

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

1t1086ct-5#pbf

(Engineering Calculation)

TO-220

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**TOTAL MASS (g) : 1.893522**

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	0.004012	1000000	2118.80297852		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	1.327316	998500	700977.375		
		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	1053.06408691		
<b>Lead Frame Total:</b>				<b>1.329310</b>	<b>1000000</b>	<b>702030.5</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.010641	1000000	5619.63818359		
		<b>External Plating Total:</b>				<b>0.010641</b>	<b>1000000</b>	<b>5619.63818359</b>
		Inter. Plating Ni	7440-02-0	0.009000	826446.25	4753.04736328		
		Inter. Plating Ag	7440-22-4	0.001890	173553.71875	998.139953613		
		<b>Internal Plating Total:</b>				<b>0.010890</b>	<b>1000000</b>	<b>5751.1875</b>
Die Attach	95Pb / 5 Sn	Silver (Ag)	7440-22-4	0.000000	0	0		
		Tin (Sn)	7440-31-5	0.000098	50000	51.755405426		
		Lead (Pb)	7439-92-1	0.001853	950000	978.59979248		
		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>0.001951</b>	<b>1000000</b>	<b>1030.35510254</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.055248	103000	29177.375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.480069	895000	253532.3125		
		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	566.668945312		
		<b>Encapsulation Total:</b>				<b>0.536390</b>	<b>1000000</b>	<b>283276.375</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000328	1000000	173.222183228		
					<b>TOTAL MASS (g) :</b>	<b>1.893522</b>		