



Device Material Content

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

November, 2020

Package: 484 fpBGA
Total Device Weight 4.284 Grams

Package Code:

FN900

Products:

LFE2/2M

Assembly: ASEM

Size (mm): 31 x 31

Lead pitch (mm): 1.0

MSL: 3

Reflow max (°C): 250

	% 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	14807-96-6	3.00%	
			0.02%	0.0008	Naphthalene	91-20-3	0.50%	
			0.09%	0.0039	Trade secret ingredients	-	2.30%	

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Rev. K



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FN900

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LFE2/2M

Assembly: ASEK

Size (mm): 31 x 31

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MSL: 3

Reflow max (°C): 250

	% 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	2.03%	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%	
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	14807-96-6	3.00%	
			0.02%	0.0008	Naphthalene	91-20-3	0.50%	
			0.09%	0.0039	Trade secret ingredients	-	2.30%	

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Mold Compound	40.50%	1.7350	2.84%	0.1214	Epoxy Resin	-	7.00%	Mold Compound: Hitachi GE-110
			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) 2300
			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	19.47%	0.8339	Tin (Sn)	7440-31-5	95.50%	SAC405
			0.82%	0.0349	Silver (Ag)	7440-22-4	4.00%	
			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%	
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			0.63%	0.0272	3-methoxy-3-methylbutylacetate	103429-90-9	16.00%	
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