**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.

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.

