

INCH-POUND
MIL-DTL-55302/83C
w/AMENDMENT 1
14 March 2011
SUPERSEDING
MIL-DTL-5302/83C
15 November 2004

DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES:
PLUG, PIN CONTACTS, 41, 66, 114 CONTACT POSITIONS:
FOR PRINTED WIRING BOARDS (.100 X .050 OFFSET GRID)

Inactive for new design after 1 July 1989.

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.

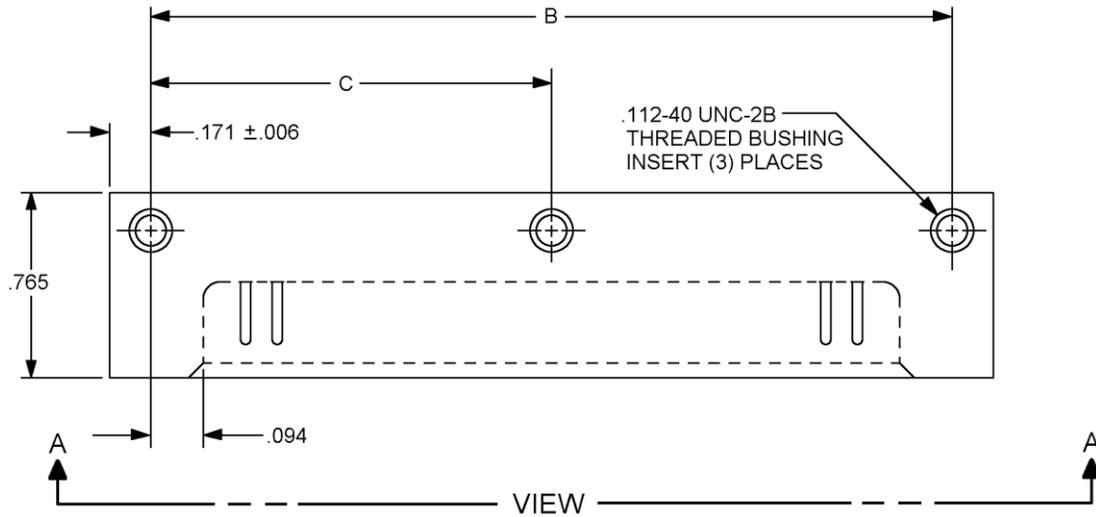


FIGURE 1. Connectors, plug, (.100 x .050 offset grid).

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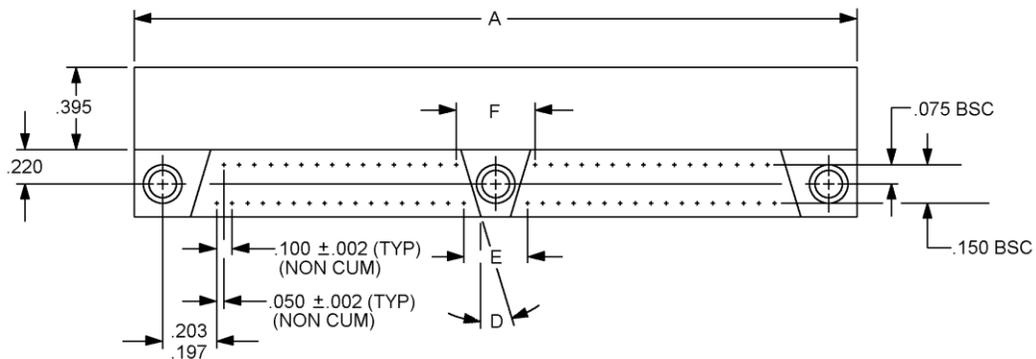
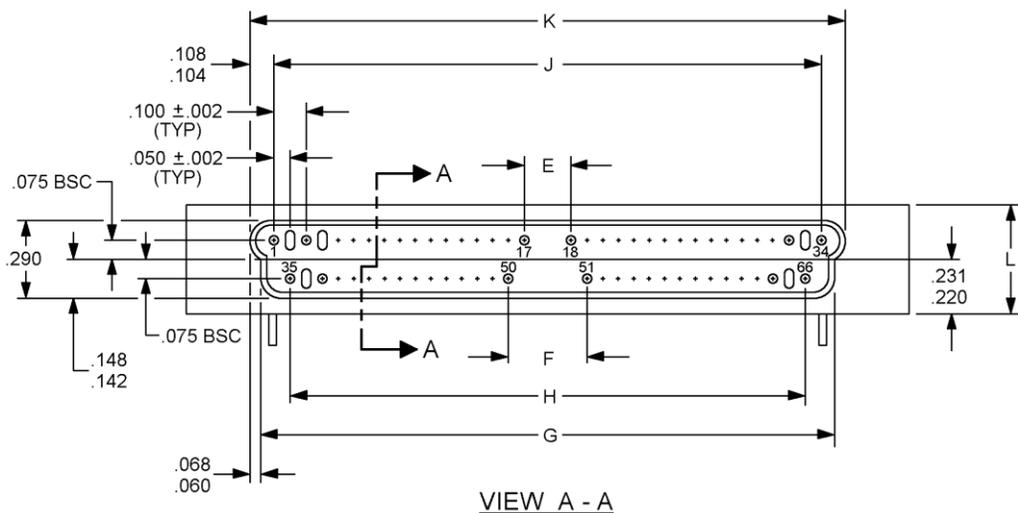


FIGURE 1. Connectors, plug, (.100 x .050 offset grid) - Continued.

