

**Package Weight and Material Composition**

Rev JA

**Customer :** Nordric / nRF24LE1-F16Q48

**Date:** 4/30/2013

**Prepared by :** Ly-anne Marcelo

**Package:** MLF 7x7x0.85 48lds

**Pad/cavity size:** 4.200 x 4.200 mm

	Name	Composition	%	gms	Density	gms	%	PPM	CAS #	
<b>Molding Compound</b>	Sumitomo EME G700 (Green)				1.95	<b>0.05656</b>	<b>42.86%</b>	<b>428,599</b>		
	Resin Type	Multi-aromatic Resin %	16.0	0.009050			6.86%	68,576	N/A	
	Filler Type	SiO2 Filler %	84.0	0.047512			36.00%	360,023	60676-86-0	
<b>Frame</b>	C194FH				8.9	<b>0.06680</b>	<b>50.62%</b>	<b>506,179</b>		
		Cu	97.44	0.065091			49.32%	493,233	7440-50-8	
		Fe	2.35	0.001570			1.19%	11,895	7439-89-6	
		Zn	0.13	0.000083			0.06%	633	7440-66-6	
		P	0.08	0.000055			0.04%	418	7723-14-0	
<b>Frame Plating</b>	Ag				Avg. Density	<b>0.00067</b>	<b>0.51%</b>	<b>5,093</b>		
		Ag		0.000672	10.50		0.51%	5,093	7440-22-4	
<b>Die</b>						<b>0.00429</b>	<b>3.25%</b>	<b>32,530</b>		
Die #1	Silicon			0.004293	2.4		3.253%	32,530		
<b>Die Attach</b>						<b>0.00116</b>	<b>0.88%</b>	<b>8,799</b>		
	Die #1	CRM 1085A	Resin	16	0.000186	4.5		0.14%	1,408	N/A
			Filler	Ag	84			0.000975	0.74%	7,392
<b>Wire</b>					8.94	<b>0.00046</b>	<b>0.35%</b>	<b>3,459</b>		
Wire Dia(mm)	0.020									
		Cu	99.9900	0.000456			0.346%	3,458	7440-50-8	
		Ca	0.0020	0.000000			0.000%	0.069	7440-70-2	
		Ni	0.0015	0.000000			0.000%	0.052	7440-02-0	
		S	0.0012	0.000000			0.000%	0.042	7704-34-9	
		Fe	0.0010	0.000000			0.000%	0.035	7439-89-6	
		Al	0.0010	0.000000			0.000%	0.035	7429-90-5	
		Others	0.0003	0.000000			0.000%	0.010		
<b>External Plating</b>	Sn				Avg. Density	<b>0.00202</b>	<b>1.53%</b>	<b>15,341</b>		
		Sn		0.002025	7.30		1.534%	15,341	7440-31-5	
						<b>0.132</b>	<b>100.00%</b>	<b>1000000</b>		



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.