



## MIL-DTL-83513/16 Thru /21 Micro-D BR Right Angle PCB Terminated Connector



### High Performance

These connectors feature gold-plated TwistPin contacts for best performance. PC tails are .020 inch diameter. Specify nickel-plated shells or cadmium plated shells for best availability.

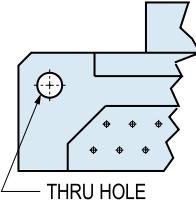
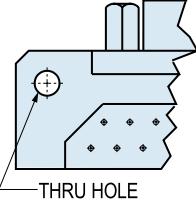
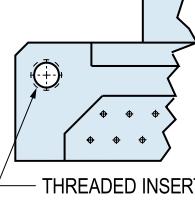
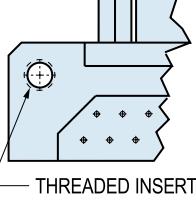
### Solder-Dipped

Terminals are coated with Sn60/Pb40 tin-lead solder for best solderability.

### How To Order MIL-DTL 83513 Right Angle PCB Micro-D Connectors

Sample Part Number	M83513/	19-F	02	N	P
Base Part Number	<b>M83513</b>				
Slash Number-Shell Sizes	<b>Plug (Pin Contacts)</b> <b>16-A</b> - 9 Contacts <b>16-B</b> - 15 Contacts <b>16-C</b> - 21 Contacts <b>16-D</b> - 25 Contacts <b>16-E</b> - 31 Contacts <b>16-F</b> - 37 Contacts <b>17-G</b> - 51 Contacts <b>18-H</b> - 100 Contacts	<b>Receptacle (Socket Contacts)</b> <b>19-A</b> - 9 Contacts <b>19-B</b> - 15 Contacts <b>19-C</b> - 21 Contacts <b>19-D</b> - 25 Contacts <b>19-E</b> - 31 Contacts <b>19-F</b> - 37 Contacts <b>20-G</b> - 51 Contacts <b>21-H</b> - 100 Contacts			
PC Tail Length	<b>01</b> -.109 Inch (2.77 mm) <b>PC Tail Length ± .015</b> (.038)	<b>02</b> -.140 Inch (3.56 mm)	<b>03</b> -.172 Inch (4.37 mm)		
Shell Finish	<b>C</b> - Cadmium <b>N</b> - Electroless Nickel <b>P</b> - Passivated SST	<b>A</b> - Electrodeposited Aluminum <b>K</b> - Zinc Nickel <b>T</b> - Nickel Fluorocarbon Polymer			
Hardware Options	<b>N</b> - No Jackpost <b>P</b> - Jackposts Installed <b>Sizes 9-51</b> <b>T</b> - Threaded Insert in Board Mount Hole (No Jackposts) <b>W</b> - Threaded Insert in Board Mount Hole and jackposts Installed <b>Shell Size 100 (H)</b> <b>U</b> - #4-40 Threaded Insert <b>Y</b> - #4-40 Threaded Insert & Jackpost (See Table I)				

