



VRRAF – Rugged Right Angle (Female)

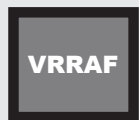
Pitch: 1.27 mm

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

DIMENSIONS

VRRAF DIMENSIONS							
Columns	A	B	C	Rows	D	E	F
10	1.125	0.813	0.450	4	0.438	0.698	0.714
20	1.625	1.313	0.950	5	0.488	0.748	0.764
30	2.125	1.813	1.450	6	0.538	0.798	0.814
40	2.625	2.313	1.950	8	0.638	0.898	0.914
50	3.125	2.813	2.450	10	0.738	0.998	1.014

Sample Part Number Format: VRRAF-04-10-50-00-G



SERIES
 Rugged Right Angle (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"



OPTIONS
 Blank – Standard¹
 G – Guide socket¹
 N – Fixed jacknut¹
 J – Turning jackscrew²
 L – Locking screw²
 E – Standard/EMI gasket¹
 GE – Guide socket/EMI gasket¹
 NE – Fixed jacknut/EMI gasket¹
 JE – Turning jackscrew/EMI gasket²
 LE – Locking screw/EMI gasket²

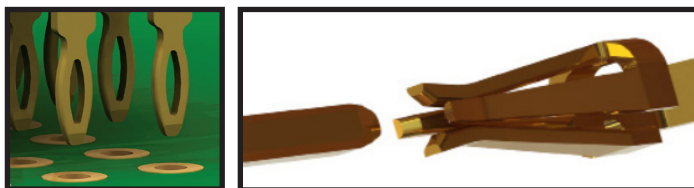
NOTES

- ¹ Shells & hardware supplied uninstalled.
- ² Connectors come pre-assembled with shells & hardware.
- AirBorn can manufacture other configurations to your exact specifications.
- RoHS Compliant; 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 AMS-2404, Class 3; 500 μIN min
 Socket Contact (Mating Face): BeCu per ASTM B194
 Socket Contact (Termination): Brass alloy per ASTM B36 (PIH or PTH) or BeCu per ASTM B768 (press-fit contact)
 Contact Finish (Mating Face): Localized gold finish per ASTM B488, Type II, Code C over nickel per ASTM B689, Type I, 50 μIN min
 Contact Finish (Termination): Localized gold finish per ASTM B488, Type II, Code C, 50 μIN min over nickel per ASTM B689, Type I, 50 μIN min (Press Fit) or localized gold per ASTM B488, Type 1, Code A or C, 10-25 μIN over nickel per ASTM B689 Type I, 50 μIN min (PIH or PTH)
 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 & passivated per NASM35333
 EMI Gasket (GE and NE options only): Conductive Elastomer per MIL-DTL-83528 Type D

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 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)