

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc1689cs#pbf

(Engineering Calculation)

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**TOTAL MASS (g) : 0.156631**

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	0.003739	1000000	23871.4375		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.051070	975000	326053.5625		
		Iron (Fe)	7439-89-6	0.001257	24000	8025.24658203		
		Phosphorus (P)	7723-14-0	0.000016	300	102.151107788		
		Zinc (Zn)	7440-66-6	0.000037	700	236.224441528		
		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>0.052380</b>	<b>1000000</b>	<b>334417.15625</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.002954	1000000	18857.7578125		
		<b>External Plating Total:</b>				<b>0.002954</b>	<b>1000000</b>	<b>18857.7578125</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000419	1000000	2675.08203125		
<b>Internal Plating Total:</b>				<b>0.000419</b>	<b>1000000</b>	<b>2675.08203125</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001076	750000	6869.66210938		
		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)		0.000359	250000	2292.01538086		
<b>Die Attach Total:</b>				<b>0.001435</b>	<b>1000000</b>	<b>9161.67675781</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.012389	130000	79096.875		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.079099	830000	505003.15625		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.003336	35000	21298.5058594		
		Carbon Black (C)	1333-86-4	0.000477	5000	3045.37963867		
		<b>Encapsulation Total:</b>				<b>0.095301</b>	<b>1000000</b>	<b>608443.9375</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000403	1000000	2572.93115234		
					<b>TOTAL MASS (g) :</b>	<b>0.156631</b>		