



PK666 (v1.0) Oct 3, 2014

# 100% Material Declaration Data Sheet for Spartan-3AN FGG400 Cu Wire Package

**Average Weight: 2.000g**

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
<b>Silicon Die 1</b>					<b>0.017871</b>	<b>0.874%</b>
	Silicon	7440-21-3	100.00		0.017871	
<b>Silicon Die 2</b>					<b>0.001608</b>	<b>0.079%</b>
	Silicon	7440-21-3	100.00		0.001608	
<b>Die Attach</b>					<b>0.002719</b>	<b>0.133%</b>
	Silver	7440-22-4	77.50		0.002107	
	Bismaleimide monomer	Trade secret	15.00		0.000408	
	Acrylate monomer	Trade secret	7.50		0.000204	
<b>Film</b>					<b>0.000009</b>	<b>0.000%</b>
	Solid Epoxy Resin	NA	12.50		0.000001	
	Phenol Resin	NA	12.50		0.000001	
	Amorphous Silica	7631-86-9	35.00		0.000003	
	Synthetic Rubber	NA	40.00		0.000004	
<b>Mold Compound</b>					<b>0.825283</b>	<b>40.343%</b>
	Epoxy Resin	Trade secret	9.00		0.074275	
	Silica(Amorphous) A	60676-86-0	72.45		0.597918	
	Silica(Amorphous) B	7631-86-9	15.00		0.123792	
	Metal Hydroxide	Trade secret	3.00		0.024758	
	Carbon black	1333-86-4	0.55		0.004539	
<b>Gold Wire</b>					<b>0.000318</b>	<b>0.016%</b>
	Gold	7440-57-5	99.048		0.000315	
	Palladium	7440-05-3	0.95		0.000003	
	Calcium	7440-70-2	0.002		0.000000	
<b>Copper Wire</b>					<b>0.004796</b>	<b>0.234%</b>
	Copper	7440-50-8	98.25		0.004712	
	Palladium	7440-05-3	1.75		0.000084	
<b>Solder Ball</b>					<b>0.335050</b>	<b>16.753%</b>
	Tin	7440-31-5	95.50		0.319973	
	Silver	7440-22-4	4.00		0.013402	
	Copper	7440-50-8	0.50		0.001675	

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**100% Material Declaration Data Sheet for 7 Spartan-3AN FG400 Cu Wire**

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Substrate					<b>0.812346</b>	<b>39.711%</b>
	Plating Cu	7440-50-8	47.22		0.383561	
	Plating Au	7440-57-5	0.20		0.001657	
	Plating Ni	7440-02-0	1.57		0.012749	
	copper foil	7440-50-8	9.71		0.078898	
	Continuous Filament Fiber Glass	65997-17-3	11.99		0.097395	
	BT Core	7440-50-8	13.54		0.109962	
	Pre-preg Fabric	NA	9.28		0.075403	
Solder mask	14807-96-6 7727-43-7 7631-86-9 34590-94-8 91-20-3 85954-11-6	6.49		0.052721		

## 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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