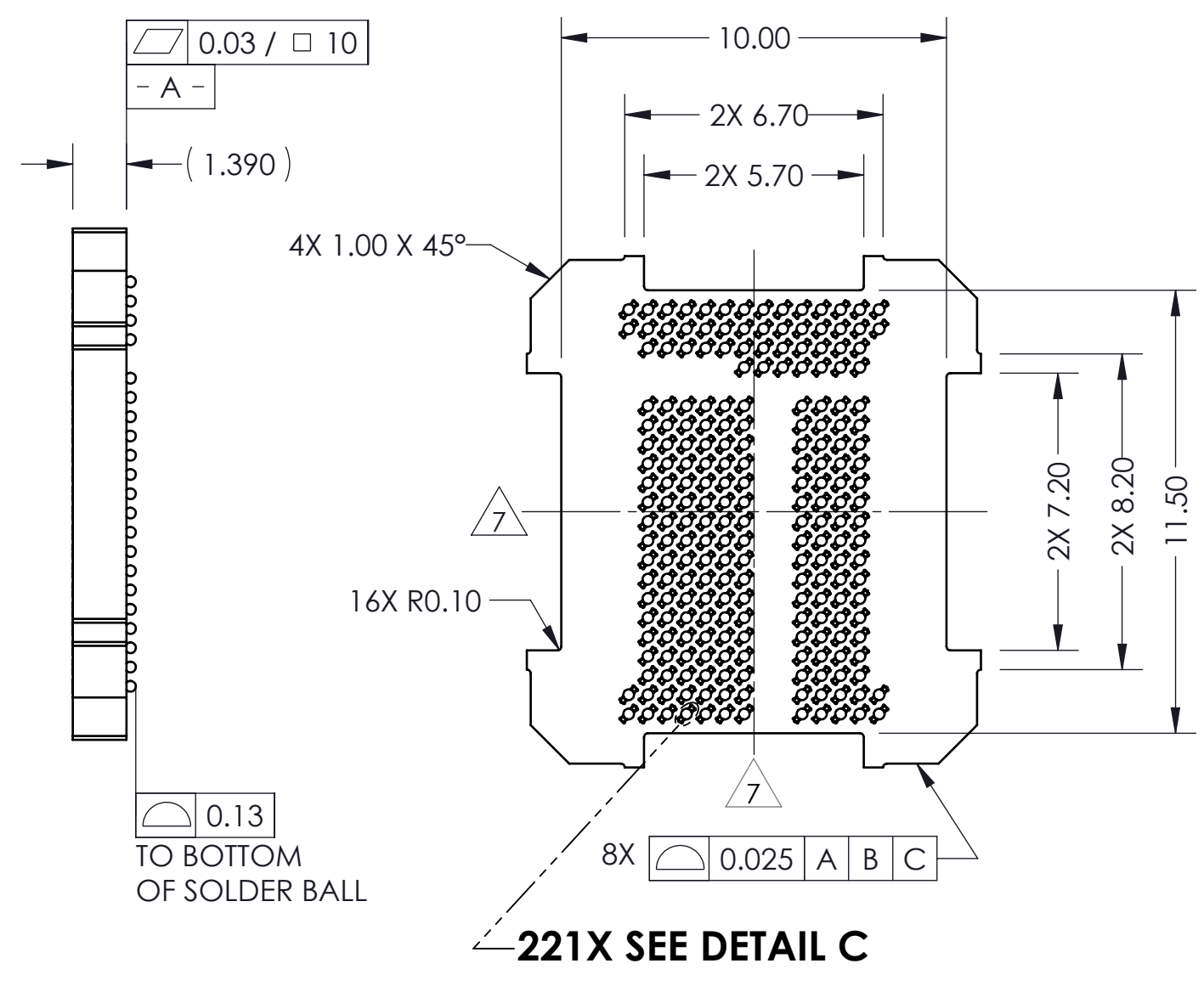
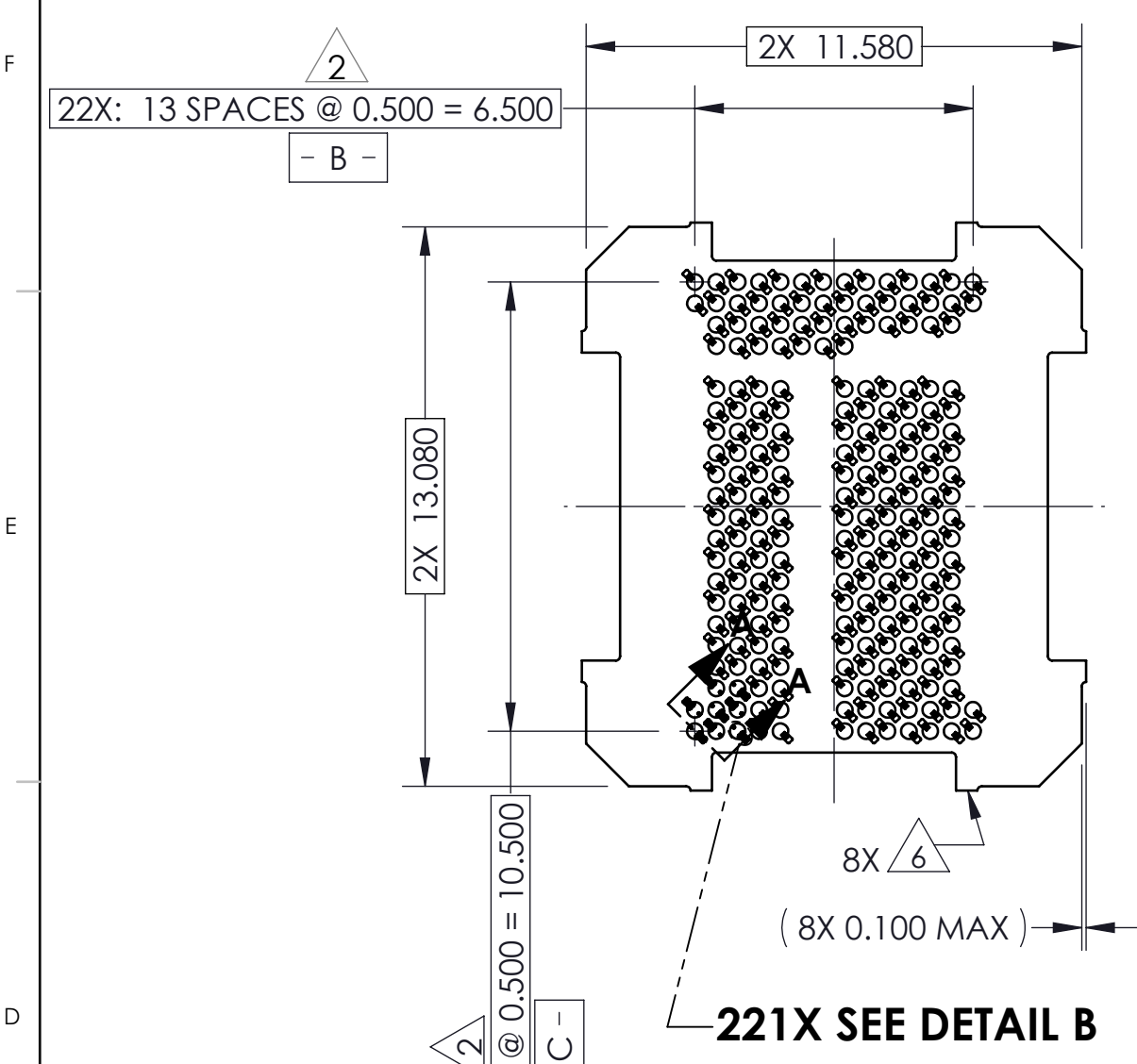
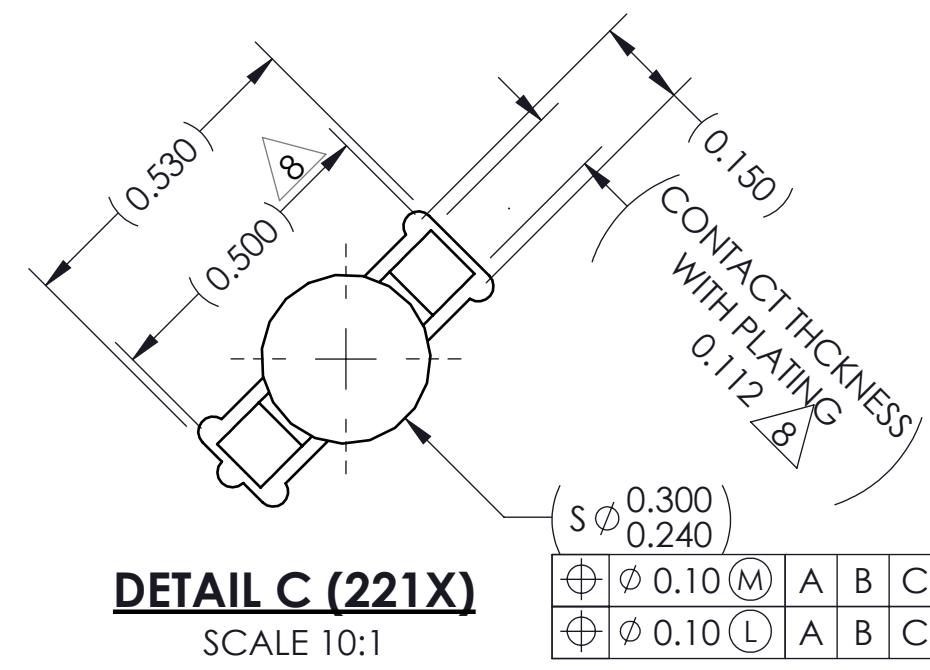
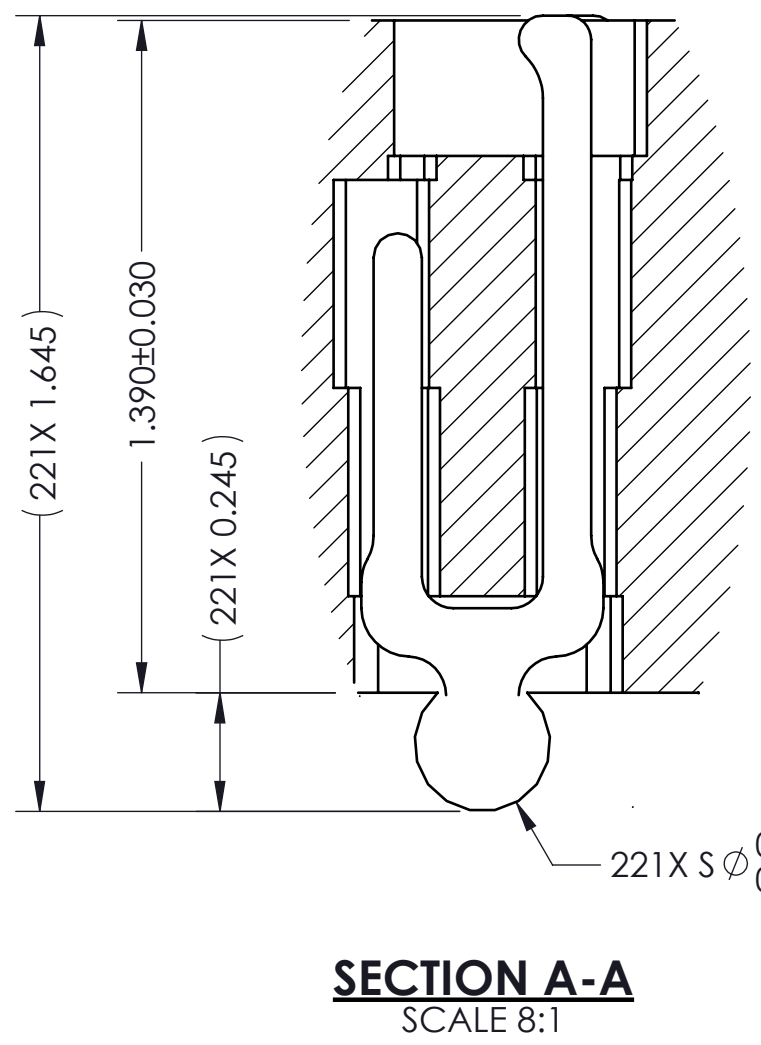
