

## RG-59

The RG-59 cable is a type of coaxial cable that is used to generate low-power [video connections](#). The cable works on two conductors that are based on a single common axis. It is also used for RF signal connections. The RG-59 cable conducts video and radio frequencies at an impedance of around 75 ohms. The RG-59 cable is used for generating short-distance communication. The cable can be used at baseband video frequencies, which is measured from the lowest count of zero and continues to the highest signal frequency. [Baseband](#) refers to a collection of signals and frequencies varying over a wide range. The RG-59 [cable works](#) at broadcast frequencies, too. The RG-59 cable cannot be used over long distances owing to its high-frequency power losses. In such cases, [RG-6](#) or [RG-11](#) cables are used instead.

## RG-59 Specifications

Type	RG-59A	RG-59B
<b>Impedance Z0(<math>\Omega</math>)</b>	73	75
<b><a href="#">Dielectric</a></b>	Solid Polyethylene	Solid Polyethylene
<b>Time Delay (ns/ft)</b>	1.54	1.54
<b>Propagation Velocity (% of c)</b>	65.9	65.9
<b>Capacitance (pF/foot)</b>	21.1	20.6
<b>Outside Dimensions (inches)</b>	0.242	0.242
<b>dB/100ft @400MHz</b>	10.5	9
<b>Maximum Voltage (Vrms)</b>	2300	2300
<b>Shield</b>	Braid	Braid

The RG-59 cable is comprised of an electrical cable that works on the basis of an inner conductor or a number of uninsulated conductors that are twisted tightly with one another. The cable has several covers, the first of which is occupied by an insulating spacer. The spacer is surrounded by a conducting sheath that is cylindrical in shape. This is further surrounded by an insulating layer. The transmission takes place through the electromagnetic field that carries the power signals between the inner and the outer conductors. The RG-59 cable is usually used for short-distance transmission of signals such as radio signals or video communications. When the distance to be traveled by the signals is longer, unshielded twisted pair (UTP) or fiber optic is used instead.

The RG-59 [coaxial cable](#) is usually bundled with common consumer equipment such as VCRs or digital receivers. The RG-59 cables are comparatively less expensive than other cables. They range in length from about four to six feet. One of the greatest uses of the RG-59 cable is synchronization between two digital audio devices.



The [coaxial cable](#) coordinates between the digital signals that are responsible for producing sound.

The digital audio devices are used for storage, conversion, and transmission of the audio signals. The RG-59 cable maintains a unique coordination between these devices. The audio data are also distributed in the form of files. Examples of the digital audio devices are ADAT optical devices.

The RG-59 coaxial cable is used for transmitting power signals for video systems such as cable television. It is quite similar to the [RG-58](#) coaxial cable, with a difference in the frequency at which the content travels. The RG-59 cable utilizes center conductors which are available in different gauges. For instance, the center conductor of the RG-59 cable is approximately 20 to 22 AWG. The RG-59 cable

suffers from a small amount of signal reduction, which is due to the shielding on the cable. The low cost of the RG-59 coaxial cable has made it easily accessible and usable.

**Source:** <http://www.tech-faq.com/rg-59.html>