



100% Material Declaration Data Sheet for Virtex-5 FFG665

PK222 (v1.1) Apr 14, 2016

Average Weight : 5.633 g

Component	Substance Description	CAS # or Description	% of Component	Use in product	Component Weight	Component % of total
Silicon Die					0.322090	5.718%
	Silicon	7440-21-3	100.000		0.322090	
Solder Bump					0.018510	0.329%
	Tin	7440-31-5	63.000		0.011661	
	Lead	7439-92-1	37.000		0.006849	
Underfill					0.056000	0.994%
	Silica	60676-86-0	70.000		0.039200	
	Epoxy Resin A	9003-36-5	20.000		0.011200	
	Epoxy Resin B	25068-38-6	3.000		0.001680	
	Hardener	19900-65-3	7.000		0.003920	
Heat Spreader					2.800000	49.707%
	Copper	7440-50-8	99.600		2.788800	
	Nickel	7440-02-0	0.400		0.011200	
Heat Spreader Adhesive	Organopolysiloxane mixture	N/A	100.000		0.062000	1.101%
Solder Ball					0.555520	9.862%
	Tin	7440-31-5	95.500		0.530522	
	Silver	7440-22-4	4.000		0.022221	
	Copper	7440-50-8	0.500		0.002778	
Substrate					1.818880	32.290%
	Copper	7440-50-8	49.91	metal layer	0.907803	
	Tin	7440-31-5	0.81	metal layer	0.014733	
	Lead	7439-92-1	0.12	metal layer	0.002183	
	Silver	7440-22-4	0.02		0.000364	
	Core	N/A	32.67		0.594228	
	ABF	N/A	13.00		0.236454	
Solder Mask	N/A	3.46		0.062933		

Revision History

Date	Version	Description of Revisions
09/06/2007	1.0	Initial Xilinx release
04/14/2016	1.0	Update substrate

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