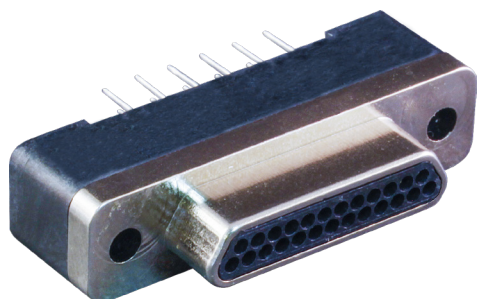




Micro-D MWDM-CBS Vertical Board Mount Printed Circuit Board Connector



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	Aluminum Shell 1 - Cadmium 2 - Nickel 4 - Black Anodize 5 - Gold 6 - Chem Film 33 - Nickel-PTFE Stainless Steel Shell 3 - Passivated 71 - Tin-Zinc 72 - Mega Nickel									
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, .125, .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

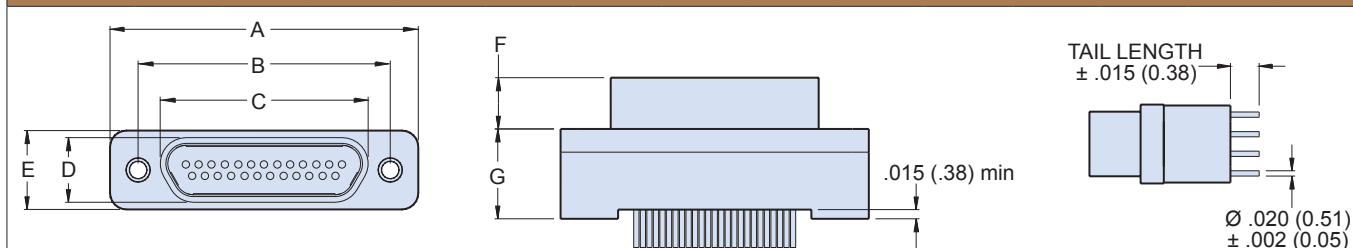
See Pages C-16 and C-17

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



Micro-D PCB

Table I: Dimensions



Layout	A Max.		B		C Max.		D Max.		E Max.		F		G Max.	
	In.	mm.	In. $\pm .005$	mm. ± 0.13	In.	mm.	In.	mm.	In.	mm.	In. $\pm .003$	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	30.10	.965	24.51	.733	18.62	.184	4.67	.310	7.87	.183	4.65	.355	9.02
25S	1.185	30.10	.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
51-2P	1.840	46.74	1.615	41.02	1.384	35.15	.184	4.67	.310	7.87	.183	4.65	.355	9.02
51-2S	1.840	46.74	1.615	41.02	1.450	36.83	.250	6.35	.310	7.87	.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)

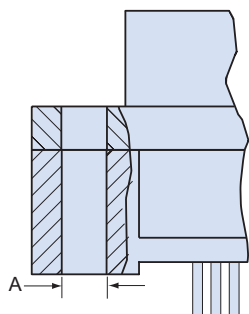
Materials and Finishes

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



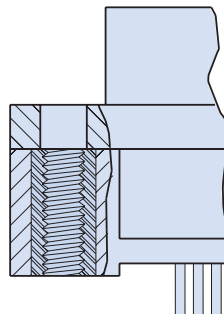
Micro-D MWDM-CBS Vertical Board Mount Hardware

MICRO-D CBS Board Mount Connector Hardware Options



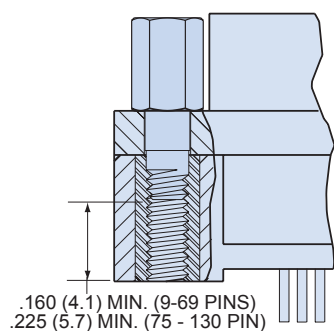
NN Style
Thru-Hole, No Hardware

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

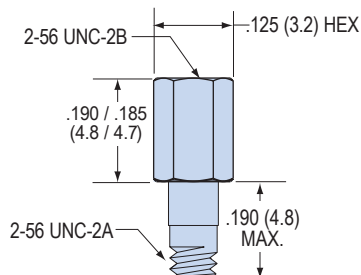
9-69 CONTACTS
NO. 2-56 UNC-2B
75-130 CONTACTS
NO. 4-40 UNC-2B



