PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Fujitsu Semiconductor Limited	06/26/2013

RECEIVING PARTY DATA

Name:	Fujitsu Semiconductor Wireless Products, Inc.	
Street Address:	2100 East Elliot Road	
City:	Tempe	
State/Country:	ARIZONA	
Postal Code:	35284	

PROPERTY NUMBERS Total: 64

Property Type	Number
Application Number:	12796229
Patent Number:	8204456
Patent Number:	8436595
Application Number:	12905241
Patent Number:	8198968
Application Number:	12887719
Patent Number:	8451046
Application Number:	13026425
Application Number:	12879477
Patent Number:	8138844
Application Number:	12859601
Application Number:	12860447
Application Number:	13040495
Patent Number:	8427237
Application Number:	61423862
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REEL: 030793 FRAME: 0586

Application Number:	13208698
Application Number:	13079473
Patent Number:	8364112
Patent Number:	8442472
Application Number:	13080196
Application Number:	13192950
Patent Number:	8466752
Application Number:	13911876
Application Number:	13181287
Application Number:	13053966
Application Number:	13192301
Application Number:	13193003
Patent Number:	8447256
Application Number:	13169661
Application Number:	13173972
Application Number:	13195486
Patent Number:	8433255
Application Number:	13184180
Patent Number:	8463206
Application Number:	13207712
Application Number:	13207746
Application Number:	13208190
Patent Number:	8447246
Application Number:	13352083
Application Number:	13363884
Application Number:	13450570
Application Number:	13419150
Application Number:	13489988
Application Number:	13467447
Application Number:	13594616
Application Number:	13594640
Application Number:	13720705
Application Number:	13715704
Application Number:	13598412
Application Number:	13894275
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	13904575
Application Number:	13904649
Application Number:	13895139
Application Number:	13902562
Application Number:	13904743
Application Number:	12748915
Application Number:	12719692
Application Number:	13902580
Application Number:	13895101
Application Number:	13901481
Application Number:	13907796
Application Number:	13894268
Application Number:	13912623
Application Number:	13912905

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	080699.0194
NAME OF SUBMITTER:	Janet Daddona
Signature:	/ janet daddona /
Date:	07/15/2013

Total Attachments: 9

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PATENT ASSIGNMENT ("Assignment")

Fujitsu Semiconductor Limited, having an address at 2-10-23 Shin Yokohama, Kohoku-ku, Yokohama-shi, Kanagawa 222-0033 Japan ("<u>Assignor</u>") is the sole owner of the patents and patent applications listed in <u>Schedule 1</u> hereto (collectively the "<u>Listed Patents</u>"); and

Fujitsu Semiconductor Wireless Products, Inc., having an address at 2100 East Elliot Road, Tempe, Arizona 85284 ("<u>Assignee</u>") desires to acquire all right, title and interest in the Assigned Patents and the related rights described below.

For good and valuable consideration, the receipt of which is hereby acknowledged, effective as of June 26, 2013 (the "<u>Effective Date</u>"), Assignor does hereby sell, assign, transfer and convey to Assignee and its successors and assigns all right, title and interest that may exist as of the Effective Date or thereafter to any and all:

- (1) Listed Patents;
- (2) patents and patent applications to which any of the Listed Patents directly or indirectly claims, or forms the basis for, priority anywhere in the world;
- (3) reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications and divisions of any of the items listed in (1) or (2) of this Assignment;
- (4) foreign counterparts to any of the items listed in (1), (2) or (3) of this Assignment, including utility models, inventors' certificates, industrial design protection and any other form of governmental grants or issuances for the protection of inventions, designs or discoveries;
- (5) patents that issue from any of the items listed in (1) through (4) of this Assignment (items listed in (1) through (5) of this Assignment, collectively, "Assigned Patents");
- (6) inventions, invention disclosures, designs, and discoveries described in the Assigned Patents;
- (7) claims, causes of action and enforcement rights of any kind, whether currently pending, filed or otherwise, and whether known or unknown, under or arising from any of the Assigned Patents, including all rights to pursue and collect damages, costs, injunctive relief and other remedies for past, current or future infringement of the Assigned Patents and including rights afforded under 35 U.S.C. § 154(d);
- (8) royalties, income and other payments due as of the date hereof or hereafter under or arising from any of the Assigned Patents and/or other rights set forth in this Assignment (other than any royalties, income or other payments made or owed at

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- any time under the unredacted portions of the patent license agreements made available to outside counsel of Assignee or any subsequent assignee of the Assigned Patents (such agreements, the "<u>Current Patent Agreements</u>")); and
- (9) rights to apply for, file, register, maintain, extend and renew in any or all countries of the world patents, certificates of invention, utility models, industrial design protection, design patent protection and other governmental grants or issuances of any kind related to any Assigned Patents and the inventions, invention disclosures, and discoveries therein.

