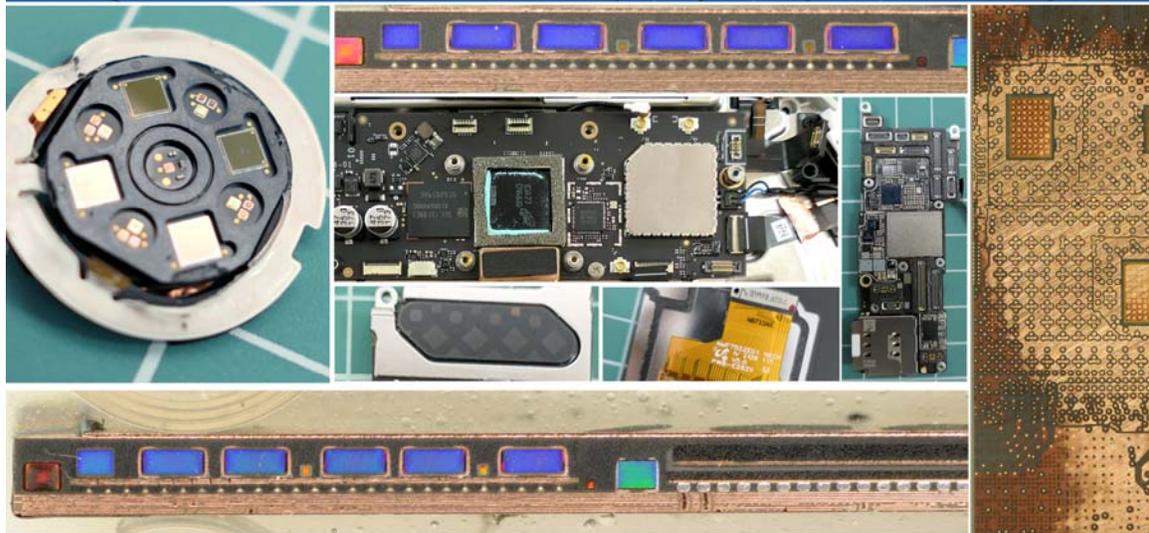


THE PRINTED CIRCUIT REPORT

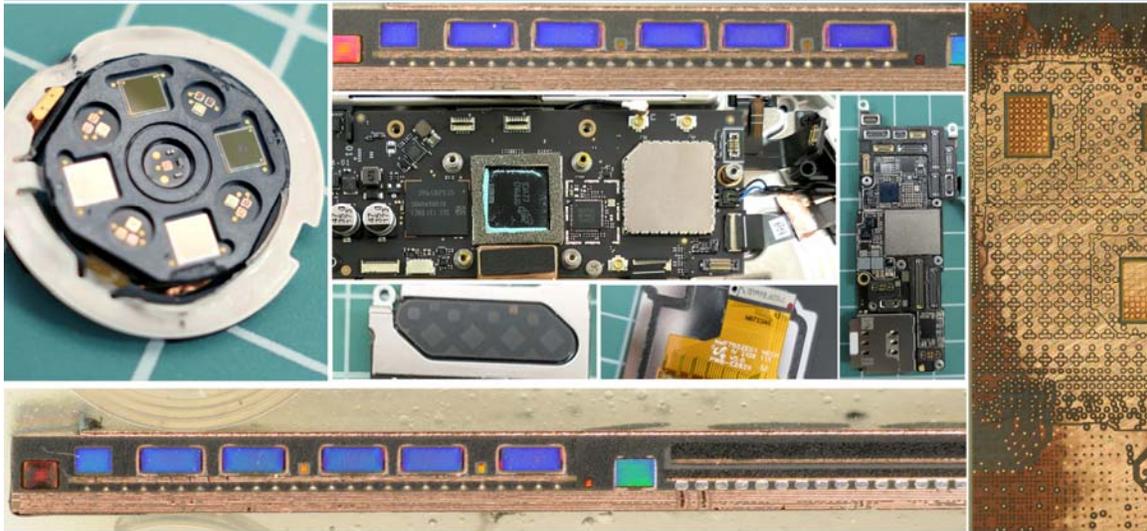
SECOND QUARTER • AUGUST 2022



- The forty leading PCB suppliers, which account for over one-half of industry sales, reported an aggregate revenue increase of 12.4% in Q2 2022 over Q1 2021. Compared to Q1 2022, aggregated Q2 2022 revenues declined 2.7%. 1H 2022 over 1H 2021 revenues increased 17.2%.
- Altogether, the PCB market is estimated to have reached \$20.7Bn in Q2 2022 – down 2.6% from Q1 2022, but up 9.9% from Q2 2021.
- Given the continuing macro-economic challenges, Prismark has reduced its forecast for the 2022 PCB market, with sales expected to grow by 1.5%, compared to the earlier forecast of 4.2%. While this is a very strong decline in growth compared to last year (24.1%), the current outlook is clouded, and in line with Prismark's expectations for electronics systems sales. The substrate market will continue to strongly outpace the overall PCB market (18.9% growth).
- PCB production in both Europe (-1.9%) and China (-1.2%) are expected to decline in 2022, while Asia (xJp/Cn) should show the strongest growth (6.3%) due to growth in package substrates and HDI.
- In this report:
 - An assessment of the geo-political backdrop (pandemic, inflation, Ukraine conflict) and their impact on the global economy, electronics industry, and PCB market.
 - Comprehensive data and analysis of the PCB market, showing forecast for 2022 and 2026 by PCB technology and region of production.
 - An analysis of the profitability of the 30 leading public PCB companies, and their capex activity.
 - A detailed discussion of developments in the flexible circuit market and technology.

