DAP M9020
Rugged Tablet PC

(Intel® Atom™ Dual Core N2600)

USERS Guide

Version: 1.0

User and Product Safety

✓ Do not stare into the laser or LED beam directly or shine it into eyes.

✓ Never use strong pressure onto the screen or subject it to severe impact, as the LCD panel could become cracked and possibility cause personal injury. If the LCD panel is broken, never touch the liquid inside because the liquid irritates the skin.

✓ Although the PDT has passed the test of IP65 standard for water and dust resistance, avoid prolonged exposure to rain or other concentrated moisture. Such condition exceeds the IP65 standard, and could result in water or other contaminants entering into the PDT.

✓ Use only the original approved AC Adapter with the PDT. Use of an unapproved AC Adapter could result in electrical problems, or even cause a fire or electrical shock to the user.

✓ Do not disassemble the PDT. Servicing should be done by supplier only. If the PDT or accessories gets damaged due to wrong handling or unauthorized repair, warranty is void. In case the warranty seals are broken, warranty is void too.

✓ Make regularly back-up of all important data.

✓ Under no circumstance will supplier be liable for any direct, indirect, consequential or incidental damages baring out of the use or inability to use the hardware and software and/or any data loss, even if supplier has been informed about the possibility of such damages.

✓ LASER RADIATION: DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT.

Battery Safety

Lithium-ion battery packs might get hot, explode, ignite and/or cause serious injury if exploded by abusive using. Please follow the safety warnings listed as below:

✓   Do not throw the battery pack in fire. Do not expose the battery to high temperatures.

✓   Do not connect the positive battery pack with negative battery pack to each other with any metal object (like wire).

✓   Do not carry or store battery pack together with metal objects.

✓   Do not pierce the battery pack with nails or drills, strike the battery pack with a hammer, step on the battery pack or otherwise expose it to strong impacts, shocks or excessive force.

✓   Do not solder onto the battery pack.

✓   Do not expose battery pack to liquid or allow the battery contacts to get wet.

✓   Do not disassemble or modify the battery pack. The battery pack contains safety and protection measures, which, if damaged, may cause the battery pack to generate heat, explode or ignite.

✓   Do not discharge the battery pack using any device except for the specified device. When it is used in devices other than the specified devices, the battery pack can be damaged or its life expectancy reduced. If the device causes any abnormal current to flow, it may cause the battery pack to become hot, explode or ignite and cause serious injury.

✓   In the event the battery pack leaks and the fluid gets into one's eye, do not rub the eye. Rinse well with water and immediately seek medical care. If left untreated, the battery fluid could cause damage to the eye.

FEDERAL COMMUNICATIONS COMMISSION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

CAUTION:
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF exposure warning
The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment.
The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

RF exposure information (SAR)
This Rugged Tablet PC meets the government's requirements for exposure to radio waves. This Rugged Tablet PC is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. The exposure standard for wireless Rugged Tablet PC employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit

set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the Rugged Tablet PC transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the Rugged Tablet PC while operating can be well below the maximum value. This is because the Rugged Tablet PC is designed to operate at multiple power levels so as to use only the poser required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output. The highest SAR value for US model Rugged Tablet PC as reported to the FCC when tested for use at the body, as described in this user guide, is 1.184 W/kg.

Industry Canada Class B Statement

CAN ICES-3 (B)/NMB-3(B)

This device complies with Industry Canada licence-exempt RSS standard(s).Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IEEE 802.11b or 802.11g operation of this product in the Canada is firmware-limited to channels 1 through 11.

Déclarations d'exposition aux RF liéesAvertissement d'exposition RF: L'équipement est conforme aux limites d'exposition aux RF établies pour un environnement non contrôlé. L'antenne (s) utilisée pour ce transmetteur ne doit pas être co-localisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur.

Specifications

Operating System	Windows Embedded Standard 7,
Processor	Intel Atom™ N2600 1.6 GHz
Memory	2 GB DDR3 SDRAM (4 GB optional)
Display	Sunlight-viewable
	Hardened touch-screen
	Landscape or portrait orientation
	Passive stylus or finger operation
	7-inch WVGA (1024 x 600)
	700 nits
Sensors	Light sensor for auto backlight adjustment
	Position sensor (accelerometer) for portrait
	or landscape
	screen orientation
Keypad / Buttons	Qwerty keypad
	6 programmable keys
Communications	WLAN — Summit 802.11 a/b/g/n
	GPS — uBlox NEO-6 series
	Bluetooth — V4.0 + EDR Class II
Input / Output	Power jack
	1x RS-232
	1x USB 2.0
	Via dock connector:
	2x RS-232
	2x USB 2.0
	1x Ethernet
Barcode Scanning	Standard range barcode: 2D imager
	Camera: 5-MP color camera with flash
Expansion Slots	SD card slot (supports up to 32 GB)
	Multi-I/O interface:
	2x USB 2.0
	1x power output 5V 2A
	1x VGA out
	2x RS-232
Audio	Speaker
	Intel HD Audio

