Device Material Content

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

Package: **100 TQFP (1.4mm)** **with matte Sn Plating**
Total Device Weight **0.65** **Grams**

Copper Bond Wire Version
MSL: 3
Peak Reflow Temp: 260°C

June, 2011	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	Notes / Assumptions:
Die	3.05%	0.0198			Silicon chip	7440-21-3	Die size: 4.30 x 5.50 mm
Mold	77.22%	0.5019					Mold Compound Density between 1.87 and 2.17 grams/cc
			67.03%	0.4357	Silica Fused	60676-86-0	82 to 94% Silica Fused (LSC uses 86.8% in our calculation)
			6.18%	0.0402	Epoxy Resin	-	1.5 to 11% Epoxy Resin (LSC uses 8% in our calculation).
			3.09%	0.0201	Phenol Resin	-	3 to 6% Phenol Resin (LSC uses 4% in our calculation).
			0.77%	0.0050	Other (trade secret)	-	2% (max) Other (LSC uses 1% in our calculation)
			0.15%	0.0010	Carbon black	1333-86-4	0.2% (typical) Carbon black (LSC uses 0.2% in our calculation)
D/A Epoxy	0.28%	0.0018			Silver filled epoxy		
			0.22%	0.0014	Silver (Ag)	7440-22-4	Die attach epoxy Density: 3 grams/cc
			0.06%	0.0004	other	-	(silver content: 70-90%; LSC uses 80% in our calculation)
Wire	0.13%	0.0009			Copper (Cu)	7440-50-8	0.8 mil wire diameter; 1 wire for each package lead; wire length 3 mm
Lead Plating	1.83%	0.0119			Tin (Sn)	7440-31-5	Plating is 100% Sn; thickness is 0.015mm
Leadframe	17.48%	0.1136					Leadframe thickness is nominal (per Case Outline)
			16.82%	0.1093	Copper (Cu)	7440-50-8	Cu 96.2%
			0.524%	0.0034	Nickel (Ni)	7440-02-0	Ni 3.0%
			0.114%	0.00074	Silicon (Si)	7440-21-3	Si 0.65%
			0.026%	0.00017	Magnesium (Mg)	7439-95-4	Mg 0.15%
							Copper area is fixed at 50% package area

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. A