

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM742450

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	ASSIGNMENT OF THE ENTIRE INTEREST AND THE GOODWILL		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
APICAL LIMITED		06/30/2022	Limited Liability Company: UNITED KINGDOM
RECEIVING PARTY DATA			
Name:	ARM LIMITED		
Street Address:	110 FULBOURN ROAD		
Internal Address:	CAMBRIDGESHIRE		
City:	CAMBRIDGE		
State/Country:	UNITED KINGDOM		
Postal Code:	CB1 9NJ		
Entity Type:	LIMITED COMPANY (LTD): UNITED KINGDOM		
PROPERTY NUMBERS Total: 1			
Property Type	Number	Word Mark	
Registration Number:	4419035	ASSERTIVE DISPLAY	
CORRESPONDENCE DATA			
Fax Number:	2159724169		
	<i>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.</i>		
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Email:	trademarks@saul.com, lynn.white@saul.com		
Correspondent Name:	Mark D. Simpson, Esq.		
Address Line 1:	Centre Square West, 1500 Market Street		
Address Line 2:	38th Floor		
Address Line 4:	Philadelphia, PENNSYLVANIA 19102		
ATTORNEY DOCKET NUMBER:	366219.00071		
NAME OF SUBMITTER:	Mark D. Simpson		
SIGNATURE:	/Mark D. Simpson/		
DATE SIGNED:	07/20/2022		
Total Attachments: 35			
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Dated: 30 June 2022

- (1) APICAL LIMITED**
- (2) ARM LIMITED**

Assignment of intellectual property rights

BETWEEN

- (1) **APICAL LIMITED** (registered number 03701846) whose registered office is at 110 Fulbourn Road, Cambridge, Cambridgeshire, United Kingdom, CB1 9NJ (previously Suite 323, Linen Hall, Regent Street, London, W1B 5TD, United Kingdom (or alternatively referred to as Suite 323, 162-168 Regent Street, London, W1B 5TD, United Kingdom) (the "Assignor"); and
- (2) **ARM LIMITED** (registered number 02557590) whose registered office is at 110 Fulbourn Road, Cambridge, Cambridgeshire, United Kingdom, CB1 9NJ (the "Assignee").

BACKGROUND

The Assignor is the proprietor of the Assigned Rights, and the Assignor has agreed to assign to the Assignee the Assigned Rights on the terms and conditions of this Deed.

1. DEFINITIONS AND INTERPRETATION

In this Deed:

- 1.1 the following words and expressions have the following meanings unless the context otherwise requires:

"Assigned Rights" means:

- i. the Patents;
- ii. the Patent Applications;
- iii. the Trade Marks;
- iv. the Domain Names; and
- v. any and all other Intellectual Property Rights owned by the Assignor, in any form;

"Domain Names" the domain names listed in **Schedule 1**;

"Intellectual Property Rights" means all intellectual property rights of any nature, including without limitation, patents, rights to inventions, registered designs, copyright and related rights, service marks, trade marks and trade mark applications (and any goodwill subsisting in relation to them), business names, rights in get-up, goodwill and the right to sue for passing off or unfair competition, rights in designs, domain names (including email addresses), database rights, rights to use, and protect the confidentiality of, confidential information (including know-how and trade secrets) in each case whether registered or unregistered and including all applications and rights to apply for and be granted, renewals or extensions of, and rights to claim priority from, such rights and all similar or equivalent rights or forms of protection which subsist or will subsist now or in the future in any part of the world;

"Patent Applications" the applications for the grant of patents particulars of which are contained in **Part 2 of Schedule 2**;

“Patents” the patents, particulars of which are contained in **Part 1** of **Schedule 2**; and

“Trade Marks” the registered trade marks, particulars of which are contained in **Schedule 3**.

1.2 references to the background section, clauses and Schedules are to the background section and clauses of and schedules to this Deed;

1.3 the Schedules form part of this Deed and will have the same force and effect as if set out in the body of this Deed and any reference to this Deed will include the Schedules;

1.4 an obligation on a party to procure or ensure the performance or standing of another person will be construed as a primary obligation of that party; and

1.5 any reference to the Assignee shall mean the entity as set out above, including where referred to as ‘ARM’ or ‘Arm’ and/or ‘Limited’ or ‘Ltd’ and any combination of the same.

2. **ASSIGNMENT OF INTELLECTUAL PROPERTY RIGHTS**

2.1 In consideration of the payment of £1.00 by the Assignee to the Assignor (receipt of which is hereby acknowledged) the Assignor assigns to the Assignee absolutely and with full title guarantee and free of all charges, liens, licences and encumbrances:

2.1.1 all of its right, title and interest in and to the Assigned Rights, including all statutory and common law rights, and the right to bring, make, oppose, defend, appeal proceedings, claims or actions and obtain relief (and to retain any damages recovered) in respect of any infringement, or any other cause of action relating to the Assigned Rights whether occurring before, on, or after the date of this Deed;

2.1.2 the right to apply for, prosecute and obtain patent or similar protection throughout the world for any inventions (including any claimed in the Patents, and the right to claim priority therefrom (including under the Paris Convention when making applications in countries or territories outside the UK)), so that the grant of any patent or similar protection will be in the name of and vest in the Assignee; and

2.1.3 any and all goodwill attaching to (a) the Trade Marks and Assignor business; and (b) the goods and/or services for which the Trade Marks are registered and/or used by the Assignor.

2.2 In the event that any of the Assigned Rights is held by the Assignor jointly with any third party, either by law or contract, and that third party’s consent is required to give effect to the assignment contained in **clause 2.1**, the Assignor:

2.2.1 hereby immediately assigns any and all beneficial interest it holds in and to the jointly owned Assigned Rights; and

2.2.2 will use all reasonable endeavours to obtain all such third party consents required to give full effect to the assignment at **clause 2.1** as soon as reasonably practicable.

2.3 The Assignor will at its own cost:

2.3.1 execute all such documents and do all such acts and things; and

2.3.2 procure that all relevant third parties execute all such documents and do all such acts and things

as the Assignee may request from time to time in order to give full effect to the provisions of this Deed and to secure the full right title and interest of the Assignee in the Assigned Rights.

- 2.4 The Assignor hereby appoints the Assignee to be his attorney in his name and on his behalf to sign and execute any documents that the Assignor has agreed to execute under **clause 2.1**.

3. **GRANT OF LICENCE**

From the date of this Deed, the Assignee grants to the Assignor a royalty-free, non-exclusive licence to use the Assigned Rights solely in order for the Assignor to comply with its obligations under any agreement listed in Schedule 3 (Excluded Assets) of the Business Transfer Agreement executed on around the date of this Deed.

4. **MISCELLANEOUS**

- 4.1 This Deed constitutes the entire agreement between the parties and supersedes any prior agreement or arrangement in respect of its subject matter.
- 4.2 A delay in exercising or failure to exercise a right or remedy under or in connection with this Deed will not constitute a waiver of, or prevent or restrict future exercise of, that or any other right or remedy, nor will the single or partial exercise of a right or remedy prevent or restrict the further exercise of that or any other right or remedy. A waiver of any right, remedy, breach or default will only be valid and only in the circumstances and for the purpose for which it was given and will not constitute a waiver of any other right, remedy, breach or default.
- 4.3 If any term of this Deed is found by any court or body or authority of competent jurisdiction to be illegal, unlawful, void or unenforceable, such term will be deemed to be severed from this Deed and this will not affect the remainder of this Deed which will continue in full force and effect.
- 4.4 No variation to this Deed will be effective unless it is in writing and signed by a duly authorised representative on behalf of each of the parties.
- 4.5 Nothing in this Deed and no action taken by the parties in connection with it will create a partnership or joint venture or relationship of employer and employee between the parties or, give either party authority to act as the agent of or in the name of or on behalf of the other party or to bind the other party or to hold itself out as being entitled to do so.
- 4.6 Each party agrees that it is an independent contractor and is entering into this Deed as principal and not as agent for or for the benefit of any other person.
- 4.7 This Deed may be executed in any number of counterparts, each of which will constitute an original, but which will together constitute one agreement.
- 4.8 The parties do not intend that any term of this Deed will be enforceable under the Contracts (Rights of Third Parties) Act 1999 by any person.
- 4.9 This Deed and any non-contractual obligations arising out of or in connection with it will be governed by the law of England and Wales.
- 4.10 Subject to **clause 4.11**, the courts of England and Wales have exclusive jurisdiction to determine any dispute arising out of or in connection with this Deed (including in relation to any non-contractual obligations).
- 4.11 Any party may seek interim injunctive relief or any other interim measure of protection in any court of competent jurisdiction.

