Fingerprint Cards
Investor Presentation
January 2014
Fingerprint Cards (FPC) Snapshot

- Leading merchant supplier of fingerprint sensors in production volume in the mobile ecosystem
- 35 mobile design wins with leading device makers and 21 launched mobile devices
- Only merchant supplier with mobile touch sensor available
- Significant IP portfolio

- Headquarters in Gothenburg, Sweden
- Listed on NASDAQ OMX Stockholm / FING B
- President & CEO: Johan Carlström
- CFO: Jens Reckman
FPC’s Success Catalyzed by the Ramp of Fingerprint Biometrics in Mobile Devices

- Apple announces AuthenTec acquisition
- Japan: DW awarded for Q213 launch; target 1mm units
- China: First China DW
- U.S.: DW with world-leading financial information provider
- China: DW for mobile phone and accessories; initial order of 800k units
- Initial mass production order from CT for 100k units
- Microsoft Windows 8.1 integration announcement
- First phone using FPC technology launched by Fujitsu with DoCoMo
- Pantech launches flagship model Vega LTE-A smartphone with FPC technology
- Konka to launch its first FPC embedded smartphone in China
- Awarded smartphone DW with existing Asian customer for launch with U.S. operator
- New phablets using FPC fingerprint technology launched by Pantech
- FPC fingerprint sensors have been selected for the biometric authentication devices used with the Bloomberg Professional service.
- New phablets using FPC technology launched by Pantech
- Fujitsu launches four smartphones and two tablet PCs with FPC embedded fingerprint technology
- FPC1020 touch sensor Release
-_appendix
Company Highlights

Beyond Keys and Pins

- Ongoing adoption of fingerprint sensors in mobile devices
- Leading technology platform and defensible position
- First merchant supplier to introduce mobile touch sensor
- Production volume and multiple design wins with leading customers
- High growth financial model with significant operating leverage
- Management team with significant operating experience
Move to Biometrics in Mobile Devices has Begun

Multiple mobile phones have integrated a fingerprint sensor including iPhone 5s, Pantech Vega LTE, Fujitsu F-07E and HTC One Max
Technology Addresses Secular Trends

“The most heavily promoted feature is the 5S’s fingerprint sensor, which, ingeniously, is built into the Home button... The best part is that it actually works — every single time, in my tests. It’s nothing like the balky, infuriating fingerprint-reader efforts of earlier cellphones. It’s genuinely awesome; the haters can go jump off a pier.”
– Wall Street Journal

“...Apple said Monday that it sold nine million of the two handsets in their first three days on the market—well above what analysts had anticipated...Apple’s record volume for the new iPhones compared with five million iPhone 5 models sold on its opening weekend a year ago....Cantor Fitzgerald said its survey of buyers in New York found that 88% bought that model (iPhone 5S)...
– Wall Street Journal

Mobility

- The world's population is going mobile
  - 6.4bn subscriptions worldwide by 1Q13, increasing to ~9bn in 2018\(^{(1)}\)
  - Rapid growth in Wifi usage
- More than one device/subscriber
  - Smartphone
  - Tablet
  - Laptop/ultrabooks
- Increased functionality in mobile devices
  - Mobile devices will gradually replace keys, wallets, remote controls etc.

Security

- Data integrity and protection is currently a key issue for users
- With cloud computing, sensitive data will be accessible from mobile devices
- The wallet is going mobile – payments and banking services requires a higher level of security

---

\(^{(1)}\) Ericsson Mobility Report, June 2013
Serve a Large and Growing Mobile Device Market

**Total Addressable Smartphone & Tablet Market**(1)(2)

<table>
<thead>
<tr>
<th>Year (mm)</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units (mm)</td>
<td>666</td>
<td>843</td>
<td>1,021</td>
<td>1,162</td>
<td>1,295</td>
<td>1,423</td>
</tr>
<tr>
<td>2012-2017 CAGR</td>
<td>21%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Top Smartphone Manufacturers in 2013**(3)

