

CATVSCOPE 同轴电缆的生产与检验标准
The producing and testing standard
of CATVSCOPE coaxial cables

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RG6 的生产及检验标准

Producing and testing standard of RG 6

1. 适用范围 Applying scope:

适用于 RG6 的生产及检验。Using in RG 6 producing and testing

2. 要求 Demands

2.1 结构（符合下表）Specifications(In conformity with following table)

内导体 Inner conductor	1.00±0.01mm CCS	铜包钢导电率为 18%(≤120ohm) CCS rate of velocity 18%(≤120ohm)
绝缘体 Insulation	4.8±0.1mm	重量控制为 5.8~6.7g/m Weight control about 5.8~6.7g/m
外导体 Out conductor	铝箔 Al foil	单面铝箔 Single Foil Tape 厚度为 0.04±0.005mm Thickness 0.04±0.005mm
	编织 Braiding	3*16/0.12±0.005mm 4~6 mm/网格 4~6 mm/Length
护套 Out jacket	6.80±0.1mm	见护套的技术指标。 Look at the technical of out jacket

2.2 电性能（见下表）Electronic performance (In conformity with following table)

名称 Type	RG6	
特性阻抗 (Ω) Impedance	80±3	
衰减常数 (≤DB/100M) Attenuation	5MHz	5
	55MHz	5.3
	211MHz	10.0
	450MHz	14.4
	550MHz	16.2
	750MHz	19.0
	865MHz	20.6
	1000MHz	22.2

3. 检验方式 Testing method

3.1 抽检率为 3%； Percent is 3%

3.2 结构尺寸的检验方式：任意测试 3 个点，每个点测两次，分别旋转 90 度，求出共 6 个点的平均值； Testing method of specifications: Choose three points, every point tests twice, turn 90 accordingly, and calculates the average of six numbers

3.3 阻抗的检验方式：200MHz 附件测试，按公式： $Z_0=1/2*(1/(F*C))*10^6$

Testing impedance method: 200Mhz testing according to $Z_0=1/2*(1/(F*C))*10^6$

F59 的生产及检验标准

Producing and testing standard of RG 6

1. 适用范围 Applying scope:
适用于 F59 的生产及检验。Using in F59 producing and testing

2. 要求 Demands

2.1 结构（符合下表） Specifications(In conformity with following table)

内导体 Inner conductor	0.81±0.01mm CCS OR BC		CCS 导电率为 20% (≤138ohm) CCS rate of velocity 20%(≤138ohm)
绝缘体 Insulation	3.66±0.05mm		重量控制为 3.1~4.0g/m Weight control about 3.1~4.0g/m
外导体 Out conductor	铝箔 Al foil	单面自粘铝箔 Bonded Foil	厚度为 0.052±0.005mm Thickness 0.052±0.005mm
	编织 Braiding	3*16/0.16±0.005mm	4~6 mm/网格 4~6 mm/Length
护套 Out jacket	6.00±0.1mm		见护套的技术指标。 Look at the technical of out jacket

2.2 电性能（见下表） Electronic performance (In conformity with following table)

名称 Type	RG59	
特性阻抗 (Ω) Impedance	75±3	
衰 减 常 数 Attenuation (≤DB/100M)	5MHz	6.5
	55MHz	6.73
	211MHz	12.471
	450MHz	17.72
	550MHz	19.52
	750MHz	22.87
	865MHz	24.67
	1000MHz	26.64

3. 检验方式 Testing method

3.1 抽检率为 3% Percent is 3%;

3.2 结构尺寸的检验方式：任意测试 3 个点，每个点测两次，分别旋转 90 度，求出共 6 个点的平均值；
Testing method of specifications: Choose three points, every point tests twice, turn 90 accordingly, and calculates the average of six numbers

3.3 阻抗的检验方式：200MHz 附件测试，按公式： $Z_0=1/2*(1/(F*C))*10^6$

Testing impedance method: 200Mhz testing according to $Z_0=1/2*(1/(F*C))*10^6$

F6 的生产及检验标准 Producing and testing standard of F6

1. 适用范围 Applying scope:

适用于 F6 系列的生产及检验。Using in F6 producing and testing

2. 要求 Demands

2.1 结构（符合下表）Specifications(In conformity with following table)

		F660BV	F6TSV	F660B VF	F660BV M	F690B V	F690BV M	
内导体 Inner conductor		1.02±0.01mm CCS OR BC						CCS 电率为 20% (≤110ohm) CCS rate of velocity 20% (≤110ohm)
绝缘体 Insulation		4.57±0.05mm						重量控制为 5.8~6.7g/m Weight control about 5.8~6.7g/m
外导体 Out conductor	铝箔 Al foil	单面自粘铝箔 Bonded Foil						厚度为 0.052±0.005mm Thickness 0.052±0.005mm
	编织 Braiding	4*16/0.16±0.005mm AL			6*16/0.16±0.005mm AL			4~6 mm/网格 4~6 mm/Length
	铝箔 Al foil	/	单面铝箔 Single Foil Tape	/			厚度为 0.035±0.005mm Thickness 0.035±0.005mm	
油脂 Jelly				Yes				
护套 Out jacket		6.80±0.1mm	7.06±0.1mm	6.80±0.1mm				见护套的技术指标。Look at the technical of out jacket
自承 Messenger		/	/	/	1.3±0.2mm 钢丝 Steel wire	/	1.3±0.2mm 钢丝 Steel wire	

