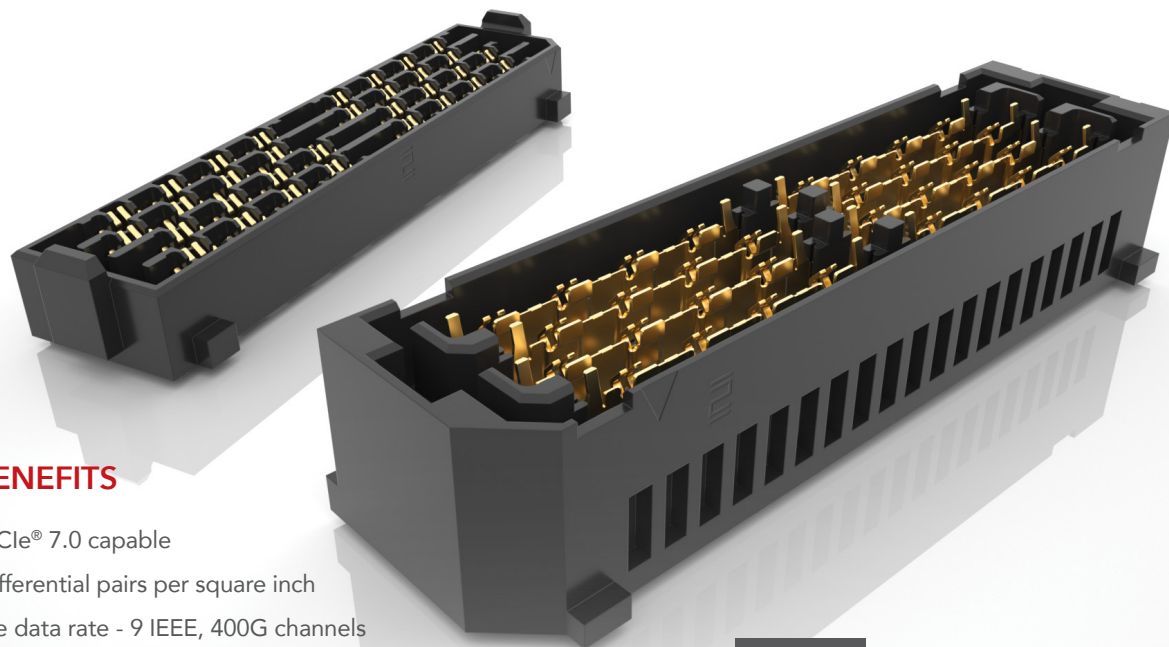




# EXTREME PERFORMANCE HIGH-DENSITY ARRAYS

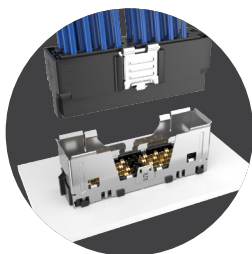
(0.80 mm) .0315" x (1.80 mm) .071" PITCH



## FEATURES & BENEFITS

- 128 Gbps PAM4/PCIe® 7.0 capable
- 48 fully shielded differential pairs per square inch
- 4.0 Tbps aggregate data rate - 9 IEEE, 400G channels
- Extremely low crosstalk beyond 40 GHz
- 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

PAM 4  
**128**  
G b p s



High-speed mezzanine connector and cable in one product family



BGA attach to board for greater density and optimized trace breakout region



Two reliable points of contact with a 1.14 mm wipe

## KEY SPECIFICATIONS (NVAM/NVAF)

TOTAL PAIRS	INSULATOR MATERIAL	CONTACT MATERIAL	PLATING	OPERATING TEMP RANGE	CURRENT RATING	WORKING VOLT-AGE	LEAD-FREE SOLDERABLE
Up to 32 pairs	Black LCP	Copper Alloy	Au or Sn over 50 µ" (1.27 µm) Ni	-55 °C to +125 °C	2.1 A per pin (signal) 9.6 A per pin (ground)	200 VAC/283 VDC	Yes

PCI-SIG®, PCI Express® and the PCIe® design marks are registered trademarks and/or service marks of PCI-SIG.

