

# "ZERO-CROSSTALK" M83513 Micro-D VersaLink™ Connectors



## GVL RPM-BR, Rear Panel Mount, Right Angle PCB Connectors

### MATERIALS AND FINISHES

- Connector shell: aluminum alloy 6061
- Insulator (v): rigid dielectric
- Insulator (m): liquid crystal polymer (LCP) or polyphenylene sulfide (PPS)
- Flange seal: fluorosilicone rubber, blue
- Pin contact: copper alloy, gold over nickel plating
- Socket contact: copper alloy, gold over nickel plating
- Ground spring: stainless steel, gold plating
- Hardware: 300 series stainless steel, passivated
- Encapsulant: epoxy resin Hysol EE4215

### PERFORMANCE SPECIFICATIONS

- Current rating: 3 amp (micro-d pins)
- DWV: 600 VAC sea level
- Insulation resistance: 5000 megohms minimum
- Operating temperature: -55°C to 150°C
- Mating force (contact m): (10 ounces) x (# of contacts)
- Mating force (contact v): (5 ounces) x (# of contacts)
- Electrical performance IAW Glenair specification GT-19-230
- Interface dimensions IAW MIL-DTL-83513
- Reference application notes AN0005 for optimal performance

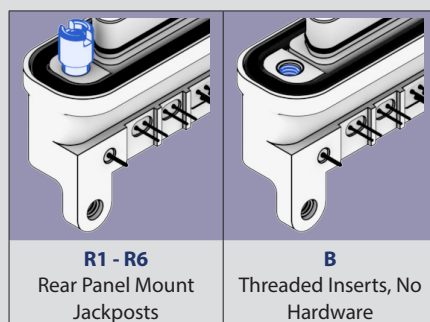
### NOTES

1. Refer to GHS4-M-1000 for insert arrangement details on page 90.
2. Refer to GVLM-1001 for GVL RPM-BR PCB footprints on page 139.
3. Plug connector uses pin Micro-D contacts and socket VersaLink contacts.  
Receptacle uses socket Micro-D contacts and pin VersaLink contacts.
4. Hardware always required to ensure connector pair is fully mated when installed.
5. Refer to MIL-DTL-83513 panel cutout details on page 91.
6. PC tails are solder-dipped in 60/40 tin-lead solder.
7. Refer to 500-154 for protective cover on page 161.

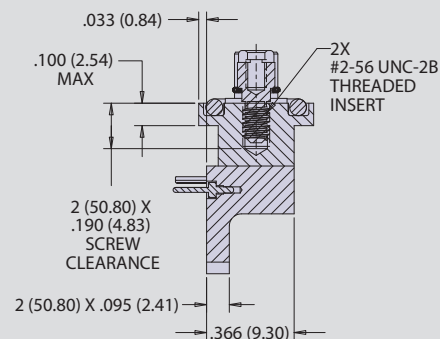
PART NUMBER DEVELOPMENT										
Sample Part Number	GVL RPM	2	L	2-9	P	BR	R3	T	C	-.110
<b>Series</b>	GVL RPM = VersaLink RPM R/A Micro-D									
<b>Shell Finish</b>	2 = Nickel 5 = Gold									
<b>Insulator Material</b>	L = LCP or PPS									
<b>Contact Layout (V-M)<sup>1</sup></b>	1-0, 1-9, 2-0, 2-9, 2-15, 2-21, 3-9, 4-0, 4-15, 4-31, 8-9, 10-0									
<b>Connector Type<sup>3</sup></b>	P = Plug S = Receptacle									
<b>Connector Style</b>	BR = Right Angle Board Mount									
<b>Hardware<sup>4,5</sup></b>	Rear panel mount jackposts (Length in Inches): R1 = .032 panel R2 = .047 panel R3 = .062 panel R4 = .093 panel R5 = .125 panel R6 = .080 panel  B = Threaded inserts, no hardware									
<b>Threaded Insert Option</b>	T = Threaded insert in board mount hole; omit for thru-hole									
<b>O-Ring</b>	C = Conductive N = Non-conductive (Nitrile) F = Fluorosilicone									
<b>PC Tail Length<sup>6</sup></b>	-.080, -.110, -.140 (Length in Inches +.020/-0.000)									

