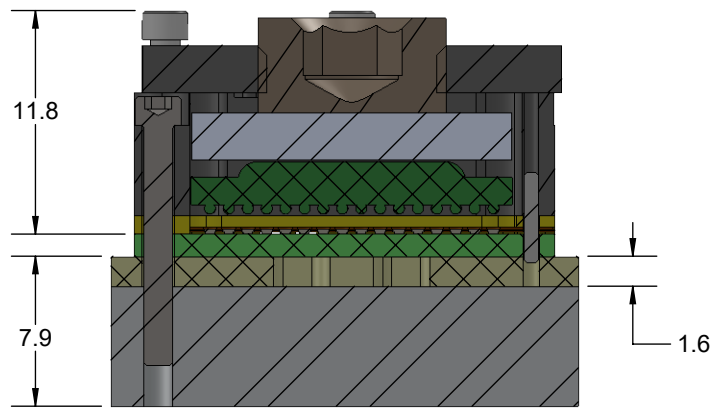
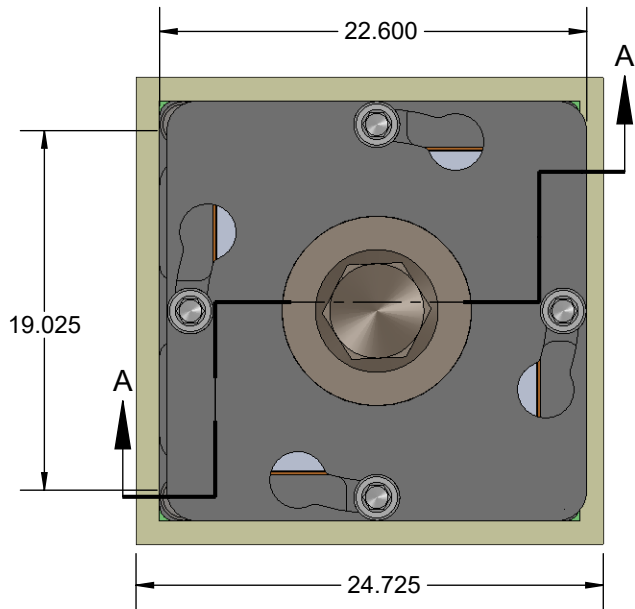


# GHz BGA Socket - Direct mount, solderless

## Features

- Directly mounts to target PCB (needs tooling holes) with hardware
- High speed, reliable connection
- Minimum real estate required
- Compression plate distributes forces evenly
- Easily removable swivel socket lid
- Operating temperature range -55C to +160C



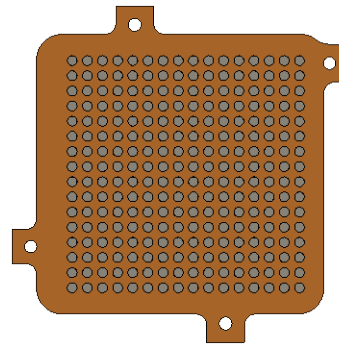
**SECTION A-A**

**Description: GT Socket for 17x17mm 1mm pitch BGA256**

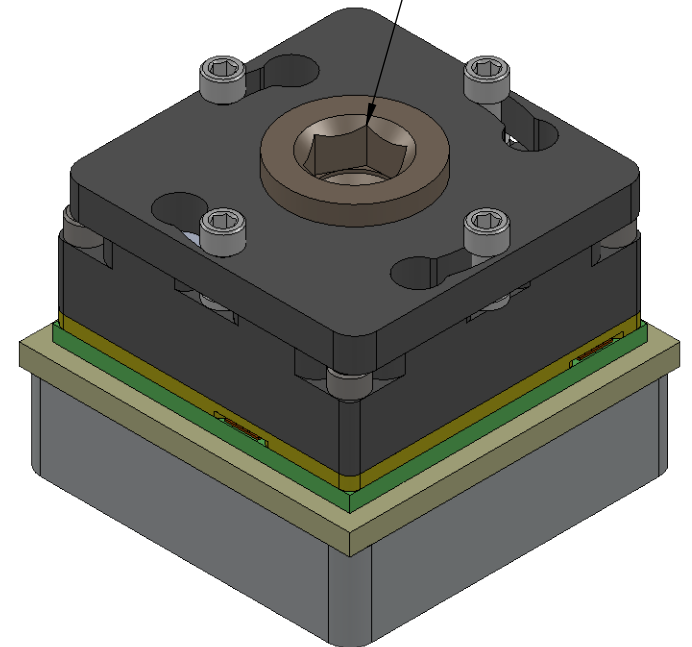
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.


