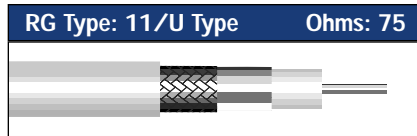


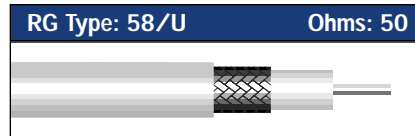
# COAXIAL CABLE SYSTEMS

## COAXIAL CABLES

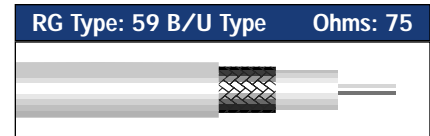
PLENUM RATED  
TYPE CL2P



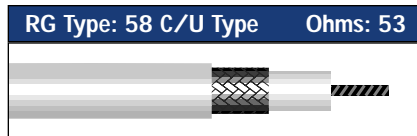
Alpha Part No.: **9105**



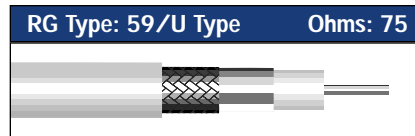
Alpha Part No.: **9158S**



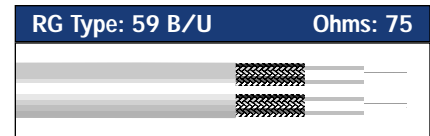
Alpha Part No.: **9159**



Alpha Part No.: **9158**



Alpha Part No.: **9102**  
**9102-EL**



Dual – Alpha Part No.: **9101**

## PRODUCT DESCRIPTION

Alpha Part No. Type	Inner Conductor			Dielectric		Shield		Jacket		VP %	Capacitance pF/ft (pF/m)
	AWG (mm <sup>2</sup> )	Strand (mm)	Mat'l.♦	Mat'l.♦	Diameter In. (mm)	Mat'l.♦	Nom. Cov., %	Mat'l.♦	Diameter In. (mm)		
<b>9105</b> 11/U	14	Solid	BC	FFEP	0.285	A/P + TC 95% Braid	100	FP	0.353 (89,0)	82	16.5
<b>9158</b> 58 C/U	20	190.0071	TC	FEP	0.116	TC Braid	95	FP	0.171 (4,3)	70	29.0
<b>9158S</b> 58/U	20	Solid	BC	FEP	0.102	BC Braid	95	FP	0.158 (4,0)	69	29.5
<b>9102</b> 59/U	20	Solid	CW	FFEP	0.146	A/P/A + TC 95% Braid	100	FP	0.212 (5,4)	82	16.5
<b>9102-EL</b> 59/U	20	Solid	CW	FFEP	0.146	A/P/A + TC 95% Braid	100	PLM-PVC	0.212 (5,4)	82	16.5
<b>9159</b> 59 B/U	23	Solid	CW	FEP	0.136	BC Braid	95	FP	0.188 (4,8)	69	19.7
<b>9101</b> Dual 59 B/U	23	Solid	CW	FEP	0.134	BC Braid	95	FP	0.200 x 0.450 0.180 (4,6) x 0.380 (9,7)	69	19.7

♦Refer to Materials Abbreviation Guide Below

## COAXIAL CABLE APPLICATIONS

- Programmable Controllers
- Data Loggers
- Local Net Installations
- Graphic Systems Installations
- CRT (VDU) Installations
- Closed Circuit TV

## CHARACTERISTICS

### OPERATING TEMPERATURE:

- PLM-PVC – 20°C to 60°C
- FP – 55°C to 125°C
- FEP – 55°C to 150°C

## SPECIFICATIONS

- UL Standard 13, Type CL2P



## ATTENUATION LEVELS

- See Chart on Page 288

## AVAILABILITY

- See Page 287 for available put-ups

### ♦MATERIAL ABBREVIATION GUIDE

A/P	– Aluminum/Polyester
A/P/A	– Aluminum/Polyester/Aluminum
BC	– Bare Copper
CW	– Copper Coated Steel
FP	– Fluoropolymer
FEP*	– Fluorinated Ethylene Propylene
FFEP	– Foam Fluorinated Ethylene-Propylene
PE	– Polyethylene
PLM-PVC	– Plenum-Rated PVC
PVC	– Polyvinylchloride
SST	– Semi-Solid Teflon®*
TC	– Tinned copper

\*Registered trademarks of E.I. DuPont Co.



