AirBorn

High-Reliability Interconnect Solutions





verSI Series

High-Speed, Micro-Density Interconnects

Complete Electronic Solutions

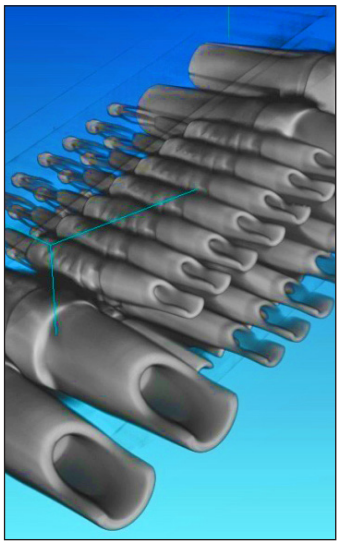


AirBorn is an employee owned company whose core business is engineering & manufacturing specialized connectors & electronic components for OEMs worldwide. We serve customers across many industries including: Commercial Air, Industrial, Medical, Military/Defense, & Space Exploration.

Companies today are looking for more than a supplier, they're looking for a strategic partner to collaborate & grow with. AirBorn products are trusted to perform in extreme conditions, where mission-critical reliability is vital to success. Customers trust AirBorn products, and have for over 60 years.

AirBorn Engineering = Problem Solved®

AirBorn's engineering group specializes in new product design and development for OEMs across the globe. Our team of 50+ degreed engineers are the most innovative and committed to solving our customer's challenges, but that's only the beginning of where we can help! Leverage our design and manufacturing expertise throughout the entire product development process. From conceptual design, prototyping, pilot-runs through to mass production, our teams work efficiently to cut down your program's time to market.



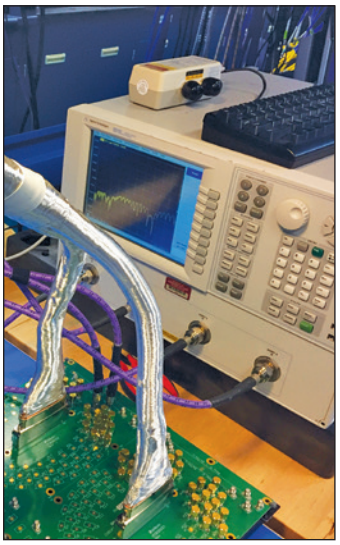
Solution Engineering

AirBorn has a dedicated team of experienced and degreed solution engineers on staff to help solve your most pressing electronic challenges.



Cable vs. Flex Assemblies

We manufacture cable and flex assemblies and can impartially recommend whichever solution is best for your distinct design or application.



Signal Integrity Expertise

Whether a new design retrofit, or a field issue, let us help you design an end-to-end interconnect solution to support your high-speed signal integrity design.



Lab & Test Services

We'll test against the highest standards imaginable to ensure your products stand up to the rigors of space, military, commercial air, and industrial applications.

Connectors



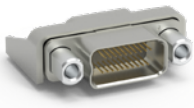
Micro D
M Series



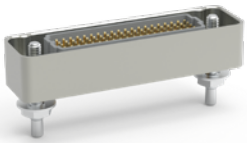
High-Speed Micro D
microSI



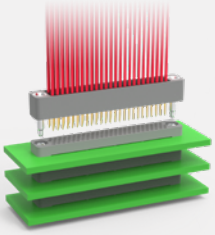
Nano D
N Series



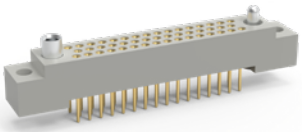
High-Speed Modular
SInergy



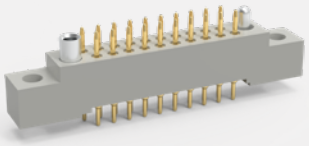
Rectangular 25Gbps
verSI



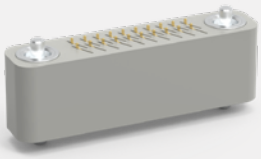
Stackable
RC Series



Rectangular
R Series



Rectangular
W Series



Z Axis Interposer
Z Series



Circular
Series 360

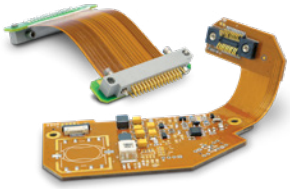


Strip Connector
AirStrip



Macro D
RocKet

Assemblies



Flexible Circuit Assemblies



Cable Assemblies



FUZE Assemblies

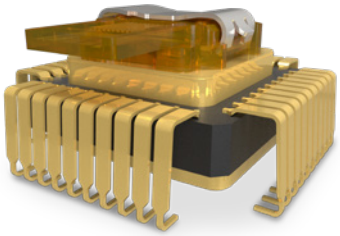


Active Optical Assemblies

Embedded Systems



Rugged Power Systems



Photonics/Optoelectronics

AirBorn In Action



Voyager Program

AirBorn Solutions Are "In-Action" Inside Many Important & Famous Applications

AirBorn Connectors, Inc. was founded in 1958 to manufacture electronic connectors for aviation applications, hence our company name. By 1960, our 12 employees engaged with customers including Motorola Inc., Texas Instruments (now Raytheon), Lockheed Aircraft, Boeing and Burroughs. In the time since our founding, we've managed to be a part of many famous and important projects in human history. The Voyager I & II program, launched in 1977 and still traveling interstellar space today, is emblematic of how customers view AirBorn parts: rugged, reliable and long lasting.

We're proud to be a part of America's, and our allies', vast military and defense initiatives too. AirBorn parts were designed into the Apache & Blackhawk Helicopters, F-16 & F-35 Jets, Abram's & Bradley Tanks and Ohio-Class Attack Subs just to name a few. Our solutions are also part of Patriot, Javelin, Hellfire, Tomahawk and THAAD missile programs. We excel at providing unfailing quality to mission-critical applications.

While military/defense and aviation applications are our specialty, we by no means stop there. AirBorn parts are an integral part of commercial aircraft, MRI machines, defibrillators as well as pain management systems. From deep sea to deep space, AirBorn connectors are ready for any challenge.



Mars Rovers



Commercial Airliners



Military Communications & Rifle Scopes



Pain Management Systems

Space Shuttle Program

verSI
Overview



verSI: High-Speed & High Reliability

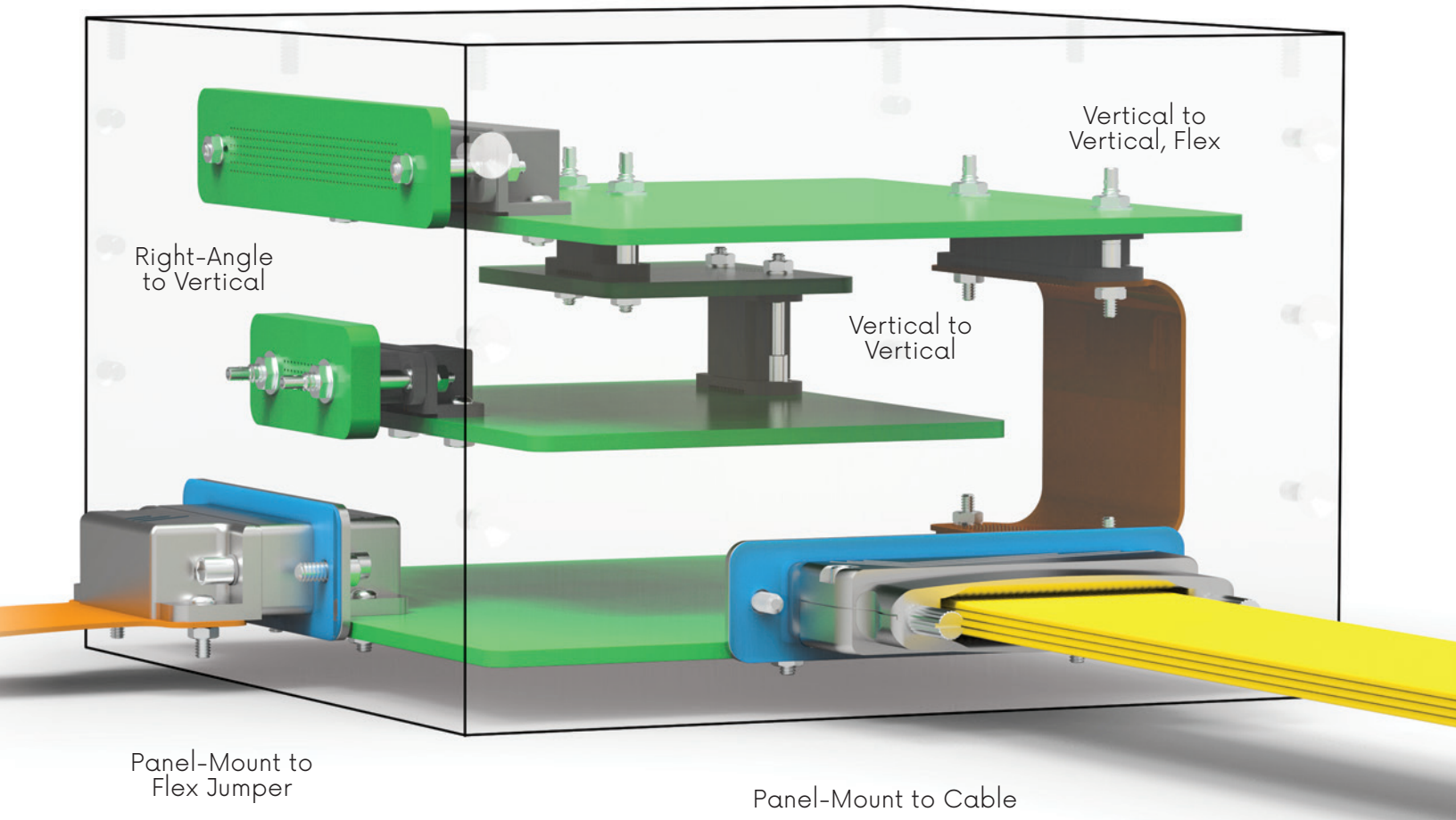
The AirBorn verSI (**Ver**satile **S**ignal **I**ntegrity) open-pin field product line is designed to meet the requirements for high-speed/high-density/signal integrity 100 Ω differential serial bus applications while still delivering the reliability customers have come to expect from AirBorn.

Please visit airborn.com/versi to configure a part numbers, learn more about electrical models, review more product specification details, or read our the verSI signal integrity performance white paper. ESL6004 qualification testing information is also available online.

Key Features & Benefits:

- 2-, 4-, 5-, 6-, 8-, & 10-row models available
- 10-500 pin/socket positions
- 5-50 columns
- Plastic & metal body materials
- Ruggedized models for tougher applications
- Works well with flexible circuits
- Locking & jacking mating/mounting hardware
- Guide hardware - blind mating
- 10,000 mating cycles
- .050 x .050 pitch
- Panel-mounting option

Excellent Design
Flexibility



OEMs Worldwide Trust verSI's Versatility

The verSI product family affords flexibility in design by offering vertical board-mount, right-angle board-mount, cable I/O, and flex circuit mounting with 40 to 500 contacts. Vertical board-mount plugs and mating vertical receptacles also support board-to-board stacking applications. Board-spacing ranges from 8mm to 25mm. EMI hoods and mounting tabs allow for worry-free mating/un-mating and best-in-class durability.

The AirBorn verSI offers several board termination types including paste-in-hole, thru-hole, surface-mount, and compliant pin press fit technology, which eliminates the need for costly X-ray inspection.

Critical to Success
Applications







Ruggedness & Reliability: Keys to Surviving the Harshest Applications

When it comes to durability in the face of unforgiving conditions, they don't come any tougher than AirBorn's verSI Series connectors. Whether they're enduring the extreme shock and vibration of a rocket launch, the unrelenting repetition of factory robotics, or the temperature fluctuations inherent with commercial air travel, verSI connectors are designed to withstand all of that and much more.

Looking for a rugged and reliable connector that's endured the harshest environments of Earth and space, look no further than AirBorn's verSI family of connectors. With the quality that AirBorn's customers can count on and space-flight heritage, verSI Series connectors set the standard for toughness.

Applications

- Satellite vision systems
- Ground combat vehicles
- Radar defense systems
- Commercial aircraft
- MRI machines (non-magnetic)
- Missile systems
- Avionics control unit
- Cube satellites
- Commercial flight equipment

verSIs Are Designed Into:



Avionics



Helicopters



Satellites

And More...



Commercial Aircraft



MRI Machines

AirBorn

V2M — Vertical Male

V2M signal-integrity connectors are ruggedized 2-row male connectors. With the proven verSI contact system, these connectors can be used in extreme environmental conditions while maintaining high reliability and continuous performance. Pitch: .050" (1.27 mm).



Sample Part Number Format: V2M-02-05-080-50-00-N

V2M	–	02	–	05	–	080	–	50	–		–	

SERIES
Vertical (Male)
1.27 mm

ROWS
02 – 2 Rows

COLUMNS
05 – 5 Columns

BOARD SPACING*
080 – 8 mm[4]

CONTACT PLATING
50 – 50 µ" Au mating interface

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 - Non-RoHS compliant
11 – SMT - RoHS compliant

HARDWARE[1]
G – Guide pin[2]
N – Fixed jacknut[2]
J – Turning jackscrew[2]
L – Locking screw[2]
G1 – Guide pin[3]
N1 – Fixed jacknut[3]
J1 – Turning jackscrew[3]
L1 – Locking screw[3]

Notes:

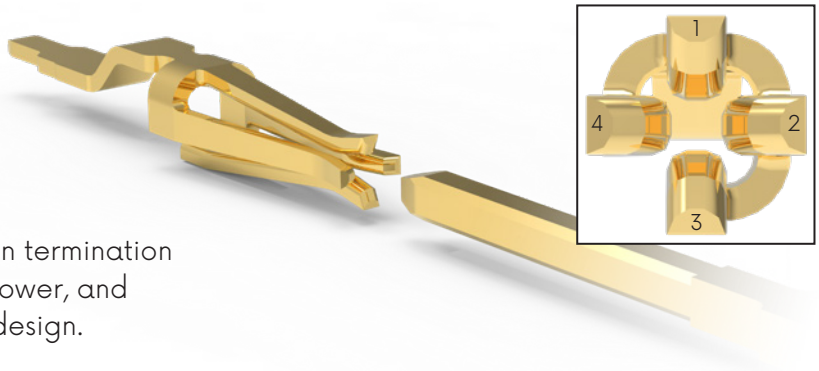
See AirBorn spec ESL6155 for additional information.
See AirBorn spec ESL5001 for installation information.
[1] See product spec drawing for replacement hardware kits.
[2] Used for PC board thickness up to 0.125".
[3] Used for PC board thickness 0.125" up to 0.250".
[4] Board spacing 8.29mm.
Hardware supplied loosely installed.
Mates with connector series: V2F and V2C (female).
Dimensions within brackets [X, XX] are in millimeters and for reference only.
Please view product spec drawing V2M-XX-XX-XXX-XX-XX-X on airborn.com before part configuration for complete product definition.

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

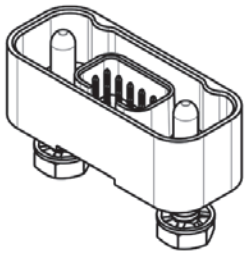
Reliable Contact Every Time

VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

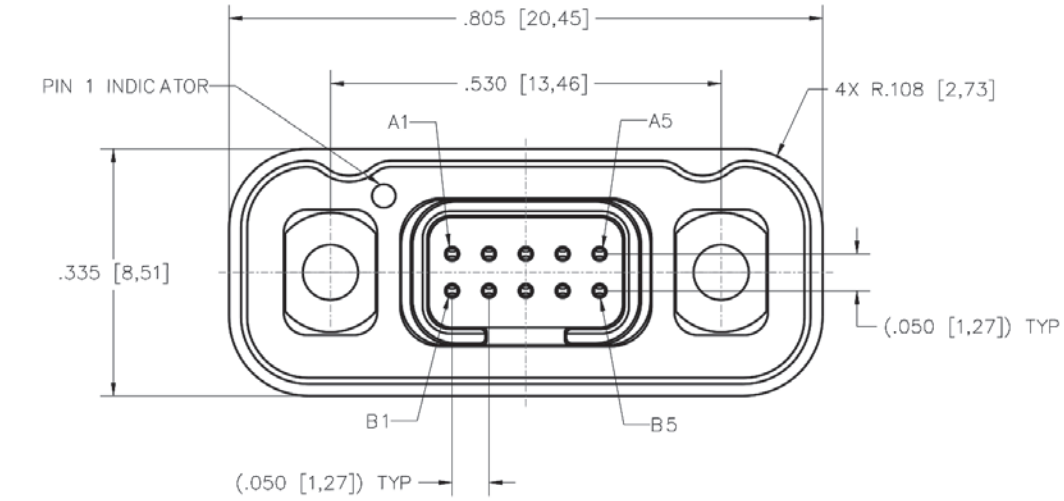
The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.

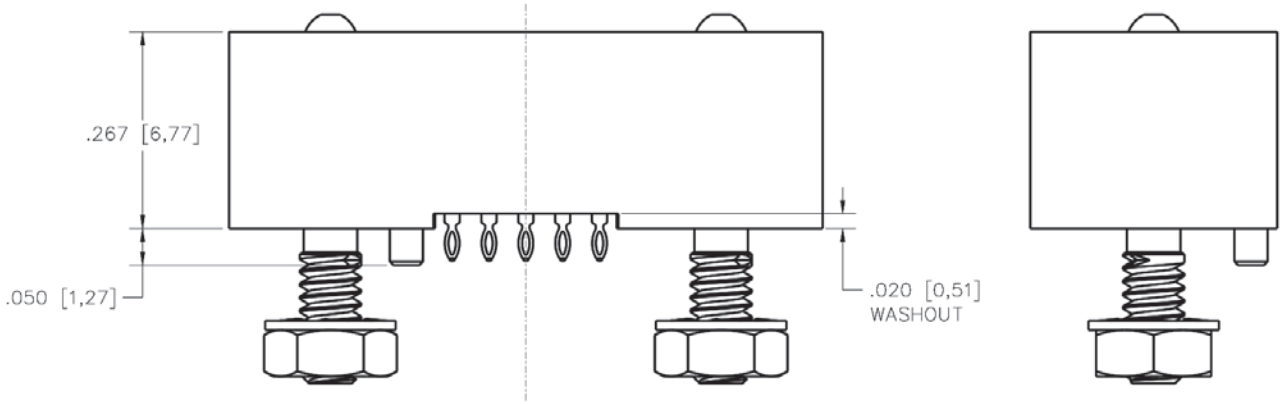


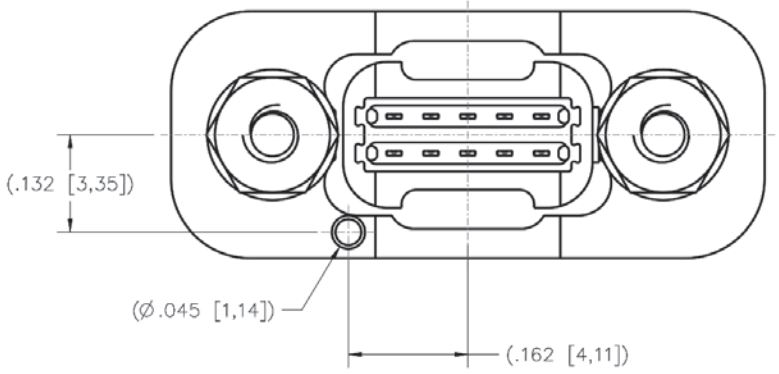
Dimensions



ISOMETRIC VIEW
FOR REFERENCE ONLY
(PART NUMBER: V2M-02-05-080-50-00-G SHOWN)





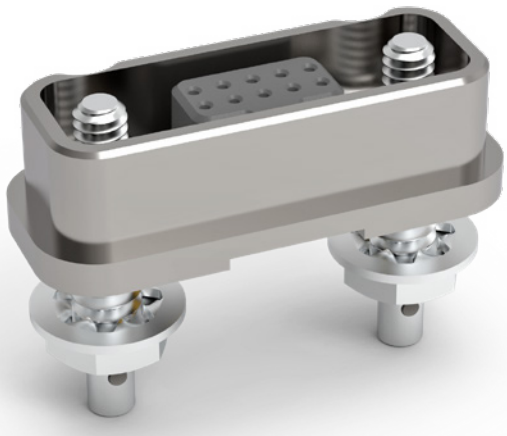


Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

V2F — Vertical Rugged Female

V2F signal-integrity connectors are ruggedized 2-row female connectors. With the proven verSI contact system, these connectors can be used in extreme environmental conditions while maintaining high reliability and continuous performance Pitch: 0.050" [1.27 mm].



