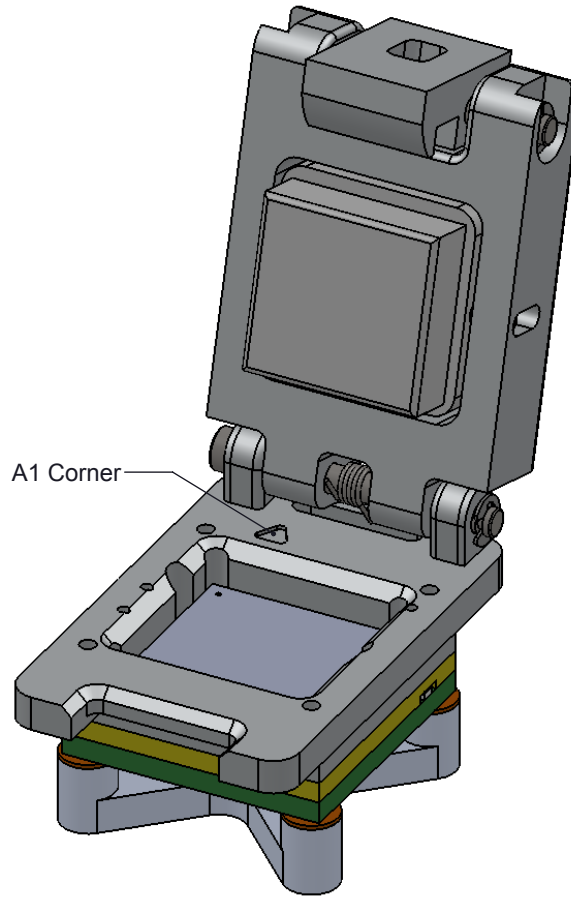
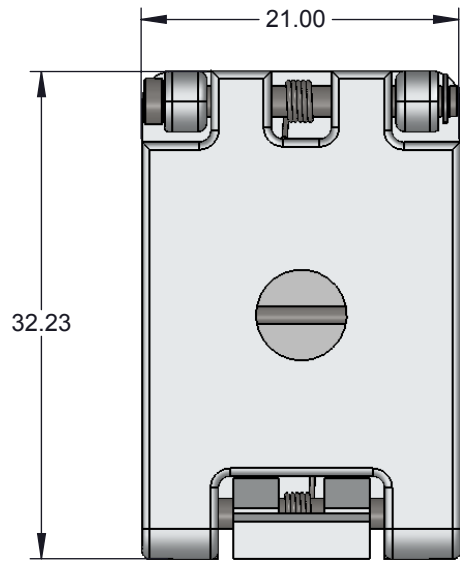


