



All information is subject to change without notice

G065VN01 V2

(Preliminary)

# G065VN01 V2

## Color TFT-LCD Module

(HMI, FA, IPC, POS, KIOSK, Gaming, Medical.. etc.)

### Features

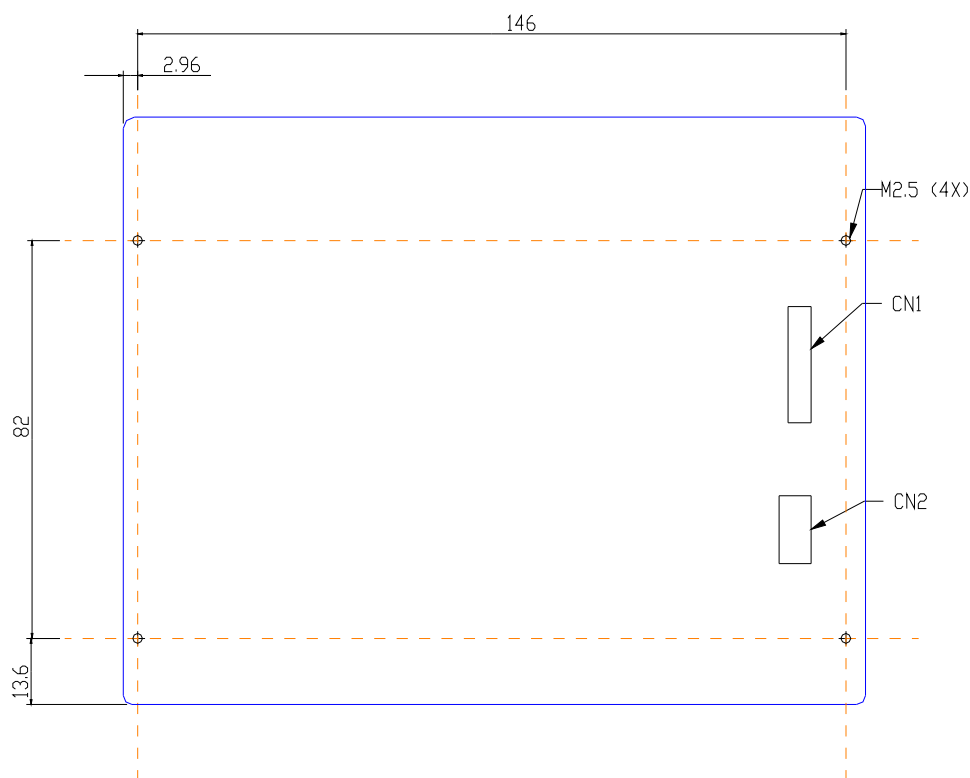
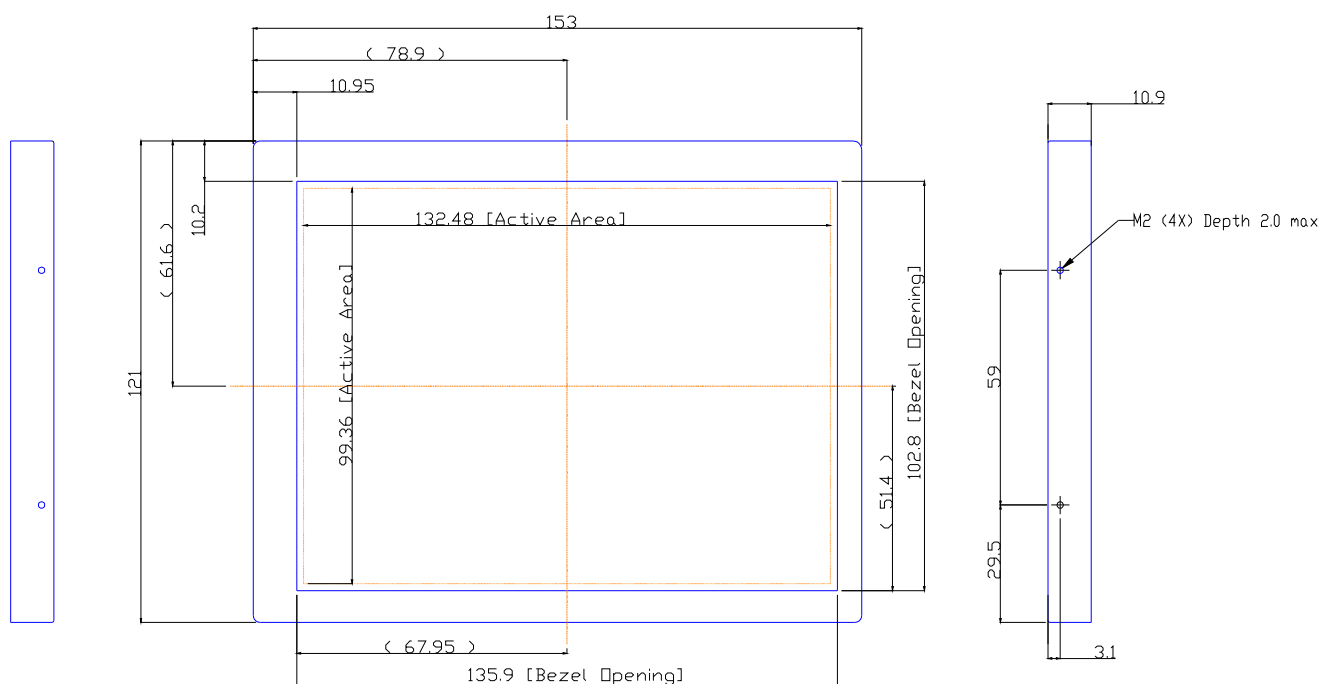
- VGA resolution
- LED BLU driver built-in
- Long LED life time
- Wide dimming range support
- Replaceable LED light bar
- Wide operation temperature
- Reverse scan
- 6/8 bit convertible
- RoHS and Halogen-free compliance
- Min. 3 years product life support

