

LINEAR TECHNOLOGY MATERIALS DECLARATION

LTC2309IUF#TRPBF

(Engineering Calculation)

QFN 4mm X 4mm Exp. Pad

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TOTAL MASS (g): 0.040515

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	0.001708	1000000	42187.282812		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.015961	975000	393957.6875		
		Iron (Fe)	7439-89-6	0.000393	24000	9700.22949219		
		Phosphorus (P)	7723-14-0	0.000005	300	123.4128282397		
		Zinc (Zn)	7440-66-6	0.000011	700	271.50769043		
		Nickel (Ni)	7440-02-0	0.000000	0	0		
		Silicon (Si)	7440-21-3	0.000000	0	0		
		Magnesium (Mg)	7439-98-4	0.000000	0	0		
		Tin (Sn)	7440-31-5	0.000000	0	0		
		Lead Frame Total:				0.016370	1000000	404052.8125
		Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0
Exter. Plating Sn	7440-31-5			0.000773	1000000	19067.421875		
External Plating Total:						0.000773	1000000	19067.421875
Inter. Plating Ni	7440-02-0			0.000000	0	0		
Inter. Plating Ag	7440-22-4			0.000362	1000000	8935.0703125		
Internal Plating Total:						0.000362	1000000	8935.0703125
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000815	750000	20116.25		
		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)		0.000272	250000	6713.64453125		
		Die Attach Total:				0.001087	1000000	26829.8964844
		Encapsulation	MULTIAROMATIC RESIN BOND FREE	Resin (EP)		0.002616	130000	64569.4648438
Bromine (Br)	40093-93-8			0.000000	0	0		
Silica (SiO2)	60676-86-0			0.017303	860000	427081.59375		
Antimony Trioxide (Sb2O3)	1309-64-4			0.000000	0	0		
Metal Hydroxide				0.000000	0	0		
Carbon Black (C)	1333-86-4			0.000201	10000	4961.18603516		
Encapsulation Total:						0.020120	1000000	496612.25
Bond Wire Estimated	AFW/TANAKA/Kn	Gold (Au)	7440-57-5	0.000095	1000000	2344.83935547		

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