Sample Part Number Format: V2F-02-05-50-00-J

V2F	–	02	–	05	–	50	–		–	

SERIES
Vertical Rugged (Female) 1.27 mm

ROWS
02 – 2 Rows

COLUMNS
05 – 5 Columns

CONTACT PLATING
50 – 50 µ" Au mating interface

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 - Non RoHS compliant
11 – SMT - RoHS compliant

HARDWARE[1]
G – Guide socket[2]
N – Fixed jacknut[2]
J – Turning jackscrew[2]
L – Locking screw[2]
G1 – Guide socket[3]
N1 – Fixed jacknut[3]
J1 – Turning jackscrew[3]
L1 – Locking screw[3]

Notes:

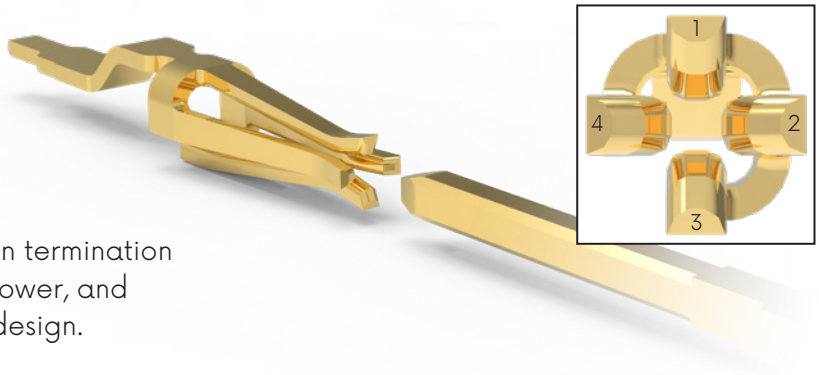
See AirBorn spec ESL6155 for additional information.
See AirBorn spec ESL5001 for installation information.
[1] See product specification drawing for replacement hardware kits.
[2] Used for PC board thickness up to 0.125".
[3] Used for PC board thickness 0.125" up to 0.250".
Hardware supplied loosely installed.
Mates with connector series: V2M and V2C (male).
Dimensions within brackets [X, XX] are in millimeters and for reference only.
Please view product information drawing V2F-XX-XX-XX-XX-X on airborn.com before part configuration for complete product definition.

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

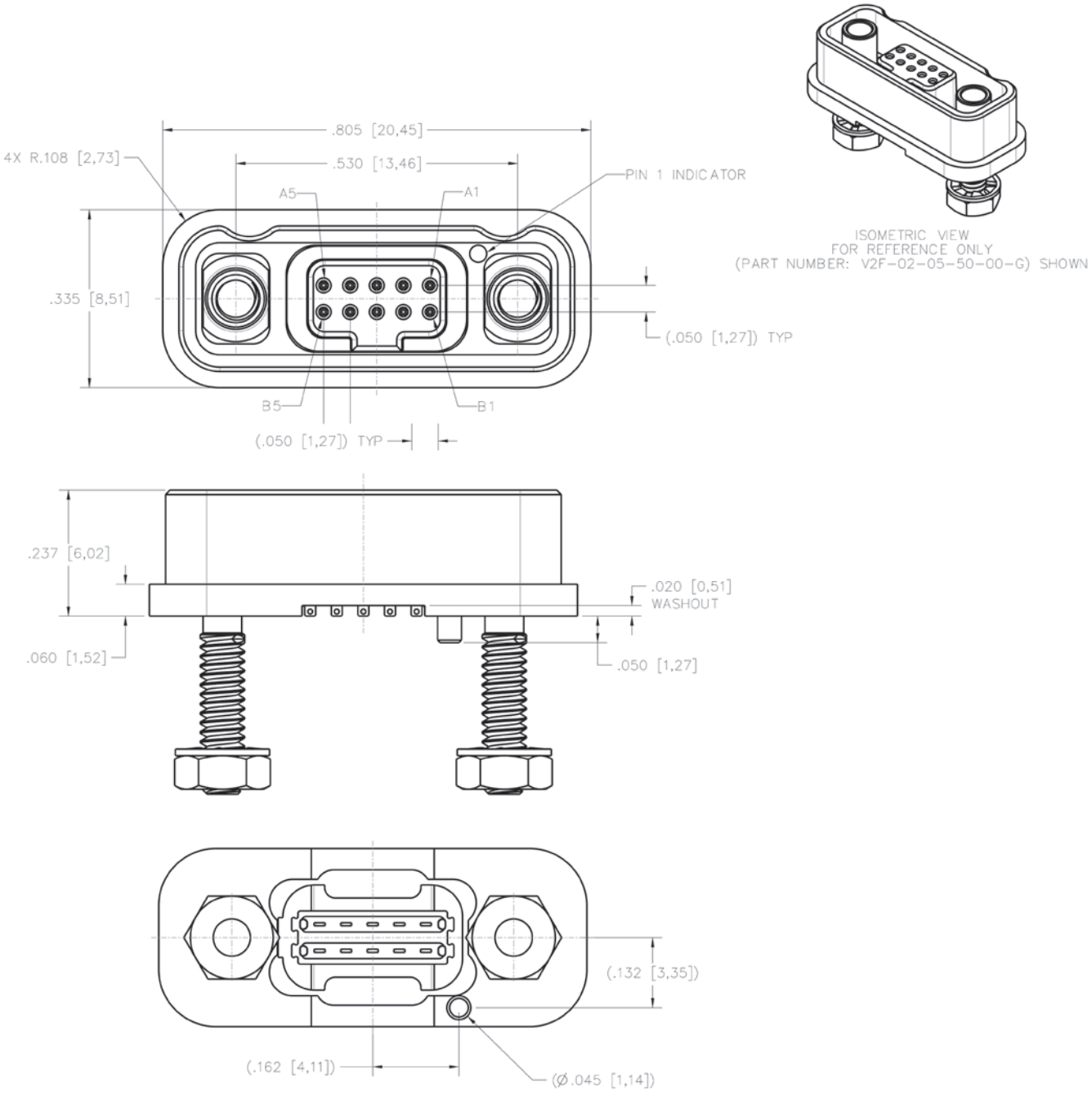
Reliable Contact Every Time

VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.



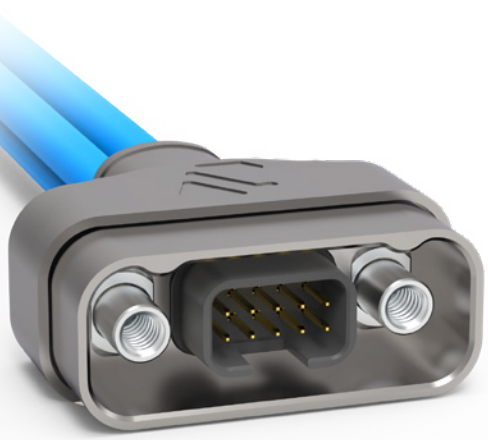
Dimensions



Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

V2C — Differential Pair Twinax Cable Assembly



V2C cable assemblies are designed for twinax and/or discrete wire applications. These cable assemblies come in standard lengths but custom lengths and configurations can also be requested. Ruggedized hoods are standard. Pitch: .050" [1.27 mm].

Sample Part Number Format: V2C-02-05-50-MN-BB-304-010

V2C	-	02	-	05	-	50	-	☐	–	☐	–	☐	–	☐

SERIES
verSI 2-Row Cable Assembly

ROWS
02 – 2 Rows

COLUMNS
05 – 5 Columns

CONTACT PLATING
50 – 50 µ" Au mating interface

CONNECTOR 1
MG – Male with guide pins
MN – Male with fixed jacknut
MJ – Male turning jackscrew
ML – Male with locking screw
MGP – Male with guide pins, panel mount
MNP – Male with fixed jacknut, panel mount
MJP – Male with turning jackscrew, panel mount
MLP – Male with locking screw, panel mount
FG – Female with guide pins
FN – Female fixed jacknut
FJ – Female with turning jackscrew
FL – Female with locking screw
FGP – Female with guide pins, panel mount
FNP – Female with fixed jacknut, panel mount
FJP – Female with turning jackscrew, panel mount
FLP – Female with locking screw, panel mount

CONNECTOR 2 HARDWARE
MG – Male with guide pins
MN – Male with fixed jacknut
MJ – Male turning jackscrew
ML – Male with locking screw
MGP – Male with guide pins, panel mount
MNP – Male with fixed jacknut, panel mount
MJP – Male with turning jackscrew, panel mount
MLP – Male with locking screw, panel mount
FG – Female with guide pins
FN – Female with fixed jacknut
FJ – Female with turning jackscrew
FL – Female with locking screw
FGP – Female with guide pins, panel mount
FNP – Female with fixed jacknut, panel mount
FJP – Female with turning jackscrew, panel mount
FLP – Female with locking screw, panel mount
BB – No second connector

AWG/LAYOUT
302 – 30AWG, 2 differential pairs
303 – 30AWG, 3 differential pairs
304 – 30AWG, 4 differential pairs
282 – 28AWG, 2 differential pairs
283 – 28AWG, 3 differential pairs
284 – 28AWG, 4 differential pairs
262 – 26AWG, 2 differential pairs
30M – 30AWG, mixed discrete
26M – 26AWG, mixed discrete
30W – 30AWG, discrete white
26W – 26AWG, discrete white
30C – 30AWG, color-coded wires*
26C – 26AWG, color-coded wires*
SCT – Solder cup termination, no wires

LENGTH[1]
000 – 0.00 M**
010 – 0.10 M
020 – 0.20 M
030 – 0.30 M
040 – 0.40 M
050 – 0.50 M
060 – 0.60 M
070 – 0.70 M
080 – 0.80 M
090 – 0.90 M
100 – 1.00 M
150 – 1.50 M
200 – 2.00 M
300 – 3.00 M

Notes:

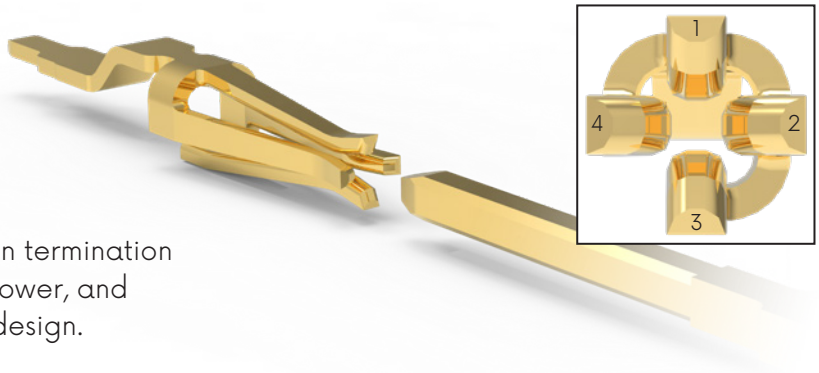
See AirBorn spec ESL5001 for installation information.
*Color coded per MIL-STD-681.
AirBorn can manufacture other configurations to your exact specifications.
Please view product specification drawing V2C-XX-XX-XX-XXX-XXX-XXX-XXX on airborn.com before part configuration for more product specification information.
Dimensions within brackets [X, XX] are in millimeters and for reference only.
***Used in conjunction with solder-cup termination (SCT) only.*
[1]See product specification drawing for replacement hardware kits.

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

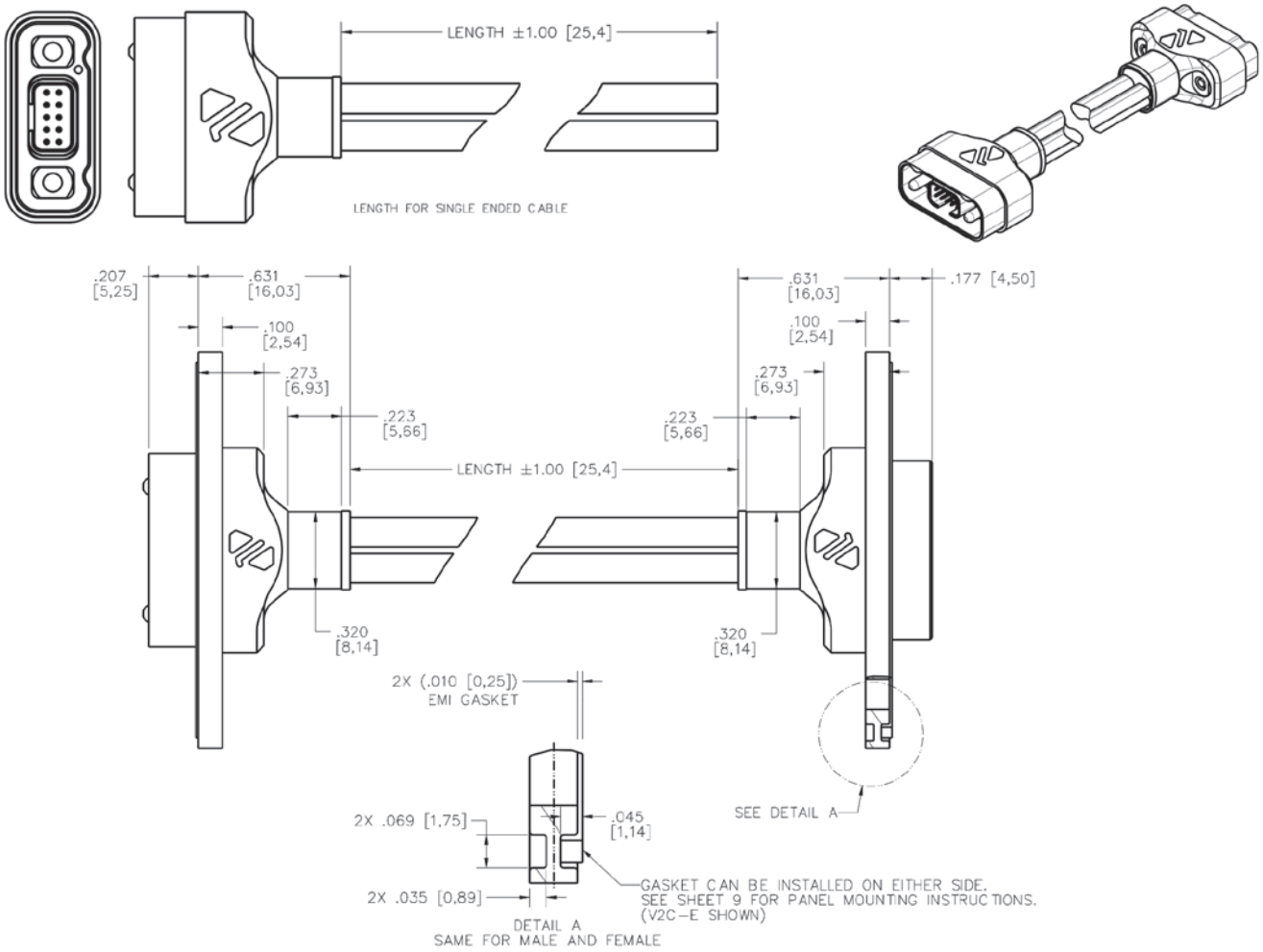
Reliable Contact Every Time

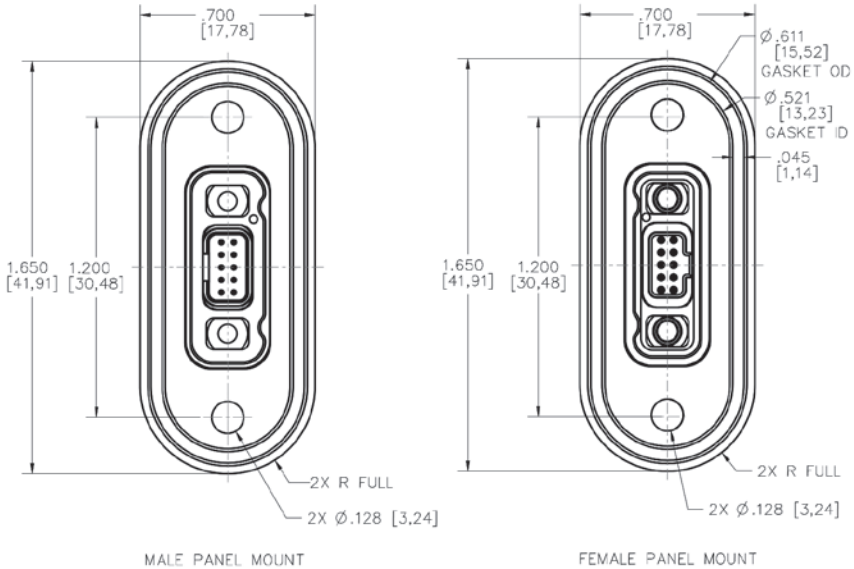
VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.



Dimensions





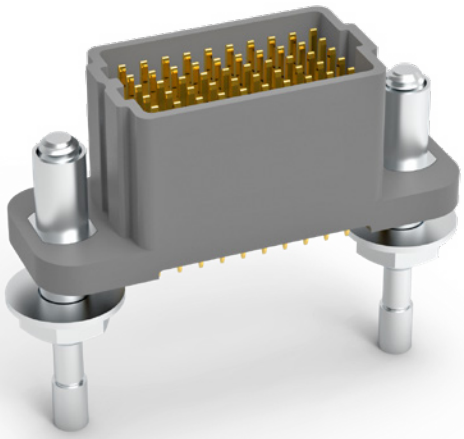
Length		
Code	Length (M)	Length (In.)
010	0,10	3.94
020	0,20	7.87
030	0,30	11.81
040	0,40	15.75
050	0,50	19.69
060	0,60	23.62
070	0,70	27.56
080	0,80	31.50
090	0,90	35.43
100	1,00	39.37
150	1,50	59.06
200	2,00	78.74
300	3,00	118.11

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

VSM — Vertical Male

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 and plated thru-hole. Pitch: 1.27 mm.



