

HX1838 PCB Mounting Infrared IR Receiver Detector 2.7-5.5V



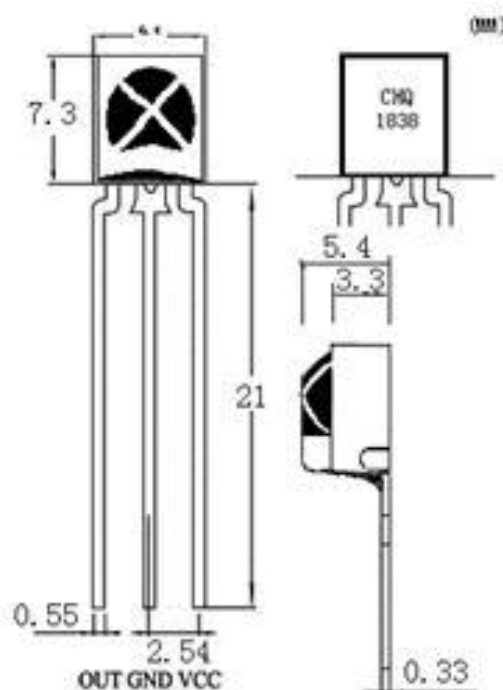
- Product Name : Infrared IR Receiver;Model : HX1838;Working Voltage : 2.7-5.5V
- Power Dissipation : 35mW;Reception Distance : Min:10m;Pins : 3
- Pin Size : 21 x 2mm/0.83" x 0.08"(L*Pitch);Body Dimension : 7 x 6 x 5mm/0.28" x 0.24" x 0.2"(L*W*T);Total Length : 30mm/ 1.2"
- Material : Plastic, Electric Components;Color : Black, Silver Tone

TL1838 Infrared Receiver Datasheet

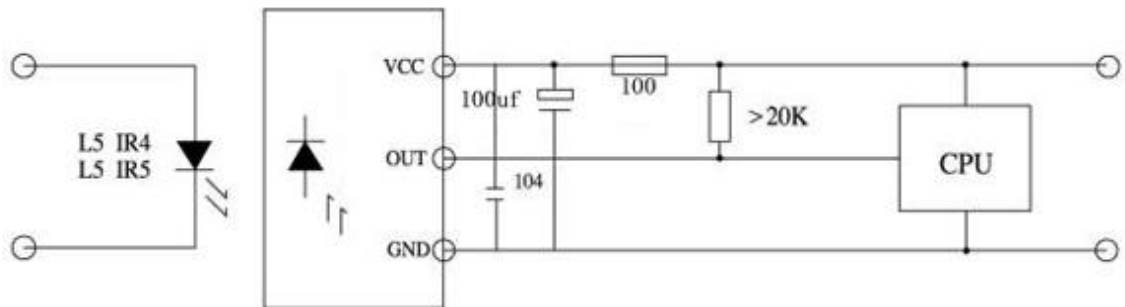
1. Features

- * Compact design;
- * Built-in dedicated IC;
- * wide-angle and long distance reception;
- * anti-stem worries ability;
- * can more than offset the impact of ambient light;
- * Low voltage operation;

