

# Cat5e Direct Burial Shielded

24AWG • 4 Twisted Pairs • CMX  
F/UTP • 350MHz • Solid Copper



## Lengths Available

- 500ft
- 1000ft

## Jacket Colors



## Key Features

- Bandwidth tested up to 350 MHz
- Suitable for 1 Gigabit and 2.5 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 100W
- Sequential footage markings every 2ft

## Technical Data

Insulation	PE
Average Thickness (mm)	0.228
Min Point Thickness (mm)	0.205
<b>Conductor Insulation Dia. (±0.02mm)</b>	<b>0.97</b>
Twisted Pair Dia. (±0.02mm)	1.94
Ripcord	Nylon
Spline	Not Present
Polyethylene Tape	Present
Shielding	F/UTP
Drain Wire - Solid Tinned Copper (mm)	0.40
Water Resistance	Jacket & Dry Tape

Conductor	Solid Bare Copper
Size	24AWG
Conductor Dia. (±0.05mm)	0.515

### Standards Reference

UL-444 /  
cETLus

ANSI/TIA  
568-2.D

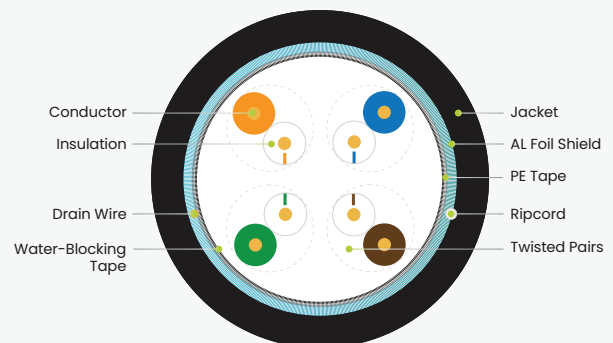
ISO/IEC  
11801

### 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)	0.54
<b>Outer Diameter (±0.2mm)</b>	<b>6.80</b>



## Print Legend

trueCABLE CAT5e CMX F/UTP DIRECT BURIAL UV 75°C 4PR 24AWG c(ETL)us VERIFIED to ANSI/TIA 568-2.D 350MHz ROHS-3 XXXXT MM/YY

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## 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 Cat5e Permanent Link +PoE	CERTIFIED
Maximum Application Speed @ 295ft	2.5GBASE-T
Nominal Velocity of Propagation (NVP)	69
Maximum Operating Voltage	300V
1.0 - 350MHz Impedance ( $\Omega$ )	100 $\pm$ 15
Maximum Operating Frequency	350MHz
1.0 - 350MHz Delay Skew (ns/100m)	$\leq$ 45
Pair-to-Ground Capacitance Unbalance (pF/km)	$\leq$ 3300
Max. Conductor DC Resistance 20°C ( $\Omega$ /km)	86



## Mechanical & Environmental Operating Parameters

Test Object	Jacket	Aging Condition (°C x 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°C x 4hrs)	No Crack
Min. Bend Radius	3.5cm/1.50in	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

Cat5e Toolless Keystone Jack   Shielded	5ESTL90CMPT
Cat5e Pass Through RJ45 Connectors   Shielded	SMIGPTRJ45
Cat6A Field Term Plug   Shielded	6ASFT
Conductive Copper Fabric Strips	CUstrips_100pc
Large Cut-to-Fit RJ45 Strain Relief Boot   5.5 - 7mm	LGCTF



**Cable ID: 5ESCMX 11/21 STP JACK > JACK**

Test Limit: TIA Cat 5e Perm. Link (+PoE)

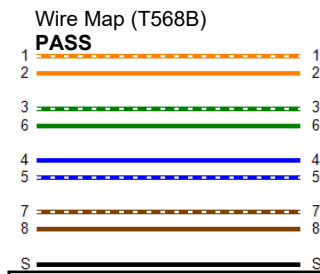
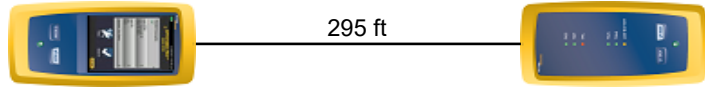
Limits Version: V7.6  
Date / Time: 04/11/2022 10:17:17 AM  
Operator: DON S  
Headroom 11.0 dB (NEXT 3,6-7,8)  
Cable Type: Cat 5e F/UTP  
NVP: 69.1%

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**

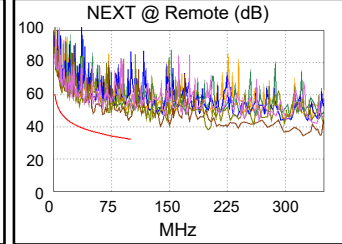
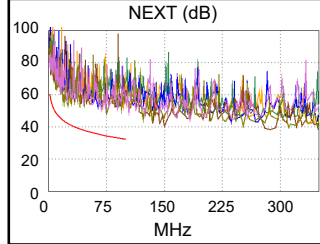
Remote: Versiv  
S/N: 1917273  
Software Version: V6.7 Build 1  
Calibration Date: 11/14/2020  
Adapter: DSX-8000R (DSX-PLA804)  
S/N: 4523168

