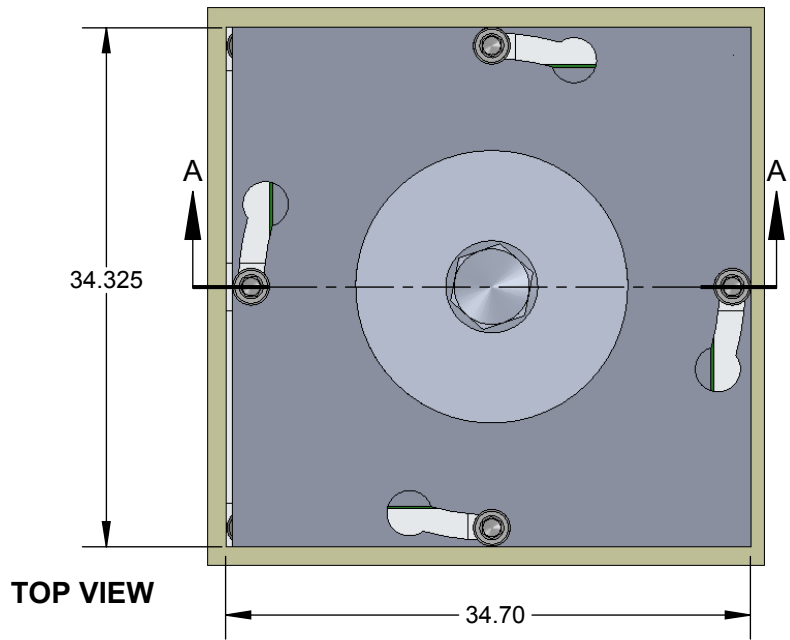


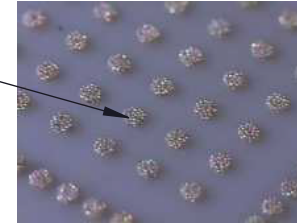
SM-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATION

Features

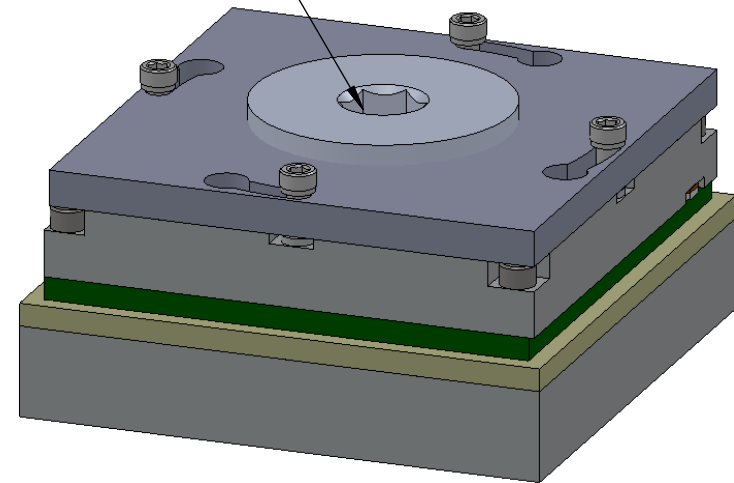
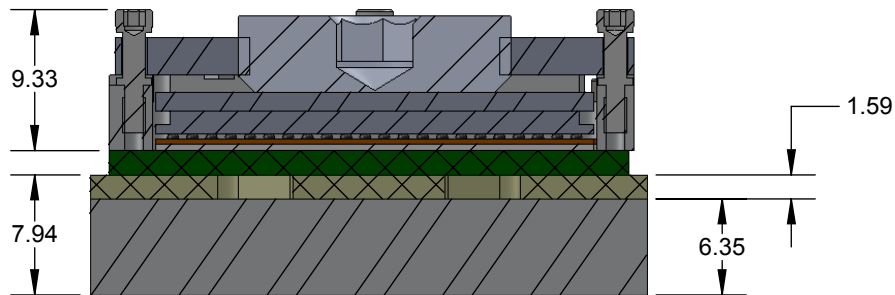
- Wide temperature range (-55C to +150C).
- Current capability is 4A per pin at 14C temperature rise.
- Over 40GHz bandwidth @-1dB for edge pins
- Low and stable contact resistance for reliable production yield.
- Self inductance under 0.21nH.
- Easily removable swivel socket lid



Silver ball matrix elastomer



Recommended torque = 7-8 in-lbs



SECTION A-A

Description: Socket Specification

Primary dimension units are millimeters, Secondary dimension units are [inches].

