

PATENT ASSIGNMENT COVER SHEET

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Assignment ID: PATI829980

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	NUNC PRO TUNC ASSIGNMENT
EFFECTIVE DATE:	01/01/2025
CONVEYING PARTY DATA	
Name	Execution Date
Magnachip Mixed-Signal, Ltd.	02/14/2025
RECEIVING PARTY DATA	
Company Name:	Magnachip Semiconductor, Ltd.
Street Address:	15F, 76 Jikji-daero, 436beon-gil (Jikji Smart Tower), Heungdeok-gu, Chungcheongbuk-do
City:	Cheongju-si
State/Country:	KOREA, REPUBLIC OF
Postal Code:	28581
PROPERTY NUMBERS Total: 52	
Property Type	Number
Application Number:	13023580
Application Number:	13285253
Application Number:	13285425
Application Number:	13316897
Application Number:	13349819
Application Number:	13397864
Application Number:	13397936
Application Number:	13398306
Application Number:	13487738
Application Number:	13586059
Application Number:	13586089
Application Number:	13586296
Application Number:	13693223
Application Number:	13693241
Application Number:	13693516
Application Number:	13693570
Application Number:	13693620
Application Number:	13724536
Application Number:	13875834

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Property Type	Number
Application Number:	14092774
Application Number:	14225820
Application Number:	14258296
Application Number:	14258626
Application Number:	14309314
Application Number:	14338426
Application Number:	14338765
Application Number:	14535700
Application Number:	14590264
Application Number:	14624999
Application Number:	14661716
Application Number:	14740524
Application Number:	14809405
Application Number:	14813439
Application Number:	14819616
Application Number:	14969375
Application Number:	14983017
Application Number:	15051371
Application Number:	15067347
Application Number:	15082956
Application Number:	15398318
Application Number:	15478986
Application Number:	16110630
Application Number:	16392842
Application Number:	16592009
Application Number:	16830939
Application Number:	16848904
Application Number:	17227994
Application Number:	17546512
Application Number:	17730778
Application Number:	17842919
Application Number:	17973838
Application Number:	18778548

CORRESPONDENCE DATA

Fax Number:

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.

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ATTORNEY DOCKET NUMBER:	M023000.0003
NAME OF SUBMITTER:	Isabelle Osborne
SIGNATURE:	/Isabelle Osborne/
DATE SIGNED:	02/18/2025

Total Attachments: 4

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ASSIGNMENT

For valuable consideration,

Magnachip Mixed-Signal, Ltd., a Republic of Korea corporation having principal executive offices or place of business at 15F, 76 Jikji-daero, 436beon-gil (Jikji Smart Tower), Heungdeok-gu, Cheongju-si, Chungcheongbuk-do 28581, Republic of Korea (hereinafter called "the Assignor"),

agrees that the Assignor hereby assigned Nunc Pro Tunc effective January 1, 2025, to:

Magnachip Semiconductor, Ltd., a Republic of Korea corporation having principal executive offices or place of business at: 15F, 76 Jikji-daero, 436beon-gil (Jikji Smart Tower), Heungdeok-gu, Cheongju-si, Chungcheongbuk-do 28581, Republic of Korea; and

its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of U.S. Patent Applications:

