

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

QFN 4mm X 4mm Exp. Pad

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**TOTAL MASS (g) : 0.038141**

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	0.002285	1000000	59908.7695312		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.012129	975000	318001.53125		
		Iron (Fe)	7439-89-6	0.000299	24000	7839.26611328		
		Phosphorus (P)	7723-14-0	0.000004	300	104.873130798		
		Zinc (Zn)	7440-66-6	0.000009	700	235.964538574		
		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>326181.65625</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000580	1000000	15215.1796875		
		<b>External Plating Total:</b>				<b>0.000580</b>	<b>1000000</b>	<b>15215.1796875</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000278	1000000	7288.68212891		
<b>Internal Plating Total:</b>				<b>0.000278</b>	<b>1000000</b>	<b>7288.68212891</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000989	750000	25929.8789062		
		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)		0.000330	250000	8652.03320312		
<b>Die Attach Total:</b>				<b>0.001319</b>	<b>1000000</b>	<b>34581.9140625</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.002739	130000	71811.8671875		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.018120	860000	475075.28125		
		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	5532.05761719		
		<b>Encapsulation Total:</b>				<b>0.021070</b>	<b>1000000</b>	<b>552419.1875</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000168	1000000	4404.67138672		
					<b>TOTAL MASS (g) :</b>	<b>0.038141</b>		