

**LTM4637 -BGA -PBF-133LD 15mm X 15mm X 4.32mm (TABLE OF MATERIAL DECLARATION)**
*The LTM4637 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), 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	0.2283	Barium Compounds	7727-43-7	0.00646	2.83
				Bismaleimide/Triazine Resin/Filler Substances (Silica Crystalline)	105391-33-1 1156-51-0/9003-36-5/21645-51-2 non-disclosure	0.05819	25.49
				Copper Metal	7440-50-8	0.09925	43.48
				Copper Compounds	147-14-8	0.00006	0.03
				**Ecotoxic substances	7440-38-2 7440-28-0	0.00000	0.00
				Gold metal or alloy	7440-57-5	0.00046	0.20
				Nickel	7440-02-0	0.00342	1.50
				Zinc	7440-66-6	0.00005	0.02
				Continuous Filament Fiber Glass	65997-17-3	0.04572	20.03
				Acrylic Resin	non-disclosure	0.01230	5.39
				Epoxy Resin	non-disclosure	0.00016	0.07
				Chromium(III) oxide	1308-38-9	0.00000	0.00
				Silica amorphous	7631-86-9	0.00027	0.12
				Talc: not containing fibers like asbestos	14807-96-6	0.00075	0.33
				Aromatic carbonyl compounds	non-disclosure	0.00071	0.31
				Cyanoguanidine	461-58-5	0.00002	0.01
				Calcium carbonate	471-34-1	0.00003	0.01
				Amine compounds	non-disclosure	0.00010	0.04
				Leveling agent and others	non-disclosure	0.00030	0.13
2	Solder Paste	Alloy	0.1023	Sn	7440-31-5	0.09716	95.00
				Sb	7440-36-0	0.00511	5.00
3	Passive/Active Components		0.9712	Iron Powder (Fe)	7439-89-6	0.73678	75.86
				Copper (Cu)	7440-50-8	0.19075	19.64
				Nickel (Ni)	7440-02-0	0.00528	0.54
				Tin (Sn)	7440-31-5	0.00695	0.72
				Ceramic (Ba) Compounds	12047-27-7	0.03144	3.24
4	FC-DFN		0.0902				
	Active Ics	Silicon		Silicon (Si)	7440-21-3	0.00012	0.13
	Clip	Copper Clip		Copper (Cu)	7440-50-8	0.01397	15.50
				Iron (Fe)	7439-89-6	0.00034	0.38
				Zinc (Zn)	7440-66-6	0.00002	0.02
	Solder Paste	Alloy		Lead (Pb)	7439-92-1	0.00134	1.49
				Silver (Ag)	7440-22-4	0.00004	0.04
				Tin (Sn)	7440-31-5	0.00007	0.08
	Encapsulation	Epoxy Resin		epoxy resin	29690-82-2	0.00164	1.81
				Phenol	9003-35-4	0.00098	1.09
				Silica (Si)	60676-86-0	0.03010	33.38
	Lead frame	Lead frame		Copper (Cu)	7440-50-8	0.03348	37.13
				Iron (Fe)	7439-89-6	0.00083	0.92
				Silver (Ag)	7440-22-4	0.00048	0.53
				Zinc (Zn)	7440-66-6	0.00005	0.05

No.	Part Name	Material Name	Component Weight (gram)	Materials Analysis (element)	CAS Number	Material Mass (gram)	Materials Analysis (weight %)
				Tin (Sn)	7440-31-5	0.00625	6.93
	Wire 1	Copper		Copper (Cu)	7440-50-8	0.00002	0.03
	Wire 2	Gold		Gold (Au)	7440-57-5	0.00044	0.48
5	Active Ics	Silicon	0.0022	Silicon	7440-21-3	0.00222	100.00
6	Wire	Gold	0.0003	Au	7440-57-5	0.00026	99.99
7	Heatsink	Copper	0.4267	Copper (Cu)	7440-50-8	0.42665	100.00
8	Solder Balls	SAC-305	0.2234	Tin (Sn)	7440-31-5	0.21558	96.50
				Silver (Ag)	7440-22-4	0.00670	3.00
				Copper (Cu)	7440-50-8	0.00112	0.50
9	Encapsulation	Epoxy Resin	1.2989	Fused Silica	60676-86-0	1.00278	77.20
				Epoxy Resin	-	0.11561	8.90
				Phenol Resin	-	0.11561	8.90
				Crytalline Silica	14808-60-7	0.03897	3.00
				Carbon Black	1333-86-4	0.00649	0.50
				Metal Hydroxide	-	0.01948	1.50
Total Package Weight			3.3434				

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

Component Weight based on assembly of generic parts