

Recent IBM patents

The following patents were recently issued by the countries in which the inventions were made. For U.S. patents, titles and names supplied to us by the U.S. Patent Office are reproduced exactly as they appear on the original published patent.

Federal Republic of Germany

2,314,746	D. Seybold and K. Main	Method for the Thermal Oxidation of Silicon
2,447,225	G. Paal and J. Wuestenhagen	Method of Developing and Stripping Positive Photoresist
2,712,998	W. Hasler, S. Padmanabhan, K. Staudenmaier, N. Koeller, and M. Krautwald	Type Belt Printer
2,715,983	J. Huesing and H. H. Lampe	Apparatus for Monitoring and Checking Processor Operation Sequences
2,900,250	F. Schlegel	Clamping Arrangement for Manifold Plugs in Devices Used in Data Processing Technology
2,966,357,808	R. Brosch, H. Schettler, H. Schumacher, and R. Zueklke	Method and Circuitry for Equalizing the Differing Delays of Semiconductor Chips
3,065,622,508	F. C. Wernicke	Circuit Arrangement for Capacitive Read Signal Amplification in an Integrated Semiconductor Store with Storage Cells in MTL
3,161,126,508	A. Blum	Shift Register for Checking and Testing Purposes

France

8,661	V. Cazcarra	Method of Increasing the Gettering Effect in the Bulk of Semiconductor Bodies Utilizing a Preliminary Thermal Annealing System
29,919	J. P. Pantani	Interface Circuit in Conformity with EIA Standards and Implemented with an Operational Amplifier-like Circuit

Switzerland

13,739	H. Schaal	Integrated Communications Adapter
20,897	P. R. Chevillat	Arrangement for Determining the Optimum Scan Angle for Printed Documents

United Kingdom

12,814	D. J. Barclay	Counter Electrode Arrangement of an Electrochromic Display Device
20,933	I. W. Bolton	Control of Relative Humidity in Machine Enclosures
1,010,221	T. J. Rodd	Design of Electrochromics Display Terminal

United States

4,399,605	S. Dash, R. R. Garnache, and R. R. Troutman	Method of Making Dense Complementary Transistors
4,399,748	W. D. Thorne	Multiplexed Hammer Dot Band Matrix Printer
4,399,936	W. J. Rueger	Pantocam Web Threading Apparatus
4,399,959	R. J. Godsoe and J. W. Wenner	Constant Force Windup Spring Web Threading System
4,400,100	A. Aviram and S. O. Ellmann	Four Layered Ribbon for Electrothermal Printing
4,400,104	C. M. McCray and W. A. Grubbs	Shuttle Printer and Drive Mechanism
4,400,246	G. A. Condas and S. K. Doss	Process for Applying Barrier Layer Anodic Coatings

