

Cat6 Riser Shielded

23AWG • 4 Twisted Pairs • CMR
F/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	PE
Average Thickness (mm)	0.275
Min Point Thickness (mm)	0.253
Conductor Insulation Dia. (±0.02mm)	1.12
Twisted Pair Dia. (±0.02mm)	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. (±0.05mm)	0.57

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

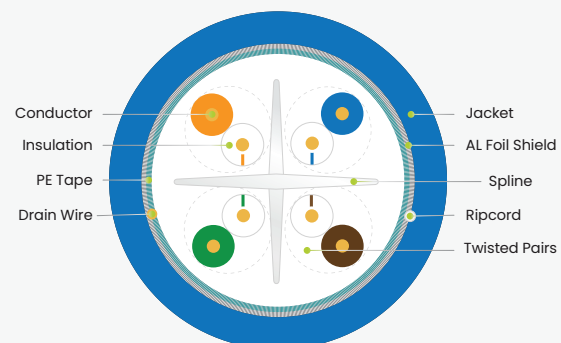
	PVC
Average Thickness (mm)	0.55
Min. Point Thickness (mm)	0.50
Outer Diameter (±0.2mm)	7.20

Standards Reference

UL-444 /
cETLus

ANSI/TIA
568-2.D

ISO/IEC
11801



Print Legend

trueCABLE Cat6 CMR F/UTP 75°C 4PR 23AWG c(ETL)us VERIFIED to ANSI/TIA 568.2-D Category 6 550MHz RoHS-3 XXXXFT MM/YY

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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)	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)	$\leq$ 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 (°C x hrs)	100 x 168
Test Material	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°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

Tested Compatible Accessories

Product

Part Number

Cat6 Toolless Keystone Jack Shielded	6ESTL90CMPT
Cat6/6A Pass Through RJ45 Connectors Shielded	LGEGPTRJ45
Cat6A Field Term Plug Shielded	6ASFT
Conductive Copper Fabric Strips	CUSTrips_100pc
Medium Slip-On RJ45 Strain Relief Boot 7.50mm	MDSLIP

Revision 2
02/25/2022

*Specs subject to
change without notice.
Current version available
at www.trueCABLE.com



**Cable ID: 6ESCMR STP JACK > STP RJ45 JACKET DATE 01/22****Test Limit: TIA Cat 6 MPTL (+PoE)**

Limits Version: V7.6

Date / Time: 02/14/2022 12:27:01 PM

Operator: DON S

Headroom 5.4 dB (NEXT 1,2-3,6)

Cable Type: Cat 6 F/UTP

NVP: 66.3%

Main: Versiv

S/N: 1924100

Software Version: V6.7 Build 1

Calibration Date: 11/14/2020

Adapter: DSX-8000 (DSX-PLA804)

S/N: 4523169

Test Summary: PASS

Remote: Versiv

S/N: 1917273

Software Version: V6.7 Build 1

Calibration Date: 11/14/2020

Adapter: DSX-8000R (DSX-PC6)

S/N: 4716104

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

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

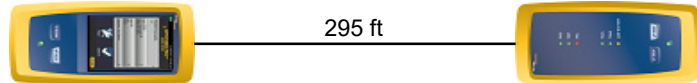
PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5-3,6	3,6-4,5	4,5-1,2	4,5-1,2
ACR-F (dB)	17.1	17.3	18.8	18.7
Freq. (MHz)	161.0	161.0	250.0	243.5
Limit (dB)	20.1	20.1	16.2	16.5
Worst Pair	4,5	1,2	1,2	4,5
PS ACR-F (dB)	17.6	17.5	20.7	19.6
Freq. (MHz)	2.3	2.3	250.0	210.5
Limit (dB)	54.1	54.1	13.2	14.7

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		



Wire Map (T568B)

PASS