2.2 电性能（见下表）Electronic performance (In conformity with following table)

名称 Type		F6
特性阻抗 (Ω) Impedance		75±3
衰减常数 (≤DB/100M)	5MHz	5
	55MHz	5.25
	211MHz	10.00
	450MHz	14.43
	550MHz	16.08
	750MHz	18.54
	865MHz	20.01
	1000MHz	21.49

3. 检验方式 Testing method

3.1 抽检率为 3% Percent is 3%

3.2 结构尺寸的检验方式：任意测试 3 个点，每个点测两次，分别旋转 90 度，求出共 6 个点的平均值；
Testing method of specifications: Choose three points, every point tests twice, turn 90 accordingly, and calculates the average of six numbers

3.3 阻抗的检验方式：200MHz 附件测试，按公式： $Z_0=1/2*(1/(F*C))*10^6$

Testing impedance method: 200Mhz testing according to $Z_0=1/2*(1/(F*C))*10^6$

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F7 的生产及检验标准
Producing and testing standard of F7

1. 适用范围 Applying scope:

适用于 F7 系列的生产及检验。Using in F7 producing and testing

2. 要求 Demands

2.1 结构（符合下表）Specifications(In conformity with following table)

		F760BV	
内导体 Inner conductor		1.29±0.01mm CCS OR BC	CCS 导电率为 ≥20% (≤65ohm) CCS rate of velocity ≥20% (≤65ohm)
绝缘体 Insulation		5.7±0.1mm	重量控制为 6.9~8.8g/m Weight control about 6.9~8.8g/m
外导体 Out conductor	铝箔 Al foil	单面自粘铝箔 Bonded Foil	厚度为 0.052±0.005mm Thickness 0.052±0.005mm
	编织 Braiding	5*16/0.16±0.005mm AL	4~6 mm/网格 4~6 mm/Length
	铝箔 Al foil	/	/
油膏 Jelly		/	
护套 Out jacket		8.0±0.2mm	见护套的技术指标 Look at the technical of out jacket
自承 Messenger		1.6±0.2mm 钢丝 1.6±0.2mm Steel wire	

2.2 电性能（见下表）Electronic performance (In conformity with following table)

名称 Type		F7
特性阻抗 (Ω) Impedance		75±3
衰 减 常 数 Attenuation (≤DB/100M)	5MHz	3.8
	55MHz	4.1
	211MHz	7.74
	450MHz	11.35
	550MHz	12.63
	750MHz	14.99
	865MHz	16.17
	1000MHz	17.45

3. 检验方式 Testing method

3.1 抽检率为 3%；Percent is 3%

3.2 结构尺寸的检验方式：任意测试 3 个点，每个点测两次，分别旋转 90 度，求出共 6 个点的平均值； Testing method of specifications: Choose three points, every point tests twice, turn 90 accordingly, and

calculates the average of six numbers

3.3 阻抗的检验方式：200MHz 附件测试，按公式： $Z_0=1/2*(1/(F*C))*10^6$

Testing impedance method: 200Mhz testing according to $Z_0=1/2*(1/(F*C))*10^6$

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F11 的生产及检验标准
Producing and testing standard of F11

1. 适用范围 Applying scope:

适用于 F11 系列的生产及检验。Using in F11 producing and testing

2. 要求 Demands

2.1 结构（符合下表）Specifications (In conformity with following table)

		F1160B V	F1160BVM	F1160 BVF	F1190B V	F1190BVM	
内导体 Inner conductor		1.63±0.01mm CCS OR BC					CCS 导电率为 20% (≤45ohm) CCS rate of velocity20%(≤45ohm)
绝缘体 Insulation		7.11±0.1mm					重量控制为 9.6~11g/m Weight control about 9.6~11g/m
外导体 Out conductor	铝箔 Al foil	单面自粘铝箔 Bonded Foil					厚度为 0.052±0.005mm Thickness 0.052±0.005mm
	编织 Braiding	6*16/0.16±0.005mm AL			6*24/0.16±0.005mm AL		4~6 mm/网格 4~6 mm/Length
	铝箔 Al foil	/					/
油膏 Jelly		/		Yes	/		
护套 Out jacket		10.03±0.2mm					见护套的技术指标 Look at the technical of out jacket
自承 Messenger		/	1.8±0.03mm 钢丝 Steel wire	/	/	1.8±0.03mm 钢丝 Steel wire	

