

# Material Declaration Report

Package Type:	QFN 24L (4*4*0.85mm)
Pericom Package Code:	ZD24(Pb-free)
RoHS Compliance:	Yes
Applicable Exemption:	N/A

Component Weight (mg):	41.0000
Termination Plating:	Matte Tin
JESD 97 Pb-free Category:	e3
Plating Thickness (um):	10~20
Tin Whisker Mitigation:	Anneal, 150C/1hr

MSL Rating:	1
Peak Body Temp (C):	260
Max Time (sec):	30
Reflow Cycles:	3
Rev Date:	2011/8/8

## Homogeneous Material Declaration

MATERIAL ITEM	MATERIAL WEIGHT(mg)	ASSEMBLY SUBCON	MATERIAL COMPOSITION	CAS NO.	COMPOSITION %	COMPOSITION WEIGHT(mg)
MOLD COMPOUND	24.6000	GTK	Epoxy Resin	Trade secret	8.000	1.9680
			Phenol Resin	Trade secret	6.000	1.4760
			Carbon Black	1333-86-4	0.500	0.1230
			Silica fused	60676-86-0	75.000	18.4500
			Silica fused	7631-86-9	10.000	2.4600
			Silica crystalline	14808-60-7	0.500	0.1230
LEADFRAME	13.1200		Copper	7440-50-8	95.740	12.5611
			Iron	7439-89-6	2.310	0.3031
			Zinc	7440-66-6	0.120	0.0157
			Phosphorus	7723-14-0	0.080	0.0105
			Nickel(Ni)	7440-02-0	1.580	0.2073
			palladium(Pd)	7440-05-3	0.150	0.0197
			Gold(Au)	7440-57-5	0.020	0.0026
SILICON DIE	1.9762		Silicon (Si)	7440-21-3	99.192	1.9602
			Non-hazardous Metal	Proprietary	0.808	0.0160
DIE ATTACH EPOXY	0.0328		Silver	7440-22-4	72.000	0.0236
			Epoxy resin A	9003-36-5	5.000	0.0016
			Epoxy resin B	Trade secret	6.000	0.0020
			Diluent A	Trade secret	6.000	0.0020
			Diluent B	Trade secret	5.000	0.0016
			Hardener	Trade secret	5.000	0.0016
			Dicyandiamide	461-58-5	0.300	0.0001
			Organic peroxide	Trade secret	0.700	0.0002
WIRE BOND	0.0410		Copper	7440-50-8	97.000	0.0398
			Palladium	7440-05-3	3.000	0.0012
PLATING	1.2300		pure tin	7440-31-5	99.990	1.2299
			Impurity	-	0.010	0.0001

NOTE: The device contents disclosed are approximated and are based on engineering estimates.

## 3rd Party Analysis Results (PPM)

MATERIAL	Pb	Hg	Cr+6	Cd	PBB	PBDE
Mold Compound	<2	<2	<2	<2	<5	<5
Leadframe	<50	<2	<2	<2	<5	<5
Device Silicon Die	<2	<2	<2	<2	<5	<5
Die Attach Epoxy	<2	<2	<2	<2	<5	<5
Gold Wire	<2	<2	<2	<2	<5	<5
Solder Plating	<2	<2	<2	<2	<5	<5

## ROHS MATERIAL COMPOSITION DECLARATION

EU RoHS Directive 2002/95/EC  and  China RoHS Directive SJ/T11363-2006	<b>Declaration Statement:</b>	Quantity limit of 0.1% (1000 PPM) by mass in homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium(Cr+6), Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE); and Quantity limit of 0.01% (100 PPM) for Cadmium					
		Pb	Hg	Cr+6	Cd	PBB	PBDE
	<1000ppm	<1000ppm	<1000ppm	<100ppm	<1000ppm	<1000ppm	
	O	O	O	O	O	O	
<p>O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.</p> <p>X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.</p>							