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IRDC362 SPECIFICATION

IRDC362 is an infrared remote control decoding IC. It decodes NEC 6121/2 infrared format and output data to synchronous serial data output port (SCL and SDA) which is I²C® compatible. Its application includes TV, VCR, Multimedia, CD, VCD, DVD player and etc.

Features:

1:Decodeing format: NEC6121/2
2:Valid customer code: 866B
3:Operating Freq.: 12 MHz
4:Operating Voltage: 3.5 V~5.5V
5:Max decoding key: 64 Keys
6:Synchronous serial data port: SDA and SCL
7:Package: 18 pins sop 300mil
8:Operating current:5 mA
9:Operating temperature:0~70℃

Pin description:

The pin assignment is plotted in Fig1. Next is the description for each pin.

Remote_in: Input; it is infrared signal input data pin.

IRQ: Output; its normal state is "HI". When a valid infrared data is decoded, it pulls down 1ms from HI to LO to be a trigger signal.

POW_ON: output pin; its normal state is "HI". When a power key (say, 12H) on the remote control is decoded, this pin pulls down 10 ms from HI to LO to be a trigger signal.

SDA: Input/output; it acts like the data line of I²C®

SCL: Input; its format is similar to I²C® clock line.

The state "HI" and "LO" are expressed in terms of TTL positive logic.

If there is any question or suggestion, please do not hesitate to inform us by phone or fax or e-mail. If you want to apply IRDC362 to a specific application, we are very glad and able to modify the IRDC362 to meet your demands.

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Synchronous serial data protocol:

1. After decoding a valid infrared data, IRDC362 pulls the IRQ pin 1ms down to inform the controller of next stage that the data is ready to be read.

2. The controller using the following data pocket to be read address the IRDC362.
   address byte (7 bits, MSB first) + R/W (=1) bit;
   where the address is assigned as 01100001 B.

3. The IRDC362 returns an /ACK (let the SDA=0 volts) to inform the controller that command has been accepted.

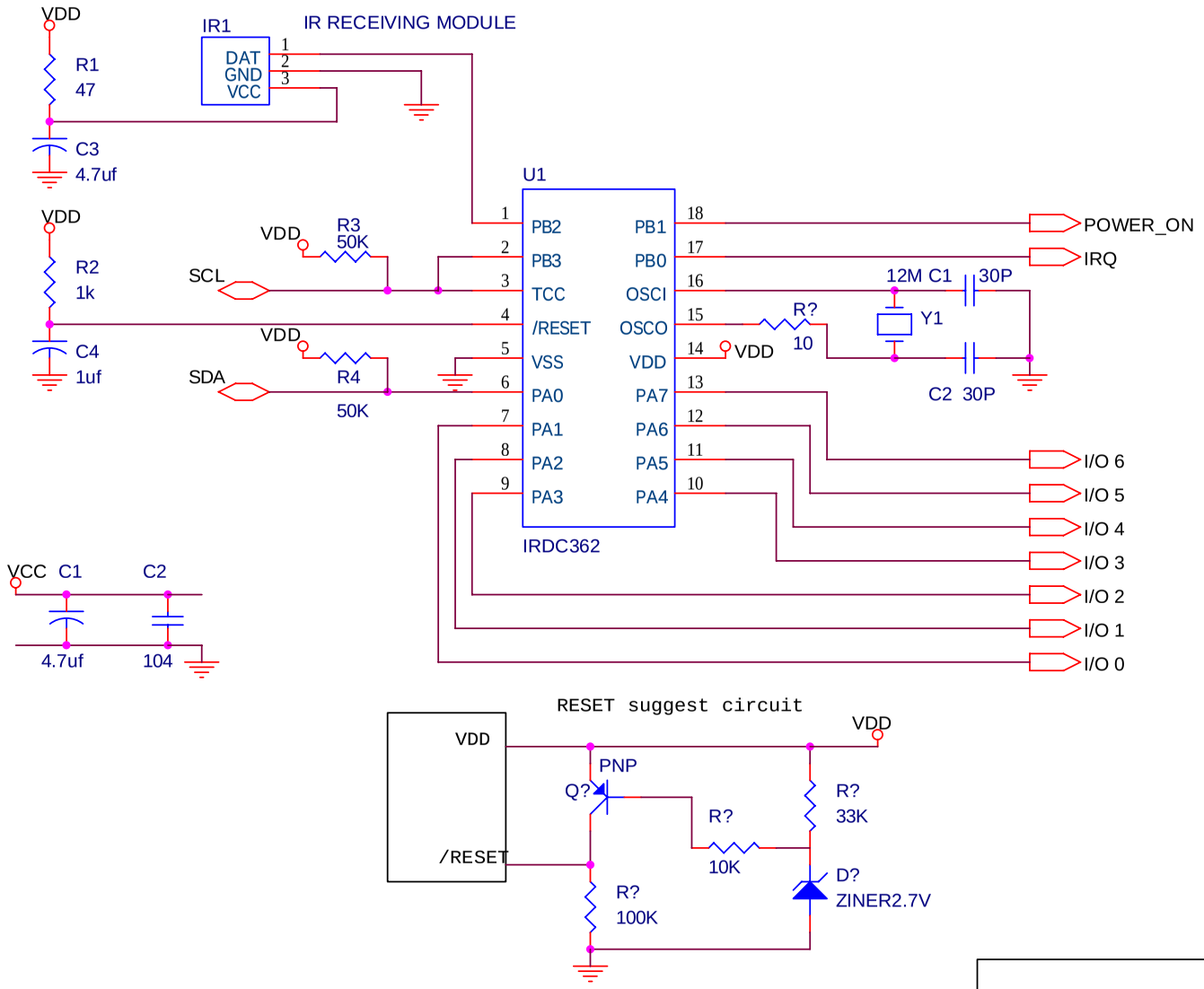
4. The IRDC362 sends a data byte (8 bits) to controller in accordance with the SCL clock and then set ACK to “HI”(i.e., let SDA = 5v.) to inform controller that the data byte have been sent completely.

