PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3389514

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MIN SUP SONG	03/04/2015
YOUNG DONG SON	03/04/2015
KWANG HYUN LEE	03/04/2015

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRO-MECHANICS CO., LTD.
Street Address:	(MAETAN-DONG) 150, MAEYOUNG-RO, YEONGTONG-GU, GYEONGGI-DO, 443-743
City:	SUWON-SI
State/Country:	KOREA, REPUBLIC OF

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	14734852	

CORRESPONDENCE DATA

Fax Number: (202)315-3758

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.

Phone: 202-429-0020 Email: pto@nsiplaw.com

Correspondent Name: NSIP LAW

Address Line 1: P.O. BOX 65745

Address Line 4: WASHINGTON, D.C. 20035

ATTORNEY DOCKET NUMBER:	013134.0019
NAME OF SUBMITTER:	S. LAURA CHUNG
SIGNATURE:	/S. Laura Chung/
DATE SIGNED:	06/09/2015

Total Attachments: 3

source=NewApp_0131340019_CDA_EPAS#page1.tif source=NewApp_0131340019_CDA_EPAS#page2.tif source=NewApp_0131340019_CDA_EPAS#page3.tif

PATENT 503342894 REEL: 035811 FRAME: 0481

COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

DECLARATION

As a below-named inventor, I hereby declare that this declaration is directed to the application attached

hereto, or to United States A	pplication N	umber or PCT In	ternational Applic	cation Number
14/734,852	filed on _	June 9, 2015	(if a	applicable), entitled:
DIRECTIONAL DC-D	C CONVER	RTER AND BI-D	IRECTIONAL :	D METHOD OF BI- DC-DC CONVERTING NTROL APPARATUS
The above-identified applica	ntion was ma	de or authorized t	o be made by me	
I believe I am the original in identified application.	ventor or an	original joint inv	entor of a claimed	l invention in the above-
I hereby acknowledge that a USC 1001 by fine or impris	-			
I have reviewed and underst	and the conto	ents of the above-	identified applica	tion, including the claims.
I am aware of the duty to disknown to me to be material applications, material informand the national or PCT into	to patentabile	ity as defined in 3 ecame available b	7 CFR 1.56, include tween the filing	iding for continuation-in-par date of the prior application
		ASSIGNME	NT	
For valuable consideration,	I, as a below	-named assignor,	hereby assign to:	
Samsung Electro-Mo Maeyoung-Ro 150 (Suwon-Si, Gyeongg Republic of Korea (zipcode: 443-743)	Maetan-Don		a	
and its successors and assig interest throughout the work identified in the above deck	d in the inve	ntions and improv	ements that are the	ne subject of the application
Application Number14	/734,852	filed	on June 9, 20	

1

Attorney Docket No.:

I authorize and request the attorneys appointed in the above-identified application to hereafter complete this Assignment by inserting above the application number and the filing date of the above-identified application when known, and to correct any typographical errors that may be discovered in this Assignment.

This Assignment includes the above-identified application, any and all United States and foreign patents, utility models, and design registrations granted for any of the inventions and improvements that are the subject of the above-identified application, and the right to claim priority based on the filing date of the above-identified application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and I authorize the Assignee to apply in all countries in my name or in its own name for patents, utility models, design registrations, like rights of exclusion, and inventors' certificates for any of the inventions and improvements that are the subject of the above-identified application; and I agree for myself and my heirs, legal representatives, and assigns without further compensation to perform such lawful acts and to sign such further applications, Assignments, preliminary statements, and other lawful documents as the Assignee may reasonably request to effectuate fully this Assignment.

In witness whereof, I, as a below-named inventor and assignor, intending to be legally bound, have hereunto affixed my signature on the date indicated below next to my signature.

Inventor's Legal Name	SONG, Min Sup		
Inventor's Signature	Song MinSup Date Mar. 04,2015		
Residence (City, Country)	Gyeonggi-do, Republic of Korea		
Mailing Address	c/o Samsung Electro-Mechanics Co., Ltd., Maeyoung-Ro 150 (Maetan- Dong), Youngtong-Gu, Suwon-Si, Gyeonggi-Do, Republic of Korea (zipcode: 443-743)		

Inventor's Legal Name	SON, Young Dong		
Inventor's Signature	Sonth	Date	Mar. 04. 2015
Residence (City, Country)	Gyeonggi-do, Republic of Korea		
Mailing Address	c/o Samsung Electro-Mechanics Co., Ltd., Maeyoung-Ro 150 (Maetan- Dong), Youngtong-Gu, Suwon-Si, Gyeonggi-Do, Republic of Korea (zipcode: 443-743)		

Attorney Docket No.:

Inventor's Legal Name	LEE, Kwang Hyun		
Inventor's Signature	Kartre	Date	Mar. 04. 20/5
Residence (City, Country)	Gyeonggi-do, Republic of Korea		
Mailing Address	c/o Samsung Electro-Mechanics Co., Ltd., Maeyoung-Ro 150 (Maetan- Dong), Youngtong-Gu, Suwon-Si, Gyeonggi-Do, Republic of Korea (zipcode: 443-743)		