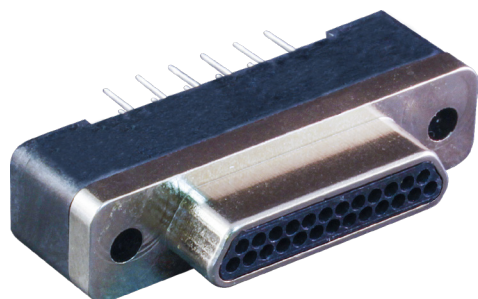




## Micro-D MWDM-CBS Vertical Board Mount Printed Circuit Board Connector



**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 CBS Style PCB Micro-D Connectors

Sample Part Number	MWDM	1	L-	31	P	CBS	NN	-.110	513
Series	MWDM - Micro-D Metal Shell								
Shell Material and Finish	<b>Aluminum Shell</b> 1 - Cadmium 2 - Nickel 4 - Black Anodize 5 - Gold 6 - Chem Film <b>Stainless Steel Shell</b> 3 - Passivated								
Insulator Material	L - LCP or PPS LCP - 30% Glass-filled liquid crystal polymer PPS - 40% Glass-filled polyphenylene sulfide								
Contact Layout	9, 15, 21, 25, 31, 37, 51, 69, 75, 100, 130 (See Table I)								
Contact Type	P - Pin S - Socket								
Termination Type	CBS - Condensed Board Straight								
Hardware Option	NN – No Jackpost, No Threaded Insert PN – Extended Jackpost for .062" (1.6) PCB, No Threaded Insert RN – Extended Jackpost for .196" (5.0) PCB, No Threaded Insert NU – Threaded Insert Only, No Jackposts PU – Short Jackpost and Threaded Insert			Rear Panel Jackposts With Threaded Inserts R7U – .080" (2.0) Panel R6U – .125" (3.2) Panel R5U – .094" (2.4) Panel R4U – .062" (1.6) Panel R3U – .047" (1.2) Panel R2U – .031" (0.8) Panel			Jackscrew Options M – Hex Head Jackscrews S – Slot Head Jackscrews		
PC Tail Length	.080, .110, .140, .172, .190, .250 Length in Inches ± .015 (0.38)								
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 513								

