

# Cat6 Plenum UTP Pure Copper

**SKU: TS-PBC/6-1**

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



## Key Features

- Bandwidth tested up to 550 MHz
- 23 AWG
- Easily Identified Color Striped Pairs
- Sequential Footage Markings Every 2ft

## Print Legend

CAT6 550MHZ CMP PLENUM UTP 4-PAIR  
23AWG EIA/TIA-568-C.2-1  
0002FT-1000FT

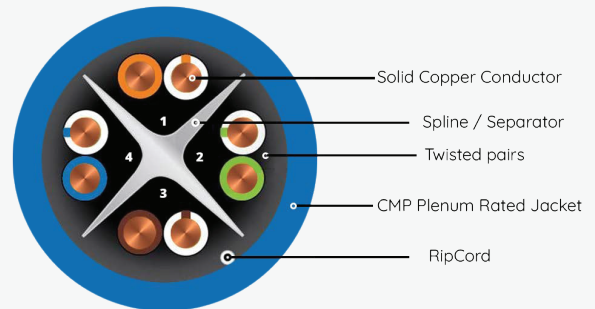
## Technical Data

**Operating Temp. Range** 75°C/167°F

**Max. Operating Voltage** 300v

**Bend Radius** 2in/5mm

Insulation		HDPE
Average Thickness		0.220
Min Point Thickness		0.200
<b>Conductor Insulation Dia. (±0.01mm)</b>		<b>0.95</b>
Twisted Pair Dia. (±0.02mm)		2.02
Spline		PE
Jacket		CMP-PVC
Average Thickness		0.50
Min. Point Thickness		0.45
<b>Overall Diameter (±0.1mm)</b>		<b>6.00</b>
Ripcord		Yes
Conductor		Solid Bare Copper
Size		23AWG
Conductor Dia. (±0.05mm)		0.57



## 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: 225-C UTP4 CAT6 UTP CAT6 BC-TS**

Test Limit: TIA Cat 6 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 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

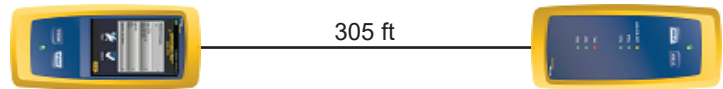
Software Version: V6.5 Build 5

Calibration Date: 12/23/2020

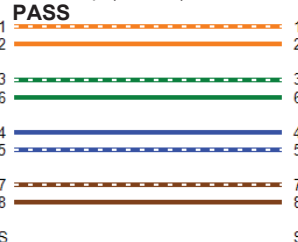
Adapter: DSX-8000R (DSX-PLA804)

S/N: 20485133

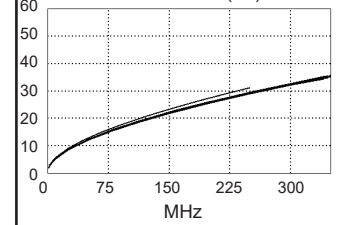
Length (ft), Limit 295	[Pair 3,6]	305
Prop. Delay (ns), Limit 498	[Pair 7,8]	464
Delay Skew (ns), Limit 44	[Pair 7,8]	15
Resistance (ohms)	[Pair 7,8]	15.53
Insertion Loss Margin (dB)	[Pair 7,8]	1.6
Frequency (MHz)	[Pair 7,8]	250.0
Limit (dB)	[Pair 7,8]	31.1



Wire Map (T568B)

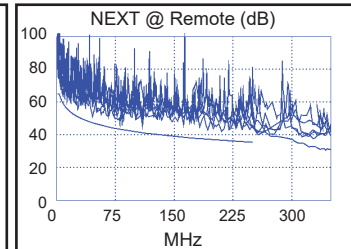
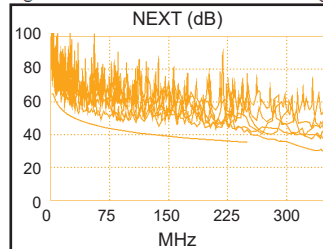


