

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc4219idhc-5#pbf

(Engineering Calculation)

DFN 5mm X 3mm Exp. Pad

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**TOTAL MASS (g) : 0.038442**

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	0.001251	1000000	32542.53125		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.017069	974800.0625	444019.59375		
		Iron (Fe)	7439-89-6	0.000411	23500	10691.4306641		
		Phosphorus (P)	7723-14-0	0.000015	850	390.19821167		
		Zinc (Zn)	7440-66-6	0.000015	850	390.19821167		
		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>0.017510</b>	<b>1000000</b>	<b>455491.40625</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000817	1000000	21252.8496094		
		<b>External Plating Total:</b>				<b>0.000817</b>	<b>1000000</b>	<b>21252.8496094</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000391	1000000	10171.1669922		
<b>Internal Plating Total:</b>				<b>0.000391</b>	<b>1000000</b>	<b>10171.1669922</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000657	750000	17090.6816406		
		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)		0.000219	250000	5696.89355469		
<b>Die Attach Total:</b>				<b>0.000876</b>	<b>1000000</b>	<b>22787.5742188</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.002274	130000	59154.0507812		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.015041	860000	391264.78125		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000175	10000	4552.31201172		
		<b>Encapsulation Total:</b>				<b>0.017490</b>	<b>1000000</b>	<b>454971.09375</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000107	1000000	2783.4140625		
					<b>TOTAL MASS (g) :</b>	<b>0.038442</b>		