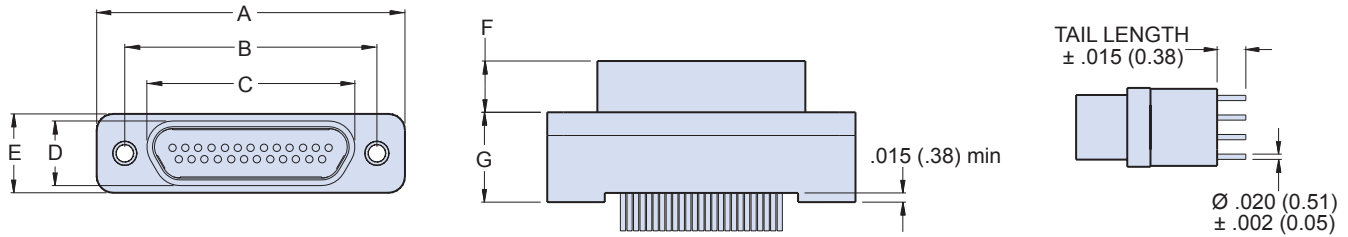
## HARDWARE OPTIONS

See Pages C-22 and C-23

**Micro-D MWDM-CBS  
Vertical Board Mount  
Printed Circuit Board Connector**



**Table I: Dimensions**



C

Layout	A Max.		B		C Max.		D Max.		E Max.		F		G Max.	
	In.	mm.	In. ± .005	mm. ± 0.13	In.	mm.	In.	mm.	In.	mm.	In. ± .003	mm. ± 0.08	In.	mm.
9P	.785	19.94	.565	14.35	.333	8.46	.184	4.67	.310	7.87	.183	4.65	.355	9.02
9S	.785	19.94	.565	14.35	.400	10.16	.250	6.35	.310	7.87	.195	4.95	.355	9.02
15P	.935	23.75	.715	18.16	.483	12.27	.184	4.67	.310	7.87	.183	4.65	.355	9.02
15S	.935	23.75	.715	18.16	.551	14.00	.250	6.35	.310	7.87	.195	4.95	.355	9.02
21P	1.085	27.56	.865	21.97	.633	16.08	.184	4.67	.310	7.87	.183	4.65	.355	9.02
21S	1.085	27.56	.865	21.97	.701	17.81	.250	6.35	.310	7.87	.195	4.95	.355	9.02
25P	1.185	30.01	.965	24.51	.733	18.62	.184	4.67	.310	7.87	.183	4.65	.355	9.02
25S	1.185	30.01	.965	24.51	.801	20.35	.250	6.35	.310	7.87	.195	4.95	.355	9.02
31P	1.335	33.91	1.115	28.32	.883	22.43	.184	4.67	.310	7.87	.183	4.65	.355	9.02
31S	1.335	33.91	1.115	28.32	.951	24.16	.250	6.35	.310	7.87	.195	4.95	.355	9.02
37P	1.485	37.72	1.265	32.13	1.033	26.24	.184	4.67	.310	7.87	.183	4.65	.355	9.02
37S	1.485	37.72	1.265	32.13	1.101	27.96	.250	6.35	.310	7.87	.195	4.95	.355	9.02
51P	1.435	36.45	1.215	30.86	.983	24.97	.228	5.79	.400	10.16	.183	4.65	.355	9.02
51S	1.435	36.45	1.215	30.86	1.051	26.70	.296	7.52	.400	10.16	.195	4.95	.355	9.02
69P	1.735	44.07	1.515	38.48	1.284	32.61	.224	5.69	.400	10.16	.183	4.65	.355	9.02
69S	1.735	44.07	1.515	38.48	1.50	34.29	.293	7.44	.400	10.16	.195	4.95	.355	9.02
75P	2.080	52.83	1.705	43.31	1.384	35.15	.228	5.79	.400	10.16	.183	4.65	.355	9.02
75S	2.080	52.83	1.705	43.31	1.450	36.83	.296	7.52	.400	10.16	.195	4.95	.355	9.02
100P	2.170	55.12	1.800	45.72	1.383	35.13	.270	6.86	.510	12.95	.183	4.65	.430	10.92
100S	2.170	55.12	1.800	45.72	1.451	36.86	.333	8.46	.510	12.95	.195	4.95	.430	10.92
130P	2.520	64.00	2.150	54.61	1.735	44.07	.270	6.86	.510	12.95	.183	4.65	.430	10.92
130S	2.520	64.00	2.150	54.61	1.795	45.59	.333	8.46	.510	12.95	.195	4.95	.430	10.92

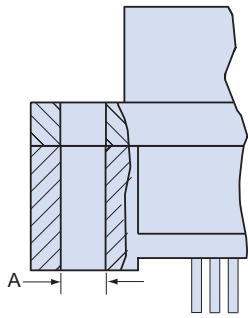
Performance Specifications	
Current Rating	3 AMP
DWV	600 VAC Sea level
Insulation Resistance	5000 Megohms Minimum
Contact Resistance	8 Milliohms Maximum
Low Level Contact Resist.	32 Milliohms Maximum
Magnetic Permeability	2 μ Maximum
Operating Temperature	-55° C. to +150° C.
Shock, Vibration	50 g., 20g.
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



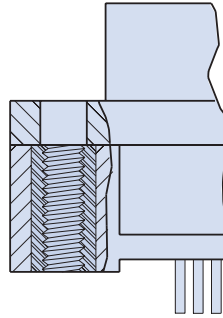
# Micro-D MWDM-CBS Vertical Board Mount Hardware

## MICRO-D CBS Board Mount Connector Hardware Options



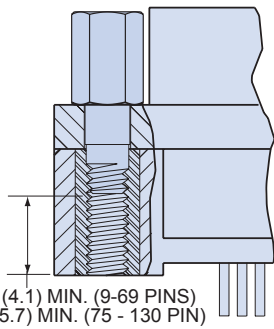
**NN Style**  
Thru-Hole, No Hardware

A DIAMETER  
9-69 CONTACTS  
.096/.088 (2.44/2.24)  
75, 100, 130 CONTACTS  
.150/.145 (3.81/3.68)



