



# 100% Material Declaration Data Sheet for FF1760

PK189 (v1.2) September 20, 2016

**Average Weight : 22.9881 g**

Component	Substance Description	CAS # or Description	% of Component	Use in product	Component Weight	Component % of total
Silicon Die					<b>1.039000</b>	<b>4.520%</b>
	Silicon	7440-21-3	100.000		1.039000	
Solder Bump					<b>0.051269</b>	<b>0.223%</b>
	Tin (Sn)	7440-31-5	63.000		0.032299	
	Lead	7439-92-1	37.000		0.018969	
Underfill					<b>0.105000</b>	<b>0.457%</b>
	Silica	60676-86-0	70.000		0.073500	
	Epoxy Resin A	9003-36-5	20.000		0.021000	
	Epoxy Resin B	25068-38-6	3.000		0.003150	
	Hardener	19900-65-3	7.000		0.007350	
					<b>11.000000</b>	<b>47.851%</b>
Heat Spreader	Copper	7440-50-8	99.900		10.989000	
	Nickel	7440-02-0	0.100		0.011000	
Heat Spreader Adhesive					<b>0.180000</b>	<b>0.783%</b>
	Organopolysiloxane mixture	N/A	100.000		0.180000	
					<b>1.662824</b>	<b>7.233%</b>
Solder Ball	Tin	7440-31-5	63.000		1.047579	
	Lead	7439-92-1	37.000		0.615245	
					<b>8.950000</b>	<b>38.933%</b>
Substrate	Copper	7440-50-8	49.51		4.431145	
	Tin	7440-31-5	0.72		0.064440	
	Lead	7439-92-1	0.14		0.012530	
	Silver	7440-22-4	0.02		0.001790	
	BT (Core)	N/A	34.75		3.110125	
	ABF	N/A	12.42		1.111590	
	Solder Mask	N/A	2.44		0.218380	

## Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
08/06/07	1.0	Initial Xilinx release.
09/21/12	1.1	Updated CAS # of Pb (7439-92-1) in Solder Ball.
09/20/16	1.2	Updated Substrate substances description and weights.

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