Sample Part Number Format: VSM-04-10-120-50-02-L

VSM	–	☐☐	–	☐☐	–	☐☐☐	–	50	–	☐☐	–	☐☐

SERIES
Vertical (Male)
1.27 mm

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

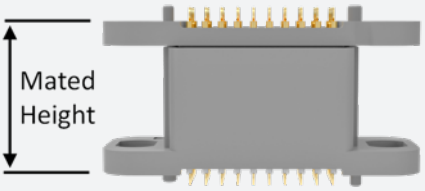
COLUMNS
10 – 10 Columns
20 – 20 Columns
30 – 30 Columns
40 – 40 Columns
50 – 50 Columns

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

OPTIONS
Blank – No options‡
G – Guide pin[1]
G1 – Guide pin[2]
J – Turning jackscrew[1]
J1 – Turning jackscrew[2]
L – Locking screw[1]
L1 – Locking screw[2]
N – Fixed jacknut[1]
N1 – Fixed jacknut[2]



Board Spacing		Mated Height (in)
Code	Value	Nominal
080	8mm	0.315 (.350 Max)
100	10mm	0.394 (.429 Max)
120	12mm	0.472 (.507 Max)
160	16mm	0.630 (.665 Max)
200	20mm	0.787 (.822 Max)
250	25mm	0.984 (1.02 Max)

Notes:

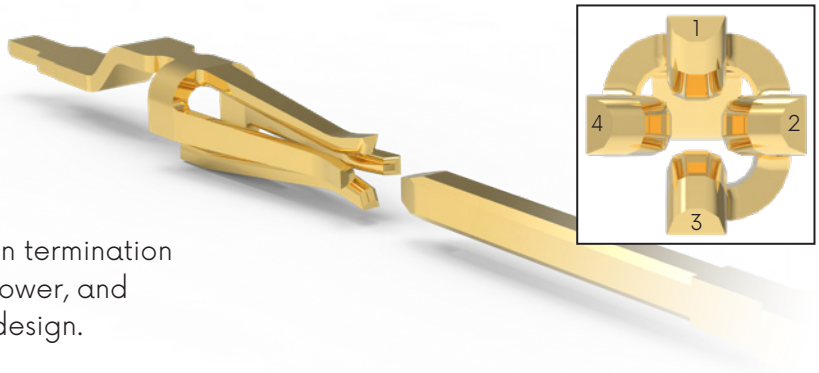
See AirBorn spec ESL5001 for installation information.
Connector potting is standard.
* Consult factory for additional board spacing options.
[1] Used for PC board thickness up to 0.125".
[2] Used for PC board thickness 0.125" up to 0.250".
† Surface Mount Termination only available on 4 Row vertical 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.
Please view document VSM-XX-XX-XXX-XX-XX-XX on airborn.com before part configuration for more product specification information.

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

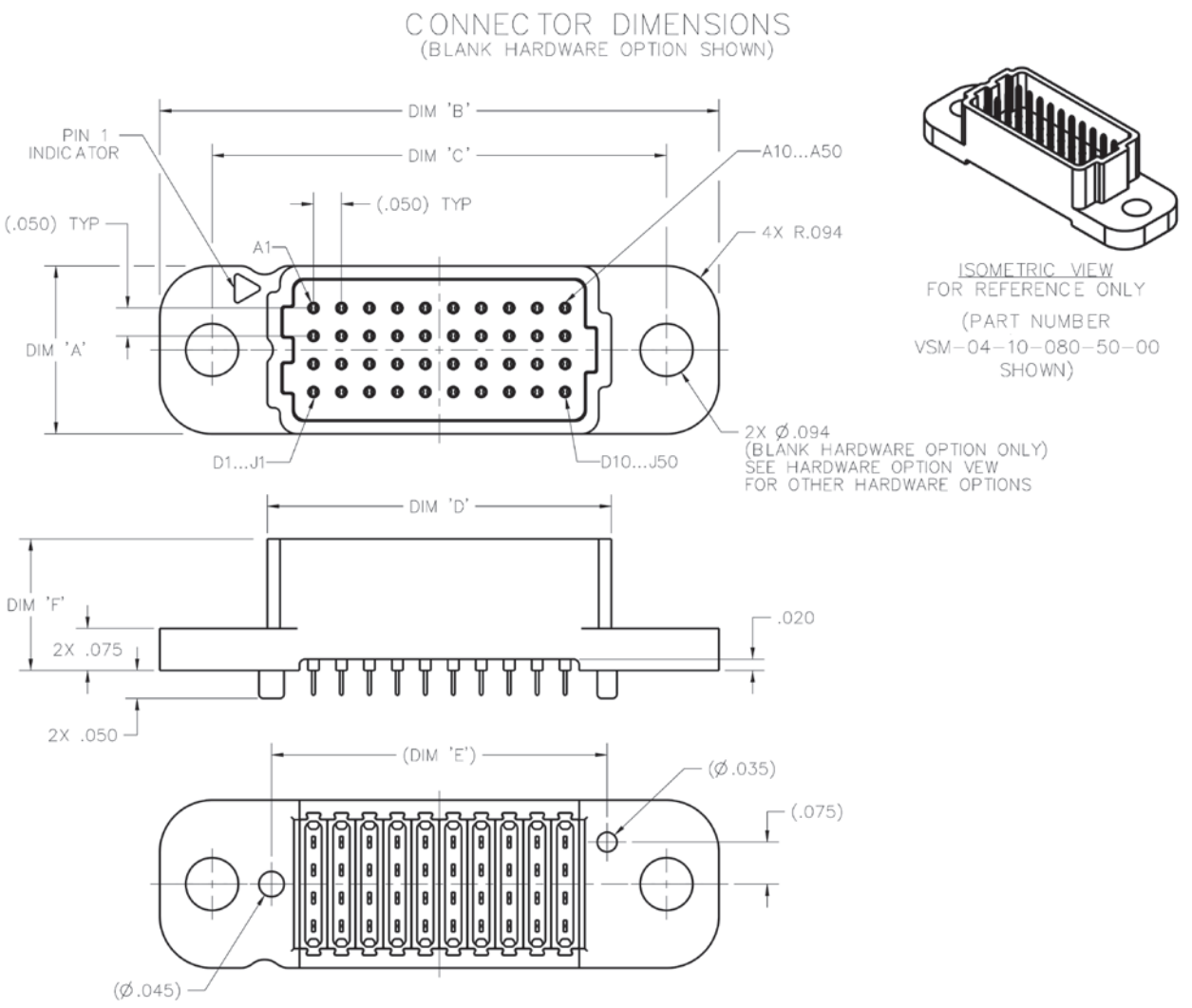
Reliable Contact Every Time

VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.



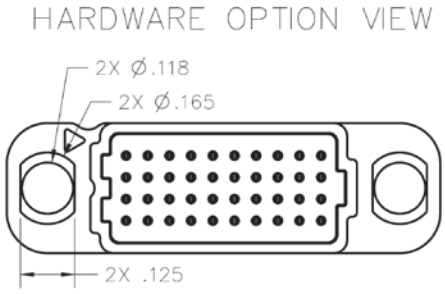
Dimensions



ROWS	DIM 'A'
04	.300
05	.350
06	.400
08	.500
10	.600

COLUMNS	DIM 'B'	DIM 'C'	DIM 'D'	DIM 'E'
10	1.000	.813	.615	.600
20	1.500	1.313	1.115	1.100
30	2.000	1.813	1.615	1.600
40	2.500	2.313	2.115	2.100
50	3.000	2.813	2.615	2.600

BOARD SPACING	DIM 'F'
-080 [8mm]	.235
-100 [10mm]	.314
-120 [12mm]	.392
-160 [16mm]	.550
-200 [20mm]	.707
-250 [25mm]	.904

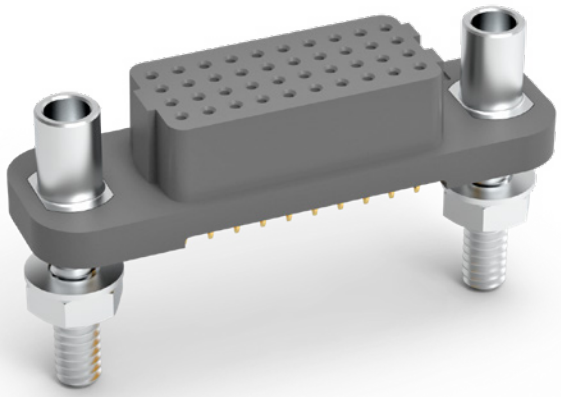


Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

VSF — Vertical Female

VSF signal-integrity connectors are used in vertical, PCB-mount applications where a male interface is required. Termination styles include press-fit, paste-in-hole and plated thru-hole. Pitch: 1.27 mm.



Sample Part Number Format: VSF-04-10-50-02-G

VSF	–	☐☐	–	☐☐	–	50	–	☐☐	–	☐☐
SERIES		ROWS		COLUMNS		CONTACT PLATING		TERMINATION		OPTIONS

SERIES
Vertical (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[1]
G1 – Guide socket[2]
J – Turning jackscrew[1]
J1 – Turning jackscrew[2]
L – Locking screw[1]
L1 – Locking screw[2]
N – Fixed jacknut[1]
N1 – Fixed jacknut[2]

Notes:

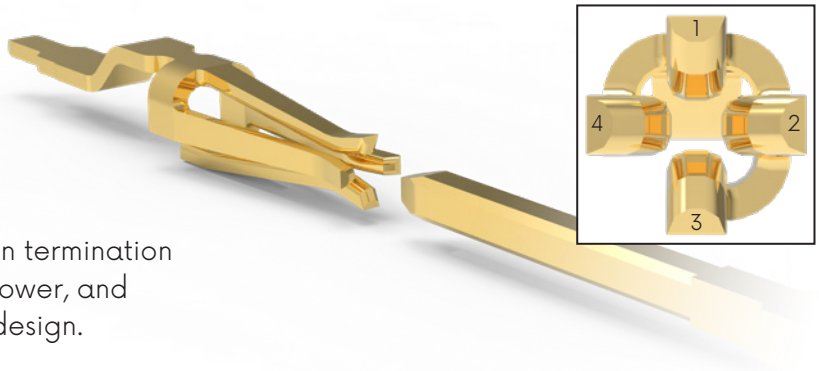
See AirBorn spec ESL5001 for installation information.
Connector potting is standard.
[1] Used for PC board thickness up to 0.125"
[2] Used for PC board thickness 0.125" up to 0.250"
† Surface Mount Termination only available on 4 Row vertical connectors.
‡ No hardware supplied with blank hardware option 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
Please view document VSF-XX-XX-XX-XX-XX on airborn.com before part configuration for more product specification information

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

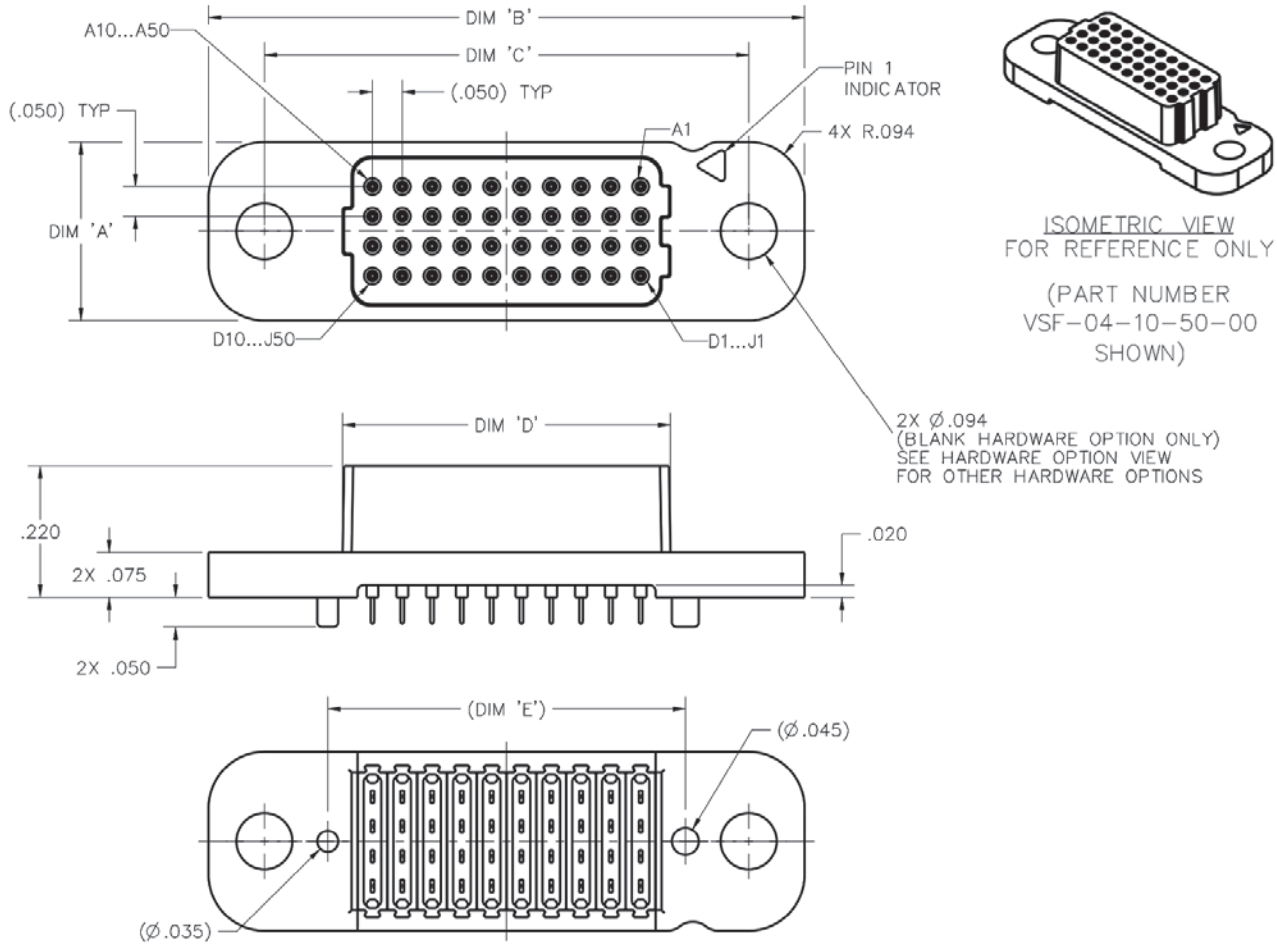
VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.



Dimensions

CONNECTOR DIMENSIONS
(BLANK HARDWARE OPTION SHOWN)



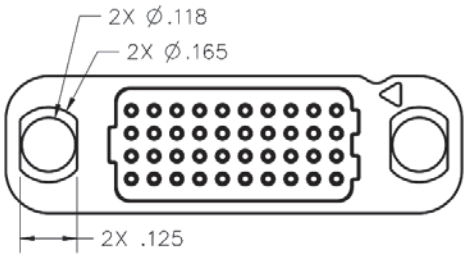
ISOMETRIC VIEW
FOR REFERENCE ONLY

(PART NUMBER
VSF-04-10-50-00
SHOWN)

ROWS	DIM 'A'
04	.300
05	.350
06	.400
08	.500
10	.600

COLUMNS	DIM 'B'	DIM 'C'	DIM 'D'	DIM 'E'
10	1.000	.813	.550	.600
20	1.500	1.313	1.050	1.100
30	2.000	1.813	1.550	1.600
40	2.500	2.313	2.050	2.100
50	3.000	2.813	2.550	2.600

HARDWARE OPTION VIEW

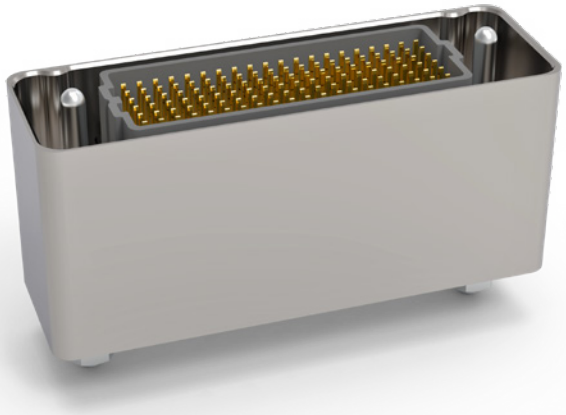


Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

VRM — Vertical Rugged Male

VRM signal-integrity connectors are ruggedized versions of the standard VSM male connectors. These connectors can be used in extreme environmental conditions while maintaining high reliability and continuous performance. Pitch: 1.27 mm.



Sample Part Number Format: VRM-04-10-120-50-02-G

VRM - [ ] - [ ] - [ ] - 50 - [ ] - [ ]

SERIES
Vertical Rugged (Male) 1.27 mm

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

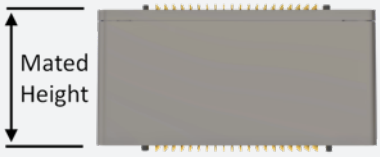
COLUMNS
10 – 10 Columns
20 – 20 Columns
30 – 30 Columns
40 – 40 Columns
50 – 50 Columns

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

OPTIONS
Blank – No options‡
G – Guide pin**1
G1 – Guide pin**2
J – Turning jackscrew**1
J1 – Turning jackscrew**2
L – Locking screw**1
L1 – Locking screw**2
N – Fixed jacknut**1
N1 – Fixed jacknut**2
E – No Hardware/EMI gasket‡
GE – Guide pin/EMI gasket**1
G1E – Guide pin/EMI gasket**2
JE – Turning jackscrew/EMI gasket**1
J1E – Turning jackscrew/EMI gasket**2
LE – Locking screw/EMI gasket**1
L1E – Locking screw/EMI gasket**2
NE – Fixed jacknut/EMI gasket**1
N1E – Fixed jacknut/EMI gasket**2



Notes:

See AirBorn spec ESL5001 for installation information.
Connector potting is standard.
* Consult factory for additional board spacing options.
** Not available with 8 mm board spacing
[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
Please view document VRM-XX-XX-XXX-XX-XX-XX on airborn.com before part configuration for more product specification information

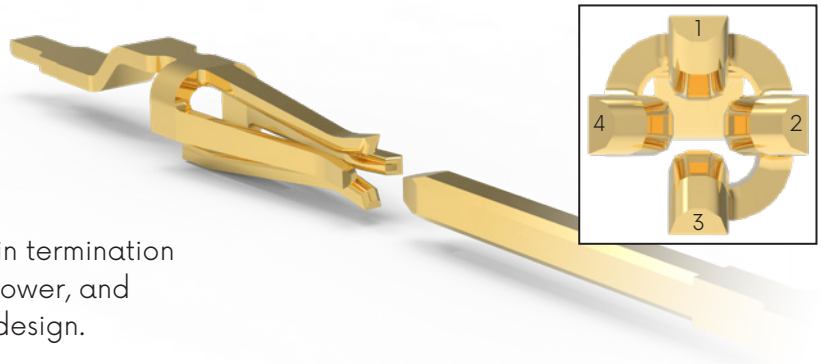
Board Spacing		Mated Height (in)
Code	Value	Nominal
080	8mm	0.315 (.350 Max)
100	10mm	0.394 (.429 Max)
120	12mm	0.472 (.507 Max)
160	16mm	0.630 (.665 Max)
200	20mm	0.787 (.822 Max)
250	25mm	0.984 (1.02 Max)

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

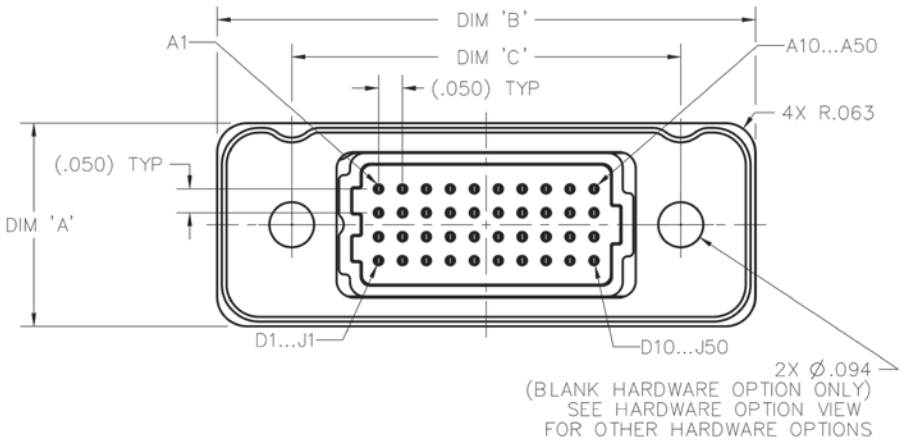
VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

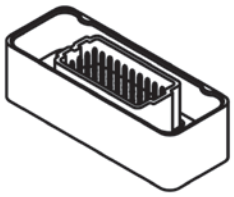
The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.



