

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc1454lcn#pbf

(Engineering Calculation)

PDIP

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**TOTAL MASS (g) : 1.02325**

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	0.005035	1000000	4920.59619141		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.313072	975000	305958.46875		
		Iron (Fe)	7439-89-6	0.007706	24000	7530.90673828		
		Phosphorus (P)	7723-14-0	0.000096	300	93.8187255859		
		Zinc (Zn)	7440-66-6	0.000225	700	219.887619019		
		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>0.321099</b>	<b>1000000</b>	<b>313803.09375</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.024547	1000000	23989.2363281		
		<b>External Plating Total:</b>				<b>0.024547</b>	<b>1000000</b>	<b>23989.2363281</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.002569	1000000	2510.62792969		
		<b>Internal Plating Total:</b>				<b>0.002569</b>	<b>1000000</b>	<b>2510.62792969</b>
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001372	750000	1340.82580566		
		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)		0.000457	250000	446.61618042		
<b>Die Attach Total:</b>				<b>0.001829</b>	<b>1000000</b>	<b>1787.4420166</b>		
Encapsulation	FILLED EPOXY RESIN	Resin (EP)		0.160224	240000	156583.4375		
		Bromine (Br)	40039-93-8	0.006676	10000	6524.31005859		
		Silica (SiO2)	60676-86-0	0.480672	720000	469750.3125		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.020028	30000	19572.9296875		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000000	0	0		
		<b>Encapsulation Total:</b>				<b>0.667600</b>	<b>1000000</b>	<b>652430.9375</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000571	1000000	558.025878906		
					<b>TOTAL MASS (g) :</b>	<b>1.02325</b>		