

# Product: <u>1752A</u> ☑ CAT5e+ Patch Bonded-Pair, 4pr, UTP, PVC Jkt, CM

## **Product Description**

CAT5e+ (350MHz), 4-Bonded-Pair, U/UTP-unshielded, CM, Premise Patch cable, 24 AWG Bonded stranded (7x32) tinned copper conductors, polyolefin insulation, PVC jacket, RJ-45 compatible

## **Technical Specifications**

#### **Product Overview**

| Suitable Applications: | Premise Patch Cable Designed for Attenuation Stability in High Humidity Environments, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, Noisy Environments |
|------------------------|--|
|------------------------|--|

## **Physical Characteristics (Overall)**

#### Conductor

| AWG                    | Stranding | Material                           |  | No. of Pairs |
|------------------------|-----------|------------------------------------|--|--------------|
| 24                     | 7x32      | TC - Tinned Copper, Bonded Strands |  | 4            |
| Conductor Count: 8     |           |                                    |  |              |
| Total Number of Pairs: |           | 4                                  |  |              |

#### Insulation

| Material<br>PO - Polyolefin |     |
|-----------------------------|-----|
| Bonded-Pair:                | Yes |
| Color Chart                 |     |

| Number | Color                        |
|--------|------------------------------|
| 1      | White/Blue Stripe & Blue     |
| 2      | White/Orange Stripe & Orange |
| 3      | White/Green Stripe & Green   |
| 4      | White/Brown Stripe & Brown   |

#### **Outer Jacket Material**

| Material                 | Nominal Diameter | Ripcord |
|--------------------------|------------------|---------|
| PVC - Polyvinyl Chloride | 0.220 in         | No      |

## **Electrical Characteristics**

#### Conductor DCR

| Max. Conductor DCR | Max. DCR Unbalance |
|--------------------|--------------------|
| 90 Ohm/km          | 3 %                |

#### Capacitance

| Max. Capacitance Unbalance | Nom.Mutual Capacitance |
|----------------------------|------------------------|
| 160 pF/100m                | 15 pF/ft               |

#### Delay

| Frequency [MHz] | Max. Delay    | Max. Delay Skew | Nominal Velocity of Propagation (VP) [%] |
|-----------------|---------------|-----------------|--|
| 100 MHz         | 537.6 ns/100m | 25 ns/100m      | 70 %                                     |

