506966734 11/09/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7013572

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHIA-HAO HSU	01/07/2020
TAI-YU CHEN	01/07/2020
SHIANN-TSONG TSAI	01/08/2020
HSING-CHIH LIU	01/08/2020
YAO-PANG HSU	01/07/2020
CHI-YUAN CHEN	01/07/2020
CHUNG-FA LEE	01/07/2020

RECEIVING PARTY DATA

Name:	MEDIATEK INC.
Street Address:	NO. 1, DUSING RD. 1ST
Internal Address:	SCIENCE-BASED INDUSTRIAL PARK
City:	HSIN-CHU 300
State/Country:	TAIWAN

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16802576

CORRESPONDENCE DATA

Fax Number: (617)646-8646

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: 6176468000

Email: stacey.appleton@wolfgreenfield.com **Correspondent Name:** WOLF GREENFIELD & SACKS, P.C.

Address Line 1: 600 ATLANTIC AVENUE

Address Line 4: BOSTON, MASSACHUSETTS 02210

ATTORNEY DOCKET NUMBER:	M1295.70394US00
NAME OF SUBMITTER:	STACEY L. APPLETON
SIGNATURE:	/Stacey L. Appleton/
DATE SIGNED:	11/09/2021

PATENT 506966734 REEL: 058054 FRAME: 0750

Total Attachments: 14 source=M1295.70394US00 - Parent Assignment as Filed#page1.tif source=M1295.70394US00 - Parent Assignment as Filed#page2.tif source=M1295.70394US00 - Parent Assignment as Filed#page3.tif source=M1295.70394US00 - Parent Assignment as Filed#page4.tif source=M1295.70394US00 - Parent Assignment as Filed#page5.tif source=M1295.70394US00 - Parent Assignment as Filed#page6.tif source=M1295.70394US00 - Parent Assignment as Filed#page7.tif source=M1295.70394US00 - Parent Assignment as Filed#page8.tif source=M1295.70394US00 - Parent Assignment as Filed#page9.tif source=M1295.70394US00 - Parent Assignment as Filed#page10.tif source=M1295.70394US00 - Parent Assignment as Filed#page11.tif source=M1295.70394US00 - Parent Assignment as Filed#page12.tif source=M1295.70394US00 - Parent Assignment as Filed#page13.tif source=M1295.70394US00 - Parent Assignment as Filed#page13.tif source=M1295.70394US00 - Parent Assignment as Filed#page13.tif

PATENT REEL: 058054 FRAME: 0751

Title of Invention:

SEMICONDUCTOR PACKAGE HAVING IMPROVED THERMAL INTERFACE BETWEEN SEMICONDUCTOR DIE AND HEAT SPREADING STRUCTURE

As the below named inventor, I here This declaration is directed to:	eby declare that:			
☑ The attached application, or				
☐ United States application nu	ımber	filed on	, or	
☐ PCT international application	n number	filed on	_	
The above-identified application was	s made or authorized to be m	nade by me.		
I believe that I am the original inventapplication.	tor or an original joint invento	r of a claimed invention in the		
I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr	ll false statement made in thi risonment of not more than fi	s declaration is punishable ve (5) years, or both.		
In consideration of the payment by	MEDIATEK INC.	having a postal ac	ddress of	
No. 1, Dusing Rd. 1st, Science	e-Based Industrial Park	, Hsin-Chu 300, Taiwan, R	l.O.C.	
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good ar	o I of the sum of One Dollar (nd valuable consideration.	\$ 1.00), the receipt of which is h	nereby	
I hereby sell, assign and transfer to ASSIGNEE and the successors and assignees of the ASSIGNEE the entire right, title and interest in and to any and all improvements which are disclosed in the invention as above-identified application and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuations, continuation-in-part, divisions, renewals, substitutes, or extensions thereof, and as to Letters Patent any reissue or re-examination thereof.				
I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;				
I further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to I and will testify as to the same in any interference, litigation proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal				
representatives any and all papers, i maintain, issue and enforce said app equivalents thereof which may be ne IN WITNESS WHEREOF, I have her	plication, said invention and s ecessary or desirable to carry	aid Letters Patent and said		
Note: An application data sheet (PTC inventive entity, must accompany this	D/SB/14 or equivalent), includes form. Use this form for <u>each</u>	ding naming the entire		

