

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5318738

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
INTEL CORPORATION	11/05/2018

**RECEIVING PARTY DATA**

<b>Name:</b>	NORTH INC.
<b>Street Address:</b>	24 CHARLES STREET WEST
<b>City:</b>	KITCHENER, ONTARIO
<b>State/Country:</b>	CANADA
<b>Postal Code:</b>	N2G 1H2

**PROPERTY NUMBERS Total: 52**

Property Type	Number
Application Number:	15729484
Application Number:	14240624
Application Number:	15026553
Application Number:	15237332
Application Number:	15911489
Application Number:	15959904
Application Number:	16195052
Application Number:	15242341
Application Number:	15585481
Application Number:	14335641
Application Number:	14947970
Application Number:	15283316
Application Number:	15480304
Application Number:	15925527
Application Number:	15225628
Application Number:	14968542
Application Number:	15473539
Application Number:	15069281
Application Number:	15727836
Application Number:	15812779

PATENT

Property Type	Number
Application Number:	14833959
Application Number:	15933943
Application Number:	15651257
Application Number:	15480036
Application Number:	14947938
Application Number:	14732528
Application Number:	14007226
Application Number:	14763703
Application Number:	15485900
Application Number:	15413961
Application Number:	15417108
Application Number:	15201356
Application Number:	15201364
Application Number:	14433581
Application Number:	14433589
Application Number:	14890379
Application Number:	15790265
Application Number:	15201353
Application Number:	15855596
Application Number:	15857219
Application Number:	15857329
Application Number:	62614282
Application Number:	15968033
Application Number:	15696773
Application Number:	15666505
Application Number:	29630727
PCT Number:	US2017042900
PCT Number:	US2017035633
PCT Number:	US2017056510
PCT Number:	US2018014572
PCT Number:	US2017035901
PCT Number:	US2017036308

**CORRESPONDENCE DATA**

Fax Number: (206)621-8783

*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: 2063401000

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**Correspondent Name:** FRANK ABRAMONTE  
**Address Line 1:** 999 THIRD AVENUE  
**Address Line 2:** SUITE 1900  
**Address Line 4:** SEATTLE, WASHINGTON 98104

**ATTORNEY DOCKET NUMBER:** 901214.XXX

**NAME OF SUBMITTER:** FRANK ABRAMONTE

**SIGNATURE:** /Frank Abramonte/

**DATE SIGNED:** 01/10/2019

**Total Attachments: 15**

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## IP ASSIGNMENT AGREEMENT

This IP ASSIGNMENT AGREEMENT (together with all Schedules attached hereto, this “Assignment”) is entered into and shall be effective as of November 5, 2018 (the “Effective Date”), by and between North Inc., an Ontario corporation (“Assignee”), and Intel Corporation, a Delaware corporation (“Assignor”). Capitalized terms used in this Agreement but not otherwise defined shall have the meanings set forth in the Purchase Agreement (as defined below).

### RECITALS

WHEREAS, pursuant to an Asset Purchase Agreement, dated as of November 5, 2018, by and between Assignor and Assignee (the “Purchase Agreement”), concurrently with the Closing, Assignee will purchase and assume from Assignor, and Assignor will sell and assign to Purchaser, the Purchased Assets, and in connection therewith, Assignee desires to assume the Assumed Liabilities (as defined in the Purchase Agreement), all on the terms and subject to the conditions set forth therein; and

WHEREAS, in connection with the consummation of the Transaction, Assignor desires to sell, convey, transfer and assign to Assignee, and Assignee desires to purchase, acquire and accept from Assignor all of Assignor’s right, title and interest in and to the Transferred IP in accordance with the terms and conditions set forth herein and in the Purchase Agreement.

NOW, THEREFORE, in consideration of the mutual agreements, provisions and covenants contained in this Assignment and the Purchase Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee hereby agree as follows:

1. Defined Terms.

“Transferred IP” means all of Assignor’s ownership interest in and to the following Intellectual Property Rights: (a) all of the following to the extent exclusively used (or exclusively held for use) in or exclusively pertaining to the Transferred Product: (i) those patents and patent applications set forth on Schedule A, (ii) design registrations set forth on Schedule A, and (iii) mask works set forth on Schedule A; (b) all Copyrights to the extent exclusively used (or exclusively held for use) in or in connection with the Transferred Product or exclusively embedded in any Purchased Assets; and (c) know-how and Trade Secrets to the extent exclusively used (or exclusively held for use) in or in connection with the Transferred Product or exclusively embodied in any Purchased Assets.

