

# 深圳市普恩科技有限公司

地址：深圳市宝安区龙华镇民治街道民康路蓝坤大厦 1007

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## C717/C718

### 5 Function Remote Car

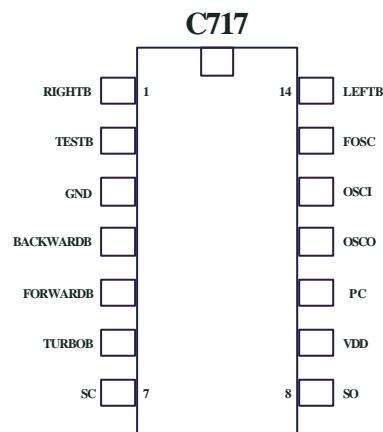
#### Features :

- Wide operating voltage range: 2.4V to 5.0V.
- Low Standby current.
- Auto Power-OFF function for C717.
- Few external components needed.

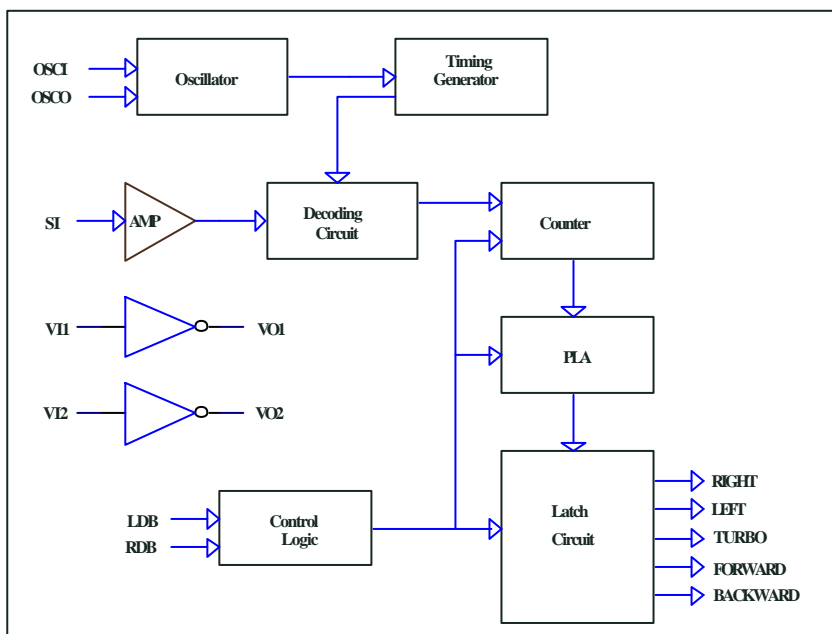
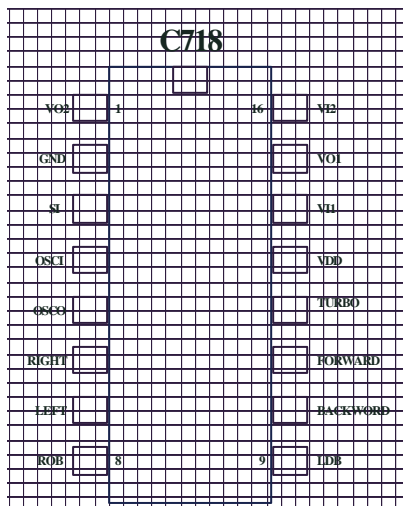
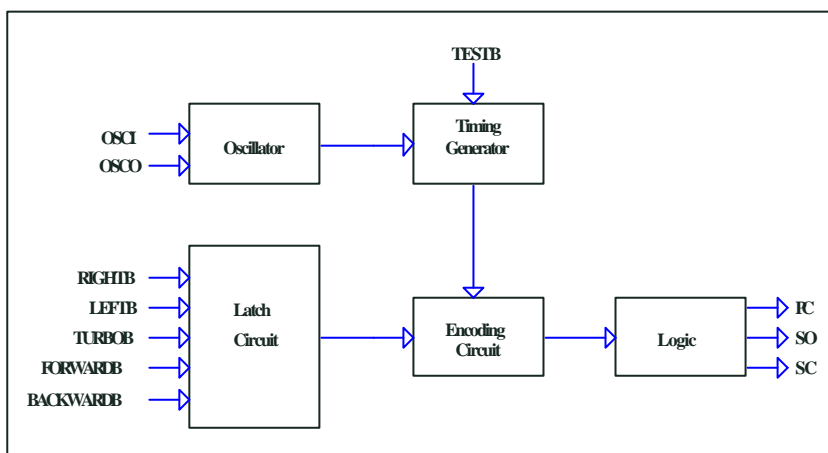
#### General Description :

