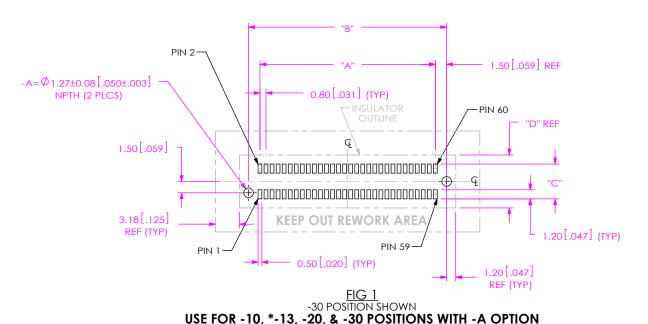
#### RECOMMENDED PCB LAYOUT FOR HSEC8-1XXX-XX-XX-DV-X-XX

12/20/2016 | ECN-291573

NOTES



# **DESIGNED & DIMENSIONED IN MILLIMETERS [ENGLISH]**

TABLE 1				
POSITION "A" "B"				
-10	7.20[.283]	10.20[.402]		
*-13	9.60[.378]	N/A		
-20	15.20[.598]	18.20[.717]		
-30	23.20[.913]	26.20[1.031]		

\*-13 POSITION IS ONLY AVAILABLE IN THIS FOOTPRINT WITH THE -PE OPTION

TABLE 2 (SEE NOTE 1)				
MATING CARD THICKNESS TYPE	"C"	"D"		
-01	4.60[.181]	7.00[.276]		
-02	5.03[.198]	7.43[.293]		
-03	5.39[.212]	7.79[.307]		

TABLE 3

"H"

4

6

18

15

17

21

3.20[.126]

4.80[.189]

14.40[.567]

12.00[.472]

13.60[.535]

16.80[.661]

37 29.60[1.165] 61.40[2.417]

47 37.60[1.480] 69.40[2.732]

57 45.60[1.795] 77.40[3.047]

22 17.60[.693]

27 21.60[.850]

"G"

2.40[.094]

4.00[.157]

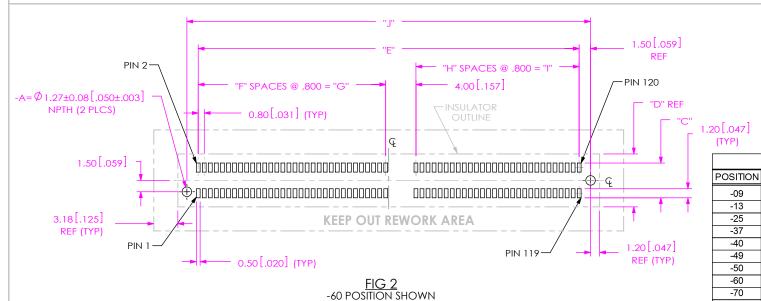
4.00[.157]

16.00[.630]

16.80[.661]

26 20.80[.819]

31 24.80[.976]



USE FOR \*\*-09, -13, -25, -37, -40, -49, -50, -60, -70, -80, -90, & -100 POSITIONS WITH -A OPTION \*\*-09 OPTION ONLY AVAILABLE IN -L2

> PROPRIETARY NOTE THIS DOCUMENT CONTAINS CONFIDENTIAL AND

(TYP)

-09

-13

-25

-37

-40

-49

-50

-60

-70

-80

-90

-100

"E"

9.60[.378]

12.80[.504]

22.40[.882]

32.00[1.260]

34.40[1.354]

41.60[1.354]

74.40[2.929]

"F"

3

5

5

20

21

42.40[1.669] 26 20.80[.819]

50.40[1.984] 31 24.80[.976]

58.40[2.299] 31 24.80[.976]

66.40[2.614] 31 24.80[.976]

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82.40[3.244] 31 24.80[.976] 67 53.60[2.110] 85.40[3.362]

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

1. POSITIONS -09, -13, -25, -37 & -49 ONLY AVAILABLE WITH -01 CARD THICKNESS.

2. POSITIONS -70, -80, -90 & -100 ONLY AVAILABLE WITH -01 & -03 CARD THICKNESS.

**ANGLES** 

TOLERANCES ARE:

