

LINEAR TECHNOLOGY MATERIALS DECLARATION

LTC2291CUP#PBF

(Engineering Calculation)

QFN 9mm X 9mm Exp. Pad

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TOTAL MASS (g): 0.224304

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	0.000263	1000000	23463.621994		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.104491	975000	465844.90625		
		Iron (Fe)	7439-89-6	0.002572	24000	11466.5673828		
		Phosphorus (P)	7723-14-0	0.000032	300	142.663160596		
		Zinc (Zn)	7440-66-6	0.000075	700	334.367248535		
		Nickel (Ni)	7440-02-0	0.000000	0	0		
		Silicon (Si)	7440-21-3	0.000000	0	0		
		Magnesium (Mg)	7439-96-4	0.000000	0	0		
		Tin (Sn)	7440-31-5	0.000000	0	0		
		Lead Frame Total:				0.107170	1000000	47788.46875
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.003192	1000000	14231.8828125		
		External Plating Total:				0.003192	1000000	14231.8828125
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.002279	1000000	10160.3056641		
		Internal Plating Total:				0.002279	1000000	10160.3056641
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001823	750000	8127.35302714		
		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)		0.000608	250000	2710.60375977		
		Die Attach Total:				0.002431	1000000	10837.9506547
		Encapsulation	MULTIAROMATIC RESIN BzSb FREE	Resin (EP)	0.013460	130000	60007.7734375	
Bromine (Br)	40093-93-8			0.000000	0	0		
Silica (SiO2)	60676-86-0			0.089044	860000	396978.625		
Antimony Trioxide (Sb2O3)	1309-64-4			0.000000	0	0		
Metal Hydroxide				0.000000	0	0		
Carbon Black (C)	1333-86-4			0.001035	10000	4614.26757812		
Encapsulation Total:						0.103539	1000000	461600.625
Bond Wire Estimated	AFW/TANAKA/Kn	Gold (Au)	7440-57-5	0.000430	1000000	1917.03881836		

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