

CAT6



Cat6 Riser Shielded Solid Bare Copper

SKU: RCT-C6R-FUTP-BC-BL

23AWG • 4 Twisted Pairs • CMR • F/UTP
550MHz • Solid Bare Copper



Key Features

- Bandwidth tested up to 550 MHz
- Easily Identified Color Striped Pairs
- Sequential Footage Markings Every 2ft
- In compliance with ANSI/TIA 568.2-D
- RoHS-3 compliant
- Supports PoE, PoE+, and PoE++ (IEEE 802.3af/at/bt) up to 60W & 300V DC

Print Legend

CAT6 550MHz CMR PLENUM F/UTP 4-PAIR
23AWG EIA/TIA-568-C.2-1
0002FT-1000FT

Technical Data

Operating Temp. Range	75°C/167°F
Max. Operating Voltage	300v
Bend Diameter Min.	4in/10mm

Insulation	HDPE
Average Thickness	0.24
Min Point Thickness	8
Conductor Insulation Dia. (±0.01mm)	0.228
Twisted Pair Dia. (±0.02mm)	1.08
Spline	2.16
PE-Tape	PE
	Yes
Jacket	CMR-PVC
Average Thickness	0.60
Min. Point Thickness	0.55
Overall Diameter (±0.1mm)	7.00
Ripcord	Yes
Shield	FTP
Drain Wire (Solid Tinned Copper)	0.40
AL Foil Shield	Yes



Conductor	Solid Bare Copper
Size	23AWG
Conductor Dia. (±0.05mm)	0.585
Color of Pairs	
Pair 1	Blue- White/Blue
Pair 2	Orange- White/Orange
Pair 3	Green- White/Green
Pair 4	Brown- White/Brown



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Cable ID: 490 FTP4 CAT6 0.565CU

Test Limit: TIA Cat 6 Perm. Link

Limits Version: V7.6 Date / Time: 12/22/2021

04:26:49 PM Operator: LIXIAOHONG Headroom

0.6 dB (NEXT 1,2-4,5) Cable Type: Cat 6 F/UTP

NVP: 70.0%

-1

Main: Versiv

S/N: 2034142

Software Version: V6.6 Build 2

Calibration Date: 12/23/2020

Adapter: DSX-8000 (DSX-PLA804)

S/N: 20475125

Test Summary: PASS

Remote: Versiv

S/N: 2035009

Software Version: V6.6 Build 2

Calibration Date: 12/23/2020

Adapter: DSX-8000R (DSX-PLA804)

S/N: 20485133

Length (ft), Limit 295	[Pair 7,8]	318
Prop. Delay (ns), Limit 498	[Pair 4,5]	486
Delay Skew (ns), Limit 44	[Pair 4,5]	24
Resistance (ohms)	[Pair 4,5]	14.65
Insertion Loss Margin (dB)	[Pair 4,5]	4.7
Frequency (MHz)	[Pair 4,5]	250.0
Limit (dB)	[Pair 4,5]	31.1

Worst Case Margin Worst Case Value

PASS	MAIN	SR	MAIN	SR
Worst Pair	1,2-4,5	1,2-4,5	1,2-4,5	1,2-4,5
NEXT (dB)	2.3	0.6*	2.3	0.7
Freq. (MHz)	35.8	207.5	35.8	208.0
Limit (dB)	1.2	36.7	1.2	36.6
Worst Pair	3.1	3.6	3.2	1.2
PS NEXT (dB)	230.5	2.1	249.0	2.5
Freq. (MHz)	33.3	40.3	32.7	208.5
Limit (dB)				34.0

