USER'S MANUAL

AOD/ATS 070 (7") metal case monitor

Standard type,
also available as:

Black
panelmount

RVS
panelmount

Hinges

A1Touch Solution BV

Hogeweg 21
NL-6367 BA Voerendaal
The Netherlands

☎ : +31-(0)45 574 81 90
🖹 : +31-(0)45 574 81 91

✉ : info@A1TouchSolution.nl
🌐 : www.A1TouchSolution.nl

Contents:

1. Monitor User's Manual

1.0 Connection To the Monitor

Touch Interface
Option: USB or Serial

VGA

DVI – A/D

Power (DC 12V)
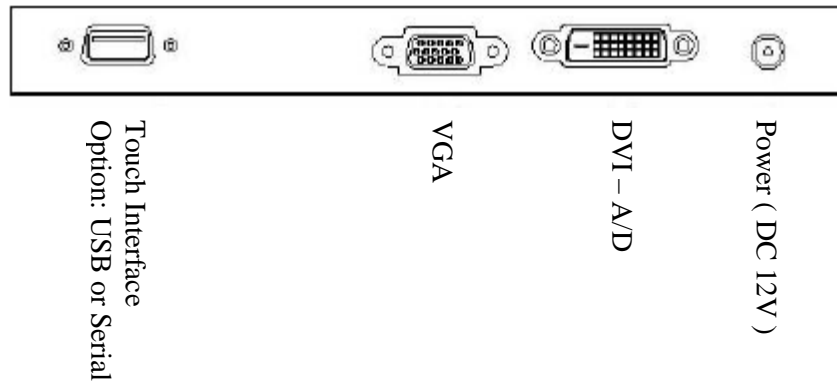
1.1 Installation

- Connect the signal(VGA) cable to the VGA port of computer. Tighten the two thumbscrews by turning clockwise.
- You can adjust the connection for your PC environment.
- Plug the DC cord of the AC adapter to the power connector and the plug the end of AC adapter to and electrical outlet socket(110V/220V)
- Connect DC cord of adapter (12V DC) to the monitor..

1.2 Features

- AOD/ATS 070 is a 7" VWGA LCD monitor and support up to 60Hz.
- You can adjust brightness, contrast, horizontal & vertical positions by OSD
- menus and use auto adjust function for instant adjustment.
- High-qualified LCD Controller inside
- Compact space saving design and power saving mode
- 100% compatible with Windows PC environment without the installation of
- driver CD or software program.

1.3 Plug and Play Function

AOD/ATS 070 can be installed and connected automatically to any computer systems without driver CD or software programs. Monitor will recognize the optimized value of video mode by DDC(Display Data Channel) method that makes the graphic card of computer to communicate with the monitor.
Unit supports VESA DDC 1/2B.

1.4 Safety Precaution

We strongly recommend that you carefully read this User's Manual before operating your LCD monitor. FOLLOW INSTRUCTIONS in this manual.
Please read and comprehend all using directives before use this machine.
- **Power**
  Use the type of power indicated on the marking label.
- **Adapter**
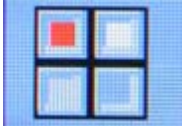 Only use an adapter designed of the LCD monitor.

- **Plug**
  Do not remove any of the prongs of the monitor's three-pronged power plug.
  Disconnect the power plug from the AC outlet if you will not use it for an indefinite period of time.
- **Power and extension cord**
- Use the proper power cord with ground conductor
  Do not overload wall outlets or power cords. Ensure that the total of all units plugged
  into the wall outlet does not exceed 7 amperes.
  Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on
  the cord.
- **Care and maintenance**
  Slots and openings in the cabinet are provided for ventilation. Do not block or cover these openings.
  Do not push objects of any kind into cabinet slots or openings. The screen surface is easily
  scratched. Do not use paper towels to clean the display. Avoid touching it with your fingers, pens, or
  pencils.
- Turn off the AC adapter and the monitor over long periods when not in use.