Application No.	Filing Date	Title
13/023,580	2011-02-09	CIRCUIT AND METHOD FOR GENERATING PWM SIGNAL FOR DC-DC CONVERTER USING DIMMING SIGNAL AND LED DRIVING CIRCUIT FOR BACKLIGHT HAVING THE SAME
13/285,253	2011-10-31	PWM SIGNAL GENERATING CIRCUIT FOR DC-DC CONVERTER USING DIMMING SIGNAL AND LED DRIVING CIRCUIT HAVING THE SAME IN DIRECT DIGITAL DIMMING METHOD
13/285,425	2011-10-31	PWM SIGNAL GENERATING CIRCUIT FOR DC-DC CONVERTER USING DIMMING SIGNAL AND LED DRIVER CIRCUIT USING THE SAME IN DIGITAL PWM METHOD HAVING FIXED PHASE MODE
13/316,897	2011-12-12	REFERENCE VOLTAGE GENERATING CIRCUIT AND LED DRIVER CIRCUIT HAVING THE SAME THEREIN
13/349,819	2012-01-13	BACKLIGHT DRIVING CIRCUIT AND DISPLAY APPARATUS
13/397,864	2012-02-16	PWM CONTROLLING CIRCUIT AND LED DRIVER CIRCUIT HAVING THE SAME
13/397,936	2012-02-16	PWM CONTROLLING CIRCUIT AND LED DRIVER CIRCUIT HAVING THE SAME
13/398,306	2012-02-16	LEVEL SHIFTER
13/487,738	2012-06-04	LED DRIVER CIRCUIT HAVING A SENSING UNIT

13/586,059	2012-08-15	LED DRIVER APPARATUS
13/586,089	2012-08-15	LED DRIVER APPARATUS
13/586,296	2012-08-15	Parallel Constant Current LED Driving Units for Driving a LED String and Method of Performing the Same
13/693,223	2012-12-04	LED DRIVER APPARATUS
13/693,241	2012-12-04	DETECTING CIRCUIT FOR SHORT OF LED ARRAY AND LED DRIVING APPARATUS USING THE SAME
13/693,516	2012-12-04	DETECTING CIRCUIT FOR OPEN OF LED ARRAY AND LED DRIVER APPARATUS USING THE SAME
13/693,570	2012-12-04	LED DRIVER APPARATUS
13/693,620	2012-12-04	LED DRIVER CIRCUIT AND LIGHT APPARATUS HAVING THE SAME
13/724,536	2012-12-21	NONVOLATILE MEMORY DEVICE
13/875,834	2013-05-02	LIGHT EMITTING DIODE DRIVER APPARATUS
14/092,774	2013-11-27	LIGHT EMITTING DIODE (LED) DRIVING CIRCUIT WITH COMMON CURRENT SENSING RESISTOR AND CONFIGURED TO DRIVE LED GROUPS, METHOD OF DRIVING THE CIRCUIT AND LIGHT APPARATUS HAVING THE SAME
14/225,820	2014-03-26	RAMP CIRCUIT AND DIRECT CURRENT (DC)- DC CONVERTER THEREOF
14/258,296	2014-04-22	POWER CONVERTER FOR REDUCING STANDBY POWER CONSUMPTION
14/258,626	2014-04-22	POWER SUPPLY DEVICE SENSING AC-OFF STATE
14/309,314	2014-06-19	CURRENT CONTROLLING MODE DIRECT CURRENT (DC)-DC CONVERTER
14/338,426	2014-07-23	MEMORY PROGRAMMING METHOD AND APPARATUS
14/338,765	2014-07-23	REFERENCE SIGNAL GENERATING CIRCUIT AND METHOD USING A SAMPLED INPUT SIGNAL AND A REFERENCE CLOCK SIGNAL, AND POWER FACTOR COMPENSATION APPARATUS HAVING THE SAME
14/535,700	2014-11-07	SWITCH CONTROL CIRCUIT, SWITCH CONTROL METHOD AND CONVERTER USING THE SAME
14/590,264	2015-01-06	CIRCUIT FOR COMPENSATING BIPOLAR JUNCTION TRANSISTOR BASE CURRENT AND LED DRIVING APPARATUS HAVING THE SAME
14/624,999	2015-02-18	SWITCH CONTROL CIRCUIT AND CONVERTER USING THE SAME
14/661,716	2015-03-18	CIRCUIT AND METHOD OF CORRECTING A POWER FACTOR FOR AC DIRECT LIGHTING APPARATUS
14/740,524	2015-06-16	LIGHT EMITTING DIODE DRIVING CIRCUIT AND LIGHTING APPARATUS HAVING THE SAME
14/809,405	2015-07-27	CIRCUIT FOR DRIVING AC DIRECT LIGHTING APPARATUS AND METHOD THEREFOR
14/813,439	2015-07-30	CIRCUIT FOR DRIVING LIGHTING APPARATUS AND METHOD THEREOF

