# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5562179

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

## **CONVEYING PARTY DATA**

Name	Execution Date	
HYPRES, INC.	04/21/2019	

## **RECEIVING PARTY DATA**

Name:	SEEQC,INC.
Street Address:	175 CLEARBROOK RD
Internal Address:	#148
City:	ELMSFORD
State/Country:	NEW YORK
Postal Code:	10523

#### **PROPERTY NUMBERS Total: 52**

Property Type	Number
Application Number:	12725426
Application Number:	11243019
Application Number:	11943798
Application Number:	12494876
Application Number:	12403537
Application Number:	11243020
Application Number:	11360749
Application Number:	15852910
Application Number:	15290583
Application Number:	14996926
Application Number:	14064267
Application Number:	12902572
Application Number:	15488168
Application Number:	14636632
Application Number:	13349641
Application Number:	09629823
Application Number:	09999864
Application Number:	11895478
Application Number:	12973661

PATENT REEL: 049412 FRAME: 0196

505515374

Property Type	Number
Application Number:	15888601
Application Number:	15374618
Application Number:	14643078
Application Number:	15456010
Application Number:	14850634
Application Number:	13771330
Application Number:	13073954
Application Number:	11616382
Application Number:	14844866
Application Number:	13887949
Application Number:	13662490
Application Number:	12986720
Application Number:	15679935
Application Number:	14508514
Application Number:	15583414
Application Number:	14449410
Application Number:	13448436
Application Number:	13243016
Application Number:	11840931
Application Number:	08897475
Application Number:	08892447
Application Number:	15356030
Application Number:	16149910
Application Number:	15450855
Application Number:	14595559
Application Number:	13471674
Application Number:	12543482
Application Number:	12649306
Application Number:	16016149
Application Number:	62744494
Application Number:	16153659
Application Number:	12258682
Application Number:	15679789

#### **CORRESPONDENCE DATA**

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Phone:** 6462019100

Email: shoffberg@tullylegal.com
Correspondent Name: STEVEN M. HOFFBERG

Address Line 1: 777 THIRD AVE

Address Line 2: 22ND FL

Address Line 4: NEW YORK, NEW YORK 10017

ATTORNEY DOCKET NUMBER: SEEQC-001

NAME OF SUBMITTER: STEVEN M. HOFFBERG

SIGNATURE: /Steven M. Hoffberg/

**DATE SIGNED:** 06/07/2019

**Total Attachments: 13** 

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#### PATENT AND PATENT APPLICATION ASSIGNMENT

WHEREAS, Hypres, Inc., a Delaware corporation with its principal place of business at 175 Clearbrook Rd. #148 Elmsford, NY 10523 ("<u>Assignor</u>"), desires to sell, transfer, convey, assign, and deliver all of its right, title, and interest in and to the Assigned Patents (as defined below), including the rights to file patent applications and obtain patents in all jurisdictions worldwide; and

WHEREAS, SeeQC, Inc., a Delaware corporation with its principal place of business at 175 Clearbrook Rd. #141 Elmsford, NY 105 ("<u>Assignee</u>"), desires to acquire all of Assignor's right, title, and interest in and to the Assigned Patents;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged by Assignor

- 1. Assignor does hereby sell, transfer, convey, assign, and deliver to Assignee all of Assignor's right, title, and interest in and to (i) the patents, design patents, industrial designs, petty patents, utility models and patent applications, including provisional patent applications listed in Appendix A (the "Patent Properties"); (ii) any and all patents and patent sharing the priority of any Patent Property, including all continuations, continuations-in-part, divisions, patents of addition, confirmations, reissues, renewals, extensions and equivalents or counterparts thereof anywhere in the world ("Extensions"), and (iii) all patent, design patent, industrial design, petty patent, utility model, patent application (including any provisional patent application having substantially the same specification as, and/or terminally disclaimed for or against, any Patent Property or Extension, regardless of whether those rights arise under the laws of the United States or any other state, country or jurisdiction throughout the world (all of the foregoing collectively the "Assigned Patents"); the same to be held and enjoyed by Assignee and its successors and assigns entirely as if the same would have been held and enjoyed by Assignor had this assignment not been made, and further with all rights of action, powers and benefit to the Assigned Patents, due or accrued, including the right to sue for and recover in the Assignee's own name and that of its successors and assigns and other legal representatives all remedies of every nature, including, without limitation, rights to injunctive relief, damages, profits, costs and attorney fees, arising out of any infringement of the Assigned Patents.
- 2. From time to time, on and after the effective date of this Patent and Patent Applications Assignment, Assignor shall, at the reasonable request and the expense of Assignee: (a) execute and deliver or cause to be delivered any documents and further instruments of assignment consistent with the present assignment, and (b) take or cause to be taken all such other actions, as may reasonably be deemed necessary or desirable in order for Assignee to obtain the full benefits of the present assignment.
- 3. This Patent and Patent Applications Assignment shall inure to the benefit of and be binding upon Assignee and Assignor and their respective successors and assigns.
- 4. Assignor authorizes and requests the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or

transfer all Assigned Patents to Assignee, as owner of the entire right, title and interest therein.

