Device Material Content

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Package: **132 LBGA** **with SnAgCu Solder Balls**
Total Device Weight **0.106** **Grams**

MSL: 3
Peak Reflow Temp: 260°C

April, 2012	**% of Total Pkg. Wt.**	**Weight (g)**	**% of Total Pkg. Wt.**	**Weight (g)**	**Substance**	**CAS #**	**Notes / Assumptions:**
Die	6.13%	0.0065			Silicon chip	7440-21-3	Die size: 148 X 118 MIL
Mold	53.35%	0.0566					KE-G1250LKDS
			48.01%	0.0510	Silica	60676-86-0	75 to 95% Fused silica filler (LSC uses 90% in our calculation)
			2.93%	0.0031	Epoxy Resin(1)	Trade secret	1 to 10% Epoxy resin (LSC uses 5.5% in our calculation)
			2.40%	0.0026	Phenol Resin-1	Trade secret	2 to 7% Phenol resin (LSC uses 4.5% in our calculation)
Tape	0.30%	0.0003					FH-900-HR-9004
			0.036%	0.00004	Epoxy Resin	25038-59-9	10 to 20% (LSC uses 12% in our calculation)
			0.036%	0.00004	Phenol Resin	Trade secret	10 to 20% (LSC uses 12% in our calculation)
			0.018%	0.00002	SiO2 Filler	Trade secret	1 to 10% (LSC uses 6% in our calculation)
			0.208%	0.00022	(Meta)Acrylic Copolymer	Trade secret	65 to 75% (LSC uses 70% in our calculation)
Wire	0.89%	0.00095					0.7 MIL GPG-3 (2N)
			0.882%	0.00094	Gold (Au)	7440-57-5	99% Au
			0.009%	0.00001	Palladium (Pd)	7440-05-3	1% Pd
Solder Balls	11.19%	0.0119					SAC105
			11.025%	0.01170	Tin (Sn)	7440-31-5	Solder ball composition Sn98.5/Ag1.0/Cu0.5%
			0.112%	0.00012	Silver (Ag)	7440-22-4	
			0.056%	0.00006	Copper (Cu)	7440-50-8	
Substrate	28.14%	0.0299					CCL-HL832NX, AUS 308
			13.400%	0.0142	BT Resin CCL-HL832NX	Trade secret	47.6%
			8.510%	0.0090	Copper	7440-50-8	30.2%
			4.020%	0.0043	Solder mask PSR4000 AUS 308	Trade secret	14.3%
			2.009%	0.0021	Nickel plating	7440-02-0	7.1%
			0.200%	0.0002	Gold plating	7440-57-5	0.7%

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