X: ± .3[.01] XX: ± .10[.004] XXX: ± .05[.0020]

DECIMALS

F:\dwg\misc\mktg\footprnt\HSEC8-1XXX-XX-X-D-DV-X-FOOTPRINT.SLDDRW

code: 55322 SHEET 1 OF 9

",]"

N/A

15.80[.622]

25.40[1.000]

35.00[1.378]

37.40[1.472]

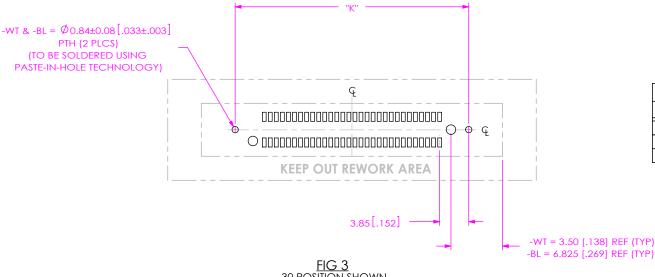
44.60[1.756]

45.40[1.787]

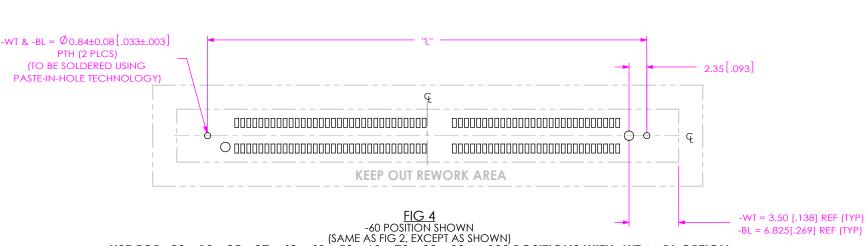
53.40[2.102]



#### RECOMMENDED PCB LAYOUT FOR HSEC8-1XXX-XX-XX-DV-X-XX



-30 POSITION SHOWN
(SAME AS FIG 1, EXCEPT AS SHOWN)
USE FOR -10, -20 OR -30 POSITIONS WITH -WT &-BL OPTION
-BL TYPE ONLY AVAILABLE WITH -01 CARD
-WT TYPE ONLY AVAILABLE WITH -01 & -03 CARD



17	TABLE 5			
POSITION	"L"			
-09	17.30 [0.681]			
-13	20.50 [0.807]			
-25	30.10 [1.185]			
-37	39.70 [1.563]			
-40	42.10 [1.657]			
-49	49.30 [1.941]			
-50	50.10 [1.972]			
-60	58.10 [2.287]			
-70	66.10 [2.602]			
-80	74.10 [2.917]			
-90	82.10 [3.232]			
-100	90.10 [3.547]			
ΡI				

TABLE

**TABLE 4** 

"K"

14.90[.587]

22.90[.902]

30.90[1.220]

**POSITION** 

-10

-20

-30

USE FOR -09, -13, -25, -37, -40, -49, -50, -60, -70, -80, -90 & -100 POSITIONS WITH -WT & -BL OPTION

-BL TYPE ONLY AVAILABLE WITH -01 CARD
-WT TYPE ONLY AVAILABLE WITH -01 & -03 CARD

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

 $-L = \emptyset 0.84 \pm 0.08 [.033 \pm .003]$ PTH (2 PLCS) (TO BE SOLDERED USING

# RECOMMENDED PCB LAYOUT FOR HSEC8-1XXX-XX-XX-DV-X-XX

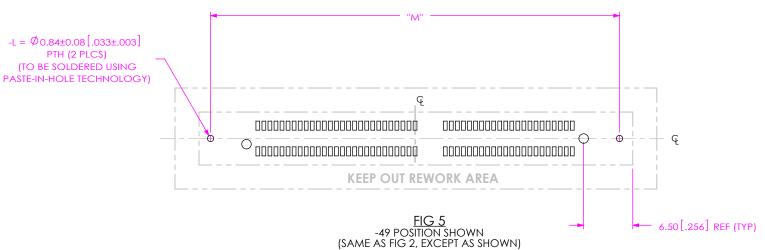


TABLE 6			
POSITION "M"			
-13	25.30 [0.996]		
-25	34.90 [1.374]		
-37	44.50 [1.752]		
-49	54.10 [2.130]		

