

# Material Declaration Report



|                       |               |
|-----------------------|---------------|
| Package Type:         | TQFN 72L      |
| Pericom Package Code: | ZL72(Pb-free) |
| RoHS Compliance:      | Yes           |
| Applicable Exemption: | N/A           |

|                           |         |
|---------------------------|---------|
| Component Weight (mg):    | 142.025 |
| Termination Plating:      | NiPdAu  |
| JESD 97 Pb-free Category: | e4      |
| Plating Thickness (um):   | 0.5-2.2 |
| Tin Whisker Mitigation:   | N/A     |

|                     |           |
|---------------------|-----------|
| MSL Rating:         | 1         |
| Peak Body Temp (C): | 260       |
| Max Time (sec):     | 40        |
| Reflow Cycles:      | 3         |
| Rev Date:           | 1/15/2009 |

## Homogeneous Material Declaration

| MATERIAL ITEM    | MATERIAL WEIGHT(mg) | ASSEMBLY SUBCON | MATERIAL COMPOSITION          | CAS NO.     | COMPOSITION % | COMPOSITION WEIGHT(mg) |
|------------------|---------------------|-----------------|-------------------------------|-------------|---------------|------------------------|
| MOLD COMPOUND    | 59.021              | SPEL            | Silica                        | 60676-86-0  | 90.150        | 53.2074                |
|                  |                     |                 | Phenol resin                  | Proprietary | 3.500         | 2.0657                 |
|                  |                     |                 | Epoxy Resin-1                 | Proprietary | 1.750         | 1.0329                 |
|                  |                     |                 | Epoxy Resin-2                 | Proprietary | 1.750         | 1.0329                 |
|                  |                     |                 | Epoxy Resin-3                 | Proprietary | 1.750         | 1.0329                 |
|                  |                     |                 | Others Non-hazardous Material | Proprietary | 1.000         | 0.5902                 |
|                  |                     |                 | Carbon Black                  | 1333-86-4   | 0.100         | 0.0590                 |
|                  |                     |                 | LEADFRAME                     | 66.754      |               | Copper                 |
|                  |                     |                 | Iron                          | 7439-89-6   | 2.350         | 1.5687                 |
|                  |                     |                 | Zinc                          | 7440-66-6   | 0.111         | 0.0740                 |
|                  |                     |                 | Phosphorus                    | 7723-14-0   | 0.065         | 0.0434                 |
|                  |                     |                 | Nickel                        | 7440-02-0   | 0.473         | 0.3155                 |
|                  |                     |                 | Palladium                     | 7440-05-3   | 0.041         | 0.0274                 |
|                  |                     |                 | Gold                          | 7440-57-5   | 0.007         | 0.0049                 |
| SILICON DIE      | 4.016               |                 | Silicon (Si)                  | 7440-21-3   | 99.192        | 3.9836                 |
|                  |                     |                 | Non-hazardous Metal           | Proprietary | 0.808         | 0.0324                 |
| DIE ATTACH EPOXY | 6.913               |                 | Silver                        | 7440-22-4   | 80.000        | 5.5304                 |
|                  |                     |                 | Epoxy Resin                   | 9003-36-5   | 10.000        | 0.6913                 |
|                  |                     |                 | Diluent                       | 26447-14-3  | 6.000         | 0.4148                 |
|                  |                     |                 | Hardener                      | 620-92-8    | 3.500         | 0.2420                 |
|                  |                     |                 | Dicyandamide                  | 461-58-5    | 0.500         | 0.0346                 |
| GOLD WIRE        | 5.321               |                 | Gold(Au)                      | 7440-57-5   | 99.990        | 5.3205                 |
|                  |                     |                 | Impurities                    | -           | 0.010         | 0.0005                 |

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<br><br>and<br><br>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;100ppm</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 | <100ppm | <1000ppm | <100ppm | <1000ppm | <1000ppm | O | O | O | O | O |
| Pb   | Hg  | Cr+6     | Cd      | PBB      | PBDE     |     |      |          |         |          |         |          |          |   |   |   |   |   |
| <1000ppm   | <100ppm   | <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.<br>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. |   |          |         |          |          |     |      |          |         |          |         |          |          |   |   |   |   |   |