

Material Declaration Report



| | |
|-----------------------|-------------------|
| Package Type: | TSSOP 16L (4.4mm) |
| Pericom Package Code: | L16(Pb-free) |
| RoHS Compliance: | Yes |
| Applicable Exemption: | N/A |

| | |
|---------------------------|------------------|
| Component Weight (mg): | 55.847 |
| 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: | 2/11/2010 |

Homogeneous Material Declaration

| MATERIAL ITEM | MATERIAL WEIGHT(mg) | ASSEMBLY SUBCON | MATERIAL COMPOSITION | CAS NO. | COMPOSITION % | COMPOSITION WEIGHT(mg) |
|------------------|---------------------|-----------------|--------------------------|-------------|---------------|------------------------|
| MOLD COMPOUND | 30.562 | OSE | Silica Fused | 60676-86-0 | 89.800 | 27.4447 |
| | | | Epoxy Resin | Proprietary | 5.000 | 1.5281 |
| | | | Phenolic Resin | Proprietary | 4.000 | 1.2225 |
| | | | Others | Proprietary | 1.000 | 0.3056 |
| | | | Carbon Black | 1333-86-4 | 0.200 | 0.0611 |
| | | UTL | Silica Fused | 60676-86-0 | 88.000 | 26.8946 |
| | | | Epoxy Resin | Proprietary | 5.000 | 1.5281 |
| | | | Phenolic Resin | Proprietary | 4.500 | 1.3753 |
| | | | Epoxy, Cresol Novolac | 29690-82-2 | 2.000 | 0.6112 |
| | | | Carbon Black | 1333-86-4 | 0.500 | 0.1528 |
| LEADFRAME | 21.815 | | Copper | 7440-50-8 | 95.140 | 20.7548 |
| | | | Nickel | 7440-02-0 | 3.200 | 0.6981 |
| | | | Silver | 7440-22-4 | 0.760 | 0.1658 |
| | | | Silicon | 7440-21-3 | 0.725 | 0.1582 |
| | | | Magnesium | 7439-95-4 | 0.175 | 0.0382 |
| | | | | | | |
| SILICON DIE | 1.467 | | Silicon (Si) | 7440-21-3 | 99.192 | 1.4551 |
| | | | Non-hazardous Metal | Proprietary | 0.808 | 0.0119 |
| DIE ATTACH EPOXY | 0.660 | OSE | Silver | 7440-22-4 | 76.000 | 0.5016 |
| | | | Acrylic Resin | Proprietary | 8.000 | 0.0528 |
| | | | Acrylate | Proprietary | 5.500 | 0.0363 |
| | | | Polybutadiene derivative | Proprietary | 5.500 | 0.0363 |
| | | | Epoxy resin | Proprietary | 2.500 | 0.0165 |
| | | | Additive | Proprietary | 1.000 | 0.0066 |
| | | | Butadiene copolymer | Proprietary | 1.000 | 0.0066 |
| | | | Peroxide | Proprietary | 0.500 | 0.0033 |
| | | UTL | Silver | 7440-22-4 | 80.000 | 0.5280 |
| | | | Functionalized Urethane | 72869-86-4 | 8.000 | 0.0528 |
| | | | Diester Resin | 94-80-4 | 7.000 | 0.0462 |
| | | | Epoxy Resin | Proprietary | 5.000 | 0.0330 |
| | | | | | | |
| GOLD WIRE | 0.172 | | Gold(Au) | 7440-57-5 | 99.990 | 0.1720 |
| | | | Impurities | - | 0.010 | 0.0000 |
| SOLDER PLATING | 1.171 | | Tin (Sn) | 7440-31-5 | 99.990 | 1.1709 |
| | | | 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 |
| 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 | <50 | <2 | <2 | <2 | <5 | <5 |

ROHS MATERIAL COMPOSITION DECLARATION

| EU RoHS Directive 2002/95/EC and China RoHS Directive SJ/T11363-2006 | Declaration Statement: 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><1000ppm</td> <td><1000ppm</td> <td><1000ppm</td> <td><100ppm</td> <td><1000ppm</td> <td><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> <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> | 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 | | | | | | | | | | | | | |