



Part Number: NWT-CAT5E-OFAS-A

Product Description: Industrial CAT5E Ethernet, 4 Bonded-Pair 24AWG (7x32) Stranded Copper, Polyolefin Insulation, Overall Foil Shield, 24AWG Stranded TC Drain Wire, UV Sunlight and Oil Resistant PVC Outer Jacket, CMX-Outdoor CMR. An Overall Aluminum Interlocked Armor with UV Sunlight and Oil Resistant PVC Outer Jacket are applied over the CAT5E Inner core.

Product Overview: Industrial Armored Ethernet cable, Harsh Environments, Flexible Applications, 200Mhz Category 5e, Industrial Patch Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 1000BaseT, 2.5GBase-T, 5GBase-T, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, CMX – Outdoor, RJ45 Compatible

| AWG | Stranding | Material | No of Pairs |
|------------------------------|-----------|------------------|-------------|
| 24 | 7x32 | BC – Bare Copper | 4 |
| Conductor Count | | 8 | |
| Total Number of Pairs | | 4 | |
| Conductor Size | | 24 AWG | |
| Insulation Material | | PO - Polyolefin | |
| Bonded-Pair | | Yes | |

Color Chart:

| | |
|---|----------------------------------|
| 1 | White / Blue Stripe and Blue |
| 2 | White / Orange Stripe and Orange |
| 3 | White / Green Stripe and Green |
| 4 | White / Brown Stripe and Brown |

Outer Shield Material:

| Type | Material | Coverage [%] | Drainwire Material | Drainwire AWG | Drainwire Construction (n x D) |
|------|----------------|--------------|--------------------|---------------|--------------------------------|
| Tape | Aluminum/Mylar | 100 | Tinned Copper | 24 | 7x32mm |

Inner Jacket Material:

| Material | Nominal Diameter | Nominal Wall Thickness | Ripcord | Separator Material |
|-------------------------------------------|------------------|------------------------|---------|--------------------|
| Industrial Grade PVC – Polyvinyl Chloride | 0.295 in | 0.03 in | No | Polyester |

Electrical Characteristics:

| | |
|-------------------------------------------------|-----------------|
| Max. Conductor DCR | 9.38 Ohm/1000ft |
| Max. DCR Unbalance | 3% |
| Max Capacitance Unbalance | 330 pF/ft |
| Nom. Mutual Capacitance | 15 pF/ft |
| Max. Delay | 510 ns/100m |
| Max. Delay Skew | 45 ns/100m |
| Nominal Velocity of Propagation (VP) [%] | 69% |
| Typical Delay Skew | 12 ns/ft |
| UL Voltage Rating | 300V RMS |

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High Frequency Characteristics:

| Frequency [MHz] | Max. Insertion Loss (Attenuation) /100m | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACR [dB] | Min. PSACR [dB] | Min. ACRF (ELFEKT) [dB] | Min. PSACRF (PSELEKT) [dB] | Min. RL (Return Loss) [dB] | Min. SRL (Structural Return Loss) | Max./Min. Input Impedance (unFitted) | Max./Min. Fitted Impedance |
|-----------------|-----------------------------------------|----------------|------------------|---------------|-----------------|-------------------------|----------------------------|----------------------------|-----------------------------------|--------------------------------------|----------------------------|
| 1 MHz | 2.5 dB | 65.3 | 62.3 | 62.8 | 59.8 | 63.8 | 60.8 | 20 | 23 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 4 MHz | 4.9 dB | 56.3 | 53.3 | 51.4 | 48.4 | 51.7 | 48.7 | 23 | 23 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 8 MHz | 6.9 dB | 51.8 | 48.8 | 44.9 | 41.9 | 45.7 | 42.7 | 24.5 | 24.5 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 10 MHz | 7.8 dB | 50.3 | 47.3 | 42.5 | 39.5 | 43.8 | 40.8 | 25 | 25 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 16 MHz | 9.9 dB | 47.3 | 44.3 | 37.4 | 34.4 | 39.7 | 36.7 | 25 | 25 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 20 MHz | 11.1 dB | 45.8 | 42.8 | 34.7 | 31.7 | 37.7 | 34.7 | 25 | 25 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 25 MHz | 12.5 dB | 44.3 | 41.3 | 21.8 | 28.8 | 35.8 | 32.8 | 24.3 | 24.3 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 31.25 MHz | 14.1 dB | 42.9 | 39.9 | 28.8 | 25.8 | 33.9 | 30.9 | 23.6 | 23.6 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 62.5 MHz | 20.4 dB | 38.4 | 35.4 | 18 | 15 | 27.8 | 24.8 | 21.5 | 21.5 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 100 MHz | 26.4 dB | 35.3 | 32 | 8.9 | 5.9 | 23.8 | 20.8 | 20.1 | 20.1 | 100 ± 15 Ohm | 100 ± 15 Ohm |

Temperature Range:

| | |
|-------------------------|----------------|
| Installation Temp Range | -25°C To +75°C |
| UL Temp Rating | 60° C |
| Operating Temp Range | -40°C To +75°C |

Mechanical Characteristics (Inner CAT5E):

| | |
|--------------------------------|---------------|
| Bulk Cable Weight | 35 lbs/1000ft |
| Recommended Pulling Tension | 40lbs |
| Minimum Bend Radius/Minor Axis | 0.6in |

Mechanical Characteristics (Outer Armor):

| | |
|--------------------------------|---------|
| Armor Outside Diameter | 0.515in |
| Jacket Outside Diameter | 0.615in |
| Minimum Bend Radius/Minor Axis | 7.4in |

Standards:

| | |
|---------------------------------------|----------------------------------------------------------------------------------------------------|
| NEC/(UL), CEC/C(UL) Specification | CMR,CMX-Outdoor, UL 444 / CMG |
| ISO/IEC Compliance | ISO/IEC 11801 CAT5e Patch |
| CPR Euroclass | ECA |
| ANSI Compliance | IECA 661 |
| Telecommunications Standards | TIA-568.C.2 Category 5e Patch, NEMA WC-63.1 |
| UL / CSA / ISO IEC Flamability | UL1666 Riser / FT4 / IEC60332-1-2 |
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2003/11/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: | EU Directive 2003/11/EC (BFR) |
| EU CE Mark: | Yes |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2004-01-04 |
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| MII Order #39 (China RoHS): | Yes |
| Derating | Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581 |

Suitability:

| | |
|----------------------------------|-----|
| Indoor | Yes |
| Oil Resistance | Yes |
| Outdoor / Sunlight Exposure (UV) | Yes |
| Plenum | No |
| Direct Burial | No |