

# Cat6A Plenum Shielded

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



## Lengths Available

- 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
- RoHS-3 Compliant
- Easily identified color striped pairs
- Supports Power over Ethernet: PoE/PoE+/PoE++ (IEEE 802.3af/at/bt) 4PPoE up to 100W
- Sequential footage markings every 2ft

## Technical Data

Insulation	FEP
Average Thickness (mm)	0.268
Min Point Thickness (mm)	0.248
<b>Conductor Insulation Dia. (±0.02mm)</b>	<b>1.12</b>
Twisted Pair Dia. (±0.02mm)	2.24
Ripcord	Kevlar
Spline	Present
Polyethylene Tape	Present
Shielding	F/UTP
Drain Wire - Solid Tinned Copper (mm)	0.40
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 Jacket

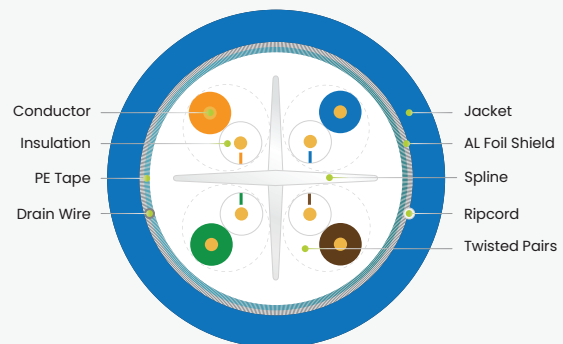
Cable Jacket	FR-PVC
Average Thickness (mm)	0.55
Min. Point Thickness (mm)	0.50
<b>Outer Diameter (±0.2mm)</b>	<b>7.60</b>

## Standards Reference

UL-444 /  
cETLus

ANSI/TIA  
568-2.D

ISO/IEC  
11801



## Print Legend

trueCABLE CAT6A CMP F/UTP 75°C 4PR 23AWG c(ETL)us VERIFIED to ANSI/TIA 568-2.D 750MHz ROHS-3 XXXXFT MM/YY

Last Updated  
3/19/2024

\*Specs subject to change without notice. Current version available at [www.trueCABLE.com](http://www.trueCABLE.com)



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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)	70
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	FR-PVC	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	5.25cm/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	LGSLIP



**Cable ID: 6ASCMP STP JACK > STP RJ45 JACKET DATE 03/22**

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

Limits Version: V7.6

Date / Time: 02/14/2022 11:59:15 AM

Operator: DON S

Headroom 4.7 dB (NEXT 3,6-4,5)

Cable Type: Cat 6A F/UTP

NVP: 70.0%

Main: Versiv

S/N: 1924100

Software Version: V6.7 Build 1

Calibration Date: 11/14/2020

Adapter: DSX-8000 (DSX-PLA804)

S/N: 4523169

Remote: Versiv

S/N: 1917273

Software Version: V6.7 Build 1

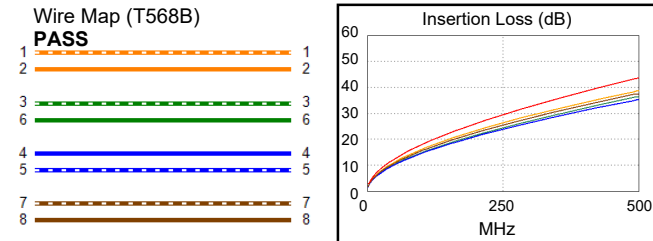
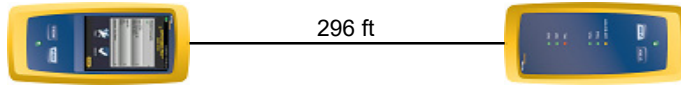
Calibration Date: 11/14/2020

Adapter: DSX-8000R (DSX-PC6A)

