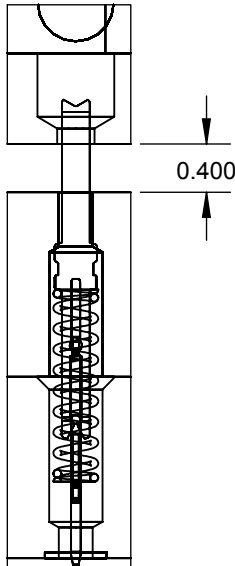
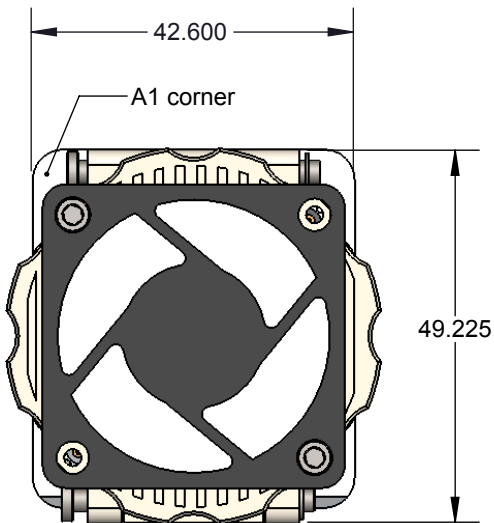


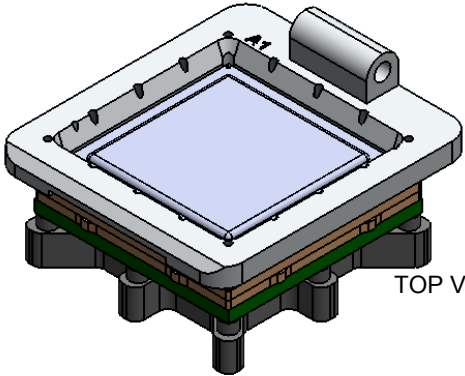
SBT BURN-IN/TEST BGA Socket

FEATURES:

