AUTIC SYSTEM MARINE PC

Installation and User Manual

Disclaimer

Only qualified personnel can take care of installing and repairing these products. Autic System AS does not take responsibility for products where the seal is broken by the customer. Claims for errors or omissions with the item must be carried out without undue delay. Autic System AS liability is limited to repair or replacement of the products. Autic System AS is not responsible for replacement costs or other consequential damages.

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Revisions

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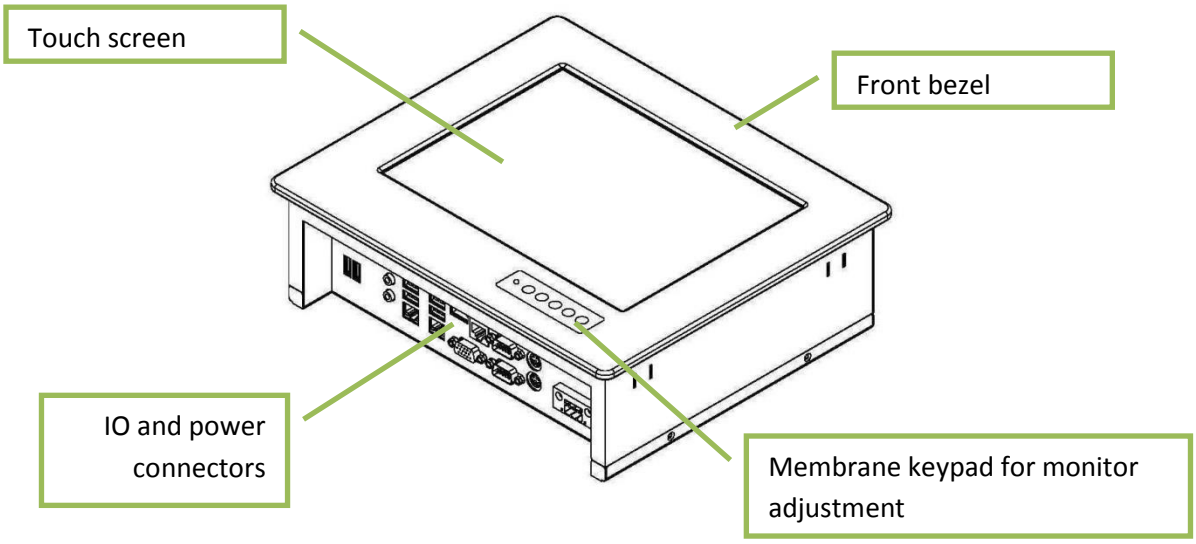
1 About the Autic Marine PC Product Series

Autic System provides a series of Panel PCs, Box/Mini PC and Monitors approved for use in industrial and marine applications. All products got a construction to operate without any moving parts as ventilation fan and hard disk drive. We do give flexibility to select Panel PC with all functions included or Box/Mini PC with external monitor(s). All parts are based on the same base of hardware. Products are approved for Marine use by DNV 2,4 and IEC 60945.

1. Touch-screen Panel PCs with screen sizes from 8,4" to 24"
2. Box PC with identical Motherboard as the Panel PC series.
3. Touch-screen Monitor's with screen sizes from 8,4" to 24"

This manual covers the Panel PC, Box/Mini PC and Monitors.

2 Autic Panel PC



APPC series is a series Panel PCs designed for Autic System for optimal solution of HMI functionality to marine and industrial markets. Sturdy design based on MIL-specified components. Powerful CPU based on Intel Atom N2700 processor provides maximum performance based on known platform. Intel SGS545 PowerVR graphics processor for quick screen refresh. Multitouch allows screen operation with both hands. The PC provides practical functionality such as easy access to the hard drive and connectors for redundant power supplies.

2.1 Range of Panel PC products

DNV 2.4 and IEC60945 approved.

	Screen size	Screen resolution	Display brigthness	Colors	RS-232	RS-232 RS-485 RS-422	USB (2.0)	PCI	Power consumption
Display format 4:3									
APPC-8427T-AL-FL	8”	800x600	500 nit LED	262K	3	1	6	0	30 W
APPC-10427T-AL-FL	10.4 ”	800x600	300 nit CCFL	262K	5	1	6	0	40 W
APPC-10427T-AL-FL-XGA	10.4 ”	1024x768	300 nit LED	262K	5	1	6	0	40 W
APPC-1227T-AL-FL	12”	800x600	300 nit CCFL	16.7M	5	1	6	0	40 W
APPC-1227T-AL-FL-XGA	12”	1024x768	420 nit LED	16.7M	5	1	6	0	40 W
APPC-1527PT-AL-FL	15”	1024x768	300 nit CCFL	16.7M	5	1	6	1	50 W
APPC-1727PT-AL-FL	17”	1280x1024	300 nit CCFL	16.7M	5	1	6	1	60 W
APPC-1927PT-AL-FL	19”	1280x1024	300 nit CCFL	16,7M	5	1	6	1	70 W
Display format 16:9									
APPC-11627T-AL-FL	11,6”	1366x768	200 nit LED	262K	2	1	4	0	40 W
APPC-15627PT-AL-FL	15,6”	1920x1080	300 nit LED	262K	5	1	6	1	50 W
APPC-2227PT-AL-FL	22”	1920x1080	300 nit CCFL	16.7M	5	1	6	1	75 W
APPC-2427PT-AL-FL	24”	1920x1080	300 nit LED	16.7M	5	1	6	1	80 W

2.1.1 Product Identification

Product description: APPC-2427PT-AL-FL

T	Touch screen
PT	Multi touch screen
AL	Aluminum front Bezel
FL	Fan-less
MK	Membrane keypad for monitor adjustment. Located at the front bezel.
SR	Sun readable. LED backlight (800 – 1000 nit)

Serial number: 1927T-AMK-10N-DC-SSD60G-1304022-C

T	Touch Screen
AMK	Aluminum bezel with membrane keypad
10N	Display brightness. 10N=10 nits, 8N=8 nits, 5N= 5 nits
DC	DC power supply built-in
SSD60G	60GB SSD, 250GB HDD etc.
1304022	13 = 2013; 04 = April, 022 = 22th unit of this serial number
C	Mechanical version C

2.2 Specifications Panel PC

All models are fitted as standard with 4 GB of RAM, 2 LAN ports, mini PCIe slot, resistive touch screen, 128 GB SSD drive. Power supplied by 9 to 32 VDC. Adapter 100 – 240 VAC to 12 VDC included in the delivery. HDMI / VGA output for additional monitor.

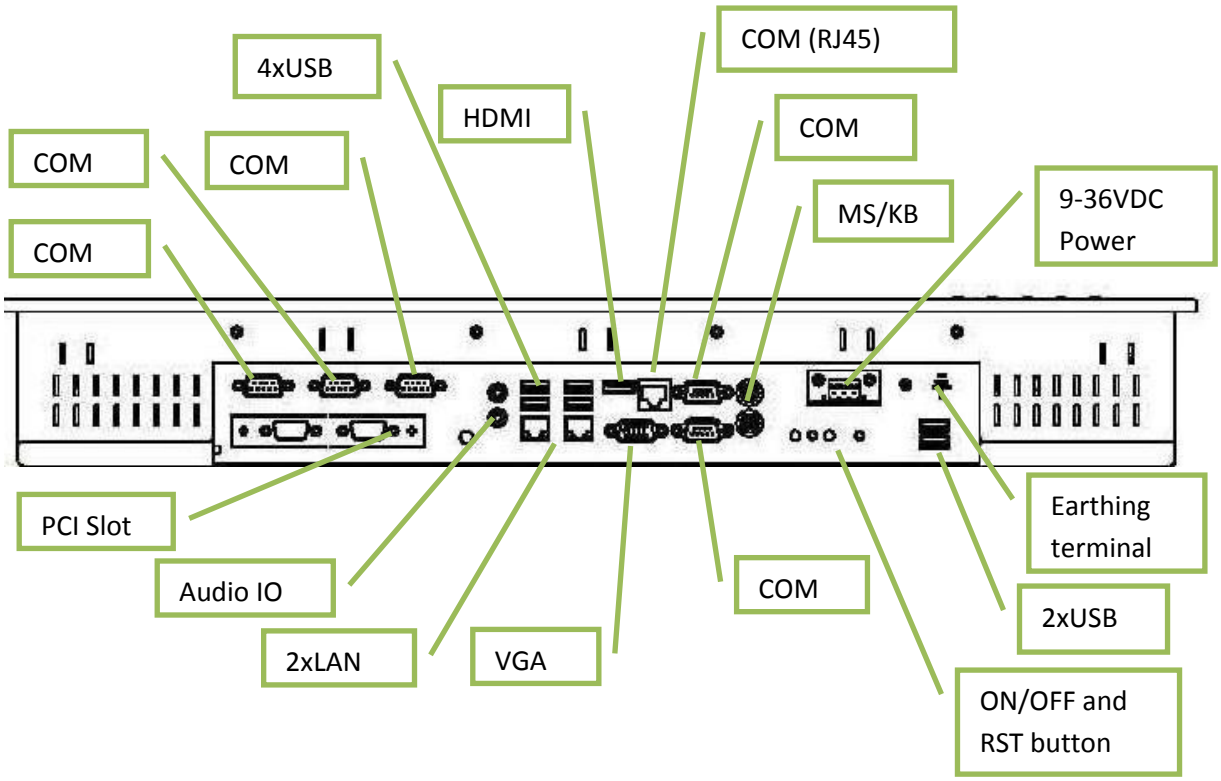
Models from 15" and up are standardized delivered with Multitouch screen (PT).

PCI slot and number of serial ports depend on the size of the Panel PC.

Optional equipment
Membrane keypad in front for backlight dimming and display adjustment
2 LAN port (Total 4 ports).
Sun readable monitor
2 Opto Isolates PCI-slot based serial ports RS-232C or RS-422/485. (DNV approved)
Technical Data

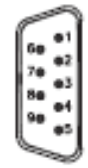
Front panel protection	IP65
Rear panel protection	IP20
Power supply	+24 VDC (9-32 VDC).
Power adapter (Model according to consumption)	100 – 240 VAC to 12 VDC
Power consumption	30 to 80 W
Ambient temperature. Vertical mounting	0° to +60°C
Ambient temperature. Horizontal mounting	0° to +50°C
Storage temperature	-20°to+80°C
Relative humidity	5-85% non-condensing
Approvals	CE/ FCC/Rohs
Marine certification	DNV 2.4 and IEC60945

2.3 Connectors



2.3.1 COM1, 2, 4, 5 D-sub 9-Pin RS-232

RS-232



Pin no	Signal	Signal Name	Signal direction
1	DCD	Data Carrier Detect	Input
2	RD	Receive Data	Input
3	TD	Transmit Data	Output
4	DTR	Data Terminal Ready	Output
5	SG	Signal Ground	–
6	DSR	Data Set Ready	Input
7	RTS	Request To Send	Output
8	CTS	Clear To Send	Input
9	RI	Ring Indicator	Input

2.3.2 COM6 D-sub 9-Pin RS-232/485/422

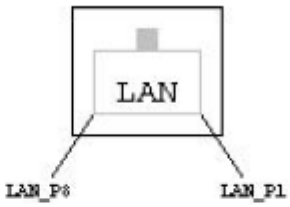
Pin Description
1 GND
2
3 TX/CHA-
4 RX/CHB-
5
6 +5V output
7 CTS/CHB+
8 RTS/CHA+
9

2.3.3 COM3 RJ45 RS-232

RJ-45 COM Port C

(8-pin COM Port C)

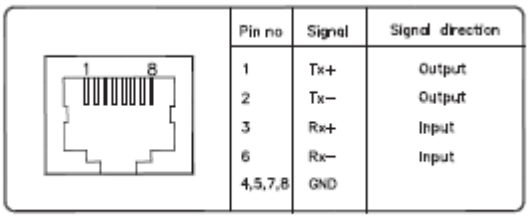
(see p.10 No. 11)



1: DCD#
2: RXD
3: TXD
4: DTR#
5: GND
6: DSR#
7: RTS#
8: CTS#

2.3.4 Ethernet

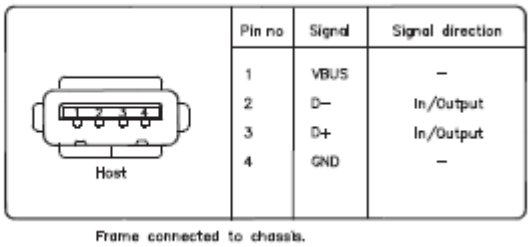
Ethernet



Pin no	Signal	Signal direction
1	Tx+	Output
2	Tx–	Output
3	Rx+	Input
6	Rx–	Input
4,5,7,8	GND	

2.3.5 USB

USB



Pin no	Signal	Signal direction
1	VBUS	–
2	D–	In/Output
3	D+	In/Output
4	GND	–

Frame connected to chassis.

The Panel PC has galvanic isolation against the 24 VDC feed. There is no galvanic isolation between the communication ports for RS-232, RS-422/485 and USB.

The Ethernet connection has galvanic isolation.

2.4 Installing the Panel PC

2.4.1 Package contents

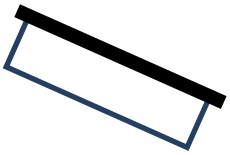
The Panel PC is shipped in adapted dual layer cardboard packaging with polystyrene protection.
Standard delivery:

- The Panel PC
- Power cable with connector
- Power adapter 100 – 240 VAC to 12 VDC
- Sealing for panel mounting
- Quik mounting kit
- CD with drivers for Ethernet and Touch screen
- When specified, a CD with computer operating system is included

2.5 Mechanical Installation

Panel PC should be installed in vertical position to prevent overheating.

