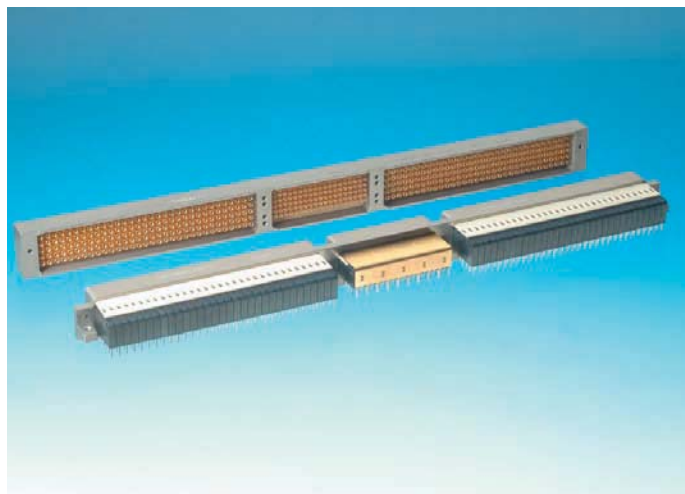




VME64X Ruggedized Connectors

- COTS and custom applications
- Designed for severe environments with high levels of shock and vibration
- Compatible with IEEE-1101.2 -1992*
- Complies with ANSI/VITA 1.7 high current standard for VME64X
- Modular design of high speed modules feature round pins to mate with Hypertac® contacts
- Optimized lead traces within modules provide superior performance in high speed applications
- Rugged aluminum frames provide physical protection, conduction cooling, and act as a faraday cage
- Keying feature assures proper mating
- Press-in/compliant termination is also available for backplane assembly, consult factory

General Specifications				
	KVME434M		KVME434F	
	P1 / P2	P0	J1 / J2	J0
Design Criteria	IEEE-1101.2 1992			
Contact Gender	Male pin		Hypertac 0.50mm socket	Hypertac 0.40mm socket
Contact Termination Style	Solder tail		Solder or press-fit	
Contact Spacing	2.54mm (5 row)	2.00mm (6 row; 5 rows + 1 shield row)	2.54mm (5 row)	2.00mm (6 row)
Contact Current Rating	2.5 Amps	1 Amp	2.5 Amps	1 Amp
Temperature Range	-55° C to 125° C			
Insulation Resistance	> 5000 megohm			
Insulator Material	30% Glass filled LCP			
Flammability Rating	94 V-O			
Pin Contact Material	Beryllium copper		—	
Socket Contact Material	—		Beryllium copper wires and brass body	
Plating Mating Contacts	50µin gold / 50µin nickel			
Plating Contact Termination	Tin/lead (63/37) / 50µin nickel (MIL-P-81728)			
Suggested Printed Circuit Board Hole Diameter Solder Tail	1.00mm +/- 0.05mm after plating	0.75mm +/- 0.05mm after plating	1.00mm +/- 0.05mm after plating	0.60mm +/- 0.05mm after plating
Suggested Printed Circuit Board Hole Press Fit Compliant Tail	—		1.00mm +/- 0.05mm after plating	0.70mm +/- 0.05mm after plating