Assignee agrees that the Assigned Patents are subject to the applicable nonexclusive licenses expressly granted under the Current Patent Agreements.

Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks and any other patent office to issue any and all patents, utility models or other governmental grants or issuances pertaining to any of the items assigned hereunder in the name of Assignee.

This Assignment will inure to the benefit of Assignee and its successors, assigns and other legal representatives and is binding upon Assignor and its successors, assigns, heirs and legal representatives.

[Remainder of page intentionally left blank]

Assignor and Assignee, by their duly authorized representatives, have executed this Assignment to become effective as of the Effective Date.

FUJITSU SEMICONDUCTOR LIMITED

By: Akinori Tahara

Title: Head of Intellectual Property Unit

Heinoù Taharis Signature

ACCEPTED:

FUJITSU SEMICONDUCTOR WIRELESS PRODUCTS, INC.

By: Satoru Yamaguchi

Title: President and Chief Executive Officer

Signature

SIGNATURE PAGE TO PATENT ASSIGNMENT

Assignor and Assignee, by their duly authorized representatives, have executed this Assignment to become effective as of the Effective Date.

FUJITSU SEMICONDUCTOR LIMITED

By: Akinori Tahara

Title: Head of Intellectual Property Unit

Signature

ACCEPTED:

FUJITSU SEMICONDUCTOR WIRELESS PRODUCTS, INC.

By: Satoru Yamaguchi

Title: President and Chief Executive Officer

Signature

SIGNATURE PAGE TO PATENT ASSIGNMENT

SCHEDULE 1 TO PATENT ASSIGNMENT

US or Foreign Patent Number (Reg/Pub/Appl)*		Title
(Pub)	US2011/0299644A1	Emission Suppression for Wireless Communication Devices
(Pub)	JP2011-259423	Emission Suppression for Wireless Communication Devices
(Pub)	CN102281217	Emission Suppression for Wireless Communication Devices
(Pub)	EP2395670	Emission Suppression for Wireless Communication Devices
(Reg)	US8204456	Systems and Methods for Spurious Emission Cancellation
(Pub)	JP2012-065318	Systems and Methods for Spurious Emission Cancellation
(Pub)	CN102751999A	Systems and Methods for Spurious Emission Cancellation
(Reg)	KR10-1196519	Systems and Methods for Spurious Emission Cancellation
(Pub)	EP2432131	Systems and Methods for Spurious Emission Cancellation
(Reg)	US8436595	Capless Regulator Overshoot and Undershoot Regulation Circuit
(Pub)	US2012/0094613A1	Temperature Dependent Voltage Regulator
(Reg)	US8198968	System and Method for Multiple Band Transmission
(Pub)	US2012/0071111A1	Merged Filter-Transconductor Upconverter
(Reg)	US8451046	System and Method for Switch Leakage Cancellation
(Pub)	US2012/0206209A1	System and Method for Reducing Temperature-and-Process-Dependent Frequency Variation of a Crystal Oscillator Circuit
(Pub)	US2012/0063519A1	Receiver with Feedback Continuous-Time Delta-Sigma Modulator with Current-Mode Input
(Pub)	JP2012-060644	Receiver with Feedback Continuous-Time Delta-Sigma Modulator with Current-Mode Input
(Pub)	CN102404014	Receiver with Feedback Continuous-Time Delta-Sigma Modulator with Current-Mode Input
(Pub)	KR10-2012-0027094	Receiver with Feedback Continuous-Time Delta-Sigma Modulator with Current-Mode Input
(Pub)	EP2429081	Receiver with Feedback Continuous-Time Delta-Sigma Modulator with Current-Mode Input
(Reg)	US8138844	System and Method for Crystal Oscillator Frequency Tuning
(Pub)	US2012/0046005A1	System and Method for Duty Cycle Control of a Crystal Oscillator
(Pub)	US2012/0045000A1	System and Method for Amplitude Control of a Crystal Oscillator
(Pub)	US2012/0224518A1	Method and System for Reducing Timing Uncertainty of Data Transmission and Reception

