

**LINEAR TECHNOLOGY MATERIALS DECLARATION**

1t3990hmse-3.3#pbf

(Engineering Calculation)

MSOP-Exposed

(printed on: 2020-07-11 17:19:01)

**TOTAL MASS (g) : 0.035832**

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	0.001168	1000000	32596.5390625		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.013845	975000	386386.21875		
		Iron (Fe)	7439-89-6	0.000341	24000	9516.62695312		
		Phosphorus (P)	7723-14-0	0.000004	300	111.631980896		
		Zinc (Zn)	7440-66-6	0.000010	700	279.079956055		
		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>396293.5625</b>		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000710	1000000	19815.375		
		<b>External Plating Total:</b>				<b>0.000710</b>	<b>1000000</b>	<b>19815.375</b>
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000086	1000000	2400.08764648		
<b>Internal Plating Total:</b>				<b>0.000086</b>	<b>1000000</b>	<b>2400.08764648</b>		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000546	750000	15237.7666016		
		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)		0.000182	250000	5079.25537109		
<b>Die Attach Total:</b>				<b>0.000728</b>	<b>1000000</b>	<b>20317.0214844</b>		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.002439	130000	68067.6015625		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.015571	830000	434555.40625		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000657	35000	18335.5527344		
		Carbon Black (C)	1333-86-4	0.000094	5000	2623.35180664		
		<b>Encapsulation Total:</b>				<b>0.018761</b>	<b>1000000</b>	<b>523581.9375</b>
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000179	1000000	4995.53076172		
					<b>TOTAL MASS (g) :</b>	<b>0.035832</b>		