

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc4213iddb#trpbf

(Engineering Calculation)

DFN 3mm X 2mm Exp. Pad

(printed on: 2020-07-11 22:32:02)

**TOTAL MASS (g) : 0.013835**

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	0.000609	1000000	44020.0429688		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.004212	975000	304453.90625		
		Iron (Fe)	7439-89-6	0.000104	24000	7517.38037109		
		Phosphorus (P)	7723-14-0	0.000001	300	72.2825012207		
		Zinc (Zn)	7440-66-6	0.000003	700	216.847518921		
		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>0.004320</b>	<b>1000000</b>	<b>312260.375</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000185	1000000	13343.8193359		
		<b>External Plating Total:</b>				<b>0.000185</b>	<b>1000000</b>	<b>13343.8193359</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000103	1000000	7445.09765625		
<b>Internal Plating Total:</b>				<b>0.000103</b>	<b>1000000</b>	<b>7445.09765625</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000476	750000	34406.46875		
		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)		0.000159	250000	11492.9179688		
<b>Die Attach Total:</b>				<b>0.000635</b>	<b>1000000</b>	<b>45899.3867188</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.001034	130000	74740.1015625		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.006837	860000	494195.5		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000080	10000	5782.60009766		
		<b>Encapsulation Total:</b>				<b>0.007951</b>	<b>1000000</b>	<b>574718.1875</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000032	1000000	2313.04003906		
					<b>TOTAL MASS (g) :</b>	<b>0.013835</b>		