

PATENT ASSIGNMENT COVER SHEET

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NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
INTELLECTUAL VENTURES ASSETS 88 LLC	09/17/2018

RECEIVING PARTY DATA

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City:	MENLO PARK
State/Country:	CALIFORNIA
Postal Code:	94025

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16725406

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DATE SIGNED:	03/02/2022

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ASSIGNMENT OF PATENT RIGHTS

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(a) the patents and patent applications listed in the table below (the "*Patents*");

<u>Patent/ Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and Inventors</u>
6882172 (10/124152)	US	4/19/2005 (4/16/2002)	System and method for measuring transistor leakage current with a ring oscillator James Burr; Shingo Suzuki
7941675 (10/334918)	US	5/10/2011 (12/31/2002)	Adaptive power control Burr, James B.; Read, Andrew; Stewart, Tom
7636815 (10/411168)	US	12/22/2009 (4/9/2003)	SYSTEM AND METHOD FOR HANDLING DIRECT MEMORY ACCESSES Alexander C. Klaiber; Guillermo J. Rozas; David A. Dunn
6885210 (10/672793)	US	4/26/2005 (9/26/2003)	System and method for measuring transistor leakage current with a ring oscillator with backbias controls Suzuki, Shingo
6903564 (10/712847)	US	6/7/2005 (11/12/2003)	Device aging determination circuit Suzuki, Shingo
7642835 (10/712523)	US	1/5/2010 (11/12/2003)	System for substrate potential regulation during power-up in integrated circuits Tien-Min Chen; Robert Fu
CNZL200380109600.1 (CN200380109600.1)	CN	5/12/2010 (12/29/2003)	Adaptive power control BURR JAMES B; STEWART TOM; READ ANDREW

<u>Patent/ Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and Inventors</u>
7205758 (10/771015)	US	4/17/2007 (2/2/2004)	Systems and methods for adjusting threshold voltage Robert Paul Masleid; James B. Burr
7126365 (10/870752)	US	10/24/2006 (6/16/2004)	System and method for measuring negative bias thermal instability with a ring oscillator Suzuki, Shingo
7212022 (10/870751)	US	5/1/2007 (6/16/2004)	System and method for measuring time dependent dielectric breakdown with a ring oscillator Shingo Suzuki
7859062 (10/956722)	US	12/28/2010 (9/30/2004)	Systems and methods for integrated circuits comprising multiple body biasing domains James B. Burr; Robert Paul Masleid; Kleanthes G. Koniaris
7112978 (10/956217)	US	9/26/2006 (9/30/2004)	Frequency specific closed loop feedback control of integrated circuits Kleanthes G. Koniaris; James B. Burr
7180322 (10/956207)	US	2/20/2007 (9/30/2004)	Closed loop feedback control of integrated circuits James B. Burr; Kleanthes G. Koniaris
7256639 (10/956218)	US	8/14/2007 (9/30/2004)	Systems and methods for integrated circuits comprising multiple body bias domains Koniaris, Kleanthes G.; Burr, James B.
7038483 (11/070630)	US	5/2/2006 (3/1/2005)	System and method for measuring transistor leakage current with a ring oscillator Suzuki, Shingo; Burr, James

<u>Patent/ Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and Inventors</u>
8751753 (11/102171)	US	6/10/2014 (4/7/2005)	COHERENCE DE- COUPLING BUFFER Guillermo J. Rozas
CNZL200580019615.8 (CN200580019615.8)	CN	11/10/2010 (6/14/2005)	System and method for measuring time dependent dielectric breakdown SUZUKI, SHINGO
CNZL200580019614.3 (CN200580019614.3)	CN	12/1/2010 (6/14/2005)	System and method for measuring negative bias thermal instability SUZUKI, SHINGO
JP4974886 (JP2007-516852)	JP	4/20/2012 (6/14/2005)	System and method for measuring negative bias thermal instability SUZUKI, SHINGO
TWI370905 (TW094119807)	TW	8/21/2012 (6/15/2005)	System and method for measuring time dependent dielectric breakdown with a ring oscillator SUZUKI, SHINGO
TWI370904 (TW094119808)	TW	8/21/2012 (6/15/2005)	System and method for measuring negative bias thermal instability with a ring oscillator SUZUKI, SHINGO
7949864 (11/238446)	US	5/24/2011 (9/28/2005)	Balanced adaptive body bias control James B. Burr; Vjekoslav Svilan
7786756 (11/241552)	US	8/31/2010 (9/30/2005)	Method and system for latchup suppression James B. Burr; Kleanthes G. Koniaris; Tien-Min Chen; Vjekoslav Svilan

