



## GENERAL DEACRIOTION

The SC5104C is a high performance infrared remote control encoder utilizing CMOS technology. Mode A is a signal-key control and mode B is a multi-key control during data transmission, supports eight data key inputs and a LED output to indicate the status during transmission.

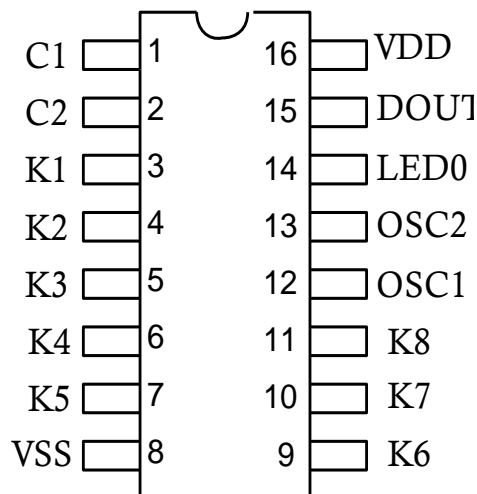
## FEATURES

- Wide operation voltage range, 2.2V to 6V
- Eight data key control
- Option of signal-key or multi-key control
- Two custom codes to separate products
- Auto power off for saving power
- LED output to indicate transmission status
- Direct infrared LED 38KHz modnation output
- Low power consumption
- Paired with SC5104C decoder
- 16 pin DIP or SO package

## APPLICATIONS

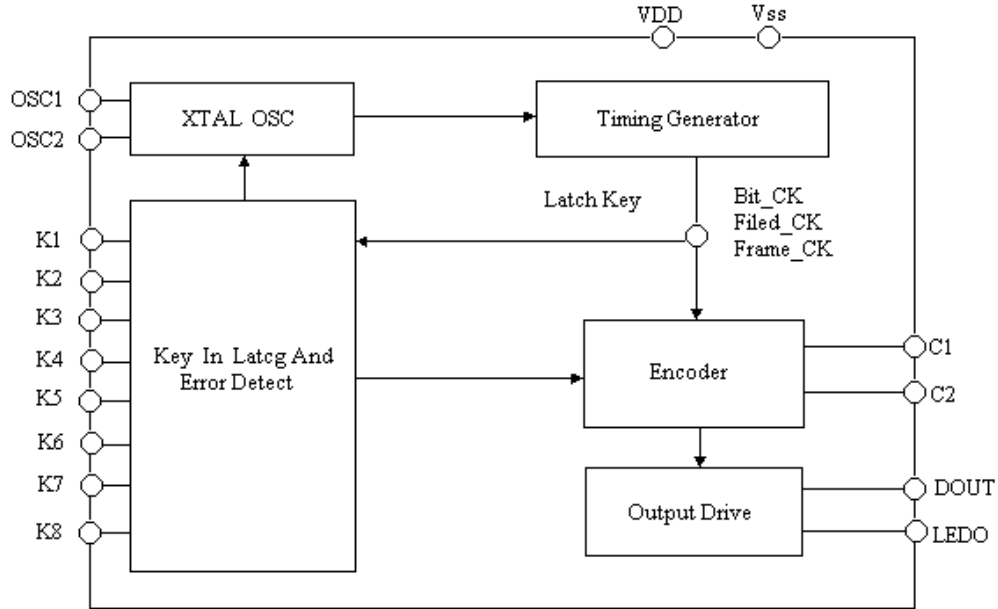
- SC5104C Fan Remote Control
- Audio Remote Control
- Toy Remote Control
- Consumer Products Remote Control

## PIN ASSIGNMENT





#### BLOCK DIAGRAM



#### PIN DESCRIPTION

Pin Name	I/O	Function
C1,C2	I	Custom Code
K1~K8	I	Remote Control Key Inputs (Built-In Pull-Low Resistor)
Vss	POWER	Negative Power Supply (Substrate)
OSCI	I	455KHz XTAL OSC Pin
OSCO	O	455KHz XTAL OSC Pin
DOUT	O	Signal Output
LEDO	O	Transmission Indicator
VDD	POWER	Positive Power Supply





