

PATENT ASSIGNMENT COVER SHEET

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NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	Lexmark International, Inc.	04/01/2013
	Lexmark International Technology, S.A.	04/01/2013
RECEIVING PARTY DATA		
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State/Country:	JAPAN	
Postal Code:	5740013	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Patent Number:	10647119
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DATE SIGNED:	03/28/2025	
Total Attachments: 26		
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INTELLECTUAL PROPERTY ASSIGNMENT

THIS ASSIGNMENT (the "Assignment") is entered into as of April 1, 2013, by and among Funai Electric Co., Ltd., a Japanese corporation ("*Assignee*") and Lexmark International, Inc., a Delaware corporation ("*Lexmark*") and Lexmark International Technology, S.A., a Switzerland joint stock company ("*LITSA*") and with Lexmark, each a "*Assignor*," and together, "*Assignors*". Assignee and Assignors are referred to herein, individually as a "*Party*," and collectively as the "*Parties*."

WHEREAS, **ASSIGNORS** own all right, title and interest in the US patents and patent applications listed on Schedule B-1 and non-US patents and patent applications listed on Schedule B-2 to the Assignment; including all divisions, amendments, continuations, continuations-in-part, reexaminations, renewals, reissues, and extensions of any of the U.S. and foreign patents and patent applications which derive thereof (hereinafter the **PATENTS**);

WHEREAS, **ASSIGNEE** wishes to acquire all right, title, and interest to the **PATENTS**.

NOW, THEREFORE, the parties agree as follows:

1. **ASSIGNORS**, in consideration of payment by **ASSIGNEE** of [one dollar (\$ 1.00)] and other good and valuable consideration, assigns and conveys all right, title, and interest in the **PATENTS** to **ASSIGNEE** including all income, royalties, damages and payments now or hereafter due or payable with respect thereto, and to all causes of action (either in law or in equity) and the right to sue, counterclaim, and recover for past, present and future infringement of the rights assigned or to be assigned under this Agreement.
2. **ASSIGNEE** shall file such notices or registration with relevant patent offices as are necessary to perfect the agreement, all costs to be borne by **ASSIGNEE**. **ASSIGNORS** agree to sign or otherwise execute all such documents.
3. This Assignment will inure to the benefit of and be binding upon the parties hereto and their respective successors, and assigns.

IN WITNESS WHEREOF, the undersigned have executed this instrument as of the date first written above.

ASSIGNORS:

LEXMARK INTERNATIONAL, INC.

By: [Signature]
Name: Robert J. Parfitt
Title: V.P. Gen. Secy

LEXMARK INTERNATIONAL
TECHNOLOGY, S.A.

By: [Signature]
Name: Paul Duran
Title: Managing Director

ASSIGNEE:

FUNAI ELECTRIC CO., LTD.

By: [Signature]
Name: Yoshihisa Shimizu
Title: General Manager - IP

Schedule B-1
Assigned US Patents

Issued Patents:

Pub. No.	Title
US5348909	Manufacture of printhead with diamond resistors
US5352283	Jet inks avoiding solid formation
US5364461	Inks used in multi-color printing
US5400067	Foam insertion for an ink jet print head cartridge
US5421868	Ink composition
US5465107	Printhead drive system for serial printer
US5492977	Preparation of amino terminated polyacrylics
US5493320	Ink jet printing nozzle array bonded to a polymer ink barrier layer
US5494507	Dye having hydrophobic substituent and aqueous ink
US5497178	Multicolor liquid ink jet print head
US5510820	Device for ink refill of a reservoir in a print cartridge
US5537136	Ink jet cartridge including filter inserts
US5562762	Jet ink with amine surfactant
US5562876	Method of maintaining a low residue open-cell felted foam
US5563637	Maintenance station for ink jet printhead
US5576750	Reliable connecting pathways for a three-color ink-jet cartridge
US5589522	Ink composition
US5627572	Programmable head type detection and maintenance system
US5656071	Ink compositions
US5658471	Fabrication of thermal ink-jet feed slots in a silicon substrate
US5661510	Ink-jet cartridge venting
US5707456	Method for treating ink jet foam to remove impurities
US5714538	Polymeric dispersants for pigmented inks
US5719204	Pigmented inks with polymeric dispersants
US5719605	Large array heater chips for thermal ink jet printheads
US5734392	Ink jet printhead heating during margin periods
US5735941	Ink system with reduced bleed
US5736997	Thermal ink jet printhead driver overcurrent protection scheme
US5751299	Combined electrophotographic and ink jet printing
US5751312	Method of inhibiting a print artifact associated with a printer pause
US5751324	Ink jet cartridge body with vented die cavity
US5757394	Ink jet print head identification circuit with programmed transistor array
US5774148	Printhead with field oxide as thermal barrier in chip
US5777635	Automatic printhead-to-paper gap adjustment

US5790144	Method of controlling an operating temperature of a printhead in an ink jet cartridge assembly
US5801724	Circuit for preventing ink clogging in print nozzles of a print head in an ink jet printer
US5809215	Method of printing to inhibit intercolor bleeding
US5812158	Coated nozzle plate for ink jet printing
US5818478	Ink jet nozzle placement correction
US5831653	Ink jet print head cartridge
US5838353	Write head container for ink jet printer
US5847728	Service station device in inkjet printer head
US5847737	Filter for ink jet printhead
US5867183	Apparatus for driving multiple ink jet printheads with a single set of drive outputs
US5869564	Ink composition
US5891231	Process for preparing pigment dispersions used in inks
US5892527	Ink cartridge with an unfelted foam and method of printing using the same
US5905513	Ink jet printhead body having wiper cleaning zones located on both sides of printhead
US5907333	Ink jet print head containing a radiation curable resin layer
US5912683	Method of printing with an ink jet printer using an enhanced horizontal resolution
US5923348	Method of printing using a printhead having multiple rows of ink emitting orifices
US5925692	High performance ink compositions
US5926195	Ink jet printhead cartridge
US5940095	Ink jet print head identification circuit with serial out, dynamic shift registers
US5940096	Ink jet printhead assembly with non-emitting orifices
US5942900	Method of fault detection in ink jet printhead heater chips
US5953032	Method for forming and inspecting a barrier layer of an ink jet print cartridge
US5956055	Method of compensating for skewed printing in an ink jet printer
US5959646	Method of printing with an ink jet printer using independent shingling on a raster by raster basis
US5966144	Ink level sensing for disposable ink jet print head cartridges
US5966146	Service station having a head capping device for accurate sealing of print heads
US5969112	Yellow cationic dyes having flocculating properties
US5971390	Sheet aligning apparatus
US5971518	Method of printing with an ink jet printer to inhibit the formation of a print artifact
US5975687	Insertable baffle for an ink supply reservoir
US5980682	Thermal printhead manufacture
US5981623	Ink jet ink containing wetting agent
US5984455	Ink jet printing apparatus having primary and secondary nozzles
US5988803	Ink leakage control arrangement for an ink cartridge
US5992992	Pressure control device for an ink jet printer

