AGL **Applied Green Light, Inc.**

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VM19B1 V4

18.5" WXGA High Brightness Color TFT-LCD Module

FEATURES	
	- 1366 x 768 resolution - 350nits high brightness display - Normally black - 178/178 view angle - 14ms response time - LVDS interface - 0~50C Wide operation temperature - 50K Hrs backlight operation lifetime - RoHS Compliance

Display Specifications

Items	Unit	Specification
Screen Diagonal	inch	18.5
Active Area	mm	409.8 (W) × 230.4 (H) mm
Pixels H x V	pixels	1366 × 3(RGB) × 768
Pixels Pitch	mm	0.1 × 0.3
Pixel Arrangement		RGB Vertical stripe
Display mode		Normally Black
White luminance (center)	Cd/m^2	350 (typ. TFT surface)
Contrast ratio		1000:1 (Typ., TFT surface)
Optical Response Time	msec	14 ms (Typ. on/off)
Normal Input Voltage VDD	Volt	3.3
Power Consumption (Vcc Line + LED L Lines)	Watt	9.7W (VDD line=2.5W; LED line=7.2W)
Weight	Grams	1300 typ.
Physical size	mm	430.4 (H) x 254.6 (V) x 10.9 (D) (Typ)
Electrical Interface		1 Channel LVDS
Support Colors		16.7M colors (RGB 8 bit data)
Surface Treatment		Anti-Glare, 3H
Temperature range Operating Storage (Shipping)	 ^0C ^0C	 0 ~ 50 -20 ~ 60
RoHS Compliance		RoHS Compliance

Note: This specification is subject to change without notice.

Tentative Specification

Applied Green Light, Inc.
6F-2, No.9, Prosperity 1st Rd., Hsinchu, Taiwan
TEL：886-3-5633588 FAX：886-3-5633533

- 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			

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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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