

# LINEAR TECHNOLOGY MATERIALS DECLARATION

LTC2372IUH-16#TRPBF

(Engineering Calculation)

QFN 5mm X 5mm Exp. Pad

(printed on: 2017-12-03 12:00:11)

**TOTAL MASS (g): 0.065241**

| 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  | 0.002549             | 1000000                       | 39070.3632812                   |                |                      |
| Die Coat                 | Dow Corning                      | Silicone                       | 69430-27-9 | 0.000000             | 0                             | 0                               |                |                      |
| Lead Frame               | Cu                               | Copper (Cu)                    | 7440-50-8  | 0.028382             | 975000                        | 435031.375                      |                |                      |
|                          |                                  | Iron (Fe)                      | 7439-89-6  | 0.000699             | 24000                         | 10714.0771484                   |                |                      |
|                          |                                  | Phosphorus (P)                 | 7723-14-0  | 0.000009             | 300                           | 137.949493408                   |                |                      |
|                          |                                  | Zinc (Zn)                      | 7440-66-6  | 0.000020             | 700                           | 306.554443359                   |                |                      |
|                          |                                  | 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>0.029110</b>      | <b>1000000</b>                | <b>446189.96875</b>             |                |                      |
| Plating                  | PMI                              | Exter. Plating Pb              | 7439-92-1  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Exter. Plating Sn              | 7440-31-5  | 0.001398             | 1000000                       | 21432.3828125                   |                |                      |
|                          |                                  | <b>External Plating Total:</b> |            |                      |                               | <b>0.001398</b>                 | <b>1000000</b> | <b>21432.3828125</b> |
|                          |                                  | Inter. Plating Ni              | 7440-02-0  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Inter. Plating Ag              | 7440-22-4  | 0.000635             | 1000000                       | 9733.10351562                   |                |                      |
|                          |                                  | <b>Internal Plating Total:</b> |            |                      |                               | <b>0.000635</b>                 | <b>1000000</b> | <b>9733.10351562</b> |
| Die Attach               | ELECTRICALLY CONDUCTIVE ADHESIVE | Silver (Ag)                    | 7440-22-4  | 0.001068             | 750000                        | 16370.0058594                   |                |                      |
|                          |                                  | 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)                     |            | 0.000356             | 250000                        | 5456.66894531                   |                |                      |
| <b>Die Attach Total:</b> |                                  |                                |            | <b>0.001424</b>      | <b>1000000</b>                | <b>21826.6757812</b>            |                |                      |
| Encapsulation            | MULTI-AROMATIC RESIN Br/Sb FREE  | Resin (EP)                     |            | 0.003888             | 130000                        | 59594.1796875                   |                |                      |
|                          |                                  | Bromine (Br)                   | 40039-93-8 | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Silica (SiO2)                  | 60676-86-0 | 0.025723             | 860000                        | 394274.9375                     |                |                      |
|                          |                                  | Antimony Trioxide (Sb2O3)      | 1309-64-4  | 0.000000             | 0                             | 0                               |                |                      |
|                          |                                  | Metal Hydroxide                |            | 0.000000             | 0                             | 0                               |                |                      |

|                            |                |                             |           |                        |                |                      |
|----------------------------|----------------|-----------------------------|-----------|------------------------|----------------|----------------------|
|                            |                | Carbon Black (C)            | 1333-86-4 | 0.000299               | 10000          | 4582.98876953        |
|                            |                | <b>Encapsulation Total:</b> |           | <b>0.029910</b>        | <b>1000000</b> | <b>458452.125</b>    |
| <b>Bond Wire Estimated</b> | AFW/TANAKA/ Kn | Gold (Au)                   | 7440-57-5 | <b>0.000215</b>        | <b>1000000</b> | <b>3295.45996094</b> |
|                            |                |                             |           | <b>TOTAL MASS (g):</b> |                | <b>0.065241</b>      |