

# Cat6 Unshielded Riser

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



## Key Features

- Bandwidth tested up to 550 MHz
- Suitable for 10-Gigabit Ethernet up to 165ft
- Easily Identified Color Striped Pairs
- Sequential Footage Markings Every 2ft
- In compliance with ANSI/TIA 568.2-D
- RoHS-3 compliant
- Supports PoE, PoE+, and PoE++ (IEEE 802.3af/at/bt) up to 60W & 300V DC

## Print Legend

trueCABLE CAT6 CMR 75C 4PR U/UTP  
23AWG c(ETL)us VERIFIED to ANSI/TIA  
568-2-D 550MHz ROHS-3 XXXXFT MM/YY

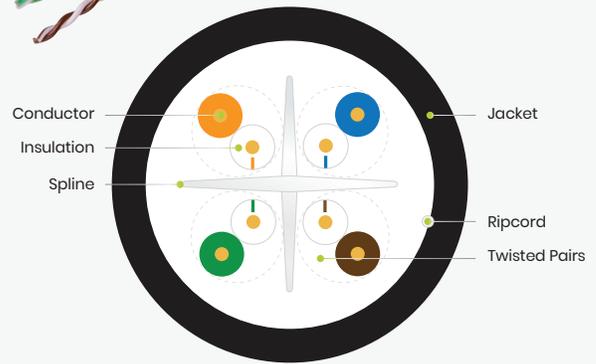
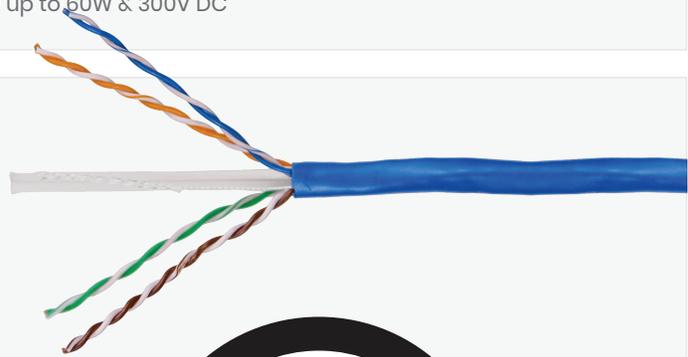
## Technical Data

<b>Operating Temp. Range</b>	75°C/167°F
<b>Max. Operating Voltage</b>	300v
<b>Bend Diameter Min.</b>	2in/5mm

Insulation	PE
Average Thickness	0.210
Min Point Thickness	0.193
<b>Conductor Insulation Dia. (±0.01mm)</b>	<b>0.96</b>
Twisted Pair Dia. (±0.02mm)	1.92
Spline	PE

Jacket	PVC
Average Thickness	0.55
Min. Point Thickness	0.50
<b>Overall Diameter (±0.1mm)</b>	<b>5.90</b>
Ripcord	Yes

Conductor	Solid Bare Copper
Size	23AWG
Conductor Dia. (±0.05mm)	0.54



## Color of Pairs

Pair 1	Blue- White/Blue
Pair 2	Orange- White/Orange
Pair 3	Green- White/Green
Pair 4	Brown- White/Brown



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### Packaging Available

- 500ft Reel
- 1000ft Pull Box

### Jacket Colors



## Electrical Characteristics

Frequency MHz	Return Loss Min (dB)	Attenuation Max (dB/100m)	Next (Min dB)
1	20.0	2.0	65.3
4	23.0	4.1	56.3
8	24.5	5.8	51.8
16	26.0	8.2	47.3
20	26.5	9.3	45.8
62.5	25.0	17.0	38.4
100	25.0	22.0	35.3
200	18.0	32.4	30.8
250	17.3	36.9	29.3
300	16.8	41.0	28.2
350	16.3	44.9	27.2
400	15.9	43.0	35.3
550	14.9	51.8	33.2

Frequency MHz	PSNEXT Min (dB)	ELFEXT Min (dB/100m)	PSELFEXT Min (dB/100m)	Delay Max (ns/100m)
1	62.3	63.8	60.8	570.0
4	53.3	51.7	48.7	552.0
8	48.8	45.7	42.7	546.7
16	44.3	39.7	36.7	543.0
20	42.8	37.7	34.7	542.0
62.5	35.4	27.8	24.8	538.6
100	32.3	23.8	20.8	537.6
200	27.8	17.7	14.7	536.5
250	26.3	15.8	12.8	536.3
300	25.2	14.2	11.2	536.1
350	24.2	12.9	9.9	535.9
400	33.3	12.8	9.5	535.8
550	31.2	12.5	9.2	535.5

**1.0- 500.0MHz Impedance (ohms)** 100 ± 15

**1.0- 500.0MHz Delay Skew (ns/100m)** ≤45

**Pair-to-Ground Capacitance Unbalance (pF/100m)** ≤3300

**Max. Conductor DC Resistance 20°C (ohms/km)** 72.2

**Resistance Unbalance (%)** ≤5

## Mechanical Characteristics

Test Object	Jacket
Test Material	PVC
Before Tensile Strength (Mpa)	≥13.8
Aging Elongation (%)	≥100
Aging Condition (°Cxhrs)	100x168
After Tensile Strength (Mpa)	≥85% of unaged
Aging Elongation (%)	≥50% of unaged
Cold Bend (-20+2° Cx4hrs)	No Crack

**We ship direct from our high service factory.**

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Forever Covered.**



**certified**  
PURE COPPER



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## Cable ID: 6ECMR MPTL UTP PD KSJ TO PASS-THROUGH RJ45

