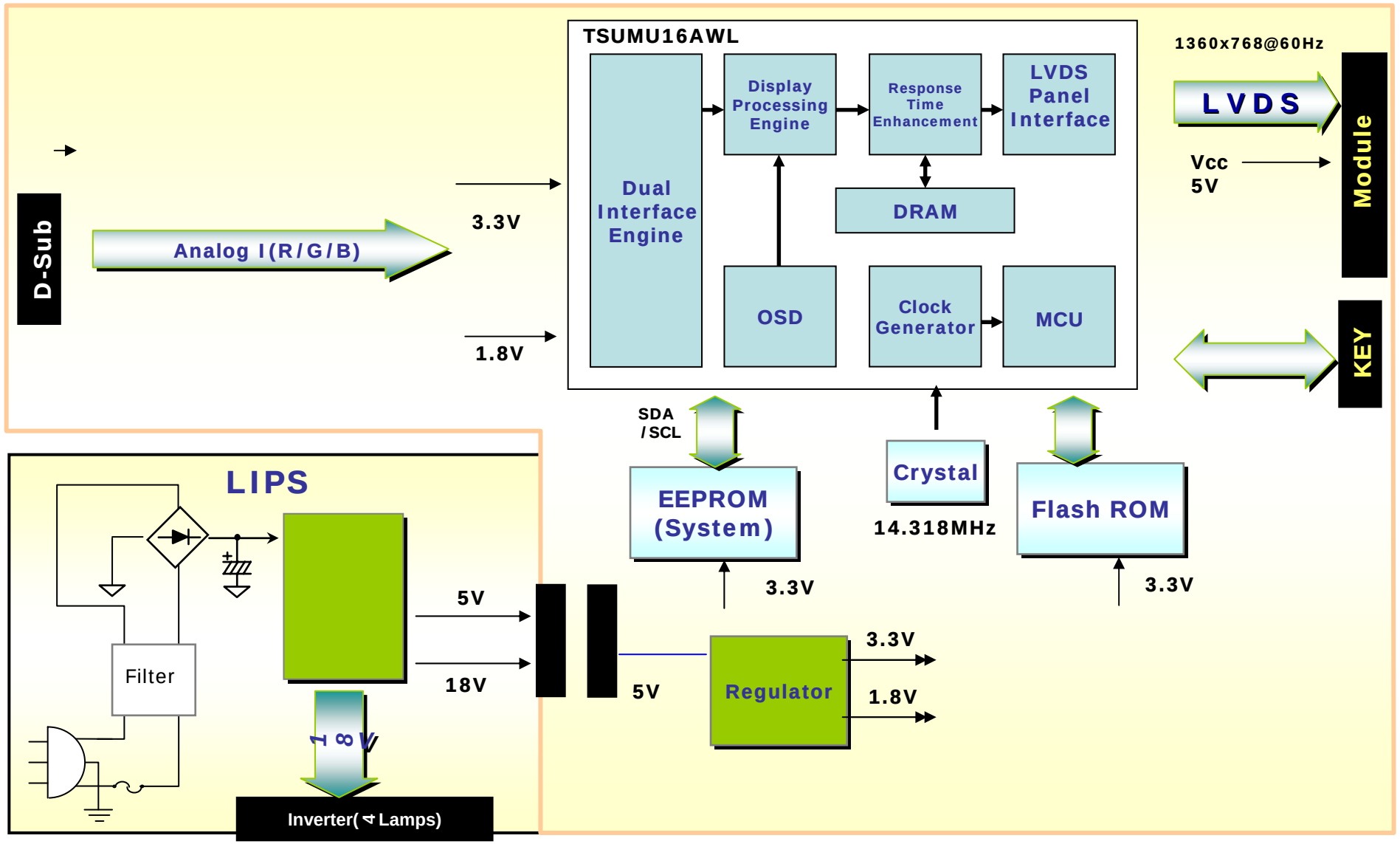
Block diagram



DESCRIPTION OF BLOCK DIAGRAM

1. Video Controller 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 **135MHz** In W1642C.
This part consists of the Scaler, ADC converter, TMDS receiver and LVDS transmitter.
The Scaler gets the video signal converted analog to digital, interpolates input to **1360*768** resolution signal and outputs 8-bit R, G, B signal to transmitter.

