

CV4M2 — Copper Cable Assembly

AirBorn's CV4M2 is a 4 channel, 12.5 Gbps copper verSI cable assembly. CV4M2 cables mate with VTF and VTRAF board-mount connects and VPD panel-mount cables.



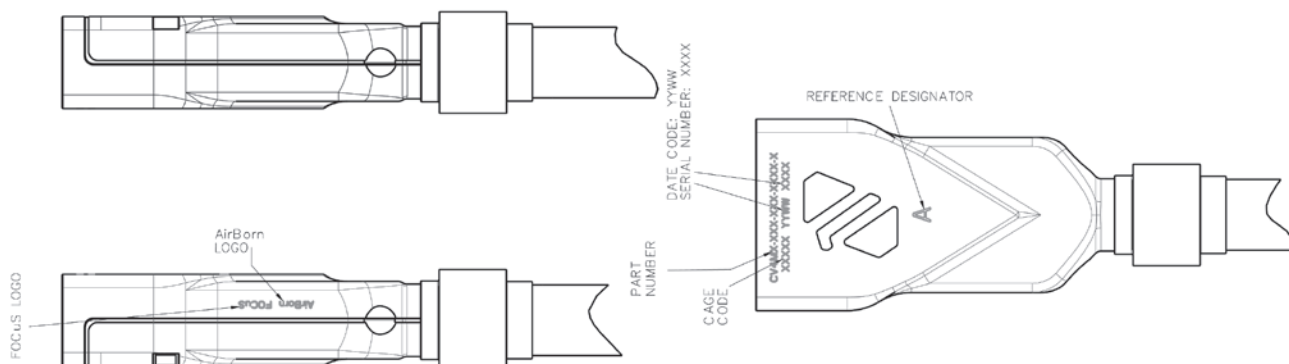
Sample Part Number Format: CV4M2-040-JS00-1

CV	4	M	2	-		-		-	
Series CV – Copper verSI Cable Assembly	Lanes 4 – 4 Bi- Directional Links	Gender M – Plug	Shell Material 2 – Nickel Plated Aluminum		Length (Dim A) 030 – .98 Feet (0.30 Meters) 040 – 1.31 Feet (0.40 Meters) 050 – 1.64 Feet (0.50 Meters) 060 – 1.96 Feet (0.60 Meters) 070 – 2.29 Feet (0.70 Meters) 080 – 2.62 Feet (0.80 Meters) 090 – 2.95 Feet (0.90 Meters) 100 – 3.28 Feet (1.00 Meters)		Hardware JS – Jacking Screw LS – Locking Screw		Keying Polarization* 00 – Option 'A' - Standard 01 – Option 'B' 02 – Option 'C' 03 – Option 'D' 04 – Option 'E' 05 – Option 'F' 06 – Option 'G' 07 – Option 'H' *See pages 36-43 for keying details and dimensions
									Braiding 1 – No Braid 2 – Metal Braid 3 – Halar Braid 4 – Halar Over Metal Braid

