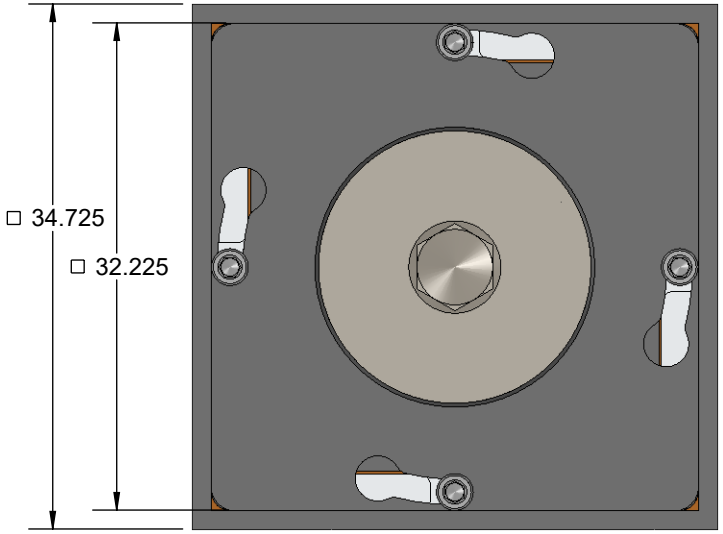
GHz BGA Socket - Direct mount, solderless

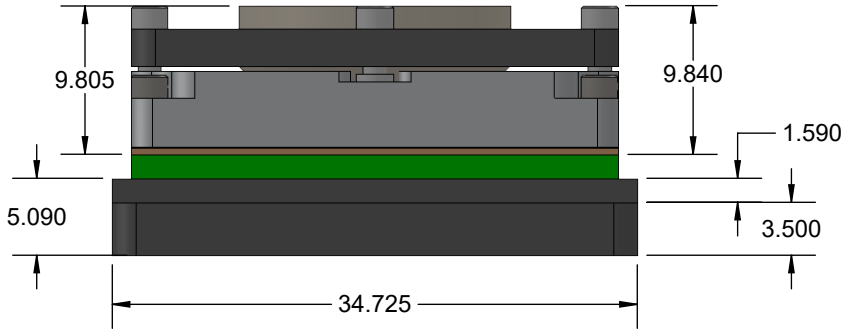


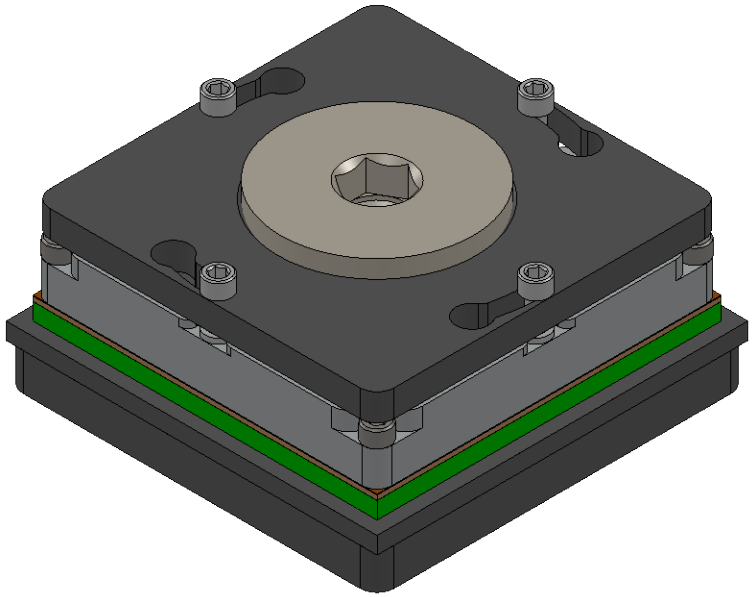
Features

- Directly mounts to target PCB (needs tooling holes) with hardware
- High speed, reliable Elastomer connection
- Minimum real estate required
- Compression plate distributes forces evenly
- Ball guide prevents over compression of elastomer
- Easily removable swivel socket lid

