

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

2,232,274	U. Baitinger, W. Haug, and M. Illi	Monolithic Semiconductor Circuit Arrangement
2,338,388	K. E. Kroell, A. Baitinger, and W. Haug	Narrow Channel Field Effect Transistor
2,426,447	S. K. Wiedmann and H. H. Berger	Complementary Transistor Circuit for Carrying Out Boolean Functions
2,454,427	C. Schuenemann and F. Tsui	Associative Capacitive Storage Circuit
2,529,054	G. Paal and H. Moritz	Method of Making a Negative Photoresist Image
2,547,488	K. Finkemeyer, K. Roehr, and G. Sonntag	Microprogrammed Data Processing System
2,556,755	G. Trippel	Magnetic Record Carrier
2,937,777	K. Getzlaff, J. Najdu, H. Painke, D. Bazlen, and D. Bock	Control Device for Directing Execution of Forced Operations in a Data Processing System
2,861,774,509	V. Zimmermann	Disk Storage Apparatus Having an Electrically Tuned Head-Carriage Actuator
2,962,661,709	P. Nehmiz	Exposure Process

France

9,084	R. Vautier	Pulse Generator
12,884	D. Godard	Method and Device for Detecting a Pseudo-Random Sequence of Two Symbols in a Data Receiver Employing Double Sideband Quadrature
13,343	F. Caron	Method and Device for Detecting a Pseudo-Random Sequence of 180-Degree Carrier Phase Changes in a Data Receiver
7,522,452	A. Milewski	Method and Apparatus for Fast Determination of Initial
7,630,658	C. Jacquart and A. Croisier	Telephone Line Interfacing Circuit with Directional Transfer of Ringing Current and Off-Hook Indications
7,632,450	J. Monrolin	Carrier Synchronization System for Coherent Phase
7,828,295	R. Vautier	Pulse Generator
8,000,759	R. Hornung and G. Lesbesnerais	System for Compensating the Offset Voltage of a Differential Amplifier

Switzerland

629,034	D. Pohl and H. Scheel	Apparatus for Manufacturing Multi-Layered Semiconductor Elements by Means of Liquid-Phase Epitaxy
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United Kingdom

1,004,757	A. R. Greinacher and M. H. Sharpe	Data Entry Device
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United States

4,312,992	D. C. Green	Substituted Heterofulvalenes
4,313,066	T. R. Gheewala	Direct Coupled Nonlinear Injection Josephson Logic Circuits
4,313,140	S. D. Keidl	Buried Control Signal Recording Systems and Method
4,313,161	D. K. Hardin and F. J. Puttlitz	Shared Storage for Multiple Processor Systems
4,313,177	K. Heuber, E. Klink, V. Rudolph, and S. K. Wiedmann	Storage Cell Simulation for Generating a Reference Voltage for Semiconductor Stores in MTL Technology
4,313,179	H. H. Heimeier, W. Klein, K. Najmann, and F. C. Wernicke	Integrated Semiconductor Memory and Method of Operating Same
4,313,196	J. G. Oblonsky	Priority System with Low Speed Request Bus
4,313,199	F. J. Aichelmann, Jr. and B. E. Bachman	Recirculating Loop Memory Array Fault Locator
4,313,492	F. E. Andros and R. J. E. Shay	Micro Helix Thermo Capsule
4,313,900	F. Gonzales, Jr. and J. Sobon	Method of Forming a Ceramic Article with a Glassy Surface
4,314,244	K. R. Demke, J. D. Dwire, M. A. Ko, and J. L. Mumola	Multiple Height Proportioned Character Generation
4,314,267	D. L. Bergeron and G. B. Stephens	Dense High Performance JFET Compatible with NPN Transistor Formation and Merged BIFET
4,314,289	M. K. Haynes	Biased Pulsed Recording Systems and Methods