**NU Style**  
Threaded Insert

9-69 CONTACTS  
NO. 2-56 UNC-2B  
75-130 CONTACTS  
NO. 4-40 UNC-2B

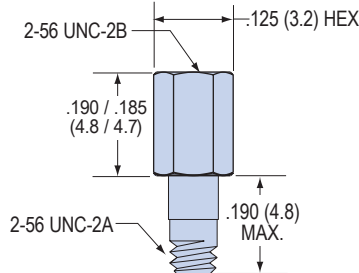


.160 (4.1) MIN. (9-69 PINS)  
.225 (5.7) MIN. (75 - 130 PIN)

**PU Style**

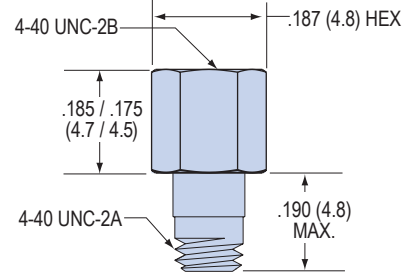
Jackpost with Threaded Insert

### 9 – 69 Contacts

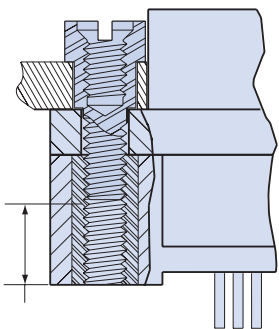


Kit Part Number **500-063-1**  
Kit Consists of Two Jackposts

### 75 – 130 Contacts



Kit Part Number **500-063-2**  
Kit Consists of Two Jackposts

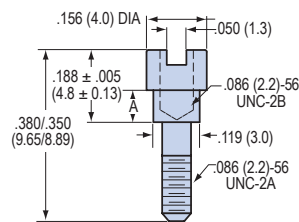


.160 (4.1) MIN. (9-69 PINS)  
.225 (5.7) MIN. (75 - 130 PINS)

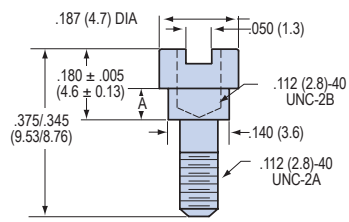
**RU Style**

Jackpost For Rear Panel Mounting,  
with Threaded Insert

### 9 – 69 Contacts

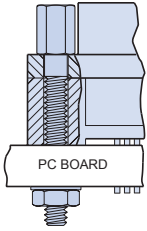


### 75 – 130 Contacts



Hardware Option	Panel Thickness	Part Number	A ± .003 (0.08)	Hardware Option	Panel Thickness	Part Number	A ± .003 (0.08)
R2U	1/32 (0.8)	177-505-A-2-2	.024 (0.6)	R2U	1/32 (0.8)	177-505-D-4-2	.024 (0.6)
R3U	3/64 (1.2)	177-505-A-2-3	.041 (1.0)	R3U	3/64 (1.2)	177-505-D-4-3	.041 (1.0)
R4U	1/16 (1.6)	177-505-A-2-4	.055 (1.4)	R4U	1/16 (1.6)	177-505-D-4-4	.055 (1.4)
R5U	3/32 (2.4)	177-505-A-2-5	.086 (2.2)	R5U	3/32 (2.4)	177-505-D-4-5	.086 (2.2)
R6U	1/8 (3.2)	177-505-A-2-6	.118 (3.0)	R6U	1/8 (3.2)	177-505-D-4-6	.118 (3.0)
R7U	5/64 (2.0)	177-505-A-2-7	.073 (1.9)	R7U	5/64 (2.0)	177-505-D-4-7	.073 (1.9)

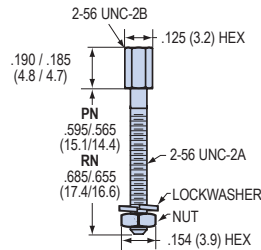
**MICRO-D CBS Board Mount Connector Hardware Options**



