

MILITARY SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES:  
RECEPTACLE SOCKET 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 the issue of the following specification listed in that  
issue of the Department of Defense Index of Specifications and Standards (DODISS)  
specified in the solicitation: MIL-C-55302.

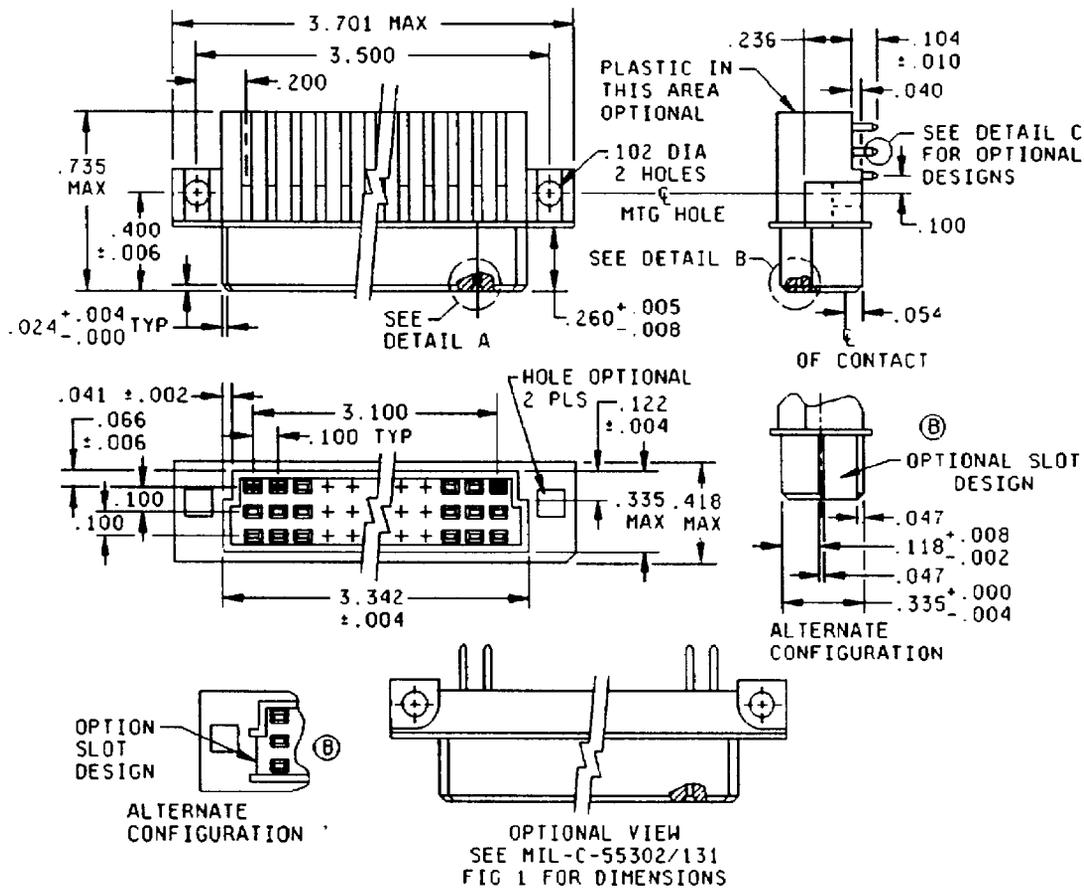
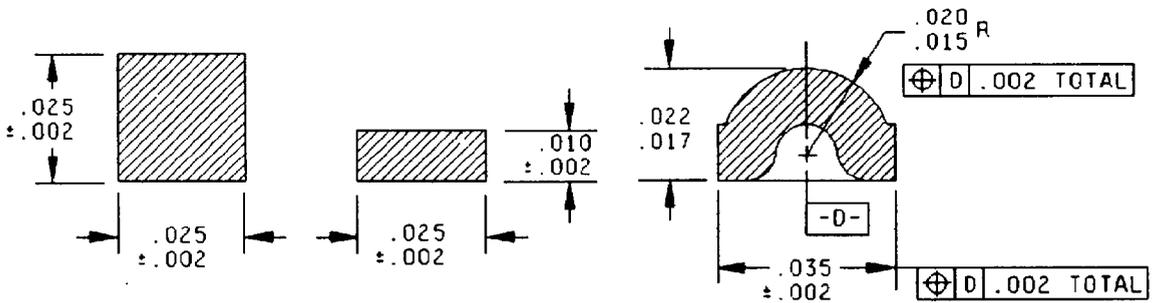
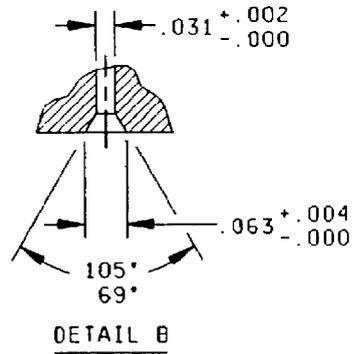
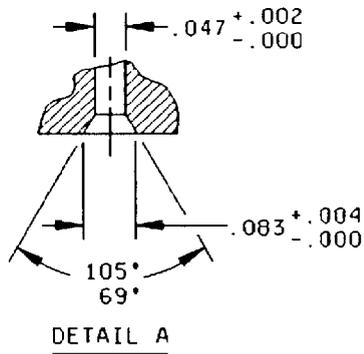


