ANDREA WEISS JEFFRIES (SBN 183408)
(andrea.jeffries@wilmerhale.com)
Wilmer Cutler Pickering Hale and Dorr LLP
350 S. Grand Ave., Suite 2100
Los Angeles, CA 90071
Telephone: +213 443 5300
Facsimile: +213 443 5400

WILLIAM F. LEE (admitted *pro hac vice*)
(william.lee@wilmerhale.com)
DOMINIC E. MASSA (admitted *pro hac vice*)
Dominic.massa@wilmerhale.com)
Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, MA 02109
Telephone: +1 617 526 6000
Facsimile: +1 617 526 5000

Attorneys for Plaintiff
Broadcom Corporation

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
WESTERN DIVISION AT LOS ANGELES — SPRING STREET

BROADCOM CORPORATION.

Plaintiff,

v.

NXP SEMICONDUCTORS, N.V., NXP BV & NXP SEMICONDUCTORS, USA INC.

Defendants,

and Related Counterclaims.

CASE No. SAC13-829-MRP (MANx)

PLAINTIFF BROADCOM CORPORATION'S DISCLOSURE OF ASSERTED CLAIMS AND INFRINGEMENT CONTENTIONS

Hon. Mariana R. Pfaelzer

I. STANDING ORDER: DISCLOSURE OF ASSERTED CLAIMS AND INFRINGEMENT CONTENTIONS

Pursuant to this Court's August 15, 2013 Standing Order (Docket No. 24) , Plaintiff Broadcom Corporation ("Broadcom") makes the following Disclosure of Asserted Claims and Infringement Contentions to Defendants NXP Semiconductors, N.V., NXP B.V. & NXP Semiconductors, USA INC. ("NXP").

To date, Broadcom Corporation has served its First and Second Sets of Requests for Production, and its First Set of Interrogatories. Broadcom expressly reserves the right to amend this disclosure as additional information becomes available during discovery and as further analysis is performed.

A. Asserted Claims

NXP has been, and is directly infringing, contributing to infringement, and/or inducing others to infringe, the following claims of the patents-in-suit under at least the applicable statutory sub-sections identified below:

Patent	Presently Asserted Claims[1]
U.S. Patent No. 7,355,485	Claims 1, 4 35 U.S.C. §§ 271(a), (b), (c)
U.S. Patent No. 7,656,643	Claim 1 35 U.S.C. §§ 271(a), (b), (c)
U.S. Patent No. 7,400,722	Claim 1, 15, 24 35 U.S.C. §§ 271(a), (b), (c)
U.S. Patent No. 8,315,381	Claims 1, 6, 8-11, 22-26, 28 35 U.S.C. §§ 271(a), (b), (c)

[1] Broadcom asserts these claims based on the information it has gathered to date about the infringing products. It believes that it may have a basis to assert additional claims, and reserves the right to do so after having the opportunity to confirm certain facts in discovery.

Patent	Presently Asserted Claims[1]
U.S. Patent No. 8,333,317	Claims 1-4, 8-14 and 16: 35 U.S.C. §§ 271(a), (b), (c) Claim 5: 35 U.S.C. §§ 271 (b), (c)

B. Accused Instrumentalities

The following list of accused NXP products is based on information that Broadcom has at this stage of the litigation, and Broadcom reserves the right to revise and to supplement this list as discovery progresses. Moreover, to the extent that NXP has developed or is developing products that operate in a manner similar to the products identified below, Broadcom anticipates supplementing this list with these products in development as information about these products is made available to Broadcom through discovery.

1. U.S. Patent No. 7,355,485 ("'485 patent")

Broadcom accuses NXP's PN544 NFC Controller product, and all other NXP products that incorporate one or more phase locked loops ("PLLs") with the same or similar structure as the Front End PLL of the PN544 NFC Controller product, of infringing claims 1 and 4 of the '485 patent. A claim chart (attached as Exhibit A) is provided for the representative PN544 product.

Based on publicly available information, Broadcom believes that other NXP products incorporate the same or similar PLL structure as the infringing PLL structure of the PN544 product, and hence views the accused PN544 as a representative product for purposes of its '485 patent infringement contentions. These products include, but are not limited to: the PN531, PN532, PN533, and PN547 NFC Controller products; the PN65 NFC SmartConnect Module and other

integrated circuit module products that integrate NFC controller products, such as the PN531, the PN512, CLRC663, CLRC632, MFRC522, MFRC523, MFRC630, MFRC631, and SLRC610 Contactless Reader IC products; and the PRH601 and PR601 Highly Integrated RFID Modules products. Broadcom accuses these and all other products containing the same infringing PLL structure as contained in the front end of the PN544 or a similar PLL structure thereto of infringing claims 1 and 4 of the '485 patent.

