

**CAT 6**



# Cat6 Shielded Plenum

**SKU: TS-SPBC/6-BK-1**  
23AWG • 4 Twisted Pairs • CMP • F/UTP  
550MHz • Solid Copper



### Packaging Available

- 1000ft Reel

### Jacket Colors



## Key Features

- Bandwidth tested up to 550 MHz
- 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

CAT6 550MHz CMP PLENUM F/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 Diameter Min.** 4in/10mm

Insulation	HDPE
Average Thickness	0.248
Min Point Thickness	0.228
<b>Conductor Insulation Dia. (±0.01mm)</b>	<b>1.08</b>
Twisted Pair Dia. (±0.02mm)	2.16
Spline	PE
PE-Tape	Yes
Jacket	CMP-PVC
Average Thickness	0.60
Min. Point Thickness	0.55
<b>Overall Diameter (±0.1mm)</b>	<b>7.00</b>
Ripcord	Yes
Shield	FTP
Drain Wire (Solid Tinned Copper)	0.40
AL Foil Shield	Yes



Conductor	Solid Bare Copper
Size	23AWG
Conductor Dia. (±0.05mm)	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 ID: 490 FTP4 CAT6 0.565CU -1**

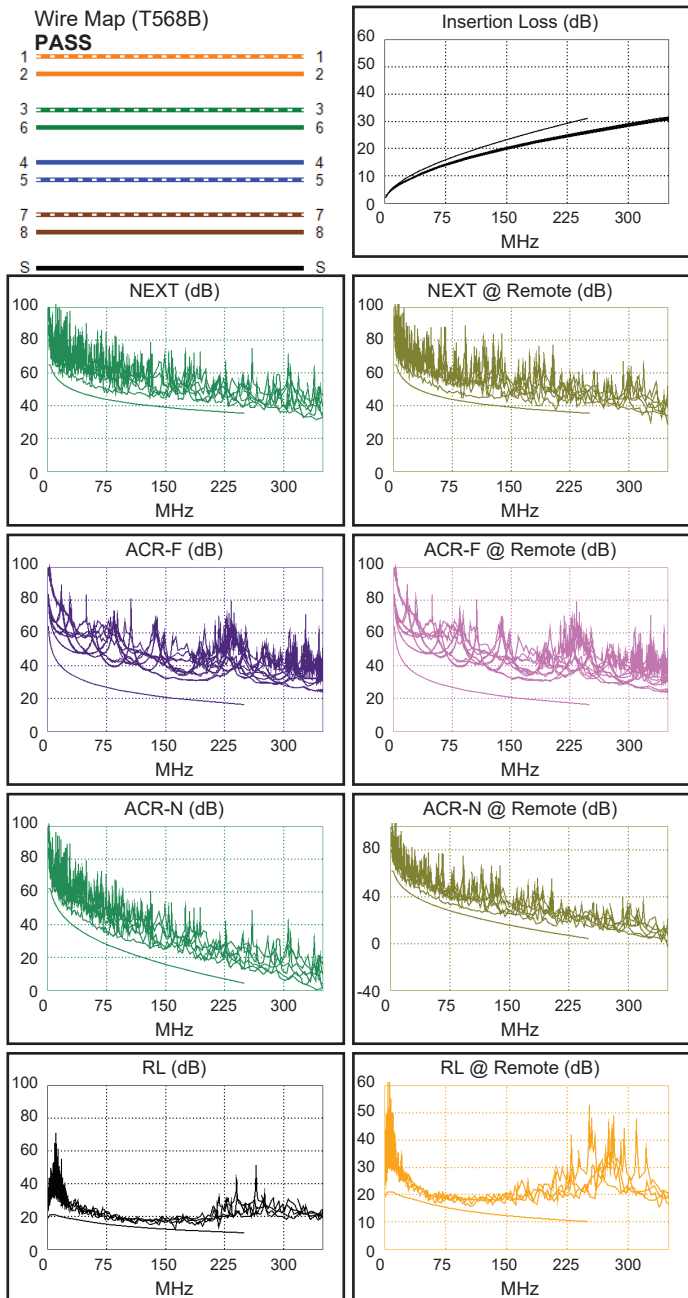
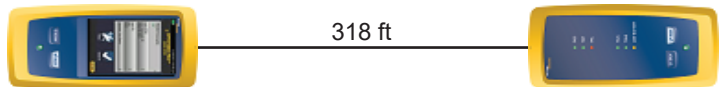
**Test Limit: TIA Cat 6 Perm. Link**  
Limits Version: V7.6  
Date / Time: 12/22/2021 04:26:49 PM  
Operator: LIXIAOHONG  
**Headroom 0.6 dB (NEXT 1,2-4,5)**  
Cable Type: Cat 6 F/UTP  
NVP: 70.0%

