



## 2424D

Part Number: 2424D

Enhanced Category 6 Nonbonded-Pair Cables

### Product Description

CAT6+ (300MHz), 4-Pair, U/UTP Unshielded, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, LSZH Jacket

### Product Specifications

### Technical Specifications

Application 1:	Horizontal and building backbone cable
Application 2:	Support current and future Category 6 and 5e applications, such as: 1000Base - T (Gigabit Ethernet), 100 Base - T, 10 Base - T, FDDI, ATM

### Construction and Dimensions

#### Conductor:

Element	AWG	Stranding	Material	No. of Pairs
Individual pair	24	Solid	Bare copper	4
Min Elongation at Breakof Conductors:		10 %		

#### Insulation:

Element	Type	Material	Nominal Diameter
Individual pair	Dielectric	Polyethylene	1 mm
Min Elongation at Breakof Insulation:		100 %	

#### Color Chart 1:

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

**Outerjacket 1:**

Material	Color	Nominal Diameter	Diameter +/- Tolerance	Ripcord
FRNC / LSNH	Blue, purple	5.5 mm	0.3 mm	Yes
<b>Min Elongation at Break of Jacket:</b>			100 MPa	
<b>Min Tensile Strength of Jacket:</b>			9 lbs	

**Electrical Characteristics**

**Conductor DCR:**

Max. Conductor DCR	Max DCR Unbalanced Between Pairs	Max. DCR Unbalanced Within Pair
93.8 Ohm/100m	4 %	2 Ohm

**Capacitance:**

Max. Capacitance Unbalanced	Max. Mutual Capacitance
1,600 pF/m	56 pF/m
<b>Min Insulation Resistance:</b>	
5000 mOhm/1000ft	

**Impedance:**

Nominal Characteristic Impedance
100 mOhm/ft

**Delay:**

Max. Delay Skew	Nominal Velocity of Propagation (VP)
25 ns/100m	70 ns/100m

**High Freq:**

Element	Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT	Min. PSNEXT	Min. ACR	Min. PSACR	Min. ACRF (ELFEXT)	Min. PSACRF (PSELFEXTL <sub>oss</sub> )	Min. RL (Return Loss)	Min. TCL	Min. ELTCTL
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	1 MHz	2 db/100m	75.3 dB	73.3 dB	73.3 dB	71.3 dB	70.8 dB	67.8 dB	20 dB	40 dB	35 dB
	4 MHz	3.7 db/100m	66.3 dB	64.3 dB	62.6 dB	60.6 dB	58.8 dB	55.8 dB	23 dB	40 dB	23 dB
	10 MHz	5.8 db/100m	61.8 dB	59.8 dB	56 dB	54 dB	50.8 dB	47.8 dB	25 dB	40 dB	15 dB
	16 MHz	7.4 db/100m	58.6 dB	56.6 dB	51.2 dB	49.2 dB	46.7 dB	43.7 dB	25 dB	38 dB	10.9 dB
	20 MHz	8.3 db/100m	57.1 dB	55.1 dB	48.8 dB	46.8 dB	44.8 dB	41.8 dB	25 dB	37 dB	9 dB
	31.2 MHz	10.4 db/100m	54 dB	52 dB	43.6 dB	41.6 dB	40.9 dB	37.9 dB	23.6 dB	35.1 dB	5.1 dB
	62.5 MHz	15 db/100m	49.1 dB	47.1 dB	34.1 dB	32.1 dB	34.9 dB	31.9 dB	21.5 dB	32.6 dB	
	100 MHz	19.3 db/100m	45.8 dB	43.8 dB	26.5 dB	24.5 dB	30.8 dB	27.8 dB	20.8 dB	30 dB	
	200 MHz	28.3 db/100m	40.9 dB	38.9 dB	12.6 dB	10.6 dB	22.8 dB	21.8 dB	19.5 dB	27 dB	
	250 MHz	32.1 db/100m	39.3 dB	37.3 dB	7.2 dB	5.2 dB	22.8 dB	19.8 dB	18 dB	26.5 dB	
	300 MHz	35.6 db/100m	38.1 dB	36.1 dB	2.5 dB	0.5 dB	21.3 dB	18.3 dB	17.5 dB		

): Limits below 4MHz are for information only.

## Current:

### Max. Recommended Current

1.5 A

## Voltage:

### Voltage Rating

300 dB

## Use

### Burning Load:

350 kJ/m

### Max Recommended Pulling Tension:

80 lbs

## Safety

### ISO/IEC Flammability:

IEC 60332-1

### Amt of Halogen Acid Gas; Max Conductivity:

10  $\mu$ S/mm

### Amt of Halogen Acid Gas; Min pH:

4.3

Smoke Density; Min Transmittance:	60 %
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## Temperature Range

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Installation Temp Range:	0 to +50 °C
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Operating Temp Range:	-20 to +75 °C
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## Mechanical Characteristics

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Min Bend Radius During Installation:	44 mm
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Min Bend Radius During Operation:	22 mm
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## Part Number

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## Standards

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ISO/IEC Compliance:	ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
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ANSI Compliance:	ANSI/TIA/EIA 568-B.2-1 (2002)
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## History

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Revision Date:	41312
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Revision Number:	2
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## Product Variants

Part Number	Color	Put-Up Type	Length
2424D.06305	BLUE	Reel	305 m
2424D.06500	BLUE	Reel	500 m
2424D.06A305	BLUE	Reel-in-Box	305 m
2424D.071000	PURPLE	Reel	1000 m
2424D.071010	PURPLE	Reel	1010 m
2424D.07305	PURPLE	Reel	305 m
2424D.07500	PURPLE	Reel	500 m
2424D.07A305	PURPLE	Reel-in-Box	305 m
2424D.07B100	PURPLE	Reel	
2424D.08500	GRAY	Reel	500 m
2424D.08A305	GRAY	Reel-in-Box	305 m
2424D.091000	WHITE	Reel	1000 m
2424D.091010	WHITE	Reel	1010 m
2424D.09500	WHITE	Reel	500 m
2424D.09A305	WHITE	Reel-in-Box	305 m

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