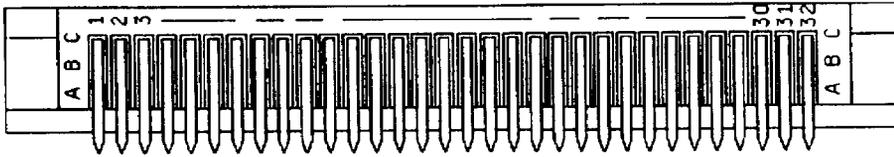
FIGURE 1. Connector, receptacle, .100 (2.54 mm) spacing.

(B) denotes changes.

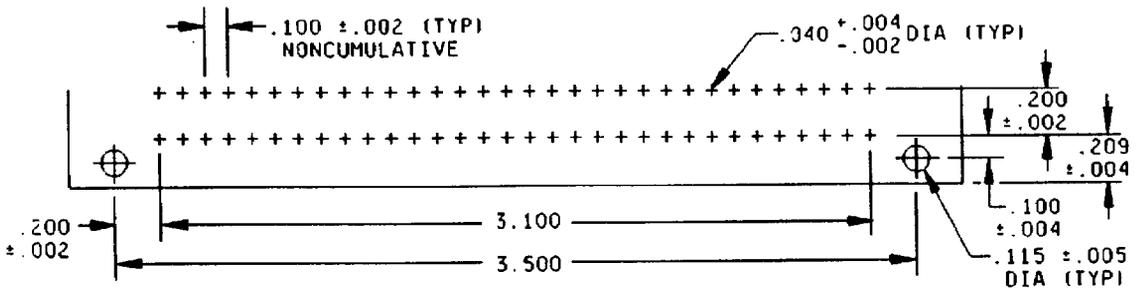


DETAIL C OPTIONAL DESIGNS FOR PRINTED CIRCUIT TAILS

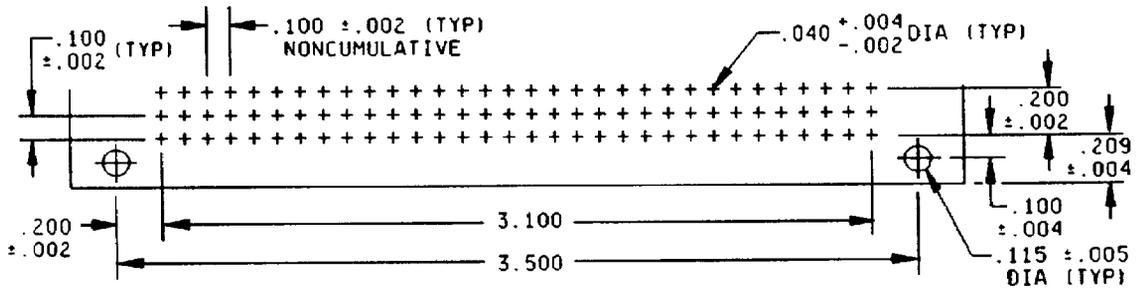
FIGURE 1. Connector, receptacle, .100 (2.54 mm) spacing - Continued.



VIEW FROM TERMINATION END  
CONNECTOR MARKING



RECOMMENDED MOUNTING PATTERN 64 CONTACTS



RECOMMENDED MOUNTING PATTERN 96 CONTACTS

FIGURE 1. Connector, receptacle, .100 (2.54 mm) spacing - Continued.

Dash number M55302/158-	Number of contacts	Type of termination
01	96	Printed circuit tails <u>2</u> /
02	64	Printed circuit tails <u>1</u> / <u>2</u> /

1/ These connectors have middle row (row B) of contacts excluded.

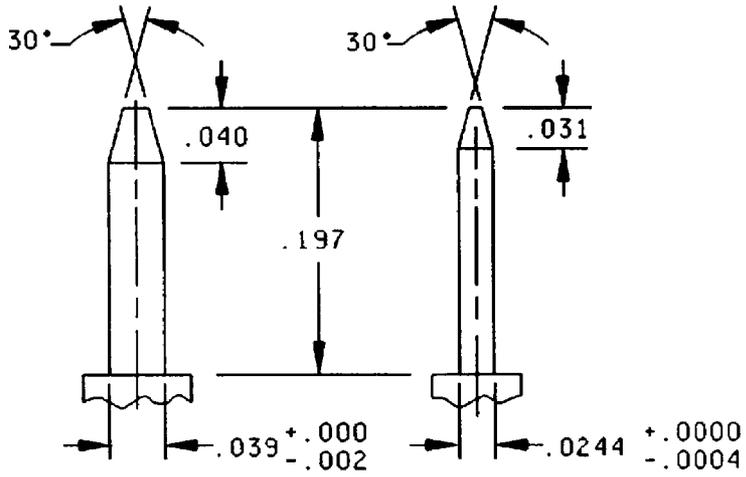
2/ Solder contact suitable for .062 or .093 thick printed wiring boards.

