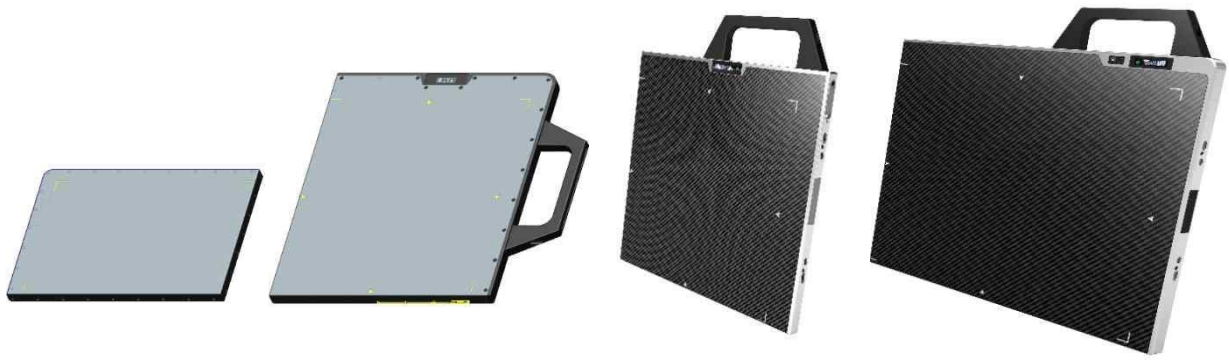
User & Installation Manual

Flat-panel Digital X-Ray Detector for NDT



Model : PIXX1826N/2626N/2629N/2929N/3543N/4343N

Rev. 1.0.1

Be sure to read and understand this manual thoroughly before using the product and keep this manual in an easily accessible location for quick reference when required.

INTRODUCTION

PIXX is a high-resolution digital X-Ray imaging device commonly referred to as a flat panel detect. A built-in a-Si TFT flat panel type digital sensor receives X-Ray and converts to digital image. X-Ray photons are converted to digital output signals. The digital signals are then read out by TFTs. The image data file is saved at the computer for display.

ⓒ2018. PIXXGEN Corporation. All rights reserved.

ATTENTION

1. This manual guides the PIXX user to perform all installation and set-up procedures. Be sure that the user reads this manual thoroughly.
2. This includes the instructions of NETWORK adapter installation.
3. The use of calibration data and the method of creating calibration data are demonstrated.
4. Guidelines for the Manual mode (External S/W Triggered) when connecting the generator directly to the PIXX is included.
5. No Modifying warning statements
   Never disassemble or modify the product as it may result in fire or electric shock. Also, since the instrument incorporates parts that may cause electric shocks and other hazardous parts, touching them may cause death or serious injury
6. FCC 15 Compliance statement
   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.

   Any Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

REVISION HISTORY

PIXX Manual Revision History

Revision	Revisions	Revised Date	Reviser
1.0.1	Initial drafting	2020.09.15	Kevin,

ⓒ2020. PIXXGEN Corporation. All rights reserved.

Contents

ⓒ2020. PIXXGEN Corporation. All rights reserved.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

1. Safety Information

1.1. Safety Information

Do not ignore following cautions while handling the products, and read thoroughly this page before use.

CAUTION!.

- Do not use the instrument, if a malfunction has occurred, until the problems are solved by qualified personnel.
- Do not install the instrument in a location with the conditions listed below.
  - -Otherwise, it may result in failure or malfunction, fall or cause fire or injury.
  - -Close to facilities where water is used.
  - -Where it will be exposed to direct sunlight.
  - -Close to heat source such as a heater.
  - -Prone to vibration.
  - -Insecure place.
  - -Dusty environment.
  - -Saline or sulfurous environment.
  - -High temperature or humidity.
- Do not use the instrument unless designated.
- Do not touch any screws fixed in the instrument. Otherwise, loosened screws will result in the deterioration of image quality or the damaged instrument.

- Only authorized engineers from PIXXGEN are qualified for installation. Be sure to follow the instructions in this manual. Any inquries related to the maintenace should be in touch with PIXXGEN Service Team at tech@pixxgen.com.
- Approach us if the instrument did not respond as shown in the instructions.

- Disclaimer
  - Manufacturer is not liable to accidents or breakdown caused by the use of Detector by legally unqualified personnel.
  - The manufacturer is not liable to any accidents or technical problems caused by modification or repair of the device by agents or unspecified engineer.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

WARNING!.

- To avoid risk of electric shock, this equipment must only be connected to a supply main with protective earth
- Do not touch signal input, signal output or other connectors, and the patient simultaneously.
- No modification of this equipment is allowed
- Do not modify this equipment without authorization of the manufacturer

ELECTROMAGNETIC!

- 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 other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to other devices, 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 device.
  - Increase the separation between the equipment.
  - Connect the equipment into an outlet on a circuit different from that to which the other device(s) are connected.
  - Consult the manufacturer or field service technician for help.

Tip!	Recommended to turn off the detector when not in use for a long time.

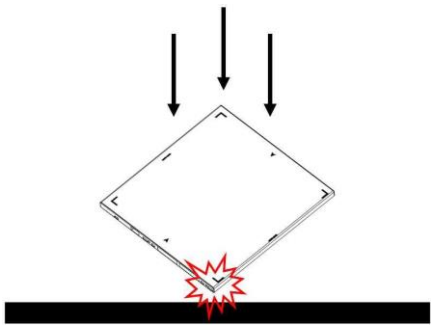
ⓒ2020. PIXXGEN Corporation. All rights reserved.

1.2. Handling

Handle the detector carefully.

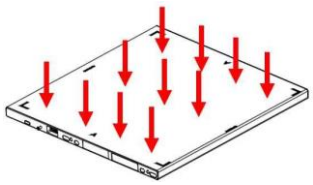
CAUTION!.

- Be sure to securely hold the detector while using it in upright positions. Otherwise, the detector may fall over, resulting in injury to the user or patient, or may flip over, resulting in damage to inner device.
- Be sure to use the detector on a flat surface so it will not get bent. Otherwise, the internal image sensor may be damaged.
- Do not submerge the detector in water.
- Do not strongly jolt or drop the detector, and avoid of something hits against detector. Otherwise, the internal image sensor may be damaged.



- Do not place excessive weight on the detector. Otherwise, the internal image sensor may be damaged.

  (Load Limit)



Uniform load: 100Kg over the whole area of the detector surface

1.3. Cleaning

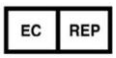
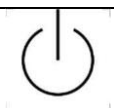
Only use a dry cloth only and be sure to turn off the power when cleaning the instrument surfaces. Never use any cleaning agents. Otherwise, it may result in the damage on surfaces or the corossion of structure. In case of user failure, if the product quality problem occurs, the responsibility is on user and manufacturer is under no liability to the problem.

1.4. Disposal

When disposing of this product, inform us before disposing or return all components of PIXX.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

1.5. Marks

	Attention, see instruction manual.
	The CE mark shows that the instrument obtained EU countries' requirements. CE number can be followed by the CE mark.
	Manufacturer's name and address.
	EU representative's name, address and contact details.
	Consult instructions for use
	Fragile, handle with care
	This symbol shall be accompanied by the manufacturer's serial number.
	Temperature limit.
	Symbol for the marking of electrical and electro-network equipment that must be recycled.
	Do not disassemble or open the instrument.
	Do not place the instrument near where liquid is present.
	Use a dry cloth only when cleaning the instrument.
	This way up
	Stacking Limited by number
	Keep away from rain
	Alternating Current
	Direct Current
	Device is switched on in order to bring it into the Stand-by condition

ⓒ2020. PIXXGEN Corporation. All rights reserved.

1.6. Condition for installation

- The wall outlet or the circuit breaker shall be installed near the equipment and shall be easily accessible when problems occur.
- Do not install this equipment in any of the locations listed below.
  - Where the AC/DC power supply is unstable.
  - Where temperature and humidity is high.
  - Where the room is without air-conditioner or ventilation.
  - Where it is exposed to direct sunlight.
- It is highly recommended to separate X-Ray Generator power in the distributing board of the electricity of the building.
- It is highly recommended to take internet connection nearby workstation pc in the room
- Check the distance between workstation PC in the operation room and the area which detector will be placed.
- It can be used both indoors and outdoors within the indicated environmental conditions.

1.7. Environment

- Be sure to use and store this equipment under the conditions as described below.

	Temperature	Humidity
Storage	-20 to 70℃	10 to 95 % RH(Non-condensing)
Operation	10 to 35℃	20 to 75% RH(Non-condensing)

- Do not expose this equipment to high temperature and humidity since it makes detector malfunctions.

1.8. ETC.

- Type of protection against electric shock
  - Class I and/or Internally powered equipment
- Degree of protection against electric shock
  - Not classified - No applied parts
- Classification according to the degree of protection against ingress of solid objects and liquids.
  - IP67
- This equipment is not suitable for use in the presence of flammable anesthetics or oxygen
- Mode of operation:
  - continuous operation

ⓒ2020. PIXXGEN Corporation. All rights reserved.

2. Product Part Introduction

2.1. Product parts

2.1.1. Standard parts

NO.	Part	Description	Qty
1	PIXX (Detector)	18*26, 29*29, 35*43, 43*43 sized, Wired or Wireless X-Ray Detector	1
2	USB memory	- SensorProbe Program - Calibration data - User & Installation Manual - ZView Acquisition Program (Optional) - ZView User & Installation Manual (Optional)	1

2.1.2. Optional parts

NO.	Part	Description	Qty
1	ZView USB Dongle Key	USB Security Dongle Key of ZView Acquisition Program	1
2	PICB (Interface unit)	Charge the battery. - The charging time is at least 4 hours. Control & Interface with both PC & X-Ray Generator - AC/DC Switching Power Supply	1
3	Dual charger	Charge the battery. - The charging time is at least 4 hours.	1
4	Bridge (repeater)	It transmits the signal and image data to the PIXX. It is not provided from the package since it uses a different frequency in each country. **Note: Using an 2.4 GHz 802.11n Bridge is recommended.**	1
5	Network adapter	The network adapter is required for installation and connection of PIXX. Users are able to use wireless Network Adaptor when they want to have wireless connection between Bridge and workstation computer. ☞ Chapter. 4.1. Network Setting for installation. **Note: Using a gigabit Ethernet adapter is recommended.**	1

Immediately upon receipt, inspect the shipment and its contents against the PARTS LIST enclosed with the shipment for evidence of missing components. Save all shipping containers in case of a return. If there is any discrepancy, please contact the PIXXGEN Service Team at tech@pixxgen.com.

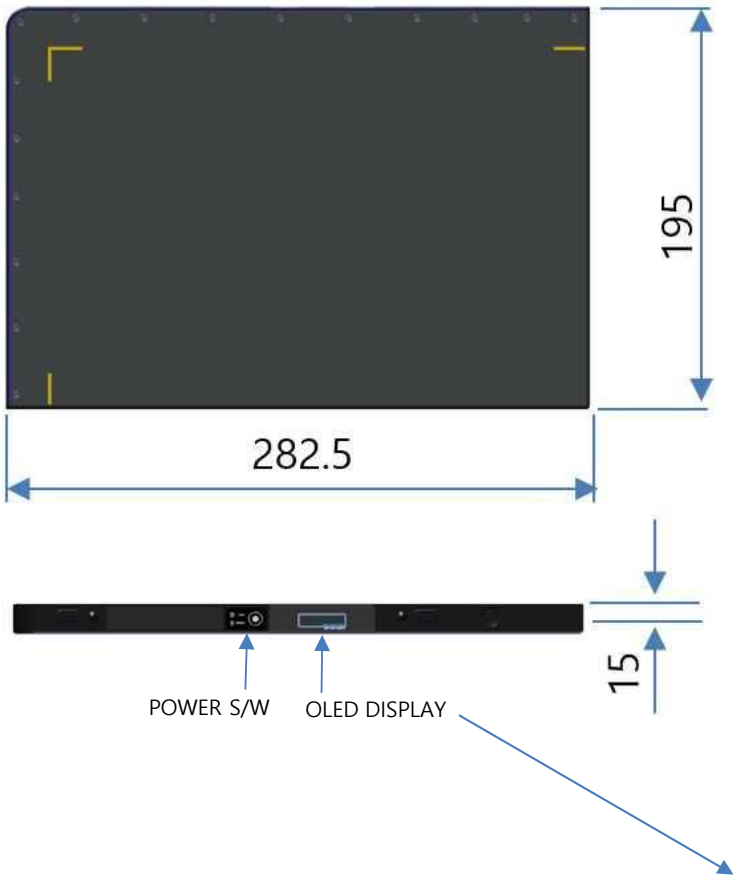
ⓒ2020. PIXXGEN Corporation. All rights reserved.

2.2. Product functions

2.2.1. PIXX (Wireless & Wired Type)

PIXX is digital radiographic imaging detector which supports both wireless (AP & Station) and wired Type.

A built-in a-Si TFT flat panel type digital sensor receives X-Ray and converts to digital image. The digital signals are then read out by TFTs**.** The image data file is saved at the computer through acquisition software. If user plug data link cable, the Detector will be charged. (The charging time is at least 8 hours.)



: AP mode

: Wireless mode

: battery level

: wired connected

: disconnected

: wired charging

: power on mode

: sleep mode

: Wi-Fi level

ⓒ2020. PIXXGEN Corporation. All rights reserved.

3. Hardware Installation

3.1. Network adapter(Network Adaptor) Installation

(Gigabit Network Adaptor)

*ONLY EXAMPLE (The figure may be different from the user's computer.)

Before installing the workstation computer, it is necessary to install Gigabit Network Adaptor. It is possible to check empty slots if you open the case of the computer. Carefully install Network Adaptor in PCI-E slot. Users are able to install wireless Network Adaptor if you need to have wireless connection between Bridge and work station computer.

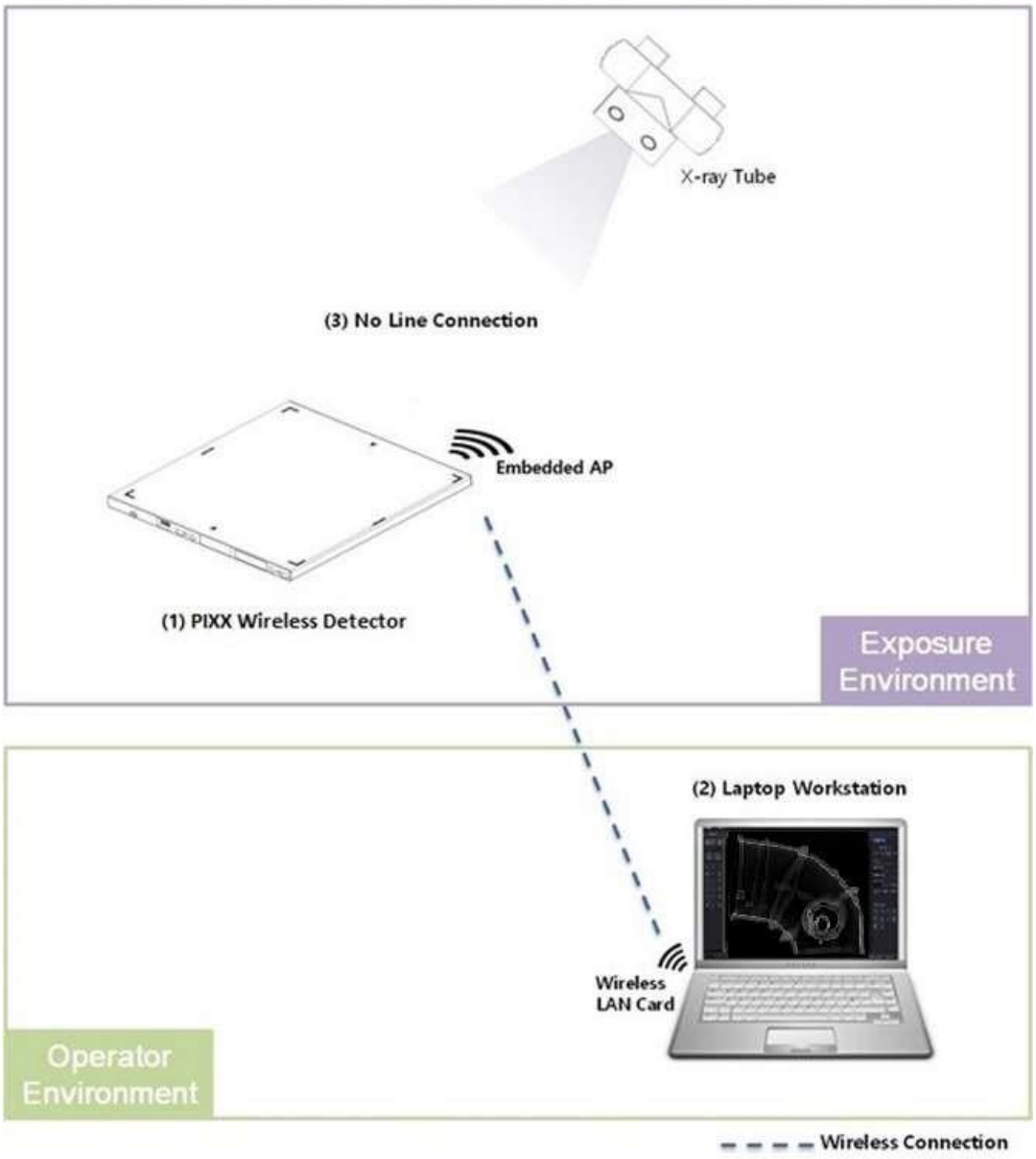
CAUTION!.

- PIXX system requires at least one PCI-E slot. Check the number of PCI-E slot when purchasing a workstation computer.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

3.2. Detector Installation

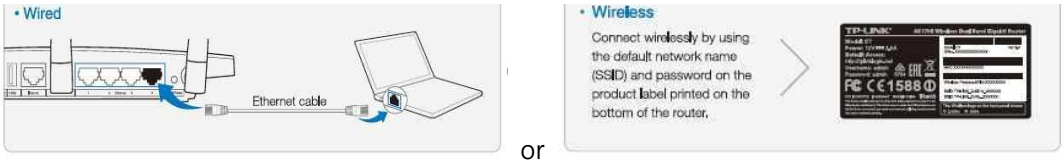
PIXX is used in Wireless configuration as illustrated below:



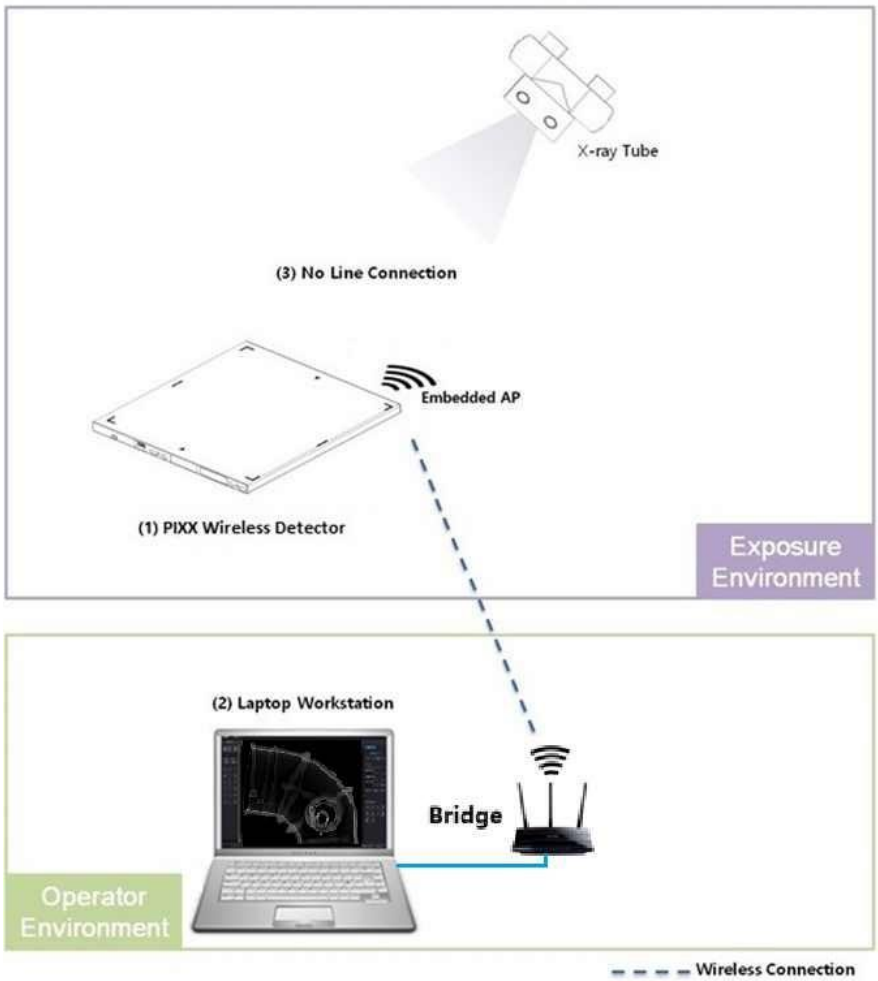
- (1) Detector (embedded Internal AP) ⇄ Bridge: Wireless (signal, digital image)
- Bridge ⇄ (2)Work Station: Wired or Wireless (signal, digital image)
- (3) No interfaces between generator and PIXX in Auto mode (AED triggered). Wiring unit enables wired configuration. (☞ Chapter: 7.3.)