* Contact factory for detail

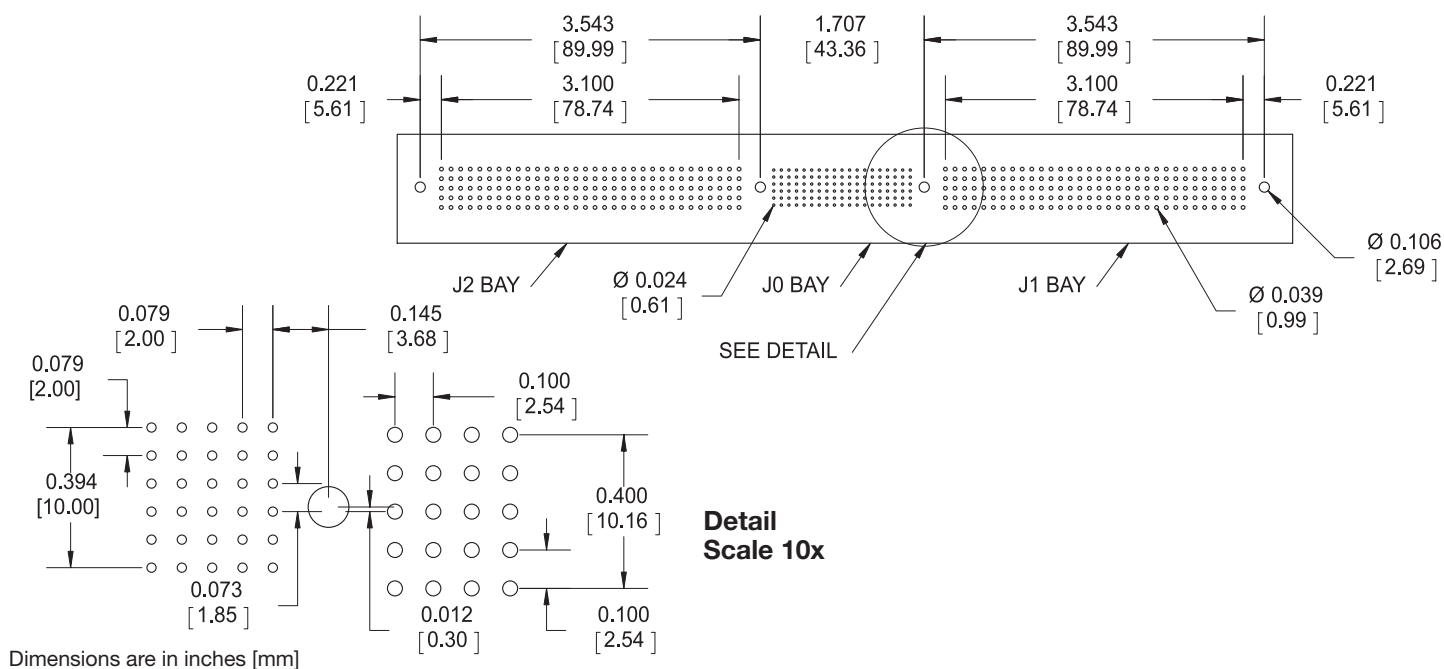
Performance Specifications

	P1 / P2	P0	J1 / J2	J0
CRD (Contact Resistance at Rated Current)		4.85 milliohm average		4.85 milliohm average
LLCR (Low Level Contact Resistance)		7.20 milliohm average		7.25 milliohm average
DWV		1000V RMS		1000V RMS
Contact Life (Mate / Unmate)	> 4000 cycles			
Mating Force		27.3 LBf average		27.3 LBf average
Demating Force		22.4 LBf average		22.4 LBf average
Vibration				
Frequency		10 to 2000 to 10 HZ		10 to 2000 to 10 HZ
Amplitude		0.05 da 15 G		0.05 da 15 G
Duration		4.0 hours, 3 axis, 12 hour total		4.0 hours, 3 axis, 12 hour total
Test Current		100 ma		100 ma
Sweep Time		20 minutes		20 minutes
No Circuit Interruptions Occurred		At 10 Nano second resolution		At 10 Nano second resolution
Mechanical Shock				
Peak Value		100 G		100 G
Duration		6 Millisecond		6 Millisecond
Number of Shocks		3 shock / 3 axis (18 total)		3 shock / 3 axis (18 total)
No Circuit Interruptions Occurred		At 10 Nano second resolution		At 10 Nano second resolution