**PN Style**  
for .062" PCB

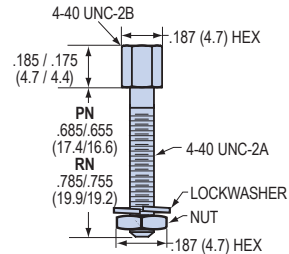
**RN Style** for .196"  
PCB  
Jackpost Kit

**9 – 69 Contacts**

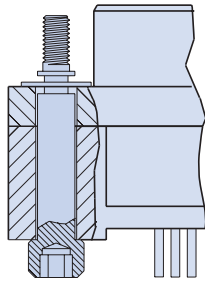


PN Kit Part Number **500-069-2-6**  
RN Kit Part Number **500-069-2-7**  
Kit Consists of 2 Jackposts, 2 Nuts, 2 Washers

**75 - 130 Contacts**

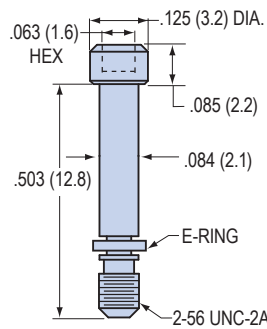


PN Kit Part Number **500-069-4-7**  
RN Kit Part Number **500-069-4-8**  
Kit Consists of 2 Jackposts, 2 Nuts, 2 Washers



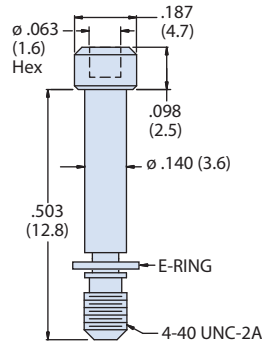
**M Style**  
Hex Head Jackscrew  
with  
E-Ring

**9 – 69 Contacts**



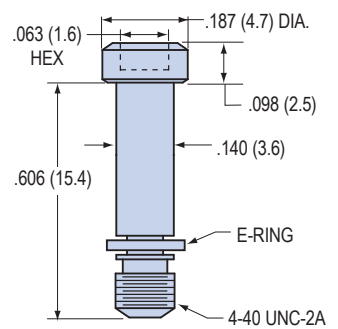
Kit Part Number **500-080-2**  
Kit Consists of 2 Jackscrews and 2 E-Rings

**75 Contacts**

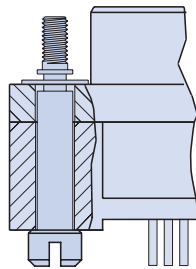


Kit Part Number **500-080-3**  
Kit Consists of 2 Jackscrews and 2 E-Rings

**100 - 130 Contacts**

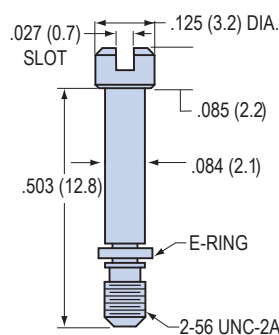


Kit Part Number **500-080-4**  
Kit Consists of 2 Jackscrews and 2 E-Rings



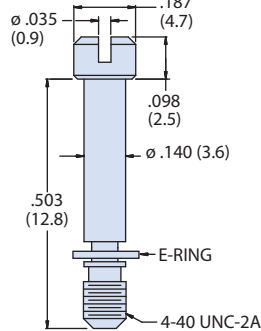
**S Style**  
Slot Head Jackscrew  
with  
E-Ring

**9 – 69 Contacts**



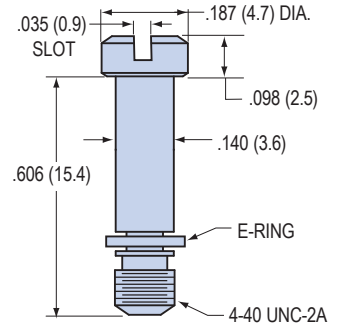
Kit Part Number **500-081-2**  
Kit Consists of 2 Jackscrews and 2 E-Rings

**75 Contacts**



Kit Part Number **500-081-3**  
Kit Consists of 2 Jackscrews and 2 E-Rings

**100 - 130 Contacts**



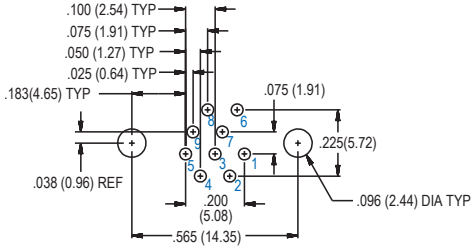
Kit Part Number **500-081-4**  
Kit Consists of 2 Jackscrews and 2 E-Rings



