Connector Products

75 Ohm BNC Connectors

ADC's BNC connectors are the most reliable and universally accepted method of terminating coaxial cable in the market today. Outstanding electrical performance (up to 3 GHz) is achieved by unique design elements in the industry's truest 75 Ohm connector. Precision molded insulators with locking gold plated center conductors ensure true 75 Ohm characteristic impedance. Innovative features result in significant reduction of impedance mismatch throughout the network and improved transmission reliability in digital applications.

Features:

- Outstanding electrical performance
- Gold plated, locking center conductor
- True 75 Ohm characteristic impedance
- Compatible with 12 point crimp tools and select competitive crimp tools and die sets
- Tarnish resistant nickel plated body and bayonet
- Sizes for multiple cable types
- Meets performance requirements of MIL-C39012

75 Ohm BNC Connectors

For all types of digital applications, ADC's true 75 Ohm BNC connector products ensure outstanding electrical performance, improved transmission and enhanced reliability. ADC offers a complete line of straight, right angle and bulkhead connectors, complemented by adapters, terminating plugs, and accessories.

Common Features

- True 75 Ohm characteristic impedance through the entire connector
- Bandwidth performance to 3 GHz
- Tarnish resistant nickel plated body and bayonet
- Compatible with common crimp tools and die sets
- Sizes for most cable types

Straight BNC Plug Connectors

- Designed to exceed the rigorous demands of today's telephony and broadcast environments, including SMPTE 259, 274 and 292 M standards.
- Gold plated, locking center conductor
- .625" crimp sleeve for greater pulloff force
- 100% guided mating
- Compatible with 12 point crimp tools
- Strip lengths common between sizes and types*

Right Angle BNC Plug Connectors

- Right angle design alleviates stress associated with bending cable
- Provides increased density
- Improves overall cable management
- Bulk packaging available
- Center conductor pins and crimp sleeves are fully interchangeable with ADC's straight plugs of that cable type

Bulkhead Jack Connectors

- Easier, more reliable termination; gold-plated locking center conductor ensures proper alignment during termination
- 100% guided mating
- Exclusive closed-entry contact prevents center conductor damage from non-standard BNCs or test probes.

*Except for Belden 7731/Commscope 7530, RG6 Cable

75 Ohm BNC Connectors

BNC Adapters

- Bulkhead feed through available with or without panel isolation
- Meets the performance requirements of MIL-A-55339 for radio frequency coaxial adapters
- Gold plated, closed entry contact center conductor to prevent damage during test or mating plug termination
- Meets performance requirements of MIL-C39012

Ordering Information

Description	Catalog Number
BNC straight adapter	BNC-STRT-ADPT
BNC right angle adapter	BNC-RA-ADPT
Bulkhead feed through	BHFT1
Bulkhead feed through with panel isolation washers	BHFT-I1
Recessed bulkhead feed through	BHFT-R-X*

* Replace X in the catalog number with the desired color.
(G=green, R=red, BL=blue, B=black, W=white, Y=yellow)

BNC-STRT-ADPT

BNC-RA-ADPT

BHFT1

BHFT-R-X

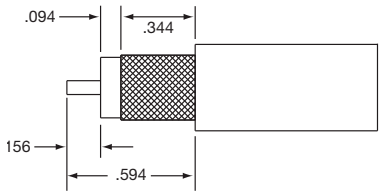
BNC Terminating Plugs

Ordering Information

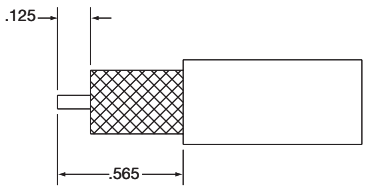
Description	Catalog Number
BNC terminating plug; 75 Ω	BNC-TP2

75 Ohm BNC Connectors
Cable Stripper

STC-12B



BNC Plug Strip Length
(All BNC Plug Connectors
except BNC-25)