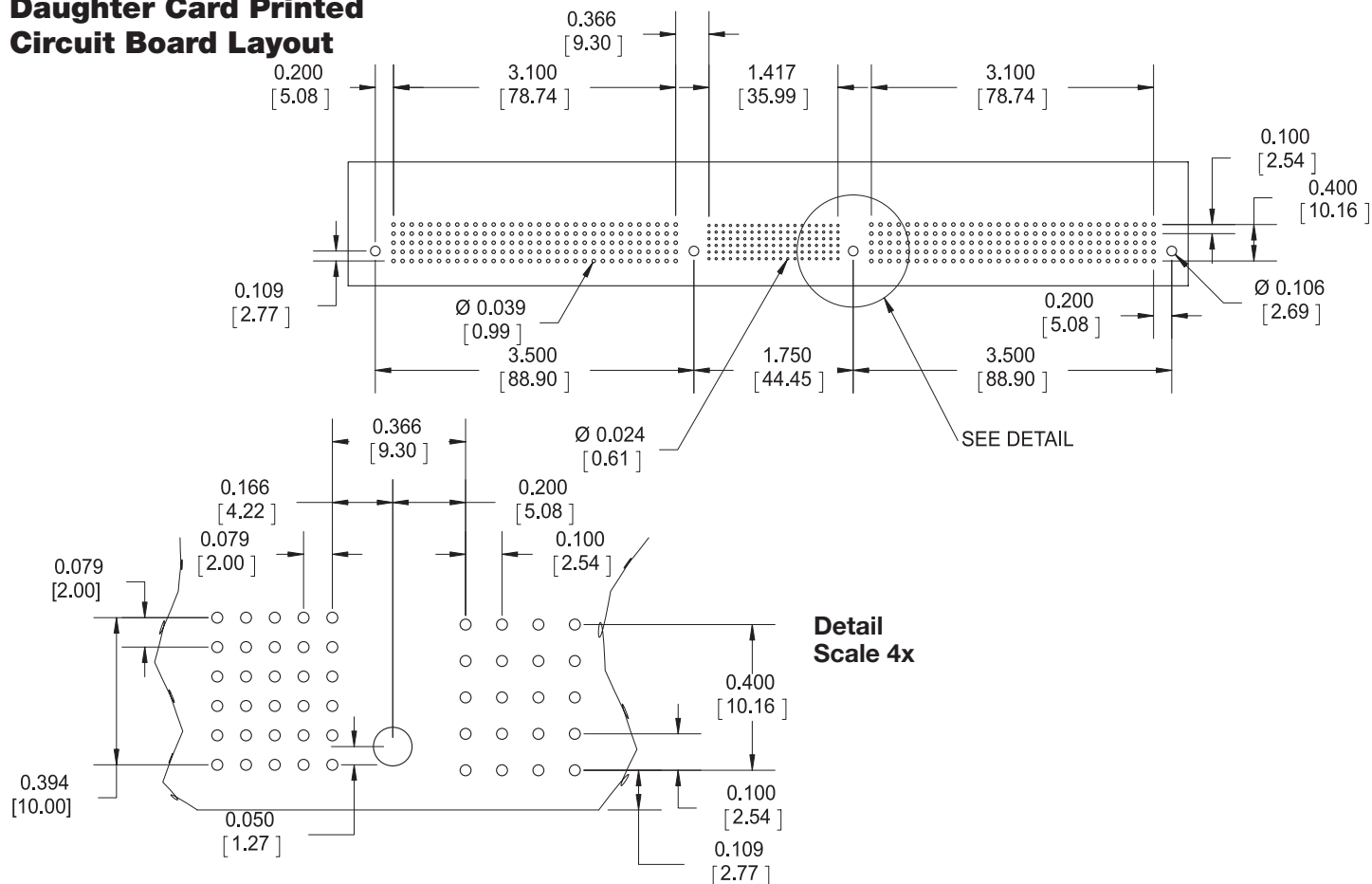
Recommended Alignment Fixturing and Tooling

Alignment Tool	Description	Work Instructions
T2079	Standard VME Daughtercard	S50477
T2074	Standard VME Backplane J1/J2 press tool	S50478
T2073	Standard VME Backplane J0 press tool	S50478
T2058	Standard VME Polarizing pin press tool	S50478

