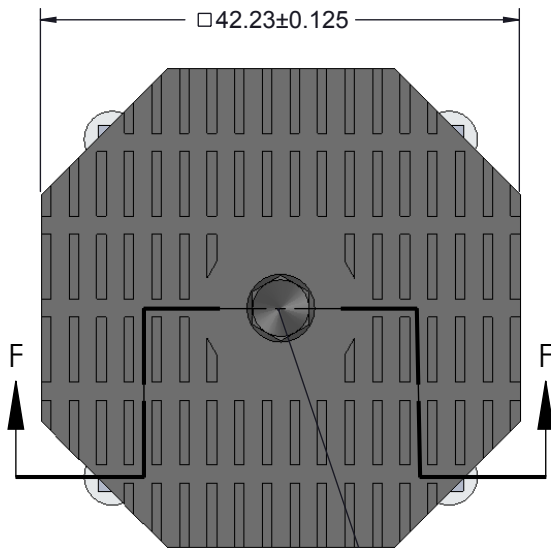


# GHz BGA SOCKET - direct mount, solderless

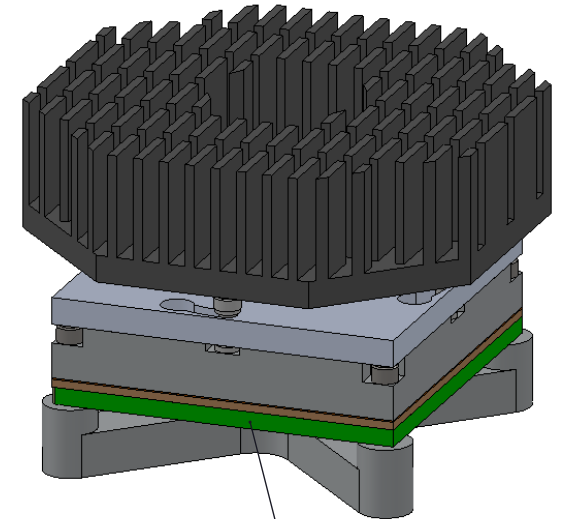
## Features

- 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

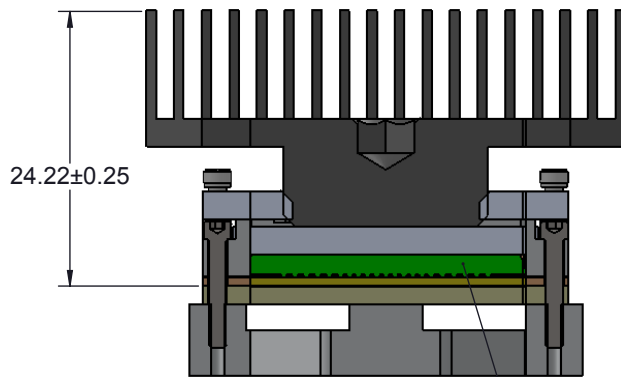


TOP VIEW

Recommended torque is 9 in lb.

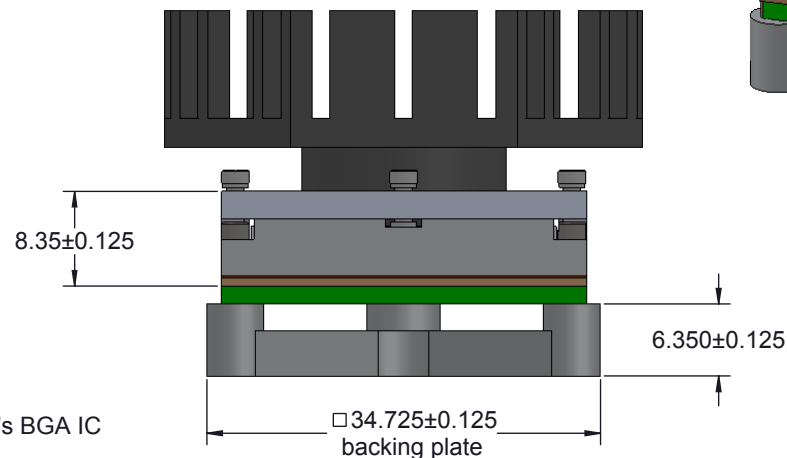


Customer's target PCB



SECTION F-F

Customer's BGA IC



SIDE VIEW

Description: Socket for 27x27mm, 1mm and 0.8mm pitch BGA761

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

Tolerances: diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001$ "], PCB perimeters  $\pm 0.13\text{mm}$  [ $\pm 0.005$ "], PCB thicknesses  $\pm 0.18\text{mm}$  [ $\pm 0.007$ "], pitches (from true position)  $\pm 0.08\text{mm}$  [ $\pm 0.003$ "], all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005$ "] unless stated otherwise. Materials and specifications are subject to change without notice.

## SG-BGA-6353 Drawing

STATUS: Released

SHEET 1 OF 4

REV. C



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

WEIGHT: 51.68  
MATERIAL: N/A  
FINISH: N/A

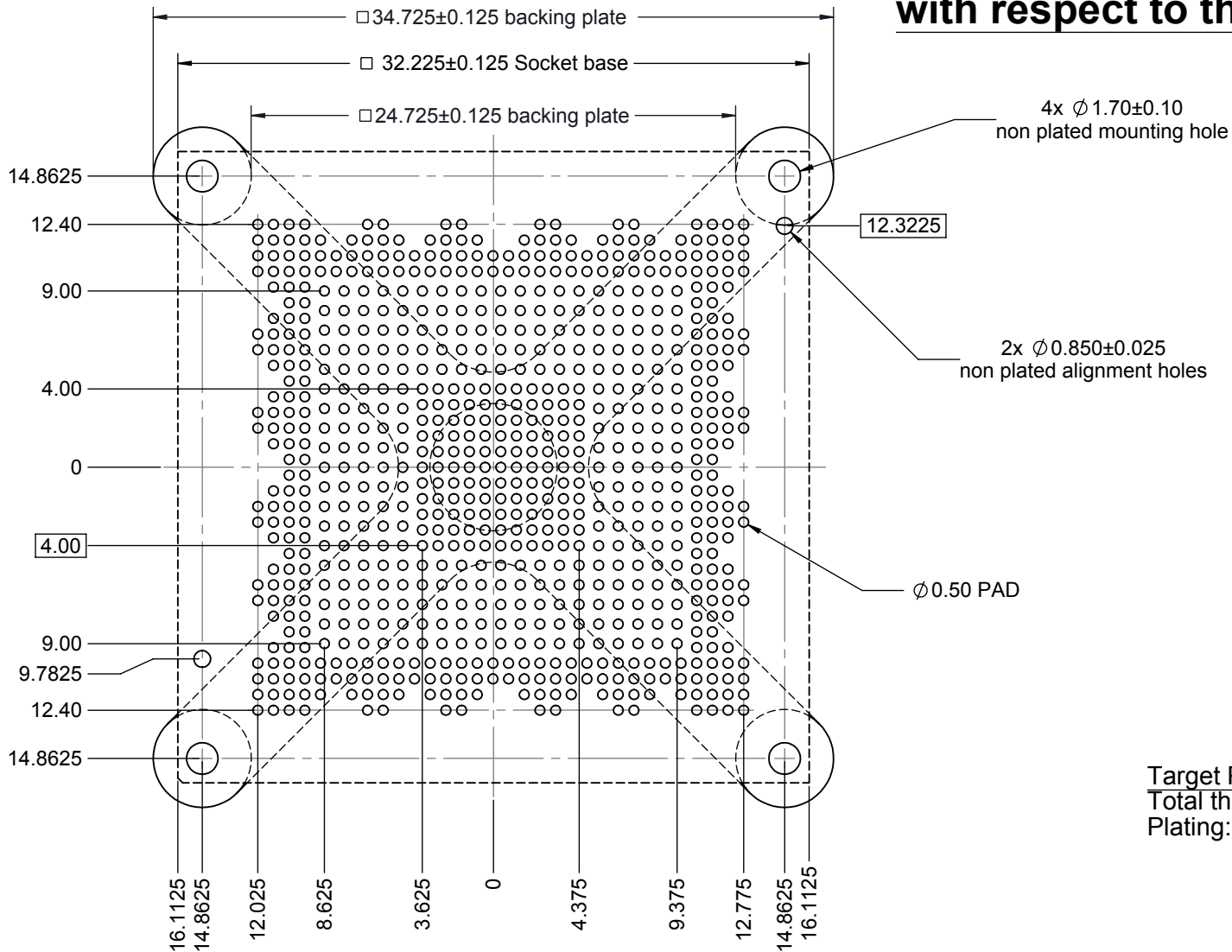
DRAWN BY: E. Smolentseva

SCALE: 3:2

File: SG-BGA-6353 Dwg

DATE: 1/20/2012

**\*Note: BGA pattern is not symmetrical with respect to the mounting holes.**



Target PCB Recommendations  
 Total thickness: 1.5mm min.  
 Plating: Gold or Solder finish

**Description: Recommended PCB layout**

Primary dimension units are millimeters, Secondary dimension units are [inches].  
 Tolerances: diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001$ "], PCB perimeters  $\pm 0.13\text{mm}$  [ $\pm 0.005$ "], PCB thicknesses  $\pm 0.18\text{mm}$  [ $\pm 0.007$ "], pitches (from true position)  $\pm 0.08\text{mm}$  [ $\pm 0.003$ "], all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005$ "], unless stated otherwise. Materials and specifications are subject to change without notice.

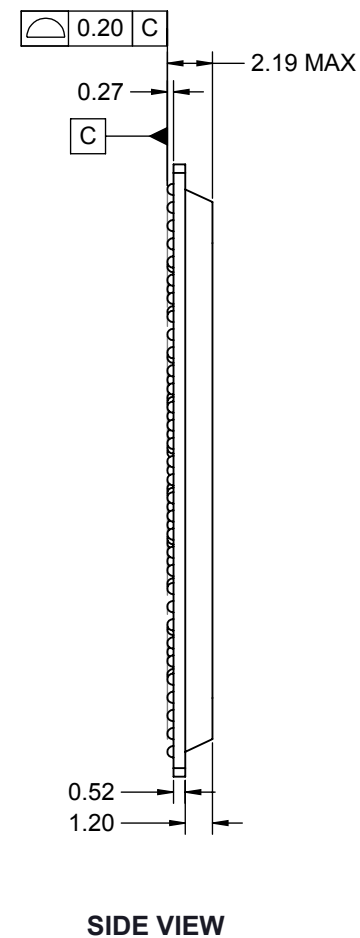
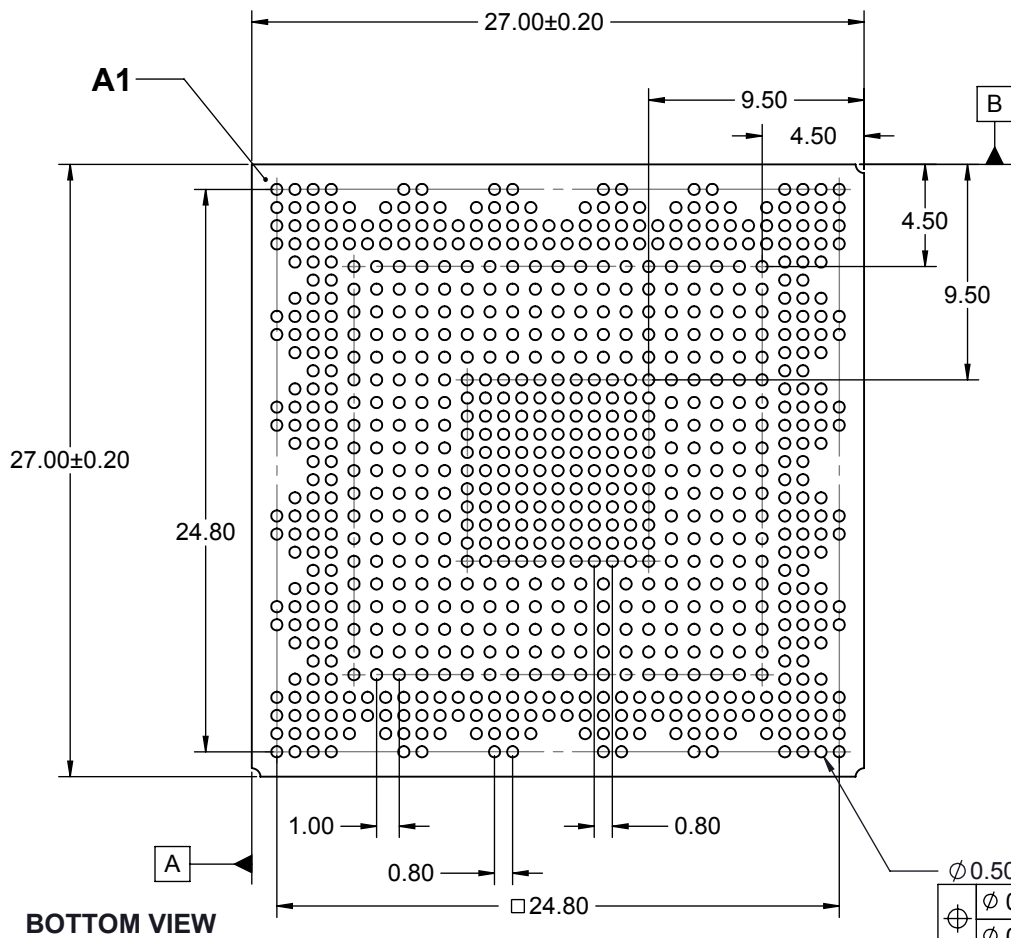
**SG-BGA-6353 Drawing**

