

## LINEAR TECHNOLOGY MATERIALS DECLARATION

LTC23911UK-16#TRPBF

(Engineering Calculation)

QFN 7mm X 7mm Exp. Pad

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TOTAL MASS (g): 0.128475

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	0.002780	1000000	21638.414062		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.057847	975000	45028.625		
		Iron (Fe)	7439-89-6	0.001424	24000	11083.8632812		
		Phosphorus (P)	7723-14-0	0.000018	300	140.105026245		
		Zinc (Zn)	7440-66-6	0.000042	700	326.911712646		
		Nickel (Ni)	7440-02-0	0.000000	0	0		
		Silicon (Si)	7440-21-3	0.000000	0	0		
		Magnesium (Mg)	7439-96-4	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>461809.5</b>
		Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0
Exter. Plating Sn	7440-31-5			0.002894	1000000	22526.2539062		
<b>External Plating Total:</b>						<b>0.002894</b>	<b>1000000</b>	<b>22526.2539062</b>
Inter. Plating Ni	7440-02-0			0.000000	0	0		
Inter. Plating Ag	7440-22-4			0.001274	1000000	9916.32226562		
<b>Internal Plating Total:</b>						<b>0.001274</b>	<b>1000000</b>	<b>9916.32226562</b>
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001135	750000	8834.40039062		
		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)		0.000178	250000	2942.29532227		
		<b>Die Attach Total:</b>				<b>0.001513</b>	<b>1000000</b>	<b>11776.6044922</b>
		Encapsulation	MULTIAROMATIC RESIN BOND FREE	Resin (EP)		0.007847	130000	61078.0039062
Bromine (Br)	40093-93-8			0.000000	0	0		
Silica (SiO2)	60676-86-0			0.051910	860000	404047.3125		
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	4701.30175781		
<b>Encapsulation Total:</b>						<b>0.060361</b>	<b>1000000</b>	<b>469826.625</b>
Bond Wire Estimated	AFW/TANAKA/Kn	Gold (Au)	7440-57-5	0.000222	1000000	2506.32324219		

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