

INCH-POUND

MIL-DTL-55302/131D
w/AMENDMENT 1
11 February 2015
SUPERSEDING
MIL-DTL-55302/131D
11 October 2007

DETAIL SPECIFICATION SHEET

CONNECTORS, PLUG, ELECTRICAL, PRINTED CIRCUIT SUBASSEMBLY AND
ACCESSORIES: RIGHT ANGLE, PIN CONTACTS, 64 OR 96 CONTACT POSITION
FOR PRINTED WIRING BOARDS (.100 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.

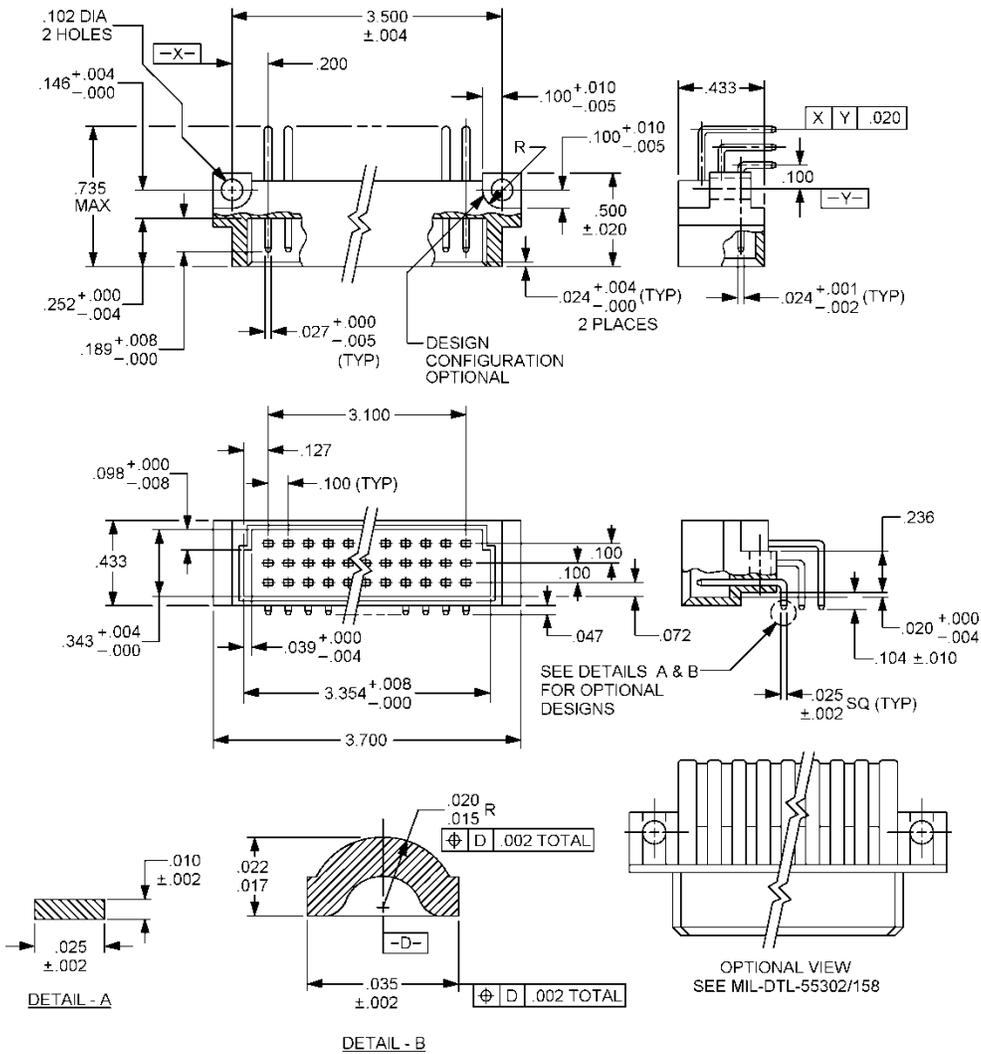


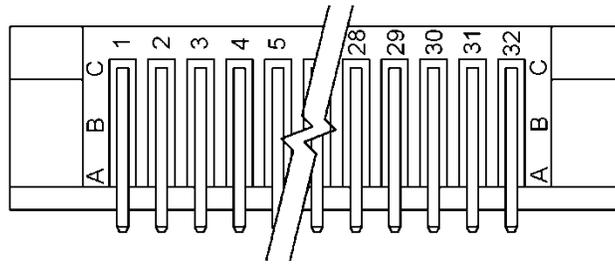
FIGURE 1. Connector, plug, .100 (2.54 mm) spacing.

