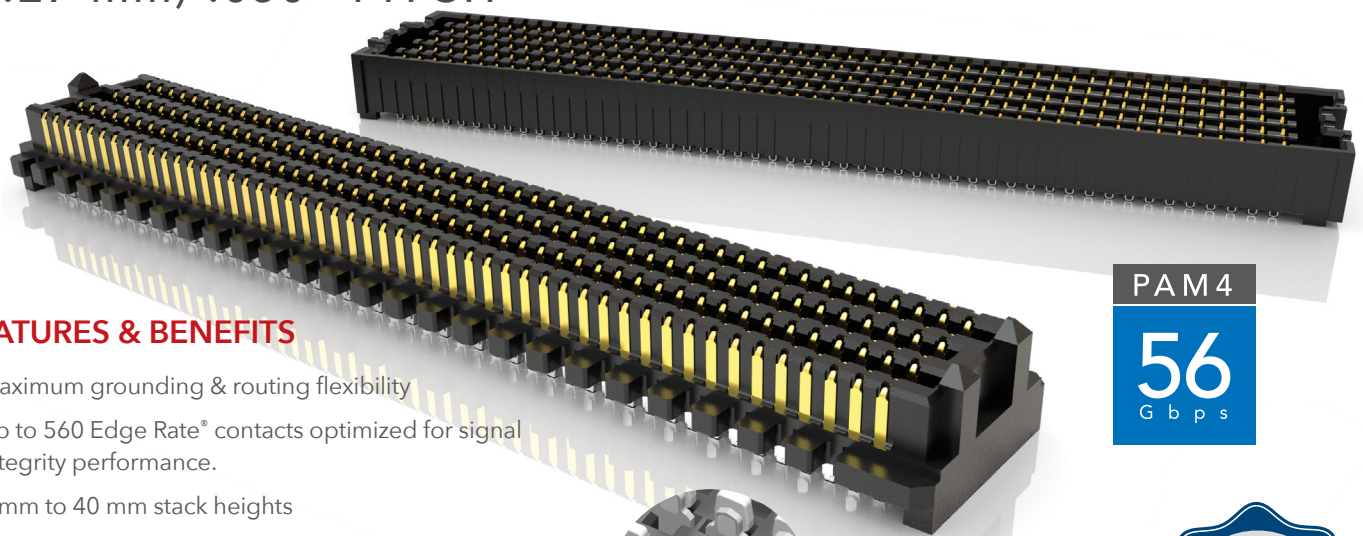




# HIGH-DENSITY OPEN-PIN-FIELD ARRAYS

(1.27 mm) .050" PITCH

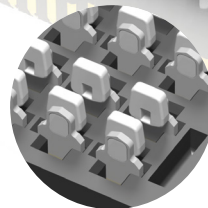


## FEATURES & BENEFITS

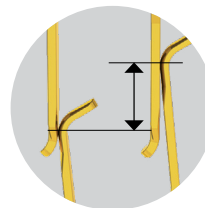
- Maximum grounding & routing flexibility
- Up to 560 Edge Rate® contacts optimized for signal integrity performance.
- 7 mm to 40 mm stack heights
- Variety of designs and options: Right-Angle, Guide Posts, 85  $\Omega$  Elevated Risers, 85  $\Omega$  Tuned, Press-Fit and Press-Fit Right-Angle, Guide Post Field Termination Kits
- Cable mates (SEAC Series) and Jack Screw Standoffs (JSO Series) also available
- Standards: VITA™ 47, VITA™ 57.1 FMC™, VITA™ 57.4 FMC™+, VITA™ 74 VNX™, PISMO™ 2
- Supports high-speed protocols such as Ethernet, PCI Express®, Fibre Channel & InfiniBand™
- Severe Environment Testing qualified (SEAM/SEAF); aligns with MIL-DTL-55302. Visit [samtec.com/set](http://samtec.com/set)

VITA/VNX/VNX+/FMC/FMC+/XMC/XMC+ are all respective trademarks of VITA PCI-SIG®.