This agreement is executed as a deed and delivered on the date stated at the beginning of this document.

SCHEDULE 1

The Domain Names

Domain Name	Owner/ Registrant	Registrar	Expiry Date
1. apical-imaging.com	Apical Limited	Nom-iq Ltd. dba COM LAUDE	7 March 2023
2. apical.co.uk	Apical Limited	Nom-iq Ltd. dba COM LAUDE	1 August 2022
3. paralanche.com	Apical Limited	Nom-iq Ltd. dba COM LAUDE	24 October 2022
4. smartbacklight.com	Apical Limited	Nom-iq Ltd. dba COM LAUDE	31 January 2023

SCHEDULE 2

PART 1 – The Patents

Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
IP0188GB:family	Voice Assistant Devices	United Kingdom	1812549.2	2018-08-01	2576016	2021-06-23	Abandoned	Apical Limited Arm IP Limited
IP0188US01	Voice Assistant Devices EFFICIENT STORAGE FOR PRODUCTION OF HIGH DYNAMIC	United States of America	16/511,195	2019-07-15	11,100,929	2021-08-24	Granted	Apical Limited
P04001CN01	RANGE IMAGES	China	201680044422.6	2016-06-01	ZL201680044422.6	2021-03-30	Abandoned	Apical Limited
P04001DE01	Efficient Storage for Production of High Dynamic Range Images Efficient Storage for Production of High Dynamic	Germany (Federal Republic of)	16730278.5	2016-06-01	3304887	2021-03-17	Abandoned	Apical Limited
P04001EP01	Range Images	European Patent	16730278.5	2016-06-01	3304887	2021-03-17	Granted	Apical Limited
P04001FR01	Efficient Storage for Production of High Dynamic Range Images	France	16730278.5	2016-06-01	3304887	2021-03-17	Abandoned	Apical Limited
P04001GB01	Efficient Storage for Production of High Dynamic Range Images	United Kingdom	16730278.5	2016-06-01	3304887	2021-03-17	Granted	Apical Limited
P04001JP01	APPARATUS FOR PRODUCTION OF HIGH DYNAMIC RANGE IMAGES	Japan	2017-563125	2016-06-01	6940150	2021-09-06	Granted	Apical Limited
P04001US01	Efficient Storage for Production of High Dynamic Range Images	United States of America	15/827,120	2016-06-01	10,467,732	2019-11-05	Granted	Apical Limited

Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
P04002GB01	Method of reducing digital video flicker	United Kingdom	1518581.2	2015-10-20	2532346	2019-04-17	Granted	Apical Limited
P04002US01	METHOD OF REDUCING DIGITAL VIDEO FLICKER	United States of America	15/471,399	2015-10-20	10,063,787	2018-08-28	Granted	Apical Limited
P04003CN01	SENSOR NOISE PROFILE	China	201580069227.4	2015-12-18	ZL201580069227.4	2021-03-19	Granted	Apical Limited
P04003GB01	Sensor noise profile	United Kingdom	1522405.8	2015-12-18	2535613	2019-01-02	Granted	Apical Limited
P04003US01	Sensor noise profile	United States of America	14/973,937	2015-12-18	9,892,517	2018-02-13	Granted	Apical Limited
P04004US01	METHOD, SYSTEM AND COMPUTER PROGRAM PRODUCT FOR AUTOMATICALLY ALTERING A VIDEO STREAM	United States of America	15/660,252	2016-01-27	10,861,159	2020-12-08	Granted	Apical Limited
P04005GB01	IMAGE PROCESSING METHOD	United Kingdom	1720694.7	2016-05-12	2555331	2021-10-27	Granted	Apical Limited
P04006GB01	Hybrid Machine Learning Systems	United Kingdom	1802349.9	2016-07-13	2556592	2021-08-04	Abandoned	Apical Limited
P04006US01	HYBRID MACHINE LEARNING SYSTEMS	United States of America	15/866,889	2016-07-13	11,055,824	2021-07-06	Granted	Apical Limited
P04008GB01	METHOD OF IMAGE PROCESSING	United Kingdom	1620921.5	2016-12-08	2546610	2021-07-21	Granted	Apical Limited
P04008US01	Pixel Consistency	United States of America	15/373,278	2016-12-08	10,325,359	2019-06-18	Granted	Apical Limited
P04009GB01	METHOD OF IMAGE PROCESSING	United Kingdom	1622153.3	2016-12-23	2547760	2020-04-15	Granted	Apical Limited
P04009US01	METHOD OF IMAGE PROCESSING	United States of America	15/389,858	2016-12-23	10,062,013	2018-08-28	Granted	Apical Limited

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Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
P04010CN01	IMAGE ENHANCEMENT METHODS AND APPARATUS THEREFOR	China	02809290.2	2002-04-10	1315099	2007-05-09	Expired	Apical Limited
P04010DE01	IMAGE ENHANCEMENT METHODS AND APPARATUS THEREFOR	Germany (Federal Republic of)	02708552.1	2002-04-10	1397780	2013-03-06	Expired	Apical Limited
P04010EP01	IMAGE ENHANCEMENT METHODS AND APPARATUS THEREFOR	European Patent	02708552.1	2002-04-10	1397780	2013-03-06	Granted	Apical Limited
P04010FR01	IMAGE ENHANCEMENT METHODS AND APPARATUS THEREFOR	France	02708552.1	2002-04-10	1397780	2013-03-06	Expired	Apical Limited
P04010GB01	IMAGE ENHANCEMENT METHODS AND APPARATUS THEREFOR	United Kingdom	02708552.1	2002-04-10	1397780	2013-03-06	Expired	Apical Limited
P04010JP01	IMAGE ENHANCEMENT METHODS AND APPARATUS THEREFOR	Japan	2002-586285	2002-04-10	4083587	2008-02-22	Expired	Apical Limited
P04010US01	IMAGE ENHANCEMENT METHODS AND APPARATUS THEREFOR	United States of America	10/476,587	2002-04-10	7,302,110	2007-11-27	Granted	Apical Limited
P04011DE01	Image processing method, and computer software for image processing	Germany (Federal Republic of)	05773169.7	2005-08-19	1789921	2018-05-23	Abandoned	Apical Limited
P04011EP01	Image processing method, and computer software for image processing	European Patent	05773169.7	2005-08-19	1789921	2018-05-23	Granted	Apical Limited
P04011FR01	Image processing method, and computer software for image processing	France	05773169.7	2005-08-19	1789921	2018-05-23	Abandoned	Apical Limited
P04011GB01	Image processing method, and computer software for image processing	United Kingdom	05773169.7	2005-08-19	1789921	2018-05-23	Abandoned	Apical Limited

