



# FLAT DISPLAY TECHNOLOGY

6.4" Chassis Monitor

Model Number: LCM0642~~xx~~



This product is RoHS compliant

**SPEC No.: SAS-0908003**

**Version: 0.0**

**Issue Date: April 16, 2010**



## 1. Introduction:

### 1.1 About the Product

The LCM0642~~xx~~ 6.4" Chassis Monitor series are rugged, high performance Industrial LCD Monitors, designed for commercial and industrial applications, such as kiosks, arcade games, ATM Machines, aviation simulators, military, medical, marine, security, industrial equipment, and instrumentation equipment. This product can provide high brightness and contrast to achieve better viewing effect.

### 1.2 Features

- 6.4 inch VGA Active Matrix Color TFT LCD Monitor
- High Contrast 400:1 Typical
- Recommend resolution:640x480(VGA)
- OSD controls: Allow on-screen adjustments of Brightness, Contrast, RGB Auto Color Balance, H-Position, V-position
- Multi system Video Input
- Signal loss backlight will be off / signal feed again backlight will be on
- Quick and easy integrations for Client solutions
- Universal AC Power input and auto detection video system.
- PMMA ( Poly Methyl Methacrylate ) protection (Hard Coating + Anti Glare) (option)
- Touch screen (option)
- Sunlight readable (option)

**FLAT DISPLAY TECHNOLOGY**

■ LCM0642~~xx~~ V0.0



## 2. Contents

Contents Index	Page
<b>1. Introduction.....</b>	<b>1</b>
1.1 About the product	1
1.2 Features	1
<b>2. Contents.....</b>	<b>2</b>
<b>3. Specifications.....</b>	<b>3</b>
<b>4. Ordering Information.....</b>	<b>4</b>
<b>5. VGA Input Format.....</b>	<b>5</b>
<b>6. Mechanical Drawing.....</b>	<b>6-13</b>
6.1 LCM064200-000R	6
6.2 LCM06424U-000R	7
6.3 LCM06424R-000R	8
6.4 LCM064200-010R	9
6.5 LCM06424U-010R	10
6.6 LCM06424R-010R	11
6.7 LCM064203-000R	12
6.8 LCM064203-010R	13
<b>7. Packing List.....</b>	<b>14</b>
<b>8. Installing the Monitor.....</b>	<b>15</b>
8.1 Power Cable Connection	15
8.2 VGA Signal Cable Connection	15
8.3 Video / S-Video Cable Connection	15
8.4 Switch On The Power	15
<b>9. OSD Control.....</b>	<b>16-19</b>
9.1 Menu Operation	16-18
9.2 Operations	19
<b>10. Trouble Shooting.....</b>	<b>20</b>

### 3. Specifications

Parameter	Specifications	Unit	Remark
Model Name	LCM0642xx		
Screen Size	6.4" (diagonal)	inch	
Display Format	640 x (R.G.B) x 480	dot	
Display Color	262,144 colors		
TFT-LCD Active Area	129.6 (H) x 97.44 (V)	mm	
Pixel Pitch	0.2025 (H) x 0.203 (V)	mm	
Contrast Ratio	400:1(Typ.)		
Brightness	350(Typ.)	Cd/m <sup>2</sup>	
Viewing Angle	60~60(H); 40~50(V)(Typ.)	deg	
Outline Dimension	157.2 (W) x 120.1 (H) x 45 (D)	mm	
	Video and S-video /		
Input/Output Interface	D-Sub 15 pin female for VGA / USB (A Type) or RS-232 (DB9 Female) for Touch Screen Driver (Option)		
Power Source	100-240V <sub>AC</sub> 50-60Hz, Universal / +12V <sub>DC</sub> @ 3A		
Power Consumption	< 4 W		
Touch Screen Controller	4 wire Resistive Driver USB/ RS232 (Option)		
Operating Temperature	-20~70 (With Touch 0~50)	°C	
Storage Temperature	-20~70	°C	
LED Life Time	30000(Typ.)	hr	

## 4. Ordering Information

Parameter	LCM064200-000R	LCM06424U-000R	LCM06424R-000R	Unit
CVBS	1	1	1	
S-Video	1	1	1	
VGA	VGA (640x480)	VGA (640x480)	VGA (640x480)	
Touch Panel Type	-	4W Resistive	4W Resistive	
Touch Screen Interface	-	USB	RS232	
PMMA	-	-	-	
Sunlight Readable	-	-	-	
Weight (Include Accessory)	0.85 (1.65)	0.86 (1.66)	0.86 (1.66)	Kg
Frame Material	Iron (Black)	Iron (Black)	Iron (Black)	

Note: Weight  $\pm 10\%$

Parameter	LCM064200-010R	LCM06424U-010R	LCM06424R-010R	Unit
CVBS	-	-	-	
S-Video	-	-	-	
VGA	VGA (640x480)	VGA (640x480)	VGA (640x480)	
Touch Panel Type	-	4W Resistive	4W Resistive	
Touch Screen Interface	-	USB	RS232	
PMMA	-	-	-	
Sunlight Readable	-	-	-	
Weight (Include Accessory)	0.84 (1.64)	0.85 (1.65)	0.85 (1.65)	Kg
Frame Material	Iron (Black)	Iron (Black)	Iron (Black)	

Note: Weight  $\pm 10\%$

Parameter	LCM064203-000R	LCM064203-010R	Unit
CVBS	1	-	
S-Video	1	-	
VGA	VGA (640x480)	VGA (640x480)	
Touch Panel Type	-	-	
Touch Screen Interface	-	-	
PMMA	⊙	⊙	
Sunlight Readable	-	-	
Weight (Include Accessory)	0.86 (1.66)	0.85 (1.65)	Kg
Frame Material	Iron (Black)	Iron (Black)	