Exhibit A-2

<u>Patent/ Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and Inventors</u>
7235998 (11/269989)	US	6/26/2007 (11/8/2005)	System and method for measuring time dependent dielectric breakdown with a ring oscillator Suzuki, Shingo
7816742 (11/400368)	US	10/19/2010 (4/6/2006)	Systems and methods for integrated circuits comprising multiple body biasing domains James B. Burr; Robert Paul Masleid; Kleanthes G. Koniaris
7620779 (11/439361)	US	11/17/2009 (5/22/2006)	SYSTEM AND METHOD FOR HANDLING DIRECT MEMORY ACCESSES Alexander C. Klaiber; Guillermo J. Rozas; David A. Dunn
7336092 (11/490356)	US	2/26/2008 (7/19/2006)	Closed loop feedback control of integrated circuits Koniaris, Kleanthes G.; Burr, James B.
7336090 (11/512900)	US	2/26/2008 (8/29/2006)	Frequency specific closed loop feedback control of integrated circuits Koniaris, Kleanthes G.; Burr, James B.
7626409 (11/528031)	US	12/1/2009 (9/26/2006)	Frequency specific closed loop feedback control of integrated circuits James B. Burr; Kleanthes G. Koniaris
JP4994228 (JP2007-516853)	JP	5/18/2012 (12/5/2006)	System and method for measuring time-dependent dielectric breakdown Shingo Suzuki

Exhibit A-2

<u>Patent/ Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and Inventors</u>
7598731 (11/787908)	US	10/6/2009 (4/17/2007)	Systems and methods for adjusting threshold voltage James B. Burr; Robert Paul Masleid
7782110 (11/880351)	US	8/24/2010 (7/19/2007)	Systems and methods for integrated circuits comprising multiple body bias domains James B. Burr; Kleanthes G. Koniaris
7456628 (12/006473)	US	11/25/2008 (1/2/2008)	System and method for measuring negative bias thermal instability with a ring oscillator Suzuki, Shingo
7671621 (12/037784)	US	3/2/2010 (2/26/2008)	CLOSED LOOP FEEDBACK CONTROL OF INTEGRATED CIRCUITS Koniaris, Kleanthes G.; Burr, James B.
7667478 (12/277227)	US	2/23/2010 (11/24/2008)	System and method for measuring negative bias thermal instability with a ring oscillator Shingo Suzuki
8319515 (12/547416)	US	11/27/2012 (8/25/2009)	SYSTEMS AND METHODS FOR ADJUSTING THRESHOLD VOLTAGE James B. Burr; Robert Paul Masleid
8222914 (12/547392)	US	7/17/2012 (8/25/2009)	SYSTEMS AND METHODS FOR ADJUSTING THRESHOLD VOLTAGE James B. Burr; Robert Paul Masleid

