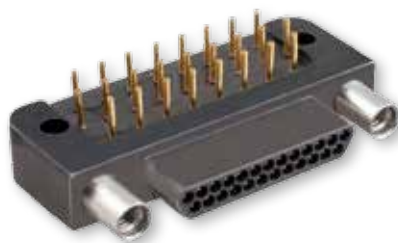


## MWDL Low Profile Plastic Shell Micro-D Right Angle PCB Termination



Micro-D Double  
and Triple Row



Low profile MWDL connectors have reduced flange height compared to standard MWDM Micro-D connectors. These thru-hole "CBR" style Micro-D connectors have solder dipped leads, gold-plated leads optional on .100" centers. Connectors are backfilled with epoxy. Pin contacts are gold-plated high performance TwistPin type and are recessed into insulator to prevent damage. Socket contacts are gold plated, machined copper alloy. Stainless steel hardware. Optional #2-56 threaded inserts in board mounting holes. Glass-filled LCP thermoplastic insulators and tray withstand immersion in +260C solder for 10 seconds. Meets performance requirements of MIL-DTL-83513, Class P. Available with 9 to 51 contacts. 3 A., 600 Vac, -55°C to +150°C.

### How To Order Right Angle PCB Connector

| How To Order Right Angle PCB Connector |                                                                                                                                                                                                                                           |            |          |            |          |          |             |             |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|------------|----------|----------|-------------|-------------|
| <b>Sample Part Number</b>              | <b>MWDL</b>                                                                                                                                                                                                                               | <b>-21</b> | <b>S</b> | <b>CBR</b> | <b>P</b> | <b>T</b> | <b>.110</b> | <b>-513</b> |
| <b>Series</b>                          | <b>MWDL</b> - Low Profile Plastic Shell Micro-D                                                                                                                                                                                           |            |          |            |          |          |             |             |
| <b>Contact Layout</b>                  | <b>9, 15, 21, 25, 31, 37, 51</b>                                                                                                                                                                                                          |            |          |            |          |          |             |             |
| <b>Contact Type</b>                    | <b>P</b> - Pin Contacts<br><b>S</b> - Socket Contacts                                                                                                                                                                                     |            |          |            |          |          |             |             |
| <b>Termination Type</b>                | <b>CBR</b> - Condensed Board Right Angle                                                                                                                                                                                                  |            |          |            |          |          |             |             |
| <b>Hardware Option</b>                 | (Omit for None) <b>P</b> - Jackpost Jackposts for Rear Panel Mounting<br><b>R1</b> - .032" Panel <b>R2</b> - .047" Panel <b>R3</b> - .062" Panel<br>(See Table I) <b>R4</b> - .093" Panel <b>R5</b> - .125" Panel <b>R6</b> - .125" Panel |            |          |            |          |          |             |             |
| <b>Threaded Insert Option</b>          | <b>Omit</b> - For Thru-Holes<br><b>T</b> - Threaded Inserts in Board Mounting Holes. #2-56 Female Thread.<br><b>M</b> - Threaded Inserts in Board Mounting Holes. M2 Metric Thread.                                                       |            |          |            |          |          |             |             |
| <b>PC Tail Length</b>                  | <b>.110, .125, .150, .190, .250</b>                                                                                                                                                                                                       |            |          |            |          |          |             |             |
| <b>Gold-Plated Terminal Mod Code</b>   | <b>Omit</b> - These connectors are solder-dipped in 60/40 tin lead solder.<br>To delete the solder dip and change to gold-plated terminal add code <b>513</b>                                                                             |            |          |            |          |          |             |             |