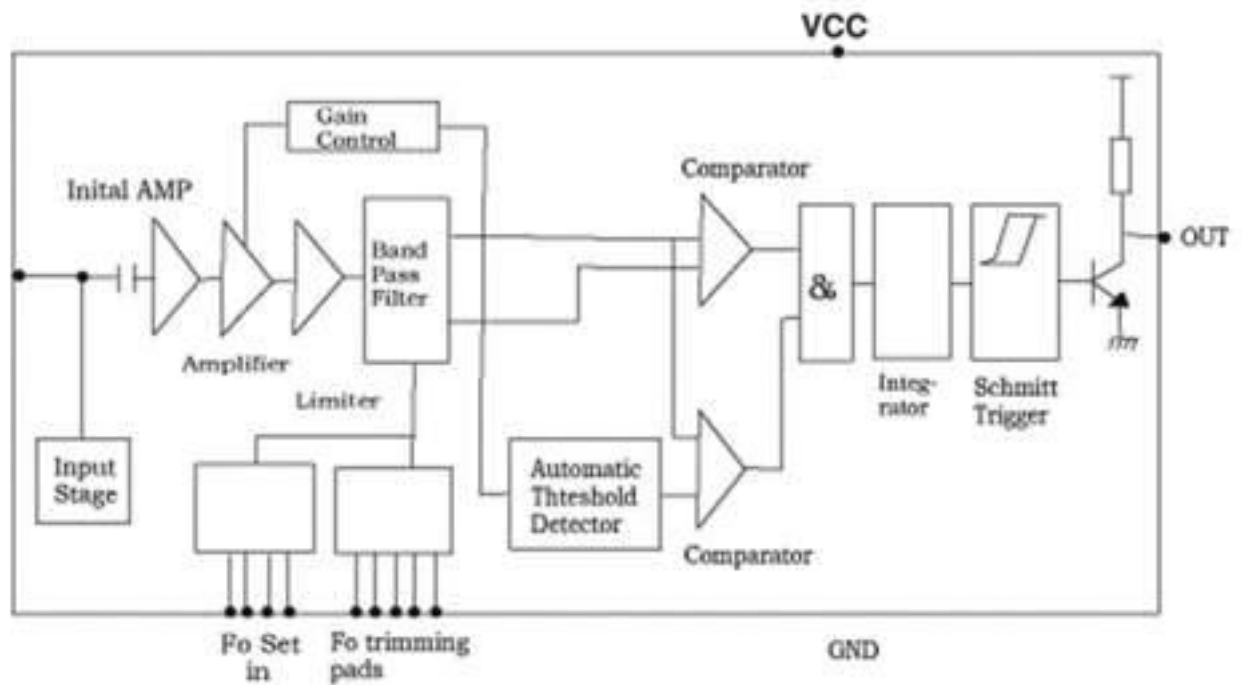
2. Dimensions and Pin Assignment



3. Application Circuit



4. Schematic Diagram

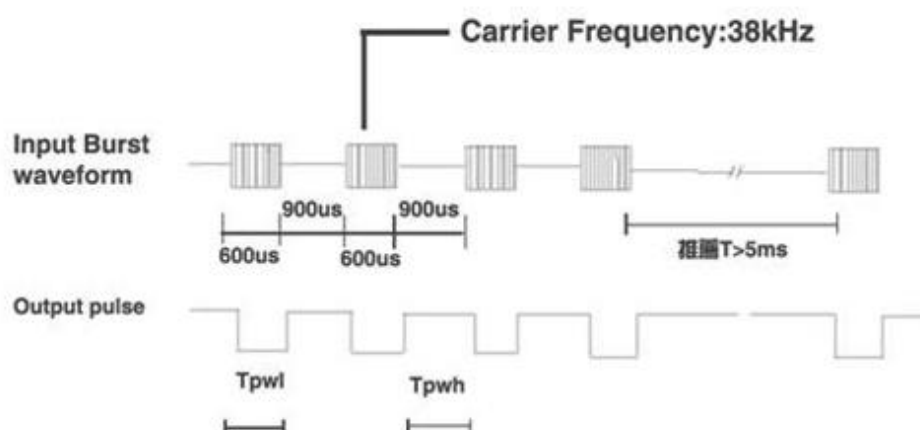


5. Optical Parameters (T = 25 °C Vcc = 5v f0 = 38KHZ)

Parameter	Symbol	Test Conditions	Min	Typ	Mnx	Unit
Operating Voltage	Vcc		2.7		5.5	V
Receiving distance	L	L5IR = 300MA (test signal)	10	15		M
Carrier Frequency	f0		38K			HZ
Acceptance angle	01/2	Distance attenuation 1/2		+ / -35		Deg
BMP width	FBW	-3Db andwidth	2	3.3	5	kHz
Quiescent Current	Icc	When there is no signal input	----	0.8	1.5	mA
Low output	VOL	Vin = 0V Vcc = 5V		0.2	0.4	V
High-level output	VOH	Vcc = 5V	4.5			V
The output pulse width	TPWL	Vin = 500μVp-p ※	500	600	700	μs
	TPWH	Vin = 50mVp-p ※	500	600	700	μs

※ testing on the optical axis to the transmit pulse width 600/900μs, 5CM within receiving range, the average value of the received pulse 50

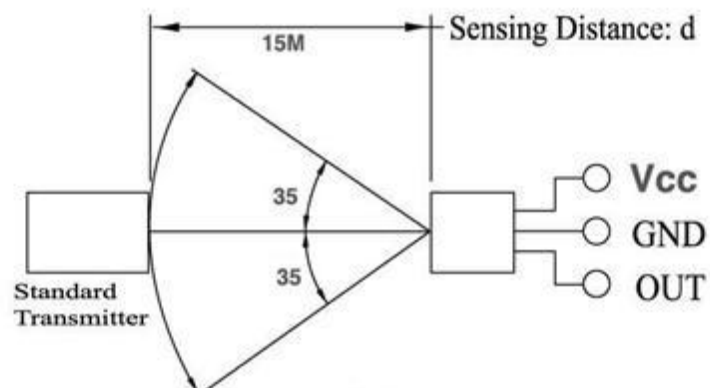
6. Test Wave



7. Limit Parameters

Project	Symbol	Specification	Unit
Supply Voltage	Vcc	6.0	v
Operating Temperature	Topr	-25-85	°C
Storage Temperature	Tstg	-40-125	°C
Soldering Temperature	Tsol	240	°C

8. Receiving Angle Diagram



9. Recommended Conditions of Use

Project	Symbol	Min	Typ	Mnx	Unit
Operating Voltage	Vcc	2.7	-----	5.5	V
Input Frequency	FM		38		kHz
Operating Temperature	Topr	-20			