<table>
<thead>
<tr>
<th>Mobile Phone OEM</th>
<th>Total (000's)</th>
<th>Smartphones (000's)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samsung</td>
<td>325,238</td>
<td>216,478</td>
</tr>
<tr>
<td>Apple</td>
<td>100,562</td>
<td>100,562</td>
</tr>
<tr>
<td>LG Electronics</td>
<td>50,663</td>
<td>33,609</td>
</tr>
<tr>
<td>Lenovo</td>
<td>31,734</td>
<td>31,012</td>
</tr>
<tr>
<td>Huawei</td>
<td>35,964</td>
<td>30,522</td>
</tr>
<tr>
<td>ZTE</td>
<td>43,584</td>
<td>26,722</td>
</tr>
<tr>
<td>Nokia</td>
<td>187,217</td>
<td>21,410</td>
</tr>
<tr>
<td>BlackBerry</td>
<td>16,799</td>
<td>16,799</td>
</tr>
<tr>
<td>HTC</td>
<td>16,662</td>
<td>16,662</td>
</tr>
<tr>
<td>Motorola</td>
<td>16,256</td>
<td>9,946</td>
</tr>
<tr>
<td>Others</td>
<td>491,944</td>
<td>181,882</td>
</tr>
<tr>
<td>Total</td>
<td>1,316,622</td>
<td>685,604</td>
</tr>
</tbody>
</table>

---

(3) Smartphone Sales to End Users by Region, through 3Q13, Gartner, November 2013
Rapidly Expanding Addressable Market

Global Shipment Forecast of Fingerprint Smartphones

![Bar chart showing global shipment forecast of fingerprint smartphones from 2013 to 2017 with CAGR of 150% between 2013 and 2017.]

What is Wall Street Saying?

- We forecast attach rates for fingerprint sensors in the smartphone market will grow to 20% in 2014, 30% by 2015, and 35-40% by 2017, excluding Apple.

- By the end of 2014, we expect that the top ten Tier-1 smartphone & tablet OEMs will have fingerprint enabled product and by 2015 the top 30 should have fingerprint products.

- We believe multiple OEMs, including LG and Samsung, will introduce smartphones with embedded fingerprint sensors in 2014, which will present a meaningful growth opportunity for sensor providers.

- We believe area sensors will be better suited than swipe sensors for smartphones as they eliminate the need for holding a smaller device with one hand while swiping with the other, and thus improve user experience significantly.

- We believe fingerprint sensor adoption is likely to be spurred by a drop in ASPs as well applications such as mobile payment, cloud computing and security.

---

(1) Source: IHS, includes all OEMs
(2) Wall Street Research (November 2013)
Recent Mobile Components Ramps Driven by Adoption

Previous Mobile-Driven Innovators Ramped Revenue Quickly

<table>
<thead>
<tr>
<th>Financials Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 3 Revenue</strong></td>
</tr>
<tr>
<td>InvenSense</td>
</tr>
<tr>
<td>OmniVision</td>
</tr>
<tr>
<td>Audience</td>
</tr>
</tbody>
</table>

Sources: Company filings, CapIQ
Market Leading Technology

- Superior image quality
- Highest sensitivity to handle thick coating
- Power consumption significantly lower than competitors’ mobile products
- Lowest BoM and Smallest Footprint
- Historical leadership in capacitive touch sensor market
FPC’s Sensors Feature Unmatched Image Quality

- The most important component in the biometric system is the image capture device.
- The image quality featured by FPC’s sensors is excellent and unmatched in the market.
- FPC sensors feature 3D high resolution images, with a true 256 level grey scale range.
- Superior input image quality from the sensor results in better overall system performance and lower power usage.

![True 8-bit image raw data](image1)

![3D Topological Data Collected from Fingerprint](image2)
## Only Independent, Production-Ready Full-Suite Product Offering

### Swipe Sensor (FPC 1080A)

CMOS fingerprint swipe sensor aimed at portable device market. The sensor delivers superior 3D image quality and very low power consumption.

