505252195 12/26/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YI-HUAN CHEN	12/07/2018
CHIEN-CHIH CHOU	12/07/2018
TA-WEI LIN	12/07/2018
HSIAO-CHIN TUAN	12/19/2018
ALEXANDER KALNITSKY	12/18/2018
KONG-BENG THEI	12/07/2018
CHIA-HONG WU	12/07/2018

RECEIVING PARTY DATA

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City:	HSIN-CHU
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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16169220

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NAME OF SUBMITTER:	JAMES R. POTASHNIK
SIGNATURE:	/James R. Potashnik/

PATENT 505252195 REEL: 047851 FRAME: 0616

DATE SIGNED:	12/26/2018
Total Attachments: 9	
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PATENT REEL: 047851 FRAME: 0617

PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

Assignor(s): Yi-Huan Chen			
Assignor(s): Chien-Chih Chou			
Assignor(s): Ta-Wei Lin			
Assignor(s): Hsiao-Chin Tuan			
Assignor(s): Alexander Kalnitsky			
Assignor(s): Kong-Beng Thei			
Assignor(s): Chia-Hong Wu			
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			
"FUSI GATED DEVICE FORMATION" 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			

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I hereby author	ize and request my attorney associated with Customer No
107476, to inser	t on the designated lines below the filing date and application
number of said application when known:	
U.S. Serial No.	
filed 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

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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.

2018.12.01 Date

Name 1st Inventor Yi-Huan Chen

2018-12-07

Name Chien - Chieh Cham

1 Inventor Chien-Chih Chou

 $\frac{2018 - 12 - 0)}{\text{Date}}$

Date

Name 4th Inventor Hsiao-Chin Tuan

12/18/2018

Name 5th Inventor Alexander Kalnitsky

TSMC Docket No. P20181054US00

Docket No. TSMCP938US

Data / /

Name 6th Inventor Kong-Beng Thei

12/01/2018

Date

Name 7th Inventor Chia-Hong Wu

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