

Series: QTH-RA/QSH-RA

Description: Q Strip® High Speed Ground Plane Terminal/Socket Strip, Coplanar Board-to- Board, 0.5mm (.0197") Pitch

Connector Overview

Samtec's QTH-RA/QSH-RA Q Strip® High-Speed Ground Plane Terminal/Socket Strip is designed for high-speed board-to-board applications. The connectors have surface mount contacts as well as a ground plane between the two rows of signals for improved crosstalk performance. Right-angle Q Strips ® are available for traditional single-side processing. QTH-RA/QSH-RA is a double row contact system available with up to 180 I/Os . The data in this report is applicable only to the right-angle to right-angle mated interconnect.

Connector System Speed Rating

QTH-RA/QSH-RA Q Rate® High-Speed Ground Plane Terminal Strip, Board-to-Board, 0.5mm (.0197") Pitch, Right-Angle

<u>Signaling</u>	<u>Case</u>	<u>Speed Rating</u>
Single-Ended:	Long Row	4 GHz/ 8Gbps
	Short Row	7.0 GHz/ 14Gbps
Differential:	Long Row	3.5 GHz/ 7Gbps
	Short Row	6.5 GHz/ 13Gbps

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 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.