

LSGS-05-CX0086

FOR

LOW LOSS FOAMED DIELECTRIC COAXIAL CABLE

FOR MOBILE NETWORKS

< LHF 22D, LHF-FR 22D, LHF 42D, LHF-FR 42D >

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1. Scope

This specification details the requirements for 50 ohm Low loss foam dielectric, corrugated outer conductor coaxial cable for mobile networks.

2. Structure

The finished cable shall meet the constructional specifications as follows

ITEM		LHF(-FR) 22D	LHF(-FR) 42D
Inner conductor		Smooth copper tube	Smooth copper tube
	Diameter	9.40mm	18.10mm
Dielectric		Foamed Polyethylene	Foamed Polyethylene
	Diameter	23.50mm	43.50mm
Outer conductor		Corrugated Copper tube	Corrugated Copper tube
	Diameter	25.30mm	46.50mm
Jacket		*Standard Black PE or F-R/H-F Black PE	*Standard Black PE or F-R/H-F Black PE
	Diameter	28.00mm	50.00mm

* F-R : Fire -Retardant, H-F : Halogen Free

* The shape of the cable shall be as shown in figure-1, figure-2.

*The above figures are nominal value.

3. Mechanical Properties

ITEM		LHF(-FR) 22D	LHF(-FR) 42D
Weight	Standard Jacket	Nominal 510Kg/Km	Nominal 1,150Kg/Km
	F-R Jacket	Nominal 542Km/km	Nominal 1,214Kg/km
Minimum Bending Radius		250mm	500mm
Operating Temperature	Standard Jacket	-40 ~ 80	-40 ~ 80
	F-R Jacket	-30 ~ 80	-30 ~ 80

4. Electrical Properties

ITEM		LHF(-FR) 22D	LHF(-FR) 42D
Max. Operating Frequency		5.0GHz	2.5GHz
Max. DC Resistance	Inner	1.40 /km	1.40 /km
	Outer	1.20 /km	0.6 /km
Dielectric Strength		6,000Volts	11,000Volts
Min. Insulation Resistance		100,000M /km	100,000M /km
Nominal Relative Propagation Velocity		89%	88%
Peak Power Rating		91kW	302kW
*Characteristic Impedance		Nominal 50	Nominal 50
* V.S.W.R	800~1,000 MHz	1.15	1.15
	1,700~2,300MHz	1.15	1.15
* Attenuation Ambient temperature 20	30MHz	0.616	0.350
	450MHz	2.54	1.50
	824MHz	3.53	2.13
	960MHz	3.84	2.33
	1,700MHz	5.30	3.29
	2,000MHz	5.82	3.64
	2,300MHz	6.37	3.90
	3,000MHz	7.38	-

* Remarks :

- 1) The above electrical figures should be guaranteed on condition that the cable is well fitted with our supplied connectors for good electrical matching.
- 2) The attenuation may rise by 0.2%/ with rising temperature. Maximum value shall not exceed 105% of nominal value.

5. Flammability, Halogen-Free, Non-corrosive of gas and smoke-density

- 1) The cable with standard PE Jacket shall meet the requirement of
IEC 754-1 (Chlorium < 0.5 %)
IEC 754-2 (PH-Value > 4.0, Conductivity < 100 μ S/cm)

2) The cable with Flame-retardant/Halogen-free PE jacket shall meet the requirement of

IEC 754-1 (Chlorium < 0.5 %)

IEC 754-2 (PH-Value > 4.0, Conductivity < 100 $\mu\text{S}/\text{cm}$)

IEC 332-1 & 332-3C

ASTM E662 (Smoke-density <150)

6. Packing

6.1 The cable shall be suitably wound on strong wooden drum, and shall be suitably packed so as not to be damaged during transportation / handling.

6.2 Both ends of the cable shall be sealed with the shrinkable end caps to protect against the infiltration of moisture.

7. Marking

7.1 The following items shall be repeatedly marked on the surface of the outer jacket of cable.

(1) Manufacturer's name or mark

(2) Year of manufacture

(3) Cable type

7.2 The length shall be marked in continuous sequential numbering at regular intervals of one meter along the sheath of the completed cable for any single piece of cable.

7.3 The drum shall be marked on suitable position with the following items or shall be labeled.

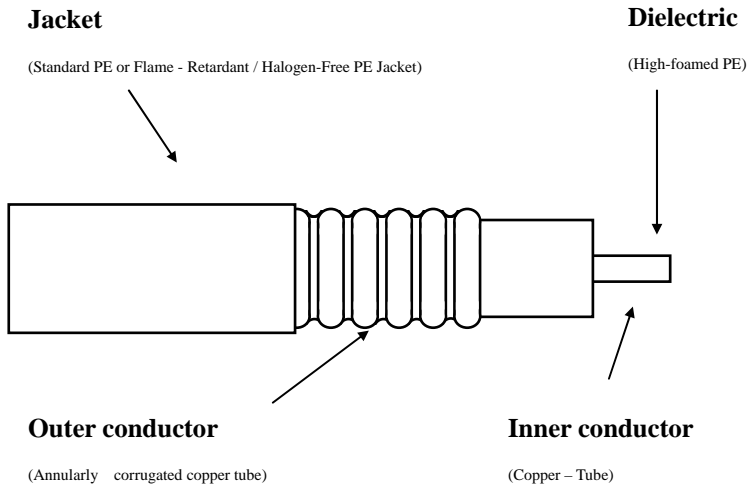
(1) Cable Type

(2) Length in meters

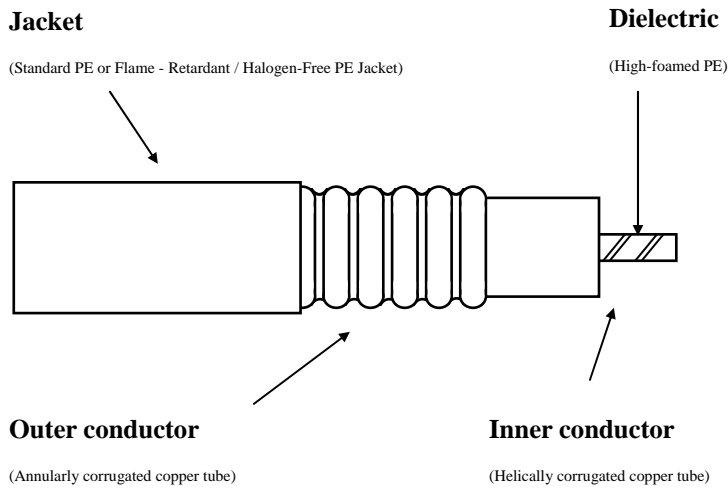
(3) Net weight and Gross weight

(4) Manufacturer's name

<Figure - 1 : LHF 22D, LHF(-FR) 22D>



<Figure - 3 : LHF 42D, LHF-FR 42D>



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