USE FOR -13, -25, -37 & -49 POSITIONS WITH -L OPTION -L TYPE ONLY AVAILABLE WITH -01 CARD

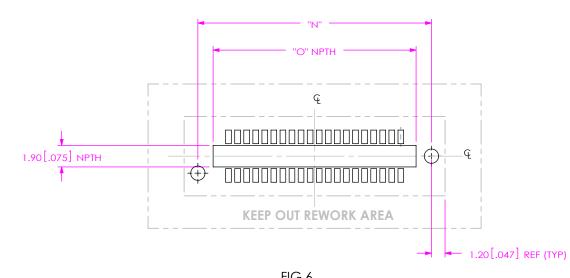


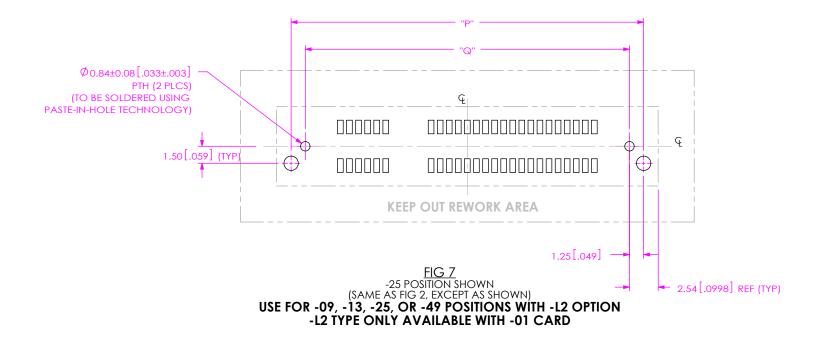
TABLE 7				
POSITION "N" "O"				
-10	12.60 [0.496]	9.90 [0.390]		
-13	15.00 [0.591]	12.30 [0.484]		
-20	20.60 [0.811]	17.90 [0.705]		

FIG 6 -20 POSITION SHOWN (SAME AS FIG 1, EXCEPT AS SHOWN) USE FOR -10, 13, OR -20 POSITIONS WITH -PE OPTION -PE TYPE ONLY AVAILABLE WITH -01 CARD

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TABLE 8				
POSITION	=	P"	"Q"	
-09	18.29 [0.720]			[0.622]
-13	21.49	[0.846]	18.99	[0.748]
-25	31.09	[1.224]	28.59	[1.126]
-49	50.29	[1.980]	47.79	[1.881]



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# RECOMMENDED STENCIL LAYOUT FOR HSEC8-1XXX-XX-XX-DV-X-XX

NOTE: STENCIL TO BE 0.15[.006] THICK.

TABLE 9			
POSITION "R"			
-13	25.30 [.504]		
-25	34.90 [1.374]		
-37	44.50[1.752]		
-49	54.10 [2.130]		

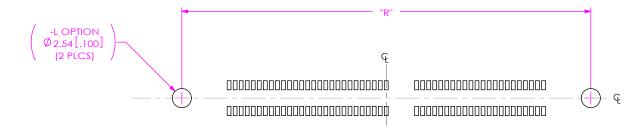


FIG 8
-49 POSITION SHOWN
(SAME AS FIG 2, EXCEPT AS SHOWN)
USE FOR -13, -25, -37 & -49 POSITIONS
-L TYPE ONLY AVAILABLE WITH -01 CARD

## RECOMMENDED STENCIL LAYOUT FOR HSEC8-1XX-XX-XX-DV-X-XX

NOTE: STENCIL TO BE 0.15[.006] THICK.

