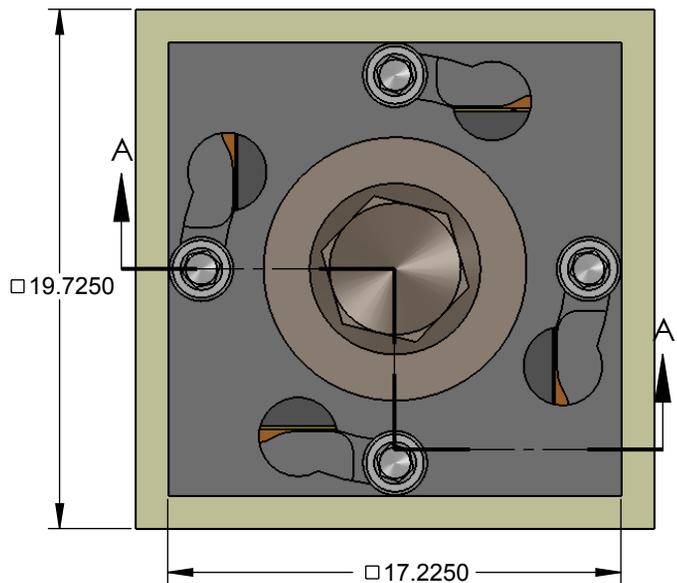


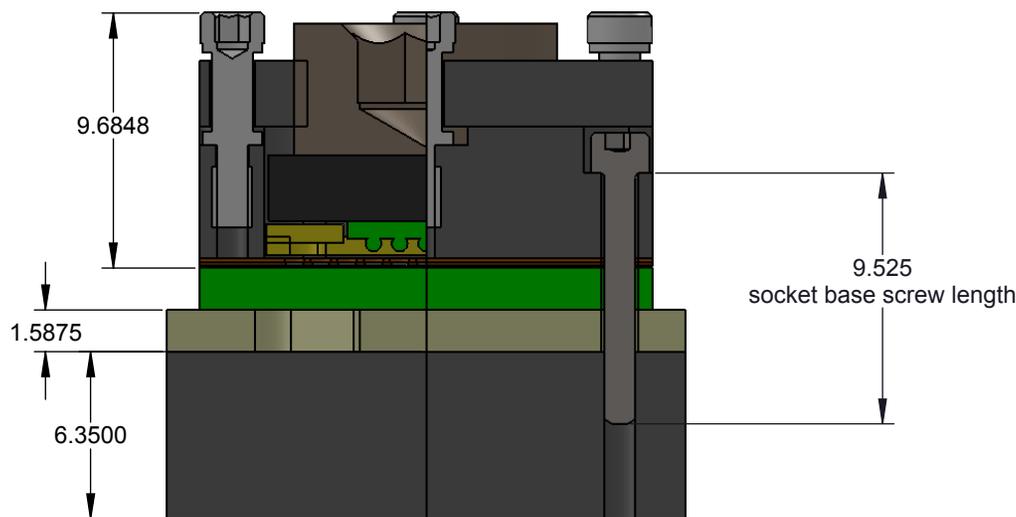
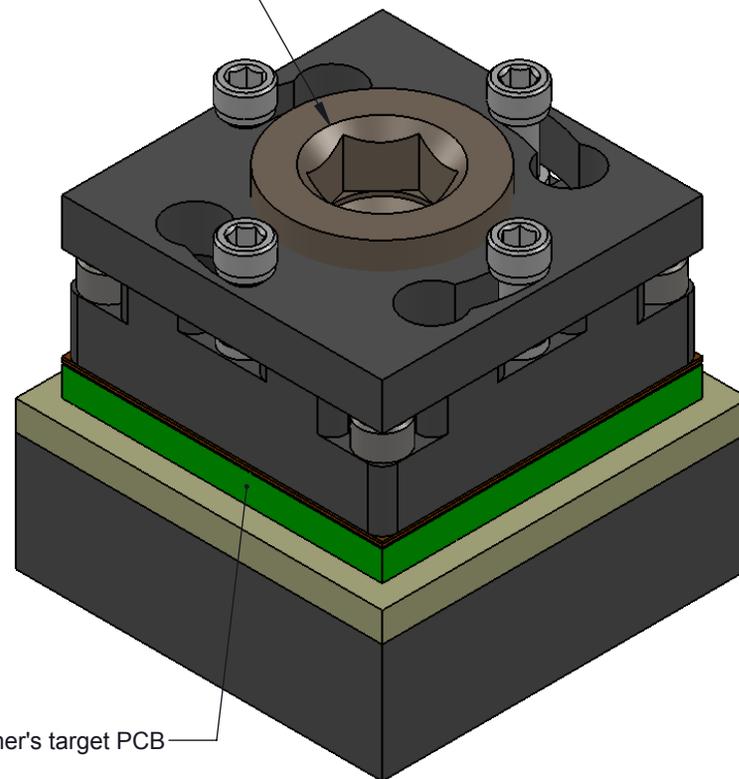
# GHz BGA SOCKET - direct mount, solderless

