PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4883424

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MIPS TECH LIMITED	02/16/2018

RECEIVING PARTY DATA

Name:	MIPS TECH, LLC
Street Address:	3201 SCOTT BLVD.
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 5

Property Type	Number
Patent Number:	7269713
Patent Number:	7337303
Patent Number:	8209520
Patent Number:	7594097
Patent Number:	8234455

CORRESPONDENCE DATA

Fax Number: (269)381-5465

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: (269) 381-1156
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ATTORNEY DOCKET NUMBER:	5536.M0002US
NAME OF SUBMITTER:	TERRYENCE F. CHAPMAN
SIGNATURE:	/Terryence F. Chapman/
DATE SIGNED:	03/26/2018

Total Attachments: 13
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DEED OF ASSIGNMENT

DATED: 16 February 2018

PARTIES:

(1) **MIPS TECH LIMITED**, a company incorporated and registered in England and Wales with company number 08388045 whose registered office is at Imagination House, Home Park Estate, Kings Langley, Hertfordshire, WD4 8LZ (**"Assignor"**).

(2) **MIPS TECH, LLC**, of 3201 Scott Blvd., Santa Clara, CA 95054, United States of America, a company incorporated in the State of Delaware, United States of America (**"Assignee"**).

BACKGROUND:

The Assignor wishes to assign to the Assignee all its rights, title, and interest in the Assigned Rights and any patent applications or patents claiming priority to, based on or derived from those Assigned Rights.

IT IS AGREED:

1. DEFINITIONS AND INTERPRETATION

The following definitions and interpretations apply in this agreement.

1.1. **Assigned Rights:** the patents and patent applications listed in Schedule A and all patent applications filed and patents issued in any jurisdiction in the world claiming priority to, based on or derived from any of the patents and patent applications listed in Schedule A, including reissue, divisional, continuation, continuation-in-part, revision, re-examination and extension patent applications and patents.

1.2. References to patent applications shall include applications for utility models and references to patents shall include utility models.

1.3. The Schedules form part of this agreement and shall have effect as if set out in full in the body of this agreement. Any reference to this agreement includes the Schedules.

1.4. References to clauses and Schedules are to the clauses and Schedules of this agreement.

1.5. This agreement shall be binding on, and inure to the benefit of, the parties to this agreement and their respective personal representatives, successors and permitted assigns, and references to any party shall include that party's personal representatives, successors and permitted assigns.

1.6. Any words following the terms including, include, in particular, for example or any similar expression shall be construed as illustrative and shall not limit the sense of the words preceding those terms.

1.7. Clause, Schedule and paragraph headings shall not affect the interpretation of this agreement.

1.8. Unless the context otherwise requires, words in the singular shall include the plural and in the plural shall include the singular.

1.9. Unless the context otherwise requires, a reference to one gender shall include a reference to the other genders.

1.10. A person includes a natural person, corporate or unincorporated body (whether or not having separate legal personality).

1.11. A reference to writing or written includes fax but not email.

2. ASSIGNMENT

2.1. For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Assignor hereby assigns to the Assignee absolutely with full title guarantee the entire right, title and interest in and to:

2.1.1. the Assigned Rights;

2.1.2. the right to claim priority to any of the Assigned Rights;

2.1.3. in respect of each and any application in the Assigned Rights, the right to file divisional, continuation, continuation-in-part or other patent applications based thereon and to prosecute and obtain grant of patent on each and any such application;

2.1.4. in respect of each and any invention disclosed in the Assigned Rights, the right to file an application, claim priority to such application, and prosecute and obtain grant of patent or similar protection in or in respect of any jurisdiction in the world;

2.1.5. the right to extend to or register in any jurisdiction in the world each and any of the Assigned Rights;

2.1.6. the absolute entitlement to any patents granted pursuant to or in respect of any of the applications comprised in the Assigned Rights; and

2.1.7. the right to bring and defend proceedings, and obtain and retain any relief recovered (including damages or an account of profits) in respect of any infringement, or any other cause of action arising from ownership, of any of the Assigned Rights or any patents granted pursuant to or in respect of any of the Assigned Rights whether occurring before, on, or after the date of this agreement.

3. RECORDATION

3.1. Assignor hereby requests that, at the request of the Assignee, a patent office, registrar or governmental entity record the Assignee as the assignee and owner of the Assigned Rights and of any application filed in respect of the Assigned Rights and of any patent granted pursuant to the Assigned Rights.

4. INFORMATION AND ASSISTANCE

4.1. On the Assignee's reasonable request and without further compensation, Assignor shall execute, acknowledge and deliver all such other instruments and documents and shall perform all such other acts reasonably necessary or required by law to consummate and make fully effective the transaction contemplated by this agreement.

5. **WAIVER**

5.1. No failure or delay by a party to exercise any right or remedy provided under this agreement or by law shall constitute a waiver of that or any other right or remedy, nor shall it prevent or restrict the further exercise of that or any other right or remedy. No single or partial exercise of such right or remedy shall prevent or restrict the further exercise of that or any other right or remedy.

6. COUNTERPARTS

6.1. This agreement may be executed in any number of counterparts each of which when executed and delivered by one or more of the parties hereto shall constitute an original but all of which shall constitute one and the same agreement.

7. SEVERABILITY

7.1. The invalidity, illegality or unenforceability of any provisions of this agreement shall not affect the continuation in force of the remainder of this agreement.

8. GOVERNING LAW

8.1. This agreement and any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with it or its subject matter or formation shall be governed by and construed in accordance with the law of England and Wales.

This document has been executed as a deed and is delivered and takes effect on the date stated at the beginning of it.

(1) Executed as a deed and delivered on the date specified on page 1 by MIPS TECH LIMITED in the presence of a witness:

Signature: _____

Name: KRISHNA KAGITAVAN (Block capitals)

Position: CFO DIRECTOR

Name of witness: TIMOTHY BOLATI (Block capitals)

Personal address of witness: 4916 Alan Ave, San Jose, CA 95124

Witness signature: _____

(2) Executed as a deed and delivered on the date specified on page 1 by MIPS TECH, LLC in the presence of a witness:

Signature: _____

Name: KRISHNA KAGITAVAN (Block capitals)

Position: CFO

Name of witness: TIMOTHY BOLATI (Block capitals)