Note: Weight  $\pm 10\%$

**FLAT DISPLAY TECHNOLOGY**

■ LCM0642xx V0.0 

## 5. VGA Input Format

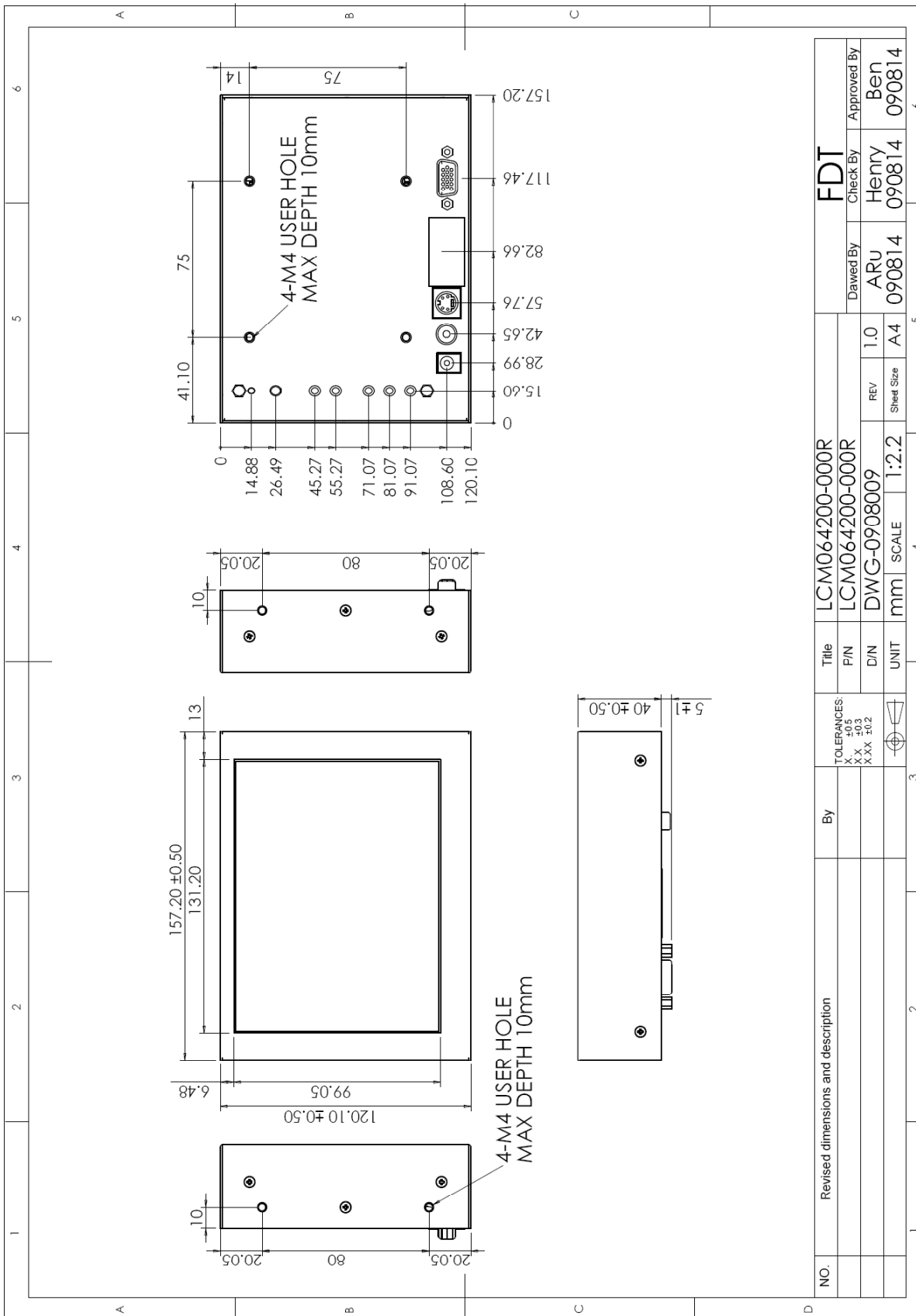
	Mode	Family	Resolution	H-Freq. (KHz)		V-Freq. (KHz)	
1	Mode 1	PC	720x350	31.47	(+)	70.1	(-)
2	Mode 2	PC	720x400	31.47	(-)	70.1	(+)
3	Mode 3	PC	640x480	31.47	(-)	59.9	(-)
4	Mode 4	VESA	640x480	37.86	(-)	72.8	(-)
5	Mode 5	VESA	640x480	37.50	(-)	75.0	(-)
6	Mode 6	VESA	800x600	35.16	(+)	56.3	(+)
7	Mode 7	VESA	800x600	37.88	(+)	60.3	(+)
8	Mode 8	VESA	800x600	48.08	(+)	72.2	(+)
9	Mode 9	VESA	800x600	46.88	(+)	75.0	(+)
10	Mode 10	VESA	1024x768	48.36	(-)	60.0	(-)
11	Mode 11	VESA	1024x768	56.48	(-)	70.1	(-)
12	Mode 12	VESA	1024x768	60.02	(+)	75.0	(+)
13	Mode 13	VESA	1280x1024	63.98	(+)	60.0	(+)