PU Style

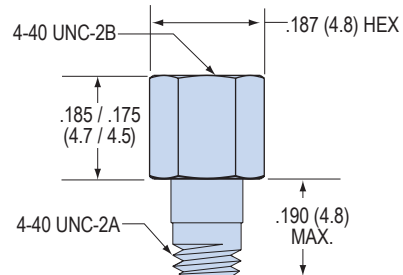
Jackpost with Threaded Insert

9 - 69 Contacts

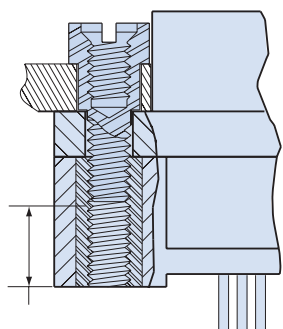


Kit Part Number **500-063-1**
Kit Consists of Two Jackposts

75 - 130 Contacts



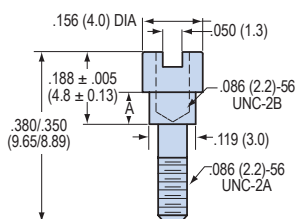
Kit Part Number **500-063-2**
Kit Consists of Two Jackposts



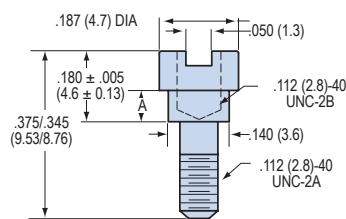
RU Style
Jackpost For Rear Panel Mounting,
with Threaded Insert

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

9 - 69 Contacts



75 - 130 Contacts



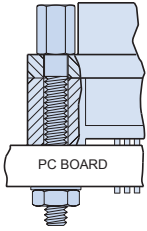
Hardware Option	Panel Thickness	Part Number	A ± .003 (0.08)	Hardware Option	Panel Thickness	Part Number	A ± .003 (0.08)
R2U	1/32 (0.8)	177-505-A-2-2	.024 (0.6)	R2U	1/32 (0.8)	177-505-D-4-2	.024 (0.6)
R3U	3/64 (1.2)	177-505-A-2-3	.041 (1.0)	R3U	3/64 (1.2)	177-505-D-4-3	.041 (1.0)
R4U	1/16 (1.6)	177-505-A-2-4	.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 MWDM-CBS Vertical Board Mount Hardware



Micro-D PCB

MICRO-D CBS Board Mount Connector Hardware Options



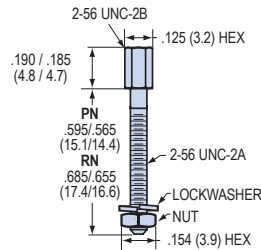
PN Style

for .062" PCB

RN Style for .196" PCB

Jackpost Kit

9 - 69 Contacts

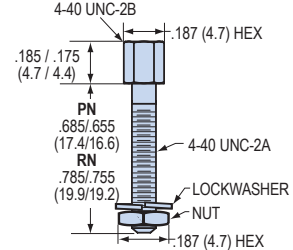


PN Kit Part Number **500-069-2-6**

RN Kit Part Number **500-069-2-7**

Kit Consists of 2 Jackposts, 2 Nuts, 2 Washers

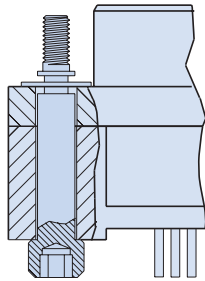
75 - 130 Contacts



PN Kit Part Number **500-069-4-7**

RN Kit Part Number **500-069-4-8**

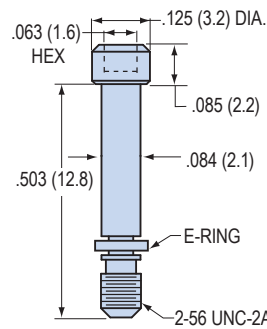
Kit Consists of 2 Jackposts, 2 Nuts, 2 Washers



