

JD 系列 Semi-Rigid Form-stable Series

低损耗半钢固定成型同轴电缆

- *Ultra Low Loss
- *Phase & Amplitude Stable
- *Semi-Rigid Coaxial Cable

电缆特点

- *最高工作频率DC-40GHz
- *温度稳相500PPM
- *机械稳相 $\pm 5^\circ$
- *幅度稳定性 $\pm 0.05\text{dB}$
- *超低损耗
- *优良的屏蔽性能
- *小空间固定成型应用



Features & Advantages

- *Operating Frequency up to DC-40GHz
- *Phase Stable 500PPM
- *Mechanical phase Stable $\pm 5^\circ$
- *Amplitude stability $\pm 0.05\text{dB}$
- *Ultra Low Loss
- *Superior Shielding Effectiveness(>-90dB)

典型应用-Applications

- 板卡之间互联
- 机柜内跳线
- 机载雷达
- 弹载系统
- 相控阵雷达
- 小空间馈电网络
- 仪器仪表

命名方式:

Connector#1 -	Cable -	Length -	Connector #2 -	Frequency
(接头#1)	(电缆)	(长度)	(接头#2)	频率 (GHz)
↓	↓	↓	↓	↓
SM=SMA Male	JD086	0.5M	SM=SMA Male	40GHz
SF=SMA Female	JD141	1M	SF=SMA Female	26.5GHz
KM=2.92mm Male		2M	KM=2.92mm Male	18GHz
KF=2.92mm Female		定制长度	KF=2.92mm Female	
可定制接头			可定制接头	

结构材料与尺寸 Material & Construction

结构 Structure	材质 Material	JD086	JD141
1. 中心导体 (mm) Center Conductor (mm)	镀银铜 Silver Plated Copper	0.58	1.05
2. 介质 (mm) Dielectric (mm)	低密度PTFE LD PTFE	1.68	3.05
3. 护套 (mm) Jacket (mm)	无缝退火紫铜管 Seamless Annealed Copper Tube 镀三元合金可选 Cu-Sn-Zn Alloy Available	2.18	3.58

主要参数指标 Specifications

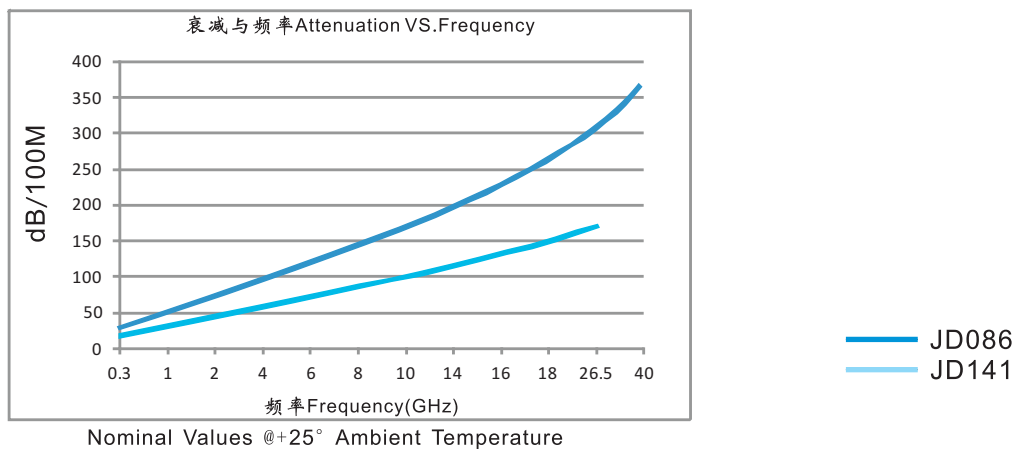
主要参数指标 Specifications	JD086	JD141
工作频率 Operating Frequency Range (GHz)	40	26.5
特性阻抗 Impedance (Ω)	50	50
传输速率 Vp (%)	81	81
介质耐压 Voltage Withstand (V, DC)	500	1300
屏蔽效率 Shielding Effectiveness (dB)	<-110	<-110
静态弯曲半径 Bend Radius: Installation (mm)	7	13.5
动态弯曲半径 Bend Radius: Repeated (mm)	N/A	N/A
重量 Weight (g/m)	19	49
工作温度范围 Operating Temperature Range ($^{\circ}\text{C}$)	-60~250	-60~250

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Low Loss Semi-rigid Form Stable Coax

