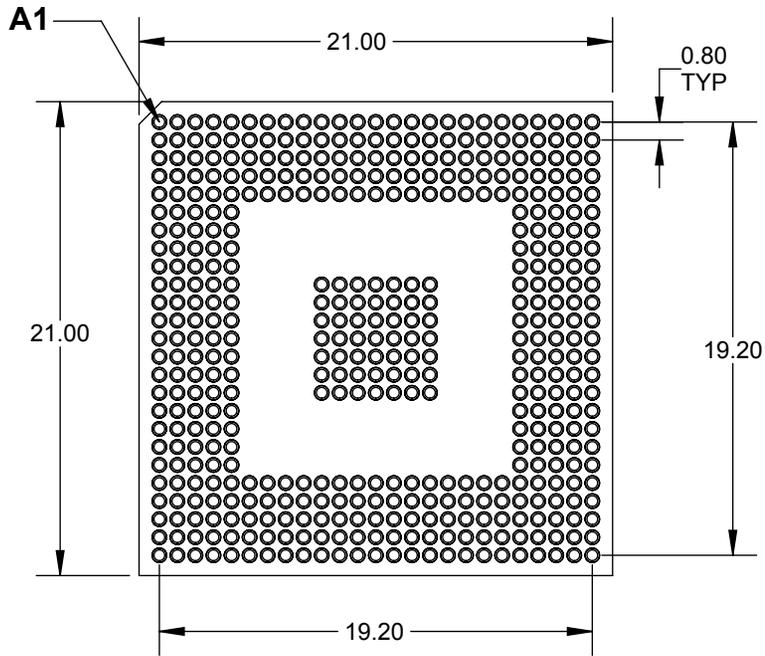
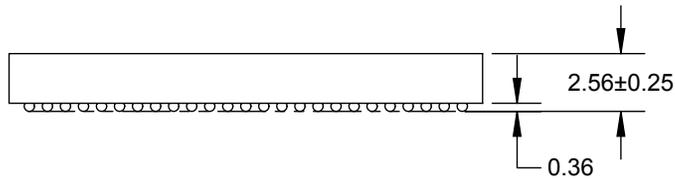


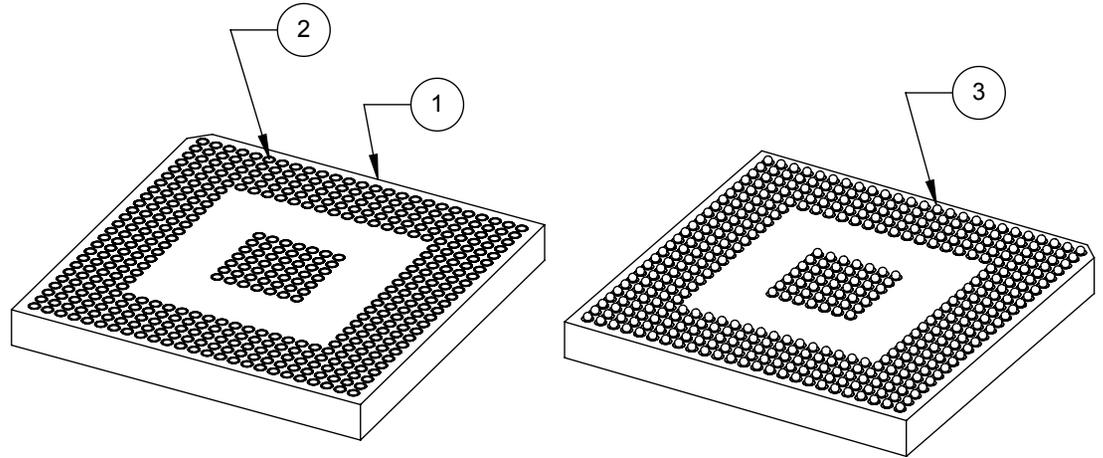
U.S. Patent No. 8,091,222 B2



TOP VIEW



SIDE VIEW



ITEM NO.	DESCRIPTION
1	High Temp Substrate
2	High Density Giga-Snap Receptacle
3	Solder Ball, 0.4572mm dia (See Table)

PART NO. SUFFIX	SOLDER BALL ALLOY
-64	Sn63Pb37
-64F*	Sn96.5Ag3.0Cu0.5
*RoHS Compliant	

Description: Giga-snaP BGA SMT Foot

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.

SF-BGA449A-B-64 Drawing SF-BGA449A-B-64F Drawing  Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: N/A	STATUS: Released	SHEET: 1 OF 2	REV. B
		DRAWN BY: M. Raske	SCALE: 3:1	
		FILE: SF-BGA449A-B-64	DATE: 04/06/2012	

Rev	Date	Initials	Description
A	-	-	Original
B	7/7/15	MT/OA	updated materials to generic definitions

Description: Revision History

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.

 Specification Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Finish: Weight:	STATUS: Released	SHEET: 2 OF 2	REV. B
		DRAWN BY: M. Raske	SCALE: 1:1	
		FILE: SF-BGA449A-B-64	DATE: 04/06/2012	