

# GIGA-STAR Cat. 6 4x2x23/1 AWG U/FTP FR-LSZH

Part Number: PLU030201

**Applications:** Indoor use, fixed installations, High bandwidth digital

applications with low BER, High data rates

**General Construction:** The cable contains 4 individually foil-shielded twisted

pairs (U/FTP), cabled together with a drain conductor

and jacketed with FR-LSZH compound.

Outer Jacket Material:FR-LSZHOuter Diameter:7.3 mm nom.Weight:50 kg/km



# Design & Materials

Conductor Material:	Bare Copper
Conductor Size:	23 AWG
Conductor Construction:	Solid
Insulation Material:	SFS PO
Insulation O.D.:	1.31 mm nom.
Color code:	Per TIA/EIA 568-B
Conductor Color Code:	White x Blue, White x Orange, White x Green, White x Brown
Ind. Shield Material:	Aluminum/Polyester Foil
Ind. Shield Design:	Aluminum face outwards
Overall Drain-wire Material:	Tinned Copper
Overall Drain-wire size:	0.41 mm
Total number of wires:	8
Outer Jacket Color:	See TELDOR Jacket Code
Marking:	Teldor Standard, Per request

### Standards

Standards:	IEC 61156, ISO/IEC 11801, TIA/EIA-568, RoHS 2002/95/EC
Flamability Rating:	IEC 60332-1, UL 1581 VW-1

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## **Electrical Properties:**

#### Cat. 6 Screened-Pair Horizontal Cables \*

Freq. MHz			PS NEXT Loss dB		NEXT Loss dB		RL dB		PS ELFEXT dB		ELFEXT dB	
	Typical Value	Cat. 6	Typical Value	Cat. 6	Typical Value	Cat. 6	Typical Value	Cat. 6	Typical Value	Cat. 6	Typical Value	Cat. 6
1	2.0	2.8	90.0	72.3	93.0	75.3	22.0	20.0	90.0	65.0	93.0	68.0
4	3.7	3.8	85.0	63.3	88.0	66.3	25.0	23.0	90.0	53.0	93.0	56.0
10	5.7	6.0	85.0	57.3	88.0	60.4	28.0	25.0	80.0	45.0	83.0	48.0
20	8.1	8.5	85.0	52.8	88.0	55.8	28.0	25.0	80.0	39.0	83.0	42.0
30	10.0	10.5	85.0	50.1	88.0	53.1	27.0	23.8	70.0	35.5	73.0	38.5
100	19.0	19.9	80.0	42.3	83.0	45.3	24.0	21.1	63.0	25.0	66.0	28.0
150	23.6	24.9	80.0	39.7	83.0	42.7	22.0	18.8	60.0	21.5	63.0	24.5
200	27.7	29.1	80.0	37.8	83.0	40.8	21.0	18.0	58.0	19.0	61.0	22.0
250	31.4	33.0	77.0	36.3	80.0	39.3	20.0	17.3	55.0	17.0	58.0	20.0

<sup>\*</sup>Supplied cables meet the minimum Cat. 6 transmission requirements as per IEC 61156-5 Ed. 2

#### Performance

Frequency Range:	1 - 250 MHz			
Impedance:	100 Ω			
Coupling Attenuation:	Type II			
DC Resistance:	73 $\Omega$ /km nom.			
Max. Resistance Unbalance:	2 %			
Capacitance Unbalance:	1.2 pF/m max.			
Velocity of Propagation:	80 % nom.			
Propagation Delay Skew:	35 ns/100m max.			
Dielectric Strength:	700 V/minute			
Dielectric Strength to Shield:	700 V/minute			
Min. Insulation Resistance:	5 GΩ •km			
Max. Tensile Strength - Short Term:	150 N			
Min. Bend Radius:	70 mm			
Max. Operating Temperature:	+70 °C			
Min. Operating Temperature:	-40 °C			

Prepared By	Revised By	Version Num	Modified on
Jacob Ben Ary	Jacob Ben Ary	1.5	23-04-2009

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