

Recent IBM Patents

• The following patents were issued by the countries in which the inventions were made.

Germany

1,303,849	Light Deflector	<i>E. Max</i>
1,774,072	Method of Driving Monolithic Data Storage	<i>C. H. Schünemann, H. P. Louis and W. G. Spruth</i>
1,932,614	Checking Arrangement for the Recognition of Multiple Selection of Processing Units in a Data Processing System	<i>R. Hartwich, H. H. Lampe, L. Reichl and H. Von Der Heyden</i>
1,940,296	Arrangement in Electronic Data Processors for Protecting the Control Program	<i>K. Ebbinghavs, G. Knauft, C. V. Krogh and E. Vogt</i>
2,131,787	Circuit Arrangement for Error Detection in Data Processing Systems	<i>H. R. Geng, J. Hajdu, P. Skuin and E. Vogt</i>

Sweden

0,355,882	Dynamic Signal Detector	<i>N. G. Stahlberg</i>
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Switzerland

0,541,353	Apparatus for the Epitaxial Growth of Semiconducting Material by Liquid Phase Epitaxy from at Least Two Source Solutions	<i>H. J. Scheel</i>
0,542,554	Method of Distributing Tone and Alerting Signals in a TDM Communication System	<i>I. Jones, H. R. Mueller, D. Wild and P. A. Zafropulo</i>

United Kingdom

1,312,504	Control Unit for Serial Data Storage Apparatus	<i>M. J. Heneghan and M. A. Hughes</i>
1,314,140	Storage Control Unit	<i>J. J. Holmes, D. R. Page and P. Quarendon</i>
1,314,486	Microprogram Control System	<i>J. W. Jones, K. G. Taylor and D. J. Kraft</i>
1,316,204	Frequency Spectrum Signal Generators	<i>J. W. Jones</i>
1,317,714	Logic Table Load in a Functional Memory System (IMPL)	<i>J. W. Jones, W. A. Christopherson, P. L. Gardner, D. J. Craft, M. H. Hallett, R. J. Llewelyn, M. Flinders, K. G. Taylor, J. F. Minshull and F. T. Moth</i>

United States

3,756,192	Automatic Toner Concentration Control System	<i>H. C. Locklar, D. C. Tao and L. E. Tarver, Jr.</i>
3,756,586	Selective Cut Sheet Feed Device	<i>J. A. Craft</i>
3,756,862	Proton Enhanced Diffusion Methods	<i>J. Ahn, D. De Witt, W. S. Johnson and W. J. Kleinfelder</i>
3,756,866	Method and Manufacturing Magnetic Alloy Particles Having Selective Coercivity	<i>C. C. Parker, R. W. Polleys and J. S. Vranka</i>
3,757,030	Continuous Spiral, Rotating Head and Disk Video Buffer System	<i>J. J. Lynott and L. D. Stevens</i>
3,757,128	Multiphase Tachometer	<i>J. C. Vermeulen</i>
3,757,138	Push-pull Line Drive Circuit	<i>H. S. Bhatia, D. E. Davis and D. H. Martin</i>
3,757,271	Integrated Circuit Package	<i>R. L. Judge and E. S. Pearson</i>
3,757,311	System for Outputting Lines about a Point of Operation	<i>J. C. Byram and J. W. Toups</i>
3,757,313	Data Storage with Predetermined Settable Configuration	<i>H. W. Hines and L. C. Radzik</i>
3,757,334	Stabilized Communication and Control System	<i>H. P. Raabe</i>
3,757,335	Communication and Control System	<i>E. L. Gruenberg</i>
3,757,921	Right Hand Margin Control System	<i>D. A. Bishop</i>
3,758,012	Controlled Tension Ribbon Cassette	<i>G. C. Bonner and P. A. Brumbaugh</i>
3,758,247	Apparatus for Making Flat Cables by Extrusion	<i>A. W. Deegen</i>
3,758,717	Free Hand Drawing Display System Utilizing Light Pen to Write and Erase Information	<i>A. N. Granzotti</i>

