



Part Number: 7882A

CAT6 Horizontal, 4pr, UTP, LS-PVC Jkt, CMP

Product Description

CAT6 (250MHz), 4-Pair, U/UTP-unshielded, Plenum-CMP, Premise Horizontal cable, 23 AWG solid bare copper conductors, dual FRPO/FEP insulation, tape separator, ripcord, Flamarrest® jacket

Product Specifications

Technical Specifications

| | |
|-------------------------------|--|
| Suitable Applications: | Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155 ATM, 622 ATM, 250MHz Category 6 |
|-------------------------------|--|

Construction and Dimensions

Conductor:

| AWG | Stranding | Material | No. of Pairs |
|-----|-----------|------------------|--------------|
| 23 | Solid | BC - Bare Copper | 4 |

| | |
|------------------------------------|---|
| Total Number of Conductors: | 8 |
|------------------------------------|---|

Insulation:

| Material | Nominal Wall Thickness |
|--|------------------------|
| FRPO/FEP - Flame Retardant Polyolefin/Fluorinated Ethylene Propylene | 0.008 in |

Color Chart 1:

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

Cabling 1:

| |
|-------------|
| Filler |
| Center Tape |

Outersield 1:

| Material |
|------------|
| Unshielded |

Outerjacket 1:

| Material | Material Trade Name | Nominal Diameter | Ripcord |
|---------------------------------------|---------------------|------------------|---------|
| LS PVC - Low Smoke Polyvinyl Chloride | Flamarrest® | 0.23 mm | Yes |
| | | 0.23 in | |

Electrical Characteristics

Conductor DCR:

| Max. Conductor DCR | Max. DCR Unbalance |
|--------------------|--------------------|
| 8.2 Ohm/1000ft | 5 % |

Capacitance:

| Nom.Mutual Capacitance |
|------------------------|
| 15 pF/ft |

Delay:

| Max. Delay Skew | Nominal Velocity of Propagation (VP) [%] |
|-----------------|--|
| 45 ns/100m | 0.72 % |

High Freq:

| 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] | Min. SRL (Structural Return Loss) | Max./Min. Input Impedance (unFitted) | Max./Min. Fitted Impedance |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|-----------------------------------|--------------------------------------|----------------------------|
| 1 MHz | 2 db/100m | 74.3 dB | 72.3 dB | 72.3 dB | 70.3 dB | 67.8 dB | 64.8 dB | 20 dB | na | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 4 MHz | 3.8 db/100m | 65.3 dB | 63.3 dB | 61.5 dB | 59.5 dB | 55.8 dB | 52.7 dB | 23 dB | na | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 8 MHz | 5.3 db/100m | 60.8 dB | 58.8 dB | 55.4 dB | 53.4 dB | 49.7 dB | 46.7 dB | 24.5 dB | na | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 10 MHz | 6 db/100m | 59.3 dB | 57.3 dB | 53.3 dB | 51.3 dB | 47.8 dB | 44.8 dB | 25 dB | na | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 16 MHz | 7.6 db/100m | 56.2 dB | 54.3 dB | 48.7 dB | 46.7 dB | 43.7 dB | 40.7 dB | 25 dB | na | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 20 MHz | 8.5 db/100m | 54.8 dB | 52.8 dB | 46.3 dB | 44.3 dB | 41.8 dB | 38.8 dB | 25 dB | na | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 25 MHz | 9.5 db/100m | 53.3 dB | 51.3 dB | 43.8 dB | 41.8 dB | 39.8 dB | 36.8 dB | 24.3 dB | na | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 31.25 MHz | 10.7 db/100m | 51.9 dB | 49.9 dB | 41.2 dB | 39.2 dB | 37.9 dB | 34.9 dB | 23.6 dB | na | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 62.5 MHz | 15.4 db/100m | 47.4 dB | 45.4 dB | 32 dB | 30 dB | 31.9 dB | 28.9 dB | 21.5 dB | na | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 100 MHz | 19.8 db/100m | 44.3 dB | 42.3 dB | 24.5 dB | 22.5 dB | 27.8 dB | 24.8 dB | 20.1 dB | na | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 155 MHz | 25.2 db/100m | 41.5 dB | 39.5 dB | 16.3 dB | 14.3 dB | 23.9 dB | 20.9 dB | 18.8 dB | na | 100 ± 20 Ohm | 100 ± 15 Ohm |
| 200 MHz | 29 db/100m | 39.8 dB | 37.8 dB | 10.8 dB | 8.8 dB | 21.8 dB | 18.8 dB | 18 dB | na | 100 ± 20 Ohm | 100 ± 15 Ohm |
| 250 MHz | 32.8 db/100m | 38.3 dB | 36.3 dB | 5.5 dB | 3.5 dB | 19.8 dB | 16.8 dB | 17.3 dB | na | 100 ± 20 Ohm | 100 ± 15 Ohm |
| 300 MHz | 36.4 db/100m | 37.1 dB | 35.1 dB | 0.7 dB | | 18.3 dB | 15.3 dB | 16.8 dB | na | 100 ± 25 Ohm | 100 ± 15 Ohm |
| 350 MHz | 39.8 db/100m | 36.1 dB | 34.1 dB | | | 16.9 dB | 13.9 dB | 16.3 dB | na | 100 ± 25 Ohm | 100 ± 15 Ohm |
| 400 MHz | 43 db/100m | 35.3 dB | 33.3 dB | | | 15.8 dB | 12.8 dB | 15.9 dB | na | 100 ± 25 Ohm | 100 ± 15 Ohm |
| 500 MHz | 48.9 db/100m | 33.8 dB | 31.8 dB | | | 13.8 dB | 10.8 dB | 15.2 dB | na | 100 ± 25 Ohm | 100 ± 15 Ohm |
| 550 MHz | 51.8 db/100m | 33.2 dB | 31.2 dB | | | | | 14.9 dB | na | 100 ± 25 Ohm | 100 ± 15 Ohm |

Voltage:

UL Voltage Rating

300V RMS

Use

| | |
|------------------------------------|-----|
| Suitability - Oil Resistance: | No |
| Suitability - Aerial: | No |
| Suitability - Burial: | No |
| Suitability - Indoor: | Yes |
| Suitability - Outdoor: | No |
| Suitability - Sunlight Resistance: | No |

| | |
|----------------------------------|--------|
| Max Recommended Pulling Tension: | 40 lbs |
|----------------------------------|--------|

Safety

| | |
|--------------------------------|------------------------------------|
| CSA Flammability: | FT6 |
| UL Flammability: | NFPA 262 Plenum Flame Test (UL910) |
| Suitability - Non-Halogenated: | No |

Temperature Range

| | |
|-----------------------|----------------|
| Operating Temp Range: | -20°C To +60°C |
|-----------------------|----------------|

Mechanical Characteristics

| | |
|-----------------------------|--------|
| Min Bend Radius/Minor Axis: | 1.5 in |
|-----------------------------|--------|

Part Number

| | |
|--------------------|-------|
| Plenum (Y/N): | Yes |
| Non-Plenum Number: | 7881A |

Standards

| | |
|-----------------------------------|------------------------------------|
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| CEC/C(UL) Specification: | CMP |
| MII Order #39 (China RoHS): | Yes |
| NEC/(UL) Specification: | CMP |
| Other Specification: | Third party verified to Category 6 |
| EU Directive Compliance: | EU Directive 2003/11/EC (BFR) |
| EU CE Mark: | Yes |

History

| | |
|--------|---|
| Notes: | Jacket sequentially marked at 2 ft. intervals. Third party verified to TIA/EIA-568-B.2-1, Category 6. US Patents 5424491, 5563377, 6570095 and 6998537. |
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