Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION

7912A Composite - Composite Data, Audio, Video, Security and Control Cable

For more Information please call

1-800-Belden1

General Description:

Siamese Composite - (1)Cat 5 4-pair, 24 AWG unshielded plus (1)Series 6 Coax with Duobond® IV Quad Shield, polyolefin insulation on the pairs; Gas-injected FPE insulation on the coaxes, overall F-R PVC jacket.

Usage (Overall)

Suitable Applications: HDTV, DBS, CATV, CCTV, Multimedia, Voice, Video, Data, High Speed Internet, Networked Computing, Distributed Video, Distributed Audio, Security Monitoring, Energy Monitoring

Coax

Physical Characteristics

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
1	18	Solid	BC - Bare Copper	1.016

Insulation

Insulation Material:

Insulation Material	Dia. (mm)
Gas-injected FHDPE - Foam High Density Polyethylene	4.572

Inner Shield

Inner Shield Material:

Layer #	Inner Shield Trade Name	Type	Inner Shield Material	% Coverage (%)
1	Bonded Duofoil®	Tape	Bonded Aluminum Foil-Polyester Tape-Aluminum Foil	100
2		Braid	AL - Aluminum	60
3	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100
4		Braid	AL - Aluminum	40

Applicable Specifications and Agency Compliance

Applicable Standards & Environmental Programs

EU CE Mark: Yes

Series Type: Series 6

Electrical Characteristics

Nom. Characteristic Impedance:

Impedance (Ohm)
75

Nom. Inductance:

Inductance (µH/m)
0.318

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)
53.152

Nominal Velocity of Propagation:

VP (%)
83.000

Nominal Delay:

Delay (ns/m)
3.937

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
20.998

Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/km)
15.749

Minimum Structural Return Loss:

Start Freq. (MHz)	Stop Freq. (MHz)	Min. SRL (dB)
5.000	1000.000	20.000
1000.000	2250.000	15.000
2250.000	3000.000	10.000

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
5.000	1.641
55.000	4.593
211.000	8.531
500.000	13.452
750.000	16.733
862.000	18.046
1000.000	19.686
1450.000	25.592
1800.000	28.217
2250.000	32.154
3000.000	37.075

Max. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
5.000	2.198
55.000	5.250
211.000	9.416
500.000	14.699
750.000	18.341
862.000	19.620
1000.000	21.458
1450.000	26.248
1800.000	28.873
2250.000	32.810
3000.000	39.044

Max. Operating Voltage - UL: 350 V RMS

Shield Effectiveness:

Start Frequency (MHz)	Stop Frequency (MHz)	Shield Effectiveness (dB)
5.000	50.000	105.000
50.000	1000.000	110.000

Twisted Pair

Physical Characteristics

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material	Dia. (mm)
4	24	Solid	BC - Bare Copper	0.508

Insulation

Insulation Material:

Insulation Material	Dia. (mm)

PO - Polyolefin	0.889

Twisted Pair Color Code Chart:

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

Inner Jacket

Inner Jacket Color Code Chart:

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

Electrical Characteristics

Nom. Mutual Capacitance:

Capacitance (pF/m)
49.215

Nominal Velocity of Propagation:

VP (%)
70.000

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
30.776

Max. Operating Voltage - UL:

Voltage
300 V RMS

Other Electrical Characteristic 1: Third party verified to TIA/EIA-568-B.2, Category 5.

Premise Cable Electricals:

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. SRL (dB)	Fitted Imp. (Ohms)
1.0	2.000	62	N/A	23	100 +/- 15%
4.0	4.100	53	N/A	23	100 +/- 15%
8.0	5.800	48	N/A	23	100 +/- 15%
10.0	6.500	47	N/A	23	100 +/- 15%
16.0	8.200	44	N/A	23	100 +/- 15%
20.0	9.300	42	N/A	23	100 +/- 15%
25.0	10.400	41	N/A	22	100 +/- 15%
31.25	11.700	39	N/A	21	100 +/- 15%
62.5	17.500	35	N/A	18	100 +/- 15%
100	22.000	32	N/A	16	100 +/- 15%

Physical Characteristics (Overall)

Outer Shield

Outer Shield Material:

Type
Unshielded

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
F-R PVC - Flame Retardant Polyvinyl Chloride

Outer Jacket Ripcord: Yes

Overall Cable

Overall Nominal Diameter: 7.544 x 13.792 mm

Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +75°C
Bulk Cable Weight:	81.851 Kg/Km
Max. Recommended Pulling Tension:	573.818 N
Min. Bend Radius/Minor Axis:	76.200 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
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
Other Specification:	NEMA WC-63.1, Category 5
Series Type:	Series 6

Flame Test

UL Flame Test:	UL1666 Vertical Shaft
CSA Flame Test:	FT4

Plenum/Non-Plenum

Plenum (Y/N):	No

Notes (Overall)

Notes: Overall jacket sequentially marked.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7912A 337500	500 FT	37.500 LB	GREEN, LIGHT	C	COMPOSITE CABLE FRPVC PARA

Notes:
C = CRATE REEL PUT-UP.

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