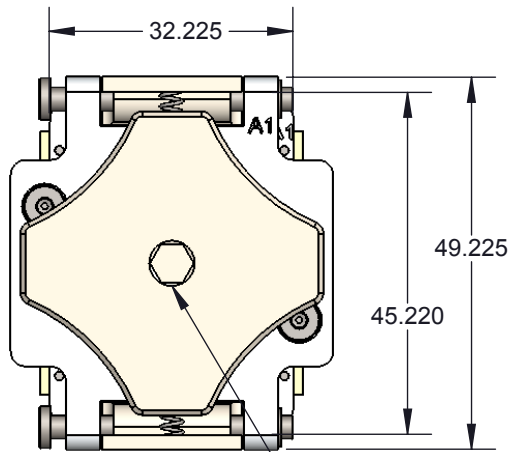


# Silver Ball Matrix Socket

## Features

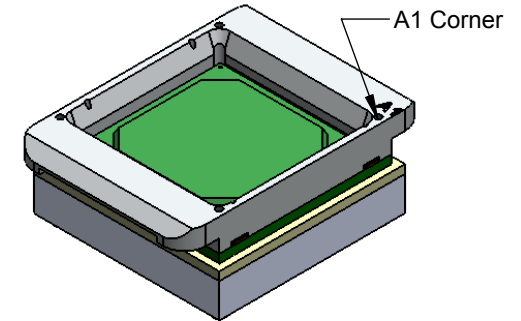
- Wide temperature range (-55C to +150C).
- Current capability is 4A per pin.
- Over 40GHz bandwidth @-1dB for edge pins.
- Low and stable contact resistance for reliable production yield.
- Highly compliant to accommodate wide co-planarity variations.
- Capacitance under 0.15pF



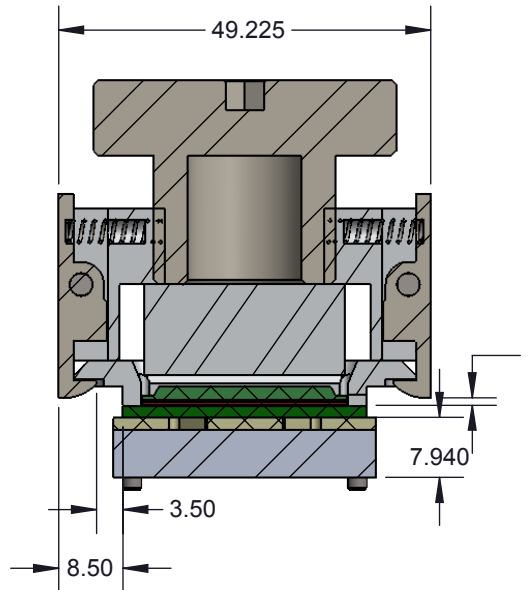
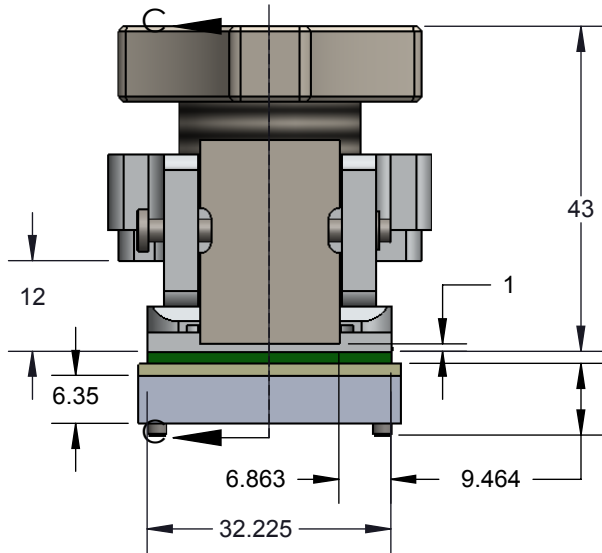
Recommended torque = 8 in lb.



