

半柔射频同轴电缆规格书

Semi-flexible RF Coaxial Cable Specification

规格 Cable Type: 670-141/100 FEP



嘉兴市弘讯电子有限公司

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修订记录

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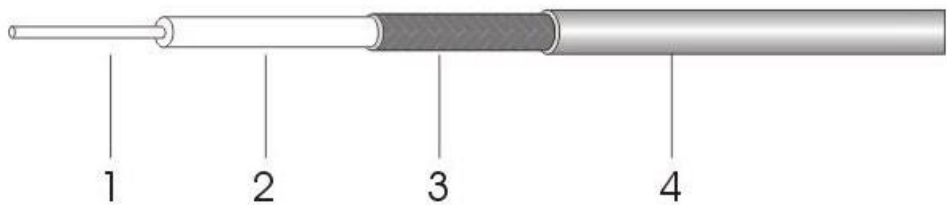
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1 基本要求 Basic Requirement

工作温度范围 Working Temperature range	-65℃～200℃
安装湿度Working Humidity range	-20℃～60℃
贮存温度 Storage Temperature	0℃～40℃
使用寿命 Service Life	≥3 years
参考依据 Reference Standards	IEC61196-8

2 外观/结构 Appearance/ Construction

2.1 轮廓图 Outline Drawing



3 类型和规格 Type and Specs.

3.1 内导体 Inner Conductor

材料Material:镀银铜包钢线 Silver Plated Copper Clad Steel Wire
内导体直径（包含公差）Inner Conductor Diameter (with tolerance): 0.28 mm±0.01 mm

3.2 绝缘体 Insulation

材料Material: 实心聚四氟乙烯 Solid Extruded PTFE
绝缘体直径（包含公差）Insulation Diameter (with tolerance): 3.00 mm±0.05 mm

3.3 外导体 Out Conductor

材料 Material: 浸锡铜线编织 Tinned Soaked Copper Wire Braid
外导体直径（包含公差）Outer Conductor Diameter (with tolerance): 3.52 mm±0.10 mm

3.4 护套 Jacket

材料Material: 聚全氟乙丙烯 FEP
护套直径 Jacket Diameter: 4.15 mm±0.10 mm

平均厚度 Average Thickness: 0.31 mm

最小厚度 Minimum Thickness: 0.21 mm

4 标记信息 Marking Information

无印字

5 电气性能 Electrical Characteristics

5.1 内导体直流电阻 Inner Conductor DC Resistance

$\leq 725 \Omega/\text{km}@20^{\circ}\text{C}$

5.2 外导体直流电阻 Outer Conductor DC Resistance

$\leq 16 \Omega/\text{km}@20^{\circ}\text{C}$

5.3 绝缘电阻 Insulation Resistance

$\geq 5000 \text{ M}\Omega \cdot \text{km}@20^{\circ}\text{C}$

5.4 介质耐压 Dielectric Strength

DC 5000 V 60 s: no crack

5.5 特性阻抗 Characteristic Impedance

$100 \Omega \pm 3 \Omega$

5.6 传输速率 Velocity

$70.8\% \pm 0.2\%$

5.7 截止频率 Cut-off Frequency

36 GHz

5.8 屏蔽效率 Shielding Effectiveness

$>100 \text{ dB} @200\text{-}4500 \text{ MHz}$

5.9 海平面 20℃下衰减和 40℃环境温度下的平均功率 Attenuation@20℃and sea level

mean power rating at 40℃ (104°F) ambient temperature.

Freq(MHz)	Attenuation Typical (dB/m)	Maximum Attenuation (dB/m)	Mean Power(W)
500	0.35	0.37	245
1000	0.50	0.53	172
5000	1.16	1.22	74
10000	1.69	1.77	51
20000	2.49	2.62	35

5.10 驻波比 VSWR

Frequency(MHz)	VSWR
5-3000	≤1.10
3000-6000	≤1.30

5.11 电容 (参考) Mutual Capacitance (refer)

47±3 pF/m

5.12 三阶交调 Intermodulation 3rd order

<-120 dBm(700MHz/900MHz/1800 MHz/2100MHz/2600MHz @2*43dBm)

5.13 峰值射频电压 Peak RF Voltage Rating

1.9 kv

5.14 相位差 Phase difference:

1440° ±4° @△l= 425 mm±0.1 mm @ 2 GHz

5.15 延时 Delay

4.7 ns/m

6 物理、机械性能 Mechanical and Physical Characteristics

6.1 最小单次弯曲半径 Min. Single Bending Radius

8 mm

6.2 最小重复弯曲半径 Min. Repeated Bending Radius

40 mm*20 cycles

6.3 重量 Weight

Nom.47 g/m

6.4 环保 Environment Compliant

RoHS 2.0

REACH

6.5 阻燃 Flammability

IEC60332-3-24

UL1354

7.包装存储运输要求 Packaging, Storage, Transportation

7.1 包装 Packaging

胶盘+纸箱包装约 265 米/盘 Plastic spool + Carton box, About 265 m/spool.

7.2 存储要求 Storage Requirements

存储温度为 $0^{\circ}\text{C} \sim +40^{\circ}\text{C}$, 相对湿度 $\leq 80\%$, 周围空气中无酸性、碱性等腐蚀性气体。

Temperature $0^{\circ}\text{C} \sim +40^{\circ}\text{C}$, relative humidity $\leq 80\%$, the surrounding air without acid, alkaline and other corrosive gases

7.3 运输搬运过程中不要剧烈振动或碰撞.

Don't be violently vibrated or impacted during transportation and carrying.

8.产品应用 Application

通信基站天线系统 Telecommunications antenna system