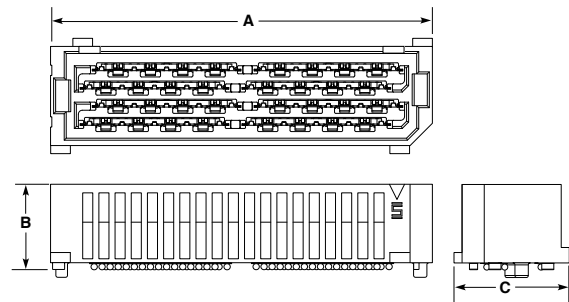
# 0.80 mm x 1.80 mm PITCH • EXTREME PERFORMANCE ARRAYS

SERIES	STYLE	NO. OF ROWS	NO. OF BANKS	LEAD STYLE	PLATING OPTION	SOLDER TYPE	K	"X"R
NVAM Terminal	-DP = 4 pairs per wafer	-02 -03 -04	-1 = 1 Bank -2 = 2 Banks	-02.0 = (2 mm) .0787" (NVAM only) -05.0 = (5 mm) .1969" -07.0 = (7 mm) .2756" (NVAF only)	-S = 30 μ" (0.76 μm) Gold on contact area, Matte Tin on solder tail	-2 = Lead-Free Solder Charge	-K = (3.50 mm) .138" DIA Polyimide film Pick & Place Pad	-TR = Tape & Reel -FR = Full Reel Tape & Reel (must order maximum quantity per reel; contact Samtec for quantity breaks)
NVAF Socket								

## NVAM

Board Mates:  
NVAF

Standoffs:  
GPSO



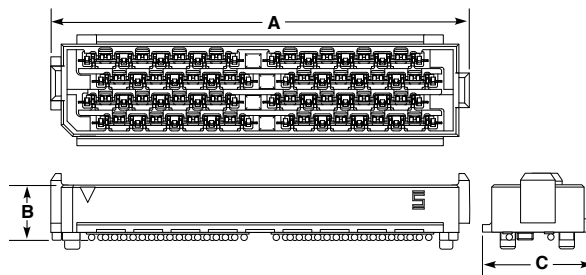
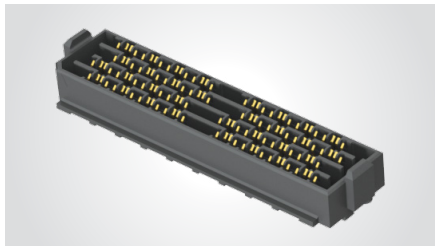
NO. OF BANKS	A	LEAD STYLE	B	NO. OF ROWS	C
-1	(21.75) .856	-02.0	(5.46) .215	-02	(7.80) .307
-2	(37.75) 1.486	-05.0	(8.46) .333	-03	(9.60) .378
				-04	(11.40) .449

View complete specifications at: [samtec.com?NVAM](http://samtec.com?NVAM)

## NVAF

Board Mates:  
NVAM

Standoffs:  
GPSO



NO. OF BANKS	A
-1	(20.25) .797
-2	(36.25) 1.427

LEAD STYLE	B
-05.0	(4.80) .189
-07.0	(6.80) .268

NO. OF ROWS	C
-02	(6.00) .236
-03	(7.80) .307
-04	(9.60) .378

MATED HEIGHTS*		
NVAF LEAD STYLE	NVAM LEAD STYLE	
	-02.0	-05.0
-05.0	(7.00) .276	(10.00) .394
-07.0	(9.00) .354	(12.00) .472

\*Processing conditions will affect mated height.

### Notes:

Some sizes, styles and options are non-standard, non-returnable

AGGREGATE DATA RATE (NRZ)				
1024 Gbps	1536 Gbps	2048 Gbps	3072 Gbps	4096 Gbps
1 Bank		2 Bank		
2 Row	3 Row	4 Row 2 Row	3 Row	4 Row
8 Pairs	12 Pairs	16 Pairs	24 Pairs	32 Pairs

View complete specifications at: [samtec.com?NVAF](http://samtec.com?NVAF)

# Mouser Electronics

Authorized Distributor

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[NVAM-DP-03-2-02.0-S-2-C-TR](#)