

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5306628

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	GRANT OF SECURITY INTEREST IN PATENTS	
CONVEYING PARTY DATA		
	Name	Execution Date
	ELECTRONICS FOR IMAGING, INC.	01/02/2019
RECEIVING PARTY DATA		
Name:	CITIBANK, N.A., AS ADMINISTRATIVE AGENT	
Street Address:	COMMERCIAL COLLATERAL CONTROL, ATTN: COLLATERAL CONTROL MAIL STOP CC1-30 6400 LAS COLINAS BLVD	
City:	IRVING	
State/Country:	TEXAS	
Postal Code:	75039	
PROPERTY NUMBERS Total: 324		
Property Type	Number	
Patent Number:	6757440	
Patent Number:	6757436	
Patent Number:	7460721	
Patent Number:	6678068	
Patent Number:	6025922	
Patent Number:	6215562	
Patent Number:	6201614	
Patent Number:	6590676	
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Patent Number:	6552815	
Patent Number:	6327050	
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Patent Number:	7884962	
Patent Number:	6930795	
PATENT		

Property Type	Number
Patent Number:	6327047
Patent Number:	7212312
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Patent Number:	7031015
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Patent Number:	6967728
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Property Type	Number
Patent Number:	7453596
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Patent Number:	7522770
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Patent Number:	7880934
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Patent Number:	7688486
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Patent Number:	9336465
Application Number:	15150184
Patent Number:	8810876
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Property Type	Number
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Property Type	Number
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Application Number:	15605770
Application Number:	15715965
Patent Number:	9862849
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Application Number:	15809970
Application Number:	15876075
Application Number:	62712879
Patent Number:	7367060
Application Number:	16173339
PCT Number:	US2017041130
PCT Number:	US2017046571
PCT Number:	US2017053492
PCT Number:	US2017056209
PCT Number:	US2017058526
PCT Number:	US2017065122
PCT Number:	US2017065126

CORRESPONDENCE DATA**Fax Number:** (212)310-8007***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:** 212.310.8000**Email:** juan.arias@weil.com**Correspondent Name:** JACKSON ALLDREDGE**Address Line 1:** WEIL, GOTSHAL & MANGES LLP**Address Line 2:** 767 FIFTH AVENUE**Address Line 4:** NEW YORK, NEW YORK 10153

NAME OF SUBMITTER:	JACKSON ALLDREDGE
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SIGNATURE:	/JACKSON ALLDREDGE/
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DATE SIGNED:	01/03/2019
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Total Attachments: 17

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GRANT OF SECURITY INTEREST IN PATENTS

THIS GRANT OF SECURITY INTEREST IN PATENTS (this "Security Grant"), dated as of January 2, 2019, is made by Electronics For Imaging, Inc, a Delaware corporation (the "Grantor"), and Citibank, N.A., in its capacity as administrative agent (the "Administrative Agent") for the Secured Parties under and as defined in the Credit Agreement referred to below.

WITNESSETH:

WHEREAS, pursuant to the Credit Agreement, dated as of January 2, 2019 (as the same may be amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among the Grantor, the financial institutions party thereto as Lenders and the Administrative Agent, Lenders agreed to make extensions of credit to the Grantor upon the terms and subject to the conditions set forth therein; and

WHEREAS, the Grantor is party to the Security Agreement of even date herewith in favor of the Administrative Agent (the "Security Agreement") pursuant to which the Grantor is required to execute and deliver this Security Grant;

NOW, THEREFORE, in consideration of the premises and to induce the Administrative Agent to enter into the Credit Agreement, the Grantor hereby agrees with the Administrative Agent as follows:

Section 1. Defined Terms. Capitalized terms used herein without definition are used as defined in the Security Agreement.

Section 2. Grant of Security Interest in Patent Collateral. The Grantor hereby pledges, assigns and grants to the Administrative Agent, on behalf of and for the benefit of the Secured Parties, a security interest in all of its right, title and interest in, to and under the following Collateral of the Grantor (the "Patent Collateral")

- a. all of its Patents, including, without limitation, those referred to on Schedule 1 hereto;
- b. all reissues, divisions, continuations, renewals, extensions and continuations-in-part thereof; and
- c. all income, royalties, proceeds and liabilities at any time due or payable or asserted under and with respect to any of the foregoing, including, without limitation, all rights to sue and recover at law or in equity for any past, present and future infringement, misappropriation, dilution, violation or other impairment thereof.

Section 3. Security Agreement. The security interest granted in connection with this Security Grant is granted in conjunction with the security interest granted to the Administrative Agent pursuant to the Security Agreement and the Grantor hereby acknowledges and agrees that the rights and remedies of the Administrative Agent with respect to the security interest in the Patent Collateral made and granted hereby are fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

Section 4. Grantor Remains Liable. The Grantor hereby agrees that, anything herein to the contrary notwithstanding, the Grantor shall assume full and complete responsibility for the prosecution, defense, enforcement or any other necessary or desirable actions in connection with their Patents.

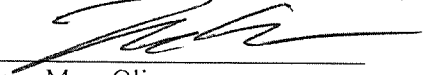
Section 5. Counterparts. This Security Grant may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart.

Section 6. Governing Law. This Security Grant and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the law of the State of New York.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the Grantor has caused this Security Grant to be executed and delivered by its duly authorized officer as of the date first set forth above.

ELECTRONICS FOR IMAGING, INC., as a Grantor

By: 

Name: Marc Olin

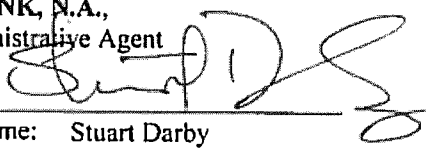
Title: Chief Financial Officer

ACCEPTED AND AGREED
as of the date first above written:

CITIBANK, N.A.,
as Administrative Agent

By: _____

Name: Stuart Darby
Title: Senior Vice President

A handwritten signature in black ink, appearing to read 'Stuart Darby', is written over a horizontal line. The signature is stylized with a large 'S' and a long, sweeping tail.

SIGNATURE PAGE TO GRANT OF SECURITY INTEREST IN PATENTS

PATENT
REEL: 048002 FRAME: 0148

SCHEDULE I
TO
GRANT OF SECURITY INTEREST IN PATENTS

Patent Registrations

(See attached)