E

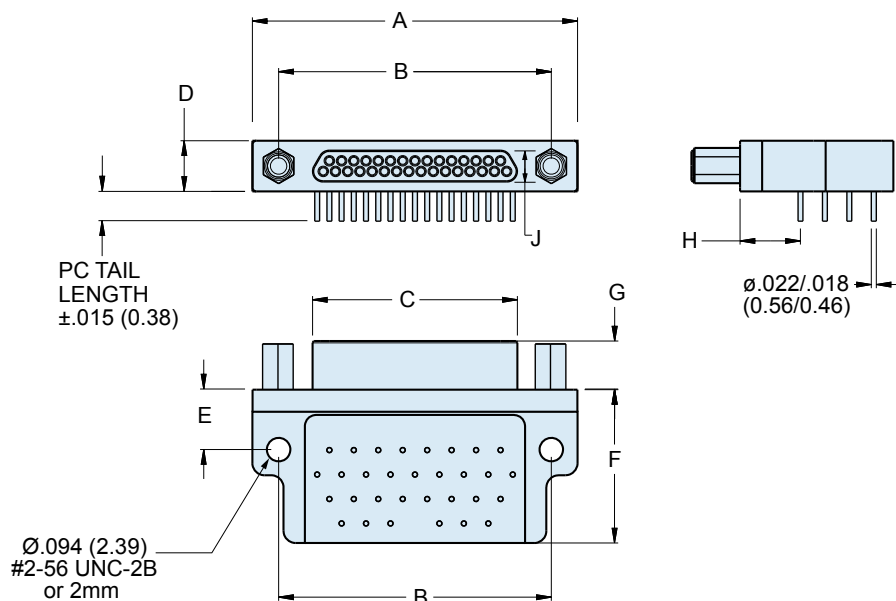
Table I: Jackpost Options

| No Designator                                                                                                                | P                                                                            | R1 Thru R5                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <p>THREADED INSERT</p>                                                                                                       |                                                                              | <p>Panel</p>                                                                                                             |
| <p>Thru-Hole</p> <p>For use with Glenair jackposts only. Order hardware separately. Install with threadlocking compound.</p> | <p>Standard Jackpost</p> <p>Factory installed, not intended for removal.</p> | <p>Jackpost for Rear Panel Mounting</p> <p>Shipped loosely installed. Install with permanent threadlocking compound.</p> |



# MWDL Low Profile Plastic Shell Micro-D Right Angle PCB Termination

Table I: Dimensions



| Layout | A Max. |       | B          |            | C Max. |       | D Max. |      | E    |      | F Max. |       | G Max. |      | H          |            | J    |      |
|--------|--------|-------|------------|------------|--------|-------|--------|------|------|------|--------|-------|--------|------|------------|------------|------|------|
|        | In.    | mm.   | In. ± .003 | mm. ± 0.08 | In.    | mm.   | In.    | mm.  | In.  | mm.  | In.    | mm.   | In.    | mm.  | In. ± .010 | mm. ± 0.25 | In.  | mm.  |
| 9P     | .788   | 20.02 | .565       | 14.35      | .292   | 7.42  | .218   | 5.54 | .250 | 6.35 | .425   | 10.80 | .202   | 5.13 | .230       | 5.84       | .134 | 3.40 |
| 9S     | .788   | 20.02 | .565       | 14.35      | .380   | 9.65  | .218   | 5.54 | .250 | 6.35 | .425   | 10.80 | .185   | 4.70 | .230       | 5.84       | .218 | 5.54 |
| 15P    | .938   | 23.83 | .715       | 18.16      | .442   | 11.23 | .218   | 5.54 | .250 | 6.35 | .425   | 10.80 | .202   | 5.13 | .130       | 3.30       | .134 | 3.40 |
| 15S    | .938   | 23.83 | .715       | 18.16      | .530   | 13.46 | .218   | 5.54 | .250 | 6.35 | .425   | 10.80 | .185   | 4.70 | .130       | 3.30       | .218 | 5.54 |
| 21P    | 1.088  | 27.64 | .865       | 21.97      | .592   | 15.04 | .218   | 5.54 | .250 | 6.35 | .425   | 10.80 | .202   | 5.13 | .130       | 3.30       | .134 | 3.40 |
| 21S    | 1.080  | 27.64 | .865       | 21.97      | .680   | 17.27 | .218   | 5.54 | .250 | 6.35 | .425   | 10.80 | .185   | 4.70 | .130       | 3.30       | .218 | 5.54 |
| 25P    | 1.188  | 30.18 | .965       | 24.51      | .692   | 17.58 | .218   | 5.54 | .250 | 6.35 | .425   | 10.80 | .202   | 5.13 | .130       | 3.30       | .134 | 3.40 |
| 25S    | 1.185  | 30.18 | .965       | 24.51      | .780   | 19.81 | .218   | 5.54 | .250 | 6.35 | .425   | 10.80 | .185   | 4.70 | .130       | 3.30       | .218 | 5.54 |
| 31P    | 1.338  | 33.99 | 1.115      | 28.32      | .842   | 21.39 | .218   | 5.54 | .250 | 6.35 | .525   | 13.34 | .202   | 5.13 | .130       | 3.30       | .134 | 3.40 |
| 31S    | 1.338  | 33.99 | 1.115      | 28.32      | .930   | 23.62 | .218   | 5.54 | .250 | 6.35 | .525   | 13.34 | .185   | 4.70 | .130       | 3.30       | .218 | 5.54 |
| 37P    | 1.488  | 37.80 | 1.265      | 32.13      | .992   | 25.20 | .218   | 5.54 | .250 | 6.35 | .525   | 13.34 | .202   | 5.13 | .130       | 3.30       | .134 | 3.40 |
| 37S    | 1.488  | 37.80 | 1.265      | 32.13      | 1.080  | 27.43 | .218   | 5.54 | .250 | 6.35 | .525   | 13.34 | .185   | 4.70 | .130       | 3.30       | .218 | 5.54 |
| 51P    | 1.438  | 36.53 | 1.215      | 30.86      | .942   | 23.93 | .260   | 6.60 | .300 | 7.62 | .660   | 16.76 | .202   | 5.13 | .150       | 3.81       | .177 | 4.50 |
| 51S    | 1.438  | 36.53 | 1.215      | 30.86      | 1.030  | 26.16 | .260   | 6.60 | .300 | 7.62 | .660   | 16.76 | .185   | 4.70 | .150       | 3.81       | .260 | 6.60 |

