

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

1t3080ems8e-1#trpbf

(Engineering Calculation)

MSOP-Exposed

(printed on: 2020-07-11 20:27:20)

**TOTAL MASS (g) : 0.026637**

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	0.001512	1000000	56763.09375		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.010433	975000	391672.84375		
		Iron (Fe)	7439-89-6	0.000257	24000	9648.22460938		
		Phosphorus (P)	7723-14-0	0.000003	300	112.625198364		
		Zinc (Zn)	7440-66-6	0.000007	700	262.792114258		
		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>0.010700</b>	<b>1000000</b>	<b>401696.53125</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000710	1000000	26655.5664062		
		<b>External Plating Total:</b>				<b>0.000710</b>	<b>1000000</b>	<b>26655.5664062</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000086	1000000	3228.58862305		
<b>Internal Plating Total:</b>				<b>0.000086</b>	<b>1000000</b>	<b>3228.58862305</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000584	750000	21924.3710938		
		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)		0.000195	250000	7320.63720703		
<b>Die Attach Total:</b>				<b>0.000779</b>	<b>1000000</b>	<b>29245.0078125</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.001659	130000	62281.7265625		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.010591	830000	397604.46875		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000447	35000	16781.1523438		
		Carbon Black (C)	1333-86-4	0.000064	5000	2402.6706543		
		<b>Encapsulation Total:</b>				<b>0.012761</b>	<b>1000000</b>	<b>479070</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000089	1000000	3341.21411133		
					<b>TOTAL MASS (g) :</b>	<b>0.026637</b>		