

PERFORMANCE SPECIFICATION

CONNECTORS, PLUGS, ELECTRICAL, COAXIAL, RADIO FREQUENCY
(SERIES SMA (CABLED) - PLUG, PIN CONTACT, RIGHT ANGLE, CLASS 2)

This amendment forms a part of performance specification MIL-PRF-39012/56E, dated 27 January 1992, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 2 and 3

Delete and substitute the new table I as shown below:

"TABLE I. Dash numbers, cross reference and dimensions.

Dash number <u>1/</u> <u>2/ 3/</u>	# Applicable cable group from MIL-PRF-39012, appendix B.	Dimensions	Inches (millimeters) maximum <u>4/</u>
Category A - Field serviceable (no special tools required) <u>5/</u>			
3006 3106 <u>7/</u> 4006 4106 <u>7/</u>	CABLE GROUP I M17/93-RG178 <u>10/ 17/</u>	A	1.125 (28.58)
3007 3107 <u>7/</u> 4007 4107 <u>7/</u>	CABLE GROUP II M17/113-RG316 <u>10/ 17/</u>		
3008 3108 <u>7/</u> 4008 4108 <u>7/</u>	CABLE GROUP IV M17/54-RG122 <u>10/ 17/</u>		
3009 3109 <u>7/</u> 4009 4109 <u>7/</u>	CABLE GROUP VI M17/60-RG142 <u>11/</u> M17/128-RG400 <u>17/</u> M17/84-RG223 <u>10/</u>		
3010 <u>12/</u> 3110 <u>7/ 12/</u> 4010 <u>12/</u> 4110 <u>7/ 12/</u>	CABLE GROUP VI M17/111-RG303 <u>10/ 17/</u>		
3030 3130 <u>7/</u> 4030 4130 <u>7/</u>	CABLE GROUP III M17/152-00001 <u>10/ 17/</u>		

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TABLE I. Dash numbers, cross reference and dimensions. (continued)

Dash number <u>1/</u> <u>2/</u> <u>3/</u>	# Applicable cable group from MIL-PRF-39012, appendix B.	Dimensions	Inches (millimeters) maximum <u>4/</u>
Category C - Field serviceable (MIL-C-22520-01 crimp tool) <u>6/</u>			
3025 3125 <u>7/</u> 4025 4125 <u>7/</u>	CABLE GROUP I M17/93-RG178 <u>10/</u> <u>13/</u> <u>17/</u>	A	1.375 (34.93)
3026 3126 <u>7/</u> 4026 4126 <u>7/</u>	CABLE GROUP IIa M17/113-RG316 <u>10/</u> <u>14/</u> <u>17/</u>		
3027 3127 <u>7/</u> 4027 4127 <u>7/</u>	CABLE GROUP IV M17/54-RG122 <u>10/</u> <u>15/</u> <u>17/</u>		
3028 3128 <u>7/</u> 4028 4128 <u>7/</u>	CABLE GROUP VIb M17/60-RG142 <u>11/</u> M17/128-RG400 <u>16/</u> <u>17/</u> M17/84-RG223 <u>10/</u>		
3029 3129 <u>7/</u> 4029 4129 <u>7/</u>	CABLE GROUP VIa M17/111-RG303 <u>16/</u> <u>17/</u> M17/28-RG058 <u>10/</u>		
Category D - Field replaceable - Defined piece parts <u>6/</u> <u>8/</u> <u>9/</u>			
3502 3602 <u>7/</u> 4502 4602 <u>7/</u>	CABLE GROUP VIb M17/60-RG142 <u>10/</u> <u>11/</u> M17/128-RG400 <u>17/</u>	A	1.375 (34.93)

- 1/ These connectors have captivated center contacts.
2/ For logistics purposes, only connectors with safety wire holes will be stocked.
3/ Coupling nuts shall be corrosion resistant steel with a passivated finish in accordance with MIL-F-14072 (applies only to "3XXX" series connectors).
4/ Millimeters are in parentheses.
5/ All corrosion resistant steel bodied connectors which are designed to be assembled to the cable outer conductor using solder shall be gold plated in accordance with MIL-G-45204, type II, class I.
6/ These connectors are assembled, using the applicable crimp tool, to the specified cables stripped as shown on figure 4.
7/ No safety wire holes.
8/ Complete connector assembly shall consist of a body, center contact, ferrule and assembly instructions.
9/ Not for use in Army equipment.
10/ Cable to be used when performing tests except as in note 11/.
11/ Cable to be used for the +200 degree C temperature cycling test. Connectors mate with connectors of the same material; i.e., "3XXX" series dash numbers mate only with other "3XXX" series connectors and "4XXX" series connectors with other "4XXX" series connectors.
12/ These parts are inactive for new design, new designs should procure to dash numbers -*009 and *109. These dash numbers use the same cable group. (VI).
13/ Preferred die M22520/5-33 closure B, alternate die M22520/5-03 closure B.
14/ Preferred die M22520/5-35 closure B, alternate die M22520/5-03 closure A.
15/ Preferred die M22520/5-41 closure B, alternate die M22520/5-05 closure B, or -09 closure A.
16/ Preferred die M22520/5-19 closure B, alternate die M22520/5-05 closure A, or -11, 57, closure A.
17/ Preferred cable.
The latest version of each cable shall be applicable."

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Delete and substitute the new table II as follows:

"Table II. Voltage rating.

Cables	Voltage max. (at sea level)	Voltage max. (70,000 ft.)
Cable group I	$\frac{V_{rms}}{170}$	$\frac{V_{rms}}{45}$
Cable group II, IIa, III, IV	250	65
Cable group VI, VIa, VIb	335	85

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Requirements, Voltage standing wave ratio, delete and substitute the following;

<u>"Cable group</u>	<u>VSWR</u>
I	1.20 + 0.03 (F) GHz
II, IIa, III, IV	1.15 + 0.03 (F) GHz
VI, VIa, VIb	1.15 + 0.02 (F) GHz"

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Dielectric withstanding voltage, delete and substitute the following;

<u>"Cable group</u>	<u>V_{rms}</u>
I	500
II, IIa, III, IV	750
VI, VIa, VIb	1,000"

Corona level, delete and substitute the following;

<u>"Cable group</u>	<u>Volts min.</u>
I	125
II, IIa, III, IV	190
VI, VIa, VIb	250"

RF high potential withstanding voltage, delete and substitute the following;

<u>"Cable group</u>	<u>Volts min.</u>
I	335
II, IIa, III, IV	500
VI, VIa, VIb	670"

CONCLUDING MATERIAL

Custodians:
Army - CR
Navy - EC
Air Force - 85
NASA - NA

Preparing activity:
DLA - ES

(Project 5935-4012-02)

Review activities:
Army - AR, AT, EA, MI
Navy - AS, MC, OS, SH
Air Force - 11, 17, 99