

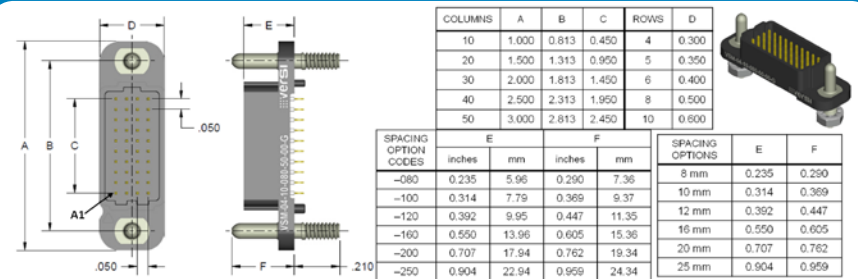


VSM – Vertical (Male)

Pitch: 1.27 mm

VSM signal-integrity connectors are used in vertical, PCB-mount applications where a male interface is required. Termination styles include press-fit, paste-in-hole, plated thru-hole, and surface-mount.

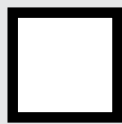
DIMENSIONS



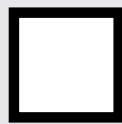
Sample Part Number Format: VSM-04-10-080-50-02-G



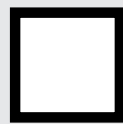
SERIES
Vertical (Male)
1.27 mm



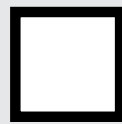
ROWS
04 – 4 Rows
05 – 5 Rows
06 – 6 Rows
08 – 8 Rows
10 – 10 Rows



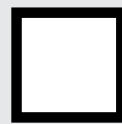
COLUMNS
10 – 10 Columns
20 – 20 Columns
30 – 30 Columns
40 – 40 Columns
50 – 50 Columns



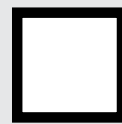
BOARD SPACING*
080 – 8 mm
100 – 10 mm
120 – 12 mm
160 – 16 mm
200 – 20 mm
250 – 25 mm



CONTACT PLATING
50 – 50 μ" Au



TERMINATION
00 – Press-fit
01 – Paste-In-hole
02 – PTH 0.078"
03 – PTH 0.109"
04 – PTH 0.140"
05 – PTH 0.156"
06 – PTH 0.172"
10¹ – SMT - SN63PB37
Solder Dipped
11¹ – SMT -
42Sn/57.6Bi/0.4Ag
lead free, solder
dipped



OPTIONS
Blank – No options[†]
G – Guide pin¹
G1 – Guide pin²
J – Turning jackscrew¹
J1 – Turning jackscrew²
L – Locking screw¹
L1 – Locking screw²
N – Fixed jacknut¹
N1 – Fixed jacknut²

NOTES

Connector potting is standard.

* Consult factory for additional board spacing options.

¹ Used for PC board thickness up to 0.125"

² Used for PC board thickness 0.125" up to 0.250"

[†] Surface Mount Termination only available on 4 Row vertical connectors.

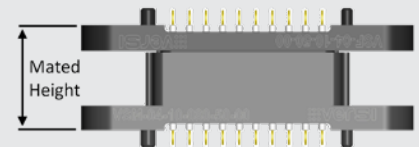
* No hardware supplied with blank hardware option connectors.

AirBorn can manufacture other configurations to your exact specifications.

RoHS Compliant (except for termination option 10); certificate of conformance available upon request with each shipment

BOARD SPACING		MATED HEIGHT (in)
VALUE	CODE	NOMINAL
8 mm	080	0.315
10 mm	100	0.394
12 mm	120	0.473
16 mm	160	0.630
20 mm	200	0.788
25 mm	250	0.985

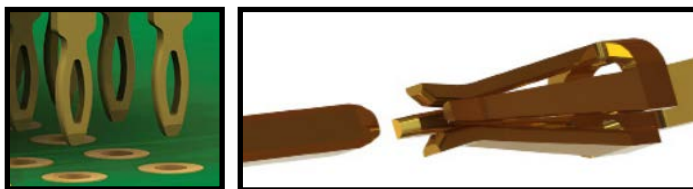
Max allowable separation between mating faces is 0.035 inches.



PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

FEATURES

verSI board-mount connectors feature low mating force/high-reliability contact system with four points of contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design. Guide hardware is optional.



MATERIALS and FINISHES

Pin Contacts: Phos bronze per ASTM B103 or BeCu per ASTM B768 (press-fit contact)
Contact Finish: Localized gold finish per ASTM B488 over nickel per ASTM B689 Type I, 50 μIN min

Molded Insulators: Glass-filled liquid crystal polymer (LCP) per ASTM D5138

Potting Compound: Frey Eng. Co. insulating compound CF3003-80

Hardware (except washers): Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320 passivated per SAE AMS-2700, Method 1, Type 2

Washers: Stainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)

Solder Paste: Sn63Pb37 (PN WS483) and 42Sn/57.6Bi/0.4Ag (PN ALPHA CVP-520)

SI DATA – Simulated (Connectors Only)

1	Diff. Insertion Loss	-0.25 dB @ 5 GHz	-3dB @ 16 GHz
2	Diff. Return Loss	-20 dB @ 5 GHz	-6 dB @ 14 GHz
3	Diff. Impedance	100 ohm ±10% @ 50 ps rise time	
4	Diff. Skew	< 2 psec	

PERFORMANCE

Contact Rating: 2 amperes maximum
Operating Temperature: -55° C to 125° C
Min. Contact Wipe: 1.27 mm (0.050")
Contact Normal Force: 35–40 grams
Max Recommended Voltage: 200 V, RMS, 60 Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 2500 connector mating cycles
Sinusoidal Vibration: 20 g (EIA-364-28, condition IV)
Shock: 50 g (EIA-364-27, condition E)

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

AirBorn:

[VSM-04-10-100-50-00-G](#) [VSM-04-10-080-50-01-J](#) [VSM-06-30-080-50-00-J](#) [VSM-05-10-100-30-03-N](#) [VSM-06-30-120-30-03-G](#) [VSM-04-20-080-50-03-G](#) [VSM-06-10-100-50-00-G](#) [VSM-04-30-120-50-00-N](#) [VSM-04-10-080-50-03-G](#) [VSM-04-50-160-50-00-G](#) [VSM-04-20-100-50-00-G](#) [VSM-05-10-120-30-04-G](#) [VSM-04-20-080-50-01-N](#) [VSM-04-50-160-50-00](#) [VSM-04-30-120-50-00](#) [VSM-04-50-080-30-00-G](#) [VSM-04-10-080-30-04-G](#) [VSM-04-30-100-50-04-J](#) [VSM-04-50-080-50-00-N](#) [VSM-04-30-200-30-04-G](#) [VSM-10-30-250-50-00-G](#) [VSM-04-30-200-50-04-G](#) [VSM-04-20-080-50-04-N](#) [.vsm-05-20-200-50-00-g](#) [vsm-05-20-200-50-00-g1](#) [VSM-10-20-080-50-00-J](#) [VSM-05-10-100-50-03-N](#)