

Global smartphone repair aftermarket: Moving to the next level



Market Overview

Smartphone repair market ripe for impressive growth

The booming smartphone market over the past decade has created a correspondingly thriving handset repair industry across most countries.

The rising popularity of expensive, but fragile, smartphones, with rising display sizes, has given the repair industry a huge boost since 2010.

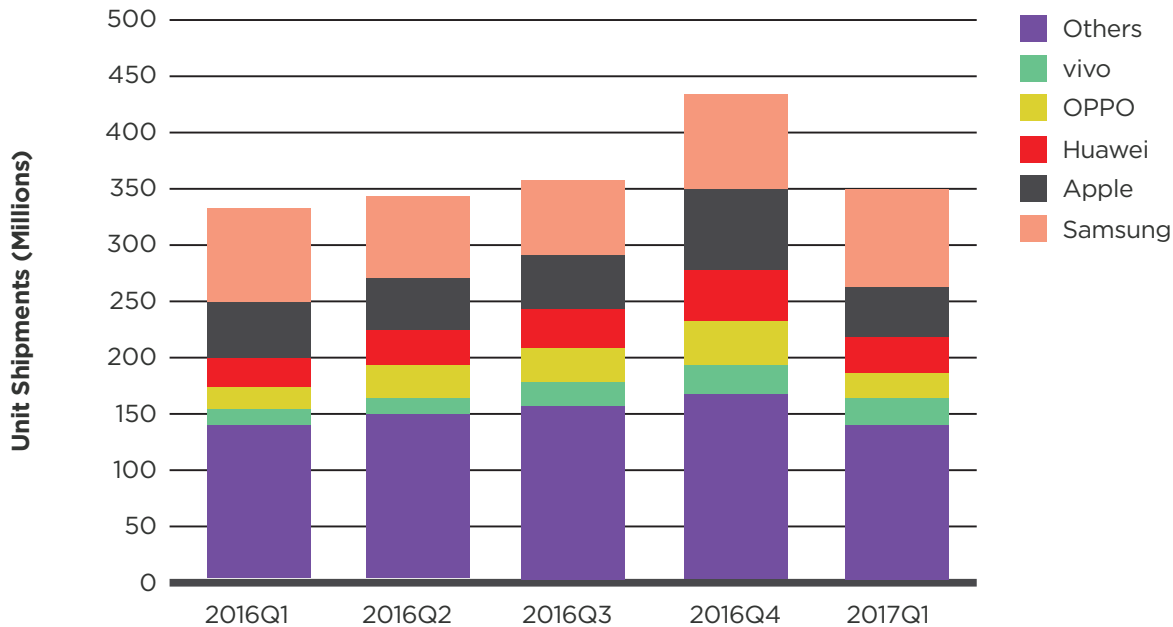
Approximately 25 per cent of iPhone users in the US have broken a screen at one time or another, according to Experimac, a smartphone repair franchise in the US that focuses on Apple products.

An estimated 80 per cent of the mobile phone screen aftermarket is now supplied by China makers, with OEMs providing the remainder. Driven by lower prices, acceptable quality and quick delivery, demand for Chinese LCDs has increased strongly over the past few years, and the OEMs are facing a significant slowdown.

While screen repair and replacement accounts for the majority of revenue in the sector (due to the high cost of displays and the fact that they are frequently cracked), the overall market is expanding and includes repair and replacement of batteries, buttons, headphone jacks, cameras and sensors.

Experimac forecasts revenue in the smartphone repair sector in the US to increase 5 per cent annually and reach about \$1.5 billion in a few years.

Top 5 Worldwide Smartphone Companies, 2017Q1



Source: IDC

iOS drives demand

Given the high price of most premium smartphones, it has become increasingly common for people to have their damaged devices repaired. In the second-hand market, particularly for iPhones which hold their value better than other vendors' handsets, owners can re-sell them at attractive prices after making any needed repairs.

