

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

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(Engineering Calculation)

QFN 3mm X 4mm Exp. Pad

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**TOTAL MASS (g) : 0.160061**

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	0.000602	1000000	3761.07128906		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.013133	975000	82050.078125		
		Iron (Fe)	7439-89-6	0.000323	24000	2017.98327637		
		Phosphorus (P)	7723-14-0	0.000004	300	24.9905052185		
		Zinc (Zn)	7440-66-6	0.000009	700	56.2286453247		
		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>0.013469</b>	<b>1000000</b>	<b>84149.2890625</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000626	1000000	3909.56958008		
		<b>External Plating Total:</b>				<b>0.000626</b>	<b>1000000</b>	<b>3909.56958008</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000302	1000000	1886.7833252		
		<b>Internal Plating Total:</b>				<b>0.000302</b>	<b>1000000</b>	<b>1886.7833252</b>
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000422	750000	2636.49853516		
		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)		0.000141	250000	880.915405273		
<b>Die Attach Total:</b>				<b>0.000563</b>	<b>1000000</b>	<b>3517.41381836</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.018759	130000	117199.226562		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.124098	860000	775318		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.001443	10000	9015.32519531		
		<b>Encapsulation Total:</b>				<b>0.144300</b>	<b>1000000</b>	<b>901532.5</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000199	1000000	1243.27770996		
					<b>TOTAL MASS (g) :</b>	<b>0.160061</b>		