

DL2055 新 12 键按摩器

功能特征：

■ 工作电压：4.5V

■ LCD 参数：LCD 电压：4.5V ， 1/4DUTY 1/3BIAS

■ 共 12 个键：

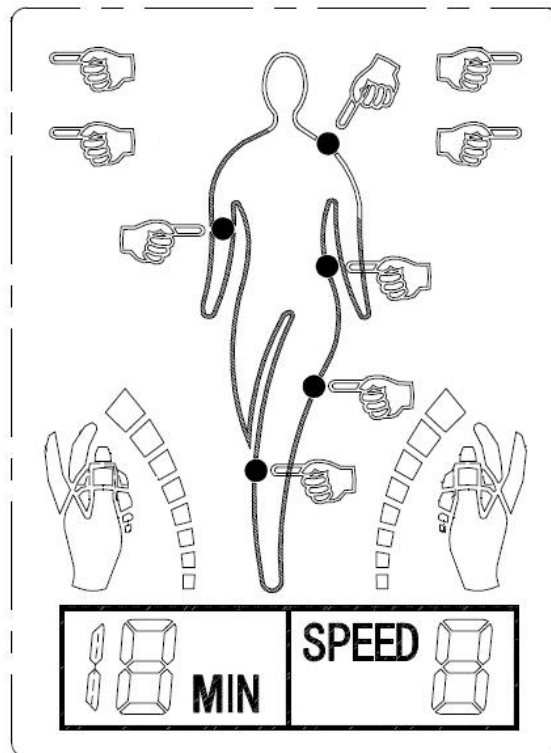
PRESS, RUB, VIBRATE, THUMP, UP, DN, SHOULDER, WAIST, JOINT, HAND&FOOT, LEG, REPEAT

■ 电位调节开关：根据需要调节电压强度以及开/关电源

■ 有按键音

■ 负载检测功能：无负载约 2 秒自动关机

一、全显图：



二、按键功能说明:

PRESS, RUB, VIBRATE, THUMP, SHOULDER, WAIST, JOINT, HAND&FOOT, LEG 此九个按键按下分别进入各自对应模式

UP: SPEED 加一, 最大为 9

DN: SPEED 减一, 最小为 1

REPEAT: 按下重复当前波形

三、操作方法:

1) 上电后全显, 灯亮, 蜂鸣器响一秒. 然后进入 RUB 模式. 开始工作.

2) 按 PRESS, RUB, VIBRATE, THUMP 此四键进入相应模式.

按 UP/DN 对 SPEED 进行加/减, SPEED 范围 1~9.

REPEAT 键在此四模式下无效

3) 按 SHOULDER, WAIST, JOINT, HAND&FOOT, LEG 此五键进入相应模式

按 REPEAT 键进入 REPEAT 模式, 重复当前波形按摩, LED 1HZ 闪烁. 再按 REPEAT 取消 REPEAT 模式.

