# Cat6 Direct Burial Shielded

23AWG • 4 Twisted Pairs • CMX
F/UTP • 550MHz • Solid Copper



**Lengths Available**

- 500ft
- 1000ft

**Jacket Colors**

## Key Features

- Bandwidth tested up to 550 MHz
- Suitable for 1 Gigabit and 5 Gigabit Ethernet up to 328 ft
- In compliance with ANSI/TIA 568.2-D
- CMX jacket can withstand sunlight, dirt, snow, and moisture
- Supports Power over Ethernet: PoE/PoE+/ PoE++ (IEEE 802.3af/at/bt) 4PPoE up to 90W
- cETLus Certified, RoHS-3 Compliant

## Technical Data

| **Insulation** | **PE** |
|---|---|
| Average Thickness (mm) | 0.275 |
| Min Point Thickness (mm) | 0.253 |
| **Conductor Insulation Dia. (±0.02mm)** | **1.12** |
| Twisted Pair Dia. (±0.02mm) | 2.24 |
| Ripcord | Nylon |
| Spline | PE |
| Polyethylene Tape | Present |
| Shielding | F/UTP |
| Drain Wire- Solid Tinned Copper (mm) | 0.40 |
| Water Resistance | Jacket & Dry Tape |

| **Conductor** | **Solid Bare Copper** |
|---|---|
| Size | 23AWG |
| Conductor Dia. (±0.05mm) | 0.57 |

**Standards Reference**

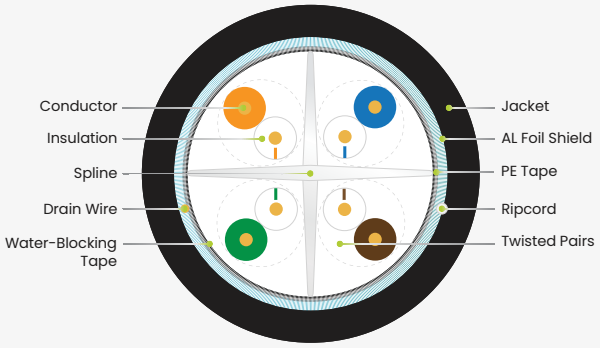
UL-444 / cETLus

ANSI/TIA 568-2.D

ISO/IEC 11801

| **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** | **LLDPE** |
|---|---|
| Average Thickness (mm) | 0.60 |
| Min. Point Thickness (mm) | 0.55 |
| **Outer Diameter (±0.2mm)** | **7.80** |




## Print Legend

trueCABLE CAT6 CMX F/UTP DIRECT BURIAL UV 75°C 4PR 23AWG c(ETL)us VERIFIED to ANSI/TIA 568-2.D 550MHz ROHS-3 XXXXFT MM/YY

**Revision 2**
**04/01/2022**
*Specs subject to change without notice. Current version availble at www.trueCABLE.com

RoHS

certified PURE COPPER

Intertek

Forever Warranty.
Forever Covered.

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## Electrical Characteristics

| | |
|---|---|
| **PoE Certification** | PoE/PoE+/PoE++ 4PPoE |
| **Maximum PoE Wattage** | 90W |
| **PoE Application Compatibility** | 802.3af/at/bt Type 4 |
| **TIA 568-2.D Cat6 Permanent Link +PoE** | CERTIFIED |
| **Maximum Application Speed @ 295ft** | 5GBASE-T |
| **Nominal Velocity of Propagation (NVP)** | 66.8 |
| **Maximum Operating Voltage** | 300V |
| **1.0 - 550MHz Impedance (Ω)** | 100 ± 15 |
| **Maximum Operating Frequency** | 550MHz |
| **1.0 - 550MHz Delay Skew (ns/100m)** | ≤45 |
| **Pair-to-Ground Capacitance Unbalance (pF/km)** | ≤3300 |
| **Max. Conductor DC Resistance 20°C (Ω/km)** | 68 |



## Mechanical & Environmental Operating Parameters

| | | | |
|---|---|---|---|
| **Test Object** | Jacket | **Aging Condition (°C x hrs)** | 100 x 168 |
| **Test Material** | LLDPE | **After Tensile Strength (Mpa)** | ≥85% of unaged |
| **Before- Tensile Strength (Mpa)** | ≥13.8 | **Aging Condition - Elongation (%)** | ≥50% of unaged |
| **Aging- Elongation (%)** | ≥100 | **Cold Bend(-20 ± 2°C x 4hrs)** | No Crack |
| **Min. Bend Radius** | 5.5cm/2.25in | **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 |

