

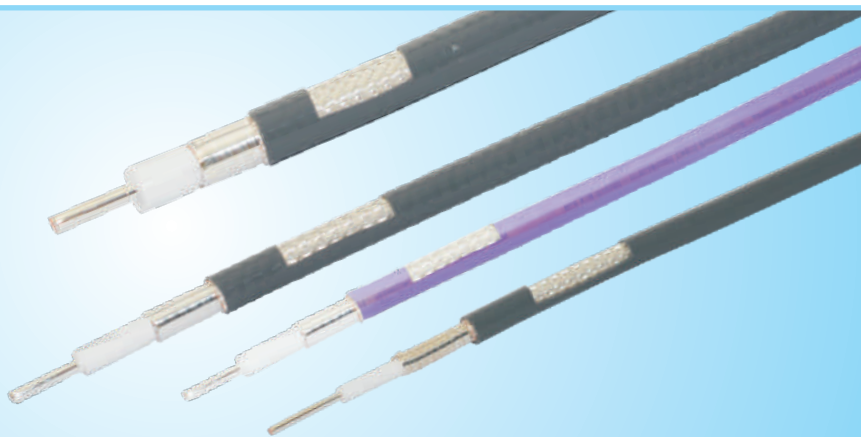
JA 系列Series

超低损耗&稳幅稳相柔性同轴电缆

- *Ultra Low Loss
- *Phase & Amplitude Stable
- *Flexible Coaxial Cable

电缆特点

- *工作频率高至110GHz
- *超低损耗
- *温度/机械稳相
- *重量轻
- *耐高温
- *大功率



*执行GJB973A-2004/美军标MIL-DTL-17H标准

Features & Advantages

- *Operating Frequency up to DC-40GHz
- *Phase Stable <550PPM@-55-+85°C
- *Mechanical Phase Stable $\pm 5^\circ$
- *Amplitude Stable $\pm 0.1\text{dB}$
- *Ultra Low Loss
- *Superior Shielding Effectiveness(<-90dB)

典型应用-Applications

- 相控阵雷达
- 航空电子
- 电子对抗
- 舰载弹载微波模块互连
- 任何要求低损耗、相位稳定的苛刻互连场合

• Avionics



• EW



产品介绍-Products Instruction

JA系列电缆采用了特殊的同轴设计和先进的生产工艺,使得电缆在全频段范围内有着优良的电气与机械性能指标。

电气性能方面,信号传输率高达83%,温度相位稳定性小于550PPM,同时还具有低损耗、屏蔽效率高、高功率等优点。

机械性能方面,低密度绝缘和铜带绕包,使得电缆有更优的弯曲性和优越的机械相位稳定性能。

环境使用方面,采用耐环境性能优质的原材料使其具有使用温度范围宽、抗腐蚀性、防潮防霉、阻燃等特点。

外径2.2~5.1mm 系列 Outer Diameter 1.46~5mm

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	JA146	JA220	JA360	JA400	JA480	JA500
1. 中心导体 (mm) Center Conductor (mm)	镀银铜 Silver Plated Copper	0.29	0.51	0.91	1.05	1.40	1.45
2. 介质 (mm) Dielectric (mm)	低密度PTFE LD PTFE	0.84	1.38	2.50	2.95	3.75	4.00
3. 外导体 (mm) Outer Conductor (mm)	镀银铜带 Silver Plated Copper Ribbon	1.00	1.58	2.66	3.15	3.95	4.20
4. 外屏蔽 (mm) Outer Shields (mm)	镀银铜丝 Silver Plated Copper	1.24	1.90	3.15	3.45	4.35	4.70
5. 护套 (mm) Jacket (mm)	FEP 灰色/Gray, 薄荷绿/Mint Green	1.46	2.20	3.60	3.90	4.80	5.10