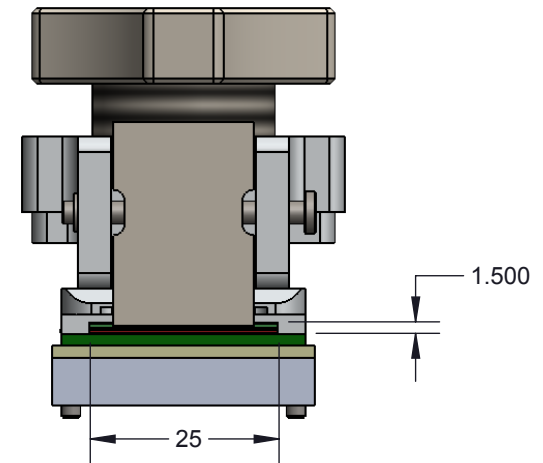
SM elastomer



ISO VIEW: Lid assembly removed




SECTION C-C

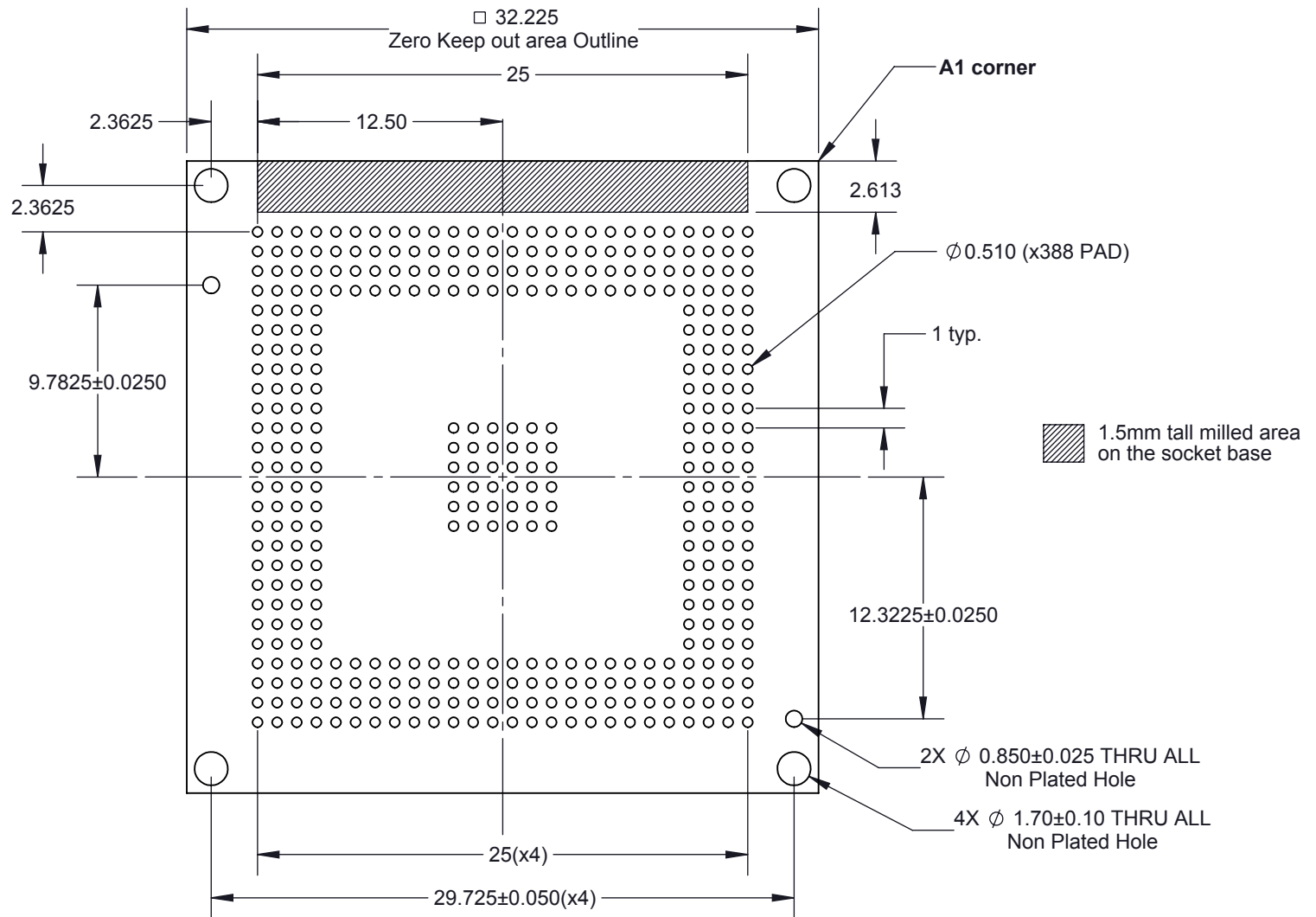


## Description: Socket Drawing

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

Tolerances: Hole diameters  $\pm 0.0254\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.0762\text{mm}$  [ $\pm 0.003"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.127\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

