
Description: Global and China Automotive PCB Industry Report, 2014-2015 highlights the followings:

1. Global and China's automobile market and industry
2. Downstream market of automotive PCB
3. Automotive PCB Industry and Market
4. 19 Automotive PCB companies

Global automotive PCB market size was around USD4.96 billion in 2014, and is expected to grow by 6.5% to USD5.28 billion in 2015, compared with an overall global PCB market scale of roughly USD59.6 billion in 2014 and an estimated growth of 0.8% in 2015. Automotive PCB is the fastest-growing field in PCB industry, and will sustain the momentum until at least 2019.

In automotive PCB field, powertrain holds the largest proportion, about 32% for the time being, including mainly Engine Control Unit, Starter, Alternator, Transmission Control, Fuel Injection, and Power Steering. For xEV, complexity, high voltage, high current and high temperature of Inverter and Converter pose extremely high requirements on PCB. Powertrain seize over 50%, followed by Body with about 25% (primarily Lighting, HVAC, Power Door & Seat, Keyless, and TPMS). LED lighting, which enjoys a high share, is highly demanding on PCB, usually adopting MCPCB (Metal Core PCB). Thirdly, Safety systems, consisting mainly of ADAS, ABS, and Airbag, make up about 22%. The last is Cockpit systems, mainly covering Instrument Display and Infotainment.

Automotive PCB has exceedingly high requirement on reliability, creating the biggest threshold. Recall system in automobile industry requires makers to take risks of faulty products. As small makers cannot afford this, they are usually ruled out. Challenges for automotive PCB include reliability, high temperature, high frequency, and high current.

PCBs in automotive engine and gearbox need to withstand high temperature above 150?, so ceramic substrates must be used, for ceramic multi-layer substrate contains mainly alumina (Al2O3) and aluminum nitride (AlN). High temperature co-fired ceramic (HTCC) PCB is usually sintered at temperature of over 1600?, and the conductor is high-melting point tungsten or molybdenum, which can be sintered together at the same time. Japanese Murata puts forward low temperature co-fired ceramic (LTCC), which finds few applications. Ceramic substrates are mostly supplied by Japanese KYOCERA and U.S. Rogers. PCBs used by European and U.S. carmakers are largely provided by German Schweizer, Duwel, and Wurth, and U.S. TTM. Japanese carmakers are mainly served by CMK and Meiko.

Automotive safety systems, especially ABS, generally adopt MCPCB (Metal Core PCB). Automotive ADAS needs to use a large quantity of radar which finds shipment of 19 million sets in 2014 and is expected to reach 96 million sets in 2020. In this case, high-frequency PCB will be employed. The PCB usually needs PTFE ceramic and can only be done by the companies (mainly from U.S. Europe and Japan) that are very experienced in RF. xEV is developing rapidly, especially after the outbreak of scandal over VW cheating pollution emissions tests.

Supply of cockpit PCBs are almost taken on by Taiwanese companies. HDI may be needed, as Infotainment becomes more complicated and the size of screen larger. Moreover, the number of automotive displays used also increases, like BMW 7 series using up to 7 displays for each vehicle. All these factors fuel a robust market.

Contents:
1 Global and Chinese Automobile Market
1.1 Global Automotive Market
1.2 Overview of Chinese Automotive Market
1.3 Recent Developments of Chinese Automotive Market

2 Downstream Market of Automotive PCB
2.1 ECU
2.2 Automotive Display
2.3 Automotive Infotainment
2.4 Automotive ADAS
2.5 Automotive Radar

3 Automotive PCB Industry and Market
3.1 Overview of PCB Industry
3.2 Overview of China's PCB Industry
3.3 Automotive PCB Market Size
3.4 Engine and Powertrain PCB
3.5 Metal Core PCB (MCPCB)
3.6 High Frequency PCB
3.7 Heavy Copper PCB
3.8 Electronic Systems in xEV
3.9 Ranking of Automotive PCB Companies

