

Coaxial Cable Solutions Guide



General Cable offers a complete line of Carol® Brand Coaxial Cables for today's sophisticated high-speed, wide-bandwidth electronics products that run over long distances with minimal signal loss or degradation.

General Cable has the right coaxial cable to serve every application, including:

- CATV/MATV/DBS
- HDTV/SDI
- CCTV

The General Cable Coaxial Cable Solutions Guide is a quick-reference tool to make it easier to specify and sell the right cable for the required application—residential, commercial, entertainment and security.

Whatever the application calls for, we have a coaxial cable that delivers the performance your customers need.

CATV/MATV/DBS



Broadband signal, 5MHz–3GHz, VHF/UHF, is traditionally transmitted as an analog signal received directly off air (MATV) or delivered as a community access television (CATV) service and uses a 75 Ohm system.









Recommended Coaxial Cable Construction: Copper clad steel (CCS) conductor with a foam polyethylene or Teflon* core, an aluminum/Mylar* foil, a minimum of 60% braid, which is typically aluminum (AL) for this application, and a PVC jacket.

For home use, a CM rated coax should be used. A commercial application may require a National Electrical Code (NEC 800 or 725) Riser (CMR) or Plenum (CMP) rated cable. Economical cable solutions use low smoke PVC (75°C) jackets. Teflon* (FEP) and other fluoropolymer materials (150°C) may be used to provide a more durable and higher-temperature cable alternative.

It is a common misconception that RG 6 coax is “better” than RG 59. While RG 6 has become the industry standard and is an excellent value, it is a larger cable than RG 59. RG 6 allows the same signal level to be delivered a greater distance. This is expressed as a decibel value at particular frequencies. For example, at 100 MHz, General Cable’s Carol® Brand part number C5775 RG 6 coax cable has an attenuation value of 2.05 db/100’. A similar construction Carol® Brand part number C5782 RG 59 coax cable exhibits an attenuation value (loss) at 100 MHz frequency of 2.70db/100’. This may or may not be significant, depending on the input signal level and distance of the cable run.

For a longer cable run, or if the coax cable is planned for use as the backbone in a system, Carol® Brand part number C5039 RG 11 coax cable should be used, because its attenuation at 100 MHz frequency is 1.30 db/100’.

CATV/MATV/DBS RG 59, RG 6 and RG 11 Ratings

Coax Solution	Carol	Belden	Genesis	West Penn	Commscope
 RG 6 CCS/Foil/60% AL Braid CATV/CM	C5775	9116/1829A	5303	841	5726
 RG 6 CCS/Foil/60% AL Braid CATVR/CMR	C5886	9116R	—	—	—
 RG 6 CCS/Quad/Foil/60%/40% AL Braid CATV/CM	C5785	1189A	5307	Q841	5740
 RG 6 CCS/Quad/Foil/60%/40% AL Braid CATVR/CMR	C5889	1884A	—	—	—
 RG 6 CCS/Foil/60% AL Braid CMP - Plenum	C3524	9116P	—	25841	2275K
 RG 6 CCS/Quad/Foil/60%/40% AL Braid CMP - Plenum	C3525	1189AP	—	25Q841	—
 RG 11 CCS/Foil/60% AL Braid CATV/CM	C5039	1525A	—	—	5913
 RG 11 CCS/Foil/60% AL Braid CL2P/CMP - Plenum	C3528	1523AP	—	—	2285K

*Note: DuPont™ trademark

RG 6/U Type

Product Construction:

Conductors:

- Copper-clad steel per ASTM B-869

Insulation/Core:

- Solid and foam polyethylene (PE) designs

Shield:

- Tinned, bare copper or aluminum braid
- Flexfoil® shield

Jacket:

- Premium PVC compound or PE compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- CATV
- MATV
- HDTV
- Digital video
- Direct burial
- See Coax Connector Cross Reference, pages 185-192








CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C5888 RG 6/U Type Riser UL CL2R, CATVR, CMR c(UL) CMR 	18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft.	Foam PE		100% Flexfoil® Bonded +95% Aluminum Braid 6.3 Ω/Mft.	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.267	6.78					10	0.81
C5785 RG 6/U Type Quad-Shield UL CL2, CATV, CM c(UL) CM 	18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft.	Foam PE		(2) 100% Flexfoil® 1st Bonded (1) 60% (2) 40% Aluminum Braids 3.7 Ω/Mft.	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.292	7.42					10	0.81
C5889 RG 6/U Type Riser Quad-Shield UL CL2R, CATVR, CMR c(UL) CM 	18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft.	Foam PE		(2) 100% Flexfoil® 1st Bonded (1) 60% (2) 40% Aluminum Braids 3.7 Ω/Mft.	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.292	7.42					10	0.81
C5777 RG 6/U Type UL CL2, CATV, CM c(UL) CM 	18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft.	Foam PE		100% Flexfoil® Bonded +61% Tinned Copper Braid 6.5 Ω/Mft.	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.267	6.78					10	0.81
C5802 RG 6/U Type Messengered, Self-Supporting 	18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft.	Foam PE		100% Flexfoil® Bonded +60% Aluminum Braid 9.0 Ω/Mft.	Black PVC		16.20	53.15	85	75	1	0.26
		0.180	4.57		0.270	6.86					10	0.81
C5804 RG 6/U Type MoistureGuard™ Direct Burial, Flooded  FlexFill®	18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft.	Foam PE		100% Flexfoil® Bonded +60% Aluminum Braid w/water block 9.0 Ω/Mft.	Black PE		16.20	53.15	85	75	1	0.26
		0.180	4.57		0.270	6.86					10	0.81
C5810 RG 6/U Type Special Applications MATV Cable 	21 Ga. Solid Copper-Clad Steel 32.0 Ω/Mft.	Solid PE		(2) Bare Copper 95% Braids 1.1 Ω/Mft.	Black PE		20.50	67.26	66	75	1	0.40
		0.185	4.70		0.332	8.43					10	0.80

