

Switches Provide Exceptional Bandwidth in Small Chipscale SMT Package

M/A-Com Technology Solutions showcased a new family of surface mount broadband 2 to 20 GHz HMICTM PIN diode switches for Test Instrumentation, Satellite and other wide frequency range applications at the 2009 Institute of Electrical and Electronics Engineers (IEEE) Microwave Theory & Techniques Symposium (MTT-S) show last week. The compact 1.5 mm x 2.2 mm chipscale package SPDT, part number MASW-002103, offers one of the smallest broadband surface-mount symmetrical SPDT solutions in the industry. It also offers broadband performance out to 26 GHz with excellent isolation to insertion loss ratio. Specifically, this switch achieves greater than 27 dB of isolation and less than 1 dB of insertion loss across the 2 to 20 GHz specified frequency range. This switch can also handle power levels up to 38 dBm at 2 GHz and 33 dBm at 20 GHz. The 1.65 mm x 2.06 mm chipscale package SP3T, part number MASW-003103, offers broadband performance out to 25 GHz. This switch achieves greater than 30 dB of isolation and less than 1.1 dB of insertion loss across the specified 2 to 20 GHz frequency range. It's important to note that it still typically achieves 1.4 dB of IL and 28 dB of isolation at 25 GHz. This switch can handle power levels up to 38 dBm at 2 GHz and 33 dBm at 20 GHz. The SP4T solution, part number MASW-004103, measures 1.5 mm x 2.14 mm and offers broadband performance out to 24 GHz. This switch achieves greater than 33 dB of isolation and less than 1.3 dB of insertion loss across the specified 2 to 20 GHz frequency range. It achieves 1.6 dB of insertion loss and 30 dB of isolation out to 24 GHz. This switch can also handle power levels up to 38 dBm at 2 GHz and 33 dBm at 20 GHz.

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