

# LINEAR TECHNOLOGY MATERIALS DECLARATION

LTC4098EUDC-3.6#PBF

(Engineering Calculation)

QFN 3mm X 4mm Exp. Pad

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**TOTAL MASS (g): 0.161392**

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	0.001406	1000000	8711.71972656		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.013133	975000	81373.40625		
		Iron (Fe)	7439-89-6	0.000323	24000	2001.34094238		
		Phosphorus (P)	7723-14-0	0.000004	300	24.7844085693		
		Zinc (Zn)	7440-66-6	0.000009	700	55.7649269104		
		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>83455.3125</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000626	1000000	3877.32714844		
		<b>External Plating Total:</b>				<b>0.000626</b>	<b>1000000</b>	<b>3877.32714844</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000302	1000000	1871.22302246		
		<b>Internal Plating Total:</b>				<b>0.000302</b>	<b>1000000</b>	<b>1871.22302246</b>
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000715	750000	4430.21289062		
		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)		0.000238	250000	1474.67236328		
<b>Die Attach Total:</b>				<b>0.000953</b>	<b>1000000</b>	<b>5904.88525391</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.018759	130000	116232.679688		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.124098	860000	768923.9375		
		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	8940.9765625
		<b>Encapsulation Total:</b>		<b>0.144300</b>	<b>1000000</b>	<b>894097.5625</b>
<b>Bond Wire Estimated</b>	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	<b>0.000336</b>	<b>1000000</b>	<b>2081.89038086</b>
					<b>TOTAL MASS (g):</b>	<b>0.161392</b>