

WIRELESS DOOR CHIME
遙控門鈴 IC

DOOR CHIME

M1D-BL

GENERAL DESCRIPTION 功能敘述

The M1D-BL is a CMOS ASIC for wireless door bell receiver use. It will receive the RF signal from M1E (ENCODER) and give a DING-DONG output if address are checked the same..

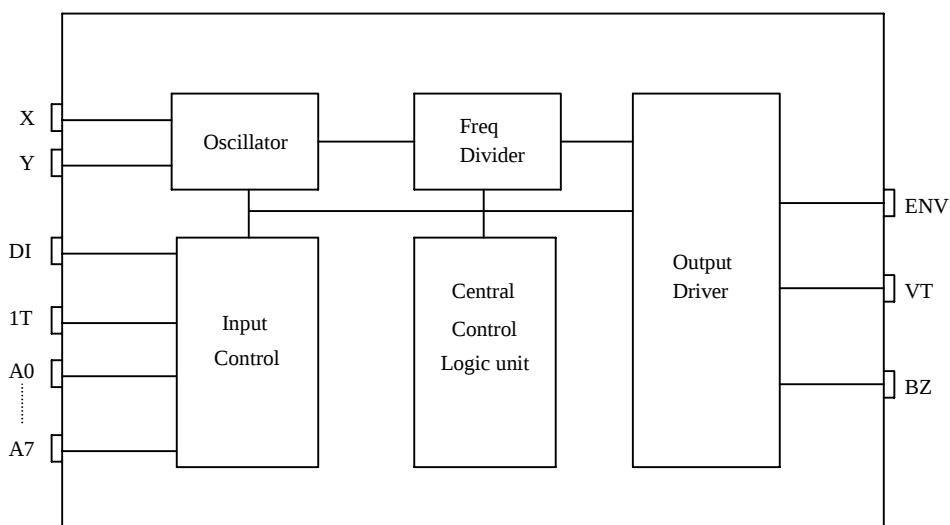
FEATURES 產品特長

- Same Rosc matched to the ENCODER M1E
- $2^8 = 256$ codes, "0", "1" binary
- 3 cycles checked each time
- BZ : DING-DONG / DING-DING sound
- 1T : 1 time option (default 2 times)
- RC envelop

APPLICATIONS 產品應用

- Wireless door bell, visitor chime etc..

BLOCK DIAGRAM 功能方塊圖



*All specs and applications shown above subject to change without prior notice.
(以上電路及規格僅供參考,本公司得逕行修正)

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ABSOLUTE MAXIMUM RATING

(TA=25℃)

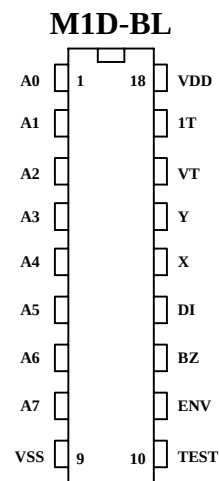
Parameter	Rating	Unit
Supply Voltage	-0.3 to 5.0	V
Input Voltage	-0.2~V _{DD} +0.2	V
Operating Temperature	-20 to 75	℃
Storage Temperature	-50 to 125	℃

ELECTRICAL CHARACTERISTICS

Characteristics	Sym.	Min.	Typ.	Max.	Unit	Conditions
Operating Voltage	V _{DD}	2.4	4.5	5	V	
Operating Current	I _{OP}	—	1	10	μA	
Quiescent Current	I _{SB}	—	0.3	1	mA	No load
Output Drive Current	I _O	1	—	—	mA	@V _{DS} =1.2V
Input Voltage	V _{IH}	V _{DD} -0.2	V _{DD}	V _{DD}	V	
	V _{IL}	V _{SS}	V _{SS}	V _{SS} +0.2		
Oscillator Frequency	Fosc	—	80	—	KHz	External± 30%

