



## Description:

30 AWG stranded (7x38) .012" silver-plated copper-covered steel conductor, TFE Teflon® insulation, silver-plated copper braid shield (96% coverage), FEP jacket.

## Physical Characteristics (Overall)

### Conductor

#### AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	30	7x38	SPCCS - Silver Plated Copper Covered Steel	.012

### Insulation

#### Insulation Material:

Insulation Trade Name	Insulation Material	Dia. (in.)
Teflon®	TFE - Tetrafluoroethylene	.033

### Outer Shield

#### Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	SPC - Silver Plated Copper	96

### Outer Jacket

#### Outer Jacket Material:

Outer Jacket Material
FEP - Fluorinated Ethylene Propylene

### Overall Cabling

Overall Nominal Diameter: 0.071 in.

## Mechanical Characteristics (Overall)

Operating Temperature Range: -70°C To +200°C

Non-UL Temperature Rating: 200°C

Bulk Cable Weight: 6 lbs/1000 ft.

Max. Recommended Pulling Tension: 12 lbs.

Min. Bend Radius (Install)/Minor Axis: 1 in.

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

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): 04/01/2005

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

Military Specification: M17/169-00001

RG Type: 178B/U

### Flame Test

UL Flame Test: UL1685 UL Loading, VW-1

### Plenum/Non-Plenum

Plenum (Y/N): No

## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Impedance (Ohm)

50

### Nom. Inductance:

Inductance (µH/ft)

0.072

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

29.0

### Nominal Velocity of Propagation:

VP (%)

69.5

### Nominal Delay:

Delay (ns/ft)

1.46

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

244.0

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

14.6

### Nom. Attenuation:

Freq. (MHz) Attenuation (dB/100 ft.)

1	2.6
10	5.6
50	10.5
100	14.0
200	19.0
400	28.0
700	37.0
900	42.5
1000	46.0

### Nom. Power Rating:

Freq. (MHz) Rating (W)

50	380
100	253
200	170
400	113
700	81
900	70
1000	66

### Max. Operating Voltage - Other:

Voltage	Description
Military Specification	750 V RMS

## Notes (Overall)

**Notes:** Teflon® is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc.

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
83265 009100	100 FT	0.800 LB	WHITE	E	#30 COAX RG-178B/U
83265 0091000	1,000 FT	6.000 LB	WHITE	E	#30 COAX RG-178B/U
83265 009500	500 FT	3.500 LB	WHITE	E	#30 COAX RG-178B/U

3:  
DAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'

# MIL-C-17G QPL Cable

50 Ohm Coax

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

**30 AWG** Stranded (7x38) .012" Silver-plated Copper-covered Steel Conductor • Silver-plated Copper Braid Shield (96% Coverage)

**TFE Teflon® Insulation • White FEP Jacket**

200°C	<b>83265</b>	—	100†	30.5	.8	.4	30 AWG	.033	.84	SPC Braid	.071	1.80	50	69.5%	29.0	95.1	1	2.6	8.5	
VW-1			500†	152.4	4.0	1.6	(7x38)			96% Shield								10	5.6	18.4
			1000†	304.8	6.0	3.2	.012"			Coverage									50	10.5
							SPCCS			14.6Ω/M'								100	14.0	45.9
							244.0Ω/M'			47.9Ω/km								200	19.0	62.3
							801.0Ω/km											400	28.0	91.9
																		700	37.0	121.4
																		900	42.5	139.4
																		1000	46.0	150.9

M17/169-00001 (RG-178B/U). Non-SWR swept version of RG-178.

**26 AWG** Stranded (7x34) .020" Silver-plated Copper-covered Steel Conductor • Silver-plated Copper Braid Shield (95% Coverage)

**TFE Teflon Insulation • White FEP Jacket**

200°C	<b>83284</b>	—	100†	30.5	1.2	.5	26 AWG	.058	1.47	SPC Braid	.098	2.49	50	69.5%	29.0	95.1	1	1.2	3.9	
VW-1			500†	152.4	5.5	2.7	(7x34)			95% Shield								10	2.7	8.9
			1000†	304.8	11.0	5.0	.020"			Coverage									50	5.6
							SPCCS			6.5Ω/M'								100	8.3	27.2
							84.1Ω/M'			21.3Ω/km								200	12.0	39.4
							275.9Ω/km											400	17.5	57.4
																		700	23.7	77.8
																		900	27.3	89.6
																		1000	29.0	95.1

M17/172-00001 (RG-316/U). Non-SWR swept version of RG-316.

**TFE Teflon Insulation • Brown FEP Jacket**

200°C	<b>84316</b>	—	100†	30.5	1.2	.5	26 AWG	.058	1.47	SPC Braid	.098	2.49	50	69.5%	29.0	95.1	1	1.2	3.9	
VW-1			500†	152.4	5.5	2.5	(7x34)			95% Shield								10	2.7	8.9
			1000†	304.8	11.0	5.0	.020"			Coverage									50	5.6
							SPCCS			6.5Ω/M'								100	8.3	27.2
							84.1Ω/M'			21.3Ω/km								200	12.0	39.4
							275.9Ω/km											400	17.5	57.4
																		700	23.7	77.8
																		900	27.3	89.6
																		1000	29.0	95.1

M17/113-RG316

**22 AWG** Stranded (27x36) .030" Tinned Copper Conductor • Tinned Copper Braid Shield (95% Coverage)

**Polyethylene Insulation • Black Non-contaminating PVC Jacket**

UL AWM	<b>9252</b>	NEC:	1000	304.8	18.0	8.2	22 AWG	.096	2.44	TC Braid	.160	4.06	50	66%	30.8	101.0	1	.4	1.3	
Style 1354		CMX					(27x36)			Shield								10	1.7	5.6
(30V 80°C)		CEC:					.030"			95% Shield									50	4.5
VW-1		CMX					TC			Coverage								100	7.0	23.0
							17.1Ω/M'			5.2Ω/M'								200	11.0	36.1
							56.1Ω/km			17.1Ω/km								400	16.5	54.1
																		700	23.5	77.1
																		900	27.3	89.6
																		1000	29.0	95.1

M17/157-00001 (RG-122/U). Non-SWR swept version of RG-122.

DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • SPC = Silver-plated Copper • SPCCS = Silver-plated Copper-covered Steel • TC = Tinned Copper • TFE = Tetra Fluoroethylene

†May contain more than one piece, minimum length of any one piece is 25 ft.

Teflon is a DuPont trademark.