 <p><b>SM-BGA-9022 Drawing</b> ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	Material: Material <not specified>	STATUS: Released	SHEET: 1 OF 4	REV. B
	Finish:	ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 1:1
	Weight: 154.62	FILE: SM-BGA-9022 Dwg	DATE: 2/6/2013	




**Note: BGA pattern is symmetrical with respect to the mounting holes.**

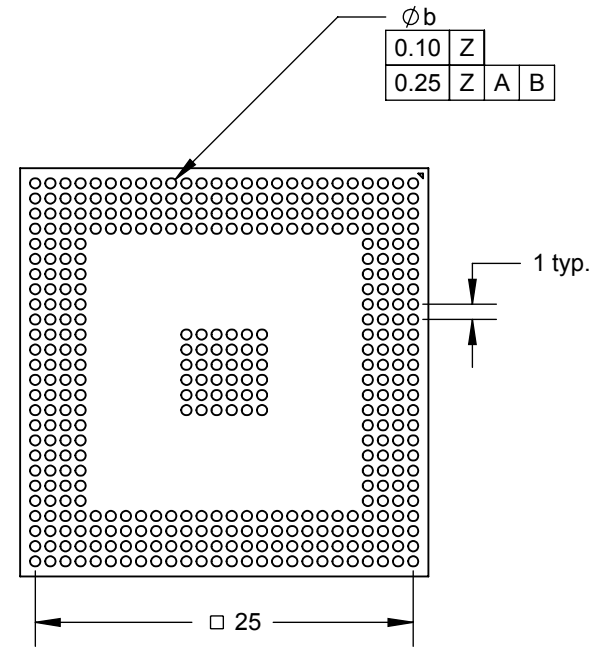
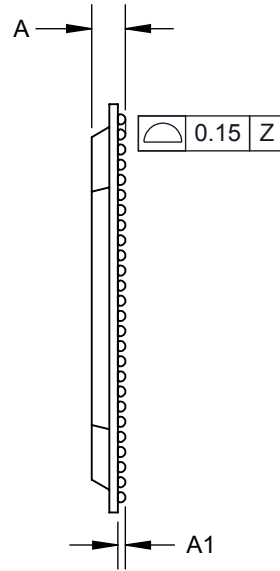
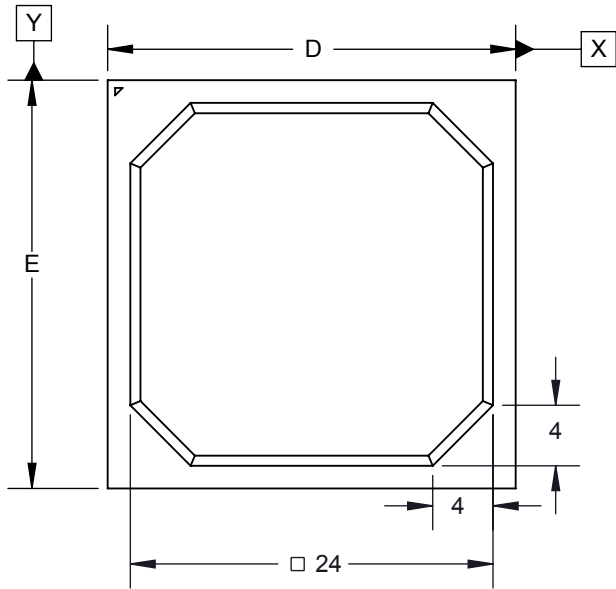
**Target PCB Recommendations**  
 Total thickness: 1.5mm min.  
 Plating: Gold or Solder finish  
 PCB Pad height: same or higher than solder mask

**Description: Recommended PCB layout**

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.  
 Tolerances: Hole diameters ±0.0254mm [±0.001"], Pitches (from true position) ±0.0762mm [±0.003"], substrate thickness tolerance ±10%, all other tolerances ±0.127mm [±0.005"] unless stated otherwise. Materials and specifications are subject to change without notice.

