

## Environmental Management and Materials Information

**Part Number:** DS2502X1-00B-00  
**Package Type:** Flip Chip  
**Lead-Free Qualified:** No

| Wafer Size           | Device Structure         | Die Size (mil <sup>2</sup> ) | Die Size (cm <sup>2</sup> ) | UBM Size (□m)              | Bump Area (cm <sup>2</sup> ) | No. of Bumps                |
|----------------------|--------------------------|------------------------------|-----------------------------|----------------------------|------------------------------|-----------------------------|
| 200mm                | High-lead flip chip      | 2470                         | 0.01590                     | 425 x 672                  | 0.002860                     | 2                           |
| BCB No. of Layers    | BCB Final Thickness (□m) | BCB Density (gm/cc)          | BCB Weight (grams)          | RDL Ti Weight (gram)       | RDL Al Weight (gram)         | UBM Cr Weight (gram)        |
| 1                    | 5                        | 0.95                         | 0.000007569                 | 0                          | 0                            | 0                           |
| UBM Ti Weight (gram) | UBM W Weight (gram)      | UBM Ni Weight (gram)         | UBM Cu Weight (gram)        | Ball/Bump Pb Weight (gram) | Ball/Bump Sn Weight (gram)   | Silicon Chip Weight (grams) |
| 0.0000001030         | 0.00000400               | 0.000001500                  | 0.000002600                 | 0.0003390                  | 0.000011500                  | 0.001602                    |

| Net Weights - Total Product 0.001968272 grams |               |               |               |              |
|-----------------------------------------------|---------------|---------------|---------------|--------------|
| CAS#'s                                        | 7440-32-6     | 7429-90-5     | 7758-97-6     | 7440-33-7    |
| BCB                                           | Titanium (Ti) | Alumimum (Al) | Chromium (Cr) | Tungsten (W) |
| 0.000007569                                   | 0.0000001030  | 0             | 0             | 0.00000400   |
| 7440-02-0                                     | 7440-50-8     | 7439-92-1     | 7440-31-5     | 7440-21-3    |
| Nickel (Ni)                                   | Copper (Cu)   | Lead (Pb)     | Tin (Sn)      | Silicon (Si) |
| 0.000001500                                   | 0.000002600   | 0.0003390     | 0.000011500   | 0.001602     |

| Weight in Percent - Total Product 100% |               |               |               |              |
|----------------------------------------|---------------|---------------|---------------|--------------|
| CAS#'s                                 | 7440-32-6     | 7429-90-5     | 7758-97-6     | 7440-33-7    |
| BCB                                    | Titanium (Ti) | Alumimum (Al) | Chromium (Cr) | Tungsten (W) |
| 0.38%                                  | 0.01%         | 0.00%         | 0.00%         | 0.20%        |
| 7440-02-0                              | 7440-50-8     | 7439-92-1     | 7440-31-5     | 7440-21-3    |
| Nickel (Ni)                            | Copper (Cu)   | Lead (Pb)     | Tin (Sn)      | Silicon (Si) |
| 0.08%                                  | 0.13%         | 17.22%        | 0.58%         | 81.39%       |

### Definitions

BCB—Benzocyclobutene

UBM—Under-Bump Metal

RDL—Redistribution Layer