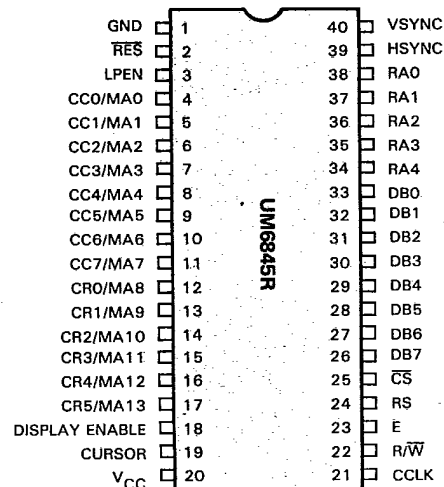# UM6845R CRT Controller

FEATURES

- Single +5 Volt (±5%) Power Supply.
- Alphanumeric and Limited Graphics Capabilities.
- Fully Programmable Display (Rows, Columns, Blanking, etc.).
- Interlaced or Non-interlaced Scan.
- 50/60 Hz Operation.
- Fully Programmable Cursor.
- External Light Pen Capability.
- Capable of Addressing up to 16K Character Video Display RAM.
- No DMA Required.
- Compatible with MC6845R.
- Straight-binary Addressing for Video Display RAM.

PIN CONFIGURATION

Pin	Signal		Pin	Signal
1	GND		40	VSYNC
2	RES		39	HSYNC
3	LPEN		38	RA0
4	CC0/MA0		37	RA1
5	CC1/MA1		36	RA2
6	CC2/MA2		35	RA3
7	CC3/MA3		34	RA4
8	CC4/MA4		33	DB0
9	CC5/MA5		32	DB1
10	CC6/MA6		31	DB2
11	CC7/MA7		30	DB3
12	CR0/MA8		29	DB4
13	CR1/MA9		28	DB5
14	CR2/MA10		27	DB6
15	CR3/MA11		26	DB7
16	CR4/MA12		25	CS
17	CR5/MA13		24	RS
18	DISPLAY ENABLE		23	E
19	CURSOR		22	R/W
20	VCC		21	CCLK

(UM6845R)

UM6845E CRT Controller

FEATURES

- Single +5 Volt (±5%) Power Supply.
- Alphanumeric and Limited Graphics Capabilities.
- Fully Programmable Display (Rows, Columns, Blanking, etc.).
- Interlaced or Non-interlaced Scan.
- 50/60 Hz Operation.
- Fully Programmable Cursor.
- External Light Pen Capability.
- Capable of Addressing up to 16K Character Video Display RAM.
- No DMA Required.
- Pin-compatible with MC6845R.
- Row/Column or Straight-binary Addressing for Video Display RAM.
- Video Display RAM May be Configured as Part of Microprocessor Memory Field or Independently Slaved to UM6845.
- Internal Status Register.
- 3.7 MHz Character Clock.
- Transparent Address Mode.

PIN CONFIGURATION

Pin	Signal		Pin	Signal
1	GND		40	VSYNC
2	RES		39	HSYNC
3	LPEN		38	RA0
4	CC0/MA0		37	RA1
5	CC1/MA1		36	RA2
6	CC2/MA2		35	RA3
7	CC3/MA3		34	RA4/STB
8	CC4/MA4		33	DB0
9	CC5/MA5		32	DB1
10	CC6/MA6		31	DB2
11	CC7/MA7		30	DB3
12	CR0/MA8		29	DB4
13	CR1/MA9		28	DB5
14	CR2/MA10		27	DB6
15	CR3/MA11		26	DB7
16	CR4/MA12		25	CS
17	CR5/MA13		24	RS
18	DISPLAY ENABLE		23	E
19	CURSOR		22	R/W
20	VCC		21	CCLK

(UM6845E)

8