

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

QFN 4mm X 5mm Exp. Pad

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**TOTAL MASS (g) : 0.05438**

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	0.002530	1000000	46524.34375		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.023546	975000	432989		
		Iron (Fe)	7439-89-6	0.000580	24000	10665.6601562		
		Phosphorus (P)	7723-14-0	0.000007	300	128.723480225		
		Zinc (Zn)	7440-66-6	0.000017	700	312.61416626		
		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>0.024150</b>	<b>1000000</b>	<b>444096.03125</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.001152	1000000	21186.6660156		
		<b>External Plating Total:</b>				<b>0.001152</b>	<b>1000000</b>	<b>21186.6660156</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000529	1000000	9727.81738281		
		<b>Internal Plating Total:</b>				<b>0.000529</b>	<b>1000000</b>	<b>9727.81738281</b>
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001079	750000	19841.8027344		
		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)		0.000360	250000	6620.06494141		
<b>Die Attach Total:</b>				<b>0.001439</b>	<b>1000000</b>	<b>26461.8691406</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.003134	130000	57631.34375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.020735	860000	381297.3125		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000241	10000	4431.765625		
		<b>Encapsulation Total:</b>				<b>0.024110</b>	<b>1000000</b>	<b>443360.4375</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000470	1000000	8642.86230469		
					<b>TOTAL MASS (g) :</b>	<b>0.05438</b>		