



Device Material Content

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

Package: 324 ftBGA
Total Device Weight: 1.14 Grams

Package Code:

FTN324

Products:

XO

Assembly: ASEM
Size (mm): 19 x 19
Lead pitch (mm): 1.0
MSL: 3
Reflow max (°C): 260

March, 2026

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	0.87%	0.0099	0.87%	0.0099	Silicon chip	7440-21-3	100.00%	
Mold Compound	46.36%	0.5285	2.32%	0.0264	Epoxy Resin A	-	5.00%	Mold Compound: Sumitomo G750SE (ULA)
			0.70%	0.0079	Epoxy Resin B	-	1.50%	
			2.32%	0.0264	Phenol Novolac	9003-35-4	5.00%	
			2.32%	0.0264	Metal Hydroxide	-	5.00%	
			0.14%	0.0016	Carbon Black	1333-86-4	0.30%	
			38.57%	0.4397	Silica Fused	60676-86-0	83.20%	
D/A Epoxy	0.14%	0.0016	0.12%	0.00132	Silver (Ag)	7440-22-4	82.43%	Die attach epoxy: Henkel (Ablebond) ABL 2100A
			0.01%	0.00009	2,2-dimethyl-1,3 Propanediyl Bismethacrylate	1985-51-9	5.67%	
			0.01%	0.00009	A mixture of: 4-allyl-2,6-bis(2,3-epoxypropyl)phenol	-	5.67%	
			0.01%	0.00009	2-[[2,2 bis[[[1-oxoallyloxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate	94108-97-1	5.67%	
			0.001%	0.00001	bis(4-tert-butylcyclohexyl) peroxydicarbonate	15520-11-3	0.57%	
Wire	0.39%	0.0044	0.38%	0.0043	Copper	7440-50-8	98.50%	0.8 mil diameter; 1 wire per solder ball
			0.01%	0.0001	Palladium	7440-05-3	1.50%	
Solder Balls	29.05%	0.3311	28.03%	0.3195	Tin (Sn)	7440-31-5	96.50%	SAC305
			0.87%	0.0099	Silver (Ag)	7440-22-4	3.00%	
			0.15%	0.0017	Copper (Cu)	7440-50-8	0.50%	
Substrate	13.69%	0.1560	2.84%	0.0323	Continuous Filament Fiber Glass	65997-17-3	20.717%	BT Resin CCL-HL832NX-A
			1.55%	0.0176	Bismaleimide Triazine	105391-33-1	11.300%	
			1.55%	0.0176	Cyanic acid (1-methylethylidene)di-4,1-phenylene ester homopolymer	25722-66-1	11.300%	
			1.55%	0.0176	Other Resin	9003-36-5	11.300%	
			1.12%	0.0127	Aluminum Hydroxide	21645-51-2	8.161%	
			5.10%	0.0581	Copper	7440-50-8	37.223%	
Foil	6.22%	0.0710	5.10%	0.0582	Copper	7440-50-8	82.00%	
			0.94%	0.0107	Nickel plating	7440-02-0	15.10%	
			0.18%	0.0021	Gold plating	7440-57-5	2.91%	
Solder Mask	3.29%	0.0375	1.85%	0.0211	Quartz	14808-60-7	56.20%	Solder mask PSR4000 AUS 308
			0.53%	0.0060	3-methoxy-3-methylbutylacetate	103429-90-9	16.00%	
			0.72%	0.0082	Barium Sulfate	7727-43-7	22.00%	
			0.10%	0.0011	Talc (containing no asbestos fibers)	14807-96-6	3.00%	
			0.09%	0.0010	Trade secret ingredients	-	2.80%	

100.000% 1.140 100.000% 1.140 8.000

Note:

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.

www.latticesemi.com



5555 NE Moore Ct. Hillsboro OR 97124 custreq@latticesemi.com		Package: 324 ftBGA Total Device Weight 1.140 Grams		Package Code: FTN324 Products: XO		Assembly: ASEK Size (mm): 19 x 19 Lead pitch (mm): 1.0 MSL: 3 Reflow max (°C): 260		March, 2026	
	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:	
Die	0.87%	0.0099	0.87%	0.0099	Silicon chip	7440-21-3	100.00%		
Mold Compound	46.36%	0.5284	40.56% 3.01% 2.55% 0.23%	0.4623 0.0343 0.0291 0.0026	Silica Epoxy resin Phenol Resin Carbon Black	60676-86-0 - - 1333-86-4	87.50% 6.50% 5.50% 0.50%	Mold Compound: Kyocera KE-G2250 series (ULA)	
D/A Epoxy	0.14%	0.0016	0.121% 0.008% 0.007% 0.001% 0.003% 0.0003%	0.00137 0.00009 0.00008 0.00002 0.00003 0.000003	Silver (Ag) 2,2-dimethyl-1,3 Propanediyl Bismethacrylate A mixture of: 4-allyl-2,6-bis(2,3-epoxypropyl)phenol Perfluoropolyoxyalkane ether 2-[[2,2 bis[[[1-(oxaloxy)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate bis(4-tert-butylcyclohexyl) peroxydicarbonate	7440-22-4 1985-51-9 - 925918-64-5 94108-97-1 15520-11-3	86.09% 5.92% 4.92% 1.00% 1.88% 0.19%	Die attach epoxy: Henkel (Ablebond) 2100A	
Wire	0.39%	0.0044	0.38% 0.01%	0.0043 0.0001	Copper Palladium	7440-50-8 7440-05-3	98.50% 1.50%	0.8 mil diameter; 1 wire per solder ball	
Solder Balls	29.05%	0.3311	28.61% 0.29% 0.15%	0.3261 0.0033 0.0017	Tin (Sn) Silver (Ag) Copper (Cu)	7440-31-5 7440-22-4 7440-50-8	98.50% 1.00% 0.50%	SAC105	
Substrate	13.69%	0.1560	2.84% 1.55% 1.55% 1.55% 1.12% 5.10%	0.0323 0.0176 0.0176 0.0176 0.0127 0.0581	Continuous Filament Fiber Glass Bismaleimide Triazine Cyanic acid (1-methylethylidene)di-4,1-phenylene ester homopolymer Other Resin Aluminum Hydroxide Copper	65997-17-3 105391-33-1 25722-66-1 9003-36-5 21645-51-2 7440-50-8	20.72% 11.30% 11.30% 11.30% 8.16% 37.22%	BT Resin CCL-HL832NX-A	
Foil	6.22%	0.0710	5.10% 0.94% 0.18%	0.0582 0.0107 0.0021	Copper Nickel Gold	7440-50-8 7440-02-0 7440-57-5	82.00% 15.10% 2.91%		
Solder Mask	3.29%	0.0375	1.85% 0.53% 0.72% 0.10% 0.09%	0.0211 0.0060 0.0082 0.0011 0.0010	Quartz 3-methoxy-3-methylbutylacetate Barium Sulfate Talc (containing no asbestiform fibers) Trade secret ingredients	14808-60-7 103429-90-9 7727-43-7 14807-96-6 -	56.20% 16.00% 22.00% 3.00% 2.80%	Solder mask PSR4000 AUS 308	
		100.00%	1.140	100.00%	1.140	800.000%			

Note:

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.

www.latticesemi.com

