

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

QFN 4mm X 4mm Exp. Pad

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**TOTAL MASS (g) : 0.037502**

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	0.001881	1000000	50156.8867188		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.012129	975000	323419.96875		
		Iron (Fe)	7439-89-6	0.000299	24000	7972.83935547		
		Phosphorus (P)	7723-14-0	0.000004	300	106.660049438		
		Zinc (Zn)	7440-66-6	0.000009	700	239.985122681		
		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>0.012441</b>	<b>1000000</b>	<b>331739.4375</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000580	1000000	15474.4306641		
		<b>External Plating Total:</b>				<b>0.000580</b>	<b>1000000</b>	<b>15474.4306641</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000278	1000000	7412.87304688		
<b>Internal Plating Total:</b>				<b>0.000278</b>	<b>1000000</b>	<b>7412.87304688</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000865	750000	23065.2363281		
		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)		0.000288	250000	7679.52392578		
<b>Die Attach Total:</b>				<b>0.001153</b>	<b>1000000</b>	<b>30744.7617188</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.002739	130000	73035.4609375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.018120	860000	483170.03125		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000211	10000	5626.31787109		
		<b>Encapsulation Total:</b>				<b>0.021070</b>	<b>1000000</b>	<b>561831.8125</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000099	1000000	2639.83618164		
					<b>TOTAL MASS (g) :</b>	<b>0.037502</b>		