**Samtec Releases Analog over ArrayTM Reference Designs**

**New reference designs make it possible to path high-speed digital, analog, and power signals through a single array connector.**

[**New Albany, IN**]-- Samtec, Inc., the service leader in the connector industry, has enhanced its open-pin-field arrays to simultaneously run analog, digital, and power signals. New reference designs allow Samtec’s proven high-performance connector arrays, such as the [SEARAY](https://www.samtec.com/connectors/high-speed-board-to-board/high-density-arrays/searay)TM, to support analog signals.

Intended for use in high-density RF applications, the new Analog over Array reference designs allow dense, open-pin-field connectors to support digital and analog differential or single-ended signaling, as well as power. These high-density array connectors are already proven in high-speed, high-performance digital and power applications; now, their differential ground pattern can be used to support RF SOCs and applications such as 5G wireless, remote PHY/MSOs, phased array radar, test and measurement, and LEO/MEO satellites.

Performance is specified at

• 8 GHz bandwidth

• 50 ohm system impedance for single-ended; 100 ohm for differential

• Return loss of -12 dB up to 4 GHz; -10 dB up to 8 GHz;

• Crosstalk isolation between channels: -69 dBc to 4 GHz, -63 dBc to 8 GHz

The [reference design](https://suddendocs.samtec.com/testreports/20230809_t-3585732_aoac_seam-035_seaf-065_10mm_rev3.pdf) includes recommended pin mapping as part of a full characterization report. Additional reference designs are in development for applications out to 40 GHz. For more information on PCB materials selection, stackup, and launch optimizations for your design, email [sig@samtec.com](mailto:sig@samtec.com).

Founded in 1976, Samtec is a privately held global manufacturer of a broad line of electronic interconnect solutions, including High-Speed Board-to-Board, High-Speed Cables, Mid-Board and Panel Optics, Precision RF, Flexible Stacking, and Micro/Rugged components and cables.  Samtec Technology Centers develop and advance technologies, strategies, and products to optimize both the performance and cost of a system from the bare die to an interface 100 meters away, and all interconnect points in between.

A close-up of several electronic components

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