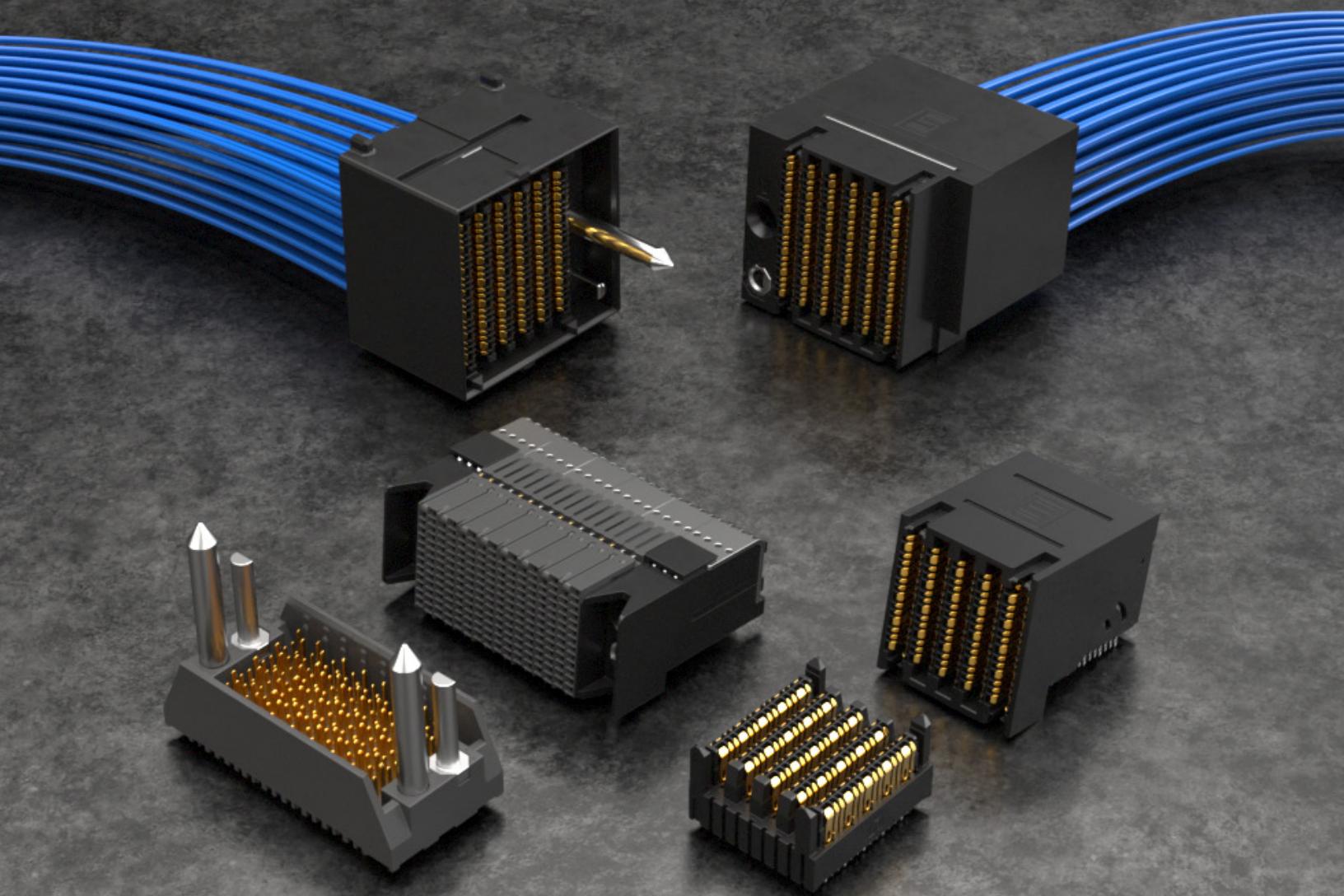


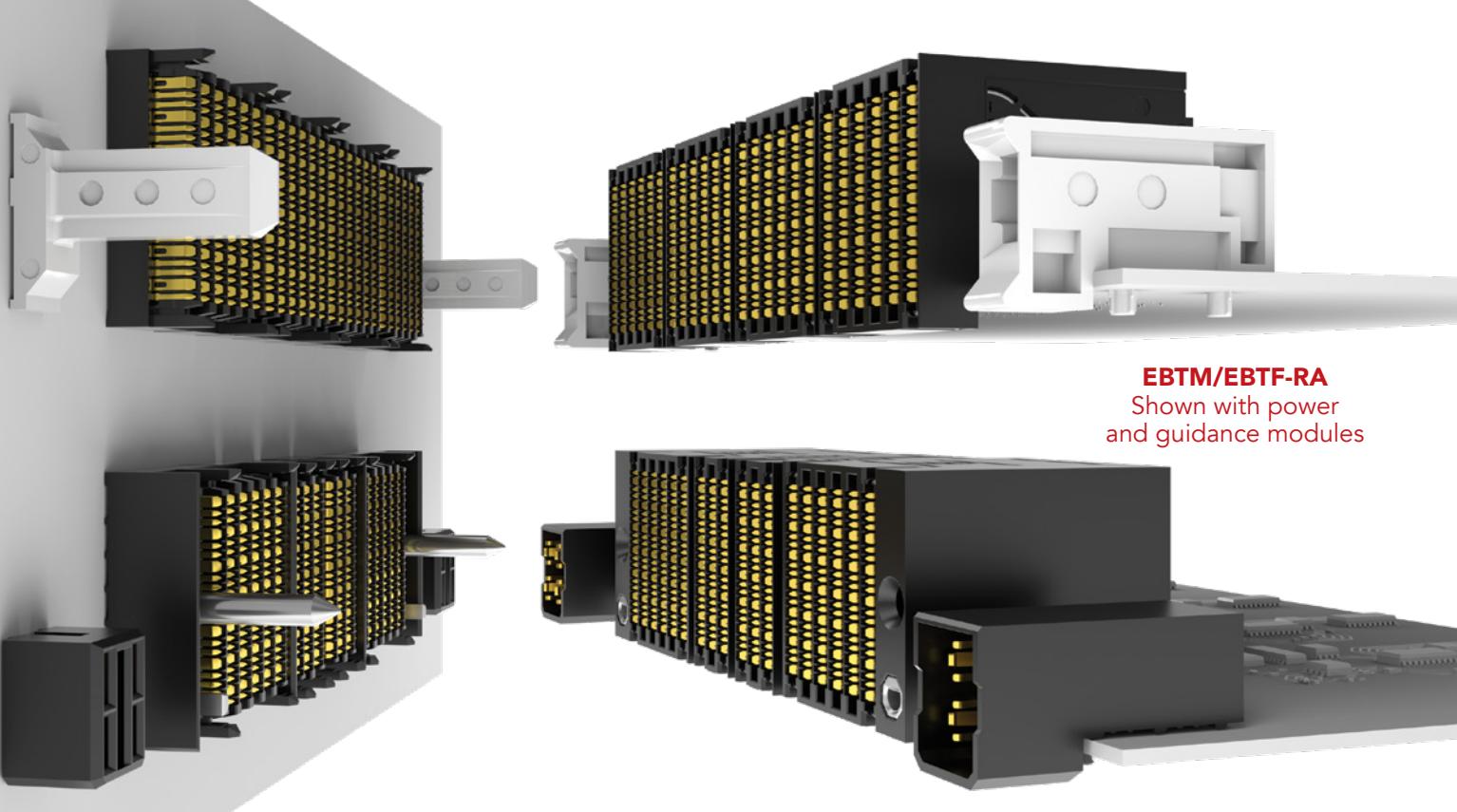


HIGH-SPEED **BACKPLANE** SYSTEMS



