

LINEAR TECHNOLOGY MATERIALS DECLARATION

ltc4099eudc#trpbf

(Engineering Calculation)

QFN 3mm X 4mm Exp. Pad

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TOTAL MASS (g) : 0.161595

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	0.001549	1000000	9585.70605469		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.013133	975000	81271.1875		
		Iron (Fe)	7439-89-6	0.000323	24000	1998.8269043		
		Phosphorus (P)	7723-14-0	0.000004	300	24.7532749176		
		Zinc (Zn)	7440-66-6	0.000009	700	55.6948738098		
		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		
Lead Frame Total:				0.013469	1000000	83350.4609375		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.000626	1000000	3872.45654297		
		External Plating Total:				0.000626	1000000	3872.45654297
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.000302	1000000	1868.87231445		
Internal Plating Total:				0.000302	1000000	1868.87231445		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.000760	750000	4703.12207031		
		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)		0.000253	250000	1565.64465332		
Die Attach Total:				0.001013	1000000	6268.76708984		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.018759	130000	116086.671875		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.124098	860000	767958		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.001443	10000	8929.74414062		
		Encapsulation Total:				0.144300	1000000	892974.375
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000336	1000000	2079.27514648		
					TOTAL MASS (g) :	0.161595		