

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

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency Range	75		110	GHz
Insertion Loss		0.5		dB
Coupling		30		dB
Isolation		60		dB
Directivity		30		dB
Input VSWR		1.1		:1
Output VSWR		1.1		:1

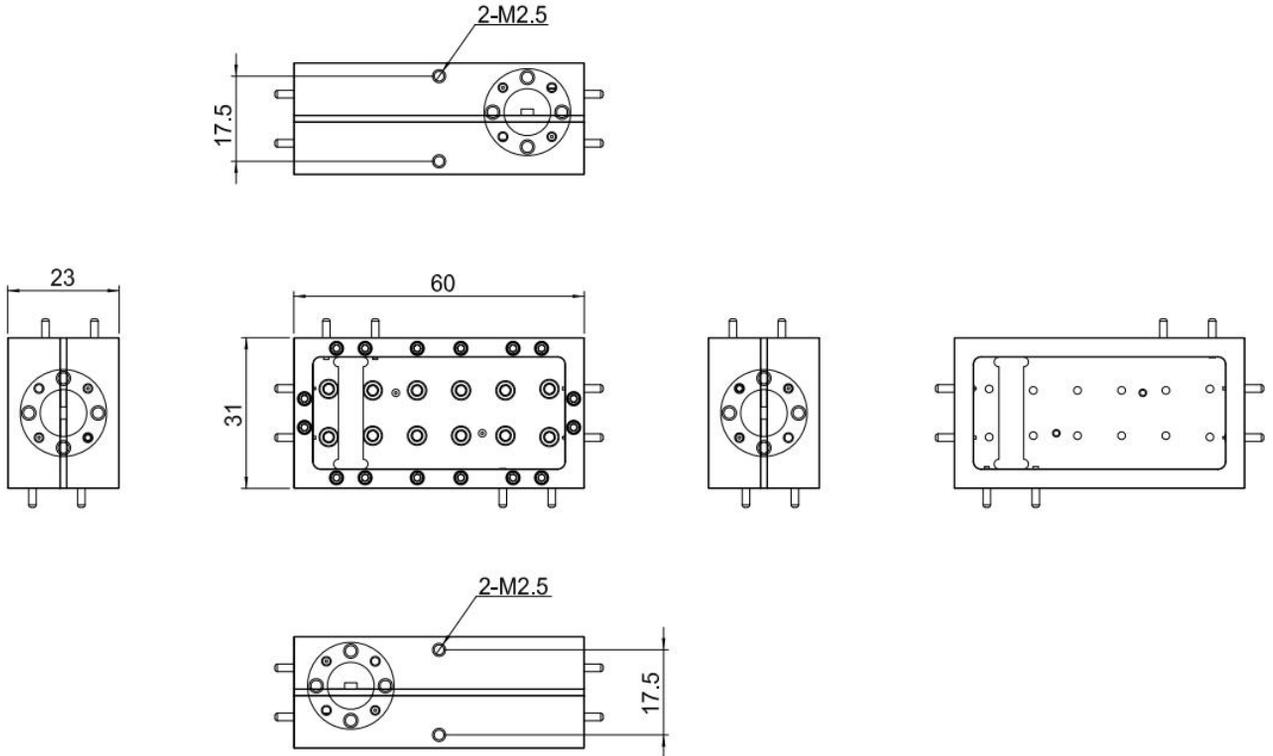
Environmental And Physical Characteristics:

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:



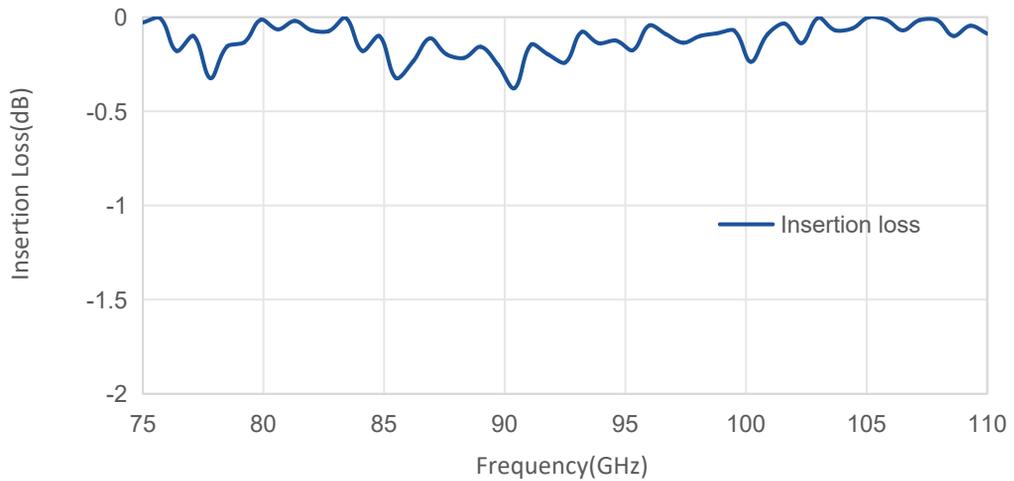
ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Ordering Information:

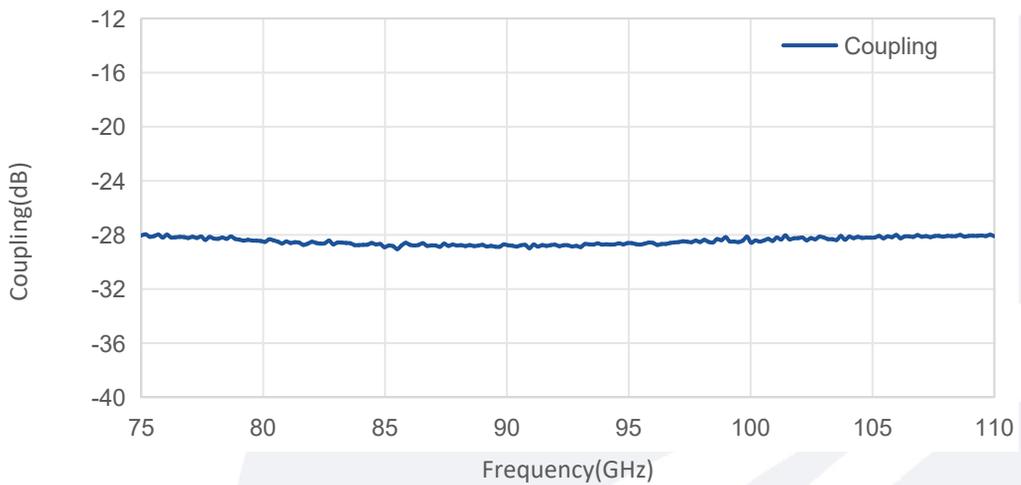
Base Number	Description	Revision
TDC-075110-30-10	W-band Dual Directional Waveguide Coupler,75-110GHz, Insertion Loss:0.5dB Typ, Coupling:30dB Typ,WR-10	Rev.1.0

Typical Performance Data:

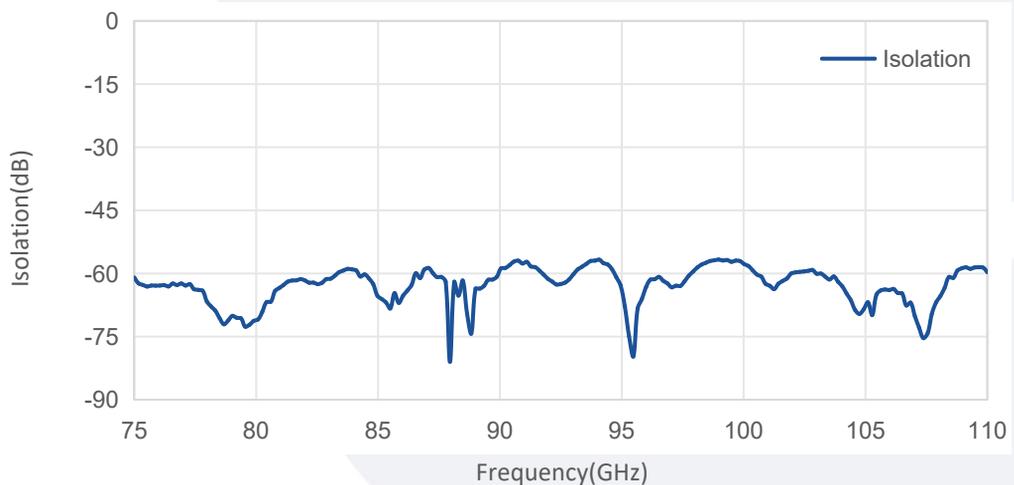
Insertion Loss vs Frequency



Coupling vs Frequency



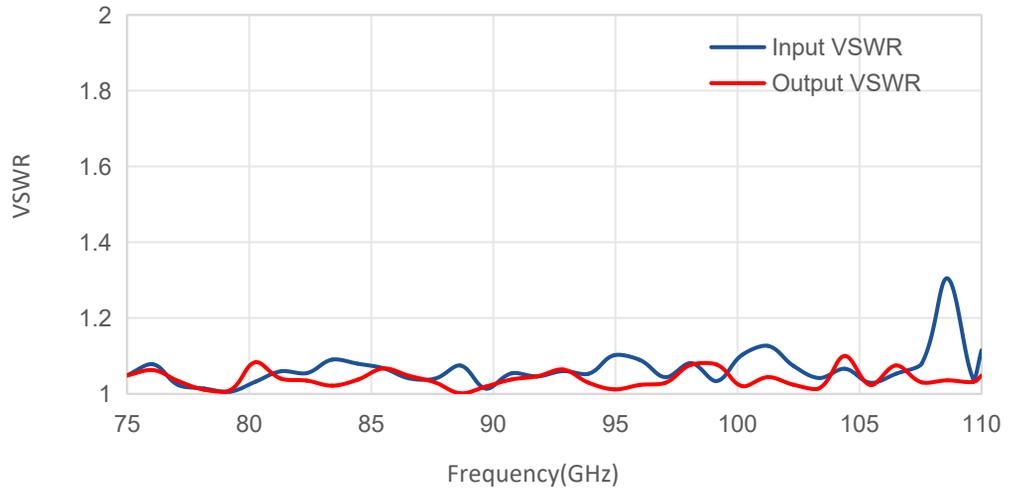
Isolation vs Frequency



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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