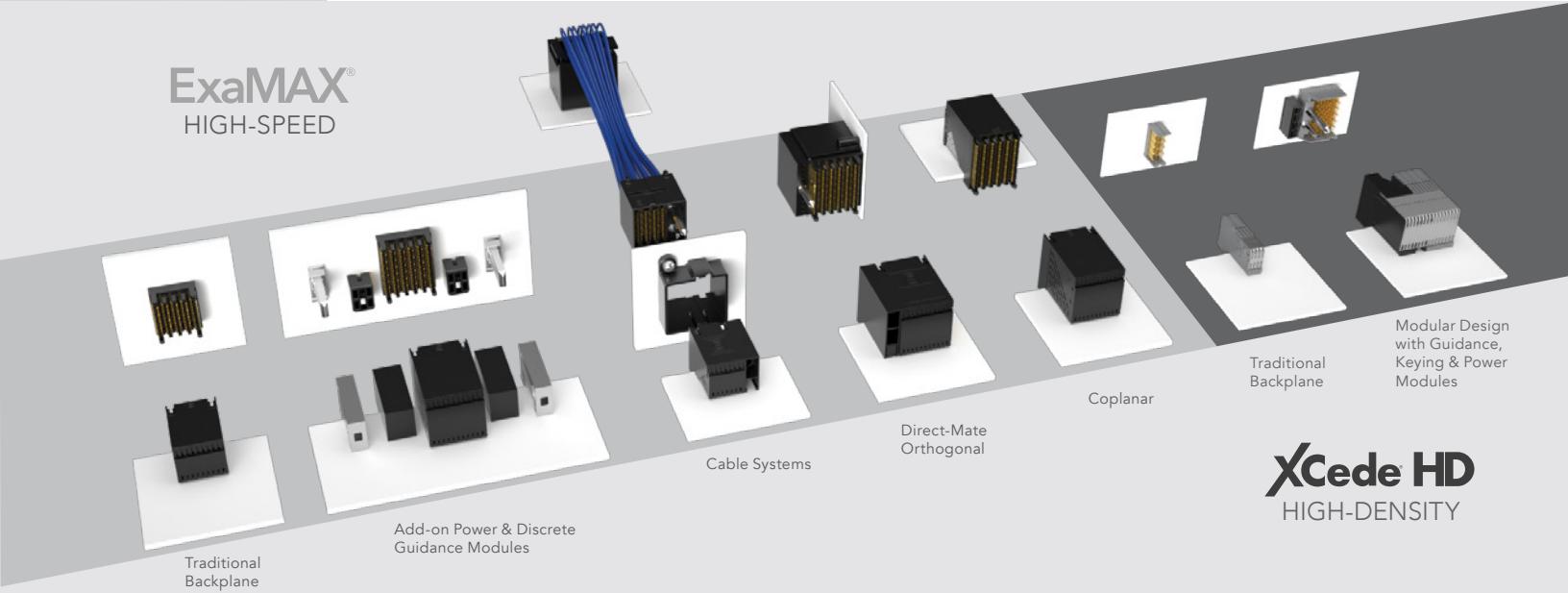
HIGH-SPEED BACKPLANE SYSTEMS

HIGH-DENSITY • DESIGN FLEXIBILITY • HIGH RELIABILITY



EBTM/EBTF-RA

