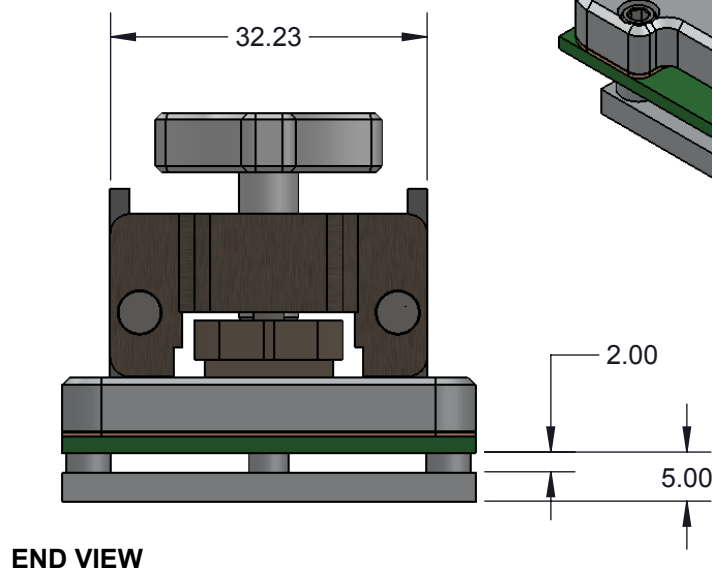
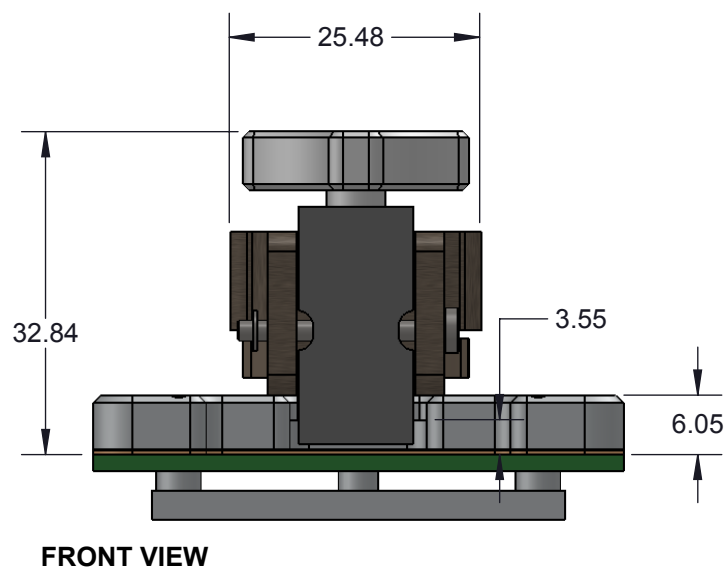
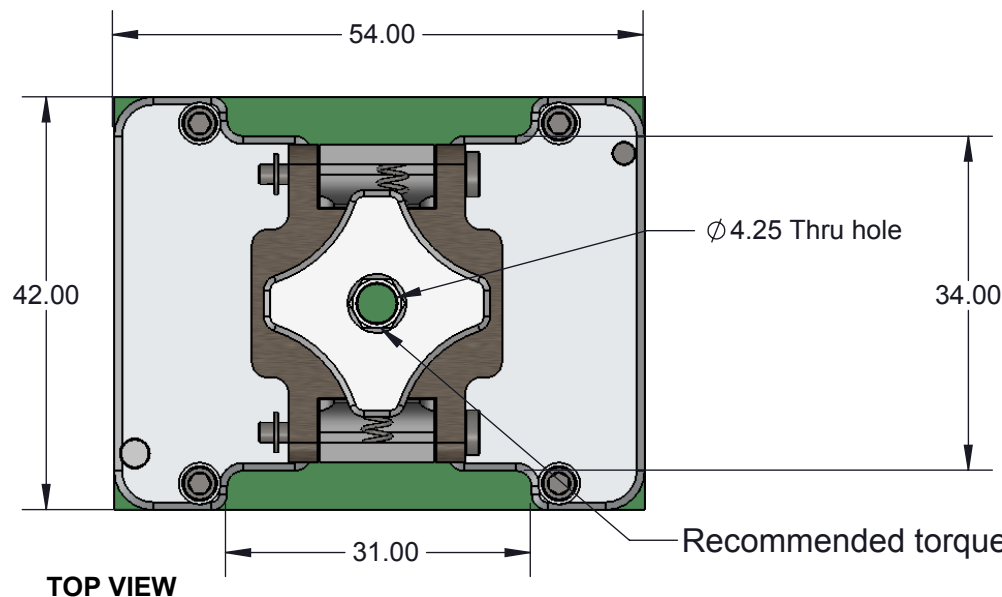
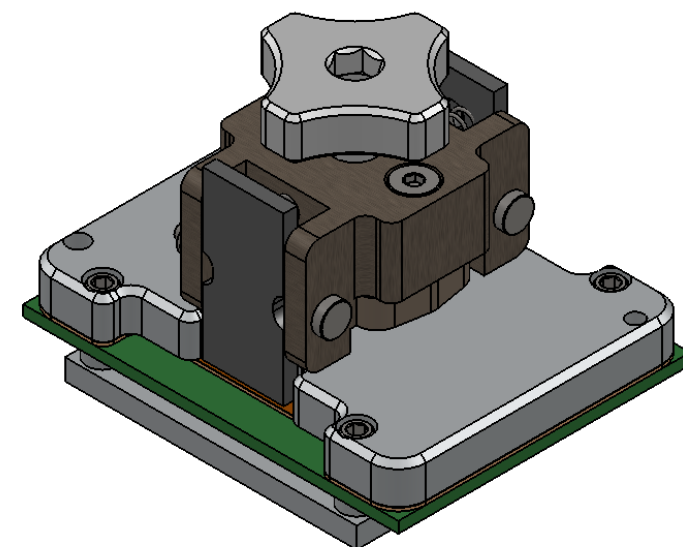