Table I: Hardware Options

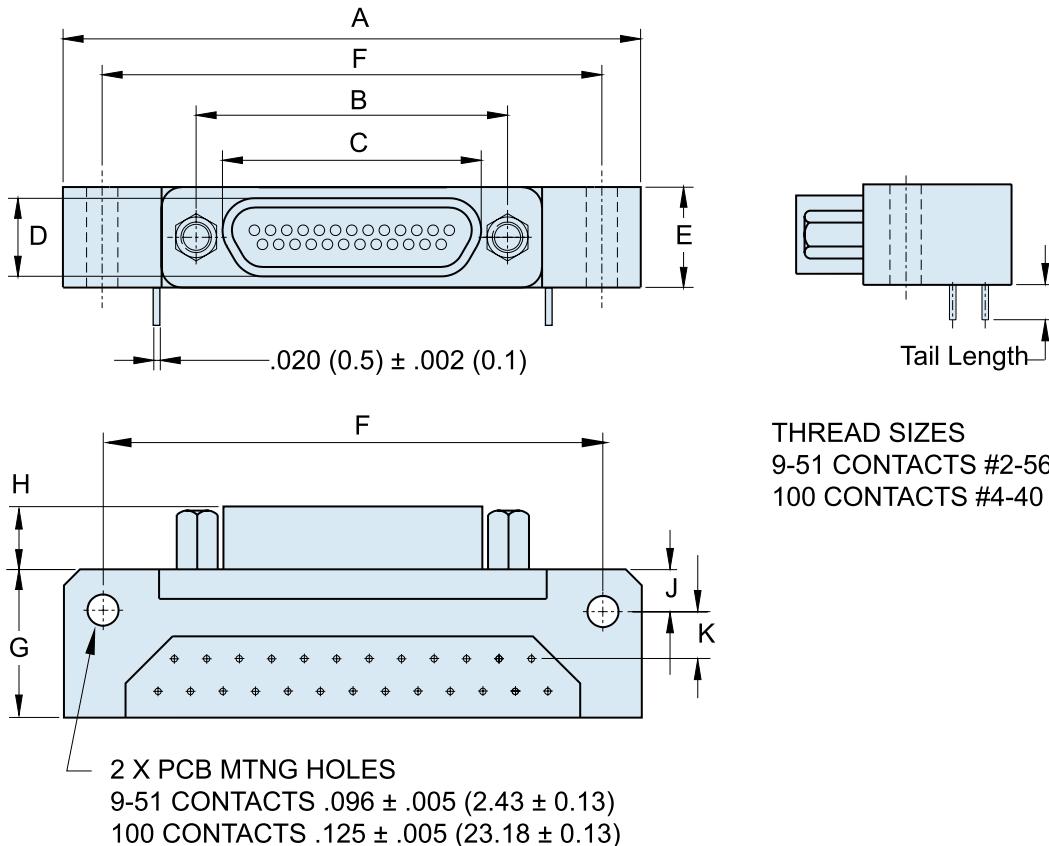
N	P	T or U	W or Y
 THRU HOLE	 THRU HOLE	 THREADED INSERT	 THREADED INSERT
No Jackpost	Jackpost	Threaded Insert	Jackpost, Threaded Insert

**MIL-DTL-83513/16 Thru /21 Micro-D BR  
Right Angle PCB Terminated Connector**



Micro-D  
MIL-DTL-83513

Table II: Dimensions



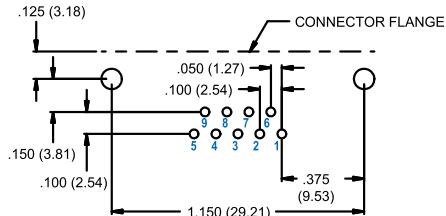
Layout	A Max.		B		C Max.		D Max.		E Max.		F		G Max.		H		J		K	
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.
<b>9P</b>	1.390	35.31	.565	14.35	.333	8.46	.185	4.70	.325	8.26	1.150	29.21	.465	11.81	.183	4.65	.125	3.18	.150	3.81
<b>9S</b>	1.390	35.31	.565	14.35	.400	10.16	.253	6.26	.325	8.26	1.150	29.21	.465	11.81	.195	4.95	.125	3.18	.150	3.81
<b>15P</b>	1.540	39.12	.715	18.16	.483	12.27	.185	4.70	.325	8.26	1.300	33.02	.465	11.81	.183	4.65	.125	3.18	.150	3.81
<b>15S</b>	1.540	39.12	.715	18.16	.551	14.00	.253	6.26	.325	8.26	1.300	33.02	.465	11.81	.195	4.95	.125	3.18	.150	3.81
<b>21P</b>	1.690	42.93	.865	21.97	.633	16.08	.185	4.70	.325	8.26	1.450	36.83	.465	11.81	.183	4.65	.125	3.18	.150	3.81
<b>21S</b>	1.690	42.93	.865	21.97	.701	17.81	.253	6.26	.325	8.26	1.450	36.83	.465	11.81	.195	4.95	.125	3.18	.150	3.81
<b>25P</b>	1.790	45.47	.965	24.51	.733	18.62	.185	4.70	.325	8.26	1.550	39.37	.465	11.81	.183	4.65	.125	3.18	.150	3.81
<b>25S</b>	1.790	45.47	.965	24.51	.801	20.35	.253	6.26	.325	8.26	1.550	39.37	.465	11.81	.195	4.95	.125	3.18	.150	3.81
<b>31P</b>	2.040	51.82	1.115	28.32	.883	22.43	.185	4.70	.325	8.26	1.800	45.72	.465	11.81	.183	4.65	.125	3.18	.150	3.81
<b>31S</b>	2.040	51.82	1.115	28.32	.951	24.16	.253	6.26	.325	8.26	1.800	45.72	.465	11.81	.195	4.95	.125	3.18	.150	3.81
<b>37P</b>	2.340	59.44	1.265	32.13	1.033	26.24	.185	4.70	.325	8.26	2.100	53.34	.465	11.81	.183	4.65	.125	3.18	.150	3.81
<b>37S</b>	2.340	59.44	1.265	32.13	1.101	27.96	.253	6.26	.325	8.26	2.100	53.34	.465	11.81	.195	4.95	.125	3.18	.150	3.81
<b>51P</b>	1.875	47.63	1.215	30.86	.983	24.97	.228	5.79	.360	9.14	1.600	40.64	.565	14.35	.183	4.65	.125	3.18	.150	3.81
<b>51S</b>	1.875	47.63	1.215	30.86	1.051	26.70	.296	7.52	.360	9.14	1.600	40.64	.565	14.35	.195	4.95	.125	3.18	.150	3.81
<b>100P</b>	2.780	70.60	1.800	45.72	1.383	35.13	.271	6.88	.420	10.67	2.500	63.50	.765	19.43	.183	4.65	.225	5.72	.150	3.81
<b>100S</b>	2.780	70.60	1.800	45.72	1.451	36.86	.333	8.64	.420	10.67	2.500	63.50	.765	19.43	.195	4.95	.225	5.72	.150	3.81



