



**100% Material Declaration Data Sheet for ZYNQ SBG485 RoHS 6/6**

PK824(v1.0) November 30, 2016

**Average Weight : 1.4100 g**

Component	Substance Description	CAS # or Description	% of component	Use in product	Component weight / substance weight ( in grams)	Component % of total
Silicon die	Silicon	7440-21-3	100.00	basis	0.156669	11.111%
					0.156669	
Bump	Tin	7440-31-5	98.20	basis	0.006458	0.466%
	Ag	7440-22-4	1.80	basis	0.000118	
					0.029900	
Underfill	Bisphenol F type liquid epoxy	9003-36-5	15.00	basis	0.004485	2.121%
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.002990	
	Bisphenol A type liquid epoxy	25068-38-6	5.00	basis	0.001495	
	Amine type hardener	trade secret	10.00	basis	0.002990	
	Silicon dioxide	60676-86-0	58.00	filler	0.017342	
	Carbon black	1333-86-4	1.00	color agent	0.000299	
	Additives	trade secret	1.00	additives	0.000299	
					0.002664	
Solder paste	Tin	7440-31-5	96.50	metal	0.002571	0.189%
	Silver	7440-22-4	3.00	metal	0.000080	
	Copper	7440-50-8	0.50	metal	0.000013	
					0.003600	
Capacitor 1	Barium oxide, obtained by calcining witherite	1304-28-5	37.46	Ceramic	0.001349	0.26%
	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	
					0.000920	
Capacitor3	BaTiO3 type	1304-28-5	31.67	Ceramic	0.000291	0.065%
	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	
					0.000300	
Capacitor 4	BaTiO3 type	1304-28-5	40.00	Ceramic	0.000120	0.021%
	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	
Solder ball	Tin	7440-31-5	96.50	Main material	0.225791	16.594%
	Silver	7440-22-4	3.00	Main material	0.007019	
	Copper	7440-50-8	0.50	Main material	0.001170	
					0.975391	
Substrate	Copper	7440-50-8	36.47		0.355726	69.177%
	Tin	7440-31-5	0.62		0.006047	
	Silver	7440-22-4	0.02		0.000195	
	Core	N/A	46.82		0.456678	
	ABF	N/A	13.82		0.134799	
	Solder Mask	N/A	2.25		0.021946	

**Revision History**

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