



VX-601

User's Manual







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Safety Precautions

1. Read these safety instructions carefully.
2. Keep this user's manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a stable surface during installation. Dropping it or letting it fall may cause damage.
7. Do not leave this equipment in either an unconditioned environment or in an above 40°C storage temperature as this may damage the equipment.
8. The openings on the enclosure are for air convection to protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
9. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
10. Place the power cord in a way so that people will not step on it. Do not place anything on top of the power cord. Use a power cord that has been approved for use with the product and that it matches the voltage and current marked on the product's electrical range label. The voltage and current rating of the cord must be greater than the voltage and current rating marked on the product.
11. All cautions and warnings on the equipment should be noted.
12. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
13. Never pour any liquid into an opening. This may cause fire or electrical shock.
14. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
15. If one of the following situations arises, get the equipment checked by service personnel:
 - a. The power cord or plug is damaged.
 - b. Liquid has penetrated into the equipment.
 - c. The equipment has been exposed to moisture.



- d. The equipment does not work well, or you cannot get it to work according to the user's manual.
 - e. The equipment has been dropped and damaged.
 - f. The equipment has obvious signs of breakage.
16. Do not place heavy objects on the equipment.
 17. The unit uses a three-wire ground cable which is equipped with a third pin to ground the unit and prevent electric shock. Do not defeat the purpose of this pin. If your outlet does not support this kind of plug, contact your electrician to replace your obsolete outlet.
 18. **CAUTION:** DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY RE- PLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.



Regulatory and Certification

FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

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 the 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.

Shielded interconnect cables and shielded AC power cable must be employed with this equipment to insure compliance with the pertinent RF emission limits governing this device. Changes or modifications not expressly approved by the system's manufacturer could void the user's authority to operate the equipment.



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

This device is operation in 5.15 – 5.25GHz frequency range, then restricted in indoor use only, Outdoor operations in the 5.15 – 5.25GHz is prohibit.



CE Marking

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. Please contact your local representative for ordering information.

This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. In order to protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

RED

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC.

Lithium Battery Safety Statement

Lithium battery inside. Danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by battery manufacturer.



THIS PRODUCT CONTAINS LITHIUM-ION BATTERY PACKS. IT MUST BE DISPOSED OF PROPERLY. CONTACT LOCAL ENVIRONMENTAL AGENCIES FOR INFORMATION ON RECYCLING AND DISPOSAL PLANS IN YOUR AREA.



Chapter 1. Product Introduction

VX-601 is the 12.4" in-vehicle terminal with 700/1200nits brightness display and is designed for flexible wireless connection capability expansions. The device is built for warehouse management, harbor management, asset management applications. VX-601's optimized power system design for cold cranking, load dump, transient voltage and ESD. With IP66 protection rating, wide temperature design, wide power range input, and rich expanding interfaces supporting in-vehicle connectivity.

Hardware Specifications

Item	Description
Processor	Intel® Core™ i5-6300U 2.4GHz Processor
Memory	DDR3L 4GB SDRAM up to 32GB (by request)
Storage	M.2 2280 x 1, Micro SD slot x 1
Display	<ul style="list-style-type: none"> ● 12.1-inch XGA (1024 x 768) ● 700/ 1200 nits ● Viewing angel: 160(H)/ 160(V) (CR>10)
Touch Panel	<ul style="list-style-type: none"> ● Projected Capacitive Touch Screen
Wireless Connectivity	<ul style="list-style-type: none"> ● 802.11 ac/a/b/g/n 2x2 ● Bluetooth 4.0 + HS ● GPS / QZSS or GLONASS (COM3) ● 1 mini PCIe slot (full size) for cellular module ● External SMB Jack connectors for wireless expansion (GPS) *support external antenna only ● External RP-SMA Jack connectors for wireless expansion (Wi-Fi/BT/WWAN) *Wi-Fi supports external & internal, the default setting is internal antenna. Support external antenna SMA Jack change. WWAN support external antenna only.
Item	Description



Power Input	9~60VDC,12A
Battery	4500mAh, 10.8V
Housing (Mechanical)	De-casting aluminium, fanless design
Certification	CE, FCC, CB

Operating System Support

- Windows 10 IoT

Environment

- Operating temperature:
 - -30°C (-22°F) to 55°C (131°F)
 - In accordance with MIL-STD-810G CHANGE1 Method 501.6 High Temperature Procedure II - Operation
 - In accordance with MIL-STD-810G CHANGE1 Method 502.6 Low Temperature Procedure II – Operation
- Storage temperature:
 - -40°C (-40°F) to 70 °C (158°F)
 - In accordance with MIL-STD-810G CHANGE1 Method 501.6 High Temperature Procedure I – Storage
 - In accordance with MIL-STD-810G CHANGE1 Method 502.6 Low Temperature Procedure I - Storage
- Relative humidity: 5% to 95% @ 30°C (86°F) to 60°C (140°F) non-condensating in accordance with MIL-STD-810G CHANGE1 Method 507.6 Humidity Procedure II Aggravated Cycles (Fig 507.6-7)
- Vibration Test:
 - Operating: MIL-STD-810G CHANGE1 Method 514.7 Category 4,
Fig 514.7C-2 Common carrier (US highway truck vibration exposure);
Fig 514.7C-3 Composite two-wheeled trailer;
Fig 514.7C-4 Composite wheeled vehicle



- Non-Operating: MIL-STD-810G CHANGE1 Method 514.7 Category 24, Fig 514.7E-1 (General minimum integrity exposure)
- Shock Test:
 - Operation: MIL-STD-810G CHANGE1 Method 516.7 Procedure 1 Functional Shock
 - Non-Operation: MIL-STD-810G CHANGE1 Method 516.7 Procedure V Crash Hazard Shock

I/O Ports

Item	Description
Serial	RS-232 x 1 with 0/5/12V support 0.6A (COM1) RS-232 TX, RX/422/485 x 1 (COM2)
USB	USB 3.0 x 1 USB 2.0 x 1
Ethernet	Gigabit RJ45 x 1
GPIO	2 DI + 2 DO
CAN	CANbus and SAE J1939/OBD II support
Audio	Headset jack x 1 Internal MIC-in x 1
Speaker	Waterproof speakers 3W



Dimension and Weight

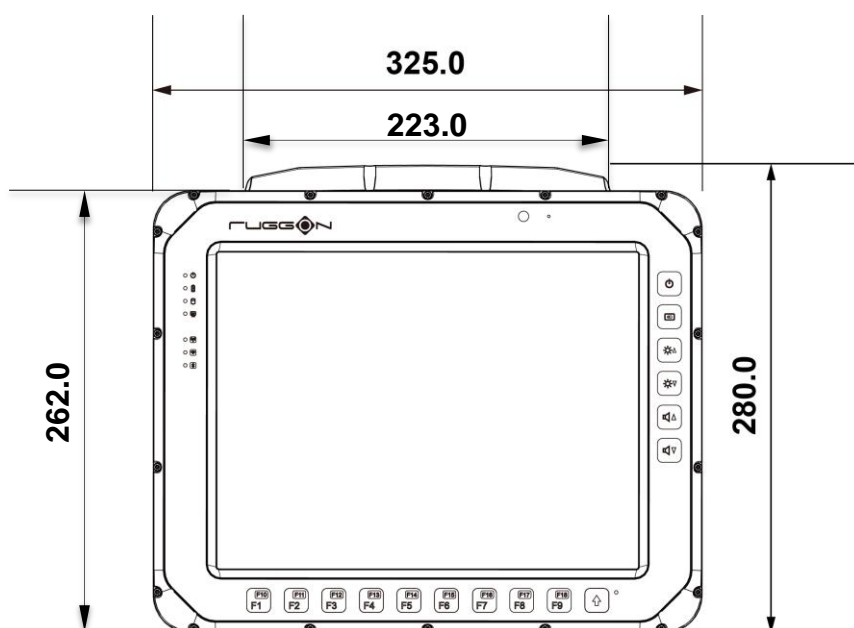
VX-601 Standard

Dimension (w/ antenna cover) : 325 x 280 x 67.3mm / 12.80 x 11.02 x 26.50in. (W x H x D)

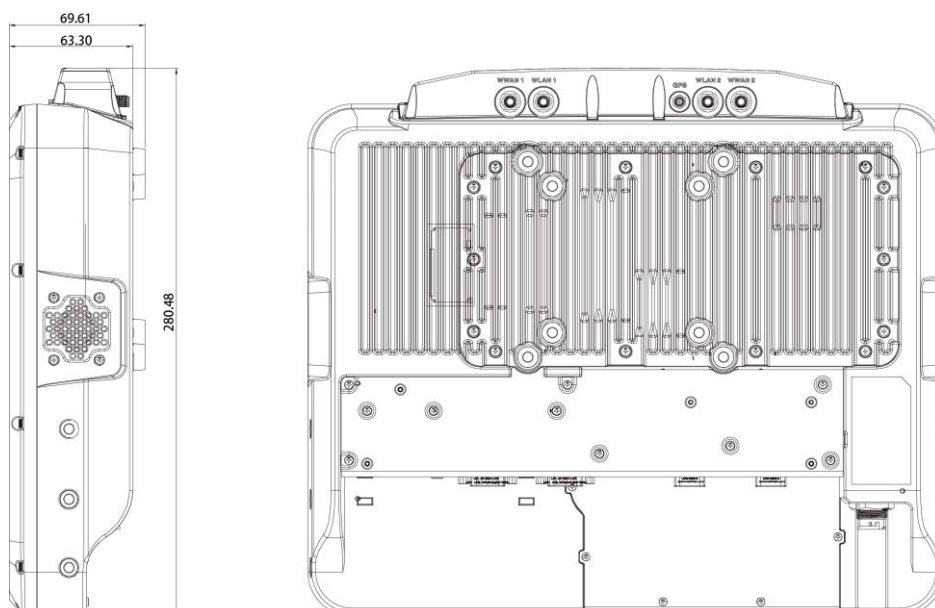
Dimension (w/o antenna cover) 325 x 262 x 67.3mm/ 12.80 x 10.31 x 26.50in. (W x H x D)

Weight: 4.83 kg/ 10.65 lbs.

Front View Dimension



Side View Dimension





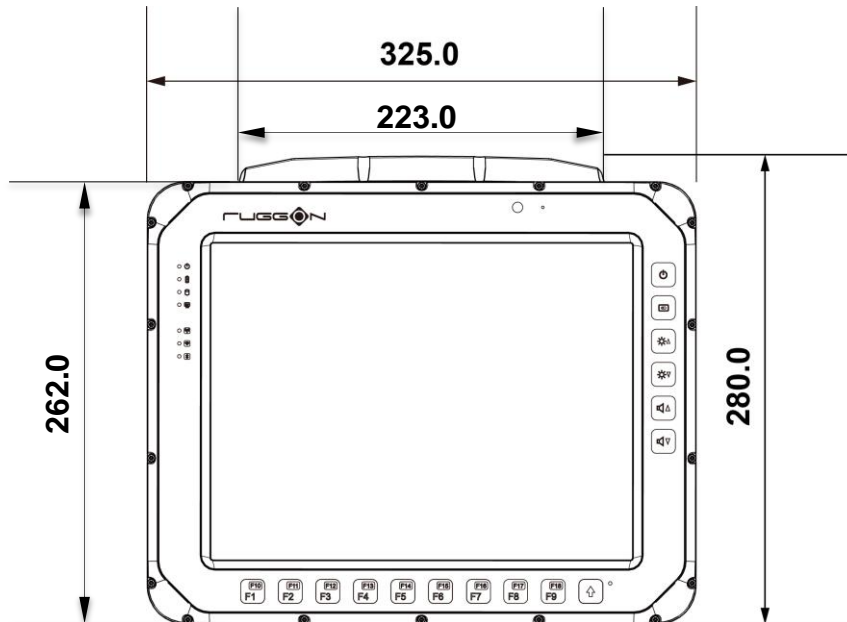
VX-601 with I/O water-proof box

Dimension (w/ antenna cover) : 325 x 280 x 69.6 mm / 12.8 x 11.02 x 2.7in. (W x H x D)

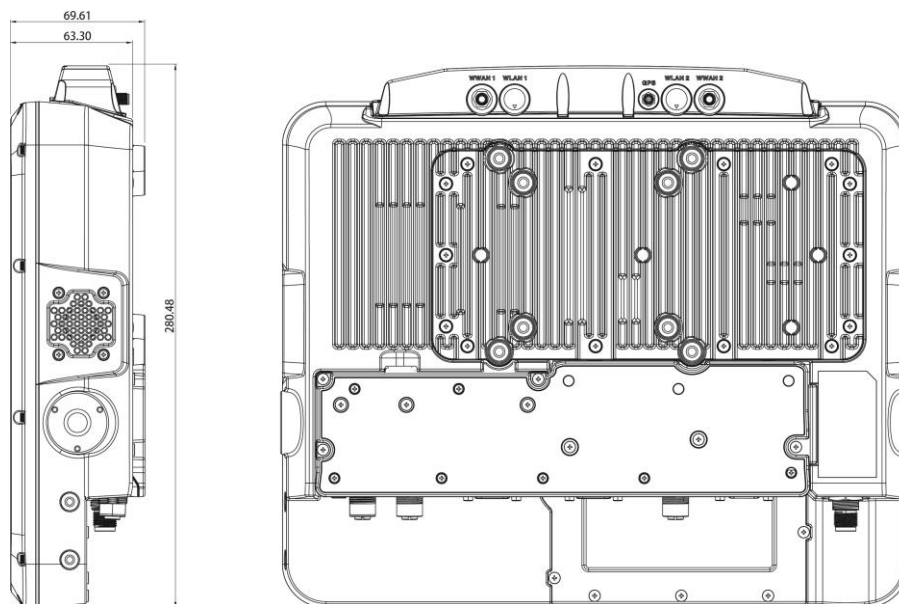
Dimension(w/o antenna cover): 325 x 262 x 67.3mm/ 12.80 x 10.31 x 26.50in.(W x H x D)

Weight: 4.90 kg / 10.80 lbs (with mSATA)

Front View Dimension



Side View Dimension





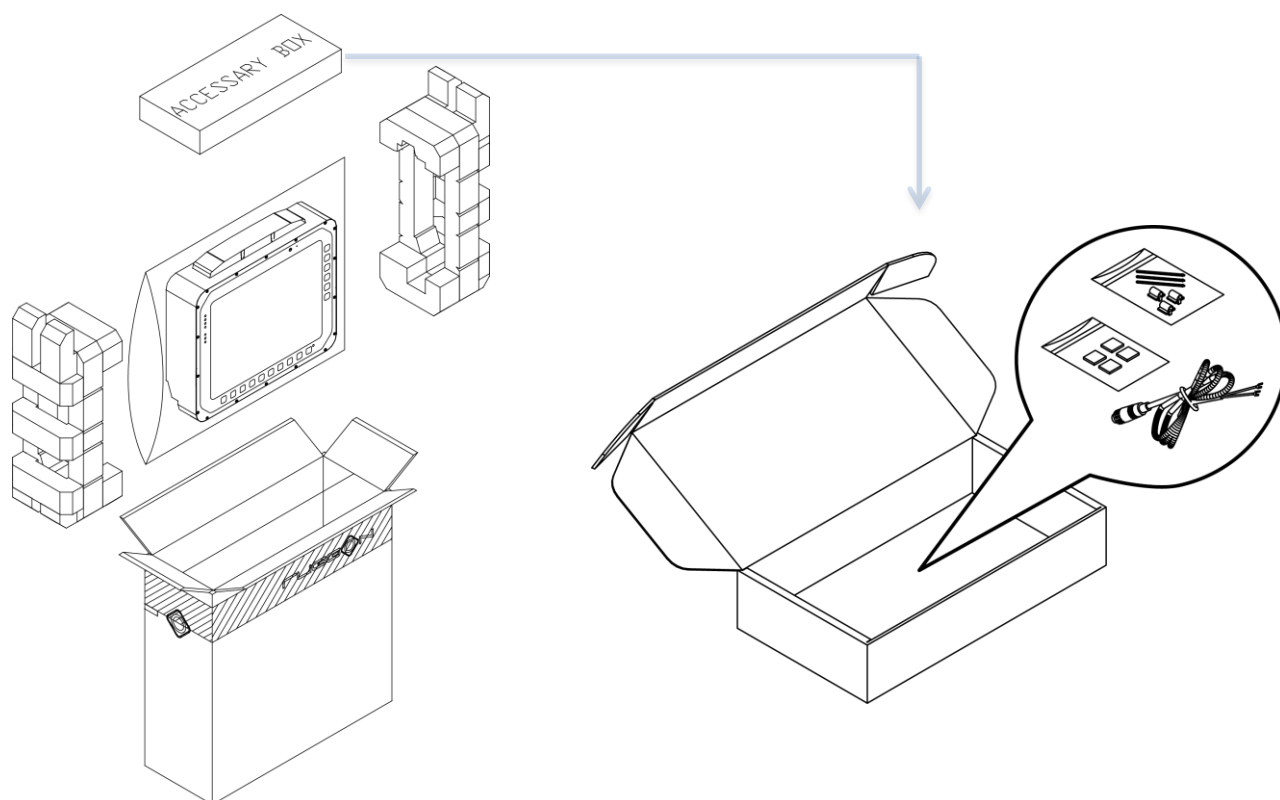
Package List

Before you begin the installation or configuration process make sure to inspect all components and accessories. Contact your representative if there are any missing or damaged items.

Please verify the delivery of the contents upon receipt

- VX-601 vehicle mount computer
- Accessory Box:
 - Bare wire power cable with circular power code
 - Thermal pad
 - Cable tie

NOTE: The packaging material has been selected to optimally protect your device. After unpacking, store the original packaging material in the event that you need to return shipment.





Chapter 2. Hardware Installation

This chapter provides information for the installation and removal of M.2 storage and mini PCIe card.

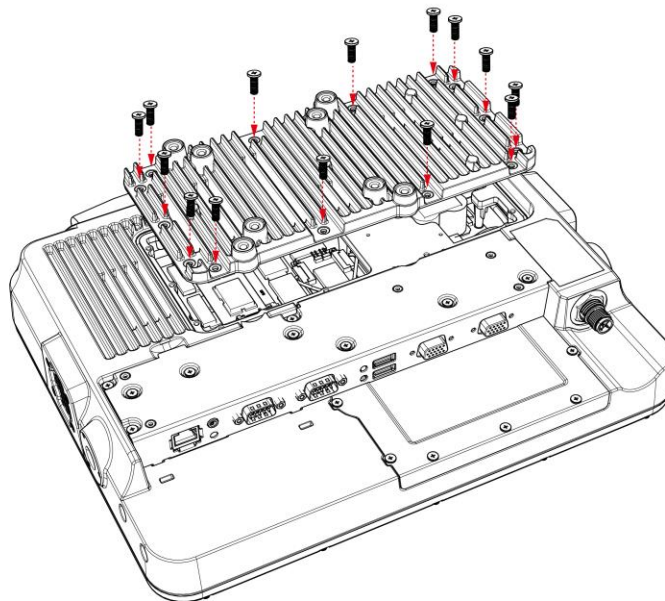
M.2 Module

Prevention of EMI interference in this device is not guaranteed if the original components are replaced.

