



The University of Hong Kong



Global Phone Wars: Apple v. Samsung

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Background

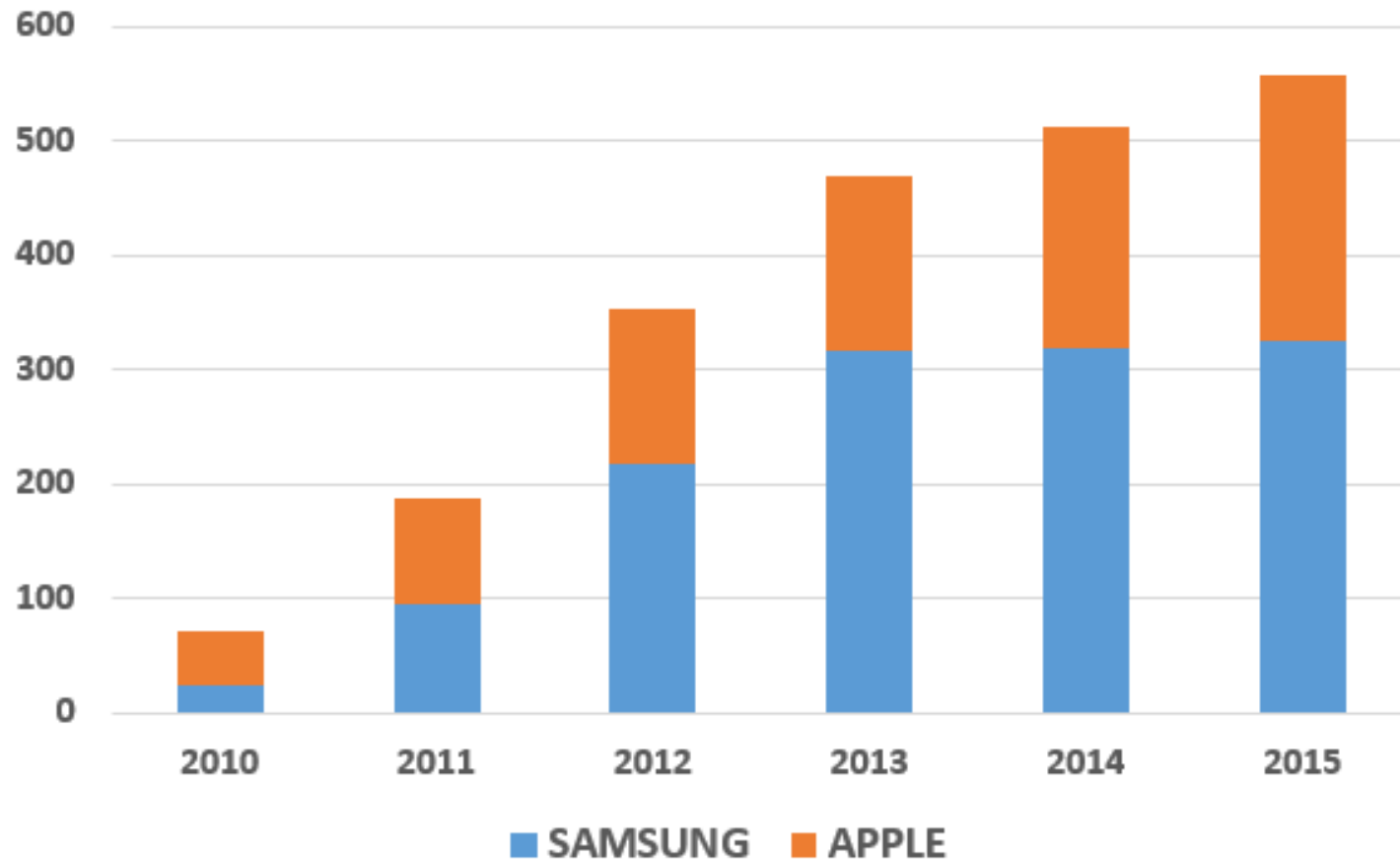
- Ph.D., Yale University (computer science, 1978)
- J.D., Duquesne University (law, 1981)
- Carnegie Mellon computer science faculty since 1975
- Visiting Professor, University of Hong Kong (2001-)
- Director, Master's Program in eBusiness Technology
- Annual course, "Law of Computer Technology"
- Expert witness in over 200 court cases involving computer technology