2. Assignment. As of the Effective Date, Assignor hereby sells, conveys, transfers, assigns and delivers to Assignee, and Assignee hereby purchases, acquires and accepts from Assignor, all of Assignor’s right, title and interest in and to the Transferred IP, the same to be held and enjoyed by Assignee for its own use and enjoyment and the use and enjoyment of its successors, assigns or other legal representatives, as fully and entirely as the same would have been held and enjoyed by such Assignor if this assignment and sale had not been made, as assignee of its entire right, title and interest therein.

3. Recordation and Further Actions. Assignor hereby authorizes the United States Patent and Trademark Office and all similar or corresponding foreign Governmental Entities to record and register this Assignment upon request by Assignee.

4. Terms of the Purchase Agreement. Assignor and Assignee acknowledge and agree that this Assignment is entered into pursuant to the Purchase Agreement, to which reference is made for a further statement of the rights and obligations of Assignor, and Assignee with respect to the Transferred IP. Nothing herein contained shall itself change, amend, extend or alter (nor shall it be deemed or construed as changing, amending, extending or altering) the terms or conditions of the Purchase Agreement in any manner whatsoever. This Assignment does not create or establish liabilities or obligations not otherwise created or existing under or pursuant to the Purchase Agreement. In the event of any direct and irresolvable conflict or other difference between the Purchase Agreement and this Assignment, the provision of the Purchase Agreement shall control.

5. Successorship. This Assignment shall be binding upon, inure to the benefit of, and be enforceable by Assignor and Assignee and their respective successors and permitted assigns.

6. Counterparts. This Assignment may be executed in counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument. Facsimile or electronic transmission of any signed original counterpart and/or retransmission of any signed facsimile transmission shall be deemed the same as the delivery of an original.

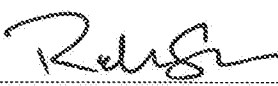
7. Governing Law. This Assignment shall be deemed to be made and in all respects shall be interpreted, construed and governed by and in accordance with the laws of the State of Delaware without regard to the conflicts of laws principles thereof.

*[Signature page follows]*

IN WITNESS WHEREOF, each of the parties has caused this Agreement to be duly executed on its behalf as of the day and year first above written.

INTEL CORPORATION, AS SELLER

LEGAL OK	
Ben Olson	BO

By:   
Name: Raheel Shah  
Title: Vice President, Intel Capital  
Director, Mergers and Acquisitions

[Signature Page to IP Assignment Agreement]

NORTH INC., AS PURCHASER

By:   
Name: Stephen Lake  
Title: Chief Executive Officer

*[Signature Page to IP Assignment Agreement]*

**PATENT**  
**REEL: 048044 FRAME: 0040**

**SCHEDULE A**

**TRANSFERRED IP**

**(i) Patents and Patent Applications:**

#	Title	Jurisdiction	Patent, Publication, or Application #
1	ACTUATOR	US	9467034
2	METHOD AND SYSTEM FOR CONTROLLING A LASER-BASED LIGHTING SYSTEM	US	9826203
3	MEMS DEVICE	US	9341840
4	A PROJECTION DEVICE   DISPOSITIF DE PROJECTION	US	9846353
5	RETINAL SEE THROUGH DISPLAY POWER LEVEL DETERMINATION METHOD AND APPARATUS	US	20180052513
6	PASSIVE ALIGNMENT METHOD AND ITS APPLICATION IN MICRO PROJECTION DEVICES	US	8267532
7	BEAM GUIDING DEVICE	US	15/585481
8	A METHOD FOR REDUCING SPECKLE	US	9651775
9	VARIABLE REFLECTIVITY IMAGE COMBINER FOR WEARABLE DISPLAYS	US	20170102540
10	OPTICAL MEMS SCANNING MICRO-MIRROR WITH ANTI-SPECKLE COVER	US	9010936
11	TECHNIQUES FOR IMAGE PROJECTION	US	20180095278
12	A METHOD FOR PROJECTING AN IMAGE   PROCÉDÉ DE PROJECTION D'UNE IMAGE	US	9671683
13	PROJECTION DEVICE AND A METHOD OF MANUFACTURING A PROJECTION DEVICE	US	9523905
14	MEMS MICRO-MIRROR ASSEMBLY	US	9405116
15	ELECTROMAGNETICALLY ACTUATED MICROSHUTTER	US	9025229
16	OPTICAL MICRO-PROJECTION SYSTEM AND PROJECTION METHOD	US	9374566
17	TWO-DIMENSIONAL PIECEWISE APPROXIMATION TO COMPRESS IMAGE WARPING FIELDS	US	20170178288
18	SPATIALLY SEPARATED EXIT PUPILS IN A HEAD MOUNTED DISPLAY	US	20170102541
19	ADJUSTABLE PUPIL DISTANCE WEARABLE DISPLAY	US	20170102548
20	LIGHTING ARRANGEMENT	US	9817242
21	MEMS MICRO-MIRROR DEVICE	US	9285668
22	A METHOD FOR REDUCING SPECKLE EFFECT	US	9787959
23	AN ACTUATOR	JP	6044943
24	A MEMS DEVICE   DISPOSITIF MEMS	US	9819253
25	MICRO-PROJECTION DEVICE WITH ANTISPECKLE VIBRATION MODE	US	9128363
26	ELECTRO-MECHANICAL DESIGNS FOR MEMS SCANNING MIRRORS	US	9910270
27	ELECTROMAGNETIC DRIVE-TYPE MICROMIRROR	FR	2951713