1.5 **OSD (On-Screen-Menu)**
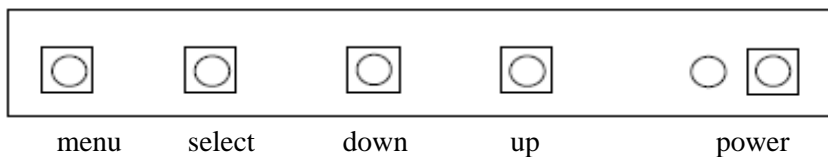
Button	Function	Status
POWER	Power ON or OFF	ON/OFF
LED	Indicate working status	Green: On Red: Stand-by Orange: No signal
UP	Launch OSD Menu or add value	Move to OSD Menu
DOWN	Launch OSD Menu or add value	Move to OSD Menu
SELECT	Select OSD Menu	
MENU	On /Off OSD Menu	

1.6 **OSD Menu**

OSD Menu			Description	Remarks
Picture	Brightness		Adjust the brightness of the screen	
	Contrast		Adjust the contrast of the screen	
	H.Position		Adjust the horizontal position of the screen's image	Only usable on analog mode
	V.Position		Adjust the vertical position of the screen's image	
	Phase		Adjust the focus of the screen's image	
	Clock		Adjust the horizontal size of the screen's image	
	Auto adjust		Automatically adjust the horizontal position, vertical position, horizontal size, and phase window's	
Color	Color temp	User Reddish Bluish	Control the temperature of the color	
	Red		Control the intensity of the color of screen's image (usable when color temperature is USER mode.)	Only usable on analog mode
	Green			
	Blue			
	Auto color		Adjust the color balance of the screen	
OSD	Language	English French German Spanish Italian Korean Japanese	Select one of the seven language	Usable in all Mode.
	OSD H. Posi.		Select OSD MENU horizontal position	
	OSD V. Posi.		Select OSD MENU vertical position	
	OSD Timer		OSD MENU disappear from over the screen after setting time	
	Transparency		Adjust the transparency of the OSD menu	
Misc.	Language	English French German Spanish Korean	Select one of the five language	Usable in all Mode.
	Recall	Initialize the current mode & setting value		
	Input select	Analog	Analog signal (RGB)	
		Digital	DVI digital signal	
	Audio		Audio ON/Off select	
	Volume		Adjust volume level	

1.7 **Specifications**

AOD070W VGA + DVI 7 inch wide metal case monitor	
Black pouwdered cover.	
Model:	7 inch WVGA TFT LCD Monitor
Type:	7" Color Active Matrix TFT LCD
Resolution (max):	800 x 480 (WVGA)
Color:	262,144 (6bit)
Pixel:	0.1905 x 0.1905 mm
Brightness:	400 cd/m2
Contrast ratio:	500:1
Viewing angle:	80°/80° & 60°/80° (R/L & U/L)
Respons time	30 msec
Active area:	152.4 (H) x 91.44 (V) mm
VGA input	VGA + DVI
Plug and play:	Yes DDC1 /DDC2B
Power:	12 Volts. included adapter
Power consumption:	13 watt max.
Power consumption stand by:	3 watt max.
Temperature opration mode:	0 °C - 50 °C
Humidity operation mode:	10% ~ 85% R.H.
Size	(wxhxd) 193x145x37 mm (Type A); optie =180x135x35mm (Type B)
Weight	0,6 Kg
Mounting:	VESA 75mm
Users Mode:	OSD Key Menu / Select / Power / Down / Up
Compatibility:	VESA / IBM / MAC

1.8 **Contents of the Retail Package**

Monitor
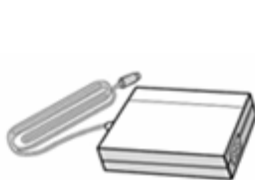
AC/DC Adapter   Power cord   DVI Cable   Audio Cable (option)

Touch Driver (option)   Composite Cable (option)   S-video Cable (option)

1.9 **Troubleshooting**

TO REDUCE THE RISK OF ELECTRIC SHOK, DO NOT REMOVE COVER.
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONELLE.

- The monitor does not respond after you turn on the system.
- Make sure that the monitor is turned on.
- Turn off the power and check the monitor's power cord, AC adapter,
- and signal cable for proper connection.
- Appear the " No Input the Signal"
- Check the connecting of the audio cable between the monitor and the computer.
- Appear the " Input Not the Supported"
- Input signal are insuperable, reset the video mode.
- The appearance is not at the screen center.
- Use "AUTO ADJUST", refer to the Controls section.
- The characters on the screen are too dim or too bright
- Choose fit color temperature, use "AUTO COLOUR ADJUST or manually adjust
- "RGB ADJUSTMENT, refer to the Control section.