Tolerances: Hole diameters $\pm 0.03\text{mm}$ [$\pm 0.001''$], Pitches (from true position) $\pm 0.025\text{mm}$ [$\pm 0.001''$], substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.13\text{mm}$ [$\pm 0.005''$] unless stated otherwise. Materials and specifications are subject to change without notice.

SM-BGA-9014 Drawing



Ironwood Electronics, Inc.
Tele: (800) 404-0204
www.ironwoodelectronics.com

Material: N/A
Finish: N/A
Weight: 48.05

STATUS: Released

DRAWN BY: D. Hauer

FILE: SM-BGA-9014

SHEET: 1 OF 4

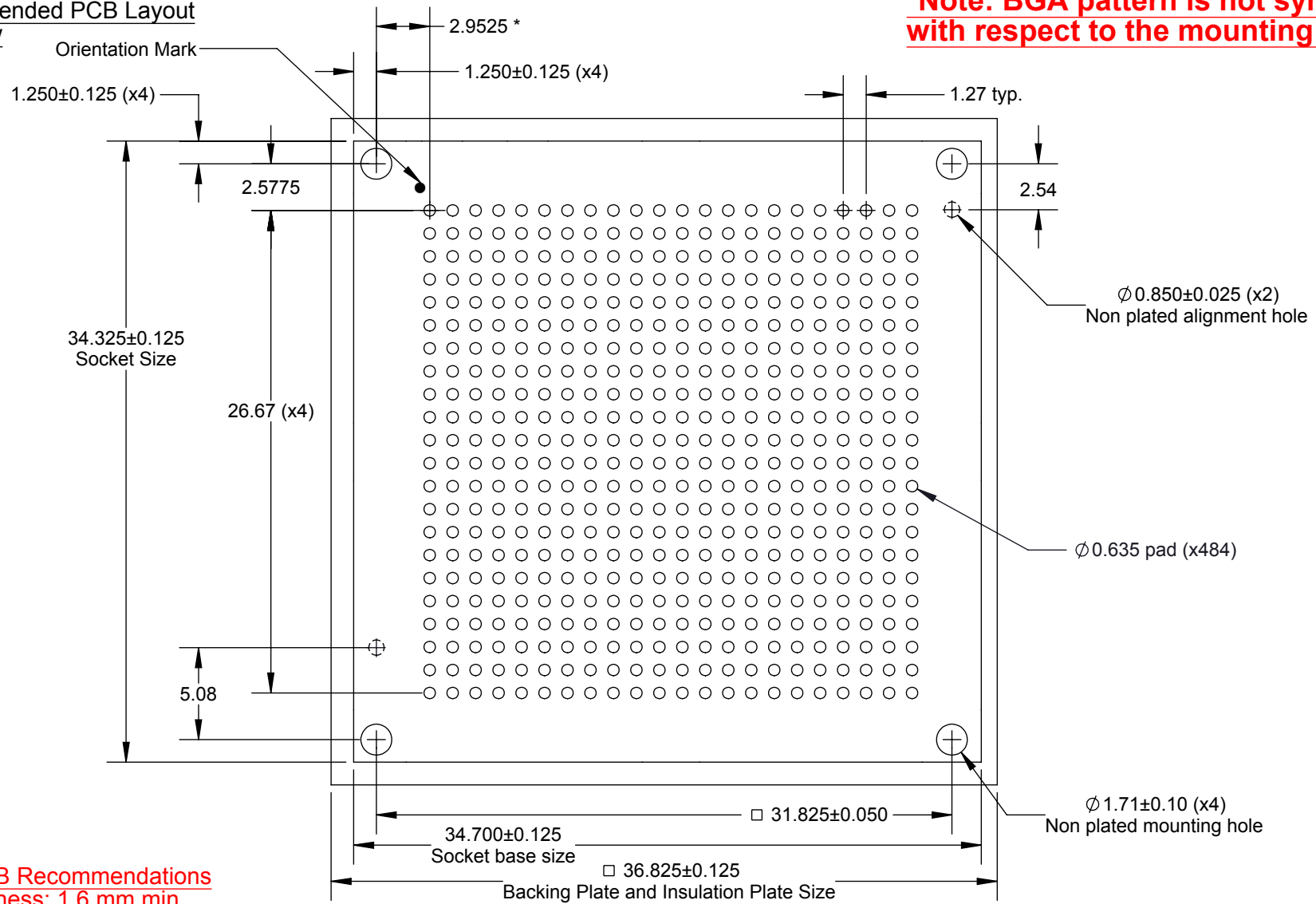
SCALE: 2:1

DATE: 7/26/2012

REV. A

**Recommended PCB Layout
Top View**

***Note: BGA pattern is not symmetrical with respect to the mounting holes.**



Target PCB Recommendations

- Total thickness: 1.6 mm min.
- Plating: Gold or Solder finish.
