

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

1t1084ct-12#pbf

(Engineering Calculation)

TO-220

(printed on: 2020-07-11 19:42:10)

**TOTAL MASS (g) : 1.897424**

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	0.006654	1000000	3506.86010742		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	1.327316	998500	699535.875		
		Iron (Fe)	7439-89-6	0.000000	0	0		
		Phosphorus (P)	7723-14-0	0.000000	0	0		
		Zinc (Zn)	7440-66-6	0.000000	0	0		
		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	0.001994	1500	1050.89855957		
<b>Lead Frame Total:</b>				<b>1.329310</b>	<b>1000000</b>	<b>700586.8125</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.010641	1000000	5608.08203125		
		<b>External Plating Total:</b>				<b>0.010641</b>	<b>1000000</b>	<b>5608.08203125</b>
		Inter. Plating Ni	7440-02-0	0.009000	826446.25	4743.27294922		
		Inter. Plating Ag	7440-22-4	0.001890	173553.71875	996.087341309		
		<b>Internal Plating Total:</b>				<b>0.010890</b>	<b>1000000</b>	<b>5739.36035156</b>
Die Attach	95Pb / 5 Sn	Silver (Ag)	7440-22-4	0.000000	0	0		
		Tin (Sn)	7440-31-5	0.000140	50000	73.7842559814		
		Lead (Pb)	7439-92-1	0.002661	950000	1402.42773438		
		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)		0.000000	0	0		
<b>Die Attach Total:</b>				<b>0.002801</b>	<b>1000000</b>	<b>1476.21203613</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.055248	103000	29117.3730469		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.480069	895000	253010.953125		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.001073	2000	565.503601074		
		<b>Encapsulation Total:</b>				<b>0.536390</b>	<b>1000000</b>	<b>282693.84375</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000738	1000000	388.948394775		
					<b>TOTAL MASS (g) :</b>	<b>1.897424</b>		