



**Global and China Advanced Rigid PCB
Industry Report, 2014-2015**

Jul. 2014

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 cost-effective 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.

Abstract

Global and China Rigid PCB Industry Report, 2014-2015 is primarily concerned about the followings:

1. Overview of global rigid PCB industry
2. Analysis of PCB downstream market
3. PCB development trend
4. Analysis of photoelectricity, laptop computer, auto and memory PCB industry
5. Ranking of PCB industry
6. 33 PCB Companies

PCB industry can be divided into three categories: rigid PCB, FPCB and substrate. And FPCB and substrate are the emerging industries, for there was only rigid PCB in the early stage. Despite the rapid growth in FPCB and substrate in recent years, rigid PCB has still occupied over 50% of the total industry. And quite a few rigid PCB vendors have gained profits that are not less than that of FPCB and substrate.

Top 37 Global Rigid PCB Vendors by Revenue, 2012-2014

		2012	2013	2014E	
TRIPOD	Taiwan	1,326	1,377	1,388	1,388
TTM	USA	1,349	1,368	1,398	1,398
Compeq	Taiwan	783	1,051	1,158	1,158
Viasystems	USA	967	1,008	1,028	1,028
Hannstar board	Taiwan	1,112	976	958	958
Unimicron	Taiwan	1,049	889	918	918
ZDT	Taiwan	908	871	850	850
Kingboard PCB	China HK	935	860	830	830
MEIKO	Japan	759	818	860	860
AT&S	Austria	698	780	838	838
CMK	Japan	908	See the report	See the report	See the report
SEMCO	South Korea	792	See the report	See the report	See the report
Chin Poon Industry	South Korea	595	See the report	See the report	See the report
WUS Group	Taiwan	644	See the report	See the report	See the report
T.P.T	Taiwan	722	See the report	See the report	See the report
MULTEK	USA	650	See the report	See the report	See the report
Gold Circuit Electronics	Taiwan	509	See the report	See the report	See the report
IBIDEN	Japan	455	See the report	See the report	See the report
Unitech PCB	Taiwan	433	See the report	See the report	See the report
ISU PETASYS	South Korea	390	See the report	See the report	See the report
HITACHI CHEMICAL	Japan	494	See the report	See the report	See the report
Shennan Circuits	China Mainland	345	See the report	See the report	See the report
Ellington	Mainland China	440	See the report	See the report	See the report
LG INNOTEK	South Korea	408	See the report	See the report	See the report
Founder Technology PCB	China Mainland	366	See the report	See the report	See the report
Dynamic Electronics	Taiwan	372	See the report	See the report	See the report
NANYA PCB	Taiwan	350	See the report	See the report	See the report
KYODEN	Japan	386	See the report	See the report	See the report
DAEDUCK GDS	South Korea	350	See the report	See the report	See the report
KYOCERA Circuit	Japan	412	See the report	See the report	See the report
REDBOARD	China HK	290	See the report	See the report	See the report
Wuzhou Group	China Mainland	270	See the report	See the report	See the report
DAP	South Korea	295	See the report	See the report	See the report
DAEDUCK ELECTRONICS	South Korea	280	See the report	See the report	See the report
Shirai Denshi	Japan	281	See the report	See the report	See the report
CCTC	China Mainland	286	See the report	See the report	See the report
Gul Technologies	Singapore	267	See the report	See the report	See the report

Unit: USD mln

In the future, large PCB vendors will concentrate on FPCB and substrate while maintain the status quo for rigid PCB. The major vendors to expand substrate include Unimicron, SEMCO, LG INNOTEK, AT&S, DAEDUCK, Shennan Circuit, SIMMTECH, and the companies, such as Zhen Ding Technology, Young Pong and DAEDUCK GDS will go to the field of FPCB. However, only Ibiden will be committed to development of rigid PCB. In addition, some large vendors go directly into EMS field, such as Tripod Technology and Hannstar Board, the largest laptop PCB giant. This would make the future demand and supply of traditional rigid PCB more balanced, but the high-end Any layer and HDI will be obviously in short supply.

In 2014, the accelerated recovery of rigid PCB industry arises out of another reason—the retreat of Japanese PCB companies.

In November 2013, Japan's Panasonic announced its decision to sharply reduce its PCB capacity globally, with 90% of its global capacity closed down by Q1 2015. In 2013, Panasonic's revenue from PCB business, mainly involved the R&D of ALIVH (Any Layer Interstitial Via Hole) applied in smartphones, was approximately USD310 million. In March 2013, Panasonic was reported to cut down its PCB capacity in Taiwan and Vietnam. In mid-March 2012, the company established a factory in Dayuan Township of Taoyuan County, a move that was designed to compete for HTC orders. In 2013, however, the shipments of HTC presented a sharp decline, thus resulting in fairly low capacity utilization, hence the determination to withdraw the market.

Still, the Japanese automobile PCB vendor CMK also followed suit and announced in January 2014 that it would shut down its PCB factory YAMANASHI SANKO on April 30, 2014. Meanwhile, it would suspend the production of mobile phone multilayer PCB ALIVH products. Currently, it is Austria's AT&S alone that uses ALIVH technology.

Japanese PCB also showed the tendency of mergers and acquisitions, with NEC-TOPPAN acquired by Kyocera in August 2013. In future, Fujitsu will also be very likely to sell its PCB business. And Daisho Denshi may merge with PCB business of Hitachi Chemical.

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