

5.CIRCUIT DESCRIPTION

5-1 MICRO CIRCUIT

IC 501 is CPU ,This CPU has the following functions.

1. Detect timing mode by sensing the Horizontal frequency, Vertical frequency, the polarity of Hor.sync and Ver. Sync.
2. Key Board scan control.
3. Geometry control internal D/A converters.
4. Cs capacitor switch control.
5. Power saving control.

When CPU detects a timing .It takes data from E²PROM(IC503),then output voltage to control the geometry of this monitor .

If Key is presses ,the CPU will do some job according to the Key function .For example ,if function key is pressed ,it can change different value to control screen geometry(H-SIZE,V-SIZE... etc.)

5-2 DEFLECTION CIRCUIT

Hor.sync and Ver.sync ,come from PC,go into the CPU(IC501).The output flows into the Hor.oscillation and Ver oscillation processor(IC301).The IC301 treats SYNC signal and output the drive signal to Horizontal and Vertical output circuit .IC 301 also generates some function for geometry use ,like , Horizontal Phase ,Vertical size ,by DC voltage control ,the geometry can be controlled . IC 201 is a Vertical output IC to supply the Vertical scan . Q305、 T301、 Q306 are Horizontal deflection output supply the Horizontal scan of the monitor. Q701 and Q702 are for MUTE control,Brightness control and G1 DC voltage output.

5-3 VIDEO CIRCUIT

IC401 is a video amplifier,clamping signal input from pin NO.23 to restore the DC voltage of video signal ,the signal output from IC401 pass through Cascode amplifier stage IC402,then go to cut off DC restore stage,The video output signal is about 50Vpp.

5-4 POWER SUPPLY

The design uses a discontinuous flyback topology operating in current –mode resulting in a multiple output switcher with stack well .faster diodes are used.The fast transient response of the control loop maintains picture integrity.Very fast current limiting protects the switch agains short circuits.

KA5S50765(IC101) is the Power switch .It regulates the occupancy of output undee,and uses the undee to adjust the output power.

5-5 DPMS

The monitor has a power saving function that conforms to the VESA DPMS standard . This feature will only work if your PC is a green PC. This feature is similar to a screen saver, except that your monitor will turn it off instead of activating the screen saver.

The power saving states can be indicated by the light-emitting diode(LED)on the front panel:

State	Power LED Color
On	Green
Standby/Suspend	Orange
Off	Orange

5-6 Plug & play DDC1/2B Feature

This monitor is equipped with VESA DDC1/2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional

information about its display capabilities. The communication channel is defined in two levels, DDC1 and DDC2B.

The DDC1 is a unidirectional data channel from the display to the host that continuously transmits EDID information. The DDC2B is a bidirectional data channel based on the I²C protocol. The host can request EDID information over the DDC2B channel.