ⓒ2020. PIXXGEN Corporation. All rights reserved.

3.3. Bridge Installation



- Bridge ⇄ Work Station: Wired or Wireless (signal, digital image)



- If laptop's wireless performance is weak, improve the wireless quality by using a wireless router.

CAUTION!	A disconnection of wireless signal can be easily occurred depends on the location of antenna. It has to minimize the shadow zone by installing additional extended cable, so the product and the antenna can be opposable.

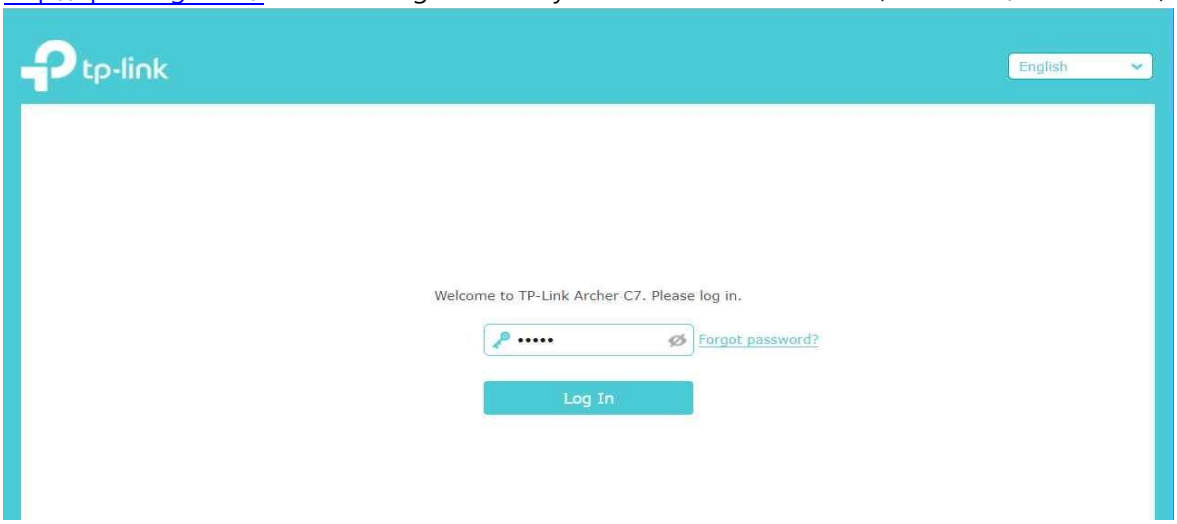
ⓒ2020. PIXXGEN Corporation. All rights reserved.

4. Software Setting

4.1 Network Setting

4.1.1. The settings between Bridge (Repeater) and PC

(1) Open a web browser (e.g., Internet Explorer, Chrome, Firefox, or Safari) and enter http://tplinklogin.net/ and then login to the system as an administrator (ID: admin / PW: admin).



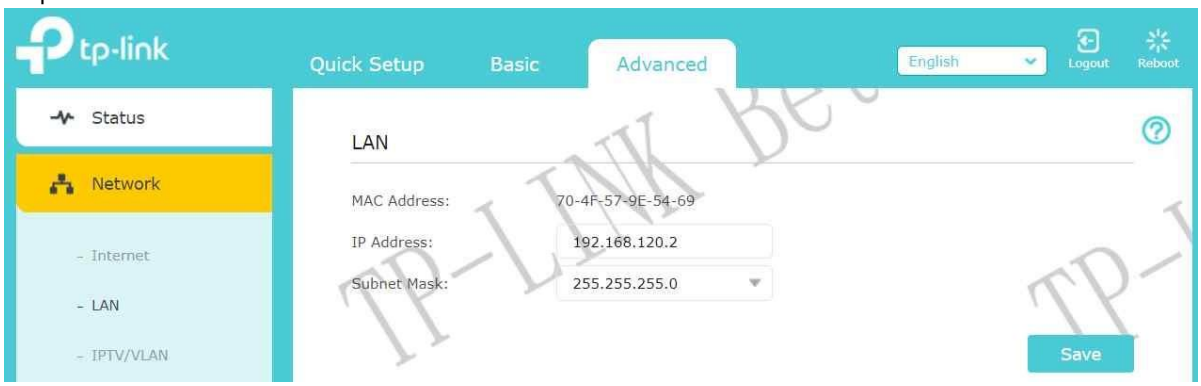
CAUTION!	The recommended product for Bridge of Wi-Fi Router is TP Link Archer C7. In this instruction, it has been instructed based on Archer C7 product. The rest of Wi-Fi Router are able to be used. However, if you like to use it, additional test is required.

Tip!	When you set up Bridge at http://tplinklogin.net/ and if it is not able to enter to set up page, disable all Network Adopter at Network Adopter Setting except the Network Adopter that is connected Bridge. After completed the setting for Bridge, enable all the Network Adopter at Network Adopter Setting that you have disabled previously.

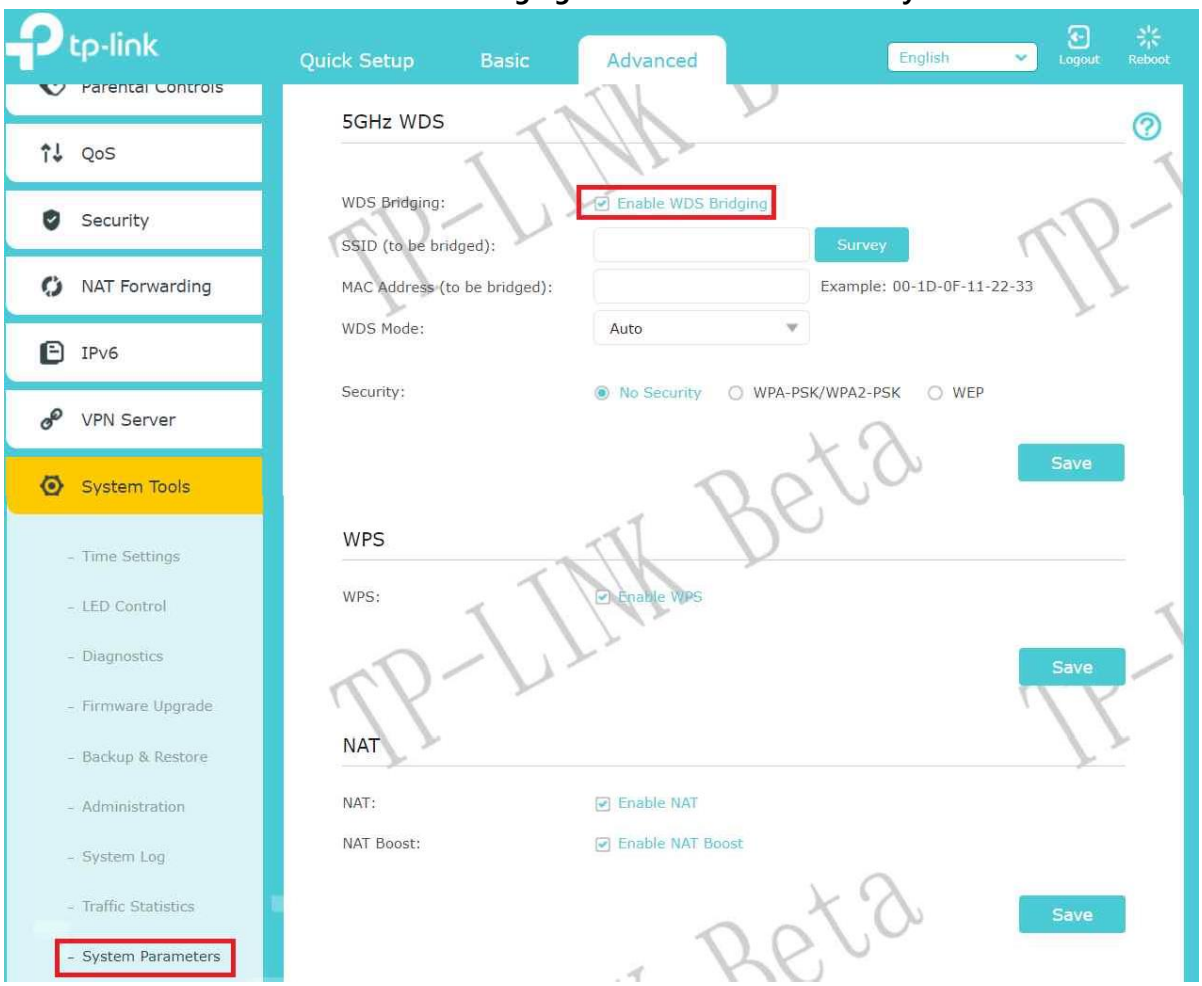
Tip!	When setting the Bridge (Repeater), set IP address as automatically in the TCP/IPv4

ⓒ2020. PIXXGEN Corporation. All rights reserved.

(2) Go to the **Advanced > Network > LAN**, and change the IP Address to **192.168.120.2** in order to prevent IP conflicts and then click the "**Save**" button.



(3) Go to the **Advanced> Wireless Settings**, and change the "**Wireless Network Name**" to "**PIXXAP**". And select "**Enable WDS Bridging**" And then click the "**Survey**" button.



ⓒ2020. PIXXGEN Corporation. All rights reserved.

(4) Select "**PIXXAP120**" SSID from AP list, click the "**Choose**" button.

Survey

AP Number: 3 Refresh

ID	MAC Address	SSID	Signal	Channel	Security	Operation
1	64-E5-99-63-CD-10	PILAIM5G		149	PSK	Choose
2	C4-12-F5-6B-3A-56	PIAL501		36	PSK	Choose
3	C0-25-E9-18-F2-58	PIXXAP120		36	PSK	Choose

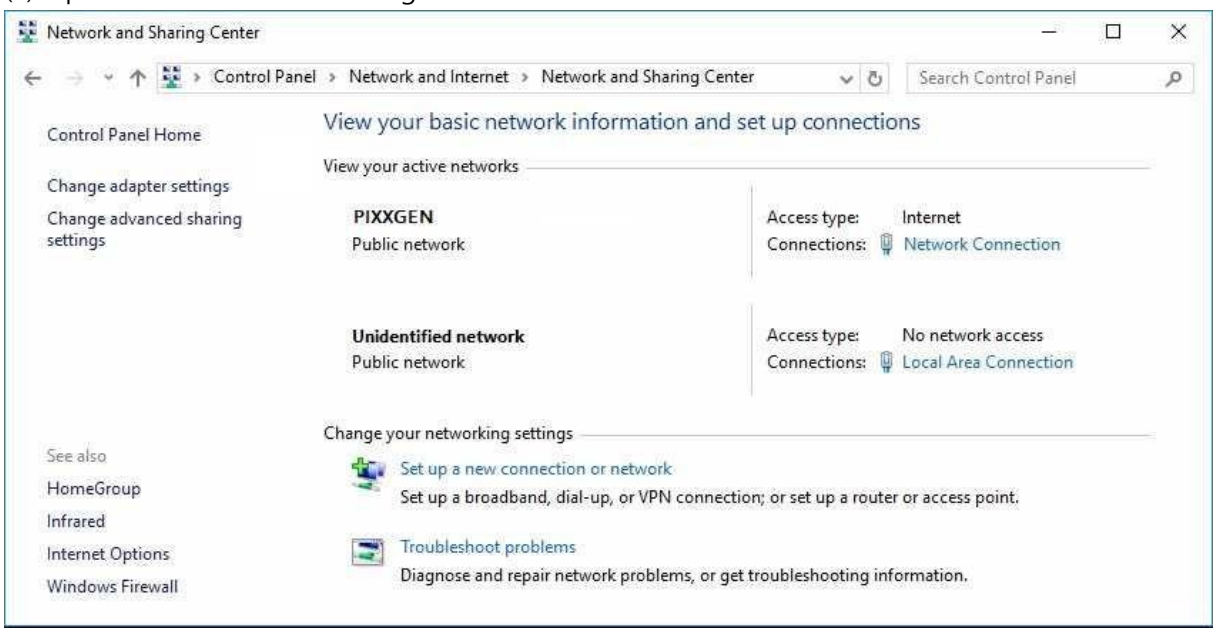
(5) Input the password "**1234567890**"and then click the "**Save**" button and reboot.

[2.4 GHz 802.11n]

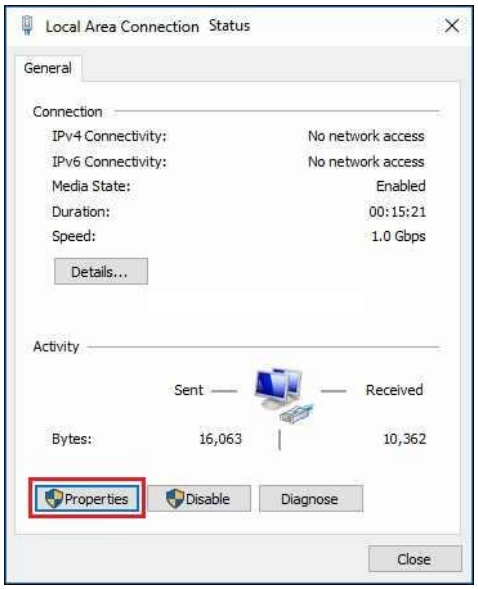
ⓒ2020. PIXXGEN Corporation. All rights reserved.

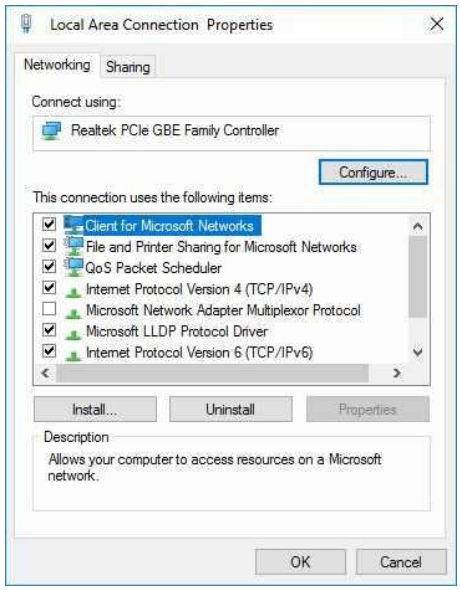
4.1.2. The settings PC (win7)

(1) Open the network and sharing center.



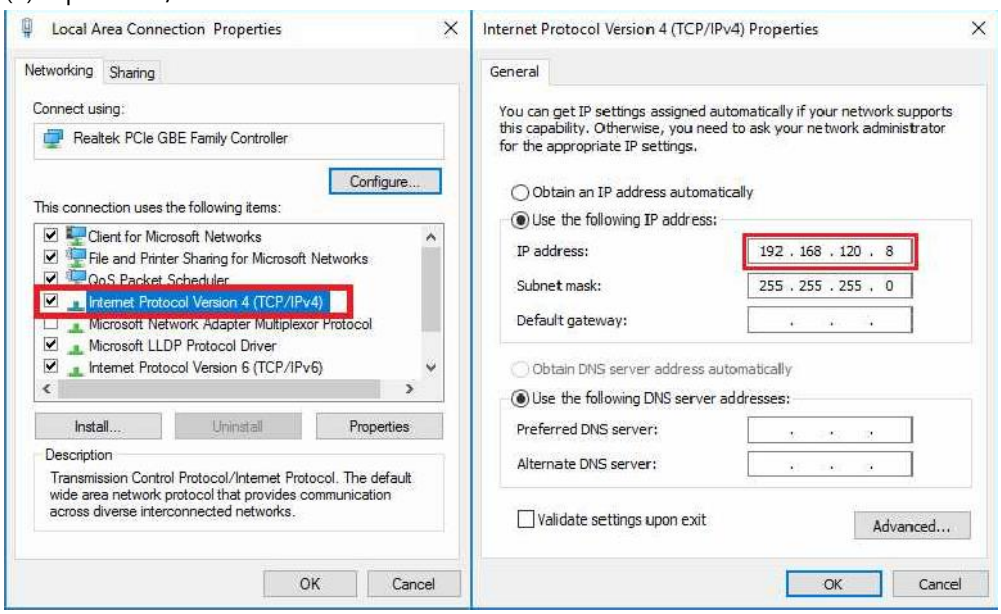
(2) Open the Network Adaptor properties





ⓒ2020. PIXXGEN Corporation. All rights reserved.

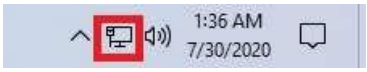
(3) Open TCP/IPv4 and set the static IP as 192.168.120.3~254.



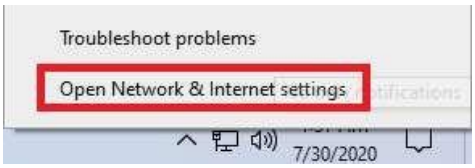
ⓒ2020. PIXXGEN Corporation. All rights reserved.

4.1.3. The settings PC (win10)

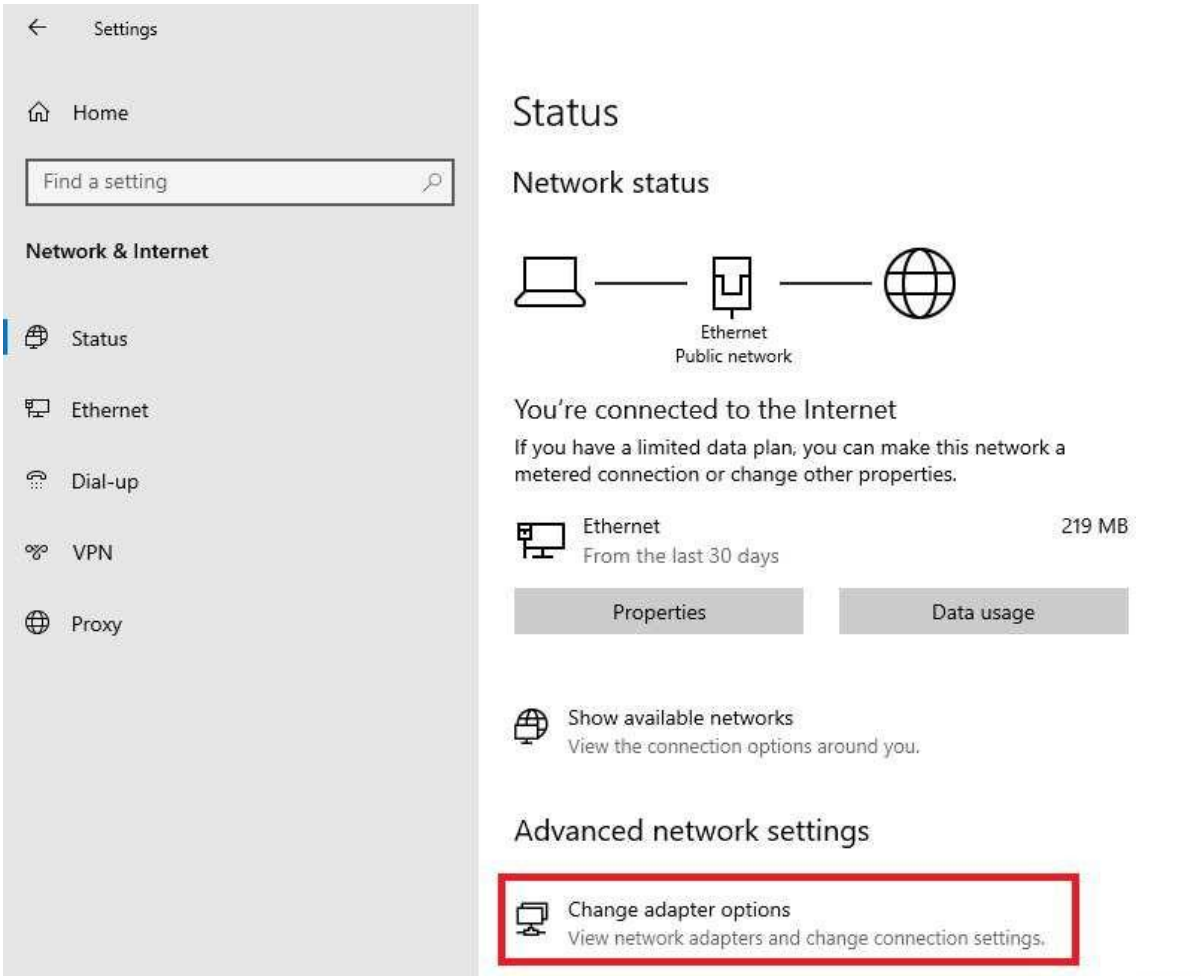
(1) right click 'network icon' in system tray.

