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IN REPLY
REFER TO DSCC -VAI (Mr. Antonelli/ (DSN 850) 614-692-0576/ra) May 21,2004

SUBJECT: Initial Drafts of MIL-DTL-55302/6J, Connectors, Printed Circuit Subassembly and Accessories, Receptacle, Socket Contacts, Straight-Thru, for Multilayered Printed wiring Boards (.100 inch spacing), Project number 5935-4720-000.

Military/Industry Distribution

The initial draft for the subject document, which is being revised to incorporate addition part numbers for shorter termination leads and guide sockets, has been placed on the DSCC-VAI website for you to review and comment. The website address is; http://www.dscc.dla.mil/Programs/Milspec/DocSearch.asp

If this document is 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 Essential comments, which must be accepted or withdrawn, should be supported by test data unless they obviously require no data.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/

RICHARD L. TAYLOR
Chief
Interconnection Devices Team

cc:
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CDAB (Dave Barman)
AF -11 (Jim Arnold - 88 OSS/OSE)

INCH-POUND
MIL-DTL-55302/6J
DRAFT
SUPERSEDING
MIL-C-55302/6H
3 February 2004

DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES: RECEPTACLE, SOCKET CONTACTS, STRAIGHT-THRU, FOR MULTILAYERED 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.

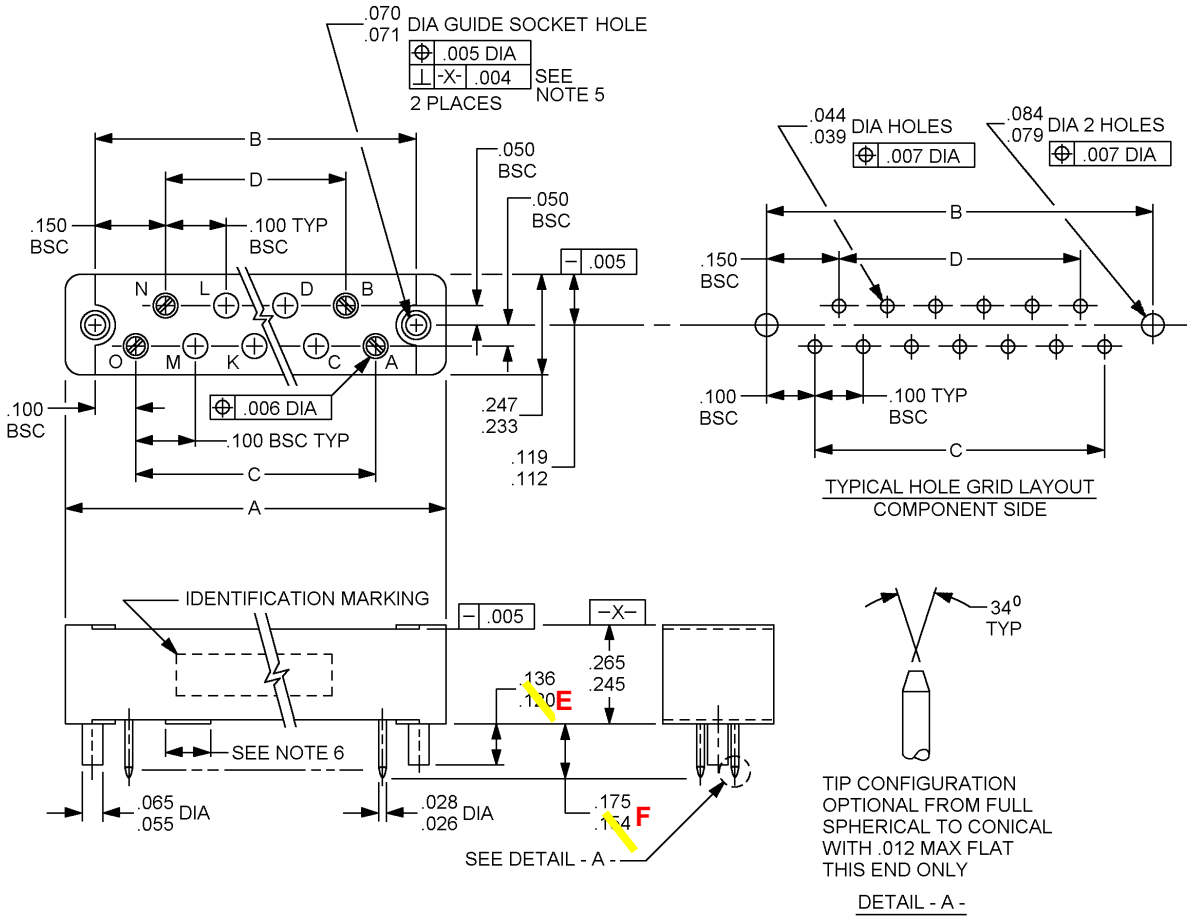
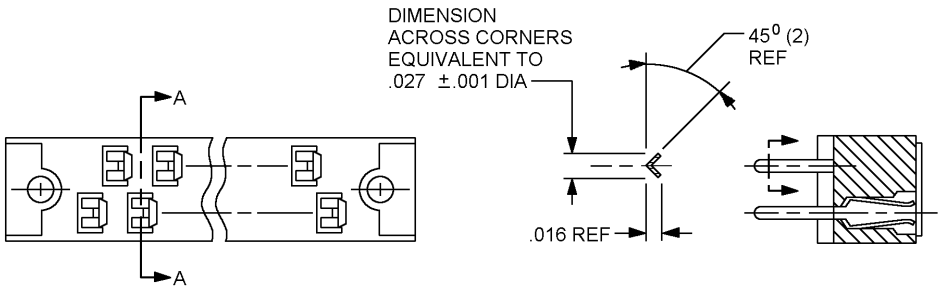


FIGURE 1. Connectors, receptacle (.100 spacing).



