

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

1t3015emse-12#trpbf

(Engineering Calculation)

MSOP-Exposed

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**TOTAL MASS (g) : 0.03724**

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	0.002740	1000000	73576.75		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.013845	975000	371777.40625		
		Iron (Fe)	7439-89-6	0.000341	24000	9156.81445312		
		Phosphorus (P)	7723-14-0	0.000004	300	107.411315918		
		Zinc (Zn)	7440-66-6	0.000010	700	268.528259277		
		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>0.014200</b>	<b>1000000</b>	<b>381310.15625</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000710	1000000	19066.1796875		
		<b>External Plating Total:</b>				<b>0.000710</b>	<b>1000000</b>	<b>19066.1796875</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000086	1000000	2309.34326172		
<b>Internal Plating Total:</b>				<b>0.000086</b>	<b>1000000</b>	<b>2309.34326172</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000423	820000	11358.7460938		
		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)		0.000093	180000	2497.31298828		
<b>Die Attach Total:</b>				<b>0.000516</b>	<b>1000000</b>	<b>13856.0585938</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.002439	130000	65494.046875		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.015571	830000	418125.40625		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000657	35000	17642.3085938		
		Carbon Black (C)	1333-86-4	0.000094	5000	2524.16601562		
		<b>Encapsulation Total:</b>				<b>0.018761</b>	<b>1000000</b>	<b>503785.90625</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000227	1000000	6095.59179688		
					<b>TOTAL MASS (g) :</b>	<b>0.03724</b>		