

Average Weight: 10.0653g

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Silicon Die					0.446519	4.436%
	Silicon (Si)	7440-21-3	100.00	Basis	0.446519	
Solder Bump					0.018109	0.180%
	Sn	7440-31-5	98.20	basis	0.017783	
	Ag	7440-22-4	1.80	basis	0.000326	
Solder Paste					0.005344	0.053%
	Tin (Sn)	7440-31-5	96.50	Basis	0.005157	
	Silver (Ag)	7440-22-4	3.00	Basis	0.000160	
	Copper (Cu)	7440-50-8	0.50	Basis	0.000027	
Capacitor 1					0.004200	0.042%
	BaTiO3 type	1304-28-5	30.22	Ceramic	0.001269	
	Titanium dioxide	13463-67-7	15.11		0.000635	
	Misc.	trade secret	5.04		0.000212	
	Ni	7440-02-0	33.44	Inner electrode	0.001404	
	Cu	7440-50-8	11.87	Out electrode	0.000499	
	Silicon dioxide	7631-86-9	1.06		0.000045	
	boric oxide	1303-86-2	0.26		0.000011	
	Ni	7440-02-0	0.81	Plating1	0.000034	
	Sn	7440-31-5	2.19	Plating2	0.000092	
Capacitor 2					0.007360	0.073%
	BaTiO3 type	1304-28-5	31.67	Ceramic	0.002331	
	Titanium dioxide	13463-67-7	15.83		0.001165	
	Misc.	-	5.28		0.000389	
	Ni	7440-02-0	26.67	Inner Electrode	0.001963	
	Cu	7440-50-8	15.10	Outer Electrode	0.001111	
	Silicon dioxide	7631-86-9	1.34		0.000099	
	boric oxide	1303-86-2	0.33		0.000024	
	Ni	7440-02-0	1.00	Plating1	0.000074	
	Sn	7440-31-5	2.78	Plating2	0.000205	

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Capacitor 3					0.037800	0.376%
	BaTiO3 type	1304-28-5	31.67	Ceramic	0.011971	
	Titanium dioxide	13463-67-7	15.83		0.005984	
	Misc.	-	5.28		0.001996	
	Ni	7440-02-0	26.67	Inner Electrode	0.010081	
	Cu	7440-50-8	15.10	Outer Electrode	0.005708	
	Silicon dioxide	7631-86-9	1.34		0.000507	
	boric oxide	1303-86-2	0.33		0.000125	
	Ni	7440-02-0	1.00	Plating1	0.000378	
	Sn	7440-31-5	2.78	Plating2	0.001051	
Underfill					0.051000	0.507%
	Bisphenol F type liquid epoxy resin	9003-36-5	15.00	basis	0.007650	
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.005100	
	Bisphenol A type liquid epoxy resin	25068-38-6	5.00	basis	0.002550	
	Amine type hardener	trade secret	10.00	basis	0.005100	
	Silicon dioxide	60676-86-0	58.00	filler	0.029580	
	Carbon black	1333-86-4	1.00	color agent	0.000510	
	Additives	trade secret	1.00	additives	0.000510	
Lid					5.781700	57.44%
	Cu	7440-50-8	98.35	Main material	5.686302	
	Ni	7440-02-0	1.65	Main material	0.095398	
Lid Adhesive					0.083000	0.825%
	Aluminium Oxide Al2O3	-	80.00	Main material	0.066400	
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	20.00	Main material	0.016600	
Solder Ball					0.751829	7.470%
	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					2.878395	28.597%
	Cu	7440-50-8	40.28		1.159493	
	Sn	7440-31-5	1.08		0.031085	
	Ag	7440-22-4	0.03		0.000966	
	Core	trade secret	43.14		1.241584	
	ABF	trade secret	13.27		0.381933	
	Solder Mask	trade secret	2.20		0.063334	

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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