

AcuPNL-7920-17CSA Series User's Manual

Version V1.0
Updated in Nov 22/2013



Acura Embedded Systems Inc.

Table of Contents

System Overview..... 1

System View 6

I/O connectors 10

VESA mount installation 10

Panel mount installation 11

Unpacking 12

Setting up the System 12

Installing the Drivers 13

AcuPNL-7920 BIOS setup..... 14

Wake UP on LAN Function 15

System Overview

System Specification

CPU	Atom D525 1.8G
FSB	800MHz
Chipset	South bridge: Intel® ICH8M
Audio	Realtek ALC268 Audio Codec, 2+2 watts power amplifier
LAN	Marvell 88E8071 Gigabit Ethernet x 1
Memory	Single Channel, two DDR3 SODIMM socket support up to 4GB
I/O	Intel® ICH8M
Serial ATA	SATA II controller (3.0Gb/sec) Port x 2
USB	External USB 2.0 type A x 3 Internal For touch screen x 1 For WiFi (mini-PCIE) x 1 Pin Head to expansion x 2
WDT	Generates system reset; 256 segments, 0, 1, 2...255 sec.

Display Panel

Size	10.4"	12.1"	15"	17"
Resolution (pixel)	SVGA (800 x 600)	800x600 SVGA	1024x768 XGA	SXGA (1280 x 1024)
Number of Colors	262K	262K	16.7M	16.7M
View Angle (H/V)	130/110	160/110	R/L 140(Typ.), U/D 140(Typ)	160 / 160
Brightness (cd/m2)	230	400	300nit	380
Contrast Ratio	400:1	500:1	800:1	800:1
Power Consumption (W)	25	7.3	10.77W	25.8
Interface	LVDS	LVDS	8bit LVDS	2ch LVDS
Supply Voltage (V)	3.3	3.3	3.3	5
Backlight	2 CCFL	2 lamps/2 side	CCFL	4 CCFL
life time<Hrs>	20000	50000(h)	50000hrs	50000hrs
Operating temp.	-20-70°C	-30-85°C	0-50°C	0~60°C

Touch Screen: resistive or capacitive types

	AMT	3M
Type	5 wire RES	CAP
Glove	Any type glove	Need special conductive stylus
Stylus	No Limitation, can use any stylus	Only very thin latex glove
Vandal	NA	NA
Interface	USB	COM Port
Light Transmission	80±3%	91.5%
Hardness	3H	Mohs 7
Glass thickness	1.8mm	3.18mm
Linearity	$X \leq 1.5\%$, $Y \leq 1.5\%$	99.0%
Active area	212x159.20	205.74x158.75
Resolution	4096x4096	4096X4096
Lifetime	36 million activations	200 million touches

Touch Controller

RES EETI ,IC8051F321,MCU,TOUCH,28P,0.5MM,SMT,QFN

CAP EETI,ETP-ESCAP7000-02 (Option)

Storage

- HDD 2.5" SATA HDD drive bay x 1
- SATA DOM 2nd SATA connector pin7 with VCC_(+5V)

Expansion

- Mini-PCIe 52 pin card-edge type x 1 support half/full size (for WLAN module)

External I/O

- USB USB 2.0 x 3
- COM DB-9 x 3 (RS232/422/485 x 1, RS232 x 2)
- LAN RJ-45 x 1 (Gigabit Ethernet)
- Audio 3.5mm phone jack connector * 2 (Line-out, and Mic-in)
- VGA output DB-15 x 1

Power

Power	DC-In connector x 1 (Jack with locker)
Switch	Reset key
LED indicator	Green: power On/Off Orange: HDD status
on Aluminum bezel	
Power Input	DC12V~28V
Power Adapter	AC 90 ~ 264V / 47 ~ 63 Hz / DC output 12V (10",12",15")
	AC100~240V / 47 ~ 63 Hz / DC output 12V (17")

