

INCH-POUND

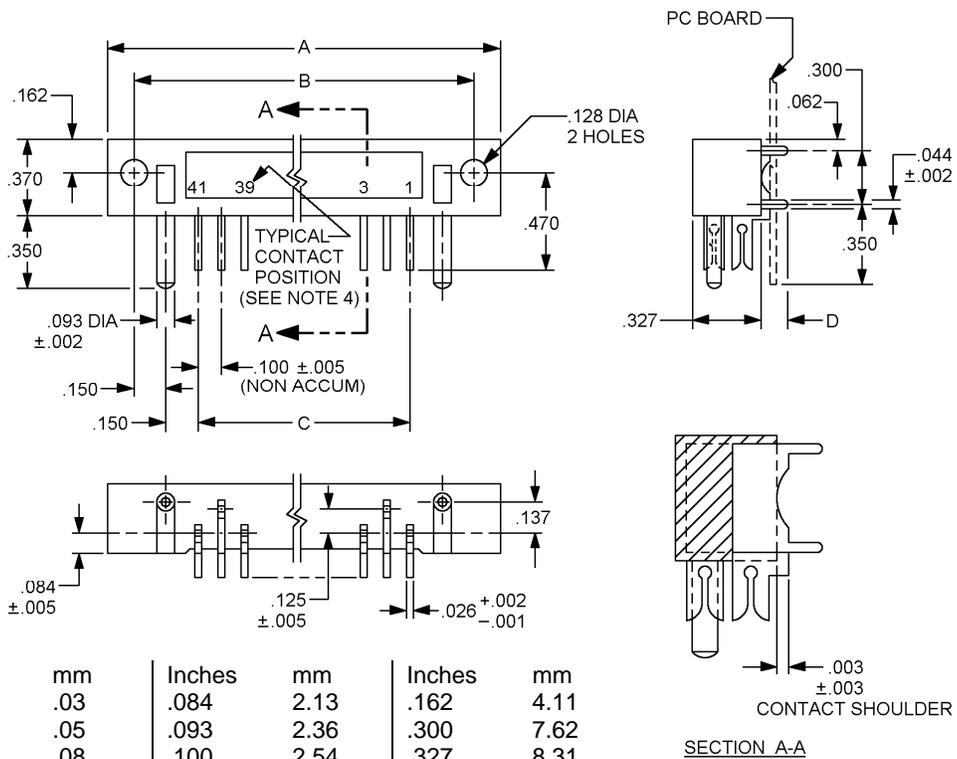
MIL-DTL-21097/5G
 23 June 2008
 SUPERSEDING
 MIL-DTL-21097/5F
 18 August 2005

DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, PRINTED WIRING BOARD
 MALE ADAPTER, CONTACT SPACING (.200) ALTERNATE
 DUAL ROW, TYPE CS

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-21097.

