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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HYUN JIN YOO	10/19/2018
JONG MO LIM	10/19/2018
YOO SAM NA	10/19/2018
HYUNG JUN CHO	10/19/2018
YOO HWAN KIM	10/19/2018
HYUN HWAN YOO	10/19/2018

RECEIVING PARTY DATA

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Internal Address:	GYEONGGI-DO	
City:	SUWON-SI	
State/Country:	KOREA, REPUBLIC OF	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16169133

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SIGNATURE: /Mark E. Wallerson/

DATE SIGNED: 10/24/2018

Total Attachments: 3

PATENT REEL: 047293 FRAME: 0203 source=NewApp_0130571700_CDA_w_AppNo#page1.tif source=NewApp_0130571700_CDA_w_AppNo#page2.tif source=NewApp_0130571700_CDA_w_AppNo#page3.tif

> PATENT REEL: 047293 FRAME: 0204

COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

DECLARATION

As a below-named inventor, I hereby declare that this or to United States Application Number or PCT Internation	declaration is directed to the application attached hereto, tional Application Number
filed on	(if applicable), entitled:
	G APPARATUS WITH PHASE DISTORTION VISATION
The above-identified application was made or authorize	ed to be made by me.
I believe I am the original inventor or an original joint in application.	ventor of a claimed invention in the above-identified
I hereby acknowledge that any willful false statement m 1001 by fine or imprisonment of not more than five (5) y	•
I have reviewed and understand the contents of the abo	ove-identified application, including the claims.
I am aware of the duty to disclose to the United States	Patent and Trademark Office all information known to

ASSIGNMENT

me to be material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information that became available between the filing date of the prior application and the national or

For valuable consideration, I, as a below-named assignor, hereby assign to:

SAMSUNG ELECTRO-MECHANICS CO., LTD. Maeyoung-ro 150 (Maetan-dong), Youngtong-gu Suwon-si, Gyeonggi-do Republic of Korea

PCT international filing date of the continuation-in-part application.

Number 16	3/169,133	filed on	October 24, 2018		
identified in the	above declaration,	which is United	States Application Nu	mber or PCT Interna	ational Application
interest through	out the world in the	inventions and	improvements that are	e the subject of the a	application
and its success	ors and assigns (co	ollectively herein	after called "the Assig	nee"), the entire righ	it, title, and

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.

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COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

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	Hyun Jin YOO				
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Inventor's Legal Name	Yoo Sam NA				
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COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

Inventor's Legal Name	Hyun Hwan YOO		
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