FILE NUMBER	COUNTRY	APP NO	FILING DATE	PATENT NO	GRANT DATE	TITLE	STATUS	MATTER TYPE
110656-8009.US02	United States of America	10/198,505	2002-07-18	6,757,440	2004-06-29	METHODS AND APPARATUS FOR DATA COMPRESSION	Issued	Utility
110656-8009.US03	United States of America	10/324,796	2002-12-19	6,757,436	2004-06-29	METHODS AND APPARATUS FOR DATA COMPRESSION WITH A HYBRID CONTEXT	Issued	Utility
110656-8009.US05	United States of America	11/381,585	2006-05-04	7,460,721	2008-12-02	METHODS AND APPARATUS FOR DATA COMPRESSION WITH A HYBRID CONTEXT	Issued	Utility
110656-8056.US01	United States of America	09/267,093	1999-03-11	6,678,068	2004-01-13	CLIENT PRINT SERVER LINK FOR OUTPUT PERIPHERAL DEVICE	Issued	Utility
110656-8057.US01	United States of America	09/216,333	1998-12-18	6,025,922	2000-02-15	REDUCTION OF BANDING IN PRINTED IMAGES	Issued	Utility
110656-8058.US01	United States of America	09/215,575	1998-12-16	6,215,562	2001-04-10	VISUAL CALIBRATION	Issued	Utility
110656-8059.US01	United States of America	09/220,324	1998-12-24	6,201,614	2001-03-13	DITHERED IMAGE COMPRESSION SYSTEM	Issued	Utility
110656-8062.US01	United States of America	09/314,573	1999-05-18	6,590,676	2003-07-08	IMAGE RECONSTRUCTION ARCHITECTURE	Issued	Utility
110656-8062.US02	United States of America	10/428,503	2003-05-02	7,177,049	2007-02-13	IMAGE RECONSTRUCTION ARCHITECTURE	Issued	Utility
110656-8062.US03	United States of America	11/674,534	2007-02-13	7,564,583	2009-07-21	METHODS AND APPARATUS FOR RECONSTRUCTING DIGITIZED IMAGES	Issued	Utility
110656-8062.US04	United States of America	12/204,732	2008-09-04	7,684,085	2010-03-23	METHODS AND APPARATUS FOR RECONSTRUCTING DIGITIZED IMAGES	Issued	Utility
110656-8063.US01	United States of America	09/293,637	1999-04-15	6,289,122	2001-09-11	INTELLIGENT DETECTION OF TEXT ON A PAGE	Issued	Utility
110656-8064.US01	United States of America	09/570,678	2000-05-12	6,741,262	2004-05-25	EXPERT COLOR MANAGEMENT SETTINGS METHOD AND INTERFACE	Issued	Utility
110656-8065.US01	United States of America	09/267,751	1999-03-10	6,292,270	2001-09-18	SOFTWARE VALIDATION METHOD AND SYSTEM	Issued	Utility
110656-8065.US02	United States of America	09/919,645	2001-07-31	6,552,815	2003-04-22	SOFTWARE VALIDATION METHOD AND SYSTEM	Issued	Utility
110656-8069.US01	United States of America	09/298,639	1999-04-23	6,327,050	2001-12-04	PAGE INDEPENDENT MULTIPLE RIP SYSTEM	Issued	Utility
110656-8069.US02	United States of America	09/770,856	2001-01-26	6,559,958	2003-05-06	PRINTING METHOD AND APPARATUS HAVING MULTIPLE RASTER IMAGE PROCESSORS	Issued	Utility
110656-8069.US03	United States of America	10/430,850	2003-05-05	6,879,409	2005-04-12	PRINTING METHOD AND APPARATUS HAVING MULTIPLE RASTER IMAGE PROCESSORS	Issued	Utility
110656-8069.US04	United States of America	11/169,131	2005-06-27	7,884,962	2011-02-08	SYSTEMS AND METHODS FOR MULTIPLE RASTER IMAGE PROCESSING	Issued	Utility
110656-8069.US05	United States of America	09/514,465	2000-02-28	6,930,795	2005-08-16	PRINTING METHOD AND APPARATUS HAVING MULTIPLE RASTER IMAGE PROCESSORS	Issued	Utility
110656-8070.US01	United States of America	09/235,642	1999-01-22	6,327,047	2001-12-04	AUTOMATIC SCANNER CALIBRATION	Issued	Utility
110656-8070.US02	United States of America	09/976,880	2001-10-11	7,212,312	2007-05-01	AUTOMATIC SCANNER CALIBRATION	Issued	Utility
110656-8070.US03	United States of America	11/742,367	2007-04-30	7,812,999	2010-10-12	METHODS AND APPARATUS FOR AUTOMATIC SCANNER CALIBRATION	Issued	Utility
110656-8071.US01	United States of America	09/977,097	2001-10-11	6,549,294	2003-04-15	VARIABLE DATA PRINT JOB SYSTEM	Issued	Utility
110656-8071.US02	United States of America	10/375,572	2003-02-27	6,836,342	2004-12-28	VARIABLE DATA PRINT JOB SYSTEM	Issued	Utility
110656-8071.US03	United States of America	10/971,512	2004-10-22	7,031,015	2006-04-18	VARIABLE DATA PRINT JOB SYSTEM	Issued	Utility
110656-8071.US04	United States of America	09/481,736	2000-01-11	6,341,018	2002-01-22	PREPROCESSING METHOD FOR A VARIABLE DATA PRINT JOB SYSTEM	Issued	Utility
110656-8072.US01	United States of America	09/360,861	1999-07-23	6,967,728	2005-11-22	REUSABLE AND TRANSFERABLE PRINTER DRIVER PREFERENCE SYSTEM	Issued	Utility
110656-8072.US02	United States of America	11/236,137	2005-09-27	8,294,925	2012-10-23	APPARATUS AND METHODS FOR TRANSFERRING PRINTER DRIVER PREFERENCES	Issued	Utility
110656-8072.US03	United States of America	13/656,493	2012-10-19	8,860,998	2014-10-14	APPARATUS AND METHODS FOR TRANSFERRING PRINTER DRIVER PREFERENCES	Issued	Utility
110656-8073.US01	United States of America	09/513,538	2000-02-25	6,643,317	2003-11-04	DIGITAL SPREAD SPECTRUM SIMULATOR	Issued	Utility

110656-8077.US01	United States of America	09/329,656	1999-06-10	6,856,428	2005-02-15	BLACK TEXT PRINTING FROM PAGE DESCRIPTION LANGUAGES	Issued	Utility
110656-8131.US01	United States of America	11/530,793	2006-09-11	8,243,326	2012-08-14	METHODS AND APPARATUS FOR COLOR PROFILE EDITING	Issued	Utility
110656-8131.US02	United States of America	11/557,909	2006-11-08	8,013,871	2011-09-06	APPARATUS AND METHOD FOR SELECTIVE COLOR EDITING OF COLOR PROFILES	Issued	Utility
110656-8134.US01	United States of America	11/530,825	2006-09-11	7,598,964	2009-10-06	APPARATUS AND METHODS FOR EDITING HUE AND SATURATION IN COLOR PROFILES	Issued	Utility
110656-8200.US01	United States of America	09/693,695	2000-10-19	6,519,053	2003-02-11	METHOD AND APPARATUS FOR SMART JOB TICKET PROCESSING FOR PRINT STREAMS	Issued	Utility
110656-8201.US02	United States of America	09/803,395	2001-03-08	6,816,276	2004-11-09	EFFICIENTLY SCHEDULED MULTIPLE RASTER IMAGE PROCESSORS	Issued	Utility
110656-8205.US01	United States of America	09/267,223	1999-03-11	7,304,753	2007-12-04	SYSTEMS FOR PRINT JOB MONITORING	Issued	Utility
110656-8205.US02	United States of America	11/949,681	2007-12-03	7,800,773	2010-09-21	METHODS FOR PRINT JOB MONITORING	Issued	Utility
110656-8207.US01	United States of America	09/464,226	1999-12-15	6,490,696	2002-12-03	SYSTEM AND METHOD FOR PRINTER OUTPUT REGRESSION TESTING USING DISPLAY LISTS	Issued	Utility
110656-8215.US01	United States of America	09/661,489	2000-09-14	7,002,700	2006-02-21	METHOD AND SYSTEM FOR MERGING SCAN FILES INTO A COLOR WORKFLOW	Issued	Utility
110656-8215.US02	United States of America	11/327,070	2006-01-05	8,139,256	2012-03-20	METHOD AND SYSTEM FOR MERGING SCAN FILES INTO A COLOR WORKFLOW	Issued	Utility
110656-8219.US01	United States of America	09/808,791	2001-03-14	6,778,700	2004-08-17	METHOD AND APPARATUS FOR TEXT DETECTION	Issued	Utility
110656-8220.US01	United States of America	09/814,455	2001-03-22	6,550,991	2003-04-22	PAPER TRAY ADJUSTMENT PAGE	Issued	Utility
110656-8225.US01	United States of America	09/661,968	2000-09-14	6,572,293	2003-06-03	SIMPLE AND INEXPENSIVE HIGH-CAPACITY OUTPUT CATCH TRAY FOR DOCUMENT PRODUCTION MACHINES	Issued	Utility
110656-8225.US02	United States of America	10/404,942	2003-03-31	6,832,865	2004-12-21	SIMPLE AND INEXPENSIVE HIGH-CAPACITY OUTPUT CATCH TRAY FOR DOCUMENT PRODUCTION MACHINES	Issued	Utility
110656-8225.US03	United States of America	10/983,431	2004-11-08	7,204,484	2007-04-17	SIMPLE AND INEXPENSIVE HIGH-CAPACITY OUTPUT CATCH TRAY FOR DOCUMENT PRODUCTION MACHINES	Issued	Utility
110656-8225.US04	United States of America	11/557,762	2006-11-08	7,367,559	2008-05-06	SIMPLE AND INEXPENSIVE HIGH-CAPACITY OUTPUT CATCH TRAY FOR DOCUMENT PRODUCTION MACHINES	Issued	Utility
110656-8225.US05	United States of America	12/115,480	2008-05-05	7,552,923	2009-06-30	SIMPLE AND INEXPENSIVE HIGH-CAPACITY OUTPUT CATCH TRAY FOR DOCUMENT PRODUCTION MACHINES	Issued	Utility
110656-8227.US01	United States of America	09/693,518	2000-10-19	7,081,969	2006-07-25	AUTOMATIC PRINT LOAD BALANCING	Issued	Utility
110656-8228.US01	United States of America	10/808,910	2004-03-24	7,653,683	2010-01-26	SYSTEMS FOR PROVIDING INFORMATION ACCESS TO NETWORK DEVICES	Issued	Utility
110656-8229.US01	United States of America	09/721,548	2000-11-21	6,543,871	2003-04-08	MASK GENERATOR AND IMAGE MASK PATTERNS	Issued	Utility
110656-8233.US01	United States of America	10/631,115	2003-07-31	7,859,689	2010-12-28	METHODS AND APPARATUS FOR ANALYZING ELECTRONIC DOCUMENTS AND DIGITAL PRINTING SYSTEMS	Issued	Utility
110656-8233.US02	United States of America	12/970,733	2010-12-16	8,169,630	2012-05-01	METHODS AND APPARATUS FOR ANALYZING ELECTRONIC DOCUMENTS AND DIGITAL PRINTING SYSTEMS	Issued	Utility
110656-8243.US01	United States of America	09/791,111	2001-02-22	6,549,300	2003-04-15	METHOD AND APPARATUS FOR TAB PRINTING	Issued	Utility
110656-8248.US01	United States of America	10/946,232	2004-09-20	7,869,079	2011-01-11	METHODS AND APPARATUS FOR PRINT JOB SUBMISSION	Issued	Utility
110656-8248.US02	United States of America	12/959,171	2010-12-02	8,107,122	2012-01-31	METHODS AND APPARATUS FOR PRINT JOB SUBMISSION	Issued	Utility
110656-8260.US01	United States of America	09/895,043	2001-06-29	6,992,792	2006-01-31	DIGITAL PULSE WIDTH MODULATOR FOR USE IN ELECTROSTATIC PRINTING MECHANISMS	Issued	Utility

