# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3687998

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the THE ASSIGNEE FROM WI-LAN, INC. TO WI-LAN INC. previously recorded on Reel 031165 Frame 0599. Assignor(s) hereby confirms the ASSIGNMENT OF ASSIGNOR'S INTEREST.

### **CONVEYING PARTY DATA**

Name	Execution Date
NEXTWAVE BROADBAND INC.	07/16/2009

### **RECEIVING PARTY DATA**

Name:	WI-LAN INC.
Street Address:	303 TERRY FOX DRIVE, STE 300
City:	OTTAWA
State/Country:	CANADA
Postal Code:	K2K3J1

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Patent Number:	8724580

### **CORRESPONDENCE DATA**

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Email: rleonard@vklaw.com

Correspondent Name: VOLPE AND KOENIG, P.C. Address Line 1: 30 S.17TH ST. STE 1800

Address Line 4: PHILADELPHIA, PENNSYLVANIA 19103

ATTORNEY DOCKET NUMBER:	WIN-P00525US3
NAME OF SUBMITTER:	ROBERT D. LEONARD
SIGNATURE:	/Robert D. Leonard/
DATE SIGNED:	01/08/2016

### **Total Attachments: 10**

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PATENT REEL: 037463 FRAME: 0516

#### SCHEDULE B

## Form of Patent Assignment for Recordation

### PATENT ASSIGNMENT

Pursuant to the Patent Sale and Transfer Agreement dated July 16, 2009 (the "Patent Agreement"), and for and in consideration of good and valuable consideration, the receipt of which is hereby acknowledged, NextWave Broadband Inc., having its address at 10350 Science Center Drive, Suite 210, San Diego, CA 92121-1138, USA ("Assignor") a Delaware corporation has sold, assigned and transferred, and does hereby sell, assign and transfer, unto Wi-LAN Inc., having its address at 11 Holland Avenue, Suite 608, Ottawa, Ontario, K1Y 4S1, Canada ("ASSIGNEE") and its successors and assigns, Assignor's entire right, title and interest in and to certain inventions and/or improvements in the patents and applications listed on Exhibit A to this Patent Assignment, together with the entire right, title and interest in and to said application, and/or in and to Letters Patent which may be issued upon said application, and any divisions, extensions, continuations or reissues thereof including, in each such case, all rights to sue for infringement of any of the patents, whether arising prior to, on or subsequent to the date of this Patent Assignment and including the right to collect past damages for any such infringement.

Assignor hereby also sells, assigns and transfers unto ASSIGNEE the entire right, title and interest in and to said inventions and in and to applications for Letters Patent therefor in all countries foreign to the United States of America, including all rights under any and all international conventions and treaties in respect of said inventions and said applications for Letters Patent in foreign countries, and further authorizes ASSIGNEE to apply for Letters Patent in foreign countries directly in its own name, and to claim priority of the filing date of the application for Letters Patent of the United States of America under the provisions of any and all international conventions and treaties.

Assignor agrees that, when requested, it will reasonably cooperate to sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in ASSIGNEE, its successors, assigns and legal representatives or nominees.

This Patent Assignment is subject to the terms and provisions of the Patent Agreement and in the event of a conflict between this Assignment and the Patent Agreement, the terms of the Patent Agreement shall control.

ASSIGNOR DOES HEREBY CONSTITUTE AND APPOINT ASSIGNEE, ITS SUCCESSORS AND ASSIGNS, AS ASSIGNOR'S TRUE AND LAWFUL ATTORNEY, WITH FULL POWER OF SUBSTITUTION FOR ASSIGNOR, AND IN ITS NAME, PLACE AND STEAD OR OTHERWISE, BUT ON BEHALF OF AND FOR THE BENEFIT OF ASSIGNEE, ITS SUCCESSORS AND ASSIGNS, THE AUTHORITY AND POWER FOR THE PURPOSE TO TAKE ALL ACTIONS AND EXECUTE ALL DOCUMENTS ON BEHALF OF ASSIGNOR NECESSARY TO EFFECT THIS PATENT ASSIGNMENT, AND FROM TIME TO TIME TO INSTITUTE AND PROSECUTE IN ASSIGNOR'S NAME OR OTHERWISE, BUT AT THE DIRECTION AND EXPENSE

18

PATENT REEL: 023371 FRAME: 0394

**PATENT** 

AND FOR THE BENEFIT OF ASSIGNEE AND ITS SUCCESSORS AND ASSIGNS, ANY AND ALL PROCEEDINGS AT LAW, IN EQUITY OR OTHERWISE, WHICH ASSIGNEE, ITS SUCCESSORS OR ASSIGNS MAY DEEM PROPER IN ORDER TO COLLECT, ASSERT OR ENFORCE ANY CLAIM, RIGHT OR TITLE OF ANY KIND IN RELATION TO THIS PATENT ASSIGNMENT AND TO DEFEND AND COMPROMISE ANY AND ALL ACTIONS, SUITS AND PROCEEDINGS IN RESPECT OF THIS PATENT ASSIGNMENT AND TO DO ANY AND ALL SUCH ACTS AND THINGS IN RELATION THERETO AS ASSIGNEE, ITS SUCCESSORS OR ASSIGNS SHALL DEEM ADVISABLE, ASSIGNOR HEREBY DECLARING THAT THE APPOINTMENT HEREBY MADE AND THE POWERS HEREBY GRANTED ARE COUPLED WITH AN INTEREST AND ARE AND SHALL BE IRREVOCABLE BY ASSIGNOR IN ANY MANNER OR FOR ANY REASON.

IN WITNESS WHEREOF, the Parties have executed this Patent Assignment as of the date below.

**ASSIGNOR:** 

ASSIGNEE:

NEXTWAVE BROADBAND, INC.

