

# SAMTEC CONNECTOR BANDWIDTH PERFORMANCE SELECTOR

## DIFFERENTIAL PAIR

### Standard Configuration - Strips

Series	Pitch	Stack Height	-3dB Insertion Loss Point
BTE/BSE	.8mm	5mm 25mm	5.00 GHz 3.00 GHz
BTH/BSH	.5mm	5mm 16mm	8.50 GHz 5.00 GHz
ERM8/ERF8	.8mm	7mm 10mm 16mm	9.50 GHz 8.00 GHz 5.00 GHz
ERM8-EM/ERF8	.8mm	-EM	7.50 GHz
ERM8-RA/ERF8	.8mm	-RA	10.00 GHz
ERM8-RA/ERF8-RA	.8mm	-RA	9.00 GHz
FTSH/FW/CLP	.050"	5.13mm 17.7mm	8.50 GHz 4.00 GHz
LSS	.635mm	6mm 8mm 10mm 12mm	9.00 GHz 7.50 GHz 7.00 GHz 6.00 GHz
HSEC8-DV	.8mm	7.98mm	10.50 GHz
MEC1-DV	1mm	9.19mm	6.50 GHz
MEC1-RA	1mm	6.81mm	5.50 GHz
MEC6-DV	.635mm	8.65mm	7.00 GHz
MEC6-RA	.635mm	5.78mm	7.00 GHz
MEC8-DV	.8mm	8.65mm	7.00 GHz
MEC8-RA	.8mm	5.77mm	8.00 GHz
MIS/MIT	.635mm	5mm 22mm	8.50 GHz 7.00 GHz
PCIE	1mm	11.1mm	7.00 GHz*
QFS/QMS - Q2™	.635mm	10mm 11mm 16mm	8.00 GHz 7.50 GHz 5.00 GHz
QFS/QMS-RA - Q2™	.635mm	-RA	5.50 GHz
QFS-RA/QMS-RA	.635mm	-RA	6.00 GHz
QFSS/QMSS - Q2™	.635mm	11mm	1.40 GHz**
QTE/QSE - Q Strips®	.8mm	5mm 8mm 11mm 16mm 19mm 25mm	8.00 GHz 8.00 GHz 6.50 GHz 5.00 GHz 5.00 GHz 7.00 GHz
QTH/QSH - Q Strips®	.5mm	5mm 8mm 11mm 16mm 30mm	8.00 GHz 8.00 GHz 5.00 GHz 5.00 GHz 1.50 GHz
QTS/QSS - Q Strips®	.635mm	5mm 11mm 16mm	8.50 GHz 5.50 GHz 5.00 GHz
RU8 - Rise-Up®	.8mm	25mm	7.50 GHz
SAL1	1mm	top bottom	9.00 GHz 10.00 GHz
SFM/TFM	.050"	6.35mm 11.81mm	7.00 GHz 4.50 GHz
SS4/ST4	.4mm	4mm	4.50 GHz
TMMH/TW/CLT	2mm	4.77mm 18mm	6.50 GHz 3.00 GHz
TOLC/SOLC	.025"	6.35mm 12mm	6.50 GHz 5.50 GHz

### Standard Configuration - Arrays

Series	Pitch	Stack Height	-3dB Insertion Loss Point
DPAM/DPAF - DP Array™	1.08mm	10mm	7.00 GHz
HDAM/HDAF - HD Mezz**	1.2mm	20mm 25mm 30mm 35mm	9.00 GHz 8.50 GHz 7.50 GHz 9.00 GHz
SEAM/SEAF - SEARAY™	.050"	7mm 10mm 12mm 16mm	10.50 GHz 16.00 GHz 14.00 GHz 11.00 GHz
YFS/YFT - Sam Array®	.050"	5mm	9.00GHz*

### Differential Pair Configuration - Strips

Series	Pitch	Stack Height	-3dB Insertion Loss Point
MIS-DP/MIT-DP	.635mm	5mm 22mm	9.50 GHz 8.50 GHz
QFS-DP/QMS-DP - Q2™	.635mm	10mm 11mm 16mm	7.50 GHz 7.00 GHz 5.50 GHz
QTE-DP/QSE-DP - Q Pairs®	.8mm	5mm 8mm 11mm 16mm 19mm 25mm	8.50 GHz 9.00 GHz 9.50 GHz 8.00 GHz 7.50 GHz 9.00 GHz
QTH-DP/QSH-DP - Q Pairs®	.5mm	5mm 8mm 11mm 16mm 30mm	9.50 GHz 8.50 GHz 6.00 GHz 5.50 GHz 7.00 GHz
QTS-DP/QSS-DP - Q Pairs®	.635mm	5mm 11mm 16mm	8.50 GHz 6.00 GHz 6.00 GHz

The information contained in this chart does not represent the potential maximum performance of the interconnect system. If your application appears to exceed the connector's rating from the chart below, the connector solution may still work. Please contact our Signal Integrity Group at sig@samtec.com for additional support.

The data reflects the point where a -3dB insertion loss occurs within the connector. The data is based from a test circuit with a characteristic impedance and a wiring pattern of G-S-G (where G = return; S = active differential pair) within the pin field of the connector. Please note that performance may not be linear to stack height.

For more information on any of the products included in this chart, click on the series name in the Key to get complete testing information, visit our website at [www.samtec.com](http://www.samtec.com), or contact our Signal Integrity Group at sig@samtec.com. Click here for more information on our High Speed Characterization Report Test Procedures.

\* Based on Final Inch simulations

\*\*\*HD Mezz is a trademark of Molex Incorporated

\*\* Based on +/- 10% impedance/cross talk