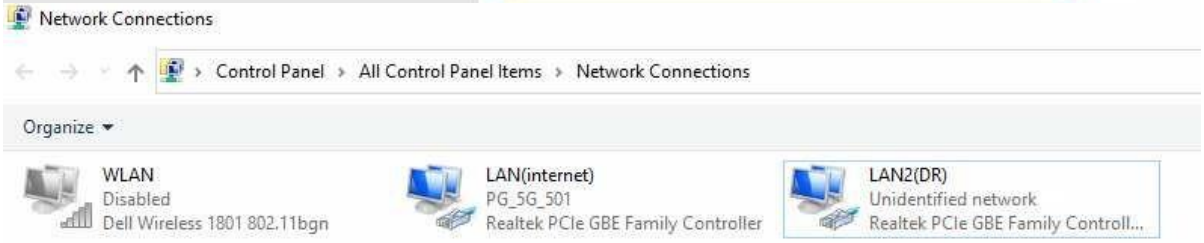


(2) Open Network & internet settings



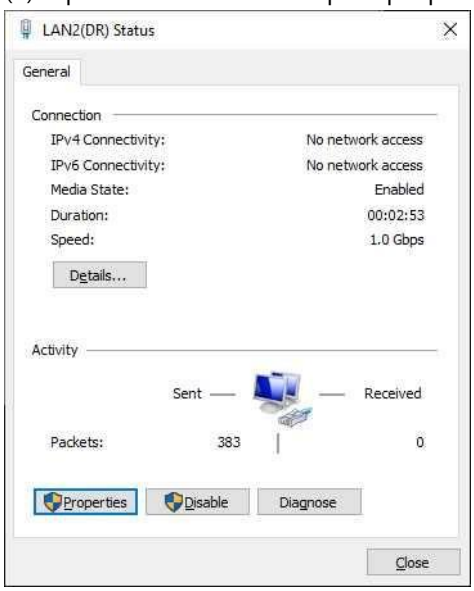
(3) Click 'Change your network settings'



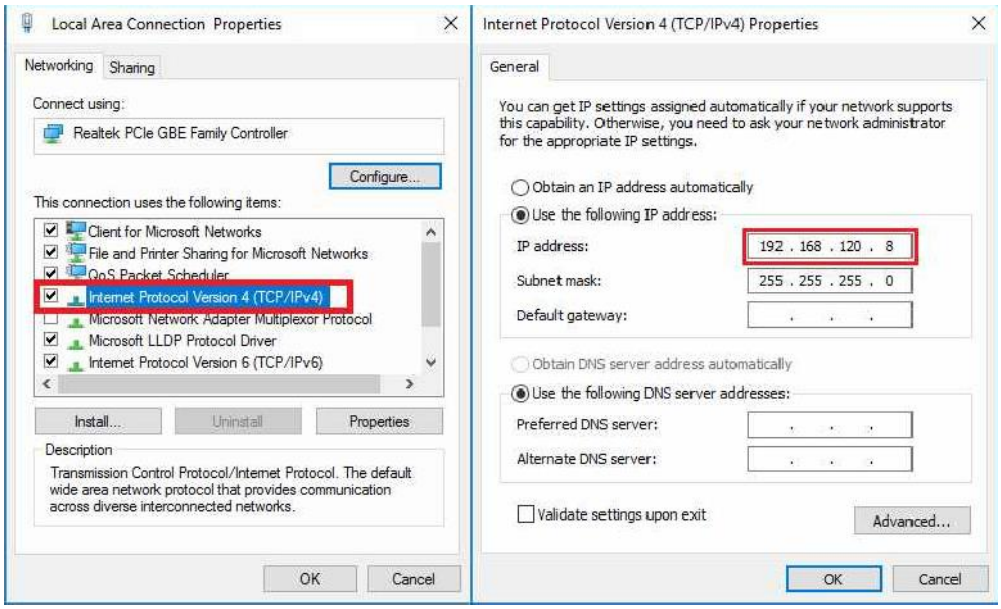


ⓒ2020. PIXXGEN Corporation. All rights reserved.

(2) Open the Network Adaptor properties



(3) Open TCP/IPv4 and set the static IP as 192.168.120.3~254.

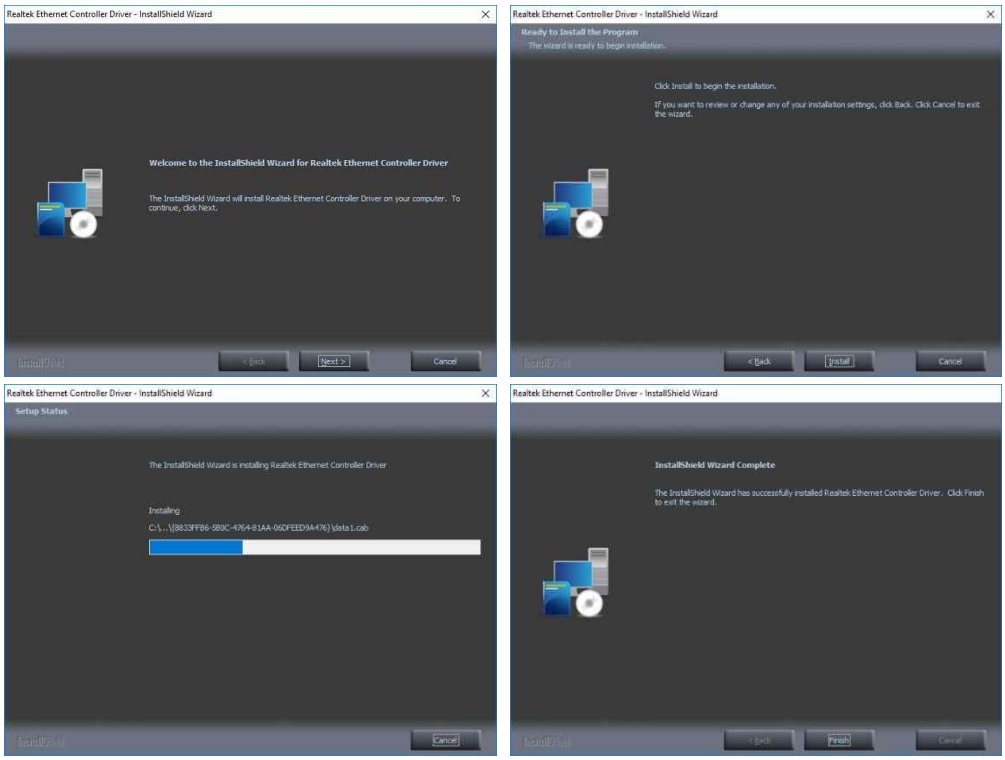


ⓒ2020. PIXXGEN Corporation. All rights reserved.

4.1.4. Network adapter setting-Network Adaptor (Windows 7, 8, 10)

(1) Installation

- Insert driver CD
- Run install file following each OS version



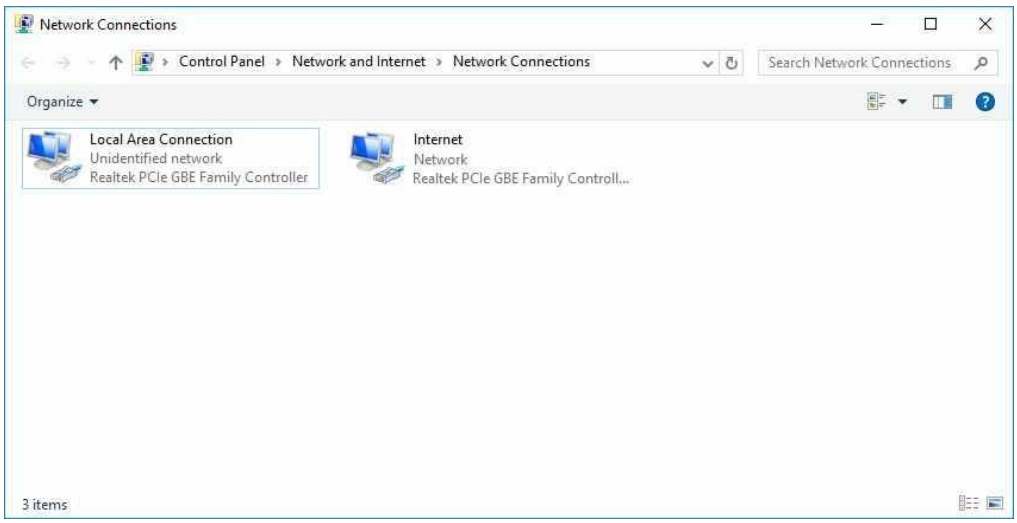
ⓒ2020. PIXXGEN Corporation. All rights reserved.

4.1.5. Advanced Network Set-up

This is to secure data streaming from disconnection.

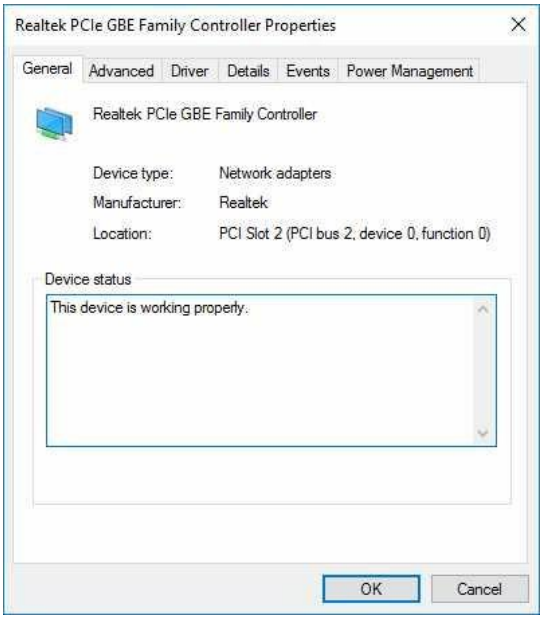
CAUTION!	For the user using own network adapter, it is essential to update the driver of network adapter and adjust the advanced network setting. Realtek network adapter in particular is sensitive to set-up. This set-up is to protect the network from freezing or slowing down. Improper set-up may result in data loss or damaged images or intermittent connectivity.

(1) To check the information of current network adapter, proceed to **Control Panel > Network and Sharing Center > Change adapter settings.**
The network adapter connected to PIXX system appears as '**Unidentified Network'**.
(win10 user refer 4.1.3)

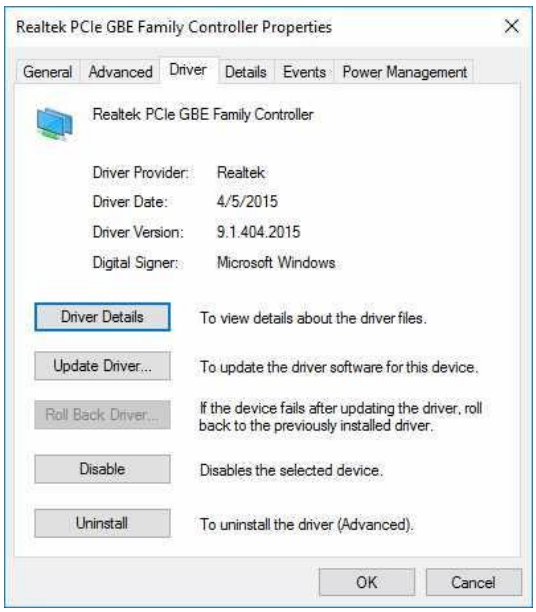


ⓒ2020. PIXXGEN Corporation. All rights reserved.

(2) Run **Unidentified Network** and proceed to **Properties > Composition**.



(3) Proceed to **Driver** tab and check the version of current network adapter.



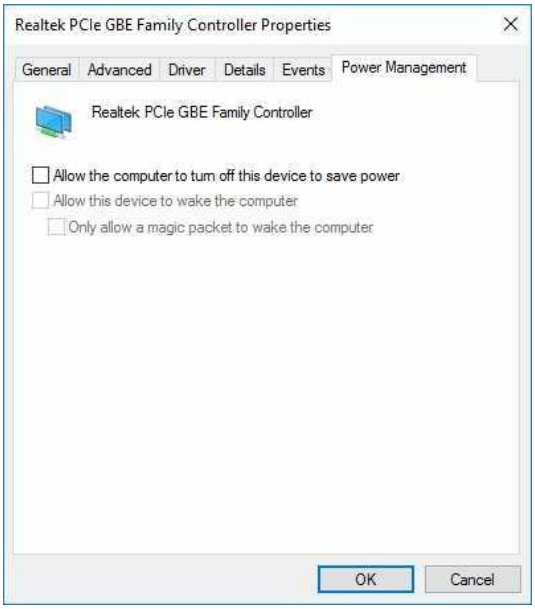
(4) The old version of network adapter driver that is already installed on the computer may influence the speed of network system.

(5) Update the network adapter driver. The information of network adapter driver is available on the manufacturers' web sites below.

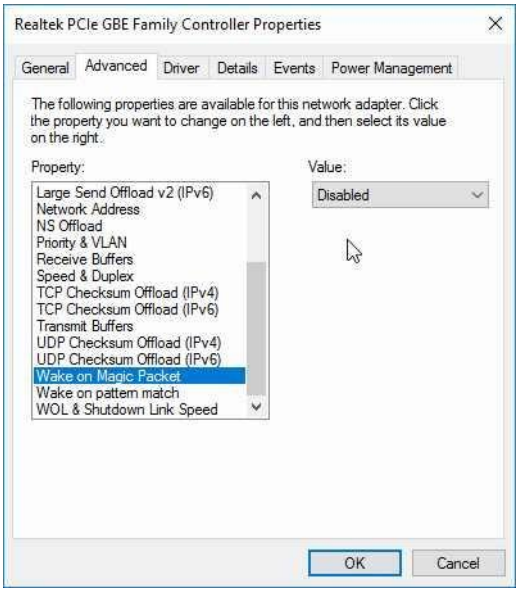
Tip!.	http://www.intel.com Intel http://www.realtek.com.tw/ Realtek http://www.broadcom.com/ Broad.com.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

(6) Uncheck all lists in the **Power Management** option.



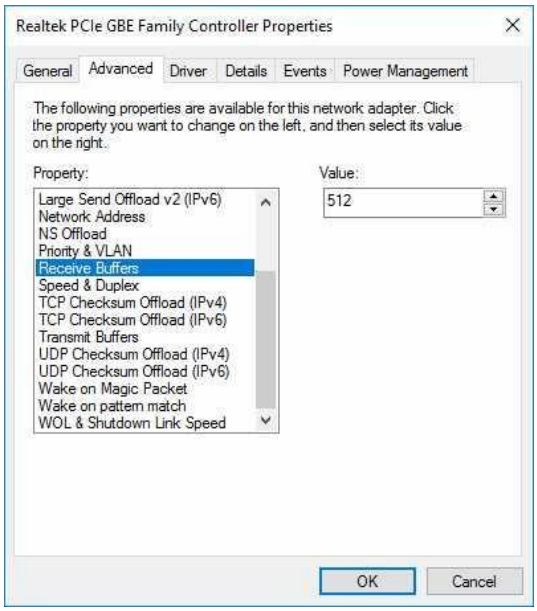
(7) Disable '**Wake on~**' and '**WOL**' options in the **Advanced** option.



(8) Change Receive Buffers value to **Maximum** value.

(Receive Buffers setting option of network adapter can be found in **Properties** of **Advanced/Performance Option**.)

ⓒ2020. PIXXGEN Corporation. All rights reserved.



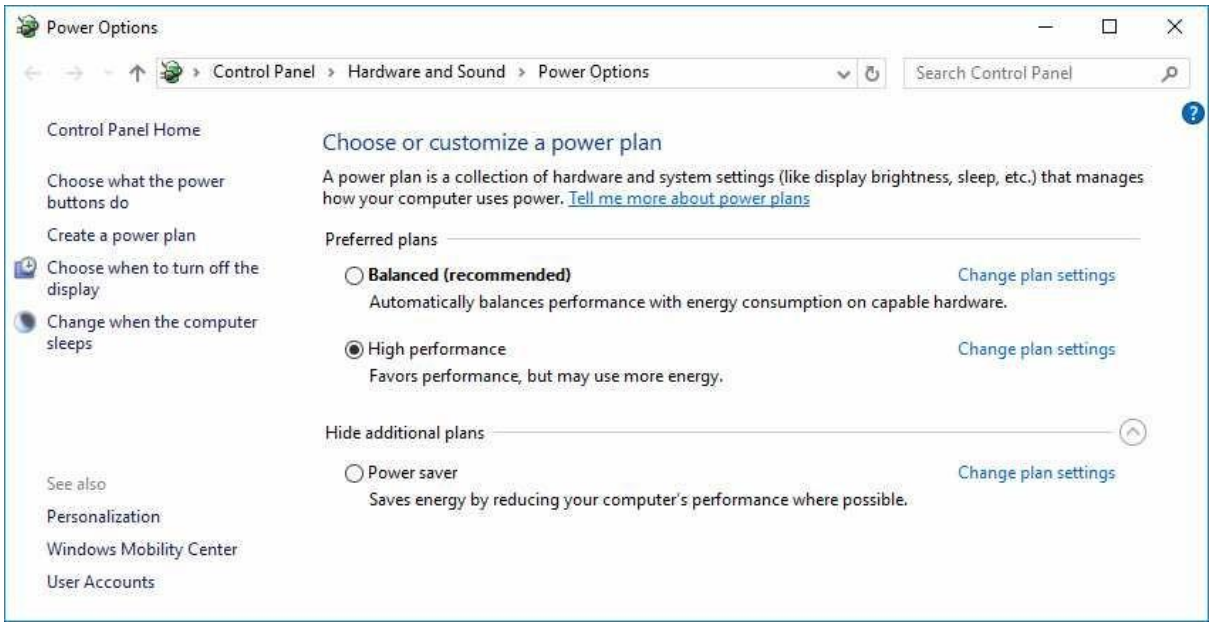
ⓒ2020. PIXXGEN Corporation. All rights reserved.

4.2. Power Saving Mode

Power set-up is essential for stable interlocking system of PIXX and workstation.

