

Tender No. :			Ref. No. : LSGS-14-CX0115-00		
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Tender Title :					
Bidder : LS Cable & System Ltd.					
Document Title :					
<h1>Specification</h1> <h2>For</h2> <h3>COAXIAL Cable</h3> <p><ECX 3C-2V, 5C-2V, 7C-2V, 10C-2V></p>					
00	JUN. 30, 2014	Original Issue	Tae-Woo Kim	-	Jong-Seb Baeck
Rev. No.	Date	Descriptions	Prepared By	Reviewed By	Approved By

1. SCOPE

This specification covers high frequency coaxial cable of 75ohms characteristic impedance with annealed copper wire as inner conductor, PE insulation, annealed copper wire braid as outer conductor, PVC jacket.

2. CONSTRUCTION OF THE CABLE

ITEM		UNIT	3C	5C	7C	10C
Inner Conductor	Material	-	Annealed copper wire	Annealed copper wire	Annealed copper wire	Annealed copper wire
	Construction	mm	1/0.5	1/0.8	7/0.4	7/0.5
	Diameter	mm	0.5±0.02	0.8±0.02	1.2±0.05	1.5±0.05
Insulation	Material	-	PE	PE	PE	PE
	Thickness	mm	1.3±0.1	2.05±0.1	3.05±0.2	3.95±0.2
	Diameter	mm	3.1±0.2	4.9±0.2	7.3±0.3	9.4±0.3
	Color	-	Natural	Natural	Natural	Natural
Outer Conductor	Material	-	Annealed copper wire	Annealed copper wire	Annealed copper wire	Annealed copper wire
	Individual wire diameter	mm	0.14	0.14	0.18	0.20
	Number of wires per carrier	ea	5 (8)	7 (10)	8 (10)	10 (10)
	Number of carriers	ea	24 (16)	24 (16)	24 (16)	24 (16)
	Lay Length	mm	26 (26)	42 (30)	45 (25)	60 (22)
Jacket	Material	-	PVC	PVC	PVC	PVC
	Thickness	mm	0.8±0.08	0.9±0.09	1.1±0.11	1.3±0.13
	Diameter	mm	5.4±0.5	7.4±0.5	10.4±0.5	13.0±0.6

3. ELECTRICAL CHARACTERISTIC

ITEM	UNIT	3C	5C	7C	10C
Conductor Resistance (max.)	Ω/km	91.4	35.9	20.7	13.1
Insulation Resistance (min.)	$\text{M}\Omega/\text{km}$	1000	1000	1000	1000
Dielectric Withstand Voltage	AC, V/min	1000/1	1000/1	1000/1	1000/1
Capacitance	pF/km	67 \pm 3	67 \pm 3	67 \pm 3	67 \pm 3
Relative Propagation Velocity	%	66 \pm 2	66 \pm 2	66 \pm 2	66 \pm 2
Impedance (MEAN)	Ω	75 \pm 3	75 \pm 3	75 \pm 3	75 \pm 3
Attenuation (@ 20°C, 10MHz)	dB/km	42	27	22	18

* Maximum attenuation is less than 115% of specification.

* Attenuation at 200MHz, 3000MHz complies with KS C 3610 standard.

* Electrical performance is tested on status of cable bundle or reel package.

4. PHYSICAL CHARACTERISTIC

ITEM		UNIT	SPECIFICATION	REMARK
Insulation (before heat-aged)	Tensile Strength	kgf/mm ²	≥ 1.0	According to KS C 3004 / clause 19
	Elongation	%	≥ 400	
Insulation (after heat-aged)	Tensile Strength	%	≥ 80	According to KS C 3004 / clause 20
	Elongation	%	≥ 65	
Jacket (before heat-aged)	Tensile Strength	kgf/mm ²	≥ 1.0	According to KS C 3004 / clause 19
	Elongation	%	≥ 200	
Jacket (after heat-aged)	Tensile Strength	%	≥ 80	According to KS C 3004 / clause 20
	Elongation	%	≥ 80	
Jacket Shrinkage (100°C/4h)		%	≥ 10	According to KS C 3004 / clause 24
Cold Bend Test (-20°C/1h)		-	No visible crack	According to KS C 3004 / clause 23
Cold Impact Test (-10°C/2.5min)		-	No visible crack	According to KS C 3004 / clause 25
Conductor Discoloration		-	No corrosion/discoloration on inner & outer conductor	According to KS C 3002 / clause 3
Min. Bending Radius		-	6 x Cable Diameter	-

5. BENDING CHARACTERISTIC

It shall be no visible crack on jacket and outer conductor by 3 cyclic test that 180° bending tightly on 20 times size's cylinder of cable diameter and then 180° bending in the opposite direction.

6. CABLE MARKING

The jacket shall be marked as white color by method of indent type or ink printing on completed cable.

- Cable Description : ECX 3C-2V, ECX 5C-2V, ECX 7C-2V, ECX 10C-2V
- KS Verified
- KS Specification No. : KS C 3610
- KS Certification No. : AA-BBBB
- Manufactured Year & Month : 2014 06
- Supplier : LS Cable & System
- Cable Length

For example,

'Cable Description' KS Verified KS C 3610 'KS Certification No.' 2014 06 LS Cable & System
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7. PACKING

7.1 Cable Packing

Each cable shall be wound on a plywood reel or packaged as a bundle type.

Cable packing shall be done in order that there is no cable damage on passage.

7.2 Standard length of cable shall be 200 meters. Other cable length is also available if required.

7.3 The completed cable shall be terminated by PVC cap to prevent infiltration of moisture or debris inside cable and vinyl-wrapped after loaded on pallet.

== End of Specification ==