



## Description:

Series 6, 18 AWG solid .040" bare copper-covered steel conductor, gas-injected foam polyethylene insulation, Duobond® II + aluminum braid shield (60% coverage), PVC jacket.

## Physical Characteristics (Overall)

### Conductor

#### AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
2	18	Solid	BCCS - Bare Copper Covered Steel	.040

### Insulation

#### Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FPE - Foam Polyethylene	.180

### Outer Shield

#### Outer Shield Material:

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

### Outer Jacket

#### Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

### Overall Cabling

Overall Nominal Diameter: 0.270 x 0.590 in.

## Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +80°C

Bulk Cable Weight: 57 lbs/1000 ft.

Max. Recommended Pulling Tension: 252 lbs.

Min. Bend Radius (Install)/Minor Axis: 3 in.

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CATV, CM

CEC/C(UL) Specification: CM

EU CE Mark: No

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

Series Type: Series 6

### Flame Test

UL Flame Test: UL1685 UL Loading

### Plenum/Non-Plenum

Plenum (Y/N): No

## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Impedance (Ohm)	Tolerance (Ohms)
75	± 3

### Nom. Inductance:

Inductance (µH/ft)
.097

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
16.2

### Nominal Velocity of Propagation:

VP (%)
83

### Nominal Delay:

Delay (ns/ft)
1.2

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
28.0

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
9

### Max. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
5	0.67
55	1.60
211	2.87
270	3.24
300	3.43
350	3.72
400	4.00
450	4.26
550	4.71
750	5.59
870	6.00
1000	6.54

### Max. Operating Voltage - UL:

Voltage
350 V RMS

### Minimum Structural Return Loss:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Min. SRL (dB)
		5	1000	20

## Notes (Overall)

Notes: Sweep tested 5 MHz to 1 GHz.

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9077 0101000	1,000 FT	61.000 LB	BLACK		2#18GIFHDL DPE SH FRPVC

# Broadband Coax

## CATV Cables


### Series 6

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m

**Series 6 • 18 AWG Solid .040" Bare Copper-covered Steel Conductor • Duobond® II + Aluminum Braid Shield (60% Coverage)**

**Gas-injected Foam Polyethylene Insulation • Polyethylene Jacket (Black or Orange)**

80°C	<b>9066</b>	—	1000	304.8	26.0	11.8	18 AWG (solid) .040" BCCS 28.0Ω/M' 91.9Ω/km	.180	4.57	Duobond II* + 60% Aluminum Braid 9.0Ω/M' 29.5Ω/km	.270	6.86	75	83%	16.2	53.1	See Chart on page 6.92		
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CoreGuard®


**Gas-injected Foam Polyethylene Insulation • Black PVC Jacket**

80°C	<b>9116</b>	NEC: U-500 ▲ U-152.4 CATV 500 ▲ U-152.4 CM S-700 U-213.4 CEC: U-1000 ♦ U-304.8 CM 1000 ▼ 304.8	U-1000	U-152.4	15.0	6.8	18 AWG (solid) .040" BCCS 28.0Ω/M' 91.9Ω/km	.180	4.57	Duobond II* + 60% Aluminum Braid 9.0Ω/M' 29.5Ω/km	.270	6.86	75	83%	16.2	53.1	See Chart on page 6.92		
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\*500 ft. and U-500 ft. put-ups also available in White.  
 \*U-1000 ft. put-up also available in White, Neutral or Beige.  
 \*1000 ft. put-up also available in White or Neutral.

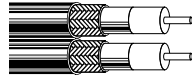
80°C	<b>9116R</b>	NEC: U-1000 U-304.8 CATVR 1000 U-304.8 CMG CEC: CMG FT4	U-1000	U-304.8	33.0	15.0	18 AWG (solid) .040" BCCS 28.0Ω/M' 91.9Ω/km	.180	4.57	Duobond II* + 60% Aluminum Braid 9.0Ω/M' 29.5Ω/km	.270	6.86	75	83%	16.2	53.1	See Chart on page 6.92		
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80°C	<b>1545A</b>	NEC: CATV CM CEC: CM	1000	304.8	31.0	14.1	18 AWG (solid) .040" BCCS 28.0Ω/M' 91.9Ω/km	.180	4.57	Duobond II* + 60% Aluminum Braid 9.0Ω/M' 29.5Ω/km	.270	6.86	75	83%	16.2	53.1	See Chart on page 6.92 Sweep tested 5 MHz to 1 GHz.		
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CoreGuard®

80°C	<b>9077</b>	NEC: CATV CM CEC: CM	1000	304.8	64.0	29.1	18 AWG (solid) .040" BCCS 28.0Ω/M' 91.9Ω/km	.180	4.57	Duobond II* + 60% Aluminum Braid 9.0Ω/M' 29.5Ω/km	.270 x .590	6.86 x 14.99	75	83%	16.2	53.1	See Chart on page 6.92 Sweep tested 5 MHz to 1 GHz.		
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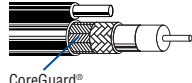
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80°C	<b>9117M</b>	—	1000	304.8	44.0	20.0	18 AWG (solid) .040" BCCS 28.0Ω/M' 91.9Ω/km	.180	4.57	Duobond II* + 60% Aluminum Braid 9.0Ω/M' 29.5Ω/km	.270 x .410	6.86 x 10.41	75	83%	16.2	53.1	See Chart on page 6.92		
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.051" (1.3mm) galvanized steel messenger.

80°C	<b>1258AM</b>	—	1000	304.8	42.0	19.1	18 AWG (solid) .040" BCCS 28.0Ω/M' 91.9Ω/km	.180	4.57	Duobond II* + 60% Aluminum Braid 9.0Ω/M' 29.5Ω/km	.270 x .410	6.86 x 10.41	75	83%	16.2	53.1	See Chart on page 6.92 Sweep tested 5 MHz to 1 GHz.		
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CoreGuard®

.051" (1.3mm) galvanized steel messenger.