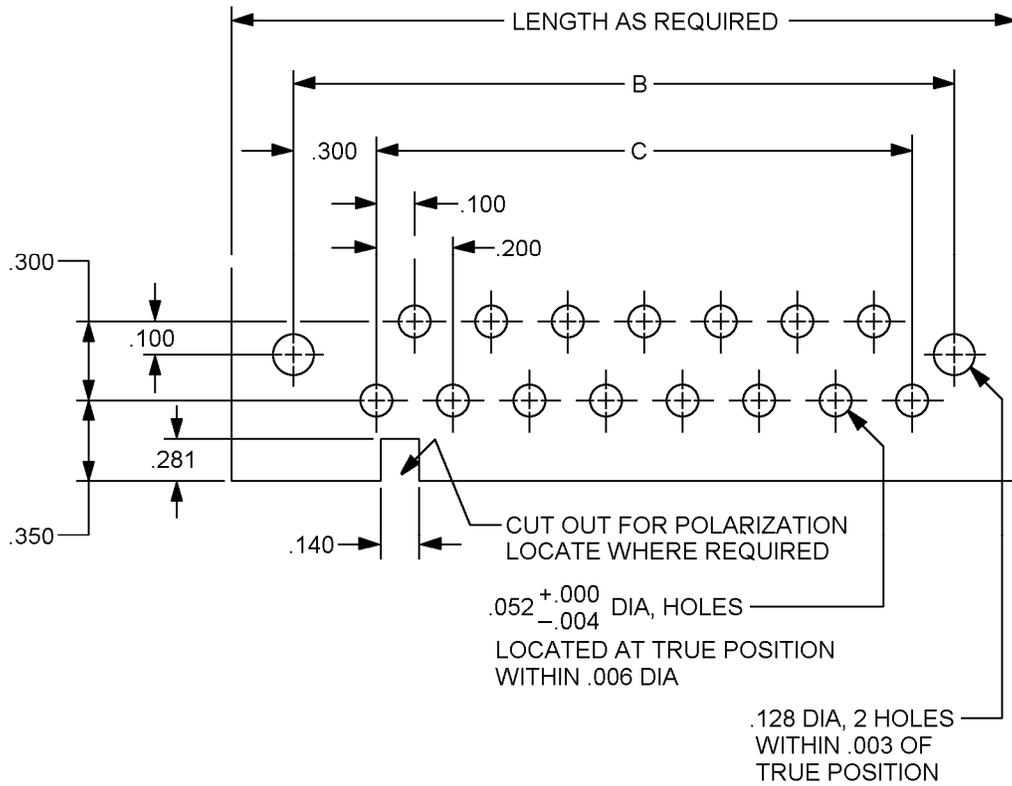


NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerance is $\pm .010$ (.25 mm) for three place decimals.
3. Metric equivalents are given for information only.
4. Contacts shall be designated on the connector using numerals in the location shown.

FIGURE 1. Alternate dual row contacts, type CS.

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Inches	mm
.003	.08
.004	.10
.006	.15
.052	1.32
.100	2.54
.128	3.25
.140	3.56
.200	5.08
.281	7.14
.300	7.62
.350	8.89

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FIGURE 2. Printed circuit board mounting and hole pattern.

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TABLE I. Connector, electrical, male adapter, type CS, class b, no mounting provision A.

Dash number	Style	Size	Dimensions (inches) <u>1/</u> <u>2/</u>			
			A (maximum)	B ± 0.015 (0.38)	C ± 0.005 (0.13)	D ± 0.010 (0.25)
01	17	2	2.470 (62.74)	2.200 (55.88)	1.600 (40.64)	.122 (3.10)
02	17	3	2.470 (62.74)	2.200 (55.88)	1.600 (40.64)	.153 (3.89)
03	23	2	3.070 (77.98)	2.800 (71.12)	2.200 (55.88)	.122 (3.10)
04	23	3	3.070 (77.98)	2.800 (71.12)	2.200 (55.88)	.153 (3.89)
05	29	2	3.670 (93.22)	3.400 (86.36)	2.800 (71.12)	.122 (3.10)
06	29	3	3.670 (93.22)	3.400 (86.36)	2.800 (71.12)	.153 (3.89)
07	35	2	4.270 (108.46)	4.000 (101.6)	3.400 (86.36)	.122 (3.10)
08	35	3	4.270 (108.46)	4.000 (101.6)	3.400 (86.36)	.153 (3.89)
09	41	2	4.870 (123.70)	4.600 (116.84)	4.000 (101.6)	.122 (3.10)
10	41	3	4.870 (123.70)	4.600 (116.84)	4.000 (101.6)	.153 (3.89)
11	47	2	5.470 (138.94)	5.200 (132.08)	4.600 (116.84)	.122 (3.10)
12	47	3	5.470 (138.94)	5.200 (132.08)	4.600 (116.84)	.153 (3.89)

1/ Dimensions are in inches.

2/ Metric equivalents are given for information only.

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REQUIREMENTS

Dimensions and configurations: See figure 1, figure 2, and table I.

Mating receptacles: Shall be in accordance with MIL-DTL-21097/4.

Finish: Gold plating in accordance with ASTM B488, type II, code C, class 1.27, over nickel plating in accordance with Appendix A of MIL-DTL-38999, class 2, 30 to 150 microinches.

Part or Identifying Number (PIN): M21097/5-(dash number from table I).

Qualification: Not required.

First article testing: First article testing shall be as specified in table II, tests shall be in accordance with MIL-DTL-21097.

Sample size: 8 connectors shall be subjected to the first article testing. All sample units shall be subjected to the inspections in group I. The sample units shall be divided equally into 2 groups of four and subjected to the inspection for their particular groups.

TABLE II. First article tests .

Inspection
<u>Group I</u> (8 samples)
Visual and mechanical inspection
Permeability
Insulation resistance
Dielectric withstanding voltage
Contact resistance
<u>Group II</u> (4 samples)
Temperature cycling
Shock
Bond strength, body assembly
Contact retention
Resistance to soldering heat
Resistance to solvents
<u>Group III</u> (4 samples)
Salt spray (corrosion)
Low-signal level contact resistance
Contact resistance
Bond strength, body assembly

Failures: One or more failures shall be cause for refusal to grant first article approval.

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Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue 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 and relationship to the last previous issue.

Referenced documents. In addition to MIL-DTL-21097, this document references the following:

MIL-DTL-21097/4
MIL-DTL-38999
ASTM B488

CONCLUDING MATERIALS

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-2008-027)

Review activities:

Army – AR, AT, AV, CR4, MI
Navy – AS, MC, OS, SH

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://assist.daps.dla.mil>.