3,758,719	Method and Device for Two-way Transmission by Means of Two-wire Transmission Channel	U. K. W. Klose O. R. Buhler and J. T. Cutter
3,758,757	Exponential Predictor and Sampled-data Systems	
3,758,774	Illumination System for Copier Machines Arranged to Minimize Glare with Respect to an Operator	L. H. Hildenbrandt W. Anacker and J. Matisoo G. J. Ungerboeck
3,758,795	Superconductive Circuitry Using Josephson Tunneling Devices	W. H. Castle, H. M. Jacobs and L. T. Sloan
3,758,863	Device for Equalizing Binary Bipolar Signals	O. F. Moneagle and K. Svatek D. M. Janssen, E. P. Kollar, E. G. Stahlberg and H.-L. Tiao
3,759,363	Letter Space Control Mechanism	R. W. Dreyfus and W. P. Hornberger J. R. Cannizzaro and C. F. Emery C. W. Hannaford
3,759,456	Ribbon Feed and Correction Device for a High Speed Printer	D. G. Abraham, G. J. Dohanich, F. W. Doolittle and S. H. Mills
3,759,465	Tape Containing Cassettes, Each with a Removable Wall	M. C. Duffy, J. Riseman and B. P. F. Wu R. W. Arnold and L. V. Galetto
3,760,063	Synthesis of Photochromic Sodalite by a Diffusion Process	J. R. Lankard and P. P. Sorokin
3,760,091	Multilayer Circuit Board	
3,760,190	Non-current Summing Multiple Input Latching Circuit	J. M. Kurtzberg, J. L. Rosenfeld and R. D. Villani
3,760,207	Stepping Motor Structure	J. S. Gregor and R. Radlinsky J. R. Dailey, H. C. Kuntzleman and G. E. Mitchell J. C. Kemp M. R. Bartz H. C. Tanner C. C. Attridge and J. G. Ayers, Jr. Y. L. Yao H. Chang and G. J. Fan
3,760,242	Coated Semiconductor Structures and Methods of Forming Protective Coverings on Such Structures	B. W. Kippenhan
3,760,282	Data Recovery System	
3,760,295	Q-switch for Synchronizing Mode-locked Laser Pulse Trans with External Events	A. A. Rifkin and A. M. Simon S. Middelhoek and G. Sasso G. W. Baumann, J. L. Groom, Jr. and G. B. Lammers G. Galli E. F. Kleinbeck and H. R. Pilgram P. T. Chu, B. Corby, A. E. James, R. Leblanc and A. T. Milewski E. B. Eichelberger D. G. East, D. G. Fugere, V. R. Householder and G. C. Ling C. A. Jacquart D. W. Anderson, R. N. Gustafson, P. E. Kaminsky and J. A. Wetzell J. A. Alvarez, R. P. Barner, Jr. and R. J. Hallett E. E. Davidson D. D. Tech A. Weinberger M. R. Lorenz and R. Srinivasan
3,760,365	Multiprocessing Computing System with Task Assignment at the Instruction Level	
3,760,366	Unprintable Character Recognition	
3,760,368	Vector Information Shifting Array	
3,760,369	Distributed Microprogram Control in an Information Handling System	
3,760,373	Optical Data Entry and Display System	
3,760,376	System for Controlling Output Lines with Limited Storage Capacity	
3,760,377	Histogram Data Processor	
3,760,381	Stored Charge Memory Detection Circuit	
3,760,387	Magnetic Bubble Domain System Using Multiple Magnetic Sheets	
3,760,403	Gas Panel Display Having Monogram Type Characters with Matrix Addressable Strokes	
3,760,486	Integral Storage Container, Shipping Carton and Extraction/Insertion Mechanism for Multi-chip Circuit Modules	
3,760,492	Procedure for Making Semiconductor Devices of Small Dimensions	
3,761,002	Fluid Bearing Having Discrete Holes Formed by Vortex Restrictors	
3,761,308	Preparation of Photoconductive Films	
3,761,333	Method of and Apparatus for Manufacturing of a Magnetic Storage Disk	
3,761,638	Process and Device for Identifying Connections in a Switching Network	
3,761,695	Method of Level Sensitive Testing a Functional Logic System	
3,761,739	Non-metastable Asynchronous Latch	
3,761,841	Servobalanced Delta Modulator	
3,761,881	Translation Storage Scheme for Virtual Memory System	
3,761,883	Storage Protect Key Array for a Multiprocessing System	
3,761,896	Memory Array of Cells Containing Bistable Switchable Resistors	
3,761,897	Gas Cell Memory System with Electrical Readout	
3,761,902	Functional Memory Using Multi-state Associative Cells	
3,761,942	Low Energy Thermochromic Image Recording Device	
3,762,037	Method of Testing for the Operability of Integrated Semiconductor Circuits Having a Plurality of Separable Circuits	T. H. Baker, M. Ghafghaichi, R. C. Stevens and D. Tuman C. Yakubowski W. J. Deerhake E. G. Nassimbene H. W. Johnson
3,762,426	Semiconductor Chip Separation Apparatus	
3,763,351	Bar Code Scanner	
3,763,353	Retrospective Pulse Modulation Decoding Apparatus	
3,763,383	Drive Circuit for Inductive Device	
3,763,425	Method of Testing the Continuity of an Electrical Conductor by Use of an Electron Beam Converted from High to Low Energy	H. Engelke M. E. Ecker K. W. Cash, R. L. Dorr and G. N. Gaebelein
3,763,462	Control Wipe Electrical Connector for Circuit Cards	
3,763,467	Method and Apparatus for Reading Documents	

