

北京天华中威科技有限公司

TSP-180260G3-VD-6 宽带移相器

技术说明书



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同轴

数字移相器

TSP-180260G3-VD-6

50 Ω

18 to 26 GHz

特性

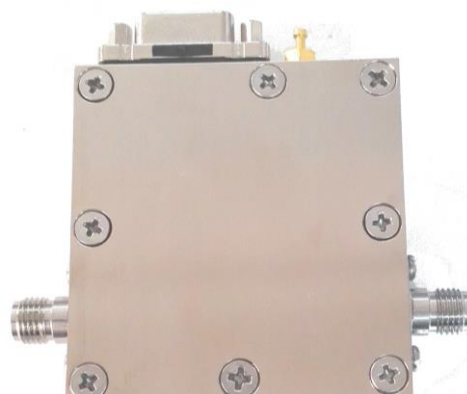
- 宽带: 18 ~ 26 GHz
- 插入损耗: 8 dB
- 位数 6Bit
- 相位变化范围360°

应用

- 电子战接收机
- 气象及军用雷达
- 通讯卫星
- 波束形成模块
- 相取消

技术指标

TA=+25°C Vdd=+5V Vc=0/+5V 50 Ohm 系统



指标参数	测试条件	最小值	典型值	最大值	单位
频率范围		18	-	26	GHz
插入损耗	全频率范围	-	8.0	-	dB
入口回波损耗	全频率范围		-10	-6	dB
出口回波损耗	全频率范围	-	-10	-6	dB
位相位误差	全频率范围	-	+/- 5.5	-	deg
均方值误差		-10		+12	deg
输入压缩 P1dB		-	10	-	dBm
位控制电压		L/0V		H/5V	V
电压/电流	5 V	-	-	20	mA



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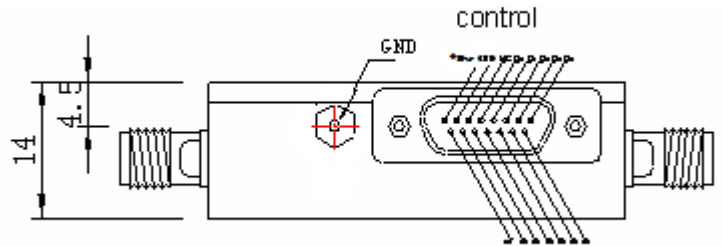
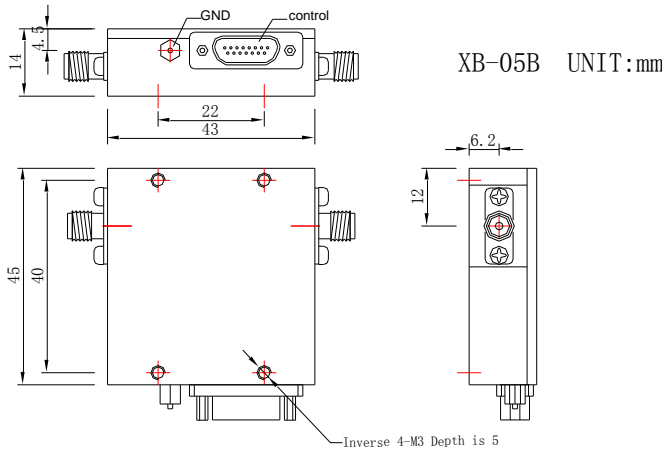
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外形尺寸图

控制图



极限参数

操作温度	-40°C to 70°C
储存温度	-55°C to 100°C
电源电压 (max)	8V
控制电压 (max)	
最大入口功率	20 dBm

State	Voltage
Low(0)	0 to +0.5V
High(1)	+3 to +5V(Note 5)

Note 5: 内置上拉电阻 (约500 kΩ), 悬空时代表High

超出该极限值有可能对器件造成损坏!

典型曲线图

Control Voltage Input						Phase Shift (Degrees) RFIN - RFout
D5	D4	D3	D2	D1	D0	
1	1	1	1	1	1	Reference*
1	1	1	1	1	0	5.625
1	1	1	1	0	1	11.25
1	1	1	0	1	1	22.5
1	1	0	1	1	1	45.0
1	0	1	1	1	1	90.0
0	1	1	1	1	1	180.0
0	0	0	0	0	0	354.375