## 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
- Easily removable swivel socket lid



Recommended torque = 2-3 in-lbs



SECTION A-A

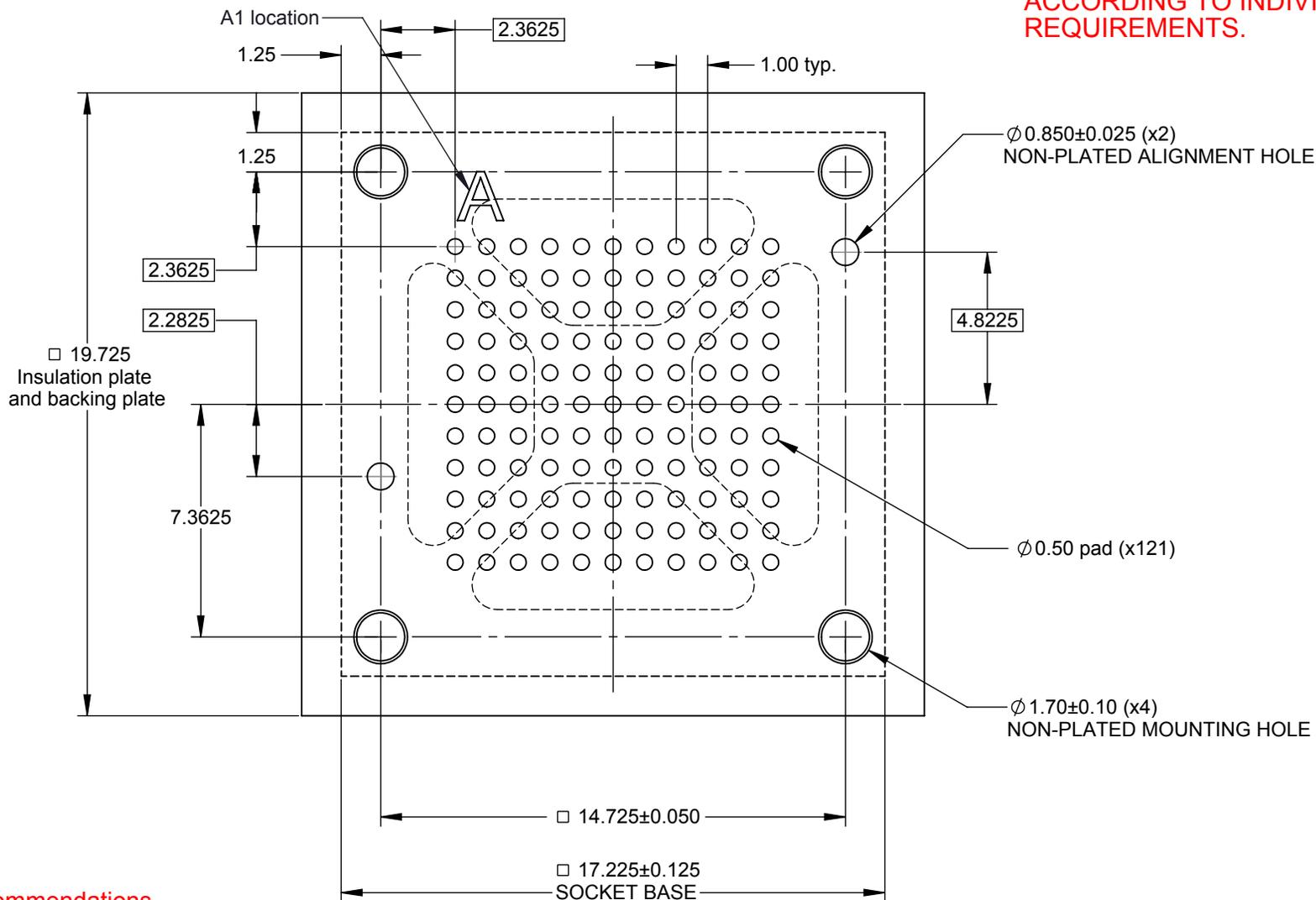
## Description: GT-BGA 1mm pitch for 9x9mm IC with alternative positions