Personal address of witness: 4916 Alan Ave, San Jose, CA 95124

Witness signature: _____

SCHEDULE A

	Appln. No.	Country	Status	Priority Date	Appln. Date	Pub. No.	Pub. Date	Patent No.	Grant Date	Official Title	Ref. No.
	02700450.6	Germany	Granted	19/02/2001	19/02/2002	EP1412855	28/04/2004	DE60238617	15/12/2010	CONTROL OF PRIORITY AND INSTRUCTION RATES ON A MULTITHREADED PROCESSOR	10033.DE1
	02700450.6	France	Granted	19/02/2001	19/02/2002	EP1412855	28/04/2004	EP1412855	15/12/2010	CONTROL OF PRIORITY AND INSTRUCTION RATES ON A MULTITHREADED PROCESSOR	10033.FR1
	0104045.0	Great Britain	Granted	19/02/2001	19/02/2001	GB2372847	04/09/2002	GB2372847	29/12/2004	CONTROL OF PRIORITY AND INSTRUCTION RATES ON A MULTITHREADED PROCESSOR	10033.GB1
	0110040.3	Great Britain	Granted	19/02/2001	24/04/2001	GB2372350	21/08/2002	GB2372350	13/10/2004	RANKING ORDER OF THREADS IN A MULTI-THREADED PROCESSOR	10033.GB2
	0110038.7	Great Britain	Granted	19/02/2001	24/04/2001	GB2372349	21/08/2002	GB2372349	10/11/2004	CONTROL OF PRIORITY AND INSTRUCTION RATES ON A MULTITHREADED PROCESSOR	10033.GB3
	2002-566777	Japan	Granted	19/02/2001	19/02/2002	JP2004-532444	21/10/2004	JP3805305	19/05/2006	CONTROL OF PRIORITY AND INSTRUCTION RATES ON A MULTITHREADED PROCESSOR	10033.JP1
✓	10/468434	United States	Granted	19/02/2001	19/02/2002	US2005-0021931	27/01/2005	US7269713	11/09/2007	CONTROL OF PRIORITY AND INSTRUCTION RATES ON A MULTITHREADED PROCESSOR	10033.US1
✓	11/524822	United States	Granted	19/02/2001	21/09/2006	US2007-0016757	18/01/2007	US7337303	26/02/2008	CONTROL OF PRIORITY AND INSTRUCTION RATES ON A MULTITHREADED PROCESSOR	10033.US2
	02720261.3	Germany	Granted	23/04/2001	23/04/2002	EP1384145	28/01/2004	DE60211505	17/05/2006	EXPANDED FUNCTIONALITY OF PROCESSOR OPERATIONS WITHIN A FIXED WIDTH INSTRUCTION ENCODING	10035.DE1
	02720261.3	France	Granted	23/04/2001	23/04/2002	EP1384145	28/01/2004	EP1384145	17/05/2006	EXPANDED FUNCTIONALITY OF PROCESSOR OPERATIONS WITHIN A FIXED WIDTH INSTRUCTION ENCODING	10035.FR1
	0109939.9	Great Britain	Granted	23/04/2001	23/04/2001	GB2374950	30/10/2002	GB2374950	16/11/2005	EXPANDED FUNCTIONALITY OF PROCESSOR OPERATIONS WITHIN A FIXED WIDTH INSTRUCTION ENCODING	10035.GB1
	2002-584155	Japan	Granted	23/04/2001	23/04/2002	JP2004-520650	08/07/2004	JP4667717	21/01/2011	EXPANDED FUNCTIONALITY OF PROCESSOR OPERATIONS WITHIN A FIXED WIDTH INSTRUCTION ENCODING	10035.JP1
✓	11/725631	United States	Granted	23/04/2001	20/03/2007	US2007-0288723	13/12/2007	US8209520	26/06/2012	EXPANDED FUNCTIONALITY OF PROCESSOR OPERATIONS WITHIN A FIXED WIDTH INSTRUCTION ENCODING	10035.US2
	05734420.2	EPC	Granted	16/04/2004	15/04/2005	EP1738259	03/01/2007	EP1738259	14/02/2018	DYNAMIC LOAD BALANCING	10071.EP1
	0408553.6	Great Britain	Granted	16/04/2004	16/04/2004	GB2415060	14/12/2005	GB2415060	14/02/2007	DYNAMIC LOAD BALANCING	10071.GB1
	2007-507848	Japan	Granted	16/04/2004	15/04/2005	JP2007-533020	15/11/2007	JP4745335	20/05/2011	DYNAMIC LOAD BALANCING	10071.JP1
	10/949958	United States	Granted	16/04/2004	24/09/2004	US2005-0235126	20/10/2005	US7712101	04/05/2010	DYNAMIC LOAD BALANCING	10071.US1
	05761561.9	Germany	Granted	15/07/2004	15/07/2005	EP1766510	28/03/2007	DE602005033398.3	28/03/2012	MICROPROCESSOR OUTPUT PORTS AND CONTROL OF INSTRUCTIONS PROVIDED THEREFROM	10076.DE1
	05761561.9	France	Granted	15/07/2004	15/07/2005	EP1766510	28/03/2007	EP1766510	28/03/2012	MICROPROCESSOR OUTPUT PORTS AND CONTROL OF INSTRUCTIONS PROVIDED THEREFROM	10076.FR1
	0514598.2	Great Britain	Granted	15/07/2004	15/07/2005	GB2416230	18/01/2006	GB2416230	27/09/2006	MICROPROCESSOR OUTPUT PORTS AND CONTROL OF INSTRUCTIONS PROVIDED THEREFROM	10076.GB2
	2007-520899	Japan	Granted	15/07/2004	15/07/2005	JP2008-507020	06/03/2008	JP5155655	14/12/2012	MICROPROCESSOR OUTPUT PORTS AND CONTROL OF INSTRUCTIONS PROVIDED THEREFROM	10076.JP1
✓	11/632567	United States	Granted	15/07/2004	15/07/2005	US2008-0250234	09/10/2008	US7594097	22/09/2009	MICROPROCESSOR OUTPUT PORTS AND CONTROL OF INSTRUCTIONS PROVIDED THEREFROM	10076.US1
	0514596.6	Great Britain	Granted	15/07/2004	15/07/2005	GB2422929	09/08/2006	GB2422929	29/08/2007	MEMORY MANAGEMENT SYSTEM	10077.GB2
	07712704.1	EPC	Pending	10/02/2006	09/02/2007	EP1987422	05/11/2008			INSTRUCTION SETS FOR MICROPROCESSORS	10107.EP1

Appln. No.	Country	Status	Priority Date	Appln. Date	Pub. No.	Pub. Date	Patent No.	Grant Date	Official Title	Ref. No.
0602730.4	Great Britain	Granted	10/02/2006	10/02/2006	GB2435116	15/08/2007	GB2435116	07/04/2010	INSTRUCTION SETS FOR MICROPROCESSORS	10107.GB1
11/704725	United States	Pending	10/02/2006	09/02/2007	US2007-0204134	30/08/2007			INSTRUCTION SETS FOR MICROPROCESSORS	10107.US1
09708438.8	Germany	Granted	07/02/2008	09/02/2009	EP2240850	20/10/2010	EP2240850	10/08/2016	PRIORITISING OF INSTRUCTION FETCHING IN MICROPROCESSOR SYSTEMS	10153.DE1
09708438.8	France	Granted	07/02/2008	09/02/2009	EP2240850	20/10/2010	EP2240850	10/08/2016	PRIORITISING OF INSTRUCTION FETCHING IN MICROPROCESSOR SYSTEMS	10153.FR1
0802314.5	Great Britain	Granted	07/02/2008	07/02/2008	GB2457265	12/08/2009	GB2457265	09/06/2010	PRIORITISING OF INSTRUCTION FETCHING IN MICROPROCESSOR SYSTEMS	10153.GB1
09708438.8	Great Britain	Granted	07/02/2008	09/02/2009	EP2240850	20/10/2010	EP2240850	10/08/2016	PRIORITISING OF INSTRUCTION FETCHING IN MICROPROCESSOR SYSTEMS	10153.GB2
2010-545556	Japan	Granted	07/02/2008	09/02/2009	JP2011-511378	07/04/2011	JP5607545	05/09/2014	PRIORITISING OF INSTRUCTION FETCHING IN MICROPROCESSOR SYSTEMS	10153.JP1
12/322942	United States	Granted	07/02/2008	09/02/2009	US2009-0210660	20/08/2009	US9348600	24/05/2016	PRIORITISING OF INSTRUCTION FETCHING IN MICROPROCESSOR SYSTEMS	10153.US1
15/134510	United States	Granted	07/02/2008	21/04/2016	US2016-0232007	11/08/2016	US9870228	16/01/2018	PRIORITISING OF INSTRUCTION FETCHING IN MICROPROCESSOR SYSTEMS	10153.US2
09722252.5	EPC	Pending	19/03/2008	13/03/2009	EP2255280	01/12/2010			PIPELINE PROCESSORS	10154.EP1
0805144.3	Great Britain	Granted	19/03/2008	19/03/2008	GB2458487	23/09/2009	GB2458487	19/01/2011	PIPELINE PROCESSORS	10154.GB1
2011-500284	Japan	Granted	19/03/2008	13/03/2009	JP2011-528817	24/11/2011	JP5646448	14/11/2014	PIPELINE PROCESSORS	10154.JP1
12/383118	United States	Granted	19/03/2008	19/03/2009	US2009-0249037	01/10/2009	US8560813	15/10/2013	PIPELINE PROCESSORS	10154.US1
09738384.8	EPC	Pending	28/04/2008	28/04/2009	EP2283419	16/02/2011			SYSTEM FOR PROVIDING TRACE DATA IN A DATA PROCESSOR HAVING A PIPELINED ARCHITECTURE	10158.EP1
0807701.8	Great Britain	Granted	28/04/2008	28/04/2008	GB2459652	04/11/2009	GB2459652	22/09/2010	SYSTEM FOR PROVIDING TRACE DATA IN A DATA PROCESSOR HAVING A PIPELINED ARCHITECTURE	10158.GB1
2011-506767	Japan	Granted	28/04/2008	28/04/2009	JP2011-519100	30/06/2011	JP5485982	28/02/2014	SYSTEM FOR PROVIDING TRACE DATA IN A DATA PROCESSOR HAVING A PIPELINED ARCHITECTURE	10158.JP1
12/387152	United States	Granted	28/04/2008	28/04/2009	US2009-0287907	19/11/2009	US8775875	08/07/2014	SYSTEM FOR PROVIDING TRACE DATA IN A DATA PROCESSOR HAVING A PIPELINED ARCHITECTURE	10158.US1
14/271886	United States	Granted	28/04/2008	07/05/2014	US2015-0012728	08/01/2015	US9720695	01/08/2017	SYSTEM FOR PROVIDING TRACE DATA IN A DATA PROCESSOR HAVING A PIPELINED ARCHITECTURE	10158.US2
10717708.1	EPC	Pending	16/01/2009	18/01/2010	EP2387748	23/11/2011			MULTI-THREADED DATA PROCESSING SYSTEM	10170.EP1
0900769.1	Great Britain	Granted	16/01/2009	16/01/2009	GB2466984	21/07/2010	GB2466984	27/07/2011	MULTI-THREADED DATA PROCESSING SYSTEM	10170.GB1
2011-545792	Japan	Granted	16/01/2009	18/01/2010	JP2012-515386	05/07/2012	JP5666473	19/12/2014	MULTI-THREADED DATA PROCESSING SYSTEM	10170.JP1
13/138176	United States	Granted	16/01/2009	18/01/2010	US2012-0124338	17/05/2012	US9612844	04/04/2017	MULTI-THREADED DATA PROCESSING SYSTEM	10170.US1
15/467073	United States	Pending	16/01/2009	23/03/2017	US2017/0192779	06/07/2017			MULTI-THREADED DATA PROCESSING SYSTEM	10170.US2
201080016118.3	China	Granted	07/04/2009	07/04/2010	CN102388372	21/03/2012	ZL201080016118.3	09/07/2014	METHOD AND APPARATUS FOR ENSURING DATA CACHE COHERENCY	10171.CN1
10723271.2	Germany	Granted	07/04/2009	07/04/2010	EP2417526	15/02/2012	DE602010010976.3	16/10/2013	METHOD AND APPARATUS FOR ENSURING DATA CACHE COHERENCY	10171.DE1
10723271.2	France	Granted	07/04/2009	07/04/2010	EP2417526	15/02/2012	EP2417526	16/10/2013	METHOD AND APPARATUS FOR ENSURING DATA CACHE COHERENCY	10171.FR1
0906066.6	Great Britain	Granted	07/04/2009	07/04/2009	GB2469299	13/10/2010	GB2469299	16/02/2011	METHOD AND APPARATUS FOR ENSURING DATA CACHE COHERENCY	10171.GB1