STATUS: Released	SHEET 2 OF 4	REV. C
DRAWN BY: E. Smolentseva	SCALE: 3:1	
File: SG-BGA-6353 Dwg	DATE: 1/20/2012	



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

WEIGHT: 51.68  
 MATERIAL: N/A  
 FINISH: N/A



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: Socket for 27x27mm, 1mm and 0.8mm pitch BGA761**

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

Tolerances: diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001$ "], PCB perimeters  $\pm 0.13\text{mm}$  [ $\pm 0.005$ "], PCB thicknesses  $\pm 0.18\text{mm}$  [ $\pm 0.007$ "], pitches (from true position)  $\pm 0.08\text{mm}$  [ $\pm 0.003$ "], all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005$ "] unless stated otherwise. Materials and specifications are subject to change without notice.

**SG-BGA-6353 Drawing**

STATUS: Released

SHEET 3 OF 4

REV. C



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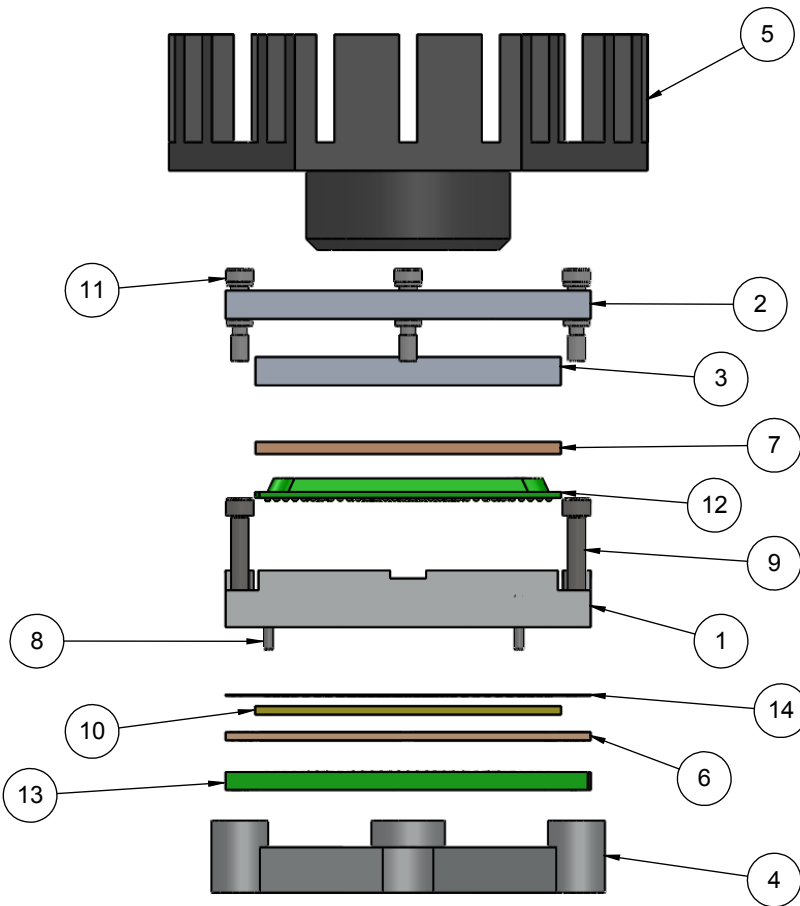
WEIGHT: 51.68  
MATERIAL: N/A  
FINISH: N/A