## Performance Specifications

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

## Materials and Finishes

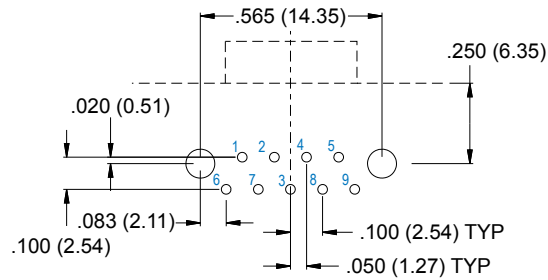
|                |                                            |
|----------------|--------------------------------------------|
| Connector Body | Liquid Crystal Polymer (LCP), Glass-filled |
| Pin Contact    | Beryllium Copper, Gold over Nickel Plating |
| Socket Contact | Copper Alloy, Gold Over Nickel Plating     |
| Hardware       | 300 Series Stainless Steel                 |
| Encapsulant    | Epoxy                                      |

# MWDL Low Profile Plastic Shell Micro-D Right Angle PCB Termination

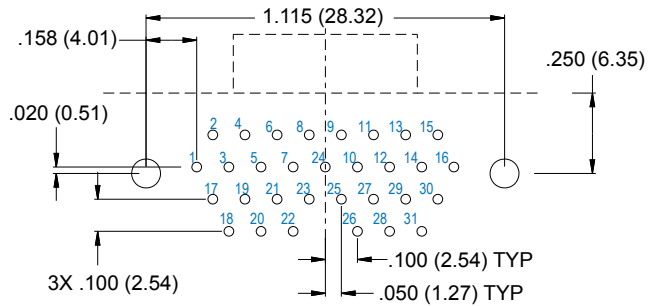


Micro-D Double  
and Triple Row

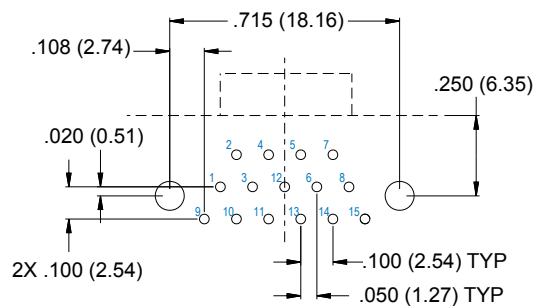
## MWDL CBR PCB Layouts — Pin Connectors



