泰莱微波
Talent Microwave

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High Power Directional Coupler

0.02-1GHz/50dB Coupling/N-K,SMA-K

Model: TDC-20M010-50N-500

TDC-20M010-50N-500 is a high power directional coupler that delivers a 50 dB nominal coupling level and 18 dB minimum directivity across the full frequency range from 0.02 to 1GHz. It is a three-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: 0.02-1GHz
- Max Power: 500W(CW)
- 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	0.02		1	GHz
插入损耗 Insertion Loss(Excl coupling)			0.28	dB
耦合度 Coupling		50±1		dB
耦合平坦度 Coupling Flatness			±1.8	dB
方向性 Directivity	18			dB
主线驻波 Main Line VSWR			1.3	:1
耐功率 Power Handling			500	W
阻抗 Impedance		50		Ohms

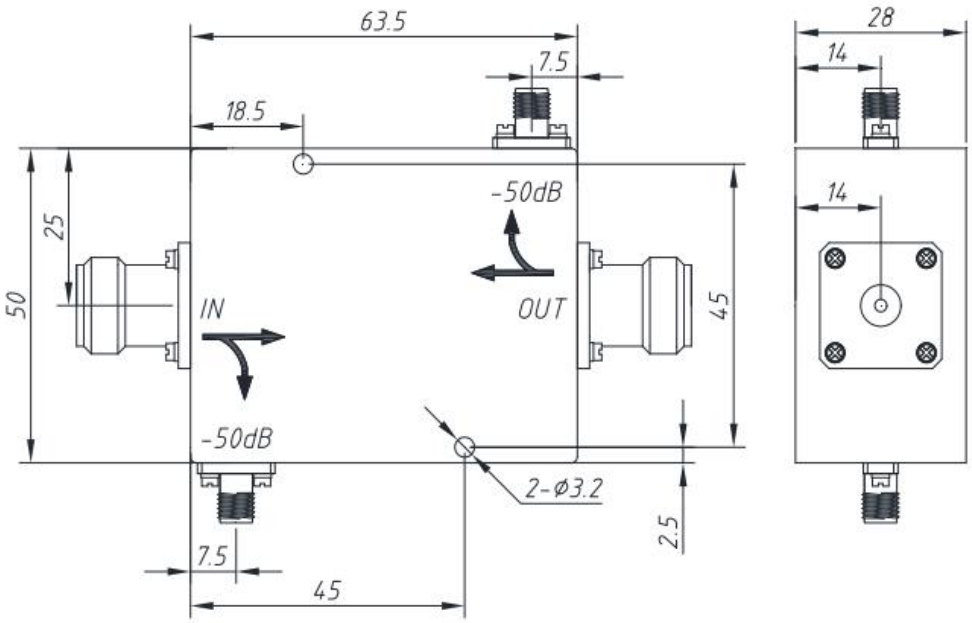
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
RF接口 RF Connector	N-K(主线)、SMA-K（副线）	
表面 Finish	Cavity: Silver plated Cover plate: Conductive oxidation	
尺寸 Size	63.5*50*28	mm

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外形图 Outline Drawing:

Unit:mm; Tolerance:±0.2mm



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	-55		+85℃	
相对湿度 Relative humidity	100% RH at 35c, 95%RH at 40℃			%
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
TDC-20M010-50N-500	High Power Directional Coupler 0.02-1 GHz, Coulping:50dB, N-K(主线)、SMA-K（副线）	Rev.1.0