Shown with power
and guidance modules

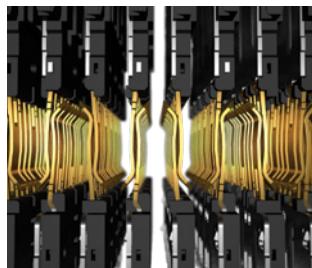
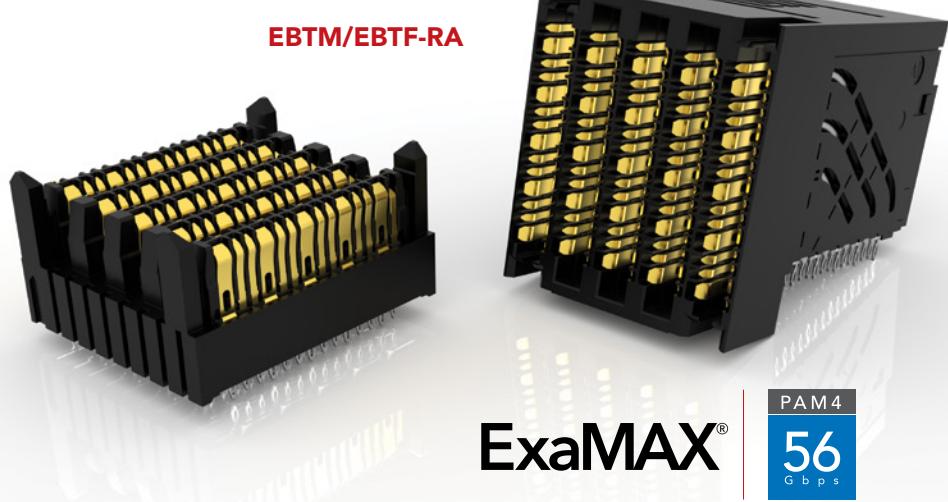