Broadcom will supplement its contentions to provide additional support for its infringement contentions upon reviewing the technical materials produced by NXP in discovery.

2. U.S. Patent No. 7,656,643 ("'643 patent")

Broadcom accuses NXP's PN544 NFC Controller product, and all other NXP products that incorporate one or more capacitors with the same or similar structure as the multi-layered capacitors located in the charge pump of the Front End PLL of the PN544 NFC Controller product, of infringing claim 1 of the '643 patent. A claim chart (attached as Exhibit B) is provided for the representative PN544 product.

Based on publicly available information, Broadcom believes that other NXP products incorporate the same or similar capacitor structure as the infringing capacitor structure of the PN544 product, and hence views the accused PN544 as a representative product for purposes of its '643 infringement contentions. These products include, but are not limited to: the PN532, PN533, and PN547 NFC Controller products; the CLRC663, CLRC632, MFRC522, MFRC523, MFRC630, MFRC631, and SLRC610 Contactless Reader IC products; and the PRH601 and PR601 Highly Integrated RFID Modules products. Broadcom accuses these and all other products containing the same infringing capacitor structure as contained in

the charge pump of the Front End PLL of the PN544 or a similar capacitor structure thereto of infringing claim 1 of the '643 patent.

Broadcom will supplement its contentions to provide additional support for its infringement contentions upon reviewing the technical materials produced by NXP in discovery.

3. U.S. Patent No. 7,400,722 ("'722 patent")

Broadcom accuses NXP's Secure Access Modules ("SAMs") (including MIFARE SAM AV2 products such as the P5DF081); SmartMX and SmartMX2 Smart Card Controller products (including the P5CD016/021/041/051, P5Cx081, P5CN072, P5xC012/020/024/037/052, and P5Cx012/02x/40/73/80/144 SmartMX products, and the P60C080, P60C144, P60D080 and P60D144 SmartMX2 products); Secure MCU products (including the A700x and A710x products); NFC SmartConnect Modules (including the PN65) and other integrated circuit module products that integrate Smart Card Controller products such as the P5CN072; and any other integrated circuit products that perform cryptographic hash functions in the same or similar manner, of infringing claim 1, 15, and 24 of the '722 patent. A claim chart (attached as Exhibit C) is provided for these products.

4. U.S. Patent No. 8,315,381 ("'381 patent")

Broadcom accuses NXP's Secure Access Modules ("SAMs") (including MIFARE SAM AV2 products such as the P5DF081); SmartMX and SmartMX2 Smart Card Controller products (including the P5CD016/021/041/051, P5Cx081, P5CN072, P5xC012/020/024/037/052, and P5Cx012/02x/40/73/80/144 SmartMX products, and the P60C080, P60C144, P60D080 and P60D144 SmartMX2 products); Secure MCU products (including the A700x and A710x products); NFC SmartConnect Modules (including the PN65) and other integrated circuit module products that integrate Smart Card Controller products such as the P5CN072; and

any other integrated circuit products that perform cryptographic hash functions in the same or similar manner, of infringing claims 1, 6, 8-11, 22-26, and 28 of the '381 patent. A claim chart (attached as Exhibit D) is provided for these products.

5. U.S. Patent No. 8,333,317 ("'317 patent")

Broadcom accuses NXP's Secure Access Modules ("SAMs") (including MIFARE SAM AV2 products such as the P5DF081 and MIFARE SAM AV1 products such as the P5DF072); contactless SmartMX and SmartMX2 Smart Card Controller products (including the P5CD016/021/041/051, P5Cx081, P5CN072, P5CD128, P5CD145, P5CN081, and P5CN145 SmartMX products and the P60D016, P60D024, P60D012, P60x040, P60x052, P60D080 and P60D144 SmartMX2 products); Secure MCU products (including the A700x and A710x products); NFC Controller products (including the PN532, PN533, PN544 and PN547); SmartConnect Modules (including the PN65) and other integrated circuit module products (including the MFRX852) that integrate NFC Controller products (such as the PN532 or MFRC523) and Smart Card Controller or SAM products (such as the P5CNx or P5DFx); Contactless Reader IC products (including the PN512, CLRC663, CLRC632, MFRC522, MFRC523, MFRC630, MFRC631, and SLRC610); Highly Integrated RFID Modules products (including the PRH601 and PR601); Microcontroller products (including the LPC1769, LPC1768, LPC1767, LPC1766, LPC1765, LPC1764, and LPC1763); and any other products that operate in the same or substantially similar manner, of infringing claims 1-6, 8-14, and 16 of the '317 patent. Claim charts (attached as Exhibits E1 and E2) are provided for these products.

