

M/A-COM Interconnect's BNC connectors are designed with tight impedance control, reliable RF performance but still comply with the BNC interface standards of MIL-C-39012.

Design and Construction

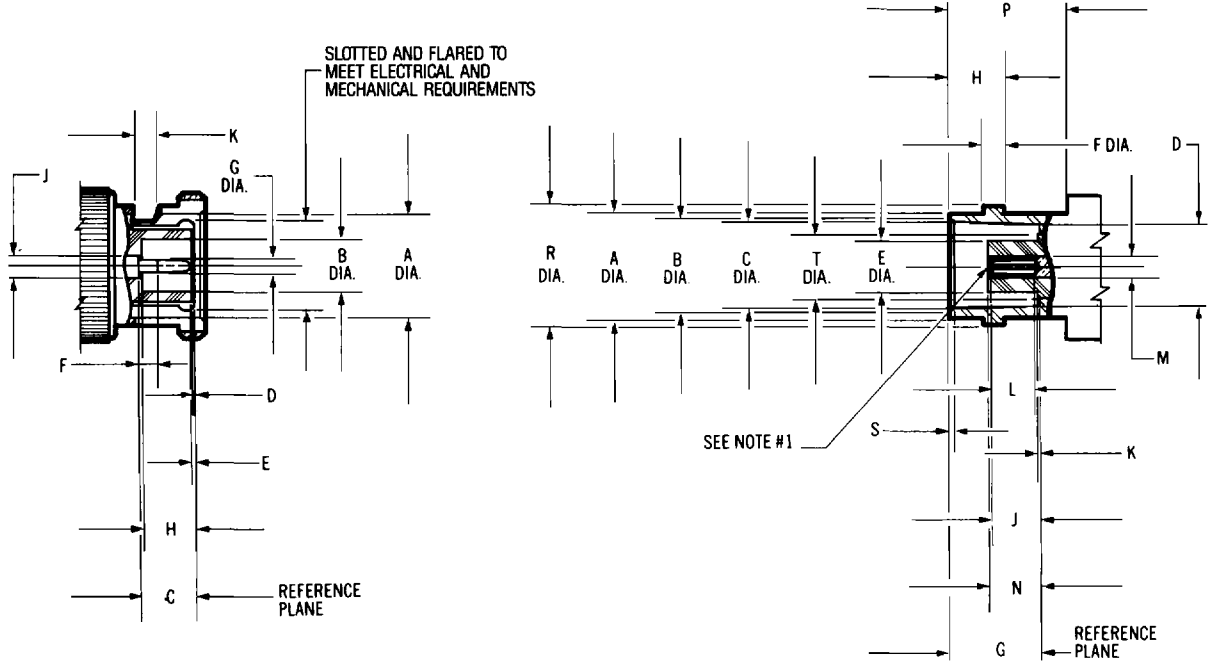
Outer shell and body parts are of nickel plated brass. The dielectric is PTFE fluorocarbon. The center contacts are made of beryllium copper, gold plated. Other materials are available on special request.

Types

The BNC series connectors are available in semi-rigid coaxial cable, flexible coaxial cable, panel mount receptacles, and in-series adapters.

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PLUG

Letter	Inches (Millimeters) ³	
	Minimum	Maximum
A	.385 (9.78)	.390 (9.91)
B	.190 (4.83)	-
C	.210 (5.33)	.230 (5.8)
D	.006 (0.15)	.018 (0.46)
E	.003 (0.08)	-
F	.078 (2.00)	-
G	.052 (1.32)	.054 (1.37)
H	.208 (5.28)	.228 (5.79)
J	.081 (2.06)	.087 (2.21)
K	.091 (2.31)	.097 (2.46)

