

# Cat 5E 350 Shielded (STP), PVC, Riser rated (CMR), Solid Cond. Cable - 1000 Ft by ABA Elite- SPECS

## Product Part Number

- EL-TSR2404N09

## Product Description

- F/UTP, 24AWG solid bare copper, CAT.5E, CMR
- Overall metal foil screen with drain wire

## Product Features

- High performance of transmission.
- High quality of safety property.
- Sweep frequency up to 350 MHz.

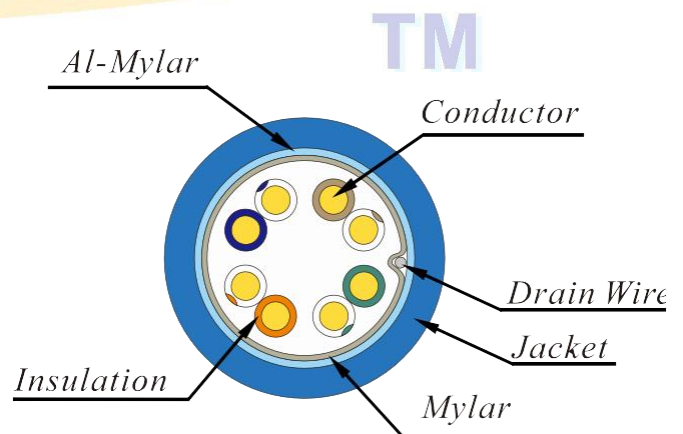
## Application

- Structure cabling for horizontal and building backbone cable.
- Transmission of digital and analogue for data, video and audio applications.
- Overall metal shielded providing good protection from EMI noise.
- IEEE 802.3u 100BASE-T and legacy speeds.
- CDDI / ATM / Token Ring
- IEEE 802.3af (PoE) / IEEE 802.3at (PoE+)

## Applicable Standard

- Electrical Transmission
  - ANSI/TIA-568-C.2 (2009)
  - ISO/IEC 11801 (Edition 2.2)
  - IEC 61156-5 (Edition 2.0)
- Flame Test
  - UL 1666 (CMR)
- Material and Construction
  - UL 444
  - CSA 22.2 NO.214
- EU Directive 2011/65/EC (RoHS2)
- EU Directive 2006/95/EC (LVD)
- CE compliance date: 2010.01.01

## Sectional Drawing



|                |            |         |     |              |           |
|----------------|------------|---------|-----|--------------|-----------|
| Establish Date | 2014.03.01 | Edition | 1.1 | Revised Date | 2014.1013 |
|----------------|------------|---------|-----|--------------|-----------|

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## Material and Construction

|            |   |  |                |
|------------|---|--|----------------|
| Conductor  | Material  | 24AWG solid bare copper                    |                |
| Insulation | Material  | Polyolefin (PO)                            |                |
|            | Color code & diameter   | Blue & white/blue Stripe                   | 1.06 ± 0.02 mm |
|            |   | Orange & white/orange stripe               | 1.04 ± 0.02 mm |
|            |   | Green & white/green stripe                 | 1.06 ± 0.02 mm |
|            | Brown & white/brown stripe  | 1.04 ± 0.02 mm                             |                |
| Twisted    | Description   | Left hand direction                        |                |
| Assembly   | Description   | Left hand direction                        |                |
| Shield     | Material  | Mylar tape                                 |                |
| Drain wire | Material  | 24AWG solid tinned copper                  |                |
| Shield     | Material  | Al Mylar tape                              |                |
|            | Description   | 100 % coverage and mylar side facing out   |                |
| Jacket     | Material  | Flame retardant polyvinyl chloride (FRPVC) |                |
|            | Diameter  | 6.1 ± 0.2 mm                               |                |
|            | Thickness   | 0.50 ± 0.05 mm                             |                |
|            | Color   | Per customer's request                     |                |
| Marking    | ELITE 350 CAT 5E GIGASYSTEM TESTED TO 350MHz---E142890 FTP 4PR 24AWG 75°C C(UL)US<br>CMR---3P VERIFIED TO TIA-568-C.2 mmyy <sup>1</sup> RoHS COMPLIANT XXXXFT<br>Note 1: mmyy is date code. |  |                |

## Usage & Environmental Condition

|                         |                               |               |
|-------------------------|-------------------------------|---------------|
| Temperature range       | Storage & shipping            | -20°C to 75°C |
|                         | Installation                  | 0°C to 60°C   |
|                         | Operation                     | -20°C to 60°C |
| Minimum bending radius  | ≥ 4 times of overall diameter |               |
| Maximum pulling tension | ≤ 110 N                       |               |

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## Physical & Electrical Characteristics (at 20°C)

|   |                   |
|---|-------------------|
| Temperature & voltage rating              | 75°C / 300V       |
| Spark test                                | 2.5 KV DC         |
| AC leakage current through overall jacket | ≤ 10mA (1.5KV AC) |
| Cable cold bend                           | -20°C for 4 hr    |
| Conductor DC resistance                   | ≤ 9.38 Ω/100m     |
| Resistance unbalance                      | ≤ 5%              |
| Dielectric strength                       | 1.5 KV ac for 2 s |
| Insulation resistance                     | ≥ 5000 MΩ · m     |
| Mutual capacitance                        | ≤ 5.6 nF/100m     |
| Capacitance unbalance pair-to-ground      | ≤ 330 pF/100m     |