MICRO-D VERSALINK CONNECTORS

### HARDWARE



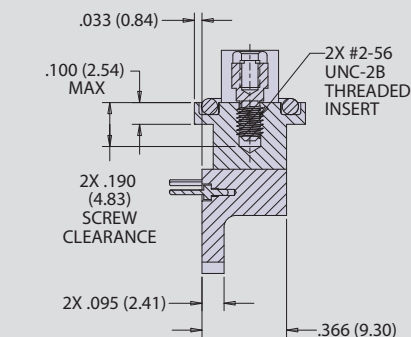
### PLUG CUTAWAY



### INSERT ARRANGEMENTS

Insert Arrangements	No. of Contacts	
	VersaLink (V)	TwistPin (M)
1-0	1	0
2-0	2	0
1-9	1	9
2-9	2	9
4-0	4	0
2-15	2	15
2-21	2	21
3-9	3	9
4-15	4	15
4-31	4	31
8-9	8	9
10-0P	10	0

### RECEPTACLE CUTAWAY



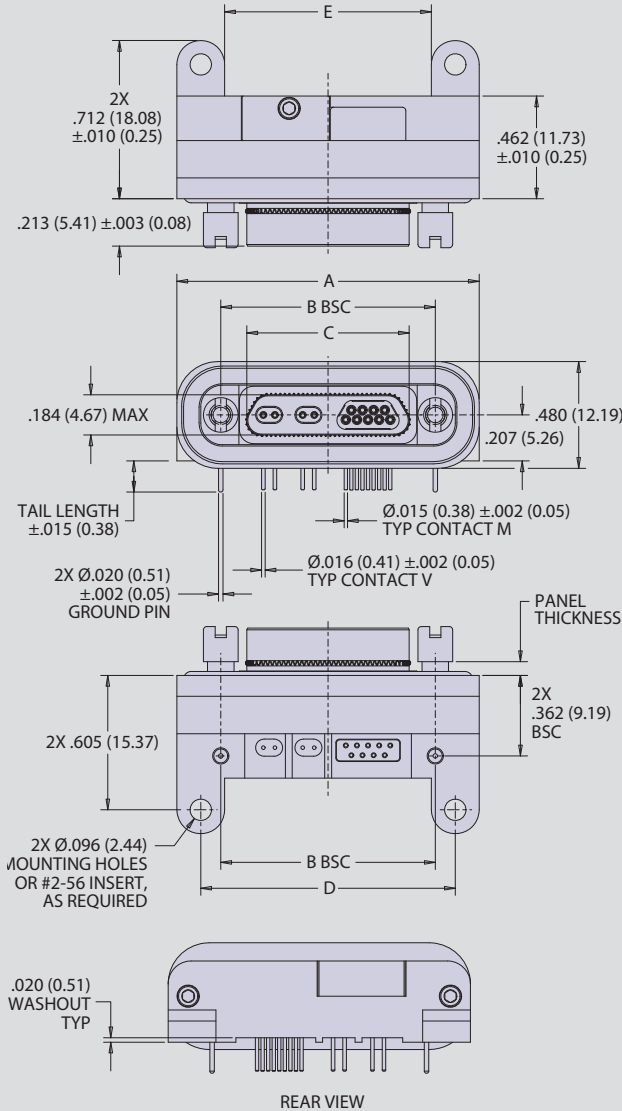
# "ZERO-CROSSTALK" M8513 Micro-D VersaLink™ Connectors