## Tested Compatible Accessories

| Product | Part Number |
|---|---|
| Cat6 Toolless Keystone Jack \| Shielded | 6ESTL90CMPT |
| Cat6/6A Pass Through RJ45 Connectors \| Shielded | LGEGPTRJ45 |
| Cat6A Field Term Plug \| Shielded | 6ASFT |
| Conductive Copper Fabric Strips | CUStrips_100pc |
| Large Slip-On RJ45 Strain Relief Boot \| 8.00mm | LGSLIP |

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LINKWARE™ PC
CABLE TEST MANAGEMENT SOFTWARE

# Cable ID: 6ESCMX STP JACK > STP RJ45 JACKET DATE 01/22

**Test Limit: TIA Cat 6 MPTL (+PoE)**
Limits Version: V7.6
Date / Time: 02/14/2022 11:15:40 AM
Operator: DON S
**Headroom 4.8 dB (NEXT 4,5-7,8)**
Cable Type: Cat 6 F/UTP
NVP: 66.8%

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-PC6)
S/N: 4716104

| | | |
|---|---|---|
| Length (ft), Limit 295 | [Pair 4,5] | 296 |
| Prop. Delay (ns), Limit 498 | [Pair 1,2] | 485 |
| Delay Skew (ns), Limit 44 | [Pair 1,2] | 34 |
| Resistance (ohms), Limit 21.00 | [Pair 1,2] | 13.49 |
| Resist. Unbal. (ohms) | [Pair 4,5] | 0.079 |
| Resist. P2P Unbal. (ohms) | [Pair 1,2-4,5] | 0.193 |
| Insertion Loss Margin (dB) | [Pair 1,2] | 4.6 |
| Frequency (MHz) | [Pair 1,2] | 250.0 |
| Limit (dB) | [Pair 1,2] | 31.1 |

| | Worst Case Margin | | Worst Case Value | |
|---|---|---|---|---|
| **PASS** | MAIN | SR | MAIN | SR |
| Worst Pair | 3,6-7,8 | 4,5-7,8 | 3,6-7,8 | 4,5-7,8 |
| **NEXT (dB)** | 6.9 | 4.8 | 6.9 | 4.8 |
| Freq. (MHz) | 212.5 | 248.0 | 212.5 | 248.0 |
| Limit (dB) | 36.5 | 35.4 | 36.5 | 35.4 |
| Worst Pair | 3,6 | 4,5 | 7,8 | 4,5 |
| **PS NEXT (dB)** | 8.8 | 4.6 | 9.8 | 4.6 |
| Freq. (MHz) | 212.5 | 248.0 | 246.5 | 248.0 |
| Limit (dB) | 33.9 | 32.8 | 32.8 | 32.8 |

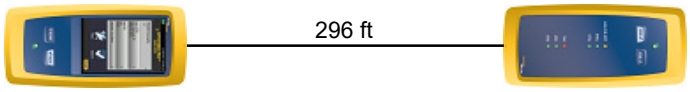
| **PASS** | MAIN | SR | MAIN | SR |
|---|---|---|---|---|
| Worst Pair | 4,5-3,6 | 4,5-3,6 | 4,5-3,6 | 4,5-3,6 |
| **ACR-F (dB)** | 18.2 | 18.7 | 18.3 | 18.7 |
| Freq. (MHz) | 241.5 | 245.0 | 245.0 | 245.0 |
| Limit (dB) | 16.5 | 16.4 | 16.4 | 16.4 |
| Worst Pair | 1,2 | 1,2 | 3,6 | 3,6 |
| **PS ACR-F (dB)** | 19.6 | 19.8 | 20.2 | 20.2 |
| Freq. (MHz) | 1.4 | 1.1 | 245.0 | 242.0 |
| Limit (dB) | 58.4 | 60.2 | 13.4 | 13.5 |