M Style

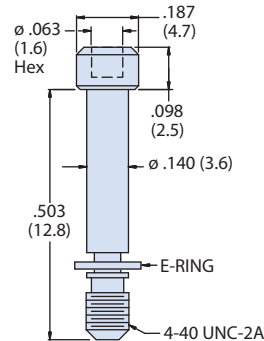
Hex Head Jackscrew
with
E-Ring

9 - 69 Contacts



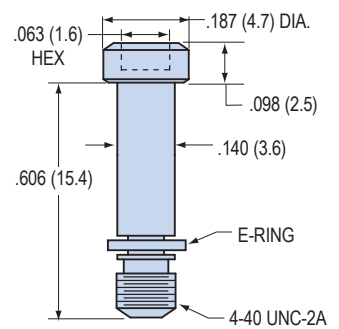
Kit Part Number **500-080-2**
Kit Consists of 2 Jackscrews and 2 E-Rings

75 Contacts

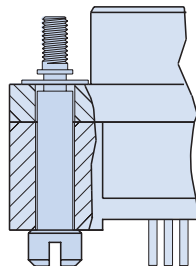


Kit Part Number **500-080-3**
Kit Consists of 2 Jackscrews and 2 E-Rings

100 - 130 Contacts



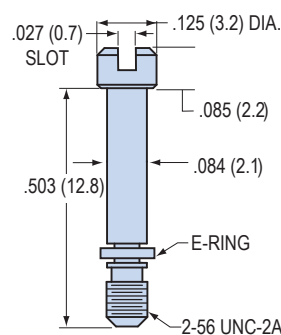
Kit Part Number **500-080-4**
Kit Consists of 2 Jackscrews and 2 E-Rings



S Style

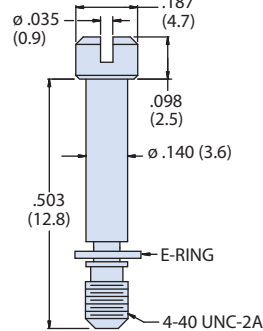
Slot Head Jackscrew
with
E-Ring

9 - 69 Contacts



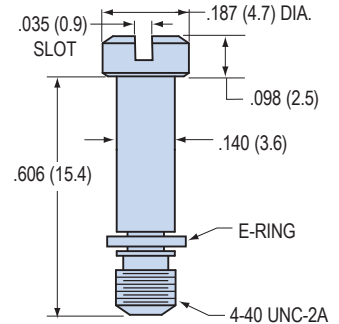
Kit Part Number **500-081-2**
Kit Consists of 2 Jackscrews and 2 E-Rings

75 Contacts



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

100 - 130 Contacts



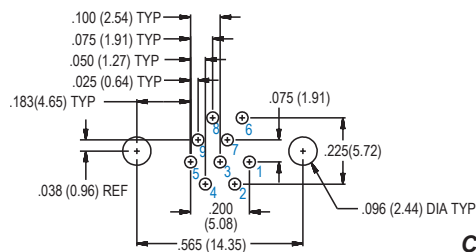
Kit Part Number **500-081-4**
Kit Consists of 2 Jackscrews and 2 E-Rings



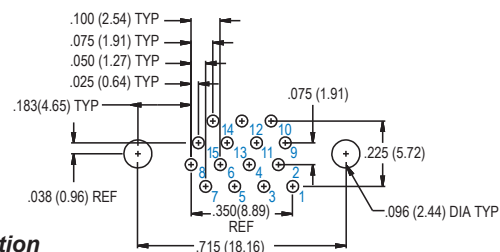
Micro-D MWDM-CBS Vertical Board Mount PCB Layouts

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

Patterns shown are for connector mounting side of PC board.

