

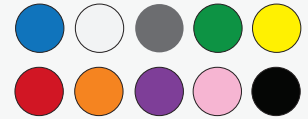
Cat6 Plenum Unshielded

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

Lengths Available

- 500ft
- 1000ft

Jacket Colors



Key Features

- Bandwidth tested up to 550 MHz
- Suitable for 1 Gigabit and 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 90W
- Sequential footage markings every 2ft

Technical Data

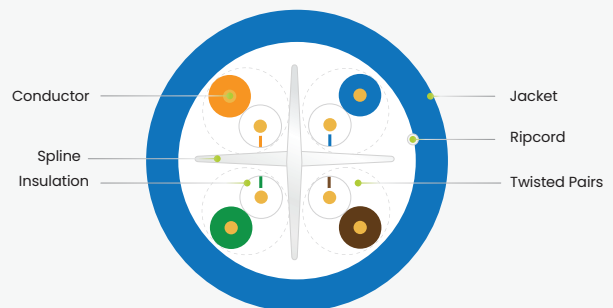
Insulation		FEP	Color of Pairs	
Average Thickness (mm)		0.22	Pair 1	Blue- White/Blue
Min Point Thickness (mm)		0.20	Pair 2	Orange- White/Orange
Conductor Insulation Dia. (±0.02mm)		1.00	Pair 3	Green- White/Green
Twisted Pair Dia. (±0.02mm)		2.02	Pair 4	Brown- White/Brown
Ripcord		Kevlar		
Spline		Present		
Polyethylene Tape		Not Present		
Shielding		U/UTP		
Conductor		Solid Bare Copper	Cable Jacket	
Size		23AWG	Average Thickness (mm)	FR-PVC 0.50
Conductor Dia. (±0.05mm)		0.57	Min. Point Thickness (mm)	0.45
			Outer Diameter (±0.2mm)	6.00

Standards Reference

UL-444 /
cETLus

ANSI/TIA
568-2.D

ISO/IEC
11801



Print Legend

Cat6 CMP U/UTP 75°C 4PR 23AWG

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Electrical Characteristics

PoE Certification	PoE/PoE+/PoE++ 4PPoE
Maximum PoE Wattage	90W
PoE Application Compatibility	802.3af/at/bt Type 4
TIA 568-2.D Cat6 Permanent Link +PoE	CERTIFIED
Maximum Application Speed @ 295ft	5GBASE-T
Nominal Velocity of Propagation (NVP)	71.7
Maximum Operating Voltage	300V
1.0 - 550MHz Impedance (Ω)	100 \pm 15
Maximum Operating Frequency	550MHz
1.0 - 550MHz Delay Skew (ns/100m)	\leq 45
Pair-to-Ground Capacitance Unbalance (pF/km)	\leq 3300
Max. Conductor DC Resistance 20°C (Ω /km)	72.2



Mechanical & Environmental Operating Parameters

Test Object	Jacket	Aging Condition ($^{\circ}\text{C} \times \text{hrs}$)	100 x 168
Test Material	FR-PVC	After Tensile Strength (Mpa)	\geq 85% of unaged
Before- Tensile Strength (Mpa)	\geq 13.8	Aging Condition - Elongation (%)	\geq 50% of unaged
Aging- Elongation (%)	\geq 100	Cold Bend ($-20 \pm 2^{\circ}\text{C} \times 4\text{hrs}$)	No Crack
Min. Bend Radius	2.4cm/1.00in	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

Tested Compatible Accessories

Product

Part Number

Cat6 Punch Down Keystone Jack Unshielded	6EPD90CMPT
Cat6 Toolless Keystone Jack Unshielded	6ETL90CMPT
Cat6/6A Pass Through RJ45 Connectors Unshielded	MDPTRJ45
Cat6/6A Standard RJ45 Connectors Unshielded	LGRJ45
Large Cut-to-Fit RJ45 Strain Relief Boot 5.5 - 7mm	LGCTF
Cat6A Field Term Plug Unshielded 7.00mm	6AFT



Cable ID: 6ECMPGRN PD KSJ TO PD KSJ 09/20

Test Summary: PASS

Test Limit: TIA Cat 6 Perm. Link (+PoE)

Main: Versiv

Remote: Versiv

Limits Version: V7.5

S/N: 1917273

S/N: 1924100

Date / Time: 09/18/2020 08:14:39 AM

Software Version: V6.5 Build 5

Software Version: V6.5 Build 5

Operator: DON S

Calibration Date: 11/08/2019

Calibration Date: 11/08/2019

Headroom 7.0 dB (NEXT 1,2-4,5)

Adapter: DSX-8000 (DSX-PLA804)

Adapter: DSX-8000R (DSX-PLA804)

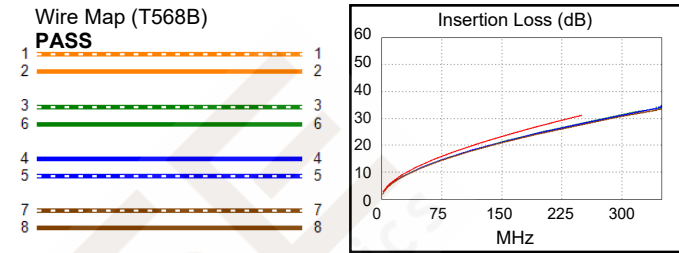
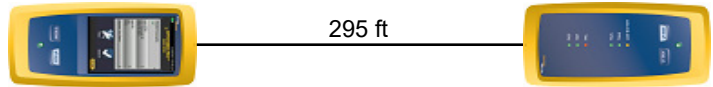
Cable Type: Cat 6 U/UTP