US5993094	Paper eject apparatus and method of an ink-jet
US5994427	High performance ink compositions with non-benzidine based colorants
US5997130	Asymmetrical acceleration ramp area and method for print cartridge carrier of ink jet printer
US5998590	Magenta dyes having flocculating properties
US5999705	Method of interlaced printing using an ink jet printer
US6000869	Technique for controlling the position of a driving motor and a print head
US6003983	Contaminant cleaned inkjet cartridge manufacture
US6007176	Passive cooling arrangement for a thermal ink jet printer
US6010208	Nozzle array for printhead
US6015204	Method for sensing carriage position separation and compensating carriage position of an inkjet printer
US6015206	Bleed avoiding, color ink jet printing
US6017112	Ink jet printing apparatus having a print cartridge with primary and secondary nozzles
US6020905	Ink jet printhead for drop size modulation
US6022094	Memory expansion circuit for ink jet print head identification circuit
US6024440	Nozzle array for printhead
US6027199	Ink jet cartridge system and method of printing using plurality of same color inks with different intensities
US6027203	Page wide ink-jet printer and method of making
US6030071	Printhead having heating element conductors arranged in a matrix
US6039439	Ink jet heater chip module
US6045214	Ink jet printer nozzle plate having improved flow feature design and method of making nozzle plates
US6063834	Wet-rub resistant ink compositions
US6068366	Method of printing with an ink jet printer to inhibit the formation of a print artifact
US6071427	Method for making a printhead
US6076910	Ink jet printing apparatus having redundant nozzles
US6076912	Thermally conductive, corrosion resistant printhead structure
US6079811	Ink jet printhead having a unitary actuator with a plurality of active sections
US6080959	System and method for feature compensation of an ablated inkjet nozzle plate
US6081280	Method and apparatus for inhibiting electrically induced ink build-up on flexible, integrated circuit connecting leads, for thermal ink jet printer heads
US6084618	Filter for an inkjet printhead
US6089703	Ink jet printer and method of printing using same
US6089773	Print media feed system for an ink jet printer
US6092888	Method of transmitting raster information from a host computer to an ink jet printer and corresponding method of printing
US6095401	System and method for suppression of bubble generation during ultrasonic welding of a printer cartridge
US6095633	Process for priming a multi-chamber ink jet print head

US6095643	Refillable disposable inkjet cartridge with foam-filled and free ink reservoirs
US6099101	Disabling refill and reuse of an ink jet print head
US6102515	Printhead driver for jetting heaters and substrate heater in an ink jet printer and method of controlling such heaters
US6106096	Printhead stress relief
US6109719	Printhead thermal compensation method and apparatus
US6116717	Method and apparatus for customized control of a print cartridge
US6120125	Technique for testing the driving of nozzles in an ink-jet printer
US6120131	Method of forming an inkjet printhead nozzle structure
US6120135	Printhead having heating element conductors arranged in spaced apart planes and including heating elements having a substantially constant cross-sectional area in the direction of current flow
US6130319	Methods of making cationic azo dye compounds having flocculating properties using reactive dyes
US6132030	High print quality thermal ink jet print head
US6137502	Dual droplet size printhead
US6139138	Bellows system for an ink jet pen
US6142612	Controlled layer of tantalum for thermal ink jet printer
US6145971	Printer ink pump and method of supplying ink using motion of the carrier
US6149266	Method and apparatus for filling a rigid closed volume through a septum
US6151041	Less restrictive print head cartridge installation in an ink jet printer
US6151045	Surface modified nozzle plate
US6154233	System and method for separating raster data for printing
US6155664	Off-carrier inkjet print supply with memory
US6155678	Replaceable ink cartridge for ink jet pen
US6158843	Ink jet printer nozzle plates with ink filtering projections
US6158850	On carrier secondary ink tank with memory and flow control means
US6161915	Identification of thermal inkjet printer cartridges
US6161916	Memory expansion circuit for ink jet print head identification circuit
US6161918	Thermal ink jet printer
US6161927	Ink jet printer cartridge with press-on lid
US6164762	Heater chip module and process for making same
US6168257	Maintenance station for an ink cartridge for a printer
US6168267	Pressure controlled ink cartridge
US6170931	Ink jet heater chip module including a nozzle plate coupling a heater chip to a carrier
US6170936	Substrate heater circuit topology for inkjet printhead
US6172689	Apparatus and method for varying print element spacing in a printing system
US6172692	Multilevel ink mixing device and method using diluted and saturated color inks for inkjet printers

US6174357	Pigment-based ink compositions
US6176569	Transitional ink jet heater addressing
US6179417	Process for reducing blockage in nozzle holes for ink jet printing
US6183063	Angled printer cartridge
US6183064	Method for singulating and attaching nozzle plates to printheads
US6183079	Coating apparatus for use in an ink jet printer
US6190002	ink jet pen
US6190492	Direct nozzle plate to chip attachment
US6193349	Ink jet print cartridge having active cooling cell
US6193359	Ink jet print head containing a radiation curable resin layer
US6199977	Cartridge body for ink jet printer
US6203871	Encapsulant for leads in an aqueous environment
US6206367	Automatic sheet feeder for ink jet printer
US6206511	Multiple-cartridge off-board ink supplies for color ink jet printers
US6209203	Method for making nozzle array for printhead
US6210522	Adhesive bonding laminates
US6211970	Binary printer with halftone printing temperature correction
US6213579	Method of compensation for the effects of thermally-induced droplet size variations in ink drop printers
US6213587	Ink jet printhead having improved reliability
US6213596	Method and apparatus for reducing entrained air in ink for ink jet cartridges used in ink jet printers
US6215557	Entry of missing nozzle information in an ink jet printer
US6217150	Method of printing with an ink jet printer using multiple carriage speeds
US6224198	Method and apparatus for refilling ink jet cartridges with minimum ink loss
US6225370	Ink compositions
US6232395	Inks and treating liquid mixture
US6233061	Ink reduction device and method for a color inkjet printer
US6234612	Ink jet printing apparatus having first and second print cartridges receiving energy pulses from a common drive circuit
US6238037	Method of multi-dot interlace printing
US6243115	Pressurized ink supply and delivery system for an ink jet printer
US6243117	Print head cartridge and method of making a print head cartridge by one-shot injection molding
US6244697	Filter tower for ink jet printhead
US6247779	Printhead configuration
US6250751	Ink jet printer cartridge manufacturing method and apparatus
US6251173	Ink compositions containing ultraviolet absorbers
US6254214	System for cooling and maintaining an inkjet print head at a constant temperature
US6260942	Sensor and method for detecting protective tape on a printer cartridge

US6260957	Ink jet printhead with heater chip ink filter
US6264300	Methods of printing with an ink jet printer using inks with same hue and different saturation
US6264309	Filter formed as part of a heater chip for removing contaminants from a fluid and a method for forming same
US6264317	Corrosion resistant printhead body for ink jet pen
US6267251	Filter assembly for a print cartridge container for removing contaminants from a fluid
US6267472	Ink jet heater chip module with sealant material
US6267807	Method for grinding colorants
US6270211	Bubble elimination and filter tower structure
US6274896	Drive transistor with fold gate
US6281908	Alignment system and method of compensating for skewed printing in an ink jet printer
US6283584	Ink jet flow distribution system for ink jet printer
US6283588	Print head cartridge made with jointless one-piece frame consisting of a single material throughout
US6286924	Apparatus and method for heating ink jet printhead
US6288217	Black azo dyes
US6293143	Ink level sensing device and method therefor
US6293664	Multicolor liquid ink jet print head
US6296349	Aligning a tab circuit on print head intersecting surfaces
US6296350	Ink jet printer having driver circuit for generating warming and firing pulses for heating elements
US6299273	Method and apparatus for thermal control of an ink jet printhead
US6299274	Thermal ink jet printer cartridge identification
US6299292	Driver circuit with low side data for matrix inkjet printhead, and method therefor
US6302514	Method and apparatus for automatically correcting the fire timing of a printhead carrier due to linear encoder velocity errors
US6305780	Carriage drive system for a serial printer which minimizes registration errors
US6309452	Wet rub resistant ink compositions
US6310641	Integrated nozzle plate for an inkjet print head formed using a photolithographic method
US6312079	Print head drive scheme for serial compression of i/O in ink jets
US6315386	Ink jet maintenance station having acoustic dampening
US6318832	High resolution printing
US6323456	Method of forming an ink jet printhead structure
US6328424	Inkjet cartridge with simultaneous electrical and fluid connections
US6341842	Surface modified nozzle plate
US6350004	Method and system for compensating for skew in an ink jet printer
US6350010	Printer having one or more print cartridges installed during manufacture
US6356363	Method for halftoning using interlocked threshold arrays or interlocked dot profiles

