




Product: [7814A](#) 

CAT 6 Cable, U/UTP, PVC, 4 Pair, AWG 24, Indoor

Product Description

CAT 6 Cable, 4 Pair, 24 AWG, Solid Bare Copper Conductor, U/UTP, PO Insulation, PVC Jacket, Indoor

Technical Specifications

Product Overview

Suitable Applications:	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, 250MHz Category 6
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
24	Solid	BC - Bare Copper	4

Insulation

Material
PO - Polyolefin

Color Chart

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

Outer Jacket

Material	Nominal Diameter	Diameter +/- Tolerance	Ripcord
PVC - Polyvinyl Chloride	5.8 mm	0.3 mm	Yes

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max DCR Unbalanced Between Pairs [%]
93.8 Ohm/km	5 %

Capacitance

Max. Capacitance Unbalance	Nom.Mutual Capacitance
330 pF/100m	56 pF/m

Operating Voltage:	72 V DC
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Impedance

Nominal Characteristic Impedance
100 Ohm

Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
100 MHz	538 ns/100m	45 ns/100m	70%

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. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2 dB/100m	74.3 dB	72.3 dB	67.8 dB	64.8 dB	20 dB	40 dB	35.0 dB
4 MHz	3.8 dB/100m	65.3 dB	63.3 dB	55.8 dB	52.8 dB	23 dB	40 dB	23.0 dB
8 MHz	5.3 dB/100m	60.8 dB	58.8 dB	49.7 dB	46.7 dB	24.5 dB	40 dB	16.9 dB
10 MHz	6 dB/100m	59.3 dB	57.3 dB	47.8 dB	44.8 dB	25 dB	40 dB	15.0 dB
16 MHz	7.6 dB/100m	56.2 dB	54.2 dB	43.7 dB	40.7 dB	25 dB	38 dB	10.9 dB
20 MHz	8.5 dB/100m	54.8 dB	52.8 dB	41.8 dB	38.8 dB	25 dB	37 dB	9.0 dB
25 MHz	9.5 dB/100m	53.3 dB	51.3 dB	39.8 dB	36.8 dB	24.3 dB	36 dB	7.0 dB
31.25 MHz	10.7 dB/100m	51.9 dB	49.9 dB	37.9 dB	34.9 dB	23.6 dB	35.1 dB	
62.5 MHz	15.4 dB/100m	47.4 dB	45.4 dB	31.9 dB	28.9 dB	21.5 dB	32 dB	
100 MHz	19.8 dB/100m	44.3 dB	42.3 dB	27.8 dB	24.8 dB	20.1 dB	30 dB	
200 MHz	29 dB/100m	39.8 dB	37.8 dB	21.8 dB	18.8 dB	18 dB	27 dB	
250 MHz	32.8 dB/100m	38.3 dB	36.3 dB	19.8 dB	16.8 dB	17.3 dB	26 dB	

Table Notes:	Third party verified to TIA 568.2-D, Category 6. Typical Values are for reference only
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Temperature Range

Operating Temperature Range:	-20°C to +75°C
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Mechanical Characteristics

Bulk Cable Weight:	36.0 kg/km
Max. Pull Tension:	110 N
Min. Bend Radius During Installation:	23.2 mm

Standards

NEC/(UL) Compliance:	CM
CEC/C(UL) Compliance:	CM
ISO/IEC Compliance:	ISO/IEC 11801
Data Category:	Category 6
ANSI Compliance:	TIA 568.2-D Category 6
NEMA Compliance:	NEMA WC-63.1 Category 6, UL verified to Category 6

Applicable Environmental and Other Programs

Environmental Space:	Indoor
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes

Suitability

Suitability - Indoor:	Yes
Suitability - Oil Resistance:	No
Suitability - Outdoor:	No
Suitability - Sunlight Resistance:	No

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1685
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Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length
7814A 010A1000	Black	Reel in Box	1,000 ft
7814A 010U1000	Black	Box	1,000 ft
7814A 006A1000	Blue	Reel in Box	1,000 ft
7814A 006U1000	Blue	Box	1,000 ft
7814A 005A1000	Green	Reel in Box	1,000 ft
7814A 005U1000	Green	Box	1,000 ft
7814A 008A1000	Grey	Reel in Box	1,000 ft
7814A 008U1000	Grey	Box	1,000 ft

7814A 003A1000	Orange	Reel in Box	1,000 ft
7814A 003U1000	Orange	Box	1,000 ft
7814A 002A1000	Red	Reel in Box	1,000 ft
7814A 002U1000	Red	Box	1,000 ft
7814A 007A1000	Violet	Reel in Box	1,000 ft
7814A 007U1000	Violet	Box	1,000 ft
7814A 009A1000	White	Reel in Box	1,000 ft
7814A 009U1000	White	Box	1,000 ft
7814A 004A1000	Yellow	Reel in Box	1,000 ft
7814A 004U1000	Yellow	Box	1,000 ft

History

Update and Revision:	Revision Number: 0.36 Revision Date: 04-08-2022
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