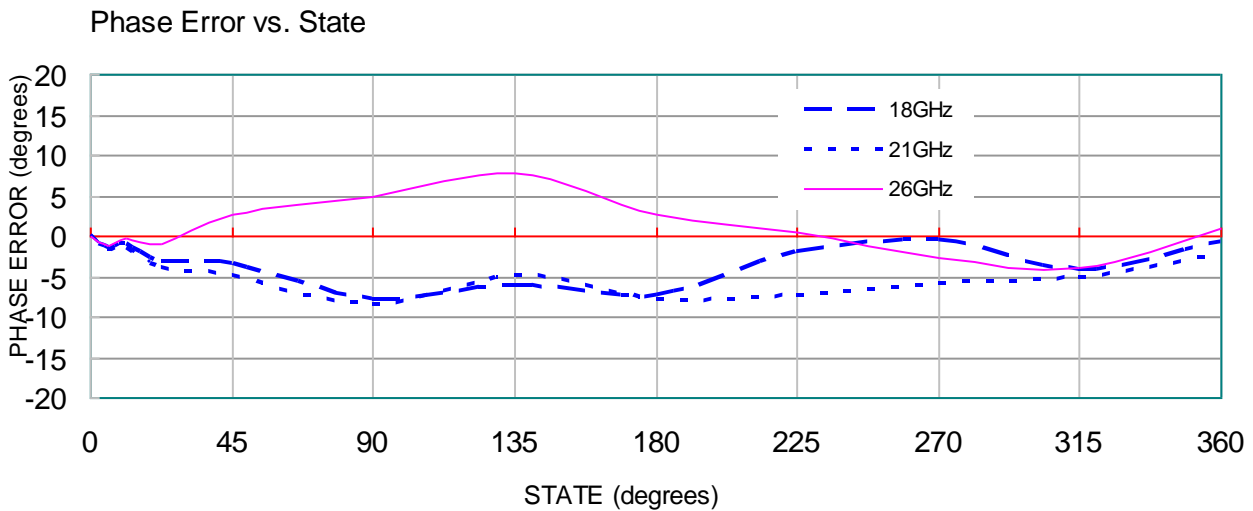
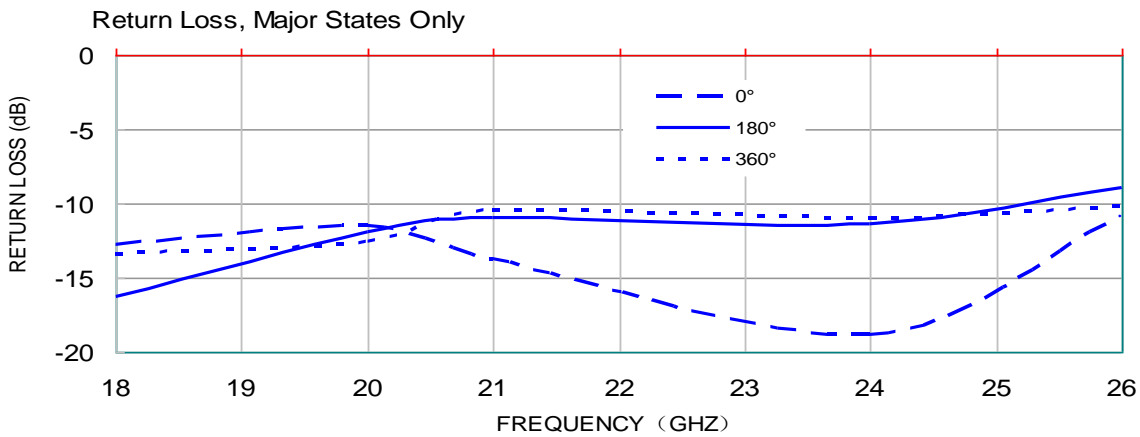
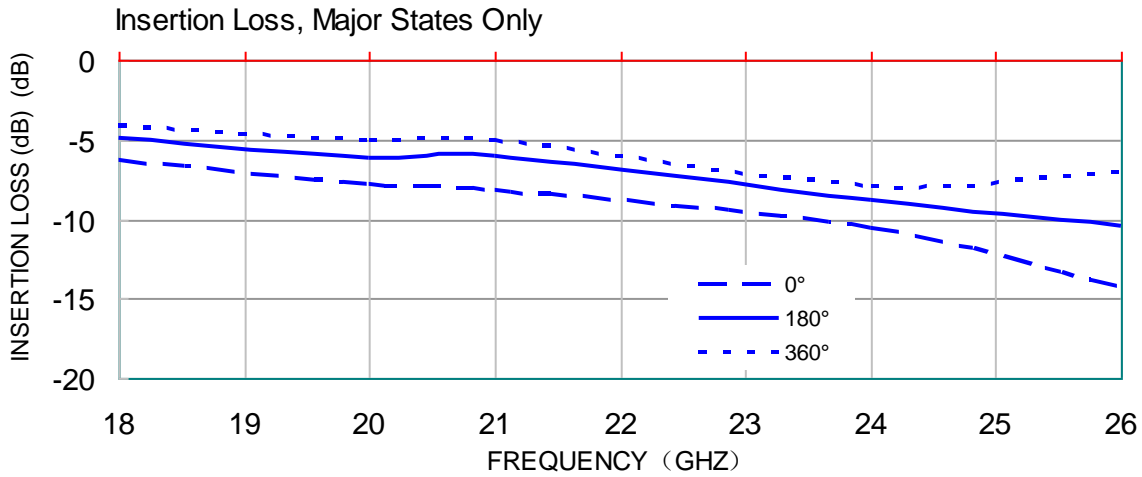
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Theoretical Phase (Degree)	input power (dBm)	Insertion Loss (dB) at middle Frequency	Return Loss (dB) at middle Frequency	Phase Degree		
				18GHz	21GHz	26GHz
Ref	0	-8.2	-12.5	Reference	Reference	Reference
5.625	0	-7.5	-13.5	4.60	4.4	5
11.25	0	-5.3	-14.0	10.60	10.1	11.8
22.50	0	-3.50	-11.5	20.40	19.6	23.1
45.00	0	-3.40	-12.6	42.30	40.7	48.8
90.00	0	-3.30	-15.6	83.50	82.2	96.5
180.00	0	-6.2	-11.9	176.80	175.5	174.9
354.375	0	-4.7	-12.6	360.00	358.2	361.1



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