Xcede HD
HIGH-DENSITY

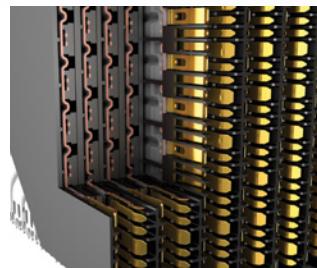
samtec.com/backplane

EXAMAX® HIGH-SPEED BACKPLANE

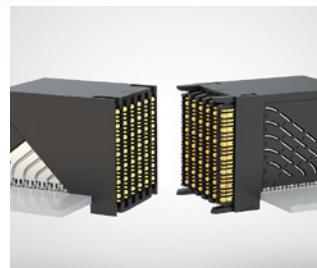
- Meets industry specifications such as PCI Express®, Intel OPI and VPI, SAS, SATA, Fibre Channel, InfiniBand™ and Ethernet
- Exceeds OIF CEI-28G-LR specification for 28 Gbps standards
- 24 - 72 pair designs (4 and 6 pairs; 6, 8, 10 and 12 columns)
- Wafer design increases isolation for reduced crosstalk
- Press-fit tails provide a reliable electrical connection
- Cable assemblies available (EBCM/EBCF)



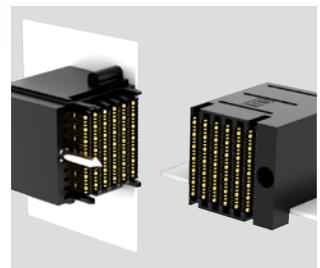
Two reliable points of contact



Staggered differential pair design with an embossed ground plane



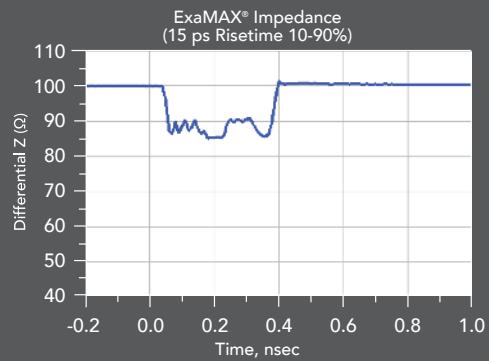
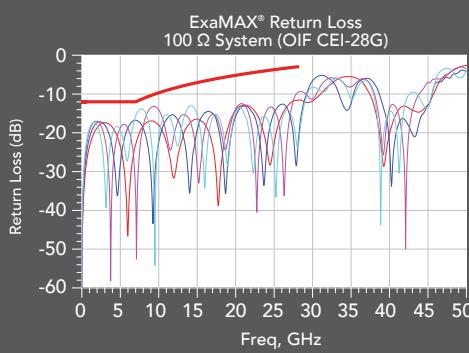
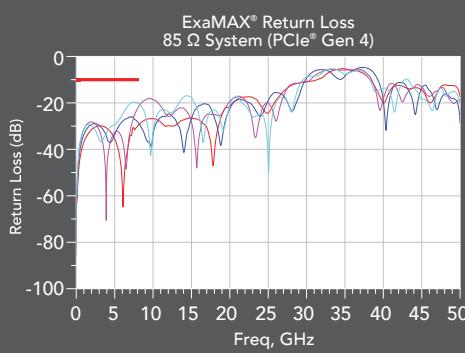
Coplanar available to bypass the midplane (EBTM-RA)



Direct-mate orthogonal (EBDM-RA) eliminates the midplane for a shorter signal path

PERFORMANCE CHARTS

ExaMAX® is engineered for 92 Ω impedance to address both 85 Ω and 100 Ω applications



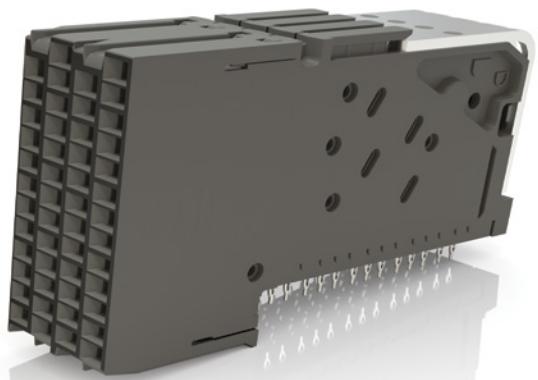
ExaMAX® is a trademark of AFCI

XCEDE® HD HIGH-DENSITY BACKPLANE

- Small form factor and modular design provides significant space-savings and flexibility
- High-performance system
- Up to 84 differential pairs per linear inch
- 3, 4 and 6-pair designs on 4, 6 and 8 columns
- Integrated power, guidance, keying and side walls available
- 85 Ω and 100 Ω options
- Combine any configuration of modules to create one integrated receptacle (BSP Series); corresponding terminal modules are individually mounted to the backplane