1.10 Drawing

TYPE A
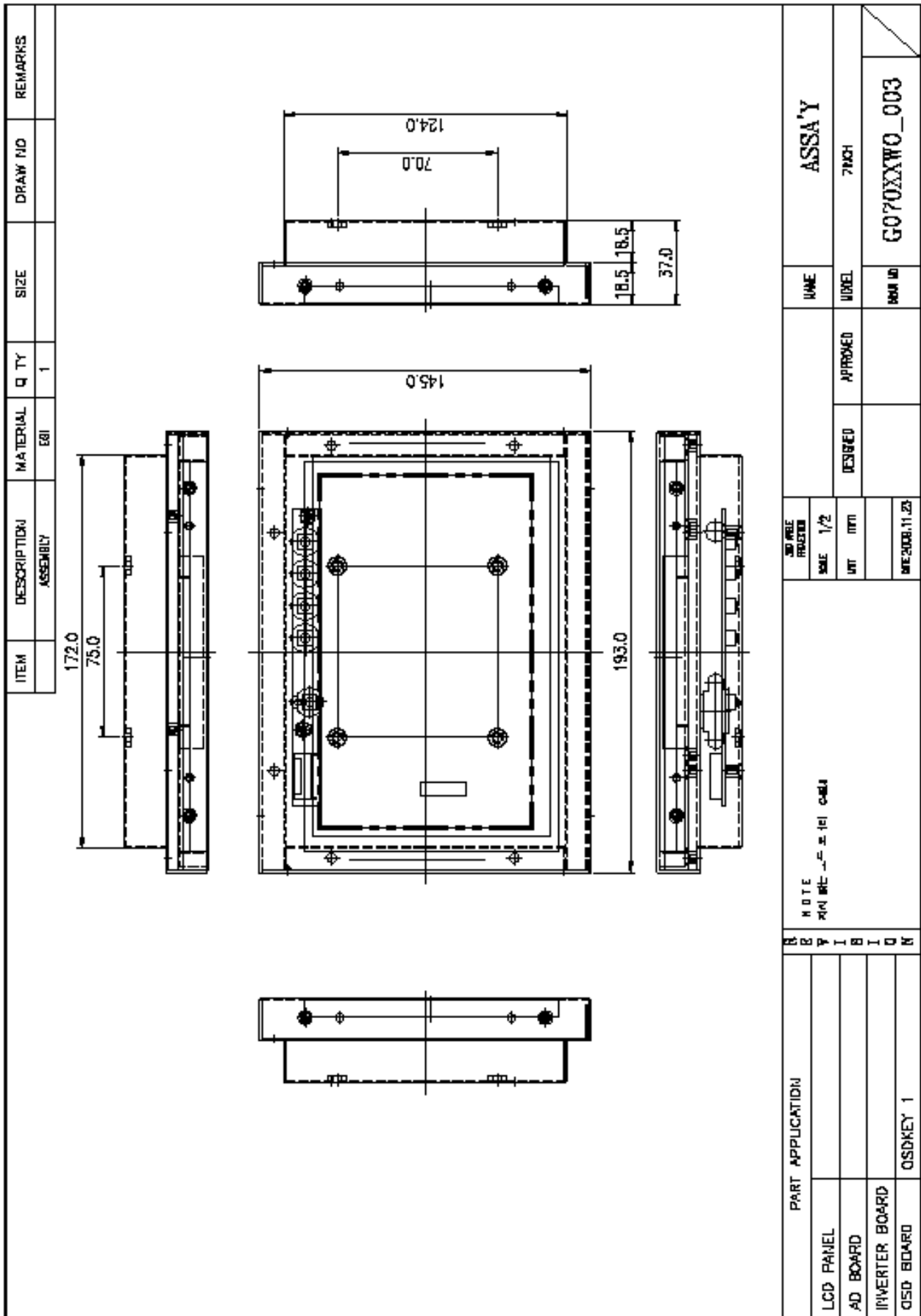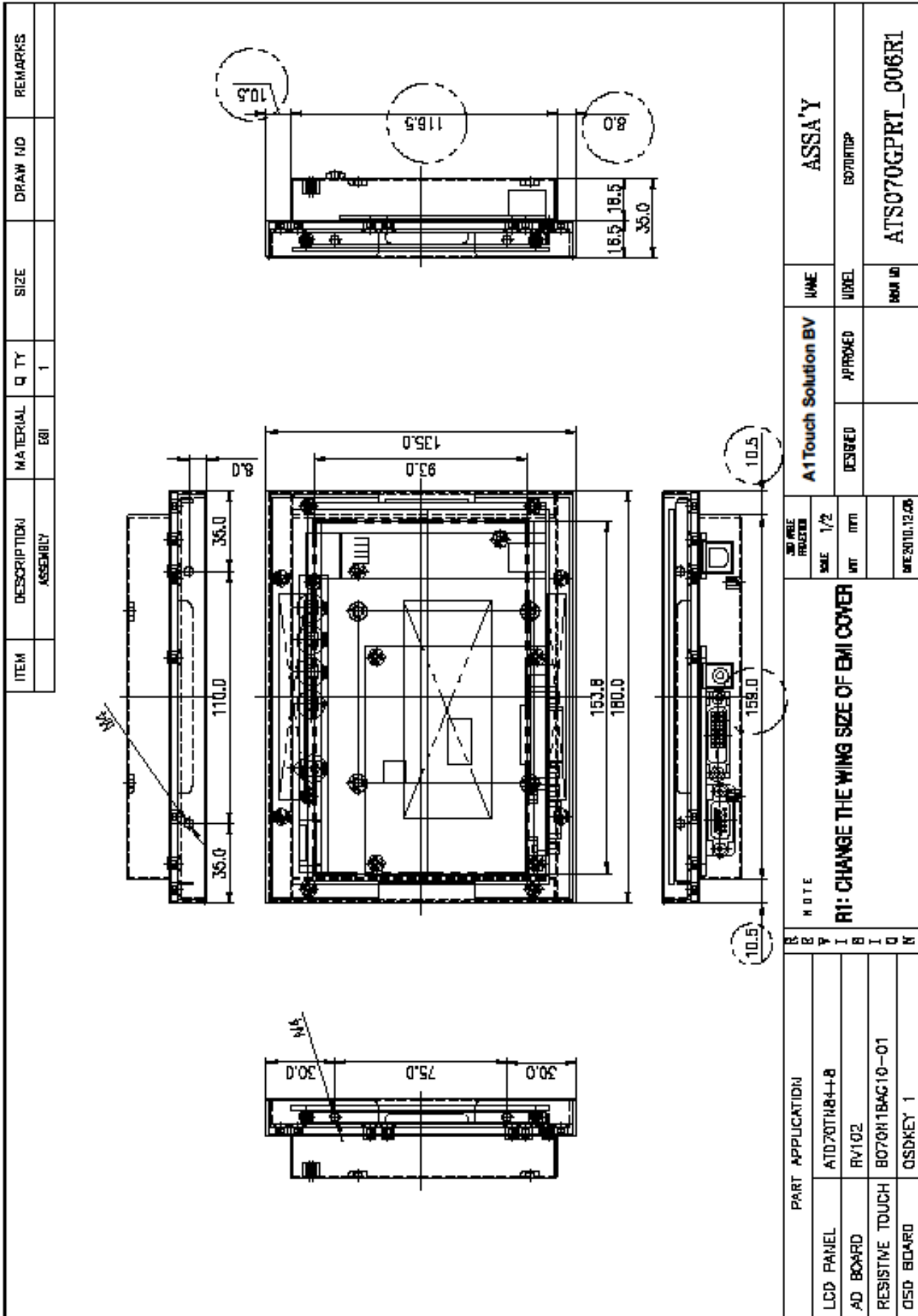
2. Touch Options

