



Cat6A Plenum Unshielded Solid Bare Copper

SKU : TS-PBC/6A-BK

23AWG • 4 Twisted Pairs • CMP
U/UTP • 750MHz • Solid Bare Copper



Packaging Available

•1000ft Reel

Jacket Colors



Key Features

- Bandwidth tested up to 750 MHz
- Suitable for 1 and 10-Gigabit Ethernet
- 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

CAT6A 750MHz CMP PLENUM UTP 4-PAIR 23AWG EIA/TIA-568-C.2-1
0002FT-1000FT

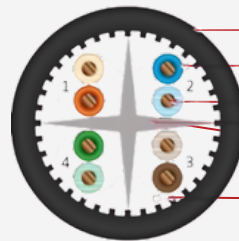
Technical Data

Operating Temp. Range	75°C/167°F
Max. Operating Voltage	300v
Bend Radius	2in/5mm

Insulation	HDPE
Average Thickness	0.250
Min Point Thickness	0.230
Conductor Insulation Dia. (±0.01mm)	1.08
Twisted Pair Dia. (±0.02mm)	2.16
Spline	PE

Jacket	CMP-PVC
Average Thickness	0.55
Min. Point Thickness	0.50
Overall Diameter (±0.1mm)	6.20
Ripcord	Yes

Conductor	Solid Bare Copper
Size	23AWG 0.58
Conductor Dia. (±0.05mm)	



- Jacket
- Insulation
- Conductor
- Separator/Spline
- Rip Cord

Color of Pairs

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





Cable ID: 417 UTP4 CAT6A BC-TS

Test Limit: TIA Cat 6 Perm. Link

Limits Version: V7.6 Date / Time: 10/10/2021

12:53:35 PM Operator: CHENGXIAOLAN

Headroom 3.9 dB (NEXT 3,6-4,5) Cable Type:

Cat 6A U/UTP NVP: 68.2%

Main: Versiv

S/N: 2034142

Software Version: V6.6 Build 2

Calibration Date: 12/23/2020

Adapter: DSX-8000 (DSX-PLA804)

S/N: 20475125

Test Summary: PASS

Remote: Versiv

S/N: 2035009

Software Version: V6.6 Build 2

Calibration Date: 12/23/2020

Adapter: DSX-8000R (DSX-PLA804)

S/N: 20485133

Length (ft), Limit 295	[Pair 4,5]	315
Prop. Delay (ns), Limit 498	[Pair 7,8]	487
Delay Skew (ns), Limit 44	[Pair 7,8]	18
Resistance (ohms)	[Pair 7,8]	14.24
Insertion Loss Margin (dB)	[Pair 7,8]	3.1
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	3,6-4,5	1,2-4,5	3,6-4,5
NEXT (dB)	4.8	3.9	5.2	6.9
Freq. (MHz)	12.6	91.5	233.5	233.5
Limit (dB)	56.2	42.5	35.8	35.8
Worst Pair	6,2	5,5	1,2	3,6
PS NEXT (dB)	225.0	91.5	6.3	7.4
Freq. (MHz)	33.5	39.9	233.5	234.0
Limit (dB)			33.2	33.2

PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5-3,6	4,5-3,6	4,5-3,6	4,5-3,6
ACR-F (dB)	6.4	6.5	6.4	6.5
Freq. (MHz)	206.5	206.5	206.5	206.5
Limit (dB)	17.9	17.9	17.9	17.9
Worst Pair	3,6	3,6	3,6	3,6
PS ACR-F (dB)	8.4	8.5	8.4	8.5
Freq. (MHz)	206.5	206.5	206.5	206.5
Limit (dB)	14.9	14.9	14.9	14.9