[Signature Page Follows]

IN WITNESS WHEREOF, Assignor and Assignee have executed this Patent and Patent Applications Assignment as of the later date set forth below.

HYPRES, INC.

By: REWAY
Name: RICHARD E. HiTT, JR
Title: PRESIDENT/CEO
Date: 4/21/2019
SEEQC, INC.
Ву:
Name:
Title:
Date:

[THIS IS THE SIGNATURE PAGE FOR THE PATENT AND PATENT APPLICATIONS ASSIGNMENT.]

IN WITNESS WHEREOF, Assignor and Assignee have executed this Patent and Patent Applications Assignment as of the later date set forth below.

# HYPRES, INC.

By:
Name:
Title:
Date:
SEEQC, INC.
By:
Name:
Title: CHANGOAN
Date: 20 A/A-1C 2019

[THIS IS THE SIGNATURE PAGE FOR THE PATENT AND PATENT APPLICATIONS ASSIGNMENT.]

APPENDIX A TO
PATENTS AND PATENT APPLICATIONS ASSIGNMENT:
ASSIGNED PATENTS

233	223	222	221	219	Agreement Numbering
Pending; 9853645 9473124 9240773 8571614	7443719	7750664 7508230	7554369 7944253	8050648 7680474	Patent Number
2016-10 2016-10 2016-1 2013-8 2010-6	2006-1	2009-2 2005-3	2005-2	2010-1 2005-1	HYPRES Reference
15/852,910 15/290,583 14/996,926 14/064,267 12/902,572	11/360,749	12/403,537 11/243,020	11/943,798 12/494,876	12/725,426 11/243,019	Patent Application No.
S	SN	SN	SN	SN	Country
Hypres- 233.5 Hypres- 233.4 Hypres- 233.3 HYPRES- 233.2	84010 HYPRES- 223	HYPRES- 222.1; 84009 HYPRES- 222	84008 and 84008CIP 1 HYPRES- 221.1; HYPRES- 221.2	HYPRES- 219.1 HYPRES- 219	Attorney Docket.
Low power biasing networks for superconducting	Superconducting Circuit for High- Speed Lookup Table	Digital Programmable Phase Generator	Digital Programmable Frequency Divider	Superconducting Digital Mixer	Title
Mukhanov, A.Kirichenko, D.Kirichenko	Kirichenko A., Filippov, Gupta	Kirichenko A.	Kirichenko A.	Kirichenko A., Sarwana, Gupta	Inventors
12/22/2017 10/11/2016 1/15/2016 1/15/2016 10/28/2013 10/12/2010	2/23/2006	3/13/2009 10/4/2005	10/4/2005 11/21/2007 (CIP); 6/30/2009	3/16/2010 10/4/2005	Date Filed
Pending; 12/26/2017 10/18/2016 1/19/2016 10/29/2013	10/28/2008	7/6/2010 3/24/2009	6/30/2009 5/17/2011	11/1/2011 11/10/2009	Date Issued

261	260	248	246	240	Agreement Numbering
8406834	7991814	6653962	6486694	Pending 9627045 8971977	Patent Number
2010-9	2007-5	2001-3	2000-1	2017-6 2015-3 2012-1	HYPRES Reference
12/973,661	11/895,478	09/999,864	09/629,823	15/488,168 14/636,632 13/349,641	Patent Application No.
SN	SN	SN	SN	Sn	Country
HY10-11 Hypres- 261	Hypres 20 Hypres- 260	Hypres 13/ Hypres- 248	82027/27 0979 PillsbWint h Hypres- 246	HYPRES- 240.3 P/5769- 153 HYPRES- 240.2 P/5769-91 HY12-10/ HYPRES- 240.1	Attorney Docket.  HYPRES- 233.1
Injection locked long Josephson junction pulse source	Ultrafast Circuitry for Digital Filter	Superconducting dual function digitizer	Universal delay insensitive logic circuit	Superconducting devices with ferromagnetic barrier junctions	Title
Kirichenko, D.	Filippov, Mukhanov	Gupta, Kirichenko A., Sarwana, Mukhanov O.	Kirichenko A.	Mukhanov, Vernik, Nevirkovets, Kadin	Inventors
12/20/2010	8/24/2007	10/19/2001	7/31/2000	4/14/2017 3/3/2015 1/13/2012	Date Filed
3/26/2013	8/2/2011	11/25/2003	11/26/2002	Pending 4/18/2017 3/3/2015	Date Issued