**FLAT DISPLAY TECHNOLOGY**

■ LCM0642xx V0.0 

# 6. Mechanical Drawing

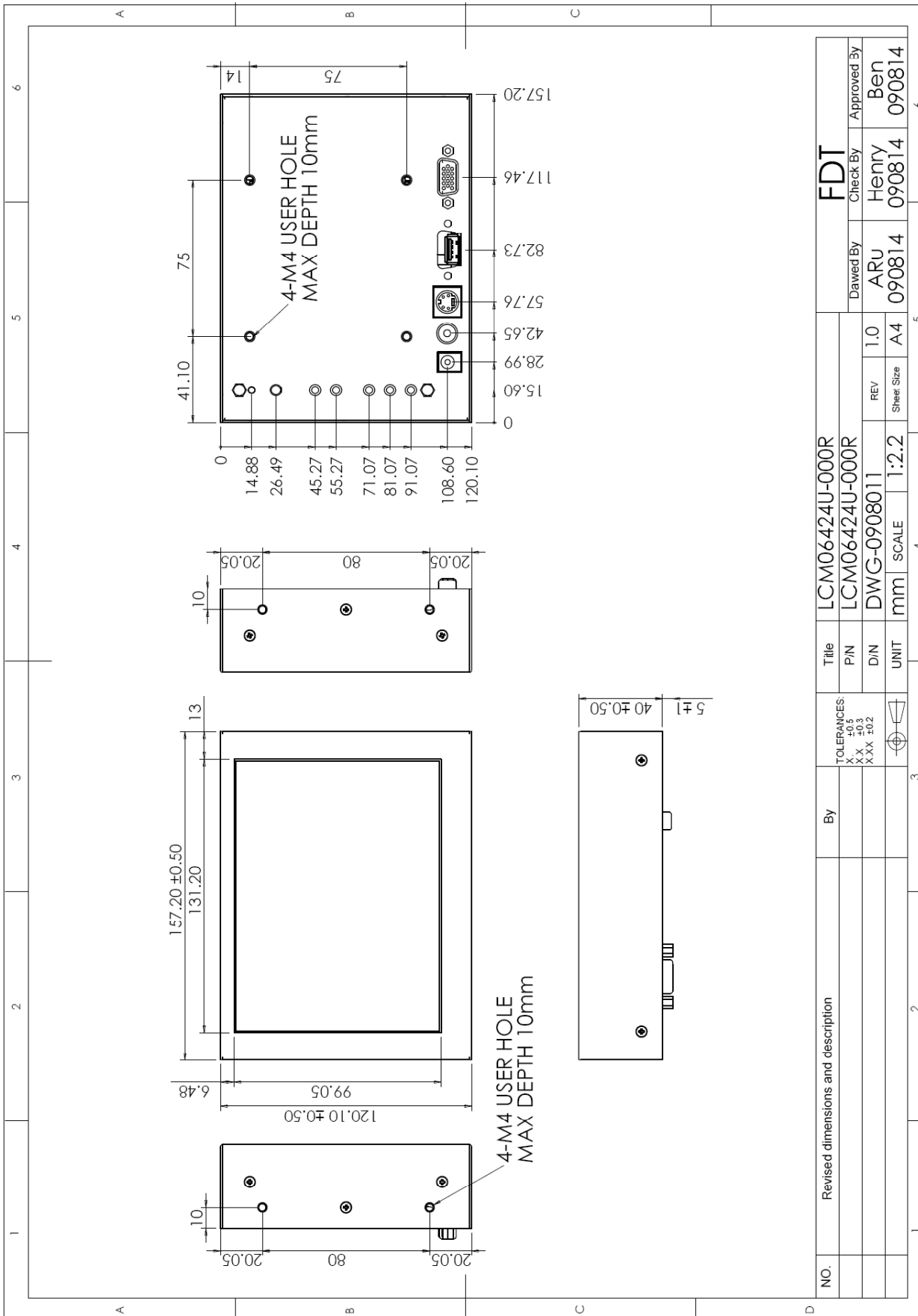
## 6.1 LCM064200-000R



**FLAT DISPLAY TECHNOLOGY**

■ LCM0642xx V0.0 

6.2 LCM06424U-000R

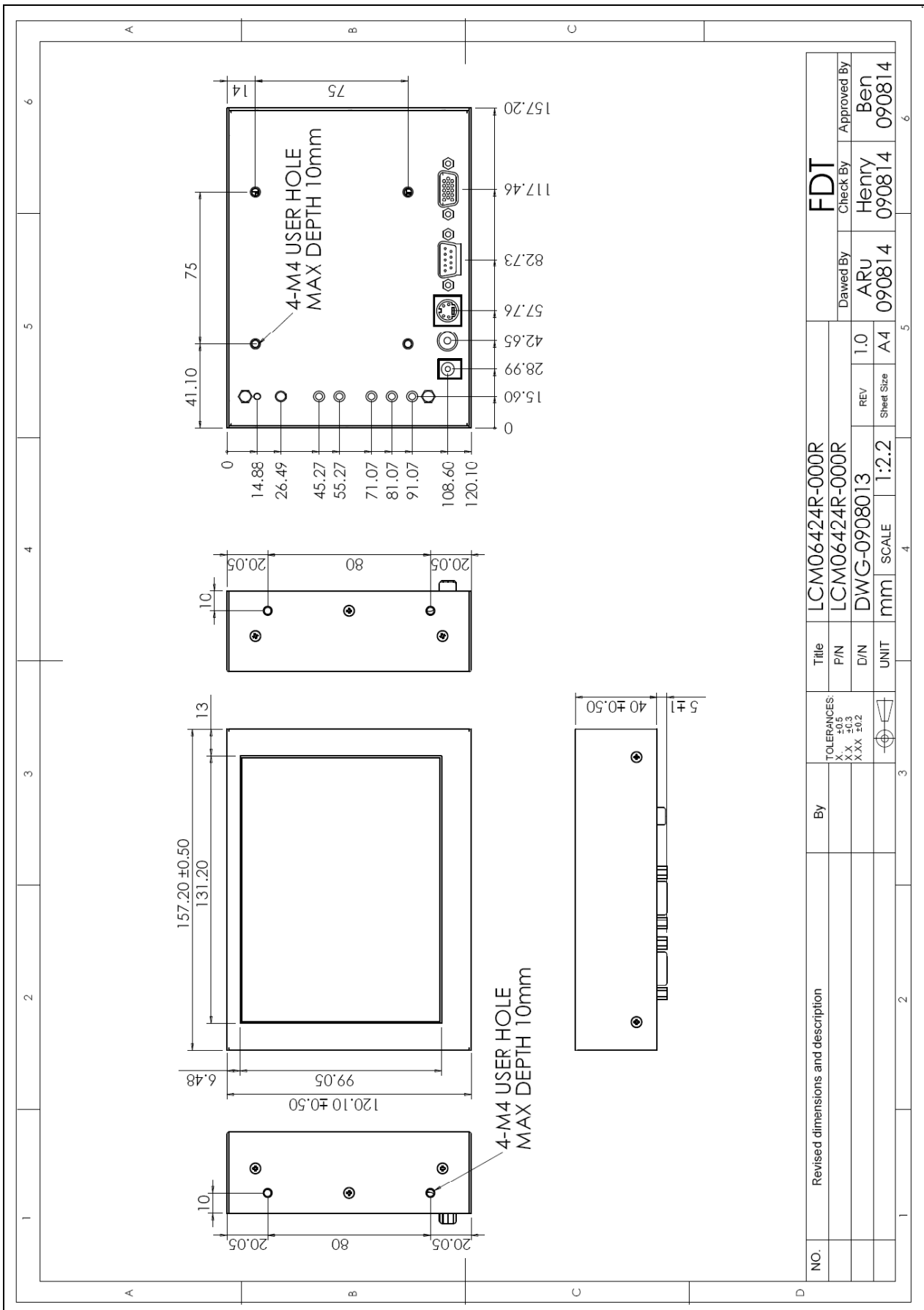


NO.	Revised dimensions and description	By	TOLERANCES	Title	LCM06424U-000R		FDT	
			X ±0.5 X.X ±0.3 X.XX ±0.2	PIN	LCM06424U-000R		Drawn By	Check By
				DIN	DWG-0908011		ARU	Henry
				UNIT	mm		090814	090814
				SCALE	1:2.2		REV	Ben
							Sheet Size	090814
							A4	090814
								090814
								090814
								090814

