PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4521890

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST
SEQUENCE:	1

CONVEYING PARTY DATA

Name	Execution Date
UBS AG, STAMFORD BRANCH	07/26/2017

RECEIVING PARTY DATA

Name:	COMMUNICATIONS & POWER INDUSTRIES LLC
Street Address:	811 HANSEN WAY
City:	PALO ALTO
State/Country:	CALIFORNIA
Postal Code:	94304
Name:	ASC SIGNAL CORPORATION
Street Address:	811 HANSEN WAY
City:	PALO ALTO
State/Country:	CALIFORNIA
Postal Code:	94304
Name:	CPI MALIBU DIVISION
Street Address:	811 HANSEN WAY
City:	PALO ALTO
State/Country:	CALIFORNIA
Postal Code:	94304
Name:	CPI RADIANT TECHNOLOGIES DIVISION INC.
Street Address:	811 HANSEN WAY
City:	PALO ALTO
State/Country:	CALIFORNIA
Postal Code:	94304

PROPERTY NUMBERS Total: 49

Property Type	Number
Patent Number:	6856081
Patent Number:	7005789
Patent Number:	4690036
Patent Number:	5532462

Property Type	Number
Patent Number:	6456009
Patent Number:	6211657
Patent Number:	6552490
Patent Number:	6236161
Patent Number:	6437510
Patent Number:	6740858
Patent Number:	6867401
Patent Number:	7029296
Patent Number:	7368874
Patent Number:	7145297
Patent Number:	7384293
Patent Number:	7359206
Patent Number:	7242135
Application Number:	11376970
Patent Number:	7733195
Patent Number:	8278812
Patent Number:	7888873
Patent Number:	8076853
Patent Number:	6870318
Patent Number:	5864322
Patent Number:	6198457
Patent Number:	6882311
Patent Number:	6856301
Patent Number:	7868839
Patent Number:	8159410
Patent Number:	7755564
Patent Number:	7872614
Patent Number:	7804464
Patent Number:	6777877
Patent Number:	7420523
Patent Number:	7463212
Application Number:	13135263
Application Number:	13506968
Application Number:	13424460
Patent Number:	6107958
Application Number:	14300214
Application Number:	13843095
Patent Number:	8558753

Property Type	Number
Patent Number:	8199061
Patent Number:	8169377
Patent Number:	7965255
Patent Number:	7965256
Patent Number:	7918423
Patent Number:	6657588
Patent Number:	6943750

CORRESPONDENCE DATA

Fax Number: (650)213-8158

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.

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ATTORNEY DOCKET NUMBER:	1145754-0012
NAME OF SUBMITTER:	CHRISTINA ISHIHARA
SIGNATURE:	/Christina Ishihara/
DATE SIGNED:	07/26/2017

Total Attachments: 10
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RELEASE OF PATENT SECURITY AGREEMENTS

THIS **RELEASE OF PATENT SECURITY AGREEMENTS** (this "Release") is made as of July 26, 2017, by UBS AG, STAMFORD BRANCH, a Swiss bank with offices located at 677 Washington Boulevard, Stamford, CT 06901, in its capacity as collateral agent pursuant to the Credit Agreement (in such capacity, the "Collateral Agent"), in favor of COMMUNICATIONS & POWER INDUSTRIES LLC, a Delaware limited liability company, ASC SIGNAL CORPORATION, a Delaware corporation, CPI MALIBU DIVISION, a California corporation, and CPI RADANT TECHNOLOGIES DIVISION INC., a Massachusetts corporation (individually, a "Pledgor," and, collectively, the "Pledgors"). Unless otherwise defined herein, terms defined in the Security Agreement and used herein have the meaning given to them in the Security Agreement (as defined below).

WHEREAS, the Pledgors are party to: (i) that certain Security Agreement, dated as of April 7, 2014 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Security Agreement"), in favor of the Collateral Agent; (ii) that certain Patent Security Agreement between certain Pledgors and the Collateral Agent, dated as of April 7, 2014; (iii) that certain Patent Security Agreement between certain Pledgors and the Collateral Agent, dated as of August 24, 2015; and (iv) that certain Patent Security Agreement between certain Pledgors and the Collateral Agent, dated as of October 9, 2015 (each of (ii), (iii) and (iv), a "Patent Security Agreement", and together, the "Patent Security Agreements");

WHEREAS, pursuant to the Patent Security Agreements, as collateral security for the payment and performance in full of the Secured Obligations, each Pledgor pledged and granted to the Collateral Agent for the benefit of the Secured Parties a lien on and security interest in and to all of its right, title and interest in, to and under all of the following (collectively, the "Patent Collateral"):

(a) Patents of such Pledgor listed on Schedule I attached hereto; and

(b) all Proceeds of any and all of the foregoing (other than Excluded Property);

WHEREAS, the Patent Security Agreements were recorded with the U.S. Patent & Trademark Office on April 11, 2014, at Reel 032657 and Frame 0219, and on August 24, 2015, at Reel 036401 and Frame 0537, and on October 13, 2015 at Reel 036777 and Frame 0187.

