

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc2448cuhf#pbf

(Engineering Calculation)

QFN 5mm X 7mm Exp. Pad

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**TOTAL MASS (g) : 0.090307**

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	0.003547	1000000	39277.1953125		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.037381	975000	413933.15625		
		Iron (Fe)	7439-89-6	0.000920	24000	10187.4882812		
		Phosphorus (P)	7723-14-0	0.000012	300	132.880279541		
		Zinc (Zn)	7440-66-6	0.000027	700	298.980621338		
		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>0.038340</b>	<b>1000000</b>	<b>424552.46875</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.001850	1000000	20484.0683594		
		<b>External Plating Total:</b>				<b>0.001850</b>	<b>1000000</b>	<b>20484.0683594</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000831	1000000	9201.95898438		
<b>Internal Plating Total:</b>				<b>0.000831</b>	<b>1000000</b>	<b>9201.95898438</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001370	750000	15170.4980469		
		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)		0.000457	250000	5060.52392578		
<b>Die Attach Total:</b>				<b>0.001827</b>	<b>1000000</b>	<b>20231.0214844</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.005689	130000	62996.3203125		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.037634	860000	416734.6875		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000438	10000	4850.12988281		
		<b>Encapsulation Total:</b>				<b>0.043761</b>	<b>1000000</b>	<b>484581.15625</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000151	1000000	1672.0769043		
					<b>TOTAL MASS (g) :</b>	<b>0.090307</b>		