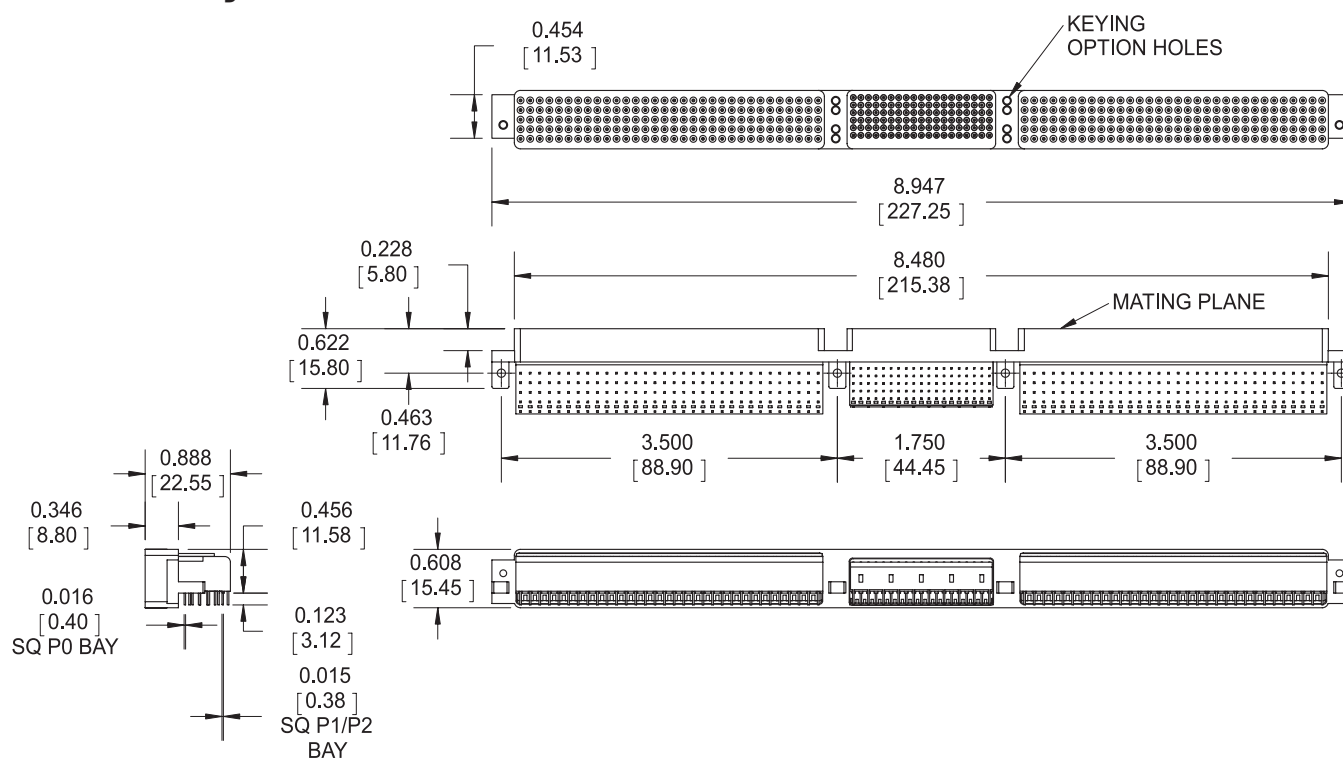
Consult factory for alignment tool and work instructions information

