

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

TSSOP Exp. Pad

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**TOTAL MASS (g) : 0.077172**

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	0.006780	1000000	87855.3203125		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.024424	975000	316486.46875		
		Iron (Fe)	7439-89-6	0.000601	24000	7787.76513672		
		Phosphorus (P)	7723-14-0	0.000008	300	103.664100647		
		Zinc (Zn)	7440-66-6	0.000018	700	233.244216919		
		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>324611.15625</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.001770	1000000	22939.9453125		
		<b>External Plating Total:</b>				<b>0.001770</b>	<b>1000000</b>	<b>22939.9453125</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000683	1000000	8850.32226562		
		<b>Internal Plating Total:</b>				<b>0.000683</b>	<b>1000000</b>	<b>8850.32226562</b>
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001618	750000	20966.0625		
		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)		0.000539	250000	6984.36816406		
<b>Die Attach Total:</b>				<b>0.002157</b>	<b>1000000</b>	<b>27950.4296875</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.006015	150000	77942.4375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.032882	820000	426085.34375		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.001003	25000	12996.8857422		
		Carbon Black (C)	1333-86-4	0.000201	5000	2604.56054688		
		<b>Encapsulation Total:</b>				<b>0.040101</b>	<b>1000000</b>	<b>519629.25</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000630	1000000	8163.54785156		
					<b>TOTAL MASS (g) :</b>	<b>0.077172</b>		