

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc2636hde-hmx12#trpbf

(Engineering Calculation)

DFN 4mm X 3mm Exposed Pad

(printed on: 2020-07-11 17:16:43)

**TOTAL MASS (g) : 0.03174**

| COMPONENT MATERIAL       | VENDOR/ INDUSTRY NAMES           | CONSTITUENT NAME               | CAS NUMBER | CONSTITUENT MASS (g) | CONSTITUENT (PPM) OF MATERIAL | CONSTITUENT (PPM) OF TOTAL PKG. |                |                      |
|--------------------------|----------------------------------|--------------------------------|------------|----------------------|-------------------------------|---------------------------------|----------------|----------------------|
| Active Device            | Linear Technology                | Silicon (Si)                   | 7440-21-3  | 0.001752             | 1000000                       | 55198.8867188                   |                |                      |
| Die Coat                 | Dow Corning                      | Silicone                       | 69430-27-9 | 0.000000             | 0                             | 0                               |                |                      |
| Lead Frame               | Cu                               | Copper (Cu)                    | 7440-50-8  | 0.013123             | 975000                        | 413456.03125                    |                |                      |
|                          |                                  | Iron (Fe)                      | 7439-89-6  | 0.000323             | 24000                         | 10176.5068359                   |                |                      |
|                          |                                  | Phosphorus (P)                 | 7723-14-0  | 0.000004             | 300                           | 126.024856567                   |                |                      |
|                          |                                  | Zinc (Zn)                      | 7440-66-6  | 0.000009             | 700                           | 283.555908203                   |                |                      |
|                          |                                  | Nickel (Ni)                    | 7440-02-0  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Silicon (Si)                   | 7440-21-3  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Magnesium (Mg)                 | 7439-95-4  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Tin (Sn)                       | 7440-31-5  | 0.000000             | 0                             | 0                               |                |                      |
| <b>Lead Frame Total:</b> |                                  |                                |            | <b>0.013459</b>      | <b>1000000</b>                | <b>424042.09375</b>             |                |                      |
| Plating                  | PMI                              | Exter. Plating Pb              | 7439-92-1  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Exter. Plating Sn              | 7440-31-5  | 0.000626             | 1000000                       | 19715.6035156                   |                |                      |
|                          |                                  | <b>External Plating Total:</b> |            |                      |                               | <b>0.000626</b>                 | <b>1000000</b> | <b>19715.6035156</b> |
|                          |                                  | Inter. Plating Ni              | 7440-02-0  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Inter. Plating Ag              | 7440-22-4  | 0.000302             | 1000000                       | 9514.87695312                   |                |                      |
|                          |                                  | <b>Internal Plating Total:</b> |            |                      |                               | <b>0.000302</b>                 | <b>1000000</b> | <b>9514.87695312</b> |
| Die Attach               | ELECTRICALLY CONDUCTIVE ADHESIVE | Silver (Ag)                    | 7440-22-4  | 0.000836             | 750000                        | 26339.1953125                   |                |                      |
|                          |                                  | Tin (Sn)                       | 7440-31-5  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Lead (Pb)                      | 7439-92-1  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Silica (SiO2)                  | 60676-86-0 | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Indium (In)                    | 7440-74-6  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Metal Oxide                    |            | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Antimony (Sb)                  | 7440-36-0  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Resin (EP)                     |            | 0.000279             | 250000                        | 8790.23339844                   |                |                      |
| <b>Die Attach Total:</b> |                                  |                                |            | <b>0.001115</b>      | <b>1000000</b>                | <b>35129.4296875</b>            |                |                      |
| Encapsulation            | MULTI-AROMATIC RESIN Br/Sb FREE  | Resin (EP)                     |            | 0.001876             | 130000                        | 59105.6523438                   |                |                      |
|                          |                                  | Bromine (Br)                   | 40039-93-8 | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Silica (SiO2)                  | 60676-86-0 | 0.012410             | 860000                        | 390992.09375                    |                |                      |
|                          |                                  | Antimony Trioxide (Sb2O3)      | 1309-64-4  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Metal Hydroxide                |            | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Carbon Black (C)               | 1333-86-4  | 0.000144             | 10000                         | 4536.89453125                   |                |                      |
|                          |                                  | <b>Encapsulation Total:</b>    |            |                      |                               | <b>0.014430</b>                 | <b>1000000</b> | <b>454634.65625</b>  |
| Bond Wire Estimated      | AFW/TANAKA/ Kn                   | Gold (Au)                      | 7440-57-5  | 0.000056             | 1000000                       | 1764.34802246                   |                |                      |
|                          |                                  |                                |            |                      | <b>TOTAL MASS (g) :</b>       | <b>0.03174</b>                  |                |                      |