

SLIM MODULE CONNECTOR

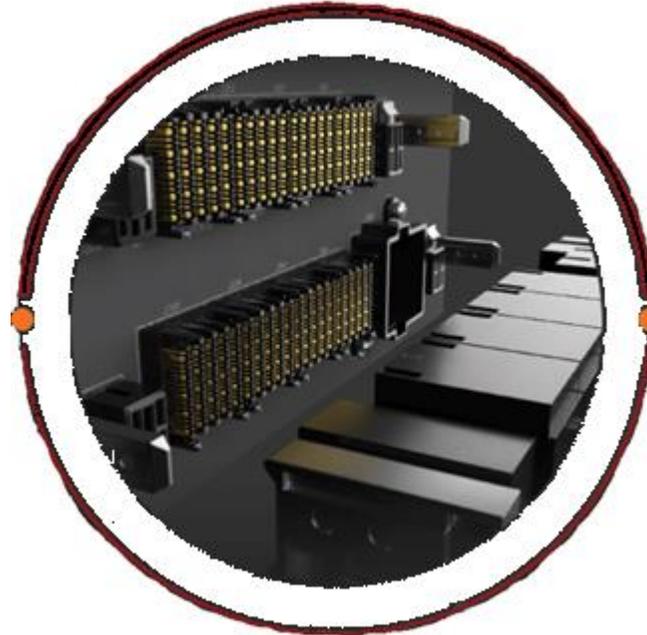
Jie Zhang

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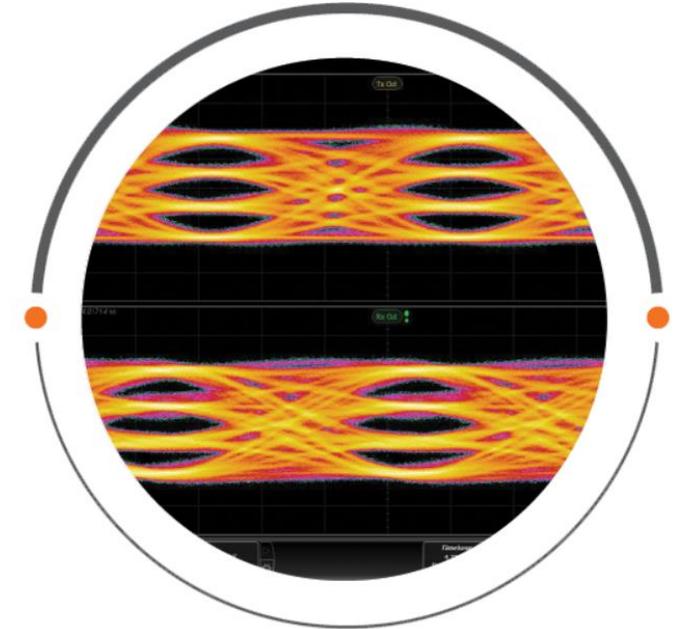
MOTIVATION



**High-Speed
Interconnect**



High-Density



**High-Performance
signal integrity (SI)**

As data rate requirements surpass 10 Gbps, developers are challenged with balancing increasing throughput, scalability and density demands with concerns such as power consumption, signal integrity, cost and time-to-market.