FLAT DISPLAY TECHNOLOGY

■ LCM0642xx V0.0 

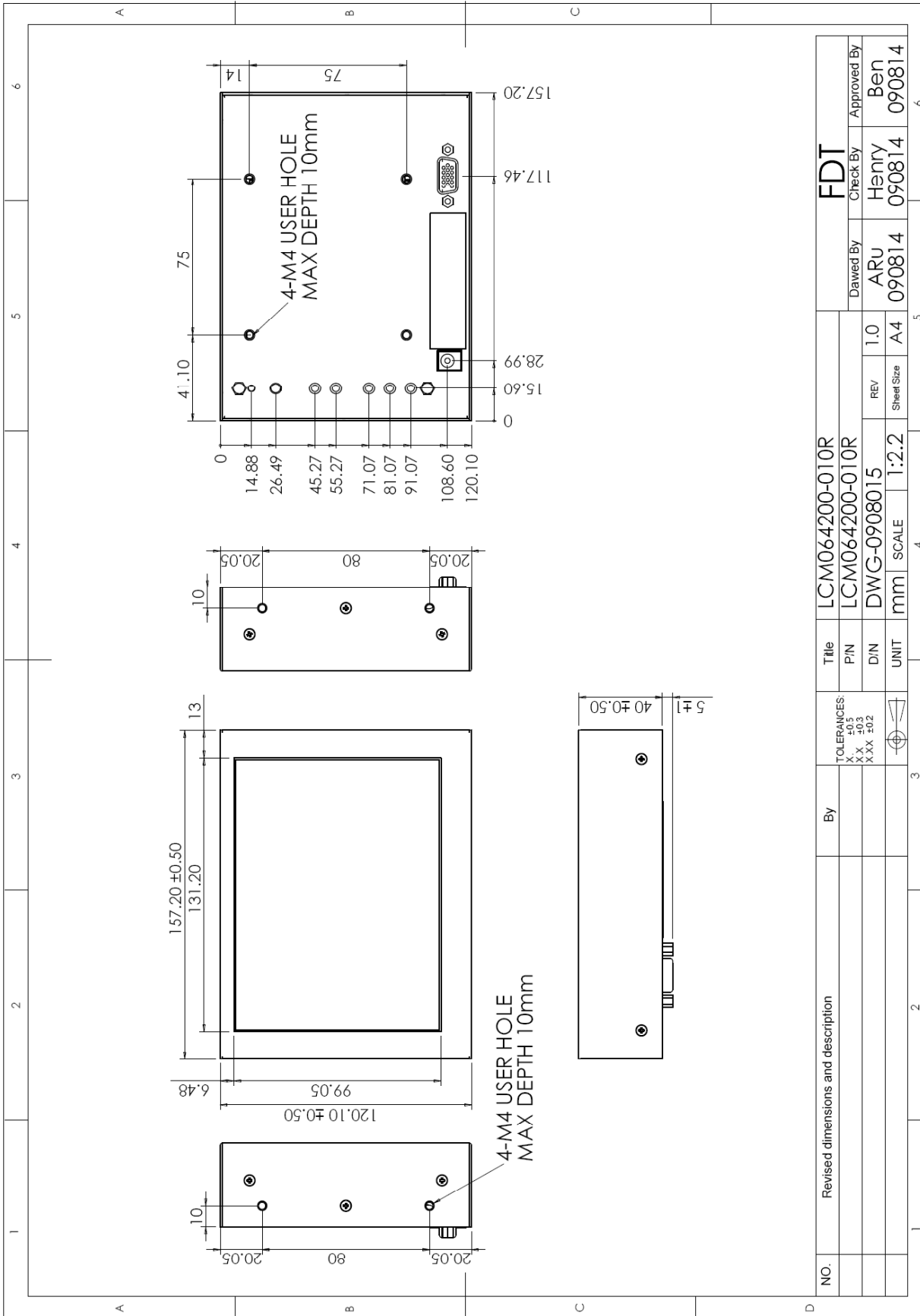
6.3 LCM06424R-000R



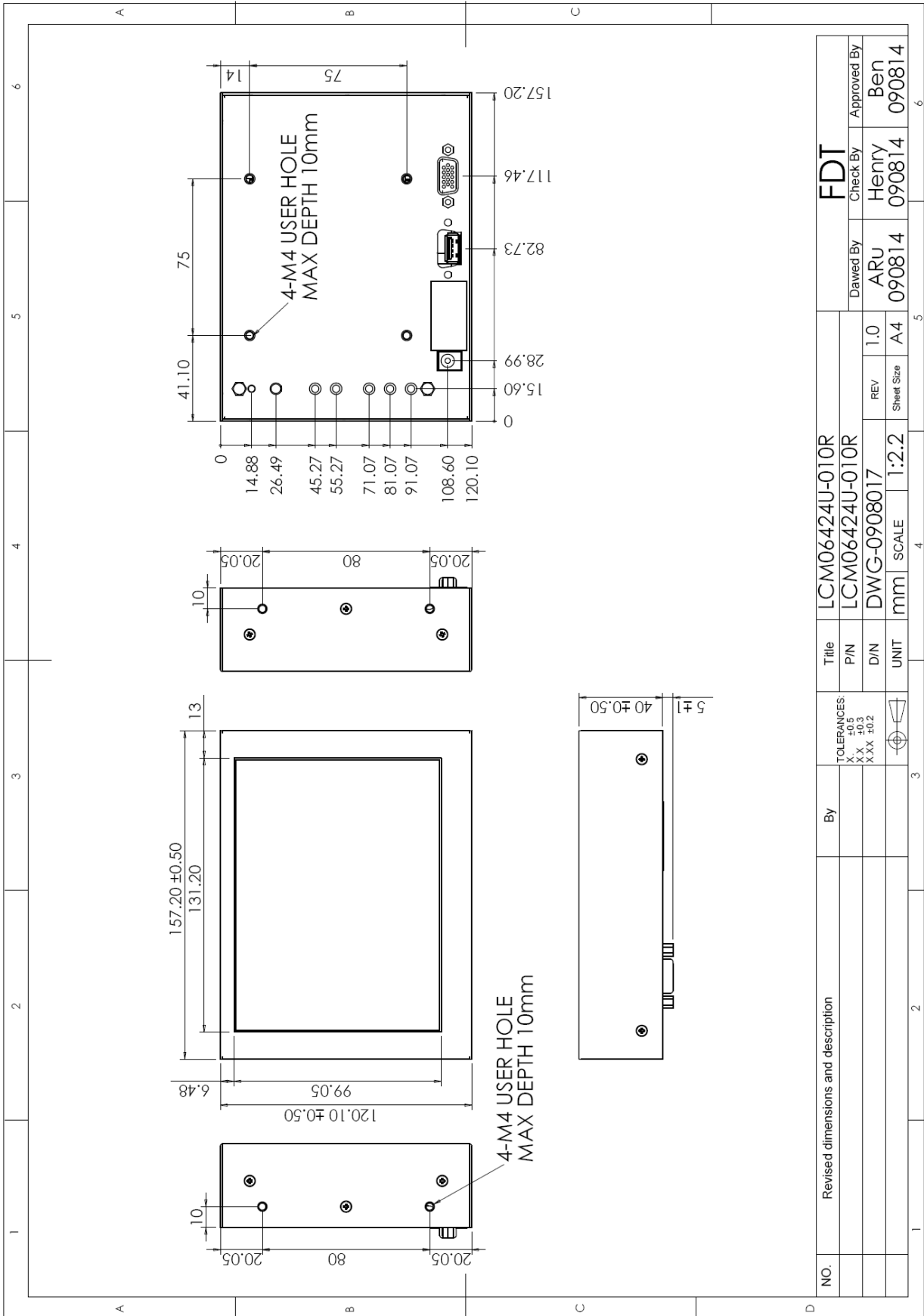
NO.	Revised dimensions and description	By	TOLERANCES: XX ± 0.3 XXX ± 0.3 XXX ± 0.2	Title	LCM06424R-000R	FDT	
			40 ± 0.50	PIN	LCM06424R-000R	Dawed By	Check By
			5 ± 1	D/N	DWG-0908013	ARU	Henry
				UNIT	mm	090814	090814
				SCALE	1:2.2	REV	Sheet Size
					A4	1.0	A4
						090814	090814
						Approved By	Ben
							090814



