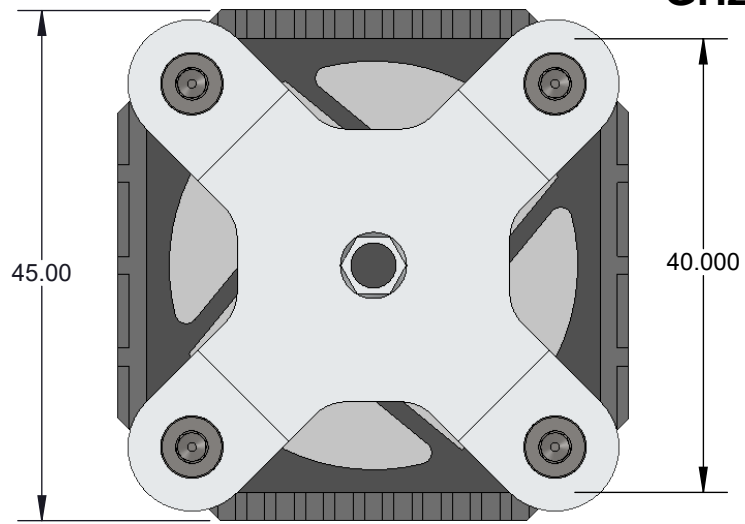


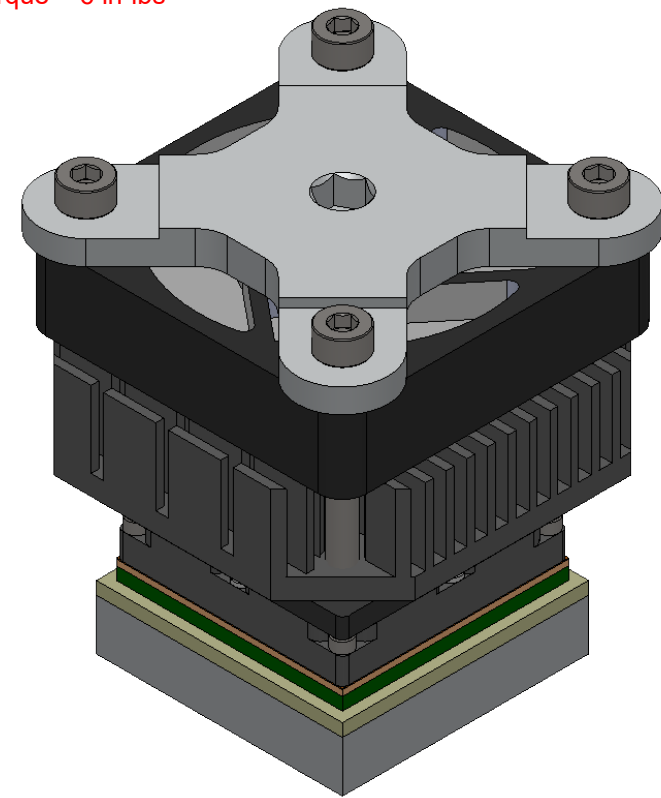
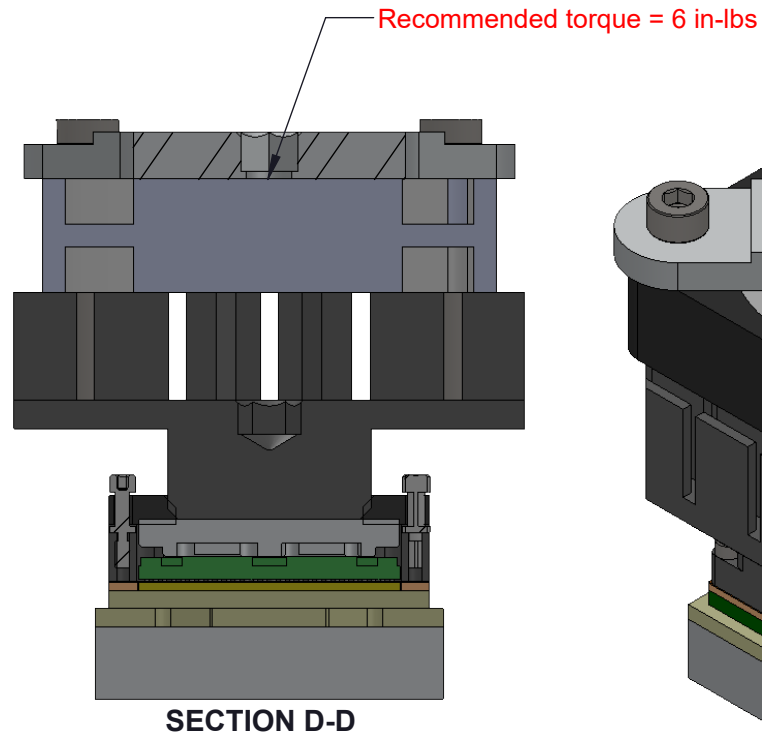
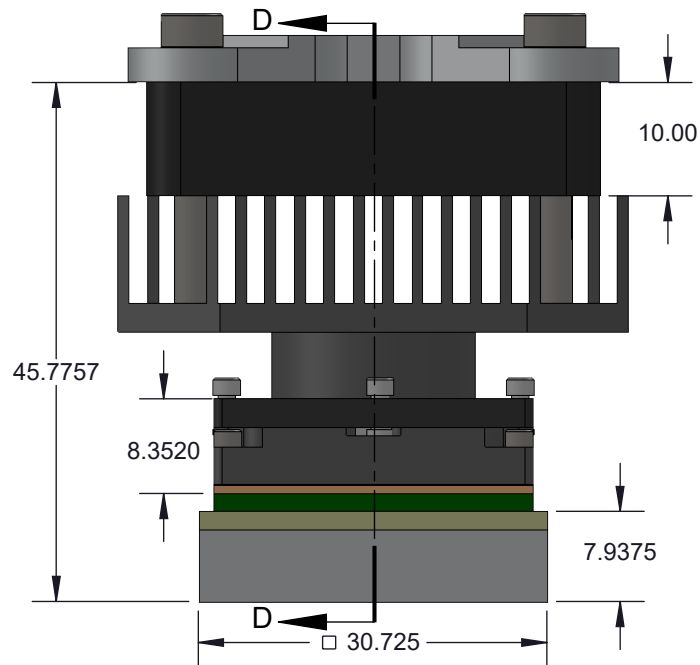
GHz BGA Socket - Direct mount, solderless



