

Coax Dual-Directional Bridge Coupler

9KHz-26.5GHz/16dB Coupling/2.92mm

Model: TDG-9K26G-16-S

TDG-9K26G-16-S is a coax dual-directional bridge coupler that delivers a 16 dB nominal coupling level and 20 dB minimum directivity across the full frequency range from 9KHz to 26.5GHz.. It is a four-port passive device that can couple a portion of the power from the main transmission line to the auxiliary line in a directional manner.

Features:

- Output Frequency: 9KHz-26.5GHz
- Max Power: 1W
- Stackable mechanical design
- Low Insertion Loss
- Moderate Directivity
- 50 Ohm Matched Input / Output

Applications:

- Test Labs
- Instrumentations
- Sub-assemblies

Electrical Characteristics:

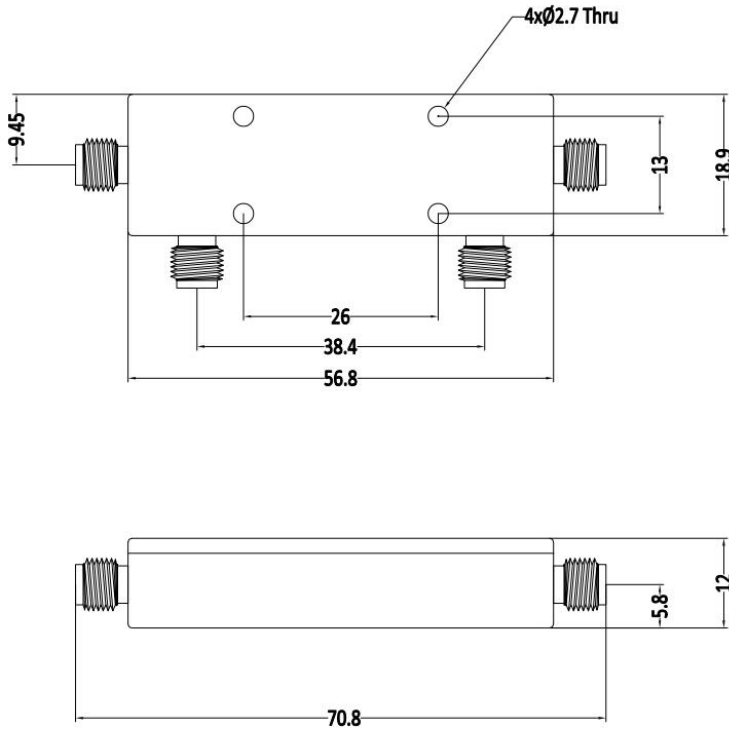
Parameter	Min	Typ	Max	Units
Frequency Range	9KHz		26.5GHz	
Return Loss			-16	dB
Insertion Loss		4.5	5.5	dB
Coupling@150KHz~26.5GHz		16±1.5		dB
Coupling Sensitivity@150KHz~26.5GHz		±1.25		dB
Directivity@150KHz~26.5GHz	20			dB
Power Handling		1		W
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
RF Connector	2.92mm Female	
Size	56.8*18.9*12	mm

Outline Drawing:

Unit:mm



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

Environmental Conditions:

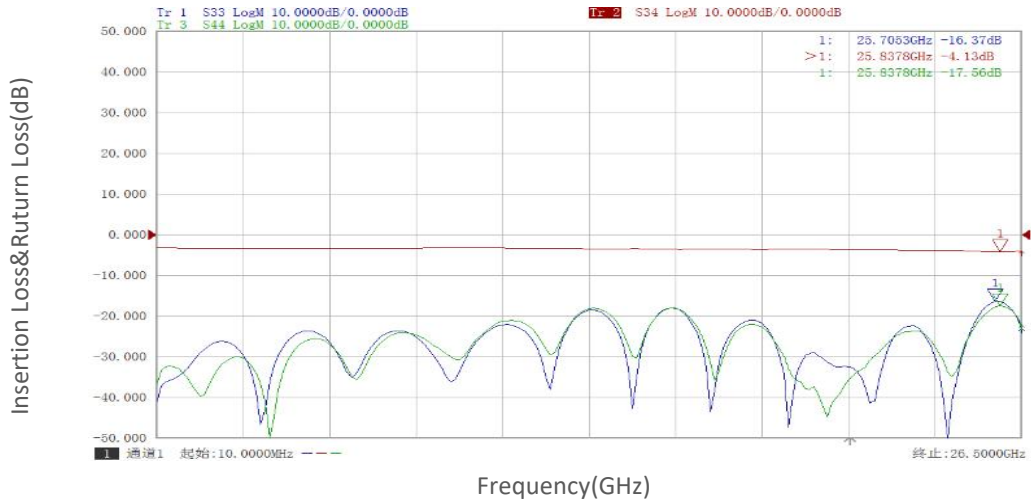
Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity	100% RH at 35c, 95%RH at 40°C			%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

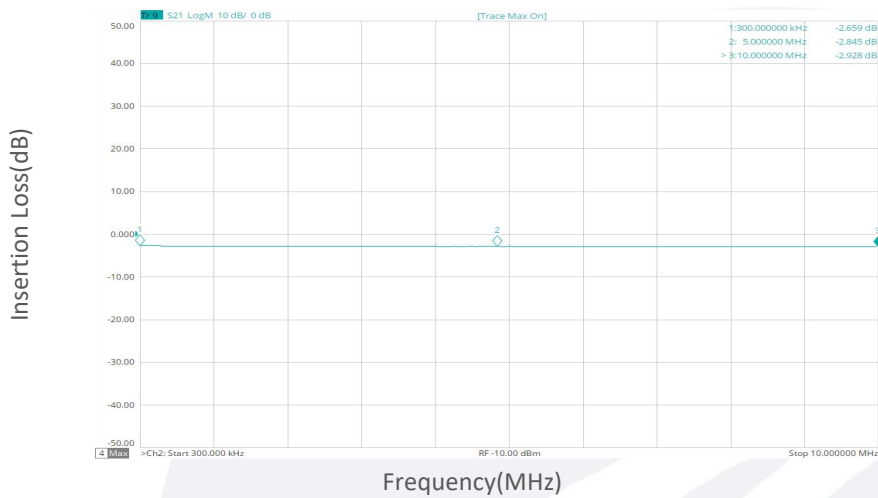
Base Number	Description	Revision
TDG-9K26G-16-S	Coax Dual-Directional Bridge Coupler 9KHz-26.5GHz, Coupling:16dB, 2.92mm Female	Rev.1.0

Typical Performance Data:

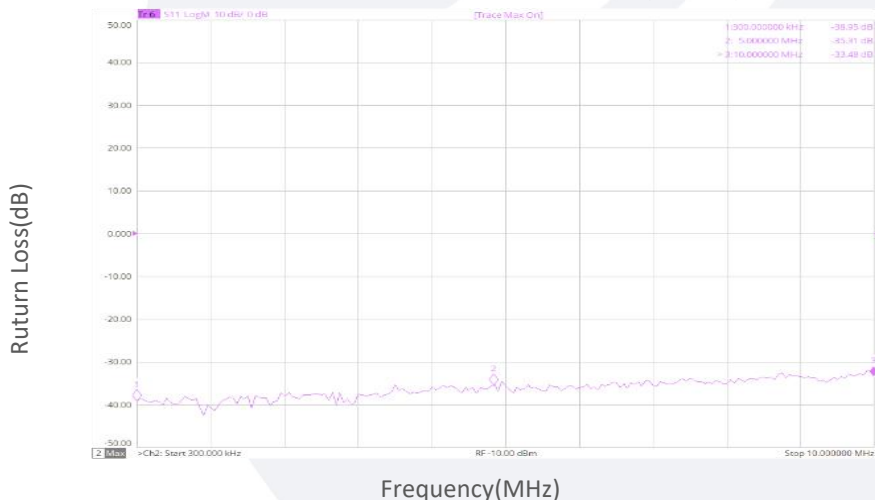
Insertion Loss & Return Loss vs Frequency