# GHz BGA SOCKET - direct mount, solderless



## 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 double latch socket lid



## Description: Socket

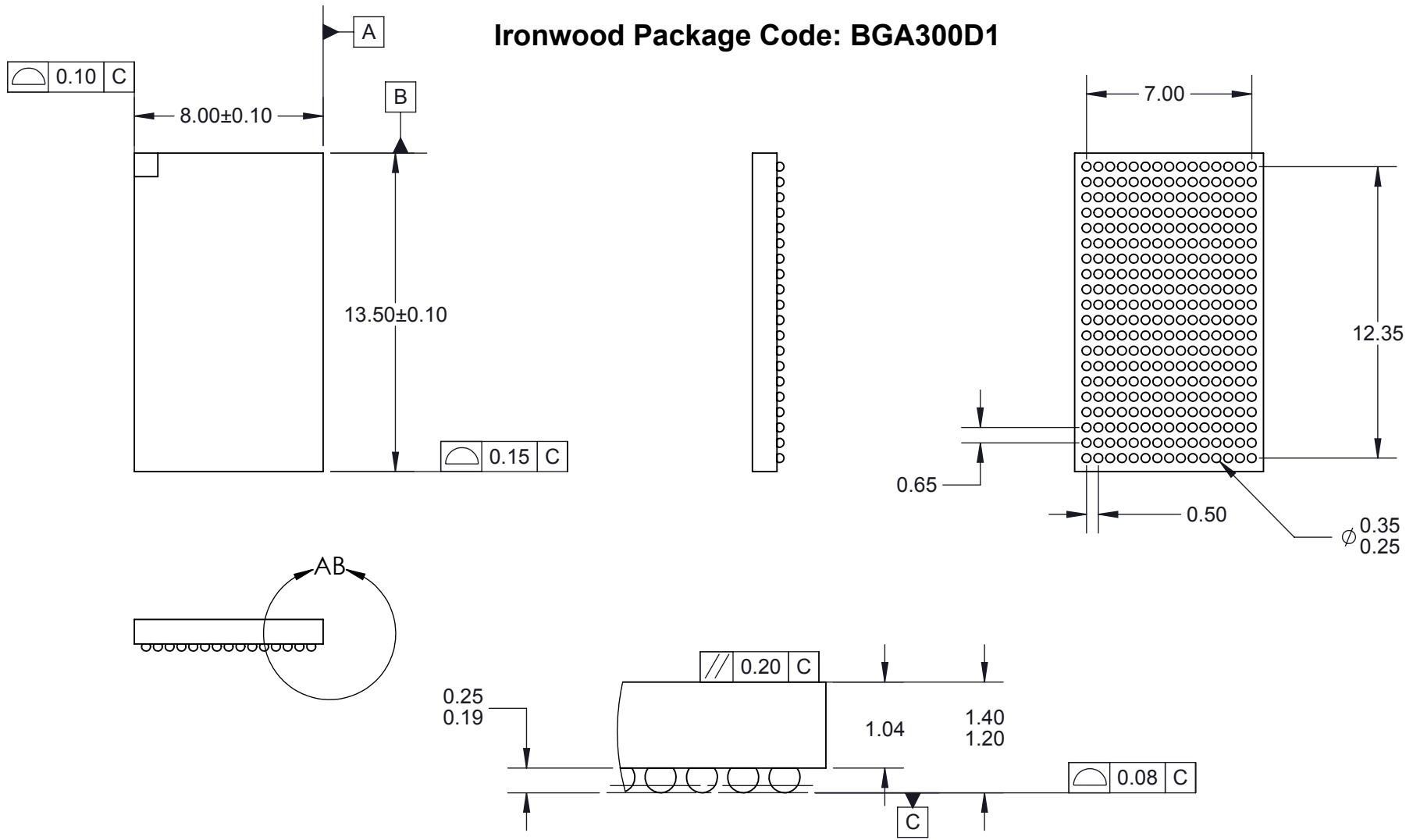
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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>CG-BGA-5019 Drawing</b><br> Ironwood Electronics, Inc.<br>Tele: (800) 404-0204<br>www.ironwoodelectronics.com | Material: N/A<br>Finish: N/A<br>Weight: 81.58 | STATUS: Released<br>DRAWN BY: V. Panavala<br>FILE: CG-BGA-5019 | SHEET: 1 OF 5<br>SCALE: 1.3:1<br>DATE: 3/1/2013 | REV. A |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------|-------------------------------------------------|--------|