**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.

RECOMMENDED TORQUE: 45 - 57 N-cm [4-5 lbf-in]



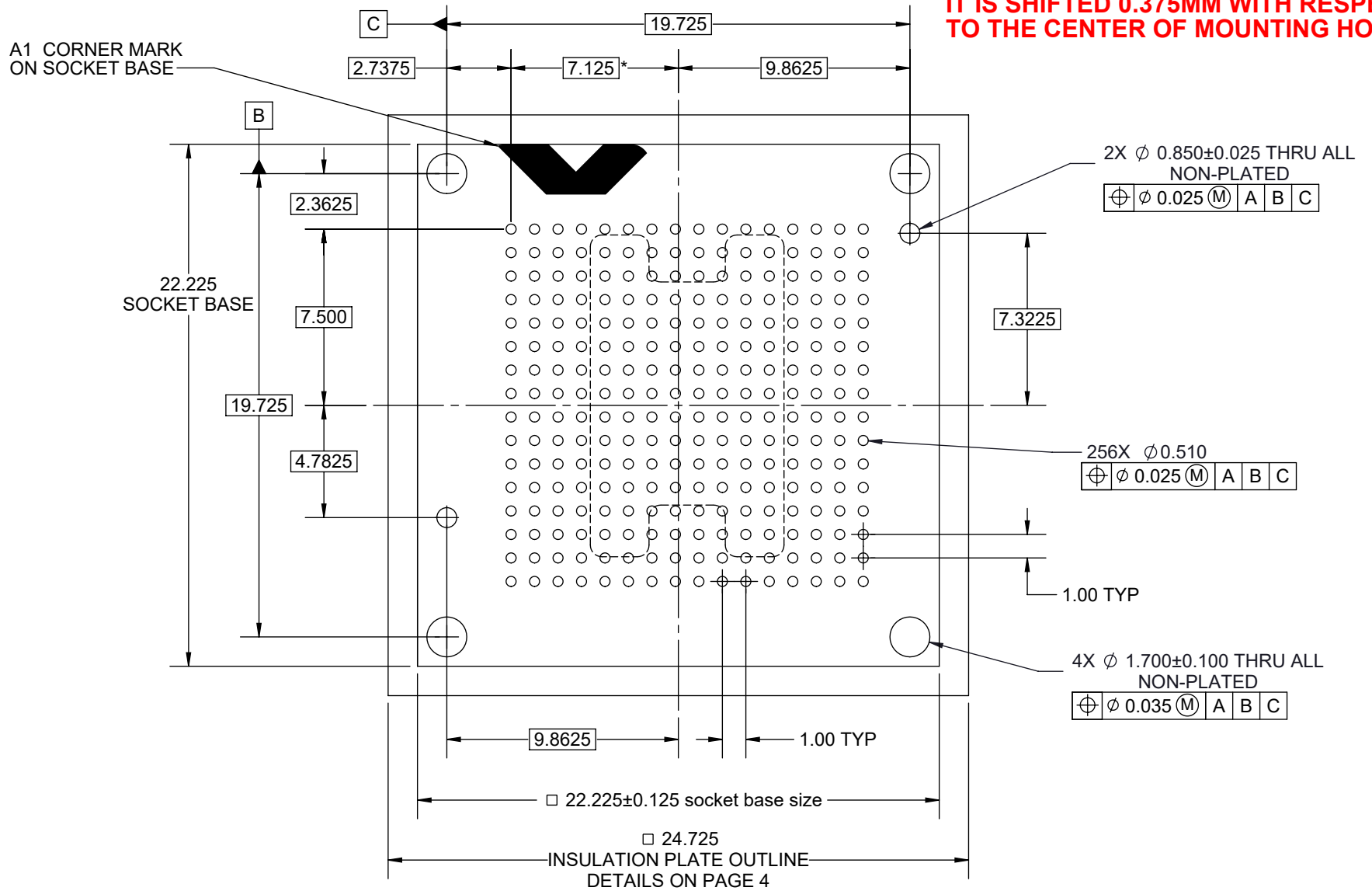
GT elastomer



 <b>GT-BGA-2006 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 23.37	STATUS: Released ENG: S. Huang FILE: GT-BGA-2006 Dwg	SHEET: 1 OF 4 DRAWN BY: D. Hauer DATE: 9/25/14	REV. B SCALE: 5:2