BNC Plug Strip Length
For BNC-25

BNC-S1

BNC-TOOL-1

Ordering Information

Hand Tools	BNC Type	Catalog Number
Complete Manual Stripper Tool Kit Includes stripper cassette, memory and tool	BNC-3, BNC-7, BNC-12, BNC-13	STC-13B
	BNC-1, BNC-2, BNC-6, BNC-10	STC-12B
	BNC-4, BNC-5, BNC-8, BNC-9, BNC-11	STC-11B
Stripper Cassette Replacement cutting blades for the manual Stripper Tool	All, except BNC-25	CCS-BLK
Memory for Manual Stripper Tool Determines how deep each blade on the stripper cassette will cut into cable. Can be adjusted for most cable types.	BNC-4, BNC-5, BNC-8, BNC-9, BNC-11	CCS-1
	BNC-1, BNC-2, BNC-6, BNC-10	CCS-2
	BNC-3, BNC-7, BNC-12, BNC-13	CCS-3
Empty Tool Handle Requires memory and stripper cassette	All, except BNC-25	STC-1
Automatic Cable Stripper Includes Nicad battery pack, stripper body, AC/DC charger, ABS plastic carrying case, instruction manual	All, except BNC-25	BNC-S1
Cutter Head for Automatic Cable Stripper	BNC-4	BNC-H1
	BNC-1, BNC-2, BNC-6, BNC-8, BNC-9, BNC-10, BNC-11	BNC-H2
	BNC-6	BNC-H3
	BNC-3, BNC-7, BNC-12, BNC-13	BNC-H5
Connection tool kit for BNC connectors • Crimp tool (WT-2) • BNC crimp die set for 735, RG59 and 734 cables (WD-2) • Stripping tool with cassette for 735/0222 cables (STC-13B) • Stripping tool with cassette for RG59/734 cables (STC-12B) • Cable termination tray (LCA-000009) • Insertion/withdrawal tool for BNC connector (BT2000) • Carrying case		BNC-TOOL-1

75 Ohm BNC Connectors

BNC Crimping Tool/Die Sets

WT-2

- Durable ergonomic handle provides greater comfort
- Fully adjustable for preloading to maintain die set alignment
- Exceptional life, rated for 100,000 crimp cycles
- Available in two handle sizes
- Highest mechanical advantage in the industry, reduces fatigue during crimping

BT2000

Ordering Information

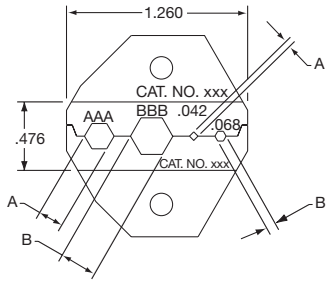
Hand Tools	Catalog Number
Crimp tool with ergonomic handle for ADC die sets	WT-2
Crimp tool with long ergonomic handle for ADC die sets	WT-3
BNC insertion tool with 12" handle	BT2000
BNC insertion tool with 24" handle	BT2000-24

Ordering Information

Hand Crimp Tool Catalog Number*	Die Set Catalog Number*	Station Dimensions			
		A Center Conductor 1	B Center Conductor 2	C Crimp Sleeve 1	D Crimp Sleeve 1
WT-2 Ergonomic Handle	WD-1	.042"/1.07 mm	.068"/1.73 mm	0.255"/6.48 mm	0.324"/8.23 mm
	WD-2	.042"/1.07 mm	.068"/1.73 mm	0.178"/4.52 mm	0.255"/6.48 mm
	WD-3	.042"/1.07 mm	.068"/1.73 mm	0.197"/5.00 mm	0.255"/6.48 mm
OR	WD-4	.042"/1.07 mm	.068"/1.73 mm	0.197"/5.00 mm	0.278"/7.06 mm
WT-3 Long Ergonomic Handle	WD-5	.042"/1.07 mm	.068"/1.73 mm	0.255"/6.48 mm	0.278"/7.06 mm
	WD-6	.068"/1.73 mm		0.384"/9.76 mm	

* Hand crimp tools fit all die sets. Select WT-2 or WT-3 when ordering dies.

Die Set



Die Dimensions

75 Ohm BNC Connectors

Ordering Information

Below is an ordering guide that will help you select the BNC connectors that best meet your needs. Simply select the connector type, diameter, crimp area and cable type to determine the correct ADC catalog number.

