

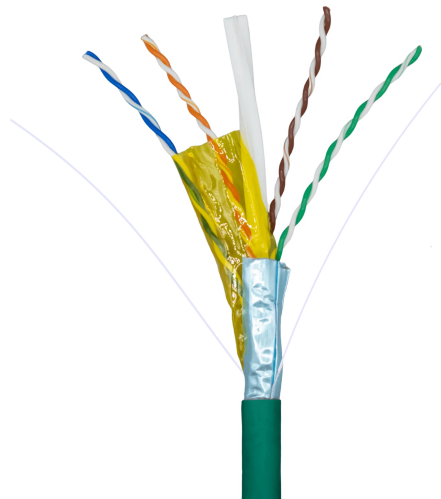
Ethernet Cable, Cat6A, Plenum,
F/UTP, 304.8 m, 1000 ft.

RoHS
Compliant

Stock No.: CAT6A-3041P-FTP-B

FEATURES

- CMP
- F/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
- RoHS-3 Compliant
- Easily identified color striped pairs
- Supports Power over Ethernet: PoE/PoE+/PoE++ (IEEE 802.3af/at/bt) 4PPoE up to 100W
- Sequential footage markings every 2ft

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	Shielded
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	Green

Product Drawing

Technical Data

Insulation	FEP
Average Thickness (mm)	0.268
Min Point Thickness (mm)	0.248
Conductor Insulation Dia. ($\pm 0.02\text{mm}$)	1.12
Twisted Pair Dia. ($\pm 0.02\text{mm}$)	2.24
Ripcord	Kevlar
Spline	Present
Polyethylene Tape	Present
Shielding	F/UTP
Drain Wire - Solid Tinned Copper (mm)	0.40

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

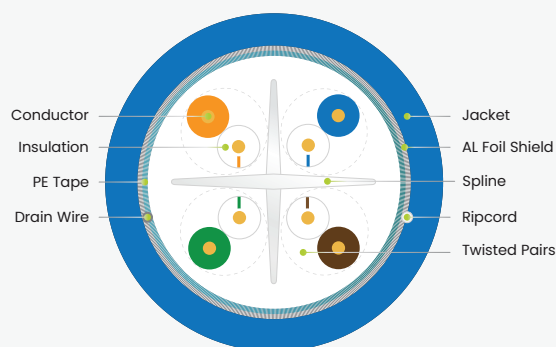
ISO/IEC
11801

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

	FR-PVC
Average Thickness (mm)	0.55
Min. Point Thickness (mm)	0.50
Outer Diameter ($\pm 0.2\text{mm}$)	7.60



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)	70
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	FR-PVC	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	5.25cm/2.00in	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

Print Legend

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

Dimensions: Millimeters (Inches)

Part Number Table

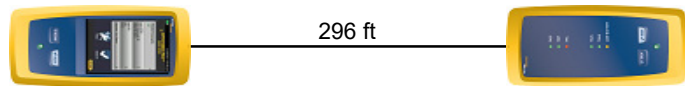
Part Number	Description
CAT6A-3041P-FTP-B	Ethernet Cable, Cat6A, Plenum, F/UTP, 304.8 m, 1000 ft.

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Test Summary: PASS

Length (ft), Limit 295	[Pair 4,5]	296
Prop. Delay (ns), Limit 498	[Pair 1,2]	460
Delay Skew (ns), Limit 44	[Pair 1,2]	30
Resistance (ohms), Limit 21.00	[Pair 1,2]	12.84
Resist. Unbal. (ohms)	[Pair 3,6]	0.124
Resist. P2P Unbal. (ohms)	[Pair 1,2-4,5]	0.215
Insertion Loss Margin (dB)	[Pair 1,2]	5.0
Frequency (MHz)	[Pair 1,2]	500.0
Limit (dB)	[Pair 1,2]	43.8

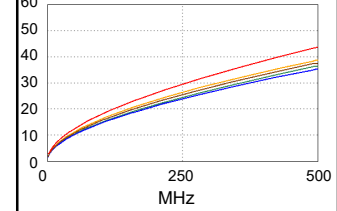


Wire Map (T568B)