Apple v. Samsung

Samsung Smartphones BEFORE iPhone	Apple's iPhone (announced Jan. 2007)	Samsung Smartphones AFTER iPhone
		

FROM AN APPLE TRIAL BRIEF

Apple & Samsung Smartphone Units Sold, in Millions, 2010-2015



SAMSUNG TOTAL: 1295 MILLION

APPLE TOTAL: 854 MILLION

Apple's Intellectual Property Arsenal

- Utility Patents
 - Protect the manner in which a product functions
- Design Patents
 - Protect ornamental (non-functional) designs of objects. (In HK, “registered designs”)
- Trademarks
 - Protect the identification of a product with a specific company
- Trade Dress
 - Protects the association of a company with the overall visual appearance of a product

Utility Patents

- Utility patents have two parts:
 - Specification: description of how to make and use the invention. Specification may contain drawings.
 - Claims: description in words (not drawings) of what the patentee considers his invention.
- Inventions must be new (novel) AND non-obvious
 - Novelty and obviousness are considered from the standpoint of one having ordinary skill in the relevant art.
 - That person is assumed to be familiar with all pertinent prior art (inventions and publications that came before).
 - No such person really exists.
- A juror is not one of ordinary skill. A judge usually isn't, either.

Utility Patent Infringement

- Test for infringement: does at least one claim of the patent “read on” (apply to) the accused product?
- Every part of the claim must be found in the defendant’s product. Otherwise, no infringement.
- Infringement is determined from the viewpoint of one of ordinary skill in the art.
- A juror is not one of ordinary skill. A judge usually isn’t, either.

Design Patents

- Functional parts of a product are protected by utility patents
- Ornamental, non-functional aspects can be protected by design patents, which have a shorter term.
- Test for infringement:
 - Are the designs substantially the same as seen by the ordinary observer familiar with the prior art?
- A juror is a “ordinary observer.” So is a judge.
- BUT: judges and jurors are not familiar with the prior art

(12) **United States Design Patent**
Andre et al.

(10) **Patent No.:** **US D618,677 S**
(45) **Date of Patent:** ** *Jun. 29, 2010

(54) **ELECTRONIC DEVICE**

- (75) Inventors: **Bartley K. Andre**, Menlo Park, CA (US); **Daniel J. Coster**, San Francisco, CA (US); **Daniele De Iuliis**, San Francisco, CA (US); **Richard P. Howarth**, San Francisco, CA (US); **Jonathan P. Ive**, San Francisco, CA (US); **Steve Jobs**, Palo Alto, CA (US); **Duncan Robert Kerr**, San Francisco, CA (US); **Shin Nishibori**, Portola Valley, CA (US); **Matthew Dean Rohrbach**, San Francisco, CA (US); **Douglas B. Satzger**, Menlo Park, CA (US); **Calvin Q. Seid**, Palo Alto, CA (US); **Christopher J. Stringer**, Woodside, CA (US); **Eugene Antony Whang**, San Francisco, CA (US); **Rico Zorkendorfer**, San Francisco, CA (US)
- (73) Assignee: **Apple Inc.**, Cupertino, CA (US)
- (*) Notice: This patent is subject to a terminal disclaimer.
- (**) Term: **14 Years**
- (21) Appl. No.: **29/328,018**
- (22) Filed: **Nov. 18, 2008**

(56) **References Cited**

U.S. PATENT DOCUMENTS

D289,873 S 5/1987 Gemmell et al.

(Continued)

FOREIGN PATENT DOCUMENTS

EM 000569157-0005 5/2006

(Continued)

OTHER PUBLICATIONS

U.S. Appl. No. 29/282,831, Andre et al., Electronic Device, filed Jul. 30, 2007.