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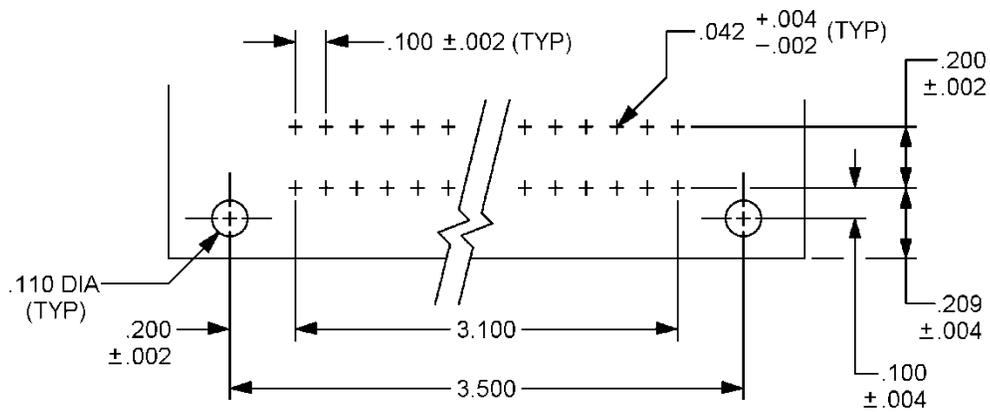
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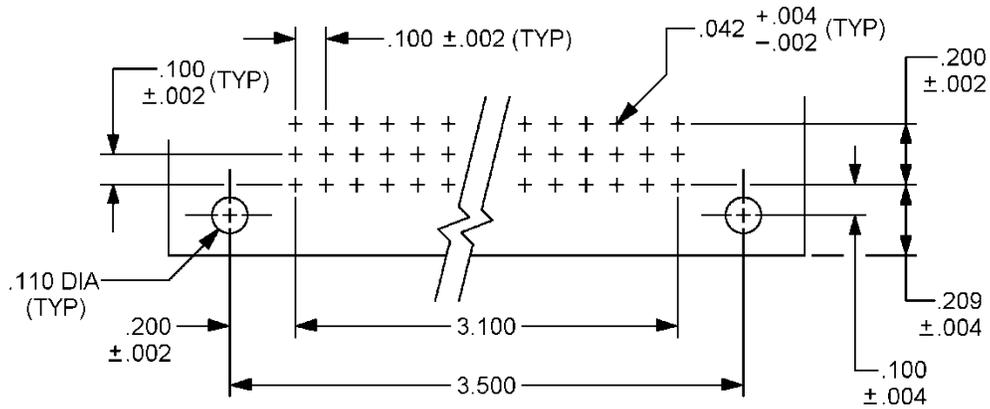
MIL-DTL-55302/131D
w/AMENDMENT 1



VIEW FROM TERMINATION END
CONNECTOR MARKING



RECOMMENDED MOUNTING PATTERN 64 CONTACTS



RECOMMENDED MOUNTING PATTERN 96 CONTACTS

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

MIL-DTL-55302/131D
w/AMENDMENT 1

Part or Identifying Number (PIN)	Number of contacts	Type of termination
M55302/131-01	96	Printed circuit tails
M55302/131-02	64	Printed circuit tails

NOTE: PIN -02 connectors have the middle row (row B) of contacts excluded.

Inches	mm	Inches	mm	Inches	mm	Inches	mm
.001	0.03	.024	0.61	.102	2.59	.343	8.71
.002	0.05	.025	0.64	.104	2.64	.433	11.00
.004	0.10	.027	0.69	.110	2.79	.500	12.70
.005	0.13	.035	0.89	.127	3.23	.735	18.67
.008	0.20	.039	0.99	.146	3.71	3.100	78.74
.010	0.25	.040	1.02	.189	4.80	3.354	85.19
.015	0.38	.047	1.19	.200	5.08	3.500	88.90
.017	0.43	.070	1.78	.209	5.31	3.700	93.98
.020	0.51	.098	2.49	.236	5.99		
.022	0.56	.100	2.54	.252	6.40		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerance is $\pm .010$ (0.25 mm).
4. These connectors mate with connectors specified in MIL-DTL-55302/132.

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

MIL-DTL-55302/131D
w/AMENDMENT 1

REQUIREMENTS

Design and construction:

Dimensions and configurations: See figure 1.

Plating:

Contact plating: The plating in the engagement area for .170 inch minimum length from the tip of the contact shall be gold in accordance with MIL-DTL-45204, type II, grade C or D, class 1 or equivalent, over nickel plating in accordance with SAE-AMS-QQ-N-290, class 2, 30 to 150 microinches or SAE-AMS2423, 30 to 150 microinches. The plating on the contact termination end for .170 inch minimum length from the end of the contact shall be tin lead in accordance with MIL-DTL-55302.

Nonfunctional areas: Any portion of the contact other than the contact mating area or termination area can be plated in accordance with MIL-DTL-55302.

Contact identification: See figure 1.

Contact separation forces:

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 exceed the measured insertion force, when the housing is loaded with contacts and mating with connector in accordance with MIL-DTL-55302/134.

Contact rating: 3 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:

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

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

Oversize pin exclusion: Not applicable.

PIN: See 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.

MIL-DTL-55302/131D
w/AMENDMENT 1

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. 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.

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

MIL-DTL-55302/132
MIL-DTL-55302/134
MIL-DTL-55302/158
MIL-DTL-45204
SAE-AMS-QQ-N-290
SAE-AMS2423

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-2015-003)

Review activities:

Army – AR, AT, AV, 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/> .