

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

1t3689iud-5#trpbf

(Engineering Calculation)

QFN 3mm X 3mm Exp. Pad

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**TOTAL MASS (g) : 0.023208**

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	0.000993	1000000	42787.4140625		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.008752	975000	377115.21875		
		Iron (Fe)	7439-89-6	0.000215	24000	9264.14257812		
		Phosphorus (P)	7723-14-0	0.000003	300	129.267105103		
		Zinc (Zn)	7440-66-6	0.000006	700	258.534210205		
		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>0.008976</b>	<b>1000000</b>	<b>386767.21875</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000413	1000000	17785.4824219		
		<b>External Plating Total:</b>				<b>0.000413</b>	<b>1000000</b>	<b>17785.4824219</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000203	1000000	8747.07519531		
<b>Internal Plating Total:</b>				<b>0.000203</b>	<b>1000000</b>	<b>8747.07519531</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000569	750000	24517.6621094		
		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)		0.000190	250000	8186.91699219		
<b>Die Attach Total:</b>				<b>0.000759</b>	<b>1000000</b>	<b>32704.5800781</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.001534	130000	66098.5859375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.010148	860000	437267.53125		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000118	10000	5084.50683594		
		<b>Encapsulation Total:</b>				<b>0.011800</b>	<b>1000000</b>	<b>508450.625</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000064	1000000	2757.69824219		
					<b>TOTAL MASS (g) :</b>	<b>0.023208</b>		