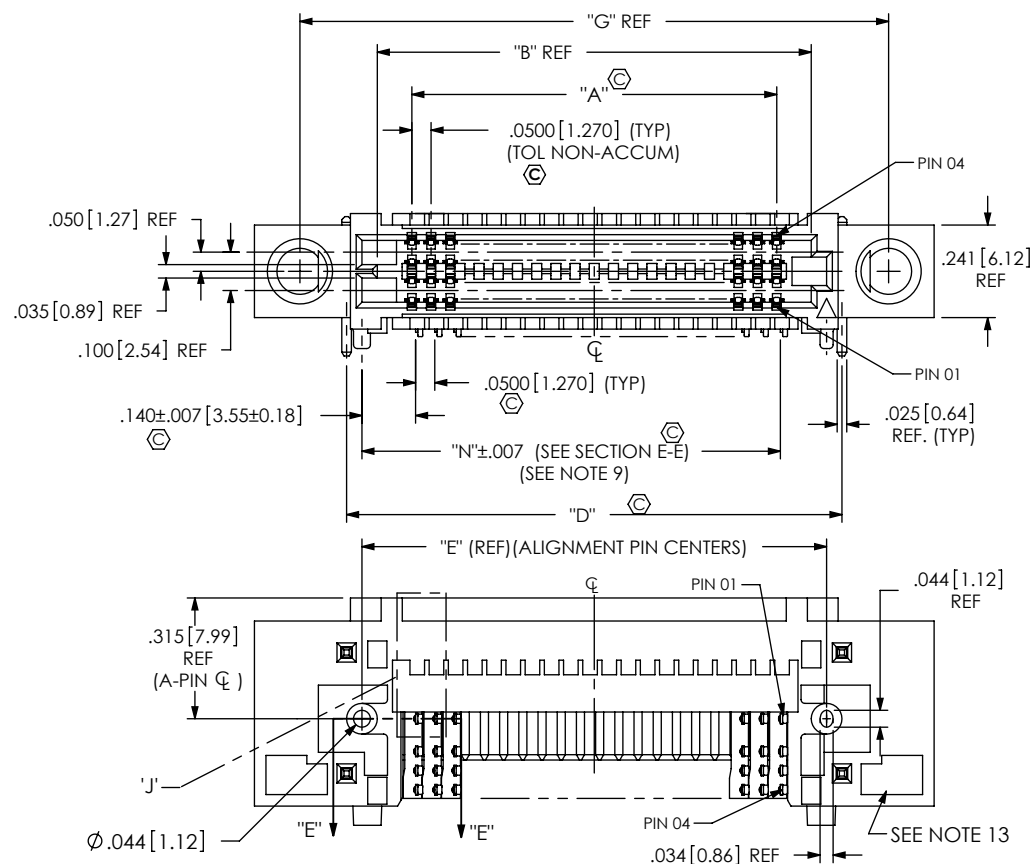
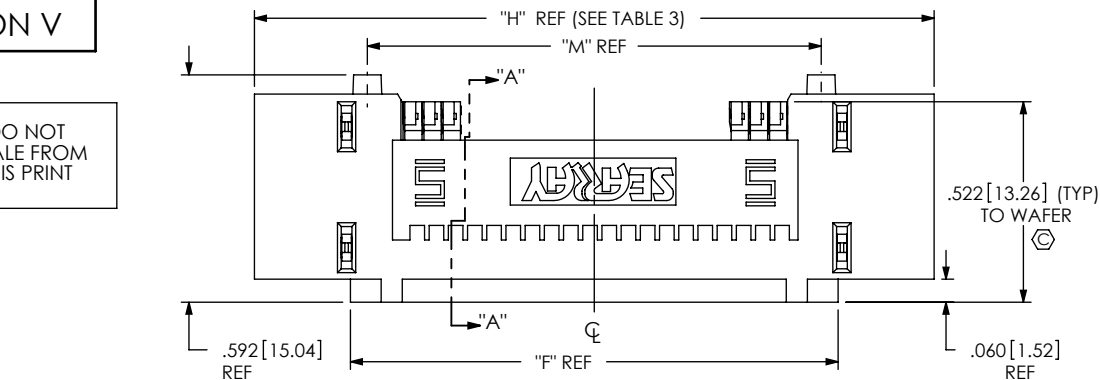


