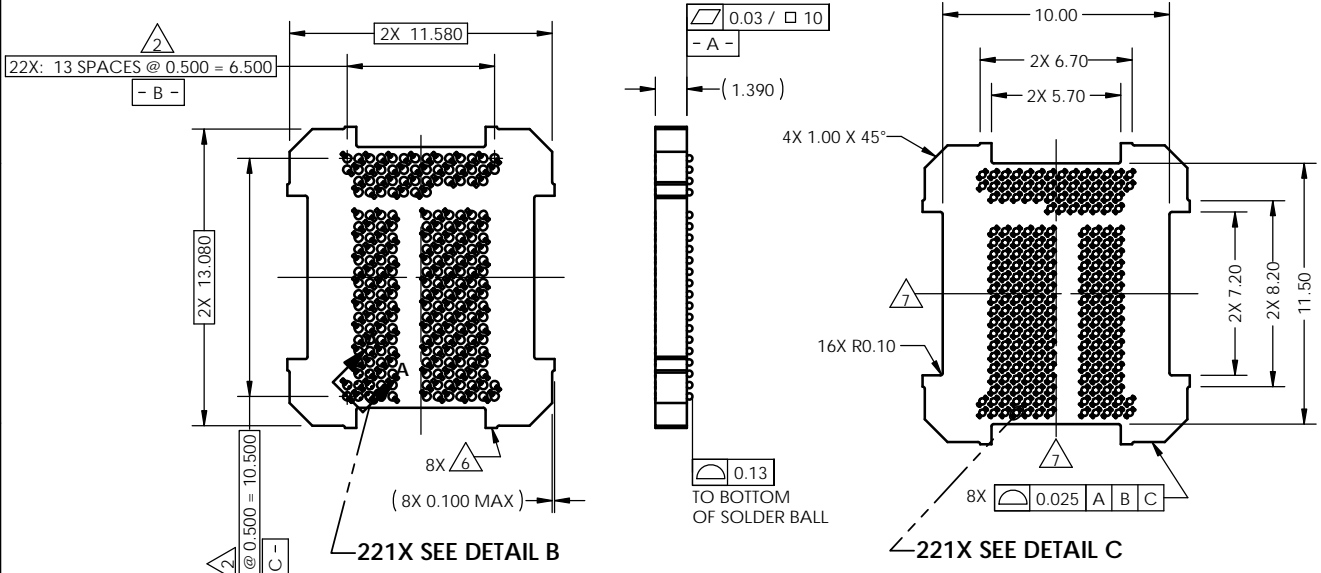
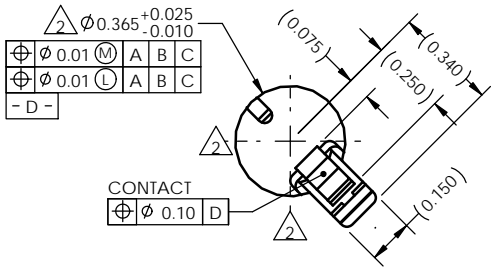


REV	ECO	BY	DESCRIPTION	APV	DATE
A	31471	AS	Initial Design	NSJ	01/31/14

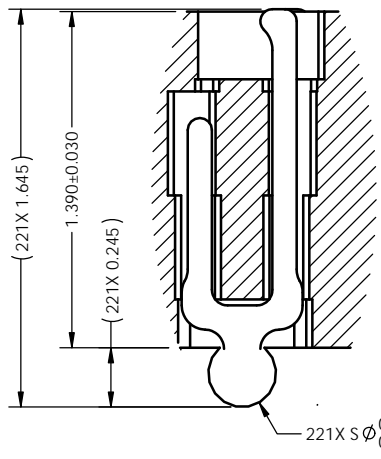


- Notes:
- Reference HSIO Technologies specification 700001-0001 for solder attachment.
  - Locates center of contact/ slot.
  - Reference HSIO Technologies specification 700001-0002 for application notes.
  - Footprint part number is 104311-0381.
  - Datums **- B -** and **- C -** are determined by  $\phi 0.365$  features on corner slots.
  - Tooling marks permitted. Maximum 0.100 protrusion (shown).
  - E -** Center of ball pattern.
  - F -** Center of contact.