The aftermarket for pre-owned Apple products is much larger than for other brands, mainly due to their generally higher prices.

Besides repair shops, more people are opting for low-cost do-it-yourself replacement kits which have become less complicated and much easier for the mechanically inclined to attempt.

The repair market isn't limited to mobile phones, as tablets and other smart devices take up a sizable share.

Some analysts predict that with advancing technology, prices will fall and encourage replacement rather than repair. But that is likely to be many years away.

According to Statista, the average selling price (ASP) of smartphones dropped 16 per cent between 2014 and 2017 to \$245. But the majority of that decline was due to a steady drop in the Android market as the ASP of iPhones held fairly steady over that period.

Android models account for more than 80 per cent of all shipments, with the ASP expected to fall from \$218 in 2016 and to below \$200 in 2019. But in mature markets like North America and Western Europe, the ASP can be as much as double the global figure, IDC said.

The average iPhone price in Q4 2016 was \$695 and was forecast to drop to \$675 this year. Morgan Stanley, however, predicted in April the iPhone ASP to rise to \$753 in 2018.

Still steady growth

The repair industry is of course dependent on a healthy smartphone market, both of shipments as well as the trade of second-hand models.

Global smartphone shipments rose 2.7 per cent year-on-year in 2016 to 1.47 billion units, according to IDC. Apple shipped 215 million iPhones last year – down 7 per cent from 2015 – giving it a nearly 15 per cent market share.

The overall outlook for the market has improved this year, with early signs of a long-awaited recovery. IDC analysts said the global smartphone market showed better-than-expected growth in Q1, with shipments increasing 4.3 per cent year-on-year to 347.4 million units. IDC previously forecast year-on-year growth of 3.6 per cent for the quarter.

The research firm noted shipments in Q1 bucked an apparent trend of slowing gains, following a “pivotal year” in 2016 when growth dipped to low single digits for the first time.

iPhone shipments edged up just under 1 per cent to nearly 52 million units in the opening quarter of 2017.

Despite slowing smartphone growth, Martin Tuo, CEO of Spider Technologies, a specialist in replacement screens, noted that global mobile phone ownership is very large, with many older models still in circulation. For example, sales of refurbished iPhone 5 models are still very good in many countries.

“The overall global market is still very good and very broad,” he said.

The global repair aftermarket, however, is facing some serious problems, most notably uneven product quality, particularly for replacement screens, which creates uncertainty among customers when they go to shops for repair, Tuo said.

“A lot of LCD screens aren’t perfect, which gives us a chance to attract customers looking for high quality.”

He said Spider Technologies is working with companies across the aftermarket supply chain to establish a common industry standard to support the healthy development of the industry.

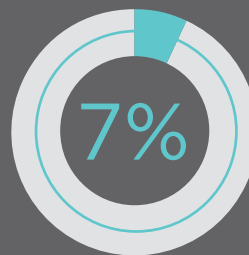
USED SMARTPHONES: the \$17 billion market you may never have heard of

Deloitte Global predicted that in 2016 consumers would sell outright or trade-in approximately

120 million
used smartphones generating more than
\$17 billion

\$140
average value
per device

This is a marked increase from the 80 million smartphones traded in 2015 with a value of \$11 billion



Deloitte predicted that used smartphones would represent about 7 per cent of total smartphone sales by units in 2016. Up from 5 per cent in 2015

Why would you sell a smartphone?



Trade-in value



Ease of doing so



Luster of owning latest model device



Second-hand trade

The return to growth in new shipments is obviously good news for the repair sector. But that's only part of the equation for the parts aftermarket.

The global second-hand smartphone market hasn't slowed to the same degree. That market is forecast to rise 22 per cent annually between 2015 and 2020, with shipments nearly tripling to 223 million units in 2020, according to an IDC report.

The North American second-hand mobile phone market is expected to reach 55.2 million units in 2020 compared with just 15.2 million in 2015.

