



# Coaxial / R.F Cable

In coaxial cable the transmission circuit is formed by three functional elements (Inner conductor, Di- electric & Outer conductor) . All three elements are concentric. The materials and dimensions of these three elements determine the transmission and the other electrical characteristics of the coaxial cable. These coaxial cables are available in 50,75,93, 125 & 150 Ohms Impedance.

It is used to transmit RF single between the transmission equipment and the antenna with 75 ohm Impedance with 50 Ohm Impedance performance in all environmental conditions

PARAMETERS	RG 8	RG 213
<b>A. CONSTRUCTION</b>		
1. Inner Conductor	Solid Bare	Stranded Bare
	Copper	Copper
2. Nominal Conductor Diameter (mm)	2.70	2.25
		(7x0.75 mm)
3. Dielectric	Foam PE	Foam PE
4. Nominal Dielectric Diameter (mm)	7.20	4.90
5. First Outer Conductor	Bonded Al Tape	Bonded Al Tape
6. Second Outer Conductor	Al Alloy Braid	Al Alloy Braid
7. Nominal Coverage (%)	90	95
8. Jacket	PVC (Black)	PVC (Black)
9. Nominal Jacket Diameter (mm)	10.30	7.40
10. Bending radius, Minimum (mm)	100	75
<b>B. ELECTRICAL</b>		
1. Nominal Capacitance (pF/mtr.)	78	100
2. Nominal Impedance (Ohm)	50	50
3. Nominal Velocity Ratio (%)	66	66
<b>C. ATTENUATION (@ 200°)</b>		
FREQUENCY MHz	dB/100m Max.	dB/100m Max.
50	3.40	4.00
100	4.50	7.60
400	9.25	15.85
500	9.90	---
1000	14.00	29.60

PARAMETERS	RG 6	RG 11
<b>A. CONSTRUCTION</b>		
1. Inner Conductor	Solid Bare	Solid Bare
	Copper	Copper
2. Nominal Diameter (mm)	1.02	1.63
3. Dielectric	Foam PE	Foam PE
4. Nominal Dielectric Diameter (mm)	4.57	7.11
5. First Outer Conductor	Bonded Al Tape	Bonded Al Tape
6. Second Outer Conductor	Al Alloy Braid	Al Alloy Braid
7. Nominal Coverage (%)	60	60
8. Jacket	PVC (Black)	PVC (Black)
9. Nominal Jacket Diameter (mm)	7.0	10.0
10. Bending radius, Minimum (mm)	65	75
<b>B. ELECTRICAL</b>		
1. Nominal Capacitance (pF/mtr.)	53	53
2. Nominal Impedance (Ohm)	75	75
3. Nominal Velocity Ratio (%)	85	85
<b>C. ATTENUATION (@ 200°)</b>		
FREQUENCY MHz	dB/100m Max.	dB/100m Max.
55	5.40	3.50
83	6.50	4.00
400	13.50	9.00
500	15.50	10.00
1000	22.00	15.00



**CONSTRUCTION**  
RG59, RG6 & RG11

**BRANCH & DROP JELLY FLOODED CO-AXIAL CABLES**

## Technical Specifications of RF Cables

FREQUENCY MHz	1/2"		7/8"		1 1/4"		1 5/8"	
	Attenuation db/100 MTR	Power Rate KW	Attenuation db/100 MTR	Power Rate KW	Attenuation db/100 MTR	Power Rate KW	Attenuation db/100 MTR	Power Rate KW
100	2.15	3.94	1.17	8.62	0.80	12.52	0.68	17.0
200	3.08	2.75	1.69	5.99	1.19	8.84	1.10	11.0
400	4.70	1.80	2.60	3.88	1.85	5.52	1.57	6.9
800	6.35	1.33	3.56	2.83	2.57	4.03	2.19	4.84
900	6.75	1.25	3.80	2.65	2.74	3.73	2.34	4.49
1000	7.20	1.18	4.03	2.50	2.92	3.50	2.49	4.20
1500	9.05	0.95	5.08	1.99	3.70	2.80	3.17	3.22
1800	9.90	0.86	5.61	1.79	4.12	2.50	3.52	2.85
2000	10.50	0.81	6.05	1.68	4.39	2.31	3.78	2.66
2200	11.10	0.77	6.40	1.59	4.63	2.19	4.01	2.45
2400	11.60	0.75	6.75	1.54	4.88	2.08	4.28	2.33
2500	11.95	0.73	6.90	1.50	5.01	2.02	4.34	2.30

