

Series: SEAFP/SEAM_RA Array Series

Description: 1.27mm x 1.27mm grid interconnect system, Vertical Array to Right Angle

Connector Overview

SEAFP/SEAM_RA is a 1.27mm x 1.27mm pitch interconnects system for elevated high-speed board-to-board applications. The open pin field design allows for dual signaling and is suitable for Fiber Channel, Rapid I/O, PCIe, SATA and Infiniband data rates. The SEAFP/SEAM_RA Series is available in 4, 6, 8, and 10 row open pin field arrays. Pins per row selections are 10, 20, 30, 40, or 50. This report reflects only the hi-speed electrical characteristics specific to a mated SEAFP/SEAM_RA test system.

Connector System Speed Rating

SEAFP/SEAM_RA Series, 1.27mm x 1.27mm (.050" x .050") pitch interconnect, Vertical Array to Right Angle

| <u>Signaling</u> | <u>Speed Rating</u> |
|--|-------------------------|
| Single-Ended: 1:1 S/G, rowA | 7.5 GHz/ 15Gbps |
| Single-Ended: 1:1 S/G, rowC | 9 GHz/ 18Gbps |
| Single-Ended: 1:1 S/G, rowD | 8.5 GHz/ 17Gbps |
| Single-Ended: 1:1 S/G, rowE | 7.5 GHz/ 15Gbps |
| Single-Ended: 1:1 S/G, rowF | 10 GHz/ 20Gbps |
| Single-Ended: 2:1 S/G, rowA | 6 GHz/ 12Gbps |
| Single-Ended: 2:1 S/G, rowC | 9 GHz/ 18Gbps |
| Single-Ended: 2:1 S/G, rowD | 11.5 GHz/ 23Gbps |
| Single-Ended: 2:1 S/G, rowE | 7.5 GHz/ 15Gbps |
| Single-Ended: 2:1 S/G, rowF | 10 GHz/ 20Gbps |
| Differential: Optimal Horizontal, rowA | 11.5 GHz/ 23Gbps |
| Differential: Optimal Horizontal, rowC | 9.5 GHz/ 19Gbps |
| Differential: Optimal Horizontal, rowD | 8.5 GHz/ 17Gbps |
| Differential: Optimal Horizontal, rowE | 7.5 GHz/ 15Gbps |

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| | |
|---|-------------------------|
| Differential: Optimal Horizontal, rowF | 10.5 GHz/ 21Gbps |
| Differential: Optimal Vertical, rowA,B | 9.5 GHz/ 19Gbps |
| Differential: Optimal Vertical, rowC,D | 8.5 GHz/ 17Gbps |
| Differential: Optimal Vertical, rowE,F | 10.5 GHz/ 21Gbps |
| Differential: High Density Vertical, rowA,B | 8.5 GHz/ 17Gbps |
| Differential: High Density Vertical, rowB,C | 10 GHz/ 20Gbps |
| Differential: High Density Vertical, rowD,E | 9 GHz/ 18Gbps |
| Differential: High Density Vertical, rowE,F | 7 GHz/ 14Gbps |

The Speed Rating is based on the -3 dB insertion loss point of the connector system. The -3 dB point can be used to estimate usable system bandwidth in a typical, two-level signaling environment.

To calculate the Speed Rating, the measured -3 dB point is rounded up to the nearest half-GHz level. The up-rounding corrects for a portion of the test board's trace loss, since a short length of trace loss is included in the loss data in this report. The resulting loss value is then doubled to determine the approximate maximum data rate in Gigabits per second (Gbps).

For example, a connector with a -3 dB point of 7.8 GHz would have a Speed Rating of 8 GHz/ 16 Gbps. A connector with a -3 dB point of 7.2 GHz would have a Speed Rating of 7.5 GHz/15 Gbps.