

CAT6A



Cat6A Riser Unshielded Solid Bare Copper

SKU: RCT-C6AR-BC-WH

23AWG • 4 Twisted Pairs • CMR
UTP • 750MHz • Solid Bare Copper



Lengths Available

• 1000ft

Jacket Colors



Key Features

- Bandwidth tested up to 750 MHz • Suitable for 1 Gigabit and 2.5 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

PE

Average Thickness (mm) 0.228

Min Point Thickness (mm) 0.205

Conductor Insulation Dia. (±0.02mm) 0.97

Twisted Pair Dia. (±0.02mm) 1.94

Ripcord Nylon

Spline Not Present

Polyethylene Tape Not Present

Shielding U/UTP

Drain Wire - Solid Tinned Copper (mm) 0.40

Conductor

Solid Bare Copper

Size 23AWG

Conductor Dia. (±0.05mm) 0.515

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

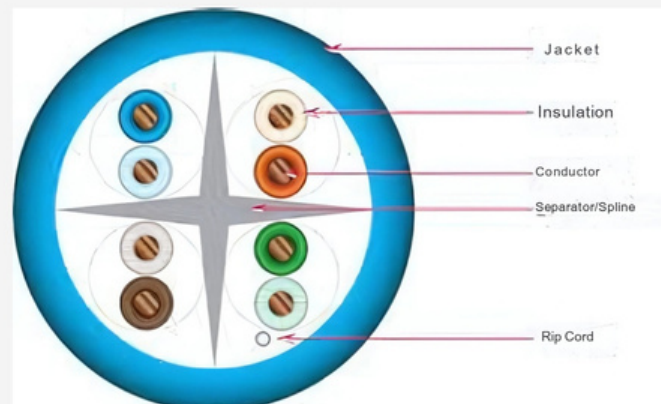
Min. Point Thickness(mm) 0.54

Outer Diameter (±0.2mm) 6.15

Standards Reference

ANSI/TIA
568-2.D

ISO/IEC
11801



CAT6A



Cable ID: 6ACMR U/UTP JACK

Test Limit: TIA Cat 6A perm. (+PoE)

Limits Version: V7.6 Date / Time:

02/14/2022 11:59:15 AM

Operator: LIXIAOHONG

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

Type: Cat 6A U/UTP NVP: 68.1%

Main: Versiv

S/N: 1924100

Software Version: V6.7 Build 1

Calibration Date: 11/14/2020

Adapter: DSX-8000 (DSX-PLA804)

S/N: 4523169

Test Summary: PASS

Remote: Versiv

S/N: 1917273

Software Version: V6.7 Build 1

Calibration Date: 11/14/2020

Adapter: DSX-8000R (DSX-PC6A)

S/N: 4716155

Length (ft), Limit 295	[Pair 4,5]	295
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
NEXT (dB)	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
PS NEXT (dB)	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