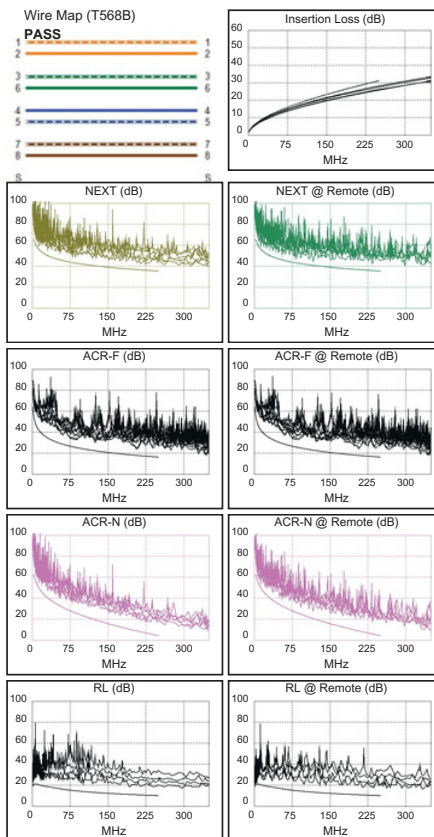
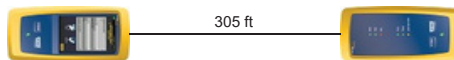
N/A	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-4,5	1,2-4,5	3,6-4,5
ACR-N (dB)	5.5	4.7	10.2	11.9
Freq. (MHz)	12.6	12.8	233.5	233.5
Limit (dB)	50.0	49.9	5.9	5.9
Worst Pair	3,6	3,6	1,2	3,6
PS ACR-N (dB)	7.4	6.9	9.8	12.3
Freq. (MHz)	12.6	12.8	233.5	234.0
Limit (dB)	47.6	47.5	3.3	3.2

PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5	4,5	4,5	4,5
RL (dB)	6.6	3.9	7.9	7.0
Freq. (MHz)	4.6	4.6	238.0	233.5
Limit (dB)	21.0	21.0	10.2	10.3

Compliant Network Standards:

10BASE-T 100BASE-TX
1000BASE-T 2.5GBASE-T
ATM-25 ATM-51
100VG-AnyLan TR-4
TR-16 Passive

100BASE-T4
5GBASE-T
ATM-155
TR-16 Active



Electrical Characteristics

Frequency MHz	Return Loss Min (dB)	Attenuation Max (dB/100m)	Next (Min dB)
1 4 8	20.0	2.1	74.3
16	23.0	3.8	65.3
20	24.5	5.3	60.8
62.5	25.0	7.5	56.2
100	25.0	8.4	54.8
200	21.5	15.0	47.4
250	20.1	19.1	44.3
300	18.0	27.6	39.8
500	17.3	31.1	38.3
750	16.8	34.3	37.1
	15.2	45.3	33.8
	14.0	62.3	31.1

Frequency MHz	PSNEXT Min (dB)	ELFEXT Min (dB/100m)	PSELFEXT Min (dB/100m)	Delay Max (ns/100m)
1 4 8	72.3	67.8	64.8	570.0
16	63.3	55.8	52.8	552.0
20	58.8	49.7	46.7	546.7
62.5	54.2	43.7	40.7	543.0
100	52.8	41.8	38.8	542.0
200	45.4	31.9	28.9	538.6
250	42.3	27.8	24.8	537.6
300	37.8	21.8	18.8	536.5
500	36.3	19.8	16.8	536.3
750	35.1	18.3	15.3	536.1
	31.8	13.8	10.8	535.6
	29.1	10.3	7.3	535.3

1.0-100.0MHz Impedance(ohms) 100 ± 15

1.0-100.0MHz Delay Skew(ns/100m) ≤ 45

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

Max. Conductor DC Resistance
20oC (ohms/km) 72.2

Resistance Unbalance (%) ≤ 5

Mechanical Characteristics

Test Object	Jacket
Test Material	PVC
Before Tensile Strength (Mpa)	>=13.8
Aging Elongation (%)	>=150
Aging Condition (°Cxhrs)	100x168
After Tensile Strength (Mpa)	>=85% of unaged
Aging Elongation (%)	>=50% of unaged
Cold Bend (-20+2° Cx4hrs)	No Crack

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