**Gas-injected Foam Polyethylene Insulation • Black Low-Smoke, Zero-Halogen Jacket**

75°C	<b>9116SB</b>	NEC: CMG-LS CEC: CMG-LS FT4 Limited Smoke	1000	304.8	31.0	14.1	18 AWG (solid) .040" BCCS 28.0Ω/M' 91.9Ω/km	.180	4.57	Duobond II* + 60% Aluminum Braid 9.0Ω/M' 29.5Ω/km	.274	6.96	75	83%	16.2	53.1	See Chart on page 6.92 Sweep tested 5 MHz to 3 GHz.		
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**Plenum • Foam FEP Insulation • Natural Flamarrest® Jacket**

75°C	<b>9116P</b>	NEC: CATVP CMP CEC: CMP FT6	U-1000	U-304.8	27.0	12.3	18 AWG (solid) .040" BCCS 28.0Ω/M' 91.9Ω/km	.170	4.32	Duobond II* + 60% Aluminum Braid 9.0Ω/M' 29.5Ω/km	.235	5.97	75	83%	16.3	53.5	1	.3	1.0
			1000	304.8	27.0	12.3											10	.7	2.2
																	50	1.6	5.3
																	100	2.2	7.2
																	200	3.0	9.8
																	400	4.6	15.1
																	700	6.6	21.7
																	900	7.7	25.3
																	1000	8.2	26.9



BCCS = Bare Copper-covered Steel • DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene

\*Duobond II = Bonded Duofoil® (100% coverage) + aluminum braid (67% coverage).



## Technical Information

### Attenuation vs. Frequency for Belden® Broadband Coaxial Products

Frequency Point (MHz)	Series 59				Series 6				Series 11			
	Nominal dB/100 Ft.	Nominal dB/100m	Maximum dB/100 Ft.	Maximum dB/100m	Nominal dB/100 Ft.	Nominal dB/100m	Maximum dB/100 Ft.	Maximum dB/100m	Nominal dB/100 Ft.	Nominal dB/100m	Maximum dB/100 Ft.	Maximum dB/100m
5	.75	2.46	.89	2.92	.54	1.77	.67	2.20	.34	1.12	.38	1.25
55	1.84	6.04	1.95	6.40	1.45	4.76	1.60	5.25	.91	2.99	.97	3.18
211	3.36	11.02	3.59	11.78	2.64	8.66	2.87	9.42	1.68	5.51	1.81	5.94
216	3.41	11.19	3.69	12.11	2.67	8.76	2.95	9.68	1.70	5.58	1.84	6.04
240	3.57	11.71	3.87	12.70	2.80	9.19	3.09	10.14	1.78	5.84	1.94	6.36
270	3.79	12.43	4.05	13.29	2.97	9.74	3.24	10.63	1.89	6.20	2.05	6.73
300	3.99	13.09	4.27	14.01	3.13	10.27	3.43	11.25	1.99	6.53	2.15	7.05
325	4.16	13.65	4.50	14.76	3.26	10.70	3.59	11.78	2.07	6.79	2.24	7.35
350	4.33	14.21	4.64	15.22	3.39	11.12	3.72	12.20	2.15	7.05	2.32	7.61
375	4.49	14.73	4.84	15.88	3.52	11.55	3.87	12.70	2.22	7.28	2.40	7.87
400	4.66	15.29	4.88	16.01	3.65	11.97	4.00	13.12	2.30	7.55	2.47	8.10
450	4.96	16.27	5.30	17.39	3.88	12.73	4.26	13.98	2.45	8.04	2.65	8.69
500	5.22	17.13	5.50	18.04	4.09	13.42	4.48	14.70	2.59	8.50	2.85	9.35
550	5.48	17.98	5.90	19.36	4.30	14.11	4.71	15.45	2.73	8.96	2.94	9.65
600	5.75	18.86	6.18	20.28	4.51	14.80	4.94	16.21	2.85	9.35	3.08	10.10
650	6.03	19.78	6.52	21.39	4.72	15.49	5.18	16.99	2.98	9.78	3.22	10.56
700	6.28	20.60	6.83	22.41	4.92	16.14	5.45	17.88	3.10	10.17	3.37	11.06
750	6.51	21.36	6.96	22.83	5.11	16.76	5.59	18.34	3.21	10.53	3.50	11.48
800	6.71	22.01	7.30	23.95	5.27	17.29	5.75	18.86	3.32	10.89	3.65	11.97
862	6.97	22.87	7.50	24.61	5.47	17.95	5.98	19.62	3.46	11.35	3.82	12.53
870	7.00	22.97	7.54	24.74	5.49	18.01	6.00	19.68	3.48	11.42	3.84	12.60
900	7.14	23.42	7.79	25.56	5.60	18.37	6.11	20.05	3.55	11.65	3.96	12.99
950	7.39	24.25	7.90	25.92	5.79	19.00	6.35	20.83	3.66	12.01	4.10	13.45
1000	7.68	25.20	8.09	26.54	5.99	19.65	6.54	21.46	3.77	12.37	4.23	13.88
1450	—	—	—	—	7.80	25.60	8.00	26.20	5.00	16.41	5.50	18.10
1800	—	—	—	—	8.60	28.20	8.80	28.90	5.70	18.70	6.27	20.60
2250	—	—	—	—	9.80	32.20	10.00	32.80	6.50	21.33	7.15	23.50
3000	—	—	—	—	11.30	37.10	11.90	39.00	8.00	26.25	8.80	28.90