Dimensions

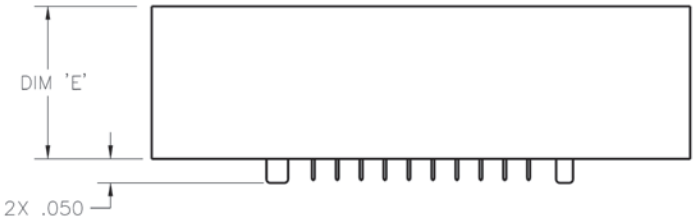
CONNECTOR DIMENSIONS
(NON EMI GASKET HARDWARE OPTIONS)

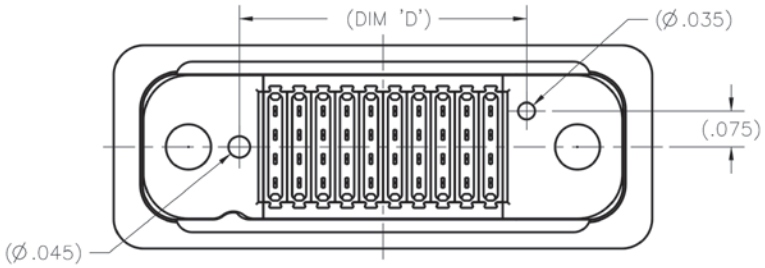




ISOMETRIC VIEW
FOR REFERENCE ONLY

(PART NUMBER
VRM-04-10-100-50-00
SHOWN)



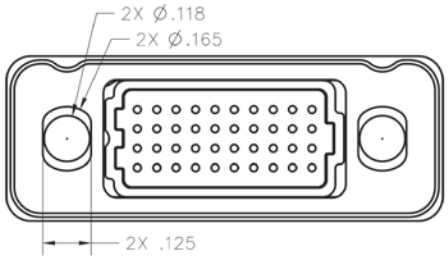


ROWS	DIM 'A'
04	.425
05	.475
06	.525
08	.625
10	.725

COLUMNS	DIM 'B'	DIM 'C'	DIM 'D'
10	1.125	.813	.600
20	1.625	1.313	1.100
30	2.125	1.813	1.600
40	2.625	2.313	2.100
50	3.125	2.813	2.600

BOARD SPACING	DIM 'E'
-080 [8mm]	.240
-100 [10mm]	.319
-120 [12mm]	.397
-160 [16mm]	.555
-200 [20mm]	.712
-250 [25mm]	.909

HARDWARE OPTION VIEW

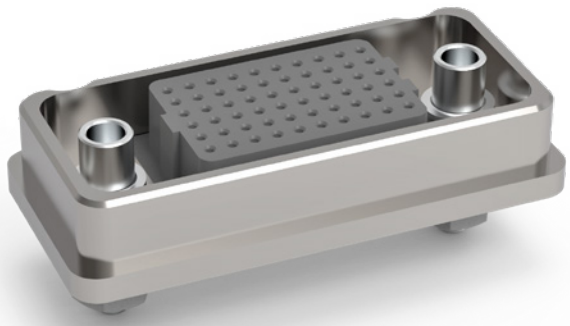


Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

VRF — Vertical Rugged Female

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 Pitch: 1.27 mm.



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

VRF – ☐ – ☐ – 50 – ☐ – ☐

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[1]
G1 – Guide socket[2]
J – Turning jackscrew[1]
J1 – Turning jackscrew[2]
L – Locking screw[1]
L1 – Locking screw[2]
N – Fixed jacknut[1]
N1 – Fixed jacknut[2]
E – No hardware/EMI gasket‡
GE – Guide socket/EMI gasket[1]
G1E – Guide socket/EMI gasket[2]
JE – Turning jackscrew/EMI gasket[1]
J1E – Turning jackscrew/EMI gasket[2]
LE – Locking screw/EMI gasket[1]
L1E – Locking screw/EMI gasket[2]
NE – Fixed jacknut/EMI gasket[1]
N1E – Fixed jacknut/EMI gasket[2]

Notes:

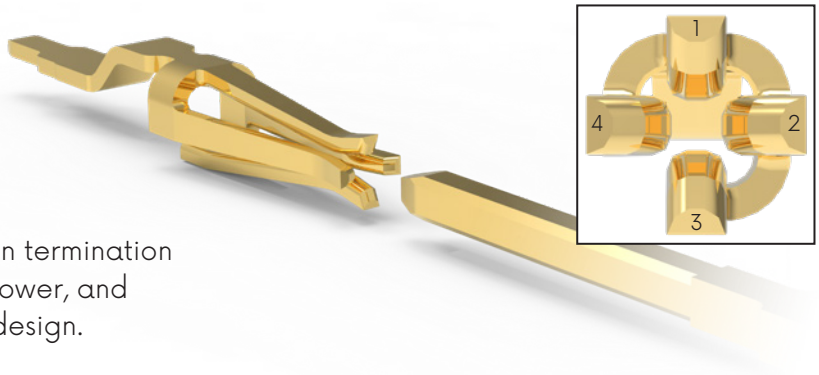
See AirBorn spec ESL5001 for installation information.
Connector potting is standard.
[1] Used for PC board thickness up to 0.125".
[2] Used for PC board thickness 0.125" up to 0.250".
† Surface Mount Termination only available on 4 Row vertical connectors.
‡ No hardware supplied with blank hardware 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.
Please view document VRF-XX-XX-XX-XX-XX on airborn.com before part configuration for more product specification information.

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

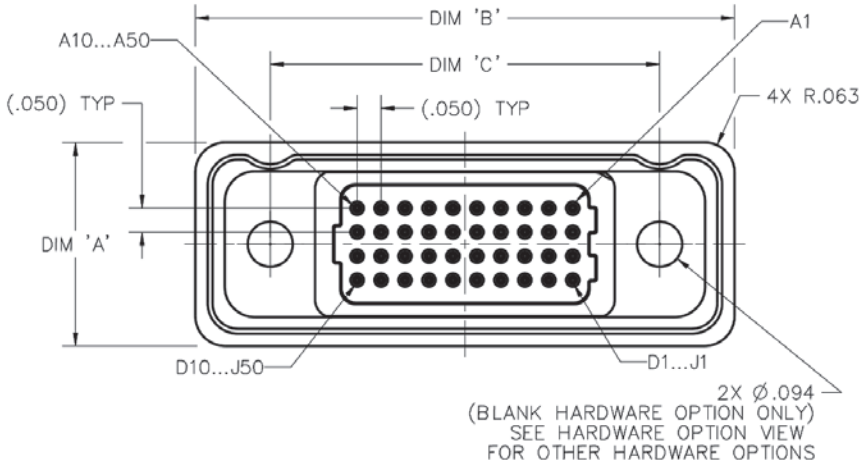
VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

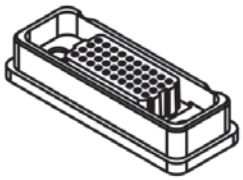
The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.



Dimensions

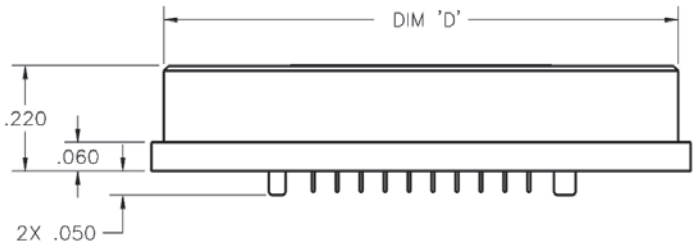
CONNECTOR DIMENSIONS
(NON EMI GASKET HARDWARE OPTIONS)

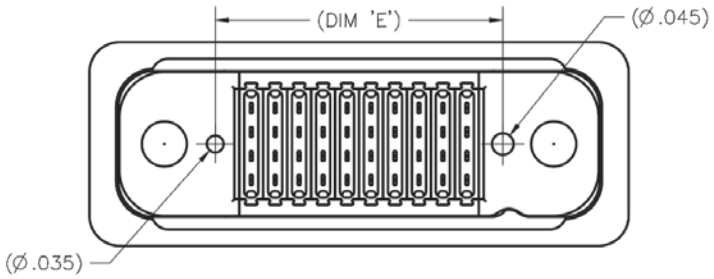




ISOMETRIC VIEW
FOR REFERENCE ONLY

(PART NUMBER
VRF-04-10-50-00
SHOWN)

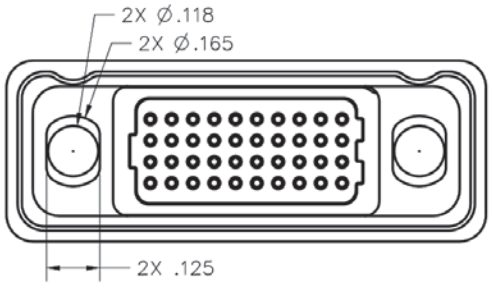




ROWS	DIM 'A'
04	.425
05	.475
06	.525
08	.625
10	.725

COLUMNS	DIM 'B'	DIM 'C'	DIM 'D'	DIM 'E'
10	1.125	.813	1.073	.600
20	1.625	1.313	1.573	1.100
30	2.125	1.813	2.073	1.600
40	2.625	2.313	2.573	2.100
50	3.125	2.813	3.073	2.600

HARDWARE OPTION VIEW

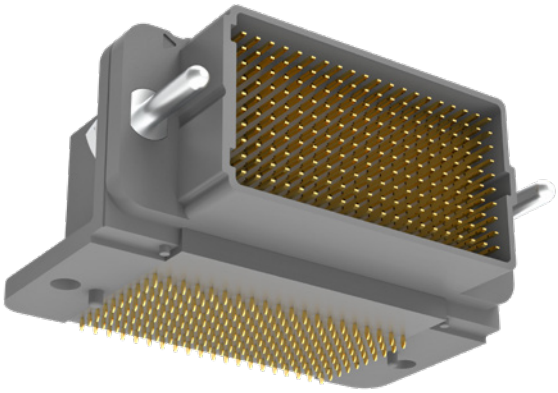


Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

VSRAM — Right Angle Male

VSRAM signal-integrity connectors are used in right angle, PCB-mount applications where a male interface is required. Termination styles include press-fit, paste-in-hole or plated thru-hole. Pitch: 1.27 mm.



Sample Part Number Format: VSRAM-04-10-50-50-02-G

VSRAM – ☐ – ☐ – 50 – ☐ – ☐

SERIES
Right Angle (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

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 – No options‡
G – Guide pin
N – Fixed jacknut
J – Turning jackscrew
L – Locking screw

Notes:

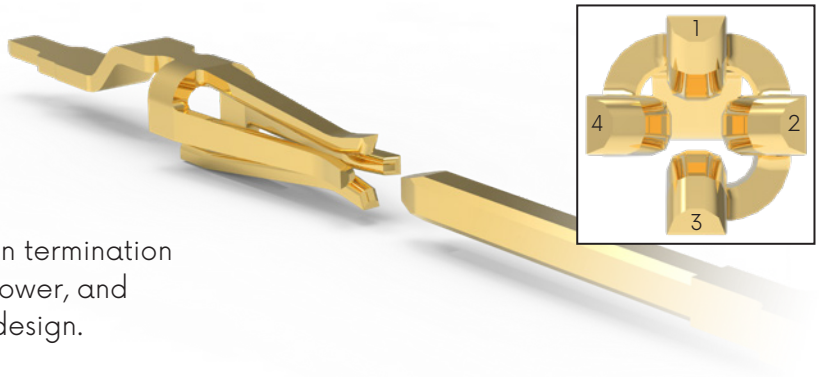
See AirBorn spec ESL5001 for installation information.
Connector potting is standard.
‡ No hardware supplied with blank hardware option connectors.
AirBorn can manufacture other configurations to your exact specifications.
RoHS Complaint; certificate of conformance available upon request with each shipment.
Please view document VSRAM-XX-XX-XX-XX-X on airborn.com before part configuration for more product specification information.

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

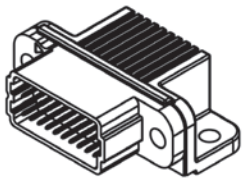
VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.

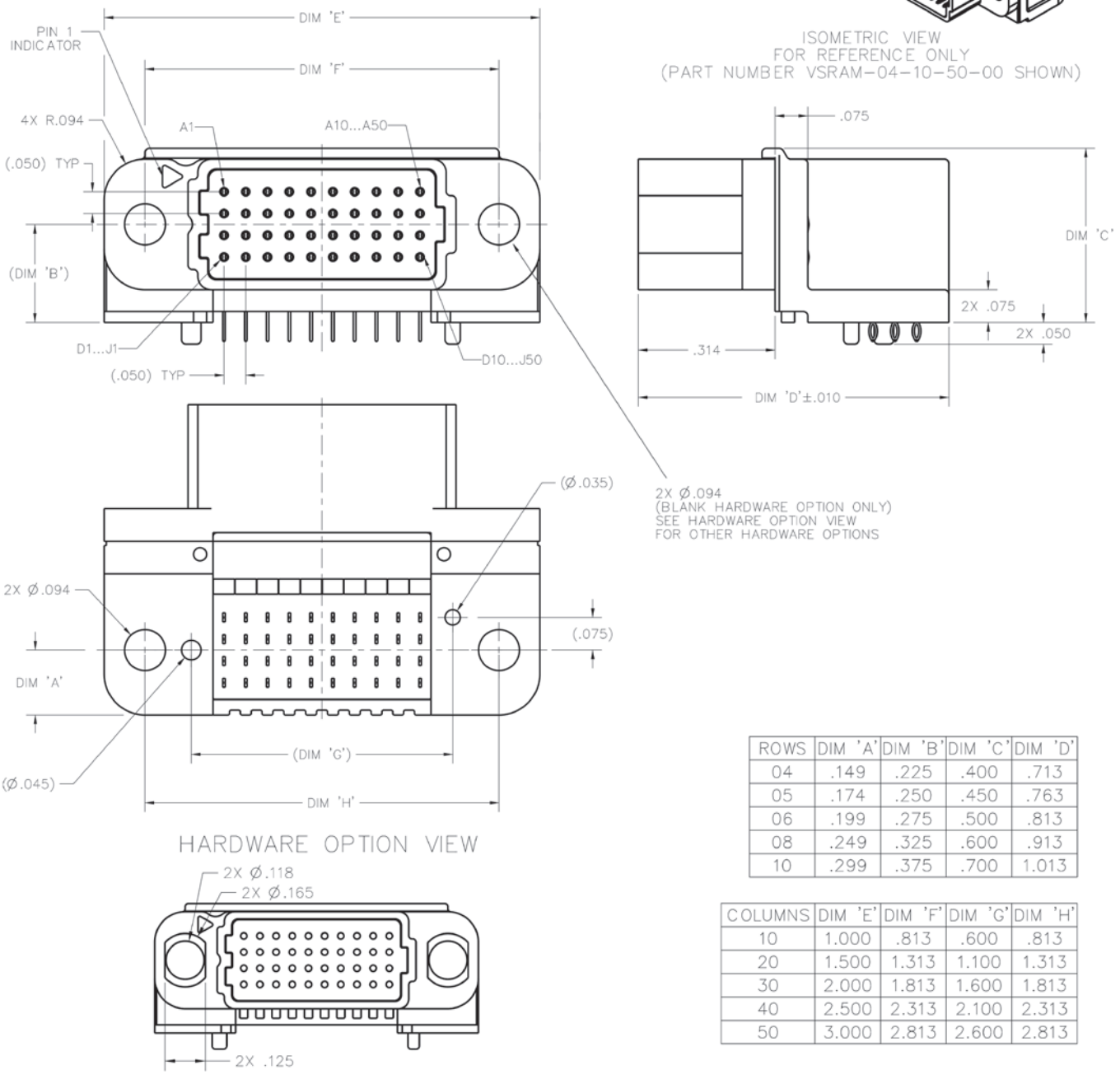


Dimensions

CONNECTOR DIMENSIONS
(BLANK HARDWARE OPTION SHOWN)



ISOMETRIC VIEW
FOR REFERENCE ONLY
(PART NUMBER VSRAM-04-10-50-00 SHOWN)



HARDWARE OPTION VIEW

ROWS	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
04	.149	.225	.400	.713
05	.174	.250	.450	.763
06	.199	.275	.500	.813
08	.249	.325	.600	.913
10	.299	.375	.700	1.013

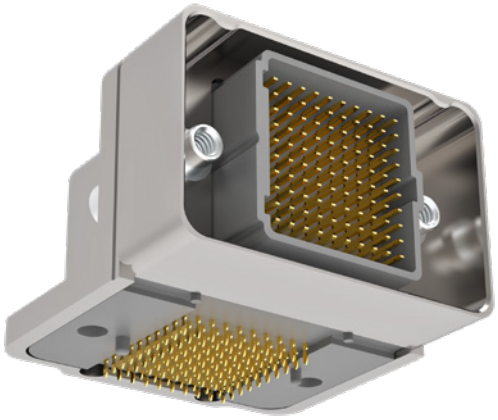
COLUMNS	DIM 'E'	DIM 'F'	DIM 'G'	DIM 'H'
10	1.000	.813	.600	.813
20	1.500	1.313	1.100	1.313
30	2.000	1.813	1.600	1.813
40	2.500	2.313	2.100	2.313
50	3.000	2.813	2.600	2.813

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

VRRAM — Rugged, Right Angle Male

VRRAM signal-integrity connectors are ruggedized versions of the standard VSRAM male connectors. These connectors can be used in extreme environmental conditions while maintaining high reliability and performance. Pitch: 1.27 mm.



Sample Part Number Format: VRRAM-04-10-50-02-N

VRRAM	–	☐	–	☐	–	50	–	☐	–	☐
SERIES		ROWS		COLUMNS		CONTACT PLATING		TERMINATION		OPTIONS

SERIES
Rugged Right Angle (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

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
G – Guide pin
N – Fixed jacknut
J – Turning jackscrew[1]
L – Locking screw[1]
E – Standard/EMI gasket
GE – Guide pin/EMI gasket
NE – Fixed jacknut/EMI gasket
JE – Turning jackscrew/EMI gasket[1]
LE – Locking screw/EMI gasket[1]

Notes:

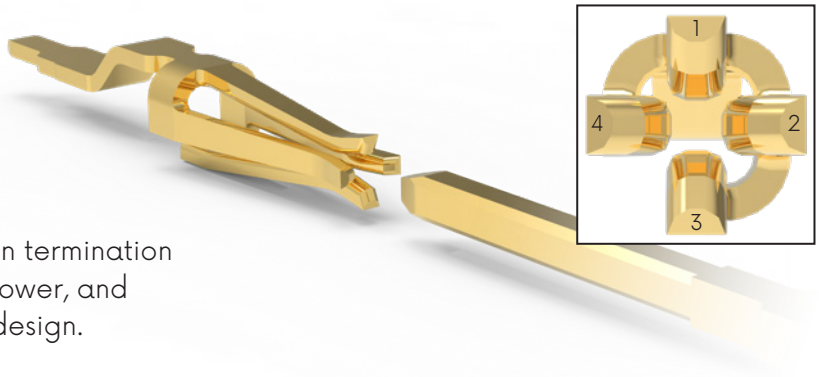
See AirBorn spec ESL5001 for installation information.
[1] Connectors come pre-assembled with shells & hardware.
AirBorn can manufacture other configurations to your exact specifications.
RoHS Complaint; certificate of conformance available upon request with each shipment.
Please view document VRRAM-XX-XX-XX-XX-XX on airborn.com before part configuration for more product specification information.