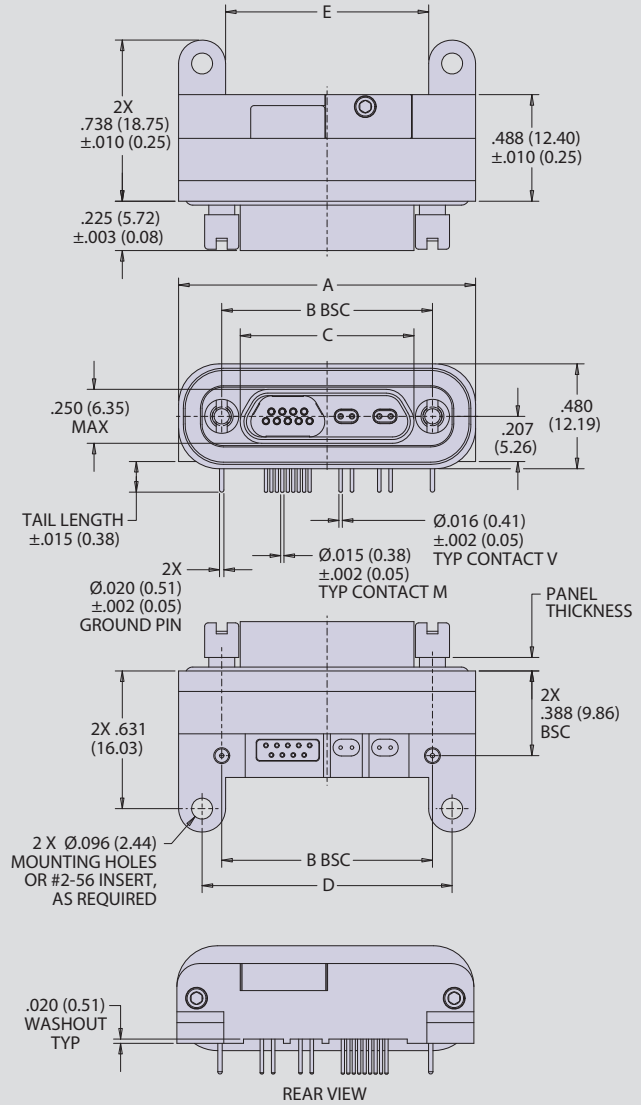
## GVLRPM-BR, Rear Panel Mount, Right Angle PCB Connectors

MICRO-D VERSALINK CONNECTORS

### GVLM-BR PCB RIGHT ANGLE PLUG CONNECTOR



### GVLM-BR PCB RIGHT ANGLE RECEPTACLE CONNECTOR



PLUG DIMENSIONS					
LAYOUT	A MAX	B $\pm 0.005$	C MAX	D $\pm 0.005$	E $\pm 0.005$
1-0P	0.965 (24.51)	0.565 (14.35)	0.333 (8.46)	0.745 (18.92)	0.530 (13.46)
2-0P	1.115 (28.32)	0.715 (18.16)	0.483 (12.27)	0.895 (22.73)	0.680 (17.27)
1-9P	1.265 (32.13)	0.865 (21.97)	0.633 (16.08)	1.045 (26.54)	0.830 (21.08)
2-9P	1.365 (34.67)	0.965 (24.51)	0.733 (18.62)	1.145 (29.08)	0.930 (23.62)
4-0P	1.365 (34.67)	0.965 (24.51)	0.733 (18.62)	1.145 (29.08)	0.930 (23.62)
2-15P	1.515 (38.48)	1.115 (28.32)	0.833 (21.16)	1.295 (32.89)	1.080 (27.43)
3-9P	1.665 (42.29)	1.265 (32.13)	1.033 (26.24)	1.445 (36.70)	1.230 (31.24)
4-15P	2.015 (51.18)	1.615 (41.02)	1.384 (35.15)	1.795 (45.59)	1.580 (40.13)
4-31P	2.415 (61.34)	2.015 (51.18)	1.784 (45.31)	2.195 (55.75)	1.980 (50.29)
8-9P	2.415 (61.34)	2.015 (51.18)	1.784 (45.31)	2.195 (55.75)	1.980 (50.29)
10-0P	2.415 (61.34)	2.015 (51.18)	1.784 (45.31)	2.195 (55.75)	1.980 (50.29)

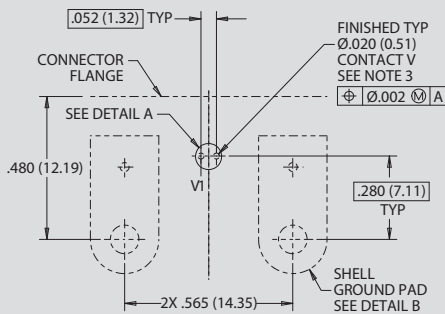
RECEPTACLE DIMENSIONS					
LAYOUT	A MAX	B $\pm 0.005$	C MAX	D $\pm 0.005$	E $\pm 0.005$
1-0S	0.965 (24.51)	0.565 (14.35)	0.400 (10.16)	0.745 (18.92)	0.530 (13.46)
2-0S	1.115 (28.32)	0.715 (18.16)	0.551 (14.00)	0.895 (22.73)	0.680 (17.27)
1-9S	1.265 (32.13)	0.865 (21.97)	0.701 (17.81)	1.045 (26.54)	0.830 (21.08)
2-9S	1.365 (34.67)	0.965 (24.51)	0.801 (20.35)	1.145 (29.08)	0.930 (23.62)
4-0S	1.365 (34.67)	0.965 (24.51)	0.801 (20.35)	1.145 (29.08)	0.930 (23.62)
2-15S	1.515 (38.48)	1.115 (28.32)	0.951 (24.16)	1.295 (32.89)	1.080 (27.43)
3-9S	1.665 (42.29)	1.265 (32.13)	1.101 (27.97)	1.445 (36.70)	1.230 (31.24)
4-15S	2.015 (51.18)	1.615 (41.02)	1.450 (36.83)	1.795 (45.59)	1.580 (40.13)
4-31S	2.415 (61.34)	2.015 (51.18)	1.850 (46.99)	2.195 (55.75)	1.980 (50.29)
8-9S	2.415 (61.34)	2.015 (51.18)	1.850 (46.99)	2.195 (55.75)	1.980 (50.29)
10-0S	2.415 (61.34)	2.015 (51.18)	1.850 (46.99)	2.195 (55.75)	1.980 (50.29)

