

Samtec Connector Bandwidth Performance Selector

Differential Pair

Standard Configuration - Strips

| Series | Pitch | Stack Height | 3dB Insertion Loss Point | Series | Pitch | Stack Height | 3dB Insertion Loss Point |
|-----------------|--------|----------------------------|--|---------------------------|--------|--|--|
| BTE/BSE | .8mm | 5mm 25mm | 5.00 GHz 3.00 GHz | MIS/MIT | .635mm | 5mm 22mm | 8.50 GHz 7.00 GHz |
| BTH/BSH | .5mm | 5mm 16mm | 8.50 GHz 5.00 GHz | PCIE | 1mm | 11.1mm | 7.00 GHz* |
| ERM5/ERF5 | .5mm | 7mm 10mm | 9.50 GHz 8.50 GHz | QFS/QMS - Q2™ | .635mm | 10mm 11mm 16mm | 8.00 GHz 7.50 GHz 5.00 GHz |
| ERM8/ERF8 | .8mm | 7mm 10mm 16mm | 9.50 GHz 8.00 GHz 5.00 GHz | QFS/QMS-RA - Q2™ | .635mm | -RA | 5.50 GHz |
| ERM8-EM/ERF8 | .8mm | -EM | 7.50 GHz | QFS-RA/QMS-RA - Q2™ | .635mm | -RA | 6.00 GHz |
| ERM8-RA/ERF8 | .8mm | -RA | 10.00 GHz | QRM8/QRF8 - Q Rate® | .8mm | 7mm 10mm | 8.50 GHz 7.00 GHz |
| ERM8-RA/ERF8-RA | .8mm | -RA | 9.00 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 |
| FTSH/FW/CLP | .050" | 5.13mm 17.7mm | 8.50 GHz 4.00 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 |
| LSS | .635mm | 6mm 8mm 10mm 12mm | 9.00 GHz 7.50 GHz 7.00 GHz 6.00 GHz | QTS/QSS - Q Strips® | .635mm | 5mm 11mm 16mm | 8.50 GHz 5.50 GHz 5.00 GHz |
| LTH/LSH | .5mm | 2.31mm | 4.50 GHz | QTS-RA/QSS - Q Strips® | .635mm | -RA | 6.00 GHz |
| HSEC8-DV | .8mm | 7.98mm | 10.50 GHz | QTS-RA/QSS-RA - Q Strips® | .635mm | -RA | 4.50 GHz |
| HSEC8-RA | .8mm | 7.98mm | 6.50 GHz | RU8 - Rise Up® | .8mm | 25mm | 7.50 GHz |
| MEC1-DV | 1mm | 9.19mm | 6.50 GHz | SAL1 | 1mm | top bottom | 9.00 GHz 10.00 GHz |
| MEC1-RA | 1mm | 6.81mm | 5.50 GHz | SFM/TFM | .050" | 6.35mm 11.81mm | 7.00 GHz 4.50 GHz |
| MEC6-DV | .635mm | 8.65mm | 7.00 GHz | SS4/ST4 | .4mm | 4mm | 4.50 GHz |
| MEC6-RA | .635mm | 5.78mm | 7.00 GHz | TMMH/TW/CLT | 2mm | 4.77mm 18mm | 6.50 GHz 3.00 GHz |
| MEC8-DV | .8mm | 8.65mm | 7.00 GHz | TOLC/SOLC | .025" | 6.35mm 12mm | 6.50 GHz 5.50 GHz |
| MEC8-RA | .8mm | 5.77mm | 8.00 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 an insertion loss of 3dB 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, 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

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

Samtec Connector Bandwidth Performance Selector Differential Pair

Differential Pair Configuration - Strips

| Series | Pitch | Stack Height | 3dB Insertion Loss Point |
|--------------------------|--------|--------------|--------------------------|
| MIS-DP/MIT-DP | .635mm | 5mm | 9.50 GHz |
| | | 22mm | 8.50 GHz |
| QFS-DP/QMS-DP - Q2™ | .635mm | 10mm | 7.50 GHz |
| | | 11mm | 7.00 GHz |
| | | 16mm | 5.50 GHz |
| | | | |
| QTE-DP/QSE-DP - Q Pairs® | .8mm | 5mm | 8.50 GHz |
| | | 8mm | 9.00 GHz |
| | | 11mm | 9.50 GHz |
| | | 16mm | 8.00 GHz |
| | | 19mm | 7.50 GHz |
| | | 25mm | 9.00 GHz |
| QTH-DP/QSH-DP - Q Pairs® | .5mm | 5mm | 9.50 GHz |
| | | 8mm | 8.50 GHz |
| | | 11mm | 6.00 GHz |
| | | 16mm | 5.50 GHz |
| | | 30mm | 7.00 GHz |
| QTS-DP/QSS-DP - Q Pairs® | .635mm | 5mm | 8.50 GHz |
| | | 11mm | 6.00 GHz |
| | | 16mm | 6.00 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 | 9.00 GHz |
| | | 25mm | 8.50 GHz |
| | | 30mm | 7.50 GHz |
| | | 35mm | 9.00 GHz |
| SEAM/SEAF - SEARAY™ | .050" | 7mm | 10.50 GHz |
| | | 10mm | 16.00 GHz |
| | | 12mm | 14.00 GHz |
| | | 16mm | 11.00 GHz |
| YFS/YFT - Sam Array® | .050" | 5mm | 9.00GHz* |

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The data reflects the point where an insertion loss of 3dB 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.

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