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.



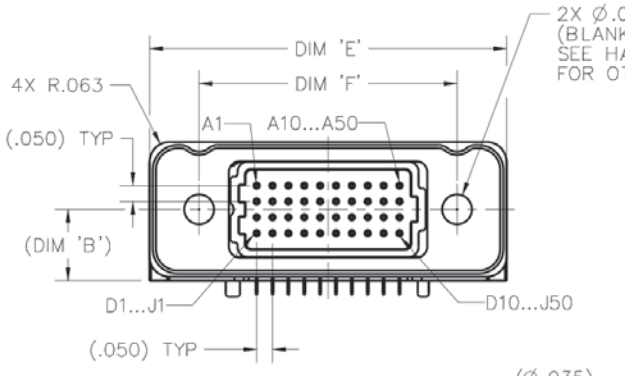
Dimensions

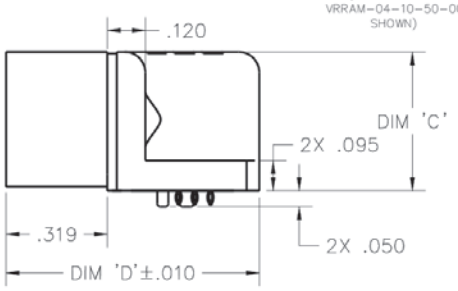
CONNECTOR DIMENSIONS
(BLANK, G AND N HARDWARE OPTIONS)

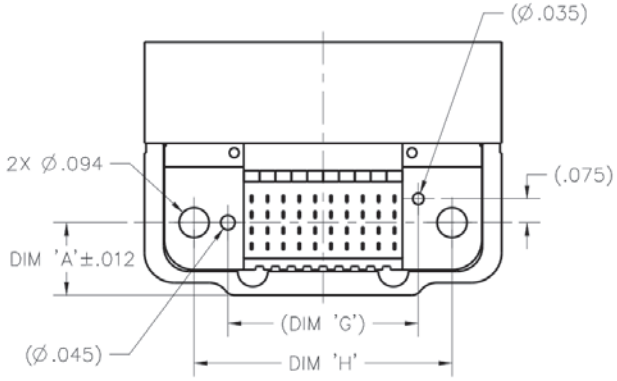


ISOMETRIC VIEW
FOR REFERENCE ONLY

(PART NUMBER
VRRAM-04-10-50-00
SHOWN)



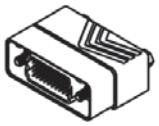


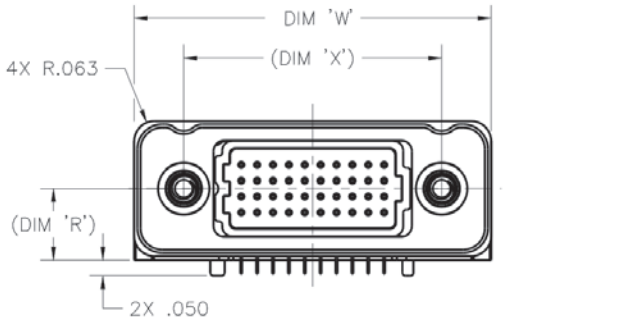


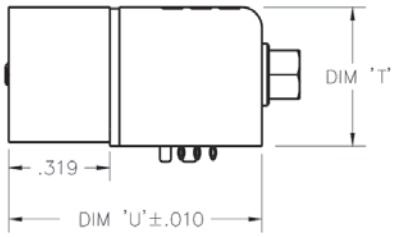
ROWS	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
04	.229	.225	.437	.798
05	.254	.250	.487	.848
06	.279	.275	.537	.898
08	.329	.325	.637	.998
10	.379	.375	.737	1.098

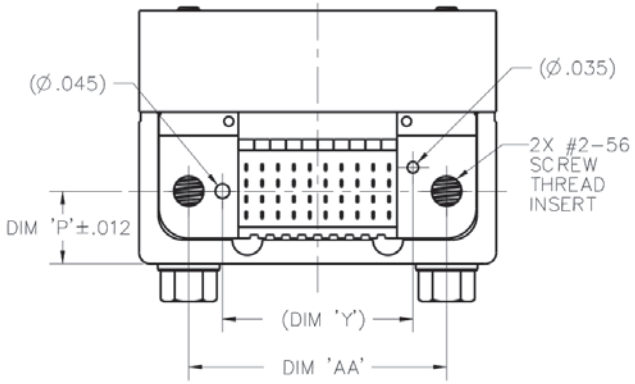
COLUMNS	DIM 'E'	DIM 'F'	DIM 'G'	DIM 'H'
10	1.125	.813	.600	.813
20	1.625	1.313	1.100	1.313
30	2.125	1.813	1.600	1.813
40	2.625	2.313	2.100	2.313
50	3.125	2.813	2.600	2.813

CONNECTOR DIMENSIONS
(J & L HARDWARE OPTIONS)









ROWS	DIM 'P'	DIM 'R'	DIM 'T'	DIM 'U'
04	.229	.225	.438	.798
05	.254	.250	.488	.848
06	.279	.275	.538	.898
08	.329	.325	.638	.998
10	.379	.375	.738	1.098

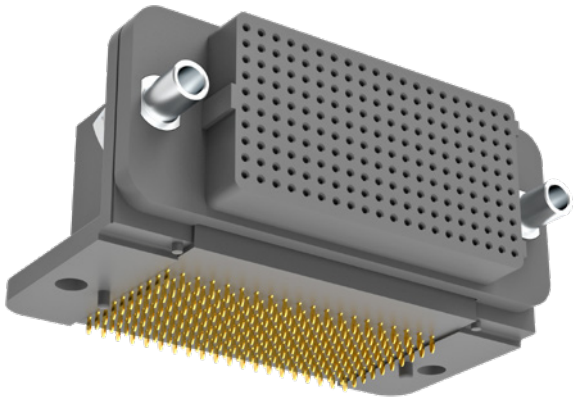
COLUMNS	DIM 'W'	DIM 'X'	DIM 'Y'	DIM 'AA'
10	1.125	.813	.600	.813
20	1.625	1.313	1.100	1.313
30	2.125	1.813	1.600	1.813
40	2.625	2.313	2.100	2.313
50	3.125	2.813	2.600	2.813

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

VSRAF — Right Angle Female

VSRAF signal-integrity connectors are used in right angle, PCB-mount applications where a female interface is required. Termination styles include press-fit, paste-in-hole or plated thru-hole. Pitch: 1.27 mm.



Sample Part Number Format: VSRAF-04-10-50-02-G

VSRAF	–	□□	–	□□	–	50	–	□□	–	□□
SERIES		ROWS		COLUMNS		CONTACT PLATING		TERMINATION		OPTIONS

SERIES
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 – No options‡
G – Guide socket
N – Fixed jacknut
J – Turning jackscrew
L – Locking screw

Notes:

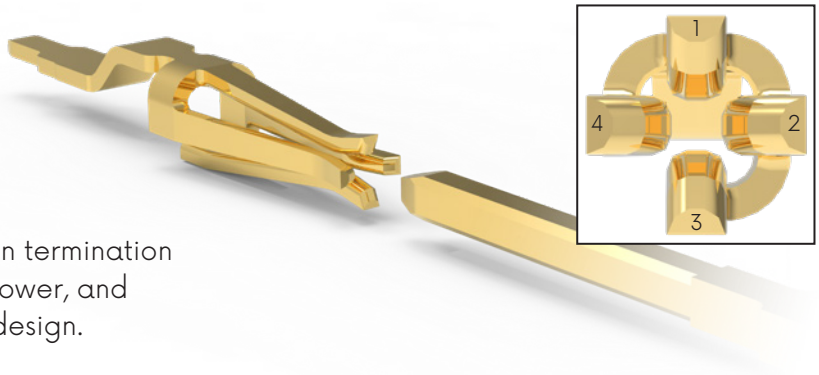
See AirBorn spec ESL5001 for installation information.
Connector potting is standard.
‡ No hardware supplied with blank hardware option connectors.
AirBorn can manufacture other configurations to your exact specifications.
RoHS Complaint; certificate of conformance available upon request with each shipment.
Please view document VSRAF-XX-XX-XX-XX-X on airborn.com before part configuration for more product specification information.

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

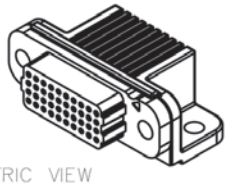
VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.

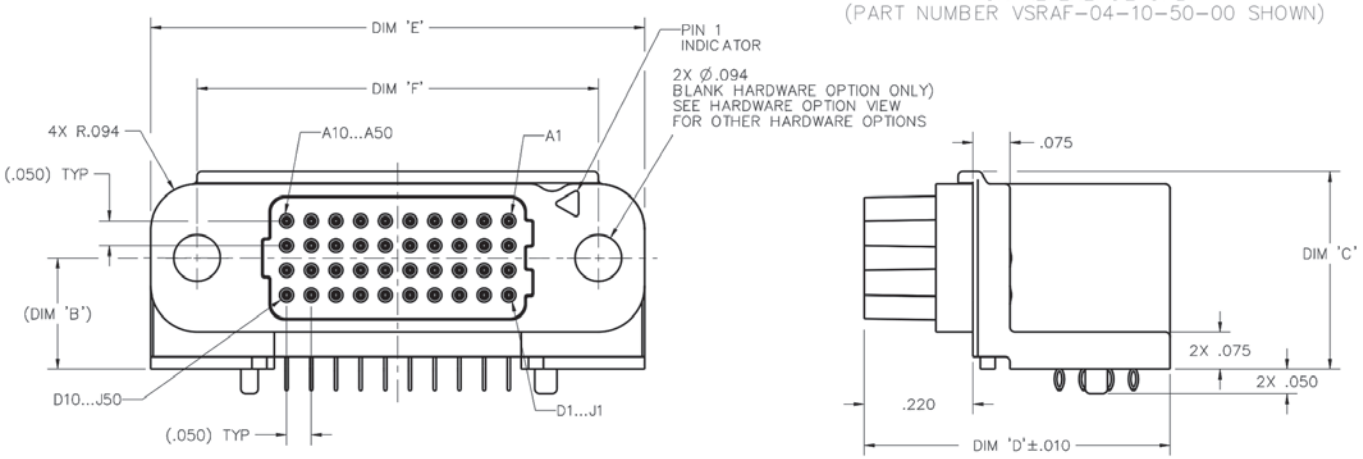


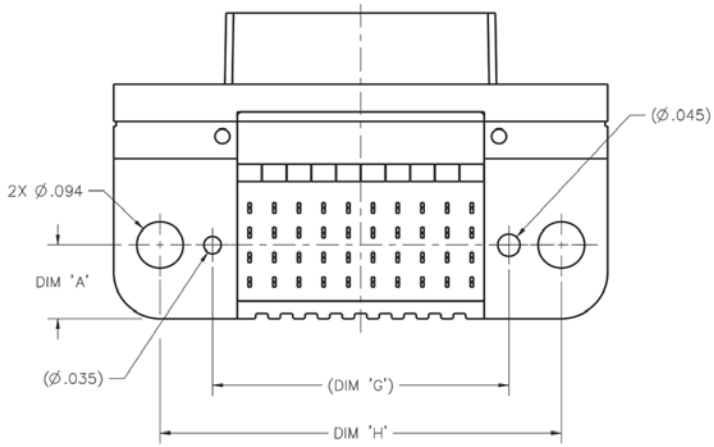
Dimensions

CONNECTOR DIMENSIONS
(BLANK HARDWARE OPTION SHOWN)



ISOMETRIC VIEW
FOR REFERENCE ONLY
(PART NUMBER VSRAF-04-10-50-00 SHOWN)

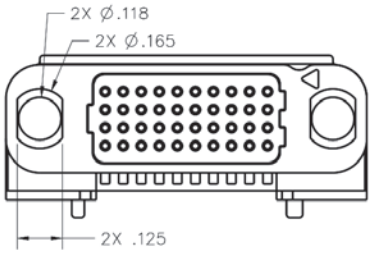




ROWS	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
04	.149	.225	.400	.619
05	.174	.250	.450	.669
06	.199	.275	.500	.719
08	.249	.325	.600	.819
10	.299	.375	.700	.919

COLUMNS	DIM 'E'	DIM 'F'	DIM 'G'	DIM 'H'
10	1.000	.813	.600	.813
20	1.500	1.313	1.100	1.313
30	2.000	1.813	1.600	1.813
40	2.500	2.313	2.100	2.313
50	3.000	2.813	2.600	2.813

HARDWARE OPTION VIEW

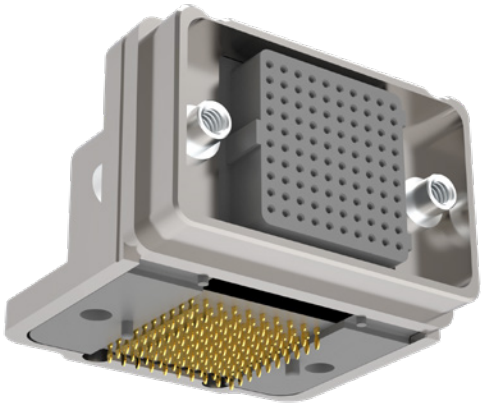


Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

VRRAF — Rugged, Right Angle Female

VRRAF 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 performance. Pitch: 1.27 mm.



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

VRRAF	–	☐☐	–	☐☐	–	50	–	☐☐	–	☐☐
SERIES		ROWS		COLUMNS		CONTACT PLATING		TERMINATION		OPTIONS

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
G – Guide socket
N – Fixed jacknut
J – Turning jackscrew[1]
L – Locking screw[1]
E – Standard/EMI gasket
GE – Guide socket/EMI gasket
NE – Fixed jacknut/EMI gasket
JE – Turning jackscrew/EMI gasket[1]
LE – Locking screw/EMI gasket[1]

Notes:

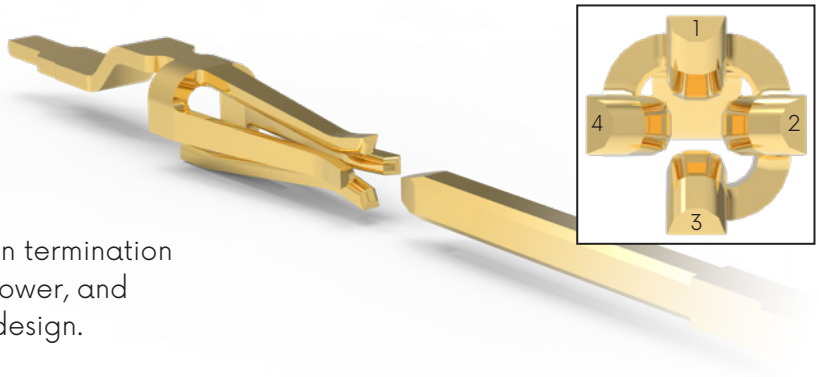
See AirBorn spec ESL5001 for installation information.
[1] Connectors come pre-assembled with shells & hardware.
AirBorn can manufacture other configurations to your exact specifications.
RoHS Complaint; certificate of conformance available upon request with each shipment.
Please view document VRRAF-XX-XX-XX-XX-XX on airborn.com before part configuration for more product specification information.

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.

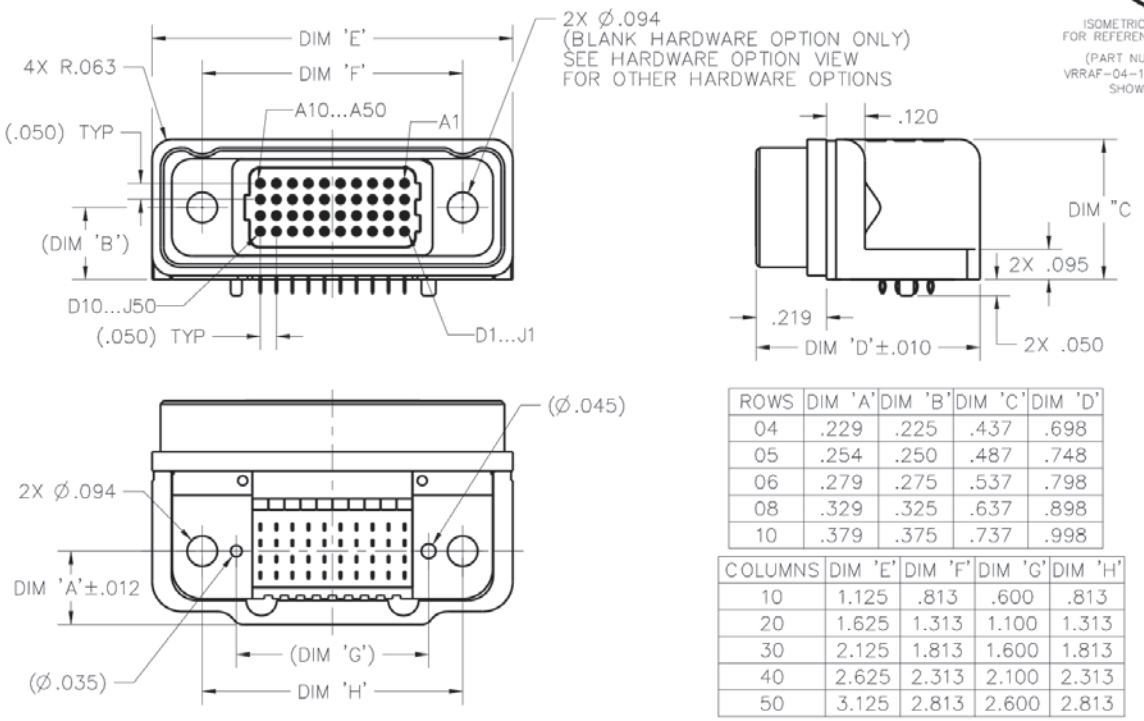


Dimensions

CONNECTOR DIMENSIONS
(BLANK, G AND N HARDWARE OPTIONS)



ISOMETRIC VIEW
FOR REFERENCE ONLY
(PART NUMBER
VRRAF-04-10-50-00
SHOWN)

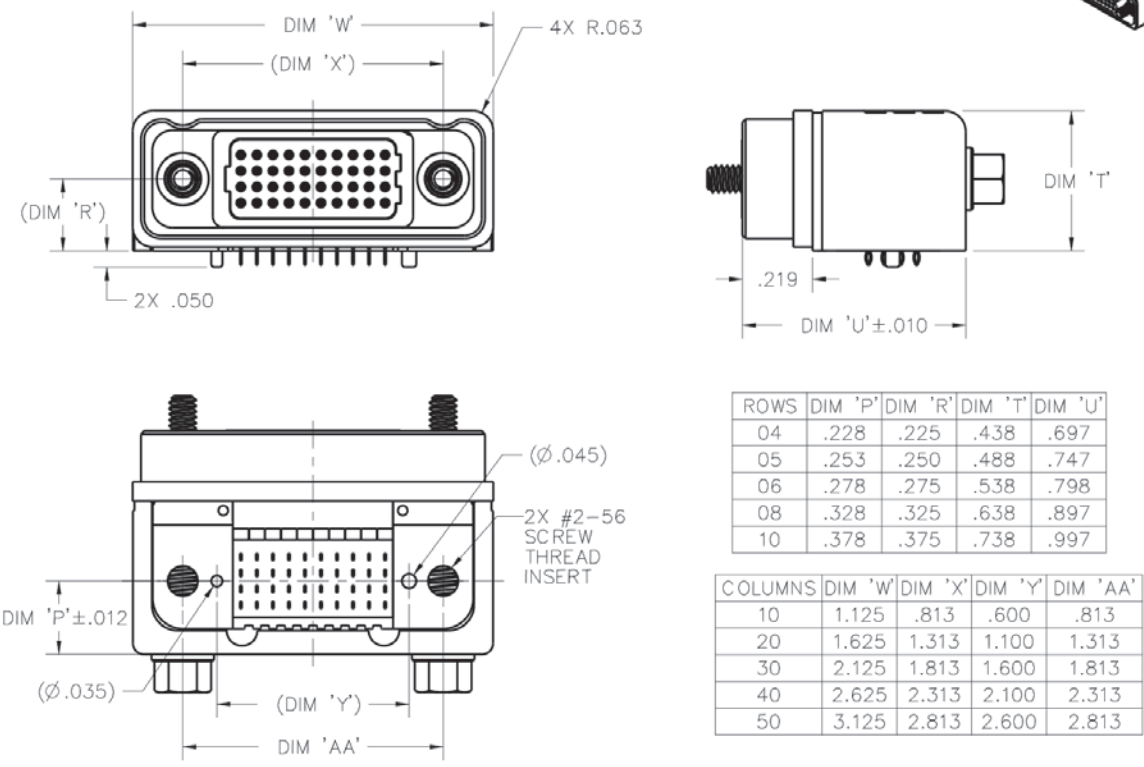


ROWS	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
04	.229	.225	.437	.698
05	.254	.250	.487	.748
06	.279	.275	.537	.798
08	.329	.325	.637	.898
10	.379	.375	.737	.998

