



SPECIFICATION CONTROL DRAWING

TECC0027C6

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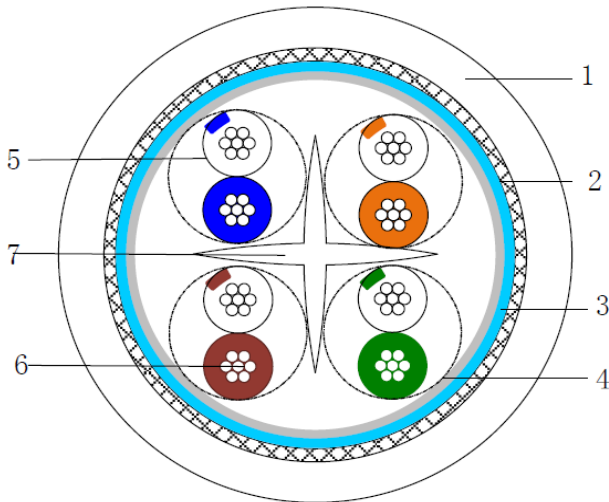
COMMUNICATION CABLE - 4PR 24AWG SF/UTP CAT6 LSZH PATCH CABLE

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	PHYSICAL CHARACTERISTICS	
Application: 100Base-T4, 100Base-TX, 100VG-AnyLAN, 1000Base-T, 1000Base-TX 155Mbps ATM, 622Mbps ATM	<b>Structure</b>	Construction SF/UTP Number of Pairs 4 Pairs
Rated temperature: 75°C	<b>Conductor</b>	AWG 24 AWG Conductor material Stranded Tinned Copper Conductor dimension(mm) (7/0.20) ± 0.008mm
Reference Standard: 61156-6, ISO/IEC 11801	<b>Insulation</b>	Insulation material HDPE Insulation dimension(mm) 1.14 ± 0.05 mm Insulation Colour (Stripe Marking) 1.White/Blue & Blue 2.White/Orange & Orange 3.White/Green & Green 4.White/Brown & Brown
Flammability Rating: IEC 60332-3-25 & IEC 60332-1-2	<b>Cabling</b>	Twisting lay length ≤ 30 mm Cabling lay length ≤ 200 mm
Stranded TinnedCopper Conductor	<b>Filler</b>	Material PE
Colour-coded PE Insulation	<b>Binder</b>	Material Polyester Tape
LSFRZH Jacket	<b>Shield</b>	Individual shield & material N/A Primary overall shield & material AL-Foil Secondary shield & material Tinned Copper Wire Coverage ≥ 85%
Packaging: Per customer request	<b>Outer Jacket</b>	Outer Jacket material LSFRZH Outer Jacket Thickness (mm) 1.00 mm Nom. Overall Nom Dimension (mm) 9.10 ± 0.50mm Outer Jacket Rip cord N/A Outer Jacket Colour Black

CROSS SECTION



1	Jacket
2	Braid
3	AL-Foil
4	Polyester Tape
5	Insulation
6	Conductor
7	Filler

<b>Mechanical Characteristics</b>	Operating Temp Range Bulk Cable weight Max. recommended pulling tension Min. bend radius (Install) Tensile Strength Elongation Ageing Condition After Ageing Tensile Strength After Ageing Elongation Cold Bend	-20°C to +75°C 100 kg/km 80 N 8 x O.D. ≥ 9 Mpa ≥ 100% 100°C x 168hrs ≥ 70% of Unaging ≥ 50% of Unaging No Cracking (-20°C 4h)
<b>Electrical Characteristics</b>	Nom. mutual capacitance Pair-ground capacitance unbalance Nominal velocity of propagation Max. delay skew Max. Conductor DC resistance Max. Conductor resistance unbalance Min. insulation resistance Max. operating voltage - UL	≤ 5.6 nF/100m (@1kHz) ≤160 pF/100m 65% 45 ns/100m 145 Ω/km (@ 20°C) 2% 5000 MΩ·km 300 V

JACKET MARK

"TE CONNECTIVITY - TECC0027C6 - 4PR 24AWG SF/UTP CAT 6 CABLE LSZH - 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	ELFEXT	PS ELFEXT	PD
(MHz)	Zu (Ω)	Zl (Ω)	(Db/100m)	(dB Min)	(dB Min)	(dB Min)	(dB Min)	(dB Min)	(ns/100m Max)
4	115.2	86.8	5.8	23.0	66.3	63.3	56.0	53.0	552.0
8	112.6	88.8	8.1	24.5	61.8	58.8	49.9	46.9	546.7
10	111.9	89.4	9.0	25.0	60.3	57.3	48.0	45.0	545.4
16	111.9	89.4	11.4	25.0	57.2	54.2	43.9	40.9	543.0
20	111.9	89.4	12.8	25.0	55.8	52.8	42.0	39.0	542.0
25	113.2	88.3	14.4	24.2	54.3	51.3	40.0	37.0	541.2
31.25	114.6	87.2	16.1	23.3	52.9	49.9	38.1	35.1	540.4
62.5	120.2	83.2	23.3	20.7	48.4	45.4	32.1	29.1	538.6
100	125.3	79.8	29.9	19.0	45.3	42.3	28.0	25.0	537.6
200	135.7	73.7	43.8	16.4	40.8	37.8	22.0	19.0	536.5
250	140.0	71.4	49.7	15.6	39.3	36.3	20.0	17.0	536.3

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 resistar	(0.00015-0.00025%)(40±2)°C	No Crack	EN50305 7.4.2
Mineral oil resistance	IRM902/(25)°CX24h	Tensile strength Variation ≤±30%.	EN 60811-2-1 10
		Elongation at break Variation ≤±40%.	
Fuel resistance	IRM903/(25)°CX24h	Tensile strength Variation ≤±30%.	
		Elongation at break Variation ≤±40%.	
Cold bend	-(20±2)°C,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.