

# Cat6 Plenum Unshielded

23AWG • 4 Twisted Pairs • CMP  
U/UTP • 550MHz • Solid Copper

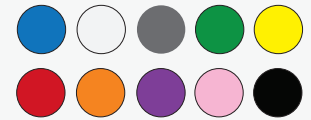


## Colors & Lengths Available

500ft:



1000ft:



## 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
- 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) 0.22

Min Point Thickness (mm) 0.20

**Conductor Insulation Dia. (±0.02mm) 1.00**

Twisted Pair Dia. (±0.02mm) 2.02

Ripcord Kevlar

Spline Present

Polyethylene Tape Not Present

Shielding U/UTP

### Conductor

### Solid Bare Copper

Size 23AWG

Conductor Dia. (±0.05mm) 0.57

### 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

### FR-PVC

Average Thickness (mm) 0.50

Min. Point Thickness (mm) 0.45

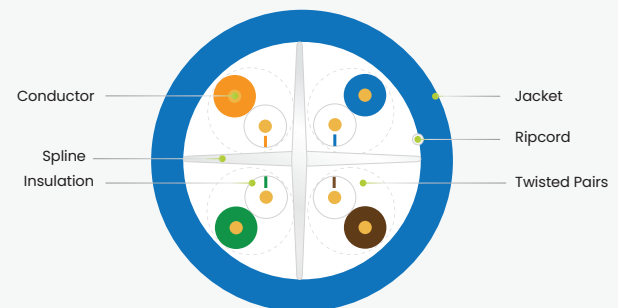
**Outer Diameter (±0.2mm) 6.00**

## Standards Reference

UL-444 /  
cETLus

ANSI/TIA  
568-2.D

ISO/IEC  
11801



## Print Legend

trueCABLE Cat6 CMP U/UTP 75°C 4PR 23AWG c(ETL)us VERIFIED to ANSI/TIA 568.2-D Category 6 550MHz RoHS-3 XXXXFT MM/YY

Last Updated  
03/19/24

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



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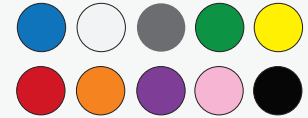


## Colors & Lengths Available

500ft:



1000ft:



## 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 Cat6 Permanent Link +PoE	CERTIFIED
Maximum Application Speed @ 295ft	5GBASE-T
Nominal Velocity of Propagation (NVP)	71.7
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)	72.2



## Mechanical & Environmental Operating Parameters

Test Object	Jacket	Aging Condition ( $^{\circ}$ 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 ( $-20 \pm 2^{\circ}$ C x 4hrs)	No Crack
Min. Bend Radius	2.4cm/1.00in	Operating & Storage Temp.	$-40^{\circ}$ C to $75^{\circ}$ C   $-40^{\circ}$ F to $167^{\circ}$ F
Max. Installation Tension	110N/25lb-ft	Installation Temp.	$-20^{\circ}$ C to $75^{\circ}$ C   $-4^{\circ}$ F to $167^{\circ}$ F

## Tested Compatible Accessories

### Product

### Part Number

Cat6 Punch Down Keystone Jack   Unshielded	6EPD90CMPT
Cat6 Toolless Keystone Jack   Unshielded	6ETL90CMPT
Cat6/6A Pass Through RJ45 Connectors   Unshielded	MDPTRJ45
Cat6/6A Standard RJ45 Connectors   Unshielded	LGRJ45
Large Cut-to-Fit RJ45 Strain Relief Boot   5.5 - 7mm	LGCTF
Cat6A Field Term Plug   Unshielded 7.00mm	6AFT



**Cable ID: 6ECMPGRN PD KSJ TO PD KSJ 09/20**

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

Limits Version: V7.5

Date / Time: 09/18/2020 08:14:39 AM

Operator: DON S

Headroom 7.0 dB (NEXT 1,2-4,5)

Cable Type: Cat 6 U/UTP

NVP: 71.7%

Main: Versiv

S/N: 1917273

Software Version: V6.5 Build 5

Calibration Date: 11/08/2019

Adapter: DSX-8000 (DSX-PLA804)

S/N: 4523168

Remote: Versiv

S/N: 1924100

Software Version: V6.5 Build 5

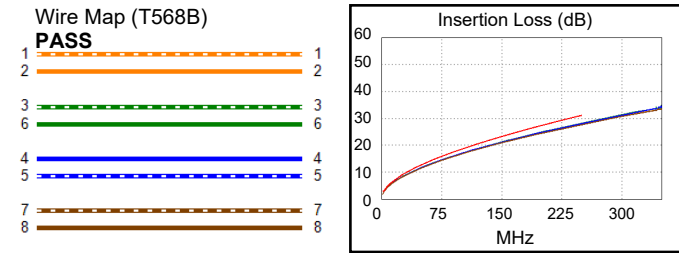
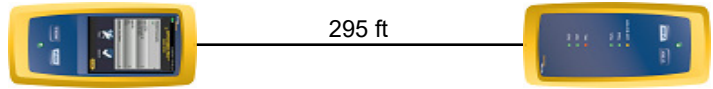
Calibration Date: 11/08/2019

Adapter: DSX-8000R (DSX-PLA804)