#	Title	Jurisdiction	Patent, Publication, or Application #
28	TECHNIQUES FOR PROCESSING HOLOGRAPHIC RECORDING MEDIA	US	20180188689
29	A LASER DRIVER AND METHOD OF OPERATING A LASER   CIRCUIT DE COMMANDE DE LASER ET PROCÉDÉ DE COMMANDE DE LASER	US	9496682
30	IMAGE ALIGNMENT IN HEAD WORN DISPLAY	US	20180003991
31	SUPPRESSION OF UNDESIRED HARMONICS IN MEMS MIRROR PROJECTOR DISPLAY	US	9784967
32	LIGHTING ARRANGEMENT	US	20160018066
33	COMPACT ILLUMINATION SYSTEM	US	9507143
34	METHOD AND APPARATUS FOR HEAD WORN DISPLAY WITH MULTIPLE EXIT PUPILS	US	9846307
35	MICROELECTROMECHANICAL SYSTEM OVER-SCANNING FOR PUPIL DISTANCE COMPENSATION	US	20180182272
36	A PROJECTION SYSTEM   SYSTÈME DE PROJECTION	US	8998424
37	ANTI-MOIRÉ OPTICAL SYSTEM`	TW	1617841
38	OPTICAL MICRO-PROJECTION SYSTEM AND PROJECTION METHOD	US	9004698
39	MEMS OSCILLATOR	US	9203414
40	METHOD OF MANUFACTURING A MEMS MICRO-MIRROR ASSEMBLY	US	9323047
41	OPTICAL DEVICE	JP	5995214
42	OPTICAL DEVICE	US	9395613
43	ELECTROMAGNETICALLY ACTUATED MICROSHUTTER	US	9212047
44	A METHOD FOR PROJECTING AN IMAGE	US	8848269
45	A METHOD FOR CONTROLLING THE POSITION OF A MEMS MIRROR   PROCÉDÉ DE COMMANDE DE LA POSITION D'UN MIROIR MEMS	US	9798136
46	ADJUSTABLE FOCAL PLANE OPTICAL SYSTEM	TW	1588535
47	DEVICE FOR PROJECTING AN IMAGE	US	9786230
48	HEAD-WORN DISPLAY APPARATUS HAVING FLEXIBLE STEMS	US	15/480036
49	METHOD AND SYSTEM FOR GENERATING VIRTUAL IMAGES	TW	201643503
50	METHODS AND APPARATUS TO IDENTIFY LENSES OF HEAD-WEARABLE APPARATUS	US	15/855596
51	GLASSES	US	29/630727
52	HEAD-WORN DISPLAY APPARATUS HAVING FLEXIBLE STEMS	CN	201810180908.3
53	HEAD-WORN DISPLAY APPARATUS HAVING FLEXIBLE STEMS	DE	102018204573.9
54	HEAD-WORN DISPLAY APPARATUS HAVING FLEXIBLE STEMS	KR	1020180038154
55	METHOD FOR DISPLAYING AN IMAGE PROJECTED FROM A HEAD-WORN DISPLAY WITH MULTIPLE EXIT PUPILS	EP	2979128
56	METHOD FOR DISPLAYING AN IMAGE PROJECTED FROM A HEAD-WORN DISPLAY WITH MULTIPLE EXIT PUPILS	EP	3296797
57	METHOD AND APPARATUS FOR HEAD WORN DISPLAY WITH MULTIPLE EXIT PUPILS	DE	2979128