DO NOT  
SCALE FROM  
THIS PRINT

SEAF-XX-XX-X-XX-X-RA-XX-TR

No OF POSITIONS  
-20,-30,-40,-50  
(PER ROW)LEAD STYLE  
-01

PLATING SPECIFICATION

-S: SELECTIVE GOLD,  
30µ GOLD, MATTE TIN ON TAILS  
(USE SUB-IM-C-242-XX-S-X)  
-L: LIGHT SELECTIVE GOLD,  
10µ GOLD, MATTE TIN ON TAILS  
(USE SUB-IM-C-242-XX-L-X)No OF ROWS  
-04,\*-06,\*-08,\*-10  
(\* = SEE NOTE 8)PACKAGING  
-TR: TAPE & REEL  
(STANDARD PACKAGING)  
(SEE NOTE 4 & 7)OPTIONS  
-GP: GUIDE POST HOLE  
-LP: LATCH POST  
(USE WITH SEAC ONLY)  
(-06 ROW ONLY)  
(NOT AVAILABLE WITH -GP OPTION)  
-K: KAPTON PADRIGHT ANGLE  
-RASOLDER COMPOSITION  
& STYLE-1: 63% TIN / 37% LEAD CHARGE TAIL  
(USE SUB-IM-C-242-XX-XX-X-1)  
-2: 95.5% TIN / 3.8 SILVER / 0.7% COPPER  
LEAD FREE CHARGE TAIL  
(USE SUB-IM-C-242-XX-XX-X-2)

## NOTES:

1. REPRESENTS A CRITICAL DIMENSION.
2. MINIMUM PUSH-OUT FORCE: .50 LBS [2.2N].
3. INSPECT DIMENSION AT 4 CORNERS OF PART.
4. ONLY FULL REEL QUANTITIES ARE SHIPPED ON A REEL WITH LEADER AND TRAILER.
5. NOTE DELETED
6. NOTE DELETED
7. ATTACH LABEL "SEAX-0001" TO EACH TAPE & REEL PACKAGE.
8. ON -06, -08 & -10 ROW ASSEMBLIES, SEE FIG 10, SHEET 5 FOR CAT FIXTURE VIEW.
9. CHECK DIMENSION ON FIRST AND LAST ROW OF TAILS.
10. A 20-30°C TEMPERATURE DIFFERENCE MAY EXIST BETWEEN THIS HIGH-DENSITY COMPONENT AND THE BOARD SURFACE DURING REFLOW. SAMTEC RECOMMENDS A THERMAL STUDY BE PERFORMED TO UNDERSTAND THE TEMPERATURE GRADIENTS YOU MAY EXPERIENCE.
11. SOME RELAXATION/WARPING OF THE BACK STRAP IS ACCEPTABLE AFTER PROCESSING.
12. SEE SHEET 5 FOR PROCESSING INFORMATION.
13. VOID PATTERN MAY VARY BY ROW AND END OPTION.

FIG 1  
(SEAF-20-0T-X-04-X-RA-GP)  
(SOME DETAIL OMITTED FOR CLARITY)"G"  
"G"  
(SEE SHT. 2)

TABLE 3						
STYLE	No. OF POS PER ROW	"G"		"H"		"J"
STANDARD WITH -GP OPTION	-20	1.533	[38.94]	1.770	[44.96]	N/A
	-30	2.033	[51.64]	2.270	[57.66]	
	-40	2.533	[64.34]	2.770	[70.36]	
	-50	3.033	[77.04]	3.270	[83.06]	
WITHOUT -GP OPTION	-20	N/A		1.370	[34.80]	N/A
	-30	N/A		1.870	[47.50]	
	-40	N/A		2.370	[60.20]	
	-50	N/A		2.870	[72.90]	
WITH-LP OPTION	-20	1.533	[38.94]	1.900	[48.26]	1.790 [45.47]
	-30	2.033	[51.64]	2.400	[60.96]	2.290 [58.17]
	-40	2.533	[64.34]	2.900	[73.66]	2.790 [70.10]
	-50	3.033	[77.04]	3.400	[86.36]	3.290 [83.57]

TABLE 2				
No. OF ROWS	"BODY CALLOUT"	"SOCKET WAFER"	"WELD TAB"	"C"
-04	SEAF-XX-01-RA-04-XX	SUB-IM-C-242-01-04-X-X	WT-28-01-T	0.315 [8.00]
*-06	SEAF-XX-01-RA-06-XX	SUB-IM-C-242-01-06-X-X	WT-28-02-T	0.415 [10.54]
*-08	SEAF-XX-01-RA-08-XX	SUB-IM-C-242-01-08-X-X	WT-28-02-T	0.415 [10.54]
*-10	SEAF-XX-01-RA-10-XX	SUB-IM-C-242-01-10-X-X	WT-28-02-T	0.415 [10.54]

(\* = SEE NOTE 8)

TABLE 1						
No. OF POS. PER ROW	"A"	"B"	"D"	"E"	"F"	"N"
-20	0.950 [24.13]	1.130 [28.70]	1.290 [32.77]	1.210 [30.73]	1.270 [32.26]	1.090 [27.69]
-30	1.450 [36.83]	1.630 [41.40]	1.790 [45.47]	1.710 [43.43]	1.770 [44.96]	1.590 [40.39]
-40	1.950 [49.53]	2.130 [54.10]	2.290 [58.17]	2.210 [56.13]	2.270 [57.66]	2.090 [53.09]
-50	2.450 [62.23]	2.630 [66.80]	2.790 [70.87]	2.710 [68.83]	2.770 [70.36]	2.590 [65.79]

TABLE 4					
No. OF ROWS	"M"				"BACK STRAP"
	20 POS	30 POS	40 POS	50 POS	
-04	1.182 [30.02]	1.682 [42.72]	2.182 [55.42]	2.682 [68.12]	N/A
*-06,*-08 & *-10	N/A	N/A	N/A	N/A	SEAX-RA-BS-XX-01

(\* = SEE NOTE 8)

UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.