5. The timing for the synchronous serial data transmission protocol is given in the attached timing chart. The maximum operating frequency for the SCL is 100KHz.

6. All the data streamed are sampled at the “HI” state of SCL.

7 * When a valid IR data is decoded, its key code is stored into the output register.
* When a valid repeat IR data is decoded, it stores “FE” key code into output register.
* IF there is no IR data been decoded or the output register key code has been read by “MASTER”, the output register is automatically set the key code “FF” into output register.

$I^2C^{®}$ is a registered trademark of Philips.



Title	JAECS .,CO .LTD IRDC362		
Size A4	Document Number {Doc}		Rev {RevCode}
Date: Thursday, March 22, 2001	Sheet 1 of 1		

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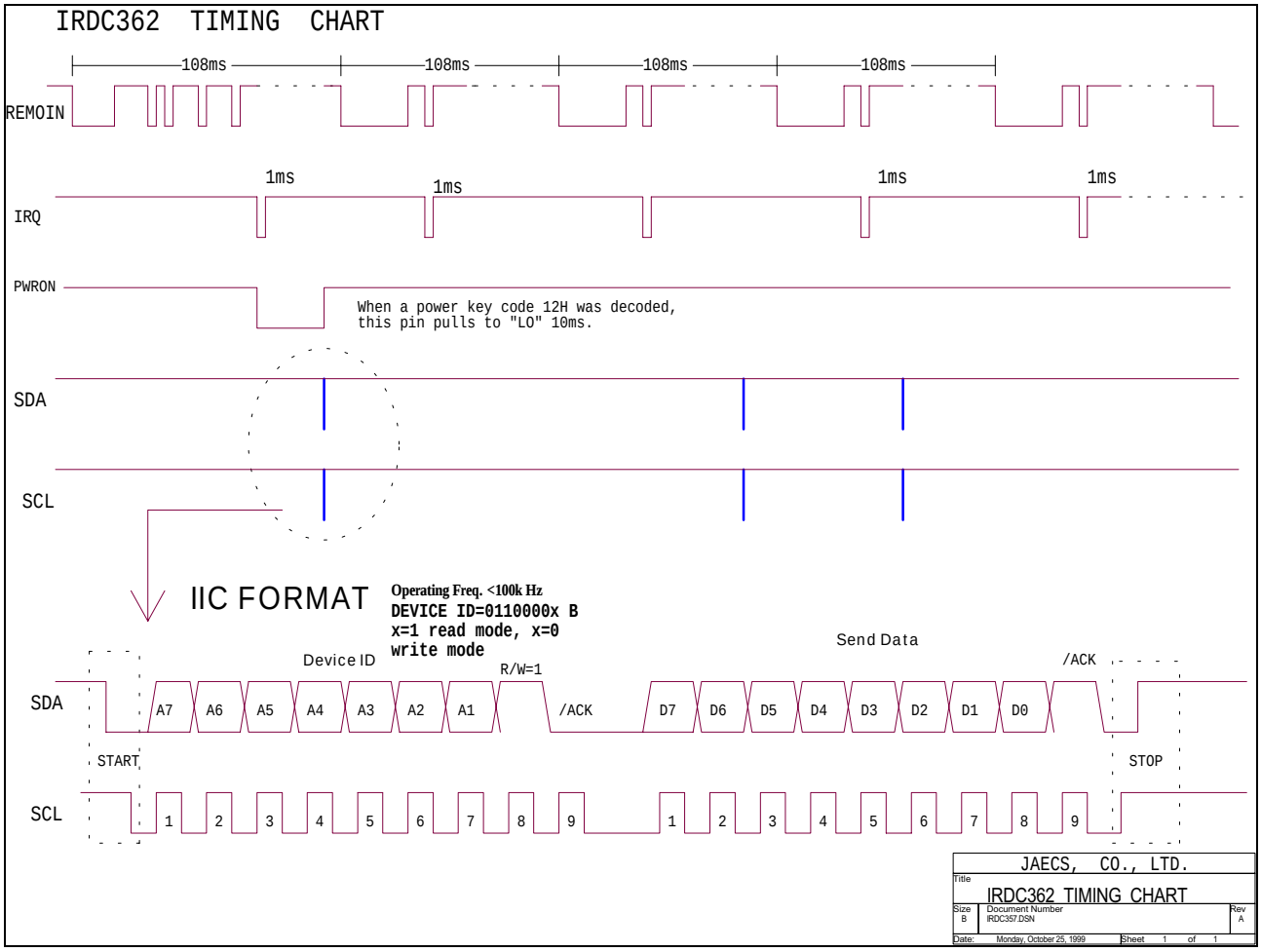

