

## LINEAR TECHNOLOGY MATERIALS DECLARATION

LTC4224CDDDB-2#TRMPBF

(Engineering Calculation)

DFN 3mm X 2mm Exp. Pad

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TOTAL MASS (g): 0.014319

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	0.000797	1000000	49376.2125		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.003990	975000	155481.5		
		Iron (Fe)	7439-89-6	0.000125	24000	8729.90039062		
		Phosphorus (P)	7723-14-0	0.000002	300	139.678190503		
		Zinc (Zn)	7440-66-6	0.000004	700	279.356781006		
		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>0.005221</b>	<b>1000000</b>	<b>364630.4375</b>	
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000185	1000000	12892.7695312		
		<b>External Plating Total:</b>			<b>0.000185</b>	<b>1000000</b>	<b>12892.7695312</b>	
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000163	1000000	7193.4375		
		<b>Internal Plating Total:</b>			<b>0.000163</b>	<b>1000000</b>	<b>7193.4375</b>	
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000520	750000	36316.3828125		
		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)		0.000173	250000	12082.1806641		
		<b>Die Attach Total:</b>			<b>0.000693</b>	<b>1000000</b>	<b>48398.5625</b>	
		Encapsulation	MULTIAROMATIC RESIN BOND FREE	Resin (EP)		0.000958	130000	66905.953125
				Bromine (Br)	40093-93-8	0.000000	0	0
Silica (SiO2)	60676-86-0			0.006338	860000	442640.8125		
Antimony Trioxide (Sb2O3)	1309-64-4			0.000000	0	0		
Metal Hydroxide				0.000000	0	0		
Carbon Black (C)	1333-86-4			0.000074	10000	5168.10058594		
<b>Encapsulation Total:</b>					<b>0.007370</b>	<b>1000000</b>	<b>514714.84375</b>	
Bond Wire Estimated	AFW/TANAKA/Kn	Gold (Au)	7440-57-5	0.000040	1000000	2793.56762695		

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