

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc3780iuh#trpbf

(Engineering Calculation)

QFN 5mm X 5mm Exp. Pad

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**TOTAL MASS (g) : 0.067535**

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	0.004290	1000000	63522.3671875		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.028382	975000	420254.5		
		Iron (Fe)	7439-89-6	0.000699	24000	10350.1484375		
		Phosphorus (P)	7723-14-0	0.000009	300	133.263717651		
		Zinc (Zn)	7440-66-6	0.000020	700	296.141571045		
		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>0.029110</b>	<b>1000000</b>	<b>431034.0625</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.001398	1000000	20704.3808594		
		<b>External Plating Total:</b>				<b>0.001398</b>	<b>1000000</b>	<b>20704.3808594</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000635	1000000	9402.49511719		
		<b>Internal Plating Total:</b>				<b>0.000635</b>	<b>1000000</b>	<b>9402.49511719</b>
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001549	750000	22936.1660156		
		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)		0.000516	250000	7640.45214844		
<b>Die Attach Total:</b>				<b>0.002065</b>	<b>1000000</b>	<b>30576.6171875</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.003888	130000	57569.921875		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.025723	860000	380882.46875		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000299	10000	4427.31640625		
		<b>Encapsulation Total:</b>				<b>0.029910</b>	<b>1000000</b>	<b>442879.75</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000127	1000000	1880.49902344		
					<b>TOTAL MASS (g) :</b>	<b>0.067535</b>		