



100% Material Declaration Data Sheet for XQKU040-RBA676

PK1213(v1.0) December 19, 2024

Average Weight : 6.5412 g

| Component | Substance Description | CAS # or Description | % of component | Use in product | Component weight / substance weight (in grams) | Component % of total |
|--------------------|--|----------------------|----------------|--------------------|---|----------------------|
| Silicon die | | | | | 0.328554 | 5.023% |
| | Silicon | 7440-21-3 | 100.00 | basis | 0.328554 | |
| Bump | Tin | 7440-31-5 | 98.20 | basis | 0.013405 | 0.205% |
| | Silver | 7440-22-4 | 1.80 | basis | 0.000241 | |
| Underfill | Bisphenol F type liquid epoxy resin | 9003-36-5 | 15.00 | basis | 0.041000 | 0.627% |
| | 1,6-Bis(2,3-epoxypropoxy)naphthalene | trade secret | 10.00 | basis | 0.004100 | |
| | Bisphenol A type liquid epoxy resin | 25068-38-6 | 5.00 | basis | 0.002050 | |
| | Amine type hardener | trade secret | 10.00 | basis | 0.004100 | |
| | Silicon dioxide | 60676-86-0 | 58.00 | filler | 0.023780 | |
| | Carbon black | 1333-86-4 | 1.00 | color agent | 0.000410 | |
| | Additives | trade secret | 1.00 | additives | 0.000410 | |
| | | | | | 0.008208 | 0.125% |
| Solder paste | Tin | 7440-31-5 | 54.50 | metal | 0.004473 | |
| | Lead | 7439-92-1 | 33.00 | metal | 0.002709 | |
| | Organic amine | trade secret | 4.90 | flux | 0.000402 | |
| | Solvent | trade secret | 4.90 | | 0.000402 | |
| | Copolymer | trade secret | 2.70 | | 0.000222 | |
| | | | | | 0.106709 | 1.631% |
| Capacitor 1 | Barium | 12047-27-7 | 88.86 | Ceramic | 0.094822 | |
| | Manganese | 1313-13-9 | 1.43 | Ceramic | 0.001526 | |
| | Nickel | 7440-02-0 | 4.29 | Internal Electrode | 0.004578 | |
| | Copper | 7440-50-8 | 0.70 | Termination | 0.000747 | |
| | Glass | 65997-17-3 | 0.01 | Termination | 0.000011 | |
| | Nickel | 7440-02-0 | 3.57 | Plating | 0.003810 | |
| | Tin | 7440-31-5 | 0.86 | Plating | 0.000918 | |
| | Lead | 7439-92-1 | 0.28 | Plating | 0.000299 | |
| | | | | 0.060000 | 0.917% | |
| Capacitor 2 | Barium | 12047-27-7 | 75.40 | Ceramic | 0.045240 | |
| | Manganese | 1313-13-9 | 11.00 | Ceramic | 0.006600 | |
| | Nickel | 7440-02-0 | 4.00 | Internal Electrode | 0.002400 | |
| | Copper | 7440-50-8 | 6.80 | Termination | 0.004080 | |
| | Glass | 65997-17-3 | 0.20 | Termination | 0.000120 | |
| | Nickel | 7440-02-0 | 0.99 | Plating | 0.000594 | |
| | Tin | 7440-31-5 | 1.48 | Plating | 0.000888 | |
| | Lead | 7439-92-1 | 0.13 | Plating | 0.000078 | |
| | | | | 3.077000 | 47.040% | |
| Heat sink | Copper | 7440-50-8 | 98.35 | Main material | 3.026230 | |
| | Nickel | 7440-02-0 | 1.65 | Main material | 0.050771 | |
| | | | | 0.090000 | 1.376% | |
| Heat sink adhesive | Aluminium Oxide Al ₂ O ₃ | | 80.00 | Main material | 0.072000 | |
| | Dimethyl siloxane, dimethylvinyl-terminated | 68083-19-2 | 20.00 | Main material | 0.018000 | |
| | | | | 0.643415 | 9.836% | |
| Solder ball | Tin | 7440-31-5 | 63.00 | Main material | 0.405351 | |
| | Lead | 7439-92-1 | 37.00 | Main material | 0.238064 | |
| | | | | 2.172913 | 33.219% | |
| Substrate | Copper | 7440-50-8 | 32.05 | Plating | 0.696353 | |
| | Tin | 7440-31-5 | 0.25 | Plating | 0.005468 | |
| | Lead | 7439-92-1 | 0.15 | Plating | 0.003211 | |
| | Core | N/A | 53.68 | Core | 1.166400 | |
| | ABF | N/A | 12.08 | Build Up | 0.262440 | |
| | Solder Mask | N/A | 1.80 | Solder Mask | 0.039041 | |

Revision History

| Date | Version | Description of Revisions |
|------------|---------|--------------------------|
| 12/19/2024 | 1.0 | Initial AMD Release. |

Notice of Disclaimer

AMD regards this materials data to be correct but makes no guarantee as to its accuracy or completeness, including, but not limited to, with respect to its compliance with applicable environmental laws and regulations. AMD subcontracts the production, test and assembly of hardware devices to independent third-party vendors and materials suppliers ("Contractors"). All data provided hereunder is based on information received from Contractors. AMD has not independently verified the accuracy or completeness of this information which is provided solely for your reference in connection with the use of AMD products.