WHEREAS, the Pledgors have requested that the Collateral Agent release, and the Collateral Agent has agreed to release, its lien on and security interest in and to the Patent Collateral and to reconvey any and all rights in the Patent Collateral to the Pledgors.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Collateral Agent hereby terminates the Patent Security Agreements, and hereby terminates, cancels, discharges and releases fully with respect

to each Pledgor any and all liens and security interests it has in and against such Pledgor's Patent Collateral.

If and to the extent the Collateral Agent has acquired any right, title or interest in or to any of the Patent Collateral of any Pledgor, it hereby irrevocably re-assigns and re-transfers all such rights, title and interest it may have in such Patent Collateral (including, without limitation, the Patent Collateral on Schedule I) to such Pledgor and any right, title or interest of the Collateral Agent in such Patent Collateral shall hereby cease and become void.

The Collateral Agent authorizes and requests that the Commissioner of Patents and Trademarks and any other applicable government officer or agency record this Release.

The Collateral Agent shall take all further actions, and provide to the Pledgors and their successors, assigns or other legal representatives, all such cooperation and assistance (including, without limitation, the execution and delivery of any and all documents or other instruments), reasonably requested by the Pledgors, and at Pledgors' sole cost and expense (unless otherwise provided under the Security Agreement), to more fully and effectively effectuate the purposes of this Release.

This Release and the transactions contemplated hereby, and all disputes between the parties under or relating to this Release or the facts or circumstances leading to its execution, whether in contract, tort or otherwise, shall be construed in accordance with and governed by the laws (including statutes of limitation) of the State of New York, without regard to conflicts of law principles that would require the application of the laws of another jurisdiction.

IN WITNESS WHEREOF, the Collateral Agent has caused this Release to be executed and delivered by its duly authorized representative as of the date first set above.

UBS AG, STAMFORD BRANCH,
as Collateral Agent,

By: _____
Name: Darlene Arias
Title: Director

By: _____
Name: Craig Pearson
Title: Associate Director

SCHEDULE I
to
RELEASE OF PATENT SECURITY AGREEMENTS
PATENTS AND PATENT APPLICATIONS

Reel/Frame: 032657/0219

Patent Registrations:

OWNER	REGISTRATION NUMBER	TITLE
Communications & Power Industries, Inc.	6,856,081	Method And Apparatus For Magnetic Focusing Of Off-Axis Electron Beam
Communications & Power Industries, Inc.	7,005,789	Method And Apparatus For Magnetic Focusing Of Off-Axis Electron Beam (Division)
Communications & Power Industries, Inc.	4690036	Method And Apparatus For Focusing Of Off- Axis Electron Beam
Communications & Power Industries, Inc.	5,532,462	Method of and apparatus for heating a reaction vessel with microwave energy
Communications & Power Industries	6,456,009	Adaptive Heater Voltage Algorithm and Control System for Setting and Maintenance of the Heater Voltage of a Vacuum Electron Device
Communications & Power Industries	6,211,657	Two State Power Converter with Interleaved Buck Regulators

OWNER	REGISTRATION NUMBER	TITLE
Communications & Power Industries, Inc.	6,552,490	A Multiple Stage Depressed Collector (MSDC) Klystron-Based Amplifier for Ground-Based Satellite and Terrestrial Communications
Communications & Power Industries, Inc.	6,236,161	Crossed Field Device
Communications & Power Industries, Inc.	6,437,510 EP1155434	Crossed Field Amplifier with Multipactor Suppression
Communications & Power Industries, Inc.	6,740,858 EP1397939	Microwave Applicator for Heating a Moving Fluid
Communications & Powers Industries, Inc.	6,867,401 EP1428287 2002335641 2456227	Waveguide Foreign Object Damage Prevention Window
	0627757 (Foreign)	High Frequency Vacuum Tube with Closely Spaced Cathode and Non-Emissive Grid
Communications & Powers Industries	7,029,296	Cover Assembly for Vacuum Electronic Device
Communications & Powers Industries, Inc., a Satcom Division	7,368,874	Dynamic Depressed Collector