IMPORTANT!
For installation at an angle, the PC must be equipped with a ventilation fan.



For product dimensions and cutout dimensions, please refer to Chapter 5. Make the cutout according cutout dimension for the selected model.

2.5.1 Compass Safety Distance

The monitor is certified according to DNV 2.4 and IEC60945 for bridge installation. Minimum distance to steering and emergency compass is 1 (one) meter. Distance to standard compass is 1.45 meter.

2.5.2 Installation Methods

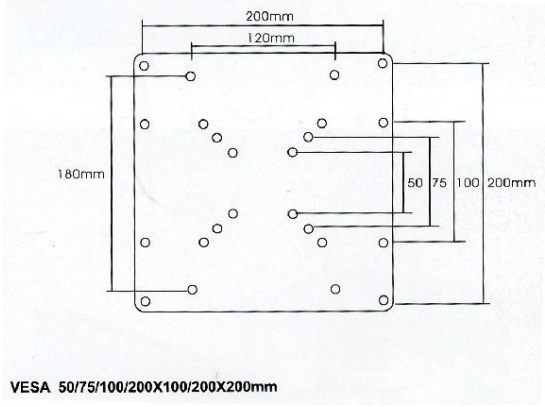
There are four methods for installation. Quick mounting is standard.

- Quick mounting fittings.

- 10 screws with nuts behind front bezel.

- 4 screws through holes in the front bezel. Suitable when there is no access from rear. This mounting is optional.

- Prepared for Vesa standard bracket at rear side.
  Various sizes according to size of Panel PC.



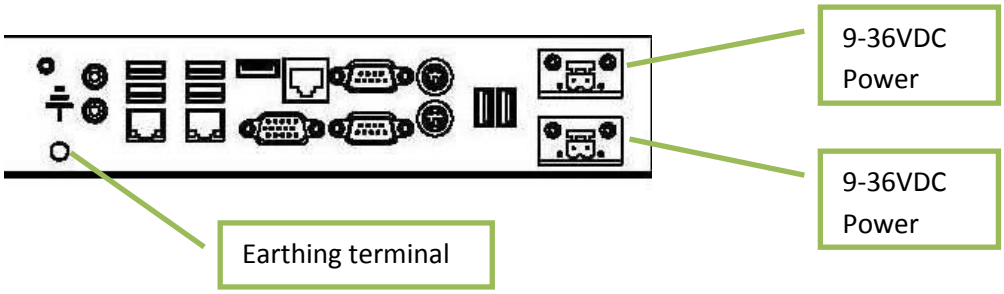
Fastening holes in monitor back plate.

2.6 Electrical Installation

The Panel PC is certified for the connection to earthed power supply according to EN60950. There are two power connectors allowing the use of two individual power sources to obtain redundancy. One power connector can be used for single input. Operating voltage is from 9 to 36 VDC. Be aware of the current consumption for wire dimension when using low supply voltage. Total power consumption can be up to 80 W.

The power input has got polarity protection should + and – be interchanged during installation.

- Data cables connected to the unit should to be of the shield type.
- We recommend that the shield shall be earthed on both sides.
- We recommend using min. 4 mm² earthing wire.



NOTE! Make sure the power is off when connecting and disconnecting the connectors.

2.6.1 Verification

Please observe the following during installation and startup.

1) Be accurate when mounting the sealing tape between the front bezel and the panel.
2) Cover the ventilation holes with a piece of paper to prevent metal shavings from entering the unit. Remove again after installation to ensure good ventilation.
3) Ground the unit according to installation instruction.
4) Make sure the polarity is correct for power connection before connecting to power outlet.
5) Keep signal cable and high voltage cable separated.
6) After power on, make sure that the system performs a normal startup of the OS.
7) The system may be delivered with a 30 day trial version of Windows OS. Make sure you have a valid OS.

2.7 Using the Panel PC

2.7.1 On-Off and Reset Buttons

The On-Off button is at the rear side of the Panel PC. This button shuts down the system in a proper way. We recommend strongly to first shut down the system via application software or operating system.

IMPORTANT!
Do not use the Reset button for normal restart! This button makes a hard reset of the system, and may cause abnormal behavior for the operating system.

Restore on AC/Power Loss

From the UEFI and Bios Setting Advanced option allows you to set the power state after an unexpected AC/power loss. If [Power Off] is selected, the AC/power remains off when the power recovers. If [Power On] is selected, the AC/power resumes and the system starts to boot up when the power recovers. Enter UEFI and Bios Setting by F2 when power on.

2.7.2 Monitor Adjustment, High brightness

Power indicator and membrane keypad for Panel PC with High Brightness display (Sun readable).

For bridge solutions with dimming according to IEC 62288, Sun readable (SR) option must be selected. For operation in other locations on the ship, standard screen brightness can be selected.

MENU

1) Press the menu key once, you will see the menu with options on the screen.
2) Under menu, press menu key again, you will be able to select brightness, contrast, and volume, etc.

UP & DOWN

1) Under menu, you can use these 2 keys to increase and decrease setting.
2) These buttons are directly dedicated to control the display brightness.
3) Adjustment of Dimming value brighter or darker.
   (256 levels for Sun readable display.)

AUTO

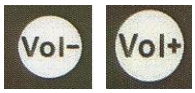
1) Press AUTO key to auto adjust/centralize the picture on the display.
2) Under Menu, AUTO key functions as "exit" to get out of menu.

On-Off

Switch off the Display part of the Panel PC.
The Panel PC is still running when the Display is off.
Display ON/OFF function can be disabled from factory.

2.7.3 Monitor Adjustment, Standard Brightness

Membrane keypad for Panel PC with standard display.

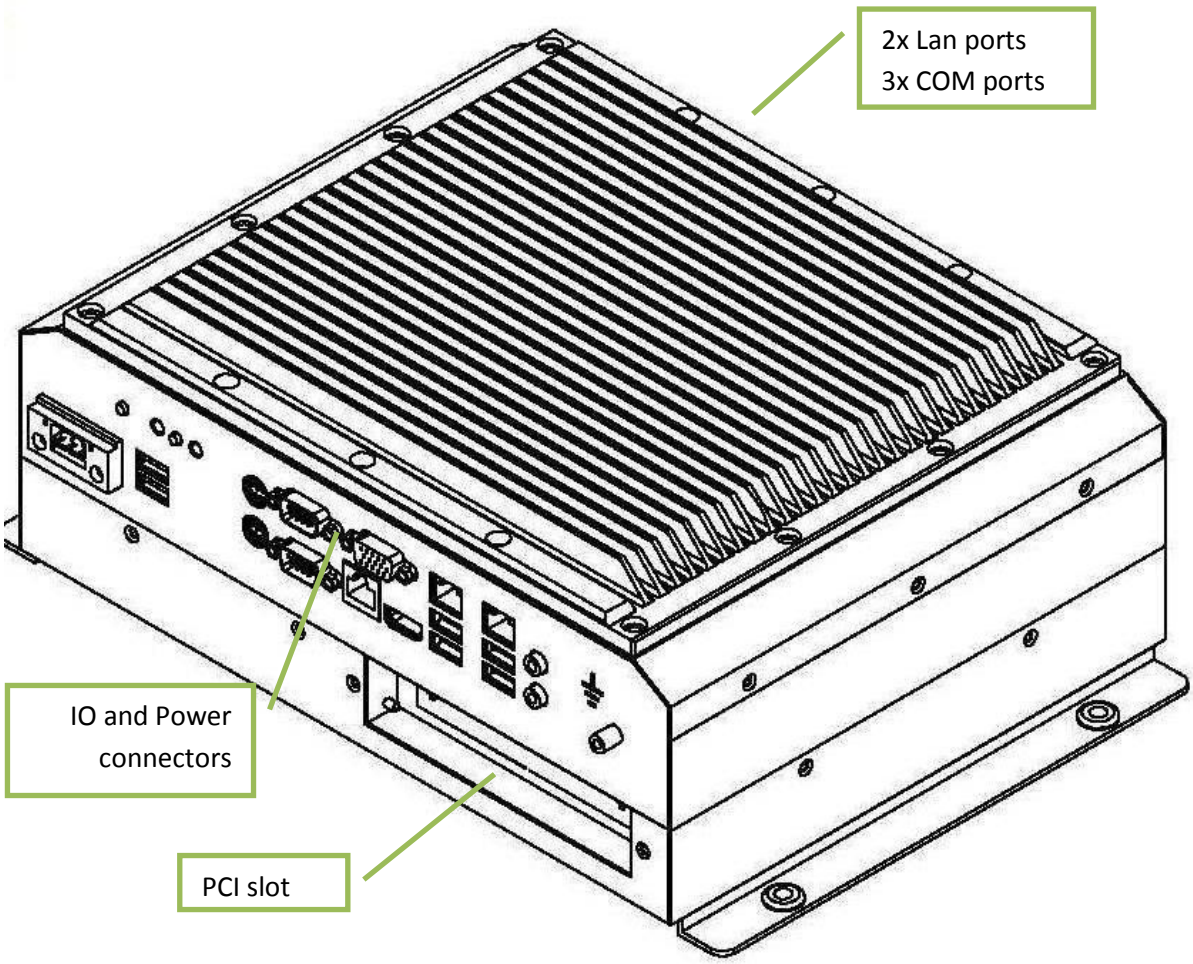


These buttons control the speaker volume.

These buttons control the display brightness.
Adjustment of Dimming value brighter or darker.
(16 levels for standard display.)
Brightness for this display is not dimmable down to 1 nit as specified in IEC 60945 for use on Bridge

Switches off the display part of the Panel PC.
The Panel PC is still running when the display is off.
Display ON/OFF function can be disabled from factory.

3 Autic Box PC



The AMPC-2700 is a Box (or Mini) PC intended for marine and industrial use. Sturdy design based on MIL-specified components. Powerful CPU based on Intel Atom N2700 processor provides maximum performance based on known platform. Intel SGS545 PowerVR graphics processor for quick screen refresh. The PC is delivered with practical functionality such as easy access to the hard drive and redundant power supply connectors.

3.1 Range of products

	LAN	RS-232-C	RS-232, RS-485, RS-422	USB (2.0)	Mini PCIe	PCI	Power consumption
AMPC-2700	4	5	1	6	1	1	25 W

3.1.1 Product Identification

AMPC-2700 Box/Mini PC.