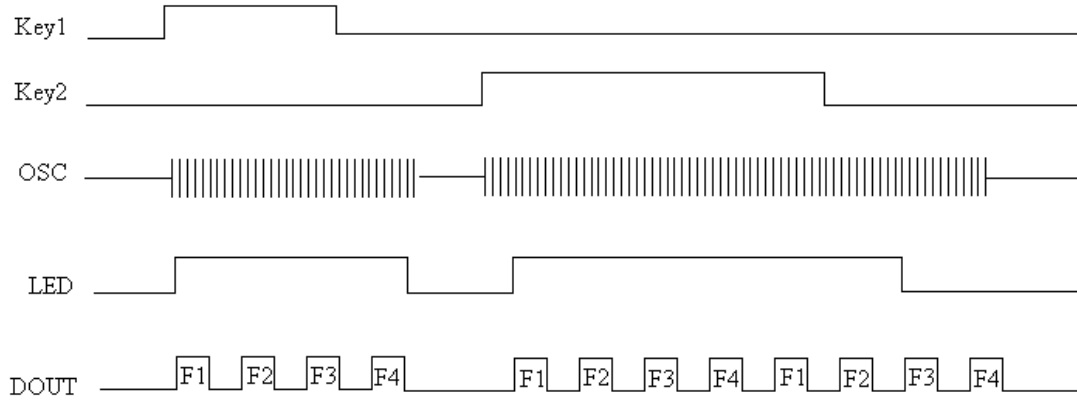
### SC5104C(文件编号: S&CIC0684)

### 红外线风扇控制 IC

- t2: Transmission time t3+180ms ( Four frame )  
If t1 is over t3 + 108ms, DOUT will be transmitted again  
[(Pressing time ) MOD (t3 + 108ms)+1]\* 108ms + 13
- t3: Oscillator stable time. OSC \* 384=0.8ms
- t4:3-Bit (Head)+2-Bits(Custom Code)+ 7-Bits (Data) +6-Bits (Empty)=18-Bits (27ms)
- OSC:455KHz resonator

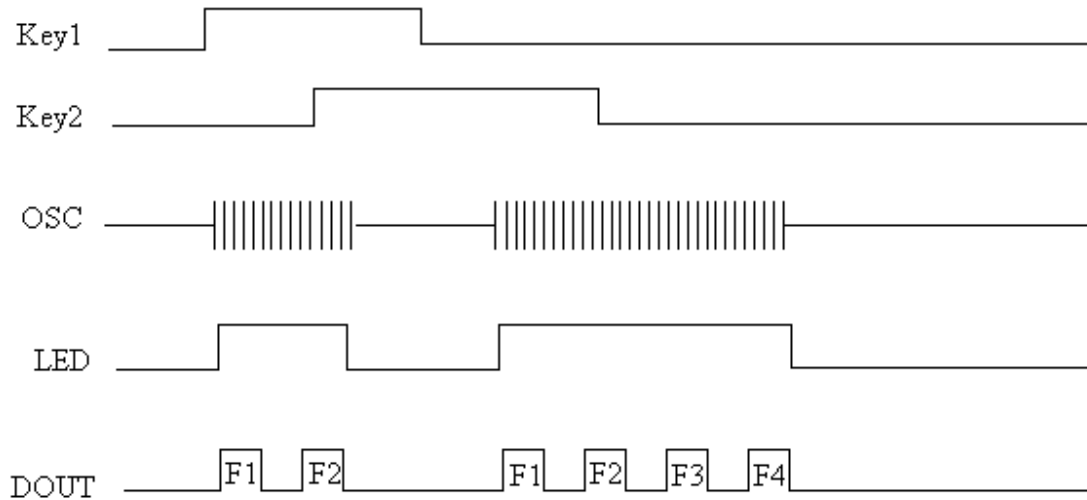
#### D. SC5104C Transmission Waveform

##### Normal Condition



##### Overlap Condition

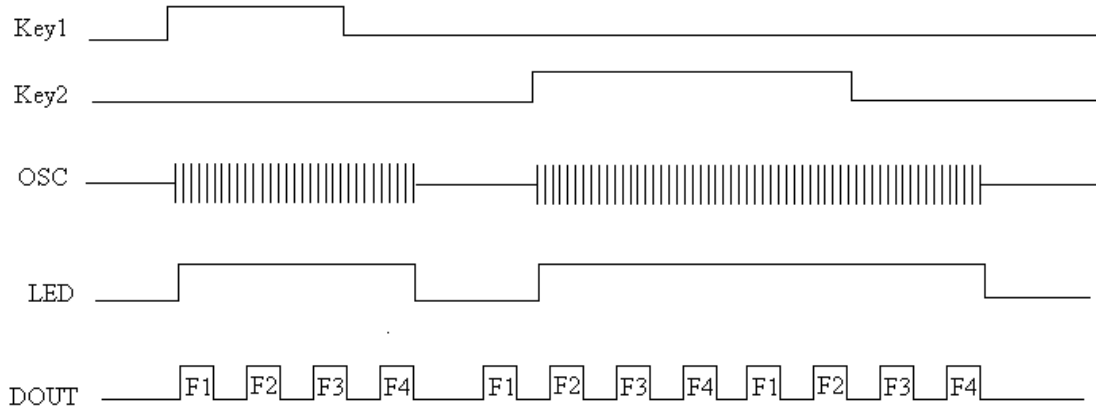
If more than one key is pressed, transmission stops.





