



# Apex Microtechnology Materials Substance Report

**Model:** PA05

**Print Time:** 9/19/2013 9:07:56 AM

**RoHS Compliant:** Yes

**Lead Free:** No

### **Bonding Island Substances**

	<b>Total Weight (g)</b>
Aluminum	9.40E-4
Copper	3.74E-3

### **Capacitor Substances**

	<b>Total Weight (g)</b>
Barium Titanate	1.50E-2
Bismuth Titanate	8.80E-4
Calcium Zirconate	8.80E-4
Manganese Oxide	8.80E-4
Nickel	1.76E-4
Palladium	1.65E-4
Silica	8.80E-4
Silver	3.13E-3
Tin	4.40E-5

### **Die Substances**

	<b>Total Weight (g)</b>
Aluminum	2.71E-4
Chromium	6.13E-5
Epoxy	1.07E-4
Gold	6.63E-5
Nickel	2.43E-4
Silicon	8.94E-2
Silver	3.10E-3
Tin	3.45E-2
Titanium	6.20E-7

### **Encapsulant Substances**

	<b>Total Weight (g)</b>
NONE	N/A

### **Frame Substances**

	<b>Total Weight (g)</b>
NONE	N/A



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### Header Substances

	<b>Total Weight (g)</b>
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

	<b>Total Weight (g)</b>
NONE	N/A

### Lid Substances

	<b>Total Weight (g)</b>
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

	<b>Total Weight (g)</b>
NONE	N/A

### Silicone Substances

	<b>Total Weight (g)</b>
NONE	N/A

### Solder Substances

	<b>Total Weight (g)</b>
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

5.31E-2

1.13E-2

7.12E-4

9.52E-2

**Wire Substances**

Aluminum

**Total Weight (g)**

1.99E-3



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## Substances Present in This Model

Substance	Total Weight (g)
Aluminum	8.39E-3
Barium Oxide	1.80E-1
Barium Titanate	1.50E-2
Beryllium Oxide	2.67E+0
Bismuth Titanate	8.80E-4
Cadmium Oxide	3.61E-4
Calcium Zirconate	8.80E-4
Carbon	5.14E-2
Chromium	5.25E-3
Cobalt	2.60E-2
Copper	2.86E-2
Epoxy	1.07E-4
Glass	5.31E-2
Gold	1.14E-2
Iron	3.62E+1
Lead Oxide	7.12E-4
Manganese	2.05E-1
Manganese Oxide	8.80E-4
Nickel	1.25E+1
Palladium	1.65E-4
Phosphorous	1.50E-2
Silica	1.92E-1
Silicon	1.40E-1
Silver	1.23E-1
Sulfur	2.10E-2
Tin	6.40E-1
Titanium	6.20E-7

**Sum of All Substances Present in This Model (g)** 5.31E+1