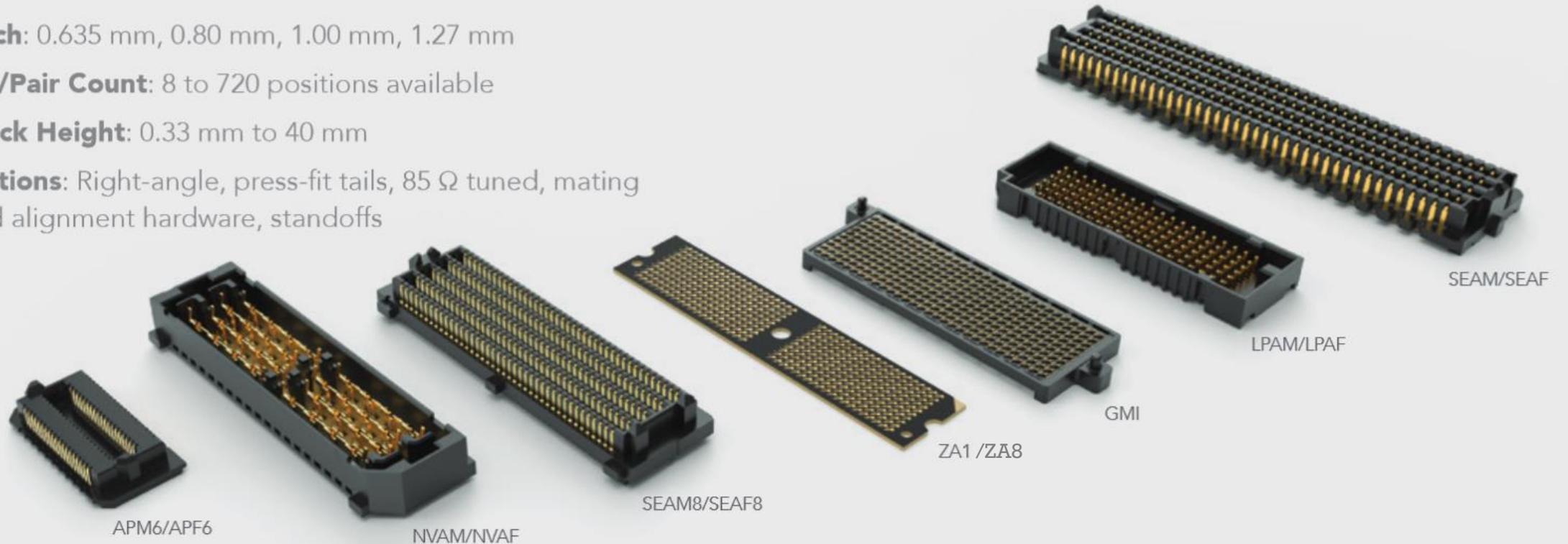
We meet the challenges in high-performance interconnect design, system optimization, and innovative strategies and technologies for the demands of next generation data transmission.

SLIM CONNECTOR FROM SAMTEC



VARIETY OF OPTIONS:

- **Pitch:** 0.635 mm, 0.80 mm, 1.00 mm, 1.27 mm
- **Pin/Pair Count:** 8 to 720 positions available
- **Stack Height:** 0.33 mm to 40 mm
- **Options:** Right-angle, press-fit tails, 85 Ω tuned, mating and alignment hardware, standoffs