#	Title	Jurisdiction	Patent, Publication, or Application #
58	METHOD AND APPARATUS FOR HEAD WORN DISPLAY WITH MULTIPLE EXIT PUPILS	GB	2979128
59	METHOD AND APPARATUS FOR HEAD WORN DISPLAY WITH MULTIPLE EXIT PUPILS	NL	2979128
60	METHOD AND APPARATUS FOR MULTI-EXIT PUPIL HEAD-MOUNTED DISPLAY	JP	2016517036
61	METHOD FOR DISPLAYING AN IMAGE PROJECTED FROM A HEAD-WORN DISPLAY WITH MULTIPLE EXIT PUPILS	KR	1020150136601
62	METHOD AND APPARATUS FOR HEAD WORN DISPLAY WITH MULTIPLE EXIT PUPILS	US	20170293147
63	METHOD AND APPARATUS FOR HEAD WORN DISPLAY WITH MULTIPLE EXIT PUPILS	CN	106170729
64	MEMS OSCILLATOR	EP	2761358
65	MEMS OSCILLATOR   OSCILLATEUR À MEMS	US	20160142687
66	A DEVICE AND METHOD FOR PROJECTING AN IMAGE   DISPOSITIF ET PROCÉDÉ DE PROJECTION D'UNE IMAGE	US	20140232736
67	DEVICE FOR PROJECTING AN IMAGE	US	20180130427
68	A DEVICE FOR PROJECTING AN IMAGE	EP	2614650
69	A DEVICE FOR PROJECTING AN IMAGE	IN	2013CN01750
70	AN ACTUATOR	EP	2771732
71	A MEMS DEVICE   DISPOSITIF MEMS	US	9983401
72	PROJECTION DEVICE	JP	6069754
73	PROJECTION DEVICE COMBINING AND MODIFYING LIGHT BEAM CROSS SECTIONAL DIMENSIONS	US	15/844896
74	PROJECTION DEVICE AND A METHOD OF MANUFACTURING A PROJECTION DEVICE	TW	1628502
75	SPECKLE REDUCER USING A BEAM-SPLITTER	US	20170230627
76	MEMS DEVICE	CN	104955766
77	MEMS DEVICE	US	15/812779
78	A METHOD FOR CONTROLLING THE POSITION OF A MEMS MIRROR	US	20180081167
79	A METHOD OF MANUFACTURING A MEMS MICRO-MIRROR ASSEMBLY	CN	104145203
80	A MEMS MICRO-MIRROR ASSEMBLY	EP	2823695
81	MEMS MICRO-MIRROR ASSEMBLY	US	20170031152
82	A METHOD AND DEVICE FOR PROJECTING AN IMAGE WITH IMPROVED SAFETY	CN	2013800785161
83	A METHOD AND DEVICE FOR PROJECTING AN IMAGE WITH IMPROVED SAFETY	EP	3014876
84	A METHOD AND DEVICE FOR PROJECTING AN IMAGE WITH IMPROVED SAFETY	DE	3014876

#	Title	Jurisdiction	Patent, Publication, or Application #
85	A METHOD AND DEVICE FOR PROJECTING AN IMAGE WITH IMPROVED SAFETY	GB	3014876
86	A METHOD AND DEVICE FOR PROJECTING AN IMAGE WITH IMPROVED SAFETY	NL	3014876
87	A METHOD AND DEVICE FOR PROJECTING AN IMAGE WITH IMPROVED SAFETY	IN	7742CHENP2015
88	A METHOD AND DEVICE FOR PROJECTING AN IMAGE WITH IMPROVED SAFETY	JP	6194110
89	A METHOD AND DEVICE FOR PROJECTING AN IMAGE WITH IMPROVED SAFETY	JP	2017227903
90	A METHOD AND DEVICE FOR PROJECTING AN IMAGE WITH IMPROVED SAFETY	KR	1020157036571
91	A METHOD AND DEVICE FOR PROJECTING AN IMAGE WITH IMPROVED SAFETY	RU	2630714
92	METHOD AND DEVICE FOR PROJECTING AN IMAGE WITH IMPROVED SAFETY	US	20180131916
93	METHOD FOR CONTROLLING THE POSITION OF A MEMS MIRROR	US	20180157029
94	METHODS AND DEVICES FOR DETECTING OPEN AND/OR SHORTS CIRCUITS IN MEMS MICRO-MIRROR DEVICES   PROCEDES ET DISPOSITIFS POUR LA DETECTION DE CIRCUITS OUVERTS ET/OU DE COURTS CIRCUITS DANS DES DISPOSITIFS A MICRO-MIROIR DE SYSTEME MICROELECTROMECHANIQUE	US	20160255318
95	LASER SUPPORT FOR SEMICONDUCTOR LASER FIXATION AND LASER SUPPORT ELEMENT ASSEMBLY	US	20160141829
96	AN IMAGE PROJECTOR AND OPTICAL ASSEMBLY	CN	105579883
97	AN IMAGE PROJECTOR AND OPTICAL ASSEMBLY	EP	3008507
98	AN IMAGE PROJECTOR AND OPTICAL ASSEMBLY	JP	6124385
99	AN IMAGE PROJECTOR AND OPTICAL ASSEMBLY	KR	1020157025311
100	AN IMAGE PROJECTOR AND OPTICAL ASSEMBLY	TW	I585459
101	LIGHTING ARRANGEMENT	TW	I577924
102	METHOD AND SYSTEM FOR CONTROLLING A LASER-BASED LIGHTING SYSTEM	CN	106574761
103	METHOD AND SYSTEM FOR CONTROLLING A LASER-BASED LIGHTING SYSTEM	EP	3191887
104	METHOD AND SYSTEM FOR CONTROLLING A LASER-BASED LIGHTING SYSTEM	JP	2017538301
105	METHOD AND SYSTEM FOR CONTROLLING A LASER-BASED LIGHTING SYSTEM	KR	1020177003188
106	COMPACT ILLUMINATION SYSTEM	CN	106662740
107	COMPACT ILLUMINATION SYSTEM	EP	3194835
108	COMPACT ILLUMINATION SYSTEM	JP	2017531281