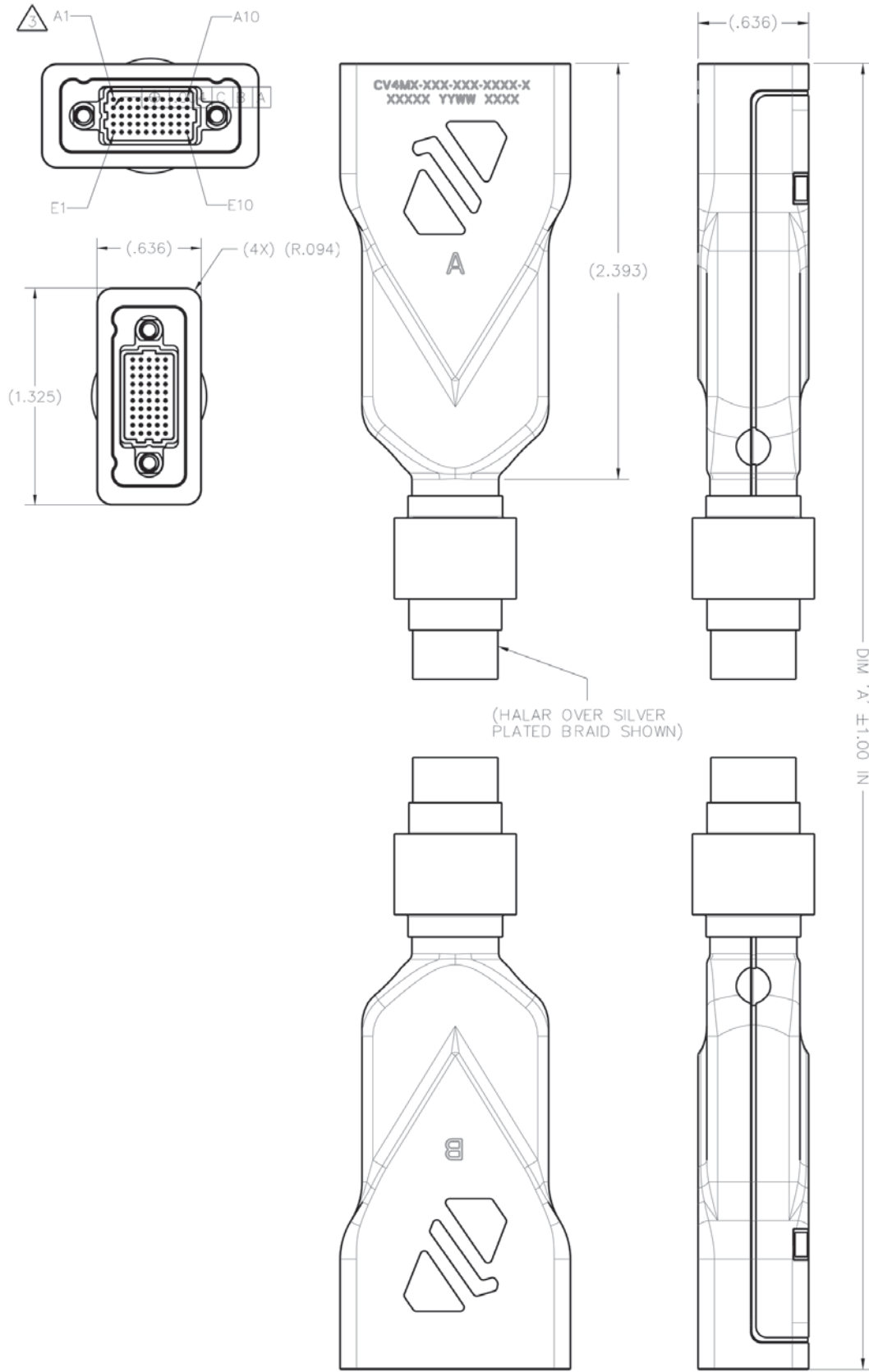
- Notes:**
- Cable mates with connector series: VTF, VTRAF, & VPD.
 - Packaging: Cable to be packaged with dust cover installed (not shown). Cable supplied fully assembled in ESD safe box.
 - Cable ends A & B have identical pin outs and pin assignments.

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

Marking Detail



Dimensions



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

CV4M2 Materials, Finishes, & Cable Performance

Materials & Finishes

Pin Contacts (Male)	Material	BeCu per ASTM B194
	Finish	Phos bronze per ASTM B103, 50µin min localized Au per ASTM B488 Type II, code C over 50µin min Ni per ASTM B689 Type I
Molded Insulator	Material	Glass-filled liquid crystal polymer (LCP) per ASTM D5138
Shell	Material	Aluminum alloy 6061-T6 per SAE AMS-4027 or 6051-T6511 Per SAE AMS-QQ-A-200/8
	Finish	500µin min electroless Ni per SAE AMS-2404, class 3
Hardware	Material	Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320
	Finish	Passivated per SAE AMS-2700
Spira Gasket	Material	BeCu
	Finish	Electroplated, 90% tin, 10% lead per AMS-P-81728
Cable: 26 AWG Twinax	Parallel, 100 ohm impedance	
Cable: 26 AWG Buss Wire	Electroplated, 90% tin, 10% lead per AMS-P-81728	
Heatshrink Tubing	AA59551-H26S1B per A-A-59551, plating: electrodeposited tin alloy coating per ASTM B545, class C. 90 ± 5% tin, remainder lead	
Lacing (Braid Option Only)	Per A-A-52081	
Tape	Acrylic adhesive polyimide film (Kaption)	
Metal Braid Only (Option 2)	Silver-plated copper braid per aa59569r30soxxx. Secured to backshell with micro band. Potting compound shall be frey engineering CF-3003-80 (fullpot) and L-II-49 (prepot) or equivalent.	
Halar Braid (Option 3)	Halar braid secured to backshell with micro band. Potting compound shall be frey engineering CF-3003-80 (fullpot) and L-II-49 (prepot) or equivalent.	
Halar Over Metal Braid (Option 4)	Halar over silver-plated copper braid per AA59569R30SOXXX secured to backshell with micro band. Potting compound shall be frey engineering CF-3003-80 (fullpot) and L-II-49 (prepot) or equivalent.	

Performance

Contact Rating	2 Amperes max, see AirBorn PTB66 for more info
Operating Temperature	-55°C to 125°C, see AirBorn PTB66 for more info
Contact Engagement Force	6.0oz max*
Contact Separation Force	5.0oz 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)	600V, RMS, 60Hz, see AirBorn PTB61 for more info
Recommended Max. Operating Voltage	200V, 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	20g, tested per MIL-DTL-83513
Shock	50g, tested per MIL-DTL-83513
Outgassing	Max TML of 1% and max CVCM of .1% per MIL-DTL-83513

*Max pin size used for contact engagement force and min pin size used for contact separation force.

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