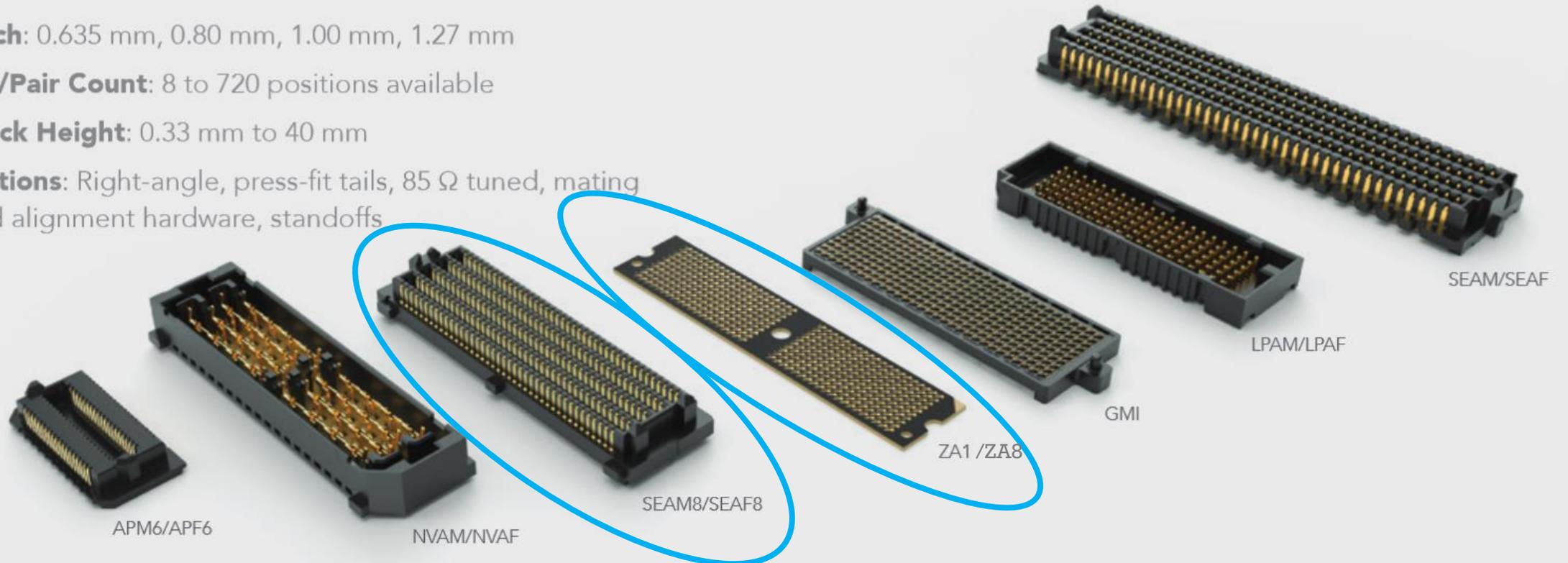


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SEARAY™ 0.8 MM

ULTRA HIGH DENSITY OPEN PIN FIELD ARRAYS

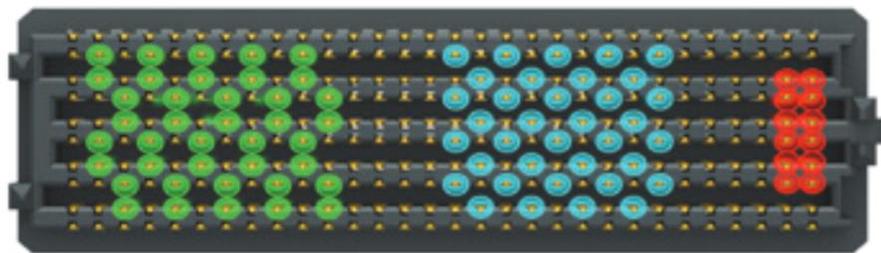
SEARAY™ .8mm

- 0.80 mm pitch grid
- 50% board space savings versus 1.27 mm pitch SEARAY™
- Performance: Up to 35 Gbps
- Up to 500 I/Os
- 7 mm or 10 mm stack heights
- Solder charge terminations for ease of processing