	3.2 mm stereo headset jack
Software	Windows Embedded 7:
	IE8, IIS 7.0, .NET 3.5, Remote Desktop,
	SQL, Backup
	and Restore, Boot from VHD or USB,
	Power Management,
	EWF and FBWF
Power	**Primary internal:**
	Li-ion battery, 7.4 V, 3000 mAh
	Secondary battery:
	Li-ion battery pack, 7.4 V, 3000 mAh
	Input:
	10–20 VDC, 2 A
Dimensions & Weight	9.0 (L) $\times$ 7.3 (W) $\times$ 2.3 (H) inches [230 $\times$ 185 $\times$ 60 mm]
Regulatory	
Environment	**Operating temperature:**
	-4 to +122 °F [-20 to +50 °C]
	Charging temperature:
	32 to +104 °F [0 to +40 °C]
	Storage temperature:
	-22 to +158 °F [-30 to +70 °C]
	Drop:
	Multiple 6-foot (1.8-meter) drops to concrete
	ESD:
	15 kV air discharge, 8 kV direct discharge
	Sealing:
	IP67 certified
	Humidity:
	5%-95%, non-condensing
	Vibration:
	MIL-STD-810F

LED Indicators

Blue LED

Indicates that batteries are charging.

Green LED

Indicates that batteries are charged

Flashing Green LED

Indicates that unit is booting, resuming, or hibernating.

RED LED

- Faulty: Can't charge.
- Either Battery #1 or Battery#2 is missing

Blinking Red

- <= 20% : every 5s
- <= 15%: every 3s
- <= 10%: every 1s

Menu Function Adjustment

#	Action	Function Description	Funtion Adjustment	
1	**Push "Menu" button** **1 Time**	Show Current Brightness	Click "**Fn+Up**" button to increase brightness (Or Drag by Touch)	Click "**Fn+Down**" to decrease brightness(Or Drag by Touch)
2	**Push "Menu" button** **2 Times**	Show current Volume	Click "**Fn+Right**" button to increase volume(Or Drag by Touch)	Click "**Fn+Left**" to decrease volume(Or Drag by Touch)
3	**Push "Menu" button** **3 Times**	Show current Battery status		
4	**Push "Menu" button** **4 Times**		Show current on/off of Wireless\ Bluetooth \3G \ GPS\ Camera mode and Barcode. 1. WiFi on/off 2. Bluetooth on/off 3. GPS on/off 4. Camera On/Off 5. Barcode On/Off	
5	**Push "Menu" button 5 Times**		Show current Hottab version	

How to use HotTab Hotkey Function
From the operation system installation, we will provide you Hot-tab Hotkey software utility. After installation, you can see the shortcut on desktop of computer.

