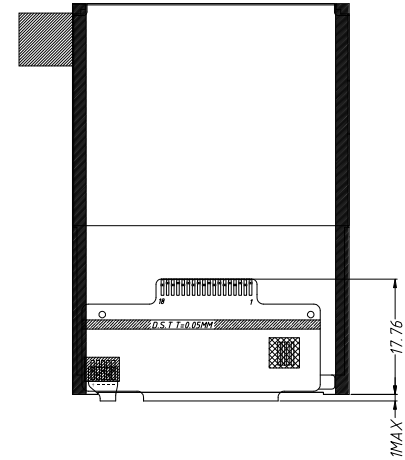
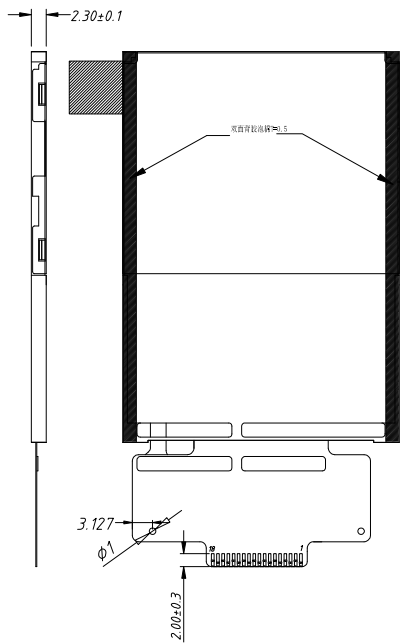
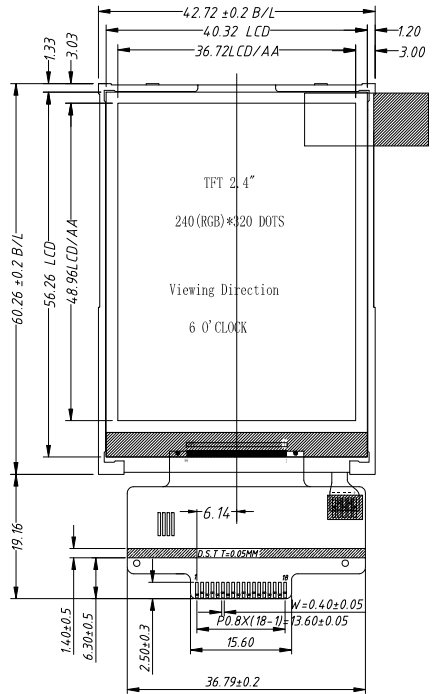


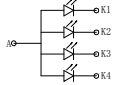
3. Mechanical drawing

| NO | Pin name |
|----|----------|
| 1 | GND |
| 2 | RESET |
| 3 | SCL |
| 4 | D/C |
| 5 | CS |
| 6 | SDA |
| 7 | SDD |
| 8 | GND |
| 9 | VCC |
| 10 | LEDA |
| 11 | LEDK1 |
| 12 | LEDK2 |
| 13 | LEDK3 |
| 14 | LEDK4 |
| 15 | XL |
| 16 | YU |
| 17 | XR |
| 18 | YD |



弯折示意图
展开出货

防静电设计要求:
1. 在RST信号脚上贴TVS管, 连接TWS管地要铺完整。
2. 信号走线, 如RD, WR, CS, FMARK, RS走在一起, 同时两侧包地线。
3. 注意整个 FPC 接地的完整性。



4 PCS WHITE LED; IF =60mA, VF=3.2V

- NOTES:
1. DISPLAY TYPE: 65/262K Colors LCD, Transmissive, Normal White
 2. OPERATING TEMP.: -20° C~70° C
 3. STORAGE TEMP.: -30° C~80° C
 4. LCD DRIVER: LI19341
 5. BACKLIGHT: 4CHIP-WHITE LED, Parallel connection If=60mA
 6. UNMARKED TOLERANCE: ±0.2
 7. 符合ROHS要求
 8. 建议手机壳V.A开窗比LCD的A.A单边大0.5

| | | | |
|----------------------|-------------------------|------------------------|----------|
| 液晶模组 | PRODUCT NO. H24TM84A | DRAW NO. 2014-03-31 | REV A |
| TP焊盘上移2MM, FPC修改丝印字符 | 2014-04-17 | | |
| 首次设计 | | | |
| 更改记录 | 日期 | | |

| | | | | | |
|---|--|-------------|------|-------|-----|
| TOLERANCE: DECIMAL .X±.20 .XX±.20 ± 1/8 | | DWN | DSN | | |
| | | CHKD | APPD | | |
| UNIT | | NORTH SCALE | | SCALE | 1:1 |

1. Introduction

1.1 Scope of application

This specification applies to the Negative type TFT transmissive dot matrix LCD module that is supplied by **SHENZHEN HANYUMODERN ELECTRONICS CO.,LTD.** This LCD module should be designed for mobile phone use. LCD specification: 6:00, Dots 240xRGBx320. As to basic specification of the driver IC, refer to the IC (ILI9341V) specification and datasheet.