The C717/C718 are a pair of CMOS LSIs designed for remote controlled car applications. C717 is built with auto Power-OFF function. The C717/C718 has five control keys controlling the motions (i.e. Forward, Backward, Rightward, Leftward and Turbo function) of the remote controlled car.

#### Pin Assignment : Transmitter



#### Block Diagram :



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## Electrical Characteristics :

C717

( VDD=4.5V,Fosc=128KHz,Ta=25°C,unless otherwise specified )

Parameter	Symbol	Min	Typ	Max	Condition
Operating Voltage	Vdd	3V	4V	5V	
Standby Current	Istb	---	---	10uA	I/O open
Operating Current	Idd	---	---	2mA	I/O open
DC O/P Driving Current	Idrive	5mA	---	---	
AC O/P Driving Current	Idrive	5mA	---	---	
AC O/P Frequency	Faudio	500Hz	---	1KHz	

C718

( VDD=4.0V,Fosc=128KHz,Ta=25°C,unless otherwise specified )

Parameter	Symbol	Min	Typ	Max	Condition
Operating Voltage	Vdd	3V	4V	5V	
Operating Current	Idd	---	---	3mA	I/O open
O/P Driving Current	Idrive	1mA	---	---	
O/P Sinking Current	Isink	1mA	---	---	
Effect Decoding Frequency Variation	Ftolerance	-20%	---	20%	

## Absolute Maximum Ratings :

RATING	VALUE
DC Supply Voltage	< 5.0V
Input/output Voltage	GND-0.3V to VDD+0.3V
Operating Temperature	-10°C to 60 °C
Storage Temperature	-25°C to 125°C

Notice: Stress greater than those listed under Absolute Maximum Ratings may cause permanent damage to the device, This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied, Exposure to absolute maximum rating conditions for extended period may affect reliability.

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## Pin Description :

C717

PAD	SYMBOL	FUNCTION INTRRODUCTION
1	RIGHTB	The rightward function will be selected when this pin is connected to GND.
2	TESTB	This pin is used for testing purpose only.
3	GND	Negative power supply
4	BACKWARDB	The backward function will be selected when this pin is connected to GND.
5	FORWARDB	The forward function will be selected when this pin is connected to GND.
6	TURBOB	The turbo function will be selected when this pin is connected to GND.
7	SC	Output pin of the encoding signal with carrier frequency
8	SO	Output pin of the encoding signal without carrier frequency
9	VDD	Positive power supply
10	PC	Power control output pin
11	OSCO	Oscillator output pin
12	OSCI	Oscillator input pin
13	FOSC	This pin is used for testing mode.
14	LEFTB	The leftward function will be selected when this pin is connected to

