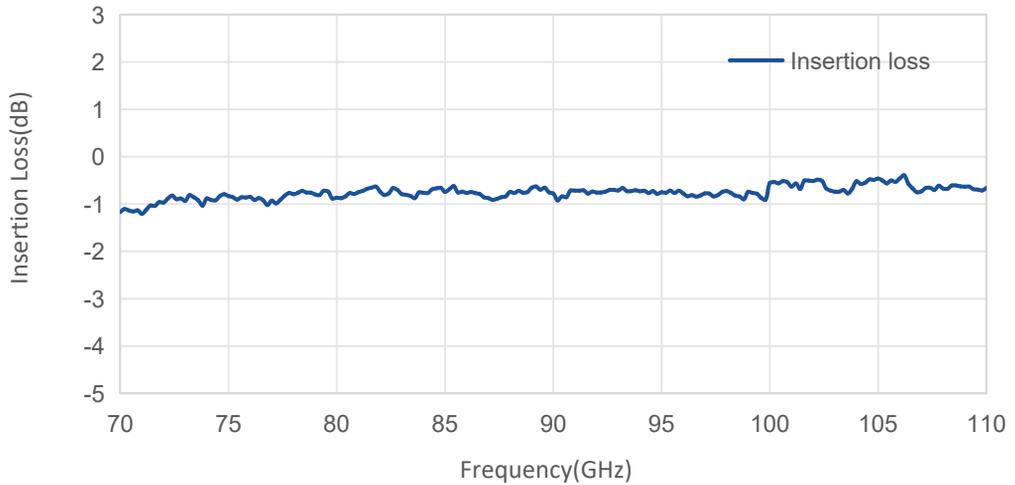
ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

**Ordering Information:**

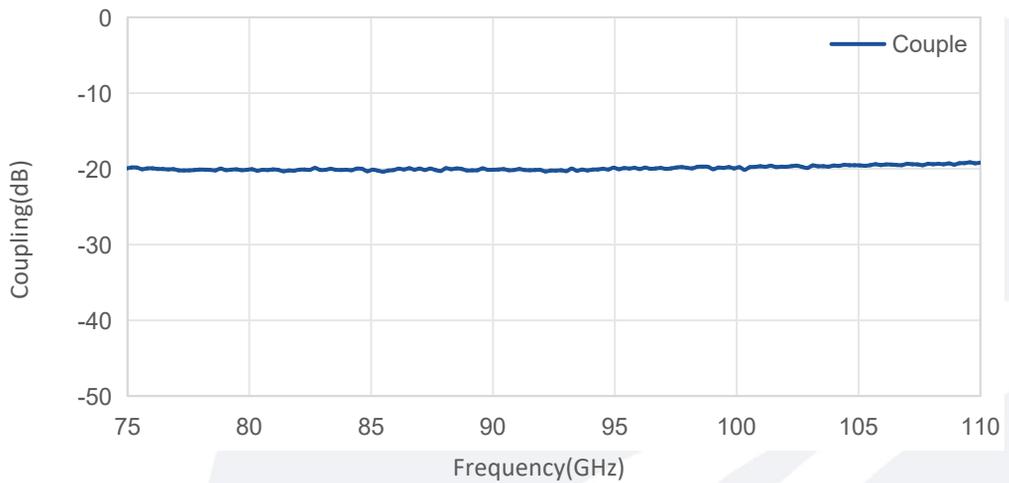
Base Number	Description	Revision
TDC-075110-20-10	W-band Dual Directional Waveguide Coupler, 75-110GHz, Insertion Loss: 1dB Typ, Coupling: 20dB Typ, WR-10	Rev.1.0

## Typical Performance Data:

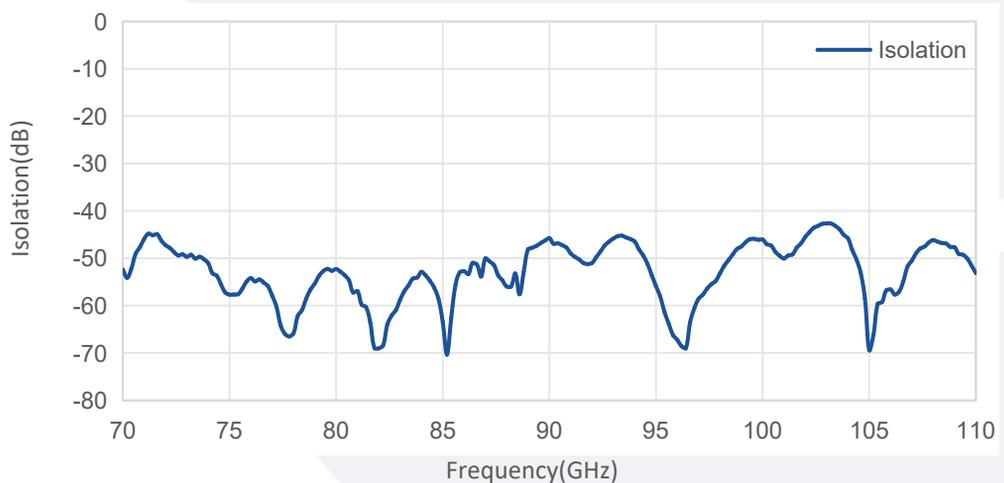
### Insertion Loss vs Frequency



### Coupling vs Frequency



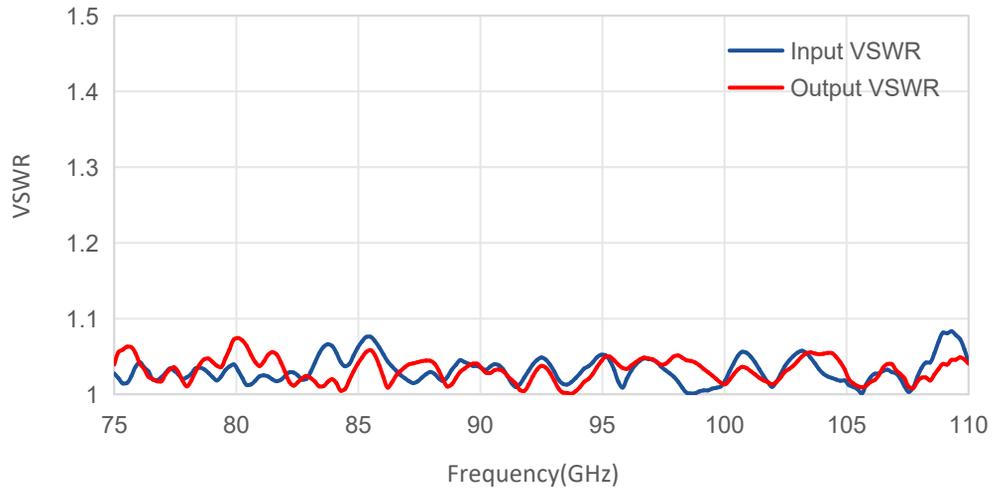
### Isolation vs Frequency



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.

## Typical Performance Data:

### VSWR vs Frequency



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