



Device Material Content

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Assembly: ATP
Size (mm): 19 x 19

Package Code:

BG484

Lead pitch (mm): 0.8

Package: 484 caBGA
Total Device Weight: 0.917 Grams

Products:

LCMXO3-9400

MSL: 3

January, 2020

Reflow max (°C): 260

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	1.49%	0.0137			Silicon chip	7440-21-3	100.00%	Die size: 5.1 x 4.9 x 0.228 mm
Mold Compound	52.67%	0.4830	3.69%	0.0338	Solid Epoxy Resin	-	7.00%	Mold Compound: Hitachi GE-110LS-V
			2.63%	0.0242	Phenol Resin	-	5.00%	
			44.77%	0.4106	Silica	60676-86-0	85.00%	
			1.32%	0.0121	Metal Hydroxide	-	2.50%	
			0.26%	0.0024	Carbon Black	1333-86-4	0.50%	
D/A Epoxy	0.21%	0.0019	0.18%	0.00165	Silver	7440-22-4	87.00%	Die attach epoxy: Henkel QMI-529HT
			0.01%	0.00013	Isobornyl Methacrylate	7534-94-3	7.00%	
			0.001%	0.00001	2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	3388-04-3	0.50%	
			0.01%	0.00010	Additive	-	5.00%	
Wire	0.85%	0.0078	0.83%	0.0076	Copper (Cu)	7440-50-8	97.90%	MKE Cu wire(Pd coated), 0.02mm dia
			0.02%	0.0002	Palladium (Pd)	7440-05-3	2.10%	
Solder Balls	18.49%	0.1695	17.84%	0.1636	Tin (Sn)	7440-31-5	96.50%	SAC305
			0.55%	0.0051	Silver (Ag)	7440-22-4	3.00%	
			0.09%	0.0008	Copper (Cu)	7440-50-8	0.50%	
Substrate	16.53%	0.1516	5.29%	0.0485	BT Resins	-	32.00%	BT Resin CCL-HL832NX-A*
			11.24%	0.1031	Glass fiber	65997-17-3	68.00%	
Foil	5.82%	0.0533	4.77%	0.0437	Copper	7440-50-8	82.00%	
			0.88%	0.0080	Nickel plating	7440-02-0	15.10%	
			0.17%	0.0016	Gold plating	7440-57-5	2.91%	
Solder Mask	3.94%	0.0361	2.14%	0.0196	Quartz	14808-60-7	54.37%	Solder mask PSR4000 AUS 308
			0.29%	0.0026	Dipropylene glycol monomethyl ether	34590-94-8	7.33%	
			0.13%	0.0012	Morpholine derivative**	71868-10-5	3.32%	
			0.12%	0.0011	Silicon dioxide	7631-86-9	3.00%	
			0.12%	0.0011	Silica, amorphous	112945-52-5	3.00%	
			0.01%	0.0001	Carbon black	1333-86-4	0.24%	
			1.13%	0.0104	Trade secret ingredients	-	28.74%	

Notes: SVHC: * 0.17% max. concentration of Bisphenol A (CAS# 80-05-7), contained in substrate laminate material as impurity - not intentionally added.
** 0.13% max. concentration of Morpholine derivative (CAS# 71868-10-5), contained in solder mask material.

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