

**LTM4649-BGA, 68LD 15mm X 9mm X 4.92mm (TABLE OF MATERIAL DECLARATION)**

*The LTM4649 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	0.1311	Barium Compounds	7727-43-7	0.00385	2.94
				Bismaleimide/Triazine Resin/Filler Substances (Silica Crystalline)	105391-33-1 1156-51-0/9003-36-5/21645-51-2 non-disclosure	0.03444	26.27
				Copper Metal	7440-50-8	0.05438	41.48
				Copper Compounds	147-14-8	0.00003	0.03
				Ecotoxic substances	7440-38-2 7439-92-1	0.00001	0.00
				Phosphorus	7723-14-0	0.00018	0.14
				Palladium	5/3/7440	0.00003	0.02
				Gold metal or alloy	7440-57-5	0.00009	0.07
				Nickel	7440-02-0	0.00205	1.56
				Zinc	7440-66-6	0.00005	0.04
				Continuous Filament Fiber Glass	65997-17-3	0.02707	20.65
				Acrylic Resin	non-disclosure	0.00734	5.60
				Epoxy Resin	non-disclosure	0.00017	0.13
				Chromium (III) oxide	1308-38-9	0.00000	0.00
				Silica amorphous	7631-86-9	0.00025	0.19
				Talcinot containing fibers like asbestos	14807-96-6	0.00045	0.34
				Aromatic carbonyl compounds	non-disclosure	0.00042	0.32
				Cyanoguanidine	461-58-5	0.00001	0.01
				Calcium Caobonate	471-34-1	0.00003	0.02
				Amine compounds	non-disclosure	0.00006	0.05
				Leveling agent and others	non-disclosure	0.00018	0.14
2	Solder Paste I	Alloy	0.0319	Pb	7439-92-1	0.02871	90.00
3	Solder Paste II	Alloy	0.0259	Sn	7440-36-0	0.00319	10.00
				Sn	7440-31-5	0.02456	95.00
4			0.5872	Sb	7440-36-0	0.00129	5.00
				Iron Powder (Fe)	7439-89-6	0.45131	76.86
	Passive/Active Components		0.5872	Copper (Cu)	7440-50-8	0.11438	19.48
				Nickel (Ni)	7440-02-0	0.00262	0.45
				Tin (Sn)	7440-31-5	0.00407	0.69
				Ceramic (Ba) Compounds	12047-27-7	0.01482	2.52
5	Active Ics	Silicon	0.0116	Silicon	7440-21-3	0.01156	100.00
6	Wire	Gold	0.0003	Au	7440-57-5	0.00027	99.99
6	Cu Frame	Cu	0.0126	Cu	7440-50-8	0.01255	100.00
7	Solder Ball	SAC305	0.1169	Sn	7440-31-5	0.11285	96.50
				Ag	7440-22-4	0.00351	3.00
				Cu	7440-50-8	0.00058	0.50
8	Encapsulation	Epoxy Resin	0.8544	Fused Silica	60676-86-0	0.65963	77.20
				Epoxy Resin	non-disclosure	0.07605	8.90
				Phenol Resin	non-disclosure	0.07605	8.90
				Crytalline Silica	14808-60-7	0.02563	3.00
				Carbon Black	1333-86-4	0.00427	0.50
				Metal Hydroxide	non-disclosure	0.01282	1.50
Total Package Weight			1.7718				

Note: Composition derived from MSDS and material C of C from Vendors

Component Weight based on assembly of generic parts