Length (ft), Limit 295	[Pair 4,5]	295
Prop. Delay (ns), Limit 498	[Pair 1,2]	464
Delay Skew (ns), Limit 44	[Pair 1,2]	30
Resistance (ohms), Limit 21.00	[Pair 1,2]	16.22
Resist. Unbal. (ohms), Limit 0.430	[Pair 4,5]	0.212
Resist. P2P Unbal. (ohms), Limit 0.530	[Pair 1,2-4,5]	0.507
Insertion Loss Margin (dB)	[Pair 1,2]	2.4
Frequency (MHz)	[Pair 1,2]	100.0
Limit (dB)	[Pair 1,2]	21.0

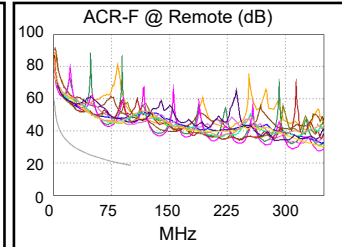
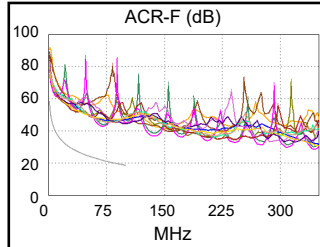


**Worst Case Margin Worst Case Value**

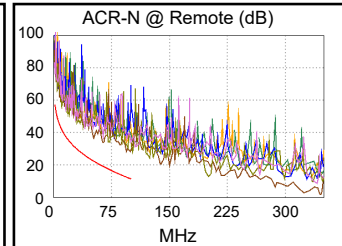
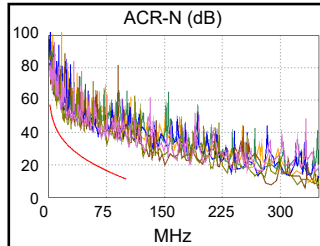
PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-7,8	3,6-4,5	3,6-7,8	3,6-4,5
<b>NEXT (dB)</b>	11.0	11.4	13.4	11.8
Freq. (MHz)	25.1	51.8	75.5	97.0
Limit (dB)	42.1	37.0	34.3	32.5
Worst Pair	7,8	3,6	3,6	3,6
<b>PS NEXT (dB)</b>	12.2	12.9	15.7	12.9
Freq. (MHz)	24.5	96.8	75.5	96.8
Limit (dB)	39.3	29.5	31.3	29.5



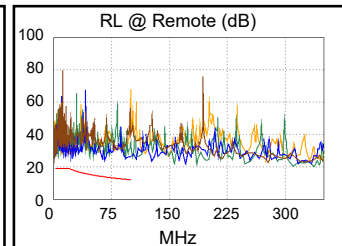
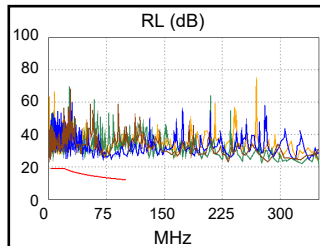
PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5-1,2	4,5-1,2	4,5-1,2	4,5-1,2
<b>ACR-F (dB)</b>	21.0	21.0	21.2	21.1
Freq. (MHz)	67.3	69.5	70.8	71.0
Limit (dB)	22.1	21.8	21.6	21.6
Worst Pair	1,2	1,2	4,5	1,2
<b>PS ACR-F (dB)</b>	20.7	20.7	22.7	22.5
Freq. (MHz)	1.4	2.5	73.8	72.5
Limit (dB)	52.8	47.7	18.3	18.4



N/A	MAIN	SR	MAIN	SR
Worst Pair	3,6-7,8	3,6-4,5	3,6-7,8	3,6-4,5
<b>ACR-N (dB)</b>	12.4	13.9	16.2	15.5
Freq. (MHz)	25.3	51.8	75.5	97.0
Limit (dB)	32.0	22.3	16.3	11.9
Worst Pair	7,8	3,6	1,2	3,6
<b>PS ACR-N (dB)</b>	13.6	14.8	22.7	16.7
Freq. (MHz)	24.5	10.8	97.3	96.8
Limit (dB)	29.4	38.6	8.8	8.9



PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6	3,6	4,5	4,5
<b>RL (dB)</b>	7.9	7.8	11.9	10.2
Freq. (MHz)	5.9	6.0	82.0	66.0
Limit (dB)	19.0	19.0	12.9	13.8



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