**Sizes Covered:**

	50 ohms	75 ohms	93 ohms	100 ohms	125 ohms
<b>RG Series</b>	RG-10A/U, 18A/U, 55B/U, 58C/U, 122/U, 174/U, 212/U, 213/U, 214/U, 215A/U, 217/U, 218/U, 219/U, 223/U,	RG-59B/U, 59/U, 11A/U, 12A/U, 35B/U, 34B/U, 216/U, 179B/U	RG-62A/U, 71B/U	--	RG-63 B/U
<b>URM-Series&amp; UR-Series</b>	URM-43, 76, 91, 115	URM-65, 70, 77, 117, 201, 202, 203, 204, 206, 210 & UR- 21, 60, 56, 54, 59	--	UR-78	--
<b>CATV Cables</b>	--	RG-11 & RG-6 LCM-13 & RG-59	--	--	--
<b>PLCC</b>	75 ohms, 120 ohms, 150 ohms				

**Cable Construction:**

- ◆ **Conductor:** Plain Copper/Copper weld/ Silver Coated Copper/ Tin Coated Copper/ Copper Coated Aluminum
- ◆ **Insulation:** PE/ FEP/ ETFE/ Foam/ XLPE/ PTFE (taped), PFA
- ◆ **Shielding (if requested):** An aluminum tape is applied over the insulated core, the aluminum portion facing outside
- ◆ **Braiding:** Plain copper/ Tin coated Copper/ Silver coated Copper/ Aluminum-Tinned single/double
- ◆ **Bedding:** PVC/ PE in the form of extruded layer
- ◆ **Armouring:** Galvanized steel wire is applied helically or Galvanized Steel wire Braid is used in a single layer
- ◆ **Sheath:** An extruded layer of PVC is applied as the outer sheath. Colour of the sheath is as per customer specification.

**Customization:**

Other construction can be supplied on request:

- ◆ FR [Flame Retardant PVC]
- ◆ FRLS [Flame Retardant Low Smoke PVC]
- ◆ With polymeric insulation & sheath- Halogen free/ zero halogen

**Reference Specification:**

BS: 2316(UR series), American Military Standard MIL-C-17 (RG Series), IS: 11967, IS: 5608, IEC: 96 or any other international standard.

**Application:**

High Frequency, VHF & UHF Equipment, Radar, Satellite Guidance, Microwave Transmission, Studios Wiring, Signaling, Computers, Nuclear Reactors, CCTV

Construction Parameters	Cable Type		
	RG 11F	RG 6F	RG 59F
Inner Conductor Nom. Dia (mm)	Solid Bare Copper 1.63	Solid Bare Copper 1.02	Solid Bare Copper 0.80
Dielectric Nom. Dia (mm)	Foam PE 7.11	Foam PE 4.57	Foam PE 3.55
Outer Conductor First Second Nom. Coverage(%)	Bonded Al Tape Al Braid 60	Bonded Al Tape Al Braid 60	Bonded Al Tape Al Braid 60
Jacket Nom. Dia (mm)	PVC (Black) 10.2	PVC (Black) 7.2	PVC (Black) 6.00

Electrical Parameters	Cable Type		
	RG 11F	RG 6F	RG 59F
Inner Conductor Max. Resistance(ohm/km)at 20° c Loop Resistance(ohm/km)at 20° c	8.50 16.80	21.00 28.50	35.00 46.43
Nom. Capacitance(pF/mtr.)	53	53	53
Nom. Impedance(ohm)	75	75	75
Nom. Velocity Ratio(%)	85	85	85

Nom. Attenuation at 25° C(dB/100m)			
at	1.50	2.08	
5 MHZ	3.60	5.30	
55 MHZ	4.32	6.40	
83 MHZ	6.40	9.40	
187 MHZ	6.80	9.95	
211 MHZ	7.37	10.85	
250 MHZ	8.12	11.85	
300 MHZ	8.77	12.80	
350 MHZ	9.42	13.70	
400 MHZ	9.95	14.50	
450 MHZ	10.56	15.35	
500 MHZ	11.00	16.05	
550 MHZ	11.60	16.90	
600 MHZ	13.05	18.95	
750 MHZ	14.20	20.50<	
865 MHZ	15.50		
1000 MHZ			