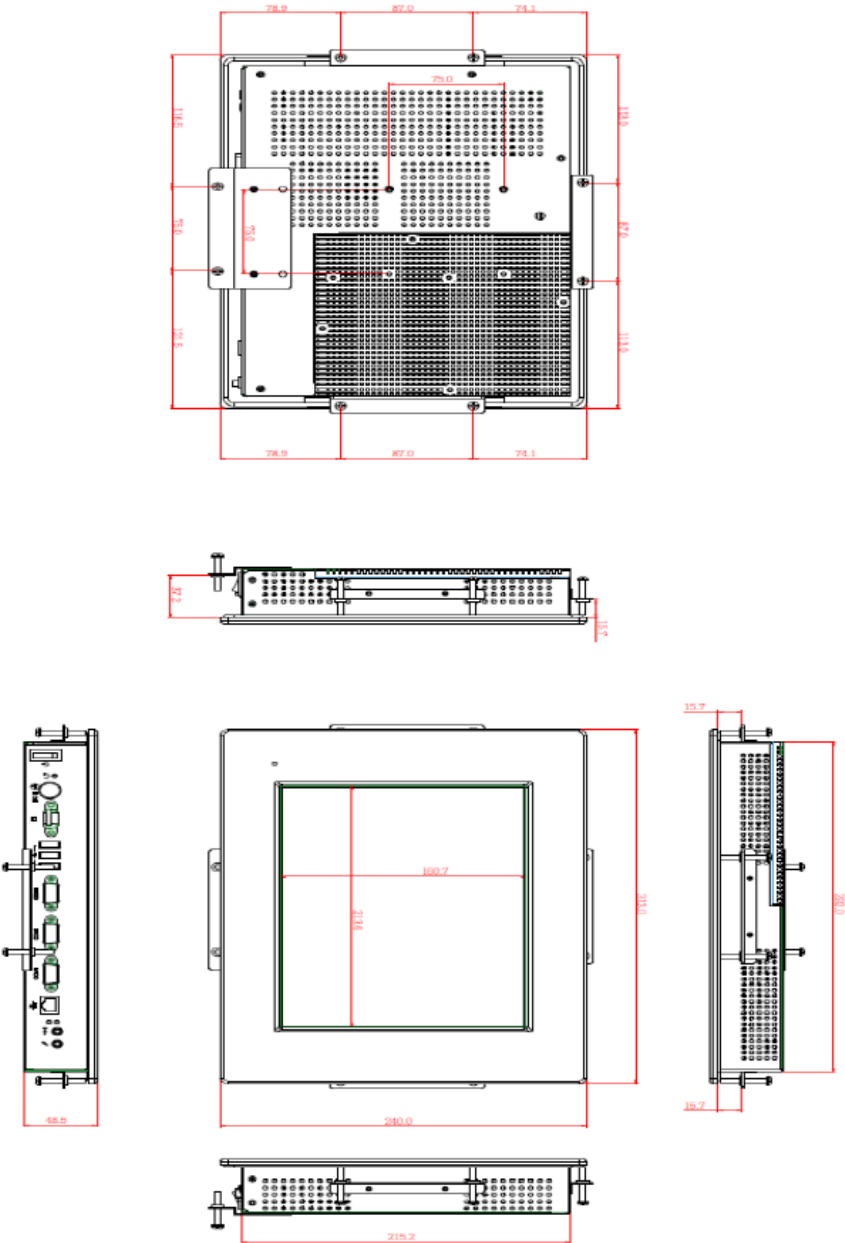
Mechanical & Environmental

Material construction	Front bezel is Aluminum or SECC, others are SECC enclosure
Aluminum bezel Color	Black/Silver
Front Panel Protection	IP66/NEMA4X
ID design	Panel mount / Open frame
Operation Temperature	12V DC Input 0~50°C(IEC60068-2-56, air flow cooling)
Storage Temperature	-20~60°C
Operation Relative Humidity	10%~90%, non-condensing
Storage Relative Humidity	10%~90%, non-condensing
Mounting	Panel mount/VESA (75x75)