S/N: 4716155

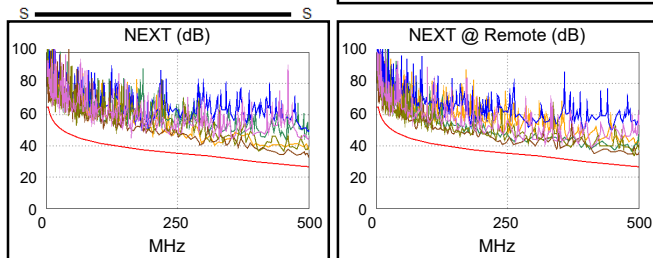
**Test Summary: PASS**

Length (ft), Limit 295	[Pair 4,5]	296
Prop. Delay (ns), Limit 498	[Pair 1,2]	460
Delay Skew (ns), Limit 44	[Pair 1,2]	30
Resistance (ohms), Limit 21.00	[Pair 1,2]	12.84
Resist. Unbal. (ohms)	[Pair 3,6]	0.124
Resist. P2P Unbal. (ohms)	[Pair 1,2-4,5]	0.215
Insertion Loss Margin (dB)	[Pair 1,2]	5.0
Frequency (MHz)	[Pair 1,2]	500.0
Limit (dB)	[Pair 1,2]	43.8

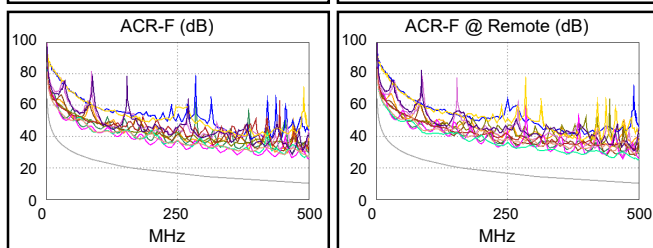


**Worst Case Margin Worst Case Value**

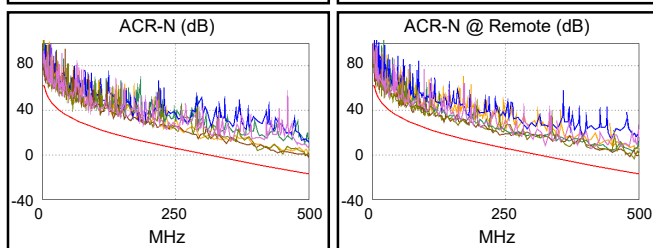
PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-4,5	3,6-4,5	3,6-4,5
<b>NEXT (dB)</b>	5.9	4.7	6.1	5.9
Freq. (MHz)	440.0	3.8	500.0	484.0
Limit (dB)	28.5	64.5	26.7	27.1
Worst Pair	3,6	4,5	3,6	4,5
<b>PS NEXT (dB)</b>	6.3	5.7	7.3	7.3
Freq. (MHz)	405.0	261.0	499.0	484.0
Limit (dB)	26.9	32.4	23.8	24.2



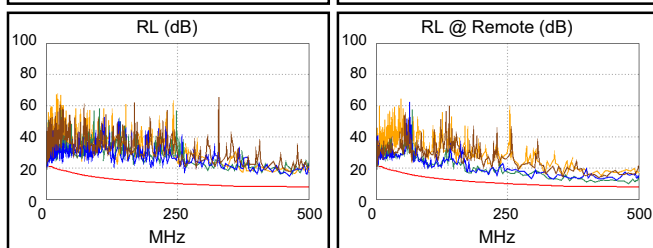
PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5-1,2	4,5-1,2	4,5-1,2	4,5-7,8
<b>ACR-F (dB)</b>	15.2	14.8	15.6	15.0
Freq. (MHz)	401.0	468.0	500.0	499.0
Limit (dB)	12.1	10.8	10.2	10.2
Worst Pair	1,2	1,2	7,8	7,8
<b>PS ACR-F (dB)</b>	16.6	16.7	17.5	17.3
Freq. (MHz)	401.0	436.0	491.0	489.0
Limit (dB)	9.1	8.4	7.4	7.4



N/A	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-4,5	3,6-4,5	3,6-7,8
<b>ACR-N (dB)</b>	7.1	5.3	14.6	12.8
Freq. (MHz)	3.6	3.8	500.0	491.0
Limit (dB)	61.4	61.1	-17.1	-16.4
Worst Pair	3,6	3,6	3,6	3,6
<b>PS ACR-N (dB)</b>	8.9	7.1	14.8	14.3
Freq. (MHz)	4.9	3.9	500.0	483.0
Limit (dB)	56.6	58.5	-20.0	-18.6



PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5	3,6	4,5	3,6
<b>RL (dB)</b>	4.8	2.0	6.8	2.0
Freq. (MHz)	6.3	480.0	463.0	480.0
Limit (dB)	21.0	8.0	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