JACK

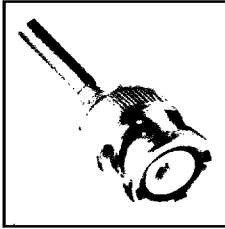
Letter	Inches (Millimeters) ³	
	Minimum	Maximum
A	.378 (9.60)	-
B	.346 (8.80)	.356 (9.04)
C	.327 (8.31)	.333 (8.46)
D	.319 (8.10)	.321 (8.15)
E	-	.186 (4.72)
F	.075 (1.91)	.081 (2.06)
G	.329 (8.36)	.335 (8.50)
H	.204 (5.18)	.208 (5.28)
J	.186 (4.7)	.206 (5.23)
K	-	.006 (0.15)
L	.195 (4.95)	-
M	.081 (2.06)	.087 (2.21)
N	.188 (4.80)	.208 (5.28)
P	.414 (10.52)	-
R	.432 (10.97)	.436 (11.07)
S	.015 (0.38)	.030 (0.76)
T	-	.256 (6.50)

1. ID to meet VSWR, contact resistance and insertion withdrawal forces when mated with .053 ± .001 (1.34 ± .02mm) dia. pin.
 2. When fully engaged, the two reference planes must coincide with metal to metal contact.
 3. Metric equivalents (to the nearest 0.01mm) are given for general information only.

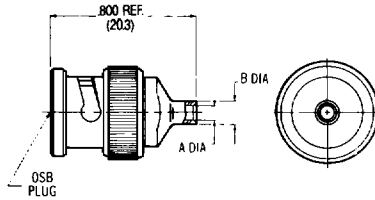
Requirement	MIL-C-39012 Applicable Paragraph	Detail
General		
Material	3.3	Brass, half hard per QQ-B-626. Beryllium copper per ASTM-B-196. PTFE Fluorocarbon per ASTM-D-1457.
Finish	3.3.1	Center contacts shall be gold plated to a min. thickness of .0001 inch in accordance with MIL-G-45204, Type I, Grade C. All other metal parts shall be finished as to provide a connector which meets the corrosion requirements.
Design	3.4	The design shall be such that the outline and interface dimensions shown in this catalog are met.
Electrical		
Insulation Resistance	3.11	The insulation resistance shall not be less than 5,000 megohms.
Corona Level	3.22	The connector shall not exhibit breakdown when the voltage is 375 volts rms at 70,000 ft.
Dielectric Withstanding Voltage	3.17	The magnitude of the test voltage shall be 1500 volts rms at sea level.
RF High Potential	3.23	The withstanding voltage is 1,000 volts rms at 5 MHz. Leakage current is not applicable.
Contact Resistance	3.16	Refer to applicable military slash sheet or consult factory.
VSWR	3.14	Refer to applicable military slash sheet or consult factory. Frequency range dependent on cable used.
RF Leakage	3.26	Refer to applicable military slash sheet or consult factory.
Insertion Loss	3.27	Refer to applicable military slash sheet or consult factory. Frequency range dependent on cable used.
Mechanical		
Force to Engage	3.5.1	The torque required to engage and disengage shall not exceed 2.5 in.-lbs. The longitudinal force shall not exceed 3 lbs.
Coupling Nut Retention	3.25	100 lbs. min. Applicable for plug connectors only.
Coupling Proof Torque	—	Not applicable.
Cable Retention	3.24	Refer to applicable military slash sheet or consult factory.
Mating Characteristics	3.7	Applicable to jack connectors only. Oversize test pin .055 min. dia., .125 deep; insertion force 2 lbs. max. with .054 min. dia. pin; withdrawal force 1 oz. min. with .052 max. dia. pin.
Connector Durability	3.15	<i>The connector to be tested and its mating connector shall be subjected to 500 insertion and withdrawal cycles at 12 cycles per minute max. The connector shall show no evidence of mechanical failure and shall meet the mating characteristic requirements.</i>
Recommended Mating Torque	—	Not applicable.
Environmental		
Vibration	3.18	Specification MIL-STD-202, method 204, test condition B.
Shock	3.19	Specification MIL-STD-202, method 213, test condition G.
Thermal Shock	3.20	Refer to applicable military slash sheet or consult factory.
Corrosion (Salt Spray)	3.13	Specification MIL-STD-202, method 101, test condition B.
Moisture Resistance	3.21	Specification MIL-STD-202, method 106. No measurements at high humidity. Insulation resistance shall be at least 200 megohms within 5 minutes of removal from humidity.

