Function Description

1. General

The 18" TFT flat panel monitor is specified as a display peripheral with analog video signal and Intel digital inputs and 18" TFT LCD display. Horizontal scan range is 31 - 82 K Hz and the refresh range is 56 - 75 Hz. This scan range allows it to display resolution up to 1280*1024 non-interlaces at 75 Hz refresh rate. The image can be adjusted through OSD control. These adjustments can be stored in an onboard memory including 30 factory pre-set modes and 30 user definable modes.

2. Power supply

Main voltage : AC 90 - 264 V rms, 50 - 60 Hz

power consumption : 42 W Max

power indicator: LED (on: green, standby: amber, new mode: blinking green)

Auto power Saving : EPA, Nutek, VESA DPMS

3. Input signal

Horizontal scan: 31 - 82 K Hz

Vertical scan : 56 - 75 Hz

Input signals

1. Signal input level

Video : 0.7 Vp-p linear / 75 ohms

Sync : H/H+V, V TTL level, composite sync, sync on green

2. Impedance

Video : Terminated with 75 ohms Sync : Terminated with 2K2 ohms

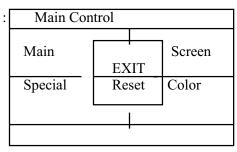
3. Intel DVI Digital

Single channel TMDS signal

4. OSD (On Screen Display) function

Software control function via OSD/ Control

-Adjustable functions:



Main : Brightness, Contrast, Volume

Screen: H - position, V - position, Phase adjustment, Clock adjustment

Color: 9300 K, 6000 K, 5500 K, User preset.

- Preset color temperature automatic display while icon is selected

- User preset - 3 user preset

Sepecial : - Language, OSD control, Video input priority, Power saving, Rotary

function default

Language : multi - language (5 language)
OSD control : OSD H - position, V - position, timer

Video input priority: D-sub or BNC input Power saving : On-enable power saving

Off - disable power saving

Rotary default : Brightness, contrast or volume

5. LCD panel

Type : 18" LCD flat panel
Dimensions : 18" (45.9cm)
Pitch : 0.28 mm

Color pixel arrangement: R.G.B. vertical stripes

Display surface : low reflection, antiglare with hard coating

Number of color : 256 gray level (8 bits)
Backlight : CCFL edge light system

Active area (W*H) : 359*287 mm (18.1" diagonal)

6. Function block

Video amplifier

- amplifier the input signal to ADC (analog to digital converter) acceptable range
- brightness control
- contrast control
- R.G.B. sub contrast control

ADC

- sample the input video signal according to its pixel rate to form a digital data for format converter IC

PLL clock generator

- phase lock to the input horizontal sync signal
- output clock rate controlled by microprocessor according to input signal pixel rate

Microprocessor

- monitor the input horizontal and vertical sync signal to judge input video mode
- send the parameters to format converter IC according to the input mode
- process the control data listed in OSD section

Front panel switch control

- used by OSD function
- five push button (confirm, auto, mute, contrast/ brightness, signal selection)
- rotary switch combined with confirm switch to select the OSD item

Format converter

- convert the data from ADC to a LCD panel acceptable data format
- zoom the input video to a full screen display

Inventor

- accept +18 V DC voltage
- output $800~\mathrm{V}$ rms voltage to CCFL (Cold Cathode Fluorescent Tube, backlight)

Power supply

- AC adapter : the AC power input from 90 V AC to 264 V AC, can generate 18 V / 4 A AC power
- DC DC converter: convert 18 V to 12 V, 9 V, 5 V, 3.3 V to system

USB function

- device function: one up stream port
- hub function : one upstream port, for down stream ports