



**THE DATASHEET OF  
SEAF-50-01-S-04-1-RA-GP-K-TR**





# HIGH-DENSITY OPEN-PIN-FIELD ARRAYS

(1.27 mm) .050" PITCH



PAM 4  
**56**  
G b p s

## 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 Ω Elevated Risers, 85 Ω 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)



Solder Charges

**EDGE RATE**  
CONTACT



(1.12 mm) .044" Nominal Wipe

## 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 μ" (1.27 μm) Ni | -55 °C to +125 °C    | 2.7 A (10 pins powered) | 240 VAC        | Yes                  |
| SEAM-RA/SEAF-RA | Black LCP               | Copper Alloy                               | Au or Sn over 50 μ" (1.27 μm) Ni | -55 °C to +125 °C    | 1.9 A (10 pins powered) | 260 VAC        | Yes                  |
| SEAM-GP         | Black LCP               | Copper Alloy                               | Au or Sn over 50 μ" (1.27 μm) Ni | -55 °C to +125 °C    | 2.7 A (10 pins powered) | 240 VAC        | Yes                  |
| SEAMP/SEAFP     | Natural High Temp Nylon | Copper Alloy (SEAMP)<br>BeCu Alloy (SEAFP) | Au or Sn over 50 μ" (1.27 μm) Ni | -55 °C to +125 °C    | 1.9 A (6 pins powered)  | 225 VAC        | Not Available        |
| SEAR            | Black LCP               | Hard Gold Plated                           | Au over 50 μ" (1.27 μm) Ni       | -55 °C to +125 °C    | Contact Samtec          | 240 VAC        | Not Available        |
| SEAMI           | Black LCP               | Copper Alloy                               | Au or Sn over 50 μ" (1.27 μm) 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>   | Specify LEAD STYLE from chart | <b>-L</b><br>= 10 μ" (0.25 μm)<br>Gold on contact area,<br>Matte Tin on solder tail  | <b>-04</b>   | <b>-1</b><br>= Tin/Lead Alloy Solder Charge | <b>-A</b><br>= Alignment Pin | <b>-K</b><br>Polyimide Film Pick & Place Pad | <b>"X" R</b><br>= Full Reel Tape & Reel (must order max. quantity per reel; contact Samtec for quantity breaks) |
| <b>SEAF</b><br>Socket   | SEAM & SEAF: -10 only available in -04 Row<br><br>SEAM: -15 only available in -04 Row with -02.0 Lead Style, and -10 Row with any Lead Style<br><br>SEAF: -15 only available in -04 or -10 Row with -5.0 Lead Style |                               | <b>-S</b><br>= 30 μ" (0.76 μm)<br>Gold on contact area,<br>Matte Tin on solder tail  | <b>-05</b><br><b>-06</b><br><b>-08</b><br><b>-10</b>           | <b>-2</b><br>= Lead-Free Solder Charge      |                              |  |   |
|                         |   |                               | <b>-STL</b><br>= 30 μ" (0.76 μm)<br>Gold on contact area,<br>Tin/Lead on solder tail | (SEAM -04, -05 & -06 Rows not available with -06.5 Lead Style) |   |                              |  |   |

**SEAM**

Board Mates:  
SEAF, SEAFP  
Standoffs:  
JSO



| LEAD STYLE | A            | NO. OF ROWS | B            |
|------------|--------------|-------------|--------------|
| -02.0      | (5.61) .221  | -04         | (7.06) .278  |
| -03.0      | (6.60) .260  | -05, -06    | (9.60) .378  |
| -03.5      | (7.11) .280  | -08         | (12.14) .478 |
| -06.5      | (10.16) .400 | -10         | (14.68) .578 |
| -07.0      | (10.59) .417 |             |              |
| -09.0      | (12.60) .496 |             |              |
| -11.0      | (14.61) .575 |             |              |

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

**ALSO AVAILABLE**  
See website for 14 row option.

**SEAF**

Board Mates:  
SEAM, SEAMP,  
SEAR, SEAMI  
Standoffs:  
JSO



| 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 |

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

**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.

| 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 |

**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)

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View SEAF-50-01-S-04-1-RA-GP-K-TR on WIN SOURCE](#)
- ⊖ [Samtec Inc. Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management