110656-8260.US02	United States of America	11/301,894	2005-12-13	7,453,596	2008-11-18	DIGITAL PULSE WIDTH MODULATOR FOR USE IN ELECTROSTATIC PRINTING MECHANISMS	Issued	Utility
110656-8261.US01	United States of America	11/224,486	2005-09-12	7,302,095	2007-11-27	METHOD AND APPARATUS FOR AUTOMATED IMAGE CORRECTION FOR DIGITAL IMAGE ACQUISITION	Issued	Utility
110656-8261.US02	United States of America	11/944,302	2007-11-21	7,522,770	2009-04-21	METHODS AND APPARATUS FOR AUTOMATED IMAGE CORRECTION FOR DIGITAL IMAGE ACQUISITION	Issued	Utility
110656-8267.US01	United States of America	09/791,007	2001-02-22	7,461,377	2008-12-02	METHOD AND APPARATUS FOR AUTOMATICALLY MANAGING CAPABILITIES IN A VIRTUAL PRINTER GROUP	Issued	Utility
110656-8279.US01	United States of America	10/318,547	2002-12-12	7,307,761	2007-12-11	METHOD AND APPARATUS FOR WATERMARKING DIGITALLY PRINTED DOCUMENTS	Issued	Utility
110656-8279.US02	United States of America	11/952,084	2007-12-06	7,880,934	2011-02-01	METHODS AND APPARATUS FOR WATERMARKING DIGITALLY PRINTED DOCUMENTS	Issued	Utility
110656-8279.US03	United States of America	12/964,461	2010-12-09	8,014,036	2011-09-06	METHODS AND APPARATUS FOR WATERMARKING DIGITALLY PRINTED DOCUMENTS	Issued	Utility
110656-8289.US01	United States of America	09/991,036	2001-11-20	7,480,070	2009-01-20	SPOT COLOR PATTERN SYSTEM	Issued	Utility
110656-8297.US02	United States of America	12/110,329	2008-04-27	8,601,605	2013-12-03	METHODS AND APPARATUS FOR SECURE DOCUMENT PRINTING	Issued	Utility
110656-8297.US03	United States of America	14/076,962	2013-11-11	8,782,808	2014-07-15	METHODS AND APPARATUS FOR SECURE DOCUMENT PRINTING	Issued	Utility
110656-8297.US04	United States of America	14/328,539	2014-07-10	9,134,935	2015-09-15	METHODS AND APPARATUS FOR SECURE DOCUMENT PRINTING	Issued	Utility
110656-8302.US01	United States of America	10/836,071	2004-04-30	7,742,204	2010-06-22	METHODS AND APPARATUS FOR DETERMINING A TOTAL COLORANT LIMIT FOR DIGITAL IMAGING DEVICES	Issued	Utility
110656-8305.US01	United States of America	10/047,505	2001-10-26	7,177,045	2007-02-13	PROCESS AND SYSTEM FOR MIXED PAGE IMPOSITION	Issued	Utility
110656-8305.US02	United States of America	11/674,052	2007-02-12	7,800,776	2010-09-21	METHODS AND APPARATUS FOR MIXED PAGE IMPOSITION	Issued	Utility
110656-8306.US01	United States of America	10/324,771	2002-12-19	7,259,893	2007-08-21	METHODS AND APPARATUS FOR GRAY COMPONENT REPLACEMENT BLENDING	Issued	Utility
110656-8306.US02	United States of America	11/840,926	2007-08-17	7,729,014	2010-06-01	SYSTEMS FOR GRAY COMPONENT REPLACEMENT BLENDING	Issued	Utility
110656-8314.US01	United States of America	10/154,643	2002-05-24	6,781,596	2004-08-24	METHODS AND APPARATUS FOR CONVERTING COLOR VALUES	Issued	Utility
110656-8314.US02	United States of America	10/897,958	2004-07-23	6,950,110	2005-09-27	METHODS AND APPARATUS FOR CONVERTING COLOR VALUES	Issued	Utility
110656-8314.US03	United States of America	11/223,656	2005-09-09	7,259,768	2007-08-21	METHODS AND APPARATUS FOR CONVERTING COLOR VALUES	Issued	Utility
110656-8314.US04	United States of America	11/841,301	2007-08-20	7,756,346	2010-07-13	METHODS AND APPARATUS FOR CONVERTING COLOR VALUES	Issued	Utility
110656-8320.US01	United States of America	10/377,193	2003-02-28	7,528,974	2009-05-05	METHODS AND APPARATUS FOR PROVIDING UNIVERSAL PRINT SERVICES AND ASYNCHRONOUS MESSAGE SERVICES	Issued	Utility
110656-8500.US01	United States of America	10/836,177	2004-04-30	7,724,392	2010-05-25	METHODS AND APPARATUS FOR CALIBRATING DIGITAL IMAGING DEVICES	Issued	Utility
110656-8501.US01	United States of America	10/836,070	2004-04-30	7,688,486	2010-03-30	METHODS AND APPARATUS FOR PROFILING COLOR OUTPUT DEVICES	Issued	Utility
110656-8503.US01	United States of America	09/688,457	2000-10-16	6,859,832	2005-02-22	METHODS AND SYSTEMS FOR THE PROVISION OF PRINTING SERVICES	Issued	Utility
110656-8503.US02	United States of America	10/984,464	2004-11-08	7,552,207	2009-06-23	SYSTEMS FOR THE PROVISION OF PRINTING SERVICES	Issued	Utility
110656-8505.US01	United States of America	12/925,945	2010-11-01	9,971,551	2018-05-15	PREVISUALIZATION FOR LARGE FORMAT PRINT JOBS	Issued	Utility
110656-8506.US01	United States of America	10/718,211	2003-11-20	7,672,013	2010-03-02	METHODS AND APPARATUS FOR ELECTRONICALLY TRAPPING DIGITAL IMAGES	Issued	Utility
110656-8507.US01	United States of America	10/511,179	2003-04-07	7,495,812	2009-02-24	PRINTING DEVICE USING COLOR PROFILE CALIBRATION AND METHOD FOR OPERATING A PRINTING DEVICE USING COLOR PROFILE CALIBRATION	Issued	Utility

110656-8508.US01	United States of America	10/922,419	2004-08-20	7,097,369	2006-08-29	METHOD AND APPARATUS FOR INSERTING TABS IN A PRINT JOB	Issued	Utility
110656-8508.US02	United States of America	11/465,523	2006-08-18	7,706,015	2010-04-27	METHODS AND APPARATUS FOR INSERTING TABS IN A PRINT JOB	Issued	Utility
110656-8509.US01	United States of America	09/688,458	2000-10-16	6,978,299	2005-12-20	PRINT DRIVER APPARATUS AND METHODS FOR FORWARDING A PRINT JOB OVER A NETWORK	Issued	Utility
110656-8510.US01	United States of America	10/909,713	2004-08-02	7,738,710	2010-06-15	METHODS AND APPARATUS FOR COMMUNICATING AND DISPLAYING COMPRESSED IMAGE DATA	Issued	Utility
110656-8511.US01	United States of America	11/361,434	2006-02-23	7,302,103	2007-11-27	APPARATUS AND METHODS FOR DIGITAL IMAGE COMPRESSION	Issued	Utility
110656-8511.US02	United States of America	11/944,372	2007-11-21	7,397,961	2008-07-08	APPARATUS AND METHODS FOR DIGITAL IMAGE COMPRESSION	Issued	Utility
110656-8512.US01	United States of America	10/149,099	2001-10-04	7,245,400	2007-07-17	METHOD AND DEVICE FOR PROOFING RASTER PRINT DATA WHILE MAINTAINING THE RASTER INFORMATION	Issued	Utility
110656-8512.US02	United States of America	11/778,630	2007-07-16	7,397,583	2008-07-08	METHOD AND DEVICE FOR PROOFING RASTER PRINT DATA WHILE MAINTAINING THE RASTER INFORMATION	Issued	Utility
110656-8512.US03	United States of America	12/168,812	2008-07-07	8,730,525	2014-05-20	METHOD AND DEVICE FOR PROOFING RASTER PRINT DATA WHILE MAINTAINING THE RASTER INFORMATION	Issued	Utility
110656-8513.US01	United States of America	09/688,475	2000-10-16	7,095,518	2006-08-22	SPOOLING SERVER APPARATUS AND METHODS FOR RECEIVING, STORING, AND FORWARDING A PRINT JOB OVER A NETWORK	Issued	Utility
110656-8513.US02	United States of America	11/329,993	2006-01-11	7,460,265	2008-12-02	APPARATUS AND METHODS FOR PRINTING A PRINT JOB OVER A NETWORK	Issued	Utility
110656-8514.US01	United States of America	10/416,198	2001-11-09	6,866,434	2005-03-15	METHOD OF MONITORING AT LEAST ONE PRINTING PARAMETER OF A PRINTER, AND PRINTING SYSTEM	Issued	Utility
110656-8514.US02	United States of America	10/912,240	2004-08-06	7,738,147	2010-06-15	METHOD OF MONITORING AT LEAST ONE PRINTING PARAMETER OF PRINTER, METHOD OF DETERMINING AND SENDING AT LEAST ONE PRINTING PARAMETER OF A PRINTER, PRINTING SYSTEM AND PRINTER	Issued	Utility
110656-8517.US01	United States of America	10/836,072	2004-04-30	7,630,106	2009-12-08	METHODS AND APPARATUS FOR DETERMINING COLORANT LIMITS FOR CALIBRATING DIGITAL IMAGING DEVICES	Issued	Utility
110656-8518.US01	United States of America	10/840,569	2004-05-05	7,688,458	2010-03-30	METHODS AND APPARATUS FOR PRINT WORKFLOW PROCESSING	Issued	Utility
110656-8519.US01	United States of America	09/688,567	2000-10-16	6,748,471	2004-06-08	METHOD AND APPARATUS FOR REQUESTING AND RECEIVING A PRINT JOB VIA A PRINTER POLLING DEVICE ASSOCIATE WITH A PRINTER	Issued	Utility
110656-8519.US02	United States of America	10/753,634	2004-01-07	7,093,046	2006-08-15	METHOD AND APPARATUS FOR SECURELY REQUESTING AND RECEIVING A PRINT JOB VIA A PRINTER POLLING DEVICE ASSOCIATED WITH A PRINTER	Issued	Utility
110656-8519.US03	United States of America	11/428,614	2006-07-05	7,343,438	2008-03-11	METHOD AND APPARATUS FOR REQUESTING AND RECEIVING A PRINT JOB VIA A PRINTER POLLING DEVICE ASSOCIATE WITH A PRINTER	Issued	Utility
110656-8519.US04	United States of America	12/044,996	2008-03-09	7,574,546	2009-08-11	METHODS AND APPARATUS FOR REQUESTING AND RECEIVING A PRINT JOB AT A PRINTER	Issued	Utility
110656-8519.US05	United States of America	10/896,336	2004-07-21	7,574,545	2009-08-11	METHOD AND APPARATUS FOR CONTROLLING A DOCUMENT OUTPUT DEVICE WITH A CONTROL REQUEST STORED AT A SERVER	Issued	Utility
110656-8526.US01	United States of America	10/850,644	2004-05-21	7,506,253	2009-03-17	METHOD AND APPARATUS FOR RECORDING WEB INFORMATION	Issued	Utility
110656-8528.US01	United States of America	10/880,630	2004-06-29	7,389,452	2008-06-17	METHODS AND APPARATUS FOR MONITORING INTERNAL SIGNALS IN AN INTEGRATED CIRCUIT	Issued	Utility