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.

 <b>GT-BGA-2005 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 14.20	STATUS: Released ENG: S. Huang FILE: GT-BGA-2005 Dwg	SHEET: 1 OF 5 DRAWN BY: M. Raske DATE: 1/7/2015	REV. A SCALE: 3.5:1

**NOTE:**  
**FULL BGA PATTERN SHOWN.**  
**PLEASE ADJUST PATTERN**  
**ACCORDING TO INDIVIDUAL**  
**REQUIREMENTS.**



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

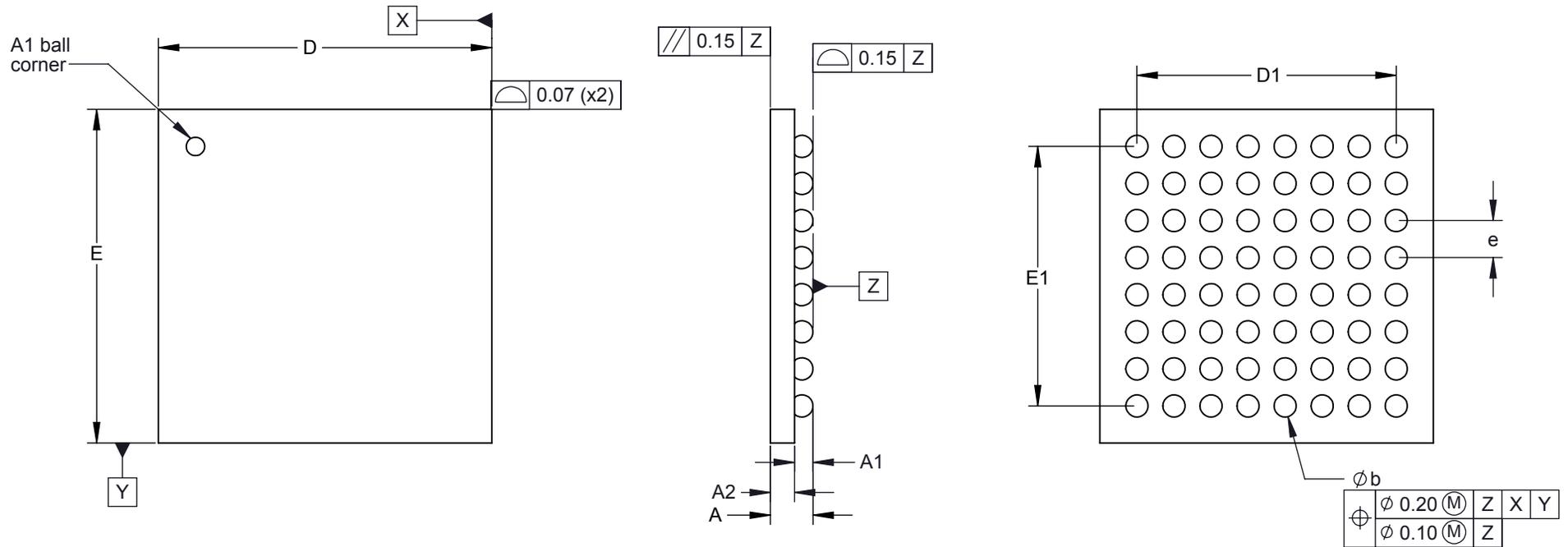
### Description: Recommended PCB layout

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

Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001''$ ], 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.