Click the shortcut and you can see the software application at center of desktop.
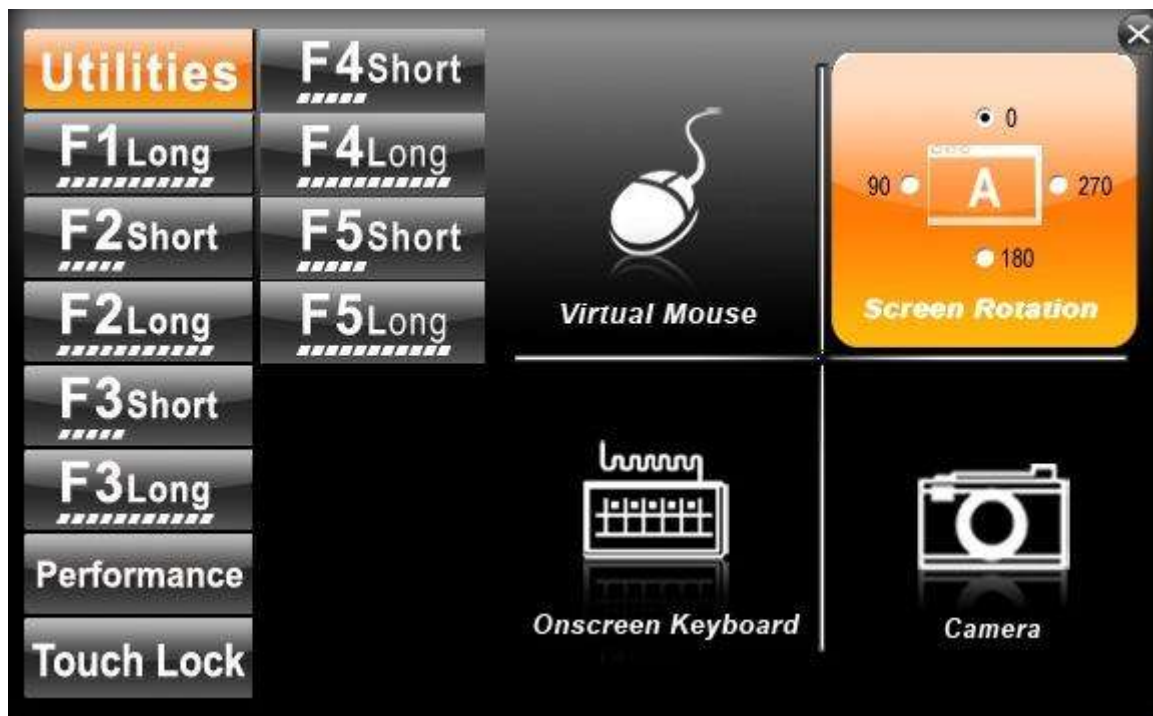
The HotTab Hotkey software program is the Five key programmable application software; we choose some usual applied function for default setup. For example, User can choose his own application program very easy by setting up the function from the setup window.
**Hot-Tab Hotkey Function**
Use the HotTab software utility to make it easy to program and define hot keys by customer's usual application.

#	Action	Function Description	Funtion Adjustment	See Other Intro.
1	Press "F1"	Default：Hot TAB functions		
2	Hold "F1"	Default：Internet Explorer		Long Push: 4sec.
3	Press "F2"	Default：Internet Explorer		
4	Hold "F2"	Default：Media Player		Long Push: 4sec.
5	Press "F3"	Default：My Document	Use "Browse" and choose the execution program file	
6	Hold "F3"	Default：Calculator		Long Push: 4sec.
6	Press "F4"	Default：Page Up		
6	Hold "F4"	Default：Page Down		Long Push: 4sec.
6	Press "F5"	Default：Rotation Lock		
6	Hold "F5"	Default：Wireless Utility		Long Push: 4sec.

1. Hot TAB functions will show four functions
   A. The first is virtual mouse
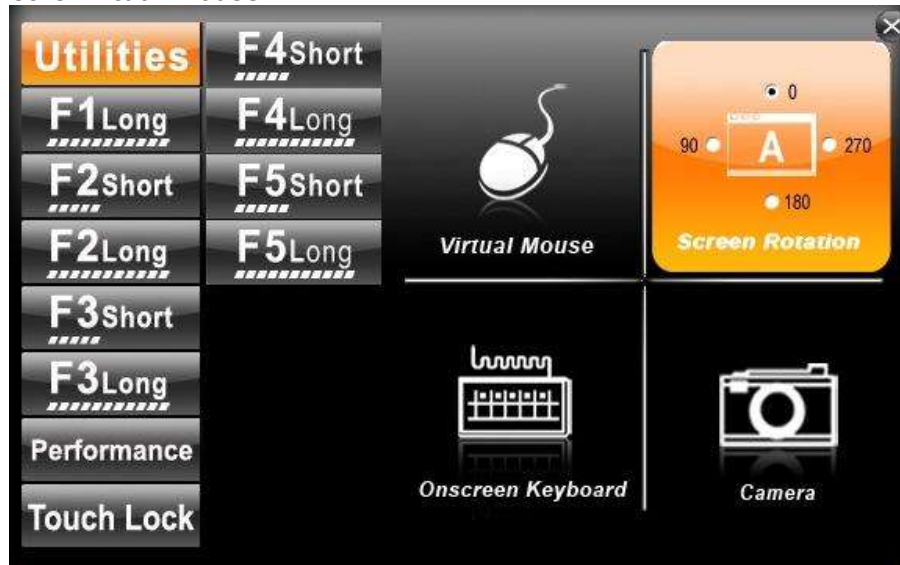
   B. Screen rotation
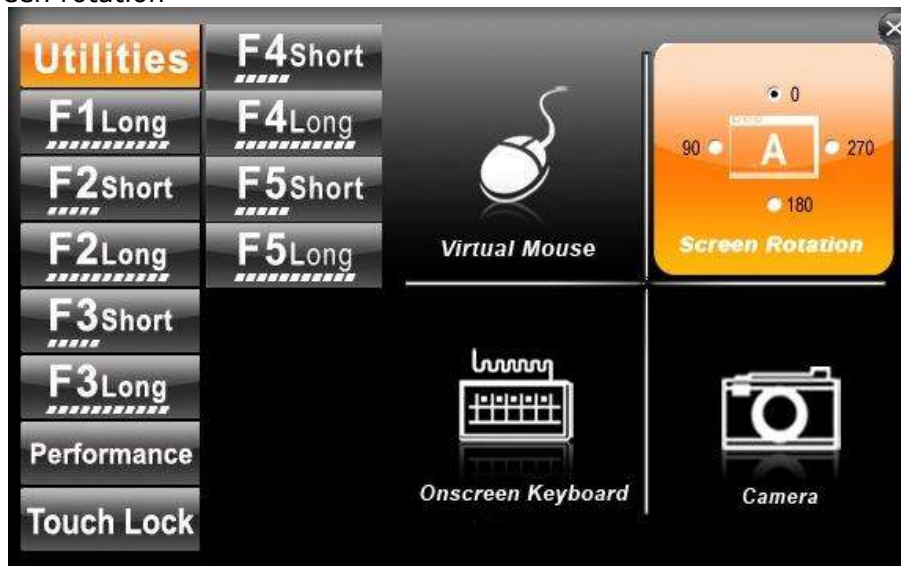
   C. Onscreen Keyboard