2.2 电性能（见下表）Electronic performance (In conformity with following table)

名称 Type		F6
特性阻抗 (Ω) Impedance		75±3
衰 减 常 数 Attenuation (≤DB/100M)	5MHz	2.9
	55MHz	3.15
	211MHz	6.23
	450MHz	9.02
	550MHz	9.97
	750MHz	11.97
	865MHz	13.05
	1000MHz	14.27

3. 检验方式 Testing method

3.1 抽检率为 3%； Percent is 3%

3.2 结构尺寸的检验方式：任意测试 3 个点，每个点测两次，分别旋转 90 度，求出共 6 个点的平均值； Testing method of specifications: Choose three points, every point tests twice, turn 90 accordingly, and calculates the average of six numbers

3.3 阻抗的检验方式：200MHz 附件测试，按公式： $Z_0=1/2*(1/(F*C))*10^6$

Testing impedance method: 200Mhz testing according to $Z_0=1/2*(1/(F*C))*10^6$

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F15 的生产及检验标准
Producing and testing standard of F15

1. 适用范围 Applying scope:

适用于 F15 系列的生产及检验。 Using in F15 producing and testing

2. 要求 Demands

2.1 结构（符合下表） Specifications (In conformity with following table)

		F1560BV	F1560BVM	F1560B EF	F1560BEM	
内导体 Inner conductor		2.77±0.03mm CCA				CCS 导电率为 15% CCS rate of velocity 15%
绝缘体 Insulation		11.5±0.3mm				重量控制为 24~28g/m Weight control about 24~28g/m
外导体 Out conductor	铝箔 Al foil	单面自粘铝箔 Bonded Al Foil				厚度为 0.06±0.005mm Thickness 0.06±0.005mm
	编织 Braiding	6*24/0.18±0.005mm AL				4~6 mm/网格 4~6 mm/Length
	铝箔 Al foil	/				/
油膏 Jelly		/		Yes	/	
护套 Out jacket		15.0±0.3m m PVC	15.0±0.3mm PVC	15.0±0. 3mm PE	15.0±0.3mm PE	见护套的技术指标 Look at the technical of out jacket
自承 Messenger		/	2.77±0.3mm 钢 丝 Steel wire	/	2.77±0.3mm 钢 丝 Steel wire	

2.2 电性能（见下表） Electronic performance (In conformity with following table)

名称 Type		F15
特性阻抗 (Ω) Impedance		75±3
衰 减 常 数 Attenuation (≤DB/100M)	5MHz	0.9
	55MHz	1.9
	211MHz	3.9
	450MHz	6.0
	550MHz	6.5
	750MHz	7.4

	865MHz	8.1
	1000MHz	9.2

3. 检验方式 Testing method

3.1 抽检率为 3%； Percent is 3%

3.2 结构尺寸的检验方式：任意测试 3 个点，每个点测两次，分别旋转 90 度，求出共 6 个点的平均值； Testing method of specifications: Choose three points, every point tests twice, turn 90 accordingly, and calculates the average of six numbers

3.3 阻抗的检验方式：200MHz 附件测试，按公式： $Z_0=1/2*(1/(F*C))*10^6$

Testing impedance method: 200Mhz testing according to $Z_0=1/2*(1/(F*C))*10^6$

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原材料的质量标准 The quality standard of raw materials

1. PVC

	单位 unit	65°	70°	70° (UV)	60° (UL)	75° (UL)
色泽 luster		色泽光亮, 同批料颜色一致 luster glossy, the identical materials is same color				
比重 specific gravity	$\geq g/cm^3$	1.5	1.4	1.44	1.44	1.44
扩张强度 tensile strength	$\leq MPa$	8.9	12	15	15	18
断裂伸长率 cut off extend	$\geq \%$	250	310	310	310	310
表面颗粒 surface pellet	\leq 个/cm ²	0.01	no	no	no	no
氧指数 oxygen the exponent				28-29	28-29	28-29
热老化时间 hot maturing time	H	168	168	168	168	168
热老化温度 hot maturing thermometer	°C	100	100	100	100	100
热变形 hot change shape	$\leq \%$	22	24	22	24	24
低温冲击脆化温度 low temperature lash brittle thermometer	°C	-25	-25	-25	-25	-25
200°C 热稳定时间 200°C hot constant time	\geq Min	80	95	95	95	95
20°C 体积电阻率 20°C volume resistivity	$\geq \Omega \cdot m$	$1*10^{11}$	$6*10^{10}$	$6*10^{10}$	$6*10^{10}$	$6*10^{10}$

2. 铝镁合金丝 Aluminum Alloy wire

2.1 成分 Consist:

Al% : Cr% : Mg% : Si% = Al% : \leq surplus% : 3.1-3.9% : 0.5%

3. 铝箔 Al foil

3.1 重量 Weight

	RG6	F59	F6	F7	F11	F15
g/m	1.0	1.1	1.3	1.7	2.1	3.4