

CAT6



Cat6 Riser Unshielded Solid Bare Copper

SKU: RCT-C6R-BC-BL

23AWG • 4 Twisted Pairs • CMR

U/UTP • 550MHz • Solid Bare Copper



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

Insulation	PE
Average Thickness (mm)	0.21
Min Point Thickness (mm)	0.193
Conductor Insulation Dia. ($\pm 0.02\text{mm}$)	0.96
Twisted Pair Dia. ($\pm 0.02\text{mm}$)	1.92
Ripcord	Nylon
Spline	Present
Polyethylene Tape	Not Present
Shielding	U/UTP

Conductor

Conductor	Solid Bare Copper
Size	23AWG
Conductor Dia. ($\pm 0.05\text{mm}$)	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

Cable Jacket

Cable Jacket	PVC
Average Thickness (mm)	0.60
Min. Point Thickness (mm)	0.55
Outer Diameter ($\pm 0.2\text{mm}$)	5.90

Standards Reference

ANSI/TIA
568-2.D

ISO/IEC
11801

Conductor
Insulation
Spline



Jacket
Ripcord
Twisted Pairs



CAT6



Cable ID: 225-C UTP4 CAT6 Riser UTP

Test Limit: TIA Cat 6 Riser Perm. Link

Limits Version: V7.5 Date / Time:

07/09/2021 01:14:46 PM

Operator: LIXIAOHONG

Headroom 3.5 dB (NEXT 1,2-3,6)

Cable Type: Cat 6 Riser U/UTP NVP:

69.0%

Main: Versiv

S/N: 2034142

Software Version: V6.5 Build 5

Calibration Date: 12/23/2020

Adapter: DSX-8000 (DSX-PLA804)

S/N: 20475125

Test Summary: PASS

Remote: Versiv

S/N: 2035009

Software Version: V6.5 Build 5

Calibration Date: 12/23/2020

Adapter: DSX-8000R (DSX-PLA804)

S/N: 20485133

Length (ft), Limit 295	[Pair 3,6]	305
Prop. Delay (ns), Limit 498	[Pair 7,8]	464
Delay Skew (ns), Limit 44	[Pair 7,8]	15
Resistance (ohms)	[Pair 7,8]	15.53
Insertion Loss Margin (dB)	[Pair 7,8]	1.6
Frequency (MHz)	[Pair 7,8]	250.0
Limit (dB)	[Pair 7,8]	31.1

Worst Case Margin Worst Case Value

PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	1,2-3,6	3,6-4,5	1,2-4,5
NEXT (dB)	3.9	3.5	6.0	5.5
Freq. (MHz)	35.5	80.8	246.0	210.5
Limit (dB)	49.1	43.3	35.5	36.6
	3.6	3.6	3.6	1.2
Worst Pair	5.2	4.4	6.2	6.0
PS NEXT (dB)	5.5	83.8	236.0	220.5
Freq. (MHz)	59.6	40.6	33.1	33.6
Limit (dB)				