TOP VIEW

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 socket lid



Description: SG-BGA socket 0.8mm pitch 23x23mm IC with heat sink and fan

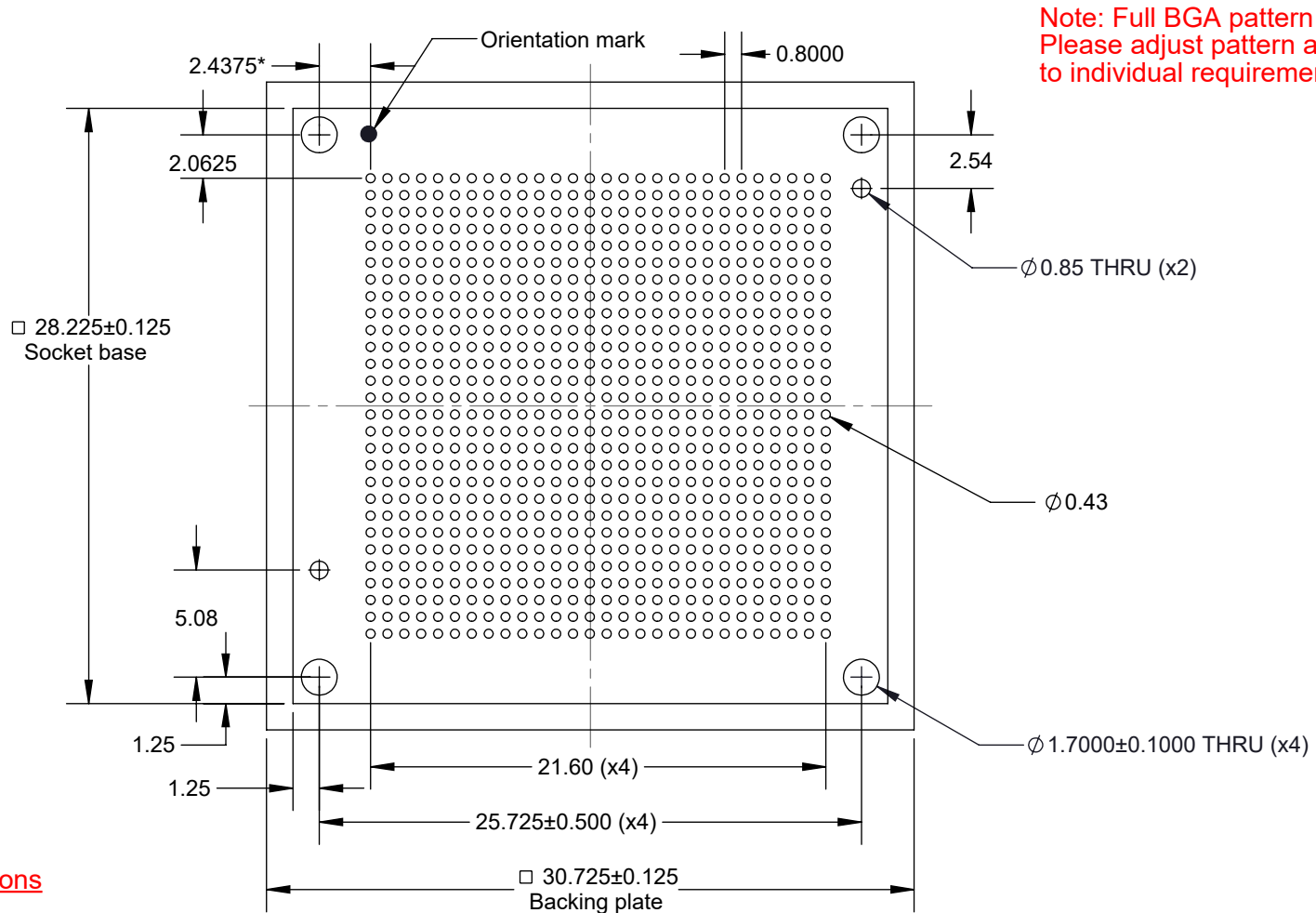
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

