Average Weight: 11.640g

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Silicon Die					**0.474641**	**4.078%**
	Silicon (Si)	7440-21-3	100.00	Basis	0.474641	
Solder Bump					**0.022556**	**0.194%**
	Tin (Sn)	7440-31-5	98.20	Basis	0.022150	
	Silver (Ag)	7440-22-4	1.80	Basis	0.000406	
Solder Paste					**0.010880**	**0.093%**
	Tin (Sn)	7440-31-5	96.50	metal	0.010499	
	Silver (Ag)	7440-22-4	3.00	metal	0.000326	
	Copper (Cu)	7440-50-8	0.50	metal	0.000054	
Capacitor 1					**0.032000**	**0.275%**
	Barium oxide	1304-28-5	30.22	Ceramic	0.009670	
	Titanium dioxide	13463-67-7	15.11	Ceramic	0.004835	
	Misc.	trade secret	5.04	Ceramic	0.001613	
	Nickel (Ni)	7440-02-0	33.44	Inner electrode	0.010701	
	Copper (Cu)	7440-50-8	11.87	Outer electrode	0.003798	
	Silicon dioxide	7631-86-9	1.06	Outer electrode	0.000339	
	Boric oxide	1303-86-2	0.26	Outer electrode	0.000083	
	Nickel (Ni)	7440-02-0	0.81	Nickel Plating Layer	0.000259	
	Tin (Sn)	7440-31-5	2.19	Tin Plating Layer	0.000701	
Capacitor 2					**0.008720**	**0.075%**
	Barium oxide	1304-28-5	31.67	Ceramic	0.002762	
	Titanium dioxide	13463-67-7	15.83	Ceramic	0.001380	
	Misc.	trade secret	5.28	Ceramic	0.000460	
	Nickel (Ni)	7440-02-0	26.67	Inner electrode	0.002326	
	Copper (Cu)	7440-50-8	15.10	Outer electrode	0.001317	
	Silicon dioxide	7631-86-9	1.34	Outer electrode	0.000117	
	Boric oxide	1303-86-2	0.33	Outer electrode	0.000029	
	Nickel (Ni)	7440-02-0	1.00	Nickel Plating Layer	0.000087	
	Tin (Sn)	7440-31-5	2.78	Tin Plating Layer	0.000242	

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Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Underfill					**0.062000**	**0.533%**
	Bisphenol F type liquid epoxy resin	9003-36-5	15.00	Basis	0.009300	
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	Basis	0.006200	
	Bisphenol A type liquid epoxy resin	25068-38-6	5.00	Basis	0.003100	
	Amine type hardener	trade secret	10.00	Basis	0.006200	
	Silicon dioxide	60676-86-0	58.00	Filler	0.035960	
	Carbon black	1333-86-4	1.00	Color agent	0.000620	
	Additives	trade secret	1.00	Additives	0.000620	
Lid					**5.040000**	**43.299%**
	Copper (Cu)	7440-50-8	98.35	Main Material	4.956840	
	Nickel (Ni)	7440-02-0	1.65	Main Material	0.083160	
Lid Adhesive					**0.160000**	**1.375%**
	Aluminium Oxide Al2O3	1344-28-1	80.00	Main Material	0.128000	
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	20.00	Main Material	0.032000	
Solder Ball					**0.965683**	**8.296%**
	Tin (Sn)	7440-31-5	96.50	Main Material	0.931884	
	Silver (Ag)	7440-22-4	3.00	Main Material	0.028970	
	Copper (Cu)	7440-50-8	0.50	Main Material	0.004828	
Substrate					**4.863520**	**41.783%**
	Copper (Cu)	7440-50-8	54.71		2.660626	
	Tin (Sn)	7440-31-5	0.73		0.035474	
	Lead (Pb)	7439-92-1	0.00		0.000005	
	Silver (Ag)	7440-22-4	0.02		0.001103	
	BT Core	N/A	35.29		1.716164	
	ABF	N/A	8.06		0.391828	
	Solder Mask	N/A	1.20		0.058319	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
12/15/2014	1.0	Initial Xilinx release

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