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Parulski et al.

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[54] **ELECTRONIC CAMERA INCORPORATING A COMPUTER-COMPATIBLE BUS INTERFACE**

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[73] Assignee: **Eastman Kodak Company**, Rochester, N.Y.

[21] Appl. No.: **988,560**

[22] Filed: **Dec. 10, 1992**

[51] Int. Cl.⁶ **H04N 5/225**

[52] U.S. Cl. **348/207; 348/552**

[58] Field of Search **354/75, 76; 358/209, 358/903, 906, 909; 364/513, 514; 348/552, 207, 373, 375**

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Primary Examiner—Wendy R. Greening
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[57] ABSTRACT

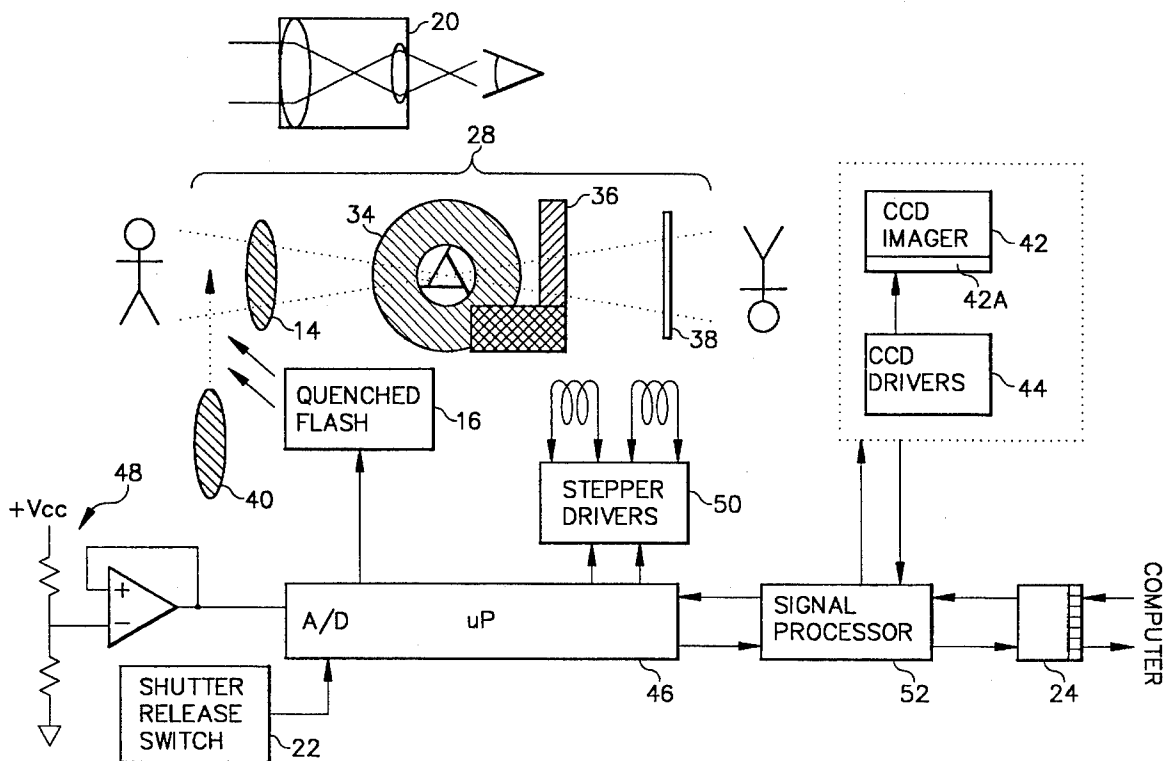
An electronic camera is provided as a module that attaches to the signal bus of a PC-compatible computer. The camera includes a minimum of components, particularly an image sensor and an A/D converter, and a PC-compatible interface connector for mating with a bus extension connector on the computer. By directly presenting digitized data from the camera to the signal bus of the computer through the bus connector, the camera can be kept relatively simple and the computer can be relied upon to perform image processing, storage, and display.

