

# SG-BGA DIRECT MOUNT, SOLDERLESS SOCKET

## Features

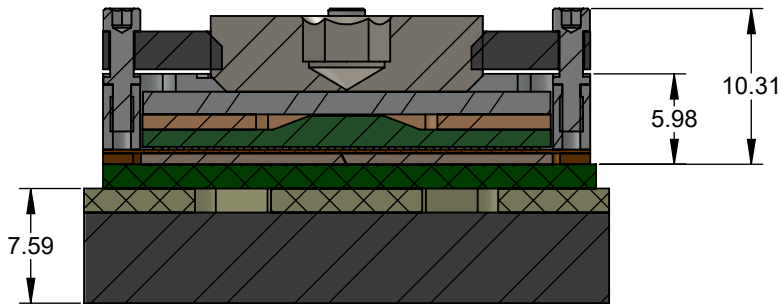
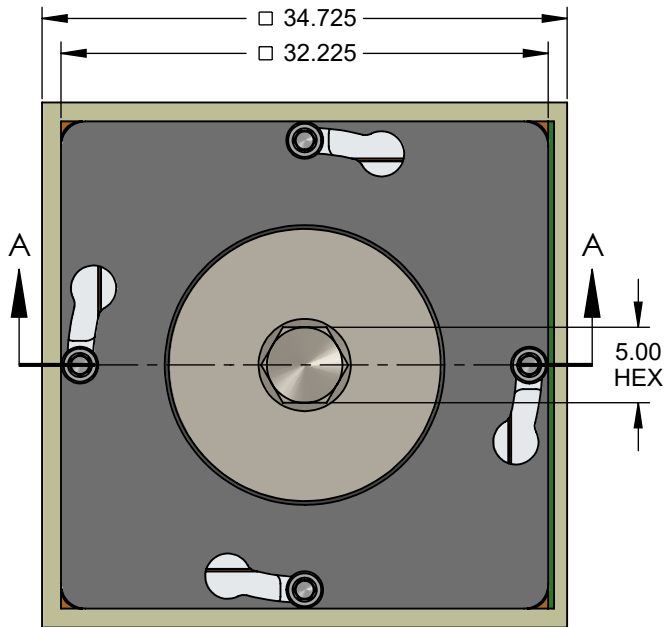
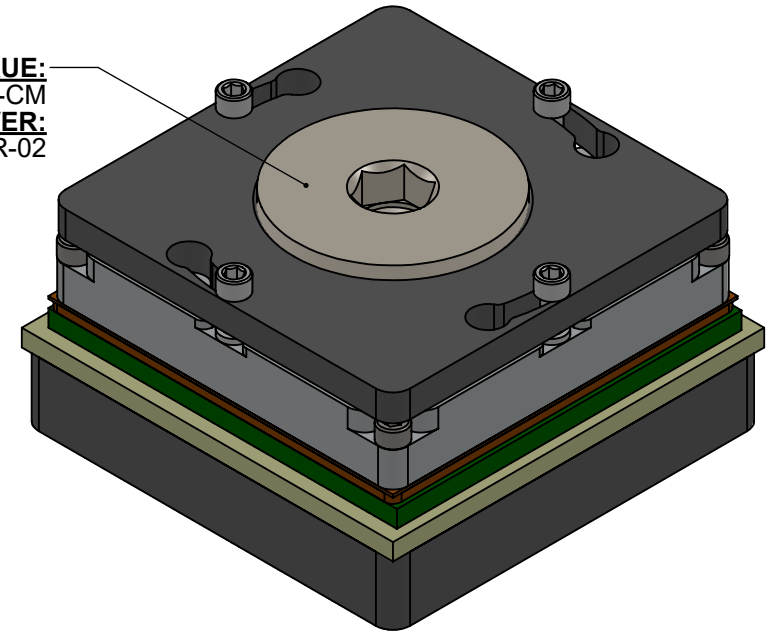
- Directly mounts to target PCB (needs tooling holes) with hardware
- High speed reliable elastomer connection
- Minimum real estate required
- Compression plate distributes forces evenly
- Easily removable swivel socket lid

## REQUIRED TORQUE:

8.10 IN-LBF, 130 IN-OZF, 91.0 N-CM

## RECOMMENDED TORQUE DRIVER:

TL-TORQUEDRIVER-02



## SECTION A-A

## Description: SG-BGA676, 27x27mm, 26x26 Array, 1.00mm Pitch, IC Frame

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)  $\pm 0.0254\text{mm}$  [ $\pm 0.001$ "],  
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.