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Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
P04011US01	IMAGE PROCESSING METHOD AND COMPUTER SOFTWARE FOR IMAGE PROCESSING	United States of America	11/660,485	2005-08-19	8,160,387	2012-04-17	Granted	Apical Limited
P04012CN01	Display device control	China	201280050264.7	2012-08-22	ZL201280050264.7	2016-09-07	Granted	Apical Limited
P04012DE01	Display device control	Germany (Federal Republic of)	12762230.6	2012-08-22	2748809	2016-11-30	Granted	Apical Limited
P04012EP01	Display device control	European Patent	12762230.6	2012-08-22	2748809	2016-11-30	Granted	Apical Limited
P04012FR01	Display device control	France	12762230.6	2012-08-22	2748809	2016-11-30	Granted	Apical Limited
P04012GB01	Display device control	United Kingdom	12762230.6	2012-08-22	2748809	2016-11-30	Granted	Apical Limited
P04012KR01	Display device control	Korea, Republic of (KR)	10-2014-7007402	2012-08-22	10-2076873	2020-02-06	Granted	Apical Limited
P04012US01	method to control DISPLAY DEVICE screen brightness and strength of dynamic range compression based on ambient light level	United States of America	14/187,180	2012-08-22	9,489,920	2016-11-08	Granted	Apical Limited
P04013GB.family	Exposure controller	United Kingdom	1203354.4	2012-02-27	2499668	2019-03-06	Granted	Apical Limited
P04013US01	Exposure controller	United States of America	14/469,479	2013-02-27	9,584,732	2017-02-28	Granted	Apical Limited
P04014US01	Method and device for ambient light estimation	United States of America	14/659,300	2013-09-17	10,176,763	2019-01-08	Abandoned	Apical Limited
P04015GB.family	A Method of Object Orientation Detection	United Kingdom	1400941.9	2014-01-20	2522259	2020-04-29	Granted	Apical Limited
P04015US01	METHOD OF OBJECT ORIENTATION DETECTION	United States of America	14/601,095	2015-01-20	9,483,827	2016-11-01	Granted	Apical Limited

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Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
P04016GB.family	A method of selecting a region of interest	United Kingdom	1401697.6	2014-01-31	2522663	2020-02-12	Granted	Apical Limited
P04016US01	METHOD OF SELECTING A REGION OF INTEREST	United States of America	14/609,204	2015-01-29	9,384,561	2016-07-05	Granted	Apical Limited
P04017GB.family	A method of generating a framed video stream	United Kingdom	1414743.3	2014-08-19	2529435	2020-09-02	Granted	Apical Limited
P04017US01	METHOD OF GENERATING A FRAMED VIDEO SYSTEM	United States of America	14/825,963	2015-08-13	9,904,979	2018-02-27	Granted	Apical Limited
P04018CN01	METHOD OF IMAGE ANALYSIS	China	201510558102.X	2015-09-02	ZL201510558102.X	2020-11-10	Abandoned	Apical Limited
P04018GB.family	A method of image analysis	United Kingdom	1415790.3	2014-09-05	2529888	2020-09-23	Abandoned	Apical Limited
P04018US01	METHOD OF IMAGE ANALYSIS	United States of America	14/844,924	2015-09-03	9,858,677	2018-01-02	Granted	Apical Limited
P04019GB.family	Method and Apparatus for Controlling a Display	United Kingdom	1408358.8	2014-05-12	2527738	2020-08-12	Granted	Apical Limited
P04019US01	Method and Apparatus for Controlling a Display	United States of America	14/709,698	2015-05-12	9,947,297	2018-04-17	Granted	Apical Limited
P04021GB.family	METHOD OF ANGLE DETECTION	United Kingdom	1614233.3	2016-08-19	2553103	2022-04-27	Granted	Apical Limited
P04023US01	Adaptive Shading Correction	United States of America	15/265,637	2016-09-14	10,044,952	2018-08-07	Granted	Apical Limited
P04112GB.family	METHOD OF LINE DETECTION	United Kingdom	1614234.1	2016-08-19	2553005	2022-04-13	Granted	Apical Limited
P04112US01	METHOD OF LINE DETECTION	United States of America	16/279,748	2017-08-03	11,113,820	2021-09-07	Granted	Apical Limited
P04125CN01	IMAGE PROCESSING	China	201710909064.7	2017-09-29	ZL201710909064.7	2021-03-30	Abandoned	Apical Limited

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Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
P04125GB.family	Image Processing	United Kingdom	1616719.9	2016-09-30	2554667	2021-10-20	Abandoned	Apical Limited
P04125US01	IMAGE PROCESSING	United States of America	15/716,378	2017-09-26	10,362,388	2019-07-23	Granted	Apical Limited
P04126CN01	IMAGE PROCESSING	China	201710907214.0	2017-09-29	ZL201710907214.0	2022-05-03	Granted	Apical Limited
P04126GB.family	Image Processing	United Kingdom	1616721.5	2016-09-30	2554669	2022-04-06	Granted	Apical Limited
P04126US01	IMAGE PROCESSING	United States of America	15/717,430	2017-09-27	10,839,495	2020-11-17	Granted	Apical Limited
P04129GB.family	IMAGE MANIPULATION	United Kingdom	1616720.7	2016-09-30	2554668	2022-06-22	Granted	Apical Limited
P04129US01	IMAGE MANIPULATION	United States of America	15/717,134	2017-09-27	11,307,746	2022-04-19	Granted	Apical Limited
P04130GB.family	METHOD OF VIDEO GENERATION	United Kingdom	1616687.8	2016-09-30	2554663	2022-02-23	Granted	Apical Limited
P04130US01	Method of Video Generation	United States of America	15/691,360	2017-08-30	10,462,478	2019-10-29	Granted	Apical Limited Apical Limited
P04144GB.family	Image Processing	United Kingdom	1616402.2	2016-09-27	2554435	2019-10-23	Granted	University of Leicester Apical Limited
P04144US01	IMAGE PROCESSING	United States of America	15/716,220	2017-09-26	10,489,634	2019-11-26	Granted	University of Leicester Arm Limited
P04190GB01	Data Processing Systems	United Kingdom	1803300.1	2018-02-28	2565613	2021-04-28	Granted	Apical Limited Arm Limited
P04190US.family	DATA PROCESSING SYSTEMS	United States of America	15/446,997	2017-03-01	11,127,110	2021-09-21	Granted	Apical Limited

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Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
P04191GB:family	ENCODING AND DECODING OF IMAGE DATA	United Kingdom	1621898.4	2016-12-21	2557997	2019-05-01	Granted	Apical Limited
P04191US01	ENCODING AND DECODING OF IMAGE DATA	United States of America	15/834,986	2017-12-07	10,491,924	2019-11-26	Granted	Apical Limited
P04209GB:family	DISPLAY CONTROL	United Kingdom	1621901.6	2016-12-21	2558000	2020-06-10	Granted	Apical Limited
P04209US01	DISPLAY CONTROL METHOD FOR, AND DEVICE COMPRISING, AN ELECTRONIC DISPLAY	United States of America	15/834,979	2017-12-07	10,573,249	2020-02-25	Granted	Apical Limited
P04218GB:family	METHOD FOR, AND DEVICE COMPRISING, AN ELECTRONIC DISPLAY	United Kingdom	1621896.8	2016-12-21	2557996	2019-11-27	Granted	Apical Limited
P04218US01	METHOD FOR, AND DEVICE COMPRISING, AN ELECTRONIC DISPLAY	United States of America	15/835,001	2017-12-07	10,467,762	2019-11-05	Granted	Apical Limited
P04228GB:family	Image Processing	United Kingdom	1622035.2	2016-12-22	2558234	2020-05-13	Granted	Apical Limited
P04228US01	IMAGE PROCESSING	United States of America	15/834,949	2017-12-07	10,783,620	2020-09-22	Granted	Apical Limited
P04229GB:family	Image Processing	United Kingdom	1622038.6	2016-12-22	2558236	2021-03-31	Granted	Apical Limited
P04229US01	Image Processing IMAGE PROCESSING SYSTEM AND COMPUTER-READABLE RECORDING MEDIUM FOR PROCESSING IMAGE CONTROL SYSTEMS AND IMAGE SENSORS	United States of America	15/851,029	2017-12-21	10,694,203	2020-06-23	Granted	Apical Limited
P04231US:family	CONTROL SYSTEMS AND IMAGE SENSORS	United States of America	12/558,818	2009-09-14	8,463,034	2013-06-11	Granted	Olympus Corporation
P04262CN01	CONTROL SYSTEMS AND IMAGE SENSORS	China	201880022623.5	2018-02-28	ZL201880022623.5	2022-01-07	Granted	Apical Limited
P04262GB:family	Control Systems and Image Sensors	United Kingdom	1705103.8	2017-03-30	2561163	2021-05-12	Granted	Apical Limited

Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
P04262US01	FOCUS ADJUSTMENT FOR IMAGE CAPTURE DEVICE	United States of America	16/576,163	2018-02-28	11,089,202	2021-08-10	Granted	Apical Limited
P04266GB.family	METHOD OF FLICKER REDUCTION	United Kingdom	1713279.6	2017-08-18	2565590	2021-06-02	Granted	Apical Limited
P04266US01	Method of Flicker Reduction	United States of America	16/104,298	2018-08-17	10,735,669	2020-08-04	Granted	Apical Limited
P04304GB01	IMAGE PROCESSING	United Kingdom	1705267.1	2017-03-31	2561170	2021-07-07	Granted	Apical Limited
P04304US.family	IMAGE PROCESSING	United States of America	15/475,926	2017-03-31	10,223,766	2019-03-05	Granted	Apical Limited
P04352GB.family	Storage System	United Kingdom	1705268.9	2017-03-31	2561002	2019-06-26	Granted	Apical Limited
P04352US.family	Storage System	United States of America	15/475,960	2017-03-31	10,204,600	2019-02-12	Granted	Apical Limited
P04417GB.family	IMAGE DATA INTERPOLATION	United Kingdom	1719000.0	2017-11-16	2568492	2020-02-26	Granted	Apical Limited
P04417US01	IMAGE DATA INTERPOLATION	United States of America	16/192,630	2018-11-15	10,582,089	2020-03-03	Granted	Apical Limited
P04536GB.family	IMAGE PROCESSING FILTER	United Kingdom	1721677.1	2017-12-21	2569638	2022-01-12	Granted	Apical Limited
P04536US01	Image Processing Filter	United States of America	16/223,919	2018-12-18	10,943,330	2021-03-09	Granted	Apical Limited
P04569US01	Method of Flicker Reduction	United States of America	16/206,306	2018-11-30	11,082,628	2021-08-03	Granted	Apical Limited

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Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
P04605GB.family	STORAGE MANAGEMENT METHODS AND SYSTEMS	United Kingdom	1800406.9	2018-01-10	2570118	2020-09-23	Granted	Arm Limited Apical Limited
P04605US01	EVICION PRIORITIZATION FOR IMAGE PROCESSING	United States of America	16/242,912	2019-01-08	10,866,907	2020-12-15	Granted	Apical Limited Arm Limited
P04623GB.family	EXPOSURE RATIO CONTROL	United Kingdom	1721498.2	2017-12-20	2569593	2021-05-26	Granted	Apical Limited
P04623US01	EXPOSURE RATIO CONTROL	United States of America	16/225,410	2018-12-19	10,897,578	2021-01-19	Granted	Apical Limited
P04624US.family	DATA PROCESSING SYSTEM AND METHOD	United States of America	15/899,617	2018-02-20	10,545,559	2020-01-28	Granted	Apical Limited
P04633US.family	VIDEO DATA PROCESSING	United States of America	15/990,426	2018-05-25	10,789,481	2020-09-29	Granted	Apical Limited
P04636US.family	IMAGE PROCESSING	United States of America	15/980,322	2018-05-15	10,922,833	2021-02-16	Granted	Apical Limited
P04639US.family	VIDEO DATA PROCESSING	United States of America	15/987,661	2018-05-23	10,878,592	2020-12-29	Granted	Arm Limited Apical Limited
P04640GB.family	PROCESSING DATA IN A CONVOLUTIONAL NEURAL NETWORK	United Kingdom	1816223.0	2018-10-04	2577732	2022-02-23	Granted	Apical Limited
P04641US.family	IMAGE PROCESSING USING A NEURAL NETWORK SYSTEM	United States of America	16/011,100	2018-06-18	11,301,728	2022-04-12	Granted	Apical Limited
P04658US.family	Processing of Neural Networks on Electronic Devices	United States of America	16/120,682	2018-09-04	11,093,168	2021-08-17	Granted	Apical Limited
P04668JP.family	Image Processing System, Image Processing Method and Image Processing Program	Japan	2012-064483	2012-03-21	5586031	2014-08-01	Granted	Apical Limited

Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
								Olympus Corporation
								Apical Limited
P04669JP.family	Image Processing System and Image Processing Program	Japan	2009-539558	2009-09-11	5259616	2013-05-02	Granted	Olympus Corporation
P04692GB.family	IMAGE PROCESSING	United Kingdom	1805465.0	2018-04-03	2572571	2021-09-01	Granted	Apical Limited
P04692US01	IMAGE PROCESSING	United States of America	16/371,922	2019-04-01	10,863,156	2020-12-08	Granted	Apical Limited
P04727US.family	Processing Image Data Using Tiered Bit-Layers	United States of America	15/933,048	2018-03-22	10,893,297	2021-01-12	Granted	Apical Limited
P04734GB.family	DATA PROCESSING	United Kingdom	1810306.9	2018-06-22	2574891	2021-05-12	Granted	Apical Limited
P04734US01	DATA PROCESSING	United States of America	16/446,308	2019-06-19	11,062,121	2021-07-13	Granted	Apical Limited
P04735GB.family	Image Processing	United Kingdom	1808595.1	2018-05-24	2574052	2021-11-03	Granted	Apical Limited
P04735US01	Image Processing	United States of America	16/417,213	2019-05-20	11,010,644	2021-05-18	Granted	Apical Limited
P04737US.family	VIDEO DATA PROCESSING	United States of America	16/140,287	2018-09-24	10,839,222	2020-11-17	Granted	Apical Limited
P04745US.family	Processing Image Data Using Different Data Reduction Rates	United States of America	16/044,070	2018-07-24	10,916,040	2021-02-09	Granted	Apical Limited
P04747US.family	PROCESSING IMAGE DATA TO PERFORM OBJECT DETECTION	United States of America	16/044,153	2018-07-24	10,943,115	2021-03-09	Granted	Apical Limited

Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
P04769GB.family	Methods, apparatus and processor for producing a higher resolution frame	United Kingdom	1814773.6	2018-09-11	2577062	2021-04-28	Granted	Arm Limited Apical Limited
P04769US01	METHODS, APPARATUS AND PROCESSOR FOR PRODUCING A HIGHER RESOLUTION FRAME	United States of America	16/519,657	2019-07-23	11,055,820	2021-07-06	Granted	Arm Limited Apical Limited
P04851US.family	Data Processing Systems	United States of America	16/159,574	2018-10-12	10,713,753	2020-07-14	Granted	Apical Limited
P04940US.family	PROCESSING INPUT DATA IN A CONVOLUTIONAL NEURAL NETWORK	United States of America	16/209,505	2018-12-04	10,853,694	2020-12-01	Granted	Apical Limited Arm Limited
P04944GB01	Spatially multiplexed exposure	United Kingdom	1914253.8	2019-10-02	2579883	2021-12-08	Granted	Apical Limited
P04944US.family	Spatially Multiplexed Exposure	United States of America	16/150,884	2018-10-03	10,867,392	2020-12-15	Granted	Apical Limited
P04946US.family	Controlling a Display Device	United States of America	16/213,814	2018-12-07	10,885,313	2021-01-05	Granted	Arm Limited Apical Limited
P04961US01	Image Processing	United States of America	16/591,101	2019-10-02	11,200,647	2021-12-14	Granted	Apical Limited
P05006US.family	Video Data Processing	United States of America	16/212,478	2018-12-06	10,917,655	2021-02-09	Granted	Apical Limited
P05007US.family	Video Data Processing	United States of America	16/269,056	2019-02-06	10,846,551	2020-11-24	Granted	Apical Limited
P05104GB.family	IMAGE PROCESSING FOR OBJECT DETECTION	United Kingdom	1807406.2	2018-05-04	2573343	2020-09-09	Granted	Apical Limited