110656-8528.US02	United States of America	12/140,266	2008-06-17	7,669,096	2010-02-23	METHODS AND APPARATUS FOR MONITORING INTERNAL SIGNALS IN AN INTEGRATED CIRCUIT	Issued	Utility
110656-8529.US01	United States of America	10/855,602	2004-05-26	7,463,374	2008-12-09	METHODS AND APPARATUS FOR SECURE PRINTING	Issued	Utility
110656-8529.US02	United States of America	12/256,309	2008-10-22	7,982,890	2011-07-19	METHOD AND APPARATUS FOR SECURE PRINTING	Issued	Utility
110656-8530.US01	United States of America	10/192,301	2002-07-10	7,296,157	2007-11-13	METHODS AND APPARATUS FOR SECURE DOCUMENT PRINTING	Issued	Utility
110656-8530.US02	United States of America	11/938,538	2007-11-12	7,831,830	2010-11-09	METHODS AND APPARATUS FOR SECURE DOCUMENT PRINTING	Issued	Utility
110656-8530.US03	United States of America	11/938,542	2007-11-12	7,849,316	2010-12-07	METHODS AND APPARATUS FOR SECURE DOCUMENT PRINTING	Issued	Utility
110656-8531.US01	United States of America	10/836,069	2004-04-30	7,433,078	2008-10-07	METHODS AND APPARATUS FOR CALIBRATING A DIGITAL COLOR IMAGING DEVICE THAT USES MULTI-HUE COLORANTS	Issued	Utility
110656-8531.US02	United States of America	12/197,984	2008-08-25	7,889,403	2011-02-15	METHODS AND APPARATUS FOR CALIBRATING A DIGITAL COLOR IMAGING DEVICE THAT USES MULTI-HUE COLORANTS	Issued	Utility
110656-8537.US01	United States of America	10/376,141	2003-02-28	7,587,468	2009-09-08	METHODS AND SYSTEMS FOR THE PROVISION OF PRINTING SERVICES	Issued	Utility
110656-8538.US01	United States of America	09/258,386	1999-02-26	6,226,419	2001-05-01	AUTOMATIC MARGIN ALIGNMENT USING A DIGITAL DOCUMENT PROCESSOR	Issued	Utility
110656-8540.US01	United States of America	10/966,612	2004-10-15	7,889,361	2011-02-15	METHODS AND APPARATUS FOR ADAPTIVE IMPOSITION TEMPLATES	Issued	Utility
110656-8540.US02	United States of America	12/985,937	2011-01-06	8,976,407	2015-03-10	METHODS AND APPARATUS FOR ADAPTIVE IMPOSITION TEMPLATES	Issued	Utility
110656-8550.US01	United States of America	09/262,571	1999-03-04	6,112,665	2000-09-05	METHOD AND COMPUTER GENERATED SWATCH CARDS FOR MATCHING COLORS	Issued	Utility
110656-8553.US01	United States of America	10/351,230	2003-01-24	7,023,570	2006-04-04	METHODS AND APPARATUS FOR COLORANT REDUCTION	Issued	Utility
110656-8553.US02	United States of America	11/370,495	2006-03-06	7,239,403	2007-07-03	METHODS AND APPARATUS FOR COLORANT REDUCTION	Issued	Utility
110656-8553.US03	United States of America	11/772,478	2007-07-02	7,522,311	2009-04-21	METHODS AND APPARATUS FOR COLORANT REDUCTION	Issued	Utility
110656-8554.US01	United States of America	10/650,279	2003-08-27	7,248,752	2007-07-24	METHODS AND APPARATUS FOR CONVERTING THE RESOLUTION OF BINARY IMAGE DATA	Issued	Utility
110656-8555.US01	United States of America	10/744,207	2003-12-22	7,233,397	2007-06-19	METHODS AND APPARATUS FOR COLORIMETRICALLY CHARACTERIZING COLOR DEVIATION IN COLOR IMAGING DEVICES	Issued	Utility
110656-8555.US02	United States of America	11/748,277	2007-05-14	7,426,033	2008-09-16	METHODS AND APPARATUS FOR COLORIMETRICALLY CHARACTERIZING COLOR DEVIATION IN COLOR IMAGING DEVICES	Issued	Utility
110656-8556.US01	United States of America	10/404,972	2003-03-31	8,031,363	2011-10-04	METHODS AND APPARATUS FOR DYNAMICALLY SOFT PROOFING HALFTONE IMAGES	Issued	Utility
110656-8557.US01	United States of America	10/449,559	2003-05-29	7,861,156	2010-12-28	METHODS AND APPARATUS FOR PARALLEL PROCESSING PAGE DESCRIPTION LANGUAGE DATA	Issued	Utility
110656-8557.US02	United States of America	12/948,502	2010-11-17	9,129,193	2015-09-08	METHODS AND APPARATUS FOR PARALLEL PROCESSING PAGE DESCRIPTION LANGUAGE DATA	Issued	Utility
110656-8557.US03	United States of America	14/805,396	2015-07-21	9,779,335	2017-10-03	PARALLEL PROCESSING PAGE DESCRIPTION LANGUAGE DATA	Issued	Utility
110656-8558.US01	United States of America	10/610,128	2003-06-30	6,962,449	2005-11-08	METHODS AND APPARATUS FOR MEDIA SELECTION IN CLUSTERING PRINTING SYSTEMS	Issued	Utility
110656-8558.US02	United States of America	10/980,530	2004-11-03	6,974,269	2005-12-13	METHODS AND APPARATUS FOR MEDIA SELECTION IN CLUSTER PRINTING SYSTEMS	Issued	Utility
110656-8558.US03	United States of America	11/299,435	2005-12-12	7,229,225	2007-06-12	METHODS AND APPARATUS FOR MEDIA SELECTION IN CLUSTER PRINTING SYSTEMS	Issued	Utility
110656-8558.US04	United States of America	11/736,466	2007-04-17	7,648,293	2010-01-19	METHODS AND APPARATUS FOR MEDIA SELECTION IN CLUSTER PRINTING SYSTEMS	Issued	Utility