### C17099 Drawing



©2017 Ironwood Electronics, Inc.  
Tele: (800) 404-0204  
www.ironwoodelectronics.com

Material: N/A  
Finish: N/A  
Weight: 43.95

STATUS: -

ENG: A. Nord

FILE: C17099 Dwg

SHEET: 1 OF 4

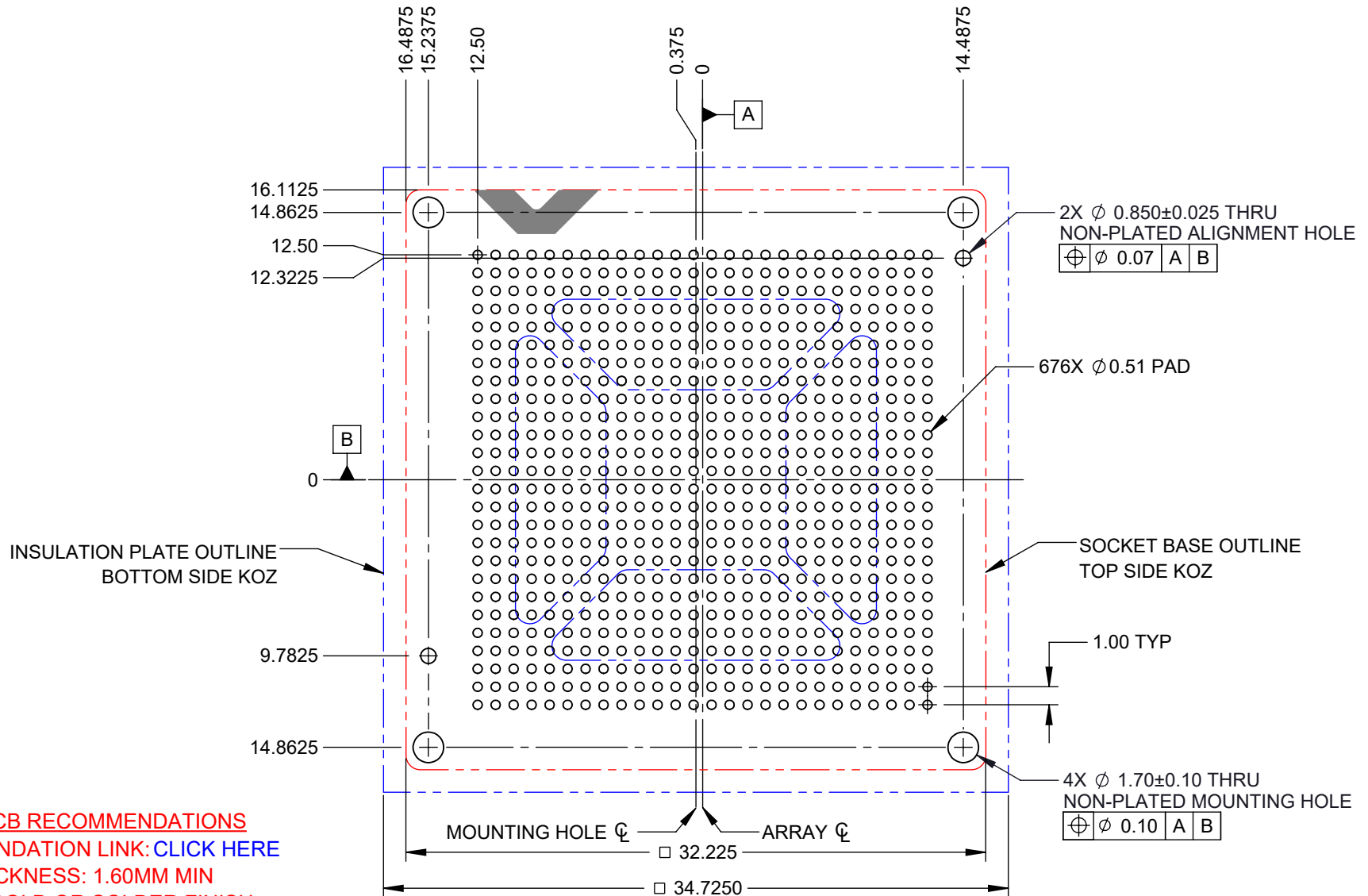
DRAWN BY: A. Nord

DATE: 10/10/2017

REV. A

SCALE: 2:1

**NOTE: MOUNTING HOLE  $\phi$  IS OFFSET  
0.375MM TO LEFT OF ARRAY  $\phi$ .**



**TARGET PCB RECOMMENDATIONS**  
RECOMMENDATION LINK: [CLICK HERE](#)


**TOTAL THICKNESS: 1.60MM MIN**

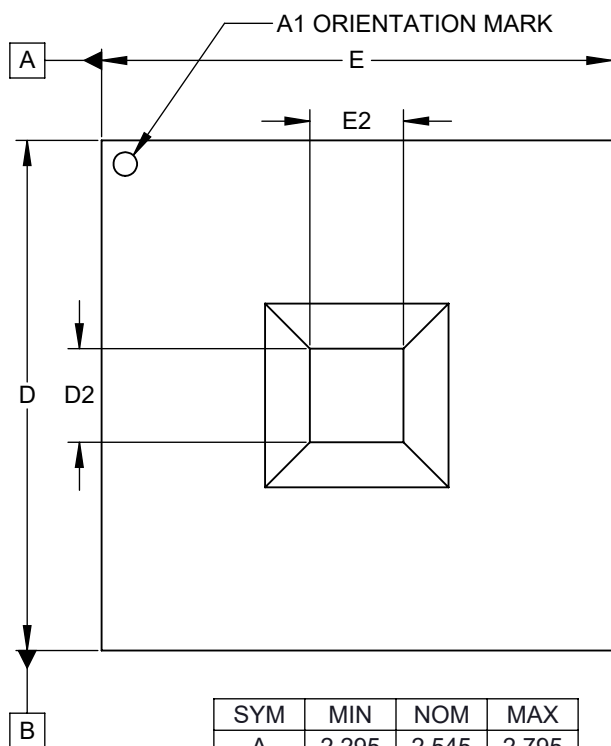
**PLATING: GOLD OR SOLDER FINISH**

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

<b>C17099 Drawing</b>  ©2017 Ironwood Electronics, Inc. Tele: (800) 404-0204 <a href="http://www.ironwoodelectronics.com">www.ironwoodelectronics.com</a>	Material: N/A Finish: N/A Weight: 43.95	STATUS: -	SHEET: 2 OF 4	REV. A
		ENG: A. Nord	DRAWN BY: A. Nord	SCALE: 3:1
		FILE: C17099 Dwg	DATE: 10/10/2017	