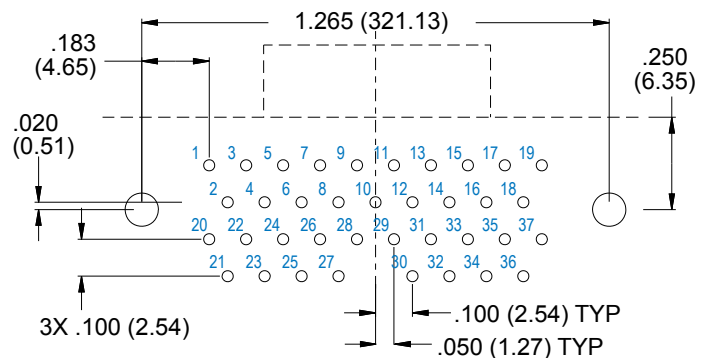
**9 PIN**



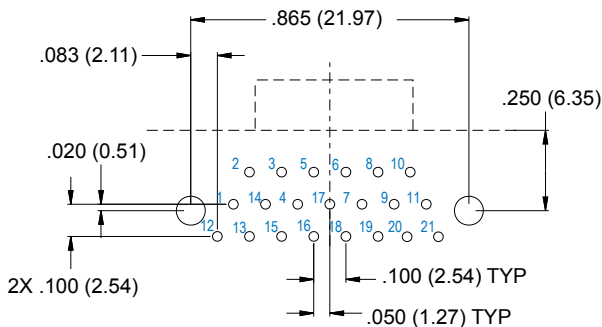
**31 PIN**



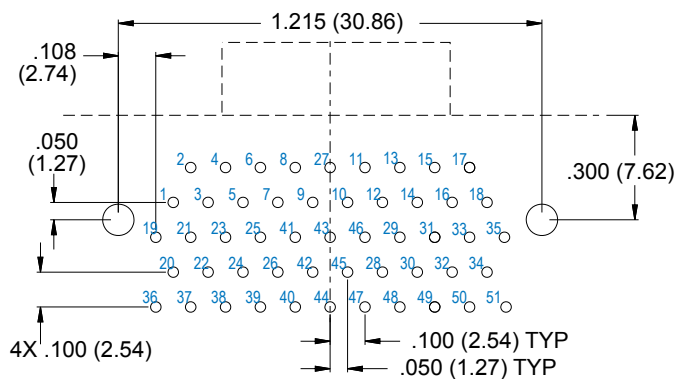
**15 PIN**



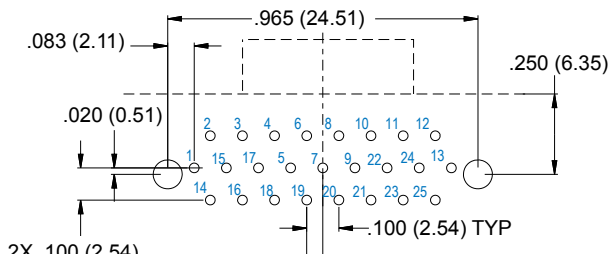
**37 PIN**



**21 PIN**



**51 PIN**



**25 PIN**

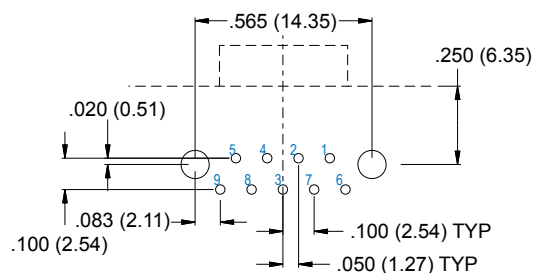
### Notes

1. Patterns shown are for connector mounting side of PC board.
2. Board mounting holes are .094" (2.39) diameter.
3. PC tails are .022" (0.56) maximum diameter.

