

E-band Waveguide Directional Coupler

WR-12/20dB Coupling

Model: TDC-060090-20-12

TDC-060090-20-12 is a V-band, four-port waveguide directional coupler that delivers a 20 dB nominal coupling level and 35 dB typical directivity across the full waveguide band from 60 to 90 GHz. The interfaces of the coupler are WR-12 waveguides with UG-387/U-M anti-cocking flanges.

Features:

- Operating Frequency 60 to 90 GHz
- Full Band Operation
- Low Insertion Loss
- Moderate Directivity

Applications:

- Test Labs
- Instrumentations
- Sub-assemblies

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency Range	60		90	GHz
Insertion Loss		0.5		dB
Coupling		20		dB
Directivity		35		dB
Input VSWR		1.1		:1
Output VSWR		1.1		:1

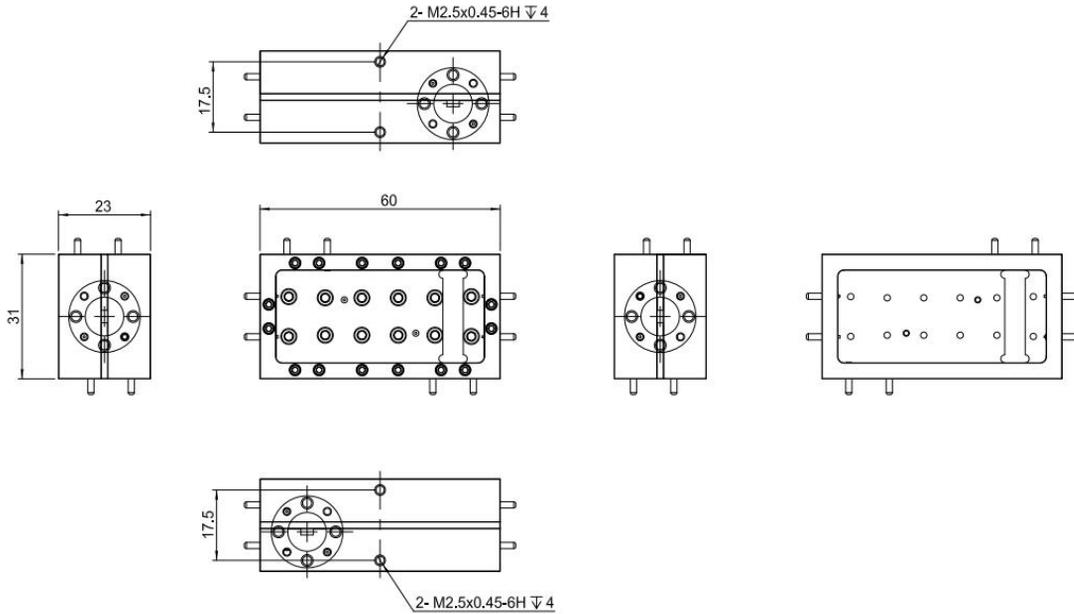
Environmental And Physical Characteristics:

Description	Parameter	Units
Operating Temperature	-40 To +85	°C
Storage Temperature	-40 to +85	°C
Waveguide Connectors	WR-12/UG-387/U	
Coupled Port	WR-12/UG-387/U	
Size	60*31*23	mm

Outline Drawing:

Unit:mm

Regulatory Compliance:



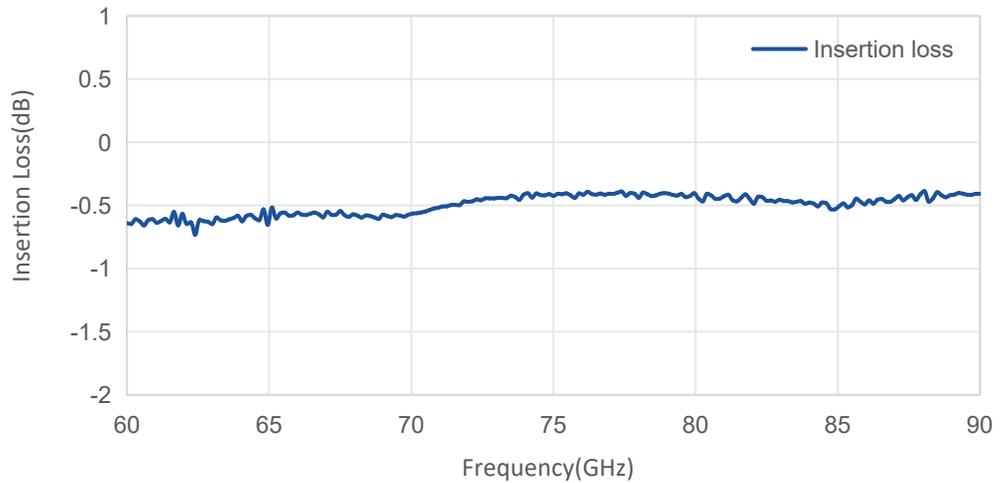

ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Ordering Information:

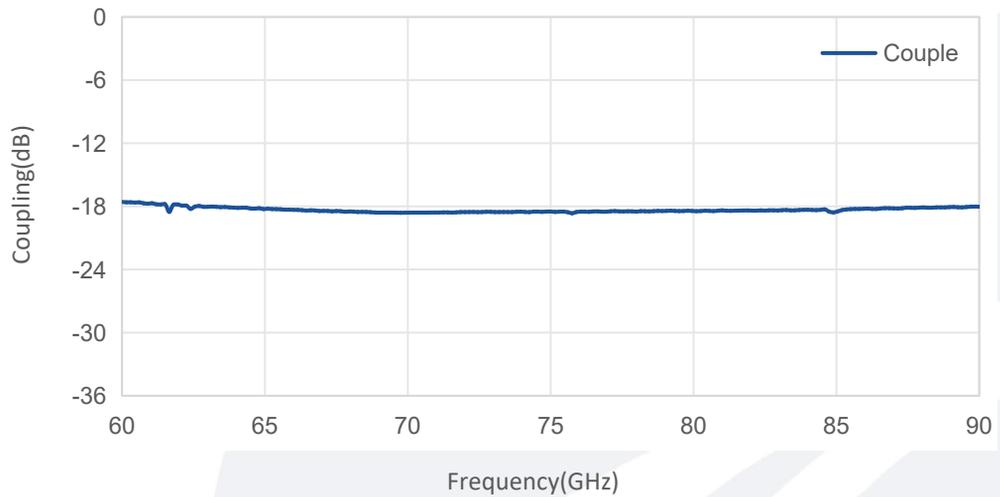
Base Number	Description	Revision
TDC-060090-20-12	E-band Waveguide Directional Coupler,60-90GHz, Insertion Loss:0.5dB Typ, Coupling:20dB Typ,WR-12	Rev.1.0

Typical Performance Data:

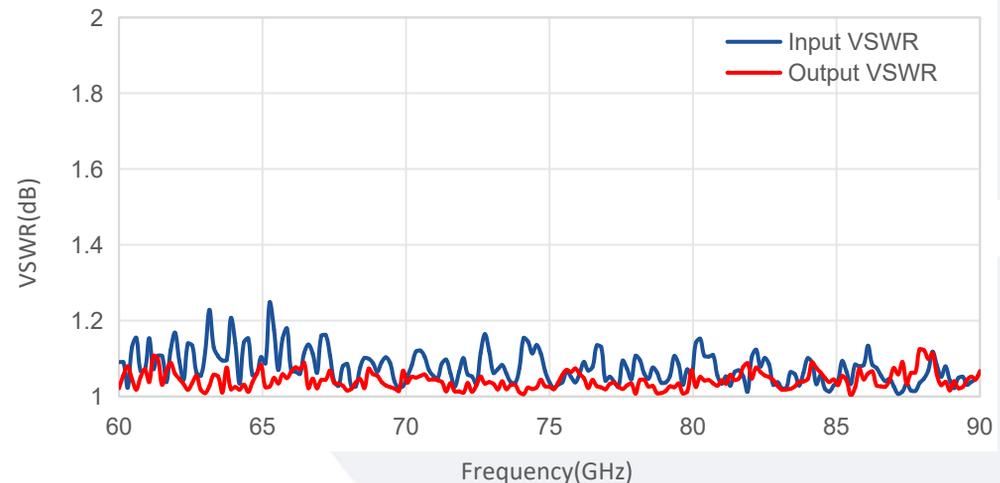
Insertion Loss vs Frequency



Coupling vs Frequency



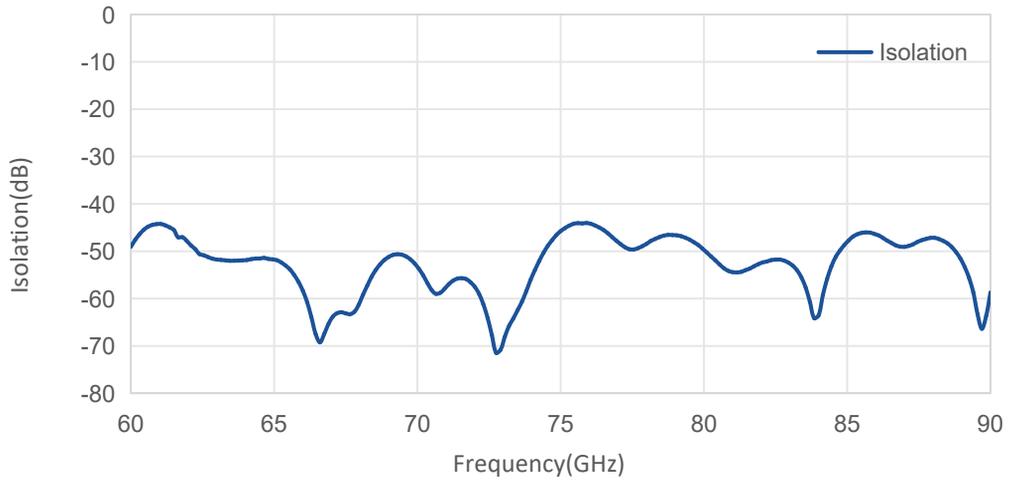
VSWR vs Frequency



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.

Typical Performance Data:

Isolation vs Frequency



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