TOLERANCES ARE:

DECIMALS

.XX: ±.01 [.3]

.XXX: ±.005 [.13]

.XXXX: ±.0020 [.051]

ANGLES

2°

## PROPRIETARY NOTE

THIS DOCUMENT CONTAINS INFORMATION  
CONFIDENTIAL AND PROPRIETARY TO  
SAMTEC, INC. AND SHALL NOT BE REPRODUCED  
OR TRANSFERRED TO OTHER DOCUMENTS OR  
DISCLOSED TO OTHERS OR USED FOR ANY  
PURPOSE OTHER THAN THAT WHICH IT WAS  
OBTAINED WITHOUT THE EXPRESSED WRITTEN  
CONSENT OF SAMTEC, INC.

MATERIAL:

INSULATOR: LCP COLOR: BLACK  
CONTACT: PHOS BRONZE .006 THICK

DO NOT SCALE DRAWING

SHEET SCALE: 2:1

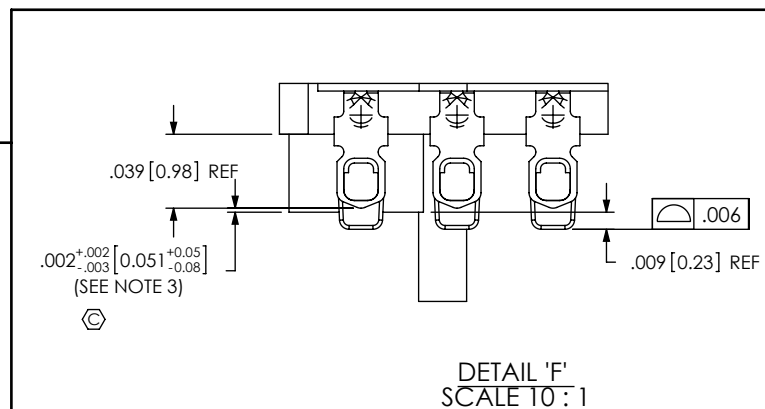
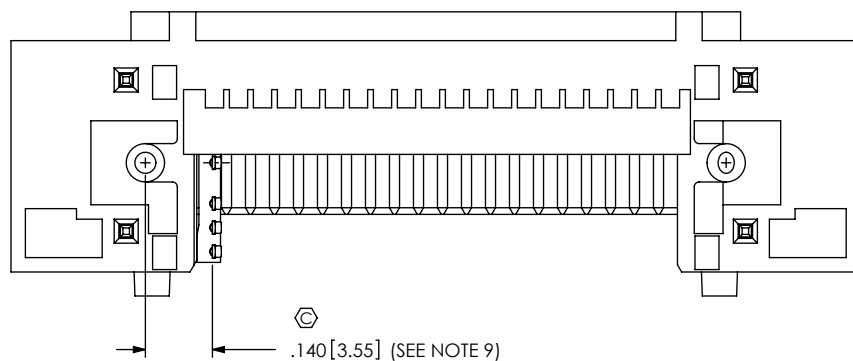
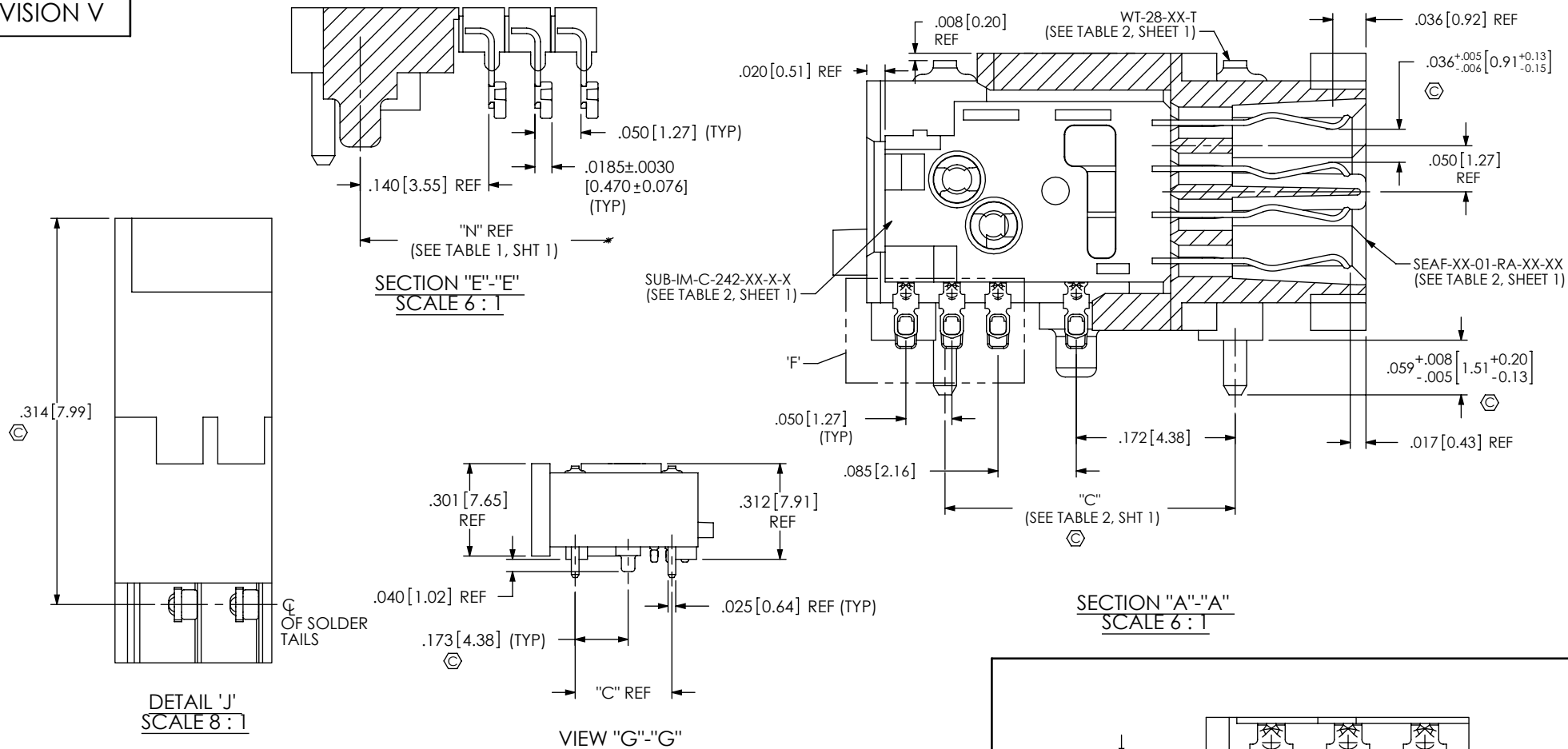
DESCRIPTION:

SEAF-RA ASSEMBLY

DWG. NO.

SEAF-XX-XX-X-XX-X-RA-XX-TR

BY: C. PIERCE 12/15/2007 SHEET 1 OF 5



**PROPRIETARY NOTE**  
THIS DOCUMENT CONTAINS INFORMATION  
CONFIDENTIAL AND PROPRIETARY TO  
SAMTEC, INC. AND SHALL NOT BE REPRODUCED  
OR TRANSFERRED TO OTHER DOCUMENTS OR  
DISCLOSED TO OTHERS OR USED FOR ANY  
PURPOSE OTHER THAN THAT WHICH IT WAS  
OBTAINED WITHOUT THE EXPRESSED WRITTEN  
CONSENT OF SAMTEC, INC.

DO NOT SCALE DRAWING

SHEET SCALE: 2:1

**samtec**

520 PARK EAST BLVD, NEW ALBANY, IN 47150  
PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail: info@SAMTEC.com code 55322

DESCRIPTION:

SEAF-RA ASSEMBLY

DWG. NO.

SEAF-XX-XX-X-XX-X-RA-XX-TR

BY: C. PIERCE 12/15/2007 SHEET 2 OF 5

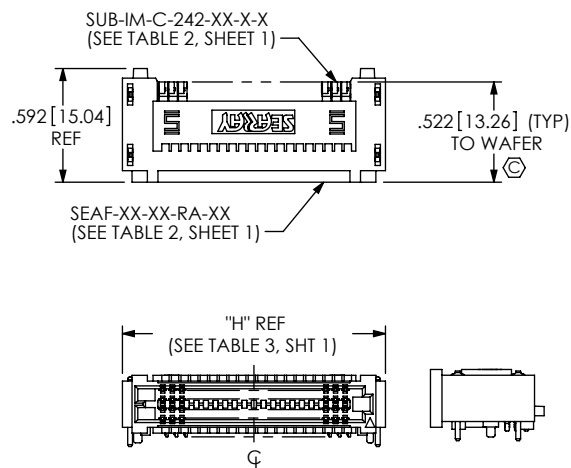


FIG 2  
(SEAF-20-01-X-04-X-RA SHOWN)  
(SAME AS FIG 1 EXCEPT AS NOTED)  
(SOME DETAIL REMOVED FOR CLARITY)