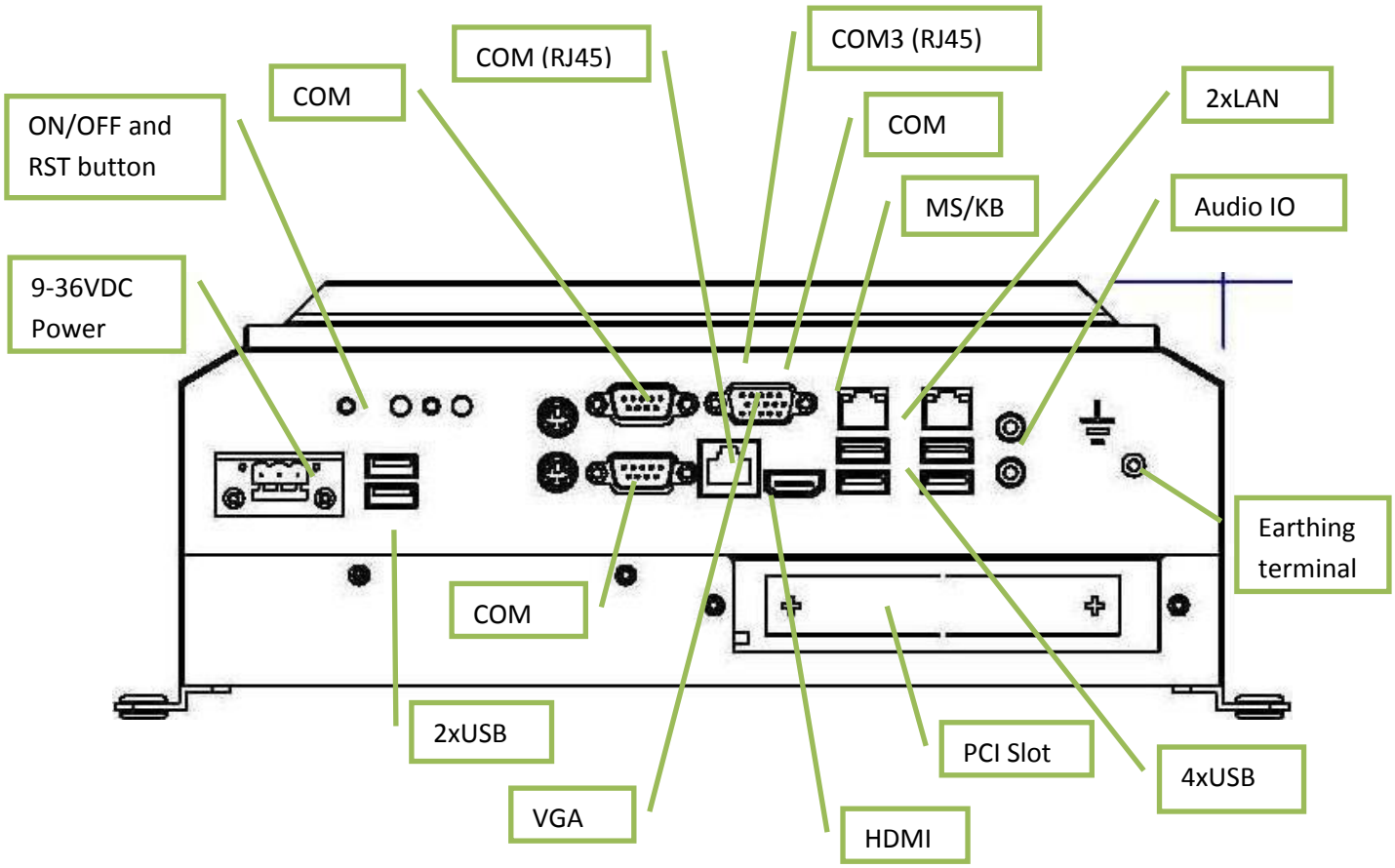
3.2 Specifications Box/Mini PC

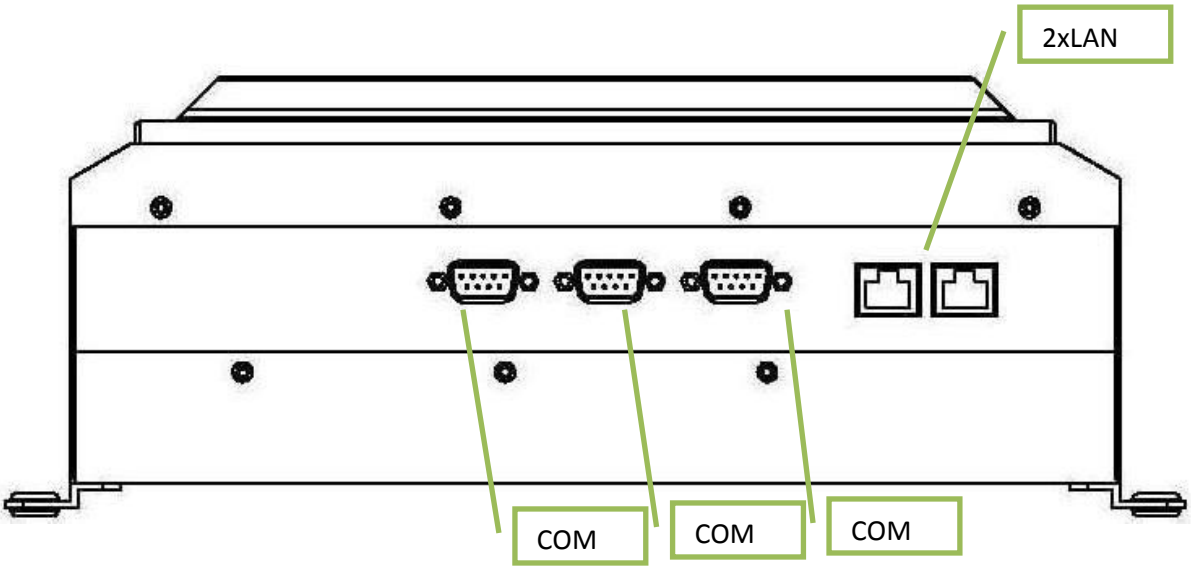
As standard fitted with 4 GB of RAM, 4 LAN ports, mini PCIe slot, 128 GB SSD drive. Power supplied by 9 to 32 VDC. Adapter 100 - 240 VAC to 12 VDC included in the delivery.

3.2.1 Technical data

IP protection	IP20
Power supply	+24 VDC (9-32 VDC).
Power adapter (Model according to consumption)	110 – 240 VAC to 12 VDC
Power consumption	25 W
Ambient temperature. Vertical mounting	0° to +60°C
Ambient temperature. Horizontal mounting	0° to +50°C
Storage temperature	-20° to +80°C
Relative humidity	5-85% non-condensing
Approvals	CE/ FCC/Rohs
Marine certification	DNV 2.4 and IEC60945

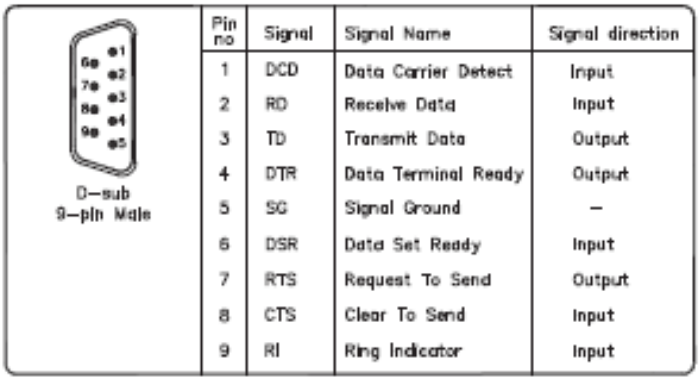
3.3 Connectors





3.3.1 COM1,2,4,5 D-sub 9-Pin RS-232

RS-232



Pin no	Signal	Signal Name	Signal direction
1	DCD	Data Carrier Detect	Input
2	RD	Receive Data	Input
3	TD	Transmit Data	Output
4	DTR	Data Terminal Ready	Output
5	SG	Signal Ground	–
6	DSR	Data Set Ready	Input
7	RTS	Request To Send	Output
8	CTS	Clear To Send	Input
9	RI	Ring Indicator	Input

3.3.2 COM6 D-sub 9-Pin RS-232/485/422

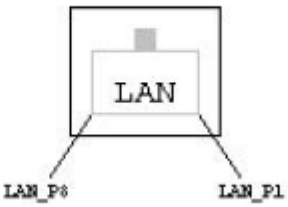
Pin Description
1 GND
2
3 TX/CHA-
4 RX/CHB-
5
6 +5V output
7 CTS/CHB+
8 RTS/CHA+
9

3.3.3 COM3 RJ45 RS-232

RJ-45 COM Port C

(8-pin COM Port C)

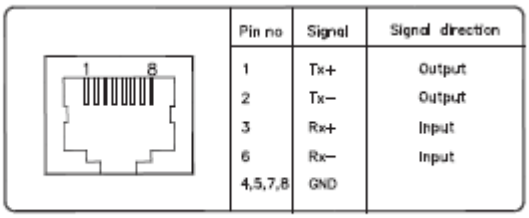
(see p.10 No. 11)



1: DCD#
2: RXD
3: TXD
4: DTR#
5: GND
6: DSR#
7: RTS#
8: CTS#

3.3.4 Ethernet

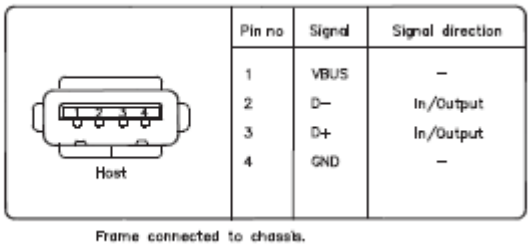
Ethernet



Pin no	Signal	Signal direction
1	Tx+	Output
2	Tx–	Output
3	Rx+	Input
6	Rx–	Input
4,5,7,8	GND	

3.3.5 USB

USB



Pin no	Signal	Signal direction
1	VBUS	–
2	D–	In/Output
3	D+	In/Output
4	GND	–

The Box/Mini PC has galvanic isolation against the 24VDC feed. There is no galvanic isolation between the communication ports for RS-232, RS-422/485 and USB.

Ethernet connection has galvanic isolation.

3.4 Installing the Box/Mini PC

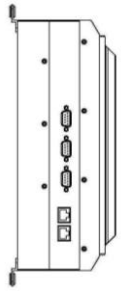
3.4.1 Package contents

The Box/Mini PC is shipped in adapted dual layer cardboard packaging with polystyrene protection. Standard delivery includes:

- Box/Mini PC
- Power cable with connector
- Power adapter 100- 240 VAC to 12 VDC.
- CD with drivers for Ethernet
- When specified, computer Operating System is included on CD.

3.5 Mechanical Installation

We recommend vertical mounting of the Box/Mini PC for optimal ventilation for the heatsink.



For product dimensions, please refer to Chapter 5.

3.5.1 Compass Safety Distance

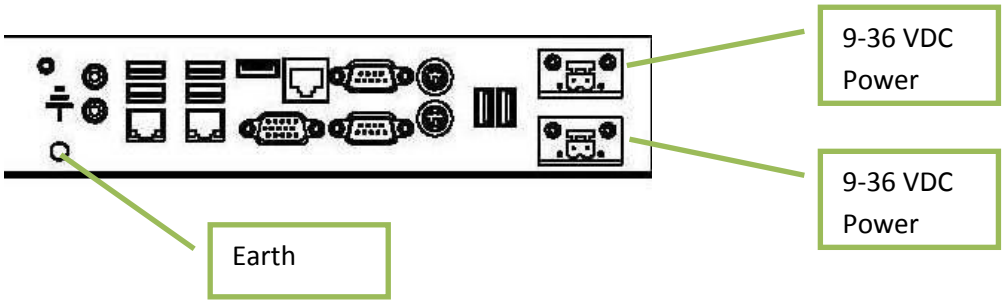
The Box/Mini PC is certified according to DNV 2.4 and IEC60945 for bridge installation. Minimum distance to steering and emergency compass is 1 (one) meter. Distance to standard compass is 1,45 meter.

3.6 Electrical Installation

The Box/Mini PC is certified for the connection to grounded power supply according to EN60950. There are two power connectors enabling the use of two separate power sources to obtain redundancy. Single power connector can be used. Operation voltage is from 9 to 36 VDC. Be aware of the current consumption for wire dimension when using low supply voltage. Total power consumption can be up to 80 W.

The power input has got polarity protection if + and – should be interchanged during installation.

- Data cables connected to the unit should to be of the shield type.
- We recommend that the shield shall be earthed on both sides.
- We recommend using earthing wire min. 4 mm².



3.6.1 Verification

Please observe the following during installation and startup.

1) Cover the ventilation holes with a piece of paper to prevent metal shavings from entering the unit. Remove again after installation to ensure good ventilation.

2) Ground the unit according to installation instruction.

3) Make sure the polarity is correct for power connection before connecting to power outlet.

4) Keep signal cable and high voltage cable separated.

5) After power on, make sure that the system performs a normal startup of the OS.

6) The system may be delivered with a 30 day trial version of Windows OS. Make sure you have a valid OS.

3.7 Using the Box/Mini PC

3.7.1 On-Off and Reset Buttons

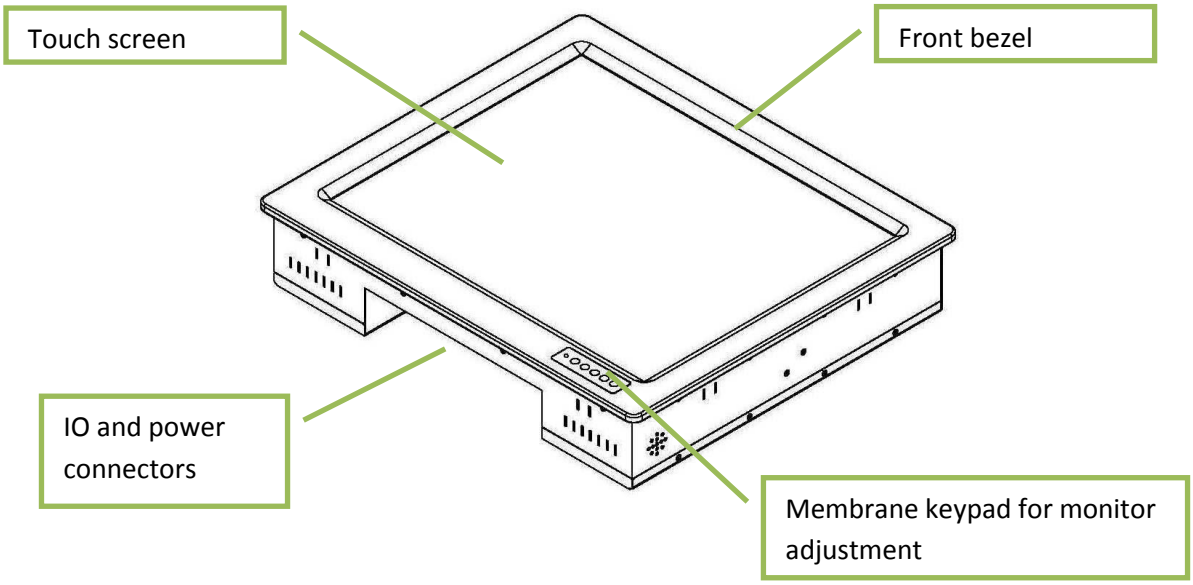
The On-Off switch is at the rear side of the Box/Mini PC. This button does shut down the system in a proper way. We recommend strongly to first shut down the system via application software or operating system.

IMPORTANT!
Do not use the Reset button for normal restart! This button makes a hard reset of the system, and may cause abnormal behavior for the operating system.

Restore on AC/Power Loss

From the UEFI and Bios Setting Advanced option allows you to set the power state after an unexpected AC/power loss. If [Power Off] is selected, the AC/power remains off when the power recovers. If [Power On] is selected, the AC/power resumes and the system starts to boot up when the power recovers. Enter UEFI and Bios Setting by F2 when power on.

4 Autic Marine Monitors



AMON is a series of monitors designed for Autic System for optimal solution of HMI functionality to marine and industrial markets. Sturdy design based on MIL-specified components. Multitouch allows screen operation with both hands. Monitors are delivered with practical functionality such as redundant power connections.

4.1 Range of Products

DNV 2.4 and IEC60945 approved.

