# **DM-62M/ DM-64T**

# **User Manual**

Ver 2.0

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# **Chapter 1 Product Information**

## **1.1 Product Specifications and Information**

ICP Electronics Inc. is an expert in Industrial Computer solutions, manufacturer and system integrator. We specialize in single board computers, chassis, workstations, panel PC, flash disk, PC/104 products, power supply, and backplane. ICP operates a worldwide network of distributors and sales representatives to offer customer the best service.

IEI LCD monitor brings information everywhere. Even under the most severe environments like steel plant or warehouse, The DM-62M and DM-64T are small size flat panel display specially designed to meet the applications for industrial environment.

- **Panel Interface:** Analog VGA signal (by **AV-9261** Analog VGA to Digital LCD Interface Board)
- Front OSD control keys to adjust the best display quality.
- Side cabling design to less the LCD monitor's total thickness

#### • Display Model (DM-64T):

PRIME VIEW 6.4" TFT V16C6448AC high brightness TFT LCD Resolution: 640X480 MAX. Colors: 18 bits Brightness: 300 cd/m<sup>2</sup> Hor. Frequency: 15-80KHz Ver. Frequency: 50-85Hz Operating Temperature: 0~55 °C Storage Temperature: -20~70 °C Viewing Angle(degree): R/L:180 U/D:30 LCD MTBF: 50,000 hrs Backlight MTBF: 20,000 hrs

#### • Display Model (DM-62M):

NAN YA VIEW 6.2" MONO LTBGCH191JK Resolution: 640X480 MAX. Colors: Black/ White Brightness: 60 cd/m<sup>2</sup> Hor. Frequency: 15-80KHz Ver. Frequency: 50-85Hz Operating Temperature: 0~50 °C Storage Temperature: -20~60 °C Viewing Angle (degree): R/L:180 U/D:30 LCD MTBF: 50,000 hrs Backlight MTBF: 20,000 hrs

#### • Option Touch Screen : Dynapro 6.4"

Type: Analog Resistive Resolution: Continuous Light transmission: Typical value 75% Surface Hardness: 4H (Test condition: ASTM D3363-92A) 8-wire touch screen Touch screen controller: RS-232 Support driver: Supports DOS, Windows 3.1, 95, 98, NT.

#### • Environmental specifications

Operating Temperature : 0 ~ 50 Relative Humidity: 10-95% @0~50 , non-condensing Vibration: 5 to 17 Hz 0.1" double-amplitude displacements, 17 to 640 Hz 1.5 G Peak to peak

- Power Consumption: +3.3V/0.4A and +12V/0.4A(DM-62M) +12V/0.9A and +5V/0.7A(DM-64T) (Without touch screen)
- Weight: 1.2Kg(DM-62M) 1.7Kg(DM-64T)

# **1.2 DM-62M Product Dimensions**

The following diagrams indicate the dimensions of DM-62M. Front Panel: 202.8mm x 138.8mm x 10.7mm (WxHxD) Cabinet: 176.4mm x 132mm x33.2mm (WxHxD)



(UNIT:mm)

## **1.3 DM-64T Product Dimensions**

The following diagrams indicate the dimensions of DM-64T. Front Panel: 202.8mm x 138.8mm x 10.7mm (WxHxD) Cabinet: 181.4mm x 132.6mm x 59.6mm (WxHxD)



(UNIT:mm)

# **Chapter 2 System Setup**

The DM-62M and DM-64T are very easy to be set up for operation. As you set up your system, please refer to the following procedures.

# **2.1 Front panel operation**

# 2.1.1 DM-64T



## **LCD ON/OFF Button**

ON/OFF power of LCD monitor

## **EXIT Button**

Exit from menu or slide bar. Also repress this key to enter menu selection.

## **UP Button**

Adjust the value up of slide bar or press to select up slide bar.

## **DOWN Button**

Adjust the value down of slide bar or press to select down slide bar.

## **MENU Button**

- 1. Press it to enter menu for function selection.
- 2. Repeats to press this button, it will sequentially open OSD window page-1, change to page-2
- 3. ON/OFF function changing on slide bar
- 4. Select slide bar and press menu button, you can see it turn into red color and then you can use Up/Down button for setting value.

## **POWER LED Indicate**

Indicating power supply ON or OFF

# 2.1.2 DM-62M

![](_page_8_Figure_8.jpeg)

## **POWER LED Indicate**

Indicate power supply ON/OFF

## **CONTRAST Button**

Adjust the contrast color with Black/ White

## **CD ON/OFF Button**

ON/OFF power of LCD monitor

# **2.2 LCD Installation**

DM-62M & DM-64T provides two features for you're choosing: one is LCD only; the other is LCD with touch screen. You can use VGA cable connects from LCD panel to your system VGA interface.

