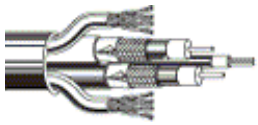
7878A Composite - Composite Data, Audio, Video, Security and Control Cable



For more information please call
1-800-Belden1

See Put-ups and Colors

Description:

Composite - (2) Cat 5e 4-bonded-pair 24 AWG unshielded plus (2) Series 6 Coax with Duobond Plus® Tri-shield plus (1) 2-Fiber LANLite®. polyolefin insulation on the pairs; Gas-injected FPE insulation on the coax, F-R PVC jackets, overall F-R PVC jacket.

SUITABLE APPLICATIONS:

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

PHYSICAL CHARACTERISTICS:

COAX:

Number of Coax	2
Series Type (Single Coax)	Series 6
CONDUCTOR :	
Coax AWG	18
Coax Stranding	Solid
Coax Conductor Diameter	.040 in.
Coax Conductor Material	BC - Bare Copper
INSULATION :	
Coax Insulation Material	Gas-injected FPE - Foam Polyethylene
Coax Insulation Diameter	.180 in.
INNER SHIELD :	
Coax Inner Shield Material Trade Name	Duobond Plus®
Coax Inner Shield Type	Tape/Braid/Tape

Coax Inner Shield Material :

Layer Number	Trade Name	Type	Material	Coverage (%)
1	Bonded Duofoil®	Tape	Bonded Aluminum Foil-Polyester Tape-Aluminum Foil	100
2		Braid	AL - Aluminum	77
3		Tape	Bonded Aluminum Foil-Polyester Tape w/Shorting Fold	100

Coax Inner Shield % Coverage	100 %
OUTER JACKET :	
Coax Outer Jacket Material	PVC - Polyvinyl Chloride

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Coax Outer Jacket Diameter	.275 in.

Coax Outer Jacket Color Code Chart :

Number	Color
1	Black
2	White

TWISTED PAIR CABLE(S):

CONDUCTOR :	
Number of Pairs	8
Twisted Pair AWG	24
Twisted Pair Stranding	Solid
Twisted Pair Conductor Diameter	.020 in.
Twisted Pair Conductor Material	BC - Bare Copper
INSULATION :	
Twisted Pair Insulation Material	PO - Polyolefin
Twisted Pair Insulation Diameter	.035 in.

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

OUTER JACKET :	
Twisted Pair Outer Jacket Material	PVC - Polyvinyl Chloride

Twisted Pair Outer Jacket Color Code Chart :

Number	Color
1	Blue
2	Green

OVERALL DIAMETER :	
Twisted Pair Overall Nominal Diameter	.200 in.

FIBER:

Fiber Type	62.5/125/900 Micron
Number of Fibers	2

Fiber Color Code Chart :

Number	Color
1	Blue
2	Orange

OUTER JACKET :	
Fiber Outer Jacket Material	PVC - Polyvinyl Chloride
Fiber Outer Jacket Diameter	.175 in.
Fiber Outer Jacket Color	Orange

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OVERALL CABLING:

OUTER SHIELD :	
Overall Cabling Outer Shield Material	Unshielded
OUTER JACKET :	
Overall Cabling Outer Jacket Material	PVC - Polyvinyl Chloride
Overall Cabling Outer Jacket Ripcord	Yes
OVERALL DIAMETER :	
Overall Composite Cabling Nominal Diameter	.635 in.

MECHANICAL CHARACTERISTICS:

OVERALL CABLING:

Overall Cabling Operating Temperature Range	-20°C To +75°C
Overall Cabling Bulk Cable Weight	158 lbs/1000 ft.
Overall Cabling Max. Recommended Pulling Tension	262 lbs.
Overall Cabling Min. Bend Radius (Install)	6.5 in.

APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

COAX:

APPLICABLE STANDARDS :	
Coax EU CE Mark (Y/N)	Yes

OVERALL CABLING:

APPLICABLE STANDARDS :	
Overall Cabling NEC/(UL) Specification	CMR, OF
Overall Cabling CEC/C(UL) Specification	CMG, OF
Overall Cabling IEC Specification	ISO/IEC 11801, Category 5
Overall Cabling EU RoHS Compliant (Y/N)	Yes
Overall Cabling EU RoHS Compliance (mm/dd/yyyy):	07/01/2005
Overall Cabling TIA/EIA Specification	ANSI/TIA/EIA-568-B.2, Category 5e
Overall Cabling Other Specification	NEMA WC-63.1, Category 5e
FLAME TEST :	
Overall Cabling UL Flame Test	UL1666 Riser
Overall Cabling C(UL) Flame Test	FT4
PLENUM/NON-PLENUM :	
Overall Cabling Plenum (Y/N)	N

ELECTRICAL CHARACTERISTICS:

COAX:

Coax Nom. Characteristic Impedance	75 Ohms
Coax Nom. Inductance	.097 µH/ft
Coax Nom. Capacitance Conductor to Shield	16.2 pF/ft

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Coax Nominal Velocity of Propagation	83 %
Coax Nominal Delay	1.2 ns/ft
Coax Nom. Conductor DC Resistance @ 20 Deg. C	6.4 Ohms/1000 ft
Coax Nom. Inner Shield DC Resistance	4.6 Ohms/1000 ft

Coax Minimum Structural Return Loss :

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Minimum Structural Return Loss (dB)
		5	1000	20
		1000	2250	15
		2250	3000	10

Coax Nom. Attenuation :

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Nom. Attenuation (dB/100 ft.)
	5			0.5
	55			1.4
	211			2.6
	500			4.1
	750			5.1
	862			5.5
	1000			6.0
	1450			7.8
	1800			8.6
	2250			9.8
	3000			11.3

Coax Max. Attenuation :

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Max. Attenuation (dB/100 ft.)
	5			.67
	55			1.60
	211			2.87
	500			4.48
	750			5.59
	862			5.98
	1000			6.54
	1450			8.00
	1800			8.80
	2250			10.0
	3000			11.9

Coax Max. Operating Voltage - UL	350 V RMS

Coax Shield Effectiveness :

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Shield Effectiveness (dB)
		5	50	105
		50	1000	125

TWISTED PAIR CABLE(S):

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PREMISE :

Twisted Pair Premise Cable Electricals Table 1 :

Frequency (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min. Return Loss (dB)	Min. Structural Return Loss (dB)
1.0	2.0		62.3		60	20.0	
4.0	4.1		53.3		49	23.0	
8.0	5.8		48.8		43	24.5	
10.0	6.5		47.3		41	25.0	
16.0	8.2		44.3		36	25.0	
20.0	9.3		42.8		34	25.0	
25.0	10.4		41.3		31	24.3	
31.25	11.7		39.9		28	23.6	
62.5	17.0		35.4		19	21.5	
100	22.0		32.3		11	20.1	

Twisted Pair Premise Cable Electricals Table 2 :

Frequency (MHz)	Input (Unfitted) Impedance (Ohms)	Fitted Impedance (Ohms)	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1.0	100 +/- 15%			60.8
4.0	100 +/- 15%			48.7
8.0	100 +/- 15%			42.7
10.0	100 +/- 15%			40.8
16.0	100 +/- 15%			36.7
20.0	100 +/- 15%			34.7
25.0	100 +/- 15%			32.8
31.25	100 +/- 15%			30.9
62.5	100 +/- 15%			24.8
100	100 +/- 15%			20.8

MULTICONDUCTOR CABLE(S):

Multi-Conductor Nom. Mutual Capacitance @ 1 kHz	15 pF/ft
Multi-Conductor Nominal Velocity of Propagation	70 %
Multi-Conductor Max. Cond.DC Resist. @ 20 Deg. C	9.38 Ohms/100 m
Multi-Conductor Max. Operating Voltage - UL	300 V RMS
Multi-Conductor Other Electrical Characteristic 1	Third party verified to TIA/EIA-568-B.2, Category 5E

NOTES:

OVERALL CABLING:

Overall Cabling Notes	Overall jacket sequentially marked. Shielding effectivenss determined from screening attenuation measurement when tested in accordance with IEC 61196-1.

PUT-UPS AND COLORS:

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
7878A N3U1000	2#18COAX+8PR#24 PP FRPVC+2MMFBR	1000	162	GREEN, MIL	C

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7878A N3U500	2#18COAX+8PR#24 PP FRPVC+2MMFBR	500	84	GREEN, MIL	C

C = CRATE REEL PUT-UP.

Revision Number: 3 Revision Date: 07-24-2006