

Vertical Single Row Plated Thru Hole Metal Shell (Style 6) Connectors

Winchester Interconnect Micro offers Nano PCB Vertical Single Row Plated Thru Hole Metal Shell (Style 6) Connectors, engineered for precision and reliability in compact electronic systems. Featuring a metal shell with plated thru-hole .050 x .050 (Style 6) and a 1-piece contact design with flat tail termination, these connectors ensure efficient soldering and secure electrical performance. Operating within a temperature range of -55°C to 125°C , with high-temperature versions available up to 200°C (add HT), they are ideal for demanding environments.

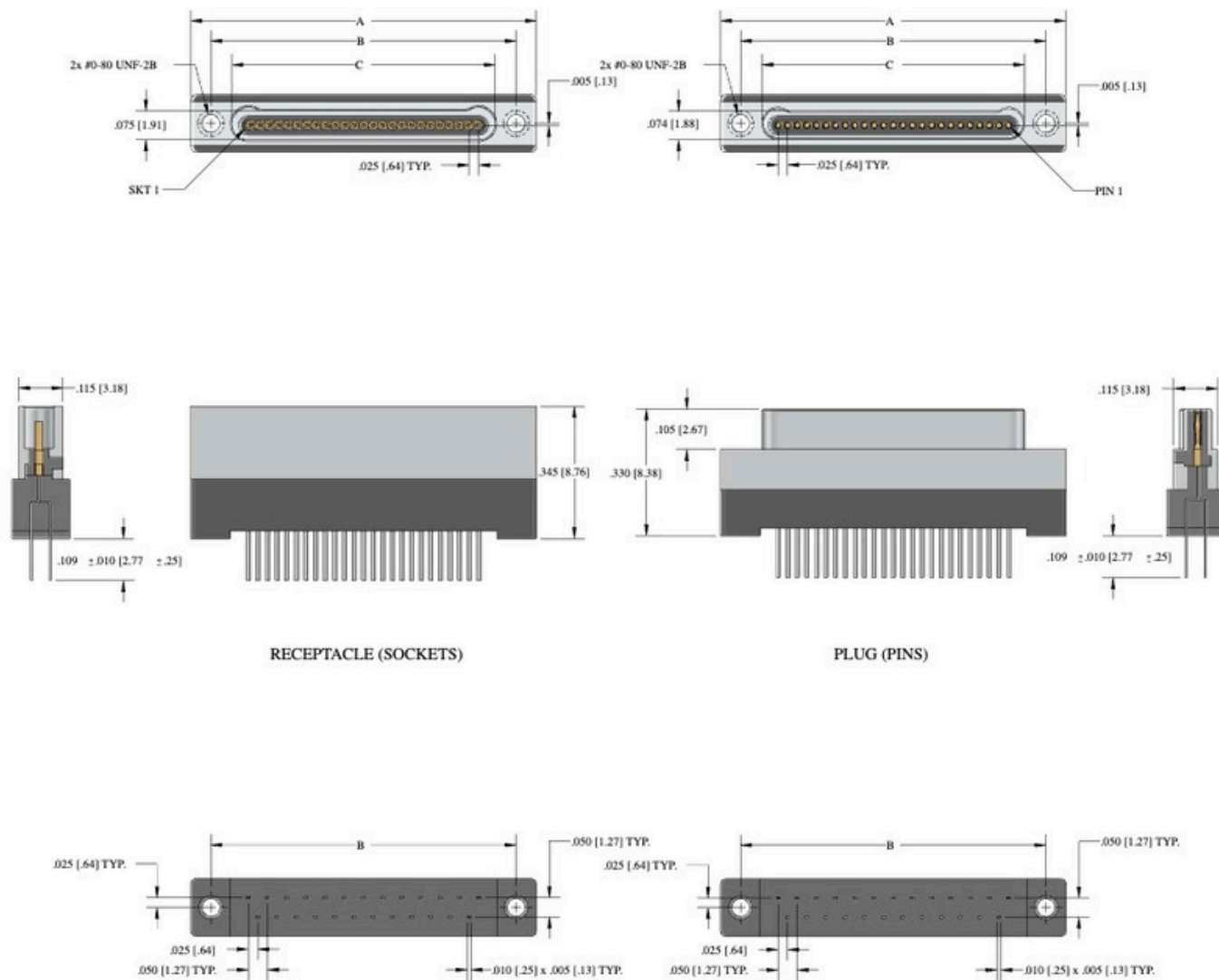


KEY FEATURES & BENEFITS

- **Durable Metal Shell** – Provides robust protection and EMI resistance in harsh environments.
- **1-Piece Contact with Flat Tail Termination** – Ensures efficient soldering and secure mechanical connection.
- **Wide Operating Range** – Performs reliably from -55°C to 125°C ; HT versions up to 200°C .
- **Flexible Contact Options** – Available with 9 to 51 contacts for varied design requirements.
- **High-Quality Materials** – C17410 Beryllium Copper used for signal pin, socket, and PC tails.
- **Superior Plating Options** – Gold contact plating per ASTM B488; PC tails plated with 60/40 Tin/Lead or Gold for optimal conductivity.
- **Ideal for Compact PCB Designs** – Offers reliable connectivity and strength in high-density layouts.