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U.S. PATENT DOCUMENTS

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26 Claims, 10 Drawing Sheets



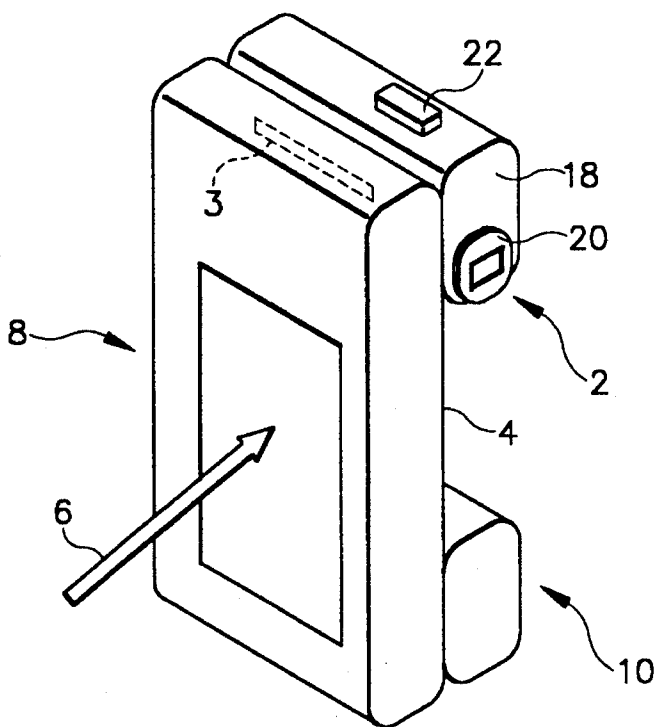


FIG. 1

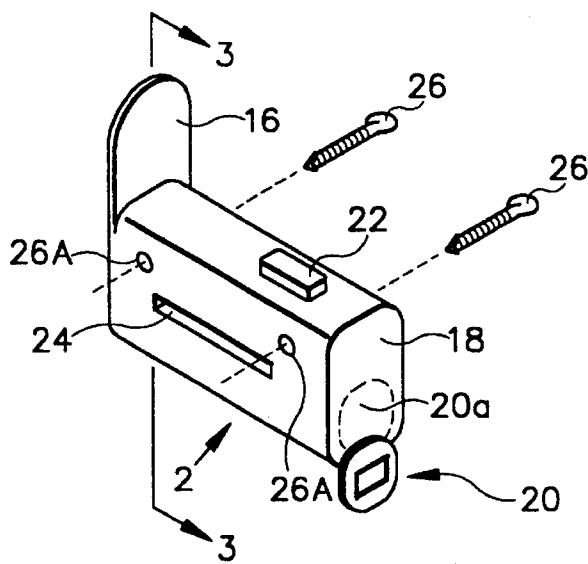


FIG. 2

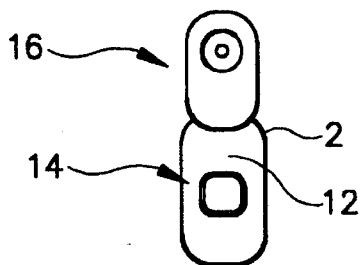


FIG. 3

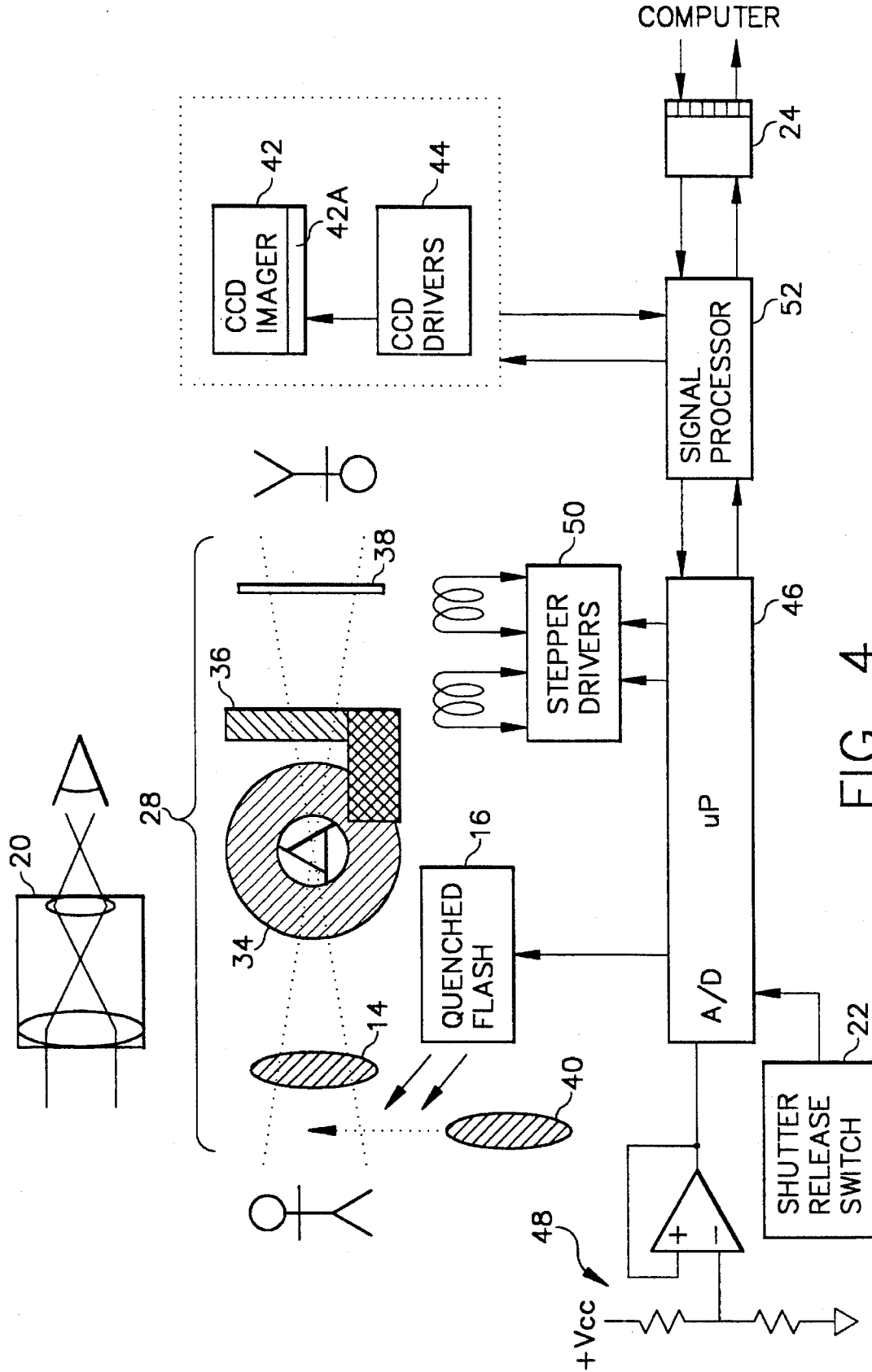


FIG. 4

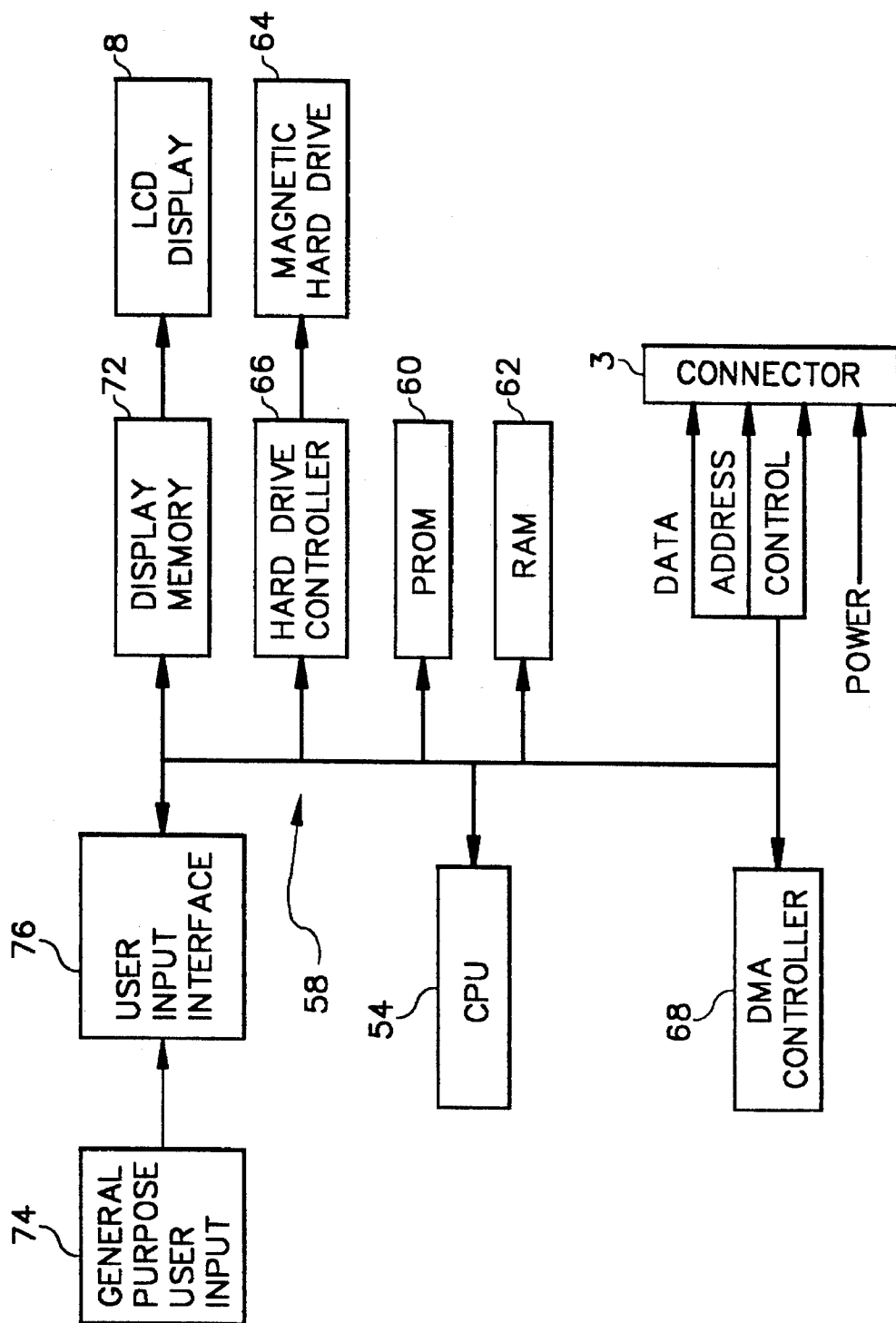


