

# Material Declaration Report



<b>Package Type:</b>	TQFN 20L (4.5x3.5mm)
<b>Pericom Package Code:</b>	ZH20(Pb-free)
<b>RoHS Compliance:</b>	Yes
<b>Applicable Exemption:</b>	N/A

<b>Component Weight (mg):</b>	37.800
<b>Termination Plating:</b>	Matte Sn
<b>JESD 97 Pb-free Category:</b>	e3
<b>Plating Thickness (um):</b>	10-20
<b>Tin Whisker Mitigation:</b>	Anneal, 150C/1hr

<b>MSL Rating:</b>	1
<b>Peak Body Temp (C):</b>	260
<b>Max Time (sec):</b>	40
<b>Reflow Cycles:</b>	3
<b>Rev Date:</b>	8/18/2008

## Homogeneous Material Declaration

MATERIAL ITEM	MATERIAL WEIGHT(mg)	ASSEMBLY SUBCON	MATERIAL COMPOSITION	CAS NO.	COMPOSITION %	COMPOSITION WEIGHT(mg)
MOLD COMPOUND	19.045	UTL	Silica fuse	60676-86-0	90.500	17.2356
			Epoxy resin	Proprietary	4.500	0.8570
			Phenol resin	Proprietary	4.500	0.8570
			Carbon black	1333-86-4	0.500	0.0952
LEADFRAME	15.706		Copper	7440-50-8	97.021	15.2385
			Iron	7439-89-6	2.350	0.3691
			Silver	7440-22-4	0.453	0.0712
			Zinc	7440-66-6	0.111	0.0174
			Phosphorus	7723-14-0	0.065	0.0102
SILICON DIE	0.660		Silicon (Si)	7440-21-3	99.192	0.6547
			Non-hazardous Metal	Proprietary	0.808	0.0053
DIE ATTACH EPOXY	0.449		Silver	7440-22-4	80.000	0.3590
			Acrylate Resin	Proprietary	16.000	0.0718
			Heterocyclic organic compound	Proprietary	2.000	0.0090
			Treated Silica	7631-86-9	2.000	0.0090
GOLD WIRE	0.137		Gold(Au)	7440-57-5	99.990	0.1369
			Impurities	-	0.010	0.0000
SOLDER PLATING	1.806		Tin (Sn)	7440-31-5	99.990	1.8061
			Impurity	-	0.010	0.0002

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
Device	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	<50	<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.