- PCB Pad height: Same or higher than solder mask.

NOTE: Steel backing plate may be required based on end user's application.

Description: Recommended PCB Layout

Primary dimension units are millimeters, Secondary dimension units are [inches].

Tolerances: Hole diameters $\pm 0.03\text{mm}$ [$\pm 0.001"$], Pitches (from true position) $\pm 0.025\text{mm}$ [$\pm 0.001"$], substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.13\text{mm}$ [$\pm 0.005"$] unless stated otherwise. Materials and specifications are subject to change without notice.

SM-BGA-9014 Drawing

STATUS: Released

SHEET: 2 OF 4

REV. A



Ironwood Electronics, Inc.
Tele: (800) 404-0204
www.ironwoodelectronics.com

Material: N/A
Finish: N/A
Weight: 48.05

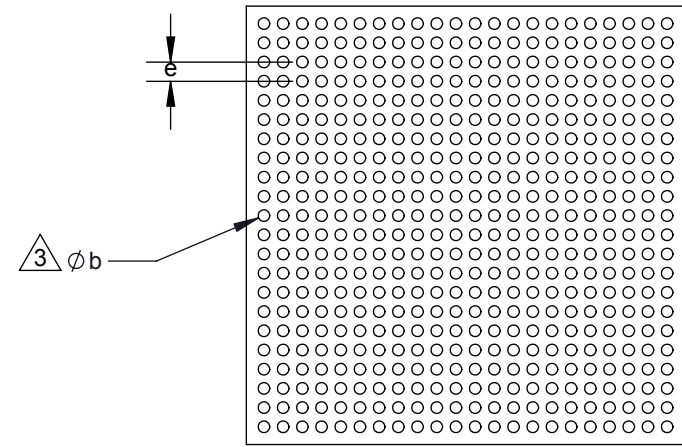
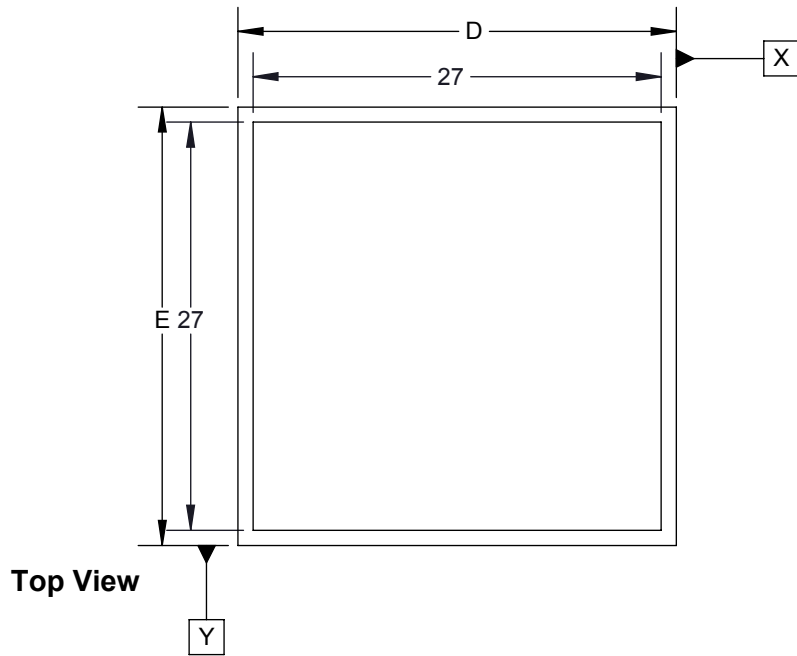
DRAWN BY: D. Hauer

