



## Micro-D MWDM-CBR Right Angle Thru-Hole Printed Circuit Board Connectors



**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. Optional gold-plated terminals are available for RoHS compliance.

**Rear Mountable** – Can be installed through panels up to .125 inch thick. Specify rear panel mount jackposts.

### How To Order CBR Style PCB Micro-D Connectors

| Sample Part Number        |                                                                                                                                                                                                                                       | MWDM | 2 | L | -15 | P | CBR | R3 | T | -.110 | 513 |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|---|-----|---|-----|----|---|-------|-----|
| Series                    | MWDM Glenair Micro-D                                                                                                                                                                                                                  |      |   |   |     |   |     |    |   |       |     |
| 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 PPS<br>LCP - 30% Glass-filled liquid crystal polymer<br>PPS - 40% Glass-filled polyphenylene sulfide                                                                                                                       |      |   |   |     |   |     |    |   |       |     |
| Contact Layout            | 9, 15, 21, 25, 31, 37, 51, 69, 75, 100, 130 (See Table II)                                                                                                                                                                            |      |   |   |     |   |     |    |   |       |     |
| Contact Type              | P – Pin    S – Socket                                                                                                                                                                                                                 |      |   |   |     |   |     |    |   |       |     |
| Termination Type          | CBR - Condensed Board Right Angle                                                                                                                                                                                                     |      |   |   |     |   |     |    |   |       |     |
| Jackpost Option           | (Omit for None)            P – Jackpost            Jackposts for Rear Panel Mounting<br>R1 – .032" Panel    R2 – .047" Panel    R3 – .062" Panel<br>(See Table I)            R4 – .093" Panel    R5 – .125" Panel    R6 – .080" Panel |      |   |   |     |   |     |    |   |       |     |
| Threaded Insert Option    | T - Threaded Insert In Board Mount Hole    Omit for Thru-Hole                                                                                                                                                                         |      |   |   |     |   |     |    |   |       |     |
| Terminal Length in Inches | .080, .110, .125, .140, .150, .172, .190, .250    Length in Inches ± .015 (0.38)                                                                                                                                                      |      |   |   |     |   |     |    |   |       |     |
| Gold-Plated               | These connectors are solder-dipped in 60/40 tin-lead solder.                                                                                                                                                                          |      |   |   |     |   |     |    |   |       |     |
| Terminal Mod Code         | To delete the solder dip and change to gold-plated terminals, add code 513                                                                                                                                                            |      |   |   |     |   |     |    |   |       |     |

Table I: Jackpost Options

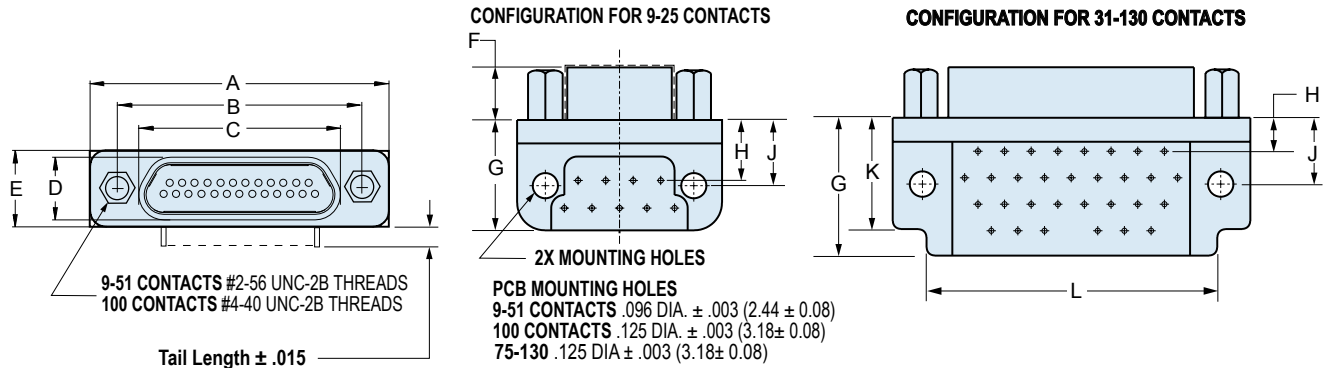
| No Designator                                                                                                                | P                                                                            | R1 Thru R6                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <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> |