# "ZERO-CROSSTALK" M83513 Micro-D VersaLink™ Connectors

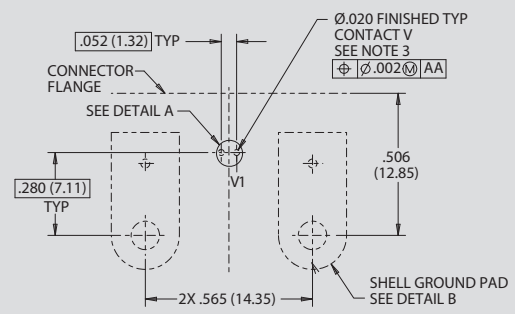


## GVLM-1001: GVL RPM-BR, Rear Panel Mount, Right Angle PCB Connector Footprints

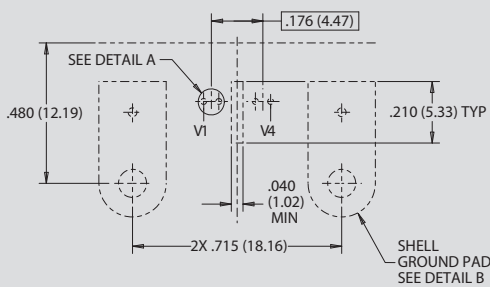
MICRO-D VERSALINK CONNECTORS



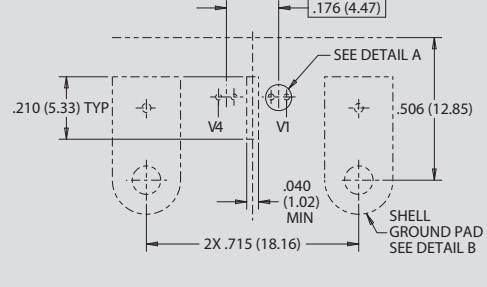
**Plug Layout 1-0**



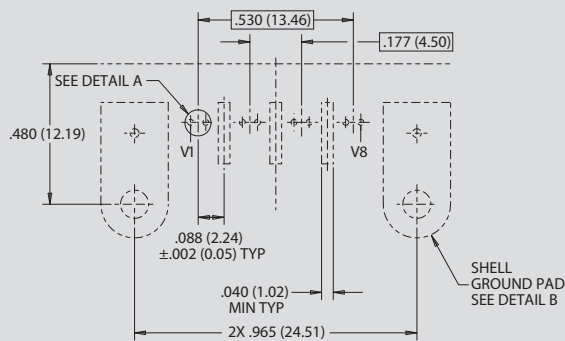
**Receptacle Layout 1-0**



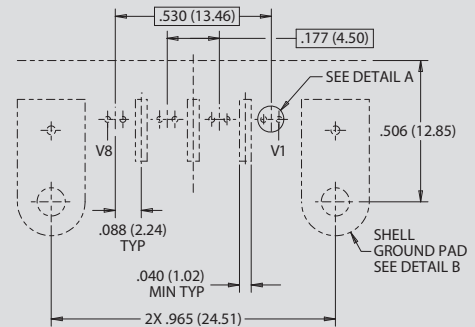
**Plug Layout 2-0**



**Receptacle Layout 2-0**



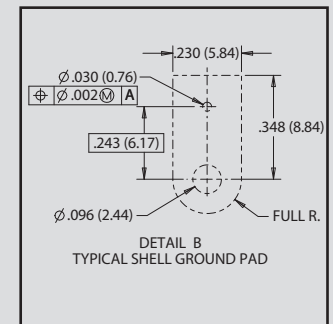
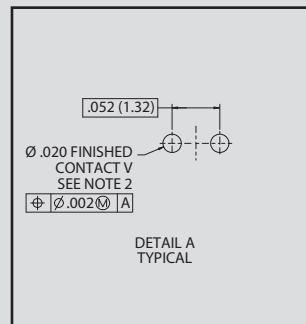
**Plug Layout 4-0**



**Receptacle Layout 4-0**

### NOTES

1. Patterns shown are for connector mounting side of PC board.
2. Reference GVL RPM-BR for connector details.
3. Reference application notes AN0005 for optimal performance.