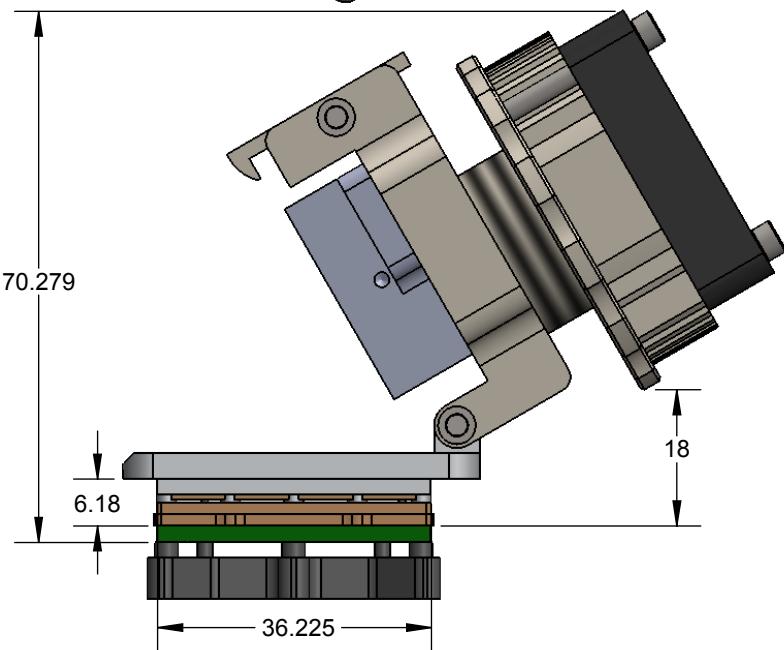
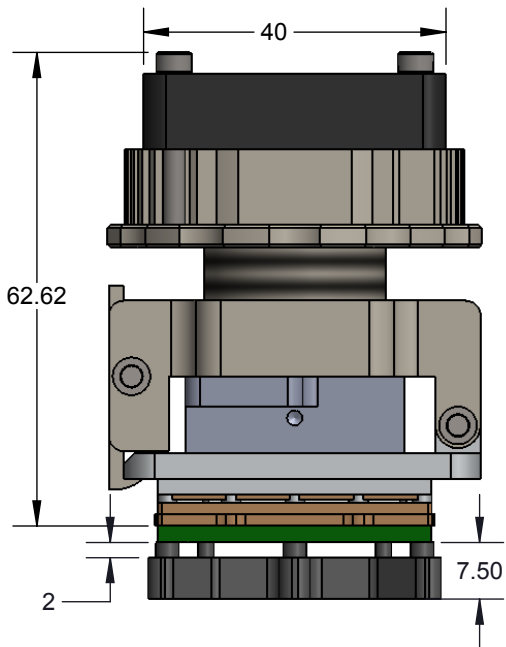
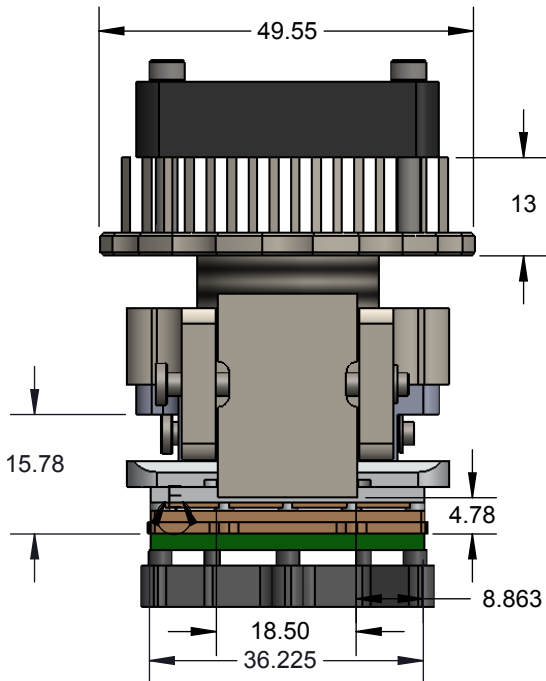
- Wide temperature range (-55C to +180C)
- High current capability (up to 4A)
- Excellent signal integrity at high frequencies
- Low and stable contact resistance for reliable production yield
- Highly compliant to accommodate wide co-planarity variations
- Automated probe manufacturing enables low cost and short lead time