ALTERNATE CONTACT CONSTRUCTION

TABLE 1. Dimensions and dash numbers.

Dash no.	No. of contacts	A ±.010	B basic	C ref	D ref	E ±.008	F +.011 -.010
01	9	.750	.600	.400	.300	.128	.164
02	17	1.150	1.000	.800	.700	.128	.164
03	25	1.550	1.400	1.200	1.000	.128	.164
04	33	1.950	1.800	1.600	1.500	.128	.164
05	41	2.350	2.200	2.000	1.900	.128	.164
06	77	4.150	4.000	3.800	3.700	.128	.164
08	17	1.150	1.000	.800	.700	.090	.110
09	25	1.550	1.400	1.200	1.000	.090	.110
11	41	2.350	2.200	2.000	1.900	.090	.110

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.001	0.03	.044	1.12	.120	3.05	.600	15.24	1.600	40.64
.004	0.10	.050	1.27	.136	3.45	.700	17.78	1.800	45.72
.005	0.13	.055	1.40	.150	3.81	.750	19.05	1.900	48.26
.006	0.15	.065	1.65	.154	3.91	.800	20.32	1.950	49.53
.007	0.18	.070	1.78	.175	4.44	1.000	25.40	2.000	50.80
.012	0.30	.071	1.80	.233	5.92	1.100	27.94	2.220	56.39
.016	0.40	.079	2.01	.245	6.22	1.150	29.21	2.350	59.69
.026	0.66	.084	2.13	.247	6.27	1.200	30.48	3.700	93.98
.027	0.69	.100	2.54	.265	6.73	1.400	35.56	3.800	96.52
.028	0.71	.112	2.84	.300	7.62	1.500	38.10	4.000	101.60
.039	0.99	.119	3.02	.400	10.16	1.550	39.37	4.150	105.41

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are ± .005 (0.13 mm) on three place decimals and ± 2° on angles.
4. These connectors mate with connectors specified in MIL-DTL-55302/4 and MIL-DTL-55302/5, and are primarily for use with multilayered printed wiring boards.
5. Positional tolerances of guide pins shall apply at datum plane X.
6. Pad(s) suitable for printed circuit board support are required. Dimensions and location(s) are optional.

FIGURE 1. Connectors, receptacle (.100 spacing) - Continued.

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1 and table I.

Material:

Guide pins and guide bushing: Brass composition B, 60,000 to 70,000 PSI tensile, as specified in ASTM-B134, or FC brass as specified in ASTM B16.

Plating:

Guide pins and guide bushings: Copper alloy in accordance with ASTM B134, or ASTM B16.

Contact: Gold overall in accordance with ASTM B488, type II, code C, class 1.27, over nickel plating in accordance with SAE-AMS-QQ-N-290, class 2, 50 to 150 microinches, or localized contact finish with contact engagement end gold plated with type II, class 1.27, code C in accordance with ASTM B488 over nickel underplate, class 2, 30 to 150 microinches as specified in SAE-AMS-QQ-N-290, and contact termination end plating tin lead (50% to 70%) composition 100 microinches minimum thickness in accordance SAE-AMS-P-81728 over nickel underplate. Solder dipping is permitted providing it meets procedures and requirements of MIL-STD-202, method 208.

Contact identification: Shall be alphabetical and sequential in the pattern indicated, using upper case characters followed by lower case characters. Except dash number 06 the characters shall be numerical and sequential in pattern indicated.

Pin size: 23.

Wire size: 22.

Current rating: 5 amperes, maximum.

Oversize pin exclusion: Not applicable.

Mating and unmating: The maximum insertion force, in pounds shall not exceed a value equal to 0.5 times the number of contacts.

Contact engagement and separation forces: The individual contact withdrawal force shall be .5-ounce minimum when tested with a minimum diameter test pin per SAE-AS31971-23X1.

Contact resistance: The average resistance of all contact pairs measured shall not exceed .010 ohm, and no individual contact pair shall have a resistance exceeding .020 ohm.

Dielectric withstanding voltage:

Sea level: 1,000 volts rms, 60 Hz, ac.
High altitude: 500 volts rms, 60 Hz, ac.

Part or Identifying Number (PIN): M55302/6-(dash number from figure 1).

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.

MIL-DTL-55302/4
MIL-DTL-55302/5
MIL-STD-202
ASTM B16
ASTM B134
ASTM B488
SAE-AMS-QQ-N-290
SAE-AS31971

CONCLUDING MATERIAL

Custodians:
Army – CR
Navy - EC
Air Force – 11
DLA – CC

Preparing activity:
DLA - CC

(Project 5935-4720-000)

Review activities:
Army - AT, AV, 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 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	

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DOD USE ONLY	DEPT	[ ] A [ ] N [ ] AF [ ] DLA [ ] NSA [ ] CNDN [ ] NASA	[ ] ESSENTIAL [ ] SUGGESTED
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