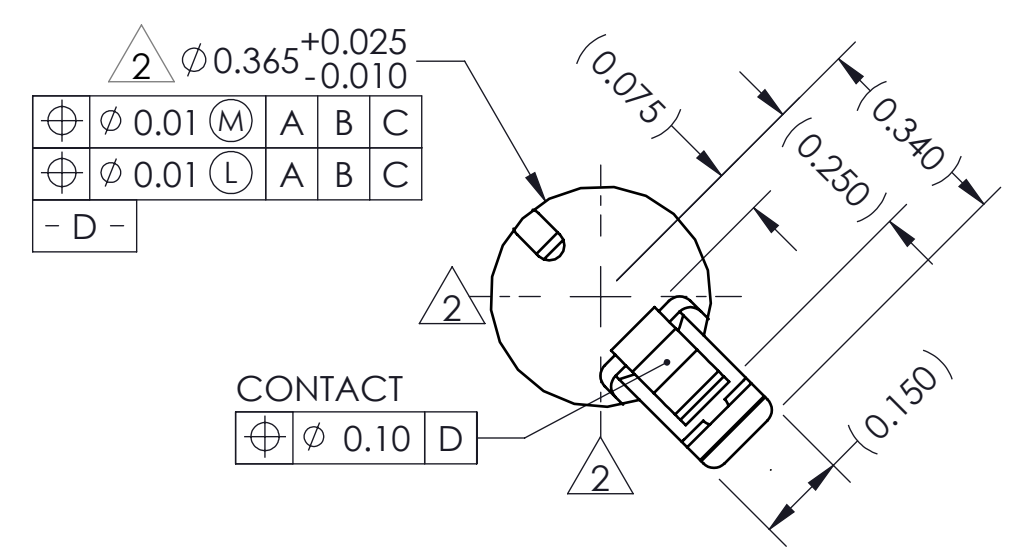
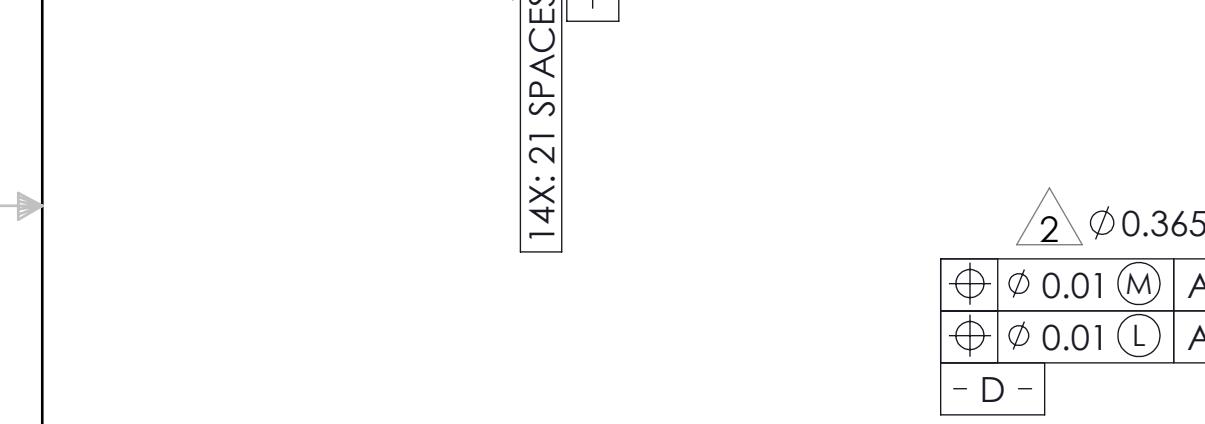


REV	ECO	BY	DESCRIPTION	APV	DATE
A	31471	AS	Initial Design	NSJ	01/31/14
B	31630	RS	Added 108639-0007 to parts list.	NSJ	04/08/15
C	31816	RS	Was $\phi 0.30$	NSJ	08/26/16



- Notes:
- Reference HSI0 Technologies specification 700001-0001 for solder attachment.
  - Locates center of contact/ slot.
  - Reference HSI0 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.

