


**VM19B7 V6**

18.5" FHD High Brightness Color TFT-LCD Module

| FEATURES  |  |
|---|--|
|  | - 1920 x 1080 resolution               |
|   | - 1500nits high brightness display     |
|   | - Normally black                       |
|   | - 178/178 view angle                   |
|   | - 20ms response time                   |
|   | - LVDS interface                       |
|   | - -20~70C Wide operation temperature   |
|   | - 50K Hrs backlight operation lifetime |
|   | - RoHS Compliance                      |

## Display Specifications

| Items                                       | Unit              | Specification   |
|---|-------------------|---|
| Screen Diagonal                             | mm                | 469.16(18.47")  |
| Active Area                                 | mm                | 408.96 (H) x 230.04 (V)   |
| Pixels H x V                                | pixels            | 1920(x3) x 1080   |
| Pixels Pitch                                | um                | 213 (per one triad) x 213                                       |
| Pixel Arrangement                           |                   | RGB Vertical stripe   |
| Display mode                                |                   | AHVA mode, normally black                                       |
| White luminance (center)                    | Cd/m <sup>2</sup> | 1500 (Typ.)   |
| Contrast ratio                              |                   | 1,000 (Typ.)  |
| Optical Response Time                       | msec              | 20 (Typ. on/off)  |
| Normal Input Voltage VDD                    | Volt              | 5   |
| Power Consumption<br>(VDD Line + LED lines) | Watt              | 38.7 (Typ.) (TBD)<br>VDD line:2.7 W, all black pattern; LED=36W |
| Weight                                      | Grams             | 1200 (Typ.)   |
| Physical size                               | mm                | 430.4 (W) x 254.6 (H) Typ. x 12.0(D)Typ                         |
| Electrical Interface                        |                   | Dual Channel LVDS   |
| Support Colors                              |                   | 16.7 M colors (RGB 8-bits)                                      |
| Surface Treatment                           |                   | Anti-Glare, 3H  |
| Temperature range                           |                   |   |
| Operating                                   | °C                | -20 ~ 70 (TFT surface temperature)                              |
| Storage (Shipping)                          | °C                | -20 ~ 70  |
| RoHS Compliance                             |                   | RoHS Compliance   |

Note: This specification is subject to change without notice.

## ● Accessories for option:

&gt;&gt; Industrial grade Signal control board &amp; SoC

| Input  | Output                            | Resolution |
|--|-----------------------------------|------------|
| RGB with voltage integration                     | RGB                               | TBD        |
| LVDS with voltage & backlight driver integration | RGB                               | WXGA (max) |
| LVDS with voltage & backlight driver integration | LVDS                              | WXGA (max) |
| VGA/DVI/DP...etc.                                | RGB/ LVDS / mipi / eDP / V-by-One | 4K (max.)  |
| ARM Cortex A17/A53 (Android 6, 8, & 11)          | LVDS / eDP / V-by-One             | 4K (max.)  |

&gt;&gt; Industrial grade LED driver board:

| Input     | Max Output             | Dimming control |
|-----------|------------------------|-----------------|
| 12V DC    | 36V *1 port            | PWM             |
| 12~24V DC | 53V * 1 port           | PWM / Analog    |
| 12~24V DC | 53V * 2 port           | PWM / Analog    |
| 24V       | 120V / 150V * 1/2 port | PWM             |

&gt;&gt; Industrial grade interactive interface:

| Type  | Input            | Output      | Protection glass thickness |
|---|------------------|-------------|----------------------------|
| Projected capacitive touch panel  | Fingers / stylus | USB / i2C   | Max 6mm                    |
| 4wire / 5 wire resistance touch panel   | Fingers / stylus | USB / RS232 | TBD                        |
| Option:<br>1. Customized cover glass design, special color printing<br>2. AG/AR/AF Surface treatment,<br>3. Lamination process,<br>4. Gloved touch function design,<br>5. Waterproof touch function design<br>6. EMI shielding touch design |                  |             |                            |

- HANDLING PRECAUTIONS

- 1) Since front polarizer is easily damaged, pay attention not to scratch it.
- 2) Be sure to turn off power supply when inserting or disconnecting from input connector.
- 3) Wipe off water drop immediately. Long contact with water may cause discoloration or spots.
- 4) When the panel surface is soiled, wipe it with absorbent cotton or other soft cloth.
- 5) Since the panel is made of glass, it may break or crack if dropped or bumped on hard surface.
- 6) Since CMOS LSI is used in this module, take care of static electricity and insure human earth when handling.
- 7) Do not open or modify the Module Assembly.
- 8) Do not press the reflector sheet at the back of the module to any directions.
- 9) In case if a Module has to be put back into the packing container slot after once it was taken out from the container, do not press the center of TFTLCD panel.
- 10) At the insertion or removal of the Signal Interface Connector, be sure not to rotate nor tilt the Interface Connector of the TFT Module.
- 11) After installation of the TFT Module into an enclosure, do not twist nor bend the TFT Module even momentary. At designing the enclosure, it should be taken into consideration that no bending/twisting forces are applied to the TFT Module from outside. Otherwise the TFT Module may be damaged.