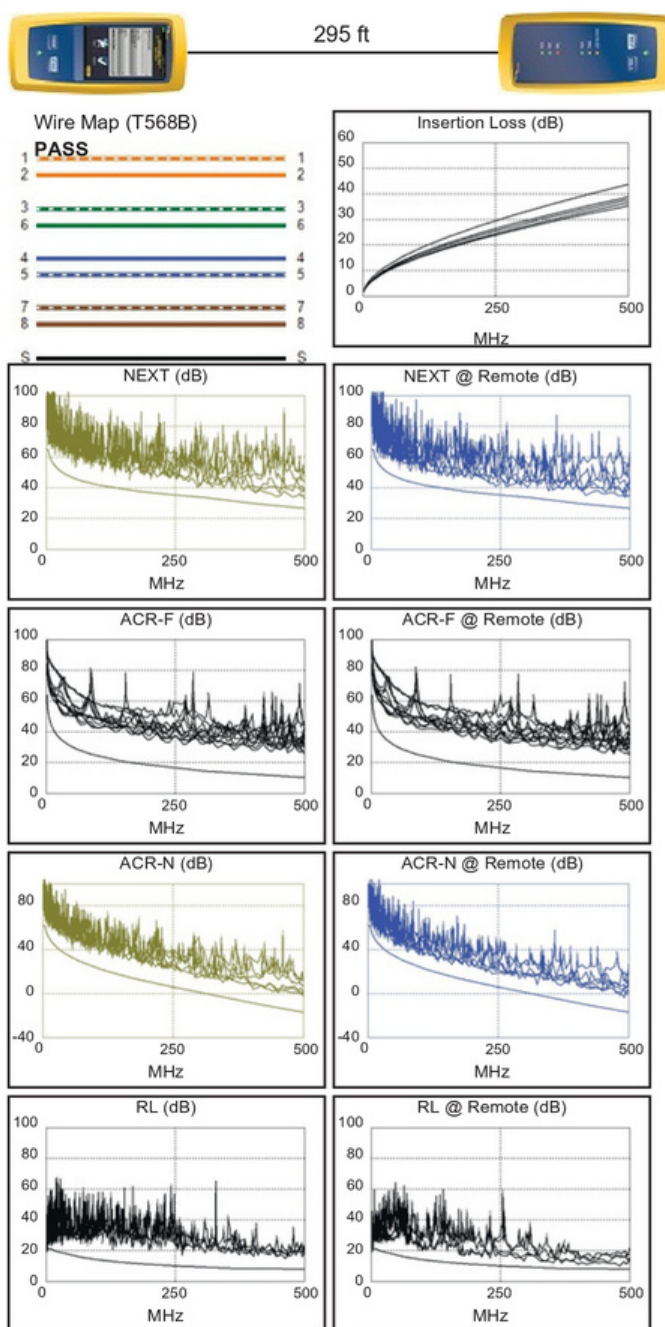
PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5-1,2	4,5-1,2	4,5-1,2	4,5-7,8
ACR-F (dB)	15.2	14.8	15.6	15.0
Freq. (MHz)	401.0	468.0	500.0	499.0
Limit (dB)	12.1	10.8	10.2	10.2
Worst Pair	1,2	1,2	7,8	7,8
PS ACR-F (dB)	16.6	16.7	17.5	17.3
Freq. (MHz)	401.0	436.0	491.0	489.0
Limit (dB)	9.1	8.4	7.4	7.4

N/A	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-4,5	3,6-4,5	3,6-7,8
ACR-N (dB)	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
PS ACR-N (dB)	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
RL (dB)	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	



FLUKE
networks.



CAT6A



Electrical Characteristics

PoE Certification Maximum PoE	PoE/PoE+/PoE++ 4PPoE
Wattage PoE Application	100W
Compatibility TIA 568-2.D Cat6A	802.3af/at/bt Type 4
Permanent Link +PoE Maximum	CERTIFIED
Application Speed @ 295ft Nominal	2.5GBASE-T
Velocity of Propagation (NVP)	66.5
Maximum Operating Voltage 1.0 -	300V
750MHz Impedance (Ω) Maximum	100 $\pm$ 15
Operating Frequency 1.0 - 750MHz	750MHz
Delay Skew (ns/100m) Pair-to-Ground	$\leq$ 45
Capacitance Unbalance (pF/km) Max.	$\leq$ 3300
Conductor DC Resistance 20°C (Ω /km)	86.8



Mechanical & Environmental Operating Parameters

Test Object	Jacket	Aging Condition ($^{\circ}\text{C}$ x hrs)	100 x 168 $\geq$ 85% of
Test Material	PVC	After Tensile Strength (Mpa)	unaged $\geq$ 50% of
Before- Tensile Strength (Mpa)	$\geq$ 13.8	Aging Condition - Elongation (%)	unaged
Aging- Elongation (%)	$\geq$ 100	Cold Bend ($-20 \pm 2^{\circ}\text{C}$ x 4hrs)	No Crack
Min. Bend Radius	4.5cm/1.75in	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