Schedule 1-1

US or Foreign Patent Number (Reg/Pub/Appl)*		Title
(Pub)	JP2012-186804	Method and System for Reducing Timing Uncertainty of Data Transmission and Reception
(Pub)	CN102685873A	Method and System for Reducing Timing Uncertainty of Data Transmission and Reception
(Pub)	EP2495880	Method and System for Reducing Timing Uncertainty of Data Transmission and Reception
(Reg)	US8427237	Common-Mode Feedback Circuit
(App)	US 61/423,862	Common-Mode Feedback Circuit
(Pub)	US2012/0243579A1	System and Method for Tuning an Antenna in a Wireless Communication Device
(Pub)	JP2012-199923	System and Method for Tuning an Antenna in a Wireless Communication Device
(Pub)	CN102694566A	System and Method for Tuning an Antenna in a Wireless Communication Device
(Pub)	EP2503701	System and Method for Tuning an Antenna in a Wireless Communication Device
(Pub)	US2012/0252520A1	Method and System for Controlling Signal Transmission of a Wireless Communication Device
(Pub)	JP2012-222816	Method and System for Controlling Signal Transmission of a Wireless Communication Device
(Pub)	CN102740431A	Method and System for Controlling Signal Transmission of a Wireless Communication Device
(Pub)	EP2509219	Method and System for Controlling Signal Transmission of a Wireless Communication Device
(Serial No.)	EP 13163448.7	Method and System for Controlling Signal Transmission of a Wireless Communication Device
(Reg)	US8364112	Linearization Technique for Mixer
(Reg)	US8442472	Technique to Generate Divide by Two and 25 % Duty Cycle
(Pub)	US2012/0257701A1	System and Method for Reducing Lock Acquisition Time of a Phase- Locked Loop
(Pub)	US2013/0027235A1	Self-Calibrated DAC with Reduced Glitch Mapping
(Reg)	US8466752	System and Method for Supporting Different Types of Oscillator Circuits
(App)	US 13/911876	System and Method for Supporting Different Types of Oscillator Circuits
(Pub)	US2013/0015895A1	Temperature Compensation Circuit
(Pub)	US2013/0039368A1	System and Method for Frequency-Agile Transmission in a Wireless Communication Device
(Pub)	US2013/0027007A1	Amplifier with Multiple Zero-Pole Pairs

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US or Foreign Patent Number (Reg/Pub/Appl)*		Title
(Pub)	US2013/0027092A1	Digital Output Driver
(Reg)	US8447256	Digital Voltage-Controlled Attenuator
(Pub)	US2012/0329512A1	Method and System for Power Control of a Wireless Communication Device
(Pub)	JP2013-013080	Method and System for Power Control of a Wireless Communication Device
(Pub)	CN102858006A	Method and System for Power Control of a Wireless Communication Device
(Pub)	EP2541767	Method and System for Power Control of a Wireless Communication Device
(Pub)	US2013/0003891A1	System and Method for Estimating and Correcting Phase Shift in a Wireless Communication Device
(Pub)	JP2013-017169	System and Method for Estimating and Correcting Phase Shift in a Wireless Communication Device
(Pub)	CN102857452A	System and Method for Estimating and Correcting Phase Shift in a Wireless Communication Device
(Pub)	EP2541764	System and Method for Estimating and Correcting Phase Shift in a Wireless Communication Device
(Pub)	US2013/0033335A1	System and Method for Tuning a Semi-Digital Finite Impulse Response (sFIR) Filter
(Reg)	US8433255	System and Method for Reducing Temperature-Dependent and Process- Dependent Frequency Variation of a Crystal Oscillator Circuit
(Pub)	JP2013-017176	System and Method for Reducing Temperature-Dependent and Process- Dependent Frequency Variation of a Crystal Oscillator Circuit
(Pub)	CN102868363A	System and Method for Reducing Temperature-Dependent and Process- Dependent Frequency Variation of a Crystal Oscillator Circuit
(Pub)	EP2552025	System and Method for Reducing Temperature-Dependent and Process- Dependent Frequency Variation of a Crystal Oscillator Circuit
(Pub)	US2013/0016619A1	System and Method for Controlling Current to Certain Components of a Wireless Communication Device
(Reg)	US8463206	System and Method for Preserving Input Impedance of a Current-Mode Circuit
(Pub)	JP2013-042494	System and Method for Preserving Input Impedance of a Current-Mode Circuit
(Pub)	CN102957441A	System and Method for Preserving Input Impedance of a Current-Mode Circuit
(Pub)	EP2557685	System and Method for Preserving Input Impedance of a Current-Mode Circuit
(Pub)	US2013/0040586A1	System and Method for Improving Power Efficiency of a Transmitter

