

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc1821-lbcgw#pbf

(Engineering Calculation)

SSOP

(printed on: 2020-07-11 21:44:47)

**TOTAL MASS (g) : 0.690759**

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	0.005648	1000000	8176.51220703		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.192153	975000	278176.5625		
		Iron (Fe)	7439-89-6	0.004730	24000	6847.5390625		
		Phosphorus (P)	7723-14-0	0.000059	300	85.4132843018		
		Zinc (Zn)	7440-66-6	0.000138	700	199.780212402		
		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>0.197080</b>	<b>1000000</b>	<b>285309.28125</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.010584	1000000	15322.4267578		
		<b>External Plating Total:</b>				<b>0.010584</b>	<b>1000000</b>	<b>15322.4267578</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.001577	1000000	2282.99560547		
<b>Internal Plating Total:</b>				<b>0.001577</b>	<b>1000000</b>	<b>2282.99560547</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001459	750000	2112.16894531		
		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)		0.000486	250000	703.573730469		
<b>Die Attach Total:</b>				<b>0.001945</b>	<b>1000000</b>	<b>2815.74267578</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.048682	103000	70476.0859375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.423013	895000	612388.625		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000945	2000	1368.06018066		
		<b>Encapsulation Total:</b>				<b>0.472640</b>	<b>1000000</b>	<b>684232.6875</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.001285	1000000	1860.2722168		
					<b>TOTAL MASS (g) :</b>	<b>0.690759</b>		