

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

QFN 5mm X 9mm Exp. Pad

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**TOTAL MASS (g) : 0.121635**

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	0.006364	1000000	52320.5664062		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.049823	975000	409611.5		
		Iron (Fe)	7439-89-6	0.001226	24000	10079.3544922		
		Phosphorus (P)	7723-14-0	0.000015	300	123.319984436		
		Zinc (Zn)	7440-66-6	0.000036	700	295.967987061		
		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>0.051100</b>	<b>1000000</b>	<b>420110.125</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.002793	1000000	22960.2519531		
		<b>External Plating Total:</b>				<b>0.002793</b>	<b>1000000</b>	<b>22960.2519531</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000138	1000000	1134.54406738		
<b>Internal Plating Total:</b>				<b>0.000138</b>	<b>1000000</b>	<b>1134.54406738</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.002180	750000	17922.5078125		
		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)		0.000727	250000	5976.90917969		
<b>Die Attach Total:</b>				<b>0.002907</b>	<b>1000000</b>	<b>23899.4160156</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.007554	130000	62103.9492188		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.049975	860000	410861.125		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000581	10000	4776.59472656		
		<b>Encapsulation Total:</b>				<b>0.058110</b>	<b>1000000</b>	<b>477741.65625</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000223	1000000	1833.3572998		
					<b>TOTAL MASS (g) :</b>	<b>0.121635</b>		