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Micro-D PCB

Table II: Dimensions



| Layout | A Max. |       | B     |       | C Max. |       | D Max. |      | E Max. |       | F    |      | G Max. |       | H    |      | J    |       | K Max. |       | L Max. |       |
|--------|--------|-------|-------|-------|--------|-------|--------|------|--------|-------|------|------|--------|-------|------|------|------|-------|--------|-------|--------|-------|
|        | In.    | mm.   | In.   | mm.   | In.    | mm.   | In.    | mm.  | In.    | mm.   | In.  | mm.  | In.    | mm.   | In.  | mm.  | In.  | mm.   | In.    | mm.   | In.    | mm.   |
| 9P     | .787   | 19.94 | .565  | 14.35 | .333   | 8.46  | .184   | 4.67 | .310   | 7.87  | .183 | 4.65 | .425   | 10.80 | .230 | 5.84 | .250 | 6.35  | ---    | ---   | ---    | ---   |
| 9S     | .787   | 19.94 | .565  | 14.35 | .400   | 10.16 | .250   | 6.35 | .310   | 7.87  | .195 | 4.95 | .425   | 10.80 | .230 | 5.84 | .250 | 6.35  | ---    | ---   | ---    | ---   |
| 15P    | .937   | 23.75 | .715  | 18.16 | .483   | 12.27 | .184   | 4.67 | .310   | 7.87  | .183 | 4.65 | .425   | 10.80 | .130 | 3.30 | .250 | 6.35  | ---    | ---   | ---    | ---   |
| 15S    | .937   | 23.75 | .715  | 18.16 | .551   | 14.00 | .250   | 6.35 | .310   | 7.87  | .195 | 4.95 | .425   | 10.80 | .130 | 3.30 | .250 | 6.35  | ---    | ---   | ---    | ---   |
| 21P    | 1.087  | 27.56 | .865  | 21.97 | .633   | 16.08 | .184   | 4.67 | .310   | 7.87  | .183 | 4.65 | .425   | 10.80 | .130 | 3.30 | .250 | 6.35  | ---    | ---   | ---    | ---   |
| 21S    | 1.087  | 27.56 | .865  | 21.97 | .701   | 17.81 | .250   | 6.35 | .310   | 7.87  | .195 | 4.95 | .425   | 10.80 | .130 | 3.30 | .250 | 6.35  | ---    | ---   | ---    | ---   |
| 25P    | 1.187  | 30.01 | .965  | 24.51 | .733   | 18.62 | .184   | 4.67 | .310   | 7.87  | .183 | 4.65 | .425   | 10.80 | .130 | 3.30 | .250 | 6.35  | ---    | ---   | ---    | ---   |
| 25S    | 1.187  | 30.01 | .965  | 24.51 | .801   | 20.35 | .250   | 6.35 | .310   | 7.87  | .195 | 4.95 | .425   | 10.80 | .130 | 3.30 | .250 | 6.35  | ---    | ---   | ---    | ---   |
| 31P    | 1.337  | 33.91 | 1.115 | 28.32 | .883   | 22.43 | .184   | 4.67 | .310   | 7.87  | .183 | 4.65 | .525   | 13.34 | .130 | 3.30 | .250 | 6.35  | .450   | 11.43 | 1.085  | 27.56 |