Inches	mm		Inches	mm		Inches	mm		Inches	mm		Inches	mm
.002	.05		.020	.51		.047	1.19		.110	2.79		.400	10.16
.004	.10		.022	.56		.054	1.37		.122	3.10		.418	10.62
.005	.13		.024	.61		.063	1.60		.200	5.08		.735	18.67
.006	.15		.025	.64		.066	1.68		.209	5.31		3.100	78.74
.008	.20		.031	.79		.083	2.11		.236	6.00		3.342	84.89
.010	.25		.035	.89		.100	2.54		.260	6.60		3.500	88.90
.015	.38		.040	1.02		.102	2.59		.335	8.51		3.701	94.01
.017	.43		.041	1.04		.104	2.64						

## NOTES:

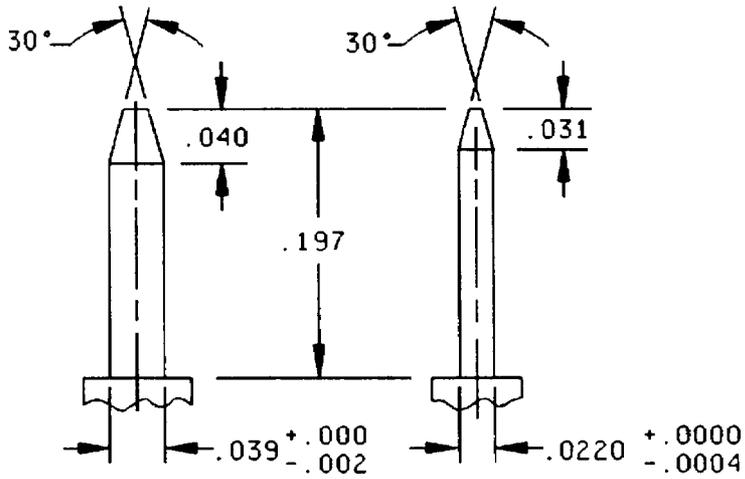
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is  $\pm 0.005$  (.13 mm).
4. These connectors mate with connectors specified in MIL-C-55302/157.
5. Clearance must be provided around the top of the mounting hole for 2.5 mm hex nut.
6. Slots, openings, indentations etc. that fall within the envelope dimensions and which do not affect form, fit or function are acceptable providing they do not prevent intermateability and are not used for polarizing purposes in military applications.

FIGURE 1. Connector, receptacle, .100 (2.54 mm) spacing - Continued.



TEST PIN A

Inches	mm
.0004	0.010
.002	0.05
.008	0.20
.0220	0.559
.0244	0.620
.031	0.79
.039	0.99
.040	1.02
.197	5.00

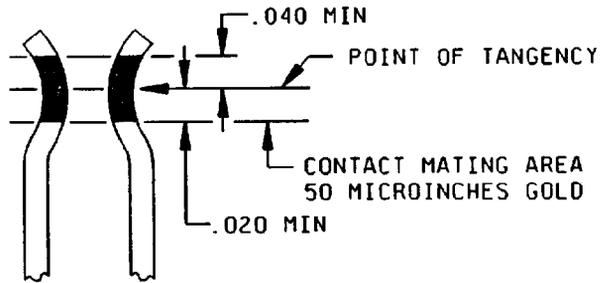


TEST PIN B

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are  $\pm .008$  (0.20 mm) on decimals and  $2^\circ$  on angles.

FIGURE 2. test pins.



Inches	mm
.020	0.51
.040	1.02

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

FIGURE 3. Contact plating.

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1.

Material and finish:

Contact plating: The plating in the contact area shall be gold per MIL-G-45204, type II, grade C or D, class 1 over nickel plating per QQ-N-290, 30 to 150 microinches. The contact mating area is defined in figure 3.

Nonfunctional area: Any portion of the contact other than the contact mating area or termination area can be plated in accordance with paragraph 3.3.3.4.3 of MIL-C-55302.

Contact identification: See figure 1.

Body design: The insulator body of each receptacle may be two-piece construction secured by mechanical means.

Contact separation force: Separation force shall be .5 ounce minimum, using the following test pins:

1. Insert and withdraw test pin A (see figure 2).
2. Insert test pin B (see figure 2) fully and withdraw test pin B .071 inch and then measure separation force.

Mating and unmating: The maximum mating force, in pounds, shall not exceed a value equal to 0.25 times the number of contacts, and the withdrawal force, in pounds, shall be a minimum of 0.025 times the number of contacts and shall not exceed the measured insertion force, when the housing is loaded with contacts and mated with connector specified in MIL-C-55302/157.

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:

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

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

Part number: M55302/158- (dash number from figure 1).

CONCLUDING MATERIAL

Custodians:

Army - CR  
Navy - EC  
Air Force - 17

Review activities:

Army - AR, AT, AV, MI  
Navy - AS, OS, SH  
Air Force - 11, 85, 99  
DLA - ES

User activities:

Army - ME  
Navy - MC  
Air Force - 19

Preparing activity:

Army - CR

Agent:

DLA - ES

(Project 5935-3870)