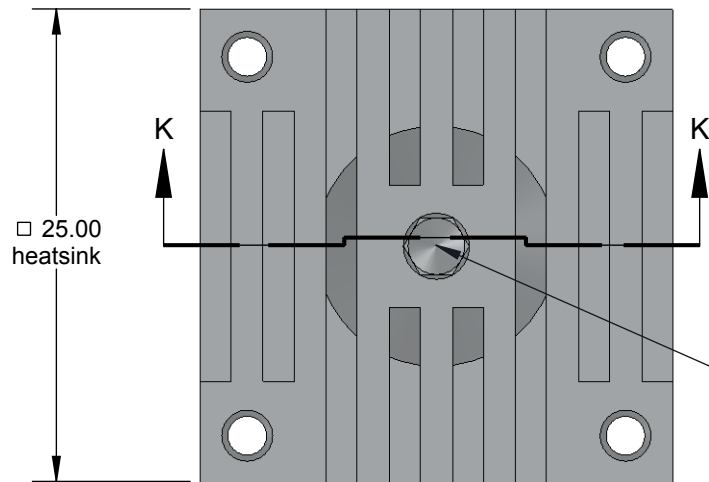


Silver Ball Matrix Socket - Direct mount, solderless

Features

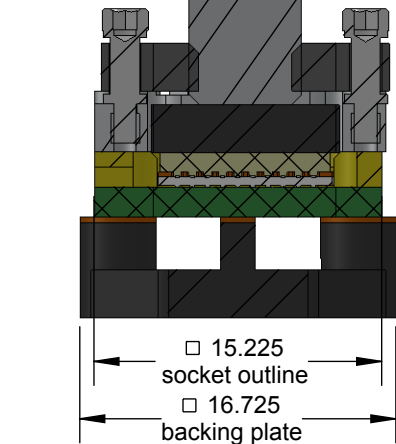
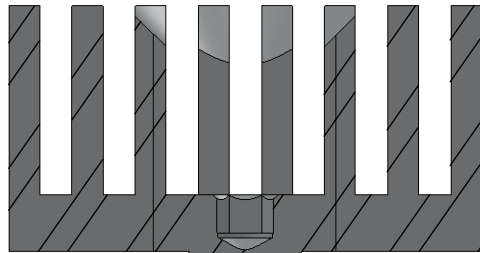
- Wide temperature range (-55C to +150C).
- Current capability is 4A per pin .
- Excellent signal integrity at high frequencies.
- Low and stable contact resistance for reliable production yield.
- Highly compliant to accommodate wide co-planarity variations.



□ 25.00
heatsink

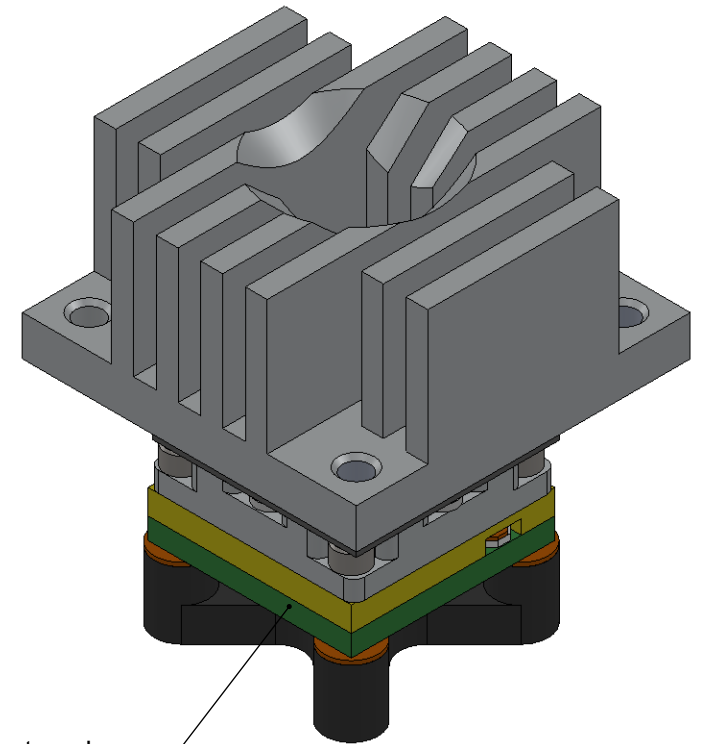
Recommended Torque
1.0 in lbs (16 In Oz)