衰减vs. 频率变化曲线图 Attenuation vs Frequency

电缆衰减/Cable Attenuation 典型值@ + 25° 环境温度



衰减vs. 频率 Attenuation vs. Frequency (dB/100m)

频率 (Mhz) Frequency	300	1000	2000	4000	6000	8000	10000	14000	16000	18000	26500	40000
JD086	30	55	78.2	111.3	136.9	158.7	178.1	195.7	227.3	241.7	296	368
JD141	16.8	31	44.2	63.1	78	90.7	102	112.4	131	136.8	168.1	

JD086—K1=1.72000 K2=0.00059

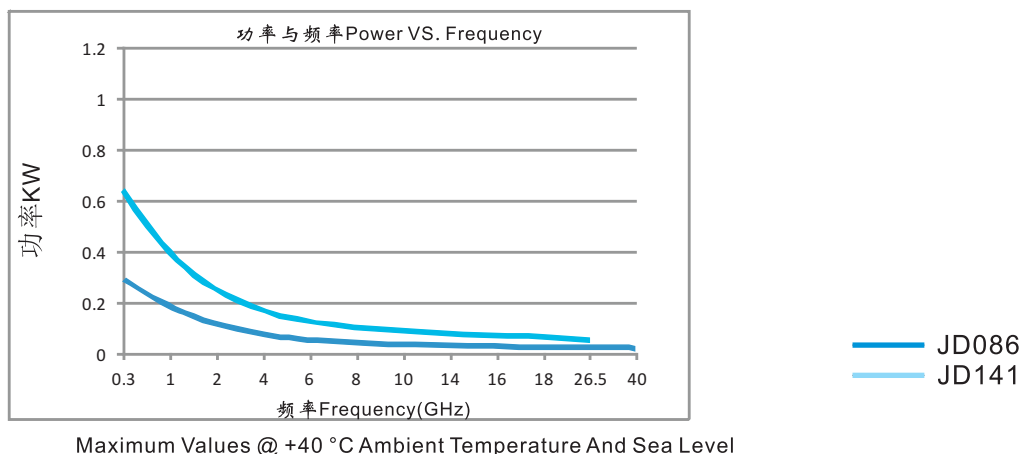
JD141—K1=0.96104 K2=0.00059

JD250—K1=0.24736 K2=0.00059

其他任意频点衰减=K1*sqrt(fMHz)+K2*fMHz; dB/100m

功率vs. 频率变化曲线图 CW Power VS Frequency

功率定义/Power Handling: 最大值@ + 40° C的环境温度和海平面



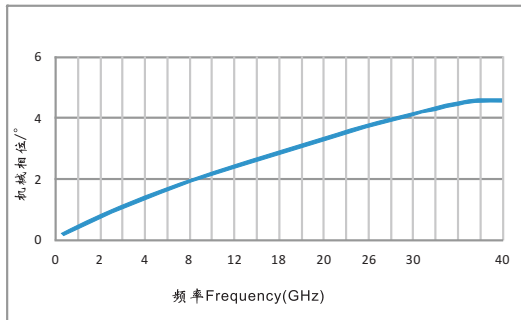
功率vs. 频率 (KW) CW Power Handling vs. Frequency

频率 (Mhz) Frequency	300	1000	2000	4000	6000	8000	10000	14000	16000	18000	26500	40000
JD086	0.476	0.259	0.183	0.128	0.098	0.09	0.08	0.073	0.063	0.059	0.042	0.039
JD141	1.086	0.59	0.414	0.359	0.234	0.201	0.179	0.163	0.139	0.131	0.106	

