



**Product:** [7997A](#)

Category 5e OSP Cable, 4 Pair, U/UTP, Burial, Gel Filled

## Product Description

Category 5e Premise Horizontal Cable (200MHz), OSP Rated, 4 Pair, 24 AWG Solid Bare Copper Conductors, U/UTP, Gel-Filled, Polyethylene Jacket

## Technical Specifications

### Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | OSP-Outdoor, Premise Horizontal Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE |
|------------------------|--|

### Construction Details

#### Conductor

| Size   | Stranding | Material         | Number of Pairs |
|--------|-----------|------------------|-----------------|
| 24 AWG | Solid     | BC - Bare Copper | 4               |

#### Insulation

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

|                |            |
|----------------|------------|
| Waterblocking: | Gel Filled |
|----------------|------------|

#### Outer Jacket

| Material          | Nom. Diameter      | Ripcord |
|-------------------|--------------------|---------|
| PE - Polyethylene | 0.226 in (5.74 mm) | Yes     |

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.226 in (5.74 mm) |
|-----------------------------------|--------------------|

### Electrical Characteristics

#### Electricals

| Max. Conductor DCR            | Max. Capacitance Unbalance |
|-------------------------------|----------------------------|
| 93.8 Ohm/km (28.6 Ohm/1000ft) | 160 pF/100m                |

#### Delay

| Frequency | Max. Delay    | Max. Delay Skew | Nom. Velocity of Prop. |
|-----------|---------------|-----------------|------------------------|
| 100 MHz   | 537.6 ns/100m | 45 ns/100m      | 65%                    |

#### High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACR [dB] | Min. PSACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Max./Min. Input Impedance (unFitted) [Ohm] | Max./Min. Fitted Impedance [Ohm] |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|--|----------------------------------|
| 1               | 2.0 dB/100m                       | 65.3           | 62.3             | 63.3          | 60.3            | 63.8                    | 60.8                        | 20.0                       | 100 ± 15                                   | 100 ± 15                         |
| 4               | 4.1 dB/100m                       | 56.3           | 53.3             | 52.2          | 49.2            | 51.8                    | 48.8                        | 23.0                       | 100 ± 15                                   | 100 ± 15                         |
| 8               | 5.8 dB/100m                       | 51.8           | 48.8             | 46.0          | 43.0            | 45.7                    | 42.7                        | 24.5                       | 100 ± 15                                   | 100 ± 15                         |
| 10              | 6.5 dB/100m                       | 50.3           | 47.3             | 43.8          | 40.8            | 43.8                    | 40.8                        | 25.0                       | 100 ± 15                                   | 100 ± 15                         |
| 16              | 8.2 dB/100m                       | 47.2           | 44.2             | 39.0          | 36.0            | 39.7                    | 36.7                        | 25.0                       | 100 ± 15                                   | 100 ± 15                         |
| 20              | 9.3 dB/100m                       | 45.8           | 42.8             | 36.5          | 33.5            | 37.8                    | 34.8                        | 25.0                       | 100 ± 15                                   | 100 ± 15                         |
| 25              | 10.4 dB/100m                      | 44.3           | 41.3             | 33.9          | 30.9            | 35.8                    | 32.8                        | 24.3                       | 100 ± 15                                   | 100 ± 15                         |
| 31.25           | 11.7 dB/100m                      | 42.9           | 39.9             | 31.2          | 28.2            | 33.9                    | 30.9                        | 23.6                       | 100 ± 15                                   | 100 ± 15                         |

|      |              |      |      |      |      |      |      |      |          |          |
|------|--------------|------|------|------|------|------|------|------|----------|----------|
| 62.5 | 17.0 dB/100m | 38.4 | 35.4 | 21.4 | 18.4 | 27.9 | 24.9 | 21.5 | 100 ± 15 | 100 ± 15 |
| 100  | 22.0 dB/100m | 35.3 | 32.3 | 13.3 | 10.3 | 23.8 | 20.8 | 20.1 | 100 ± 15 | 100 ± 15 |
| 155  | 28.1 dB/100m | 32.4 | 29.4 | 4.4  | 1.4  | 20.0 | 17.0 | 18.8 |          |          |
| 200  | 32.4 dB/100m | 30.8 | 27.8 | -1.6 | -4.6 | 17.8 | 14.8 | 18.0 |          |          |

## Voltage

| Voltage Rating |
|----------------|
| 300 V          |

## Mechanical Characteristics

### Temperature

| Operating      | Installation   | Storage        |
|----------------|----------------|----------------|
| -40°C To +75°C | -40°C To +60°C | -40°C To +75°C |

### Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 1.0 in (25 mm)  | 2.25 in (57.2 mm) |

Max. Pull Tension: 25 lbs (11 kg)

Bulk Cable Weight: 23 lbs/1000ft

## Standards and Compliance

|                                |   |
|--------------------------------|---|
| Environmental Suitability:     | Outdoor, Outdoor, Sunlight Resistance   |
| Sustainability:                | Product Lens™, Environmental Product Declaration (EPD) Available  |
| CPR Compliance:                | CPR Euroclass: Fca  |
| ICEA Compliance:               | S-116-732-2013, S-56-434, S-99-689, S-100-685   |
| IEEE Compliance:               | IEEE 802.3bt Type 1, Type 2, Type 3   |
| NEMA Compliance:               | NEMA WC-63.1  |
| Data Category:                 | Category 5e   |
| TIA/EIA Compliance:            | ANSI/TIA-568.2-D Category 5e  |
| ISO/IEC Compliance:            | ISO/IEC 11801-1, IEC 61156-5  |
| European Directive Compliance: | EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| APAC Compliance:               | China RoHS II (GB/T 26572-2011)   |

## Product Notes

|        |  |
|--------|--|
| Notes: | Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 100 MHz are for Engineering Information Only. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0. Not Suitable for Direct Burial. Belden recommends using an entrance demarcation point when transitioning inside buildings with gel-filled OSP cables due to the cable design containing gel specific for wet outdoor environments. The suggested transition point is the REVConnect core coupler, part number RVACPKUBK-S1. |
|--------|--|

## History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.512 Revision Date: 05-04-2022 |
|----------------------|--|

## Part Numbers

### Variants

| Item #        | Color | Putup Type | Length   | UPC          |
|---------------|-------|------------|----------|--------------|
| 7997A 0101000 | Black | Reel       | 1,000 ft | 612825192596 |
| 7997A 0101000 | Black | Reel       | 1,000 ft | 612825192596 |

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