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2012-504076	Japan	Granted	07/04/2009	07/04/2010	JP2012-523055	27/09/2012	JP5619869	26/09/2014	METHOD AND APPARATUS FOR ENSURING DATA CACHE COHERENCY	10171.JP1
12/586649	United States	Granted	07/04/2009	25/09/2009	US2010-0257322	07/10/2010	US8234455	31/07/2012	METHOD AND APPARATUS FOR ENSURING DATA CACHE COHERENCY	10171.US1
13/555894	United States	Granted	07/04/2009	23/07/2013	US2013-0219145	22/08/2013	US9075724	07/07/2015	METHOD AND APPARATUS FOR ENSURING DATA CACHE COHERENCY	10171.US2
14/791699	United States	Granted	07/04/2009	06/07/2015	US2016-0034395	04/02/2016	US9703709	11/07/2017	METHOD AND APPARATUS FOR ENSURING DATA CACHE COHERENCY	10171.US3
201080018675.9	China	Granted	28/04/2009	27/04/2010	CN102414659	11/04/2012	ZL201080018675.9	29/10/2014	METHOD AND APPARATUS FOR SCHEDULING THE ISSUE OF INSTRUCTIONS IN A MULTITHREADED MICROPROCESSOR	10173.CN1
10717728.9	EPC	Granted	28/04/2009	27/04/2010	EP2425329	07/03/2012	EP2425329	27/12/2017	METHOD AND APPARATUS FOR SCHEDULING THE ISSUE OF INSTRUCTIONS IN A MULTITHREADED MICROPROCESSOR	10173.EP1
10717728.9	France	Granted	28/04/2009	27/04/2010	EP2425329	07/03/2012	EP2425329	27/12/2017	METHOD AND APPARATUS FOR SCHEDULING THE ISSUE OF INSTRUCTIONS IN A MULTITHREADED MICROPROCESSOR	10173.FR1
10717728.9	Germany	Granted	28/04/2009	27/04/2010	EP2425329	07/03/2012	EP2425329	27/12/2017	METHOD AND APPARATUS FOR SCHEDULING THE ISSUE OF INSTRUCTIONS IN A MULTITHREADED MICROPROCESSOR	10173.DE1
0907286.9	Great Britain	Granted	28/04/2009	28/04/2009	GB2469822	03/11/2010	GB2469822	20/04/2011	METHOD AND APPARATUS FOR SCHEDULING THE ISSUE OF INSTRUCTIONS IN A MULTITHREADED MICROPROCESSOR	10173.GB1
2012-507809	Japan	Granted	28/04/2009	27/04/2010	JP2012-525620	22/10/2012	JP5631976	17/10/2014	METHOD AND APPARATUS FOR SCHEDULING THE ISSUE OF INSTRUCTIONS IN A MULTITHREADED MICROPROCESSOR	10173.JP1
12/584759	United States	Granted	28/04/2009	11/09/2009	US2010-0275211	28/10/2010	US9189241	17/11/2015	METHOD AND APPARATUS FOR SCHEDULING THE ISSUE OF INSTRUCTIONS IN A MULTITHREADED MICROPROCESSOR	10173.US1
14/930913	United States	Pending	28/04/2009	03/11/2015	US2016-0055002	25/02/2016			METHOD AND APPARATUS FOR SCHEDULING THE ISSUE OF INSTRUCTIONS IN A MULTITHREADED MICROPROCESSOR	10173.US2
201310003736.X	China	Granted	06/01/2012	05/01/2013	CN103197919	10/07/2013	ZL201310003736.X	11/05/2016	RESTORING A REGISTER RENAMING MAP	10229.CN1
201610299507.0	China	Pending	06/01/2012	09/05/2016	CN106020778	12/10/2016			RESTORING A REGISTER RENAMING MAP	10229.CN2
12196230.2	Germany	Granted	06/01/2012	10/12/2012	EP2613251	10/07/2013	EP2613251	30/04/2014	RESTORING A REGISTER RENAMING MAP	10229.DE1
12196230.2	France	Granted	06/01/2012	10/12/2012	EP2613251	10/07/2013	EP2613251	30/04/2014	RESTORING A REGISTER RENAMING MAP	10229.FR1
1200172.3	Great Britain	Granted	06/01/2012	06/01/2012	GB2498203	10/07/2013	GB2498203	04/12/2013	RESTORING A REGISTER RENAMING MAP	10229.GB1
1317920.5	Great Britain	Granted	06/01/2012	10/10/2013	GB2503612	01/01/2014	GB2503612	06/08/2014	RESTORING A REGISTER RENAMING MAP	10229.GB2
13/563025	United States	Granted	06/01/2012	31/07/2012	US2013-0179665	11/07/2013	US9128700	08/09/2015	RESTORING A REGISTER RENAMING MAP	10229.US1
14/816651	United States	Granted	06/01/2012	03/08/2015	US2015-0339123	26/11/2015	US9436470	06/09/2016	RESTORING A REGISTER RENAMING MAP	10229.US2
201310384418.2	China	Granted	30/08/2012	29/08/2013	CN103678991	26/03/2014	ZL201310384418.2	09/03/2016	GLOBAL REGISTER PROTECTION IN A MULTI-THREADED PROCESSOR	10241.CN1
201510541005.X	China	Pending	30/08/2012	28/08/2015	CN105138397	09/12/2015			GLOBAL REGISTER PROTECTION IN A MULTI-THREADED PROCESSOR	10241.CN2
102013014172.9	Germany	Granted	30/08/2012	26/08/2013	DE102013014172	06/03/2014	DE102013014172	09/06/2016	GLOBAL REGISTER PROTECTION IN A MULTI-THREADED PROCESSOR	10241.DE1
102013022299.0	Germany	Granted	30/08/2012	05/08/2014			DE102013022299	21/07/2016	GLOBAL REGISTER PROTECTION IN A MULTI-THREADED PROCESSOR	10241.DE2
102013022405.5	Germany	Pending	30/08/2012	27/04/2016					GLOBAL REGISTER PROTECTION IN A MULTI-THREADED PROCESSOR	10241.DE3
1215428.2	Great Britain	Granted	30/08/2012	30/08/2012	GB2499277	14/08/2013	GB2499277	02/04/2014	GLOBAL REGISTER PROTECTION IN A MULTI-THREADED PROCESSOR	10241.GB1

