



Apex Microtechnology

Materials Substance Report

Model: VRE3050BS

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RoHS Compliant: Yes

Lead Free: No

Bonding Island Substances	Total Weight (g)
NONE	N/A
Capacitor Substances	Total Weight (g)
NONE	N/A
Die Substances	Total Weight (g)
Aluminum	7.02E-6
Epoxy	5.31E-5
Gold	4.96E-6
Silicon	1.90E-3
Silver	1.66E-4
Encapsulant Substances	Total Weight (g)
NONE	N/A
Frame Substances	Total Weight (g)
NONE	N/A
Header Substances	Total Weight (g)
NONE	N/A
Lead Frame Substances	Total Weight (g)
NONE	N/A
Lid Substances	Total Weight (g)
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

	Total Weight (g)
Aluminum	9.60E-5
Carbon	3.20E-5
Chromium	3.20E-5
Cobalt	6.38E-4
Iron	3.52E-2
Manganese	5.12E-4
Nickel	2.80E-2
Phosphorous	1.60E-5
Silicon	1.91E-4
Silver	9.60E-4
Sulfur	1.60E-5
Tin	2.53E-2

Silicone Substances

	Total Weight (g)
Epoxy	3.60E-2
Magnesium Silicate Hydrous	1.80E-2
Silica	1.80E-2

Solder Substances

	Total Weight (g)
NONE	N/A

Substrate Substances

	Total Weight (g)
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

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



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Wire Substances

Gold

Total Weight (g)

1.49E-4

Substances Present in This Model

Substance	Total Weight (g)
Alumina	4.60E-1
Aluminum	1.03E-4
Cadmium Oxide	2.15E-5
Calcium Oxide	2.50E-3
Carbon	3.20E-5
Chromium	3.20E-5
Cobalt	6.38E-4
Epoxy	3.61E-2
Glass	2.69E-3
Gold	8.23E-4
Iron	3.52E-2
Iron Oxide	5.10E-3
Lead Oxide	5.29E-5
Magnesium Silicate Hydrous	1.80E-2
Manganese	5.12E-4
Manganese Oxide	1.03E-2
Nickel	2.80E-2
Phosphorous	1.60E-5
Silica	3.34E-2
Silicon	2.09E-3
Silver	6.77E-3
Sulfur	1.60E-5
Tin	2.53E-2
Titanium Oxide	1.79E-2

Sum of All Substances Present in This Model (g) 6.86E-1