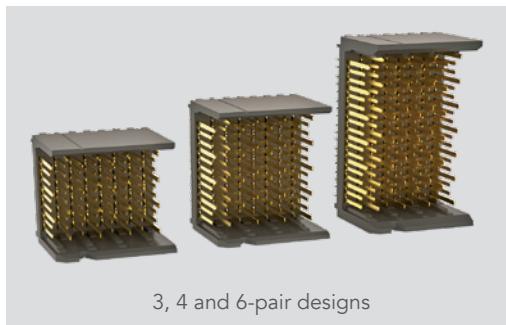
HDTM/HDTF



Xcede HD

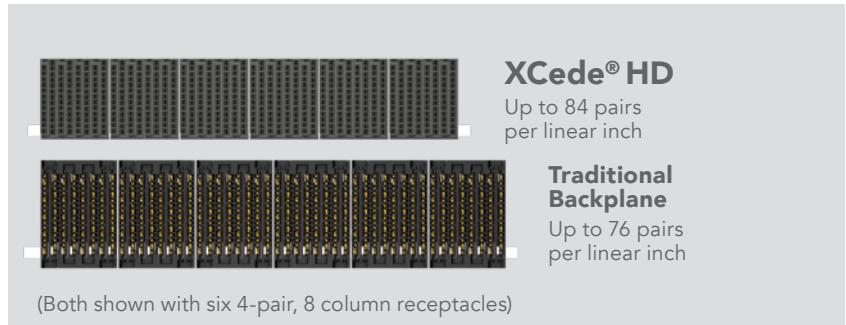
16
Gbps

SMALL FORM FACTOR

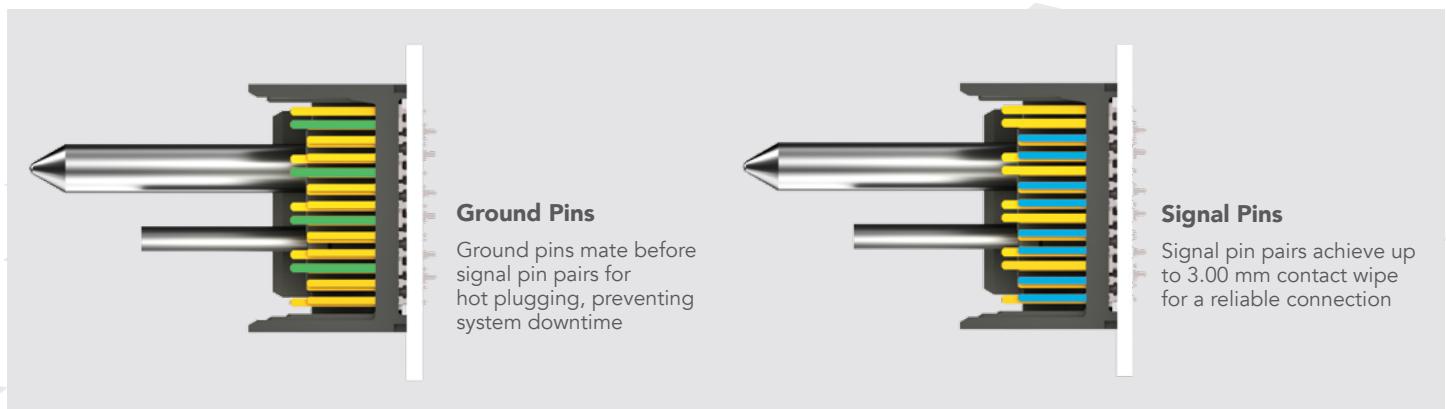


3, 4 and 6-pair designs

DENSITY COMPARISON



SIGNAL/GROUND PIN STAGING



MODULAR DESIGN

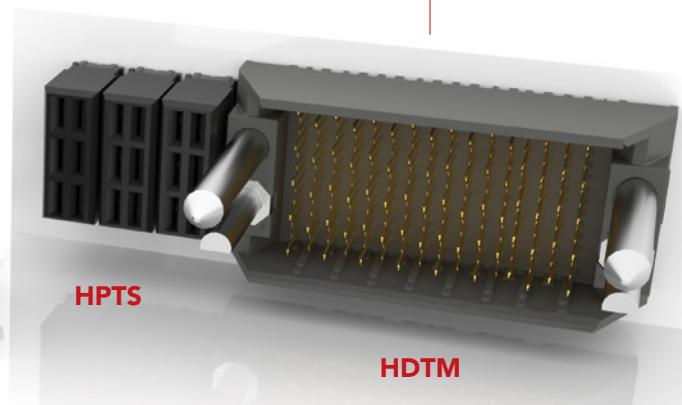
XCede® HD consists of signal, power and keying/guidance modules for incredible design flexibility. The modules can be customized in any configuration to meet specific application requirements. Contact HSBP@samtec.com for more information about building a full XCede® HD solution.

How to build a full solution:

① Right-angle modules can be built into a single customizable BSP

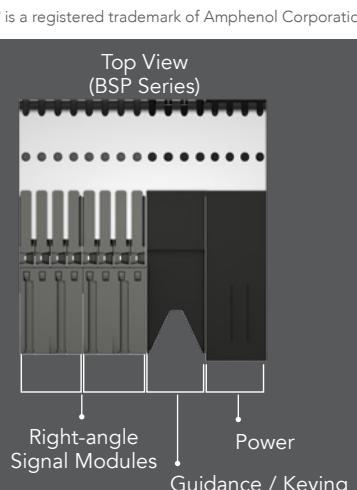