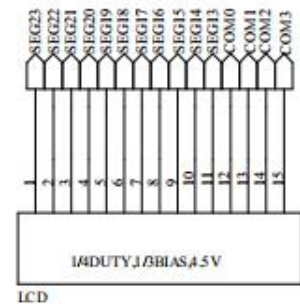
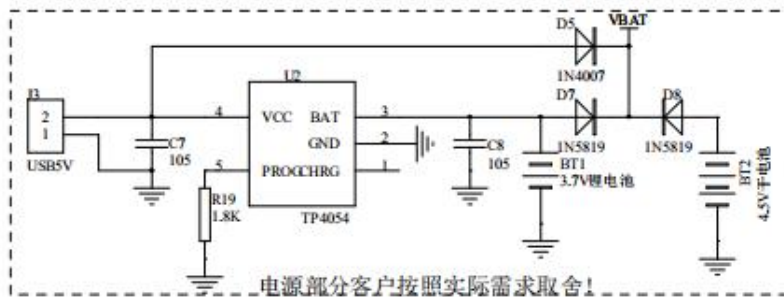
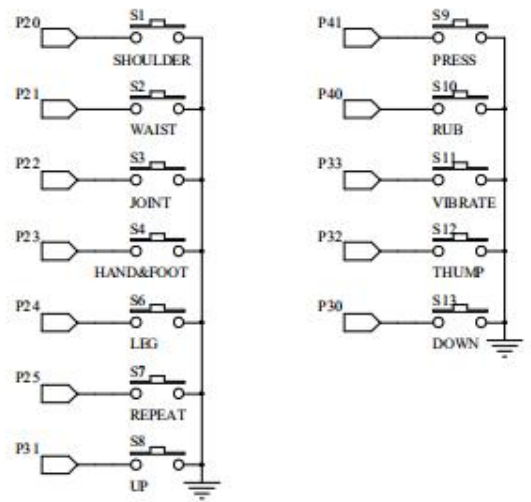
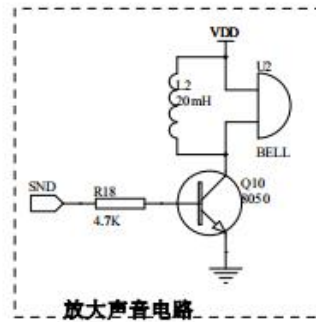
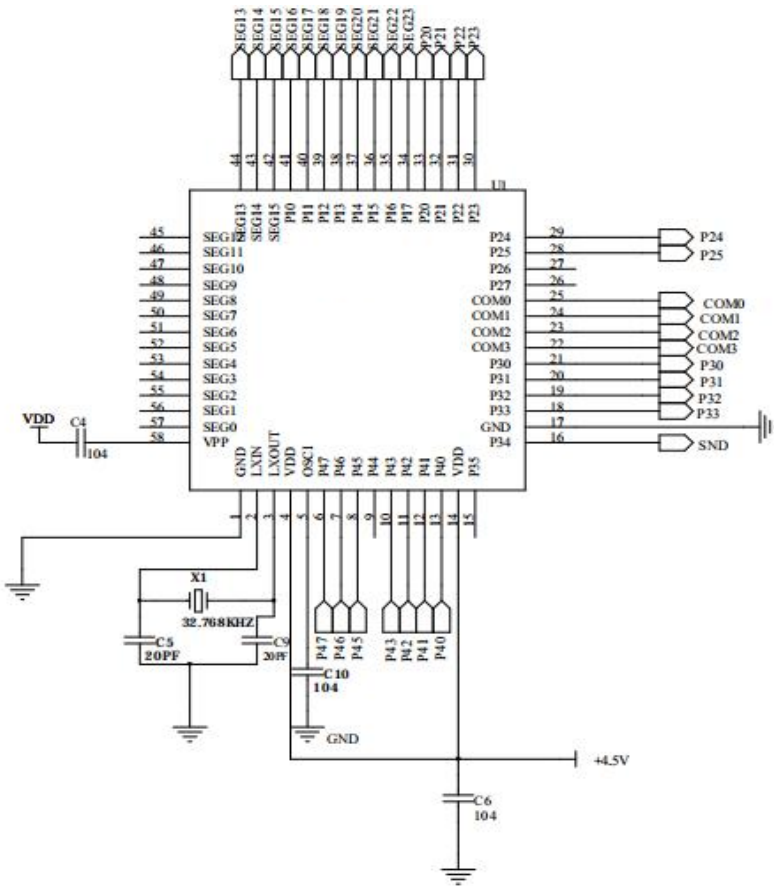
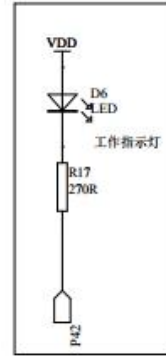
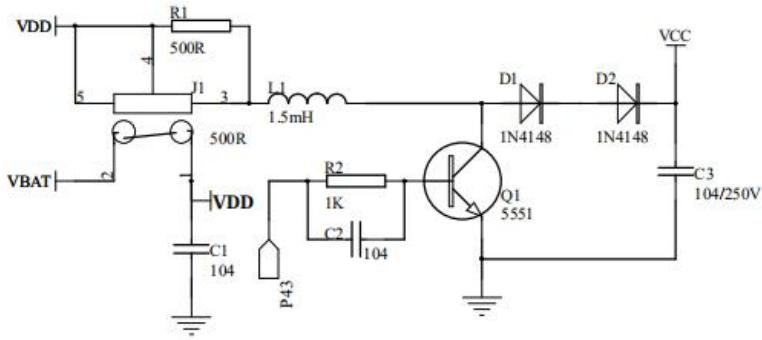
UP/DN 键在此五种模式下无效