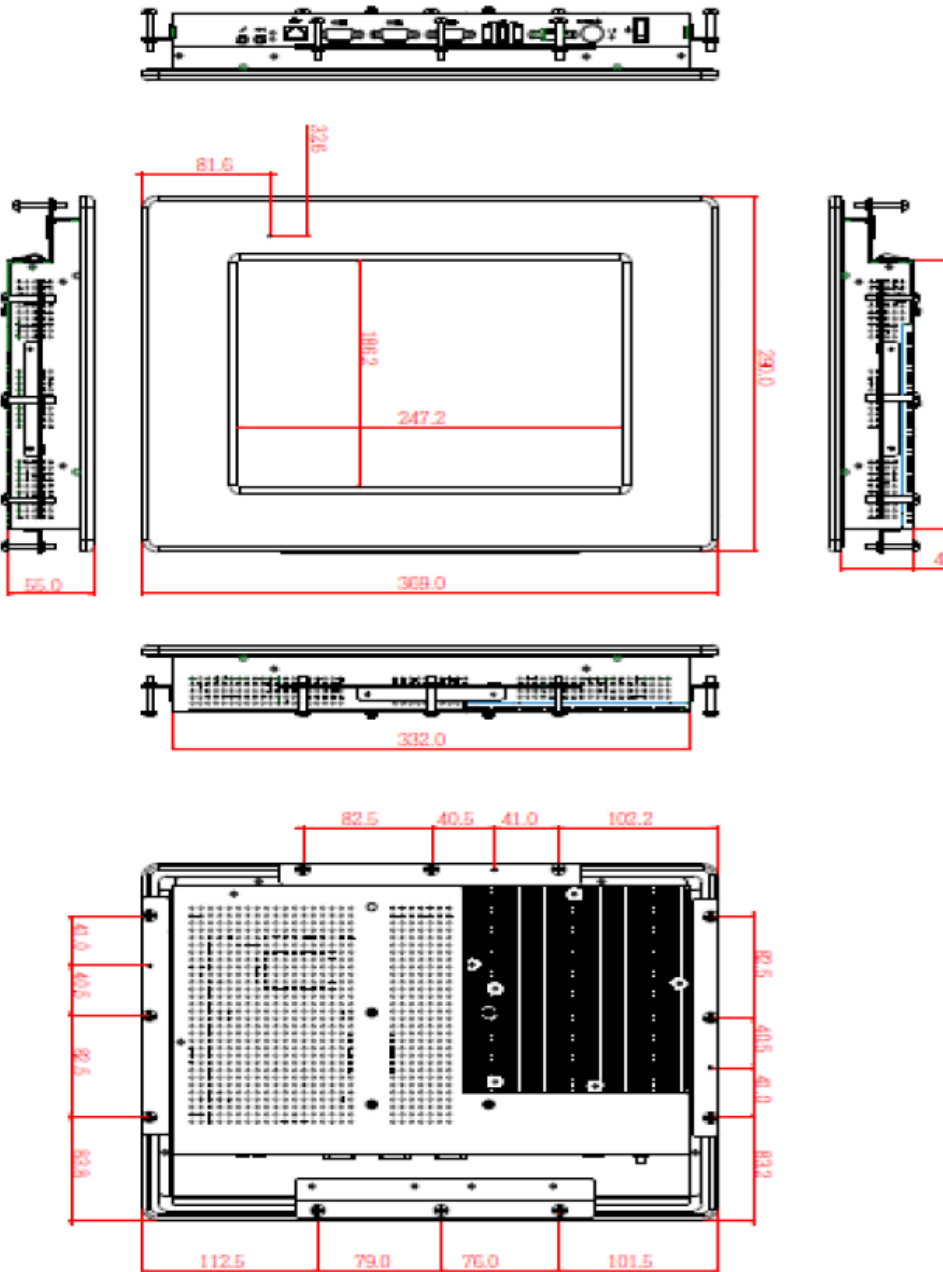
	Net Weight	Gross Weight	Panel mount
10"	3.8Kg	5.8Kg	313×240×49 mm
12"	5.3Kg	7.3Kg	369 x 290 x 55 mm
15"	6.6Kg	9.6Kg	398x330x58 mm
17"	7.7 Kg	10.7 Kg	426.2x358.6x62 mm

