

Ethernet Cable, Cat6, Riser, FTP

RoHS
Compliant

Stock No.: CAT6-3041R-FTP-B

FEATURES

- CMR
- FTP
- 23 AWG
- Solid Copper



Product Description

Key Features

- Bandwidth tested up to 550 MHz
- In compliance with ANSI/TIA 568.2-E
- Supports Power over Ethernet: PoE/PoE+ / PoE++ (IEEE 802.3af/at/bt) 4PPoE up to 100W
- Suitable for 1 Gigabit and 5 Gigabit Ethernet up to 328 ft
- RoHS-3 Compliant
- Easily identified color striped pairs
- Sequential footage markings every 2ft

General Specifications

Attribute	Value
Terminated/Unterminated	Unterminated
Connector Type	RJ45
Cable Type	Ethernet
Length	1000ft Per Spool
Gauge	23 AWG
Conductor	Bare Copper
Shield/Unshielded	Shielded
Voltage Rating	300V
1.0 - 550MHz Impedance (Ω)	100 \pm 15
Maximum Operating Frequency	550MHz
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	Orange

Product Drawing

Technical Data

Insulation	PE
Average Thickness (mm)	0.275
Min Point Thickness (mm)	0.253
Conductor Insulation Dia. ($\pm 0.02\text{mm}$)	1.12
Twisted Pair Dia. ($\pm 0.02\text{mm}$)	2.24
Ripcord	Nylon
Spline	Present
Polyethylene Tape	Present
Shielding	F/UTP
Drain Wire - Solid Tinned Copper (mm)	0.40
Conductor	Solid Bare Copper
Size	23AWG
Conductor Dia. ($\pm 0.05\text{mm}$)	0.57

Standards Reference

UL-444 /
cETLus

ANSI/TIA
568.2-E

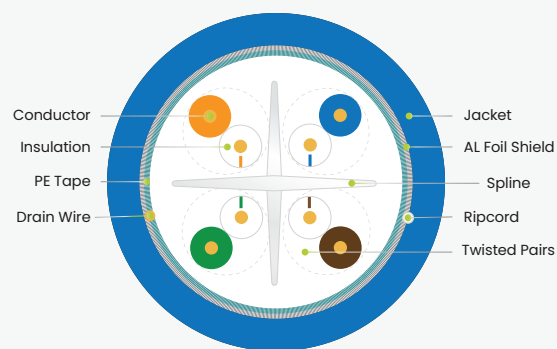
ISO/IEC
11801

Color of Pairs

Pair 1	Blue- White/Blue
Pair 2	Orange- White/Orange
Pair 3	Green- White/Green
Pair 4	Brown- White/Brown

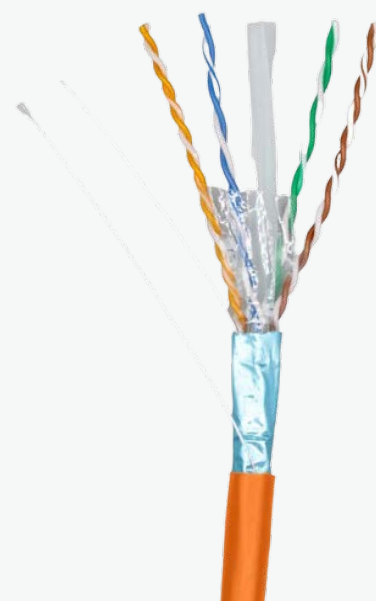
Cable Jacket

Cable Jacket	PVC
Average Thickness (mm)	0.55
Min. Point Thickness (mm)	0.50
Outer Diameter ($\pm 0.2\text{mm}$)	7.20



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 Cat6 Permanent Link +PoE	CERTIFIED
Maximum Application Speed @ 295ft	5GBASE-T
Nominal Velocity of Propagation (NVP)	66.3
Maximum Operating Voltage	300V
1.0 - 550MHz Impedance (Ω)	100 \pm 15
Maximum Operating Frequency	550MHz
1.0 - 550MHz 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	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	5cm/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 Cat6 FTP CMR 75°C 4PR 23AWG c(ETL)us ANSI/TIA 568.2-E 550MHz RoHS-3 ****FT

Dimensions: Millimeters (Inches)

Part Number Table

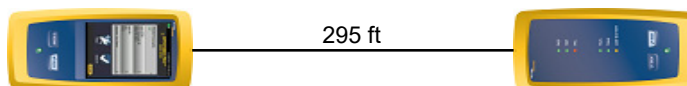
Part Number	Description
CAT6-3041R-FTP-B	Ethernet Cable, Cat6, Riser, FTP

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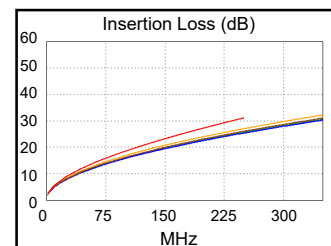


