

**Features**

- ◆ Single-chip CMOS construction
- ◆ low power dissipation
- ◆ 3.0V battery operation
- ◆ 12 Digit Watch
- ◆ Clock with Month, Date, Hour, Minute, Second, Weekday
- ◆ 12H / 24H cycle Selectable
- ◆ 60 Second Alarm & Hourly chime
- ◆ 4 year calendar
- ◆ 8-Digit Chronograph
- ◆ 32768 Hz crystal controlled operation
- ◆ Built-in LED Backlight driver
- ◆ Debounce circuit on switch input
- ◆ Touch-tone
- ◆ 4 switch sequential operation
- ◆ Protection against static discharge

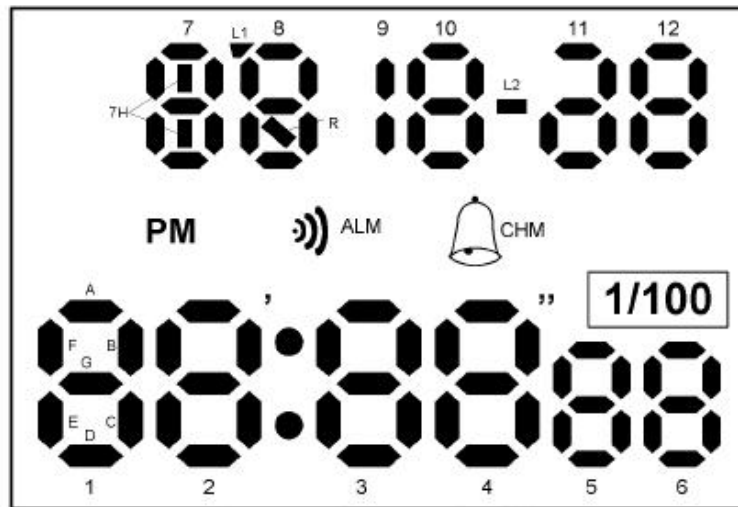
**特點**

- ◆ 單芯片 CMOS 結構
- ◆ 低功耗
- ◆ 3.0V 電池工作
- ◆ 12 位電子錶
- ◆ 可顯示月、日、時、分、秒、星期
- ◆ 可選 12 / 24 小時制
- ◆ 60 秒響鬧、整點響鬧功能
- ◆ 4 年日曆
- ◆ 8 位秒錶計時
- ◆ 32768 Hz 晶振
- ◆ 內置 LED 背光驅動
- ◆ 開關輸入防彈跳
- ◆ 有按鍵音
- ◆ 4 鍵操作
- ◆ 帶靜電保護

**ELECTRICAL CHARACTERISTICS 電特性**

Characteristics		Sym	Min	Typ	Max	Unit	Remarks
Operating Voltage	工作電壓	V <sub>DD</sub>	2.4	3.0	3.6	V	-
Supply Current	供應電流	I <sub>DD</sub>	-	1.2	2.5	uA	No Load
Input High Voltage	輸入高電壓	V <sub>IH</sub>	V <sub>DD</sub> -0.3	-	V <sub>DD</sub>	V	-
Input Low Voltage	輸入低電壓	V <sub>IL</sub>	V <sub>SS</sub>	-	V <sub>SS</sub> +0.3	V	-
Oscillator Start Voltage	起振電壓	V <sub>OSC</sub>			1.45	V	
Oscillator Stop Voltage	停振電壓	V <sub>OSP</sub>			1.15	V	
Oscillation Frequency	振蕩頻率	F <sub>OSC</sub>	-	32768	-	Hz	-
Oscillation Input Capacitor		C <sub>IN</sub>		25		pF	
Oscillation Output Capacitor		C <sub>OUT</sub>		25		pF	
Time Stability	時間穩定度	T <sub>STB</sub>	-	1	3	ppm	V <sub>SS1</sub> =1.3~1.7V
Switch Debouncing Time		T <sub>DEB</sub>			31.25	mSec	

## LCD Format

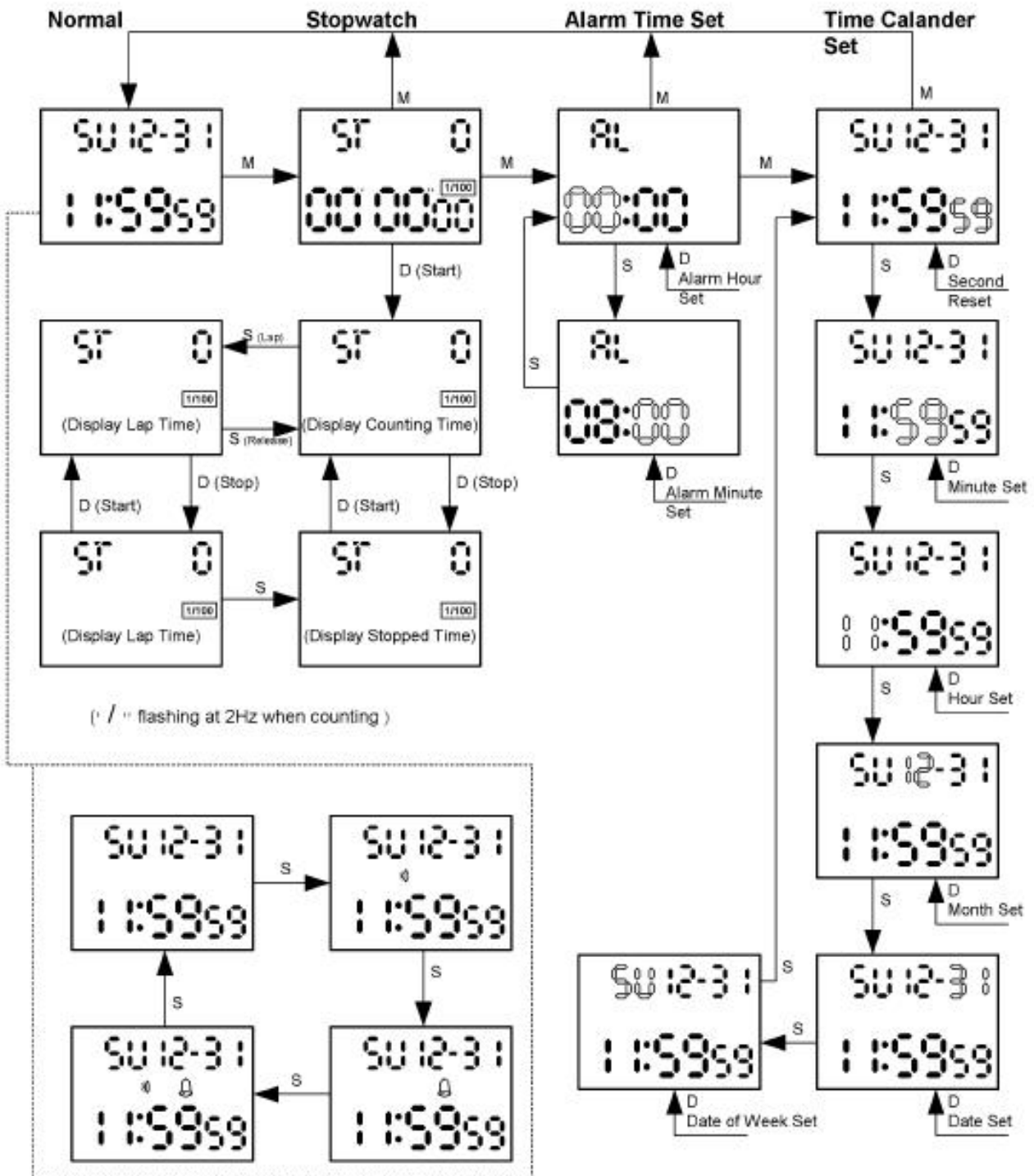


(3.0V<sub>LCD</sub>, 1/3 Duty, 1/2 Bias)

	COM1	COM2	COM3
SEG1	F1	E1	AD1
SEG2	B1	G1	C1
SEG3	F2	E2	D2
SEG4	A2	G2	C2
SEG5	B2	COL1	E3
SEG6	F3	G3	AD3
SEG7	B3	C3	E4
SEG8	F4	G4	D4
SEG9	A4	B4	C4
SEG10	F5	E5	D5
SEG11	A5	G5	C5
SEG12	B5	F6	E6
SEG13	A6	G6	D6
SEG14	D12	B6	C6

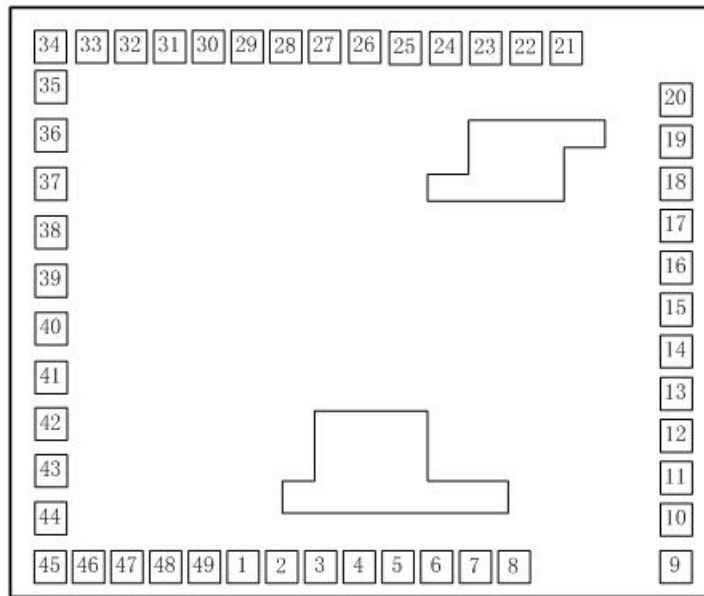
	COM1	COM2	COM3
SEG15	C12	G12	B12
SEG16	E12	F12	A12
SEG17	D10	C11	B11
SEG18	C10	E11	ADG11
SEG19	L2	B10	A10
SEG20	E10	G10	F10
SEG21	D8	C8	BC9
SEG22	R8	G8	B8
SEG23	’,”,1/100	EF8	A8
SEG24	D7	C7	L1
SEG25	G7	B7	A7
SEG26	E7	H7	F7
SEG27	CHM	PM	ALM

