



## Micro-D GRPM-CBR Right Angle Rear Panel Mount Wide Flange Printed Circuit Board Connectors



**Save Space On Your Circuit Board** – These Micro-D connectors feature .100 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 all MIL-DTL-83513 requirements.

### How To Order GRPM Right Angle Connectors

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

#### 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 Resist.	32 Milliohms Maximum
Magnetic Permeability	2 $\mu$ Maximum
Operating Temperature	-55° C. to +150° C.
Shock, Vibration	50 g., 20g.
Mating Force	(10 Ounces) X (# of Contacts)

#### Notes:

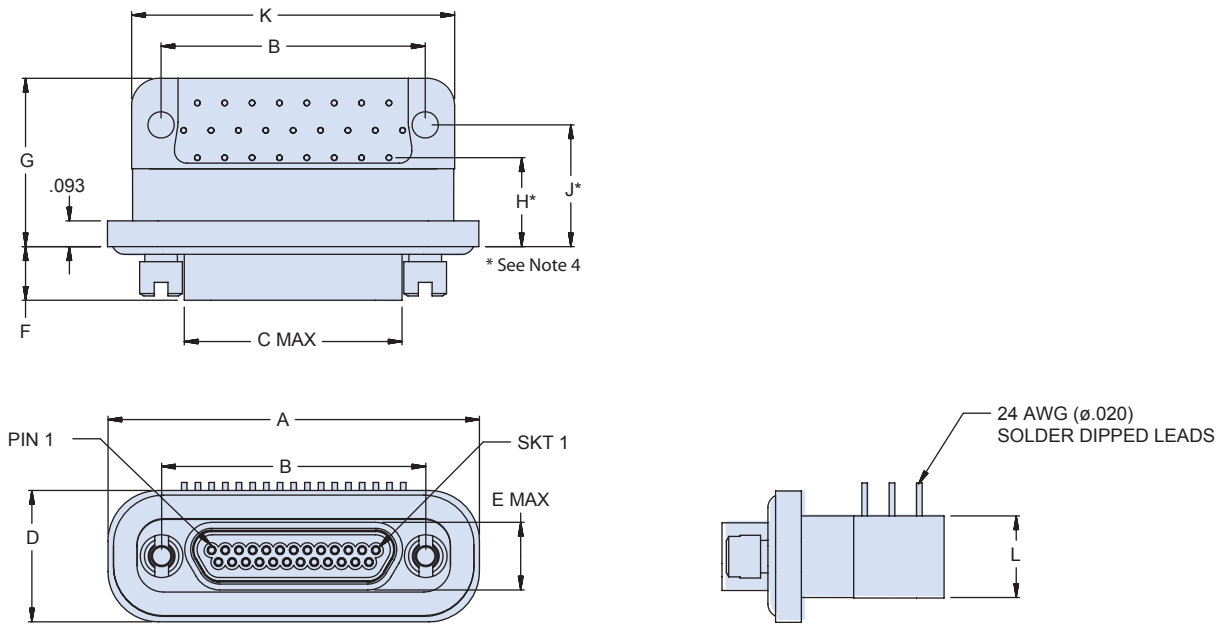
1. Assembly to be identified with Glenair's name, part number, date code, and pin 1 identification
2. Performance data per MIL-DTL-83513
3. Interface dimensions per MIL-DTL-83513
4. PCB layout per Glenair MWDM CBR catalog data except for dimension shown. See Section C