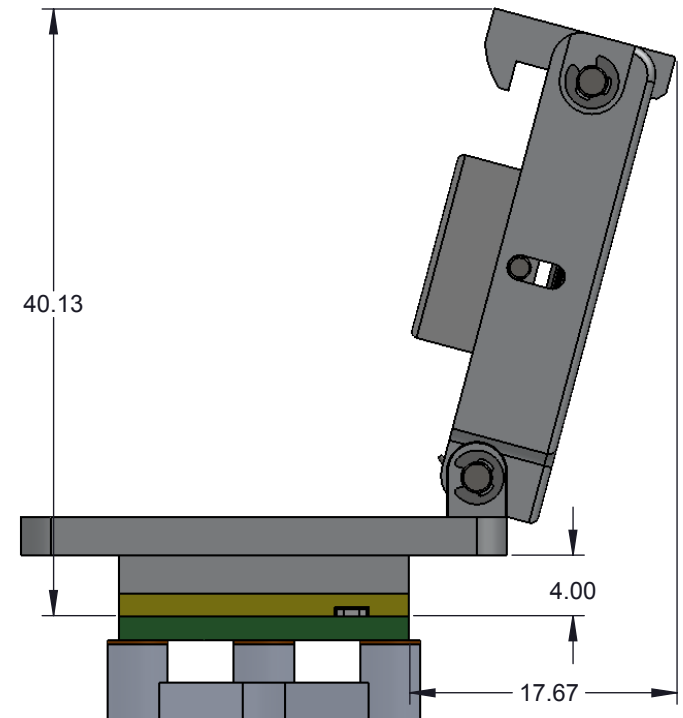
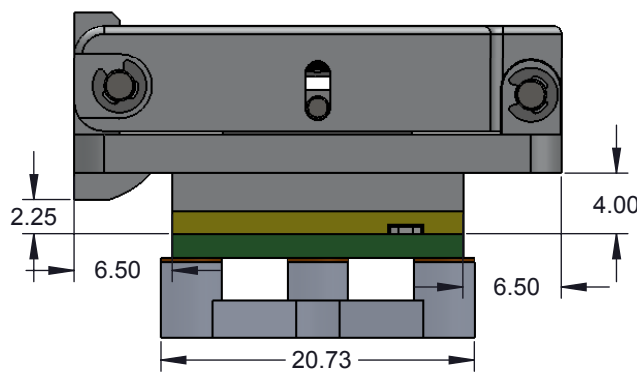
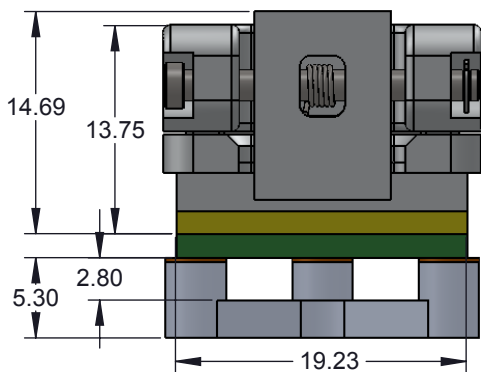
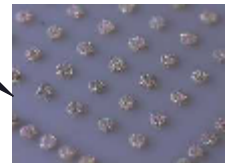
Silver Ball Matrix socket - Direct mount, solderless



Features

- Direct mounts to target PCB with hardware.
- High speed, reliable connection
- Minimum real estate required


