



Apex Microtechnology Materials Substance Report

Model: SA12

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RoHS Compliant: Yes

Lead Free: No

Bonding Island Substances	Total Weight (g)
Aluminum	8.22E-3
Copper	6.11E-2

Capacitor Substances	Total Weight (g)
Barium Titanate	2.24E-1
Bismuth Titanate	1.31E-2
Calcium Zirconate	1.31E-2
Manganese Oxide	1.31E-2
Nickel	2.61E-3
Palladium	2.47E-3
Silica	1.31E-2
Silver	4.69E-2
Tin	6.52E-4

Die Substances	Total Weight (g)
Aluminum	3.59E-4
Chromium	6.31E-5
Epoxy	1.99E-4
Gold	1.45E-4
Nickel	2.44E-4
Silicon	1.09E-1
Silicon Nitride	1.78E-8
Silver	4.52E-3
Tin	3.88E-2
Titanium	2.69E-6

Encapsulant Substances	Total Weight (g)
NONE	N/A

Frame Substances	Total Weight (g)
NONE	N/A



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Header Substances

	Total Weight (g)
Aluminum	5.19E-3
Barium Oxide	1.80E-1
Carbon	3.65E-2
Chromium	5.19E-3
Cobalt	2.60E-2
Iron	3.62E+1
Manganese	1.70E-1
Nickel	2.62E+0
Phosphorous	1.50E-2
Silica	1.91E-1
Silicon	1.56E-2
Sulfur	2.00E-2

Lead Frame Substances

	Total Weight (g)
NONE	N/A

Lid Substances

	Total Weight (g)
Carbon	1.49E-2
Copper	2.48E-2
Iron	3.98E-2
Manganese	3.48E-2
Nickel	9.88E+0
Silicon	3.48E-2
Sulfur	9.94E-4

Pin Substances

	Total Weight (g)
NONE	N/A

Silicone Substances

	Total Weight (g)
NONE	N/A

Solder Substances

	Total Weight (g)
Silver	2.19E-2
Tin	6.05E-1



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Substrate Substances

Beryllium Oxide

Total Weight (g)

2.67E+0

Thickfilm Substances

Cadmium Oxide

Glass

Gold

Lead Oxide

Silver

Total Weight (g)

3.61E-4

5.37E-2

1.13E-2

9.93E-4

9.52E-2

Wire Substances

Aluminum

Total Weight (g)

3.39E-3



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Substances Present in This Model

Substance	Total Weight (g)
Aluminum	1.72E-2
Barium Oxide	1.80E-1
Barium Titanate	2.24E-1
Beryllium Oxide	2.67E+0
Bismuth Titanate	1.31E-2
Cadmium Oxide	3.61E-4
Calcium Zirconate	1.31E-2
Carbon	5.14E-2
Chromium	5.25E-3
Cobalt	2.60E-2
Copper	8.59E-2
Epoxy	1.99E-4
Glass	5.37E-2
Gold	1.14E-2
Iron	3.62E+1
Lead Oxide	9.93E-4
Manganese	2.05E-1
Manganese Oxide	1.31E-2
Nickel	1.25E+1
Palladium	2.47E-3
Phosphorous	1.50E-2
Silica	2.04E-1
Silicon	1.60E-1
Silicon Nitride	1.78E-8
Silver	1.69E-1
Sulfur	2.10E-2
Tin	6.44E-1
Titanium	2.69E-6

Sum of All Substances Present in This Model (g) 5.35E+1