



## Device Material Content

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**Package Code:**

FTG237

Assembly: ASEM

Size (mm): 17 x 17

Lead pitch (mm): 1.0

MSL: 3

Reflow max (°C): 260

**Package:** 237 ftBGA  
**Total Device Weight** 0.81 Grams

**Products:**

LPTM21

April, 2018

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
<b>Die</b>	1.06%	0.0086	1.06%	0.0086	Silicon chip	7440-21-3	100.00%	Die 1: 2.58 x 2.52 mm Die 2: 2.89 x 2.89 mm Side-by-side (dual-die)
<b>Mold Compound</b>	49.90%	0.4062	43.66%	0.3554	Silica	60676-86-0	87.50%	Mold compound: Kyocera KE-G2250LKDS (ULA)
			3.24%	0.0264	Epoxy resin	-	6.50%	
			2.74%	0.0223	Phenol Resin	-	5.50%	
			0.25%	0.0020	Carbon Black	1333-86-4	0.50%	
<b>D/A Epoxy</b>	0.15%	0.0012	0.12%	0.00098	Silver	7440-22-4	80.00%	Die attach epoxy: Henkel (Ablebond) 2100A
			0.03%	0.00024	Esters & resins	-	20.00%	
<b>Wire</b>	0.38%	0.0031	0.38%	0.0031	Gold (Au)	7440-57-5	99.00%	Pd coated Au, 0.8 mil diameter; 1 wire per solder ball
			0.00%	0.0000	Palladium	7440-05-3	1.00%	
<b>Solder Balls</b>	14.14%	0.1151	13.65%	0.1111	Tin (Sn)	7440-31-5	96.50%	SAC305
			0.42%	0.0035	Silver (Ag)	7440-22-4	3.00%	
			0.07%	0.0006	Copper (Cu)	7440-50-8	0.50%	
<b>Substrate</b>	34.37%	0.2798	23.87%	0.1943	Laminate*	-	69.44%	BT Resin CCL-HL832NX-A
			5.73%	0.0466	Solder mask PSR4000 AUS 308	-	16.67%	
			2.86%	0.0233	Copper	7440-50-8	8.33%	
			1.81%	0.0148	Nickel plating	7440-02-0	5.28%	
			0.10%	0.0008	Gold plating	7440-57-5	0.28%	

**Notes:** \* 0.24% max. concentration of Bisphenol A (CAS# 80-05-7) in substrate laminate material as impurity - not intentionally added.

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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