100% Material Declaration Data Sheet for 7 Series FF676

PK802 (v1.0) May 19, 2016

Average Weight: 7.8820 g

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**	**4.926**
	Silicon (Si)	7440-21-3	100.00	Basis	0.388303	
Solder Bump					**0.018136**	**0.230**
	Tin (Sn)	7440-31-5	63.00	Basis	0.011426	
	Lead (Pb)	7439-92-1	37.00	Basis	0.006710	
Solder Paste					**0.005400**	**0.069**
	Tin (Sn)	7440-31-5	96.50	Metal	0.005211	
	Silver (Ag)	7440-22-4	3.00	Metal	0.000162	
	Copper (Cu)	7440-50-8	0.50	Metal	0.000027	
Capacitor 1					**0.021600**	**0.274**
	Ceramic (BaTiO3 type)	12047-27-7	70.60	Ceramic	0.015250	
	Nickel (Ni)	7440-02-0	6.70	Inner electrode	0.001447	
	Copper (Cu)	7440-50-8	20.10	Outer electrode	0.004342	
	Nickel (Ni)	7440-02-0	0.80	Plating1	0.000173	
	Tin (Sn)	7440-31-5	1.80	Plating2	0.000389	
Capacitor 2					**0.003800**	**0.048**
	Ceramic (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	Plating1	0.000019	
	Tin (Sn)	7440-31-5	1.22	Plating2	0.000046	
Capacitor 3					**0.001200**	**0.015**
	Ceramic (BaTiO3 type)	12047-27-7	66.00	Ceramic	0.000792	
	Nickel (Ni)	7440-02-0	2.67	Inner electrode	0.000032	
	Copper (Cu)	7440-50-8	23.33	Outer electrode	0.000280	
	Nickel (Ni)	7440-02-0	2.33	Plating1	0.000028	
	Tin (Sn)	7440-31-5	5.67	Plating2	0.000068	

© Copyright 2016 Xilinx, Inc. XILINX, the Xilinx logo, Virtex, Spartan, ISE, and other designated brands included herein are trademarks of Xilinx in the United States and other countries. All other trademarks are the property of their respective owners

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Capacitor 4					**0.007360**	**0.093**
	Ceramic (BaTiO3 type)	12047-27-7	51.10	Ceramic	0.003761	
	Nickel (Ni)	7440-02-0	27.00	Inner electrode	0.001987	
	Copper (Cu)	7440-50-8	16.00	Outer Electrode	0.001178	
	Glass	65997-17-3	0.90		0.000066	
	Nickel (Ni)	7440-02-0	2.00	Plating1	0.000147	
	Tin (Sn)	7440-31-5	3.00	Plating2	0.000221	
Underfill					**0.049000**	**0.622**
	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	
Lid					**4.615000**	**58.551**
	Copper (Cu)	7440-50-8	97.94	Main material	4.519931	
	Nickel (Ni)	8049-31-8	2.06	Main material	0.095069	
Lid Adhesive					**0.115000**	**1.459**
	Aluminium Oxide	1344-28-1	70.00	Main material	0.080500	
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	30.00	Main material	0.034500	
Solder Ball					**0.564707**	**7.165**
	Tin (Sn)	7440-31-5	63.00	Main material	0.355765	
	Lead (Pb)	7439-92-1	37.00	Main material	0.208942	
Substrate					**2.092494**	**26.548**
	Copper (Cu)	7440-50-8	40.50		0.847460	
	Tin (Sn)	7440-31-5	1.13		0.023645	
	Lead (Pb)	7439-92-1	0.29		0.006068	
	Silver (Ag)	7440-22-4	0.02		0.000418	
	BT Core	N/A	42.70		0.893495	
	ABF	N/A	13.17		0.275581	
	Solder Mask	N/A	2.19		0.045826	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
05/19/16	1.0	Initial Xilinx release.

Notice of Disclaimer

Xilinx regards this materials data to be correct but makes no guarantee as to its accuracy or completeness, including, but not limited to, with respect to its compliance with applicable environmental laws and regulations. Xilinx subcontracts the production, test and assembly of hardware devices to independent third-party vendors and materials suppliers (“Contractors”). All data provided hereunder is based on information received from Contractors. Xilinx has not independently verified the accuracy or completeness of this information which is provided solely for your reference in connection with the use of Xilinx products.