



Device Material Content

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

Package Code:

FTN256

Assembly: ASEM
Size (mm): 17 x 17

Lead pitch (mm): 1.0

MSL: 3

Reflow max (°C): 260

Package: 256 ftBGA (option 2)
Total Device Weight 1.234 Grams

Products:

FE3

April, 2018

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	1.22%	0.0151	1.22%	0.0151	Silicon chip	7440-21-3	100.00%	Die size: 4.64 x 5.16 mm
Mold Compound	37.10%	0.4578	2.60%	0.0320	Epoxy Resin	-	7.00%	Mold Compound: Sumitomo G750SE (ULA)
			1.86%	0.0229	Phenol Novolac	9003-35-4	5.00%	
			1.86%	0.0229	Metal Hydroxide	-	5.00%	
			0.19%	0.0023	Carbon Black	1333-86-4	0.50%	
			30.61%	0.3777	Silica Fused	60676-86-0	82.50%	
D/A Epoxy	0.17%	0.0021	0.14%	0.00168	Silver	7440-22-4	80.00%	Die attach epoxy: Henkel (Ablebond) 2100A
			0.03%	0.00042	Esters & resins	-	20.00%	
Wire	0.33%	0.0041	0.33%	0.0040	Copper	7440-50-8	98.50%	0.8 mil diameter; 1 wire per solder ball
			0.00%	0.0001	Palladium	7440-05-3	1.50%	
Solder Balls	20.18%	0.2490	19.47%	0.2403	Tin (Sn)	7440-31-5	96.50%	SAC305
			0.61%	0.0075	Silver (Ag)	7440-22-4	3.00%	
			0.10%	0.0012	Copper (Cu)	7440-50-8	0.50%	
Substrate	41.00%	0.5059	24.19%	0.2985	Laminate*	-	59.00%	BT Resin CCL-HL832NX-A
			5.81%	0.0717	Solder mask PSR4000 AUS 308	-	14.17%	
			9.02%	0.1113	Copper	7440-50-8	22.00%	
			1.66%	0.0205	Nickel plating	7440-02-0	4.05%	
			0.32%	0.0039	Gold plating	7440-57-5	0.78%	

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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PCN#05A-17

Rev. M



Device Material Content

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

Package Code:

FTN256

Assembly: ASET
Size (mm): 17 x 17

Lead pitch (mm): 1.0

MSL: 3

Reflow max (°C): 260

Package: 256 ftBGA (option 2)
Total Device Weight 1.234 Grams

Products:

FE3

April, 2018

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	1.22%	0.0151	1.22%	0.0151	Silicon chip	7440-21-3	100.00%	Die size: 4.64 x 5.16 mm
Mold Compound	37.10%	0.4578	2.23%	0.0275	Epoxy Resin	-	6.00%	Mold Compound: Kyocera KE-G2250 series (ULA)
			1.86%	0.0229	Phenol Resin	-	5.00%	
			0.07%	0.0009	Carbon Black	1333-86-4	0.20%	
			31.61%	0.3901	Silica	60676-86-0	85.20%	
			1.34%	0.0165	Others	-	3.60%	
D/A Epoxy	0.17%	0.0021	0.14%	0.00168	Silver	7440-22-4	80.00%	Die attach epoxy: Henkel (Ablebond) 2100A
			0.03%	0.00042	Esters & resins	-	20.00%	
Wire	0.33%	0.0041	0.33%	0.0040	Copper	7440-50-8	98.50%	0.8 mil diameter; 1 wire per solder ball
			0.00%	0.0001	Palladium	7440-05-3	1.50%	
Solder Balls	20.18%	0.2490	19.88%	0.2453	Tin (Sn)	7440-31-5	98.50%	SAC105
			0.20%	0.0025	Silver (Ag)	7440-22-4	1.00%	
			0.10%	0.0012	Copper (Cu)	7440-50-8	0.50%	
Substrate	41.00%	0.5059	24.19%	0.2985	Laminate*	-	59.00%	BT Resin CCL-HL832NX-A
			5.81%	0.0717	Solder mask PSR4000 AUS 308	-	14.17%	
			9.02%	0.1113	Copper	7440-50-8	22.00%	
			1.66%	0.0205	Nickel plating	7440-02-0	4.05%	
			0.32%	0.0039	Gold plating	7440-57-5	0.78%	

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

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Device Material Content

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Package Code:

FTN256

Assembly: ATP

Size (mm): 17 x 17

Lead pitch (mm): 1.0

MSL: 3

Reflow max (°C): 260

Package: 256 ftBGA (option 2)
Total Device Weight 1.234 Grams

Products:

FE3

April, 2018

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	1.22%	0.0151	1.22%	0.0151	Silicon chip	7440-21-3	100.00%	Die size: 4.64 x 5.16 mm
Mold Compound	37.10%	0.4578	2.60%	0.0320	Solid Epoxy Resin	-	7.00%	Mold Compound: Hitachi GE-110LS-V (ULA)
			1.86%	0.0229	Phenol Resin	-	5.00%	
			31.54%	0.3891	Silica	60676-86-0	85.00%	
			0.93%	0.0114	Metal Hydroxide	-	2.50%	
			0.19%	0.0023	Carbon Black	1333-86-4	0.50%	
D/A Epoxy	0.17%	0.0021	0.14%	0.00168	Silver	7440-22-4	80.00%	Die attach epoxy: Henkel (Ablebond) 2300
			0.03%	0.00042	Esters & resins	-	20.00%	
Wire	0.33%	0.0041	0.33%	0.0040	Copper	7440-50-8	98.50%	0.8 mil diameter; 1 wire per solder ball
			0.00%	0.0001	Palladium	7440-05-3	1.50%	
Solder Balls	20.18%	0.2490	19.27%	0.2378	Tin (Sn)	7440-31-5	95.50%	SAC405
			0.81%	0.0100	Silver (Ag)	7440-22-4	4.00%	
			0.10%	0.0012	Copper (Cu)	7440-50-8	0.50%	
Substrate	41.00%	0.5059	24.19%	0.2985	Laminate*	-	59.00%	BT Resin CCL-HL832NX-A
			5.81%	0.0717	Solder mask PSR4000 AUS 308	-	14.17%	
			9.02%	0.1113	Copper	7440-50-8	22.00%	
			1.66%	0.0205	Nickel plating	7440-02-0	4.05%	
			0.32%	0.0039	Gold plating	7440-57-5	0.78%	

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Rev. M