



# Apex Microtechnology Materials Substance Report

**Model:** VRE306AS

**Print Time:** 9/19/2013 10:08:45 AM

**RoHS Compliant:** Yes

**Lead Free:** No

|                                  |                         |
|----------------------------------|-------------------------|
| <b>Bonding Island Substances</b> | <b>Total Weight (g)</b> |
| NONE                             | N/A                     |
| <b>Capacitor Substances</b>      | <b>Total Weight (g)</b> |
| NONE                             | N/A                     |
| <b>Die Substances</b>            | <b>Total Weight (g)</b> |
| Aluminum                         | 6.73E-6                 |
| Epoxy                            | 5.18E-5                 |
| Gold                             | 4.34E-6                 |
| Silicon                          | 1.84E-3                 |
| Silver                           | 1.46E-4                 |
| <b>Encapsulant Substances</b>    | <b>Total Weight (g)</b> |
| NONE                             | N/A                     |
| <b>Frame Substances</b>          | <b>Total Weight (g)</b> |
| NONE                             | N/A                     |
| <b>Header Substances</b>         | <b>Total Weight (g)</b> |
| NONE                             | N/A                     |
| <b>Lead Frame Substances</b>     | <b>Total Weight (g)</b> |
| NONE                             | N/A                     |
| <b>Lid Substances</b>            | <b>Total Weight (g)</b> |
| Alumina                          | 2.42E-1                 |
| Calcium Oxide                    | 1.30E-3                 |
| Iron Oxide                       | 2.70E-3                 |
| Manganese Oxide                  | 5.40E-3                 |
| Silica                           | 8.10E-3                 |
| Titanium Oxide                   | 9.40E-3                 |



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### Pin Substances

|             | <b>Total Weight (g)</b> |
|-------------|-------------------------|
| Copper      | 1.34E-1                 |
| Lead        | 3.52E-5                 |
| Phosphorous | 2.80E-4                 |
| Silver      | 2.16E-4                 |
| Tin         | 1.76E-2                 |
| Zinc        | 2.16E-4                 |

### Silicone Substances

|                            | <b>Total Weight (g)</b> |
|----------------------------|-------------------------|
| Epoxy                      | 3.60E-2                 |
| Magnesium Silicate Hydrous | 1.80E-2                 |
| Silica                     | 1.80E-2                 |

### Solder Substances

|      | <b>Total Weight (g)</b> |
|------|-------------------------|
| NONE | N/A                     |

### Substrate Substances

|                 | <b>Total Weight (g)</b> |
|-----------------|-------------------------|
| Alumina         | 2.18E-1                 |
| Calcium Oxide   | 1.20E-3                 |
| Iron Oxide      | 2.40E-3                 |
| Manganese Oxide | 4.90E-3                 |
| Silica          | 7.30E-3                 |
| Titanium Oxide  | 8.50E-3                 |

### Thickfilm Substances

|               | <b>Total Weight (g)</b> |
|---------------|-------------------------|
| Cadmium Oxide | 2.15E-5                 |
| Glass         | 2.69E-3                 |
| Gold          | 6.69E-4                 |
| Lead Oxide    | 5.29E-5                 |
| Silver        | 5.64E-3                 |

### Wire Substances

|      | <b>Total Weight (g)</b> |
|------|-------------------------|
| Gold | 1.36E-4                 |



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## Substances Present in This Model

| Substance                  | Total Weight (g) |
|----------------------------|------------------|
| Alumina                    | 4.60E-1          |
| Aluminum                   | 6.73E-6          |
| Cadmium Oxide              | 2.15E-5          |
| Calcium Oxide              | 2.50E-3          |
| Copper                     | 1.34E-1          |
| Epoxy                      | 3.61E-2          |
| Glass                      | 2.69E-3          |
| Gold                       | 8.10E-4          |
| Iron Oxide                 | 5.10E-3          |
| Lead                       | 3.52E-5          |
| Lead Oxide                 | 5.29E-5          |
| Magnesium Silicate Hydrous | 1.80E-2          |
| Manganese Oxide            | 1.03E-2          |
| Phosphorous                | 2.80E-4          |
| Silica                     | 3.34E-2          |
| Silicon                    | 1.84E-3          |
| Silver                     | 6.00E-3          |
| Tin                        | 1.76E-2          |
| Titanium Oxide             | 1.79E-2          |
| Zinc                       | 2.16E-4          |

**Sum of All Substances Present in This Model (g)** 7.47E-1