

EXTREME PERFORMANCE HIGH-DENSITY ARRAYS

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



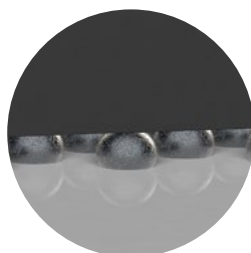
FEATURES & BENEFITS

- 112 Gbps PAM4 per channel
- 112 fully shielded differential pairs per square inch
- 4.0 Tbps aggregate data rate - 9 IEEE, 400 G channels
- Extremely low crosstalk to 40 GHz+
- Incredibly tight impedance control
- Minimal variance in data rate as stack height increases
- 40% less space vs traditional arrays with the same data throughput

NRZ	PAM4
56 Gbps	112 Gbps



High-speed mezzanine connector and cable in one product family



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



Guaranteed two points of contact to ensure a more reliable connection

KEY SPECIFICATIONS

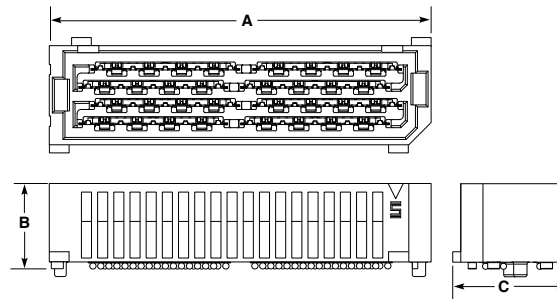
STACK HEIGHTS	TOTAL PAIRS	INSULATOR MATERIAL	CONTACT MATERIAL	PLATING	CURRENT RATING	WORKING VOLTAGE	LEAD-FREE SOLDERABLE
7 mm & 10 mm	Up to 32 pairs	Black LCP	Copper Alloy	Au or Sn over 50 μ" (1.27 μm) Ni	2.1 A per pin (signal) 9.6 A per pin (ground)	200 VAC	Yes

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	-1 = 1 Bank	-02.0 = (2 mm) .0787" (NVAM 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
NVAF Socket		-04	-2 = 2 Banks	-05.0 = (5 mm) .1969"				-FR = Full Reel Tape & Reel (must order maximum quantity per reel; contact Samtec for quantity breaks)

NVAM

Board Mates:
NVAF



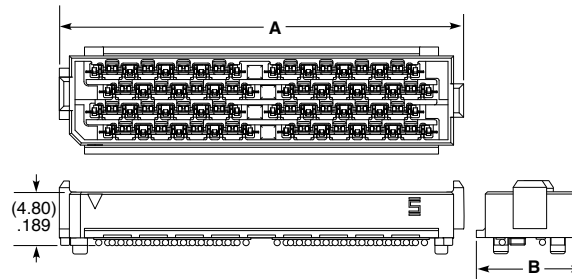
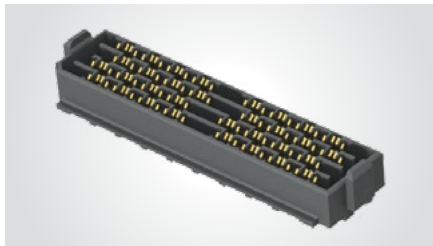
PRELIMINARY

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
				-03	(11.40) .449

View complete specifications at: samtec.com?NVAM

NVAF

Board Mates:
NVAM



PRELIMINARY

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

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

MATED HEIGHTS*		
NVAF LEAD STYLE	NVAM LEAD STYLE	
	-02.0	-05.0
-05.0	(7.00) .276	(10.00) .394

*Processing conditions will affect mated height.

AGGREGATE DATA RATE (NRZ)					
448 Gbps	672 Gbps	896 Gbps	1344 Gbps	1792 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	

Notes:

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

View complete specifications at: samtec.com?NVAF

Mouser Electronics

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Samtec:

[NVAF-DP-02-2-05.0-S-2-K-TR](#)