Device Material Content

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Package: 289 csBGA

Total Device Weight 191.54 Milligrams

Package Code: MG289

Products: LIFCL

Assembly: ASEK
Size (mm): 14 x 14 x 0.7
Lead pitch (mm): 0.5
MSL: 3
Reflow max (ºC): 260

	% of Total Pkg. Wt.	Weight (mg)	% of Total Pkg. Wt.	Weight (mg)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	6.16%	11.795	6.16%	11.795	Silicon chip	7440-21-3	100.00%	Die size: 4.805 x 5.185mm
Mold Compound	51.56%	98.764	45.12%	86.418	Silica	60676-86-0	87.50%	Mold Compound: Kyocera KE-G1250AAS
			3.35%	6.420	Epoxy resin	-	6.50%	
			2.84%	5.432	Phenol Resin	-	5.50%	
			0.26%	0.494	Carbon Black	1333-86-4	0.50%	
D/A Epoxy	2.22%	4.247	1.77%	3.398	Silver	7440-22-4	80.00%	Die attach epoxy: Henkel (Ablebond) 2100A
			0.44%	0.849	Esters & resins	-	20.00%	
Wire	1.09%	2.086	1.07%	2.055	Copper	7440-50-8	98.50%	0.8 mil diameter; 1 wire per solder ball
			0.02%	0.031	Palladium	7440-05-3	1.50%	
			0.00%	0.000	Gold	7440-57-5		
Solder Balls	11.07%	21.202	10.68%	20.460	Tin (Sn)	7440-31-5	96.50%	SAC305
			0.33%	0.636	Silver (Ag)	7440-22-4	3.00%	
			0.06%	0.106	Copper (Cu)	7440-50-8	0.50%	
Substrate	7.25%	13.890	2.32%	4.445	BT Resins	-	32.00%	BT Resin CCL-HL832NX-A
			4.93%	9.446	Glass fiber	65997-17-3	68.00%	
Foil	1.95%	3.741	1.95%	3.741	Copper	7440-50-8	100.00%	
Solder Mask	18.69%	35.799	10.16%	19.464	Quartz	14808-60-7	54.37%	Solder mask PSR4000 AUS 308
			1.37%	2.624	Dipropylene glycol monomethyl ether	34590-94-8	7.33%	
			0.62%	1.189	Morpholine derivative	71868-10-5	3.32%	
			0.56%	1.074	Silicon dioxide	7631-86-9	3.00%	
			0.56%	1.074	Silica, amorphous	112945-52-5	3.00%	
			0.04%	0.086	Carbon black	1333-86-4	0.24%	
			5.37%	10.289	Trade secret ingredients	-	28.74%	

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