DETAIL E
SCALE 16 : 1




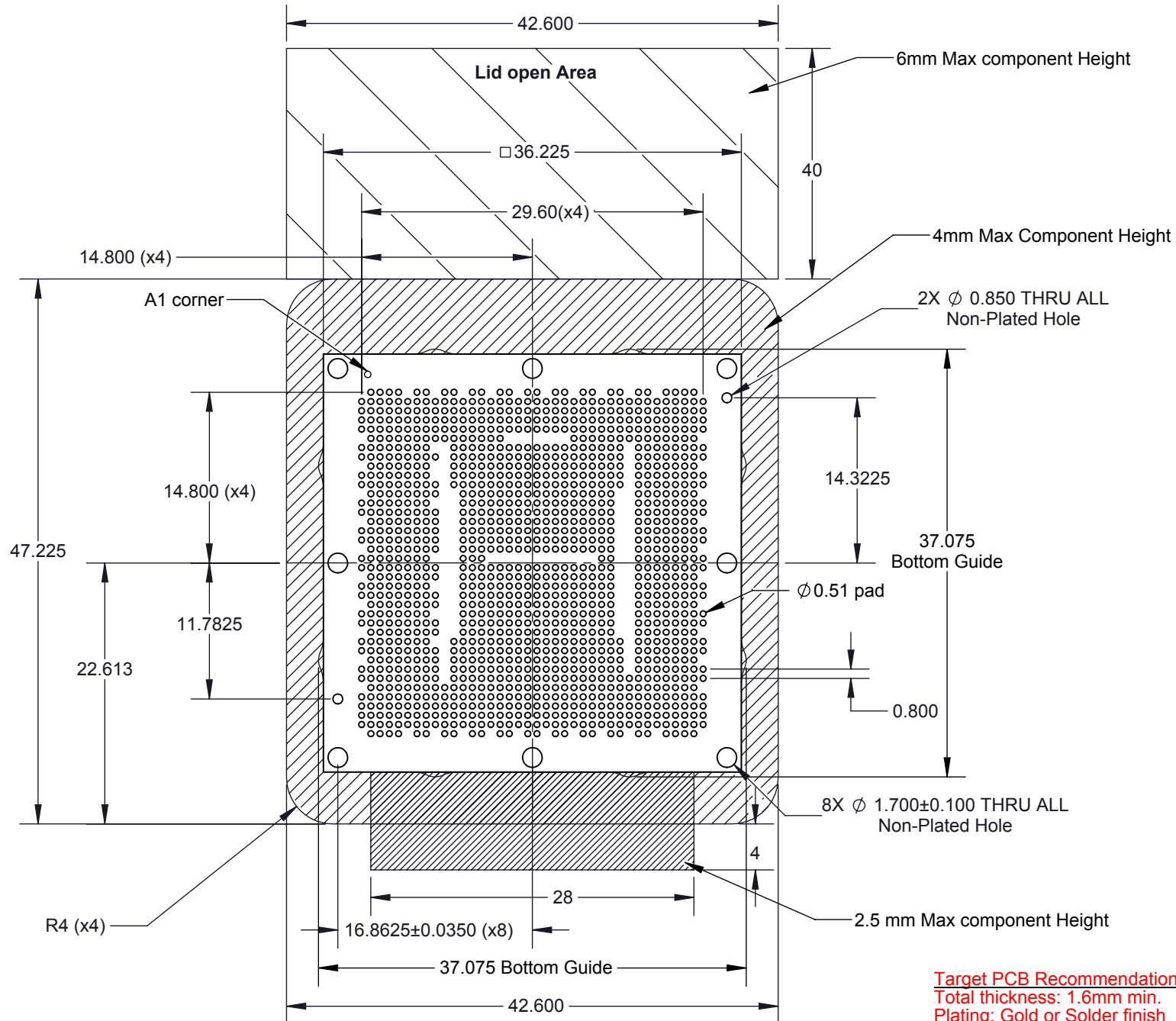
TOP VIEW: lid removed



Description: CBT 31x31mm, 0.8mm pitch, 38x38 array BGA1290

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.
Tolerances: Hole diameters $\pm 0.03\text{mm}$ [± 0.001 "], Pitches (from true position) $\pm 0.025\text{mm}$ [± 0.001 "], substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.13\text{mm}$ [± 0.005 "] unless stated otherwise. Materials and specifications are subject to change without notice.

| | | | | |
|---|---|--|--|----------------------|
|  CBT-BGA-6030 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com | Material: Material <not specified> Finish: Weight: 185.60 | STATUS: Released ENG: V. Panavala FILE: CBT-BGA-6030 Dwg | SHEET: 1 OF 5 DRAWN BY: M. Raske DATE: 7/26/2013 | REV. B SCALE: 1:1 |
| | | | | |