System View

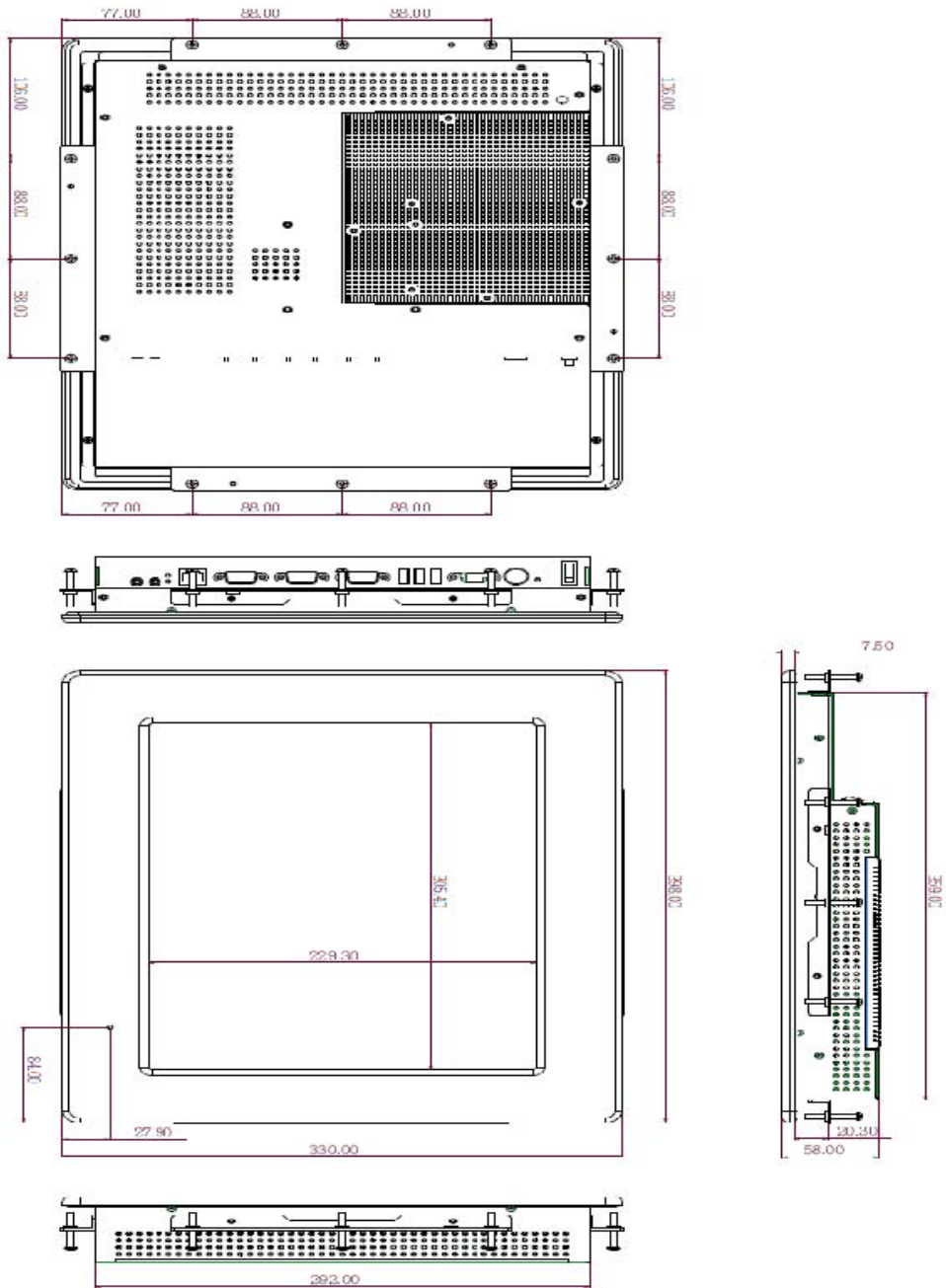
AcuPNL-7920-10CSA Outline Drawing (Panel Mount)