	Display size	Display Resolution	Brigthness	Colors	Touch	Power Consumption
Display format 4:3						
AMON-84T-AL	8,4”	800x600	500 nit LED	262K	Single	10 W
AMON-104T-AL	10,4 ”	800x600	300 nit CCFL	262K	Single	15 W
AMON-104T-AL-XGA	10,4 ”	1024x768	300 nit LED	262K	Single	15 W
AMON-12T-AL	12”	800x600	300 nit CCFL	16.7M	Single	25 W
AMON-12T-AL-XGA	12”	1024x768	320o nit CCFL	16.7M	Single	25 W
AMON-15PT-AL	15”	1024x768	300 nit CCFL	16.7M	Multi	30 W
AMON-17PT-AL	17”	1280x1024	300 nit CCFL	16.7M	Multi	30 W
AMON-19PT-AL	19”	1280x1024	300 nit CCFL	16.7M	Multi	50 W
Display format 16:9						
AMON-116T-AL	11,6”	1366x768	200 nit LED	262K	Single	25 W
AMON-156MT-AL	15,6”	1920x1080	300 nit LED	262K	Multi	30 W
AMON-22PT-AL	21,5”	1920x1080	300 nit CCFL	16.7M	Multi	50 W
AMON-24PT-AL	23,6”	1920x1080	300 nit LED	16.7M	Multi	55 W

4.1.1 Product Identification

AMON-2427PT-AL-FL-MK

T Touch Screen
PT Multi Touch Screen
AL Aluminium front bezel
MK Membrane keypad for monitor adjustment. Located at the front bezel.
SR Sun Readable. LED backligth (800 – 1000 nit)

4.2 Specification Monitors

All models are fitted as standard with resistive touch screen. Power supplied by 9 to 32 VDC. Adapter 100 – 240 VAC to 12 VDC included in the delivery. Selected models from 15" are standardized with Multi Touch screen. VDI and VGA input. USB input for touch screen.

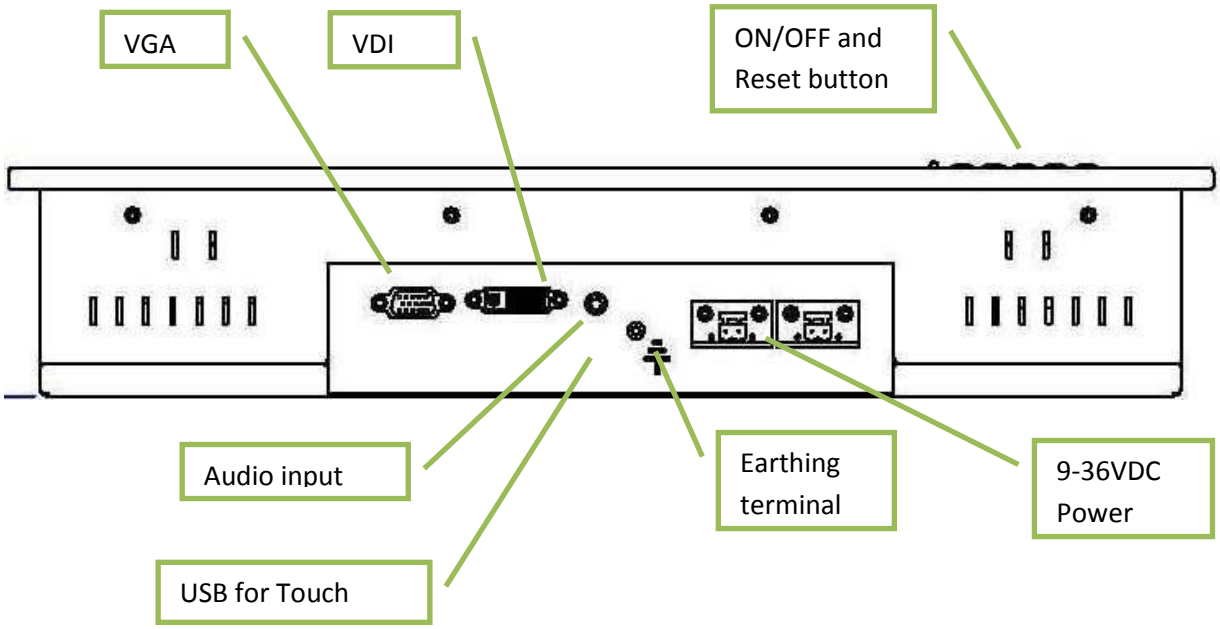
Adjustment of dimming value brighter or darker (16 levels for standard display).
Brightness is dimmable according to IEC 60945 for use on bridge.

4.2.1 Technical Data

Front panel protection	IP65
Rear panel protection	IP20
Power supply	+24 VDC (9-32VDC).
Power adapter (Model according to consumption)	100 – 240 VAC to 12 VDC
Power consumption	10 to 55 W
Ambient temperature. Vertical mounting	0° to +60°C
Ambient temperature. Horizontal mounting	0° to +50°C
Storage temperature	-20° to +80°C
Relative humidity	5 - 85% non-condensing
Approvals	CE/ FCC/Rohs
Marine certification	DNV 2.4 and IEC60945

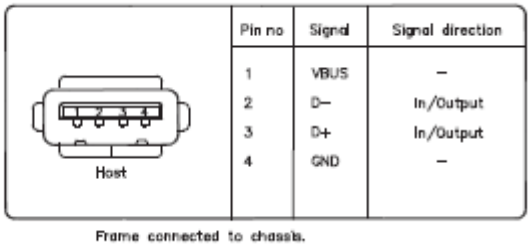
4.3 Monitor Connectors

Example drawing. Variation due to Model



4.3.1 USB Pin Configuration

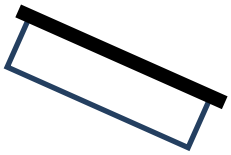
USB



4.4 Installing the Monitor

The monitor can be installed vertically, horizontally or at an angle. If installing at an horizontally or at an angle, make sure there is sufficient ventilation around the unit!

IMPORTANT!
For installation at an angle, sufficient ventilation must be provided around the monitor.



For product dimensions and cutout dimensions, please refer to Chapter 5. Make the cutout according to dimensions for the selected model.

4.4.1 Compass Safety Distance

The Monitor is certified according to DNV 2.4 and IEC60945 for bridge installation. Minimum distance to steering and emergency compass is 1 (one) meter. Distance to standard compass is 1,45 meter.

4.4.2 Package Contents

The Monitor is shipped in adapted dual layer cardboard packaging with polystyrene protection.
Standard delivery:

- The monitor
- VGA cable
- USB cable for touch
- Power cable with connector
- Power adapter 100/200 VAC to 12VDC
- Sealing for panel mounting
- CD with drivers for touch screen

4.5 Mechanical Installation of the Monitor

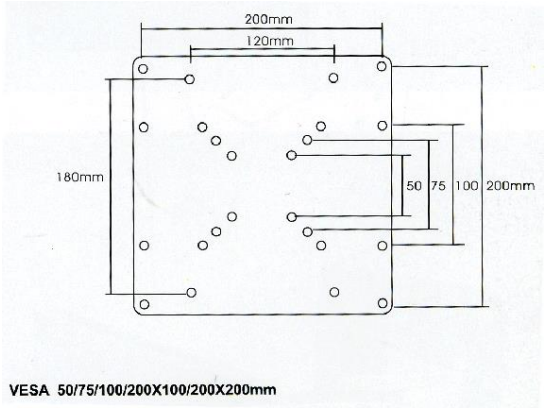
Make the cutout according cutout dimension for the selected model.
There are four methods for installation. Quick mounting is the standard method.

- Quick mounting fittings

- 10 screws with nuts behind front bezel.

- 4 screws through holes in the front bezel. Suitable when there is no access from rear. This mounting is optional.

- Prepared for Vesa standard bracket at rear side.
  Various sizes according to size of Panel PC.

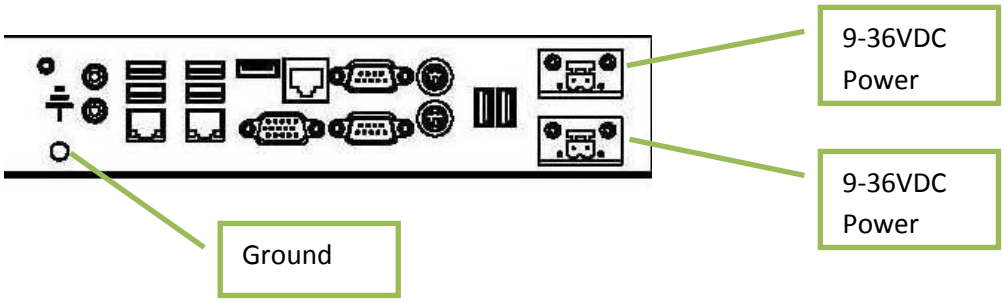


4.6 Electrical Installation

The Monitor is certified for the connection to grounded power supply according to EN60950. There are two power connectors to be able to use of two individual power sources to obtain redundancy. 1 power connector can be used for single input. Operation Voltage is from 9 to 36 VDC. Be aware of the current consumption for wire dimension when using low supply voltage. Total power consumption can be up to 80 watt.

The power input has got polarity protection should + and – be interchanged during installation.

- Data cables connected to the unit should to be of the shield type.
- We recommend that the shield shall be earthed on both sides.
- We recommend use eathing wire min. 4 mm².



4.6.1 Verification

Please observe the following during installation and startup.

1) Be accurate when mounting the sealing tape between the front bezel and the panel.

2) Cover the ventilation holes with a piece of paper to prevent metal shavings from entering the unit. Remove again after installation to ensure good ventilation.

3) Ground the unit according to installation instruction.

4) Make sure the polarity is correct for power connection before connecting to power outlet.

5) Keep signal cable and high voltage cable separated.

6) After power on, make sure that the system performs a normal startup of the OS.

7) The system may be delivered with a 30 day trial version of Windows OS. Make sure you have a valid OS.

4.6.2 Installing Options

IMPORTANT!

Please observe that by installing in the computer any options not supplied by Autic, such as additional memory chips, you will do so at your own risk, and the warranty of the product will no longer be valid.

4.7 Using the Monitors

4.7.1 High-Brightness Monitor Adjustments

Membrane keypad on monitors with High Brightness display. (Sun readable, for use on the bridge.)

For bridge solutions with dimming according to IEC 62288, Sun readable (SR) option must be selected. For operation in other locations on the ship, standard screen brightness can be selected.

MENU

1) Press menu key once, you will see the menu with options on the screen.

2) Under menu, press menu key again, you will be able to select brightness, contrast, and volume, etc.

UP & DOWN

1) Under menu, you can use these 2 keys to increase and decrease setting.

2) These buttons are directly dedicated to control the display brightness.
Adjustment of dimming value brighter or darker.
(256 levels for Sun readable display)

AUTO

1) Press AUTO key to auto adjust/centralize the picture on the display.

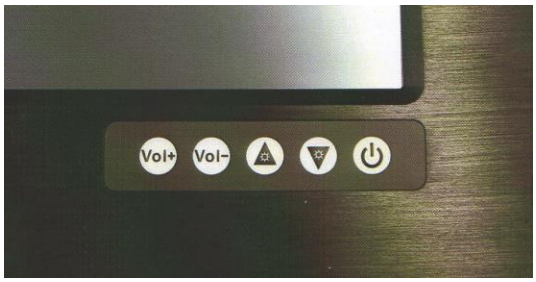
2) Under menu, AUTO key functions as "exit" to leave the menu.

ON/OFF

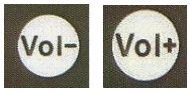
Switch off the high-brightness monitor.

Note that the monitor ON/OFF function can be disabled from factory. This must be specified when ordering the monitor.

4.7.2 Standard-Brightness Monitor Adjustments



Membrane keypad for monitors with standard display (for use in engine room or similar).



These buttons adjust the speaker volume.

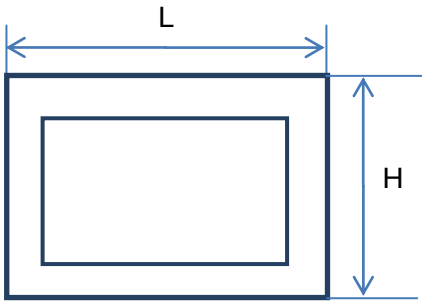
These buttons control the display brightness.
Adjustment of dimming value brighter or darker.
(16 levels for standard display)
Brightness for this display is not dimmable down to 1 nit as specified in IEC 60945 for use on bridge.

Switch off the standard-brightness monitor.

Note that the monitor ON/OFF function can be disabled from factory. This must be specified when ordering the monitor.

