

Title (en)

Video system controller with a row address override circuit.

Title (de)

Steuerlogik für ein Videosystem mit einer Schaltung, welche die Zeilenadresse ausser Kraft setzt.

Title (fr)

Contrôleur de système vidéo avec un circuit de dépassement de l'adresse de ligne.

Publication

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Application

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Priority

- US 63336784 A 19840723
- US 63338384 A 19840723
- US 63338484 A 19840723
- US 63338584 A 19840723
- US 63338684 A 19840723
- US 63338784 A 19840723
- US 63338884 A 19840723
- US 63338984 A 19840723

Abstract (en)

The present invention is a video system which includes a data processor (1), such as a microprocessor, for processing data, a video memory (5) for storing data from the data processor corresponding to an image to be displayed, a display (11), such as a raster scan cathode ray tube, for displaying the image data stored in the video memory means, and a video system controller (3) connected to the video memory (5) for controlling the transfer of data from the video memory (5) to the display (11) and between the data processor (1) and the video memory (5). The video memory (5) is preferably a multiport dynamic random access memory including an addressable memory array. The video system controller (3) performs a number of functions including refresh of the dynamic random access memory, multiplexing of the various access requests of the video memory and control of the blanking interval of the display. This is accomplished by having a first portion which operates synchronously with the video memory (5) and a second portion which operates synchronously with the data processor (1). The transfer operations in the video system controller are preferably controlled through the use of a programmable state machine which manipulates inputs in a logic array. The video system controller (3) acts to allow contention free access of the microprocessor to the system dynamic RAM(19) and to the display memory (5). In addn. the controller generates automatically the refresh cycles required for maintaining stored data. Periodically the controller operates to load new video data to the display memory shift registers. It also provides the video sync signals and blanking signals to the video monitor. A CRT monitor (11) displays data passed to it from the microprocessor over the data bus (17) under the supervision of the system controller. The controller embodies a respective row, column address latch and X,Y address logic and acts to multiplex access requests to the video memory using a printing circuit.

IPC 1-7

G06F 3/14; G09G 1/00

IPC 8 full level

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Citation (applicant)

- US 4639890 A 19870127 - HEILVEIL ANDREW [US], et al
- US 4286320 A 19810825 - OTT GRANVILLE E
- US 4104624 A 19780801 - HAMADA NAGAHARU
- US 4288706 A 19810908 - REESE EDMUND A, et al

Cited by

US5001652A; EP0308125A3; EP0786756A1; US5959640A; EP0772119A3; US6097401A; DE3808832A1; US5113180A; EP0279231A3; EP0473392A3; GB2202978A; US4884069A; GB2202978B

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