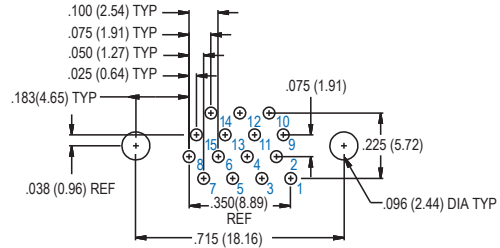
Micro-D MWDM-CBS  
Vertical Board Mount  
PCB Layouts

MICRO-D CBS Board Mount Connector PCB Layouts – Pin Connectors

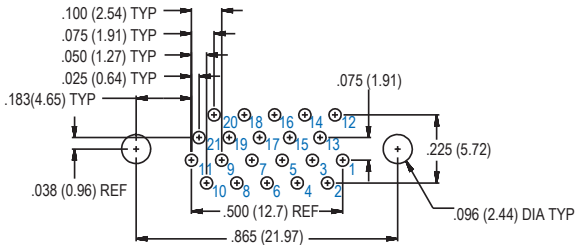
Patterns shown are for connector mounting side of PC board.



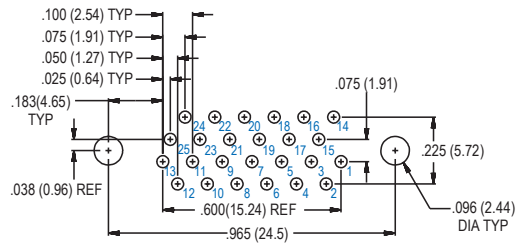
9 PIN



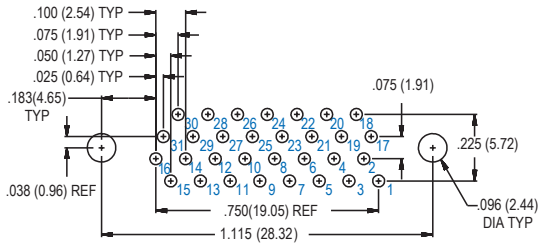
15 PIN



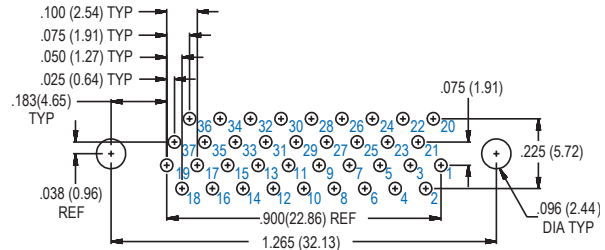
21 PIN



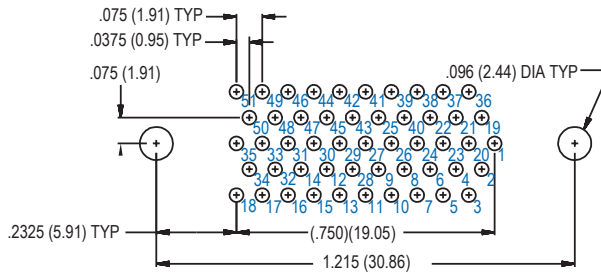
25 PIN



31 PIN



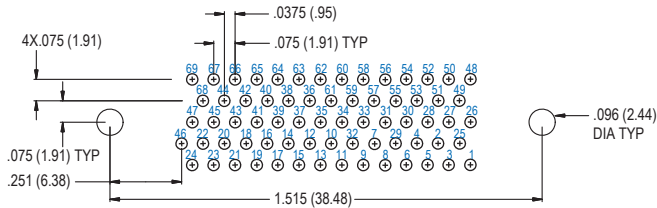
37 PIN



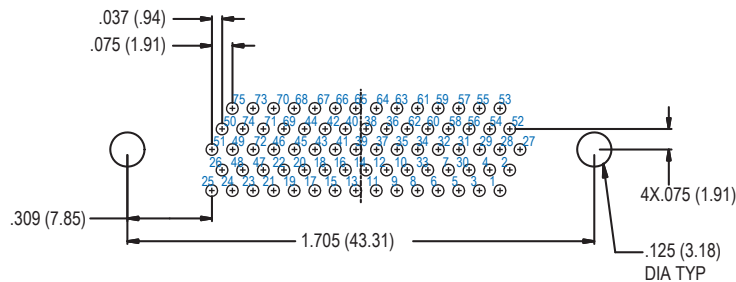