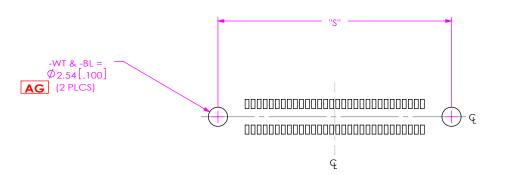


TABLE 10				
POSITION "S"				
-10	14.90[.587]			
-20	22.90[.902]			
-30	30.90[1.217]			

FIG 9
-30 POSITION SHOWN
(SAME AS FIG 1, EXCEPT AS SHOWN)

USE FOR -10, -20 OR -30 POSITIONS WITH -WT & -BL OPTION
-BL TYPE ONLY AVAILABLE WITH -01 CARD
-WT TYPE ONLY AVAILABLE WITH -01 & -03 CARD

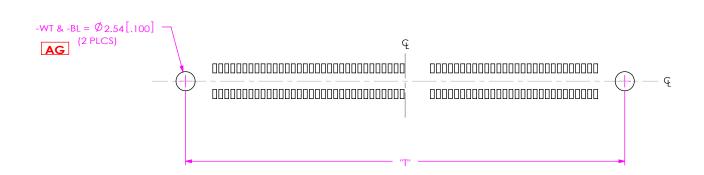


TABLE 11			
POSITION	"T"		
-09	17.30 [0.681]		
-13	20.50 [0.807]		
-25	30.10 [1.185]		
-37	39.70 [1.563]		
-40	42.10 [1.657]		
-49	49.30 [1.941]		
-50	50.10 [1.972]		
-60	58.10 [2.287]		
-70	66.10 [2.602]		
-80	74.10 [2.917]		
-90	82.10 [3.232]		
-100	90.10 [3.547]		

FIG 10
-60 POSITION SHOWN
(SAME AS FIG 2, EXCEPT AS SHOWN)

USE FOR -09, -13, -25, -37, -40, -49, -50, -60, -70, -80, -90 & -100 POSITIONS WITH -WT & -BL OPTION
-BL TYPE ONLY AVAILABLE WITH -01 CARD
-WT TYPE ONLY AVAILABLE WITH -01 & -03 CARD

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### RECOMMENDED STENCIL LAYOUT FOR HSEC8-1XXX-XX-XX-DV-X-XX

NOTE: STENCIL TO BE 0.15[.006] THICK.

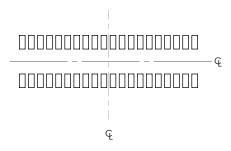


FIG. 1.1
-20 POSITION SHOWN
(SAME AS FIG. 1, EXCEPT AS SHOWN)
USE FOR -10, 13, OR -20 POSITIONS WITH -PE OPTION
-PE TYPE ONLY AVAILABLE WITH -01 CARD

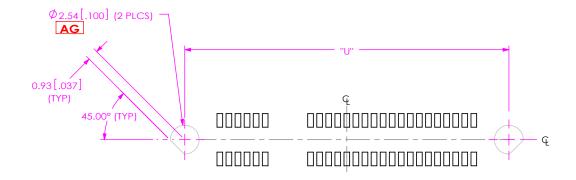


TABLE 12				
POSITION "U"				
-09 15.79 [0.622				
-13		[0.748]		
-25	28.59	[1.126]		
-49	47.79	[1.881]		

FIG 12
-25 POSITION SHOWN
(SAME AS FIG 2, EXCEPT AS SHOWN)
USE FOR -09, -13, -25, OR -49 POSITIONS WITH -L2 OPTION
-L2 TYPE ONLY AVAILABLE WITH -01 CARD

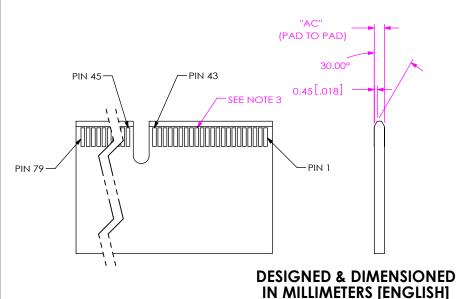
F:\dwg\misc\mktg\footprnt\HSEC8-1XXX-XX-X-D-DV-X-FOOTPRINT.SLDDRW

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# REVISION AG RECOMMENDED MATING CARD LAYOUT FOR HSEC8-1XXX-XX-XX-DV-X-XX



