Cat. 7 4x2x23/1 AWG S/FTP + 2x18/1 FR-LSZH

Part Number: **4T00180129**



Applications: High bandwidth digital applications with low BER, Indoor use, fixed installations, Trunk Cable for Local Area Networks

General Construction: The cable contains a core built of 4 individually foil-shielded twisted pairs, cabled together with a drain wire and overall braid-shielded. The shielded core together with 2 18/1 AWG conductors are jacketed with a FR-LSZH compound in oval form. The shielded core exceeds IEC 61156-5 Cat. 7, Cat. 6_A Cat. 6, and Cat. 5e transmission requirements and tested up to 800 MHz.

Outer Jacket Material: FR-LSZH

Weight: 90 kg/km

Design & Materials

Detailed Construction:

18/1 conductors:

DC resistance: 23 Ω/km max. (20°C)

OD: 2.55 mm nom (over insulation)

Color code: White, Brown

18/1 pair - the two conductors are wrapped with PO tape

note: electrical data listed below refer to the data core only

Conductor Material:	Annealed Bare Copper
Conductor Size:	23 AWG
Conductor Construction:	Solid
Insulation Material:	Cellular PO
Insulation O.D.:	1.35 mm nom.
Conductor unit identification:	Solid/stripe
Color Code:	Per TIA/EIA 568-B
Ind. Shield Material:	Aluminum/Polyester Foil
Ind. Shield Design:	100% Coverage
Conductor unit lay-up:	Pairs
Overall Shield Design:	Braid
Overall Shield Material:	Tinned-copper braid
Overall Braid Shield:	Yes
Overall Braid Material:	Annealed Tinned Copper
Braid Coverage:	50 % nom.
Overall Drain-wire Material:	Annealed Tinned Copper
Overall Drain-wire size:	0.41 mm
Overall Drain-wire Construction:	Solid
Total number of conductors:	8
Outer Jacket Dimension - X:	8.0 mm nom.
Outer Jacket Dimension - Y:	12.2 mm nom.
Outer Jacket Color:	Light Gray
Marking:	Per request, Teldor Standard

Standards

Applicable Standards:	IEC 61156, ISO/IEC 11801-1, RoHS 3 2015/863/EU
Flammability Rating:	IEC 60332-1, UL 1581 VW-1

Electrical Properties:

Cat. 7 Horizontal Cables*

Freq. MHz	Attenuation dB/100m 20°C		PS NEXT Loss dB		NEXT Loss dB		RL dB		PS ANEXT dB		PS ELFEXT dB		ELFEXT dB	
	Typical Value	Cat. 7	Typical Value	Cat. 7	Typical Value	Cat. 7	Typical Value	Cat. 7	Typical Value	Cat. 7	Typical Value	Cat. 7	Typical Value	Cat. 7
1	2.0	2.0	105.0	75.0	108.0	78.0	22.0	20.0	68.0	N/A	95.0	75.0	98.0	78.0
4	3.6	3.7	98.0	75.0	101.0	78.0	25.0	23.0	68.0	N/A	90.0	75.0	93.0	78.0
10	5.6	5.8	95.0	75.0	98.0	78.0	28.0	25.0	68.0	N/A	86.0	71.0	89.0	74.0
20	7.9	8.3	90.0	75.0	93.0	78.0	28.0	25.0	68.0	N/A	80.0	65.0	83.0	68.0
30	9.7	10.2	85.0	75.0	88.0	78.0	27.0	23.8	68.0	N/A	76.0	61.5	79.0	64.5
100	18.0	19.0	80.0	69.4	83.0	72.4	24.0	21.1	68.0	N/A	66.0	51.0	69.0	54.0
150	22.4	23.6	78.0	66.7	81.0	69.7	22.0	18.8	65.0	N/A	63.0	47.5	66.0	50.5
200	26.0	27.5	78.0	65.0	81.0	68.0	21.0	18.0	65.0	N/A	60.0	45.0	63.0	48.0
250	29.4	31.0	75.0	63.4	78.0	66.4	20.0	17.3	62.0	N/A	58.0	43.0	61.0	46.0
300	32.5	34.2	75.0	62.2	78.0	65.2	19.0	17.3	62.0	N/A	52.0	41.5	55.0	44.5
400	38.0	40.0	70.0	60.4	73.0	63.4	19.0	17.3	62.0	N/A	49.0	38.9	52.0	41.9
500	43.0	45.2	70.0	58.9	73.0	61.9	19.0	17.3	62.0	N/A	47.0	37.0	50.0	40.0
600	47.6	50.1	70.0	57.7	73.0	60.7	19.0	17.3	62.0	N/A	45.0	35.4	48.0	38.4

*Supplied cables meet the minimum Cat. 7 transmission requirements as per **IEC 61156-5 Ed. 2**

Performance

Frequency Range:	1 - 600 MHz
Impedance:	100 Ω
Coupling Attenuation:	Type I
Max. DC Resistance :	73 Ω/km@20°C
Max. Resistance Unbalance:	2 %
Capacitance Unbalance:	1.2 pF/m max.
Velocity of Propagation:	78 % nom.
Propagation Delay Skew:	25 ns/100m max.
Dielectric Strength:	700 V/minute
Dielectric Strength to Shield:	700 V/minute
Min. Insulation Resistance :	5 GΩ•km
Min. Bend Radius:	80 (small axis) mm
Max. Operating Temperature:	+ 70 °C
Min. Operating Temperature:	- 40 °C

Prepared By	Revised By	Version Num	Modified on
Jacob Ben Ary	teldor com	2.3	27-08-2017

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Teldor Cables & Systems Ltd. - Ein-Dor, 1933500 ISRAEL Tel: +972 4 6770555 Fax: +972 4 6770650