C. Claim Charts

The claim charts attached hereto identify where each element of the asserted claims is present within each of the charted products.

Exhibit A: '485 Patent

Exhibit B: '643 Patent

Exhibit C: '722 Patent

Exhibit D: '381 Patent

Exhibit E: '317 Patent

These claim charts include citations to certain illustrative supporting evidence. This evidence is merely exemplary, providing NXP with notice of where each element of the claims may be found in the accused product groups, along with notice of how the accused product groups infringe the asserted claims. Broadcom reserves the right to rely on additional evidence in support of its contentions.

D. Inducement and Contributory Infringement

1. '485 Patent

Broadcom alleges that NXP infringes the asserted claims of the '485 patent directly through using (*e.g.* testing and/or demonstrating) the accused products and devices incorporating the accused products in the United States.

Broadcom also alleges that NXP indirectly infringes the asserted claims of the '485 patent. NXP's customers and end users directly infringe, *e.g.*, by using the accused products as intended in an infringing manner and by making, using, importing, offering for sale, and/or selling products and/or systems that incorporate the accused products as a component. NXP has encouraged these third parties and end users to purchase and to use the accused products identified above and to make, use, import, offer for sale, and/or sell products and/or systems that incorporate the accused products as a component—*e.g.*, by marketing its products, providing instructions to use the accused products (and thereby infringe) in its data sheets and technical specifications, and providing technical support and

assistance. At least since the filing of Broadcom's complaint, NXP has done so with the knowledge (or believing there is a high probability, but taking deliberate steps to avoid knowing) that the induced acts constituted infringement of the '485 patent. Thus, NXP has been and is inducing infringement of the '485 patent.

The accused products identified in above and in Exhibit A are especially made or especially adapted for use in infringing the identified claims. These instrumentalities are not staples or commodities of commerce and have no substantial use other than in infringing the identified claims. For these reasons and those stated above, NXP has been and is contributing to infringement by its customers and by end users.

2. '643 Patent

Broadcom alleges that NXP infringes the asserted claims of the '643 patent directly through, e.g., making, using, importing, offering to sell, and/or selling the accused products and devices incorporating the accused products in the United States.

Broadcom also alleges that NXP indirectly infringes the asserted claims of the '643 patent. NXP's customers and end users directly infringe, e.g., by using the accused products as intended and by making, using, importing, offering for sale, and/or selling products and/or systems that incorporate the accused products as a component. NXP has encouraged these third parties and end users to purchase and to use the accused products identified above and to make, use, import, offer for sale, and/or sell products and/or systems that incorporate the accused products as a component—e.g., by marketing its products, providing instructions to use the accused products (and thereby infringe) in its data sheets and technical specifications, and providing technical support and assistance. At least since the filing of Broadcom's complaint, NXP has done so with the knowledge (or

believing there is a high probability, but taking deliberate steps to avoid knowing) that the induced acts constituted infringement of the '643 patent. Therefore, NXP has been and is inducing infringement of the '643 patent.

The accused products identified above and in Exhibit B are especially made or especially adapted for use in infringing the identified claims. These instrumentalities are not staples or commodities of commerce and have no substantial use other than in infringing the identified claims. For these reasons and those stated above, NXP is thus contributing to infringement by its customers and by end users.

3. '722 Patent

Broadcom alleges that NXP infringes the asserted claims of the '722 patent directly through, e.g., making, using, importing, offering to sell, and/or selling the accused products and devices incorporating the accused products in the United States.

Broadcom also alleges that NXP indirectly infringes the asserted claims of the '722 patent. NXP's customers and end users directly infringe, e.g., by using the accused products as intended and by making, using, importing, offering for sale, and/or selling products and/ or systems that incorporate the accused products as a component. NXP has encouraged these third parties and end users to purchase and to use the accused products identified above and to make, use, import, offer for sale, and/or sell products and/or systems that incorporate the accused products as a component—e.g., by marketing its products, providing instructions in its data sheets and technical specifications, and providing technical support and assistance. At least since the filing of Broadcom's complaint, NXP has done so with the knowledge (or believing there is a high probability, but taking deliberate steps to

avoid knowing) that the induced acts constitute infringement of the '722 patent. Therefore, NXP has been and is inducing infringement of the '722 patent.

