Device Material Content

5555 NE Moore Ct.
Hillsboro OR 97124
(503) 268-8000

Package: 516 fpBGA with SnPb Solder Balls
Total Device Weight 4.18 Grams

August, 2008	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	Notes / Assumptions:
Die	1.89%	0.079			Silicon chip	7440-21-3	Die size: 9.63 x 11.36 mm
Mold	37.13%	1.552					Mold Compound composition:
			29.52%	1.234	Silica (Fused or Amorphous)	60676-86-0	65 to 95% Silica Fused or Amorphous (LSC uses 79.5% in our calculation)
			3.71%	0.155	Epoxy resin	-	2 to 20% Epoxy resin (LSC uses 10% in our calculation)
			3.71%	0.155	Phenol resin	-	2 to 20% Phenol resin (LSC uses 10% in our calculation)
			0.19%	0.008	Carbon Black	1333-86-4	0 to 1% Carbon Black (LSC uses 0.5% in our calculation)
D/A Epoxy	0.27%	0.011			Silver filled epoxy		Die attach epoxy Density: 4 grams/cc
			0.21%	0.009	Silver (Ag)	7440-22-4	60 to 100% Silver (LSC uses 80% in our calculation)
			0.05%	0.002	Organic esters and resins	-	
Wire	0.36%	0.015			Gold (Au)	7440-57-5	1.00 mil diameter; 1 wire per solder ball
Solder Balls	12.29%	0.514					
			7.74%	0.324	Tin (Sn)	7440-31-5	Solder ball composition Sn63/Pb37
			4.55%	0.190	Lead (Pb)	7439-92-1	
Substrate	19.22%	0.803			BT Resin	-	
Foil	28.84%	1.206			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