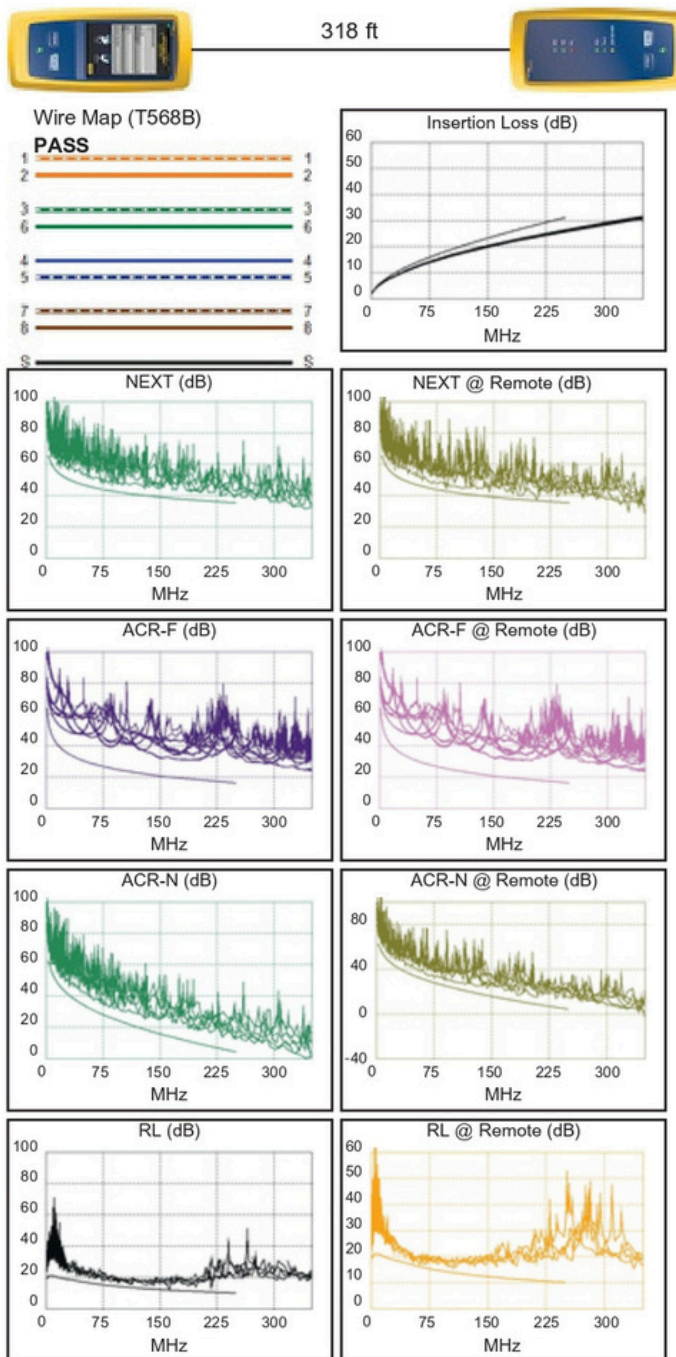
PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-4,5	3,6-4,5	3,6-4,5
ACR-F (dB)	11.4	11.2	12.2	12.2
Freq. (MHz)	152.0	152.0	198.0	200.0
Limit (dB)	20.6	20.6	18.3	18.2
Worst Pair	4.5	4.5	4.5	4.5
PS ACR-F (dB)	12.0	11.8	12.1	11.8
Freq. (MHz)	174.5	173.0	175.0	173.0
Limit (dB)	16.4	16.4	16.3	16.4

N/A	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	3,6-7,8	1,2-4,5	1,2-4,5
ACR-N (dB)	5.9	4.3	8.3	4.4
Freq. (MHz)	72.0	87.0	249.0	208.0
Limit (dB)	28.6	25.6	4.3	8.7
Worst Pair	3.6	3.6	1.2	1.2
PS ACR-N (dB)	6.0	4.2	8.3	10.1
Freq. (MHz)	76.0	87.0	249.0	105.5
Limit (dB)	25.3	23.1	1.7	13.8

PASS	MAIN	SR	MAIN	SR
Worst Pair	7,8	7,8	7,8	7,8
RL (dB)	0.2*	0.4*	0.2	1.8
Freq. (MHz)	162.5	67.0	162.5	105.5
Limit (dB)	11.9	15.7	11.9	13.8

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		



* Measurement is within the accuracy limits of the instrument.

LinkWare™ PC Version 10.7

FLUKE networks



CAT6



Electrical Characteristics

Frequency MHz	Return Loss Min (dB)	Attenuation Max (dB/100m)	Next (Min dB)
1 4 8	21.0	1.9	65.0
16	23.4	3.5	64.1
20	24.6	5.0	59.4
62.5	25.0	7.0	54.6
100	25.0	7.8	53.1
200	21.5	14.0	45.1
250	20.1	18.0	41.8
350	18.0	26.1	36.9
400	17.3	29.5	36.1
550	16.3	39.8	35.3
	15.9	43.0	34.5
	14.9	51.8	33.2

Frequency MHz	PSNEXT Min (dB)	ELFEXT Min (dB/100m)	PSELFEXT Min (dB/100m)	Delay Max (ns/100m)
1 4 8	62.0	64.2	61.2	520.5
16	61.8	52.1	49.1	504.3
20	57.0	46.1	43.1	499.6
62.5	55.5	40.1	37.1	496.2
100	50.7	38.2	35.2	495.3
200	42.7	28.3	25.3	492.2
250	39.3	24.2	21.2	491.3
350	34.3	18.2	15.2	490.4
400	32.7	16.2	13.2	490.1
550	32.5	16.0	13.0	490.0
	32.0	15.8	12.8	490.0
	31.2	13.0	10.0	490.0

1.0-500.0MHz Impedance(ohms) 100 ± 15

1.0-500.0MHz Delay Skew(ns/100m) <=45

Pair-to-Ground Capacitance
Unbalance (pF/100m) <=3300

Max. Conductor DC Resistance
20oC (ohms/km) 68

Resistance Unbalance (%) <=5

Mechanical Characteristics

Test Object	Jacket	PVC
Test Material	>=13.8	>=100
Before Tensile Strength (Mpa)	100x168	
Aging Elongation (%)	>=85%	of
Aging Condition (°Cxhrs)	unaged	
After Tensile Strength (Mpa)	>=50%	of
Aging Elongation (%)	unaged	No
Cold Bend (-20+2° Cx4hrs)	Crack	

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