BNC For Semi-Rigid Cable

.085 and .141 Dia. • Direct Solder Attachment



Straight Cable Plug

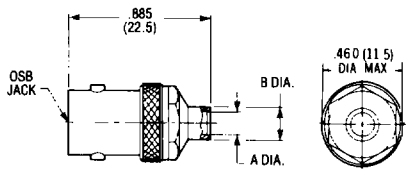


Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	3201-7941-10	3201-7985-10
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
Dim. B	.180 (4.6)	.120 (3.0)

Finish: Nickel plated brass.
Refer to Appendix for Coaxial Cable Characteristics.
Refer to recommended assembly tools in Tool Section.

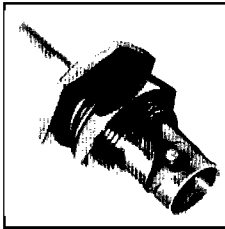


Straight Cable Jack

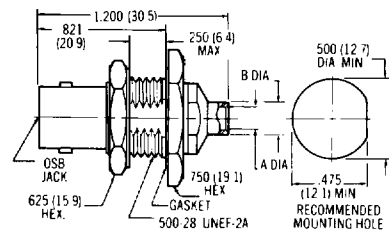


Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	3202-7941-10	3202-7985-10
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
Dim. B	.180 (4.6)	.120 (3.0)

Finish: Nickel plated brass.
Refer to Appendix for Coaxial Cable Characteristics.
Refer to recommended assembly tools in Tool Section.

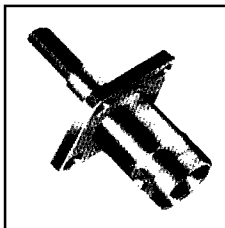


Bulkhead Feedthrough Cable Jack

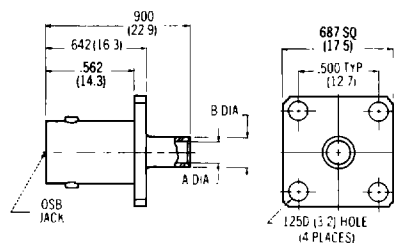


Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	3204-7941-10	3204-7985-10
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
Dim. B	.180 (4.6)	.120 (3.0)

Finish: Nickel plated brass.
Refer to Appendix for Coaxial Cable Characteristics.
Refer to recommended assembly tools in Tool Section.



Flange Mount Cable Jack

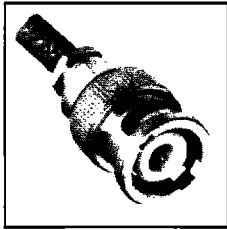


Cable	RG 402/U (.141)	RG 405/U (.085)
Cable Dielectric	Solid PTFE	Solid PTFE
Part Number	3206-7941-10	3206-7985-10
Dim. A	Inches (mm) .144 Min. (3.7)	Inches (mm) .089 Min. (2.3)
Dim. B	.180 (4.6)	.120 (3.0)

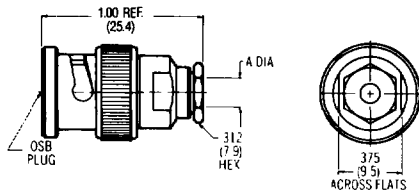
Finish: Nickel plated brass.
Refer to Appendix for Coaxial Cable Characteristics.
Refer to recommended assembly tools in Tool Section.