Insertion Loss vs Frequency



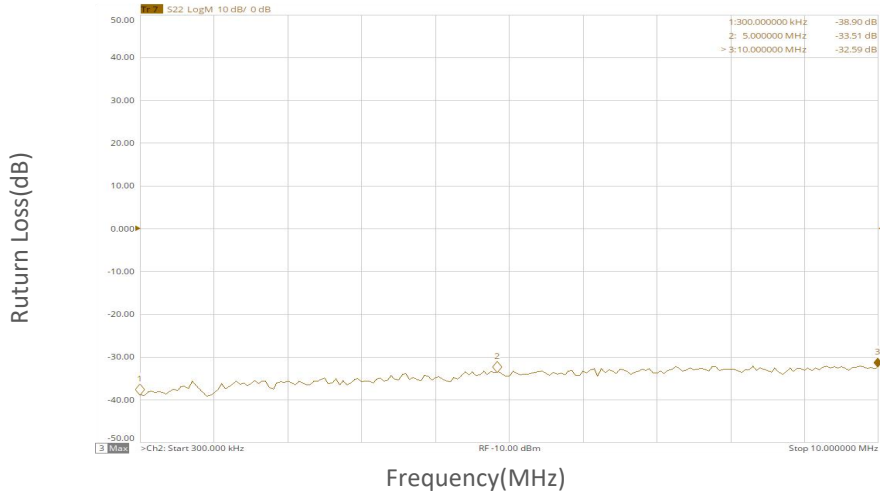
Main Line Return Loss vs Frequency



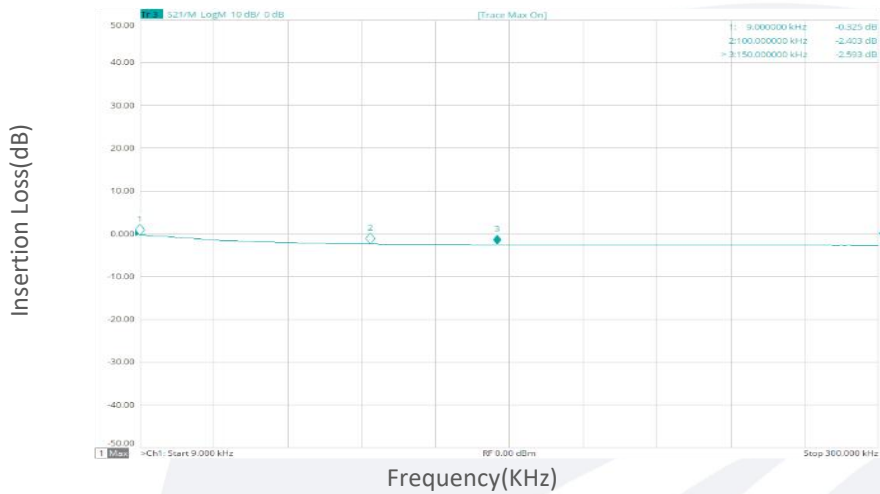
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