 SG-BGA-6421 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 94.97	STATUS: Released ENG: V. Panavala FILE: SG-BGA-6421 Dwg	SHEET: 1 OF 4 DRAWN BY: M. Raske DATE: 10/27/2015	REV. A SCALE: 1.5:1

Recommended PCB Layout
Top View

***Note: BGA pattern is not symmetrical with respect to the mounting holes. It is shifted 0.375mm to the right of the center.**



Target PCB Recommendations

Total thickness: 2.4mm min.

Plating: Gold or Solder finish.


PCB Pad height: Same or higher than solder mask.

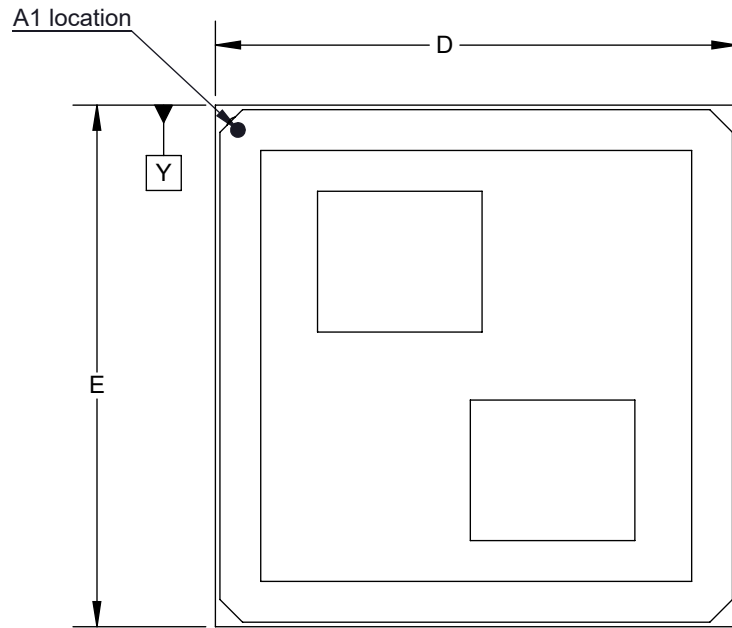
NOTE: Steel backing plate may be required based on end user's application.

