# 505489859 05/22/2019

## PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY D	ΑΤΑ				
		Name	Execution Date		
MILAN SHAH			11/14/2018		
TARIQ AFZAL			11/14/2018		
THOMAS ZOU			11/14/2018		
RECEIVING PARTY DA	TA				
Name:	LG ELEC	CTRONICS INC.			
Street Address:	128, YEC	DUI-DAERO, YEONGDEUNGPO-G	iU		
City:	SEOUL				
State/Country:	KOREA,	REPUBLIC OF			
Postal Code:	07336				
Application Number:	10	6301141			
Application Number:		0301141			
CORRESPONDENCE D		0301141			
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PATENT REEL: 049260 FRAME: 0621

#### ASSIGNMENT

(1-8)		(1)	SHAH, Milan	(5)	
	Inventor(s)	(2)	AFZAL, Tariq	(6)	
		(3)	ZOU, Thomas	(7)	
		(4)		(8)	
			valuable considerations	sum of one dollar (\$1.00) paid to each of the undersig hereby does assign, transfer	ned, the undersigned
(9)	Insert name of Assignee	(9)	LG Electronics Inc.		
(10)	Insert state of Incorporation of Assignee	(10)	Republic of Korea		
(11)	Insert address of Assignee	(11)	128, Yeoui-daero, Yeon	gdeungpo-gu, Seoul, 07336,	Republic of Korea
			einafter designated as the state of the second s	he Assignee) the entire wor n as	ldwide right, title and
(12)	Insert identification of Invention, such as Title, Case Number or Foreign	(12)	SYSTEM AND METHO	D FOR OPTIMIZING DRAM	BUS SWITCHING
	Application Number		for which the undersigned	ed has (have) executed an a	oplication for patent in

1) The undersigned agree(s) to execute all papers necessary in connection with any original, reissue, divisional and continuing United States and foreign applications for the above-identified invention and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

the United States of America and all patent applications in foreign

countries corresponding thereto or based thereon.

2) The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation or division thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

3) The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

4) The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

5) The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any division or divisions or continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed any agreement in conflict herewith.

The undersigned hereby appoints the Attorneys associated with Customer No. 35884 the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

		LG Ref.: 17SIC000	PC01US01 (SSO)
Date:	11/14/18	Signature of Inventor (1) SHAH, Milan	
Date:	<u>สาราชสาราชสาราชสาราชสาราชสาร</u>	Signature of Inventor (2) AFZAL, Taria	
Date:	No. Contraction of the Contraction of the Contraction	Signature of Inventor (3) ZOU. Thomas	

#### ASSIGNMENT

(1-8)		(1)	SHAH, Milan	(5)	
	Inventor(s)	(2)	AFZAL, Tariq	(6)	
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			valuable considerations	sum of one dollar (\$1.00) paid to each of the undersig hereby does assign, transfer	ned, the undersigned
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(10)	Insert state of Incorporation of Assignee	(10)	Republic of Korea		
(11)	Insert address of Assignee	(11)	128, Yeoui-daero, Yeon	gdeungpo-gu, Seoul, 07336,	Republic of Korea
			einafter designated as the state of the second s	he Assignee) the entire wor n as	ldwide right, title and
(12)	Insert identification of Invention, such as Title, Case Number or Foreign	(12)	SYSTEM AND METHO	D FOR OPTIMIZING DRAM	BUS SWITCHING
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### LG Ref.: 17SIC006PC01US01 (8SO)

Date:	EN EXCENSION DE LE	Signature of Inventor (1) SHAH, Milan
Date:	Nov 14th 2018	Signature of Inventor (2) AFZAL Taria Jarig Afgal
Date:		Signature of Inventor (3) ZOU, Thomas

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#### ASSIGNMENT

(1-8)		(1)	SHAH, Milan	(5)	
	Inventor(s)	(2)	AFZAL, Tariq	(6)	
		(3)	ZOU, Thomas	(7)	
		(4)		(8)	
			In consideration of the valuable considerations pagree(s) to assign, and h	paid to each of the under	signed, the undersigned
(9)	Insert name of Assignee	(9)	LG Electronics Inc.		
(10)	Insert state of Incorporation of Assignee	(10)	Republic of Korea		
(11)	Insert address of Assignee	(11)	128, Yeoui-daero, Yeong	deungpo-gu, Seoul, 0733	6, Republic of Korea
			einafter designated as the est in the invention known	÷ ·	orldwide right, title and
(12)	Insert identification of Invention, such as Title, Case Number or Foreign	(12)	SYSTEM AND METHOD USING LLC	FOR OPTIMIZING DRA	M BUS SWITCHING
	Application Number		for which the undersigned	t has (have) executed an	application for patent in

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Date:		Signature of Inventor (2) <u>AFZAL, Tariq</u>
Date:	11 / 14 / 2018	Signature of Inventor (3) ZOU, Thomas

**RECORDED: 05/22/2019**