51 PIN

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

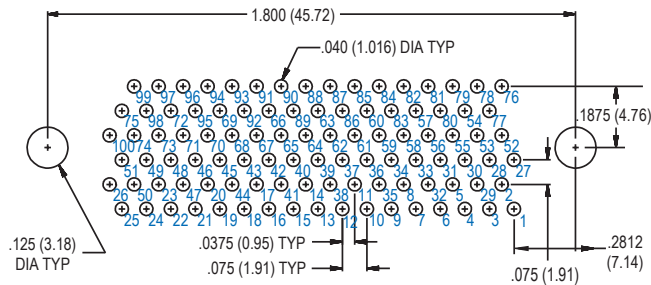
Patterns shown are for connector mounting side of PC board.



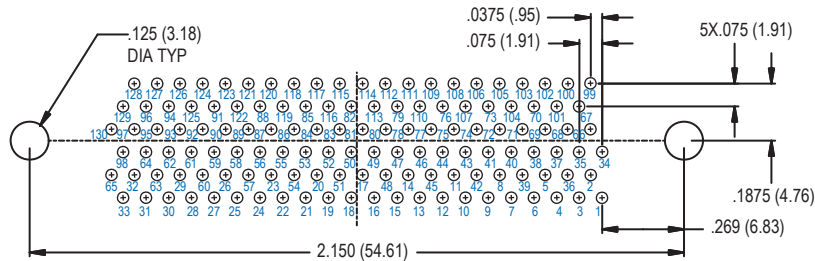
69 PIN



75 PIN



100 PIN



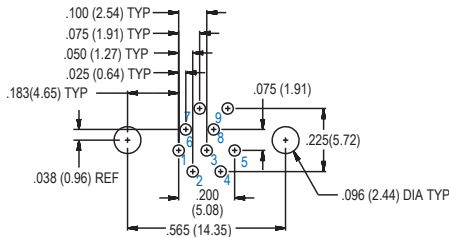
130 PIN



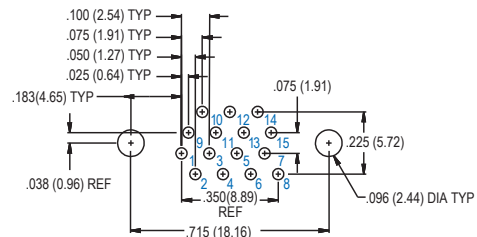
# Micro-D MWDM-CBS Vertical Board Mount PCB Layouts

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

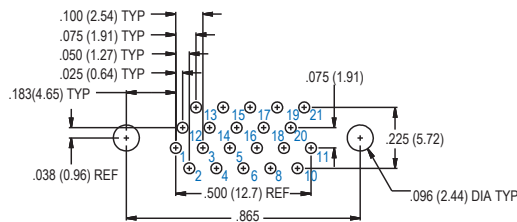
Patterns shown are for connector mounting side of PC board.



