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IN REPLY

REFER TO DSCC -VAI (Mr. Antonelli/ (DSN 850) 614-692-0576/ra)

May 10, 2004

SUBJECT: Initial Drafts of MIL-DTL-55302/102E, /110H, /111B, /113F, Connectors, Printed Circuit Subassembly and Accessories, Plug and Receptacle, Various, for Printed Wiring Boards (.100 inch spacing), Project number 5935-4504-000, -4447-000, -4448-000 and -4449-000

Military/Industry Distribution

The initial drafts for the subject documents, which are being revised for conversion to detail status in accordance with acquisition reform and to replace obsolete references, have been placed on the DSCC-VAI website for you to review and comment. The website address is;
<http://www.dsccl.dla.mil/Programs/Milspec/DocSearch.asp>

If these documents are of interest to you, please provide your comments or suggested changes by e-mail to ralph.antonelli@dla.mil or by fax at (614) 692-6940. You may also send comments or suggested changes on Compilation of Comments form 155, shown at the end of the draft documents posted on the web.

Comments or suggested changes that are not editorial in nature should include justification. Industrial activities should indicate whether they are commenting from the standpoint of a "User" or "Manufacturer." Military review activities should forward their comments to their custodians in sufficient time to allow for consolidating the departmental reply. Military departments must identify their comments as either "Essential" or "Suggested." Essential comments, which must be accepted or withdrawn, should be supported by test data unless they obviously require no data.

Please return comments to this Center no later than 45 days from the date of this letter. Any further coordination concerning this document will be circulated only to firms and organizations that furnish comments or reply that they have an interest.

If you do not have access to the world wide web or you have problems downloading this document, please notify Mr. Ralph Antonelli at either the above e-mail address or fax number or by telephone at (614) 692-0576.

Sincerely,

/ signed /

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cc:
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Note: This draft dated 28 April 2004, prepared by Defense Supply Center Columbus (DSCC-VAI) has not been approved and is subject to modification. DO NOT USE PRIOR TO APPROVAL. (Project 5935-4504-000)

INCH-POUND

MIL-DTL-55302/102E
 DRAFT
 SUPERSEDING
 MIL-C-55302/102C
 4 April 1983

DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES:
 RECEPTACLE, STRAIGHT-TRHRU, HERMAPHRODITIC CONTACT,
 CRIMP REMOVABLE, FOR PRINTED WIRING BOARDS (.100 INCH SPACING)

