



PK676 (v1.0) Oct 3, 2014

100% Material Declaration Data Sheet for Spartan-3AN FG676 Cu Wire Package

Average Weight: 2.748g

| Component | Substance Description | CAS Number or Description | Percentage of Component | Use in Product | Component Weight/ Substance Weight (grams) | Component Percent of Total |
|----------------------|-----------------------|---------------------------|-------------------------|----------------|--|----------------------------|
| Silicon Die 1 | | | | | 0.037747 | 1.374% |
| | Silicon | 7440-21-3 | 100.00 | | 0.037747 | |
| Silicon Die 2 | | | | | 0.002919 | 0.106% |
| | Silicon | 7440-21-3 | 100.00 | | 0.002919 | |
| Die Attach | | | | | 0.006967 | 0.254% |
| | Silver | 7440-22-4 | 77.50 | | 0.005399 | |
| | Bismaleimide monomer | Trade secret | 15.00 | | 0.001045 | |
| | Acrylate monomer | Trade secret | 7.50 | | 0.000523 | |
| Film | | | | | 0.000017 | 0.001% |
| | Solid Epoxy Resin | NA | 12.50 | | 0.000002 | |
| | Phenol Resin | NA | 12.50 | | 0.000002 | |
| | Amorphous Silica | 7631-86-9 | 35.00 | | 0.000006 | |
| | Synthetic Rubber | NA | 40.00 | | 0.000007 | |
| Mold Compound | | | | | 1.421610 | 51.729% |
| | Epoxy Resin | Trade secret | 9.00 | | 0.127945 | |
| | Silica(Amorphous) A | 60676-86-0 | 72.45 | | 1.029956 | |
| | Silica(Amorphous) B | 7631-86-9 | 15.00 | | 0.213242 | |
| | Metal Hydroxide | Trade secret | 3.00 | | 0.042648 | |
| | Carbon black | 1333-86-4 | 0.55 | | 0.007819 | |
| Gold Wire | | | | | 0.000233 | 0.009% |
| | Gold | 7440-57-5 | 99.048 | | 0.000231 | |
| | Palladium | 7440-05-3 | 0.95 | | 0.000002 | |
| | Calcium | 7440-70-2 | 0.002 | | 0.000000 | |
| Copper Wire | | | | | 0.007971 | 0.290% |
| | Copper | 7440-50-8 | 98.25 | | 0.007832 | |
| | Palladium | 7440-05-3 | 1.75 | | 0.000139 | |
| Solder Ball | | | | | 0.643415 | 23.412% |
| | Tin | 7440-31-5 | 63.00 | | 0.405351 | |
| | Lead | 7439-92-1 | 37.00 | | 0.238064 | |

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| Component | Substance Description | CAS Number or Description | Percentage of Component | Use in Product | Component Weight/ Substance Weight (grams) | Component Percent of Total |
|------------------|---|---------------------------|-------------------------|----------------|--|----------------------------|
| Substrate | | | | | 0.627301 | 22.826% |
| | Gold | 7440-57-5 | 58.41 | | 0.366400 | |
| | Nickel | 7440-02-0 | 0.29 | | 0.001795 | |
| | Copper Plating | 7440-50-8 | 2.20 | | 0.013810 | |
| | Copper Foil | 7440-50-8 | 14.39 | | 0.090263 | |
| | Continuous Filament Fiber Glass | 65997-17-3 | 5.63 | | 0.035328 | |
| | BT Core | 7440-50-8 | 6.36 | | 0.039886 | |
| | Pre-preg Fabric | NA | 4.36 | | 0.027350 | |
| Solder mask | 14807-96-6 7727-43-7 7631-86-9 34590-94-8 91-20-3 85954-11-6 | 8.36 | | 0.052469 | | |

Revision History

The following table shows the revision history for this document.

| Date | Version | Description of Revisions |
|------------|---------|--------------------------|
| 10/03/2014 | 1.0 | Xilinx Initial Release |

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