

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc2159iuk#pbf

(Engineering Calculation)

QFN 7mm X 7mm Exp. Pad

(printed on: 2020-07-11 19:05:41)

**TOTAL MASS (g) : 0.132729**

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	0.005918	1000000	44587.0703125		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.057847	975000	435827.71875		
		Iron (Fe)	7439-89-6	0.001424	24000	10728.6240234		
		Phosphorus (P)	7723-14-0	0.000018	300	135.614624023		
		Zinc (Zn)	7440-66-6	0.000042	700	316.434112549		
		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>447008.375</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.002894	1000000	21804.2832031		
		<b>External Plating Total:</b>				<b>0.002894</b>	<b>1000000</b>	<b>21804.2832031</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.001274	1000000	9598.50195312		
<b>Internal Plating Total:</b>				<b>0.001274</b>	<b>1000000</b>	<b>9598.50195312</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001972	750000	14857.3359375		
		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)		0.000657	250000	4949.93359375		
<b>Die Attach Total:</b>				<b>0.002629</b>	<b>1000000</b>	<b>19807.2675781</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.007847	130000	59120.4375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.051910	860000	391097.53125		
		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	4550.62353516		
		<b>Encapsulation Total:</b>				<b>0.060361</b>	<b>1000000</b>	<b>454768.5625</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000322	1000000	2425.99487305		
					<b>TOTAL MASS (g) :</b>	<b>0.132729</b>		