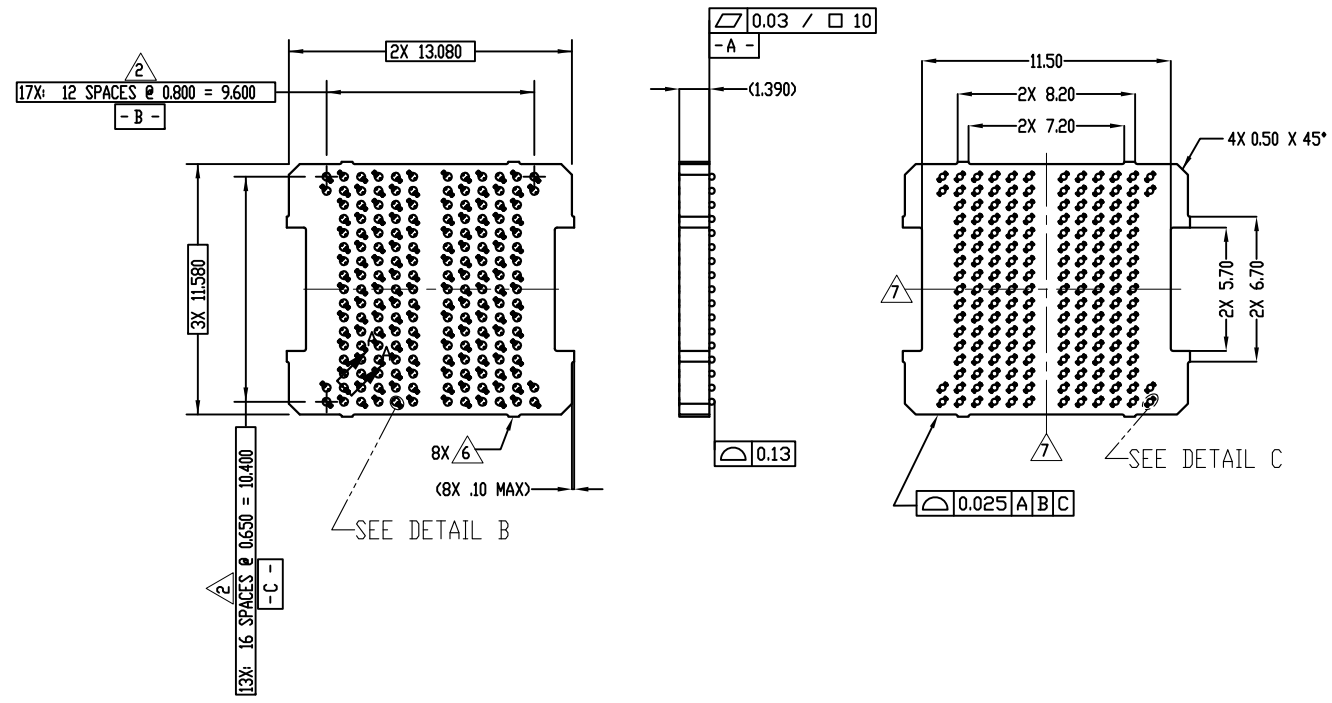
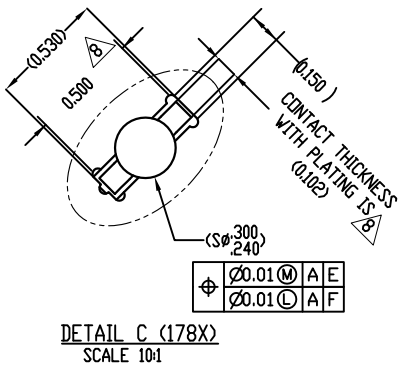
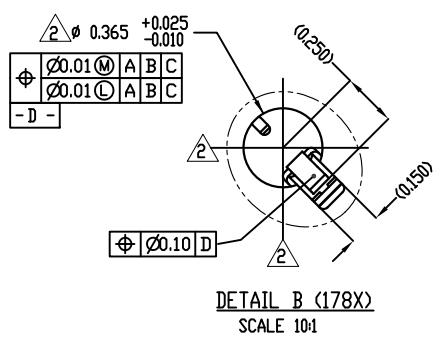
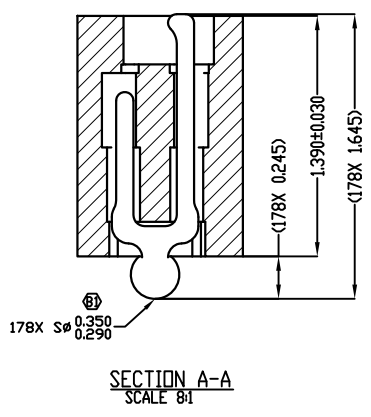