110656-8560.US01	United States of America	09/753,816	2001-01-03	6,647,149	2003-11-11	METHODS AND APPARATUS FOR SECURELY TRANSMITTING AND PROCESSING DIGITAL IMAGE DATA	Issued	Utility
110656-8561.US01	United States of America	09/748,623	2000-12-22	7,280,090	2007-10-09	METHODS AND APPARATUS FOR REPAIRING INOPERATIVE PIXELS IN A DISPLAY	Issued	Utility
110656-8561.US02	United States of America	11/842,672	2007-08-21	7,911,432	2011-03-22	METHODS AND APPARATUS FOR REPAIRING INOPERATIVE PIXELS IN A DISPLAY	Issued	Utility
110656-8561.US03	United States of America	11/842,691	2007-08-21	7,911,433	2011-03-22	METHODS AND APPARATUS FOR REPAIRING INOPERATIVE PIXELS IN A DISPLAY	Issued	Utility
110656-8566.US01	United States of America	09/216,355	1998-12-18	6,546,364	2003-04-08	METHOD AND APPARATUS FOR CREATING ADAPTIVE WORKFLOWS	Issued	Utility
110656-8568.US01	United States of America	09/328,983	1999-06-09	7,587,336	2009-09-08	ITERATIVE CONSTRAINT COLLECTION SCHEME FOR PREPARATION OF CUSTOM MANUFACTURING CONTRACTS	Issued	Utility
110656-8569.US01	United States of America	09/718,788	2000-11-22	6,662,199	2003-12-09	METHOD AND APPARATUS FOR CUSTOMIZED HOSTED APPLICATIONS	Issued	Utility
110656-8575.US01	United States of America	09/849,282	2001-05-04	6,539,323	2003-03-25	METHODS AND APPARATUS FOR CORRECTING SPECTRAL COLOR MEASUREMENTS	Issued	Utility
110656-8576.US01	United States of America	09/438,228	1999-11-12	6,825,943	2004-11-30	METHOD AND APPARATUS TO PERMIT EFFICIENT MULTIPLE PARALLEL IMAGE PROCESSING OF LARGE JOBS	Issued	Utility
110656-8576.US02	United States of America	11/358,770	2006-02-21	7,233,409	2007-06-19	APPARATUS AND METHODS FOR DISTRIBUTING PRINT JOBS	Issued	Utility
110656-8576.US03	United States of America	11/764,348	2007-06-18	7,466,441	2008-12-16	APPARATUS AND METHODS FOR DISTRIBUTING PRINT JOBS	Issued	Utility
110656-8576.US04	United States of America	09/861,021	2001-05-18	7,099,027	2006-08-29	METHOD AND APPARATUS FOR DISTRIBUTING PRINT JOBS	Issued	Utility
110656-8580.US01	United States of America	09/705,407	2000-11-03	6,753,845	2004-06-22	METHODS AND APPARATUS FOR ADDRESSING PIXELS IN A DISPLAY	Issued	Utility
110656-8581.US01	United States of America	10/808,743	2004-03-24	8,205,012	2012-06-19	DIRECTORY SERVER FOR AUTOMATIC NETWORK INFORMATION ACCESS SYSTEMS	Issued	Utility
110656-8581.US02	United States of America	13/526,338	2012-06-18	8,595,384	2013-11-26	DIRECTORY SERVER FOR AUTOMATIC NETWORK INFORMATION ACCESS SYSTEMS	Issued	Utility
110656-8581.US03	United States of America	14/081,874	2013-11-15	9,137,208	2015-09-15	DIRECTORY SERVER FOR AUTOMATIC NETWORK INFORMATION ACCESS SYSTEMS	Issued	Utility
110656-8582.US01	United States of America	12/027,146	2008-02-06	7,996,806	2011-08-09	METHODS AND APPARATUS FOR LAYOUT OF MULTI-LAYER CIRCUIT SUBSTRATES	Issued	Utility
110656-8583.US01	United States of America	10/928,966	2004-08-27	8,171,103	2012-05-01	METHODS AND APPARATUS FOR PROVIDING ACCESS TO CONTENT	Issued	Utility
110656-8583.US02	United States of America	13/430,506	2012-03-26	8,484,316	2013-07-09	METHODS AND APPARATUS FOR PROVIDING ACCESS TO CONTENT	Issued	Utility
110656-8591.US01	United States of America	09/505,642	2000-02-16	6,369,895	2002-04-09	COLOR MEASUREMENT INSTRUMENT WITH ASYMMETRIC TAPERED SAMPLE AREA OPTICAL ENCLOSURE	Issued	Utility
110656-8592.US01	United States of America	09/327,386	1999-06-07	6,381,036	2002-04-30	METHOD FOR DETERMINING PRINTER COLORANT LEVELS	Issued	Utility
110656-8593.US01	United States of America	09/264,287	1999-03-08	6,041,200	2000-03-21	METHOD AND APPARATUS FOR SPLIT PRINTING OF COLOR AND MONOCHROME DOCUMENTS	Issued	Utility
110656-8594.US01	United States of America	12/722,064	2010-03-11	8,885,181	2014-11-11	VIRTUAL PRESS RUN	Issued	Utility
110656-8598.US01	United States of America	12/775,309	2010-05-06	8,934,119	2015-01-13	GREENBOOKS	Issued	Utility
110656-8599.US01	United States of America	13/014,620	2011-01-26	8,610,932	2013-12-17	JOB BASED CALIBRATION, CALIBRATION GUARD, AND PROFILE ADVISOR	Issued	Utility
110656-8602.US01	United States of America	13/876,457	2011-09-30	9,158,479	2015-10-13	AUTOMATED PRINTER'S DASHBOARD	Issued	Utility
110656-8603.US01	United States of America	13/100,117	2011-05-03	9,891,867	2018-02-13	PROTOCOL FOR INTERACTION BETWEEN WIRELESS DEVICES AND OTHER DEVICES	Issued	Utility
110656-8604.US01	United States of America	13/843,768	2013-03-15	9,336,465	2016-05-10	METHOD AND APPARATUS FOR COLOR PRINT MANAGEMENT	Issued	Utility
110656-8604.US02	United States of America	15/150,184	2016-05-09			METHOD AND APPARATUS FOR COLOR PRINT MANAGEMENT	Pending	Utility

110656-8605.US01	United States of America	13/286,022	2011-10-31	8,810,876	2014-08-19	DYNAMIC IMAGE GAMUT COMPRESSION BY PERFORMING CHROMA COMPRESSION WHILE KEEPING LIGHTNESS AND HUE ANGLE CONSTANT	Issued	Utility
110656-8606.US01	United States of America	13/286,009	2011-10-31	9,420,146	2016-08-16	METHOD AND APPARATUS FOR CONTROLLING THE COLOR ACCURACY OF DIGITAL PRINTING DEVICES AND ADAPTATION TO A PREVIOUSLY DEFINED STATE	Issued	Utility
110656-8607.US01	United States of America	13/753,446	2013-01-29	9,049,403	2015-06-02	METHOD AND APPARATUS FOR HIGH QUALITY PRINTING OF NON-SATURATED COLORED TEXT AND LINES	Issued	Utility
110656-8608.US01	United States of America	14/151,703	2014-01-09	10,054,549	2018-08-21	METHOD AND APPARATUS FOR AUTOMATIC MEASUREMENT OF VARIOUS QUALITIES OF PRINTED SHEETS	Issued	Utility
110656-8608.US02	United States of America	14/877,880	2015-10-07	9,791,378	2017-10-17	METHOD AND APPARATUS FOR AUTOMATIC MEASUREMENT OF VARIOUS QUALITIES OF PRINTED SHEETS	Issued	Utility
110656-8609.US01	United States of America	13/945,771	2013-07-18	9,232,112	2016-01-05	METHOD AND APPARATUS FOR EFFECTING COLOR SEPARATION, COLOR VARIATION, COLOR CHARACTERIZATION, AND GAMUT MAPPING IN COLOR PRINTING	Issued	Utility
110656-8610.US01	United States of America	13/237,785	2011-09-20	8,947,702	2015-02-03	ENGINE OPTIMIZATION	Issued	Utility
110656-8611.US01	United States of America	13/851,025	2013-03-26	8,922,818	2014-12-30	MOBILE PRINT EMAIL REPLY WITH THUMBNAILS	Issued	Utility
110656-8612.US01	United States of America	13/490,374	2012-06-06	8,553,286	2013-10-08	HALFTONING METHOD AND APPARATUS USING TEMPLATES INDEXED BY CODE	Issued	Utility
110656-8614.US01	United States of America	13/612,353	2012-09-12	9,294,574	2016-03-22	DEVICE DISCOVERY USING BROADCAST TECHNOLOGY	Issued	Utility
110656-8614.US02	United States of America	15/076,555	2016-03-21	9,948,823	2018-04-17	DEVICE DISCOVERY USING BROADCAST TECHNOLOGY	Issued	Utility
110656-8615.US01	United States of America	13/667,491	2012-11-02	8,861,053	2014-10-14	METHOD AND APPARATUS FOR AUTOMATED GENERATION OF A WHITE INK SEPARATION OUT OF CMYK DATA OR RGB PRINT DATA	Issued	Utility
110656-8616.US01	United States of America	13/738,776	2013-01-10	9,786,094	2017-10-10	METHOD AND APPARATUS FOR CREATING A DIMENSIONAL LAYER FOR AN IMAGE FILE	Issued	Utility
110656-8617.US01	United States of America	13/600,015	2012-08-30	9,227,428	2016-01-05	SIMULATED EMBOSsing AND IMPRINTING	Issued	Utility
110656-8618.US01	United States of America	13/629,298	2012-09-27	9,952,539	2018-04-24	METHOD AND APPARATUS FOR VARIABLE GLOSS REDUCTION	Issued	Utility
110656-8618.US02	United States of America	14/054,711	2013-10-15	10,114,307	2018-10-30	METHOD AND APPARATUS FOR VARIABLE GLOSS REDUCTION	Allowed	Utility
110656-8619.US01	United States of America	14/150,527	2014-01-08	9,302,490	2016-04-05	MULTILAYER WHITE PRINTING WITH WHITE-BALANCE	Issued	Utility
110656-8619.US02	United States of America	15/090,310	2016-04-04	9,694,597	2017-07-04	MULTILAYER WHITE PRINTING WITH WHITE-BALANCE	Issued	Utility
110656-8619.US03	United States of America	15/641,110	2017-07-03			MULTILAYER WHITE PRINTING WITH WHITE-BALANCE	Pending	Utility
110656-8620.US01	United States of America	13/909,854	2013-06-04	9,126,420	2015-09-08	MULTI-LAYER PRINTING ON NON-WHITE BACKGROUNDS	Issued	Utility
110656-8623.US01	United States of America	13/756,351	2013-01-31	9,417,829	2016-08-16	PRODUCTION PLANNING AND MONITORING IN INKJET DEVICES	Issued	Utility
110656-8625.US01	United States of America	14/296,870	2014-06-05	9,195,916	2015-11-24	COLOR PREDICTION FOR COLOR PRINTING	Issued	Utility
110656-8637.US01	United States of America	10/899,267	2004-07-26	7,396,864	2008-07-08	INK JET INK COMPOSITION AND METHOD OF PRINTING	Issued	Utility
110656-8638.US01	United States of America	10/944,956	2004-09-20	7,064,153	2006-06-20	UV CURE INK JET INK WITH LOW MONOFUNCTIONAL MONOMER CONTENT	Issued	Utility
110656-8639.US01	United States of America	10/944,943	2004-09-20	7,105,585	2006-09-12	UV CURE INK JET INK FOR NONPOROUS SUBSTRATES	Issued	Utility
110656-8641.US01	United States of America	11/519,432	2006-09-12	7,891,799	2011-02-22	METALLIC INK JET PRINTING SYSTEM FOR GRAPHICS APPLICATIONS	Issued	Utility
110656-8641.US02	United States of America	13/030,368	2011-02-18	8,192,010	2012-06-05	METALLIC INK JET PRINTING SYSTEM FOR GRAPHICS APPLICATIONS	Issued	Utility
110656-8641.US03	United States of America	13/488,173	2012-06-04	8,430,498	2013-04-30	METALLIC INK JET PRINTING SYSTEM FOR GRAPHICS APPLICATIONS	Issued	Utility

