100% Material Declaration Data Sheet for 7 Series FF900

PK560 (v1.1) October 19, 2012

Average Weight: 11.6843g

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Silicon Die					**0.296758**	**2.540**
	Silicon (Si)	7440-21-3	100.00	Basis	0.296758	
Solder Bump					**0.019315**	**0.165**
	Tin (Sn)	7440-31-5	63.00	Main Material	0.012168	
	Lead (Pb)	7439-92-1	37.00	Main Material	0.007147	
Solder Paste					**0.071000**	**0.608**
	Tin (Sn)	7440-31-5	96.50	Basis	0.068515	
	Silver (Ag)	7440-22-4	3.00	Basis	0.002130	
	Copper (Cu)	7440-50-8	0.50	Basis	0.000355	
Capacitor 1					**0.023400**	**0.200**
	BaTiO3 type	12047-27-7	70.60	Ceramic	0.016520	
	Nickel (Ni)	7440-02-0	6.70	Inner electrode	0.001568	
	Copper (Cu)	7440-50-8	20.10	Outer electrode	0.004703	
	Nickel (Ni)	7440-02-0	0.80	Plating 1	0.000187	
	Tin (Sn)	7440-31-5	1.80	Plating 2	0.000421	
Capacitor 2					**0.003800**	**0.033**
	BaTiO3 type	12047-27-7	61.70	Ceramic	0.002345	
	Nickel (Ni)	7440-02-0	4.89	Inner electrode	0.000186	
	Indium tin oxide	50926-11-9	18.30	Outer electrode	0.000695	
	Copper (Cu)	7440-50-8	13.40	Outer electrode	0.000509	
	Nickel (Ni)	7440-02-0	0.49	Plating 1	0.000019	
	Tin (Sn)	7440-31-5	1.22	Plating 2	0.000046	
Capacitor 3					**0.002400**	**0.021**
	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 4					**0.012880**	**0.110**
	BaTiO3 type	12047-27-7	51.100	Ceramic	0.006582	
	Nickel (Ni)	7440-02-0	27.000	Inner Electrode	0.003478	
	Copper (Cu)	7440-50-8	16.000	Outer Electrode	0.002061	
	Glass	65997-17-3	0.900		0.000116	
	Nickel (Ni)	7440-02-0	2.000	Plating1	0.000258	
	Tin (Sn)	7440-31-5	3.000	Plating2	0.000386	
Underfill					**0.053000**	**0.455**
	Bisphenol F/ epichlorohydrin copolymer	9003-36-5	20.00	Basis	0.010600	
	Phenolic Resin	Trade Secret	15.00	Basis	0.007950	
	Bisphenol A type liquid epoxy resin	25068-38-6	5.00	Basis	0.002650	
	Amine type accelerator	Trade Secret	5.00	Basis	0.002650	
	Silicon Dioxide	60676-86-0	51.50	Basis	0.027295	
	Carbon Black	1333-86-4	1.00	Basis	0.000530	
	Additives	Trade Secret	2.50	Additive	0.001325	
Lid					**7.639000**	**65.379**
	Copper (Cu)	7440-50-8	99.80	Main Material	7.623722	
	Nickel (Ni)	7440-02-0	0.10	Main Material	0.007639	
	Nickel Sulfate	7786-81-4	0.10	Main Material	0.007639	
Lid Adhesive					**0.102000**	**0.873**
	Aluminum Oxide Al203	1344-28-1	70.00	Basis	0.071400	
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	30.00	Basis	0.030600	
Solder Ball					**0.856618**	**7.331**
	Tin (Sn)	7440-31-5	63.00	Main Material	0.539669	
	Lead (Pb)	7439-92-1	37.00	Main Material	0.316949	
Substrate					**2.604098**	**22.287**
	Copper (Cu)	7440-50-8	40.10		1.044296	
	Tin (Sn)	7440-31-5	0.82		0.021224	
	Lead (Pb)	7439-92-1	0.17		0.004427	
	Silver (Ag)	7440-22-4	0.02		0.000417	
	BT Core	N/A	43.50		1.132886	
	ABF	N/A	13.14		0.342231	
	Solder Mask	Trade Secret	2.25		0.058617	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
06/06/2012	1.0	Initial Xilinx release.
10/19/2012	1.1	Update substrate component

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