4,314,769	E. H. James III	Acoustical Tone Generator
4,315,167	R. Pele	Self-Switching Bidirectional Digital Line Driver
4,315,289	J. J. Holecek and M. N. Zell	Magnetic Disk Drive Machine
4,315,307	C. Jacquart	Switching Device and Switched-Type Power Supply Using the Same
4,315,330	N. F. Brickman and B. R. Graziano	Multiple Data Rate Testing Communication Equipment
4,315,621	D. L. Snellman	Sheet Collating Deflector
4,315,682	R. E. Parzanici	Xerographic Toner Fixing Station
4,315,694	A. B. Habich and R. E. Hunt	Carrier for Print Element and Ribbon Cartridges
4,315,985	E. E. Castellani, I. M. Croll, A. T. Pfeiffer, and L. T. Romankiw	Fine-Line Circuit Fabrication and Photoresist Application Therefor
4,316,048	J. M. Woodall	Energy Conversion
4,316,055	H. Feistel	Stream/Block Cipher Cryptographic System
4,316,093	A. N. Broers, J. J. Cuomo, R. B. Laibowitz, and W. W. Molzen, Jr.	Sub-100Å Range Line Width Pattern Fabrication
4,316,123	B. G. Kleen, W. R. Lamoureux, and W. J. Martin	Staggered Sustain Voltage Generator and Technique
4,316,200	I. Ames, W. Anacker, K. R. Grebe, and C. J. Kircher	Contact Technique for Electrical Circuitry
4,316,209	P. S. Ho, U. Köster, T.-S. Kuan, I. Ohdomari, and A. Reisman	Metal/Silicon Contact and Methods of Fabrication Thereof
4,316,319	N. G. Anantha and A. W. Chang	Method for Making a High Sheet Resistance Structure for High Density Integrated Circuits
4,316,667	E. G. Edwards, J. T. Robinson, and B. L. Wilzbach	Copier and Recirculating Document Feeder
4,316,674	C. C. Mayborg and D. L. Teel II	Keylever Pawl Tube Spring and Keyboard Utilizing a Keylever Pawl Tube Spring
4,317,147	G. A. Daughenbaugh, P. W. Koob, A. E. Moxley, and J. E. Wallace	Sandwich Type Magnetoresistive Read Head
4,317,149	K. H. Elser and R. R. Kerl	Magnetic Head Having Static Discharge Means
4,317,150	E. G. Gruss and A. R. Tietze	Foil Recording Disk Structures
4,317,168	B. U. Messina and W. D. Silkman	Cache Organization Enabling Concurrent Line Castout and Line Fetch Transfers with Main Storage
4,317,203	A. J. Botte, J. H. Hubbard, W. E. Robbins, and P. R. Spivey	Collator Error Recovery
4,317,412	R. D. Bolcavage, M. D. Hryck, W. B. Kauczka, and H. B. Kinter	Control System and Method for Testing Print Hammers in a High Speed Printer
4,317,611	K. E. Petersen	Optical Ray Deflection Apparatus
4,317,629	R. E. Kuseski	Job Recovery Method and System
4,317,980	R. A. Goodrich, L. H. Lengerman, and J. K. Timbeross	Resistance Welding Sequence Cycle Control
4,318,122	J. M. White	Electronic Color Separation
4,318,141	M. K. Haynes	Buried Servo Recording Systems and Methods
4,318,539	R. A. Lamos	Apparatus for and Method of Collating, Sorting and Stacking Sheets Concurrently
4,318,612	R. C. Brannan, R. J. Fogoros, M. R. Headrick, A. Krumins, and R. F. Pryor	Hot Roll Fuser Temperature Control
4,318,625	T. G. Survant	Stepper Motor Load Tuning
4,318,751	C. T. Horng	Self-Aligned Process for Providing an Improved High Performance Bipolar Transistor
4,319,148	S. D. Malaviya	High Speed 3-Way Exclusive or Logic Circuit
4,319,174	P. A. Cook, R. D. Mayo, and J. W. Raider	Stepper Motor Drive System
4,319,189	C. D. Cullum, Jr., D. A. Thompson, and T. K. Worthington	Magnetoacoustic Position Sensor Employing Pulse Code Sequence Generators and Detectors
4,319,255	J. A. Franczyk, W. C. Hamm, and R. T. White, Jr.	Tinted Metallized Recording Medium
4,319,264	A. Gangulee, P. S. Ho, J. K. Howard, and R. J. Miller	Nickel-Gold-Nickel Conductors for Solid State Devices
4,319,336	R. W. Anderson, M. L. Gee, and A. K. McMullen	Transaction Execution System With Improved Key Function
4,319,342	R. E. Scheuerlein	One Device Field Effect Transistor (FET) AC Stable Random Access Memory (RAM) Array
4,319,344	K. Heuber and S. K. Wiedmann	Method and Circuit Arrangement for Discharging Bit Line Capacitances of an Integrated Semiconductor Memory
4,319,353	J. A. Alvarez III, J. F. Brennen, and R. W. Krug	Priority Threaded Message Burst Mechanism for TDMA Communication
4,319,357	D. C. Bossen	Double Error Correction Using Single Error Correcting Code
4,319,743	A. J. Rood	Two-Direction Rotary Paper Aligner
4,319,829	D. L. Janeway III and P. A. Stevenson	Noncircular Photoconductor Belt Mounting Apparatus and Method