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Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
P05104US01	Image Processing for Object Detection	United States of America	16/400,726	2019-05-01	11,074,716	2021-07-27	Granted	Apical Limited Arm Limited
P05105GB.family	IMAGE PROCESSING	United Kingdom	1812181.4	2018-07-26	2575852	2021-06-09	Granted	Apical Limited
P05114US.family	Image Processing	United States of America	16/370,345	2019-03-29	10,937,230	2021-03-02	Granted	Apical Limited
P05138US01	Pixel Correction	United States of America	16/791,001	2020-02-14	11,228,723	2022-01-18	Granted	Apical Limited
P05268US.family	SUPER-RESOLUTION IMAGE PROCESSING	United States of America	16/218,279	2018-12-12	10,909,659	2021-02-02	Granted	Apical Limited Arm Limited
P05272GB01	Neural network processing	United Kingdom	1917894.6	2019-12-06	2581017	2022-03-23	Granted	Apical Limited Apical Limited
P05279GB.family	DATA PROCESSING SYSTEM	United Kingdom	1816402.0	2018-10-08	2577890	2021-03-10	Granted	Arm Limited
P05279US01	DATA PROCESSING SYSTEM	United States of America	16/576,505	2019-09-19	11,188,331	2021-11-30	Granted	Apical Limited Apical Limited
P05309US.family	Data Processing Systems	United States of America	16/214,590	2018-12-10	10,825,231	2020-11-03	Granted	Arm Limited
P05368US.family	METHOD OF PROCESSING OBJECT DETECTION DATA	United States of America	16/275,166	2019-02-13	10,861,187	2020-12-08	Granted	Apical Limited
P05392US.family	Data Processing Systems	United States of America	16/279,863	2019-02-19	10,930,244	2021-02-23	Granted	Apical Limited

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Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
P05402GB.family	Arithmetic logic unit, data processing system, method and module	United Kingdom	1815141.5	2018-09-17	2577132	2021-05-26	Granted	Apical Limited
P05402US01	ARITHMETIC LOGIC UNIT, DATA PROCESSING SYSTEM, METHOD AND MODULE	United States of America	16/540,547	2019-08-14	11,169,782	2021-11-09	Granted	Apical Limited
P05519US.family	CONTEXT-SENSITIVE AUGMENTED REALITY	United States of America	16/428,787	2019-05-31	10,861,243	2020-12-08	Granted	Apical Limited
P05569GB.family	Image Processing	United Kingdom	1906198.5	2019-05-02	2583519	2021-12-08	Granted	Apical Limited
P05569US01	IMAGE PROCESSING	United States of America	16/809,294	2020-03-04	11,153,467	2021-10-19	Granted	Apical Limited
P05607US.family	Graphics Processing	United States of America	16/552,595	2019-08-27	10,964,086	2021-03-30	Granted	Apical Limited
P05607US01	Graphics Processing	United States of America	17/186,338	2021-02-26	11,341,708	2022-05-24	Granted	Apical Limited
P05608US.family	Graphics Processing	United States of America	16/829,940	2020-03-25	11,315,303	2022-04-26	Granted	Arm Limited
P05697GB.family	IMAGE DATA PRE-PROCESSING FOR NEURAL NETWORKS	United Kingdom	1909642.9	2019-07-04	2585232	2021-12-08	Granted	Apical Limited
P05707US.family	Graphics Processing Systems	United States of America	16/452,231	2019-06-25	11,270,492	2022-03-08	Granted	Apical Limited
P05746GB.family	Image processing	United Kingdom	1915929.2	2019-11-01	2588674	2022-02-02	Granted	Apical Limited
P05754US.family	Memory Access	United States of America	16/447,728	2019-06-20	10,977,184	2021-04-13	Granted	Apical Limited

Reference	Title	Country	Application Number	Filed Date	Patent No.	Grant Date	Status	Current Owner
P05762US:family	IMAGE PROCESSING	United States of America	16/412,779	2019-05-15	11,263,467	2022-03-01	Granted	Apical Limited
P05763US:family	DATA PROCESSING FOR AUGMENTED REALITY	United States of America	16/576,532	2019-09-19	11,087,562	2021-08-10	Granted	Apical Limited
P05764US:family	IMAGE SIGNAL PROCESSOR, METHOD, AND SYSTEM FOR ENVIRONMENTAL MAPPING	United States of America	16/670,344	2019-10-31	11,270,412	2022-03-08	Granted	Apical Limited
P05897US:family	IMAGE ENHANCEMENT	United States of America	16/696,400	2019-11-26	10,984,758	2021-04-20	Granted	Arm Limited
ZP04569GB:family	Method of Flicker Reduction	United Kingdom	1720000.7	2017-11-30	2568924	2022-07-20	Granted	Apical Limited
ZP05582US:family	Navigation System	United States of America	16/520,039	2019-07-23	11,365,974	2022-06-21	Granted	Apical Limited
ZP05715US:family	RENDERING METHOD AND PROCESSOR	United States of America	16/665,924	2019-10-28	11,308,682	2022-04-19	Granted	Arm Limited
ZP05785US:family	Image Processing	United States of America	16/657,103	2019-10-18	11,244,431	2022-02-08	Granted	Apical Limited

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PART 2 – The Patent Applications

Reference	Title	Country	Application Number	Filed Date	Status	Current Owner
P04001GB:family	Reducing bandwidth for hdr storage	United Kingdom	1509384.2	2015-06-01	Lapsed	Apical Limited
P04001WO:1	EFFICIENT STORAGE FOR PRODUCTION OF HIGH DYNAMIC RANGE IMAGES	Patent Cooperation Treaty	PCT/EP2016/062432	2016-06-01	Application	Apical Limited
P04002GB:family	Method of Reducing Digital Video Flicker	United Kingdom	1418619.1	2014-10-20	Lapsed	Apical Limited
P04002WO:1	Method of reducing digital video flicker	Patent Cooperation Treaty	PCT/GB2015/053107	2015-10-20	Application	Apical Limited
P04003GB:family	Method	United Kingdom	1422787.0	2014-12-19	Abandoned	Apical Limited
P04003WO:1	SENSOR NOISE PROFILE	Patent Cooperation Treaty	PCT/GB2015/054076	2015-12-18	Expired	Apical Limited
P04004GB:family	Method, system and computer program product	United Kingdom	1501311.3	2015-01-27	Abandoned	Apical Limited
P04005GB:family	People detection	United Kingdom	1508074.0	2015-05-12	Abandoned	Apical Limited
P04005US:01	IMAGE PROCESSING METHOD	United States of America	15/807,477	2016-05-12	Application	Apical Limited
P04005WO:1	MAGE PROCESSING METHOD	Patent Cooperation Treaty	PCT/GB2016/051362	2016-05-12	Application	Apical Limited
P04006CN:01	HYBRID MACHINE LEARNING SYSTEMS	China	201680041514.9	2016-07-13	Application	Apical Limited
P04006GB:family	Hybrid neural network	United Kingdom	1512278.1	2015-07-14	Abandoned	Apical Limited
P04006WO:1	HYBRID MACHINE LEARNING SYSTEMS	Patent Cooperation Treaty	PCT/EP2016/066698	2016-07-13	Expired	Apical Limited
P04007GB:family	Adaptive shading correction	United Kingdom	1512281.5	2015-07-14	Application	Apical Limited
P04008GB:family	Pixel consistency	United Kingdom	1521653.4	2015-12-09	Abandoned	Apical Limited
P04009GB:family	Random projection	United Kingdom	1522819.0	2015-12-23	Abandoned	Apical Limited
P04010GB:family	Image enhancement methods and apparatus therefor	United Kingdom	0110748.1	2001-05-02	Abandoned	Apical Limited

