

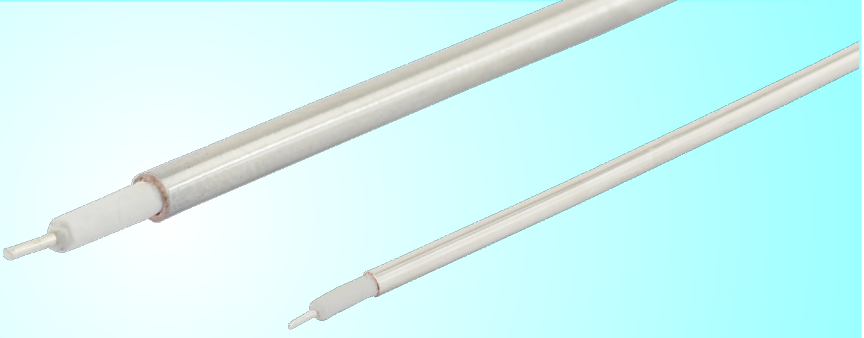
JD 系列 Semi-Rigid Form-Stable Series

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

产品介绍-Products Instruction

JD系列为半钢电缆，其外导体为无缝退火铜管镀三元合金。由于屏蔽层为封闭结构，所以电缆具有最优的屏蔽性能和最小的外导体损耗。

电气性能方面，信号传输率高达81%，温度相位稳定性小于500PPM,同时还具有低损耗，屏蔽效率高等优点。

机械性能方面，具有较强的抗拉强度和弯曲固定成形性。但在使用过程中应防止弯曲半径过小和二次弯曲造成外导体损伤。

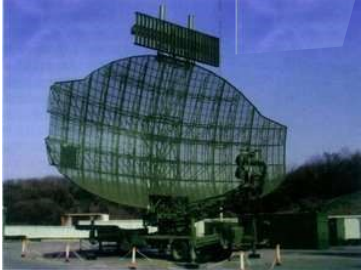
耐环境环境性方面，电缆的环境适应性很强，一般会根据具体的使用环境进行不同的镀层保护。



- Missile system
- Within the cabinet jumper
- Phased array radar



- Board interconnection



- Phased array radar
- Feed network

低损耗半钢固定成型同轴电缆

Low Loss Semi-rigid Form Stable Coax

结构材料与尺寸 Material & Construction (可定制尺寸、材料、颜色等)

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

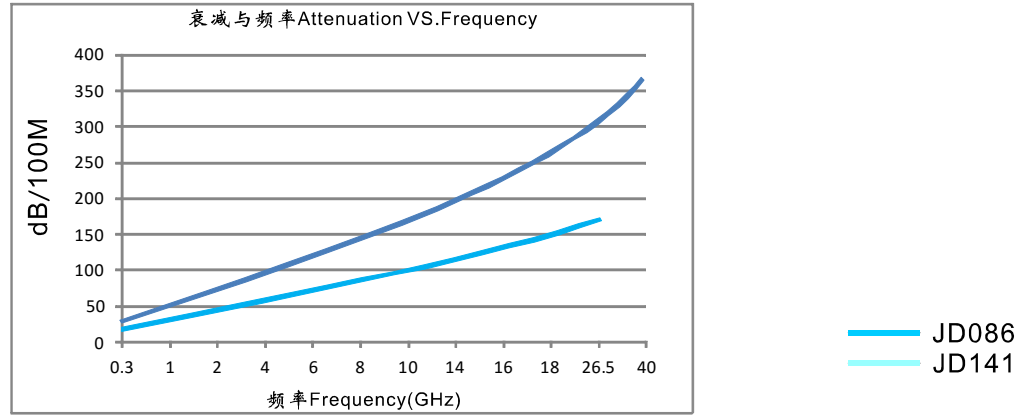
主要参数指标 Specifications	JD086	JD141
工作频率 Operating Frequency Range (GHz)	40	26.5
特性阻抗 Impedance (Ω)	50	50
传输速率 Vp (%)	81	81
介质耐压 Voltage Withstand (V, DC)	500	1300
屏蔽效率 Shielding Effectiveness (dB)	<-110	<-110
静态弯曲半径 Bend Radius: Installation (mm)	7	13.5
动态弯曲半径 Bend Radius: Repeated (mm)	N/A	N/A
重量 Weight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

低损耗半钢固定成型同轴电缆

Low Loss Semi-rigid Form Stable Coax

衰减与频率变化曲线图 Attenuation VS. Frequency

电缆衰减/Cable Attenuation 典型值@ +25° 环境温度



Nominal Values @+25° Ambient Temperature

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	212.03	227.3	241.7	296	389.3
JD141	16.8	31	44.2	63.1	78	90.7	102	121.97	131	139.56	172.08	-

