



Coaxial 50Ω RF Cables

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Coaxial Cabling Examined

Coaxial cables have been around since the late 1800's and is still prominent in the wire and cable industry today. Coax cables transmit radio-frequency energy down the line and are typically used in the telephone industry, radio, television, aircraft & aerospace, and radar. It is also very common in industrial Local Area Networks (LAN) because of their strong shielding capabilities that resist interference from other electronic equipment.

Because of the way coaxial cables are constructed, they virtually eliminate outside interference. This enduring cable is a copper-based wire that is made up of 4-5 layers. Its core is a thin copper wire conductor surrounded by a layer of polyethylene foam insulation (also known as the dielectric), followed by foil and/or braided mesh shielding, then finally the durable jacket. It is this construction that prevents signal interference from nearby equipment and other sources of EMI which makes it perfect for applications where signal loss and attenuation is to be minimized or eliminated. As a result of this low



signal distortion and attenuation, coax cables do not require as many amplifiers to boost signal in comparison to its copper counterparts.

Broad bandwidth is another beneficial characteristic of coaxial wire, ranging from zero frequency (DC) up to several gigahertz, depending on the cable type used. Coax cables can effectively carry many analog signals at high frequencies, and are also capable of higher bandwidth per channel. This superior bandwidth is another reason why coax cable can be used in various applications.

Taking a look back at coax's history, its implementation can be traced back to messages being sent via telegraph; spanning cities, countries and even oceans. This time tested cable has proven it's staying power as it is still being used today for its superior physical properties mentioned above, and we do not foresee coax cable becoming obsolete any time in the near future. In fact, many industry experts predict the growth of the coax cable industry in the years to come.

CircaMax carries a wide variety of Coaxial cables and connectors. Visit our website to find out about our broad selection of coaxial cabling and connectors. Or contact an expert and ask for a free quote today.

CircaMax Coaxial Cables

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