

# Cat6A Direct Burial Shielded

23AWG • 4 Twisted Pairs • CMX  
F/UTP • 750MHz • Solid Copper



### Lengths Available

- 500ft
- 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
- CMX jacket can withstand sunlight, dirt, snow, and moisture
- Supports Power over Ethernet: PoE/PoE+/PoE++ (IEEE 802.3af/at/bt) 4PPoE up to 100W
- cETLus Certified, RoHS-3 Compliant

## Technical Data

Insulation	PE
Average Thickness (mm)	0.278
Min Point Thickness (mm)	0.255
<b>Conductor Insulation Dia. (±0.02mm)</b>	<b>1.14</b>
Twisted Pair Dia. (±0.02mm)	2.28
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)	0.585

### Standards Reference

UL-444 /  
cETLus

ANSI/TIA  
568-2.D

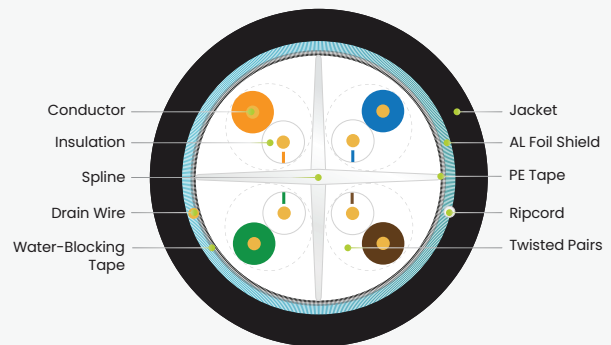
ISO/IEC  
11801

### 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
<b>Outer Diameter (±0.2mm)</b>	<b>7.60</b>



## Print Legend

trueCABLE CAT6A CMX F/UTP DIRECT BURIAL UV 75°C 4PR 23AWG c(ETL)us VERIFIED to ANSI/TIA 568-2.D 750MHz ROHS-3 XXXXFT 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 Cat6A Permanent Link +PoE	CERTIFIED
Maximum Application Speed @ 295ft	10GBASE-T
Nominal Velocity of Propagation (NVP)	67.0
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 (°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	5.5cm/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

## Tested Compatible Accessories

### Product

### Part Number

Cat6A Toolless Keystone Jack   Shielded	6ASTL90CMPT
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	LGLSLIP

Last Updated  
3/19/2024

\*Specs subject to  
change without notice.  
Current version available  
at www.trueCABLE.com





**Cable ID: 6ASCMXBLK TLESS STP KSJ > TLESS STP KSJ**

Test Limit: TIA Cat 6A Perm. Link (+PoE)

Limits Version: V7.5

Date / Time: 08/16/2021 11:24:26 AM

Operator: DON S

Headroom 4.1 dB (NEXT 1,2-7,8)

Cable Type: Cat 6A F/UTP

NVP: 67.0%

Main: Versiv

S/N: 1924100

Software Version: V6.5 Build 5

Calibration Date: 11/14/2020

Adapter: DSX-8000 (DSX-PLA804)

S/N: 4523168

Remote: Versiv

S/N: 1917273

Software Version: V6.5 Build 5

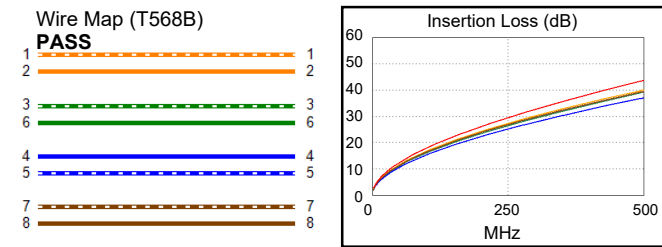
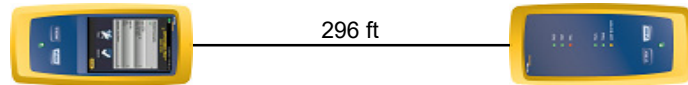
Calibration Date: 11/14/2020

Adapter: DSX-8000R (DSX-PLA804)

