BLOCK DIAGRAM



DESCRIPTION OF BLOCK DIAGRAM

1. Input signal switching part.

This part switch H/V sync and analog video signal to be entered through Port1 and Port2 and output a selected H/V sync and analog video signal.

2. Pre-amp/ ADC / PLL Part.

This part amplifies the level of video signal for the digital conversion and converts from the analog video signal to the digital video signal using a pixel clock.

The pixel clock for each mode is generated by the PLL. The range of the pixel clock is from 25MHz to 135MHz.

3. Video Controller Part.

This part consists of the Scaler and frame buffers which converts frame rate of input signal to 60Hz frame rate. The Scaler gets the video signal converted analog to digital, interpolates input to 1280 X 1024 resolution signal and outputs 8-bit R, G, B signal to transmitter.

4. Display Data Transmitter Part.

This part transmit digital signal from the Scaler to the receiver of module.

5. Power Part.

This part consists of the DC/DC converter and several 3.3V regulators. The DC/DC converter coverts 12V to be entered power adapter to 5V. 5V, output of DC/DC converter, supply to the micom and 3.3V regulators. The output voltage of 3.3V regulator supply to IC of each part.

6. MICOM Part.

This part consists of EEPROM IC which stores control data, Reset IC and the Micom. The Micom distinguishes polarity and frequency of the H/V sync are supplied from signal cable. The controlled data of each mode is stored in EEPROM.

7. Inverter

The inverter converts from 12V to AC 700V and drive back-light lamp of module.

8. USB

USB part consists of Downstream/Upstream and USB Hub. A entered USB peripheral signal from Downstream transfer PC through USB Hub and Upstream. Or a entered PC signal from Upstream transfer USB peripheral through USB Hub and Downstream.