



## LX1527 User's Guide

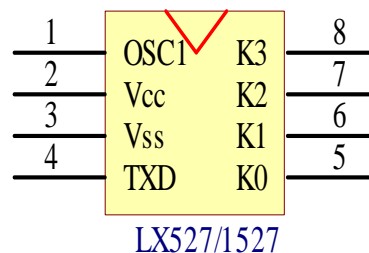
### Description

LX1527 is designed by CMOS technology, can storage ISN and study code beforehand, it is decoded by software; ISN has 20bit can storage 1048576 for combination, this can reduce any code collision.

### Main Features

- 1 . low power consumption quiescent current < 1uA ;
- 2 . operating voltage Vcc=2.4 - 13.0V;
- 3 . input four key-press through combination, that can assemble 15 key-press mostly;
- 4 . single oscillator circuit, need one external resistor only.
- 5 .small volume 8 package by SSOP , it is upgrade product of LX2260;
- 6 . it is compatible with EV1527、RT1527 absolutely ;

### Pin Configuration



### Pin Description

Sign	Description	Pin	I / O
OSCI	Oscillator circuitry input pin, connect resistor to power supply	1	I
VCC	Positive Power Supply	2	
CND	Negative Power supply	3	
TXD	Code output pin	4	0
K0	Key-press input pin, contain pull-down resistor	5	I
K1	Key-press input pin, contain pull-down resistor	6	I
K2	Key-press input pin, contain pull-down resistor	7	I
K3	Key-press input pin, contain pull-down resistor	8	I



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## Limit parameter

Sign	Parameter	Condition	Scope	Unit
Vcc	Supply voltage		-0.3~15	V
VI	Input voltage		-0.3~Vcc+ 0.3	V
VO	Output voltage		-0.3~Vcc+ 0.3	V
Tst	Storage temperature		-40 ~125	°C
Top	Operating temperature		-20 ~70	°C
Pdis	Most power consumption	Vcc = 12V (empty)	24	mW

## Electric Characteristic

Parameter	Condition	Sign	Least	Type	Most	Unit
Operating voltage		Vcc	2.4	12	15	V
Quiescent current	Vcc = 12V, OSC stop , OutPut Unloaded	Isb			1.0	uA
Operating current	Vcc = 12V , one key-press input (one contact Vcc)	Iop		0.5	1.0	mA
Driven pull current	Vcc = 12V, Voh = 6V	Ioh	5			mA
Driven sink current	Vcc = 12V, Vol = 6V	Iol	3			mA
Operating frequency		Fop		80K		Hz

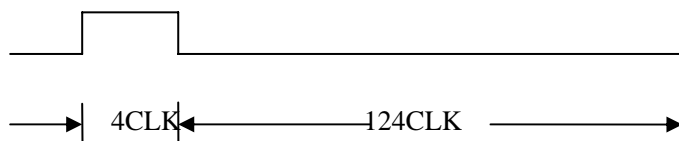
## Output Code format

Synchronization code	ISN C0~C19 (1 million group)	D0	D1	D2	D3

Complete format of 1 frame code



**synchronization code:**



**Definition:** 1 CLK=8 OSC CLOCK

**The oscillator resistor replace relation of LX1527 and EV1527(for reference only):**

EV1527	LX1527
430K	3.3M
330K	2.4M
300K	2.2M

**Oscillator resistor and 1 bit data width (TD) corresponding table**

	13V	12V	11V	10V	9V	8V	7V	6V	5V	4V
<b>1M</b>	605us	620us	640us	655us	675us	704us	736us	780us	844us	944us
<b>1.2M</b>	792us	814us	834us	854us	876us	914us	956us	1.015ms	1.09ms	1.225ms
<b>1.5M</b>	960us	980us	1.01ms	1.03ms	1.06ms	1.1ms	1.145ms	1.23ms	1.32ms	1.47ms
<b>2M</b>	1.22ms	1.25ms	1.28ms	1.31ms	1.35ms	1.39ms	1.46ms	1.54ms	1.65ms	1.85ms
<b>2.2M</b>	1.31ms	1.34ms	1.37ms	1.41ms	1.45ms	1.5ms	1.57ms	1.66ms	1.79ms	1.99ms
<b>2.4M</b>	1.43ms	1.48ms	1.51ms	1.55ms	1.59ms	1.64ms	1.71ms	1.81ms	1.94ms	2.19ms
<b>2.7M</b>	1.68ms	1.71ms	1.75ms	1.79ms	1.84ms	1.91ms	1.99ms	2.11ms	2.27ms	2.53ms
<b>3M</b>	1.79ms	1.82ms	1.86ms	1.91ms	1.96ms	2.03ms	2.11ms	2.24ms	2.401ms	2.69ms
<b>3.3M</b>	1.995ms	2.035ms	2.085ms	2.135ms	2.195ms	2.265ms	2.365ms	2.505ms	2.705ms	3.01ms



## K0~K3 key-press combination and output relation table

K3	K2	K1	K0	D3	D2	D1	DO
O	O	O	1	O	O	O	1
O	O	1	O	O	O	1	0
O	O	1	1	O	O	1	1
O	1	O	O	0	1	O	O
O	1	O	1	0	1	O	1
O	1	1	O	0	1	1	0
O	1	1	1	0	1	1	1
1	0	0	0	1	0	0	0
1	0	0	1	1	0	0	1
1	0	1	0	1	0	1	0
1	0	1	1	1	0	1	1
1	1	0	0	1	1	0	0
1	1	0	1	1	1	0	1
1	1	1	0	1	1	1	0
1	1	1	1	1	1	1	1

## Application circuitry diagram

