

AV4M2 — Active Optical Cable Assembly

AirBorn's FOCuS Active Optical Cable is a 4 channel, 12.5 Gbps offering, available in both space-rated and rugged models. AV4M2 cables mate to the VTF and VTRAF board-mount connectors and VPD panel-mount cables.



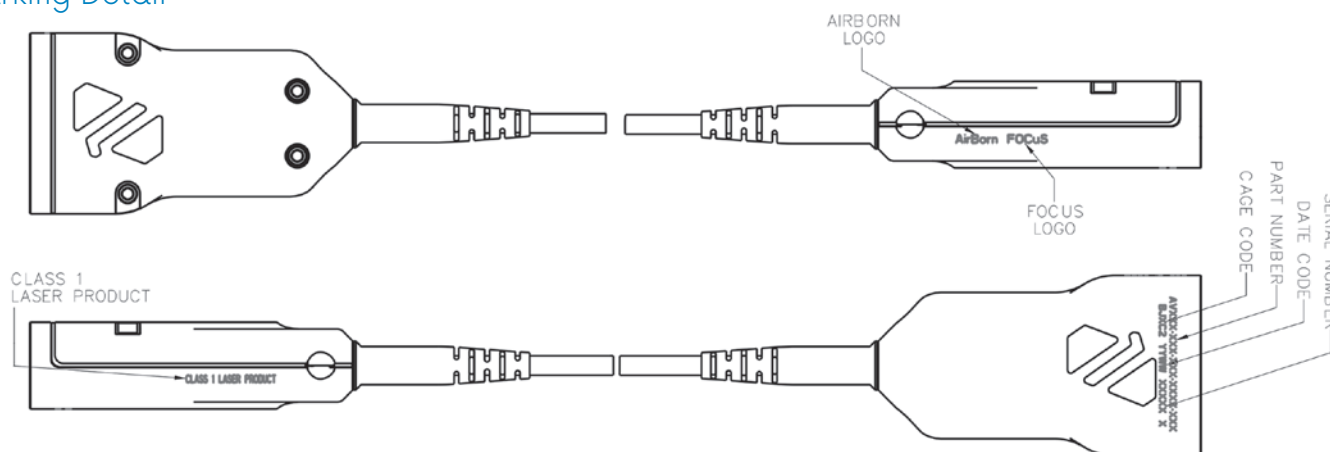
Sample Part Number Format: AV4M2-RN2-010-LS00-000

AV	4	M	2	-		N		-		-		-	
Series AV – AOC verSI Cable Assembly	Lanes 4 – 4 Bi- Directional Optical Links	Gender M – Plug	Shell Material 2 – Nickel Plated Aluminum	Application S – Space R – Rugged	Optical Package N – Non- Hermetic	Fiber Type 1 – Radiation Hardened, 50/125 OM3 Multimode Fiber 2 – Non-Radiation Hardened, 50/125 OM3 Multimode Fiber					Hardware JS – Jacking Screw LS – Locking Screw		Testing Code See page 32-33 for testing code matrix.
													100 200 201 300 400 401 500 600 601
											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		
						Fiber Length 005 – 16.40 Feet (5 Meters) 010 – 32.81 Feet (10 Meters) 020 – 65.62 Feet (20 Meters) 030 – 98.43 Feet (30 Meters)							