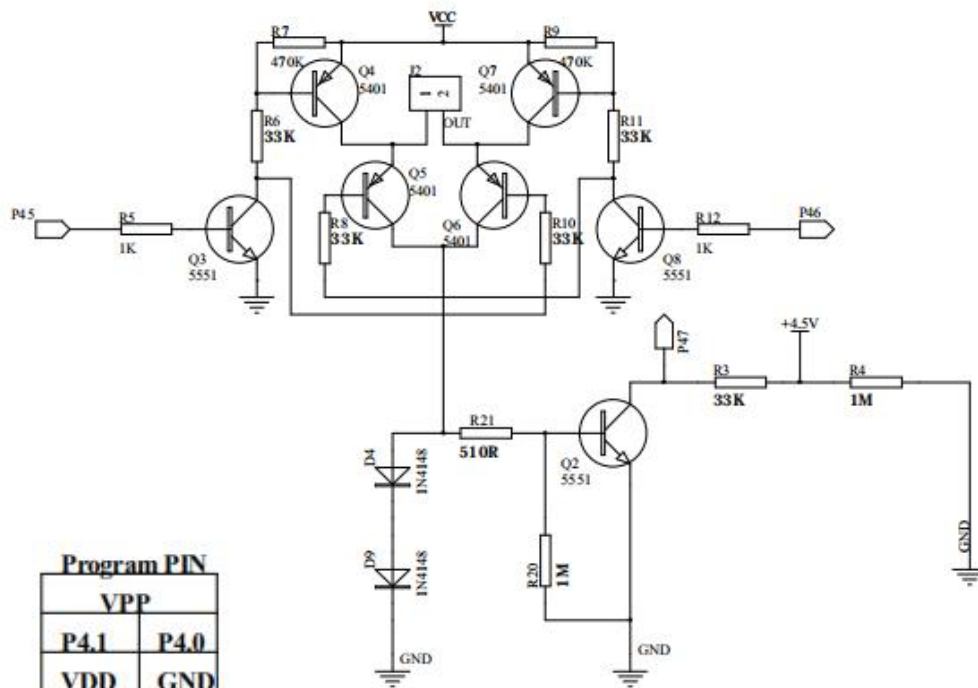
4) 根据需要可旋转电位开关调节强度.

5) 工作时间为15min, 工作时间完成后自动关机, LCD无显示, 蜂鸣器响三声后停止, 此时按任意按键均无效. 只有旋转电位开关关机后再开机方可重新工作

6) 当无负载接上时, 约 2s 后自动关机

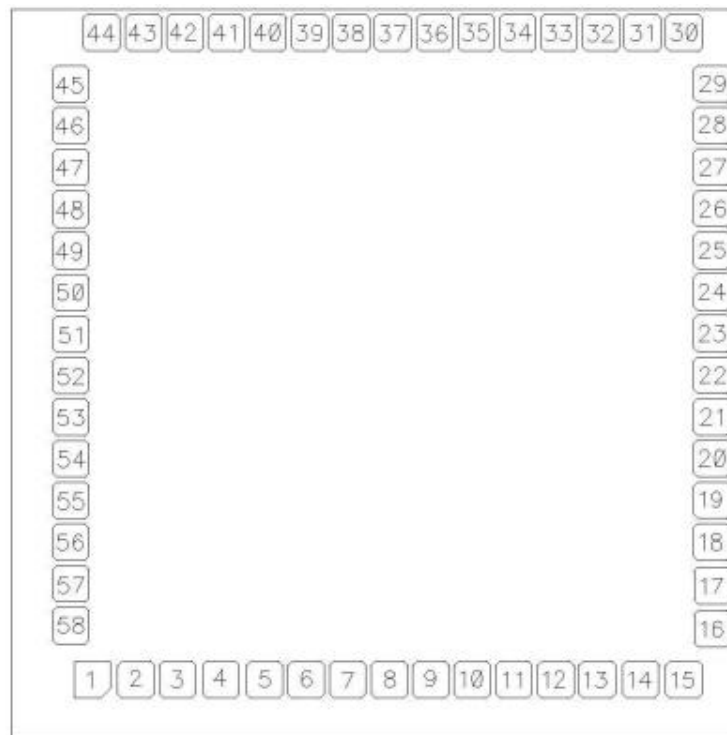
四、原理图





注:IC的衬底必须接地.