Figure 8. Contains .051" galvanized steel messenger wire.

Put-Ups and Color Codes

PUT-UP CODES

Put-Up Code	Packaging	Put-Up Code	Packaging
03	3 ft Coax w/ Connector HD	68	3500 ft Reel
06	6 ft Coax w/ Connector HD	69	Retail Spool Pac
11	50 ft Spool	70	Cord Hanked, coil w/cuff
12	100 ft Spool	73	Cord Set, long length
13	Clamshell	74	12' Clamshell w/ connectors
15	250 ft Spool	75	25' Clamshell w/ connectors
18	500 ft Spool	76	50' Clamshell w/ connectors
20	900 ft Spool	77	100' Clamshell w/ connectors
21	1000 ft Spool	78	15,000 ft Reel
24	2500 ft Spool	79	8,000 ft Reel
25	500 ft Pull Pac	80	Blister Pack w/ connectors
26	5000 ft Spool	85	250 ft Coil
27	500 ft Pull Pac	86	500' Shrinkwrap coil
30	1000 ft Pull Pac	88	12' Sleeve w/o connector
31	1000 ft Pull Pac	89	25' Sleeve w/o connector
32	150 ft Reel	90	50' Sleeve w/o connector
33	100 ft Reel	91	75' Sleeve w/o connector
34	200 ft Coil	92	100' Sleeve w/o connector
35	250 ft Reel	93	Bulk Reel
36	300 ft Reel	94	Display
38	500 ft Reel	96	Wiring Devise, Skin Pack
39	500 Meter = 1,640 ft	99	Factory Reel
40	Long Length Reel	XX	Various Lengths
41	1000 ft Reel		
42	1500 ft Reel	A1	250 ft Spool Pack
43	2000 ft Reel	A2	500 ft Spool Pack
44	2500 ft Reel	A3	1000 ft Spool Pack
45	4000 ft Reel	A4	2000 ft Spool Pack
46	5000 ft Reel	R5	250 ft Spool, Retail
47	7500 ft Reel	R8	500 ft Spool, Retail
48	10,000 ft Reel		
49	1600 ft Reel		
50	1000 Meter (3280')		
51	4500 ft Reel		
52	3000 ft Reel		
53	25 ft Cuff		
54	12 ft Clamshell		
55	25 ft Clamshell		
56	50 ft Clamshell		
57	100 ft Clamshell		
58	12 ft Sleeve w/connectors		
59	25 ft Sleeve w/connectors		
60	Cord Hanked, coil w/cuff		
61	Cord Set Box		
62	Cord Set Bag		
63	Cord Set Sleeve		
64	50 ft Sleeve w/connectors		
65	100 ft Sleeve w/connectors		
66	50 ft Cuff		
67	100 ft Cuff		

JACKET COLOR CODES

Put-Up Code	Packaging	Put-Up Code	Packaging
00	Uninsulated	69	Maple
01	Black	70	Walnut
02	White	71	Wrought Iron
03	Red	72	Copper
04	Orange	73	White/Black/Red
05	Yellow	74	White/Black/Orange
06	Green	75	White/Black/Yellow
07	Dark Blue	76	White/Black/Green
08	Brown	77	White/Black/Blue
09	Maroon	78	White/Black/Brown
10	Gray	79	White/Black/Violet
11	Antique Gold	80	White/Black/Gray
12	Ivory	81	Black/Red/White
13	Pink	82	Orange/Green/Black
14	Light Green	86	Natural
15	Clear Gold	88	Tan
16	Light Blue	90	Clear
17	Beige	91	Clear Brown
18	Light Brown	92	Clear Blue
19	Purple	93	Clear Red
20	Clear Silver	96	Twisted Cond. No Jkt
21	Light Purple	97	1 Stripe
22	Neon Green	98	2 Stripes
23	Mint Green	99	Assorted Colors
24	Raspberry		
25	Gold		
31	White/Black		
33	White/Red		
34	White/Orange		
35	White/Yellow		
36	White/Green		
37	White/Blue		
38	White/Brown		
39	White/Violet		
40	White/Gray		
41	Red/Green		
42	Green/White		
43	Blue/Red		
44	Blue/White		
45	Orange/Red		
46	Orange/Black		
47	Yellow/White		
48	Yellow/Black		
49	Blue/White		
50	Blue/Black		
56	Black w/White Trace		
62	Silver Gray (Lt Gray)		
66	Light Green		
67	Lime Green		
68	Birch		