TOP VIEW



SECTION K-K

□ 15.225
socket outline
□ 16.725
backing plate



customer's
target PCB

Description: Socket for 9x9mm 0.8mm 10x10 array BGA100

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

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-9029 Drawing



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

Material:
Finish:
Weight:

STATUS: Released

ENG: E. Smolentseva

FILE: SM-BGA-9029 Dwg

SHEET: 1 OF 5

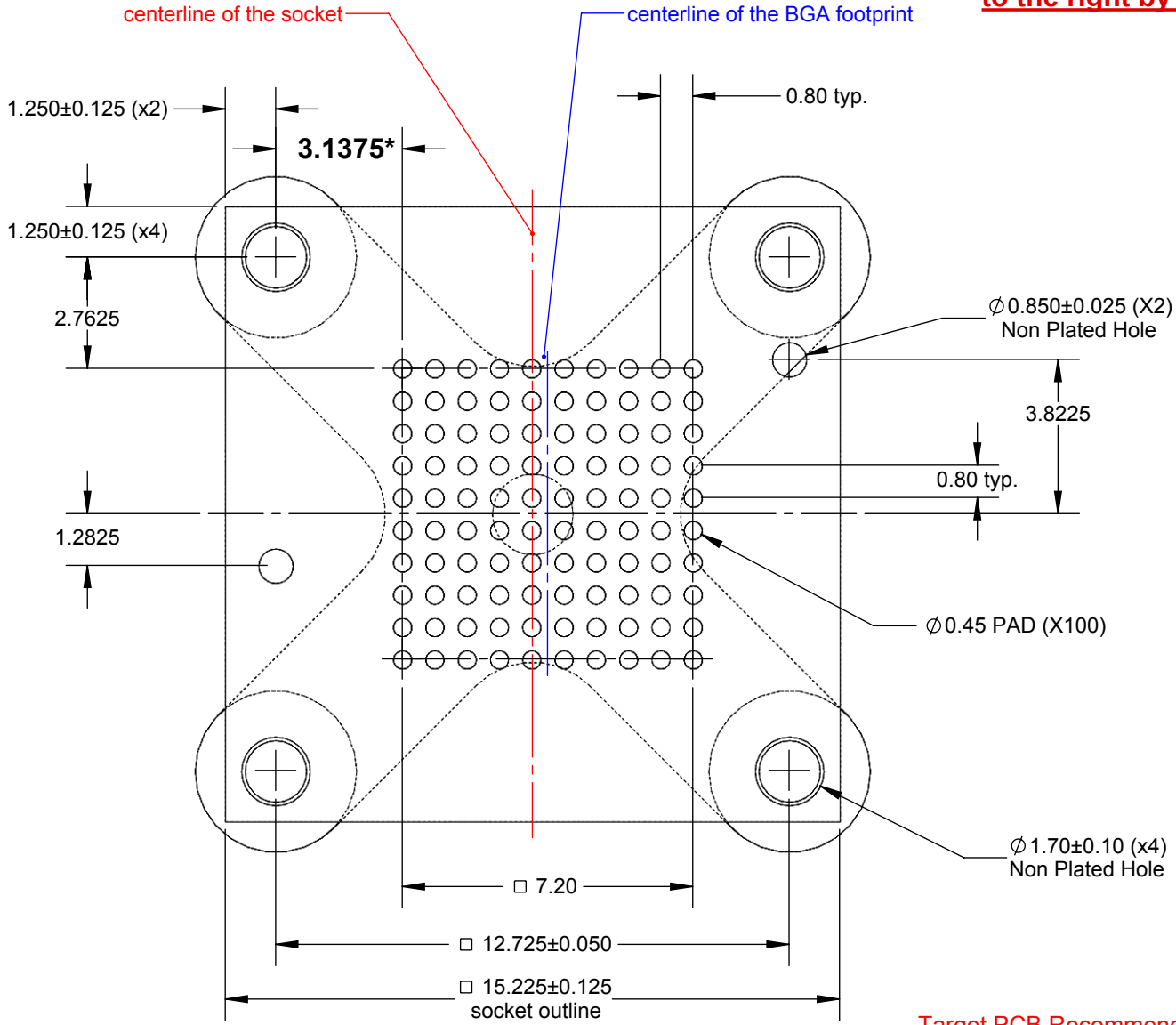
DRAWN BY: E. Smolentseva

DATE: 04/18/2013

REV. B

SCALE: 2.5:1

***Note: BGA pattern is not symmetrical with respect to the mounting holes. It is shifted to the right by 0.375mm.**




Target PCB Recommendations
 Total thickness: 2.38mm min.
 Plating: Gold or Solder finish
 PCB Pad height: same or higher than solder mask

