

# Cat6A Riser Unshielded

23AWG • 4 Twisted Pairs • CMR  
U/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	PE
Average Thickness (mm)	0.225
Min Point Thickness (mm)	0.207
<b>Conductor Insulation Dia. (±0.02mm)</b>	<b>1.02</b>
Twisted Pair Dia. (±0.02mm)	2.04
Ripcord	Nylon
Spline	PE
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

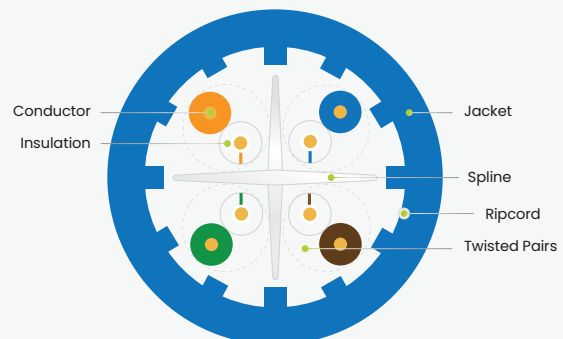
Cable Jacket	PVC
Average Thickness (mm)	0.60
Min. Point Thickness (mm)	0.55
<b>Outer Diameter (±0.2mm)</b>	<b>7.30</b>

## Standards Reference

UL-444 / cETLus

ANSI/TIA 568-2.D

ISO/IEC 11801



## Print Legend

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

# Cat6A Riser Unshielded

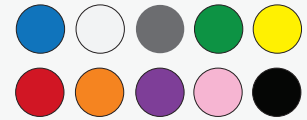
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## Electrical Characteristics

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)	69.1
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)	72.2



## Mechanical & Environmental Operating Parameters

Test Object	Jacket	Aging Condition ( $^{\circ}\text{C} \times \text{hrs}$ )	100 x 168
Test Material	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 ( $-20 \pm 2^{\circ}\text{C} \times 4\text{hrs}$ )	No Crack
Min. Bend Radius	3.0cm/1.25in	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

Cat6A Punch Down Keystone Jack   Unshielded	6APD90CMPT
Cat6A Toolless Keystone Jack   Unshielded	6ATL90CMPT
Cat6/6A Standard RJ45 Connectors   Unshielded	LGRJ45
Medium Slip-On RJ45 Strain Relief Boot   7.50mm	MDSLIP
Cat6A Field Term Plug   Unshielded	6AFT



**Cable ID: 6ACMR U/UTP PD KSJ > UTP STD LB CAT6/6A RJ45**

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

Limits Version: V7.5

Date / Time: 05/31/2021 11:21:53 AM

Operator: DON S

Headroom 7.8 dB (NEXT 3,6-7,8)

Cable Type: Cat 6A U/UTP

NVP: 69.1%

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

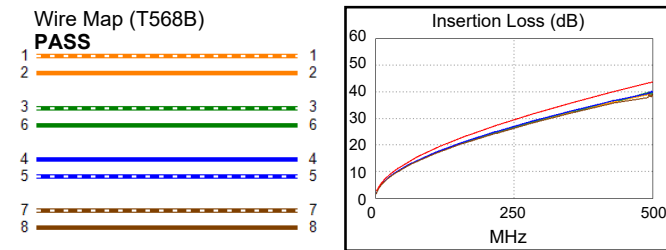
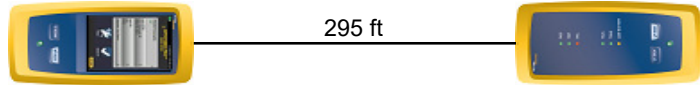
Calibration Date: 11/14/2020

Adapter: DSX-8000R (DSX-PC6A)

