# HDTV/SDI



A DTV signal is a television signal provided in a digital form. Data bits, like in a computer, provide a dramatically better picture and better sound quality called High Definition TV (HDTV). HDTV is the highest quality of DTV and is only one of the available formats. In addition to enhanced picture quality, the DTV signal allows several program streams (multicasting) on one channel, providing more program potential, as well as interactive services.

Serial Digital Interface (SDI) is the standard for digital video transmission over coaxial cable. The SMPTE 295M standard provides maximum distances (300 meters; 140 meters for High Definition), typically at 270 Mbps with 540 Mbps possible over a coaxial cable.

**Recommended Coax Cable Construction:** Cable providing signal to and within the home/building will continue to be CCS construction (C5775, C5785). Cables with SBC conductors (395011, 495025) are recommended for the interconnect between the decoder box and other electronic devices (TV, DVD, DVR, CD, Bluray).

HDTV/SDI—Interconnect Cables RG 59, RG 6 and RG 11 Ratings							
Coax Solution	Carol	Belden	Genesis	West Penn	Commscope		
RG 59 SBC/Foil/95% TC Braid CMR	395025	1505A	5361	819	5553		
RG 59 SBC/Miniature/Foil/95% TC Braid CMR - Single RGB - Overall jacket containing 3 x 395031 RGB - Overall jacket containing 5 x 395031	395031 395031X3 395031X5	1855A — —	_ _ _	_ _ _	_ _ _		
RG 59 SBC/Foil/95% TC Braid CMP - Plenum	495023	1506A	_	_	_		
RG 6 SBC/Foil/95% TC Braid CMR	395011	1694A	_	_	5765		
RG 6 SBC/Foil/95% TC Braid CMP - Plenum	495025	1695A	_	_	_		
RG 11 SBC/Foil/95% TC Braid CMR	395029	7731A	_	_	_		
RG 11 SBC/Foil/95% TC Braid CMP - Plenum	495027	7732A	_	_	2286K		

#### CCTV



Closed Circuit TV (CCTV) signals are typically lower-frequency analog signals. Attenuation increases as frequency increases, therefore lower baseband signals are able to travel longer distances on an RG 59 type coaxial cable than a higher-frequency television signal. This is why RG 59 is the most common coax for CCTV. It is becoming more common for Unshielded Twisted Pair (UTP) products, like Category 5e and 6 cables, to be used for Closed Circuit over Twisted Pair (CCTP) or Web-enabled cameras implemented over a Power over Ethernet network architecture; however, these solutions require the use of specialized equipment.

**Recommended Coax Cable Construction:** Solid bare copper (SBC) conductor and a bare copper (BC) braid shield with coverage of 90-95% to minimize signal loss of both the horizontal and vertical sync signals. Stranded conductors are recommended for pan, zoom, tilt (PZT) cameras.

CCTV RG 59 and RG 11 Ratings	CCTV RG 59 and RG 11 Ratings					
Coax Solution	Carol	Belden	Genesis	West Penn	Commscope	
RG 59 SBC/95% BC Braid CM	C1142	543945	5001	_	_	
RG 59 Stranded (7/30) BC/95% BC Braid CM	C1103	9259	_	_	_	
RG 59 Stranded (7/30) BC/95% BC Braid + 22 AWG (7/ Shielded Pair CM	(30) C8025	9265	Ι	_	_	
RG 59 SBC/95% BC Braid + 18 AWG (7/26) Unshielded Pair CM	C8028	549945	l	_	-	
RG 59 SBC/95% BC Braid + 18 AWG (7/26) Unshielded Pair CMP - Plenum	C8030	649948	_	_	_	
RG 59 SBC/95% BC Braid CMP - Plenum	495028	643948	5351	25815	2037V	
RG 11 SBC/95% BC Braid CM	395058	513945	_	811	5905	
RG 11 SBC/95% BC Braid CMP - Plenum	495015	613948	_	_	2286K	
RG 6 BC/95% BC Braid CMP - Plenum	495035	_	_	_	2277V	

CCS- copper clad steel

BC - bare copper



\*Abbreviation Key

AL - aluminum

SBC - solid bare copper



TC - tinned copper





# Command<sup>®</sup> Series Speaker Wire UL Listed (Wires, Misc)

#### Applications:

Digital audio, stereo systems

Catalog No.	Conductors	AWG (Stranding)	Length	
C1356	2	24 (7 × 32)	500' Reels	
C1362	2	22 (7 × 30)	500' Reels	
C1360	2	20 (10 x 30)	500' Reels	
C1357	2	18 (16 x 30)	500' Reels	
C1358	2	16 (26 x 30)	500' Reels	
C1361	2	14 (41 × 30)	500' Reels	
C1363	2	12 (65 x 30)	500' Reels	

# Command® Series Twisted Pair Speaker Cable NEC Type CMR

### Applications:

Home theaters, home audio systems

Catalog No.	Conductors	AWG (Stranding)	Length	
C1000A	2	22 (7x30)	500' Reels	
C1001A	2	20 (7×28)	500' Reels	
C1002A	2	18 (7x26)	500' Reels	
C1003A	2	16 (19×29)	500' Reels	
C1004A	2	14 (42×30)	500' Reels	
C1005A	2	12 (65×30)	500' Reels	

### **Commercial-Grade Speaker Cables NEC Type CMR**

#### Applications:

Movie theaters, commercial sound installations

Catalog No.	Conductors	AWG (Stranding)	Length	
E1042S	2	16 (19/.0117)	500' Reels	
E1044S	4	16 (19/.0117)	500' Reels	
E1052S	2	14 (19/.0147)	500' Reels	
E1054S	4	14 (19/.0147)	500' Reels	
E1062S	2	12 (19/.0185)	500' Reels	
E1064S	4	12 (19/.0185)	500' Reels	