2. Power Manage function

Connecting to a Wireless Network
1. Push Menu function and making sure the Wireless function is "On".

By using the defult build-in module, the Windows **Wireless Network Connection** will be enabled.

Using the Bluetooth Wireless Feature
1. Choose **HotTab AP** Menu function and making sure the Bluetooth function is "On".
2. After installing the driver utility, the Bluetooth shortcut will shown on screen, double click the shortcut and it will search any bluetooth device automatically. Or double click "**Search Devices**" to search again.

Choose the bluetooth device you want to connect, and left click to choose "**Connect**". Then the device will be connected to the module.
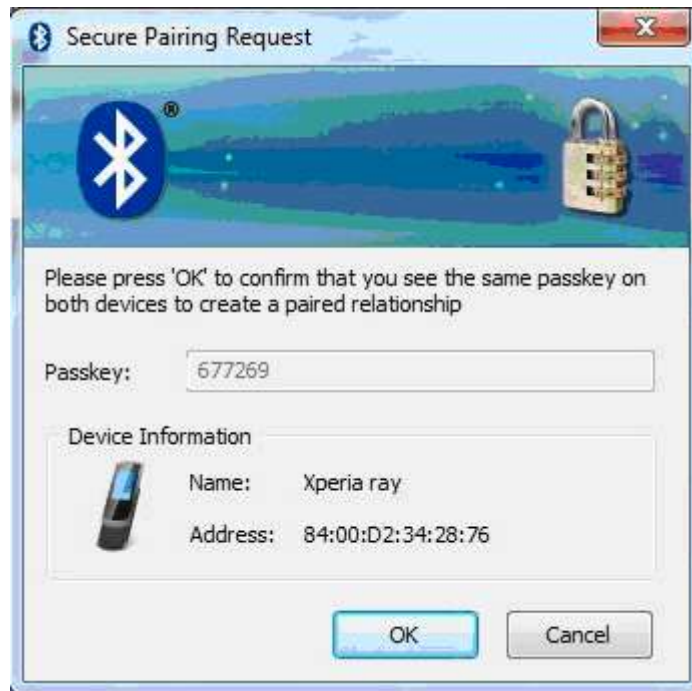
Using the GPS Feature

We apply a on board GPS module for default function of the Tablet PC series.

1. Choose **HotTab AP** Menu function and making sure the GPS Module is "On".
2. Click the u-center icon to start the GPS function settings.

