



Device Material Content

5555 NE Moore Ct. Hillsboro OR 97124 custreq@latticesemi.com					Package Code: TN100, VN		Assembly: ASEM Size (mm): 14 x 14 x 1.4 Lead pitch (mm): 0.5 MSL: 3 Reflow max (°C): 260	
Package: 100 TQFP (1.4mm) Total Device Weight 0.654 Grams					Products: LC/LA4k, M4A, PAC			
October, 2021	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	3.61%	0.0236			Silicon chip	7440-21-3	100.00%	Die size: 4.30 x 6.50 mm
Mold Compound	74.44%	0.4868	4.47% 3.72% 0.15% 63.42% 2.68%	0.0292 0.0243 0.0010 0.4148 0.0175	Epoxy Resin Phenol Resin Carbon Black Silica Others	- - 1333-86-4 60676-86-0 -	6.00% 5.00% 0.20% 85.20% 3.60%	Mold Compound: Showa Denko CEL9220HF
D/A Epoxy	0.44%	0.0029	0.35% 0.09%	0.00230 0.00058	Silver Esters & resins	7440-22-4 -	80.00% 20.00%	Die attach: Henkel (Ablebond) 3230
Wire	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
Plating	1.83%	0.0120	1.83%	0.0120	Tin (Sn)	7440-31-5	100.00%	Plating is 100% Matte Sn; thickness is >10.2µm
Leadframe	19.23%	0.1258	18.60% 0.58% 0.03% 0.01% 0.02%	0.1216 0.0038 0.00021 0.00004 0.00011	Copper (Cu) Nickel (Ni) Silicon (Si) Magnesium (Mg) Silver (Ag)	7440-50-8 7440-02-0 7440-21-3 7439-95-4 7440-22-4	96.70% 3.01% 0.17% 0.03% 0.09%	C7025

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.

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