



Product: [O-10GA24A](#) 

CAT 6A 4P23AWG, U/UTP, PVC Inner Jkt, PE Outer Jkt, Outdoor

Product Description

CAT 6A 4PR x 23AWG U/UTP, Solid Bare Copper Conductors, PO Insulation, PVC Inner Jacket, PE Outer Jacket, Outdoor

Technical Specifications

Product Overview

Suitable Applications:	Horizontal and building backbone Cable for outdoor application. Support current and future category 6 and 6A applications: such as 10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, ISDN, ATM as well as PoE application etc.
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material
23	Solid	BC - Bare Copper

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Material	Nominal Diameter
PO - Polyolefin	1.14 mm

Bonded-Pair:	N/A
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Color Chart

Number	Color
Pair 1	White & Blue
Pair 2	Orange & White with Orange Stripe
Pair 3	Green & White with Green Stripe
Pair 4	Brown & White with Brown Stripe

Inner Jacket

Material
PVC - Polyvinyl Chloride

Cabling

Filler
Central Spline (Red color)

Outer Jacket

Material	Nominal Diameter
PE - Polyethylene	8.2±0.3 mm

Construction and Dimensions

Min Elongation at Break of Conductors:	10 %
Min Elongation at Break of Insulation:	100 %

Min Elongation at Breakof Jacket:	100 %
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Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance	Max DCR Unbalanced Between Pairs [%]
95 Ohm/km	2 %	4 %

Capacitance

Max. Capacitance Unbalance	Max. Mutual Capacitance
160 pF/100m	56 pF/m

Delay

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
538 ns/100m	45 ns/100m	67%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Min. PSANEXT	Min. PSAACRF	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.1 dB/100m	75.3 dB	72.3 dB	68 dB	65.0 dB	20 dB	67.0 dB	67.0 dB	40 dB	35.0 dB
4 MHz	3.8 dB/100m	66.3 dB	63.3 dB	56 dB	53.0 dB	23 dB	67.0 dB	66.2 dB	34 dB	23.0 dB
10 MHz	5.9 dB/100m	60.3 dB	57.3 dB	48 dB	45.0 dB	25 dB	67.0 dB	58.2 dB	30 dB	15.0 dB
16 MHz	7.5 dB/100m	57.2 dB	54.2 dB	43.9 dB	40.9 dB	25 dB	67.0 dB	54.1 dB	28 dB	10.9 dB
31.25 MHz	10.5 dB/100m	52.9 dB	49.9 dB	38.1 dB	35.1 dB	23.6 dB	67.0 dB	48.3 dB	25.1 dB	
62.5 MHz	15.0 dB/100m	48.4 dB	45.4 dB	32.1 dB	29.1 dB	21.5 dB	65.6 dB	42.3 dB	22 dB	
100 MHz	19.1 dB/100m	45.3 dB	42.3 dB	28 dB	25.0 dB	20.1 dB	62.5 dB	38.2 dB	20 dB	
125 MHz	21.5 dB/100m	43.8 dB	40.8 dB	26.1 dB	23.1 dB	19.4 dB	61.0 dB	36.3 dB	19 dB	
200 MHz	27.6 dB/100m	40.8 dB	37.8 dB	22 dB	19.0 dB	18.0 dB	58.0 dB	32.2 dB	17 dB	
250 MHz	31.1 dB/100m	39.3 dB	36.3 dB	20 dB	17.0 dB	17.3 dB	56.5 dB	30.2 dB	16 dB	
300 MHz	34.3 dB/100m	38.1 dB	35.1 dB	18.5 dB	15.5 dB	17.3 dB	55.3 dB	28.7 dB		
500 MHz	45.3 dB/100m	34.8 dB	31.8 dB	14 dB	11.0 dB	17.3 dB	52.0 dB	24.2 dB		
600 MHz	50.1 dB/100m	33.6 dB	30.6 dB	12.4 dB	9.4 dB	17.3 dB	50.8 dB	22.6 dB		
650 MHz	52.3 dB/100m	33.1 dB	30.1 dB	11.7 dB	8.7 dB	17.3 dB	50.3 dB	21.9 dB		

Table Notes: Limits below 1MHz, and at 600MHz & 650MHz are for information only

Voltage

Voltage Rating [V]
Max. 72 V DC

Temperature Range

Installation Temperature Range:	0°C To +50°C
Storage Temperature Range:	-30°C To +60°C
Operating Temperature Range:	-30°C To +60°C

Mechanical Characteristics

Bulk Cable Weight:	63 kg/km
Max. Pull Tension:	110 N
Min. Bend Radius During Installation:	50 mm

Standards

ISO/IEC Compliance:	IEC 61156-5(2009), ISO/IEC 11801(2017)
Data Category:	Category 6A
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6A
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4

Applicable Environmental and Other Programs

Environmental Space:	Outdoor
EU Directive 2002/95/EC (RoHS):	Yes

Suitability

Suitability - Non-Halogenated:	No
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Plenum/Non-Plenum

Plenum (Y/N):	No
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Related Part Numbers

Variants

Item #	Color	Length
O-10GA24A 010305M	Black	305 m

Product Notes

Notes:	Jacket sequentially marked. Limits for 1MHz ,600MHz, 650MHz are for information only
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History

Update and Revision:	Revision Number: 0.27 Revision Date: 12-20-2022
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