

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

TSSOP Exp. Pad

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**TOTAL MASS (g) : 0.054202**

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	0.002115	1000000	39020.8398438		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.014625	975000	269824.9375		
		Iron (Fe)	7439-89-6	0.000360	24000	6641.84472656		
		Phosphorus (P)	7723-14-0	0.000004	300	73.7982788086		
		Zinc (Zn)	7440-66-6	0.000010	700	184.495681763		
		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>0.014999</b>	<b>1000000</b>	<b>276725.09375</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.002064	1000000	38076.328125		
		<b>External Plating Total:</b>				<b>0.002064</b>	<b>1000000</b>	<b>38076.328125</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.001037	1000000	19132.203125		
<b>Internal Plating Total:</b>				<b>0.001037</b>	<b>1000000</b>	<b>19132.203125</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000712	750000	13136.09375		
		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)		0.000237	250000	4372.54785156		
<b>Die Attach Total:</b>				<b>0.000949</b>	<b>1000000</b>	<b>17508.640625</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.004875	150000	89941.6484375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.026650	820000	491681		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000813	25000	14999.5		
		Carbon Black (C)	1333-86-4	0.000163	5000	3007.2800293		
		<b>Encapsulation Total:</b>				<b>0.032501</b>	<b>1000000</b>	<b>599629.4375</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000537	1000000	9907.41894531		
					<b>TOTAL MASS (g) :</b>	<b>0.054202</b>		