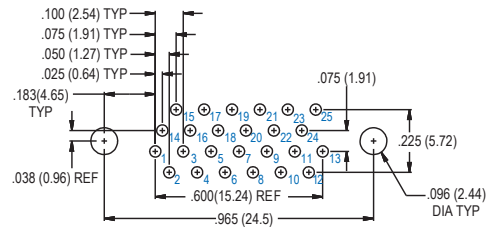
**9 SOCKET**



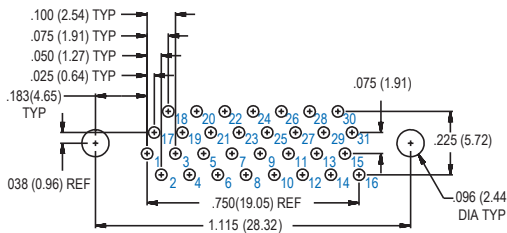
**15 SOCKET**



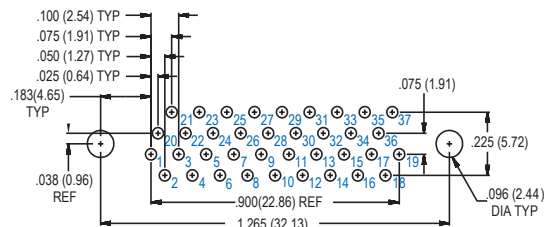
**21 SOCKET**



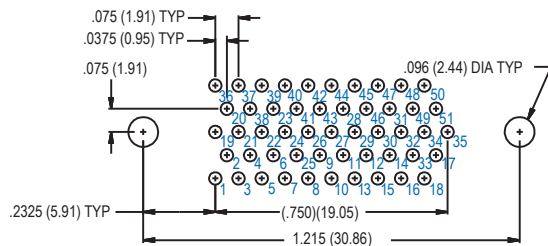
**25 SOCKET**



**31 SOCKET**



**37 SOCKET**

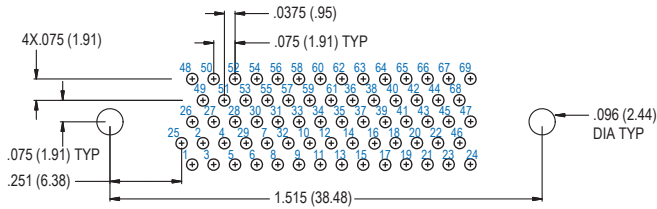


**51 SOCKET**

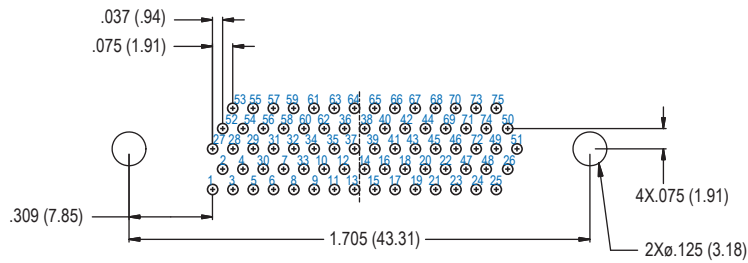


## MICRO-D CBS Board Mount Connector PCB Layouts – Socket Connectors

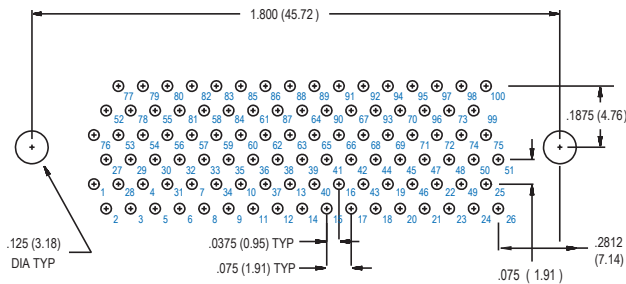
Patterns shown are for connector mounting side of PC board.



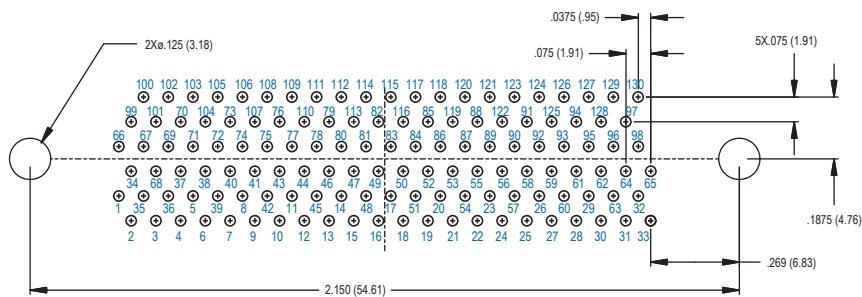
**69 SOCKET**



**75 SOCKET**



**100 SOCKET**



**130 SOCKET**