
IRDC480 & IRDC481 SPECIFICATION

Decode format : NEC remote control & JAECS 1.0 & JAECS 2.0 version wireless keyboard.

DATA OUT MODE : 8 BIT Parallel output, and (N,8,1)19200 baud rate LSB serial out °

Package : 18 PIN SOP 300 mil.

Operating frequency : 4M Hz.

Operating Voltage : VDD:3V-5.5V.

Operating temperature : 0°C ~ 70°C.

Pin description :

INPUT PIN:

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

PWR_SW : input pin; it is deigned to connect a power switch button. Its function is equivalent to the power key of remote control.

OUTPUT PIN:

PWR_Ctrl : output pin; When a power key (say, 12H) on the remote control is decoded or the power switch button is clicked, this pin toggles its state in order to turn on or off the connecting power relay or SSR. Therefore, this pin is used to control the on or off state of the main power.

ACK : Output; it is used to acknowledge the next stage's controller (or IC) that there is a valid infrared data have been decoded and has been outputted to pin D0-D7 and SERIAL_OUT. Its normal state is "HI" and it pulls down to "LO" for 1us when a valid IR data have been decoded.

Serial_out : output pin; it transmits the valid infrared data via the following protocol: 19200 baud rate; non-parity, 8 bits data and 1 stop bit; LSB first. Its data is a complement of parallel port data.

D0~D7 : Output port; the D0 pin is LSB.

NOTE1: When POWER ON RESET the **IRDC480** PWR_CTRL PIN is HI, **IRDC481** PWR_CTRL is LOW.

NOTE2: When remote control key code are '02' '04' '06' '08' '1A' '1E', the data output have repeat function.

JAECS

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Protocol :

- IR Remote Controller → 2 BYTE ◦
EE + Keycode
- IR Keyboard → 2 BYTE ◦
00 + Key Number (Make key)
00 + (*Key Number + 80h*) (Break key)
- IR Mouse Point Device → 4 BYTE ◦
FF + *Device Status byte* + *X-byte* + *Y-byte*

Byte	Bit	Description
Device Status byte	7	Y Data Overflow 1=Overflow
	6	X Data Overflow 1=Overflow
	5	Y Data sign 1=Negative
	4	X Data sign 1=Negative
	3	Reserved always=1
	2	Reserved for middle Button
	1	Right Button Status 1=Pressed
	0	Left Button Status 1=Pressed
X byte	7	MSB of X Data
	6-1	X Data
	0	LSB of X Data
Y byte	7	MSB of Y Data
	6-1	Y Data
	0	LSB of Y Data