REQUIRED TORQUE			
BALL COUNT	IN-LBF	IN-OZ	N-CM
FULL (1444)	17.3	277	194
1150	13.8	220	155

Recommended Tool: TL-Torquedriver-03





Description: SG-BGA, 27x27mm, 38x38 Array, 0.7mm Pitch

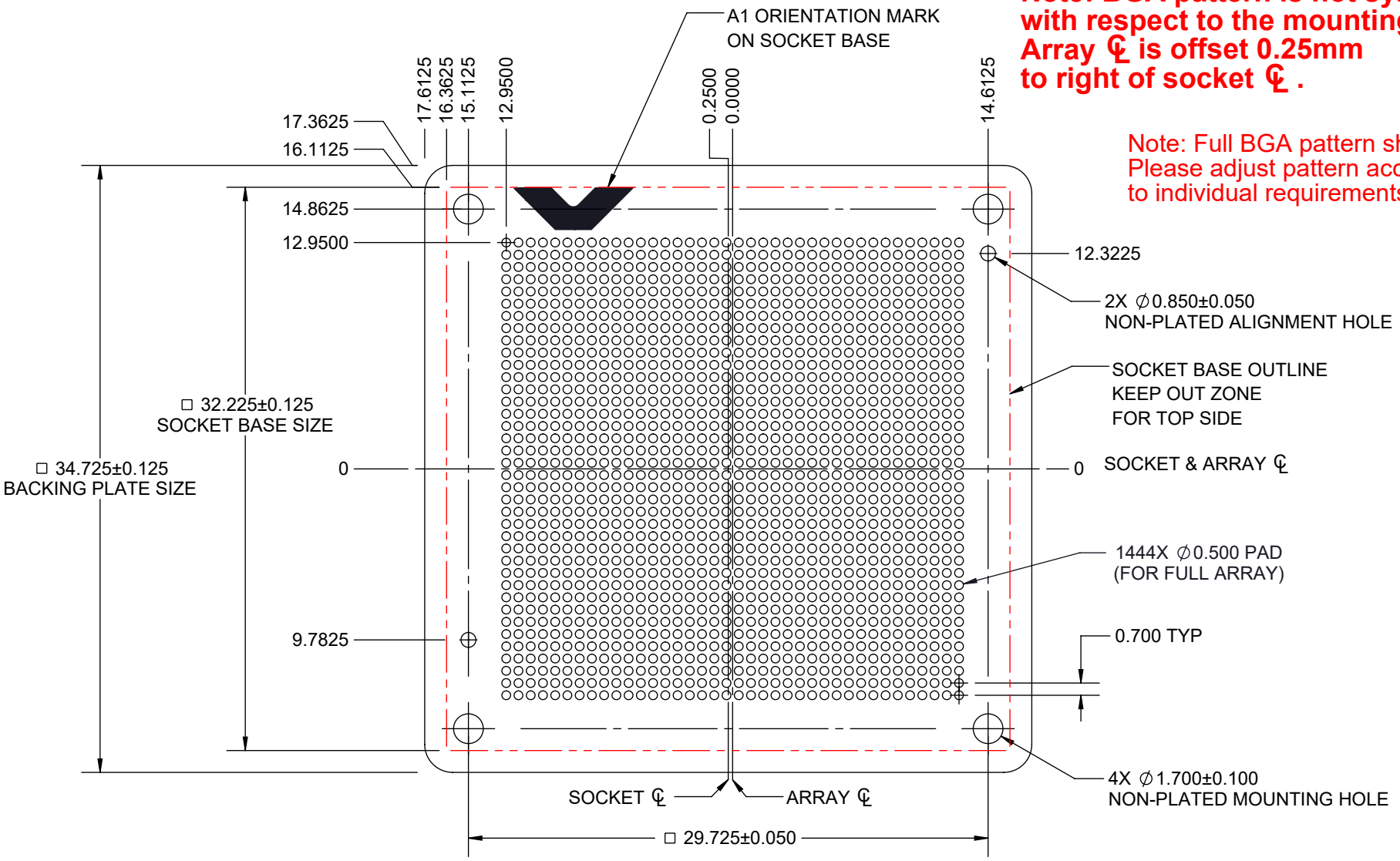
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

SG-BGA-9003 Drawing	Material: N/A Finish: N/A Weight: 36.28	STATUS: Released	SHEET: 1 OF 4	REV. A
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com		ENG: A. Nord	DRAWN BY: M. Raske	SCALE: 2:1
		FILE: SG-BGA-9003 Dwg	DATE: 10/20/2016	

Note: BGA pattern is not symmetrical with respect to the mounting holes. Array ℄ is offset 0.25mm to right of socket ℄ .