US or Foreign Patent Number (Reg/Pub/Appl)*		Title
(Pub)	JP2013-042495	System and Method for Improving Power Efficiency of a Transmitter
(Pub)	CN102957390A	System and Method for Improving Power Efficiency of a Transmitter
(Pub)	EP2557686	System and Method for Improving Power Efficiency of a Transmitter
(Pub)	US2013/0039434A1	System and Method for a Dual-Path Transmitter
(Pub)	US2013/0039394A1	System and Method for Reducing or Eliminating Temperature Dependence of a Coherent Receiver in a Wireless Communication Device
(Pub)	JP2013-042493	System and Method for Reducing or Eliminating Temperature Dependence of a Coherent Receiver in a Wireless Communication Device
(Pub)	CN102957647A	System and Method for Reducing or Eliminating Temperature Dependence of a Coherent Receiver in a Wireless Communication Device
(Pub)	EP2560286	System and Method for Reducing or Eliminating Temperature Dependence of a Coherent Receiver in a Wireless Communication Device
(Reg)	US8447246	System and Method for a Multi-Band Transmitter
(Appl)	US 13/352083	System and Method for Tuning an Antenna in a Wireless Communication Device
(Appl)	US 13/363884	Continuous-Time Incremental Analog-to-Digital Converter
(Appl)	US 13/450570	Broadband Transconductance Amplifier
(Appl)	US 13/419150	System and Method for Linearization of a Mixer
(Appl)	US 13/489988	System and Method for Correcting Integral Nonlinearity in an Oscillator System
(Appl)	US 13/467447	Transmission Line Shielding
(Appl)	US 13/594616	SYSTEM AND METHOD FOR HIGH PERFORMANCE COHERENT PEAK COMPRESSION ESTIMATION
(Appl)	US 13/594640	Tunable Wideband Distribution Circuit
(Appl)	US 13/720705	Variable Inductor for LC Oscillator
(Appl)	US 13/715704	Frequency Tuning and Step Control of a Digitally Controlled Oscillator
(Appl)	US 13/598412	DELAY COMPENSATION FOR SIGMA DELTA MODULATOR
(Appl)	US 13/894275	OUTPUT VOLTAGE VARIATION REDUCTION
(Appl)	US 13/904575	INPUT STAGE FOR TEMPERATURE MEASUREMENT SYSTEM
(Appl)	US 13/904649	TEMPERATURE MEASUREMENT SYSTEM
(Appl)	US 13/895139	REDUCING SETTLING TIME IN PHASE-LOCKED LOOPS
(Appl)	US 13/902562	HYBRID PHASE-LOCKED LOOPS
(Appl)	US 13/904743	CALIBRATED TEMPERATURE MEASUREMENT SYSTEM
(Pub)	US2011/0237211A1	Reconfigurable Diversity Receiver
(Pub)	US2011/0217940A1	Radio-Frequency Transmitter and Amplifier

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US or Foreign Patent Number (Reg/Pub/Appl)*		Title
(Appl)	US 13/902580	HYBRID PHASE-LOCKED LOOPS
(Appl)	US 13/895101	ISOLATING DIFFERENTIAL TRANSMISSION LINES
(Appl)	US 13/901481	ADJUSTING TUNING SEGMENTS IN A DIGITALLY-CONTROLLED OSCILLATOR
(Appl)	US 13/907796	SIGNAL DUTY CYCLE REDUCTION
(Appl)	US 13/894268	SIGNAL PEAK-TO-AVERAGE POWER RATIO (PAR) REDUCTION
(Appl)	US 13/912623	REDUCING TRANSMISSION SIGNAL ARTIFACT SPACING
(Appl)	US 13/912905	COMPLEMENTARY SIGNAL MIXING

^(*) Reg : Registration number Pub : Publication number Appl. : Application number