| 31S    | 1.337  | 33.91 | 1.115 | 28.32 | .951   | 24.16 | .250   | 6.35 | .310   | 7.87  | .195 | 4.95 | .525   | 13.34 | .130 | 3.30 | .250 | 6.35  | .450   | 11.43 | 1.085  | 27.56 |
| 37P    | 1.487  | 37.72 | 1.265 | 32.13 | 1.033  | 26.24 | .184   | 4.67 | .310   | 7.87  | .183 | 4.65 | .525   | 13.34 | .130 | 3.30 | .250 | 6.35  | .450   | 11.43 | 1.185  | 30.10 |
| 37S    | 1.487  | 37.72 | 1.265 | 32.13 | 1.101  | 27.96 | .250   | 6.35 | .310   | 7.87  | .195 | 4.95 | .525   | 13.34 | .130 | 3.30 | .250 | 6.35  | .450   | 11.43 | 1.185  | 30.10 |
| 51P    | 1.435  | 36.45 | 1.215 | 30.86 | .983   | 24.97 | .228   | 5.79 | .351   | 8.92  | .183 | 4.65 | .660   | 16.76 | .150 | 3.81 | .300 | 7.62  | .450   | 11.43 | 1.225  | 31.12 |
| 51S    | 1.435  | 36.45 | 1.215 | 30.86 | 1.051  | 26.70 | .296   | 7.52 | .351   | 8.92  | .195 | 4.95 | .660   | 16.76 | .150 | 3.81 | .300 | 7.62  | .450   | 11.43 | 1.225  | 31.12 |
| 69P    | 1.740  | 44.20 | 1.515 | 38.48 | 1.283  | 32.59 | .228   | 5.79 | .351   | 8.92  | .183 | 4.65 | .750   | 19.05 | .150 | 3.81 | .300 | 7.62  | .450   | 11.43 | 1.530  | 38.86 |
| 69S    | 1.740  | 44.20 | 1.515 | 38.48 | 1.351  | 34.32 | .296   | 7.52 | .351   | 8.92  | .195 | 4.95 | .750   | 19.05 | .150 | 3.81 | .300 | 7.62  | .450   | 11.43 | 1.530  | 38.86 |
| 75P    | 2.080  | 52.83 | 1.705 | 43.31 | 1.384  | 35.15 | .228   | 5.79 | .351   | 8.92  | .183 | 4.65 | .800   | 20.32 | .200 | 5.08 | .400 | 10.16 | .590   | 14.99 | 1.650  | 41.91 |
| 75S    | 2.080  | 52.83 | 1.705 | 43.31 | 1.450  | 36.83 | .296   | 7.52 | .351   | 8.92  | .195 | 4.95 | .800   | 20.32 | .200 | 5.08 | .400 | 10.16 | .590   | 14.99 | 1.650  | 41.91 |
| 100P   | 2.175  | 55.12 | 1.800 | 45.72 | 1.383  | 35.13 | .270   | 6.86 | .394   | 10.01 | .183 | 4.65 | 1.010  | 25.65 | .200 | 5.08 | .400 | 10.16 | .590   | 14.99 | 1.820  | 46.23 |
| 100S   | 2.175  | 55.12 | 1.800 | 45.72 | 1.451  | 36.86 | .333   | 8.46 | .394   | 10.01 | .195 | 4.95 | 1.010  | 25.65 | .200 | 5.08 | .400 | 10.16 | .590   | 14.99 | 1.820  | 46.23 |
| 130P   | 2.520  | 64.01 | 2.150 | 54.61 | 1.735  | 44.07 | .270   | 6.86 | .394   | 10.01 | .183 | 4.65 | 1.010  | 25.65 | .200 | 5.08 | .400 | 10.16 | .620   | 15.75 | 2.160  | 54.86 |
| 130S   | 2.520  | 64.01 | 2.150 | 54.61 | 1.735  | 44.07 | .333   | 8.46 | .394   | 10.01 | .195 | 4.95 | 1.010  | 25.65 | .200 | 5.08 | .400 | 10.16 | .620   | 15.75 | 2.160  | 54.86 |