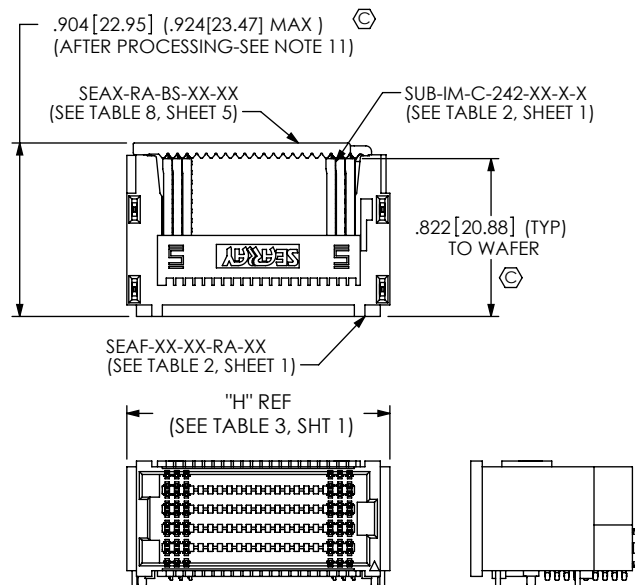


FIG 9  
(SEAF-20-01-X-T0-X-RA SHOWN)  
(SAME AS FIG 4 EXCEPT AS NOTED)  
(SOME DETAIL REMOVED FOR CLARITY)

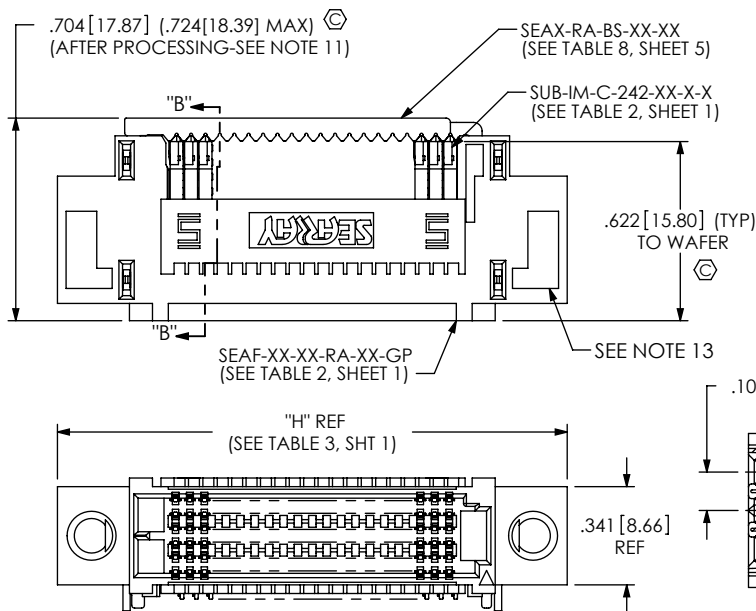


FIG 3  
(SEAF-20-01-X-06-X-RA-GP)  
(SAME AS FIG 1 EXCEPT AS NOTED)  
(SOME DETAIL REMOVED FOR CLARITY)

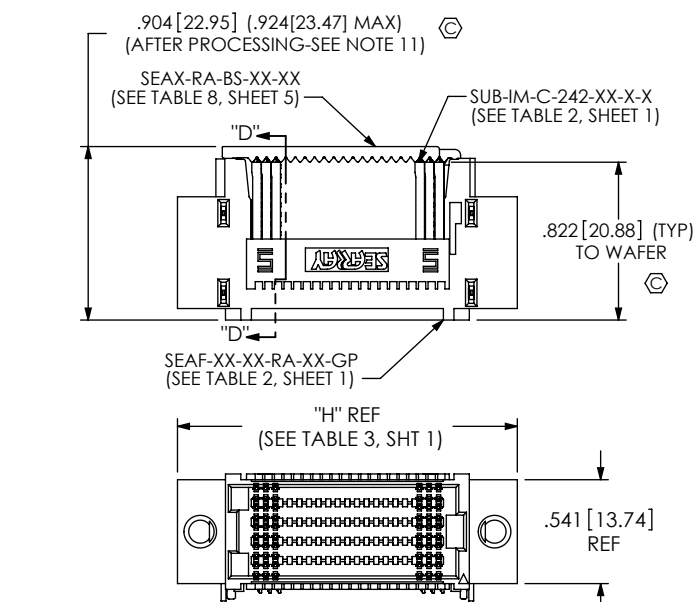
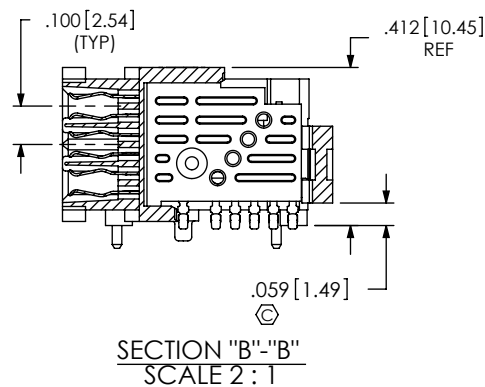
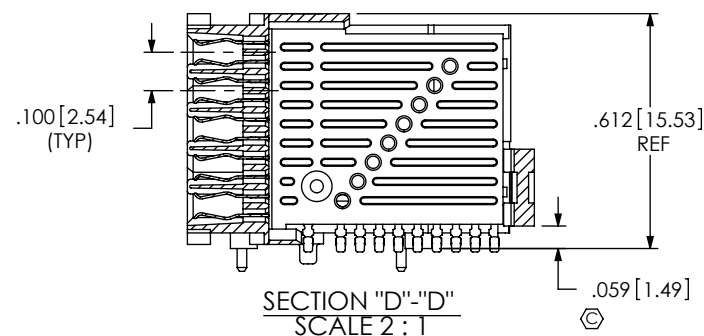


