



## Device Material Content

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Assembly: ASEM

Size (mm): 6 x 6

Lead pitch (mm): 0.5

MSL: 3

Reflow max (°C): 260

November, 2020

**Package:** 56 csBGA  
**Total Device Weight** 0.08 Grams

**Package Code:**

MN56

**Products:**

LC4kZC

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
<b>Die</b>	2.56%	0.0021	2.56%	0.0021	Silicon chip	7440-21-3	100.00%	Die size: 1.77 x 1.91 mm
<b>Mold Compound</b>	55.11%	0.0457	48.50%	0.0403	Silica Fused	60676-86-0	88.00%	Mold Compound: Sumitomo G770
			2.76%	0.0023	Epoxy Resin	-	5.00%	
			2.76%	0.0023	Phenol Resin	-	5.00%	
			0.96%	0.0008	Metal Hydroxide	-	1.75%	
			0.14%	0.0001	Carbon Black	1333-86-4	0.25%	
<b>D/A Epoxy</b>	0.41%	0.0003	0.33%	0.00027	Silver	7440-22-4	80.00%	Die attach epoxy: Henkel (Ablebond) 2100A
			0.08%	0.00007	Esters & resins	-	20.00%	
<b>Wire</b>	1.98%	0.0016	1.95%	0.0016	Gold (Au)	7440-57-5	98.50%	0.8 mil diameter; 1 wire per solder ball
<b>Solder Balls</b>	7.10%	0.0059	6.85%	0.0057	Tin (Sn)	7440-31-5	96.50%	SAC305
			0.21%	0.0002	Silver (Ag)	7440-22-4	3.00%	
			0.04%	0.0000	Copper (Cu)	7440-50-8	0.50%	
<b>Substrate</b>	21.34%	0.0177	6.62%	0.0055	BT Resins	-	31.00%	BT Resin CCL-HL832NX-A*
			14.51%	0.0120	Glass fiber	65997-17-3	68.00%	
<b>Foil</b>	7.97%	0.0066	6.74%	0.00560	Copper	7440-50-8	84.56%	
			1.17%	0.00097	Nickel plating	7440-02-0	14.70%	
			0.06%	0.00005	Gold plating	7440-57-5	0.74%	
<b>Solder Mask</b>	3.52%	0.0029	1.98%	0.00164	Quartz	14808-60-7	56.20%	Solder mask PSR4000 AUS 308
			0.56%	0.00047	3-methoxy-3-methylbutylacetate	103429-90-9	16.00%	
			0.77%	0.00064	Barium Sulfate	7727-43-7	22.00%	
			0.11%	0.00009	Talc	14807-96-6	3.00%	
			0.02%	0.00001	Naphthalene	91-20-3	0.50%	
			0.08%	0.00007	Trade secret ingredients	-	2.30%	

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