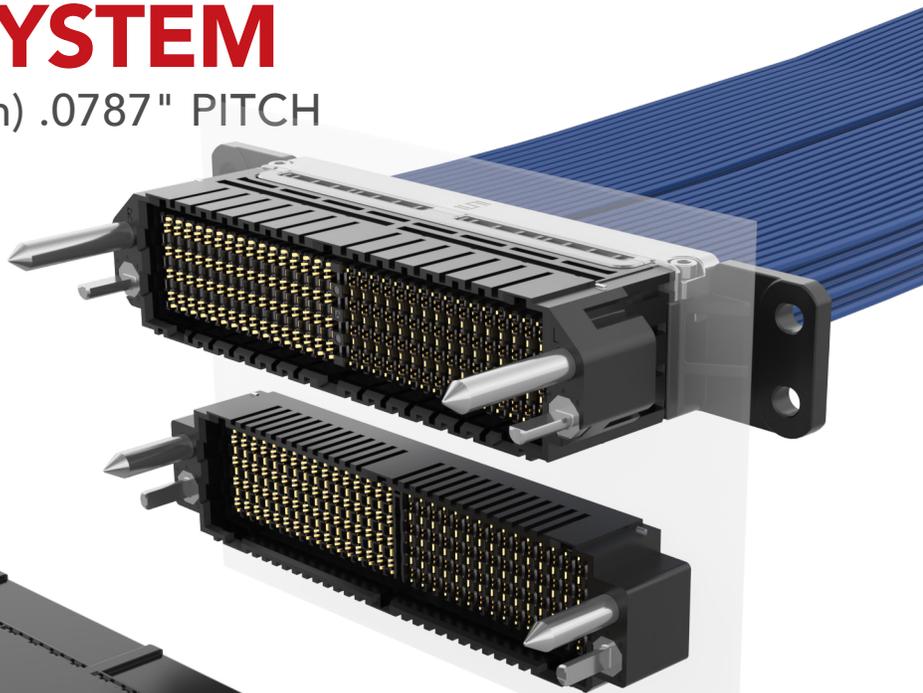


## MICRO RUGGED BACKPLANE SYSTEM

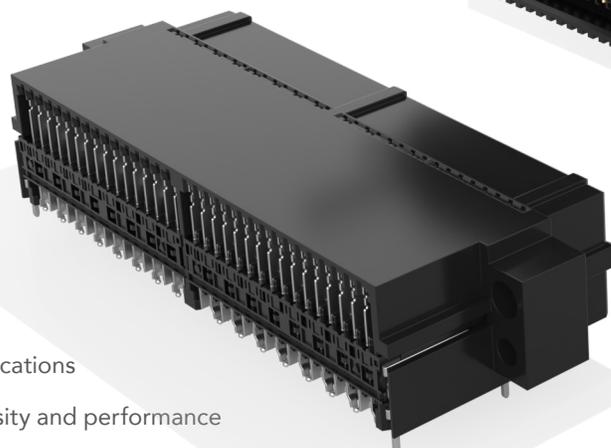
(0.90 mm) .0354" x (2.00 mm) .0787" PITCH

PAM4  
128  
Gbps



### FEATURES & BENEFITS

- Ultra-high density with up to 128 DPs in a single connector
- PCIe® 7.0 capable
- Designed for blind mate applications
- Surface mount for better density and performance
- Innovative wafer design eliminates intra-pair skew
- Configurable signal banks for design flexibility
- Offset footprint for optimal signal integrity performance
- Large continuous ground blades between and surrounding the differential pairs eliminates resonances
- Optional guidance and keying
- Standard weld tabs for a secure connection to the board



Ultra-high density; single-ended or differential pair wafers



Precision insert molded contact system with 2.50 mm wiper



Flyover® cable assembly for extended signal reach

### KEY SPECIFICATIONS

SERIES	INSULATOR MATERIAL	CONTACT MATERIAL	PLATING	OPERATING TEMP RANGE	CURRENT RATING	VOLTAGE RATING	LEAD-FREE SOLDERABLE
NVBM/NVBF	Black LCP	Copper Alloy	Au or Sn over 50 μ" (1.27 μm) Ni	Testing Now!	Testing Now!	Testing Now!	Yes
NVCF/NVCM	Black LCP	Copper Alloy	Au or Sn over 50 μ" (1.27 μm) Ni	Testing Now!	Testing Now!	Testing Now!	No

