COMMUNICATION CABLE - FOUR PAIR 22AWG S/FTP CAT7 LSZH

The complete requirements for procuring the wire described herein shall consist of this document and the issue in effect of the referenced specifications. This document takes precedence over documents referenced herein.

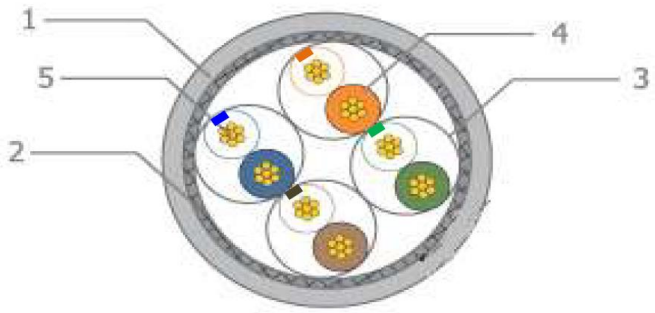
PRODUCT DETAILS

DESCRIPTION

Application:	100BASE-T4, 100BASE-TX, 100VG-AnyLAN, 1000Base-T (1 Gb Ethernet), 1000Base-TX 155Mbps ATM, 622Mbps ATM, 10Gb Ethernet
Rated temperature:	75°C
Reference Standard:	61156-6,ISO/IEC 11801
Flammability Rating:	IEC 60332-3-25 & IEC 60332-1-2

Stranded Tinned Copper Conductor
Colour-coded PE Insulation
LSFRZH Jacket
Packaging: Per customer request

CROSS SECTION



1	Jacket
2	Braid
3	AL-Foil
4	Insulation
5	Conductor

PHYSICAL CHARACTERISTICS

Structure	Construction	S/FTP
	Number of Pairs	4 Pairs
Conductor	AWG	22 AWG
	Conductor material	Stranded Annealed Cooper
	Conductor dimension(mm)	(7/0.245) ± 0.02mm
Insulation	Insulation material	Foamed PE
	Insulation dimension(mm)	1.65 ± 0.05 mm
	Nom. Thickness (mm)	0.42 mm
Cabling	Twisting lay length	≤ 30 mm
	Cabling lay length	≤ 200 mm
Filler	Material	N/A
Binder	Material	N/A
Shield	Individual shield & material	AL-Foil
	Primary overall shield & material	Stranded Tinned Copper
	Shield nom. Coverage	35% Min.
	Drainwire	N/A
Outer Jacket	Outer Jacket material	LSFRZH
	Outer Jacket Thickness (mm)	1.0 mm Nom
	Overall Nom Dimension (mm)	9.90 ± 0.30 mm
	Outer Jacket Rip cord	N/A
	Outer Jacket Colour	Per Customer Request

MECHANICAL CHARACTERISTICS

Outer Jacket	Operating Temp Range	-20°C to +75°C
	Bulk Cable weight	94 kg/km
	Max. recommended pulling tension	80 N
	Min. bend radius (Install)	8 x O.D.
	Tensile Strength	≧9 Mpa
	Elongation	≧100%
	Ageing Condition	100°C x 168hrs
	After Ageing Tensile Strength	≧70% of Unaging
	After Ageing Elongation	≧50% of Unaging
	Cold Bend	No cracks -20°C/4hrs

ELECTRICAL CHARACTERISTICS

Finished Cable	Nom. Mutual Capacitance	≦ 5.6 nF/100m (@1kHz)
	Pair-Ground Unbalance	≦160 pF/100m
	Nom. Velocity of Propagation	65%
	Max. Delay Skew	25 ns/100m
	Max Conductor DC Resistance	145 Ω/km (@ 20°C)
	Resistance Unbalance	2%
	Min. Insulation Resistance	5000 MΩ·km
	Max. Operating Voltage - UL	300 V

JACKET MARK

"TE CONNECTIVITY - TECC0019C7 - 4PR 22AWG STRANDED CAT 7 CABLE - YEAR OF MANUFACTURE - BATCH NUMBER - <metre mark>"

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ELECTRICAL CHARACTERISTICS CONTINUED

Frequency	Impedance Upper Limit	Impedance LowerLimit	ATT	RL	NEXT	PS NEXT	FEXT	PD
(MHz)	Zu (Ω)	Zl (Ω)	(Db/100m)	(dB Min)	(dB Min)	(dB Min)	(dB Min)	(ns/100m Max)
1	-	-	3.0	20.0	78.0	75.0	70.0	570.0
4	115.2	86.8	5.6	23.0	78.0	75.0	70.0	552.0
8	112.6	88.8	7.9	24.5	78.0	75.0	70.0	546.7
10	111.9	89.4	8.8	25.0	78.0	75.0	70.0	545.4
16	111.9	89.4	11.1	25.0	78.0	75.0	70.0	543.0
20	111.9	89.4	12.4	25.0	78.0	75.0	70.0	542.0
25	113.2	88.3	13.9	24.2	78.0	75.0	70.0	541.2
31.25	114.6	87.2	15.6	23.3	78.0	75.0	70.0	540.4
62.5	120.2	83.2	22.3	20.7	75.5	72.5	70.0	538.6
100	125.3	79.8	28.5	19.0	72.4	69.4	70.0	537.6
200	135.7	73.7	41.2	16.4	67.9	64.9	70.0	536.5
250	140.0	71.4	46.5	15.6	66.4	63.4	70.0	536.3
300	139.8	71.5	51.3	15.6	65.2	62.2	70.0	536.1
600	139.8	71.5	75.1	15.6	60.7	57.7	70.0	535.5

Remark : Cable that meet the requirements of the template are not required to be measured for return loss; alternately cables that meet the return loss requirements are not required to be measured for characteristic impedance.

Mechanical performance Requirements for the tests for outer jacket.

EN 45545 R15&R16 HL3	T09.01 EN 60332-1-2	Single vertical flame	IEC 60332-1-2
	T09.03 EN50305 (for	Bunched cable flame	IEC 60332-3-25
	T13 EN 61034-2	Smoke emission	⩾ 70%
	T15 EN 50305	Toxicity index	ITC ⩽ 6
Ozone resistan	(0.00015-0.00025%)(40±-2)℃	No Crack	EN50305 7.4.2
Mineral oil resistance	IRM902/(25)℃X24h	Tensile strength Variation ⩽±30%.	EN 60811-2-1 10
		Elongation at break Variation ⩽±40%.	
Fuel resistance	IRM903/(25)℃X24h	Tensile strength Variation ⩽±30%.	
		Elongation at break Variation ⩽±40%.	
Cold bend	-（20±2）℃,8D	No Crack	EN 60811-1-4 8.1
Assessment of halogens	HCl and HBr	⩽0.5%	EN50267-2-1
	pH	⩾4.3	EN50267-2-2
	Conductivity	⩽10μS/mm	

Approval Electronic sign off - no signatures will appear.

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