

**LTM4601A-BGA 133LD 15mm X 15mm X 3.42mm (TABLE OF MATERIAL DECLARATION)**

*The LTM4601A-BGA is RoHS compliant per EU RoHS Directive 2003/95/EC.*

It contains less than 100ppm cadmium (Cd) and less than 1,000ppm of each - lead (Pb), mercury (Hg), hexavalent chromium (Cr+), polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE)

No.	Part Name	Material Name	Component Weight (gram)	Materials Analysis (element)	CAS Number	Material Mass (gram)	Materials Analysis (weight %)
1	Substrate	Circuit Board	0.1151	Barium Compounds	7727-43-7	0.0017	1.50
				Filler Substances (Silica Crystalline)	73776-74-4	0.0459	39.91
				Copper Metal	7631-86-9	0.0645	56.00
				Copper Compounds	7440-50-8	0.0000	0.02
				Ecotoxic substances	1328-53-6	0.0000	0.00
				Gold metal or alloy	7439-92-1	0.0005	0.46
				Nickel	7440-57-5	0.0024	2.10
				Zinc	7440-02-0	0.0000	0.01
2	Solder Ball	Alloy	0.2527	Tin (Sn)	7440-31-5	0.2439	96.50
				Silver (Ag)	7440-22-4	0.0076	3.00
				Copper (Cu)	7440-50-8	0.0013	0.50
3	Solder Paste	Alloy	0.0189	Sn	7440-31-5	0.0180	95.00
				Sb	7440-36-0	0.0009	5.00
4	Passive/Active Components		0.6687	Iron Powder (Fe)	7439-89-6	0.3810	56.98
				Copper (Cu)	7440-50-8	0.1519	22.72
				Nickel (Ni)	7440-02-0	0.0161	2.40
				Tin (Sn)	7440-31-5	0.0076	1.14
				Ceramic (Ba compounds)	12047-27-7	0.1121	16.77
5	Active Ics	Silicon	0.0143	Silicon	7440-21-3	0.0143	100.00
6	Wire	Gold	0.0024	Au	7440-57-5	0.0024	99.99
7	Encapsulation	Epoxy Resin	0.8929	Fused Silica	60676-86-0	0.6893	77.20
				Epoxy Resin	non-disclosure	0.0795	8.90
				Phenol Resin	non-disclosure	0.0795	8.90
				Crytalline Silica	14808-60-7	0.0268	3.00
				Carbon Black	1333-86-4	0.0045	0.50
				Metal Hydroxide	non-disclosure	0.0134	1.50
Total Package Weight			1.9651				

Note: Composition derived from MSDS and material C of C from Vendors  
Component Weight based on assembly of generic parts