

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

TSSOP Exp. Pad

(printed on: 2020-07-11 20:35:22)

**TOTAL MASS (g) : 0.093057**

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	0.002016	1000000	21664.0585938		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.030596	975000	328786.46875		
		Iron (Fe)	7439-89-6	0.000753	24000	8091.78320312		
		Phosphorus (P)	7723-14-0	0.000009	300	96.7145462036		
		Zinc (Zn)	7440-66-6	0.000022	700	236.413345337		
		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>337211.40625</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.002480	1000000	26654.0332031		
		<b>External Plating Total:</b>				<b>0.002480</b>	<b>1000000</b>	<b>26654.0332031</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000806	1000000	8661.32519531		
<b>Internal Plating Total:</b>				<b>0.000806</b>	<b>1000000</b>	<b>8661.32519531</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000288	800000	3094.86547852		
		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)		0.000072	200000	773.716369629		
<b>Die Attach Total:</b>				<b>0.000360</b>	<b>1000000</b>	<b>3868.58203125</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.007460	135000	80165.609375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.047524	860000	510695.8125		
		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	2965.9128418		
		<b>Encapsulation Total:</b>				<b>0.055260</b>	<b>1000000</b>	<b>593827.3125</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000755	1000000	8113.27539062		
					<b>TOTAL MASS (g) :</b>	<b>0.093057</b>		