A single M.2 2280 module slot is available for memory expansion. The device supports up to 256GB.

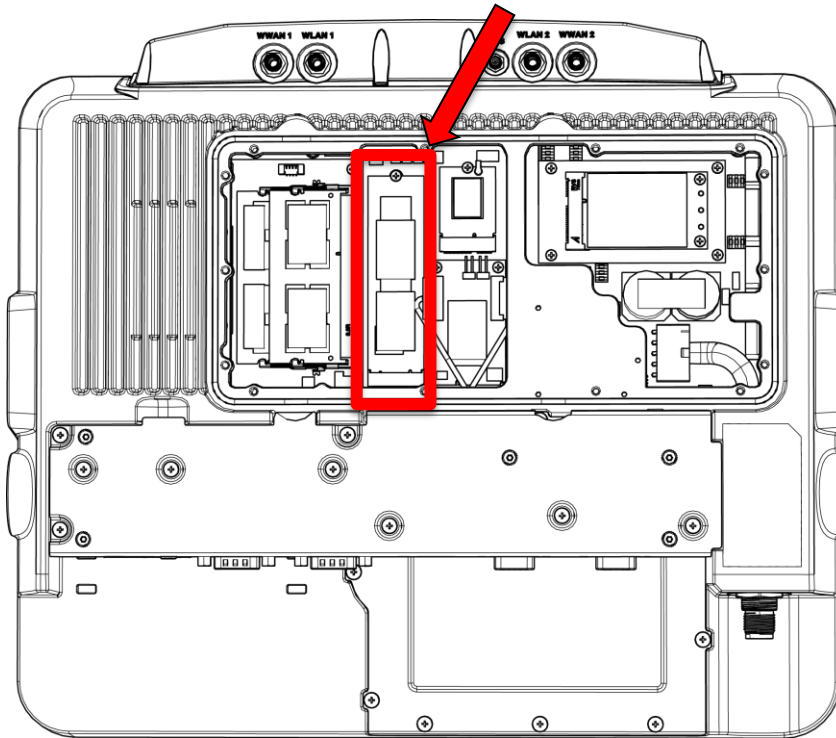
Installing/Removing a M.2 Module

1. Shut down the system properly and disconnect from all power sources.
2. Un-mount the device from the mounting apparatus; make sure that the display surface is protected.
3. Remove the screws and the service cover.

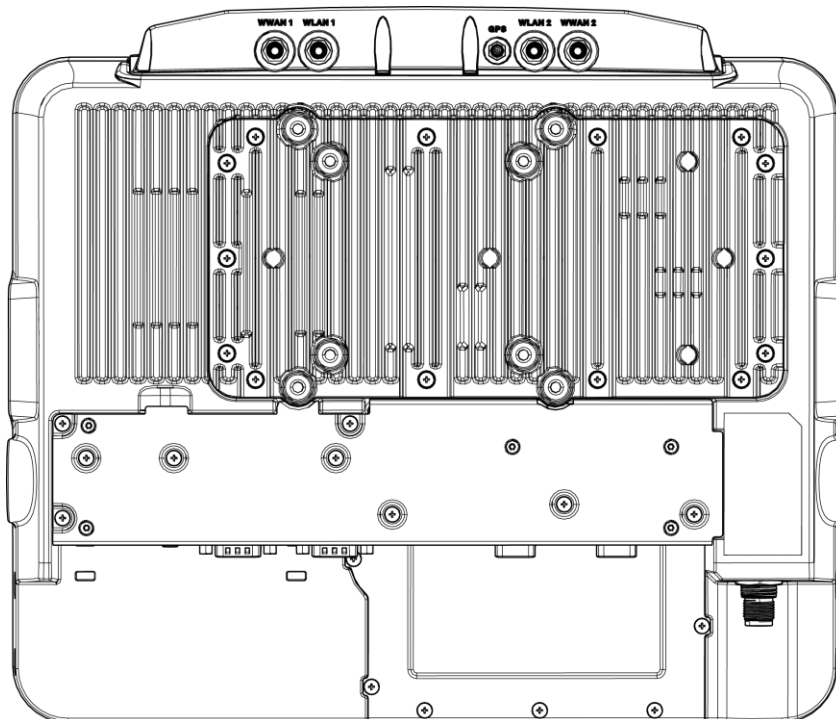




4. Locate the M.2 module slot, see the following image.



5. Insert the M.2 module into the slot and then Fasten the screws or Loosen the screws, remove the card
6. Replace the service cover.



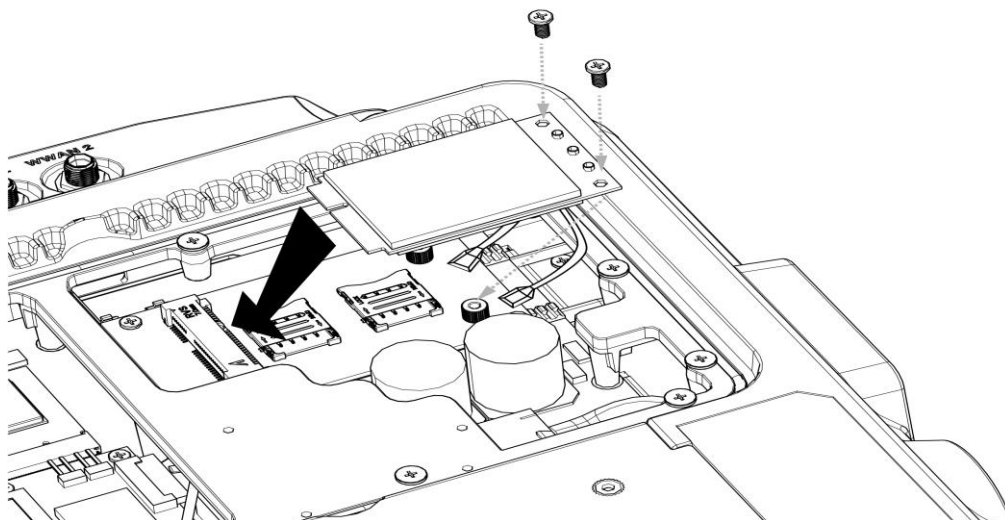


Installing/Removing the SIM card

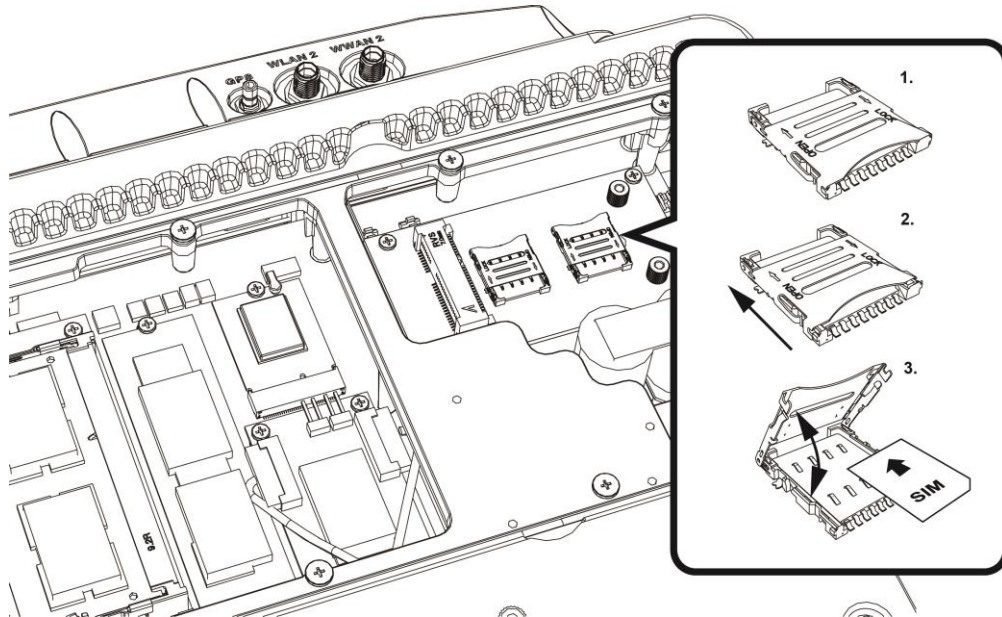
VX-601 provides dual micro SIM slots, located inside the service door. Install the SIM card in SIM 1 slot or SIM 2 slot. You can select different SIM slot via the SIM slot assignment option in DashON interface. The factory default is SIM 1 slot. Please see the following guide to install or remove the SIM card.

Internal SIM slot

1. Shut down the system properly and disconnect from all power sources.
2. Un-mount the device from the mounting apparatus; make sure that the display surface is protected.
3. Remove the screws securing the cover and remove it.
4. Once the service cover is removed, you can see the Mini SIM card slot.



5. Slide to unlock the lock on the locking lid.
6. Lift the locking lid up and insert your SIM card.
7. Lock the locking lid back after insertion.

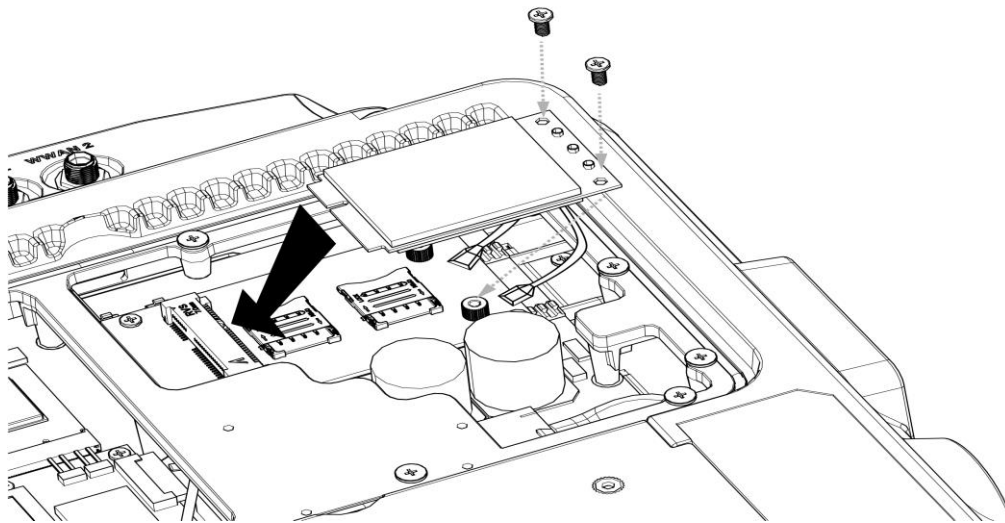


8. Turn your SIM card to the angled corner of your SIM card matches the angled corner of the SIM card holder.
9. Insert the SIM card into the SIM card holder.
10. Close the cover of the SIM card holder.

Installing/Removing the WWAN module

WWAN card slot is also located on the rear side; it is up to the Wi-Fi module. Please follow up the introduction to install or remove the module

1. Power down the device and disconnect from all power source.
2. Un-mount the device from the mounting apparatus; make sure that the display surface is protected.
3. Open the service cover; locate the WWAN module slot on the VX-601.



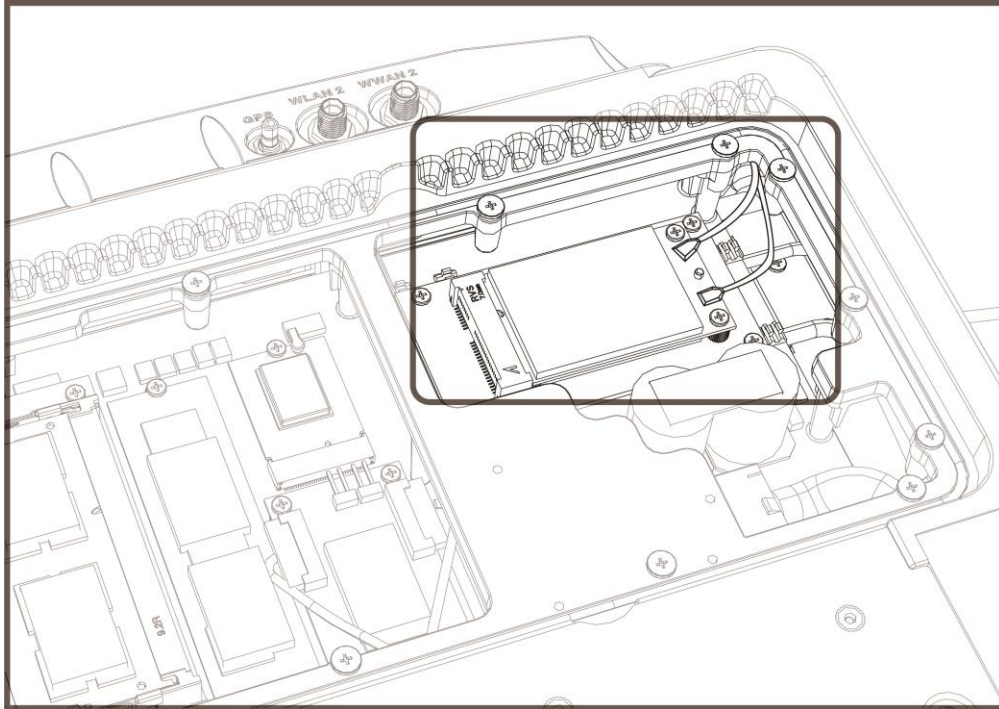
4. Install or remove the module.

Installing WWAN Antennas

After you installed the WWAN module, you need to connect the antenna for use. Please note VX-601 support internal (optional) or external WWAN antenna. If you like to use the internal or external WWAN antenna, you need to manually disable either one. The following section will guide you how to change the internal/ external antenna.

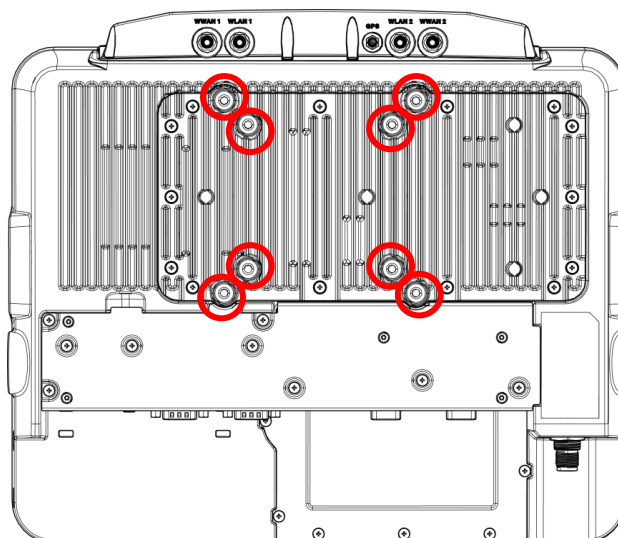
External Antennas

1. Locate the antenna cables. (black cable & grey cable)
2. Use the black cable on the antenna cable and connect to the connector labeled **MAIN**.
Use the grey cable on the antenna cable to connect to the connector labeled **AUX**.



Chapter 3. Hardware Mounting

The VX-601 supports a standard VESA version MIS-D, 75/100, C (75/100mm distance quadrate order, M5 thread, deepness 10mm) through the four drill holes on the back side of the device.



Notes: To prevent any damage or injury, make sure the mounting bracket is securely attached.



Chapter 4. Start up

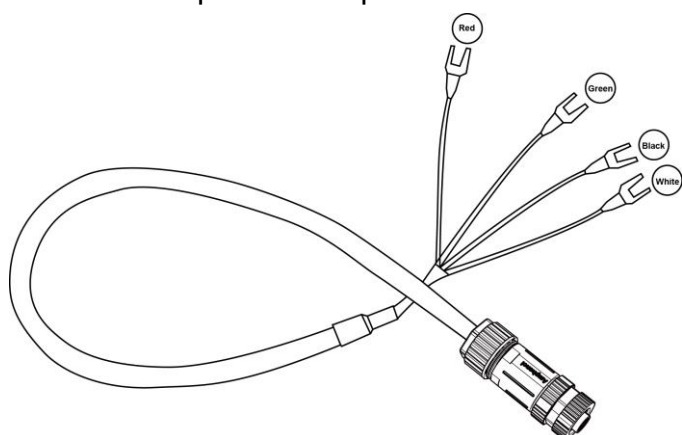
Powering the System



Ensure that the power supplies are disconnected when the power cord plug into the power connector.

Connector Power

VX-601 allows a wide range of DC power input from 9~60V via a 4-pin circular power cord. There are two options to start up the VX-601 via car power cable or external power adapter. Here is the 4-pin circular power cord.



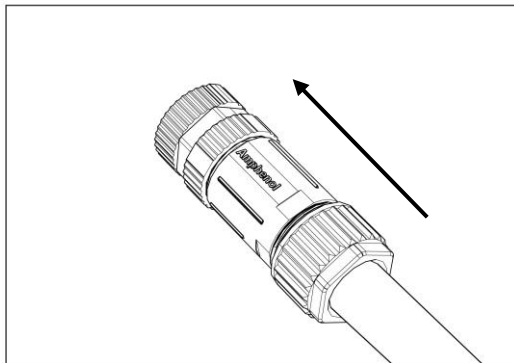
The wire definition.

Wire Color	Description
RED	V+
BLACK	V-
GREEN	Chassis Ground
WHITE	ACC/ Ignition

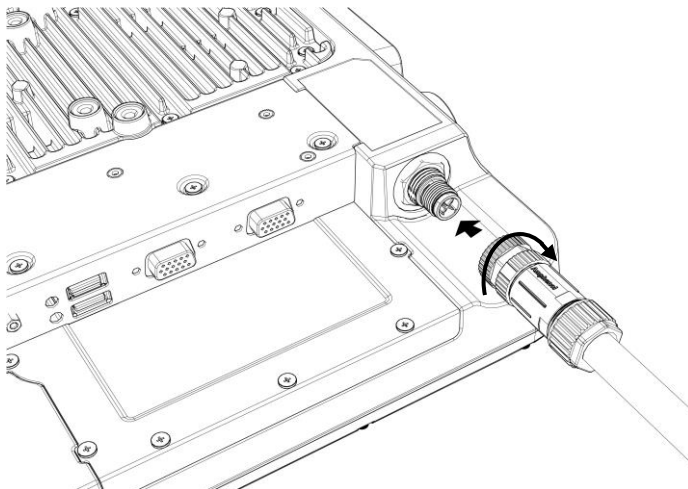


Power source from car power cable

1. The bare wire lead cable allows you to directly wire 12 V, 24 V, 36V and 48V power cable or adapters. Please follow the wire definition to connect to your power source.
2. Plug the power code into the power connector facing the top of the arrow mark.