US6357853	Waste ink management
US6357863	Linear substrate heater for ink jet print head chip
US6357864	Tab circuit design for simplified use with hot bar soldering technique
US6357870	Intermediate transfer medium coating solution and method of ink jet printing using coating solution
US6358354	UV and thermally curable adhesive formulation
US6361146	Adhesive bonding laminates
US6361162	Method and apparatus for fixing ink to a print receiving medium
US6371597	Tab circuit to minimize corrosion due to ink
US6371600	Polymeric nozzle plate
US6371605	Ink jet printer ink cartridge manufacturing method
US6371611	Media feed unit for an ink jet printer
US6375304	Maintenance mist control
US6382758	Printhead temperature monitoring system and method utilizing switched, multiple speed interrupts
US6386670	Printing black and three colors from three color data
US6386681	Carrier assembly and ink jet printhead assembly associated therewith
US6387719	Method for improving adhesion
US6391140	Adhesive material with flexibility modifiers
US6394503	System for securing tubing
US6394593	Vent system for ink jet pen having internal pressure regulator
US6395148	Method for producing desired tantalum phase
US6398333	Print head temperature adjustment based on media type
US6398346	Dual-configurable print head addressing
US6398354	Printhead apparatus and printer having separate filtration device and method for attaching said device
US6398357	Method of inkjet printing using ink having high wetting agent levels
US6402299	Tape automated bonding circuit for use with an ink jet cartridge assembly in an ink jet printer
US6402301	Ink jet printheads and methods therefor
US6402825	Surface modified carbon black
US6406110	Mechanism to automate adjustment of printhead-to-print medium gap spacing on an imaging apparatus
US6409298	System and method for controlling current density in thermal printheads
US6409308	Method of forming an inkjet printhead nozzle structure
US6409312	Ink jet printer nozzle plate and process therefor
US6412894	Ink cartridge and method for determining ink volume in said ink cartridge
US6422679	Maintenance station for an ink cartridge for a printer
US6425655	Dual curable encapsulating material
US6426801	Printer apparatuses and methods for using the same
US6428224	Error mapping technique for a printer
US6439698	Dual curable encapsulating material

US6443553	Printer having one or more print cartridges installed during manufacture
US6449831	Process for making a heater chip module
US6450607	Alignment method for color ink jet printer
US6450611	Ink jet swath prediction method
US6450710	Frame system for an ink jet printer
US6451989	Black azo dyes
US6457801	Method and apparatus for measuring ink dry time
US6467864	Determining minimum energy pulse characteristics in an ink jet print head
US6467900	Printzone media sensor for inkjet printer
US6471319	Method for synchronizing print start positions for an inkjet printer carriage
US6471427	Printhead carrier with rotatable bearings
US6481814	Apparatus and method for ink jet printhead voltage fault protection
US6481829	Manually actuated carrier latch mechanism
US6481837	Ink delivery system
US6485124	Optical alignment method and detector
US6485207	Printer assembly providing tension for idler pulley
US6494633	Transportable ink jet printer apparatus
US6497466	Automatic print gap adjustment assembly for an ink jet printer
US6498202	Ink jet ink compositions including latex binder and methods of ink jet printing
US6502920	Ink jet print head having offset nozzle arrays
US6502926	Ink jet semiconductor chip structure
US6508956	Paper coating test method and composition
US6512198	Removal of debris from laser ablated nozzle plates
US6517185	Low force ink jet printhead capping system
US6523945	Bubble generator for an ink jet print cartridge
US6528119	Paper coating for ink jet printing
US6530632	Method and apparatus for envelope printing with an ink jet printer
US6530643	Rotary wiping assembly for a nozzle plate in an ink jet printer
US6536867	Apparatus for increasing waste ink accumulation capacity in an ink jet
US6538049	Ink compositions
US6547356	Latching serial data in an ink jet print head
US6550893	Semiconductor chip for an ink jet printhead and method for making same
US6561613	Method for determining printhead misalignment of a printer
US6561641	Precision writing line control platen for high resolution ink jet printing
US6565176	Long-life stable-jetting thermal ink jet printer
US6565191	Method of color shingling to reduce visible printing defects
US6568785	Integrated ink jet print head identification system
US6575562	Performance inkjet printhead chip layouts and assemblies

US6575563	Power/volume regime for ink jet printers
US6579409	Segmented compliant platen for film sealing on ink jet cartridges
US6582049	Method and apparatus for detecting the position of an inkjet printhead
US6582055	Method for operating a printer having vertically offset printheads
US6585365	Paper coating for ink jet printing
US6585818	Pigment ink formulation
US6588872	Electronic skew adjustment in an ink jet printer
US6590023	Method for treating coating formulations
US6592203	Subcovered printing mode for a printhead with multiple sized ejectors
US6601934	Storage of total ink drop fired count in an imaging device
US6601941	Method and apparatus for predicting and limiting maximum printhead chip temperature in an ink jet printer
US6604808	Method for determining the skew of a printhead of a printer
US6612032	Manufacturing method for ink jet pen
US6612685	Method of selectively underfeeding print media in an ink jet printer
US6613687	Reverse reactive ion patterning of metal oxide films
US6616256	Serial integrated scan-based testing of ink jet print head
US6616261	Automatic bi-directional alignment method and sensor for an ink jet printer
US6616268	Power distribution architecture for inkjet heater chip
US6619786	Tab circuit for ink jet printer cartridges
US6623103	Laser ablation method for uniform nozzle structure
US6626513	Ink detection circuit and sensor for an ink jet printer
US6629747	Method for determining ink drop velocity of carrier-mounted printhead
US6629752	Method of ink jet printing with enhanced shingling and printer apparatuses for the same
US6629756	Ink jet printheads and methods therefor
US6631971	Inkjet printer and method for use thereof
US6637742	Multi-function media eject system in an ink jet printer
US6637853	Faulty nozzle detection in an ink jet printer by printing test patterns and scanning with a fixed optical sensor
US6637859	Ink jet mist control system
US6637866	Energy efficient heater stack using DLC island
US6638350	Ink jet ink composition
US6644779	Rotating waste ink accumulation system
US6644789	Nozzle assembly for an ink jet printer
US6646024	Ink compositions
US6648448	Waste ink management system for an ink jet printer
US6652634	Polymeric dispersants used for aqueous pigmented inks for ink-jet printing
US6655777	Automatic horizontal and vertical head-to-head alignment method and sensor for an ink jet printer
US6660369	Paper coating for ink jet printing