 <b>GT-BGA-2005 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 14.20	STATUS: Released ENG: S. Huang FILE: GT-BGA-2005 Dwg	SHEET: 2 OF 5 DRAWN BY: M. Raske DATE: 1/7/2015	REV. A SCALE: 5:1

## Ironwood Package Code: BGA64E



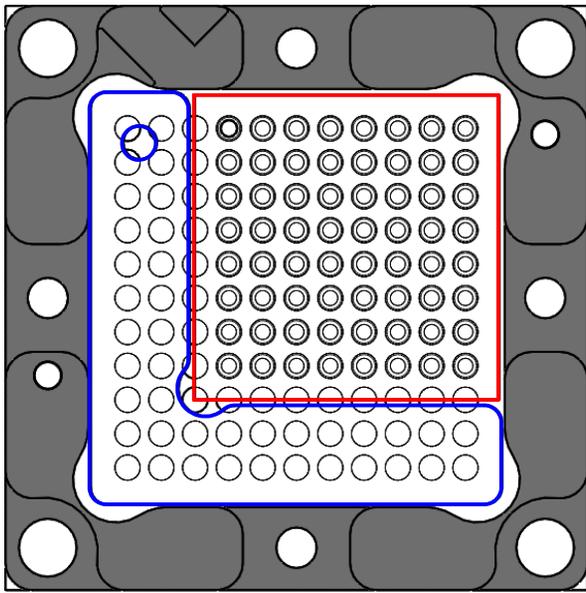
1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension  $b$  is measured at the maximum solder ball diameter, parallel to datum plane  $Z$ .
4. Datum  $Z$  (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement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

### Description: BGA

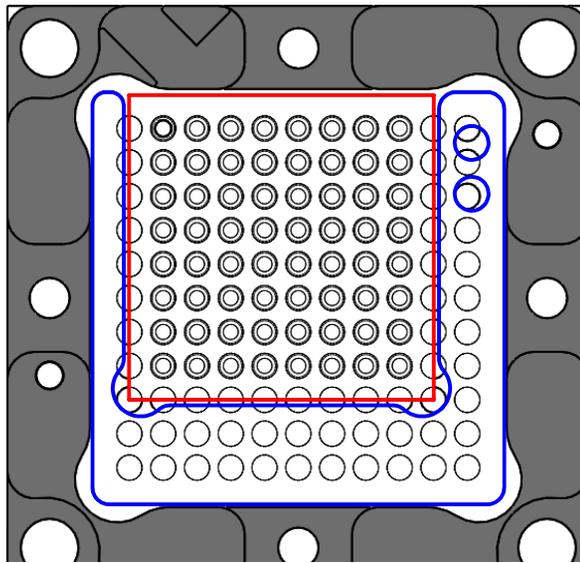
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

**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.

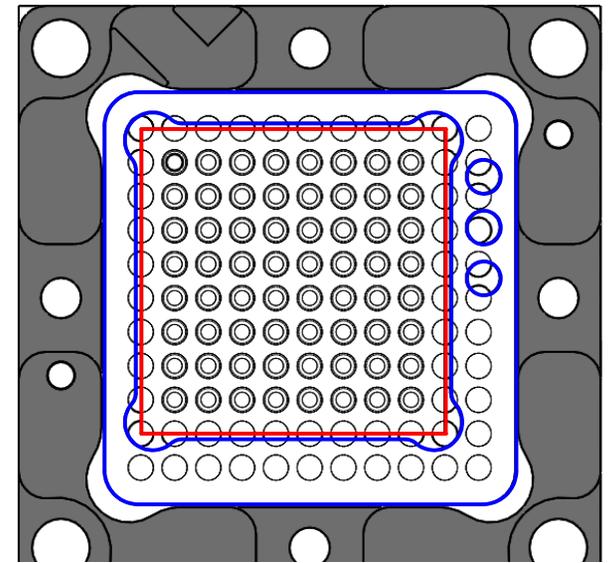
 <b>GT-BGA-2005 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 14.20	STATUS: Released ENG: S. Huang FILE: GT-BGA-2005 Dwg	SHEET: 3 OF 5 DRAWN BY: M. Raske DATE: 1/7/2015	REV. A SCALE: 6:1



