

# Cat6 Outdoor 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 designed to withstand sunlight, dirt, snow, and moisture
- Supports Power over Ethernet: PoE/PoE+/PoE++ (IEEE 802.3af/at/bt) 4PPoE up to 90W
- Sequential footage markings every 2ft

## Technical Data

Insulation	PE
Average Thickness (mm)	0.275
Min Point Thickness (mm)	0.253
<b>Conductor Insulation Dia. (±0.02mm)</b>	<b>1.12</b>
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 Only

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

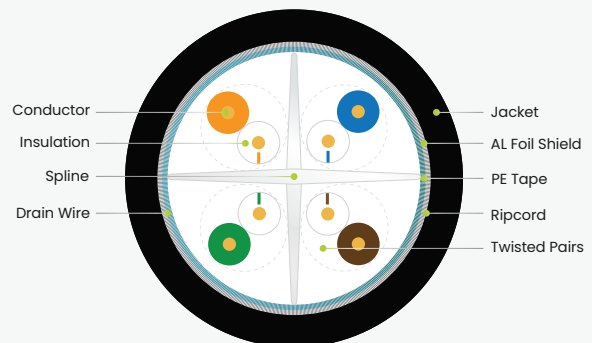
### Color of Pairs

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

### Cable Jacket

Cable Jacket	LLDPE
Average Thickness (mm)	0.55
Min. Point Thickness (mm)	0.50

**Outer Diameter (±0.2mm) 7.20**



## Print Legend

CAT6 CMX F/UTP OUTDOOR UV 75°C 4PR 23AWG

# Cat6 Outdoor Shielded

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

## Lengths Available

- 500ft
- 1000ft

## Jacket Colors



## 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 ( $\Omega$ )	100 $\pm$ 15
Maximum Operating Frequency	550MHz
1.0 - 550MHz 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 ( $^{\circ}\text{C} \times \text{hrs}$ )	100 x 168
Test Material	LLDPE	After Tensile Strength (Mpa)	$\geq$ 85% of unaged
Before- Tensile Strength (Mpa)	$\geq$ 13.8	Aging Condition - Elongation (%)	$\geq$ 50% of unaged
Aging- Elongation (%)	$\geq$ 100	Cold Bend ( $-20 \pm 2^{\circ}\text{C} \times 4\text{hrs}$ )	No Crack
Min. Bend Radius	5.0cm/2.00in	Operating & Storage Temp.	$-40^{\circ}\text{C}$ to $75^{\circ}\text{C}$   $-40^{\circ}\text{F}$ to $167^{\circ}\text{F}$
Max. Installation Tension	110N/25lb-ft	Installation Temp.	$-20^{\circ}\text{C}$ to $75^{\circ}\text{C}$   $-4^{\circ}\text{F}$ to $167^{\circ}\text{F}$

## 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



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

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

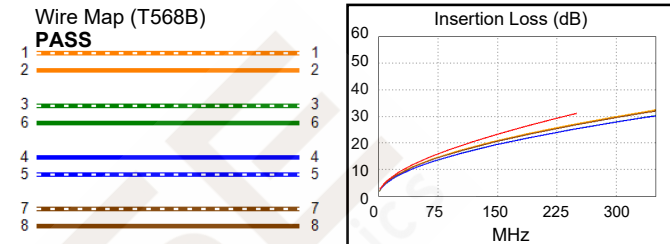
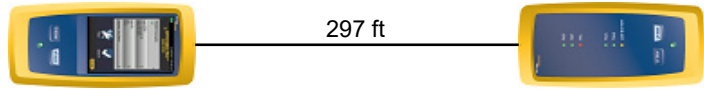
Limits Version: V7.6  
Date / Time: 02/14/2022 11:39:40 AM  
Operator: DON S  
**Headroom 2.2 dB (NEXT 3,6-4,5)**  
Cable Type: Cat 6 F/UTP  
NVP: 66.8%

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**

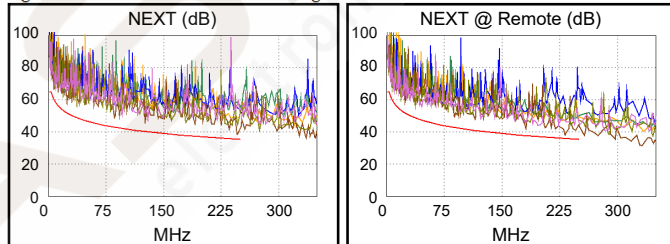
Remote: Versiv  
S/N: 1917273  
Software Version: V6.7 Build 1  
Calibration Date: 11/14/2020  
Adapter: DSX-8000R (DSX-PC6)  
S/N: 4716104