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242	235	225	263	Agreement Numbering
Pending 9741918	Pending 9741920 9130116 8437818 8301214	10109673 9595656 9136457 8383426 7615385	Pending 9887000 9520180	Patent Number
2017-13 2014-4	2017-12 2015-10 2013-4 2012-12 2011-1	2017-3 2015-9 2013-1 2011-3 2006-6	2016-12 2016-12 2015-5	HYPRES Reference
15/679,935 14/508,514	15/678,789 14/844,866 13/887,949 13/662,490 12/986,720	15/456,010 14/850,634 13/771,330 13/073,954 11/616,382	15/888,601 15/374,618 14/643,078	Patent Application No.
SN	Sn	S	SN	Country
HYPRES- 242.2 Hypres- 242.1	HYPRES- 235.5 HYPRES- 235.4 HYPRES- 235.3 HYPRES- 235.2 HYPRES- 235.1	HYPRES- 225.5 HYPRES- 225.4 HYPRES- 225.3 HYPRES- 225.2 84013 HYPRES- 225	HYPRES- 263.3 HYPRES- 263.2 P5769- 146 HYPRES- 263.1	Attorney Docket.
Method for increasing the integration level of	System and Method for Providing Multiconductive Layer Interconnects for Superconducting ICs	Double-Masking Technique For Increasing Fabrication Yield In Superconducting Electronics	System and method for cryogenic hybrid technology computing and memory	Title
Yohannes, A. Kirichenko, Vivalda, Hunt	Tolpygo, Amparo, Hunt, Vivalda, Yohannes	Tolpygo	Mukhanov, Vernik, Nevirkovets, Kadin	Inventors
8/17/2017 10/7/2014	8/17/2017 9/3/2015 5/6/2013 10/28/2012 1/7/2011	3/10/2017 9/11/2015 2/20/2013 3/28/2011 12/27/2006	2/5/2018 12/9/2016 3/10/2015	Date Filed
Pending 8/22/2017	Pending 8/22/2017 9/8/2015 5/7/2013 10/30/2012	10/23/2018 3/14/2017 9/15/2015 2/26/2013 11/10/2009	Pending 2/6/2018 12/13/2016	Date Issued

266*	244	243	202		Agreement Numbering
10097281	5982219	5936458	Pending 9647194 8804358 8937255 8159825		Patent Number
2016-11	H-104 / H- 108	н-105	2017-7 2014-2 2012-3 2011-8 2007-4		HYPRES Reference
15/356,030	08/892,447	08/897,475	15/583,414 14/449,410 13/448,436 13/243,016 11/840,931		Patent Application No.
US	SN	S	SN		Country
HYPRES- 266.1	Hypres- 244	Hypres- 243	HYPRES- 202.4 (P/5769- 0155) HYPRES- 202.3 (P/5769- 0116) HYPRES 202.2 HYPRES 202.1 HYPRES- 202.1	(P/5769- 119)	Attorney Docket.
System and Method for Optoelectronic Data Link	Asynchronous dual-rail demultiplexer employing Josephson junctions	Superconducting analog amplifier circuits	Superconductive Multi-Chip Module for High Speed Digital Circuits Method for Fabrication of Electrical Contacts to Superconducting Circuits	superconducting electronic circuits	Title
Vernik, Mukhanov, Kadin, Phare, Lipson, Bergman	Kirichenko A.	Rylov	Dotsenko		Inventors
11/18/2016	7/14/1997	7/21/1997	5/1/2017 8/1/2014 4/17/2012 9/23/20118 8/18/2007		Date Filed
10/9/2018	11/9/1999	7/21/1997	Pending 5/9/2017 8/12/2014 1/20/2015 4/17/2012		Date Issued

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	268*	230.1*	220	269*	Agreement Numbering
Pending	Pending	Pending	Allowed 9588191 8933695 8179133	Pending	Patent Number
	2018-2	5/15/2012	2017-2 2015-1 2012-4 2009-9	2017-14	HYPRES Reference
62/744,494	16/016,149	12/649,306	15/450,855 14/595,559 13/471,674 12/543,482	16/149910	Patent Application No.
Sn	US	US	US	SN	Country
Hypres- 270	Hypres- 268.1	HYPRES- 230.1	HYPRES- 220.4 HYPRES- 220.3 P/5769- 124 HYPRES 220.2 HYPRES- 220.1	Hypres- 269.1	Attorney Docket
System and Method for Superconducting Multi-Chip Module	Integrated Superconducting Nanowire Digital Photon Detector	System and Method for Determining a Direction to a Source of a Radio Frequency Emission	High Linearity Superconducting Radio Frequency Magnetic Field Detector	Superconducting optical-to-digital converter	Title
Yohannes, Amparo Chernyashevsk yy, Mukhanov, Renzullo, Talalaevskii, Vernik, Vivalda, Walter	Jafari-Salim, Yohannes, Mukhanov, Kadin	Polyakov, Semenov, Mukhanov	Kornev, Soloviev, Klenov, Mukhanov	Mukhanov, Vernik	Inventors
10/11/2018	6/22/2018	12/29/2009	3/6/2017 1/13/2015 5/15/2012 8/18/2009	10/2/2018	Date Filed
Pending	Pending	Pending	Pending 3/7/2017 1/13/2015 5/15/2012	Pending	Date Issued

