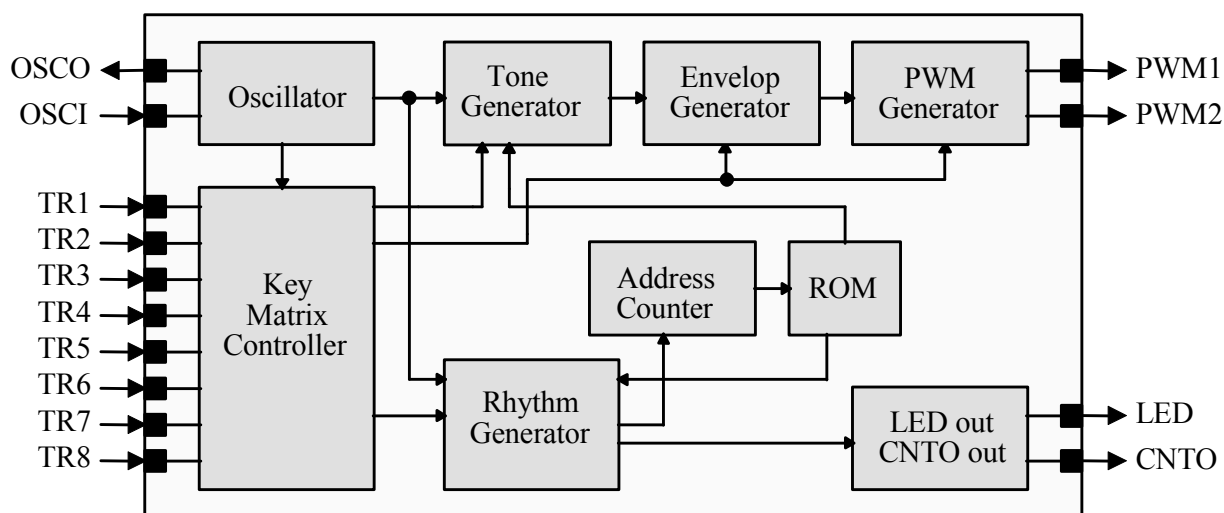


8 键双通道音乐产生器

功能

- 工作電壓: 2.2伏特~3.3伏特 (額定3.0V)
- 工作頻率: 額定3.6 MHz
- 低待機電流
- 內建1024個音符(Note), 15種速度(Tempo),及7種拍子(Beat)
- 可選擇主音/伴奏音通道的音量比例: 2比1或1比1
- 主音通道可選擇4種樂器(Piano, Echo, Harmonica, Xylophone)及低音音效共8種音色(Timbre)
- 8個按鍵輸入,每個按鍵皆可規劃為序列(Sequential)按鍵或直接(Direct)按鍵
- PWM聲音輸出
- 1個隨節奏閃爍的LED輸出及1個馬達驅動輸出

方塊圖



電氣特性

參數	符號	最低	標準	最高	備註
工作電壓	VDD	2.2V	3.0V	3.3V	
工作頻率	Fosc		3.6 MHz		VDD = 3.0V, Rosc=10k ohm
工作電流	Idd		600uA		VDD = 3.0V, Fosc=3.6MHz 無負載
待機電流	Istb			1uA	VDD = 3.0V
高準位輸入電壓	VIH	2.1V			VDD = 3.0V
低準位輸入電壓	VIL			0.9V	VDD = 3.0V
PWM 輸出電流	IPWM		100mA		VDD = 3.0V
LED 驅動電流	ILED		10mA		VDD = 3.0V
CNTO 驅動電流	ICNTO		7mA		VDD = 3.0V