Note: Full BGA pattern shown. Please adjust pattern according to individual requirements.



Target PCB Recommendations
Total thickness: 1.6mm min.
Recommendation Link: Click Here

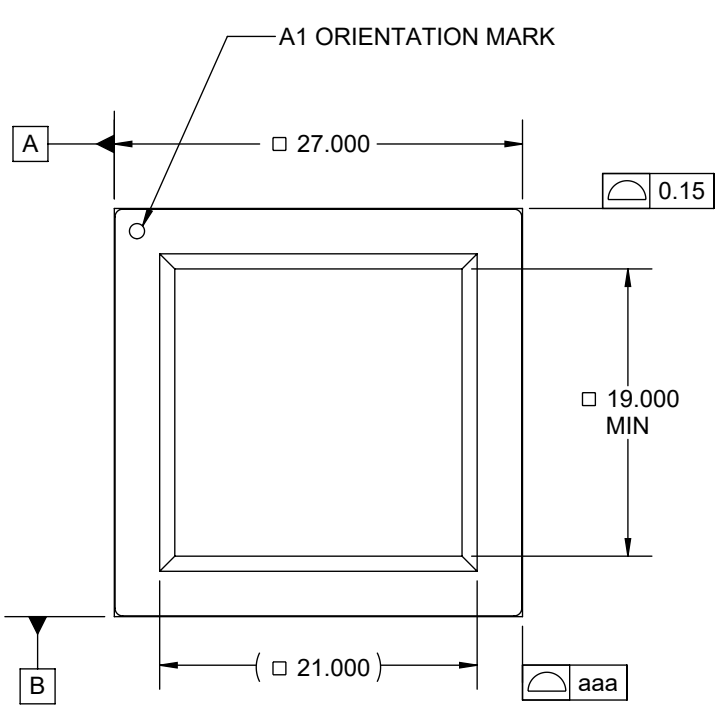
SEE SHEET 4 FOR INSULATION PLATE (backside PCB) DETAILS

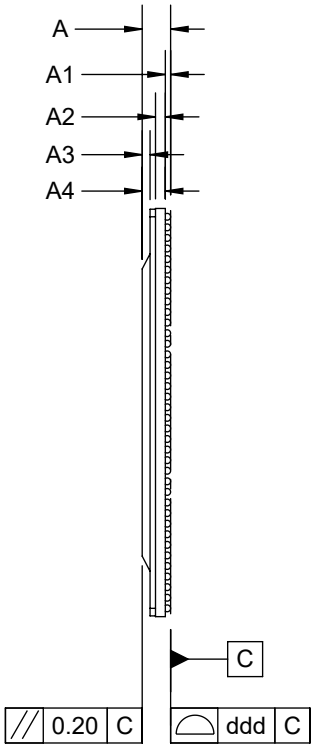
Description: Recommended PCB Layout

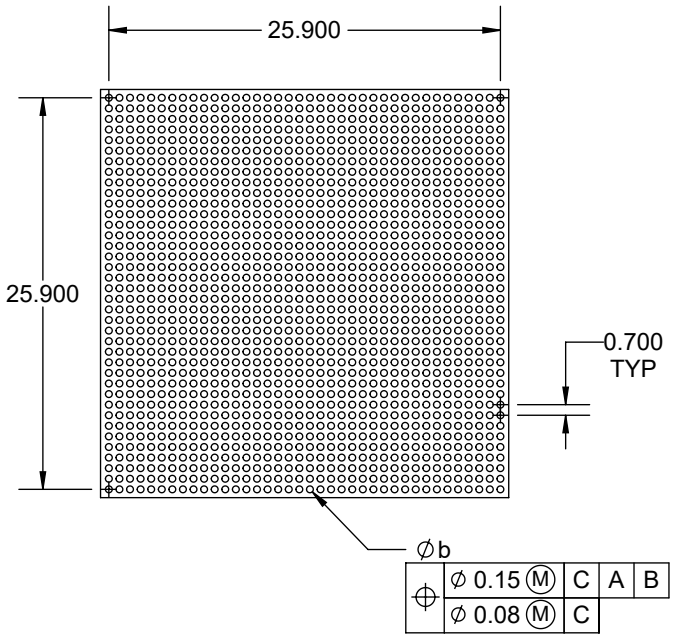
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

