

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

TSSOP Exp. Pad

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**TOTAL MASS (g) : 0.074302**

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	0.004475	1000000	60226.9101562		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.024424	975000	328711.09375		
		Iron (Fe)	7439-89-6	0.000601	24000	8088.57470703		
		Phosphorus (P)	7723-14-0	0.000008	300	107.66822052		
		Zinc (Zn)	7440-66-6	0.000018	700	242.25352478		
		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>337149.59375</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.001770	1000000	23826.0214844		
		<b>External Plating Total:</b>				<b>0.001770</b>	<b>1000000</b>	<b>23826.0214844</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000683	1000000	9192.17480469		
<b>Internal Plating Total:</b>				<b>0.000683</b>	<b>1000000</b>	<b>9192.17480469</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001194	750000	16069.4833984		
		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)		0.000398	250000	5356.49414062		
<b>Die Attach Total:</b>				<b>0.001592</b>	<b>1000000</b>	<b>21425.9765625</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.006015	150000	80953.046875		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.032882	820000	442543.3125		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.001003	25000	13498.9033203		
		Carbon Black (C)	1333-86-4	0.000201	5000	2705.16430664		
		<b>Encapsulation Total:</b>				<b>0.040101</b>	<b>1000000</b>	<b>539700.4375</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000630	1000000	8478.87304688		
					<b>TOTAL MASS (g) :</b>	<b>0.074302</b>		