3. Setting the Receiver Port to COM9
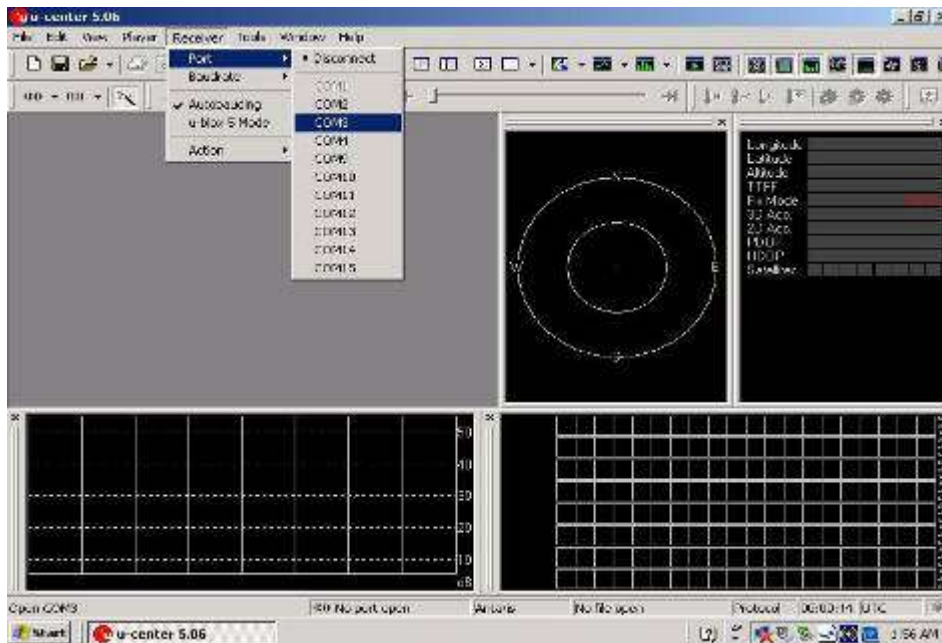
4. Setting the Receiver Baudrate to 9600
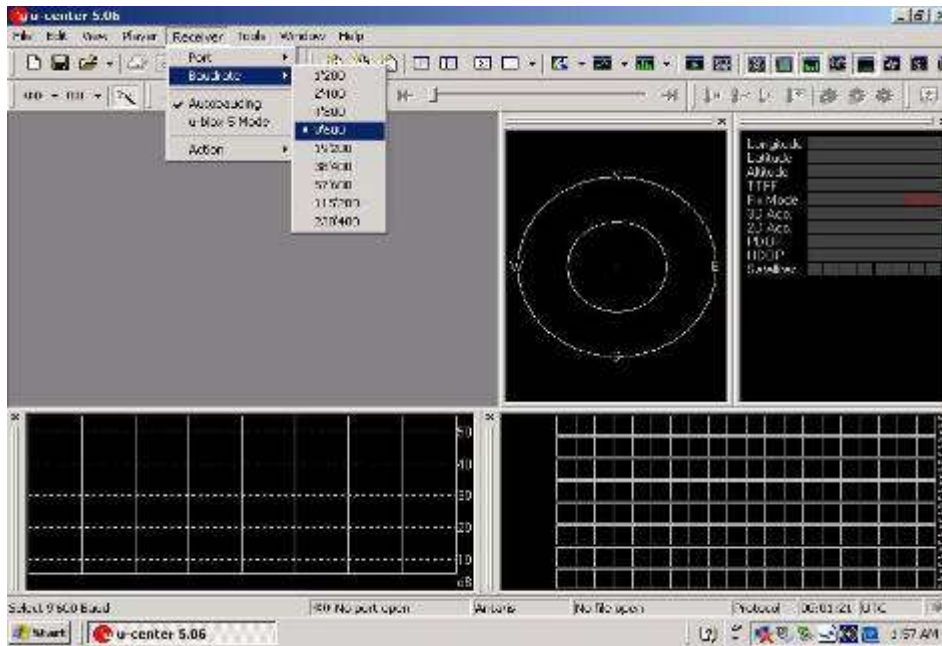
5. GPS Module will start Cold Start. When the positioning is complete, the Fix Mode will appear as DR
