RG58

RG-58 is a coaxial cable that is used for wiring purposes. A coaxial cable, in general, consists of an inner conductor that is surrounded by a spacer.

The coaxial cable is electrically charged and sometimes consists of different uninsulated conductors that remain entangled with one another. The insulating spacer of the cable is further surrounded by a sheath that is cylindrical in shape. The final circle is formed by an insulating jacket. The insulation surrounding the RG-58 cable carries a low impedance of around 50 or 52 ohms. It is generally used for generating signal connections that are of low power.

RG-58 Specifications

Type	RG-58	RG-58A	RG-58B	RG-58C
Impedance Z0(Ω)	53.5	52	53.5	50
Dielectric	Solid Polyethylene	Solid Polyethylene	Solid Polyethylene	Solid Polyethylene
Time Delay (ns/ft)	1.54	1.54	1.54	1.54
Propagation Velocity (% of c)	65.9	65.9	65.9	65.9
Capacitance (pF/foot)	28.8	29.6	28.8	30.8
Outside Dimensions (inches)	0.195	0.195	0.195	0.195
dB/100ft	11.7	13.2	14	14

@400MHz				
Maximum Voltage (Vrms)	1900	1900	1900	1900
Shield	Braid	Braid	Braid	Braid

The RG-58 cable is most often used for the Thin Ethernet when the maximum length required is about 185 meters. The RG-58 cable frequently acts as a generic carrier of power signals. These signals are generated in physical laboratories. The RG-58 cable is at times collectively used with BNC connectors that are commonly found in oscilloscopes. The BNC connector is in fact the common connector for the RG-58 cable. The BNCconnector is used for terminating the coaxial cable in the RG-58. This particular connector provides signals for radio antenna connections, electronics used for aviation, and for conducting video signals. When the RG-58 cable combines with the BNC connector, it can produce composite video played on commercial video devices. The interconnection between the RG-58 cable and the BNC connector can lead to ground loops when these are further connected with several coaxial cables. The combinations might produce an unwanted flow of current in a conductor that joins two points at similar potential. This interconnection is capable of pulling around 50 to 60 Hz fields from the AC mains.

The RG-58 cable is specially designed to work with most two-way radio systems. This communication system is different from the usual broadcast receiver because the latter can receive data from one end only. In case of the two-way radio system, which can be generated by the RG-58 cable, content travels in both directions. The radio can receive and transmit data at the same time. It is also called a transceiver. The transmitter is activated by means of a push-to-talk button. These radio systems work with the 50-ohm RG-58 cable. Examples of such radio systems are marine SSB, police transmitters, fire, WLAN antennas, and marine VHF.