BELDEN
SENDING ALL THE RIGHT SIGNALS



Product: 2183P

4K UHD Media Cable, 4 Pr #23, F/UTP Flamarrest® Jacket, CMP

Product Description

4 Pair 23 AWG Solid Bare Copper Conductors, FEP Insulation, F/UTP, Helical TC Drain, Ripcord, Flamarrest® Jacket, Plenum CMP-LP (0.6A)

Technical Specifications

Product Overview

Suitable Applications:	HDBaseT, Full 5-Play, 4K (UHD/DCI), POH, POE

Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	No. of Pairs
Pair(s)	23	Solid	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Element	Material	Nominal Wall Thickness
Pair(s)	FEP - Fluorinated Ethylene Propylene	0.010 in

Bonded-Pair:	Yes

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 Shield Material

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG
Tape	Alum / Poly	Beldfoil®	100%	TC - Tinned Copper	26

Outer Jacket Material

Material	Material Trade Name	Nominal Diameter	Nominal Wall Thickness	Ripcord
PVC - Polyvinyl Chloride	Flamarrest®	0.270 in	0.018 in	Yes

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
93.8 Ohm/km	5 %

Capacitance

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

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	2 dB/100m
4 MHz	3.8 dB/100m
8 MHz	4.3 dB/100m
10 MHz	5.9 dB/100m
16 MHz	7.5 dB/100m
20 MHz	8.3 dB/100m
25 MHz	9.3 dB/100m
31.2 MHz	10.4 dB/100m
62.5 MHz	14.8 dB/100m
100 MHz	18.8 dB/100m
125 MHz	21 dB/100m
155 MHz	23 dB/100m
175 MHz	24.9 dB/100m

Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew
100 MHz	537.6 ns/100m	45 ns/100m

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)
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
4 MHz	3.8 dB/100m	56.3 dB	53.3 dB	52.5 dB	49.5 dB	51.8 dB	48.8 dB	23.0 dB	100 +/- 15
8 MHz	5.3 dB/100m	51.8 dB	48.8 dB	46.5 dB	43.5 dB	45.7 dB	42.7 dB	24.5 dB	100 +/- 15
10 MHz	5.9 dB/100m	50.3 dB	47.3 dB	44.4 dB	41.4 dB	43.8 dB	40.8 dB	25.0 dB	100 +/- 15
16 MHz	7.5 dB/100m	47.2 dB	44.2 dB	39.8 dB	36.8 dB	39.7 dB	36.7 dB	25.0 dB	100 +/- 15
20 MHz	8.4 dB/100m	45.8 dB	42.8 dB	37.4 dB	34.4 dB	37.8 dB	34.8 dB	25.0 dB	100 +/- 15
25 MHz	9.3 dB/100m	44.3 dB	41.3 dB	35.0 dB	32.0 dB	35.8 dB	32.8 dB	24.3 dB	100 +/- 15
31.25 MHz	10.5 dB/100m	42.9 dB	39.9 dB	32.4 dB	29.4 dB	33.9 dB	30.9 dB	23.6 dB	100 +/- 15
62.5 MHz	14.8 dB/100m	38.4 dB	35.4 dB	23.6 dB	20.6 dB	27.9 dB	24.9 dB	21.5 dB	100 +/- 15
100 MHz	18.8 dB/100m	35.3 dB	32.3 dB	16.5 dB	13.5 dB	23.8 dB	20.8 dB	20.1 dB	100 +/- 15
125 MHz	21.0 dB/100m	33.8 dB	30.8 dB	12.8 dB	9.8 dB	21.9 dB	18.9 dB	19.4 dB	100 +/- 22
155 MHz	23.4 dB/100m	32.4 dB	29.4 dB	9.0 dB	6.0 dB	20.0 dB	17.0 dB	18.8 dB	100 +/- 22
175 MHz	24.9 dB/100m	31.7 dB	28.7 dB	6.8 dB	3.8 dB	18.9 dB	15.9 dB	18.4 dB	100 +/- 22
200 MHz	26.6 dB/100m	30.8 dB	27.8 dB	4.1 dB	1.1 dB	17.8 dB	14.8 dB	18.0 dB	100 +/- 22
250 MHz	29.8 dB/100m	29.3 dB	26.3 dB			15.8 dB	12.8 dB	17.3 dB	100 +/- 22
300 MHz	32.7 dB/100m	28.1 dB	25.1 dB			14.3 dB	11.3 dB	16.8 dB	100 +/- 22
400 MHz	35.4 dB/100m	27.1 dB	24.1 dB			12.9 dB	9.9 dB	16.3 dB	100 +/- 22
450 MHz	37.9 dB/100m	26.3 dB	23.3 dB			11.8 dB	8.8 dB	15.9 dB	100 +/- 32
500 MHz	42.5 dB/100m	24.8 dB	21.8 dB			9.8 dB	6.8 dB	15.2 dB	100 +/- 32

Voltage

UL Description	UL Voltage Rating
CMP	300 V

Temperature Range

Installation Temp Range:	0°C To +75°C
UL Temp Rating:	90°C
Storage Temp Range:	-20°C to +75°C
Operating Temp Range:	-20°C to +75°C

Mechanical Characteristics

Cold Bend Test:	-20°C Compliance per UL 1581
Bulk Cable Weight:	36 lbs/1000ft
Max. Pull Tension:	45 lbs
Min Bend Radius During Installation:	2.7 in
Min Bend Radius/Minor Axis:	1.0 in

Standards

NEC Articles:	Article 800

NEC/(UL) Compliance:	CMP
CEC/C(UL) Compliance:	CMP
IEC Compliance:	11801 ed 2.2 (2011) Class D
IEEE Compliance:	POE per 802.3af & POE+ 802.3at-2009
Other Compliance:	C(UL)US CMP 90C OR (UL) CMR-LP (0.6A) OR CL3R-LP (0.6A) OR POH, HDBaseT Recommended Cable

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Plenum
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/96/EC (WEEE):	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
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	NFPA 262
CSA Flammability:	FT6
UL voltage rating:	300 V

Plenum/Non-Plenum

Plenum (Y/N):	Yes

Part Number

Non-Plenum Number:	2183R

Variants

Item #	Color	Putup Type	Length	UPC
2183P 010A250	Black	Reel-in-Box	250 ft	612825392958
2183P 0101000	Black	Reel	1,000 ft	612825391678
2183P 010A1000	Black	Reel-in-Box	1,000 ft	612825391708
2183P 010Z1000	Black	ReelTuff Box	1,000 ft	612825433231
2183P D15A1000	Blue	Reel-in-Box	1,000 ft	612825391685
2183P D15Z1000	Blue	ReelTuff Box	1,000 ft	612825433286
2183P 009A1000	White	Reel-in-Box	1,000 ft	612825391692
2183P 009Z1000	White	ReelTuff Box	1,000 ft	612825433187

Product Notes

Notes:	Values Above 100 MHz are for Engineering Information Only. Print Includes Descending Footage Markings.

History

Update and Revision:	Revision Number: 0.249 Revision Date: 08-12-2020

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