Backplane Printed Circuit Board Layout

Daughter Card Printed Circuit Board Layout

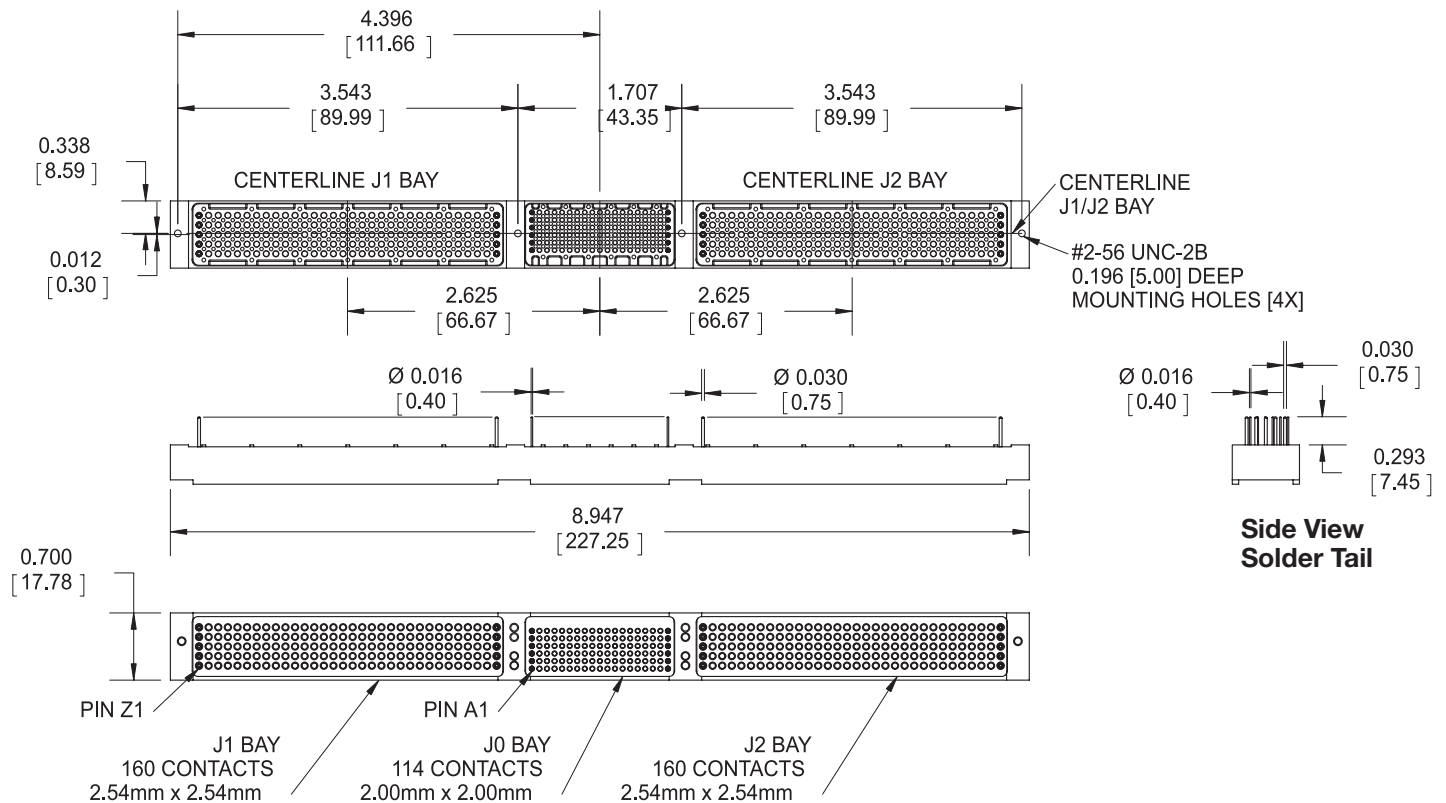