# Ironwood Package Code: BGA300D1



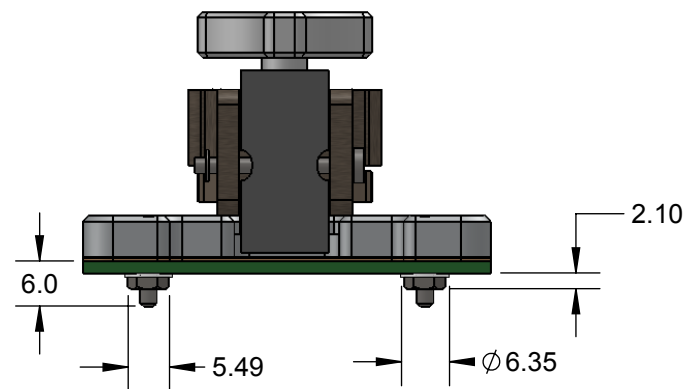
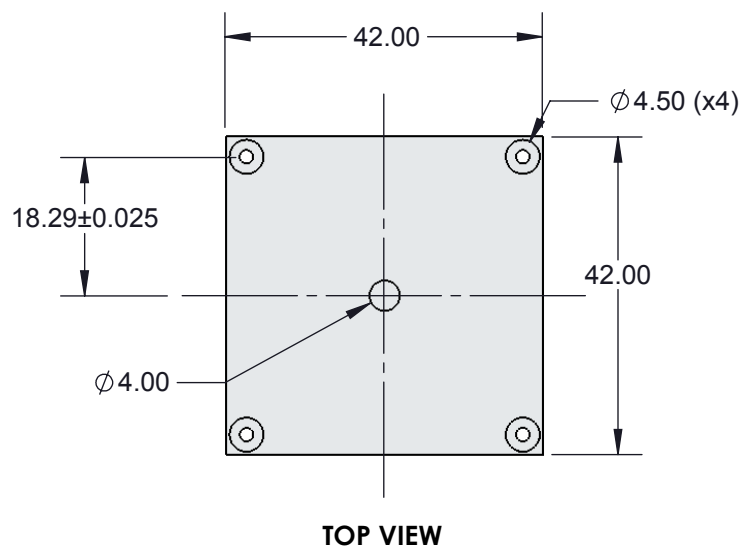
**DETAIL AB  
SCALE 14 : 1**

**Description: Clamshell Elastomer socket 8x13.5mm, 15x20 array 0.5/0.65mm BGA**

Primary dimension units are millimeters, Secondary dimension units are [inches].