Insertion Loss (dB)

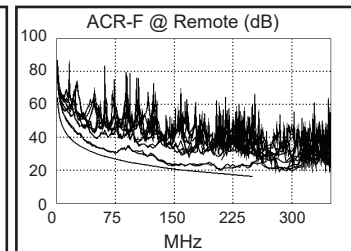
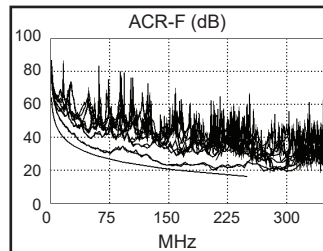


Worst Case Margin Worst Case Value

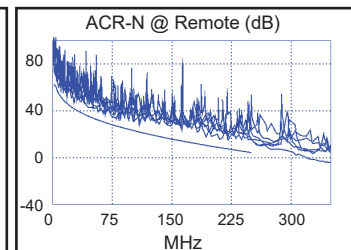
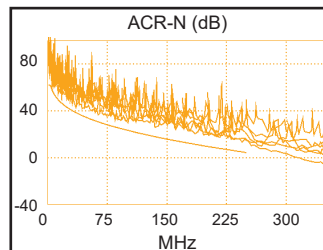
PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	1,2-3,6	3,6-4,5	1,2-4,5
<b>NEXT (dB)</b>	3.9	3.5	6.0	5.5
Freq. (MHz)	35.5	80.8	246.0	210.5
Limit (dB)	49.1	43.3	35.5	36.6
Worst Pair	3,6	3,6	3,6	1,2
<b>PS NEXT (dB)</b>	5.2	4.4	6.2	6.0
Freq. (MHz)	5.5	83.8	236.0	220.5
Limit (dB)	59.6	40.6	33.1	33.6



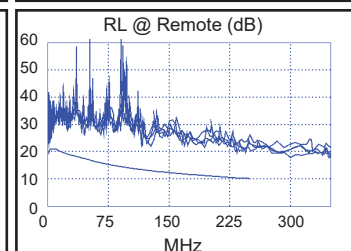
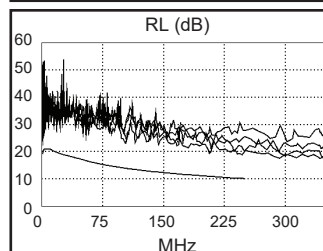
PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-1,2	3,6-1,2	3,6-1,2	3,6-1,2
<b>ACR-F (dB)</b>	2.0	1.8	2.0	1.9
Freq. (MHz)	209.5	151.0	209.5	208.5
Limit (dB)	17.8	20.6	17.8	17.8
Worst Pair	1,2	1,2	1,2	1,2
<b>PS ACR-F (dB)</b>	4.3	4.3	4.3	4.3
Freq. (MHz)	209.0	208.5	209.0	208.5
Limit (dB)	14.8	14.8	14.8	14.8



N/A	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	1,2-3,6	3,6-4,5	1,2-3,6
<b>ACR-N (dB)</b>	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
<b>PS ACR-N (dB)</b>	5.5	5.5	9.4	10.2
Freq. (MHz)	5.5	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
<b>RL (dB)</b>	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		

## 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
400	15.9	48.5	26.3
550	14.9	58.8	24.2

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
400	23.3	11.7	8.7	535.8
550	21.2	8.9	5.9	535.5

**1.0-100.0MHz Impedance (ohms)** 100 ± 15

**1.0-100.0MHz Delay Skew (ns/100m)** ≤45

**Pair-to-Ground Capacitance** ≤3300

**Unbalance (pF/100m)**

**Max. Conductor DC Resistance** 72.2

**20oC (ohms/km)**

**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

**Returns?** No problem.  
**Guarantee?** Of course

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