



# 100% Material Declaration Data Sheet for Kintex 7 FFG900 ENEPIG

PK1183(v1.0) April 1, 2024

Average Weight : 10.2819 g

Component	Substance Description	CAS # or Description	% of component	Use in product	Component weight / substance weight ( in grams)	Component % of total
Silicon die 1	Silicon	7440-21-3	100.00	basis	0.297103	2.890%
					0.297103	
Bump	Sn	7440-31-5	98.20	basis	0.118092	1.158%
	Ag	7440-22-4	1.80	basis	0.118949	
					0.002144	
Underfill	Bisphenol F type liquid epoxy resin	9003-36-5	15.00	basis	0.045000	0.438%
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.006750	
	Bisphenol A type liquid epoxy resin	25068-38-6	5.00	basis	0.004500	
	Amine type hardener	trade secret	10.00	basis	0.002250	
	Silicon dioxide	60676-86-0	58.00	filler	0.004500	
	Carbon black	1333-86-4	1.00	color agent	0.026100	
	Additives	trade secret	1.00	additives	0.000450	
					0.000450	
Solder paste	Tin	7440-31-5	85.40	metal	0.067772	0.056%
	silver	7440-22-4	2.66	metal	0.004929	
	Copper	7440-50-8	0.44	metal	0.000154	
	Polymer	trade secret	1.53		0.000025	
	Organic amine	trade secret	3.30	flux	0.000088	
	Solvent	trade secret	5.36		0.000190	
	Organic acid	trade secret	1.31		0.000309	
					0.000076	
Capacitor 1	Barium oxide, obtained by calcining witherite	1304-28-5	40.00	Ceramic	0.023400	0.228%
	Titanium dioxide	13463-67-7	20.00		0.009360	
	Misc	-	6.67		0.004680	
	Nickel	7440-02-0	2.42	Inner Electrode	0.001561	
	Copper	7440-50-8	20.73		0.000566	
	Silicon dioxide	7631-86-9	1.85	Outer electrode	0.004851	
	boron trioxide; boric oxide	1303-86-2	0.45		0.000433	
	Nickel	7440-02-0	2.12		0.000105	
	Tin	7440-31-5	5.76	Plating2	0.000496	
					0.001348	
Capacitor 2	Barium oxide, obtained by calcining witherite	1304-28-5	40.00	Ceramic	0.002640	0.026%
	Titanium dioxide	13463-67-7	20.00		0.001056	
	Misc	-	6.67		0.000528	
	Nickel	7440-02-0	2.42	Inner Electrode	0.000176	
	Copper	7440-50-8	20.73		0.000064	
	Silicon dioxide	7631-86-9	1.85	Outer electrode	0.000547	
	boron trioxide; boric oxide	1303-86-2	0.45		0.000049	
	Nickel	7440-02-0	2.12		0.000012	
	Tin	7440-31-5	5.76	Plating2	0.000056	
					0.000152	
Capacitor 3	Barium oxide, obtained by calcining witherite	1304-28-5	37.01	Ceramic	0.003900	0.038%
	Titanium dioxide	13463-67-7	18.51		0.001443	
	Misc	-	6.17		0.000722	
	Nickel	7440-02-0	4.90	Inner Electrode	0.000241	
	Indium(III) oxide	1312-43-2	9.15		0.000191	
	Tin dioxide	18282-10-5	1.83		0.000357	
	Filts	65997-18-4	5.49		0.000071	
	Nickel	7440-02-0	1.83	Outer Electrode	0.000214	
	Copper	7440-50-8	12.05		0.000071	
	boron trioxide; boric oxide	1303-86-2	0.27		0.000470	
	Silicon dioxide	7631-86-9	1.07		0.000011	
	Nickel	7440-02-0	0.49	Plating1	0.000042	
	Tin	7440-31-5	1.23	Plating2	0.000019	
				0.000048		
Capacitor 4	BaTiO3	12047-27-7	34.00	Ceramic	0.010000	0.097%
	Nickel	7440-02-0	18.10	Internal Electrode	0.003400	
	Copper	7440-50-8	41.10	Termination	0.001810	
	Nickel	7440-02-0	3.40	Plating	0.004110	
	Tin	7440-31-5	3.40	Plating	0.000340	
					0.000340	
Heat sink	Copper	7440-50-8	98.35	Main material	6.130000	59.619%
	Nickel	7440-02-0	1.65	Main material	6.028855	
Heat sink adhesive	Aluminum Oxide Al2O3	1344-28-1	70.00	Main material	0.101145	1.089%
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	30.00	Main material	0.112000	
Solder ball	Tin	7440-31-5	96.50	Main material	0.751829	7.31%
	Silver	7440-22-4	3.00	Main material	0.725515	
	Copper	7440-50-8	0.50	Main material	0.022555	
Substrate	Copper	7440-50-8	34.66	Metallization	0.003759	27.049%
	Gold	7440-57-5	0.01		0.2781173	
	Palladium	7440-50-3	0.00		0.964057	
	Nickel	7440-02-0	0.49		0.000289	
	Tin	7440-31-5	0.23		0.000119	
	Silver	7440-22-4	0.01		0.013546	
	Core	trade secret	46.15	Core	0.006440	
	ABF	trade secret	16.29	Build Up	0.000200	
	Solder Mask	trade secret	1.69	Solder Mask	1.283539	
	Resine Plugging	trade secret	0.47	Resine Plugging	0.452977	
					0.046905	
					0.013100	

## Revision History

Date	Version	Description of Revisions
4/1/2024	1.0	AMD Xilinx Release per XCN23002

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