



# Early Light Industrial Co., Ltd.

**Project No: #90230**

**Model Name: 1:6 R/C Car**

**Frequency: 27.145MHZ&49.860MHZ (USA)**

**REV: 00**

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## **Electronics Department**

### **Circuit Description**

#### **IN TRANSMIT MODE:**

After TX unit is switched SW201 "ON" and press the lock key, horn key, music1 key, music2 key, forward key, back key, left key, right key the transmit frequency is oscillated by Y201 and mixed with the encoded signal from P3.2(pin8) of IC201 by Q201, then coupled through T201, L203 to antenna.

The low pass filter made up of C201, C202, T201, L203, which is connected to the antenna.

SW202 is speed select switch, It make the car have three speed.

DC9V(AAx6) Alkaline Battery supplies energy.

#### **IN RECEIVE MODE:**

The receiver part is using a super regenerator circuit and Q1 is the super regenerator&detector.

IC1(SPRC206A) is a remote control decoder. IC2(EST-061) is a series of single channel voice IC.

IC3(LM386) is a low voltage audio power amplifier. Q9~Q14 is the current driver of the left&right

motor. Q22~Q25, RL1~RL4 is the current driver of the forward&back motor. Q17~Q20, R42~R47,

C42 is the current temperature safeguard of F&B motor. Photo jack can make the signal of the MP3

to be amplified by IC3. D2, D3, R34, R35, Q16, D14 is the current of L&R motor run center. D17~D20

is LED in the front of the car. D21~D24 is LED in the back of the car. D16 is LED of lock point out.

#### **ANTENNA AND GROUND CIRCUITRY:**

The TX use an external 20-inch stretch out and draw back antenna, the car use an external 8-inch rod antenna, the antenna is inductively coupled, the unit relies on the Ground trace of the printed circuit board, No external ground is provided.

Energy of the car is supplied by DC9.6V rechargeable battery.