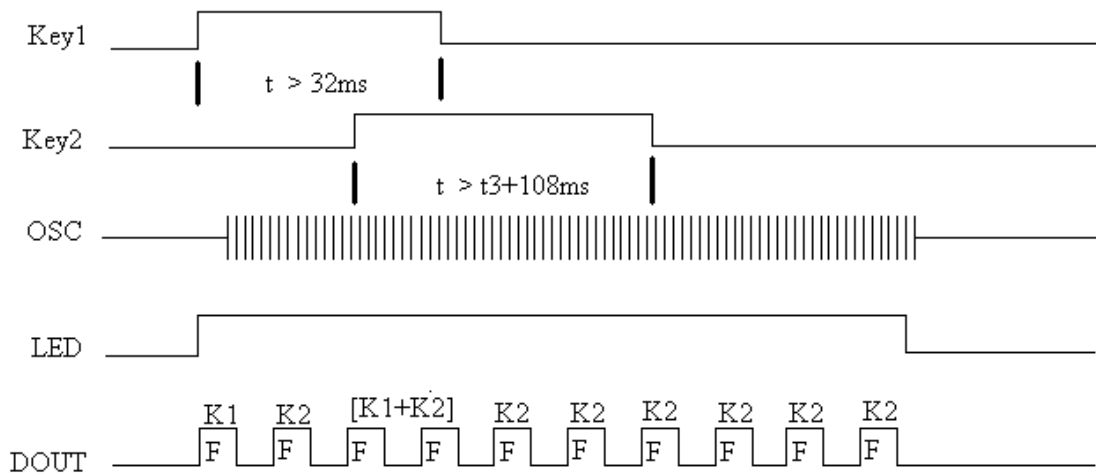
### E. SC5104C(1) Transmission Waveform

#### Normal Condition



#### Overlap Condition

If more than one key is pressed, multi-key data transmission.



### ABSOLUTE MAXIMUM RATINGS

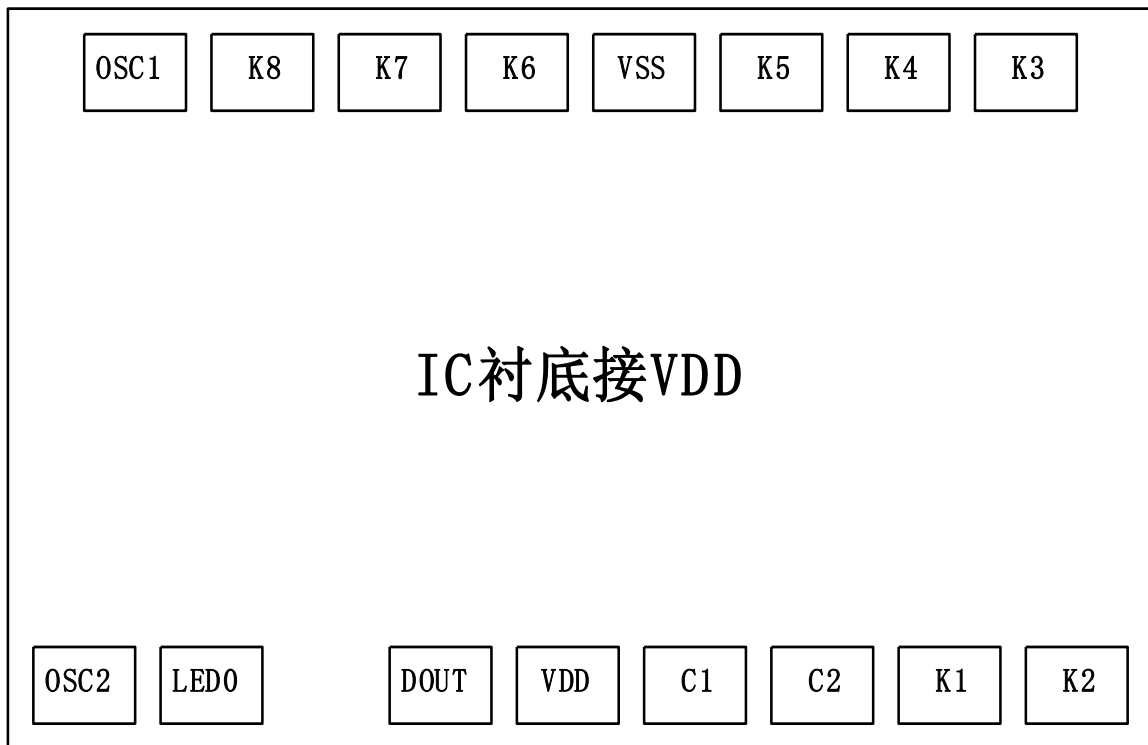
Parameter	Symbol	Test Conditions	Ratings	Unit
Supply Voltage	VDD-VSS	-	-0.3~6	V
Input Viltage	VI	-	V <sub>SS</sub> -0.3~VDD+0.3	V
Output Voltgase	Vo	-	V <sub>SS</sub> -0.3~VDD+0.3	V
Maximum Power Consumption	Pa	VDD-VSS=5V	500	mW
Operating Temperature	Topr	-	-10~70	°C
Storage Temperature	Tstg	-	-40~125	°C