The long-term prospects are even more attractive. The growth rate of the used smartphone market is forecast to be four- to five-times higher than the overall market, according to Deloitte. It expects the re-sale of smartphones to accelerate through 2020 as both consumers and suppliers increasingly embrace the practice of selling or acquiring second-hand smartphones.

Last year Deloitte predicted that consumers would sell or trade in about 120 million used smartphones generating more than \$17 billion for the owners, at an average value of \$140 per device. This is a 50 per cent increase from the 80 million smartphones traded in 2015, with a value

of \$11 billion, or an average value of \$135 per unit.

The company expected at least 10 per cent of premium smartphones (\$500 or higher) purchased new in 2016 would end up having three or more owners before being retired, and will still be used actively in 2020 or beyond. About half of the devices are expected to be traded in to manufacturers or operators in exchange for credit towards a new smartphone. The remainder will likely be sold online privately, to retail shops or to second-hand device specialists.

A longer product lifecycle, involving multiple owners, creates stronger demand for smartphone repair since it increases the chance of repairs being required.

Deloitte member firms' research in 20 markets found that as of mid-2015 approximately 12 per cent of all consumers sold their smartphones. Of these, two-thirds sold their smartphones outright, and a third traded them in with an operator or device manufacturer. In Singapore about a quarter of smartphones were traded in, which was the highest of the 20 countries surveyed.

With growth in smartphone shipments showing signs of recovery and the second-hand market already expanding rapidly, the global repair aftermarket is poised for healthy growth for the foreseeable future.

Executive Interview



Riding the global smartphone boom

Martin Tuo, CEO of Spider Technologies, a supplier of replacement smartphone screens, explains to *Mobile World Live* why he's not concerned about slowing smartphone growth and why the repair aftermarket needs to set standards.

Your business has expanded rapidly since you started operations in 2009. What has driven your growth?

From 2014 to 2016 our annual revenue growth rate was 200 per cent. We ended 2016 with total revenue of \$40 million and expect sales to continue to grow briskly this year. We're targeting reaching \$60 million in sales in 2017.

One of the keys to our growth has been our multi-channel distribution network as well as close communications with repair shop owners, which gives us insight into what their customers demand. Last year we set up a vertically integrated online portal, www.spidermall.com, offering buyers a one-stop platform covering the entire repair aftermarket for electronic gadgets.

What customer segments are you focused on?

We target telecoms operators, insurance firms, wholesalers as well as repair businesses. We've worked with many operators and insurance companies in the US, Germany and the UK for many years.

The advantage of partnering with operators and insurance companies is that they have high standards and want personalisation, so we can

tailor-make the repair products for them to meet their specific requirements. Our large-scale production allows us to control costs, which provides a cost advantage to our clients.

Our technical R&D team and production technology allow us to supply quality products and maintain stability across the entire supply chain. Our facilities produce screens with a quality standard that is basically the same as the original screen.

What are the industry growth drivers?

Demand for replacement screens to a large extent mirrors that of global smartphone shipments. The market for replacement screens, which covers the repair business as well as requirements for the second-hand trade, is estimated at 680 million units annually, with demand growing nearly 25 per cent a year.

According to an IDC report, the global second-hand handset market was forecast to grow 22 per cent annually from 2015 to 2020, when shipments will reach 222.6 million units. The North American market of second-hand handsets is expected to jump from 15.2 million units in 2015 to 55.2 million in 2020.

With smartphone growth slowing in most markets, particularly China, what's your outlook for the next two years?

Global mobile phone ownership is very large, with many older models still in circulation. For example, sales of refurbished iPhone 5 models are still very good in many countries.

Annual sales of new mobile phones for each of the major international brands are in the hundreds of millions, so the overall global market is still very good and broad.

What are the biggest obstacles you face?

The global mobile accessories repair industry is encountering some serious problems, most notably uneven product quality, particularly for replacement screens, which creates confusion among customers.

