

INCH-POUND

MIL-DTL-55302/157B
w/AMENDMENT 1
22 June 2015
SUPERSEDING
MIL-DTL-55302/157B
9 March 2005

DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES:
PLUG, STRAIGHT THRU CONTACTS, 64 OR 96 CONTACT POSITIONS,
FOR PRINTED WIRING BOARDS (.100 INCH SPACING)

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-55302.

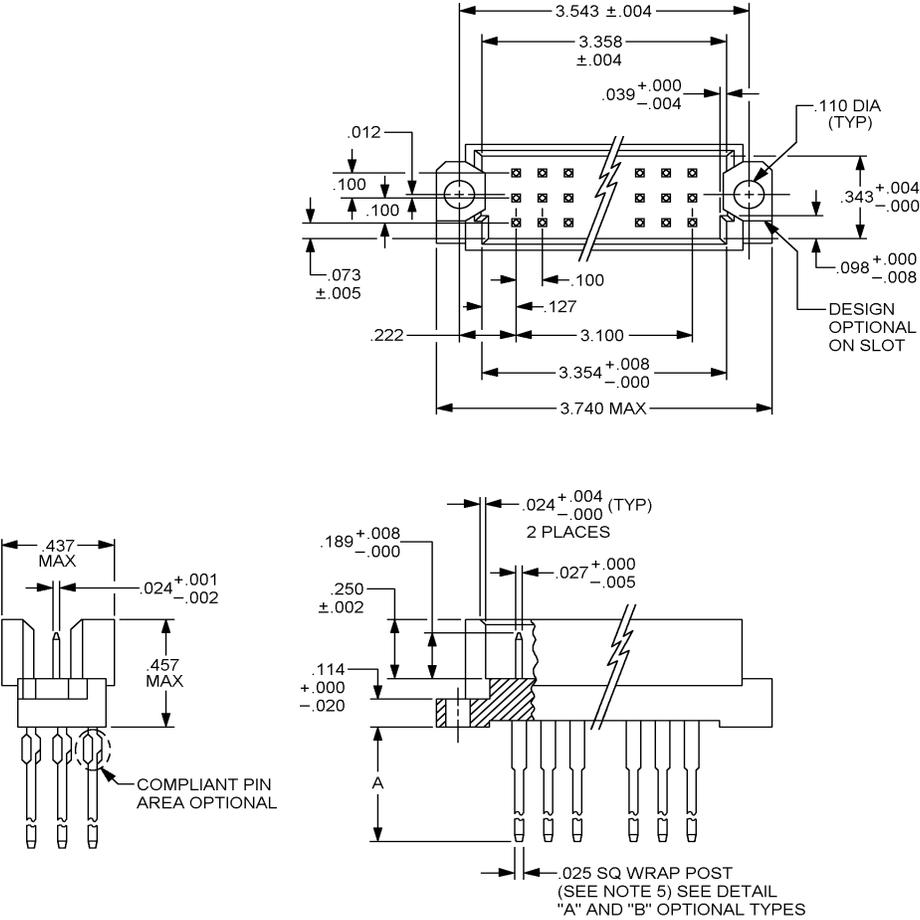


FIGURE 1. Connector, plug, .100 (2.54 mm) spacing.