2.0 Touch-options related to monitor size

	4Wire	5Wire	SAW			CAP		PROJ. CAP	IR	Optical Touch
			3mm	6mm	protected	3mm	6mm			
070W	S	O	S	X	X	X	X	S	X	X

O	Available		X	Not available		S	On demand

2.1 Option: 5-Wire-touchscreen

5 wire-touchscreen	non glare is standard, glare is option
Chemical resistance	Acetone, ammonia-based glass cleaners, hexane, isopropyl alcohol, methylene chloride, mineral spirits, turpentine, methyl ethyl ketone
Vibration	Withstand 0.01 inches amplitude, at a fraquency of 5 to 455 Hz, for a period of 15 minutes in each of the three axes
Contact bounce	less then 10ms
Electrostatic discharge protection	withstands 20 discharges of 15kV (pr EN 61000-4-2, 1995)
Activation force	less then 40gr
Input modus	Finger, glove hand,pen or stilus
Surface hardness	Meets pencil hardness 3H (per ASTM D3363)
Resolution	4096x4096 Based on controller resolution
Position accuracy (linearity)	less then 1%
Operating life 1	>3.000.000 (250gr, 2 activations/sec)
Operating life 2	>200.000 (250gr, 4.5mm/sec)
Light transmission	75~85% non glare (standaard) en 90% glare (optie) (per ASTM D1003)