S/N: 4523169

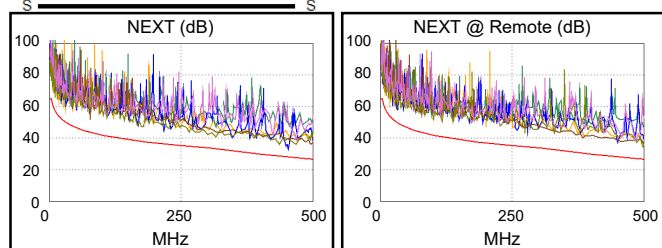
**Test Summary: PASS**

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]	36
Resistance (ohms), Limit 21.00	[Pair 7,8]	13.24
Resist. Unbal. (ohms), Limit 0.400	[Pair 7,8]	0.070
Resist. P2P Unbal. (ohms), Limit 0.450	[Pair 4,5-7,8]	0.189
Insertion Loss Margin (dB)	[Pair 1,2]	3.7
Frequency (MHz)	[Pair 1,2]	500.0
Limit (dB)	[Pair 1,2]	43.8

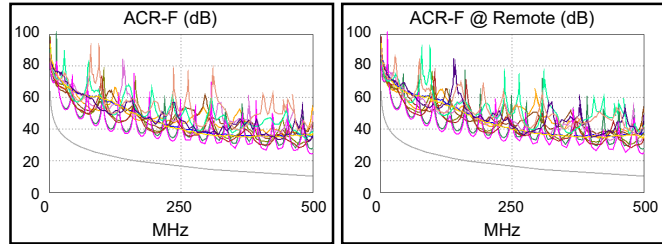


Worst Case Margin Worst Case Value

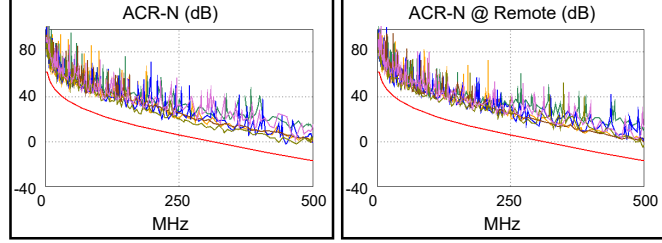
PASS	MAIN	SR	MAIN	SR
Worst Pair	1,2-7,8	3,6-7,8	1,2-7,8	3,6-7,8
<b>NEXT (dB)</b>	4.1	7.7	4.1	7.7
Freq. (MHz)	455.0	498.0	455.0	498.0
Limit (dB)	28.0	26.7	28.0	26.7
Worst Pair	1,2	3,6	1,2	3,6
<b>PS NEXT (dB)</b>	6.3	8.3	6.4	8.3
Freq. (MHz)	455.0	499.0	456.0	499.0
Limit (dB)	25.2	23.8	25.1	23.8



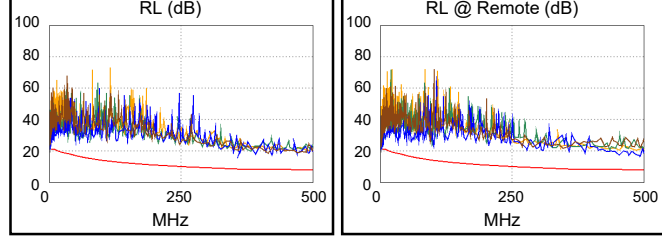
PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5-1,2	4,5-1,2	4,5-1,2	4,5-1,2
<b>ACR-F (dB)</b>	14.0	14.0	14.0	14.0
Freq. (MHz)	497.0	497.0	497.0	497.0
Limit (dB)	10.3	10.3	10.3	10.3
Worst Pair	1,2	1,2	1,2	1,2
<b>PS ACR-F (dB)</b>	16.2	16.4	16.8	16.6
Freq. (MHz)	408.0	408.0	498.0	497.0
Limit (dB)	9.0	9.0	7.2	7.3



N/A	MAIN	SR	MAIN	SR
Worst Pair	1,2-7,8	1,2-7,8	1,2-7,8	3,6-7,8
<b>ACR-N (dB)</b>	8.1	9.1	8.2	11.9
Freq. (MHz)	455.0	30.9	456.0	498.0
Limit (dB)	-13.4	40.3	-13.5	-16.9
Worst Pair	1,2	1,2	1,2	3,6
<b>PS ACR-N (dB)</b>	9.7	10.2	9.7	12.7
Freq. (MHz)	456.0	30.9	456.0	499.0
Limit (dB)	-16.3	37.9	-16.3	-19.9



PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5	4,5	4,5	4,5
<b>RL (dB)</b>	7.2	5.2	9.4	8.4
Freq. (MHz)	4.8	4.8	422.0	492.0
Limit (dB)	21.0	21.0	8.0	8.0



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