2. Power Part.

This part consists of the one 3.3V, and one 1.8V regulators to convert power which is provided 5V in Power board.
18V is provided for inverter in **W1642C.**
Also, 5V is converted 3.3V and 1.8V by regulator. Converted power is provided for IC in the main board.
The inverter converts from DC **18V** to AC 700Vrms and operates back-light lamps of module in **W1642C.**

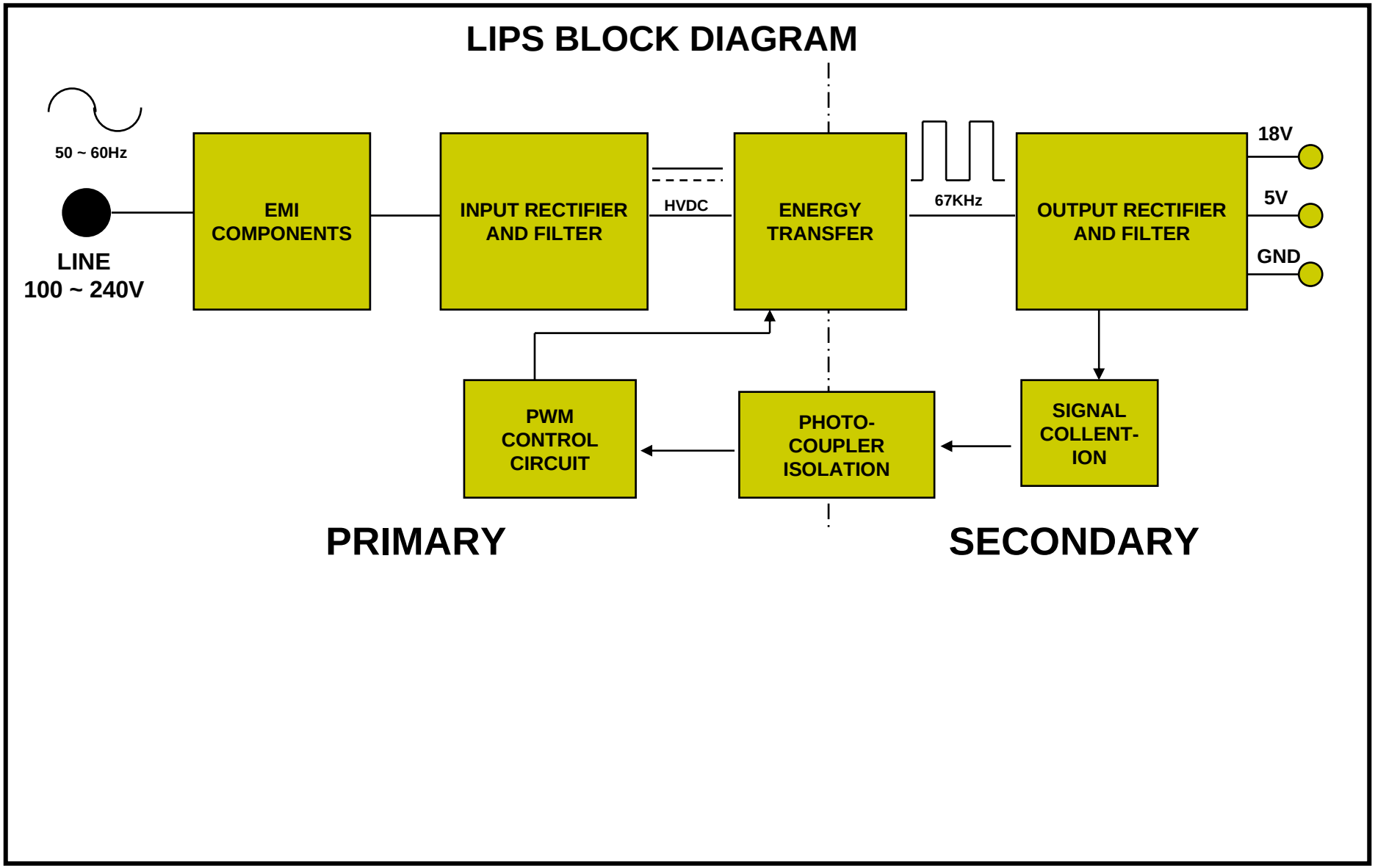
3. MICOM Part.

This part is include video controller part. And this part consists of EEPROM IC , 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 modes is stored in EEPROM.

Power Board Block Diagram



Operation description_Power

1. EMI components.

This part contains of EMI components to comply with global marketing EMI standards like FCC,VCCI CISPR, the circuit included a line-filter, across line capacitor and of course the primary protection fuse.

2. Input rectifier and filter.

This part function is for transfer the input AC voltage to a DC voltage through a bridge rectifier and a bulk capacitor.

3. Energy Transfer.

This part function is for transfer the primary energy to secondary through a power transformer.

4. Output rectifier and filter.

This part function is to make a pulse width modulation control and to provide the driver signal to power switch, to adjust the duty cycle during different AC input and output loading condition to achieve the dc output stabilized, and also the over power protection is also monitor by this part.

5. Photo-Coupler isolation.

This part function is to feed back the DC output changing status through a photo transistor to primary controller to achieve the stabilized DC output voltage.

6. Signal collection.

This part function is to collect the any change from the DC output and feed back to the primary through photo transistor.