#### 504496212 08/09/2017

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4542915

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
Shijun Sun	02/23/2004
Shawmin Lei	03/03/2004
Hiroyuki Katata	03/01/2004

### **RECEIVING PARTY DATA**

Name:	SHARP KABUSHIKI KAISHA	
Street Address:	22-22 NAGAIKE-CHO, ABENO-KU	
Internal Address:	OSAKA-SHI	
City:	OSAKA	
State/Country:	JAPAN	
Postal Code:	545-0013	

### **PROPERTY NUMBERS Total: 3**

Property Type	Number
Application Number:	15432667
Application Number:	15670250
Application Number:	15670282

### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	23156-0031015, 016, 017	
NAME OF SUBMITTER:	KRISTINE M. MCGUIRK	
SIGNATURE:	/Kristine M. McGuirk/	
DATE SIGNED:	08/09/2017	

**PATENT** REEL: 043246 FRAME: 0755 504496212

## Total Attachments: 2

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> PATENT REEL: 043246 FRAME: 0756

### **ASSIGNMENT**

WHEREAS, we, Shijun Sun, whose address is 16900 SE 26th Drive, #47, Vancouver, WA 98683; Shawmin Lei, whose address is 4522 NW Valley Street, Camas, WA 98607; and Hiroyuki Katata, whose address is 20-868, Honda-Cho 2-chome, Midori-ku, Chiba-Shi, Chiba 266-0005 JAPAN, are the inventors of an invention entitled:

## ADAPTIVE FILTERING BASED UPON BOUNDARY STRENGTH

for which, on an even date herewith, we executed an application for United States letters patent;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other valuable consideration paid to us by Sharp Kabushiki Kaisha, a Japanese corporation, whose business address is 22-22, Nagaike-cho, Abeno-ku, Osaka-shi, Osaka 545-0013, JAPAN, the receipt whereof is acknowledged, we do hereby assign and agree to assign unto the same Sharp Kabushiki Kaisha, the entire interest in said invention for the United States and all foreign countries and any letters patent to be issued therefor in the United States or any foreign country and any divisions, continuations, continuations-in-part, improvements, reissues or extensions that may be made or granted thereon.

AND the Commissioner of Patents and Trademarks is requested to issue such letters patent in accordance herewith. And we agree to execute further instruments proper for effectuating the premises.

Dated: 2/23/2004	Shijun Sun
Dated: 3 ( 3 / 2004	Shawmin Lei
Dated:	Hiroyuki Katata

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PATENT REEL: 015455 FRAME: 0761

**PATENT** 

REEL: 043246 FRAME: 0757

### **ASSIGNMENT**

WHEREAS, we, Shijun Sun, whose address is 16900 SE 26th Drive, #47, Vancouver, WA 98683; Shawmin Lei, whose address is 4522 NW Valley Street, Camas, WA 98607; and Hiroyuki Katata, whose address is 20-868, Honda-Cho 2-chome, Midori-ku, Chiba-Shi, Chiba 266-0005 JAPAN, are the inventors of an invention entitled:

# ADAPTIVE FILTERING BASED UPON BOUNDARY STRENGTH

for which, on an even date herewith, we executed an application for United States letters patent;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other valuable consideration paid to us by Sharp Kabushiki Kaisha, a Japanese corporation, whose business address is 22-22, Nagaike-cho, Abeno-ku, Osaka-shi, Osaka 545-0013, JAPAN, the receipt whereof is acknowledged, we do hereby assign and agree to assign unto the same Sharp Kabushiki Kaisha, the entire interest in said invention for the United States and all foreign countries and any letters patent to be issued therefor in the United States or any foreign country and any divisions, continuations, continuations-in-part, improvements, reissues or extensions that may be made or granted thereon.

AND the Commissioner of Patents and Trademarks is requested to issue such letters patent in accordance herewith. And we agree to execute further instruments proper for effectuating the premises.

·
jun Sun
wmin Lei
iroyuki Katata
oyuki Katata
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PATENT REEL: 015455 FRAME: 0762

**PATENT** 

REEL: 043246 FRAME: 0758

RECORDED: 08/09/2017

**RECORDED: 06/14/2004**