#	Title	Jurisdiction	Patent, Publication, or Application #
109	COMPACT ILLUMINATION SYSTEM	KR	1020177004259
110	ANTI-MOIRÉ PATTERN DIFFUSER FOR OPTICAL SYSTEMS CROSS-REFERENCE TO RELATED APPLICATIONS	US	9927560
111	ANTI-MOIRÉ PATTERN DIFFUSER FOR OPTICAL SYSTEMS CROSS-REFERENCE TO RELATED APPLICATIONS	CN	106716248
112	ANTI-MOIRÉ PATTERN DIFFUSER FOR OPTICAL SYSTEMS CROSS-REFERENCE TO RELATED APPLICATIONS	EP	3210059
113	ANTI-MOIRÉ PATTERN DIFFUSER FOR OPTICAL SYSTEMS CROSS-REFERENCE TO RELATED APPLICATIONS	JP	2017534897
114	ANTI-MOIRE PATTERN DIFFUSER FOR OPTICAL SYSTEMS	KR	1020177007564
115	MICRO-VOLET A ACTIONNEMENT ELECTROMAGNETIQUE	CN	102844263
116	ELECTROMAGNETICALLY ACTUATED MICROSHUTTER	JP	5663590
117	OPTICAL MEMS SCANNING MICRO-MIRROR WITH SPECKLE REDUCTION   MICRO-MIROIR À BALAYAGE MEMS OPTIQUE PRÉSENTANT UNE RÉDUCTION DES MOUCHETURES	US	20170168288
118	PASSIVE ALIGNMENT METHOD AND ITS APPLICATION IN MICRO PROJECTION DEVICES	CN	102439509
119	OPTICAL MICRO-PROJECTION SYSTEM AND PROJECTION METHOD	US	9912923
120	MICRO-PROJECTION DEVICE WITH ANTI-SPECKLE VIBRATION MODE	US	20160054577
121	MEMS MICRO-MIRROR DEVICE	US	9921415
122	METHOD AND APPARATUS FOR CONTROLLING A MEMS MICRO-MIRROR DEVICE	DE	2534523
123	METHOD AND APPARATUS FOR CONTROLLING A MEMS MICRO-MIRROR DEVICE	EP	2534523
124	METHOD AND APPARATUS FOR CONTROLLING A MEMS MICRO-MIRROR DEVICE	FR	2534523
125	METHOD AND APPARATUS FOR CONTROLLING A MEMS MICRO-MIRROR DEVICE	GB	2534523
126	METHOD AND APPARATUS FOR CONTROLLING A MEMS MICRO-MIRROR DEVICE	NL	2534523
127	MEMS MICRO-MIRROR DEVICE	US	20160195713
128	MULTIPLE LIGHT SOURCE PROJECTION SYSTEM TO PROJECT MULTIPLE IMAGES	US	20180131910
129	A METHOD FOR PROJECTING AN IMAGE   VERFAHREN ZUR PROJEKTION EINES BILDES   PROCÉDÉ DE PROJECTION D'UNE IMAGE	CN	103238099
130	A REFLECTIVE DEVICE   DISPOSITIF RÉFLÉCHISSANT	KR	1018390080000
131	AN OPTICAL DEVICE	CN	103563362
132	AN OPTICAL DEVICE   OPTISCHE VORRICHTUNG   DISPOSITIF OPTIQUE	DE	602012015930.8
133	AN OPTICAL DEVICE	EP	2716050

