EMBEDDED VISION SOLUTIONS

INTERCONNECTS FOR HIGH-PRECISION VISION SYSTEMS

EMBEDDED **VISION**

Samtec **PRODUCT INNOVATIONS** and **TECHNICAL SUPPORT**
enabling all aspects of a vision system.

Samtec offers a wide variety of product solutions that enable vision system technology, in addition to providing the highest level of service and support in the industry.

LIGHTING / **ILLUMINATION**

IMAGE **SENSOR**

CAMERA **MODULE**

PROCESSING **UNIT**

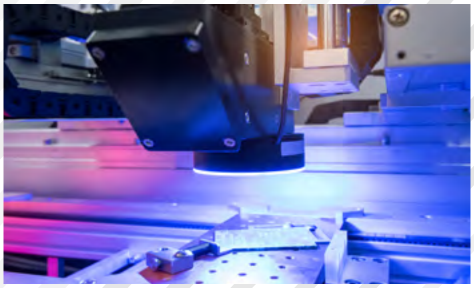
SYSTEM **I/O**

IMAGE **OUTPUT**

APPLICATIONS

ADAS/LIDAR

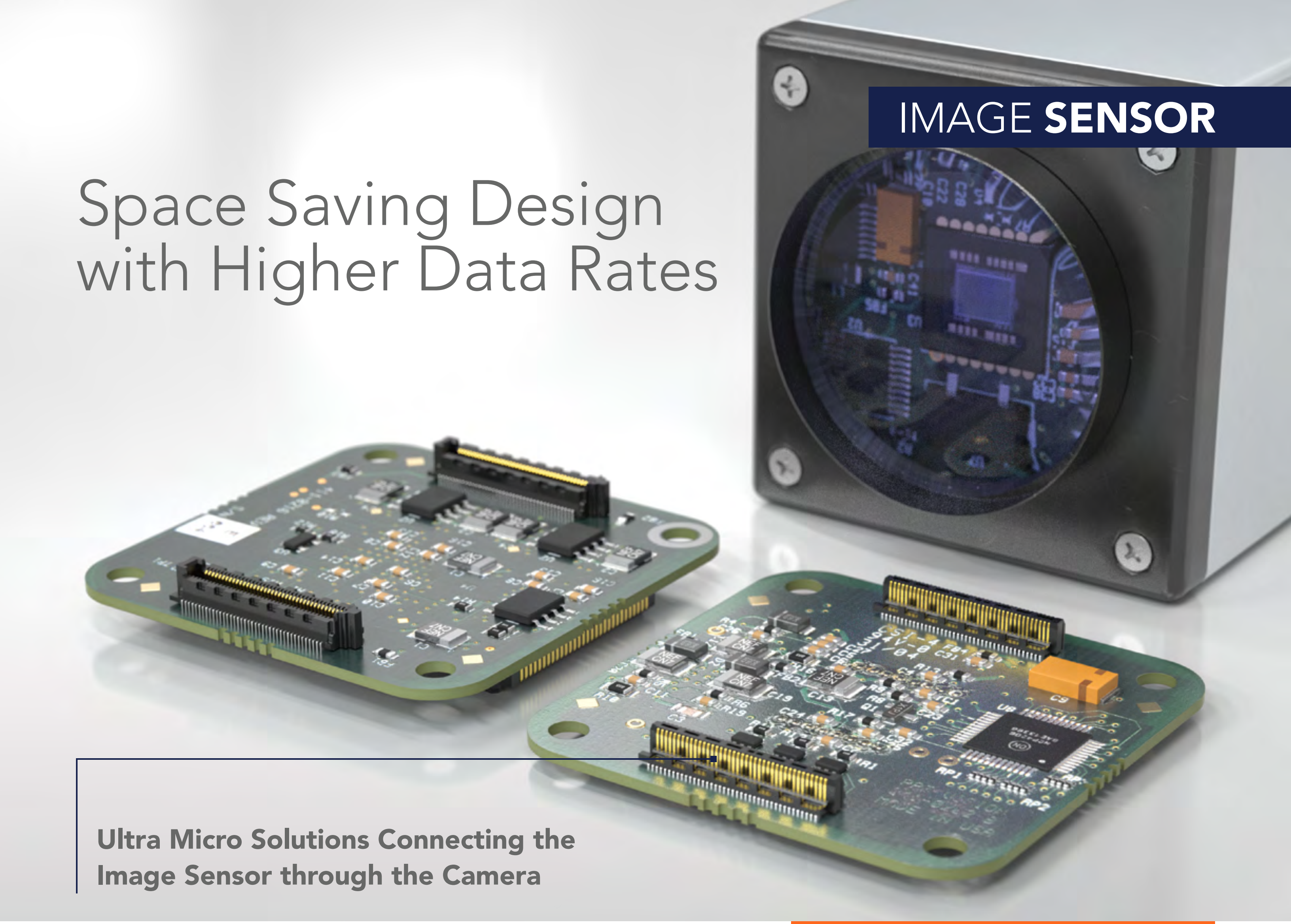
VISUAL INSPECTION



UAV/DRONES

IMAGE **SENSOR**

Space Saving Design with Higher Data Rates

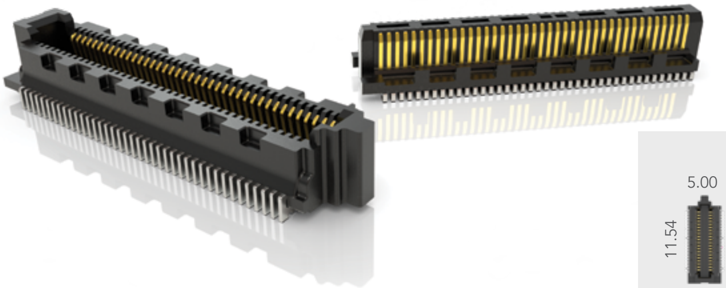


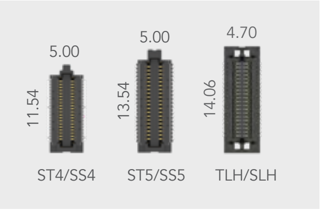
Ultra Micro Solutions Connecting the Image Sensor through the Camera

samtec.com/**ultra-micro**

RAZOR BEAM™ LP

- Ultra-fine pitch: 0.40 mm or 0.50 mm
- Ultra-low profile, slim body designs
- Stack heights down to 2 mm
- Jack screw standoffs (JSO Series) available for unmating assistance and protection from component damage