Catalog Number	Connector Type	Cable Outer Jacket Diameter				Center Conductor Outside Diameter					
		Inch Range		MM Range		AWG	Inch Range		MM Range		
		Lower	Upper	Lower	Upper	(USA)	Lower	Upper	Lower	Upper	
BNC-1	Straight Plug	0.235	0.245	5.97	6.22	20	0.030	0.033	0.76	0.83	
BNC-2	Straight Plug	0.220	0.242	5.59	6.15	23	0.022	0.025	0.56	0.62	
BNC-3	Straight Plug	0.127	0.127	3.23	3.23	26	0.015	0.018	0.38	0.44	
BNC-4	Straight Plug	0.305	0.305	7.75	7.75	20	0.030	0.033	0.76	0.83	
BNC-5	Straight Plug	0.270	0.270	6.86	6.86	20	0.030	0.033	0.76	0.83	
BNC-6	Straight Plug	0.199	0.212	5.05	5.38	20	0.030	0.033	0.76	0.83	
BNC-7	Straight Plug	0.155		3.94		24	0.019	0.022	0.48	0.55	
BNC-8	Straight Plug	0.275		6.99		18	0.038	0.040	0.97	1.02	
BNC-10	Straight Plug	0.280		7.11		18	0.038	0.040	0.97	1.02	
BNC-11	Straight Plug	0.265		6.73		23	0.022	0.025	0.56	0.62	
BNC-12	Straight Plug	0.150		3.81		25	0.017	0.019	0.43	0.47	
BNC-13	Straight Plug	0.146		3.71		24	0.019	0.022	0.48	0.55	
BNC-15	Straight Plug	0.193	0.232	4.90	5.89	24	0.019	0.022	0.48	0.55	
BNC-16	Straight Plug	0.103	0.110	2.62	2.79	26	0.015	0.018	0.38	0.44	
BNC-19	Straight Plug	0.125		3.18		24	0.019	0.022	0.48	0.55	
BNC-20	Straight Plug	0.249		6.32		18	0.038	0.040	0.97	1.02	
BNC-22	Straight Plug	0.149		3.78		25	0.017	0.019	0.43	0.47	
BNC-25	Straight Plug	0.400		10.16		14	0.064		1.63		
BNC-26	Straight Plug	0.177		4.50		23	0.024		0.61		
BNC-27	Straight Plug	0.310	0.326	7.87	8.28	16	0.051		1.30		
BNC-RA-1	Right Angle Plug	0.235	0.245	5.97	6.22	20	0.030	0.033	0.76	0.83	
BNC-RA-2	Right Angle Plug	0.220	0.242	5.59	6.15	23	0.022	0.025	0.56	0.62	
BNC-RA-3	Right Angle Plug	0.127	0.127	3.23	3.23	26	0.015	0.018	0.38	0.44	
BNC-RA-4	Right Angle Plug	0.305	0.305	7.75	7.75	20	0.030	0.033	0.76	0.83	
BNC-RA-7	Right Angle Plug	0.155		3.94		24	0.019	0.022	0.48	0.55	
BNC-RA-8	Right Angle Plug	0.275		6.99		18	0.038	0.040	0.97	1.02	
BNC-BHJ-8	Bulkhead Jack	0.275		6.99		18	0.038	0.040	0.97	1.02	
BNC-BHJ-13	Bulkhead Jack	0.146		3.71		24	0.019	0.022	0.48	0.55	
BNC-PH-59	Bulkhead Jack	0.220	0.242	5.59	6.15	23	0.023		0.58		
BNC-RG187-PNL	Bulkhead Jack	0.113		2.87		28	0.012		0.31		

Straight BNC Plug Connectors

Right Angle BNC Plug Connectors

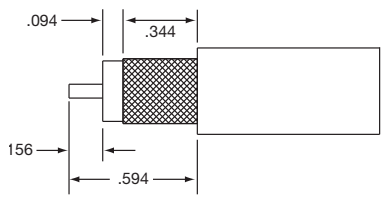
75 Ohm BNC Connectors

*In addition to the .042" square pin crimp, all connectors listed above are compatible with a 12 point method of crimping or .042 Hex crimp. All ADC BNC connector plugs use the same crimp dimensions and crimp tools for the same cable type.

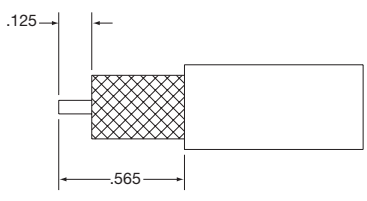
Bulk packaging in quantities of 100 is available (package includes 100 connector bodies, 100 center pins and 100 crimp sleeves bagged separately). For bulk packaging add "B" to the end of the catalog number. Example: BNC-13B.