3. Twist the nut to lock the power connector to the device.



Power source from external power adapter

If your power source is from external power adapter, the power source will not be control by AAC/Ignition signal. Please short red (V+) and white (ACC/ Ignition) wires.



Power on the System

VX-601 will be auto power off after one minute when the power supply is removed. If you use software to power off the system, please remember to remove the power supply too; otherwise, the device will auto reboot again.

VX-601 has two power modes for user preference which can be activated through DashON. If you want to use power source via power adapter, please disable “ACC Input Detection”.

To turn on the system, please follow the directions below:

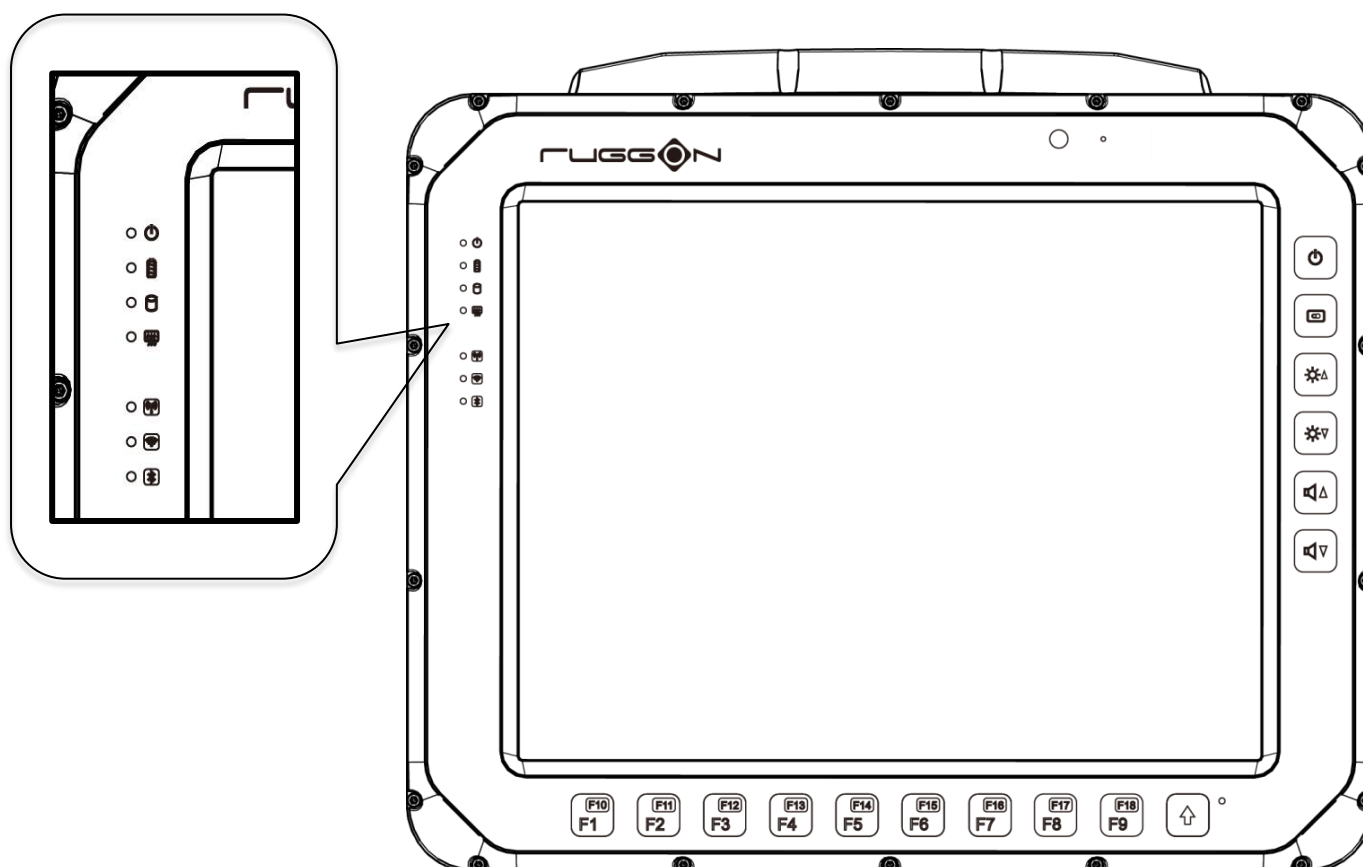
1. Press power button to turn on the system
2. When VX-601 is in “Non-ACC mode” (*Default is Non-ACC mode), the device will not auto power off when the power supply is removed (charged from UPS battery instead), please use windows commend to fully shut down the device.
3. When VX-601 is in “ACC Sense Mode”, please follow the directions below:
 - When the system is off, switch the ignition from off to on, the system will turned on/delay on.
 - When the system is off and the ignition is off, press the power button, the system will be turned on/no delay on.
 - When System is off and the ignition is on, press the power button, the system will be turned on/no delay on.



LED Status

The LEDs on VX-601 are status indicators that show the operating status of your system. The status indicators can help pinpoint possible failed hardware components causing specific symptoms. There are two status indicators in the front panel. Refer to the description below.



LED	Status	Description
System	Blink Green	Power up
System	Blink Amber	Load BIOS/ boot loader
System	Solid Green	System ready to use
System	Blink Red	Vehicle battery abnormal
Display/Defrost	Solid Green	Function turn on/defrost function mark(defrost LED light will only be present for defrost versions)
Comm.	Solid Green	Module ready

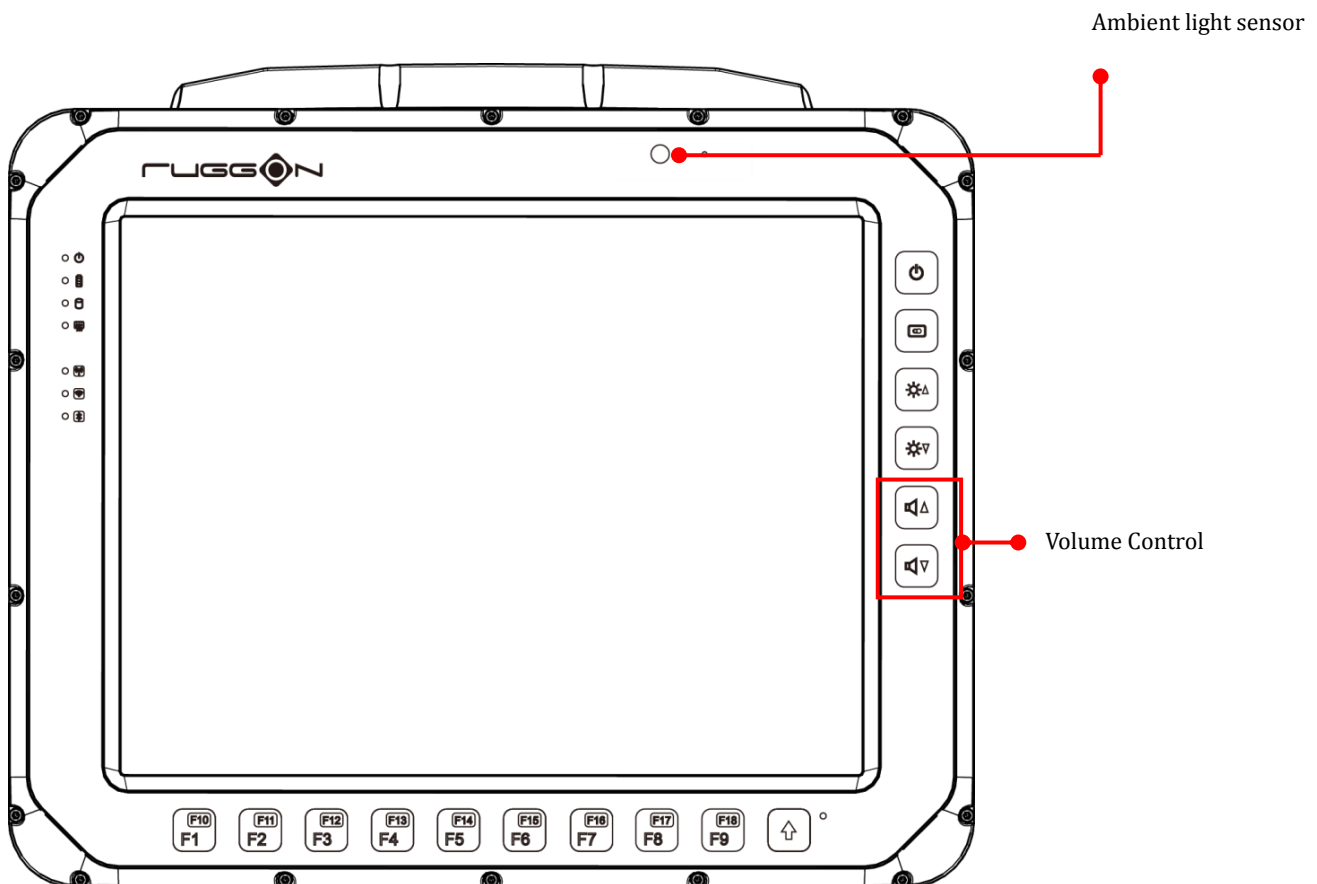




Adjust the Speaker Volume

VX-601 has the volume control buttons to adjust the speakers' volume; you also can control the overall level of sound using Windows. When you press the top part of the volume button, it makes the volume louder; pressing the bottom part makes the volume softer

- Press the  button to decrease the volume louder.
- Press the  button to increase the volume softer.





Auto-Brightness Adjustment

When you are using VX-601, you may well encounter different lighting conditions that make it difficult to see the information on screen. VX-601 is built-in the ambient light sensor on the front panel to supports auto-dimming, you also can disable this function and manually adjust the brightness, the setting can be done via DashON.



Manual Brightness Adjustment

VX-601 is also equipped with manual brightness adjustment, you can manually adjust the

brightness by pressing the  or  button.

Internal Microphone

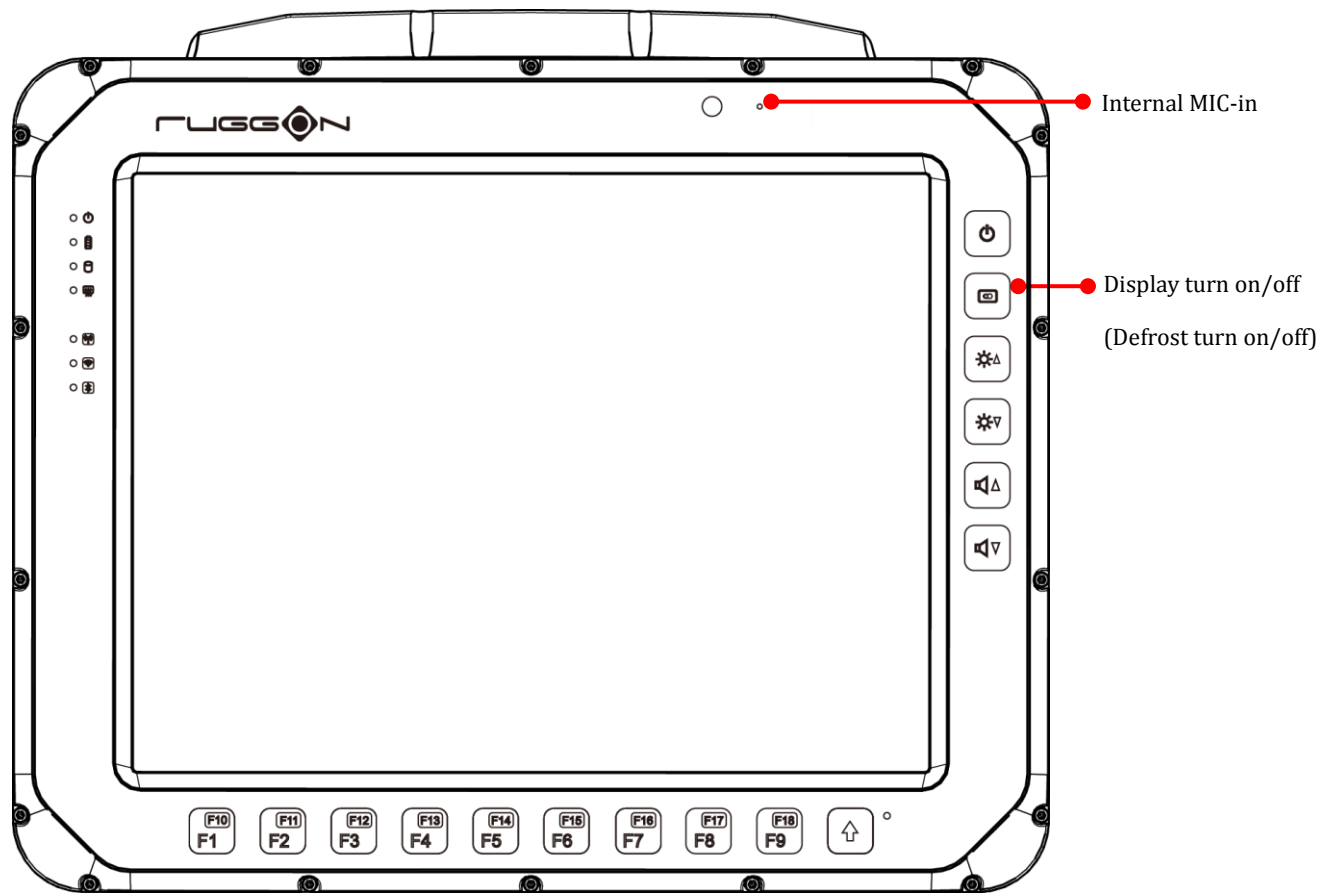
VX-601 equips the internal microphone without the need for an external microphone. In addition to the built-in speaker and microphones, you can plug external headsets in the audio jack.

Display on/off

To turn on/off the display, press the display button located on the right side of the terminal.

Defrost on/off (only available upon request)

In environments where an extreme temperature changes occur, cold to hot temperature change, the display can frost/fog up. To enable the defrost function, press and hold the display button for 3 seconds to turn on /off defrost (NOTE: the defrost function is only available upon request). The device heats up to maximum 35 degrees Celsius. Once the device is at 35 degrees Celsius, the function automatically shuts off. (NOTE: once the device reaches 35 degrees Celsius, the function automatically shuts off. Pressing the defrost key does not re-enable the function.).



Programmable Buttons

VX-601 provides default commands for nine programmable buttons. You can configure the programmable buttons via DashON to different commands or keyboard shortcuts to better fit your work style.

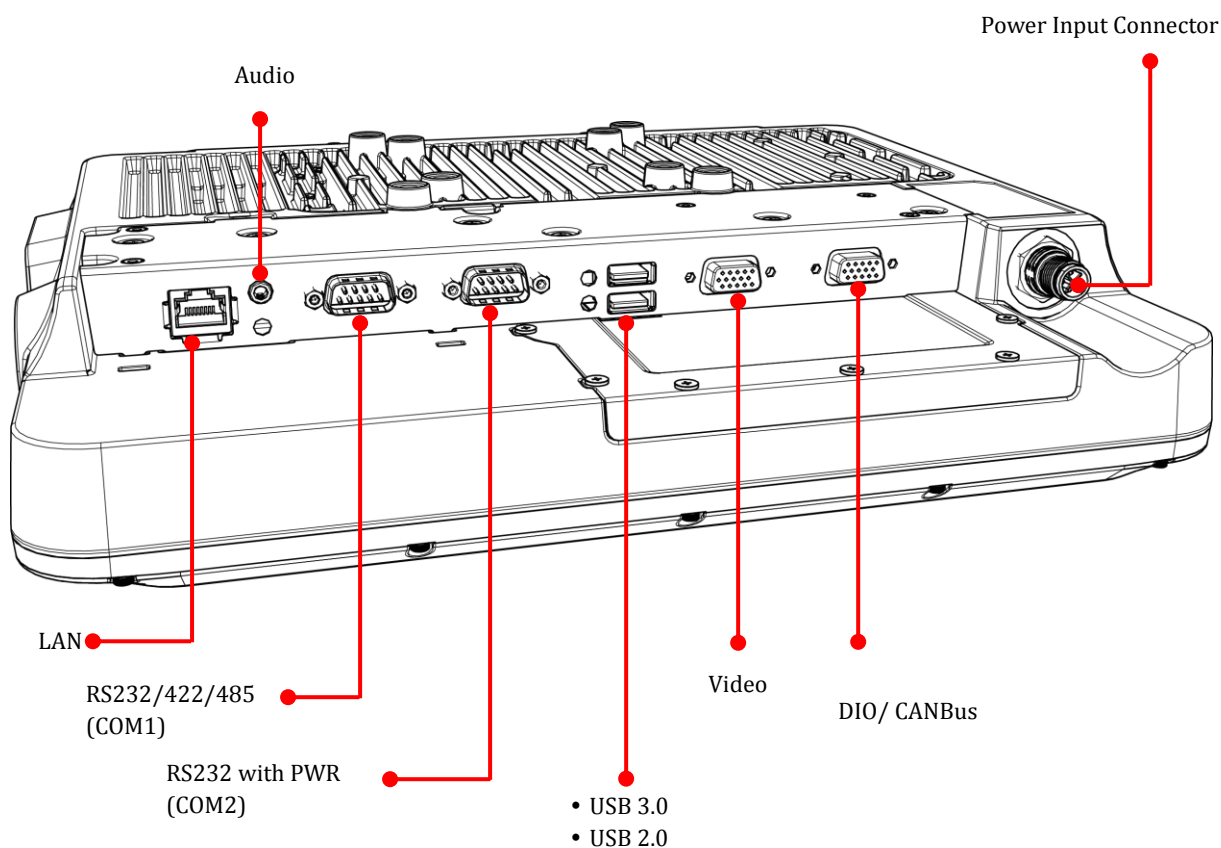
Power Management

In addition to setting in Windows Control Panel, VX-601 also provides the utility tool, DashON, to set the configuration including power management and system setup. Please refer the Chapter 6 for configuration setting in DashON.



Chapter 5. Jumpers and Connectors

Bottom View

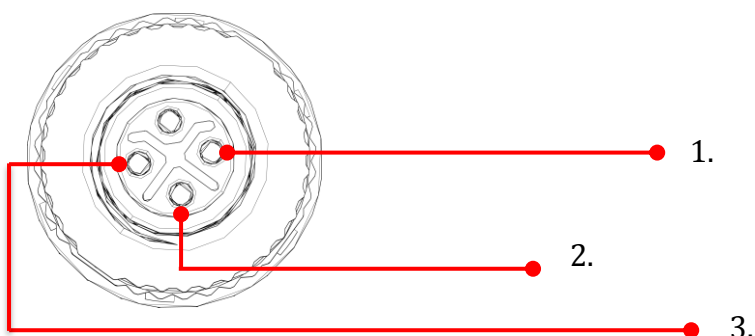




External Connectors Pin Assignments

Use this section as a reference for the pin assignments of the various ports available on the VX-601.