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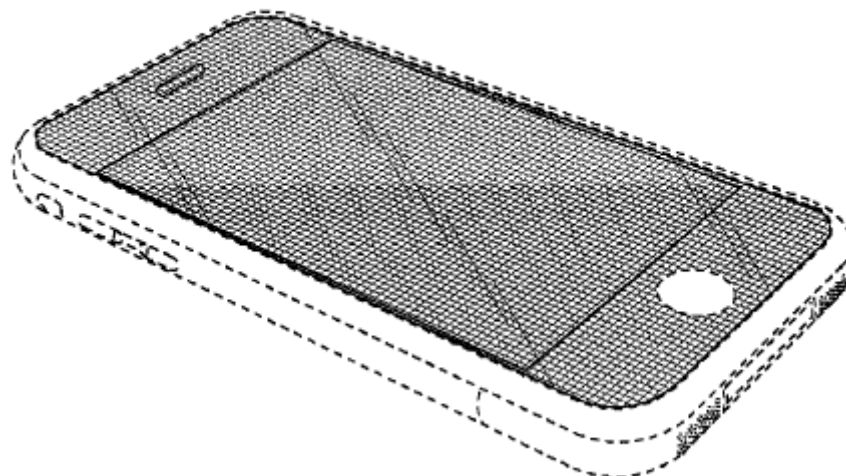
Primary Examiner—Cathron C Brooks

Assistant Examiner—Angela J Lee

(74) *Attorney, Agent, or Firm*—Sterne, Kessler, Goldstein & Fox PLLC

(57) **CLAIM**

The ornamental design of an electronic device, as shown and described.