Cable Dielectric Outside Diameter				Connector Crimp Areas				Die	Cable Type	Catalog Number
Inch Range		MM Range		Hex Flats Distance		Center Pin		Catalog Number		
Lower	Upper	Lower	Upper	Inch	MM	Inch	MM			
0.140	0.150	3.56	3.81	0.255	6.48	0.042	1.07	WD-1, WD-2, WD-3, WD-5	734, 9259, 1505A, 9100	BNC-1
0.140	0.150	3.56	3.81	0.255	6.48	0.042	1.07	WD-1, WD-2, WD-3, WD-5	RG59, 9209, 8279	BNC-2
0.077		1.96		0.178	4.52	0.042	1.07	WD-2	735, NT735	BNC-3
0.185	0.198	4.70	5.03	0.324	8.23	0.042	1.07	WD-1	8281B, VP6000, VP818	BNC-4
0.144		3.66		0.324	8.23	0.042	1.07	WD-1	88281, 1187A, HEC-2, F-HEC59	BNC-5
0.135	0.140	3.43	3.56	0.255	6.48	0.042	1.07	WD-1, WD-2, WD-3, WD-5	1506A, 1824A, VPM2000	BNC-6
0.095		2.41		0.197	5.00	0.042	1.07	WD-2		BNC-7
0.180		4.57	5.03	0.278	7.06	0.042	1.07	WD-4	1694A, VSD2001	BNC-8
0.180		4.57		0.255	6.48	0.042	1.07	WD-1, WD-2, WD-3, WD-5	1695A, 61801	BNC-10
0.142		3.61		0.324	8.23	0.042	1.07	WD-1	9268, S-HEC 89, 6605	BNC-11
0.099		2.51		0.197	5.00	0.042	1.07	WD-3, WD-4	1865A, 8218, 7537, RGB809F	BNC-12
0.090		2.29		0.178	4.52	0.042	1.07	WD-2	1855A, 7538, RGBSC809	BNC-13
0.122		3.10		0.255	6.48	0.042	1.07	WD-1, WD-2, WD-3, WD-5	9209, 82241, 2041, V618M59TK	BNC-15
0.06	0.07	1.52	1.78	0.178	4.52	0.042	1.07	WD-2	8216, 9239, 83269, RGB-26GA	BNC-16
0.078		1.98		0.178	4.52	0.042	1.07	WD-2	1671J, 5535	BNC-19
0.182		4.62		0.278	7.06	0.042	1.07	WD-4	82120	BNC-20
0.098		2.49		0.178	4.52	.042	1.07	WD-2	1167B, 1865A, 1418B RGB	BNC-22
0.280		7.11		0.384	9.75	.068	1.73	WD-6	7731A, 5906	BNC-25
0.110		2.79		0.197	5.00	.042	1.07		1800A, SDV-25	BNC-26
0.225		5.72		0.278	7.06	.042	1.07		7530	BNC-27
0.140	0.150	3.56	3.81	0.255	6.48	0.042	1.07	WD-1, WD-2, WD-3, WD-5	734, 9259, 1505A, 9100	BNC-RA-1
0.140	0.150	3.56	3.81	0.255	6.48	0.042	1.07	WD-1, WD-2, WD-3, WD-5	RG59, 9209, 8279	BNC-RA-2
0.077		1.96		0.178	4.52	0.042	1.07	WD-2	735, NT735	BNC-RA-3
0.185	0.198	4.70	5.03	0.324	8.23	0.042	1.07	WD-2	8281B, 8281F, VP6000, VP818	BNC-RA-4
0.095		2.41		0.197	5.00	0.042	1.07	WD-3, WD-4	1855A, 7538	BNC-RA-7
0.180		4.5		0.278	7.06	0.042	1.07	WD-4	1694A, VSD2001	BNC-RA-8
0.180		4.57		0.278	7.06	0.042	1.07	WD-4	1694A, VSD2001	BNC-BHJ-8
0.090		2.29		0.178	4.52	0.042	1.07	WD-2	1865, 1855A, RGBSC809	BNC-BHJ-13
0.144	0.148	3.66	3.76	0.255	6.48	0.042	1.07	N/A	RG59, 9209	BNC-PH-59
0.060		1.52		0.197	5.00	0.042	1.07	N/A	735, NT735	BNC-RG187-PNL

