

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

QFN 4mm X 7mm Exp. Pad

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**TOTAL MASS (g) : 0.07242**

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	0.002487	1000000	34341.4960938		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.032024	975000	442200.25		
		Iron (Fe)	7439-89-6	0.000788	24000	10881.0195312		
		Phosphorus (P)	7723-14-0	0.000010	300	138.084014893		
		Zinc (Zn)	7440-66-6	0.000023	700	317.593231201		
		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>0.032845</b>	<b>1000000</b>	<b>453536.96875</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.001569	1000000	21660.9882812		
		<b>External Plating Total:</b>				<b>0.001569</b>	<b>1000000</b>	<b>21660.9882812</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000718	1000000	9914.43164062		
<b>Internal Plating Total:</b>				<b>0.000718</b>	<b>1000000</b>	<b>9914.43164062</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001061	750000	14650.7148438		
		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)		0.000354	250000	4888.17382812		
<b>Die Attach Total:</b>				<b>0.001415</b>	<b>1000000</b>	<b>19538.8867188</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.004302	130000	59403.7421875		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.028457	860000	392945.6875		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000331	10000	4570.58056641		
		<b>Encapsulation Total:</b>				<b>0.033090</b>	<b>1000000</b>	<b>456919.96875</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000296	1000000	4087.28710938		
					<b>TOTAL MASS (g) :</b>	<b>0.07242</b>		