Apex Microtechnology
Materials Substance Report

Model: PA50 **Print Time:** 9/19/2013 9:18:47 AM

RoHS Compliant: Yes **Lead Free:** No

Bonding Island Substances	Total Weight (g)
Aluminum	4.69E-3
Copper	3.05E-2

Capacitor Substances	Total Weight (g)
Barium Titanate	7.34E-2
Bismuth Titanate	4.32E-3
Calcium Zirconate	4.32E-3
Manganese Oxide	4.32E-3
Nickel	8.64E-4
Palladium	8.10E-4
Silica	4.32E-3
Silver	1.54E-2
Tin	2.16E-4

Die Substances	Total Weight (g)
Aluminum	4.88E-4
Chromium	1.23E-4
Epoxy	1.06E-4
Gold	7.38E-5
Nickel	4.84E-4
Silicon	1.68E-1
Silver	4.36E-3
Tin	6.36E-2
Titanium	1.21E-5

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	Total Weight (g)
Beryllium Oxide	2.67E+0

Thickfilm Substances	Total Weight (g)
Cadmium Oxide	3.61E-4
Glass	5.31E-2
Gold	1.13E-2
Lead Oxide	7.12E-4
Silver	9.52E-2

Wire Substances	Total Weight (g)
Aluminum	3.28E-3

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Substances Present in This Model

Substance	Total Weight (g)
Aluminum	1.36E-2
Barium Oxide	1.80E-1
Barium Titanate	7.34E-2
Beryllium Oxide	2.67E+0
Bismuth Titanate	4.32E-3
Cadmium Oxide	3.61E-4
Calcium Zirconate	4.32E-3
Carbon	5.14E-2
Chromium	5.31E-3
Cobalt	2.60E-2
Copper	5.53E-2
Epoxy	1.06E-4
Glass	5.31E-2
Gold	1.14E-2
Iron	3.62E+1
Lead Oxide	7.12E-4
Manganese	2.05E-1
Manganese Oxide	4.32E-3
Nickel	1.25E+1
Palladium	8.10E-4
Phosphorous	1.50E-2
Silica	1.95E-1
Silicon	2.18E-1
Silver	1.37E-1
Sulfur	2.10E-2
Tin	6.69E-1
Titanium	1.21E-5

Sum of All Substances Present in This Model (g) 5.34E+1