14/819,616	2015-08-06	POWER FACTOR CORRECTION CONTROL CIRCUIT AND DRIVING METHOD THEREOF
14/969,375	2015-12-15	POWER FACTOR CORRECTION CONTROLLING CIRCUIT AND DRIVING METHOD THEREOF
14/983,017	2015-12-29	POWER FACTOR CORRECTION CIRCUIT AND METHOD FOR CORRECTING POWER FACTOR, CONVERTER DEVICE THEREOF
15/051,371	2016-02-23	GATE OFF DELAY COMPENSATION CIRCUIT AND LIGHT APPARATUS HAVING THE SAME
15/067,347	2016-03-11	LEAKAGE CURRENT DETECTION CIRCUIT, LIGHT APPARATUS COMPRISING THE SAME AND LEAKAGE CURRENT DETECTION METHOD
15/082,956	2016-03-28	POWER CONSUMPTION REDUCED TYPE POWER CONVERTER
15/398,318	2017-01-04	COMPLEMENTARY METAL-OXIDE-SEMICONDUCTOR (CMOS) INVERTER CIRCUIT DEVICE
15/478,986	2017-04-04	MULTI-CHANNEL LED DRIVER WITH OVERHEATING PROTECTION CAPABILITIES
16/110,630	2018-08-23	HIGH VOLTAGE START-UP CIRCUIT FOR ZEROING OF STANDBY POWER CONSUMPTION AND SWITCHING MODE POWER SUPPLY HAVING THE SAME
16/392,842	2019-04-24	LIGHT EMITTING DIODE (LED) DRIVING CIRCUIT WITH COMMON CURRENT SENSING RESISTOR AND CONFIGURED TO DRIVE LED GROUPS, METHOD OF DRIVING THE CIRCUIT AND LIGHT APPARATUS HAVING THE SAME
16/592,009	2019-10-03	DC-DC CONVERTER
16/830,939	2020-03-26	INTEGRATION CIRCUIT AND CONTROL METHOD AND APPARATUS
16/848,904	2020-04-15	SWITCHING DRIVING CIRCUIT AND DRIVING METHOD OF SWITCHING DRIVING CIRCUIT
17/227,994	2021-04-12	SWITCHING CONTROL CIRCUIT AND LED DRIVING CIRCUIT USING THE SAME
17/546,512	2021-12-09	POWER SUPPLY CONTROL WITH INDUCTOR CURRENT CONTROL AND METHOD THEREOF
17/730,778	2022-04-27	SWITCH CONTROL CIRCUIT AND SWITCH CONTROL METHOD THEREOF
17/842,919	2022-06-17	SWITCH CONTROL CIRCUIT AND SWITCH CONTROL METHOD THEREOF
17/973,838	2022-10-26	POWER FACTOR CORRECTION CIRCUIT
18/778,548	2024-07-19	SWITCH CONTROL CIRCUIT AND SWITCH CONTROL METHOD THEREOF

this Assignment includes said applications, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the

right to claim priority based on the filing date of said applications under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and Assignors authorizes the Assignee to apply in all countries in Assignors' name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and Assignors agrees for itself and its heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, preliminary statements and other lawful documents as the Assignee may reasonably request to effectuate fully this Assignment.

IN TESTIMONY/WITNESS WHEREOF, undersigned Assignor intending to be legally bound, has hereto affixed its signature by its duly authorized representative.

This 14th day of Feb., 2025



Signature of Representative

ByeungSoo SONG

Printed Name of Representative

Head of Mixed-Signal Solutions-

Technology Group

Title