By:

Title

Date:

WI-LAN INC

By:

Title:

Date:

19

PATENT **REEL: 023371 FRAME: 0395** 

**PATENT** 

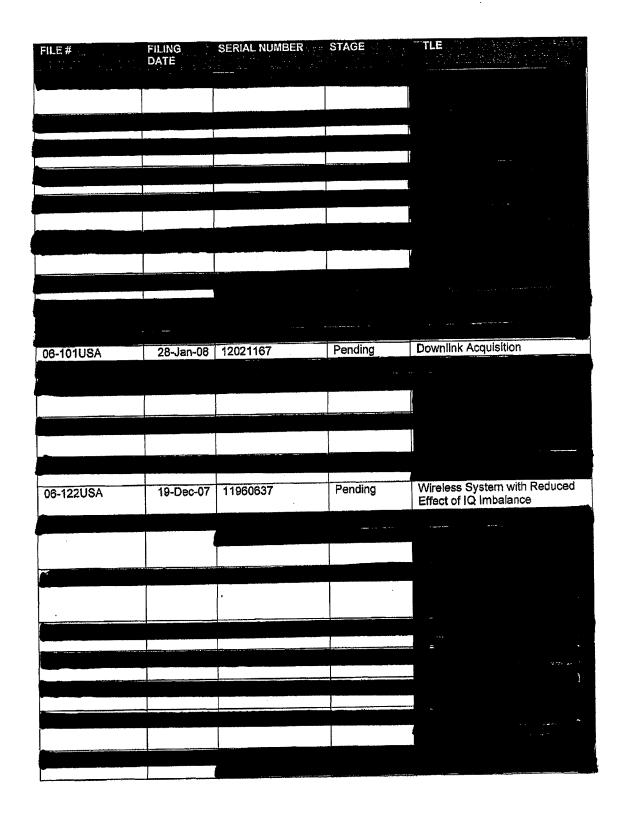
EXHIBIT A
(Patents)

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FILE#	FILING DATE	SERIAL NUMBER	STAGE	TITLE
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PATENT REEL: 023371 FRAME: 0396

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21

PATENT REEL: 023371 FRAME: 0397

**PATENT** 

FILE#	FILING DATE	SERIAL NUMBER	STAGE	TITLE
06-143USA	11-Apr-08	12101845	Pending	Efficient Determination of a Link
00*14000/	117,5100	12101070		Performance Parameter
		•		
07-174USA	9-Apr-08	12100339	Pending .	Reduction of Transmission Overhead in a Wireless Communication System

22

PATENT REEL: 023371 FRAME: 0398

**PATENT** 

FILE#	FILING DATE	SERIAL NUMBER	STAGE	TITLE CONTROL OF CONTR
				L. C. L. Markeletter and Coding
07-188USA	11-Apr-08	12101852	Pending	Uplink Modulation and Coding Scheme Selection
				-
07-206USA	27-Jun-08	12163586	Pending	Demapper Using Floating-Point Representation of Soft Bits
			6 - 10	

23

PATENT REEL: 023371 FRAME: 0399

**PATENT** 

08-239USA 2-Jul-08 12167186 Pending Outer Coding Framework for Application Packet Error Rate Minimization	
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08-252USA 29-Aug-08 12202182 Pending Network Entry and Recovery	
08-254US 29-Aug-08 12202184 Pending Data Fragmentation Identifica in a Data Table (aka Convergence Sub-Layer).	ation
08-255US 29-Aug-08 12202187 Pending Compact Specification of Data Allocations (aka MBS Number System)	ering
08-258US 3-Mar-09 12397300 Pending CL-MIMO Harmonized Feedb	back
08-259US 29-Aug-08 12202170 Pending Outer Coding Framework	
08-260US 29-Aug-08 12202180 Pending Packet Error Correlation Minimization	
08-261US 29-Aug-08 12202174 Pending Modulation Symbol to Outer Codeword Mapping	

24

PATENT REEL: 023371 FRAME: 0400

**PATENT** 

FILE#	FILING DATE	SERIAL NUMBER	STAGE	TITLE
08-263PRV	7-Jul-08	61078766	Pending	Closed Form Singular Value Decomposition
08-264PRV	7-Jul-08	61078765	Pending	Improved Precoder for Mulitple- subcarrier Band Feedback
08-265PRV	7-Jul-08	61078767	Pending	Multiple Input Multiple Output (MIMO) Rank Adaptation with Uniform Channel Decomposition
08-274PRV	28-Aug-08	61092716	Pending	Hybrid Feedback for Closed Loop MIMO
08-275PRV	3-Sep-08	61094027	Pending	MBS with Outer Coding and Adjusted Frame Reference
08-277PRV	31-Oct-08	61110455	Pending	Multicast Broadcast Service (MBS) Controller
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PATENT REEL: 023371 FRAME: 0401

**PATENT** 

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## PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

## **CONVEYING PARTY DATA**

Name	Execution Date
NextWave Broadband, Inc.	07/16/2009

### **RECEIVING PARTY DATA**

Name:	Wi-Lan, Inc.
Street Address:	303 Terry Fox Drive
Internal Address:	Suite 300
City:	Ottawa
State/Country:	CANADA
Postal Code:	K2K3J1

### PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13596961

## **CORRESPONDENCE DATA**

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 2155686400

 Email:
 cwalsh@vklay

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Address Line 1: 30 South 17th Street

Address Line 4: Philadelphia, PENNSYLVANIA 19103

ATTORNEY DOCKET NUMBER:	WIN-P00525US3
NAME OF SUBMITTER:	Christina R. Walsh
Signature:	/Christina R. Walsh/
Date:	09/09/2013

PATENT REEL: 037463 FRAME: 0525

**RECORDED: 01/08/2016**