ESCA

SEAF8

OPEN-PIN-FIELD FLEXIBILITY

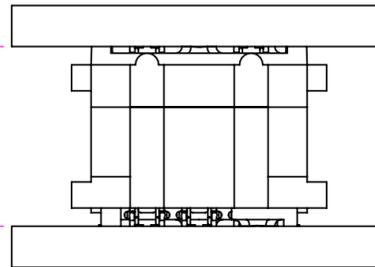


Differential Pair

Single-Ended

Power

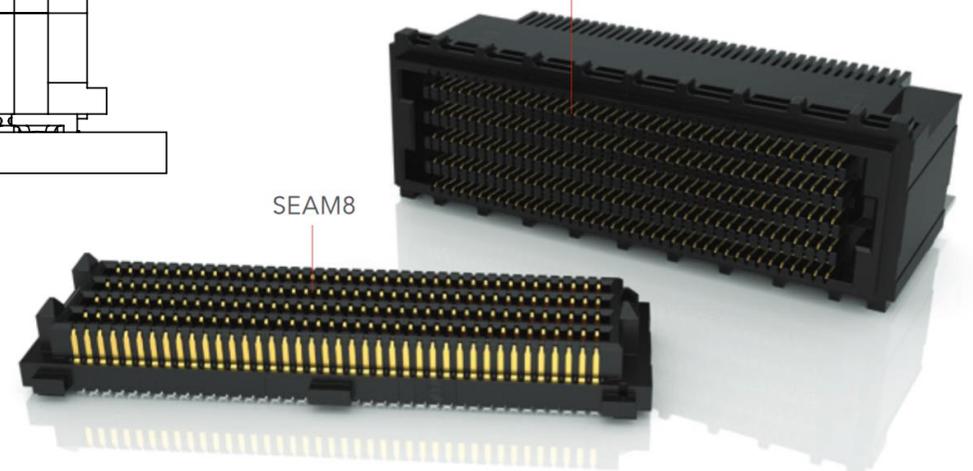
7mm



SEAF8 -RA

SEAM8

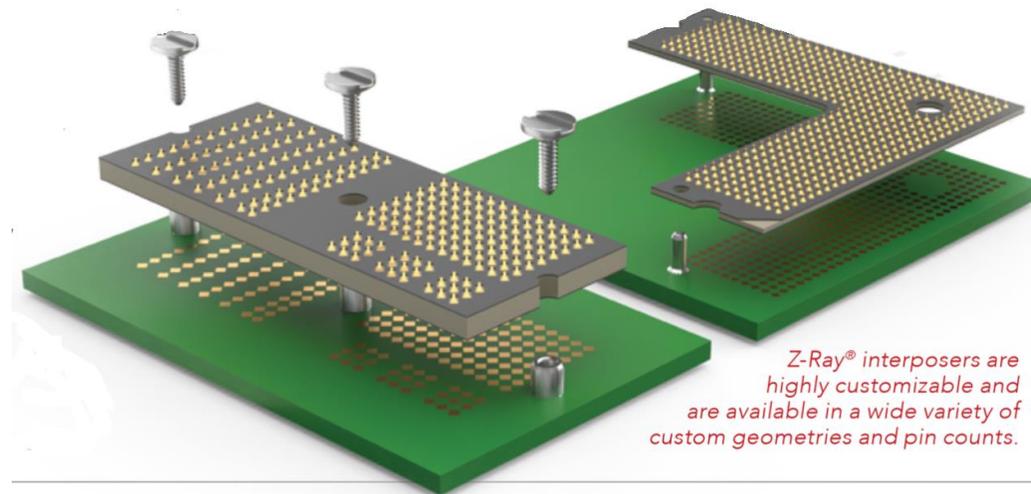
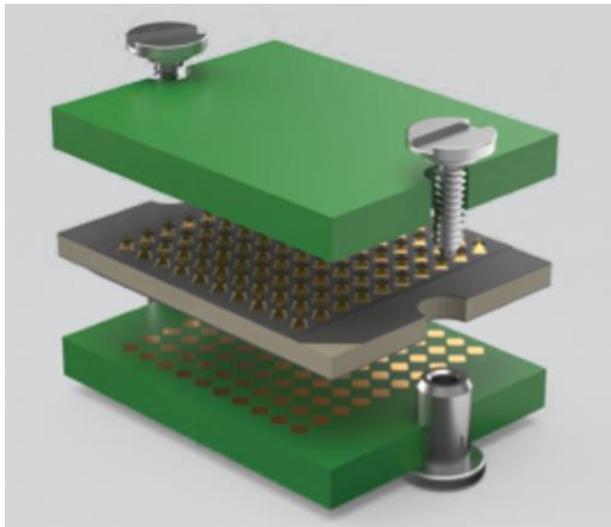
28
Gbps



Z-RAY®

ULTRA LOW PROFILE INTERPOSERS

- 1 mm standard body height
- Dual compression contacts
- Single compression with solder ball
- Performance up to 40 Gbps
- 0.80 mm or 1.00 mm pitch standard
- Highly customizable system



Z-Ray® interposers are highly customizable and are available in a wide variety of custom geometries and pin counts.



PROS AND CONS



	Z-RAY 0.8mm	SEARAY™ 0.8
Pin Pitch	0.8 mm	0.8 mm
Pin number (Max)	Customizable	Up to 500
Current Rating	0.8 A per pin	1.3 A per pin
Working Voltage	?	220 VAC
Mated	Press contact with 3 special screws, This screw is magnetic.	Press contact, self locking by side pressure
Mated Height (Min)	1 mm	7 mm
PCB surface finish	Must be gold-plated	Normal
Handle before assembling	With great care	Normal
Assembling	Pressing	Normal, Soldering
Installation environment	Clean rooms are recommended	Normal
Inspection after installation	Must design some test patterns to check the connection (pin by pin)	None
Installation time	More than 10 minutes	Less than 10 seconds
Long term stability	Screw may be loose by vibration	Stable
Price/one pair with 400 pins	$(21 + 2.6 \times 3) = 28.8\text{€}$	$29.8 + 27.6 = 57.4\text{€}$

THANKS TO YOUR ATTENTION