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

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

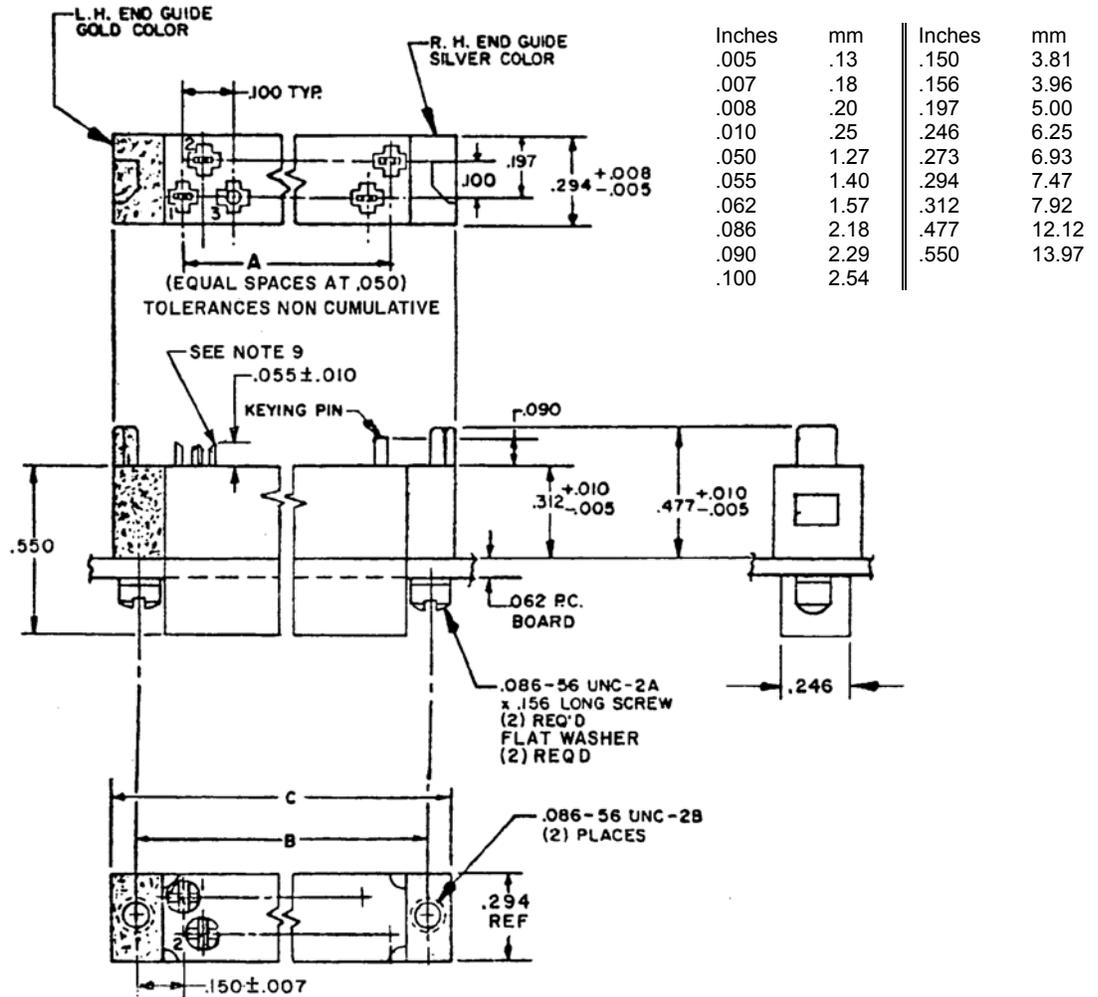


FIGURE 1. Connectors, receptacle, .100 (2.54 mm) spacing.

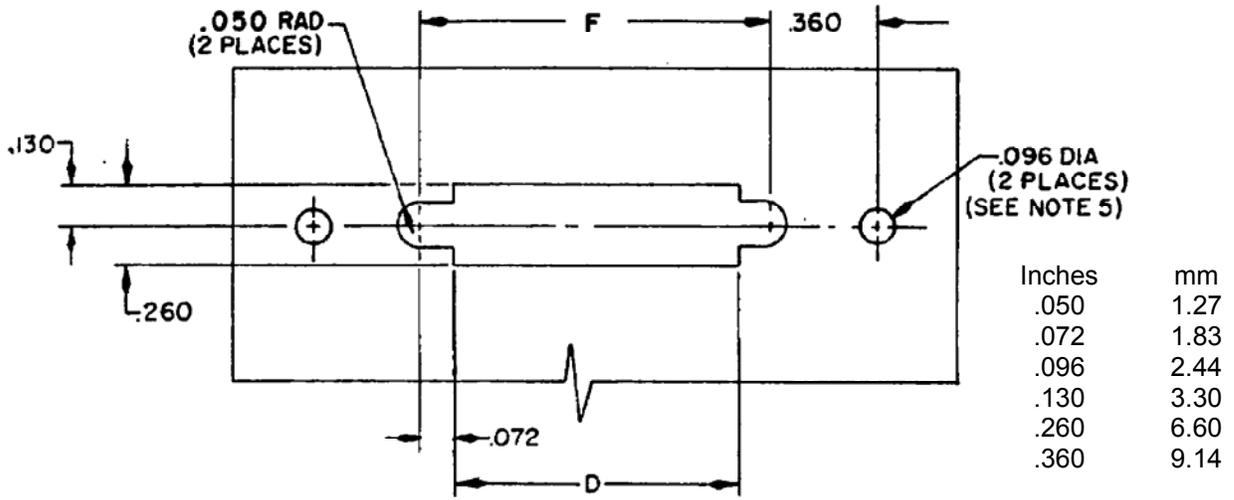


FIGURE 2. Typical cutout for receptacle in nonconductive chassis.

