


VM13B4 V2

13.3" FHD High Brightness Color TFT-LCD Module

FEATURES	
	- 1920 x 1080 resolution
	- 1600nits high brightness
	- Normally black
	- 170/170 view angle
	- 30ms response time
	- eDP interface
	- -10~50C Wide operation temperature
	- 4.7mm ultra-thin thickness module
	- 50K Hrs long backlight life design
	- RoHS Compliance

Display Specifications

Items	Unit	Specification
Screen Diagonal	inch	13.3
Active Area	mm	293.76 (H) x 165.24 (V)
Pixels H x V	pixels	1920 x3(RGB) x 1080
Pixels Pitch	um	153 (per one triad) x 153
Pixel Arrangement		RGB Vertical stripe
Display mode		Normally black
White luminance (center)	Cd/m ²	1600 (Typ.)
Contrast ratio		700 (Typ.)
Optical Response Time	msec	25 ms (Typ. on/off)
Normal Input Voltage Vcc	Volt	3.3
Power Consumption (Vcc Line + LED backlight)	Watt	17.38W (Vcc line=0.75; LED line=16.63 W)
Weight	Grams	TBD (max.)
Physical size	mm	305.35(H) x 177.39(V) x 4.7 (D)
Electrical Interface		eDP
Support Colors		16.7 M colors
Surface Treatment		Anti-Glare, 3H
Temperature range		
Operating	°C	-10 ~ 50
Storage	°C	-20 ~ 60
RoHS Compliance		RoHS Compliance

Note: This specification is subject to change without notice.

● Accessories for option:

>> Industrial grade Signal control board & 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.)

>> 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

>> 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: 1. Customized cover glass design, special color printing 2. AG/AR/AF Surface treatment, 3. Lamination process, 4. Gloved touch function design, 5. Waterproof touch function design 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.