



# 100% Material Declaration Data Sheet for 7 Series FFG900

PK524 (v1.2) October 12, 2012

**Average Weight: 11.5795g**

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
<b>Silicon Die</b>					<b>0.296758</b>	<b>2.563</b>
	Silicon (Si)	7440-21-3	100.00	Basis	0.296758	
<b>Solder Bump</b>					<b>0.019315</b>	<b>0.167</b>
	Tin (Sn)	7440-31-5	63.00		0.012168	
	Lead (Pb)	7439-92-1	37.00		0.007147	
<b>Solder Paste</b>					<b>0.071000</b>	<b>0.613</b>
	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	
<b>Capacitor 1</b>					<b>0.023400</b>	<b>0.202</b>
	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	
<b>Capacitor 2</b>					<b>0.003800</b>	<b>0.033</b>
	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	
<b>Capacitor 3</b>					<b>0.002400</b>	<b>0.021</b>
	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	

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<b>Capacitor 4</b>					<b>0.012880</b>	<b>0.111</b>
	BaTiO3 type	12047-27-7	51.10	Ceramic	0.006582	
	Copper (Cu)	7440-50-8	27.00	Inner electrode	0.003478	
	Nickel (Ni)	7440-02-0	16.90	Outer electrode	0.002177	
	Nickel (Ni)	7440-02-0	2.00	Plating 1	0.000258	
	Tin (Sn)	7440-31-5	3.00	Plating 2	0.000386	
<b>Underfill</b>					<b>0.053000</b>	<b>0.458</b>
	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	
<b>Lid</b>					<b>7.639000</b>	<b>65.970</b>
	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	
<b>Lid Adhesive</b>					<b>0.102000</b>	<b>0.881</b>
	Aluminum Oxide Al2O3	1344-28-1	70.00	Basis	0.071400	
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	30.00	Basis	0.030600	
<b>Solder Ball</b>					<b>0.751829</b>	<b>6.493</b>
	Tin (Sn)	7440-31-5	96.50	Main Material	0.725515	
	Silver (Ag)	7440-22-4	3.00	Main Material	0.022555	
	Copper (Cu)	7440-50-8	0.50	Main Material	0.003759	
<b>Substrate</b>					<b>2.604098</b>	<b>22.489</b>
	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
03/29/2012	1.0	Initial Xilinx release.
08/17/2012	1.1	Updated Component Names
10/12/2012	1.2	Updated Substrate Component

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