# 506267979 09/23/2020

## PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		ASSIGNMENT			
	AIA				
		Name	Execution Date		
CHUNG-PENG HSIEH			07/14/2020		
CHIH-CHIANG CHANG			07/14/2020		
YUNG-CHOW PENG			07/14/2020		
RECEIVING PARTY DA	TA				
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City:	HSINCHU				
State/Country:	TAIWAN				
Postal Code:	300				
	•				
PROPERTY NUMBERS	Total: 1				
Property Type		Number			
Application Number: 17		17030160			
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NAME OF SUBMITTER:		RANDY A. NORANBROCK	RANDY A. NORANBROCK		
SIGNATURE:		/Randy A. Noranbrock/	/Randy A. Noranbrock/		
DATE SIGNED:		09/23/2020	09/23/2020		
Fotal Attachments: 1					

NP->1594-0-05-B3

Docket No. T5057-1507U P20201024U801

## ASSIGNMENT

In consideration of the premises and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged, the undersigned,

- 1) Chung-Peng HSIEH 3) Yung-Chow PENG
- 2) Chih-Chiang CHANG

who has made a certain new and useful invention, hereby sells, assigns and transfers unto **TAIWAN SEMICONDUCTOR** MANUFACTURING COMPANY, LTD., having a place of business at No. 8, Li-Hsin Rd. VI, Hsinchu Science Park, Hsinchu 300, Taiwan R.O.C. and

its successors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention entitled

#### DIGITALLY CONTROLLED DELAY LINE CIRCUIT AND METHOD

(a) for which an application for United States Letters Patent was filed on <u>2020-09-23</u>, and identified by United States Patent Application No. <u>17/030,160</u>; or

and the undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefore and any and all extensions, divisions, reissues, continuations, or continuations-in-part thereof, and the right to all benefits under the International Convention for the Protection of Industrial Property to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agrees that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;

AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

SIGNED on the date indicated aside my signature:

1) Chung - Peng Hsieh Name: Chung-Peng HSIEH 2) Child - Childrey Chang Name: Child-Childrey Chang 3) Jung-Chow Perry Name: Yung-Chow PENG

Date:

Date:

2020, 7, 14

Date

### PATENT REEL: 053864 FRAME: 0419

## **RECORDED: 09/23/2020**