

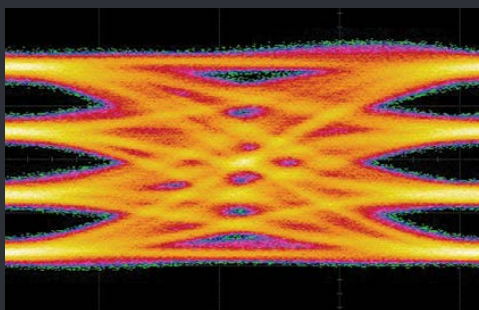
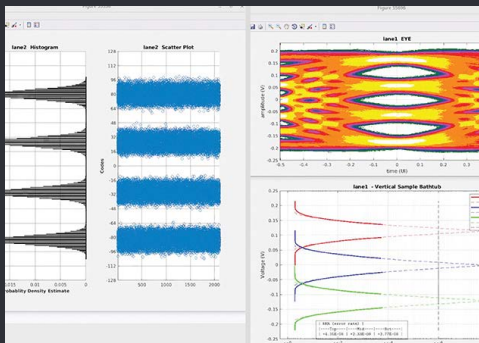
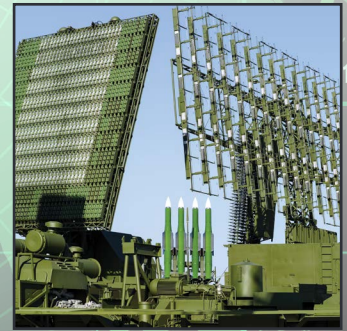


# PHASED ARRAY SYSTEMS

Samtec delivers Sudden Service® solutions for standard and application-specific military and aerospace designs to meet the stringent quality, production and compliance requirements of our customers. The combined efforts of Samtec's on-going Severe Environment Testing initiative with our extremely flexible high-speed interconnects provides a quick turn and cost-effective solution for military and aerospace applications that require reliable performance and durability. For more information, please visit [samtec.com/milaero](http://samtec.com/milaero) or contact [Military@samtec.com](mailto:Military@samtec.com).

## APPLICATIONS INCLUDE:

- Cockpit communications
- Missile defense
- SatCom
- Jamming Equipment
- 5G MIMO antennas
- Early warning radar systems
- Land based phased array radar
- In-flight phased array radar
- Naval ship phased array radar



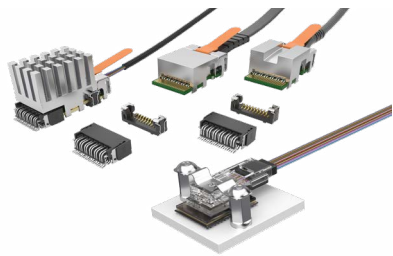
## SYSTEM SIGNAL INTEGRITY

Samtec's Silicon-to-Silicon™ interconnect solutions consistently exceed industry-standard connectivity demands, enabling the path to 224 Gbps performance and beyond.

As new systems demand increased bandwidth, frequency, isolation, density and scalability, those capabilities can be rendered ineffective unless it is part of a well-designed and optimized system. A holistic approach to system design – particularly as speeds, bandwidths and densities increase – is a must.

Samtec provides high-level design assistance and engineering support both at the component level and system level, to ensure full system performance optimization - from bare die, to IC package, to PCB, to connectors and cables, and back again: Full System Optimization... from Silicon-to-Silicon™.

To learn more about how Samtec can help with your high-performance system design, please visit [samtec.com/sig](http://samtec.com/sig) or contact [sig@samtec.com](mailto:sig@samtec.com).



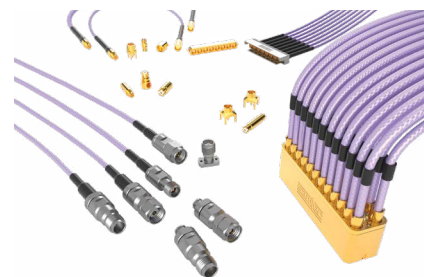
### Rugged Optics - FireFly™

Series: CSP, ETUO, ECUO, UEC5, UCC8  
 FireFly™ Micro Flyover System™ is a future proof, inside-the-box interconnect solution, with performance to 28 Gbps per lane and a path to 112 Gbps PAM4. The Samtec Optical Group designs, manufactures and supports bleeding edge optical solutions.



