

# Cat6A Shielded Riser Solid Bare Copper

SKU : TS-SRBC/6A-WH  
23AWG • 4 Twisted Pairs • CMR  
F/UTP • 750MHz • Solid Bare Copper



### Lengths Available

• 1000ft

### Jacket Colors



## Key Features

- Bandwidth tested up to 750 MHz
- Suitable for 1 Gigabit and 10 Gigabit Ethernet up to 328 ft
- In compliance with ANSI/TIA 568.2-D
- RoHS-3 Compliant
- Easily identified color striped pairs
- Supports Power over Ethernet: PoE/PoE+ / PoE++ (IEEE 802.3af/at/bt) 4PPoE up to 100W
- Sequential footage markings every 2ft

## Technical Data

| Insulation                                 | FEP                      |
|--------------------------------------------|--------------------------|
| Average Thickness (mm)                     | 0.268                    |
| Min Point Thickness (mm)                   | 0.248                    |
| <b>Conductor Insulation Dia. (±0.02mm)</b> | <b>1.12</b>              |
| Twisted Pair Dia. (±0.02mm)                | 2.24                     |
| Ripcord                                    | Kevlar                   |
| Spline                                     | Present                  |
| Polyethylene Tape                          | Present                  |
| Shielding                                  | F/UTP                    |
| Drain Wire - Solid Tinned Copper (mm)      | 0.40                     |
| <b>Conductor</b>                           | <b>Solid Bare Copper</b> |
| Size                                       | 23AWG                    |
| Conductor Dia. (±0.05mm)                   | 0.585                    |

### Color of Pairs

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

### Cable Jacket

### FR-PVC

|                                |             |
|--------------------------------|-------------|
| Average Thickness (mm)         | 0.55        |
| Min. Point Thickness (mm)      | 0.50        |
| <b>Outer Diameter (±0.2mm)</b> | <b>7.60</b> |

### Standards Reference

ANSI/TIA  
568-2.D

ISO/IEC  
11801

Conductor  
Insulation  
PE Tape  
Drain Wire



Jacket  
Al Foil Shield  
Spline  
Ripcord  
Twisted Pairs





### Cable ID: 6ACMR FUTP JACK

Test Limit: TIA Cat 6A MPTL (+PoE)

Limits Version: V7.6 Date / Time:

02/14/2022 11:59:15 AM

Operator: LIXIAOHONG

Headroom 4.7 dB (NEXT 3,6-4,5) Cable

Type: Cat 6A F/UTP NVP: 70.0%

Main: Versiv

S/N: 1924100

Software Version: V6.7 Build 1

Calibration Date: 11/14/2020

Adapter: DSX-8000 (DSX-PLA804)

S/N: 4523169

### Test Summary: PASS

Remote: Versiv

S/N: 1917273

Software Version: V6.7 Build 1

Calibration Date: 11/14/2020

Adapter: DSX-8000R (DSX-PC6A)

S/N: 4716155

|                                |                |       |
|--------------------------------|----------------|-------|
| Length (ft), Limit 295         | [Pair 4,5]     | 296   |
| Prop. Delay (ns), Limit 498    | [Pair 1,2]     | 460   |
| Delay Skew (ns), Limit 44      | [Pair 1,2]     | 30    |
| Resistance (ohms), Limit 21.00 | [Pair 1,2]     | 12.84 |
| Resist. Unbal. (ohms)          | [Pair 3,6]     | 0.124 |
| Resist. P2P Unbal. (ohms)      | [Pair 1,2-4,5] | 0.215 |
| Insertion Loss Margin (dB)     | [Pair 1,2]     | 5.0   |
| Frequency (MHz)                | [Pair 1,2]     | 500.0 |
| Limit (dB)                     | [Pair 1,2]     | 43.8  |

#### Worst Case Margin Worst Case Value

| PASS         | MAIN    | SR      | MAIN    | SR      |
|--------------|---------|---------|---------|---------|
| Worst Pair   | 3,6-4,5 | 3,6-4,5 | 3,6-4,5 | 3,6-4,5 |
| NEXT (dB)    | 5.9     | 4.7     | 6.1     | 5.9     |
| Freq. (MHz)  | 440.0   | 3.8     | 500.0   | 484.0   |
| Limit (dB)   | 28.5    | 64.5    | 26.7    | 27.1    |
| Worst Pair   | 3,6     | 4,5     | 3,6     | 4,5     |
| PS NEXT (dB) | 6.3     | 5.7     | 7.3     | 7.3     |
| Freq. (MHz)  | 405.0   | 261.0   | 499.0   | 484.0   |
| Limit (dB)   | 26.9    | 32.4    | 23.8    | 24.2    |

