



100% Material Declaration Data Sheet for Virtex-6 FFG784 RoHS 6/6

PK834(v1.0) November 30, 2016

Average Weight : 6.6900 g

Component	Substance Description	CAS # or Description	% of component	Use in product	Component weight / substance weight (in grams)	Component % of total
Silicon die					0.505205	7.552%
	Silicon	7440-21-3	100.00	basis	0.505205	
Bump					0.019371	0.290%
	Tin	7440-31-5	98.20	basis	0.019022	
	Silver	7440-22-4	1.80	basis	0.000349	
Underfill					0.069200	1.034%
	Bisphenol F type liquid epoxy	9003-36-5	15.00	basis	0.010380	
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.006920	
	Bisphenol A type liquid epoxy	25068-38-6	5.00	basis	0.003460	
	Amine type hardener	trade secret	10.00	basis	0.006920	
	Silicon dioxide	60676-86-0	58.00	filler	0.040136	
	Carbon black Additives	1333-86-4 trade secret	1.00	color agent additives	0.000692	
Solder paste					0.007152	0.107%
	Tin	7440-31-5	96.50	metal	0.006902	
	Silver	7440-22-4	3.00	metal	0.000215	
	Copper	7440-50-8	0.50	metal	0.000036	
Capacitor 1					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	
Capacitor2					0.003800	0.057%
	BaTiO3 type	1304-28-5	39.32	Ceramic	0.001494	
	Titanium dioxide	13463-67-7	19.67		0.000747	
	Misc	-	6.56		0.000249	
	Nickel	7440-02-0	19.08	Inner Electrode	0.000725	
	Copper	7440-50-8	12.44	Outer Electrode	0.000473	
	Silicon dioxide	7631-86-9	1.11		0.000042	
	diboron trioxide; boric oxide	1303-86-2	0.28		0.000011	
	Nickel	7440-02-0	0.41	Plating1	0.000016	
Tin	7440-31-5	1.13	Plating2	0.000043		
Capacitor3					0.003600	0.054%
	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	Outer 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		
Heat sink					3.520000	52.616%
	Copper	7440-50-8	98.35	Main material	3.461920	
	Nickel	7440-02-0	1.65	Main material	0.058080	
Heat sink adhesive					0.130000	1.943%
	Aluminium Oxide Al2O3	-	80.00	Main material	0.104000	
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	20.00	Main material	0.026000	
Solder ball					0.654927	9.790%
	Tin	7440-31-5	96.50	Main material	0.632005	
	Silver	7440-22-4	3.00	Main material	0.019648	
	Copper	7440-50-8	0.50	Main material	0.003275	
Substrate					1.776445	26.554%
	Copper	7440-50-8	51.17		0.909007	
	Tin	7440-31-5	0.73		0.012968	
	Silver	7440-22-4	0.05		0.000888	
	Resin	N/A	0.11		0.001954	
	Core	N/A	24.73		0.439315	
	PP	N/A	6.38		0.113337	
	ABF	N/A	14.85		0.263802	
Solder Mask	N/A	1.98		0.035174		

Revision History

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