BNC For Flexible Cable

Flexible Cable • Clamp Attachment

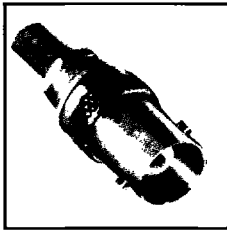


Straight Cable Plug

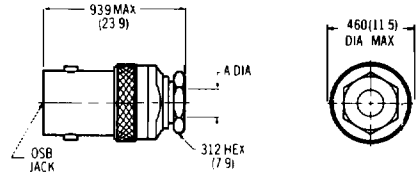


Cable	RG 55/U, 58, 141, 142, 223, 303	RG 174/U, 179, 187, 188, 316
Captured Center Contact		
Part Number	3201-7341-10	3201-7388-10
Dim. A	Inches (mm) .220 (5.6)	Inches (mm) .116 (2.9)

Finish: Nickel plated brass.
Refer to Appendix for Coaxial Cable Characteristics.
Refer to recommended assembly tools in Tool Section.

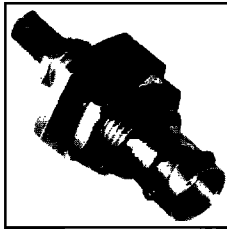


Straight Cable Jack

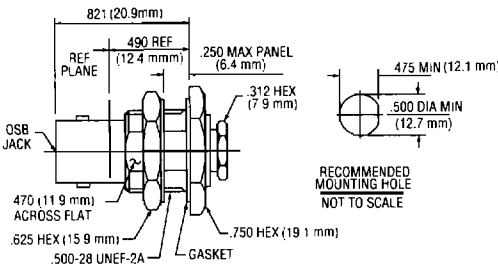


Cable	RG 55/U, 58, 141, 142, 223, 303	RG 174/U, 179, 187, 188, 316
Captured Center Contact		
Part Number	3202-7341-10	3202-7388-10
Dim. A	Inches (mm) .220 (5.6)	Inches (mm) .116 (2.9)

Finish: Nickel plated brass.
Refer to Appendix for Coaxial Cable Characteristics.
Refer to recommended assembly tools in Tool Section.

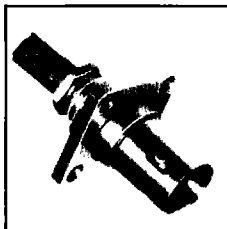


Bulkhead Feedthrough Cable Jack

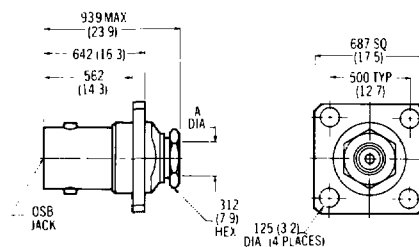


Cable	RG 55/U, 58, 141, 142, 223, 303	RG 174/U, 179, 187, 188, 316
Captured Center Contact		
Part Number	3204-7341-10	3204-7388-10
Dim. A	Inches (mm) .220 (5.6)	Inches (mm) .116 (2.9)

Finish: Nickel plated brass.
Refer to Appendix for Coaxial Cable Characteristics.
Refer to recommended assembly tools in Tool Section.



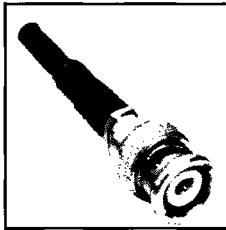
Flange Mount Cable Jack



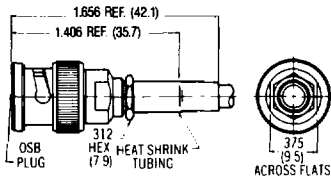
Cable	RG 55/U, 58, 141, 142, 223, 303	RG 174/U, 179, 187, 188, 316
Captured Center Contact		
Part Number	3206-7341-10	3206-7388-10
Dim. A	Inches (mm) .220 (5.6)	Inches (mm) .116 (2.9)

Finish: Nickel plated brass.
Refer to Appendix for Coaxial Cable Characteristics.
Refer to recommended assembly tools in Tool Section.

