

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

1t1766ife#trpbf

(Engineering Calculation)

TSSOP Exp. Pad

(printed on: 2020-07-11 20:16:44)

**TOTAL MASS (g) : 0.067717**

| 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  | 0.003666             | 1000000                       | 54137.140625                    |                |                     |
| Die Coat                       | Dow Corning                      | Silicone                       | 69430-27-9 | 0.000000             | 0                             | 0                               |                |                     |
| Lead Frame                     | Cu                               | Copper (Cu)                    | 7440-50-8  | 0.025576             | 975000                        | 377690                          |                |                     |
|                                |                                  | Iron (Fe)                      | 7439-89-6  | 0.000630             | 24000                         | 9303.43652344                   |                |                     |
|                                |                                  | Phosphorus (P)                 | 7723-14-0  | 0.000008             | 300                           | 118.138877869                   |                |                     |
|                                |                                  | Zinc (Zn)                      | 7440-66-6  | 0.000018             | 700                           | 265.8125                        |                |                     |
|                                |                                  | 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>0.026232</b>      | <b>1000000</b>                | <b>387377.375</b>               |                |                     |
| Plating                        | PMI                              | Exter. Plating Pb              | 7439-92-1  | 0.000000             | 0                             | 0                               |                |                     |
|                                |                                  | Exter. Plating Sn              | 7440-31-5  | 0.002364             | 1000000                       | 34908.703125                    |                |                     |
|                                |                                  | <b>External Plating Total:</b> |            |                      |                               | <b>0.002364</b>                 | <b>1000000</b> | <b>34908.703125</b> |
|                                |                                  | Inter. Plating Ni              | 7440-02-0  | 0.000000             | 0                             | 0                               |                |                     |
|                                |                                  | Inter. Plating Ag              | 7440-22-4  | 0.001030             | 1000000                       | 15210.3818359                   |                |                     |
| <b>Internal Plating Total:</b> |                                  |                                |            | <b>0.001030</b>      | <b>1000000</b>                | <b>15210.3818359</b>            |                |                     |
| Die Attach                     | ELECTRICALLY CONDUCTIVE ADHESIVE | Silver (Ag)                    | 7440-22-4  | 0.001040             | 750000                        | 15358.0537109                   |                |                     |
|                                |                                  | 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)                     |            | 0.000347             | 250000                        | 5124.27392578                   |                |                     |
| <b>Die Attach Total:</b>       |                                  |                                |            | <b>0.001387</b>      | <b>1000000</b>                | <b>20482.328125</b>             |                |                     |
| Encapsulation                  | MULTI-AROMATIC RESIN Br/Sb FREE  | Resin (EP)                     |            | 0.004875             | 150000                        | 71990.875                       |                |                     |
|                                |                                  | Bromine (Br)                   | 40039-93-8 | 0.000000             | 0                             | 0                               |                |                     |
|                                |                                  | Silica (SiO2)                  | 60676-86-0 | 0.026650             | 820000                        | 393550.15625                    |                |                     |
|                                |                                  | Antimony Trioxide (Sb2O3)      | 1309-64-4  | 0.000000             | 0                             | 0                               |                |                     |
|                                |                                  | Metal Hydroxide                |            | 0.000813             | 25000                         | 12005.8632812                   |                |                     |
|                                |                                  | Carbon Black (C)               | 1333-86-4  | 0.000163             | 5000                          | 2407.07983398                   |                |                     |
|                                |                                  | <b>Encapsulation Total:</b>    |            |                      |                               | <b>0.032501</b>                 | <b>1000000</b> | <b>479953.96875</b> |
| Bond Wire Estimated            | AFW/TANAKA/ Kn                   | Gold (Au)                      | 7440-57-5  | 0.000537             | 1000000                       | 7930.07226562                   |                |                     |
|                                |                                  |                                |            |                      | <b>TOTAL MASS (g) :</b>       | <b>0.067717</b>                 |                |                     |