### Sample Schedule:

- \* ES: 04/M' 2009
- \* CS: 05/M' 2009
- \* MP: 06/M' 2009

### Specification

Size (inch)	6.5"
Model	G065VN01 V2
Resolution (pixel)	640RGB(H)x480(V)
Active Area (mm)	132.48(H) x 99.36(V)
Pixel Pitch (mm)	0.207 x 0.207
Mode	TN, Normal White
LCD Surface	AG
Number of Colors	262K/16.2M
View Angle (H/V)	160/140
Brightness(nit)	500
Contrast Ratio	800:1
Response Time (ms)	25
LED Life (hrs.)	50K
Power Consumption (W)	2.9 (max) All black pattern
LCD Supply Voltage (V)	3.3
Storage Temp. (°C)	-30 ~ +85
Operation Temp. (°C)	-30 ~ +85
Outline Dimension (mm)	153.0 x 121.0 x 10.9
Weight (g)	170
Interface	LVDS





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## **CN1 pin assignment (LCD)**

Connector: 20268-020E-12F (I-PEX or compatible)

Mating Connector: 20230-020B or 20230-T20-F or 20230-W20B-F (I-PEX or compatible)

Pin No.	Symbol	Pin Description
1	VDD	Power supply, 3.3V (typical)
2	VDD	Power supply, 3.3V (typical)
3	GND	Ground
4	GND	Ground
5	RxIN0-	Negative LVDS differential input(R0-R5, G0)
6	RxIN0+	Positive LVDS differential input(R0-R5, G0)
7	GND	Ground
8	RxIN1-	Negative LVDS differential input(G1-G5, B0-B1)
9	RxIN1+	Positive LVDS differential input(G1-G5, B0-B1)
10	GND	Ground
11	RxIN2-	Negative LVDS differential input(B2-B5, Hsync, Vsync, DE)
12	RxIN2+	Positive LVDS differential input(B2-B5, Hsync, Vsync, DE)
13	GND	Ground
14	RxCLKIN-	Negative LVDS differential clock input
15	RxCLKIN+	Positive LVDS differential clock input
16	SEL68	Selection for either 6bit or 8bit LVDS input: SEL68 = "High" or "NC", accepts 6bit LVDS data input; SEL68 = "Low", accepts 8bit LVDS data input.
17	U/D	Vertical Reverse ("L" or Open: Normal, "H": Reverse)
18	L/R	Horizontal Reverse ("L" or Open: Normal, "H": Reverse)
19	RxIN3-	Negative LVDS differential input (R6-R7, G6-G7, B6-B7) NC for 6bit LVDS input.
20	RxIN3+	Positive LVDS differential input (R6-R7, G6-G7, B6-B7) NC for 6bit LVDS input.

