



Date: June 16. 2014  
 Document: A  
 Rev: 2.0  
 Marking on device:

**VS1003B**  
**PPPPPPPPP**  
**YYWW**

where, P P P P P P P P P = Lot ID  
 Y Y W W = assembly Year and Week  $\geq$  1346

Device : **VS1003-B/LSR-ROHS**  
 Package: **FBGA-49-0-7x7x1.17**  
 REF: **BG64611 rev A**

no	Part Name	Material Name	Component WT (g)	Material Content (Element)	CAS#	Element Wt (%)	Element WT (g)	WT% of total unit Wt	ppm
1	Die	Silicon Chip	0.01643	Silicon	7440-21-3	100.00	0.01643	14.25881	142588.109
2	Substrate	49 FBGA 230x230DAP, 0.20TH (R0049ST-05B) (R0000SO-60F), 7x7BD, 2L, HL832NXA, AUS308, MTX(7x7x4), 233	0.00260	Core (HL832NX)	105391-13-1/25722-66-1	26.86	0.00070	0.60607	6060.732
				Pre peg (GHPL830NX)	65997-17-3	14.71	0.00038	0.33192	3319.187
				Cu	7440-50-8	40.72	0.00106	0.91881	9188.124
				Ni	21595-53-9	2.41	0.00006	0.05438	543.796
				Au	15456-07.02	3.93	0.00010	0.08868	886.771
				Solder Mask AUS 308	Trade Secret	9.4	0.00024	0.21210	2121.031
				Pugging Ink Taiyo AUS 308	Trade Secret	1.97	0.00005	0.04445	444.514
				Silica Fused	60676-86-0	95	0.07011	60.84511	608451.144
				Epoxy Resin	Trade Secret	2	0.00148	1.28095	12809.498
				Phenol Resin	Trade Secret	0.5	0.00037	0.32024	3202.374
3	Mold Compound	BGA SUMIKON EMEG760V - GREEN 14MM X 6.3GR ( FICO, 233X62)	0.07380	Antimony Trioxide	Trade Secret	1	0.00074	0.64047	6404.749
				Carbon Black	1333-86-4	0.5	0.00037	0.32024	3202.374
				Brominated Epoxy Resin	Trade Secret	1	0.00074	0.64047	6404.749
				Au	7440-57-5	99.990	0.00111	0.96148	9614.840
				Dopant	-	0.010	0.00000	0.00010	0.962
4	Gold Wire	Wire Diameter : 1 mils Est. Wire Length :4455 mils	0.00111	Silver (Ag)	7440-22-4	70	0.00308	2.67298	26729.846
				Epoxy Resin	Trade Secret	5	0.00022	0.19093	1909.275
				Diester	Trade Secret	10	0.00044	0.38185	3818.549
				Polymeric Resin	Trade Secret	5	0.00022	0.19093	1909.275
				Acrylate resin	Trade Secret	10	0.00044	0.38185	3818.549
				Tin (Sn)	7440-31-5	96.5	0.01630	14.14415	141441.546
5	Die Attach Material	BGA ABLEBOND 2000B - GREEN D/A EPOXY (10CC/SYR) (EFD SYR WITH WHITE PISTON AND ORANGE END CAP)	0.00440	Silver (Ag)	7440-22-4	3	0.00051	0.43971	4397.147
				Copper (CU)	7440-50-8	0.5	0.00008	0.07329	732.858
				Tin (Sn)	7440-31-5	96.5	0.01630	14.14415	141441.546
6	Solder Ball	BGA SB PB-FREE DIA 18 MILS SN96.5/AG3/CU0.5 (0.45MM) (K PCS)	0.01689	Silver (Ag)	7440-22-4	3	0.00051	0.43971	4397.147
				Copper (CU)	7440-50-8	0.5	0.00008	0.07329	732.858
				Tin (Sn)	7440-31-5	96.5	0.01630	14.14415	141441.546
Total Unit Weight =			0.11523				0.11523	100.000	