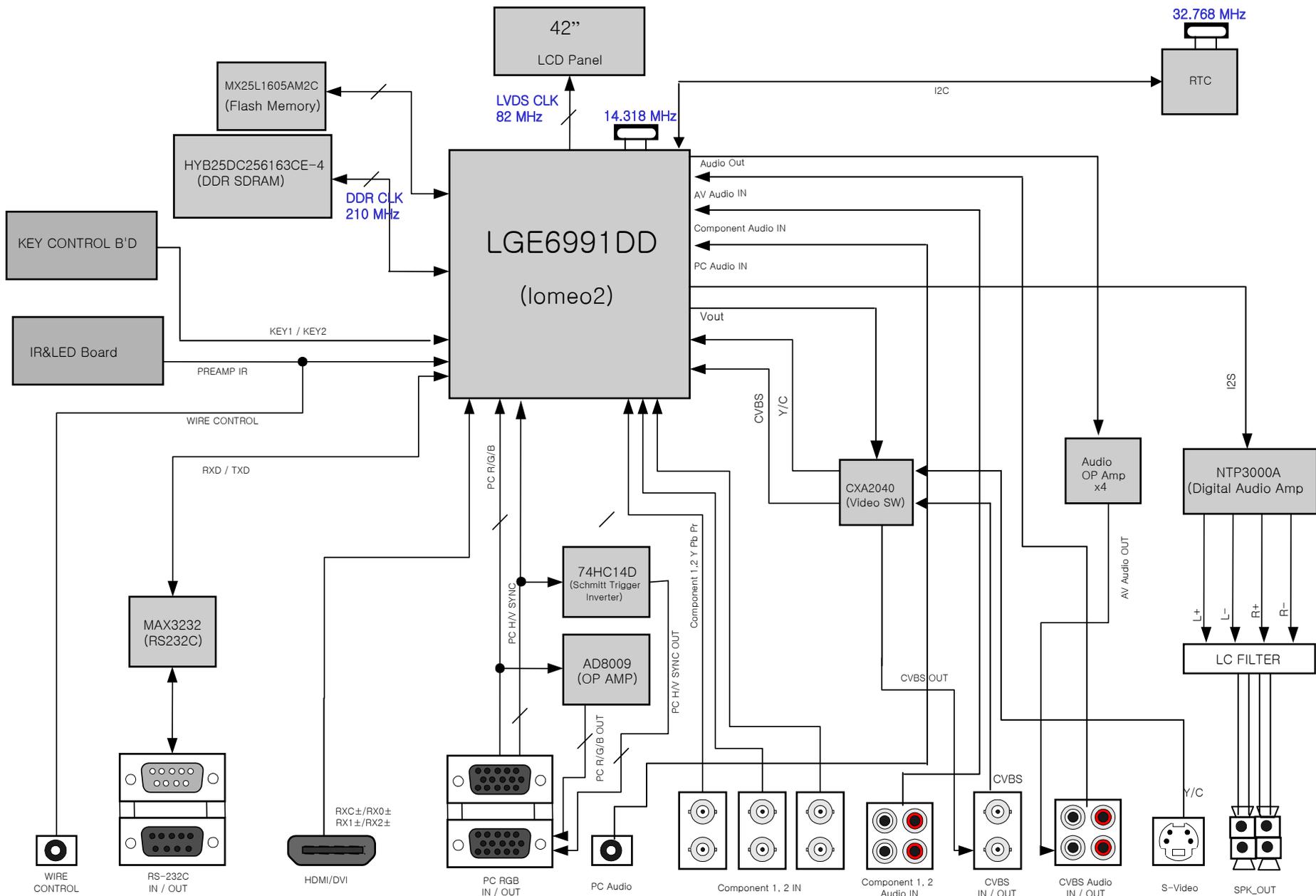


APPENDIX D
: BLOCK DIAGRAM

M4212C Block Diagram



Description of Block Diagram

1. AV INPUT SELECTION CIRCUIT

- This section is composed of Video Switching IC(CXA2040) and peripheral devices.
Video switching IC selects CVBS Video and S-Video and signal is sent to the scaler IC
- CVBS output signal also is sent by CXA2040 after amplifying 6dB for input signal.

2. COMPONENT INPUT

- Component input signal is connected from input jack to scaler directly.

3. RGB INPUT OUTPUT CIRCUIT

- This section is composed of RGB Input Output Jack, Schmitt trigger inverter IC, OP-AMPs, and peripheral devices.
- RGB input signal path is connected from input jack to scaler directly.
- RGB output signal is made by OP-Amps ICs. And this sends output signal to RGB output jack.

4. HDMI/DVI INPUT CIRCUIT

- TMDS input signal is connected from input jack to scaler directly.

5. RS-232C INPUT OUTPUT CIRCUIT

- This section is composed of RS-232C IC(MAX3232), and peripheral devices.
Computer / Controller and scaler(Micom) is connected by RS-232C IC to match signal level.

6. VIDEO SIGNAL PROCESSOR

- This section is composed of LGE6991DD and peripheral devices.
- This IC includes Micom block and Memory interface.
- This IC includes A/D Converter, PLL Circuit, Video decoder and De-interlacer.
- This IC includes TMDS Receiver and LVDS Transmitter.
- This IC also includes Sound Processor.

7. AUDIO AMPLIFIER

- This section is composed of NPT3000A and peripheral devices.
- Audio amplifier's function is amplification of sound signal received from sound processor.

Description of Block Diagram

1. AV INPUT SELECTION CIRCUIT

- Video Switching IC인 CXA2040과 주변 장치로 구성 됨.
Video switching IC 는 CVBS Video 신호와 S-Video 신호를 선택하여 scaler IC의 입력으로 보냄.
- CVBS output signal 은 CXA2040에 의해 6dB 증폭 후 output jack을 통해 출력 됨..

2. COMPONENT INPUT

- Component 입력 신호는 input jack을 통해 scaler의 입력 port로 직접 연결 됨.

3. RGB INPUT OUTPUT CIRCUIT

- RGB Input Output Jack과 Schmitt trigger inverter IC 및 OP-AMPs, 주변 장치로 구성 됨.
- RGB input 신호는 input jack을 통해 scaler로 직접 연결 됨.
- RGB output 신호는 OP-Amps에 의해 증폭 된 후 RGB output jack을 통해 출력 됨.

4. HDMI/DVI INPUT CIRCUIT

- TMDS 입력 신호는 input jack을 통해 scaler로 직접 연결 됨.

5. RS-232C INPUT OUTPUT CIRCUIT

- RS-232C IC(MAX3232) 및 주변 장치로 구성 됨.
- Computer(혹은 Controller)와 scaler(Micom)는 필요한 신호 Level을 맞추기 위해 RS-232C IC에 의해 연결 됨.

6. VIDEO SIGNAL PROCESSOR

- LGE6991DD 와 주변 장치(DDR Memory, Flash memory, EEPROM)로 구성 됨.
- Micom block 과 Memory Controller가 내장 됨.
- A/D Converter, PLL Circuit, Video decoder 와 De-interlacer가 내장 됨.
- TMDS Receiver 및 LVDS Transmitter가 내장 됨.
- Sound Processor가 내장됨.

7. AUDIO AMPLIFIER

- NPT3000A 와 주변 장치로 구성 됨.
- Sound Processor에 의해 수신 된 Audio 신호를 증폭 하여 Speaker에 연결 됨.