

## 2424 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cables



For more Information  
please call

1-800-Belden1



### General Description:

CAT6+ (350MHz), 4-Pair, U/UTP-Unshielded, Zero Halogen, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Patented Tape Separator, Ripcord, LSZH Jacket.

### Usage (Overall)

**Suitable Applications:** Premise Horizontal Cable, POE, POE+, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422

### Physical Characteristics (Overall)

#### Conductor

**AWG:**

# Pairs	AWG	Stranding	Conductor Material
4	23	Solid	BC - Bare Copper

**Total Number of Conductors:** 8

#### Insulation

**Insulation Material:**

Insulation Material
PO - Polyolefin

#### Outer Shield

**Outer Shield Material:**

Outer Shield Material
Unshielded

#### Outer Jacket

**Outer Jacket Material:**

Outer Jacket Material
LSZH - Low Smoke Zero Halogen

**Outer Jacket Diameter:**

Nom. Dia. (mm)
5.588

**Outer Jacket Ripcord:** Yes

#### Overall Cable

**Overall Cabling Separator Material:** Patented Dielectric Tape

**Overall Nominal Diameter:** 5.588 mm

#### Pair

**Pair Color Code Chart:**

Number	Color
1	White/Blue Stripe and Blue
2	White/Orange Stripe and Orange
3	White/Green Stripe and Green
4	White/Brown Stripe and Brown

### Mechanical Characteristics (Overall)

**Operating Temperature Range:** -20°C To +75°C

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<b>Bulk Cable Weight:</b>	47.622 Kg/Km
<b>Max. Recommended Pulling Tension:</b>	177.928 N
<b>Min. Bend Radius/Minor Axis:</b>	19.050 mm
<b>Min. Bend/Installation:</b>	57.150 mm

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

<b>EU Directive 2011/65/EU (ROHS II):</b>	Yes
<b>Other Standards:</b>	60754-2, 61034
<b>EU CE Mark:</b>	Yes
<b>EU Directive 2000/53/EC (ELV):</b>	Yes
<b>EU Directive 2002/95/EC (RoHS):</b>	Yes
<b>EU RoHS Compliance Date (mm/dd/yyyy):</b>	01/01/2004
<b>EU Directive 2002/96/EC (WEEE):</b>	Yes
<b>EU Directive 2003/11/EC (BFR):</b>	Yes
<b>CA Prop 65 (CJ for Wire &amp; Cable):</b>	Yes
<b>MII Order #39 (China RoHS):</b>	Yes
<b>Telecommunications Standards:</b>	Category 6 - TIA 568.C.2

#### Applicable Patents:

<b>Country</b>
www.belden.com/p

#### Flame Test

<b>IEC Flame Test:</b>	60332-1
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#### Suitability

<b>Suitability - Indoor:</b>	Yes
<b>Suitability - Outdoor:</b>	No
<b>Sunlight Resistance:</b>	No
<b>Non-halogenated:</b>	Yes

#### Plenum/Non-Plenum

<b>Plenum (Y/N):</b>	No
<b>Plenum Number:</b>	2413

### Electrical Characteristics (Overall)

#### Nom. Mutual Capacitance:

<b>Capacitance (pF/m)</b>
55.777

<b>Maximum Capacitance Unbalance (pF/100 m):</b>	330
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#### Nominal Velocity of Propagation:

<b>VP (%)</b>
70

#### Maximum Delay:

<b>Delay (ns/100 m)</b>
537 @ 100MHz

#### Max. Delay Skew:

<b>Delay Skew (ns/100 m)</b>
35.000

#### Maximum Conductor DC Resistance:

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**DCR @ 20°C (Ohm/100 m)**

7.800

**Max. Operating Voltage - UL:**

**Voltage**

300 V RMS

**Maximum DCR Unbalanced:**

**DCR Unbalance @ 20°C (%)**

3.000

### Electrical Characteristics-Premise (Overall)

**Premise Cable Electrical Table 1:**

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min RL (dB)
0.772	1.800	77.0	77.0	75.2	75.2	
1	2.000	75.3	75.3	73.3	73.3	20.000
4	3.700	66.3	66.3	62.6	62.6	23.000
8	5.200	61.8	61.8	56.6	56.6	24.500
10	5.800	60.3	60.3	54.5	54.5	25.000
16	7.400	57.2	57.2	49.9	49.9	25.000
20	8.300	55.8	55.8	47.5	47.5	25.000
25	9.300	54.3	54.3	45.1	45.1	24.300
31.25	10.400	52.9	52.9	42.5	42.5	23.600
62.5	15.000	48.4	48.4	33.4	33.4	21.500
100	19.300	45.3	45.3	26.0	26.0	20.800
155	24.600	42.4	42.4	17.9	17.9	19.500
200	28.300	40.8	40.8	12.5	12.5	18.700
250	32.100	39.3	39.3	7.2	7.2	18.000
300	35.600	38.1	36.1	0.5	0.5	17.500
350	38.900	37.1	35.1	-1.7	-3.7	17.000
400	42.000	36.3	34.3	-5.7	-7.7	16.600
450	45.000	35.5	33.5	-9.5	-11.5	16.200
500	47.900	34.8	32.8	-13.0	-15.0	15.900
550	50.600	34.2	32.2	-16.4	-18.4	15.600

**Premise Cable Electrical Table 2:**

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ACRF (dB)	Min. PSACRF (dB)
0.772		102 ± 15	73.0	70.0
1	100 ± 15	102 ± 15	70.8	67.8
4	100 ± 15	100 ± 15	58.8	55.8
8	100 ± 15	100 ± 15	52.7	49.7
10	100 ± 15	100 ± 15	50.8	47.8
16	100 ± 15	100 ± 15	46.7	43.7
20	100 ± 15	100 ± 15	44.8	41.8
25	100 ± 15	100 ± 15	42.8	39.8
31.25	100 ± 15	100 ± 15	40.9	37.9
62.5	100 ± 15	100 ± 15	34.9	31.9
100	100 ± 15	100 ± 15	30.8	27.8
155	100 ± 22	100 ± 15	27.0	24.0
200	100 ± 22	100 ± 15	24.8	21.8
250	100 ± 32	100 ± 15	22.8	19.8
300	100 ± 32	100 ± 15	21.3	18.3
350	100 ± 32	100 ± 15	19.9	16.9
400	100 ± 32	100 ± 15	18.8	15.8
450	100 ± 32	100 ± 15	17.7	14.7
500	100 ± 32	100 ± 15	16.8	13.8
550	100 ± 32	100 ± 15	16.0	13.0

### Notes (Overall)

**Notes:** Jacket sequentially printed with dual footage and meter markings. Third party verified to ANSI/TIA-568-C.2, Category 6. Values above 350 MHz are for Engineering Informaton Only.

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### Reference (Overall)

Previous Part Number: 24568005

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
2424 0061000	1,000 FT	25.000 LB	BLUE, LIGHT		CAT6+ 4PR U/UTP LSZH REEL
2424 0071000	1,000 FT	25.000 LB	VIOLET		CAT6+ 4PR U/UTP LSZH REEL
2424 0091000	1,000 FT	25.000 LB	WHITE		CAT6+ 4PR U/UTP LSZH REEL

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