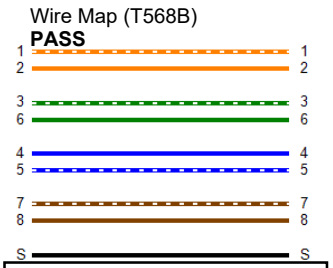
| **N/A** | MAIN | SR | MAIN | SR |
|---|---|---|---|---|
| Worst Pair | 3,6-7,8 | 3,6-7,8 | 4,5-7,8 | 4,5-7,8 |
| **ACR-N (dB)** | 9.4 | 7.8 | 14.2 | 9.4 |
| Freq. (MHz) | 58.5 | 37.3 | 247.0 | 248.0 |
| Limit (dB) | 31.7 | 37.8 | 4.5 | 4.4 |
| Worst Pair | 7,8 | 7,8 | 7,8 | 4,5 |
| **PS ACR-N (dB)** | 10.9 | 9.7 | 14.3 | 11.2 |
| Freq. (MHz) | 58.3 | 87.3 | 246.5 | 248.0 |
| Limit (dB) | 29.3 | 23.0 | 2.0 | 1.8 |

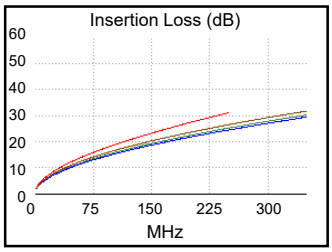
| **PASS** | MAIN | SR | MAIN | SR |
|---|---|---|---|---|
| Worst Pair | 4,5 | 4,5 | 7,8 | 4,5 |
| **RL (dB)** | 6.1 | 5.5 | 12.9 | 8.3 |
| Freq. (MHz) | 4.9 | 4.8 | 229.0 | 235.5 |
| Limit (dB) | 21.0 | 21.0 | 10.4 | 10.3 |

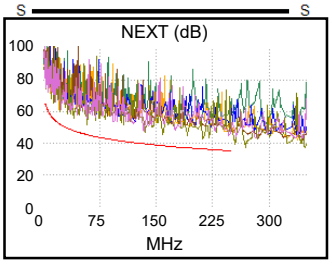
Compliant Network Standards:

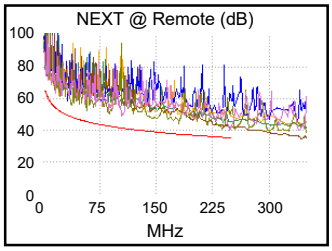
| | | |
|---|---|---|
| 10BASE-T | 100BASE-TX | 100BASE-T4 |
| 1000BASE-T | 2.5GBASE-T | 5GBASE-T |
| ATM-25 | ATM-51 | ATM-155 |
| 100VG-AnyLan | TR-4 | TR-16 Active |
| TR-16 Passive | | |

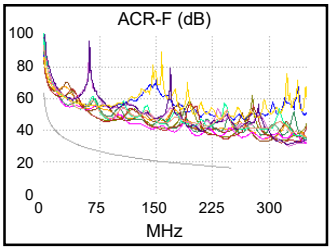


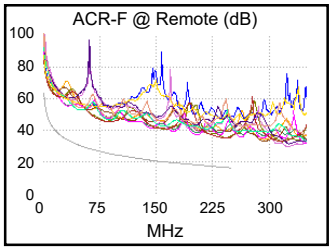



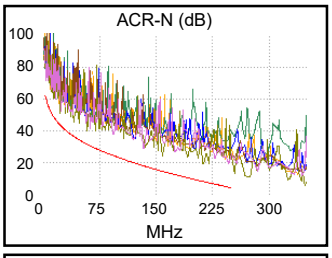



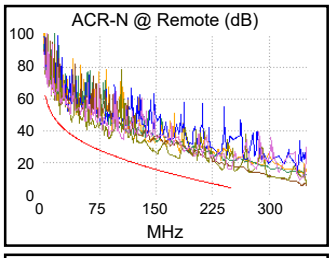



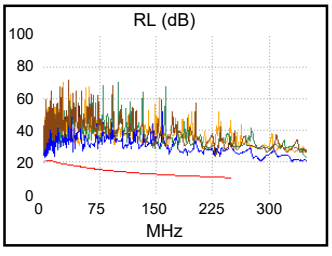



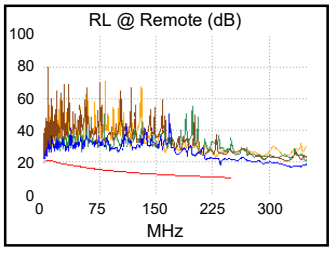






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