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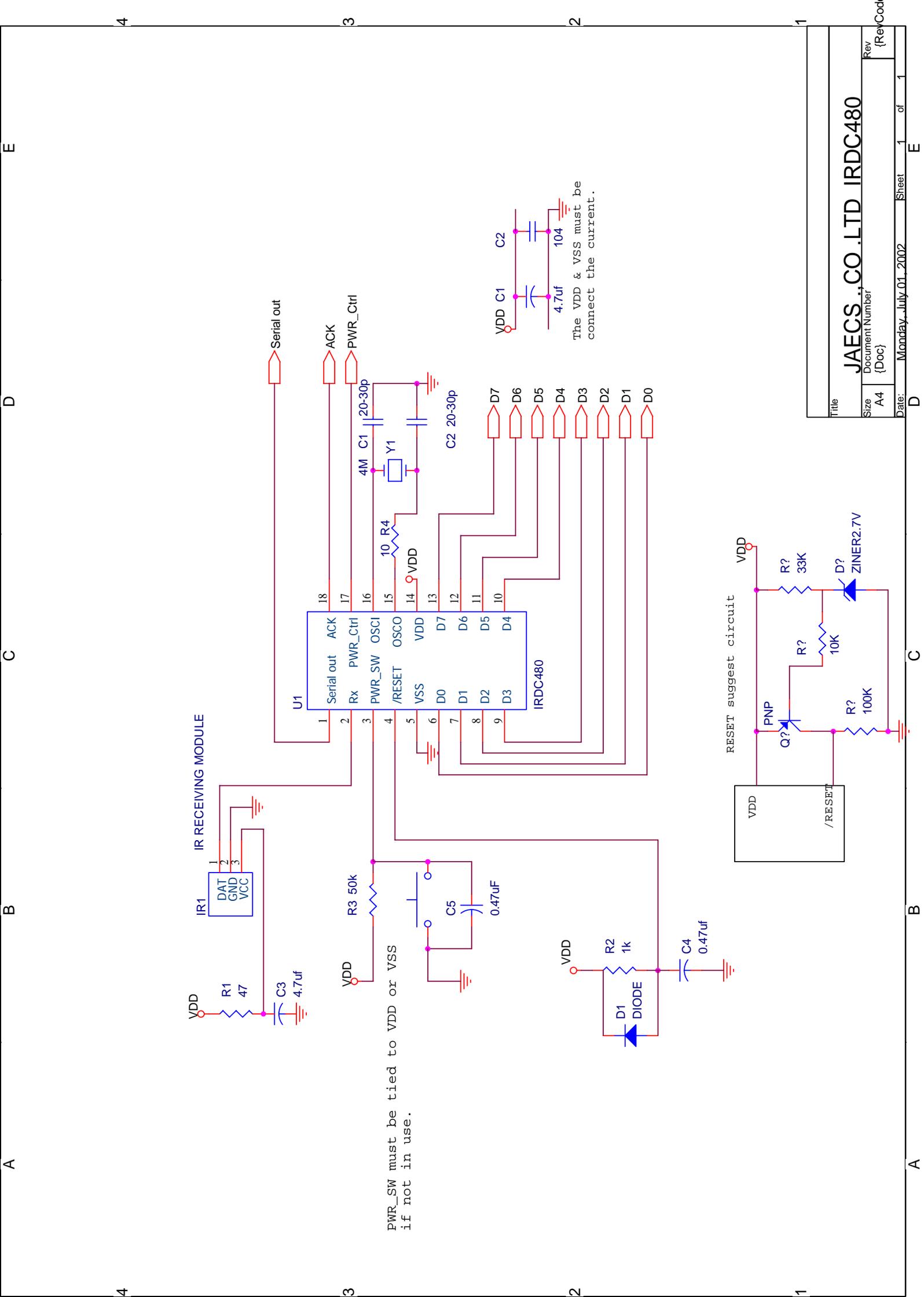
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KEY	MAKE CODE	BREAK CODE	KEY	MAKE CODE	BREAK CODE
ESC	6E	EE	}}	1C	9C
F1	70	F0	\	1D	9D
F2	71	F1	PG UP	55	D5
F3	72	F2	CAPS LOCK	1E	9E
F4	73	F3	A	1F	9F
F5	74	F4	S	20	A0
F6	75	F5	D	21	A1
F7	76	F6	F	22	A2
F8	77	F7	G	23	A3
F9	78	F8	H	24	A4
F10	79	F9	J	25	A5
F11	7A	FA	K	26	A6
F12	7B	FB	L	27	A7
PRINT SCREEN	7C	FC	::	28	A8
NUM LOCK	7E	FE	'''	29	A9
SCROLL LOCK			RETURN	2B	AB
PAUSE/BREAK			PG DW	56	D6
1	02	82	SHIFT-L	2C	AC
2	03	83	Z	2E	AE
3	04	84	X	2F	AF
4	05	85	C	30	B0
5	06	86	V	31	B1
6	07	87	B	32	B2
7	08	88	N	33	B3
8	09	89	M	34	B4
9	0A	8A	,<	35	B5
0	0B	8B	.>	36	B6
-	0C	8C	/?	37	B7
= +	0D	8D	SHIFT-R	39	B9
BACK SPACE	0F	8F	UP ARROW	53	D3
HOME	50	D0	END	51	D1
TAB	10	90	CTRL-L	3A	BA
Q	11	91	FN-LK		
W	12	92	ALT-L	3C	BC
E	13	93	~	01	81
R	14	94	SPACE	3D	BD
T	15	95	ALT-R	2D	AD
Y	16	96	INS	4B	CB
U	17	97	DEL	4C	CC
I	18	98	LEFT ARROW	4F	CF
O	19	99	DOWN ARROW	54	D4
P	1A	9A	RIGHT ARROW	59	D9
[{	1B	9B			

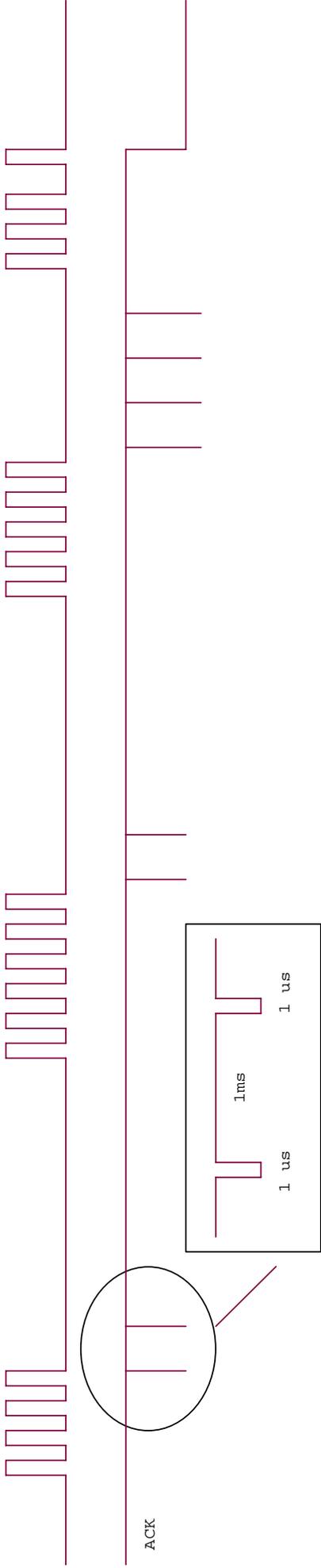


PWR_SW must be tied to VDD or VSS if not in use.