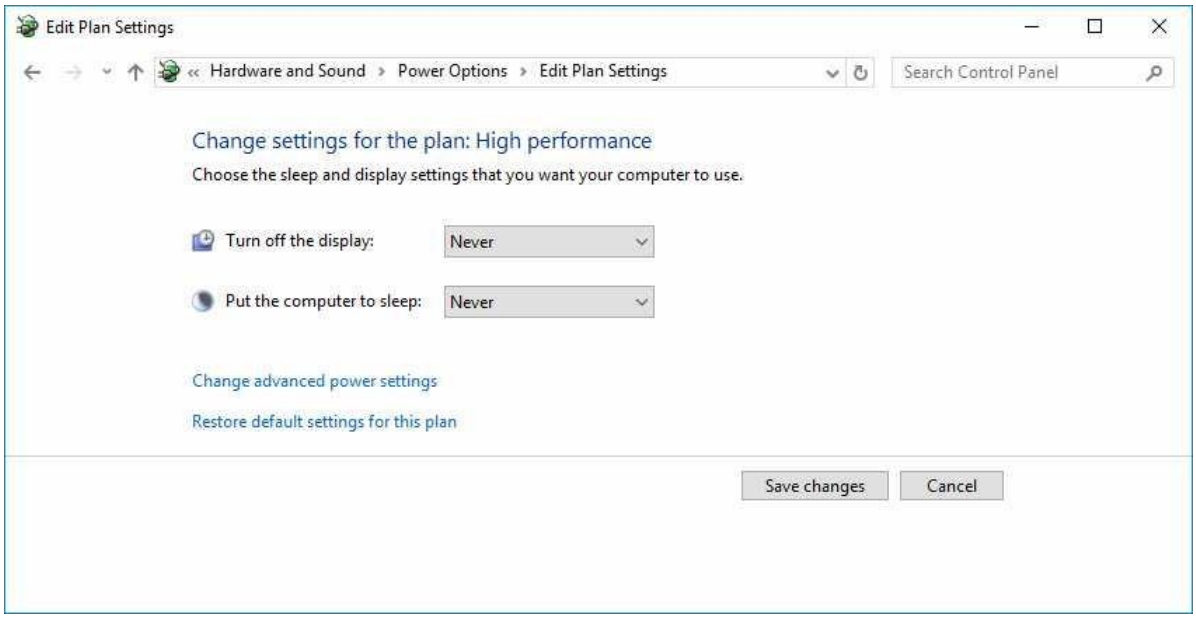
(1) Proceed to **Control Panel** > **All Control Panel Items** > **Power Options**.

(2) Unhide '**Hide additional plans**' and select '**High performance**.



(3) Click 'Change plan settings'

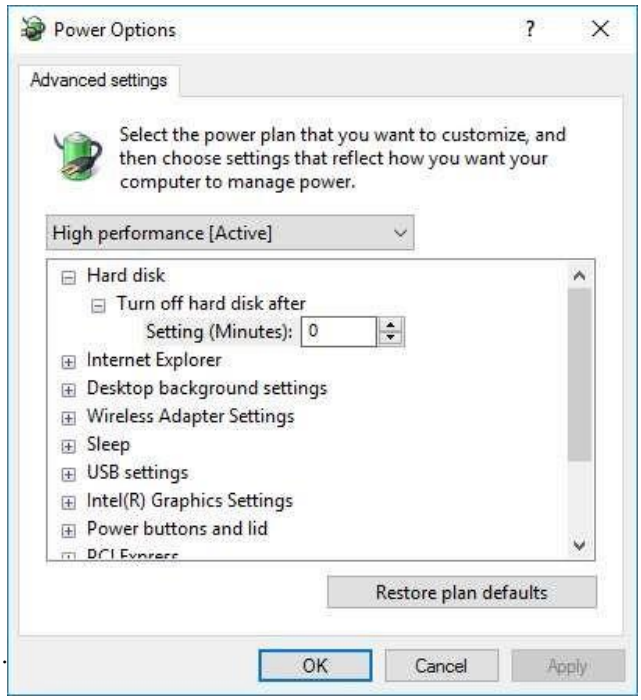
(4) Select 'Never' for 'Put the computer to sleep' option.



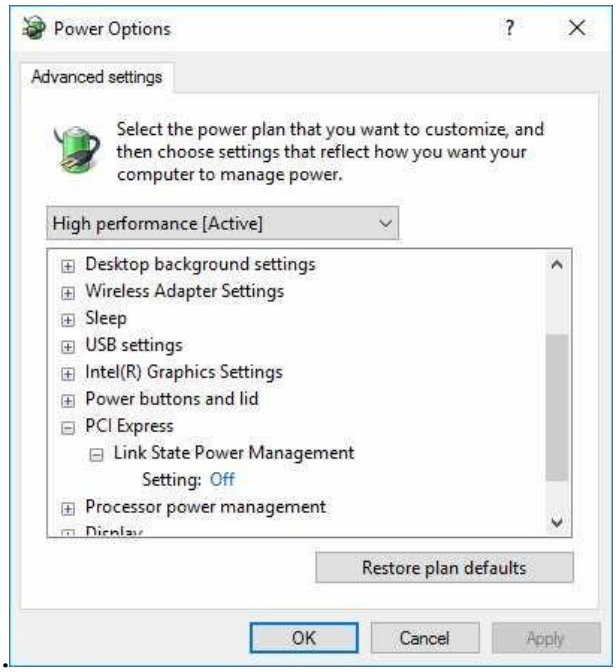
ⓒ2020. PIXXGEN Corporation. All rights reserved.

(5) Click 'Change advanced power settings'.

(6) Set '0' for 'Turn off hard disk after' option.

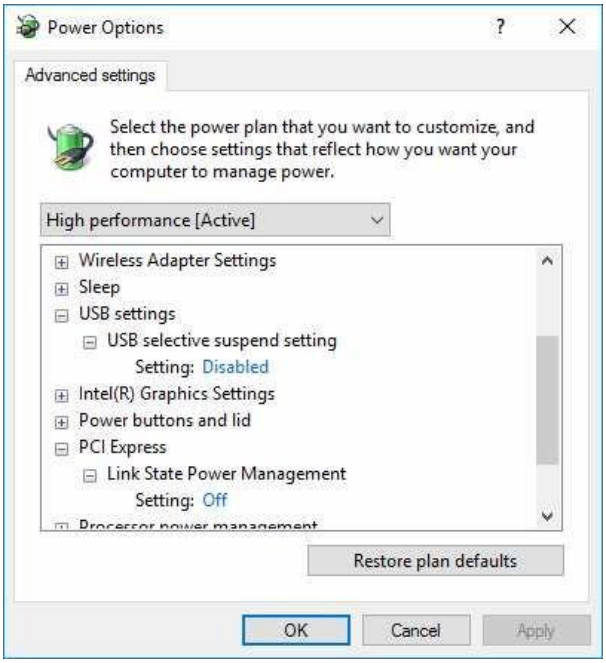


(7) Set 'Off' for 'Link State Power Management' option.



ⓒ2020. PIXXGEN Corporation. All rights reserved.

(8) Select 'Disabled' for 'USB selective suspend setting' option.



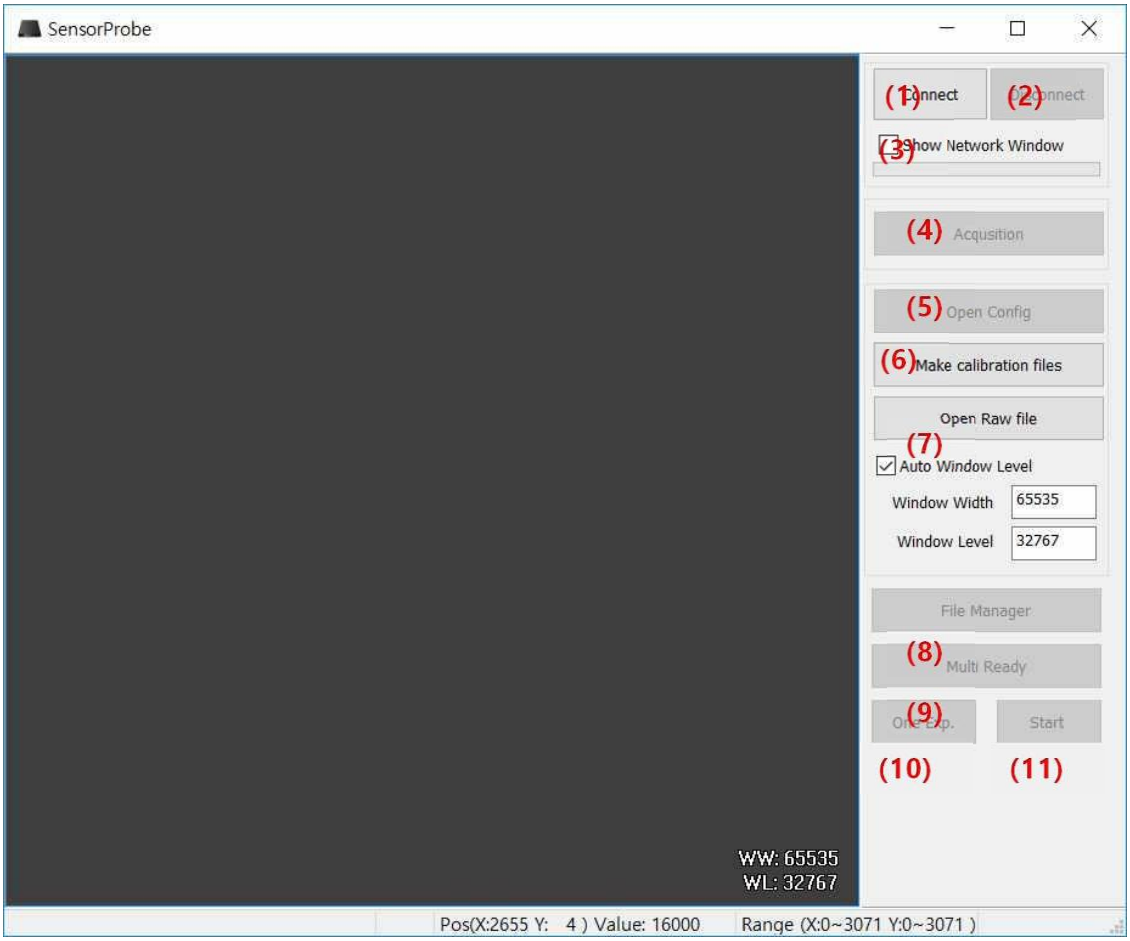
ⓒ2020. PIXXGEN Corporation. All rights reserved.

4.3. Detector Operation Software Setting

CAUTION!	Allow the detector for at least 30 minutes to warm up before use for maximum performance. Otherwise, it may result in faulty images until warm up has occurred.

4.3.1. SensorProbe

The set-up of SensorProbe is necessary for the operation of PIXX.



(1) Connection: Connect to PIXX detector
(2) Disconnection: Disconnect from PIXX detector
(3) Show Network Window: Open IP and Port number window
(4) Acquisition: Make PIXX detector ready for exposure
(5) Open Config: Verify configuration of PIXX detector
(6) Make Calibration files: Create new manual calibration files
(7) Open raw file: Open raw X-Ray images (***.raw)
(8) File manager: Open the inner storage file manager
(9) Multi Ready: No support
(10) One Exp: No support
(11) Start: No support

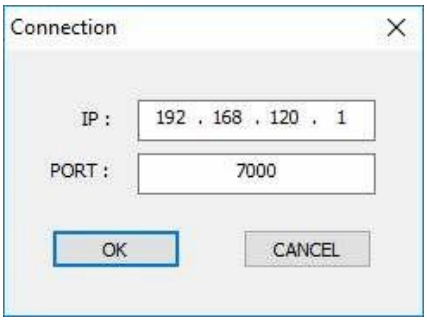
ⓒ2020. PIXXGEN Corporation. All rights reserved.

4.3.2. Initial Connection Setting

Check **Show Network Window** message before connecting. Click **Connect** and then **IP and PORT** window will appear.

Select network window

This is to set up connecting ports between PIXX and the workstation computer.



IP address: Set the IP address for detector.

Port number: Set the PORT number for detector

Tip!.	For the initial operation of SensorProbe, follow the instructions thoroughly. After setting up IP and PORT once, the users may easily perform connection by clicking 'Connect' afterward unless Router changed or initialized.

4.3.3. Acquisition

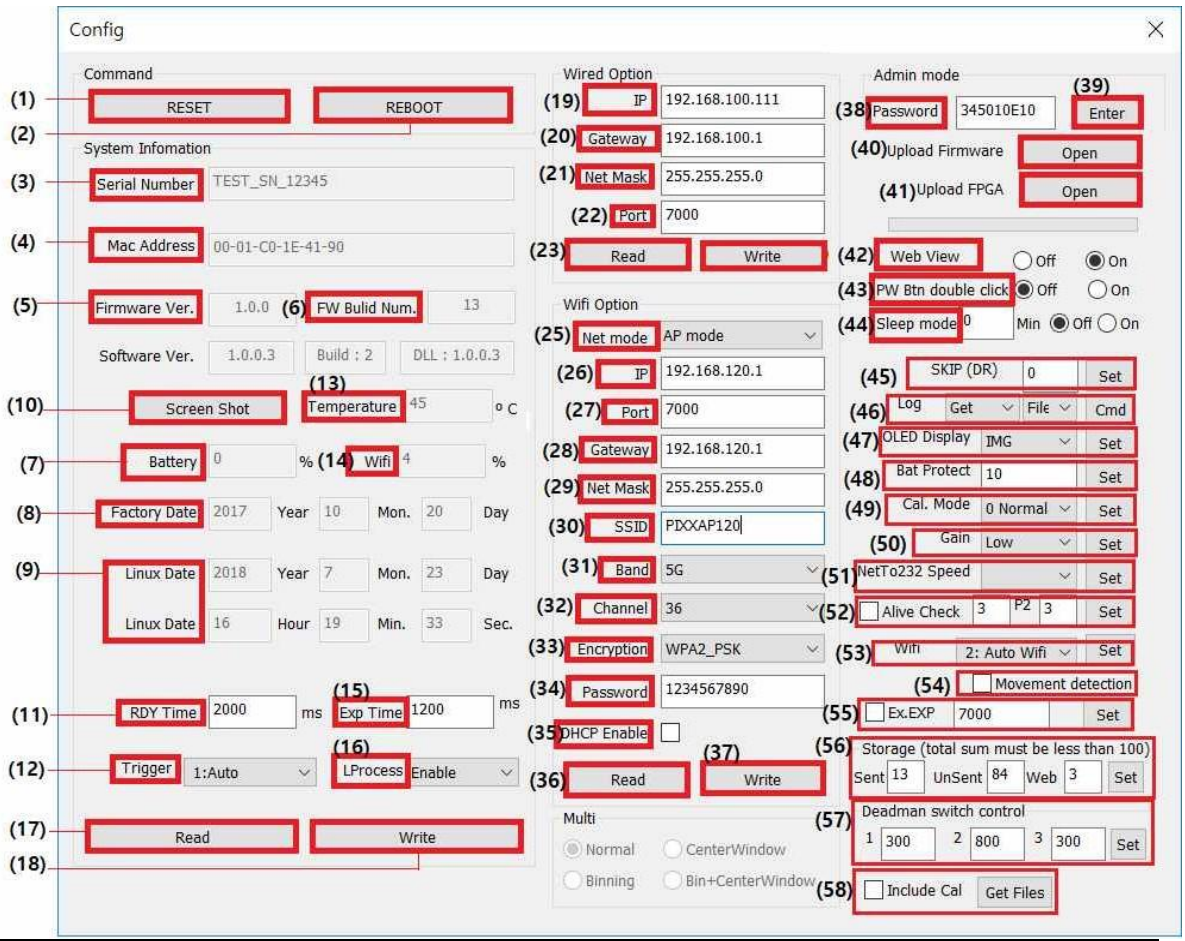
The buttons will be activated when the connection process completed, and then SensorProbe is going to work properly.

The user may obtain images without using other acquisition programs.

When shooting the X-Ray after clicking the 'Acquisition' button, the progress bar will fill up with green color. This indicates that PIXX is getting an X-Ray image.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

4.3.4. Open Config



(1) RESET: Reset the detector
(2) REBOOT: Reboot the detector
(3) Serial Number: The unique ID number of detector
(4) Mac address: Media Access Control address of PIXX
(5) Firmware Ver: Version of Linux Application
(6) FW Build Num. Firmware`s build number
(7) Battery: Battery remains (Domestic option)
(8) Factory Date: Date of manufacture
(9) Linux Date: Date of Linux
(10) Screen Shot: Make screen shot of config window.
(11) RDY Time(ms): Ready time of generator.
(12) Trigger Mode: The trigger modes of PIXX 1 – Auto mode (AED triggered) 11 – Continuous Auto mode (CAED triggered) 6 – Manual mode (External S/W Triggered) 66 – Continuous Manual mode (External S/W Triggered) 81 – NDT Manual1(External S/W Triggered)

ⓒ2020. PIXXGEN Corporation. All rights reserved.

82 – NDT Manual2 (External S/W Triggered) 91 – NDT Soft1 (Software Triggered) 92 – NDT Soft2 (Software Triggered)
(13) Temperature: Temperature
(14) Wi-Fi Power: signal strength of Wi-Fi
(15) EXP Time(ms): (Maximum) Exposure time of generator.
(16) L Process: L processing
(17) Read: Read detector parameters
(18) Write: Write detector parameters
(19) IP: IP of Wired mode
(20) Gateway: Gateway of Wired mode
(21) Net Mask: Net Mask of Wired mode
(22) Port: Port of Wired mode
(23) Read: Read parameters of Wired mode
(24) Write: Write parameters of Wired mode
(25) Net mode: Network mode of Wi-Fi (AP & Wireless mode)
(26) IP: IP of Wi-Fi
(27) Port: Port of Wi-Fi mode
(28) Gateway: Gateway of Wi-Fi mode
(29) Net Mask: Net Mask of Wi-Fi mode
(30) SSID: SSID of Wi-Fi
(31) Band: Band of Wi-Fi
(32) Channel: Channel of Wi-Fi
(33) Encryption: Encryption method of Wi-fi
(34) Password: Password of Wi-fi network
(35) DHCP Enable: DHCP enable
(36) Read: Read parameters of Wi-Fi mode
(37) Write: Write parameters of Wi-Fi mode
(38) Password: Password of ADMIN mode. Password is not fixed. Password = 3 characters to the right of the serial number + Even number of characters in mac address (without – symbols)
(39) Enter: if input right password, (40), (41) menu is visible.
(40) Upload firmware: upload firmware file
(41) Upload FPGA: upload FPGA file
(42) Web View: activate web viewer function
(43) PW BTN double click: Activate the function that changes the Wi-Fi mode when the power button is double-clicked.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

(45) SKIP: Check the x-ray sensor. Default value=50, (0 is disable)
(46) Log: Specify the log level or download the log.
(47) OLED Display: Set whether to display the number of images in the OLED window.
(48) Bat Protect: Set the battery protection function. (percent) Automatically turns off when the remaining battery power.
(49) Cal mode: Set the calibration mode. (recommend to use normal)
(50) Gain: Set detector`s gain value
(51) NetTo232Speed: Set the detector's RS232 speed. (1826N only support)
(52) Alive Check: Network check function
(53) WIFI: set the use of wireless LAN card
(54) Movement detection: Detect the movement of the detector
(55) Ex.EXP: This is a feature specific to OEM products.
(56) Storage: Set the ratio of the storage space inside the detector.
(57) Deadman switch control: This is a feature specific to OEM products.
(58) Get Files: This function is a test function and collects log files within 7 days.

CAUTION!	It is strongly recommended that the user is not to modify the contents of SensorProbe Config except authorized engineers from PIXXGEN. If setting is modified, it may result in malfunction.

4.3.5. Make Calibration files

The main function of SensorProbe is the creation of a calibration file of the PIXX.

For more information, see ☞ **Chapter: 10. Calibration**

4.3.6. Open RAW format file

If you click the button, the file open window that is able to select raw image will be popped up.

