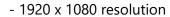
# **VM20B3 V2**

19.5" FHD High Brightness Color TFT-LCD Module

Issue date: 2022/01/05

#### **FEATURES**



- 1000nits high brightness display
- Normally black
- 178/178 view angle
- 25ms response time
- LVDS interface
- -10~50C Wide operation temperature
- 50K Hrs backlight operation lifetime
- RoHS Compliance

## **Display Specifications**

Items	Unit	Specification	
Screen Diagonal	mm	19.53	
Active Area	mm	434.88 (H) X 238.68 (V)	
Pixels H x V	pixels	1920 x3(RGB) x 1080	
Pixels Pitch	um	226.5 (per one triad) x 221	
Pixel Arrangement		RGB Vertical stripe	
Display mode		Normally Black	
White luminance (center)	Cd/m <sup>2</sup>	1000 (Typ)	
Contrast ratio		3000:1 (Typ.)	
Optical Response Time	msec	25 ms (Typ. On/off)	
Normal Input Voltage VDD	Volt	5.0	
Power Consumption	Watt	27.7W	
(Vcc Line + LED backlight)		(VDD line=5.5 W; LED lines= 22.2 W)	
Weight	Grams	1475	
Physical size	mm	459 (W)×263 (H)×11.32 (D)	
Electrical Interface		2-ch LVDS	
Support colors		16.7M colors	
Surface Treatment		Anti-glare and hard-coating 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 &	RGB	WXGA (max)	
backlight driver integration			
LVDS with voltage &	LVDS	WXGA (max)	
backlight driver integration			
VGA/DVI/DPetc.	RGB/ LVDS / mipi /	4K (max.)	
	eDP / V-by-One		
ARM Cortex A17/A53	LVDS / eDP / V-by-	4K (max.)	
(Android 6, 8, & 11)	One		

## >> 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:

Туре	Input	Output	Protection glass
			thickness
Projected capacitive	Fingers / stylus	USB / i2C	Max 6mm
touch panel			
4wire / 5 wire resistance	Fingers / stylus	USB /	TBD
touch panel		RS232	

#### 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

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#### 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.

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