110656-8641.US04	United States of America	13/873,036	2013-04-29	8,814,346	2014-08-26	METALLIC INK JET PRINTING SYSTEM AND METHOD FOR GRAPHICS APPLICATIONS	Issued	Utility
110656-8641.US05	United States of America	13/030,388	2011-02-18	8,317,311	2012-11-27	METALLIC INK JET PRINTING SYSTEM FOR GRAPHICS APPLICATIONS	Issued	Utility
110656-8641.US06	United States of America	13/685,521	2012-11-26	8,740,367	2014-06-03	METALLIC INK JET PRINTING SYSTEM FOR GRAPHICS APPLICATIONS	Issued	Utility
110656-8642.US01	United States of America	12/398,900	2009-03-05	8,133,539	2012-03-13	METHOD AND COMPOSITION FOR INK JET PRINTING ON A NONABSORBENT SUBSTRATE	Issued	Utility
110656-8642.US02	United States of America	13/414,444	2012-03-07	9,303,097	2016-04-05	METHOD AND COMPOSITION FOR INK JET PRINTING ON A NONABSORBENT SUBSTRATE	Issued	Utility
110656-8642.US03	United States of America	15/090,515	2016-04-04			METHOD AND COMPOSITION FOR INK JET PRINTING ON A NONABSORBENT SUBSTRATE	Pending	Utility
110656-8643.US01	United States of America	11/851,832	2007-09-07	8,153,195	2012-04-10	DOT SIZE CONTROLLING PRIMER COATING FOR RADIATION CURABLE INK JET INKS	Issued	Utility
110656-8644.US01	United States of America	11/851,876	2007-09-07	7,828,412	2010-11-09	INK JET PRINTER	Issued	Utility
110656-8644.US02	United States of America	12/913,617	2010-10-27	8,162,437	2012-04-24	INK JET PRINTER	Issued	Utility
110656-8644.US03	United States of America	13/453,910	2012-04-23	8,408,676	2013-04-02	INK JET PRINTER	Issued	Utility
110656-8644.US04	United States of America	13/854,762	2013-04-01	8,882,243	2014-11-11	INK JET PRINTER	Issued	Utility
110656-8645.US01	United States of America	11/862,600	2007-09-27	7,770,999	2010-08-10	SONIC LEAK TESTING ON INK DELIVERY SYSTEMS AND INK JET HEADS	Issued	Utility
110656-8647.US01	United States of America	11/862,613	2007-09-27	8,100,507	2012-01-24	INDUSTRIAL INK JET PRINTER	Issued	Utility
110656-8649.US01	United States of America	12/968,730	2010-12-15	9,487,010	2016-11-08	INKJET PRINTER WITH CONTROLLED OXYGEN LEVELS	Issued	Utility
110656-8651.US01	United States of America	12/943,843	2010-11-10	8,567,936	2013-10-29	LED ROLL TO ROLL DRUM PRINTER SYSTEMS, STRUCTURES AND METHODS	Issued	Utility
110656-8652.US01	United States of America	12/968,748	2010-12-15	9,527,307	2016-12-27	OXYGEN INHIBITION FOR PRINT-HEAD RELIABILITY	Issued	Utility
110656-8652.US02	United States of America	15/390,101	2016-12-23			OXYGEN INHIBITION FOR PRINT-HEAD RELIABILITY	Pending	Utility
110656-8654.US01	United States of America	14/022,035	2013-09-09	9,067,435	2015-06-30	COUPLING OF DIGITAL PRINTER AND FINISHING	Issued	Utility
110656-8654.US02	United States of America	14/724,296	2015-05-28	9,233,569	2016-01-12	COUPLING OF DIGITAL PRINTER AND FINISHING	Issued	Utility
110656-8655.US01	United States of America	14/023,355	2013-09-10	9,079,402	2015-07-14	PRINTER HAVING A GLOBAL SKEW ADJUSTMENT AND A PRINT HEAD ASSEMBLY HAVING AN ADJUSTMENT MECHANISM	Issued	Utility
110656-8656.US01	United States of America	10/055,630	2001-10-29	6,616,355	2003-09-09	PRINTING SYSTEM FOR ACCOMMODATING VARIOUS SUBSTRATE THICKNESS	Issued	Utility
110656-8657.US01	United States of America	10/055,614	2001-10-29	6,637,958	2003-10-28	PRINTING SYSTEM WITH ADJUSTABLE CARRIAGE RAIL SUPPORT	Issued	Utility
110656-8658.US01	United States of America	10/058,813	2002-01-28	6,857,803	2005-02-22	PRINTING SYSTEM WEB GUIDE WITH A REMOVABLE PLATEN	Issued	Utility
110656-8659.US01	United States of America	09/834,999	2001-04-13	6,457,823	2002-10-01	APPARATUS AND METHOD FOR SETTING RADIATION-CURABLE INK	Issued	Utility
110656-8660.US01	United States of America	10/058,979	2002-01-28	6,679,640	2004-01-20	PRINTING SYSTEM WEB GUIDE COUPLING ASSEMBLY	Issued	Utility
110656-8661.US01	United States of America	10/281,292	2002-10-24	6,874,860	2005-04-05	MULTI-SPEED, MULTI-RESOLUTION PRINT HEADS	Issued	Utility
110656-8662.US01	United States of America	10/100,281	2002-03-15	6,786,578	2004-09-07	MULTI-COLOR, MULTI-SPEED PRINTING APPARATUS	Issued	Utility
110656-8663.US01	United States of America	11/382,904	2006-05-11	7,600,867	2009-10-13	RADIATION TREATMENT FOR INK JET FLUIDS	Issued	Utility
110656-8663.US02	United States of America	10/172,761	2002-06-13	7,073,901	2006-07-11	RADIATION TREATMENT FOR INK JET FLUIDS	Issued	Utility
110656-8664.US01	United States of America	10/112,092	2002-03-28	6,660,103	2003-12-09	CLEANING PROCESS FOR INK JET PRINTHEADS	Issued	Utility
110656-8665.US01	United States of America	10/678,962	2005-10-03	7,090,327	2006-08-15	WATER-BASED INK JET PRINTER	Issued	Utility
110656-8665.US02	United States of America	11/424,454	2006-06-15	7,396,119	2008-07-08	APPARATUS AND METHODS FOR WATER-BASED INK PRINTING	Issued	Utility

