PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4967893

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHIA CHENG CHOU	03/30/2018
LI CHUN TE	03/30/2018
PO-CHENG SHIH	03/30/2018
TIEN-I BAO	03/30/2018

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15944627

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	TSMC/P20172957US
NAME OF SUBMITTER:	JASON C. HUANG
SIGNATURE:	/Jason C. Huang/
DATE SIGNED:	05/18/2018

Total Attachments: 2

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(P)

Atty Dkt No.: TSMC/P20172957US

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1)	Chia Cheng CHOU No. 8, Li-Hsin Rd. 6 Hsinchu Science Park Hsinchu 300-78 TAIWAN ROC	2)	Li Chun TE No. 8, Li-Hsin Rd. 6 Hsinchu Science Park Hsinchu 300-78 TAIWAN ROC
3)	Po-Cheng SHIH No. 8, Li-Hsin Rd. 6 Hsinchu Science Park Hsinchu 300-78 TAIWAN ROC	4)	Tien-I BAO No. 8, Li-Hsin Rd. 6 Hsinchu Science Park Hsinchu 300-78 TAIWAN ROC

(hereinafter referred to as Assignors), have invented a certain invention entitled:

LOW-K DIELECTRIC AND PROCESSES FOR FORMING SAME

enclosed herewith; and

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd., having a place of business at No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu 300-78, TAIWAN ROC (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, conventional, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any

application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1) 3/30 2018 (DATE) Chia Cheng CHOU

2) 3/30 2018 (DATE) Li Chun TE

3) 3/30/2018 (DATE) Po-Cheng SHIH

4) 3/30/2018 (DATE) Tien-I BAO

RECORDED: 05/18/2018

PATENT
REEL: 045842 FRAME: 0679