

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc2053hdd#trpbf

(Engineering Calculation)

DFN 3mm X 3mm Exp. Pad

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**TOTAL MASS (g) : 0.023489**

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	0.001636	1000000	69648.5078125		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.009350	975000	398052.28125		
		Iron (Fe)	7439-89-6	0.000230	24000	9791.66113281		
		Phosphorus (P)	7723-14-0	0.000003	300	127.717315674		
		Zinc (Zn)	7440-66-6	0.000007	700	298.007080078		
		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>0.009590</b>	<b>1000000</b>	<b>408269.6875</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000437	1000000	18620.1367188		
		<b>External Plating Total:</b>				<b>0.000437</b>	<b>1000000</b>	<b>18620.1367188</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000218	1000000	9280.79199219		
<b>Internal Plating Total:</b>				<b>0.000218</b>	<b>1000000</b>	<b>9280.79199219</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000792	750000	33717.3671875		
		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	11239.1230469		
<b>Die Attach Total:</b>				<b>0.001056</b>	<b>1000000</b>	<b>44956.4921875</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.001368	130000	58239.09375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.009047	860000	385152.8125		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000105	10000	4470.10595703		
		<b>Encapsulation Total:</b>				<b>0.010520</b>	<b>1000000</b>	<b>447862.03125</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000032	1000000	1362.31799316		
					<b>TOTAL MASS (g) :</b>	<b>0.023489</b>		