#	Title	Jurisdiction	Patent, Publication, or Application #
134	AN OPTICAL DEVICE	FR	2716050
135	OPTICAL DEVICE	GB	2716050
136	OPTICAL DEVICE	NL	2716050
137	OPTICAL DEVICE	US	20180136551
138	ADJUSTABLE FOCAL PLANE OPTICAL SYSTEM	US	20160147081
139	ADJUSTABLE FOCAL PLANE OPTICAL SYSTEM	CN	107076993
140	ADJUSTABLE FOCAL PLANE OPTICAL SYSTEM	EP	3221737
141	ADJUSTABLE FOCAL PLANE OPTICAL SYSTEM	JP	2017536570
142	ADJUSTABLE FOCAL PLANE OPTICAL SYSTEM	KR	1020170084094
143	VIRTUAL IMAGE GENERATOR	US	20160150201
144	VIRTUAL IMAGE GENERATOR	CN	107076984
145	MIRROR DEVICE   DISPOSITIF DE MIROIR	EP	3221736
146	VIRTUAL IMAGE GENERATOR	JP	2017538145
147	VIRTUAL IMAGE GENERATOR	KR	1020170087874
148	FOR THE WEARING OF THE DISPLAY WHICH CAN CHANGE REFLECTIVITY IMAGE COMBINATION OF	CN	108027513
149	VARIABLE REFLECTIVITY IMAGE COMBINER FOR WEARABLE DISPLAYS	DE	112016004665
150	ADJUSTABLE PUPIL DISTANCE WEARABLE DISPLAY	US	20170205630
151	CAN BE ADJUSTED PUPIL DISTANCE CAN BE WORN DISPLAY	CN	108027507
152	ADJUSTABLE PUPIL DISTANCE WEARABLE DISPLAY	DE	112016004662.6
153	FOR MEMS MIRROR SCANNING MOTOR DESIGN	CN	108025908
154	ELECTRO-MECHANICAL DESIGNS FOR MEMS SCANNING MIRROR	DE	112016004661
155	FOR MEMS MIRROR PROJECTION DISPLAY WITHOUT EXPECTATION OF HARMONIC SUPPRESSION	CN	108027512
156	SUPPRESSION OF UNDESIRE HARMONICS IN MEMS MIRROR PROJECTOR DISPLAY	DE	112016004663
157	IMAGE ALIGNMENT IN HEAD WORN DISPLAY	WO	2018004989
158	RETINAL SEE THROUGH DISPLAY POWER LEVEL DETERMINATION METHOD AND APPARATUS	WO	2018034783
159	OPTICAL MEMS SCANNING MICRO-MIRROR WITH ANTI-SPECKLE COVER	US	20180210224
160	ANTI-MOIR PATTERN DIFFUSER FOR OPTICAL SYSTEMS	US	15/933943
161	ELECTRO-MECHANICAL DESIGNS FOR MEMS SCANNING MIRRORS	US	15/911489
162	IMAGE PROJECTOR AND OPTICAL ASSEMBLY	US	20180067332
163	BEAM GUIDING DEVICE	CN	201810401704.8
164	BEAM GUIDING DEVICE	DE	102018206809.7
165	BEAM GUIDING DEVICE	JP	2018088660
166	BEAM GUIDING DEVICE	KR	1020180050862
167	OPTICAL MICRO-PROJECTION SYSTEM AND PROJECTION METHOD	US	15/911498