6.4 LCM064200-010R

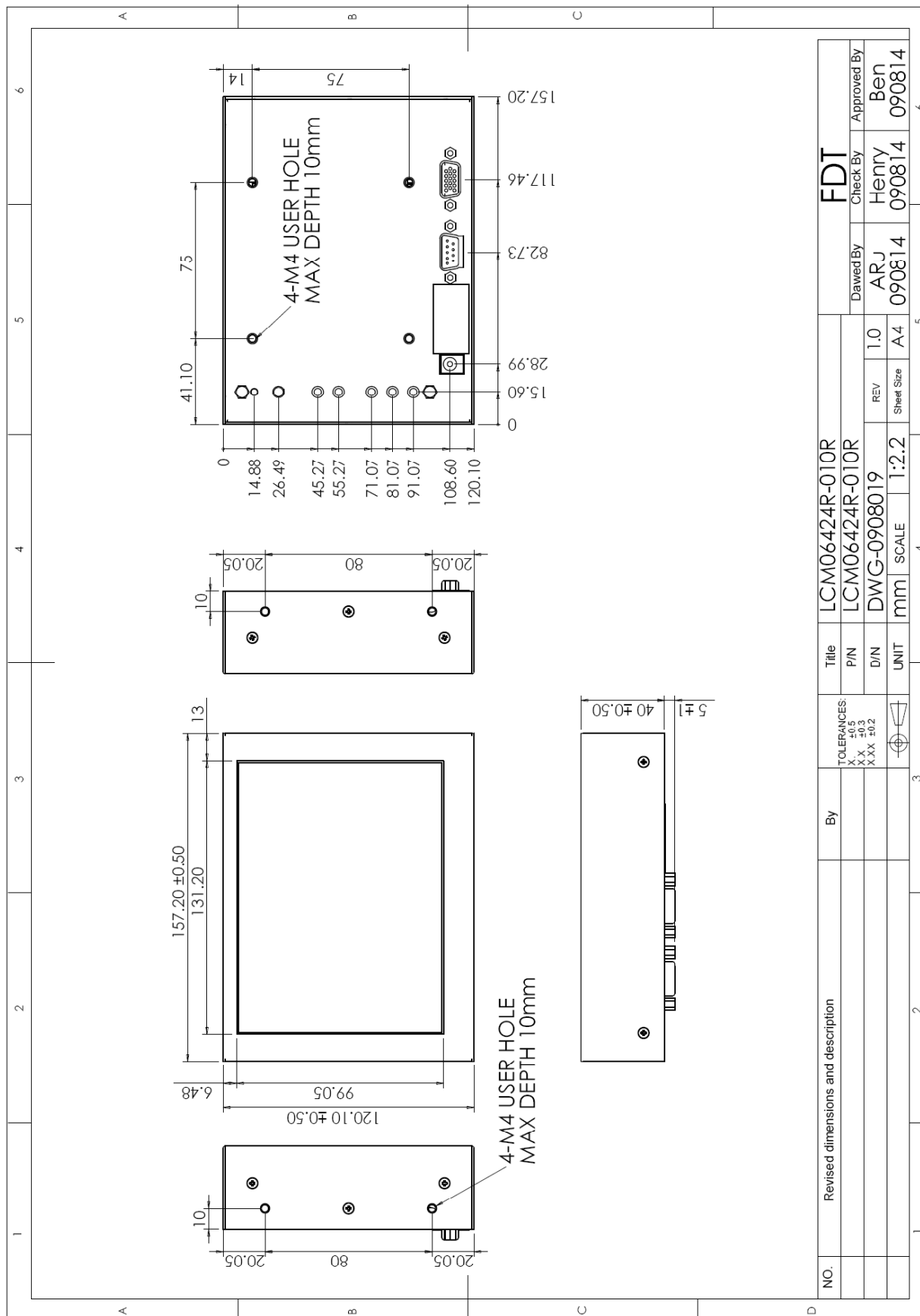


**6.5 LCM06424U-010R**



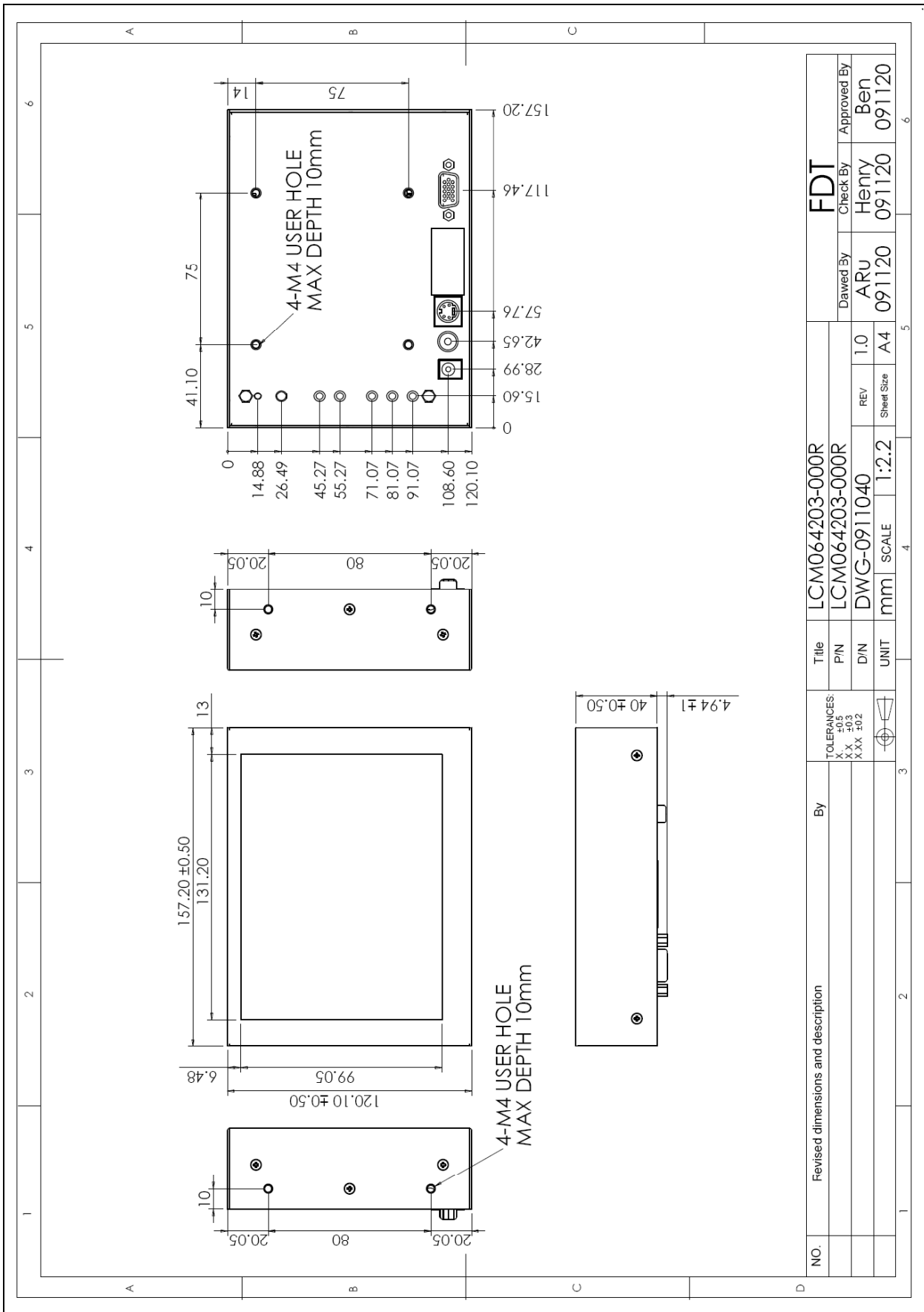
NO.	Revised dimensions and description	By	TOLEANCES X ±0.5 XX ±0.3 XXX ±0.2	Title	LCM06424U-010R	FDT		
			⌀	P/N	LCM06424U-010R	Drawing By	Check By	Approved By
				D/N	DWG-0908017	ARU	Henry	Ben
				UNIT	mm	REV	090814	090814
