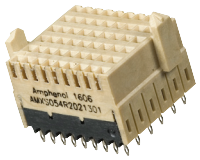
AirMax VS®

High-Performance, High-Density, Cost Effective

- AirMax VS® offers scalability, flexibility, high-performance, and high-density
- "VS" stands for virtual shields as the technology requires no shields
- Column-based differential pairs available in 2, 3, 4, and 5 Pair configurations
- Pin assignments for differential pairs, single-ended or power can be mixed within one connector
- Available in 2mm and 3mm spacing
- Compliant pressfit 0.6mm drill plated through hole
- Designed to fit HM (hard metric building practice)
- Various module sizes available
- Opposed dual beam contact system

The AirMax VS® connector utilizes edge-coupled air dielectric technology to deliver excellent electrical performance at a cost-effective price.



Backpanel Receptacle (Standard)

- Right-angle header and vertical receptacle
- Female contacts on backpanel
- Same right-angle header can be used in co-planar application

Backpanel Header (Reverse)

- Right-angle receptacle and vertical header
- Male contacts on backpanel

Co-Planar

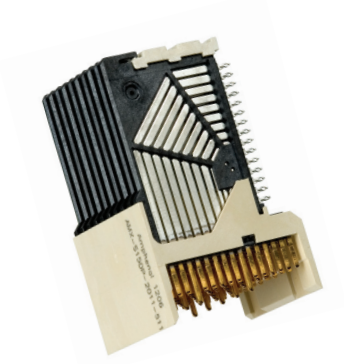
- Right-angle header and right-angle receptacle

Mezzanine

- Vertical header and vertical receptacle
- Header supports various stack heights (12.5 - 30mm)

Differential Electrical Performance

Insertion Loss < 0.5 dB through 3 GHz < 2.0 dB through 10 GHz
Impedance 100 ± 5 ohms for risetime 55 ps (20-80%)
Near-end, multi-active crosstalk < 2.5% for risetime 55 ps (20-80%)
Far-end, multi-active crosstalk < 3% for risetime 55 ps (20-80%)

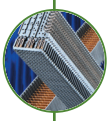


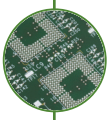
Position	2mm Spacing Density Pairs/Inch	3mm Spacing Density Pairs/Inch	Minimum Card Pitch
150 - 15 Row, 5 Pair	63.5	42.0	0.984
120 - 12 Row, 4 Pair	50.8	33.5	0.787
90 - 9 Row, 3 Pair	38.0	22.6	0.654

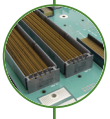
The Amphenol TCS Advantage

"By offering design solutions and advice related to signal integrity between the chip, the design of the PCB, and finally, the connector, Amphenol TCS has the total signal path covered. This type of system solution approach provides an advantage over connector-only manufacturers."

- Fleck Research


Industry Leading Connectors


Printed Circuit Backplanes


Integrated Backplane Systems


Design and Applications Solutions

Amphenol TCS
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AirMax VS® Quick Selector Guide

	# of Contacts	# of IMLA's	# of Differential Pairs Per Module	Nominal Plug in Unit pitch (mm)	Contact pitch (columns)	2 Wall Header Drawing Number	4 Wall Header Drawing Number	Receptacle Drawing Number
Application: Backpanel | Gender: Right Angle Header, Vertical Receptacle								
AirMax VS 5 Pair	165	11	55	25	3mm	AA251-11000	AA251-11100	AA151-11000
	150	10	50	25	3mm	AA251-10000	AA251-10100	AA151-10000
	150	10	50	25	2mm	AA250-10000	AA250-10100	AA150-10000
	120	8	40	25	3mm	AA251-08000	AA251-08100	AA151-08000
	120	8	40	25	2mm	AA250-08000	AA250-08100	AA150-08000
AirMax VS 4 Pair	120	10	40	20	3mm	AA241-10000	AA241-10100	AA141-10000
	120	10	40	20	2mm	AA240-10000	AA240-10100	AA140-10000
	96	8	32	20	3mm	AA241-08000	AA241-08100	AA141-08000
	72	6	24	20	2mm	AA240-06000	AA240-06100	AA140-06000
AirMax VS 3 Pair	90	10	30	30	2mm	AA230-10000	AA230-10100	AA130-10000
	72	8	24	24	2mm	AA230-08000	AA230-08100	AA130-08000
	54	6	18	18	2mm	AA230-06000	AA230-06100	AA130-06000
Application: Backpanel | Gender: Right Angle Receptacle, Vertical Header								
AirMax VS 5 Pair	150	10	50	25	3mm	AA351-10300	AA351-10200	AA451-10000
	150	10	50	25	2mm	AA350-10300	AA350-10200	AA450-10000
AirMax VS 4 Pair	120	10	40	20	3mm	AA341-10300	AA341-10200	AA441-10000
	120	10	40	20	2mm	AA340-10300	AA340-10200	AA440-10000
AirMax VS 3 Pair	90	10	30	17	2mm	AA330-10300	AA330-10200	AA430-10000
	54	6	18	17	2mm	AA330-06300	AA330-06200	AA430-06000
Application: Co-Planar, Right Angle Receptacle to Right Angle Header								
AirMax VS 5 Pair	150	10	50	25	3mm	AA251-11000	AA251-11100	AA451-10000
	150	10	50	25	2mm	AA251-10000	AA251-10100	AA450-10000
AirMax VS 4 Pair	120	10	40	20	3mm	AA241-10000	AA241-10100	AA441-10000
	120	10	40	20	2mm	AA240-10000	AA240-10100	AA440-10000
AirMax VS 3 Pair	90	10	30	17	2mm	AA230-10000	AA230-10100	AA430-10000
	54	6	18	17	2mm	AA230-06000	AA230-06100	AA430-06000
Application: Mezzanine, Vertical Receptacle to Vertical Header								
AirMax VS 5 Pair	150	10	50	12,5	3mm		AA351-10200	AA151-10000
	150	10	50	12,5	2mm		AA550-10200	AA150-10000
AirMax VS 4 Pair	120	10	40	12,5	3mm		AA341-10200	AA241-10000
	120	10	40	12,5	2mm		AA340-10200	AA240-10000

Other configurations available. Please consult Amphenol TCS for additional information and product availability.

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