



Device Material Content

5555 NE Moore Ct. Hillsboro OR 97124 custreq@latticesemi.com					Package Code: FN900		Assembly: ASEM Size (mm): 31 x 31 Lead pitch (mm): 1.0 MSL: 3 Reflow max (°C): 250	
Package: 484 fpBGA		Total Device Weight 4.284 Grams		Products: LFE2/2M				
June, 2022								
	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	1.64%	0.0704	1.64%	0.0704	Silicon chip	7440-21-3	100.00%	Die size: 9.49 x 9.80 mm
Mold Compound	40.50%	1.7350	2.84%	0.1214	Epoxy Resin	-	7.00%	Mold Compound: Sumitomo G750SE
			2.03%	0.0867	Phenol Novolac	9003-35-4	5.00%	
			2.03%	0.0867	Metal Hydroxide	-	5.00%	
			0.20%	0.0087	Carbon Black	1333-86-4	0.50%	
			33.41%	1.4314	Silica Fused	60676-86-0	82.50%	
D/A Epoxy	0.24%	0.0102	0.19%	0.00818	Silver	7440-22-4	80.00%	Die attach epoxy: Henkel (Ablebond) 2100A
			0.05%	0.00205	Esters & resins	-	20.00%	
Wire	0.22%	0.0094	0.22%	0.0092	Copper	7440-50-8	98.45%	0.8 mil diameter; 1 wire per solder ball
			0.00%	0.0001	Palladium	7440-05-3	1.55%	
Solder Balls	20.38%	0.8732	19.67%	0.8426	Tin (Sn)	7440-31-5	96.50%	SAC305
			0.61%	0.0262	Silver (Ag)	7440-22-4	3.00%	
			0.10%	0.0044	Copper (Cu)	7440-50-8	0.50%	
Substrate	19.83%	0.8494	6.35%	0.2718	BT Resins	-	32.00%	BT Resin CCL-HL832NX-A
			13.48%	0.5776	Glass fiber	65997-17-3	68.00%	
Foil	13.22%	0.5664	11.83%	0.5069	Copper	7440-50-8	89.50%	
			1.32%	0.0566	Nickel plating	7440-02-0	9.99%	
			0.07%	0.0029	Gold plating	7440-57-5	0.50%	
Solder Mask	3.96%	0.1698	2.23%	0.0954	Quartz	14808-60-7	56.20%	Solder mask PSR4000 AUS 308
			0.63%	0.0272	3-methoxy-3-methylbutylacetate	103429-90-9	16.00%	
			0.87%	0.0374	Barium Sulfate	7727-43-7	22.00%	
			0.12%	0.0051	Talc (containing no asbestiform fibers)	14807-96-6	3.00%	
			0.11%	0.0048	Trade secret ingredients	-	2.80%	

Lattice regards this materials information to be correct but makes no guarantee as to its accuracy or completeness, including, but not limited to, with respect to its compliance with applicable environmental laws and regulations. Lattice subcontracts the production, test and assembly of hardware devices to independent third-party vendors and materials suppliers ("Contractors"). All data provided hereunder is based on information received from Contractors. Lattice has not independently verified the accuracy or completeness of this information which is provided solely for your reference in connection with the use of Lattice products.

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Rev. K1



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Assembly: ASEK
Size (mm): 31 x 31

Package Code:

FN900

Lead pitch (mm): 1.0

Package: 484 fpBGA
Total Device Weight 4.284 Grams

Products:

MSL: 3

June, 2022

LFE2/2M

Reflow max (°C): 250

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Mold Compound	40.50%	1.7350	2.03%	0.0867	Epoxy Resin	-	5.00%	Mold Compound: Hitachi CEL9750ZHF series
			2.03%	0.0867	Phenol Resin	-	5.00%	
			0.08%	0.0035	Carbon Black	1333-86-4	0.20%	
			35.56%	1.5233	Silica	60676-86-0	87.80%	
			0.81%	0.0347	Others	-	2.00%	
D/A Epoxy	0.24%	0.0102	0.19%	0.00818	Silver	7440-22-4	80.00%	Die attach epoxy: Henkel (Ablebond) 2100A
			0.05%	0.00205	Esters & resins	-	20.00%	
Wire	0.22%	0.0094	0.22%	0.0092	Copper	7440-50-8	98.45%	0.8 mil diameter; 1 wire per solder ball
			0.00%	0.0001	Palladium	7440-05-3	1.55%	
Solder Balls	20.38%	0.8732	19.67%	0.8426	Tin (Sn)	7440-31-5	96.50%	Ag3.5
			0.71%	0.0306	Silver (Ag)	7440-22-4	3.50%	
Substrate	19.83%	0.8494	6.35%	0.2718	BT Resins	-	32.00%	BT Resin CCL-HL832NX-A
			13.48%	0.5776	Glass fiber	65997-17-3	68.00%	
Foil	13.22%	0.5664	11.83%	0.5069	Copper	7440-50-8	89.50%	
			1.32%	0.0566	Nickel plating	7440-02-0	9.99%	
			0.07%	0.0029	Gold plating	7440-57-5	0.50%	
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