



Product: [50106XU](#)

50106XU Industrial Cat6 Cable, U/UTP, 4 Pair, AWG 24 Stranded, PE/PVC, High-Flex

Product Description

U/UTP, Category 6, 4-Pair, 24 AWG Stranded Bare Copper Conductors, Polyethylene Insulation, PVC Jacket, High Flexibility

Technical Specifications

Product Overview

Suitable Applications:	Interconnecting Industrial Ethernet Switches, IP controllers, media converters, distributed control system, programmable logic controller and transmitting industrial protocol data signals. Suitable for transmitting 1000BASE-TX Gigabit Ethernet, 100BASE-T Fast Ethernet, 100Base-VG ANYLAN, 155ATM, 622ATM, RS422, 250MHz Category 6, EtherCAT. Stranded conductor highly applicable for flexible installation. These are highly durable & ruggedized cables for both indoor and outdoor use meeting IEC 60332-1 flame rating.
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Construction Details

Conductor

Size	Stranding	Material
24 AWG	Stranded	BC - Bare Copper

Insulation

Material	Color Code
PO - Polyolefin	White / Blue & Blue, White / Orange & Orange, White / Green & Green, White / Brown & Brown

Outer Shield

Material
No Shield

Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	6.3 mm

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance	Nom. Characteristic Impedance
93.8 Ohm/km	5,600 pF/100m	100 Ohm

Delay

Max. Delay	Max. Delay Skew
538 ns/100m	45 ns/100m

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]
1	2.4	74.3	72.7	67.8	64.8	20
4	4.5	65.3	63.3	55.8	52.8	23
8	6.4	60.8	58.8	49.7	46.7	24.5
10	7.1	59.3	57.3	47.8	44.8	25
16	9.1	56.2	54.2	43.7	40.7	25
20	10.2	54.8	52.8	41.8	38.8	25
25	11.4	53.3	51.3	39.8	36.8	24.2

31.25	12.8	51.9	49.9	37.9	34.9	23.3
62.5	18.5	47.4	45.4	31.9	28.9	20.7
100	23.8	44.3	42.3	27.8	24.8	19
200	34.8	39.8	37.8	21.8	18.8	16.4
250	39.4	38.3	36.3	19.8	16.8	15.6

Table Notes: Limits below 4MHz are for information only.

Voltage

UL Voltage Rating

300 V RMS (UL AWM Style 2095)

Mechanical Characteristics

Temperature

Operating

-20°C To 75°C

Bend Radius

Installation Min.

50.4 mm (1.98 in)

Max. Pull Tension: 110 N (25 lbf)

Bulk Cable Weight: 42 kg/km (28 lbs/1000ft)

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2
Data Category:	Category 6
ISO/IEC Compliance:	ISO/IEC 11801
European Directive Compliance:	EU Directive 2011/65/EU (RoHS 2)

History

Update and Revision: Revision Number: 0.88 Revision Date: 07-05-2024

Part Numbers

Variants

Item #	Color	Putup Type	Length
50106XU 010305M	Black	Reel	305 m
50106XU 006305M	Blue	Reel	305 m
50106XU 008305M	Gray	Reel	305 m

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