1.2 Structure:

Double display structure:

TFT Module + FPC + BL

FULL 262k Color 2.4 inch TFT LCD size for main LCD;

One bare chip with gold bump (COG) TECH;

1.3 TFT features:

Structure: TFT PANNEL+IC+FPC+TP;

Transmissive Type LCD

240 dot-source and 320 dot-gate outputs;

262k Color;

White LED back light;

1.4 Applications:

Mobile phone, Mp4

1.5 This module uses ROHS material

2. General specification

| ITEM | Standard value | UNIT |
|--------------------|--------------------------------|------|
| LCD Type | TFT Negative Transmissive | --- |
| Driver element | a-Si TFT Active matrix | |
| Number of Dots | 240*(RGB)*320 | Dots |
| Pixel Arrangement | RGB Vertical Stripe | |
| Pixel Pitch (W*H) | 0.153(W)*0.153(H)um | um |
| Display Area | 36.72(W) × 48.96(H) mm | mm |
| Viewing Direction | 6 O'clock | |
| Driver IC | ILI9341V | |
| Module Size(W*H*T) | 42.72(W) × 60.26 (H) × 2.30(T) | mm |
| Approx. Weight | TBD | g |
| Back Light | White LED | |
| Touch Panel Type | - | |

4. ABSOLUTE MAXIMUM RATINGS

| Parameter | Symbol | Min | Max | Unit |
|--------------------------|-----------|------|----------------|------|
| Supply voltage for logic | V_{DD} | -0.3 | 3.0 | V |
| Input voltage for logic | V_{IN} | -0.5 | $V_{DD} + 0.3$ | V |
| Supply current (One LED) | I_{LED} | | 20 | mA |
| Operating temperature | T_{OP} | -20 | +70 | °C |
| Storage temperature | T_{ST} | -30 | +80 | °C |

5. ELECTRICAL CHARACTERISTICS

| Item | Symbol | Min | Typ | Max | Unit | Applicable terminal |
|--------------------------|-----------|--------------|-----|--------------|------|---------------------|
| Supply voltage for logic | V_{DD} | 2.6 | 2.8 | 3.0 | V | V_{DD} |
| Input voltage | V_{IL} | -0.3 | - | $0.2 V_{DD}$ | V | |
| | V_{IH} | $0.8 V_{DD}$ | - | V_{DD} | V | |
| Input leakage current | I_{LKG} | | | | μA | |
| LED Forward voltage | V_f | 3.0 | 3.2 | 3.3 | V | -- |
| Input backlight current | I_{LED} | - | 60 | -- | mA | With One LED |

6. OPTICAL CHARACTERISTICS

| ITEM | SYMBOL | CONDITIONS | SPECIFICATIONS | | | UNIT | NOTE | |
|----------------------|-------------|----------------------|----------------|-------|-------|-------------------|---|--|
| | | | MIN. | TYP. | MAX. | | | |
| Brightness | B | Viewing normal angle | -- | 150 | -- | Cd/m ² | All left side data are based on LEAD's product reference only | |
| Contrast Ratio | CR | | 100 | 120 | -- | -- | | |
| Response Time | $T_r + T_f$ | | -- | 25 | 40 | ms | | |
| CIE Color coordinate | Red | | X_R | -- | 0.571 | | | |
| | | | Y_R | | 0.352 | | | |
| | Green | | X_G | -- | 0.345 | | | |
| | | | Y_G | | 0.557 | | | |
| | Blue | | X_B | -- | 0.148 | | | |
| | | | Y_B | | 0.128 | | | |
| White | X_W | | -- | 0.314 | | | | |
| | Y_W | | 0.334 | | | | | |
| Viewing Angle | Hor. | θ_{X+} | 40 | 45 | -- | Deg. | | |
| | | θ_{X-} | 40 | 45 | -- | | | |
| | Ver. | θ_{Y+} | 30 | 35 | -- | | | |
| | | θ_{Y-} | 10 | 15 | -- | | | |
| Uniformity | Un | | 80 | 85 | | % | | |

7. MCU Interface Pin Function

| NO. | SYMBOL | Description | I/O |
|-------|--------|----------------------------------|--------------|
| 1 | GND | GND | Power supply |
| 2 | /RESET | Reset signal | I |
| 3 | SCL | serial interface clock | I |
| 4 | RS | Data/Commander selection | I |
| 5 | CS/ | Chip select signal (Low: active) | I |
| 6 | SDA | Serial input signal | I |
| 7 | SDO | Serial output signal | O |
| 8 | GND | GND | Power supply |
| 9 | VDD | Analog supply power | Power supply |
| 10 | LEDA | LED anode | |
| 11-14 | K1- K4 | LED cathode | |
| 15 | XL | Touch screen terminal | I |
| 16 | YU | Touch screen terminal | I |
| 17 | XR | Touch screen terminal | I |
| 18 | YD | Touch screen terminal | I |