DATUM A IS TOP SIDE OF BOARD

**NOTE: PAD LAYOUT IS NOT CENTERED  
IT IS SHIFTED 0.375MM WITH RESPECT  
TO THE CENTER OF MOUNTING HOLES**



### 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.

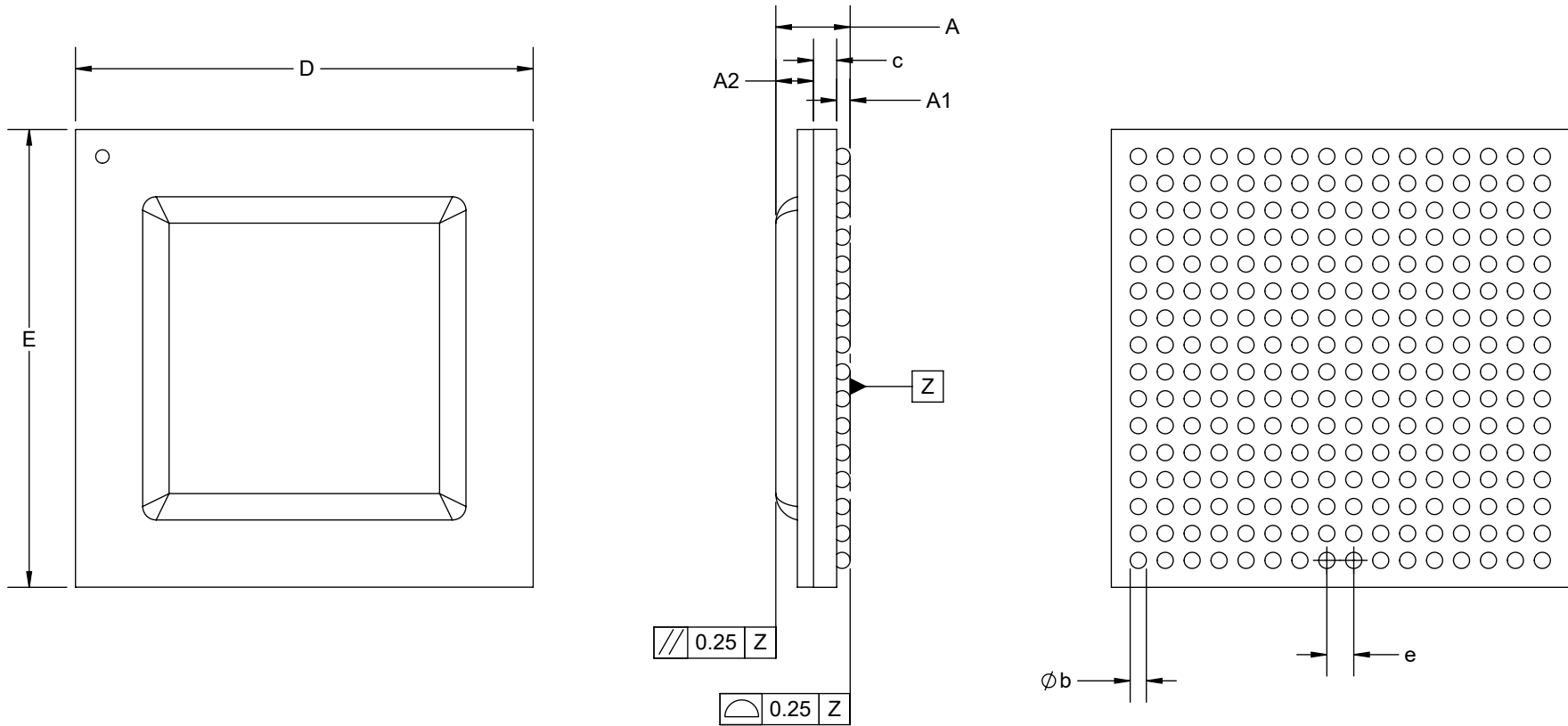
### Target PCB Recommendations

Total Thickness: 1.6mm min.

Plating: Gold Immersion, Silver Immersion or Solder

PCB Pad Height: same or higher than solder mask

 <p><b>GT-BGA-2006 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: N/A Finish: N/A Weight: 23.37</p>	<p>STATUS: Released ENG: S. Huang FILE: GT-BGA-2006 Dwg</p>	<p>SHEET: 2 OF 4 DRAWN BY: D. Hauer DATE: 9/25/14</p>	<p>REV. B SCALE: 4:1</p>



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.


DIM	MIN	NOM	MAX
A	2.5	2.76	3.02
A1	0.4	0.5	0.6
A2	2.1	2.26	2.42
b	0.5	0.6	0.7
c	0.76	0.86	0.96
D	16.8		17.2
E	16.8		17.2
e	1.0		