## High Freq

| Frequency<br>[MHz] | Max. Insertion Loss<br>(Attenuation) | Min. NEXT<br>[dB] | Min. PSNEXT<br>[dB] | Min. ACRF<br>(ELFEXT) [dB] | Min. PSACRF<br>(PSELFEXT) [dB] | Min. RL (Return<br>Loss) [dB] | Max./Min. Input Impedance<br>(unFitted) | Max./Min. Fitted<br>Impedance |
|--------------------|--------------------------------------|-------------------|---------------------|----------------------------|--------------------------------|-------------------------------|---|-------------------------------|
| 1 MHz              | 2.4 dB/100m                          | 65.3 dB           | 65.3 dB             | 63.8 dB                    | 60.8 dB                        | 20.0 dB                       | 100 ± 12 Ohm                            | 105 ± 10 Ohm                  |
| 4 MHz              | 4.8 dB/100m                          | 56.3 dB           | 56.3 dB             | 51.7 dB                    | 48.7 dB                        | 23.0 dB                       | 100 ± 12 Ohm                            | 100 ± 10 Ohm                  |
| 8 MHz              | 6.8 dB/100m                          | 51.8 dB           | 51.8 dB             | 45.7 dB                    | 42.7 dB                        | 24.5 dB                       | 100 ± 12 Ohm                            | 100 ± 10 Ohm                  |
| 10 MHz             | 7.7 dB/100m                          | 50.3 dB           | 50.3 dB             | 43.8 dB                    | 40.8 dB                        | 25.0 dB                       | 100 ± 12 Ohm                            | 100 ± 10 Ohm                  |
| 16 MHz             | 9.8 dB/100m                          | 47.3 dB           | 47.3 dB             | 39.7 dB                    | 36.7 dB                        | 25.0 dB                       | 100 ± 12 Ohm                            | 100 ± 10 Ohm                  |
| 20 MHz             | 11.0 dB/100m                         | 45.8 dB           | 45.8 dB             | 37.7 dB                    | 34.7 dB                        | 25.0 dB                       | 100 ± 12 Ohm                            | 100 ± 10 Ohm                  |
| 25 MHz             | 12.4 dB/100m                         | 44.3 dB           | 44.3 dB             | 35.8 dB                    | 32.8 dB                        | 19.0 dB                       | 100 ± 15 Ohm                            | 100 ± 10 Ohm                  |
| 31.25 MHz          | 13.9 dB/100m                         | 42.9 dB           | 42.9 dB             | 33.9 dB                    | 30.9 dB                        | 19.0 dB                       | 100 ± 15 Ohm                            | 100 ± 10 Ohm                  |
| 62.5 MHz           | 20.1 dB/100m                         | 38.4 dB           | 38.4 dB             | 27.8 dB                    | 24.8 dB                        | 19.0 dB                       | 100 ± 15 Ohm                            | 100 ± 10 Ohm                  |
| 100 MHz            | 26.1 dB/100m                         | 35.3 dB           | 35.3 dB             | 23.8 dB                    | 20.8 dB                        | 19.0 dB                       | 100 ± 15 Ohm                            | 100 ± 10 Ohm                  |
| 155 MHz            | 33.3 dB/100m                         | 32.5 dB           | 32.5 dB             | 19.9 dB                    | 16.9 dB                        | 19.0 dB                       | 100 ± 18 Ohm                            | 100 ± 10 Ohm                  |
| 200 MHz            | 38.4 dB/100m                         | 30.8 dB           | 30.8 dB             | 17.7 dB                    | 14.7 dB                        | 19.0 dB                       | 100 ± 18 Ohm                            | 100 ± 10 Ohm                  |
| 250 MHz            | 43.7 dB/100m                         | 29.3 dB           | 29.3 dB             | 15.8 dB                    | 12.8 dB                        | 18.0 dB                       | 100 ± 20 Ohm                            | 100 ± 10 Ohm                  |
| 300 MHz            | 48.6 dB/100m                         | 28.2 dB           | 28.2 dB             | 14.2 dB                    | 11.2 dB                        | 18.0 dB                       | 100 ± 20 Ohm                            | 100 ± 10 Ohm                  |
| 310 MHz            | 49.5 dB/100m                         | 27.9 dB           | 27.9 dB             | 13.9 dB                    | 10.9 dB                        | 18.0 dB                       | 100 ± 20 Ohm                            | 100 ± 10 Ohm                  |
| 350 MHz            | 53.2 dB/100m                         | 27.2 dB           | 27.2 dB             | 12.9 dB                    | 9.9 dB                         | 17.0 dB                       | 100 ± 22 Ohm                            | 100 ± 10 Ohm                  |

## Voltage

## UL Voltage Rating

300 V RMS

## **Temperature Range**

| Installation Temp Range: | 0°C To +50°C   |
|--------------------------|----------------|
| UL Temp Rating:          | 75°C           |
| Storage Temp Range:      | -20°C To +75°C |
| Operating Temp Range:    | -20°C To +75°C |

## **Mechanical Characteristics**

| Bulk Cable Weight:                      | 21 lbs/1000ft |
|---|---------------|
| Max Recommended Pulling Tension:        | 40 lbs        |
| Min Bend Radius During<br>Installation: | 2.2 in        |
| Min Bend Radius/Minor Axis:             | 1.0 in        |

