



Apex Microtechnology Materials Substance Report

Model: PA19

Print Time: 9/19/2013 9:17:10 AM

RoHS Compliant: Yes

Lead Free: No

Bonding Island Substances

Total Weight (g)

NONE

N/A

Capacitor Substances

Total Weight (g)

Barium Titanate

3.74E-2

Bismuth Titanate

2.20E-3

Calcium Zirconate

2.20E-3

Manganese Oxide

2.20E-3

Nickel

4.40E-4

Palladium

4.13E-4

Silica

2.20E-3

Silver

7.84E-3

Tin

1.10E-4

Die Substances

Total Weight (g)

Aluminum

8.34E-5

Chromium

1.01E-5

Epoxy

3.69E-4

Gold

7.37E-5

Nickel

1.29E-3

Silicon

1.71E-2

Silver

5.53E-3

Tin

1.03E-3

Titanium

1.01E-5

Encapsulant Substances

Total Weight (g)

NONE

N/A

Frame Substances

Total Weight (g)

NONE

N/A



Apex Microtechnology Materials Substance Report

Model: PA19

Print Time: 9/19/2013 9:17:10 AM

Header Substances

	Total Weight (g)
Aluminum	8.65E-4
Barium Oxide	1.26E-1
Carbon	1.10E-2
Chromium	8.65E-4
Cobalt	8.65E-4
Iron	1.09E+1
Manganese	4.85E-2
Nickel	4.38E-1
Phosphorous	4.46E-3
Silica	1.34E-1
Silicon	2.60E-3
Sulfur	5.28E-3

Lead Frame Substances

	Total Weight (g)
NONE	N/A

Lid Substances

	Total Weight (g)
Nickel	1.86E+0

Pin Substances

	Total Weight (g)
NONE	N/A

Silicone Substances

	Total Weight (g)
NONE	N/A

Solder Substances

	Total Weight (g)
Silver	3.57E-3
Tin	9.84E-2

Substrate Substances

	Total Weight (g)
Beryllium Oxide	8.00E-1



Apex Microtechnology Materials Substance Report

Model: PA19

Print Time: 9/19/2013 9:17:10 AM

Thickfilm Substances

Cadmium Oxide
Glass
Gold
Lead Oxide
Silver

Total Weight (g)

1.07E-4
1.59E-2
3.35E-3
2.75E-4
2.82E-2

Wire Substances

Aluminum

Total Weight (g)

4.59E-4



Apex Microtechnology Materials Substance Report

Model: PA19

Print Time: 9/19/2013 9:17:10 AM

Substances Present in This Model

Substance	Total Weight (g)
Aluminum	1.41E-3
Barium Oxide	1.26E-1
Barium Titanate	3.74E-2
Beryllium Oxide	8.00E-1
Bismuth Titanate	2.20E-3
Cadmium Oxide	1.07E-4
Calcium Zirconate	2.20E-3
Carbon	1.10E-2
Chromium	8.75E-4
Cobalt	8.65E-4
Epoxy	3.69E-4
Glass	1.59E-2
Gold	3.42E-3
Iron	1.09E+1
Lead Oxide	2.75E-4
Manganese	4.85E-2
Manganese Oxide	2.20E-3
Nickel	2.30E+0
Palladium	4.13E-4
Phosphorous	4.46E-3
Silica	1.36E-1
Silicon	1.97E-2
Silver	4.51E-2
Sulfur	5.28E-3
Tin	9.96E-2
Titanium	1.01E-5
Sum of All Substances Present in This Model (g)	1.46E+1