

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

**Part Number:** 9827A54129

**Applications:** High data rates, Indoor use, fixed installations  
**General Construction:** The cable contains 4 individually aluminum-foil shielded twisted pairs, cabled together with a drain wire and an overall aluminum-foil-shield.  
**Detailed Schematic:**  
**Outer Jacket Material:** FR-LSZH  
**Outer Diameter:** 7.4 mm nom.  
**Weight:** 50 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>	PO
<b>Insulation O.D.:</b>	1.38 mm nom.
<b>Conductor unit identification:</b>	Solid/stripe
<b>Color Code:</b>	Per TIA/EIA 568-B
<b>Ind. Shield Material:</b>	Aluminum/Polyester Foil
<b>Ind. Shield Design:</b>	Helically applied aluminum foil, 100% coverage
<b>Drain-wire 1 Material:</b>	Annealed Tinned Copper
<b>Drain-wire 1 Construction:</b>	Solid
<b>Drain-wire 1 size mm.:</b>	0.41 mm
<b>Overall Shield Design:</b>	Helically applied aluminum foil, 100% coverage
<b>Overall Shield Material:</b>	Aluminum/Polyester Foil
<b>Overall Foil Shield:</b>	Yes
<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 61156-5, ISO/IEC 11801-1
<b>Flammability Rating:</b>	IEC 60332-1, UL 1581 VW-1

## Electrical Properties:

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	Typical Value	Typical Value	Typical Value	Typical Value	Typical Value	Typical Value
1	2.0	105.0	108.0	22.0	68.0	95.0	98.0
4	3.6	98.0	101.0	25.0	68.0	90.0	93.0
10	5.6	95.0	98.0	28.0	68.0	86.0	89.0
20	7.9	90.0	93.0	28.0	68.0	80.0	83.0
30	9.7	85.0	88.0	27.0	68.0	76.0	79.0
100	18.0	80.0	83.0	24.0	68.0	66.0	69.0
150	22.4	78.0	81.0	22.0	65.0	63.0	66.0
200	26.0	78.0	81.0	21.0	65.0	60.0	63.0
250	29.4	75.0	78.0	20.0	62.0	58.0	61.0
300	32.5	75.0	78.0	19.0	62.0	52.0	55.0
400	38.0	70.0	73.0	19.0	62.0	49.0	52.0
500	43.0	70.0	73.0	19.0	62.0	47.0	50.0
600	47.6	70.0	73.0	19.0	62.0	45.0	48.0

(\*) Cable voltage rate is 300 V, however the cable is not intended to be used for mains supply.

## Performance

<b>Frequency Range:</b>	1 - 1000 MHz
<b>Impedance:</b>	100 Ω
<b>Transfer Impedance:</b>	Grade 2
<b>Coupling Attenuation:</b>	Type II
<b>Max. DC Resistance :</b>	73 Ω/km@20°C
<b>Max. Resistance Unbalance:</b>	2 %
<b>Capacitance Unbalance:</b>	1.3 pF/m max.
<b>Velocity of Propagation:</b>	78 % nom.
<b>Propagation Delay Skew:</b>	35 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>Voltage Rating:</b>	300 (*) V
<b>Min. Bend Radius:</b>	80 mm
<b>Max. Pulling Tension:</b>	15 kgF
<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	Ofer Solter	6.6	23-08-2017

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