

LTM4642 56LD BGA-PBF 11.25mm X 9mm X 4.92mm (TABLE OF MATERIAL DECLARATION)

This Package 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	0.1005	Bismaleimide/Triazine Resin/Filler Substances (Silica Crystalline)	105391-33-1 1156-51-0/9003-36-5/21645-51-2 *non-disclosure	0.01792	17.84
				Continuous Filament Fiber Glass	65997-17-3	0.01590	15.82
				Copper Metal	7440-50-8	0.05448	54.23
				Zinc	7440-66-6	0.00000	0.00
				Chromium(III) oxide	1308-38-9	0.00000	0.00
				Epoxy Resin	*non-disclosure	0.00004	0.04
				Barium Compounds	7727-43-7	0.00319	3.18
				Silica amorphous	7631-86-9	0.00008	0.08
				Calcium caobonate	471-34-1	0.00001	0.01
				Amine compounds	*non-disclosure	0.00005	0.05
				Leveling agent and others	*non-disclosure	0.00014	0.14
				Acrylic Resin	*non-disclosure	0.00609	6.06
				Copper Compounds	147-14-8	0.00003	0.03
				Talc;not containing fibers like asbestos	14807-96-6	0.00037	0.37
				Aromatic carbonyl compounds	*non-disclosure	0.00035	0.35
				Cyanoguanidine	461-58-5	0.00001	0.01
				Nickel	7440-02-0	0.00159	1.58
				Gold	7440-57-5	0.00021	0.21
				**Ecotoxic substances	7440-38-2 7440-28-0	0.00002	0.02
2	Solder Paste	Alloy	0.0126	Sn	7440-31-5	0.01200	95.0
				Sb	7440-36-0	0.00063	5.0
3	Components	Passive/Active	0.3754	Iron Powder (Fe)	7439-89-6	0.28674	76.39
				Copper (Cu)	7440-50-8	0.07340	19.55
				Nickel (Ni)	7440-02-0	0.00185	0.49
				Tin (Sn)	7440-31-5	0.00264	0.70
				Ceramic (Ba) Compounds	12047-27-7	0.01073	2.86
3(i)	FC-DFN		0.0442				
	Active Ics	Silicon		Silicon (Si)	7440-21-3	0.00220	4.98
	Solder Paste	Alloy		Phenolic Resin	54208-63-8	0.00008	0.19
				Silver (Ag)	7440-22-4	0.00033	0.75
	Encapsulation	Epoxy Resin		Carbon Black	1333-86-4	0.00024	0.55
				Epoxy Resin	29690-82-2	0.00459	10.38
				Silica (Si)	60676-86-0	0.01928	43.60
	Lead frame	Lead frame		Copper (Cu)	7440-50-8	0.01565	35.40
				Tin (Sn)	7439-89-6	0.00039	0.87
				Zinc (Zn)	7440-66-6	0.00002	0.04

	Terminal Finish	Precious Metals		Gold (Au)	7440-57-5	0.00000	0.01
				Nickel(Ni)	7440-02-0	0.00049	1.11
				Paladium(Pd)	7440-50-3	0.00005	0.11
				Silver (Ag)	7440-22-4	0.00000	0.00
	Wire	Copper		Copper (Cu)	7440-50-8	0.00097	2.18
4	Active Ics	Silicon	0.0020	Silicon	7440-21-3	0.00195	100
5	Wire	Gold	0.4113	Au	7440-57-5	0.41127	99.99
6	Solder Ball	SAC305	0.0938	Tin (Sn)	7440-31-5	0.09047	96.5
				Silver (Ag)	7440-22-4	0.00281	3
				Copper (Cu)	7440-50-8	0.00047	0.5
7	Encapsulation	Epoxy Resin	0.2261	Fused Silica	60676-86-0	0.17458	77.2
				Epoxy Resin	*non-disclosure	0.02013	8.9
				Phenol Resin	*non-disclosure	0.02013	8.9
				Crytalline Silica	14808-60-7	0.00678	3.0
				Carbon Black	1333-86-4	0.00113	0.5
				Metal Hydroxide	*non-disclosure	0.00339	1.5
Total Package Weight			1.2658				

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

Component Weight based on assembly of generic parts