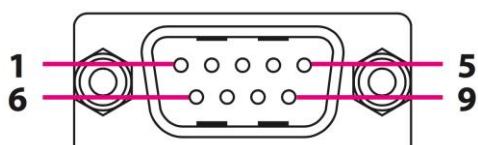
Power Connector



Pin	Signal
1	DC+
2	DC-
3	GND

Note: Please refer the Chapter 4 section 1 for the external power cable to connect to power source.

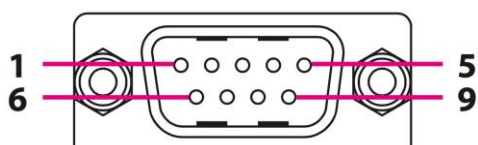
RS-232/422/485 Port (COM1)





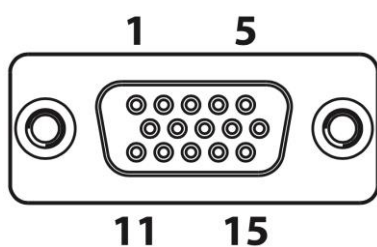
Pin	RS232	RS485	RS422
1	DCD	TX-	TX-
2	RXD	TX+	TX+
3	TXD		RX+
4	DTR		RX-
5	GND		
6	DSR		
7	RTS		
8	CTS		
9	RI		

RS-232 Port (COM2)



Pin	Signal	Description
1	DCD	Data carrier detect (input)
2	RXD	Receive data (input)
3	TXD	Transmit data (output)
4	DTR	Data terminal ready (output)
5	GND	Signal/power ground
6	DSR	Data set ready (input)
7	RTS	Request to send (output)
8	CTS	Clear to send (input)
9	RI / PWR	Bar code scanner power (600mA max) or Ring indicator (input)

GPIO, CANbus and DR Port



Pin	Signal
1	CAN_H
2	J1850_BUS+
3	K_LINE
4	FWD
5	WHEELTICK
6	CAN_L
7	J1850_BUS-
8	L_LINE
9	NC
10	GND
11	IO_GND
12	DIO_OUT1
13	DIO_IN1
14	DIO_IN2
15	DIO_OUT2

Chapter 6. DashON Setting

DashON is an utility to configure the device for your demo or test. We also provide the corresponding SDK for your application development. The utility is auto-running in background while the system turns on. This section is to brief what function are included in DashON and how to set up based on Windows OS.

1. Device Information

Provide the system hardware, software, and firmware version information.

2. Vehicle Status

This section is to demo how to read the vehicle information such as vehicle battery voltage, fuel, speed and so on while connecting with vehicle OBDII or SAE J1939. We use the simulator to run the demo.

3. Communication Setting

This is to enable / disable Wi-Fi/BT/WWAN and configure the related setting.

4. System Status & Setting

This section contains the major configuration of the system device. Power management, wake up event, IO configuration, brightness and watchdog timer setting are included.

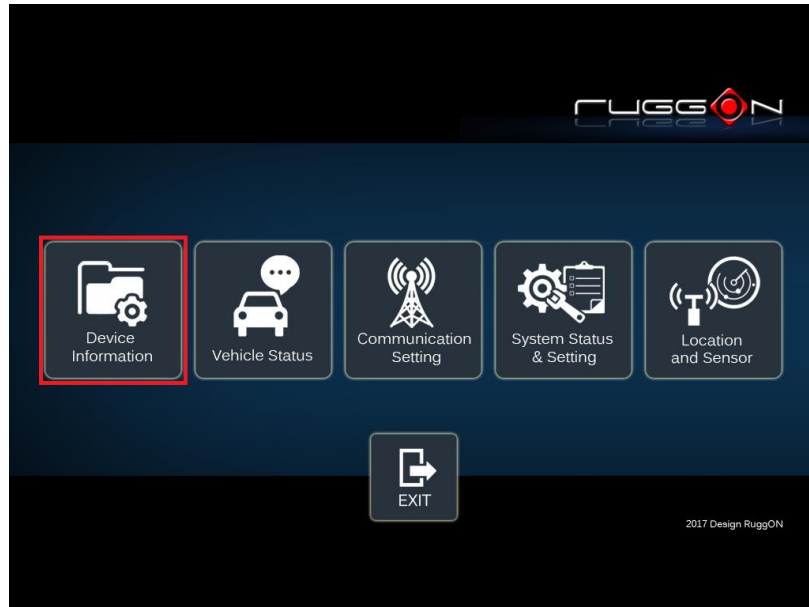
5. Location & Sensor

GPS configuration setting and temperature status

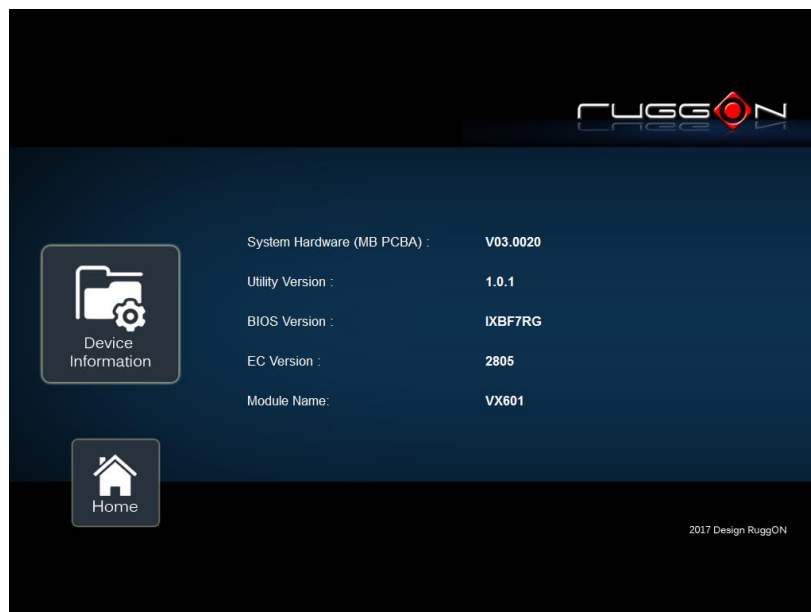
Double click the DashON icon into the utility if DashON is not running in background

Device Information

Click the “Device Information” icon

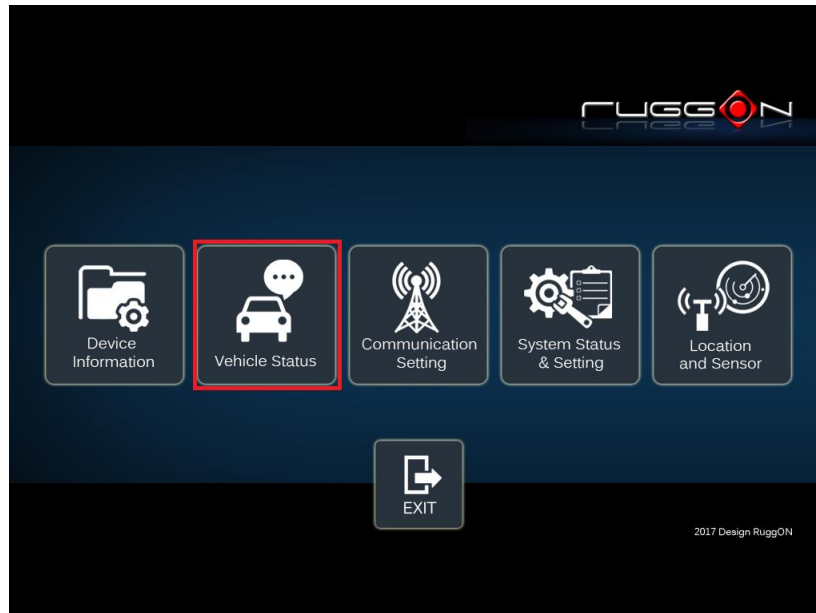


In device information, you can see the PCBA version, DashON utility version, BIOS version, EC version and system model name.

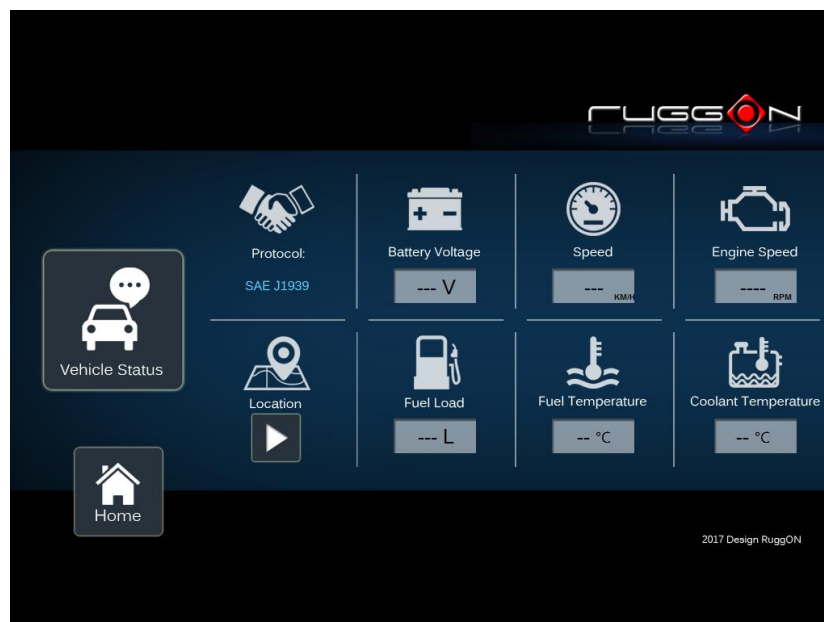


Vehicle Status

Vehicle status is one demo to show some vehicle information from the simulator.



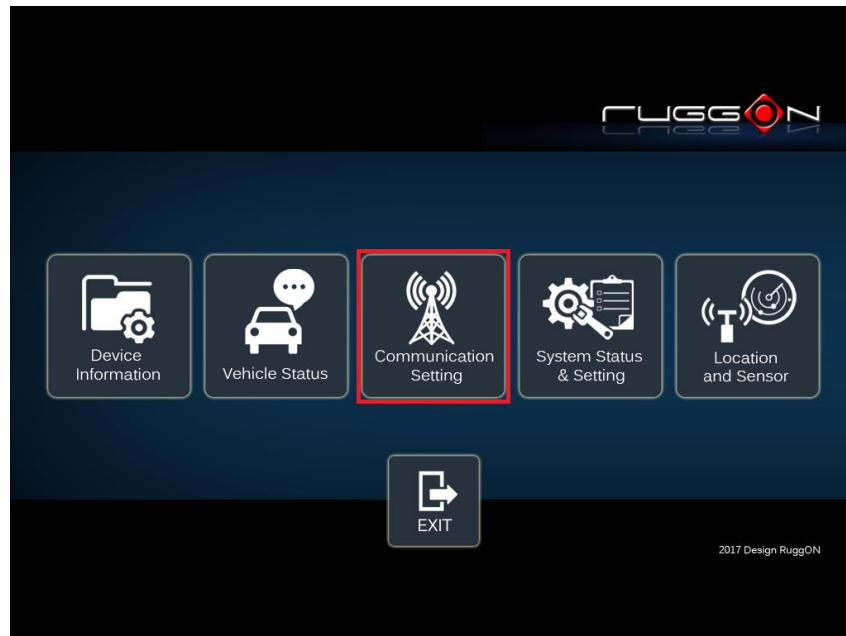
The related AT command is available upon request. Please contact with the sales representative or login to the support website.



Communication Setting

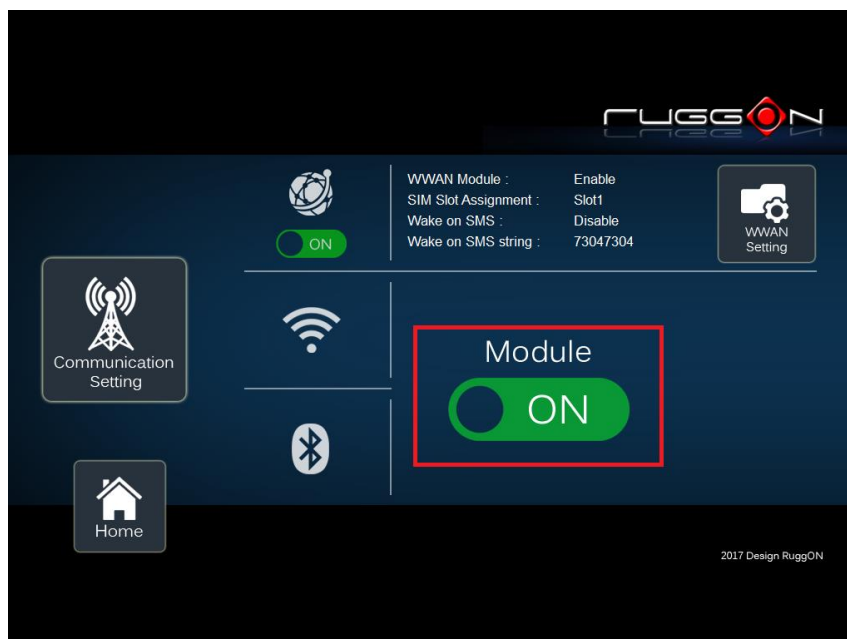
Communication setting is able to enable/ disable Wi-Fi/WWAN/Bluetooth via DashON utility.

Please click the “Communication Setting”



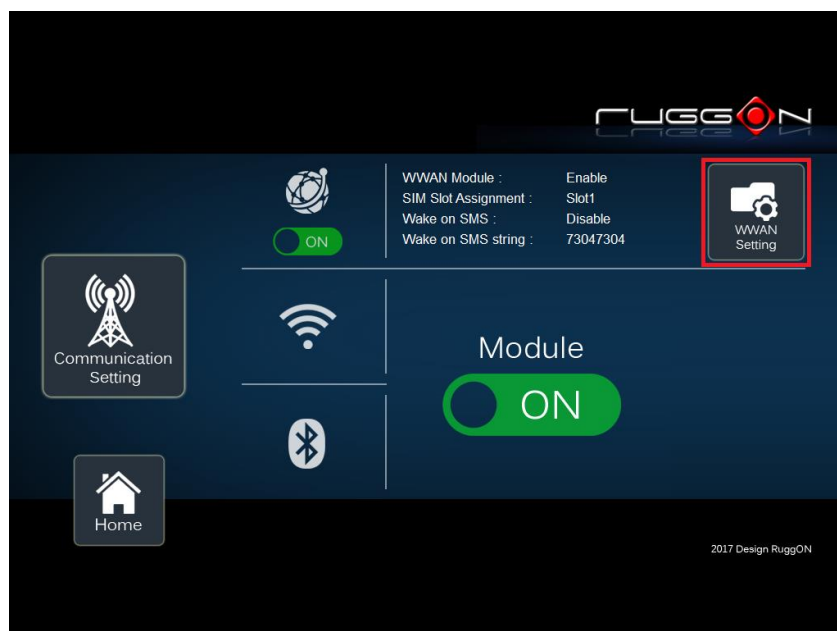
Enable/ Disable Module

Item 1. Click the switch bar to **Enable/ Disable** Wi-Fi and Bluetooth function



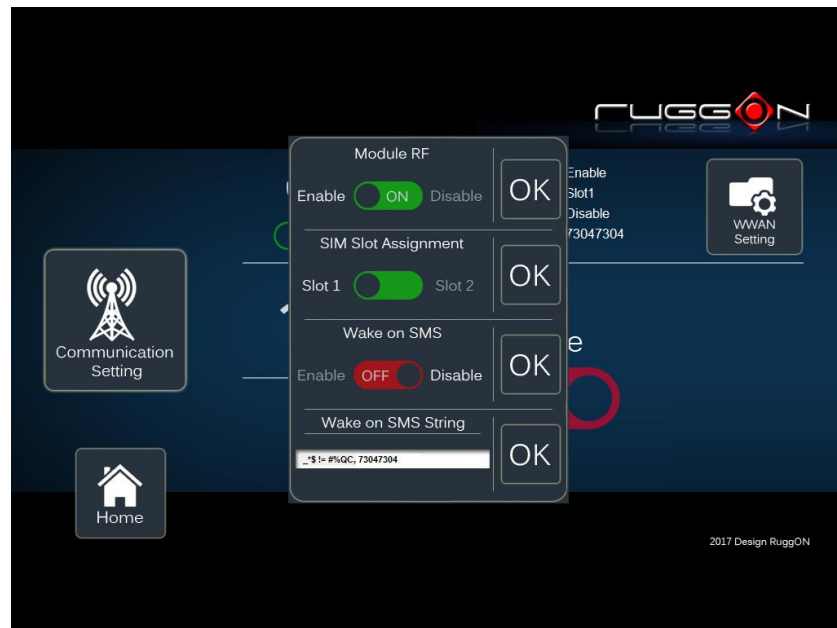
WWAN Communication Setting

If WWAN module is present in the device, you can click “WWAN setting” to get into the detail setting.



You can set the three major features including WWAN RF on/off, SIM slot selection and wake on SMS enable/ disable.

1. Module RF Enable/ Disable: to enable or disable the WWAN RF transmission. The message will be pop out, if you change wake on SMS status from disable to enable when WWAN power is off.
2. SIM slot assignment: This feature is only available for the device with multiple SIM slots.
3. Wake on SMS: VX-601 provides the SMS wake up, switch on & key in the SMS string to enable the function. The function is only available for MC7304 and MC7354.



