

Series: LPAM/LPAF

Description: Low Profile, Open Pin Field Array, 1.27mm x 1.27mm Pitch, 5mm Stack Height

Connector Overview

LPAM/LPAF is a low profile, 1.27mm x 1.27mm pitch array interconnect system for 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 LPAM/LPAF Series has been designed in 4, 6, 8 and 10 rows arrays. Positions per row options designed include 10, 20, 30, 40 or 50. This report presents the high-speed electrical characteristics specific to LPAM-1.5mm/LPAF-3.5mm, 5mm mated stack height test system.

Connector System Speed Rating

LPAM/LPAF Series, 1.27mm x 1.27mm (.050" x .050") pitch interconnect, 5mm Stack Height.

<u>Signaling</u>	<u>Speed Rating</u>
Single-Ended: 1:1 S/G	20 GHz/ 40Gbps
Single-Ended: 2:1 S/G	17.5 GHz/ 35Gbps
Differential: Optimal Horizontal	20 GHz/ 40Gbps
Differential: Optimal Vertical	16.5 GHz/ 33Gbps
Differential: High Density Vertical	15.5 GHz/ 31Gbps

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.