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4,400,616	P. R. Chevillat and F. Gfeller	Document Card Containing Information in Holographic Form
4,400,618	J. R. Bupp and L. R. Maier	Method of Detecting and Analyzing Damage in Printed Circuit Boards
4,400,636	T. L. Andrade	Threshold Voltage Tolerant Logic
4,400,713	M. C. Bauge and P. B. Mollier	Matrix Array of Semiconducting Elements
4,400,715	S. G. Barbee, J. M. Leas, J. R. Lloyd, and A. Nagarajan	Thin Film Semiconductor Device and Method for Manufacture
4,400,747	M. M. Siverling	Servo System for Data Storage Apparatus
4,400,753	W. E. Beebe and D. R. Duff	Universal Magnetic Recording Disk Cartridge
4,400,770	S. K. Chan, J. A. Gerardi, and B. L. McGilvray	Cache Synonym Detection and Handling Means
4,400,773	P. J. Brown, R. J. Dugan, and R. R. Guyette	Independent Handling of I/O Interrupt Requests and Associated Status Information Transfers
4,400,776	D. Bazlen, D. W. Bock, K. J. Getzlaff, J. Hajdu, and H. Painke	Data Processor Control Subsystem
4,400,793	C. Schuenemann	Method and Arrangement for Fast Access to CCD-Stores
4,403,394	J. F. Shepard and P. J. Tsang	Formation of Bit Lines for RAM Device
4,404,519	D. W. Westcott	Testing Embedded Arrays in Large Scale Integrated Circuits
4,404,560	E. R. Williams, Jr.	Capacitive Transducer for Providing Precise Angular Positional Information
4,404,577	H. C. Cranford, Jr., C. R. Hoffman, and G. B. Stephens	Electrically Alterable Read Only Memory Cell
4,404,609	R. E. Jones, Jr.	Thin Film Inductive Transducer for Perpendicular Recording
4,404,635	R. C. Flaker	Programmable Integrated Circuit and Method of Testing the Circuit Before it is Programmed
4,404,647	D. S. Jones, D. W. Larkin, M. F. Toner, and C. E. Werve	Dynamic Array Error Recovery
4,404,652	R. D. Holmes	Side Feed Expander
4,404,662	C. J. Masenas, Jr.	Method and Circuit for Accessing an Integrated Semiconductor Memory
4,413,399	D. J. Crawford and R. G. Meeker	Apparatus and Method for Precisely Positioning an Object
4,413,901	E. P. Kollar	Recirculating Automatic Document Feeder
4,413,919	S. L. Applegate and J. J. Molloy	Ribbon Loading System for Printers
4,414,059	S. E. Blum, K. H. Brown, and R. Srinivasan	Far UV Patterning of Resist Materials
4,414,069	J. J. Cuomo	Negative Ion Beam Selective Etching Process
4,414,166	P. M. Charlson, C. R. Schwieters, and J. H. Souk	Laser Joining of Thermoplastic and Thermosetting Materials
4,414,314	L. H. Kaplan, R. D. Kaplan, and S. M. Zimmerman	Resolution in Optical Lithography
4,414,468	G. J. Laurer and O. L. Stokes, Jr.	Systematic Error Correction in Bar Code Scanner
4,414,579	A. J. Dattilo, J. F. McDonald, and C. A. Queener	Information Transmitting and Receiving Station Utilizing a Copier-Printer
4,414,583	R. B. Hooker III	Scanned Light Beam Imaging Method and Apparatus
4,414,591	J. W. Wenner	Dual Access Flexible Disk Drive
4,414,644	G. E. Tayler	Method and Apparatus for Discarding Data From a Buffer After Reading Such Data
4,414,647	W. J. Kabelac	Bubble Domain Replicator for Contiguous-Disk Devices
4,414,649	T. J. Gallagher and K. Ju	Gap Tolerant Merge Element for Contiguous-Disk Bubble Devices
4,415,025	J. L. Horvath	Thermal Conduction Element for Semiconductor Devices
4,415,113	D. E. Houser, H. Kohn, and G. L. Williams	Impact Printer Apparatus
4,415,224	L. D. Dickson	Holographic Scanner Disc With Different Facet Areas
4,415,634	H. Hinkel, U. Kuenzel, E. Max, and J. Schneider	Magnetic Disk Substrate With a Core of Synthetic Material
4,415,800	J. H. Dodge and L. M. Ernst	Method and Apparatus for Monitoring and Controlling Heated Fusers for Copiers
4,415,851	G. O. Langner and H. C. Pfeiffer	System for Contactless Testing of Multi-Layer Ceramics
4,415,905	J. W. Mitchell, M. W. Schafer, and C. J. Sambucetti	Electrolytic Printing Process With Wear Resistant Electrode
4,415,914	F. P. Giordano and R. J. Henshaw	Gray Scale Electrostatic Recording System and a Stylus Driver Therefor
4,415,942	A. Frosch, H. Hinkel, and G. Kraus	Magnetic Disk Substrate of Fiber-Reinforced Plastic
4,415,987	T. W. Collins and L.-J. Tao	Magnetic Bubble Passive Replicator
4,416,505	L. D. Dickson	Method for Making Holographic Optical Elements with High Diffraction Efficiencies
4,416,532	A. A. Rosati	Latching and Tensioning Mechanism for Closed-Loop Belt Supporting Capstan
4,416,588	R. Karliner	Air Compressor for Paint Pumps
4,416,653	T. A. Breski and R. A. Ryan	Apparatus for Stacking Fan-Folded Paper
4,416,725	J. J. Cuomo, P. A. Leary, and D. S. Yee	Copper Texturing Process
4,417,120	D. L. Lumbra, D. W. Phelps, Jr., S. J. Samuelsen, and W. C. Ward	Percussive Arc Welding

