

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc2320hukg-14#trpbf

(Engineering Calculation)

QFN 7mm X 8mm Exp. Pad

(printed on: 2020-07-11 21:51:55)

**TOTAL MASS (g) : 0.16235**

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	0.006110	1000000	37634.6640625		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.076937	975000	473894.9375		
		Iron (Fe)	7439-89-6	0.001894	24000	11666.1289062		
		Phosphorus (P)	7723-14-0	0.000024	300	147.828475952		
		Zinc (Zn)	7440-66-6	0.000055	700	338.77355957		
		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>0.078910</b>	<b>1000000</b>	<b>486047.6875</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.003848	1000000	23703.8964844		
		<b>External Plating Total:</b>				<b>0.003848</b>	<b>1000000</b>	<b>23703.8964844</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.001694	1000000	10434.2265625		
<b>Internal Plating Total:</b>				<b>0.001694</b>	<b>1000000</b>	<b>10434.2265625</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.002078	750000	12799.4814453		
		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)		0.000693	250000	4268.546875		
<b>Die Attach Total:</b>				<b>0.002771</b>	<b>1000000</b>	<b>17068.0292969</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.008945	130000	55096.90625		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.059177	860000	364501.90625		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000688	10000	4237.74951172		
		<b>Encapsulation Total:</b>				<b>0.068810</b>	<b>1000000</b>	<b>423836.53125</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000207	1000000	1275.02050781		
					<b>TOTAL MASS (g) :</b>	<b>0.16235</b>		