The accused products identified above and in Exhibit C are especially made or especially adapted for use in infringing the identified claims. These instrumentalities are not staples or commodities of commerce and have no substantial use other than in infringing the identified claims. For these reasons and those stated above, NXP is thus contributing to infringement by its customers and by end users.

4. '381 Patent

Broadcom alleges that NXP infringes the asserted claims of the '381 patent directly through, e.g., making, using, importing, offering to sell, and/or selling the accused products and devices incorporating the accused products in the United States.

Broadcom also alleges that NXP indirectly infringes the asserted claims of the '381 patent. NXP's customers and end users directly infringe, e.g., by using the accused products as intended and by making, using, importing, offering for sale, and/or selling products and/or systems that incorporate the accused products as a component. NXP has encouraged these third parties and end users to purchase and to use the accused products identified above and to make, use, import, offer for sale, and/or sell products and/or systems that incorporate the accused products as a component—e.g., by marketing its products, providing instructions to infringe in its data sheets and technical specifications, and providing technical support and assistance. At least since the filing of Broadcom's complaint, NXP has done so with the knowledge (or believing there is a high probability, but taking deliberate steps to avoid knowing) that the induced acts constituted infringement of the '381 patent. Therefore, NXP has been and is inducing infringement of the '381 patent.

The accused products identified above and in Exhibit D are especially made or especially adapted for use in infringing the identified claims. These instrumentalities are not staples or commodities of commerce and have no substantial use other than in infringing the identified claims. For these reasons and those stated above, NXP is thus contributing to infringement by its customers and by end users.

5. '317 Patent

Broadcom alleges that NXP infringes the asserted claims of the '317 patent directly through, e.g., making, using, importing, offering to sell, and/or selling the accused products (including at least the PN65) and devices incorporating the accused products in the United States in a manner that comprises the making, using, importing, offering for sale and/or sale of the patented systems of the asserted claims.

Broadcom also alleges that NXP indirectly infringes the asserted claims of the '317 patent. NXP's customers and end users directly infringe, e.g., by using the accused products as intended (including in the infringing combinations described more fully in Exhibit E2) and by making, using, importing, offering for sale, and/or selling the accused products as one or more components of the patented systems of the asserted claims. NXP has encouraged these third parties and end users to purchase the accused products identified above, to use these products in the infringing combinations described in Exhibit E2, and to make, use, import, offer for sale, and/or sell the systems that include the accused products as a component—e.g., by marketing its products, providing instructions to infringe in its data sheets and technical specifications (including instructions encouraging use of the accused products in the infringing combinations described in Exhibit E2), and providing technical support and assistance. At least since the filing of

Broadcom's complaint, NXP has done so with the knowledge (or believing there is a high probability, but taking deliberate steps to avoid knowing) that the induced acts constituted infringement of the '317 patent. NXP has therefore been inducing infringement of the '317 patent.

The accused products identified above and in Exhibits E1 and E2 (including at least the P5DF081 MIFARE SAM AV2, and the contactless SmartMX and SmartMX2 products) are especially made or especially adapted for use in infringing the identified claims. These instrumentalities are not staples or commodities of commerce and have no substantial use other than in infringing the identified claims. For these reasons and those stated above, NXP is thus contributing to infringement by its customers and by end users.

E. Literal Infringement or Doctrine of Equivalents

Broadcom contends that the asserted claims of the patents-in-suit are infringed literally by the accused NXP products. To the extent that any given limitation of the above-identified claims is found to not be literally present in the Accused Instrumentalities, Broadcom contends that any differences between such claim element and NXP's accused products are insubstantial and the Accused Instrumentalities infringe under the doctrine of equivalents. NXP's accused products perform substantially the same function, in substantially the same way, to yield substantially the same result as the asserted claims, and therefore also infringe under the doctrine of equivalents. Broadcom reserves the right to assert a theory of infringement of any claim under the doctrine of equivalents following claim construction.

F. Priority Date

1. '485 Patent

The '485 patent was filed as Application No. 11/095,117 on March 31, 2005. The '485 patent claims the benefit of the earlier filing date of Application No. 09/811,611, which was filed on March 20, 2001. Every asserted claim of the '485 patent is entitled to an effective filing date at least as early as the filing date of the 09/811,611 application.