4,417,159	J. A. Dorier, J. M. Mosley, R. O. Seegar and S. D. Weitzel	Diode-Transistor Active Pull Up Driver
4,417,203	H. C. Pfeiffer, R. A. Simpson, and W. Stickel	System for Contactless Electrical Property Testing of Multi-Layer Ceramics
4,417,239	K. R. Demke and J. L. Mumola	Interactive Combination Display
4,417,242	U. Bapst, H. Keller, H. Meyr, and H. R. Muller	Method for Connecting or Disconnecting Selected Stations in a Ring Communication System, and Ring Communication System Including Selectively Connectable Stations
4,417,244	C. M. Melas	Automatic Path Rearrangement for Blocking Switching Matrix
4,417,245	C. M. Melas and M. A. Patten	Digital Space Division Exchange
4,417,256	G. L. Fillmore, V. C. Martin, and G. L. Ream	Break-Off Uniformity Maintenance
4,417,295	P. E. Stuckert	Air Jet Powered Cooling System for Electronic Assemblies
4,417,304	J. M. Dinwiddie, Jr.	Synchronous Cycle Steal Mechanism for Transferring Data Between a Processor Storage Unit and a Separate Data Handling Unit
4,417,305	V. Berstis	Method for Evaluating Boolean Expressions
4,417,321	P. Y. Chang and V. M. Hoffman	Qualifying and Sorting File Record Data
4,417,322	R. E. Berry and J. H. Wilson	Report Generating Control System for Text Processing Machines
4,417,824	R. L. Paterson and J. M. Sublette	Optical Keyboard with Common Light Transmission Members
4,417,943	C. Jacques and J.-C. Felix	Method for Controlling the Oxygen Level of Silicon Rods Pulled According to the Czochralski Technique
4,417,946	H. Bohlen, H. Engelke, J. Greschner, and P. Nehmiz	Method of Making Mask for Structuring Surface Areas
4,417,948	V. I. Mayne-Banton and R. Srinivasan	Self Developing, Photoetching of Polyesters by Far UV Radiation
4,418,345	K. R. Demke and J. L. Mumola	Displaying a Full Page Representation
4,418,383	D. E. Doyle, G. A. Hellwarth, and J. L. Qunstrom	Data Flow Component for Processor and Microprocessor Systems
4,418,401	J. P. Bansal	Latent Image RAM Cell
4,418,409	L. C. Queen	Byte Data Activity Compression
4,418,410	V. Goetze and D. Schuett	Error Detection and Correction Apparatus for a Logic Array
4,418,425	J. W. Fennel, Jr. and M. T. Heinz, Jr.	Encryption Using Destination Addresses in a TDMA Satellite Communications Network
4,419,809	J. Riseman and P. J. Tsang	Fabrication Process of Sub-micrometer Channel Length MOSFETS
4,419,810	J. Riseman	Self-Aligned Field Effect Transistor Process
4,420,203	C. J. Aug, C. J. Guenther, and J. B. Randolph	Semiconductor Module Circuit Interconnection System
4,420,776	S. A. Jove and J. E. Vaughn	PSK Modulation in AC Bias Data Recording
4,420,780	K. L. Deckert	Self-Loading Magnetic Head Air Bearing Slider
4,420,782	A. J. Argumedo, W. W. Chow, R. D. Freeman, and S. P. Kleczkowski	Thermal Compensation for Magnetic Head Assembly
4,420,807	A. H. Nolta and D. G. Reed	Selectively Holding Data in a Buffer for Defective Backing Store Tracks
4,420,815	D. B. Francis	Apparatus and Method for Removal of Sinusoidal Noise From a Sampled Signal
4,420,821	C. R. Hoffman	Static RAM with Non-volatile Back-Up Storage and Method of Operation Thereof
4,421,025	W. D. Thorne and W. A. Patterson	Spring Mounted Torsionally Rigid Print Hammer Mechanism
4,421,264	N. K. Arter, M. A. Bartholet, R. D. Emigh, and M. J. Herman	Variable Thickness Set Compensation for Stapler
4,421,404	D. J. Conly	Job Recovery Technique in a Document Copier Machine
4,421,429	A. E. Graham	Resistive Substrate for Thermal Printing Ribbons Comprising a Mixture of Thermosetting Polyimide, Thermoplastic Polyimide, and Conductive Particulate Material
4,421,608	D. G. McBride	Method for Stripping Peel Apart Conductive Structures
4,421,978	G. J. Laurer and O. L. Stokes, Jr.	Decoding Method for Multicharacter Labels
4,421,994	Y. K. Puri and K. M. A. Selbo	High Speed Line Driver with Ground Output Capability
4,422,002	G. Binnig, H. Nievergelt, H. Rohrer, and E. Weibel	Piezo-Electric Travelling Support
4,422,040	J. W. Raider and E. D. Ward II	Method of Testing Stepping Motors
4,422,080	S. C. Titcomb	Ink Jet Printing Method and Apparatus
4,422,088	F. R. Gfeller	Bus Arrangement for Interconnecting Circuit Chips
4,422,099	L. L. Wolfe	Optical Communication on Variable Power Beam
4,422,144	L. H. Johnson, J. A. Kiselak II, E. A. Nadarzynski, and R. J. Pedersen	Microinstruction Substitution Mechanism in a Control Store
4,422,145	G. M. Sacco and M. Schkolnick	Thrashing Reduction in Demand Accessing of a Data Base Through an LRU Paging Buffer Pool
4,422,713	B. D. Grant, M. M. Hilden, C. R. Jones, and G. T. Sincerbox	Method for Making High Efficiency Holograms
4,423,087	J. K. Howard and K. V. Srikrishnan	Thin Film Capacitor with a Dual Bottom Electrode Structure