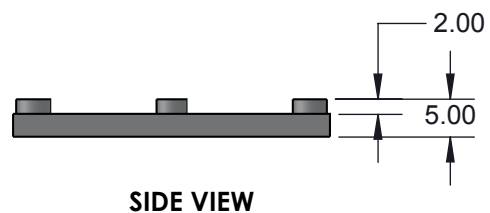
Tolerances: Hole diameters ±0.03mm [±0.001"], Pitches (from true position) ±0.025mm [±0.001"], substrate thickness tolerance ±10%, all other tolerances ±0.13mm [±0.005"] unless stated otherwise. Materials and specifications are subject to change without notice.

|                                                                                                                                                                                                          |                                               |                       |                |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------|----------------|--------|
| <b>CG-BGA-5019 Specification</b><br> Ironwood Electronics, Inc.<br>Tele: (800) 404-0204<br>www.ironwoodelectronics.com | Material: N/A<br>Finish: N/A<br>Weight: 81.58 | STATUS: Released      | SHEET: 3 OF 5  | REV. A |
|                                                                                                                                                                                                          |                                               | DRAWN BY: V. Panavala | SCALE: 4:1     |        |
|                                                                                                                                                                                                          |                                               | FILE: CG-BGA-5019     | DATE: 3/1/2013 |        |
|                                                                                                                                                                                                          |                                               |                       |                |        |



Socket without backing plate.

Extra hardware will be provided

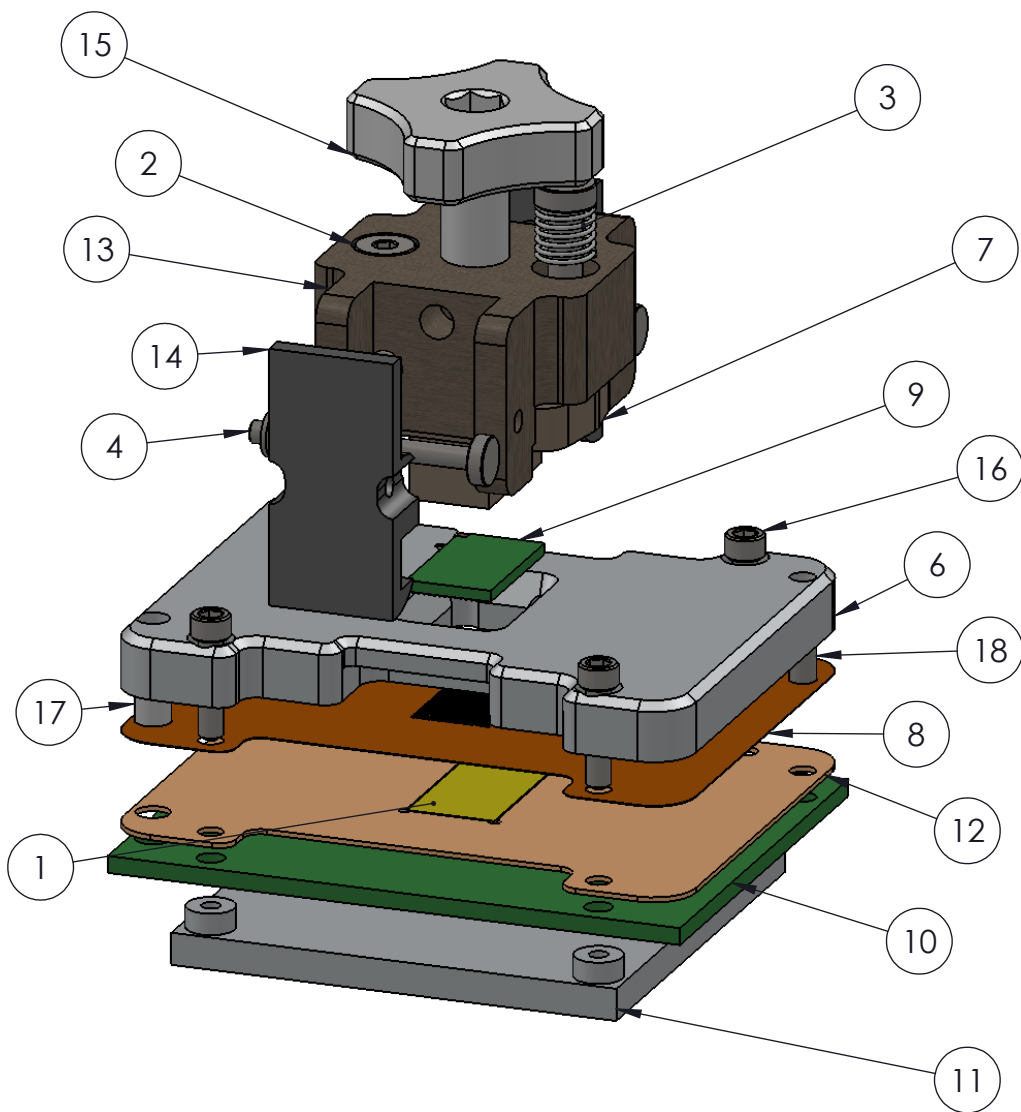


## Description: Clamshell Elastomer socket 8x13.5mm, 15x20 array 0.5/0.65mm BGA

Primary dimension units are millimeters, Secondary dimension units are [inches].

