

# Material Declaration Report

<b>Package Type:</b>	TQFN 20L
<b>Pericom Package Code:</b>	ZD20(Pb-free)
<b>RoHS Compliance:</b>	Yes
<b>Applicable Exemption:</b>	N/A

<b>Component Weight (mg):</b>	37.493
<b>Termination Plating:</b>	NiPdAu
<b>JESD 97 Pb-free Category:</b>	e4
<b>Plating Thickness (um):</b>	0.5~2.2
<b>Tin Whisker Mitigation:</b>	N/A

<b>MSL Rating:</b>	1
<b>Peak Body Temp (C):</b>	260
<b>Max Time (sec):</b>	30
<b>Reflow Cycles:</b>	3
<b>Rev Date:</b>	4/17/2009

## Homogeneous Material Declaration

MATERIAL ITEM	MATERIAL WEIGHT(mg)	ASSEMBLY SUBCON	MATERIAL COMPOSITION	CAS NO.	COMPOSITION %	COMPOSITION WEIGHT(mg)
MOLD COMPOUND	18.534	UTL	Silica fuse	60676-86-0	90.500	16.77304
			Epoxy resin	129915-35-1	4.500	0.83402
			Phenol resin	65521-80-4	4.500	0.83402
			Carbon black	1333-86-4	0.500	0.09267
LEADFRAME	17.338		Copper	7440-50-8	96.953	16.80976
			Iron	7439-89-6	2.350	0.40744
			Zinc	7440-66-6	0.111	0.01921
			Phosphorus	7723-14-0	0.065	0.01127
			Nickel	7440-02-0	0.473	0.08196
			Palladium	7440-05-3	0.041	0.00711
			Gold	7440-57-5	0.007	0.00128
SILICON DIE	0.886		Silicon (Si)	7440-21-3	99.192	0.87856
			Non-hazardous Metal	Proprietary	0.808	0.00716
DIE ATTACH EPOXY	0.250		Silver	7440-22-4	80.000	0.20000
			Acrylate Resin	Proprietary	16.000	0.04000
			Heterocyclic organic compound	Proprietary	2.000	0.00500
			Treated Silica	7631-86-9	2.000	0.00500
GOLD WIRE	0.486		Gold(Au)	7440-57-5	99.990	0.48567
			Impurities	-	0.010	0.00005

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					
		Pb	Hg	Cr+6	Cd	PBB	PBDE
	<1000ppm	<1000ppm	<1000ppm	<100ppm	<1000ppm	<1000ppm	
	O	O	O	O	O	O	

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.