Silver ball matrix elastomer



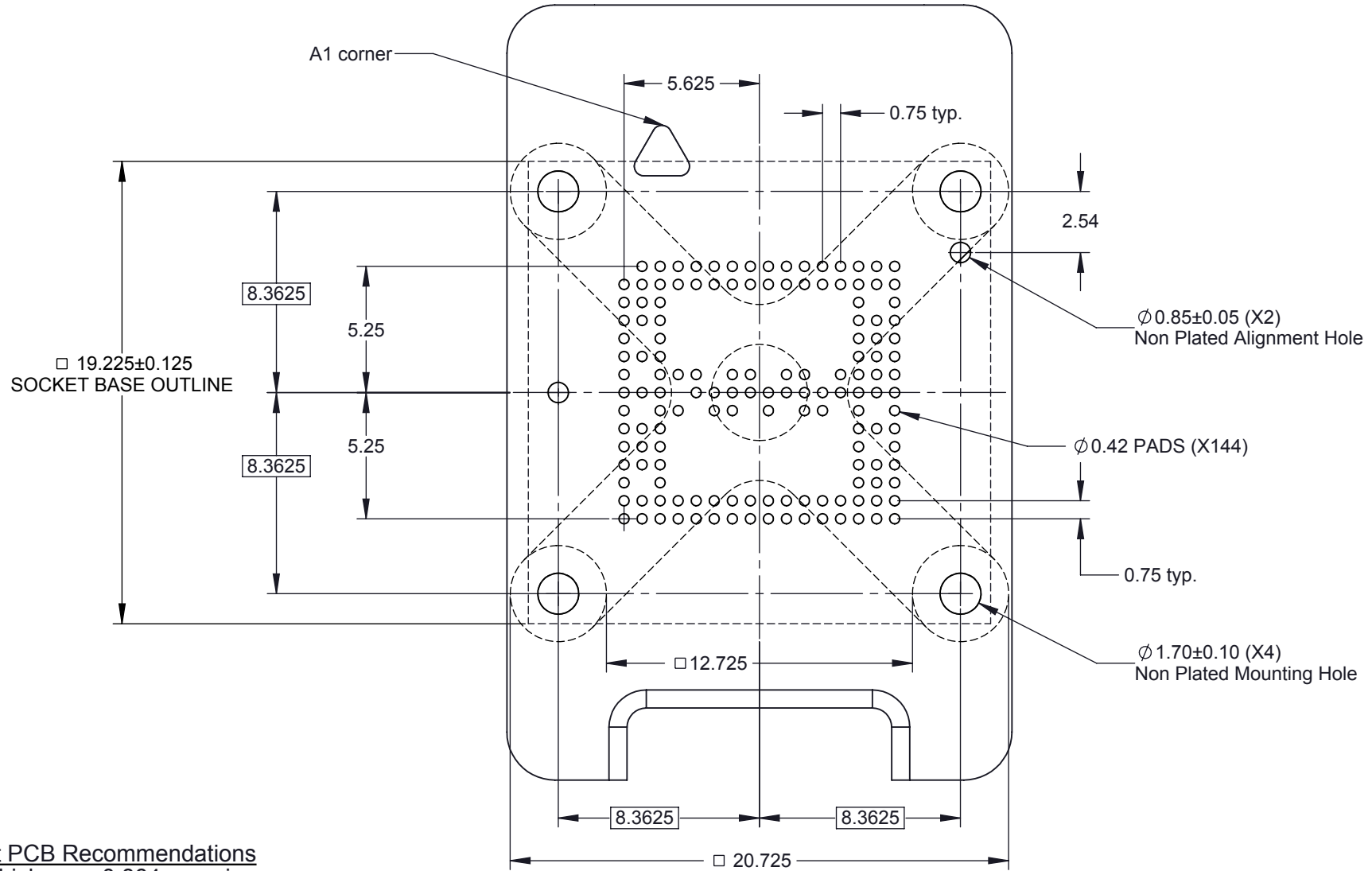
Description: Socket

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.

	SM-BGA-9015 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 19.13	STATUS: Released ENG: S. Huang FILE: SM-BGA-9015 Dwg	SHEET: 1 OF 5 DRAWN BY: S. Huang DATE: 7/30/2012	REV. B SCALE: 2:1
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Recommended PCB Layout




Target PCB Recommendations

Total thickness: 0.864mm min.
 Plating: Gold or Solder finish
 PCB Pad height: same or higher than solder mask

Description: Recommended PCB layout

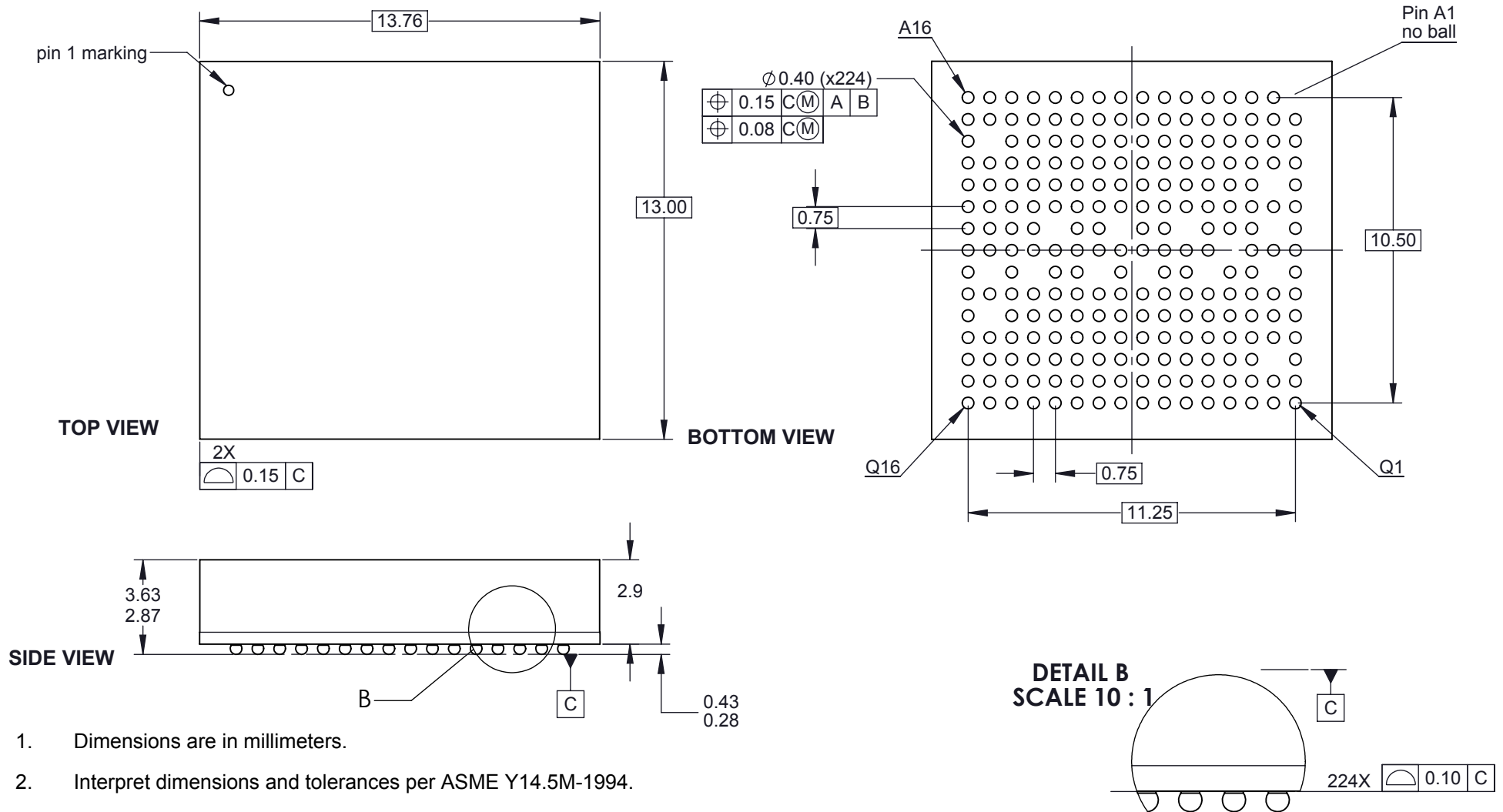
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

