

# LINEAR TECHNOLOGY MATERIALS DECLARATION

LT3089IFE#PBF

(Engineering Calculation)

TSSOP Exp. Pad

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**TOTAL MASS (g): 0.066056**

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	0.002863	1000000	43342.0742188		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.025576	975000	387187.15625		
		Iron (Fe)	7439-89-6	0.000630	24000	9537.37597656		
		Phosphorus (P)	7723-14-0	0.000008	300	121.109527588		
		Zinc (Zn)	7440-66-6	0.000018	700	272.496459961		
		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>0.026232</b>	<b>1000000</b>	<b>397118.15625</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.002364	1000000	35786.5		
		<b>External Plating Total:</b>				<b>0.002364</b>	<b>1000000</b>	<b>35786.5</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.001030	1000000	15592.8525391		
		<b>Internal Plating Total:</b>				<b>0.001030</b>	<b>1000000</b>	<b>15592.8525391</b>
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000434	820000	6570.19140625		
		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)		0.000095	180000	1438.17565918		
<b>Die Attach Total:</b>				<b>0.000529</b>	<b>1000000</b>	<b>8008.3671875</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.004875	150000	73801.125		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.026650	820000	403446.125		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000813	25000	12307.7568359		

		Carbon Black (C)	1333-86-4	0.000163	5000	2467.60668945
		<b>Encapsulation Total:</b>		<b>0.032501</b>	<b>1000000</b>	<b>492022.59375</b>
<b>Bond Wire Estimated</b>	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	<b>0.000537</b>	<b>1000000</b>	<b>8129.47753906</b>
				<b>TOTAL MASS (g):</b>		<b>0.066056</b>