## 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) |

## Materials and Finishes

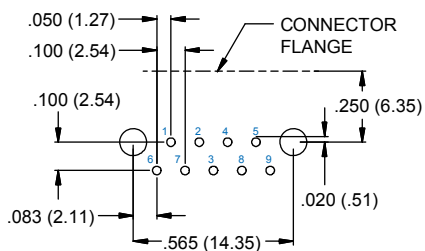
|                  |                                                                                                       |
|------------------|-------------------------------------------------------------------------------------------------------|
| Connector Shell  | Aluminum Alloy 6061 or Stainless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



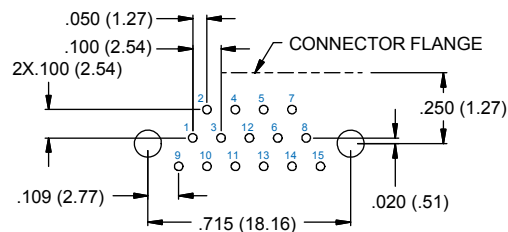
# Micro-D MWDM-CBR Right Angle Thru-Hole Printed Circuit Board Connectors

## MICRO-D CBR Board Mount Connector PCB Layouts – Pin Connectors

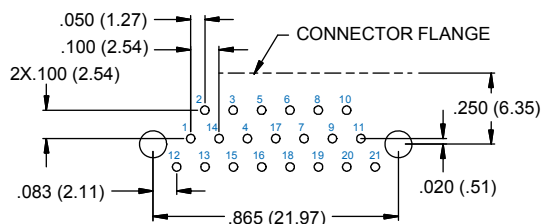
Patterns shown are for connector mounting side of PC board. 9 Thru 69 Contacts .096 (2.44) Diameter Mounting Holes, 75-130 Pin .125 (3.18) Diameter



