



**THE DATASHEET OF  
SEAM-20-02.0-S-10-1-A-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) 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> Terminal	<b>-10, -15, -20, -30, -40, -50</b>	Specify LEAD STYLE from chart	<b>-L</b> = 10 μ" (0.25 μm) Gold on contact area, Matte Tin on solder tail	<b>-04</b>	<b>-1</b> = Tin/Lead Alloy Solder Charge	<b>-A</b> = Alignment Pin	<b>-K</b> Polyimide Film Pick & Place Pad	<b>"X" R</b> = Full Reel Tape & Reel (must order max. quantity per reel; contact Samtec for quantity breaks)
<b>SEAF</b> Socket	SEAM & SEAF: -10 only available in -04 Row  SEAM: -15 only available in -04 Row with -02.0 Lead Style, and -10 Row with any Lead Style  SEAF: -15 only available in -04 or -10 Row with -5.0 Lead Style		<b>-S</b> = 30 μ" (0.76 μm) Gold on contact area, Matte Tin on solder tail	<b>-05</b> <b>-06</b> <b>-08</b> <b>-10</b>	<b>-2</b> = Lead-Free Solder Charge			
			<b>-STL</b> = 30 μ" (0.76 μm) Gold on contact area, 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 SEAM-20-02.0-S-10-1-A-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