

**Series:** SEAM8/SEAF8-RA Array Series

**Description:** 0.8mm x 0.8mm grid interconnect system, Vertical Male to Right Angle Female

## Connector Overview

SEAM8/SEAF8-RA series is a 0.8mm x 0.8mm pitch interconnects system for high-speed board-to-board applications. The open pin field design is suitable for Fiber Channel, Rapid I/O, PCIe, SATA and Infiniband data rates. The SEAM8/SEAF8-RA Series is available in 4, 6, 8, and 10 row open pin field arrays. Pins per row selections are 20, 30, 40, or 50. This report reflects only the hi-speed electrical characteristics specific to a mated 20-50 contacts/row, 4-10 rows, SEAM8/SEAF8-RA test system.

## Connector System Speed Rating

SEAM8/ SEAF8-RA Series, 0.8mm x 0.8mm pitch interconnect	
<u>Signaling</u>	<u>Speed Rating</u>
Single-Ended: 1:1 S/G, row A	<b>17 GHz/ 34Gbps</b>
Single-Ended: 1:1 S/G, row C	<b>14 GHz/ 28Gbps</b>
Single-Ended: 1:1 S/G, row D	<b>18 GHz/ 36Gbps</b>
Single-Ended: 1:1 S/G, row F	<b>13.5 GHz/ 27Gbps</b>
Single-Ended: 1:1 S/G, row H	<b>12.5 GHz/ 25Gbps</b>
Single-Ended: 1:1 S/G, row K	<b>14 GHz/ 28Gbps</b>
Single-Ended: 2:1 S/G, row A	<b>16 GHz/ 32Gbps</b>
Single-Ended: 2:1 S/G, row B	<b>14.5 GHz/ 29Gbps</b>
Single-Ended: 2:1 S/G, row C	<b>14.5 GHz/ 29Gbps</b>
Single-Ended: 2:1 S/G, row H	<b>14 GHz/ 28Gbps</b>
Single-Ended: 2:1 S/G, row J	<b>15 GHz/ 30Gbps</b>
Single-Ended: 2:1 S/G, row K	<b>12 GHz/ 24Gbps</b>
Differential: Optimal Horizontal, row A	<b>18 GHz/ 36Gbps</b>
Differential: Optimal Horizontal, row B	<b>14.5 GHz/ 29Gbps</b>
Differential: Optimal Horizontal, row C	<b>13 GHz/ 26Gbps</b>

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Differential: Optimal Horizontal, row H	<b>12 GHz/ 24Gbps</b>
Differential: Optimal Horizontal, row J	<b>7.5 GHz/ 15Gbps</b>
Differential: Optimal Horizontal, row K	<b>12 GHz/ 24Gbps</b>
Differential: Optimal Vertical, row A,B	<b>14.5 GHz/ 29Gbps</b>
Differential: Optimal Vertical, row B,C	<b>14.5 GHz/ 29Gbps</b>
Differential: Optimal Vertical, row D,E	<b>12.5 GHz/ 25Gbps</b>
Differential: Optimal Vertical, row E,F	<b>14 GHz/ 28Gbps</b>
Differential: Optimal Vertical, row H,J	<b>13.5 GHz/ 27Gbps</b>
Differential: Optimal Vertical, row J,K	<b>10.5 GHz/ 21Gbps</b>
Differential: High Density Vertical, row A,B	<b>13.5 GHz/ 27Gbps</b>
Differential: High Density Vertical, row B,C	<b>13.5 GHz/ 27Gbps</b>
Differential: High Density Vertical, row D,E	<b>12.5 GHz/ 25Gbps</b>
Differential: High Density Vertical, row F,G	<b>12.5 GHz/ 25Gbps</b>
Differential: High Density Vertical, row H,J	<b>12 GHz/ 24Gbps</b>
Differential: High Density Vertical, row J,K	<b>14 GHz/ 28Gbps</b>

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.