五、PAD 图



80um PAD(80*80)um

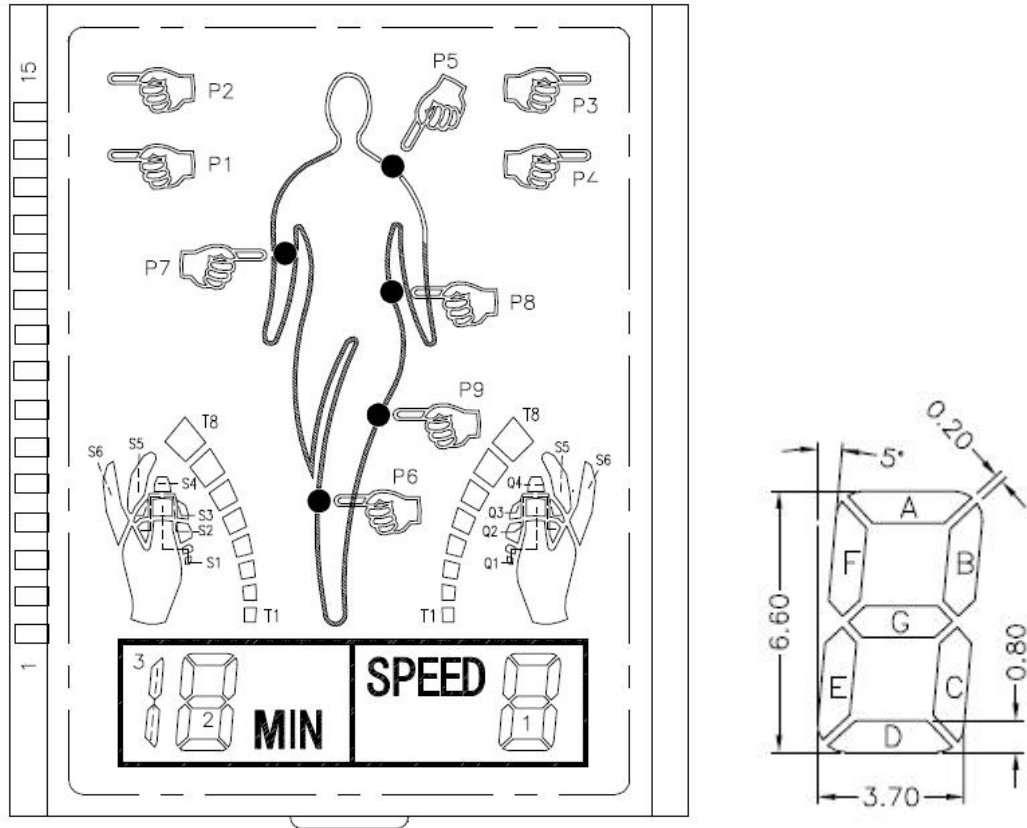
| PIN NO | NAME | | | PIN NO | NAME | | |
|-----------|-------|---------|---------|-----------|-------|---------|---------|
| | | X | Y | | | X | Y |
| 1 | gnd! | 177.99 | 132.00 | 30 | P2<3> | 1491.31 | 1561.00 |
| 2 | LXIN | 274.21 | 132.00 | 31 | P2<2> | 1398.31 | 1561.00 |
| 3 | LXOUT | 366.21 | 132.00 | 32 | P2<1> | 1306.31 | 1561.00 |
| 4 | vdd! | 462.43 | 132.00 | 33 | P2<0> | 1214.31 | 1561.00 |
| 5 | OSCI | 558.65 | 132.00 | 34 | P1<7> | 1122.31 | 1561.00 |
| 6 | P4<7> | 650.65 | 132.00 | 35 | P1<6> | 1030.31 | 1561.00 |
| 7 | P4<6> | 742.65 | 132.00 | 36 | P1<5> | 938.31 | 1561.00 |
| 8 | P4<5> | 834.65 | 132.00 | 37 | P1<4> | 846.31 | 1561.00 |
| 9 | P4<4> | 926.65 | 132.00 | 38 | P1<3> | 754.31 | 1561.00 |
| 10 | P4<3> | 1018.65 | 132.00 | 39 | P1<2> | 662.31 | 1561.00 |
| 11 | P4<2> | 1110.65 | 132.00 | 40 | P1<1> | 570.31 | 1561.00 |
| 12 | P4<1> | 1202.65 | 132.00 | 41 | P1<0> | 478.31 | 1561.00 |
| 13 | P4<0> | 1294.65 | 132.00 | 42 | SEG15 | 386.31 | 1561.00 |
| 14 | vdd! | 1390.87 | 132.00 | 43 | SEG14 | 294.31 | 1561.00 |
| 15 | P3<5> | 1488.09 | 132.00 | 44 | SEG13 | 202.31 | 1561.00 |
| 16 | P3<4> | 1551.00 | 243.87 | 45 | SEG12 | 132.00 | 1447.50 |
| 17 | gnd! | 1551.00 | 340.09 | 46 | SEG11 | 132.00 | 1355.50 |
| 18 | P3<3> | 1551.00 | 436.31 | 47 | SEG10 | 132.00 | 1263.50 |
| 19 | P3<2> | 1551.00 | 528.31 | 48 | SEG9 | 132.00 | 1171.50 |
| 20 | P3<1> | 1551.00 | 620.31 | 49 | SEG8 | 132.00 | 1079.50 |
| 21 | P3<0> | 1551.00 | 712.31 | 50 | SEG7 | 132.00 | 987.50 |
| 22 | COM3 | 1551.00 | 804.31 | 51 | SEG6 | 132.00 | 895.50 |
| 23 | COM2 | 1551.00 | 896.31 | 52 | SEG5 | 132.00 | 803.50 |
| 24 | COM1 | 1551.00 | 988.31 | 53 | SEG4 | 132.00 | 711.50 |
| 25 | COM0 | 1551.00 | 1080.31 | 54 | SEG3 | 132.00 | 619.50 |
| 26 | P2<7> | 1551.00 | 1172.31 | 55 | SEG2 | 132.00 | 527.50 |
| 27 | P2<6> | 1551.00 | 1264.31 | 56 | SEG1 | 132.00 | 435.50 |
| 28 | P2<5> | 1551.00 | 1356.31 | 57 | SEG0 | 132.00 | 343.50 |
| 29 | P2<4> | 1551.00 | 1448.31 | 58 | VPP | 132.00 | 247.50 |