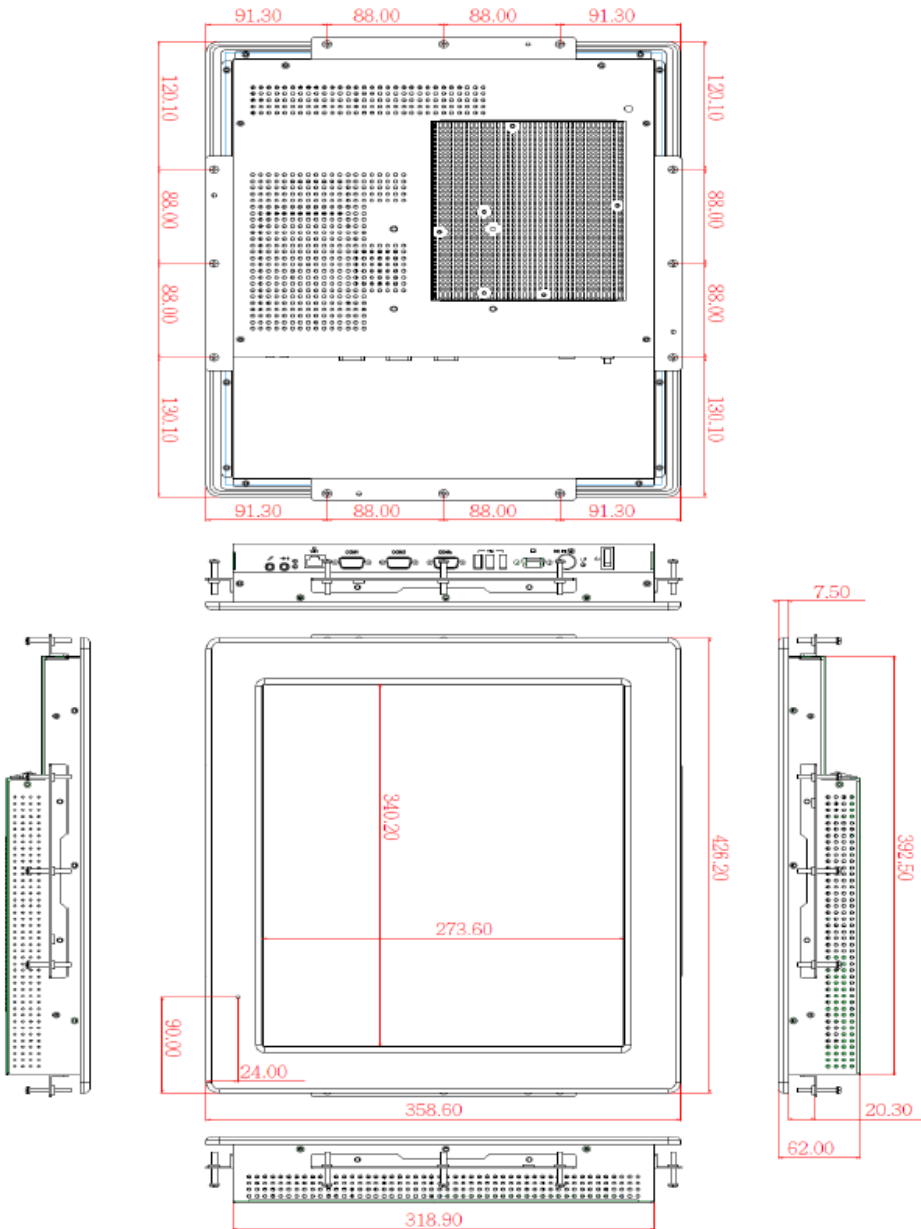
AcuPNL-7920-12CSA Outline Drawing (Panel Mount)



AcuPNL-7920-15CSA Outline Drawing (Panel Mount)



AcuPNL-7920-17CSA Outline Drawing (Panel Mount)



I/O connectors



Note: Share the same place with VGA output, DVI and VGA not simultaneously

VESA mount installation

Please use the supplied 4 x M4-L10 screws for VESA mounting. And as below VESA mounting holder is just a diagrammatic drawing. You can choose any standard VESA 75x75 mm mounting holder to mount our machine.