Reference	Title	Country	Application Number	Filed Date	Status	Current Owner
P04010WO01	IMAGE ENHANCEMENT METHODS AND APPARATUS THEREFOR	Patent Cooperation Treaty	PCT/GB2002/001675	2002-04-10	Expired	Apical Limited
P04011GB:family	Image processing method, and computer software for image processing	United Kingdom	0418674.8	2004-08-20	Abandoned	Apical Limited
P04011WO01	Image processing method, and computer software for image processing	Patent Cooperation Treaty	PCT/GB2005/003261	2005-08-19	Expired	Apical Limited
P04012GB:family	Display device control	United Kingdom	1114439.1	2011-08-22	Abandoned	Apical Limited
P04012WO01	Display device control	Patent Cooperation Treaty	PCT/EP2012/066370	2012-08-22	Expired	Apical Limited
P04013WO01	Exposure controller	Patent Cooperation Treaty	PCT/EP2013/053929	2013-02-27	Expired	Apical Limited
P04014GB:family	Method and device for ambient light estimation	United Kingdom	1216572.6	2012-09-17	Abandoned	Apical Limited
P04014WO01	Method and device for ambient light estimation	Patent Cooperation Treaty	PCT/EP2013/069282	2013-09-17	Expired	Apical Limited
P04021CN01	METHOD OF ANGLE DETECTION	China	201780050523.9	2017-08-03	Application	Apical Limited
P04021US01	METHOD OF ANGLE DETECTION	United States of America	16/279,753	2017-08-03	Abandoned	Apical Limited
P04021WO01	Method of Angle Detection	Patent Cooperation Treaty	PCT/GB2017/052258	2017-08-03	Expired	Apical Limited
P04023GB:family	Adaptive shading correction	United Kingdom	1516173.0	2015-09-14	Abandoned	Apical Limited
P04025CN01	Display Controller and Display System	China	201180067367.x	2011-12-09	Abandoned	Apical Limited
P04025EP01	Display Controller and Display System	European Patent	11811364.6	2011-12-09	Abandoned	Apical Limited
P04025GB:family	Display Controller and Display System	United Kingdom	1020983.1	2010-12-10	Lapsed	Apical Limited
P04025GB01	Display Controller and Display System	United Kingdom	1100483.5	2011-01-12	Lapsed	Apical Limited
P04025KR01	Display Controller and Display System	Korea, Republic of (KR)	10-2013-7017912	2011-12-09	Abandoned	Apical Limited

Reference	Title	Country	Application Number	Filed Date	Status	Current Owner
P04025US01	Display Controller and Display System	United States of America	13/914,282	2011-12-09	Abandoned	Apical Limited
P04025WO01	Display Controller and Display System	Patent Cooperation Treaty	PCT/GB2011/052454	2011-12-09	Expired	Apical Limited
P04112CN01	METHOD OF LINE DETECTION	China	201780050503.1	2017-08-03	Application	Apical Limited
P04112WO01	Method of Line Detection	Patent Cooperation Treaty	PCT/GB2017/052259	2017-08-03	Expired	Apical Limited
P04144CN01	IMAGE PROCESSING	China	201710884016.7	2017-09-26	Application	University of Leicester
P04262WO01	Control Systems and Image Sensors	Patent Cooperation Treaty	PCT/GB2018/050518	2018-02-28	Expired	Apical Limited
P04605CN01	A Priority Based Cache Management Algorithm for Raster Scan Read Patterns	China	201910018830.X	2019-01-10	Application	Arm Limited
P04640US01	COMPUTER VISION OPTIMISATION FOR SMALL VALUE CHANGES	United States of America	16/558,686	2019-09-03	Application	Apical Limited
P04659US.family	NEURAL NETWORK OPTIMIZATION	United States of America	16/152,348	2018-10-04	Application	Apical Limited
P04692CN01	Image Processing	China	201910262550.3	2019-04-02	Application	Apical Limited
P04692JP01	Image Processing	Japan	2019-050949	2019-03-19	Application	Apical Limited
P04692KR01	Image Processing	Korea, Republic of (KR)	10-2019-0037800	2019-04-01	Application	Apical Limited
P04734CN01	DATA PROCESSING	China	201910541299.4	2019-06-21	Application	Apical Limited
P04734KR01	DATA PROCESSING	Korea, Republic of (KR)	10-2019-0073511	2019-06-20	Application	Apical Limited
P04735CN01	IMAGE PROCESSING	China	201910434768.2	2019-05-23	Application	Apical Limited

Reference	Title	Country	Application Number	Filed Date	Status	Current Owner
P04735KR01	Image Processing PROCESSING IMAGE DATA TO PERFORM OBJECT DETECTION	Korea, Republic of (KR)	10-2019-0060637	2019-05-23	Application	Arm Limited Apical Limited
P04747CN01	METHODS, APPARATUS AND PROCESSOR FOR PRODUCING A HIGHER RESOLUTION FRAME	China	201910667027.9	2019-07-23	Application	Apical Limited Arm Limited
P04769CN01	System and Method for Compressing Kernels	China	201910824712.8	2019-09-02	Application	Apical Limited Arm Limited
P04775US, family	SPATIALLY MULTIPLEXED EXPOSURE	United States of America	16/132,015	2018-09-14	Application	Apical Limited
P04944CN01	SPATIALLY MULTIPLEXED EXPOSURE	China	201910904784.3	2019-09-24	Application	Apical Limited
P04944JP01	SPATIALLY MULTIPLEXED EXPOSURE	Japan	2019-163062	2019-09-06	Application	Apical Limited
P04944KR01	SPATIALLY MULTIPLEXED EXPOSURE	Korea, Republic of (KR)	10-2019-0122172	2019-10-02	Application	Apical Limited
P04961CN01	Image Processing	China	201911006036.X	2019-10-22	Application	Apical Limited
P04961GB, family	Image Processing	United Kingdom	1817317.9	2018-10-24	Application	Apical Limited
P04961JP01	Image Processing SYSTEMS AND DEVICES FOR CONFIGURING NEURAL NETWORK CIRCUITRY	Japan	2019-182332	2019-10-02	Application	Apical Limited
P05069US, family	SYSTEM AND METHOD FOR FAULT DETECTION	United States of America	16/210,389	2018-12-05	Application	Apical Limited
P05094CN01	AND CORRECTION SYSTEM AND METHOD FOR FAULT	China	202010216310.2	2020-03-25	Application	Apical Limited
P05094EP01	DETECTION AND CORRECTION	European Patent	20164461.4	2020-03-20	Application	Apical Limited