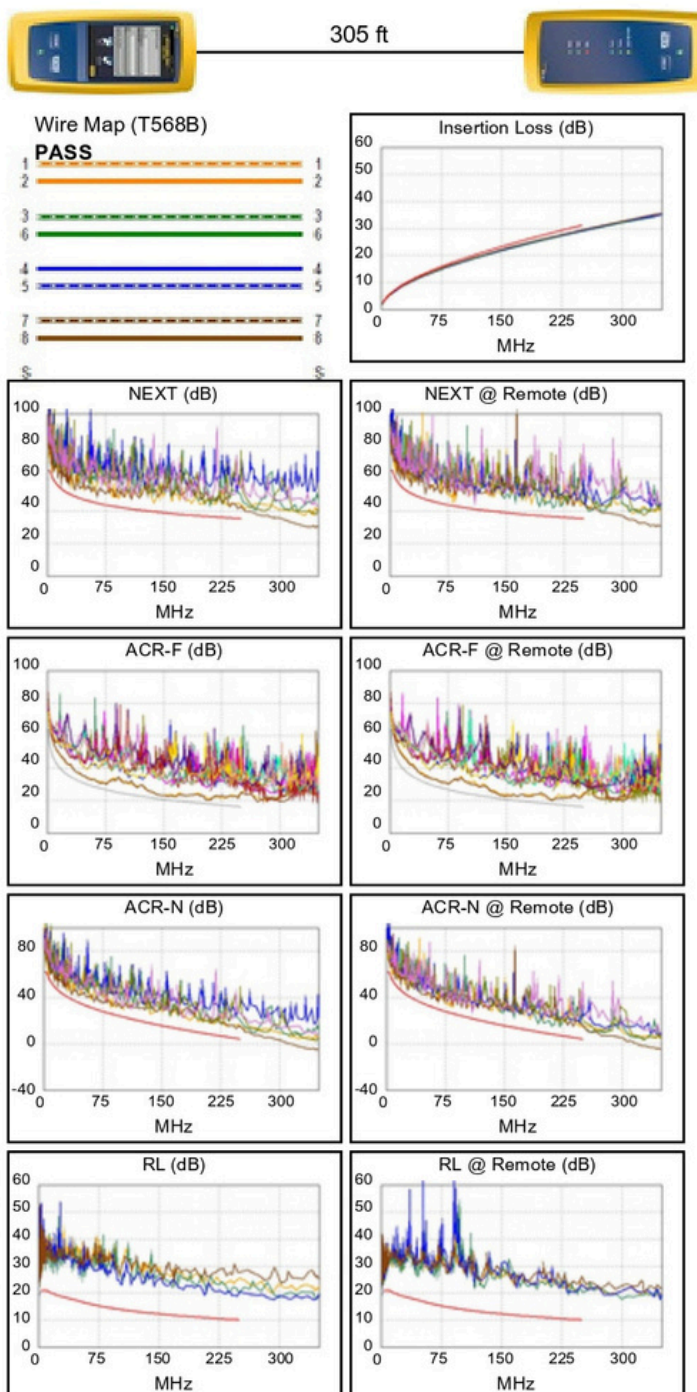
PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-1,2	3,6-1,2	3,6-1,2	3,6-1,2
ACR-F (dB)	2.0	1.8	2.0	1.9
Freq. (MHz)	209.5	151.0	209.5	208.5
Limit (dB)	17.8	20.6	17.8	17.8
Worst Pair	1.2	1.2	1.2	1.2
PS ACR-F (dB)	4.3	4.3	4.3	4.3
Freq. (MHz)	209.0	208.5	209.0	208.5
Limit (dB)	14.8	14.8	14.8	14.8

N/A	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	1,2-3,6	3,6-4,5	1,2-3,6
ACR-N (dB)	4.5	4.5	7.9	10.1
Freq. (MHz)	35.5	80.8	246.0	247.0
Limit (dB)	38.4	26.8	4.6	4.5
Worst Pair	3,6	3,6	3,6	1,2
PS ACR-N (dB)	5.5	5.5	9.4	10.2
Freq. (MHz)	55.5	83.8	250.0	247.5
Limit (dB)	55.5	23.7	1.6	1.9

PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6	3,6	4,5	3,6
RL (dB)	6.6	4.3	8.7	8.8
Freq. (MHz)	3.8	3.8	247.5	234.5
Limit (dB)	21.0	21.0	10.1	10.3

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		



LinkWare™ PC Version 10.7

FLUKE networks

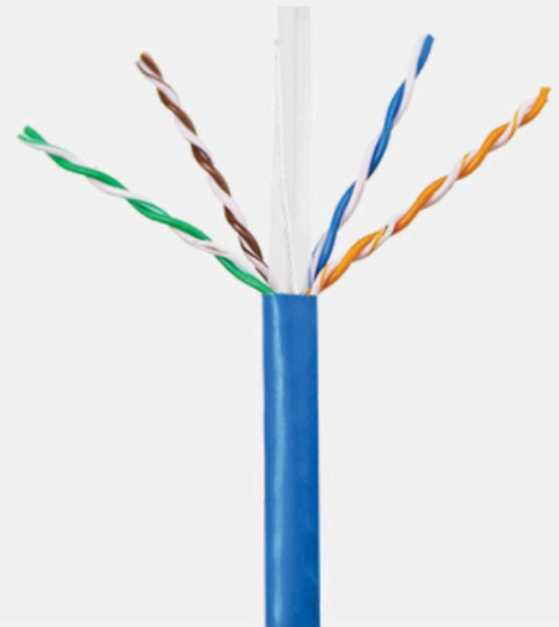


CAT6



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)	68.2
Maximum Operating Voltage	300V
1.0 - 550MHz Impedance (Ω)	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 (Ω /km)	72.2



Mechanical & Environmental Operating Parameters

Test Object	Jacket	Aging Condition (°C x hrs)
Test Material	PVC	After Tensile Strength (Mpa)
Before- Tensile Strength (Mpa)	$\geq$ 13.8	Aging Condition - Elongation (%)
Aging- Elongation (%)	$\geq$ 100	Cold Bend (-20 $\pm$ 2°C x 4hrs)
Min. Bend Radius	2.5cm/1.0in	Operating & Storage Temp.
Max. Installation Tension	110N/25lb-ft	Installation Temp.