2.2
5 wire-controller	USB is standard, RS232 with PS/2 of RS232 internal powered is option
Power requirement	+5V DC(±10%)
Power consumption	Operating 80mA ~ Max.current 140mA
Interface standard	USB 'plug-and-play' compatible is standard
option	RS232 with PS/2 connector is option
option	RS232 internal powered controller. is option
Electrostatic protection	prEN 61000-4-2, 1995: Meets level 4 (15kV lucht / 8kV contact discharges)
Touch resolution	4096x4096
Conversion time	~10ms per coordinate set
Support operating system	Microsoft Windows: 95/98/ME/NT4.0/2000/XP/Vista/7 Mac OS 9.X, 10.X, Mac Intel Linux: Red Hat 9.0, Mandrake 10.0, SuSE 9.2, Fedora Corel &II &III, Yellow Dog 3.x, Kernel 2.4.X, Kernel 2.6.X: 32 en 64 bits

2.2 Option: Projected-capacitive-touchscreen

Projected capacitive sensor	Heat tempered glas, glare is standard, non glare is option
Glass	Tempered glass with ceramic black borders, C-grinded, r=2mm
Chemical resistance	Acetone, ammonia-based glass cleaners, hexane, isopropyl alcohol, methylene chloride, mineral spirits, turpentine, methyl ethyl ketone, gasoline, kerosene, vinegar.
Contact bounce	Around 5 ms for finger contact
Break resistance	Meets UL-1950 steel ball drop test

Activation force	No activation force needed
Input modus	Finger, glove hand (rubber, cloth, leather)
Surface hardness	Mohs' hardness rating: 7
Resolution	2048x2048
Position accuracy (linearity)	less then 1%
Operating life	∞
Light transmission	90% ±2%
Projected capacitive controller	USB is standard, RS232 (option)
Power consumption controller	50mA typical,50mV peak to peak maximum ripple and noise
Interface	USB: 1,1 Full Speed ('plug-and-play' compatible is standard)
Operating Temperature	-25 to 80°C
Relative Humidity	95% at 60°C, RH Non-condensing
Resolution	2048x2048
Report rate	USB: Single touch Max. 200 points/sec Dual touch Max.points/sec each
Response time	Max. 20ms
Support operating system (eGAlax_eMPIA-controller)	Microsoft Windows: ME/2000,9x/XP/Vista/7 CE 2.12/3.0/.net/5.0/6.0 ; Embedded ; XP Tablet PC edition Mac OS9, Mac OS X,(IBM, Intel CPU) Linux: Red Hat (7.3/8.0/9.0), Mandrake (9.1/9.1/10) SuSE (9.2,9.3,10,10.1) Fedora (Core I ,II ,III,IV,V,VI) Yellow (Dog 3.x), Debian (Kernel 2.4.X/2.6.X), Ubuntu (5.1,6.06), Mandriva (2005,2006) Android 2.0 – Google , Moblin V2 - Intel QNX: RTOS v6.3
Chemical resistance	Acetone, ammonia-based glass cleaners, isopropyl alcohol, turpentine, methy alcohol, methyl ethyl ketone, toluene, gasoline, kerosine, vinegar
Touch activation force	no minimum touch activation is required
Input modus	everything bigger than 6,5 (W) x 6,5 (H)
Life performance	∞
Supply voltage	+5V DC(±5%)
Supply current	~ 150mA
Interface standard	RS232 baud rate: 9600, 8 data bits, 1 stop bit, no parity, full duplex
Electrostatic discharge protection	prEN 61000-4-2, 1995: meets Level 4 (15kV air / 8kV contact discharges)
Touchpoint density	Based on controller resolution, up to 4096x4096
Light transmission	Over 90% (per ASTM1003)
Conversion time	less than20 ms
Support operating system	Microsoft Windows: NT4.0/XP/Vista/7/2000/ME/98/95 Linux: Red Hat 9.0, Mandrake 9.1