Apple's Filing 6 Days Before Release of iPhone in June 2007



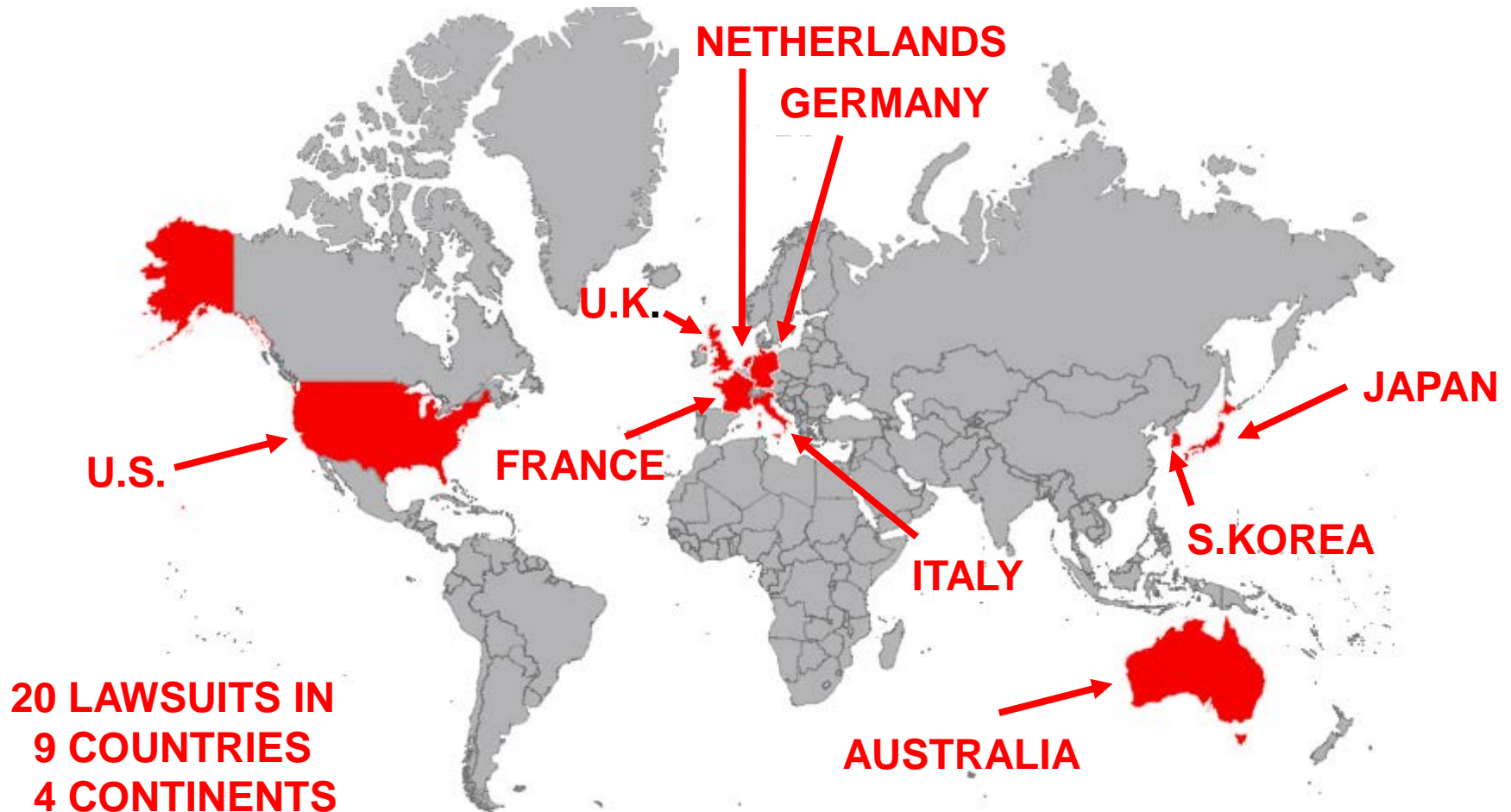
Apple submitted 193 screen shots

One of Apple's Patented Designs

**U.S. Design
Patent 604,305**



Apple v. Samsung Lawsuits Since 2011



Apple v. Samsung I (US)

- On April 15, 2011, Apple sued Samsung in the Northern District of California (Silicon Valley), alleging that 21 Samsung products infringed three Apple patents:
- 7,469,381 (rubberbanding, Samsung: “bounce”)
- 7,844,915 (scroll vs. gesture)
- 7,864,163 (tap to zoom)
- One claim from each patent was asserted
- We will examine claim 8 of the '915 patent
 - Touch one point, scroll; touch two points, resize

Patent Litigation

- Very expensive. Average cost to defend one claim of one patent: US \$3 million.
- The jury determines infringement.
- The jury determines whether the patent is valid.
 - Jury can nullify Patent Office determinations.
- The jury determines money compensation.
- The judge determines whether the jury's decisions have sufficient basis in evidence.
- All U.S. patent cases are reviewed by a single appeals court – the Court of Appeals for the Federal Circuit.

7,844,915 Claim 8

8. A machine readable storage medium storing executable program instructions which when executed cause a data processing system to perform a method comprising:

[a] receiving a user input, the user input is one or more input points applied to a touch-sensitive display that is integrated with the data processing system;

[b] creating an event object in response to the user input;

[c] determining whether the event object invokes a scroll or gesture operation by distinguishing between a single input point applied to the touch-sensitive display that is interpreted as the scroll operation and two or more input points applied to the touch-sensitive display that are interpreted as the gesture operation;

7,844,915 Claim 8

[d] issuing at least one scroll or gesture call based on invoking the scroll or gesture operation;

[e] responding to at least one scroll call, if issued, by scrolling a window having a view associated with the event object; and

[f] responding to at least one gesture call, if issued, by scaling the view associated with the event object based on receiving the two or more input points in the form of the user input.

Prior Art:

Japanese Patent JP2000163031

PROBLEM TO BE SOLVED: To provide an electronic book and a portable information equipment capable of realizing functions such as **rotating, magnifying, reducing and scrolling of a map picture** with a human interface having satisfactory operability and to provide an information storage medium to be used for them.

SOLUTION: The electronic book includes a display part capable of displaying a map picture. The executing instruction and the manipulated amount of at least one operation of the rotating, the magnifying, the reducing and the scrolling of the map picture can be inputted simultaneously by operation histories of fingers which are brought into contact with the display part. Then, the magnifying instruction and the magnifying amount of the map picture can be inputted by an operation making two fingers more distant. Moreover, **the reducing instruction and the reducing amount of the map picture can be inputted by an operation bringing the two fingers closer.** Furthermore, the rotating instruction and the rotational amount of the map picture can be inputted by an operation making one finger rotate around another finger.