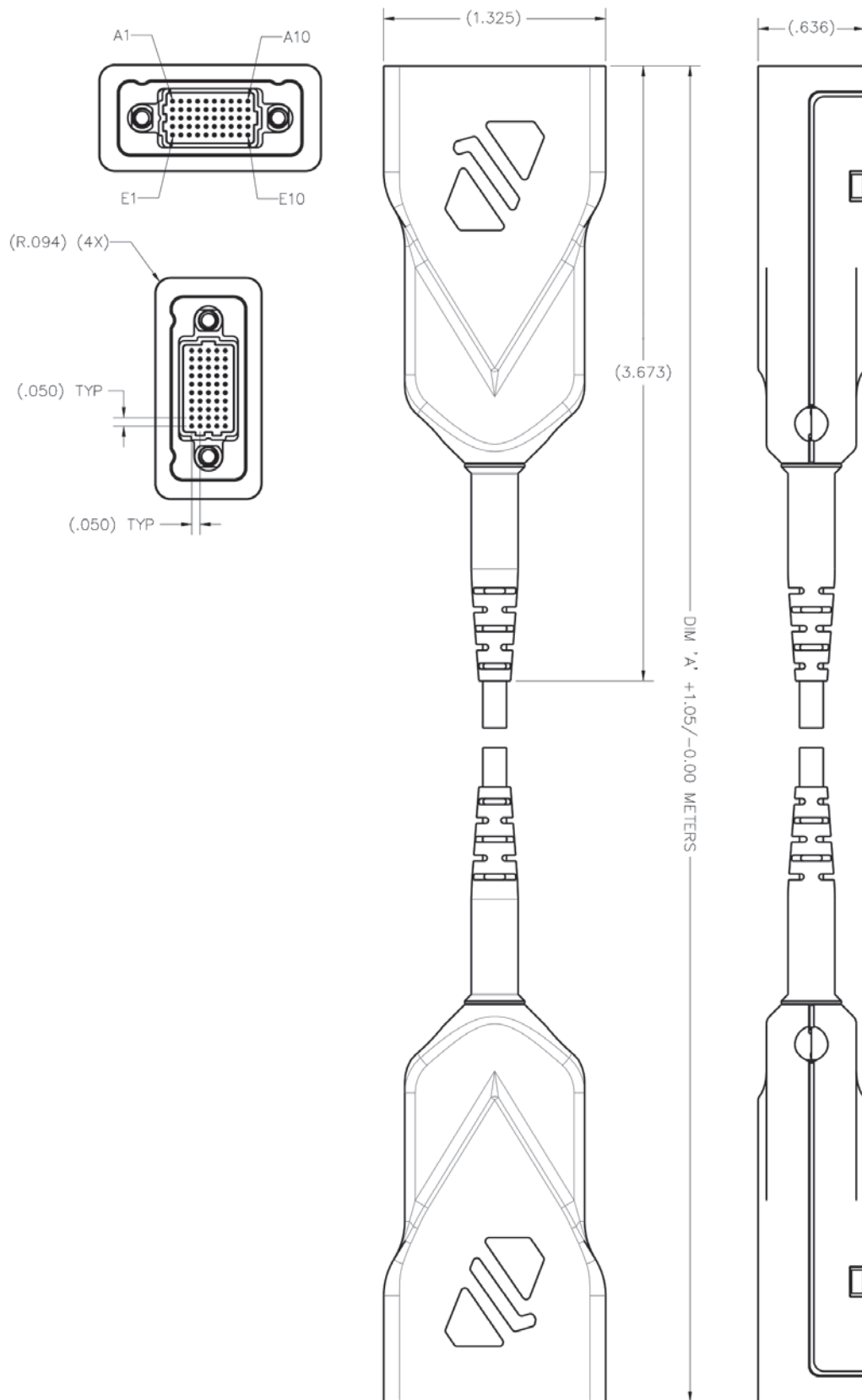
- Notes:**
- Mates with connector series: VTF, VTRAF, & VPD.
 - Packaging: Cable to be packaged with dust cover installed (not shown). Cable supplied fully assembled in ESD safe box.
 - AirBorn requires a non-disclosure agreement before purchasing of the Active Optic Cables.

Please consult airborn.com to configure your part number and for the latest revision controlled drawing and technical data.
Class I laser product that complies with FDA performance standards for laser products except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May 8, 2019.

Marking Detail



Dimensions



Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.
 Class I laser product that complies with FDA performance standards for laser products except for conformance with IEC 60825-1 Ed. 3,
 as described in Laser Notice No. 56, dated May 8, 2019.

AV4M2 Materials, Finishes, & Cable Performance

Materials & Finishes

Pin Contacts (Male)	Material	BeCu per ASTM B194
	Finish	50μ IN min localized Au per ASTM B 488 Type 11, 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 6061-T6511 per SAE AMS-QQ-A-200/8
	Finish	500μ IN min electroless Ni per SAE AMS-2404, class 3
Hardware	Material	Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320
	Finish	Passivate per SAE AMS-2700

Cable Performance

Parameter	Symbol	Unit	Min	Typical	Max
Storage Temperature Range	Ts	C	-55		125
Case Operating Temp. Range	Ta	C	-30		90
Operating Relative Humidity (Non-Condensing)		%	0		95
Pressurization		torr	10 ⁻⁹		775
TID Radiation Hardening		krad		30 krad	
SEE MeVcm ² /mg				>40	
Fiber Tension		N			30
Fiber Bend Radius		in	2.5		
Operating Voltage		Vdd	3.15	3.3	3.45
Data Rate Per Channel		Gbps	1.25		12.5
Power Consumption (Per End)		W		0.850	1.2
Bit Error Rate		BER			10 ⁻¹²
Return Loss		dB		-8	
Rx Differential Output Voltage		mVp-p	250		780
Outgassing	Max TML of 1% and max CVCM of .1% per MIL-DTL-83513				

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