Interface

USB (standard)

RS232 with PS/2 (Only resistive touch)

3. Touch Options

3.0 **Touchkit**

Features for *Touchkit* software	
Calibration	Fast full oriental 4 points position
Compensation	Accuracy 25 points linearity compensation.
Draw Test	Position and linearity verification
Extend Feature	1. Support monitor / display rotation 2. Support multiple monitor / display 3. Support QVGA and Half-VGA function 4. Support edge compensation
Controller Setting	1. Support multiple controllers 2. Dynamical add / remove controllers 3. Change Controller interface without reboot.
Language	Support 10 languages for Windows
Mouse Emulator	1. Right / Left button emulation 2. Normal / Click on touch / Click on release mode 3. Auto right button
Sound Notification	1. Sound Option (No Sound / Touch Down / Lift Up) 2. Frequency adjustment 3. Duration adjustment
Double Click	1. Configurable double click speed 2. Configurable double click area
OS support	1. Windows 95 / 98 / ME / NT4 / 2000 / XP / Vista Windows XP Tablet PC Edition 2. Windows CE 2.12, 3.0, 5.0, 6.0 .NET 3. Linux (X Window Version: 3, 4 Red Hat 6.0 ~ 9.0 Mandrake 5.0 ~ 9.1 , Kernel 2.4.X Kernel 2.6.X, 32 en 64 bits) 4. iMac. OSX, OS9.X, OS10.X, Intel 5. MS-DOS: Support display resolution: 320x200, 640x200, 640x350, 640x480, 800x600, 1024x768 and 1280x1024
COM port support	1. Support COM 1 ~ COM 256 for Windows and Linux 2. Support COM 1 ~ COM 8 for DOS

3.1 **ELO**

By adding a jumper to the A-Touch controller, the whole system becomes ELO-compatible.
The touch registration will be realised by ELO-drivers.

There are several reasons for doing this:
• You are already using application software with "build-in" ELO drivers.
• You are using clients with pre-installed ELO-drivers.
• You replace an original ELO-touch screen with an A1-touchscreen.
Then benefit is; you don't have to install new software in the above
mentioned situation.

Remark:
If you want to change your driver software from touchkit to ELO, or the other way around, you have to de-install the old software completely before installing the new software.
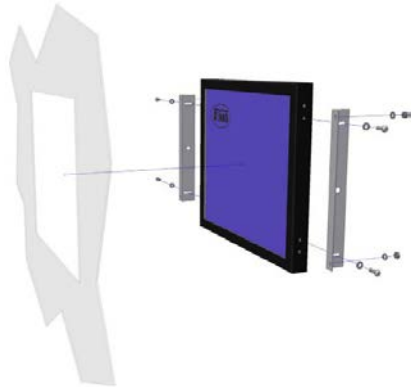
4. Mounting

4.0 overview
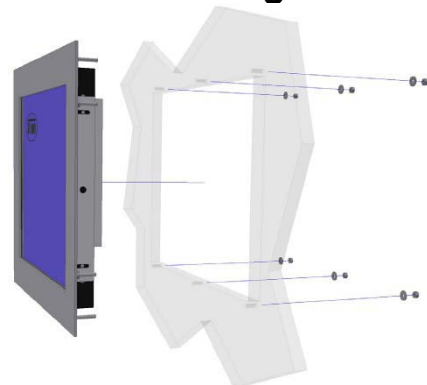
4.1 Plain

Metal case monitor
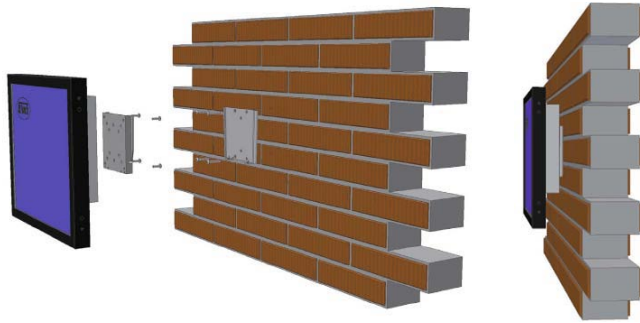
4.2 Brackets

Metal case monitor + 2x brackets

4.3 Panel-mounting

Metal case monitor + bezel + 2x brackets

4.4 Wall mounting

Metal case monitor + New Star TV Wallmount (FPMA-W25)