SG-BGA-9003 Drawing	Material: N/A Finish: N/A Weight: 36.28	STATUS: Released	SHEET: 2 OF 4	REV. A
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com		ENG: A. Nord	DRAWN BY: M. Raske	SCALE: 3:1
		FILE: SG-BGA-9003 Dwg	DATE: 10/20/2016	







DIMENSIONS			
SYM	MIN	NOM	MAX
A	1.77	1.88	1.98
A1	0.30	0.35	0.41
A2	0.58	0.65	0.73
A3	0.47	0.52	0.57
A4	1.43	1.53	1.62
b	0.40	0.45	0.50

38 X 38 ARRAY

Dimensions are in millimeters.

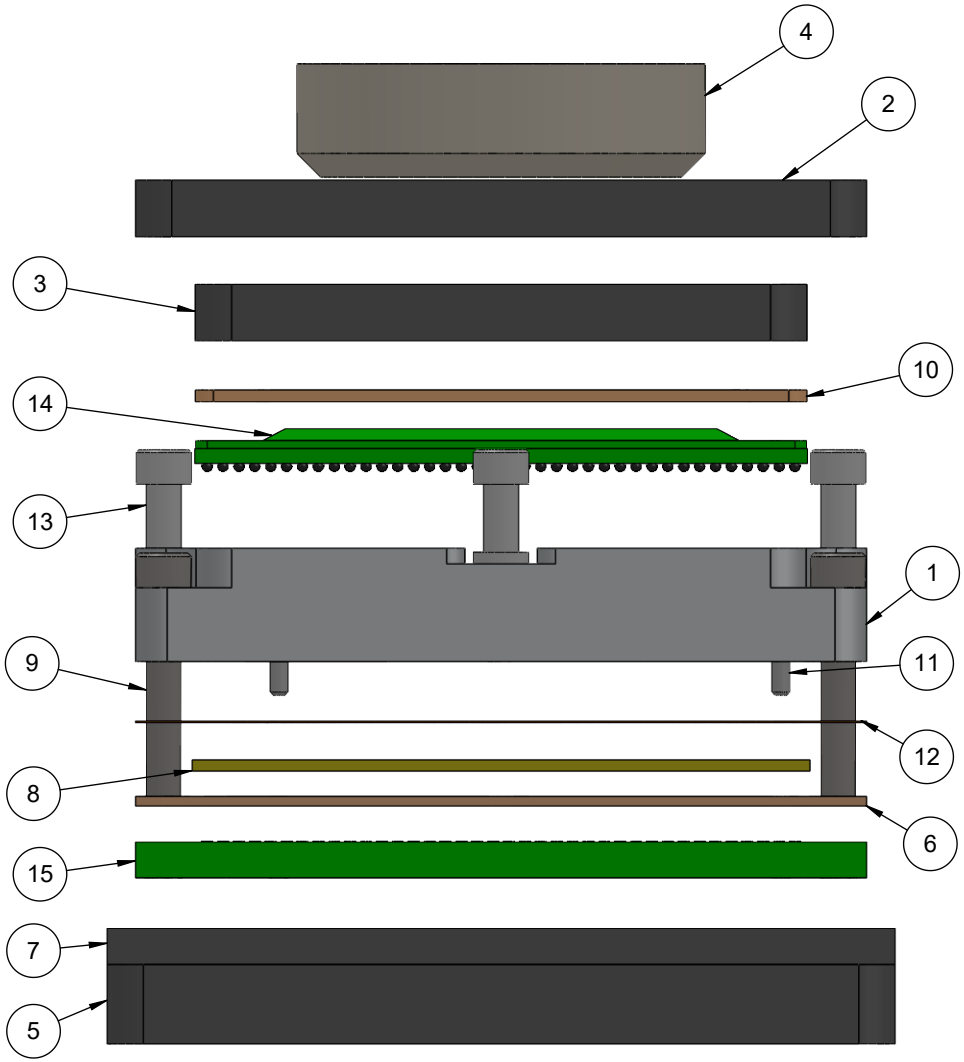
1. Interpret dimensions and tolerances per ASME Y14.5M-1994.
2. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane C.
3. Datum C (seating plane) is defined by the spherical crowns of the solder balls.
4. Parallelism measurement shall exclude any effect of mark on top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

