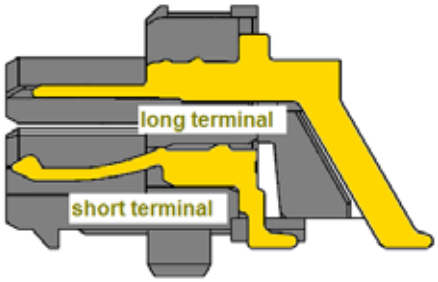
Series: LSEM
Description: Board-to-Board, 0.8mm (.0315") Pitch, Right Angle to Vertical Orientation

Connector Overview

The LSEM series is a high-speed hermaphroditic design ideal for ruggedized applications. This interconnect features a slim row-to-row design and low cost blade & and beam contacts. LSEM is a double row contacts system available in 20, 30, 40, and 50 contacts per row. The data in this report is applicable only to the LSEM dual horizontal (right angle) row to vertical double row hermaphroditic interconnect system.
The device is a two terminal type right angle connector with terminals having different physical lengths and geometry. Dependent on that length and geometry performance characteristics will vary. The terminology used in this report to define which connector terminal is as follows:

*The short terminal of the connector is referred to as "Case 1"
*The long terminal of the connector is referred to as "Case 2"

This is illustrated in the following figure.



Connector System Speed Rating

LSEM-DH Hermaphroditic Series, Right Angle to Vertical Orientation Board-to-Board, 0.8mm Pitch

Case	Signaling	Speed Rating
1 (Short)	Single-Ended:	**9 GHz/ 18Gbps**
	Differential:	**10 GHz/ 20Gbps**
2 (Long)	Single-Ended:	**12 GHz/ 24Gbps**
	Differential:	**12.5 GHz/ 25Gbps**

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

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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 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.