



Device Material Content

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November, 2020

Package: 64 ucBGA
Total Device Weight 0.03 Grams

Package Code:

UMN64

Products:

LC4kZE

Assembly: ASEM

Size (mm): 4 x 4

Lead pitch (mm): 0.4

MSL: 3

Reflow max (°C): 260

| | % of Total Pkg. Wt. | Weight (g) | % of Total Pkg. Wt. | Weight (g) | Substance | CAS # | % of Subst. | Notes / Assumptions: |
|----------------------|---------------------|------------|---------------------|------------|--------------------------------|-------------|-------------|---|
| Die | 7.09% | 0.0021 | 7.09% | 0.0021 | Silicon chip | 7440-21-3 | 100.00% | Die size: 1.7 x 1.91 mm |
| Mold Compound | 47.43% | 0.0142 | 3.32% | 0.0010 | Epoxy Resin | - | 7.00% | Mold Compound: Sumitomo G750SE |
| | | | 2.37% | 0.0007 | Phenol Novolac | 9003-35-4 | 5.00% | |
| | | | 2.37% | 0.0007 | Metal Hydroxide | - | 5.00% | |
| | | | 0.24% | 0.0001 | Carbon Black | 1333-86-4 | 0.50% | |
| | | | 39.13% | 0.0117 | Silica Fused | 60676-86-0 | 82.50% | |
| D/A Epoxy | 1.14% | 0.0003 | 0.92% | 0.00027 | Silver | 7440-22-4 | 80.00% | Die attach epoxy: Henkel (Ablebond) 2100A |
| | | | 0.23% | 0.00007 | Esters & resins | - | 20.00% | |
| Wire | 1.85% | 0.0006 | 1.82% | 0.00055 | Copper | 7440-50-8 | 98.50% | 0.8 mil diameter; 1 wire per solder ball |
| | | | 0.03% | 0.00001 | Palladium | 7440-05-3 | 1.50% | |
| Solder Balls | 12.99% | 0.0039 | 12.54% | 0.00376 | Tin (Sn) | 7440-31-5 | 96.50% | SAC305 |
| | | | 0.39% | 0.00012 | Silver (Ag) | 7440-22-4 | 3.00% | |
| | | | 0.06% | 0.00002 | Copper (Cu) | 7440-50-8 | 0.50% | |
| Substrate | 17.39% | 0.0052 | 5.57% | 0.0017 | BT Resins | - | 32.00% | BT Resin CCL-HL832NX-A |
| | | | 11.83% | 0.0035 | Glass fiber | 65997-17-3 | 68.00% | |
| Foil | 7.91% | 0.0024 | 6.49% | 0.0019 | Copper | 7440-50-8 | 82.00% | |
| | | | 1.19% | 0.0004 | Nickel plating | 7440-02-0 | 15.10% | |
| | | | 0.23% | 0.0001 | Gold plating | 7440-57-5 | 2.91% | |
| Solder Mask | 4.18% | 0.0013 | 2.35% | 0.00070 | Quartz | 14808-60-7 | 56.20% | Solder mask PSR4000 AUS 308 |
| | | | 0.67% | 0.00020 | 3-methoxy-3-methylbutylacetate | 103429-90-9 | 16.00% | |
| | | | 0.92% | 0.00028 | Barium Sulfate | 7727-43-7 | 22.00% | |
| | | | 0.13% | 0.00004 | Talc | 14807-96-6 | 3.00% | |
| | | | 0.02% | 0.000006 | Naphthalene | 91-20-3 | 0.50% | |
| | | | 0.10% | 0.00003 | Trade secret ingredients | - | 2.30% | |
| | | | | | | | | |

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