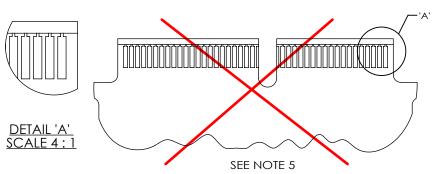
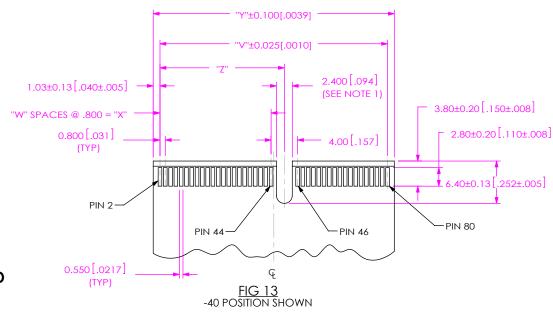


	TABLE 13						
POSITION	"V"	"W"	"X"	"Y"	"Z"	"AA"	"AB"
-10	7.20 [0.283]	N/A	N/A	9.25 [0.364]	N/A	18.25 [0.719]	14.25 [0.561]
-13	12.80 [0.504]	5	4.00 [0.157]	14.85 [0.585]	6.00 [0.236]	23.85 [0.939]	19.85 [0.781]
-20	15.20 [0.598]	N/A	N/A	17.25 [0.679]	N/A	26.25 [1.033]	22.25 [0.876]
-25	22.40 [0.882]	5	4.00 [0.157]	24.45 [0.963]	6.00 [0.236]	33.45 [1.317]	29.45 [1.159]
-30	23.20 [0.913]	N/A	N/A	25.25 [0.994]	N/A	34.25 [1.348]	30.25 [1.191]
-37	32.00 [1.260]	20	16.00 [0.630]	34.05 [1.341]	18.00 [0.709]	43.05 [1.695]	39.05 [1.537]
-40	34.40 [1.354]	21	16.80 [0.661]	36.45 [1.435]	18.80 [0.740]	45.45 [1.789]	41.45 [1.632]
-49	41.60 [1.638]	26	20.80 [0.819]	43.65 [1.719]	22.80 [0.898]	52.65 [2.073]	48.65 [1.915]
-50	42.40 [1.669]	26	20.80 [0.819]	44.45 [1.750]	22.80 [0.898]	53.45 [2.104]	49.45 [1.947]
-60	50.40 [1.984]	31	24.80 [0.976]	52.45 [2.065]	26.80 [1.055]	61.45 [2.419]	57.45 [2.262]
-70	58.40 [2.299]	31	24.80 [0.976]	60.45 [2.380]	26.80 [1.055]	69.45 [2.734]	65.45 [2.577]
-80	66.40 [2.614]	31	24.80 [0.976]	68.45 [2.695]	26.80 [1.055]	77.45 [3.049]	73.45 [2.892]
-90	74.40 [2.929]	31	24.80 [0.976]	76.45 [3.010]	26.80 [1.055]	85.45 [3.364]	81.45 [3.207]
-100	82.40 [3.244]	31	24.80 [0.976]	84.45 [3.325]	26.80 [1.055]	93.45 [3.679]	89.45 [3.522]

TABLE 14				
MATING CARD	"AC"			
THICKNESS TYPE	Ας			
-01	1.570 [0.062] ± 0.157 [0.0062]			
-02	2.000 [0.079] ± 0.157 [0.0062]			
-03	2.360 [0.093] ± 0.157 [0.0062]			
*-04	3.180 [0.125] ± 0.157 [0.0062]			

\*= NOT TOOLED



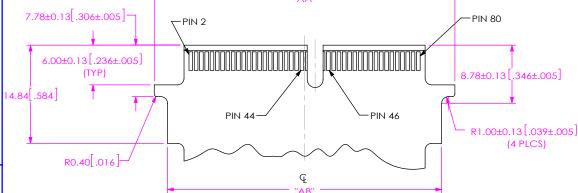


FIG 14
-40 POSITION WITH -BL OPTION SHOWN (SAME AS FIG 13, EXCEPT AS SHOWN)

#### NOTES:

- 1. -10, -20 AND -30 CARDS HAVE NO SLOT.
- 2. ALL DIMENSIONS ARE SYMMETRIC ABOUT THE CENTERLINE.
- 3. PLATING TO BE .000030 INCHES GOLD WITH A HARDNESS OF 130-200 KNOOP PER ASTM B 488 TYPE 2, GRADE C.