FIG 4  
(SEAF-20-01-X-T0-X-RA-GP)  
(SAME AS FIG 1 EXCEPT AS NOTED)  
(SOME DETAIL REMOVED FOR CLARITY)



PROPRIETARY NOTE  
THIS DOCUMENT CONTAINS INFORMATION  
CONFIDENTIAL AND PROPRIETARY TO  
SAMTEC, INC. AND SHALL NOT BE REPRODUCED  
OR TRANSFERRED TO OTHER DOCUMENTS OR  
DISCLOSED TO OTHERS OR USED FOR ANY  
PURPOSE OTHER THAN THAT WHICH IT WAS  
OBTAINED WITHOUT THE EXPRESSED WRITTEN  
CONSENT OF SAMTEC, INC.

DO NOT SCALE DRAWING

SHEET SCALE: 1:1

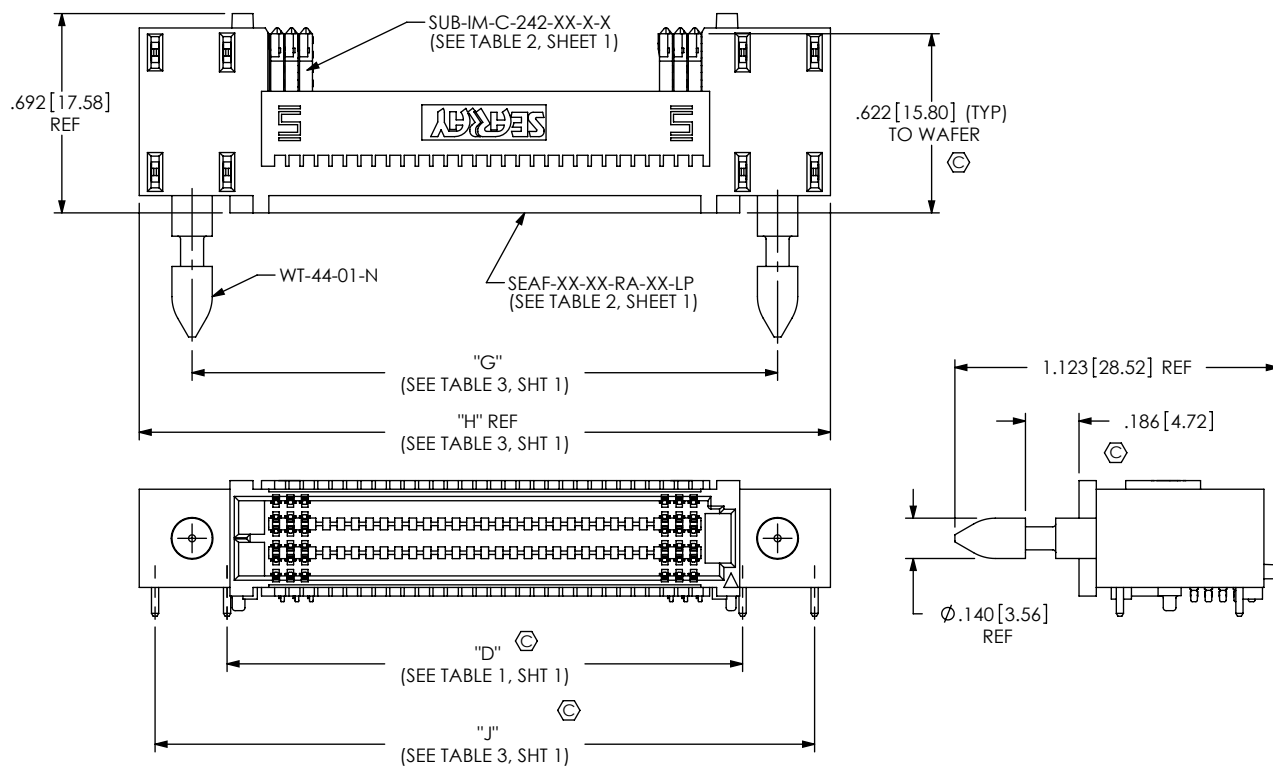
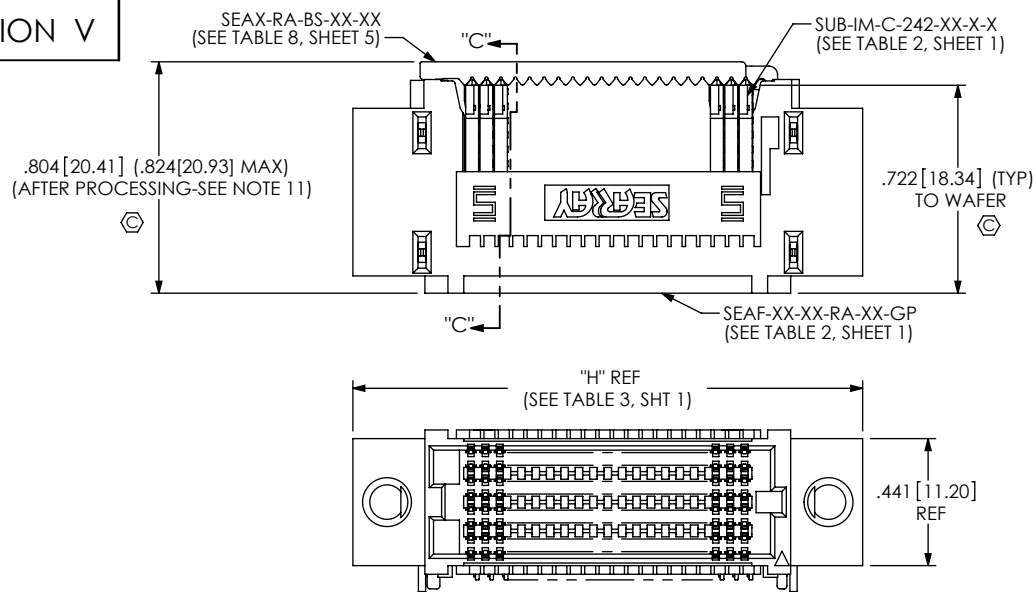
**samtec**