<u>Patent/ Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and Inventors</u>
8040149 (12/552243)	US	10/18/2011 (9/1/2009)	FREQUENCY SPECIFIC CLOSED LOOPED FEEDBACK CONTROL OF INTEGRATED CIRCUITS James B. Burr; Kleanthes G. Koniaris
7937536 (12/624094)	US	5/3/2011 (11/23/2009)	HANDLING DIRECT MEMORY ACCESSES Alexander C. Klaiber; Guillermo J. Rozas; David Dunn
8085084 (12/628054)	US	12/27/2011 (11/30/2009)	System for substrate potential regulation during power-up in integrated circuits Tien-Min Chen; Robert Fu
8022747 (12/628010)	US	9/20/2011 (11/30/2009)	System for substrate potential regulation during power-up in integrated circuits Tien-Min Chen; Robert Fu
7868638 (12/649750)	US	1/11/2011 (12/30/2009)	System and method for measuring negative bias thermal instability with a ring oscillator Shingo Suzuki
8253434 (12/651244)	US	8/28/2012 (12/31/2009)	Closed loop feedback control of integrated circuits James B. Burr; Kleanthes G. Koniaris
8420472 (12/873062)	US	4/16/2013 (8/31/2010)	SYSTEMS AND METHODS FOR INTEGRATED CIRCUITS COMPRISING MULTIPLE BODY BIASING DOMAINS James B. Burr; Robert Paul Masleid; Kleanthes G. Koniaris

<u>Patent/ Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and Inventors</u>
8697512 (12/968032)	US	4/15/2014 (12/14/2010)	SYSTEMS AND METHODS FOR INTEGRATED CIRCUITS COMPRISING MULTIPLE BODY BIASING DOMAINS James B. Burr; Robert Paul Masleid; Kleanthes G. Koniaris
8593169 (13/235301)	US	11/26/2013 (9/16/2011)	FREQUENCY SPECIFIC CLOSED LOOP FEEDBACK CONTROL OF INTEGRATED CIRCUITS James B. Burr; Kleanthes G. Koniaris
9100003 (13/550459)	US	8/4/2015 (7/16/2012)	SYSTEMS AND METHODS FOR ADJUSTING THRESHOLD VOLTAGE Robert Paul Masleid; James B. Burr
9407241 (13/587827)	US	8/2/2016 (8/16/2012)	CLOSED LOOP FEEDBACK CONTROL OF INTEGRATED CIRCUITS Kleanthes G. Koniaris; James B. Burr
9548725 (14/091255)	US	1/17/2017 (11/26/2013)	FREQUENCY SPECIFIC CLOSED LOOP FEEDBACK CONTROL OF INTEGRATED CIRCUITS Kleanthes G. Koniaris; James B. Burr
9558116 (14/295062)	US	1/31/2017 (6/3/2014)	COHERENCE DE-COUPLING BUFFER Guillermo J. Rozas
15/225706	US	8/1/2016	CLOSED LOOP FEEDBACK CONTROL OF INTEGRATED CIRCUITS Kleanthes G. Koniaris; James B. Burr

<u>Patent/ Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and Inventors</u>
15/400167	US	1/6/2017	COHERENCE DE-COUPLING BUFFER Guillermo J. Rozas
7228242 (10/334748)	US	6/5/2007 (12/31/2002)	Adaptive power control based on pre package characterization of integrated circuits Andrew Read; Malcolm Wing; Louis C. Kordus; Thomas E. Stewart
8442784 (11/810516)	US	5/14/2013 (6/5/2007)	ADAPTIVE POWER CONTROL BASED ON PRE-PACKAGE CHARACTERIZATION OF INTEGRATED CIRCUITS Andrew Read; Malcolm Wing; Louis C. Kordus; Thomas E. Stewart
7953990 (10/334919)	US	5/31/2011 (12/31/2002)	ADAPTIVE POWER CONTROL BASED ON POST PACKAGE CHARACTERIZATION OF INTEGRATED CIRCUITS Thomas E. Stewart; Louis C. Kordus
7774625 (10/874407)	US	8/10/2010 (6/22/2004)	Adaptive voltage control by accessing information stored within and specific to a microprocessor Eric Chien-Li Sheng; Steven Kawasumi
7562233 (10/874772)	US	7/14/2009 (6/22/2004)	Adaptive control of operating and body bias voltages Eric Chen-Li Sheng; Matthew Robert Ward