 SM-BGA-9015 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 19.13	STATUS: Released	SHEET: 2 OF 5	REV. B
		ENG: S. Huang	DRAWN BY: S. Huang	SCALE: 4:1
		FILE: SM-BGA-9015 Dwg	DATE: 7/30/2012	

Compatible BGA IC

IRONWOOD PACKAGE CODE : BGA224D1




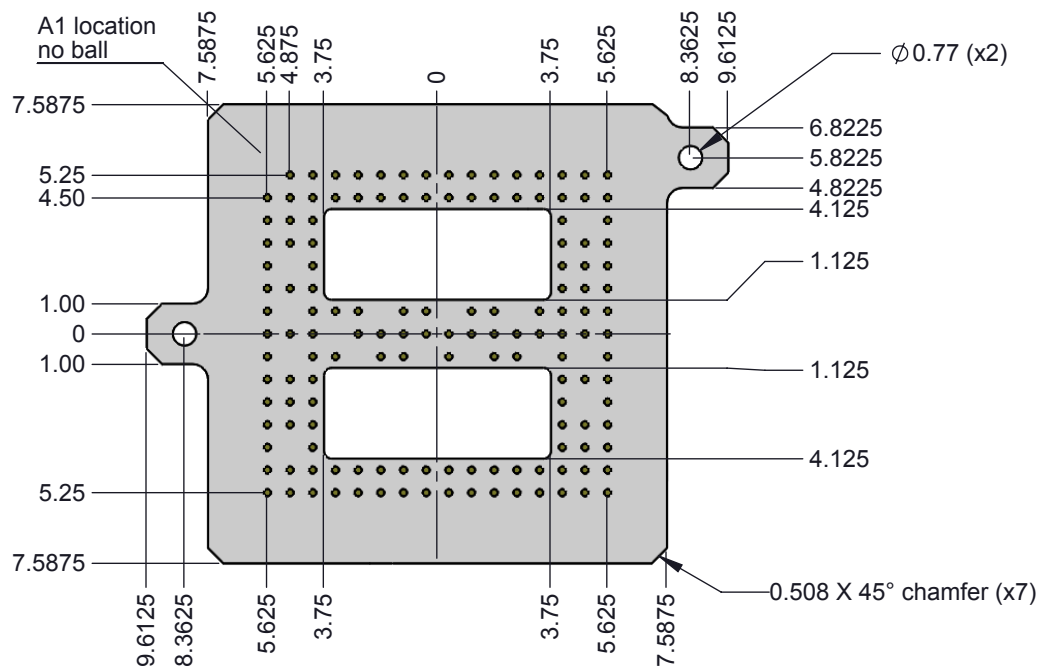
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane C.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall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