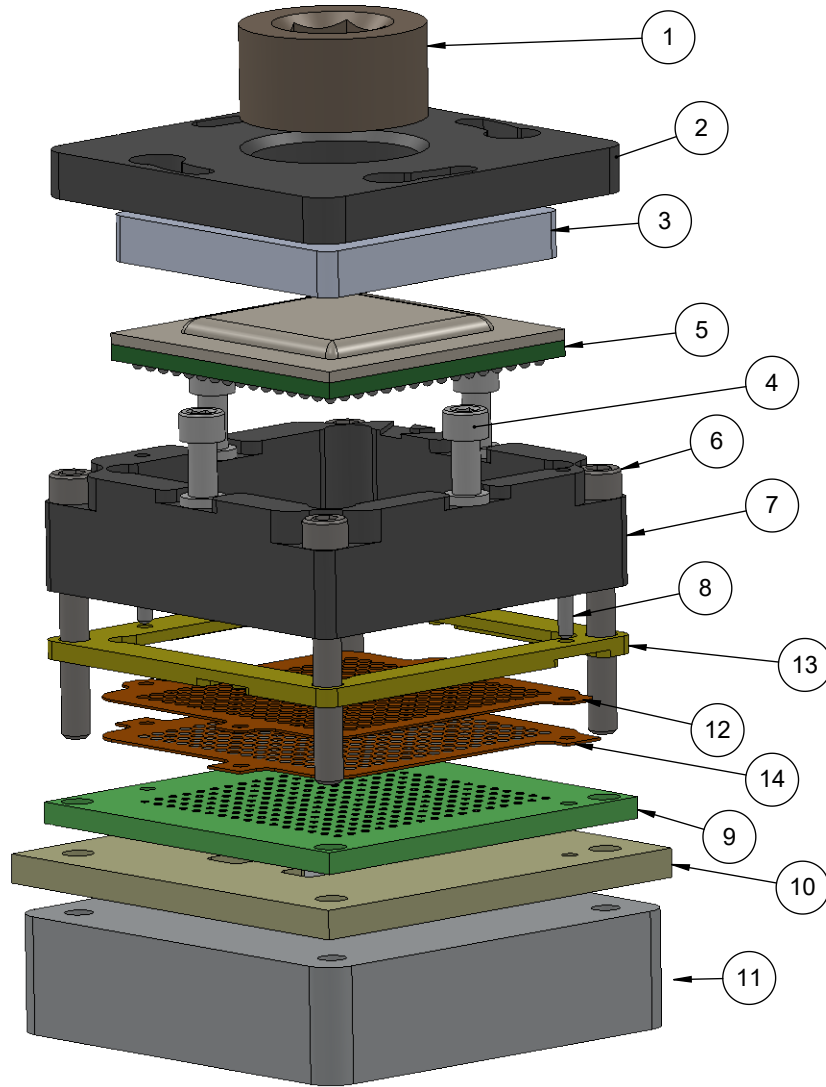
Array: 16x16

**Description: Compatible Device**

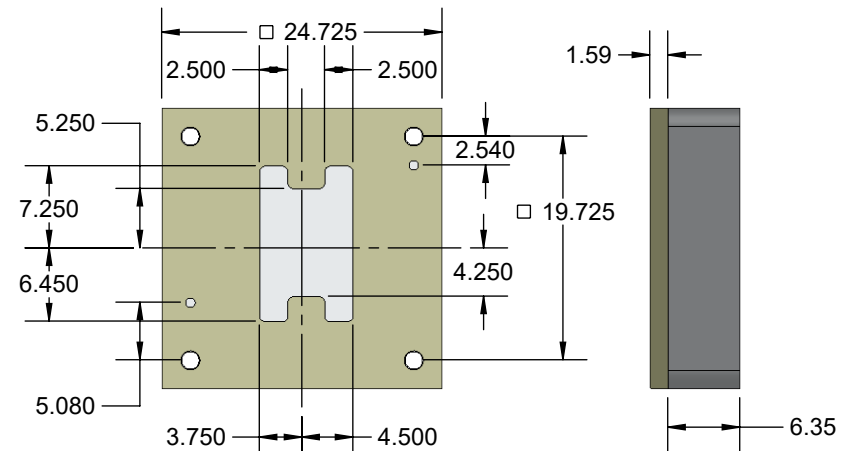
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

 <p><b>GT-BGA-2006 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: N/A Finish: N/A Weight: 23.37</p>	STATUS: Released	SHEET: 3 OF 4	REV. B
		ENG: S. Huang	DRAWN BY: D. Hauer	SCALE: 4:1
		FILE: GT-BGA-2006 Dwg	DATE: 9/25/14	



ITEM NO.	DESCRIPTION	Material
1	Compression Screw	Alumium Alloy
2	Socket Lid	Aluminum Alloy
3	Compression Plate	Aluminum Alloy
4	Shoulder Screw	Stainless Steel
5	Compatible BGA	High Temp FR4
6	Mounting Screw	Stainless Steel
7	Socket Base	Aluminum Alloy
8	Dowel Pin	Stainless Steel
9	Target PCB	High Temp FR4
10	Custom Insulation Plate	High Temp FR4
11	Backing Plate	Aluminum Alloy
12	Ball Guide 17mm sqr 16x16 array 1mm pitch	Kapton Polyimide/Cirlex
13	GT IC Guide SM 17mm sqr	Torlon 4203
14	GT Elastomer 17x17mm IC 1mm pitch 16x16 array	Conductive Elastomer




INSULATION AND BACKING PLATE DETAIL

Rev	Date	Initials	Description
A	9/25/14	SH	Original
B	6/20/18	SH	Update to floating design

### Description: Socket, Backing Plate 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-2006 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 23.37	STATUS: Released ENG: S. Huang FILE: GT-BGA-2006 Dwg	SHEET: 4 OF 4 DRAWN BY: D. Hauer DATE: 9/25/14	REV. B SCALE: 5:2