

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc2204iuk#trpbf

(Engineering Calculation)

QFN 7mm X 7mm Exp. Pad

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**TOTAL MASS (g) : 0.13418**

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	0.007010	1000000	52243.234375		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.057847	975000	431114.75		
		Iron (Fe)	7439-89-6	0.001424	24000	10612.6064453		
		Phosphorus (P)	7723-14-0	0.000018	300	134.148117065		
		Zinc (Zn)	7440-66-6	0.000042	700	313.012237549		
		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>442174.53125</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.002894	1000000	21568.4960938		
		<b>External Plating Total:</b>				<b>0.002894</b>	<b>1000000</b>	<b>21568.4960938</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.001274	1000000	9494.70507812		
<b>Internal Plating Total:</b>				<b>0.001274</b>	<b>1000000</b>	<b>9494.70507812</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.002241	750000	16701.4394531		
		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)		0.000747	250000	5567.14648438		
<b>Die Attach Total:</b>				<b>0.002988</b>	<b>1000000</b>	<b>22268.5859375</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.007847	130000	58481.1210938		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.051910	860000	386868.25		
		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	4501.4140625		
		<b>Encapsulation Total:</b>				<b>0.060361</b>	<b>1000000</b>	<b>449850.78125</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000322	1000000	2399.76049805		
					<b>TOTAL MASS (g) :</b>	<b>0.13418</b>		