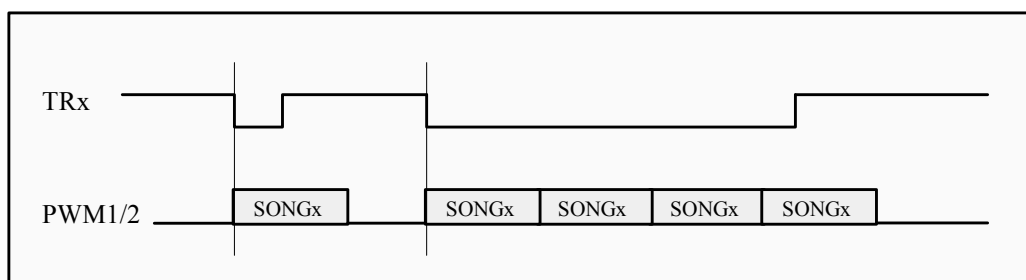
8 键双通道音乐产生器

■ 按脚描述

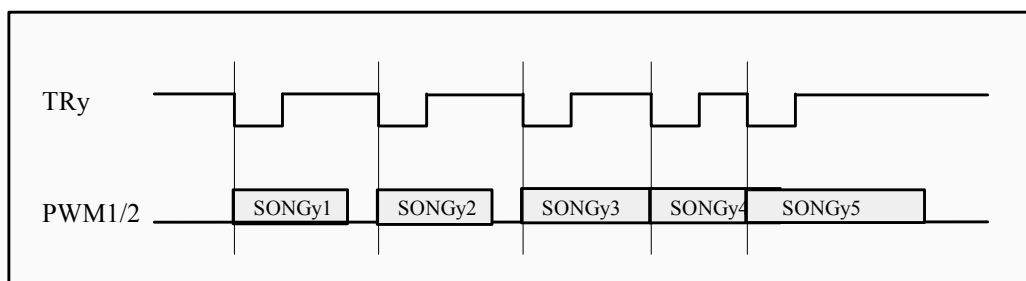
脚位	符号	I/O	描述
1	CNTO	O	马达驱动脚, 高準位动作
2	TSTB	I	测试脚
3~10	TR1~TR8	I	按键输入脚
11	LED	O	LED 输出脚, 低準位动作, 随节奏闪烁
12	VDD	Power	正电源
13	OSCI	I	振荡输入
14	OSCO	O	振荡输出
15	GND	Power	负电源
16	PWM1	O	PWM 输出脚 1
17	VDD2	Power	正电源
18	PWM2	O	PWM 输出脚 2

