

# IBC Cat. 6<sub>A</sub> 4x2x23/1 AWG U/FTP FR-LSZH

## COMPUTER & LAN

### P/N 4T00112102

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### Applications

Indoor use, fixed installations, High bandwidth digital applications with low BER, High data rates, Data processing and information systems, Interconnections in digital multiplex equipment



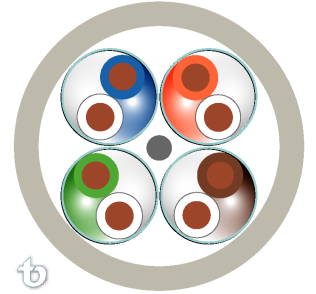
Outer Jacket Material  
FR-LSZH



Outer diameter  
7.4 mm nom.



Weight  
55 kg/km



### General Construction

The cable contains 4 aluminum-foil shielded twisted pairs cabled together with a drain wire and jacketed with FR-LSZH compound.

The cable performance and characteristics exceeds the IEC 61156-5 requirements for Cat. 6<sub>A</sub> cables.

### Design & Materials

|                                 |   |
|---------------------------------|---|
| Conductor Material              | Annealed Bare Copper  |
| Conductor Size (AWG)            | 23  |
| Conductor Construction          | Solid   |
| Insulation Material             | SFS PO  |
| Insulation O.D. (mm nom)        | 1.38  |
| Conductor Unit Identification   | Solid Color   |
| Color Code                      | Per TIA/EIA 568-B   |
| Ind. Shield Material            | Aluminum/Polyester Foil   |
| Ind. Shield Design              | Helically applied aluminum foil, 100% coverage  |
| Conductor Unit Lay-Up           | Pairs   |
| Overall Drain-wire Material     | Annealed Tinned Copper  |
| Overall Drain-wire size (mm)    | 0.41  |
| Overall Drain-wire Construction | Solid   |
| Total Number Of Conductors      | 8   |
| Outer Diameter (mm nom)         | 7.4   |
| Outer Jacket Color              | White   |
| Marking                         | IBC TELDOR CABLE 4T00112102 Cat. 6A 23 AWG IEC61156-5 <sup>^</sup> (Batch NO/Lot NO) <sup>^</sup> (Lenght)<br>METER<br>[xxx=color code] |

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Outer Jacket Material

FR-LSZH

**Performance**

|  |         |
|--|---------|
| Frequency Range (MHz)                    | 1 - 500 |
| Impedance (Ω)                            | 100     |
| Transfer Impedance Grade                 | Grade 2 |
| Coupling Attenuation                     | Type II |
| Max. Resistance Unbalance (%)            | 2       |
| Capacitance Unbalance (pF/m max)         | 1.2     |
| Velocity of Propagation (% nom)          | 78      |
| Propagation Delay Skew (ns/100m max)     | 25      |
| Dielectric Strength (V/minute)           | 700     |
| Dielectric Strength to Shield (V/minute) | 700     |
| Min. Insulation Resistance (GΩ•km)       | 5       |
| Max. Installation Tensile Load (N max.)  | 130     |
| Min. Bend Radius (mm)                    | 60      |
| Min. Operating Temperature (°C)          | -35     |
| Max. Operating Temperature (°C)          | +65     |

**Standards**

Flammability Rating  
IEC 60332-1  
IEC 60754

Applicable Standards  
IEC 61156-5  
ISO/IEC 11801-1  
TIA/EIA-568  
RoHS 3 2015/863/EU



**Electrical Properties**

Cat. 6<sub>A</sub> Screened-pair 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. 6 <sub>A</sub> | Typical Value   | Cat. 6 <sub>A</sub> | Typical Value | Cat. 6 <sub>A</sub> | Typical Value | Cat. 6 <sub>A</sub> | Typical Value | Cat. 6 <sub>A</sub> | Typical Value | Cat. 6 <sub>A</sub> | Typical Value | Cat. 6 <sub>A</sub> |
| 1         | 2.0                      | 2.0                 | 95.0            | 72.3                | 98.0          | 75.3                | 22.0          | 20.0                | 70.0          | 67.0                | 85.0          | 65.0                | 88.0          | 68.0                |
| 4         | 3.7                      | 3.8                 | 95.0            | 63.3                | 98.0          | 66.3                | 25.0          | 23.0                | 70.0          | 67.0                | 73.0          | 53.0                | 76.0          | 56.0                |
| 10        | 5.6                      | 5.9                 | 95.0            | 57.3                | 98.0          | 60.3                | 28.0          | 25.0                | 70.0          | 67.0                | 65.0          | 45.0                | 68.0          | 48.0                |
| 20        | 7.9                      | 8.4                 | 90.0            | 52.8                | 93.0          | 55.8                | 28.0          | 25.0                | 70.0          | 67.0                | 59.0          | 39.0                | 62.0          | 42.0                |
| 30        | 9.7                      | 10.3                | 85.0            | 50.1                | 88.0          | 53.1                | 27.0          | 23.8                | 70.0          | 67.0                | 55.4          | 35.4                | 58.4          | 38.4                |
| 100       | 18.0                     | 19.1                | 80.0            | 42.3                | 83.0          | 45.3                | 24.0          | 21.1                | 67.0          | 62.5                | 45.0          | 25.0                | 48.0          | 28.0                |
| 150       | 22.4                     | 23.6                | 78.0            | 39.7                | 81.0          | 42.7                | 22.0          | 18.8                | 66.0          | 59.8                | 41.5          | 21.5                | 44.5          | 24.5                |
| 200       | 26.0                     | 27.6                | 78.0            | 37.8                | 81.0          | 40.8                | 21.0          | 18.0                | 65.0          | 58.0                | 49.0          | 19.0                | 52.0          | 22.0                |
| 250       | 29.4                     | 31.0                | 75.0            | 36.3                | 78.0          | 39.3                | 20.0          | 17.3                | 63.0          | 56.5                | 37.0          | 17.0                | 40.0          | 20.0                |
| 300       | 32.5                     | 34.3                | 75.0            | 35.1                | 78.0          | 38.1                | 19.0          | 17.3                | 62.0          | 55.3                | 35.5          | 15.5                | 38.5          | 18.5                |
| 400       | 38.0                     | 40.0                | 70.0            | 33.3                | 73.0          | 36.3                | 19.0          | 17.3                | 61.0          | 53.4                | 33.0          | 13.0                | 36.0          | 16.0                |
| 500       | 43.0                     | 45.2                | 70.0            | 31.8                | 73.0          | 34.8                | 19.0          | 17.3                | 59.0          | 52.0                | 31.0          | 11.0                | 34.0          | 14.0                |

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Transfer impedance: Grade II per IEC 61156-5

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

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Version 1.5 | Last update: 2015-11-08