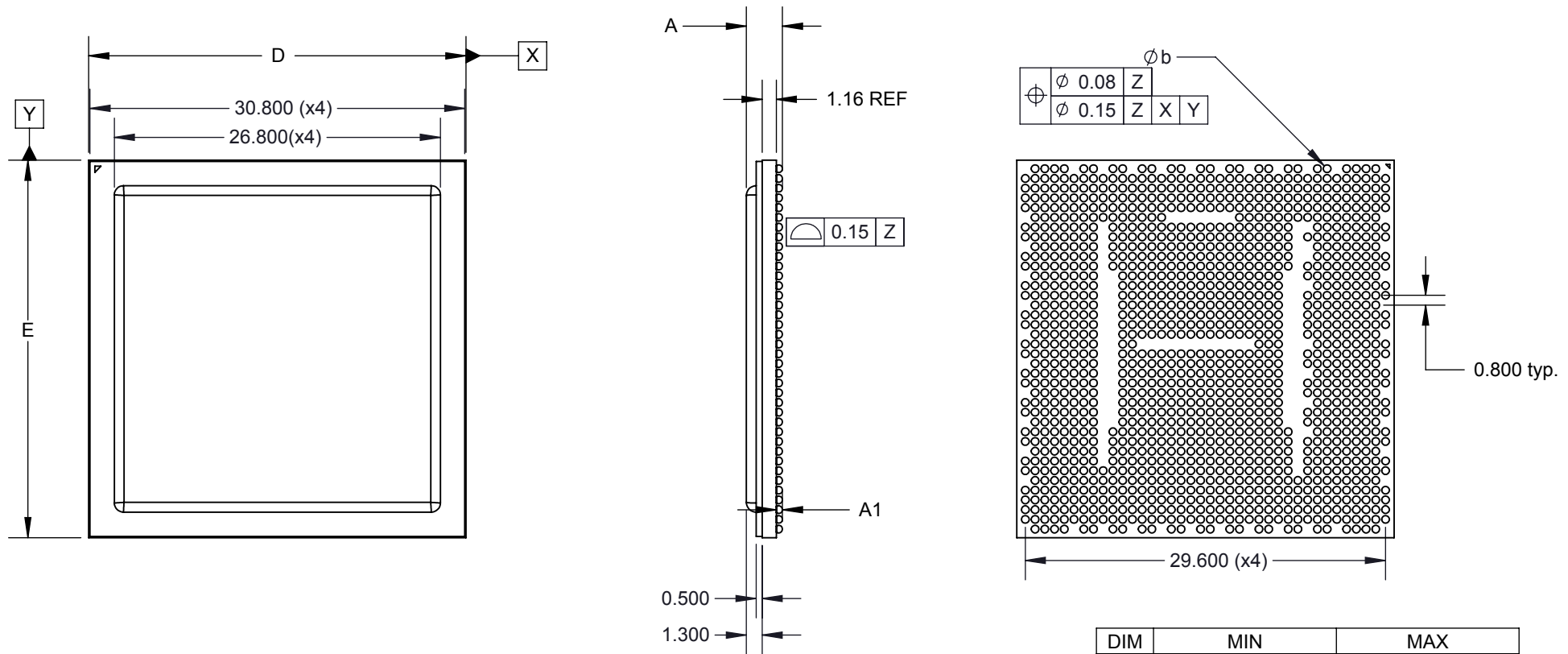
Target PCB Recommendations
 Total thickness: 1.6mm min.
 Plating: Gold or Solder finish
 PCB Pad height: same or higher than solder mask

Description: Recommended PCB layout

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

Tolerances: Hole diameters $\pm 0.0254\text{mm}$ [$\pm 0.001"$], 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.

| | | | | |
|---|---|------------------------|--------------------|------------|
|  CBT-BGA-6030 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com | Material: Material <not specified> Finish: Weight: 185.60 | STATUS: Released | SHEET: 2 OF 5 | REV. B |
| | | ENG: V. Panavala | DRAWN BY: M. Raske | SCALE: 2:1 |
| | | FILE: CBT-BGA-6030 Dwg | DATE: 7/26/2013 | |



Ironwood Electronics package code: BGA1290A

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 | MAX |
|-----|-----------|------|
| A | 1.00 | 4.00 |
| A1 | 0.5 | 0.6 |
| b | 0.45 | 0.55 |
| D | 31.00 BSC | |
| E | 31.00 BSC | |
| e | 0.80 | |