#	Title	Jurisdiction	Patent, Publication, or Application #
168	A REFLECTIVE DEVICE	EP	EP2689283
169	A REFLECTIVE DEVICE	US	US20140016169
170	OPTICAL MEMS SCANNING MICRO-MIRROR WITH SPECKLE REDUCTION	US	US8864316
171	A METHOD FOR REDUCING SPECKLES AND A LIGHT SOURCE USD [sic] IN SAID METHOD	CN	CN201310517987
172	METHOD AND DEVICE FOR PROJECTING A 3-D VIEWABLE IMAGE	US	9164368
173	UNE TECHNIQUE D'ACTIONNEMENT D'UNE STRUCTURE RESONANTE	FR	3024805
174	PROJECTION APPARATUS USING TELECENTRIC OPTICS	US	9417450
175	METHOD AND DEVICE FOR PROJECTING AN IMAGE	US	9712812
176	AUGMENTED REALITY EYEBOW FITTING OPTIMIZATION FOR INDIVIDUALS	US	15/968033
177	TRANSFLECTIVE HOLOGRAPHIC FILM FOR HEAD WORN DISPLAY	US	20150362734
178	METHOD AND DEVICE FOR PROJECTING A 3-D VIEWABLE IMAGE	US	9955149
179	METHOD AND DEVICE FOR PROJECTING AN IMAGE	US	20170318284
180	A METHOD AND DEVICE FOR PROJECTING AN IMAGE	EP	2614649
181	A METHOD AND DEVICE FOR PROJECTING AN IMAGE	KR	1017133660000
182	PROJECTION APPARATUS USING TELECENTRIC OPTICS	DE	6020120109653
183	PROJECTION APPARATUS USING TELECENTRIC OPTICS	EP	2776882
184	PROJECTION APPARATUS USING TELECENTRIC OPTICS	FR	2776882
185	PROJECTION DEVICE AND A METHOD OF MANUFACTURING A PROJECTION DEVICE	US	20170269359
186	METHOD AND DEVICE FOR PROJECTING A 3-D VIEWABLE IMAGE	US	15/959904
187	WEARABLE ELECTRONIC DISPLAY DEVICE	US	D753654
188	ELECTRONIC DEVICE WITH WIND RESISTANT AUDIO	US	9781499
189	PHOTOSENSOR SYSTEMS FOR LENS DETECTION	US	15/857329
190	FIT SYSTEM FOR WEARABLE DEVICE	US	15/485900
191	WEARABLE DEVICE SAR REDUCTION AND ANTENNA IMPROVEMENT	US	20180212314
192	AUGMENTED REALITY EYEBOW FITTING OPTIMIZATION FOR INDIVIDUALS	US	62/614282
193	WEARABLE DEVICE SAR REDUCTION AND ANTENNA IMPROVEMENT	WO	PCT/2017/056510
194	MOBILE DEVICE WITH SLOTTED CAVITY ANTENNA	US	20180212309
195	MOBILE DEVICE WITH SLOTTED CAVITY ANTENNA	WO	PCT/2018/014572
196	FIT SYSTEM FOR WEARABLE DEVICE	CN	201810200067.8
197	FIT SYSTEM FOR WEARABLE DEVICE	DE	102018204925.4
198	FIT SYSTEM FOR WEARABLE DEVICE	KR	1020180037233
199	ELECTRONICALLY REINFORCED HEAD-WEARABLE APPARATUS AND RELATED METHODS	US	15/857219
200	GAZE DETECTION IN HEAD WORN DISPLAY	US	20180003961
201	GAZE DETECTION IN HEAD WORN DISPLAY	WO	2018005013
202	AUGMENTED REALITY AND VIRTUAL REALITY VIEWING MODE	US	15/696773

#	Title	Jurisdiction	Patent, Publication, or Application #
	ADJUSTMENT		
203	USER DEFINED HEAD GESTURES METHODS AND APPARATUS	US	15/666505
204	GAZE DETECTING HEADS-UP DISPLAY SYSTEMS	US	9069166
205	WEARER VOICE ACTIVITY DETECTION	US	9978397
206	TECHNIQUES FOR OCULAR CONTROL	US	20180004284
207	TECHNIQUES FOR OCULAR CONTROL	WO	2018005024
208	MICROMIRROR WITH ELECTROMAGNETIC ACTUATION	DE	DE602008027037.8
209	MICROMIRROR WITH ELECTROMAGNETIC ACTUATION	EP	EP2294472
210	MICROMIRROR WITH ELECTROMAGNETIC ACTUATION	FR	FR2294472
211	MICROMIRROR WITH ELECTROMAGNETIC ACTUATION	GB	GB2294472
212	SPECKLE REDUCER USING A BEAM SPLITTER	CN	CN104969116
213	SPECKLE REDUCER USING A BEAM SPLITTER	EP	EP2904447
214	SPECKLE REDUCER USING A BEAM SPLITTER	JP	JP2015532455
215	SPECKLE REDUCER USING A BEAM SPLITTER	KR	KR2015077403
216	LIGHT ASSEMBLY	US	US20150226975
217	OPTICAL ASSEMBLY	US	US20150253469
218	A METHOD FOR REDUCING SPECKLE	CN	CN105556371
219	A METHOD FOR REDUCING SPECKLE	EP	EP2946241
220	A METHOD FOR REDUCING SPECKLE	JP	JP5993099
221	A METHOD FOR REDUCING SPECKLE	KR	KR101766565
222	Method for Reducing Speckle	US	US10073260
223	A PROJECTION DEVICE	KR	KR10-2017-0136016
224	PROJECTION DEVICE	US	US20160085084
225	A METHOD FOR REDUCING SPECKLE EFFECT	CN	CN105378543
226	A METHOD FOR REDUCING SPECKLE EFFECT	EP	EP3025187
227	A METHOD FOR REDUCING SPECKLE EFFECT	JP	JP6263261
228	A METHOD FOR REDUCING SPECKLE EFFECT	KR	KR20160033078
229	A METHOD FOR REDUCING SPECKLE EFFECT	US	US10033977
230	MIRROR DEVICE	JP	JP2017060205
231	MIRROR DRIVING DEVICE	JP	JP6175305
232	MIRROR DRIVING DEVICE	CN	CN105934698
233	MIRROR DRIVING DEVICE	EP	EP2944998
234	MIRROR DRIVING DEVICE	US	US20160105090