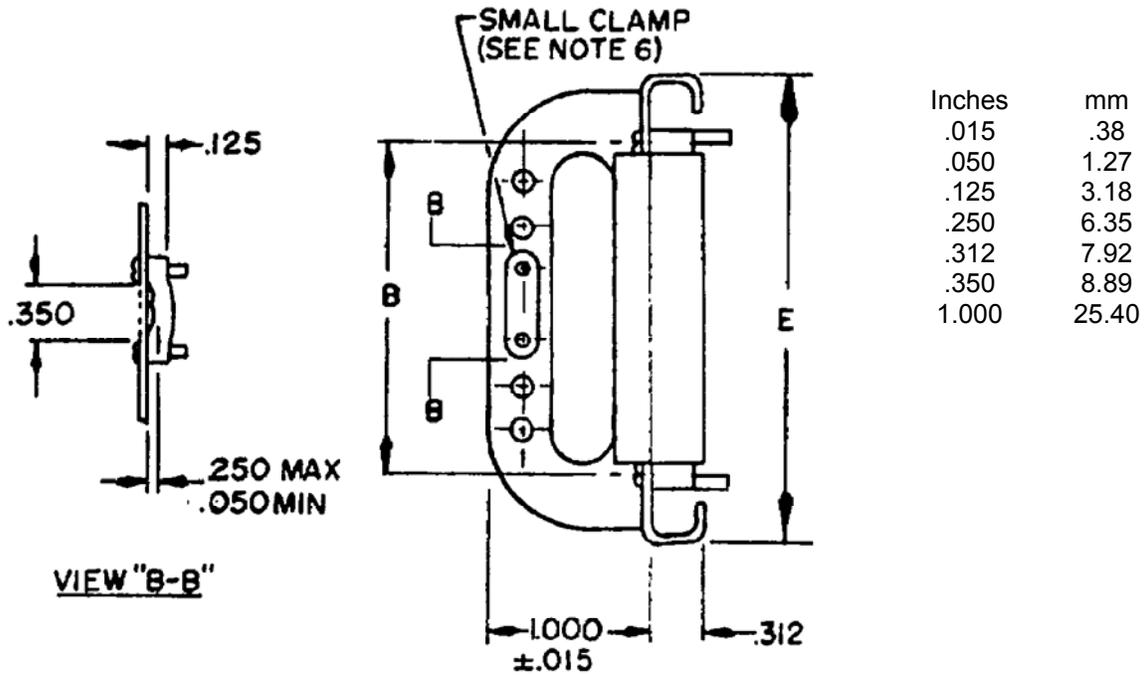


FIGURE 3. Mounting bracket assembly with small clamp.

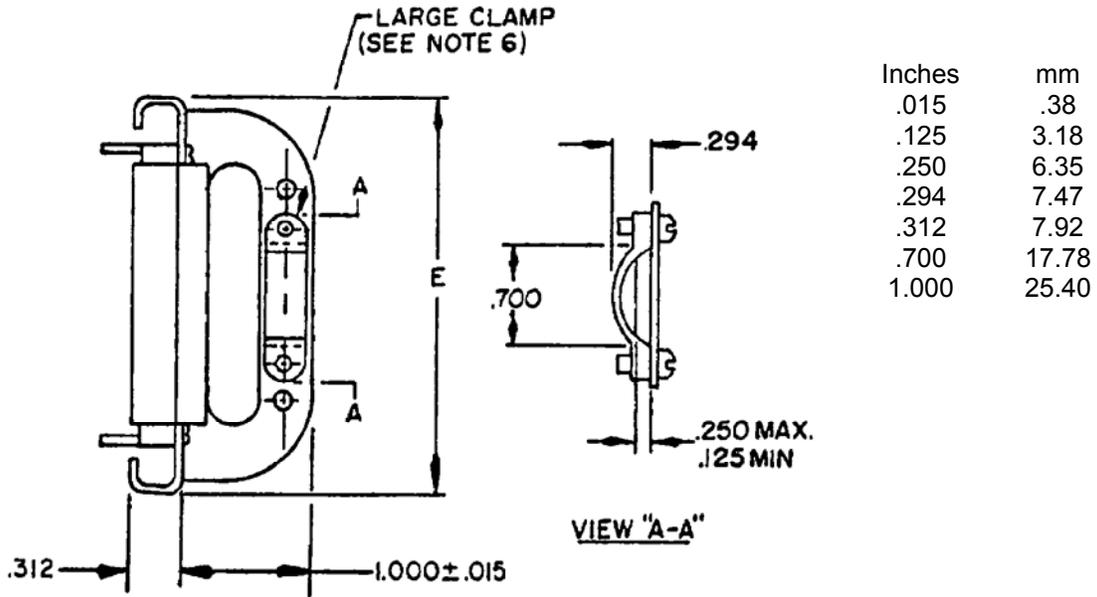


FIGURE 4. Mounting bracket assembly with large clamp.