Reference	Title	Country	Application Number	Filed Date	Status	Current Owner
P05094GB.family	System and method for fault detection and correction	United Kingdom	1906115.9	2019-05-01	Application	Apical Limited
P05094JP01	SYSTEM AND METHOD FOR FAULT DETECTION AND CORRECTION	Japan	2020-049409	2020-03-19	Application	Apical Limited
P05094US01	SYSTEM AND METHOD FOR FAULT DETECTION AND CORRECTION	United States of America	16/822,976	2020-03-18	Application	Apical Limited
P05101GB.family	Media Processing Systems	United Kingdom	1807782.6	2018-05-14	Application	Arm Limited
P05101US01	Media Processing Systems	United States of America	16/410,560	2019-05-13	Application	Apical Limited
P05104CN01	IMAGE PROCESSING FOR OBJECT DETECTION	China	201910367785.9	2019-05-05	Application	Apical Limited
P05105CN01	IMAGE PROCESSING	China	201910677276.6	2019-07-25	Application	Apical Limited
P05105US01	IMAGE PROCESSING	United States of America	16/507,430	2019-07-10	Application	Apical Limited
P05138CN01	PIXEL CORRECTION	China	202010139251.3	2020-03-03	Application	Apical Limited
P05138GB.family	Pixel Correction	United Kingdom	1902953.7	2019-03-05	Application	Apical Limited
P05138KR01	PIXEL CORRECTION	Korea, Republic of (KR)	10-2020-0027677	2020-03-05	Application	Apical Limited
P05272GB02	Neural network processing	United Kingdom	2105900.1	2019-12-06	Application	Apical Limited
P05272GB03	Neural network processing	United Kingdom	2206836.5	2019-12-06	Application	Apical Limited
P05272US.family	Neural network processing	United States of America	16/214,058	2018-12-08	Application	Arm Limited

Reference	Title	Country	Application Number	Filed Date	Status	Current Owner
P05279CN01	DATA PROCESSING SYSTEM	China	201910920355.5	2019-09-26	Application	Arm Limited Apical Limited
P05279KR01	DATA PROCESSING SYSTEM	Korea, Republic of (KR)	10-2019-0124533	2019-10-08	Application	Apical Limited Apical Limited
P05315US, family	DATA PROCESSING USING A NEURAL NETWORK SYSTEM	United States of America	16/392,391	2019-04-23	Application	Arm Limited
P05402CN01	METHOD AND MODULE	China	201910866141.4	2019-09-12	Application	Apical Limited
P05402KR01	ARITHMETIC LOGIC UNIT, DATA PROCESSING SYSTEM, METHOD AND MODULE	Korea, Republic of (KR)	10-2019-0113463	2019-09-16	Application	Apical Limited Apical Limited
P05566US, family	Compression of Neural Network Activation Data	United States of America	16/518,444	2019-07-22	Application	Arm Limited
P05569CN01	IMAGE PROCESSING	China	202010167382.2	2020-03-11	Application	Apical Limited Arm Limited
P05608CN01	Graphics Processing	China	202110302511.9	2021-03-22	Application	Apical Limited Apical Limited
P05608GB01	Graphics Processing	United Kingdom	2103854.2	2021-03-19	Application	Arm Limited Arm Limited
P05608KR01	Graphics Processing	Korea, Republic of (KR)	10-2021-0036505	2021-03-22	Application	Apical Limited Apical Limited
P05697EP01	IMAGE DATA PRE-PROCESSING FOR NEURAL NETWORKS	European Patent	20275115.2	2020-07-03	Application	Apical Limited
P05697US01	IMAGE DATA PRE-PROCESSING FOR NEURAL NETWORKS	United States of America	16/920,163	2020-07-02	Application	Apical Limited

Reference	Title	Country	Application Number	Filed Date	Status	Current Owner
P05728US.family	Estimating Camera Pose	United States of America	16/943,859	2020-07-30	Application	Arm Limited Apical Limited
P05746US01	IMAGE PROCESSING	United States of America	17/077,495	2020-10-22	Application	Apical Limited
P05748CN01	IMAGE SIGNAL PROCESSING	China	202011148697.9	2020-10-23	Application	Apical Limited
P05748GB.family	IMAGE SIGNAL PROCESSING	United Kingdom	1915380.8	2019-10-23	Application	Apical Limited
P05748US01	IMAGE SIGNAL PROCESSING	United States of America	17/075,299	2020-10-20	Application	Apical Limited Arm Limited
P05754CN01	MEMORY ACCESS	China	202010190190.3	2020-03-18	Application	Apical Limited Arm Limited
P05754KR01	MEMORY ACCESS	Korea, Republic of (KR)	10-2020-0032617	2020-03-17	Application	Apical Limited Arm Limited
P05760US01	ELECTRONIC AUTHENTICATION SYSTEM, DEVICE AND PROCESS	United States of America	17/429,222	2019-07-26	Application	Apical Limited Arm Limited
P05760WO.family	ELECTRONIC AUTHENTICATION SYSTEM, DEVICE AND PROCESS	Patent Cooperation Treaty	PCT/GB2019/052097	2019-07-26	Expired	Apical Limited Arm Limited
P05764CN01	IMAGE SIGNAL PROCESSOR, METHOD, AND SYSTEM FOR ENVIRONMENTAL MAPPING	China	202011177484.9	2020-10-29	Application	Apical Limited Apical Limited
P05809US.family	NEURAL NETWORK PROCESSING	United States of America	16/392,366	2019-04-23	Application	Arm Limited Arm Limited
P05816CN01	COMPUTE OPTIMIZATION	China	202010863113.X	2020-08-25	Application	Apical Limited Arm Limited
P05816US.family	COMPUTE OPTIMIZATION	United States of America	16/552,548	2019-08-27	Application	Apical Limited Apical Limited
P05863US.family	A METHOD FOR MEASURING DEPTH USING A TIME-OF-FLIGHT DEPTH SENSOR	United States of America	17/037,146	2020-09-29	Application	Arm Limited







Reference	Title	Country	Application Number	Filed Date	Status	Current Owner
P06169US.family	NEURAL NETWORK PROCESSING	United States of America	16/834,881	2020-03-30	Application	Arm Limited Apical Limited
P06185US.family	An information processing apparatus and a method for processing a workload	United States of America	17/082,864	2020-10-28	Application	Apical Limited
P06257US.prov	METHODS AND APPARATUS FOR IMAGE PROCESSING	United States of America	63/325,275	2022-03-30	Application	Apical Limited Arm Limited
P06419CN01	IMAGE ADJUSTMENT BASED ON LOCAL CONTRAST	China	202210044927.X	2022-01-14	Application	Apical Limited Arm Limited
P06419US.family	Image Adjustment Based on Local Contrast	United States of America	17/155,653	2021-01-22	Application	Apical Limited Arm Limited
P06491GB.family	Data Processing Systems	United Kingdom	2100858.6	2021-01-22	Application	Apical Limited Arm Limited
P06491WO01	DATA PROCESSING SYSTEMS	Patent Cooperation Treaty	PCT/GB2022/050179	2022-01-24	Application	Apical Limited Arm Limited
P06607US.family	Apparatus and Method to Generate Audio Data	United States of America	17/674,961	2022-02-18	Application	Apical Limited Arm Limited
P06686US.family	Methods and Apparatus for Context Switching	United States of America	17/474,568	2021-09-14	Application	Apical Limited Arm Limited
P06687US.family	Synchronization Mechanisms for a Multi-Core Processor	United States of America	17/469,311	2021-09-08	Application	Apical Limited Arm Limited
P06806US.family	Image Processing	United States of America	17/465,378	2021-09-02	Application	Apical Limited
P06809US.family	IMAGE PROCESSING METHOD AND SYSTEM	United States of America	17/387,508	2021-07-28	Application	Apical Limited