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



Solder Charges



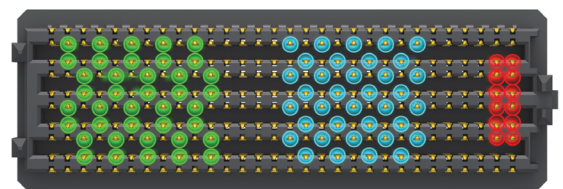
(1.12 mm) .044"  
Nominal Wipe

**EDGE  
RATE®**  
CONTACT

PAM 4  
**56**  
G b p s



## MAXIMUM GROUNDING & ROUTING FLEXIBILITY



Differential Pair

Single-Ended

Power

| SERIES          | INSULATOR MATERIAL      | CONTACT MATERIAL                           | PLATING                                    | OPERATING TEMP RANGE | CURRENT RATING          | VOLTAGE RATING  | LEAD-FREE SOLDERABLE |
|-----------------|-------------------------|--------------------------------------------|--------------------------------------------|----------------------|-------------------------|-----------------|----------------------|
| SEAM/SEAF       | Black LCP               | Copper Alloy                               | Au or Sn over 50 $\mu$ " (1.27 $\mu$ m) Ni | -55 °C to +125 °C    | 2.7 A (10 pins powered) | 240 VAC/339 VDC | Yes                  |
| SEAM-RA/SEAF-RA | Black LCP               | Copper Alloy                               | Au or Sn over 50 $\mu$ " (1.27 $\mu$ m) Ni | -55 °C to +125 °C    | 1.9 A (10 pins powered) | 240 VAC/339 VDC | Yes                  |
| SEAM-GP         | Black LCP               | Copper Alloy                               | Au or Sn over 50 $\mu$ " (1.27 $\mu$ m) Ni | -55 °C to +125 °C    | 2.7 A (10 pins powered) | 240 VAC/339 VDC | Yes                  |
| SEAMP/SEAFP     | Natural High Temp Nylon | Copper Alloy (SEAMP)<br>BeCu Alloy (SEAFP) | Au or Sn over 50 $\mu$ " (1.27 $\mu$ m) Ni | -55 °C to +125 °C    | 1.9 A (6 pins powered)  | 255 VAC/361 VDC | Not Available        |
| SEAR            | Black LCP               | Hard Gold Plated                           | Au over 50 $\mu$ " (1.27 $\mu$ m) Ni       | -55 °C to +125 °C    | 1.4 A (20 pins powered) | 240 VAC/339 VDC | Not Available        |
| SEAMI           | Black LCP               | Copper Alloy                               | Au or Sn over 50 $\mu$ " (1.27 $\mu$ m) Ni | -55 °C to +125 °C    | Not Available           | Not Available   | Yes                  |

**Note:** Some lengths, styles and options are non-standard, non-returnable

# (1.27 mm) .050" PITCH • SEAM/SEAF SERIES

| SERIES                  | POSITIONS PER ROW                                                                                                                                                                                                               | LEAD STYLE                           | PLATING OPTION                                                                                                                                                                                             | NO. OF ROWS                                                        | SOLDER TYPE                                           | A | K | "X" R                                                                                                                                                                                                            |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------|---|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SEAM</b><br>Terminal | <b>-10, -15, -20, -30, -40, -50</b>                                                                                                                                                                                             | <b>Specify LEAD STYLE from chart</b> | <b>-L</b><br>= 10 μ" (0.25 μm)<br>Gold on contact area,<br>Matte Tin on solder tail                                                                                                                        | <b>-04</b><br><b>-05</b><br><b>-06</b><br><b>-08</b><br><b>-10</b> | <b>-1</b><br>= Tin/<br>Lead Alloy<br>Solder<br>Charge |   |   | <b>-A</b><br>= Alignment Pin                                                                                                                                                                                     |
| <b>SEAF</b><br>Socket   | SEAM & SEAF: -10 only<br>available in -04 Row<br><br>SEAM: -15 only available in -04<br>Row with -02.0 Lead Style, and<br>-10 Row with any Lead Style<br><br>SEAF: -15 only available in -04<br>or -10 Row with -5.0 Lead Style |                                      | <b>-P</b><br>= SureCoat™<br>3 μ" (0.07 μm) Gold Flash and<br>30 μ" (0.76 μm) Palladium<br>Nickel on contact area,<br>Matte Tin on solder tail<br>(-02.0, -03.5, -05.0<br>& SEAF -06.5<br>Lead Styles only) | (SEAM -05<br>Rows not<br>available<br>with -06.5<br>Lead Style)    | <b>-2</b><br>= Lead-<br>Free<br>Solder<br>Charge      |   |   | <b>-K</b><br>Polyimide Film Pick &<br>Place Pad<br><br><b>-TR</b><br>= Tape & Reel<br><br><b>-FR</b><br>= Full Reel Tape & Reel<br>(must order max. quantity<br>per reel; contact Samtec<br>for quantity breaks) |