Appln. No.	Country	Status	Priority Date	Appln. Date	Pub. No.	Pub. Date	Patent No.	Grant Date	Official Title	Ref. No.
13/780115	United States	Granted	30/08/2012	28/02/2013	US2014-0068232	06/03/2014	US8996847	31/03/2015	GLOBAL REGISTER PROTECTION IN A MULTI-THREADED PROCESSOR	10241.US1
14/625895	United States	Granted	30/08/2012	19/02/2015	US2015-0160981	11/06/2015	US9727380	08/08/2017	GLOBAL REGISTER PROTECTION IN A MULTI-THREADED PROCESSOR	10241.US2
201310414911.4	China	Pending	12/09/2012	12/09/2013	CN103678167	26/03/2014			DYNAMICALLY RESIZABLE CIRCULAR BUFFERS	10242.CN1
102013014169.9	Germany	Pending	12/09/2012	26/08/2013	DE102013014169	13/03/2014			DYNAMICALLY RESIZABLE CIRCULAR BUFFERS	10242.DE1
1216255.8	Great Britain	Granted	12/09/2012	12/09/2012	GB2505884	19/03/2014	GB2505884	03/06/2015	DYNAMICALLY RESIZABLE CIRCULAR BUFFERS	10242.GB1
13/964257	United States	Granted	12/09/2012	12/08/2013	US2014-0075144	13/03/2014	US9824003	21/11/2017	DYNAMICALLY RESIZABLE CIRCULAR BUFFERS	10242.US1
201510247606.X	China	Pending	27/05/2014	15/05/2015	CN105183429	23/12/2015			UNAMBIGUOUS PREFIX INSTRUCTIONS	10243.CN1
102015107875.9	Germany	Pending	27/05/2014	19/05/2015	DE102015107875	03/12/2015			UNAMBIGUOUS PREFIX INSTRUCTIONS	10243.DE1
1409326.4	Great Britain	Granted	27/05/2014	27/05/2014	GB2521019	10/06/2015	GB2521019	25/05/2016	DECODING INSTRUCTIONS THAT ARE MODIFIED BY ONE OR MORE OTHER INSTRUCTIONS	10243.GB1
1501619.9	Great Britain	Granted	27/05/2014	30/01/2015	GB2526646	02/12/2015	GB2526646	25/05/2016	DECODING BASE INSTRUCTIONS THAT ARE MODIFIED BY A POSTFIX INSTRUCTION	10243.GB2
1501620.7	Great Britain	Granted	27/05/2014	30/01/2015	GB2526647	02/12/2015	GB2526647	25/05/2016	DECODING BASE INSTRUCTIONS MODIFIED BY A PREFIX INSTRUCTION USING MODIFIER BITS	10243.GB3
1501621.5	Great Britain	Pending	27/05/2014	30/01/2015	GB2526648	02/12/2015			STORING A COMPUTER PROGRAM IN PROGRAM MEMORY	10243.GB4
14/722292	United States	Pending	27/05/2014	27/05/2015	US2015-0347144	03/12/2015			UNAMBIGUOUS PREFIX INSTRUCTIONS	10243.US1
15/874724	United States	Pending	27/05/2014	18/01/2018					DECODING INSTRUCTIONS THAT ARE MODIFIED BY ONE OR MORE OTHER INSTRUCTIONS	10243.US2
201310333130.2	China	Granted	07/08/2012	02/08/2013	CN103577159	12/02/2014	ZL201310333130.2	30/11/2016	MULTI-STAGE REGISTER RENAMING USING DEPENDENCY REMOVAL	10244.CN1
1213994.5	Great Britain	Granted	07/08/2012	07/08/2012	GB2496934	29/05/2013	GB2496934	11/06/2014	MULTI-STAGE REGISTER RENAMING USING DEPENDENCY REMOVAL	10244.GB1
13/751145	United States	Pending	07/08/2012	28/01/2013	US2014-0047218	13/02/2014			MULTI-STAGE REGISTER RENAMING USING DEPENDENCY REMOVAL	10244.US1
201410016939.7	China	Pending	15/01/2013	15/01/2014	CN103927266	16/07/2014			IMPROVED CONTROL OF PRE-FETCH TRAFFIC	10245.CN1
102014000372.8	Germany	Pending	15/01/2013	14/01/2014	DE102014000372	17/07/2014			IMPROVED CONTROL OF PRE-FETCH TRAFFIC	10245.DE1
1300646.5	Great Britain	Granted	15/01/2013	15/01/2013	GB2509765	16/07/2014	GB2509765	15/07/2015	IMPROVED CONTROL OF PRE-FETCH TRAFFIC	10245.GB1
1412476.2	Great Britain	Granted	15/01/2013	14/07/2014	GB2513042	15/10/2014	GB2513042	30/09/2015	IMPROVED CONTROL OF PRE-FETCH TRAFFIC	10245.GB2
1412477.0	Great Britain	Granted	15/01/2013	14/07/2014	GB2513043	15/10/2014	GB2513043	30/09/2015	IMPROVED CONTROL OF PRE-FETCH TRAFFIC	10245.GB3
14/153223	United States	Granted	15/01/2013	13/01/2014	US2014-0325159	30/10/2014	US9658962	23/05/2017	IMPROVED CONTROL OF PRE-FETCH TRAFFIC	10245.US1
15/488649	United States	Pending	15/01/2013	17/04/2017					IMPROVED CONTROL OF PRE-FETCH TRAFFIC	10245.US2
1304024.1	Great Britain	Granted	06/03/2013	06/03/2013	GB2502858	11/12/2013	GB2502858	02/07/2014	IMPROVED MECHANISM FOR COPYING DATA IN MEMORY	10257.GB1
14/169886	United States	Granted	06/03/2013	31/01/2014	US2014-0258623	11/09/2014	US9886212	06/02/2018	IMPROVED MECHANISM FOR COPYING DATA IN MEMORY	10257.US1
201410410264.4	China	Pending	20/08/2013	20/08/2014	CN104424130	18/03/2015			IMPROVED USE OF MEMORY RESOURCES	10258.CN1
102014012155.0	Germany	Pending	20/08/2013	14/08/2014	DE102014012155.0	26/02/2015			IMPROVED USE OF MEMORY RESOURCES	10258.DE1
1314891.1	Great Britain	Granted	20/08/2013	20/08/2013	GB2517453	25/02/2015	GB2517453	20/12/2017	IMPROVED USE OF MEMORY RESOURCES	10258.GB1
14/456873	United States	Pending	20/08/2013	11/08/2014	US2015-0058574	26/02/2015			IMPROVED USE OF MEMORY RESOURCES	10258.US1
1300580.6	Great Britain	Granted	14/01/2013	14/01/2013	GB2509755	16/07/2014	GB2509755	08/07/2015	FILL PARTITIONING OF A SHARED CACHE	10268.GB1
14/153240	United States	Granted	14/01/2013	13/01/2014	US2014-0201452	17/08/2014	US9645945	09/05/2017	FILL PARTITIONING OF A SHARED CACHE	10268.US1
201410033696.8	China	Granted	24/01/2013	24/01/2014	CN103970505	06/08/2014	ZL201410033696.8	06/04/2016	REGISTER FILE HAVING A PLURALITY OF SUB-REGISTER FILES	10270.CN1
102014000535.6	Germany	Pending	24/01/2013	15/01/2014	DE102014000535	24/07/2014			REGISTER FILE HAVING A PLURALITY OF SUB-REGISTER FILES	10270.DE1
1301285.1	Great Britain	Granted	24/01/2013	24/01/2013	GB2501791	06/11/2013	GB2501791	11/06/2014	REGISTER FILE HAVING A PLURALITY OF SUB-REGISTER FILES	10270.GB1
14/157805	United States	Granted	24/01/2013	17/01/2014	US2014-0223101	07/08/2014	US9304934	05/04/2016	REGISTER FILE HAVING A PLURALITY OF SUB-REGISTER FILES	10270.US1