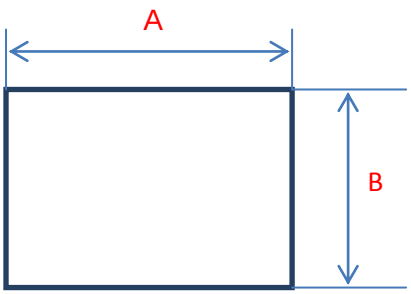
5 Product Dimensions

5.1 Panel PC Dimensions



Front Frame

Dept



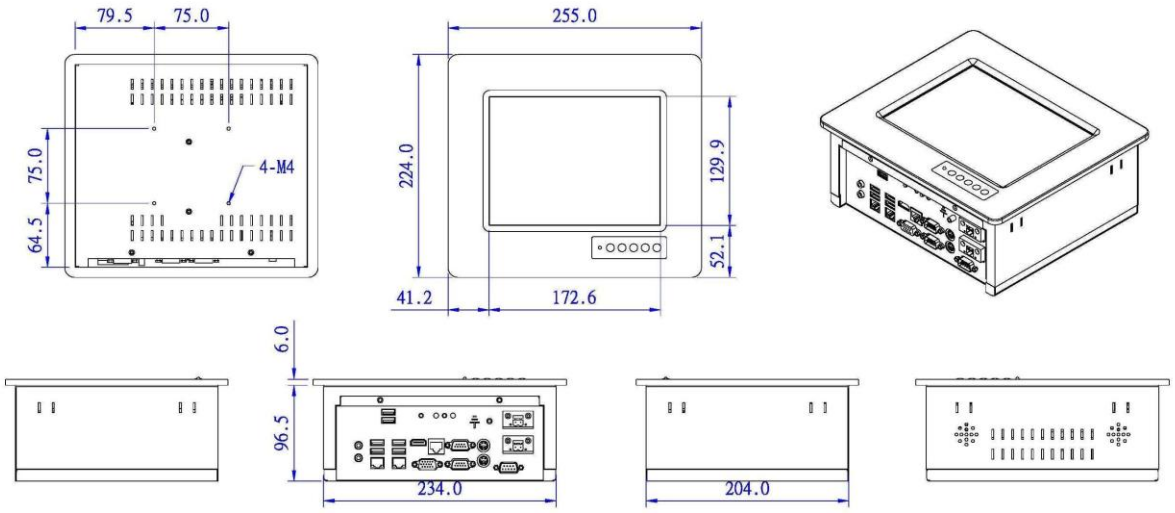
Cutout

(Cutout dimension are product dimensions plus 3 mm.)

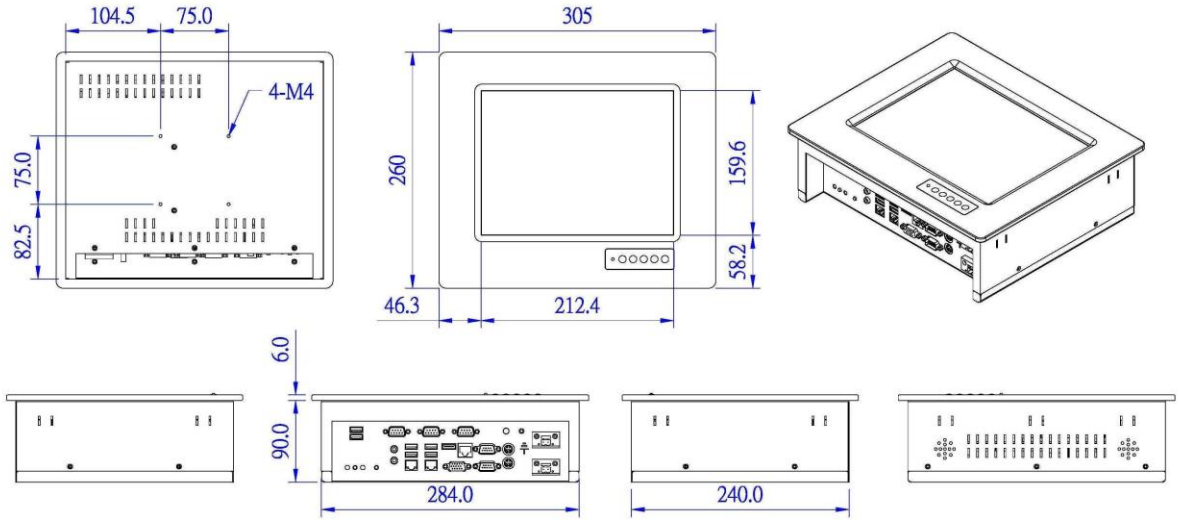
Product dimensions in mm						**Cutout**	
	L	H	D	T	Weight	A	B
4:3 models							
APPC-8427T-AL-FL	255	224	97	6	3 kg	237	207
APPC-10427T-AL-FL	305	26	90	6	4 kg	283	243
APPC-10427T-AL-FL-XGA	305	260	90	6	4 kg	283	243
APPC-1227T-AL-FL	333	285	89	6	5 kg	316	268
APPC-1227T-AL-FL-XGA	333	285	89	**6**	5 kg	316	268
APPC-1527PT-AL-FL	395	325	78	6	6 kg	378	309
APPC-1727PT-AL-FL	418	368	79	8	7 kg	401	351
APPC-1927PT-AL-FL	454	392	80	8	8 kg	433	375
16:9 models							
APPC-11627T-AL-FL	345	252	86	6	5 kg	328	235
APPC-15627PT-AL-FL	415	280	71	6	6 kg	398	263
APPC-2227PT-AL-FL	550	360	78	8	9 kg	533	343
APPC-2427PT-AL-FL	600	386	77	8	10 kg	582	369

Panel PC 4:3 models

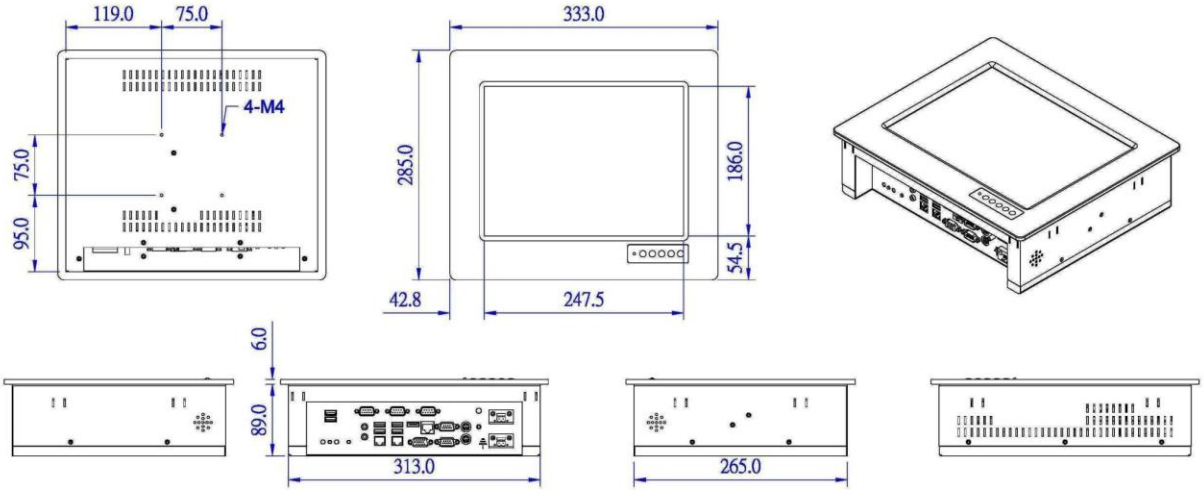
APPC-8427T-AL-FL



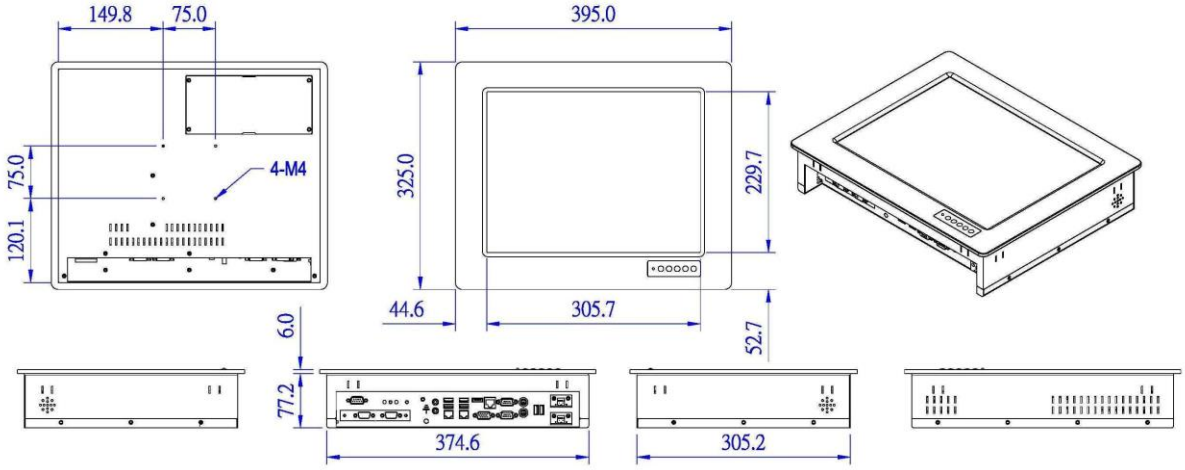
APPC-10427T-AL-FL / APPC-10427T-AL-FL-XGA