3,763,470	Circuit Arrangement for Error Detection in Data Processing Systems	<i>H. R. Geng, J. Hajdu, P. Skuin and E. Vogt</i>
3,763,551	Method of Manufacturing a Tubular Printed Circuit Armature	<i>C. C. Herron</i>
3,763,729	Web Edge Marking Apparatus and Method	<i>D. F. Ashby</i>
3,764,115	Method and Apparatus for Mixing Fluids	<i>R. L. Buckingham, H. H. Herd and T. I. Sun</i>
3,764,218	Light Beam Edge Detection	<i>F. J. Schedewie</i>
3,764,414	Open Tube Diffusion in III-V Compounds	<i>J. M. Blum and K. K. Shih</i>
3,764,742	Cryptographic Identification System	<i>G. F. Abbot, C. H. Gilley and R. O. Skatrud</i>
3,764,788	Error Checking Circuit	<i>S. J. Hong, D. S. Jones and D. L. Ostapko</i>
3,764,792	Method and Apparatus for Adding Two Delta Coded Signals	<i>C. A. Jacquart</i>
3,764,823	Timed True and Complement Generator	<i>N. M. Donofrio, D. W. Kemerer and J. Raymond, Jr.</i>
3,764,833	Monolithic Memory System with Bi-level Powering for Reduced Power Consumption	<i>J. K. Ayling and R. D. Moore</i>
3,764,863	High Gain Josephson Device	<i>H. H. Zappe</i>
3,764,886	Three-phase Voltage Tripling Rectifier Circuit	<i>C. B. Zarowin</i>
3,764,898	Methods of Testing the Continuity of an Electrical Conductor by Use of an Electron Beam	<i>H. Bohlen, H. Engelke and J. Landrock</i>
3,764,905	Apparatus for Measuring Pulsed Signals Using Josephson Tunneling Devices	<i>H. H. Zappe</i>
3,764,906	Stored Charge Detection by Charge Transfer	<i>L. G. Heller</i>
3,764,914	High Speed Line Equalizer	<i>M. Karnaugh</i>
3,764,941	Stripline Directional Coupling Device	<i>H. H. Nick</i>
3,764,979	Holographic System for Subject Recognition Permitting Conversion of a Pat- tern into a Machine-readable Form	<i>D. Gabor</i>
3,764,993	Word Backspace Circuit for Buffered Key Entry Device	<i>J. Lettieri</i>
3,764,994	Serial Printer with Bi-directional Drive Control	<i>E. G. Brooks and D. O. Lewis</i>
3,764,996	Storage Control and Address Translation	<i>R. E. Ross</i>
3,765,001	Address Translation Logic Which Permits a Monolithic Memory to Utilize Defective Storage Cells	<i>W. F. Beausoleil</i>
3,765,005	Digital Signal Record Systems	<i>M. R. Cannon</i>
3,765,542	Self-aligning Object Placement Apparatus	<i>W. F. White</i>
3,765,603	Data Recorder and Verifier	<i>D. E. Bean, J. T. Engh, J. R. Hammer, J. J. Igel, M. D. Schettl, H. J. Tashjian and R. J. Ullmer</i>
3,765,929	In Situ Fluorination of Graphite in Iron Alloy	<i>J. T. Martin</i>
3,765,960	Method for Minimizing Autodoping in Epitaxial Deposition	<i>D. W. Boss, B. M. Kemlage, V. J. Lyons and H. B. Pogge</i>
3,766,438	Planar Dielectric Isolated Integrated Circuits	<i>P. P. Castrucci and J. W. Mason</i>
3,766,480	Device for Recovering a Frequency Showing Phase Jitter	<i>J. Belloc, M. F. Choquet and J. M. Pierret</i>
3,766,498	Method and Apparatus for Producing Electromagnetic Transient Coherent Effects	<i>R. G. Brewer and R. L. Shoemaker</i>
3,766,521	Multiple B-adjacent Group Error Correction and Detection Codes and Self- checking Translators Therefor	<i>W. C. Carter, E. P. Hsieh and A. B. Wadia</i>
3,766,524	Dynamic Time Slicing Control for Microprogrammed Controller	<i>B. E. Maring, J. G. Nicholson and L. M. Rust</i>
3,766,533	Processor Utilizing One Holographic Array and a Plurality of Photorespon- sive Storage Arrays for High Paging Performance	<i>J. C. Black, N. N. Krewson, J. B. Tait and B. M. Updike</i>
3,766,534	Shift Register Storage Unit with Multidimensional Dynamic Ordering	<i>W. F. Beausoleil and B. E. Phelps</i>
3,766,640	Method of Manufacturing Magnetic Transducers	<i>F. W. Hahn, Jr.</i>
3,767,020	Manually Positionable Automatic Printer	<i>T. H. Rowe</i>
3,767,282	Protection of Terminal Metallurgy During Working and Reworking of Gas Discharge Display Devices	<i>N. M. Poley, H. L. Whitaker and D. M. Wilson</i>
3,767,289	Class of Stable Trans-stilbene Compounds, Some Displaying Nematic Meso- phases at or Near Room Temperature and Others in a Range Up to 100° C	<i>A. Aviram, R. J. Cox and W. R. Young</i>
3,767,304	Apparatus and Method for Detection of Internal Semiconductor Inclusions ..	<i>W. A. Keenan, M. R. Poponiak and T.-H. Yeh</i>
3,767,310	Diffraction Grating Beam Splitter	<i>L. D. Dickson</i>
3,767,463	Method for Controlling Semiconductor Surface Potential	<i>J. A. Aboaf and T. O. Sedgwick</i>
3,767,472	Growth of Ternary Compounds Utilizing Solid, Liquid and Vapor Phases ..	<i>R. J. Chicotka and R. C. Taylor</i>
3,767,490	Process for Etching Organic Coating Layers	<i>G. S. Alberts</i>
3,767,493	Two-step Photo-etching Method for Semiconductors	<i>H. J. Kump</i>