C718

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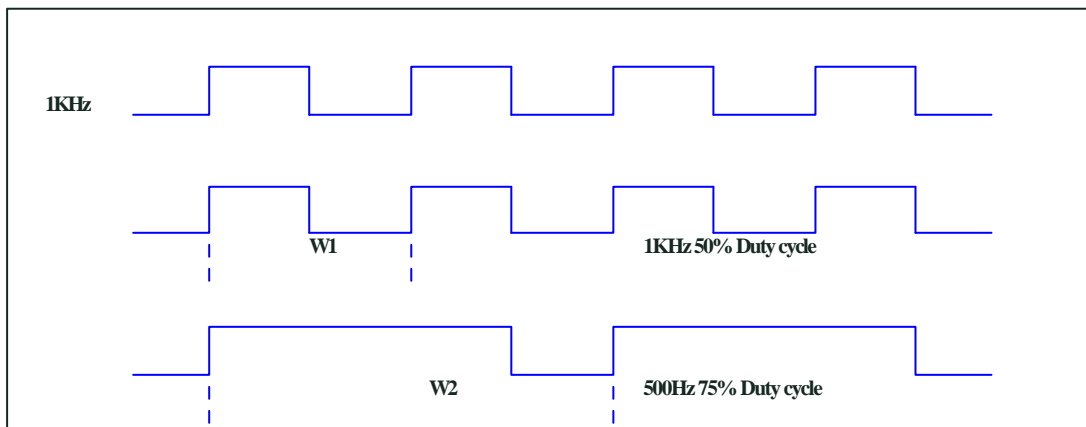
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PAD	SYMBOL	FUNCTION INTRRODUCTION
1	VO2	Inverter 2 output pin for power amplify
2	GND	Negative power supply
3	SI	Input pin of the encoding signal
4	OSCI	Oscillator input pin
5	OSCO	Oscillator output pin
6	RIGHT	Rightward output pin
7	LEFT	Leftward output pin
8	RDB	Rightward function is disabled when this pin is connected to GND.
9	LDB	Leftward function is disabled when this pin is connected to GND.
10	BACKWARD	Backward output pin
11	FORWARD	Forward output pin
12	TURBO	TURBO output pin
13	VDD	Positive power supply
14	VI1	Inverter 1 input pin for power amplify
15	VO1	Inverter 1 output pin for power amplify
16	VI2	Inverter 2 input pin for power amplify

## Code Format : Encode Rule

### Bit Format



### Data Format

W2 W2 W2 W2 (n)xW1 W2 W2 W2 W2 (n)xW1 W2 W2 W2 W2

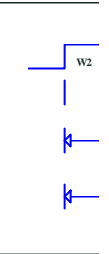
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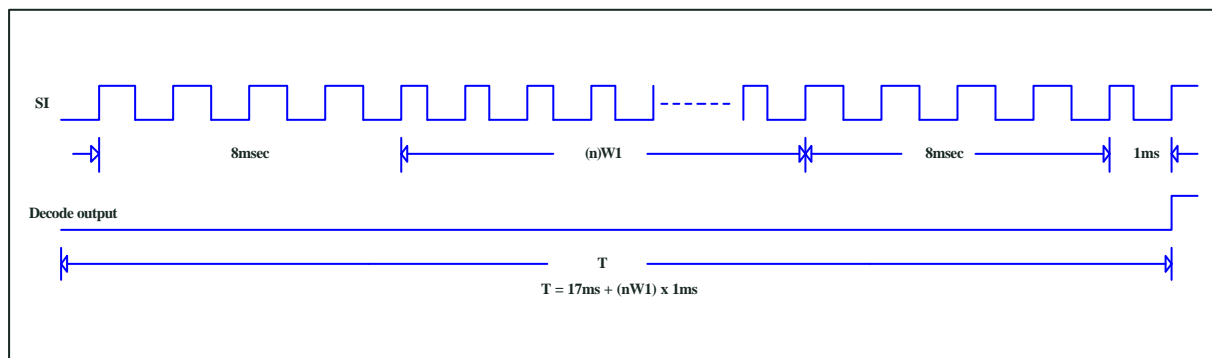
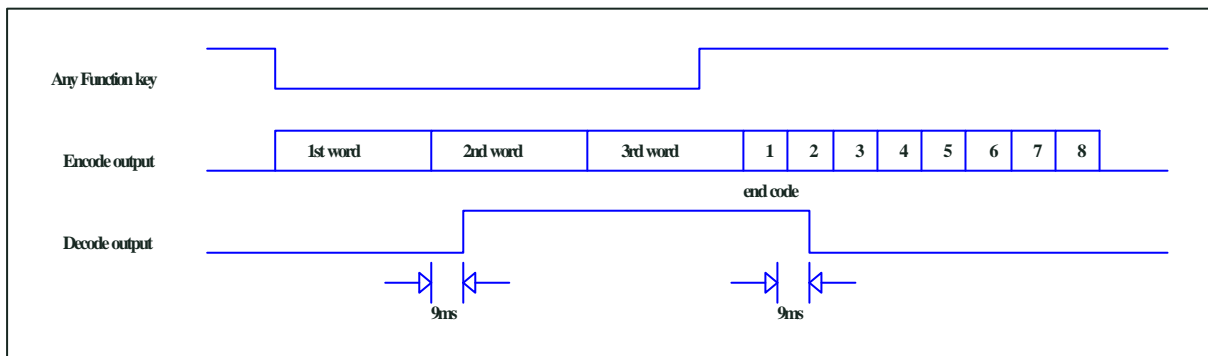
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Number of Function Code(n) W1	Function Key	Decode Result
4		End Code
10	Forward	Forward
16	Forward & Turbo	Forward
22	Turbo	Turbo
28	Turbo & Forward & Left	Forward & Left
34	Turbo & Forward & Right	Forward & Right
40	Backward	Backward
46	Backward & Right	Backward & Right
52	Backward & Left	Backward & Left
58	Left	Left
64	Right	Right



