

| LTM4641-BGA, 144LD 15mm X 15mm X 5.01mm (TABLE OF MATERIAL DECLARATION) | | | | | | | |
|---|---------------------------|---------------|-------------------------|--|---|----------------------|-------------------------------|
| The LTM4641 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 | 0.2325 | Barium Compounds | 7727-43-7 | 0.00326 | 1.40 |
| | | | | Bismaleimide/Triazine/Resin/Filler Substances (Silica Crystalline) | 105391-33-1, 1156-51-0/9003-36-5/21645-51-2, non-disclosure | 0.01774 | 7.63 |
| | | | | Copper Metal | 7440-50-8 | 0.18343 | 78.88 |
| | | | | Copper Compounds | 147-14-8 | 0.00003 | 0.01 |
| | | | | Ecotoxic substances | 7440-38-2, 7440-28-0 | 0.00001 | 0.01 |
| | | | | Gold metal or alloy | 7440-57-5 | 0.00091 | 0.39 |
| | | | | Nickel | 7440-02-0 | 0.00584 | 2.51 |
| | | | | Zinc | 7440-66-6 | 0.00015 | 0.07 |
| | | | | ContinuousFilament Fiber Glass | 65997-17-3 | 0.01393 | 5.99 |
| | | | | Acrylic Resin | non-disclosure | 0.00619 | 2.66 |
| | | | | Epoxy Resin | non-disclosure | 0.00009 | 0.04 |
| | | | | Chromium(III) Oxide | 1308-38-9 | 0.00000 | 0.00 |
| | | | | Silica Amorphous | 7631-86-9 | 0.00004 | 0.02 |
| | | | | Talc;not containing fiber like asbestos | 14807-96-6 | 0.00037 | 0.16 |
| | | | | Aromatic carbonyl compounds | non-disclosure | 0.00035 | 0.15 |
| | | | | Cyanoguanidine | 461-58-5 | 0.00001 | 0.00 |
| | | | | Amine compounds | non-disclosure | 0.00005 | 0.02 |
| | | | | Leveling agent and others | non-disclosure | 0.00014 | 0.06 |
| | | | | Imidazole system curing agent | non-disclosure | 0.00001 | 0.00 |
| 2 | Solder Paste | Alloy | 0.0212 | Sn | 7440-31-5 | 0.02011 | 95.00 |
| | | | | Sb | 7440-36-0 | 0.00106 | 5.00 |
| 3 | Passive/Active Components | | 0.8849 | Iron Powder (Fe) | 7439-89-6 | 0.61639 | 69.66 |
| | | | | Copper (Cu) | 7440-50-8 | 0.18275 | 20.65 |
| | | | | Nickel (Ni) | 7440-02-0 | 0.01021 | 1.15 |
| | | | | Tin (Sn) | 7440-31-5 | 0.00755 | 0.85 |
| | | | | Ceramic (Ba) Compounds | 12047-27-7 | 0.06800 | 7.68 |
| 4 | Active lcs | Silicon | 0.01352 | Silicon | 7440-21-3 | 0.01352 | 100.00 |
| 5 | Wire | Gold | 0.0006 | Au | 7440-57-5 | 0.00063 | 99.99 |
| 6 | Solder Ball | SAC305 | 0.2401 | Sn | 7440-31-5 | 0.23167 | 96.50 |
| | | | | Ag | 7440-22-4 | 0.00720 | 3.00 |
| | | | | Cu | 7440-50-8 | 0.00120 | 0.50 |
| 7 | Encapsulation | Epoxy Resin | 1.7413 | Fused Silica | 60676-86-0 | 1.34426 | 77.20 |
| | | | | Epoxy Resin | non-disclosure | 0.15497 | 8.90 |
| | | | | Phenol Resin | non-disclosure | 0.15497 | 8.90 |
| | | | | Crytalline Silica | 14808-60-7 | 0.05224 | 3.00 |
| | | | | Carbon Black | 1333-86-4 | 0.00871 | 0.50 |
| | | | | Metal Hydroxide | non-disclosure | 0.02612 | 1.50 |
| Total Package Weight | | | 3.1341 | | | | |

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