

LTM4601A-1-BGA 133LD 15mm X 15mm X 3.42mm (TABLE OF MATERIAL DECLARATION)

This product is RoHS compliant per EU RoHS Directive 2003/95/EC.

It contains less than 100ppm cadmium (Cd) and less than 1,000ppm of each - lead (Pb), mercury (Hg), hexavalent chromium (Cr+), polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE)

| No. | Part Name | Material Name | Component Weight (gram) | Materials Analysis (element) | CAS Number | Material Mass (gram) | Materials Analysis (weight %) |
|----------------------|---------------------------|---------------|-------------------------|--|-------------------------|----------------------|-------------------------------|
| 1 | Substrate | Circuit Board | 0.1151 | Barium Compounds | 7727-43-7 | 0.0017 | 1.50 |
| | | | | Filler Substances (Silica Crystalline) | 73776-74-4 7631-86-9 | 0.0459 | 39.91 |
| | | | | Copper Metal | 7440-50-8 | 0.0645 | 56.00 |
| | | | | Copper Compounds | 1328-53-6 | 0.0000 | 0.02 |
| | | | | Ecotoxic substances | 7439-92-1 | 0.0000 | 0.00 |
| | | | | Gold metal or alloy | 7440-57-5 | 0.0005 | 0.46 |
| | | | | Nickel | 7440-02-0 | 0.0024 | 2.10 |
| | | | | Zinc | 7440-66-6 | 0.0000 | 0.01 |
| 2 | Solder Ball | Alloy | 0.2527 | Tin (Sn) | 7440-31-5 | 0.2439 | 96.50 |
| | | | | Silver (Ag) | 7440-22-4 | 0.0076 | 3.00 |
| | | | | Copper (Cu) | 7440-50-8 | 0.0013 | 0.50 |
| 3 | Solder Paste | Alloy | 0.0189 | Sn | 7440-31-5 | 0.0180 | 95.00 |
| | | | | Sb | 7440-36-0 | 0.0009 | 5.00 |
| 4 | Passive/Active Components | | 0.6687 | Iron Powder (Fe) | 7439-89-6 | 0.3810 | 56.98 |
| | | | | Copper (Cu) | 7440-50-8 | 0.1519 | 22.72 |
| | | | | Nickel (Ni) | 7440-02-0 | 0.0161 | 2.40 |
| | | | | Tin (Sn) | 7440-31-5 | 0.0076 | 1.14 |
| | | | | Ceramic (Ba compounds) | 12047-27-7 | 0.1121 | 16.77 |
| 5 | Active Ics | Silicon | 0.0143 | Silicon | 7440-21-3 | 0.0143 | 100.00 |
| 6 | Wire | Gold | 0.0024 | Au | 7440-57-5 | 0.0024 | 99.99 |
| 7 | Encapsulation | Epoxy Resin | 0.8929 | Fused Silica | 60676-86-0 | 0.6893 | 77.20 |
| | | | | Epoxy Resin | non-disclosure | 0.0795 | 8.90 |
| | | | | Phenol Resin | non-disclosure | 0.0795 | 8.90 |
| | | | | Crytalline Silica | 14808-60-7 | 0.0268 | 3.00 |
| | | | | Carbon Black | 1333-86-4 | 0.0045 | 0.50 |
| | | | | Metal Hydroxide | non-disclosure | 0.0134 | 1.50 |
| Total Package Weight | | | 1.9651 | | | | |

Note: Composition derived from MSDS and material C of C from Vendors
Component Weight based on assembly of generic parts