S/N: 4716155

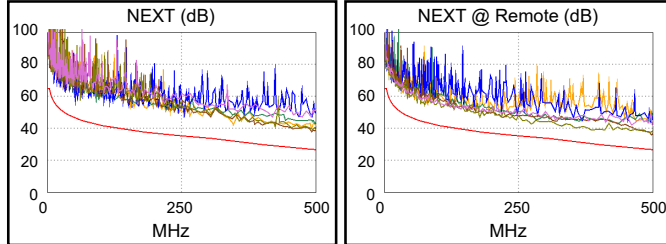
**Test Summary: PASS**

Length (ft), Limit 295	[Pair 7,8]	295
Prop. Delay (ns), Limit 498	[Pair 4,5]	462
Delay Skew (ns), Limit 44	[Pair 4,5]	28
Resistance (ohms)	[Pair 4,5]	13.15
Resist. Unbal. (ohms)	[Pair 1,2]	0.099
Resist. P2P Unbal. (ohms)	[Pair 4,5-7,8]	0.141
Insertion Loss Margin (dB)	[Pair 4,5]	3.4
Frequency (MHz)	[Pair 4,5]	498.0
Limit (dB)	[Pair 4,5]	43.6

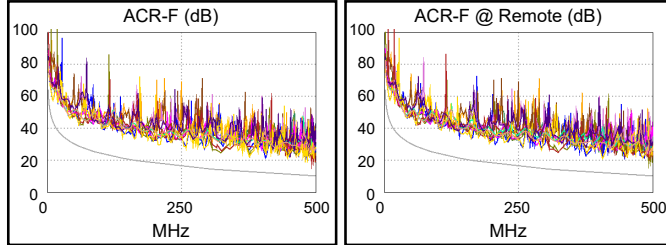


Worst Case Margin Worst Case Value

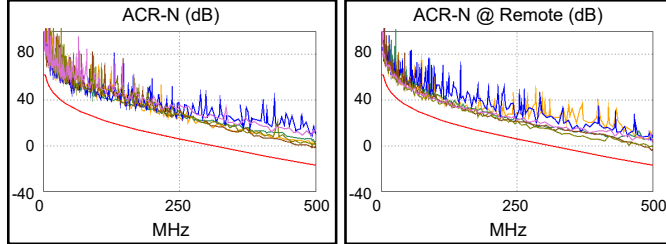
PASS	MAIN	SR	MAIN	SR
Worst Pair	1,2-3,6	3,6-7,8	3,6-4,5	3,6-4,5
<b>NEXT (dB)</b>	10.3	7.8	11.0	9.2
Freq. (MHz)	347.0	383.0	492.0	497.0
Limit (dB)	31.9	30.5	26.9	26.7
Worst Pair	3,6	3,6	3,6	3,6
<b>PS NEXT (dB)</b>	10.3	8.9	10.5	9.8
Freq. (MHz)	347.0	274.0	492.0	497.0
Limit (dB)	29.2	32.0	24.0	23.8



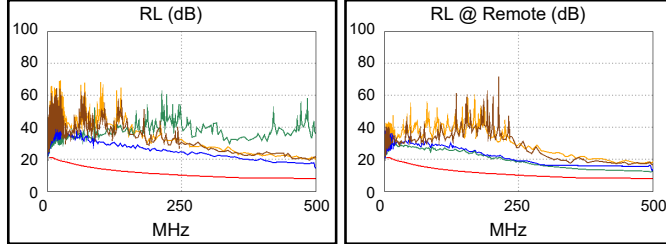
PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5-3,6	3,6-4,5	4,5-3,6	3,6-4,5
<b>ACR-F (dB)</b>	7.7	8.0	7.7	8.0
Freq. (MHz)	492.0	492.0	492.0	492.0
Limit (dB)	10.4	10.4	10.4	10.4
Worst Pair	3,6	4,5	3,6	4,5
<b>PS ACR-F (dB)</b>	10.5	10.5	10.5	10.7
Freq. (MHz)	492.0	492.0	492.0	499.0
Limit (dB)	7.4	7.4	7.4	7.2



N/A	MAIN	SR	MAIN	SR
Worst Pair	1,2-7,8	3,6-7,8	3,6-4,5	3,6-4,5
<b>ACR-N (dB)</b>	12.7	11.2	15.2	12.7
Freq. (MHz)	51.8	187.0	498.0	497.0
Limit (dB)	33.7	12.3	-16.9	-16.9
Worst Pair	3,6	3,6	3,6	3,6
<b>PS ACR-N (dB)</b>	13.4	11.5	14.0	13.7
Freq. (MHz)	347.0	168.0	492.0	497.0
Limit (dB)	-6.2	11.9	-19.3	-19.7



PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6	3,6	4,5	3,6
<b>RL (dB)</b>	6.1	3.8	6.5	3.8
Freq. (MHz)	3.8	479.0	499.0	479.0
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