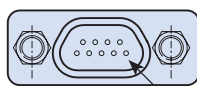


9 PIN

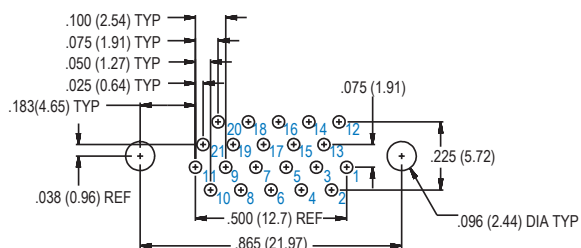


15 PIN

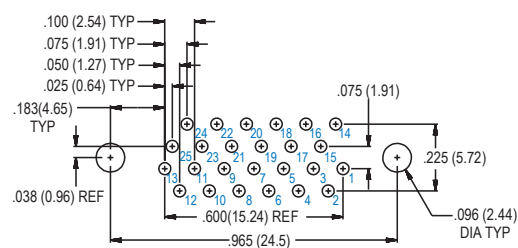
Connector Orientation



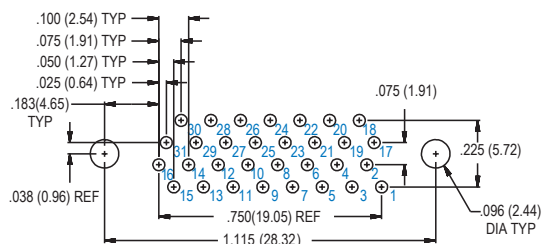
Pin #1



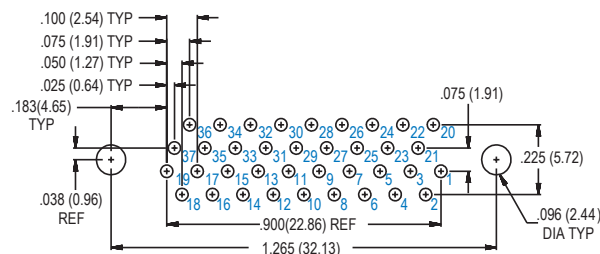
21 PIN



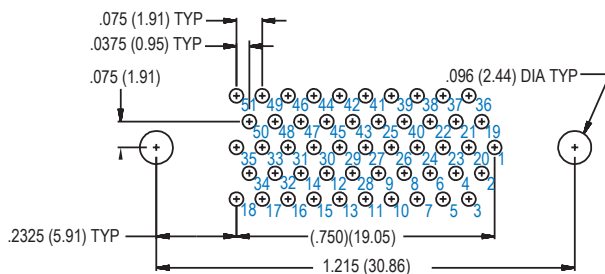
25 PIN



31 PIN



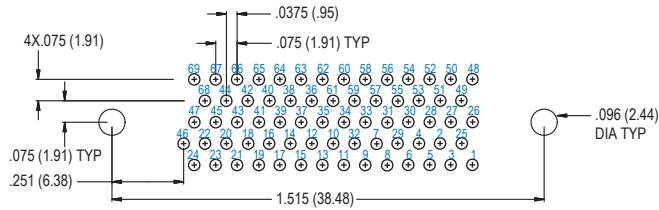
37 PIN



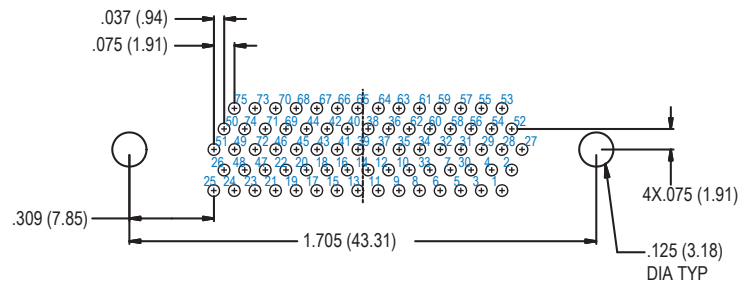
51 PIN

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

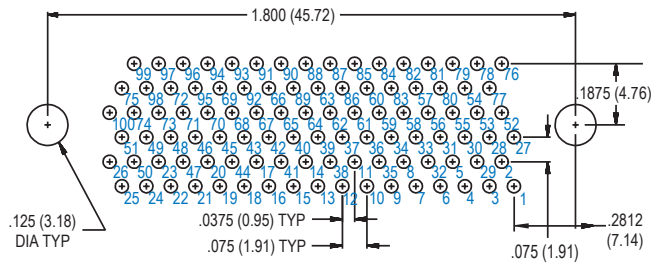
Patterns shown are for connector mounting side of PC board.