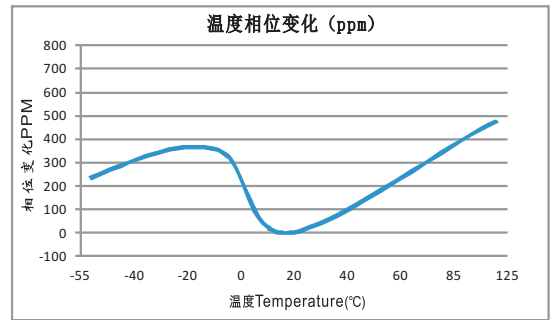
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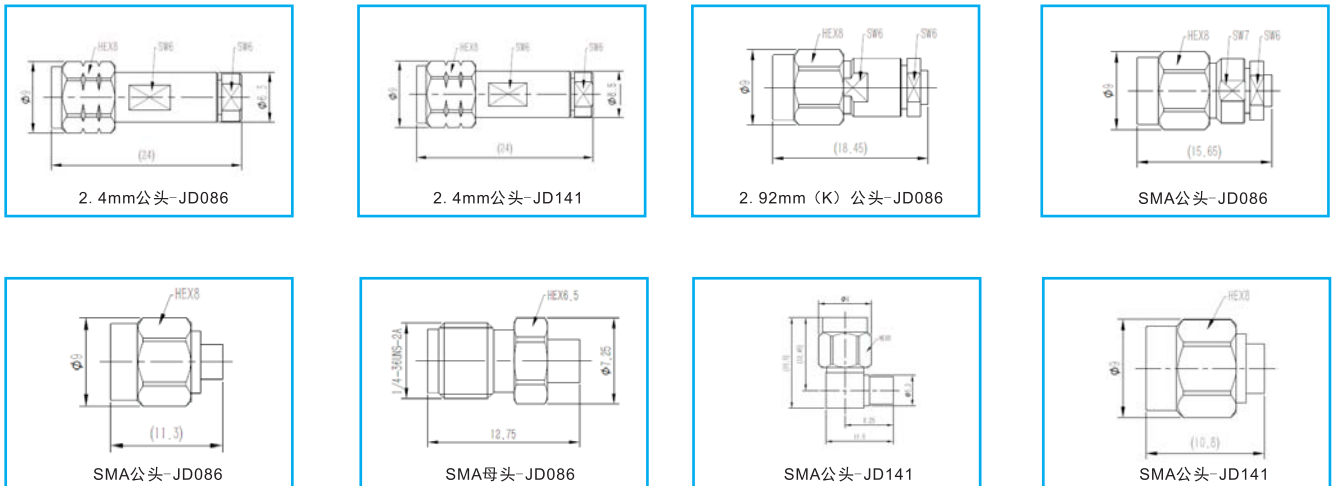
*机械相位
*Mechanical Phase Stability



*温度相位变化 (PPM)
*Phase Change vs. Temperature



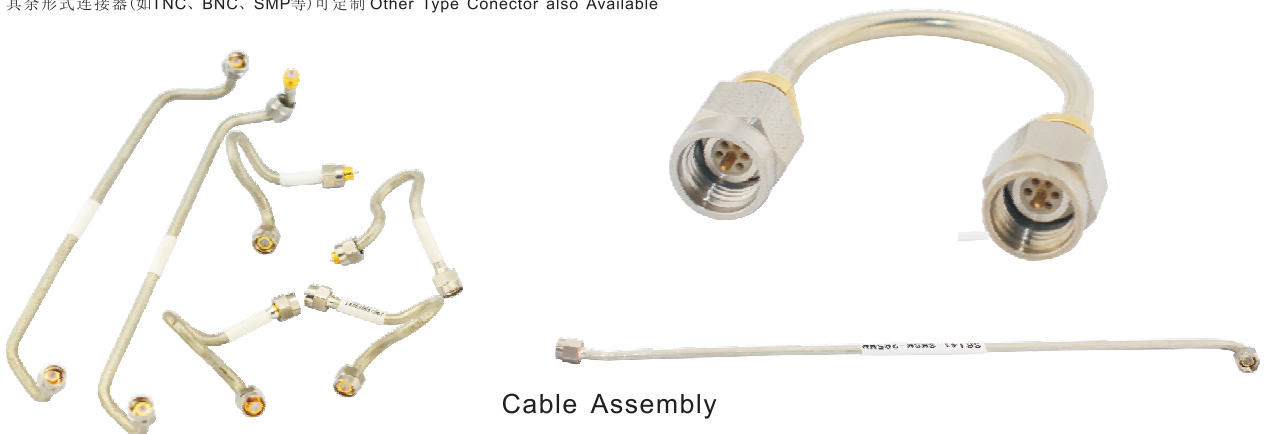
部分连接器尺寸图 Connector Outline Drawing



适配连接器 Cable Connector Type

连接器 Connector	型号 Type	材料 Material	装接方式 Assembly Type	适用电缆 Applicable to cable
SMA	SMA-XXX	不锈钢SUS-303	焊接/Welding	JD086/JD141
2.4mm	24-XXX	不锈钢SUS-303	焊接/Welding	JD086
2.92mm	29-XXX	不锈钢SUS-303	焊接/Welding	JD086

备注Remark:
XXX表示电缆型号:xxx Refer to Cable Type
其余形式连接器(如TNC、BNC、SMP等)可定制 Other Type Conector also Available



Cable Assembly