主要参数指标 Specifications

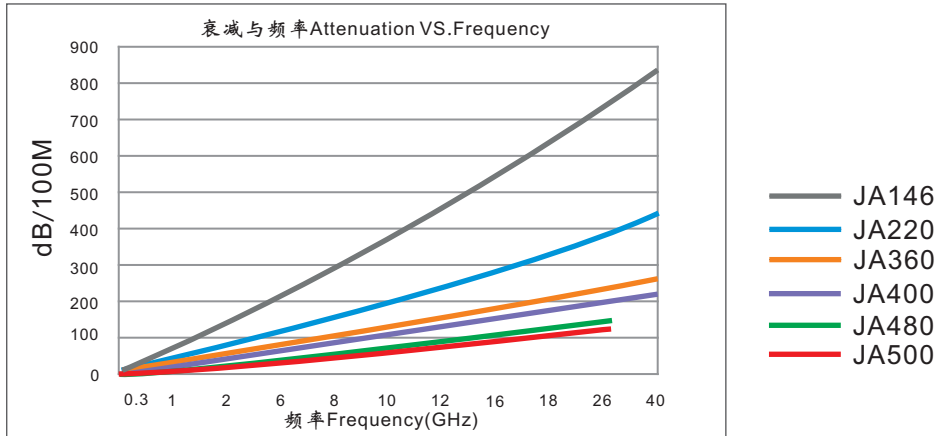
主要参数指标 Specifications	JA146	JA220	JA360	JA400	JA480	JA500
工作频率 Operating Frequency Range (GHz)	110	67	40	40	26.5	26.5
特性阻抗 Impedance (Ω)	50	50	50	50	50	50
传输速率 Vp (%)	80	82	83	80	83	83
介质耐压 Voltage Withstand (V, DC)	600	800	1000	1000	1200	1500
屏蔽效率 Shielding Effectiveness (dB)	<-90	<-90	<-90	<-90	<-90	<-90
静态弯曲半径 Bend Radius: Installation (mm)	8	11	18	20	24	25.5
动态弯曲半径 Bend Radius: Repeated (mm)	14	22	36	39	48	50
重量 Weight (g/m)	5.6	16	33	36	57	65
工作温度范围 Operating Temperature Range (℃)	-55~+165	-55~+165	-55~+165	-55~+165	-55~+165	-55~+165

衰减&功率 (外径1.46~5.1mm系列)

Ultra Low Loss,Phase&Amplitude Stable,Flexible High Performance 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 Typical Values @+25° Ambient Temperature



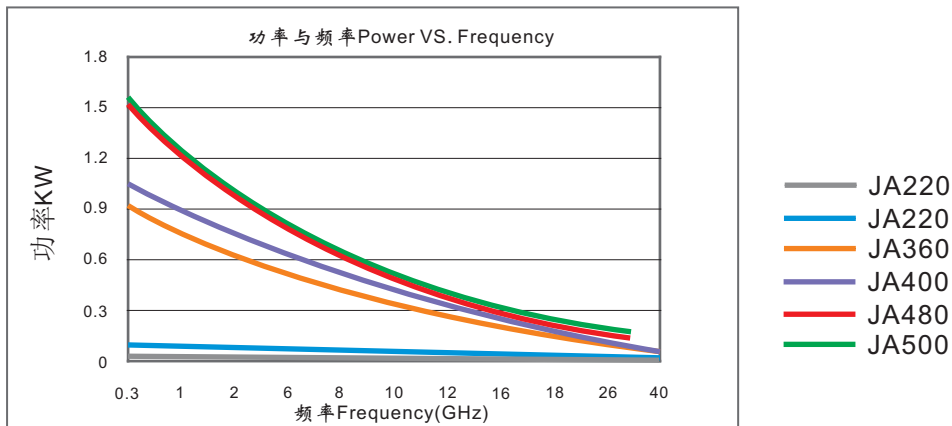
衰减与频率 Attenuation vs. Frequency (dB/100m)

频率 (Mhz) Frequency	300	1000	2000	6000	8000	10000	12000	16000	18000	26500	40000
JA146	70.5	128.9	182.7	317.9	367.7	411.7	451.6	522.7	554.9	676.1	834.9
JA220	34.6	63.7	90.8	160.4	186.5	209.8	231	269.5	287.1	354.1	444
JA360	20.4	37.5	55.36	93.8	108.9	122.3	134.6	156.6	166.7	204.8	255.7
JA400	16.8	31	44.1	78	90.6	102	114.3	131	139.6	172.1	215.8
JA480	12.9	23.67	33.7	59.54	69.22	77.86	87.26	99.96	106.48	131.24	
JA500	12.5	23	32.7	57.4	66.6	74.8	82.3	95.8	101.9	125.2	