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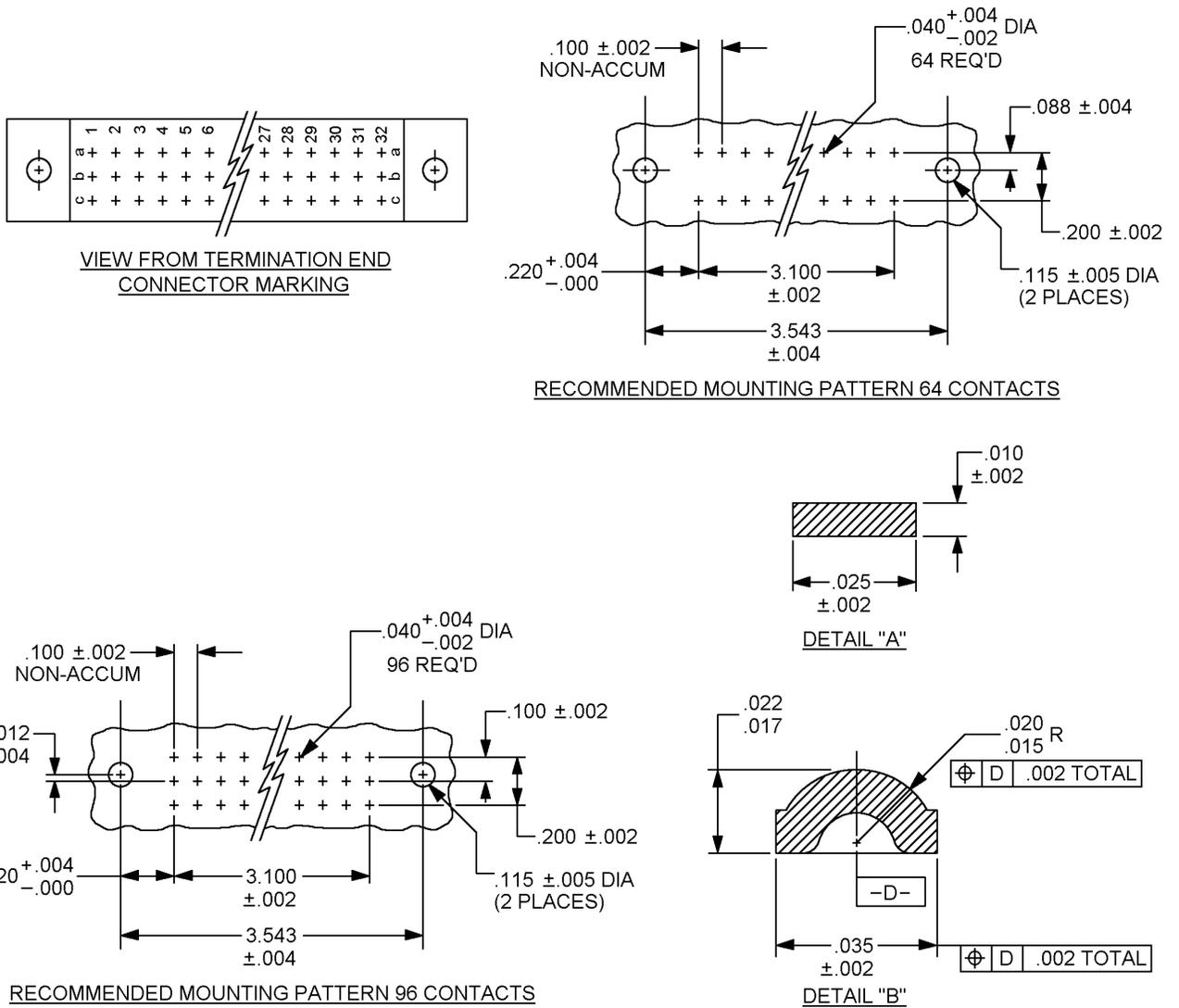


FIGURE 1. Connector, plug, .100 (2.54 mm) spacing – Continued.

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Part or Identifying Number (PIN)	Number of contacts	Type of termination	A Dimension
M55302/157-01	96	Wire wrap	.533 <u>1/</u>
M55302/157-02	96	Printed circuit (solder)	.180 <u>2/</u>
M55302/157-03	64	Wire wrap	.533 <u>1/ 3/</u>
M55302/157-04	64	Printed circuit (solder)	.180 <u>2/ 3/</u>
M55302/157-05	96	Compliant pin	.250 <u>4/</u>
M55302/157-06	96	Compliant pin with wire wrap	.733 <u>2/</u>
M55302/157-07	64	Compliant pin	.250 <u>4/ 5/</u>
M55302/157-08	64	Compliant pin (wire wrap)	.733 <u>2/ 5/</u>

1/ Wire wrap .025 square post for 3 wraps of 30 AWG or 2 wraps of 26 or 28 AWG.

2/ Solder contact suitable for .062 or .093 thick printed circuit board.

3/ These connectors have middle row (row B) or contacts excluded.