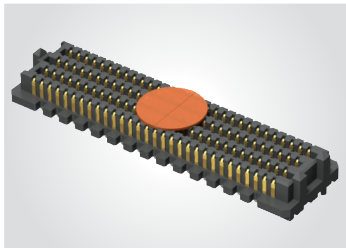
## SEAM

**Board Mates:**

**SEAF, SEAFP**

**Standoffs:**

**JSO**



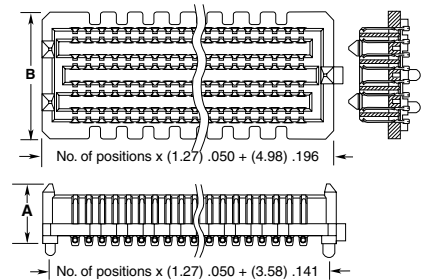
**ALSO AVAILABLE**  
Contact Samtec

Other platings



| LEAD STYLE | A            |
|------------|--------------|
| -02.0      | (5.61) .221  |
| -03.0      | (6.60) .260  |
| -03.5      | (7.11) .280  |
| -06.5      | (10.16) .400 |
| -07.0      | (10.59) .417 |
| -09.0      | (12.60) .496 |
| -11.0      | (14.61) .575 |

| NO. OF ROWS | B            |
|-------------|--------------|
| -04         | (7.06) .278  |
| -05, -06    | (9.60) .378  |
| -08         | (12.14) .478 |
| -10         | (14.68) .578 |



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

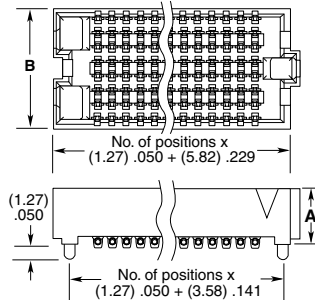
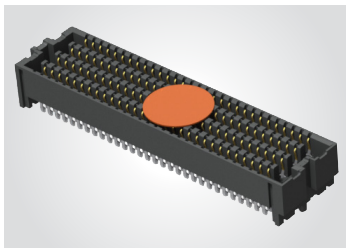
## SEAF

**Board Mates:**

**SEAM, SEAMP,  
SEAR, SEAMI**

**Standoffs:**

**JSO**



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

| LEAD STYLE | A           | NO. OF ROWS | B            |
|------------|-------------|-------------|--------------|
| -05.0      | (5.05) .199 | -04         | (5.66) .223  |
| -06.0      | (6.05) .238 | -05, -06    | (8.20) .323  |
| -06.5      | (6.55) .258 | -08         | (10.74) .423 |
| -07.5      | (7.54) .297 | -10         | (13.28) .523 |

## STANDARDS

VITA™ 47  
VITA™ 57.1 FMC™  
VITA™ 57.4 FMC™ +  
VITA™ 74 VNX™  
PISMO™ 2

Visit [www.samtec.com/standards](http://www.samtec.com/standards)  
for more information.

## Notes:

IPC-A-610F and  
IPC J-STD-001F Class 3 solder joint.  
Severe Environment Testing qualified; aligns  
with MIL-DTL-55302. Visit [samtec.com/set](http://samtec.com/set)  
VITA/VNX/VNX+/FMC/FMC+/XMC/XMC+  
are all respective trademarks of VITA

| MATED HEIGHTS   |                 |         |         |         |
|-----------------|-----------------|---------|---------|---------|
| SEAM LEAD STYLE | SEAF LEAD STYLE |         |         |         |
|                 | -05.0           | -06.0   | -06.5   | -07.5   |
| -02.0           | 7 mm            | 8 mm    | 8.5 mm  | 9.5 mm  |
| -03.0           | 8 mm            | 9 mm    | 9.5 mm  | 10.5 mm |
| -03.5           | 8.5 mm          | 9.5 mm  | 10 mm   | 11 mm   |
| -06.5           | 11.5 mm         | 12.5 mm | 13 mm   | 14 mm   |
| -07.0           | 12 mm           | 13 mm   | 13.5 mm | 14.5 mm |
| -09.0           | 14 mm           | 15 mm   | 15.5 mm | 16.5 mm |
| -11.0           | 16 mm           | 17 mm   | 17.5 mm | 18.5 mm |