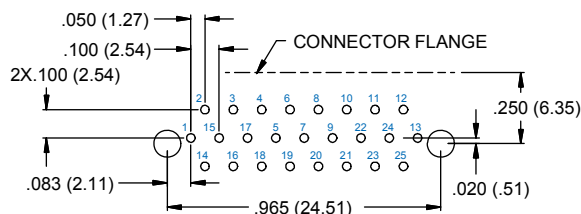
9 PIN



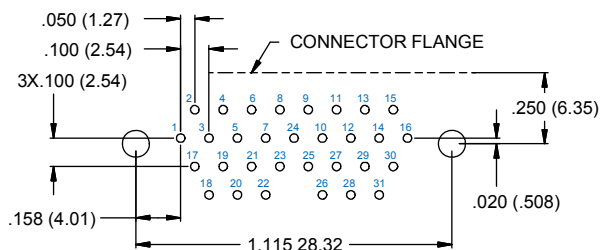
15 PIN



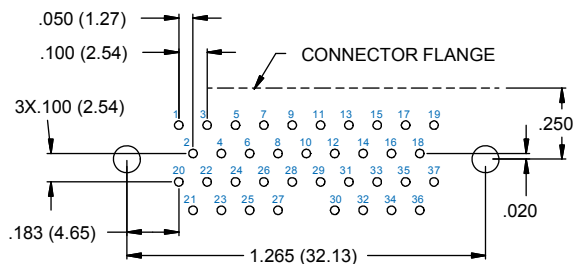
21 PIN



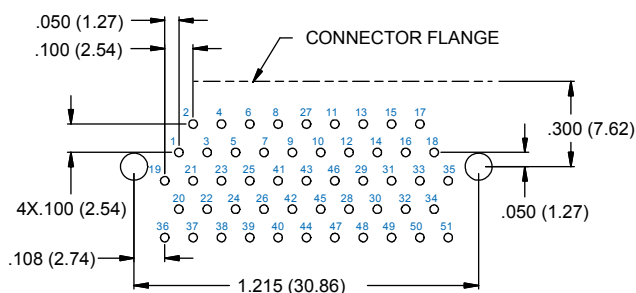
25 PIN



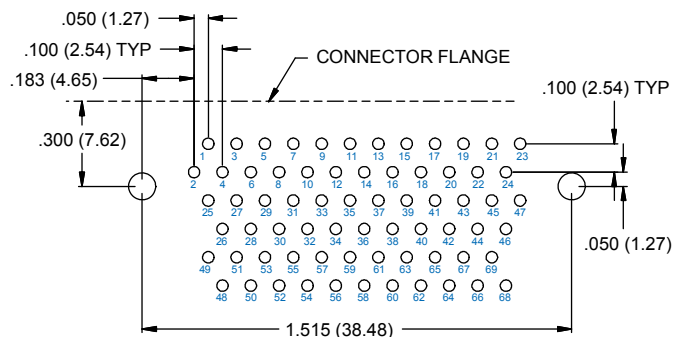
31 PIN



37 PIN



51 PIN



69 PIN

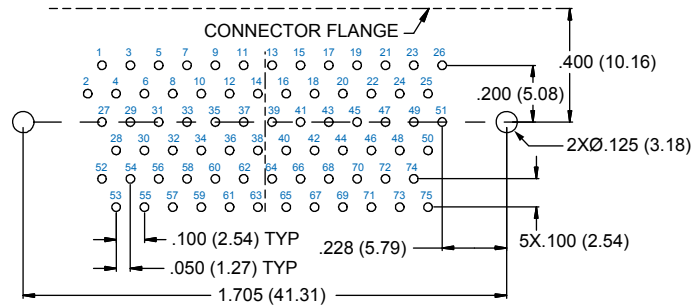
**Micro-D MWDM-CBR  
Right Angle Thru-Hole  
Printed Circuit Board Connectors**



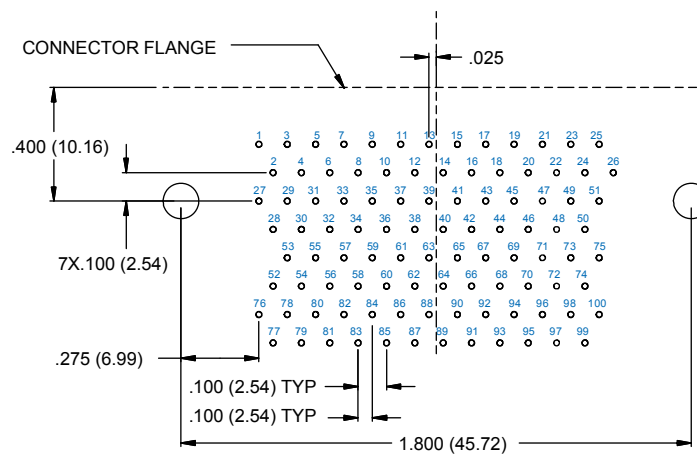
Micro-D PCB

**MICRO-D CBR Board Mount Connector PCB Layouts – Pin Connectors**

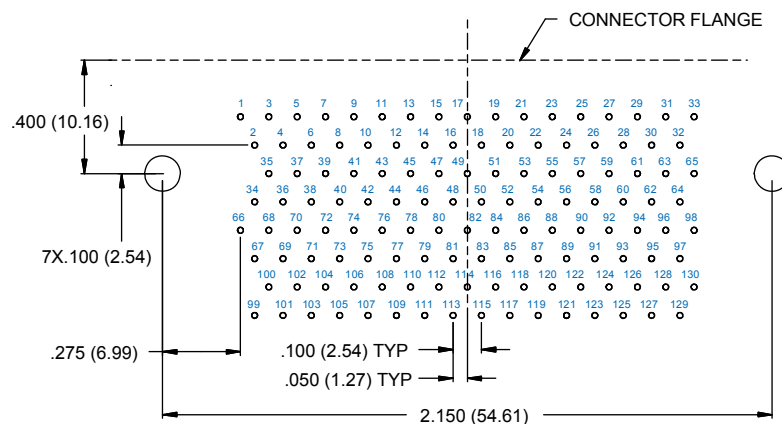
Patterns shown are for connector mounting side of PC board. 9 Thru 69 Contacts .096 (2.44) Diameter Mounting Holes, 75-130 Pin .125 (3.18) Diameter