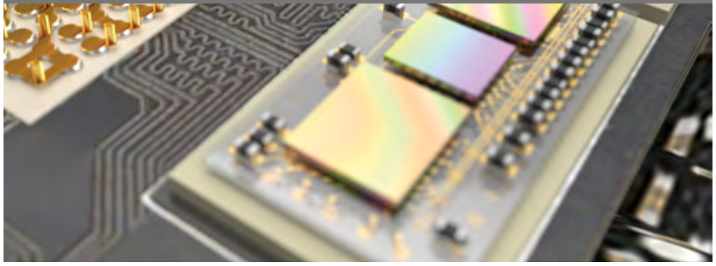




at 20 positions per row

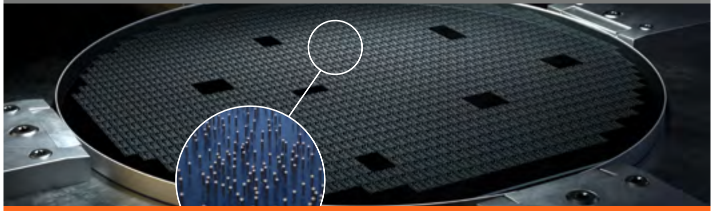
HETEROGENEOUS PACKAGE INTEGRATION

Integrating CMOS Image Sensor with Image Processor Die



PACKAGE MINIATURIZATION

Low-Profile and Small Footprints



Contact SME@samtec.com

CAMERA **MODULE**

Rugged, High-Speed Strips with Full Engineering Support

High-Speed Strips ideal for High-Vibration Applications

samtec.com/connectors

EDGE RATE®

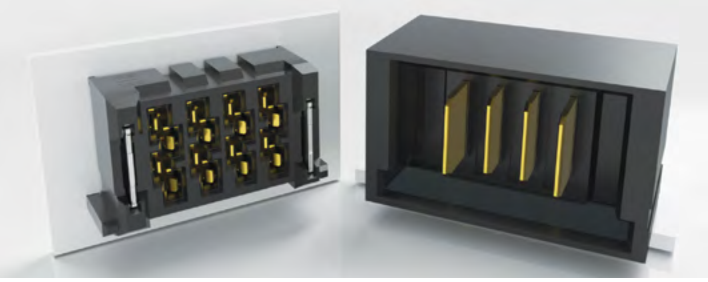
- Rugged contact system decreases crosstalk, increases cycle life, optimizes SI performance
- 0.635 mm pitch - slim 2.5 mm body width (ERM6/ERF6)
- 0.50 mm pitch (ERM5/ERF5) - 40% space savings vs 0.80 mm pitch option
- 0.80 mm pitch (ERM8/ERF8) up to 200 I/Os
- 1.0 or 1.5 mm contact wipe
- 360° shielding

EDGE® RATE SYSTEM

NRZ 28 Gbps

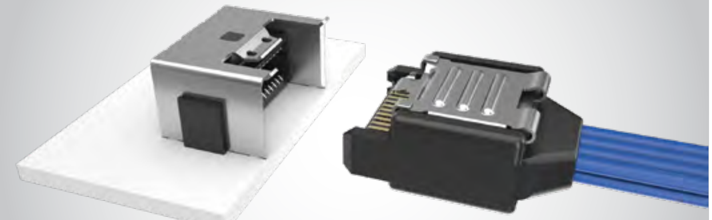
ULTRA MICRO POWER

2 mm Pitch & Low-Profile, 15 A per Blade



MICRO COAX/TWINAX

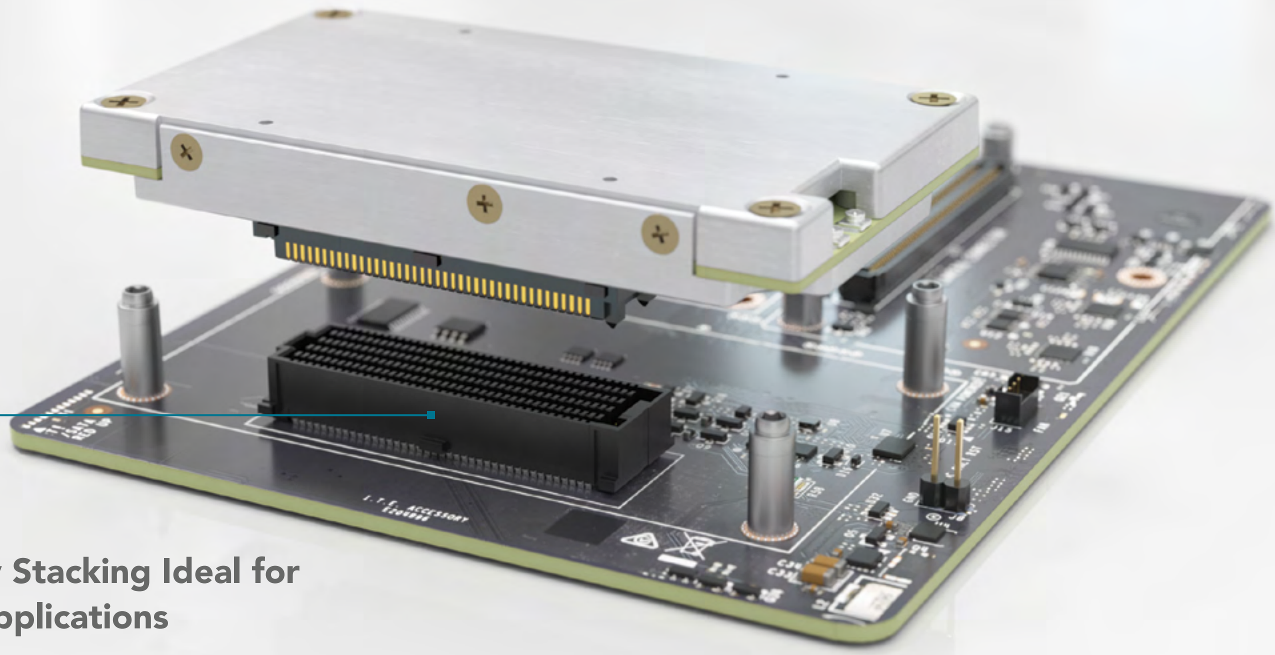
Application Specific Solutions Inside the Camera Module