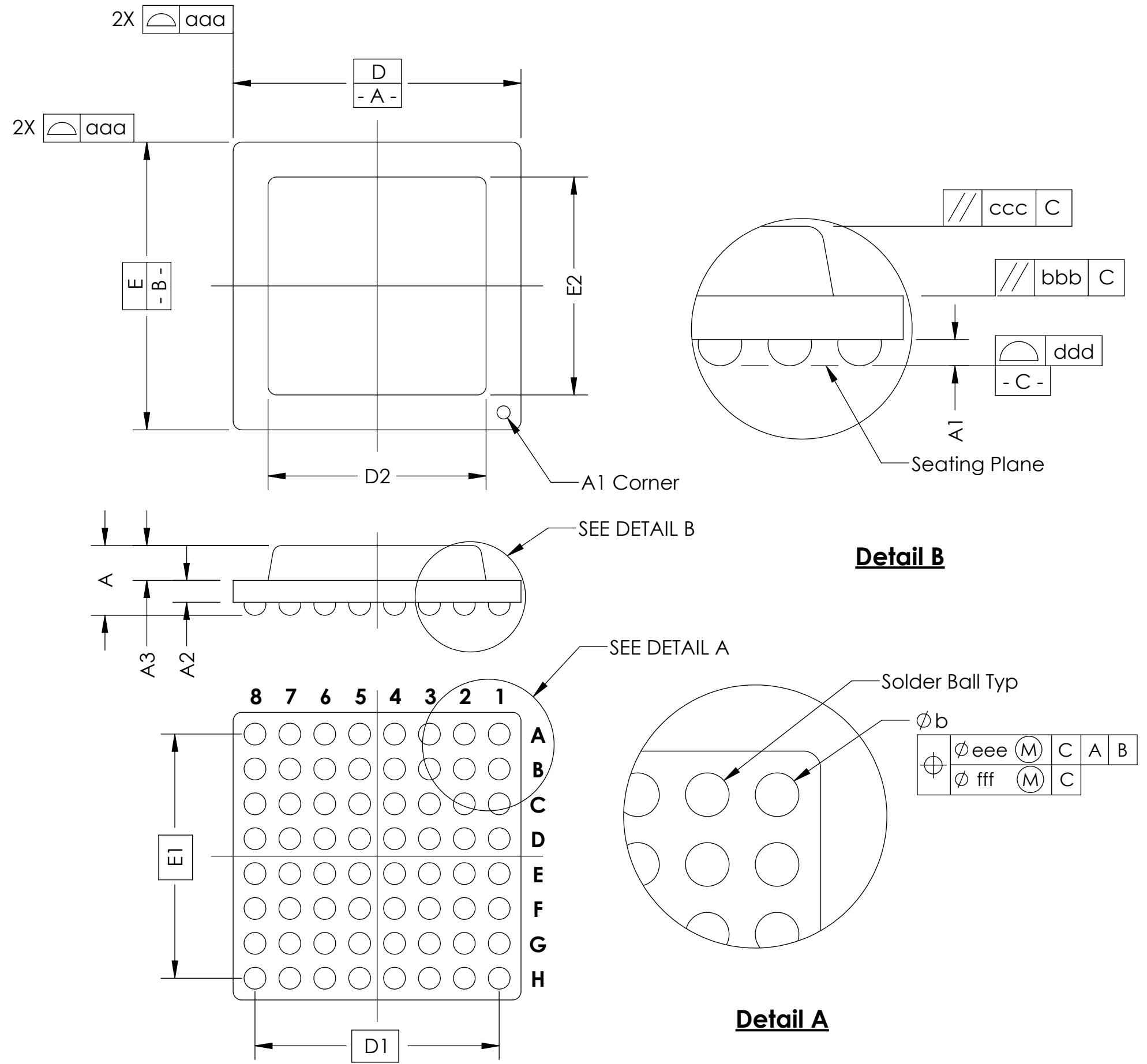
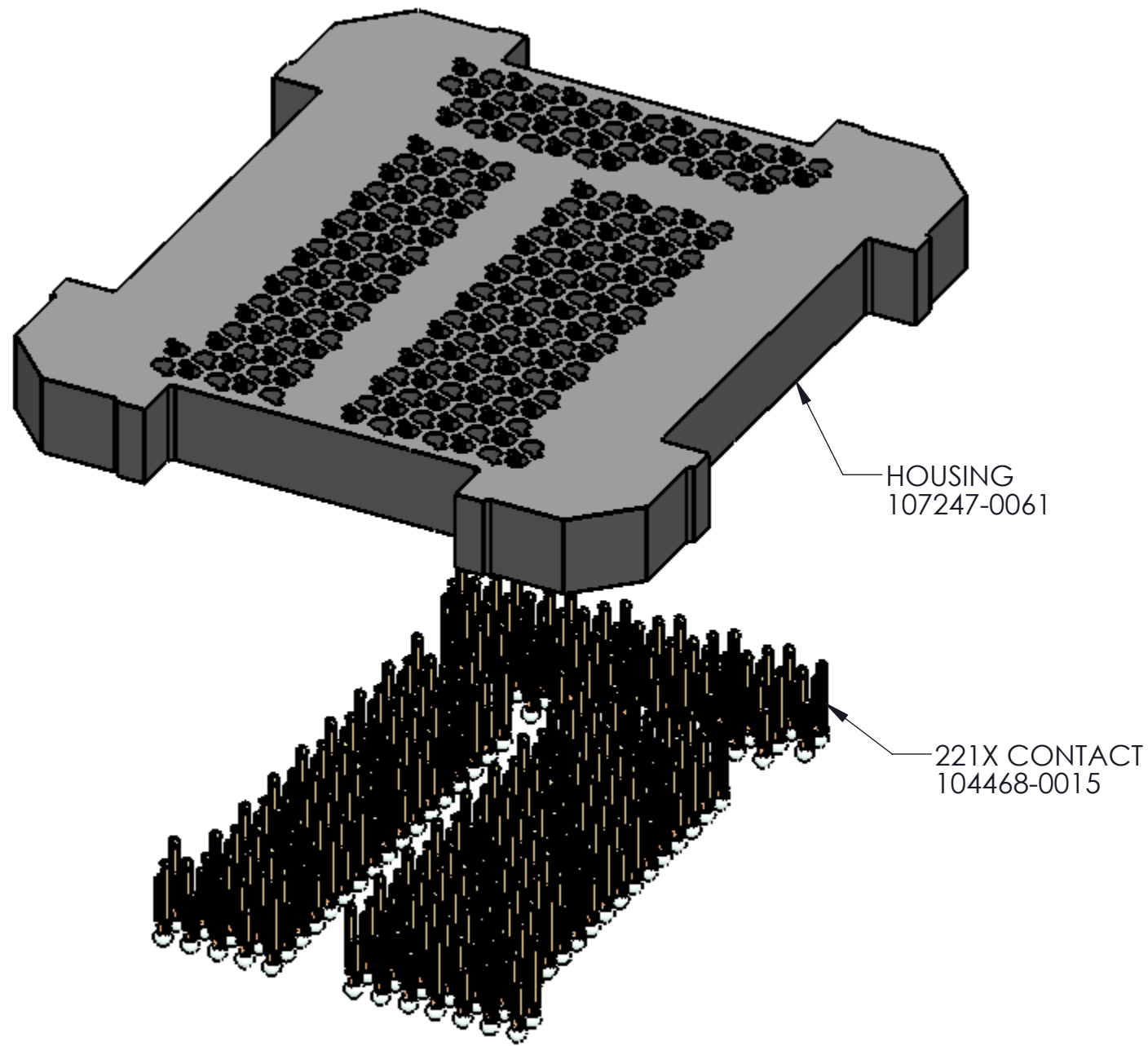


Parts List	
Part Number	Description
103864-0128	PRESS, DEVICE INSERT, GRYP 11.5 X 13 (SOLD SEPARATELY)
105900-0004	EXTRACTION TOOL, 4 X 53 (SOLD SEPARATELY)
108639-0007	ALIGNMENT FRAME, GRY 11.5X13.0 (SOLD SEPARATELY)

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	DIMENSIONS ARE IN MILLIMETERS TOLERANCES: ANGULAR: $\pm 1^\circ$ X.X $\pm 0.25$ X.XX $\pm 0.10$ X.XXX $\pm 0.050$	DRAWN	AS		01/31/14
	INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	NSJ		01/31/14
	MATERIAL SEE BOM FINISH	LEGEND:			
DO NOT SCALE DRAWING		$\triangle$	NOTE CALLOUT	DWG. NO.	
		$\square$	REVISION CHANGE	107250-0064	
		$\circ$	ITEM NUMBER	REV	
				C	
				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: DIMENSIONS ARE IN MILLIMETERS TOLERANCES: ANGULAR: ± 1° X.X ±0.25 X.XX ±0.10 X.XXX ±0.050	NAME	DATE	<b>HSIO TECHNOLOGIES, LLC.</b> 13300 67th AVENUE NORTH MAPLE GROVE, MINNESOTA 55311 763-447-6260
	DRAWN AS	01/31/14	
LEGEND: △ NOTE CALLOUT ◇ REVISION CHANGE ○ ITEM NUMBER	CHECKED NSJ	01/31/14	TITLE: SCKT, 221G4011.5X13-0.50, W/SAC305 SOLDER BALL
		DWG. NO.	REV
		107250-0064	C
		SCALE: 5:1	SIZE: C SHEET 2 OF 2