



Apex Microtechnology Materials Substance Report

Model: PA83

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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	8.80E-5

Die Substances	Total Weight (g)
Aluminum	2.50E-5
Epoxy	6.75E-5
Gold	3.02E-5
Silicon	5.38E-3
Silicon Nitride	4.44E-9
Silver	1.16E-3
Tin	1.48E-3

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	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



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Thickfilm Substances

Cadmium Oxide
Glass
Gold
Lead Oxide
Silver

Total Weight (g)

1.07E-4
7.93E-3
3.35E-3
2.06E-4
2.82E-2

Wire Substances

Aluminum

Total Weight (g)

1.28E-4



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Substances Present in This Model

Substance	Total Weight (g)
Aluminum	1.02E-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	8.65E-4
Cobalt	8.65E-4
Epoxy	6.75E-5
Glass	7.93E-3
Gold	3.38E-3
Iron	1.09E+1
Lead Oxide	2.06E-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	7.98E-3
Silicon Nitride	4.44E-9
Silver	4.08E-2
Sulfur	5.28E-3
Tin	1.00E-1

Sum of All Substances Present in This Model (g) 1.45E+1