EXHIBIT 1014

Curriculum Vitae of Lester J. Kozlowski

TRW Automotive U.S. LLC: EXHIBIT 1014
PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NUMBER 8,599,001
IPR2015-00436

Lester J. Kozlowski

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WORK EXPERIENCE

AltaSens, Inc., A JVC Kenwood Company — *July 2013- Present*
Westlake Village, CA
- PRESIDENT, CEO & CTO
- BOARD MEMBER

AltaSens, Inc. — *August 2012 – July 2013*
Westlake Village, CA
- CHIEF OPERATING &TECHNOLOGY OFFICER
- BOARD MEMBER

AltaSens, Inc. — *February 2004 – July 2012*
Westlake Village, CA
- CHIEF TECHNOLOGY OFFICER & FOUNDER

Rockwell Scientific — *June 1987 – February 2004*
Thousand Oaks, CA
- CHIEF TECHNOLOGIST – IMAGING DIVISION
- PRINCIPAL SCIENTIST – ELECTRONIC DEVICE LABORATORY / IMAGING DIVISION
- MANAGER: MIXED-SIGNAL VLSI DEPARTMENT
- MEMBER OF THE TECHNICAL STAFF

Hughes Aircraft Missile Systems Group — *January 1978 - June 1987*
Canoga Park, CA
- MTS, THROUGH SR.SCIENTIST

MAJOR CAREER ACCOMPLISHMENTS

Entrepreneur: *Launched AltaSens by convincing Rockwell management to invest $5M over 5 years in building a spin-off company. Devised and wrote business plan(s), received investment from Rockwell, developed key IP & products, initiated and built business relationships in Japan and elsewhere and helped build a company that became a wholly owned subsidiary of Olympus, Co., of Japan in 2011. Assisted in subsequent divestiture of AltaSens by Olympus, Co. to JVC Kenwood on August 10, 2012. Devised technology and product roadmaps based on new architectural ideas that convinced JVC Kenwood to acquire AltaSens in support of its camera product lines.*

Manager: *I have led and teamed with many colleagues in developing over one hundred imaging sensors including several of the world's first CMOS-based 2-D arrays, world's first 12-bit imaging System-on-Chips (iSoC) for commercial sale, and one of today's first iSoC's with built-in high dynamic range (HDR) signal processing. I helped develop the world's largest infrared sensor in 1992 on a six month schedule, including foundry cajoling and wafer-stitching development, in time for astronomers to dramatically image the collision of fragments from Comet Shoemaker-Levy with Jupiter. I personally handled all of AltaSens' IP with outside counsel thus far resulting in thirty four issued patents and eleven patents pending.*

Multi-Company Collaborator and Cajoler of Technology Partners: *I have worked with over a dozen foundries and convinced several to jointly develop advanced features and process technologies such as the earliest CMOS iSoCs for broadcast TV, 1st large stitched imaging focal plane arrays, imagers with low-noise pixels having only one transistor yet operating at the theoretical limit, and others having elegant, yet simple, circuits achieving read noise as low as one electron. I've also used standard CMOS with highly competitive results. I quickly drove process yield to 75% on a limited budget in only a few lots (in collaboration with UMC) on AltaSens' 2563 sensor soon after the company was formed to generate early revenue and profit.*

Successfully convinced Conexant Systems, of Newport Beach, CA., to start and develop an image sensor business. The imaging division ultimately spun off as a separate company under the name Pictos Technologies. Developed core pixel and sensor noise management IP for Conexant as a corporate consultant.

Scientist and Engineer: *Instrumental in helping build Rockwell Science Center's Imaging Group from a small detector development team to an acknowledged leader in System-on-Chip imaging sensors in 3DIC/hybrid technology. Leading both the internal team and key subcontractors, I led development of nearly 80 imaging sensors. The sensors developed for the Hubble Space Telescope and the upcoming James Webb Space Telescope represent major highlights in my career. The latest visible sensors include the devices in Cisco's Telepresence and Tandberg's videoconferencing systems, and several of Ikegami's broadcast HD cameras.*

Acknowledging my impact in helping grow the Imaging group from a group of a few colleagues, to a department of sixty (at the time of the award), and later to a division of well over 100 by the time the nascent AltaSens team spun off from Rockwell, I was named ***Rockwell's Engineer of the Year in 1995****.*

Acknowledged expert in applying 3DIC technology to advanced image sensors.

Acknowledged expert in image sensor and circuit noise mechanisms, modeling and minimization

Acknowledged expert in advanced imaging arrays, image sensor noise, low-noise amplifier circuits and the supporting semiconductor process technologies for yielding the best possible results.

Acknowledged Expert in Image Sensor IP: *Technical expert in Intellectual Property related to various aspects of CCD & CMOS Image sensors including process technology, pixel design, signal readout, and low-noise architectures capable of operating at low levels of power dissipation.*

The various image sensors I have helped develop have been successfully deployed in the Hubble Space Telescope, professional broadcast cameras, early HD camcorders, today's videoconferencing systems, UAVs, prototype missiles, advanced breadboard systems and the forthcoming James Webb Space Telescope.

EDUCATION

University of Illinois at Chicago *1971 - 1977*
Chicago, Illinois
MSEE, BSEE

MS THESIS: LONG DISTANCE COMMUNICATION VIA OPTICAL FIBERS.
GRADUATE EMPHASIS: E-O WAVEGUIDES, SOLID STATE PHYSICS & MATH.

