

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

TSSOP Exp. Pad

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**TOTAL MASS (g) : 0.072528**

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	0.003282	1000000	45251.2851562		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.024424	975000	336751.15625		
		Iron (Fe)	7439-89-6	0.000601	24000	8286.41699219		
		Phosphorus (P)	7723-14-0	0.000008	300	110.301719666		
		Zinc (Zn)	7440-66-6	0.000018	700	248.178894043		
		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>345396.03125</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.001770	1000000	24408.7910156		
		<b>External Plating Total:</b>				<b>0.001770</b>	<b>1000000</b>	<b>24408.7910156</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000668	1000000	9210.19433594		
		<b>Internal Plating Total:</b>				<b>0.000668</b>	<b>1000000</b>	<b>9210.19433594</b>
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000962	750000	13263.78125		
		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)		0.000321	250000	4425.85693359		
<b>Die Attach Total:</b>				<b>0.001283</b>	<b>1000000</b>	<b>17689.6386719</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.006015	150000	82933.109375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.032882	820000	453367.6875		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.001003	25000	13829.0771484		
		Carbon Black (C)	1333-86-4	0.000201	5000	2771.33081055		
		<b>Encapsulation Total:</b>				<b>0.040101</b>	<b>1000000</b>	<b>552901.125</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000373	1000000	5142.81787109		
					<b>TOTAL MASS (g) :</b>	<b>0.072528</b>		