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0.90 mm x 2.00 mm PITCH • MICRO RUGGED BACKPLANE HEADER & SOCKET

SERIES	STYLE	NO. OF ROWS	ORIENTATION	PLATING OPTION	SOLDER TYPE	GUIDANCE	KEYING
--------	-------	-------------	-------------	----------------	-------------	----------	--------

**NVBF**  
Socket

**NVBM**  
Terminal

**-DP**  
= 4 Pairs  
per rows

**-04, -16, -32**

**-VT**  
= Vertical  
(NVBF)

**-RA**  
= Right-Angle  
(NVBM)

**-S**  
= 30 μ" (0.76 μm)  
Gold on contact  
area, Matte Tin  
on solder tail

**-2**  
= Lead-Free  
Solder Charge

(Leave Blank for  
no Guidance)

**-L**  
= Left  
Guidance

**-R**  
= Right Guidance

**-B**  
= Both

(Only available  
with Guidance)

**-N**  
= No Key

**-A thru -H**  
= Position of  
flat on Key  
(See Table)

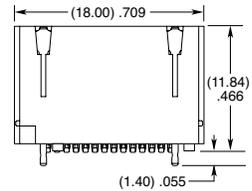
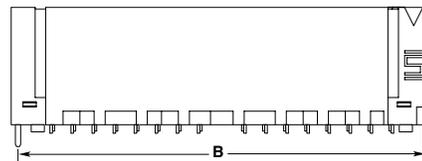
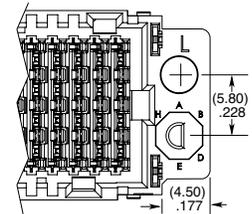
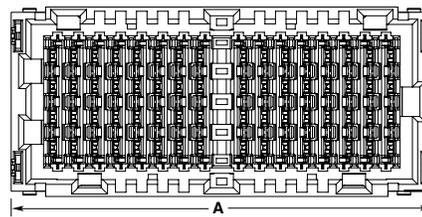
PRELIMINARY

**NVBF**

Board Mates:  
NVBM-RA



NO. OF ROWS	A	B
-04	(16.00) 0.630	(14.70) 0.579
-16	(40.00) 1.575	(38.70) 1.524
-32	(72.00) 2.835	(70.70) 2.783



KEYING (-VT)								
-L / -R / -B	-A	-B	-C	-D	-E	-F	-G	-H

**Notes:**  
Some sizes, styles and  
options are non-standard,  
non-returnable

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

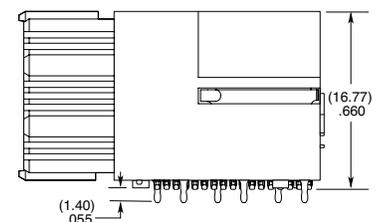
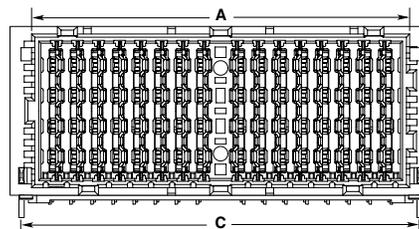
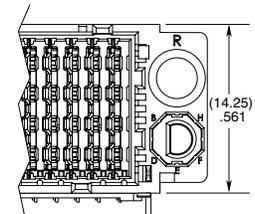
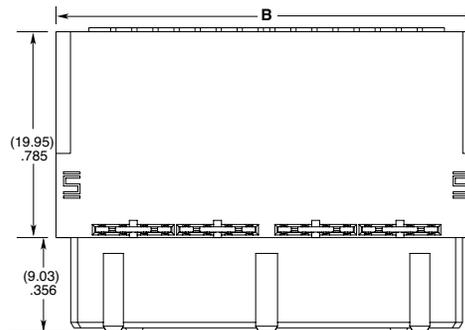
**NVBM-RA**

Board Mates:  
NVBF-VT



PRELIMINARY

NO. OF ROWS	A	B	C
-04	(11.90) 0.469	(16.00) 0.630	(13.80) 0.543
-16	(35.90) 1.413	(40.00) 1.575	(37.80) 1.488
-32	(67.90) 2.673	(72.00) 2.835	(69.80) 2.748



KEYING (-RA)								
-L / -R / -B	-A	-B	-C	-D	-E	-F	-G	-H

View complete specifications at: [samtec.com?NVBM-RA](http://samtec.com?NVBM-RA)