

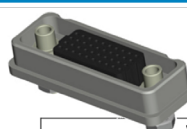
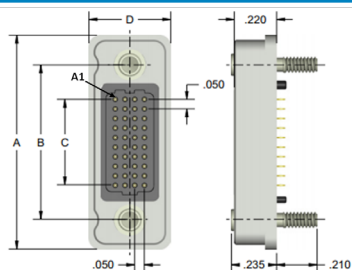


VRF – Vertical Rugged

Pitch: 1.27 mm

VRF signal-integrity connectors are ruggedized versions of the standard VSF female connectors. These connectors can be used in extreme environmental conditions while maintaining high reliability and continuous performance.

DIMENSIONS



VRF DIMENSIONS					
Columns	A	B	C	Rows	D
10	1.125	0.813	0.450	4	0.425
20	1.625	1.313	0.950	5	0.475
30	2.125	1.813	1.450	6	0.525
40	2.625	2.313	1.950	8	0.625
50	3.125	2.813	2.450	10	0.725

Sample Part Number Format: VRF-04-10-50-04-J



SERIES
Vertical Rugged
(Female)
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



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"
10† – SMT - SN63PB37
Solder Dipped
11† – SMT - 42Sn/57.6Bi/0.4Ag
lead free, solder dipped



OPTIONS
Blank – No hardware†
G – Guide socket†
G1 – Guide socket†
J – Turning jackscrew†
J1 – Turning jackscrew†
L – Locking screw†
L1 – Locking screw†
N – Fixed jacknut†
N1 – Fixed jacknut†
E – No hardware/EMI gasket†
GE – Guide socket/EMI gasket†
G1E – Guide socket/EMI gasket†
JE – Turning jackscrew/EMI gasket†
J1E – Turning jackscrew/EMI gasket†
LE – Locking screw/EMI gasket†
L1E – Locking screw/EMI gasket†
NE – Fixed jacknut/EMI gasket†
N1E – Fixed jacknut/EMI gasket†

NOTES

Connector potting is standard.

† Used for PC board thickness up to 0.125"

‡ 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.

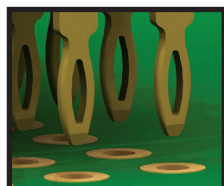
AirBorn can manufacture other configurations to your exact specifications.

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

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

Shell: Aluminum alloy 6061-T6 per SAE AMS 4027 or 6061-T6511 per QQ-A-200/8
Finish: Electroless nickel per SAE AMS-2404, Class 3; 500 μ IN min
Socket Contact: BeCu per ASTM B194
Contact Finish: Localized gold finish per ASTM B488 over nickel per ASTM B689 Type I, 50 μ IN 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, 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)
EMI Gasket (GE, G1E, NE and N1E options only): Conductive Elastomer per MIL-DTL-83528 Type D
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 $\pm$ 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 megaohms 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:

[VRF-05-20-50-00-N](#) [VRF-04-20-50-00-G](#) [VRF-04-10-50-04-G](#) [VRF-06-20-50-01-G](#) [VRF-04-20-50-03-G](#) [VRF-06-40-50-05-N](#) [VRF-06-50-50-05-N](#) [VRF-04-10-50-00-G](#) [VRF-04-50-50-04-G](#) [VRF-06-10-50-05-N](#) [VRF-04-10-50-03-G](#)
[VRF-04-10-50-02-N](#)