



SPECIFICATION CONTROL DRAWING

TECC0011C7

Issue 6  
3-May-16  
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COMMUNICATION CABLE - FOUR PAIR 24AWG 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, 1000Base-TX  
155Mbps ATM, 622Mbps ATM, 10 Gb Ethernet

Rated temperature: 80°C  
Reference Standard: IEC 61156-6, ISO/IEC 11801  
Flammability Rating: EN 45545-2 R15/R16 HL3  
Ozone Resistance: EN 50306-4 Procedure B  
Oil resistance: EN 50306-4 24h/25°C IRM 902  
Oil resistance: EN 50306-4 24h/25°C IRM 903  
Stranded Tinned Copper Conductor  
Colour-Coded PE Insulation  
LSFRZH Jacket  
Packaging: Per Customer Request

PHYSICAL CHARACTERISTICS	
<b>Structure</b>	Construction: S/FTP Number of Pairs: 4 Pairs
<b>Conductor</b>	AWG: 24 AWG
	Conductor material: Stranded Tinned Copper Conductor dimension(mm): 7/0.20 ± 0.02mm
<b>Insulation</b>	Insulation material: Foamed PE
	Insulation dimension(mm): 1.32 ± 0.05 mm Nom. Thickness (mm): 0.36 mm
<b>Cabling</b>	Twisting lay length: ≤ 30 mm
	Cabling lay length: ≤ 200 mm
<b>Filler</b>	Material: N/A
<b>Binder</b>	Material: N/A
<b>Shield</b>	Individual shield & material: AL-Foil
	Primary overall shield & material: Tinned Copper Wire
	Shield nom. Coverage: 35% Nom. Drainwire: N/A
<b>Outer Jacket</b>	Outer jacket material: LSFRZH
	Outer jacket Thickness (mm): 1.0 mm Nom.
	Overall Nom Dimension (mm): 8.4 ± 0.30 mm
	Outer Jacket Rip cord: N/A Outer jacket Colour: Per Customer Request

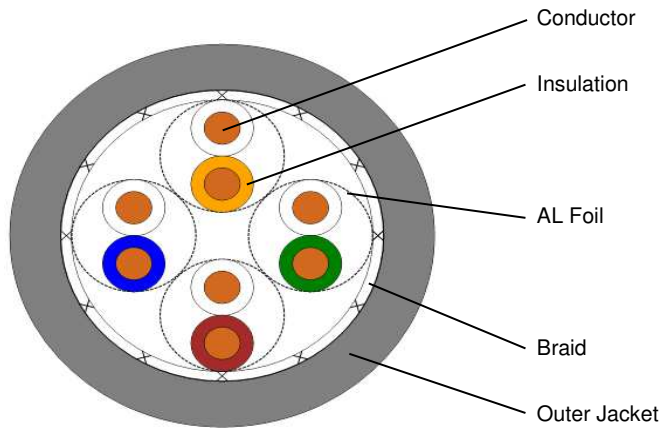
MECHANICAL CHARACTERISTICS	
<b>Outer Jacket</b>	Operating Temp Range: -20°C to +80°C
	Bulk Cable weight: 70kg/km
	Max. recommended pulling tension: 80 N
	Min. bend radius (Install): 8 x O.D.
	Tensile strength: ≥9 Mpa
	Elongation: ≥100%
	Ageing condition: 100°C x 168hrs
	After ageing, Tensile strength: ≥70% of Unaging
	After ageing, Elongation: ≥50% of Unaging Cold bend: No cracks @ -20°C 4hrs

ELECTRICAL CHARACTERISTICS	
<b>Finished Cable</b>	Nom. mutual capacitance: ≤5.6 nF/100m (@1kHz)
	Pair to ground capacitance unbalanced: ≤160 pF/100m
	Nominal velocity of propagation: 65%
	Max. delay skew: 25 ns/100m
	Max. conductor DC resistance: 145 Ω/km (@ 20 °C)
	Max. Conductor resistance unbalanced: 2%
	Min. insulation resistance: 5000 MΩ·km
	Max. operating voltage - UL: 300 V

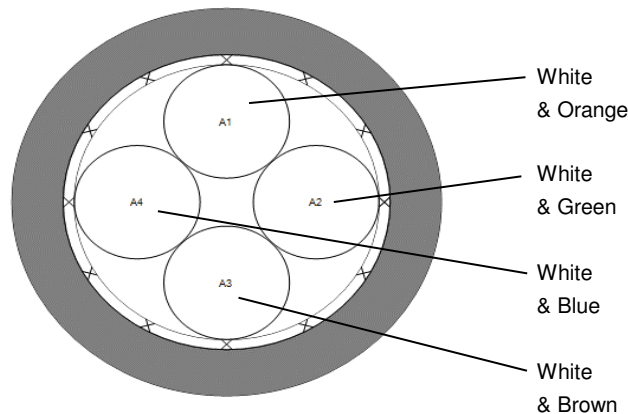
**JACKET MARK**

"TE CONNECTIVITY - TECC0011C7 - 4PR 24AWG STRANDED CAT 7 CABLE - YEAR OF MANUFACTURE - BATCH NUMBER - <metre mark>"

CROSS SECTION



INSULATION COLOURS





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## ELECTRICAL CHARACTERISTICS CONTINUED

Frequency (MHz)	Characteristic Impedance Upper limit	Characteristic Impedance Lower limit	ATT	RL	NEXT	PS NEXT	FEXT	PD
	Zu ( $\Omega$ )	Zl ( $\Omega$ )	(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

Note 1: 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.

Note 2: If FEXT loss is greater than 70dB, ACR-F loss may not be measured.