

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

1t3066imse#trpbf

(Engineering Calculation)

MSOP Exposed Pad

(printed on: 2020-07-11 18:13:41)

**TOTAL MASS (g) : 0.037471**

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	0.002406	1000000	64209.6171875		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.013845	975000	369485.53125		
		Iron (Fe)	7439-89-6	0.000341	24000	9100.36523438		
		Phosphorus (P)	7723-14-0	0.000004	300	106.749153137		
		Zinc (Zn)	7440-66-6	0.000010	700	266.87286377		
		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>378959.5</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000710	1000000	18948.640625		
		<b>External Plating Total:</b>				<b>0.000710</b>	<b>1000000</b>	<b>18948.640625</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000086	1000000	2295.10693359		
<b>Internal Plating Total:</b>				<b>0.000086</b>	<b>1000000</b>	<b>2295.10693359</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000811	750000	21643.390625		
		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)		0.000270	250000	7205.56787109		
<b>Die Attach Total:</b>				<b>0.001081</b>	<b>1000000</b>	<b>28848.9589844</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.002533	135000	67598.8984375		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.016134	860000	430572.71875		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000094	5000	2508.60522461		
		<b>Encapsulation Total:</b>				<b>0.018761</b>	<b>1000000</b>	<b>500680.21875</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000227	1000000	6058.01464844		
					<b>TOTAL MASS (g) :</b>	<b>0.037471</b>		