Male Assembly - KVME434MR00BH

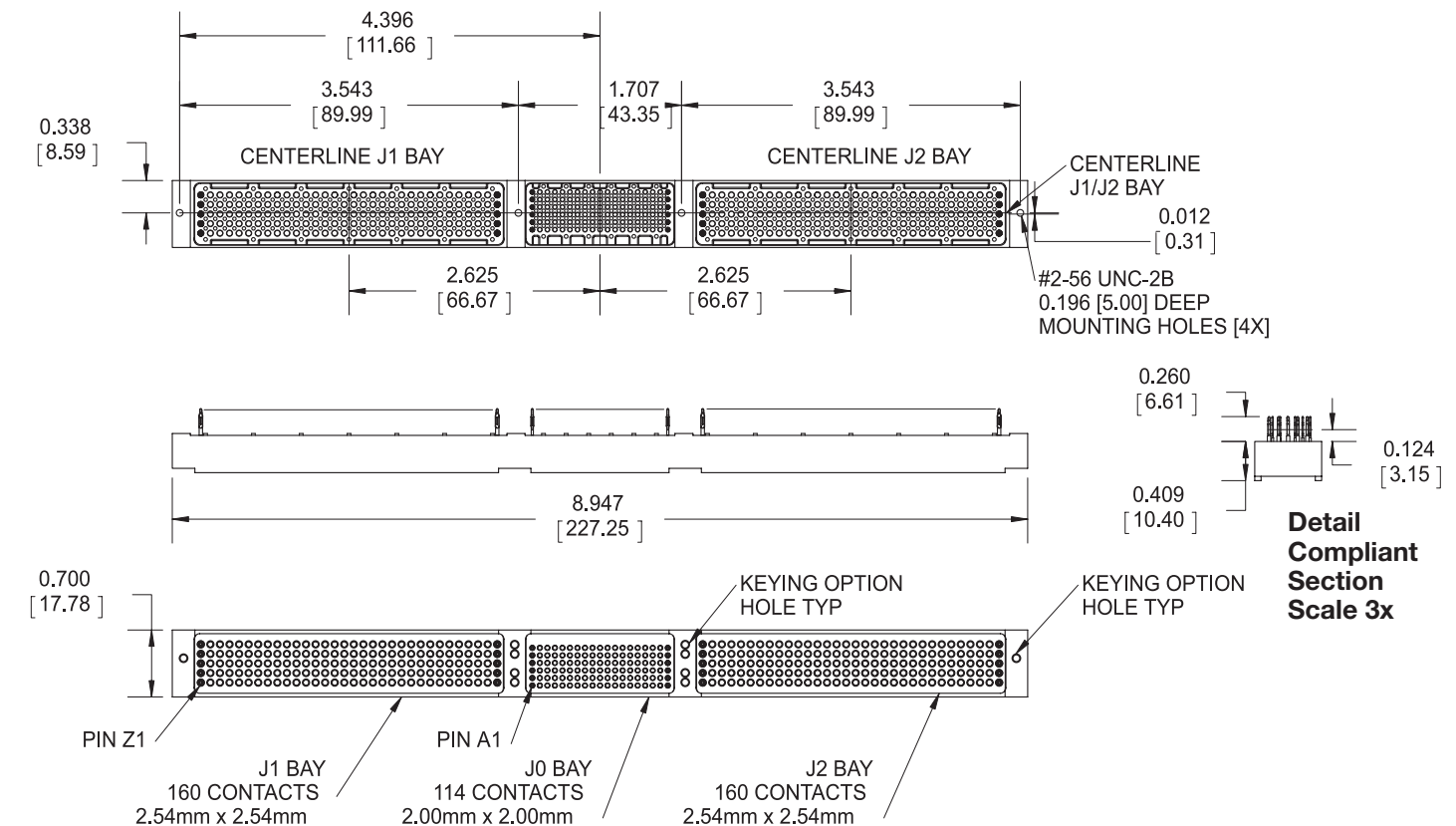


Dimensions are in inches [mm]

Receptacle Assembly - Solder Tails - KVME434FD00AH



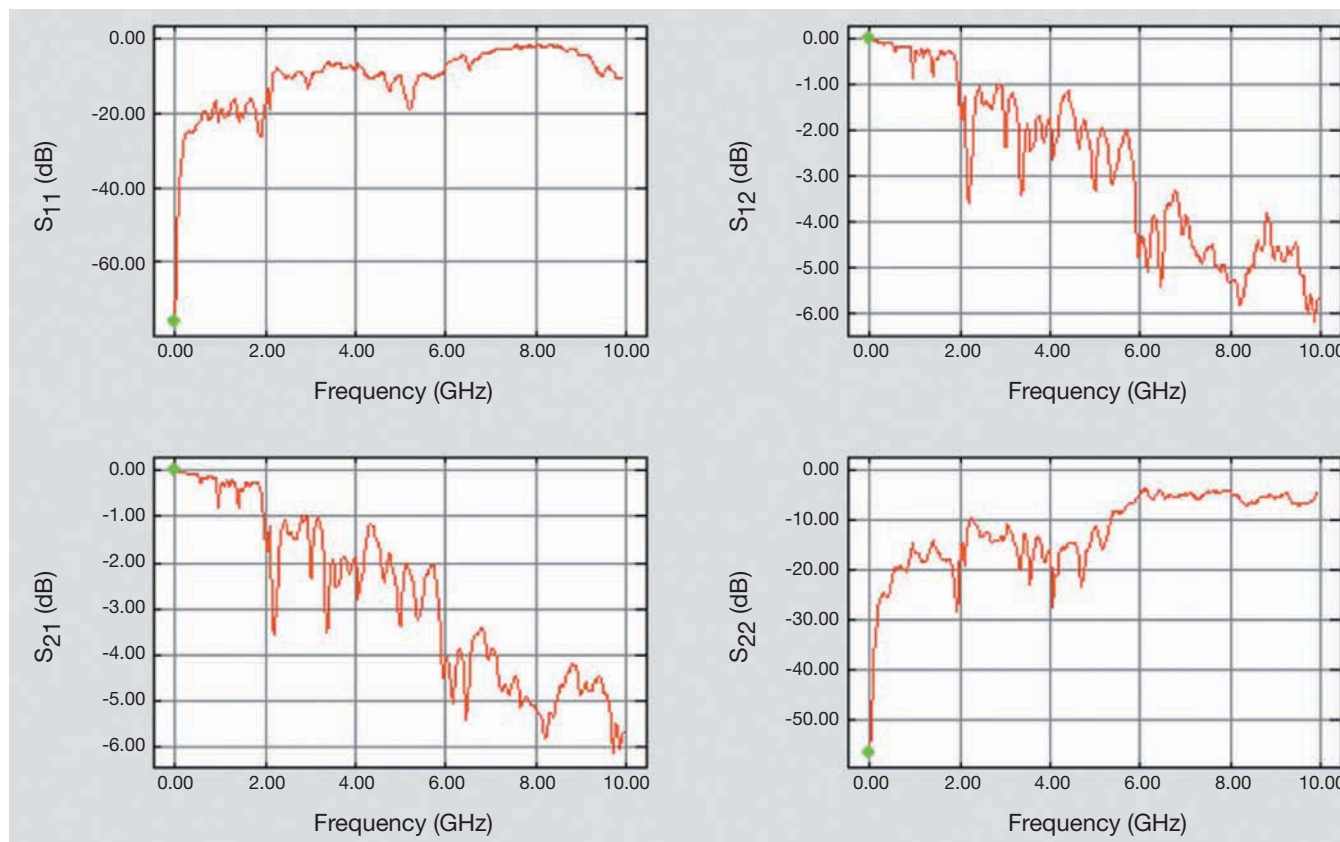
Receptacle Assembly - Compliant Tails - KVME434FC00AH