Test Summary: PASS

Length (ft), Limit 295	[Pair 4,5]	295
Prop. Delay (ns), Limit 498	[Pair 1,2]	485
Delay Skew (ns), Limit 44	[Pair 1,2]	32
Resistance (ohms), Limit 21.00	[Pair 1,2]	13.61
Resist. Unbal. (ohms)	[Pair 4,5]	0.081
Resist. P2P Unbal. (ohms)	[Pair 1,2-4,5]	0.205
Insertion Loss Margin (dB)	[Pair 1,2]	4.1
Frequency (MHz)	[Pair 1,2]	250.0
Limit (dB)	[Pair 1,2]	31.1

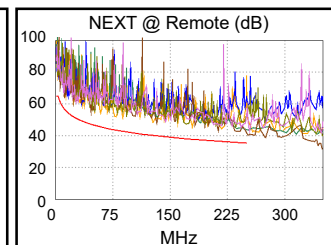
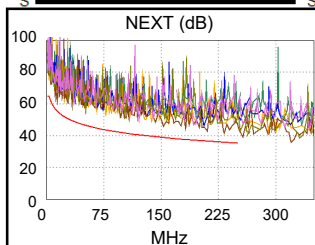


Wire Map (T568B)
PASS

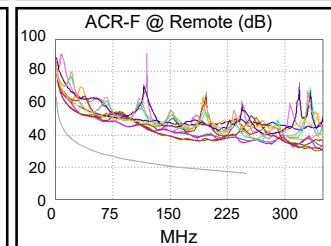
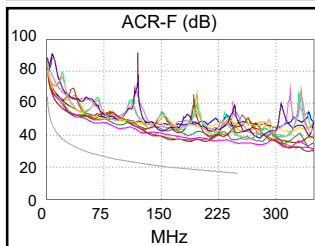


Worst Case Margin Worst Case Value

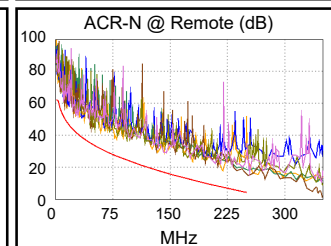
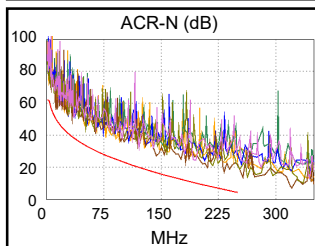
PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	1,2-3,6	3,6-4,5	1,2-3,6
NEXT (dB)	5.7	5.4	5.7	5.4
Freq. (MHz)	232.5	219.0	232.5	219.0
Limit (dB)	35.9	36.3	35.9	36.3
Worst Pair	3,6	4,5	3,6	4,5
PS NEXT (dB)	7.2	6.4	7.2	6.5
Freq. (MHz)	232.5	238.0	232.5	247.0
Limit (dB)	33.2	33.1	33.2	32.8



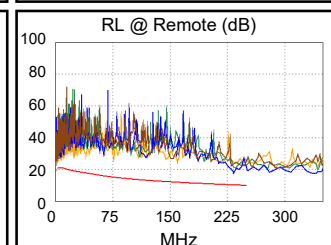
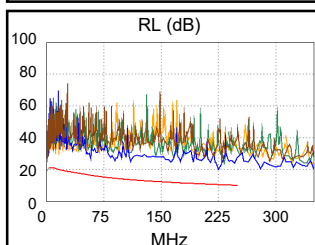
PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5-3,6	3,6-4,5	4,5-1,2	4,5-1,2
ACR-F (dB)	17.1	17.3	18.8	18.7
Freq. (MHz)	161.0	161.0	250.0	243.5
Limit (dB)	20.1	20.1	16.2	16.5
Worst Pair	4,5	1,2	1,2	4,5
PS ACR-F (dB)	17.6	17.5	20.7	19.6
Freq. (MHz)	2.3	2.3	250.0	210.5
Limit (dB)	54.1	54.1	13.2	14.7



N/A	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-4,5	3,6-4,5	3,6-4,5
ACR-N (dB)	6.7	7.8	11.1	12.4
Freq. (MHz)	13.9	11.6	232.5	247.0
Limit (dB)	49.0	50.8	6.0	4.5
Worst Pair	3,6	3,6	3,6	4,5
PS ACR-N (dB)	8.2	8.8	12.2	12.2
Freq. (MHz)	13.9	11.8	232.5	247.0
Limit (dB)	46.7	48.4	3.4	1.9



PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5	4,5	4,5	4,5
RL (dB)	9.4	5.7	9.4	5.7
Freq. (MHz)	225.5	234.0	225.5	234.0
Limit (dB)	10.5	10.3	10.5	10.3



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		

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