

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

1tc2955cddb-2#trmpbf

(Engineering Calculation)

DFN 3mm X 2mm Exp. Pad

(printed on: 2020-07-11 18:35:09)

**TOTAL MASS (g) : 0.013674**

| 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  | 0.000544             | 1000000                       | 39784.6757812                   |                |                   |
| Die Coat                       | Dow Corning                      | Silicone                       | 69430-27-9 | 0.000000             | 0                             | 0                               |                |                   |
| Lead Frame                     | Cu                               | Copper (Cu)                    | 7440-50-8  | 0.005090             | 975000                        | 372250.03125                    |                |                   |
|                                |                                  | Iron (Fe)                      | 7439-89-6  | 0.000125             | 24000                         | 9141.70019531                   |                |                   |
|                                |                                  | Phosphorus (P)                 | 7723-14-0  | 0.000002             | 300                           | 146.267196655                   |                |                   |
|                                |                                  | Zinc (Zn)                      | 7440-66-6  | 0.000004             | 700                           | 292.534393311                   |                |                   |
|                                |                                  | 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>0.005221</b>      | <b>1000000</b>                | <b>381830.5</b>                 |                |                   |
| Plating                        | PMI                              | Exter. Plating Pb              | 7439-92-1  | 0.000000             | 0                             | 0                               |                |                   |
|                                |                                  | Exter. Plating Sn              | 7440-31-5  | 0.000185             | 1000000                       | 13500.9375                      |                |                   |
|                                |                                  | <b>External Plating Total:</b> |            |                      |                               | <b>0.000185</b>                 | <b>1000000</b> | <b>13500.9375</b> |
|                                |                                  | Inter. Plating Ni              | 7440-02-0  | 0.000000             | 0                             | 0                               |                |                   |
|                                |                                  | Inter. Plating Ag              | 7440-22-4  | 0.000103             | 1000000                       | 7532.76074219                   |                |                   |
| <b>Internal Plating Total:</b> |                                  |                                |            | <b>0.000103</b>      | <b>1000000</b>                | <b>7532.76074219</b>            |                |                   |
| Die Attach                     | ELECTRICALLY CONDUCTIVE ADHESIVE | Silver (Ag)                    | 7440-22-4  | 0.000169             | 800000                        | 12359.578125                    |                |                   |
|                                |                                  | 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)                     |            | 0.000042             | 200000                        | 3071.61108398                   |                |                   |
| <b>Die Attach Total:</b>       |                                  |                                |            | <b>0.000211</b>      | <b>1000000</b>                | <b>15431.1894531</b>            |                |                   |
| Encapsulation                  | MULTI-AROMATIC RESIN Br/Sb FREE  | Resin (EP)                     |            | 0.000958             | 130000                        | 70061.9921875                   |                |                   |
|                                |                                  | Bromine (Br)                   | 40039-93-8 | 0.000000             | 0                             | 0                               |                |                   |
|                                |                                  | Silica (SiO2)                  | 60676-86-0 | 0.006338             | 860000                        | 463520.71875                    |                |                   |
|                                |                                  | Antimony Trioxide (Sb2O3)      | 1309-64-4  | 0.000000             | 0                             | 0                               |                |                   |
|                                |                                  | Metal Hydroxide                |            | 0.000000             | 0                             | 0                               |                |                   |
|                                |                                  | Carbon Black (C)               | 1333-86-4  | 0.000074             | 10000                         | 5411.88623047                   |                |                   |
|                                |                                  | <b>Encapsulation Total:</b>    |            |                      |                               | <b>0.007370</b>                 | <b>1000000</b> | <b>538994.625</b> |
| Bond Wire Estimated            | AFW/TANAKA/ Kn                   | Gold (Au)                      | 7440-57-5  | 0.000040             | 1000000                       | 2925.34375                      |                |                   |
|                                |                                  |                                |            |                      | <b>TOTAL MASS (g) :</b>       | <b>0.013674</b>                 |                |                   |