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14/842983	United States	Granted	24/01/2013	02/09/2015	US2016-0253175	01/09/2016	US9672039	06/06/2017	REGISTER FILE HAVING A PLURALITY OF SUB-REGISTER FILES	10270.US2
201410028442.7	China	Pending	21/01/2013	21/01/2014	CN103942033	23/07/2014			ALLOCATING RESOURCES TO THREADS BASED ON SPECULATION METRIC	10285.CN1
201810036114.X	China	Pending	21/01/2013						ALLOCATING RESOURCES TO THREADS BASED ON SPECULATION METRIC	10285.CN2
102014000384.1	Germany	Pending	21/01/2013	14/01/2014	DE102014000384	24/07/2014			ALLOCATING RESOURCES TO THREADS BASED ON SPECULATION METRIC	10285.DE1
1301041.8	Great Britain	Granted	21/01/2013	21/01/2013	GB2509974	23/07/2014	GB2509974	01/04/2015	ALLOCATING RESOURCES TO THREADS BASED ON SPECULATION METRIC	10285.GB1
1416129.3	Great Britain	Granted	21/01/2013	12/09/2014	GB2514956	10/12/2014	GB2514956	01/04/2015	ALLOCATING RESOURCES TO THREADS BASED ON SPECULATION METRIC	10285.GB2
14/157764	United States	Granted	21/01/2013	17/01/2014	US2014-0218224	07/08/2014	US9086721	21/07/2015	ALLOCATING RESOURCES TO THREADS BASED ON SPECULATION METRIC	10285.US1
14/754436	United States	Granted	21/01/2013	29/06/2015	US2015-0301863	22/10/2015	US9606834	28/03/2017	ALLOCATING RESOURCES TO THREADS BASED ON SPECULATION METRIC	10285.US2
201410058279.9	China	Pending	14/01/2013	14/01/2014	CN103927149	16/07/2014			INDIRECT BRANCH PREDICTION	10286.CN1
102014000382.5	Germany	Pending	14/01/2013	14/01/2014	DE102014000382	17/07/2014			INDIRECT BRANCH PREDICTION	10286.DE1
1322389.6	Great Britain	Granted	14/01/2013	18/12/2013	GB2510966	20/08/2014	GB2510966	03/06/2015	INDIRECT BRANCH PREDICTION	10286.GB2
14/153188	United States	Granted	14/01/2013	13/01/2014	US2014-0201509	17/07/2014	US9298467	29/03/2016	INDIRECT BRANCH PREDICTION	10286.US1
201410705339.1	China	Pending	29/11/2013	27/11/2014	CN104679663	03/06/2015			SOFT-PARTITIONING OF A REGISTER FILE CACHE	10290.CN1
102014017744.0	Germany	Pending	29/11/2013	01/12/2014	DE102014017744	24/09/2015			SOFT-PARTITIONING OF A REGISTER FILE CACHE	10290.DE1
1321077.8	Great Britain	Granted	29/11/2013	29/11/2013	GB2520731	03/06/2015	GB2520731	08/02/2017	SOFT-PARTITIONING OF A REGISTER FILE CACHE	10290.GB1
1617657.0	Great Britain	Pending	29/11/2013	18/10/2016	GB2545307	14/06/2017			SOFT-PARTITIONING OF A REGISTER FILE CACHE	10290.GB2
1801251.8	Great Britain	Pending	29/11/2013						SOFT-PARTITIONING OF A REGISTER FILE CACHE	10290.GB3
14/548041	United States	Pending	29/11/2013	19/11/2014	US2015-0154022	04/06/2015			SOFT-PARTITIONING OF A REGISTER FILE CACHE	10290.US1
201410047131.5	China	Granted	11/02/2013	11/02/2014	CN103984643	13/08/2014	ZL201410047131.5	06/04/2016	SPECULATIVE LOAD ISSUE	10296.CN1
201610192717.X	China	Pending	11/02/2013	30/03/2016	CN105808211	27/07/2016			SPECULATIVE LOAD ISSUE	10296.CN2
102014002012.6	Germany	Pending	11/02/2013	07/02/2014	DE102014002012.6	14/08/2014			SPECULATIVE LOAD ISSUE	10296.DE1
1302373.4	Great Britain	Granted	11/02/2013	11/02/2013	GB2501582	30/10/2013	GB2501582	24/12/2014	SPECULATIVE LOAD ISSUE	10296.GB1
1321319.4	Great Britain	Granted	11/02/2013	03/12/2013	GB2509830	16/07/2014	GB2509830	24/12/2014	SPECULATIVE LOAD ISSUE	10296.GB2
14/169601	United States	Granted	11/02/2013	31/01/2014	US2014-0229718	14/08/2014	US9395991	19/07/2016	SPECULATIVE LOAD ISSUE	10296.US1
15/183365	United States	Pending	11/02/2013	15/06/2016	US2016-0291976	06/10/2016			SPECULATIVE LOAD ISSUE	10296.US2
1303911.0	Great Britain	Granted	05/03/2013	05/03/2013	GB2502857	11/12/2013	GB2502857	21/01/2015	MIGRATION OF DATA TO REGISTER FILE CACHE	10297.GB1
14/189719	United States	Granted	05/03/2013	25/02/2014	US2014-0258627	11/09/2014	US9292450	22/03/2016	MIGRATION OF DATA TO REGISTER FILE CACHE	10297.US1
15/019132	United States	Granted	05/03/2013	09/02/2016	US2016-0154740	02/06/2016	US9612968	04/04/2017	MIGRATION OF DATA TO REGISTER FILE CACHE	10297.US2
15/438000	United States	Granted	05/03/2013	21/02/2017	US2017-0168949	15/06/2017	US9858194	02/01/2018	MIGRATION OF DATA TO REGISTER FILE CACHE	10297.US3
15/833555	United States	Pending	05/03/2013	06/12/2017					MIGRATION OF DATA TO REGISTER FILE CACHE	10297.US4
201410092214.6	China	Granted	13/03/2013	13/03/2014	CN104049938	17/09/2014	ZL201410092214.6	03/05/2017	INDIRECT BRANCH PREDICTION	10299.CN1
1304504.2	China	Pending	13/03/2013	01/04/2017	CN107102845	29/08/2017			INDIRECT BRANCH PREDICTION	10299.CN2
102014003434.8	Germany	Pending	13/03/2013	11/03/2014	DE102014003434	18/09/2014			INDIRECT BRANCH PREDICTION	10299.DE1
1304504.2	Great Britain	Granted	13/03/2013	13/03/2013	GB2506462	02/04/2014	GB2506462	13/08/2014	INDIRECT BRANCH PREDICTION	10299.GB1
1407780.4	Great Britain	Granted	13/03/2013	02/05/2014	GB2511949	17/09/2014	GB2511949	14/10/2015	INDIRECT BRANCH PREDICTION	10299.GB2
14/169771	United States	Granted	13/03/2013	31/01/2014	US2014-0281441	18/09/2014	US9792123	17/10/2017	INDIRECT BRANCH PREDICTION	10299.US1
15/070059	United States	Pending	13/03/2013	18/09/2017					INDIRECT BRANCH PREDICTION	10299.US2
201410374099.1	China	Pending	31/07/2013	31/07/2014	CN104346223	11/02/2015			PRIORITIZING INSTRUCTIONS BASED ON TYPE	10300.CN1