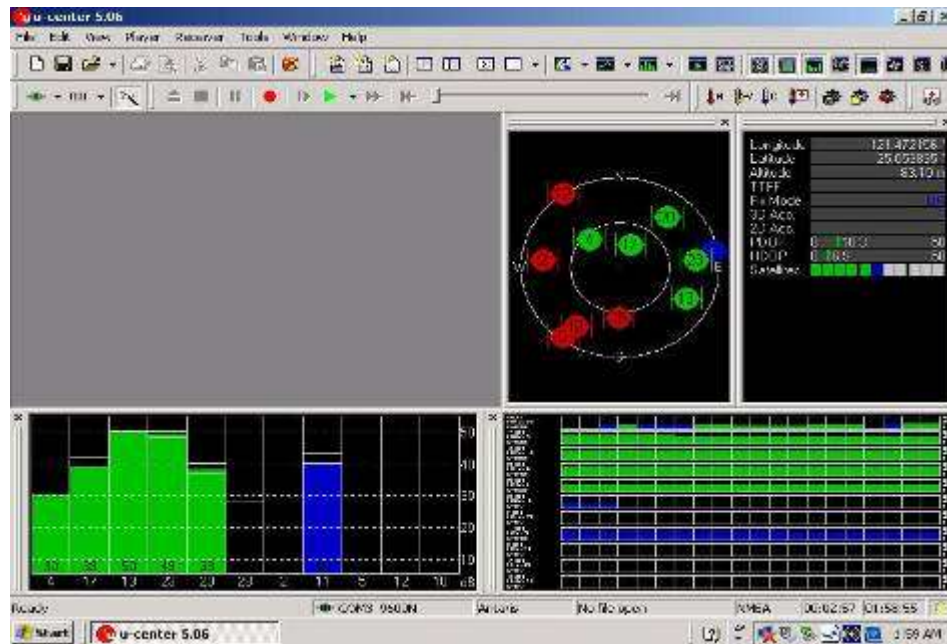
Using the Camera Feature
1. Choose **HotTab AP** Menu function and making sure the Camera Module is "On"
2. Press Camera button to open the camera AP.
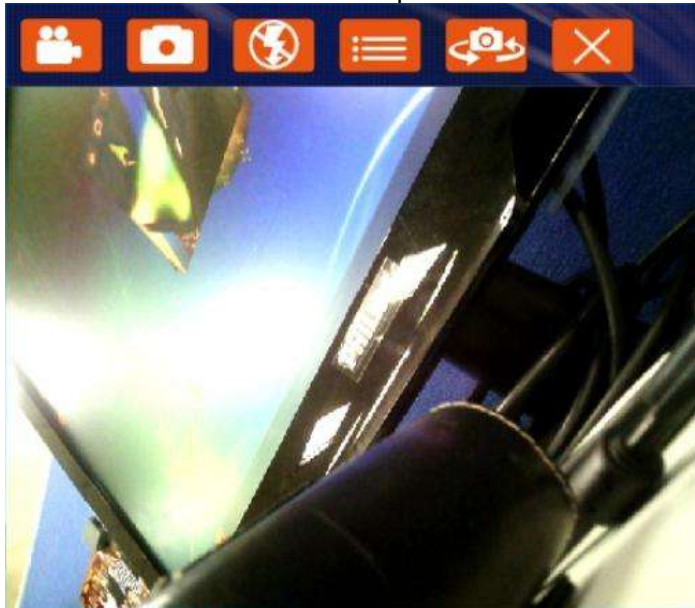
3. Setting the image pre-view resolution .
