

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

TSOT-23

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**TOTAL MASS (g) : 0.012412**

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	0.000422	1000000	34000.203125		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.004582	975000	369168.0625		
		Iron (Fe)	7439-89-6	0.000113	24000	9104.3203125		
		Phosphorus (P)	7723-14-0	0.000001	300	80.5692062378		
		Zinc (Zn)	7440-66-6	0.000003	700	241.707611084		
		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>0.004699</b>	<b>1000000</b>	<b>378594.6875</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000663	1000000	53392.4023438		
		<b>External Plating Total:</b>				<b>0.000663</b>	<b>1000000</b>	<b>53392.4023438</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000080	1000000	6445.53613281		
<b>Internal Plating Total:</b>				<b>0.000080</b>	<b>1000000</b>	<b>6445.53613281</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000360	750000	29004.9121094		
		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)		0.000120	250000	9668.3046875		
<b>Die Attach Total:</b>				<b>0.000480</b>	<b>1000000</b>	<b>38673.21875</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.000777	130000	62602.265625		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.004963	830000	399864.9375		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000209	35000	16838.9648438		
		Carbon Black (C)	1333-86-4	0.000030	5000	2417.07617188		
		<b>Encapsulation Total:</b>				<b>0.005979</b>	<b>1000000</b>	<b>481723.28125</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000089	1000000	7170.65917969		
					<b>TOTAL MASS (g) :</b>	<b>0.012412</b>		