110656-8666.US01	United States of America	10/440,447	2003-05-16	6,905,189	2005-06-14	WET CAPPING TRAY FOR INK JET PRINTHEADS	Issued	Utility
110656-8667.US01	United States of America	10/430,801	2003-05-06	7,301,667	2007-11-27	IMAGE TILING IN INK JET PRINTING SYSTEMS	Issued	Utility
110656-8667.US02	United States of America	11/842,777	2007-08-21	7,859,724	2010-12-28	IMAGE TILING IN INK JET PRINTING SYSTEMS	Issued	Utility
110656-8667.US03	United States of America	11/842,781	2007-08-21	7,859,711	2010-12-28	IMAGE TILING IN INK JET PRINTING SYSTEMS	Issued	Utility
110656-8668.US01	United States of America	10/706,870	2003-11-12	7,431,436	2008-10-07	IDENTIFICATION SYSTEM FOR INKS IN PRINTING SYSTEMS	Issued	Utility
110656-8669.US01	United States of America	10/986,561	2004-11-10	7,365,105	2008-04-29	RADIATION CURABLE INK COMPOSITIONS AND APPLICATIONS THEREOF	Issued	Utility
110656-8669.US02	United States of America	12/110,331	2008-04-27	7,579,388	2009-08-25	RADIATION CURABLE INK COMPOSITIONS AND APPLICATIONS THEREOF	Issued	Utility
110656-8671.US01	United States of America	11/353,754	2006-02-14	7,919,543	2011-04-05	INKJET INKS, METHODS FOR APPLYING INKJET INK, AND ARTICLES PRINTED WITH INKJET INKS	Issued	Utility
110656-8672.US01	United States of America	11/334,884	2006-01-19	7,562,957	2009-07-21	METHODS AND APPARATUS FOR BACKLIT AND DUAL-SIDED IMAGING	Issued	Utility
110656-8673.US01	United States of America	11/425,867	2006-06-22	7,673,965	2010-03-09	APPARATUS AND METHODS FOR FULL-WIDTH WIDE FORMAT INKJET PRINTING	Issued	Utility
110656-8673.US02	United States of America	12/628,853	2009-12-01	8,172,363	2012-05-08	APPARATUS AND METHODS FOR FULL-WIDTH WIDE FORMAT INKJET PRINTING	Issued	Utility
110656-8674.US02	United States of America	15/730,062	2017-10-11			INERT UV INKJET PRINTING	Pending	Utility
110656-8675.US01	United States of America	12/413,450	2009-03-27	9,321,281	2016-04-26	SELECTIVE INK CURE	Issued	Utility
110656-8675.US02	United States of America	15/138,149	2016-04-25	9,878,561	2018-01-30	SELECTIVE INK CURE	Issued	Utility
110656-8675.US03	United States of America	15/883,032	2018-01-29			SELECTIVE INK CURE	Pending	Utility
110656-8676.US01	United States of America	12/424,279	2009-04-15	8,322,836	2012-12-04	LIQUID INK CONTAINER AND INK DELIVERY STATION	Issued	Utility
110656-8676.US02	United States of America	13/692,893	2012-12-03	8,960,870	2015-02-24	PRINTING SYSTEM STRUCTURES	Issued	Utility
110656-8676.US03	United States of America	13/692,917	2012-12-03	8,967,777	2015-03-03	LIQUID INK CONTAINERS FOR PRINTING SYSTEMS	Issued	Utility
110656-8676.US04	United States of America	13/692,935	2012-12-03	8,777,385	2014-07-15	PROCESSES FOR DELIVERING INK WITHIN A PRINTING SYSTEM	Issued	Utility
110656-8677.US01	United States of America	12/544,955	2009-08-20	8,889,232	2014-11-18	RADIATION CURABLE INK COMPOSITIONS	Issued	Utility
110656-8678.US01	United States of America	12/883,058	2010-09-15	8,459,773	2013-06-11	INKJET PRINTER WITH DOT ALIGNMENT VISION SYSTEM	Issued	Utility
110656-8678.US03	United States of America	13/587,822	2012-08-16	8,757,762	2014-06-24	INKJET PRINTER WITH DOT ALIGNMENT VISION SYSTEM	Issued	Utility
110656-8678.US04	United States of America	14/309,767	2014-06-19	8,967,762	2015-03-03	INKJET PRINTER WITH DOT ALIGNMENT VISION SYSTEM	Issued	Utility
110656-8679.US01	United States of America	13/301,477	2011-11-21	8,616,691	2013-12-31	GAS REMOVAL FROM A FLUID DELIVERY SYSTEM	Issued	Utility
110656-8679.US02	United States of America	14/076,990	2013-11-11	8,807,727	2014-08-19	GAS REMOVAL FROM A FLUID DELIVERY SYSTEM	Issued	Utility
110656-8680.US01	United States of America	13/302,872	2011-11-22	8,833,922	2014-09-16	PRINTING SYSTEM FOR APPLICATION OF A PATTERNED CLEAR LAYER FOR REDUCING GLOSS BANDING	Issued	Utility
110656-8681.US01	United States of America	13/218,233	2011-08-25	8,684,511	2014-04-01	INKJET UV PINNING FOR CONTROL OF GLOSS	Issued	Utility
110656-8682.US01	United States of America	13/218,296	2011-08-25	8,459,778	2013-06-11	REDUCED GLOSS BANDING THROUGH LOW INK VOLUME DEPOSITION PER PRINT PASS	Issued	Utility
110656-8682.US02	United States of America	13/898,331	2013-05-20	8,672,451	2014-03-18	REDUCED GLOSS BANDING THROUGH LOW INK VOLUME DEPOSITION PER PRINT PASS	Issued	Utility
110656-8683.US01	United States of America	13/667,621	2012-11-02	9,228,104	2016-01-05	METHOD AND APPARATUS FOR CONTROLLING LIGHTNESS IN COLORED INKJET INKS BY MEANS OF A TRANSPARENT WHITE INK COMPOSITION	Issued	Utility
110656-8683.US03	United States of America	15/881,657	2018-01-26			METHOD AND APPARATUS FOR CONTROLLING LIGHTNESS IN COLORED INKJET INKS BY MEANS OF A TRANSPARENT WHITE INK COMPOSITION	Pending	Utility

110656-8684.US01	United States of America	13/301,624	2011-11-21	8,477,165	2013-07-02	METHOD AND APPARATUS FOR THERMAL EXPANSION BASED PRINT HEAD ALIGNMENT	Issued	Utility
110656-8684.US02	United States of America	13/913,279	2013-06-07	8,780,152	2014-07-15	METHOD AND APPARATUS FOR THERMAL EXPANSION BASED PRINT HEAD ALIGNMENT	Issued	Utility
110656-8685.US01	United States of America	13/408,807	2012-02-29	9,260,616	2016-02-16	GLOSS-CONTROLLABLE, RADIATION-CURABLE INKJET INK	Issued	Utility
110656-8686.US01	United States of America	13/459,719	2012-04-30	9,079,427	2015-07-14	STAGGERED ULTRA-VIOLET CURING SYSTEMS, STRUCTURES AND PROCESSES FOR INKJET PRINTING	Issued	Utility
110656-8687.US01	United States of America	13/913,293	2013-06-07	9,085,161	2015-07-21	SYSTEMS, STRUCTURES AND ASSOCIATED PROCESSES FOR INLINE ULTRASONICATION OF INK FOR PRINTING	Issued	Utility
110656-8688.US01	United States of America	14/490,559	2014-09-18			LED CURABLE INKJET INKS HAVING UV ABSORBERS, AND ASSOCIATED SYSTEMS AND PROCESSES	Pending	Utility
110656-8689.US01	United States of America	14/178,236	2014-02-11	9,365,061	2016-06-14	EXTERNAL TABLE HEIGHT ADJUSTMENT FOR PRINTER SYSTEMS	Issued	Utility
110656-8689.US02	United States of America	14/878,546	2015-10-08	9,656,490	2017-05-23	EXTERNAL TABLE HEIGHT ADJUSTMENT FOR PRINTER SYSTEMS	Issued	Utility
110656-8690.US01	United States of America	14/304,824	2014-06-13	9,914,309	2018-03-13	METHOD AND APPARATUS FOR SINGLE-PASS FAILED NOZZLE COMPENSATION	Issued	Utility
110656-8690.US02	United States of America	15/918,828	2018-03-12			METHOD AND APPARATUS FOR SINGLE-PASS FAILED NOZZLE COMPENSATION	Pending	Utility
110656-8691.US01	United States of America	14/333,464	2014-07-16	9,822,271	2017-11-21	CERAMIC INKJET INK FOR RED DECORATION	Issued	Utility
110656-8691.US02	United States of America	15/818,484	2017-11-20			CERAMIC INKJET INK FOR RED DECORATION	Pending	Utility
110656-8692.US01	United States of America	14/333,472	2014-07-16	9,446,990	2016-09-20	CERAMIC INKJET INK FOR RELIEF EFFECT	Issued	Utility
110656-8692.US02	United States of America	15/267,375	2016-09-16			CERAMIC INKJET INK FOR RELIEF EFFECT	Pending	Utility
110656-8693.US01	United States of America	14/483,657	2014-09-11	9,336,473	2016-05-10	VIRTUAL INK CHANNELS	Issued	Utility
110656-8694.US01	United States of America	14/444,751	2014-07-28	9,272,541	2016-03-01	GLOSS CONTROL THROUGH SELECTIVE DEPOSITION OF TRANSPARENT INK	Issued	Utility
110656-8694.US02	United States of America	15/057,012	2016-02-29	9,724,935	2017-08-08	GLOSS CONTROL THROUGH SELECTIVE DEPOSITION OF TRANSPARENT INK	Issued	Utility
110656-8695.US02	United States of America	15/831,037	2017-12-04			SYSTEMS AND METHODS FOR MINIMIZING A TOTAL NUMBER OF CUTS TO SEPARATE MEDIA INSTANCES IMAGED ONTO A MEDIA SHEET	Pending	Utility
110656-8696.US02	United States of America	15/455,038	2017-03-09			COMPENSATED LASER CUTTING OF LABELS	Pending	Utility
110656-8697.US01	United States of America	14/548,259	2014-11-19			MULTI-LAYERED TEXTURED PRINTING	Pending	Utility
110656-8698.US01	United States of America	14/641,192	2015-03-06	9,764,564	2017-09-19	LOW TEMPERATURE ENERGY CURABLE PRINTING SYSTEMS AND METHODS	Issued	Utility
110656-8699.US01	United States of America	14/514,220	2014-10-14	9,335,157	2016-05-10	DIFFERENTIAL LIGHTING	Issued	Utility
110656-8700.US01	United States of America	14/731,367	2015-06-04	9,718,269	2017-08-01	MULTI-WAVEFORM INKJET NOZZLE CORRECTION	Issued	Utility
110656-8701.US01	United States of America	14/789,913	2015-07-01	9,458,334	2016-10-04	AQUEOUS RADIATION CURABLE INK COMPOSITION	Issued	Utility
110656-8703.US01	United States of America	11/346,932	2006-02-03	7,431,759	2008-10-07	HIGH ELONGATION VACUUM FORMABLE DIGITAL INK	Issued	Utility
110656-8703.US02	United States of America	11/387,674	2006-03-23	7,427,317	2008-09-23	HIGH ELONGATION VACUUM FORMABLE DIGITAL INK	Issued	Utility
110656-8703.US03	United States of America	11/557,732	2006-11-08	7,662,224	2010-02-16	HIGH ELONGATION VACUUM FORMABLE DIGITAL INK	Issued	Utility
110656-8704.US01	United States of America	14/683,846	2015-04-10	9,789,706	2017-10-17	REMOVABLE ULTRAVIOLET CURABLE DYE SUBLIMATION INKS	Issued	Utility
110656-8705.US01	United States of America	14/695,856	2015-04-24	9,630,425	2017-04-25	METHOD AND APPARATUS FOR CREATING 3D EFFECTS WITH CERAMIC INKJET INKS	Issued	Utility
110656-8706.US01	United States of America	15/093,678	2016-04-07	10,000,075	2018-06-19	MULTILAYER IMAGING WITH A HIGH-GLOSS CLEAR INK LAYER	Issued	Utility