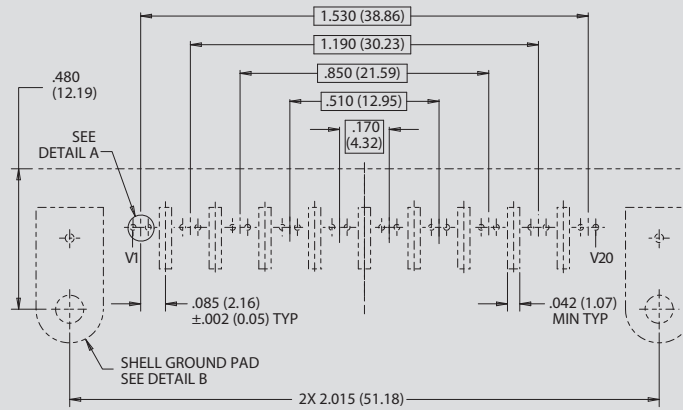


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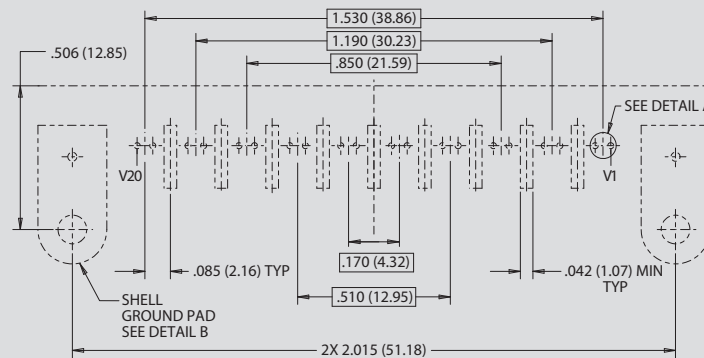


GVLM-1001: GVL RPM-BR, Rear Panel Mount, Right Angle PCB Connector Footprints

MICRO-D VERSALINK CONNECTORS



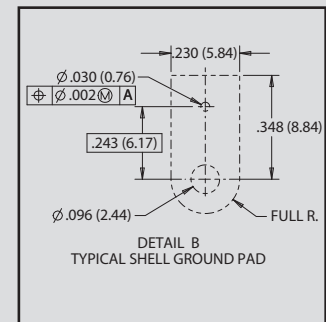
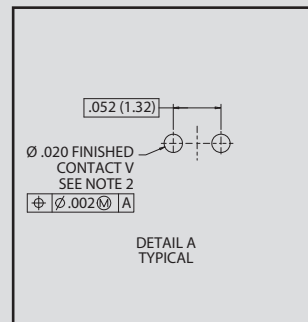
**Plug Layout 10-0**



**Receptacle Layout 10-0**

## NOTES

1. Patterns shown are for connector mounting side of PC board.
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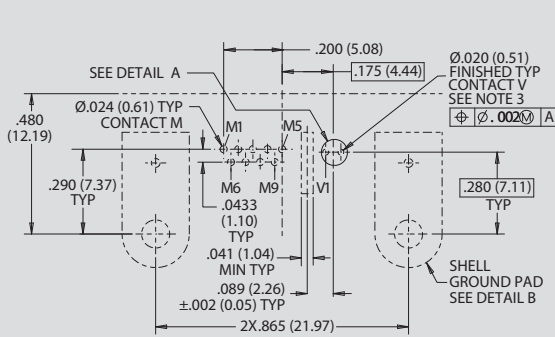


