

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

TSSOP Exp. Pad

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**TOTAL MASS (g) : 0.068439**

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	0.004242	1000000	61982.2890625		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.025576	975000	373705.53125		
		Iron (Fe)	7439-89-6	0.000630	24000	9205.29003906		
		Phosphorus (P)	7723-14-0	0.000008	300	116.892562866		
		Zinc (Zn)	7440-66-6	0.000018	700	263.008300781		
		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>0.026232</b>	<b>1000000</b>	<b>383290.75</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.002364	1000000	34540.4335938		
		<b>External Plating Total:</b>				<b>0.002364</b>	<b>1000000</b>	<b>34540.4335938</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.001030	1000000	15049.9189453		
<b>Internal Plating Total:</b>				<b>0.001030</b>	<b>1000000</b>	<b>15049.9189453</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001150	750000	16803.3066406		
		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)		0.000383	250000	5596.23144531		
<b>Die Attach Total:</b>				<b>0.001533</b>	<b>1000000</b>	<b>22399.5390625</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.004875	150000	71231.40625		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.026650	820000	389398.375		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000813	25000	11879.2080078		
		Carbon Black (C)	1333-86-4	0.000163	5000	2381.68603516		
		<b>Encapsulation Total:</b>				<b>0.032501</b>	<b>1000000</b>	<b>474890.6875</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000537	1000000	7846.4140625		
					<b>TOTAL MASS (g) :</b>	<b>0.068439</b>		