

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc4223cdhd-2#pbf

(Engineering Calculation)

DFN 5mm X 4mm Exp. Pad

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**TOTAL MASS (g) : 0.052475**

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	0.001879	1000000	35807.7109375		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.023117	975000	440535.84375		
		Iron (Fe)	7439-89-6	0.000569	24000	10843.3144531		
		Phosphorus (P)	7723-14-0	0.000007	300	133.397537231		
		Zinc (Zn)	7440-66-6	0.000017	700	323.965454102		
		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>0.023710</b>	<b>1000000</b>	<b>451836.5</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.001124	1000000	21414.7421875		
		<b>External Plating Total:</b>				<b>0.001124</b>	<b>1000000</b>	<b>21414.7421875</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000522	1000000	9947.64453125		
<b>Internal Plating Total:</b>				<b>0.000522</b>	<b>1000000</b>	<b>9947.64453125</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000865	750000	16484.125		
		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)		0.000288	250000	5488.35546875		
<b>Die Attach Total:</b>				<b>0.001153</b>	<b>1000000</b>	<b>21972.4804688</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.003117	130000	59400.015625		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.020623	860000	393008.1875		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000240	10000	4573.62988281		
		<b>Encapsulation Total:</b>				<b>0.023980</b>	<b>1000000</b>	<b>456981.8125</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000107	1000000	2039.07653809		
					<b>TOTAL MASS (g) :</b>	<b>0.052475</b>		