

LINEAR TECHNOLOGY MATERIALS DECLARATION

LTC2233CUK#TRPBF

(Engineering Calculation)

QFN 7mm X 7mm Exp. Pad

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TOTAL MASS (g): 0.129458

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	0.002495	1000000	2697.1621894		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.057847	975000	446839.71875		
		Iron (Fe)	7439-89-6	0.001424	24000	10999.7021484		
		Phosphorus (P)	7723-14-0	0.000018	300	139.041183472		
		Zinc (Zn)	7440-66-6	0.000042	700	324.429382324		
		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>0.059331</b>	<b>1000000</b>	<b>458302.875</b>
		Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0
Exter. Plating Sn	7440-31-5			0.002894	1000000	22355.2089844		
<b>External Plating Total:</b>						<b>0.002894</b>	<b>1000000</b>	<b>22355.2089844</b>
Inter. Plating Ni	7440-02-0			0.000000	0	0		
Inter. Plating Ag	7440-22-4			0.001274	1000000	9841.02539662		
<b>Internal Plating Total:</b>						<b>0.001274</b>	<b>1000000</b>	<b>9841.02539662</b>
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001336	750000	10319.9453125		
		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)		0.000445	250000	3437.40673828		
		<b>Die Attach Total:</b>				<b>0.001781</b>	<b>1000000</b>	<b>13757.3515625</b>
		Encapsulation	MULTIAROMATIC RESIN BUSH FREE	Resin (EP)		0.007847	130000	60614.2266625
Bromine (Br)	40079-09-8			0.000000	0	0		
Silica (SiO2)	60676-86-0			0.051910	860000	400979.3125		
Antimony Trioxide (Sb2O3)	1309-64-4			0.000000	0	0		
Metal Hydroxide				0.000000	0	0		
Carbon Black (C)	1333-86-4			0.000604	10000	4665.60400391		
<b>Encapsulation Total:</b>						<b>0.060361</b>	<b>1000000</b>	<b>466259.15625</b>
Bond Wire Estimated	AFW/TANAKA/Kn			Gold (Au)	7440-57-5	0.000222	1000000	2487.29223633

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