S/N: 4523169

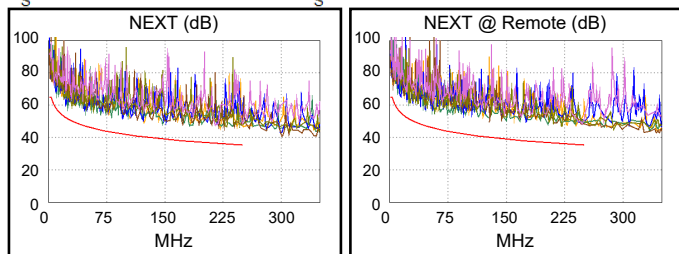
**Test Summary: PASS**

Length (ft), Limit 295	[Pair 7,8]	295
Prop. Delay (ns), Limit 498	[Pair 4,5]	436
Delay Skew (ns), Limit 44	[Pair 4,5]	18
Resistance (ohms), Limit 21.00	[Pair 4,5]	13.77
Resist. Unbal. (ohms), Limit 0.400	[Pair 1,2]	0.036
Resist. P2P Unbal. (ohms), Limit 0.480	[Pair 1,2-4,5]	0.093
Insertion Loss Margin (dB)	[Pair 3,6]	2.9
Frequency (MHz)	[Pair 3,6]	249.5
Limit (dB)	[Pair 3,6]	31.1

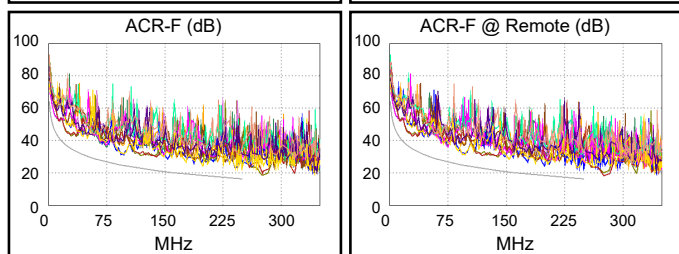


Worst Case Margin Worst Case Value

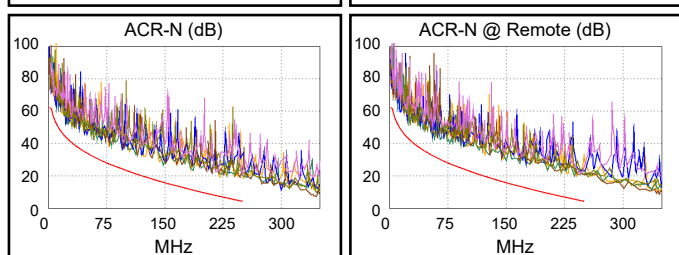
PASS	MAIN	SR	MAIN	SR
Worst Pair	1,2-4,5	3,6-7,8	1,2-3,6	1,2-4,5
NEXT (dB)	7.0	9.2	9.3	11.1
Freq. (MHz)	24.8	26.6	221.5	237.0
Limit (dB)	51.6	51.1	36.2	35.7
Worst Pair	1,2	3,6	4,5	4,5
PS NEXT (dB)	7.3	9.5	9.5	11.0
Freq. (MHz)	24.9	4.4	220.0	248.5
Limit (dB)	49.1	61.2	33.6	32.7



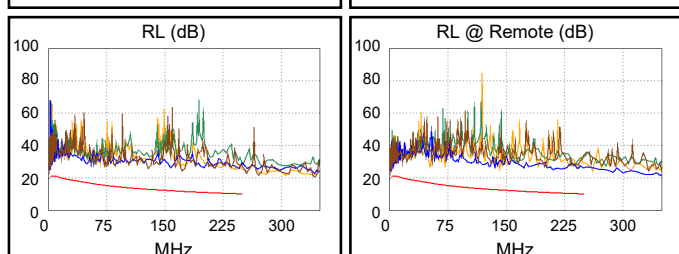
PASS	MAIN	SR	MAIN	SR
Worst Pair	7,8-1,2	1,2-7,8	7,8-1,2	1,2-7,8
ACR-F (dB)	5.8	5.9	6.1	5.9
Freq. (MHz)	241.5	250.0	250.0	250.0
Limit (dB)	16.5	16.2	16.2	16.2
Worst Pair	1,2	1,2	1,2	7,8
PS ACR-F (dB)	7.8	8.0	7.8	8.2
Freq. (MHz)	241.5	204.0	241.5	250.0
Limit (dB)	13.5	15.0	13.5	13.2



N/A	MAIN	SR	MAIN	SR
Worst Pair	1,2-4,5	3,6-4,5	1,2-3,6	1,2-3,6
ACR-N (dB)	7.7	9.7	14.0	14.2
Freq. (MHz)	24.8	4.4	243.5	240.5
Limit (dB)	42.8	59.8	4.9	5.2
Worst Pair	1,2	3,6	3,6	4,5
PS ACR-N (dB)	8.0	9.8	14.3	14.0
Freq. (MHz)	24.9	4.4	250.0	248.5
Limit (dB)	40.3	57.5	1.6	1.8



PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5	4,5	7,8	4,5
RL (dB)	8.5	7.4	12.7	13.9
Freq. (MHz)	3.8	3.8	172.0	211.0
Limit (dB)	21.0	21.0	11.6	10.8



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