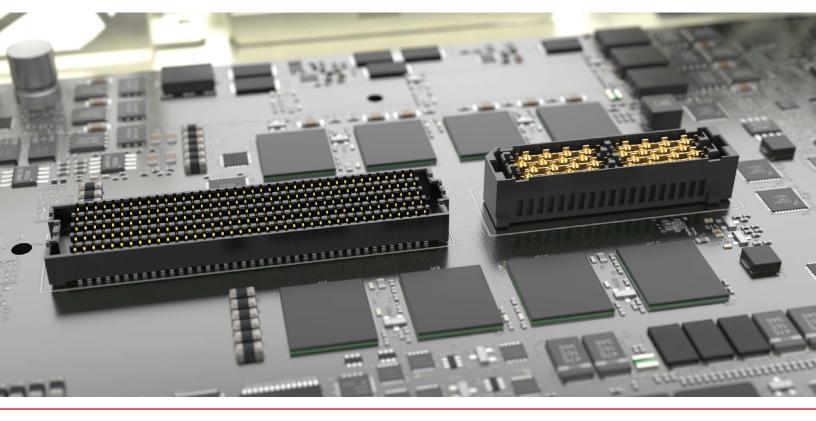


# **HIGH-DENSITY** ARRAYS





## **EXTREME PERFORMANCE ARRAYS**

- 4.0 Tbps aggregate data rate 9 IEEE 400G channels
- PCle® 6.0/CXL® 3.1 capable
- Two points of contact ensure a more reliable connection
- Fully shielded differential pairs
- Extremely low crosstalk (beyond 40 GHz) and incredibly tight impedance control
- Minimal variance in data rate as stack height increases
- Utilizes 40% less space with the same data throughput as compared to traditional arrays
- Latching terminal mates with NovaRay® cable (NVAC/NVAM-CT)
- Analog Over Array™ capable

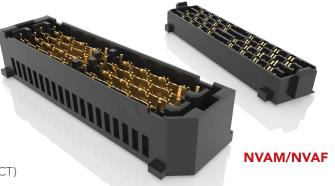


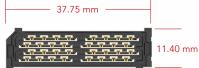
SureWare™ guide post standoffs (GPSO/GPSOM) assist with "blind mate" and misalignment mitigation











NVAM Series; 32 pairs

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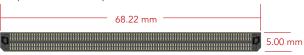
#### HIGH-PERFORMANCE ARRAYS

- Flexible open-pin-field and cost optimized, extreme performance solution
- 5 mm and 10 mm stack heights; right-angle socket available (APF6-RA)
- Four row design with up to 400 total pins on a 0.635 mm pitch; roadmap to 1,000+ pins
- Solder column termination for improved SI and ease of processing
- Data rate compatible with PCIe® 6.0/CXL® 3.1 and 100 GbE
- Additional row and pin counts in development
- SureWare™ quide post standoffs (GPSO) available
- Analog Over Array™ capable



#### HIGH-DENSITY SLIM BODY ARRAYS

- Up to 400 I/Os in a 4-row, open-pin-field design
- 0.635 mm pitch Edge Rate® contacts
- Slim 5 mm body width; 5 mm to 16 mm stack heights
- PCle® 6.0/CXL® 3.1 capable
- Solder column termination for improved SI and ease of processing
- SureWare™ guide post standoffs (GPSO/GPSOM) available



ADF6 Series; 400 pins

# **ACCELERATE®HD**

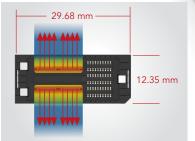




# ACCELERATE® mP SIGNAL/POWER ARRAYS ACCELERATE® mP



- Best in class density for power and signal
- Rotated power blades for improved performance and simplified breakout region (BOR)
- Open-pin-field design for routing and grounding flexibility
- PCIe® 6.0/CXL® 3.1 capable; supports 64 Gbps PAM4 (32 Gbps NRZ) applications
- Up to 8 power and 240 signal positions
- Low profile 5 mm stack height; up to 16 mm in development
- SureWare™ guide post standoffs (GPSO) available



UDM6/UDF6

Blades rotated 90° have equal access to heat escape for uniform cooling, increased current capacity and reduced crowding

UDM6 Series; 60 signal & 4 power

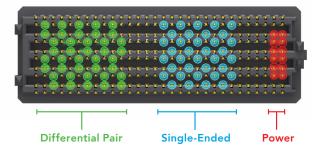
### 1.27 mm PITCH ARRAYS

- Maximum grounding and routing flexibility
- Up to 560 Edge Rate<sup>®</sup> contacts with 1.12 mm (.044") wipe

