



PK506 (v1.0) September 16,
2011

100% Material Declaration Data Sheet for Spartan®-3/-3E/-3A TQ144 (Cu Wire)

Average Weight: 1.2718 g

Component	Substance Description	CAS# or Description	% of Component	Use in Product	Component Weight/ Substance Weight (in grams)	Component % of Total
Silicon Die					0.022451	1.765
	Silicon	7440-21-3	100.00		0.022451	
Mold Compound					1.098008	86.336
	Silica Fused	60676-86-0	77.40		0.849858	
	Epoxy Resin	Trade Secret	7.00		0.076861	
	Phenol Resin	Trade Secret	5.00		0.054900	
	Carbon Black	1333-86-4	0.30		0.003294	
	Silica Fused	7631-86-9	10.00		0.109801	
	Silica, crystalline	14808-60-7	0.30		0.003294	
Die Attach Adhesive					0.003992	0.314
	Silver	7440-22-4	73.00		0.002914	
	Epoxy Resin	Trade secret	13.50		0.000539	
	Abhydride	Trade Secret	10.50		0.000419	
	1,4- Butanedioldoglyidyl ether	Trade Secret	3.00		0.000120	
Solder Plating					0.013400	1.054
	Tin (Sn)	7440-31-5	85.00		0.011390	
	Lead (Pb)	7439-92-1	15.00		0.002010	
Copper Wire					0.001627	0.128
	Copper (Cu)	7440-50-8	97.28		0.001583	
	Palladium	7440-05-3	2.70		0.000044	
	Impurities	N/A	0.02		0.000000	

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Lead Frame					0.126310	9.932
	Copper (Cu)	7440-50-8	94.30		0.119110	
	Magnesium (Mg)	7439-95-4	0.18		0.000221	
	Nickel (Ni)	7440-02-0	3.20		0.004042	
	Silicon (Si)	7440-21-3	0.73		0.000916	
	Silver (Ag)	7440-22-4	1.50		0.002021	
Lead Frame Tape					0.006000	0.472
	Polyimide	Trade Secret	43.00		0.002580	
	Poly – ethylene – terephthalate	25038-59-9	25.00		0.001500	
	NBR	9003-18-3	12.00		0.000720	
	Bismaleimide	79922-55-7	10.00		0.000600	
	Phenol Resin	28453-20-5	10.00		0.000600	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
09/16/2011	1.0	Initial Xilinx release.

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