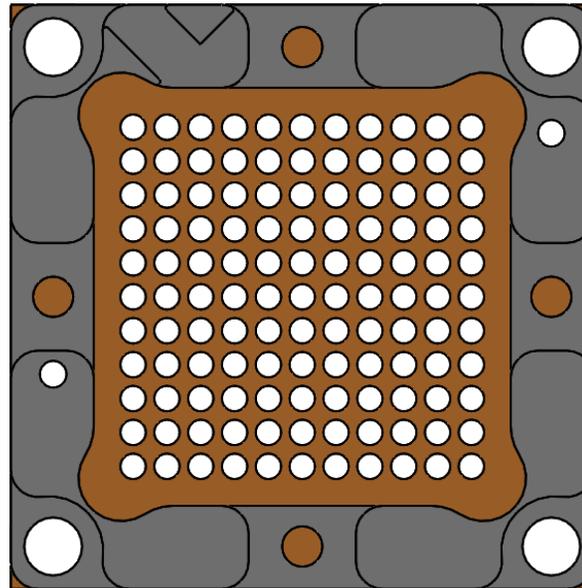
IC Guide I



IC Guide II



IC Guide III



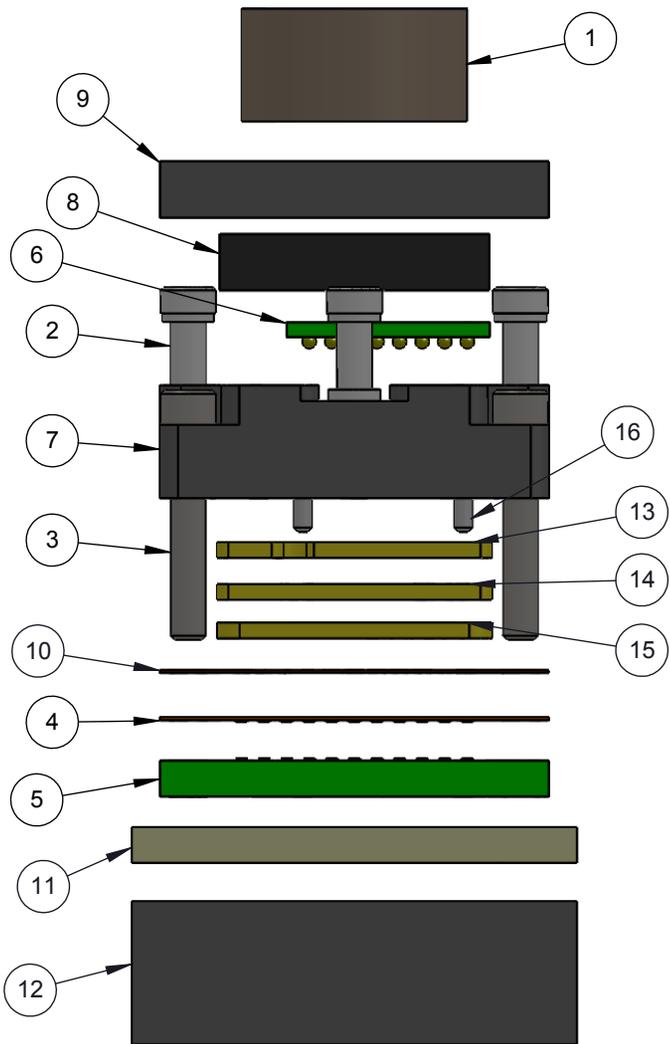
Socket opening

### Description: IC guide detail

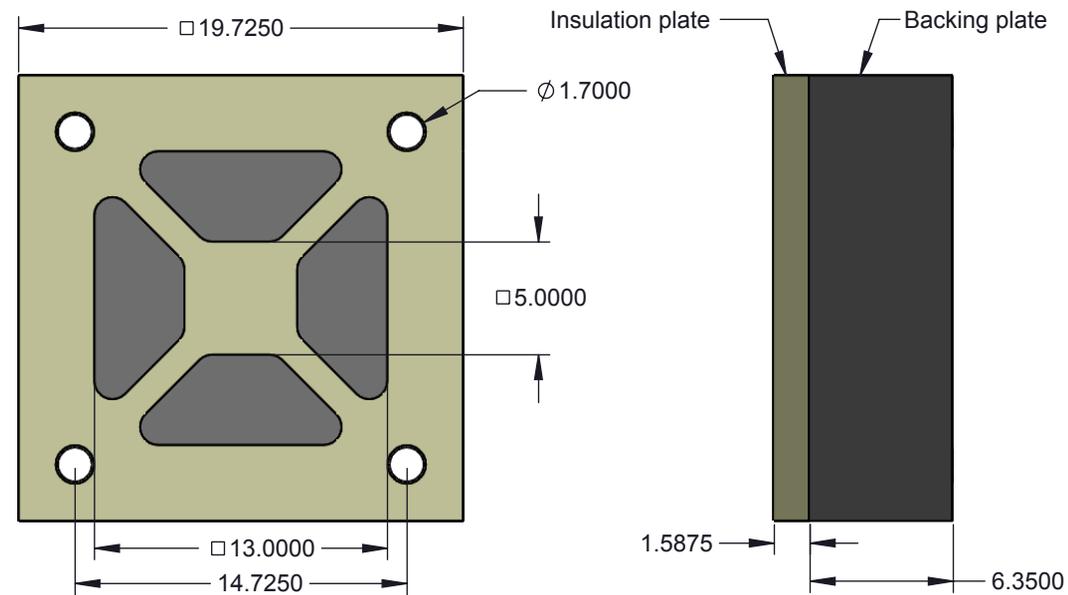
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

 <b>GT-BGA-2005 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 14.20	STATUS: Released ENG: S. Huang FILE: GT-BGA-2005 Dwg	SHEET: 4 OF 5 DRAWN BY: M. Raske DATE: 1/7/2015	REV. A SCALE: 4.5:1



ITEM NO.	DESCRIPTION	Material
1	Compression Screw M10	7075-T6 Aluminum Alloy
2	#0-80 Shoulder Screw, 0.090" thread length	Stainless Steel (303)
3	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
4	GT Elastomer 1mm pitch 11x11 array	Conductive Elastomer
5	Customer's target PCB	FR4 High temp
6	Customer's IC 1mm pitch 9x9mm IC 8x8 array	FR4 High temp
7	GHz Socket Base 12mm IC	7075-T6 Aluminum Alloy
8	Compression Plate	7075-T6 Aluminum Alloy
9	Socket Lid 12mm	7075-T6 Aluminum Alloy
10	Ball Guide 1mm pitch 11x11 array	Kapton Polyimide/Cirlex
11	Insulation Plate	FR4 High temp
12	Backing Plate	7075-T6 Aluminum Alloy
13	IC guide 9x9mm IC Alternative position I	Torlon 4203
14	IC guide 9x9mm IC Alternative position II	Torlon 4203
15	IC guide 9x9mm IC Alternative position III	Torlon 4203
16	Alignment Pin 1/32" dia. x 1/8" lng	Chrome Stainless Steel



**Insulation plate and Backing Plate**

**Description: Skt, Insulation Plate, Pin Det**

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.

 <b>GT-BGA-2005 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 14.20	STATUS: Released	SHEET: 5 OF 5	REV. A
		ENG: S. Huang	DRAWN BY: M. Raske	SCALE: 3:1
		FILE: GT-BGA-2005 Dwg	DATE: 1/7/2015	