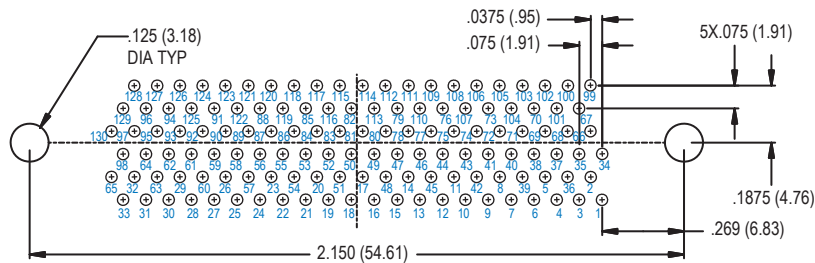
69 PIN



75 PIN



100 PIN



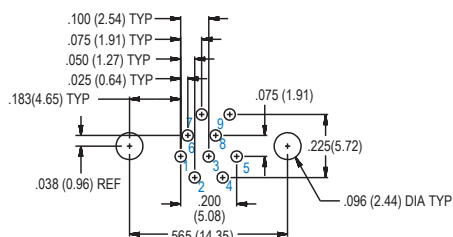
130 PIN



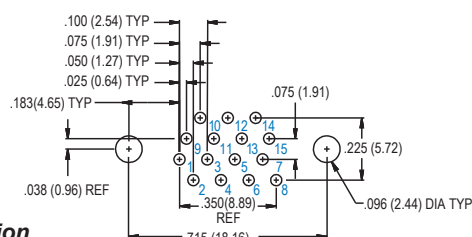
Micro-D MWDM-CBS Vertical Board Mount PCB Layouts

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

Patterns shown are for connector mounting side of PC board.

