XILINX®

PK233 (v1.1) July 29, 2011

100% Material Declaration Data Sheet FTG64

Average Weight: 0.232g

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)					**0.009340**	**4.025**
	Silicon (Si)	7440-21-3	99.70	Silicon IC	0.009310	
	Aluminium(Al)	7429-90-5	0.20	Silicon IC	0.000020	
	Copper (Cu)	7440-50-8	0.05	Silicon IC	0.000005	
	Tantalum (Ta)	7440-25-7	0.05	Silicon IC	0.000005	
Die Attach					**0.001703**	**0.734**
	Silver (Ag)	7440-22-4	75.00	Glue	0.001280	
	Epoxy Cresol Novolak	29690-82-2	24.80	Glue	0.000420	
	Diisobutyrate derivate	6846-50-0	0.20	Glue	0.000003	
Bonding Wire					**0.000530**	**0.228**
	Gold (Au)	7440-57-5	100.00	Wire	0.000530	
Molding Compound					**0.147860**	**63.736**
	Biphenyl epoxy resin	85954-11-6	12.00	Encapsulation	0.017740	
	Phenol resin	9003-35-4	7.00	Encapsulation	0.010350	
	Quartz	14808-60-7	2.50	Encapsulation	0.003700	
	Silica, vitreous	60676-86-0	77.00	Encapsulation	0.113850	
	Carbon black	1333-86-4	0.50	Encapsulation	0.000740	
	Antimony Trioxide	1309-64-4	0.50	Encapsulation	0.000740	
	Brominated epoxy resin (Halogen)	68541-56-0	0.50	Encapsulation	0.000740	
Solder Balls					**0.016585**	**7.149**
	Tin (Sn)	7440-31-5	98.27	Base metal	0.016300	
	Silver (Ag)	7440-22-4	1.20	Base metal	0.000200	
	Copper (Cu)	7440-50-8	0.50	Base metal	0.000080	
	Nickel (Ni)	7440-02-0	0.02	Base metal	0.000003	
	Lead (Pb)	7439-92-1	0.01	Impurity	0.000002	

© Copyright 2011 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
Substrate						
Core & Fiber Glass					**0.031930**	**13.763**
	Fiberglass	65997-17-3	43.00	Substrate	0.013730	
	Epoxy Cresol Novolak	29690-82-2	10.00	Substrate	0.003190	
	Bisphenol epoxy resin	25068-38-6	10.00	Substrate	0.003190	
	Brominated compound (Halogen)	68541-56-0	7.00	Substrate	0.002240	
	Bismaleimide (B)	13676-54-5	14.50	Substrate	0.004630	
	Triazine (T)	25722-66-1	14.50	Substrate	0.004630	
	Magnesium silicate	13776-74-4	0.50	Substrate	0.000160	
	Amorphous Silica	7631-86-9	0.50	Substrate	0.000160	
Solder Mask					**0.005210**	**2.246**
	Barium sulfate	7727-43-7	20.00	Substrate	0.001040	
	Epoxy Resin	85954-11-6	35.00	Substrate	0.001830	
	Talc containing no asbestiform fibers	14807-96-6	3.15	Substrate	0.000160	
	Silica crystalline	14808-60-7	0.45	Substrate	0.000020	
	Acrilic Resin	68586-16-6	40.00	Substrate	0.002090	
	Ammine compound	Trade secret	1.40	Substrate	0.000070	
Coating					**0.018830**	**8.117**
	Copper (Cu)	7440-50-8	98.50	Substrate	0.018590	
	Nickel (Ni)	7440-02-0	1.00	Substrate	0.000150	
	Gold (Au)	7440-57-5	0.50	Substrate	0.000090	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
5/06/08	1.0	Initial Xilinx release.
7/29/11	1.1	100% Material Declaration

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.