



Device Material Content

5555 NE Moore Ct. Hillsboro OR 97124 custreq@latticesemi.com					Package Code: BG324		Assembly: ASEM Size (mm): 15 x 15 Lead pitch (mm): 0.8 MSL: 3 Reflow max (°C): 260	
June, 2022	Package: Total Device Weight		324 caBGA 0.586 Grams		Products: XO3			
	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	1.28%	0.0075	1.28%	0.0075	Silicon chip	7440-21-3	100.00%	Die size: 3.7 x 3.7 mm
Mold Compound	51.47%	0.3016	3.60% 2.57% 2.57% 0.26% 42.46%	0.0211 0.0151 0.0151 0.0015 0.2488	Epoxy Resin Phenol Novolac Metal Hydroxide Carbon Black Silica Fused	- 9003-35-4 - 1333-86-4 60676-86-0	7.00% 5.00% 5.00% 0.50% 82.50%	Mold Compound: Sumitomo G750SE
D/A Epoxy	0.21%	0.0012	0.17% 0.04%	0.00098 0.00025	Silver Esters & resins	7440-22-4 -	80.00% 20.00%	Die attach epoxy: Henkel (Ablebond) 2100A
Wire	0.69%	0.0040	0.68% 0.01%	0.0040 0.0001	Copper Palladium	7440-50-8 7440-05-3	98.50% 1.50%	0.8 mil diameter; 1 wire per solder ball
Solder Balls	20.67%	0.1211	19.95% 0.62% 0.10%	0.1169 0.0036 0.0006	Tin (Sn) Silver (Ag) Copper (Cu)	7440-31-5 7440-22-4 7440-50-8	96.50% 3.00% 0.50%	SAC305
Substrate	16.69%	0.0978	11.35% 5.34%	0.0665 0.0313	Glass fiber BT Resins	65997-17-3 -	68.00% 32.00%	BT Resin CCL-HL832NX-A
Foil	3.71%	0.0218	2.75% 0.92% 0.05%	0.0161 0.0054 0.0003	Copper Nickel Gold	7440-50-8 7440-02-0 7440-57-5	74.07% 24.69% 1.24%	
Solder Mask	5.27%	0.0309	2.96% 0.84% 1.16% 0.16% 0.15%	0.0174 0.0049 0.0068 0.0009 0.0009	Quartz 3-methoxy-3-methylbutylacetate Barium Sulfate Talc (containing no asbestiform fibers) Trade secret ingredients	14808-60-7 103429-90-9 7727-43-7 14807-96-6 -	56.20% 16.00% 22.00% 3.00% 2.80%	Solder mask PSR4000 AUS 308

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