Toll Free: 1-800-52 ALPHA • Telephone: 908-925-8000 • Fax: 908-925-6923  
Europe/UK Telephone: +44 (0) 1932 772422 • Europe/UK Fax: +44 (0) 1932 772433

Web Site: [www.alphawire.com](http://www.alphawire.com)  
Email: [info@alphawire.com](mailto:info@alphawire.com)

# COAXIAL CABLE SYSTEMS

## COAXIAL CABLE ATTENUATION LEVELS

Alpha Part No.	RG Type	Attenuation (db/100 ft.)						
		10MHz	50 MHz	100 MHz	200 MHz	400 MHz	1000 MHz	3000 MHz
<b>NON-PLENUM</b>								
9006A, 9807♦	6 A/U	0.80	1.40	2.90	4.30	6.40	11.00	22.00
9808♦	6 A/U	0.78	1.90	2.70	—	—	—	17.50
9810♦	6 A/U	1.30	4.00	4.90	—	—	—	—
9843, 9804C	6/U	0.62	1.50	2.10	3.10	4.40	7.10	—
9008	8/U	0.66	1.50	2.20	3.20	4.60	9.00	19.00
9008A	8 A/U	0.66	1.50	2.20	3.20	4.60	9.00	19.00
9011	11/U	0.66	1.50	2.20	3.20	4.60	9.00	19.00
9011A	11 A/U	0.66	1.50	2.20	3.20	4.60	9.00	19.00
9847	11/U	0.41	1.00	1.50	2.20	3.30	5.60	10.90
9055	55/U	1.35	3.00	4.30	6.00	8.80	16.50	36.00
9055B	55 B/U	1.35	3.00	4.30	6.00	8.80	16.50	36.00
9058, 9058X	58/U	1.20	3.10	4.60	7.00	10.00	17.50	38.00
9058A, 9058AC	58 A/U	1.40	3.30	4.90	7.30	11.00	20.00	41.00
9058C	58 C/U	1.40	3.30	4.90	7.30	11.00	20.00	41.00
9848	58/U	1.20	3.10	4.80	6.90	10.10	18.00	—
9850	59/U	0.70	1.80	2.60	3.80	5.60	—	—
9059, 9059C, 9830	59/U	1.10	2.30	3.30	4.70	6.70	11.50	25.50
9059B, 9845, 9845C	59 B/U	1.10	2.30	3.30	4.70	6.70	11.50	25.50
9259, 9840, 9803C	59/U	0.95	2.10	2.90	4.10	6.60	11.00	—
9062, 9805	62/U	0.90	1.90	2.80	3.70	5.20	8.50	18.40
9062A, 9062AC	62 A/U	0.90	1.90	2.80	3.70	5.20	8.50	18.40
9071B	71 B/U	0.90	1.90	2.80	3.70	5.20	8.50	18.40
9174	174/U	3.80	6.50	8.90	12.00	17.50	31.00	64.30
9178B	178 B/U	5.30	10.00	13.30	20.00	27.50	45.00	78.00
9179B	179 B/U	5.00	7.90	9.80	12.70	15.80	25.00	43.00
9180B	180 B/U	3.10	4.20	5.10	7.30	10.40	16.50	36.00
9187A	187 A/U	5.00	7.90	9.80	12.70	15.80	25.00	43.00
9188A	188 A/U	3.80	7.90	11.50	15.00	20.00	30.00	58.00
9196A	196 A/U	5.30	10.00	13.30	20.00	27.50	45.00	78.00
9213	213/U	0.66	1.50	2.20	3.20	4.60	9.00	19.00
9214	214/U	0.66	1.50	2.20	3.20	4.60	9.00	19.00
9217	217/U	0.41	1.00	1.40	2.10	3.10	5.80	13.00
9223	223/U	1.35	3.00	4.30	6.00	8.80	16.50	36.00
9316	316	3.10	7.60	10.9	1.50	21.2	33.0	59.10
9806	AlphaMini	3.10	4.20	5.10	7.30	10.40	—	—
9858	58 C/U	1.40	3.30	4.90	7.30	11.00	20.00	41.00