Length (ft), Limit 295	[Pair 4,5]	297
Prop. Delay (ns), Limit 498	[Pair 1,2]	484
Delay Skew (ns), Limit 44	[Pair 1,2]	32
Resistance (ohms), Limit 21.00	[Pair 1,2]	13.54
Resist. Unbal. (ohms)	[Pair 4,5]	0.081
Resist. P2P Unbal. (ohms)	[Pair 1,2-4,5]	0.205
Insertion Loss Margin (dB)	[Pair 1,2]	3.9
Frequency (MHz)	[Pair 1,2]	250.0
Limit (dB)	[Pair 1,2]	31.1

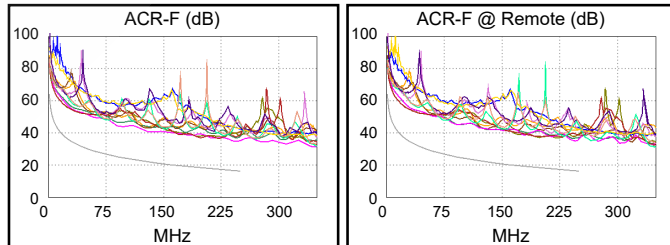


Worst Case Margin Worst Case Value

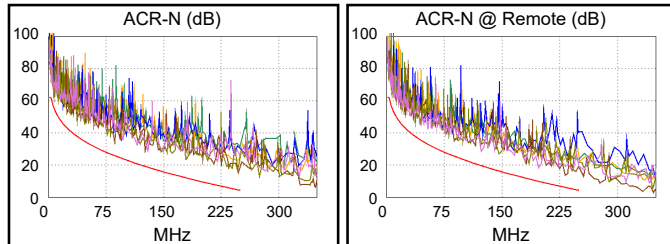
PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-4,5	3,6-4,5	3,6-4,5
<b>NEXT (dB)</b>	3.0	2.2	3.1	2.2
Freq. (MHz)	246.0	232.0	246.5	232.0
Limit (dB)	35.5	35.9	35.4	35.9
Worst Pair	3,6	4,5	3,6	4,5
<b>PS NEXT (dB)</b>	4.4	4.1	4.4	4.1
Freq. (MHz)	246.5	232.0	246.5	232.0
Limit (dB)	32.8	33.2	32.8	33.2



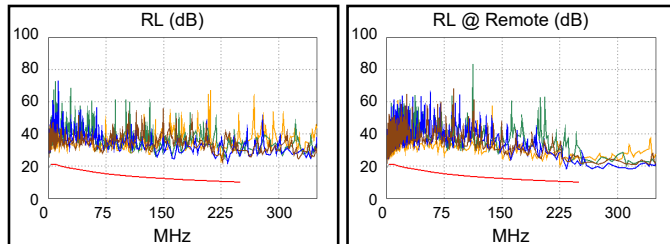
PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5-1,2	4,5-1,2	4,5-1,2	4,5-1,2
<b>ACR-F (dB)</b>	18.2	18.5	18.4	18.5
Freq. (MHz)	240.5	245.5	246.5	245.5
Limit (dB)	16.6	16.4	16.4	16.4
Worst Pair	4,5	4,5	1,2	1,2
<b>PS ACR-F (dB)</b>	18.0	18.5	19.8	19.3
Freq. (MHz)	2.4	1.0	246.5	245.5
Limit (dB)	53.7	61.2	13.4	13.4



N/A	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-4,5	3,6-4,5	3,6-4,5
<b>ACR-N (dB)</b>	6.5	7.4	8.8	7.6
Freq. (MHz)	7.1	24.1	246.5	232.0
Limit (dB)	55.5	43.1	4.6	6.1
Worst Pair	3,6	3,6	3,6	4,5
<b>PS ACR-N (dB)</b>	7.3	8.3	10.0	9.4
Freq. (MHz)	7.3	7.3	246.5	232.0
Limit (dB)	53.0	53.0	2.0	3.5



PASS	MAIN	SR	MAIN	SR
Worst Pair	1,2	1,2	4,5	4,5
<b>RL (dB)</b>	10.3	5.9	11.8	8.1
Freq. (MHz)	24.4	3.5	233.5	233.5
Limit (dB)	19.1	21.0	10.3	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