**Features**
- Superior image quality - 256 pixel levels, 508dpi 3D imaging
- Very low power consumption, using 1.8V supply voltage
- Hard and scratch resistant protective surface coating
- High speed SPI interface
- 32 pin LGA
- >10 million wear cycles
- Low cost

**Dimensions:**
10.3 x 4.1 x 1.2 mm (W x L x T)

**Application**
- Mobile Phones
- Portable Devices
- Computer Peripherals
- Physical Access Control
- Touch Control Applications

### Area Sensor (FPC 1011F3)

CMOS fingerprint sensor that delivers superior image quality. The sensor has 3D pixel sensing technology that can read virtually any finger - dry or wet.

**Features**
- Hard and scratch resistant protective surface coating
- Superior image quality
- 3D image with 256 true gray scale values
- Ergonomic frame for optimized finger guidance
- High speed SPI interface
- 32 pin LGA
- >10 million finger placements

**Dimensions:**
20.4 x 33.4 x 2.3 mm (W x L x T)

**Application**
- Computer Peripheral
- Physical Access Control
- Time and attendance
- Wireless Device
- Medical Equipment and Storage

### Touch Sensor (FPC 1020)

Small capacitive touch CMOS fingerprint sensor

**Features**
- Developed for integration in devices using Windows operating systems and Android operating systems
- Optimized for smartphone, tablet and PC OEMs

**Application**
- Mobile Phones
- Tablets
- PCs

1/16 inch = 1.59mm
Leading Swipe Sensor Technology for Mobile Phones

- **Authentication**
  - Image quality: 508 dpi 3D Image Capture
  - 3D based algorithm

- **Navigation**
  - Excellent navigation in HW

- **Power consumption:**
  - Significantly lower than competition

- **Lowest BoM (Bill Of Material) in the industry**
  - Only 4 passives needed
  - No need for crystal or E-PROM

- **Ported on:**
  - MediaTek
  - Qualcomm
  - Hisilicon
  - NVIDIA
  - OMAP 5 Platform
  - Nova Components
  - Free Style FPCB Design
  - Customizing Sensor Design
  - Customizing Bezel Design
  - Dome Click Available (Dome Click available with Soft Click)
FPC1080 Swipe Sensor Currently Ramping

- 21 market launched mobile devices
- 1st phone launched to the market in July (Japan)
  - Most demanding operator (DoCoMo)
  - Most experienced phone OEM (Fujitsu)
  - 5 smartphones, 2 tablets already launched by Fujitsu including DoCoMo, Softbank and AU
  - Additional phones in pipeline during H1 2014
- 1st Korean manufacturer launched (Pantech)
  - 1 smartphone launched with SK Telecom
  - 3 phablets launched by Pantech with SKT, LGT and KT
  - 3 smartphones launched by Pantech with SKT, LGT and KT
- 1st Chinese manufacturer Konka launched two devices
  During January Gionee and BBK is launching smartphones as well
- Fingerprint sensor highlighted as key selling point by OEMs:
  - Providing mobile payments & fast phone access security
FPC1020 Touch Fingerprint Sensor Recently Announced

- First capacitive touch fingerprint sensors for Android devices and Windows devices including:
  - Smartphones
  - Tablets
  - PCs

- Announced on 11/26/13
  - FPC 1020 silicon sampled a few weeks ago
  - First deliveries of engineering samples of complete sensor modules to customers are planned during the coming weeks
  - Shipping in the Summer 2014
  - Excellent user experience, attractive size and affordable
  - First DW with Tier 1 Flagship smartphone announced in December 2013

“We are strongly committed to biometrics and especially capacitive fingerprint sensors as a way to improve the user experience when using Windows enabled devices”

Dustin Ingalls – Partner Group Program Manager at Microsoft

“FPC1020 will enable smartphone and tablet OEMs to offer consumers a compelling user experience combining great convenience and security with excellent performance and appealing design”