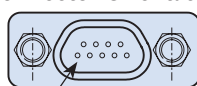


9 SOCKET

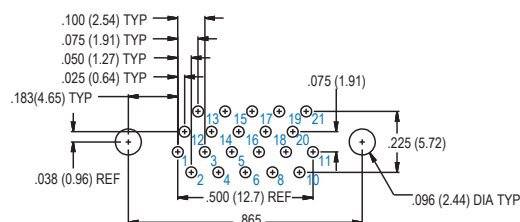


15 SOCKET

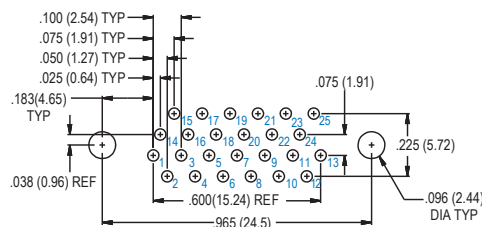
Connector Orientation



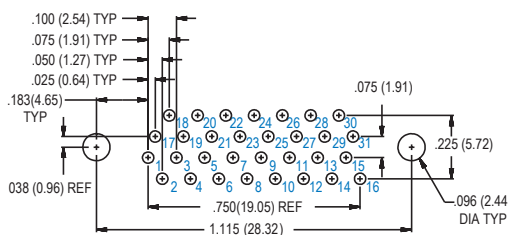
Socket #1



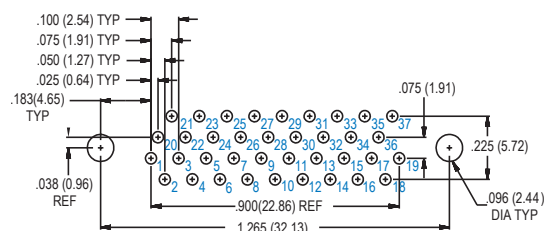
21 SOCKET



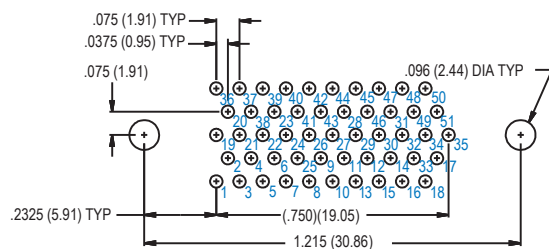
25 SOCKET



31 SOCKET



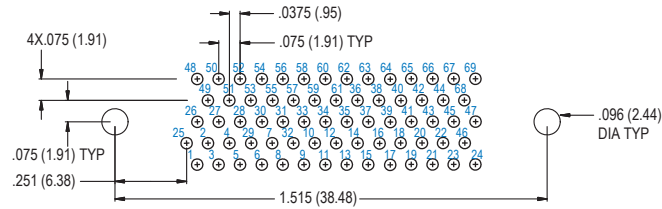
37 SOCKET



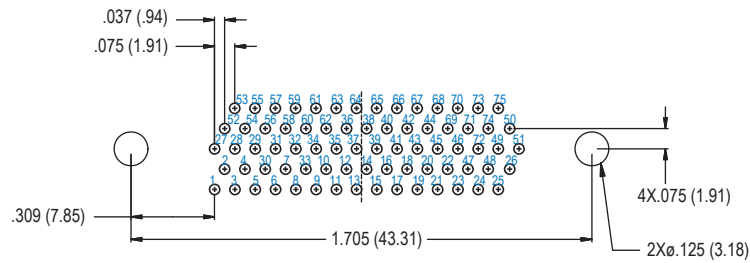
51 SOCKET

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

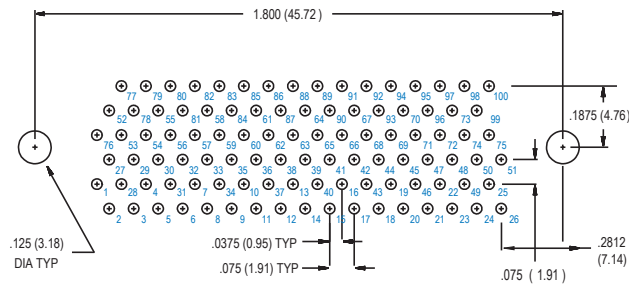
Patterns shown are for connector mounting side of PC board.



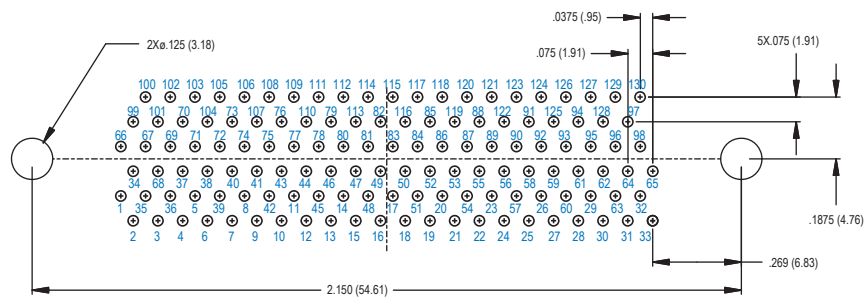
69 SOCKET



75 SOCKET



100 SOCKET



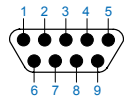
130 SOCKET



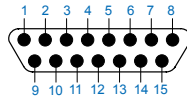
Micro-D Contact Arrangements

A

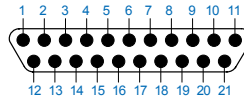
Face View Pin Connector – Micro-D Contact Arrangements



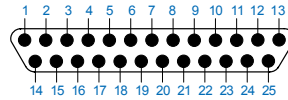
9 pin



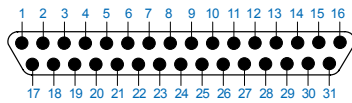
15 pin



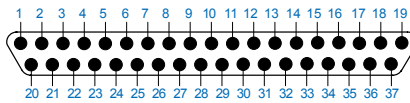
21 pin



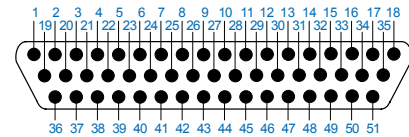
25 pin



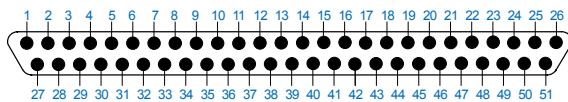
31 pin



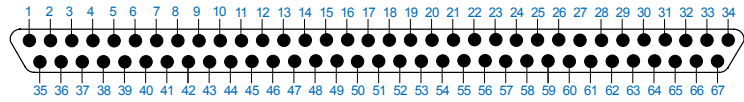
37 pin



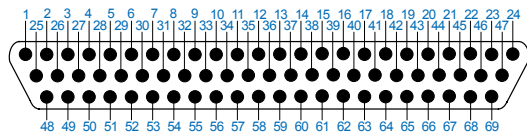
51 pin



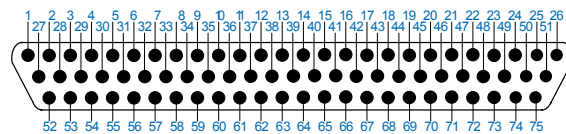
51 pin (special 2 row)