Description: IC package

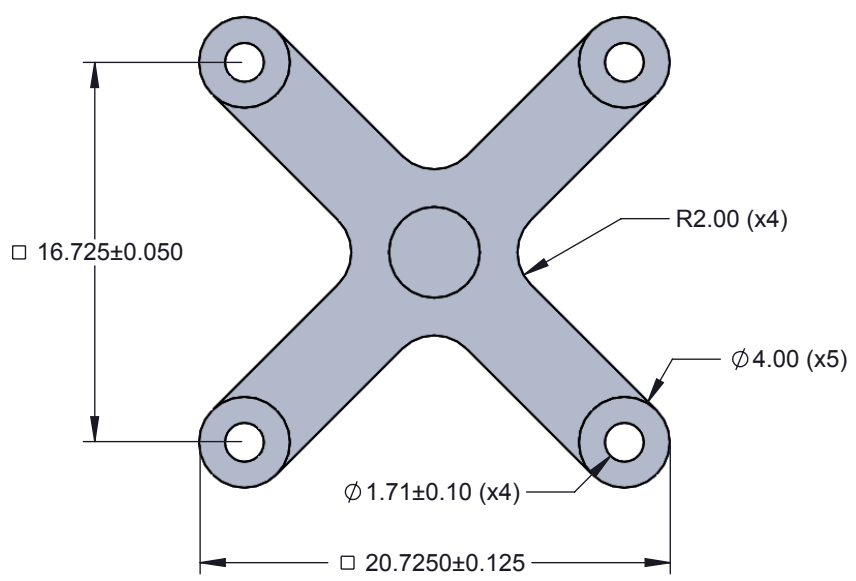
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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

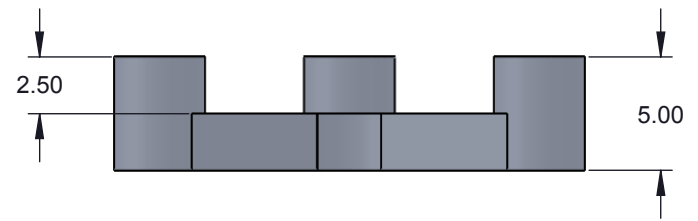
 SM-BGA-9015 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A	STATUS: Released	SHEET: 3 OF 5	REV. B
	Finish: N/A	ENG: S. Huang	DRAWN BY: S. Huang	SCALE: 5:1
	Weight: 19.13	FILE: SM-BGA-9015 Dwg	DATE: 7/30/2012	



