# Device Material Content

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

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**Package:** 256 ftBGA
**Total Device Weight** 854.2 mg

**Package Code:** FTG256
**Products:** XO3D

Assembly: ASEK
Size (mm): 17 x 17
Lead pitch (mm): 1.0
MSL: 3
Reflow max (°C): 260

| | % of Total Pkg. Wt. | Weight (mg) | % of Total Pkg. Wt. | Weight (mg) | Substance | CAS # | % of Subst. | Notes / Assumptions: |
|---|---|---|---|---|---|---|---|---|
| **Die** | 1.215% | 10.379 | | | | | | Die size: 3.95 x 5.55 mm |
| | | | 1.215% | 10.3793 | Silicon chip | 7440-21-3 | 100.00% | |
| **Mold Compound** | 64.069% | 547.259 | | | | | | Kyocera KE-G1250AHT |
| | | | 48.391% | 413.3376 | Aluminum oxide | 1344-28-1 | 75.53% | |
| | | | 6.452% | 55.1117 | Silica(Fused)(1) | 60676-86-0 | 10.07% | |
| | | | 3.549% | 30.3114 | Silica(Fused)(2) | 7631-86-9 | 5.54% | |
| | | | 3.549% | 30.3114 | Epoxy resin | TRADE SECRET | 5.54% | |
| | | | 1.936% | 16.5335 | Phenol resin | TRADE SECRET | 3.02% | |
| | | | 0.194% | 1.6534 | Carbon Black | 1333-86-4 | 0.30% | |
| **D/A Epoxy** | 0.44% | 3.7425 | | | | | | Henkel (Ablebond) 2100A |
| | | | 0.377% | 3.22195 | Silver (Ag) | 7440-22-4 | 86.09% | |
| | | | 0.026% | 0.22151 | 2,2-dimethyl-1,3 Propanediyl Bismethacrylate | 1985-51-9 | 5.92% | |
| | | | 0.026% | 0.22151 | A mixture of: 4-allyl-2,6-bis(2,3-epoxypropyl)phenol | Trade Secret | 5.92% | |
| | | | 0.008% | 0.07048 | 2-[[2,2 bis[[(1-oxoally)oxy]methyl]butoxy]methyl]-2-ethyl-1.3-propanediyl diacrylate | 94108-97-1 | 1.88% | |
| | | | 0.001% | 0.00705 | bis(4-tert-butylcyclohexyl) peroxydicarbonate | 15520-11-3 | 0.19% | |
| **Wire** | 0.26% | 2.2290 | | | | | | 0.8 mil diameter; 1 wire per solder ball |
| | | | 0.26% | 2.1905 | Copper | 7440-50-8 | 98.28% | NMC EX1P+_CuPdAu+ |
| | | | 0.004% | 0.0345 | Palladium | 2023568 | 1.55% | |
| | | | 0.0005% | 0.0039 | Gold | 7440-57-5 | 0.18% | |
| **Solder Balls** | 11.49% | 98.1608 | | | | | | 96.45SN/3.0AG/0.5CU/0.05NI_0.5MM |
| | | | 11.08% | 94.6761 | Tin | 7440-31-5 | 96.45% | PMT |
| | | | 0.34% | 2.9448 | Silver | 7440-22-4 | 3.00% | |
| | | | 0.06% | 0.4908 | Copper | 7440-50-8 | 0.50% | |
| | | | 0.01% | 0.0491 | Nickel | 7440-02-0 | 0.05% | |
| **Substrate** | 22.52% | 192.40 | | | | | | CCL-HL832NX (Type A) |
| | | | 0.28% | 2.4214 | Barium Sulfate | 7727-43-7 | 1.26% | PSR-800 AUS SR1 |
| | | | 0.09% | 0.8071 | Silica | 7631-86-9 | 0.42% | |
| | | | 0.03% | 0.2421 | Talc | 14807-96-6 | 0.13% | |
| | | | 0.51% | 4.3586 | Epoxy Resin | 85954-11-6 | 2.27% | |
| | | | 0.03% | 0.2421 | Phosphinoxide derivative | Trade secret | 0.13% | |
| | | | 4.47% | 38.1480 | Continuous Filament Fiber Glass | 65997-17-3 | 19.83% | |
| | | | 7.31% | 62.4240 | Bismaleimide Triazine , Epoxy Resin | 105391-33-1<br>25722-66-1<br>9003-36-5 | 32.45% | |
| | | | 1.76% | 15.0280 | Inorganic filler | 21645-51-2 | 7.81% | |
| | | | 2.72% | 23.2155 | Copper | 7440-50-8 | 12.07% | |
| | | | 4.76% | 40.6272 | Copper | 7440-50-8 | 21.12% | |
| | | | 0.48% | 4.0851 | Nickel | 7440-02-0 | 2.12% | |
| | | | 0.09% | 0.7973 | Gold | 7440-57-5 | 0.41% | |
| | 100.00% | 854.167 | 100.000% | 854.167 | | | | |

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Br/Cl/Sb
Pb lead-free
RoHS

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