

半柔射频同轴电缆规格书

Semi-flexible RF Coaxial Cable Specification

规格 Cable Type: SFX-141/35 FEP



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目录

Contents

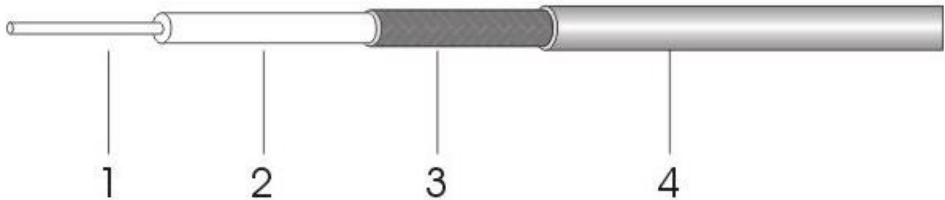
1 基本要求 Basic Requirement.....	4
2 外观/结构 Appearance/ Construction	4
3 类型和规格 Type and Specs	4
4 标记信息 Marking Information	5
5 电气性能 Electrical Characteristics.....	5
6 物理、机械性能 Mechanical and Physical Characteristics.....	6
7.包装存储运输要求 Packaging, Storage, Transportation	6
8.产品应用 Application	7

1 基本要求 Basic Requirement

工作温度范围 Working temperature range	-40℃～200℃
安装温度 Installation temperature 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: 镀银铜线 Silver-plated Copper
内导体直径（包含公差） Inner Conductor Diameter (with tolerance): 1.32 mm±0.02 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):2.94 mm±0.04 mm

3.3 外导体 Out Conductor

材料 Material: 浸锡铜线编织 Tinned Soaked Copper Braid
外导体直径（包含公差） Outer Conductor Diameter (with tolerance): 3.45 mm±0.08 mm

3.4 护套 Jacket

材料 Material: 聚全氟乙丙烯 FEP
外护套直径 Jacket Diameter: 4.15mm±0.10 mm
平均厚度 Average Thickness: 0.41 mm
最小厚度 Minimum Thickness: 0.31 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

$\leq 14.5 \Omega/\text{km} @ 20^\circ\text{C}$

5.2 外导体直流电阻 Outer Conductor DC Resistance

$\leq 18 \Omega/\text{km} @ 20^\circ\text{C}$

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 1500 V 1 min: No crack

5.5 特性阻抗 Characteristic Impedance

$35 \Omega \pm 2 \Omega$

5.6 传输速率 Velocity

$78\% \pm 0.2\%$

5.7 截止频率 Cut-off Frequency

31GHz

5.8 屏蔽效率 Shielding Effectiveness

$\geq 100 \text{ dB} (10 \sim 4000 \text{ MHz})$

5.9 海平面20℃下衰减和40℃环境温度下的海平面平均功率Nominal attenuationr@20℃

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

Freq.(MHz)	Attenuation Typical (dB/m)	Maximum Attenuation (dB/m)	Power(W)
500	0.29	0.30	552
1000	0.41	0.43	384
5000	0.99	1.04	161
10000	1.48	1.60	109
20000	2.25	2.37	72

5.10 电容 (参考) Mutual Capacitance (refer)

136 pF/m

5.11 三阶交调 Intermodulation 3rd order

<-120 dBm (910MHz、1800 MHz、2100MHz、2600MHz @2*40Watt)

5.12 峰值射频电压 Peak RF Voltage Rating

1.5kv

5.13 延时 Delay

4.7 ns/m

5.14 相位差 Phase Difference

1440° ±4° @ Δl= 425 mm±0.1 mm @ 2 GHz

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

6.3 重量 Weight

Nom. 50.1 g/m

6.4 环保 Environment Compliant

RoHS 2.0

REACH

6.5 阻燃 Flammability

IEC 60332-1-2

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

7.1 包装 Packaging

胶盘包装, 280 米/盘; 280 m/spool

7.2 存储要求 Storage Requirements

存储温度为 0℃~+40℃, 相对湿度≤80%, 周围空气中无酸性、碱性等腐蚀性气体。

Temperature 0℃ ~ +40 ℃, relative humidity ≤ 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 or carrying.

8.产品应用 Application

通信基站天线系统 Telecommunications antenna system