2. '643 Patent

The '643 patent was filed as Application No. 11/878,696 on July 26, 2007. The '381 patent claims the benefit of the earlier filing date of Application No. 11/013,789, filed December 17, 2004, which claims priority to Provisional Application No. 60/530,648, which was filed on December 19, 2003. Every asserted claim of the '643 patent is entitled to a priority date at least as early as this filing date of the provisional application.

3. '722 Patent

The '722 patent was filed as Application No. 10/330,694 on December 24, 2002. The '722 patent claims priority to Provisional Application No. 60/368,583, which was filed on March 28, 2002. Every asserted claim of the '722 patent is entitled to a priority date at least as early as this filing date of the provisional application.

4. '381 Patent

The '381 patent was filed as Application No. 12/216,243 on July 1, 2008. The '381 patent claims the benefit of the earlier filing date of Application No. 10/330,694, filed December 24, 2002, which claims priority to Provisional Application No. 60/368,583, which was filed on March 28, 2002. Every asserted

claim of the '381 patent is entitled to a priority date at least as early as this filing date of the provisional application.

5. '317 Patent

The '317 patent was filed as Application No. 10/955,806 on September 30, 2004. The '317 patent claims priority to Provisional Application No. 60/507,586, which was filed on September 30, 2003. Every asserted claim of the '317 patent is entitled to a priority date at least as early as this filing date of the provisional application.

II. STANDING ORDER: DOCUMENT PRODUCTION ACCOMPANYING DISCLOSURE

In accordance with the Court's August 15, 2013 Standing Order (Docket No. 24), Broadcom also produces documents accompanying this disclosure.

A. Copies of the File Histories for Each Patent-in-Suit

Broadcom has produced the file histories of the patents-in-suit, in accordance with the Court's Standing Order, at 2 [BRCM-NXP 00000026 - BRCM-NXP 00005083].

B. Documents Evidencing Ownership of the Patents-in-Suit

In addition to the file history documents identified above, Broadcom has produced, in accordance with the Court's Standing Order, documents evidencing ownership by Broadcom of the patents-in-suit at 2 [BRCM-NXP 00000001 - BRCM-NXP 00000025].

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C. Status of Any Post-Issuance Proceedings Involving the Patents-in-Suit

At the present time, Broadcom is not aware of any post-issuance proceedings, including reexaminations, interferences, appeals from the Board of Patent Appeals and Interferences to the Court of Appeals for the Federal Circuit, and district court litigations including prior claim constructions, involving the patents-in-suit.

Dated: October 3, 2013

Respectfully submitted,

/s/ Andrea W. Jeffries

WILLIAM F. LEE (admitted *pro hac vice*)
(william.lee@wilmerhale.com)
ANDREA JEFFRIES (SBN 183408)
(andrea.jeffries@wilmerhale.com)
DOMINIC E. MASSA (admitted *pro hac vice*)
(dominic.massa@wilmerhale.com)
WILMER CUTLER PICKERING HALE AND DORR LLP
350 South Grand Avenue, Suite 2100
Los Angeles, CA 90071
Telephone: (213) 443-5300
Facsimile: (213) 443-5400

Attorneys for Attorneys for Plaintiff and Counterclaim Defendant BROADCOM CORPORATION

CERTIFICATE OF SERVICE

I, Andrea Jeffries, hereby certify that copies of the foregoing **PLAINTIFF BROADCOM CORPORATION'S DISCLOSURE OF ASSERTED CLAIMS AND INFRINGEMENT CONTENTIONS** are being served upon the following Counsel for Defendants NXP Semiconductors N.V., NXP B.V., and NXP Semiconductors USA, Inc. in the manner indicated below on this 3rd day of October, 2013.

For Defendants NXP Semiconductors N.V., NXP B.V., and NXP Semiconductors USA, Inc.:

Mark D. Rowland
Mark.rowland@ropesgray.com
Gabrielle E. Higgins
Gabrielle.higgins@ropesgray.com
ROPES & GRAY LLP
1900 University Ave., 6th Floor
East Palo Alto, CA 94303

- ☐ Via Hand Delivery
- ☒ Via Overnight Courier (1 copy)
- ☐ Via Facsimile
- ☒ Via Electronic Mail (1 copy)
- ☒ Via FTP

I certify under penalty of perjury that the foregoing is true and correct.

/s/ Andrea W. Jeffries
Andrea W. Jeffries