SCALE: 3:1

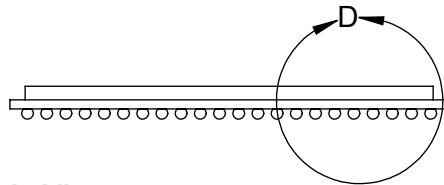
FILE: SM-BGA-9014

DATE: 7/26/2012

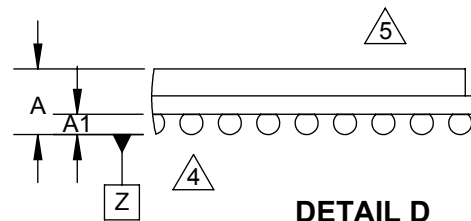
IRONWOOD PACKAGE CODE: BGA484G



Bottom View



Side View



**DETAIL D
SCALE 4 : 1**

DIM	MIN	MAX
A	2.24	2.738
A1	0.66 after install	
b	0.762 before reflow	
D	29.0 BSC	
E	29.0 BSC	
e	1.27 BSC	

Array: 22x22

1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5-1994.
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.

SM-BGA-9014 Drawing

STATUS: Released

SHEET: 3 OF 4

REV. A



Ironwood Electronics, Inc.
Tele: (800) 404-0204
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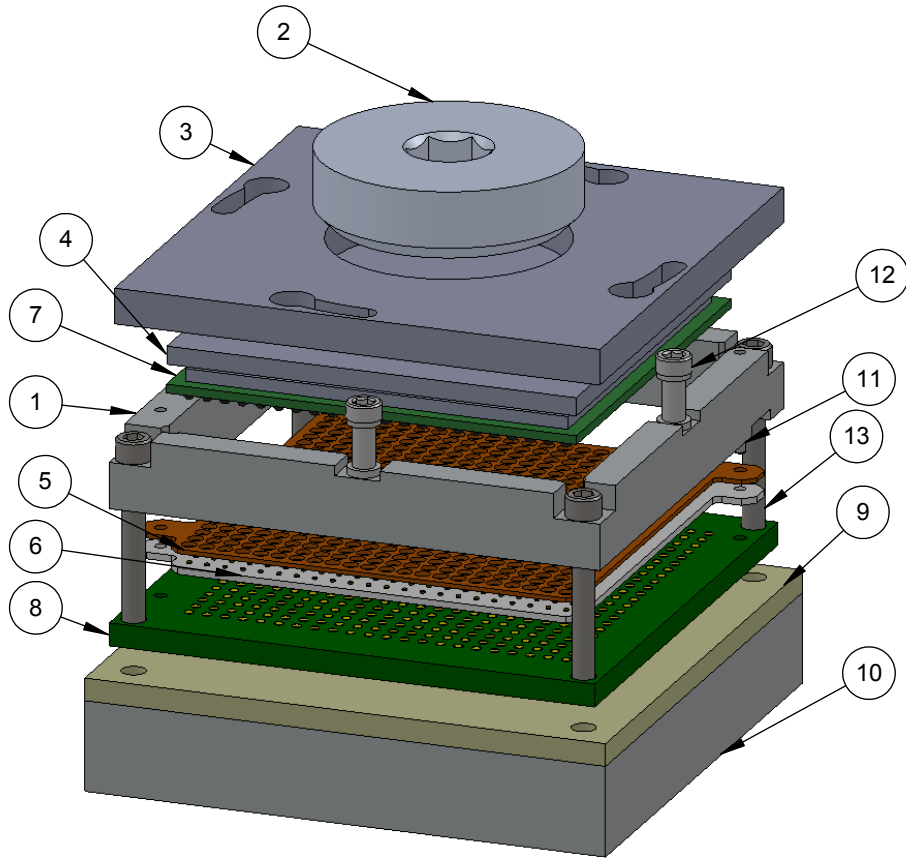
Material: N/A
Finish: N/A
Weight: 48.05