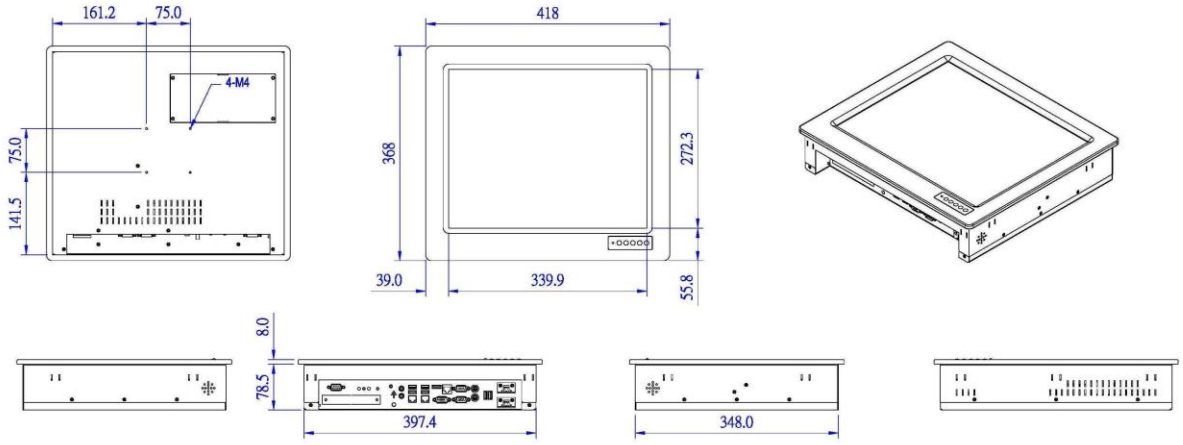
APPC-1227T-AL-FL / APPC-1227T-AL-FL-XGA



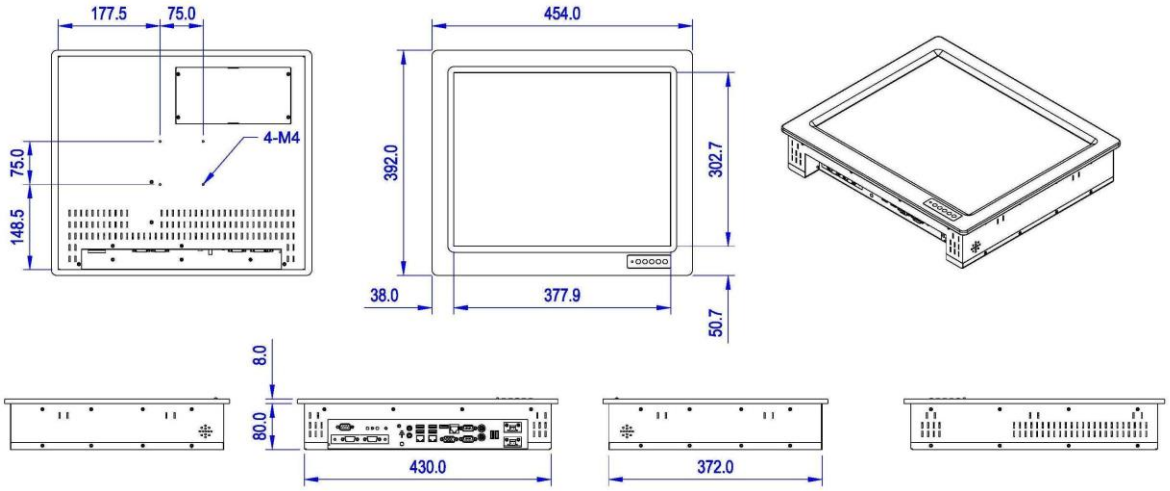
APPC-1527PT-AL-FL



APPC-1727PT-AL-FL

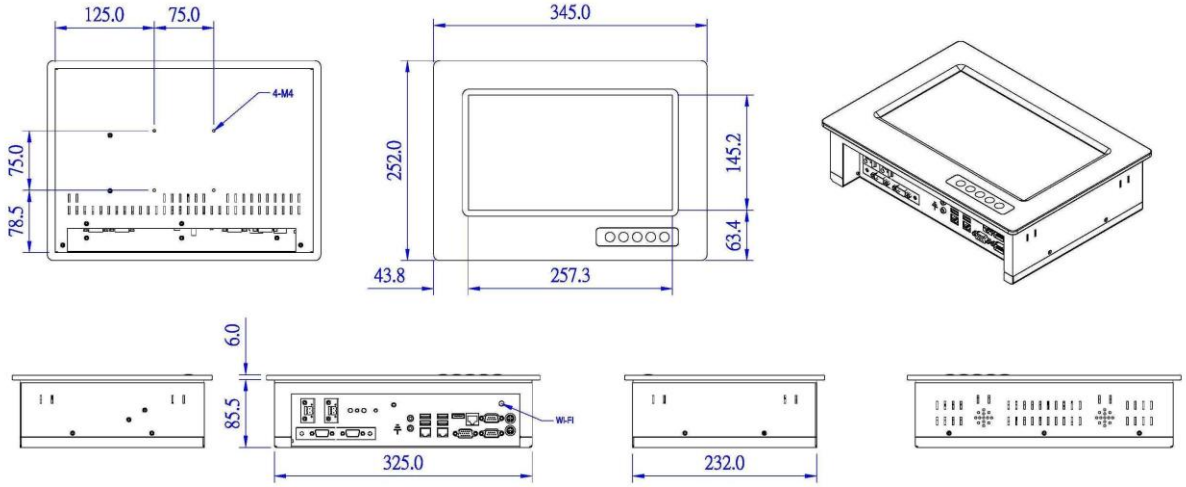


APPC-1927PT-AL-FL

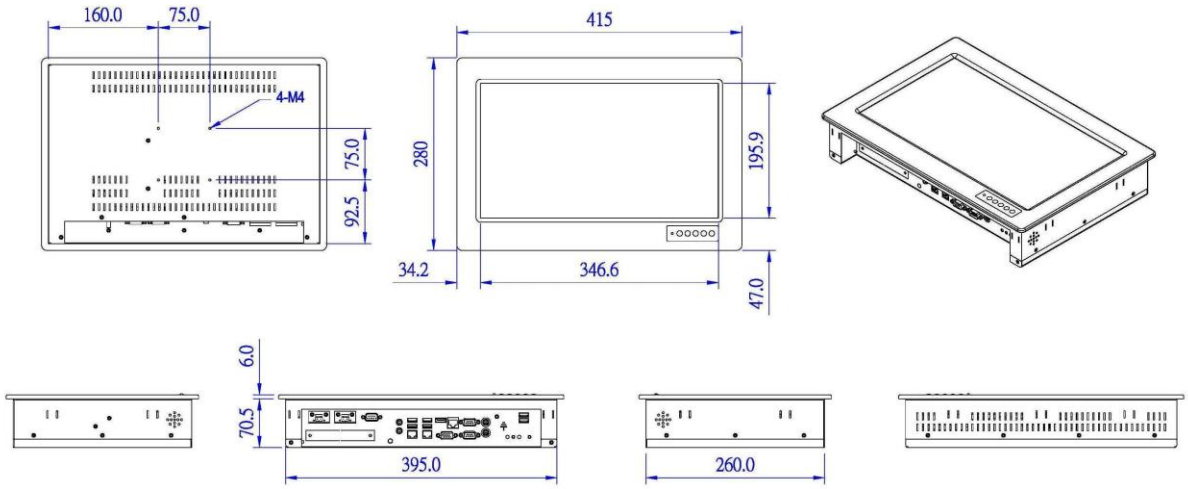


Panel PC 16:9 models

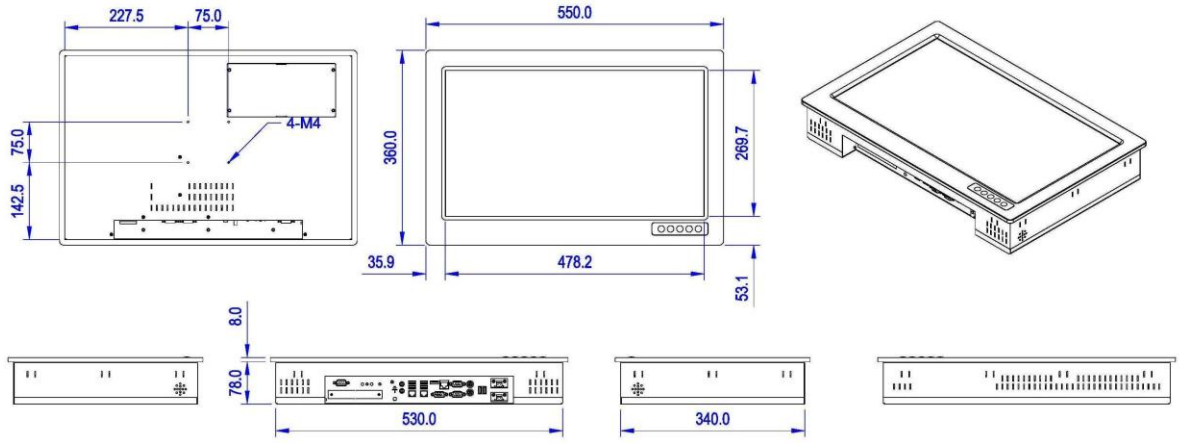
APPC-11627T-AL-FL



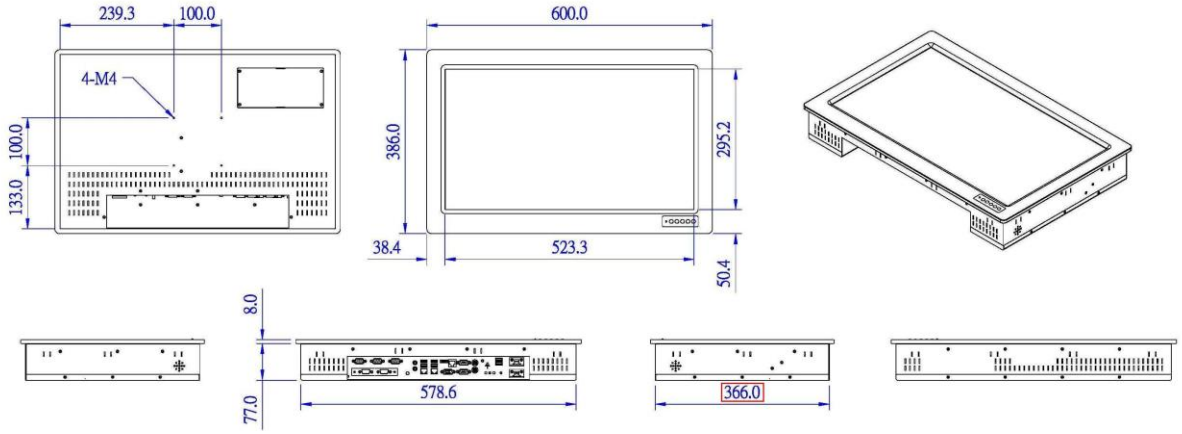
APPC-15627PT-AL-FL



APPC-2227PT-AL-FL

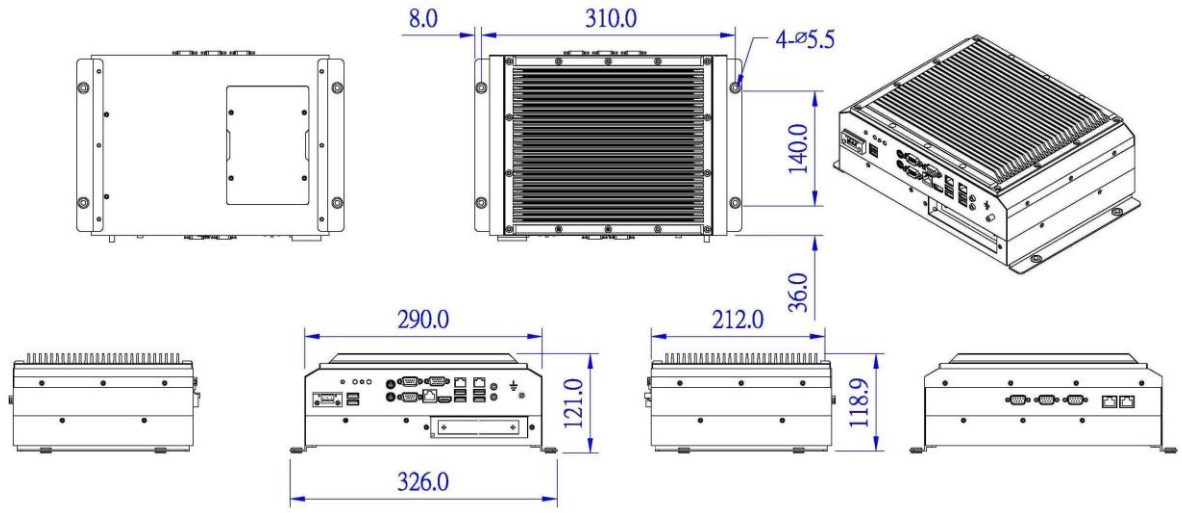


APPC-2427PT-AL-FL

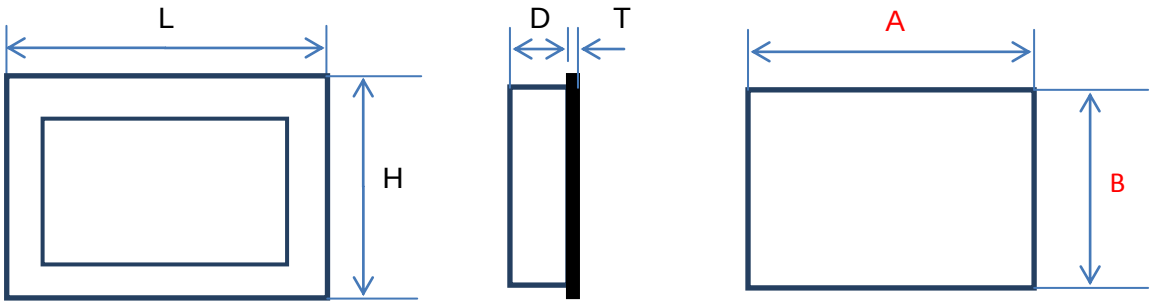


5.2 Box/Mini PC Dimension

AMPC-2700

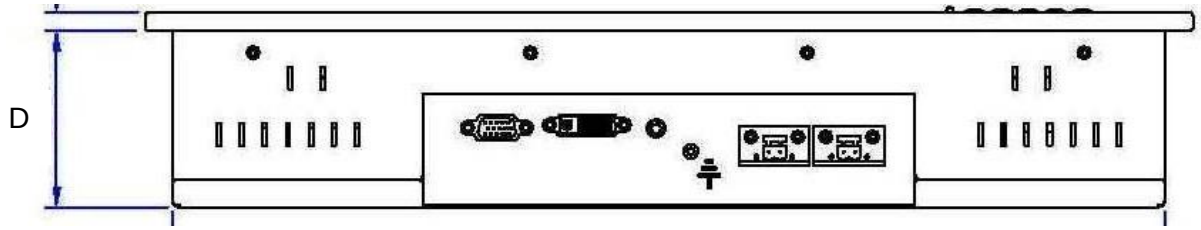


5.3 Monitor Dimensions



Front Frame Dept Cutout

Monitors have the same physical dimension as the Panel PC models except the depth (D) of the product.



(Cutout dimension are product dimensions plus 3 mm.)

Product dimensions in mm						**Cutout**	
	L	H	D	T	Weight	A	B
4:3 models							
AMON-84T-AL	255	224	70	6	2 kg	237	207
AMON-104T-AL	305	26	73	6	3 kg	283	243
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AMON-15T-AL	395	325	76	6	5 kg	378	309
AMON-17T-AL	418	368	77	8	6 kg	401	351
AMON-19T-AL	454	392	78	8	8 kg	433	375
16:9 models							
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AMON-22T-AL	550	360	77	8	8.5 kg	533	343
AMON-24T-AL	600	386	76	8	9.5 kg	582	369

6 UEFI and Bios Setting

6.1 Introduction

This section explains how to use the UEFI SETUP UTILITY to configure your system. The UEFI chip on the motherboard stores the UEFI SETUP UTILITY. You may run the UEFI SETUP UTILITY when you start up the computer.

1) Please press <F2> or <Del> during the Power-On-Self-Test (POST) to enter the UEFI SETUP UTILITY, otherwise, POST will continue with its test routines.

2) If you wish to enter the UEFI SETUP UTILITY after POST, restart the system by pressing <Ctl> + <Alt> + <Delete>, or by pressing the reset button on the system chassis.

3) You may also restart by turning the system off and then back on.

WARNING! Because the UEFI software is constantly being updated, the following UEFI setup screens and descriptions are for reference purpose only, and they may not exactly match what you see on your screen.

6.1.1 UEFI Menu Bar

The top of the screen has a menu bar with the following selections:

Main	To set up the system time/date information
OC Tweaker	To set up overclocking features
Advanced	To set up the advanced UEFI features
H/W Monitor	To display current hardware status
Boot	To set up the default system device to locate and load the Operating System
Security	To set up the security features
Exit	To exit the current screen or the UEFI SETUP UTILITY

Use <← > key or <→> key to choose among the selections on the menu bar, and then press <Enter> to get into the sub screen. You can also use the mouse to click your required item.

6.1.2 Navigation Keys

Please check the following table for the function description of each navigation key.