Bulkhead Jack Connectors



BNC Plug Strip Length
(All BNC Plug Connectors
except BNC-25)



BNC Plug Strip Length
For BNC-25

75 Ohm BNC Connectors

Straight BNC Connectors

Specifications

ELECTRICAL

Characteristic Impedance:	75 Ω
Voltage Rating:	1000 Volts RMS
Insertion Loss:	< 0.6 dB 1 MHz to 1 GHz (measured with 1 meter of 728 cable)
Return Loss:	Better than 35 dB to 1 GHz; 30 dB to 2 GHz; 26 dB to 3 GHz
Contact Resistance:	.030 Ω maximum change post environmental
Insulation Resistance:	200 megaohms minimum change

MECHANICAL

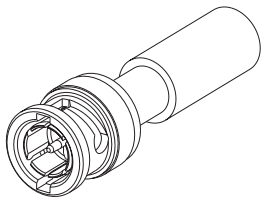
Mechanical Durability:	500 cycles minimum
Center Contact Retention:	6 lbs. minimum
Coupling Mechanism:	100 lbs. minimum
Cable Bend and Twist:	500 cycles minimum
Force to Engage/Disengage:	Torque 2.5 in/lb maximum; longitudinal force 3 lbs. maximum
Interface Dimension:	MIL-C-39012 except 75 Ω

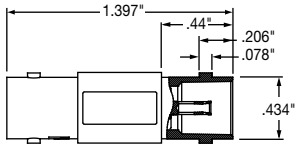
ENVIRONMENTAL

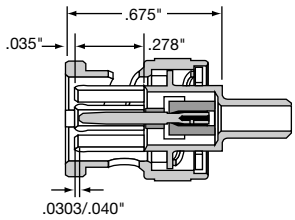
Thermal Shock:	-40°C to 65°C operating; -55°C to 85°C non-operating
Moisture Resistance:	0 to 95%; MIL-STD-202 Method 106
Corrosion (Salt Spray):	MIL-STD-202 Method 101, Test Condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 201
Solvent Resistance:	MIL-STD-202 Method 215

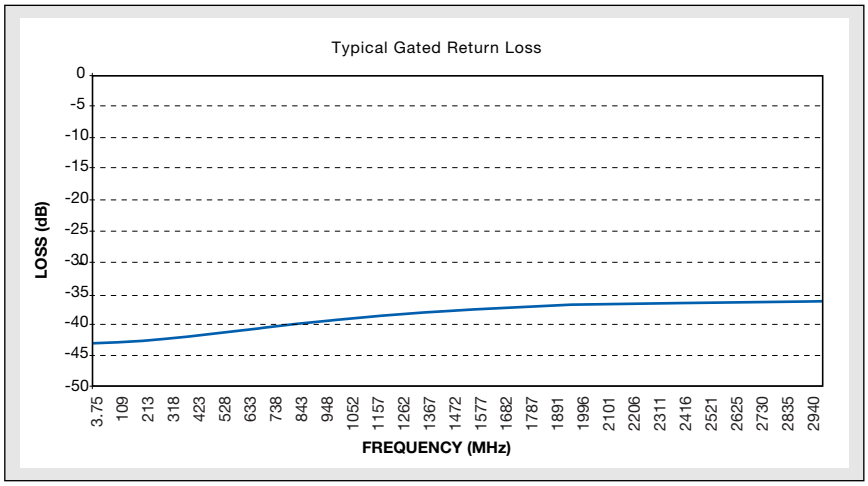
FINISH

Body/Bayonet:	Tarnish resistant electroless nickel plating
Center Conductor:	50 millionths inch gold plating MIL-G-45204 Type 1, Grade C, Class 1; requires .042" crimp station die









75 Ohm BNC Connectors
Right Angle BNC Connectors

Specifications

ELECTRICAL

Characteristic Impedance:	75 Ω
Voltage Rating:	1000 Volts RMS
Insertion Loss:	< 0.6 dB 1 MHz to 1 GHz (measured with 1 meter of 728 cable)
Return Loss:	Better than 30 dB to 1 GHz; 26 dB to 2 GHz; 20 dB to 3 GHz
Contact Resistance:	.030 Ω maximum change post environmental
Insulation Resistance:	200 megaohms minimum change

