PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHUNYAN GAO	07/13/2011
JING HAN	07/13/2011
ERLIN ZENG	07/13/2011
NA WEI	07/13/2011
WEI BAI	07/13/2011

RECEIVING PARTY DATA

Name:	RENESAS MOBILE CORPORATION	
Street Address:	6-2 OTEMACHI 2-CHOME	
City:	токуо	
State/Country:	JAPAN	
Postal Code:	100-0004	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14232077

CORRESPONDENCE DATA

Fax Number:

Phone: 860-521-0829
Email: patent@stantonip.com

Correspondence will be sent via US Mail when the email attempt is unsuccessful.

Correspondent Name: STANTON IP LAW, LLC

Address Line 1: 433 SOUTH MAIN STREET, SUITE 105
Address Line 4: WEST HARTFORD, CONNECTICUT 06110

ATTORNEY DOCKET NUMBER: 12.0344US01

NAME OF SUBMITTER: JERRY STANTON

PATENT REEL: 031941 FRAME: 0907

502630295

Signature:	/Jerry Stanton/
Date:	01/10/2014
Total Attachments: 6 source=RM115174_Assignment#page1.tif source=RM115174_Assignment#page2.tif source=RM115174_Assignment#page3.tif source=RM115174_Assignment#page4.tif source=RM115174_Assignment#page5.tif source=RM115174_Assignment#page6.tif	

PATENT REEL: 031941 FRAME: 0908

ASSIGNMENT

Title of Invention	SEARCH SPACE FOR COMPONENT CARD	RIER SPECIFIC UL/DL
Filing	This assignment is directed to (check all that apply):	
Details	US Provisional Application No.	Filed On
	US Application No. 14/232,077	Filed On 10 January 2014
	a 371 national stage of	Filed On
	United Kingdom Patent Application	Filed On
	PCT Application No. PCT/CN2011/077063	Filed On <u>July 12, 2011</u>

As the below named inventor(s), I/we,

- (1) Chunyan Gao, a citizen of the People's Republic of China and residing at RuYiLi Room 271, #6 Building, Xi Zhi Men Nei Da Jie, Bei Cao Chang HuTong, Xicheng District, Beijing 100035, China;
- (2) Jing Han, a citizen of the People's Republic of China and residing at Room 1606, Building 3, Xi Ba He Xi Li Residential Area, Chaoyang District, Beijing 100028, China;
- (3) Erlin Zeng, a citizen of the People's Republic of China and residing at Room 1605, Building A-12, Xi San Qi Jian Cai Cheng Fu Li Tao Yuan, Haidian District, Beijing 100096, China;
- (4) Na Wei, a citizen of the People's Republic of China and residing at Jing Ao Jia Yuan #609-2-303, Chaoyang District, Beijing 100018, China;
- (5) Wei Bai, a citizen of the People's Republic of China and residing at Room 1201, Building 14, Xi Ba He Zhong Li, Chaoyang District, Beijing 100028, China;

have invented certain improvements in the patent application for which I/we have filed an application for Letters Patent as identified above;

WHEREAS, I/we authorize the attorney of record to update this document to include Filing Details as listed above (i/e., filing date, serial number, etc.) to correspond to the Title of the Invention and Docket Number if such Filing Details are not available at the time I/we signed this document;

WHEREAS, RENESAS MOBILE CORPORATION, a corporation organized under the laws of Japan, having its principal office in 6-2, Otemachi 2-chome, Chiyoda-ku, Tokyo, Japan (hereinafter referred to as "ASSIGNEE"), is desirous of acquiring the entire right, title and interest in and under the said invention and the said application, and in and to any and all Letters Patent which shall be granted therefore in any and all

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countries where it has been filed, including all rights to claim priority, and to any and all improvements which are disclosed in the invention entitled.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto said Assignee, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under said invention, and said application, and all divisional, renewal, substitutional, non-provisional, and continuing applications thereof, and all Letters Patent of any and all countries which may be granted thereon and all reissues, reexaminations, and extensions thereof, and all applications for Letters Patent which may be filed for said invention in any country or countries, and all extensions, renewals, reexaminations, and reissues thereof, and all prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and we hereby authorize and request the official of any country or countries, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to said Assignee, its successors, legal representatives and assigns, any facts known to me respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, reexamination, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid said Assignee, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

This Assignment is deemed to be effective at least as early as <u>July 12, 2011</u> (the first filing priority date).

Inventor Name:	Chunyan Gao	Inventor Signature
		Dated: 7.0//- 07-/3
		Witness Signature WEI HONG
		Witness Name:

Inventor Name:	Jing Han	to Han
		Inventor Signature
		Dated:
		(d) Mg
		Witness Signature
		Witness Name: WEI HONG

Inventor Name: Erlin Zeng	Erlin Zeng	Win Lan
		Inventor Signature
		Dated:
		ales lew
		Witness Signature
		Witness Name: WEI HONG

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Inventor Name:	Na Wei	Inventor Signature
		Dated: 2011.07.13
		Witness Signature
		Witness Name: WET HONG

Inventor Name: W	/ei Bai	Inventor Signature
		<u> </u>
		Dated:
		(My Hor
		Witness Signature
		Witness Name: WEI HONG