LINEAR TECHNOLOGY SEMICONDUCTOR

Jul-14

LTM8045 40LD - BGA 11.25mm X 6.25mm X 4.92mm Solder (DA) (TABLE OF MATERIAL DECLARATION)

The LTM8045 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	0.0764	Barium Compounds	7727-43-7	0.001238	1.620
				Bismaleimide/Triazine Resin/Filler Substances (sillica Crystallince	105391-33-1 1156-51-0/9003-36-5/21645-51-2	0.021714	28.410
				Copper Metal	7440-50-8	0.031176	40.790
				Copper Compounds	147-14-8	0.000011	0.014
				Ecotoxic substances	7440-38-2, 7440-28-0	0.000002	0.003
				Gold metal or alloy	7440-57-5	0.000436	0.570
				Nickel	7440-02-0	0.001995	2.610
				Zinc	7440-66-6	0.000023	0.030
				Continuous Filament Fiber Galss	65997-17-3	0.017059	22.320
				Acrylic Resin	non-disclosure	0.002369	3.100
				Epoxy Resin	non-disclosure	0.000013	0.017
				Chromium(III) oxide	1308-38-9	0.000001	0.001
				Silica amorphous	7631-86-9	0.000031	0.041
				Talc;not containing fibers like asbestos	14807-96-6	0.000145	0.190
				Aromatic carbonyl compounds	non-disclosure	0.000138	0.180
				Cyanoguanidine	461-58-5	0.000004	0.005
				Calcium caobonate	471-34-1	0.000002	0.003
				amine compounds	non-disclosure	0.000018	0.024
				Leveling agent and other	non-disclosure	0.000055	0.072
2	Solder Paste	Alloy	0.0184	Sn	7440-31-5	0.01752	95.000
				Sb	7440-36-0	0.00092	5.000
3	Passive/Active Components		0.2751	Fe Oxide	1317-61-9	0.05038	18.314
				Mn Oxide	1317-35-7	0.01439	5.232
				Zn Oxide	1314-13-2	0.00720	2.616
				Glass Fibers	65997-17-3	0.03239	11.773
				Copper (Cu)	7440-50-8	0.05782	21.017
				Tin (Sn)	7440-31-5	0.02214	8.049
				Nickel (Ni)	7440-02-0	0.00328	1.193
				Antimony (Sb)	7440-36-0	0.00405	1.472
				Adhesive	25068-38-6	0.00540	1.962
				Resins	25053-15-0	0.05434	19.752
				Ceramic (Ba) Compounds	12047-27-7	0.02362	8.587
4	Active Ics	Silicon	0.0017	Silicon	7440-21-3	0.00170	100.000
5	Wire	Gold	0.0002	Au	7440-57-5	0.00020	99.990
6	Solder Ball	SAC305	0.0695	Sn	7440-31-5	0.06703	96.500
				Ag	7440-22-4	0.00208	3.000
				Cu	7440-50-8	0.00035	0.500
7	Encapsulation	Epoxy Resin	0.4376	Fused Silica	60676-86-0	0.33783	77.200
				Epoxy Resin	non-disclosure	0.03895	8.900
				Phenol Resin	non-disclosure	0.03895	8.900
				Crytalline Silica	14808-60-7	0.01313	3.000
				Carbon Black	1333-86-4	0.00219	0.500
				Metal Hydroxide	non-disclosure	0.00656	1.500
Total Package Weight			**0.8789**				

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