MECHANICAL

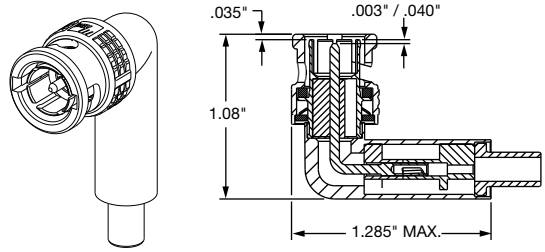
Mechanical Durability:	500 cycles minimum
Coupling Mechanism:	100 lbs. minimum
Cable Bend and Twist:	500 cycles minimum
Force to Engage/Disengage:	Torque 2.5 in/lb maximum; longitudinal force 3 lbs. maximum
Interface Dimension:	MIL-C-39012 except 75 Ω

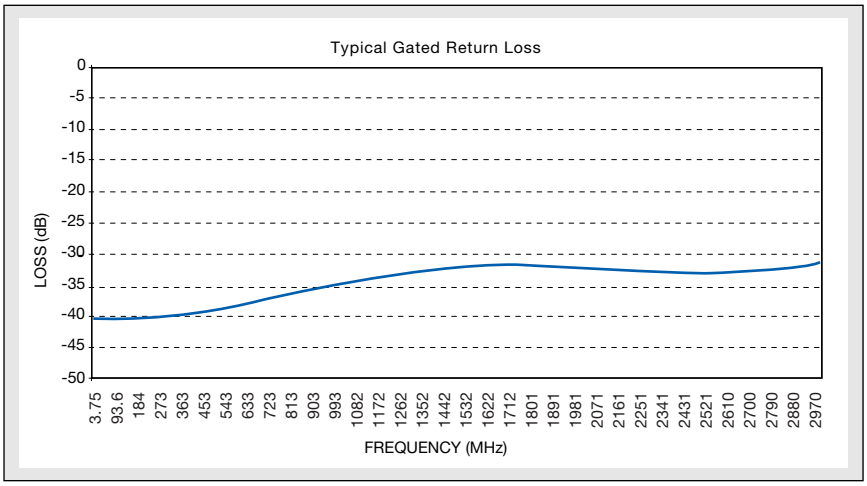
ENVIRONMENTAL

Thermal Shock:	-40°C to 65°C operating; -55°C to 85°C non-operating
Moisture Resistance:	0 to 95%; MIL-STD-202 Method 106
Corrosion (Salt Spray):	MIL-STD-202 Method 101, Test Condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 201
Solvent Resistance:	MIL-STD-202 Method 215

FINISH

Body/Bayonet:	Tarnish resistant electroless nickel plating
Center Conductor:	50 millionths inch gold plating MIL-G-45204 Type 1, Grade C, Class 1; requires .042" crimp station die





75 Ohm BNC Connectors
Bulkhead Jack Connectors

Specifications

ELECTRICAL

Characteristic Impedance:	75 Ω
Voltage Rating:	1500 Volts RMS
Insertion Loss:	Better than 0.20 dB 1 MHz to 2 GHz
Return Loss:	Better than 26 dB to 1 GHz; 18 dB to 2 GHz; 16 dB to 3 GHz
Contact Resistance:	.030 Ω maximum change post environmental
Insulation Resistance:	5000 megaohms minimum change

MECHANICAL

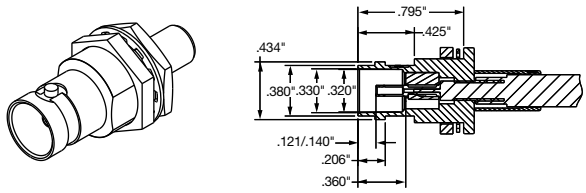
Mechanical Durability:	500 cycles minimum
Center Contact Retention:	6 lbs. minimum
Coupling Mechanism:	100 lbs. minimum
Cable Bend and Twist:	500 cycles minimum
Force to Engage/Disengage:	Torque 2.5 in/lb maximum; longitudinal force 3 lbs. maximum
Interface Dimension:	MIL-C-39012 except 75 Ω