### High-Speed Cable

Series: ARF6/ARC6, FQSFP, QSFP  
 High-speed cable assemblies with micro coax and ultra low skew twinax cable, for differential and single-ended applications. Assemblies include Flyover®, high-density array, integral ground plane, hermaphroditic, rugged Edge Rate® and high-speed PCI Express® systems.



### RF

Series: SMPM, SMP, IP5  
 RF interconnects for frequencies up to 110 GHz; 50 Ohm and 75 Ohm impedance; push-on, threaded or bayonet coupling; cable assembly, cable connector and board level applications.



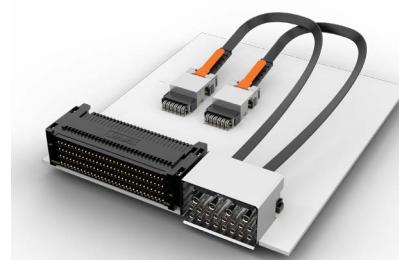
### High-Speed Board-to-Board

Series: HSEC6, ERF6/ERM6, SEAF/SEAM, ADF6/ADM6, LPAF/LPAM, NVAF/NVAM  
 Mezzanine systems with integral ground planes, high-density arrays, rugged signal integrity optimized Edge Rate® systems and high-speed performance up to 56 Gbps NRZ/112 Gbps PAM4.



### Micro Rugged

Series: SFM/TFM, SFC/TFC, SEM/TEM, LSHM/HLCD, CLP/FTSH, SMM/TMM  
 Micro pitch interconnects with high-reliability Tiger Eye™ and rugged Edge Rate® contact systems for high mating cycles, high-shock and vibration applications.



### Standards

Series: VNX, YFX, SEAX, QFX, ESQ  
 Receives analog signals and converts to digital signals. Configurable high-density arrays, integral ground planes, advanced height mezzanine, and high-speed stacking architectures.



## SEVERE ENVIRONMENT TESTING

Severe Environment Testing (SET) is a Samtec initiative to test products beyond typical industry standards and specifications, many set forth by common requirements for rugged / harsh environment industries. These products undergo additional testing to ensure they are more than suitable for military, space, automotive, industrial and other extreme applications.

#### MATING/UNMATING/DURABILITY

Measures the change in LLCR and mating/unmating after products have been cycled and exposed to various environmental conditions (100% relative humidity, 250 cycles).

#### MECHANICAL SHOCK/RANDOM VIBRATION/LLCR & NANOSECOND EVENT DETECTION

Measures the product's ability to withstand a series of mechanical shocks and random vibration. LLCR is a before and after check for damage. Event detection monitors continuity during testing (40G Peak, 11 ms, Half Sine & 12gRMS, 5 - 2,000 Hz, 1 Hour/Axis).

#### TEMPERATURE CYCLING

Evaluates the product's reliability through thermal fatigue by cycling through two temperature extremes (-65 °C to 125 °C, 30 minute dwell time at each extreme; 500 cycles).

#### NON-OPERATING CLASS TEMPERATURE

Determines the temperature range at which the product operates at peak level (-55 °C to 125 °C at 100 cycles and -65 °C to 125 °C at 100 cycles; 200 total cycles).

#### DWV AT ALTITUDE

Measures the peak voltage that a product can withstand before dielectric breakdown at high altitudes (70,000 ft).

#### ELECTROSTATIC DISCHARGE (ESD)

Measures the level of electrostatic voltage the product can withstand (exposure to 5k, 10k and 15k Volts, repeated 10 times).

#### OUTGASSING

Measures the level of gases and vapors released from non-metallic materials when exposed to extreme heat and/or a vacuum. Visit [outgassing.nasa.gov](http://outgassing.nasa.gov) for data.

Visit [samtec.com/SET](http://samtec.com/SET) or contact [set@samtec.com](mailto:set@samtec.com) for additional information and current available test results.