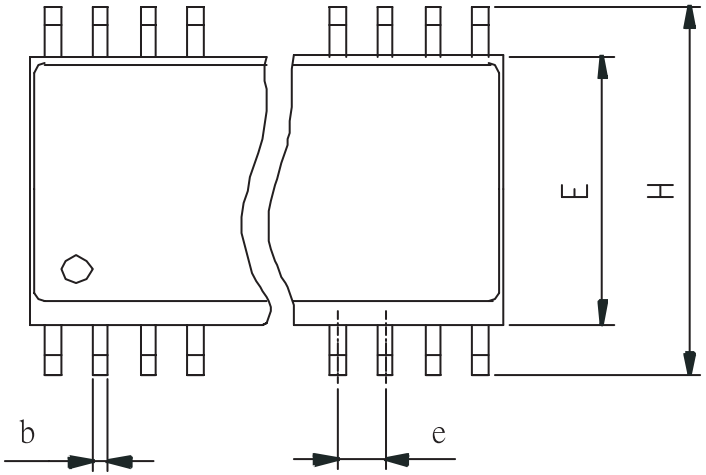

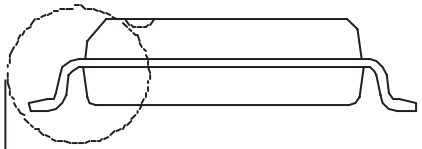

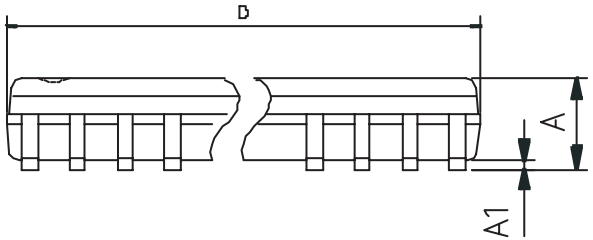

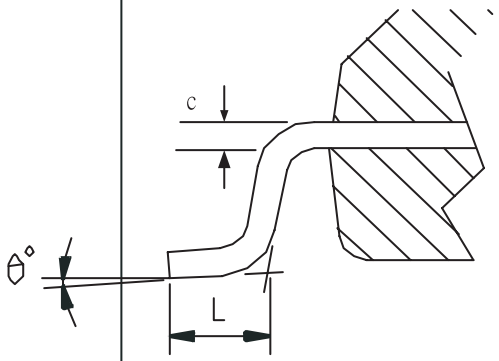

Symbal	Min	Normal	Max
A	2.350		2.650
A1	0.102		0.300
b	0.406(TYP)		
c	0.230		0.320
E	7.400		7.600
H	10.000		10.650
D	11.350		11.750
L	0.406	0.838	1.270
e	1.27(TYP)		
θ°	0		8

JAECS CO.,LTD			TITLE: SOP-18L(300MIL) DIMENSION	
			File : SO18	
	Name	Date		mm
Draw		90/01/19		Scale:
Chec				
Approved				bf