520 PARK EAST BLVD, NEW ALBANY, IN 47150  
PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail: info@SAMTEC.com code 55322

DESCRIPTION:  
SEAF-RA ASSEMBLY

DWG. NO.  
SEAF-XX-XX-X-XX-X-RA-XX-TR

BY: C. PIERCE 12/15/2007 SHEET 3 OF 5



PROPRIETARY NOTE  
THIS DOCUMENT CONTAINS INFORMATION  
CONFIDENTIAL AND PROPRIETARY TO  
SAMTEC, INC. AND SHALL NOT BE REPRODUCED  
OR TRANSFERRED TO OTHER DOCUMENTS OR  
DISCLOSED TO OTHERS OR USED FOR ANY  
PURPOSE OTHER THAN THAT WHICH IT WAS  
OBTAINED WITHOUT THE EXPRESSED WRITTEN  
CONSENT OF SAMTEC, INC.

DO NOT SCALE DRAWING

SHEET SCALE: 1:1

**samtec**

520 PARK EAST BLVD, NEW ALBANY, IN 47150  
PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail: info@SAMTEC.com code 55322

DESCRIPTION:

SEAF-RA ASSEMBLY

DWG. NO.

SEAF-XX-XX-X-XX-X-RA-XX-TR

BY: C. PIERCE 12/15/2007 SHEET 4 OF 5

ROWS	TABLE 5																
	"L"		"P" $\Phi$		"K" NO -GP OPTION				"K" WITH -GP OPTION				"K" WITH -LP OPTION				"Q"
					20 POS	30 POS	40 POS	50 POS	20 POS	30 POS	40 POS	50 POS	20 POS	30 POS	40 POS	50 POS	
-04	.276	[7.01]	.295	[7.49]	.538 [13.65]	.788 [20.00]	1.038 [26.35]	1.288 [32.70]	.738 [18.73]	.988 [25.08]	1.238 [31.43]	1.488 [37.78]	N/A	N/A	N/A	N/A	.124 [3.15]
-06	.376	[9.55]	.295	[7.49]	.538 [13.65]	.788 [20.00]	1.040 [26.40]	1.288 [32.70]	.738 [18.73]	.988 [25.08]	1.238 [31.43]	1.488 [37.78]	.803 [20.38]	1.053 [26.73]	1.303 [33.08]	1.553 [39.43]	.124 [3.15]
-08	.483	[12.27]	.649	[16.48]	.361 [9.16]	.611 [15.51]	.861 [21.86]	1.111 [28.21]	.561 [14.24]	.811 [20.59]	1.061 [26.94]	1.311 [33.29]	N/A	N/A	N/A	N/A	.030 [0.76]
-10	.583	[14.81]	.649	[16.48]	.361 [9.16]	.611 [15.51]	.861 [21.86]	1.111 [28.21]	.561 [14.24]	.811 [20.59]	1.061 [26.94]	1.311 [33.29]	N/A	N/A	N/A	N/A	.030 [0.76]