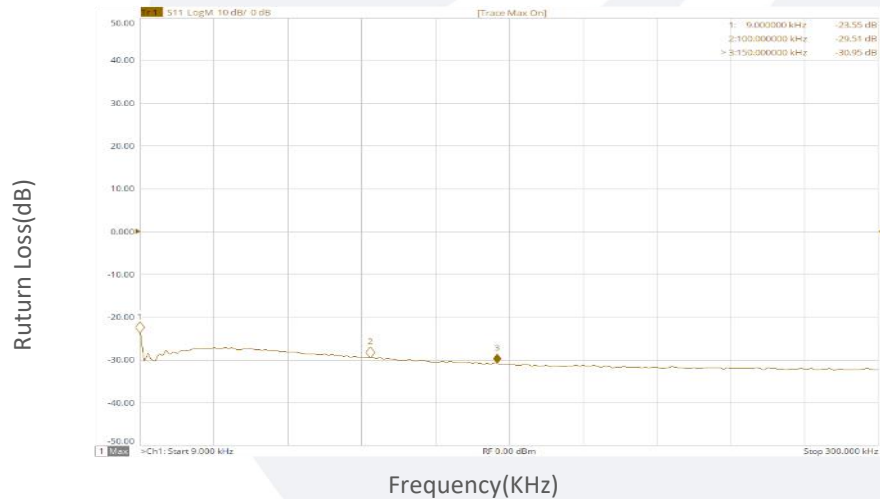
Coupling Port Return Loss vs Frequency



Insertion Loss vs Frequency



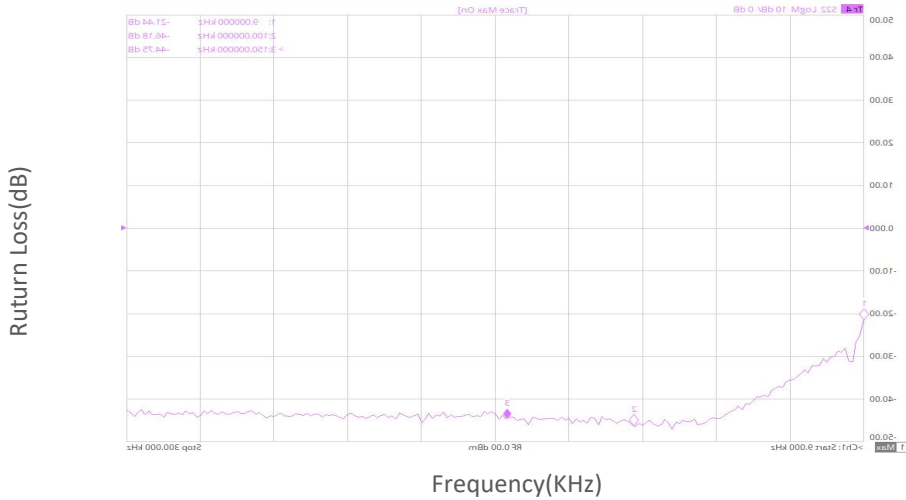
Main Line Return Loss vs Frequency



