### 503804779 04/28/2016

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3851426

	SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY D	ΑΤΑ				
		Name		Execution Date	
LAKSHMIKANTH TIPPA	RAJU			04/21/2016	
ALLAN DEVANTIER					
WILLIAM DECANIO				04/24/2016	
ANDRI BEZZOLA				04/25/2016	
RECEIVING PARTY DA	TA				
Name:	SAMSU	ING ELECTRONICS CO., I	LTD.		
Street Address:	129, SA	MSUNG-RO, YEONGTON	IG-GU		
City:	SUWO	SUWON-SI, GYEONGGI-DO			
State/Country:	KOREA	, REPUBLIC OF			
Property Type		15141504			
Application Number:		15141594			
Application Number:	ΑΤΑ	(424)229-6815			
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i>	ATA	(424)229-6815 • <b>the e-mail address first;</b>			
Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p	ATA e sent to provideo	(424)229-6815 • <b>the e-mail address first;</b> •; <b>if that is unsuccessful,</b>			
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i>	ATA e sent to provideo	(424)229-6815 • <b>the e-mail address first;</b>			
Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone:	ATA e sent to provideo	(424)229-6815 • <b>the e-mail address first;</b> <b>I; if that is unsuccessful,</b> 424-229-6800			
Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1:	ATA e sent to provideo	(424)229-6815 <b>the e-mail address first;</b> <b>if that is unsuccessful, i</b> 424-229-6800 patent@shermanip.com SHERMAN IP LLP (SRA) 1519 26TH STREET	it will be sent via		
Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name:	ATA e sent to provideo	(424)229-6815 • <b>the e-mail address first;</b> <b>if that is unsuccessful, i</b> 424-229-6800 patent@shermanip.com SHERMAN IP LLP (SRA)	it will be sent via		
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>using a fax number, if µ</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 4:	ATA e sent to provideo	(424)229-6815 <b>the e-mail address first;</b> <b>if that is unsuccessful, i</b> 424-229-6800 patent@shermanip.com SHERMAN IP LLP (SRA) 1519 26TH STREET	it will be sent via		
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 4: ATTORNEY DOCKET NU	ATA e sent to provideo	(424)229-6815 <b>the e-mail address first;</b> <b>if that is unsuccessful, i</b> 424-229-6800 patent@shermanip.com SHERMAN IP LLP (SRA) 1519 26TH STREET SANTA MONICA, CALIFOI	it will be sent via	US Mail.	
Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1:	ATA e sent to provideo	(424)229-6815 <b>the e-mail address first;</b> <b>if that is unsuccessful,</b> 424-229-6800 patent@shermanip.com SHERMAN IP LLP (SRA) 1519 26TH STREET SANTA MONICA, CALIFOI SAM2-P.E127	it will be sent via RNIA 90404 MAL, LTD. REC. N	US Mail.	

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# DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR MULTIPLE ASSIGNEES

Title of ACOUSTIC FILTER FOR OMNIDIRECTIONAL LOUDSPEAKER		
Invention		
As the undersigned inventor, I hereby declare that:		
This combined declaration and The attached application, or		
assignment is directed to:  United States application or PCT International application number filed on		
The above-identified application was made or authorized to be made by me.		
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.		
I have reviewed and understand the contents of the application including the claims, for which this combined declaration and assignment is being submitted.		
I am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR 1.56.		
WHEREAS, <u>Samsung Electronics Co., Ltd.</u> , a Korean corporation, having a place of business at 129. Samsung-ro, Yeongtong-gu Suwon-si, Gyeonggi-do, Korea (hereinafter referred to collectively as "ASSIGNEES"), desire to jointly acquire the entire right, title and undivided interest in said invention and to any patent that may be granted thereon in the United States and foreign countries;		
NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, We, the below named inventors, hereby sell, assign and transfer to said ASSIGNEES, their successors and assigns, the entire right, title and interest in the above-identified application and the invention disclosed therein in all countries, including all divisional applications, continuation applications, and corresponding priority applications including those to which priority is claimed under the International Convention of Paris including under 35 U.S.C. 119, substitutions, and renewals thereof, and to all patents that may be granted thereon, and all reissues thereof.		
We hereby authorize and request the Patent Office Officials in the United States and all foreign countries to issue patents, when granted, to said ASSIGNEES, their successors and assigns. Further, We agree that said ASSIGNEES, their successors and assigns, may apply for patents for the invention in foreign countries without further authorization from us. Also, We agree to execute all papers and generally to do everything possible to aid said ASSIGNEES, its successors and assigns, in obtaining and enforcing patents for the invention in all countries.		
I hereby acknowledge that any willful false statement made in this combined declaration and assignment is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.		
LEGAL NAME OF FIRST INVENTOR (e.g., full first name, middle initial, last name)		
Inventor: Lakshmikanth Tipparaju Date: Apare 21st, 2016		
Signature: T. Laks Rouisan H.		
LEGAL NAME OF SECOND INVENTOR (e.g., full first name, middle initial, last name)		
Inventor: <u>Allan Devantier</u> Date:		