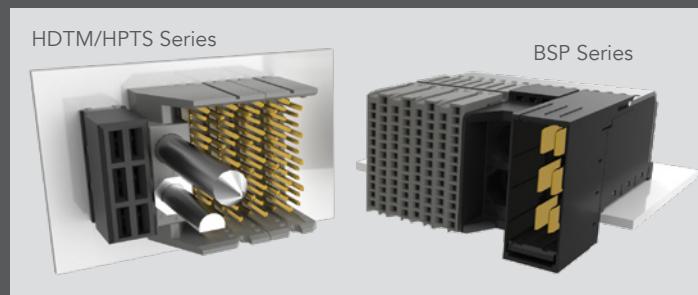
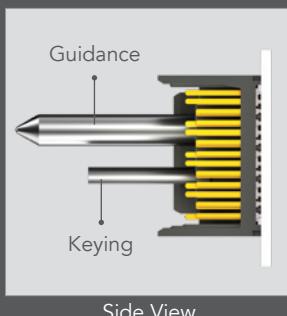


② Build a BSP part by combining any number, in any configuration, of HDTFs, power and keying/guidance modules to create one receptacle



③ Header modules mount to the backplane individually, in any configuration of HDTM and HPTS Series

PRODUCT BREAKDOWN (BSP Custom Configuration Shown)



EXAMAX® BACKPLANE CABLE ASSEMBLIES

- Utilizes Samtec's Eye Speed® ultra low skew twinax cable technology for improved signal integrity, increased flexibility and routability
- Highly customizable with modular flexibility
- Reduce costs due to lower layer counts
- 30 and 34 AWG
- Multiple end options available



