

Coax Directional Coupler

40-110GHz/8dB Coupling/1.0mm Female

Model: TC-4001100-6-1.0

TC-4001100-6-1.0 is a coax directional coupler that delivers a 8 dB nominal coupling level and 15 dB typical directivity across the full frequency range from 40 to 110GHz.. 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: 40-110GHz
- Coupling: 8dB Typ
- Stackable mechanical design
- Low Insertion Loss
- Moderate Directivity
- 50 Ohm Matched Input / Output

Applications:

- Test Labs
- Instrumentations
- Sub-assemblies

电气特性 Electrical Characteristics:

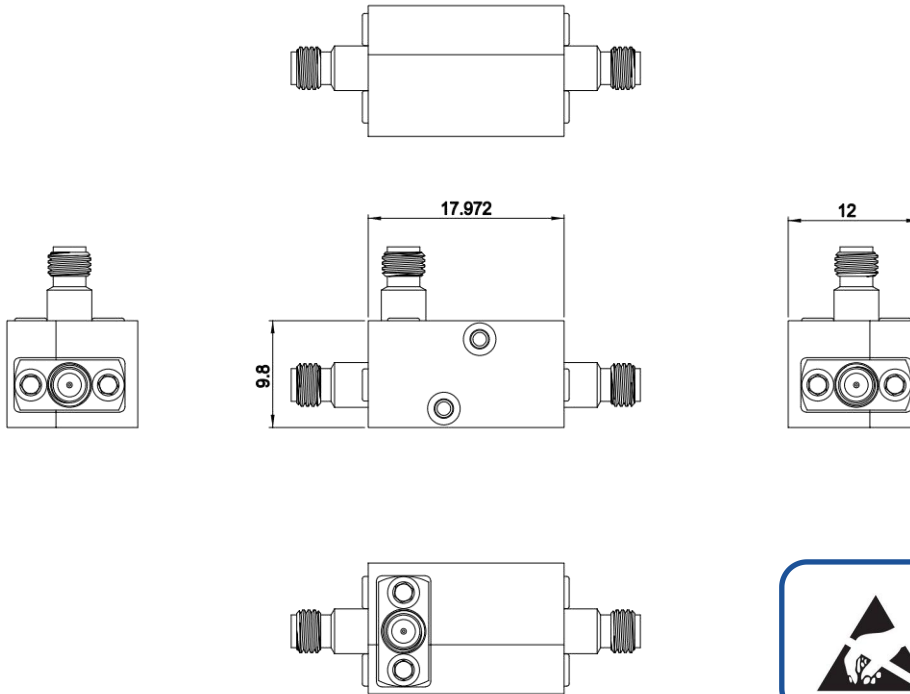
参数 Parameter	Min	Typ	Max	单位 Units
工作频率 Frequency Range	40		110	GHz
插入损耗 Insertion Loss		3.5		dB
耦合度 Coupling	7	8	11	dB
隔离度 Isolation		25		dB
方向性 Directivity		15		dB
回波损耗 Return Loss			-10	dB
阻抗 Impedance		50		Ohms

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input/Output Connector	1.0mm Female/1.0mm Female	
耦合接口 Coupling Connector	1.0mm Female	
外壳材质 Case Material	Aluminum	
表面 Finish	Conductive Coating, Natural Finish	
尺寸 Size	9.8*18*12	mm

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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

温度环境 Environmental Conditions:

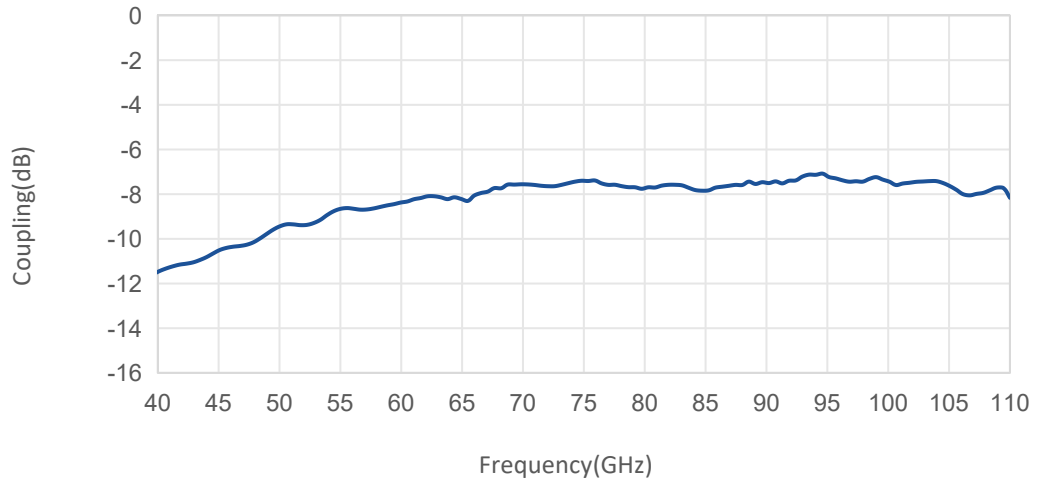
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-20		+55	°C
存储温度 Non-operating Temperature	-20		+55	°C
相对湿度 Relative humidity	100% RH at 35c, 95%RH at 40°C			%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

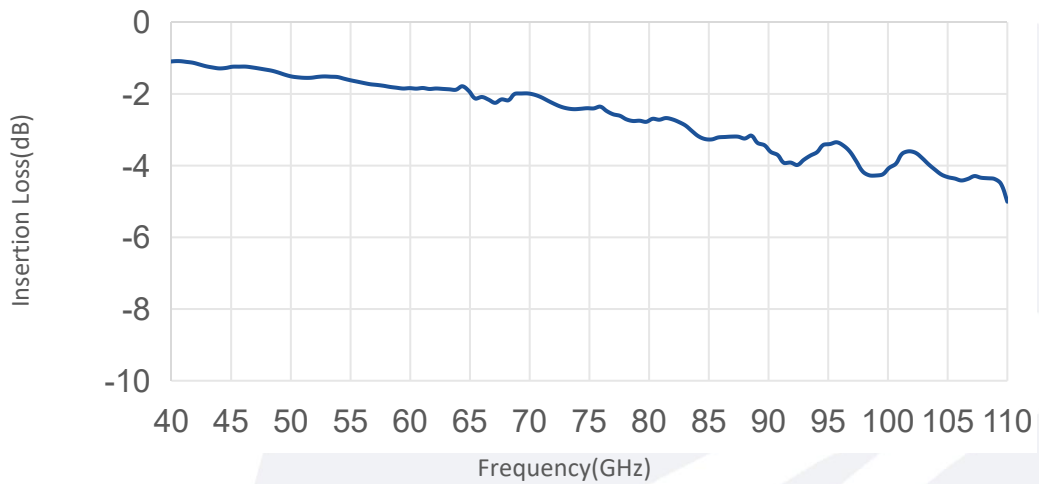
标准型号 Base Number	描述 Description	版本号 Revision
TC-4001100-6-1.0	Coax Directional Coupler 40-110GHz, Coupling:8dB, 1.0mm Female	Rev.1.0

典型曲线 Typical Performance Data:

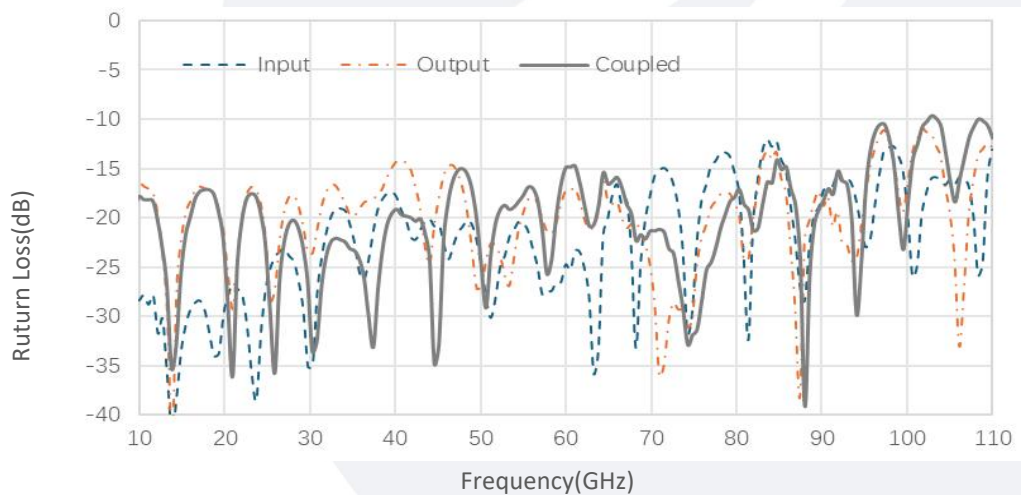
Coupling vs Frequency



Insertion Loss vs Frequency



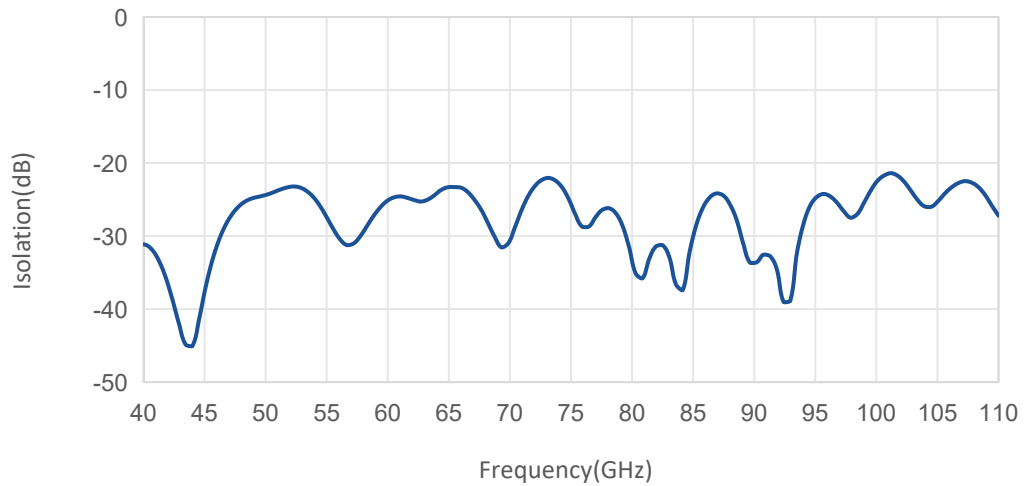
Return Loss vs Frequency



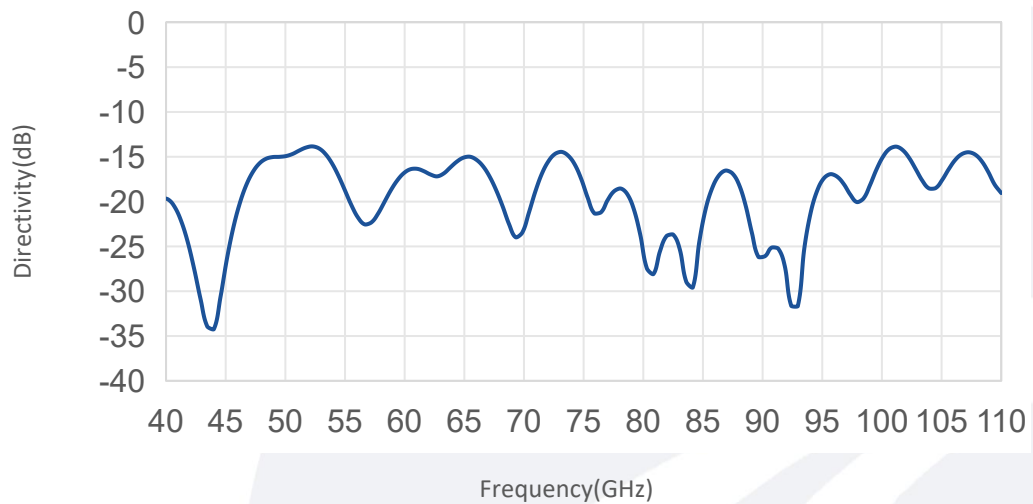
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

Isolation vs Frequency



Directivity vs Frequency



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