Flexible Cable • Crimp Attachment

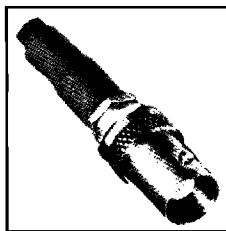


Straight Cable Plug

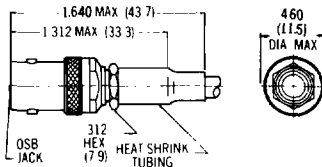


Cable	RG 58/U, 141, 303	RG 55/U, 142, 223, 400	RG 174/U, 179 187, 188 316
Captured Center Contact			
Part Number	3231-7358-10	3231-7341-10	3231-7388-10

Finish: Nickel plated brass.
Refer to Appendix for Coaxial Cable Characteristics.
Refer to recommended assembly tools in Tool Section.

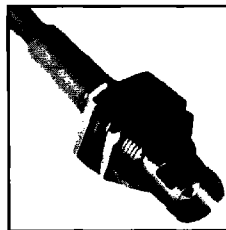


Straight Cable Jack

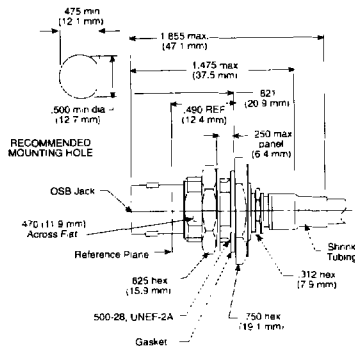


Cable	RG 58/U, 141, 303	RG 55/U, 142, 223, 400	RG 174/U, 179 187, 188 316
Captured Center Contact			
Part Number	3232-7358-10	3232-7341-10	3232-7388-10

Finish: Nickel plated brass.
Refer to Appendix for Coaxial Cable Characteristics.
Refer to recommended assembly tools in Tool Section.

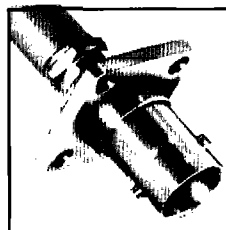


Bulkhead Feedthrough Cable Jack

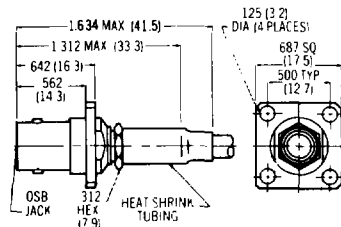


Cable	RG 58/U, 141, 303	RG 55/U, 142, 223, 400	RG 174/U, 179 187, 188 316
Captured Center Contact			
Part Number	3234-7358-10	3234-7341-10	3234-7388-10

Finish: Nickel plated brass.
Refer to Appendix for Coaxial Cable Characteristics.
Refer to recommended assembly tools in Tool Section.

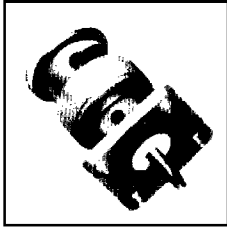


Flange Mount Cable Jack

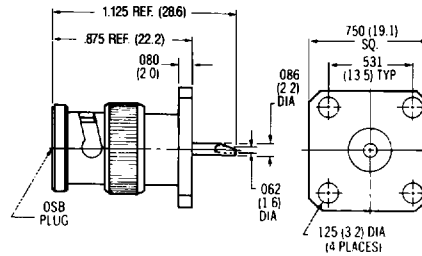


Cable	RG 58/U, 141, 303	RG 55/U, 142, 223, 400	RG 174/U, 179 187, 188 316
Captured Center Contact			
Part Number	3236-7358-10	3236-7341-10	3236-7388-10

Finish: Nickel plated brass.
Refer to Appendix for Coaxial Cable Characteristics.
Refer to recommended assembly tools in Tool Section.

