

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc2657ife-h12#pbf

(Engineering Calculation)

TSSOP Exp. Pad

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**TOTAL MASS (g) : 0.076612**

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	0.006313	1000000	82401.8828125		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.024424	975000	318799.84375		
		Iron (Fe)	7439-89-6	0.000601	24000	7844.69042969		
		Phosphorus (P)	7723-14-0	0.000008	300	104.421829224		
		Zinc (Zn)	7440-66-6	0.000018	700	234.949127197		
		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>0.025051</b>	<b>1000000</b>	<b>326983.90625</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.001770	1000000	23107.6230469		
		<b>External Plating Total:</b>				<b>0.001770</b>	<b>1000000</b>	<b>23107.6230469</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000683	1000000	8915.01464844		
<b>Internal Plating Total:</b>				<b>0.000683</b>	<b>1000000</b>	<b>8915.01464844</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001548	750000	20205.625		
		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	6735.20800781		
<b>Die Attach Total:</b>				<b>0.002064</b>	<b>1000000</b>	<b>26940.8320312</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.005414	135000	70667.4765625		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.034486	860000	450136.4375		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000201	5000	2623.59863281		
		<b>Encapsulation Total:</b>				<b>0.040101</b>	<b>1000000</b>	<b>523427.5</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000630	1000000	8223.21972656		
					<b>TOTAL MASS (g) :</b>	<b>0.076612</b>		