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201810036547.5	China	Pending	31/07/2013						PRIORITIZING INSTRUCTIONS BASED ON TYPE	10300.CN2
102014011332.9	Germany	Pending	31/07/2013	30/07/2014	DE102014011332.9	05/02/2015			PRIORITIZING INSTRUCTIONS BASED ON TYPE	10300.DE1
1313674.2	Great Britain	Granted	31/07/2013	31/07/2013	GB2510655	13/08/2014	GB2510655	25/02/2015	PRIORITIZING INSTRUCTIONS BASED ON TYPE	10300.GB1
14/340932	United States	Granted	31/07/2013	25/07/2014	US2015-0106595	16/04/2014	US9558001	31/01/2017	PRIORITIZING INSTRUCTIONS BASED ON TYPE	10300.US1
15/387394	United States	Pending	31/07/2013	21/12/2016	US2017/0102949	12/04/2017			PRIORITIZING INSTRUCTIONS BASED ON TYPE	10300.US2
201510023224.9	China	Pending	17/01/2014	16/01/2015	CN104793920	22/07/2015			STACK POINTER VALUE PREDICTION	10301.CN1
102015100708.8	Germany	Pending	17/01/2014	19/01/2015	DE102015100708	23/07/2015			STACK POINTER VALUE PREDICTION	10301.DE1
1400806.4	Great Britain	Granted	17/01/2014	17/01/2014	GB2518912	08/04/2015	GB2518912	26/08/2015	STACK POINTER VALUE PREDICTION	10301.GB1
1505409.1	Great Britain	Granted	17/01/2014	30/03/2015	GB2525314	21/10/2015	GB2525314	24/02/2016	STACK POINTER VALUE PREDICTION	10301.GB2
14/596407	United States	Granted	17/01/2014	14/01/2015	US2015-0205611	23/07/2015	US9652240	16/05/2017	STACK POINTER VALUE PREDICTION	10301.US1
15/489975	United States	Pending	17/01/2014	18/04/2017	US 2017-0220353	03/08/2017			STACK POINTER VALUE PREDICTION	10301.US2
201510023591.9	China	Pending	17/01/2014	16/01/2015	CN104794067	22/07/2015			STACK SAVED VARIABLE VALUE PREDICTION	10302.CN1
102015100705.3	Germany	Pending	17/01/2014	19/01/2015	DE102015100705	23/07/2015			STACK SAVED VARIABLE VALUE PREDICTION	10302.DE1
1400810.6	Great Britain	Granted	17/01/2014	17/01/2014	GB2518022	11/03/2015	GB2518022	23/09/2015	STACK SAVED VARIABLE VALUE PREDICTION	10302.GB1
14/598415	United States	Pending	17/01/2014	16/01/2015	US2015-0205612	23/07/2015			STACK SAVED VARIABLE VALUE PREDICTION	10302.US1
201510050188.5	China	Pending	31/01/2014	30/01/2015	CN104820580	05/08/2015			AN IMPROVED RETURN STACK BUFFER	10303.CN1
102015101414.9	Germany	Pending	31/01/2014	30/01/2015	DE1020151014149	06/08/2015			AN IMPROVED RETURN STACK BUFFER	10303.DE1
1401687.7	Great Britain	Granted	31/01/2014	31/01/2014	GB2516999	11/02/2015	GB2516999	22/07/2015	AN IMPROVED RETURN STACK BUFFER	10303.GB1
1413413.4	Great Britain	Granted	31/01/2014	29/07/2014	GB2518289	18/03/2015	GB2518289	12/08/2015	AN IMPROVED RETURN STACK BUFFER	10303.GB2
14/608745	United States	Granted	31/01/2014	29/01/2015	US2015-0220451	06/08/2015	US9424203	23/08/2016	AN IMPROVED RETURN STACK BUFFER	10303.US1
14/608630	United States	Granted	31/01/2014	29/01/2015	US2015-0220450	06/08/2015	US9361242	07/06/2016	AN IMPROVED RETURN STACK BUFFER	10303.US2
14/589693	United States	Pending	10/01/2014	05/01/2015					HARDWARE VIRTUALIZED INPUT OUTPUT MEMORY MANAGEMENT UNIT	10322.US3
1414610.4	Great Britain	Granted	28/08/2013	18/08/2014	GB2519414	22/04/2015	GB2519414	06/01/2016	CROSSING PIPELINED DATA BETWEEN CIRCUITRY IN DIFFERENT CLOCK DOMAINS	10323.GB1
14/451279	United States	Granted	28/08/2013	04/08/2014	US2015-0067384	05/03/2015	US9367286	14/06/2016	CROSSING PIPELINED DATA BETWEEN CIRCUITRY IN DIFFERENT CLOCK DOMAINS	10323.US3
15/150177	United States	Granted	28/08/2013	09/05/2016	US2016-0253151	01/09/2016	US9740454	22/08/2017	CROSSING PIPELINED DATA BETWEEN CIRCUITRY IN DIFFERENT CLOCK DOMAINS	10323.US4
201410805562.3	China	Pending	20/12/2013	19/12/2014	CN104778030	15/07/2015			PROCESSOR WITH VIRTUALIZED INSTRUCTION SET ARCHITECTURE & METHODS	10356.CN1
102014119281.8	Germany	Pending	20/12/2013	19/12/2014	DE102014119281	25/06/2015			PROCESSOR WITH VIRTUALIZED INSTRUCTION SET ARCHITECTURE & METHODS	10356.DE1
1422101.4	Great Britain	Granted	20/12/2013	12/12/2014	GB2522990	12/08/2015	GB2522990	03/08/2016	PROCESSOR WITH VIRTUALIZED INSTRUCTION SET ARCHITECTURE & METHODS	10356.GB1
14/572186	United States	Pending	20/12/2013	16/12/2014	US2015-0178076	25/06/2015			PROCESSOR WITH VIRTUALIZED INSTRUCTION SET ARCHITECTURE & METHODS	10356.US2
201510408225.5	China	Pending	14/07/2014	13/07/2015	CN105302543	03/02/2016			RUNNING A 32-BIT OPERATING SYSTEM ON A 64-BIT MACHINE	10375.CN1
201520504307.5	China	Granted	14/07/2014	13/07/2015			ZL201520504307.5	06/01/2016	RUNNING A 32-BIT OPERATING SYSTEM ON A 64-BIT MACHINE	10375.CNU1
102015111333.3	Germany	Pending	14/07/2014	13/07/2015	DE102015111333	14/01/2016			RUNNING A 32-BIT OPERATING SYSTEM ON A 64-BIT MACHINE	10375.DE1
1412478.8	Great Britain	Granted	14/07/2014	14/07/2014	GB2522290	22/07/2015	GB2522290	09/12/2015	RUNNING A 32-BIT OPERATING SYSTEM ON A 64-BIT MACHINE	10375.GB1
14/798841	United States	Pending	14/07/2014	14/07/2015	US2016-0011869	14/01/2016			RUNNING A 32-BIT OPERATING SYSTEM ON A 64-BIT MACHINE	10375.US1
1520669.1	Great Britain	Granted	12/02/2014	10/02/2015	GB2529114	10/02/2016	GB2529114	03/08/2016	PROCESSORS WITH SUPPORT FOR COMPACT BRANCH INSTRUCTIONS & METHODS	10380.GB1