#### DC ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Conditions	Limit			Unit
			Min.	Typ.	Max.	
Supply Voltage	VDD	-	2.2	3	5.0	V
Stand-by Current	ISB	VDD-VSS=3V OSC stop All output pins open	-	1	-	uA
Input High Level	VIH	-	1.5	-	3.5	V
Input Low Level	VIL	-	0	-	1.5	V
DOUT Source Current	IOH	VOH=+2.4V	-	-	5	mA
LEDO Source Current	IOH	VOH=+2.4V	-	-	7.5	mA
DOUT Sink Current	IOL	VOL=-0.4V	-	-	5	mA

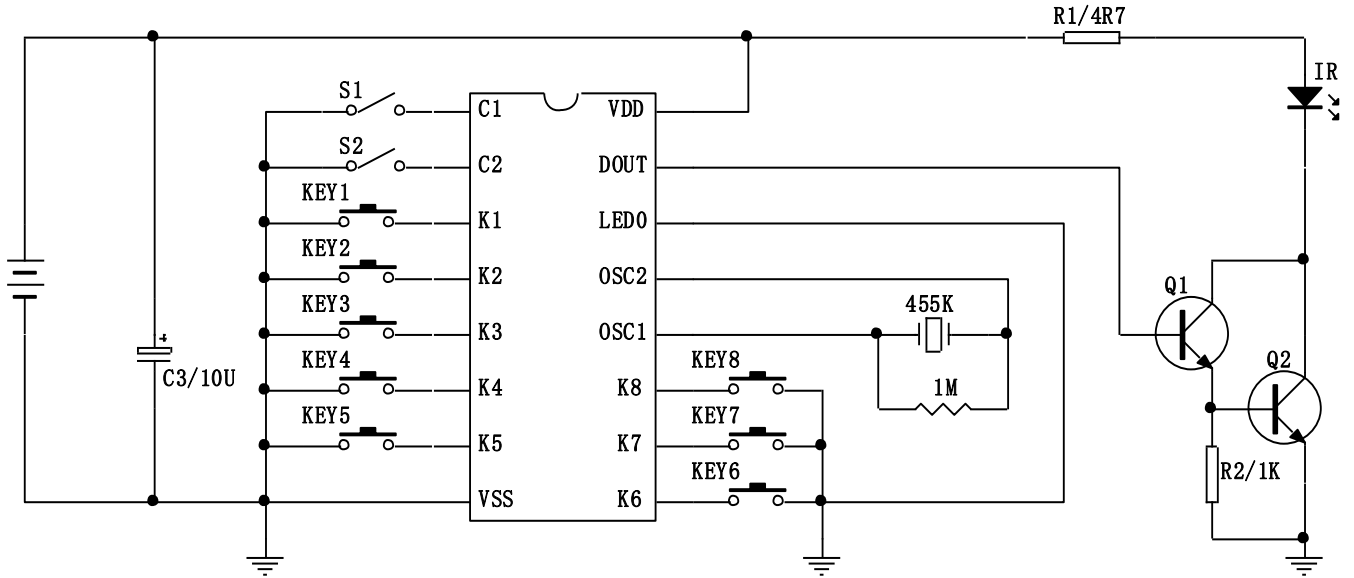
#### PAD 图





## APPLICATION CIRCUIT

### SC5104C[ENCODER]APPLICATION CIRCUIT



SC5104C 发射器线路图