■ 按键功能

➤ Direct Trigger Key

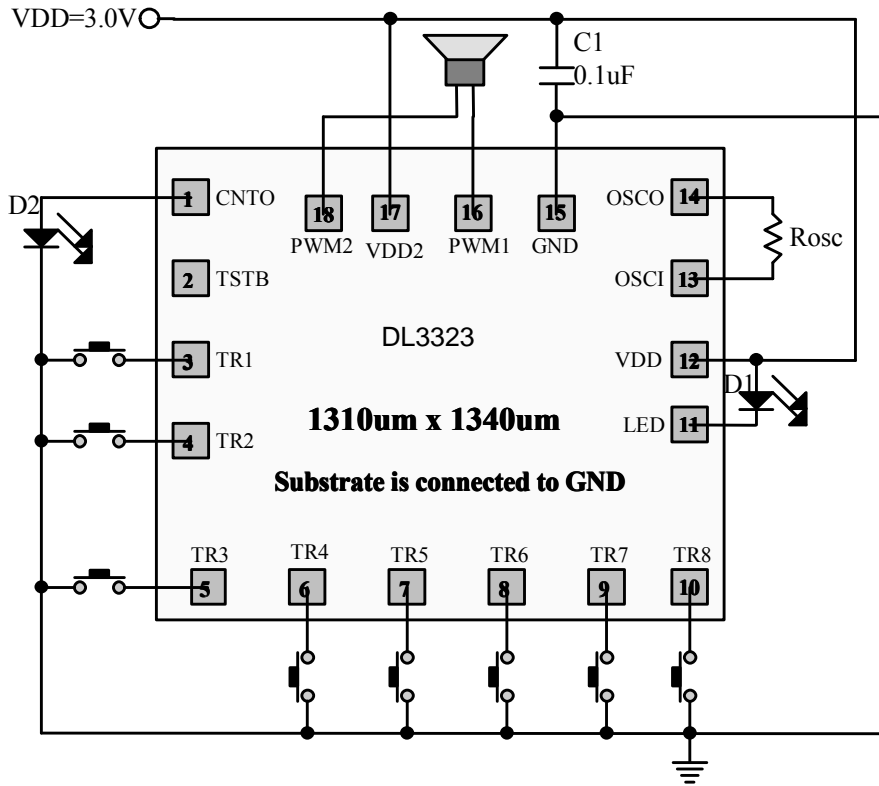


➤ Sequential Trigger Key



8 键双通道音乐产生器

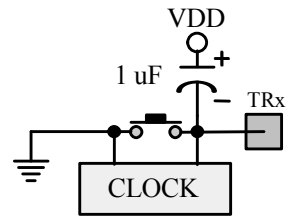
■ 应用电路图(一): VDD = 3.0V



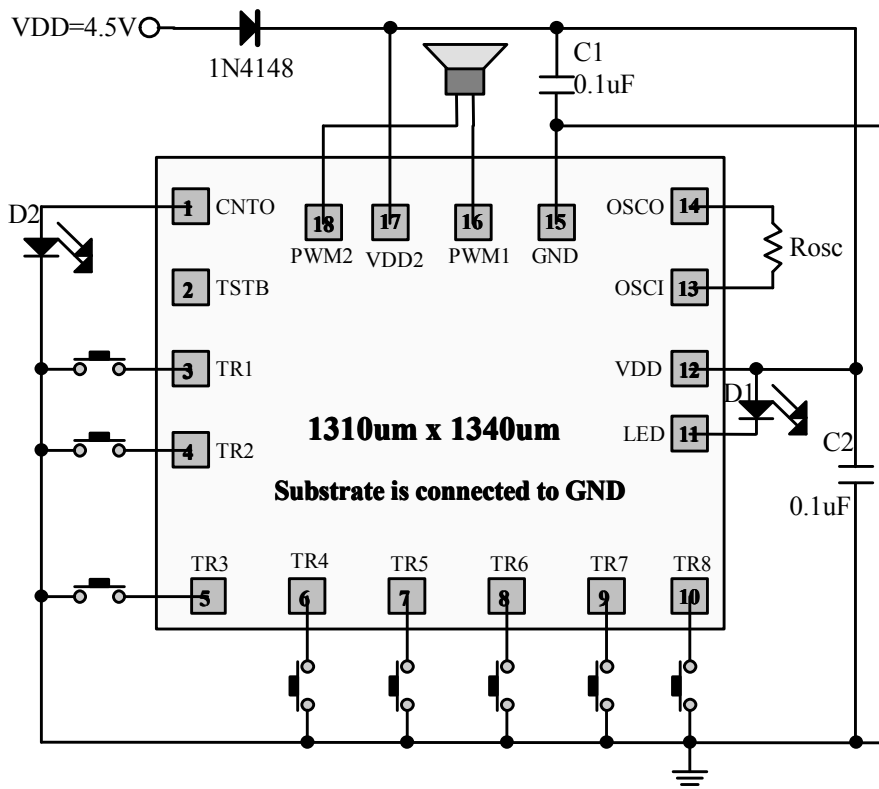
*. C1 與VDD2愈接近愈好

Rosc	Fosc
10k ohm	3.6 MHz
8.2k ohm	4.0 MHz

Trigger Circuit @ Clock Application



■ 应用电路图(二): VDD = 4.5V

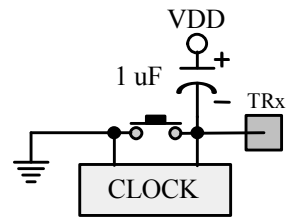


*. C1 與VDD2愈接近愈好

Rosc	Fosc
10k ohm	3.6 MHz
8.2k ohm	4.0 MHz

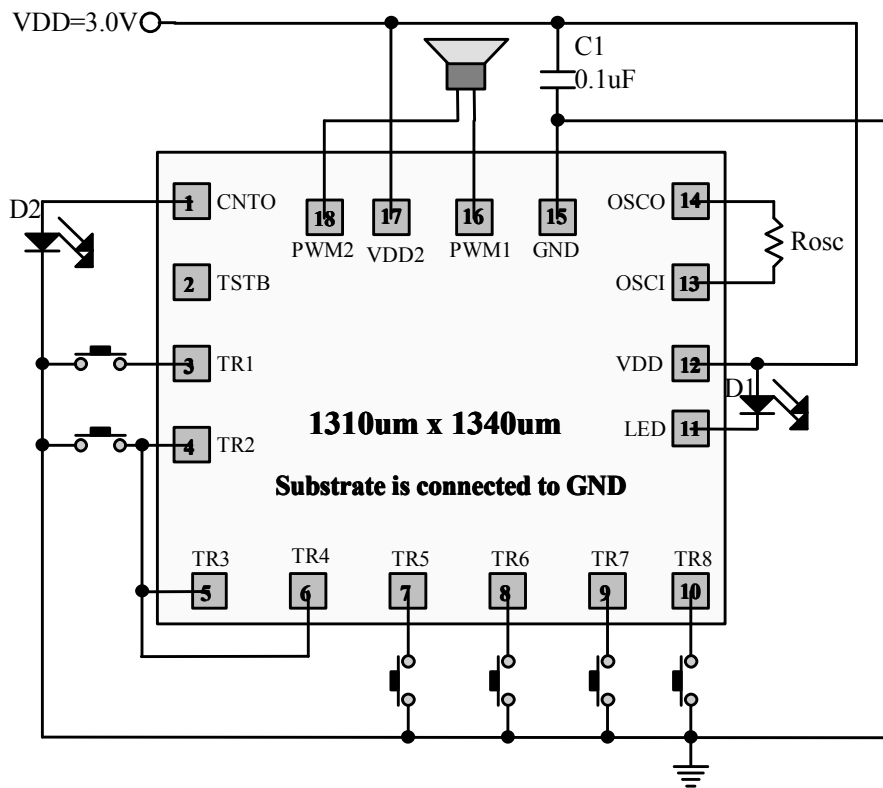
*. C2 與VDD愈接近愈好

Trigger Circuit @ Clock Application



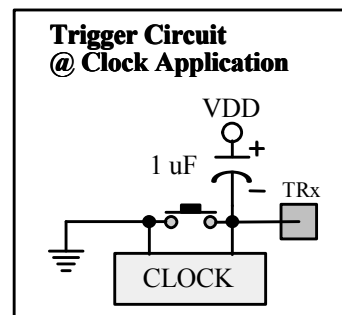
8 键双通道音乐产生器

应用电路图(三): Sequential Trigger for Multiple Direct Trigger Keys



*. C1 must be close to VDD2

Rosc	Fosc
10k ohm	3.6 MHz
8.2k ohm	4.0 MHz



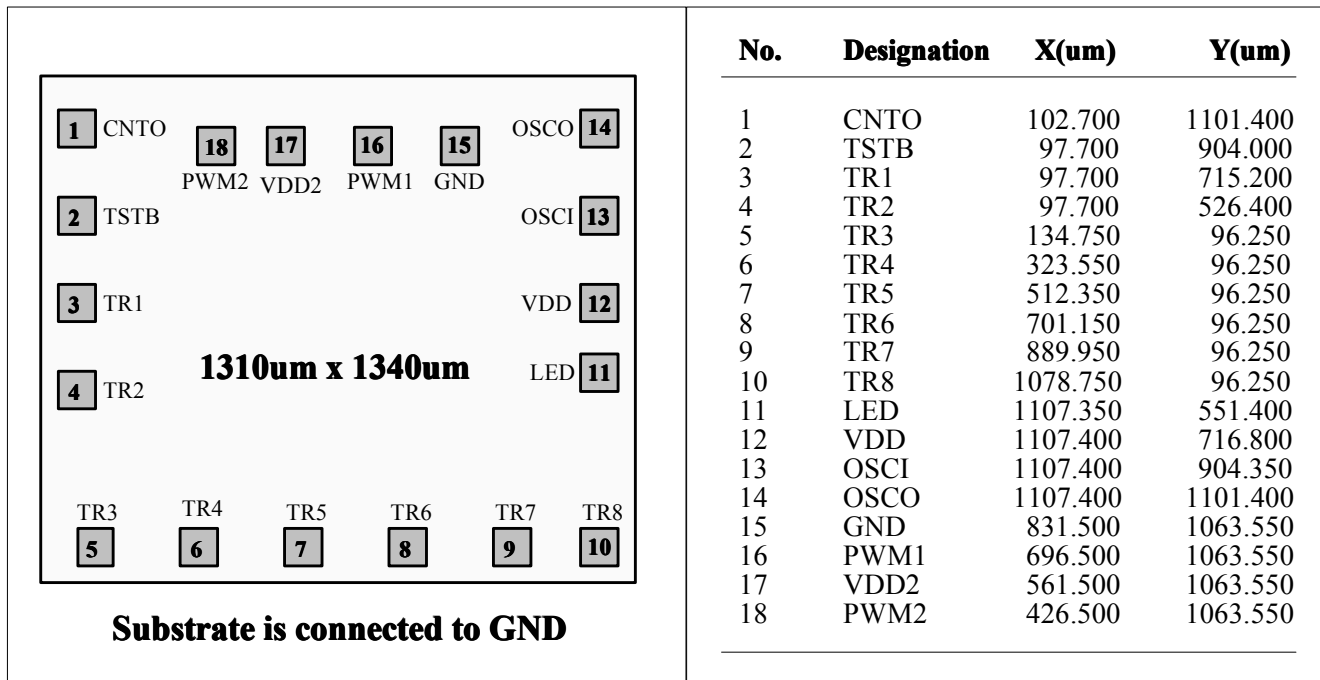
Application Note:

This circuit is specially for the code with no sequential trigger key.

For example, in the customers can use this circuit to trigger the melodys, Doorbell 2~4, sequentially by TR2 in stead of direct trigger using TR2~TR4.

8 键双通道音乐产生器

■ **打線圖及接腳座標**



8 键双通道音乐产生器

■ Song List



Melody + 6:00~9:00/6:00~10:00 Clock Chimes

- TR1: 6:00 to 21:00 Melody with Clock Chime + 22:00 to 5:00 silence
- TR2: 6:00 to 21:00 Melody with Clock Chime + 22:00 to 5:00 di-sound

6:00 The Blue-Bells of Scotland	+ 6 Chimes	14:00 Toy Symhpony	+ 2 Chimes
7:00 The Farmer in the Dell	+ 7 Chimes	15:00 Old Black Joe	+ 3 Chimes
8:00 For Elise	+ 8 Chimes	16:00 Die Lorelei	+ 4 Chimes
9:00 Home on the Range	+ 9 Chimes	17:00 Frohlicher Landman	+ 5 Chimes
10:00 Long Long Ago	+ 10 Chimes	18:00 Home Sweet Home	+ 6 Chimes
11:00 Minuet	+ 11 Chimes	19:00 Swan Lake	+ 7 Chimes
12:00 Traumerei	+ 12 Chimes	20:00 Hush Little Baby	+ 8 Chimes
13:00 Weigenlied	+ 1 Chimes	21:00 Serenata Rimpinnt	+ 9 Chimes
- TR3: 6:00 to 22:00 Melody with Clock Chime + 21:00 to 5:00 silence
- TR4: 6:00 to 22:00 Melody with Clock Chime + 21:00 to 5:00 di-sound

6:00 The Blue-Bells of Scotland	+ 6 Chimes	14:00 Toy Symhpony	+ 2 Chimes
7:00 The Farmer in the Dell	+ 7 Chimes	15:00 Old Black Joe	+ 3 Chimes
8:00 For Elise	+ 8 Chimes	16:00 Die Lorelei	+ 4 Chimes
9:00 Home on the Range	+ 9 Chimes	17:00 Frohlicher Landman	+ 5 Chimes
10:00 Long Long Ago	+ 10 Chimes	18:00 Home Sweet Home	+ 6 Chimes
11:00 Minuet	+ 11 Chimes	19:00 Swan Lake	+ 7 Chimes
12:00 Traumerei	+ 12 Chimes	20:00 Hush Little Baby	+ 8 Chimes
13:00 Weigenlied	+ 1 Chimes	21:00 Serenata Rimpinnt	+ 9 Chimes
		22:00 Brahma's Lullaby	+ 10 Chimes