

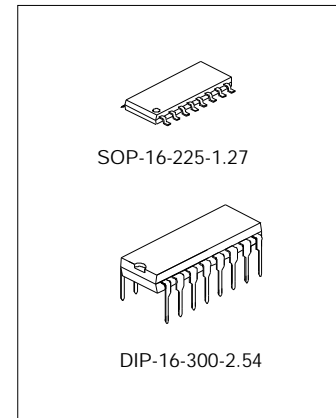
FAN REMOTE CONTROL ENCODER

DESCRIPTION

SC5104 is a remote control encoder paired with SC8206 utilizing CMOS technology. Using a special coding technique, SC5104 increases noise immunity to a very great extent. SC5104 has a maximum of 8 input channel. Its high performance features makes SC5104 a must in every fan and other electrical home appliance remote control application.

FEATURES

- * CMOS technology
- * High noise immunity
- * Wide range of voltage: $V_{cc}=2.2 \sim 5.0 \text{ V}$
- * LED indicator
- * Transmits signal of maximum 8 channels
- * 2 bits custom code options available
- * Key-in oscillation, reduce static current dissipation.
- * 38kHz carrier transmits output.



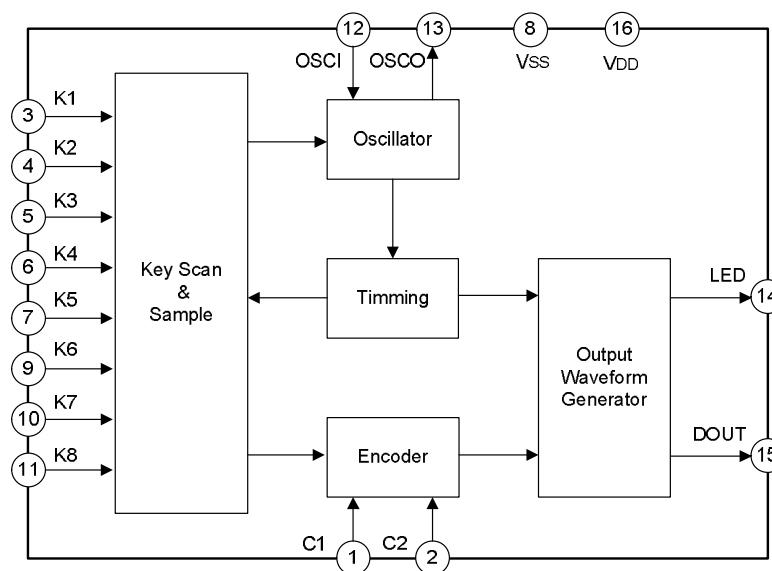
ORDERING INFORMATION

Device	Package
SC5104	DIP-16-300-2.54
SC5104S	SOP-16-225-1.27

APPLICATIONS

- * Fan remote control
- * Air cleaner
- * Humidifier
- * Heater

BLOCK DIAGRAM



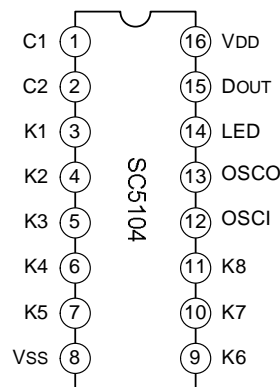
ABSOLUTE MAXIMUM RATING (T_{amb}=25°C)

Characteristics	Symbol	Ratings	Unit
Supply Voltage	V _{DD}	-0.3~6.0	V
Input/Output Voltage	V _{IN}	V _{SS} -0.3V~V _{DD} +0.3V	V
Power Dissipation	P _D	500	mW
Operating Temperature	T _{opr}	-10 ~ +70	°C
Storage Temperature	T _{stg}	-40~+125	°C

DC CHARACTERISTICS (unless other specified, T_{amb}=25°C, V_{DD}=3V)

Characteristics	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Supply Voltage	V _{DD}	--	2.2	3	5	V
Static Power Dissipation	I _{SB}	V _{DD} =3V, OSC Stopped	--	1	--	μA
DOUT Output High Current	I _{OH}	V _{OH} =2.4V	--	--	5	mA
DOUT Output Low Current	I _{OL}	V _{OL} =0.4V	--	--	-5	mA
High Input Voltage	V _{IH}	--	0.7V _{DD}	--	V _{DD}	V
Low Input Voltage	V _{IL}	--	0	--	0.3V _{DD}	V
LED High Output Current	I _{OH}	V _{OH} =2.4V	--	--	10	mA
Oscillation Frequency	f _{osc}		--	455	--	kHz

