

LINEAR TECHNOLOGY MATERIALS DECLARATION

ltc2190iukg#pbf

(Engineering Calculation)

QFN 7mm X 8mm Exp. Pad

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TOTAL MASS (g) : 0.162158

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	0.005918	1000000	36495.1992188		
Die Coat	Dow Corning	Silicone	69430-27-9	0.000000	0	0		
Lead Frame	Cu	Copper (Cu)	7440-50-8	0.076937	975000	474456.03125		
		Iron (Fe)	7439-89-6	0.001894	24000	11679.9423828		
		Phosphorus (P)	7723-14-0	0.000024	300	148.003509521		
		Zinc (Zn)	7440-66-6	0.000055	700	339.174713135		
		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:				0.078910	1000000	486623.1875		
Plating	PMI	Exter. Plating Pb	7439-92-1	0.000000	0	0		
		Exter. Plating Sn	7440-31-5	0.003848	1000000	23731.9628906		
		External Plating Total:				0.003848	1000000	23731.9628906
		Inter. Plating Ni	7440-02-0	0.000000	0	0		
		Inter. Plating Ag	7440-22-4	0.001694	1000000	10446.5800781		
Internal Plating Total:				0.001694	1000000	10446.5800781		
Die Attach	ELECTRICALLY CONDUCTIVE ADHESIVE	Silver (Ag)	7440-22-4	0.001972	750000	12160.9550781		
		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)		0.000657	250000	4051.59594727		
Die Attach Total:				0.002629	1000000	16212.5507812		
Encapsulation	MULTI-AROMATIC RESIN Br/Sb FREE	Resin (EP)		0.008945	130000	55162.140625		
		Bromine (Br)	40039-93-8	0.000000	0	0		
		Silica (SiO2)	60676-86-0	0.059177	860000	364933.46875		
		Antimony Trioxide (Sb2O3)	1309-64-4	0.000000	0	0		
		Metal Hydroxide		0.000000	0	0		
		Carbon Black (C)	1333-86-4	0.000688	10000	4242.76708984		
		Encapsulation Total:				0.068810	1000000	424338.375
Bond Wire Estimated	AFW/TANAKA/ Kn	Gold (Au)	7440-57-5	0.000349	1000000	2152.2175293		
					TOTAL MASS (g) :	0.162158		