烧录脚位

| 烧录器引脚名称 | 芯片引脚名称 | 工作时引脚功能 |
|---------|-------------|----------------------------------|
| VPP | RST_EXT/VPP | High voltage program port |
| PROGB | P41/PROGB | Program enable, low level active |
| OEB | P40/OEB | Out enable, low level active |
| VDD | VDD | - |
| GND | GND | - |

六、LCD 图

LCD 参数：LCD 电压：4.5V ， 1/4DUTY 1/3BIAS, 12 0'CLOCK



| | | | | | | | | | | | | | | | |
|------|------|------|------|------|----|----|----|-----|----|----|----|----|----|----|----|
| PIN | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| COM0 | | | | COM0 | 1A | 1F | 2A | 2F | T4 | T5 | S1 | Q1 | S6 | P1 | P5 |
| COM1 | | | COM1 | | 1B | 1G | 2B | 2G | T3 | T6 | S2 | Q2 | | P2 | P6 |
| COM2 | | COM2 | | | 1C | 1E | 2C | 2E | T2 | T7 | S3 | Q3 | S5 | P3 | P7 |
| COM3 | COM3 | | | | 1D | | 2D | 3BC | T1 | T8 | S4 | Q4 | P9 | P4 | P8 |

LCD PIN15—PIN12 对应 IC 脚位 COM3—COM0

PIN11—PIN1 对应 IC 脚位 SEG13—SEG23