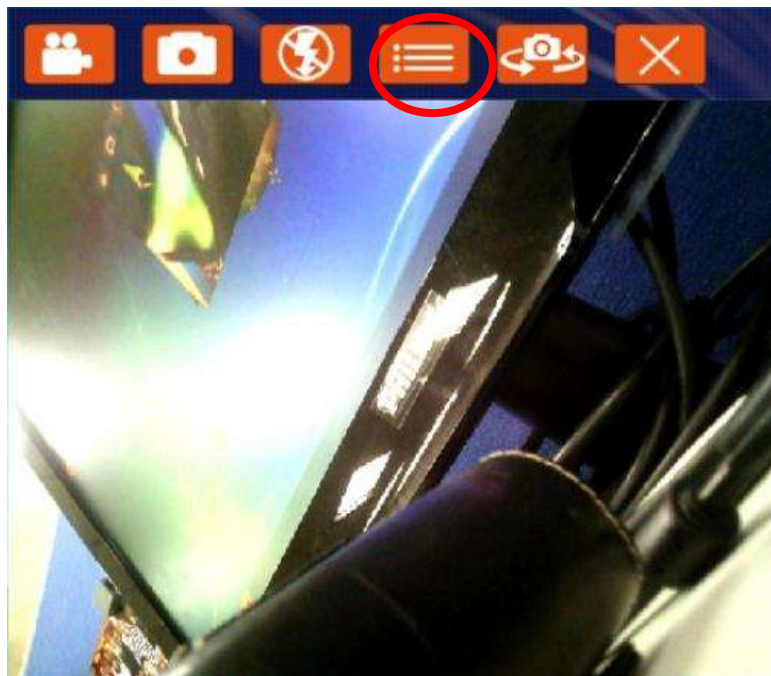
When you set the pre-view resolution to 640*480,the final picture resolution is also
640*480..
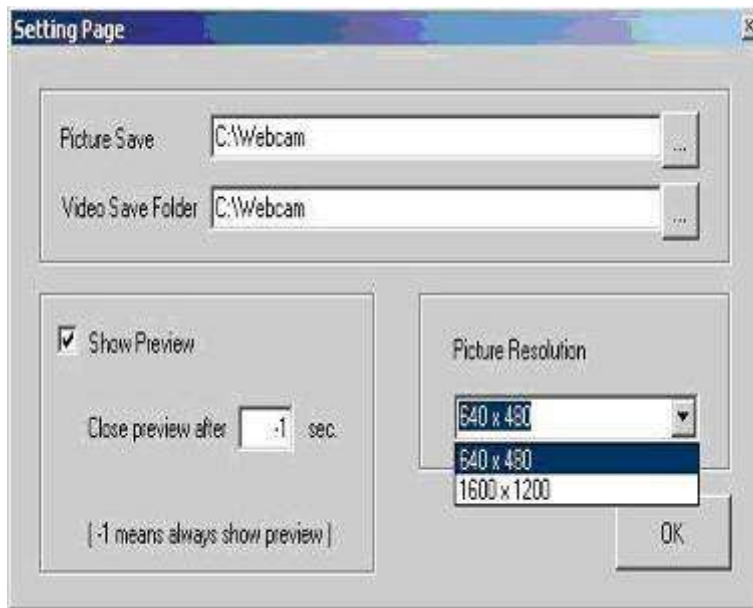
4. Click the icon to take a picture.
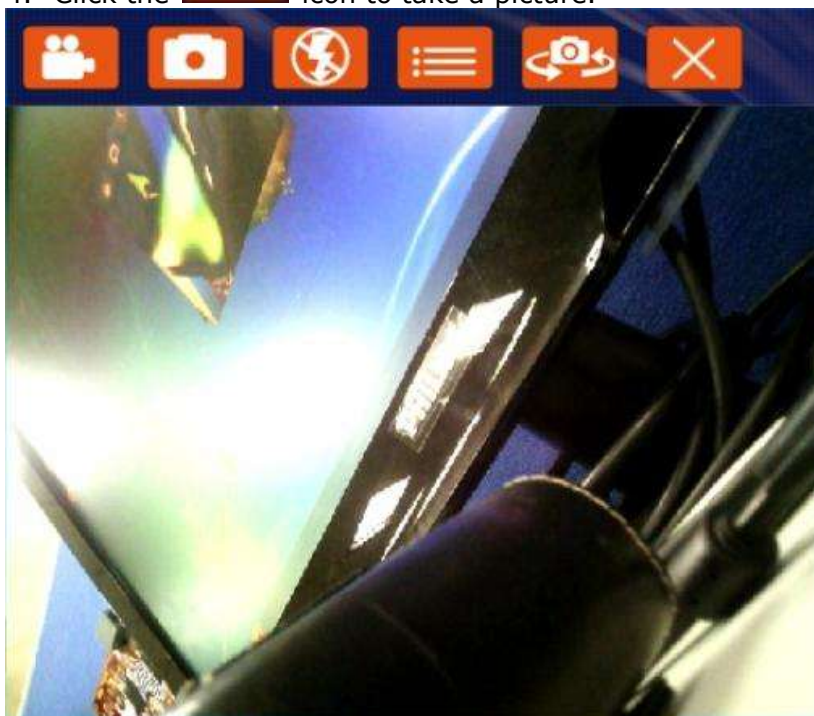
How and When to Use BIOS Setup

