

# Material Declaration Report



|                       |               |
|-----------------------|---------------|
| Package Type:         | SOT23         |
| Pericom Package Code: | T03 (Pb-free) |
| RoHS Compliance:      | Yes           |
| Applicable Exemption: | N/A           |

|                           |                  |
|---------------------------|------------------|
| Component Weight (mg):    | 8.799            |
| 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:           | Oct,18,2011 |

## Homogeneous Material Declaration

| MATERIAL ITEM    | MATERIAL WEIGHT(mg) | ASSEMBLY SUBCON | MATERIAL COMPOSITION                         | CAS NO.     | COMPOSITION % | COMPOSITION WEIGHT(mg) |
|------------------|---------------------|-----------------|----------------------------------------------|-------------|---------------|------------------------|
| MOLD COMPOUND    | 6.048               | J               | Silica, vitreous                             | 60676-86-0  | 80.00         | 4.83840                |
|                  |                     |                 | Silicon dioxide                              | 7631-86-9   | 17.00         | 1.02816                |
|                  |                     |                 | Boron zinc hydroxide oxide (B12Zn4(OH)14O15) | 138265-88-0 | 1.00          | 0.06048                |
|                  |                     |                 | Phenol-formaldehyde polymer                  | 9003-35-4   | 1.00          | 0.06048                |
|                  |                     |                 | Carbon black                                 | 1333-86-4   | 1.00          | 0.06048                |
| LEAD FRAME       | 1.878               |                 | Nickel                                       | 7440-02-0   | 41.00         | 0.76998                |
|                  |                     |                 | Manganese                                    | 7439-96-5   | 0.80          | 0.01502                |
|                  |                     |                 | Cobalt                                       | 7740-48-4   | 0.50          | 0.00939                |
|                  |                     |                 | Silicon                                      | 7440-21-3   | 0.30          | 0.00563                |
|                  |                     |                 | Chromium                                     | 7440-47-3   | 0.025         | 0.00047                |
|                  |                     |                 | Copper                                       | 7440-50-8   | 0.025         | 0.00047                |
|                  |                     |                 | Carbon                                       | 7740-44-0   | 0.05          | 0.00094                |
|                  |                     |                 | Iron                                         | 7439-89-6   | 57.29         | 1.07591                |
|                  |                     |                 | Silver                                       | 7740-22-4   | 0.01          | 0.00019                |
|                  |                     |                 | TERMINATION PLATING                          | 0.1263      |               | Tin                    |
| Impurity         | Proprietary         | 0.10            |                                              |             |               | 0.00013                |
| SILICON DIE      | 0.350               |                 | Silicon                                      | 7440-21-3   | 99.763        | 0.34917                |
|                  |                     |                 | Aluminum(Al)                                 | 7429-90-5   | 0.200         | 0.00070                |
|                  |                     |                 | Copper(Cu)                                   | 7440-50-8   | 0.001         | 0.00000                |
|                  |                     |                 | Titanium(Ti)                                 | 7440-32-6   | 0.028         | 0.00010                |
|                  |                     |                 | Phosphorus(P)                                | 7664-38-2   | 0.003         | 0.00001                |
|                  |                     |                 | Boron(B)                                     | 7440-42-8   | 0.005         | 0.00002                |
| DIE ATTACH EPOXY | 0.350               |                 | Silica, crystalline                          | 14808-60-7  | 42.50         | 0.14875                |
|                  |                     |                 | Epoxy resin1                                 | Secret      | 25.00         | 0.08750                |
|                  |                     |                 | Epoxy resin2                                 | Secret      | 15.00         | 0.05250                |
|                  |                     |                 | Epoxy resin modifier                         | Secret      | 15.00         | 0.05250                |
|                  |                     |                 | Amine                                        | Secret      | 2.50          | 0.00875                |
| GOLD WIRE        | 0.047               |                 | Au                                           | 7440-57-5   | 99.99         | 0.04700                |
|                  |                     |                 | Other materials                              | Proprietary | 0.01          | 0.00000                |

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 |          |         |          |          |      |
|                                                                                                                                                                                                                                                                                                                                                                 |                               | 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> |                               |                                                                                                                                                                                                                                                |          |         |          |          |      |