Dimensions are in inches [mm]

J0/P0 High Speed Electrical Performance

1. Differential S-parameter^{1,2}



2. Propagation Delay and Skew

Propagation delay through the intrinsic connector assembly is estimated by making a measurement on the reflected signal received on the same broadband fixture that is used to obtain the full vector scattering parameters. In these measurements, there is no inclusion of any other pin lengths other than what is within the intrinsic connector.

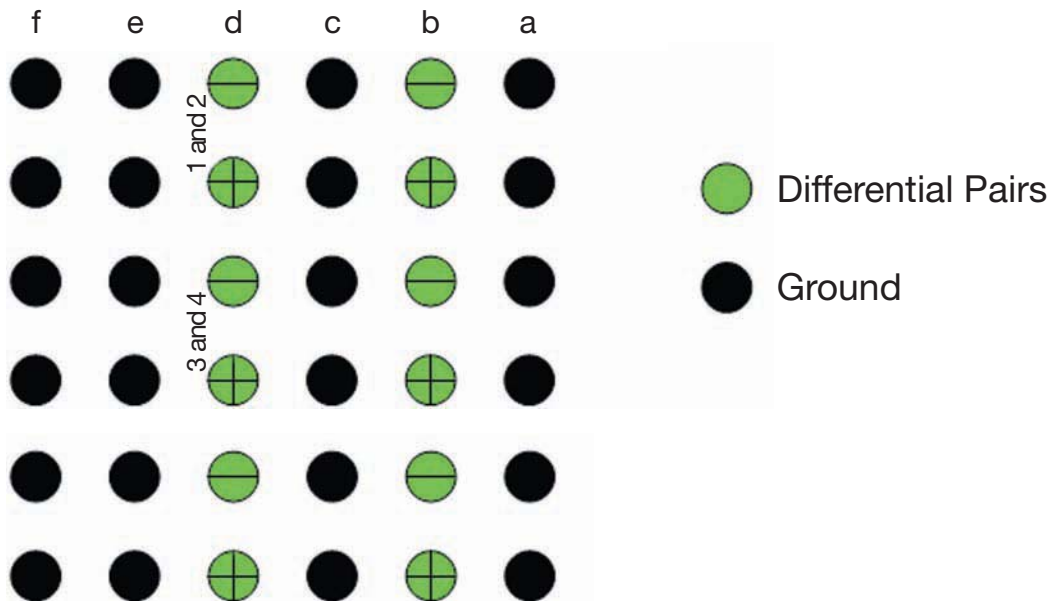
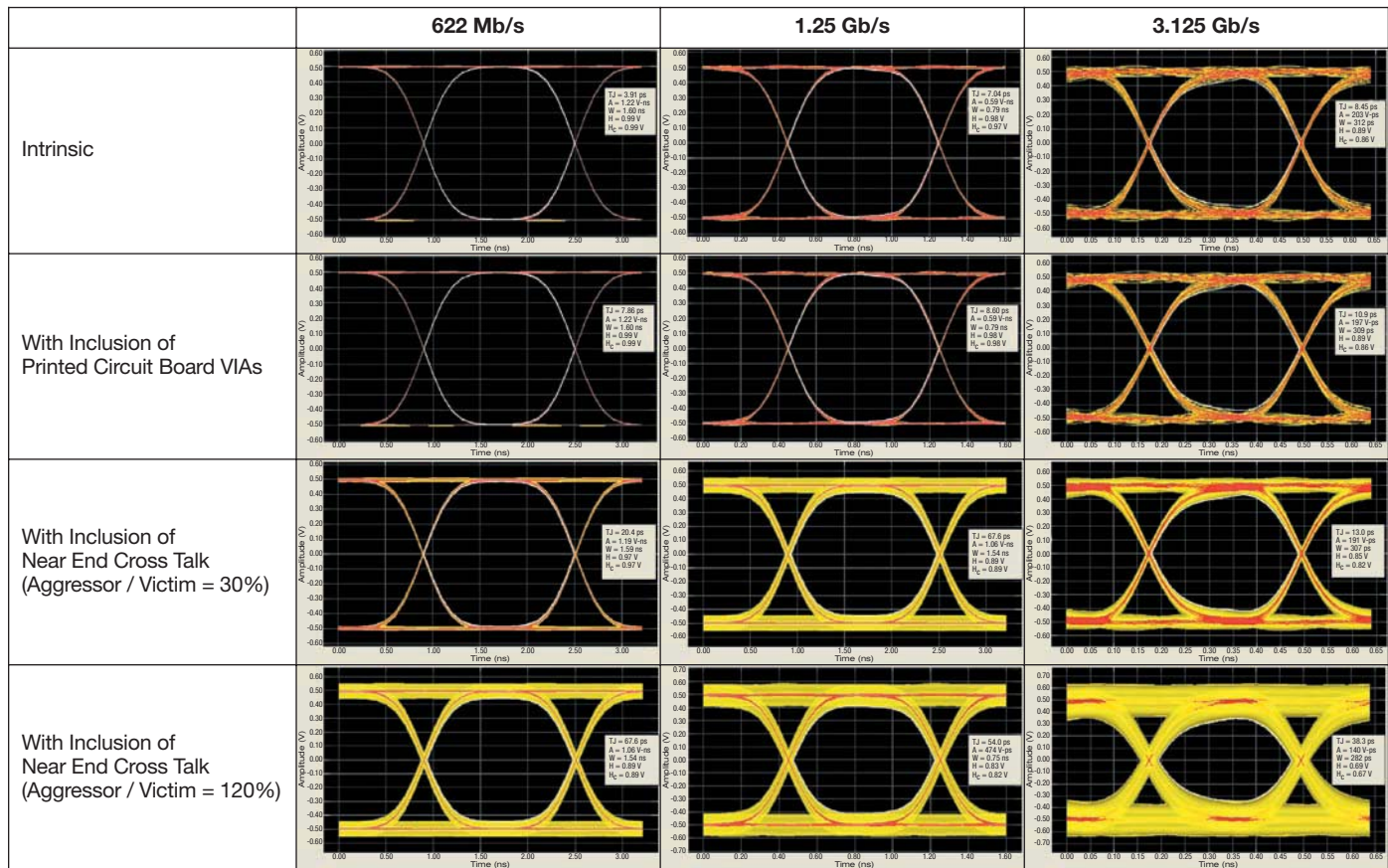
Parameters	Connector Row				
	A	B	C	D	E
Propagation Delay (ps)	68	90	112	134	156
Skew (ps)	22	22	22	22	22
Maximum Data Rate ²	3.125 Gb/s				

NOTES:

- 1) Pattern illustrated in the figure on next page was used in the S-parameter and cross talk measurements.
- 2) Please refer to the full characterization test report for details.

Dimensions are in inches [mm]

3.Connector Eye-Pattern-Diagram^{1, 2}



NOTES:

- 1) Pattern illustrated in the figure above was used in the S-parameter and cross talk measurements.
- 2) Please refer to the full characterization test report for details.

Dimensions are in inches [mm]