				SCALE	1:2.2	Sheet Size	A4	090814

**6.6 LCM06424R-010R**

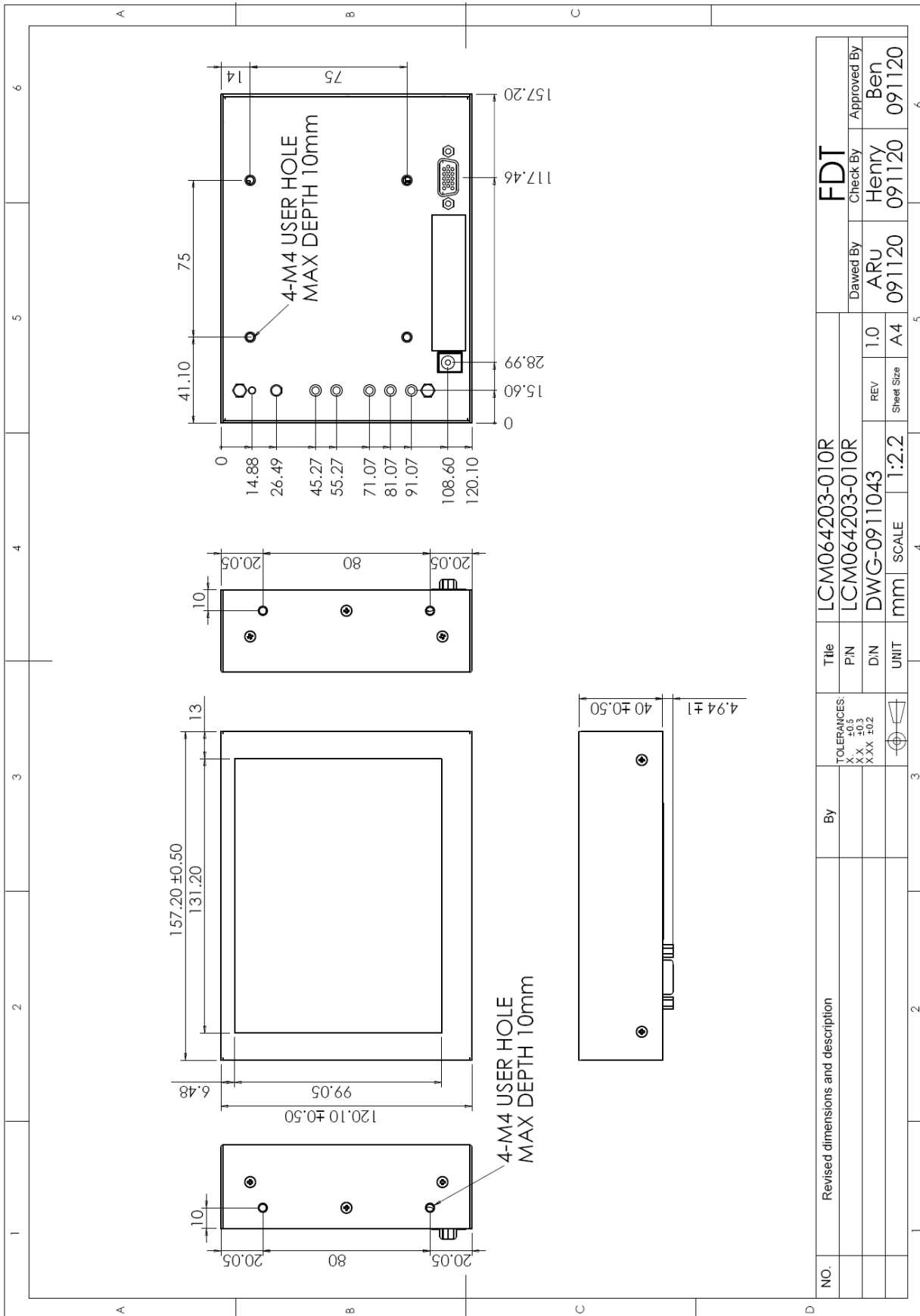


NO.	Revised dimensions and description	By	TOLERANCES: XX ±0.5 XX ±0.3 XX ±0.2	UNIT	SCALE	REV	Sheet Size	Approved By
			mm	1:2.2	A4	1.0	090814	Ben
								Henry
								ARJ
								090814
								090814
								090814
								090814
								090814
								090814

