

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

TSSOP Exp. Pad

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**TOTAL MASS (g) : 0.060513**

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	0.004200	1000000	69406.390625		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.018525	975000	306131.78125		
		Iron (Fe)	7439-89-6	0.000456	24000	7535.55126953		
		Phosphorus (P)	7723-14-0	0.000006	300	99.1519927979		
		Zinc (Zn)	7440-66-6	0.000013	700	214.829315186		
		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>0.019000</b>	<b>1000000</b>	<b>313981.28125</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.002537	1000000	41927.3398438		
		<b>External Plating Total:</b>				<b>0.002537</b>	<b>1000000</b>	<b>41927.3398438</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000250	1000000	4131.33300781		
<b>Internal Plating Total:</b>				<b>0.000250</b>	<b>1000000</b>	<b>4131.33300781</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001191	750000	19681.6699219		
		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)		0.000397	250000	6560.55664062		
<b>Die Attach Total:</b>				<b>0.001588</b>	<b>1000000</b>	<b>26242.2265625</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.004875	150000	80561		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.026650	820000	440400.09375		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000813	25000	13435.0947266		
		Carbon Black (C)	1333-86-4	0.000163	5000	2693.62915039		
		<b>Encapsulation Total:</b>				<b>0.032501</b>	<b>1000000</b>	<b>537089.8125</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000437	1000000	7221.5703125		
					<b>TOTAL MASS (g) :</b>	<b>0.060513</b>		