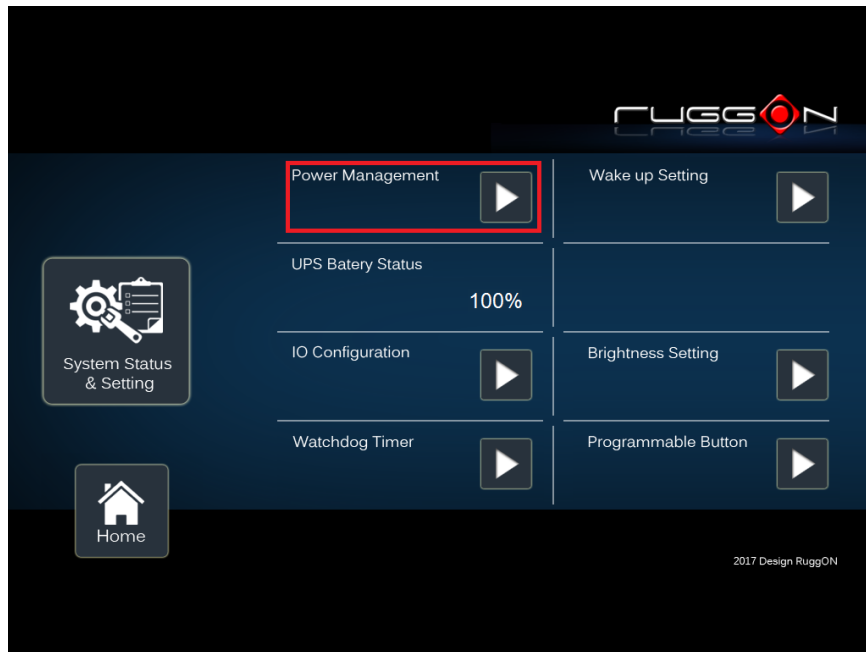
System Status & Setting

This section is to set and read the system status. Its coverage includes power management, internal backup battery, IO configuration, wake up event and so on.

Power Management Setup

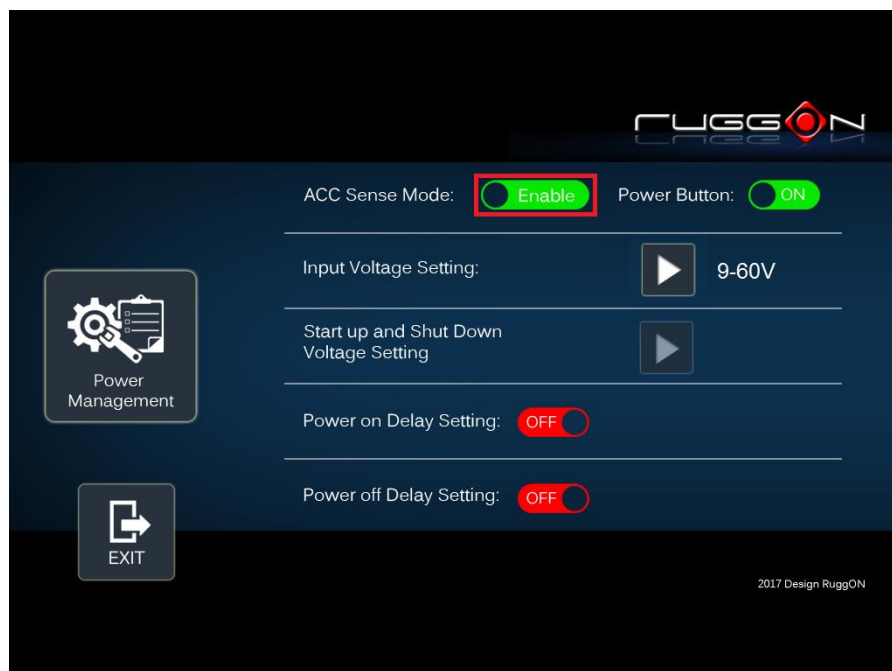


Please click the “Power Management”




ACC Detection Setting

In VX-601 design setting, it supports ACC sense. You can check its status from ACC status. Default is non-ACC mode.



Input Voltage Setting

Click the  to the input voltage selection.

You can select the power input voltage either 9~36V or 12V or 24V. If 9~36V is selected, it means the system can be powered on while the voltage is range from 9~36V.

Please note if you use 19V power adapter, the input voltage must be selected to 9~36V.



If 12V or 24V is selected, you also can select the startup and shut down voltage from next option.





If the above selection items do not meet your demand, please contact with the sales representative.

Power On/Off Delay Setting

Power on delay function is able to power on device after the ACC on for a specified time period. Power off delay function enabled let the device is still on until the ACC off for a specified time period.

Power On Delay

You can set the system startup time after ACC on.

Switch the  to , click the , you will see the selection list.
Delay time can be set at 10sec/30sec/1min/5min/10min/30min/60min/6hr



Power Off Delay

You can set the system shut down time after ACC off.

Same as power on delay setting process; you also can set the power off delay.

Delay time can be set at 10sec/30sec/1min/5min/10min/15min/30min/60min

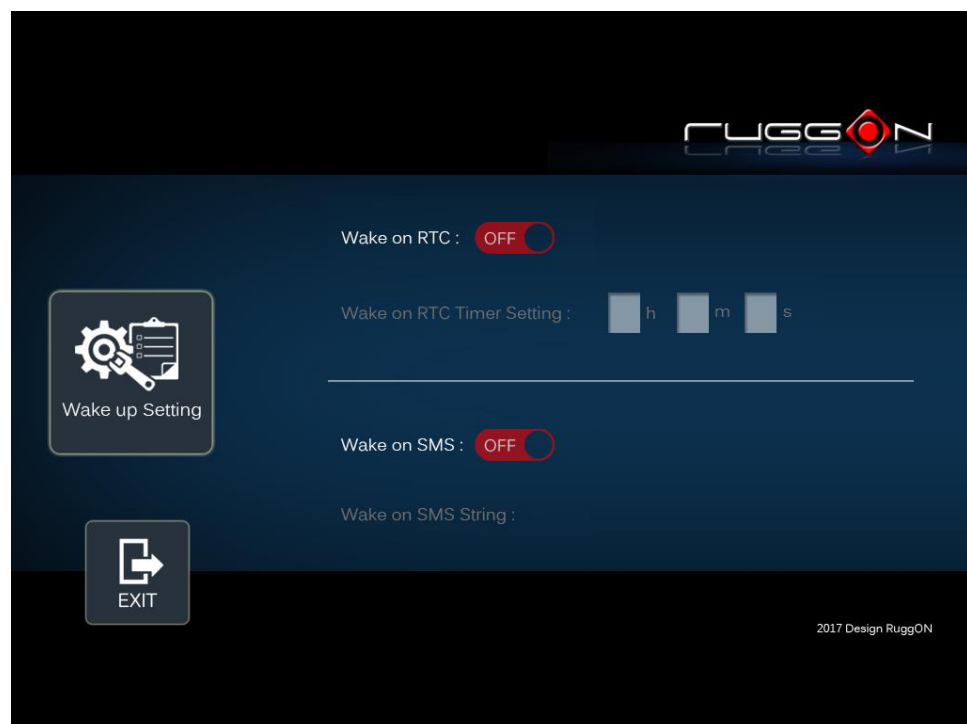
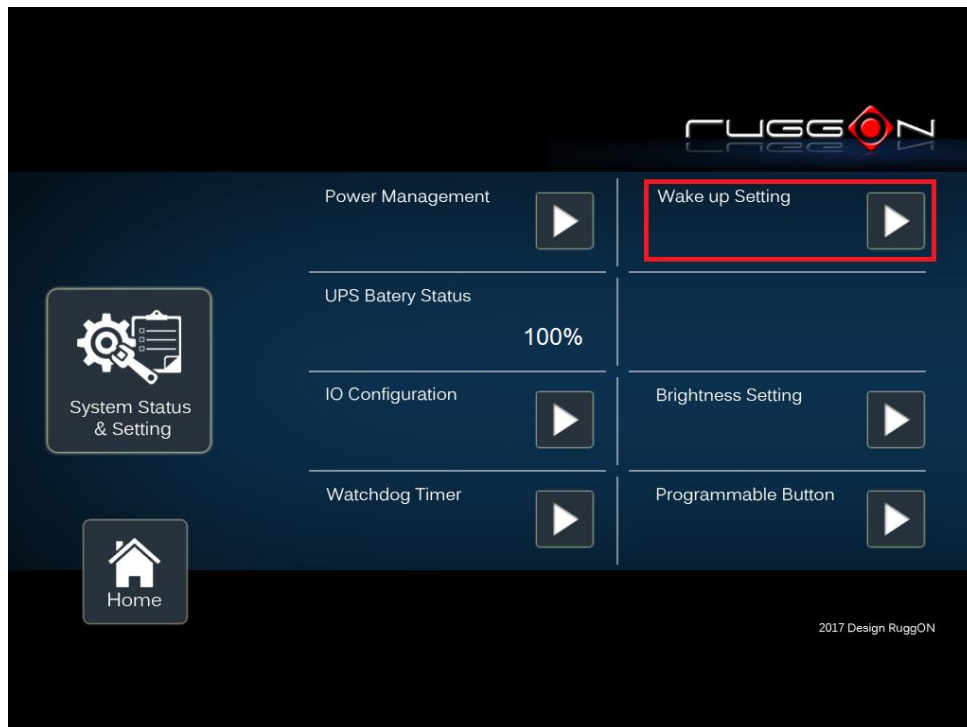


Wake up Setting



In additional to ACC sense, two wakes up events are able to power up the device. They are RTC wake up and wake up on SMS. Here is the setting method.

“System Status & Setting”-> “System Status & Setting” ->”Wake up Setting”

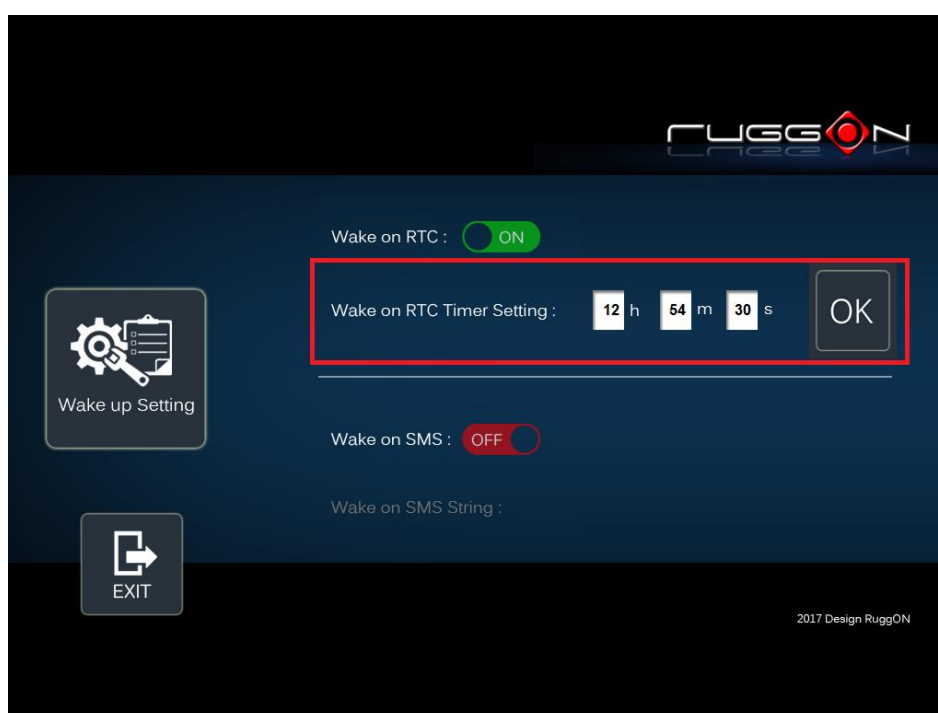
In Wake up setting, you can find “Wake on RTC” and Wake on SMS” setting





RTC wake up setting

Click the  to , you can find RTC timer setting to set the desired time to power up the system.

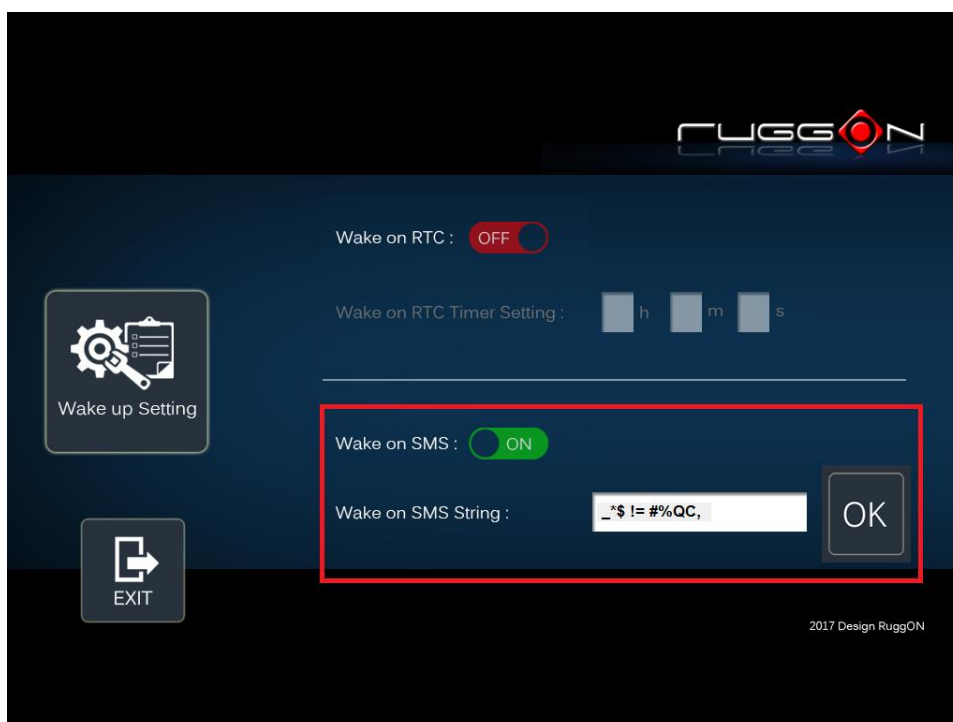
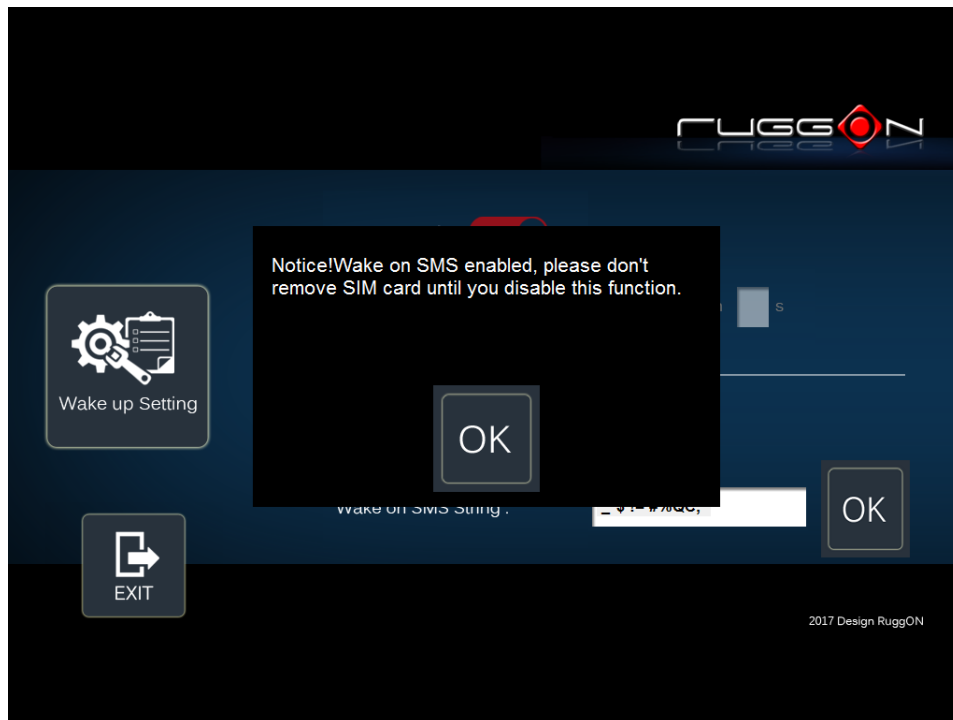
After you have finished with the setup, click the “OK” to save the value. For example, if you set 06:00:00, it means the system will be power up at 6 o'clock in the morning.



SMS wake up setting

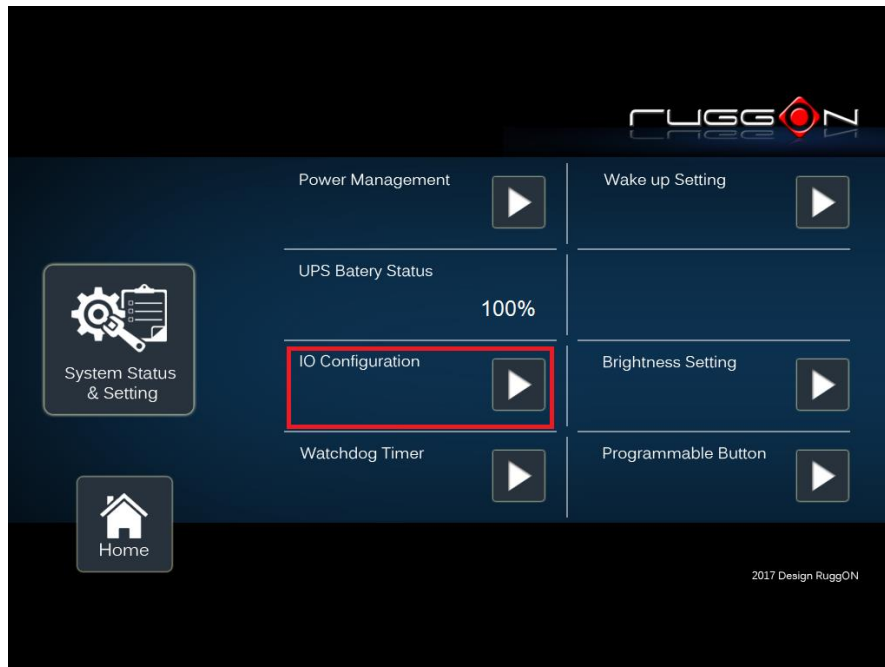
Click the  to , this let you can remote power the system via message. You can input the “string” in the field of wake on SMS string. The string is the message you send to the device to power the system. After you have finished with the setup, click the ok to save the value.

This wake on SMS feature is only working when the WWAN module is MC7354 or MC7304.