# Rubber Jacketed Microphone Cable—High- and Low-Impedance

#### Applications:

Low- and high-impedence microphones, broadcast and studio use, communication and audio systems, shielded power supplies, control circuits, video and audio interconecting cables, suggested voltage rating of 300

Catalog No.	Conductors	AWG	
C1300	1	#20 (26 x 34)	
C1301	2	#18 (41 x 34)	
C1302	2	#20 (26 x 34)	

# **RGB Cables for Home Theater and Video Interconnect NEC Type CMR**

Applications: Home theater,

video interconnect, boardroom installations

Catalog No.	# of Coax	AWG	Insulation	Shielding
395031X3	3	23 Solid BC	Foam PE	Dual Foil + 95% TC Braid
395031X5	5	23 Solid BC	Foam PE	Dual Foil + 95% TC Braid





Technical Information Electronics

# **Put-Ups and Color Codes**

# **PUT-UP CODES**

# **JACKET COLOR CODES**

Put-Up Code	Packaging	Put-Up Code	Packaging	Put-Up Code	Packaging	Put-Up Code	Packaging
03	3 ft Coax w/ Connector HD	68	3500 ft Reel	00	Uninsulated	69	Maple
06	6 ft Coax w/ Connector HD	69	Retail Spool Pac	01	Black	70	Walnut
11	50 ft Spool	70	Cord Hanked, coil w/cuff	02	White	71	Wrought Iron
12	100 ft Spool	73	Cord Set, long length	03	Red	72	Copper
13	Clamshell	74	12' Clamshell w/ connectors	04	Orange	73	White/Black/Red
15	250 ft Spool	75	25' Clamshell w/ connectors	05	Yellow	74	White/Black/Orange
18	500 ft Spool	76	50' Clamshell w/ connectors	06 07	Green Dark Blue	75 76	White/Black/Yellow White/Black/Green
20	900 ft Spool	77	100' Clamshell w/ connectors	08	Brown	77	White/Black/Blue
21	1000 ft Spool	78	15,000 ft Reel	09	Maroon	78	White/Black/Brown
24	2500 ft Spool	79	8.000 ft Reel	10	Gray	79	White/Black/Violet
25	500 ft Pull Pac	80	Blister Pack w/ connectors	11	Antique Gold	80	White/Black/Gray
26	5000 ft Spool	85	250 ft Coil	12	lvory	81	Black/Red/White
27	500 ft Pull Pac	86	500' Shrinkwrap coil	13	Pink	82	Orange/Green/Black
30	1000 ft Pull Pac	88	12' Sleeve w/o connector	14	Light Green	86	Natural
31	1000 ft Pull Pac	89	25' Sleeve w/o connector	15	Clear Gold	88	Tan
32	150 ft Reel	90	50' Sleeve w/o connector	16	Light Blue	90	Clear
33	100 ft Reel	91	75' Sleeve w/o connector	17 18	Beige	91 92	Clear Brown Clear Blue
34	200 ft Coil	92	100' Sleeve w/o connector	19	Light Brown Purple	92	Clear Blue Clear Red
35	250 ft Reel	93	Bulk Reel	20	Clear Silver	96	Twisted Cond. No Jkt
36	300 ft Reel	94	Display	21	Light Purple	97	1 Stripe
38	500 ft Reel	96	Wiring Devise, Skin Pack	22	Neon Green	98	2 Stripes
39	500 Meter = 1,640 ft	99	Factory Reel	23	Mint Green	99	Assorted Colors
40	Long Length Reel	XX	Various Lengths	24	Raspberry		
41	1000 ft Reel	,,,,	various Estiguis	25	Gold		
42	1500 ft Reel	A1	250 ft Spool Pack	31	White/Black		
43	2000 ft Reel	A2	500 ft Spool Pack	33	White/Red		
44	2500 ft Reel	A3	1000 ft Spool Pack	34	White/Orange		
45	4000 ft Reel	A4	2000 ft Spool Pack	35 36	White/Yellow White/Green		
46	5000 ft Reel	R5	250 ft Spool, Retail	37	White/Blue		
47	7500 ft Reel	R8	500 ft Spool, Retail	38	White/Brown		
48	10,000 ft Reel	110	ooo it opool, riotali	39	White/Violet		
49	1600 ft Reel			40	White/Gray		
50	1000 Meter (3280')			41	Red/Green		
51	4500 ft Reel			42	Green/White		
52	3000 ft Reel			43	Blue/Red		
53	25 ft Cuff			44	Blue/White		
54	12 ft Clamshell			45	Orange/Red		
55	25 ft Clamshell			46	Orange/Black		
56	50 ft Clamshell			47 48	Yellow/White Yellow/Black		
57	100 ft Clamshell			49	Blue/White		
58	12 ft Sleeve w/connectors			50	Blue/Black		
59	25 ft Sleeve w/connectors			56	Black w/White Trace		
60	Cord Hanked, coil w/cuff			62	Silver Gray (Lt Gray)		
61	Cord Set Box			66	Light Green		
62	Cord Set Box			67	Lime Green		
63	Cord Set Sleeve			68	Birch		
64	50 ft Sleeve w/connectors				•	•	
65	100 ft Sleeve w/connectors						
66	50 ft Cuff						
67	100 ft Cuff						
01	100 It Oull	1					