Jorgen Lantto – CTO and Head of Strategy and Product Management at FPC
FPC and Microsoft Collaboration

**Windows to use sensors in devices**

- Microsoft demonstrated a FPC fingerprint touch sensor with a beta version of Windows 8.1
- FPC and Microsoft will together bring forward the world’s first fingerprint touch sensor for mobile devices
- Microsoft has indicated that in the future, all Windows units are to enable log-ins using a touch sensor
- FPC expects the collaboration to pave the way for touch sensor integration to increase
  - Several hundred million units from 2014 onwards
  - New addressable market of USD 2+ billion

**Windows 8 products**

“**We see major benefits with touch fingerprint sensors** so we are **pleased to see partners like FPC executing on their development plans and now sampling their new FPC1020 sensor** with partners and customers. We look forward to seeing progressive OEMs deliver devices with these new touch based sensors into the marketplace in 2014.”

*Dustin Ingalls, Partner Group Program Manager for Windows Security & Identity at Microsoft.*
## Strong IP Portfolio: High Barrier to Entry

### Complex technical solutions governed by strong IP

- Fingerprint sensors are highly complex products made up of several different building blocks.
- Three patented methods exist today for the fingerprint swipe sensor market – owned by FPC, Cogent (3M) and AuthenTec (Apple).
- Only FPC and AuthenTec IP are likely to be appropriate for under glass/plastic area sensors.
- Extremely difficult for a new sensor manufacturer to produce a sensor/biometric system not in conflict with any existing patents.
- There are patents governing both the components as well as the interaction between the components and the analysis processes.

### Patent strategy

- FPC pursues an active patent strategy by:
  - Carefully monitoring of the market
  - Together with patent agencies, evaluating new possibilities for filing
  - Identifying infringements
  - Ambitious patent portfolio management including patent purchases.

### Patent portfolio

- FPC’s patents cover many of the principal competitive aspects of its product portfolio such as:
  - The sensor pixel
  - Sensor architecture with real-time programming
  - Matching algorithm
  - Methods and processes used to analyze partial images
  - On September 30, 2013 FPC announced the purchase of >100 patents including essential patents for wireless communication.

- Sensor patent, architecture
  - The sensor architecture covers the method of real time programming of sensor matrix function.

- Sensor patent, pixel element
  - The design of the sensor pixel element and associated conversion principle results in an extremely sensitive sensor amplifier with low internal noise generation.

- Algorithm patent
  - Mathematical descriptions by which millions of operations can be carried out in a split second.

- Swipe sensor methodology patent
  - Method to store individual’s biometric identity without building up the complete image of the fingerprints.

- Packaging patent
  - Coating for protection of sensor surface and bond wires.

- Essential wireless patents
  - Two patent families related to wireless communication.

- Semiconductor patents
  - 17 various semiconductor patent families.
Standardization and Ecosystems Development

- Industry activities recognize the new business opportunities
  - Standardized open interfaces to secure environments enables “secure apps”

- Global Platform is defining secure device environments (phone, smartcard, SIM card etc) for secure transactions

- FIDO (Fast IDentity Online) defines an open industry web-based standard for secure on-line transactions

- FPC and Nok Nok Labs announced an end-to-end infrastructure solution on November 26th for online authentication using fingerprint sensors on smartphones and tablets
  - The two companies have initially implemented the joint solution utilizing the FPC1080 fingerprint sensor, Nok Nok Labs’ client and server technology, and commercially available Android smartphones using the FPC1080 fingerprint sensor in order to demonstrate readiness to support the emerging FIDO-based ecosystem.
Legacy Area Sensor Business: China’s Banking Sector