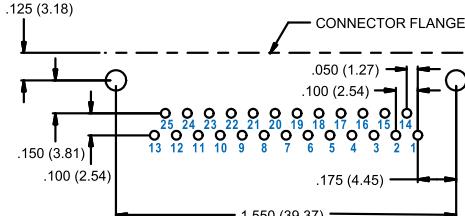
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## M83513/16 Thru /18 PCB Layouts – Pin Connectors

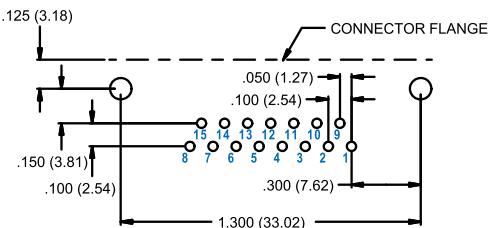
Patterns shown are for connector mounting side of PC board. 9 Thru 51 Contacts .096 (2.44) Diameter Mounting Holes, 100 Pin .125 (3.18) Diameter



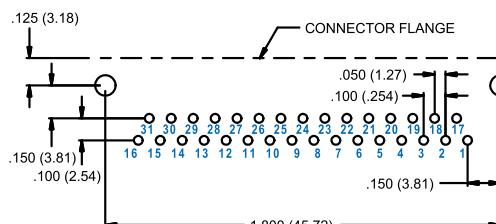
**9 PIN M83513/16-A**



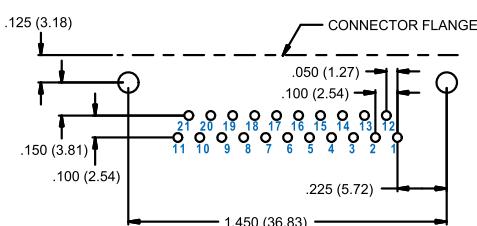
**25 PIN M83513/16-D**



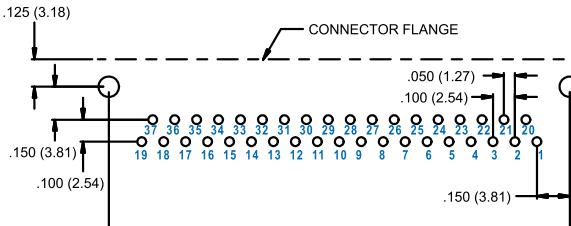
**15 PIN M83513/16-B**



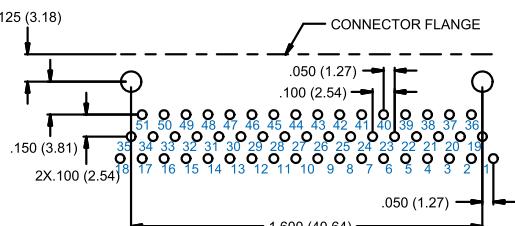
**31 PIN M83513/16-E**



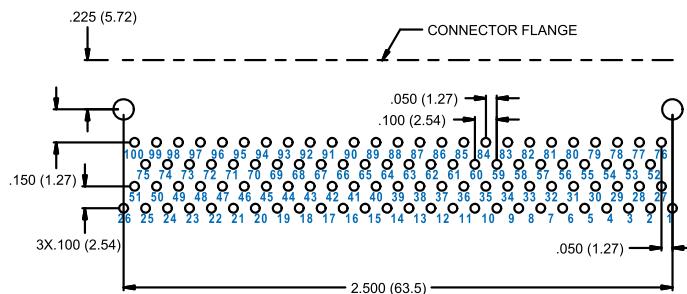
**21 PIN M83513/16-C**



**37 PIN M83513/16-F**



**51 PIN M83513/17-G**



**100 PIN M83513/18-H**

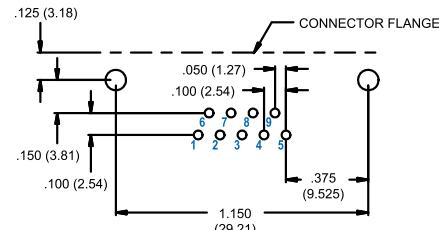