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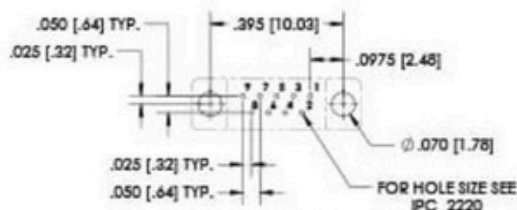
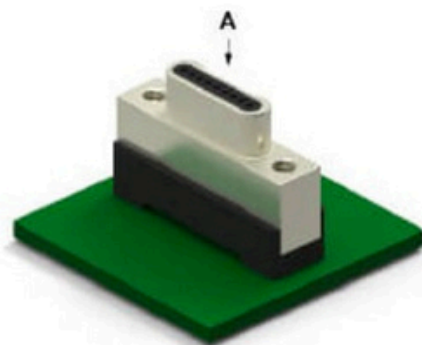
DIMENSIONAL



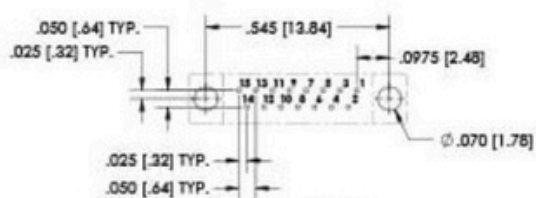
Size	A	B	C		D
			Receptacle	Plug	
9	.500 [12.70]	.395 [10.03]	.284 [7.21]	.285 [7.24]	.300 [7.62]
15	.650 [16.51]	.545 [13.84]	.434 [11.02]	.435 [11.05]	.450 [11.43]
21	.800 [20.32]	.695 [17.65]	.584 [14.83]	.585 [14.86]	.600 [15.24]
25	.900 [22.86]	.795 [20.19]	.684 [17.37]	.685 [17.40]	.700 [17.78]
31	1.050 [26.67]	.945 [24.00]	.834 [21.18]	.835 [21.21]	.850 [21.59]
37	1.200 [30.48]	1.095 [27.81]	.984 [24.99]	.985 [25.02]	1.000 [25.40]
51	1.550 [39.37]	1.445 [36.70]	1.334 [33.88]	1.335 [33.91]	1.350 [34.29]

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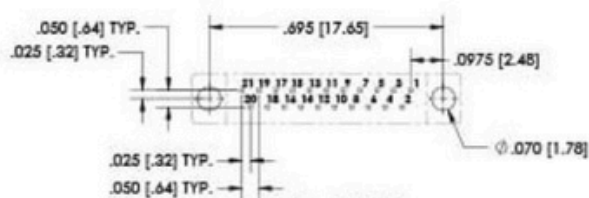
PCB – MALE



