



Device Material Content

5555 NE Moore Ct.
Hillsboro OR 97124
custreq@latticesemi.com

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

Reflow max (°C): 260

July, 2019

	% 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	0.00%	0.0000	BT Resins	-	32.00%	BT Resin CCL-HL832NX-A*
			0.00%	0.0000	Glass fiber	65997-17-3	68.00%	
Foil	5.82%	0.0533	0.00%	0.0000	Copper	7440-50-8	82.00%	
			0.00%	0.0000	Nickel plating	7440-02-0	15.10%	
			0.00%	0.0000	Gold plating	7440-57-5	2.91%	
Solder Mask	3.94%	0.0361	0.00%	0.0000	Quartz	14808-60-7	54.37%	Solder mask PSR4000 AUS 308
			0.00%	0.0000	Dipropylene glycol monomethyl ether	34590-94-8	7.33%	
			0.00%	0.0000	Morpholine derivative	71868-10-5	3.32%	
			0.00%	0.0000	Silicon dioxide	7631-86-9	3.00%	
			0.00%	0.0000	Silica, amorphous	112945-52-5	3.00%	
			0.00%	0.0000	Carbon black	1333-86-4	0.24%	
			0.00%	0.0000	Trade secret ingredients	-	28.74%	

Notes: * 0.17% max. concentration (of total pkg wt.) of Bisphenol A (CAS# 80-05-7), contained in substrate laminate material as impurity - not intentionally added.

The values listed above are nominal values based on studies of representatives of this particular package type, and are believed to be as accurate as possible.

Constituent substances and proportions in epoxy materials are before curing.

The information provided above is representative of the package as of the date listed, and is subject to change at any time.

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Rev. D