

BNC SPECIFICATIONS



COAXICOM BNC CONNECTORS are miniature units that feature a quick disconnect 2-stud bayonet lock coupling mechanism. They are available in a variety of flexible and semirigid cable termination styles. Bulkhead and panel mount cable connectors and receptacles are also featured, as well as straight and right angle PCB jacks. Most connectors are available in 75 Ω by adding a -75 suffix to the end of the part number.

This catalog summarizes a small cross-section of COAXICOM's BNC connectors and adapters. We can also supply reverse polarized connectors, bulkhead mounted hermetically sealed adapters, as well as bulkhead adapters with isolated ground. Coaxicom also offers a selection of twinaxial (TWBNC) BNC type connectors with 2-stud coupling. They are similar in size to BNC connectors, and are best suited for use with RG-108/U and similar cables. Twinaxial connectors have a nominal impedance of 78 Ω and a frequency range of DC-500 MHz. All other specifications are the same as those of standard BNC's.

MILITARY SPECIFICATIONS

MIL-PRF-39012, MIL-A-55339, MIL-C-83517 and MIL-STD-348 as applicable.
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MATERIAL

Body parts, Male Contacts	Brass per ASTM-B16
Female Contacts	Beryllium Copper per ASTM-B196
Insulators	TFE per ASTM-D-1457
Gaskets	Silicon rubber per ZZ-R-765
Ferrules	Brass 1/2 Hard, QQ-B-626

MECHANICAL

Max. Force to Engage/Disengage	Axial: 3 lbs. Torque: 2.5 in-lbs.
Coupling Mechanism	2-Stud Bayonet, IAW MIL-STD-348
Coupling Nut Retention	100 lbs. min (plugs only)
Durability	500 cycles min.

ELECTRICAL

Frequency Range	50 Ω: DC-4 GHz. 75 Ω: DC-1GHz. TWBNC: DC-500 MHz.
Nominal Impedance	50, 75, and 78 Ω (TWBNC)
VSWR	50 Ω: 1.3:1 max, 75 Ω 1.15:1
Insertion Loss (50 Ω)	0.2 dB max @ 3 GHz.
RF Leakage (50 Ω)	-55 dB min, 2-3 GHz.
Dielectric Withstanding Voltage	1500 VRMS @ Sea Level
Insulation Resistance	5000 Megohms min
Voltage Rating	500 VRMS @ Sea Level
Center Contact Resistance	1.5 milliohms max. initial

ENVIRONMENTAL

Temperature Range	-65° C to 165° C
Vibration	Method 204, Test Condition B
Shock	Method 213, Test Condition C
Thermal Shock	Method 107, Test Condition B
Corrosion [Salt Spray]	Method 101, Test Condition B
Moisture Resistance	Method 106 (High Humidity N/A)
Altitude	Method 105, Test Condition C
Hermeticity	Helium Leak Test, 10 ⁻⁷ cc/sec

FINISH

Nickel plating is standard on most connectors. Gold and silver are also available. Center contacts are gold plated per MIL-PRF-39012, IAW MIL-G-45204.
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CABLE GROUPS

22	22A	RG55A, 142, 142A, 223, 400, M17/60, M17/128	27	27B	RG303, M17/111
	22B	RG55, 55B, 142B, M17/184, LMR195	28	28A	RG59, 59A, 59B, 62, 62A, 62B, 62C, 210, M17/29, M17/30, M17/97
23		RG178, 178A, 178B, 196, 196A, 404		28B	RG71, 71A, 71B, 302, M17/90, M17/110, RG59DS
24	24A	RG174, 188A, 316, M17/172, M17/173, LMR100, 101	29		RG174DS, RG316DS, RG188DS, TIMES RD316
	24B	RG161, 179, 179A, 179B, 187, 187A, M17/94, M17/136, Belden 9221	30		.141 Semirigid and ULTRA-FLEX, RG402, M17/130
26		RG178DS, RG196DS, Microdot 250-3908	31		.085 Semirigid and ULTRA-FLEX, RG405, M17/133
27	27A	RG58, 58A, 58C, 141, 141A, M17/28, M17/155, M17/170	32	32B	RG11, 11A, M17/6

BNC INTERFACE DIMENSIONS

RECOMMENDED BULKHEAD MOUNTING HOLE