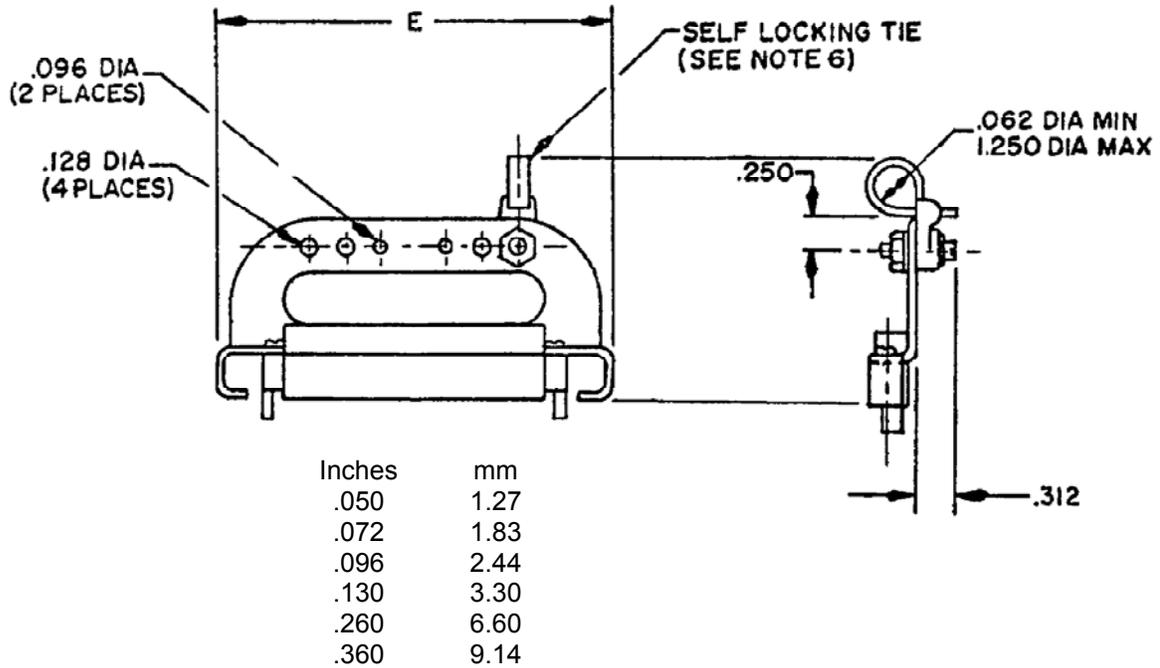


FIGURE 5. Mounting bracket assembly with self locking tie.

MIL-DTL-55302/102E

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are ± 0.005 (0.13 mm).
4. When keying, mounting bracket or mounting bracket and keying is required, refer to the applicable dash and figure number in table I.
5. When bracket assembly (see figures 3, 4, or 5) to chassis mounting is required, it is suggested that support pins per MIL-DTL-55302/107 be used.
6. Mounting brackets assembled with the insulator will have the clamping hardware shipped loose.
7. Contacts (class A in accordance with MIL-DTL-55302/97-01) are shipped loose in a plastic bag with each connector unless otherwise specified. When contacts are furnished separately, the letters "WO" shall appear immediately after the military part number marking on the connector (i.e., M55302/102-02 WO).
8. For direct government procurements connectors shall be furnished with contacts in a plastic bag with each connector.
9. With connectors fully engaged the mating contacts shall have a minimum overlap distance of .062. As a minimum the contacts shall exhibit a wiping action through this distance.

Dash number ^{1/}	Number of contacts	Figure number	Dimensions					
			A	B $\pm .010$	C Ref.	D	E Ref.	F
01	18	1						
02		3	8.50	1.150	1.300	1.006	1.990	1.150
03		4	(21.590)	(29.21)	(33.02)	(25.55)	(50.55)	(29.221)
04		5						
05	30	1						
06		3	1.450	1.750	1.900	1.606	2.590	1.750
07		4	(36.83)	(44.45)	(48.26)	(40.79)	(65.79)	(44.45)
08		5						
09	36	1					2.890	
10		3	1.750	2.050	2.200	1.906		2.050
11		4	(44.45)	(52.07)	(55.88)	(48.41)	(73.41)	(52.07)
12		5						
13	42	1						
14		3	2.050	2.350	2.500	2.206	3.190	2.350
15		4	(52.07)	(59.69)	(63.50)	(56.03)	(81.03)	(59.69)
16		5						
17	54	1						
18		3	2.650	2.950	3.100	2.806	3.790	2.950
19		4	(67.31)	(74.93)	(78.740)	(71.27)	(96.27)	(74.93)
20		5						
21	72	1						
22		3	3.550	3.850	4.100	3.706	4.690	3.850
23		4	(90.17)	(97.79)	(104.14)	(94.13)	(119.13)	(97.79)
24		5						

^{1/} See requirements for complete part number when keying pin is required.

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1.

Material:

Insulator: ASTM D5948, type SDG-F.

