STL SI670 Operation Description (Control flow)

A. TX Unit
1. The whole TX unit is controlled by the MCU U1.
2. The EEPROM U2 keeps some important data while the unit is powered off.
3. When the LEARN button is pressed, the MCU U1 flashes the LEARN LED to indicate the unit is in learn mode. The MCU detects the IR (Infrared) signal that is generated by other remote control device with the IR RECEIVER and saves the data into EEPORM U2.
4. The MCU outputs the same learned signal to the IR LED V3 when is needed.
5. The MCU U1 receives the commend signal from the Remote Unit by RF receiv IC102 and T8.
6. The MCU U1 generates a signal to the 2.4 Ghz module to select which channel is used.
7. The MCU U1 also selects the input source (from AV input or TV) by the AV selector U3.
8. If the TV is selected, then the MCU will contorl the TV tuner to work under the select TV channel.
9. The MCU U1 also controlls the OSD (On Screen Display) circuit to display some characters on the screen when it is needed.
10. The MCU can detect whether there is a video signal or not from the synchronous separation circuit T7.
11. The MCU will mute the audio signal (by T9,T10) while changing the TV channel to prevent the noise is heard.
12. The whole Tx unit is powered by an AC adaptor and the Power Supply circuit.

B. RX Unit
1. The whole Rx unit is controlled by the MCU U101.
2. The EEPROM U104 keeps some important data while the unit is powered off.
3. The reset circuit T101 provides a power on reset to the MCU.
4. When any key is pressed, the MCU will send the command to the Tx unit by the RF transmitter T4.
5. The Rx unit also receives the signal from the IR remote control by IR reveiver and then send the command to the Tx unit by the RF transmitter T4.
6. The MCU U101 turns on the 2.4 Ghz module by T103 & T104 and then generat a signal to the 2.4 Ghz module to select which channel is used.
7. The whole Rx unit is powered by an AC adaptor and the Power Supply circuit.

C. IR Remote control unit
1. The whole Remote control unit is controlled by the MCU U1.
2. When any key is pressed, the MCU will send the signal to the Rx unit by the IR LED LED1.
3. The whole Remote control unit is powered by two AA batteries.