PASS

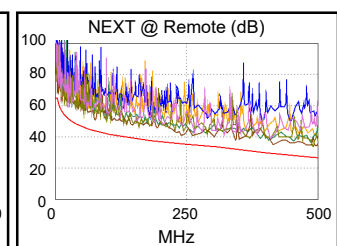
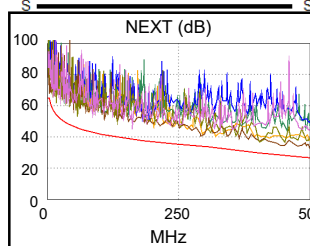


Insertion Loss (dB)

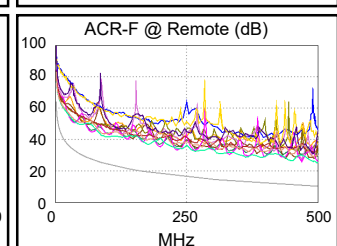
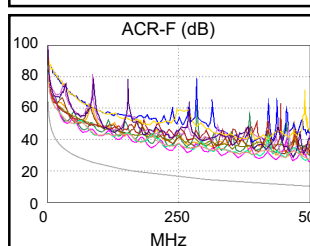


Worst Case Margin Worst Case Value

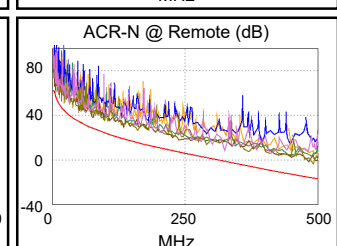
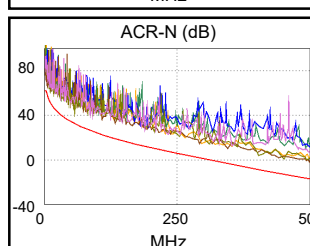
PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-4,5	3,6-4,5	3,6-4,5
NEXT (dB)	5.9	4.7	6.1	5.9
Freq. (MHz)	440.0	3.8	500.0	484.0
Limit (dB)	28.5	64.5	26.7	27.1
Worst Pair	3,6	4,5	3,6	4,5
PS NEXT (dB)	6.3	5.7	7.3	7.3
Freq. (MHz)	405.0	261.0	499.0	484.0
Limit (dB)	26.9	32.4	23.8	24.2



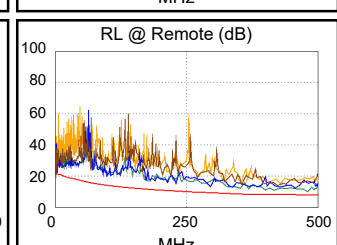
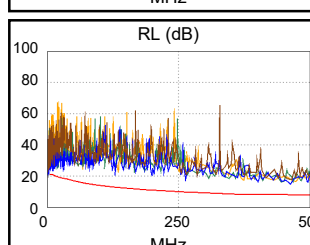
PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5-1,2	4,5-1,2	4,5-1,2	4,5-7,8
ACR-F (dB)	15.2	14.8	15.6	15.0
Freq. (MHz)	401.0	468.0	500.0	499.0
Limit (dB)	12.1	10.8	10.2	10.2
Worst Pair	1,2	1,2	7,8	7,8
PS ACR-F (dB)	16.6	16.7	17.5	17.3
Freq. (MHz)	401.0	436.0	491.0	489.0
Limit (dB)	9.1	8.4	7.4	7.4



N/A	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-4,5	3,6-4,5	3,6-7,8
ACR-N (dB)	7.1	5.3	14.6	12.8
Freq. (MHz)	3.6	3.8	500.0	491.0
Limit (dB)	61.4	61.1	-17.1	-16.4
Worst Pair	3,6	3,6	3,6	3,6
PS ACR-N (dB)	8.9	7.1	14.8	14.3
Freq. (MHz)	4.9	3.9	500.0	483.0
Limit (dB)	56.6	58.5	-20.0	-18.6



PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5	3,6	4,5	3,6
RL (dB)	4.8	2.0	6.8	2.0
Freq. (MHz)	6.3	480.0	463.0	480.0
Limit (dB)	21.0	8.0	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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