4,423,305	H. C. Pfeiffer	Method and Apparatus for Controlling Alignment of an Electron Beam of a Variable Shape
4,423,338	D. B. Eardley	Single Shot Multivibrator Having Reduced Recovery Time
4,423,357	J. A. Engelman and J. L. Sanford	Switchable Precision Current Source
4,423,376	H. P. Byrnes and R. Wahl	Contact Probe Assembly Having Rotatable Contacting Probe Elements
4,423,425	D. L. Reese, J. L. Regehr, A. E. Schierhorst, R. L. Soderstrom, and J. M. Thompson	Thermal Print Head Having Glazed Metal Substrate
4,423,480	W. J. Bauer, W. C. Dodt, C. R. Kirkpatrick, T. A. Rehage, F. L. Robinson, and W. K. Taylor	Buffer Peripheral System with Priority Queue and Preparation for Signal Transfer in Overlapped Operations
4,423,547	P. A. Farrar, R. M. Geffken, and C. T. Kroll	Method for Forming Dense Multilevel Interconnection Metallurgy for Semiconductor Devices
4,424,102	C. Brandeis, J. Kempf, G. Kraus, and U. Künzel	Reactor for Reactive Ion Etching Method
4,424,104	J. M. E. Harper and A. W. Kleinsasser	Single Axis Combined Ion and Vapor Source
4,424,526	R. H. Dennard and M. R. Wordeman	Structure for Collection of Ionization-Induced Excess Minority Carriers in a Semiconductor Substrate and Method for the Fabrication Thereof
4,424,539	S. D. Keidl and K. A. Shidler	Magnetic Disk-Control Track Read Through Envelope
4,424,621	S. A. Abbas and I. E. Magdo	Method to Fabricate Stud Structure for Self-Aligned Metallization
4,424,963	M. A. Bartholet, J. L. Cochran, D. M. Janssen, R. Magno, A. J. Rood, W. S. Seaward, and L. A. Walker	Finisher—Exit Pocket Module for Copier
4,425,574	V. J. Silvestri, D. D. Tang, and S. K. Wiedmann	Buried Injector Memory Cell Formed from Vertical Complementary Bipolar Transistor Circuit and Method of Fabrication Therefor
4,425,612	D. D. Bahler and R. E. Calvo	Power Supply With Load-Transient Anticipation
4,425,629	W. C. Cason and W. A. Kuecker	Display Support of Indefinite Page
4,425,829	J. R. Kranik, G. E. Melvin, and W. F. Mueller	Punch Apparatus
4,425,844	J. E. Carrington, M. D. Hryck, D. W. Skinner, and G. R. Westcott	Home Pulse Compensation for Multiple Speed Line Printer
4,425,845	A. Bohg and K. Hartmann	Bank for Accommodating Several Print RAM Units
4,425,846	W. H. Sakmann	Type Bank and Band Printer with Automatic Print Band Recognition
4,426,047	M. E. Richard and D. J. Winarski	Single Reel Tape Cartridge
4,426,153	E. L. Libby, R. A. Maddox, and D. J. Roberts	Apparatus for the Reduction of Image Intensity Variations in a Continuously Variable Reducing Copier
4,426,237	J. L. Freeouf, P. D. Kirchner, G. D. Pettit, and J. M. Woodall	Volatile Metal Oxide Suppression in Molecular Beam Epitaxy Systems
4,426,265	A. Brunsch, W.-D. Ruh, and G. Trippel	Method of Producing a Metallic Thin Film Magnetic Disk
4,426,274	L. M. Ephrath	Reactive Ion Etching Apparatus with Interlaced Perforated Anode
4,426,583	T.-H. P. Chang, P. J. Coane, F.-J. Hohn, and D. P. Kern	Electron Beam Potential Switching Apparatus
4,426,584	H. Bohlen, H. Engelke, J. Greschner, and P. Nehmiz	Method of Compensating the Proximity Effect in Electron Beam Projection Systems
4,426,621	R. K. Galwey and K. K. Kanazawa	Detection Circuitry for Electrochemical Analysis
4,426,643	D. H. Martin	Electrolytic Apparatus Having a Stable Reference Electrode and Method of Operating Such Apparatus
4,426,655	H. S. Bhatia, D. B. Eardley, and S. P. Gaur	Memory Cell Resistor Device
4,426,689	R. H. Henle and A. H. Johnson	Vertical Semiconductor Integrated Circuit Chip Packaging
4,426,731	O. A. Edlund and M. A. Enser	Character Recognition Employing Compressed Image Data