

# Category 6A F/FTP 4 Pair 23 AWG External Cable

Norden Category 6A F/FTP cables exceed Category 6A/Class EA specification. It is tested to 500MHz frequency range and designed to support 10 Gigabyte applications to full 100m. Data integrity is one of the most essential network requirements for many corporations, especially those located in environments that are prone to noise and electromagnetic interference such as industrial facilities and airports, as well as those running critical systems such as military installations and hospitals F/FTP (Foil Twisted Pair – overall Foil shield) cabling systems are installed for improved Alien Cross talk performance.





### **COMPLIANCE**

IEEE 802.3an :2006 (10GBASE-T) ANSI/TIA-568.2-D Category 6A ISO/IEC-11801, 2nd Edition Class EA IEC61156-5:2002 Category 6A LSZH: IEC 60332-1, IEC 60754, IEC 61034

#### **PRODUCT CLASSIFICATION**

Product Sequense	Premium
Product Type	Twisted Pair Cable

## **MATERIAL CONSTRUCTION & DESIGN**

Conductor Material	Bare Copper
Conductor Size	0.56mm
Conductor Construction	Solid
Insulation Material	SFS PE
Insulation O.D.	1.330±0.05 mm
Conductor Unit Identification	Solid
Colour Code	Per TIA/EIA 56B-B
In. Shield Material	Al/Mylar
In. Shield Design	100 % Coverage
Overall Shield Design	100 % Coverage
Overall Foil Shield	Yes
Overall Shield Material	Al/Mylar
Overall Drain-Wire Material	Tinned Copper
Overall Drain-Wire Size	0.41 mm
Overall Drain-Wire Construction	Solid
Total number of Wires	8
Outer Jacket	LDPE
Outer Jacket Thickness & Ex. Diameter	0.55±0.05 mm, 7.5±0.5 mm
Rip Cord	Yes

# Category 6A F/FTP 4 Pair 23 AWG External Cable

## **ELECTRICAL & MECHANICAL CHARACTERISTICS**

Frequency Range	1 - 500 MHz
Impedance	100±15Ω (1-250MHz), 100±22Ω (250-500MHz)
Coupling Attenuation	IEC61156-5 type
DC Resistance	9.38 max
Max. Resistance Unbalance	5%
Mutual Capacitance	5600pF/100m
Capacitance Unbalance	330pF/100m
Velocity of Propagation	74%
Propagation Delay Skew(ns/100m)	≤45
Dielectric Strength	DC 1000V No Breakdown
Dielectric Strength to Shield	DC 2500V No Breakdown
Min. Insulation Resistance	≥5000 MΩ.km
Transfer Impedance	IEC61156-5 Grade 2
Max. Tensile Strength - Short Term	≤110N
Min. Bend Radius	4D
Operating Temperature Range	-40°C to +75°C
Unbalanced-to-ground capacitance(pf/100m)	330 max

### TRANSMISSION PERFORMANCE

Cat. 6A Screened-pair Horizontal Cables\*

Frequency (MHz)	Attenuation (≤dB)	NEXT (≥dB)	PSNEXT (≥dB)	RL(≥dB)	ELFEXT (≥dB)	PSELFEXT (≥dB)
1	_	74.3	72.3	20	67.8	64.8
4	3.8	65.3	63.3	23	55.8	52.8
8	5.3	60.8	58.8	24.5	49.7	46.7
10	5.9	59.3	57.3	25	47.8	44.8
16	7.5	56.2	54.2	25	43.7	40.7
20	8.4	54.8	52.8	25	41.8	38.8
25	9.4	53.3	51.3	24.3	39.8	36.8
31.25	10.5	51.9	49.9	23.6	37.9	34.9
62.5	15	47.4	45.4	21.5	31.9	28.9
100	19.1	44.3	42.3	20.1	27.8	24.8
200	27.6	39.8	37.8	18	21.8	18.8
250	31.1	38.3	36.3	17.3	19.8	16.8
300	34.3	37.1	35.1	16.8	18.3	15.3
400	40.1	35.3	33.3	15.9	15.8	12.8
500	45.3	33.8	31.8	15.2	13.8	10.8

<sup>\*</sup>Supplied cables meets Cat. 6a min. transmission requirements as per IEC 61156-5 Ed.

## **ORDERING INFORMATION**

Part Number	Description
114-20003404X	Category 6A F/FTP 4 Pair 23 AWG External Cable PE

X: BK(Black), BL(Blue), GN(Green), GY(Gray), RD(Red), WH(White), YL(Yellow)