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1610274.1	Great Britain	Granted	12/02/2014	13/06/2016	GB2538401	16/11/2016	GB2538401	19/04/2017	PROCESSORS WITH SUPPORT FOR COMPACT BRANCH INSTRUCTIONS & METHODS	10380.GB2
14/612069	United States	Pending	12/02/2014	02/02/2015	US2015-0227371	13/08/2015			PROCESSORS WITH SUPPORT FOR COMPACT BRANCH INSTRUCTIONS & METHODS	10380.US2
201510073112.4	China	Pending	12/02/2014	11/02/2015	CN104834503	12/08/2015			PROCESSOR WITH GRANULAR ADD IMMEDIATES CAPABILITY & METHODS	10381.CN1
102015101541.2	Germany	Pending	12/02/2014	03/02/2015	DE102015101541.2	27/08/2015			PROCESSOR WITH GRANULAR ADD IMMEDIATES CAPABILITY & METHODS	10381.DE1
1520676.6	Great Britain	Granted	12/02/2014	10/02/2015	GB2529777	02/03/2016	GB2529777	03/08/2016	PROCESSOR WITH GRANULAR ADD IMMEDIATES CAPABILITY & METHODS	10381.GB1
1520682.4	Great Britain	Granted	12/02/2014	10/02/2015	GB2529778	02/03/2016	GB2529778	11/10/2017	PROCESSOR SUPPORTING ARITHMETIC INSTRUCTIONS WITH BRANCH ON OVERFLOW & METHODS	10381.GB2
1713727.4	Great Britain	Pending	12/02/2014	25/08/2017					PROCESSOR SUPPORTING ARITHMETIC INSTRUCTIONS WITH BRANCH ON OVERFLOW & METHODS	10381.GB3
14/612077	United States	Pending	12/02/2014	02/02/2015	US2015-0227366	13/08/2015			PROCESSOR WITH GRANULAR ADD IMMEDIATES CAPABILITY & METHODS	10381.US2
14/612104	United States	Pending	12/02/2014	02/02/2015	US2015-0227365	13/08/2015			PROCESSOR SUPPORTING ARITHMETIC INSTRUCTIONS WITH BRANCH ON OVERFLOW & METHODS	10381.US3
1704527.9	Great Britain	Pending	07/04/2016	22/03/2017	GB2550658	29/11/2017			APPARATUS AND METHODS FOR OUT OF ORDER ITEM SELECTION AND STATUS UPDATING	10382.GB1
15/092728	United States	Pending	07/04/2016	07/04/2016					APPARATUS AND METHODS FOR OUT OF ORDER ITEM SELECTION AND STATUS UPDATING	10382.US1
1503095.0	Great Britain	Granted	25/02/2014	24/02/2015	GB2525715	04/11/2015	GB2525715	22/03/2017	PIPELINED ECC-PROTECTED MEMORY ACCESS	10383.GB1
14/612084	United States	Granted	25/02/2014	02/02/2015	US2015-0242274	27/08/2015	US9740557	22/08/2017	PIPELINED ECC-PROTECTED MEMORY ACCESS	10383.US2
1503097.6	Great Britain	Pending	25/02/2014	24/02/2015	GB2525473	28/10/2015			MODELESS INSTRUCTION EXECUTION WITH 64/32-BIT ADDRESSING	10384.GB1
14/612090	United States	Pending	25/02/2014	02/02/2015	US2015-0242212	27/08/2015			MODELESS INSTRUCTION EXECUTION WITH 64/32-BIT ADDRESSING	10384.US2
201510691007.7	China	Pending	22/10/2014	22/10/2015	CN105550031	04/05/2016			APPARATUS AND METHOD OF THROTTLING HARDWARE PRE-FETCH	10385.CN1
102015115582.6	Germany	Pending	22/10/2014	16/09/2015	DE102015115582	28/04/2016			APPARATUS AND METHOD OF THROTTLING HARDWARE PRE-FETCH	10385.DE1
1517296.8	Great Britain	Granted	22/10/2014	30/09/2015	GB2532851	01/06/2016	GB2532851	13/09/2017	APPARATUS AND METHOD OF THROTTLING HARDWARE PRE-FETCH	10385.GB1
14/919922	United States	Pending	22/10/2014	22/10/2015	US2016-0117250	28/04/2016			APPARATUS AND METHOD OF THROTTLING HARDWARE PRE-FETCH	10385.US2
1514646.7	Great Britain	Granted	19/08/2014	18/08/2015	GB2532545	25/05/2016	GB2532545	19/04/2017	PROCESSORS AND METHODS FOR CACHE SPARING STORES	10387.GB1
1617426.0	Great Britain	Pending	19/08/2014	14/10/2016					PROCESSORS AND METHODS FOR CACHE SPARING STORES	10387.GB2
14/829458	United States	Pending	19/08/2014	18/08/2015	US2016-0055083	25/02/2016			PROCESSORS AND METHODS FOR CACHE SPARING STORES	10387.US2
201510437379.7	China	Pending	25/07/2014	23/07/2015	CN105320519	10/02/2016			CONDITIONAL BRANCH PREDICTION USING A LONG HISTORY	10407.CN1
201520538764.6	China	Granted	25/07/2014	23/07/2015			ZL201520538764.6	20/04/2016	CONDITIONAL BRANCH PREDICTION USING A LONG HISTORY	10407.CNU1
102015111363.5	Germany	Pending	25/07/2014	14/07/2015	DE102015111363	28/01/2016			CONDITIONAL BRANCH PREDICTION USING A LONG HISTORY	10407.DE1
1413264.1	Great Britain	Granted	25/07/2014	25/07/2014	GB2528676	03/02/2016	GB2528676	26/10/2016	CONDITIONAL BRANCH PREDICTION USING A LONG HISTORY	10407.GB1
1607643.2	Great Britain	Granted	25/07/2014	02/05/2016	GB2534522	27/07/2016	GB2534522	28/12/2016	CONDITIONAL BRANCH PREDICTION USING A LONG HISTORY	10407.GB2