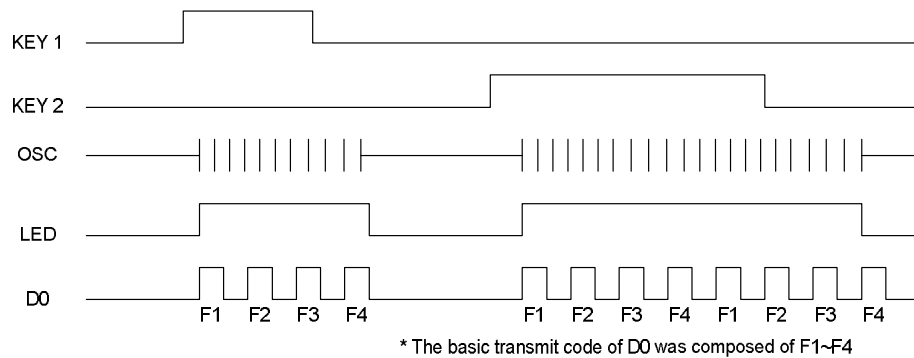
PIN CONFIGURATION



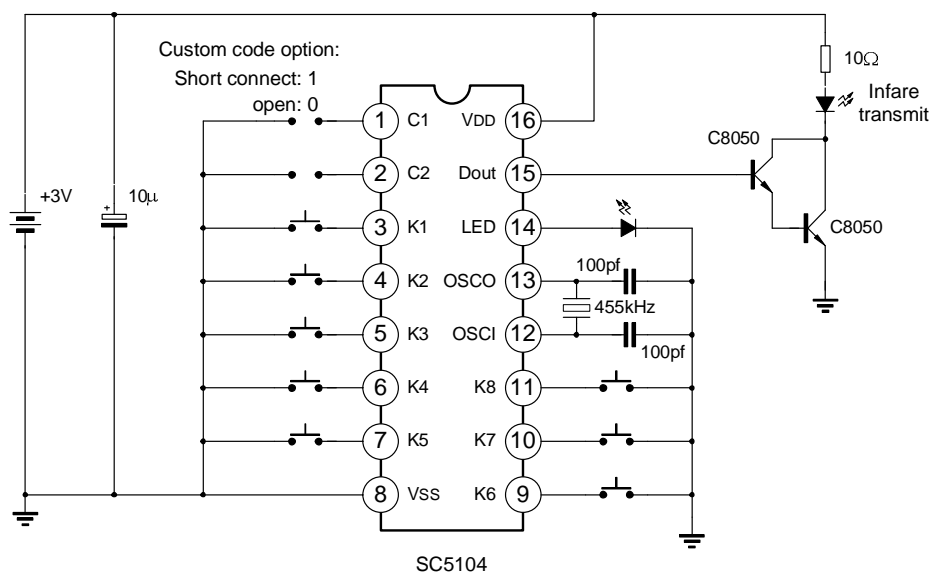
PIN DESCRIPTION

Pin no.	Symbol	Descriptions
1~2	C1, C2	Custom Code Option: Built In Pull-Up Resistor, Grounding Denote "1", Floating Denote "0".
3~7	K1~K5	Key Input Pins, Built In Pull-Up Resistor.
8	Vss	Negative Power Supply.
9~11	K6~K8	Key Input Pins, Built In Pull-Up Resistor.
12	OSCI	455kHz Oscillator Input Pin.
13	OSCO	455kHz Oscillator Output Pin.
14	LED	LED Driver Output Indication
15	DOUT	Code Data Output(Contain 38kHz Carrier Signal)
16	VDD	Positive Power Supply.

