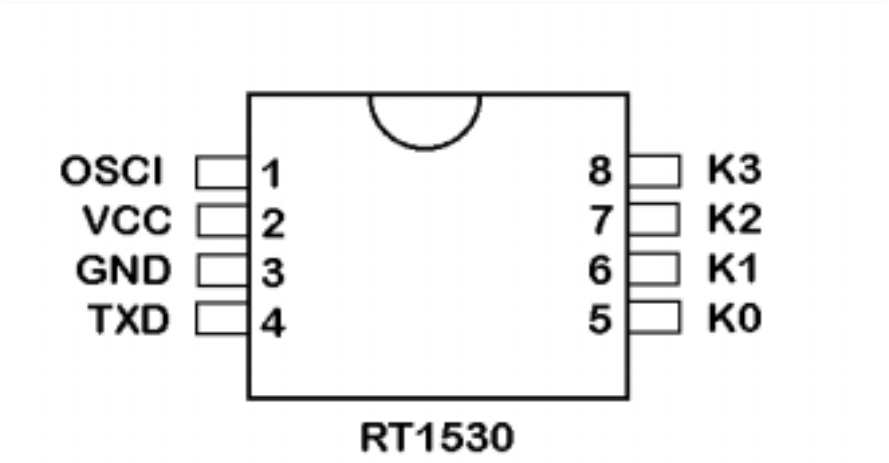
Description :

RT1530 is an OTP Encoder utilizing CMOS technology process, RT1530 has a maximum of 20 bits providing up to 1 million codes, It can reduce any code collision and unauthorized code scanning possibilities.

FEATURES :

1. CMOS Technology .
2. Low stand by current : 1.0 μA .
3. Wide range of operating voltage : Vcc=3.0V~12V .
4. Up to 4 data pins .
5. Total 1048576 address codes .
6. Single resistor oscillator .

PIN CONFIGURATION :



PIN DESCRIPTION :

Pad No.	Pad Name	I/O	Description
1	OSCI	I	Oscillator Input pull-up R to Vcc
2	Vcc		Positive power supply
3	GND		Ground
4	TXD	O	Data Output pin
5	K0	I	Data Input with pull-low R
6	K1	I	Data Input with pull-low R
7	K2	I	Data Input with pull-low R
8	K3	I	Data Input with pull-low R

Absolute Maximum Ratings

Symbol	Characteristic	Conditions	Rating	Unit
V_{CC}	Supply voltage		-0.3 ~ 13	V
V_I	Input voltage		-0.3 ~ Vcc + 0.3	V
V_O	Output voltage		-0.3 ~ Vcc + 0.3	V
T_{ST}	Storage Temperature		-40 ~ 125	
T_{OP}	Operating Temperature		-20 ~ 70	
P_{dis}	Max. Power Dissp	Vcc=12V	300	mW

Electrical Characteristics

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Operating Voltage		Vcc	3	5	12	V
Stand by Current	Vcc=12V , OSC stop K1~K3=Low Output Unloaded	Isb		1.0	3.0	μA
Operating Current	Vcc=12V	Iop		0.5	1.0	mA
Source Current	Vcc=12V , Voh=6V	Ioh	3			mA
Sink Current	Vcc=12V , Vol=6V	Iol	3			mA
Operating Freq.		Fop		80K		Hz

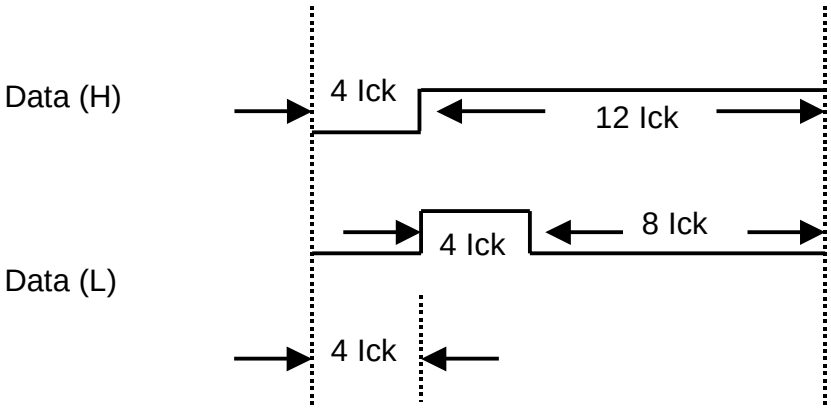
Output Format :

Output Data Frame :

Preamble	C0 ~ C19 (1 Million codes)	D0	D1	D2	D3	H	H

Preamble : 96 Ick Low

Define : 1 Ick=8 OSC CLK



K0 ~K3 Combination Table :

K3	K2	K1	K0	D3	D2	D1	D0
0	0	0	1	0	0	0	1
0	0	1	0	0	0	1	0
0	0	1	1	0	0	1	1
0	1	0	0	0	1	0	0
0	1	0	1	0	1	0	1
0	1	1	0	0	1	1	0
0	1	1	1	0	1	1	1
1	0	0	0	1	1	1	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	1	1	1	1	1