

# Material Declaration Report



Package Type:	TDFN 12L (3.5x3.0mm)
Pericom Package Code:	ZE12(Pb-free)
RoHS Compliance:	Yes
Applicable Exemption:	N/A

Component Weight (mg):	26.500
Termination Plating:	Sn
JESD 97 Pb-free Category:	e3
Plating Thickness (um):	10~20
Tin Whisker Mitigation:	N/A

MSL Rating:	1
Peak Body Temp (C):	260
Max Time (sec):	30
Reflow Cycles:	3
Rev Date:	4/24/2009

## Homogeneous Material Declaration

MATERIAL ITEM	MATERIAL WEIGHT(mg)	ASSEMBLY SUBCON	MATERIAL COMPOSITION	CAS NO.	COMPOSITION %	COMPOSITION WEIGHT(mg)
MOLD COMPOUND	21.140	UTL/SPEL	Silica fuse	60676-86-0	90.500	19.1317
			Epoxy resin	Proprietary	4.500	0.9513
			Phenol resin	Proprietary	4.500	0.9513
			Carbon black	1333-86-4	0.500	0.1057
LEADFRAME	2.392		Copper (Cu)	7440-50-8	96.440	2.3068
			Iron (Fe)	7439-89-6	2.350	0.0562
			Phosphorus (P)	7723-14-0	0.080	0.0019
			Zinc (Zn)	7440-66-6	0.130	0.0031
			Silver(Ag)	7440-22-4	1.000	0.0239
SILICON DIE	1.161		Silicon (Si)	7440-21-3	99.192	1.1516
			Non-hazardous Metal	Proprietary	0.808	0.0094
DIE ATTACH EPOXY	0.353	UTL	Silver	7440-22-4	80.000	0.2824
			Acrylate Resin	Proprietary	16.000	0.0565
			Heterocyclic organic compound	Proprietary	2.000	0.0071
			Treated Silica	Proprietary	2.000	0.0071
		SPEL	Silver	7440-22-4	80.000	0.2824
			Epoxy Resin	9003-36-5	10.000	0.0353
			Diluent	26447-14-3	6.000	0.0212
			Hardener	620-92-8	3.500	0.0124
			Dicyandamide	461-58-5	0.500	0.0018
GOLD WIRE	0.109		Gold(Au)	7440-57-5	99.990	0.1090
			Impurities	-	0.010	0.0000
SOLDER PLATING	1.344		Tin (Sn)	7440-31-5	99.990	1.3439
			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
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																	
	<table border="1"> <thead> <tr> <th>Pb</th> <th>Hg</th> <th>Cr+6</th> <th>Cd</th> <th>PBB</th> <th>PBDE</th> </tr> </thead> <tbody> <tr> <td>&lt;1000ppm</td> <td>&lt;1000ppm</td> <td>&lt;1000ppm</td> <td>&lt;100ppm</td> <td>&lt;1000ppm</td> <td>&lt;1000ppm</td> </tr> <tr> <td>O</td> <td>O</td> <td>O</td> <td>O</td> <td>O</td> <td>O</td> </tr> </tbody> </table>	Pb	Hg	Cr+6	Cd	PBB	PBDE	<1000ppm	<1000ppm	<1000ppm	<100ppm	<1000ppm	<1000ppm	O	O	O	O	O
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.            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>																		