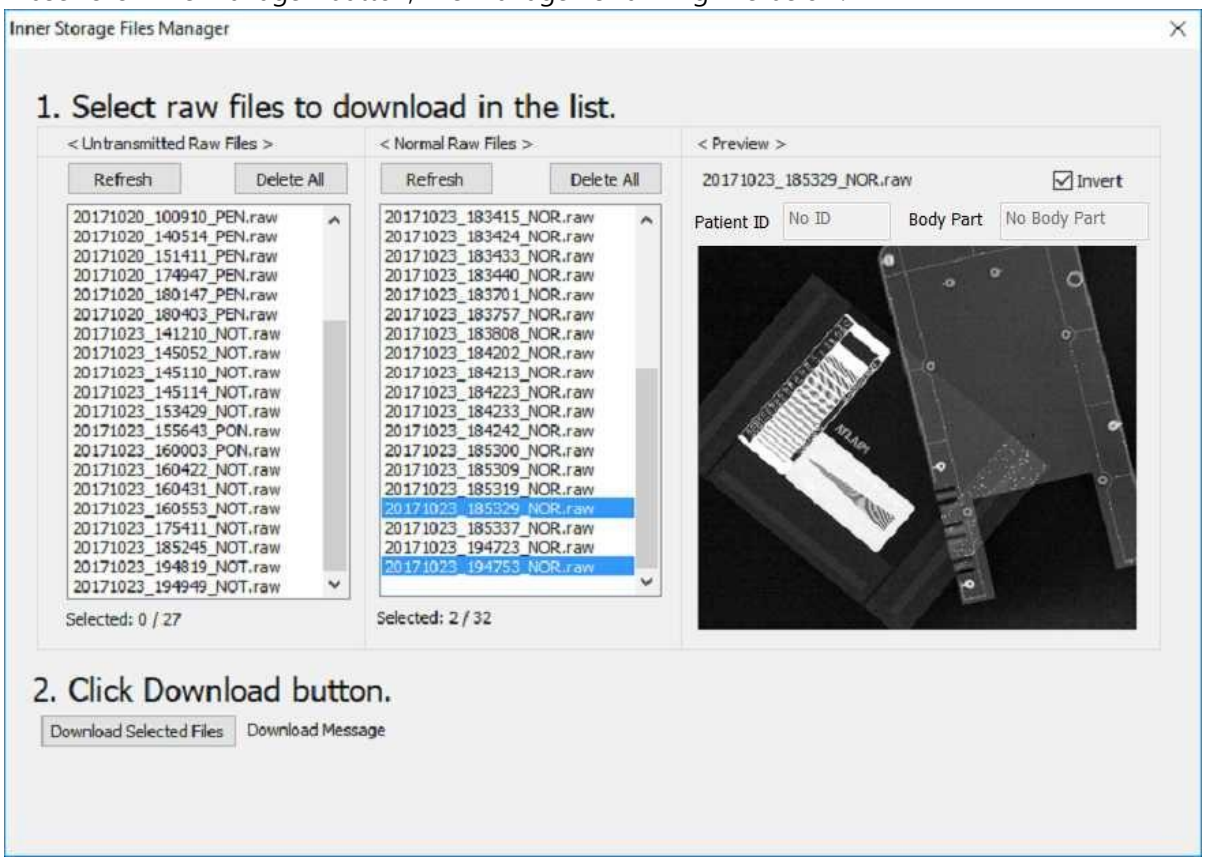
ⓒ2020. PIXXGEN Corporation. All rights reserved.

4.3.7. File manager

PIXX supports the internal storage of raw image data.

SensorProbe.exe has the file manager function.

If user click 'File manager' button, File manager is running like below.



Untransmitted Raw Files: if user acquisition image without PIXX`s software, raw file was added this list.

Normal Raw File: If user acquisition image with PIXX`s software, raw file was added this list.

<usage>

1. Select raw files
2. Click download button

The downloaded file is determined according to the SENSOR.ini file setting.

```
IMAGE_PATH=C:\DR\A_RAW\
IMAGE_NAME=IMAGE.RAW
```

CAUTION!	1. Since the stored images also become final images by going through the calibration process, the corresponding calibration file of detector has to be existed as it was configured in SENSOR.ini file when you download. 2. When downloading several files, the download interval is about 5 seconds.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

4.4. Installation of USB Driver (PICB) For Manual mode (External S/W Triggered))

This driver installation only needs for hardware connecting of Manual mode (External S/W Triggered) with X-Ray Generator. Auto mode is not necessary to install this driver.

(1) Double click "VCP_V1.4.0_Setup" file to install driver.

(2) Click the buttons "Next" in the screen shots.

(3) Click the buttons "Install" in the screen shots.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

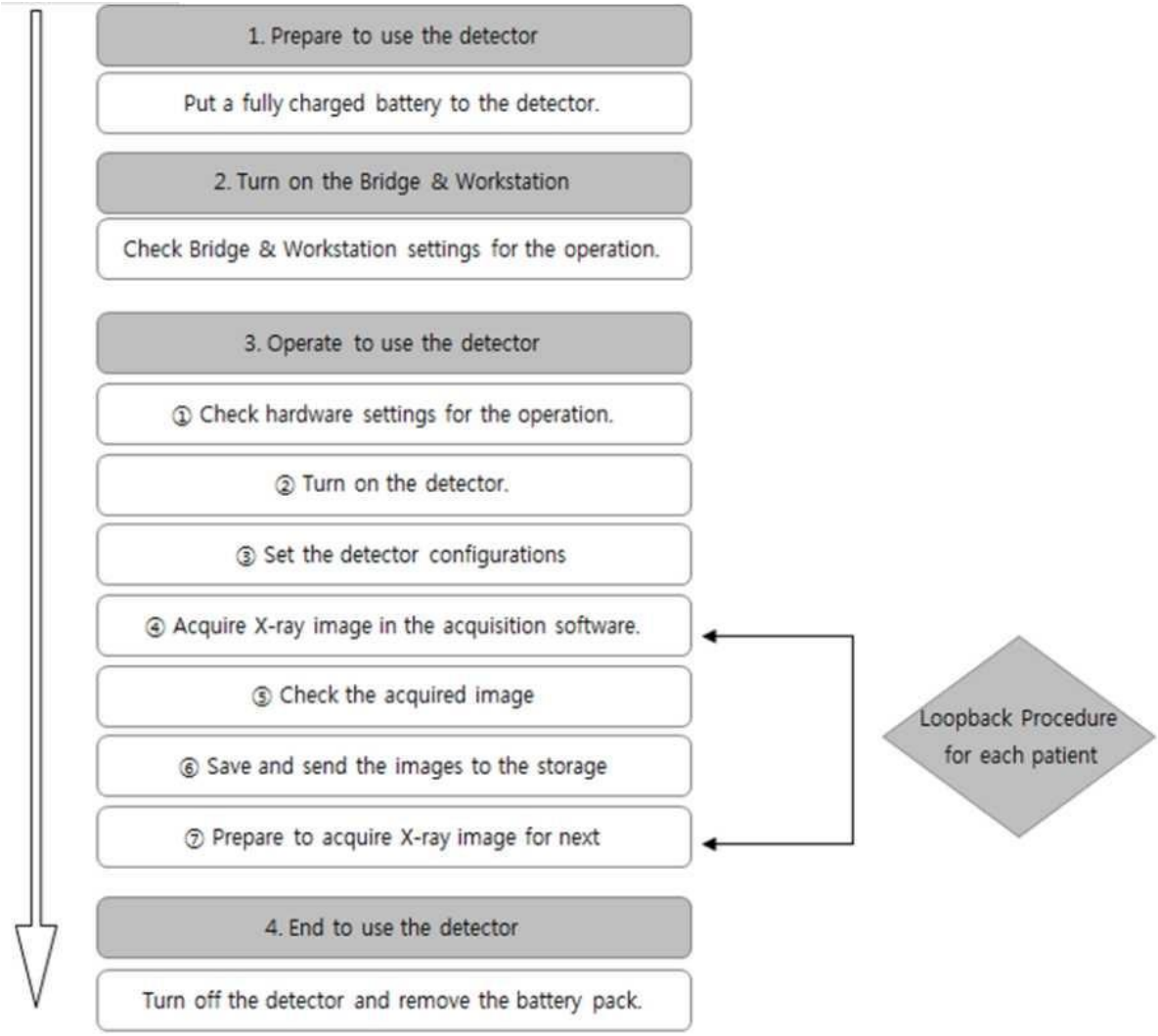
(4) Click the buttons "Install" in the screen shots.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

5. Operation

5.1. General workflow

The following workflow indicates the procedures after startup of the workstation software and other system equipment



CAUTION!	For changing connection of between Wireless to Wired, PIXX should be turned off completely and on again.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

5.2. Operating the wireless detector

1. Turn on the detector
   Switch on the detector and check the power lamp.
   When the power is on properly there will be a short beep sound
2. Connection
   A network connection between the internal wireless module of the detector and the Bridge will occur automatically if everything is working properly
   When the PIXX detector is booted properly there will be a long beep sound

5.3. Turn off the wireless detector

1. Turn off the detector
   Switch off the detector and check the power lamp.
2. Remove the AC/DC adaptor.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

6. Specifications

6.1. PIXX Specifications

Application	General Radiography
Sensor	a-Si TFT array Flat Panel Detector
Conversion Screen	CsI / GOS
Active Area	PIXX4343N: 430mm x 430mm PIXX3543N: 350mm x 430mm PIXX2929N: 290mm x 290mm PIXX2629N: 260mm x 290mm PIXX2626N: 260mm x 260mm PIXX1826N: 180mm x 260mm
Sensor Pixel	PIXX4343N: 3072 X 3072 PIXX3543N: 2560 X 3072 PIXX2929N: 2048 X 2048 PIXX2629N: 1792 X 2048 PIXX2626N: 1536 X 1536 PIXX1826N: 1024 X 1536
Image Data	16bit
Trigger Mode	AED (Automatic Exposure Detection), Manual Trigger
Calibration Mode	ACC (Automatic Calibration Control), Manual Calibration
Data Transfer Time	Less than 1 sec
Capture Cycle Time	2 ~ 5sec. (Approx.)
Wired interface	Gigabit Ethernet
Voltage	18 V D.C / Under 1.5 A (Power Consumption), 7.4 V D.C (Battery)
Wireless Standard	2.4 GHz 802.11n
Dimensions (W x L x T)	PIXX4343N: 476.5mm(W) x 460mm(L) x 15mm(T) PIXX3543N: 402.5mm(W) x 460mm(L) x 15mm(T) PIXX2929N: 330mm(W) x 330mm(L) x 15mm(T) PIXX2629N: 280mm(W) x 330mm(L) x 15mm(T) PIXX2626N: 283mm(W) x 280mm(L) x 15mm(T) PIXX1826N: 282.5mm(W) x 195mm(L) x 15mm(T) (Cassette-size for the standard table or wall Bucky)
Weight	PIXX4343N: 5.1 KG (with battery) PIXX3543N: 4.6 KG (with battery) PIXX2929N: 2.8 KG (with battery) PIXX2629N: 2.4 KG (with battery) PIXX2626N: 1.27 KG (with battery)

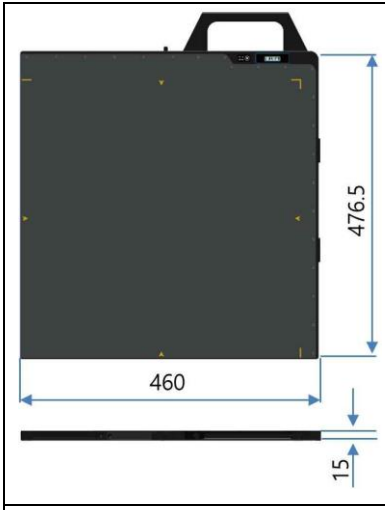
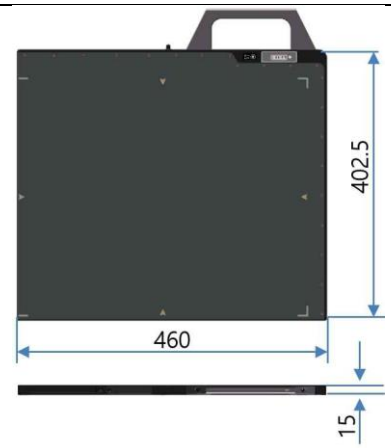
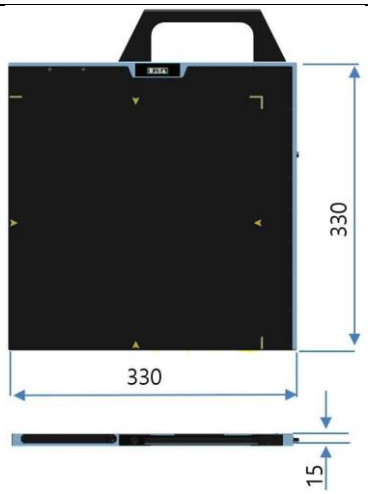
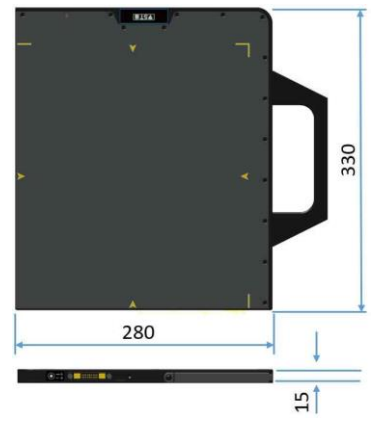
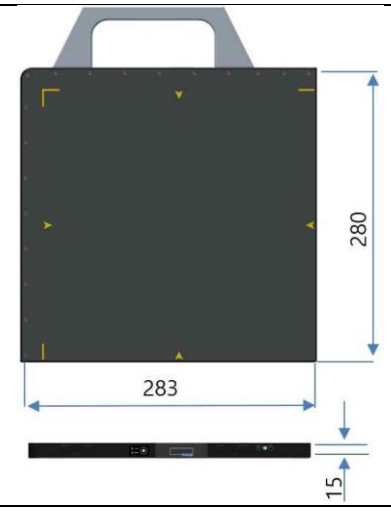
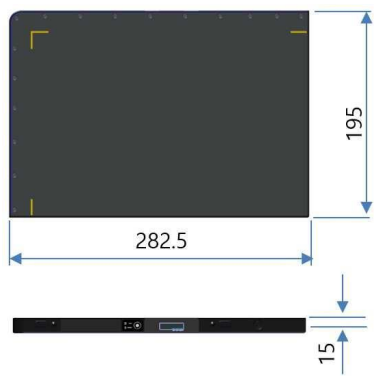
ⓒ2020. PIXXGEN Corporation. All rights reserved.

	PIXX1826N: 0.97 KG (with battery)

6.2. Environment

Operating condition	Temperature (°C)	10°C - 35°C
	Relative humidity (%)	20% - 75%
	Atmospheric Pressure (hPa)	700hPa - 1060hPa
Transport and storage condition	Temperature (°C)	-20°C – 70°C
	Relative humidity (%)	10% - 95%
	Atmospheric Pressure (hPa)	400hPa - 1500hPa

6.3. PIXX Dimensional diagram

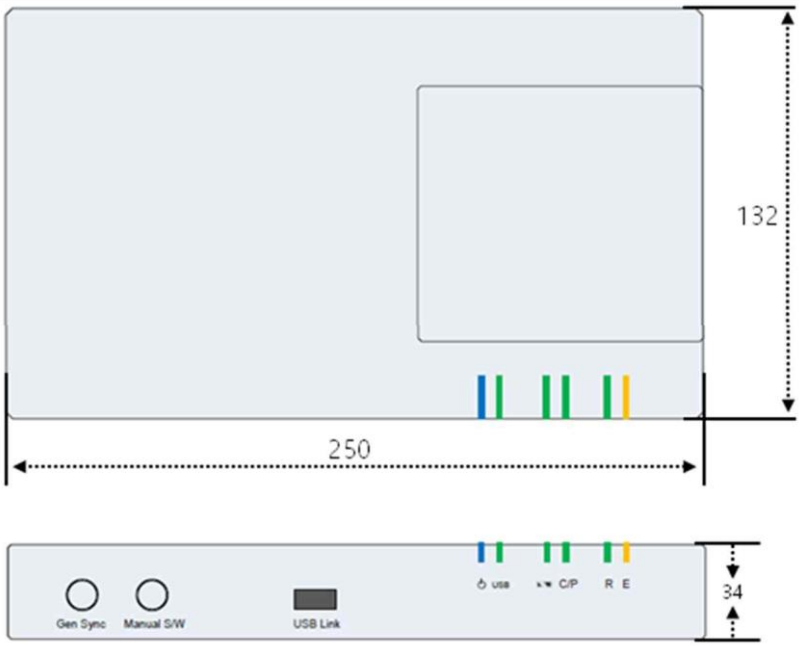
		
PIXX 4343N	PIXX 3543N	PIXX 2929N
		
PIXX 2629N	PIXX 2626N	PIXX 1826N

ⓒ2020. PIXXGEN Corporation. All rights reserved.

6.4. PICB Specifications

Dimensions (W X L X T)	250mm X 132mm X 34mm
Weight	412g
The following adaptor must be used.	
AC/DC Power Manufacturer	Sinpro Electronics Co., Ltd.
AC/DC Model	HPU63A-107
Input	100 - 240 V~, 47 - 63 Hz, 1.62 - 0.72 A
Output	Output: 18 V ⎓, 3.5 A

6.5. PICB Dimensional diagram



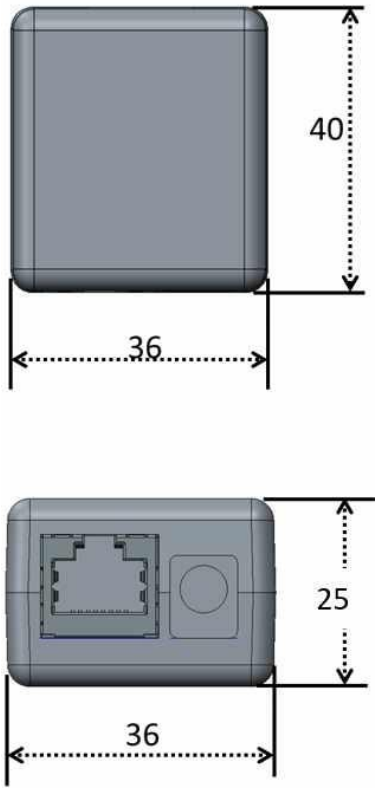
PICB - control box

ⓒ2020. PIXXGEN Corporation. All rights reserved.

6.6. Community adapter Specifications

Dimensions (W X L X T)	40mm X 36mm X 25mm
Weight	47g
The following adaptor must be used.	
Manufacturer	PIXXGEN
Model	Community Adapter
Input	DC-Jack : 18 Vdc (3A)
Output	18 Vdc (3A)

6.7. Community adapter Dimensional diagram



Community Adapter

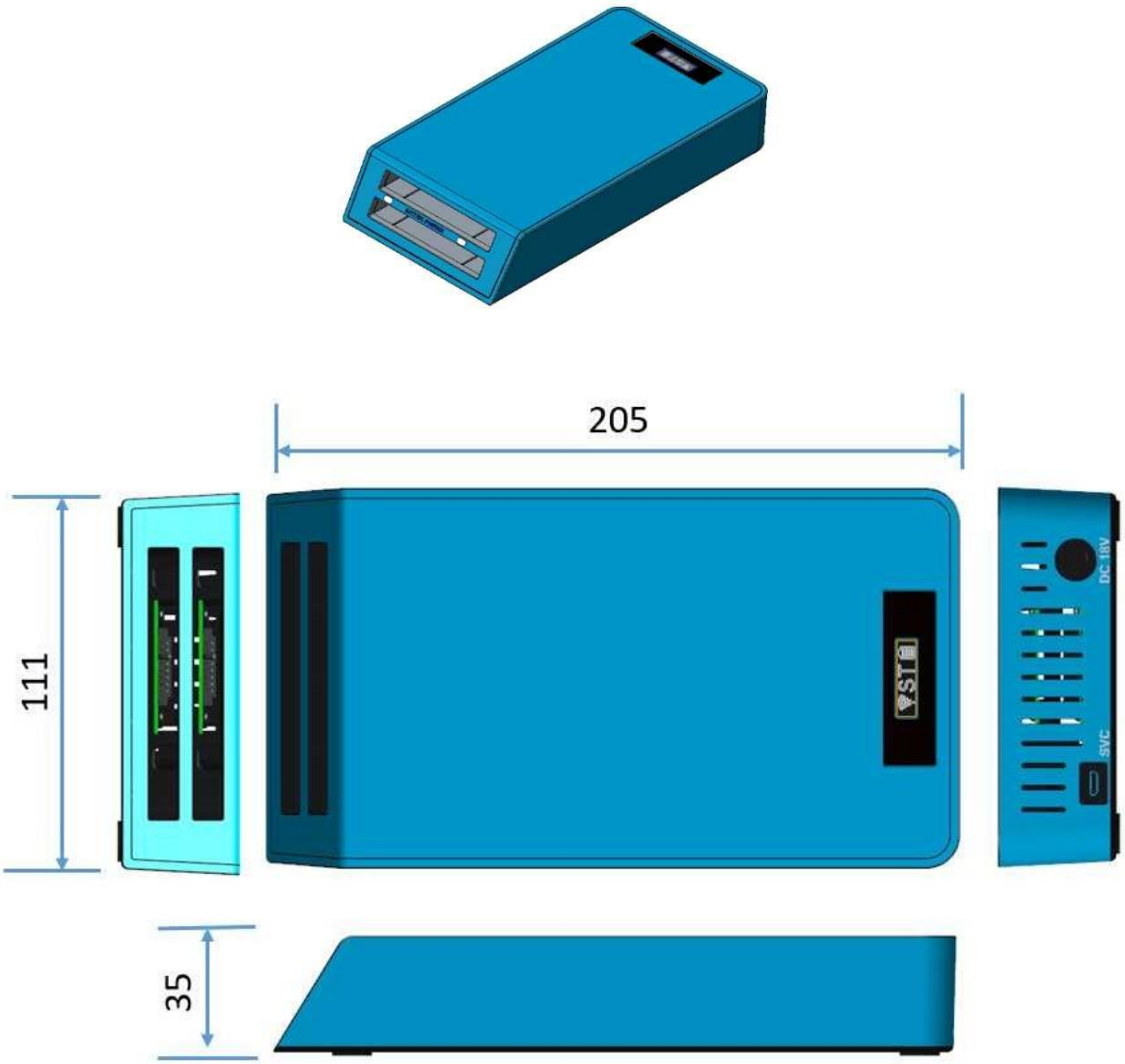
Unit: mm

ⓒ2020. PIXXGEN Corporation. All rights reserved.