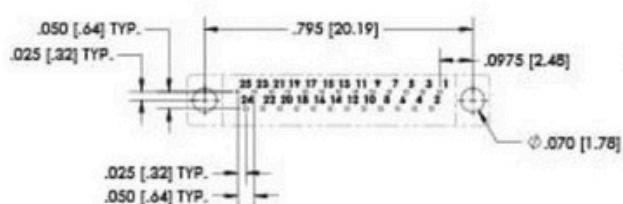
SIZE 9 - VIEW A



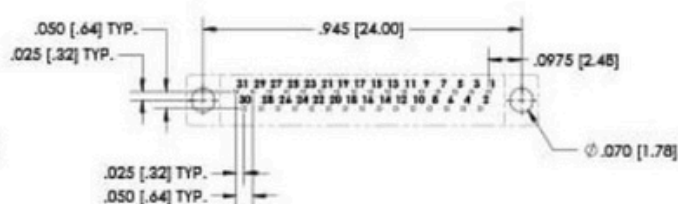
SIZE 15 - VIEW A



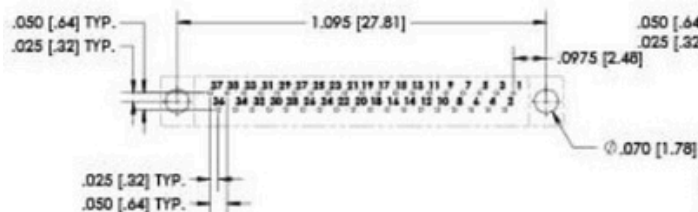
SIZE 21 - VIEW A



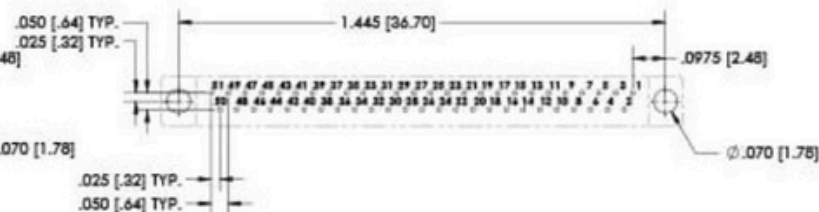
SIZE 25 - VIEW A



SIZE 31 - VIEW A



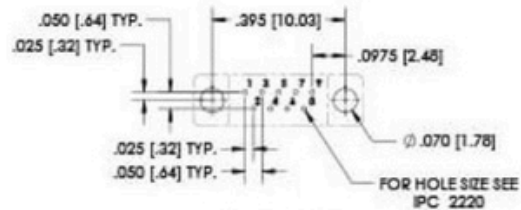
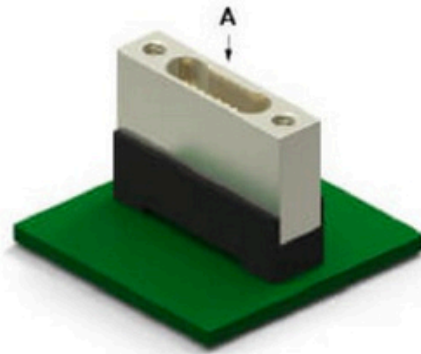
SIZE 37 - VIEW A



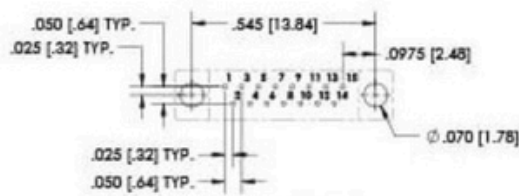
SIZE 51 - VIEW A

Nano PCB Vertical Single Row Plated Thru Hole Metal Shell (Style 6)

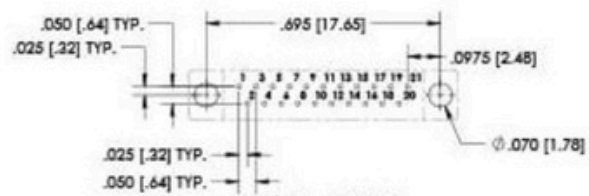
PCB – FEMALE



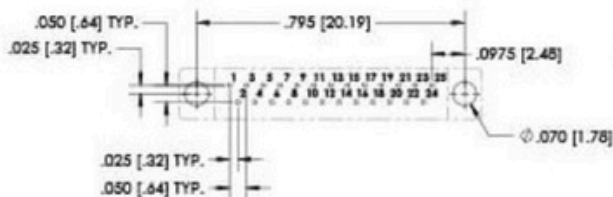
SIZE 9 - VIEW A



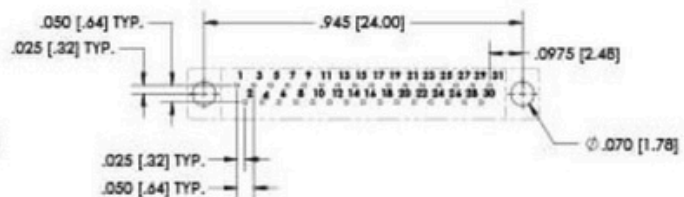
SIZE 15 - VIEW A



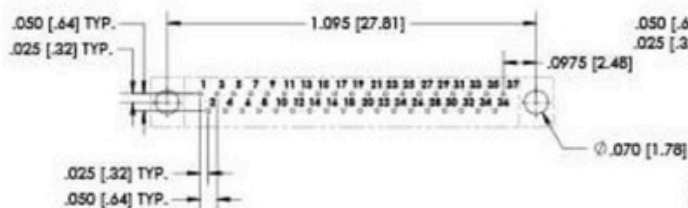
SIZE 21 - VIEW A



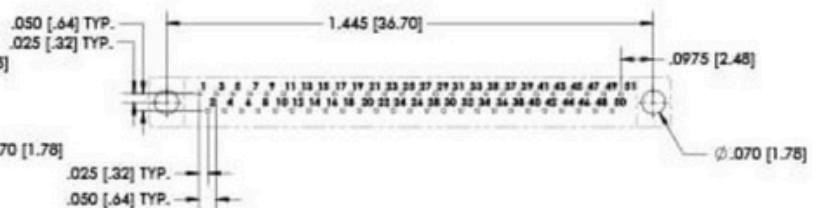
SIZE 25 - VIEW A



SIZE 31 - VIEW A



SIZE 37 - VIEW A



SIZE 51 - VIEW A

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PERFORMANCE

Electrical Properties	
Contact Resistance	33 milliohm max contact only and 87 milliohms max with 6" wire @ 1A
Current Rating	1A max.
Dielectric WithStanding Voltage	250 VAC at sea level, 100 VAC at 70,000 feet. 1mA leakage current max.
Insulation Resistance	100 VDC and 5000 Megohms min.