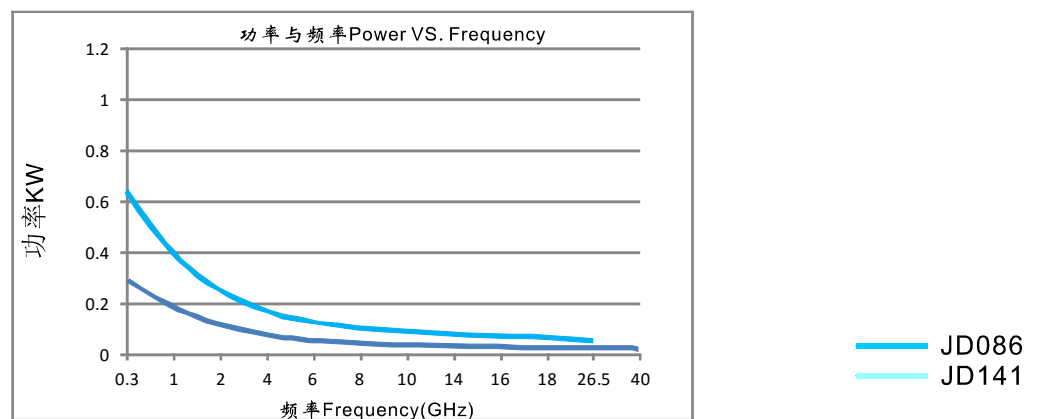
JD086—K1=1.72000 K2=0.00059

JD141—K1=0.96104 K2=0.00059

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

功率与频率变化曲线图 CW Power VS. Frequency

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



Maximum Values @ +40° C Ambient Temperature And Sea Level

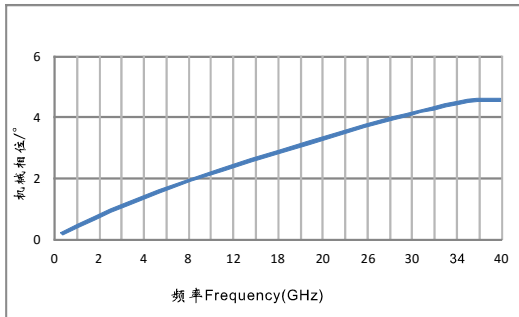
功率与频率 (kW) CW Power Handling VS. Frequency

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	-

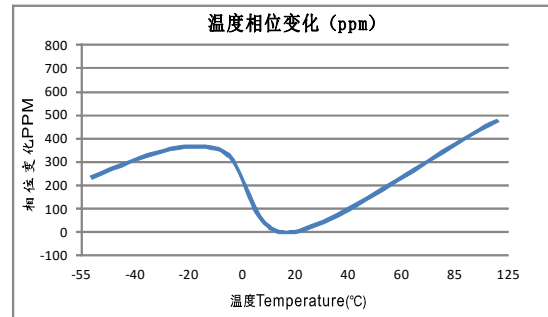
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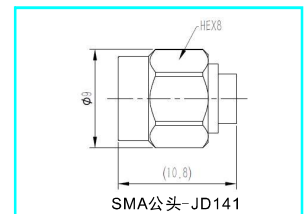
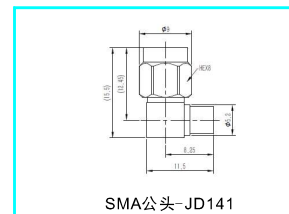
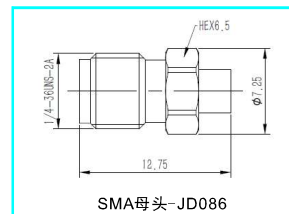
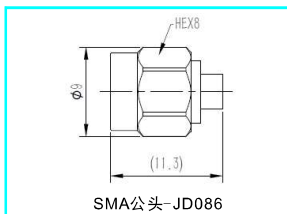
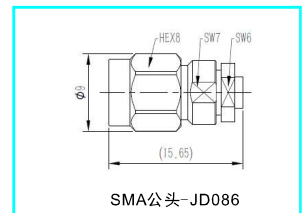
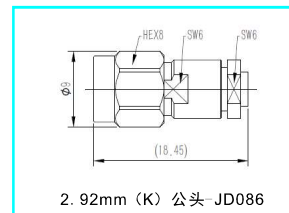
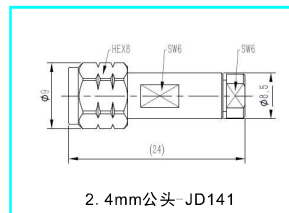
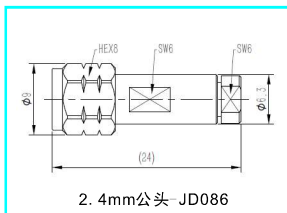
*机械相位
*Mechanical Phase Stability



*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