Page 1 of 14

NPO#MTK-P3451-USA:0 CUST#MTKI-19-0663US

LEGAL NAI	ME OF INVENTOR(ASSIGNOR)		
Inventor:	Chia-Hao Hsu	Date:	2020,01.07
Signature:	Oliver-Hav Hsn		

NPO#MTK-P3451_USA:0

Page 2 of 14

_F#NPO-P0002E-US1201 DSB0-108U040131

CUST#MTKI-19-0663US

PATENT REEL: 058654 FRAME: 0280

Title of Invention:

SEMICONDUCTOR PACKAGE HAVING IMPROVED THERMAL INTERFACE BETWEEN SEMICONDUCTOR DIE AND HEAT SPREADING STRUCTURE

As the below named inventor, I here This declaration is directed to:	eby declare that:		
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☐ United States application nu	umber	filed on	, or
☐ PCT international applicatio	n number	filed on	
The above-identified application was	s made or authorized to be m	nade by me.	
I believe that I am the original inven application.	tor or an original joint invento	or of a claimed invention in t	he
I hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr	ul false statement made in thi risonment of not more than fi	is declaration is punishable ve (5) years, or both.	
In consideration of the payment by	MEDIATEK INC.	having a pos	tal address of
No. 1, Dusing Rd. 1st, Science	e-Based Industrial Park	κ, Hsin-Chu 300, Taiwa	n, R.O.C.
(referred to as "ASSIGNEE"below) t acknowledged, andfor other good ar	to I of the sum of One Dollar and valuable consideration.	(\$ 1.00), the receipt of whic	h is hereby
I hereby sell, assign and transfer to ASSIGNEE and the successors and assignees of the ASSIGNEE the entire right, title and interest in and to any and all improvements which are disclosed in the invention as above-identified application and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuations, continuation-in-part, divisions, renewals, substitutes, or extensions thereof, and as to Letters Patent any reissue or re-examination thereof.			
I hereby covenant that no assignme entered into which would conflict wit	nt, sale, agreement or encun th this assignment;	nbrance has been or will be	made or
I further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to I and will testify as to the same in any interference, litigation proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal			
representatives any and all papers, i maintain, issue and enforce said app equivalents thereof which may be no IN WITNESS WHEREOF, I have he	plication, said invention and s ecessary or desirable to carry	said Letters Patent and said out the proposes thereof	
Note: An application data sheet (PTG inventive entity, must accompany thi	O/SB/14 or equivalent), incluis form. Use this form for <u>eac</u>	ding naming the entire h additional inventor.	

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NPO#MTK-P3451-USA:0 CUST#MTKI-19-0663US

			Docket No MTKP3451USA	
Inventor:	ME OF INVENTOR(ASSIGNOR) Tai-Yu Chen	Date:	2020.01.07.	
Signature:	Tai- Eu Chen			
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NPO#MTK-P3451-USA:0_

Page 4 of 14

F#NPO-P0002E-US1201

Title of Invention:

SEMICONDUCTOR PACKAGE HAVING IMPROVED THERMAL INTERFACE BETWEEN SEMICONDUCTOR DIE AND HEAT SPREADING STRUCTURE

As the below named inventor, I here This declaration is directed to:	eby declare that:		
☑ The attached application, or	r		
☐ United States application no	umber	filed on	, or
☐ PCT international application	n number	filed on	
The above-identified application wa	as made or authorized to be	made by me.	
I believe that I am the original inven application.	ntor or an original joint inven	tor of a claimed invention in	the
I hereby acknowledge that any willfuunder18 U.S.C. 1001 by fine or imp	ul false statement made in t risonment of not more than	his declaration is punishable five (5) years, or both.	:
In consideration of the payment by	MEDIATEK INC.	having a pos	stal address of
No. 1, Dusing Rd. 1st, Science	e-Based Industrial Par	rk, Hsin-Chu 300, Taiwa	an, R.O.C.
(referred to as "ASSIGNEE"below) t acknowledged, andfor other good a	to I of the sum of One Dollar nd valuable consideration.	r (\$ 1.00), the receipt of which	ch is hereby
I hereby sell, assign and transfer to the entire right, title and interest in a invention as above-identified applica- invention by the above application of substitutes, or extensions thereof, a	and to any and all improvem ation and, in and to, all Lette or any continuations, continu	ents which are disclosed in ters Patent to be obtained for pation-in-part, divisions, rene	the said
I hereby covenant that no assignme entered into which would conflict with	ent, sale, agreement or encu th this assignment;	mbrance has been or will be	e made or
I further covenant that ASSIGNEE wand documents relating to said inverse known and accessible to I and will to related thereto and will promptly exercise.	ntion and said Letters Pater estify as to the same in anv	nt and legal equivalents as minterference, litigation process	av he
representatives any and all papers, maintain, issue and enforce said appequivalents thereof which may be no IN WITNESS WHEREOF, I have he	plication, said invention and ecessarv or desirable to can	said Letters Patent and said	d
Note: An application data sheet (PT0 inventive entity, must accompany thi	O/SB/14 or equivalent), incl is form. Use this form for <u>ea</u>	uding naming the entire ch additional inventor.	

Page 5 of 14

NPO#MTK-P3451-USA:0 CUST#MTKI-19-0663US

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor:

Shiann-Tsong Tsai

Date:

Page

NPO#MTK-P3451-USA:0___ CUST#MTKI-19-0663US

F#NPO-P0002E-US1201 DSB0-108U040131

PATENT REEL: 058654 FRAME: 0287

Title of Invention:

SEMICONDUCTOR PACKAGE HAVING IMPROVED THERMAL INTERFACE BETWEEN SEMICONDUCTOR DIE AND HEAT SPREADING STRUCTURE

As the below named inventor, I hereb This declaration is directed to:	by declare that:			
☑ The attached application, or				
☐ United States application nun	mber	filed o	on	, or
☐ PCT international application	number	file	d on	
The above-identified application was	made or authorized	o be made by me.		
I believe that I am the original invento application.	or or an original joint i	nventor of a claime	d invention in t	he
I hereby acknowledge that any willful under18 U.S.C. 1001 by fine or impris	false statement mad sonment of not more	e in this declaration than five (5) years,	is punishable or both.	
In consideration of the payment by	MEDIATEK INC.		having a post	tal address of
No. 1, Dusing Rd. 1st, Science	-Based Industria	l Park, Hsin-Chu		
(referred to as "ASSIGNEE"below) to acknowledged, andfor other good and	Lof the sum of One I	Onllar (\$ 1.00) the r		
I hereby sell, assign and transfer to As the entire right, title and interest in and invention as above-identified application invention by the above application or a substitutes, or extensions thereof, and	on and an impro on and, in and to, all any continuations, co	Description of the last of the	e disclosed in the e obtained for s	ne said
I hereby covenant that no assignment, entered into which would conflict with I	, sale, agreement or this assignment;	encumbrance has t	peen or will be	made or
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representatives any and all papers, ins maintain, issue and enforce said applic equivalents thereof which may be nece IN WITNESS WHEREOF, I have here	struments or affidavit cation, said invention	s required to apply and said Letters P	for, obtain, atent and said	
Note: An application data sheet (PTO/s nventive entity, must accompany this t	SB/14 or equivalent) form. Use this form fo	, including naming t or <u>each additional ir</u>	he entire	

Page 7 of 14

NPO#MTK-P3451-USA:0 CUST#MTKI-19-0663US

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____NPO#MTK_P3451-USA;0____ CUST#MTKI-19-0663US Page 8 of 14

_F#NPO_P0002E-US1201_____

DSB0-108U040131

Title of Invention:

SEMICONDUCTOR PACKAGE HAVING IMPROVED THERMAL INTERFACE BETWEEN SEMICONDUCTOR DIE AND HEAT SPREADING STRUCTURE

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l hereby acknowledge that any willfu under18 U.S.C. 1001 by fine or impr	Il false statement made risonment of not more tl	in this declaration is punishable nan five (5) years, or both.	•
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I hereby covenant that no assignmer entered into which would conflict witl	nt, sale, agreement or e h this assignment;	ncumbrance has been or will be	e made or
further covenant that ASSIGNEE wand documents relating to said inverknown and accessible to I and will terelated thereto and will promptly exe	ntion and said Letters P estify as to the same in a	atent and legal equivalents as n any interference, litigation proce	av he
representatives any and all papers, i maintain, issue and enforce said app equivalents thereof which may be ne N WITNESS WHEREOF, I have her	olication, said invention ecessary or desirable to	and said Letters Patent and said	d
Note: An application data sheet (PTC	D/SB/14 or equivalent), s form. Use this form fo	including naming the entire	

Page 9 of 14

NPO#MTK-P3451-USA:0 CUST#MTKI-19-0663US

Inventor: Yao-Pang Hsu

Date: 200.01.07

Signature: Loo Pang Han

Page 10 of 1

NPO#MTK-P3451-USA:0_ CUST#MTKI-19-0663US

F#NPO-P0002E-US1201

DSB0-108U040131

Title of Invention:

SEMICONDUCTOR PACKAGE HAVING IMPROVED THERMAL INTERFACE BETWEEN SEMICONDUCTOR DIE AND HEAT SPREADING STRUCTURE

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I hereby covenant that no assignme entered into which would conflict wit	nt, sale, agreement or e h this assignment;	encumbrance has been or will be	made or
I further covenant that ASSIGNEE wand documents relating to said inverknown and accessible to I and will to related thereto and will promptly exerting the said in	ntion and said Letters P estify as to the same in	atent and legal equivalents as many interference, litigation proceed	av be
representatives any and all papers, i maintain, issue and enforce said app equivalents thereof which may be no IN WITNESS WHEREOF, I have he	olication, said invention ecessary or desirable to	and said Letters Patent and said carry out the proposes thereof	I
Note: An application data sheet (PTo inventive entity, must accompany this	O/SB/14 or equivalent), is form. Use this form fo	including naming the entire	

Page 11 of 14

NPO#MTK-P3451-USA:0 CUST#MTKI-19-0663US

LEGAL NAME OF INVENTOR(ASSIGNOR)

Inventor: Chi-Yuan Chen

Date:

_____NPO#MTK-P3451-USA:0-CUST#MTKJ-19-0663US

12 of

F#NPO-P0002E-US1201

DSB0-108U040131

Title of Invention:

SEMICONDUCTOR PACKAGE HAVING IMPROVED THERMAL INTERFACE BETWEEN SEMICONDUCTOR DIE AND HEAT SPREADING STRUCTURE

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(referred to as "ASSIGNEE"below) to acknowledged, and for other good are	o I of the sum of One Do nd valuable consideratio	ollar (\$ 1.00), the receipt of n.	which is hereby	
I hereby sell, assign and transfer to ASSIGNEE and the successors and assignees of the ASSIGNEE the entire right, title and interest in and to any and all improvements which are disclosed in the invention as above-identified application and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuations, continuation-in-part, divisions, renewals, substitutes, or extensions thereof, and as to Letters Patent any reissue or re-examination thereof.				
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representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the proposes thereof. IN WITNESS WHEREOF, I have hereunto set hand and seal this on the date(s) indicated.				
Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use this form for each additional inventor.				

Page 13 of 14

NPO#MTK-P3451-USA:0 CUST#MTKI-19-0663US

LEGAL NAME OF	INVENTOR(ASSIGNOR)
---------------	--------------------

Inventor: Chung-Fa Lee

Date: 1020, (,

Signature: Chung-Fa Lee

<u>NPO#MTK-P3451-USA:0</u> CUST#MTKI-19-0663US Page 14 of 14

F#NPO-P0002E-US1201___

DSB0-108U040131

PATENT REEL: 058654 FRAME: 0202