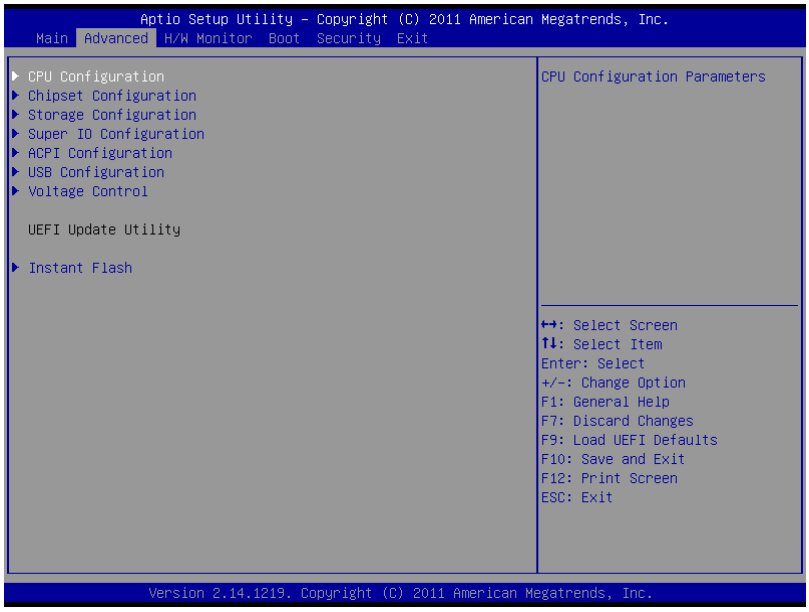
Navigation Key(s)	Function Description
← / →	Moves cursor left or right to select Screens
↑ / ↓	Moves cursor up or down to select items
+ / -	To change option for the selected items
<F1>	To display the General Help Screen
<F7>	Discard changes
<F9>	To load optimal default values for all the settings
<F10>	To save changes and exit the UEFI SETUP UTILITY
<F12>	Print screen
<ESC>	To jump to the Exit Screen or exit the current screen

6.2 Main Screen

When you enter the UEFI SETUP UTILITY, the Main screen will appear and display the system overview.

6.3 Advanced Screen

In this section, you may set the configurations for the following items: CPU Configuration, Chipset Configuration, Storage Configuration, Super IO Configuration, ACPI Configuration, USB Configuration and Voltage Configuration.

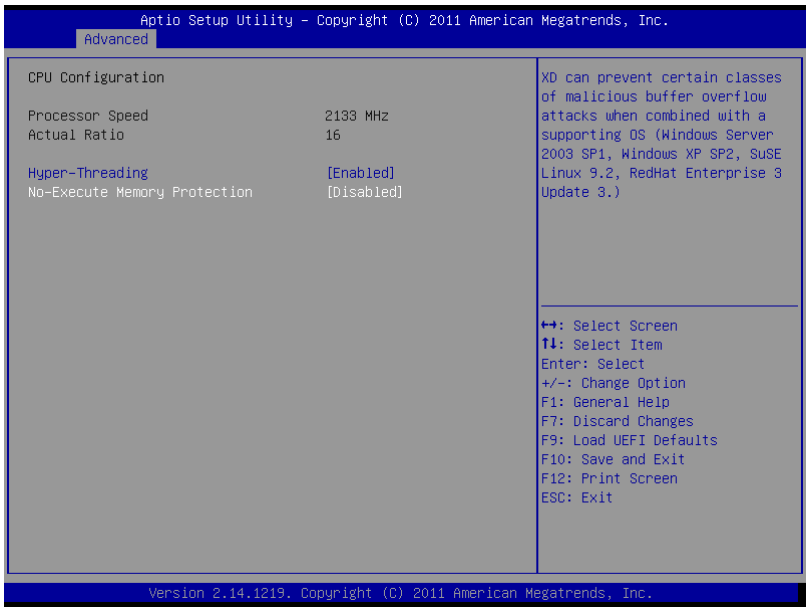


WARNING! Setting wrong values in this section may cause the system to malfunction.

Instant Flash

Instant Flash is a UEFI flash utility embedded in Flash ROM. This convenient UEFI update tool allows you to update system UEFI without entering operating systems first like MS-DOS or Windows®. Just launch this tool and save the new UEFI file to your USB flash drive, floppy disk or hard drive, then you can update your UEFI only in a few clicks without preparing an additional floppy diskette or other complicated flash utility. Please be noted that the USB flash drive or hard drive must use FAT32/16/12 file system. If you execute Instant Flash utility, the utility will show the UEFI files and their respective information. Select the proper UEFI file to update your UEFI, and reboot your system after UEFI update process completes.

6.3.1 CPU Configuration



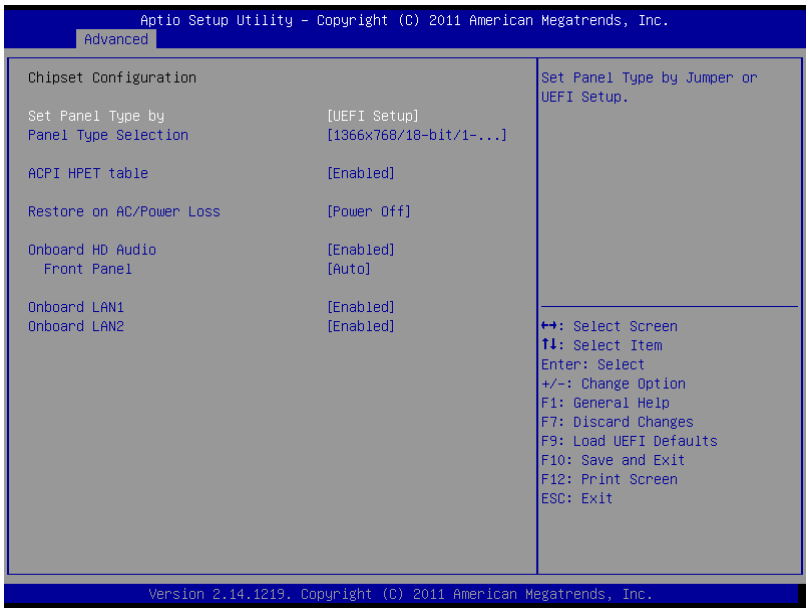
Intel Hyper Threading Technology

To enable this feature, it requires a computer system with an Intel processor that supports Hyper-Threading technology and an operating system that includes optimization for this technology, such as Windows 7. Set to [Enabled] if using Windows 7.

No-Execute Memory Protection

No-Execution (NX) Memory Protection Technology is an enhancement to the IA-32 Intel Architecture. An IA-32 processor with “No Execute (NX) Memory Protection” can prevent data pages from being used by malicious software to execute code.

6.3.2 Chipset Configuration



Set Panel Type by

Use this to configure Set Panel Type. The default value is [UEFI Setup].

Panel Type Selection

Use this to select panel type. The default value is [1366x768/18-bit/1-ch/ LED].

ACPI HPET Table

Use this item to enable or disable ACPI HPET Table. The default value is [Enabled]. Please set this option to [Enabled] if you plan to use this motherboard to submit Windows® certification.

Restore on AC/Power Loss

This allows you to set the power state after an unexpected AC/power loss. If [Power Off] is selected, the AC/power remains off when the power recovers. If [Power On] is selected, the AC/power resumes and the system starts to boot up when the power recovers.

Onboard HD Audio

Select [Auto], [Enabled] or [Disabled] for the onboard HD Audio feature. If you select [Auto], the onboard HD Audio will be disabled when PCI Sound Card is plugged.

Front Panel

Select [Auto] or [Disabled] for the onboard HD Audio Front Panel.

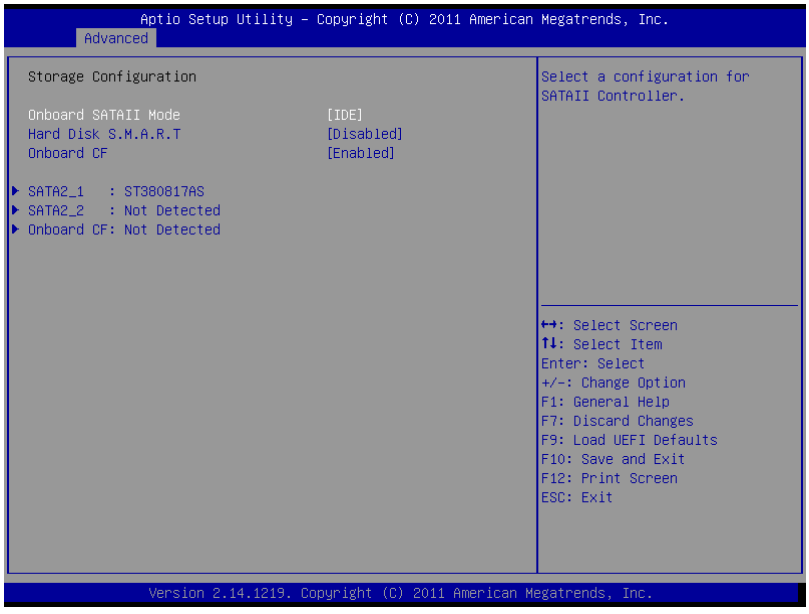
Onboard LAN1

This allows you to enable or disable the “Onboard LAN1” feature.

Onboard LAN2

This allows you to enable or disable the “Onboard LAN2” feature.

6.3.3 Storage Configuration



Onboard SATAII Mode

Use this to select SATA2 mode. Configuration options: [IDE Mode], [AHCI Mode] and [Disabled]. The default value is [IDE Mode].

WARNING! AHCI (Advanced Host Controller Interface) supports NCQ and other new features that will improve SATA disk performance but IDE mode does not have these advantages.

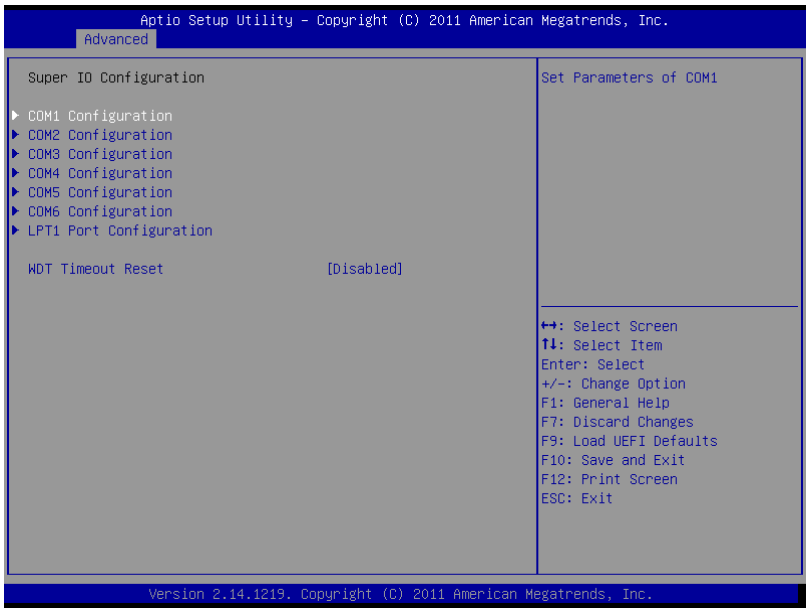
Hard Disk S.M.A.R.T.

Use this item to enable or disable the S.M.A.R.T. (Self-Monitoring, Analysis, and Reporting Technology) feature. Configuration options: [Disabled] and [Enabled].

Onboard CF

This allows users to enable/disable the onboard IDE controller for CF. The default value is [Enabled].

6.3.4 Super IO Configuration



COM1 Configuration

Use this to set parameters of COM1.

COM2 Configuration

Use this to set parameters of COM2.

COM3 Configuration

Use this to set parameters of COM3.

COM4 Configuration

Use this to set parameters of COM4.

COM5 Configuration

Use this to set parameters of COM5.

COM6 Configuration

Use this to set parameters of COM6.

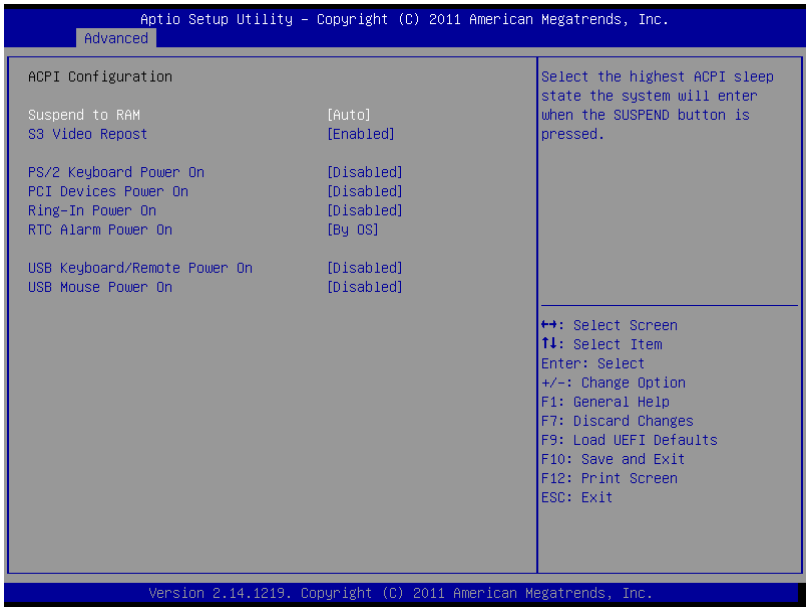
LPT1 Port Configuration

Use this set parameters of the onboard parallel port.

WDT Timeout Reset

This allows users to enable/disable the Watch Dog Timer timeout to reset system. The default value is [Disabled].

6.3.5 ACPI Configuration



Suspend to RAM

Use this item to select whether to auto-detect or disable the Suspend-to- RAM feature. Select [Auto] will enable this feature if the OS supports it.

S3 Video Repost

Use this to enable/disable S3 Video Repost. The default value is [Enabled].

PS/2 Keyboard Power On

Use this item to enable or disable PS/2 keyboard to turn on the system from the power-soft-off mode.

PCI Devices Power On

Use this item to enable or disable PCI devices to turn on the system from the power-soft-off mode.

Ring-In Power On

Use this item to enable or disable Ring-In signals to turn on the system from the power-soft-off mode.

RTC Alarm Power On

Use this item to enable or disable RTC (Real Time Clock) to power on the system.