Signature:

SAM2-P.e127 (DMS15-AU01-A2)

Page 1 of 2

LEGAL NAME OF THIRD INVENTOR (e.g., full first name, middle initial, last name)		
Inventor: _ William Decanio	_ Date:	
Signature:		
LEGAL NAME OF FOURTH INVENTOR (e.g., full first name, middle initial, last name)		
Inventor: _ Andri Bezzola	Date:	
Signature:		

## DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR MULTIPLE ASSIGNEES

Title of	ACOUSTIC FILTER FOR OMNIDIRECTIONAL LOUDSPEAKER			
Invention	ACCUSTIC TILTER FOR OMNIMIREL I RIVAL LAUDSPEARER			
As the undersi	gned inventor. I hereby declare that:			
This combined assignment is	f declaration and  ☐The attached application, or directed to: filed on			
The above-ide	The above-identified application was made or authorized to be made by me.			
I believe that I	am the original inventor or an original joint inventor of a claimed invention in the application.			
I have reviewed and understand the contents of the application including the claims, for which this combined declaration and assignment is being submitted.				
1 am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR 1.56.				
WHEREAS, <u>Samsung Electronics Co., Ltd., a Korean corporation, having a place of business at 129</u> , <u>Samsung-ro, Yeongtong-gu</u> <u>Suwon-si, Gyeonggi-do, Korea</u> (hereinafter referred to collectively as "ASSIGNEES"), desire to jointly acquire the entire right, title and undivided interest in said invention and to any patent that may be granted thereon in the United States and foreign countries;				
NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, We, the below named inventors, hereby sell, assign and transfer to said ASSIGNEES, their successors and assigns, the entire right, title and interest in the above-identified application and the invention disclosed therein in all countries, including all divisional applications, continuation applications, and corresponding priority applications including those to which priority is claimed under the International Convention of Paris including under 35 U.S.C. 119, substitutions, and renewals thereof, and to all patents that may be granted thereon, and all reissues thereof.				
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I hereby acknowledge that any willful false statement made in this combined declaration and assignment is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.				
LEGAL NAM	E OF FIRST INVENTOR (e.g., full first name, middle initial, last name)			
Inventor: Lakshmikanth Tipparaju Date:				
Signature:				
LEGAL NAM	OF SECOND INVENTOR (e.g., full first name, middle initial, last name)			
Inventor: <u>All</u>				
Signature: alan Davite				

SAM2-P.e127 (DM815-AU01-A2)

Page 1 of 2

PATENT REEL: 038414 FRAME: 0988

LEGAL NAME OF THIRD INVENTOR (e.g., full first name, middle initial, last name)		
Inventor: _ William Decanio	_ Date:	
Signature:		
LEGAL NAME OF FOURTH INVENTOR (e.g., full first name, middle initial, last name)		
Inventor: _ Andri Bezzola	Date:	
Signature:		

#### DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR MULTIPLE ASSIGNEES

Title of	4.000 0000 000 0		5. A F - F - A X (75.0 3.27 - A X / 20.0)
Invention	ALANSI IL FILI	ER FOR OMNIDIRECTIO	AL LAUDSPEARER
As the undersig	goed inventor, I here	by declare that:	
This combined assignment is d		SThe attached application, or United States application or filed on	PCT International application number
The above-ider	stified application w	as made or authorized to be m	ade by me.
I believe that I	am the original inve	ntor or an original joint invent	or of a claimed invention in the application.
	d and understand the wing submitted.	contents of the application in	cluding the claims, for which this combined declaration and
I am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR 1.56.			
Suwon-si, Gye	onggi-do, Korea (he	reinafter referred to collective	n, having a place of business at 129, Samsung-ro, Yeongtong-gu ly as "ASSIGNEES"), desire to jointly acquire the entire right, t may be granted thereon in the United States and foreign
NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, We, the below named inventors, hereby sell, assign and transfer to said ASSIGNEES, their successors and assigns, the entire right, title and interest in the above-identified application and the invention disclosed therein in all countries, including all divisional applications, continuation applications, and corresponding priority applications including those to which priority is claimed under the International Convention of Paris including under 35 U.S.C. 119, substitutions, and renewals thereof, and to all patents that may be granted thereon, and all reissues thereof.			
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		ful false statement made in thi nt of not more than five (5) ye	s combined declaration and assignment is punishable under 18 ars, or both
LEGAL NAME	OF FIRST INVEN	TOR (e.g., full first name, mic	Idle initial, last name)
Inventor: Laksi	imikanth Tipparaj	u	Date:
Signature:			
LEGAL NAME	OF SECOND INV	ENTOR (e.g., full first name,	middle initial, last name)
Inventor: <u>Alls</u>	n Devantier		Date:
Signature:			
·····			

SAM2-P.e127 (DMS13-AU01-A2)

Page 1 of 2

LEGAL NAME OF THIRD INVENTOR (e.g., full first name, middle initial, last name)		
Inventor: William Decanio Date: 4 23 16		
Signature: Unil Q		
LEGAL NAME OF FOURTH INVENTOR (e.g., full first name, middle initial, last name)		
Inventor: <u>Andri Bezzola</u> Date:		
Signature:		

#### DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR MULTIPLE ASSIGNEES

Title of ACOUSTIC FILTER FOR OMNIDIRECTIONAL LOUDSPEAKER			
Invention			
As the undersigned inventor, I hereby declare that:			
This combined declaration and assignment is directed to:       Image: The attached application, or         Image: Declaration and assignment is directed to:       Image: Declaration of PCT International application number			
The above-identified application was made or authorized to be made by me.			
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.			
I have reviewed and understand the contents of the application including the claims, for which this combined declaration and assignment is being submitted.			
I am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR 1.56.			
WHEREAS, <u>Samsung Electronics Co., Ltd., a Korean corporation, having a place of business at 129, Samsung-ro, Yeongtong-gu</u> <u>Suwon-si, Gyeonggi-do, Korea (hereinafter referred to collectively as "ASSIGNEES")</u> , desire to jointly acquire the entire right, title and undivided interest in said invention and to any patent that may be granted thereon in the United States and foreign countries;			
NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, We, the below named inventors, hereby sell, assign and transfer to said ASSIGNEES, their successors and assigns, the entire right, title and interest in the above-identified application and the invention disclosed therein in all countries, including all divisional applications, continuation applications, and corresponding priority applications including those to which priority is claimed under the International Convention of Paris including under 35 U.S.C. 119, substitutions, and renewals thereof, and to all patents that may be granted thereon, and all reissues thereof.			
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LEGAL NAME OF FIRST INVENTOR (e.g., full first name, middle initial, last name)			
Inventor: Lakshmikanth Tipparaju Date:			
Signature:			
LEGAL NAME OF SECOND INVENTOR (e.g., full first name, middle initial, last name)			
Inventor: <u>Allan Devantier</u> Date:			
Signature:			

SAM2-P.e127 (DMS15-AU01-A2)

Page 1 of 2

LEGAL NAME OF THIRD INVENTOR (e.g., full first name, middle initial, last name)		
Inventor: <u>William Decanio</u>	Date:	
Signature:		
LEGAL NAME OF FOURTH INVENTOR (e.g., full first name, middle initial, last name)		
Inventor:Andri Bezzola	Date: 04/25/2016	
Signature: Andri Dasenh		

SAM2-P.e127 (DMS15-AU01-A2)

Page 2 of 2

#### PATENT REEL: 038414 FRAME: 0993

#### **RECORDED: 04/28/2016**