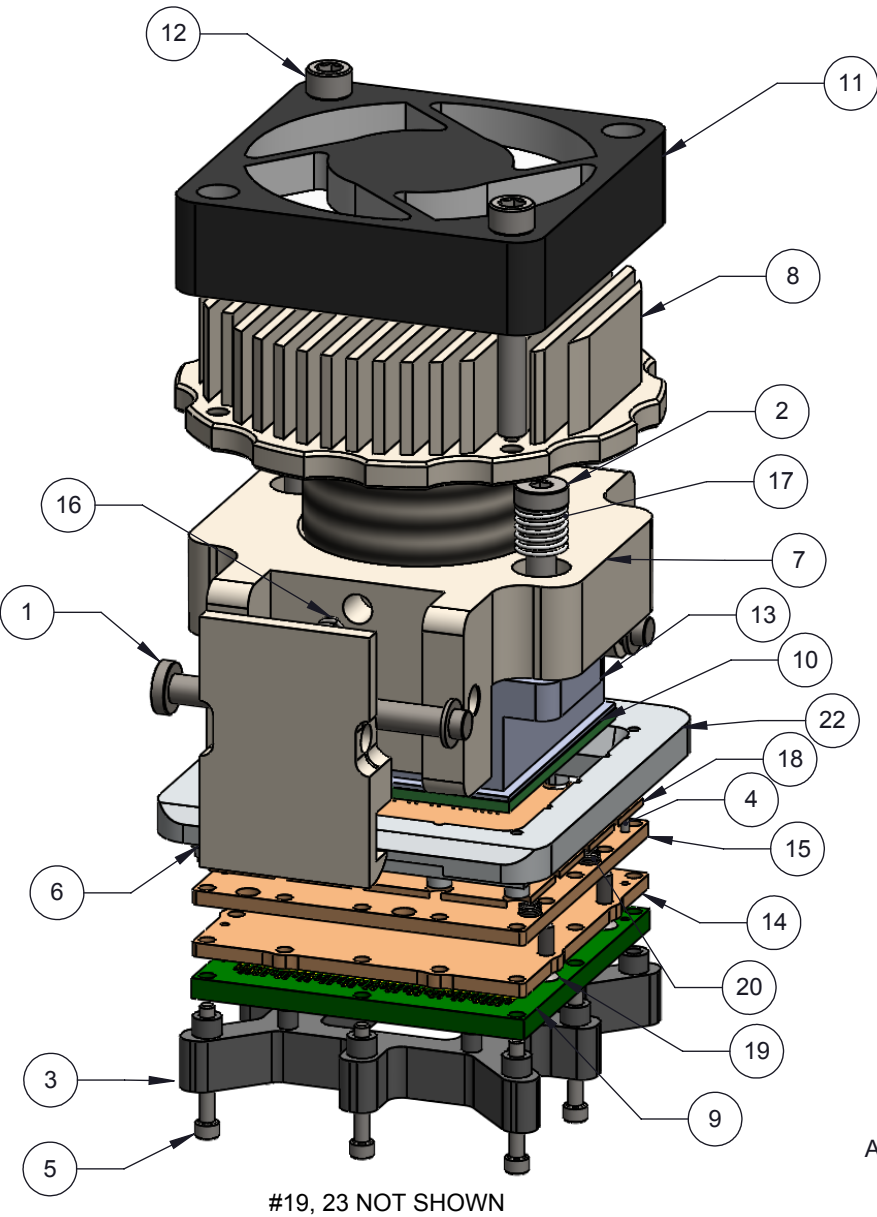
38x38 Array

Description: Compatible BGA Device

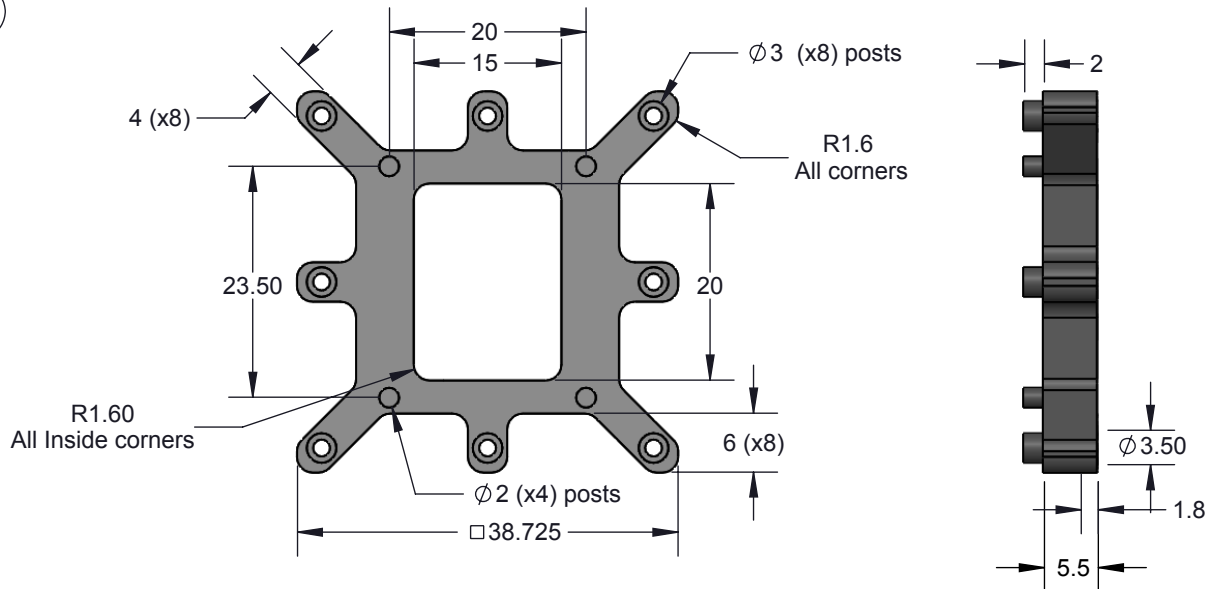
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

