Device Material Content

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Package: 64 ucfBGA
Total Device Weight 22.93 Milligrams

Package Code: UMG64
Products: LIF-MD6000 (Crosslink)

Assembly: ASET
Size (mm): 3.5 x 3.5
Lead pitch (mm): 0.4
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	22.79%	5.225	22.79%	5.2250	Silicon chip	7440-21-3	100.00%	Die size: 2.51 x 2.56mm
Substrate	16.64%	3.816	6.41%	1.4699	Laminate*	Trade secret	38.52%	CCL-HL 832NS
			0.30%	0.0694	Barium Sulfate	7727-43-7	1.82%	Solder mask PFR800 Aus410
			0.10%	0.0219	Talc	14807-96-6	0.57%	
			0.10%	0.0219	Phosphinoxide derivative	Trade secret	0.57%	
			0.06%	0.0146	Silica	Trade secret	0.38%	
			0.24%	0.0548	Epoxy Resin	Trade secret	1.44%	
			9.43%	2.1612	Copper (Cu)	7440-50-8	56.63%	
			0.01%	0.0023	OSP	Trade secret	0.06%	
Repassivation polyimide	0.10%	0.024	0.06%	0.0132	N-Methyl-2-pyrrolidone	872-50-4	55.00%	HD4000E
			0.01%	0.0012	Proprietary Monomer	Trade secret	5.00%	
			0.00%	0.0001	Methanol	67-56-1	0.50%	
			0.04%	0.0095	Non regulated ingredients	Trade secret	39.50%	
UBM	0.07%	0.016	0.01%	0.0032	Titanium (Ti)	7440-32-6	20.25%	
			0.06%	0.0128	Copper (Cu)	7440-50-8	79.75%	
Bump	5.94%	1.363	4.80%	1.1002	Tin (Sn)	7440-31-5	80.72%	Sn98.2/Ag1.8
			0.09%	0.0202	Silver (Ag)	7440-22-4	1.48%	
			0.84%	0.1922	Nickel (Ni)	7440-02-0	14.1%	
			0.22%	0.0506	Copper (Cu)	7440-50-8	3.71%	
Mold Compound	37.53%	8.605	4.78%	1.0954	Epoxy Resin	Trade secret	12.73%	Hitachi GE100-RFC32
			4.38%	1.0033	Phenol Resin	Trade secret	11.66%	
			2.19%	0.5017	Metal Hydroxide	Trade secret	5.83%	
			4.01%	0.9199	Carbon Black	1333-86-4	10.69%	
			11.24%	2.5763	Silica (Amorphous) A	60676-86-0	29.94%	
			10.94%	2.5085	Silica (Amorphous) B	7631-86-9	29.15%	
Solder Balls	16.93%	3.881	16.63%	3.8131	Tin (Sn)	7440-31-5	98.25%	Sn98.25/Ag1.2/Cu0.5/ Ni0.05
			0.20%	0.0466	Silver (Ag)	7440-22-4	1.20%	
			0.08%	0.0194	Copper (Cu)	7440-50-8	0.50%	
			0.01%	0.0019	Nickel (Ni)	7440-02-0	0.05%	

Notes: * 0.06% max. concentration of Bisphenol A (CAS# 80-05-7) in substrate laminate material as impurity - not intentionally added.

The values listed above are nominal values based on studies of representatives of this particular package type, and are believed to be as accurate as possible.
Constituent substances and proportions in epoxy materials are before curing.
The information provided above is representative of the package as of the date listed, and is subject to change at any time.

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