

CAT 6 

Cat6 Shielded Plenum

SKU: TS-SPBC/6-BL
23AWG • 4 Twisted Pairs • CMP • F/UTP
550MHz • Solid Copper



Packaging Available

• 1000ft Reel

Jacket Colors



Key Features

- Bandwidth tested up to 550 MHz
- Easily Identified Color Striped Pairs
- Sequential Footage Markings Every 2ft
- In compliance with ANSI/TIA 568.2-D
- RoHS-3 compliant
- Supports PoE, PoE+, and PoE++ (IEEE 802.3af/at/bt) up to 60W & 300V DC

Print Legend

CAT6 550MHZ CMP PLENUM F/UTP 4-PAIR
23AWG EIA/TIA-568-C.2-1
0002FT-1000FT

Technical Data

Operating Temp. Range 75°C/167°F

Max. Operating Voltage 300v

Bend Diameter Min. 4in/10mm

| Insulation | HDPE |
|--|-------------|
| Average Thickness | 0.248 |
| Min Point Thickness | 0.228 |
| Conductor Insulation Dia. (±0.01mm) | 1.08 |
| Twisted Pair Dia. (±0.02mm) | 2.16 |
| Spline | PE |
| PE-Tape | Yes |
| Jacket | CMP-PVC |
| Average Thickness | 0.60 |
| Min. Point Thickness | 0.55 |
| Overall Diameter (±0.1mm) | 7.00 |
| Ripcord | Yes |
| Shield | FTP |
| Drain Wire (Solid Tinned Copper) | 0.40 |
| AL Foil Shield | Yes |



| Conductor | Solid Bare Copper |
|--------------------------|----------------------|
| 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 ID: 490 FTP4 CAT6 0.565CU -1

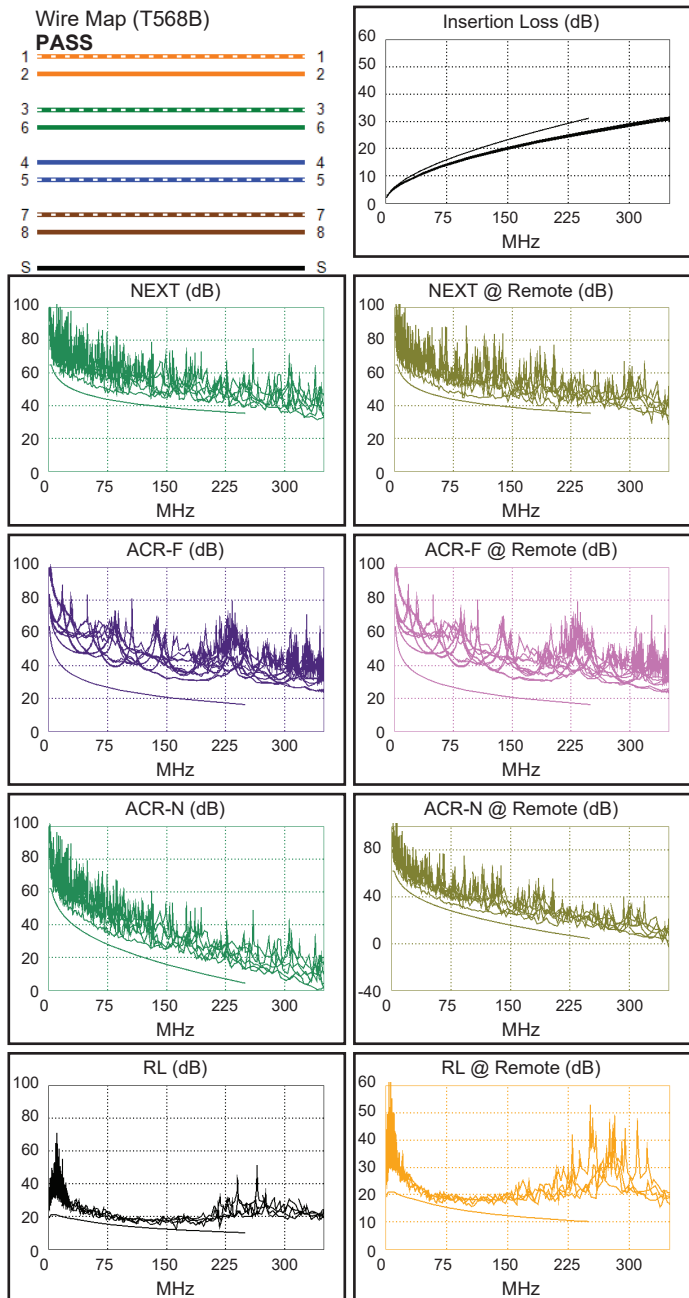
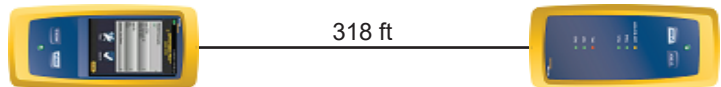
Test Limit: TIA Cat 6 Perm. Link
Limits Version: V7.6
Date / Time: 12/22/2021 04:26:49 PM
Operator: LIXIAOHONG
Headroom 0.6 dB (NEXT 1,2-4,5)
Cable Type: Cat 6 F/UTP
NVP: 70.0%

