

MILITARY SPECIFICATION

JACK, TIP (TEST POINT, PANEL OR PRINTED WIRING TYPE),
GENERAL SPECIFICATION FOR

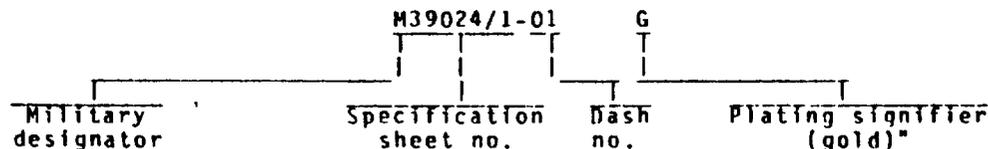
This amendment forms a part of MIL-C-39024A, dated 25 October 1972,
and is approved for use by all Departments and Agencies of the
Department of Defense.

PAGE 1

Title: Delete and substitute as printed above.

* 1.2.1, delete and substitute.

"1.2.1 Military part number. The military part number shall consist of the
letter "M", the basic number of the specification sheet, and an assigned dash
number (see 3.1), as shown in the following.



2.1, add: "QQ-S-571 - Solder, Tin Alloy; Tin-Lead Alloy; and Lead Alloy" and
"MIL-P-81728 - Plating, Tin-Lead (Electrodeposited)". Also for MIL-C-55330, change
title to read: "Connectors, Electrical and Fiber Optic, Packaging of."

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* Add to 2.2:

"American Society for Testing and Materials (ASTM)
ASTM-B-740 - Copper-Nickel-Tin Spinodal Alloy Strip, Specification for
Copper Development Association (CDA)
Standard Handbook, Part 2 - Alloy Data"

PAGE 3

* 3.3.1.4 and 3.3.1.5, delete and substitute the following:

"3.3.1.4 Contacts. Contact springs and tabs shall be made of beryllium copper
in accordance with QQ-C-530 or QQ-C-533, or when specified (see 3.1) phosphor
bronze per QQ-B-750 or copper nickel alloy C72900 in accordance with
ASTM-B-740. The contact springs and tabs, and that portion of the body that
provides a normal force to the test probe shall be gold plated in accordance
with MIL-G-45204, type II, grade C, class 1, over an underplate either of
copper, in accordance with class 3 of MIL-C-14550, 0.0002 inch minimum
thickness, or nickel in accordance with class 2 of QQ-N-290, 0.00003 to 0.00015
inch thickness.

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"3 3.1.5 Terminals. Soldering terminals shall be made of a copper alloy material and shall be plated in one of the following manners

- a. Gold plated in accordance with MIL-G-45204, type II, grade B or C, class 00 over a copper underplate in accordance with MIL-C-14550, class 3, 0.0002 inch minimum
- b. Gold plated in accordance with MIL-C 45204, type II, grade B or C, class 00 over a nickel underplate in accordance with QQ-N-290, class 2, 0.00003 to 0.00015 inch thickness.
- c. Tin lead plated in accordance with MIL-P-81728, 50-70 percent tin 0.0001 inch thick minimum over nickel in accordance with QQ-N-290, class 2, 0.00003 to 0.00015 inch thick. For devices used in printed wiring applications.
- d. Tin lead plated in accordance with MIL-P-81728, 50 to 95 percent tin 0.0001 inch thick minimum over nickel in accordance with QQ-N-290, class 2, 0.00003 to 0.00015 inch thick. For devices used in non-printed wiring applications.
- e. Solder coated in accordance with QQ-S-571, SN60, 0.0003 inch thick over copper in accordance with MIL-C-14550, class 3, 0.0002 inch minimum.
- f. Solder coated in accordance with QQ-S-571, SN60, 0.0003 inch thick over nickel in accordance with QQ-N-290, class 2, 0.00003 to 0.00015 inch thick.

NOTE: Those parts with gold plated solder terminals shall be identified by a suffix G on the part number, for example, M39024/18-07G. For replacement purposes, the Government will stock and issue only those parts having gold plated solder terminals.

"3 3.1.5.1 Delivery from stock. Qualified manufacturers and their selling agents or distributors may ship from stock, connectors which were qualified to the preceding issue of MIL-C-39024 for a period of 1 year from the date of this specification change, unless otherwise specified, (see 3.1)."

