Device Material Content

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Package: **25 WLCSP** **with SnAgCu Solder Balls**

Total Device Weight **0.00714** **Grams**

MSL: 1
Peak Reflow Temp: 260°C

November, 2011	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	Notes / Assumptions:
Die	71.43%	0.005100			Silicon chip	7440-21-3	Die size: 2.49 x 2.55 mm
BSP	3.69%	0.000263					
			2.36%	0.000169	Polyethylene terephthalate	25038-59-9	50-80% - LSC uses 64% in our calculations
			0.89%	0.000063	Silica	60676-86-0	20-30% - LSC uses 24% in our calculations
			0.18%	0.000013	Epoxy resin	-	1-10% - LSC uses 5% in our calculations
			0.18%	0.000013	Acrylic polymer	-	1-10% - LSC uses 5% in our calculations
			0.07%	0.000005	Carbon black	1333-86-4	0.1-5% - LSC uses 2% in our calculations
Solder ball	21.05%	0.001503			SAC105		
			20.74%	0.001481	Tin (Sn)	7440-31-5	Sn (98.5%)
			0.21%	0.000015	Silver (Ag)	7440-22-4	Ag (1.0%)
			0.11%	0.000008	Copper (Cu)	7440-50-8	Cu(0.5%)
RDL	2.82%	0.000201					
			0.99%	0.000070	Polyamide	-	30-40% - LSC uses 35% in our calculations
			1.41%	0.000101	Gamma-butyrolactone	96-48-0	40-60% - LSC uses 48% in our calculations
			0.11%	0.000008	Propylene Glycol Monomethyl Ether Acetate	108-65-6	1-10% - LSC uses 4% in our calculations
			0.31%	0.000022	Proprietary ingredients	-	3-25% - LSC uses 13% in our calculations
Copper	1.07%	0.000077			Copper (Cu)	7440-50-8	

Notes:

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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Rev. A