There is an urgent need to develop a standard for the mobile phone screen repair market to



ensure the quality of the replacement screen is the same as that of brand manufacturers' original screen.

Literally thousands of companies have sprung up in China in the iOS and Android repair arena over the past few years, many of which are focused on low-cost parts and not on quality. This is where our chance lies.

It is important for us to work together with smartphone brand manufacturers, operators, phone repair businesses and accessory manufacturers to establish a common industry standard to support the healthy development of the industry.

Mobile phone brand manufacturers provide the highest quality screens, with the same quality as the original displays. But the brand manufacturers only provide screens to

authorised repair shops and the cost is very high. These supplies can't meet the needs of private repair shops and second-hand mobile phone suppliers.

How do you plan to expand?

We originally focused on business in China but in 2015 set up an office in California in the US and now have a team of 25 there. We will focus more on the North America market this year. For the next step, we plan to set up branch offices in UK and Germany to gain a footprint in the European market. We will then gradually expand to other markets.

What percentage of your total business is replacement screens?

Mobile phone screen repair accounts for about 90 per cent of our business. The rest includes complete handsets as well as mobile phone maintenance.

Company Profile: Spider Technologies

Who we are

Spider Technologies is a global leader in professional LCD screen manufacturing and an after-sales solutions provider of electronic products. The company, founded in 2009 and headquartered in the US, also operates in Hong Kong, Shenzhen and Dongguan.

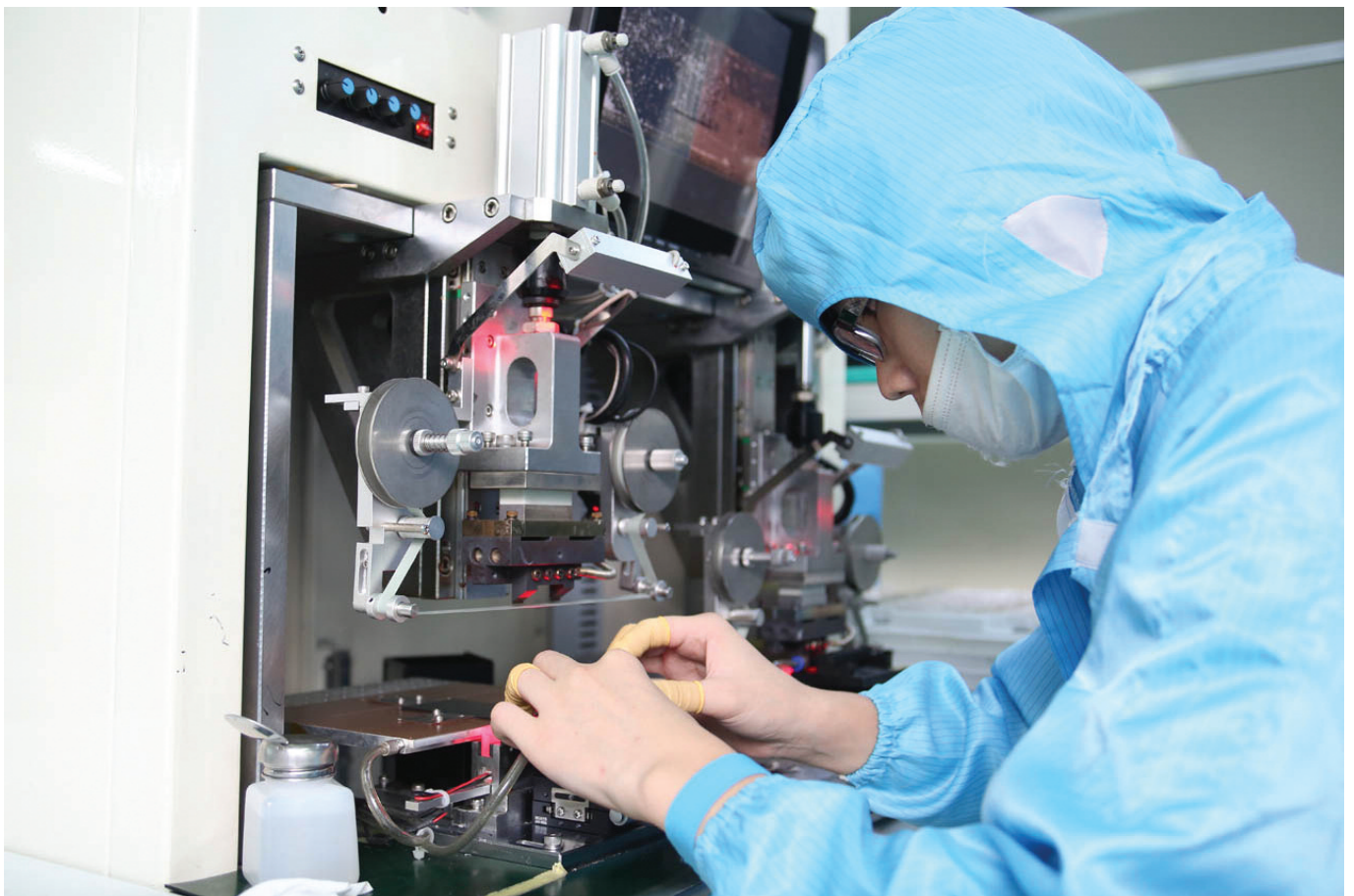
We provide a one-stop service by providing accessories for mobile phones and other electronic products, mobile phone accessories recycling as well as maintenance services. To serve our customers - mobile phone repair stores, regional mobile phone distributors, mobile operators and insurance companies - we operate channel businesses and logistics and distribution services around the world.