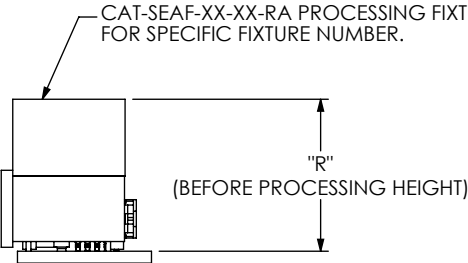
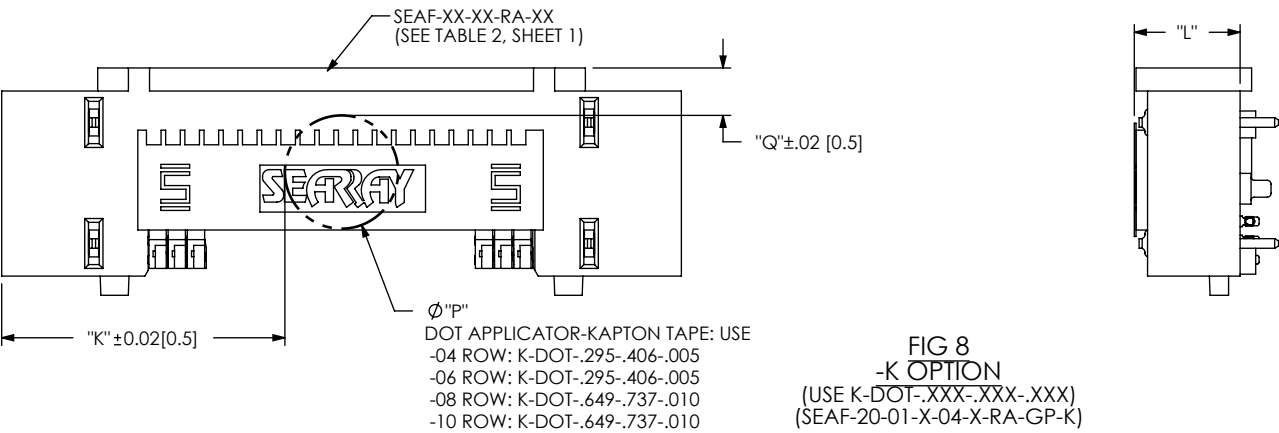


FIG 10  
SEAF-RA PROCESSING FIXTURE  
(USE CAT-SEAF-XX-XX-RA FIXTURE)

TABLE 7	
ROW	"R"
-04	N/A
** -06	.792 [20.12]
-08	.892 [22.66]
-10	.992 [25.20]

(\*\* = NOT ENGINEERING APPVD)

NOTE:  
FIG 8, DIMENSION "R" INDICATES CONNECTOR/FIXTURE HEIGHT ON PCB.  
TO GUARANTEE ENOUGH REFLOW OVEN WORKING SPACE, DIMENSION "R",  
PCB THICKNESS, AND THE HEIGHT OF THE COMPONENTS ON THE OPPOSITE  
SIDE OF THE BOARD NEED TO BE CONSIDERED.

TABLE 9		
SEARAY™ FIXTURE TOOLS		
PART NUMBER	POSITIONS	ROW
CAT-SEAF-20-01-RA	20	-08 AND -10
CAT-SEAF-30-01-RA	30	-08 AND -10
CAT-SEAF-40-01-RA	40	-08 AND -10
CAT-SEAF-50-01-RA	50	-08 AND -10

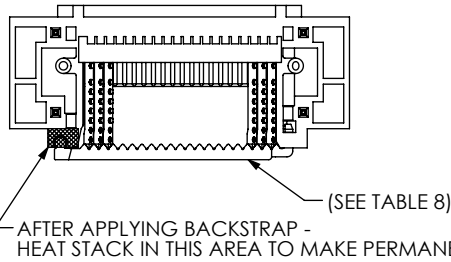


FIG 11  
HEAT STAKING BACKSTRAP

TABLE 8	
No. OF POSITIONS	"BACKSTRAP"
-20	SEAX-RA-BS-20-01
-30	SEAX-RA-BS-30-01
-40	SEAX-RA-BS-40-01
-50	SEAX-RA-BS-50-01

PROPRIETARY NOTE  
THIS DOCUMENT CONTAINS INFORMATION  
CONFIDENTIAL AND PROPRIETARY TO  
SAMTEC, INC. AND SHALL NOT BE REPRODUCED  
OR TRANSFERRED TO OTHER DOCUMENTS OR  
DISCLOSED TO OTHERS OR USED FOR ANY  
PURPOSE OTHER THAN THAT WHICH IT WAS  
OBTAINED WITHOUT THE EXPRESSED WRITTEN  
CONSENT OF SAMTEC, INC.

DO NOT SCALE DRAWING

SHEET SCALE: 2:1



520 PARK EAST BLVD, NEW ALBANY, IN 47150  
PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail info@SAMTEC.com code 55322

DESCRIPTION: SEAF-RA ASSEMBLY	
DWG. NO. SEAF-XX-XX-X-XX-X-RA-XX-TR	
BY: C. PIERCE 12/15/2007	SHEET 5 OF 5