

Global and China FPCB Industry Report, 2015

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STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

REPORT OBJECTIVES

- To establish a comprehensive, factual, annually updated and costeffective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- ◆ To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- ◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- ◆ To help company to succeed in a competitive market, and

METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications.

Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

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Abstract

Global and China FPCB Industry Report, 2015 covers the following contents:

- 1. Overview of FPCB
- 2. Downstream markets of FPCB
- 3. FPCB industry
- 4. 31 companies in FPCB industry chain

Global FPCB market size was up to USD12.952 billion in 2014 (up 14.4% from a year ago), grew by 3.4% YoY to about USD13.386 billion in 2015, and is expected to arrive at USD13.68 billion in 2016 at a slower annual growth rate of 2.2%, largely due to:

- > Depressed downstream markets: mobile phone market took a downturn with shipment growth of smartphone below 5%; shipments of tablet PC contracted significantly; shipments of laptop computer remained flat; shipments of HDD dropped markedly;
- > A sharp depreciation of the Japanese yen;
- > Decline in prices of upstream raw materials caused by deflation.

There is still growth space for FPCB. First, electronics now pursue for ultra-thinness, and FPCB is the best solution, as it is only 1/10 of the thickness of RPCB and makes 3D wiring a reality. Line width will be smaller than 40nm, so the unit price of FPCB is expected to rise. Second, the surface of more and more FPCB is mounted with SMD devices, which is also conducive to a rise in the unit price of FPCB.

FPCB makes up about 10% of automotive PCB market in 2015, about USD528 million, and is expected to reach 16% in 2019 or around USD1.123 billion. Automotive switches (wiper, lighting, turn signal, cruise control) and information center display, head up display, and instrument cluster all need FPCB. Moreover, as the automotive display becomes increasingly larger, the demand for FPCB will swell up.

For cell voltage monitoring in xEV field, the larger the number of cell is, the more FPCB will be needed. For transmission control units in automotive Powertrain field, the more the gears are, the larger the area of FPCB will be. For automotive lighting, except for LED head-lamp which may not need FPCB, others like daytime running light, turn signal indicator, parking lights, signature lighting, and rear lights all need FPCB. In addition, the automotive LED lighting market has been growing at a rapid pace.

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A large amount of FPCB is needed for automotive sensors, such as the ones for camera module, pressure sensors for air conditioning systems, pressure sensors for brake systems and transmissions, keyless entry sensor, and electronic door handle. As ADAS becomes more universal, the number of sensors will explode, causing an exponential growth in the demand for FPCB.

From the perspective of the industry, Japanese and Taiwanese vendors achieve powerful competitiveness via currency depreciation. And not only that, Japanese companies also enjoy cutting-edge technologies, while Taiwanese players win more and more orders by relying on their good relationship with Apple. By contrast, the mainland Chinese companies and South Korean ones obviously lack competitiveness, as South Korean won doesn't depreciate as violent as Japanese yen. Automotive FPCB industry is virtually dominated by Japanese companies, and the thresholds are much higher.

Ranking of Major Global FPCB Vendors by Revenue, 2010-2015

| USD mln | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|-------------------|-------|-------|-------|--------|-------|------------|
| NOK | 2,071 | 2,314 | 3,064 | 2,630 | 3,446 | 3,570 |
| SEI | 700 | 927 | 1,222 | 1,268 | 1,470 | 1,502 |
| FUJIKURA | 777 | 601 | 288 | 412 | 687 | <i>736</i> |
| M-FLEX | 803 | 831 | 815 | 750 | 632 | 678 |
| ZDT | 274 | 528 | 658 | 978 | 1,566 | 2,008 |
| NITTODENKO | 496 | 513 | 518 | 528 | 710 | 502 |
| Interflex | 362 | 460 | 677 | 905 | 609 | 443 |
| CAREER | 321 | 394 | 475 | 456 | 531 | 509 |
| SI FLEX | 306 | 345 | 372 | 538 | 453 | 412 |
| FLEXIUM | 144 | 260 | 366 | 460 | 430 | 679 |
| ICHIA | 152 | 211 | 213 | 231 | 339 | 180 |
| Sumitomo Bakelite | 214 | 188 | HHIGH | IIIIa. | /UIII | |
| FLEXCOM | 134 | 155 | 219 | 516 | 257 | 268 |
| BHflex | 96 | 133 | 201 | 346 | 294 | 301 |
| Newflex | 60 | 54 | 102 | 123 | 133 | 107 |
| DaeduckGDS | 78 | 121 | 156 | 255 | 343 | 283 |
| Xiamen Hongxin | | 30 | 60 | 108 | 121 | 125 |
| MFS | 80 | 92 | 90 | 106 | 130 | |
| Kingwong | | 20 | 45 | 59 | 101 | 120 |

Source: Global and China FPCB Industry Report, 2015 by ResearchInChina

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