Description: Compatible Device

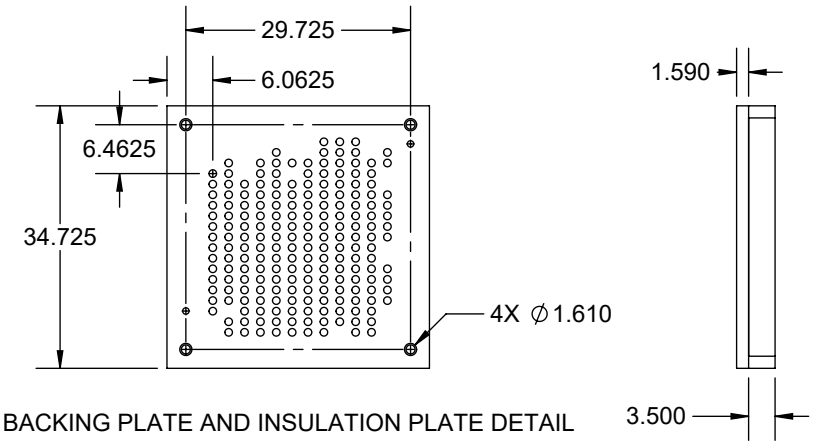
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

SG-BGA-9003 Drawing	Material: N/A Finish: N/A Weight: 36.28	STATUS: Released	SHEET: 3 OF 4	REV. A
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com		ENG: A. Nord	DRAWN BY: M. Raske	SCALE: 3.5:1
		FILE: SG-BGA-9003 Dwg	DATE: 10/20/2016	



ITEM NO.	DESCRIPTION	Material
1	Socket Base, 32.225 X 32.225	7075-T6 Aluminum Alloy
2	Socket Lid, 32.225 X 32.225	7075-T6 Aluminum Alloy
3	Compression Plate, 26.95 X 26.95	7075-T6 Aluminum Alloy
4	Compression Screw, M18	7075-T6 Aluminum Alloy
5	Backing Plate, Black Anodized Aluminum, 27x27mm, 3.50mm Thick, Threaded holes	7075-T6 Aluminum Alloy
6	Elastomer Guide	Ultem 1000
7	Insulation Plate, Custom	FR5 / G11
8	0.5mm thick, 0.075x 0.075mm pitch pitch, 50mm sqr, Z-axis conductive angled elastomer	20 Micron dia gold plated brass filaments arranged symettrically in a silicon rubber (63.5 degree angle), Thickness: 0.5mm
9	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
10	IC Frame, 26.95x26.95mm, 22x22mm Center Cutout	Ultem 1000
11	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
12	Ball Guide, 27x27mm, 38x38 Array, 0.70mm Pitch, BGA1444	Kapton Polyimide/Cirlex
13	#0-80 Shoulder Screw, 1.59mm thread length	Stainless Steel (303)
14	Test Chip, 27x27mm, 38x38 Array, 0.70mm Pitch, 1444 Count	Material Not Specified
15	Test PCB, 27x27mm, 38x38 Array, 0.70mm Pitch, 1444 Count	Material Not Specified



BACKING PLATE AND INSULATION PLATE DETAIL

Description: Socket, Backing Plate Detail

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

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.

SG-BGA-9003 Drawing	Material: N/A Finish: N/A Weight: 36.28	STATUS: Released	SHEET: 4 OF 4	REV. A
Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com		ENG: A. Nord	DRAWN BY: M. Raske	SCALE: 3:1
		FILE: SG-BGA-9003 Dwg	DATE: 10/20/2016	