Bracket, mounting: Cold rolled steel, 1/4 HD, in accordance with QQ-S-698; plated in accordance with SAE-AMS-QQ-P-416, class 3, type II.

End guides: Left hand, sintered brass 90/10, clear chromate in accordance with MIL-C-5541, class 1A. Right hand, sintered brass 90/10, nickel plate 300 microinches in accordance with MIL-F-14072.

Clamps, large and small: Aluminum alloy 380, in accordance with SAE-AMS-QQ-A-591, cadmium plated in accordance with SAE-AMS-QQ-P-416, class 3, type II.

Keying pin: Aluminum alloy 2011-T3 with clear chromate in accordance with MIL-C-5541, class 1A.

Self locking tie: Nylon 6.6.

Mounting screw: Brass, cadmium plated, gold chromate finish.

Flat washer: Stainless steel.

Contact identification: Contact locations are identified in numerical sequence (see figure 1).

Mating and unmating: The maximum insertion force in pounds, shall not exceed a value equal to .5 times the number of contacts, and the withdrawal force, in pounds shall be a minimum of .11 times the number of contacts and shall not exceed the measured insertion force.

Contact retention: 6.0 pounds minimum after 5 insertions and withdrawals from the same connector.

Contact resistance: The contact resistance shall not exceed 20 milliohms.

Dry circuit: Connectors shall be tested in accordance with of EIA 364. The contact resistance shall not exceed 20 milliohms.

Dielectric withstanding voltage:

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

High altitude: 300 volts rms, 60 hertz.

Current rating, maximum: 5 amperes.

Keying : When required, one of the following codes shall be added to the dash number:

“P” – Specifying location by contact number where keying pin shall be inserted; for example, M55302/102-01P17. (Keying pin inserted in place of contact number 17.)

“H” – Specifying location by contact number where contact shall be omitted for mating; for example, M55302/102-01H17. (Keying pin hole has contact number 17 omitted.)

Contact crimp removable (Class A or B): Shall conform to MIL-DTL-55302/97.

MIL-DTL-55302/102E

Contact removal tool: Shall conform to MIL-I-81969/4.

Contact insertion tool: Shall conform to MIL-I-81969/5.

Contract crimp tool: Shall conform to M22520/17-02.

Mating plug: Shall conform to MIL-DTL-55302/53 and MIL-DTL-55302/54.

Part or Identifying Number (PIN): M55302/102-(dash number from table I).

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

NOTES

Referenced documents. In addition to MIL-DTL-55302, this specification sheet references the following documents.

QQ-S-698

MIL-C-5541

MIL-F-14072

MIL-C-22520/17

MIL-DTL-55302/53

MIL-DTL-55302/54

MIL-DTL-55302/97

MIL-I-81969/4

MIL-I-81969/5

ASTM B5948

EIA-364

SAE-AMS-QQ-P-416

SAE-AMS-QQ-A-591

CONCLUDING MATERIAL

Custodians:

Army - CR

DLA - CC

Preparing activity:

DLA - CC

(Project 5935-4504-000)

Review activities:

Army – AR, AT, AV, CR4, MI

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 <http://www.dodssp.daps.mil>.

PROJECT NUMBER		COMPILATION OF COMMENTS		COMMENT NUMBER
DOCUMENT		COMMENTOR IND NAME OR CODE	[] MFR [] USER [] IND ASSOC	
DOD USE ONLY	DEPT	[] A [] N [] AF [] DLA [] NSA [] CNDN [] NASA	[] ESSENTIAL [] SUGGESTED	
RECOMMENDED DISPOSITION OF COMMENT:		[] ACCEPTANCE [] NON-ACCEPTED-SEE REASON [] WITHDRAW [] MODIFY [] DISCUSS		
FINAL DISPOSITON OF COMMENT:		[] ACCEPTED [] NON-ACCEPTED [] WITHDRAW [] MODIFY		

DESC FORM 155

PROJECT NUMBER		COMPILATION OF COMMENTS		COMMENT NUMBER
DOCUMENT		COMMENTOR IND NAME OR CODE	[] MFR [] USER [] IND ASSOC	
DOD USE ONLY	DEPT	[] A [] N [] AF [] DLA [] NSA [] CNDN [] NASA	[] ESSENTIAL [] SUGGESTED	
RECOMMENDED DISPOSITION OF COMMENT:		[] ACCEPTANCE [] NON-ACCEPTED-SEE REASON [] WITHDRAW [] MODIFY [] DISCUSS		
FINAL DISPOSITON OF COMMENT:		[] ACCEPTED [] NON-ACCEPTED [] WITHDRAW [] MODIFY		

DESC FORM 155