

# LINEAR TECHNOLOGY MATERIALS DECLARATION

ltc2053hms8#pbf

(Engineering Calculation)

MSOP

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**TOTAL MASS (g) : 0.027856**

| 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  | 0.002454             | 1000000                       | 88095.84375                     |
| Die Coat            | Dow Corning                      | Silicone                  | 69430-27-9 | 0.000000             | 0                             | 0                               |
| Lead Frame          | Cu                               | Copper (Cu)               | 7440-50-8  | 0.010433             | 975000                        | 374532.9375                     |
|                     |                                  | Iron (Fe)                 | 7439-89-6  | 0.000257             | 24000                         | 9226.01074219                   |
|                     |                                  | Phosphorus (P)            | 7723-14-0  | 0.000003             | 300                           | 107.696632385                   |
|                     |                                  | Zinc (Zn)                 | 7440-66-6  | 0.000007             | 700                           | 251.292129517                   |
|                     |                                  | 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                               |
|                     |                                  | Lead Frame Total:         |            | 0.010700             | 1000000                       | 384118                          |
| Plating             | PMI                              | Exter. Plating Pb         | 7439-92-1  | 0.000000             | 0                             | 0                               |
|                     |                                  | Exter. Plating Sn         | 7440-31-5  | 0.000710             | 1000000                       | 25489.0976562                   |
|                     |                                  | External Plating Total:   |            | 0.000710             | 1000000                       | 25489.0976562                   |
|                     |                                  | Inter. Plating Ni         | 7440-02-0  | 0.000000             | 0                             | 0                               |
|                     |                                  | Inter. Plating Ag         | 7440-22-4  | 0.000086             | 1000000                       | 3087.3034668                    |
|                     |                                  | Internal Plating Total:   |            | 0.000086             | 1000000                       | 3087.3034668                    |
| Die Attach          | ELECTRICALLY CONDUCTIVE ADHESIVE | Silver (Ag)               | 7440-22-4  | 0.000792             | 750000                        | 28431.9082031                   |
|                     |                                  | 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)                |            | 0.000264             | 250000                        | 9477.30371094                   |
|                     |                                  | Die Attach Total:         |            | 0.001056             | 1000000                       | 37909.2148438                   |
| Encapsulation       | MULTI-AROMATIC RESIN Br/Sb FREE  | Resin (EP)                |            | 0.001659             | 130000                        | 59556.2304688                   |
|                     |                                  | Bromine (Br)              | 40039-93-8 | 0.000000             | 0                             | 0                               |
|                     |                                  | Silica (SiO2)             | 60676-86-0 | 0.010591             | 830000                        | 380205                          |
|                     |                                  | Antimony Trioxide (Sb2O3) | 1309-64-4  | 0.000000             | 0                             | 0                               |
|                     |                                  | Metal Hydroxide           |            | 0.000447             | 35000                         | 16046.7978516                   |
|                     |                                  | Carbon Black (C)          | 1333-86-4  | 0.000064             | 5000                          | 2297.52807617                   |
|                     |                                  | Encapsulation Total:      |            | 0.012761             | 1000000                       | 458105.53125                    |
| Bond Wire Estimated | AFW/TANAKA/ Kn                   | Gold (Au)                 | 7440-57-5  | 0.000089             | 1000000                       | 3195                            |
|                     |                                  |                           |            |                      | <b>TOTAL MASS (g) :</b>       | <b>0.027856</b>                 |