(ii) Design Registrations:

#	Registration Number	Filing Date	Publication Date	Locarno Classification	ID of Products	Countries	Statement of Grant of Protection
1	DM/083109	11-Mar-14	International Design Bulletin No. 12/2014	Cl. 26-99	1. light source holder; 2. Holder with light source (laser module and lens)	EU	30-Mar-14
2	DM/083109	11-Mar-14	International Design Bulletin No. 12/2014	Cl. 26-99	1. light source holder; 2. Holder with light source (laser module and lens)	Singapore	NA
3	DM/083109	11-Mar-14	International Design Bulletin No. 12/2014	Cl. 26-99	1. light source holder; 2. Holder with light source (laser module and lens)	Switzerland	NA



**(iii)Mask Works:**

<b>Component</b>	<b>Mask Works</b>
• MEMS mirror:	- MEMS Run 1: 4 Masks
	- MEMS Run 2: 4 Masks
	- MEMS Run 3: 11 Masks (MEMS mirror Process & Wafer-level Packaging)
	- MEMS Run 4_Axe Lent: 6 Masks
	- MEMS Run 5: 6 Masks
	- MEMS Exa&Test_Phase1: 6 Masks
	- MEMS Exa&Test_Phase2: 6 Masks
	- MEMS Run 6_2D: 6 Masks
	- MEMS Run 6_1D_Fast: 6 Masks
	- MEMS Run 6_1D_DC: 6 Masks
	- MEMS Run 7_1D_Fast: 6 Masks
	- MEMS Run 7_1D_DC: 6 Masks
	- MEMS Run 8_2D_Or: 6 Masks
	- MEMS Run 8_2D_AI: 6 Masks
	- MEMS 2D_Or_WVGA: 6 Masks
	- MEMS VTX: 7 Masks
	- MEMS LXM_Phase1_100: 6 Masks
	- MEMS LXM_Phase2_100: 6 Masks
	- MEMS LXM_Phase2_200: 6 Masks
	- MEMS 2D_Cu_WVGA_1: 6 Masks
	- MEMS 2D_Cu_WVGA_2: 6 Masks
	- MEMS 2D_DC: 7 Masks
	- MEMS HUD_V1: 6 Masks
- MEMS HUD_V2 : 8 Masks	
- MEMS 720p_V1: 7 Masks	
- MEMS 720p_V2: 8 Masks	
• ASIC:	- Lxic001, TSMC 018um 1P5M 20k UTM, 2.0fF MIM Cap, HRI 3k, 1.8 & 5V, MPW 13.02.2012
	- Lxic002, TSMC 018um 1P5M 20k UTM, 2.0fF MIM Cap, HRI 3k, 1.8 & 5V, MPW 28.11.2012
	- Lxic003, TSMC 018um 1P5M 20k UTM, 2.0fF MIM Cap, HRI 1k, 1.8 & 5V, MPW 12.11.2013
• Micro-LED:	- LMX VCSEL14 – 10 Masks
• Microlens Array (1 mask each):	

ulens_50um_pitch_150um
ulens_65um_pitch_150um
ulens_70um_pitch_150um
ulens_85um_pitch_150um
ulens_100um_pitch_150um
ulens_115um_pitch_150um
ulens_130um_pitch_150um
ulens_145um_pitch_150um
ulens_4inch_150um_hexa_1
ulens_4inch_200um_hexa_1
ulens_4inch_250um_hexa_1
Mask_ulens_100um
Mask_ulens_150um
ulens_4inch_150um_100FF_spsp_hexa3