6.7 LCM064203-000R



6.8 LCM064203-010R



## 7. Packing List

Before you begin installing the Chassis Monitor, please make sure that the following materials have been shipped:



A



B



C



D



E



F



G



H



I

- A. AC to DC Adapter (100-240VAC 50-60Hz to +12VDC @ 3A)
- B. Power Cord (Plug Type B for USA)
- C. Video Cable (LCM0642xx-000R Only)
- D. S-Video Cable (LCM0642xx-000R Only)
- E. VGA Cable
- F. USB Cable (LCM06424U Only)
- G. RS-232 Cable (LCM06424R Only)
- H. Touch Screen Driver CD Disk (LCM06424U & LCM06424R Only) / User Manual
- I. M4x8 Screw x 4 pcs

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

## 8. Installing the Monitor

### 8.1 Power cable connection:

Connect the power cord to the AC outlet, and connect the power to the monitor through the AC/DC adapter.

### 8.2 VGA signal cable connection:

Plug one end of the 15-pin signal cable to the VGA connector at the rear of the PC system and the other end to the Chassis monitor.

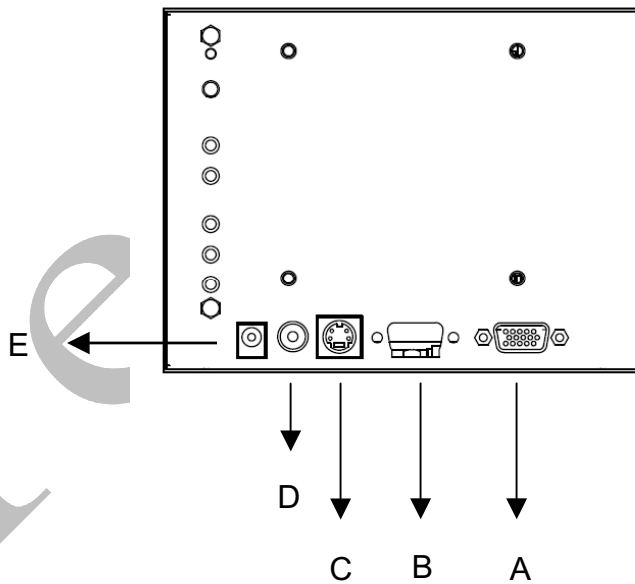
Secure the connectors with the screws on the cable connector at both ends.

### 8.3 Video / S-Video Cable connection:

If required, connect Video / S-Video Cable from the Chassis Monitor to the DVD or CCD Camera.

### 8.4 Switch on the power:

Switch on the power switch on the rear cover of the Chassis Monitor.



A. VGA D-sub 15 (Female)

B. Touch USB or RS232 Interface

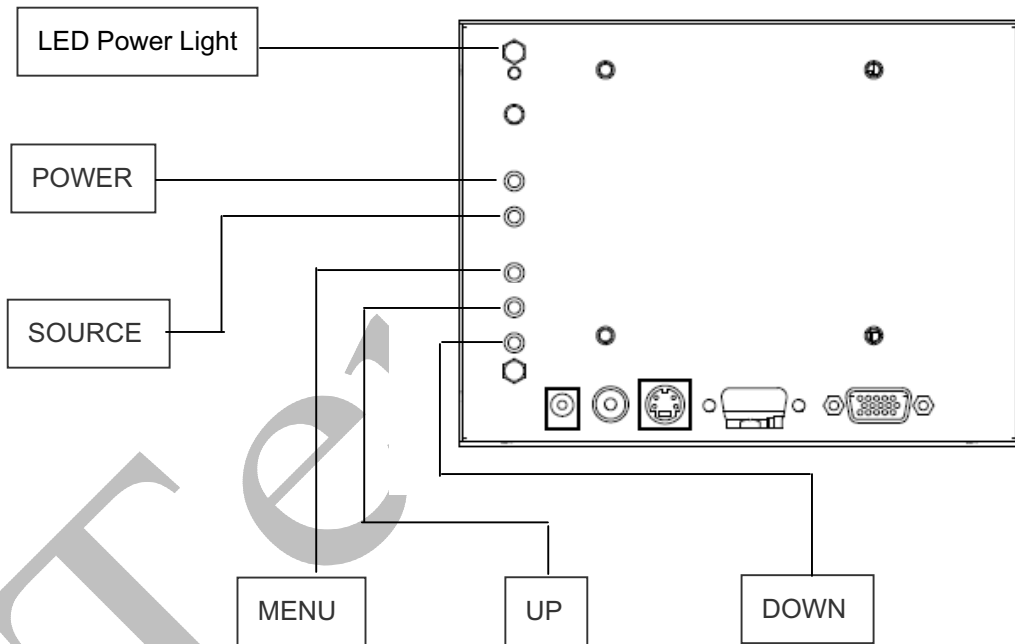
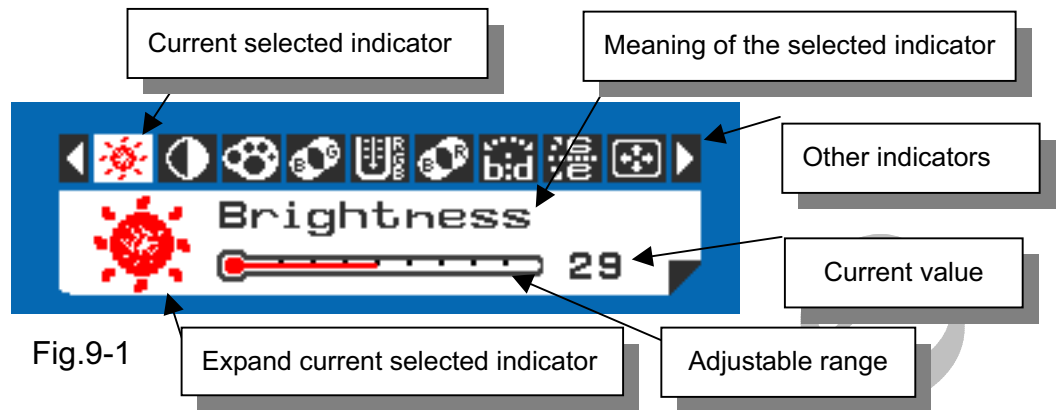
C. S-Video (Y/C Video) In

D. Video (CVBS) In

E. DC-In (+12V<sub>DC</sub> The DC jack core is positive)

## 9. Key Function by OSD

### 9.1 Menu Operation




















#### Operations of key board :

1. To navigate the menu, press [MENU]. (Fig.9-1)
2. The indicator lighting up in white color is the selected adjustment item.
3. To Next Item of the menu, press [MENU] again.
4. The operations below are only available when "Menu" is started.
5. Press [UP] / [DOWN] to adjust the value of the selected item.