SC5104 TRANSMIT OUTPUT WAVEFORM



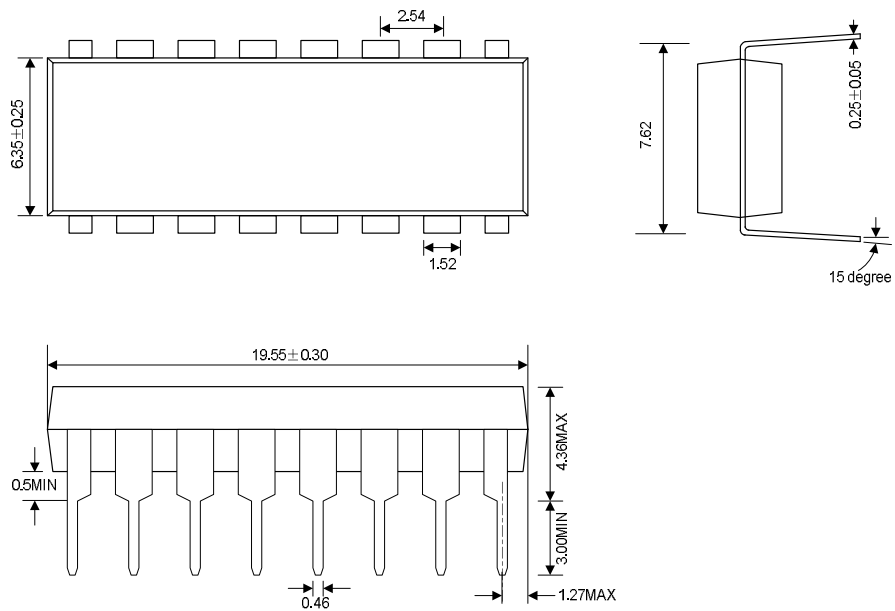
TYPICAL APPLICATION CIRCUIT



PACKAGE OUTLINE

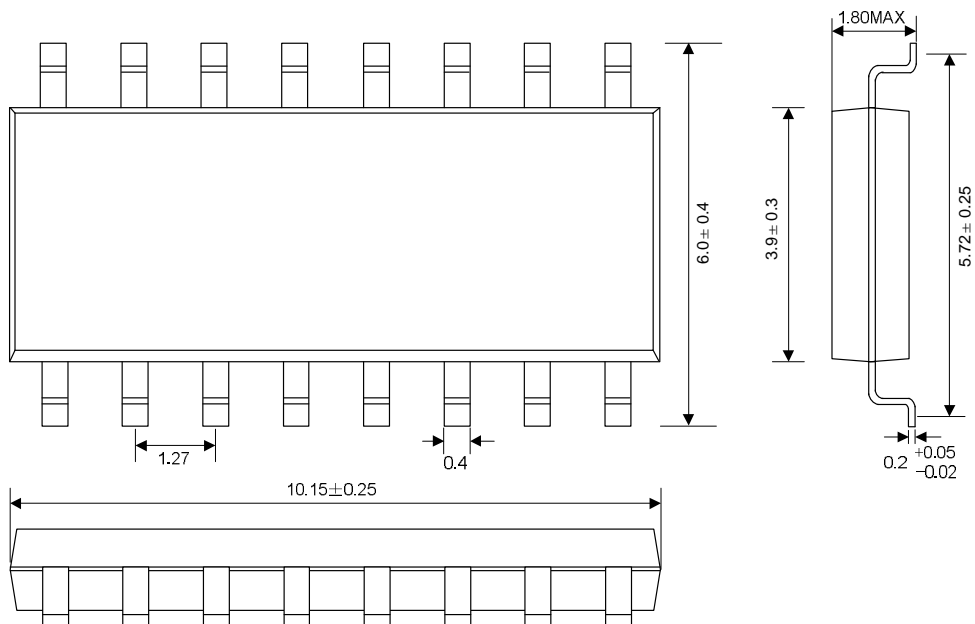
DIP-16-300-2.54

UNIT: mm



SOP-16-225-1.27

UNIT: mm





HANDLING MOS DEVICES:

Electrostatic charges can exist in many things. All of our MOS devices are internally protected against electrostatic discharge but they can be damaged if the following precautions are not taken:

- Persons at a work bench should be earthed via a wrist strap.
- Equipment cases should be earthed.
- All tools used during assembly, including soldering tools and solder baths, must be earthed.
- MOS devices should be packed for dispatch in antistatic/conductive containers.

ATTACHMENT

Revision History

Data	REV	Description	Page
2004.08.03	1.0	Original	
2005.12.29	1.1	Add the package of "SOP-16-225-1.27"	