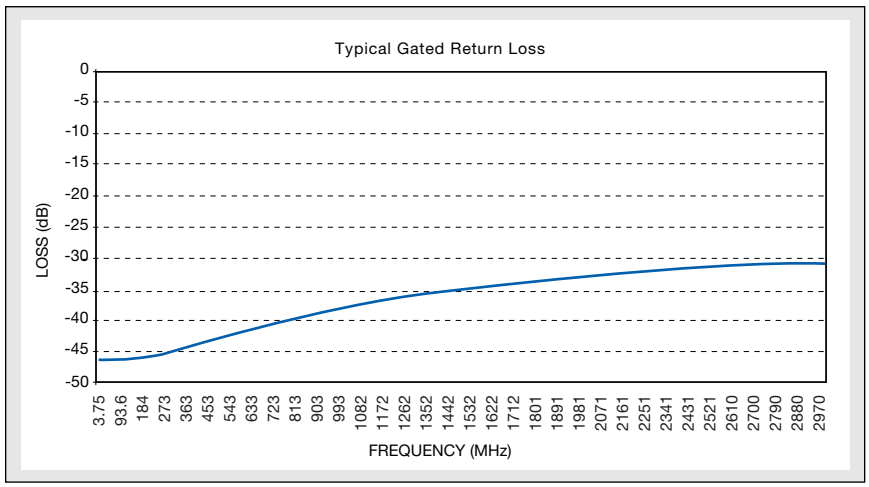
ENVIRONMENTAL

Thermal Shock:	-40°C to 65°C operating; -55°C to 85°C non-operating
Moisture Resistance:	0 to 95%; MIL-STD-202 Method 106
Corrosion (Salt Spray):	MIL-STD-202 Method 101, Test Condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 204, Test Condition B
Solvent Resistance:	MIL-STD-202 Method 215

FINISH

Body/Bayonet:	Tarnish resistant electroless nickel plating
Center Conductor:	50 millionths inch gold plating MIL-G-45204 Type 1, Grade C, Class 1





75 Ohm BNC Connectors

BNC Adapters and Recessed BNC

Specifications

ELECTRICAL

Characteristic Impedance:	75 Ω
Voltage Rating:	1500 Volts RMS
Insertion Loss:	Better than 0.20 dB 1 MHz to 2 GHz
Return Loss:	Better than 40 dB to 1 GHz; 30 dB to 2 GHz; 26 dB to 3 GHz
Contact Resistance:	.030 Ω maximum change post environmental
Insulation Resistance:	5000 megaohms minimum change

MECHANICAL

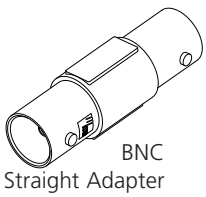
Mechanical Durability:	500 cycles minimum
Center Contact Retention:	6 lbs. minimum
Coupling Mechanism:	100 lbs. minimum
Cable Bend and Twist:	500 cycles minimum
Force to Engage/Disengage:	Torque 2.5 in/lb maximum; longitudinal force 3 lbs. maximum
Interface Dimension:	MIL-C-39012 except 75 Ω

ENVIRONMENTAL

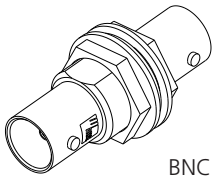
Thermal Shock:	-40°C to 65°C operating; -55°C to 85°C non-operating
Moisture Resistance:	0 to 95%; MIL-STD-202 Method 106
Corrosion (Salt Spray):	MIL-STD-202 Method 101, Test Condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 204, Test Condition B
Solvent Resistance:	MIL-STD-202 Method 215

FINISH

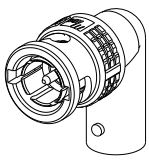
Body/Bayonet:	Tarnish resistant electroless nickel plating
Center Conductor:	50 millionths inch gold plating MIL-G-45204 Type 1,Grade C, Class 1



