



5555 NE Moore Ct. Hillsboro OR 97124 custreg@latticesemi.com	Package: 400 caBGA Total Device Weight 0.747 Grams		Package Code: BG400 Products: XO3 (except 9400)	Assembly: ASEM Size (mm): 17 x 17 Lead pitch (mm): 0.8 MSL: 3 Reflow max (°C): 260
June, 2022				

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	1.39%	0.0104	1.39%	0.0104	Silicon chip	7440-21-3	100.00%	Die size: 4.4 x 4.3 mm
Mold Compound	51.80%	0.3871	3.63% 2.59% 2.59% 0.26% 42.74%	0.0271 0.0194 0.0194 0.0019 0.3194	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 (ULA)
D/A Epoxy	0.21%	0.0016	0.17% 0.04%	0.00126 0.00031	Silver Esters & resins	7440-22-4 -	80.00% 20.00%	Die attach epoxy: Henkel (Ablebond) 2100A
Wire	0.72%	0.0054	0.70% 0.02%	0.0053 0.0001	Copper Palladium	7440-50-8 7440-05-3	97.90% 2.10%	0.8 mil diameter; 1 wire per solder ball
Solder Balls	20.03%	0.1497	19.33% 0.60% 0.10%	0.1444 0.0045 0.0007	Tin (Sn) Silver (Ag) Copper (Cu)	7440-31-5 7440-22-4 7440-50-8	96.50% 3.00% 0.50%	SAC305
Substrate	16.80%	0.1256	5.38% 11.43%	0.0402 0.0854	BT Resins Glass fiber	- 65997-17-3	32.00% 68.00%	BT Resin CCL-HL832NX-A
Foil	6.28%	0.0469	5.31% 0.92% 0.05%	0.0397 0.0069 0.0003	Copper Nickel Gold	7440-50-8 7440-02-0 7440-57-5	84.56% 14.70% 0.74%	
Solder Mask	2.77%	0.0207	1.56% 0.44% 0.61% 0.08% 0.08%	0.0116 0.0033 0.0046 0.0006 0.0006	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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Rev. H1