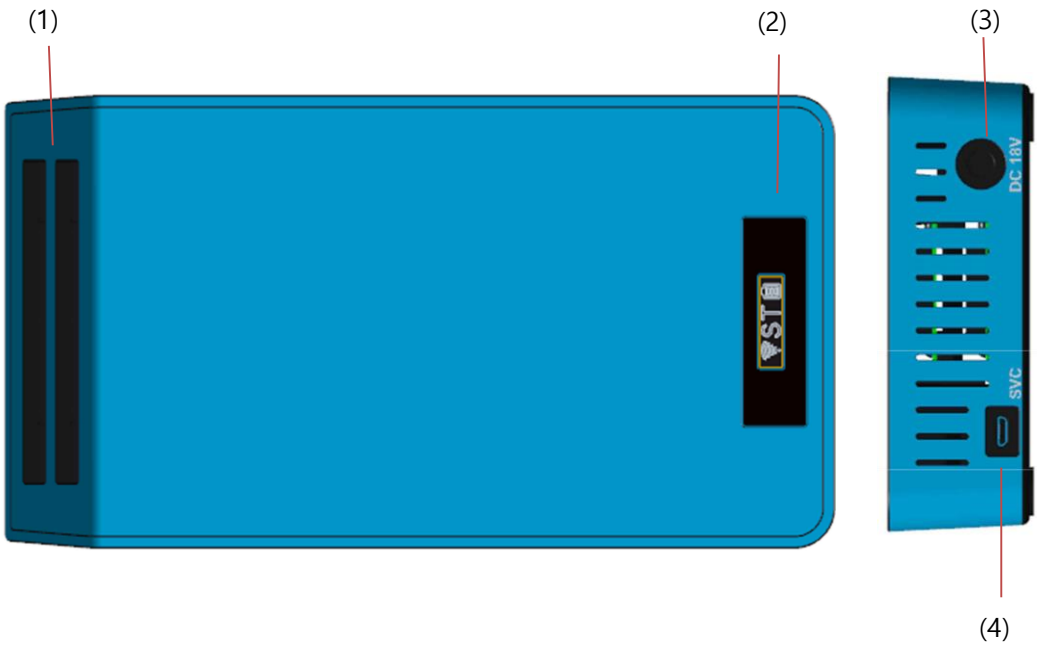
6.8 Dual Charger Specifications

Dimensions (W X L X T)	205mm X 111mm X 35mm
Weight	316g
The following adaptor must be used.	
AC/DC Power Manufacturer	Sinpro Electronics Co., Ltd.
AC/DC Model	HPU63A-107
Input	100 - 240 V~, 47 - 63 Hz, 1.62 - 0.72 A
Output	Output : 16.8 Vdc / 2.4A (for 4-Cell) 8.4Vdc / 2.4A (for 2-Cell)

6.9. Dual Charger Dimensional diagram



ⓒ2020. PIXXGEN Corporation. All rights reserved.



(1) Battery slot
(2) OLED : Indication of battery status. - "1 INSERT or 2 INSERT" Message : NO Battery -  Blink : Charging Battery - "Please Remove Battery" Message : Fully charged
(3) Power Input : DC-18V
(4) SVC : Not Used.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

7. PIXX (Only Wired)

7.1. Product parts

7.1.1. Standard parts

NO.	Part	Description	Q'ty
1	PIXX	(☞ Chapter: 2.1.1. Standard parts)	1
2	USB memory	(☞ Chapter: 2.1.1. Standard parts)	1
3	DATA LINK Cable	DATA LINK cable connects PIXX and PICB. This cable supplies DC power and transmits control signals to PIXX, and transmits digital image to PICB.	1
4	LAN Cable	LAN cable connects PICB and work station computer, transmits digital image obtained from PIXX to the station at a gigabit per second speed. (CAT 6)	1

7.1.2. Optional parts

NO.	Part	Description	Q'ty
1	ZView USB Dongle Key	(☞ Chapter: 2.1.2. Optional parts)	1
2	PICB	(☞ Chapter: 2.1.1. Standard parts)	1
3	Dual Charger	Charge the battery.	1
4	Network adapter	(☞ Chapter: 2.1.2. Optional parts)	1

ⓒ2020. PIXXGEN Corporation. All rights reserved.

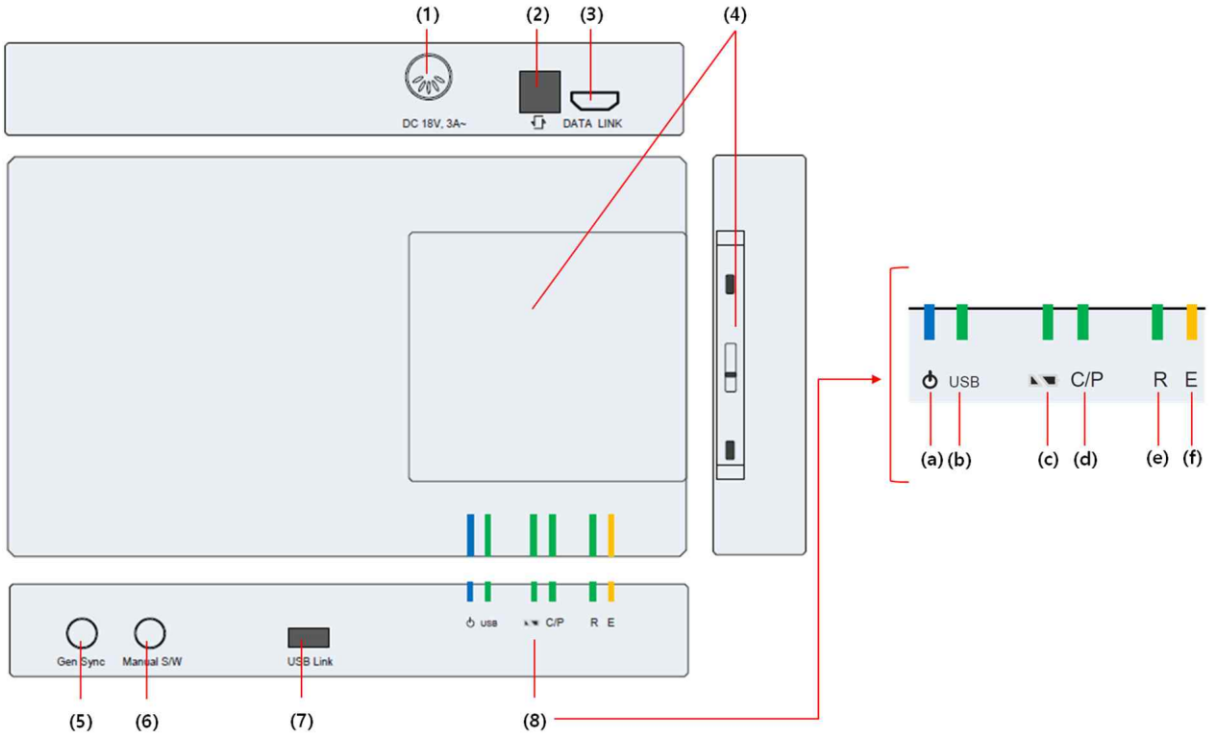
7.2. Product functions

7.2.1. PIXX (Only Wired)

(☞ Chapter: 2.2.1. PIXX)

7.2.2. PICB

PICB (Wired Type) is connected in between PIXX and work station computer. This device supplies DC power to PIXX, and receives orders from the computer. And it transmits digital images from PIXX to the station.



(1) External power socket: For external power supplies
(2) LAN port: 10/100/1000 BASED-T Data communication port
(3) DATA LINK port: Operation: A. Detector power supply B. Control signal input section C. Network signal communication
(8) Status lamps: (a) Power Lamp LED - ON: PICB Power ON

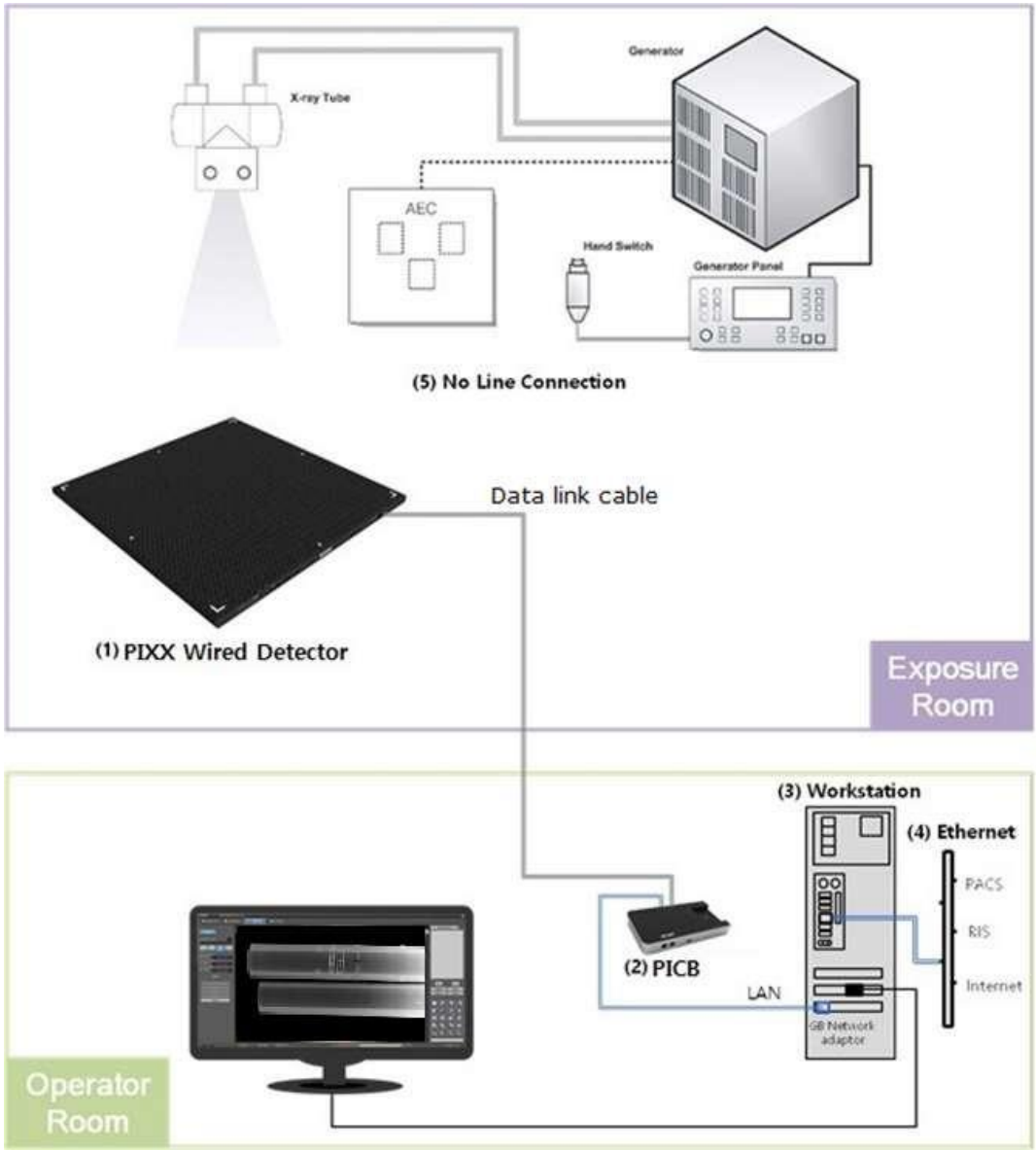
* (4), (c) and (d) are only for Wireless use

* (5), (6), (7), (b), (e) and (f) are only for Manual mode (External S/W Triggered). See Chapter: 8.2.2

ⓒ2020. PIXXGEN Corporation. All rights reserved.

7.3. Detector Installation

PIXX is used in wired configuration as illustrated below:



- (1) Detector ⇄ (2) PICB: Wired (DATA LINK: DC power, signal, digital image)
- (2) PICB ⇄ (3) Workstation: Wired (LAN: signal, digital image)
- (5) No interfaces between generator and PIXX in Auto mode (AED triggered).

Wiring unit enables manual trigger configuration. (☞ Chapter: 8.3.)

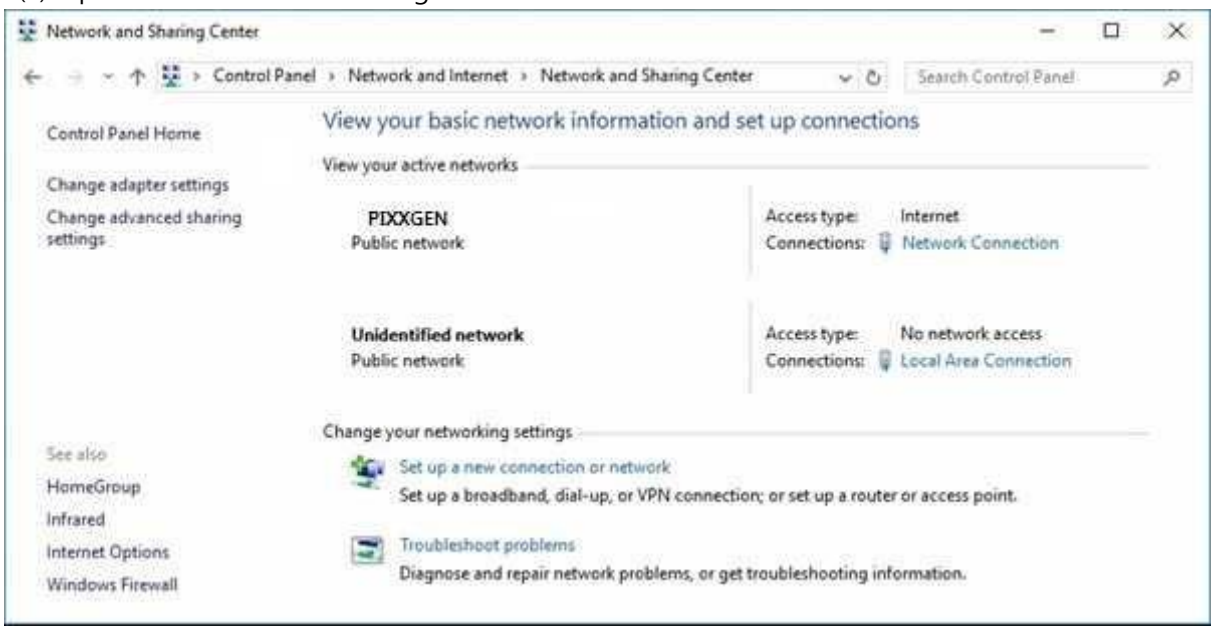
ⓒ2020. PIXXGEN Corporation. All rights reserved.

7.4. Software Setting (for Wired Type)

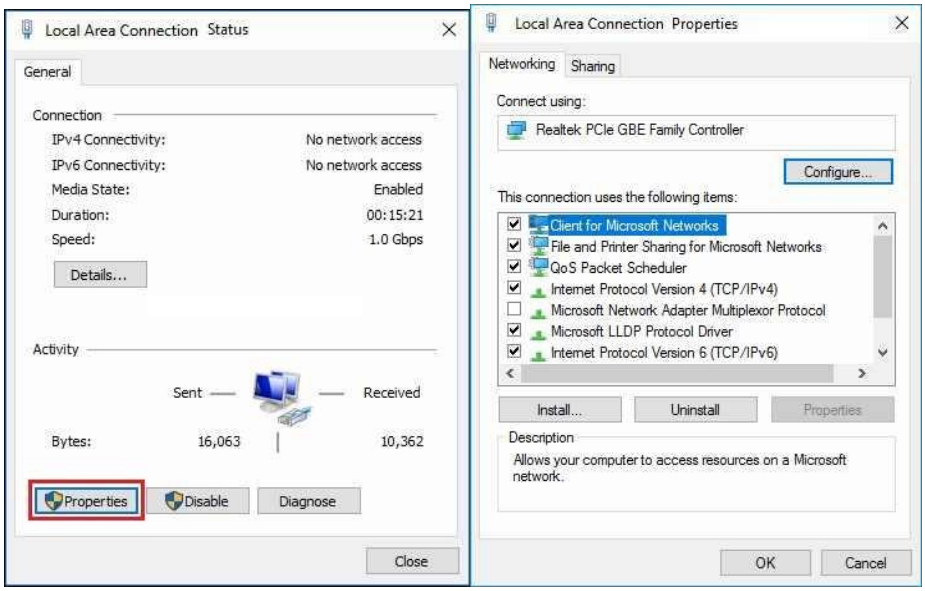
7.4.1. Network Setting

The settings between PIXX and Workstation

(1) Open the network and sharing center.

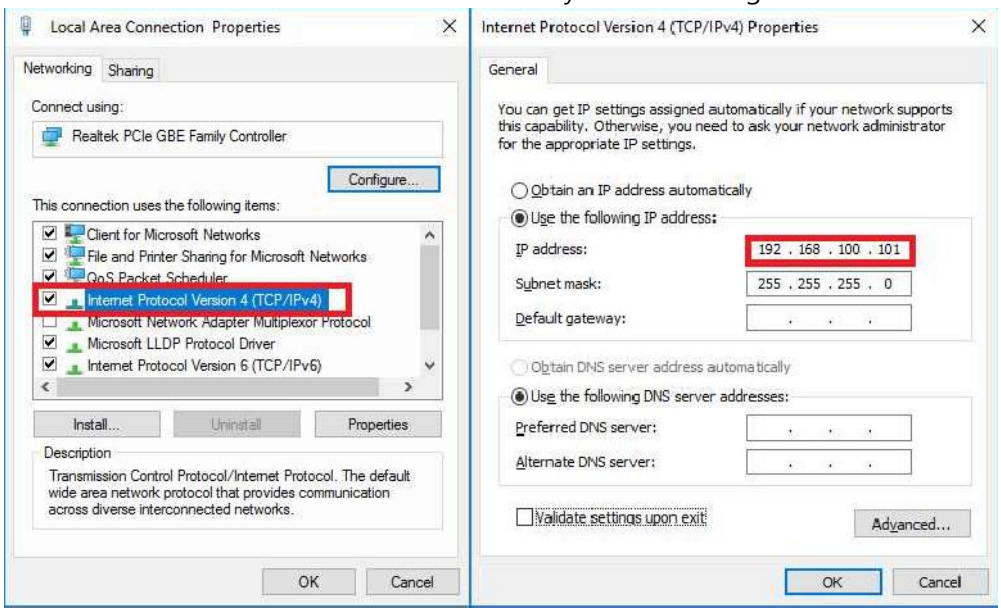


(2) Open the Network Adaptor properties



ⓒ2020. PIXXGEN Corporation. All rights reserved.