PIN DESCRIPTION

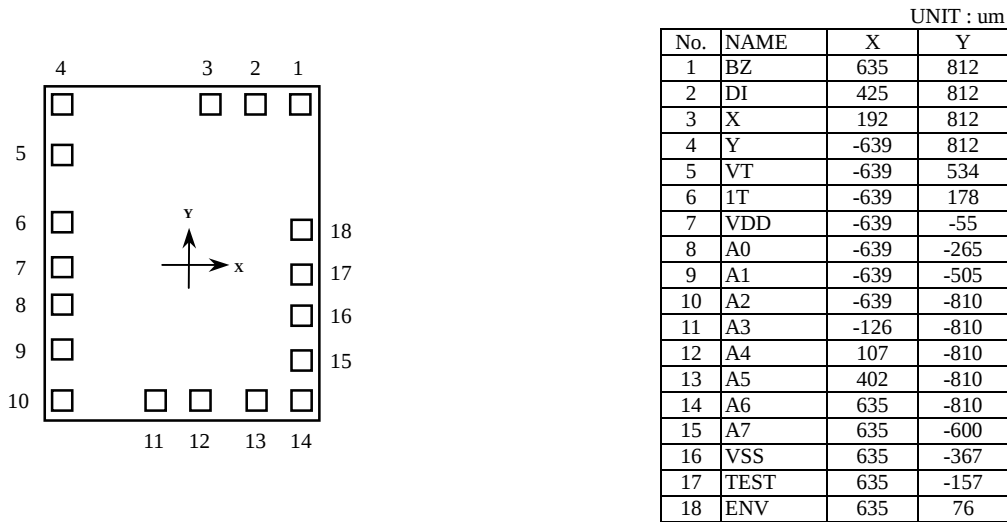
No.	Name	Description
1~8	A0~A7	3 states address inputs
9	VSS	Negative power supply
10	TEST	Testing use
11	ENV	RC envelop
12	BZ	Audio output
13	DI	Data input
14	X	Oscillator input
15	Y	Oscillator output
16	VT	Valid transmit
17	1T	OPEN : 2 times VDD : 1 time
18	VDD	Positive power supply



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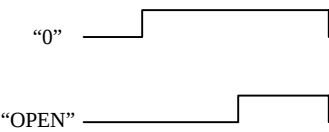
PAD ASSIGNMENT & POSITION



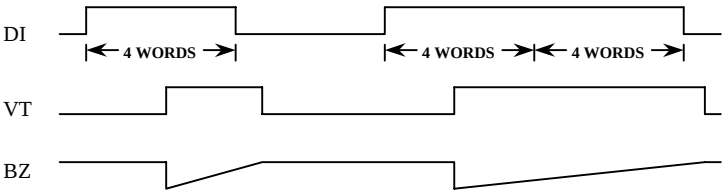
* CHIP SIZE ~ 1.7 x 2.2 mm²
* IC substrate should be connected to VDD in PCB(PCB 上 IC 底座必須接 VDD)