PROFESSIONAL MEMBERSHIPS

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE), SENIOR MEMBER, ELECTRON DEVICES SOCIETY

SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS (SMPTE)

SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE)

PATENTS AND PUBLICATIONS

150 PUBLICATIONS INCLUDING 30 PEER-REVIEWED ARTICLES

CO-WROTE CHAPTER 33, "INFRARED DETECTOR ARRAYS," IN THE THIRD EDITION OF THE OPTICAL SOCIETY OF AMERICA'S "HANDBOOK OF OPTICS" ISBN: 0071498907/9780071498906 (MCGRAW HILL, 2009)

CO-WROTE CHAPTER 23, "INFRARED IMAGING ARRAYS," IN THE SECOND EDITION OF THE OPTICAL SOCIETY OF AMERICA'S "HANDBOOK OF OPTICS" (MCGRAW HILL, 1994)

35 PATENTS IN GENERAL FIELD OF IMAGING SENSORS AND SPECIFIC AREAS OF ISOC & LOW NOISE AMPLIFIERS

SECURITY CLEARANCE

SECRET & SCI CLEARANCES AT ROCKWELL AND HUGHES AIRCRAFT

AWARDS

2000 ROCKWELL CHAIRMAN'S TEAM AWARD
1999 NASA OUTSTANDING TEAM AWARD
1995 ROCKWELL ENGINEER OF THE YEAR
BEST PAPER OF 1994. IRIS DETECTOR SPECIALTY GROUP
OUTSTANDING PAPER OF 1985. HUGHES AIRCRAFT MISSILE SYSTEMS GROUP
OUTSTANDING PAPER OF 1984. HUGHES AIRCRAFT MISSILE SYSTEMS GROUP

Kozlowski: Issued US Patents

Inventors	Title	Ser/ No/	Filed	Pat/ No/	Issued
Kozlowski, Tennant	Electronically Scanned Buffered Direct Injection	124,485	9/21/93	5,382,977	1/17/95
Kozlowski, Kleinhans	Low Noise Amplifier for Passive Pixel CMOS Imager	662,382	6/13/96	5,892,540	4/06/99
Kozlowski, Kleinhans	Ultra-Low Noise High Bandwidth Circuit for Single-Photon Readout of Photodetectors	08/910,342	8/13/97	5,929,434	7/27/99
Kozlowski	Compact Ultra-Low Noise, High-Bandwidth Pixel Amp for Single-Photon Readout of Photodetectors	09/675,735	9/27/00	6,417,504	7/09/02
Tennant, Tomasini, Kozlowski	Ranging Three-Dimensional Imager and Method	09/408,329	9/29/99	6,448,572	9/10/02
Kozlowski, DeWames, McDermott	Room Temperature, Low Light Level Visible Imager	09/557,133	4/25/00	6,476,374	11/5/02
Kozlowski, DeWames, McDermott	High performance ultraviolet imager for operation at room temperature	09/669,244	9/25/00	6,483,116	11/19/02
Kozlowski, Standley	Low-Noise Active Pixel Sensor for Imaging Arrays with Global Reset	09/057,202	4/8/98	6,493,030	12/10/02
Kozlowski, Mann	Method and Apparatus for Achieving Uniform Low Dark Current with CMOS Photodiodes	09/468,696	12/21/99	6,498,331	12/24/02
Kozlowski	Adaptive Amplifier circuit with Enhanced Dynamic Range	09/675,483	9/30/00	6,504,141	1/07/02
Kozlowski, Standley	Low Noise CMOS Active Pixel Sensor with High Speed Row Reset	09/149,937	9/9/98	6,532,040	3/11/03
Kozlowski, Standley	Active Pixel Sensor with Capacitor-less Correlated Double Sampling	09/081,541	5/19/98	6,535,247	3/18/03
Kozlowski	Amplified CMOS Transducer for Single Photon Readout of Photodetectors	09/696,919	10/26/00	6,538,245	3/25/03
Kozlowski, Standley	Low Noise CMOS Active Pixel Sensor with High Speed Row Reset	09/164,923	10/1/98	6,587,142	7/1/03
Kozlowski, Standley	Compact Low Noise APS Imager with Progressive Row Reset	09/057,423	4/8/98	6,697,111	2/24/04
Tennant, Kozlowski, Tomasini	Shared Output Visible Imager Pixel Concept	09/408,919	9/30/99	6,750,912	6/15/04
Mann, Kozlowski	Tapered Threshold Reset FET for CMOS Imagers	10/119,982	10/03/00	6,768,149	7/27/04
Kozlowski, Standley	Low Noise Active Pixel Sensor for Imaging Arrays with Global Reset	09/268,913	3/16/99	6,809,767	10/26/04
Kozlowski, Tennant, Kleinhans	Self-Adjusting Adaptive Minimal-Noise Input	09/675,278	09/29/00	6,873,359	3/29/05
Kozlowski	Compact Active Pixel with Low-Noise Image Formation	09/697,203	9/30/00	6,888,572	5/03/05
Kozlowski, Tennant	High Gain Detector Amplifier with Enhanced Dynamic Range	09/675,487	09/29/00	6,900,839	5/31/05
Mann, Kozlowski	Tapered Threshold Reset FET for CMOS Imagers	10/119,982	10/03/00	6,902,945	6/7/05
Kozlowski	Compact Active Pixel with Low-Noise Snapshot Image Formation	09/675,488	9/30/00	6,965,707	11/15/05
Kozlowski, Chang, Ho	CMOS Imager having a JFET adapted to detect photons & produce an amplified electrical signal	09/557,454	04/24/00	7,009,647	3/07/06
Kozlowski	CMOS Imaging System with Low Fixed Pattern Noise	10/776,952	2/11/04	7,046,284	5/16/06
Mann, Kozlowski	Gradual Reset Voltage Reduction for Resetting an	11/061,680	2/17/05	7,064,313	6/20/06

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