THE PRINTED CIRCUIT REPORT

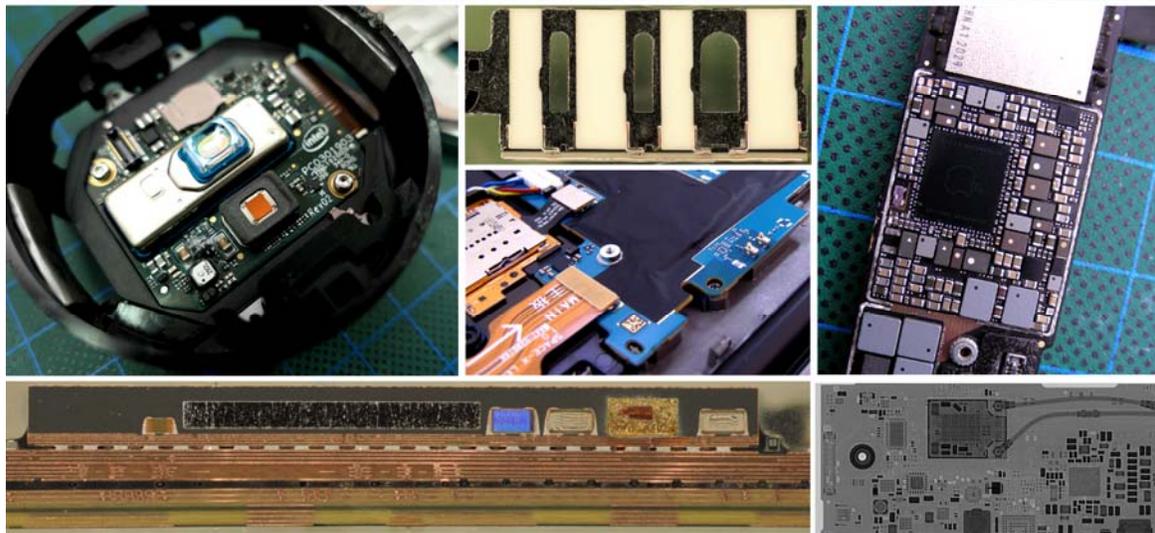
FIRST QUARTER • MAY 2022



- The forty leading PCB suppliers, which account for over one-half of industry sales, reported aggregate revenue increases of 21.3% in Q1 2022 over Q1 2021. Compared to Q4 2021, aggregated Q1 2022 revenues did show typical seasonality with a 12.1% decline.
- Altogether, the PCB market is estimated to have reached \$20.9Bn in Q1 2022 – down 7.9% from Q4 2021, but up 17.4% from Q1 2021.
- Prismark's revised forecast for 2022 calls for PCB sales to grow by 4.2%. This moderation in growth after last year's blistering 24.1% growth rate should not be surprising, and is in line with Prismark's expectations for electronics systems sales. The substrate market will continue to outpace the overall PCB market.
- All regions are expected to grow this year, with Japan and Asia (xJp/Cn) showing the strongest growth due to their over-weighted exposure to package substrates.
- In this report:
 - An assessment of the geo-political backdrop (pandemic, inflation, Ukraine conflict) and their impact on the global economy, electronics industry, and PCB market.
 - Comprehensive data and analysis of the PCB market, showing Prismark's final assessment for 2021, and a forecast for 2022 and 2026 by PCB technology and region of production.
 - Prismark's annual ranking of the 100 leading PCB companies based on their 2021 revenues, followed by a discussion of the regional breakdown of the PCB supply base.
 - An analysis of the profitability of the 30 leading public PCB companies, and their capex activity.
 - A detailed discussion of the major trends the multilayer PCB market.