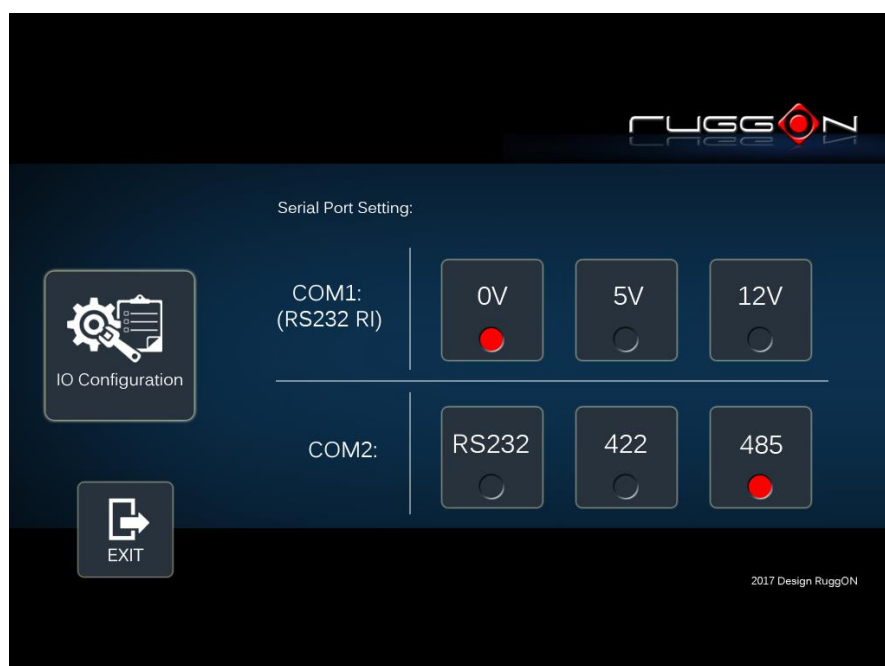
I/O Configuration

Please press the IO Configuration Click



COM1 Setting

RS232 (COM1) support 5V or 12V power output for users to easily connect with barcode scanner or others equipment. The maximum current is up to 500mA.



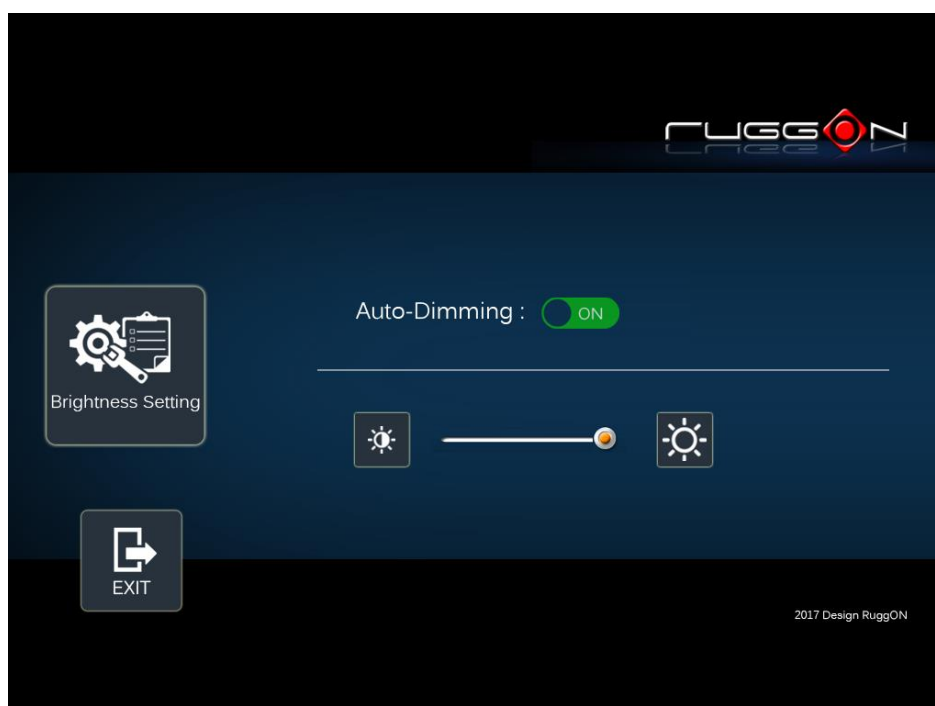
If you don't need the power output, just select 0V output to avoid the equipment damage. Please note if system power source is from backup battery (no DC input available), COM1 will stop supply the power output.

COM2 Setting

The COM2 includes RS-232(TX, RX), RS-422 and RS-485 signals. Please select your required item and connect the Y-cable converter to the system. Please refer the pin out description to make the correct connection.

Brightness Setting

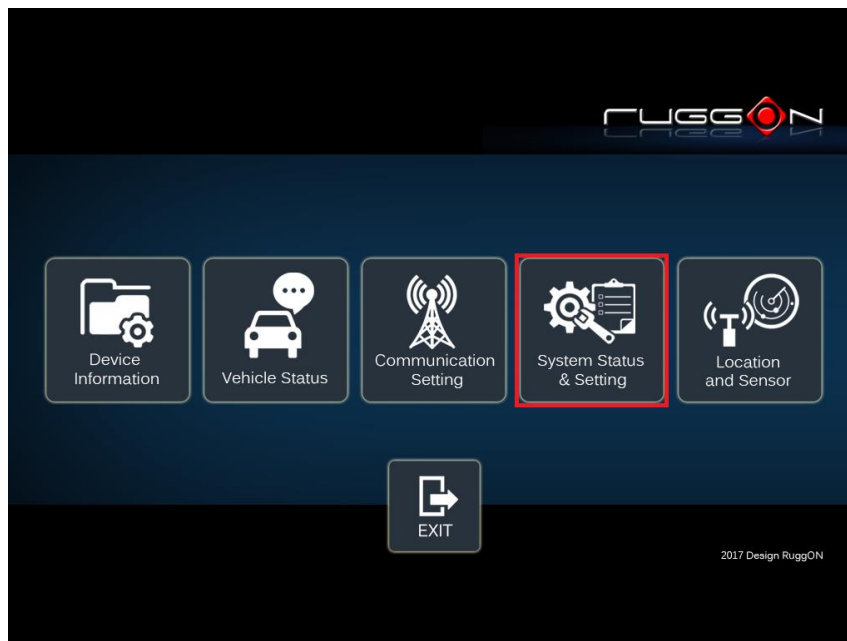
Brightness adjustment is to optimize the operation of the backlight LEDs under a variety of daylight. VX-601 supports auto-dimming and manually adjust the brightness. If auto-dimming enabled, the brightness is auto adjusted along with the environmental light change. You can also manually change the display brightness via programmable button or the bar adjustment in DashON. For programmable button setting, please see "Programmable Button" section. VX-601 display brightness is set to automatically adjustment. You can also turn off "Auto-Dimming" and drag the scroll bar to adjust display brightness.



Watchdog Timer

This section is about the timer setting of watchdog and the simulation to simulate the watchdog function. When the system is hanging due to some reasons, it is able to reboot the system automatically after the set time frame.

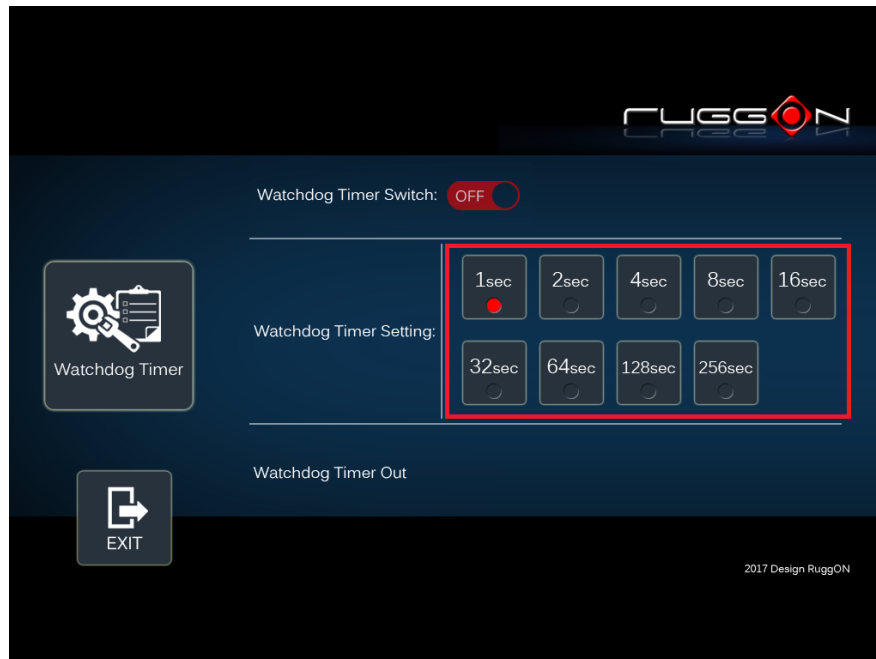
Double click the DashON icon into the utility, and then click 4th icon “System Status & Setting”.



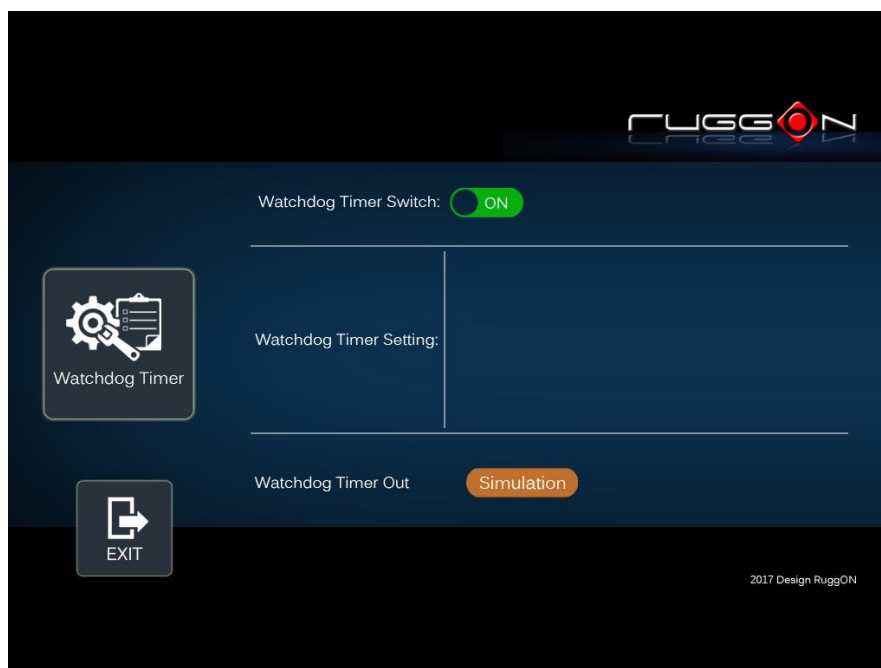
Click the “Watchdog Timer”



Select the timer setting.



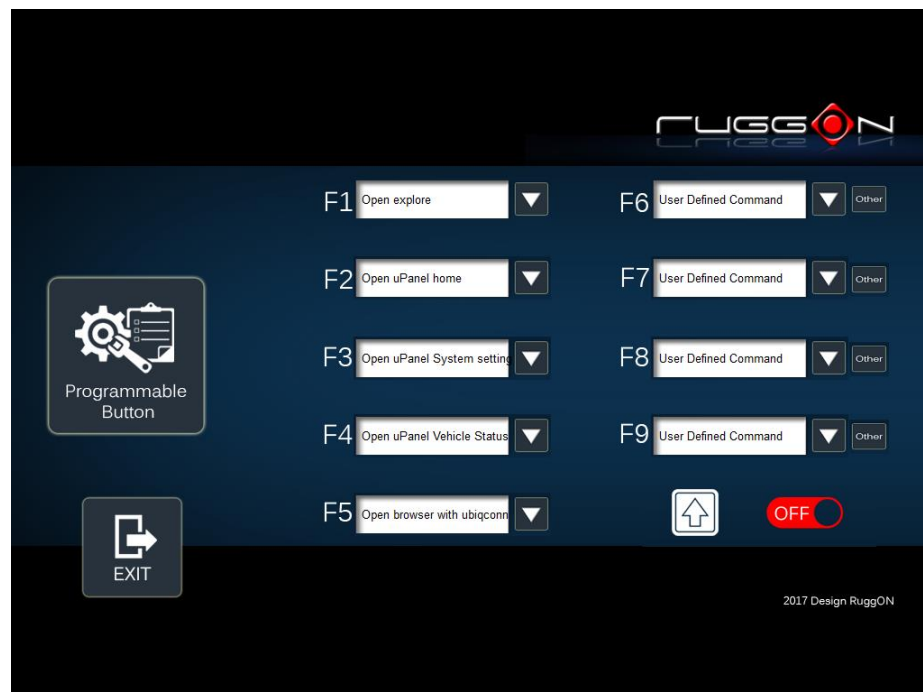
Turn on the watchdog switch.




If you like to test if watchdog timer is enabled and worked, please click the “simulation” icon. The “simulation” is to simulate the system is hang and reboot after the set time frame.

Programmable Button

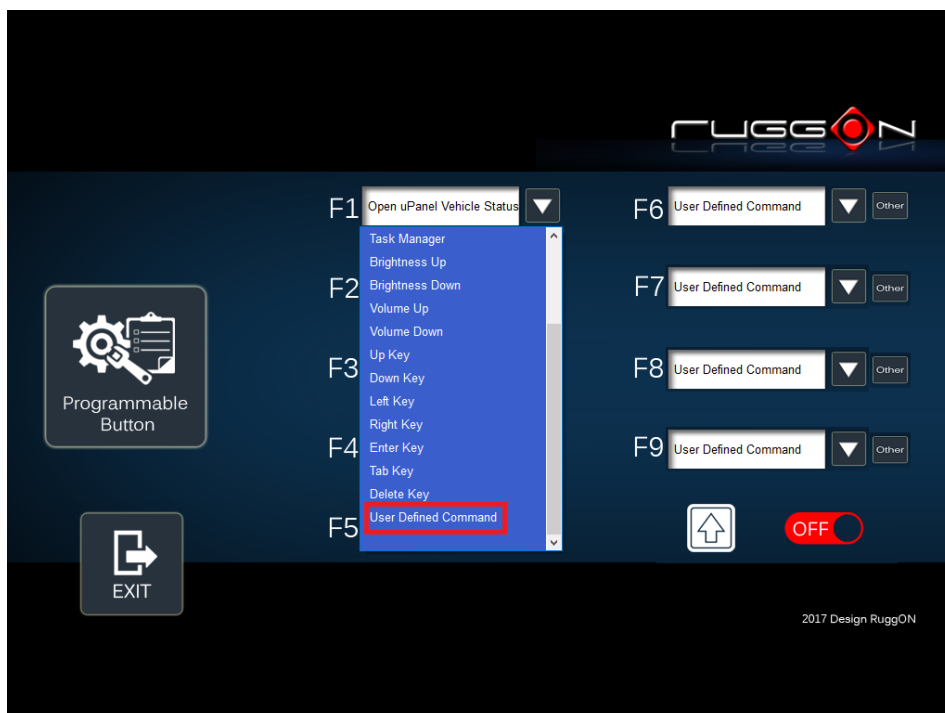
Programmable button can be set to the different function per user's definition.



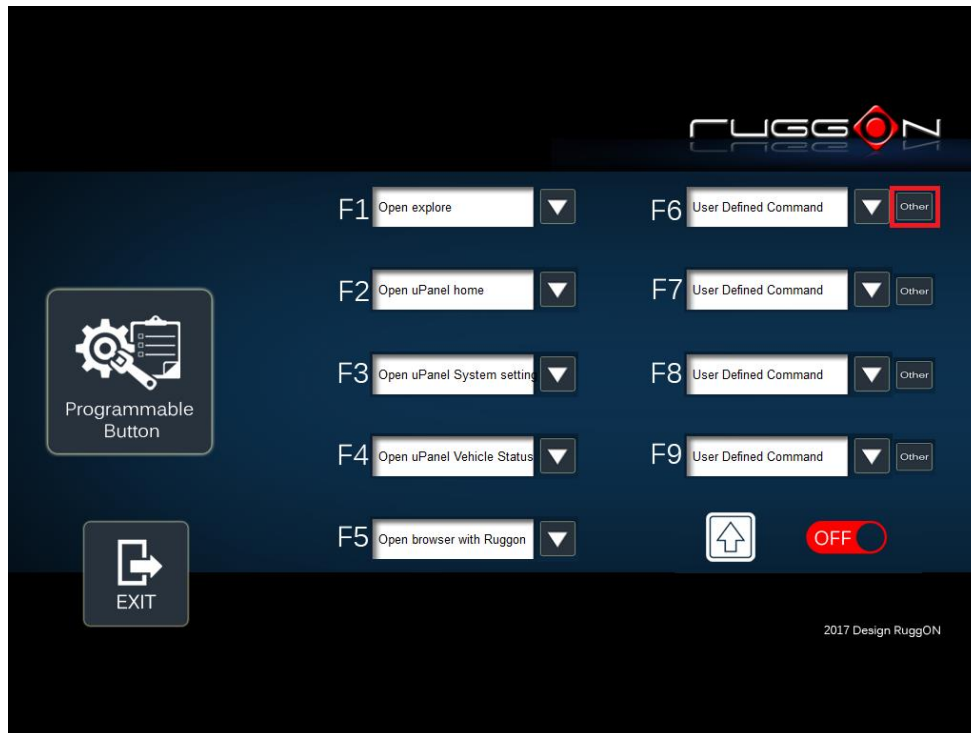
Select which function key button you want to set and then click the  to select the function from the list.



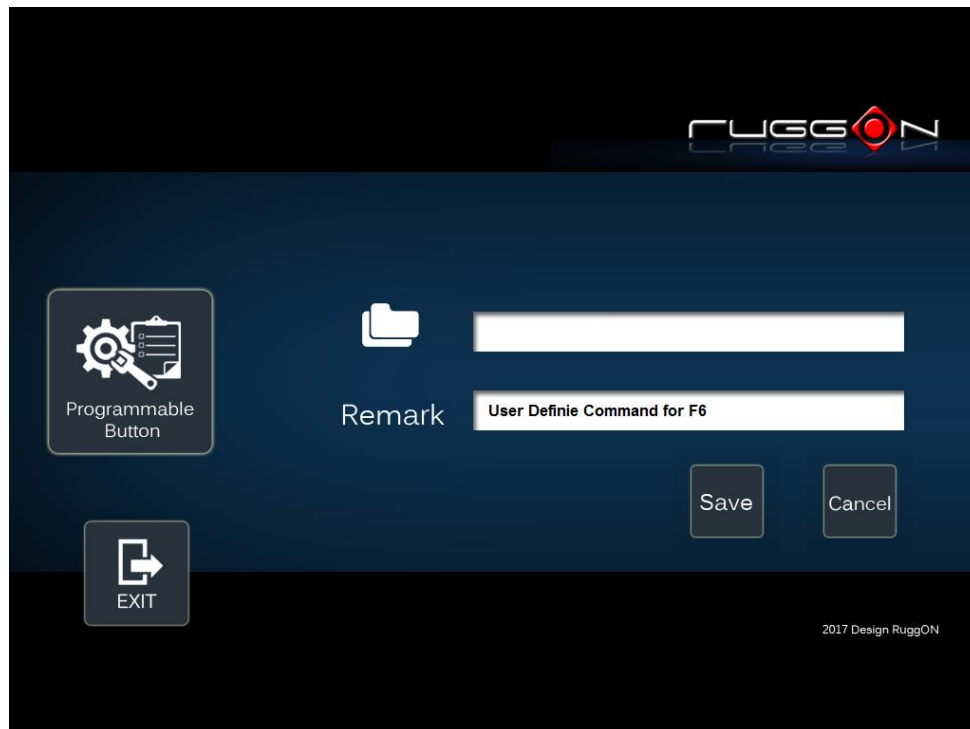
User also can define the keystrokes for function keys, select the “User Defined Command” from the list.