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Inches	mm	Inches	mm	Inches	mm	Inches	mm
.002	0.05	.100	2.54	.285	7.24	3.400	86.36
.006	0.15	.104	2.64	.290	7.37	3.500	88.90
.010	0.25	.105	2.67	.300	7.62	3.585	91.06
.019	0.48	.108	2.74	.395	10.03	3.712	94.28
.021	0.53	.112	2.84	.400	10.16	3.900	99.06
.025	0.64	.125	3.18	.436	11.07	4.24	107.7
.0295	0.749	.142	3.61	.452	11.48	5.900	149.86
.031	0.79	.148	3.76	.500	12.70	6.000	152.40
.035	0.89	.150	3.81	.540	13.72	6.085	154.56
.050	1.27	.155	3.94	.765	19.43	6.215	157.86
.060	1.52	.160	4.06	1.900	48.26	6.400	162.56
.0625	1.588	.171	4.34	1.950	49.53	6.74	171.2
.065	1.65	.172	4.37	2.000	50.80		
.068	1.73	.197	5.00	2.085	52.96		
.075	1.91	.203	5.16	2.212	56.18		
.080	2.03	.220	5.59	2.400	60.96		
.0938	2.383	.231	5.87	2.74	69.6		
.094	2.388	.270	6.86	3.200	81.28		

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) for three place decimals, $\pm .02$ (0.5 mm) for two place decimals, and $\pm 2^\circ$ on angles.
4. These connectors mate with connectors in accordance with MIL-DTL-55302/82.

FIGURE 1. Connectors, plug (.100 x .050 offset grid) - Continued.

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TABLE I. Dash number, contacts and dimension.

Dash number	Number of contacts	P.C. board termination	Type of termination	Dimensions											
				A	B	BSC C	D	BSC E	BSC F	G	H	J	K	L	M
-01	66	.0625 inch	Dip solder	4.24	3.900	1.950	18°30'	.300	.400	3.585	3.400	3.500	3.712	.436	.105
-02 <u>1/</u>	66	.0625 inch	Dip solder	"	"	"	"	"	"	"	"	"	"	"	.105
-03	66	.0938 inch	Dip solder	"	"	"	"	"	"	"	"	"	"	"	.160 .125
-04	66	.0938 inch	Dip solder	"	"	"	"	"	"	"	"	"	"	"	.160 .125
-05	66	N/A	Wrappost	"	"	"	"	"	"	"	"	"	"	"	N/A
-06	41	.0625 inch	Dip solder	2.74	2.400	2.400	N/A	N/A	N/A	2.085	1.900	2.000	2.212	.436	.105
-07 <u>1/</u>	41	.0625 inch	Dip solder	"	"	"	"	"	"	"	"	"	"	"	.105
-08	41	.0938 inch	Dip solder	"	"	"	"	"	"	"	"	"	"	"	.160 .125
-09 <u>1/</u>	41	.0938 inch	Dip solder	"	"	"	"	"	"	"	"	"	"	"	.160 .125
-10	114	.0625 inch	Dip solder	6.74	6.400	3.200	18°30'	.400	.500	6.085 ±.010	5.900	6.000	6.215 ±.010	.452	.105
-11	114	.0625 inch	Dip solder	"	"	"	"	"	"	"	"	"	"	"	.105
-12	114	.0938 inch	Dip solder	"	"	"	"	"	"	"	"	"	"	"	.160 .125
-13 <u>1/</u>	114	.0938 inch	Dip solder	"	"	"	"	"	"	"	"	"	"	"	.160 .125
-14	114	N/A	Wrappost	"	"	"	"	"	"	"	"	"	"	"	N/A

1/ No SN60 or SN63 on termination end.

REQUIREMENTS

Dimensions and configurations: See figure 1 and table I. Connector is designed for assembly to a .068/ .058 or .099/ .089 printed circuit board.

Material: In accordance with MIL-DTL-55302.

Contacts: Phosphor bronze in accordance with ASTM B134/B134M, UNS C51000.

Plating: The contact plating shall be gold in accordance with ASTM B488, type II, code C, class 1.27 over suitable copper plate. The termination end of the pin contact shall be hot dipped in SN60, PBN40 and SN63, PB37 solder in accordance with J-STD-006, to within .015 of mounting surface. The thickness of the solder shall be no less than .0001 and no more than .001 inch. Not more than .000050 inch of gold be retained after dipping.

Contact identification: See figure 1.

Contact resistance: The potential drop across a mated contact at 3.0 amperes test current shall not exceed 25 millivolts, and after corrosion test shall not exceed 30 millivolts.

Dielectric withstanding voltage:

Sea level: 1,500 V ac (rms) test.

50,000 feet altitude: 500 V ac (rms) test.

Current rating: 3.0 amperes maximum per contact. 2.25 Continuous per contact per connector at room ambient.

Part or Identifying Number (PIN): M55302/82-(dash number from table I).

Required testing limited to group A test only. Qualification requirements are not applicable.

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

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

MIL-DTL-55302/82
ASTM B134/B134M
ASTM B488
J-STD-006

CONCLUDING MATERIAL

Custodians:
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC
(Project 5935-2010-115)

Review activities:
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.daps.dla.mil>.