Description: Recommended PCB Layout

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

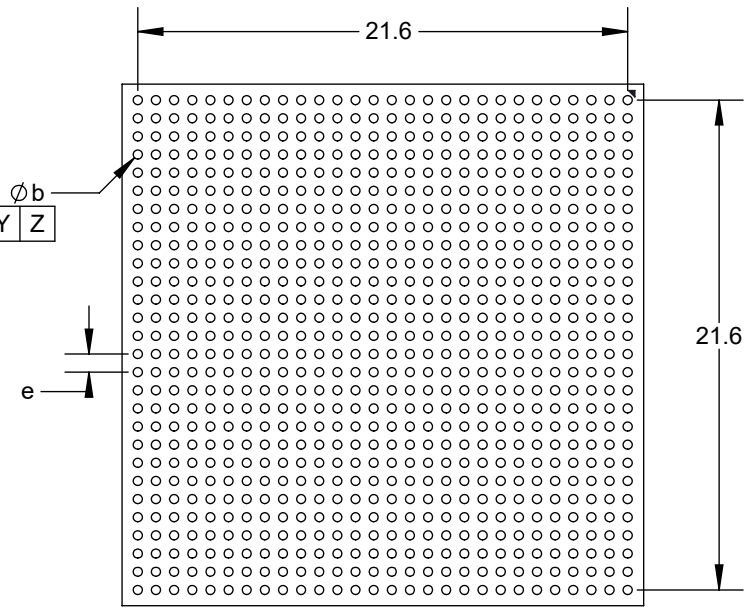
Tolerances: Hole diameters $\pm 0.03\text{mm}$ [$\pm 0.001"$], Pitches (from true position) $\pm 0.025\text{mm}$ [$\pm 0.001"$], substrate thickness tolerance $\pm 10\%$, all other tolerances $\pm 0.13\text{mm}$ [$\pm 0.005"$] unless stated otherwise. Materials and specifications are subject to change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

 SG-BGA-6421 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 94.97	STATUS: Released	SHEET: 2 OF 4	REV. A
		ENG: V. Panavala	DRAWN BY: M. Raske	SCALE: 3:1
		FILE: SG-BGA-6421 Dwg	DATE: 10/27/2015	

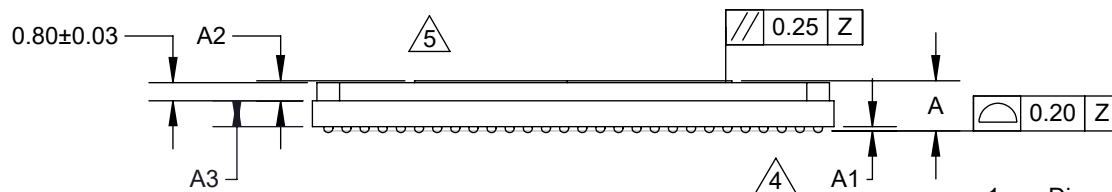


Top View

⊕	⊙ 0.15 (M)	X	Y	Z
	⊙ 0.08 (M)	Z		



Bottom View



Side View

DIM	MIN	MAX
A	2.00	2.75
A1	0.36	0.46
A2	0.888	
A3	1.05	1.25
b	0.50	0.70
D	23.0 BSC	
E	23.0 BSC	
e	0.8 BSC	

Array: 28x28

1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5-1994.

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.

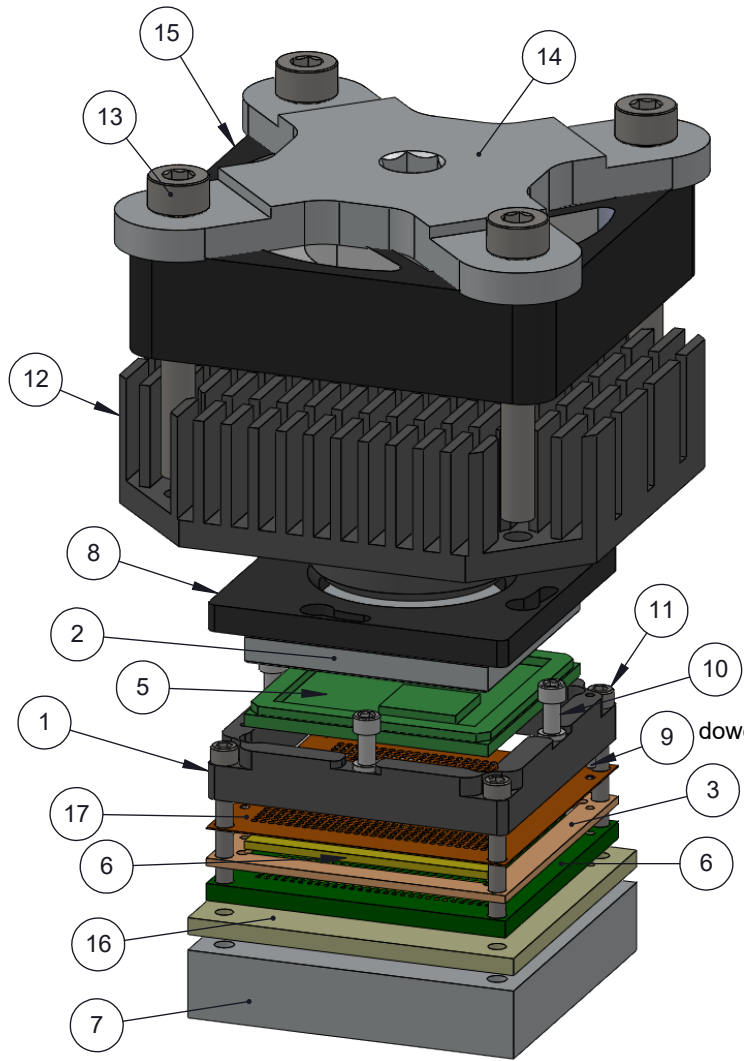
5. Parallelism measurement shall exclude any effect of mark on top surface of package.

