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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

APPLE INC.,

Plaintiff,

v.

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

Defendants.

Case No. 11-cv-01846-LHK

**DECLARATION OF JOSEF HAUSNER,  
Prof. Dr.-Ing.**

I, Josef Hausner, declare as follows:

1. I am employed by Intel Mobile Communications GmbH ("IMC") at Neubiberg, Germany. IMC is a wholly owned subsidiary of Intel, Corp. ("Intel"). My title is Division Vice President, and I am responsible for wireless architecture in IMC's Wireless System Engineering group. I received an Dipl.-Ing. (Diploma of Engineering) degree from Technical University of Munich, in 1986 and a Dr.-Ing. (Doctor of Engineering) degree from Technical University of Munich, in 1991. I began working at the Wireless Solutions business unit at Infineon Technologies AG ("Infineon") in 2006. In 2011, Intel acquired Infineon Technologies AG Wireless Solutions

1  
2 (WLS) business, which became known as IMC.

3 2. I am informed that in the above-named lawsuit, Samsung or Apple may wish to use Intel  
4 confidential information, including source code and documents. In particular, I am informed that  
5 Samsung and Apple may refer to exhibits that include IMC firmware in the presentation of their  
6 case. IMC's firmware is a type of software that is designed to control the operation of IMC's  
7 modem hardware and to implement various protocol functions in the modem. IMC does not  
8 typically provide the source code for its firmware to customers but instead provides it only in  
9 binary executable form. IMC maintains its firmware source-code on internal servers and  
10 implements network access security measures to prevent unauthorized access to this code.

11 3. IMC's firmware is extremely valuable to Intel because it represents a significant  
12 investment and contains numerous trade secrets that provide a competitive advantage to Intel.  
13 Purchasers of integrated circuits for mobile devices expect the manufacturer to provide firmware  
14 and other software with the integrated circuits. Intel would be seriously harmed if potential  
15 competitors could shortcut their development efforts by copying Intel's source code.

16 4. IMC's firmware also provides it with a competitive advantage. The 3GPP standards,  
17 which are publicly available, generally describe how mobile devices behave when interoperating  
18 with a wireless network. But the standards do not always specify how that behavior must be  
19 implemented; so each manufacturer generally creates a unique implementation using its trade  
20 secrets to optimize certain performance aspects. For example, a firmware implementation could  
21 optimize speed over power consumption, or vice-versa. Given the numerous trade secrets  
22 embedded in IMC's firmware, public disclosure of IMC's firmware would permit competitors to  
23 copy it, along with the key features that give Intel a competitive advantage.

24 5. Intel does not disclose the design of its firmware to its customers or the public. While Intel  
25 provides some technical documentation to its customers, these documents are disclosed only after  
26 the customer has signed a non-disclosure agreement (NDA). In addition, the type of  
27 documentation that Intel provides to its customers discloses only enough information to configure  
28 and use the Intel products. It does not detail the firmware or circuitry implementation.

6. I have knowledge of three documents that were provided by Intel in this case. One

1  
2 document is entitled "X-GOLD 61x Product Specification" (593DOC002961-593DOC004487  
3 and 750DOC001172-2698). The X-GOLD 61x Product Specification contains detailed  
4 descriptions of hardware and software components of Intel's X-GOLD 61x product. I also have  
5 knowledge of a document entitled "UMTS RLC Detailed Design Description" (750DOC000698-  
6 872). This document describes the detailed structure of the IMC firmware that implements the  
7 UMTS Radio Link Control (URLC) functions in IMC's products. I also have knowledge of a set  
8 of slides (750DOC001008 - 1017) prepared by IMC system engineers that describes the  
9 principles behind the design of the scrambling code generators used in some IMC modem  
10 products. These documents are intended for internal use by Intel and contain confidential and  
11 competitively-sensitive Intel trade secrets.

12 7. IMC's product development process can be classified into two phases. First, IMC system  
13 engineers develop a detailed system design that describes how each function of the product will  
14 be implemented in hardware and software components. This model is tested and when the system  
15 engineers are satisfied with the performance of their system design it is set out in complete detail  
16 in a document such as the X-GOLD 61x Product Specification. The Product Specification  
17 document describes the various hardware and software modules that make up the system,  
18 specifies the algorithms used by each module and may address other implementation aspects of a  
19 module when these might impact system performance. The X-GOLD 61x Product Specification  
20 contains over 1500 pages of such detail. In the second phase of IMC's development process, IMC  
21 engineers design the hardware and software to implement the details of the system design, which  
22 may include writing hardware descriptor language (HDL) code to implement the modem  
23 hardware or source code for the system software.

24 8. The system design sets the primary performance characteristics of a product and is an  
25 important factor in the success of the resulting product. Disclosure of the Product Specification or  
26 documents like the scrambling code generator slides to Intel's competitors or the public would be  
27 extremely damaging to Intel. Disclosure would enable competitors to identify and copy the  
28 unique and advantageous features of IMC's system design for the X-GOLD 61x or permit a  
competitor to build a copycat product based on Intel's trade secrets. These documents are

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designed primarily for use internally at Intel, and distribution outside the company is restricted. When aspects of the detailed system design for IMC's modems need to be shared with a customer, Intel requires the customer to enter into a Non Disclosure Agreement (NDA) to protect the information revealed.

9. The UMTS RLC Detailed Design Description describes IMC's proprietary URLC firmware design in detail. It identifies the functional modules of the URLC firmware, describes how these modules interact with each other, and documents each of the individual functions. For example the Design Description identifies the inputs and outputs to each function in the URLC firmware and describes what the function does, the data structures used by the function, and any messages passed by the function.


10. Intel does not usually provide the UMTS RLC Detailed Design Description to its customers because Intel customers do not usually need to interact with the URLC firmware. The URLC Detailed Design Description contains the sort of information about both the system level design of the URLC firmware and the detailed information about parameters and data structures used by the URLC firmware that a software engineer might extract from review of the source code itself. If the URLC Detailed Design Description were available to Intel's competitors, they would be able to duplicate the URLC firmware and the numerous trade secrets it contains.

11. In the process of delivering products, IMC takes steps to secure its own firmware binaries. IMC only delivers precompiled firmware binaries and header files necessary to most of its customers. The precompiled firmware binaries are embedded into the modem software image before they are delivered as a release to the customers. Most of IMC's customers cannot modify or recreate the firmware binaries themselves. IMC employs network security measures to prevent unauthorized access to the computer systems where the source code is stored. When IMC needs to share portions of its firmware source code with a customer, IMC provides the source code only after the customer signs an NDA protecting the confidentiality of the source code.

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I have personal knowledge of the facts set forth in this declaration and declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed at Neubiberg, Germany on July 30, 2012.

  
Josef Hausner