

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

ltc1164-5csw#pbf

(Engineering Calculation)

SOIC WIDE

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**TOTAL MASS (g) : 0.254975**

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	0.009084	1000000	35626.96875		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.138021	975000	541311.125		
		Iron (Fe)	7439-89-6	0.003397	24000	13322.8554688		
		Phosphorus (P)	7723-14-0	0.000042	300	164.721786499		
		Zinc (Zn)	7440-66-6	0.000099	700	388.272766113		
		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>0.141559</b>	<b>1000000</b>	<b>555187</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.004771	1000000	18713.0546875		
		<b>External Plating Total:</b>				<b>0.004771</b>	<b>1000000</b>	<b>18713.0546875</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.001132	1000000	4439.64453125		
<b>Internal Plating Total:</b>				<b>0.001132</b>	<b>1000000</b>	<b>4439.64453125</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.002044	750000	8016.46044922		
		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)		0.000681	250000	2670.84619141		
<b>Die Attach Total:</b>				<b>0.002725</b>	<b>1000000</b>	<b>10687.3066406</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.009816	103000	38497.8359375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.085294	895000	334518.59375		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000191	2000	749.091918945		
		<b>Encapsulation Total:</b>				<b>0.095301</b>	<b>1000000</b>	<b>373765.5</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000403	1000000	1580.54492188		
					<b>TOTAL MASS (g) :</b>	<b>0.254975</b>		