

Attn: Stephen Luo

From: 曾 虹



CANSUM INDUSTRIES LIMITED

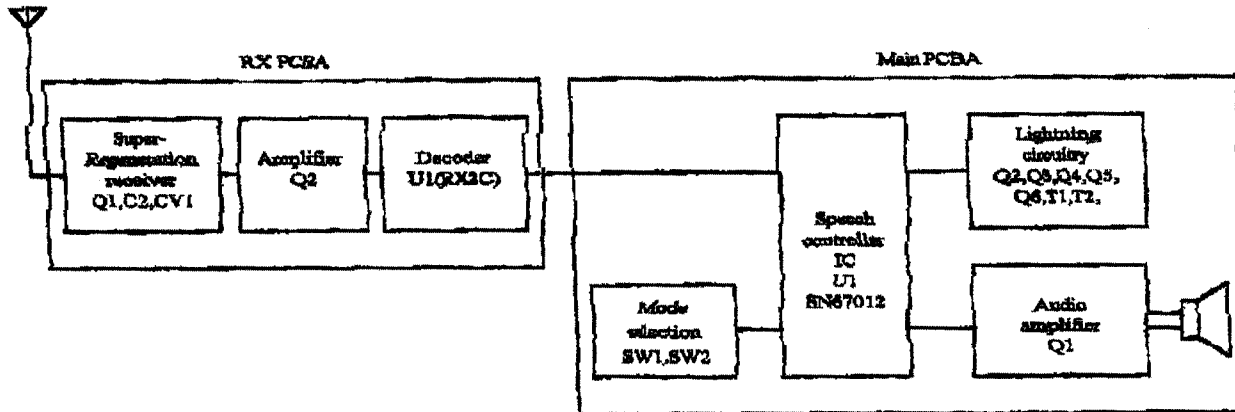
堅成實業有限公司

2/F., So Ho Centre, 11-15 Kwai Sang Road, Kwai Chung, N.T., Hong Kong.
Tel: (852) 2487 3583 Fax: (852) 2434 3115



Thunder / Lightning FX Machine Wireless

Function Description



Rx PCBA

Super-regeneration receiver

The super regeneration circuitry is included the component of Q1, C2, CV1 and they response to couple the 300MHz AM signal and demodulate to the encoded signal.

Amplifier

The encoded signal will be amplified by Q2 and transferred to decoder IC RX2C.

Decoder

The IC RX2C (U1) will decode the command signal. If the code fulfills the requirement, it will drive the transistor Q3 to operate the output to high level and send to the P2.0 of controller in main PCBA.

Main PCBA

02.07.0743E

Mode selection

The mode selection defines the operation mode and the output method. The SW1 set the operation mode as power off or "Try me"(OFF), continuous running (ON) or RF controlled (SENSOR). The SW2 set the output method. The light flashing output only, while the P2.2 is set



CANSUM INDUSTRIES LIMITED

堅成實業有限公司

S/F, So-To Centre, 11-15 Kwai Bau Road, Kwai Chung, N.T., Hong Kong.
Tel: (852) 2487 8888 Fax: (852) 2484 8113



Thunder / Lightning FX Machine Wireless

Function Description

by VDD. The sound output only, while the P2.3 is high. If the P3.0 is set to VDD, the light flashing and the sound will output at the same time.

Speech controller

Mainly, the voice data are stored in the controller. Also, the time duration and the circuit flows are controlled by the U1.

It identifies the operation mode with SW1. When the SW1 is set to "OFF" position, the controller IC will not operate till the P3.3 of "TRY ME" switch pressed. The output operation will control the output to run a cycle time. When the SW1 is set to "ON" position, it operates the output device as a continuous run. When the SW1 is set to "SENSOR" position, the U1 will keep on a standby mode and wait the signal from the P2.0. If the high level detect, the output of the time duration 30 seconds will be operated.

It decides the operation flow with the SW2, then it select output channel. When the P2.2 is set to high, the P3.2 sends the high level and the BU01 has not output. If the P2.3 is high, the P3.2 will not have an output and the sound data will be sent to Q1 from BU01. Besides, the P3.0 is set to high, the P2.3 sends the high level with 30 seconds time duration and the BU01 sends out the sound data.

Lightning circuitry

While the high level from the P3.2 turn the Q2 switched on, the Q3 and Q4 will be activated and triggered the LIGHT1 and LIGHT2 circuitry. At that time, the two group of oscillation circuit of T1, Q5 and T3, Q6 have been oscillated an ac signal. And, through the T1, T3 stepped up the voltage. After the D4 and D5 rectifier to dc signal and storage the voltage to EC2 and EC3, the voltage around 200V; it is supply to the flashlight. The time constant oscillation circuitry includes the parts NL1, T2 and NL2, T4. While the capacitor C4, C7 have stored enough to start up the neon lamp, it turns on the SCR1 and SCR2. So that, C4 and C7 discharged and stepped-up by T2 and T4, it will active the flash light tube and generate the flashing light. The flash light tube is based on the time constant oscillation circuitry. And the flashing frequency is the decided by the C4, R6 and C7, R8.

Audio amplifier

Amplify the voice data to the speaker.

02.07.0743E