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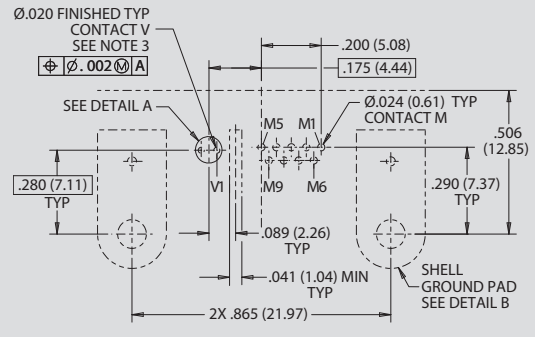


## GVLM-1001: GVL RPM-BR, Rear Panel Mount, Right Angle PCB Connector Footprints

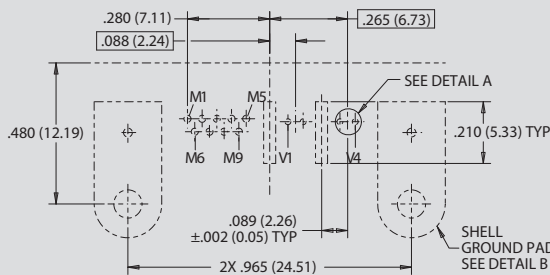
MICRO-D VERSALINK CONNECTORS



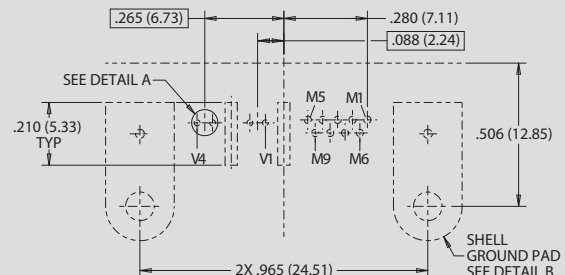
**Plug Layout 1-9**



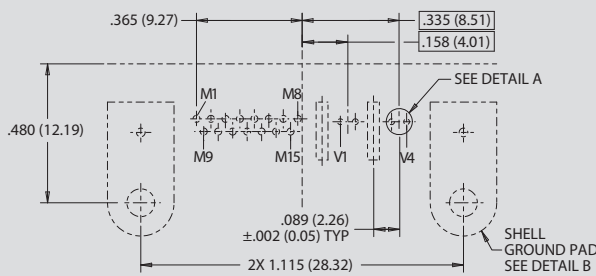
**Receptacle Layout 1-9**



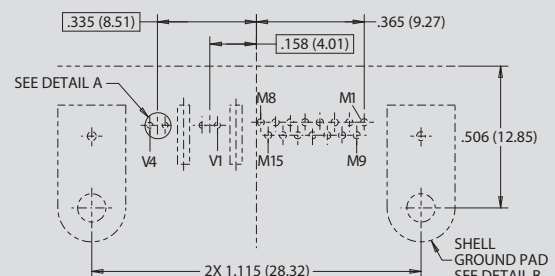
**Plug Layout 2-9**



**Receptacle Layout 2-9**



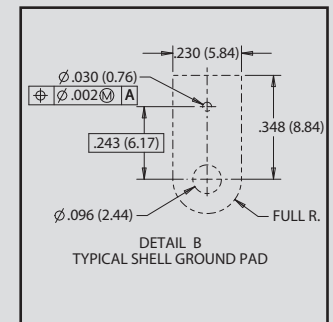
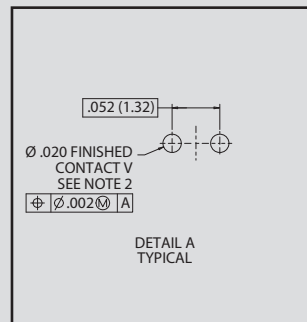
**Plug Layout 2-15**



**Receptacle Layout 2-15**

### NOTES

1. Patterns shown are for connector mounting side of PC board.
2. Reference GVL RPM-BR for connector details.
3. Reference application notes AN0005 for optimal performance.

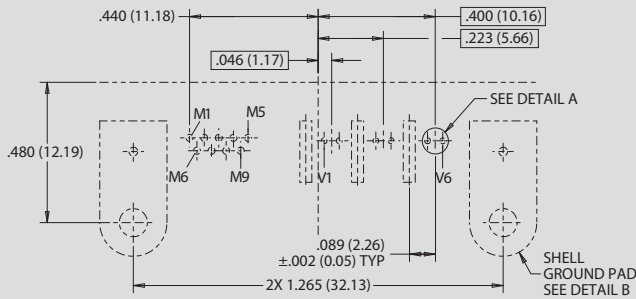


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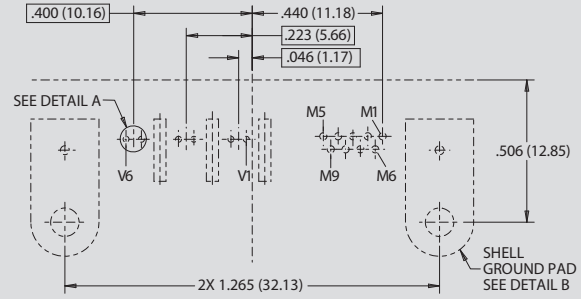


