507653947 12/19/2022

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
YONG-SHENG HUANG	03/10/2020	
MING CHYI LIU	03/06/2020	
CHIH-PIN HUANG	03/11/2020	

RECEIVING PARTY DATA

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State/Country:	TAIWAN		
Postal Code:	300-78		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	18067809	

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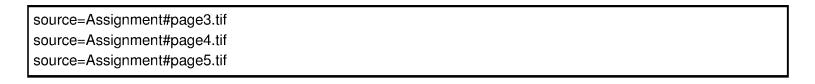
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ATTORNEY DOCKET NUMBER:	TSMCP1096USB
NAME OF SUBMITTER:	MATTHEW W. GLAUSE
SIGNATURE:	/Matthew W. Glause/
DATE SIGNED:	12/19/2022

Total Attachments: 5

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PATENT 507653947 REEL: 062137 FRAME: 0323





PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

Assignor(s):

Yong-Sheng Huang

Assignor(s):

Ming Chyi Liu

Assignor(s):

Chih-Pin Huang

Assignee:

Taiwan Semiconductor Manufacturing Co., Ltd. No. 8, Li-Hsin Rd. 6, Hsin-Chu Science Park Hsin-Chu, Taiwan 300-77 Republic of China

AGREEMENT

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled "ETCH METHOD FOR OPENING A SOURCE LINE IN FLASH MEMORY" for which:

a non-provisional application for United States Letters Patent:

was executed on even date preparatory to filing (each inventor should sign this

Assignment on the same day as he/she signs the Declaration); or

was filed on _____ and accorded U.S. Serial No. ____; or

I hereby authorize	and request	my attorney	associated	with Custon	er No.
<u>107476</u> , to insert o	n the designat	ed lines belo	w the filing (date and app	dication
number of said appl	lication when k	nown:			
U.S. Serial No.			•		
filad on					

WHEREAS, ASSIGNEE (listed above), a corporation of the Republic of China is desirous of acquiring the entire right, title and interest in and to the invention and in and to

any letters patent that may be granted therefore in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S) hereby sell, assign and transfer unto ASSIGNEE its successors and assigns, the entire right, title and interest in and to said invention and improvements, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues, re-examinations and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR(S) had this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNOR(S) agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefore.

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2020/7/10

Date

Young Sheng Huang
Name 1st Inventor Yong-Sheng Huang

TSMC Docket No. P20191629US00 Docket No. TSMCP1096US

Date

Name

2nd Inventor Ming Chyi Liu

TSMC Docket No. P20191629US00 Docket No. TSMCP1096US

>0>0 / 3 / 1 | Date

Chily - Pin Huang

Name 3rd Inventor Chih-Pin Huang

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