 <b>SM-BGA-9022 Drawing</b> ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 154.62	STATUS: Released	SHEET: 2 OF 4	REV. B
		ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 3:1
		FILE: SM-BGA-9022 Dwg	DATE: 2/6/2013	

## Compatible BGA device



DIM	MIN	MAX
A	1.00	3.00
A1	0.40	0.60
b	0.50	0.70
D	26.80	27.20
E	26.80	27.20
e	1.00	


Ironwood Package Code: BGA388B

1. Dimensions are in millimeters. 26x26 Array
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall exclude any effect of mark on top surface of package.

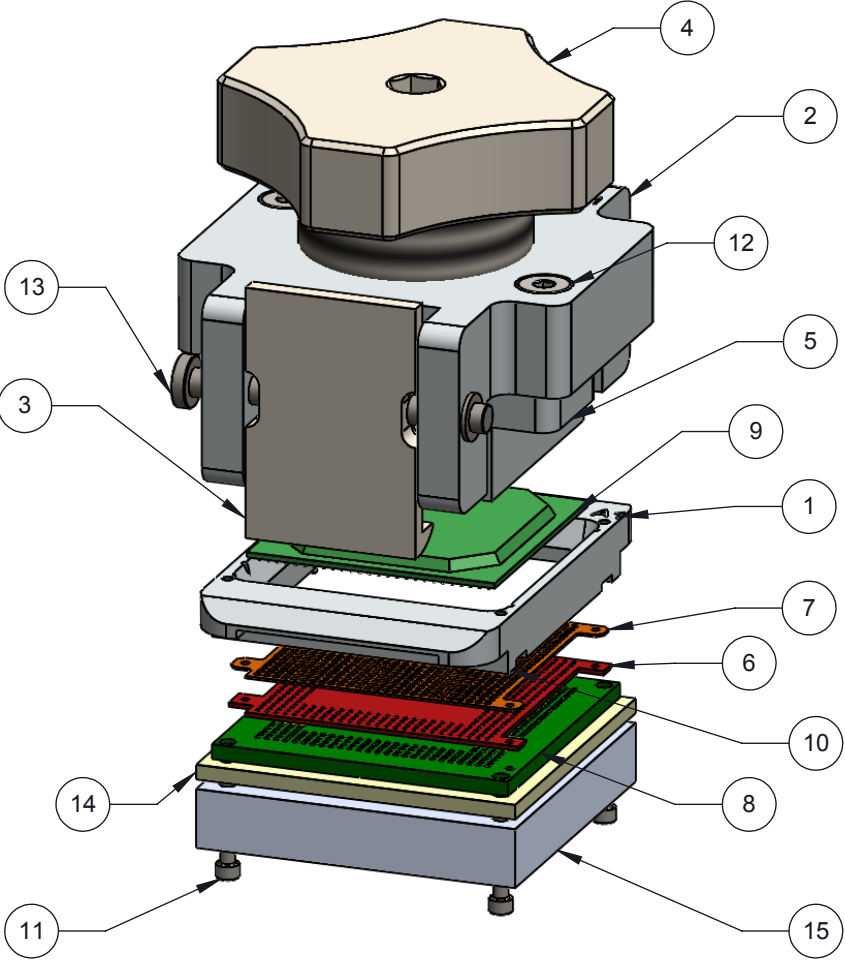
## Description: Compatible BGA Device

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

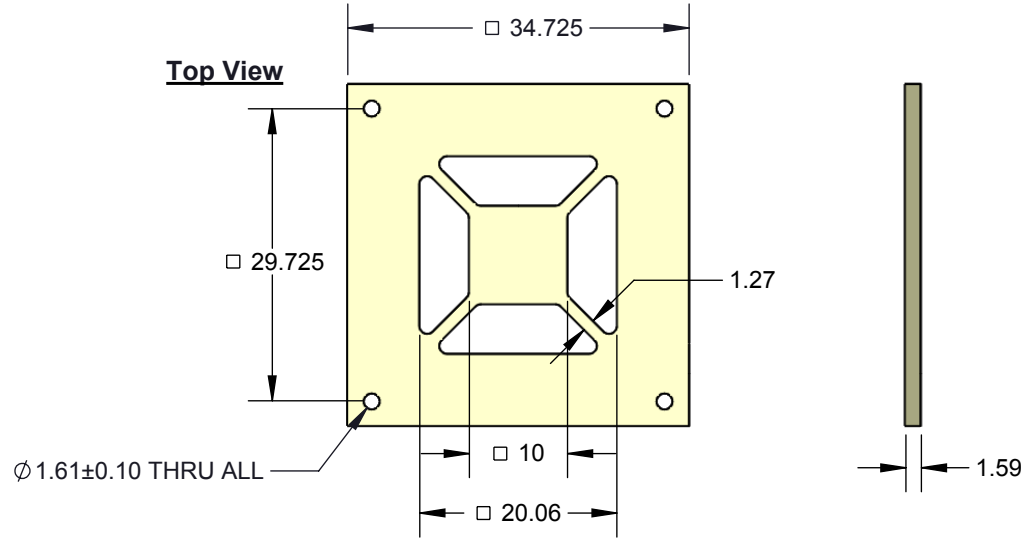
**Tolerances:** Hole diameters  $\pm 0.0254\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.0762\text{mm}$  [ $\pm 0.003"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.127\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

 <b>SM-BGA-9022 Drawing</b> ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 154.62	STATUS: Released	SHEET: 3 OF 4	REV. B
		ENG: V. Panavala	DRAWN BY: V. Panavala	SCALE: 1:1
		FILE: SM-BGA-9022 Dwg	DATE: 2/6/2013	

ITEM NO.	DESCRIPTION	Material
1	SM Socket Base clamshell 27mm double latch	7075-T6 Aluminum Alloy
2	Clamshell lid Double latch 27mm IC	7075-T6 Aluminum Alloy
3	Latch	7075-T6 Aluminum Alloy
4	Compression Screw	7075-T6 Aluminum Alloy
5	Compression Plate 27mm IC	7075-T6 Aluminum Alloy
6	Silmat BGA388B 27x27mm, 26x26, 1mm pitch	Silmat