US6665092	Printer apparatuses and methods for using the same
US6666449	Star wheel surface enhancement and process of manufacture
US6668445	Method of increasing tab bond strength using reactive ion etching
US6669324	Method and apparatus for optimizing a relationship between fire energy and drop velocity in an imaging device
US6669329	Printer having one or more print cartridges installed during manufacture
US6676246	Heater construction for minimum pulse time
US6692107	Ink cartridge body and carrier assembly
US6693579	Method to improve sealing of ink jet printhead purge mechanism to printhead
US6695426	Ink jet printer improved dot placement technique
US6706118	Apparatus and method of using motion control to improve coatweight uniformity in intermittent coaters in an inkjet printer
US6709096	Method of printing and layered intermediate used in inkjet printing
US6709805	Inkjet printhead nozzle plate
US6712439	Integrated circuit and drive scheme for an inkjet printhead
US6712442	Method of image rasterization and imaging an address space an ink jet printers
US6715857	Printhead carrier housing and flexible printed circuit attached to same
US6733106	Ink jet maintenance station with radial orientation
US6736557	Printhead gap adjustment mechanism for an imaging apparatus
US6739698	Off-carrier tubing layout
US6742866	Ink jet print head having offset nozzle arrays
US6749288	Jet head box
US6758547	Method and apparatus for machine specific overcurrent detection
US6764162	Shingle masks that reduce banding effect on ink jet printers
US6764163	Heater configuration for tri-color heater chip
US6773083	Method and apparatus for non-volatile memory usage in an ink jet printer
US6773088	Double lipped printhead maintenance cap
US6773869	Inkjet printhead nozzle plate
US6776473	Method of mixing multi-level black and color inks in a printing system
US6776478	Ink source regulator for an inkjet printer
US6783918	Radiation curable resin layer
US6786575	Ink jet heater chip and method therefor
US6786580	Submersible ink source regulator for an inkjet printer
US6787050	Power distribution architecture for inkjet heater chip
US6789871	Reduced size inkjet printhead heater chip having integral voltage regulator and regulating capacitors
US6796019	Process for making a heater chip module
US6796556	Multi-function media eject system in an ink jet printer
US6796636	Two shot molded inkjet printhead lid for laser welding

US6796644	Ink source regulator for an inkjet printer
US6796646	Replaceable ink cartridge for ink jet pen
US6799829	Waste ink management system for an ink jet printer
US6805431	Heater chip with doped diamond-like carbon layer and overlying cavitation layer
US6811250	Ink conduit plugs for an inkjet printhead and methods of laser welding same
US6814793	Bleed control using cationic dyes as dispersant in pigment dispersions
US6817695	Printhead capping assembly
US6817707	Pressure controlled ink jet printhead assembly
US6820959	Ink jet cartridge structure
US6820961	Stationary ink mist chimney for ink jet printer
US6825675	Method for detecting a shorted printhead in a printer having at least two printheads
US6830307	Integrated circuit and drive scheme for an inkjet printhead
US6830646	Radiation curable resin layer
US6832829	Ink jet aerosol control using carrier movement as a piston pump
US6834937	Printhead corrosion protection
US6834941	Heater chip configuration for an inkjet printhead and printer
US6837577	Ink source regulator for an inkjet printer
US6841024	Compensation plates and compliant members for laser welding a non-uniformly thick work piece including inkjet printheads with non-uniformly thick printhead lids
US6843547	Missing nozzle detection method and sensor for an ink jet printer
US6843838	Inkjet ink, dye set, ink set, and method of use thereof
US6846063	Chimney for preventing ink misting
US6851777	Method and apparatus for sensing and maintaining a gap between an ink jet printhead and a print medium
US6852241	Method for making ink jet printheads
US6857723	Method, printer and printhead driver for printing using two printheads
US6863381	Inkjet printhead heater chip with asymmetric ink vias
US6863719	Ink jet ink with improved reliability
US6867286	Yellow dyes and ink compositions
US6869164	Maintenance station having acoustical dampening for use in an imaging apparatus
US6871926	Method of estimating an amount of available ink contained in an ink reservoir
US6880909	Method and apparatus for adjusting drop velocity
US6881677	Method for making a micro-fluid ejection device
US6886921	Thin film heater resistor for an ink jet printer
US6887782	Diffusion barrier and method therefor
US6890062	Heater chip configuration for an inkjet printhead and printer
US6890065	Heater chip for an inkjet printhead
US6893111	Imaging apparatus having a printhead carrier/belt interface device

US6893120	Multi-color ink reservoirs for ink jet printers
US6893174	Error mapping technique for a printer
US6896724	Pigmented inks and methods to improve ink performance
US6902256	Ink jet printheads
US6902867	Ink jet printheads and methods therefor
US6913345	Method and apparatus for firing nozzles in an ink jet printer
US6918653	Multi-fluid jetting device
US6923521	Subcovered printing mode for a printhead with multiple sized ejectors
US6929349	Thin film ink jet printhead adhesion enhancement
US6935715	Method of ink jet printing with improved end of page printing
US6935734	Apparatus and method for printing using a coating solid
US6935795	Method for reducing the effects of printhead carrier disturbance during printing with an imaging apparatus
US6938975	Method of reducing printing defects in an ink jet printer
US6951384	Ink jet heater chip and method therefor
US6955721	System and method of coating print media in an inkjet printer
US6956672	Method for mixing inks for high fidelity color printing
US6959979	Multiple drop-volume printhead apparatus and method
US6962078	Liquid level detection gauge and associated methods
US6962399	Method of warning a user of end of life of a consumable for an ink jet printer
US6974200	Fuse density on an inkjet printhead chip
US6974207	Laser welding methods and structures and control therefor including welded inkjet printheads
US6976752	Ink jet printer with resistance compensation circuit
US6984015	Ink jet printheads and method therefor
US6984701	Polymeric dispersants to improve smear in printing
US6998008	Method and apparatus for attaching an ink jet filter to an ink cartridge
US7001936	Pigmented inkjet ink
US7011383	Method for borderless printing using a printer adapted to print dots
US7011395	Print head energy storage
US7013804	Method of ink level determination for multiple ink chambers
US7014299	inkjet printhead heater chip with asymmetric ink vias
US7018012	Microfluid ejection device having efficient logic and driver circuitry
US7018503	Manufacturing method for ink jet pen
US7021741	Printhead cap assembly for an ink jet printer
US7025439	Ink jet printer with extended nozzle plate and method
US7025440	Low profile ink jet cartridge assembly
US7036898	Supplying power to logic systems in printers
US7036904	Printhead swath height measurement and compensation for ink jet printing
US7040746	Inkjet ink having yellow dye mixture
US7041226	Methods for improving flow through fluidic channels

US7041809	Metal complex dyes for inkjet inks
US7043838	Process for manufacturing a micro-fluid ejection device
US7044573	Printhead alignment test pattern and method for determining printhead misalignment
US7052125	Apparatus and method for ink-jet printing onto an intermediate drum in a helical pattern
US7055946	Apparatus and method for printing with an inkjet drum
US7059698	Method of altering an effective print resolution of an ink jet printer
US7059701	Method for calibrating production printing cartridges for use in an imaging system
US7077509	Inkjet printhead heater chip with asymmetric ink vias
US7080896	Micro-fluid ejection device having high resistance heater film
US7083266	Micro-miniature fluid jetting device
US7086713	Media detach from an intermediate printing member
US7090342	Passive ink pump system for an inkjet printer
US7097280	Printheads having improved heater chip construction
US7111916	System and method of fluid level regulating for a media coating system
US7118191	Apparatus and method for ink jet printing using variable interlacing
US7118620	Inkjet inks with particulate additive
US7121647	Method of applying an encapsulant material to an ink jet printhead
US7128385	System and method for ink jet printhead detection
US7128391	Self aligning printhead carrier bearings for an imaging apparatus
US7131714	N-well and other implanted temperature sense resistors in inkjet print head chips
US7140708	Method of edge-to-edge imaging with an imaging apparatus
US7140710	Dot management for an imaging apparatus
US7140793	Imaging apparatus having a carrier support and drive arrangement
US7147301	Ink jet printer that prints using chromatic inks of multiple types
US7147314	Single piece filtration for an ink jet print head
US7152951	High resolution ink jet printhead
US7156483	Method for determining ink drop velocity of carrier-mounted printhead using an optical scanner
US7156514	Inks and printheads with internal clog prevention
US7158255	Method for printing shingling print data
US7159964	Inkjet printer spit cup assembly
US7159974	Semipermeable membrane for an ink reservoir and method of attaching the same
US7163272	Inkjet print head
US7165830	Resistor protective layer for micro-fluid ejection devices
US7165831	Micro-fluid ejection devices
US7168799	Release mechanism for facilitating supply cartridge installation and removal
US7169538	Process for making a micro-fluid ejection head structure