(3) Open TCP/IPv4 and set the static IP as 192.168.100.101~150.
192.168.100.111 is the wired network IP factory default of single detector.

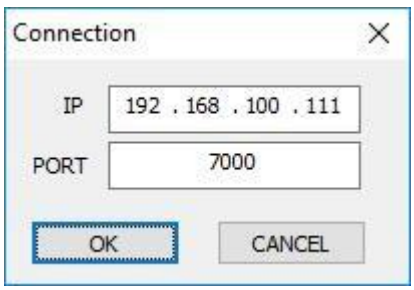


7.4.2. Initial Connection Setting

Check **Show Network Window** message before connecting. Click **Connect** and then **IP and PORT** window will appear.

Select network window

This is to set up connecting ports between PIXX and the workstation computer.



IP address: Set the IP address for detector.

Port number: Set the PORT number for detector

ⓒ2020. PIXXGEN Corporation. All rights reserved.

7.4.3. Multi Connection Setting

A setting method for using more than two detectors.

192.168.100.111 is the wired network IP. (Factory default of single detector)

	Single	Dual	Triple
Detector IP	192.168.100.111	192.168.101.112	192.168.102.113
Port	7000	7000	7000
Network Adaptor IP	192.168.100.101	192.168.101.102	192.168.102.103

For changing Detector IP, it needs see ☞ **Appendix Wired, Bridge, Direct, and Wi-Fi Router (DHCP server) setting for Multiple detector.**

ⓒ2020. PIXXGEN Corporation. All rights reserved.

8. Generator Interface

8.1. Product parts

8.1.1. Shipment Contents

NO.	Part	Description	Qty
1	PIXX	(☞ Chapter: 2.1.1. Standard parts)	1
2	USB memory	(☞ Chapter: 2.1.1. Standard parts)	1
3	DATA LINK Cable	(☞ Chapter: 7.1.1. Standard parts)	1
4	LAN Cable	(☞ Chapter: 7.1.1. Standard parts)	1
5	USB Cable (A to A type)	USB 2.0 cable connects work station computer and the PICB , transmits signals to control the signal from generator.	1

8.1.2. Optional parts

NO.	Part	Description	Qty
1	ZView USB Dongle Key	(☞ Chapter: 2.1.2. Optional parts)	1
2	PICB	(☞ Chapter: 2.1.1. Standard parts)	1
3	Dual Charger	Charge the battery.	1
4	Bridge	(☞ Chapter: 2.1.2. Optional parts)	1
5	Network adapter	(☞ Chapter: 2.1.2. Optional parts)	1
6	Sync Cables	Sync cable connects generator and the PICB . Another sync cable connects hand switch and the PICB . It transmits signals to control the signal from generator. It is particularly designed for Manual mode(External S/W Triggered). (☞ **Appendix: Hand Switch Connection for Manual mode(External S/W Triggered)**)	1

ⓒ2020. PIXXGEN Corporation. All rights reserved.

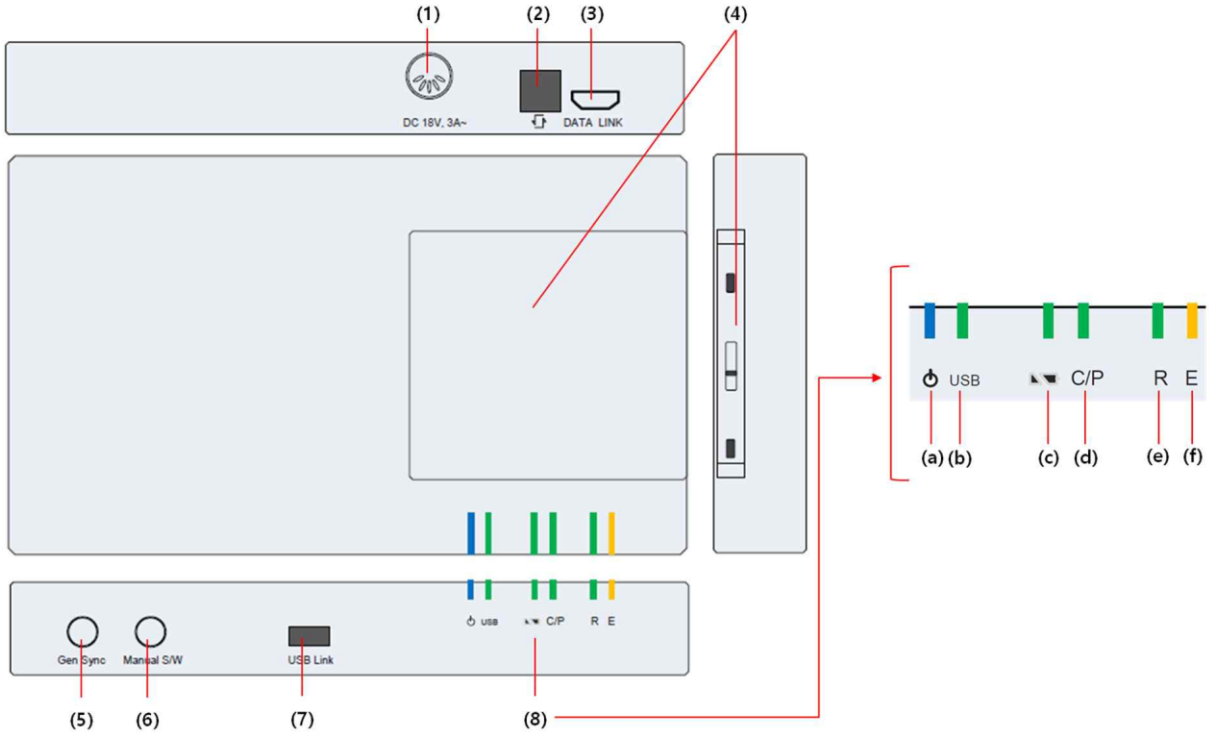
8.2. Product functions

8.2.1. PIXX (Wired Type)

(☞ Chapter: 2.2.1. PIXX)

8.2.2. PICB

PICB (Wired Type) is connected in between PIXX and work station computer. This device supplies DC power to PIXX and receives orders from the computer. And it transmits digital images from PIXX to the station.

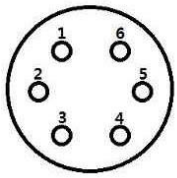


(1) External power socket: For external power supplies
(2) LAN port: 10/100/1000 BASED-T Data communication port
(3) DATA LINK port: Operation: A. Detector power supply B. Control signal input section C. Network signal communication
(4) Battery slot: Insert the battery pack (Domestic optional slot)

ⓒ2020. PIXXGEN Corporation. All rights reserved.

(5) "Gen Sync" port: READY/EXPOSURE out port

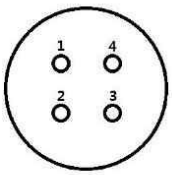
Operation: When an event occurs in normal open condition, RDY_OUT/EXP_OUT and RDY_COM/EXP_COM are closed.



PIN	DESCRIPTION
1	RDY_OUT
2	RDY_COM
3	
4	GND
5	EXP_OUT
6	EXP_COM

(6) "Manual S/W" port: READY/EXPOSURE in port

Operation: When the EXP_IN / RDY_IN of initial state for 5V is connected Pin No.2(GND), signals of RDY_IN, EXP_IN is transmitted to the detector.



PIN	DESCRIPTION
1	EXP_IN (+5V)
2	GND
3	
4	RDY_IN (+5V)

(7) "USB Link" port:

Operation: A. Supply power to "Manual S/W" port

B. Triggering X-Ray exposure

(8) Status lamps:

(a) Power Lamp LED - ON: PICB Power ON

(b) USB Link Lamp LED - ON: USB cable is plugged

(c) LED - ON: is charging

LED - OFF: battery is fully charged

LED - BLINK: battery is unplugged

(d) Charger Power LED - ON: battery charging possible

LED - OFF: Error on charge power

(e) Ready LED - ON: Detector is getting ready for exposure

(f) Exposure LED - ON: Detector is getting exposure

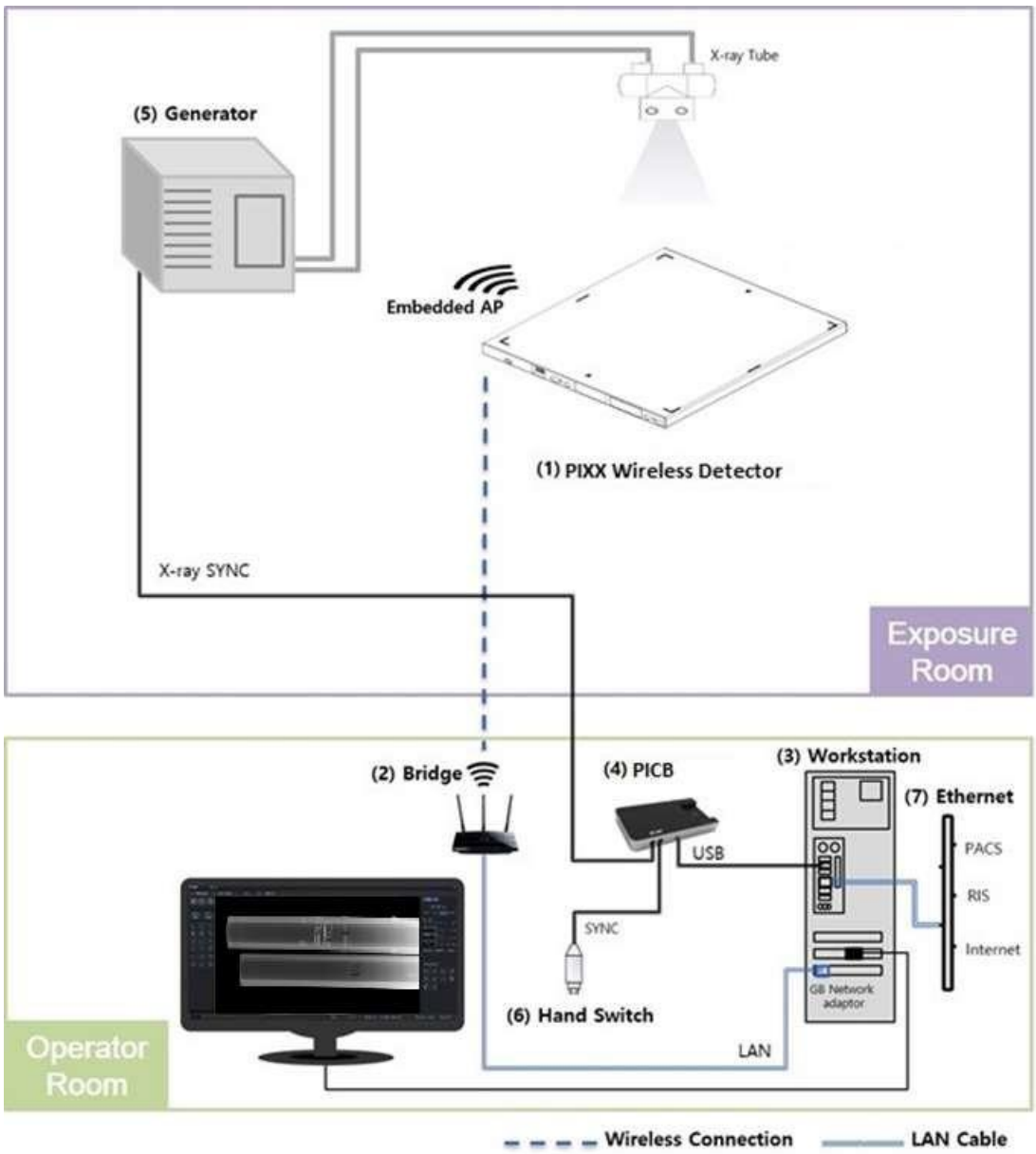
For charging:

	Detector	Control box
Voltage	16.8V	16.8V
Current	0.48A	1.5A
Charging time	min 8.6hour	min 2.8hour

ⓒ2020. PIXXGEN Corporation. All rights reserved.

8.3. Detector Installation

PIXX is used Manual mode (External S/W Triggered) in wireless configuration as illustrated bel ow:

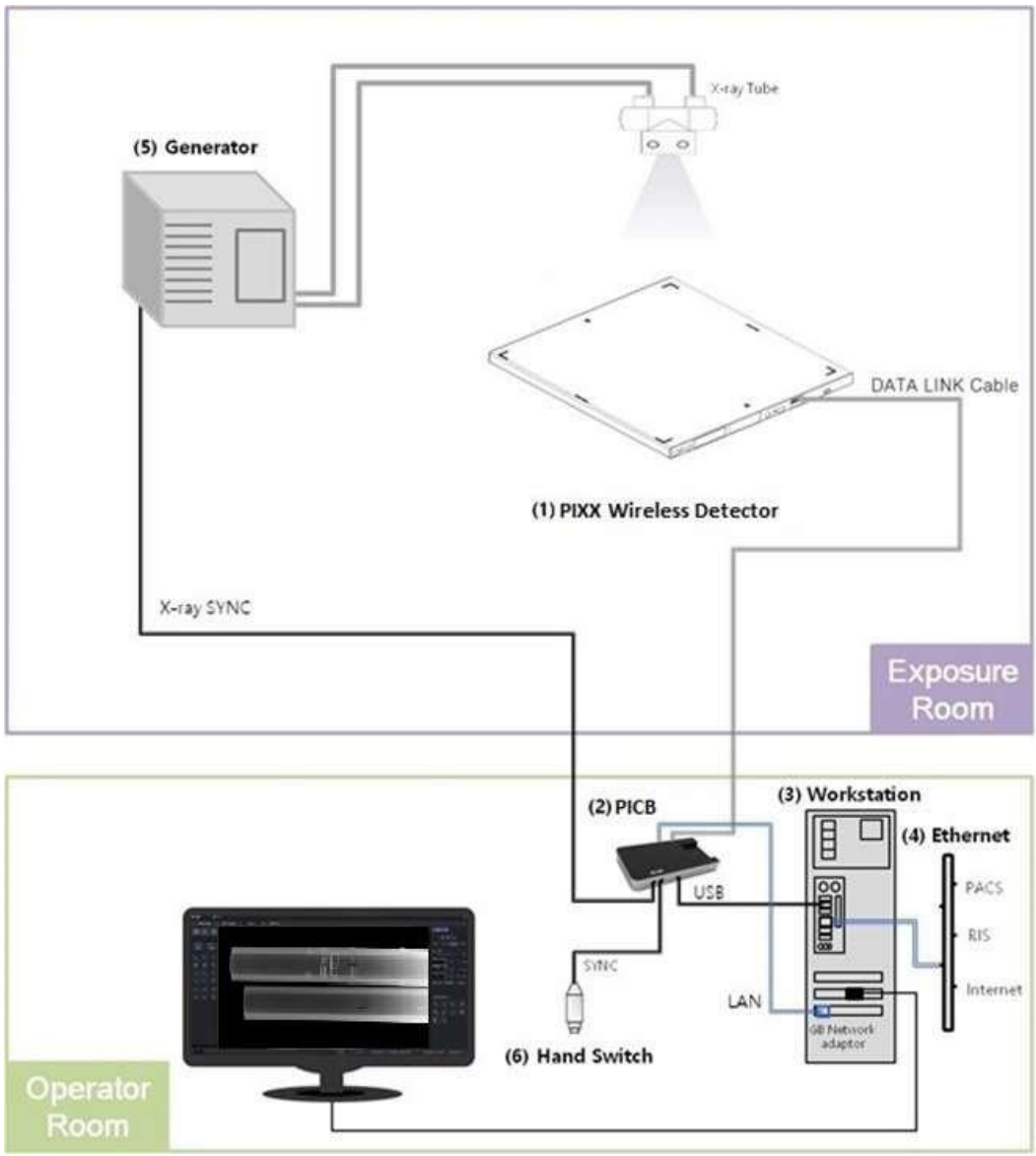


- (1) Detector (embedded Internal AP) ⇄ (2) Bridge: Wireless (signal, digital image)
- (2) Bridge ⇄ (3) Work Station: Wired (LAN: signal, digital image)
- (3) Workstation ⇄ (4) PICB: Wired (USB: signal)
- (4) PICB ⇄ (5) Generator: Wired (Sync Cable) – for Manual mode (External S/W Triggered)
- (4) PICB ⇄ (6) Hand switch: Wired (Sync Cable) – for Manual mode (External S/W Triggered)

(Bridge=Wi-Fi Repeater, wireless access point)

PIXX is used Manual mode (External S/W Triggered) in wired configuration as illustrated below:

ⓒ2020. PIXXGEN Corporation. All rights reserved.



- (1) Detector ⇄ (2) PICB: Wired (DATA LINK: DC power, signal, digital image)
- (2) PICB ⇄ (3) Workstation: Wired (USB: signal & LAN: digital image)
- (2) PICB ⇄ (5) Generator: Wired (Sync Cable) – for Manual mode (External S/W Triggered)
- (2) PICB ⇄ (6) Hand switch: Wired (Sync Cable) – for Manual mode (External S/W Triggered)

ⓒ2020. PIXXGEN Corporation. All rights reserved.

9. Direct Connection with Laptop PC **(For Portable/Mobile X-Ray system)**

It is recommended to install for industrial use, mobile use, outdoor use and portable devices.

9.1. Product parts

9.1.1. Shipment Contents

NO.	Part	Description	Qty
1	PIXX	(☞ Chapter: 2.1.1. Standard parts) *** Embedded internal AP, Hand Grip**	1
2	USB memory	(☞ Chapter: 2.1.1. Standard parts)	1

9.1.2. Optional parts

NO.	Part	Description	Qty
1	ZView USB Dongle Key	(☞ Chapter: 2.1.2. Optional parts)	1
2	PICB	(☞ Chapter: 2.1.1. Standard parts)	1
3	Network Adaptor	The Network Adaptor is required for installation and connection of PIXX. Users are able to use wireless Network Adaptor when they want to have wireless connection between detector and laptop. **Note: Using 2.4 GHz 802.11n is recommend.**	1

ⓒ2020. PIXXGEN Corporation. All rights reserved.