### 2.2.1 DM-62M LCD Without Touch Screen

![](_page_9_Figure_3.jpeg)

#### 2.2.2 DM-62M LCD With Touch Screen

If you want to install LCD with Touch Screen, please connect RS232 connector from LCD to your COM port from CPU card. The driver for touch screen we used the CD disk with system shipping.

![](_page_9_Figure_6.jpeg)

## 2.2.3 DM-64T Without Touch Screen

There are two ports for VGA and RS-232. If you want to install LCD without Touch Screen, just connect the VGA Card to the VGA Signal Input port. The power connection you choose the terminal block use 12V DC input.

![](_page_10_Figure_2.jpeg)

![](_page_10_Picture_3.jpeg)

### 2.2.4 DM-64T With Touch Screen

If you want to install LCD with Touch Screen, please connect RS232 connector from LCD to your COM port from CPU card. The driver for touch screen we used the CD disk with system shipping.

![](_page_11_Figure_2.jpeg)

![](_page_11_Picture_3.jpeg)

## 2.2.5 Touch Screen Controller

The optional touch screen provides RS-232 interface and the wire diagram of the controller is as the below figure shown.

![](_page_12_Picture_2.jpeg)

# 2.3 Panel Mounting

![](_page_13_Figure_1.jpeg)

Mounting hole size:

![](_page_13_Figure_3.jpeg)

# Chapter 3 OSD function Description (for DM-64T)

# **3.1 OSD structure**

LEVEL 0	LEVEL 1	VALUE
RGB Menu	Brightness	Press Select Button
	Red	-127 ~ 127
	Green	-127 ~ 127
	Blue	-127 ~ 127
	Color Temp	0 ~ 7
	Sharpness	0,1
	Main Menu	Press Select Button
Geometry Menu	Auto-Adjustment	Press Select Button
	H. Position	0 ~ 252
	V. Position	1 ~ 26
	H. Total	1004 ~ 1108
	Auto Phase	Press Select Button
	Delay	0 ~ 61
	Main Menu	Press Select Button
Contrast Menu	Auto-Balance	Press Select Button
	Contrast	Press Select Button
	Red	0~511
	Green	0 ~ 511
	Blue	0 ~ 511
	Balance	Press Select Button
	Red	0 ~ 127
	Green	0 ~ 127
	Blue	0 ~ 127
	Main Menu	Press Select Button
Language Menu	English	Press Select Button
	Spanish	Press Select Button
	Main Menu	
Auto Training	<u> </u>	ON/OFF
DOS/GFX		ON/OFF
NVRAM init		Press Select Button
Power Down		Press Select Button
Revert		Press Select Button
Save		Press Select Button

# 3.2 OSD function description

### Auto-Adjustment

This item will automatically adjust the H/V position, frequency, phase, and black level.

### • Auto Phase

This item will automatically adjust the sampling Phase.

#### • Brightness

It is used to adjust the brightness of screen. This function will adjust the offset value of ADC. Setting this value too high or too low will destroy the quality of image.

#### • Contrast

It is used to adjust the contrast of screen; this function will adjust the gain value of ADC. Adjust this value too high or too low will destroy the quality of image.

#### • DOS/GFX

It is used to chose VGA input signal that are text mode or graphic mode. (It is only selectable on resolution of 720/640x400 or 720/640x350.) 400 and 350 standard IBM mode have the same Hsync. and Vsync. value , AV-9261 MPU can not differentiate them automatically , user need to adjust them by manual to match proper VGA mode .

### • H. Position

It is used to adjust horizontal display position of image.

#### • V. Position

It is used to adjust vertical display position of image.

### • Language

It is used to select the languages using on OSD display. AV-9261 now can support 2 languages on OSD display. English is the default language.

English

Spanish

### • Revert

It is used to reload original parameters from the factory's OSD data area of the system EEPROM 24c16 device to re-initialize AV-9261 system device. When user adjust OSD data too much and cannot see better quality than before, user can select this item and MPU will reload default BIOS setting and re-initialize the system.

#### • Save

It is used to save the parameters into the user OSD adjustment data area of the system EEPROM 24c16 device and close OSD. Whenever users adjust any parameters, it is needed to execute this item to save data into EEPROM. And next time power on, the MPU will use the storied data to initialize the AV-9261 system.

### Main Menu

Every level of OSD have the item name **Main Menu**, this item let user leave current level and jump to upper level, or press the **Return** key.

## • Exit

Press the **EXIT** key to exit the OSD menu when the OSD menu is on top of the level.

# Appendix A Accessory kit list

Please check the following items before installation.

DM-62M & DM-64T User's Manual AV-9261 User's Manual (DM-64T) VGA cable (DM-64T) 6 screw parts. Option: Touch Screen Accessory Kits (ROUND CABLE D-SUB 9P /180CM)

If any of above items is missing or damaged, please contact the dealer from whom you purchased. Save the shipping materials and carton in case you would like to ship or store the product in the future.

![](_page_17_Picture_4.jpeg)