



PK828(v1.0) November 30, 2016

100% Material Declaration Data Sheet for 7-Series (Kintex) FFG900 RoHS 6/6

Average Weight : 11.7917 g

| Component | Substance Description | CAS # or Description | % of component | Use in product | Component weight / substance weight (in grams) | Component % of total |
|--------------------|---|----------------------|----------------|-----------------|---|----------------------|
| Silicon die | | | | | 0.388303 | 3.293% |
| | Silicon | 7440-21-3 | 100.00 | basis | 0.388303 | |
| Bump | | | | | 0.015339 | 0.130% |
| | Tin | 7440-31-5 | 98.20 | basis | 0.015063 | |
| | Silver | 7440-22-4 | 1.80 | basis | 0.000276 | |
| | | | | | 0.049000 | 0.416% |
| Underfill | Bisphenol F type liquid epoxy | 9003-36-5 | 15.00 | basis | 0.007350 | |
| | 1,6-Bis(2,3-epoxypropoxy)naphthalene | 27610-48-6 | 10.00 | basis | 0.004900 | |
| | Bisphenol A type liquid epoxy | 25068-38-6 | 5.00 | basis | 0.002450 | |
| | Amine type hardener | trade secret | 10.00 | basis | 0.004900 | |
| | Silicon dioxide | 60676-86-0 | 58.00 | filler | 0.028420 | |
| | Carbon black | 1333-86-4 | 1.00 | color agent | 0.000490 | |
| | Additives | trade secret | 1.00 | additives | 0.000490 | |
| | | | | | 0.005772 | 0.049% |
| Solder paste | | | | | | |
| | Tin | 7440-31-5 | 96.50 | metal | 0.005570 | |
| | Silver | 7440-22-4 | 3.00 | metal | 0.000173 | |
| | Copper | 7440-50-8 | 0.50 | metal | 0.000029 | |
| | | | | | 0.002400 | 0.020% |
| Capacitor 1 | BaTiO3 type | 1304-28-5 | 40.00 | Ceramic | 0.000960 | |
| | Titanium dioxide | 13463-67-7 | 20.00 | | 0.000480 | |
| | Misc | - | 6.67 | | 0.000160 | |
| | Nickel | 7440-02-0 | 2.42 | Inner electrode | 0.000058 | |
| | Copper | 7440-50-8 | 20.73 | Out electrode | 0.000498 | |
| | Silicon dioxide | 7631-86-9 | 1.85 | | 0.000044 | |
| | diboron trioxide; boric oxide | 1303-86-2 | 0.45 | | 0.000011 | |
| | Nickel | 7440-02-0 | 2.12 | Plating1 | 0.000051 | |
| | Tin | 7440-31-5 | 5.76 | Plating2 | 0.000138 | |
| | | | | | 0.009200 | 0.078% |
| Capacitor2 | BaTiO3 type | 1304-28-5 | 31.67 | Ceramic | 0.002914 | |
| | Titanium dioxide | 13463-67-7 | 15.83 | | 0.001456 | |
| | Misc | - | 5.28 | | 0.000486 | |
| | Nickel | 7440-02-0 | 26.67 | Inner Electrode | 0.002454 | |
| | Copper | 7440-50-8 | 15.10 | Outer Electrode | 0.001389 | |
| | Silicon dioxide | 7631-86-9 | 1.34 | | 0.000123 | |
| | diboron trioxide; boric oxide | 1303-86-2 | 0.33 | | 0.000030 | |
| | Nickel | 7440-02-0 | 1.00 | Plating1 | 0.000092 | |
| | Tin | 7440-31-5 | 2.78 | Plating2 | 0.000256 | |
| | | | | | 0.021600 | 0.183% |
| Capacitor3 | BaTiO3 type | 1304-28-5 | 37.46 | Ceramic | 0.008091 | |
| | Titanium dioxide | 13463-67-7 | 18.73 | | 0.004046 | |
| | Misc | - | 6.24 | | 0.001348 | |
| | Nickel | 7440-02-0 | 17.95 | Inner Electrode | 0.003877 | |
| | Copper | 7440-50-8 | 15.88 | Outer Electrode | 0.003430 | |
| | Silicon dioxide | 7631-86-9 | 1.41 | | 0.000305 | |
| | diboron trioxide; boric oxide | 1303-86-2 | 0.35 | | 0.000076 | |
| | Nickel | 7440-02-0 | 0.54 | Plating1 | 0.000117 | |
| | Tin | 7440-31-5 | 1.44 | Plating2 | 0.000311 | |
| | | | | | 0.003800 | 0.032% |
| Capacitor4 | BaTiO3 type | 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 | |
| | Silicon dioxide | 7631-86-9 | 0.27 | | 0.000010 | |
| | diboron trioxide; boric oxide | 1303-86-2 | 1.07 | | 0.000041 | |
| | Nickel | 7440-02-0 | 0.49 | Plating1 | 0.000019 | |
| | Tin | 7440-31-5 | 1.23 | Plating2 | 0.000047 | |
| | | | | | 7.427400 | 62.988% |
| Heat sink | | | | | | |
| | Copper | 7440-50-8 | 98.35 | Main material | 7.304848 | |
| | Nickel | 7440-02-0 | 1.65 | Main material | 0.122552 | |
| | | | | | 0.120000 | 1.018% |
| Heat sink adhesive | | | | | | |
| | Aluminium Oxide Al2O3 | - | 80.00 | Main material | 0.096000 | |
| | Dimethyl siloxane, dimethylvinyl-terminated | 68083-19-2 | 20.00 | Main material | 0.024000 | |
| | | | | | 0.751829 | 6.376% |
| Solder ball | | | | | | |
| | Tin | 7440-31-5 | 96.50 | Main material | 0.725515 | |
| | Silver | 7440-22-4 | 3.00 | Main material | 0.022555 | |
| | Copper | 7440-50-8 | 0.50 | Main material | 0.003759 | |
| | | | | | 2.997057 | 25.417% |
| Substrate | | | | | | |
| | Copper | 7440-50-8 | 41.03 | | 1.229693 | |
| | Tin | 7440-31-5 | 0.99 | | 0.029671 | |
| | Silver | 7440-22-4 | 0.03 | | 0.000899 | |
| | Core | N/A | 42.64 | | 1.27794500 | |
| | ABF | N/A | 13.15 | | 0.394113 | |
| | Solder Mask | N/A | 2.16 | | 0.064736 | |

Revision History

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