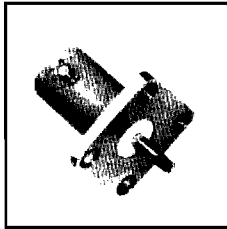


Flange Mount Plug Receptacle

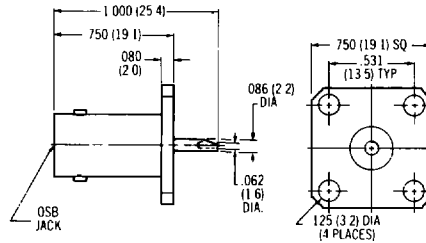


Captured Center Contact Solder Pot Terminal	
Part Number	3251-0000-10

Finish: Nickel plated brass.

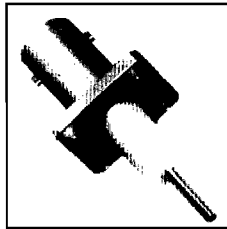


Flange Mount Jack Receptacle

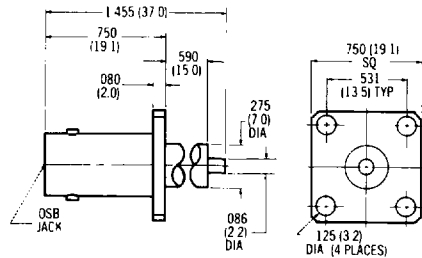


Captured Center Contact Solder Pot Terminal	
Part Number	3252-0000-10

Finish: Nickel plated brass.

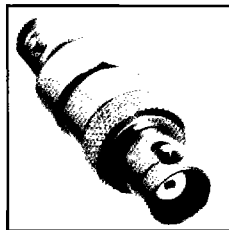


Flange Mount Jack Receptacle



Non-Captured Center Contact Straight Terminal	
Part Number	3252-1200-10
Captured Center Contact Straight Terminal	
Part Number	3252-1201-10

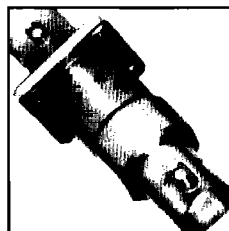
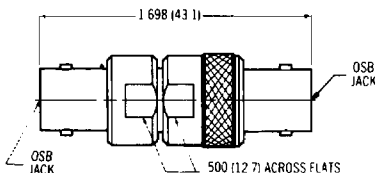
Finish: Nickel plated brass.



Jack to Jack Adapter

Part Number	3280-0000-10
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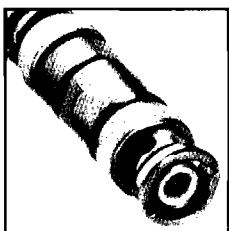
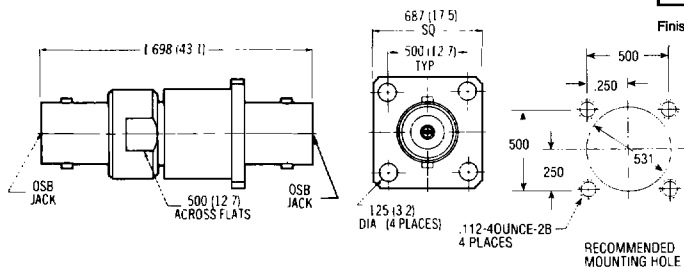
Finish: Nickel plated brass.



Jack to Jack Adapter Flange Mount

Part Number	3280-2322-10
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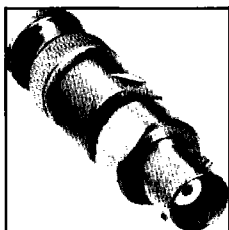
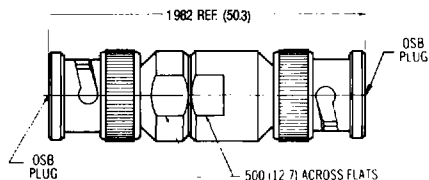
Finish: Nickel plated brass.



Plug to Plug Adapter

Part Number	3261-0000-10
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Finish: Nickel plated brass.



Jack to Plug Adapter

Part Number	3282-0000-10
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Finish: Nickel plated brass.