TIMING WAVEFORM

(1) BIT FORMAT



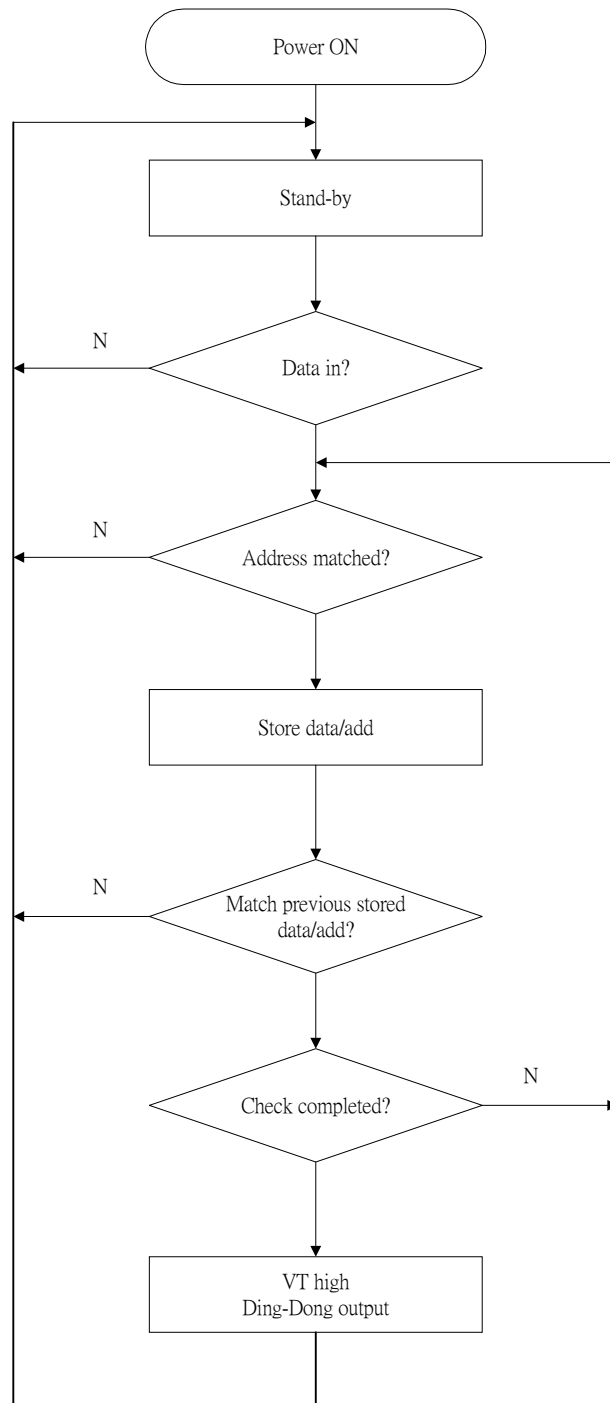
(2) TIMING DIAGRAM



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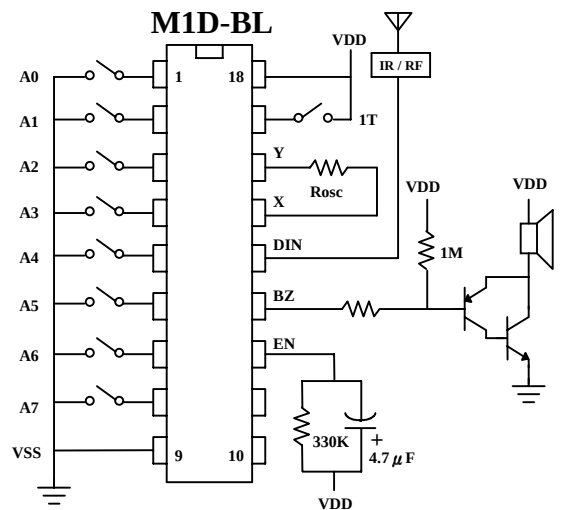
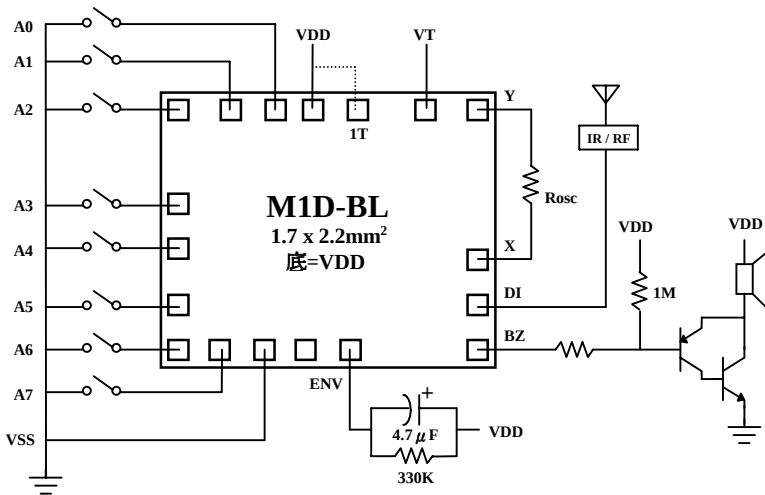
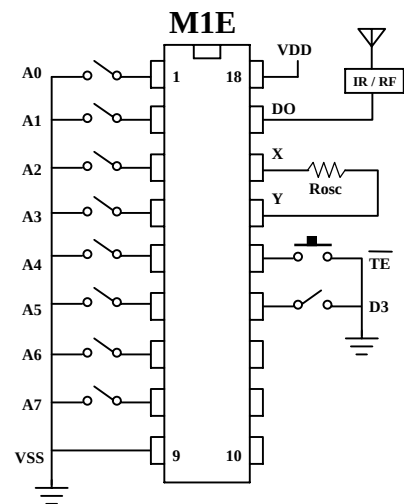
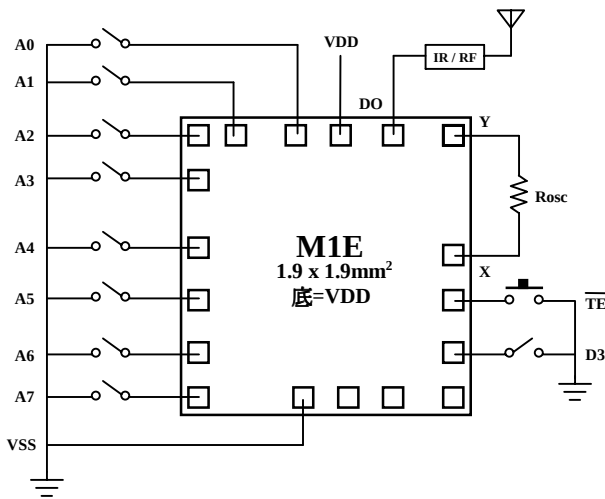
OPERATION FLOWCHART



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APPLICATION DIAGRAM 参考电路图



D3	SOUND
OPEN	DING DONG
VSS	DING DING