3,767,857	Distributive Immediate Ringing Circuits for a Telephone System	<i>J. D. Colas, R. Leblanc and H. Schiesser</i>
3,767,938	Zero Sense after Peak Detection Circuit	<i>T. W. Kueper</i>
3,768,071	Compensation for Defective Storage Positions	<i>G. Knauff, F. Koederitz, P. Skuin and E. Vogt</i>
3,768,077	Data Processor with Reflect Capability for Shift Operations	<i>R. E. Nier and D. E. Waldecker</i>
3,768,080	Device for Address Translation	<i>K. Boger, H. R. Geng and J. Hajdu</i>
3,768,142	Forming a Metal and Foam Plastic Composite	<i>T. A. Raczek</i>
3,768,151	Method of Forming Ohmic Contacts to Semiconductors	<i>J. C. Marinace</i>
3,768,404	Travelling Cylinder Printer with the Roller Contacting the Back of the Embossed Plate	<i>C. Holovka, Jr.</i>
3,768,622	Air Drive Keyboard Tester	<i>D. G. Wood</i>
3,768,801	Apparatus and Method for Making Multiple Ply Sets	<i>K. B. Maynard and T. M. Paulson</i>
3,768,815	Apparatus for Clamping and Centering a Flexible Magnetic Disk	<i>E. L. Mathurin</i>
3,769,105	Process for Making an Integrated Circuit with a Damping Resistor in Combination with a Buried Decoupling Capacitor	<i>C. Y. Chen, V. A. Dhaka and W. F. Krolikowski</i>
3,769,453	Finite Memory Adaptive Predictor	<i>L. R. Bahl, D. I. Barnea, D. O. Grossman and H. Kobayashi</i>
3,769,465	Electronic Servo in Magnetic Recording Readout	<i>A. G. Wellbrock</i>
3,769,469	Trim Erase Head Assembly for Providing a Uniform Erase Field	<i>M. F. Garnier and R. D. Nelson</i>
3,769,524	Transistor Switching Circuit	<i>K. F. Mathews</i>
3,769,528	Low Power FET Driver Circuit	<i>W. M. Chu, J. M. Lee and G. Sonoda</i>
3,769,559	Non-volatile Storage Element	<i>J. A. Dorler, J. L. Forneris and D. J. Swietek</i>
3,769,618	Thin Film Low Temperature Conductors and Transmission Lines	<i>J. F. Freedman, G. R. Henry, A. F. Mayadas and M. Shatzkes</i>
3,769,624	Fluid Droplet Printer	<i>C.-H. Lee, H. R. Lominac and B. A. Wolfe</i>
3,769,625	Traveling Wave Actuated Segmented Charging Electrode for an Ink Jet Printer	<i>J. B. Gunn</i>
3,769,629	Multicolor Permanent and Erasable Printing	<i>C. J. Sambucetti</i>
3,769,630	Ink Jet Synchronization and Failure Detection System	<i>J. D. Hill, H. E. Naylor III and D. L. West</i>
3,769,631	Increasing Throughput in Ink Jet Printing by Drop Skipping and Reducing Ink Jet Merging and Splatter Using a Stairstep Generator	<i>J. D. Hill, H. E. Naylor III, D. L. West and T. H. Williams</i>
3,769,632	Digital Phase Control for an Ink Jet Recording System	<i>H. Y. Julisburger and P. Lowy</i>