Tolerances: Hole diameters ± 0.0254 mm [± 0.001 "]. Pitches (from true position) ± 0.0762 mm [± 0.003 "], substrate thickness tolerance $\pm 10\%$, all other tolerances ± 0.127 mm [± 0.005 "] unless stated otherwise. Materials and specifications are subject to change without notice.

| | | | | |
|---|--|------------------------|--------------------|------------|
|  <p>CBT-BGA-6030 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p> | <p>Material: Material <not specified> Finish: Weight: 185.60</p> | STATUS: Released | SHEET: 3 OF 5 | REV. B |
| | | ENG: V. Panavala | DRAWN BY: M. Raske | SCALE: 1:1 |
| | | FILE: CBT-BGA-6030 Dwg | DATE: 7/26/2013 | |




| ITEM NO. | Description | Material |
|----------|--|-----------------------------|
| 1 | Hinge Pin and Snap Ring, 3mm OD, 30mm long, 1045 Stl, Blk Oxide | AISI 1045 Steel, cold drawn |
| 2 | Screw, M3 x 12mm, Low Head Cap, SS | 18-8 Stainless Steel |
| 3 | CBT Black Anodized backing plate 31mm | 7075-T6 Aluminum Alloy |
| 4 | Dowel pin, 1/32" X 1/4", SS | Stainless Steel (18-8) |
| 5 | #0-80 x 0.5, SH Cap Screw | Alloy Steel |
| 6 | Latch | 7075-T6 Aluminum Alloy |
| 7 | Socket Lid | 7075-T6 Aluminum Alloy |
| 8 | Heat sink Compression Screw M24 threads | 7075-T6 Aluminum Alloy |
| 9 | PCB 31x31mm, 0.8mm pitch, 38x38 array BGA1290 | FR4 |
| 10 | BGA1290 31x31mm, 0.8mm pitch, 38x38 array | FR4 Standard |
| 11 | Fan 40X10MM 12VDC 1.6W 9.9CFM | Material <not specified> |
| 12 | Screw, #4-40 X 7/8", Cap | Alloy Steel |
| 13 | Compression plate 31mm no shift with thermocouple hole | 7075-T6 Aluminum Alloy |
| 14 | Bottom Guide 31x31mm, 0.8mm pitch, 38x38 array BGA1290 | Semitron MDS 100 |
| 15 | Middle Guide 31x31mm, 0.8mm pitch, 38x38 array BGA1290 | Semitron MDS 100 |
| 16 | Precision Compression Spring, Zinc-Plated Music Wire, 1/2" Length, .12" OD, .016" Wire | Zinc Plated Music Wire |
| 17 | Spring Clamshell lid assembly | Steel Music Wire |
| 18 | Floating Guide 31x31mm, 0.8mm pitch, 38x38 array BGA1290 | Semitron MDS 100 |
| 19 | #0-80, 90 deg., head pin guide screw, Peek material 5.5715mm overall Length | PEEK unfilled |
| 20 | Floating Guide Spring | Alloy Steel (SS) |
| 21 | SBT Pin, SBT-BGA 0.5mm-0.8mm | |
| 22 | CBT Socket Base 31mm No Offset | 7075-T6 Aluminum Alloy |