REV	ECO	BY	DESCRIPTION	APV	DATE
A	31210	AS	Initial Design	MP	10/31/12
B	31491	RS	1) Was $\phi 0.300$ 0.240 2) Added Alignment Frame to Parts list table.	NSJ	04/09/14



- Notes:
- Reference Cascade Microtech specification 103862-0004 for solder attachment.
  - Dimension locates center of contact/ slot.
  - Reference Cascade Microtech specification 103863-0001 for application notes.
  - Footprint part number is 104311-0342.
  - Datums **-B-** and **-C-** are determined by  $\phi 0.365$  features on corner slots.
  - Tooling marks permitted. Maximum 0.10 protrusion (shown).
  - E-** Center of contact pattern.
  - F-** Center of contact.

Part Number	Description
107250-0039	SCKT, 178G4013X11.5-0.80X0.65
103864-0128	PRESS, DEVICE INSERT, GRYP 11.5 X 13 (SOLD SEPARATELY)
105900-0004	EXTRACTION TOOL, 4 X 53 (SOLD SEPARATELY)
104553-0244	STEN FLEX, 178G4011.5X13-0.80X0.65 (SOLD SEPARATELY)
108639-0003	ALIGNMENT, FRAME, 11.5 X 13.0 (SOLD SEPARATELY)



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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN MILLIMETERS

TOLERANCES:

ANGULAR ±1°

XX ±0.25

XXX ±0.10

XXXX ±0.050

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL: SEE BOM

FINISH:

DO NOT SCALE DRAWING

NAME	DATE
DRAWN AS	10/31/12
CHECKED MP	10/31/12

LEGEND:

- △ NOTE CALLOUT
- REVISION CHANGE
- ITEM NUMBER

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13300 67th AVENUE NORTH  
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763-447-6260