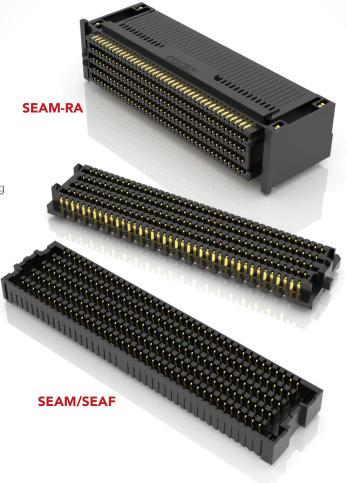
SEARA

- 7 mm to 40 mm stack heights; right-angle available
- Solder charge terminations (IPC-A-610F & IPC J-STD-001F Class 3)
- Supports high-speed protocols such as Ethernet, PCI Express®, Fibre Channel and InfiniBand™
- Standards: VITA and PISMO™ 2
- Elevated stack heights (SEAR), press-fit tails (SEAMP/SEAFP) and cable mate (SEAC) available
- Up to 10,000 cycles with SureCoat<sup>™</sup> palladium alloy plating for high-temp, high cycle applications
- SureWare™ standoffs (JSO/GPSO) available
- Severe Environment Testing qualified (SEAM/SEAF); aligns with MIL-DTL-55302. Visit samtec.com/set
- Analog Over Array<sup>™</sup> capable

#### **OPEN-PIN-FIELD FLEXIBILITY**







### HIGH-DENSITY 0.80 mm PITCH ARRAYS

- 2x the density of 1.27 mm pitch arrays
- Up to 500 Edge Rate® contacts
- 7 mm and 10 mm stack heights
- Lower insertion/withdrawal forces
- High-speed cable mate available (ESCA)
- SureWare<sup>™</sup> press-in or threaded standoffs available (JSO/GPSO)
- Severe Environment Testing qualified (SEAM8/SEAF8); aligns with MIL-DTL-55302.
  Visit samtec.com/set
- Analog Over Array™ capable



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#### LOW PROFILE ARRAYS

- Up to 400 total pins in 4, 6 or 8 rows
- 4 mm, 4.5 mm and 5 mm stack heights
- 1.27 mm pitch dual beam contacts
- SureWare™ press-in or threaded standoffs available to assist with unmating (JSO)
- Analog Over Array™ capable



LPAM Series; 120 pins



# ALSO AVAILABLE: HIGH-DENSITY SOLUTIONS

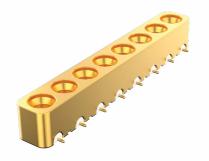
#### COMPRESSION INTERPOSERS

- SUPERNOVA® low profile 1.27 mm body height and performance to 56 Gbps PAM4 (GMI)
- Analog Over Array<sup>™</sup> capable



#### PRECISION RF BOARD-TO-BOARD SOLUTIONS

 SMP, SMPM and Magnum RF™ Ganged SMPM with a push-on design for quick installation and frequency to 65 GHz (GPPC, GPPB, SMPM, PRFIA, SMP).



### **ROADMAP: HIGH-DENSITY MEZZANINE SYSTEM**

- Industry's highest density board-to-board and on-package mezzanine system
- 32 (4 row), 64 (8 row), 128 (16 row) or 192 (24 row) differential pairs
- Mixed DP/SE/Power configurations also available
- Low profile 5 mm stack height
- Up to 6.4 Tbps aggregate data rate
- Intermateable with Si-Fly™ HD on-package cable system
- High-reliability compared to other compression solutions









# ANALOG OVER ARRAY™ & CUSTOM SOLUTIONS

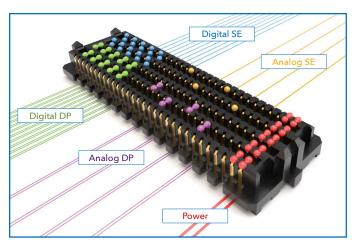
#### ANALOG OVER ARRAY™ REFERENCE DESIGNS & EVALUATION KITS

High density RF applications typically require up to hundreds of individual RF connectors. Samtec Analog Over Array™ connectors can replace dozens of precision RF connectors offering a smaller footprint, less weight and cost optimization. Visit samtec.com/kits or email SIG@samtec.com.

- Open-pin-field design with maximum routing and grounding flexibility
- Analog and digital signals (differential pairs and/or single-ended) plus power though the same interconnect
- Single-ended ground pattern; differential supports RF SOCs

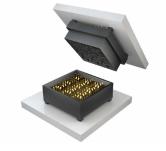






#### **CUSTOMS & EXPRESS MODIFICATIONS**

- Up to 50  $\mu$ " Gold and Tin Lead plating available
- Polarized positions
- Modified contacts, bodies, stamping, plating, wiring, molding and much more
- Ruggedizing strain relief, plastic housings, screw downs, latches, locks, etc.
- Mix-and-match cable end options
- Non-cataloged cable standards available



# WILLINGNESS, SUPPORT & EXPERTISE

#### **Industry-Leading Customer Service**

- Quotes and samples in 24 hours
- Prototype and processing assistance
- Dedicated Application Specific Product engineers and technicians

#### Flexible, In-House Manufacturing

- Global Operations, including multiple cable facilities
- Quick-turn samples and prototypes
- Custom & modified product support

#### **Signal Integrity Expertise**

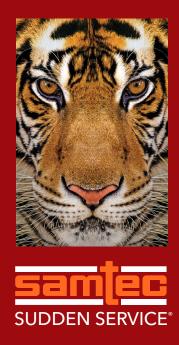
- Industry-leading engineering support for high-performance system design
- Full system optimization assistance, including simulation, testing, analysis and evaluation











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