<u>Patent/ Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and Inventors</u>
8370658 (12/502902)	US	2/5/2013 (7/14/2009)	ADAPTIVE CONTROL OF OPERATING AND BODY BIAS VOLTAGES Eric Chen-Li Sheng; Matthew Robert Ward
9026810 (13/731491)	US	5/5/2015 (12/31/2012)	ADAPTIVE CONTROL OF OPERATING AND BODY BIAS VOLTAGES Eric Chen-Li Sheng; Matthew Robert Ward
8230367 (12/210994)	US	7/24/2012 (9/15/2008)	Gesture-Based User Interactions with Status Indicators for Acceptable Inputs in Volumetric Zones Matthew Bell; Tipatat Chennavasin; Charles H Clanton; Michael Hulme; Eyal Ophir; Matthew Vieta
AU2008299883 (AU2008299883)	AU	3/15/2012 (9/15/2008)	PROCESSING OF GESTURE-BASED USER INTERACTIONS VIETA MATTHEW; HULME MICHAEL; BELL MATTHEW; CLANTON CHARLES H; OPHIR EYAL; CHENNAVASIN TIPATAT
CNZL200880115391.4 (CN200880115391.4)	CN	5/25/2016 (9/15/2008)	PROCESSING OF GESTURE-BASED USER INTERACTIONS BELL MATTHEW; CHENNAVASIN TIPATAT; CLANTON CHARLES H; HULME MICHAEL; OPHIR EYAL; VIETA MATTHEW

<u>Patent/ Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and Inventors</u>
EP08830473.8	EP	9/15/2008	<p>PROCESSING OF GESTURE-BASED USER INTERACTIONS</p> <p>BELL MATTHEW; CHENNAVASIN TIPATAT; CLANTON CHARLES H; HULME MICHAEL; OPHIR EYAL; VIETA MATTHEW</p>
JP5430572 (JP2010-524887)	JP	12/13/2013 (9/15/2008)	<p>PROCESSING OF GESTURE-BASED USER INTERACTIONS</p> <p>BELL MATTHEW; CHENNAVASIN TIPATAT; CLANTON CHARLES H; HULME MICHAEL; OPHIR EYAL; VIETA MATTHEW</p>
KR10-1141087 (KR10-2010-7007945)	KR	4/23/2012 (9/15/2008)	<p>PROCESSING OF GESTURE-BASED USER INTERACTIONS</p> <p>OPHIR EYAL; VIETA MATTHEW; BELL MATTHEW; CLANTON CHARLES H; HULME MICHAEL; CHENNAVASIN TIPATAT</p>
9058058 (13/556090)	US	6/16/2015 (7/23/2012)	<p>Processing of gesture-based user interactions activation levels</p> <p>Matthew Bell; Tipatat Chennavasin; Charles H Clanton; Michael Hulme; Eyal Ophir; Matthew Vieta</p>
9811166 (14/739922)	US	11/7/2017 (6/15/2015)	<p>Processing of gesture-based user interactions using volumetric zones</p> <p>Matthew Bell; Tipatat Chennavasin; Charles H Clanton; Michael Hulme; Eyal Ophir; Matthew Vieta</p>

<u>Patent/ Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and Inventors</u>
15/803517	US	11/3/2017	PROCESSING OF GESTURE-BASED USER INTERACTIONS USING VOLUMETRIC ZONES Matthew Bell; Tipatat Chennavasin; Charles H Clanton; Michael Hulme; Eyal Ophir; Matthew Vieta
8259163 (12/400772)	US	9/4/2012 (3/9/2009)	Display with built in 3D sensing Matthew Bell
9247236 (13/591054)	US	1/26/2016 (8/21/2012)	DISPLAY WITH BUILT IN 3D SENSING CAPABILITY AND GESTURE CONTROL OF TV Matthew Bell
15/001657	US	1/20/2016	DISPLAY WITH BUILT IN 3D SENSING CAPABILITY AND GESTURE CONTROL OF TV Matthew Bell
7946919 (11/804054)	US	5/24/2011 (5/15/2007)	Method, system and apparatus for location-based gaming Gregory A. Piccionelli
8292735 (13/068892)	US	10/23/2012 (5/21/2011)	Method, system and apparatus for location-based gaming Gregory A. Piccionelli
8517831 (13/609380)	US	8/27/2013 (9/11/2012)	Methods and system for location-based gaming utilizing a physical game tool Gregory A. Piccionelli

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