

# 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

1,912,176	S. Wiedmann	Improvements in and Relating to Electrical Bistable Data Storage Circuits
2,529,865	K. P. Thiel and M. Briska	Aqueous Etching Solution for Selectively Etching Silicon Dioxide Layers on Semiconductor Bodies
2,719,506	D. J. Bahr, W. G. Spruth, and K. Burckardt	Print Head Electrode for Metal Paper Printers
3,065,022,708	K. H. Burckardt	Apparatus and Method for Determining Step Motor Drive Pulse Timing by Rotor Displacement
3,065,255,208	P. Nehmiz	Mask for Structuring Surface Areas and Method of Making It
3,160,989,908	V. Zimmermann	Servo Track Following Control for Magnetic Heads, and Method for Compensating Uniform Disturbance Variables

## United Kingdom

1,013,702	J. A. Wiseman	Visual Display Unit
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## United States

4,406,425	J. G. Bullock and W. J. Rueger	Method and Apparatus for Regulating Webs Transported in a Reel-to-Reel Web Handler
4,406,722	W. W. Chow and E. B. Rigby	Diffusion Bonding of Dissimilar Ceramics
4,406,844	H. A. Froot	Fabrication of Semiconductor Modules with Ceramic Substrates and Detection of Residual Glass
4,406,956	R. Clemen, W. Fischer, and W. O. Haug	FET Circuit for Converting TTL to FET Logic Levels
4,406,983	C. N. Ramirez	Rotational Magnetic Transducer
4,406,997	S. W. Depp and A. Juliana, Jr.	Method and Means for Minimizing the Effect of Short Circuits in Flat Panel Displays
4,407,007	K. S. Desai, C. L. Eggerding, J. A. Ferrante, R. Ricci, and E. N. Urfer	Process and Structure for Minimizing Delamination in the Fabrication of Multi-Layer Ceramic Substrate
4,407,058	J. J. Fatula, Jr., P. L. Garbarino, and J. F. Shepard	Methods of Making Dense Vertical FET's
4,407,193	D. A. Hall and G. P. Olson	Solenoid Impact Print Hammer with Uniform Free Flight Time
4,407,860	R. P. Fleming, S. Lawhorne, Jr., J. J. Mele, and C. Prasad	Process for Producing an Improved Quality Electrolessly Deposited Nickel Layer
4,408,121	M. J. Galatha	Code Format for Bank Check Identification
4,408,129	R. W. Arnold and D. W. Skinner	Constant Energy Drive Circuit for Electromagnetic Print Hammers
4,408,163	P. Burr, B. D. Chase, A. Paton, and B. R. Sowter	Method and Apparatus for Determining Beam Dimensions at the Screen of a Shadow Mask Cathode-Ray Tube
4,408,167	D. L. Rogers and A. X. Widmer	Current Amplifier Stage with Diode Interstage Connection
4,408,200	D. J. Bradley	Apparatus and Method for Reading and Writing Text Characters in a Graphics Display
4,408,231	K. A. Bushaw, R. D. Gillingham, G. W. Jorgenson, C. L. Manning, and M. A. Steffes	Method and Apparatus for Calibrating a Linear Array Scanning System
4,408,238	A. R. Hearn	Magnetic Head Arm Assembly
4,408,273	G. M. Plow	Method and Means for Cataloging Data Sets Using Dual Keyed Data Sets and Direct Pointers
4,408,336	S. DasGupta	High Speed Binary Counter
4,408,338	W. D. Grobman	Pulsed Electromagnetic Radiation Source Having a Barrier for Discharged Debris
4,408,906	L. J. Wallace	High Speed On-Demand Processor for Pressure Sensitive Labels
4,408,908	S. L. Applegate and J. J. Molloy	Ribbon Feed System for a Matrix Printer
4,409,071	E. P. Dibble and T. E. Lynch	Masking for Selective Electroplating Jet Method
4,409,319	J. J. Colacino and R. A. Leone	Electron Beam Exposed Positive Resist Mask Process
4,409,498	J. A. Dorler and J. M. Mosley	Transient Controlled Current Switch

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4,409,673	S. D. Malaviya	Single Isolation Cell for DC Stable Memory
4,412,376	D. E. De Bar, R. W. Hamaker, and G. B. Stephens	Fabrication Method for Vertical PNP Structure with Schottky Barrier Diode Emitter Utilizing Ion Implantation
4,413,061	A. H. Kumar, P. W. McMillan, and R. R. Tummala	Glass-Ceramic Structures and Sintered Multilayer Substrates Thereof with Circuit Patterns of Gold, Silver or Copper
4,413,191	R. J. Houghton	Array Word Line Driver System
4,413,251	R. L. Adler, M. Hassner, and P. Moussouris	Method and Apparatus for Generating a Noiseless Sliding Block Code for a (1, 7) Channel with Rate $\frac{2}{3}$
4,413,266	A. Aviram, Z. Kovac, and R. A. Myers	Method and Apparatus for Erasing Ink Jet Printing
4,413,269	J. P. Pawletko and C. R. Pigos	Method of and Apparatus for Controlling Gray Scale While Printing on Charge Sensitive Recording Mediums
4,413,318	K. M. Herrington	Use of Nodes to Uniquely Identify Processes
4,413,328	E. R. Videki II	Storage Subsystems Employing Removable Media and Having a Digital Display on each Recorder
4,413,329	E. P. Thoma	Dynamic Memory Cell
4,413,330	H. H. Chao and R. H. Dennard	Apparatus for the Reduction of the Short-Channel Effect in a Single-Polysilicon, One-Device FET Dynamic Ram Array

### Erratum

In "Recent IBM Patents," *IBM Journal of Research and Development* **28**, No. 1, January 1984, pp. 116-118, the following change should be made:

*p. 116* Patent 4,383,600 should be 4,383,660, M. E. Richard and H. O. Rinkleib, Single Reel Tape Cartridge with Leader Block Door Seal.