For use only with UL listed Wall Mount Bracket with minimum weight/load bearing capacity 10 Kg

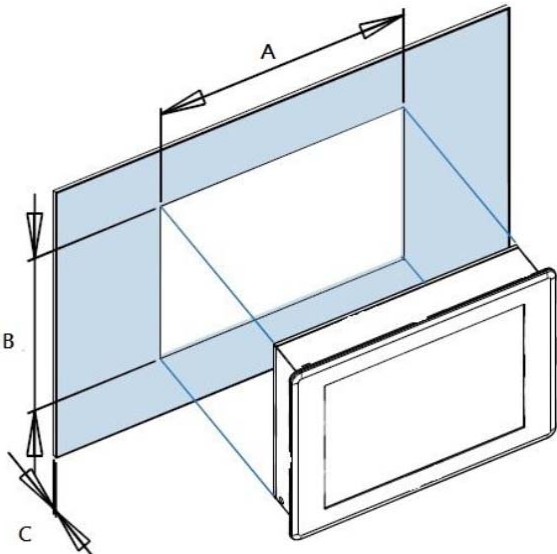


Panel mount installation

1. The Panel PC can be panel mounted and comes with brackets and screws for this purpose. The required cutout for panel mounting and maximum panel thickness is shown below.

	A	B	C
AcuPNL-7920-10	296	224	12
AcuPNL-7920-12	345	266	15
AcuPNL-7920-15	375	305	16
AcuPNL-7920-17	405	330	16

Unit: mm



2. Secure the chassis to the panel by tightening the screws and brackets against the panel.



Unpacking

After unpacking the shipping carton, you should find these standard items:

The AcuPNL-7920 Panel PC series

Accessory box including the followings:

- AC-DC adapter x 1
- AC power cord x 1
- Mounting brackets x4
- Screws (M3x0.5PxL6) x 8
- Screws (M4x0.7PxL44) x 8
- CD-ROM for drivers, utility, user manual(in PDF format)

Setting up the System

The following is a summary of the steps in setting up the system for use.

CAUTION: Make sure that power to the system and each of the devices to be connected is switched OFF before plugging in the connectors.

1. Make any required external connections such as the keyboard, and mouse.

2. Plug the appropriate end of the power cord into the power connector of the system. Then plug the other end of the power cord to an electrical outlet.
3. Press the power switch of the system to turn on the system's power.
4. If necessary, run the AcuPNL-7920 BIOS SETUP program to configure the system .(see next page)
5. Install the software drivers if necessary.

Installing Operating System Software

Recent releases of operating systems from major vendors include setup programs, which load automatically and guide you through hard disk preparation and operating system installation. The guidelines below will help you determine the steps necessary to install your operating system on the Panel PC hard drive.

NOTE: Some distributors and system integrators may have already pre-installed system software prior to shipment of your Panel PC.

Installing software requires an installed HDD. Software can be loaded in the AcuPNL-7920 Panel PC using any of below methods:

Method 1: Use the Ethernet

You can use the Ethernet port to download software from the net to the HDD that has been pre-installed in AcuPNL-7920 Panel PC

Method 2: Use the COM Port

By connecting another PC to the AcuPNL-7920 Panel PC with an appropriate cable, you can use transmission software to transmit Operation System Software to the HDD that has been pre-installed in the AcuPNL-7920 Panel PC.

Method 3: Use a External CD-ROM

In order to boot up system from USB-CD/DVD drive, please connect USB-CD/DVD drive, turn on computer power, keep on pressing "F11" key, go into BIOS quick boot menu, select "USB-CD ROM", WAIT FOR 20 SECONDS, then press enter, system OS will boot up from USB-CD/DVD drive directly Then you can use the external CD-ROM to transmit the software to the HDD that has been pre-installed in the AcuPNL-7920 Panel PC