FIG. 5

GROUND		B1	A1	<	-I/O CH CK
RESET	<	B2	A2	< >	SD7
+5 VOLTS		B3	A3	< >	SD6
IRQ2	>	B4	A4	< >	SD5
-5 VOLTS		B5	A5	< >	SD4
DRQ1	>	B6	A6	< >	SD3
-12 VOLTS		B7	A7	< >	SD2
-OWS	>	B8	A8	< >	SD1
+12 VOLTS		B9	A9	< >	SD0
GROUND		B10	A10	<	I/O CH RDY
-SMEMW	<	B11	A11	<	AEN
-SMEMR	<	B12	A12	< >	SA19
-IOW	<	B13	A13	< >	SA18
-IOR	<	B14	A14	< >	SA17
-DACK3	<	B15	A15	< >	SA16
DRQ3	>	B16	A16	< >	SA15
-DACK1	<	B17	A17	< >	SA14
DRQ1	>	B18	A18	< >	SA13
-DACK0	<	B19	A19	< >	SA12
CLK	<	B20	A20	< >	SA11
IRQ7	>	B21	A21	< >	SA10
IRQ6	>	B22	A22	< >	SA9
IRQ5	>	B23	A23	< >	SA8
IRQ4	>	B24	A24	< >	SA7
IRQ3	>	B25	A25	< >	SA6
-DACK2	<	B26	A26	< >	SA5
T/C	<	B27	A27	< >	SA4
BALE	<	B28	A28	< >	SA3
+5 VOLTS		B29	A29	< >	SA2
OSC	<	B30	A30	< >	SA1
GROUND		B31	A31	< >	SA0

FIG. 6

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