US7178904	Ultra-low energy micro-fluid ejection device
US7182447	Wick for an inkjet printhead
US7188927	Printhead wiper cleaning mechanism for an imaging apparatus
US7192129	Bridging wick and method for an inkjet printhead
US7195341	Power and ground buss layout for reduced substrate size
US7195343	Low ejection energy micro-fluid ejection heads
US7195348	Laser welded inkjet printheads having non-uniformly thick printhead lids
US7198353	Integrated black and colored ink printheads
US7201476	Inkjet printhead with bubble handling properties
US7202178	Micro-fluid ejection head containing reentrant fluid feed slots
US7204574	Polyimide thickfilm flow feature photoresist and method of applying same
US7207652	Balanced satellite distributions
US7219979	Inkjet printhead packaging tape for sealing nozzles
US7222936	Printhead carrier positioning apparatus and method
US7234799	Two shot molded inkjet printhead lid for laser welding
US7244014	Micro-fluid ejection devices and method therefor
US7244015	Inkjet printhead heater chip with asymmetric ink vias
US7254890	Method of making a microfluid ejection head structure
US7255421	Imaging apparatus having a printhead carrier/belt interface device
US7258411	Method of informing a user of end of life of a consumable for an ink jet printer
US7258434	Inkjet printheads having multiple label placement positions for air diffusion vents
US7259588	Tri-state detection circuit for use in devices associated with an imaging system
US7261388	Inkjet ink tank with integral priming piston
US7267430	Heater chip for inkjet printhead with electrostatic discharge protection
US7267431	Multi-fluid ejection device
US7271104	Method for dry etching fluid feed slots in a silicon substrate
US7271105	Method for making a micro-fluid ejection device
US7273266	Micro-fluid ejection assemblies
US7273275	Air funneling inkjet printhead
US7275815	Die attach methods and apparatus for micro-fluid ejection device
US7289243	Apparatus and method for data compression optimized by print head architecture
US7290860	Methods of fabricating nozzle plates
US7290864	Heater chips with a reduced number of bondpads
US7290871	Ink cartridge with pocketed lid
US7291226	Progressive stencil printing
US7311385	Micro-fluid ejecting device having embedded memory device
US7311386	Die attach methods and apparatus for micro-fluid ejection device

US7322670	Inkjet recording apparatus
US7344994	Multiple layer etch stop and etching method
US7350888	Composite printhead fire signals
US7354131	Inkjet printhead nozzle plate
US7354137	Laser welding methods and structures and control therefor including welded inkjet printheads
US7354142	Gaseous detection for an inkjet system
US7354476	Inkjet ink composition
US7354962	Encapsulated pigment for ink-jet ink formulations and methods of producing same
US7361966	Actuator chip for inkjet printhead with electrostatic discharge protection
US7364261	Directionally dependent carrier isolator for an imaging apparatus
US7364268	Nozzle members, compositions and methods for micro-fluid ejection heads
US7367640	Methods and apparatuses for control of a signal in a printing apparatus
US7368396	Dry etching methods
US7374269	Methods for determining unidirectional print direction for improved quality
US7374274	Method of operating a microelectromechanical inkjet ejector to achieve a predetermined mechanical deflection
US7380897	Method and apparatus for calibrating a printhead
US7381753	Inkjet ink composition
US7384115	Method for controlling a printhead
US7390073	Method and apparatus for performing alignment for printing with a printhead
US7390078	Reduction of heat loss in micro-fluid ejection devices
US7393079	Ink jet printhead garage configured to perform maintenance functions
US7399064	Ink jetting assembly
US7399074	Ink tank for a printhead
US7401875	Inkjet printhead incorporating a memory array
US7401898	Ink jet print head adapted to minimize orientation-induced line-width variation
US7403307	Method of selecting inks for use in imaging with an imaging apparatus
US7404613	Inkjet print cartridge having an adhesive with improved dimensional control
US7410246	Heater chip configuration for an inkjet printhead and printer
US7413289	Low energy, long life micro-fluid ejection device
US7413915	Micro-fluid ejection head containing reentrant fluid feed slots
US7419231	Power sensing circuit
US7419246	Flexible circuits, flexible circuit assemblies and assemblies for use with fluid ejection apparatuses
US7425054	Reduced memory usage for delay buffer during printing swaths in an inkjet printer
US7429293	High gloss high gamut pigment inkjet ink
US7431279	Media support for an imaging apparatus

US7431442	Sealing for inkjet orifices
US7433090	Print/scan assembly and printer apparatus and methods including the same
US7438392	Microfluidic substrates having improved fluidic channels
US7438397	Methods and devices for purging gases from an ink reservoir
US7441869	Ink jet print head adapted to minimize orientation-induced line-width variation
US7445302	Method for determining a printhead gap in an ink jet apparatus that performs bi-directional alignment of the printhead
US7452041	Ink jet heater chip with internally generated clock signal
US7452044	Method and apparatus for selecting ink ejection nozzles in multi-chip print heads
US7452047	Method of printing using error diffused shingling masks
US7452058	Substantially planar ejection actuators and methods relating thereto
US7461930	Seal for inkjet orifices
US7467843	Methods for determining unidirectional print direction for improved print quality
US7470505	Methods for making micro-fluid ejection head structures
US7479203	Lamination of dry film to micro-fluid ejection head substrates
US7484823	Methods and apparatuses for regulating the temperature of multi-via heater chips
US7497538	Method of multipass printing using a plurality of halftone patterns of dots
US7524430	Fluid ejection device structures and methods therefor
US7531047	Method of removing residue from a substrate after a DRIE process
US7540584	Orifice plate protection device
US7540594	Printhead assembly having vertically overlapping ink flow channels
US7540599	Bridging wick and method for an inkjet printhead
US7543912	Unitary wick retainer and biasing device retainer for micro-fluid ejection head replaceable cartridge
US7543913	Printhead systems having multiple ink chambers with balanced and short ink paths
US7549736	Printhead assembly having ink flow channels to accommodate offset chips
US7559629	Methods and apparatuses for implementing multi-via heater chips
US7559630	Substantially planar fluid ejection actuators and methods related thereto
US7559711	Method for controlling media feed in an imaging apparatus
US7560039	Methods of deep reactive ion etching
US7560223	Fluid ejection device structures and methods therefor
US7571979	Thick film layers and methods relating thereto
US7573607	Method of selecting inks for use in imaging with an imaging apparatus
US7591549	Bubble purging system and method
US7594708	Methods and apparatuses for sensing temperature of multi-via heater chips
US7597419	Directionally dependent carrier isolator for an imaging apparatus