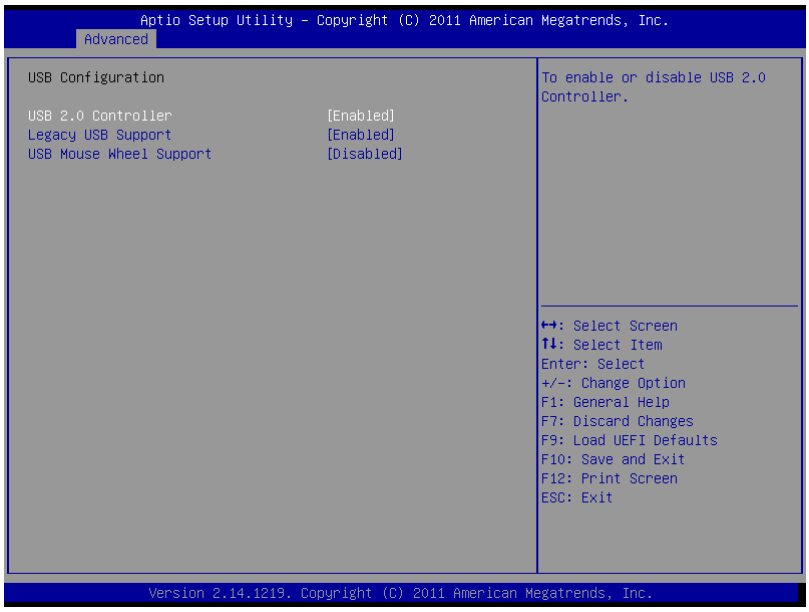
USB Keyboard/Remote Power On

Use this item to enable or disable USB Keyboard/Remote to power on the system.

USB Mouse Power On

Use this item to enable or disable USB Mouse to power on the system.

6.3.6 USB Configuration



USB 2.0 Controller

Use this item to enable or disable the use of USB 2.0 controller.

Legacy USB Support

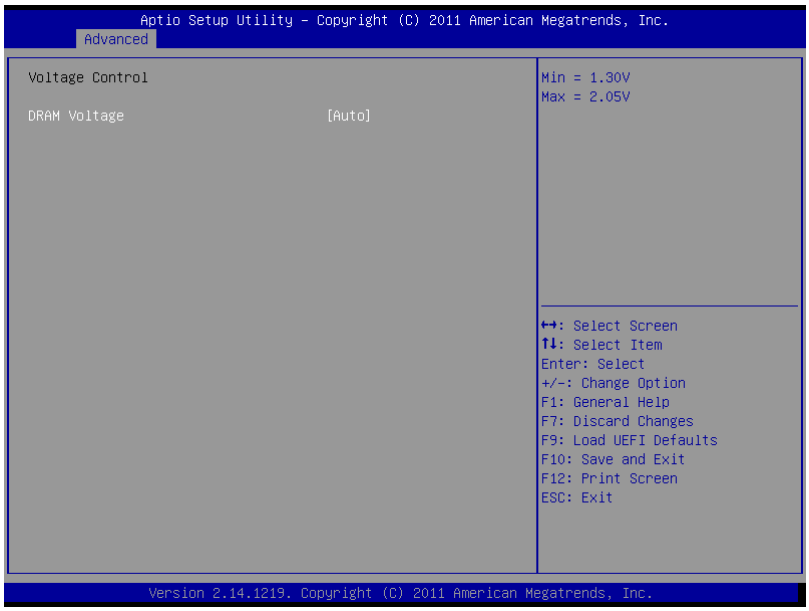
Use this option to select legacy support for USB devices. There are four configuration options: [Enabled], [Auto], [Disabled] and [UEFI Setup Only]. The default value is [Enabled].

1) **[Enabled]** – Enables support for legacy USB.
2) **[Auto]** – Enables legacy support if USB devices are connected.
3) **[Disabled]** – USB devices are not allowed to use under legacy OS and UEFI setup when [Disabled] is selected. If you have USB compatibility issue, it is recommended to select [Disabled] to enter OS.
4) **[UEFI Setup Only]** – USB devices are allowed to use only under UEFI setup and Windows / Linux OS.

USB Mouse Wheel Support

Use this option to enable or disable USB Mouse Wheel Support. The default value is [Disabled].

6.3.7 Voltage Configuration

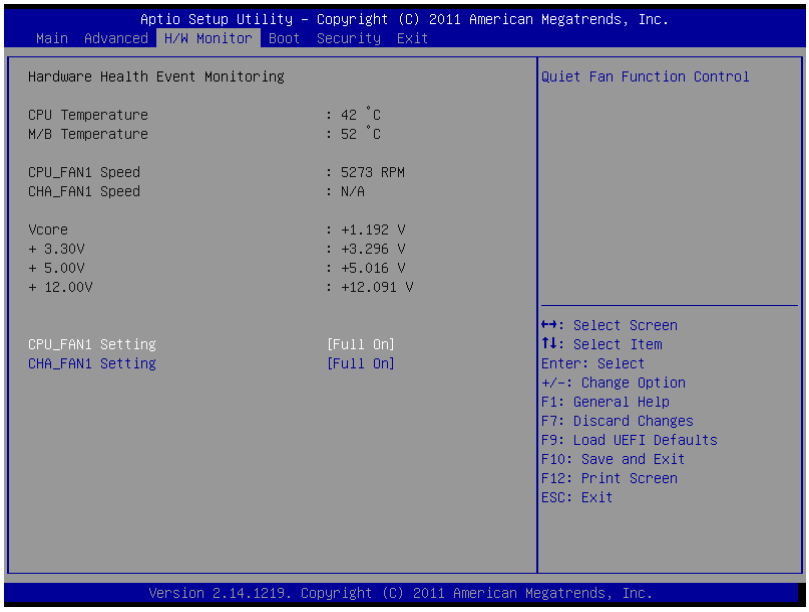


DRAM Voltage

Use this to select DRAM Voltage. The default value is [Auto].

6.4 Hardware Health Event Monitoring Screen

In this section, it allows you to monitor the status of the hardware on your system, including the parameters of the CPU temperature, motherboard temperature, CPU fan speed, chassis fan speed, and the critical voltage.



CPU_FAN1 Setting

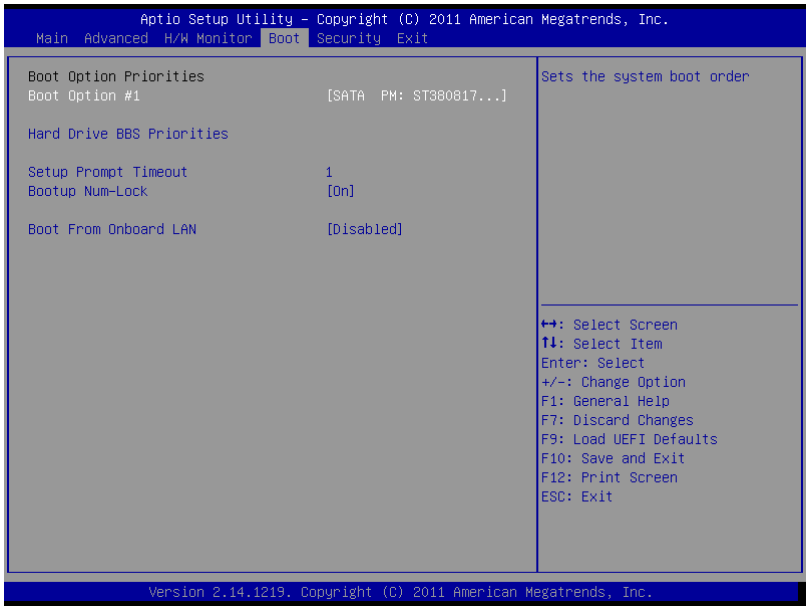
This allows you to set CPU_FAN1's speed. Configuration options: [Full On] and [Automatic Mode]. The default value is [Full On].

CHA_FAN1 Setting

This allows you to set CHA_FAN1's speed. Configuration options: [Full On] and [Automatic Mode]. The default value is [Full On].

6.5 3.5 Boot Screen

In this section, it will display the available devices on your system for you to configure the boot settings and the boot priority.



Setup Prompt Timeout

This shows the number of seconds to wait for setup activation key. 65535(0XFFFF) means indefinite waiting.

Bootup Num-Lock

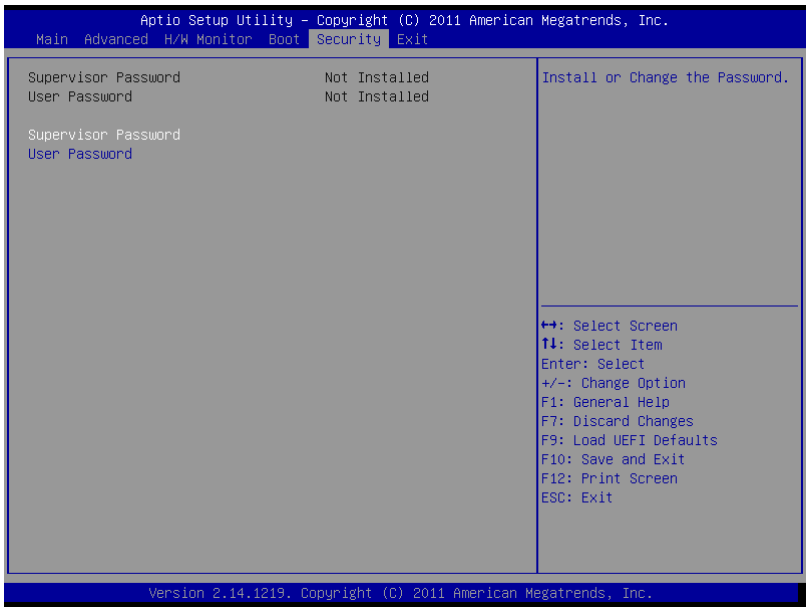
If this item is set to [On], it will automatically activate the Numeric Lock function after boot-up.

Boot From Onboard LAN

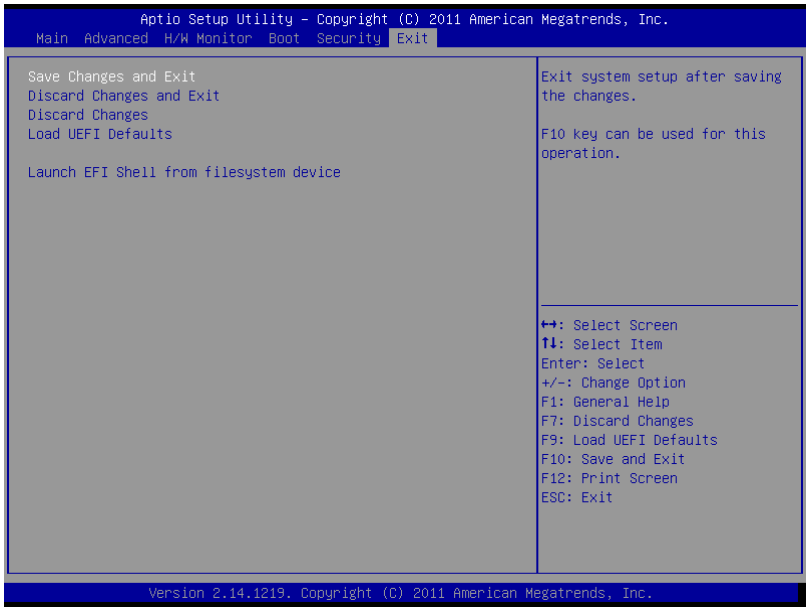
Use this item to enable or disable the Boot From Onboard LAN feature.

6.6 Security Screen

In this section, you may set, change or clear the supervisor/user password for the system.



6.7 Exit Screen



Save Changes and Exit

When you select this option, it will pop-out the following message, “Save configuration changes and exit setup?” Select [OK] to save the changes and exit the UEFI SETUP UTILITY.

Discard Changes and Exit

When you select this option, it will pop-out the following message, “Discard changes and exit setup?” Select [OK] to exit the UEFI SETUP UTILITY without saving any changes.

Discard Changes

When you select this option, it will pop-out the following message, “Discard changes?” Select [OK] to discard all changes.

Load UEFI Defaults

Load UEFI default values for all the setup questions. F9 key can be used for this operation.

Launch EFI Shell from filesystem device

Attempts to Launch EFI Shell application (Shell64.efi) from one of the available filesystem devices.

7 Operating System

7.1 Customer Specified or Trial Version

The computer can be delivered with a customer specified operating system installed. Our standard operating systems are Windows 7, Windows XP or Linux. If no operating system is specified when ordering, a 30-day trial version of Windows 7 is installed.

IMPORTANT!
Please note that the trial version of Windows 7 stops working after 30 days of operation!

7.2 Shutting Down Properly

Shut down the computer in a proper way. If not, the operating system or application software may get interrupted and lose data. Do not switch the power supplies off to shut down the computer, follow the proper shut-down procedure from the operating system.

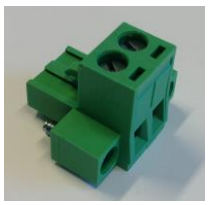
8 Service

All service for these products must be done by Autic System AS.

8.1 Return of products to Autic System.

Return equipment for service by registering the products via RMA registration at www.autic.no / Support / Returskjema (Return Form).

8.2 Accessories

Part name	***Illustration***	***Comment***
Power Adapter		Specify product Id when ordering.
Quick Mounting Kit		Set of 10 pcs.
Power Connector		Set of 2 pcs..
USB Touch Cable		For monitor to Box/Mini PC
Audio Cable		For monitor to Box/Mini PC