Mechanical	
Engaging Force	5 oz max.
Separation Force	.4 oz min.
Mating/Unmating Force	7 oz x # of contacts max.
Vibration	EIA-364-28 Condition IV, 1 microsecond max discontinuity
Shock	EIA-364-27 Condition G, 1 microsecond max discontinuity
Durability	EIA-364-09, 200 matings, passes Mating Force, CR, Eng and Sep Forces
Salt Spray	EIA 364-26 Condition B-48 hours

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MATERIALS

Materials and Finishes	
Signal Pin Contacts	C17410 Beryllium Copper per ASTM B768
Signal Socket Contacts	C17410 Beryllium Copper per ASTM B768
Contact Plating	Gold Plating per ASTM B488
PC Tails	C17410 Beryllium Copper per ASTM B768
PC Tail Plating	60/40 Tin/Lead plating per SAE-AMS-P-81728, or Gold plating per ASTM B488
Shell	LCP(Liquid Crystal Polymer) GLCP-30F or PPS per MIL-M-24519 GST-40F
Insulator Material	LCP(Liquid Crystal Polymer) GLCP-30F or PPS per MIL-M-24519 GST-40F
Hardware	300 Series Stainless Steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

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HOW TO ORDER

Nano Circuit Series Engineering Number Definitions

Nano Circuit Series	CN	M	6	L	25	-	2	P	07	1	-	0.140	-	S01	-	HT	-	1	SPL
Shell Material																			
M = Metal Shell																			
P = Plastic Shell																			
Termination Style																			
4 = Flex Circuit																			
6 = Vertical PC tails																			
8 = Right Angle PC Tails																			
26 = Vertical SMT																			
28 = Right Angle SMT																			
36 = Low Profile Vertical SMT (Male Only)																			
38 = Extended Profile RA SMT (Female Only)																			
Insulator Material																			
L = LCP																			
Size (No. of Contacts)																			
09, 15, 21, 25, 31, 37, 51, 65, & 69																			
Insulator Type																			
1 = Single Row (Up to size 51)																			
2 = Dual Row																			
Contact Type																			
P = Pin, Integral Flat Tail																			
S = Socket, Integral Flat Tail																			
Mating Hardware																			
0 = No Hardware																			
01 = Phillips Head Jackscrews																			
02 = Hex Head Jackscrews																			
03 = Thumb Jackscrew																			
05 = Slotted Head Jackscrews																			
06 = Floating Phillips Head Jackscrews (Female Only)																			
07 = Threaded Hole																			
08 = Floating (Retractable) Hex Head Jackscrews (Female Only)																			
09 = Floating (Retractable) Slotted Head Jackscrews (Female Only)																			
Special designator - SPL																			
SPL is to be added to the end of the part number if the connector cannot be fully defined by the rest of the engineering number																			
PCB Mounting Options (Style 8, 28, & 38 Only)																			
Blank = Threaded Mounting Holes																			
1 = Alignment Posts with Threaded Mounting Holes																			
2 = Clearance Mounting Holes																			
3 = Alignment Posts with Clearance Mounting Holes																			
4 = Solder Posts (Style 6, 8, 26, 28, 36, & 38)																			
Temperature Rating (Omit for standard Temp, 125°C)																			
Blank = 125°C																			
HT = 200°C																			
LO = 4 Kelvin																			
Shell Plating or Material (Omit for plastic shell or cadmium plating)																			
Blank = Cadmium																			
S01 = Electroless Nickel																			
S02 = Chem Film																			
S03 = Black Anodized																			
S04 = Gold																			
S05 = Titanium																			
S06 = Olive-Drab Cadmium																			
S07 = Black Nickel																			
S08 = Nickel-PTFE																			
S09 = Stainless Steel, Passivated																			
S10 = Zinc Nickel																			
Lead Length (Style 6 and 8 Only)																			
Blank = 0.109																			
Other Lengths = 0.140 & 0.172																			
(Consult Factory for Additional Lengths)																			
Board Thickness (Style 4 Only)																			
Blank = .010																			
Other Panel Thicknesses 0.030 & 0.054																			
(Consult Factory for Additional Thicknesses)																			
Lead Plating																			
1 = Tin/Lead (minimum 3% Lead) plated (Not RoHS Compliant) (Not Available with high temp (HT) connectors)																			
2 = Gold Plated (RoHS Compliant)																			