

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

1t1072ct#06pbf

(Engineering Calculation)

TO-220

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**TOTAL MASS (g) : 1.991189**

| 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  | 0.005030             | 1000000                       | 2526.12866211                   |                |                      |
| Die Coat                       | Dow Corning                     | Silicone                       | 69430-27-9 | 0.000000             | 0                             | 0                               |                |                      |
| Lead Frame                     | Cu                              | Copper (Cu)                    | 7440-50-8  | 1.428754             | 998500                        | 717538                          |                |                      |
|                                |                                 | Iron (Fe)                      | 7439-89-6  | 0.000000             | 0                             | 0                               |                |                      |
|                                |                                 | Phosphorus (P)                 | 7723-14-0  | 0.000000             | 0                             | 0                               |                |                      |
|                                |                                 | Zinc (Zn)                      | 7440-66-6  | 0.000000             | 0                             | 0                               |                |                      |
|                                |                                 | 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  | 0.002146             | 1500                          | 1077.7479248                    |                |                      |
| <b>Lead Frame Total:</b>       |                                 |                                |            | <b>1.430900</b>      | <b>1000000</b>                | <b>718615.75</b>                |                |                      |
| Plating                        | PMI                             | Exter. Plating Pb              | 7439-92-1  | 0.000000             | 0                             | 0                               |                |                      |
|                                |                                 | Exter. Plating Sn              | 7440-31-5  | 0.011398             | 1000000                       | 5724.35205078                   |                |                      |
|                                |                                 | <b>External Plating Total:</b> |            |                      |                               | <b>0.011398</b>                 | <b>1000000</b> | <b>5724.35205078</b> |
|                                |                                 | Inter. Plating Ni              | 7440-02-0  | 0.010000             | 834028.375                    | 5022.12451172                   |                |                      |
|                                |                                 | Inter. Plating Ag              | 7440-22-4  | 0.001990             | 165971.640625                 | 999.402709961                   |                |                      |
| <b>Internal Plating Total:</b> |                                 |                                |            | <b>0.011990</b>      | <b>1000000</b>                | <b>6021.52734375</b>            |                |                      |
| Die Attach                     | 95Pb / 5 Sn                     | Silver (Ag)                    | 7440-22-4  | 0.000000             | 0                             | 0                               |                |                      |
|                                |                                 | Tin (Sn)                       | 7440-31-5  | 0.000114             | 50000                         | 57.2522201538                   |                |                      |
|                                |                                 | Lead (Pb)                      | 7439-92-1  | 0.002173             | 950000                        | 1091.30761719                   |                |                      |
|                                |                                 | 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)                     |            | 0.000000             | 0                             | 0                               |                |                      |
| <b>Die Attach Total:</b>       |                                 |                                |            | <b>0.002287</b>      | <b>1000000</b>                | <b>1148.55981445</b>            |                |                      |
| Encapsulation                  | MULTI-AROMATIC RESIN Br/Sb FREE | Resin (EP)                     |            | 0.054270             | 103000                        | 27255.0703125                   |                |                      |
|                                |                                 | Bromine (Br)                   | 40039-93-8 | 0.000000             | 0                             | 0                               |                |                      |
|                                |                                 | Silica (SiO2)                  | 60676-86-0 | 0.471567             | 895000                        | 236826.8125                     |                |                      |
|                                |                                 | Antimony Trioxide (Sb2O3)      | 1309-64-4  | 0.000000             | 0                             | 0                               |                |                      |
|                                |                                 | Metal Hydroxide                |            | 0.000000             | 0                             | 0                               |                |                      |
|                                |                                 | Carbon Black (C)               | 1333-86-4  | 0.001054             | 2000                          | 529.33190918                    |                |                      |
|                                |                                 | <b>Encapsulation Total:</b>    |            |                      |                               | <b>0.526891</b>                 | <b>1000000</b> | <b>264611.21875</b>  |
| Bond Wire Estimated            | AFW/TANAKA/ Kn                  | Gold (Au)                      | 7440-57-5  | 0.000547             | 1000000                       | 274.710174561                   |                |                      |
|                                |                                 |                                |            |                      | <b>TOTAL MASS (g) :</b>       | <b>1.991189</b>                 |                |                      |