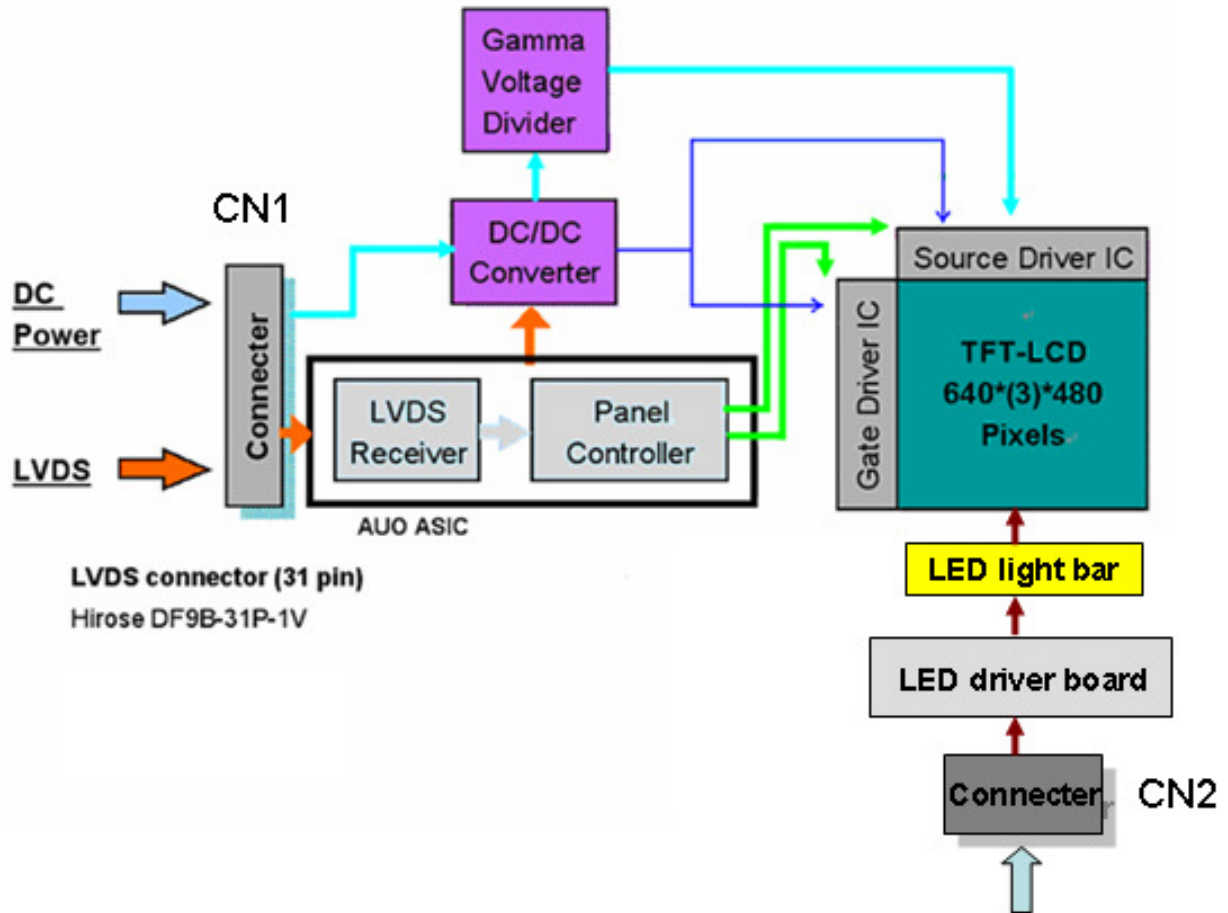
## **CN2 pin assignment (LED)**

Connector: 53261-0671 (MOLEX or compatible)

Mating Connector: 51021-0600 (MOLEX or compatible)

Pin No.	Symbol	Pin Description
1	VLED	Power supply, +12V
2	VLED	Power supply, +12V
3	GND	Ground
4	GND	Ground
5	ON/OFF	"H (+3.3V)": ON, "L (GND or Open)": OFF
6	PWM	1-100% (200 Hz)

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## **Reliability specification**

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Items	Required Condition	Remark
Temperature Humidity Bias	40°C/90%,300Hr	Note 2
High Temperature Operation	85°C,300Hr	Note 2
Low Temperature Operation	-30°C,300Hr	Note 2
High Temperature Storage	85°C,300 hours	Note 2
Low Temperature Storage	-30°C,300 hours	Note 2
Thermal Shock Test	-20°C/30 min ,60°C/30 min ,100cycles	Note 2
Hot Start Test	85°C/1 Hr (min.), power on/off per 5 minutes, repeat 5 times	Note 2
Cold Start Test	-30°C/1 Hr (min.), power on/off per 5 minutes, repeat 5 times	Note 2
Shock Test (Non-Operating)	50G,20ms,Half-sine wave, (±X, ±Y, ±Z)	Note 2
Vibration Test (Non-Operating)	1.5G, 10~200~10Hz, Sine wave, 30mins/axis, 3 direction (X, Y, Z)	Note 2
ESD	Contact Discharge: ±8KV, 150pF(330Ω) 1sec, 8 points, 25 times/point Air Discharge: ±15KV, 150pF(330Ω) 1sec, 8 points, 25 times/point	Note 1,2
Attitude Test	Operating: 14,000 ft, Ramp: 2000 ft/min, 8hrs Non-operating: 40,000 ft, Ramp: 2000 ft/min, 24hrs	Note 2

Note1: According to EN61000-4-2 ESD class B criteria, some performance degradation is allowed. TFT-LCD module is self-recoverable, no data lost and no hardware failures after test.

Note2:

- Water condensation is not allowed for each test items.
- Each test is done by new TFT-LCD module. Don't use the same TFT-LCD module repeatedly for reliability test.
- The reliability test is performed only to examine the TFT-LCD module capability.
- To inspect TFT-LCD module after reliability test, please store it at room temperature and room humidity for 24 hours at least in advance.