4 Automotive PCB Companies
4.1 CMK
4.2 TTM
4.3 Viasystems
4.4 Chin Poon Industrial
4.5 Schweizer
4.6 NOK
4.6.1 MEKTEC (Zhuhai)
4.6.2 MEKTEC (Suzhou)
4.7 Kingboard Chemical
4.7.1 Elec & Eltek
4.7.2 Techwise Circuits
4.7.3 Express Electronics
4.8 Liang Dar Technology
4.9 Kyoden
4.10 Shirai
4.11 Unitech Printed Circuit Board
4.12 Guangdong Ellington Electronics Technology
4.13 WUS Printed Circuit
4.14 KCE
4.15 ELNA
4.16 Tripod Technology
4.17 3CEMS
4.18 AT&S
4.19 Meiko

Selected Charts

Global Automobile Sales Volume, 2010-2015
Global Light Vehicle Output by Region, 2003-2015
China's Automobile Sales Volume, 2005-2015
YoY Growth in Annual Automobile Output in China, 2005-2014
Automotive ECU Market Size, 2013-2018E
Automotive ECU Shipments, 2014-2019E
Market Share of Automotive ECU Suppliers, 2015
Automotive Display Shipments Breakdown by Application, 2015-2019E
Global Infotainment Shipments, 2013-2020E
Structure Diagram of ADAS
Development History of ADAS
Output Value of Global PCB Industry, 2001-2016E
Geographic Migration of PCB Production, 2013&2014&2019E
Global PCB Industry Income by Headquarters of Companies, 2012-2015
Chinese Top 26 PCB Companies, 2013-2014
Production Value of Chinese PCB Companies by Layer, 2013-2014
Revenue and Margin of Profit Attributable to Equity Shareholders of Kingboard Chemical, 2002-2015
Revenue of Kingboard Chemical by Business, 2008-2015
Organizational Structure of Elec & Eltek
Revenue and Operating Margin of Elec & Eltek, 2005-2015
Balance Sheet of Elec & Eltek, 2010-2014
Revenue of Elec & Eltek by Region, 2006-2014
Revenue of Elec & Eltek by Application, 2014
Revenue of Elec & Eltek by Layer, 2006-2013
Capacity of Elec & Eltek's Factories
Technical Capacity of Elec & Eltek
Revenue of Express Electronics' Dongguan Factory, 2009-2013
Revenue of Express Electronics'Suzhou Factory, 2009-2013
Organizational Structure of Liang Dar
Revenue and Operating Profit of Kyoden, FY2011-FY2016
Total Assets of Kyoden, FY2011-FY2015
Capital and R&D of Kyoden, FY2011-FY2015
Revenue of Kyoden by Region, FY2012-FY2016
Revenue and Operating Profit of Shirai, FY2011-FY2016
Revenue of Shirai by Technology, FY2011-FY2015
Revenue of Shirai by Application, FY2011-FY2015
Revenue and Gross Margin of Unitech Printed Circuit Board, 2006-2014
Revenue and Operating Margin of Unitech Printed Circuit Board, 2009-2015
Monthly Revenue and Growth Rate of Unitech Printed Circuit Board, Aug 2013-Aug 2015
Technology Roadmap for Rigid PCB
Technology Roadmap for Flexible PCB
Financial Data of Shanghai Unitech Electronics, 2010&2013
Equity Structure of Guangdong Ellington Electronics Technology
Revenue of Guangdong Ellington Electronics Technology by Layer, 2009-2014
Revenue of Guangdong Ellington Electronics Technology by Application, 2009-2013
Revenue of Guangdong Ellington Electronics Technology by Region, 2009-2013
Revenue Structure of WUS Printed Circuit by Customer, 2007-2012
Revenue and Operating Profit of WUS Printed Circuit, 2007-2014
Revenue of WUS Printed Circuit by Layer, 2010-2013
Revenue of WUS Printed Circuit by Application, 2007-2015
Gross Margin of WUS Printed Circuit by Application, 2012-2015
Main Customers of WUS Printed Circuit, 2013
Shareholder Structure of KCE
Production of KCE by Layer, 2011-2014
Sales of KCE by Region, 2011-2014
Quarterly Sales and GP Margin of KCE, 2012Q1-2015Q2Q
Sales of KCE by Application, 2015Q2
Capacity Expansion of KCE, 2014-2017E
Revenue and Operating Profit of ELNA, 2008-2015
Revenue of ELNA by Business, 2012-2015
Revenue of ELNA by Region, 2013-2014
Revenue and Gross Margin of Tripod Technology, 2006-2015
Revenue and Operating Margin of Tripod Technology, 2009-2015
Revenue of Tripod Technology by Application, 2013
Revenue of Tripod Technology by Layer, 2013
Capacity of Tripod Technology, 2006-2011
Financial Data of Tripod Technology's Subsidiaries in Mainland China, 2013
Financial Data of Tripod Technology's Subsidiaries in Mainland China, 2014
EBITDA Margin of AT&S, FY2005-FY2016
Chongqing Substrate Plant Ramp of AT&S
Revenue of AT&S by Business/Region, FY2014
Revenue of AT&S by Business/Region, FY2015
Revenue of AT&S by Business/Region, FY2016Q1
Quarterly Revenue of AT&S' Mobile Devices & Substrates Business, 2014Q2-2015Q2
Main Customers of AT&S' Mobile Devices & Substrates Business
Quarterly Revenue of AT&S' Industrial & Automotive Business, 2014Q2-2015Q2
Main Customers of AT&S' Industrial & Automotive Business
AT&S' Employees, 2010-2015
CAPEX of AT&S, 2011-2015
Revenue and Operating Margin of Meiko Electronics, FY2006-FY2016
Operating Margin of Meiko Electronics, FY2014
Revenue and Operating Margin of Meiko Electronics' Subsidiaries in Mainland China, FY2009-FY2014
Revenue and Operating Margin of Meiko Electronics' Subsidiaries in Mainland China, FY2015
Revenue of Meiko Electronics by Application, FY2013-FY2015
Revenue of Meiko Electronics by Layer, FY2010-FY2015