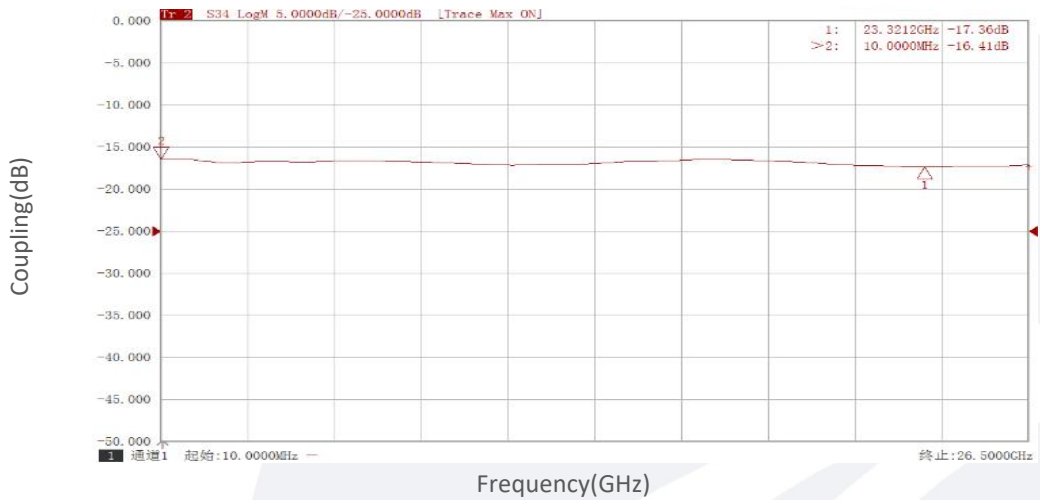
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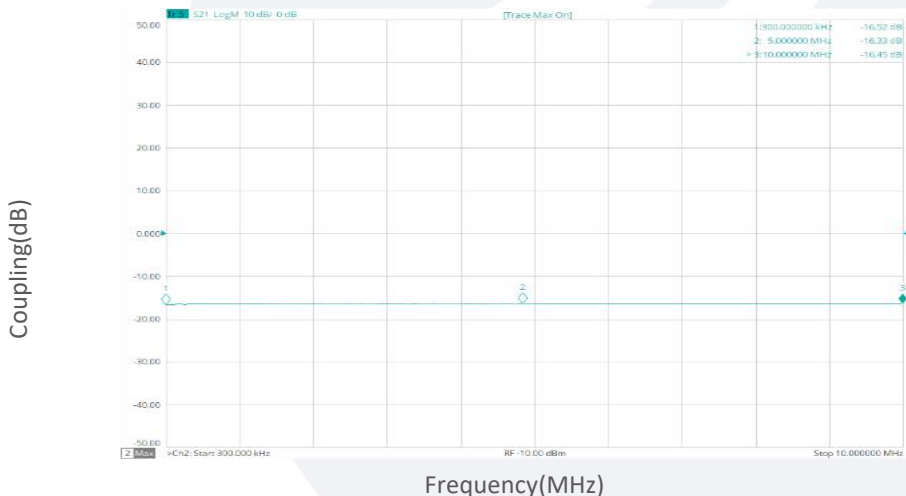
Coupling Port Return Loss vs Frequency