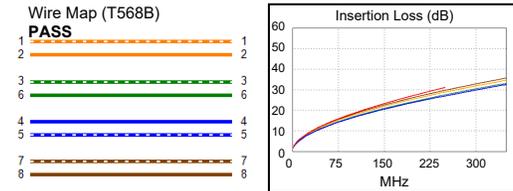
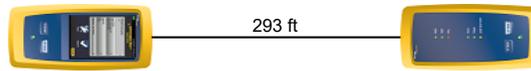
## Test Summary: PASS

Test Limit: TIA Cat 6 MPTL (+PoE)  
Limits Version: V7.5  
Date / Time: 03/03/2020 01:49:57 PM  
Operator: DON S  
Headroom 7.2 dB (NEXT 3,6-7,8)  
Cable Type: \*trueCABLE Cat6 U/UTP\*  
NVP: 68.2%

Main: Versiv  
S/N: 1917273  
Software Version: V6.5 Build 5  
Calibration Date: 11/08/2019  
Adapter: DSX-8000 (DSX-PLA804)  
S/N: 4523168

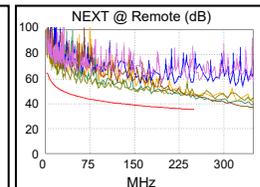
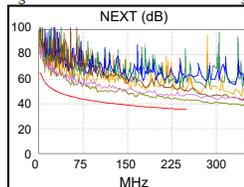
Remote: Versiv  
S/N: 1924100  
Software Version: V6.5 Build 5  
Calibration Date: 11/08/2019  
Adapter: DSX-8000R (DSX-PC6)  
S/N: 4716104

Length (ft), Limit 295	[Pair 4,5]	293
Prop. Delay (ns), Limit 498	[Pair 7,8]	461
Delay Skew (ns), Limit 44	[Pair 7,8]	24
Resistance (ohms)	[Pair 7,8]	14.21
Resist. Unbal. (ohms)	[Pair 4,5]	0.036
Resist. P2P Unbal. (ohms)	[Pair 4,5-7,8]	0.144
Insertion Loss Margin (dB)	[Pair 7,8]	1.4
Frequency (MHz)	[Pair 7,8]	250.0
Limit (dB)	[Pair 7,8]	31.1

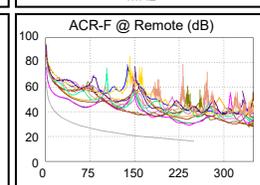
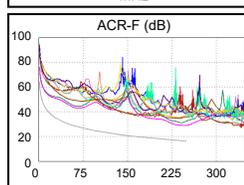


### Worst Case Margin Worst Case Value

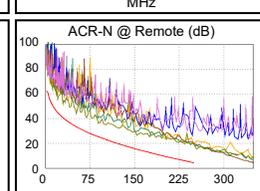
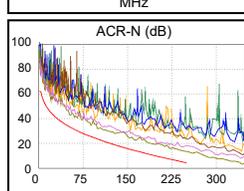
	MAIN	SR	MAIN	SR
<b>PASS</b>				
Worst Pair	3,6-7,8	1,2-4,5	3,6-7,8	1,2-4,5
NEXT (dB)	7.2	10.0	7.3	10.0
Freq. (MHz)	224.5	244.5	246.0	244.5
Limit (dB)	36.1	35.5	35.5	35.5
Worst Pair	7,8	3,6	7,8	3,6
PS NEXT (dB)	8.3	9.7	8.6	9.9
Freq. (MHz)	221.5	234.0	246.5	250.0
Limit (dB)	33.6	33.2	32.8	32.7



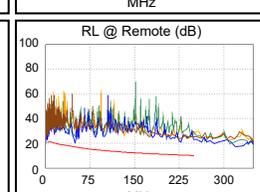
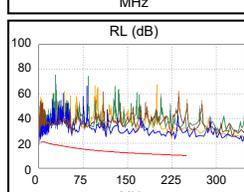
	MAIN	SR	MAIN	SR
<b>PASS</b>				
Worst Pair	4,5-1,2	1,2-4,5	4,5-1,2	4,5-1,2
ACR-F (dB)	11.6	11.8	12.5	12.7
Freq. (MHz)	4.4	4.4	246.5	242.0
Limit (dB)	51.4	51.4	16.4	16.5
Worst Pair	1,2	4,5	1,2	1,2
PS ACR-F (dB)	14.1	14.0	14.5	14.4
Freq. (MHz)	3.0	3.9	246.5	241.5
Limit (dB)	51.6	49.4	13.4	13.5



	MAIN	SR	MAIN	SR
<b>N/A</b>				
Worst Pair	3,6-7,8	3,6-7,8	3,6-7,8	3,6-7,8
ACR-N (dB)	8.0	10.5	8.7	13.6
Freq. (MHz)	100.0	89.3	246.0	243.5
Limit (dB)	23.3	25.2	4.6	4.9
Worst Pair	7,8	7,8	7,8	3,6
PS ACR-N (dB)	9.2	12.3	9.9	13.5
Freq. (MHz)	99.8	10.5	246.5	250.0
Limit (dB)	20.8	49.5	2.0	1.6



	MAIN	SR	MAIN	SR
<b>PASS</b>				
Worst Pair	4,5	4,5	4,5	4,5
RL (dB)	6.5	3.5	13.5	3.5
Freq. (MHz)	3.9	50.0	230.5	50.0
Limit (dB)	21.0	17.0	10.4	17.0



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