

**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.)
1	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 in.

Mechanical Characteristics (Overall)

Installation Temperature Range:	-30°C To +80°C
Operating Temperature Range:	-40°C To +80°C
Bulk Cable Weight:	30 lbs/1000 ft.
Max. Recommended Pulling Tension:	126 lbs.
Min. Bend Radius (Install)/Minor Axis:	2 in.

Applicable Specifications and Agency Compliance (Overall)**Applicable Standards & Environmental Programs**

NEC/(UL) Specification:	CATV, CM
CEC/C(UL) Specification:	CM
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):	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

Plenum Number: 9116P

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

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

Sweep Test**Sweep Testing:**

5 MHz - 1 GHz

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9116 Q5HU1000	1,000 FT	29.000 LB	WHITE, NEUTRAL		#18 GIFHDLDP SH PVC
9116 Q5H1000	1,000 FT	30.000 LB	WHITE, NEUTRAL		#18 GIFHDLDP SH PVC
9116 009U1000	1,000 FT	29.000 LB	WHITE		#18 GIFHDLDP SH PVC
9116 0091000	1,000 FT	30.000 LB	WHITE		#18 GIFHDLDP SH PVC
9116 009500	500 FT	16.000 LB	WHITE		#18 GIFHDLDP SH PVC
9116 010S700	700 FT	18.200 LB	BLACK		#18 GIFHDLDP SH PVC
9116 010U1000	1,000 FT	29.000 LB	BLACK		#18 GIFHDLDP SH PVC
9116 010U500	500 FT	15.000 LB	BLACK		#18 GIFHDLDP SH PVC
9116 0101000	1,000 FT	30.000 LB	BLACK	C	#18 GIFHDLDP SH PVC
9116 010500	500 FT	16.000 LB	BLACK		#18 GIFHDLDP SH PVC
9116 290U1000	1,000 FT	29.000 LB	BEIGE, LIGHT		#18 GIFHDLDP SH PVC

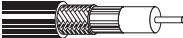
Notes:

C = CRATE REEL PUT-UP.

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)																			
Burial 80°C	9066	—	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		
																			
CoreGuard®																			
Gas-injected Foam Polyethylene Insulation • Black PVC Jacket																			
80°C	9116	NEC: CATV CM CEC: CM	U-500 ▲ 500 ▲ S-700 U-1000 ♦ 1000 ▼	U-152.4 U-152.4 U-213.4 U-304.8 304.8	15.0 16.0 18.2 30.0 31.0	6.8 7.3 8.3 13.6 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		
																			
*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	9116R	NEC: CATVR CMG CEC: CMG FT4	U-1000 1000	U-304.8 304.8	33.0 34.0	15.0 15.4	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		
																			
80°C	1545A	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		
																			
CoreGuard®																			
80°C	9077	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.																			
80°C	9117M	—	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		
																			
.051" (1.3mm) galvanized steel messenger.																			
80°C	1258AM	—	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		
																			
CoreGuard®																			
.051" (1.3mm) galvanized steel messenger.																			
Gas-injected Foam Polyethylene Insulation • Black Low-Smoke, Zero-Halogen Jacket																			
LSZH and ABS Type Approved 75°C	9116SB new	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.																			
Plenum • Foam FEP Insulation • Natural Flamarrest® Jacket																			
75°C	9116P	NEC: CATVP CMP CEC: CMP FT6	U-1000 1000	U-304.8 304.8	27.0 27.0	12.3 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 10 50 100 200 400 700 900 1000	.3 .7 1.6 2.2 3.0 4.6 6.6 7.7 8.2	1.0 2.2 5.3 7.2 9.8 15.1 21.7 25.3 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