JA220—K1=4.0594 K2=0.0005755 JA220—K1=1.975832 K2=0.001221 JA360—K1=1.16847 K2=0.00055 JA400—K1=0.96104 K2=0.00059 JA480—K1=0.734593 K2=0.00044 JA500—K1=0.715687 K2=0.000328
其他任意频点衰减=K1*sqrt(fMHz)+K2*fMHz; dB/100m JA220--5.93dB/m@67GHz

平均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

平均功率与频率 (kw) CW Power Handling VS. Frequency

频率 (Mhz) Frequency	300	1000	2000	6000	8000	10000	12000	16000	18000	26500	40000
JA146	0.0612	0.033	0.0234	0.0132	0.0114	0.0102	0.009	0.0078	0.0072	0.006	0.0048
JA220	0.102	0.055	0.039	0.022	0.019	0.017	0.015	0.013	0.012	0.01	0.008
JA360	0.94	0.511	0.359	0.204	0.176	0.157	0.142	0.122	0.115	0.094	0.075
JA400	1.05	0.57	0.386	0.23	0.198	0.17	0.15	0.13	0.13	0.1	0.08
JA480	1.609	0.872	0.612	0.347	0.298	0.265	0.236	0.206	0.194	0.157	
JA500	1.608	0.875	0.615	0.351	0.302	0.268	0.244	0.211	0.197	0.163	

外径7.5~11.5mm 低损大功率系列 Ultra Low Loss,Phase&Amplitude Stable,Flexible High Performance Coax

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

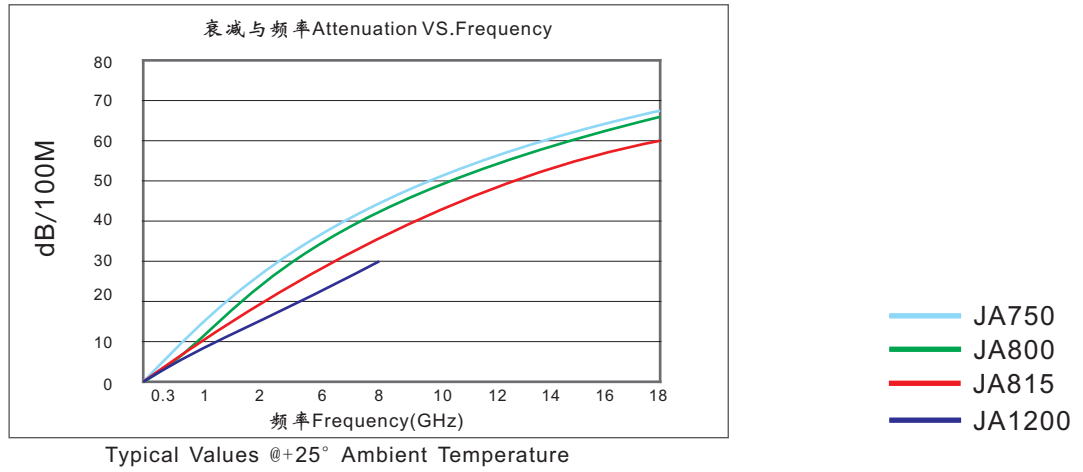
结构 Structure	材质 Material	JA750	JA800	JA815	JA1200
1.中心导体(mm) Center Conductor(mm)	镀银铜 Silver Plated Copper	2.10	2.30	2.43	3.48 铜包铝
2.介质(mm) Dielectric(mm)	低密度PTFE LD PTFE	5.75	6.30	6.60	9.50
3.外导体(mm) Outer Conductor(mm)	镀银铜带 Silver Plated Copper Ribbon	6.07	6.60	6.90	9.74
4.外屏蔽(mm) Outer Shields(mm)	镀银铜丝 Silver Plated Copper	6.58	7.11	7.40	10.25
5.护套(mm) Jacket(mm)	FEP灰色/Gray, 薄荷绿/Mint Green 淡紫Light Purple	7.50	7.80	8.10	11.50