The company has been growing rapidly over the past few years, with sales expected to increase 50 per cent this year to \$60 million.

Spider Technologies has a 2,000-square-metre facility in Shenzhen with a daily production capacity of 10,000 screens. It has 200 employees in China.

We set up regional offices in Hong Kong, Shenzhen, Dongguan and the US to give customers more localised service support. We launched a vertically integrated online portal, www.spidermall.com, offering buyers a one-stop platform covering the entire repair aftermarket for electronic gadgets.

Our LCDs are sold under the SPIDERTech brand. The company produced nearly 10 million LCDs in 2015 and 2016. While our focus is on screens for iPhones, we also manufacture displays for Samsung and Huawei models. In addition to LCD screens, we supply components such as digitisers, sensors, cameras, and wiring for smartphones, tablets and wearables.





Our focus

Spider Technologies has a professional team of procurement and technical experts to provide a one-stop service for all our customers. We develop both online and offline business channels covering the entire ecosystem, including high-quality phone accessories, professional equipment, technical training, recycling, third-party renovation and the exchange of the latest market information.

Our goal

The rapid development of the electronics industry and the mobile phone industry has brought us a more convenient way of life.

Moreover, we use the most transparent quality grading and quality standards in the electronic component industry.

With a strong focus in producing components at the highest standards, Spider Technologies was granted ISO9001 and ISO14001 quality authentication. Each LCD undergoes six quality tests before delivery to customers, and it offers a one-year warranty.

However, it has also brought us many new problems such as e-waste. As an entrepreneur, Spider Technologies wants to play an active role in supporting customers in their recycling, repairing, refurbishing and resale activities.



Spider Technologies sources high-quality repair and replacement parts for Apple, Samsung and Huawei products. The parts we source are tested for functionality, quality and compatibility with Apple, Samsung and Huawei products, but these parts are not always original Apple, Samsung and Huawei products or parts.

Apple, iPhone and iPad are registered trademarks of Apple. Samsung and Galaxy are registered trademarks of Samsung Electronics, or one of its listed subsidiaries. Spider Technologies does not own the trademarks of Apple or Samsung. We use these trademarks only to the extent necessary for our customers to identify whether certain repair or replacement parts are appropriate for the products owned by our customers.

For more information, visit www.spidermall.com

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