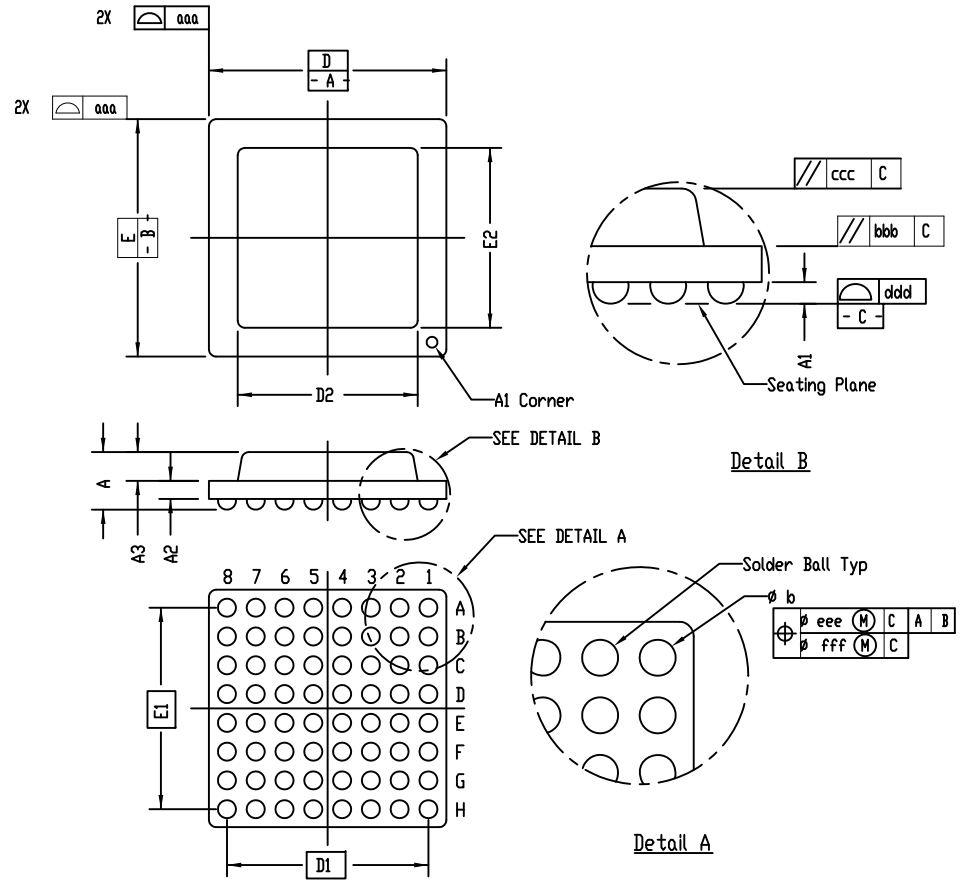
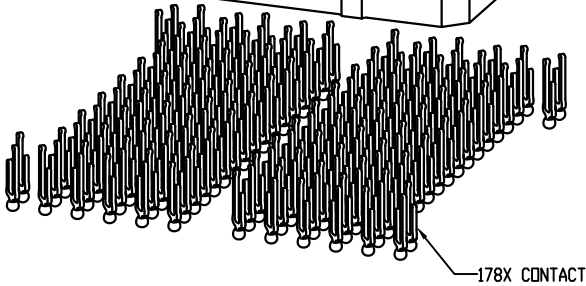
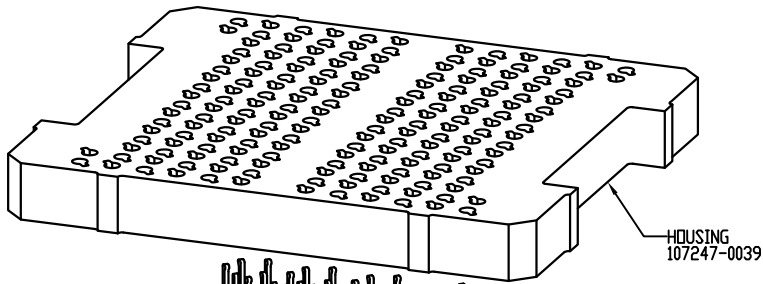
TITLE:  
SCKT, 178G4013X11.5-0.80X0.65

DWG. NO. 107250-0039 REV B

SCALE: 5:1 SIZE: C SHEET 1 OF 2

SOCKET FOR DEVICES THAT ARE WITHIN THESE SPECIFICATIONS					
Lead Count	N	178	Package Size	D	13.00
Columns	ND	13		E	11.5
Rows	NE	17	Ball Spacing	D1	9.600
Pitch	e	0.80 X 0.65		E1	10.400
Ball Size	b	0.30±0.05	Encapsulant/ Top Size	D2	n/a
Total Thickness	A	n/a		E2	n/a
Ball Height	A1	0.225 MIN	Pattern Style	IRREGULAR*	
Substrate Thickness	A2	n/a	Perimeter Rows	N/A	
Top Thickness	A3		Center Array	N/A	
Form Tolerances					
Edge	aaa	0.10	Bottom	ddd	0.08
Substrate	bbb	0.10	Position	eee	0.15
top	ccc	0.10	Position	fff	0.05

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



Generic Representation with Full Grid Array

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DIMENSIONS ARE IN MILLIMETERS	DRAWN	AS 10/31/12	
TOLERANCES: ANGULAR: ± 1° XX ± 0.25 XXX ± 0.10 XXXX ± 0.050	CHECKED	MP 10/31/12	
LEGEND:	TITLE:		SCKT, 178G4013X11.5-0.80X0.65
△ NOTE CALLOUT	DWG. NO.		
○ REVISION CHANGE	107250-0039		
○ ITEM NUMBER	SCALE: 5:1		REV B
	SIZE: C		SHEET 2 OF 2