<b>PLENUM</b>								
9104	6/U	0.62	1.41	2.03	2.92	4.23	—	—
9104-EL	6/U	0.62	1.41	2.03	2.92	4.23	—	—
9105	11/U	0.38	0.86	1.25	1.82	2.67	—	—
9158	58 C/U	1.11	2.52	3.59	5.15	7.43	—	—
9158S	58/U	—	—	4.10	6.20	—	—	—
9102	59/U	0.77	1.76	2.51	3.60	5.20	—	—
9102-EL	59/U	0.77	1.76	2.51	3.60	5.20	—	—
9159	59/U	0.97	2.21	3.18	4.60	6.27	—	—
9101	59/U Dual	0.98	2.24	3.22	4.65	6.78	—	—
9162F	62/U	0.72	1.64	2.34	3.35	4.83	—	—
9162	62 A/U	0.73	1.65	2.35	3.87	4.86	—	—
9162-EL	62 A/U	0.73	1.65	2.35	3.87	4.86	—	—

Note: ♦Precision Video Cable



Toll Free: 1-800-52 ALPHA • Telephone: 908-925-8000 • Fax: 908-925-6923  
 Europe/UK Telephone: +44 (0) 1932 772422 • Europe/UK Fax: +44 (0) 1932 772433

Web Site: [www.alphawire.com](http://www.alphawire.com)  
 Email: [info@alphawire.com](mailto:info@alphawire.com)



Alpha Wire Company  
711 Lidgerwood Avenue  
Elizabeth, NJ 07207  
Tel: 908-925-8000  
Fax: 908-925-6923

**Product Specification: 9158**

**Date Issued: 03/06/01**

**Product Description:** Coaxial cable RG 58 C/U Type, consisting of a 20 AWG (19/0.0079) tinned copper conductor, solid FEP dielectric, tinned copper braided shield, with an overall fluoropolymer jacket.

**Note:** All dimensions are in inches unless otherwise specified.

**Construction Requirements**

**Conductor Data:**

Material	Tinned Copper
AWG, Standing	20, 19/0.0079

**Dielectric Data:**

Material	FEP Teflon
Nominal Diameter	0.110

**Shield Data**

Material	Tinned Copper
Nominal Coverage	95%

**Jacket Data:**

Material	Fluoropolymer
Color	Black
Nominal Wall Thickness	0.015
Nominal Diameter	0.16

**Finished Product Requirements:**

Operating Temperature Range	-55°C to 125°C
Nominal Impedance	48 Ohms
RG Type	58 C/U
Nominal Capacitance	31 pF/ft
UL Type	CL2P
CSA Type	CXC FT6

**Availability:**

## Property Values of DuPont FEP Fluorocarbon Film (continued)

Property	Test Method	Typical Value <sup>a</sup>	
		SI Units	English Units
<b>Electrical</b> Dielectric Strength, short-time in air at 23°C (73°F), 6.35 mm (1/4 in) diameter electrode, 0.79 mm (1/32 in) radius 60 Hz, 500 V/s rate of rise: 0.025 mm (1 mil) film 5 mm (20 mil) film	ASTM D-149 Method	260 kV/mm 70 kV/mm	6500 V/mil 1800 V/mil
Dielectric Constant, 25°C (77°F), 100 Hz to 1 MHz -40 to 225°C (-40 to 437°F), 1000 Hz	ASTM D-150	2.0 2.02-1.93	
Dissipation Factor, 25°C (77°F), 100 Hz to 1 MHz -40 to 225°C (-40 to 437°F), 1000 Hz -40 to 240°C (-40 to 464°F), 1 MHz	ASTM D-150	0.0002-0.0007 0.0002 0.0005	
Volume Resistivity, -40 to 240°C (-40 to 464°F)	ASTM D-257	>1 x 10 <sup>18</sup> ohm-cm	
Surface Resistivity, -40 to 240°C (-40 to 464°C)	ASTM D-257	>1 x 10 <sup>16</sup> Ω/sq	
Surface Arc Resistance	ASTM D-495	>165 sec <sup>d</sup>	
Insulation Resistance at 100°C (212°F) at 150°C (302°F) at 200°C (392°F)	ASTM D-495	350,000 Mohm·μF 250,000 Mohm·μF 65,000 Mohm·μF	

<sup>a</sup> For 0.025 mm (1 mil) film at 25°C (77°F) unless otherwise specified.

<sup>b</sup> Temperature at which a film supports a load of 0.14 N/mm<sup>2</sup> (20 psi) for 5 sec.

<sup>c</sup> This classification rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

<sup>d</sup> Samples melted in arc did not track.

<sup>e</sup> To convert to cm<sup>3</sup> /100 in<sup>2</sup> ·24 h·atm, multiply by 0.0645.