US7600850	Internal vent channel in ejection head assemblies and methods relating thereto
US7600853	Liquid applied seal for inkjet orifices
US7600858	Micro-fluid ejection head structure
US7604315	Method for maintaining printhead performance
US7614715	Micro-fluid ejection head having adaptive thermal control
US7625148	Trough support ribs and method of use
US7631953	Micro-fluid ejection apparatus signal communication devices and methods
US7631954	Delivery pressure compensation methods and apparatuses
US7635174	Heater chip test circuit and methods for using the same
US7641313	Apparatus for facilitating ink tank/printhead replacement in an imaging apparatus
US7654637	Photoimageable nozzle members and methods relating thereto
US7654665	Ink jet pen having a free ink chamber
US7661782	Current control circuit for micro-fluid ejection device heaters
US7661784	Methods and apparatus for control of a signal in a printing apparatus
US7661791	Apparatus and method for performing mechanical printhead alignment in an imaging apparatus
US7667605	RFID detection of air vent condition in inkjet printer supplies
US7669978	Inkjet printhead packaging tape for sealing nozzles
US7673957	Method for determining an optimal non-nucleating heater pulse for use with an ink jet printhead
US7673970	Flexible circuit corrosion protection
US7673973	Micro-fluid ejecting device having embedded memory devices
US7673988	Micro-miniature fluid jetting device
US7677701	Micro-fluid ejection head with embedded chip on non-conventional substrate
US7681980	Ink identification and detection system with ink for use therewith
US7681991	Composite ceramic substrate for micro-fluid ejection head
US7682005	Ink tank configured to accommodate high ink flow rates
US7682434	Wax emulsion for inkjet ink
US7690115	Method of making a micro-fluid ejection device
US7690752	Methods and apparatus for optimizing energy supplied to a print head heater
US7690760	High resolution ink jet printhead
US7690776	Gaseous detection for an inkjet system
US7690778	Printhead auto-alignment detection system that uses a printed printhead alignment pattern containing fluorescing material
US7712740	Exit shaft dampening device to improve print quality
US7712986	Printhead carrier for an imaging apparatus
US7717634	Trough support ribs
US7726758	Composite printhead fire signals
US7735952	Method of bonding a micro-fluid ejection head to a support substrate
US7735965	Overhanging nozzles

US7738137	Inkjet print head synchronous serial output for data integrity
US7749397	Low ejection energy micro-fluid ejection heads
US7758145	Long term maintenance for ink jet printhead
US7766438	Method of ink evaporation prediction for an ink reservoir
US7766444	Method for controlling media feed in an imaging apparatus
US7766455	Flexible adhesive materials for micro-fluid ejection heads and methods relating thereto
US7766470	Ink jet printhead cartridge having an ink fill access port in fluid communication with the filter tower
US7766568	Printhead carrier having zero clearance bearing arrangement
US7767103	Micro-fluid ejection assemblies
US7784909	ink jetting structure having protected connections
US7784916	Micro-fluid ejection heads with multiple glass layers
US7784917	Process for making a micro-fluid ejection head structure
US7784918	Low energy, long life micro-fluid ejection device
US7784919	Methods for improving flow through fluidic channels
US7794073	Ink jet printer
US7815285	Printhead having a plurality of print modes
US7815289	Micro-fluid ejection heads and methods for bonding substrates to supports
US7819498	Methods and systems using printhead tank memory to determine printhead tank configuration
US7819506	Flexible encapsulant materials for micro-fluid ejection heads and methods relating thereto
US7841687	System and method for identifying a prescribed inkjet ink
US7841700	Radiation activated micro-fluid ejection devices and methods for ejecting fluids
US7841702	Heater stack and method for making heater stack with heater element decoupled from substrate
US7841712	Automatic printhead and tank install positioning
US7842347	Inkjet printing of layers
US7850277	Integrated maintenance and paper pick system
US7850284	Method for dry etching fluid feed slots in a silicon substrate
US7850286	Micro-fluid ejector pattern for improved performance
US7862137	Method and system for avoiding bottom of page printing artifacts
US7871143	Ground structure for temperature-sensing resistor noise reduction
US7901021	Methods and apparatuses for control of a signal in a printing apparatus
US7905569	Planarization layer for micro-fluid ejection head substrates
US7905572	Apparatus for mounting a removable ink tank in an imaging apparatus
US7918015	Method for making a thin film resistor
US7918527	Method for use in achieving velocity optimization for a printhead
US7918550	Membrane divided foam for use in an ink jet cartridge
US7922280	Maintenance station for an imaging apparatus

US7922297	Ink ejection device including a silicon chip having a heater stack positioned over a corresponding power transistor
US7937835	Composite ceramic substrate for micro-fluid ejection head
US7938508	Low profile printhead
US7938513	Heater chips with silicon die bonded on silicon substrate and methods of fabricating the heater chips
US7938523	Fluid supply tank ventilation for a micro-fluid ejection head
US7938975	Method for making a micro-fluid ejection device
US7954926	Hydrophobic nozzle plate structures for micro-fluid ejection heads
US7954927	Nozzle members, compositions, and methods for micro-fluid ejection heads
US7954929	Micro-fluid ejecting device having embedded memory in communication with an external controller
US7959261	Micro-fluid ejection devices having reduced input/output addressable heaters
US7976115	Printhead nucleation detection using thermal response
US7977398	UV-curable coatings and methods for applying UV-curable coatings using thermal micro-fluid ejection heads
US7984959	Detection of missing nozzle for an inkjet printhead
US7992952	Enhanced communications protocol for improved modularity in a micro-fluid ejection device
US7992965	Ink jet printhead configured to minimize ink-flow dead zones in the bubble chamber
US7992982	Printhead carrier with latching devices
US8001893	Rotary inkjet imaging apparatus and method for printing on a stationary page of media in a curved configuration
US8007990	Thick film layers and methods relating thereto
US8011658	Exit shaft damping device to improve print quality
US8027065	Intelligent hardware for detecting color value of an image
US8029100	Micro-fluid ejection heads with chips in pockets
US8038273	Ink tank venting
US8042897	Method for compensating shift in on resistance of transistor of printhead
US8042912	Heater stack having resistive layer with underlying insulative gap and method for making heater stack
US8061811	Micro-fluid ejection heads with chips in pockets
US8066363	Printhead filter systems and methods for manufacturing the same
US8070251	inkjet printer maintenance system
US8070259	Methods and apparatus for improved ejection head planarity and reduced ejection head damage
US8070264	Micro-fluid ejection heads with multiple glass layers
US8070265	Heater stack in a micro-fluid ejection device and method for forming floating electrical heater element in the heater stack
US8071275	Methods for planarizing unevenness on surface of wafer photoresist layer and wafers produced by the methods
US8079672	Heater stack and method for making heater stack with cavity between heater element and substrate
US8083316	Printhead carrier with height-adjustable bearing mechanism for continuous adjustment of the printhead carrier position