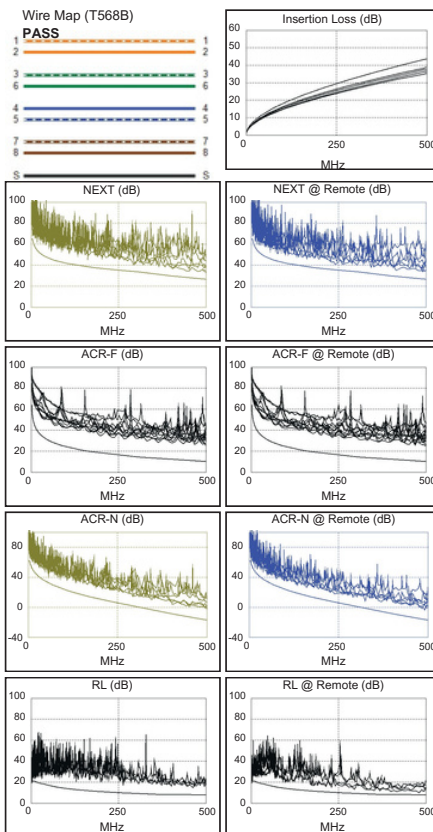
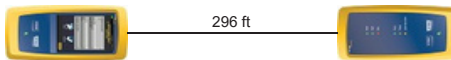
| PASS          | MAIN    | SR      | MAIN    | SR      |
|---------------|---------|---------|---------|---------|
| Worst Pair    | 4,5-1,2 | 4,5-1,2 | 4,5-1,2 | 4,5-7,8 |
| ACR-F (dB)    | 15.2    | 14.8    | 15.6    | 15.0    |
| Freq. (MHz)   | 401.0   | 468.0   | 500.0   | 499.0   |
| Limit (dB)    | 12.1    | 10.8    | 10.2    | 10.2    |
| Worst Pair    | 1,2     | 7,8     | 7,8     | 7,8     |
| PS ACR-F (dB) | 16.6    | 16.7    | 17.5    | 17.3    |
| Freq. (MHz)   | 401.0   | 436.0   | 491.0   | 489.0   |
| Limit (dB)    | 9.1     | 8.4     | 7.4     | 7.4     |

| N/A           | MAIN    | SR      | MAIN    | SR      |
|---------------|---------|---------|---------|---------|
| Worst Pair    | 3,6-4,5 | 3,6-4,5 | 3,6-4,5 | 3,6-7,8 |
| ACR-N (dB)    | 7.1     | 5.3     | 14.6    | 12.8    |
| Freq. (MHz)   | 3.6     | 3.8     | 500.0   | 491.0   |
| Limit (dB)    | 61.4    | 61.1    | -17.1   | -16.4   |
| Worst Pair    | 3,6     | 3,6     | 3,6     | 3,6     |
| PS ACR-N (dB) | 8.9     | 7.1     | 14.8    | 14.3    |
| Freq. (MHz)   | 4.9     | 3.9     | 500.0   | 483.0   |
| Limit (dB)    | 56.6    | 58.5    | -20.0   | -18.6   |

| PASS        | MAIN | SR    | MAIN  | SR    |
|-------------|------|-------|-------|-------|
| Worst Pair  | 4,5  | 3,6   | 4,5   | 3,6   |
| RL (dB)     | 4.8  | 2.0   | 6.8   | 2.0   |
| Freq. (MHz) | 6.3  | 480.0 | 463.0 | 480.0 |
| Limit (dB)  | 21.0 | 8.0   | 8.0   | 8.0   |

Compliant Network Standards:

|              |               |            |
|--------------|---------------|------------|
| 10BASE-T     | 100BASE-TX    | 100BASE-T4 |
| 100BASE-T    | 2.5GBASE-T    | 5GBASE-T   |
| 10GBASE-T    | ATM-25        | ATM-S1     |
| ATM-155      | 100VG-AnyLan  | TR-4       |
| TR-16 Active | TR-16 Passive |            |



## Electrical Characteristics

|                                                   |                      |
|---------------------------------------------------|----------------------|
| PoE Certification                                 | PoE/PoE+/PoE++ 4PPoE |
| Maximum PoE Wattage                               | 100W                 |
| PoE Application Compatibility                     | 802.3af/at/bt Type 4 |
| TIA 568-2.D Cat6A Permanent Link +PoE             | CERTIFIED            |
| Maximum Application Speed @ 295ft                 | 10GBASE-T            |
| Nominal Velocity of Propagation (NVP)             | 70                   |
| Maximum Operating Voltage                         | 300V                 |
| 1.0 - 750MHz Impedance ( $\Omega$ )               | 100 $\pm$ 15         |
| Maximum Operating Frequency                       | 750MHz               |
| 1.0 - 750MHz Delay Skew (ns/100m)                 | $\leq$ 45            |
| Pair-to-Ground Capacitance Unbalance (pF/km)      | $\leq$ 3300          |
| Max. Conductor DC Resistance 20°C ( $\Omega$ /km) | 68                   |



## Mechanical & Environmental Operating Parameters

|                                |               |                                  |                                |
|--------------------------------|---------------|----------------------------------|--------------------------------|
| Test Object                    | Jacket        | Aging Condition (h x hrs)        | 100 x 168 $\geq$ 85% of        |
| Test Material                  | FR-PVC        | After Tensile Strength (Mpa)     | unaged $\geq$ 50% of           |
| Before- Tensile Strength (Mpa) | $\geq$ 13.8   | Aging Condition - Elongation (%) | unaged                         |
| Aging- Elongation (%)          | $\geq$ 100    | Cold Bend (-20 $\pm$ 2°C x 4hrs) | No Crack                       |
| Min. Bend Radius               | 5.25cm/2.00in | Operating & Storage Temp.        | -40°C to 75°C   -40°F to 167°F |
| Max. Installation Tension      | 110N/25lb-ft  | Installation Temp.               | -20°C to 75°C   -4°F to 167°F  |