<table>
<thead>
<tr>
<th>Different customer segments</th>
<th>Area sensors to banking employees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AREA SENSOR</strong></td>
<td>▪ FPC’s components used by &gt;50 Chinese banking groups, for authentication of employees when conducting bank transactions and regular operations</td>
</tr>
<tr>
<td>▪ Bank employees + 2 millions</td>
<td>- Number of banking personnel who daily use the area sensor is estimated to exceed one million</td>
</tr>
<tr>
<td>▪ VIP bank customers + 20 millions</td>
<td>- FPC uses OEM to address the Chinese banking sector</td>
</tr>
<tr>
<td>▪ Online retail customers + 400 millions</td>
<td>- Largest reseller is HST</td>
</tr>
<tr>
<td>▪ Companies in insurance industry, securities trading, the automotive industry and the public sector</td>
<td>- In China, FPC’s area sensors are regarded as standard for components in several applications</td>
</tr>
<tr>
<td><strong>SWIPE SENSOR</strong></td>
<td>▪ Estimated market share +80%</td>
</tr>
<tr>
<td>▪ FPC’s current end customers</td>
<td>▪ Possible for FPC’s distributors to approach related segments within the Chinese banking sector such as VIP bank customers (fingerprint sensors for log-in) as well as retail customers</td>
</tr>
<tr>
<td></td>
<td>▪ In the future other Chinese industries and Chinese government are likely to increase the usage of fingerprint sensors</td>
</tr>
</tbody>
</table>
Scalable Operational Platform

Headcount December 2013

Headcount by Function
- Sales & Marketing: 11
- Customer Projects: 13
- Sourcing & Supply: 4
- Strategy & Product Management: 4
- R&D: 40
- Finance, Admin, HR, IT, Legal: 3
- CEO: 1
- **Total:** 76

Headcount by Geography
- Sweden (HQ): 51
- Asia: 13
- Europe: 9
- US: 3
- **Total:** 76

---

(1) Total headcount includes 59.5 team members
## Growth Opportunities

<table>
<thead>
<tr>
<th>Near-Term Drivers</th>
<th>Mid-to-Long-Term Drivers (1-5 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional design wins from existing mobile device customers for new models/additional models</td>
<td>Broaden sale to customers – software/algorithm, etc.</td>
</tr>
<tr>
<td>Design wins from new mobile device customers</td>
<td>New end market opportunities – commercial, government, etc.</td>
</tr>
<tr>
<td>Introduction/ Launch of touch sensor</td>
<td>Industry consolidation</td>
</tr>
</tbody>
</table>

1. Additional design wins from existing mobile device customers for new models/additional models
2. Design wins from new mobile device customers
3. Introduction/ Launch of touch sensor
4. Broaden sale to customers – software/algorithm, etc.
5. New end market opportunities – commercial, government, etc.
6. Industry consolidation
Financials

Beyond keys and pins
Illustrative Revenue Ramp Timing

Time to Market

- **~T-12**: FCP start to develop new sensor
- **T 0 months**: Product ready to be integrated in a mobile device
- **T+4 months**: FPC receive order from mobile manufacturer
- **T+7 months**: FCP deliver sensors to mobile manufacturer
  - **Launch of mobile**

Average 7 months from design-win to launch
(FPC’s customers’ time to market)
Management Revenue Guidance

Quarterly and Annual Guidance

Q3 2013 Recap

- Sales totaled SEK 31.6 M ($4.9 M USD), which exceed the original guidance of SEK 20-30M from August 2nd and within the revised guidance range of SEK 27-33 M from September 23rd
- In Q3 2013, sales of mobile applications exceeded sales in the traditional bank market for the first time
- Gross Margin was 49%

Management Outlook

- Expect that 2014 revenue will exceed SEK 500M ($76.8 M USD) assuming significant growth in the second half of 2014 versus the first half
- FPC expects that all Tier 1 smartphone OEMs will have a capacitive fingerprint sensor in their flagship models by the end of 2014
- Management estimates that the market for integrated sensors in consumer electronics will be in excess of 500 million units in 2014 and in excess of 3 billion units in 2015
- Expect profitability as of Q3 2014 with rising EBITDA margins quarter by quarter
- Expect 20%+ EBITDA margins for the full year of 2014 with it approaching 30% for Q4 2014
- Targeting 60% market share for touch sensors in smartphones in 2014-15 (excluding Apple)