110656-8706.US02	United States of America	16/011,306	2018-06-18			MULTILAYER IMAGING WITH A HIGH-GLOSS CLEAR INK LAYER	Pending	Utility
110656-8707.US01	United States of America	14/732,447	2015-06-05	9,844,963	2017-12-19	UV DYE SUBLIMATION DECORATION OF COMPLEX-SHAPED OBJECTS	Issued	Utility
110656-8707.US02	United States of America	15/845,988	2017-12-18			UV DYE SUBLIMATION DECORATION OF COMPLEX-SHAPED OBJECTS	Pending	Utility
110656-8709.US01	United States of America	14/958,176	2015-12-03	9,540,531	2017-01-10	RADIATION CURABLE INK COMPOSITIONS	Issued	Utility
110656-8710.US01	United States of America	15/135,341	2016-04-21			MONOMERS AND OLIGOMERS WITH APPLICATION IN ENERGY CURING CHEMISTRY	Pending	Utility
110656-8712.US01	United States of America	14/887,188	2015-10-19	9,790,388	2017-10-17	RADIATION-CURABLE INKJET INK FOR APPLICATION TO GLASS, CERAMIC, OR METAL	Issued	Utility
110656-8713.US01	United States of America	14/821,043	2015-08-07			SPOT GLOSS AND GLOSS CONTROL IN AN INKJET PRINTING SYSTEM	Pending	Utility
110656-8714.US01	United States of America	15/181,308	2016-06-13	9,909,023	2018-03-06	INKJET INK FOR CERAMIC TILE DECORATION	Issued	Utility
110656-8716.US01	United States of America	15/238,588	2016-08-16			UV CURABLE INKJET INK COMPOSITIONS	Pending	Utility
110656-8717.US01	United States of America	15/190,131	2016-06-22	9,925,804	2018-03-27	PRINTING INDEPENDENT IMAGES BY SHARING PRINTER HEADS	Issued	Utility
110656-8717.US02	United States of America	15/936,340	2018-03-26			PRINTING INDEPENDENT IMAGES BY SHARING PRINTER HEADS	Pending	Utility
110656-8718.US01	United States of America	15/291,016	2016-10-11			SYSTEMS AND METHODS FOR DETERMINING PRINTING CONDITIONS BASED ON SAMPLES OF IMAGES PRINTED BY SHUTTLE-BASED PRINTERS	Pending	Utility
110656-8719.US02	United States of America	15/636,320	2017-06-28			NOZZLE COMPENSATION FOR SHUTTLE BASED PRINTERS	Pending	Utility
110656-8720.US01	United States of America	15/599,405	2017-05-18			GENERATION OF SPOT COLORS WITH REDUCED INK SUBSETS	Pending	Utility
110656-8721.US01	United States of America	15/142,889	2016-04-29	9,994,053	2018-06-12	ACHIEVING INK COST SAVING FOR PRINTING DEVICES BY TAKING VISUAL APPEARANCE AND REAL INK COSTS INTO ACCOUNT	Issued	Utility
110656-8722.US01	United States of America	15/597,433	2017-05-17			REPLICATION ALIGNMENT OF COMPONENTS FOR USE IN INKJET PRINTING APPLICATIONS	Pending	Utility
110656-8723.US01	United States of America	15/603,304	2017-05-23			INTEGRATION OF A LINE-SCAN CAMERA ON A SINGLE PASS INKJET PRINTER	Pending	Utility
110656-8724.US01	United States of America	15/597,495	2017-05-17	10,016,993	2018-07-10	ELASTIC BENDING MECHANISM FOR BI-DIRECTIONAL ADJUSTMENT OF PRINT HEAD POSITION	Issued	Utility
110656-8724.US02	United States of America	16/029,881	2018-07-09			ELASTIC BENDING MECHANISM FOR BI-DIRECTIONAL ADJUSTMENT OF PRINT HEAD POSITION	Pending	Utility
110656-8726.US01	United States of America	15/491,831	2017-04-19			PRINTER BAND EDGE HOLD DOWN SYSTEMS	Pending	Utility
110656-8727.US01	United States of America	15/604,381	2017-05-24			MULTIPLE ZONE PRINTER VACUUM TABLES, SYSTEMS AND METHODS	Pending	Utility
110656-8728.US01	United States of America	15/603,880	2017-05-24			SINGLE PASS PRINTING OF WHITE ON CORRUGATED BOARD	Pending	Utility
110656-8729.US01	United States of America	15/472,630	2017-03-29			LOW ODOR RADIATION CURABLE INK COMPOSITIONS	Pending	Utility
110656-8730.US02	United States of America	15/605,770	2017-05-25			INTERACTIVE THREE-DIMENSIONAL (3D) COLOR HISTOGRAMS	Pending	Utility
110656-8731.US01	United States of America	15/715,965	2017-09-26			INKJET DECORATION OF ARCHITECTURAL MATERIALS	Pending	Utility
110656-8732.US01	United States of America	15/400,024	2017-01-06	9,862,849	2018-01-09	ENERGY CURABLE FOAM INHIBITION INK	Issued	Utility
110656-8733.US01	United States of America	15/654,473	2017-07-19			COLORATION OF ACETYLATED WOOD	Pending	Utility
110656-8733.US02	United States of America	15/809,970	2017-11-10			COLORATION OF ACETYLATED WOOD	Pending	Utility
110656-8734.US01	United States of America	15/876,075	2018-01-19			PROCESS FOR PREPARING DECORATIVE FIRED SUBSTRATE	Pending	Utility
110656-8736.US00	United States of America	62/712,879	2018-07-31			RECTANGLE PACKING TECHNIQUE FOR GUILLotine CUTTING	Pending	Prov

	United States of America	10/317448	2002-12-11	7367060	2008-04-29	METHODS AND APPARATUS FOR SECURE DOCUMENT PRINTING	Issued	
	United States of America	16/173339	2018-10-29			METHOD AND APPARATUS FOR VARIABLE GLOSS REDUCTION	Pending	
	WIPO	PCT/US2017/041130	2017-07-07	WO18009820 A1	2018-01-11	NOZZLE COMPENSATION FOR SHUTTLE BASED PRINTERS	Issued	
	WIPO	PCT/US2017/046571	2017-08-11	WO18031923 A1	2018-02-15	GENERATION OF SPOT COLORS WITH REDUCED INK SUBSETS	Issued	
	WIPO	PCT/US2017/053492	2017-09-26	WO18058122 A1	2018-03-29	INKJET DECORATION OF ARCHITECTURAL MATERIALS	Issued	
	WIPO	PCT/US2017/056209	2017-10-11	WO18071587 A1	2018-04-19	SYSTEMS AND METHODS FOR DETERMINING PRINTING CONDITIONS BASED ON SAMPLES OF IMAGES PRINTED BY SHUTTLE-BASED PRINTERS	Issued	
	WIPO	PCT/US2017/058526	2017-10-26	WO18081422 A2	2018-05-03	ENERGY CURABLE FOAM INHIBITION INK	Issued	
	WIPO	PCT/US2017/065122	2017-12-07	WO18106923 A1	2018-06-14	COLORATION OF ACETYLATED WOOD	Issued	
	WIPO	PCT/US2017/065126	2017-12-07	WO18106925 A1	2018-06-14	COLORATION OF ACETYLATED WOOD	Issued	