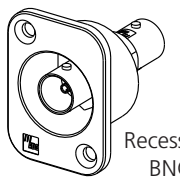
BNC
Straight Adapter



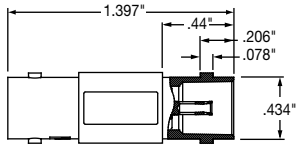
BNC
Bulkhead Feed Through



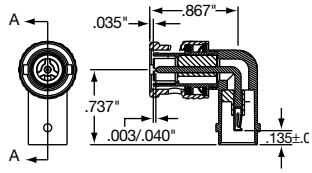
BNC
Right Angle Adapter



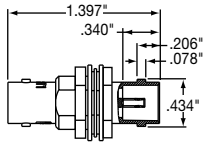
Recessed
BNC



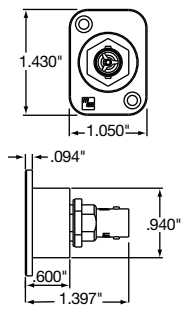
BNC Straight Adapter



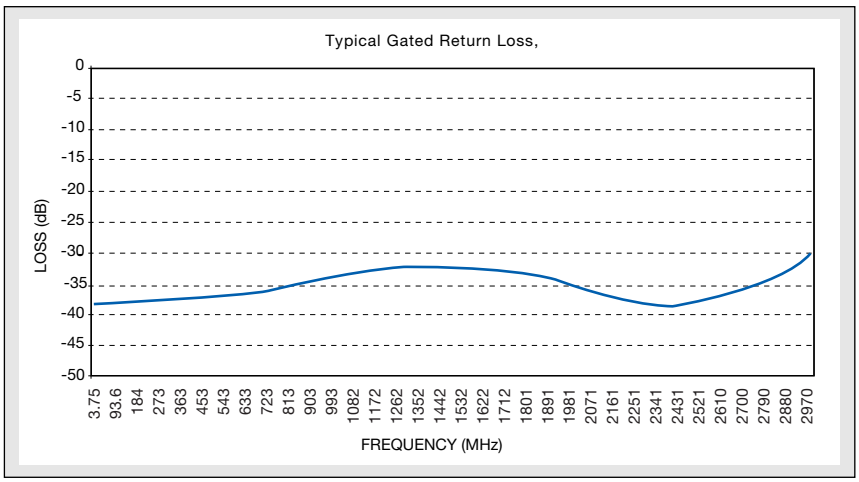
BNC Right Angle Adapter



Bulkhead Feed Through



Recessed BNC



75 Ohm BNC Connectors

BNC Terminating Plugs

Specifications

ELECTRICAL

Characteristic Impedance:	75 Ω
Termination Resistance:	75 Ω ± 0.1% (resistor value)
Return Loss:	Greater than 26 dB return loss up to 1 GHz and greater than 20 dB up to 2 GHz

MECHANICAL

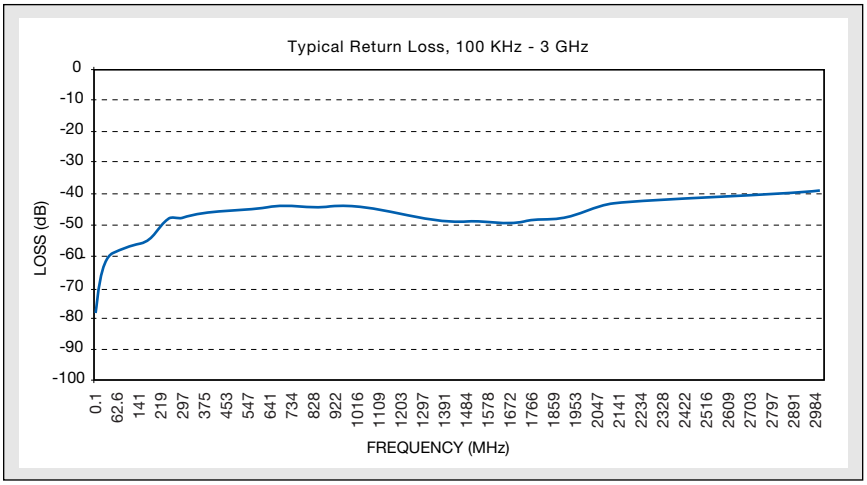
Mechanical Durability:	500 cycles minimum
Coupling Mechanism:	100 lbs. minimum
Mechanical Shock:	MIL-STD-202, Method 213
Interface Dimensions:	MIL-C-39012 except 75 Ω

ENVIRONMENTAL

Thermal Shock:	-40°C to 65°C -55°F to 85°F non-operating;
Moisture Resistance:	0 to 95% relative humidity, tested to MIL-STD-202 Method 106
Corrosion (Salt Spray):	MIL-STD-202 Method 101, Test Condition B
Vibration:	MIL-STD-202 Method 201

FINISH

Body/Bayonet:	Tarnish resistant electroless nickel plating
Center Conductor:	50 millionth inch gold plating MIL-C-45204 Type 1, Grade C, Class 1



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