### **Standards**

| NEC/(UL) Specification:                  | СМ   |  |
|--|--|--|
| NEC/(UL) Specification:                  | CM   |  |
| CEC/C(UL) Specification:                 | CM   |  |
| ISO/IEC Compliance:                      | 11801 ed 2.2 (2011) Class D Patch                                    |  |
| Data Category:                           | Category 5e  |  |
| ANSI Compliance:                         | S-90-661-2012 Category 5e Patch, ANSI/NEMA WC-63.1 Category 5e Patch |  |
| Telecommunications Standards:            | ANSI/TIA-568-C.2 Category 5e Patch                                   |  |
| IEEE Specification:                      | IEEE 802.3bt Type 1, Type 2, Type 3                                  |  |
| Third Party Performance<br>Verification: | Category 5e Patch  |  |

## Applicable Environmental and Other Programs

| Environmental Space:                   | Indoor     |
|--|------------|
| EU Directive 2000/53/EC (ELV):         | Yes        |
| EU Directive 2003/11/EC (BFR):         | Yes        |
| EU Directive 2003/96/EC (BFR):         | Yes        |
| EU Directive 2011/65/EU (ROHS II):     | Yes        |
| EU Directive 2012/19/EU (WEEE):        | Yes        |
| EU Directive 2015/863/EU:              | Yes        |
| EU Directive Compliance:               | Yes        |
| EU CE Mark:                            | Yes        |
| EU REACH SVHC Compliance (yyyy-mm-dd): | 2017-07-10 |

| EU RoHS Compliance Date (yyyy-mm-dd): | 2004-01-01 |
|---------------------------------------|------------|
| CA Prop 65 (CJ for Wire & Cable):     | Yes        |
| MII Order #39 (China RoHS):           | Yes        |

#### Suitability

| Suitability - Aerial:              | No  |
|------------------------------------|-----|
| Suitability - Burial:              | No  |
| Suitability - Hazardous Locations: | No  |
| Suitability - Indoor:              | Yes |
| Suitability - Non-Halogenated:     | No  |
| Suitability - Oil Resistance:      | No  |
| Suitability - Outdoor:             | No  |
| Suitability - Sunlight Resistance: | No  |

#### Flammability, LS0H, Toxicity Testing

| UL Flammability:   | UL 1685 (UL 1581) Vertical Tray |
|--------------------|---------------------------------|
| UL voltage rating: | 300 V RMS                       |

#### Plenum/Non-Plenum

|  | Plenum (Y/N): | No |
|--|---------------|----|
|--|---------------|----|

## Part Number

#### Variants

| lion #         | Color  | UPC          | Longth   | Factoria    |
|----------------|--------|--------------|----------|-------------|
| Item #         | Color  |              |          | Footnote    |
| 1752A 0101000  | Black  | 612825122210 | 1,000 ft | С           |
| 1752A 010U1000 | Black  | 612825122203 | 1,000 ft |             |
| 1752A 0061000  | Blue   | 612825122173 | 1,000 ft | С           |
| 1752A 006U1000 | Blue   | 612825122166 | 1,000 ft |             |
| 1752A F2V1000  | Gray   | 612825122074 | 1,000 ft | С           |
| 1752A F2VU1000 | Gray   | 612825122067 | 1,000 ft |             |
| 1752A 0051000  | Green  | 612825122159 | 1,000 ft | С           |
| 1752A 005U1000 | Green  | 612825122142 | 1.000 ft |             |
|                |        | 612825122111 |          |             |
|                | -      | 612825122104 |          |             |
|                | -      |              |          |             |
|                | Purple | 612825122180 |          |             |
| 1752A 0021000  | Red    | 612825122098 | 1,000 ft | С           |
| 1752A 002U1000 | Red    | 612825122081 | 1,000 ft |             |
| 1752A 0041000  | Yellow | 612825122135 | 1,000 ft | С           |
| 1752A 004U1000 | Yellow | 612825122128 | 1,000 ft |             |
| Footnote:      |        | C - CR       | ATE REE  | L PUT-UP.   |
| Patent:        |        | https://     | www.beld | en.com/reso |

## **Product Notes**

| Notes:  | Print Includes Descending Footage Markings. |
|---------|---|
| History |   |

Update and Revision:

Revision Number: 0.340 Revision Date: 01-31-2020

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