

Coax Dual-Directional Coupler

9KHz-1GHz/40dB Coupling

Model: TDC-9K1G-40N-300

TDC-9K1G-40N-300 is a coax dual-directional coupler that delivers a 40dB nominal coupling level and 13dB minimum directivity across the full frequency range from 9KHz to 1GHz.. 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-1GHz
- Max Power: 300W
- 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		1GHz	
Main Line VSWR				1.25	:1
Insertion Loss				0.6	dB
Coupling			40±1.5		dB
Directivity	@9-100KHz	13			dB
	@100KHz-1GHz	18			
Power Handling			300		W
Impedance			50		Ohms

Mechanical Specifications:

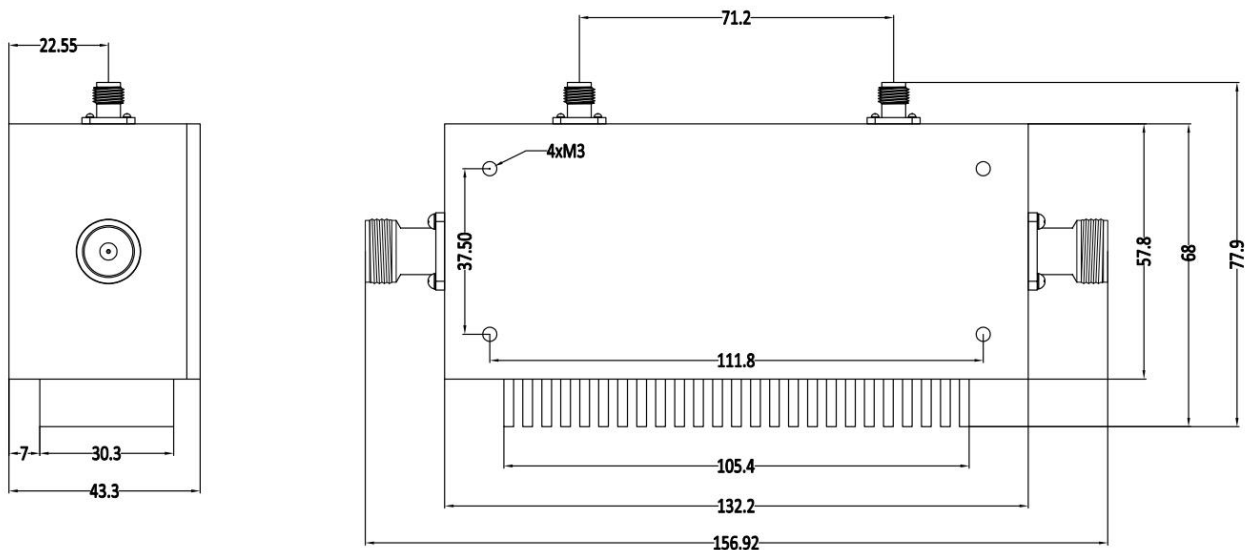
Parameter	Value	Units
Material	Aluminum	
Connector Material	Nickel plated brass	
RF Connector	N Female	
Coupling Port	SMA Female	

Mechanical Specifications:

Parameter	Value	Units
Size	156.92*77.9*43.3	mm
Weight	≤650	g

Outline Drawing:

Unit:mm; Tolerance:±2%



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

Environmental Conditions:

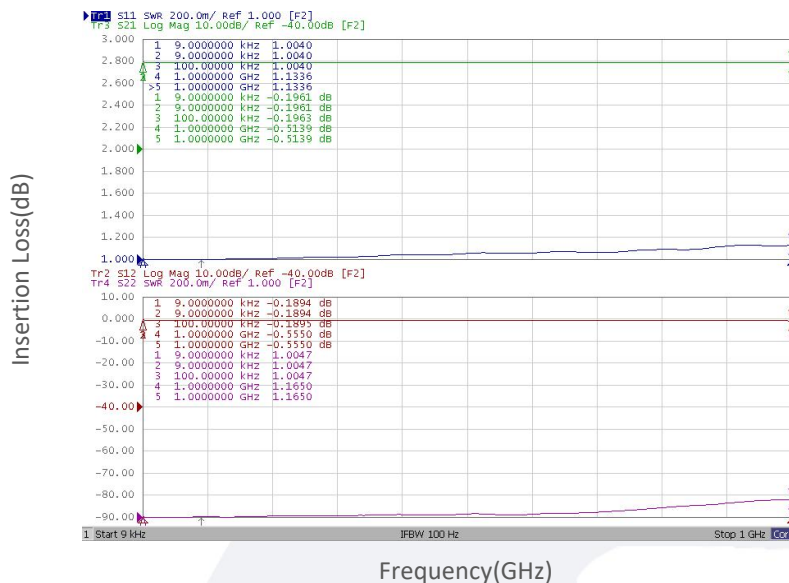
Parameter	Min	Typ	Max	Units
Operating Temperature	-40		+85	°C
Non-operating Temperature	-50		+100	°C
Relative humidity	100% RH at 35c, 95%RH at 40°C			%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

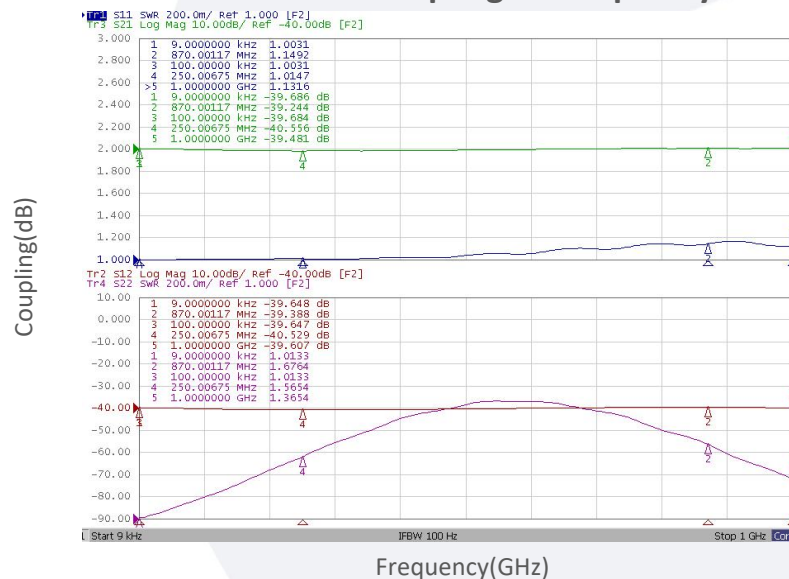
Base Number	Description	Revision
TDC-9K1G-40N-300	Coax Dual-Directional Coupler 9KHz-1GHz, Coupling: 40dB	Rev.1.0

Typical Performance Data:

Insertion Loss vs Frequency



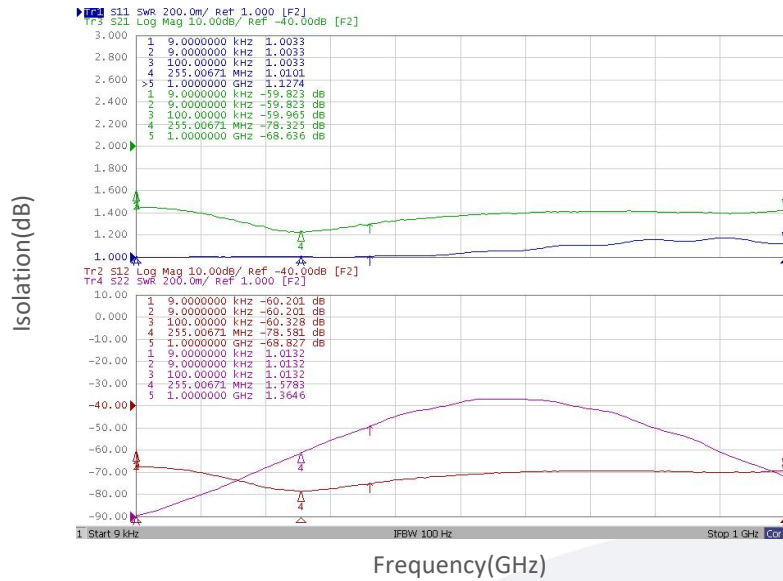
A Port Coupling vs Frequency



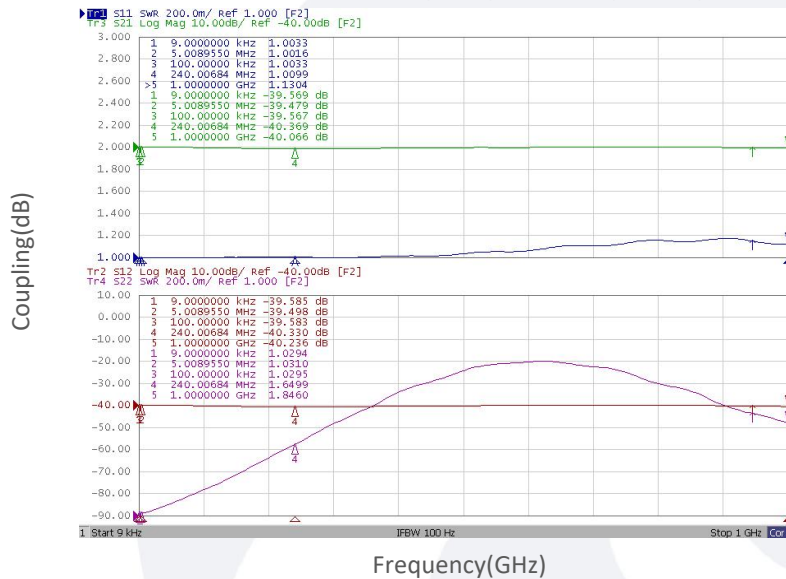
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

A Port Isolation vs Frequency



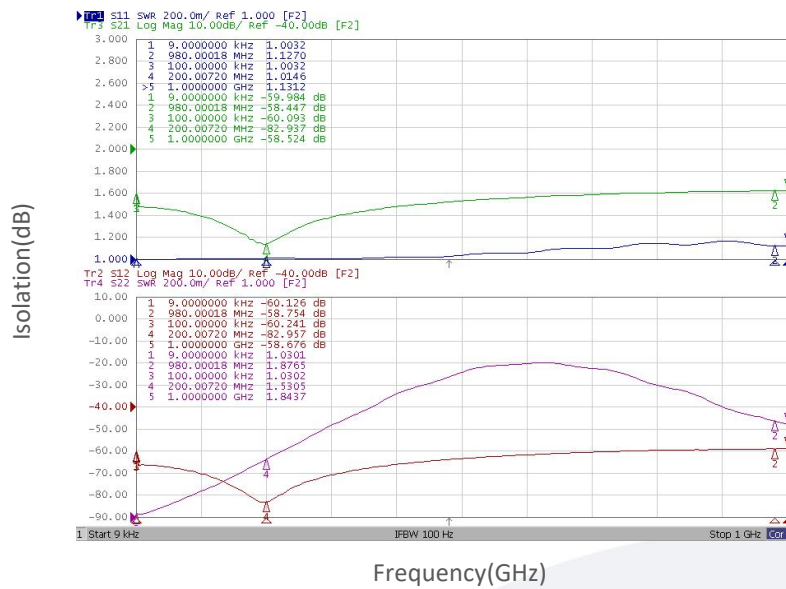
B Port Coupling vs Frequency



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:

B Port 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.