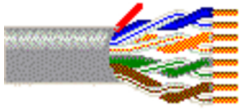**Part Number:** 1594A

CAT5e Horizontal, 4pr, UTP, PVC Jkt, CMR/CMX Outdoor

Product Description

CAT5e (200MHz), 4-Pair, U/UTP-unshielded, Riser-CMR, CMX Outdoor, Premise Horizontal cable, 24 AWG solid bare copper conductors, polyolefin insulation, ripcord, UV resistant PVC jacket

Technical Specifications

Product Overview

Environmental Space:	Indoor/Outdoor
Suitable Applications:	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, Outdoor

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
24	Solid	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4
Conductor Size:	24 AWG

Insulation

Material
PO - Polyolefin

Color Chart

Number	Color
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

Outer Jacket Material

Material	Nominal Diameter	Ripcord
PVC - Polyvinyl Chloride	0.220 in	Yes

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
9.38 Ohm/100m	3 %

Capacitance

Max. Capacitance Unbalance	Nom.Mutual Capacitance
330 pF/100m	15 pF/ft

Shielding:	U/UTP - Unshielded

Delay

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
@ 100 MHz 537.6 ns/100m	45 ns/100m	68 %

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
1 MHz	2.0 dB/100m	65.3 dB	62.3 dB	63.3 dB	60.3 dB	63.8 dB	60.8 dB	20.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
4 MHz	4.1 dB/100m	56.3 dB	53.3 dB	52.2 dB	49.2 dB	51.7 dB	48.7 dB	23.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
8 MHz	5.8 dB/100m	51.8 dB	48.8 dB	46.0 dB	43.0 dB	45.7 dB	42.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 15 Ohm
10 MHz	6.5 dB/100m	50.3 dB	47.3 dB	43.8 dB	40.8 dB	43.8 dB	40.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
16 MHz	8.2 dB/100m	47.3 dB	44.2 dB	39.0 dB	36.0 dB	39.7 dB	36.7 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
20 MHz	9.3 dB/100m	45.8 dB	42.8 dB	36.5 dB	33.5 dB	37.7 dB	34.7 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
25 MHz	10.4 dB/100m	44.3 dB	41.3 dB	33.9 dB	30.9 dB	35.8 dB	32.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 15 Ohm
31.25 MHz	11.7 dB/100m	42.9 dB	39.9 dB	31.2 dB	28.2 dB	33.9 dB	30.9 dB	23.6 dB	100 ± 15 Ohm	100 ± 15 Ohm
62.5 MHz	17.0 dB/100m	38.4 dB	35.4 dB	21.4 dB	18.4 dB	27.8 dB	24.8 dB	21.5 dB	100 ± 15 Ohm	100 ± 15 Ohm
100 MHz	22.0 dB/100m	35.3 dB	32.3 dB	13.3 dB	10.3 dB	23.8 dB	20.8 dB	20.1 dB	100 ± 15 Ohm	100 ± 15 Ohm
155 MHz	28.1 dB/100m	32.5 dB	29.4 dB	4.4 dB	1.4 dB	19.9 dB	16.9 dB	15.8 dB	100 ± 25 Ohm	100 ± 15 Ohm
200 MHz	32.4 dB/100m	30.8 dB	27.8 dB			17.7 dB	14.7 dB	15.0 dB	100 ± 25 Ohm	100 ± 15 Ohm

Voltage

UL Voltage Rating
300V RMS

Temperature Range

Installation Temp Range:	-20°C To +75°C
UL Temp Rating:	90°C
Storage Temp Range:	-40°C To +75°C
Operating Temp Range:	-40°C To +75°C

Mechanical Characteristics

Cold Bend Test:	–40°C Compliance Per UL 1581
Bulk Cable Weight:	23 lbs/1000ft
Max Recommended Pulling Tension:	25 lbs
Min Bend Radius/Minor Axis:	1.0 in
Min Bend Radius/Installation:	2.25 in

Standards

NEC/(UL) Specification:	CMR-CMX OUTDOOR
CEC/C(UL) Specification:	CMR-CMX OUTDOOR
ISO/IEC Compliance:	11801 ed 2.2 (2011) Class D
CPR Euroclass:	Eca
Data Category:	Category 5e
ANSI Compliance:	S-90-661-2012 Category 5e, ANSI/NEMA WC-63.1 Category 5e
Telecommunications Standards:	ANSI/TIA-568-C.2 Category 5e
IEEE Specification:	POE per 802.3af & POE+ per 802.3at-2009
Other Specification:	Outdoor Use ANSI/ICEA S-56-434, Broadband Outdoor Use ANSI/ICEA S-99-689, Indoor/Outdoor Use ANSI/ICEA S-100-685
Third Party Performance Verification:	Category 5e

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	Yes
EU CE Mark:	Yes
EU REACH SVHC Compliance (yyyy-mm-dd):	2017-07-10
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	Yes - When supported by messenger wire
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	No
Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL 1666 Riser
ISO/IEC Flammability:	60332-1
UL Voltage Rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	1585A

Part Number

Non-Plenum Number:	1583A

Variants

Item #	Color
1594A 008U1000	GRAY
1594A 1GFU1000	Ivory
1594A 009U1000	WHITE

Patent:	http://www.belden.com/p