

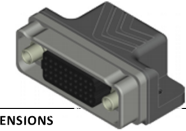
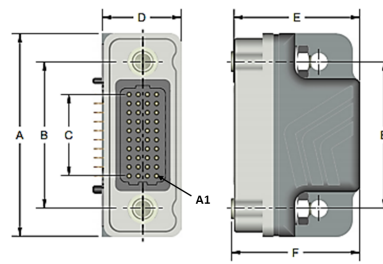


## VRRAF – Rugged Right Angle (Female)

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



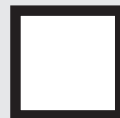
**SERIES**  
 Rugged Right Angle (Female)  
 1.27 mm



**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 – Standard<sup>1</sup>  
 G – Guide socket<sup>1</sup>  
 N – Fixed jacknut<sup>1</sup>  
 J – Turning jackscrew<sup>2</sup>  
 L – Locking screw<sup>2</sup>  
 E – Standard/EMI gasket<sup>1</sup>  
 GE – Guide socket/EMI gasket<sup>1</sup>  
 NE – Fixed jacknut/EMI gasket<sup>1</sup>  
 JE – Turning jackscrew/EMI gasket<sup>2</sup>  
 LE – Locking screw/EMI gasket<sup>2</sup>

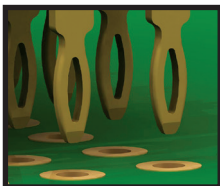
### NOTES

- Shells & hardware supplied uninstalled.
  - 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 μN 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 μN min  
 Contact Finish (Termination): . . . . . Localized gold finish per ASTM B488, Type II, Code C, 50 μN min over nickel per ASTM B689, Type I, 50 μN min (Press Fit) or localized gold per ASTM B488, Type 1, Code A or C, 10-25 μN over nickel per ASTM B689 Type I, 50 μN 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)

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