US8083321	Removable radiation cured composition and process for protecting a micro-fluid ejection head
US8087756	Heater chips with silicon die bonded on silicon substrate
US8091997	System with security device separate from ink tank in a printer
US8109608	Micro-fluid ejection head and stress relieved orifice plate therefor
US8113611	Micro-fluid ejection apparatus signal communication devices and methods
US8113618	Methods and systems using printhead tank memory to determine printhead tank configuration
US8132889	Method for detecting purging ink flow through printhead heater chip nozzles by thermal analysis
US8132904	Filter/wicking structure for micro-fluid ejection head
US8138775	CMOS-controlled printhead sense circuit in inkjet printer
US8158336	Process for making a micro-fluid ejection head structure
US8162438	Rotary printhead disc in a rotary inkjet imaging apparatus
US8163819	Adhesive compositions, micro-fluid ejection devices and methods for attaching micro-fluid ejection heads
US8172369	Inkjet printhead substrate with distributed heater elements
US8172370	Planar heater stack and method for making planar heater stack
US8172378	Carbon black pigmented inkjet ink having multiple humectants
US8172381	Multi-color ink tank with features spaced by distances ensuring interface with printhead and carrier support structure
US8173031	Photoimageable nozzle members and methods relating thereto
US8188158	Polymer based ink formulation
US8191987	UV-curable coatings and methods for applying UV-curable coatings using thermal micro-fluid ejection heads
US8192000	Fluid height backpressure system for supplying fluid to a printhead and backpressure device used therein
US8210516	Exit shaft dampening device to improve print quality
US8210629	METHOD FOR MEASURING INK FLOW RATE IN AN INKJET PRINthead
US8210631	Method for Minimizing Printing Defects due to Missing Nozzle in Media Processing Device
US8210660	High Volume Ink Delivery Manifold for a Page Wide Printhead
US8235518	UV-CURABLE COATINGS AND METHODS FOR APPLYING UV-CURABLE COATINGS USING THERMAL MICRO-FLUID EJECTION HEADS
US8251469	LOW ENERGY SOLID INK JET IMAGING APPARATUS
US8256875	Two Pass Print Mode Method and Apparatus for Limiting Wind-Related Print Defects
US8256880	FLUID HEIGHT BACKPRESSURE DEVICE IN A SYSTEM FOR SUPPLYING FLUID TO A PRINthead
US8256885	CYAN INKJET INK HAVING IMPROVED PRINT QUALITY WITH POROUS PHOTO MEDIA
US8270024	Apparatus and Method for Printing Within a Print Zone on the Surface of a Skewed Object Moving in a Given Direction of Travel
US8277550	YELLOW INKJET INK HAVING IMPROVED PRINT QUALITY WITH POROUS PHOTO MEDIA

US8282723	MAGENTA INKJET INK HAVING IMPROVED PRINT QUALITY WITH POROUS PHOTO MEDIA
US8292402	PHOTOIMAGEABLE DRY FILM FORMULATION
US8292411	MULTI-COLOR INK TANK WITH ELEMENTS ENABLING COMPATIBILITY WITH A SUPPORT STRUCTURE FOR INDIVIDUAL DIFFERENT COLOR IN TANKS
US8313164	TOUCH-FREE NOZZLE SEALANT REMOVAL
US8313167	TILED MANIFOLD FOR A PAGE WIDE PRINTHEAD
US8313168	Wind Baffles for Micro-Fluid Ejection Devices
US8324076	MICRO-FLUID EJECTION HEADS AND METHODS FOR BONDING SUBSTRATES TO SUPPORTS
US8328330	NOZZLE PLATE FOR IMPROVED POST-BONDING SYMMETRY
US8328920	INKJET INK HAVING IMPROVED HIGH RESOLUTION NOZZLE PLATE COMPATIBILITY
US8342642	Method and Latching Assembly for Securing Replaceable Unit
US8348397	FLUID HEIGHT BACKPRESSURE DEVICE IN A SYSTEM FOR SUPPLYING FLUID TO A PRINTHEAD
US8349211	Fluorescent Additives For Ink
US8366245	Fin-Shaped Heater Stack And Method For Formation
US8366952	LOW EJECTION ENERGY MICRO-FLUID EJECTION HEADS
US8372898	AQUEOUS CYAN INKJET INK COMPOSITION CONTAINING A MIXTURE OF A SELF-DISPERSED PIGMENT AND A SPECIFIC COSOLVENT MIXTURE
US8376523	Capping Layer for Insulator in Micro-Fluid Ejection Heads
US8393712	CHEVRON EJECTION CHIPS FOR MICRO-FLUID APPLICATIONS
US8393723	BUBBLE PURGING SYSTEM FOR A FLUID EJECTION HEAD
US8394714	ANTI-REFLECTIVE COATINGS FOR MICRO-FLUID APPLICATIONS
USD423569	Ink cartridge for printer
USD430897	Ink cartridge for printer
USD437611	Ink cartridge for printer
USD441787	Ink cartridge for printer
USD450083	Ink cartridge for printer
USD587748	Ink tank with RFID sensor and serpentine vent
USD650418	Tri-color tank with serpentine air vents
USD650419	Single reservoir tank with serpentine air vent
USD650420	Narrow ink tank with serpentine air vent
USD665841	INK TANK FOR MICRO-FLUID APPLICATIONS
USD667491	COLOR INK TANK WITH MICRO-FLUID APPLICATIONS

Pending Patent Applications:

Pub. No.	App. No.	Title
US20080085369	11839671	THERMALLY INKJETTABLE ACRYLIC DIELECTRIC INK FORMULATION AND PROCESS
US20090255438	12103307	THERMALLY CURABLE ENCAPSULANT COMPOSITION FOR INKJET PRINT CARTRIDGE
US20100045736	12195451	MODULAR MICRO-FLUID EJECTION HEAD ASSEMBLY
US20100111509	12265342	PLANAR HEATER STACK AND METHOD FOR MAKING PLANAR HEATER STACK WITH CAVITY WITHIN PLANAR HEATER SUBSTRATA ABOVE SUBSTRATE
US20100149232	12336391	System and Method for Identifying a Particular Inkjet Ink
US20110123932	12622479	METHOD FOR FORMING A FLUID EJECTION DEVICE
US20110094102	12690855	Micro-Fluid Ejection Devices, Methods for Making Micro-Fluid Ejection Heads, And Micro-Fluid Ejection Head Having High Resistance Thin Film Heaters
US20100238233	12770897	INK JET PRINTHEAD CARTRIDGE HAVING AN INK FILL ACCESS PORT IN FLUID COMMUNICATION WITH THE FILTER TOWER
US20100229391	12786457	MICRO-FLUID EJECTION HEADS AND METHODS FOR BONDING SUBSTRATES TO SUPPORTS
US20110292122	12788446	SKEWED NOZZLE ARRAYS ON EJECTION CHIPS FOR MICRO-FLUID APPLICATIONS
US20110292124	12788462	LAMINATE CONSTRUCTS FOR MICRO-FLUID EJECTION DEVICES
US20110316932	12824358	NOZZLE COVERING FOR EJECTION CHIPS IN MICRO-FLUID APPLICATIONS
US20100285411	12842329	MICRO-FLUID EJECTION DEVICES WITH A POLYMERIC LAYER HAVING AN EMBEDDED CONDUCTIVE MATERIAL
US20110292129	12847233	PARTITIONED ARRAY EJECTION CHIPS FOR MICRO-FLUID APPLICATIONS
US20120075383	12893124	SINGULATING EJECTION CHIPS FOR MICRO-FLUID APPLICATIONS
US20120091121	12907282	HEATER STACK FOR INKJET PRINTHEADS
US20120105545	12916796	EJECTION CHIP FOR MICRO-FLUID APPLICATIONS
US20120105555	12948122	FLUID CONTAINER HAVING MIXING CHAMBERS FOR MICRO-FLUID APPLICATIONS
US20120127241	12948878	SYSTEMS FOR PRIMING FLUID JETTING DEVICES
US20120127222	12951210	INKJET PRINTER MAINTENANCE SYSTEM
US20120154486	12974725	Micro-Fluid Ejection Head
US20120169812	12980556	CONSUMABLE SUPPLY ITEM, FLUID RESERVOIR AND RECIRCULATION SYSTEM FOR MICRO-FLUID APPLICATIONS
US20120169814	12982976	Priming System for Inkjet Printheads
US20120172490	12982985	CARBON BLACK PIGMENTED INKJET INK TO REDUCE KOAGULATION AND IMPROVE TEXT QUALITY
US20120182355	13008428	DIE ATTACH COMPOSITION FOR SILICON CHIP PLACEMENT ON A FLAT SUBSTRATE HAVING IMPROVED THIXOTROPIC PROPERTIES
US20120188308	13013982	INKJET PRINTHEADS AND FLUID EJECTING CHIPS
US20120218334	13036645	FIRE PULSE CIRCUIT AND METHOD OF USE
US20120218356	13036802	CONSUMABLE SUPPLY ITEM WITH CAPACITIVE FLUID LEVEL DETECTION FOR MICRO-FLUID APPLICATIONS
US20120229569	13041793	FLUID EJECTION DEVICE AND METHOD FOR FABRICATING FLUID EJECTION DEVICE
US20120236076	13046845	PRINTHEADS AND METHODS FOR ASSEMBLING PRINTHEADS