The VDD & VSS must be connect the current.

A IRDC480

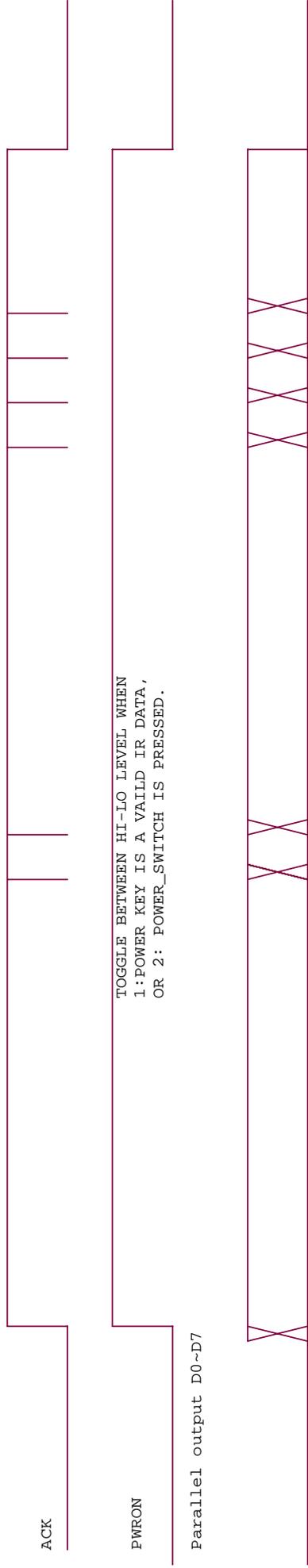
Remote format: NEC, JAECS 1.0, JAECS2.0



TOGGLE BETWEEN HI-LO LEVEL WHEN
1: POWER KEY IS A VALID IR DATA,
OR 2: POWER_SWITCH IS PRESSED.

Parallel output D0~D7

B IRDC481



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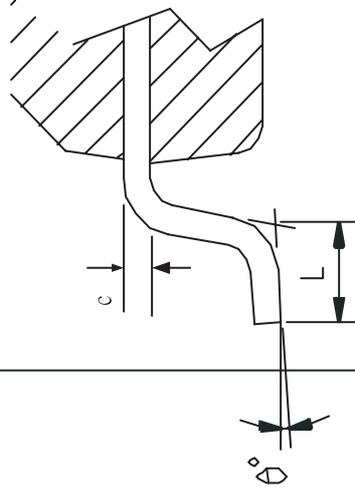
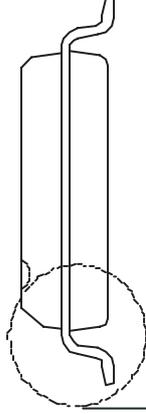
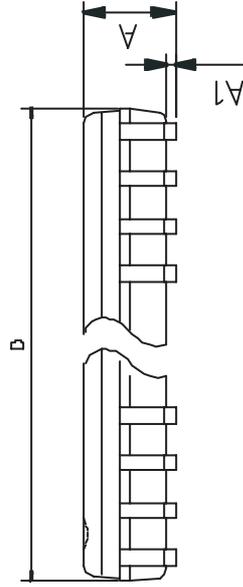
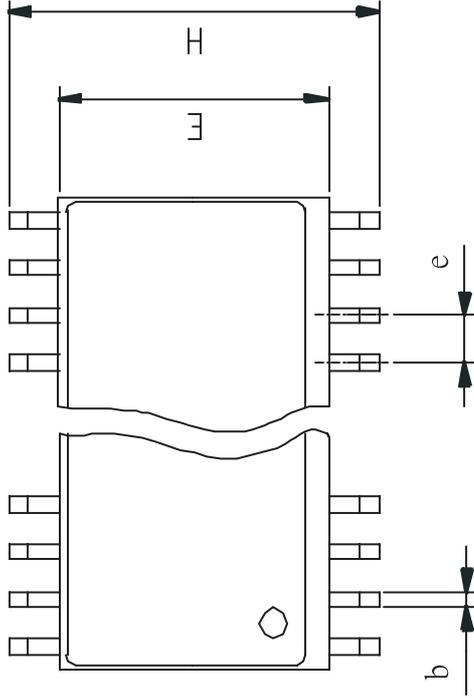
Title

IRDC480 AND IRDC481 TIMMING

Size A4
Document Number {Doc}

Rev (RevCod)

Date: Wednesday, May 23, 2001 Sheet 1 of 1



Symbol	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

90/01/19

Draw

Chec

Approved

mm

Scale:

ϕf