

## LINEAR TECHNOLOGY MATERIALS DECLARATION

LTC2381CDE-16PBF

(Engineering Calculation)

DFN 4mm X 3mm Exp. Pad

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TOTAL MASS (g): 0.03143

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	0.001567	1000000	4987.1875		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.013133	975000	41782.21875		
		Iron (Fe)	7439-89-6	0.00023	24000	10276.8798828		
		Phosphorus (P)	7723-14-0	0.000004	300	127.267860413		
		Zinc (Zn)	7440-66-6	0.000009	700	286.35269165		
		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>0.013469</b>	<b>1000000</b>	<b>428542.71875</b>
		Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0
Exter. Plating Sn	7440-31-5			0.000626	1000000	19910.0644531		
<b>External Plating Total:</b>						<b>0.000626</b>	<b>1000000</b>	<b>19910.0644531</b>
Inter. Plating Ni	7440-02-0			0.000000	0	0		
Inter. Plating Ag	7440-22-4			0.000362	1000000	9608.7246938		
<b>Internal Plating Total:</b>						<b>0.000362</b>	<b>1000000</b>	<b>9608.7246938</b>
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000777	750000	24721.7832011		
		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)		0.002559	250000	8240.59472656		
		<b>Die Attach Total:</b>				<b>0.003296</b>	<b>1000000</b>	<b>32962.379962</b>
		Encapsulation	MULTIAROMATIC RESIN BUSH FREE	Resin (EP)		0.001876	130000	59688.6289062
Bromine (Br)	40093-93-8			0.000000	0	0		
Silica (SiO2)	60676-86-0			0.012410	860000	394848.5625		
Antimony Trioxide (Sb2O3)	1309-64-4			0.000000	0	0		
Metal Hydroxide				0.000000	0	0		
Carbon Black (C)	1333-86-4			0.000144	10000	4581.64306641		
<b>Encapsulation Total:</b>						<b>0.014430</b>	<b>1000000</b>	<b>459118.84375</b>
Lead Wire Estimated	AFW/TANAKA/Kn	Gold (Au)	7440-57-5	0.000000	0	0		

TOTAL MASS (g):

0.031430