OWNER	REGISTRATION NUMBER	TITLE
Communications & Power Industries, Inc.	7,145,297	L-Band Inductive Output Tube
Communications & Power Industries, Inc.	7,384,293	Breach Lock Mechanism Seating Vacuum Electron Device
Communications & Power Industries, Inc.	7,359,206	Radio Frequency Isolation System and Cover Assembly for Vacuum Electron Device
Communications & Power Industries, Inc.	7,242,135	High Voltage Connection for Vacuum electron device
Communications & Power Industries, Inc.	11/376,970	Liquid Cooling System for Linear Beam Device Electrodes
Communications & Power Industries, Inc.	7,733,195	Waveguide Attenuator Having Coaxial Probes
Communications & Power Industries, Inc.	8,278,812	Grid for Vacuum Electronic Device and Method for manufacture of same
Communications & Power Industries, Inc.	7,888,873	Dynamic Depressed Collector
Communications & Power Industries LLC	8,076,853	Terahertz Sheet Beam Klystron

OWNER	REGISTRATION NUMBER	TITLE
Communications & Power Industries, Inc.	6,870,318	Multiple stage depressed collector (MSDC) kly- stron based amplifier for ground based satellite and terrestrial communications
Communications & Power Industries, Inc.	5,864,322	Dynamic Plasma Driven Antenna
Communications & Power Industries, Inc.	6,198,457	Low-Windload Satellite Antenna
Communications & Power Industries, Inc.	6,882,311	Digital Beamforming Radar System
Communications & Power Industries, Inc.	6,856,301	Plasma Phased Array Electronic Scan Antenna
Communications & Power Industries, Inc.	7,868,839	Planar Scanner Antenna for High Frequency Scanning and Radar Environments
Communications & Power Industries, Inc.	8,159,410	Reflective Antenna Assembly
Communications & Power Industries, Inc.	7,755,564	A Deployable Phasing System for Emulating Reflective Surfaces
CPI Malibu Division	7,872,614	System and Method for Providing a Deployable Phasing Structure

OWNER	REGISTRATION NUMBER	TITLE
Communications & Power Industries, Inc.	7,804,464	Adjustable Paneling System for a Phasing Structure
Communications & Power Industries, Inc.	EP1522084 (Foreign)	Method and Apparatus For Fo-cusing Of Off-Axis Electron Beam
Communications & Power Industries, Inc.	6,777,877	Gun-Only Magnet Used For a Multi-Stage De- pressed Col-lector Kly-stron
Communications & Power Industries, Inc.	39554770 (Foreign)	Input Circuit for RF Amplifier
Communications & Power Industries, Inc.	2784226 (Foreign)	Circular crossed field amplifier especially magnetron construction having cylindrical cathode secondary electron transmission and outer cylindrical anode forming cycloidal electronic trajectory
Radant Technologies, Inc.	7,420,523	B-sandwich radome fabrication
Radant Technologies, Inc.	7,463,212	Lightweight C-sandwich radome fabrication
Radant Technologies, Inc.	13/135,263	Multi-Band, Broadband, High Angle Sandwich Radome Structure

OWNER	REGISTRATION NUMBER	TITLE
Radant Technologies, Inc.	13/506,968	Lightweight, Multi-Band High Angle Sandwich Radome For Millimeter Wave Frequencies
Communications & Power Industries LLC	13/424,460	Cross Field Amplifiers with Reduced Spurious
CPI Malibu Division	6,107,958	Method and Apparatus for Testing an Antenna Control System

Patent Applications:

None

Reel/Frame: 036401/0537

OWNER	APPLICATION NUMBER	TITLE
Communications & Power Industries LLC	14/300,214	Predicting The End of Service Life for A Vacuum Electron Device

Reel/Frame: 036777/0187

Country	Patent/App/ Pub #	Title	Filing Date
US	13/843,095	METHOD FOR SATELLITE BEACON DIRECTION AND ANTENNA ALIGNMENT	2013-03-15 (pending)
US	8,558,753	METHOD FOR ASSEMBLY OF A SEGMENTED REFLECTOR ANTENNA	2011-05-11

Country	Patent/App/ Pub #	Title	Filing Date
US	8,199,061	THERMAL COMPENSATING SUBREFLECTOR TRACKING ASSEMBLY AND METHOD OF USE	2009-08-31
US	8,169,377	DUAL OPPOSED DRIVE LOOP ANTENNA POINTING APPARATUS AND METHOD OF OPERATION	2009-04-06
US	7,965,255	ROTATABLE ANTENNA MOUNT	2008-05-23
US	7,965,256	SEGMENTED ANTENNA REFLECTOR	2008-05-23
US	7,918,423	MOBILE ANTENNA SUPPORT	2008-05-23
US	6,657,588	SATELLITE TRACKING SYSTEM USING ORBITAL TRACKING TECHNIQUES	2002-03-12
US	6,943,750	SELF-POINTING ANTENNA SCANNING	2002-01-22