

Part Number: 7918A

Cat 5e MSHA DataTuff®, (4 pr) 24 AWG Solid BC,
PO/PVC, CMR, CMX-Outdoor

Product Description

Four Cat 5e 24 AWG solid bare copper conductors, twisted pairs, polyolefin insulation, PVC jacket.

Product Specifications

Technical Specifications

| | |
|-------------------------------|--|
| Suitable Applications: | Industrial Ethernet Cable, Harsh Environments, 200MHz Category 5e, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, CMX - Outdoor, RJ-45 Compatible |
|-------------------------------|--|

Construction and Dimensions

Conductor:

| AWG | Stranding | Material | No. of Pairs |
|------------------------------------|-----------|------------------|--------------|
| 24 | Solid | BC - Bare Copper | 4 |
| Total Number of Conductors: | | | 8 |

Insulation:

| Material |
|-----------------|
| PO - Polyolefin |

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 |

Outershield 1:

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

Outerjacket 1:

| Material | Nominal Diameter | Ripcord |
|---|------------------|---------|
| Industrial Grade PVC - Polyvinyl Chloride | 0.23 in | Yes |

Electrical Characteristics

Conductor DCR:

| Max. Conductor DCR | Max. DCR Unbalance |
|--------------------|--------------------|
| 9.38 Ohm/1000ft | 3 % |

Capacitance:

| Max. Capacitance Unbalance | Nom.Mutual Capacitance |
|----------------------------|------------------------|
| 330 pF/ft | 15 pF/ft |

Delay:

| Max. Delay | Max. Delay Skew | Nominal Velocity of Propagation (VP) [%] |
|----------------------|-----------------|--|
| 510 @ 100MHz ns/100m | 45 ns/100m | 68 % |

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 | 65.3 dB | 62.3 dB | 63 dB | 60 dB | 63.8 dB | 60.8 dB | 20 dB | 23 dB | 100 ± 15 Ohm | |
| 4 MHz | 4.1 db/100m | 56.3 dB | 53.3 dB | 51 dB | 49 dB | 51.7 dB | 48.7 dB | 23 dB | 23 dB | 100 ± 15 Ohm | |
| 8 MHz | 5.8 db/100m | 51.8 dB | 48.8 dB | 46 dB | 43 dB | 45.7 dB | 42.7 dB | 24.5 dB | 24.5 dB | 100 ± 15 Ohm | |
| 10 MHz | 6.5 db/100m | 50.3 dB | 47.3 dB | 43 dB | 41 dB | 43.8 dB | 40.8 dB | 25 dB | 25 dB | 100 ± 15 Ohm | |
| 16 MHz | 8.2 db/100m | 47.3 dB | 44.3 dB | 39 dB | 36 dB | 39.7 dB | 36.7 dB | 25 dB | 25 dB | 100 ± 15 Ohm | |
| 20 MHz | 9.3 db/100m | 45.8 dB | 42.8 dB | 36.5 dB | 33.5 dB | 37.7 dB | 34.7 dB | 25 dB | 25 dB | 100 ± 15 Ohm | |
| 25 MHz | 10.4 db/100m | 44.3 dB | 41.3 dB | 33.9 dB | 30.9 dB | 35.8 dB | 32.8 dB | 24.3 dB | 24.3 dB | 100 ± 15 Ohm | |
| 31.25 MHz | 11.7 db/100m | 42.9 dB | 39.9 dB | 31 dB | 28 dB | 33.9 dB | 30.9 dB | 23.6 dB | 23.6 dB | 100 ± 15 Ohm | |
| 62.5 MHz | 17 db/100m | 38.4 dB | 35.4 dB | 22 dB | 19 dB | 27.8 dB | 24.8 dB | 21.5 dB | 21.5 dB | 100 ± 15 Ohm | |
| 100 MHz | 22 db/100m | 35.3 dB | 32.3 dB | 14 dB | 11 dB | 23.8 dB | 20.8 dB | 20.1 dB | 20.1 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 155 MHz | 28.1 db/100m | 32.5 dB | 29.5 dB | 4.4 dB | 1.4 dB | 19.9 dB | 16.9 dB | 15.8 dB | | 100 ± 25 Ohm | 100 ± 15 Ohm |
| 200 MHz | 32 db/100m | 30.8 dB | 27.8 dB | 4 dB | 1 dB | 17.7 dB | 14.7 dB | 15 dB | | 100 ± 25 Ohm | 100 ± 15 Ohm |
| 1 MHz | | | | | | | | | | | |
| 4 MHz | | | | | | | | | | | |
| 8 MHz | | | | | | | | | | | |
| 10 MHz | | | | | | | | | | | |
| 16 MHz | | | | | | | | | | | |
| 20 MHz | | | | | | | | | | | |
| 25 MHz | | | | | | | | | | | |
| 31.25 MHz | | | | | | | | | | | |
| 62.5 MHz | | | | | | | | | | | |
| 100 MHz | | | | | | | | | | | |
| 155 MHz | | | | | | | | | | | |
| 200 MHz | | | | | | | | | | | |

Voltage:

| UL Voltage Rating |
|-------------------|
| 300 V RMS |

Use

| | |
|------------------------------------|--------|
| Suitability - Oil Resistance: | Yes |
| Suitability - Outdoor: | Yes |
| Suitability - Sunlight Resistance: | Yes |
| Max Recommended Pulling Tension: | 35 lbs |

Safety

| | |
|-------------------|--------------|
| CSA Flammability: | FT4 |
| UL Flammability: | UL1666 Riser |

Temperature Range

| | |
|--------------------------|-----------------|
| Installation Temp Range: | -20°C To +75 °C |
| Operating Temp Range: | -40°C To +75°C |

Mechanical Characteristics

| | |
|-----------------------------|--------|
| Min Bend Radius/Minor Axis: | 0.5 in |
|-----------------------------|--------|

Part Number

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

Standards

| | |
|-----------------------------------|----------------------------------|
| ISO/IEC Compliance: | Other Standards |
| CA Prop 65 (CJ for Wire & Cable): | CA Prop 65 (CJ for Wire & Cable) |
| CEC/C(UL) Specification: | CEC/C(UL) Specification |
| MII Order #39 (China RoHS): | MII Order #39 (China RoHS) |
| NEC/(UL) Specification: | NEC/(UL) Specification |
| Other Specification: | Other Specification |
| PMSHA Specification: | PMSHA Specification |
| EU Directive Compliance: | EU Directive 2003/11/EC (BFR) |
| EU CE Mark: | EU CE Mark |

History

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| Notes: | Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. |
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Product Variants

| Part Number | Color | Put-Up Type | Length |
|----------------|-------|-------------|---------|
| 7918A 0061000 | BLUE | Reel | 1000 ft |
| 7918A 0101000 | BLACK | Reel | 1000 ft |
| 7918A 0102000 | BLACK | Reel | 2000 ft |
| MD1819 0061000 | BLUE | Reel | 1000 ft |

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