

Ethernet Cable, Cat6A, Direct
Burial, U/UTP, 304.8 m, 1000 ft.

RoHS
Compliant

Stock No.: CAT6A-3041D-UTP-B

FEATURES

- CMX
- U/UTP
- 23 AWG
- Solid Copper



Product Description

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-E
- CMX jacket can withstand sunlight, dirt, snow, and moisture
- Supports Power over Ethernet: PoE/PoE+/PoE++ (IEEE 802.3af/at/bt) 4PPoE up to 100W
- cETLus Certified, RoHS-3 Compliant

General Specifications

Attribute	Value
Terminated/Unterminated	Unterminated
Connector Type	RJ45
Cable Type	Ethernet
Length	304.8m / 1000ft
Gauge	23 AWG
Conductor	Bare Copper
Shield/Unshielded	Unshielded
Voltage Rating	300V
1.0 - 550MHz Impedance (Ω)	100 \pm 15
Maximum Operating Frequency	750MHz
Operating & Storage Temp.	-40°C to 75°C -40°F to 167°F
Installation Temp.	-20°C to 75°C -4°F to 167°F
Jacket Color	White

Product Drawing

Technical Data

Insulation	PE
Average Thickness (mm)	0.213
Min Point Thickness (mm)	0.196
Conductor Insulation Dia. ($\pm 0.02\text{mm}$)	1.01
Twisted Pair Dia. ($\pm 0.02\text{mm}$)	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. ($\pm 0.05\text{mm}$)	0.585

Standards Reference

UL-444 /
cETLus

ANSI/TIA
568.2-E

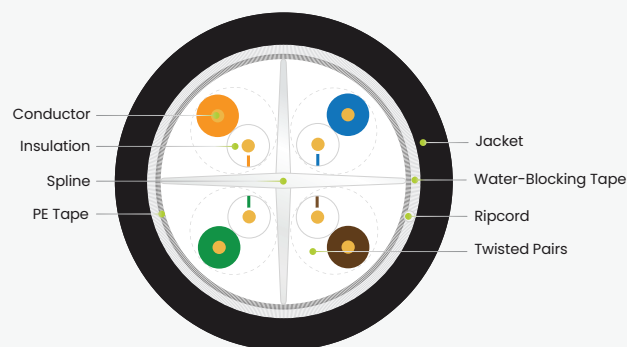
ISO/IEC
11801

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

	LLDPE
Average Thickness (mm)	0.60
Min. Point Thickness (mm)	0.55
Outer Diameter ($\pm 0.2\text{mm}$)	6.80



Electrical Characteristics

PoE Certification	PoE/PoE+/PoE++ 4PPoE
Maximum PoE Wattage	100W
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)	≤ 45
Pair-to-Ground Capacitance Unbalance (pF/km)	≤ 3300
Max. Conductor DC Resistance 20°C (Ω/km)	68



Mechanical & Environmental Operating Parameters

Test Object	Jacket	Aging Condition (°C x hrs)	100 x 168
Test Material	LLDPE	After Tensile Strength (Mpa)	≥85% of unaged
Before- Tensile Strength (Mpa)	≥13.8	Aging Condition - Elongation (%)	≥50% of unaged
Aging- Elongation (%)	≥100	Cold Bend(-20 ± 2°C x 4hrs)	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

Print Legend

EASE Cat6A UTP DIRECT BURIAL UV 75°C 4PR 23AWG c(ETL)us ANSI/TIA 568.2-E 750MHz RoHS-3 ****FT

Dimensions: Millimeters (Inches)

Part Number Table

Part Number	Description
CAT6A-3041D-UTP-B	Ethernet Cable, Cat6A, Direct Burial, U/UTP, 304.8 m, 1000 ft.

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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

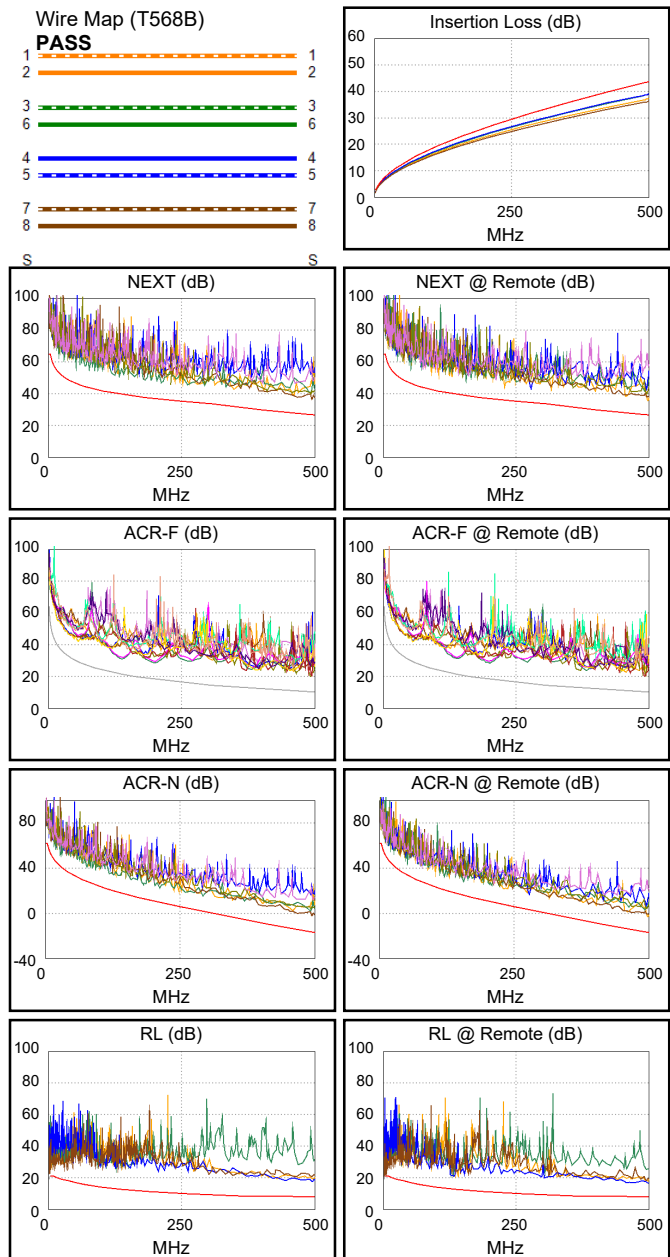
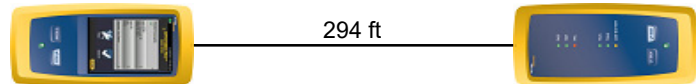
PASS	MAIN	SR	MAIN	SR
Worst Pair	1,2-4,5	4,5-3,6	3,6-4,5	4,5-3,6
ACR-F (dB)	9.6	9.7	9.7	9.7
Freq. (MHz)	137.5	492.0	491.0	492.0
Limit (dB)	21.4	10.4	10.4	10.4
Worst Pair	4,5	3,6	4,5	3,6
PS ACR-F (dB)	11.6	11.0	12.2	11.0
Freq. (MHz)	191.0	492.0	492.0	492.0
Limit (dB)	15.6	7.4	7.4	7.4

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	



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