



## Device Material Content

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

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**Package:** 400 caBGA  
**Total Device Weight** 0.763 Grams

**Package Code:**

BG400

**Products:**

XO3D

Assembly: ATK  
Size (mm): 17 x 17

Lead pitch (mm): 0.8

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>	2.79%	0.0213			Silicon chip	7440-21-3	100.00%	Die size: 5.23 x 6.26 x 0.279 mm
<b>Mold Compound</b>	50.60%	0.3863	1.52%	0.01159	Epoxy Resin A	-	3.00%	Mold Compound: Sumitomo EME G770SFE
			1.52%	0.01159	Epoxy Resin B	-	3.00%	
			1.52%	0.01159	Phenol Resin	-	3.00%	
			36.69%	0.28007	Silica, vitreous	60676-86-0	72.50%	
			7.59%	0.05795	Silicon dioxide	7631-86-9	15.00%	
			1.52%	0.01159	Aluminium and its compounds	-	3.00%	
			0.25%	0.00193	Carbon Black	1333-86-4	0.50%	
<b>D/A Epoxy</b>	0.47%	0.0036	0.40%	0.00305	Silver	7440-22-4	85.00%	Die attach epoxy: Henkel QMI-529HT
			0.05%	0.00036	Isobornyl Methacrylate	7534-94-3	10.00%	
			0.02%	0.00018	Bismaleimide Resin	-	5.00%	
<b>Wire</b>	0.40%	0.0031	0.39%	0.00296	Copper (Cu)	7440-50-8	97.05%	Au coated PCC, 0.02mm dia
			0.01%	0.00009	Palladium (Pd)	7440-05-3	2.80%	
			0.00%	0.000005	Gold (Au)	7440-57-5	0.15%	
<b>Solder Balls</b>	18.51%	0.1413	17.86%	0.1364	Tin (Sn)	7440-31-5	96.50%	MKE SAC305
			0.56%	0.00424	Silver (Ag)	7440-22-4	3.00%	
			0.09%	0.00071	Copper (Cu)	7440-50-8	0.50%	
<b>Substrate</b>	15.14%	0.1156	4.16%	0.0318	BT Resins	-	27.50%	BT Resin CCL-HL832NX-A* 2 layer
			4.16%	0.0318	Inorganic filler	21645-51-2	27.50%	
			6.81%	0.0520	Glass fiber	65997-17-3	45.00%	
<b>Solder mask</b>	2.60%	0.0198	1.96%	0.01499	Resin	-	75.50%	Solder mask PSR4000 AUS 320
			0.01%	0.00004	Phthalocyanine blue	147-14-8	0.20%	
			0.01%	0.00004	Organic pigment	-	0.20%	
			0.01%	0.00010	Silica	-	0.50%	
			0.54%	0.00413	Barium sulfate	7727-43-7	20.80%	
			0.05%	0.00042	Talc	14807-96-6	2.10%	
			0.02%	0.00014	Antifoamer and Leveling agent	-	0.70%	
<b>Foil</b>	9.49%	0.0725	8.69%	0.0663	Copper	7440-50-8	91.51%	
			0.66%	0.0050	Nickel plating	7440-02-0	6.90%	
			0.14%	0.0011	Gold plating	7440-57-5	1.52%	

**Notes:** \* 0.15% 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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