

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

TSSOP Exp. Pad

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**TOTAL MASS (g) : 0.096419**

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	0.003987	1000000	41350.6171875		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.030596	975000	317322.15625		
		Iron (Fe)	7439-89-6	0.000753	24000	7809.63476562		
		Phosphorus (P)	7723-14-0	0.000009	300	93.3422546387		
		Zinc (Zn)	7440-66-6	0.000022	700	228.169952393		
		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>0.031380</b>	<b>1000000</b>	<b>325453.34375</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.002480	1000000	25724.6484375		
		<b>External Plating Total:</b>				<b>0.002480</b>	<b>1000000</b>	<b>25724.6484375</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000806	1000000	8359.31738281		
<b>Internal Plating Total:</b>				<b>0.000806</b>	<b>1000000</b>	<b>8359.31738281</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001174	750000	12175.9785156		
		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)		0.000391	250000	4055.20239258		
<b>Die Attach Total:</b>				<b>0.001565</b>	<b>1000000</b>	<b>16231.1806641</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.007460	135000	77370.3515625		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.047524	860000	492888.59375		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000276	5000	2862.49584961		
		<b>Encapsulation Total:</b>				<b>0.055260</b>	<b>1000000</b>	<b>573121.4375</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000941	1000000	9759.45117188		
					<b>TOTAL MASS (g) :</b>	<b>0.096419</b>		