

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

TSSOP Exp. Pad

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**TOTAL MASS (g) : 0.073154**

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	0.003563	1000000	48705.25		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.024424	975000	333869.5		
		Iron (Fe)	7439-89-6	0.000601	24000	8215.5078125		
		Phosphorus (P)	7723-14-0	0.000008	300	109.357849121		
		Zinc (Zn)	7440-66-6	0.000018	700	246.055160522		
		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>0.025051</b>	<b>1000000</b>	<b>342440.4375</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.001770	1000000	24199.9199219		
		<b>External Plating Total:</b>				<b>0.001770</b>	<b>1000000</b>	<b>24199.9199219</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000683	1000000	9336.42675781		
<b>Internal Plating Total:</b>				<b>0.000683</b>	<b>1000000</b>	<b>9336.42675781</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001018	750000	13915.7851562		
		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)		0.000339	250000	4634.03857422		
<b>Die Attach Total:</b>				<b>0.001357</b>	<b>1000000</b>	<b>18549.8242188</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.006015	150000	82223.4296875		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.032882	820000	449488.09375		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.001002	25000	13697.0693359		
		Carbon Black (C)	1333-86-4	0.000201	5000	2747.6159668		
		<b>Encapsulation Total:</b>				<b>0.040100</b>	<b>1000000</b>	<b>548156.1875</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000630	1000000	8611.93066406		
					<b>TOTAL MASS (g) :</b>	<b>0.073154</b>		