

Cat6A Direct Burial Unshielded

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

Lengths Available

- 500ft
- 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
- CMX jacket can withstand sunlight, dirt, snow, and moisture
- Supports Power over Ethernet: PoE/PoE+/PoE++ (IEEE 802.3af/at/bt) 4PPoE up to 90W
- cETLus Certified, RoHS-3 Compliant

Technical Data

Insulation	PE
Average Thickness (mm)	0.213
Min Point Thickness (mm)	0.196
Conductor Insulation Dia. (±0.02mm)	1.01
Twisted Pair Dia. (±0.02mm)	2.02
Ripcord	Nylon
Spline	PE
Polyethylene Tape	Present
Shielding	U/UTP
Water Resistance	Jacket & Dry Tape

Conductor	Solid Bare Copper
Size	23AWG
Conductor Dia. (±0.05mm)	0.585

Standards Reference

UL-444 /
cETLus

ANSI/TIA
568-2.D

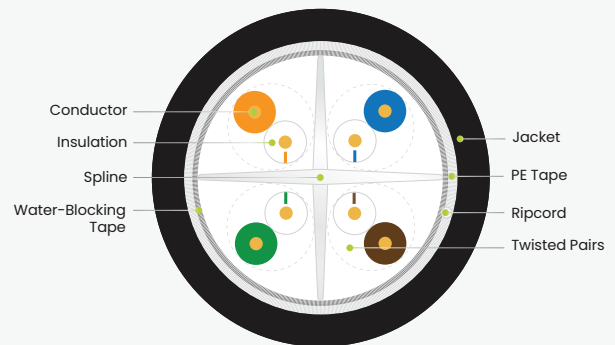
ISO/IEC
11801

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

Cable Jacket	LLDPE
Average Thickness (mm)	0.60
Min. Point Thickness (mm)	0.55
Outer Diameter (±0.2mm)	6.80



Print Legend

CAT6A CMX U/UTP DIRECT BURIAL UV 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 Cat6A Permanent Link +PoE	CERTIFIED
Maximum Application Speed @ 295ft	10GBASE-T
Nominal Velocity of Propagation (NVP)	68.2
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 ($^{\circ}\text{C} \times \text{hrs}$)	100 x 168
Test Material	LLDPE	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	3.5cm/1.5in	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

Cat6A Punch Down Keystone Jack Unshielded	6APD90CMPT
Cat6A Toolless Keystone Jack Unshielded	6ATL90CMPT
Cat6/6A Standard RJ45 Connectors Unshielded	LGRJ45
Small Slip-On RJ45 Strain Relief Boot 7.00mm	SMSLIP
Cat6A Field Term Plug Unshielded	6AFT



Cable ID: 6ACMXBLK 10/21 JACKET DATE

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

Limits Version: V7.6

Date / Time: 11/29/2021 05:47:22 PM

Operator: DON S

Headroom 7.2 dB (NEXT 1,2-3,6)

Cable Type: Cat 6A U/UTP

NVP: 68.2%

Main: Versiv

S/N: 1924100

Software Version: V6.6 Build 2

Calibration Date: 11/14/2020

Adapter: DSX-8000 (DSX-PLA804)

S/N: 4523168

Remote: Versiv

S/N: 1917273

Software Version: V6.6 Build 2

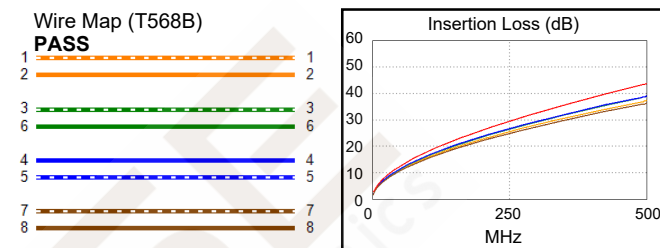
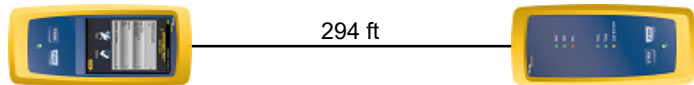
Calibration Date: 11/14/2020

Adapter: DSX-8000R (DSX-PLA804)

