

Average Weight: 3.7977g

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	10.225%
	Silicon (Si)	7440-21-3	100.00	Basis	0.388303	
Solder Bump					0.015339	0.404%
	Sn	7440-31-5	98.20	basis	0.015063	
	Ag	7440-22-4	1.80	basis	0.000276	
Solder Paste					0.004284	0.113%
	Tin (Sn)	7440-31-5	96.50	Basis	0.004134	
	Silver (Ag)	7440-22-4	3.00	Basis	0.000129	
	Copper (Cu)	7440-50-8	0.50	Basis	0.000021	
Capacitor 1					0.002400	0.063%
	BaTiO3 type	1304-28-5	30.22	Ceramic	0.000725	
	Titanium dioxide	13463-67-7	15.11		0.000363	
	Misc.	trade secret	5.04		0.000121	
	Ni	7440-02-0	33.44	Inner electrode	0.000803	
	Cu	7440-50-8	11.87	Out electrode	0.000285	
	Silicon dioxide	7631-86-9	1.06		0.000025	
	boric oxide	1303-86-2	0.26		0.000006	
	Ni	7440-02-0	0.81	Plating1	0.000019	
	Sn	7440-31-5	2.19	Plating2	0.000053	
Capacitor 2					0.009200	0.242%
	BaTiO3 type	1304-28-5	31.67	Ceramic	0.002914	
	Titanium dioxide	13463-67-7	15.83		0.001456	
	Misc.	-	5.28		0.000486	
	Ni	7440-02-0	26.67	Inner Electrode	0.002454	
	Cu	7440-50-8	15.10	Outer Electrode	0.001389	
	Silicon dioxide	7631-86-9	1.34		0.000123	
	boric oxide	1303-86-2	0.33		0.000030	
	Ni	7440-02-0	1.00	Plating1	0.000092	
	Sn	7440-31-5	2.78	Plating2	0.000256	

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Capacitor 3					0.010800	0.284%
	BaTiO3 type	1304-28-5	31.67	Ceramic	0.003420	
	Titanium dioxide	13463-67-7	15.83		0.001710	
	Misc.	-	5.28		0.000570	
	Ni	7440-02-0	26.67	Inner Electrode	0.002880	
	Cu	7440-50-8	15.10	Outer Electrode	0.001631	
	Silicon dioxide	7631-86-9	1.34		0.000145	
	diboron trioxide; boric oxide	1303-86-2	0.33		0.000036	
	Ni	7440-02-0	1.00	Plating1	0.000108	
	Sn	7440-31-5	2.78	Plating2	0.000300	
Underfill					0.049000	1.290%
	Bisphenol F type liquid epoxy resin	9003-36-5	15.00	basis	0.007350	
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.004900	
	Bisphenol A type liquid epoxy resin	25068-38-6	5.00	basis	0.002450	
	Amine type hardener	trade secret	10.00	basis	0.004900	
	Silicon dioxide	60676-86-0	58.00	filler	0.028420	
	Carbon black	1333-86-4	1.00	color agent	0.000490	
	Additives	trade secret	1.00	additives	0.000490	
Solder Ball					0.751829	19.797%
	Sn	7440-31-5	96.50	basis	0.725515	
	Ag	7440-22-4	3.00	basis	0.022555	
	Cu	7440-50-8	0.50	basis	0.003759	
Substrate					2.566547	67.582%
	Cu	7440-50-8	36.975		0.943301	
	Sn	7440-31-5	1.112		0.028490	
	Ag	7440-22-4	0.035		0.000886	
	Core	trade secret	48.199		1.240861	
	ABF	trade secret	11.204		0.290237	
	Solder Mask	trade secret	2.475		0.062772	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
08/28/2015	1.0	Initial Xilinx release.

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