

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4647830

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
HORIZON ANALOG, INC.	12/10/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ALARM.COM INCORPORATED
<b>Street Address:</b>	8281 GREENSBORO DRIVE
<b>Internal Address:</b>	SUITE 100
<b>City:</b>	TYSONS
<b>State/Country:</b>	VIRGINIA
<b>Postal Code:</b>	22102
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15489367
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(877)769-7945
<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>	
<b>Phone:</b>	858-678-4364
<b>Email:</b>	apsi@fr.com
<b>Correspondent Name:</b>	DANIEL Y. LEE
<b>Address Line 1:</b>	FISH & RICHARDSON P.C.
<b>Address Line 2:</b>	P.O.BOX 1022
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55440-1022
<b>ATTORNEY DOCKET NUMBER:</b>	22888-0119003
<b>NAME OF SUBMITTER:</b>	EDWARD G. FAETH
<b>SIGNATURE:</b>	/Edward G. Faeth/
<b>DATE SIGNED:</b>	10/19/2017
<b>Total Attachments: 9</b>	
source=22888-0119003 Assmt Horizon to Alarm#page1.tif	
source=22888-0119003 Assmt Horizon to Alarm#page2.tif	
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source=22888-0119003 Assmt Horizon to Alarm#page9.tif

## INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT

This INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT (“*IP Assignment*”), dated as of December 10, 2014, is made by **HORIZON ANALOG, INC.**, a Kansas corporation (“*Seller*”), in favor of **ALARM.COM INCORPORATED**, a Delaware corporation (“*Purchaser*”), the purchaser of certain assets of Seller pursuant to an Asset Purchase Agreement by and among Purchaser, Seller and Alain Briancon, as the stockholders’ representative, dated as of the date hereof (the “*Asset Purchase Agreement*”).

WHEREAS, under the terms of the Asset Purchase Agreement, Seller has conveyed, transferred and assigned to Purchaser, among other assets, certain intellectual property of Seller, and has agreed to execute and deliver this IP Assignment, for recording with any appropriate entities or agencies in any applicable jurisdictions, such as the United States Patent and Trademark Office.

NOW THEREFORE, the parties agree as follows:

1. Assignment. For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Seller hereby irrevocably sells, conveys, assigns, transfers and delivers to Purchaser, and Purchaser hereby purchases, accepts, acquires and takes assignment and delivery of, all of Seller’s right, title and interest in, to and under all Intellectual Property, Documentation, and Content listed on Schedule 1 (the “**Assigned IP**”).
2. Recordation and Further Actions. Seller hereby authorizes any appropriate officials of any appropriate entities or agencies in any applicable jurisdictions, such as the Commissioner for Patents in the United States Patent and Trademark Office, to record and register this IP Assignment upon request by Purchaser. Following the date hereof, upon Purchaser’s reasonable request, Seller shall take such steps and actions, and provide such cooperation and assistance to Purchaser and its successors, assigns and legal representatives, including the execution and delivery of any affidavits, declarations, oaths, exhibits, assignments, powers of attorney, or other documents, as may be necessary to effect, evidence or perfect the assignment of the Assigned IP to Purchaser, or any assignee or successor thereto.
3. Terms of the Asset Purchase Agreement. The parties hereto acknowledge and agree that this IP Assignment is entered into pursuant to the Asset Purchase Agreement, to which reference is made for a further statement of the rights and obligations of Seller and Purchaser with respect to the Assigned IP. The representations, warranties, covenants, agreements and indemnities contained in the Asset Purchase Agreement shall not be superseded hereby but shall remain in full force and effect to the full extent provided therein. In the event of any conflict or inconsistency between the terms of the Asset Purchase Agreement and the terms hereof, the terms of the Asset Purchase Agreement shall govern.

4. Counterparts. This IP Assignment may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this IP Assignment delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this IP Assignment.

5. Successors and Assigns. This IP Assignment shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

6. Governing Law. This IP Assignment and any claim, controversy, dispute or cause of action (whether in contract, tort or otherwise) based upon, arising out of or relating to this IP Assignment and the transactions contemplated hereby shall be governed by, and construed in accordance with, the laws of the United States and the State of Delaware, without giving effect to any choice or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction).

SIGNATURE PAGE FOLLOWS

IN WITNESS WHEREOF, Seller has duly executed and delivered this IP Assignment as of the date first above written.

**HORIZON ANALOG, INC.**

By: Alain Briançon

Name: ALAIN BRIANÇON

Title: PRESIDENT & CEO

AGREED TO AND ACCEPTED:

**ALARM.COM INCORPORATED**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

SIGNATURE PAGE TO INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT

**PATENT**  
**REEL: 043901 FRAME: 0072**



**SCHEDULE 1**

**(see attached)**

**Horizon Analog Intellectual Property Asset List**

U.S. Patent Application No. 13/927,387 and all inventions/improvements described therein
U.S. Patent Application No. 14/085,898 and all inventions/improvements described therein
U.S. Patent Application No. 14/274,100 and all inventions/improvements described therein
U.S. Patent Application No. 14/200,756 and all inventions/improvements described therein
U.S. Patent Application No. 14/200,884 and all inventions/improvements described therein
U.S. Patent Application No. 14/200,692 and all inventions/improvements described therein
Intellectual Property created or otherwise owned by Seller for the Data Collection System used in collecting power line data, including technical information, know-how, copyrights, models, designs, drawings, specifications, schematics, circuit board layout designs, prototypes, inventions, improvements, documentation, source code, and executable code for at least: <ul style="list-style-type: none"><li>(i) Triggers used in the Data Collection System including at least current triggers, current clamp triggers, and whole house current clamp triggers</li><li>(ii) Scopes used in the Data Collection System</li><li>(iii) Probes used in the Data Collection System</li><li>(iv) Data acquisition and processing software used in the Data Collection System</li><li>(v) Configuration of the Data Collection System including at least configuration of one or more triggers, one or more scopes, one or more probes, and one or more computers operating the data acquisition and processing software, as well as calibration data used in such configuration</li></ul>
Intellectual Property created or otherwise owned by Seller for the Wideband Power Probe, including technical information, know-how, copyrights, models, designs, drawings, specifications, schematics, circuit board layout designs, prototypes, inventions, improvements, and documentation for at least: <ul style="list-style-type: none"><li>(i) Power line interface hardware of the Wideband Power Probe</li><li>(ii) External and internal filters of the Wideband Power Probe</li><li>(iii) Cables used with the Wideband Power Probe</li><li>(iv) Configuration for connecting the Wideband Power Probe to power lines, scopes, or other suitable equipment</li></ul>
Intellectual Property created or otherwise owned by Seller for all Self-Installed Energy



Manager (SEM) devices, including technical information, know-how, copyrights, models, designs, drawings, specifications, schematics, circuit board layout designs, prototypes, inventions, improvements, documentation, source code, and executable code for at least:

- (i) SEM-1 Beta Devices
- (ii) SEM-2 Beta Devices
- (iii) Customized kernel designed to run on SEM devices
- (iv) Software for processing data collected by SEM devices
- (v) Dispersion method technology for SEM devices

Intellectual Property created or otherwise owned by Seller for the Software Defined Sensing (SDS) system, including technical information, know-how, copyrights, models, designs, drawings, specifications, schematics, circuit board layout designs, prototypes, inventions, improvements, documentation, source code, and executable code for at least:

- (i) SDS system hardware
- (ii) Software for processing data using the SDS system, including at least:
  - a. Event Detection software
  - b. Separation software
  - c. Classification software
  - d. Power estimation software
  - e. Fault detection software
  - f. Machine learning software
  - g. Software stack
  - h. Flow and communication of software components in the SDS system, including at least flow and communication of the Event Detection software, the Separation software, the Classification software, the Power estimation software, the Fault detection software, the Machine learning software, and the Software stack

Intellectual Property created or otherwise owned by Seller for the Demonstration System, including technical information, know-how, copyrights, models, designs, drawings, specifications, schematics, circuit board layout designs, prototypes, inventions, improvements, documentation, source code, and executable code for at least:

- (i) Scopes used in the Demonstration System

- (ii) Probes used in the Demonstration System
- (iii) Computing devices used in the Demonstration System, including at least:
  - a. Personal computers
  - b. Raspberry Pie computing devices
  - c. Tablet computing devices
- (iv) Software used in the Demonstration System, including at least:
  - a. Software run by Raspberry Pie devices to perform data processing and communication with one or more computers
  - b. Software run by one or more personal computers to perform data processing and communication with one or more Raspberry Pie computing devices and one or more Tablet computing devices
  - c. Mobile Application operated by a Tablet computing device to display results of the Demonstration System
- (v) Configuration of the Demonstration System including at least configuration of one or more scopes, one or more probes, one or more personal computers, one or more Raspberry Pie computing devices, and one or more Tablet computing devices, as well as calibration data used in such configuration

SDS Data Library Content created or otherwise owned by Seller including all raw and processed data collected by Seller and any public domain data collected by third parties in possession of Seller, including at least:

- (i) MIT REDD dataset
- (ii) Data collected by Mohammed Tlich
- (iii) Data collected by Jean Charles Le Bunetel

Basecamp Content created or otherwise owned by Seller, including all technical information, know-how, copyrights, models, designs, drawings, specifications, schematics, circuit board layout designs, prototypes, inventions, improvements, documentation, data, source code, and executable code included or documented in such Basecamp content

IP Package Content created or otherwise owned by Seller, including all technical information, know-how, copyrights, models, designs, drawings, specifications, schematics, circuit board layout designs, prototypes, inventions, improvements, documentation, data, source code, and executable code included or documented in the IP Package

Mercurial Archive, to the extent created or otherwise owned by Seller, including archived software from the Mercurial Software Archive and all technical information, know-how, copyrights, models, designs, drawings, specifications, schematics, circuit board layout designs, prototypes, inventions, improvements, documentation, data, source code, and executable code included or documented in the Mercurial Archive

Intellectual Property created or otherwise owned by Seller for Audio Processing technology, including technical information, know-how, copyrights, models, designs, drawings, specifications, schematics, circuit board layout designs, prototypes, inventions, improvements, documentation, source code, and executable code for at least software developed to filter and detect scenes in audio signals

Notwithstanding the foregoing or anything else, all the foregoing (and the Technology Assets) excludes (i) any third party software, (ii) other intellectual property of any other third party, (iii) any hardware, in each case, whether or not incorporated, embedded, or contained therein.