Main: Versiv
S/N: 2034142
Software Version: V6.6 Build 2
Calibration Date: 12/23/2020
Adapter: DSX-8000 (DSX-PLA804)
S/N: 20475125

Test Summary: PASS

Remote: Versiv
S/N: 2035009
Software Version: V6.6 Build 2
Calibration Date: 12/23/2020
Adapter: DSX-8000R (DSX-PLA804)
S/N: 20485133

| | | |
|-----------------------------|------------|-------|
| Length (ft), Limit 295 | [Pair 7,8] | 318 |
| Prop. Delay (ns), Limit 498 | [Pair 4,5] | 486 |
| Delay Skew (ns), Limit 44 | [Pair 4,5] | 24 |
| Resistance (ohms) | [Pair 4,5] | 14.65 |
| | | |
| Insertion Loss Margin (dB) | [Pair 4,5] | 4.7 |
| Frequency (MHz) | [Pair 4,5] | 250.0 |
| Limit (dB) | [Pair 4,5] | 31.1 |



Worst Case Margin Worst Case Value

| PASS | MAIN | SR | MAIN | SR |
|---------------------|---------|---------|---------|---------|
| Worst Pair | 1,2-4,5 | 1,2-4,5 | 1,2-4,5 | 1,2-4,5 |
| NEXT (dB) | 2.3 | 0.6* | 2.3 | 0.7 |
| Freq. (MHz) | 233.5 | 207.5 | 233.5 | 208.0 |
| Limit (dB) | 35.8 | 36.7 | 35.8 | 36.6 |
| Worst Pair | 1,2 | 3,6 | 1,2 | 1,2 |
| PS NEXT (dB) | 3.1 | 2.1 | 3.2 | 2.5 |
| Freq. (MHz) | 230.5 | 87.0 | 249.0 | 208.5 |
| Limit (dB) | 33.3 | 40.3 | 32.7 | 34.0 |

| PASS | MAIN | SR | MAIN | SR |
|----------------------|---------|---------|---------|---------|
| Worst Pair | 3,6-4,5 | 3,6-4,5 | 3,6-4,5 | 3,6-4,5 |
| ACR-F (dB) | 11.4 | 11.2 | 12.2 | 12.2 |
| Freq. (MHz) | 152.0 | 152.0 | 198.0 | 200.0 |
| Limit (dB) | 20.6 | 20.6 | 18.3 | 18.2 |
| Worst Pair | 4,5 | 4,5 | 4,5 | 4,5 |
| PS ACR-F (dB) | 12.0 | 11.8 | 12.1 | 11.8 |
| Freq. (MHz) | 174.5 | 173.0 | 175.0 | 173.0 |
| Limit (dB) | 16.4 | 16.4 | 16.3 | 16.4 |

| N/A | MAIN | SR | MAIN | SR |
|----------------------|---------|---------|---------|---------|
| Worst Pair | 3,6-4,5 | 3,6-7,8 | 1,2-4,5 | 1,2-4,5 |
| ACR-N (dB) | 5.9 | 4.3 | 8.3 | 4.4 |
| Freq. (MHz) | 72.0 | 87.0 | 249.0 | 208.0 |
| Limit (dB) | 28.6 | 25.6 | 4.3 | 8.7 |
| Worst Pair | 3,6 | 3,6 | 1,2 | 1,2 |
| PS ACR-N (dB) | 6.0 | 4.2 | 8.3 | 10.1 |
| Freq. (MHz) | 76.0 | 87.0 | 249.0 | 245.0 |
| Limit (dB) | 25.3 | 23.1 | 1.7 | 2.1 |