TOP VIEW
SM Interposer



TOP VIEW
Backing Plate




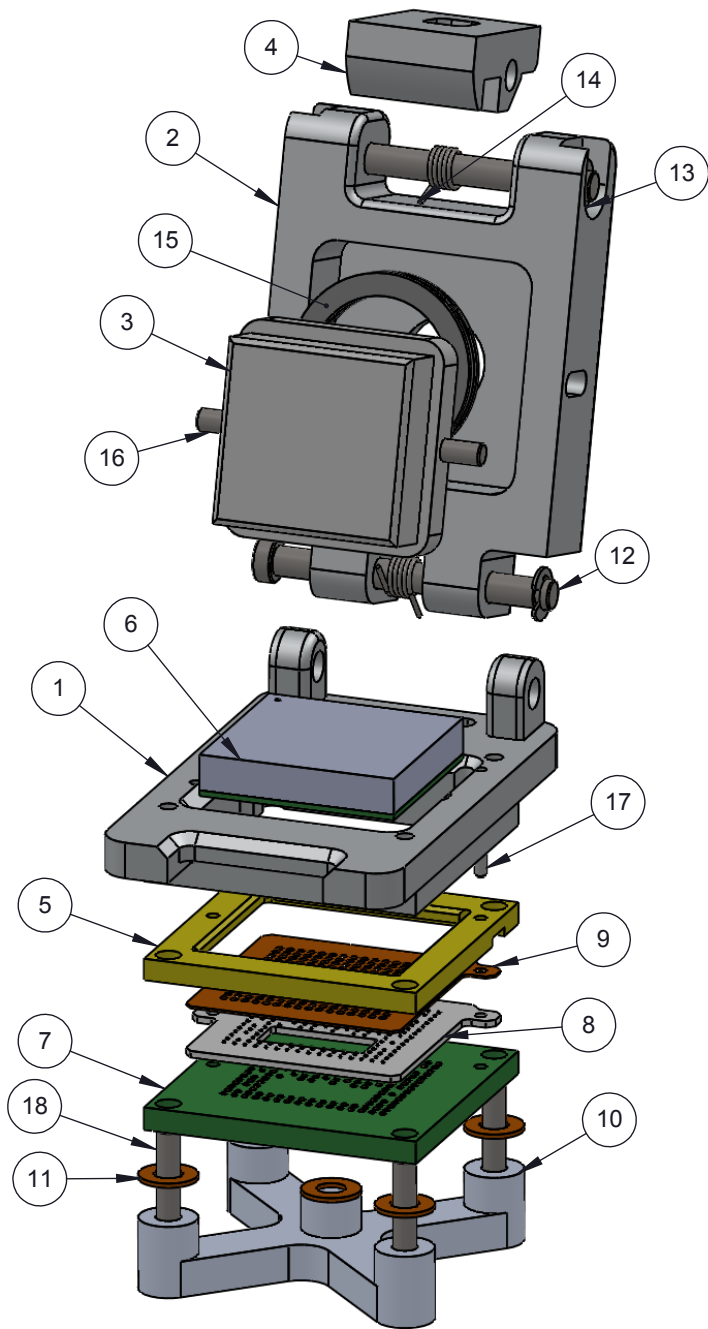
SIDE VIEW
Backing Plate

Description: Component Detail View

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

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

 SM-BGA-9015 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A	STATUS: Released	SHEET: 4 OF 5	REV. B
	Finish: N/A	ENG: S. Huang	DRAWN BY: S. Huang	SCALE: 4:1
	Weight: 19.13	FILE: SM-BGA-9015 Dwg	DATE: 7/30/2012	



ITEM NO.	DESCRIPTION	Material
1	Socket Base	7075-T6 Alumium Alloy
2	15mm Snap Clamshell Socket Lid	7075-T6 Alumium Alloy
3	Compression Plate	PEEK Ceramic filled/Ultem
4	Clamshell Latch Snap Lid Socket	7075-T6 Alumium Alloy
5	SM IC guide	Torlon 4203
6	Customer's BGA224, 16x15 array 0.75mm pitch	Material <not specified>
7	Customer's target PCB	FR4 High temp
8	SM Interposer, 16x15 array 0.75mm pitch BGA220	Silmat
9	SM BGA ball guide	Kapton Polyimide/Cirlex
10	X-shaped backing plate, for 14mm IC socket	7075-T6 Aluminum Alloy
11	Insulating washer, 4mm OD.	Kapton Polyimide/Cirlex
12	2mm diameter Hinge Pin, 20 mm long	Alloy Steel
13	Snap ring for 2mm Hinge pin 0.15" OD	
14	Torsion Spring, 180 0.109" OD, Ccw/Rh	Steel Music Wire
15	Wave Spring 0.5" OD 0.18" H 143 lb/in	Carbon Steel SEA 1070-1090
16	Dowel Pin, M1.5 X 20mm LG, 18-8 SS	AISI 347 Annealed Stainless Steel (SS)
17	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
18	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel

Description: Exploded View

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

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

Rev	Date	Initials	Description
A	7/30/12	SH	Original
B	03/18/15	DH	Changed IC Guide material from Ultem to Torlon

SM-BGA-9015 Drawing



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Material: N/A
Finish: N/A
Weight: 19.13

STATUS: Released

ENG: S. Huang

FILE: SM-BGA-9015 Dwg

SHEET: 5 OF 5

DRAWN BY: S. Huang

DATE: 7/30/2012

REV. B

SCALE: 2:1