



PK475 (v1.1) September 28,
2012

100% Material Declaration Data Sheet FFG1760 Virtex-6

Average Weight: 20.8138 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 (FPGA)				Silicon IC	0.935666	4.495
	Doped silicon	7440-21-3	100.00	Basis	0.935666	
Solder Bump				Die to package	0.048899	0.235
	Tin	7440-31-5	63.00	Basis	0.030806	
	Lead	7439-92-1	37.00	Basis	0.018093	
Die Underfill					0.130000	0.625
	Bisphenol F-type liquid epoxy resin	9003-36-5	20.00	Basis	0.026000	
	Phenolic resin	Trade secret	15.00	Basis	0.019500	
	Bisphenol A-type liquid epoxy resin	25068-38-6	5.00	Basis	0.006500	
	Amine type accelerator	Trade secret	5.00	Basis	0.006500	
	Silicon dioxide	60676-86-0	51.50	Basis	0.066950	
	Carbon black	1333-86-4	1.00	Basis	0.001300	
	Additives	Trade secret	2.50	Basis	0.003250	
Substrate					5.892698	28.311
	Cu	7440-50-8	35.85	Main material	2.112725	
	Tin	7440-31-5	0.89	Main material	0.052415	
	Lead	7439-92-1	0.19	Main material	0.011192	
	Silver	7440-22-4	0.02	Main material	0.001084	
	BT Core	N/A	42.3	Main material	2.492625	
	ABF	N/A	19.62	Main material	1.156000	
	Soldermask	N/A	1.13	Main material	0.066657	

© Copyright 2011-2012 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
Solder Paste					0.083000	0.399
	Tin	7440-31-5	96.50	Basis	0.080095	
	Silver	7440-22-4	3.00	Basis	0.002490	
	Copper	7440-50-8	0.50	Basis	0.000415	
Capacitor 0805_X7S					0.056000	0.269
	Ceramic (BaTiO3 type)	Trade secret	61.80	Ceramic	0.034608	
	Inner electrode (Ni)	7440-02-0	27.00	Inner electrode	0.015120	
	Outer electrode (Cu)	7440-50-8	9.90	Outer electrode	0.005544	
	Plating1 (Ni)	7440-02-0	0.40	Plating1	0.000224	
	Plating2 (Sn)	7440-31-5	0.90	Plating2	0.000504	
Capacitor 0603_X7S					0.081900	0.393
	Ceramic (BaTiO3 type)	Trade secret	67.40	Ceramic	0.055201	
	Inner electrode (Ni)	7440-02-0	17.00	Inner electrode	0.013923	
	Outer electrode (Cu)	7440-50-8	13.80	Outer electrode	0.011302	
	Plating1 (Ni)	7440-02-0	0.50	Plating1	0.000410	
	Plating2 (Sn)	7440-31-5	1.30	Plating2	0.001065	
Capacitor 0201_X6S					0.005400	0.026
	Ceramic (BaTiO3 type)	Trade secret	66.00	Ceramic	0.003564	
	Inner electrode (Ni)	7440-02-0	2.67	Inner electrode	0.000144	
	Outer electrode (Cu)	7440-50-8	23.33	Outer electrode	0.001260	
	Plating1 (Ni)	7440-02-0	2.33	Plating1	0.000126	
	Plating2 (Sn)	7440-31-5	5.67	Plating2	0.000306	
Heat Sink					11.900000	57.174
	Copper	7440-50-8	97.94	Main material	11.654860	
	Nickel	7440-02-0	2.06	Main material	0.245140	
Heat Sink Adhesive					0.210000	1.009
	Aluminium Oxide	1344-28-1	70.00	Main material	0.147000	
	Zinc Oxide	1314-13-2	15.00	Main material	0.031500	
	Silicone	Trade Secret	15.00	Main material	0.031500	
	Additive	Trade Secret		Additive		
Solder Balls					1.470244	7.064
	Tin (Sn)	7440-31-5	96.50	Base metal	1.418785	
	Silver (Ag)	7440-22-4	3.00	Base metal	0.044107	
	Copper (Cu)	7440-50-8	0.50	Base metal	0.007351	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
6/10/11	1.0	Initial Xilinx release.
09/28/12	1.1	Updated Substrate Component

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.