DRAWN BY: D. Hauer

SCALE: 2:1

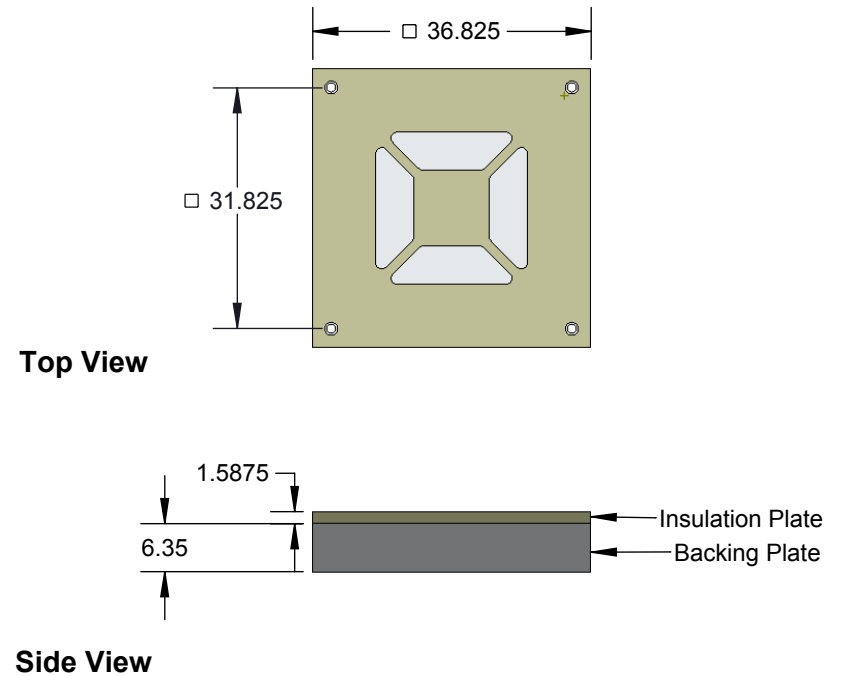
FILE: SM-BGA-9014

DATE: 7/26/2012



ITEM NO.	DESCRIPTION	Material
1	SM Socket Base for 29x29mm IC	7075-T6 Aluminum Alloy
2	Compression Screw, M18	7075-T6 Aluminum Alloy
3	Socket Lid	7075-T6 Aluminum Alloy
4	Compression Plate 28.95 x 1.27mm	7075-T6 Aluminum Alloy
5	Ball Guide, SM, 29mm, 22x22	Kapton Polyimide/Cirlex
6	SM Contactor	Silmat
7	484 pin BGA package, 1.27mm Pitch	Material <not specified>
8	Test PCB BGA484, 1.27mm pitch 22x22 array	FR4
9	Insulation Plate	FR4
10	Backing Plate	7075-T6 Aluminum Alloy
11	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
12	#0-80 Shoulder Screw, 0.090" thread length	Stainless Steel (303)
13	#0-80 x 0.5, SH Cap Screw	Material <not specified>

Insulation and backing plate



Description: Socket Assem and Detail

SM-BGA-9014 Drawing



Ironwood Electronics, Inc.
 Tele: (800) 404-0204
 www.ironwoodelectronics.com

Material: N/A
 Finish: N/A
 Weight: 48.05

STATUS: Released

DRAWN BY: D. Hauer

FILE: SM-BGA-9014

SHEET: 4 OF 4

SCALE: 2.5:1

DATE: 7/26/2012

REV. A