THE PRINTED CIRCUIT REPORT

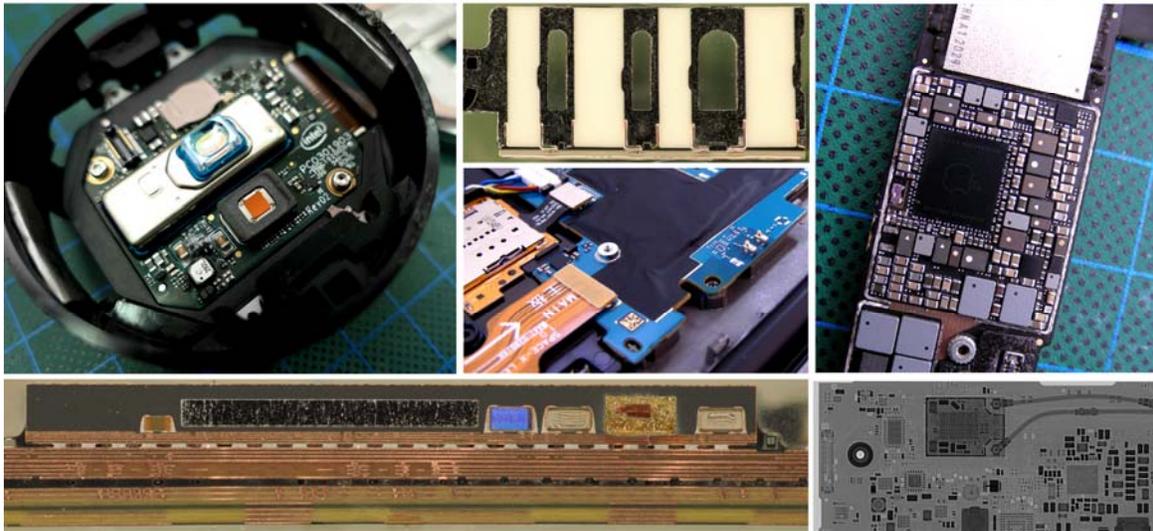
FOURTH QUARTER • FEBRUARY 2022



- The forty leading PCB suppliers, which account for over one-half of industry sales, reported aggregate revenue increases of 19% YoY in Q4 2021, and 24.4% for the year 2021.
- Altogether, the PCB market is estimated to have reached \$22.4Bn in Q4 2021 – a new quarterly production record for the industry.
- Prismark's revised accounting for 2021 shows growth of 23.4% in 2021, driven by the widespread economic recovery as the pandemic is controlled and pent-up consumer demand results in strong consumption. Europe, Japan, and China experienced the strongest growth overall, and among the PCB segments, package substrates and high-layercount multilayers were the leading growth drivers.
- All PCB segments and all regions performed unusually well in 2021.
- This report provides:
 - An update on the pandemic and its continuing impact on the global economy, electronics industry, and PCB market.
 - Comprehensive data and analysis of the PCB market, showing Prismark's estimate and forecast for 2021, 2022, and 2026 by PCB technology and region of production.
 - A detailed discussion of the major trends in the substrate market including various applications and different technologies.

THE PRINTED CIRCUIT REPORT

THIRD QUARTER • NOVEMBER 2021



- The forty leading PCB suppliers, which account for over one-half of industry sales, reported aggregate revenue increases of 28.5% YoY in Q3 2021, and 26.8% YoY for Q1-Q3 2021. Growth thus continues to be very strong in Q3 2021.
- Altogether, the PCB market is estimated to have reached \$21.6Bn in Q3 2021 – up from Q2 2021 (\$18.6Bn), and up from Q3 2020 (\$17Bn).
- Prismark's revised forecast calls for PCB sales to grow by 22.6% in 2021, driven by the widespread economic recovery as the pandemic is controlled and pent-up consumer demand results in strong consumption. Japan and China are expected to outperform the global industry this year, and among the PCB segments, package substrates, high-layercount multilayer, HDI are growing above-average.
- Unusually for the PCB industry, all PCB segments and all regions are expected to perform unusually well in 2021.
- In this report:
 - An update on the pandemic and its continuing impact on the global economy, electronics industry, and PCB market.
 - Comprehensive data and analysis of the PCB market, showing Prismark's forecast for 2021 and 2025 by PCB technology and region of production.
 - A detailed discussion of the major trends in the HDI market including various applications and different technologies.



*CONSULTANTS TO THE ELECTRONICS INDUSTRY
BUSINESS OPPORTUNITY FROM TECHNOLOGY AND
MARKET CHANGES*

PRISMARK PARTNERS LLC

This material is © Prismark Partners LLC

130 Main Street, Cold Spring Harbor, NY 11724 USA • Telephone: 631-367-9187 • Fax: 631-367-9223 • e-mail: partners@prismark.com

Prismark Asia, 8F., No. 96, Guangfu N. Road, Taipei 105, TAIWAN • Telephone: 886-2-25779697 • Fax: 886-2-25701230

Visit our website at **www.prismark.com**