For enter to the Tablet PC BIOS setup, you need connect to external usb keyboarb, press "**Del**" key when the prompt appears on the screen during start up. The prompt screen shows only few seconds so need press Del key quickly.

**NOTICE

Updated BIOS version may be published after the manual is released. Check with the latest version of BIOS on website.

You may need to run BIOS setup utility when the below status.
1. Error message on sreen indicate to check BIOS setup.
2. Restoring the factory default settings.
3. Modifing the specific hardware specification
4. Want to opttimize the specification.

To control the keyboard to select BIOS utility setup, you need

Keyboard Icon	Function Description
⬅ ➡	Selects a menu title
⬆ ⬇	Selects an item or option
Enter	Go to the sub-menu when available Opens or closes the option window when an item is selected
Esc	To leave sub-menu and return to main menu.

**NOTICE

You can press the F1, F9, F10, –/+, and Esc keys by connecting a USB keyboard to your tablet

PC. Make sure that the item "**Legacy USB Sup**

BIOS Functions

4.2.1 Main Menu
The main menu contains the information of the Tablet system including BIOS version, processor, system memory, time, and date.

4.2.2 Advanced Menu
The advanced menu contains the configuration information of CPU.
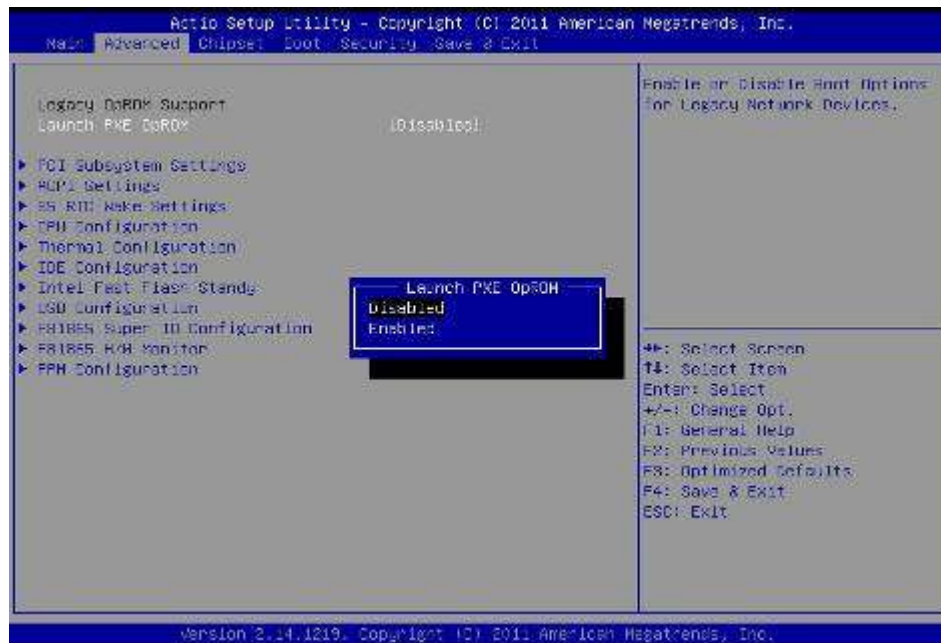
4.2.3 Boot Menu

The Boot menu sets the sequence of the devices to be searched for the operating system.

The bootable devices will be automatically detected during POST and shown here, allowing you to set the sequence that the BIOS uses to look for a boot device from which to load the operating system. A brief description of button usage is listed next:

```
                        BIOS SETUP UTILITY
 Main    Advanced    Boot    Security    Exit

 Boot Settings                              Specifies the
 ──────────────────────────────────────    Boot Device
 ▶ Boot Device Priority                     Priority sequence.




                                            ←     Select Screen
                                            ↑↓    Select Item
                                            Enter Go to Sub Screen
                                            F1    General Help
                                            F10   Save and Exit
                                            ESC   Exit


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```

```
                        BIOS SETUP UTILITY
                  Boot

 Boot Device Priority                       Specifies the boot
 ──────────────────────────────────────    sequence from the
 1st Boot Device        [USB:Kingston DataT]  available devices.
 2nd Boot Device        [Network:Realtek Bo]
 3rd Boot Device        [SATA:PM-TOSHIBA MK]  A device enclosed in
                                            parenthesis has been
                                            disabled in the
                                            corresponding type
                                            menu.


                                            ←     Select Screen
                                            ↑↓    Select Item
                                            +-    Change Option
                                            F1    General Help
                                            F10   Save and Exit
                                            ESC   Exit


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Chck the Hard Disk Device in **Hard Disk Drives**.

4.2.4 Exit Menu

The Exit menu displays ways of exiting BIOS Setup utility. After finishing with your settings, you must save and exit so that the changes can take effect.

Save Canges and Exit saves the changes you have made and exits BIOS Setup utility.

Discarding Changes and Exit exits BIOS Setup utility without saving the changes you have made.

Discard Changes restores the previous values for all the items.

Load Optimal Default loads the factory default values for all the items.

```
                        BIOS SETUP UTILITY
 Main     Advanced    Boot     Security     Exit

 Exit Options                                  Exit system setup
 ─────────────────────────────────────         after saving the
 Save Changes and Exit                          changes.
 Discard Changes and Exit
 Discard Changes                               F10 key can be used
                                               for this operation.
 Load Optimal Defaults
 Load Failsafe Defaults




                                               ←     Select Screen
                                               ↑↓    Select Item
                                               Enter Go to Sub Screen
                                               F1    General Help
                                               F10   Save and Exit
                                               ESC   Exit

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