

Cat6A Riser Unshielded Solid Bare Copper

SKU: 52N-RC6A-BC

23AWG • 4 Twisted Pairs • CMR • UTP
750MHz • Solid Bare Copper



Length Available
1000ft Pull Box



Jacket Colors



Key Features



Bandwidth tested up to 750 MHz



Suitable for 1 Gigabit and 2.5 Gigabit Ethernet up to 328 ft



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++ up to 100W (IEEE 802.3af/at/bt)

Print Legend

CAT6A 750MHz CMR RISER UTP 4-PAIR
-RBC/6A-WH

0002FT-1000FT

Technical Data

Operating Temp. Range 75°C/167°F

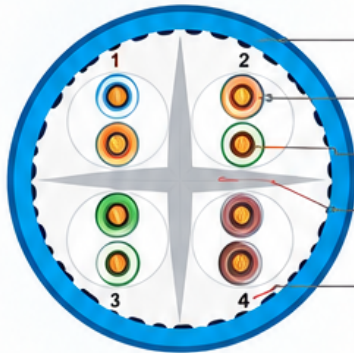
Max. Operating Voltage 300V

Bend Radius 2in/5mm

Insulation	HdPE
Average Thickness	0.228
Min Point Thickness	0.205
Conductor Insulation Dia. (±0.02mm)	0.97
Twisted Pair Dia. (±0.02mm)	1.94
Spline	Not Present

Jacket	PVC
Average Thickness	0.60
Min. Point Thickness	0.54
Overall Diameter (±0.2mm)	6.15
Ripcord	Nylon

Conductor	Solid Bare Copper
Size	23AWG
Conductor Dia. (±0.05mm)	0.515



Color of Pairs

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



Cable ID: 52N-RC6A-BC

Test Limit: TIA Cat 6A perm. (+PoE)

Limits Version: V7.6 Date / Time:

02/14/2022 11:59:15 AM

Operator: LIXIAOHONG

Headroom 4.7 dB (NEXT 3,6-4,5) Cable

Type: Cat 6A U/UTP NVP: 68.1%

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-PC6A)

S/N: 4716155

Length (ft), Limit 295	[Pair 4,5]	295
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

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	7,8	7,3
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	1,2	1,2
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	68.5	-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-S1
ATM-155	100VG-AnyLan	TR-16 Passive
TR-fActive	TR-16 Active	



295 ft



Wire Map (T568B)

PASS

1 2

3 4

5 6

7 8

9 10

11 12

13 14

15 16

17 18

19 20

21 22

23 24

25 26

27 28

29 30

31 32

33 34

35 36

37 38

39 40

41 42

43 44

45 46

47 48

49 50

51 52

53 54

55 56

57 58

59 60

61 62

63 64

65 66

67 68

69 70

71 72

73 74

75 76

77 78

79 80

81 82

83 84

85 86

87 88

89 90

91 92

93 94

95 96

97 98

99 100

101 102

103 104

105 106

107 108

109 110

111 112

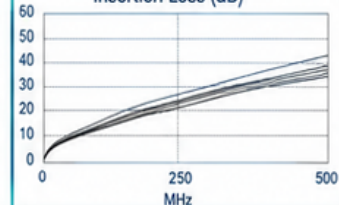
113 114

115 116

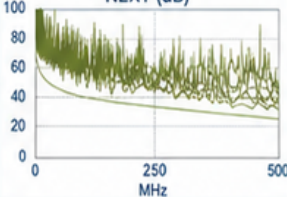
117 118

119 120

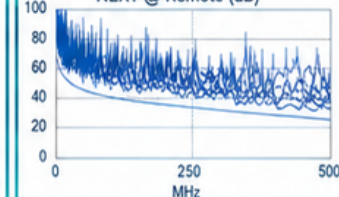
Insertion Loss (dB)



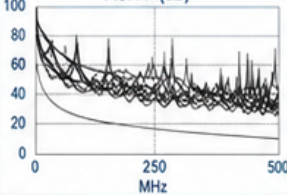
NEXT (dB)



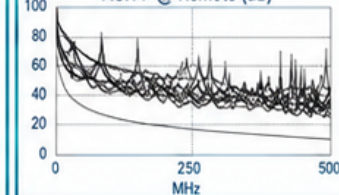
NEXT @ Remote (dB)



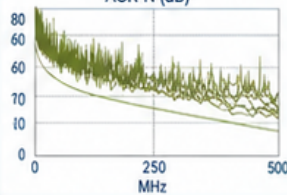
ACR-F (dB)



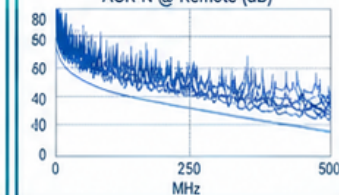
ACR-F @ Remote (dB)



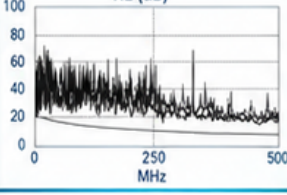
ACR-N (dB)



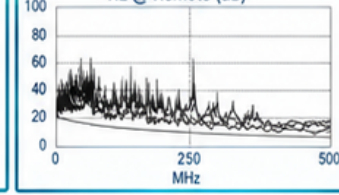
ACR-N @ Remote (dB)



RL (dB)

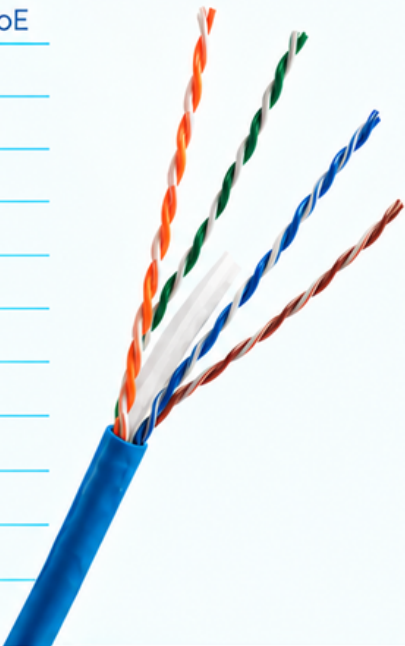


RL @ Remote (dB)



Electrical Characteristics

PoE Certification Maximum PoE	PoE/PoE+/PoE++ 4PPoE
Wattage PoE Application	100W
Compatibility TIA 568-2.D Cat6A	802.3af/at/bt Type 4
Permanent Link +PoE Maximum	CERTIFIED
Application Speed @ 295ft Nominal	2.5GBASE-T
Velocity of Propagation (NVP)	66.5
Maximum Operating Voltage 1.0 -	300V
750MHz Impedance (Ω) Maximum	100 $\pm$ 15
Operating Frequency 1.0 - 750MHz	750MHz
Delay Skew (ns/100m) Pair-to-Ground	$\leq$ 45
Capacitance Unbalance (pF/km) Max.	$\leq$ 3300
Conductor DC Resistance 20°C (Ω /km)	86.8



Mechanical & Environmental Operating Parameters

Test Object	Jacket	Aging Condition ($^{\circ}\text{C}$ x hrs)	100 x 168 $\geq$ 85% of
Test Material	PVC	After Tensile Strength (Mpa)	unaged $\geq$ 50% of
Before- Tensile Strength (Mpa)	$\geq$ 13.8	Aging Condition - Elongation (%)	unaged
Aging- Elongation (%)	$\geq$ 100	Cold Bend($-20 \pm 2^{\circ}\text{C}$ x 4hrs)	No Crack
Min. Bend Radius	4.5cm/1.75in	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

