

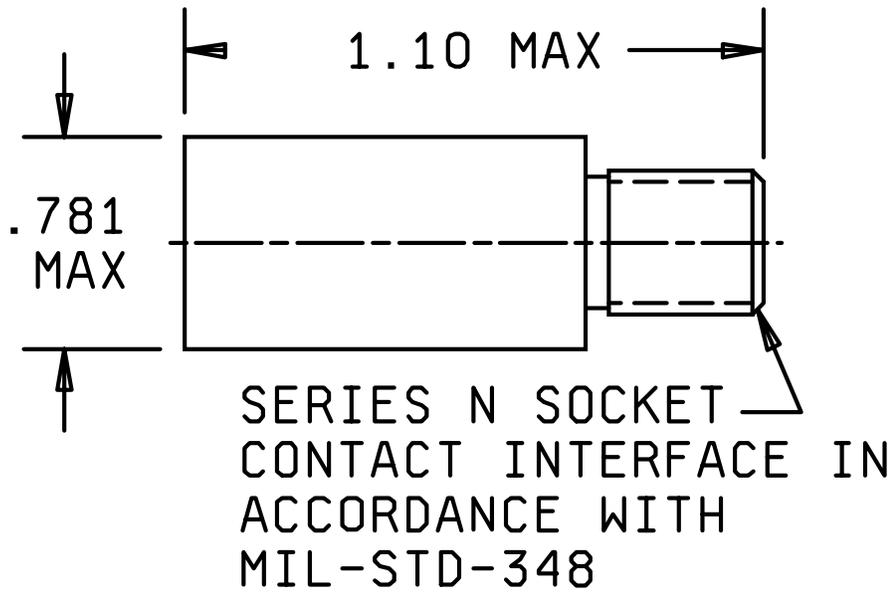
**REVISIONS**

<b>LTR</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>APPROVED</b>
A	Add source 00795. Format changes.	27 Mar 1990	Randy Larson
B	Delete source 98291. Editorial changes throughout.	7 Oct 1991	Randy Larson
C	Incorporate NOR.	10 Nov 1994	Randy Larson
D	Part number and source update. Editorial changes throughout.	14 June 2001	Robert Heber

Prepared in accordance with MIL-STD-100

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<b>REV STATUS</b>	<b>REV</b>	D	D	D	D	D												
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<b>PMIC G</b>	<b>PREPARED BY</b> Ron Gary	<b>DEFENSE SUPPLY CENTER, COLUMBUS COLUMBUS, OHIO 43216-5000</b>
Original date of drawing 3 Mar 1989	<b>CHECKED BY</b> C. W. Koeller	<b>TITLE</b> <b>CONNECTOR PLUG, ELECTRICAL, RADIO REQUENCY, SERIES N, SOCKET CONTACT, FOR SEMIRIGID CABLE</b>
	<b>APPROVED BY</b> Randy Larson	
	<b>SIZE</b> <b>A</b>	<b>CAGE CODE</b> <b>037Z3</b>
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Inches	mm
.781	19.84
1.10	27.9

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Wrench flats to accommodate standard wrench opening in accordance with FED-STD-H28, appendix 10.
4. All undimensioned pictorial configurations are for reference purpose only.
5. For gold plated connectors, the gold plating shall be applied at least in the area of solder attachment.

FIGURE 1. General configuration.

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ENGINEERING DATA:

Nominal impedance: 50 ohms.

Frequency range: DC to 18 GHz.

Voltage rating: 500 volts rms maximum at sea level;  
125 volts rms at 70,000 feet.

Temperature rating: -65°C to +165°C.

REQUIREMENTS: (The requirements of DSCC drawing 84148 are applicable.)

Dimensions and configurations: See figure 1 herein and MIL-STD-348.

Force to engage and disengage: 3 inch-pounds maximum torque.

Coupling proof torque: Not applicable.

Inspection conditions: For each test of threaded coupling connector where the test is performed on mated pairs, the pairs shall be torqued to 12 to 15 inch-pounds.

Hermetic seal: Not applicable.

Leakage: Not applicable.

Insulation resistance: MIL-STD-202, test condition B of method 302; 5,000 megohms, minimum.

Center contact retention: 15 pounds minimum axial force.

Corrosion (salt spray): MIL-STD-202, test condition B of method 101.

Voltage standing wave ratio (VSWR): From 500 MHz to 18 GHz, or approximately 80 percent of the upper cutoff frequency of the cable, whichever is lower, 1.06 + .007 (F) maximum.

Connector durability: 500 cycles minimum at 12 cycles per minute maximum. The connector shall meet the mating characteristics and force to engage and disengage requirements.

Contact resistance ( in milliohms maximum):

	<u>Initial</u>	<u>After environmental</u>
Center contact:	1.5	1.5
Outer contact:	2.0	N/A
Outer cable conductor to body:	2.0	N/A

Dielectric withstanding voltage: 2,500 V rms, in accordance with MIL-STD-202, method 301, minimum at sea level.

Vibration, high frequency: MIL-STD-202, test condition D of method 204, except the method of mounting shall be approved by the qualifying activity. No discontinuity shall be permitted.

Shock: MIL-STD-202, test condition I of method 213.

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Thermal shock: MIL-STD-202, test condition B of method 107 except test high temperature shall be +200°C.

Moisture resistance: Method 106 of MIL-STD-202. No measurements shall be taken at high humidity. Insulation resistance shall be at least 200 megohms within 5 minutes after removal from humidity chamber.

Corona level:

500 V rms at 70,000 feet (M17/129-RG401).  
375 V rms at 70,000 feet (M17/130-RG402).

RF high potential withstanding voltage: 1,500 V rms, minimum.

Frequency: 5 to 7.5 MHz.  
Leakage current: Not applicable.

<u>Cable</u>	<u>Force</u>	<u>Torque</u>
M17/129-RG401	90 pounds (min)	70 inch-ounce (min)
M17/130-RG402	60 pounds (min)	55 Inch-ounce (min)

Coupling mechanism retention force: Not applicable.

RF leakage: -(95-F GHz) dB, minimum.

RF insertion loss:  $0.05 \sqrt{f(\text{GHz})}$ , dB maximum.

Part or Identifying Number (PIN): See table I.

TABLE I. PIN to cable accommodation.

Connector PIN <u>1/</u>	Cable
89008NSGA	M17/130-RG402
89008NSGB	M17/129-RG401 <u>2/</u>

1/ Connectors shall accommodate all cables referenced in this drawing.

2/ Not to be assembled by solder.

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Approved sources of supply. Approved sources of supply are listed herein. Additional sources will be added as they become available. The vendors listed herein have agreed to this drawing and a certificate of compliance has been submitted to DSCC-VAI.

DSCC drawing PIN <u>1/</u>	Vendor CAGE Number	Vendor reference PIN
89008NSGA	00795 64639 95077	1108031G003-001 HFPNJ-078-090-30 6520-6901
89008NSGB	00795 95077	1108050G000-001 6520-6902

1/ Parts must be purchased to this DSCC PIN to assure that all performance requirements and tests are met.

Vender CAGE  
number

Vendor name  
and address

00795

Delta Electronics  
416 Cabot Street  
Beverly, MA 01985

64639

Micro-Coax Incorporated  
Box E  
245 West 5<sup>th</sup> Avenue  
Collegeville, PA 19426

95077

Solitron/Vector Microwave Products  
3301 Electronics Way  
West Palm Beach, FL 33407

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