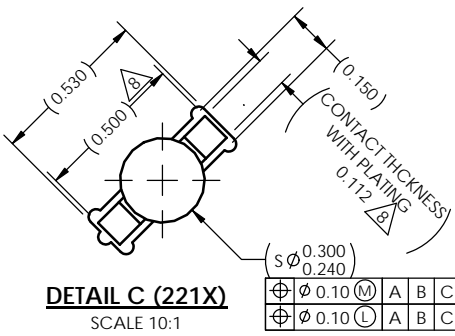
Parts List	
Part Number	Description
103864-0128	PRESS, DEVICE INSERT, GRYP 11.5 X 13 (SOLD SEPARATELY)
105900-0004	EXTRACTION TOOL, 4 X 53 (SOLD SEPARATELY)



**DETAIL B (221X)**  
SCALE 10:1



**SECTION A-A**  
SCALE 8:1



**DETAIL C (221X)**  
SCALE 10:1

**HSIO** technologies  
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UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DIMENSIONS ARE IN MILLIMETERS	AS	01/31/14
TOLERANCES:	CHECKED	NSJ
ANGULAR ± 1°		
XX ± 0.25		
XXX ± 0.10		
XXXX ± 0.050		
INTERPRET GEOMETRIC TOLERANCING PER:	LEGEND:	
MATERIAL	△ NOTE CALLOUT	
SEE BOM	○ REVISION CHANGE	
FINISH	○ ITEM NUMBER	
DO NOT SCALE DRAWING		

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 13300 67th AVENUE NORTH  
 MAPLE GROVE, MINNESOTA 55311  
 763-447-6260

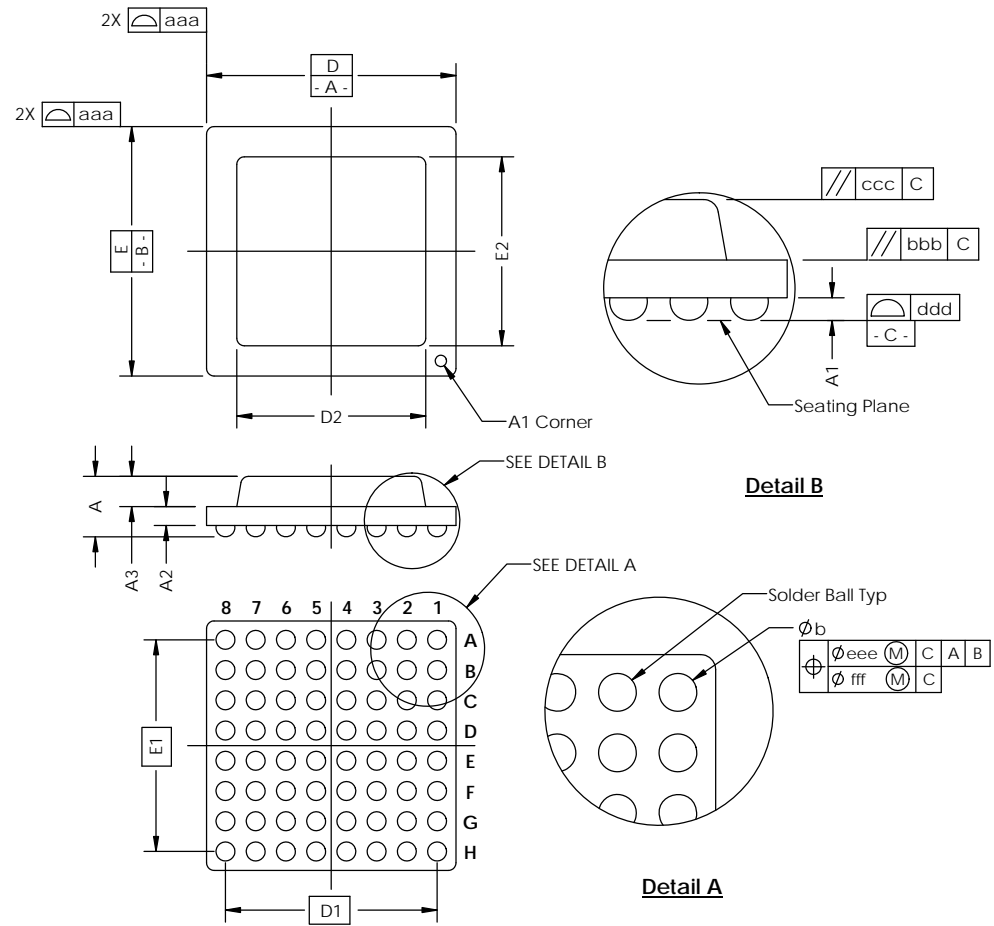
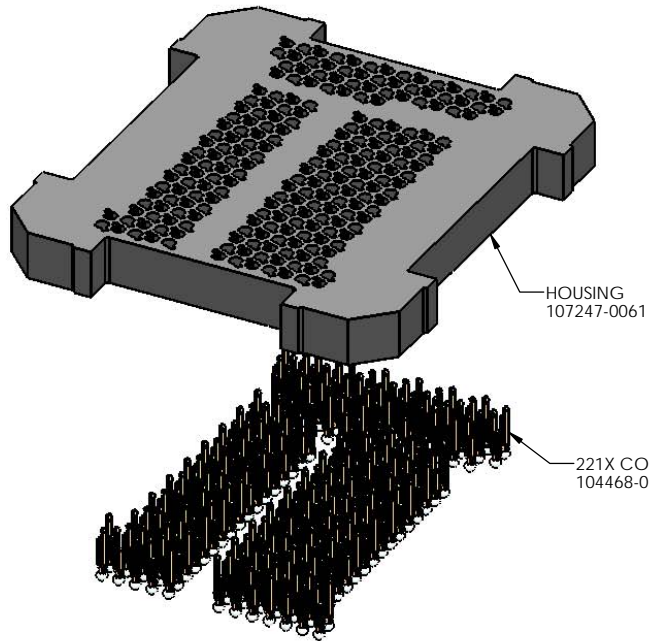
TITLE:  
 SCKT, 221G4011.5X13-0.50

