



# Apex Microtechnology Materials Substance Report

**Model:** VRE104MA

**Print Time:** 9/19/2013 9:58:59 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	4.21E-6
Epoxy	6.07E-5
Gold	3.89E-6
Silica	9.20E-5
Silicon	2.07E-3
Silver	1.31E-4
Tantalum Nitride	1.98E-7
<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>
Alumina	1.68E+0
Aluminum	2.14E-4
Carbon	7.15E-6
Chromium	3.60E-4
Cobalt	9.51E-2
Gold	1.96E-2
Iron	3.74E-1
Manganese	2.80E-3
Nickel	2.33E-1
Phosphorous	3.57E-5
Silica	1.14E-3
Sulfur	3.57E-5
<b>Lead Frame Substances</b>	<b>Total Weight (g)</b>



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NONE

N/A

**Lid Substances**

**Total Weight (g)**

Cobalt

6.78E-2

Iron

2.13E-1

Manganese

1.20E-3

Nickel

1.30E-1

Phosphorous

1.20E-3

Silicon

7.97E-4

**Pin Substances**

**Total Weight (g)**

NONE

N/A

**Silicone Substances**

**Total Weight (g)**

Alumina

1.30E-2

Thermoplastic Resin

5.50E-3

**Solder Substances**

**Total Weight (g)**

NONE

N/A

**Substrate Substances**

**Total Weight (g)**

Alumina

2.48E-1

Calcium Oxide

5.20E-4

Iron Oxide

2.60E-4

Manganese Oxide

2.10E-3

Silica

7.20E-3

**Thickfilm Substances**

**Total Weight (g)**

Cadmium Oxide

4.37E-6

Glass

1.41E-3

Gold

7.11E-4

Lead Oxide

2.80E-5

**Wire Substances**

**Total Weight (g)**

Aluminum

7.87E-5



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## Substances Present in This Model

Substance	Total Weight (g)
Alumina	1.94E+0
Aluminum	2.97E-4
Cadmium Oxide	4.37E-6
Calcium Oxide	5.20E-4
Carbon	7.15E-6
Chromium	3.60E-4
Cobalt	1.63E-1
Epoxy	6.07E-5
Glass	1.41E-3
Gold	2.03E-2
Iron	5.87E-1
Iron Oxide	2.60E-4
Lead Oxide	2.80E-5
Manganese	4.00E-3
Manganese Oxide	2.10E-3
Nickel	3.63E-1
Phosphorous	1.24E-3
Silica	8.43E-3
Silicon	2.86E-3
Silver	1.31E-4
Sulfur	3.57E-5
Tantalum Nitride	1.98E-7
Thermoplastic Resin	5.50E-3

**Sum of All Substances Present in This Model (g)** 3.10E+0