Click the “Other”



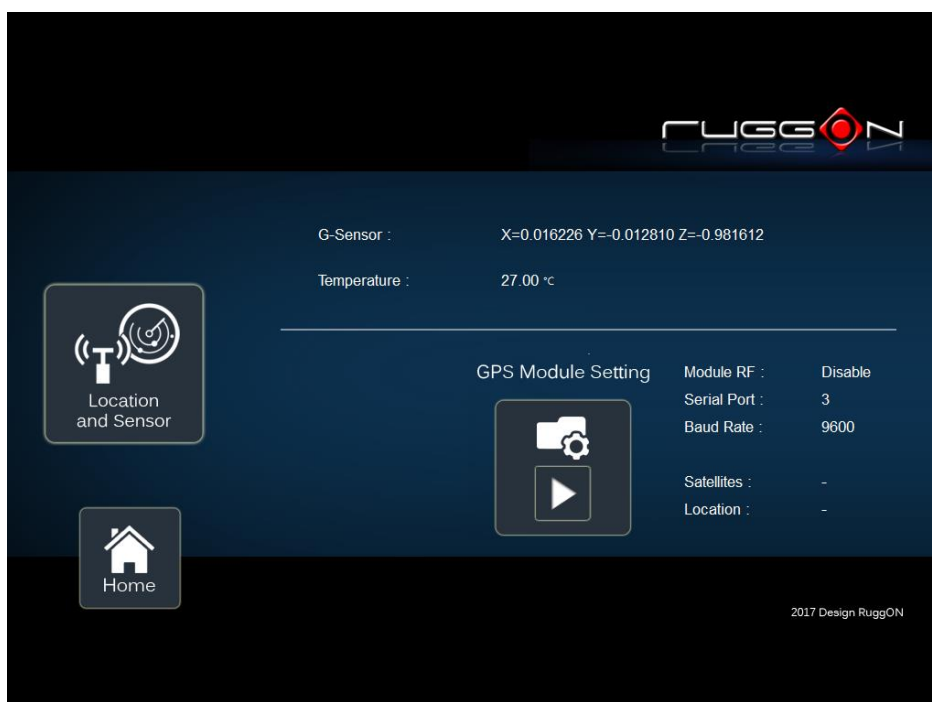
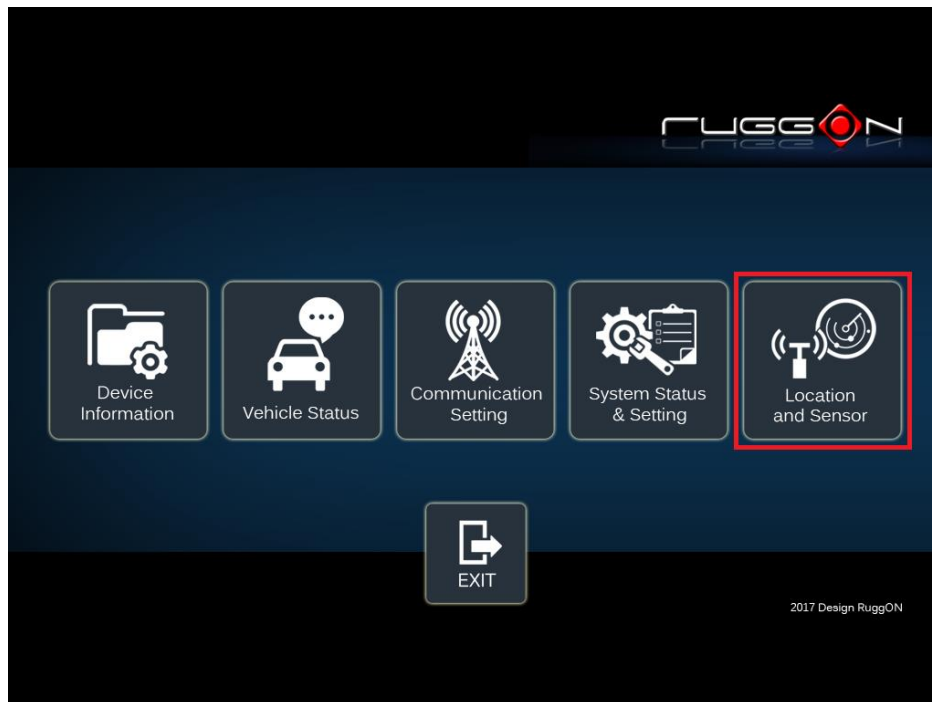
Click the folder icon to find the program files and then click the “Save” to save the setting.



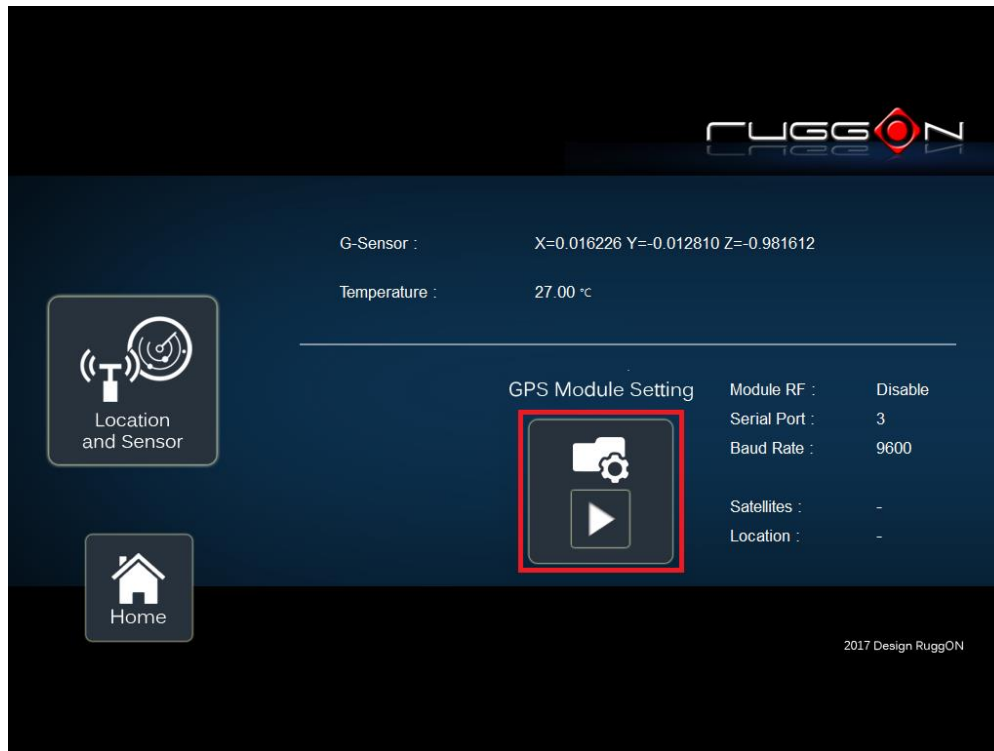
Location and Sensor


VX-601 provides the GPS receiver and G-Sensor built-in. DashON provides both setting and information and also link to the Google map location for demo application. You can also use the general freeware GPS viewer to set GPS setting.

Click the “Location and Sensor”



DashON includes the GPS receiver setting information, click  to set the GPS.



After click , you will see the following setting screen. The following is the function description.

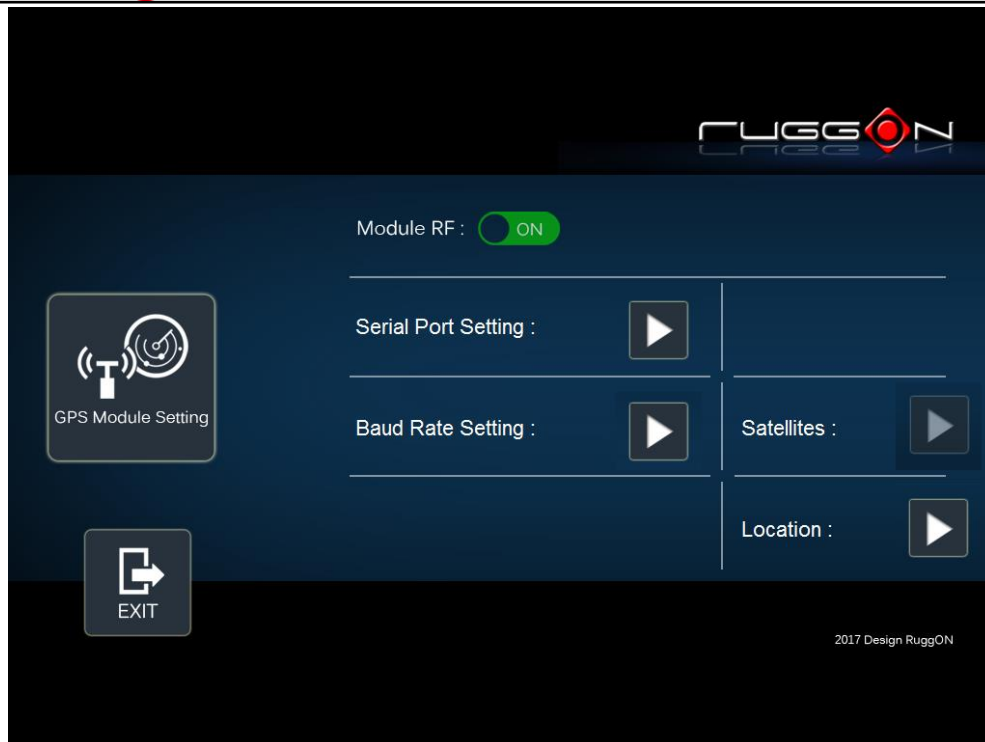
Module RF: to enable or disable the GPS receiving function.

Serial Port Setting: to setting COM port for GPS module connected on.

Baud Rete Setting: to setting the baud rate speed.

Satellites: a GPS receiver uses satellites to pinpoint locations, here to check the receiver performance.

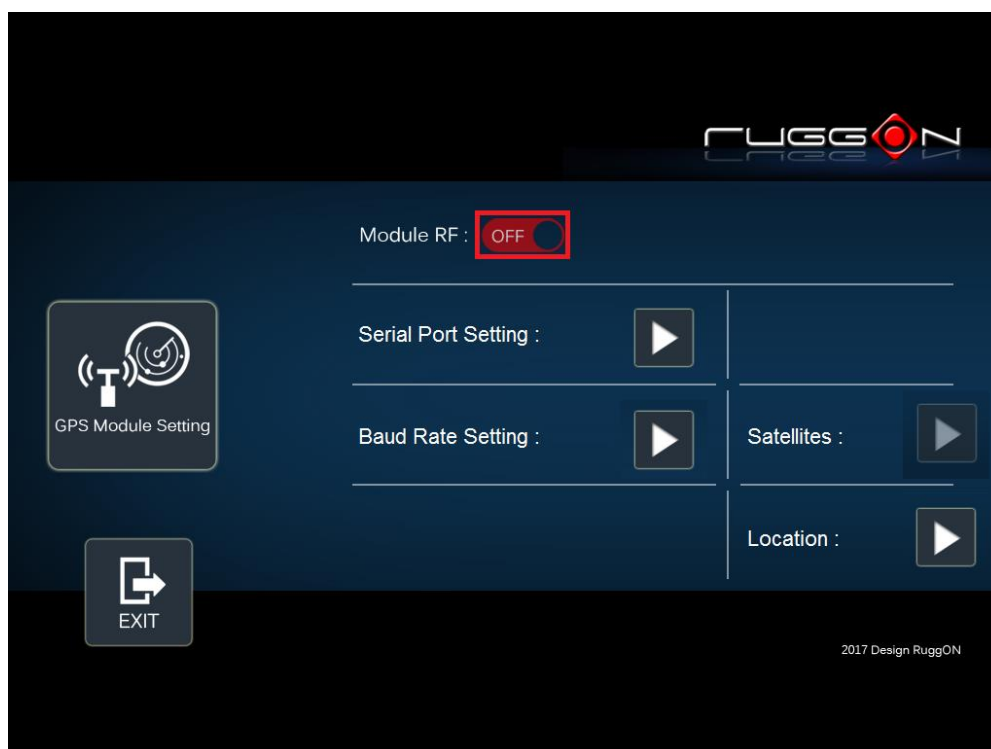
Location: to get GPS coordinate and display in the Google Maps



Enable/ Disable GPS Receiver

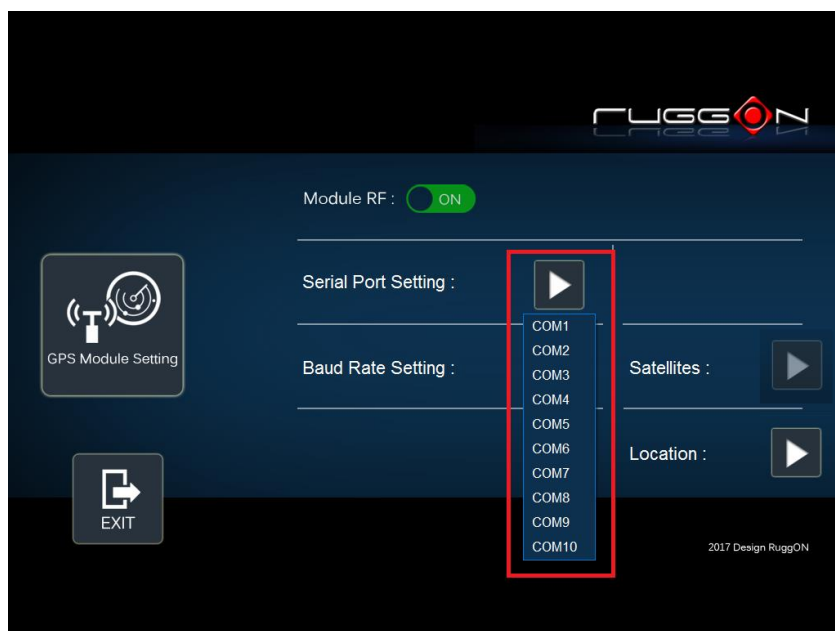
The default GPS receiver is enabled in VX-601. If want to disable the receiver, switch

“Module RF” to .



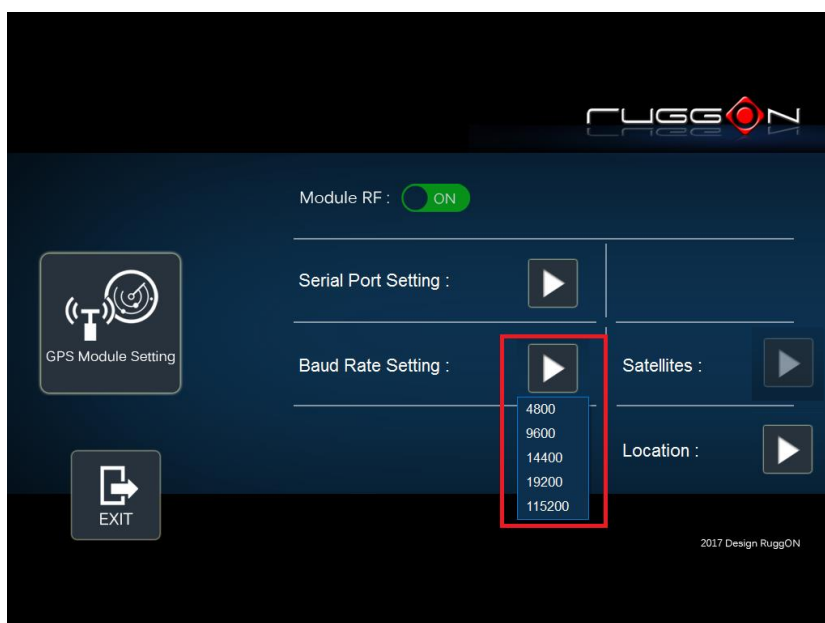
Serial Port Setting

To select the COM port, you are using to connect to your GPS from the list. VX-601 GPS receiver default is using COM3.



Baud Rate Setting

The must be set to the same baud rate you are using in the GPS receiver. Use as high a Baud rate that is possible. Baud Rates from 4800 to 115200 can be selected in DashON. The default is 9600.



Chapter 7. Main BIOS Setting

VX-601 is equipped with a Phoenix BIOS, which is stored in EEPROM chip.

This chapter provides information for BIOS main feature setting in hardware system.

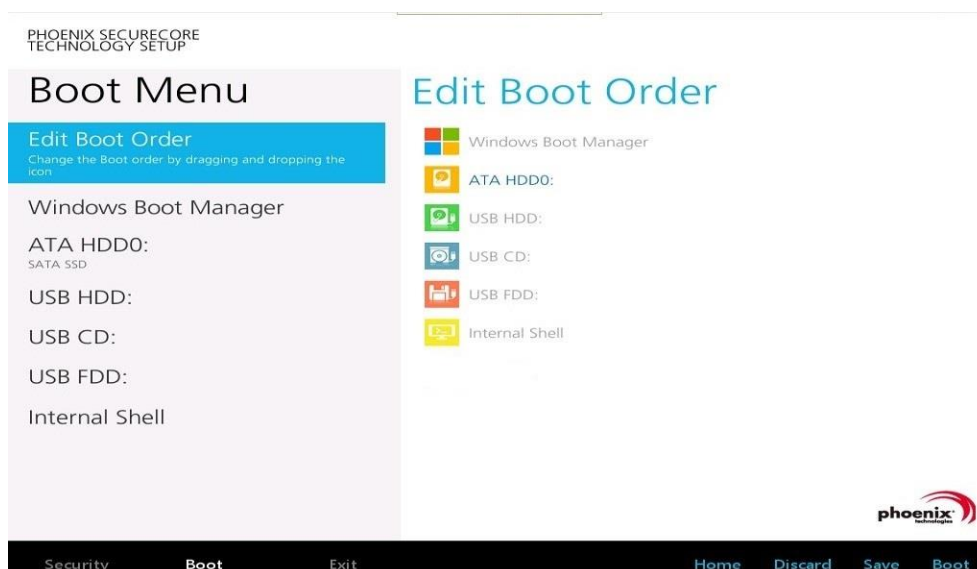
When the system turn on, press <F2> to enter Setup

The system displays the BIOS setup interface, you can select what functions do you want to change.