#### AMENDMENT NO. 1 TO PATENT AND PATENT APPLICATION ASSIGNMENT

THIS AMENDMENT NO. 1 TO PATENT AND PATENT APPLICATION ASSIGNMENT (this "Amendment") is entered into as of \_\_\_\_\_ (the "Effective Date") by Hypres, Inc., a Delaware corporation ("Hypres") and SeeQC, Inc., a Delaware corporation ("SeeQC").

WHEREAS, Hypres and SeeQC previously entered into that certain Patent and Patent Application Assignment dated April 22, 2019, (the "*Prior Agreement*"); and

WHEREAS, Hypres and SeeQC desire to amend the Prior Agreement in certain respects, as set forth in this Amendment.

NOW, THEREFORE, in consideration of the mutual agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Hypres and SeeQC hereby agree as follows:

- 1. Appendix A: Assigned Parties, of the Prior Agreement shall be amended pursuant to the additions and correction set forth on Schedule A hereto.
  - 2. Miscellaneous.
- (a) <u>Governing Law</u>. This Amendment shall be governed by and construed under the laws of the State of Delaware as applied to agreements among Delaware residents, made and to be performed entirely within the State of Delaware.
- (b) <u>Counterparts</u>. This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.
- (c) <u>Entire Agreement</u>. This Amendment and the Prior Agreement constitute the full and entire understanding and agreement between the Parties with regard to the subjects hereof and thereof. Except as amended herein, the Prior Agreement shall remain in full force and effect.

[Signature Page Follows]

IN WITNESS WHEREOF the undersigned have consented to this Amendment No. 1 to the Patent and Patent Application Assignment by and between Hypres and SeeQC as of the date first above written.

Hypres, Inc.

SEEQC, INC.

By: Richard Hill

By: John Lery

Name: Richard Hitt

Name: John Levy

Title: Chief Executive Officer

DocuSigned by:

Title: Chief Executive Officer

133858-0001/144558952.1

ADDITIONS AND CORRECTION TO APPENDIX A TO PATENT AND PATENT APPLICATIONS ASSIGNMENT: ASSIGNED SCHEDULE A PATENTS.

Addition to current Agreement Numbering 266 and 233:

Agreement Numbering	Patent Number	HYPRES Reference	Patent Application No.	Country	Attorney Docket.	Title	Inventors	Date Filed	Date Issued
266*	1009728 1	2016-11	15/356,030	US	HYPRES -	System and Method for	Vernik, Mukhanov,	11/18/2016	10/9/2018
					266.1	Optoelectronic	Kadin, Phare,		
	Pending	2018-10	16/153,659		HYPRES	Data Link	Lipson,	10/05/2018	Pending
					ı		Bergman		
					266.2				
223	7443719	2006-1	11/360,749	US	84010	Superconducting	Kirichenko A.,	2/23/2006	10/28/2008
					HYPRES	Circuit for High-	Filippov,		
	7,903,45	2008-10	12/258,682		ı	Speed Lookup	Gupta	10-27-	
	6				223	Table		2008	03-08-2011
					HYPRES				
					1				
					223.1				

Correction:

235	Agreement Numbering
Pending 9741920 9130116 8437818 8301214	Patent Number
2017-12 2015-10 2013-4 2012-12 2011-1	HYPRES Reference
15/679,789 14/844,866 13/887,949 13/662,490 12/986,720	Patent Application No.
US	Country
HYPRES - 235.5 HYPRES - 235.4 HYPRES - 235.3 HYPRES - 235.2 HYPRES - 235.2 HYPRES - 235.1	Attorney Docket.
System and Method for Providing Multi- conductive Layer Interconnects for Superconducting ICs	Title
Tolpygo, Amparo, Hunt, Vivalda, Yohannes	Inventors
8/17/2017 9/3/2015 5/6/2013 10/28/2012 1/7/2011	Date Filed
Pending 8/22/2017 9/8/2015 5/7/2013 10/30/2012	Date Issued

**RECORDED: 06/07/2019**