### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6236650

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SHAO-LUN CHIEN	07/14/2020
PO-CHUN WANG	05/21/2020
HUI-ZHONG ZHUANG	06/03/2020
CHIH-LIANG CHEN	06/03/2020
LI-CHUN TIEN	06/15/2020

#### **RECEIVING PARTY DATA**

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	NO.8, LI-HSIN RD.6
Internal Address:	SCIENCE-BASED INDUSTRIAL PARK
City:	HSINCHU
State/Country:	TAIWAN
Postal Code:	300

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16915954

#### **CORRESPONDENCE DATA**

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	T1516.10711US01
NAME OF SUBMITTER:	R. BURNS ISRAELSEN
SIGNATURE:	/R. Burns Israelsen/
DATE SIGNED:	08/05/2020

**Total Attachments: 3** 

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NP-25233-US/P20190664US00 Inventor(s)-to-Assignee

#### **ASSIGNMENT**

This assignment agreement is applicable to an invention entitled (Invention Title)
MULTI-BIT STRUCTURE
The PATENT RIGHTS referred to in this agreement are:
(check one) a patent application for this invention, executed by the ASSIGNOR(S)
concurrently with this assignment.
☑U.S. patent application Serial No. 16/915,954 , filed June 29, 2020
☐a U.S. patent application based on PCT International Application
Nofiled on (date)(U.S. patent application
Serial No, if known).
☐U.S. patent No, issued
The PATENT RIGHTS also include all divisions, reissues, continuations and extensions of
the patents and patent applications identified above.
The PATENT RIGHTS assigned under this agreement are:
☑U.S. patent rights only.
The ASSIGNOR(S) referred to in this agreement is (or are) the inventor(s) whose signatures
appear on page 2 of this Assignment and any Supplemental Sheet(s).
The ASSIGNEE referred to in this agreement is:
(Name of Assignee) TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
(Address) NO.8, LI-HSIN RD.6, SCIENCE-BASED INDUSTRIAL PARK, HSINCHU,
TAIWAN 300, R.O.C.
The ASSIGNEE is:
(check one) ☐ An individual.
☐A Partnership.
☐ A Corporation of
Other)
The ASSIGNOR(S), in consideration of \$10.00 paid by the ASSIGNEE, and other good and
valuable consideration, receipt of which is acknowledged, hereby assign(s) the following
rights to the ASSIGNEE, its successors and assigns:
the full and exclusive right to the invention;
the entire right, title and interest in and to the PATENT RIGHTS;
the right to sue and recover for any past infringement; and
the right to claim priority under 35 USC 119, 35 USC 120, or any other applicable

provisions, based on any earlier patent applications for this invention.

## THIS IS PAGE 2 OF AN ASSIGNMENT FROM THE INVENTOR(S) TO ASSIGNEE: TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. INVENTION TITLE: MULTI-BIT STRUCTURE

As to all U.S. patent applications assigned under this agreement, the ASSIGNOR(S) hereby authorize(s) and request(s) the Commissioner of Patents and Trademark to issue all Letters Patent to the ASSIGNEE as the assignee of the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE, its successors and assigns.

Further, the ASSIGNOR(S) agree(s) to communicate to said ASSIGNEE, or its representatives, any fact known to the ASSIGNOR(S) with respect to said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause and all Letter Patent to be issued to said ASSIGNEE, make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention.

The ASSIGNOR(S) authorize(s) the attorneys and agents who have the power of attorney in this application to check any appropriate boxes and to insert the Serial Number and filing date in this document after it has been executed.

Shao-Lun CHIEN		
Name of sole or first inventor	Signature	Date
Po-Chun WANG	Po-Chan Word	vv/5/N
Name of second inventor, if any	Signature	Date
Hui-Zhong ZHUANG	Hi-Short H	Mxlx >070/6/3
Name of third inventor, if any	Signature \(	Date
Chib-Liang CHEN	Chih-Lians Ch	en 20 x 0/6/3
Name of fourth inventor, if any	Signature	Date
Li-Chun TIEN	Lichun Z:	
Name of fifth inventor, if any	Signature /	Date

# THIS IS PAGE 2 OF AN ASSIGNMENT FROM THE INVENTOR(S) TO ASSIGNEE: <u>TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.</u> INVENTION TITLE: <u>MULTI-BIT STRUCTURE</u>

As to all U.S. patent applications assigned under this agreement, the ASSIGNOR(S) hereby authorize(s) and request(s) the Commissioner of Patents and Trademark to issue all Letters Patent to the ASSIGNEE as the assignee of the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE, its successors and assigns.

Further, the ASSIGNOR(S) agree(s) to communicate to said ASSIGNEE, or its representatives, any fact known to the ASSIGNOR(S) with respect to said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal, trexamination and reissue applications, execute all necessary assignment papers to cause and all Letter Patent to be issued to said ASSIGNEE, make all rightful ouths and generally do everything necessary or desirable to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention.

The ASSIGNOR(S) authorize(s) the attorneys and agents who have the power of attorney in this application to check any appropriate boxes and to insert the Serial Number and filing date in this decument after it has been executed.

Shao-Lan CHIEN	9700-6-6-6	1/10-07/14/202
Name of sole or first inventor	Signature	Date
Po-Chun WANG	3- <sub>2-2</sub>	
Name of second inventor, if any	Signature	Date
Hui-Zhong ZHUANG	:	
Name of third inventor, if any	Signature	Date
Chib-Liang CHEN		
Name of fourth inventor, if any	Signature	Date
Li-Chun TIEN		
Name of fifth inventor, if any	Signature	Dake

PATENT REEL: 053412 FRAME: 0182

**RECORDED: 08/05/2020**