

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

**Part Number:** **9827A64129**

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

**General Construction:** The cable contains 4 individually aluminum-foil shielded twisted pairs, cabled together with a drain wire, overall shielded with aluminum-foil, and jacketed with a FR-PVC compound. This cable exceeds IEC 61156-5 Cat. 7, Cat 6A, Cat. 6 and Cat. 5e requirements.

**Outer Jacket Material:** FR-PVC

**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>	PO
<b>Insulation O.D.:</b>	1.35 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>	Aluminum face outwards
<b>Drain-wire 1 Material:</b>	Annealed Tinned Copper
<b>Drain-wire 1 Construction:</b>	Solid
<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>	0.41 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, 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

<b>Frequency Range:</b>	1 - 600 MHz
<b>Impedance:</b>	100 Ω
<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>	1.2 pF/m max.
<b>Velocity of Propagation:</b>	78 % nom.
<b>Propagation Delay Skew:</b>	25 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>	55 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	2.2	15-11-2009

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