Prior Art: Paper by Jefferson Han, SIGGRAPH 2005

Low-Cost Multi-Touch Sensing through Frustrated Total Internal Reflection

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Figure 1: Simple examples of multi-touch interaction using our FTIR technique

Apple v. Samsung I

- On August 24, 2012, after a three-week trial, a jury found that Samsung willfully infringed three utility patents and four design patents.
- The jury found all the patents valid.
- The jury found that Samsung had infringed and diluted the trade dress of the iPhone.
- The case docket (list of all documents filed with the court) has 3430 entries (as of March 2, 2016)
- Typical cost to prepare and file a document: \$10,000
- Legal fees so far, probably > \$50 million

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

APPLE INC., a California corporation,

Plaintiff,

v.

SAMSUNG ELECTRONICS CO., LTD.,
a Korean corporation;
SAMSUNG ELECTRONICS AMERICA, INC.,
a New York corporation;
SAMSUNG TELECOMMUNICATIONS
AMERICA, LLC,
a Delaware limited liability company,

Defendants.

Case No.: 11-CV-01846-LHK

AMENDED
VERDICT FORM

22. What is the total dollar amount that Apple is entitled to receive from Samsung on the claims on which you have ruled in favor of Apple?

\$ ~~1,051,855,000.00~~

\$ 1,049,393, ~~293.00~~
540

HC 9/24/12

Have the presiding juror sign and date this form.

Signed:

Valerie R. Hagan

Date:

9/24/12

PRESIDING JUROR

Apple v. Samsung I

- The jury awarded damages of \$1,049,343,540.00
- Law of willful infringement: “If infringement be willful, increased damages may be awarded at the discretion of the district court, and the amount of increase may be set in the exercise of that same discretion. the court may increase the damages up to three times the amount found or assessed”
- The judge could have tripled it to \$3 billion.
- BUT, Samsung appealed successfully and won a new trial on the issue of money damages

Apple v. Samsung I

- Later, on a re-trial of damages, the jury found in favor of Apple for \$290 million, upheld by the Federal Circuit on May 18, 2015
- However, the Federal Circuit vacated the jury's trade dress infringement findings, necessitating a third trial, which is about to start in California.

Apple v. Samsung Worldwide

- Apple and Samsung were also battling in Australia, France, Germany, Italy, Japan, Netherlands, South Korea and the U.K.
- The California judge called the case “one action in a worldwide constellation of litigation between the two companies”
- Apple and Samsung have now settled all their cases outside the U.S., but are still fighting in the U.S.

Apple v. Samsung II (US)

- On February 8, 2012, Apple sued Samsung in the Northern District of California (Silicon Valley), alleging that the nine Samsung products (46 different models) infringed five Apple patents, including:
- 5,946,647 (detecting structures in data and creating hyperlinks)
- 8,046,721 (swipe to unlock)
- 8,074,172 (suggesting replacement characters)

8,046,721 Claims 7-8

- 7. A portable electronic device, comprising:
 - [a] a touch-sensitive display;
 - [b] memory; [c] one or more processors; and
 - [d] one or more modules stored in the memory and configured for execution by the one or more processors, the one or more modules including instructions:
 - [e] to detect a contact with the touch-sensitive display at a first predefined location corresponding to an unlock image;
 - [f] to continuously move the unlock image on the touch-sensitive display in accordance with movement of the detected contact while continuous contact with the touch-sensitive display is maintained,

8,046,721 Claim 8

- wherein the unlock image is a graphical, interactive user-interface object with which a user interacts in order to unlock the device; and
[g] to unlock the hand-held electronic device if the unlock image is moved from the first predefined location on the touch screen to a predefined unlock region on the touch-sensitive display
 - **8.** The device of claim **7**, further comprising instructions to display visual cues to communicate a direction of movement of the unlock image required to unlock the device.
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Prior Art

- The “Neonode Reference”:

KEYLOCK - UNLOCKING THE UNIT

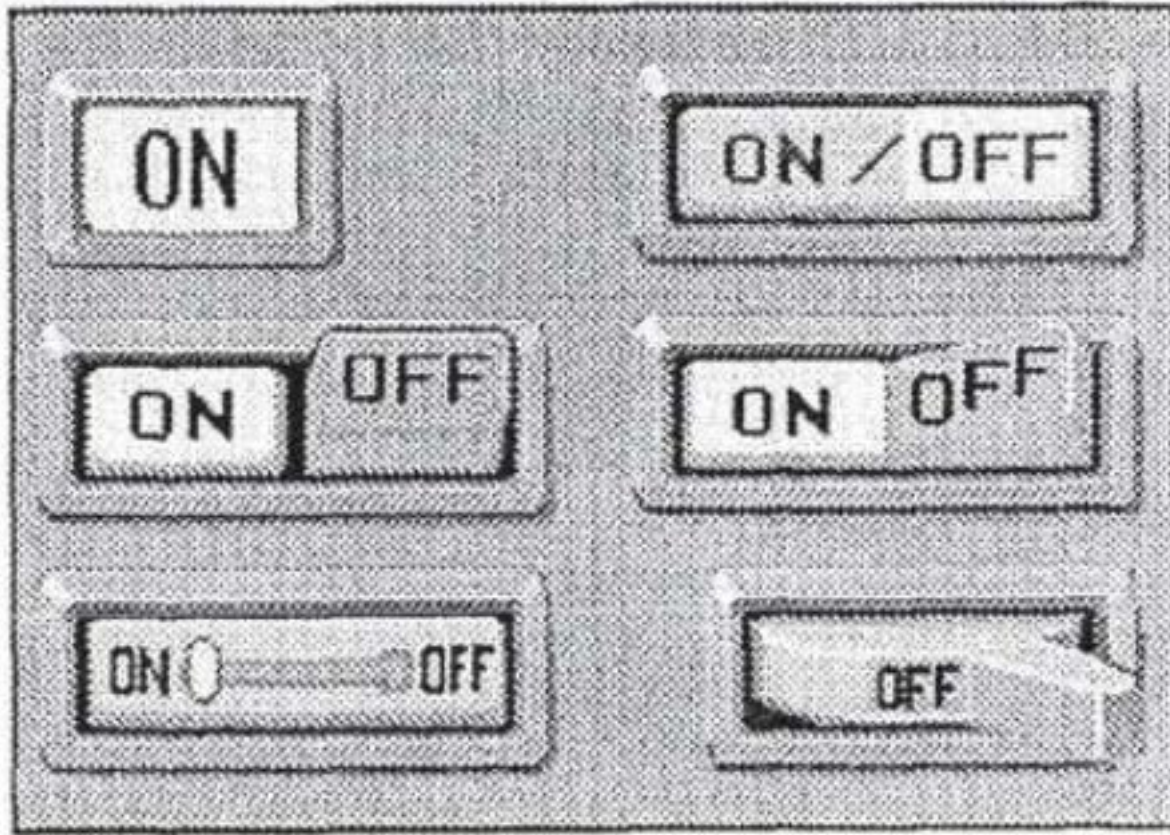


The ON/OFF switch is located on the left side of the N1, below the screen.

1. Press the power button once.
2. The text “Right sweep to unlock” appears on the screen. Sweep right to unlock your unit.

Prior Art

- The “Plaisant Reference”:



Apple v. Samsung II (US)

- The jury ignored this prior art and found the patent found the patent valid and infringed
- It awarded \$119,625,000 in damages, approved by the judge.
- The docket had 2159 entries on March 2, 2016.
- On February 26, 2016, the Federal Circuit found all claims of the Apple patents asserted against Apple to be invalid and reduced the \$120 million award to ZERO.
- Apple was found to have infringed a Samsung patent and was found to be liable to Samsung for \$158,400.

The Judge: Hon. Lucy Koh



Judge Koh's Career

- Judge Koh is the only female U.S. federal judge of Korean descent.
- She presided over all the U.S. Apple v. Samsung trials
- Her Apple v. Samsung decisions were all reversed by the Federal Circuit.
- On February 25, 2016, Judge Koh was nominated by President Obama for a seat on the Court of Appeals
- On February 26, 2016, her decisions in Apple v. Samsung II were reversed by the Federal Circuit.
- She will probably be approved by the U.S. Senate.

Major Ideas

- Patents have a major effect on the technology sector.
- Decisions on technology questions made by judges and juries can determine the outcome of a lawsuit.
- Many technology patents never should have been granted.
- An adverse patent infringement verdict can involve huge amounts of money.
- Judges can overrule the jury when there is no substantial evidence to support the jury's verdict.
- An appeals court can overrule a lower court when and error of law is made or there was no substantial evidence to support the jury's verdict.

Q&A