# DUAL ROW VERTICAL SMT (TYPE VV)

As electronic devices scale down, Omnetics is ready with ever-smaller connectors designed to offer exceptional performance in reduced package sizes. Our **Vertical SMT Bi-Lobe**® nano connectors require minimal board space on flex circuits and printed circuit boards. These connectors feature Omnetics' highly reliable Flex Pin contact system and are available with threaded mounting holes and retention screws. Omnetics' Vertical SMT Type VV Bi-Lobe® nano connectors are available in a wide range of configurations to meet the needs of a variety of critical applications. These connectors are available in standard sizes ranging from 9 through 91 positions, as well as custom configurations.
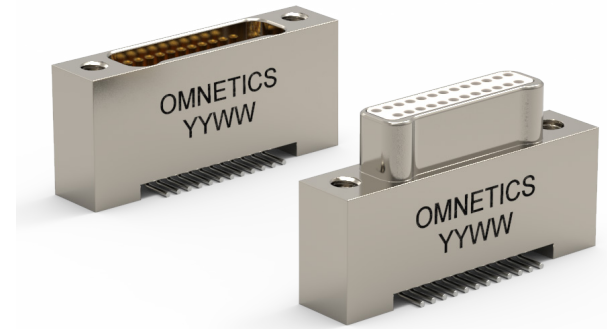
Electro-Mechanical Specifications

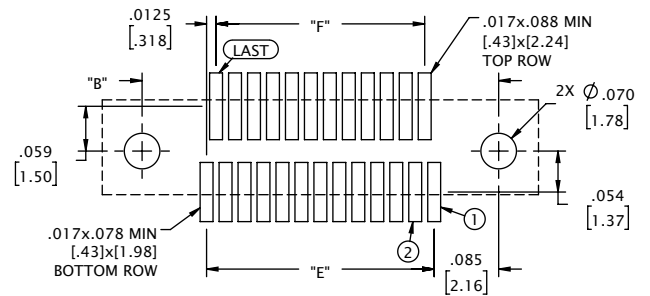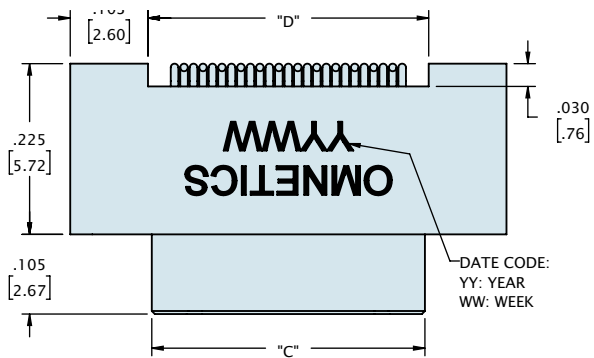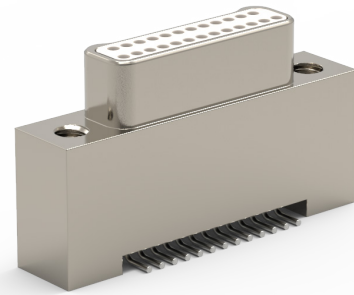| TYPE	PERFORMANCE
Durability	> 2000 Mating Cycles min
Temperature	-55ºC to +125 ºC (200 ºC w/HTE)
Current rating	1 Amp per contact
Voltage Rating (DWV)	250 VAC RMS Sea Level
Insulation Resistance	5,000 Megohms @ 100 VDC
Shock	100 g's discontinuity < 10 nanoseconds
Vibration	20 g's discontinuity < 10 nanoseconds
Thermal Vacuum Outgassing	1.0% max TML, 0.1% VCM
Contact Resistance	87 milliohms (87 mV) max @ 1 Amp
Mating/Unmating Force	2.5 oz. (.71g) typical per contact

Material Specifications

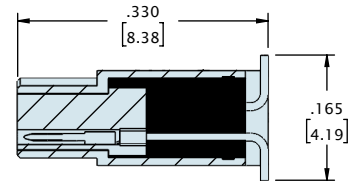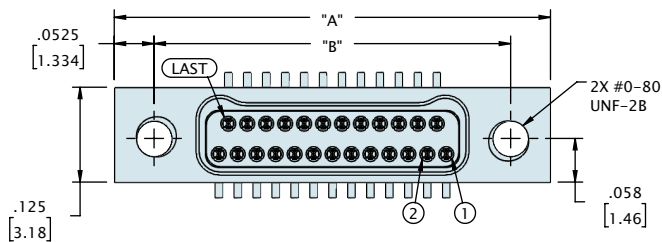| TYPE	PERFORMANCE
Contact	Copper Alloy Per MIL-DTL-32139
Contact Finish	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
Insulator	Thermoplastic per MIL-M-24519
Encapsulant	Epoxy

Shell Options

TYPE	PERFORMANCE
Aluminum 6061	Electroless Nickel per SAE-AMS-2404
Stainless Steel, 300 Series	Passivated per SAE-AMS-2700

.0125
[.318]

LAST

"B"

.059
[1.50]

.017x.078 MIN
[.43]x[1.98]
BOTTOM ROW

"F"

.017x.088 MIN
[.43]x[2.24]
TOP ROW

2X ∅ .070
[1.78]

.054
[1.37]

"E"

.085
[2.16]

SUGGESTED PAD LAYOUT
(VIEW FROM MOUNTING SIDE OF BOARD)

.105
[2.60]

"D"

.030
[.76]

.225
[5.72]

DATE CODE:
YY: YEAR
WW: WEEK

.105
[2.67]

"C"

.0525
[1.334]

"A"

"B"

LAST

2X #0-80
UNF-2B

.125
[3.18]

.058
[1.46]

.330
[8.38]

.165
[4.19]

CONTACTS	"A"	"B"	"C"	"D"	"E"	"F"
09	.375 [9.53]	.270 [6.86]	.160 [4.06]	.170 [4.32]	.100 [2.54]	.075 [1.91]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.245 [6.22]	.175 [4.45]	.150 [3.81]
21	.525 [13.34]	.420 [10.67]	.310 [7.87]	.320 [8.13]	.250 [6.35]	.225 [5.72]
25	.575 [14.61]	.470 [11.94]	.360 [9.14]	.370 [9.40]	.218 [5.54]	.193 [4.90]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.445 [11.30]	.375 [9.53]	.350 [8.89]
37	.725 [18.42]	.620 [15.75]	.510 [12.95]	.520 [13.21]	.450 [11.43]	.425 [10.80]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]	.695 [17.65]	.625 [15.88]	.600 [15.24]
65	1.075 [27.31]	.970 [24.64]	.860 [21.84]	.870 [22.10]	.800 [20.32]	.775 [19.69]
69	1.125 [28.58]	1.020 [25.91]	.910 [23.11]	.920 [23.37]	.850 [21.59]	.825 [20.96]
85	1.325 [33.66]	1.220 [30.99]	1.110 [28.19]	1.120 [28.45]	1.050 [26.67]	1.025 [26.04]
91	1.452 [36.88]	1.321 [33.55]	1.185 [30.10]	1.195 [30.35]	1.125 [28.58]	1.100 [27.94]

DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY