

6 Digit 6 Function LCD Alarm Watch with RGB LED Backlight

Features

- | Split operative stopwatch(Accurate to 1/100 second)
- | Hour, Minuet, Second, Month and date normal display
- | 6 digit chronograph: Auto ranging after 30 minutes to hour, minute, second from minute, second, 1/100 second
- | Alarm output for melody IC
- | Alarm function with 4 to 5 minutes snooze
- | User selectable 12/24 format & 4 year calendar
- | Chime on every hour
- | One touch correction of time error within ± 30 seconds
- | Oscillating built-in capacitor
- | Direct drive of piezo buzzer
- | RGB LED Backlight with 3 seconds delay function

特点

- | 跑表有分段计时功能（准确至 1/100 秒）
- | 显示时、分、秒、月、日及星期
- | 6 位计时器：以分、秒、1/100 秒显示方式，计满 30 分后自动转换至时、分、秒
- | 可接音乐电路芯片作音乐闹铃输出
- | 具有 4~5 分钟再闹功能
- | 整点发声报时
- | 可选用 12 或 24 小时制；4 年日历
- | 按键一次可校正 ± 30 秒时间误差
- | 振荡器内置电容
- | 直接驱动压电蜂鸣片
- | RGB LED 背光，3 秒延迟功能

ELECTRICAL CHARACTERISTICS 电特性

Characteristics		Sym	Min	Typ	Max	Unit	Remarks
Operating Voltage	工作电压	V _{DD}	2.2	3.0	3.6	V	
Quiescent Current	静态电流	I _{SB}	-	-	2	uA	No Load
Input High Voltage	输入高电压	V _{IH}	V _{DD} -0.3		V _{DD}	V	
Input Low Voltage	输入低电压	V _{IL}	V _{SS}		V _{SS} +0.3	V	
Swich Activation Current	按键开关消耗 电流	I _{SW}			3	uA	V _{IN} =V _{DD}
Oscillating Start Voltage	振荡起振电压	V _{OSC}			1.3	V	Within 3 seconds
Alarm Drive Current	闹铃驱动电流	I _{ALA}	0.5	2		mA	V _{ALA} =0.5V
Oscillation Frequency	振荡频率	F _{OSC}		32768		Hz	$\pm 30\%$ Tol
LCD Frequency	LCD 频率	F _{LCD}		32		Hz	
Time Stability	时间稳定度	T _{STB}		1		ppm	V _{DD} =0.3V

APPLICATION INFORMATION 应用资料

Pad No	Name	Pad No	Name	Pad No	Name	Pad No	Name
1	OSCI	13	A1_SUM	25	T1	37	B4_C4
2	OSCO	14	C1_B1	26	D	38	G4_D4
3	LN	15	A2_MON	27	S	39	F4_E4
4	L	16	CL_TUE	28	T2	40	B3_C3
5	L1	17	A3_WED	29	T0	41	G3_D3
6	L2	18	A4_TUH	30	VDD	42	F3_E3
7	L3	19	A5_FRI	31	B6_C6	43	B2_C2
8	VSS	20	A6_SAT	32	G6_D6	44	G2_D2
9	ALA	21	DTE_AL	33	F6_E6	45	F2_E2
10	M	22	COM1	34	B5_C5		
11	COM2	23	T3	35	G5_C5		
12	PM_AM	24	AC	36	F5_E5		

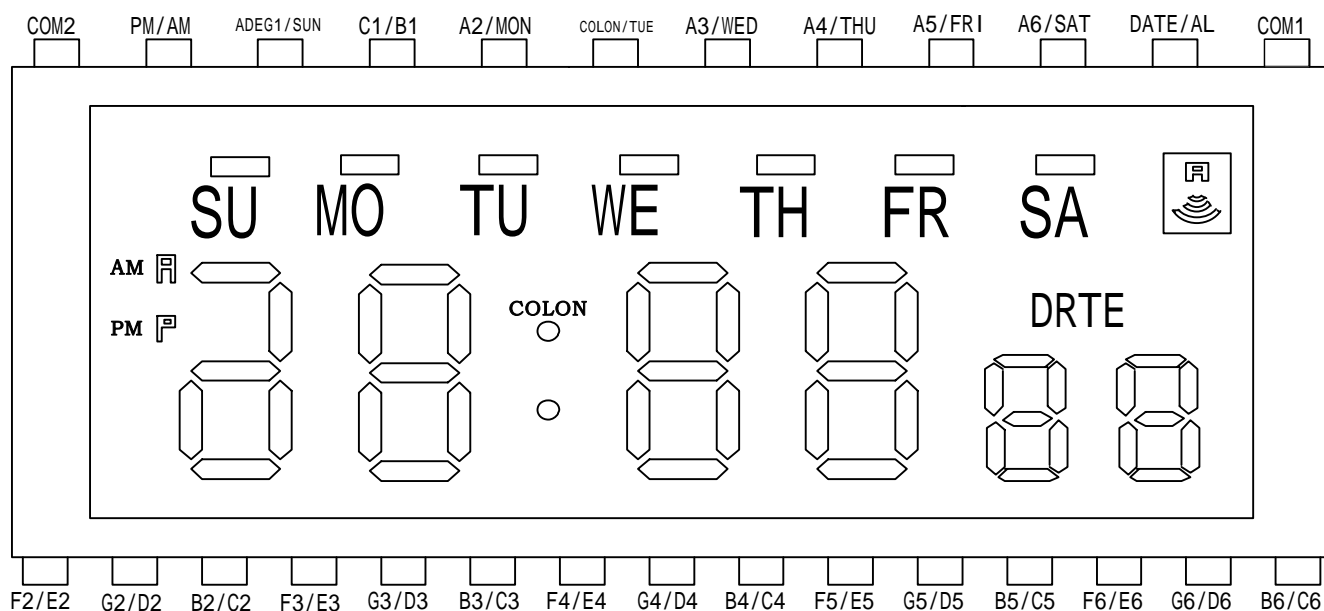
注：1、芯片底部接 VDD

2、T0 到 T3 为测试端

3、COM&SEGMENT to LCD 的顺序与 A5190 完全相同

4、发光二极管控制端（ON）按住不动时，3 个二极管以 2 秒速度变化出 7 种颜色和快速扫描。在任何一种状态下 ON 端松开，此种状态被选中并存档，三秒后熄掉，以后每按一次 ON 键，被选中状态亮 3 秒。如果需要改变被选中的状态，重复以上过程。

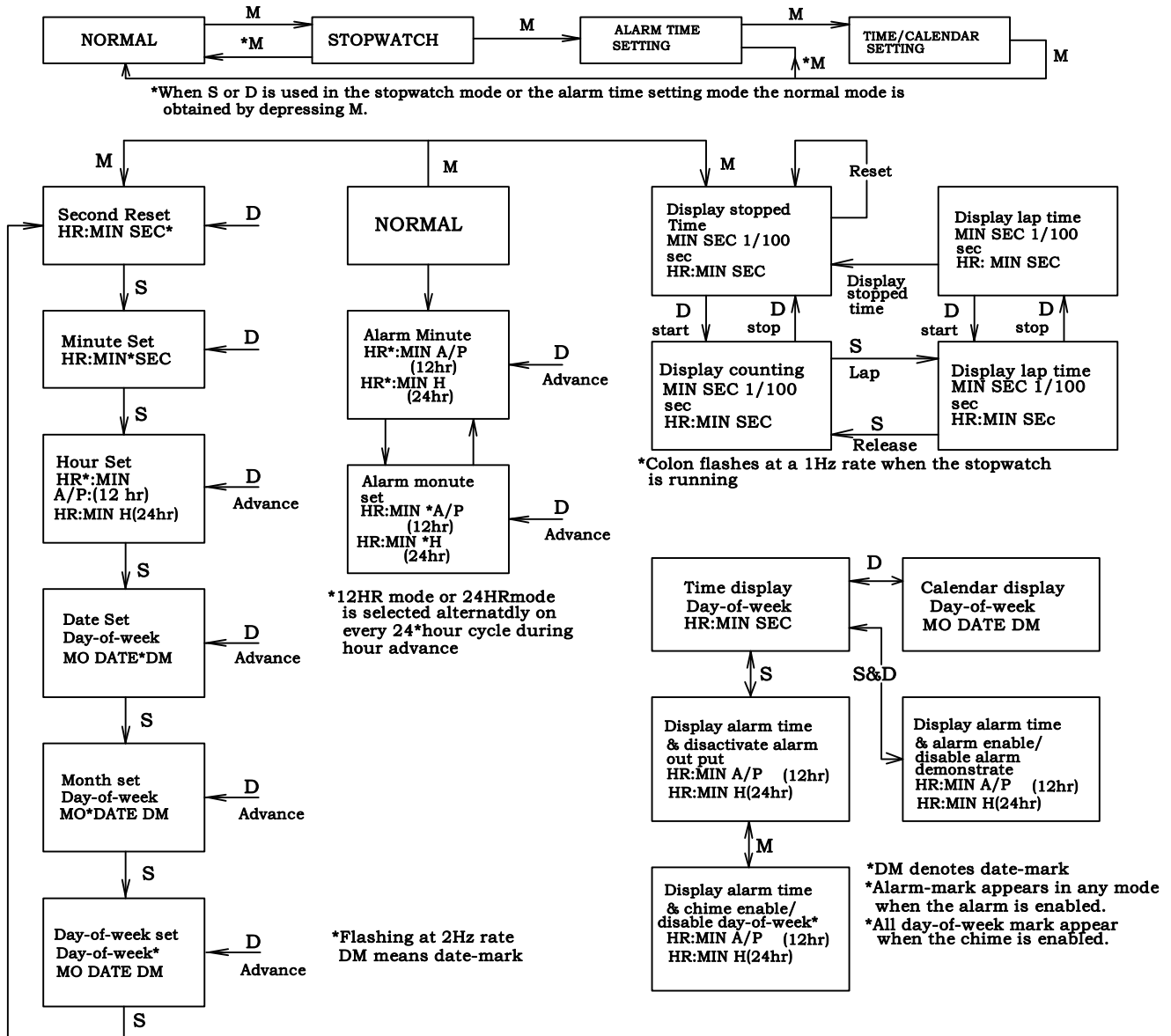
LCD Format



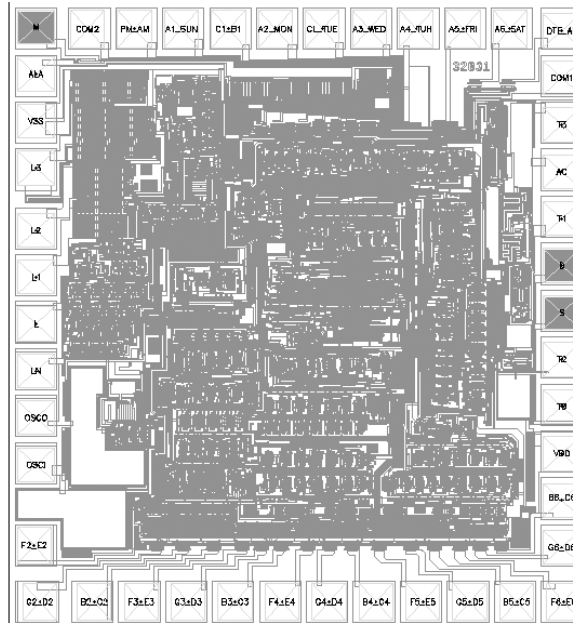
IC Pad No	COM1	COM2
11		COM2
12	PM	AM
13	A1	SUN
14	C1	B1
15	A2	MON
16	CL	TUE
17	A3	WED
18	A4	TUH
19	A5	FRI
20	A6	SAT
21	DTE	AL
22	COM1	

IC Pad No	COM1	COM2
31	B6	C6
32	G6	D6
33	F6	E6
34	B5	C5
35	G5	D5
36	F5	E5
37	B4	C4
38	G4	D4
39	F4	E4
40	B3	C3
41	G3	D3
42	F3	E3
43	B2	C2
44	G2	D2
45	F2	E2

SETTING SEQUENCE AND SWITCH OPERATION



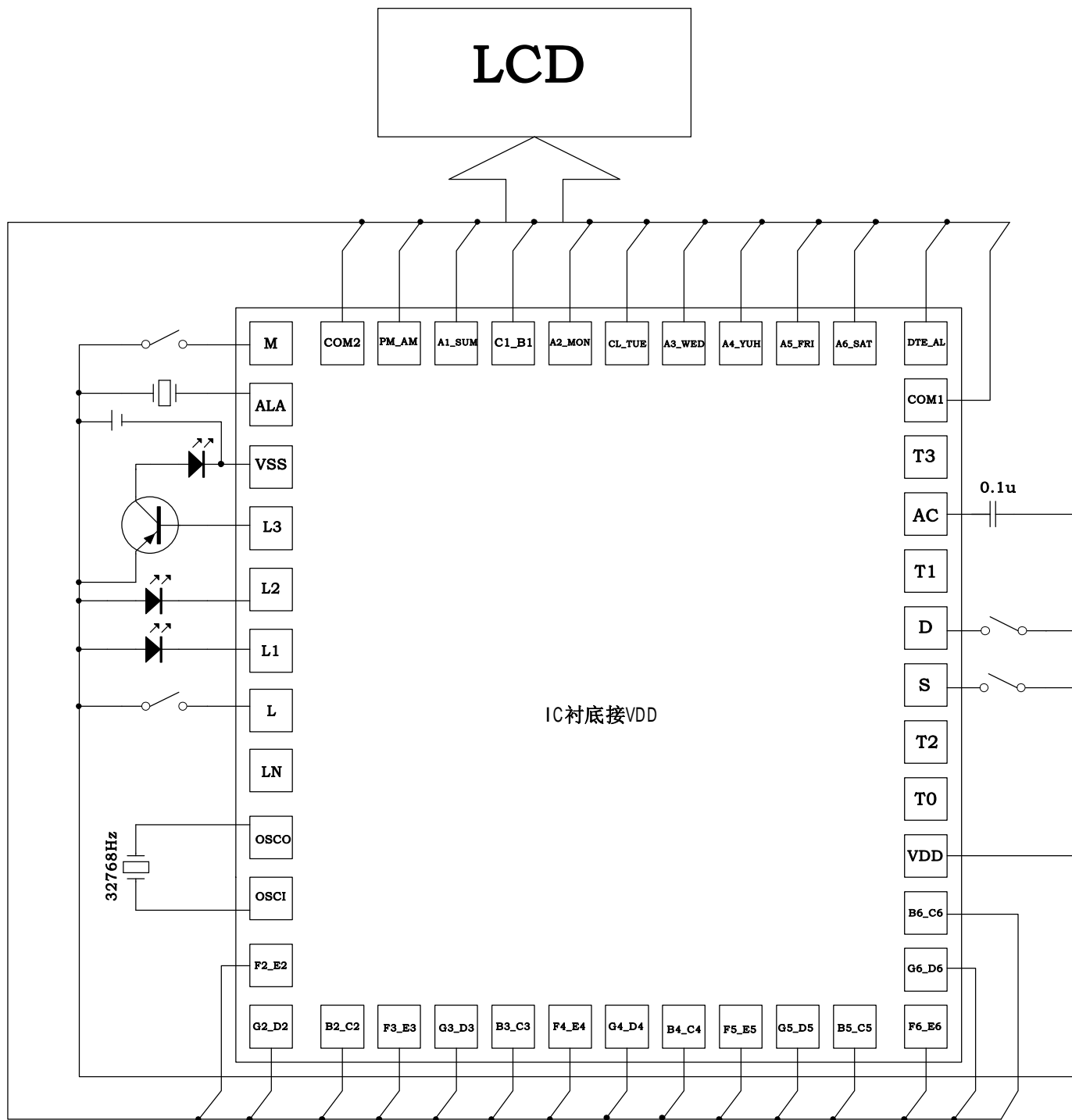
PAD Assignment and Location



The IC substrate should be connected to VDD in the PCB layout artwork

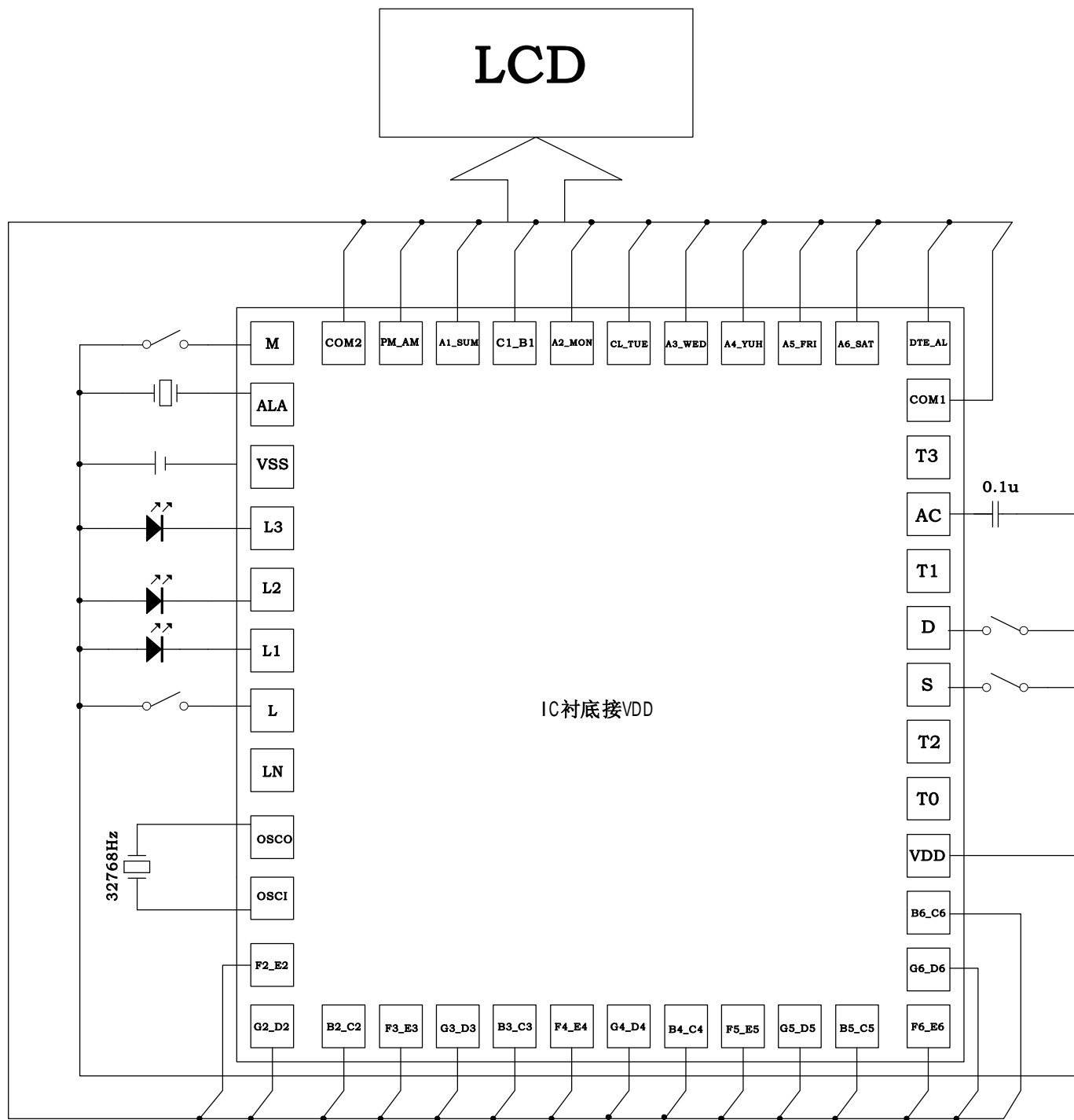
Pad No.	Pad Name	X	Y	Pad No.	Pad Name	X	Y
1	OSCI	-698.90	-392.80	24	AC	699.10	387.00
2	OSCO	-698.90	-267.95	25	T1	699.10	262.20
3	LN	-698.90	-143.20	26	D	699.10	137.40
4	L	-698.90	-18.40	27	S	699.10	12.60
5	L1	-698.90	106.40	28	T2	699.10	-112.20
6	L2	-698.90	231.20	29	T0	699.10	-237.00
7	L3	-698.90	387.00	30	VDD	699.10	-360.50
8	VSS	-698.90	511.80	31	B6_C6	699.10	-486.60
9	ALA	-698.90	636.60	32	G6_D6	699.10	-611.40
10	M	-698.90	761.40	33	F6_E6	699.10	-761.40
11	COM2	-556.75	761.40	34	B5_C5	574.15	-761.40