主要参数指标 Specifications

主要参数指标 Specifications	JA750	JA800	JA815	JA1200
工作频率 Operating Frequency Range (GHz)	18	18	18	8
特性阻抗 Impedance (Ω)	50	50	50	50
传输速率 Vp (%)	83	83	83	83
介质耐压 Voltage Withstand (V,DC)	200	2000	2000	4000
屏蔽效率 Shielding Effectivenss (dB)	<-90	<-90	<-90	<-90
静态弯曲半径 Bend Radius : Installation (mm)	37	39	40	60
动态弯曲半径 Bend Radius : Repeated (mm)	75	78	81	120
重量 Weight (g/m)	125	146	147	235(重载超轻型)
工作温度范围 Operating Temperature Range (°C)	-55~+165	-55~+165	-55~+165	-55~+165

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



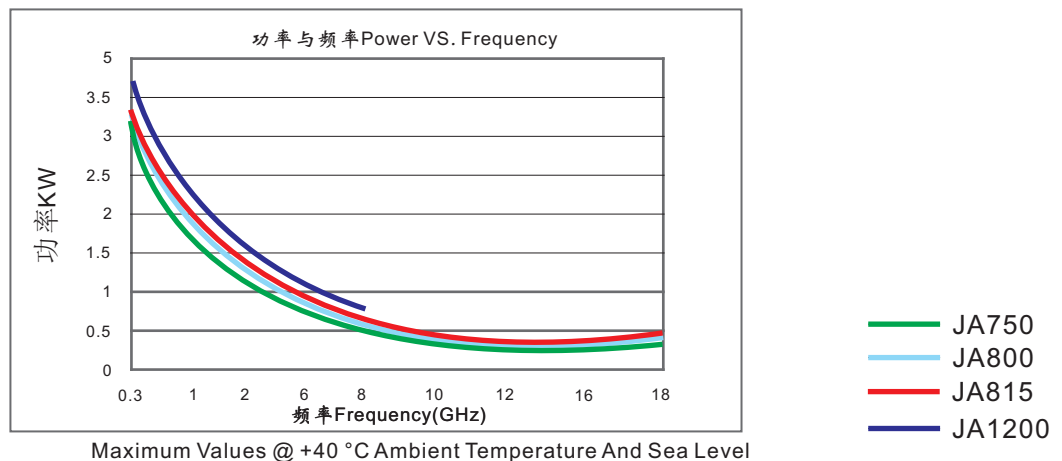
衰减与频率 Attenuation vs. Frequency (dB/100m)

频率 (Mhz) Frequency	300	1000	2000	6000	8000	10000	12000	16000	18000
JA750	8.41	15.43	21.90	38.42	44.55	49.99	55.61	63.84	67.86
JA800	7.30	14.80	21.10	37.30	43.40	48.90	53.90	63.00	67.10
JA815	7.20	13.20	18.90	33.60	39.10	44.10	49.50	56.90	60.70
JA1200	5.33	9.98	14.10	26.34	30.99				

JA750—K1=0.482490 K2=0.000174 JA800—K1=0.45638 K2=0.000328 JA815—K1=0.40800 K2=0.00033 JA1200—K1=0.290173 K2=0.000562
其他任意频点衰减=K1*sqrt(fMHz)+K2*fMHz; dB/100m

