

2142A Multi-Conductor - Category 6A Indoor/Outdoor CMR/CMX F/UTP Cable



For more Information
please call

1-800-Belden1



General Description:

CAT6A (625 MHz), 4 Pair, F/UTP-Foil Shielded, Indoor/Outdoor CMR-CMX Outdoor, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Patented EquiSpline™, Overall Beldfoil® Shield with Drain Wire, Ripcord, UV-Resistant PVC Jacket

Usage (Overall)

Suitable Applications:

Outdoor-OSP, Premise Horizontal Cable, 10 Gigabit Ethernet, Wireless, Wi-Fi, 100Base TX, 100Base VG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio AES51, RS-422, Noisy Environments, PoE, PoE+

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
4	23	Solid	BC - Bare Copper

Total Number of Conductors: 8

Insulation

Insulation Material:

Insulation Material
PO - Polyolefin

Separator

Separator Material: Patented EquiSpline Central Member.

Inner Shield

Inner Shield Material:

Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)	Dia. (mm)
Beldfoil	Bi-Laminate	Polyester / Foil	100.000	5.969

Inner Shield Drain Wire AWG:

AWG	Stranding	Dia. (mm)	Conductor Material
26 AWG	7 x 34	0.483	TC

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC

Outer Jacket Ripcord: Yes

Outer Jacket Color Code Chart:

2142A Multi-Conductor - Category 6A Indoor/Outdoor CMR/CMX F/UTP Cable

Color

BLACK

Overall Cable

Overall Cabling Separator Material: Beldfoil

Overall Nominal Diameter: 7.620 mm

Pair

Pair Color Code Chart:

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

Mechanical Characteristics (Overall)

Storage Temperature Range: -40°C To +75°C

Installation Temperature Range: -20°C To +75°C

Operating Temperature Range: -40°C To +75°C

UL Temperature Rating: 90C

Non-UL Temperature Rating: 90C

Bulk Cable Weight: 61.016 Kg/Km

Max. Recommended Pulling Tension: 200.169 N

Min. Bend Radius/Minor Axis: 31.750 mm

Min. Bend/Installation: 76.200 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR, CMX-Outdoor, UL444

CEC/C(UL) Specification: CMX-Outdoor

EU Directive 2011/65/EU (ROHS II): Yes

IEEE Specification: POE per IEEE 802.3af & POE+ per IEEE 802.3at-2009

EU CE Mark: Yes

EU Directive 2000/53/EC (ELV): Yes

EU Directive 2002/95/EC (RoHS): Yes

EU RoHS Compliance Date (mm/dd/yyyy): 03/31/2015

EU Directive 2002/96/EC (WEEE): Yes

EU Directive 2003/11/EC (BFR): Yes

CA Prop 65 (CJ for Wire & Cable): Yes

MII Order #39 (China RoHS): Yes

Telecommunications Standards: Category 6A - TIA 568.C.2, ISO/IEC 11801:2011 Amendment 2.2 Class EA

ANSI Specification: ANSI/TIA 568-C.2 Category 6A, ANSI/ICEA S-116-732-2013 Category 6A

Other Specification: ANSI/ICEA S-56-434 Outdoor Use, ANSI/ICEA S-100-685 Indoor/Outdoor Use and ANSI/ICEA S-99-689 Broadband Outdoor Use

Applicable Patents:

Country

www.belden.com/p

Flame Test

UL Flame Test: UL1666 Riser

2142A Multi-Conductor - Category 6A Indoor/Outdoor CMR/CMX F/UTP Cable

C(UL) Flame Test:	FT4
CSA Flame Test:	FT4

Suitability

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

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	10GX53F
Non-Plenum Number:	10GX52F

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/m)

55.777

Maximum Capacitance Unbalance (pF/100 m): 45

Nominal Velocity of Propagation:

VP (%)

65.000

Maximum Delay:

Delay (ns/100 m)

538.000

Typical Delay Skew:

Delay Skew (ns/m)

98.430

Max. Delay Skew:

Delay Skew (ns/100 m)

45.000

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

8.200

Max. Operating Voltage - UL:

Voltage

300 V RMS

Maximum DCR Unbalanced:

Description	DCR Unbalance @ 20°C (%)
Conductor-to-Conductor	3.000
Pair-to-Pair	5.000

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. PSNEXT (dB)	Min. PSACR (dB)	Min RL (dB)
1	2.100	75.3	73.2	20.000
4	3.800	66.3	62.5	23.000

2142A Multi-Conductor - Category 6A Indoor/Outdoor CMR/CMX F/UTP Cable

8	5.300	61.8	56.4	24.500
10	5.900	60.3	54.4	25.000
16	7.500	57.2	49.8	25.000
20	8.400	55.8	47.4	25.000
25	9.400	54.3	45.0	24.300
31.25	10.500	52.9	42.4	23.600
62.5	15.000	48.4	33.4	21.500
100	19.100	45.3	26.2	20.100
200	27.600	40.8	13.2	18.700
250	31.000	39.3	8.3	18.000
300	34.300	38.1	3.9	17.500
350	37.200	37.1	-0.1	17.000
400	40.100	36.3		16.600
450	42.700	35.5		16.200
500	45.300	34.8		15.900
550	47.700	31.2		15.600
600	50.100	30.6		15.400
625	51.200	30.4		15.200
750	56.700	29.2		14.700
860	61.200	28.3		14.300

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. PSACRF (dB)
1	100 ± 15	105 ± 10	74.8
4	100 ± 15	100 ± 15	62.8
8	100 ± 15	100 ± 15	56.7
10	100 ± 15	100 ± 15	54.8
16	100 ± 15	100 ± 15	50.7
20	100 ± 15	100 ± 15	48.8
25	100 ± 15	100 ± 15	46.8
31.25	100 ± 15	100 ± 10	44.9
62.5	100 ± 15	100 ± 10	38.9
100	100 ± 15	100 ± 10	34.8
200	100 ± 22	100 ± 10	28.8
250	100 ± 32	100 ± 10	26.8
300	100 ± 32	100 ± 10	24.3
350	100 ± 32	100 ± 10	23.9
400	100 ± 32	100 ± 10	22.8
450	100 ± 32	100 ± 10	21.7
500	100 ± 32	100 ± 10	20.8
550	100 ± 32	100 ± 32	20
600	100 ± 32	100 ± 32	19.2
625	100 ± 32	100 ± 32	18.9
750	100 ± 32	100 ± 32	17.3
860	100 ± 32	100 ± 32	16.1

Premise Cable Electrical Table 4:

Frequency (MHz)	Min. PSANEXT (dB)	Min. PSAACRF (dB)	Min. TCL (dB)	Min. ELTCTL (dB)
1.000	77.000	77.000	40.000	35.000
4.000	77.000	76.200	40.000	23.000
8.000	77.000	70.100	40.000	16.900
10.000	77.000	68.200	40.000	15.000
16.000	77.000	64.100	38.000	10.900
20.000	77.000	62.200	37.000	9.000
25.000	77.000	60.200	36.000	7.000
31.250	78.100	58.300	35.100	5.100
62.500	73.600	52.300	32.000	
100.000	70.500	48.200	30.000	
200.000	66.000	42.200	27.000	
250.000	64.500	40.200	26.000	
300.000	63.300	38.700	25.200	

2142A Multi-Conductor - Category 6A Indoor/Outdoor CMR/CMX F/UTP Cable

350.000	62.300	37.300	24.600	
400.000	61.500	36.200	24.000	
450.000	60.700	35.100	23.500	
500.000	60.000	34.200	23.000	
550.000	59.400	33.400	22.600	
600.000	58.800	32.600	22.200	
625.000	58.600	32.300	22.000	
750.000	57.400	30.700	21.200	
860.000	56.500	29.500	20.700	

Notes (Overall)

Notes: Values Above 625MHz for Engineering Information Only, -40C Cold Bend Compliance Per UL1581, Meets Component requirements for TIA 568-C.2 Category 6A Horizontal Cable, Print Includes Descending Footage / Meter Markings

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
2142A 0101000	1,000 FT	44.000 LB	BLACK		CAT6A 4PR F/UTP CMR/CMX REEL

Revision Number: 1 Revision Date: 08-03-2017

© 2019 Belden, Inc
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 2014/35/EU).