Set Boot Sequence

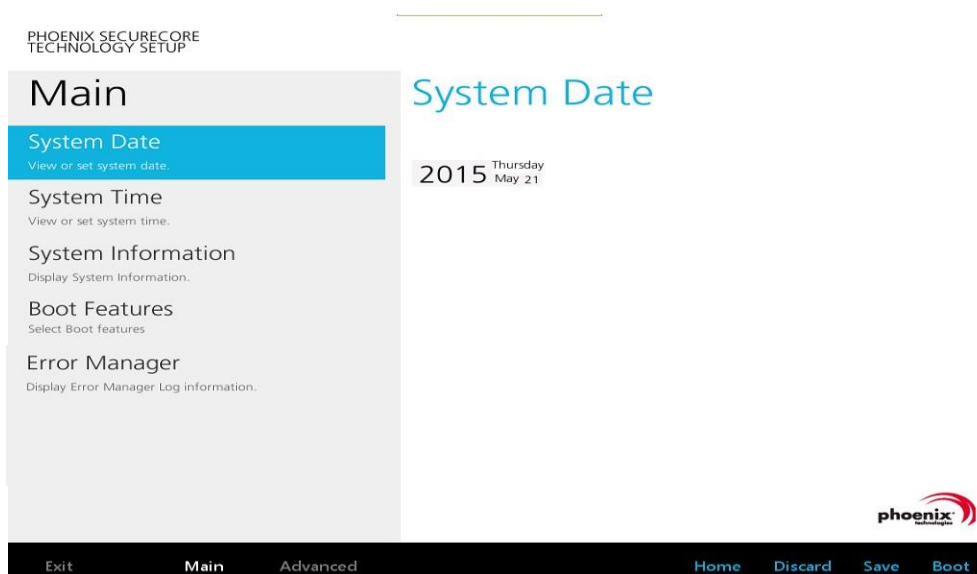
This section enable the user define and modify the boot options of bootable devices.



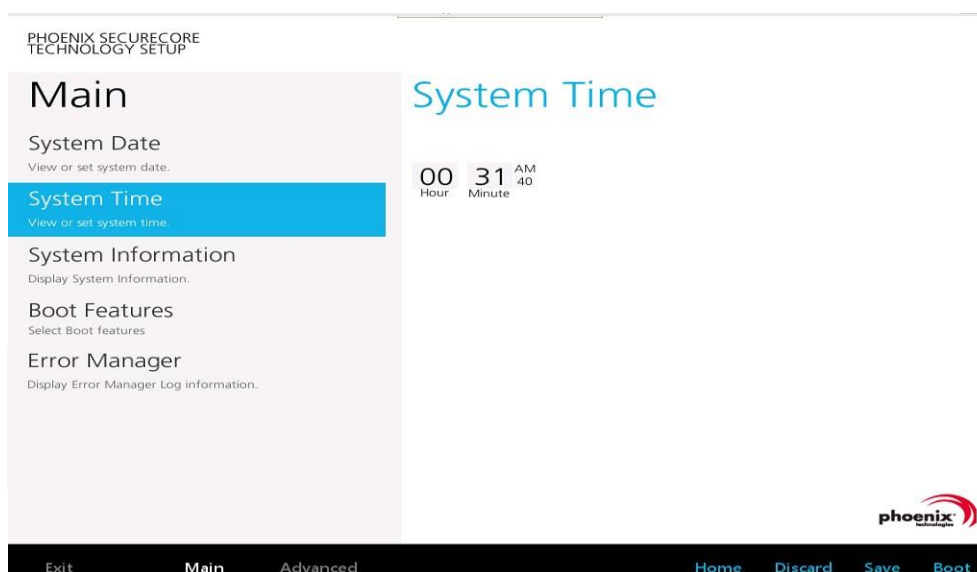
Set the system configuration

Used the Main menu for basic system configuration , user can setting the system date, time and drive parameters and related settings via the HDD Sub-menu.

Setting the System Date

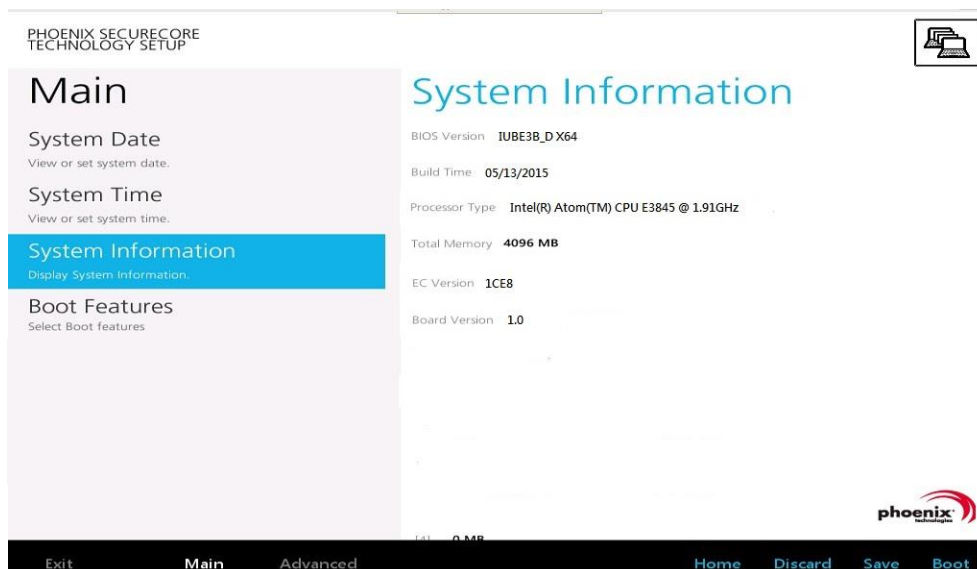


Setting the System Time



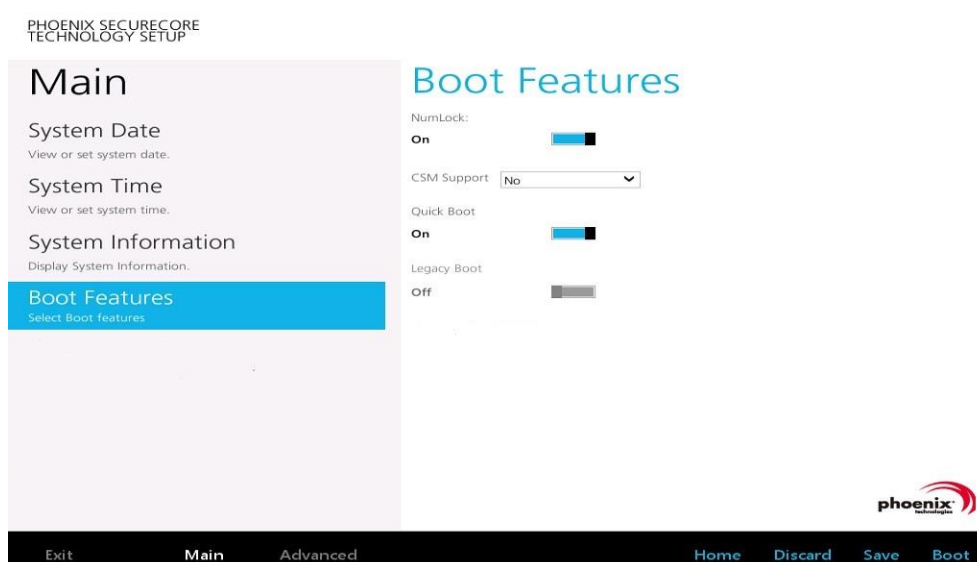
System Information

Display the system configuration information such as CPU, Memory size, firmware version.



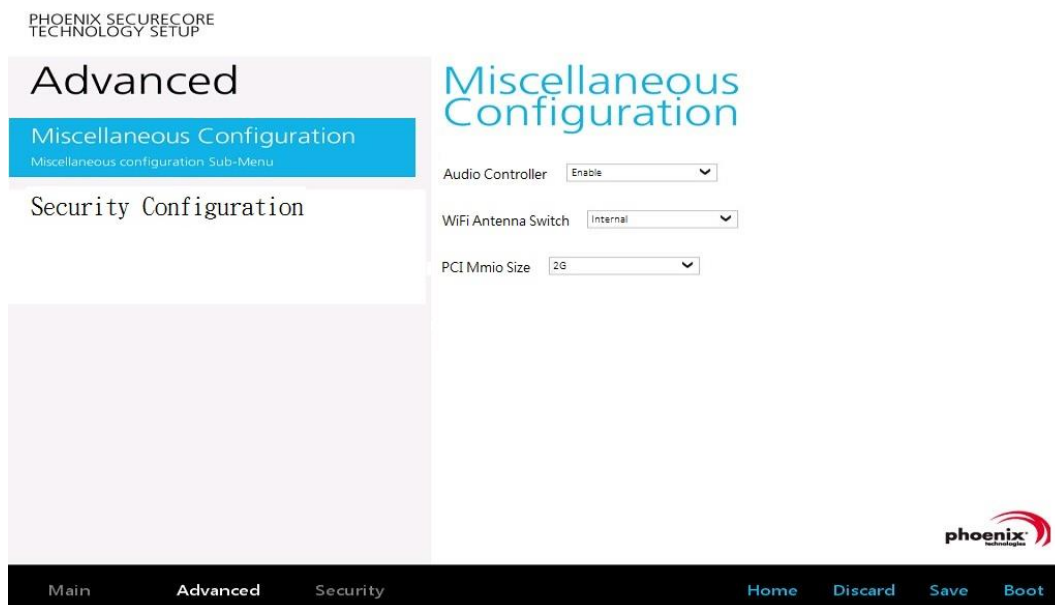
Boot Features

User can set the boot options for CSM support or Quick Boot, please note if the operating system is Windows 8, please setting [Off] for “Legacy Boot”



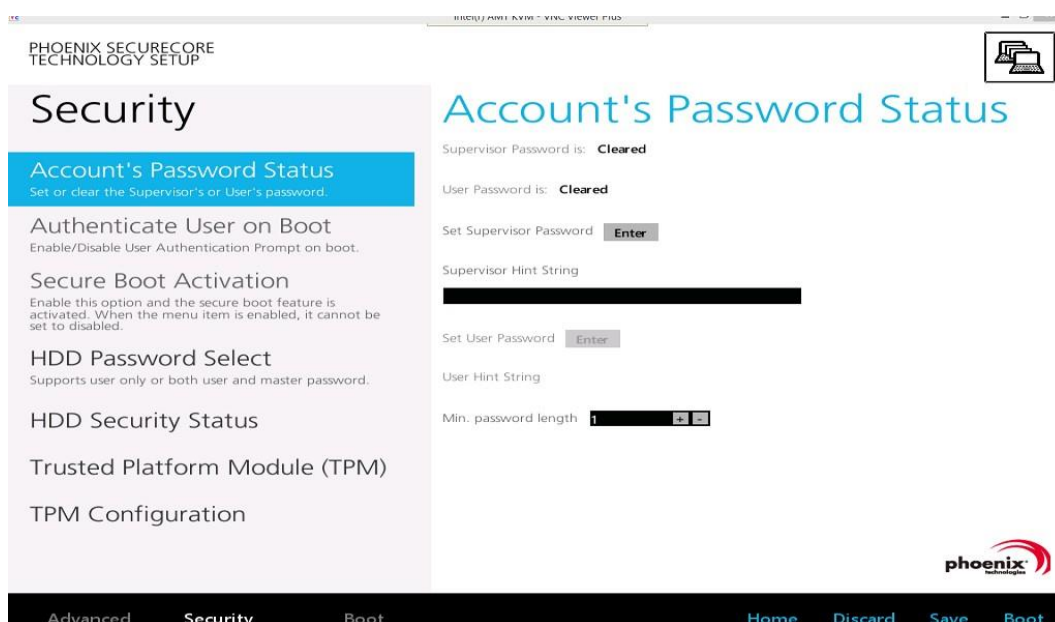
Miscellaneous Configuration

Use Advanced menu to set the system I/O device function.



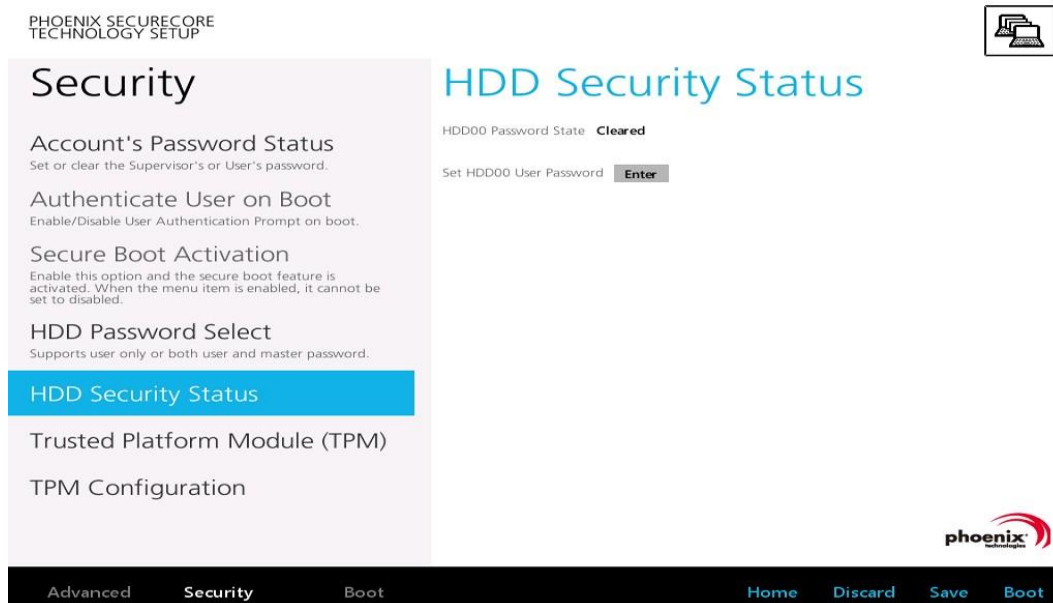
Account's Password Setting

Used the Security Menu can establish the system password to protection for entering the BIOS or system start-up.



HDD Security Setting

To establish password protection to restrict access to the contents of the hard disk drive, the HDD password is written to the system BIOS and to the hard disk drive to ensure that the password can protect your hard disk drive should it be moved to another computer.



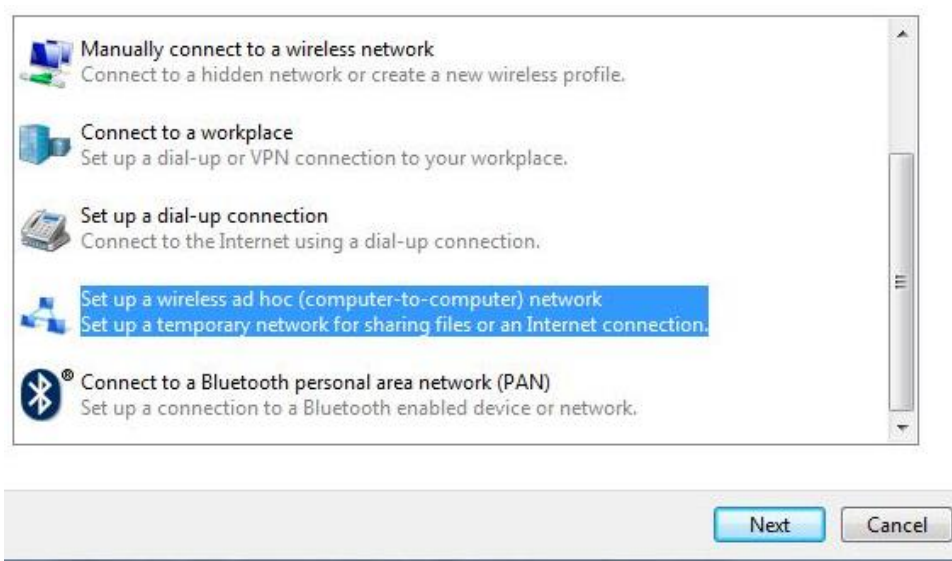
Chapter 7. Setup Wi-Fi Hotspot

VX-601 can be a gateway role for other devices to connect to the Internet, Windows has ways to create Wi-Fi hotspot, and the feature is integrated into “Network and Sharing Center”. Here is how to turn your Windows 7 into Wi-Fi hotspot. (The process should be similar for Windows 8)

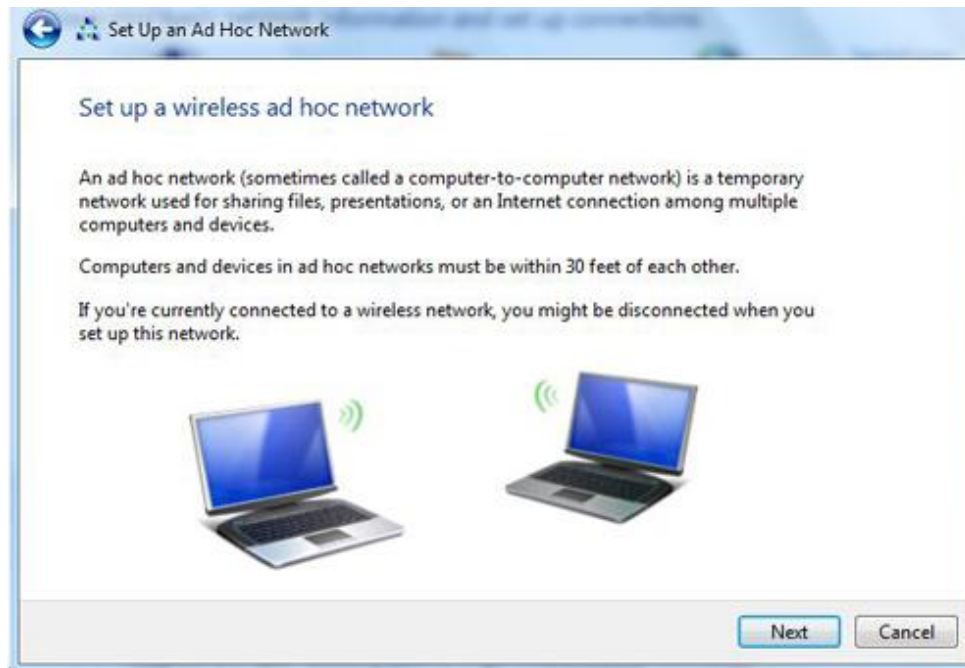
1. WWAN or LAN connection is properly connected to the Internet.
2. Make sure the Wi-Fi function is enable (set WLAN to disable by DashON), that isn't currently connected.
3. Go to the “Control Panel” and look for “Network and Sharing Center” and then go to “set up a new connection or network”



4. Select “Set up a wireless ad hoc (computer-to-computer) network and click “Next”



5. Click “Next”



6. Enter the Network Name, choose a security type and enter the security key. Check the “Save this network” checkbox, it will save your network name on the Wireless network connection, and then click “Next”.



7. At this point your ad hoc network should be running and ready to start connecting your device, clicking the “Next”.