## GVLM-1001: GVL RPM-BR, Rear Panel Mount, Right Angle PCB Connector Footprints

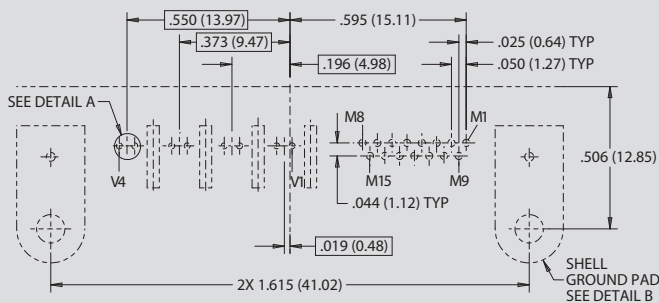
MICRO-D VERSALINK CONNECTORS



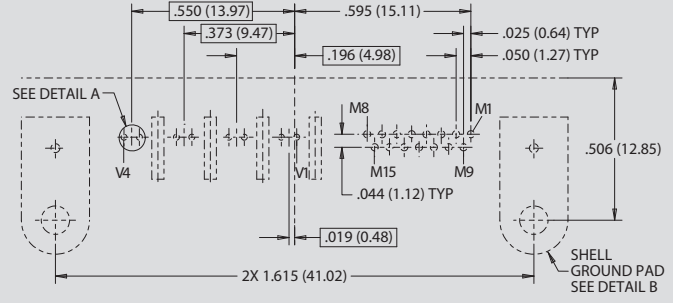
**Plug Layout 3-9**



**Receptacle Layout 3-9**



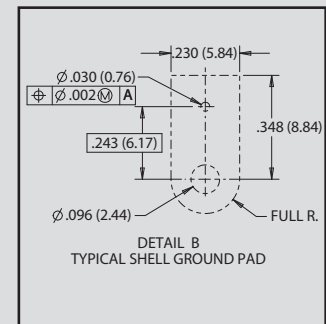
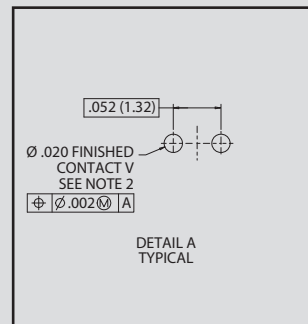
**Plug Layout 4-15**



**Receptacle Layout 4-15**

### NOTES

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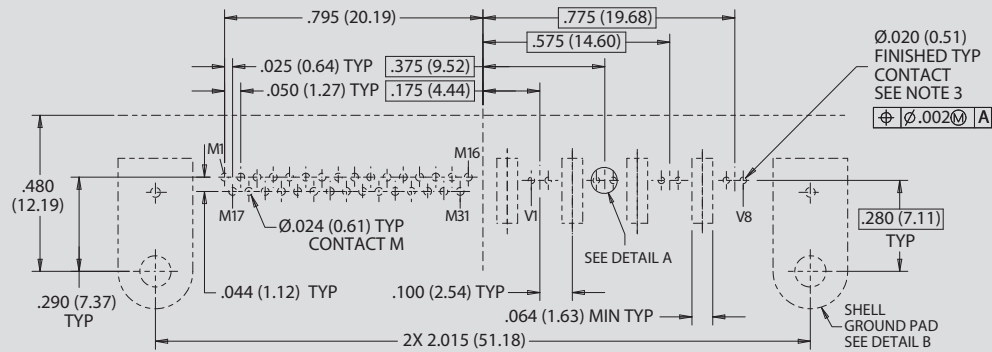