12	PM_AM	-431.50	761.40	35	G5_D5	449.75	-761.40
13	A1_SUN	-307.35	761.40	36	F5_E5	324.80	-761.40
14	C1_B1	-181.80	761.40	37	B4_C4	199.90	-761.40
15	A2_MON	-57.25	761.40	38	G4_D4	75.15	-761.25
16	CL_TUE	66.90	761.40	39	F4_E4	-49.55	-761.40
17	A3_WED	192.70	761.40	40	B3_C3	-174.65	-761.40
18	A4_TUH	317.00	761.40	41	G3_D3	-299.25	-761.40
19	A5_FRI	442.00	761.40	42	F3_E3	-424.10	-761.40
20	A6_SAT	566.35	761.40	43	B2_C2	-548.90	-761.40
21	DTE_AL	699.05	761.40	44	G2_D2	-698.90	-761.40
22	COM1	699.10	636.60	45	F2_E2	-698.90	-611.40
23	T3	699.10	511.80				

Recommend Appliaction Citcuit 参考电路图



★: 建议邦定时, 请调校邦机到适当超声焊接压力 (推荐压力调校值在 15g~18g 左右为宜)!

Other Appliacion Citcuit 其它电路图



★: 建议邦定时, 请调校邦机到适当超声焊接压力 (推荐压力调校值在 15g~18g 左右为宜)!