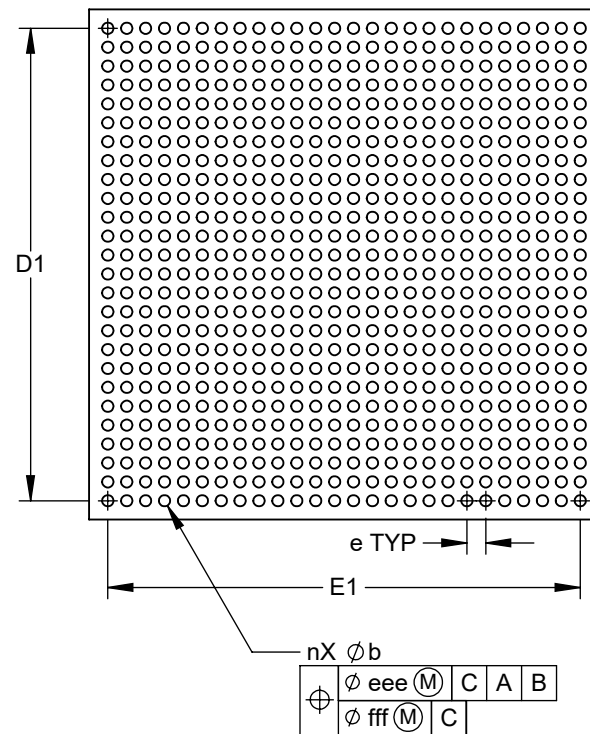


SYM	MIN	NOM	MAX
A	2.295	2.545	2.795
A1	0.400	---	0.600
A2	1.156 REF		
A3	0.889 REF		
E/D	27.000 BSC		
b	0.500	---	0.700
e	1.000 BSC		
n	676		
E1/D1	25.000 BSC		
E2/D2	4.952 BSC		
aaa	0.200		
bbb	0.250		
ccc	0.350		
ddd	0.150		
eee	0.250		
fff	0.100		