EBCF

EBTM/EBCL

DESIGN FLEXIBILITY



4 and 6 pairs;
4-16 columns



Intermateable with all
ExaMAX® connectors



Integrated guidance and
keying options

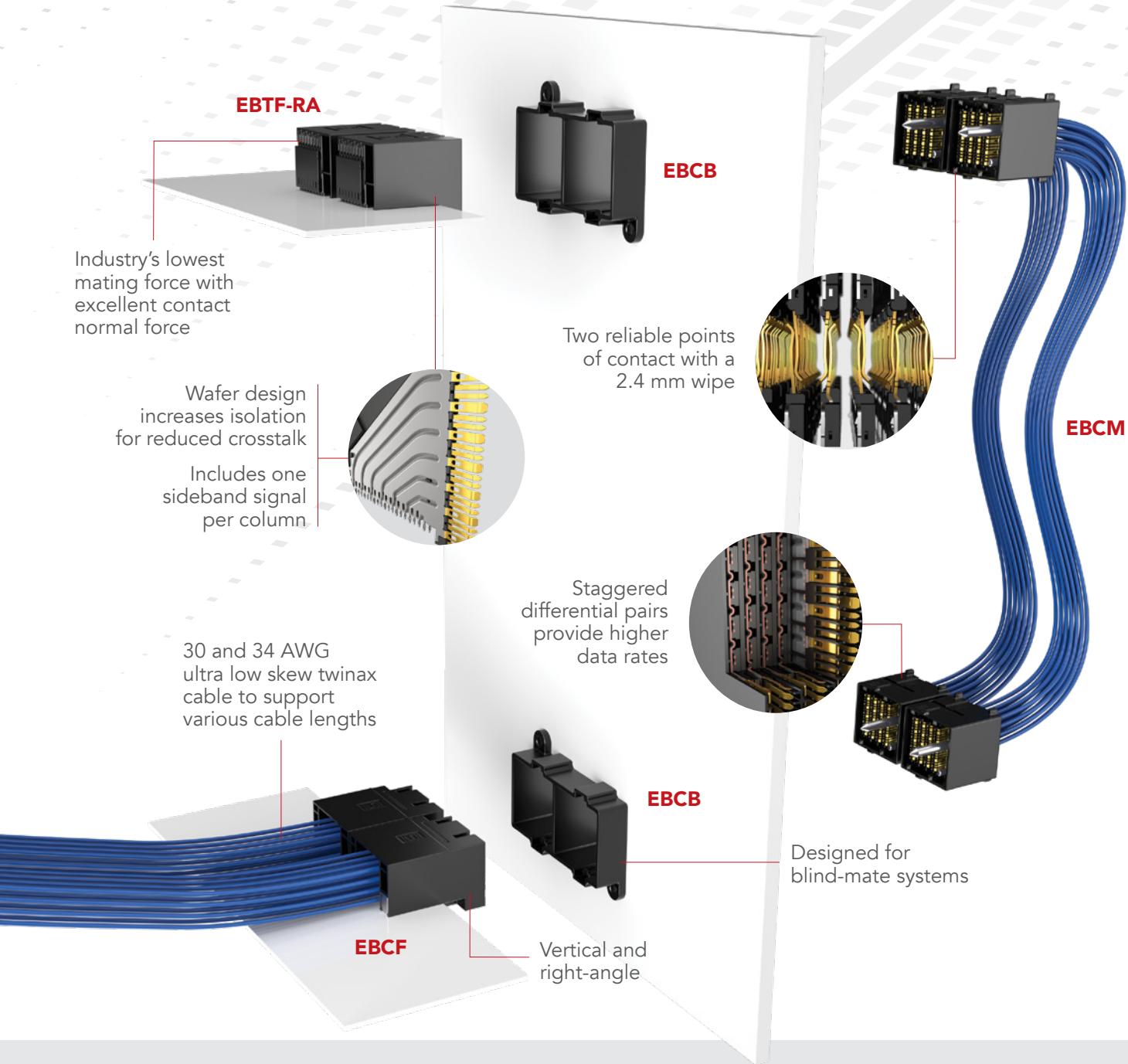


Cable-to-DMO
(Direct Mate Orthogonal)

HIGH-DENSITY APPLICATION



Increases architectural flexibility by overcoming the limitations of a traditional connector-to-connector backplane

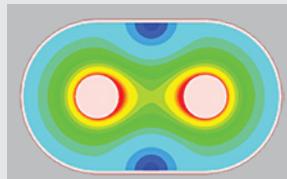


ULTRA LOW SKEW TWINAX CABLE

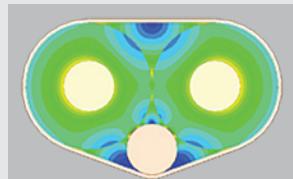
Samtec's Eye Speed® co-extruded twinax cable technology eliminates the performance limitations and inconsistencies of individually extruded dielectric twinax cabling, improving signal integrity, bandwidth and reach for high-performance system architectures.

- Tight coupling between signal conductors
- Improved bandwidth and reach
- Improved signal integrity and eye pattern opening

**EYE®
SPEED
CABLE**



✓ **Good** design coupling with Samtec's co-extruded ultra low skew twinax



✗ **Bad** design coupling with individually extruded conductors & drain wire



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samtec.com/backplane