

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc2180cup#pbf

(Engineering Calculation)

QFN 9mm X 9mm Exp. Pad

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**TOTAL MASS (g) : 0.225157**

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	0.005918	1000000	26283.8496094		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.104491	975000	464080.0625		
		Iron (Fe)	7439-89-6	0.002572	24000	11423.1269531		
		Phosphorus (P)	7723-14-0	0.000032	300	142.122879028		
		Zinc (Zn)	7440-66-6	0.000075	700	333.100494385		
		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>0.107170</b>	<b>1000000</b>	<b>475978.40625</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.003192	1000000	14177.9658203		
		<b>External Plating Total:</b>				<b>0.003192</b>	<b>1000000</b>	<b>14177.9658203</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.002279	1000000	10121.8134766		
<b>Internal Plating Total:</b>				<b>0.002279</b>	<b>1000000</b>	<b>10121.8134766</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001972	750000	8758.32324219		
		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)		0.000657	250000	2917.96020508		
<b>Die Attach Total:</b>				<b>0.002629</b>	<b>1000000</b>	<b>11676.2822266</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.013460	130000	59780.4375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.089044	860000	395474.6875		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.001035	10000	4596.78662109		
		<b>Encapsulation Total:</b>				<b>0.103539</b>	<b>1000000</b>	<b>459851.90625</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000430	1000000	1909.77612305		
					<b>TOTAL MASS (g) :</b>	<b>0.225157</b>		