Description: Compatible BGA Spec

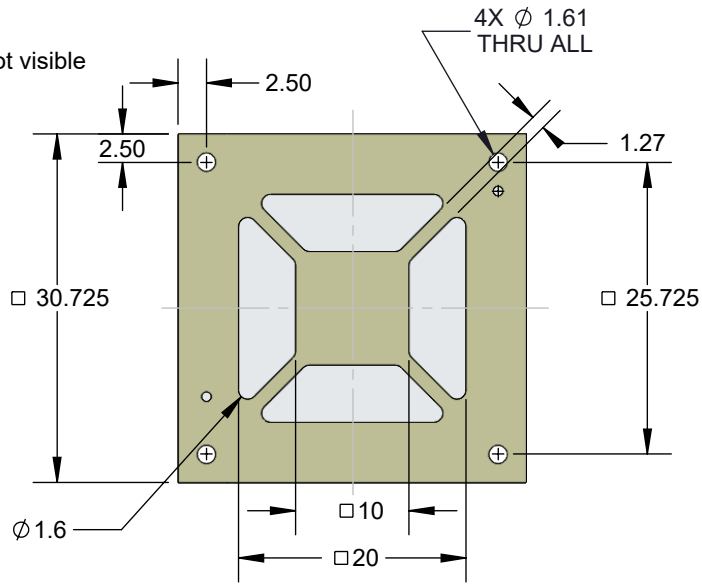
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

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.

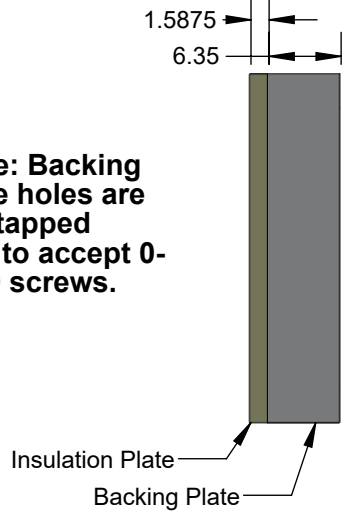
 SG-BGA-6421 Drawing Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 94.97	STATUS: Released ENG: V. Panavala FILE: SG-BGA-6421 Dwg	SHEET: 3 OF 4 DRAWN BY: M. Raske DATE: 10/27/2015	REV. A SCALE: 3:1



ITEM NO.	DESCRIPTION	Material
1	Socket base, for 23x3mm IC	7075-T6 Aluminum Alloy
2	Compression plate 23mm with cstm cutouts	7075-T6 Alumium Alloy
3	Elastomer Guide	Ultem 1000
4	23mm square 0.75mm thick 0.1mm pitch 63 deg angled elastomer	Shin-etsu Elastomer
5	Compatible BGA 23mm	FR4 High temp
6	Customer's target PCB for 23x23mm 28x28 0.8mm pitch BGA684	FR4 Standard
7	Backing Plate	7075-T6 Aluminum Alloy
8	Socket Lid	7075-T6 Aluminum Alloy
9	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
10	#0-80 Shoulder Screw, 2.29mm thread length	Stainless Steel (303)
11	#0-80 x 0.5, SH Cap Screw	Alloy Steel
12	Compression Screw	7075-T6 Aluminum Alloy
13	Screw, M3 x 0.5mm, 25mm lg, Low Head Cap, SS	Stainless Steel (18-8)
14	Torquing bracket, 32mm hole centers, 5mm hex	7075-T6 Alumium Alloy
15	Fan (Sunon 40mm)	Material <not specified>
16	Insulation plate for 23x23mm IC	FR4 High temp
17	Ball Guide	Kapton Polyimide/Cirlex




Note: Backing plate holes are tapped to accept 0-80 screws.



Description: Skt, Insulation Plate

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.

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