

Intelligent Code Learning Module

1. INTRODUCTION

LRN60C is a module with intelligent code learning and decoding feature. It is intended to use with 433.92 Mhz and 315 Mhz. ISM band applications.



Because the decoder stage of LRN60C is microcontroller based, an important feature is the Code Learning Capability. The module can learn 60 different-coded remote transmitters. So, there is no need for soldering any address pins nor using a hardware dip-switch for address matching with the transmitters. This is a key feature that LRN60C differs from ordinary remote decoder IC's.

The module can decode the encoded signal in very wide range of data rate.

2. FEATURES

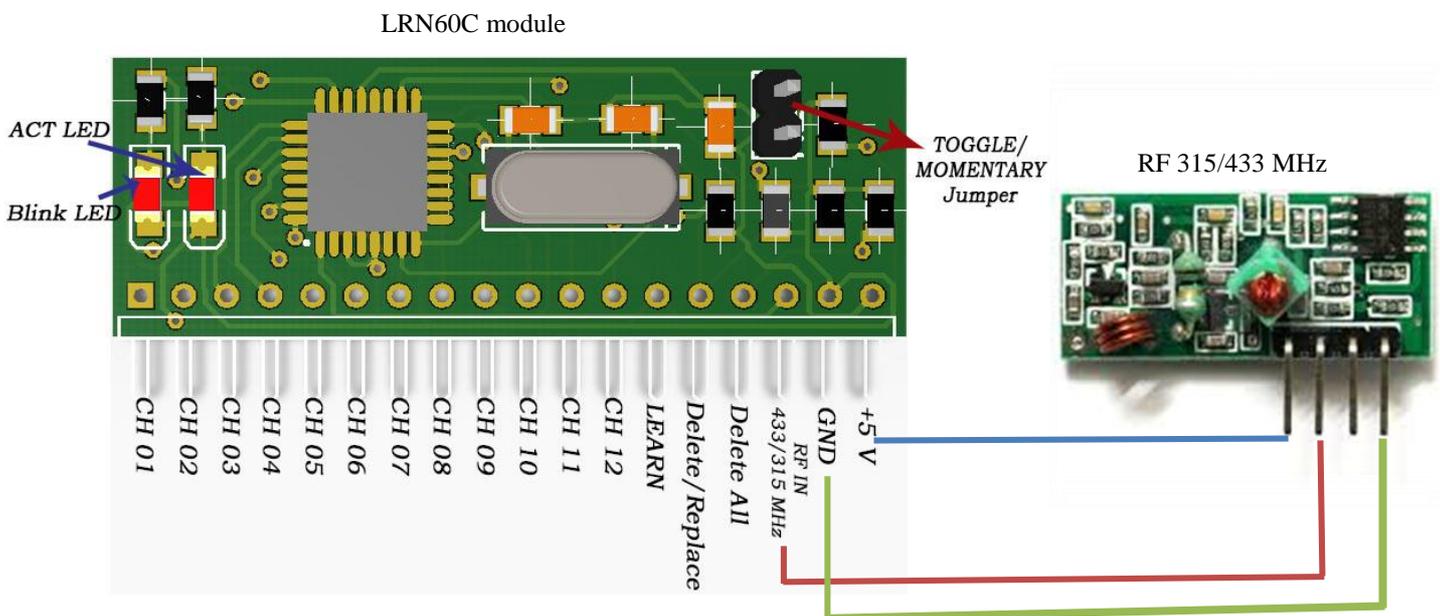
- Frequency: 433.92 Mhz. / 315 Mhz.
- Name: LRN60C
- Quiescent current: $\leq 5\text{MA}$
- Working voltage: DC 5V
- Working Current: $\leq 8\text{MA}$
- Wide Range Supply Voltage: From 3.6V to 5.0V
- Excellent Selectivity and Noise Rejection.
- Microcontroller based design.

- Decodes and learns transmitters which has PT2260, PT2262, PT2240 and EV1527 and other encoder ICs.
- 12 logical binary outputs (CH1...CH12) capable of driving +/- 25mA.
- This module Can learn 60 different-coded remote transmitters. No need any hardware for address matching.

3. TYPICAL APPLICATIONS

- Remote Keyless Entry.
- Remote Gate Openers.
- Car Alarm Systems.
- Wireless Security Systems.
- General Remote Control Applications.

4. PIN DESCRIPTION



| PIN NAME | DESCRIPTION |
|------------------------|--|
| RF IN | RF Data Input Pin |
| Delete KEY/ REPLACE | HOLD HIGH THIS PIN AND PRESS OLD KEY IS REMOVE THEN PERESS LERAN PIN TO HIGH TO REPLACE WITH OTHER KEY |
| CH1-CH12 | Digital Output 1-12 channel |
| Delete ALL | Dell all remote key |
| TOGGLE/ MOMENTARY | Set Jumper to Momentary /Unset to Toggle |
| LEARN PIN | Active high this pin and press remote key to learn. |
| GND | Connect to Power Supply Negative Input |
| +5V | Connect to Power Supply Positive Input |

Table 1. Pin Description

❖ **Operation manual**✓ **Learn key**

Default pin status :Pull-down

- 1- Set LEARN PIN to HIGH
- 2- Press remote key
- 3- Act LED is ON
- 4- Set LEARN PIN to LOW
- 5- END

✓ **Delete 1 key from memory**

Default pin status :Pull-down

- 1- Set Delete Key to HIGH
- 2- Press remote key
- 3- Act led is ON
- 3- Set Delete Key to LOW
- 4- the remote key removed from memory

✓ **Replace 1 key from memory**

- 1- Set Replace key to HIGH
- 2- Press remote key
- 3- Act led is ON
- 3- Set Replace key to LOW
- 4- the remote key is removed from memory
- 5- Set LEARN PIN to HIGH
- 6- Press new remote key
- 7- Act led is ON
- 8- New remote key replace with old remote key
- 9- END

✓ **Delete all key from memory**

- 1- Set Delete key to HIGH
- 2- HOLD this key to on act led
- 3- Remove all key

❖ **TOGGLE/MOMENTARY**

Set Jumper to Momentary mode /Unset to Toggle mode

