



How do you select the right coaxial cable for your application?

There are a number of commonly used coaxial cable sizes in use today. Most are "RG" style cables originally designed for military applications but now extensively used in commercial situations. The following coaxial cable selection guide is intended as a general guide to assist you in selecting the right cable for your particular application.

Cable Type	Impedance	Typical Application	Best feature	Trade Off
RG174/U 	50 Ohm	Transmission of data signals in applications such as LAN/WAN or GPS	Small diameter, flexible	Higher signal loss than larger diameter cable such as RG58
RG188A/U 	50 Ohm	Transmission of data signals in applications such as LAN/WAN or GPS in situations where high temperature performance is needed	Small diameter, flexible. High temperature rating of taped TFE outer jacket	Higher signal loss than larger diameter cable such as RG58 and higher cost than standard RG174
RG316/U 	50 Ohm	Transmission of data signals in applications such as LAN/WAN or GPS in situations where high temperature performance is needed	Small diameter, flexible. High temperature rating of extruded FEP outer jacket	Higher signal loss than larger diameter cable such as RG58 and higher cost than standard RG174
RG58C/U 	50 Ohm	Transmission of data signals in applications such as antenna feed cables or Ethernet backbones	Lower signal loss than smaller diameter cable such as RG174	Less flexible than smaller diameter cable such as RG174
RG142B/U 	50 Ohm	Transmission of data signals in applications such as antenna feed cables or Ethernet backbones in situations where high temperature performance is needed	Lower signal loss than smaller diameter cable such as RG174. High temperature rating of extruded FEP jacket	Less flexible than smaller diameter cable such as RG174 and higher cost than RG58C cable.
RG59A/U 	75 Ohm	Transmission of a video or audio signal in applications such as security systems or CATV	Lower signal loss than smaller diameter cable such as RG179. Flexibility of stranded center conductor cable	Higher signal loss than solid center conductor RG59B/U cable
RG59B/U 	75 Ohm	Transmission of a video or audio signal in applications such as security systems or CATV	Lower signal loss than smaller diameter cable such as RG179 and RG59A/U stranded center conductor cable	Less flexible than smaller diameter cable such as RG179 or stranded center conductor RG59A/U
RG6/U 	75 Ohm	Transmission of a video or audio signal in applications such as security systems or CATV	Lower signal loss than smaller diameter cable such as RG179 and both RG59A/U or RG59B/U cable	Less flexible than smaller diameter cable such as RG179 and both RG59A/U or RG59B/U
RG223/U 	50 Ohm	Transmission of data signals in applications such as LAN/WAN or GPS in situations where low signal loss and high shielding performance is needed	Lower signal loss and better shielding than smaller diameter cable such as RG174 or RG58C/U cables	Less flexible than smaller diameter cable such as RG174 and higher cost than single shielded RG58C cable
RG213/U 	50 Ohm	Transmission of data signals in applications such as antenna feed cables in situations where low signal loss and high operating voltage performance is needed	Lower signal loss and higher operating voltage than RG58C/U cable	Larger diameter and less flexible than RG58C/U cable
RG179B/U 	75 Ohm	Transmission of a video signal in applications such as security systems where high temperature performance is needed	Small diameter, flexible. High temperature rating of extruded FEP outer jacket	Higher signal loss and cost than larger diameter cable such as RG59
RG187/U 	75 Ohm	Transmission of a video signal in applications such as security systems where high temperature performance is needed	Small diameter, flexible. High temperature rating of TFE taped outer jacket	Higher signal loss and cost than larger diameter cable such as RG59

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