**75 PIN**



**100 PIN**



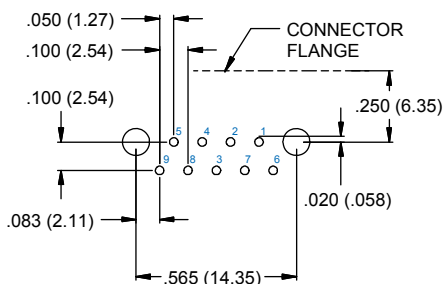
**130 PIN**



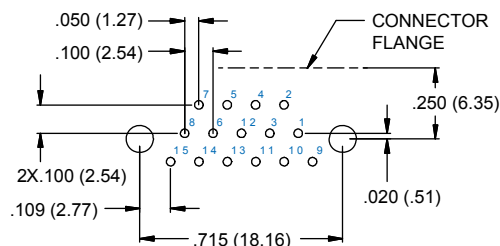
# Micro-D MWDM-CBR Right Angle Thru-Hole Printed Circuit Board Connectors

## MICRO-D CBR Board Mount Connector PCB Layouts – Socket Connectors

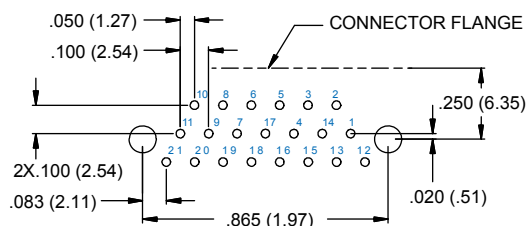
Patterns shown are for connector mounting side of PC board. 9 Thru 69 Contacts .096 (2.44) Diameter Mounting Holes, 75-130 Pin .125 (3.18) Diameter