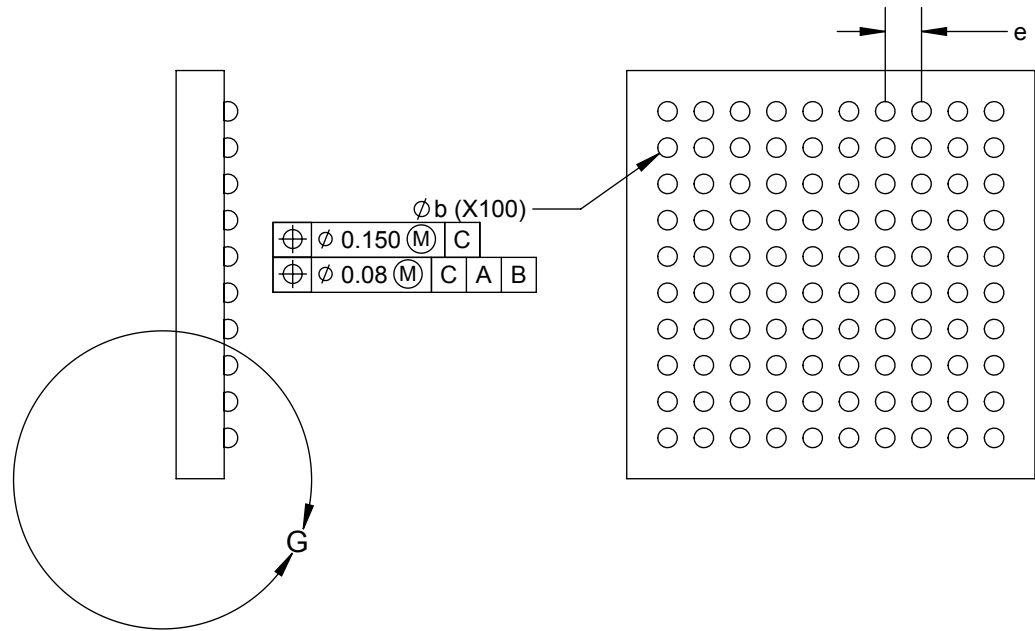
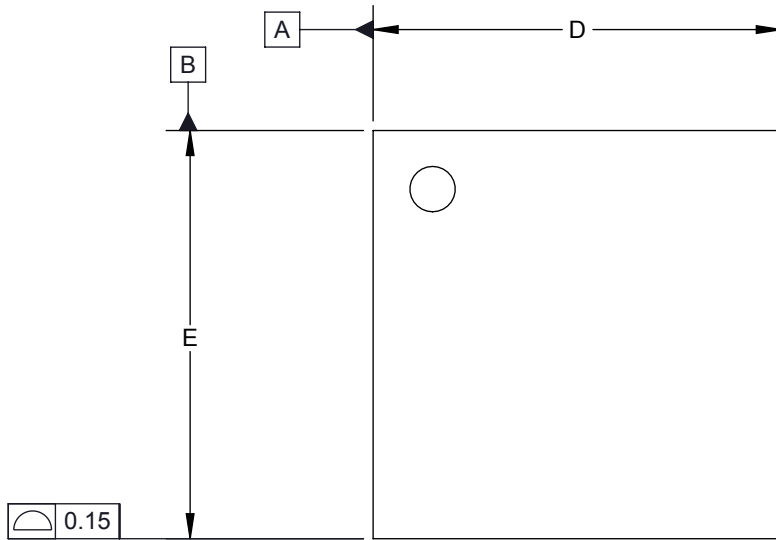
Description: Socket for 9x9mm 0.8mm 10x10 array BGA100

