

CAT6A

Cat6A Shielded Riser Solid Bare Copper

SKU: RCT-C6AR-FUTP-BC-WH

23AWG • 4 Twisted Pairs • CMR

F/UTP • 750MHz • Solid Bare 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	FEP
Average Thickness (mm)	0.268
Min Point Thickness (mm)	0.248
Conductor Insulation Dia. ($\pm 0.02\text{mm}$)	1.12
Twisted Pair Dia. ($\pm 0.02\text{mm}$)	2.24
Ripcord	Kevlar
Spline	Present
Polyethylene Tape	Present
Shielding	F/UTP
Drain Wire - Solid Tinned Copper (mm)	0.40

Conductor	Solid Bare Copper
Size	23AWG
Conductor Dia. ($\pm 0.05\text{mm}$)	0.585

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)	0.55
Min. Point Thickness (mm)	0.50
Outer Diameter ($\pm 0.2\text{mm}$)	7.60

Standards ReferenceANSI/TIA
568-2.DISO/IEC
11801Conductor
Insulation
PE Tape
Drain WireJacket
AL Foil Shield
Spline
Ripcord
Twisted Pairs

CAT6A



Cable ID: 6ACMR FUTP JACK

Test Limit: TIA Cat 6A MPTL (+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 F/UTP NVP: 70.0%

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]	296
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

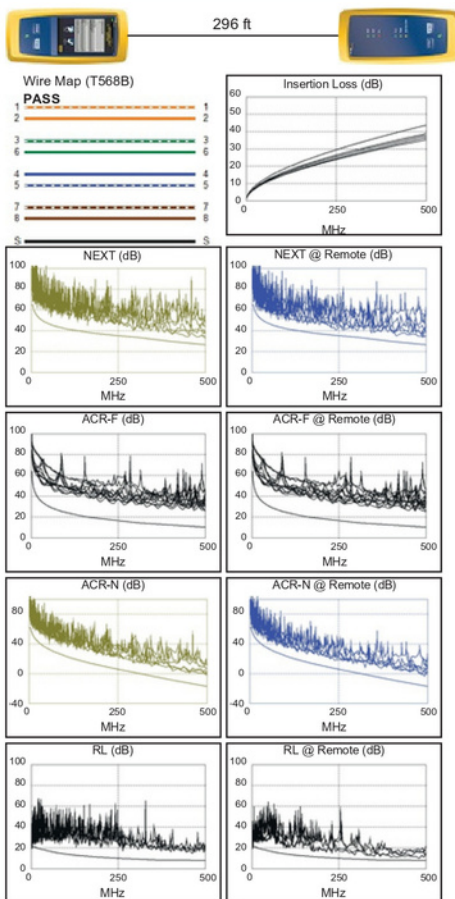
N/A	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-4,5	3,6-4,5	3,6-7,8
ACR-N (dB)	7.1	5.3	14.6	12.8
Freq. (MHz)	3.6	3.8	500.0	491.0
Limit (dB)	61.4	61.1	-17.1	-16.4
Worst Pair	3,6	3,6	3,6	3,6
PS ACR-N (dB)	8.9	7.1	14.8	14.3
Freq. (MHz)	4.9	3.9	500.0	483.0
Limit (dB)	56.6	58.5	-20.0	-18.6

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-T 2.5GBASE-T
10GBASE-T ATM-25
ATM-155 100Vb-AnyLan
TR-16 Active TR-16 Passive

100BASE-T4
5GBASE-T
ATM-S1
TR-4



CAT6A

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)	70
Maximum Operating Voltage	300V
1.0 - 750MHz Impedance (Ω)	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 (Ω /km)	68



Mechanical & Environmental Operating Parameters

Test Object	Jacket	Aging Condition (h x hrs)	100 x 168 $\geq$ 85% of
Test Material	FR-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°C x 4hrs)	No Crack
Min. Bend Radius	5.25cm/2.00in	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

