



PK1062(v1.0) March 20, 2020

100% Material Declaration Data Sheet for Kintex UltraScale+ FPGA XQKU5P- SFRB784

Average Weight : 5.8331 g

Component	Substance Description	CAS # or Description	% of component	Use in product	Component weight / substance weight (in grams)	Component % of total
Silicon die					0.265670	4.555%
	Silicon	7440-21-3	100.00	basis	0.265670	
Bump					0.011689	0.200%
	Tin	7440-31-5	98.20	basis	0.011479	
	Silver	7440-22-4	1.80	basis	0.000210	
Underfill					0.037400	0.641%
	Bisphenol F type liquid epoxy resin	9003-36-5	15.00	basis	0.005610	
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.003740	
	Bisphenol A type liquid epoxy resin	25068-38-6	5.00	basis	0.001870	
	Amine type hardener	trade secret	10.00	basis	0.003740	
	Silicon dioxide	60676-86-0	58.00	filler	0.021692	
	Carbon black	1333-86-4	1.00	color agent	0.000374	
	Additives	trade secret	1.00	additives	0.000374	
Solder paste					0.008928	0.153%
	Tin	7440-31-5	54.50	metal	0.004866	
	Lead	7439-92-1	33.00	metal	0.002946	
	Additives	trade secret	12.50	flux	0.001116	
Capacitor 1					0.120000	2.057%
	Barium Titanate	12047-27-7	75.40	Ceramic	0.090480	
	Manganese	1313-13-9	11.00	Ceramic	0.013200	
	Nickel	7440-02-0	4.00	Internal Electrode	0.004800	
	Copper	7440-50-8	6.80	Termination	0.008160	
	Glass oxide	65997-17-3	0.20	Termination	0.000240	
	Nickel	7440-02-0	0.99	Plating	0.001186	
	Tin	7440-31-5	1.48	Plating	0.001778	
	Lead	7439-92-1	0.13	Plating	0.000156	
					2.920000	50.059%
Heat sink					2.871820	
	Copper	7440-50-8	98.35	Main material	0.048180	
	Nickel	7440-02-0	1.65	Main material		
Heat sink adhesive					0.075000	1.286%
	Treated aluminum oxide	trade secret	80.00	Main material	0.060000	
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	20.00	Main material	0.015000	
Solder ball					0.431833	7.403%
	Tin	7440-31-5	63.00	Main material	0.272055	
	Lead	7439-92-1	37.00	Main material	0.159778	
Substrate					1.962605	33.646%
	Copper	7440-50-8	38.86		0.762731	
	Tin	7440-31-5	0.24		0.004768	
	Lead	7439-92-1	0.14		0.002800	
	Core	N/A	43.13		0.846400	
	ABF	N/A	16.17		0.317400	
	Solder Mask	N/A	1.45		0.028507	

Revision History

Date	Version	Description of Revisions
3/20/2020	1.0	Initial Xilinx Release.

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.