

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

QFN 4mm X 4mm Exp. Pad

(printed on: 2020-07-11 16:29:53)

**TOTAL MASS (g) : 0.036088**

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	0.000905	1000000	25077.3632812		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.012129	975000	336092.09375		
		Iron (Fe)	7439-89-6	0.000299	24000	8285.22851562		
		Phosphorus (P)	7723-14-0	0.000004	300	110.839164734		
		Zinc (Zn)	7440-66-6	0.000009	700	249.388137817		
		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>344737.53125</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000580	1000000	16080.7441406		
		<b>External Plating Total:</b>				<b>0.000580</b>	<b>1000000</b>	<b>16080.7441406</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000278	1000000	7703.32177734		
<b>Internal Plating Total:</b>				<b>0.000278</b>	<b>1000000</b>	<b>7703.32177734</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000536	750000	14852.4492188		
		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)		0.000179	250000	4960.05273438		
<b>Die Attach Total:</b>				<b>0.000715</b>	<b>1000000</b>	<b>19812.5</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.002739	130000	75897.1171875		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.018120	860000	502101.40625		
		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	5846.76611328		
		<b>Encapsulation Total:</b>				<b>0.021070</b>	<b>1000000</b>	<b>583845.3125</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000099	1000000	2743.26928711		
					<b>TOTAL MASS (g) :</b>	<b>0.036088</b>		