S/N: 4523168

S/N: 4523169

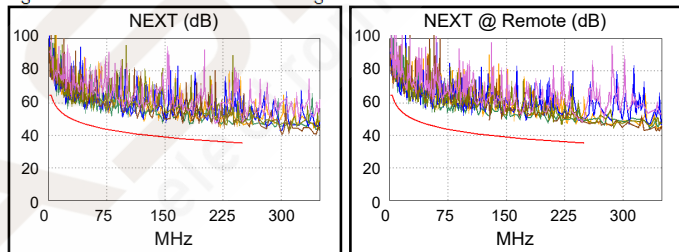
NVP: 71.7%

Length (ft), Limit 295	[Pair 7,8]	295
Prop. Delay (ns), Limit 498	[Pair 4,5]	436
Delay Skew (ns), Limit 44	[Pair 4,5]	18
Resistance (ohms), Limit 21.00	[Pair 4,5]	13.77
Resist. Unbal. (ohms), Limit 0.400	[Pair 1,2]	0.036
Resist. P2P Unbal. (ohms), Limit 0.480	[Pair 1,2-4,5]	0.093
Insertion Loss Margin (dB)	[Pair 3,6]	2.9
Frequency (MHz)	[Pair 3,6]	249.5
Limit (dB)	[Pair 3,6]	31.1

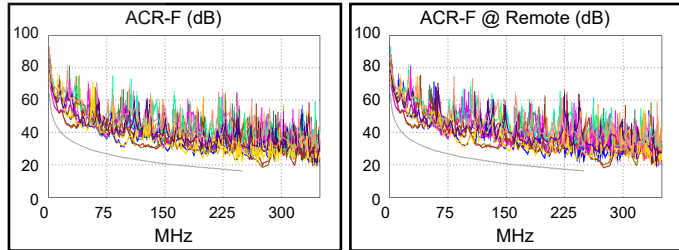


Worst Case Margin Worst Case Value

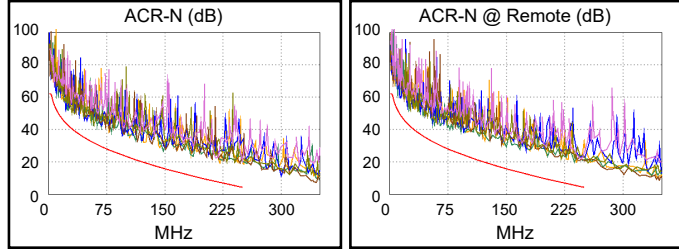
PASS	MAIN	SR	MAIN	SR
Worst Pair	1,2-4,5	3,6-7,8	1,2-3,6	1,2-4,5
NEXT (dB)	7.0	9.2	9.3	11.1
Freq. (MHz)	24.8	26.6	221.5	237.0
Limit (dB)	51.6	51.1	36.2	35.7
Worst Pair	1,2	3,6	4,5	4,5
PS NEXT (dB)	7.3	9.5	9.5	11.0
Freq. (MHz)	24.9	4.4	220.0	248.5
Limit (dB)	49.1	61.2	33.6	32.7



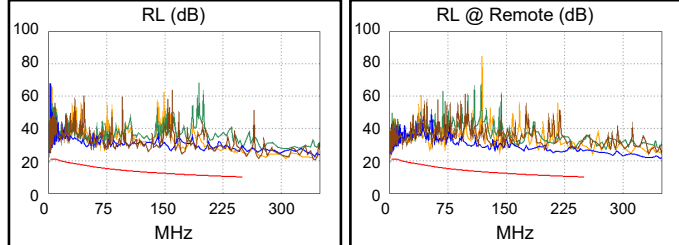
PASS	MAIN	SR	MAIN	SR
Worst Pair	7,8-1,2	1,2-7,8	7,8-1,2	1,2-7,8
ACR-F (dB)	5.8	5.9	6.1	5.9
Freq. (MHz)	241.5	250.0	250.0	250.0
Limit (dB)	16.5	16.2	16.2	16.2
Worst Pair	1,2	1,2	1,2	7,8
PS ACR-F (dB)	7.8	8.0	7.8	8.2
Freq. (MHz)	241.5	204.0	241.5	250.0
Limit (dB)	13.5	15.0	13.5	13.2



N/A	MAIN	SR	MAIN	SR
Worst Pair	1,2-4,5	3,6-4,5	1,2-3,6	1,2-3,6
ACR-N (dB)	7.7	9.7	14.0	14.2
Freq. (MHz)	24.8	4.4	243.5	240.5
Limit (dB)	42.8	59.8	4.9	5.2
Worst Pair	1,2	3,6	3,6	4,5
PS ACR-N (dB)	8.0	9.8	14.3	14.0
Freq. (MHz)	24.9	4.4	250.0	248.5
Limit (dB)	40.3	57.5	1.6	1.8



PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5	4,5	7,8	4,5
RL (dB)	8.5	7.4	12.7	13.9
Freq. (MHz)	3.8	3.8	172.0	211.0
Limit (dB)	21.0	21.0	11.6	10.8



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