# Micro-D GRPM-CBR Right Angle Rear Panel Mount Wide Flange Printed Circuit Board Connectors



Micro-D PCB

Table I: Dimensions



Layout	A		B ± .003		C Max		D		E Max		F		G Max		H		J		K Max		L Max	
	in. ± .005	mm. ± .13	in. ± .003	mm. ± .08	in.	mm.	in. ± .005	mm. ± .13	in.	mm.	in. ± .003	mm. ± .08	in.	mm.	in. ± .010	mm. ± .25	in. ± .010	mm. ± .25	in.	mm.	in.	mm.
9P	.960	24.38	.565	14.35	.334	8.48	.480	12.19	.184	4.67	.183	4.65	.625	15.88	.425	10.80	.445	11.30	.787	19.99	.310	7.87
9S	.960	24.38	.565	14.35	.400	10.16	.480	12.19	.250	6.35	.195	4.95	.625	15.88	.425	10.80	.445	11.30	.787	19.99	.310	7.87
15P	1.110	28.19	.715	18.16	.484	12.29	.480	12.19	.184	4.67	.183	4.65	.625	15.88	.325	8.25	.445	11.30	.937	23.80	.310	7.87
15S	1.110	28.19	.715	18.16	.550	13.97	.480	12.19	.250	6.35	.195	4.95	.625	15.88	.325	8.25	.445	11.30	.937	23.80	.310	7.87
21P	1.260	32.00	.865	21.97	.634	16.10	.480	12.19	.184	4.67	.183	4.65	.625	15.88	.325	8.25	.445	11.30	1.087	27.61	.310	7.87
21S	1.260	32.00	.865	21.97	.700	17.78	.480	12.19	.250	6.35	.195	4.95	.625	15.88	.325	8.25	.445	11.30	1.087	27.61	.310	7.87
25P	1.360	34.54	.965	24.51	.734	18.64	.480	12.19	.184	4.67	.183	4.65	.625	15.88	.325	8.25	.445	11.30	1.187	30.15	.310	7.87
25S	1.360	34.54	.965	24.51	.800	20.32	.480	12.19	.250	6.35	.195	4.95	.625	15.88	.325	8.25	.445	11.30	1.187	30.15	.310	7.87
31P	1.510	38.35	1.115	28.32	.884	22.45	.480	12.19	.184	4.67	.183	4.65	.725	18.42	.325	8.25	.445	11.30	1.337	33.96	.310	7.87
31S	1.510	38.35	1.115	28.32	.950	24.13	.480	12.19	.250	6.35	.195	4.95	.725	18.42	.325	8.25	.445	11.30	1.337	33.96	.310	7.87
37P	1.660	42.16	1.265	32.13	1.034	26.26	.480	12.19	.184	4.67	.183	4.65	.725	18.42	.325	8.25	.445	11.30	1.487	37.77	.310	7.87
37S	1.660	42.16	1.265	32.13	1.100	27.94	.480	12.19	.250	6.35	.195	4.95	.725	18.42	.325	8.25	.445	11.30	1.487	37.77	.310	7.87
51-2P	2.010	51.05	1.615	41.02	1.384	35.15	.480	12.19	.184	4.67	.183	4.65	.725	18.42	.325	8.25	.445	11.30	1.837	46.66	.310	7.87
51-2S	2.010	51.05	1.615	41.02	1.450	36.83	.480	12.19	.250	6.35	.195	4.95	.725	18.42	.325	8.25	.445	11.30	1.837	46.66	.310	7.87
51P	1.660	42.16	1.215	30.86	0.984	24.99	.525	13.34	.224	5.69	.183	4.65	.860	21.84	.345	8.76	.495	12.57	1.435	36.45	.351	8.92
51S	1.660	42.16	1.215	30.86	1.050	26.67	.525	13.34	.293	7.44	.195	4.95	.860	21.84	.345	8.76	.495	12.57	1.435	36.45	.351	8.92
69P	1.960	49.78	1.515	38.48	1.284	32.61	.525	13.34	.224	5.69	.183	4.65	.950	24.13	.345	8.76	.495	12.57	1.740	44.20	.351	8.92
69S	1.960	49.78	1.515	38.48	1.350	34.29	.525	13.34	.293	7.44	.195	4.95	.950	24.13	.345	8.76	.495	12.57	1.740	44.20	.351	8.92
75P	2.150	54.61	1.705	43.31	1.384	35.15	.525	13.34	.224	5.69	.183	4.65	1.000	25.40	.395	10.03	.595	15.11	2.090	53.09	.351	8.92
75S	2.150	54.61	1.705	43.31	1.450	36.83	.525	13.34	.293	7.44	.195	4.95	1.000	25.40	.395	10.03	.595	15.11	2.090	53.09	.351	8.92
100P	2.385	60.58	1.800	45.72	1.384	35.15	.600	15.24	.270	6.86	.183	4.65	1.210	30.73	.395	10.03	.595	15.11	2.175	55.25	.394	10.01
100S	2.385	60.58	1.800	45.72	1.451	36.86	.600	15.24	.333	8.46	.195	4.95	1.210	30.73	.395	10.03	.595	15.11	2.175	55.25	.394	10.01
130P	2.735	69.47	2.150	54.61	1.735	44.07	.600	15.24	.270	6.86	.183	4.65	1.210	30.73	.395	10.03	.595	15.11	2.520	64.01	.394	10.01
130S	2.735	69.47	2.150	54.61	1.795	45.60	.600	15.24	.333	8.46	.195	4.95	1.210	30.73	.395	10.03	.595	15.11	2.520	64.01	.394	10.01