



## ALLIANCE MEMORY MDS REPORT

| Part Number: |               | AS4C64M4SA-7TCN/AS4C64M4SA-6TIN |                   |                            |              |                |                 |                       |         |
|--------------|---------------|---------------------------------|-------------------|----------------------------|--------------|----------------|-----------------|-----------------------|---------|
| Part Weight: |               | 562.368mg                       |                   |                            |              |                |                 |                       |         |
| No.          | Part Name     | Material Name                   | Component wt (mg) | Material Content (Element) | CAS Number   | Element wt (%) | Element wt (mg) | wt % of Total unit wt | PPM     |
| 1            | Lead Frame    | Alloy 42                        | 142.8874          | Carbon                     | 7440-44-0    | 0.05%          | 0.0714          | 0.01%                 | 500     |
|              |               |                                 |                   | Silicon                    | 7440-21-3    | 0.30%          | 0.4287          | 0.08%                 | 3000    |
|              |               |                                 |                   | Manganese                  | 7439-96-5    | 0.80%          | 1.1431          | 0.20%                 | 8000    |
|              |               |                                 |                   | Nickel                     | 7440-02-0    | 41.70%         | 59.5841         | 10.60%                | 417000  |
|              |               |                                 |                   | Chromium                   | 7440-47-3    | 0.10%          | 0.1429          | 0.03%                 | 1000    |
|              |               |                                 |                   | Cobalt                     | 7440-48-4    | 0.50%          | 0.7144          | 0.13%                 | 5000    |
|              |               |                                 |                   | Aluminium                  | 7429-90-5    | 0.10%          | 0.1429          | 0.03%                 | 1000    |
|              |               |                                 |                   | Iron                       | 7439-89-6    | 54.45%         | 77.8022         | 13.83%                | 544500  |
|              |               |                                 |                   | Silver                     | 7440-22-4    | 2.00%          | 2.8577          | 0.51%                 | 20000   |
| 2            | Mold compound | CEL-9200HF                      | 413.07            | Epoxy resin                | Trade Secret | 4.00%          | 16.5229         | 2.94%                 | 40000   |
|              |               |                                 |                   | Hardener                   | Trade secret | 4.00%          | 16.5229         | 2.94%                 | 40000   |
|              |               |                                 |                   | Carbon Black               | 1333-86-4    | 0.20%          | 0.8261          | 0.15%                 | 2000    |
|              |               |                                 |                   | Amorphous silica           | 60676-86-0   | 88.50%         | 365.5683        | 65.01%                | 885000  |
|              |               |                                 |                   | Crystalline silica         | 14808-60-7   | 3.30%          | 13.6314         | 2.42%                 | 33000   |
| 3            | Epoxy         | EN-4900GC                       | 0.2192            | Acrylic resin              | Trade secret | 9.50%          | 0.0208          | 0.00%                 | 95000   |
|              |               |                                 |                   | Polybutadiene derivative   | Trade secret | 5.00%          | 0.0110          | 0.00%                 | 50000   |
|              |               |                                 |                   | Butadiene copolymer        | Trade secret | 1.50%          | 0.0033          | 0.00%                 | 15000   |
|              |               |                                 |                   | Epoxy resin                | Trade secret | 2.00%          | 0.0044          | 0.00%                 | 20000   |
|              |               |                                 |                   | Acrylate                   | Trade secret | 5.00%          | 0.0110          | 0.00%                 | 50000   |
|              |               |                                 |                   | Peroxide                   | Trade secret | 0.50%          | 0.0011          | 0.00%                 | 5000    |
|              |               |                                 |                   | Additive                   | Trade secret | 1.30%          | 0.0028          | 0.00%                 | 13000   |
|              |               |                                 |                   | Silver                     | 7440-22-4    | 75.20%         | 0.1648          | 0.03%                 | 752000  |
|              |               |                                 |                   | Tin                        | 7440-31-5    | 99.99%         | 1.7344          | 0.31%                 | 999900  |
| 4            | Plating       | Sn                              | 1.7346            | Other                      | Trade secret | 0.01%          | 0.0002          | 0.00%                 | 100     |
| 5            | Gold wire     | Au                              | 0.8079            | Gold                       | 7440-57-5    | 99.99%         | 0.8078          | 0.14%                 | 999900  |
|              |               |                                 |                   | Others                     | Trade Secret | 0.01%          | 0.0001          | 0.00%                 | 100     |
| 6            | Die           | Chip                            | 3.6474            | Silicon                    | 7440-21-3    | 100.00%        | 3.6474          | 0.65%                 | 1000000 |
| 562.368      |               |                                 |                   | 600.00%                    |              | 562.3680       | 100.00%         |                       | 6000000 |

Alliance Memory Inc. 511 Taylor Way, San Carlos, CA 94070 TEL: (650) 610-6800 FAX: (650) 620-9211  
Alliance Memory Inc. reserves the right to change products or specification without notice