

# **Thomson Projector PJX500A**

## **Operating Instructions for Major Components**

### **IC:**

ADV7403 – Video Decoder with Video, S-Video, Component, VGA input. System clock in at 28.6363MHz and system clock out at 27MHz.

Zipro2 – Video Scalar with SDRAM Interface. Clock in at 14.31818MHz and clock out to LCD at 68MHz and clock out to SDRAM at 102MHz.

EM636165TS – SDRAM for video buffering, clock speed at 102MHz

MTV230V – MCU clock speed at 12MHz.

74HC244 – Tri-state buffer for video selection

LM324 – OpAmp of Reference Voltage for LCD

LM1117-3.3 – Linear Regulator for 3.3V

AME8800 – Linear Regulator 1.8V, 2.5V

AME8801 – Linear Regulator 3.3V

### **Crystal:**

12MHz – MCU Clock

14.31818MHz – Video Scalar Clock

28.636MHz – Video Decoder Clock

### **Transistor:**

MMBT3904 – LED driver

MMBT3906 – FAN driver

System MCU will standby anytime and start up after received IR or power on signal. Power on sequence will be wake up video decoder, scalar, and LCD. Finally system will power on the HID lamp and fans. All crystal will be on after power on and sleep when standby mode or no signal mode appears.