4/ Compliant pin suitable for .093 and .125 thick printed circuit board.

5/ Compliant pin suitable for .093 and .125 thick printed circuit board and .025 square post for 3 wraps of 30 AWG or 2 wraps of 26 or 28 AWG.

Inches	mm								
.001	0.03	.017	0.43	.040	1.02	.125	3.18	.343	8.71
.002	0.05	.020	0.51	.073	1.85	.127	3.23	.437	11.10
.004	0.10	.022	0.56	.088	2.24	.157	3.99	.533	13.54
.005	0.13	.024	0.61	.093	2.36	.180	4.57	.733	18.62
.008	0.20	.025	0.64	.098	2.49	.189	4.80	3.100	78.74
.010	0.25	.027	0.69	.100	2.54	.200	5.08	3.354	85.19
.012	0.30	.035	0.89	.110	2.79	.220	5.59	3.358	85.29
.015	0.38	.039	0.99	.114	2.90	.222	5.64	3.543	89.99
						.250	6.35	3.740	95.00

NOTES:

- Dimensions are in inches.
- Metric equivalents are given for general information only.
- Unless otherwise specified, tolerance is $\pm .005$ (0.13 mm).
- These connectors mate with connectors specified in MIL-DTL-55302/158.
- Wrap post contacts shall be .025 (0.64 mm) inch square.
- Holes for compliant pin shall be manufactured as follows: .0453 \pm .0010 drilled hole (1.15 mm drill) .001/.003 thick copper on wall, .0003 min. tin lead plating, finished hold diameter .037-.043 after plating, .036-.043 after reflow, copper hardness (Knoop) 150 max.

FIGURE 1. Connector, plug, .100 (2.54 mm) spacing – Continued.

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REQUIREMENTS

Design and construction:

Dimensions and configurations: See figure 1.

Material and finish:

Contact plating: Wrappost contacts shall be gold plated in accordance with MIL-DTL-45204, class 1, over nickel in accordance with SAE-AMS-QQ-N-290. Thickness of nickel plating shall be a minimum of 30 microinches. Printed circuit contacts in the engagement area for .200 inch minimum length from the top of the contact shall be gold plated in accordance with MIL-DTL-45204, type II, code C or D, class 1, over nickel plating in accordance with SAE-AMS-QQ-N-290, 30 to 150 microinches. The plating on the remainder of the printed circuit contact shall be tin-lead in accordance with SAE-AMS-P-81728, type I, 100 microinches minimum over nickel plating in accordance with SAE-AMS-QQ-N-290, 30 to 150 microinches.

Contact identification: See figure 1.

Mating and unmating: The maximum mating force, in pounds, shall not exceed a value equal to .25 times the number of contacts, and the withdrawal force, in pounds, shall be a minimum of .025 times the number of contacts and shall not exceed the measured insertion force, when the housing is loaded with contacts and mated with connector in accordance with MIL-DTL-55302/158.

Contact rating: 3.0 amperes maximum per contact.

Contact resistance: No individual contact pair shall have a resistance exceeding .020 ohm.

Contact retention: 3 pounds minimum per contact.

Dielectric withstanding voltage:

Oversize pin exclusion: Not applicable.

Sea level: 1,000 volts rms, 50 or 60 hertz.

High altitude: 300 volts rms, 50 or 60 hertz.

Part or Identifying Number (PIN): M55302/157- (dash number from figure 1).

Qualification: Qualification is not required for this specification sheet.

First article testing (FAT): FAT shall be in accordance with MIL-DTL-55302, qualification inspection.

Amendment notations. The margins of this specification are marked with vertical lines to indicate where modifications from this amendment were 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 notations.

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Referenced documents. In addition to MIL-DTL-55302, this document references the following documents:

MIL-DTL-55302/158
MIL-DTL-45204
SAE-AMS-QQ-N-290
SAE-AMS-P-81728

CONCLUDING MATERIAL

Custodians:

Army – CR
Navy – EC
Air Force – 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5935-2015-169)

Review activities:

Army – AR, AT, CR4, MI
Navy – AS, MC, OS, SH
Air Force – 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.