Reference	Title	Country	Application Number	Filed Date	Status	Current Owner
P07072US.family	SYSTEM, DEVICES AND/OR PROCESSES FOR DYNAMIC TEMPORAL ANTI-ALIASING TECHNIQUE SELECTION	United States of America	17/681,319	2022-02-25	Application	Arm Limited Apical Limited
P07084US.family	SYSTEM, DEVICES AND/OR PROCESSES FOR PROCESSING INFRARED PIXEL VALUES	United States of America	17/674,741	2022-02-17	Application	Arm Limited Apical Limited
P07084US.prov	SYSTEM, DEVICES AND/OR PROCESSES FOR PROCESSING INFRARED PIXEL VALUES	United States of America	63/253,778	2021-10-08	Application	Arm Limited Apical Limited
P07089US.family	METHOD, SYSTEM AND COMPUTER PROGRAM PRODUCT FOR AUTOMATICALLY ALTERING A VIDEO STREAM	United States of America	17/681,533	2022-02-25	Application	Arm Limited Apical Limited
ZP04004WO01		Patent Cooperation Treaty	PCT/GB2016/050176	2016-01-27	Application	Apical Limited Arm Limited
ZP04190CN01	DATA PROCESSING SYSTEMS	China	201810171149.4	2018-03-01	Application	Apical Limited Arm Limited
ZP04190KR01	Data Processing Systems	Korea, Republic of (KR)	10-2018-0023413	2018-02-27	Application	Apical Limited
ZP04191CN01	ENCODING AND DECODING OF IMAGE DATA	China	201711383939.0	2017-12-20	Application	Apical Limited
ZP04191JP01	Encoding and Decoding of Image Data	Japan	2017-231744	2017-12-01	Application	Apical Limited
ZP04191KR01	ENCODING AND DECODING OF IMAGE DATA	Korea, Republic of (KR)	10-2017-0168285	2017-12-08	Application	Apical Limited
ZP04228CN01	IMAGE PROCESSING	China	201711382961.3	2017-12-20	Application	Apical Limited
ZP04417CN01	IMAGE DATA INTERPOLATION	China	201811360269.5	2018-11-15	Application	Apical Limited

Reference	Title	Country	Application Number	Filed Date	Status	Current Owner
ZP04417JP01	Image Data Interpolation	Japan	2018-203082	2018-10-29	Application	Apical Limited
ZP04417KR01	IMAGE DATA INTERPOLATION	Korea, Republic of (KR)	10-2018-0140730	2018-11-15	Application	Apical Limited
ZP04569CN01	METHOD OF FLICKER REDUCTION	China	201811491371.9	2018-11-30	Application	Apical Limited
ZP04569JP01	METHOD, APPRATUS, AND COMPUTER-READABLE STORAGE MEDIUM FOR FLICKER REDUCTION	Japan	2018-225710	2018-11-30	Application	Apical Limited
ZP04569KR01	Method of Flicker Reduction	Korea, Republic of (KR)	10-2018-0152234	2018-11-30	Application	Apical Limited
ZP05504CN01	CONTRAST-BASED AUTOFOCUS	China	202010939650.8	2020-09-09	Application	Apical Limited
ZP05504GB.family	CONTRAST-BASED AUTOFOCUS	United Kingdom	1913014.5	2019-09-10	Application	Apical Limited
ZP05504US01	CONTRAST-BASED AUTOFOCUS	United States of America	17/011,535	2020-09-03	Application	Apical Limited
ZP05760CN01	ELECTRONIC AUTHENTICATION SYSTEM, DEVICE AND PROCESS	China	201980091468.7	2019-07-26	Application	Apical Limited
ZP05821US.family	An Extended-Reality System and Method	United States of America	17/106,932	2020-11-30	Application	Apical Limited
ZP05877US.family	TOPOLOGICAL MODEL GENERATION	United States of America	16/547,266	2019-08-21	Application	Apical Limited



SCHEDULE 3

Trade Marks

Trademark	TM Logo	Country	Owner	Application No	Application Date	Registration No	Registration Date	Int. Classes	Trademark Status	Next Renew Due
Apical logo		China	Apical Limited	856621	24 Dec 2004	856621	24 Dec 2004	9	Registered	24 Dec
Apical logo		EUTM	Apical Limited	856621	24 Dec 2004	856621	24 Dec 2004	9	Registered	24 Dec 2024
Apical logo		Japan	Apical Limited	856621	24 Dec 2004	856621	24 Dec 2004	9	Registered	24 Dec 2024
Apical logo		Republic of Korea (South)	Apical Limited	856621	24 Dec 2004	856621	24 Dec 2004	9	Registered	24 Dec 2024
Apical logo		United Kingdom	Apical Limited	2368039	12 Jul 2004	2368039	12 Jul 2004	9	Registered	12 Jul 2024
Apical logo		United Kingdom	Apical Limited	UK00800856621	24 Dec 2004	UK00800856621	24 Dec 2004	9	Registered	24 Dec 2024

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REEL: 007795 FRAME: 0567

Apical logo		United States of America	Apical Limited	856621	24 Dec 2004	856621	24 Dec 2004	9	Registered	24 Dec
Apical logo		WIPO	Apical Limited	856621	24 Dec 2004	856621	24 Dec 2004	9	Registered	24 Dec
APICAL word		China	Apical Limited	857784	24 Dec 2004	857784	24 Dec 2004	9	Registered	24 Dec
APICAL word		EUTM	Apical Limited	857784	24 Dec 2004	857784	24 Dec 2004	9	Registered	24 Dec 2024
APICAL word		Japan	Apical Limited	2005-097795	19 Oct 2005	4957535-2	2 Jun 2006	9	Registered	2 Jun 2026
APICAL word		United Kingdom	Apical Limited	2368038	12 Jul 2004	2368038	12 Jul 2004	9	Registered	12 Jul 2024
APICAL word		United Kingdom	Apical Limited	UK00800857784	24 Dec 2004	UK00800857784	24 Dec 2004	9	Registered	24 Dec 2024
APICAL word		United States of America	Apical Limited	857784	24 Dec 2004	857784	24 Dec 2004	9	Registered	24 Dec 2024
APICAL word		WIPO	Apical Limited	857784	24 Dec 2004	857784	24 Dec 2004	9	Registered	24 Dec 2024
ASSERTIVE DISPLAY word		United States of America	Apical Limited	85386662	2 Aug 2011	4419035	15 Oct 2013	9	Registered	15 Oct 2023

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REEL: 007795 FRAME: 0568

irdix word		United Kingdom	Apical Limited	2371579	26 Aug 2004	2371579	26 Aug 2004	9	Registered	26 Aug
sinter word		United Kingdom	Apical Limited	2489391	6 Jun 2008	2489391	6 Jun 2008	9	Registered	6 Jun 2
SPIRIT word		China	Apical Limited	18459623	30 Nov 2015	18459623	7 Jan 2017	38	Registered	6 Jan 21
SPIRIT word		EUTM	Apical Limited	014224307	9 Jun 2015	014224307	9 Jun 2015	9, 38, 42	Registered	9 Jun 20
SPIRIT word		United Kingdom	Apical Limited	UK00914224307	9 Jun 2015	UK00914224307	9 Jun 2015	9, 38, 42	Registered	9 Jun 2025

TRADEMARK
REEL: 007795 FRAME: 0569

Executed as a deed by
APICAL LIMITED
acting by one director
in the presence of:

)
)
)
)



Signature of director

Witness Signature:



Witness Name: MICHELE NASH

Witness Address: 110 FULBURN RD
CAMBRIDGE CB1 9NJ

Executed as a deed by
ARM LIMITED
acting by one director
and its secretary:

)
)
)
)

Signature of director

Signature of secretary

Executed as a deed by)
APICAL LIMITED)
acting by one director)
in the presence of:)

Signature of director

Witness Signature:

Witness Name:

Witness Address:

Executed as a deed by)
ARM LIMITED)
acting by one director)
and its secretary:)

DocuSigned by:
Rene Haas
F1F09375F1BE489...

Signature of director

DocuSigned by:
Spencer Collins
FF6B46AE3D4841A...

Signature of secretary