COLUMNS	DIM 'E'	DIM 'F'	DIM 'G'	DIM 'H'
10	1.125	.813	.600	.813
20	1.625	1.313	1.100	1.313
30	2.125	1.813	1.600	1.813
40	2.625	2.313	2.100	2.313
50	3.125	2.813	2.600	2.813

CONNECTOR DIMENSIONS
(J & L HARDWARE OPTIONS)





ROWS	DIM 'P'	DIM 'R'	DIM 'T'	DIM 'U'
04	.228	.225	.438	.697
05	.253	.250	.488	.747
06	.278	.275	.538	.798
08	.328	.325	.638	.897
10	.378	.375	.738	.997

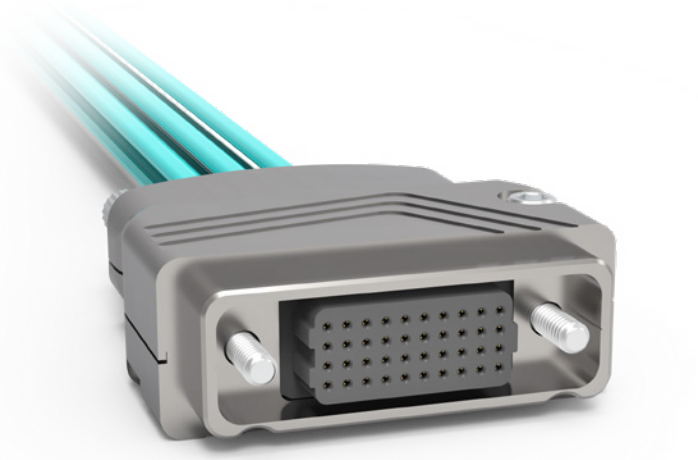
COLUMNS	DIM 'W'	DIM 'X'	DIM 'Y'	DIM 'AA'
10	1.125	.813	.600	.813
20	1.625	1.313	1.100	1.313
30	2.125	1.813	1.600	1.813
40	2.625	2.313	2.100	2.313
50	3.125	2.813	2.600	2.813

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

VRD — Differential Pair Twinax Cable Assembly

VRD cable assemblies are designed for twinax applications. These cable assemblies come in standard lengths but custom lengths and configurations can also be requested. Ruggedized hoods are standard. Pitch: 1.27 mm.



Sample Part Number Format: VRD-04-10-50-03J-000-030

VRD	–	☐	–	☐	–	50	–	☐	–	☐	–	☐
SERIES		ROWS		COLUMNS		CONTACT PLATING		CONNECTOR 1		CONNECTOR 2		LENGTH*

SERIES
Differential Pair Twinax Cable Assembly 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

CONNECTOR 1
01G – Male with guide pins
01N – Male with threaded nut #2-56
01L – Male with locking screw #2-56
01J – Male with jackscrew #2-56
03G – Female with guide sockets
03N – Female with threaded nut #2-56
03L – Female with locking screw #2-56
03J – Female with jackscrew #2-56

CONNECTOR 2
000 – Flying Leads
01G – Male with guide pins
01N – Male with threaded nut #2-56
01L – Male with locking screw #2-56
01J – Male with jackscrew #2-56
03G – Female with guide sockets
03N – Female with threaded nut #2-56
03L – Female with locking screw #2-56
03J – Female with jackscrew #2-56

LENGTH*
030 – 0.30 M
040 – 0.40 M
050 – 0.50 M
060 – 0.60 M
070 – 0.70 M
080 – 0.80 M
090 – 0.90 M
100 – 1.00 M
150 – 1.50 M
200 – 2.00 M
300 – 3.00 M

Notes:

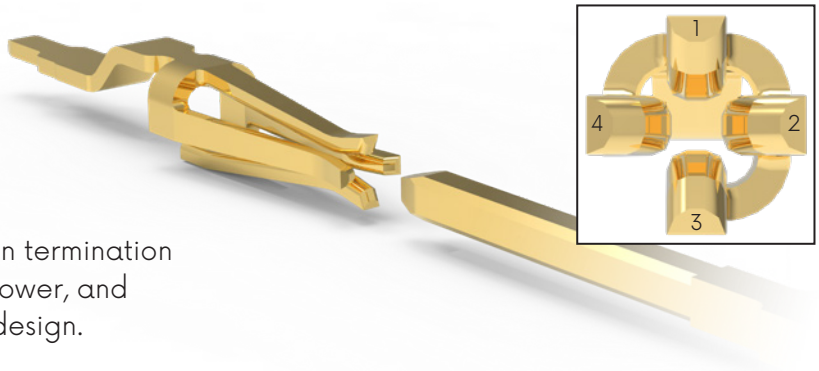
See AirBorn spec ESL5001 for installation information.
*Other cable lengths and configurations available.
AirBorn can manufacture other configurations to your exact specifications.
Reference pinout information on product spec drawing on www.airborn.com.
RoHS Complaint; certificate of conformance available upon request with each shipment.
Please view document VRD-XX-XX-XX-XXX-XXX-XXX on airborn.com before part configuration for more product specification information.

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

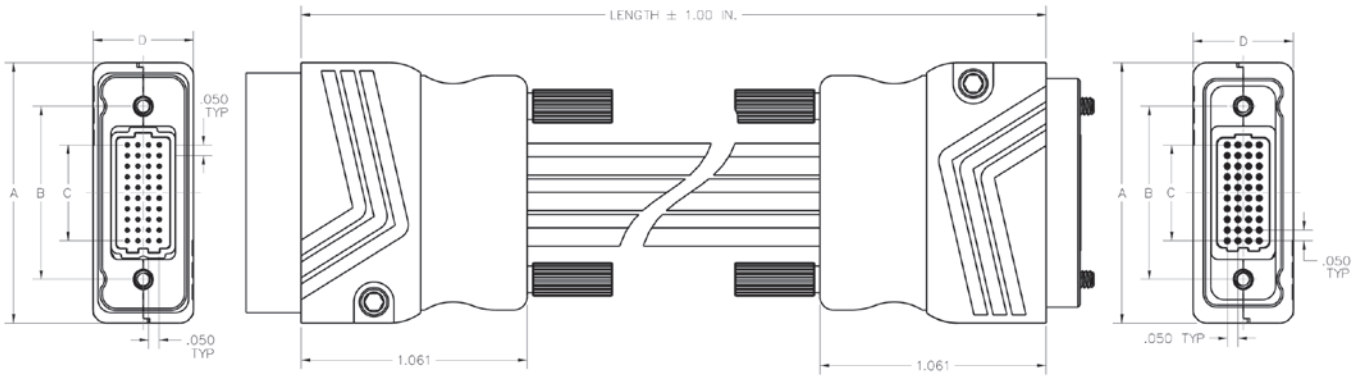
Reliable Contact Every Time

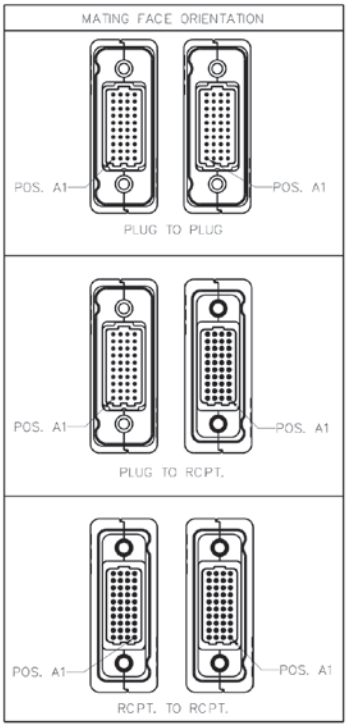
VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

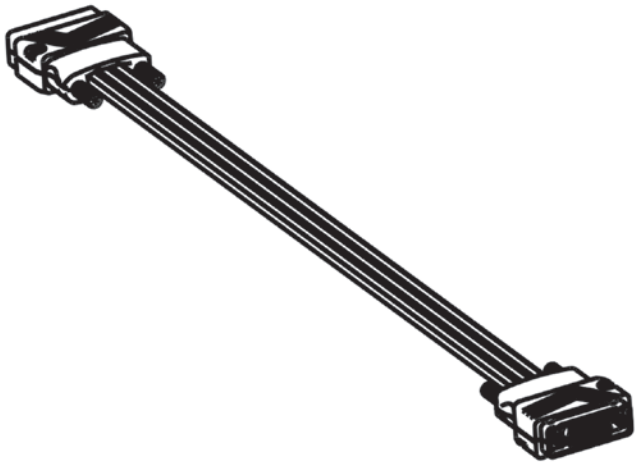
The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.



Dimensions







COLUMNS	A	B	C	ROWS	D
10	1.222	0.813	0.450	4	0.470
20	1.722	1.313	0.950	5	0.520
30	2.222	1.813	1.450	6	0.570
40	2.722	2.313	1.950	8	0.670
50	3.222	2.813	2.450	10	0.770

LENGTH		
CODE	LENGH (M)	LENGTH (IN)
030	0.30	11.81
040	0.40	15.75
050	0.50	19.69
060	0.60	23.62
070	0.70	27.56
080	0.80	31.50
090	0.90	35.43
100	1.00	39.37
150	1.50	59.06
200	2.00	78.74
300	3.00	118.11

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

VRW — Discrete Wire Cable Assembly With Internal Solder Connection

VRW cable assemblies come in standard wire and lengths but custom wire and length options are available. Ruggedized shells are standard. Pitch: 1.27 mm.



Sample Part Number Format: VRW-04-10-50-03G-000-A030

VRW - [ ] - [ ] - 50 - [ ] - [ ] - [ ]

SERIES
Discrete Wire Cable Assembly 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

CONNECTOR 1
01G – Male with guide pins
01N – Male with threaded nut #2-56
01L – Male with locking screw #2-56
01J – Male with jackscrew #2-56
03G – Female with guide sockets
03N – Female with threaded nut #2-56
03L – Female with locking screw #2-56
03J – Female with jackscrew #2-56

CONNECTOR 2
000 – Flying Leads
01G – Male with guide pins
01N – Male with threaded nut #2-56
01L – Male with locking screw #2-56
01J – Male with jackscrew #2-56
03G – Female with guide sockets
03N – Female with threaded nut #2-56
03L – Female with locking screw #2-56
03J – Female with jackscrew #2-56

WIRE CODE
XXXX
(Four characters are required -- see blue columns in the chart below.)

Notes:

See AirBorn spec ESL5001 for installation information.

All VRW part numbers are non-RoHS-compliant.

Wire colors per M83513 are ten (10) solid colors, repeating.

Per M83513, corrosion has been experienced on connectors that are pre-wired with 22759/33 and stored in sealed environments. Caution should be exercised when using this wire.

Reference pinout information on product spec drawing on www.airborn.com.

Please view document VRW-XX-XX-XX-XXX-XXX-XXXX on airborn.com before part configuration for more product specification information.

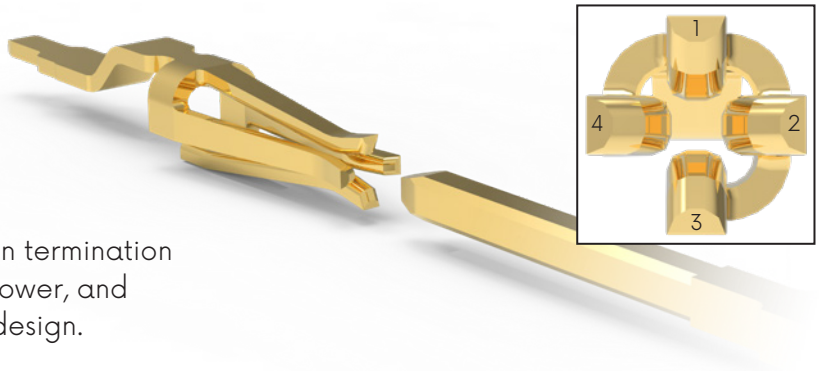
Color (per 83513) and GAGE		Length		
NEMA HP3 EXBEB (24 AWG) - Multicolored	A		Meters	Feet
White	B	010	0.10	0.328
NEMA HP3 EXBDB (26 AWG) - Multicolored	C	020	0.20	0.656
White	D	030	0.30	0.984
NEMA HP3 EXBCB (28 AWG) - Multicolored	E	040	0.40	1.312
White	F	050	0.50	1.640
NEMA HP3 EXBBB (30 AWG) - Multicolored	G	060	0.60	1.969
White	H	070	0.70	2.297
SAE AS22759/33-24 (AWG) - Multicolored	J	080	0.80	2.625
White	K	090	0.90	2.953
SAE AS22759/33-26 (AWG) - Multicolored	L	100	1.00	3.281
White	M	150	1.50	4.921
SAE AS22759/33-28 (AWG) - Multicolored	N	200	2.00	6.562
White	P	300	3.00	9.843
SAE AS22759/33-30 (AWG) - Multicolored	R			
White	S			

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

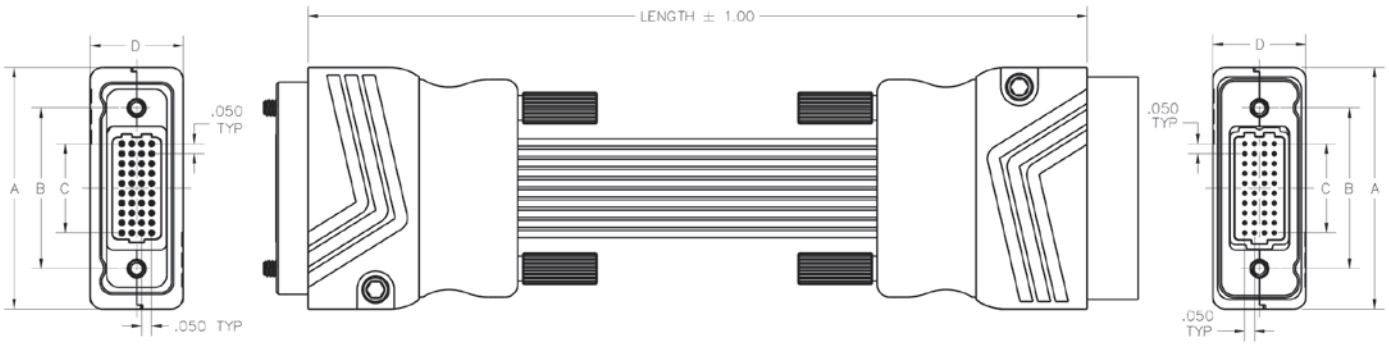
Reliable Contact Every Time

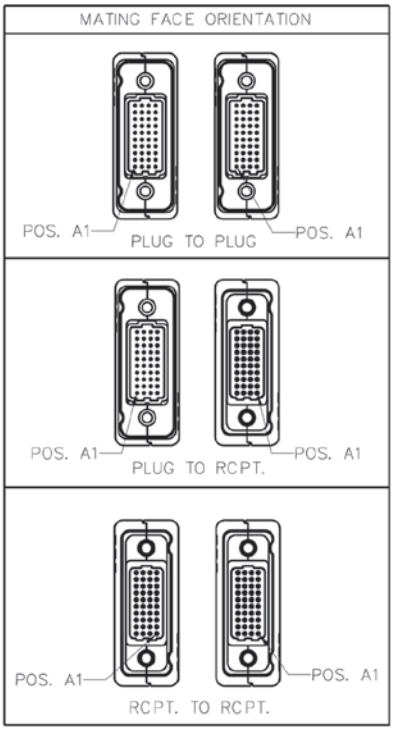
VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

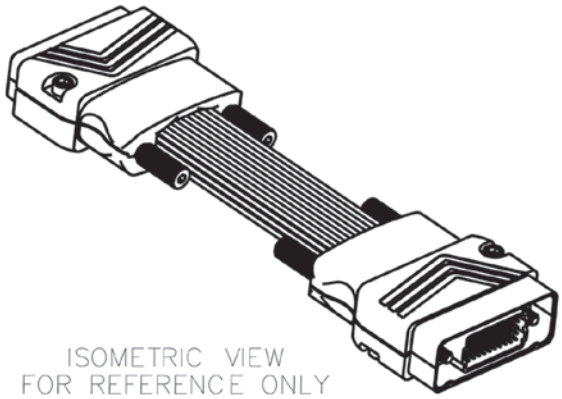
The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.



Dimensions







COLUMNS	A	B	C	ROWS	D
10	1.222	0.813	0.450	4	0.470
20	1.722	1.313	0.950	5	0.520
30	2.222	1.813	1.450	6	0.570
40	2.722	2.313	1.950	8	0.670
50	3.222	2.813	2.450	10	0.770

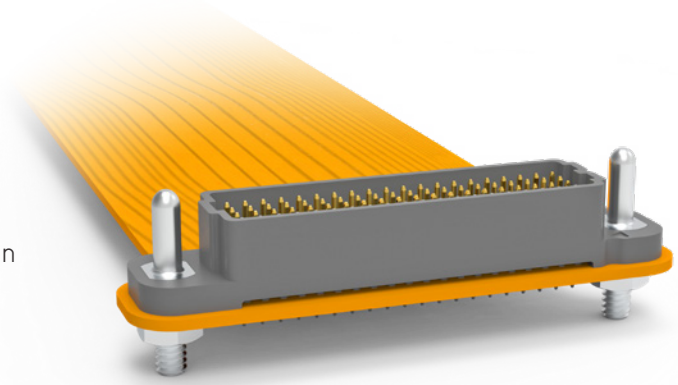
LENGTH		
CODE	LENGTH (M)	LENGTH (IN)
010	0.10	3.94
020	0.20	7.87
030	0.30	11.81
040	0.40	15.75
050	0.50	19.69
060	0.60	23.62
070	0.70	27.56
080	0.80	31.50
090	0.90	35.43
100	1.00	39.37
150	1.50	59.06
200	2.00	78.74
300	3.00	118.11

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

Flexible Circuit Jumper Assemblies

verSI flexible jumper assemblies are available in standard and rugged connector offerings meeting all your application and reliability needs. Standard length offerings are shown but custom length and configuration options are available upon request. Pitch: 1.27 mm.



