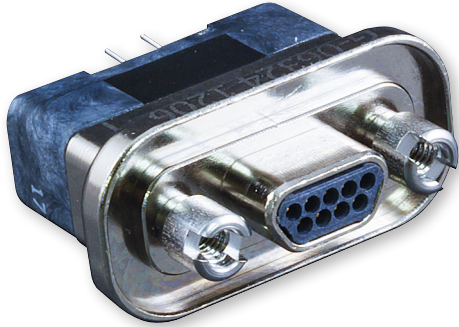




## Micro-D GRPM-CBS Condensed Vertical Rear Panel Mount Wide Flange Printed Circuit Board Connectors



**Save Space On Your Circuit Board** – These Micro-D connectors feature .075 inch row spacing. The board footprint is reduced to match the size of the connector body.

**Solder-Dipped** – Terminals are coated with Sn60/Pb40 tin-lead solder for best solderability. Optional gold-plated terminals are available for RoHS compliance.

**High Performance** – These connectors meet the demanding requirements of MIL-DTL-83513.

### How To Order GRPM Condensed Vertical Connector

Sample Part Number	GRPM	2	L-	15	P	CBS	R3	T	N	-.110	-513
<b>Series</b>	GRPM Glenair Rear Panel Mount										
<b>Shell Material and Finish</b>	Aluminum Shell		Stainless Steel Shell								
	1 - Cadmium 2 - Nickel		3 - Passivated								
	4 - Black Anodize										
	5 - Gold 6 - Chem Film										
<b>Insulator Material</b>	L - LCP or PPS LCP - 30% Glass-Filled Liquid Crystal Polymer PPS - 40% Glass Filled Polyphenylene Sulfide										
<b>Contact Layout</b>	9, 15, 21, 25, 31, 37, 51-2, 51, 69, 75, 100, 130 (See Table I)										
<b>Contact Type</b>	P – Pin S – Socket										
<b>Termination Type</b>	CBS - Condensed Board Straight										
<b>Rear Panel Mount Hardware Option</b>	B - No hardware		R1 - .032 panel		R2 - .047 panel						
	R3 - .062 panel		R4 - .093 panel		R5 - .125 panel		R6 - .080 panel				
<b>Threaded Insert Option</b>	T - Threaded Insert in Board Mount Hole Omit for none 9-69 Contacts - 2-56 75-130 Contacts - 4-40										
<b>O-Ring</b>	C - Conductive		N - Non-Conductive (Nitrile)			B - Supplied Less O-ring			F - Fluorosilicone		
<b>Lead Length</b>	.080, .110, .125, .140, .150, .172, .190, .250										
<b>Gold-Plated Terminal Mod Code</b>	These connectors are solder-dipped in 60/40 tin-lead solder. To delete the solder dip and change to gold-plated terminals, add code -513										

#### Materials and Finishes

Connector Shell	Aluminum Alloy 6061 or Stainless Steel, 300 Series, passivated. See Ordering Info for Plating Options
Insulator	Liquid Crystal Polymer (LCP) or Polyphenylene Sulfide (PPS)
Interfacial Seal	Fluorosilicone Rubber, Blue
Pin Contact	Beryllium Copper Gold over Nickel Plating
Socket Contact	Copper Alloy Gold Over Nickel Plating
Hardware	300 Series Stainless Steel
Encapsulant	Epoxy Resin Hysol EE4215

#### Performance Specifications

Current Rating	3 AMP
DWV	600 VAC Sea level
Insulation Resistance	5000 Megohms Minimum
Contact Resistance	8 Milliohms Maximum
Low Level Contact Resistance	32 Milliohms Maximum
Magnetic Permeability	2 μ Maximum
Operating Temperature	-55° C. to +150° C.
Shock, Vibration	50 g., 20g.
Mating Force	(10 Ounces) X (# of Contacts)

#### Notes:

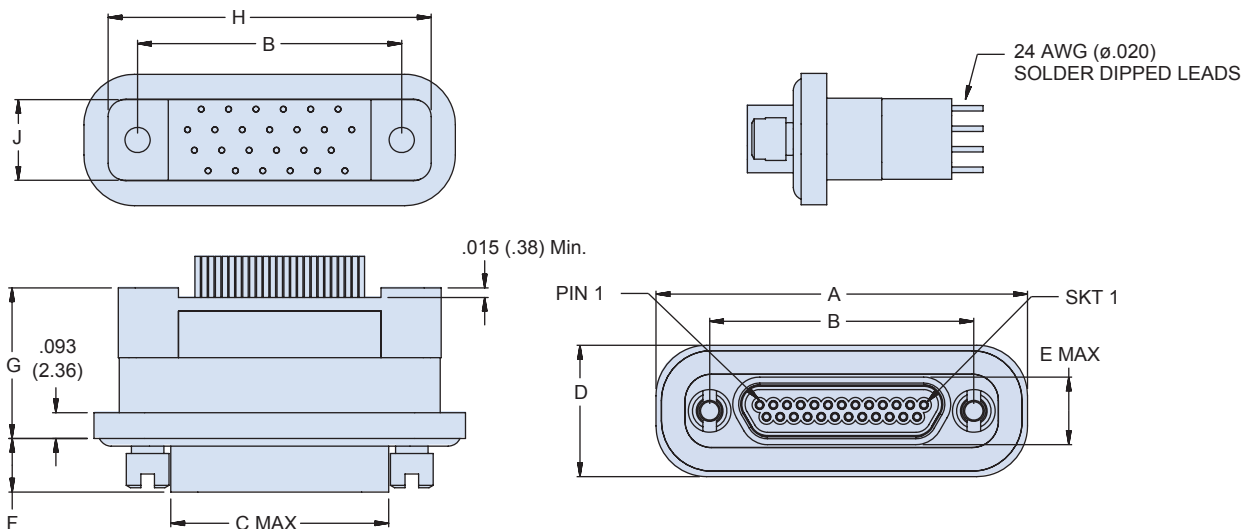
- Performance data per MIL-DTL-83513
- Interface dimensions per MIL-DTL-83513

- PCB layout per Glenair MWDMCBS catalog data. See Section C

# Micro-D GRPM-CBS Condensed Vertical Rear Panel Mount Wide Flange Printed Circuit Board Connectors



Table I: Dimensions



Layout	A		B		C Max		D		E Max		F ±.003		G Max		H Max		J Max	
	in. ±.005	mm. ±.13	in. ±.003	mm. ±.08	in.	mm.	in. ±.005	mm. ±.13	in.	mm.	in. ±.003	mm. ±.08	in.	mm.	in.	mm.	in.	mm.
9P	0.960	24.38	0.565	14.35	0.334	8.48	0.480	12.19	0.184	4.67	0.183	4.65	0.555	14.10	0.785	19.94	0.310	7.87
9S	0.960	24.38	0.565	14.35	0.400	10.16	0.480	12.19	0.250	6.35	0.195	4.95	0.555	14.10	0.785	19.94	0.310	7.87
15P	1.110	28.19	0.715	18.16	0.484	12.29	0.480	12.19	0.184	4.67	0.183	4.65	0.555	14.10	0.935	23.75	0.310	7.87
15S	1.110	28.19	0.715	18.16	0.550	13.97	0.480	12.19	0.250	6.35	0.195	4.95	0.555	14.10	0.935	23.75	0.310	7.87
21P	1.260	32.00	0.865	21.97	0.634	16.10	0.480	12.19	0.184	4.67	0.183	4.65	0.555	14.10	1.085	27.56	0.310	7.87
21S	1.260	32.00	0.865	21.97	0.700	17.78	0.480	12.19	0.250	6.35	0.195	4.95	0.555	14.10	1.085	27.56	0.310	7.87
25P	1.360	34.54	0.965	24.51	0.734	18.64	0.480	12.19	0.184	4.67	0.183	4.65	0.555	14.10	1.185	30.10	0.310	7.87
25S	1.360	34.54	0.965	24.51	0.800	20.32	0.480	12.19	0.250	6.35	0.195	4.95	0.555	14.10	1.185	30.10	0.310	7.87
31P	1.510	38.35	1.115	28.32	0.884	22.45	0.480	12.19	0.184	4.67	0.183	4.65	0.555	14.10	1.335	33.91	0.310	7.87
31S	1.510	38.35	1.115	28.32	0.950	24.13	0.480	12.19	0.250	6.35	0.195	4.95	0.555	14.10	1.335	33.91	0.310	7.87
37P	1.660	42.16	1.265	32.13	1.034	26.26	0.480	12.19	0.184	4.67	0.183	4.65	0.555	14.10	1.485	37.72	0.310	7.87
37S	1.660	42.16	1.265	32.13	1.100	27.94	0.480	12.19	0.250	6.35	0.195	4.95	0.555	14.10	1.485	37.72	0.310	7.87
51-2P	2.010	51.05	1.615	41.02	1.384	35.15	0.480	12.19	0.184	4.67	0.183	4.65	0.555	14.10	1.835	46.61	0.310	7.87
51-2S	2.010	51.05	1.615	41.02	1.450	36.83	0.480	12.19	0.250	6.35	0.195	4.95	0.555	14.10	1.835	46.61	0.310	7.87
51P	1.660	42.16	1.215	30.86	0.984	24.99	0.525	13.34	0.224	5.69	0.183	4.65	0.555	14.10	1.435	36.45	0.400	10.16
51S	1.660	42.16	1.215	30.86	1.050	26.67	0.525	13.34	0.293	7.44	0.195	4.95	0.555	14.10	1.435	36.45	0.400	10.16
69P	1.960	49.78	1.515	38.48	1.284	32.61	0.525	13.34	0.224	5.69	0.183	4.65	0.555	14.10	1.735	44.07	0.400	10.16
69S	1.960	49.78	1.515	38.48	1.358	34.49	0.525	13.34	0.293	7.44	0.195	4.95	0.555	14.10	1.735	44.07	0.400	10.16
75P	2.150	54.61	1.705	43.31	1.384	35.15	0.525	13.34	0.224	5.69	0.183	4.65	0.555	14.10	2.080	52.83	0.400	10.16
75S	2.150	54.61	1.705	43.31	1.450	36.83	0.525	13.34	0.293	7.44	0.195	4.95	0.555	14.10	2.080	52.83	0.400	10.16
100P	2.385	60.58	1.800	45.72	1.384	35.15	0.600	15.24	0.270	6.86	0.183	4.65	0.640	16.26	2.170	55.12	0.510	12.95
100S	2.385	60.58	1.800	45.72	1.451	36.86	0.600	15.24	0.333	8.46	0.195	4.95	0.640	16.26	2.170	55.12	0.510	12.95
130P	2.735	69.47	2.150	54.61	1.735	44.07	.600	15.24	.270	6.86	.183	4.65	.640	16.26	2.520	64.01	.510	12.95
130S	2.735	69.47	2.150	54.61	1.795	45.60	.600	15.24	.333	8.46	.195	4.95	.640	16.26	2.520	64.01	.510	12.95