4,319,849	W. L. Dollenmayer	Print Hammer for High Speed Impact Printer
4,319,932	C. G. Jambotkar	Method of Making High Performance Bipolar Transistor with Polysilicon Base Contacts
4,320,170	H. T. Findlay	Polyurethane Ribbon for Non-Impact Printing
4,320,330	D. J. Bahr and K.-H. Burckardt	Apparatus and Method for Determining Step Motor Drive Pulse Timing by Rotor Displacement
4,320,421	R. T. Larson, D. H. McMurtry, and H. O. Rinkleib	Rotary Actuator for File Protect Function
4,320,422	H. O. Rinkleib	File Protect Sleeve
4,320,456	N. N. Heise, R. L. Hoffman, I. S. Kiss, D. O. Lewis, J. J. Pertzborn, and T. S. Robinson	Control Apparatus for Virtual Address Translation Unit
4,320,502	J. A. deVeer	Distributed Priority Resolution System
4,320,504	J. A. Alvarez III, J. M. Bensadon, J. F. Brennen, N. F. Brickman, and R. W. Krug	Mechanism for Synchronization of Data Ports in TDMA Communication
4,320,517	D. N. Godard and M. Y. Quintin	Method and Device for Effecting the Initial Adjustment of the Clock in a Synchronous Data Receiver
4,320,957	L. C. Brown and S. L. Pond	Corona Wire Adjuster
4,321,318	H. W. Anderson and R. H. Levin	Disazo Photoconductor and Process of Manufacture of Electrophotographic Element
4,321,484	E. M. Blaser	Field Effect Transistor Multivibrator
4,321,607	H. P. Heibin and C.-H. S. Tsao	Scaling Aerodynamic Compensation in an Ink Jet Printer
4,321,627	R. B. Hooker III and W. M. Routt, Jr.	Optical Scanner for Ink Jet Printer
4,321,667	W. E. Robbins, P. R. Spivey, and T. Travis	Add-On Programs with Code Verification and Control
4,321,687	R. L. Parsons and P. H. Paulsen	Timing Pulse Generation
4,321,738	M. P. Makhijani	Apparatus and Method for Rework Dressing of a Chip Site
4,321,932	D. B. Francis	Electrode Impedance Monitoring Method Apparatus for Electrocardiography
4,322,127	L. D. Comerford, J. S. Harper, and E. G. Lean	Self-Aligned Plug Connector for Optical Fibers
4,322,453	R. J. Miller	Conductivity WSi ₂ (Tungsten Silicide) Films by Pt Preanneal Layering
4,322,769	E. S. Cooper	Electric Switch Operation Monitoring Circuitry
4,322,778	D. R. Barbour, G. A. Lemke, and S. Magdo	High Performance Semiconductor Package Assembly
4,322,793	K.-I. Andersson, V. Gjerstad, K. G. Gohl, L. Hallberg, B. Norstedt, and H. Schaal	Communication Controller Transparently Integrated into a Host CPU
4,322,813	G. J. Howard, J. H. Hubbard, W. C. McCrumb, and P. R. Spivey	Data Log Retrieval System
4,322,823	W. D. Pricer and J. E. Selleck	Storage System Having Bilateral Field Effect Transistor Personalization
4,322,845	J. W. Fennel, Jr. and J. G. Oblonsky	Demand Assignment Technique for TDMA Satellite Communication Network
4,322,847	J. H. Dodge and L. M. Ernst	Automatic Indirect Testing to Verify Operational Control
4,322,883	S. A. Abbas and I. E. Magdo	Self-Aligned Metal Process for Integrated Injection Logic Integrated Circuits
4,323,589	A. K. Ray and A. Reisman	Plasma Oxidation
4,323,908	F. C. Lee, R. N. Mills, and F. E. Talke	Resonant Purging of Drop-On-Demand Ink Jet Print Heads
4,323,914	E. Berndlmaier, B. T. Clark, and J. A. Dorler	Heat Transfer Structure for Integrated Circuit Package
4,323,968	A. J. Capozzi	Multilevel Storage System Having Unitary Control of Data Transfers
4,323,986	S. D. Malaviva	Electronic Storage Array Having DC Stable Conductivity Modulated Storage Cells
4,325,025	R. A. Corcoran, W. A. Keenan, D. Michaelides, and B. H. Yun	Automated Channel Dropping Measuring Circuit
4,325,116	R. H. Kranz, E. J. de Araujo Pinheiro, and J. A. Tuttle	Parallel Storage Access by Multiprocessors
4,325,544	R. Magno, D. C. Roller, and A. J. Rood	Collator with Adjustable Sheet Aligner
4,325,644	S. A. Curry	Work Equalizer and Loading for a Single Element Printer Selection System
4,325,733	J. A. Aboaf and E. Klokholm	Amorphous Co-Ti Alloys
4,326,098	W. G. Bouricius and H. Feistel	High Security System for Electronic Signature Verification
4,326,192	R. B. Merrill, L. M. Terman, and Y. S. Yee	Sequential Successive Approximation Analog-To-Digital Converter
4,326,208	F. F. Fang and G. A. Sai-Halas	Semiconductor Inversion Layer Transistor
4,326,212	D. L. Bergeron, A. C. Putney, and G. B. Stephens	Structure and Process for Optimizing the Characteristics of I ² L
4,326,287	P. Abramson	Two Wire Bi-Directional Digital Telephone Link
4,326,332	D. M. Kenney	Method of Making a High Density V-MOS Memory Array
4,326,603	B. W. Darrow and D. J. Wilkinson	Lubrication Control Apparatus