| PASS | MAIN | SR | MAIN | SR |
|----------------|-------|------|-------|-------|
| Worst Pair | 7,8 | 7,8 | 7,8 | 7,8 |
| RL (dB) | 0.2* | 0.4* | 0.2 | 1.8 |
| Freq. (MHz) | 162.5 | 67.0 | 162.5 | 105.5 |
| Limit (dB) | 11.9 | 15.7 | 11.9 | 13.8 |

Compliant Network Standards:
 10BASE-T 100BASE-TX 100BASE-T4
 1000BASE-T 2.5GBASE-T 5GBASE-T
 ATM-25 ATM-51 ATM-155
 100VG-AnyLan TR-4 TR-16 Active
 TR-16 Passive

* Measurement is within the accuracy limits of the instrument.

Electrical Characteristics

| Frequency MHz | Return Loss Min (dB) | Attenuation Max (dB/100m) | Next (Min dB) |
|---------------|-------------------------|------------------------------|------------------|
| 1 | 21.0 | 1.9 | 65.0 |
| 4 | 23.4 | 3.5 | 64.1 |
| 8 | 24.6 | 5.0 | 59.4 |
| 16 | 25.0 | 7.0 | 54.6 |
| 20 | 25.0 | 7.8 | 53.1 |
| 62.5 | 21.5 | 14.0 | 45.1 |
| 100 | 20.1 | 18.0 | 41.8 |
| 200 | 18.0 | 26.1 | 36.9 |
| 250 | 17.3 | 29.5 | 36.1 |
| 350 | 16.3 | 39.8 | 35.3 |
| 400 | 15.9 | 43.0 | 34.5 |
| 550 | 14.9 | 51.8 | 33.2 |

| Frequency MHz | PSNEXT Min (dB) | ELFEXT Min (dB/100m) | PSELFEXT Min (dB/100m) | Delay Max (ns/100m) |
|---------------|--------------------|-------------------------|---------------------------|------------------------|
| 1 | 62.0 | 64.2 | 61.2 | 520.5 |
| 4 | 61.8 | 52.1 | 49.1 | 504.3 |
| 8 | 57.0 | 46.1 | 43.1 | 499.6 |
| 16 | 55.5 | 40.1 | 37.1 | 496.2 |
| 20 | 50.7 | 38.2 | 35.2 | 495.3 |
| 62.5 | 42.7 | 28.3 | 25.3 | 492.2 |
| 100 | 39.3 | 24.2 | 21.2 | 491.3 |
| 200 | 34.3 | 18.2 | 15.2 | 490.4 |
| 250 | 32.7 | 16.2 | 13.2 | 490.1 |
| 350 | 32.5 | 16.0 | 13.0 | 490.0 |
| 400 | 32.0 | 15.8 | 12.8 | 490.0 |
| 550 | 31.2 | 13.0 | 10.0 | 490.0 |

1.0- 500.0MHz Impedance (ohms) 100 ± 15

1.0- 500.0MHz Delay Skew (ns/100m) ≤45

Pair-to-Ground Capacitance Unbalance (pF/100m) ≤3300

Max. Conductor DC Resistance 20oC (ohms/km) 68

Resistance Unbalance (%) ≤5

Mechanical Characteristics

| | |
|-------------------------------|----------------|
| Test Object | Jacket |
| Test Material | PVC |
| Before Tensile Strength (Mpa) | ≥13.8 |
| Aging Elongation (%) | ≥100 |
| Aging Condition (°Cxhrs) | 100x168 |
| After Tensile Strength (Mpa) | ≥85% of unaged |
| Aging Elongation (%) | ≥50% of unaged |
| Cold Bend (-20+2° Cx4hrs) | No Crack |

Returns? No problem.
Guarantee? Of course

The information provided herein is, to the best of our knowledge, true and accurate. Since conditions of use are beyond our control, all information presented is without guarantee or responsibility on our part. We disclaim all liability in connection with the use of information contained herein or otherwise.