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 7,8]	318
Prop. Delay (ns), Limit 498	[Pair 4,5]	486
Delay Skew (ns), Limit 44	[Pair 4,5]	24
Resistance (ohms)	[Pair 4,5]	14.65
Insertion Loss Margin (dB)	[Pair 4,5]	4.7
Frequency (MHz)	[Pair 4,5]	250.0
Limit (dB)	[Pair 4,5]	31.1



Worst Case Margin Worst Case Value

PASS	MAIN	SR	MAIN	SR
Worst Pair	1,2-4,5	1,2-4,5	1,2-4,5	1,2-4,5
<b>NEXT (dB)</b>	2.3	0.6*	2.3	0.7
Freq. (MHz)	233.5	207.5	233.5	208.0
Limit (dB)	35.8	36.7	35.8	36.6
Worst Pair	1,2	3,6	1,2	1,2
<b>PS NEXT (dB)</b>	3.1	2.1	3.2	2.5
Freq. (MHz)	230.5	87.0	249.0	208.5
Limit (dB)	33.3	40.3	32.7	34.0

PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-4,5	3,6-4,5	3,6-4,5
<b>ACR-F (dB)</b>	11.4	11.2	12.2	12.2
Freq. (MHz)	152.0	152.0	198.0	200.0
Limit (dB)	20.6	20.6	18.3	18.2
Worst Pair	4,5	4,5	4,5	4,5
<b>PS ACR-F (dB)</b>	12.0	11.8	12.1	11.8
Freq. (MHz)	174.5	173.0	175.0	173.0
Limit (dB)	16.4	16.4	16.3	16.4

N/A	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-7,8	1,2-4,5	1,2-4,5
<b>ACR-N (dB)</b>	5.9	4.3	8.3	4.4
Freq. (MHz)	72.0	87.0	249.0	208.0
Limit (dB)	28.6	25.6	4.3	8.7
Worst Pair	3,6	3,6	1,2	1,2
<b>PS ACR-N (dB)</b>	6.0	4.2	8.3	10.1
Freq. (MHz)	76.0	87.0	249.0	245.0
Limit (dB)	25.3	23.1	1.7	2.1

PASS	MAIN	SR	MAIN	SR
Worst Pair	7,8	7,8	7,8	7,8
<b>RL (dB)</b>	0.2*	0.4*	0.2	1.8
Freq. (MHz)	162.5	67.0	162.5	105.5
Limit (dB)	11.9	15.7	11.9	13.8

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

\* Measurement is within the accuracy limits of the instrument.

# Electrical Characteristics

Frequency MHz	Return Loss Min (dB)	Attenuation Max (dB/100m)	Next (Min dB)
1	21.0	1.9	65.0
4	23.4	3.5	64.1
8	24.6	5.0	59.4
16	25.0	7.0	54.6
20	25.0	7.8	53.1
62.5	21.5	14.0	45.1
100	20.1	18.0	41.8
200	18.0	26.1	36.9
250	17.3	29.5	36.1
350	16.3	39.8	35.3
400	15.9	43.0	34.5
550	14.9	51.8	33.2

Frequency MHz	PSNEXT Min (dB)	ELFEXT Min (dB/100m)	PSELFEXT Min (dB/100m)	Delay Max (ns/100m)
1	62.0	64.2	61.2	520.5
4	61.8	52.1	49.1	504.3
8	57.0	46.1	43.1	499.6
16	55.5	40.1	37.1	496.2
20	50.7	38.2	35.2	495.3
62.5	42.7	28.3	25.3	492.2
100	39.3	24.2	21.2	491.3
200	34.3	18.2	15.2	490.4
250	32.7	16.2	13.2	490.1
350	32.5	16.0	13.0	490.0
400	32.0	15.8	12.8	490.0
550	31.2	13.0	10.0	490.0

**1.0- 500.0MHz Impedance (ohms)** 100 ± 15

**1.0- 500.0MHz Delay Skew (ns/100m)** ≤45

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

**Max. Conductor DC Resistance 20oC (ohms/km)** 68

**Resistance Unbalance (%)** ≤5

## Mechanical Characteristics

Test Object	Jacket
Test Material	PVC
Before Tensile Strength (Mpa)	>=13.8
Aging Elongation (%)	>=100
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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