

Package Weight and Material Composition

Rev JX

Customer : Nordic / nRF8001-R1Q32 and nRF8001-R2Q32

Date: 6/5/2013

Prepared by : Ly-anne Marcelo

Package: Saw MLF 5x5x0.85 32lds

Pad/cavity size: 3.900 x 3.900 mm

	Name	Composition	%	gms	Density	gms	%	PPM	CAS #
Molding Compound	Sumitomo EME G700 (Green)				1.95	0.02722	35.53%	355,285	
	Resin Type	Epoxy resin	Resin %	9.0	0.002450		3.20%	31,976	N/A
	Filler Type	SiO2	Filler %	84.0	0.022865		29.84%	298,439	60676-86-0
		Phenol Resin	%	6.50	0.001769		2.31%	23,093	N/A
		Carbon Black	%	0.50	0.000136		0.18%	1,776	N/A
Frame	C194FH				8.9	0.04005	52.28%	522,776	
		Cu		97.44	0.039029		50.94%	509,406	7440-50-8
		Fe		2.35	0.000941		1.23%	12,285	7439-89-6
		Zn		0.13	0.000050		0.07%	653	7440-66-6
		P		0.08	0.000033		0.04%	431	7723-14-0
Frame Plating	Ag				Avg. Density	0.00090	1.17%	11,696	
		Ag		0.000896	10.50		1.17%	11,696	7440-22-4
Die						0.00522	6.81%	68,073	
Die #1	Silicon			0.005216	2.4		6.807%	68,073	
Die Attach						0.00133	1.73%	17,313	
Die #1	CRM 1085A			Resin 16	0.000212	4.5	0.28%	2,770	N/A
		Filler		Ag 84	0.001114		1.45%	14,543	7440-22-4
Wire						0.00039	0.51%	5,086	
Wire Dia(mm)	0.020			%	gms	8.94			
		Cu		99.9900	0.000390		0.509%	5,086	7440-50-8
		Ag		0.0030	0.000000		0.000%	0	7440-22-4
		Ca		0.0020	0.000000		0.000%	0.102	7440-70-2
		Ni		0.0015	0.000000		0.000%	0.076	7440-02-0
		S		0.0012	0.000000		0.000%	0.061	7704-34-9
		Fe		0.0010	0.000000		0.000%	0.051	7439-89-6
		Al		0.0010	0.000000		0.000%	0.051	7429-90-5
		Others		0.0003	0.000000		0.000%	0.015	
External Plating	Sn	Sn				Avg. Density	0.00151	1.98%	19,771
		Sn		0.001515	7.30		1.977%	19,771	7440-31-5
							0.077	100.00%	1000000



Shaded blocks calculated per RoHS requirements

Disclaimer

The calculators identified in this report are used solely for determining package and weight composition and not for any other purpose, including but not limited to RoHS compliance. These calculators are used at the request of Customer in accordance with Amkor's current Terms and Conditions. Customer acknowledges that certain data used to generate the package and weight composition are provided by third parties and may not be validated and as such, the associated calculations performed herein are unproven and may produce inconclusive results.

All information generated by the use of these calculators is provided "As Is." Amkor makes no warranty or representation, whatsoever, as to the sufficiency or accuracy of any such information it has disclosed hereunder or as to the results to be obtained therefrom and assumes no responsibility arising from any use or misuse thereof.