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14/809187	United States	Pending	25/07/2014	25/07/2015	US2016-0026470	28/01/2016			CONDITIONAL BRANCH PREDICTION USING A LONG HISTORY	10407.US1
201610214946.7	China	Pending	09/04/2015	08/04/2016	CN106055490	26/10/2016			CACHE OPERATION IN A MULTI-THREADED PROCESSOR	10442.CN1
16163566.9	EPC	Pending	09/04/2015	01/04/2016	EP3079068	12/10/2016			CACHE OPERATION IN A MULTI-THREADED PROCESSOR	10442.EP1
1506062.7	Great Britain	Pending	09/04/2015	09/04/2015	GB2537357	19/10/2016			CACHE OPERATION IN A MULTI-THREADED PROCESSOR	10442.GB1
14/873027	United States	Pending	09/04/2015	01/10/2015	US2016-0299700	13/10/2016			CACHE OPERATION IN A MULTI-THREADED PROCESSOR	10442.US1
201610245251.5	China	Pending	01/05/2015	19/04/2016	CN106095390	09/11/2016			FAULT TOLERANT PROCESSOR FOR REAL-TIME SYSTEMS	10444.CN1
201620330740.6	China	Granted	01/05/2015	19/04/2016			ZL201620330740.6	01/03/2017	A MULTI-THREADED PROCESSOR AND A FAULT-TOLERANT MULTI-THREADED PROCESSOR	10444.CNU1
16167141.7	EPC	Pending	01/05/2015	24/04/2016	EP3093764	16/11/2016			FAULT TOLERANT PROCESSOR FOR REAL-TIME SYSTEMS	10444.EP1
1507585.6	Great Britain	Granted	01/05/2015	01/05/2015	GB2537942	02/11/2016	GB2537942	14/06/2017	FAULT TOLERANT PROCESSOR FOR REAL-TIME SYSTEMS	10444.GB1
14/741738	United States	Pending	01/05/2015	17/06/2015	US2016-0321078	03/11/2016			FAULT TOLERANT PROCESSOR FOR REAL-TIME SYSTEMS	10444.US1
201610539460.0	China	Pending	08/07/2015	08/07/2016	CN106339284	18/01/2017			CHECK POINTING A SHIFT REGISTER	10458.CN1
201620722509.1	China	Granted	08/07/2015	08/07/2016			ZL201620722509.1	29/03/2017	CHECK POINTING A SHIFT REGISTER	10458.CNU1
16178017.6	EPC	Pending	08/07/2015	05/07/2016	EP3115888	11/01/2017			CHECK POINTING A SHIFT REGISTER	10458.EP1
1511980.3	Great Britain	Pending	08/07/2015	08/07/2015	GB2540189	11/01/2017			CHECK POINTING A SHIFT REGISTER	10458.GB1
15/205445	United States	Pending	08/07/2015	08/07/2016	US2017-0010819	12/01/2017			CHECK POINTING A SHIFT REGISTER	10458.US1
201720185017.8	China	Granted	08/07/2015	28/02/2017			ZL201720185017.8	19/12/2017	CHECK POINTING A SHIFT REGISTER	10462.CNU1
1511981.1	Great Britain	Pending	08/07/2015	08/07/2015	GB2540190	11/01/2017			CHECK POINTING A SHIFT REGISTER	10462.GB1
1517325.5	Great Britain	Pending	08/07/2015	30/09/2015	GB2540221	11/01/2017			CHECK POINTING A SHIFT REGISTER	10462.GB2
15/205555	United States	Pending	08/07/2015	08/07/2016	US2017-0010820	12/01/2017			CHECK POINTING A SHIFT REGISTER	10462.US1
201610959252.6	China	Pending	03/11/2015	03/11/2016					PROCESSORS SUPPORTING ENDIAN AGNOSTIC SIMD INSTRUCTIONS AND METHODS	10466.CN1
16196647.8	EPC	Pending	03/11/2015	31/10/2016					PROCESSORS SUPPORTING ENDIAN AGNOSTIC SIMD INSTRUCTIONS AND METHODS	10466.EP1
1618384.0	Great Britain	Pending	03/11/2015	31/10/2016					PROCESSORS SUPPORTING ENDIAN AGNOSTIC SIMD INSTRUCTIONS AND METHODS	10466.GB1
14/930740	United States	Pending	03/11/2015	03/11/2015	US2017-0123792	04/05/2017			PROCESSORS SUPPORTING ENDIAN AGNOSTIC SIMD INSTRUCTIONS AND METHODS	10466.US1
201610330320.2	China	Pending	18/05/2015	18/05/2016	CN106168930	30/11/2016			TRANSLATION LOOKASIDE BUFFER	10467.CN1
201620454206.6	China	Pending	18/05/2015	18/05/2016					TRANSLATION LOOKASIDE BUFFER	10467.CNU1
16170082.8	EPC	Pending	18/05/2015	18/05/2016	EP3096230	23/11/2016			TRANSLATION LOOKASIDE BUFFER	10467.EP1
1608709.0	Great Britain	Pending	18/05/2015	18/05/2016	GB2540255	11/01/2017			TRANSLATION LOOKASIDE BUFFER	10467.GB1
14/715117	United States	Granted	18/05/2015	18/05/2015	US2016-0342523	24/11/2016	US9830275	28/11/2017	TRANSLATION LOOKASIDE BUFFER	10467.US1
15/824613	United States	Pending	18/05/2015	28/11/2017					TRANSLATION LOOKASIDE BUFFER	10467.US2
1704529.5	Great Britain	Pending	07/04/2016	22/03/2017	GB2550048	08/11/2017			READ DISCARDS IN A PROCESSOR SYSTEM WITH WRITE-BACK CACHES	10469.GB1
15/093404	United States	Pending	07/04/2016	07/04/2016					READ DISCARDS IN A PROCESSOR SYSTEM WITH WRITE-BACK CACHES	10469.US1
1704528.7	Great Britain	Pending	07/04/2016	22/03/2017	GB2550470	22/11/2017			PROCESSORS SUPPORTING ATOMIC WRITES TO MULTIWORD MEMORY LOCATIONS & METHODS	10476.GB1
15/092915	United States	Pending	07/04/2016	07/04/2016					PROCESSORS SUPPORTING ATOMIC WRITES TO MULTIWORD MEMORY LOCATIONS & METHODS	10476.US1
201610977366.3	China	Pending	09/11/2015	07/11/2016	CN106681695	17/05/2017			CONDITIONAL BRANCH PREDICTION USING A LONG HISTORY	10492.CN1
16197804.4	EPC	Pending	09/11/2015	08/11/2016	EP3166015	10/05/2017			CONDITIONAL BRANCH PREDICTION USING A LONG HISTORY	10492.EP1
1618834.4	Great Britain	Pending	09/11/2015	08/11/2016	GB2545796	28/06/2017			CONDITIONAL BRANCH PREDICTION USING A LONG HISTORY	10492.GB1

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14/935579	United States	Pending	09/11/2015	09/11/2015	US2017-0132009	11/05/2017			CONDITIONAL BRANCH PREDICTION USING A LONG HISTORY	10492.US1
62/508329	United States	Pending	18/05/2017	18/05/2017					WIDENENING SIMD OPERATIONS	10502.US1
201610853165.2	China	Pending	30/09/2015	26/09/2016	CN106557304	05/04/2017			FETCH UNIT FOR PREDICTING TARGET FOR SUBROUTINE RETURN INSTRUCTIONS	10514.CN1
1517321.4	Great Britain	Pending	30/09/2015	30/09/2015	GB2542831	05/04/2017			FETCH UNIT FOR PREDICTING TARGET FOR SUBROUTINE RETURN INSTRUCTIONS	10514.GB1
15/281661	United States	Pending	30/09/2015	30/09/2016	US2017-0090933	30/03/2017			FETCH UNIT FOR PREDICTING TARGET FOR SUBROUTINE RETURN INSTRUCTIONS	10514.US1
1604003.2	Great Britain	Pending	20/01/2016	08/03/2016	GB2546560	26/07/2017			EXECUTION OF LOAD INSTRUCTIONS IN A PROCESSOR	10524.GB1
15/001628	United States	Pending	20/01/2016	20/01/2016	US2017/0206086	20/07/2017			EXECUTION OF LOAD INSTRUCTIONS IN A PROCESSOR	10524.US1
1608404.8	Great Britain	Pending	24/03/2016	13/05/2016	GB2548641	27/09/2017			A PROCESSOR	10542.GB1
15/079784	United States	Pending	24/03/2016	24/03/2016					EXCEPTION HANDLING IN PROCESSOR USING BRANCH DELAY SLOT INSTRUCTION SET ARCHITECTURE	10542.US1
1610541.3	Great Britain	Pending	16/06/2016	16/06/2016	GB2551381	20/12/2017			METHOD OF FETCHING INSTRUCTIONS IN AN INSTRUCTION FETCH UNIT	10555.GB1
15/624121	United States	Pending	16/06/2016	15/06/2017					METHOD OF FETCHING INSTRUCTIONS IN AN INSTRUCTION FETCH UNIT	10555.US1
1613251.6	Great Britain	Pending	28/06/2016	01/08/2016	GB2551849	03/01/2018			AES HARDWARE IMPLEMENTATION	10560.GB1
15/633988	United States	Pending	28/06/2016	27/06/2017					AES HARDWARE IMPLEMENTATION	10560.US2
1712880.2	Great Britain	Pending	10/08/2017	10/08/2017					FAULT DETECTING AND FAULT TOLERANT MULTI-THREADED PROCESSORS	10622.GB1
62/552885	United States	Pending	31/08/2017	31/08/2017					IMPLICIT GLOBAL POINTER RELATIVE ADDRESSING FOR GLOBAL MEMORY ACCESS	10653.US1
62/552796	United States	Pending	31/08/2017	31/08/2017					UNIFIED LOGIC	10654.US1
62/552841	United States	Pending	31/08/2017	31/08/2017					POINTER-SIZE CONTROLLED INSTRUCTION PROCESSING	10655.US1
62/558930	United States	Pending	15/09/2017	15/09/2017					UNALIGNED MEMORY ACCESSES	10656.US1
62/552830	United States	Pending	31/08/2017	31/08/2017					SAVING AND RESTORING NON-CONTIGUOUS BLOCKS OF PRESERVED REGISTERS	10657.US1