US20120273529	13094107	CONTAINER WITH TUBE DRAWING DESIRED FLUID CONCENTRATIONS FOR MICRO-FLUID APPLICATIONS
US20120273597	13097549	METHOD FOR FABRICATING FLUID EJECTION DEVICE
US20120273594	13097566	METHOD FOR FABRICATING FLUID EJECTION DEVICE
US20120274707	13097594	EJECTION DEVICES FOR INKJET PRINTERS AND METHODS FOR FABRICATING EJECTION DEVICES
US20120293584	13112278	FLUID EJECTION DEVICES AND METHODS FOR FABRICATING FLUID EJECTION DEVICES
US20120306973	13149154	Consumable Supply Item with Fluid Sensing for Micro-Fluid Applications
US20120306974	13149169	Consumable Supply Item with Fluid Sensing and Pump Enable for Micro-Fluid Applications
US20120320130	13160568	FLUID EJECTION DEVICE AND METHOD FOR FABRICATING FLUID EJECTION DEVICE
US20110319513	13168063	SPRAY COATABLE ADHESIVE FOR BONDING SILICON DIES TO RIGID SUBSTRATES
US20110318882	13168219	METHOD OF RESTRICTING CHIP MOVEMENT UPON BONDING TO RIGID SUBSTRATE USING SPRAY COATABLE ADHESIVE
US20130002771	13172904	FLUID EJECTION DEVICES
US20110267401	13185564	ROTARY INKJET IMAGING APPARATUS AND METHOD FOR PRINTING ON A STATIONARY PAGE OF MEDIA IN A CURVED CONFIGURATION
US20130021405	13187755	SUBSTRATE STRUCTURE FOR EJECTION CHIP AND METHOD FOR FABRICATING SUBSTRATE STRUCTURE
US20110279543	13191507	ROTARY INKJET IMAGING APPARATUS AND METHOD FOR PRINTING ON A STATIONARY PAGE OF MEDIA IN A CURVED CONFIGURATION
US20130027477	13191558	PIEZOELECTRIC INKJET PRINTHEADS AND METHODS FOR MONOLITHICALLY FORMING THE SAME
US20120120164	13234660	FLUID CONTAINER HAVING LATCHING INTERFACE FOR MICRO-FLUID APPLICATIONS
US20120120165	13234671	FLUID CONTAINER HAVING FLUID INTERFACE FOR MICRO-FLUID APPLICATIONS
US20120133710	13237015	Heater Chips with Silicon Die Bonded on Silicon Substrate, Including Offset Wire Bonding
US20120092410	13249979	SOLVENT RESISTANT PRINTHEAD
US20120026222	13270356	SYSTEMS AND METHODS FOR COMMUNICATION OF DATE INFORMATION BETWEEN AN INK TANK AND A PRINTING DEVICE
	13350155	A NON-PHOTOSENSITIVE SILOXANE COATING FOR PROCESSING HYDROPHOBIC PHOTOIMAGEABLE NOZZLE PLATE
	13399059	MAINTENANCE STATION FOR AN IMAGING APPARATUS
	13399076	METHOD OF MAINTENANCE FOR AN IMAGING APPARATUS
US20120152894	13407865	MICRO-FLUID EJECTION DEVICE AND METHOD FOR ASSEMBLING A MICRO-FLUID EJECTION DEVICE BY A WAFER-TO-WAFER BONDING
	13408506	VARIABLE FORCE WIPER FOR MAINTENANCE STATION OF IMAGING DEVICE
US20120162297	13411777	TWO PASS PRINT MODE METHOD AND APPARATUS FOR LIMITING WIND-RELATED PRINT DEFECTS
	13417657	AIR REMOVAL AND INK SUPPLY SYSTEM FOR AN INKJET PRINTHEAD
	13425695	FLUID CONTAINER

	13432209	PLANAR HEATER STACK AND METHOD FOR MAKING PLANAR HEATER STACK WITH CAVITY WITHIN PLANAR HEATER SUBSTRATA ABOVE SUBSTRATE
	13433330	AQUEOUS MAGENTA INKJET INK COMPOSITION CONTAINING A MIXTURE OF SELF-DISPERSED PIGMENT AND A XANTHENE DYE
	13457633	SCORED MEDIA SUBSTRATE AND CURLING REMEDY FOR MICRO-FLUID APPLICATIONS
	13457640	SCORED MEDIA SUBSTRATE AND CURLING REMEDY FOR MICRO-FLUID APPLICATIONS
	13468470	FORMULATION FOR SILICON-DOPED INK USED TO PREVENT CHIP ETCHING
US20120224004	13474108	TOUCH-FREE NOZZLE SEALANT REMOVAL
	13517675	FLUID CONTAINER WITH BUBBLE ELIMINATOR
	13530179	FLUID CONTAINER HAVING TWO SEALING FILMS FOR MICRO-FLUID APPLICATIONS
	13530196	PERISTALTIC PUMP FOR IMAGING APPARATUS
	13586964	CONTAINER WITH FLOATING VENT TUBE FOR MICRO-FLUID APPLICATIONS
	13626921	EXPANDABLE WASTE INK RECEPTACLE FOR MICRO-FLUID SUPPLY ITEM
	13666062	ENCAPSULATION OF INKJET HEATER CHIP FOR ION BEAM CROSS-SECTION POLISHING AND METHOD OF PREPARING CHIP CROSS-SECTION SAMPLE
	13719934	Ink Smear Measurement in an Imaging Apparatus
	13731185	Scan and Pause Method for Determining Ink Drying Time in an Inkjet Printer
	13731199	Sequential Scan Method for Determining Ink Drying Time in an Inkjet Printer
	13731293	Inkjet Printer with Dual Function Alignment Sensor for Determining Ink Drying Time
	13731352	Sensor for Determining Ink Drying Time in a Page-wide Inkjet Printer
	13731627	Fluid Level Sensing Tank Materials
	61697966	Dry Time Kinetics for Micro-Fluid Applications
	61700013	MAINTENANCE VALES FOR MICRO-FLUID EJECTION HEADS
	61700919	CARTRIDGE EJECTOR FOR PAGEWIDE MICRO-FLUID EJECTION HEADS
	61704670	DIRECTIONAL INTAKE VALVE FOR CONTAINER USEFUL AS SUPPLY ITEM IN MICRO-FLUID APPLICATIONS
	61704679	PUMPING TIME FOR FLUID LEVEL SENSING IN CONTAINERS USEFUL AS SUPPLY ITEM IN MICRO-FLUID APPLICATIONS
	61705744	MODULAR EJECTION HEAD PACKAGE AND MAINTENANCE SURFACE FOR MICRO-FLUID APPLICATIONS