samtec.com/**high-speed-cables**

PROCESSING **UNIT**

Hundreds of I/Os with Performance to 28 Gbps NRZ



High-Density Stacking Ideal for SoM/CoM Applications

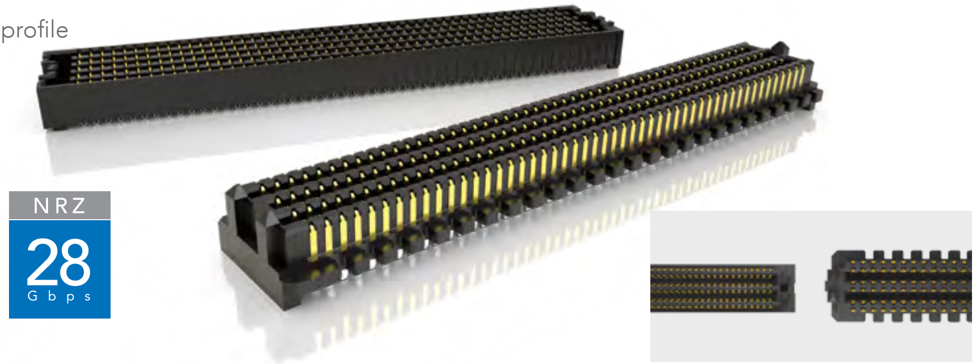
samtec.com/**arrays**

SEARAY™

- Open-pin-field array, providing maximum grounding and routing flexibility (DP, SE, Power)
- Variety of configurations, including low-profile
- Up to 720 I/Os
- Rugged Edge Rate® contacts