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

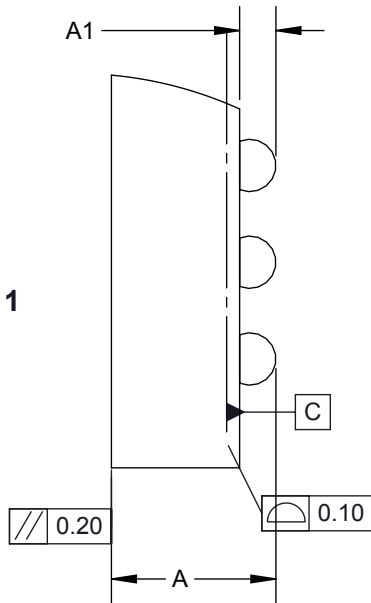
Tolerances: Hole diameters ±0.03mm [±0.001"], Pitches (from true position) ±0.025mm [±0.001"], substrate thickness tolerance ±10%, all other tolerances ±0.13mm [±0.005"] unless stated otherwise. Materials and specifications are subject to change without notice.

 <p>SM-BGA-9029 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: Finish: Weight:</p>	STATUS: Released	SHEET: 2 OF 5	REV. B
		DRAWN BY: E. Smolentseva	SCALE: 6:1	
		FILE: SM-BGA-9029 Dwg	DATE: 04/18/2013	

Ironwood Package Code: BGA100C



**DETAIL G
SCALE 16 : 1**




DIM	Minimum	Maximum
A	1.28	1.44
A1	0.25	0.35
b		0.45
D	9.00 BSC	
E	9.00 BSC	
e	0.8 BSC	
ARRAY	10 x 10	
PIN COUNT	100	

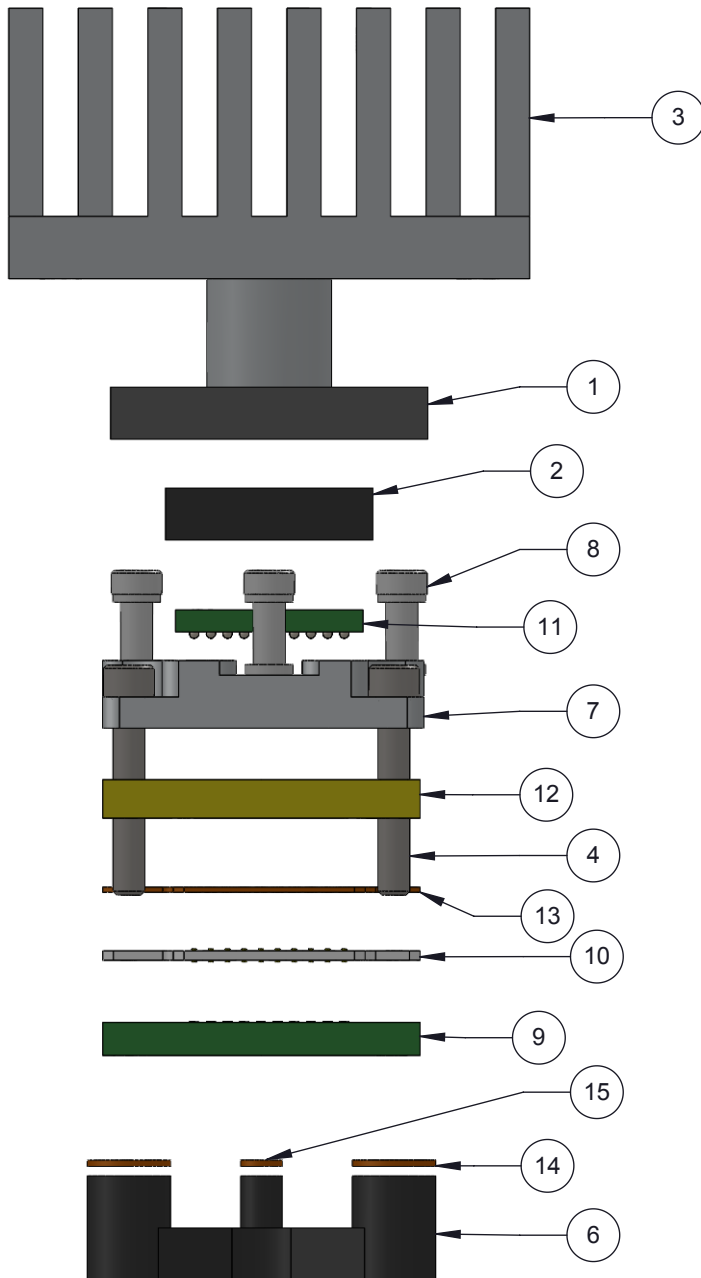
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane C.
4. Datum C (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