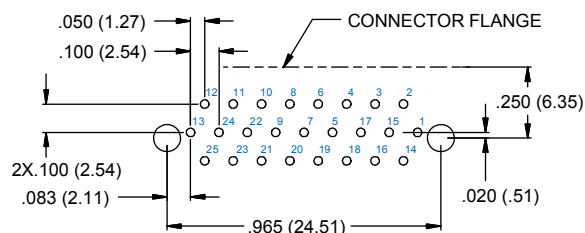
**9 SOCKET**



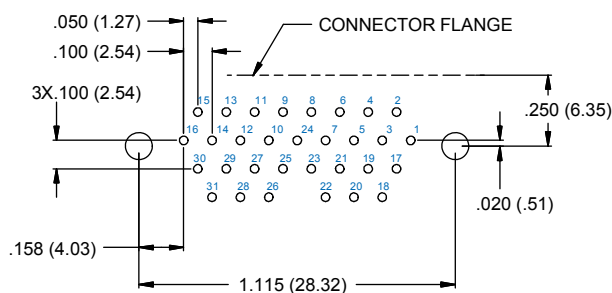
**15 SOCKET**



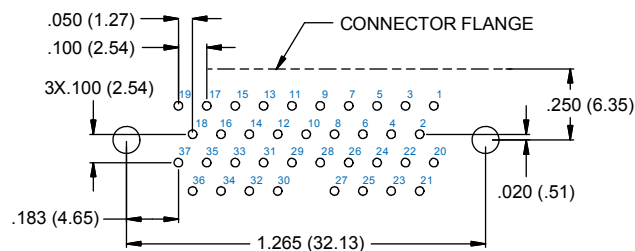
**21 SOCKET**



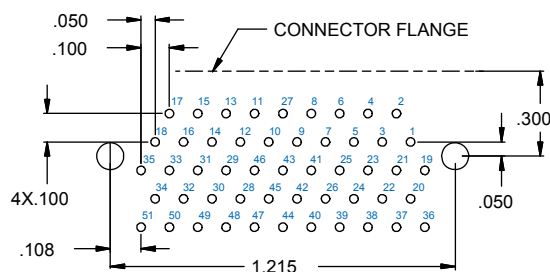
**25 SOCKET**



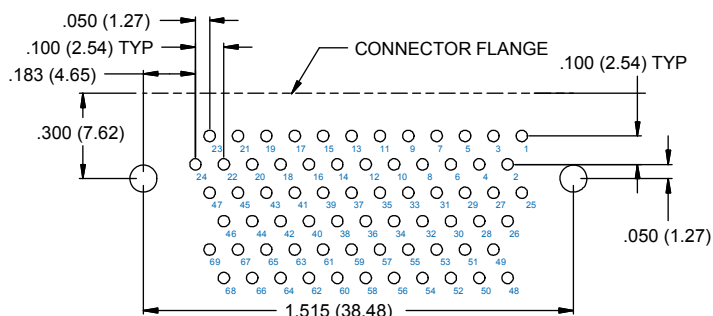
**31 SOCKET**



**37 SOCKET**



**51 SOCKET**



**69 SOCKET**

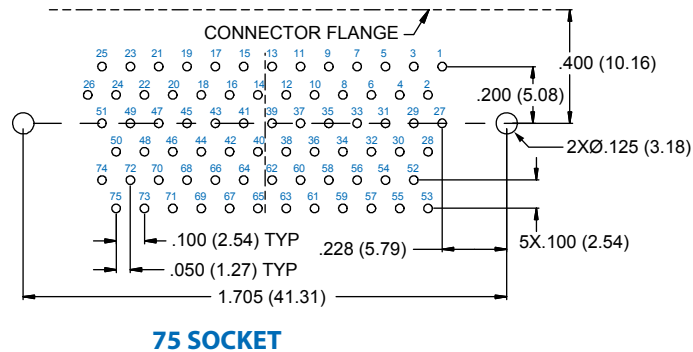
**Micro-D MWDM-CBR  
Right Angle Thru-Hole  
Printed Circuit Board Connectors**



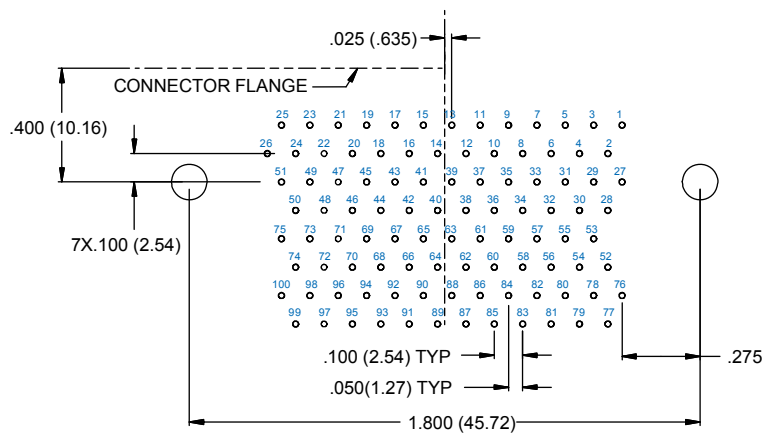
Micro-D PCB

**MICRO-D CBR Board Mount Connector PCB Layouts – Socket Connectors**

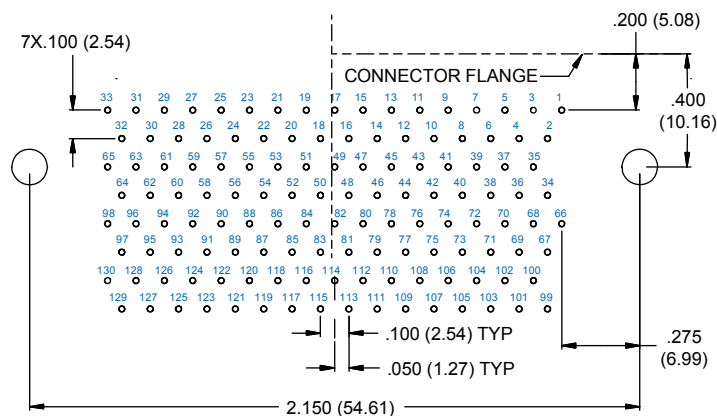
Patterns shown are for connector mounting side of PC board. 9 Thru 69 Contacts .096 (2.44) Diameter Mounting Holes, 75-130 Pin .125 (3.18) Diameter



**75 SOCKET**



**100 SOCKET**



**130 SOCKET**