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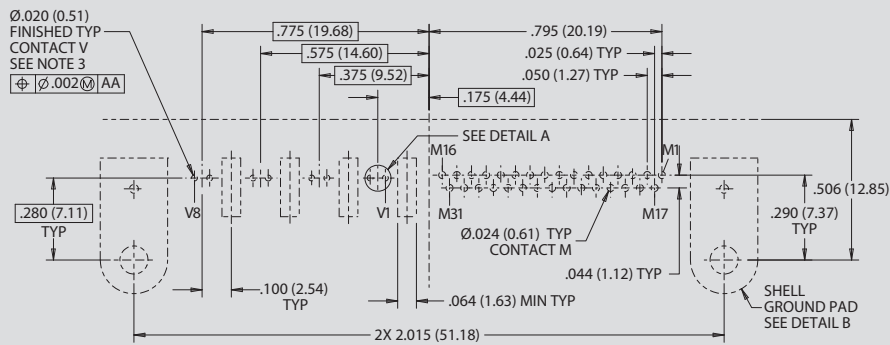


GVLM-1001: GVL RPM-BR, Rear Panel Mount, Right Angle PCB Connector Footprints

MICRO-D VERSALINK CONNECTORS



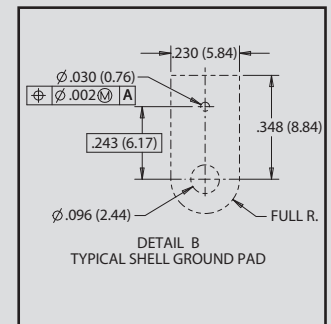
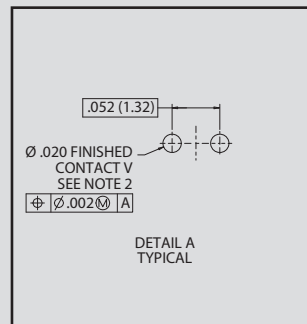
**Plug Layout 4-31**



**Receptacle Layout 4-31**

## NOTES

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2. Reference GVL RPM-BR for connector details.
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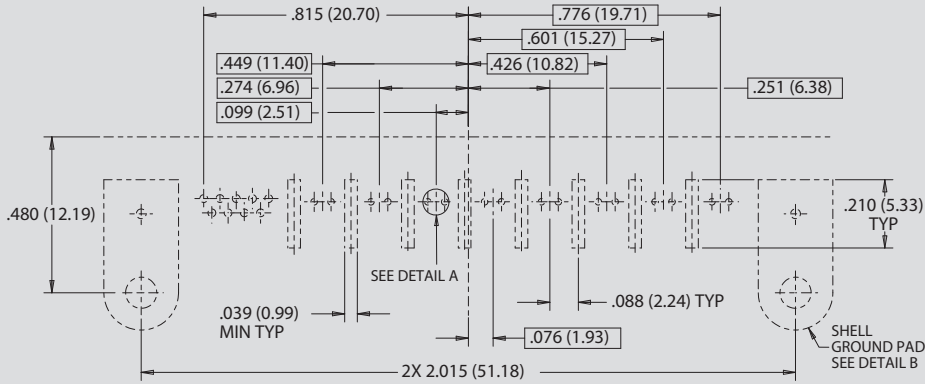


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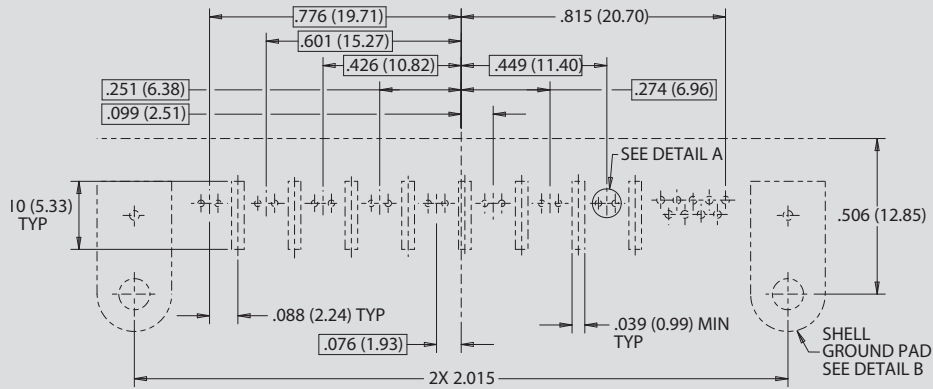


## GVLM-1001: GVL RPM-BR, Rear Panel Mount, Right Angle PCB Connector Footprints

MICRO-D VERSALINK CONNECTORS



**Plug Layout 8-9**



**Receptacle Layout 8-9**

### NOTES

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