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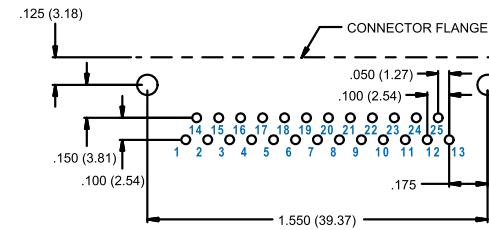
Micro-D  
MIL-DTL-83513

**M83513/19 Thru /21 PCB Layouts – Socket Connectors**

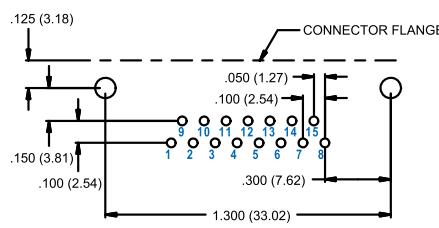
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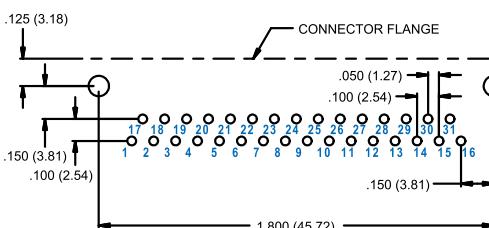
**9 SOCKET M83513/19-A**



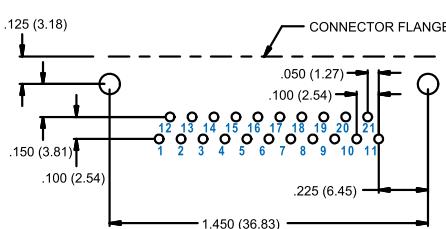
**25 SOCKET M83513/19-D**



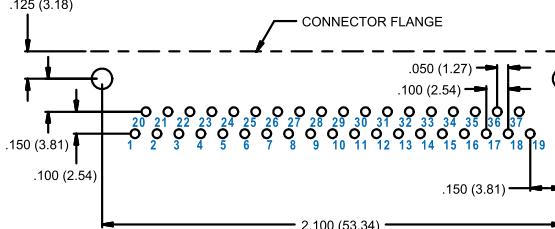
**15 SOCKET M83513/19-B**



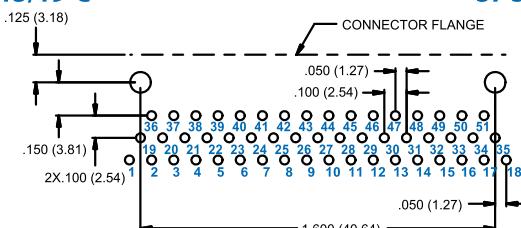
**31 SOCKET M83513/19-E**



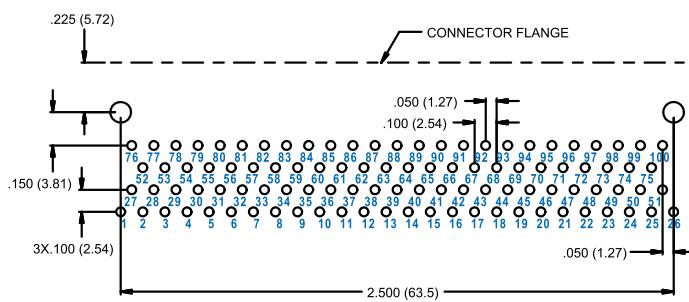
**21 SOCKET M83513/19-C**



**37 SOCKET M83513/19-F**



**51 SOCKET M83513/20-G**



**100 SOCKET M83513/21-H**