平均功率与频率变化曲线图 CW Power VS. Frequency

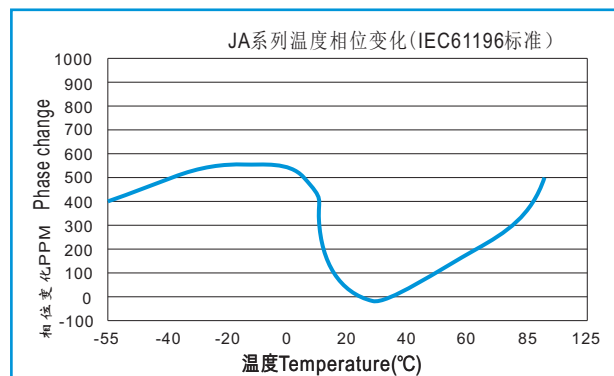
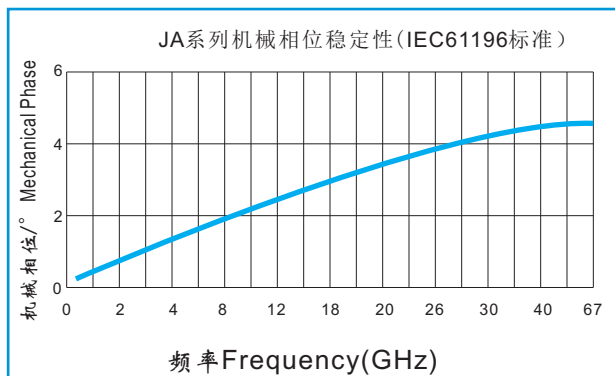
功率定义/Power Handling: 最大值@ + 40° C的环境温度和海平面



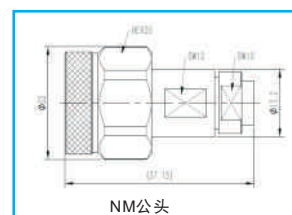
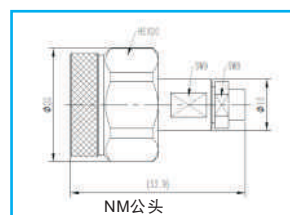
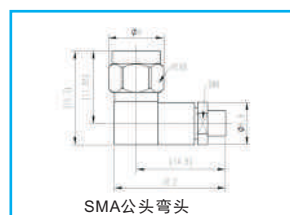
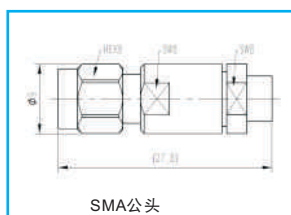
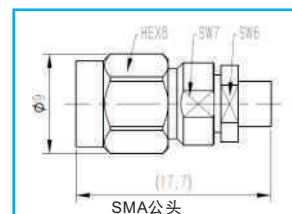
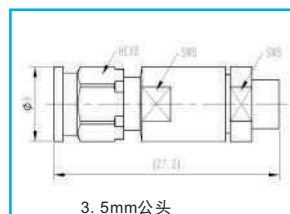
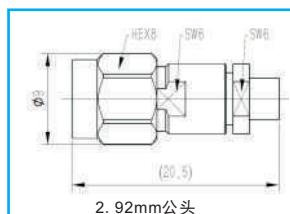
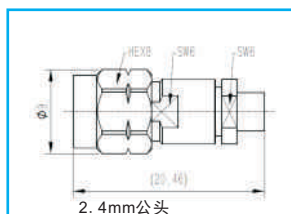
平均功率与频率 (kw) CW Power Handling VS. Frequency

频率 (Mhz) Frequency	300	1000	2000	6000	8000	10000	12000	16000	18000
JA750	3.350	1.825	1.285	0.738	0.632	0.563	0.504	0.439	0.425
JA800	3.341	1.812	1.269	0.716	0.615	0.547	0.496	0.425	0.398
JA815	3.420	1.850	1.290	0.730	0.630	0.560	0.490	0.430	0.400
JA1200	4.800	2.610	1.820	1.020	0.880				

JA系列机械温度参数



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	JA220/360/480/500/800
N	N-xxx	不锈钢SUS-303	焊接/Welding	JA360/480/500/800
3.5mm	35-xxx	不锈钢SUS-303	焊接/Welding	JA480/500
2.92mm	29-xxx	不锈钢SUS-303	焊接/Welding	JA220/360/400
2.4mm	24-xxx	不锈钢SUS-303	焊接/Welding	JA360

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 Connector also Available



Reel Cable 标准裸缆包装



Cable Assembly 电缆组件