## Setting Sequential and Switch Operation



- 註：1. 同時按“M”、“S”及“D”鍵，LCD字段全顯  
2. 調較小時位時選12/24小時模式

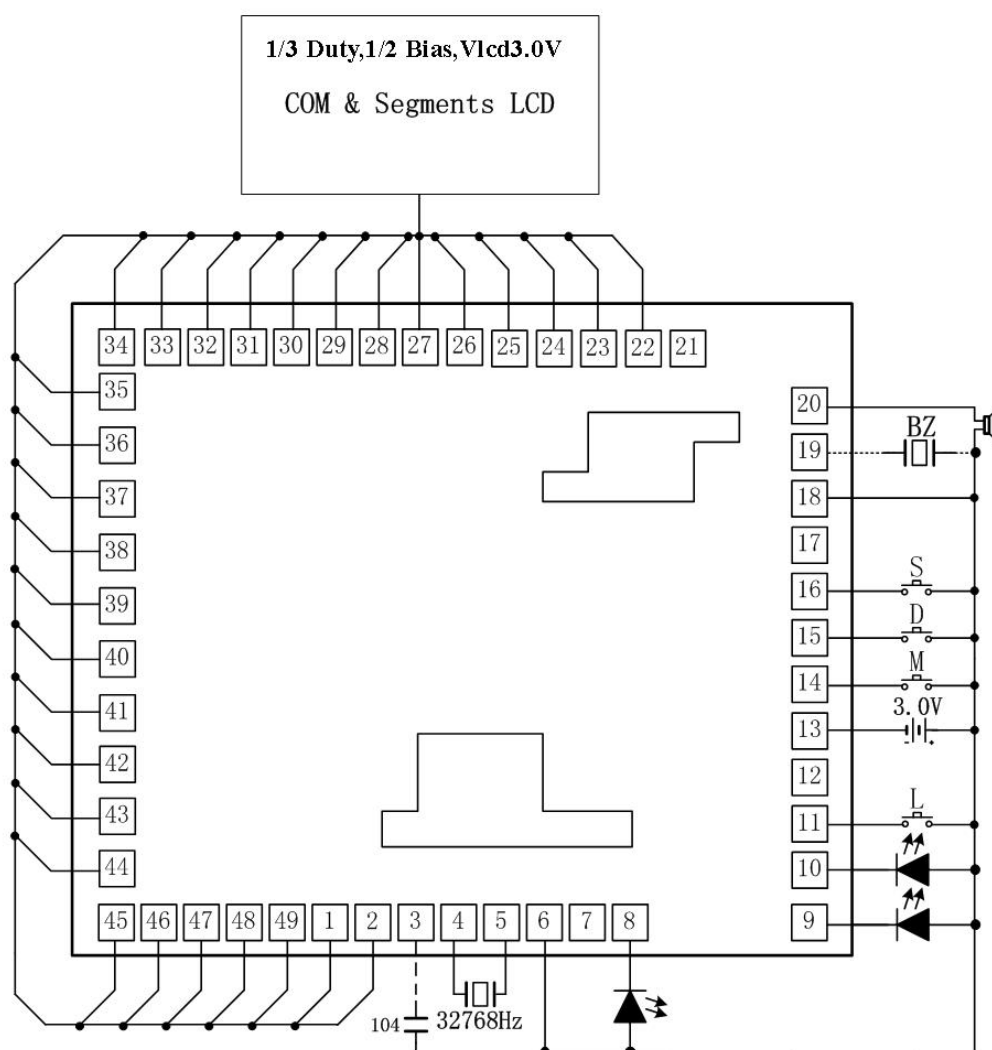
## PAD 位置图



Pad No.	Pad Name	Pad No.	Pad Name	Pad No.	Pad Name	Pad No.	Pad Name	Pad No.	Pad Name
1	COM2	11	L	21	T1	31	SEG9	41	SEG19
2	COM1	12	T3	22	COM3	32	SEG10	42	SEG20
3	GND	13	VSS	23	SEG1	33	SEG11	43	SEG21
4	XO	14	M	24	SEG2	34	SEG12	44	SEG22
5	XI	15	D	25	SEG3	35	SEG13	45	SEG23
6	VDD	16	S	26	SEG4	36	SEG14	46	SEG24
7	AC	17	T2	27	SEG5	37	SEG15	47	SEG25
8	BL	18	VDD	28	SEG6	38	SEG16	48	SEG26
9	GL	19	ALA	29	SEG7	39	SEG17	49	SEG27
10	RL	20	ALB	30	SEG8	40	SEG18		

注：声音输出(ALB)增加内置三级管，芯片衬底请接VDD。  
背光采用与6位表相同的RGB模式

## RGB背光模式应用图



备注:

1. ALB为内置三极管输出端;
2. RGB已内置驱动;
3. 衬底接VDD。