

Average Weight: 3.8246g

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Silicon Die					0.388303	10.153
	Silicon (Si)	7440-21-3	100.00	Basis	0.388303	
Solder Bump					0.018136	0.474
	Tin (Sn)	7440-31-5	63.00	Basis	0.011426	
	Lead (Pb)	7439-92-1	37.00	Basis	0.006710	
Underfill					0.049000	1.281
	Bisphenol F/ epichlorohydrin copolymer	9003-36-5	20.00	Basis	0.009800	
	Phenolic Resin	Trade Secret	15.00	Basis	0.007350	
	Bisphenol A type liquid epoxy resin	25068-38-6	5.00	Basis	0.002450	
	Amine type accelerator	Trade Secret	5.00	Basis	0.002450	
	Silicon Dioxide	60676-86-0	51.50	Basis	0.025235	
	Carbon Black	1333-86-4	1.00	Basis	0.000490	
	Additives	Trade Secret	2.50	Additive	0.001225	
Solder Paste					0.004600	0.120
	Tin (Sn)	7440-31-5	96.50	Metal	0.004439	
	Silver (Ag)	7440-22-4	3.00	Metal	0.000138	
	Copper (Cu)	7440-50-8	0.50	Metal	0.000023	
Capacitor 1					0.010800	0.282
	BaTiO3 type	12047-27-7	70.60	Ceramic	0.007625	
	Nickel (Ni)	7440-02-0	6.70	Inner electrode	0.000724	
	Copper (Cu)	7440-50-8	20.10	Outer electrode	0.002171	
	Nickel (Ni)	7440-02-0	0.80	Plating 1	0.000086	
	Tin (Sn)	7440-31-5	1.80	Plating 2	0.000194	
Capacitor 2					0.002400	0.063
	BaTiO3 type	12047-27-7	66.00	Ceramic	0.001584	
	Nickel (Ni)	7440-02-0	2.67	Inner electrode	0.000064	
	Copper (Cu)	7440-50-8	23.33	Outer electrode	0.000560	
	Nickel (Ni)	7440-02-0	2.33	Plating 1	0.000056	
Tin (Sn)	7440-31-5	5.67	Plating 2	0.000136		

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Capacitor 3					0.009200	0.241
	BaTiO3 type	12047-27-7	51.10	Ceramic	0.004701	
	Nickel (Ni)	7440-02-0	27.00	Inner electrode	0.002484	
	Copper (Cu)	7440-50-8	16.00	Outer electrode	0.001472	
	Glass	65997-17-3	0.90		0.000083	
	Nickel (Ni)	7440-02-0	2.00	Plating 1	0.000184	
	Tin (Sn)	7440-31-5	3.00	Plating 2	0.000276	
Solder Ball					0.856618	22.398
	Tin (Sn)	7440-31-5	63.00	Main Material	0.539669	
	Lead (Pb)	7439-92-1	37.00	Main Material	0.316949	
Substrate					2.485501	64.988
	Copper (Cu)	7440-50-8	36.67		0.911479	
	Tin (Sn)	7440-31-5	1.03		0.025586	
	Lead (Pb)	7439-92-1	0.25		0.006242	
	Silver (Ag)	7440-22-4	0.02		0.000465	
	BT Core	N/A	48.29		1.200165	
	ABF	N/A	11.30		0.280902	
	Solder Mask	N/A	2.44		0.060662	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
04/12/2014	1.0	Initial Xilinx release.

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