505109702 09/25/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYA		ASSIGNMENT			
	4TA				
		Name	Execution Date		
MENG-HAN LIN			08/30/2018		
CHIH-REN HSIEH			08/13/2018		
WEI CHENG WU			08/13/2018		
CHIH-PIN HUANG			08/13/2018		
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PROPERTY NUMBERS	Total: 1	I			
Property Type		Number			
Application Number:		15998422	1		
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PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

<u>Assignor(s):</u> Meng-Han Lin

Assignor(s): Chih-Ren Hsieh

Assignor(s): Wei Cheng Wu

<u>Assignor(s):</u> 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

"CELL BOUNDARY STRUCTURE FOR EMBEDDED 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 Customer No. <u>107476</u>, to insert on the designated lines below the filing date and application number of said application when known:

U.S. Serial No.

filed on

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PATENT REEL: 046958 FRAME: 0915

WHEREAS, ASSIGNEE (listed above), a corporation of <u>the Republic of China</u> 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.

PATENT REEL: 046958 FRAME: 0916

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TSMC Docket No. P20173371US00 Docket No. TSMCP860US

8,8,30 Date

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Name 1st Inventor Meng-Han Lin

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2018. J. (3 Date

Name 2nd Inventor Chih-Ren Hsieh

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TSMC Docket No. P20173371US00 Docket No. TSMCP860US

 $\frac{20/\mathcal{S},\mathcal{L},13}{\text{Date}}$

Name 3rd Inventor Wei Cheng Wu

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8/13 ×018 Date

Chih-Pin Huang Name 4th Inventor Chih-Pin Huang

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