Device Material Content

5555 NE Moore Ct.
Hillsboro OR 97124
(503) 268-8000
custreg@lscc.com

Package: **900 fpBGA** **with SnAgCu Solder Balls**

Total Device Weight **4.20** **Grams**

MSL: 3
Peak Reflow Temp: 250°C

November, 2009	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	Notes / Assumptions:
Die	7.15%	0.3003			Silicon chip	7440-21-3	Die size: 17.25 x 17.72 mm
Mold	37.30%	1.566					Mold Compound composition:
			32.82%	1.378	Silica	60676-86-0	75 to 95% Silica filler (LSC uses 88% in our calculation)
			2.24%	0.0940	Epoxy resin	-	1 to 10% Epoxy resin (LSC uses 6% in our calculation)
			2.24%	0.0940	Phenol resin	-	2 to 8% Phenolic resin (LSC uses 6% in our calculation)
							Mold Compound Density ranges between 1.95 and 2.05 grams/cc
D/A Epoxy	1.01%	0.0422					Die attach epoxy Density: 4 grams/cc
			0.80%	0.0338	Silver	7440-22-4	70 to 90% Silver (LSC uses 80% in our calculation)
			0.15%	0.0063	Organic esters and resins	-	10 to 30% Organic Esters and Resins (LSC uses 15% in our calculation)
			0.50%	0.0211	Functionalized Urethane	-	1 to 5% Functionalized Urethane (LSC uses 5% in our calculation)
Wire	0.63%	0.0264			Gold (Au)	7440-57-5	0.8 to 1.0 mil diameter; 1 wire per solder ball
Solder Balls	20.80%	0.874					Qualified Solder ball compositions:
			20.07%	0.843	Tin (Sn)	7440-31-5	Sn96.5/Ag3/Cu0.5
			0.62%	0.0262	Silver (Ag)	7440-22-4	
			0.10%	0.0044	Copper (Cu)	7440-50-8	
Substrate	22.28%	0.936					
			15.15%	0.636	Glass fiber	65997-17-3	60 to 75% glass fiber (LSC uses 68% in our calculation)
			7.13%	0.299	BT Resins	-	
Foil	10.84%	0.455			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.

www.latticesemi.com

lead-free RoHS 2002/95/EC

Rev. B4