SEARAY™

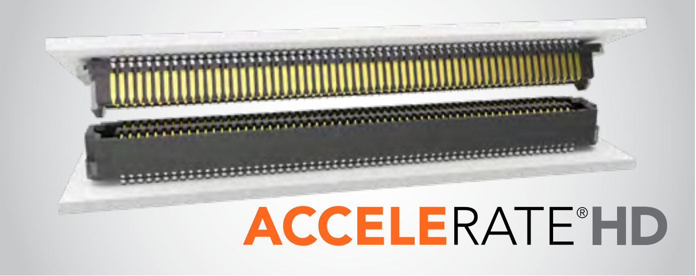
NRZ
28
Gbps



0.80 mm vs. 1.27 mm

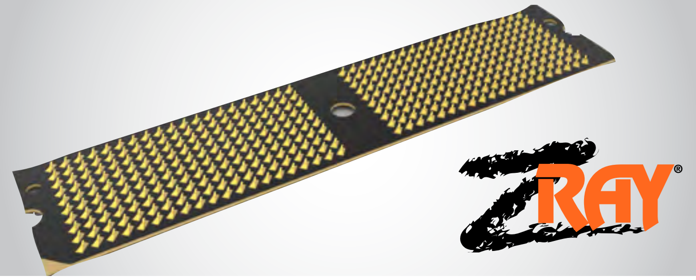
ACCELERATE® HD

Ultra-Dense, High-Speed Multi-Row Mezzanine Strip

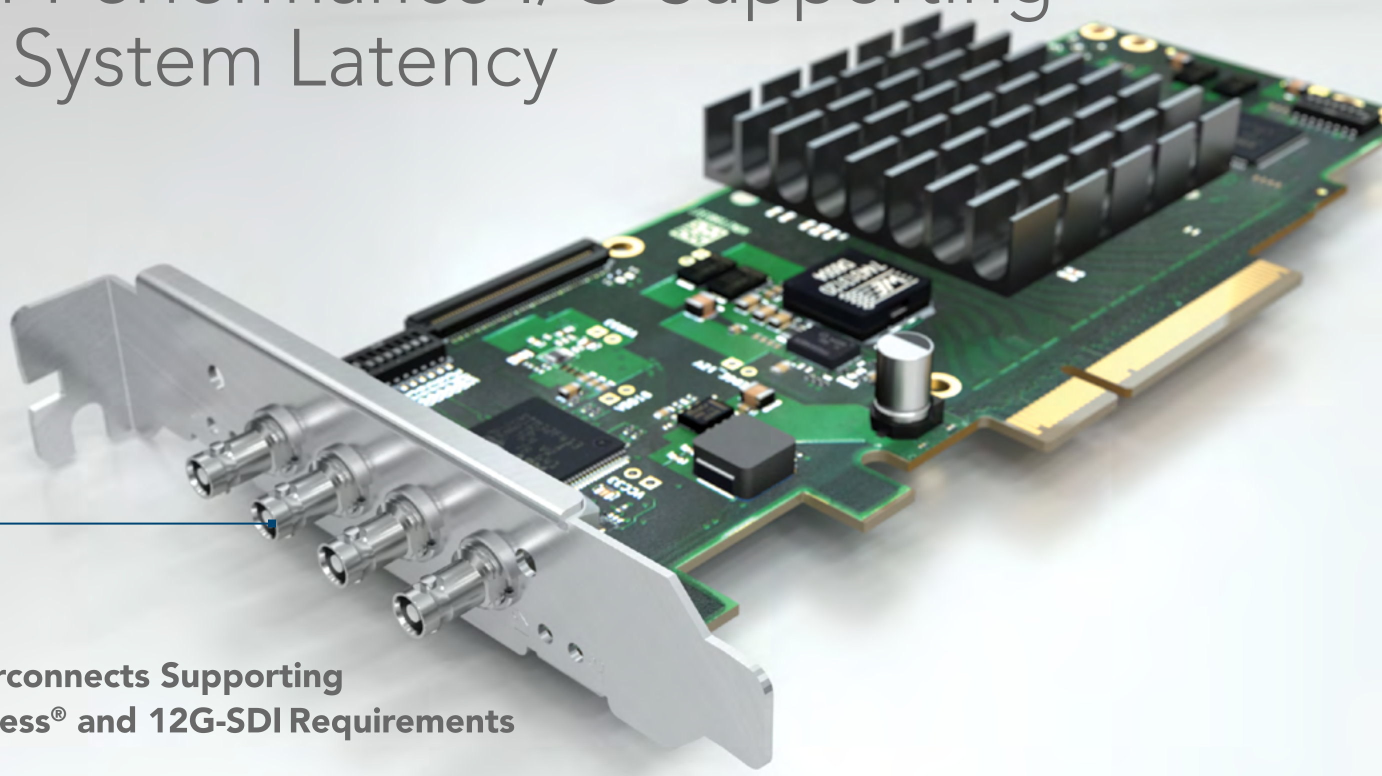


Z-RAY®

Ultra-Low-Profile One-Piece Array, Custom Geometries



High-Performance I/O Supporting Low System Latency



RF Interconnects Supporting CoaXPress® and 12G-SDI Requirements

samtec.com/**RF**

HD-BNC™, DIN 1.0/2.3, BNC

- Rugged mechanical latching: HD-BNC™ and BNC
- Space-saving design: HD-BNC™ and DIN 1.0/2.3
- 12G-SDI performance: HD-BNC™, DIN 1.0/2.3, BNC