## Transmission Performance (at 20°C)

| Frequency<br>(MHz) | IL              | NEXT            | PS.NEXT         | ACR             | PS.ACR          | ACRF            | PS.ACRF         | RL              | Propagation<br>Delay | Delay<br>Skew   |
|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------|-----------------|
|                    | Max.<br>dB/100m | Min.<br>dB/100m | Min.<br>dB/100m | Min.<br>dB/100m | Min.<br>dB/100m | Min.<br>dB/100m | Min.<br>dB/100m | Min.<br>dB/100m | Max.<br>ns/100m      | Max.<br>ns/100m |
| 1                  | 2.04            | 68.30           | 65.30           | 66.26           | 63.26           | 66.80           | 63.80           | 20.00           | 570.00               | 45.00           |
| 4                  | 4.05            | 59.27           | 56.27           | 55.22           | 52.22           | 54.76           | 51.76           | 23.01           | 552.00               |                 |
| 8                  | 5.77            | 54.75           | 51.75           | 48.99           | 45.99           | 48.74           | 45.74           | 24.52           | 546.73               |                 |
| 10                 | 6.47            | 53.30           | 50.30           | 46.83           | 43.83           | 46.80           | 43.80           | 25.00           | 545.38               |                 |
| 16                 | 8.25            | 50.24           | 47.24           | 41.99           | 38.99           | 42.72           | 39.72           | 25.00           | 543.00               |                 |
| 20                 | 9.27            | 48.78           | 45.78           | 39.52           | 36.52           | 40.78           | 37.78           | 25.00           | 542.05               |                 |
| 25                 | 10.42           | 47.33           | 44.33           | 36.91           | 33.91           | 38.84           | 35.84           | 24.32           | 541.20               |                 |
| 31.25              | 11.72           | 45.88           | 42.88           | 34.15           | 31.15           | 36.90           | 33.90           | 23.64           | 540.44               |                 |
| 62.5               | 16.99           | 41.36           | 38.36           | 24.37           | 21.37           | 30.88           | 27.88           | 21.54           | 538.55               |                 |
| 100                | 21.98           | 38.30           | 35.30           | 16.33           | 13.33           | 26.80           | 23.80           | 20.11           | 537.60               |                 |
| 150                | 27.54           | 35.66           | 32.66           | 8.11            | 5.11            | 23.28           | 20.28           | 18.87           | 536.94               |                 |
| 200                | 32.42           | 33.78           | 30.78           | N.A.            | N.A.            | 20.78           | 17.78           | 18.00           | 536.55               |                 |
| 250                | 36.85           | 32.33           | 29.33           | N.A.            | N.A.            | 18.84           | 15.84           | 17.32           | 536.28               |                 |
| 300                | 40.97           | 31.14           | 28.14           | N.A.            | N.A.            | 17.26           | 14.26           | 16.77           | 536.08               |                 |
| 350                | 44.85           | 30.14           | 27.14           | N.A.            | N.A.            | 15.92           | 12.92           | 16.30           | 535.92               |                 |

Values above 100MHz are for information only.

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## Shipping Information

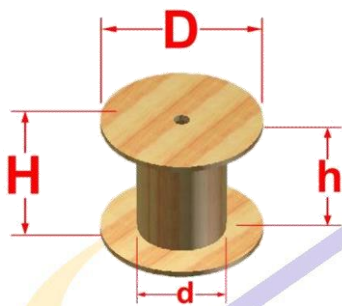
| Item         | Dimension                    | Nominal net weight  |
|--------------|------------------------------|---------------------|
| Cable        | 305 m                        | 12.14 kg (26.76 lb) |
| Plywood reel | D320 x d150 x H250 x h230 mm | 1.25 kg             |
| Pallet       | 1150 x1150 x120 mm           | 14.1 kg             |

| Container type | Capacity of pallet | Capacity of reel |
|----------------|--------------------|------------------|
| 20 feet        | 20                 | 720              |
| 40 feet        | 40                 | 1440             |

Shipping could use standard delivery form or per customer`s request.

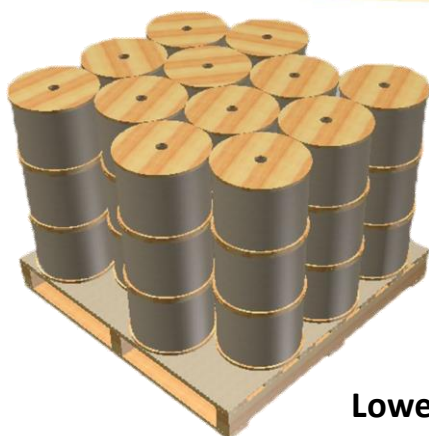
## Schematic Drawing of Reel & Package

Fumigated plywood reel.

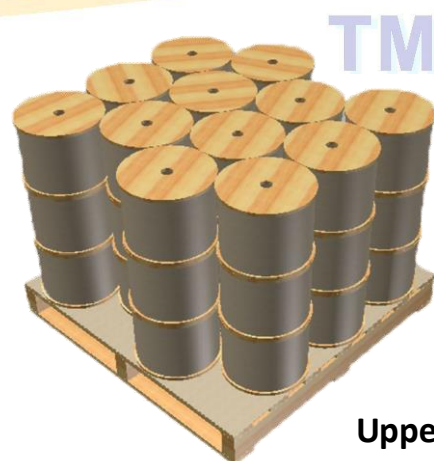


## Schematic Drawing of Package

Each package of pallet delivered with plastic wrap and packing strap.



**Lower Pallet**



**Upper Pallet**

## Revised Information

| Edition | Revised Description   | Revised Date |
|---------|---|--------------|
| 1.1     | Revised transmission performance table. Enhanced the criterialimit. | 2014.10.13   |
|         |   |              |
|         |   |              |