DRAWN BY: E. Smolntseva

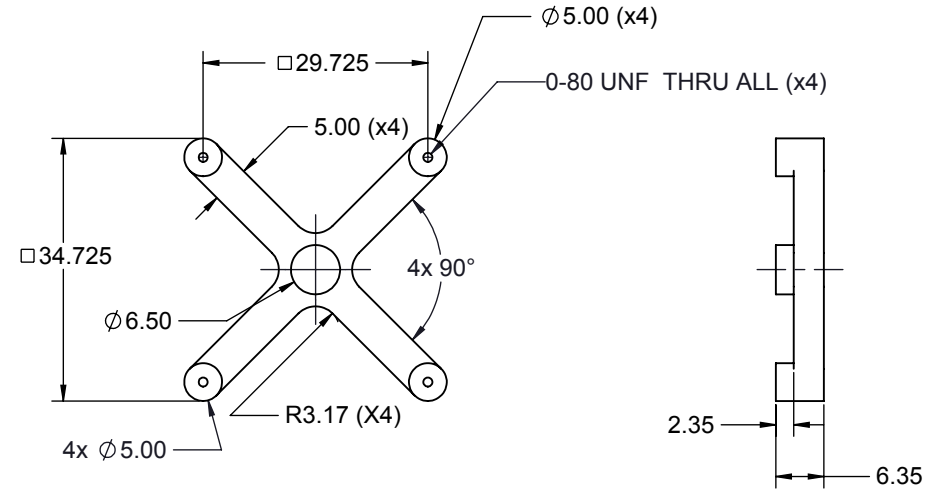
SCALE: 3:1

File: SG-BGA-6353 Dwg

DATE: 1/20/2012



ITEM NO.	DESCRIPTION	Material
1	Socket Base, 32.225 X 32.225	7075-T6 Aluminum Alloy
2	Socket Lid, 32.225 X 32.225	7075-T6 Aluminum Alloy
3	Compression Plate, 26.95 X 26.95	7075-T6 Aluminum Alloy
4	Backing Plate 27mm IC 5 post	7075-T6 Aluminum Alloy
5	compression screw	7075-T6 Aluminum Alloy
6	Elastomer Guide 27mm IC	Ultem 1000
7	IC Frame	Ultem 1000
8	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
9	#0-80 X .375 LG, SOC HD CAP SCREW, ALLOY STL, BLK OXIDE	Alloy Steel
10	Elastomer 0.75mm thick 40 Micron gold plated filaments arranged symmetrically in a silicone rubber ( 63.5 degree angle)	20 Micron dia gold plated brass filaments arranged symmetrically in a silicon rubber (63.5 degree angle)
11	#0-80 Shoulder Screw, 0.090" thread length	Stainless Steel (303)
12	BGA761 IC 27x27mm 1/0.8mm Pitch	Material <not specified>
13	Customer's target PCB	FR4 Standard
14	Ball guide for 27x27mm 26x26 array 1mm + 0.8mm pitch	Kapton Polyimide/Cirlex



### Description: Socket for 27x27mm, 1mm and 0.8mm pitch BGA761

Primary dimension units are millimeters, Secondary dimension units are [inches].  
 Tolerances: diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001$ "], PCB perimeters  $\pm 0.13\text{mm}$  [ $\pm 0.005$ "], PCB thicknesses  $\pm 0.18\text{mm}$  [ $\pm 0.007$ "], pitches (from true position)  $\pm 0.08\text{mm}$  [ $\pm 0.003$ "], all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005$ "] unless stated otherwise. Materials and specifications are subject to change without notice.

### BACKING PLATE

### SG-BGA-6353 Drawing

STATUS: Released	SHEET 4 OF 4	REV. C
DRAWN BY: E. Smolentseva	SCALE: 3:2	
File: SG-BGA-6353 Dwg	DATE: 1/20/2012	



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 Tele: (800) 404-0204  
 www.ironwoodelectronics.com

WEIGHT: 51.68  
 MATERIAL: N/A  
 FINISH: N/A

REV	Requestor	Date	ECO #	Description of Change
B	ELS	1/27/12		1. Centered the inner array inside the outer array
C	ELS	6/12/2	8096G	1. Changed P10724 test chip to P11237.

## Description: Modifications

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

Tolerances: diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001$ "], PCB perimeters  $\pm 0.13\text{mm}$  [ $\pm 0.005$ "], PCB thicknesses  $\pm 0.18\text{mm}$  [ $\pm 0.007$ "], pitches (from true position)  $\pm 0.08\text{mm}$  [ $\pm 0.003$ "], all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005$ "], unless stated otherwise. Materials and specifications are subject to change without notice.

### SG-BGA-6353 Specification

STATUS:

SHEET 5 OF 5

REV. C



Ironwood Electronics, Inc.  
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[www.ironwoodelectronics.com](http://www.ironwoodelectronics.com)

Material:  
 Finish:  
 Weight:

DRAWN BY: E. Smolentseva

SCALE: 1:1

File: SG-BGA-6353 Dwg

DATE: 1/20/2012