7	Ball guide BGA676 27x27mm, 26x26, 1mm pitch	Kapton Polyimide/Cirlex
8	PCB BGA388B 26x26 arr 1mm pitch	FR4
9	BGA388B 27mm 1mm pitch 26x26 array	FR4 Standard
10	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
11	#0-80 x 0.5, SH Cap Screw	Alloy Steel
12	Screw, M3 x 12mm, Low Head Cap, SS	18-8 Stainless Steel
13	Hinge Pin and Snap Ring, 3mm OD, 30mm long, 1045 Stl, Blk Oxide	AISI 1045 Steel, cold drawn
14	Insulation Plate 27mm IC	FR4
15	SBT Ni plt backing plt 27mm IC	7075-T6 Aluminum Alloy
16	Precision Compression Spring, Zinc-Plated Music Wire, 1/2" Length, .12" OD, .016" Wire	Zinc Plated Music Wire
17	Spring Clamshell lid assembly	Steel Music Wire



Not shown: #12 and #13




**Insulation Plate Specification**

**Description: Socket assembly**

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.  
 Tolerances: Hole diameters  $\pm 0.0254\text{mm}$  [ $\pm 0.001$ "]. Pitches (from true position)  $\pm 0.0762\text{mm}$  [ $\pm 0.003$ "], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.127\text{mm}$  [ $\pm 0.005$ "] unless stated otherwise. Materials and specifications are subject to change without notice.

Rev	Date	Initials	Description
A	2/26/13	VP	Original
B	7/29/15	GL	Recommended Torque 5 in. lb. chg'd to 8 in. lb.

 <b>SM-BGA-9022 Drawing</b> ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 154.62	STATUS: Released ENG: V. Panavala FILE: SM-BGA-9022 Dwg	SHEET: 4 OF 4 DRAWN BY: V. Panavala DATE: 2/6/2013	REV. B SCALE: 1.3:1
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