4,326,656	F. A. Gregory, D. F. Manning, W. Oranchak, and J. J. Student	Evacuated Printing Platen
4,326,796	J. R. Champion, L. M. Ernst, L. W. Ford, and R. G. Velarde	Apparatus and Method for Measuring and Maintaining Copy Quality in an Electrophotographic Copier
4,326,814	R. R. Schaffer and D. W. Skinner	Document Printing Device Having a Platen with Character Segments Thereon
4,327,130	D. J. Pipkin	Method and Apparatus for Forming a Coating on Both Sides of a Substrate
4,327,388	D. J. Wanek	Transducer-Carriage Assembly with Spring Suspension
4,327,424	P. T. Wu	Read-Only Storage Using Enhancement-Mode, Depletion-Mode or Omitted Gate Field-Effect Transistors
4,328,435	J. R. Case	Dynamically Switchable Logic Block for JK/EOR Functions
4,328,525	J. W. Allen and P. J. Granata	Pulsed Sine Wave Oscillating Circuit Arrangement
4,328,530	C. H. Bajorek, D. A. Chance, C. W. Ho, and D. A. Thompson	Multiple Layer, Ceramic Carrier for High Switching Speed VLSI Chips
4,328,543	N. F. Brickman and E. J. McDonald	Control Architecture for a Communications Controller
4,328,544	H. L. Baldwin, B. D. Bergschneider, M. E. Chamoff, I. L. Miller, D. W. Piller, M. J. Robinett, and D. L. Thorson	Electronic Point-of-Sale System Using Direct-Access Storage
4,328,555	H. J. Nussbaumer	Apparatus for Computing Two-Dimensional Discrete Fourier Transforms
4,328,561	D. B. Convis, D. Glickman, and W. S. Rosenbaum	Alpha Content Match Prescan Method for Automatic Spelling Error Correction