* 3.3.2, delete and substitute

"3 3.2 Plastic parts. Plastic parts shall be made of type GDI-30F or type SDG-F of MIL-M-14, or, when specified (see 3.1), polytetrafluoroethane of ASTM D 1457. When applicable, insulation colors shall conform to FED-STD-595, as specified (see 3.1)."

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3 5.10, line 2. Delete "1,000 megohms" and substitute "100 megohms after the test and shall exceed 1,000 megohms after a 24-hour drying period."

* Following 3.5 12, add

"3.5.13 Solderability Solderable surfaces shall meet the requirements of MIL-STD-202, method 208 for solderability after 8 hours steam aging."

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3.6, line 3: Reinstate the last two sentences deleted by Amendment 1.

* 4.4.1, delete and substitute

"4 4 1 Sample size. Twenty-four connectors of each type, size, and terminal style (if applicable) shall be subjected to qualification inspection "

* 4.4.2, delete and substitute

"4.4.2 Inspection routine The sample shall be subjected to the inspections specified in table II, in the order shown. All sample units shall be subjected to the inspections of group I. The sample shall then be divided equally into four groups of six units each, and subjected to the inspections for their particular group."

4.4.4, lines 2, 18 and 20. Delete "36-month" and substitute "24- or 36-month".

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TABLE II, after Group I (all specimens) Add "1/". At end of table, add the following.

"1/ Only 2 samples each for physical dimensions "

* TABLE II, after Group IV (6 specimens), add a new Group V as follows.

Examination or test	Requirement paragraph	Test paragraph
Group V (6 specimens)		
Solderability	3.5.13	---

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TABLE III, after visual and mechanical examination. Add "1/". At end of table, add:

"1/ Only 2 samples each for physical dimensions."

* TABLE IV, delete and substitute

"TABLE IV. Group B inspection.

Test	Requirement paragraph	Test paragraph
Contact resistance - - - - -	3.5.2	4.6.4
Insulation resistance - - - - -	3.5.3	4.6.5
Dielectric withstanding voltage 1/ - -	3.5.4	4.6.6
Insertion and withdrawal forces - - -	3.5.5	4.6.7
Resistance to test-probe damage - - -	3.5.6	4.6.8

1/ Test at altitude is not required."

* TABLE V, delete and substitute

"TABLE V Group C inspection

Test	Requirement paragraph	Test paragraph	Number of sample units to be inspected
<u>Subgroup 1</u>			
Dielectric withstanding voltage-	3.5.4	4.6.6	6
Thermal shock- - - - -	3.5.7	4.6.9	
Shock (specified pulse)- - - - -	3.5.8	4.6.10	
Vibration- - - - -	3.5.9	4.6.11	
Humidity (steady state)- - - - -	3.5.10	4.6.12	
<u>Subgroup 2</u>			
Salt spray (corrosion) - - - - -	3.5.11	4.6.13	2
Durability - - - - -	3.5.12	4.6.14	
<u>Subgroup 3</u>			
Solderability- - - - -	3.5.13	---	2

4 5.3.1.1, delete and substitute:

"4 5.3.1.1 Sampling plan. Ten sample units of the same basic type shall be selected after 18 months (first period), after 2 years (second period), and after 3 years (third period). No failures will be permitted."

4 5.4, delete and substitute.

"4 5.4 Inspection of packaging. The sampling and inspection of the preservation, packing, and container marking shall be in accordance with the requirements of MIL-C-55330."

4 6.4: Delete "method 307 of MIL-STD-202" and substitute "method 3004 of MIL-STD-1344."

4.6.10(b): Delete "1 of method 213, MIL-STD-202" and substitute "G".

4.6.11(a) Delete "Test condition number 1" and substitute "Test condition number III"

4 6.12(a). Delete "of method 103, MIL-STD-202"

4.6.13(a) Delete "of method 101, MIL-STD-202."

5, delete and substitute

"5 PACKAGING

"5.1 Packaging requirements. The requirements for packaging shall be in accordance with MIL-C-55330."

6 2(c), delete in its entirety

The margins of this amendment are marked with an asterisk to indicate where a change (addition, modification, correction, deletion) from the previous amendment was made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notation and relationship to the last previous document.

CONCLUDING MATERIAL

Custodians
Army - IR
Navy - EC
Air Force - 85

Review activities
Army - ME
Air Force - 11, 17, 80, 99
DLA - ES

User activities
Army - AR, MI
Navy - AS, CG, MC, YD
Air Force - 14, 19

Preparing activity.
Navy - EC

Agent
DLA - ES

(Project 5935-3649)