## Encode / Decode Timing :



## Typical Application Circuit :

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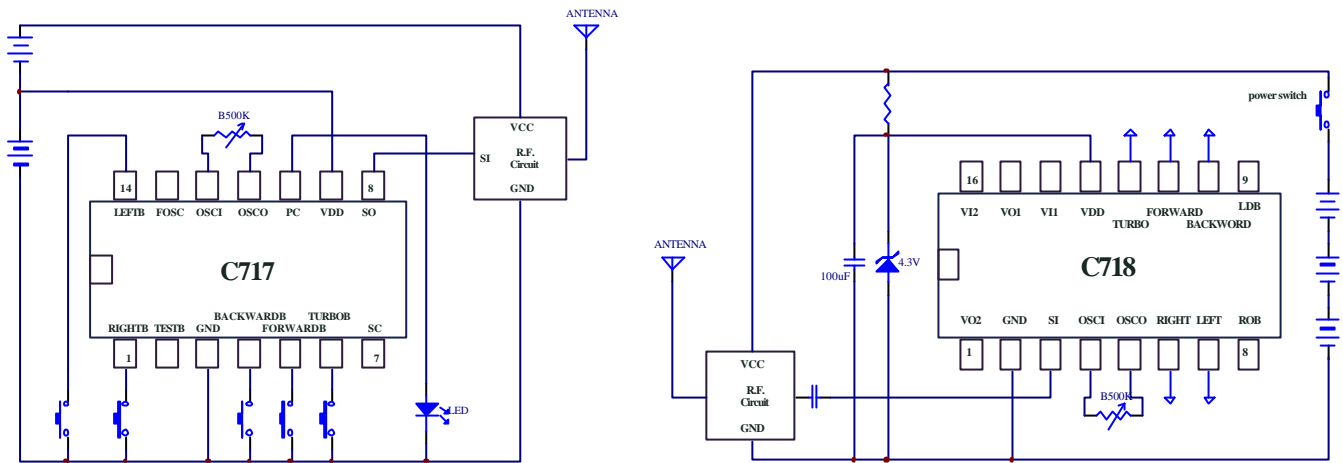
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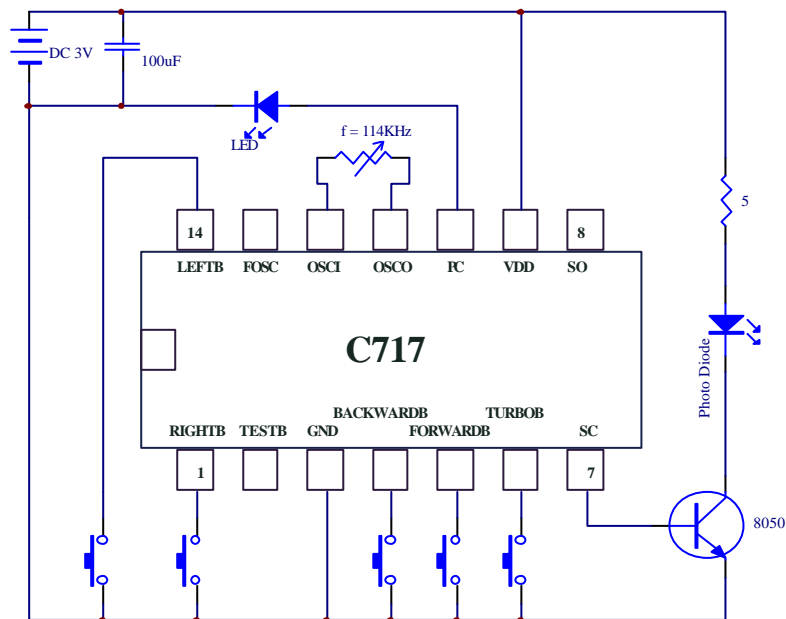
Transmitter

