

## Cat. 7 4x2x23/1 AWG F/FTP Grade-3 FR-LSZH

**Part Number:** 9827C54129

**Applications:** High data rates, High bandwidth digital applications with low BER, Indoor use, fixed installations

**General Construction:** The cable contains 4 individually foil-shielded twisted pairs, cabled together with a drain wire, overall shielded with an aluminum foil, and jacketed with a FR-LSZH compound  
This cable conforms to the IEC 61156-5 Cat. 7, Cat 6<sub>A</sub>, Cat. 6 and Cat. 5e requirements and **tested up to 900 MHz**.

**Detailed Schematic:**

**Outer Jacket Material:** FR-LSZH

**Outer Diameter:** 7.5 mm nom.

**Weight:** 54 kg/km



## Design & Materials

<b>Conductor Material:</b>	Annealed Bare Copper
<b>Conductor Size:</b>	23 AWG
<b>Conductor Construction:</b>	Solid
<b>Insulation Material:</b>	SFS PO
<b>Insulation O.D.:</b>	1.35 mm nom.
<b>Color Code:</b>	Per TIA/EIA 568-B
<b>Ind. Shield Material:</b>	Aluminum/Polyester Foil
<b>Ind. Shield Design:</b>	Aluminum face outwards
<b>Overall Shield Design:</b>	100% Coverage
<b>Overall Shield Material:</b>	Aluminum/Polyester Foil
<b>Overall Foil Shield:</b>	Yes
<b>Overall Drain-wire Material:</b>	Annealed Tinned Copper
<b>Overall Drain-wire size:</b>	0.4 mm
<b>Overall Drain-wire Construction:</b>	Solid
<b>Total number of conductors:</b>	8
<b>Outer Jacket Color:</b>	Light Gray
<b>Marking:</b>	Per request, Teldor Standard

## Standards

<b>Applicable Standards:</b>	IEC 61156, ISO/IEC 11801-1, RoHS 3 2015/863/EU
<b>Flammability Rating:</b>	IEC 60332-1

## 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

<b>Frequency Range:</b>	1 - 900 MHz
<b>Impedance:</b>	100 Ω
<b>Coupling Attenuation:</b>	Type II
<b>Max. Resistance Unbalance:</b>	2 %
<b>Capacitance Unbalance:</b>	1.2 pF/m max.
<b>Velocity of Propagation:</b>	80 % nom.
<b>Propagation Delay Skew:</b>	20 ns/100m max.
<b>Dielectric Strength:</b>	700 V/minute
<b>Dielectric Strength to Shield:</b>	700 V/minute
<b>Min. Insulation Resistance :</b>	5 GΩ•km
<b>Min. Bend Radius:</b>	80 mm
<b>Max. Operating Temperature:</b>	+60 °C
<b>Min. Operating Temperature:</b>	-40 °C

Prepared By	Revised By	Version Num	Modified on
Jacob Ben Ary	Jacob Ben Ary	3.3	13-07-2017

Teldor Cables & Systems Ltd. ("Teldor") reserves the right to make changes to the products described in this catalog without prior notice. Teldor does not assume any liability which may occur due to the use of the products described herein. Drawings may not be to scale and are provided for general and informational purposes only. The information contained in this catalog is the proprietary property of Teldor, and may not be used, reproduced or disclosed to others, in whole or in part, without the written authorization of Teldor.

**Teldor Cables & Systems Ltd.** - Ein-Dor, 1933500

ISRAEL

Tel: +972 4 6770555

Fax: +972 4 6770650