Installing the Drivers

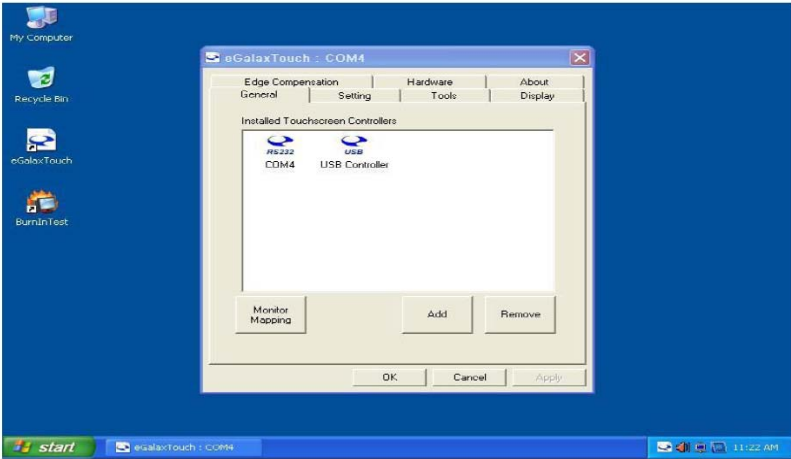
After installing your OS software, you will be able to set up the LAN, VGA, Audio and USB functions. All drivers are stored in a CD disc, which can be found in your accessory pack.

The various drivers and utilities in the disc have their own text files that help users install the drivers and understand their functions.

Note:

eGalax Touch driver supports both resistive and capacitive touch screens, user can find 2 touch icons shown in utility, please set up touch screen by selecting the correlative one.

(USB controller: resistive touch screen, RS232 COM4: capacitive touch screen)



AcuPNL-7920 BIOS Setup

The AMI BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer, the Award BIOS is immediately activated. Pressing the key immediately allows you to enter the Setup utility. If you are a little bit late pressing the key, POST (Power On Self Test) will continue with its test routines, thus preventing you from invoking the Setup. If you still wish to enter Setup, restart the system by pressing the "Reset" button or simultaneously pressing the <Ctrl>, <Alt> and <Delete> keys. You can also restart by turning the system Off and back On again. The following message will appear on the screen:

Press to Enter Setup

In general, you press the arrow keys to highlight items, <Enter> to select, the <PgUp> and <PgDn> keys to change entries, <F1> for help and <Esc> to quit.

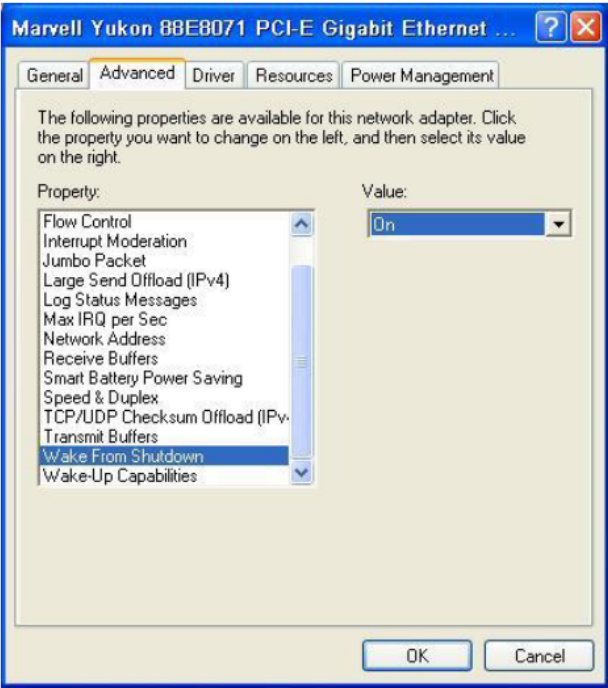
When you enter the Setup utility, the Main Menu screen will appear on the screen. The Main Menu allows you to select from various setup functions and exit choices.

Wake UP on LAN Function

Please make sure the AC power is ON before use the function.

1. Boot into OS (windows XP).
2. In start menu control panel System device manager Network adapters double click Marvell Yukon 88E8071 Advance Wake from Shutdown Item select Wake on Magic packet from power off state.

Please shutdown system and wait for wake on LAN after finish these procedures.





With the unique set of products, Acura Embedded Systems remains committed to its goal of providing trouble-free and customer-friendly service. A special customer service unit has been set up specifically to cater to our esteemed customers' needs.

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