Coupling vs Frequency



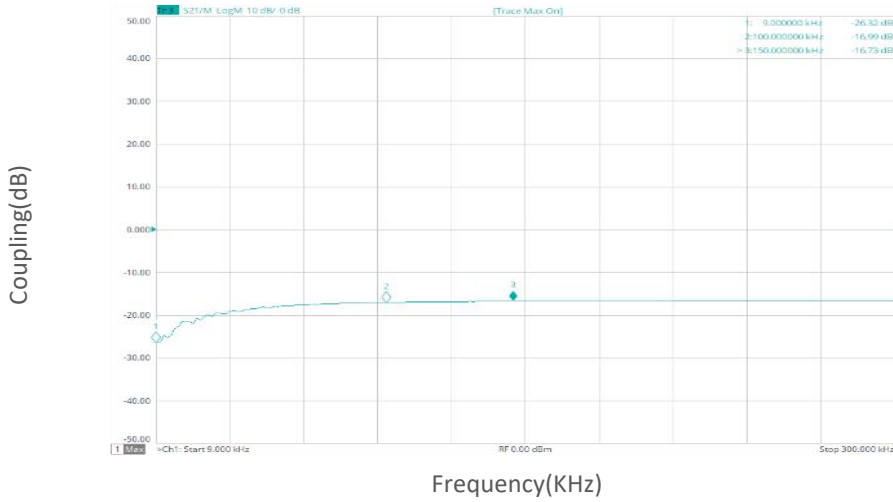
Coupling vs Frequency



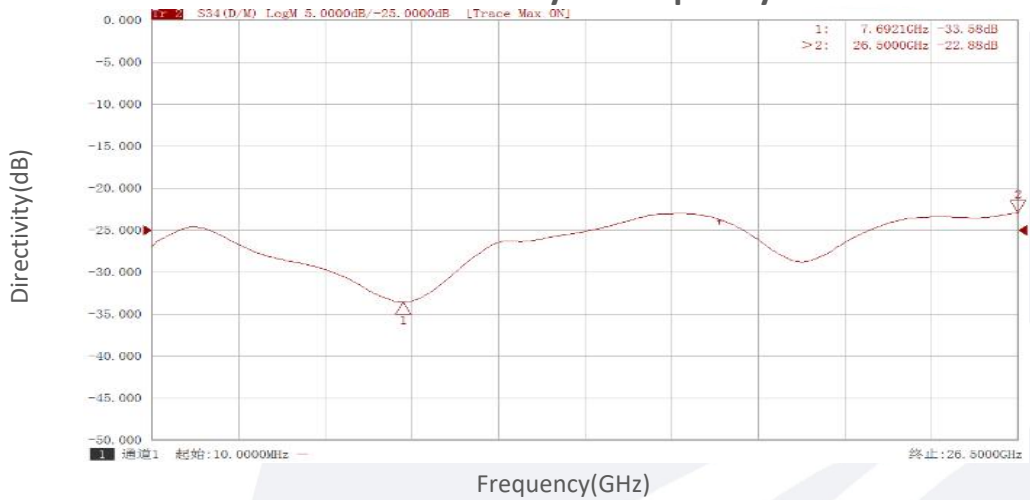
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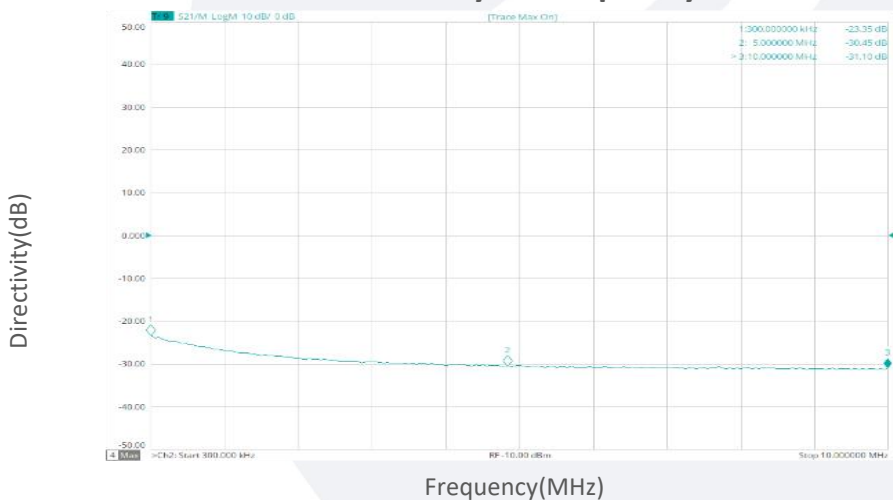
Coupling vs Frequency



Directivity vs Frequency



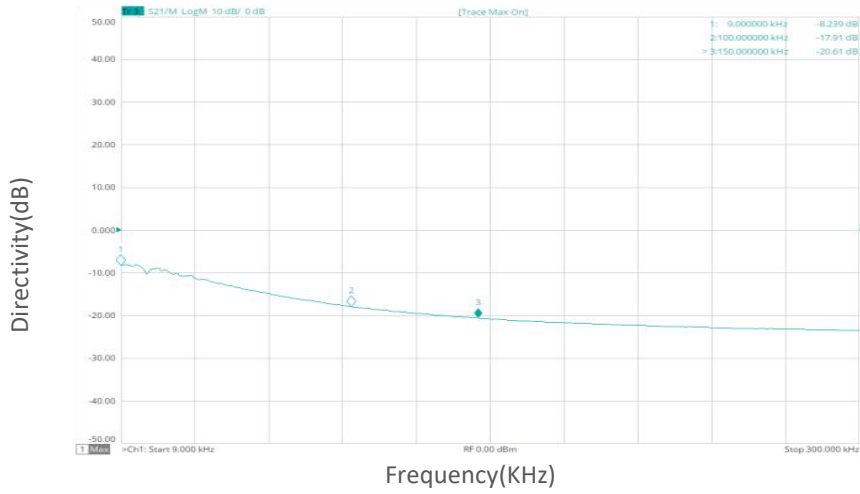
Directivity vs Frequency



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Typical Performance Data:

Directivity vs Frequency



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