Receiver



## Infrared Application Circuit :

Transmitter



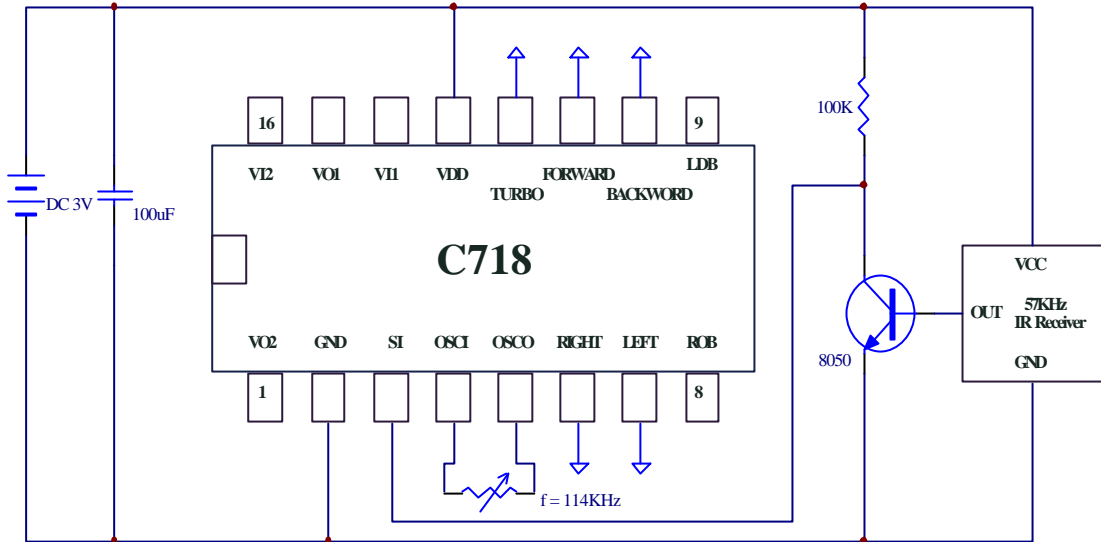
Receiver

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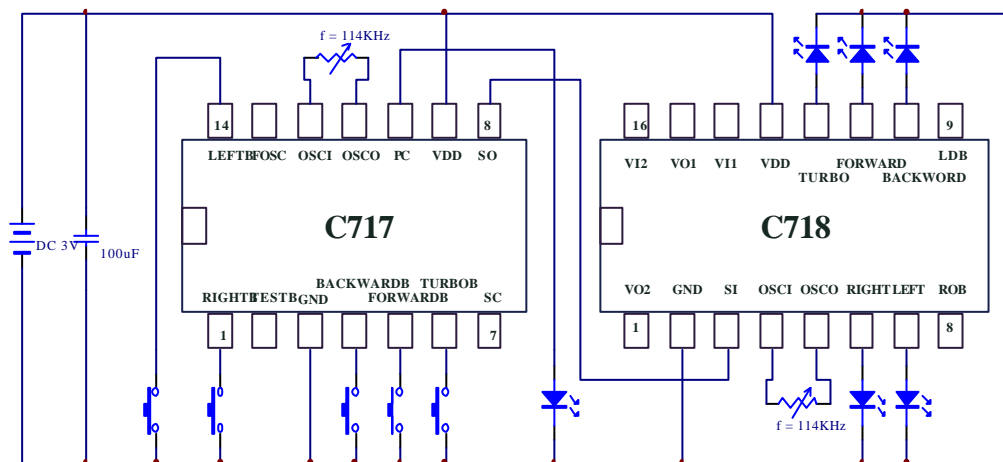
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## Testing Circuit :



## PAD Diagram :

C717

C718

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