aaa 4X

bbb C  
ccc C  
ddd C


A3  
A2  
A1  
A

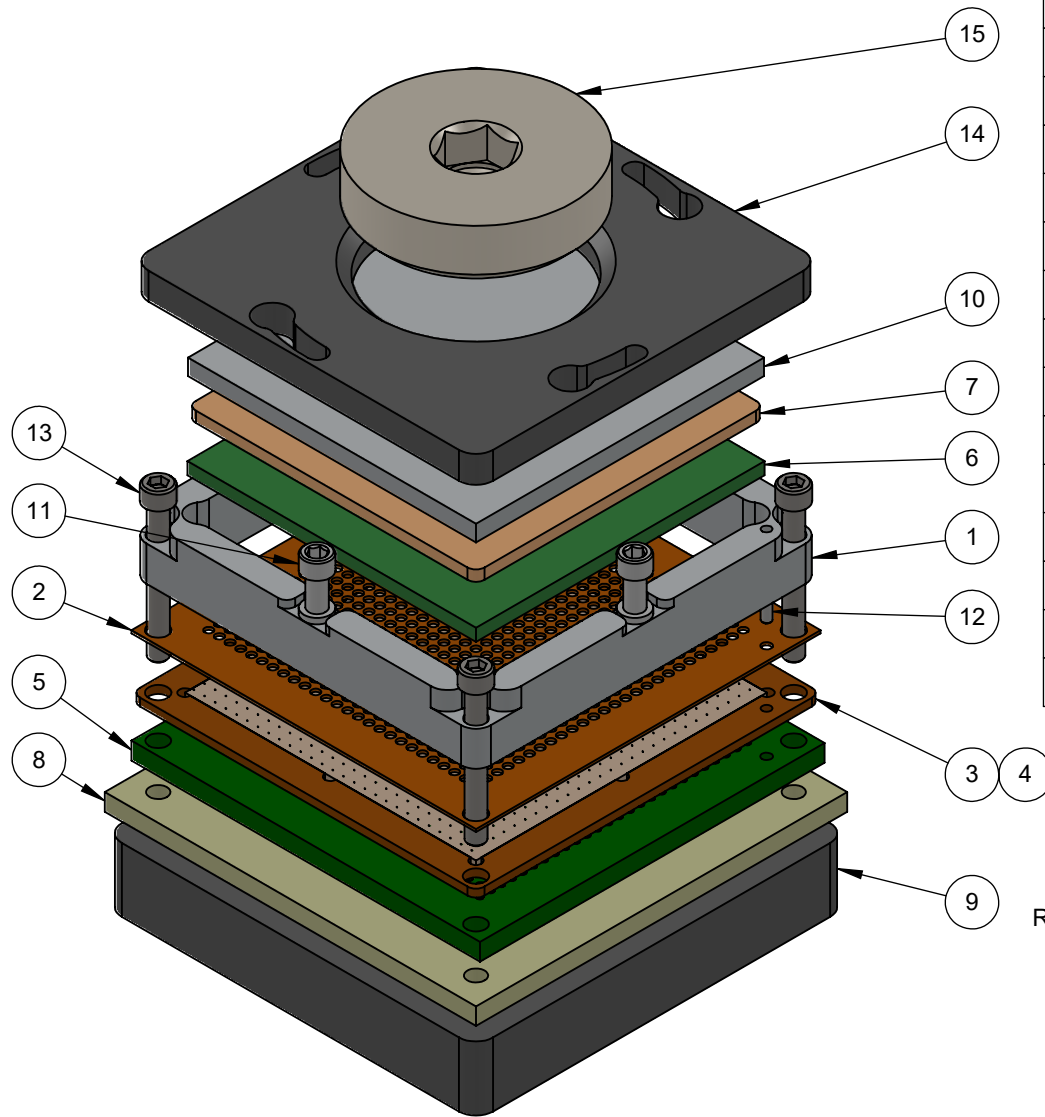


nX ϕb  
ϕ eee (M) C A B  
ϕ fff (M) C

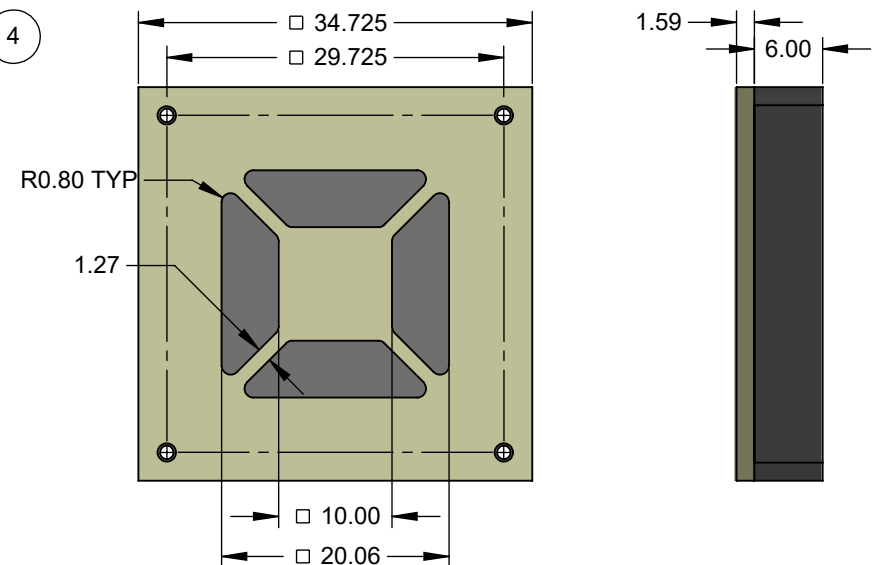
## Description: Compatible Device

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.  
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		ENG: A. Nord	DRAWN BY: A. Nord	SCALE: 2.5:1
		FILE: C17099 Dwg	DATE: 10/10/2017	




ITEM NO.	DESCRIPTION	Material
1	Socket Base, 32.225 X 32.225	7075-T6 Aluminum Alloy
2	Ball Guide	Kapton Polyimide
3	Elastomer Guide 27mm IC	Kapton Polyimide/Cirlex/Ultem
4	0.75mm thick 0.1mm pitch 63 deg angled elastomer - 27.225mm square	Silicon Rubber
5	Test PCB BGA676C	FR4
6	Test Chip, 27x27mm, 26x26 Array, 1.00mm Pitch, BGA676	Material <not specified>
7	IC Frame, 27x27mm IC, 12x12mm Opening, 1.00mm Thick	Ultem 1000
8	Insulation Plate 27mm IC	FR4
9	Backing Plate, 34.725 X 34.725	7075-T6 Aluminum Alloy
10	Compression Plate 26.95 x 1.5mm	7075-T6 Aluminum Alloy
11	#0-80 Shoulder Screw, 2.29mm thread length	Stainless Steel (303)
12	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
13	#0-80 x 0.5, SH Cap Screw	Alloy Steel
14	Socket Lid, 32.225 X 32.225	7075-T6 Aluminum Alloy
15	Compression Screw, M18	7075-T6 Aluminum Alloy



## Description: Socket Assembly, Misc Detail

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		ENG: A. Nord	DRAWN BY: A. Nord	SCALE: 2:1
		FILE: C17099 Dwg	DATE: 10/10/2017	