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- 4. NOTE DELETED.
- 5. FOR PROPER CONTACT REGISTRATION, PLATING BUS TIES TO BE THE WIDTH OF THE EDGE FINGER.

 $F:\dwg\mbox{misc}\mbox{mktg}\footprnt\hsec8-1XXX-XX-X-D-DV-X-FOOTPRINT.SLDDRW$ 



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### RECOMMENDED MATING CARD LAYOUT FOR HSEC8-1XXX-XX-XX-DV-X-XX

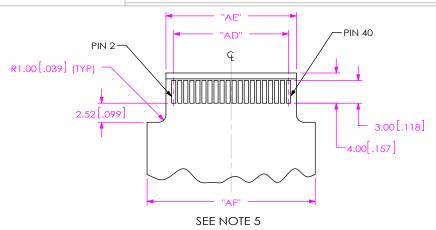


FIG 1.5 -20 POSITION SHOWN (SAME AS FIG 1.3 EXCEPT AS SHOWN) USE FOR -10, -13, OR -20 POSITIONS WITH -PE OPTION WITH CUTOUTS IN THE BOARD, TOP ENTRY

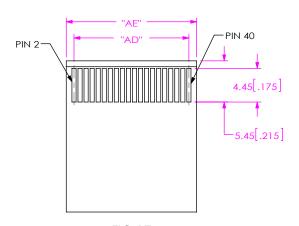
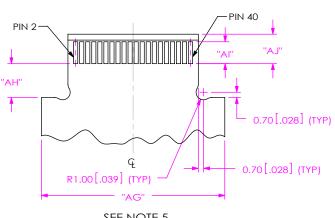


FIG 17 -20 POSITION SHOWN (SAME AS FIG 13, EXCEPT AS SHOWN) USE FOR -10, 13, OR -20 POSITIONS WITH -PE OPTION WITHOUT CUTOUTS IN THE BOARD

TABLE 15					
POSITION	"AD"	"AE"	"AF"	"AG"	
-10	7.20 [0.283]	9.25 [0.364]	14.25 [0.561]	16.25 [0.640]	
-13	9.60 [0.378]	11.65 [0.459]	16.65 [0.656]	18.65 [0.734]	
-20	15.20 [0.598]	17.25 [0.679]	22.25 [0.876]	24.25 [0.955]	

#### NOTES:

- 1. ALL DIMENSIONS ARE SYMMETRIC ABOUT THE CENTERLINE.
- 2. PLATING TO BE .000030 INCHES GOLD WITH A HARDNESS OF 130-200 KNOOP PER ASTM B 488 TYPE 2, GRADE C.
- 3. NOTE DELETED.
- 4. FOR PROPER CONTACT REGISTRATION, PLATING BUS TIES TO BE THE WIDTH OF THE EDGE FINGER.
- 5. MIN REQUIRED LENGTH.

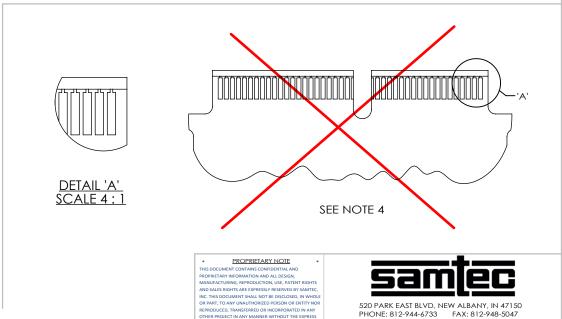


**SEE NOTE 5** 

FIG 16 -20 POSITION SHOWN (SAME AS FIG 15 EXCEPT AS SHOWN)

USE FOR -10, 13, OR -20 POSITIONS WITH -PE OPTION WITH CUTOUTS IN THE BOARD, BOTTOM ENTRY

TABLE 16					
SUBSRATE THICKNESS	"AH"	"AI"	"AJ"		
1.57 [.062]	4.48 [0.176]	2.90 [0.114]	3.90 [0.154]		
2.36 [.093]	5.33 [0.210]	3.05 [0.120]	4.05 [0.159]		
3.18 [.125]	6.20 [0.244]	3.20 [0.126]	4.20 [0.165]		



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