100% Material Declaration Data Sheet for Virtex-6 RF1759 Package

PK708 (v1.0) June 5, 2015

Average Weight: 32.6795 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					**0.977391**	**2.991%**
	Silicon	7440-21-3	100.00	Basis	0.977391	
Solder Bump					**0.037145**	**0.114%**
	Tin	7440-31-5	98.20	Basis	0.036402	
	Lead	7439-92-1	1.80	Basis	0.000669	
Underfill					**0.098000**	**0.300%**
	Bisphenol F/ Epichlorohydrin	9003-36-5	20.00	Basis	0.019600	
	Phenolic Resin	Trade Secret	15.00	Basis	0.014700	
	Bisphenol A type liquid epoxy resin	25068-38-6	5.00	Basis	0.004900	
	Amine type accelerator	Trade Secret	5.00	Basis	0.004900	
	Silicon Dioxide	60676-86-0	51.50	Basis	0.050470	
	Carbon Black	1333-86-4	1.00	Basis	0.000980	
	Additives	Trade Secret	2.50	Additive	0.002450	
Solder Paste					**0.011228**	**0.034%**
	Tin	7440-31-5	63.00	Metal	0.007074	
	Lead	7439-92-1	37.00	Metal	0.004154	
Capacitor 1					**0.081900**	**0.251%**
	Barium	12047-27-7	88.86	Ceramic	0.072774	
	Manganese	1313-13-9	1.43	Ceramic	0.001170	
	Nickel	7440-02-0	4.29	Internal Electrode	0.003510	
	Copper	7440-50-8	0.70	Termination	0.000573	
	Boron	1303-86-2	0.01	Termination	0.000012	
	Nickel	7440-02-0	3.57	Plating	0.002925	
	Tin	7440-31-5	0.90	Plating	0.000737	
	Lead	7439-92-1	0.24	Plating	0.000199	

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Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Capacitor 2					**0.005630**	**0.017%**
	Barium	12047-27-7	71.29	Ceramic	0.004013	
	Manganese	1313-13-9	10.43	Ceramic	0.000587	
	Nickel	7440-02-0	2.00	Internal Electrode	0.000113	
	Copper	7440-50-8	11.57	Termination	0.000651	
	Glass Oxide	65997-17-3	0.21	Termination	0.000012	
	Nickel	7440-02-0	1.80	Plating	0.000101	
	Tin	7440-31-5	2.70	Plating	0.000152	
Capacitor 3					**0.055040**	**0.168%**
	Barium	12047-27-7	88.86	Ceramic	0.048907	
	Manganese	1313-13-9	1.43	Ceramic	0.000786	
	Nickel	7440-02-0	4.29	Internal Electrode	0.002359	
	Copper	7440-50-8	0.70	Termination	0.000385	
	Glass	65997-17-3	0.01		0.000008	
	Nickel	7440-02-0	3.57	Plating	0.001966	
	Tin	7440-31-5	0.90	Plating	0.000495	
	Lead	7439-92-1	0.24	Plating	0.000134	
Heat Sink					**23.609800**	**72.247%**
	Copper	7440-50-8	98.10	Main material	23.161214	
	Nickel	7440-02-0	1.65	Main material	0.389562	
	Gold	7440-57-5	0.25	Main material	0.059025	
Heat Sink Adhesive					**0.270000**	**0.826%**
	Aluminium Oxide Al203	1344-28-1	70.00	Main Material	0.216000	
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	30.00	Main Material	0.054000	
Solder Ball					1.675163	5.126%
	Tin	7440-31-5	63.00	Main Material	1.055353	
	Lead	7439-92-1	37.00	Main Material	0.619810	
Substrate					**5.858217**	**17.926%**
	Copper	7440-50-8	40.88		2.395000	
	Tin	7440-31-5	0.34		0.019949	
	Lead	7439-92-1	0.22		0.012754	
	BT Core	Trade Secret	42.56		2.493000	
	ABF	Trade Secret	14.80		0.867000	
	Solder Mask	Trade Secret	1.20		0.070514	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
06/05/2015	1.0	Xilinx Initial Release

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