Sample Part Number Format: VSX-04-10-01VG-03VG-015

□ - □ - □ - □ □ - □ □ - □

SERIES
VSX - Standard
VRX - Rugged

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

CONNECTOR 1 GENDER & ORIENTATION
01V – Male Vertical
03V – Female Vertical
01R – Male Right Angle
03R – Female Right Angle

CONNECTOR 1 MATING HARDWARE
A – No Hardware
J – Jacking
L – Locking
N – Jacknut
G – Guide

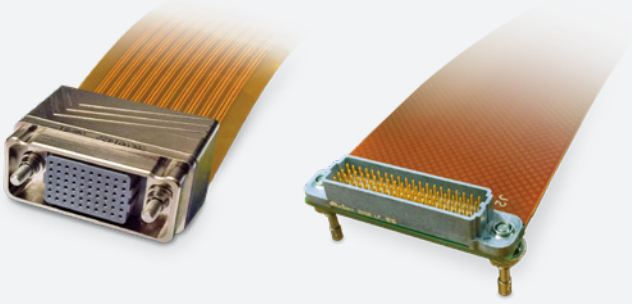
CONNECTOR 2 GENDER & ORIENTATION
01V – Male Vertical
03V – Female Vertical
01R – Male Right Angle
03R – Female Right Angle

CONNECTOR 2 MATING HARDWARE
A – No Hardware
J – Jacking
L – Locking
N – Jacknut
G – Guide

LENGTH
015 – 0.15 M
030 – 0.30 M
040 – 0.40 M
045 – 0.45 M
050 – 0.50 M
060 – 0.60 M
070 – 0.70 M
080 – 0.80 M
090 – 0.90 M
100 – 1.00 M
150 – 1.50 M
200 – 2.00 M
300 – 3.00 M

Notes:

See AirBorn spec ESL5001 for installation information.
Same Gender Jumpers (Male to Male and Female to Female) are not wired 1 to 1.
Connectors are rated for 2 amps, flex traces are rated for 1 amp.
AirBorn can manufacture other configurations to your exact specifications.
Please view document VSX-XX-XX-XXX-XX-XX-XX on airborn.com before part configuration for more product specification information.

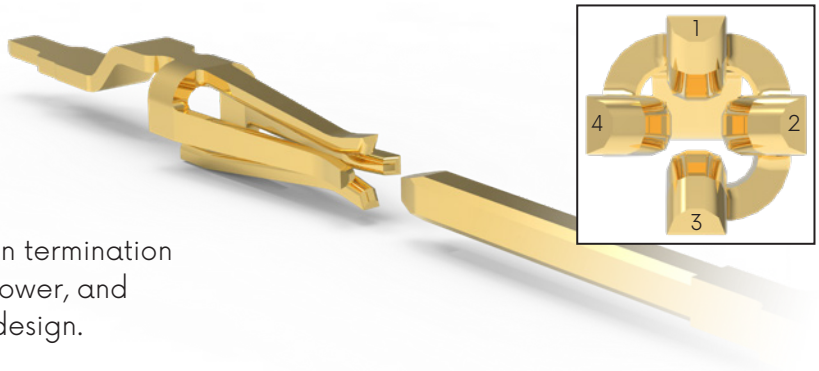


NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

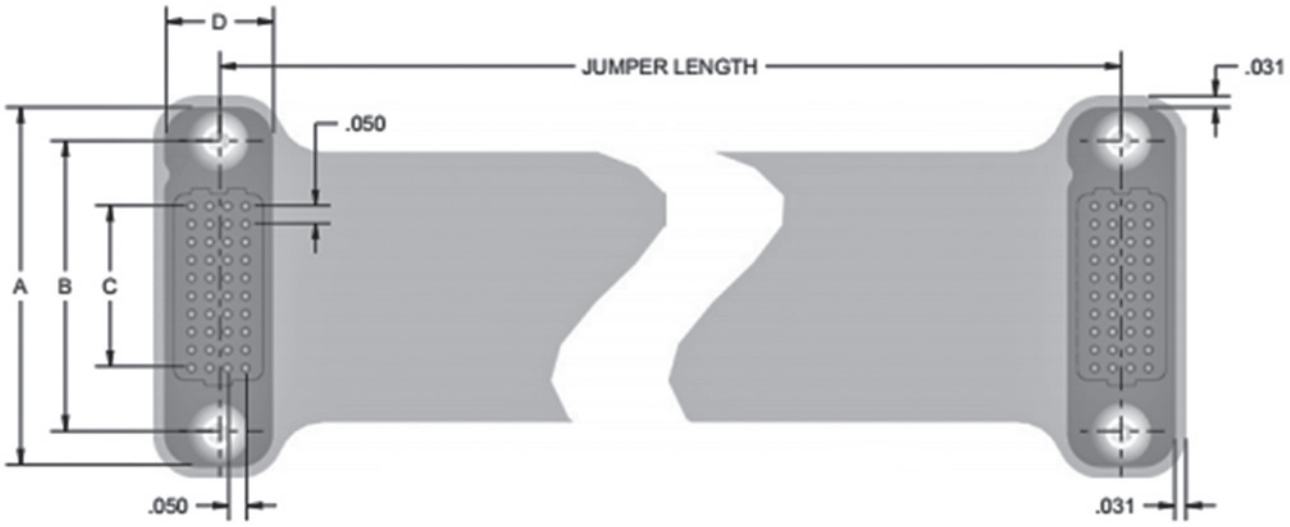
Reliable Contact Every Time

VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.



Dimensions



FLEX JUMPER DIMENSIONS					
Columns	A	B	C	Rows	D
10	1.000	0.813	0.450	4	0.300
20	1.500	1.313	0.950	5	0.350
30	2.000	1.813	1.450	6	0.400
40	2.500	2.313	1.950	8	0.500
50	3.000	2.813	2.450	10	0.700

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

VRCS — Connector Savers

VRCS ruggedized connector savers are designed to protect connectors against repeated mating and unmating cycles during test, initial setup and/or design. VRCS assemblies also serve to protect against costly damage to contacts and hardware during all phases of the connectors life cycle.



Sample Part Number Format: VRCS-04-10-MJFN

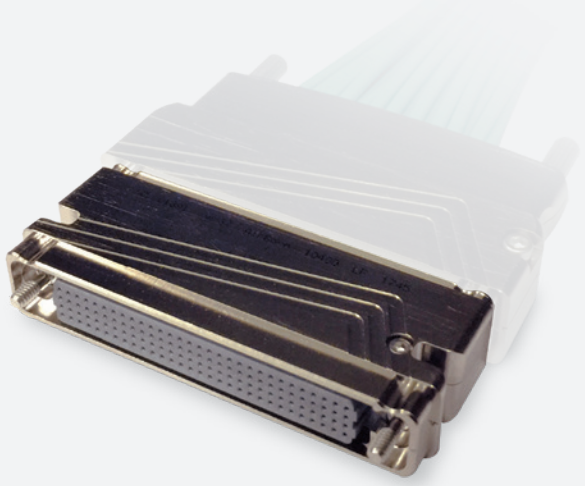
VRCS - ☐ - ☐ - ☐

SERIES
Differential Pair Twinax
Cable Assembly
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

HARDWARE
MJFN – Male with Jackscrew; female jacknut
MNFJ – Male with Jacknut; female jackscrew
MLFN – Male with locking screw; female jacknut
MNFL – Male with Jacknut; locking screw
MGFG – Male guide pin; female guide socket



Notes:

See AirBorn spec ESL5001 for installation information.

VRCS-XX-XX-XXXX hardware is field reversible, replaceable, & repairable.

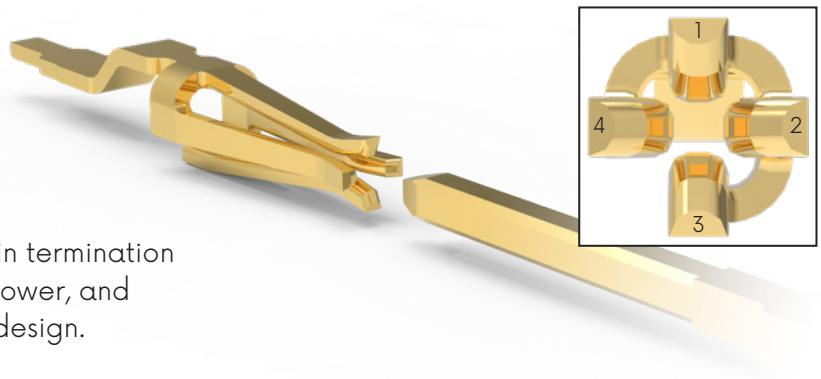
Please view document VRCS-XX-XX-XXXX on airborn.com before part configuration for more product specification information.

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

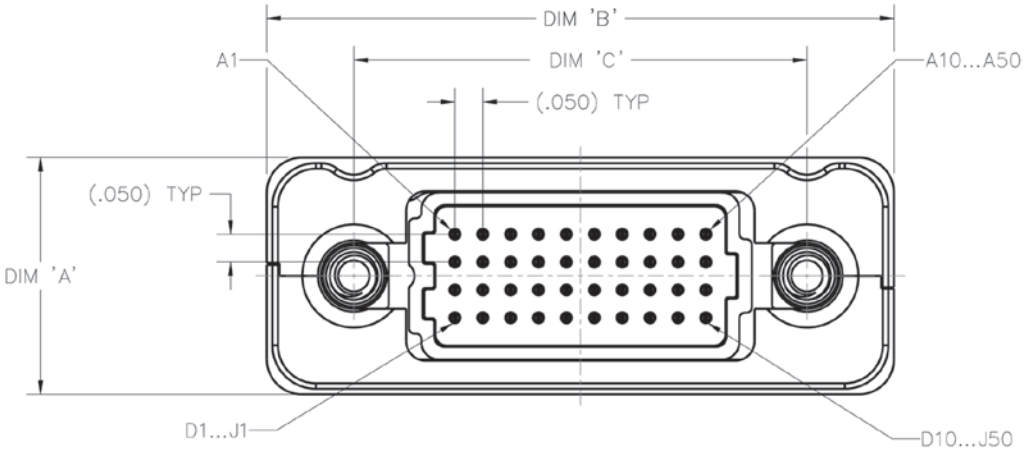
Reliable Contact Every Time

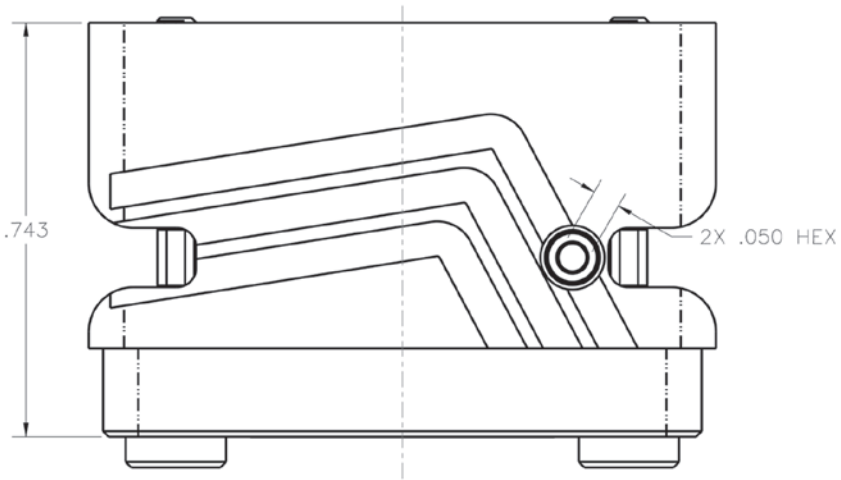
VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

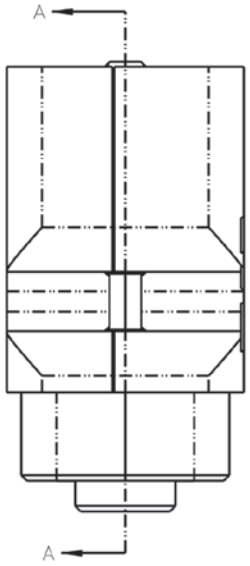
The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.

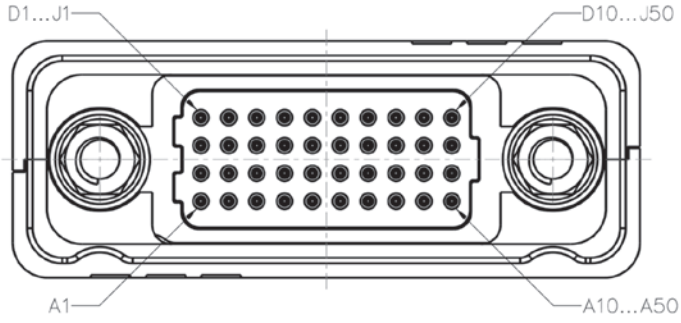


Dimensions









ROWS	DIM 'A'
04	.425
05	.475
06	.525
08	.625
10	.725

COLUMNS	DIM 'B'	DIM 'C'
10	1.125	.813
20	1.625	1.313
30	2.125	1.813
40	2.625	2.313
50	3.125	2.813

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

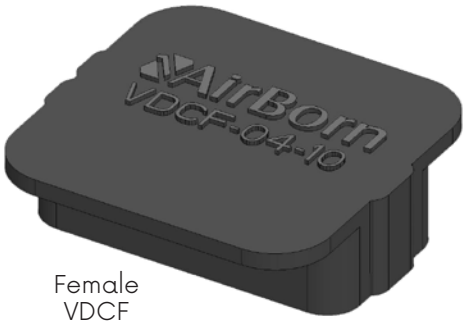
AirBorn

Dust Covers

VDCM & VDCF dust covers offer connectors protection from environmental and mechanical harm using ESD material.



Male
VDCM



Female
VDCF

Sample Part Number Format: VDCM-04-10

□ – □ – □

SERIES
VDCM – Male Dust Cover
VDCF – Female Dust Cover

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

Notes:

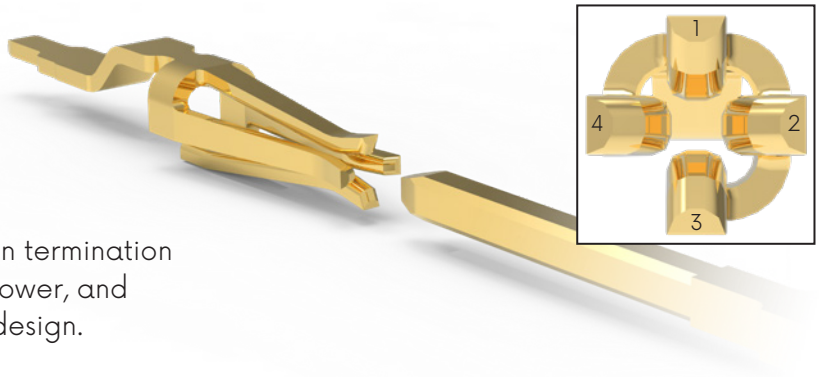
See AirBorn spec ESL5001 for installation information.
VDCM covers are applied to VSM, VRM, VSRAM & VRRAM
VDCF covers are applied to VSF, VRF, VSRAF & VRRAF
Please view document xxxxxxxxxxxx on airborn.com before part configuration for more product specification information.

NOTE: Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.

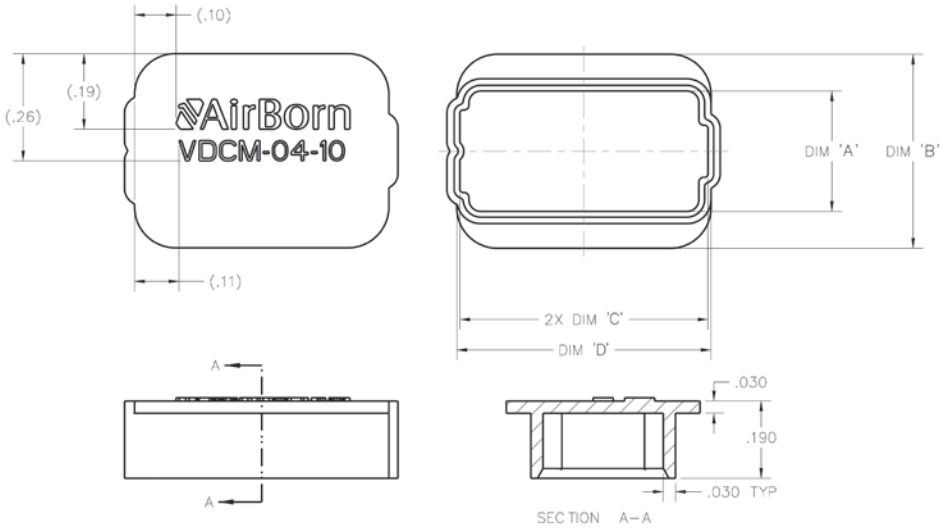
Reliable Contact Every Time

VerSI connectors feature a low-mating-force, high-reliability contact system with four points-of-contact.

The open-pin field design allows flexibility in termination schemes. Single-ended, differential pair, power, and ground are all available in one connector design.



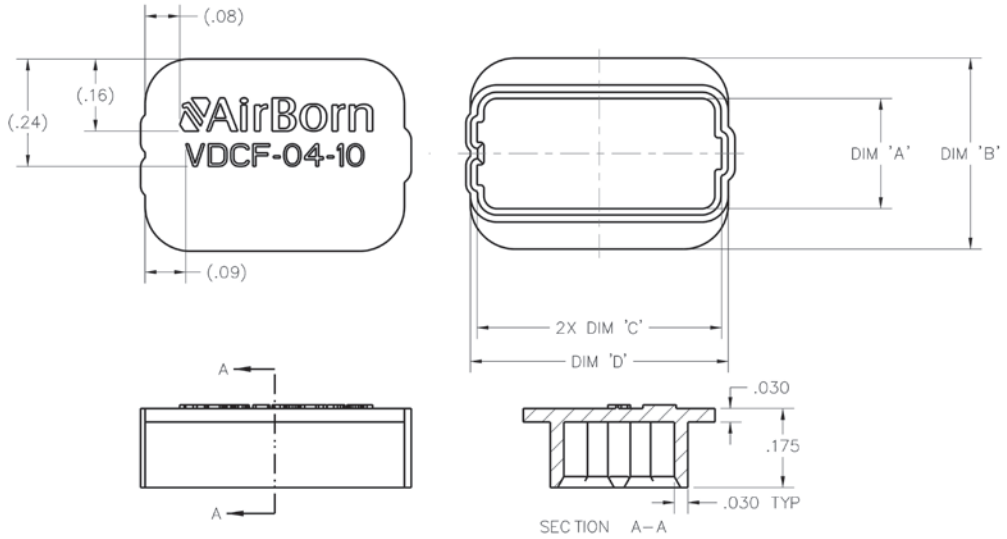
Dimensions



COLUMNS	DIM 'C'	DIM 'D'
10–10 COL	.611	.63
20–20 COL	1.111	1.13
30–30 COL	1.611	1.63
40–40 COL	2.111	2.13
50–50 COL	2.611	2.63

ROWS	DIM 'A'	DIM 'B'
04–4 ROW	.296	.48
05–5 ROW	.346	.53
06–6 ROW	.396	.58
08–8 ROW	.496	.68
10–10 ROW	.596	.78

VDCM



COLUMNS	DIM 'C'	DIM 'D'
10–10 COL	.545	.58
20–20 COL	1.045	1.08
30–30 COL	1.545	1.58
40–40 COL	2.045	2.08
50–50 COL	2.545	2.57

ROWS	DIM 'A'	DIM 'B'
04–4 ROW	.245	.43
05–5 ROW	.295	.48
06–6 ROW	.345	.53
08–8 ROW	.445	.63
10–10 ROW	.545	.73

VDCF

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

Signal Integrity Data — Simulated (Connectors Only)

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

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

V2M Materials, Finishes, & Performance

Materials & Finishes

- Pin Contacts Materials: . . . . . PIH & PTH: Phos bronze per ASTM B103 or Press Fit: BeCu per ASTM B768 (press-fit contact)
- Pin Contacts Finish: . . . . 50 µIN min localized gold finish per ASTM B488 over nickel per ASTM B689 Type I
- Pin Contacts Finish Termination End:
  PIH & PTH: . . . . . 10 µIN min localized gold flash per ASTM B488 Type I code A or C over 50 µIN min Ni per ASTM B689 Type I
  Press Fit: . . . . . 50 µIN min localized gold per ASTM B488 Type II code C over 50 µIN min Ni per ASTM B689 Type I
  SMT non RoHS: . . . . . .10 µIN min localized gold flash per ASTM B488 Type I, code A or C over 50 µIN min .Ni per ASTM B689 Type I tin dipped with Sn63Pb37 solder
  SMT RoHS: . . . . . 10 µIN localized gold flash per ASTM B488 Type I, code A or C over 50 µIN min Ni per ASTM B689 Type I tin dipped with 42Sn/57.6Bi/0.4Ag solder
- Molded Insulators: . . . . . Glass-filled liquid crystal polymer (LCP) per ASTM D5138
- Shell Material: . . . . . Aluminum alloy 6061-T6 per SAE AMS 4027 or 6061-T6511 per QQ-A-200/8
- Shell Finish: . . . . . 500 µIN min electroless Ni per SAE AMS 2404, Class 3
- Embedment Material: . . . . . .Frey Engineering Co. insulating compound CF3003-80 or equivalent
- Hardware Material: . . . . . Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320
- Hardware Finish: . . . . . Passivated per SAE AMS-2700
- Washers Material: . . . . . Stainless steel per NASM35333 (ASTM A240)
- Washers Finish: . . . . . Passivated per NASM35333 (SAE AMS-2700)

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . -55° to +125° C
- Contact Engagement Force: . . . . . 6.0oz max.*
- Contact Separation Force: . . . . . 0.5oz min*
- Connector Mating Force: . . . . . 10oz X (# of contacts), max tested per MIL-DTL-83513
- Connector Unmating Force . . . . . 10oz X (# of contacts), max tested per MIL-DTL-83513
- Low-Level Contact Resistance . . . . . 20mΩ max, V2M mated to V2F, measured at the termination
- DWV (Sea Level) . . . . . 600 V, RMS, 60Hz, See AirBorn PTB61 for more info
- Recommended Maximum Operating Voltage . . . . . 200 V, RMS, 60Hz, See AirBorn PTB61 for more info
- Insulation Resistance: . . . . . 5,000 megaohms minimum @ 500 VDC
- Durability:. . . . . .2,500 connector mating cycles
- Sinusoidal Vibration: . . . . . 20 g (EIA-364-28, condition IV)
- Shock:. . . . . 50 g (EIA-364-27, condition E)
- Outgassing . . . . . Max TML of 1% and max CVCM of .1% per MIL-DTL-83513

* Forces tested on socket only. Max pin size used for contact engagement force and min pin size used for contact separation force.