## Overview of the menu :

Firmware Version must be  $\geq$  VER 0.26

Indicator	Meaning	Adjustable range	For	Remark
	Brightness	0 ~ 64	AV / S-Video / VGA	Adjust-Bar
	Contrast	0 ~ 64	AV / S-Video / VGA	Adjust-Bar
	Color	0 ~ 64	AV / S-Video	Adjust-Bar
	Tint	0 ~ 32	AV / S-Video	Adjust-Bar
	Sharpness	0 ~ 16	AV / S-Video	Adjust-Bar
	Dimmer	0 ~ 9	AV / S-Video / VGA	
	Color Tone	Normal / Warm / Cool	AV / S-Video / VGA	
	Mirror	OFF / ON	AV / S-Video / VGA	
	Flip	OFF / ON	AV / S-Video / VGA	
	H-Position	-25 ~ +25	AV / S-Video / VGA	Balance-Bar
	V-Position	-10 ~ +10	AV / S-Video / VGA	Balance-Bar
	Auto		VGA	
	Scan	Over Scan / Under Scan	AV / S-Video	
	Information		AV / S-Video / VGA	Fig.9-2
	Setup		AV / S-Video / VGA	Fig.9-3
	Factory Set		AV / S-Video / VGA	
	Exit		AV / S-Video / VGA	

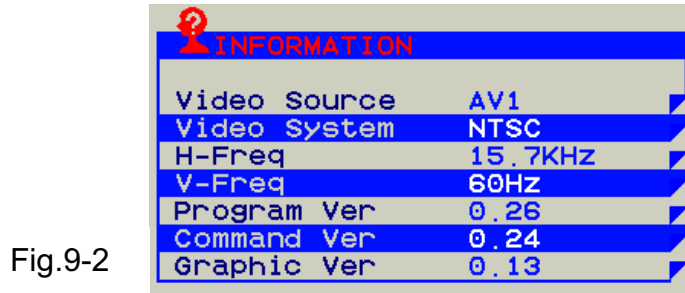


Fig.9-2

Setup Menu :



Fig.9-3

Indicator	Meaning	Adjustable range	Function	Remark
	Show Status	ON / OFF	Show signal status.	ON: Show OFF: Hidden
	Blue Screen	ON / OFF	If loss signal will put on the blue or black screen.	ON: Blue OFF: Black
	Auto Power On	ON / OFF	Power input module will be auto turn on.	ON: Auto OFF: Manual
	Auto Saving	OFF / 3s / 5s / 15s / 30s	If signal lost over setting times will be power off.	ON: Auto OFF: Normal
	Detect Source	ON / OFF	Auto detection which source is existence and change.	ON: Auto OFF: Normal
	Return			

Note : VGA only type don't have Detect Source function.

**9.2 Operations**

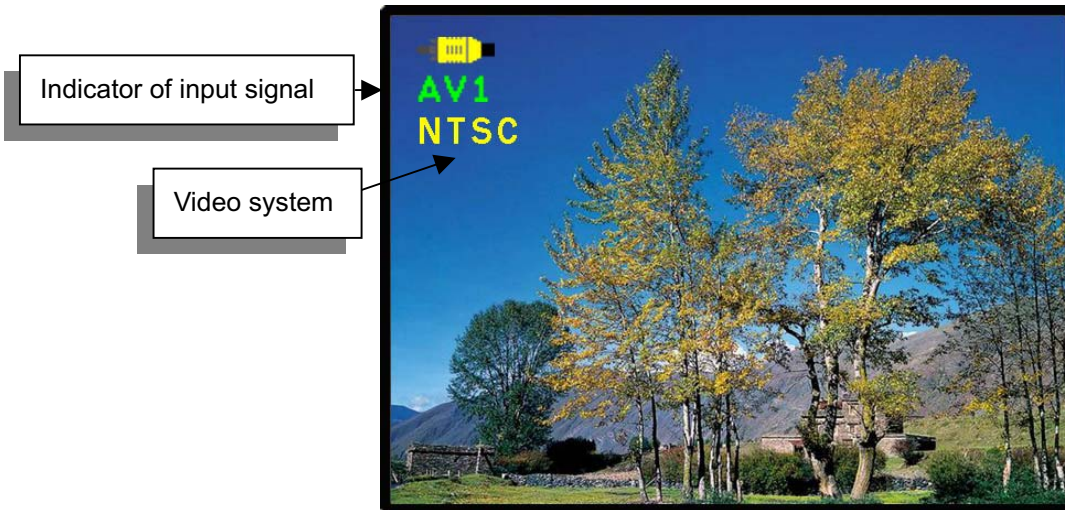





Fig.9-4

[Power] : Monitor power on / off

[Source] : Input signal switch

**Overview of input signals :**

Indicator	Input signal	Interface	Video system
	AV1	Composite	NTSC / PAL / SECAM
	S-Video1	Y/C	NTSC / PAL / SECAM
	VGA	Analog RGB	640x480_60 / 800x600_60 / 1024x768_60 / 1280x1024_60

## 10. Trouble Shooting

If experiencing trouble with the monitor, or it fails to operate correctly, please refer to the following instructions before calling for repairs.

Condition	Check Point
1. The picture does not appear	<ul style="list-style-type: none"> <li>● Check to see that all the I/O and power cables is firmly seated in the socket.</li> <li>● Check the Power LED is Lighting When the monitor was turned ON.</li> <li>● Check if the brightness control is at the appropriate position, not at the minimum.</li> </ul>
2. The screen is not synchronized	<ul style="list-style-type: none"> <li>● Check if the I/O signal cable is firmly seated in the socket.</li> <li>● Check if the output level matches the input level.</li> <li>● Make sure the signal timings of the computer system are within the specification of the monitor.</li> </ul>
3. The position of the screen is not in the center	<ul style="list-style-type: none"> <li>● Adjust the H-position, and V-position, or perform the auto adjustment Or Factory Set.</li> </ul>
4. The screen is too bright (too dark).	<ul style="list-style-type: none"> <li>● Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).</li> </ul>
5. The Screen is shaking or waving	<ul style="list-style-type: none"> <li>● Press the Auto adjustment control to adjust. Moving all objects which emit a magnetic field such as motor or transformer, away from the monitor. Check if the specific voltage is applied.</li> <li>● Check if the signal timing of the computer system is within the specification of monitor.</li> </ul>

If you are unable to correct the fault by using this chart, stop using your monitor and contact us.