



## Description:

23 AWG solid .022" bare copper conductor, polyethylene insulation, Duofoil® + tinned copper braid shield (95% coverage), polyethylene jacket.

## Physical Characteristics (Overall)

### Conductor

**AWG:**

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	23	Solid	BC - Bare Copper	.022

### Insulation

**Insulation Material:**

Insulation Material	Dia. (in.)
PE - Polyethylene	.146

### Outer Shield

**Outer Shield Material:**

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100
2		Braid	TC - Tinned Copper	95

### Outer Jacket

**Outer Jacket Material:**

Outer Jacket Material
PE - Polyethylene

### Overall Cabling

**Overall Nominal Diameter:** 0.220 in.

## Mechanical Characteristics (Overall)

**Operating Temperature Range:** -55°C To +80°C

**Non-UL Temperature Rating:** 80°C

**Bulk Cable Weight:** 26 lbs/1000 ft.

**Max. Recommended Pulling Tension:** 43 lbs.

**Min. Bend Radius (Install)/Minor Axis:** 2.500 in.

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

<b>EU CE Mark:</b>	No
<b>EU Directive 2000/53/EC (ELV):</b>	Yes
<b>EU Directive 2002/95/EC (RoHS):</b>	Yes
<b>EU RoHS Compliance Date (mm/dd/yyyy):</b>	01/01/2004
<b>EU Directive 2002/96/EC (WEEE):</b>	Yes
<b>EU Directive 2003/11/EC (BFR):</b>	Yes
<b>CA Prop 65 (CJ for Wire &amp; Cable):</b>	Yes

MII Order #39 (China RoHS): Yes  
 RG Type: 59/U

**Suitability**

Suitability - Indoor: Yes  
 Suitability - Outdoor: Yes  
 Suitability - Aerial: Yes - When supported by a messenger wire

**Plenum/Non-Plenum**

Plenum (Y/N): No

**Electrical Characteristics (Overall)**

**Nom. Characteristic Impedance:**

Impedance (Ohm)  
 75

**Nom. Inductance:**

Inductance (µH/ft)  
 .118

**Nom. Capacitance Conductor to Shield:**

Capacitance (pF/ft)  
 21.0

**Nominal Velocity of Propagation:**

VP (%)  
 66

**Nominal Delay:**

Delay (ns/ft)  
 1.56

**Nom. Conductor DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)  
 20.4

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)  
 4.5

**Nom. Attenuation:**

Freq. (MHz)	Attenuation (dB/100 ft.)
1	.4
3.58	.5
5	.84
7	.98
10.0	1.17
67.5	2.85
71.5	2.90
100	3.35
135	3.95
143	4.05
180	4.55
270	5.60
360	6.55
540	8.30
720	9.65
750	9.90
1000	11.60

**Max. Operating Voltage - Non-UL:**

Voltage  
 2300 V RMS

## 9209 Coax - Miniature

**Other Electrical Characteristic 1:** Impedance tested in accordance w/ASTM D-4566 para 43.2 opt 2 using a 75 Ohm fixed bridge&termination.

**Other Electrical Characteristic 2:** Return loss tested in accordance w/ASTM D-4566 para 45.3 using a 75 Ohm fixed bridge&termination.

**Minimum Structural Return Loss:**

Start Freq. (MHz)	Stop Freq. (MHz)	Min. SRL (dB)
5.000	216.000	27.000
216.000	850.000	23.000

**Sweep Test**

**Sweep Testing:** 100% Sweep tested 5 MHz to 850 MHz.

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9209 010U1000	1,000 FT	29.000 LB	BLACK		75 OHM MINI VIDEO CABLE
9209 010U500	500 FT	15.000 LB	BLACK		75 OHM MINI VIDEO CABLE

# Precision Video Cable for Analog and Digital

RG-59/U Type



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

**23 AWG** Stranded (7x32) .023" Bare Compacted Copper\* • Tinned Copper Braid Shield (95% Coverage)

<b>Polyethylene Insulation • Black Polyethylene Jacket</b>																			
80°C	<b>8279</b>	—	500	152.4	13.0	5.9	23 AWG (7x32)	.146	3.71	TC + 95% Shield	.220	5.59	75	66%	21.0	68.9	1	.4	1.1
			1000	304.8	29.0	13.2	.023" BCC			19.1Ω/M'							3.6	.6	2.0
							62.6Ω/km			4.5Ω/M'							10.0	1.2	3.9
										14.8Ω/km							71.5	3.3	10.8
																	135	4.7	15.4
																	270	6.8	22.3
																	360	8.0	26.2
																	540	9.9	32.5
																	720	11.6	38.0
																	750	11.9	39.0
																	1000	13.8	45.3

**23 AWG** Solid .022" Bare Copper Conductor • Duofoil® (100% Coverage) + Tinned Copper Braid Shield (95% Coverage)

<b>Polyethylene Insulation • Black Polyethylene Jacket</b>																			
80°C	<b>9209</b>	—	U-500	U-152.4	15.0	6.8	23 AWG (solid)	.146	3.71	Duofoil + 95% TC Braid	.220	5.59	75	66%	21.0	68.9	1	.4	1.2
			U-1000	U-304.8	29.0	13.2	.022" BC			4.5Ω/M'							3.6	.5	1.8
							20.4Ω/M'			14.8Ω/km							10.0	1.2	3.8
							66.9Ω/km										71.5	2.9	9.5
																	135	4.0	13.0
																	270	5.6	18.4
																	360	6.6	21.5
																	540	8.3	27.2
																	720	9.7	31.7
																	750	9.9	32.5
																	1000	11.6	38.0

<b>Flame-retardant Semi-foam Polyethylene Insulation • Black PVC Jacket</b>																			
UL AWM Style 1354 (30V 75°C)	<b>9209A</b>	NEC: CMR CEC: CMG FT4	U-1000	U-304.8	35.0	15.9	23 AWG (solid)	.146	3.71	Duofoil + 95% TC Braid	.220	5.59	75	66%	20.5	67.2	1	.4	1.2
							.022" BC			4.5Ω/M'							3.6	.5	1.8
							20.4Ω/M'			14.8Ω/km							10.0	1.2	3.8
							66.9Ω/km										71.5	2.9	9.5
																	135	4.0	13.0
																	270	5.6	18.4
																	360	6.6	21.5
																	540	8.6	28.3
																	720	10.1	33.2
																	750	10.4	34.1
																	1000	12.8	41.9

BC = Bare Copper • BCC = Bare Compacted Copper • DCR = DC Resistance • HDPE = High-density Polyethylene • TC = Tinned Copper

\*Compacted conductor combines impedance uniformity of solid conductors and "nick-resistance" of stranded conductor.