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

V2F Materials, Finishes, & Performance

Materials & Finishes

- Socket Contacts Materials: . . . . . BeCu per ASTM B194
- Socket Contacts Finish Socket End: . . . . . 50 µIN min localized gold finish per ASTM B488 Type II, code C . . . . . over 50 µIN min Ni per ASTM B689 Type I
- Socket Contacts Finish Termination End:
  PIH & PTH: . . . . . 10 µIN min localized gold flash per ASTM B488 Type I code A or C over 50 µIN min . . . . . Ni per ASTM B689 Type I
  Press Fit: . . . . . 50 µIN min localized gold per ASTM B488 Type II code C over 50 µIN min . . . . . Ni per ASTM B689 Type I
  SMT non RoHS: . . . . . 10 µIN min localized gold flash per ASTM B488 Type I, code A or C over 50 µIN min . . . . . Ni per ASTM B689 Type I tin dipped with Sn63Pb37 solder
  SMT RoHS: . . . . . 10 µIN localized gold flash per ASTM B488 Type I, code A or C over 50 µIN min . . . . . Ni per ASTM B689 Type I tin dipped with 42Sn/57.6Bi/0.4Ag solder
- Molded Insulators: . . . . . Glass-filled liquid crystal polymer (LCP) per ASTM D5138
- Shell Material: . . . . . Aluminum alloy 6061-T6 per SAE AMS 4027 or 6061-T6511 per QQ-A-200/8
- Shell Finish: . . . . . 500 µIN min electroless Ni per SAE AMS 2404, Class 3
- Embedment Material: . . . . . Frey Engineering Co. insulating compound CF3003-80 or equivalent
- Hardware Material: . . . . . Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320
- Hardware Finish: . . . . . Passivated per SAE AMS-2700
- Washers Material: . . . . . Stainless steel per NASM35333 (ASTM A240)
- Washers Finish: . . . . . Passivated per NASM35333 (SAE AMS-2700)

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . -55° to +125° C
- Contact Engagement Force: . . . . . 6.0oz max.*
- Contact Separation Force: . . . . . 0.5oz min*
- Connector Mating Force: . . . . . 10oz X (# of contacts), max tested per MIL-DTL-83513
- Connector Unmating Force . . . . . 10oz X (# of contacts), max tested per MIL-DTL-83513
- Low-Level Contact Resistance . . . . . 30mΩ max, V2M mated to V2F, measured at the termination
- DWV (Sea Level) . . . . . 600 V, RMS, 60Hz, See AirBorn PTB61 for more info
- Recommended Maximum Operating Voltage . . . . . 200 V, RMS, 60Hz, See AirBorn PTB61 for more info
- Insulation Resistance: . . . . . 5,000 megaohms minimum @ 500 VDC, tested per MIL-DTL-83513
- Durability: . . . . . 2,500 connector mating cycles, exceeds MIL-DTL-83513
- Sinusoidal Vibration: . . . . . 20 g tested per MIL-DTL-83513
- Shock: . . . . . 50 g tested per MIL-DTL-83513
- Outgassing . . . . . Max TML of 1% and max CVCM of .1% per MIL-DTL-83513

* Forces tested on socket only. Max pin size used for contact engagement force and min pin size used for contact separation force.

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

V2C Materials, Finishes, & Performance

Materials & Finishes

- Shell Material: . . . . 6061-T6, 6061-T6511 or 6060-T6511 Aluminum SAE AMS 4027 or SAE AMS-QQ-A-200/8
- Shell Finish: . . . . . 500 microinch min electroless Ni per SAE AMS-2404, class3
- Socket Material: . . . . . BeCu per ASTM B194
- Pin Material: . . . . . .Phos bronze per ASTM B103
- Contact Finish: . . 50 microinch min gold finish per SAE AMS B488 over 50 microinch NI per ASTM B689 Type I
- Cable: . . . . . .Reference product specification drawing *V2C-XX-XX-XX-XXX-XXX-XXX-XXX*
- Wire: . . . . . .Reference product specification drawing *V2C-XX-XX-XX-XXX-XXX-XXX-XXX*
- Molded Insulators: . . . . . .Glass-filled liquid crystal polymer (LCP) per ASTM D5138
- Hardware Materials:. . . . . .Stainless steel per ASTM A582/A582M or ASTM A320
- Hardware Finishes:. . . . . Passivated per SAE AMS-2700
- Embedment. . . . . Frey Engineering Co. insulating compound CF3003-80 & L-11-49 or equivalent
- Solder: . . . . . SN/PB solder, 63% PB, 37% SN
- EMI Gasket: . . . . . Conductive elastomer per MIL-DTL-83528 Type D

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . .-55° to +125° C
- Contact Engagement Force: . . . . . 6.0oz max.*
- Contact Separation Force: . . . . . 0.5oz min*
- Connector Mating Force: . . . . . .10oz X (# of contacts), max tested per MIL-DTL-83513
- Connector Unmating Force . . . . . .10oz X (# of contacts), max tested per MIL-DTL-83513
- DWV (Sea Level) . . . . . .600 V, RMS, 60Hz, See AirBorn PTB61 for more info
- Recommended Maximum Operating Voltage . . . . . .200 V, RMS, 60Hz, See AirBorn PTB61 for more info
- Insulation Resistance: . . . . . .5,000 megaohms minimum @ 500 VDC per MIL-DTL-83513
- Durability:. . . . . 2,500 connector mating cycles, exceeding MIL-DTL-83513
- Sinusoidal Vibration: . . . . . .20 g tested per MIL-DTL-83513
- Shock:. . . . . .50 g tested per MIL-DTL-83513
- Outgassing . . . . . Max TML of 1% and max CVCM of .1% per MIL-DTL-83513

* Forces tested on socket only. Max pin size used for contact engagement force and min pin size used for contact separation force.

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

AirBorn

VSM Materials, Finishes, & Performance

Materials & 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
- 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))

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . .-55° to +125° C
- Max. Recommended Operating Voltage: . . . . . .200 V, RMS, 60 Hz
- Insulation Resistance: . . . . . 5,000 megaohms minimum @ 500 VDC
- Durability:. . . . . .2,500 connector mating cycles
- Sinusoidal Vibration: . . . . . 20 g (EIA-364-28, condition IV)
- Shock:. . . . . .50 g (EIA-364-27, condition E)

NOTE: Performance values are estimates & values are subject to change without notice. Please reference engineering document VSM-XX-XX-XXX-XX-XX-XX on airborn.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

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Materials & Finishes

- Socket Contacts:. . . . . BeCu per ASTM B194
- 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
- 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)

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . -55° to +125° C
- Max. Recommended Operating Voltage: . . . . . 200 V, RMS, 60 Hz
- Insulation Resistance: . . . . . 5,000 megaohms minimum @ 500 VDC
- Durability:. . . . . 2,500 connector mating cycles
- Sinusoidal Vibration: . . . . . 20 g (EIA-364-28, condition IV)
- Shock:. . . . . 50 g (EIA-364-27, condition E)

NOTE: Performance values are estimates & values are subject to change without notice. Please reference engineering document VSF-XX-XX-XXX-XX-XX-XX on airborn.com for the latest engineering to design against. Certificate of RoHS compliance available upon request with each shipment.

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VRM Materials, Finishes, & Performance

Materials & 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 µIN min
- 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
- 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)

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . .-55° to +125° C
- Max. Recommended Operating Voltage: . . . . . .200 V, RMS, 60 Hz
- Insulation Resistance: . . . . . 5,000 megaohms minimum @ 500 VDC
- Durability:. . . . . 2,500 connector mating cycles
- Sinusoidal Vibration: . . . . . 20 g (EIA-364-28, condition IV)
- Shock:. . . . . .50 g (EIA-364-27, condition E)

NOTE: Performance values are estimates & values are subject to change without notice. Please reference engineering document VRM-XX-XX-XXX-XX-XX-XX on airborn.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

*VRM 8MM (VRM-XX-XX-080) spacing is not available with mating hardware options.

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Materials & 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 µIN min
- Socket Contact: . . . . . BeCu per ASTM B194
- 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, A582/A582M or ASTM A320; . . . . . .passivated per SAE AMS-2700
- 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)

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . -55° to +125° C
- Max. Recommended Operating Voltage: . . . . . 200 V, RMS, 60 Hz
- Insulation Resistance: . . . . . 5,000 megaohms minimum @ 500 VDC
- Durability:. . . . . 2,500 connector mating cycles
- Sinusoidal Vibration: . . . . . 20 g (EIA-364-28, condition IV)
- Shock:. . . . . 50 g (EIA-364-27, condition E)

NOTE: Performance values are estimates & values are subject to change without notice. Please reference engineering document VRF-XX-XX-XXX-XX-XX-XX on airborn.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

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VSRAM Materials, Finishes, & Performance

Materials & Finishes

- Pin Contacts (Mating Face): . . . . . .Phos bronze per ASTM B103
- Pin Contacts (Termination): .BeCu per ASTM B768 (press-fit contact) or brass alloy per ASTM B36 (PIH or PTH)
- 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 I, 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
- Washers: . . . . . Stainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . .-55° to +125° C
- Max. Recommended Operating Voltage: . . . . . .200 V, RMS, 60 Hz
- Insulation Resistance: . . . . . 5,000 megaohms minimum @ 500 VDC
- Durability:. . . . . .2,500 connector mating cycles
- Sinusoidal Vibration: . . . . . 20 g (EIA-364-28, condition IV)
- Shock:. . . . . .50 g (EIA-364-27, condition E)

NOTE: Performance values are estimates & values are subject to change without notice. Please reference engineering document VSRAM-XX-XX-XXX-XX-XX-XX on airborn.com for the latest specificationsto design against. Certificate of RoHS compliance available upon request with each shipment.

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

VRRAM Materials, Finishes, & Performance

Materials & 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 µIN min
- Pin Contacts (Mating Face): . . . . . Phos bronze per ASTM B103
- Pin Contacts (Termination): BeCu per ASTM B768 (press-fit contact) or brass alloy per ASTM B36 (PIH or PTH)
- 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 Face): . . . . . 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: . . . . . 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
- Washers: . . . . . Stainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . -55° to +125° C
- Max. Recommended Operating Voltage: . . . . . 200 V, RMS, 60 Hz
- Insulation Resistance: . . . . . 5,000 megaohms minimum @ 500 VDC
- Durability:. . . . . 2,500 connector mating cycles
- Sinusoidal Vibration: . . . . . 20 g (EIA-364-28, condition IV)
- Shock:. . . . . 50 g (EIA-364-27, condition E)

NOTE: Performance values are estimates & values are subject to change without notice. Please reference engineering document VRRAM-XX-XX-XXX-XX-XX-XX on airborn.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

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VSRAF Materials, Finishes, & Performance

Materials & Finishes

- Socket Contact (Mating Face): . . . . . 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
- Washers: . . . . . Stainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . .-55° to +125° C
- Max. Recommended Operating Voltage: . . . . . .200 V, RMS, 60 Hz
- Insulation Resistance: . . . . . 5,000 megaohms minimum @ 500 VDC
- Durability: . . . . . .2,500 connector mating cycles
- Sinusoidal Vibration:. . . . . 20 g (EIA-364-28, condition IV)
- Shock: . . . . . .50 g (EIA-364-27, condition E)

NOTE: Performance values are estimates & values are subject to change without notice. Please reference engineering document VSM-XX-XX-XXX-XX-XX-XX on airborn.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

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Materials & 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
- Washers: . . . . . Stainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)
- EMI Gasket (GE and NE options only): . . . . . Conductive Elastomer per MIL-DTL-83528 Type D

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . .-55° to +125° C
- Max. Recommended Operating Voltage: . . . . . 200 V, RMS, 60 Hz
- Insulation Resistance: . . . . . 5,000 megaohms minimum @ 500 VDC
- Durability:. . . . . 2,500 connector mating cycles
- Sinusoidal Vibration: . . . . . 20 g (EIA-364-28, condition IV)
- Shock:. . . . . .50 g (EIA-364-27, condition E)

NOTE: Performance values are estimates & values are subject to change without notice. Please reference engineering document VRRAF-XX-XX-XXX-XX-XX-XX on airborn.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

VRD Materials, Finishes, & Performance

Materials & Finishes

- Shell: . . . . . .Aluminum alloy 6061-T6 per QQ-A-250/11 or 6061-T6511 per QQ-A-200/8
- Finish: . . . . . Electroless nickel per SAE AMS-C-26074, Grade B, Class 3
- Socket Contact: . . . . . BeCu per ASTM B194
- Pin Contacts: . . . . . Phos bronze per ASTM B103
- Contact Finish: . . . . . Localized gold finish per ASTM B488 over nickel per ASTM B689 Type I
- Wire: . . . . . 30 AWG*; 19/42 silver-plated copper
- Molded Insulators: . . . . . Glass-filled liquid crystal polymer (LCP) per ASTM D5138
- Hardware: . . . . . .Stainless steel per ASTM A582/A582M or ASTM A320; passivated per SAE AMS-2700
- Embedment: . . . . . Frey Eng. Co. insulating compound CF3003-80 and L-II-49 or equivalent

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . .-55° to +125° C
- Max. Recommended Operating Voltage: . . . . . 200 V, RMS, 60 Hz
- Insulation Resistance: . . . . . 5,000 megaohms minimum @ 500 VDC
- Durability:. . . . . 2,500 connector mating cycles
- Sinusoidal Vibration: . . . . . 20 g (EIA-364-28, condition IV)
- Shock:. . . . . .50 g (EIA-364-27, condition E)

NOTE: Performance values are estimates & values are subject to change without notice. Please reference engineering document VRD-XX-XX-XXX-XX-XX-XX on airborn.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

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VRW Materials, Finishes, & Performance

Materials & Finishes

- Shell: . . . . . Aluminum alloy 6061-T6 per QQ-A-250/11 or 6061-T6511 per QQ-A-200/8
- Finish . . . . . Electro-less nickel per SAE AMS-2404, Class 3; 500 µ", min.
- Socket Contact: . . . . . BeCu per ASTM B194
- Pin Contacts: . . . . . Phos bronze per ASTM B103 or per BeCu ASTM B768
- Contact Finish: . . . . . Localized gold finish per ASTM B488 over nickel per ASTM B689 Type I
- Molded Insulators . . . . . Glass-filled liquid crystal polymer (LCP) per ASTM D5138
- Embedment: . . . . . Frey Eng. Co. insulating compound CF3003-80 and L-II-49 or equivalent
- Hardware: . . . . . Stainless steel per ASTM A582/A582M or ASTM A320; passivated per SAE AMS-2700

Please reference engineering document VRW-XX-XX-XXX-XX-XX-XX on airborn.com for the latest engineering specifications to design against.

Performance

- Contact Rating: . . . . . 2 amperes maximum
- Operating Temperature: . . . . . -55° to +125° C
- Contact Engagement Force: . . . . . 6.0oz max.*
- Contact Separation Force: . . . . . 0.5oz min*
- Connector Mating Force: . . . . . 10oz X (# of contacts), max tested per MIL-DTL-83513
- Connector Unmating Force . . . . . 10oz X (# of contacts), max tested per MIL-DTL-83513
- DWV (Sea Level) . . . . . 600 V, RMS, 60Hz, See AirBorn PTB61 for more info
- Recommended Maximum Operating Voltage . . . . . 200 V, RMS, 60Hz, See AirBorn PTB61 for more info
- Insulation Resistance: . . . . . 5,000 megaohms minimum @ 500 VDC per MIL-DTL-83513
- Durability:. . . . . 2,500 connector mating cycles, exceeding MIL-DTL-83513
- Sinusoidal Vibration: . . . . . 20 g tested per MIL-DTL-83513
- Shock:. . . . . 50 g tested per MIL-DTL-83513
- Outgassing . . . . . Max TML of 1% and max CVCM of .1% per MIL-DTL-83513

* Forces tested on socket only. Max pin size used for contact engagement force and min pin size used for contact separation force.

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The AirBorn Advantage

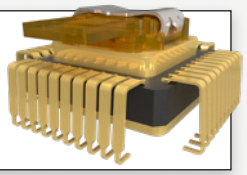
Model-To-Market Solutions



Rugged Power Systems



Photonics/ Optoelectronics





Flexible Circuit Assemblies



Cable Assemblies



FUZE Assemblies



Active Optical Assemblies



Rectangular
W Series



Rectangular
R Series



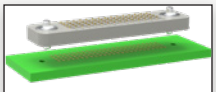
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M Series



Nano D
N Series



Rectangular
25Gbps
verSI



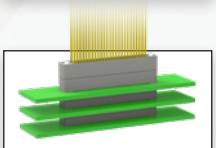
Z Axis Interposer
Z Series



Hybrid-Keyed
Micro D
microQUAD



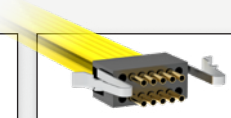
High-Speed
Micro D
microSI



Stackable
RC & RCII Series



Circular
Series 360



Strip Connector
AirStrip



Macro D
RocKet

VSIC-7.22

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