Description: Socket for 9x9mm 0.8mm 10x10 array BGA100

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

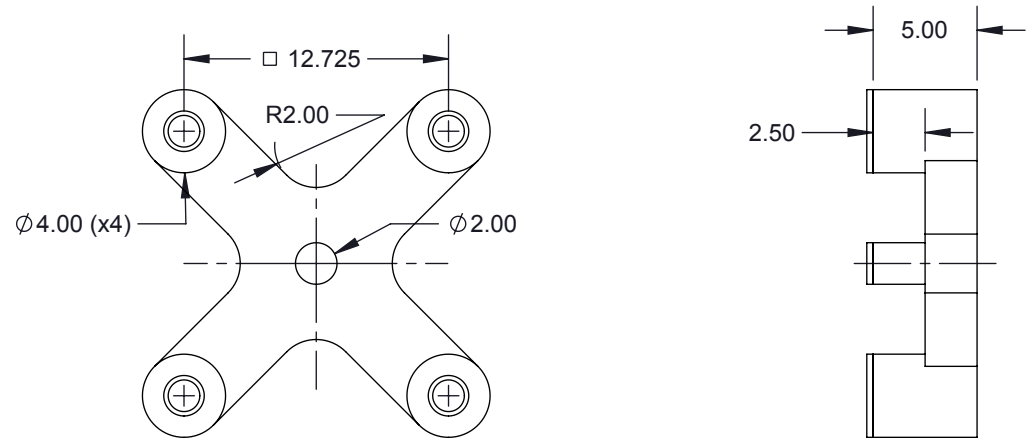
Tolerances: Hole diameters $\pm 0.03\text{mm}$ [$\pm 0.001''$], Pitches (from true position) $\pm 0.025\text{mm}$ [$\pm 0.001''$], substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.13\text{mm}$ [$\pm 0.005''$] unless stated otherwise. Materials and specifications are subject to change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

 <p>SM-BGA-9029 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: Finish: Weight:</p>	STATUS: Released	SHEET: 3 OF 5	REV. B
		DRAWN BY: E. Smolentseva	SCALE: 6:1	
		FILE: SM-BGA-9029 Dwg	DATE: 04/18/2013	



ITEM NO.	DESCRIPTION	Material
1	Socket Lid	7075-T6 Aluminum Alloy
2	Compression Plate	7075-T6 Aluminum Alloy
3	Heat Sink	7075-T6 Aluminum Alloy
4	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
5	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
6	10x10mm 5 post backing plate	7075-T6 Aluminum Alloy
7	Socket Base	7075-T6 Alumium Alloy
8	#0-80 Shoulder Screw, 0.062" thread length	Stainless Steel (303)
9	PCB 0.8mm pitch 10x10 array	High Temp FR4
10	SM interposer for 10x10 0.8mm	Silmat
11	BGA100 9x9mm 0.8mm pitch 10x10 array	FR4 Standard
12	IC guide 8x10mm IC	Torlon 4203
13	Ball Guide	Kapton Polyimide
14	Insulating washer, 4mm OD.	Kapton Polyimide/Cirlex
15	Insulating disk, 2mm OD with 2 mil thk Adesive	Kapton Polyimide/Cirlex

Backing Plate Information.



Description: Socket for 9x9mm 0.8mm 10x10 array BGA100

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-9029 Drawing



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

STATUS: Released

DRAWN BY: E. Smolentseva

FILE: SM-BGA-9029 Dwg

SHEET: 4 OF 5

SCALE: 2.75:1

DATE: 04/18/2013


REV. B

Rev	Date	Initials	Description
A	04/18/13	ELS	Original
B	03/28/14	DH	Changed IC Guide material from Ultem to Torlon

Description: Revisions

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

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-9029 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Finish: Weight:	STATUS: Released	SHEET: 5 OF 5	REV. B
		ENG: E. Smolentseva	DRAWN BY: E. Smolentseva	SCALE: 2.75:1
		FILE: SM-BGA-9029 Dwg	DATE: 04/18/2013	