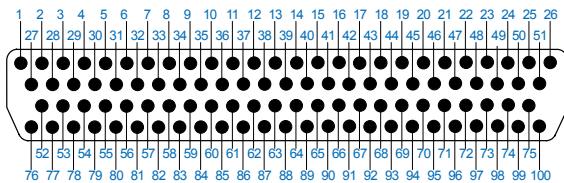
67 pin



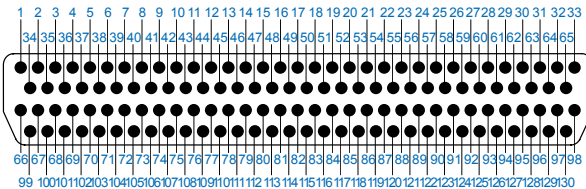
69 pin



75 pin



100 pin

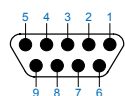


130 pin

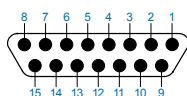
Micro-D Contact Arrangements



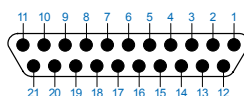
Face View Socket Connector – Micro-D Contact Arrangements



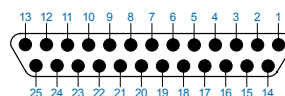
9 socket



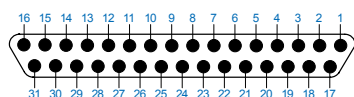
15 socket



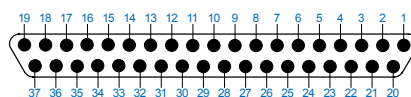
21 socket



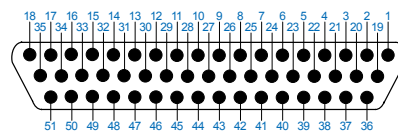
25 socket



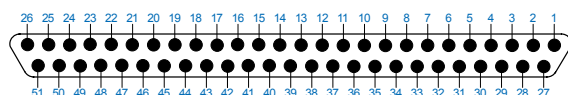
31 socket



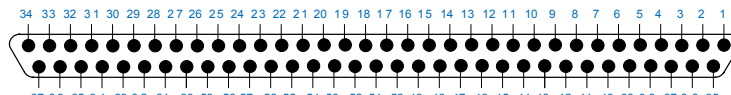
37 socket



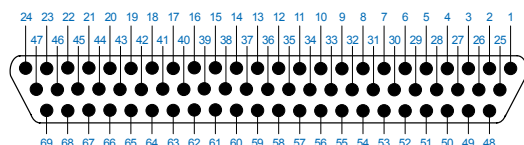
51 socket



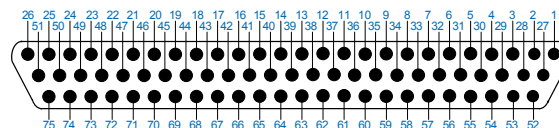
51 socket (special 2 row)



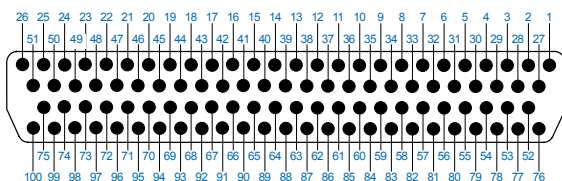
67 socket



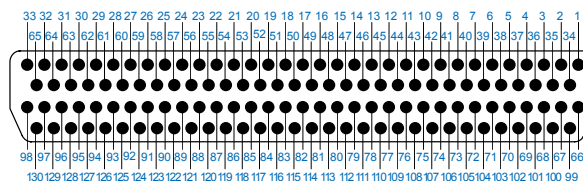
69 socket



75 socket



100 socket



130 socket