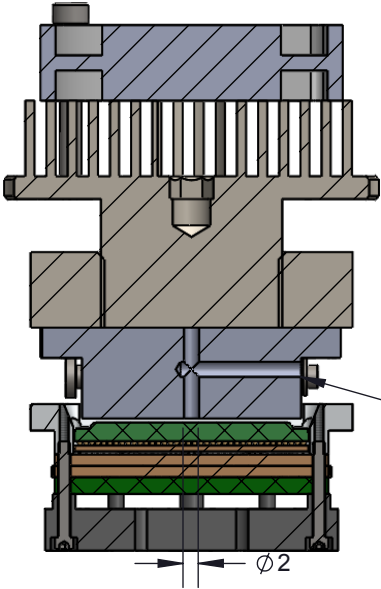
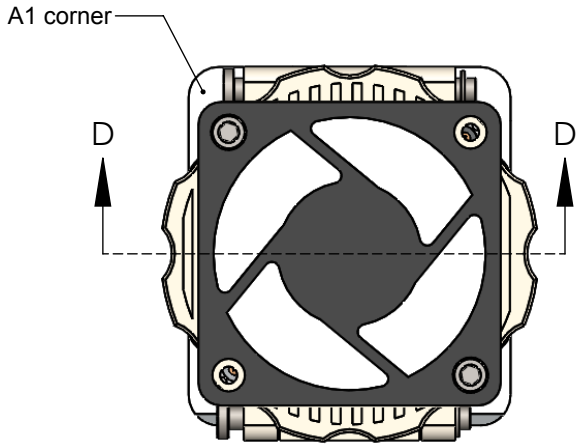


Insulation Plate Specification

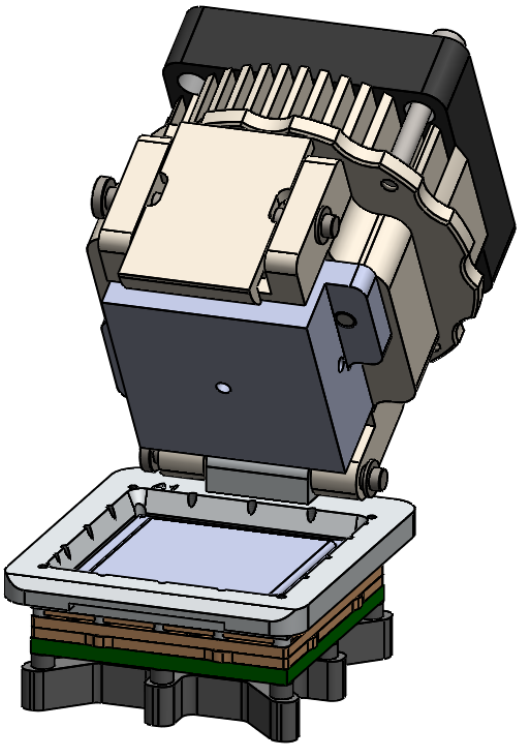
Description: Socket assembly

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.

| | | | | |
|---|---|--|--|------------------------|
|  CBT-BGA-6030 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com | Material: Material <not specified> Finish: Weight: 185.60 | STATUS: Released ENG: V. Panavala FILE: CBT-BGA-6030 Dwg | SHEET: 4 OF 5 DRAWN BY: M. Raske DATE: 7/26/2013 | REV. B SCALE: 1.3:1 |
|---|---|--|--|------------------------|




SECTION D-D



| Rev | Date | Initials | Description |
|-----|---------|----------|--|
| B | 3/25/15 | RP/MR | Changed spring pin and guides to new design, dowel pin protrusion adjusted, if needed, metal screws replaced with plastic screws, if needed. Contact Ironwood for details. |
| | | | |
| | | | |

Description: Socket

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.

| | | | | |
|--|--|---|---|---------------------------------------|
|  <p>CBT-BGA-6030 Drawing ©2015 Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p> | <p>Material: Material <not specified> Finish: Weight: 185.60</p> | <p>STATUS: Released ENG: V. Panavala FILE: CBT-BGA-6030 Dwg</p> | <p>SHEET: 5 OF 5 DRAWN BY: M. Raske DATE: 7/26/2013</p> | <p>REV. B SCALE: 1:1</p> |
| | | | | |