



100% Material Declaration Data Sheet for 7-Series (Kintex) FFG676 RoHS 6/6

PK832(v1.0) November 30, 2016

Average Weight : 7.9433 g

Component	Substance Description	CAS # or Description	% of component	Use in product	Component weight / substance weight (in grams)	Component % of total
Silicon die					0.388430	4.89%
	Silicon	7440-21-3	100.00	basis	0.388430	
Bump					0.015339	0.19%
	Tin	7440-31-5	98.20	basis	0.015063	
	Silver	7440-22-4	1.80	basis	0.000276	
Underfill					0.054600	0.69%
	Bisphenol F type liquid epoxy	9003-36-5	15.00	basis	0.008190	
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.005460	
	Bisphenol A type liquid epoxy	25068-38-6	5.00	basis	0.002730	
	Amine type hardener	trade secret	10.00	basis	0.005460	
	Silicon dioxide	60676-86-0	58.00	filler	0.031668	
	Carbon black	1333-86-4	1.00	color agent	0.000546	
	Additives	trade secret	1.00	additives	0.000546	
Solder paste					0.004956	0.06%
	Tin	7440-31-5	96.50	metal	0.004783	
	Silver	7440-22-4	3.00	metal	0.000149	
	Copper	7440-50-8	0.50	metal	0.000025	
Capacitor 1					0.003600	0.05%
	BaTiO3 type	1304-28-5	37.46	Ceramic	0.001349	
	Titanium dioxide	13463-67-7	18.73		0.000674	
	Misc	-	6.24		0.000225	
	Nickel	7440-02-0	17.95	Inner electrode	0.000646	
	Copper	7440-50-8	15.88	Out electrode	0.000572	
	Silicon dioxide	7631-86-9	1.41		0.000051	
	diboron trioxide; boric oxide	1303-86-2	0.35		0.000013	
	Nickel	7440-02-0	0.54	Plating1	0.000019	
	Tin	7440-31-5	1.44	Plating2	0.000052	
Capacitor2					0.003800	0.05%
	Barium oxide, obtained by	1304-28-5	37.01	Ceramic	0.001406	
	Titanium dioxide	13463-67-7	18.51		0.000703	
	Misc	-	6.17		0.000234	
	Nickel	7440-02-0	4.90	Inner Electrode	0.000186	
	Indium(III) oxide	1312-43-2	9.15		0.000348	
	Tin dioxide	18282-10-5	1.83		0.000070	
	Frits	65997-18-4	5.49		0.000209	
	Nickel	7440-02-0	1.83		0.000070	
	Copper	7440-50-8	12.05	Outer Electrode	0.000458	
	diboron trioxide; boric oxide	1303-86-2	0.27		0.000010	
	Silicon dioxide	7631-86-9	1.07		0.000041	
	Nickel	7440-02-0	0.49	Plating1	0.000019	
Tin	7440-31-5	1.23	Plating2	0.000047		
Capacitor3					0.000920	0.012%
	BaTiO3 type	1304-28-5	31.67	Ceramic	0.000291	
	Titanium dioxide	13463-67-7	15.83		0.000146	
	Misc	-	5.28		0.000049	
	Nickel	7440-02-0	26.67	Inner Electrode	0.000245	
	Copper	7440-50-8	15.10	Outer Electrode	0.000139	
	Silicon dioxide	7631-86-9	1.34		0.000012	
	diboron trioxide; boric oxide	1303-86-2	0.33		0.000003	
	Nickel	7440-02-0	1.00	Plating1	0.000009	
	Tin	7440-31-5	2.78	Plating2	0.000026	
Capacitor 4					0.000300	0.004%
	BaTiO3 type	1304-28-5	40.00	Ceramic	0.000120	
	Titanium dioxide	13463-67-7	20.00		0.000060	
	Misc	-	6.67		0.000020	
	Nickel	7440-02-0	2.42	Inner electrode	0.000007	
	Copper	7440-50-8	20.73	Out electrode	0.000062	
	Silicon dioxide	7631-86-9	1.85		0.000006	
	diboron trioxide; boric oxide	1303-86-2	0.45		0.000001	
	Nickel	7440-02-0	2.12	Plating1	0.000006	
Tin	7440-31-5	5.76	Plating2	0.000017		
Heat sink					4.610000	58.036%
	Copper	7440-50-8	98.35	Main material	4.533935	
	Nickel	7440-02-0	1.65	Main material	0.076065	
Heat sink adhesive					0.105000	1.322%
	Aluminium Oxide Al2O3	-	80.00	Main material	0.084000	
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	20.00	Main material	0.021000	
Solder ball					0.564707	7.11%
	Tin	7440-31-5	96.50	Main material	0.544942	
	Silver	7440-22-4	3.00	Main material	0.016941	
	Copper	7440-50-8	0.50	Main material	0.002824	
Substrate					2.191648	27.59%
	Copper	7440-50-8	39.49		0.865482	
	Tin	7440-31-5	0.64		0.014027	
	Silver	7440-22-4	0.02		0.000438	
	Core	N/A	41.55		0.910630	
	ABF	N/A	16.35		0.358334	
Solder mask	N/A	1.95		0.042737		

0.000920

Revision History

Date	Version	Description of Revisions
11/30/2016	1.0	Initial Xilinx release.