

LINEAR TECHNOLOGY MATERIALS DECLARATION

ltc2220iup-1#trpbf

(Engineering Calculation)

QFN 9mm X 9mm Exp. Pad

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TOTAL MASS (g) : 0.222114

| 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 | 0.003661 | 1000000 | 16482.5058594 | | |
| Die Coat | Dow Corning | Silicone | 69430-27-9 | 0.000000 | 0 | 0 | | |
| Lead Frame | Cu | Copper (Cu) | 7440-50-8 | 0.104491 | 975000 | 470438.03125 | | |
| | | Iron (Fe) | 7439-89-6 | 0.002572 | 24000 | 11579.6240234 | | |
| | | Phosphorus (P) | 7723-14-0 | 0.000032 | 300 | 144.069992065 | | |
| | | Zinc (Zn) | 7440-66-6 | 0.000075 | 700 | 337.664031982 | | |
| | | 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: | | | | 0.107170 | 1000000 | 482499.375 | | |
| Plating | PMI | Exter. Plating Pb | 7439-92-1 | 0.000000 | 0 | 0 | | |
| | | Exter. Plating Sn | 7440-31-5 | 0.003192 | 1000000 | 14372.2060547 | | |
| | | External Plating Total: | | | | 0.003192 | 1000000 | 14372.2060547 |
| | | Inter. Plating Ni | 7440-02-0 | 0.000000 | 0 | 0 | | |
| | | Inter. Plating Ag | 7440-22-4 | 0.002279 | 1000000 | 10260.4833984 | | |
| Internal Plating Total: | | | | 0.002279 | 1000000 | 10260.4833984 | | |
| Die Attach | ELECTRICALLY CONDUCTIVE ADHESIVE | Silver (Ag) | 7440-22-4 | 0.001382 | 750000 | 6222.02246094 | | |
| | | 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) | | 0.000461 | 250000 | 2075.50805664 | | |
| Die Attach Total: | | | | 0.001843 | 1000000 | 8297.53027344 | | |
| Encapsulation | MULTI-AROMATIC RESIN Br/Sb FREE | Resin (EP) | | 0.013460 | 130000 | 60599.4335938 | | |
| | | Bromine (Br) | 40039-93-8 | 0.000000 | 0 | 0 | | |
| | | Silica (SiO2) | 60676-86-0 | 0.089044 | 860000 | 400892.71875 | | |
| | | Antimony Trioxide (Sb2O3) | 1309-64-4 | 0.000000 | 0 | 0 | | |
| | | Metal Hydroxide | | 0.000000 | 0 | 0 | | |
| | | Carbon Black (C) | 1333-86-4 | 0.001035 | 10000 | 4659.76318359 | | |
| | | Encapsulation Total: | | | | 0.103539 | 1000000 | 466151.9375 |
| Bond Wire Estimated | AFW/TANAKA/ Kn | Gold (Au) | 7440-57-5 | 0.000430 | 1000000 | 1935.94030762 | | |
| | | | | | TOTAL MASS (g) : | 0.222114 | | |