505703120 10/02/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5749930

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WEI-AN LAI	09/10/2019
JIANN-TYNG TZENG	09/10/2019
WEI-CHENG LIN	09/10/2019

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.
Street Address:	NO. 8, LI-HSIN RD. VI, HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN
Postal Code:	300

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16559547

CORRESPONDENCE DATA

Fax Number: (703)518-5499

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 7036841111 Email: tsmc@ipfirm.com

HAUPTMAN HAM, LLP (TSMC) **Correspondent Name:**

Address Line 1: 2318 MILL ROAD Address Line 2: **SUITE 1400**

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER: T5057-1419U NAME OF SUBMITTER: RANDY A. NORANBROCK **SIGNATURE:** /Randy A. Noranbrock/ **DATE SIGNED:** 10/02/2019

Total Attachments: 1

source=EfiledAssgn#page1.tif

PATENT REEL: 050601 FRAME: 0643 505703120



Docket No. T5057-1419U P20182157US00

ASSIGNMENT

In cons	sideration of the	premises and	other goo	id and va	duable cor	nsideration	in hand	paid,	the receipt	and si	afficiency	οį
which is hereby	acknowledged,	the undersigne	od,									

1) Wei-An LAI

3) Wei-Cheng LIN

2) Jiann-Tyng TZENG

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

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

HYBRID POWER RAIL STRUCTURE

(a)	for which an application for United States Letters Patent was filed on United States Patent Application No		and	identified	by
(b)	for which an application for United States Letters Patent was executed a	on,			

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 beneafter 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.

3

PATENT REEL: 050601 FRAME: 0644