---

(1) Based on Exchange Rate of 6.51 SEK to 1 USD
(2) Revenue figures based on management guidance per the October 17, 2013 press release of
   SEK 30 – 50 MM for 4Q13 and CY 2014 guidance of at least SEK 500MM
(3) Quarterly figures are unaudited; historical, annual figures are audited
(4) Per October 17, 2013 press release
(5) Per September 23, 2013 and October 17, 2013 press releases
# Balance Sheet Highlights

<table>
<thead>
<tr>
<th>($ USD Millions)</th>
<th>December 31, 2012</th>
<th>September 30, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash and Cash Equivalents</strong></td>
<td>$9.3</td>
<td>$21.9</td>
</tr>
<tr>
<td><strong>Working Capital (1)</strong></td>
<td>$1.2</td>
<td>($0.6)</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>$17.7</td>
<td>$34.7</td>
</tr>
<tr>
<td><strong>Total Debt</strong></td>
<td>$0.0</td>
<td>$0.0</td>
</tr>
</tbody>
</table>

(1) Working Capital: Total current assets less total current liabilities. Figures based on a 6.51 SEK to 1 USD exchange rate.
### Experienced Management Team

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Experience Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johan Carlström</td>
<td>President &amp; CEO</td>
<td>- CEO since 2009&lt;br&gt;- 20 years in Executive sales &amp; BD with Ulticom, Ericsson and Mercury Interactice and 5 years as Financial Analyst&lt;br&gt;- Graduate in economics from the universities of Uppsala &amp; Stockholm</td>
</tr>
<tr>
<td>Jens Reckman</td>
<td>CFO</td>
<td>- CFO since 2009&lt;br&gt;- Education: MBA and other qualification from Gothenburg University&lt;br&gt;- 25 years experience as CFO, Finance/Business Controlling and Management from Technology, VC, RE, Audit, Consulting,</td>
</tr>
<tr>
<td>Jörgen Lantto</td>
<td>CTO, EVP Strategy &amp; Product Management</td>
<td>- CTO since February 2013&lt;br&gt;- EVP and CTO of ST-Ericsson 2009-2012&lt;br&gt;- 22 years in Ericsson, recently VP. CEO of Alice Systems and co- founder of Northstream Technical college graduate</td>
</tr>
<tr>
<td>Thomas Rex</td>
<td>EVP Sales &amp; Marketing</td>
<td>- EVP Sales &amp; Marketing since 2011&lt;br&gt;- VP Sales Asia/Pacific Ericsson Mobile Platforms, VP IPTV Industry Initiatives Ericsson, VP Sales &amp; Marketing Nanoradio, &lt;br&gt;- Education: M.Sc. in Electrical Engineering Lund University</td>
</tr>
<tr>
<td>Pontus Jägemalm</td>
<td>Senior VP R&amp;D</td>
<td>- SVP R&amp;D since 2009&lt;br&gt;- Education: M.Sc. and Ph.D in Engineering Physics from Chalmers University of Technology</td>
</tr>
<tr>
<td>Jonas Spannel</td>
<td>VP Sourcing and Supply</td>
<td>- VP Sourcing and Supply since 2013&lt;br&gt;- VP and Director for Sourcing at major OEMs.&lt;br&gt;- Background in Technical Sales for the manufacturing industry recruited from Sony Mobile.</td>
</tr>
</tbody>
</table>
Company Highlights

**Beyond Keys and Pins**

- Ongoing adoption of fingerprint sensors in mobile devices
- Leading technology platform and defensible position
- First merchant supplier to introduce mobile touch sensor
- Production volume and multiple design wins with leading customers
- High growth financial model with significant operating leverage
- Management team with significant operating experience