



## Device Material Content

5555 NE Moore Ct.  
Hillsboro OR 97124  
[custreq@lsc.com](mailto:custreq@lsc.com)

December, 2017

Package: **100 TQFP (1.4mm)**  
Total Device Weight **0.654** Grams

**Package Code:**

**TN100, VN**

**Products:**

LC4k, M4A, PAC

Assembly: ASEM

Size (mm): 14 x 14 x 1.4

Lead pitch (mm): 0.5

MSL: 3

Reflow max (°C): 260

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
<b>Die</b>	3.61%	0.0236			Silicon chip	7440-21-3	100.00%	Die size: 4.30 x 6.50 mm
<b>Mold Compound</b>	74.44%	0.4868	4.47%	0.0292	Epoxy Resin	-	6.00%	Mold Compound: Hitachi CEL9220HF
			3.72%	0.0243	Phenol Resin	-	5.00%	
			0.15%	0.0010	Carbon Black	1333-86-4	0.20%	
			63.42%	0.4148	Silica	60676-86-0	85.20%	
			2.68%	0.0175	Others	-	3.60%	
<b>D/A Epoxy</b>	0.44%	0.0029	0.35%	0.00230	Silver	7440-22-4	80.00%	Die attach: Henkel (Ablebond) 3230
			0.09%	0.00058	Esters & resins	-	20.00%	
<b>Wire</b>	0.45%	0.0029	0.45%	0.0029	Gold (Au)	7440-57-5	100.00%	0.8 mil wire diameter; 1 wire for each package lead
<b>Plating</b>	1.83%	0.0120	1.83%	0.0120	Tin (Sn)	7440-31-5	100.00%	Plating is 100% Matte Sn; thickness is >10.2µm
<b>Leadframe</b>	19.23%	0.1258	18.60%	0.1216	Copper (Cu)	7440-50-8	96.70%	C7025
			0.58%	0.0038	Nickel (Ni)	7440-02-0	3.01%	
			0.03%	0.0002	Silicon (Si)	7440-21-3	0.17%	
			0.01%	0.0000	Magnesium (Mg)	7439-95-4	0.03%	
			0.02%	0.0001	Silver (Ag)	7440-22-4	0.09%	

**Notes:**

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.

[www.latticesemi.com](http://www.latticesemi.com)





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	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
<b>Die</b>	3.61%	0.0236			Silicon chip	7440-21-3	100.00%	Die size: 4.30 x 6.50 mm
<b>Mold Compound</b>	74.44%	0.4868	5.21%	0.0341	Epoxy Resin	-	7.00%	Mold Compound: Sumitomo G700 series
			3.72%	0.0243	Phenol Resin	-	5.00%	
			0.37%	0.0024	Carbon Black	1333-86-4	0.50%	
			65.14%	0.4260	Silica Fused	60676-86-0	87.50%	
<b>D/A Epoxy</b>	0.44%	0.0029	0.35%	0.00230	Silver	7440-22-4	80.00%	Die attach: Sumitomo CRM1076NS
			0.04%	0.00029	Epoxy Resin	9003-36-5	10.00%	
			0.02%	0.00014	Diluent	26447-14-3	5.00%	
			0.00%	0.00001	Dicyandiamide	461-58-5	0.50%	
			0.02%	0.00013	Hardener	620-92-8	4.50%	
<b>Wire</b>	0.45%	0.0029	0.45%	0.0029	Gold (Au)	7440-57-5	100.00%	0.8 mil wire diameter; 1 wire for each package lead
<b>Plating</b>	1.83%	0.0120	1.83%	0.0120	Tin (Sn)	7440-31-5	100.00%	Plating is 100% Matte Sn; thickness is >10.2µm
<b>Leadframe</b>	19.23%	0.1258	18.60%	0.1216	Copper (Cu)	7440-50-8	96.70%	C7025
			0.58%	0.0038	Nickel (Ni)	7440-02-0	3.01%	
			0.03%	0.0002	Silicon (Si)	7440-21-3	0.17%	
			0.01%	0.0000	Magnesium (Mg)	7439-95-4	0.03%	
			0.02%	0.0001	Silver (Ag)	7440-22-4	0.09%	

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