Ordering:
Order Online - http://www.researchandmarkets.com/reports/3449217/
Order by Fax - using the form below
Order by Post - print the order form below and send to
Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit
http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct and select the format(s) you require.

- **Product Name:** Global and Chinese Automotive PCB Industry Report, 2014-2015
- **Web Address:** [http://www.researchandmarkets.com/reports/3449217/](http://www.researchandmarkets.com/reports/3449217/)
- **Office Code:** SCH3FUZF

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Format</th>
<th>Single User Price</th>
<th>Enterprisewide Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF) - Single User</td>
<td>USD 2400</td>
<td>USD 3700</td>
</tr>
<tr>
<td>Hard Copy</td>
<td>USD 2600 + USD 58 Shipping/Handling</td>
<td></td>
</tr>
</tbody>
</table>

* Shipping/Handling is only charged once per order.

Contact Information
Please enter all the information below in **BLOCK CAPITALS**

- **Title:** 
  - Mr
  - Mrs
  - Dr
  - Miss
  - Ms
  - Prof

- **First Name:** ____________________________
- **Last Name:** ____________________________
- **Email Address:** *
- **Job Title:** ____________________________
- **Organisation:** ____________________________
- **Address:** ____________________________
- **City:** ____________________________
- **Postal / Zip Code:** ____________________________
- **Country:** ____________________________
- **Phone Number:** ____________________________
- **Fax Number:** ____________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:

Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:

<table>
<thead>
<tr>
<th>Account number</th>
<th>833 130 83</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sort code</td>
<td>98-53-30</td>
</tr>
<tr>
<td>Swift code</td>
<td>ULSBIE2D</td>
</tr>
<tr>
<td>IBAN number</td>
<td>IE78ULSB98533083313083</td>
</tr>
<tr>
<td>Bank Address</td>
<td>Ulster Bank, 27-35 Main Street, Blackrock, Co. Dublin, Ireland</td>
</tr>
</tbody>
</table>

If you have a Marketing Code please enter it below:

Marketing Code: ________________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:

(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World