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>CG-BGA-5019 Specification</b><br>Ironwood Electronics, Inc.<br>Tele: (800) 404-0204<br><a href="http://www.ironwoodelectronics.com">www.ironwoodelectronics.com</a> | <b>Material:</b> N/A<br><b>Finish:</b> N/A<br><b>Weight:</b> 81.58 | STATUS: Released      | SHEET: 4 OF 5  | REV. A |
|                                                                                                                                                                                                                                                           |                                                                    | DRAWN BY: V. Panavala | SCALE: 1:1     |        |
|                                                                                                                                                                                                                                                           |                                                                    | FILE: CG-BGA-5019     | DATE: 3/1/2013 |        |



| ITEM NO. | Description                                                                            | Material                                                                                                                   |
|----------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 1        | 0.5mm thick, 0.05x 0.05mm pitch, 50mm sq, 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 |
| 2        | Screw, M3 x 12mm, Low Head Cap, SS                                                     | 18-8 Stainless Steel                                                                                                       |
| 3        | Spring Clamshell lid assembly                                                          | Steel Music Wire                                                                                                           |
| 4        | Hinge Pin and Snap Ring, 2mm OD, 19mm long, SS                                         | Stainless Steel (ferritic)                                                                                                 |
| 5        | Precision Compression Spring, Zinc-Plated Music Wire, 1/2" Length, .12" OD, .016" Wire | Zinc Plated Music Wire                                                                                                     |
| 6        | Socket Base CG Custom foot print                                                       | 7075-T6 Aluminum Alloy                                                                                                     |
| 7        | Chamshell Compresion plate 8x13.5mm BGA                                                | 7075-T6 Aluminum Alloy                                                                                                     |
| 8        | Ball guide 8x13.5mm, 15x20 array 0.5/0.65mm BGA                                        | Kapton Polyimide/Cirlex                                                                                                    |
| 9        | BGA Chip 8x13.5mm, 15x20 array 0.5/0.65mm pitch                                        | Material <not specified>                                                                                                   |
| 10       | PCB for 8x13.5mm, 15x20 array 0.65mm BGA                                               | High Temp FR4                                                                                                              |
| 11       | Backing plate Custom foot print                                                        | 7075-T6 Alumium Alloy                                                                                                      |
| 12       | Elastomer guide 8x13.5mm, 15x20 array 0.65mm BGA                                       | Ultem 1000                                                                                                                 |
| 13       | CBT Dble Latch Lid, Ni Plate 12mm-7mm                                                  | 7075-T6 Aluminum Alloy                                                                                                     |
| 14       | Latch 6- 10mm Ni plated                                                                | 7075-T6 Aluminum Alloy                                                                                                     |
| 15       | M6x1 fluted knob compression screw 4.25mm thru hole                                    | 7075-T6 Aluminum Alloy                                                                                                     |
| 16       | Screw, #2-56 x 3/8", Cap, STL                                                          | Alloy Steel                                                                                                                |
| 17       | Plastic Dowel Pin 1/8" Diameter, 3/16" Length                                          | PTFE (general)                                                                                                             |
| 18       | Dowel Pin 3/32" Diameter, 3/16" Length 18-8 SS                                         | Stainless Steel (18-8)                                                                                                     |

## Description: Clamshell Elastomer socket 8x13.5mm, 15x20 array 0.5/0.65mm BGA

Primary dimension units are millimeters, Secondary dimension units are [inches].

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>CG-BGA-5019 Specification</b>                                                                                                                                     |                                               | STATUS: Released      | SHEET: 5 OF 5 | REV. A         |
|  Ironwood Electronics, Inc.<br>Tele: (800) 404-0204<br>www.ironwoodelectronics.com | Material: N/A<br>Finish: N/A<br>Weight: 81.58 | DRAWN BY: V. Panavala |               | SCALE: 3:1     |
|                                                                                                                                                                      |                                               | FILE: CG-BGA-5019     |               | DATE: 3/1/2013 |