S/N: 4523169

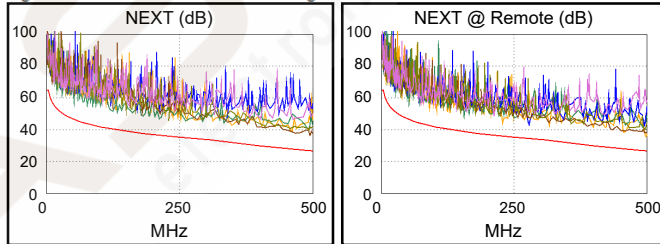
Test Summary: PASS

Length (ft), Limit 295	[Pair 7,8]	294
Prop. Delay (ns), Limit 498	[Pair 4,5]	456
Delay Skew (ns), Limit 44	[Pair 4,5]	18
Resistance (ohms), Limit 21.00	[Pair 4,5]	12.62
Resist. Unbal. (ohms), Limit 0.370	[Pair 1,2]	0.014
Resist. P2P Unbal. (ohms), Limit 0.440	[Pair 1,2-4,5]	0.082
Insertion Loss Margin (dB)	[Pair 4,5]	4.7
Frequency (MHz)	[Pair 4,5]	500.0
Limit (dB)	[Pair 4,5]	43.8

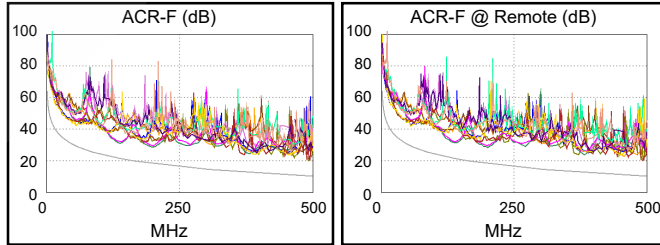


Worst Case Margin Worst Case Value

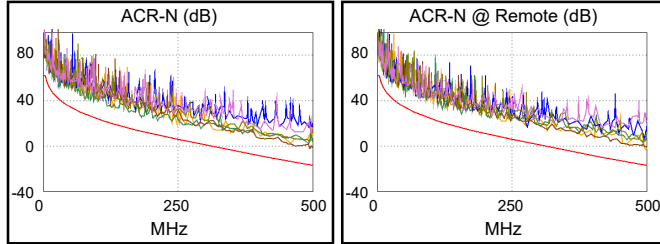
PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	1,2-3,6	3,6-4,5	1,2-3,6
NEXT (dB)	9.6	7.2	9.6	9.0
Freq. (MHz)	494.0	228.5	494.0	498.0
Limit (dB)	26.8	36.0	26.8	26.7
Worst Pair	1,2	3,6	3,6	3,6
PS NEXT (dB)	10.0	9.0	11.1	9.4
Freq. (MHz)	292.0	228.5	494.0	498.0
Limit (dB)	31.6	33.4	23.9	23.8



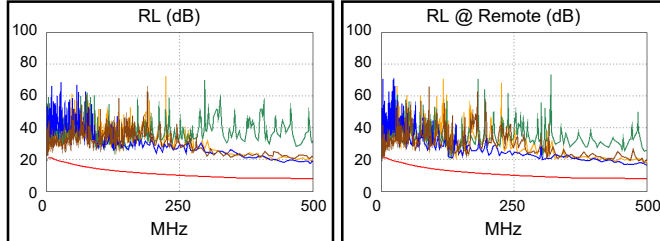
PASS	MAIN	SR	MAIN	SR
Worst Pair	1,2-4,5	4,5-3,6	3,6-4,5	4,5-3,6
ACR-F (dB)	9.6	9.7	9.7	9.7
Freq. (MHz)	137.5	492.0	491.0	492.0
Limit (dB)	21.4	10.4	10.4	10.4
Worst Pair	4,5	3,6	4,5	3,6
PS ACR-F (dB)	11.6	11.0	12.2	11.0
Freq. (MHz)	191.0	492.0	492.0	492.0
Limit (dB)	15.6	7.4	7.4	7.4



N/A	MAIN	SR	MAIN	SR
Worst Pair	1,2-4,5	1,2-3,6	3,6-4,5	1,2-3,6
ACR-N (dB)	12.1	10.1	14.4	13.8
Freq. (MHz)	26.9	228.5	494.0	498.0
Limit (dB)	41.9	7.9	-16.6	-16.9
Worst Pair	3,6	3,6	3,6	3,6
PS ACR-N (dB)	12.7	11.9	15.9	14.2
Freq. (MHz)	10.8	228.5	494.0	498.0
Limit (dB)	49.3	5.3	-19.5	-19.8



PASS	MAIN	SR	MAIN	SR
Worst Pair	7,8	7,8	4,5	4,5
RL (dB)	5.8	3.7	9.1	7.8
Freq. (MHz)	6.1	4.9	467.0	468.0
Limit (dB)	21.0	21.0	8.0	8.0



Compliant Network Standards:

10BASE-T	100BASE-TX	100BASE-T4
1000BASE-T	2.5GBASE-T	5GBASE-T
10GBASE-T	ATM-25	ATM-51
ATM-155	100VG-AnyLan	TR-4
TR-16 Active	TR-16 Passive	