DWG. NO. **107250-0064** REV **A**

SCALE: 10:1 SIZE: C SHEET 1 OF 2

SOCKET FOR DEVICES THAT ARE WITHIN THESE SPECIFICATIONS					
Lead Count	<b>N</b>	221	Package Size	<b>D</b>	11.50
Columns	<b>ND</b>	14		<b>E</b>	13.00
Rows	<b>NE</b>	22	Ball Spacing	<b>D1</b>	6.500
Pitch	<b>e</b>	0.50		<b>E1</b>	10.500
Ball Size	<b>b</b>	0.30±0.05	Encapsulant/ Top Size	<b>D2</b>	n/a
Total Thickness	<b>A</b>	n/a		<b>E2</b>	n/a
Ball Height	<b>A1</b>	0.225 min.	Pattern Style	IRREGULAR*	
Substrate Thickness	<b>A2</b>	n/a	Perimeter Rows	n/a	
Top Thickness	<b>A3</b>		Center Array	n/a	
Form Tolerances					
Edge	<b>aaa</b>	0.10	Bottom	<b>ddd</b>	0.08
Substrate	<b>bbb</b>	0.10	Position	<b>eee</b>	0.15
top	<b>ccc</b>	0.10	Position	<b>fff</b>	0.05

All dimensions are in millimeters.  
\* See footprint for pattern details.



**Generic Representation with Full Grid Array**

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UNLESS OTHERWISE SPECIFIED:	NAME	DATE	<b>HSIQ TECHNOLOGIES, LLC.</b> 13300 67th AVENUE NORTH MAPLE GROVE, MINNESOTA 55311 763-447-6260	
DIMENSIONS ARE IN MILLIMETERS	DRAWN	AS		01/31/14
TOLERANCES: ANGULAR: ±1° XX ±0.05 XXX ±0.10 XXXX ±0.050	CHECKED	NSJ		01/31/14
LEGEND: △ NOTE CALLOUT ○ REVISION CHANGE ○ ITEM NUMBER			TITLE: SCKT, 221G4011.5X13-0.50	
			DWG. NO. <b>107250-0064</b>	
			REV <b>A</b>	
			SCALE: 5:1 SIZE: C SHEET 2 OF 2	