PK714 (v1.0) Aug 28, 2015

100% Material Declaration Data Sheet for FFV676

Average Weight: 7.8679 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					**0.296758**	**3.772%**
	Silicon (Si)	7440-21-3	100.00	Basis	0.296758	
Solder Bump					**0.011910**	**0.151%**
	Sn	7440-31-5	98.20	basis	0.011696	
	Ag	7440-22-4	1.80	basis	0.000214	
Solder Paste					**0.004956**	**0.063%**
	Tin (Sn)	7440-31-5	96.50	Basis	0.004783	
	Silver (Ag)	7440-22-4	3.00	Basis	0.000149	
	Copper (Cu)	7440-50-8	0.50	Basis	0.000025	
Capacitor 1					**0.001200**	**0.015%**
	BaTiO3 type	1304-28-5	30.22	Ceramic	0.000363	
	Titanium dioxide	13463-67-7	15.11		0.000181	
	Misc.	trade secret	5.04		0.000060	
	Ni	7440-02-0	33.44	Inner electrode	0.000401	
	Cu	7440-50-8	11.87	Out electrode	0.000142	
	Silicon dioxide	7631-86-9	1.06		0.000013	
	boric oxide	1303-86-2	0.26		0.000003	
	Ni	7440-02-0	0.81	Plating1	0.000010	
	Sn	7440-31-5	2.19	Plating2	0.000026	
Capacitor 2					**0.003800**	**0.048%**
	BaTiO3 type	1304-28-5	37.01	Ceramic	0.001406	
	Titanium dioxide	13463-67-7	18.51		0.000703	
	Misc.	-	6.17		0.000234	
	Ni	7440-02-0	4.90	Inner Electrode	0.000186	
	Cu	7440-50-8	9.15	Outer Electrode	0.000348	
	Indium(III) oxide	1312-43-2	1.83		0.000070	
	Tin dioxide	18282-10-5	5.49		0.000209	
	Frits	65997-18-4	1.83		0.000070	
	Nickel	7440-02-0	12.05		0.000458	
	Silicon dioxide	7631-86-9	0.27		0.000010	
	boric oxide	1303-86-2	1.07		0.000041	
	Ni	7440-02-0	0.49	Plating1	0.000019	
	Sn	7440-31-5	1.23	Plating2	0.000047	

© Copyright 2015 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 3					**0.007360**	**0.094%**
	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	
Capacitor 4					**0.021600**	**0.275%**
	BaTiO3 type	1304-28-5	31.67	Ceramic	0.006841	
	Titanium dioxide	13463-67-7	15.83		0.003419	
	Misc.	-	5.28		0.001140	
	Ni	7440-02-0	26.67	Inner Electrode	0.005761	
	Cu	7440-50-8	15.10	Outer Electrode	0.003262	
	Silicon dioxide	7631-86-9	1.34		0.000289	
	boric oxide	1303-86-2	0.33		0.000071	
	Ni	7440-02-0	1.00	Plating1	0.000216	
	Sn	7440-31-5	2.78	Plating2	0.000600	
Underfill					**0.045000**	**0.572%**
	Bisphenol F type liquid epoxy resin	9003-36-5	15.00	basis	0.006750	
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.004500	
	Bisphenol A type liquid epoxy resin	25068-38-6	5.00	basis	0.002250	
	Amine type hardener	trade secret	10.00	basis	0.004500	
	Silicon dioxide	60676-86-0	58.00	filler	0.026100	
	Carbon black	1333-86-4	1.00	color agent	0.000450	
	Additives	trade secret	1.00	additives	0.000450	
Lid					**4.600300**	**58.47%**
	Cu	7440-50-8	98.35	Main material	4.524395	
	Ni	7440-02-0	1.65	Main material	0.075905	
Lid Adhesive					**0.105000**	**1.335%**
	Aluminium Oxide Al2O3	-	80.00	Main material	0.084000	
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	20.00	Main material	0.021000	

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Solder Ball					**0.564707**	**7.177%**
	Sn	7440-31-5	96.50	basis	0.544942	
	Ag	7440-22-4	3.00	basis	0.016941	
	Cu	7440-50-8	0.50	basis	0.002824	
Substrate					**2.205347**	**28.030%**
	Cu	7440-50-8	40.13		0.885096	
	Sn	7440-31-5	1.00		0.022050	
	Ag	7440-22-4	0.03		0.000685	
	Core	trade secret	43.15		0.951560	
	ABF	trade secret	13.47		0.297084	
	Solder Mask	trade secret	2.22		0.048872	

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.

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.