CoaXPress®

12G SDI

FIREFLY™

Mid-board Optical Engines Provide I/O to 28 Gbps

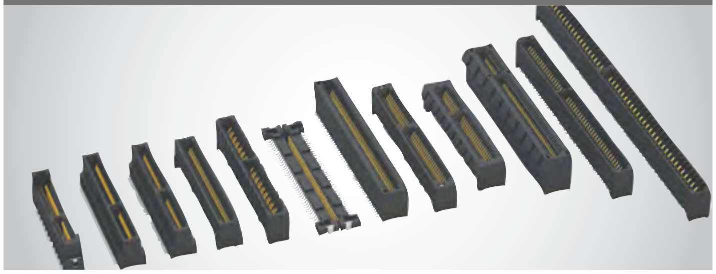
FIREFLY™

NRZ 28 Gbps

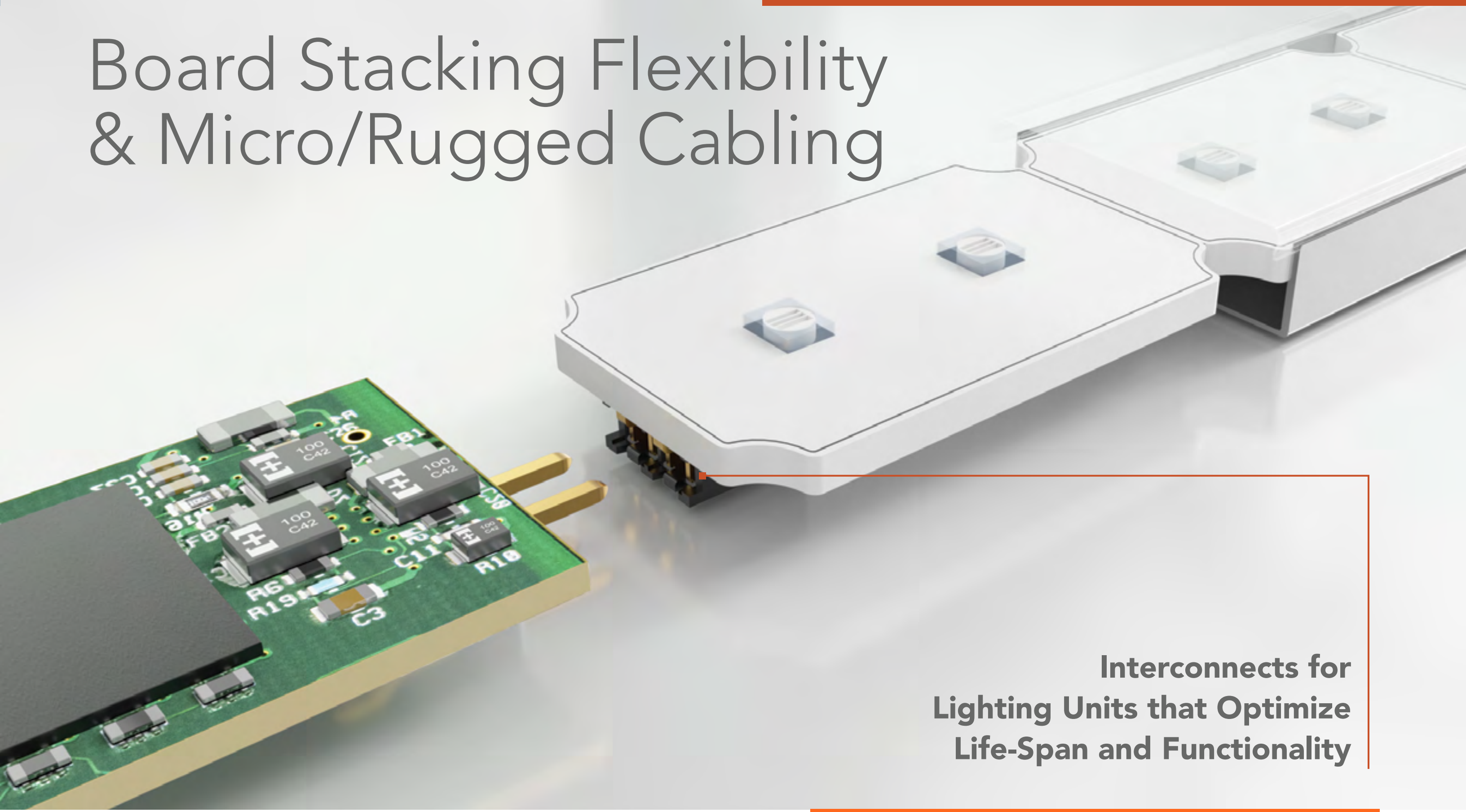
samtec.com/**firefly**

EDGE CARD VARIETY

0.50 mm to 2.00 mm Pitch, PCI Express® Sockets



Board Stacking Flexibility & Micro/Rugged Cabling

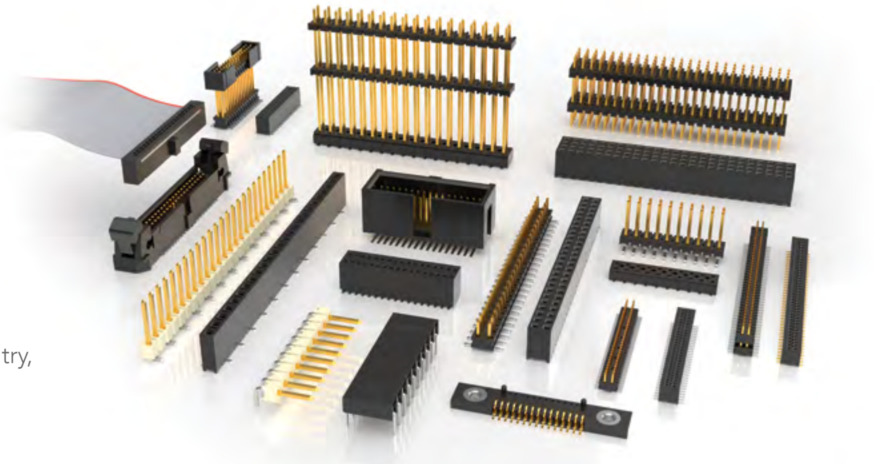


Interconnects for Lighting Units that Optimize Life-Span and Functionality

samtec.com/**FlexibleStacking**

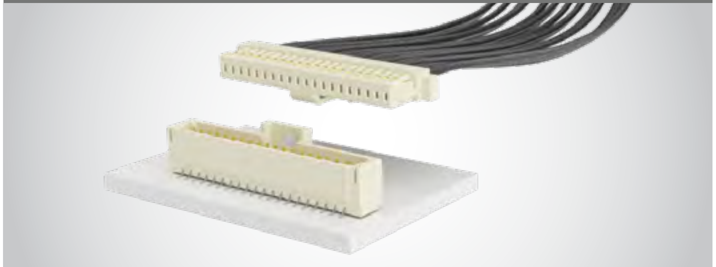
FLEXIBLE STACKING

- Headers and sockets with the most flexibility in the industry
- Pitch variety from 0.80 mm to 2.54 mm
- Post height: adjustable in .005" increments
- Body positions: adjustable in .005" increments
- Board stacking distance: 1.65 mm to 48.51 mm
- Pins: 1 to 300
- Termination: surface mount, through-hole, press-fit, mixed-technology
- Applications: right-angle, pass-through, bottom-entry, one-piece, low-profile, elevated, self-nesting
- Easily customizable



DISCRETE WIRE

0.80 mm to 6.35 mm Pitch, 32 to 10 AWG, Power: 3 to 35 A/Contact



IP67/IP68 SOLUTIONS

Bayonet/Push-Pull Circulars, Space-saving Rectangulars

samtec

SUDDEN SERVICE®

SAMTEC.COM

UNITED STATES • NORTHERN CALIFORNIA • SOUTHERN CALIFORNIA • SOUTH AMERICA • UNITED KINGDOM
GERMANY • FRANCE • ITALY • NORDIC/BALTIC • BENELUX • ISRAEL • INDIA • AUSTRALIA / NEW ZEALAND
SINGAPORE • JAPAN • CHINA • TAIWAN • HONG KONG • KOREA

OCTOBER 2018