



Device Material Content

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Assembly: ASEM
Size (mm): 2.5 x 2.5
Lead pitch (mm): 0.4
MSL: 3
Reflow max (°C): 260

August, 2022

Package: 36 ucBGA
Total Device Weight 0.011 Grams

Package Code:

CM36

Products:

ICE40LM/LP/UL, ICE5

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	12.35%	0.0013	12.35%	0.0013	Silicon chip	7440-21-3	100.00%	Die size: 1.45x1.45mm
Mold Compound	49.96%	0.00525	43.72%	0.00459	Silica	60676-86-0	87.50%	Mold Compound: KE-G1250 LKDS
			3.25%	0.00034	Epoxy resin	-	6.50%	
			2.75%	0.00029	Phenol Resin	-	5.50%	
			0.25%	0.00003	Carbon Black	1333-86-4	0.50%	
D/A Tape	0.60%	0.00006	0.09%	0.000009	Epoxy Resin	-	15.00%	TAPE FH-900T-25_HR9004
			0.09%	0.000009	Phenol Resin	-	15.00%	
			0.03%	0.000003	SiO2 Filler	99439-28-8	5.00%	
			0.39%	0.000041	(Meta)Acrylic Copolymer	-	65.00%	
Wire	0.59%	0.00006	0.57%	0.000060	Copper	7440-50-8	97.30%	0.7 MIL Pd coated Cu
			0.02%	0.000002	Palladium	7440-05-3	2.70%	
Solder Balls	2.95%	0.00031	2.91%	0.000305	Tin (Sn)	7440-31-5	98.50%	SAC105
			0.03%	0.000003	Silver (Ag)	7440-22-4	1.00%	
			0.01%	0.000002	Copper (Cu)	7440-50-8	0.50%	
Substrate	15.98%	0.0017	5.11%	0.00054	BT Resins	-	32.00%	BT Resin CCL-HL832NX-A
			10.86%	0.00114	Glass fiber	65997-17-3	68.00%	
Foil	7.43%	0.0008	6.09%	0.00064	Copper	7440-50-8	82.00%	
			1.12%	0.00012	Nickel	7440-02-0	15.10%	
			0.22%	0.00002	Gold	7440-57-5	2.91%	
Solder Mask	10.15%	0.0011	5.70%	0.00060	Quartz	14808-60-7	56.20%	Solder mask PSR4000 AUS 308
			1.62%	0.00017	3-methoxy-3-methylbutylacetate	103429-90-9	16.00%	
			2.23%	0.000234	Barium Sulfate	7727-43-7	22.00%	
			0.30%	0.000032	Talc (containing no asbestiform fibers)	14807-96-6	3.00%	
			0.28%	0.000030	Trade secret ingredients	-	2.80%	

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