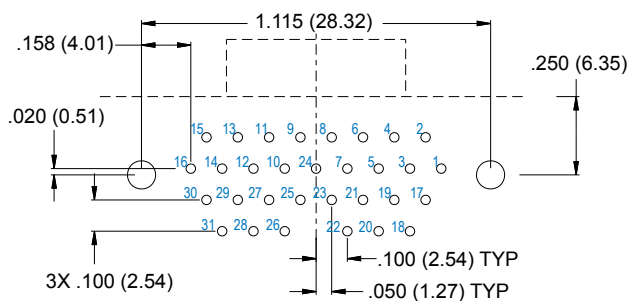


# MWDL Low Profile Plastic Shell Micro-D Right Angle PCB Termination

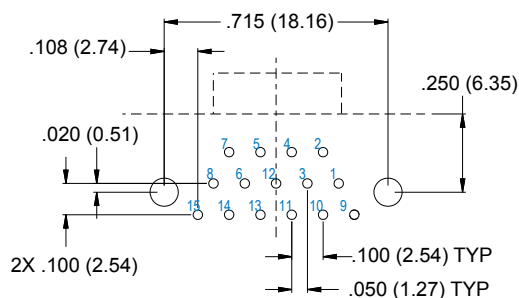
## MWDL CBR PCB Layouts — Socket Connectors



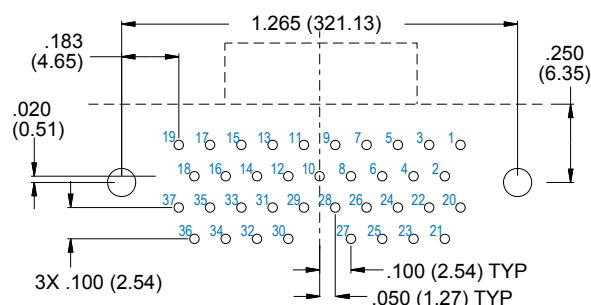
**9 Socket**



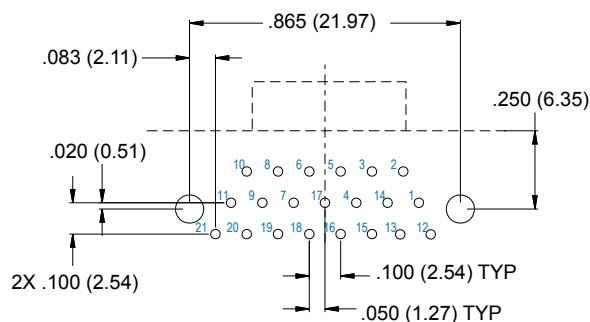
**31 Socket**



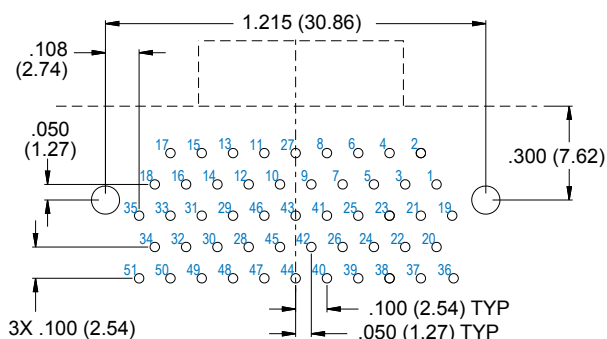
**15 Socket**



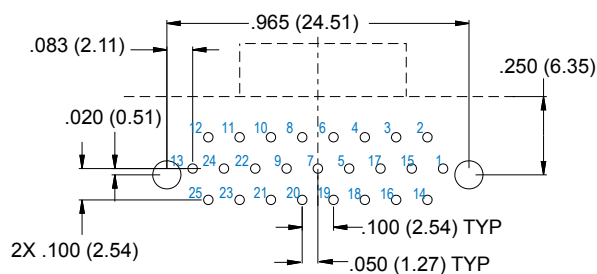
**37 Socket**



**21 Socket**



**51 Socket**



**25 Socket**

### Notes

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2. Board mounting holes are .094" (2.39) diameter.
3. PC tails are .022" (0.56) maximum diameter.