9.2. Product Functions

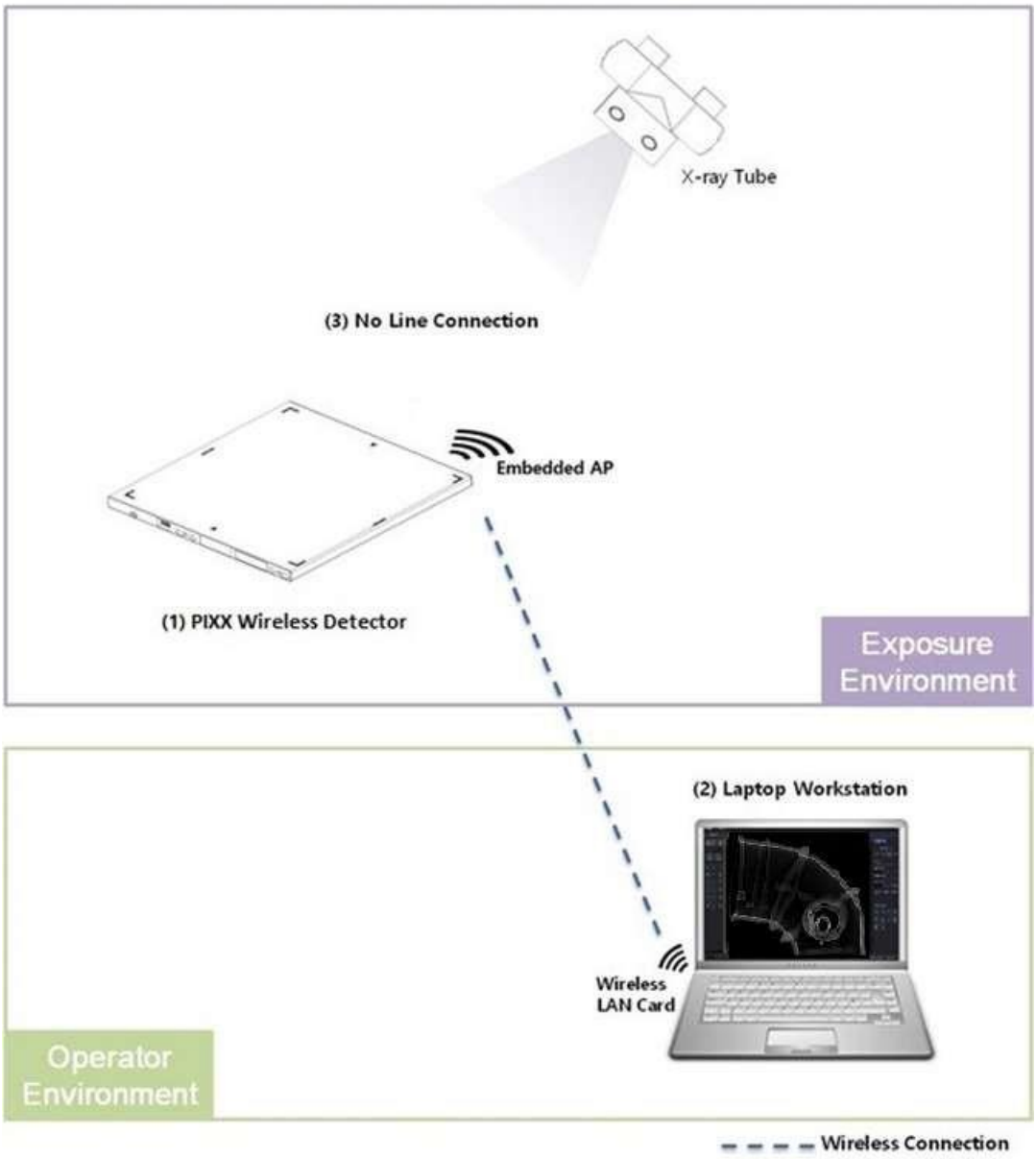
9.2.1. PIXX (Wireless and Wired Type)

(☞ Chapter: 2.2.1. PIXX)

* Embedded internal AP: Use for wireless direct connection between detector and laptop.

9.3. Detector Installation

PIXX is used in direct connection configuration as illustrated below:



- (1) Detector (embedded AP mounted) ⇄ (2) Work Station: Wireless (signal, digital image)
- (3) No interfaces between generator and PIXX in Auto mode (AED triggered).

Using IEEE802.11ac wireless Network Adaptor is recommended.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

10. Calibration

10.1. Calibration Data Installation

CAUTION!	Allow at least 30 minutes to warm up for the maximum performance of instrument.

PIXX requires calibration data for best quality imaging. An optimal calibration data for PIXX has been provided on the USB memory. In case of lost or broken USB memory, however, the user may perform calibration with SensorProbe.

Insert USB memory
Copy **'A_CAL'** folder.
Create **'C: \ DR \ '** folder, and paste **'A_CAL'** folder into the **'DR'** folder.

The calibration data destination folder varies depending on what acquisition program the user utilizes. Check the destination folder first when creating calibration data.

CAUTION!	Both 'SENSOR.ini' file and the calibration data must be saved in the same folder. Otherwise, PIXX will not be able to read the calibration data. For more information for 'SENSOR.ini' file, see Appendix: 'SENSOR.ini' file setting

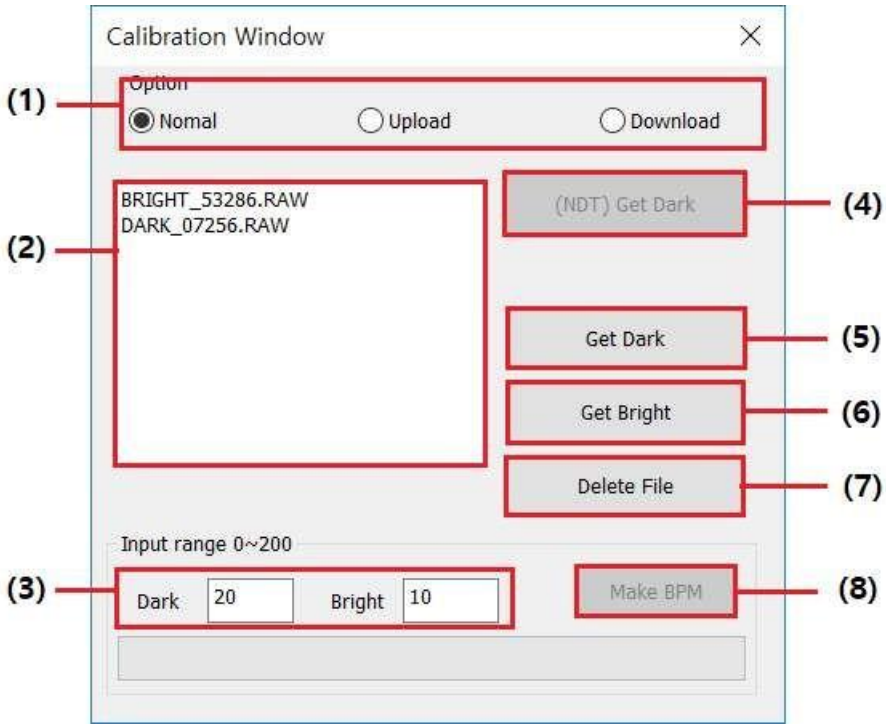
Tip!.	These calibration data creation instructions are not necessary for the user who uses the calibration data provided.

CAUTION!	If there is no calibration data in the designated destination, the warning message above will show up. 

Tip!.	If the USB Memory is missing or there is a problem with the USB Memory, please refer to Chapter '10.2 Detector Calibration' to calibrate detector.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

10.2. Detector Calibration



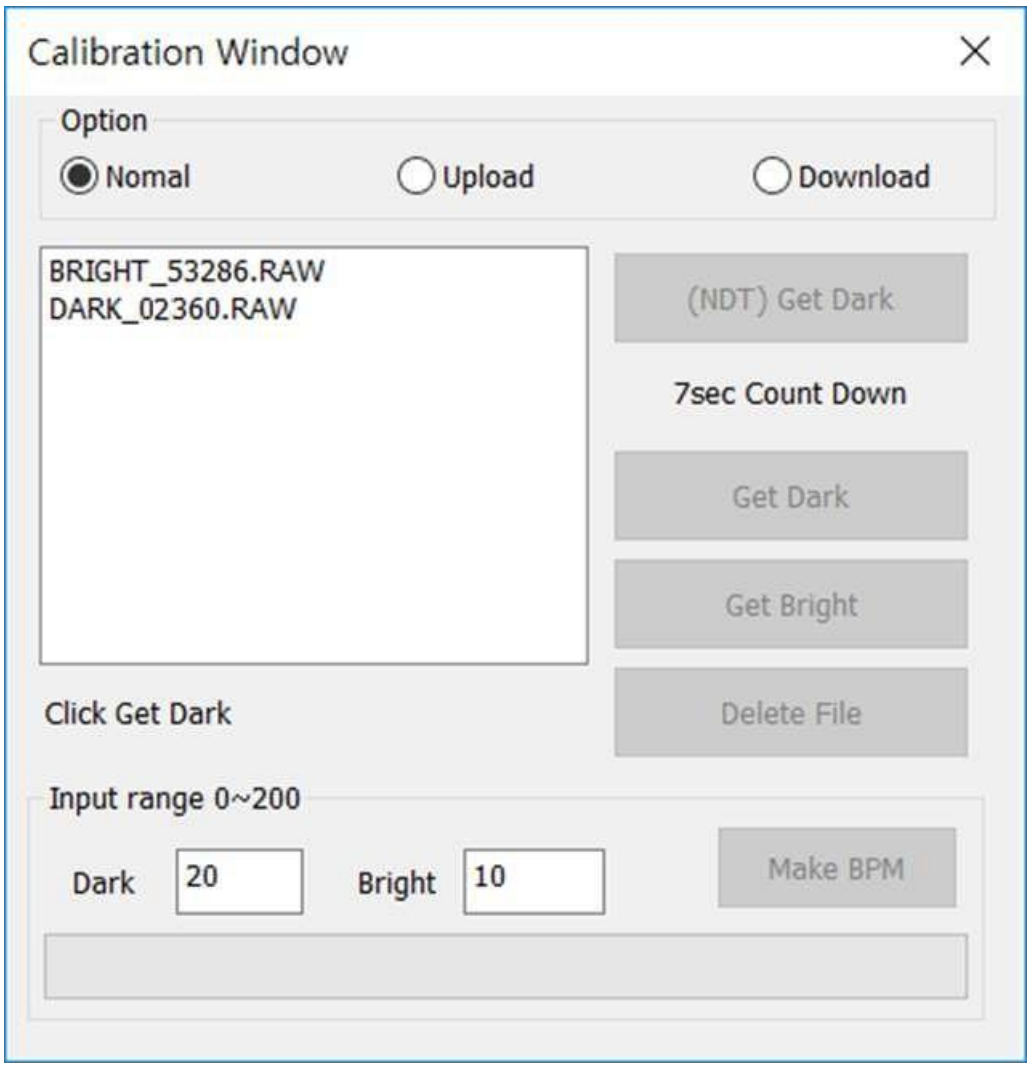
(1) Option: PIXX obtaining bright file with X-Ray.
(2) Information: BRIGHT & DARK Information
(3) BPM Parameters: Input range is 0~200
(4) (NDT) Get Dark: PIXX obtaining dark file without X-Ray for NDT.
(5) Get Dark: PIXX obtaining dark file without X-Ray.
(6) Get Bright: PIXX obtaining bright file with X-Ray.
(7) Delete File: Deleting unnecessary files.
(8) Make BPM: Creating an image compensating file of PIXX by calibration data.

CAUTION!	Before data calibrating, check below first: - Collimator is fully opened. - X-Ray tube and PIXX is centered together. - Keep distance 100 ~110cm (40 ~ 44") between X-Ray tube and PIXX.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

10.2.1 GET DARK

- Click 'GET DARK'.



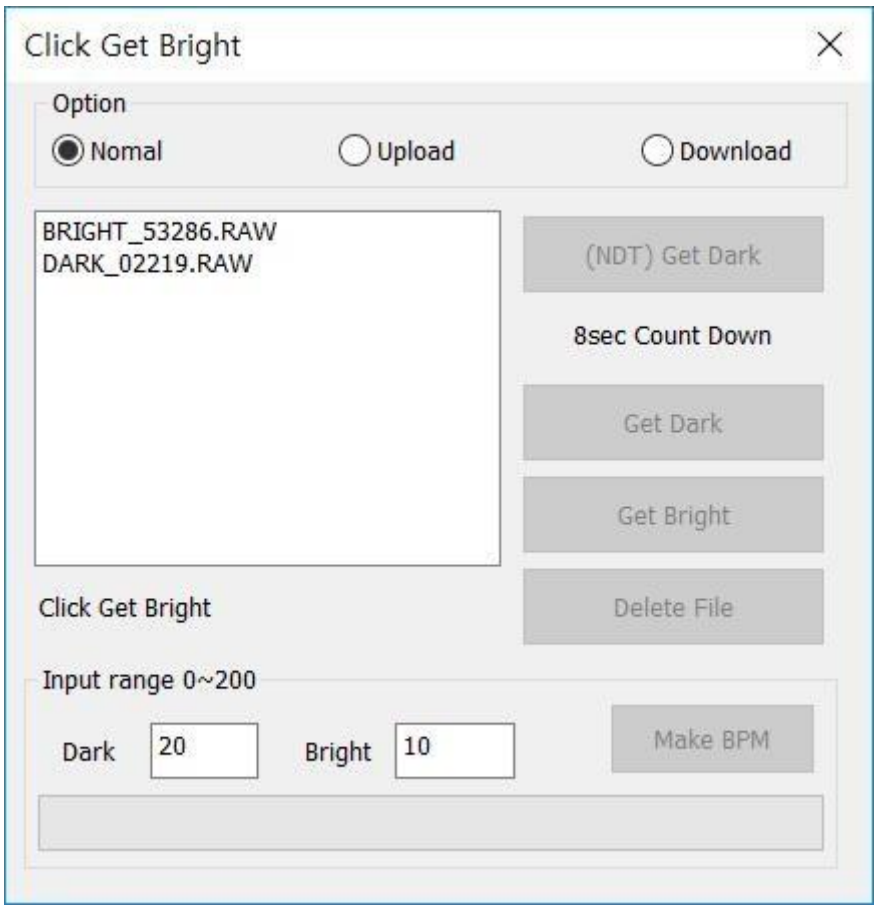
Several dark images are obtained when clicking 'GET DARK' button. And using those images, the process creates an optimized dark image. Obtained dark images will be named as 'DARK_xxxxx.

Its average value of dark can be changed by Firmware version of detector.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

10.2.2. GET BRIGHT

- Click 'GET BRIGHT'.



Bright file will be named as 'BRIGHT_xxxxx' after GET BRIGHT process.
Bright value is proportional to the strength of X-Ray (kV) and exposure time (mAs or sec).
Only one bright image is required for the calibration data of PIXX.
Delete unnecessary files by clicking 'DELETE FILE'

*Click [GET BRIGHT] button and exposure and X-Ray after 2seconds
(The average Bright value of PIXX is around 50,000 ~ 58,000.)

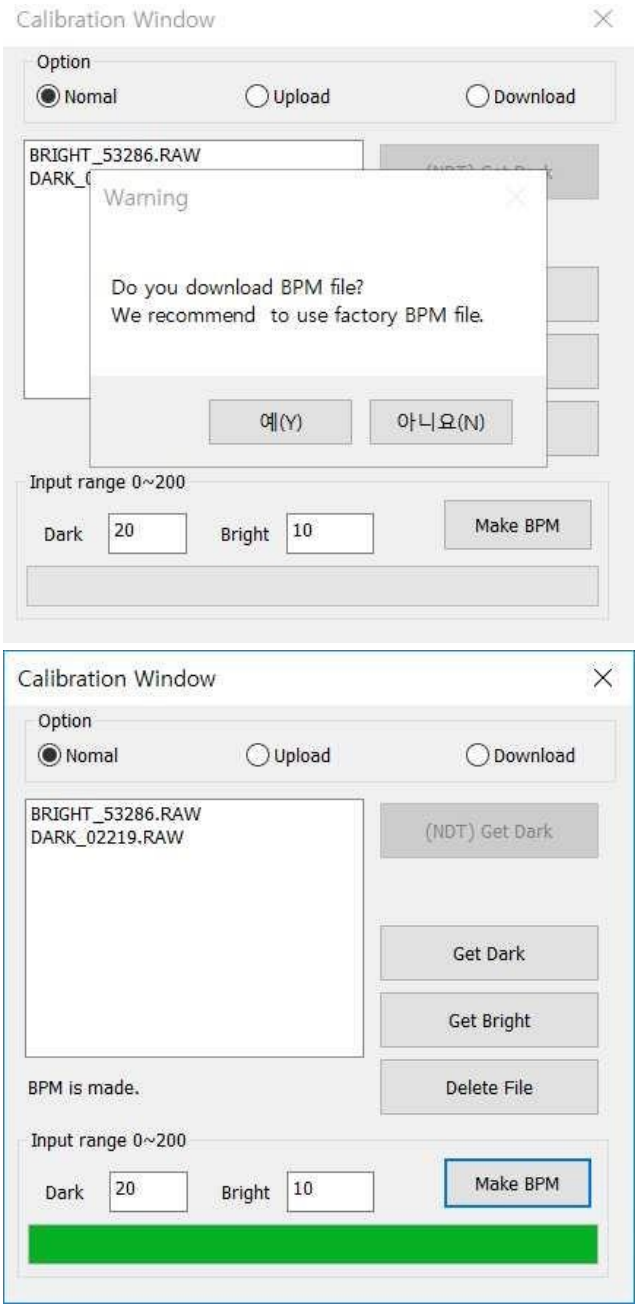
If the average is low or the timing is not right, Bright file will be named as 'NG_BRIGHT_xxxxx'
User must delete NG file.

CAUTION!	The Bright value should not exceed 60000. If the Bright value is over 60000, delete the file and reduce the dose and try again.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

10.2.3. MAKE BPM

Create a BPM (Bad Pixel Map) file after obtaining dark and bright images. The BPM bar indicates the current progress.

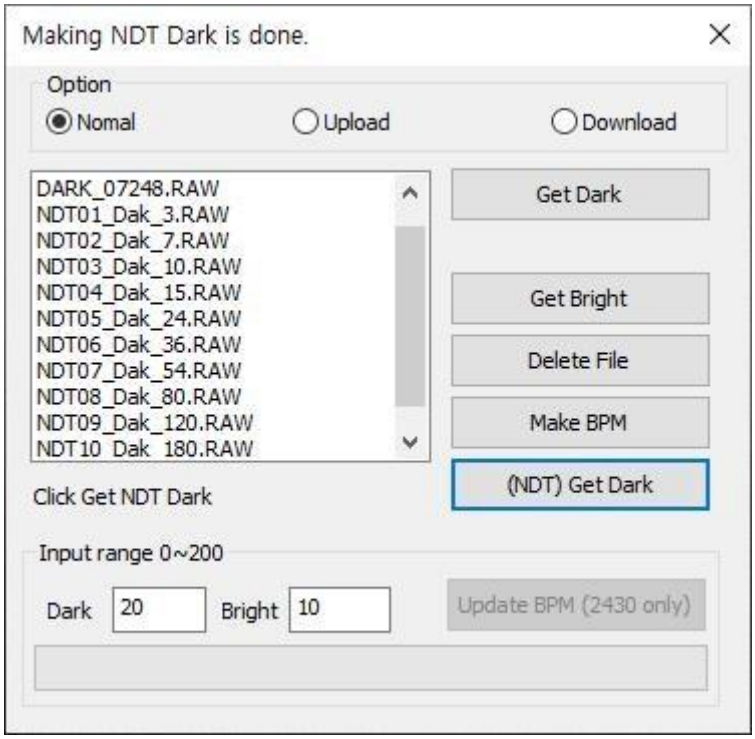


ⓒ2020. PIXXGEN Corporation. All rights reserved.

10.2.4 (NDT) GET DARK

- Click '(NDT) GET DARK'.

NDT Dark images are obtained when clicking '(NDT)GET DARK' button.
Obtained dark images will be named as 'NDT??_Dak_???.RAW.



CAUTION!	**DO NOT "MAKE BPM" YOURSELF.** Do not use MAKE BPM function after calibration. BPM file is provided within the USB memory. In case the user performs MAKE BPM, there might be the deterioration of image quality.

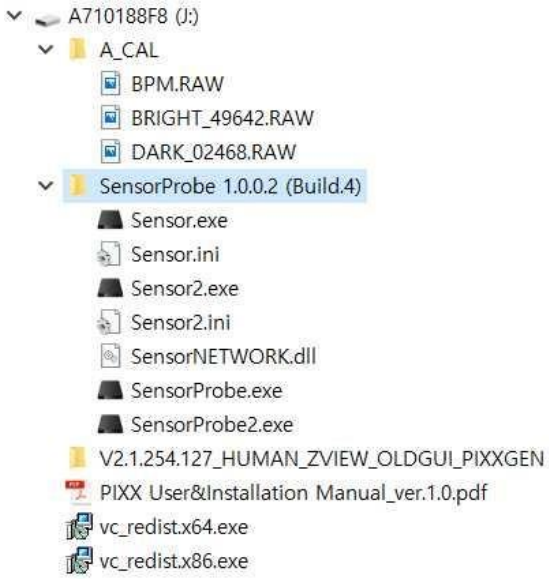
Tip!	If there is a visible line on the image, performing 5-minute calibration is recommended. Turn off PIXX and turn it on again after 1 hour. After previous process, perform 5-minute calibration after 5 minutes. The visible line on the image will be gone if the 5-minute calibration data is in use.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

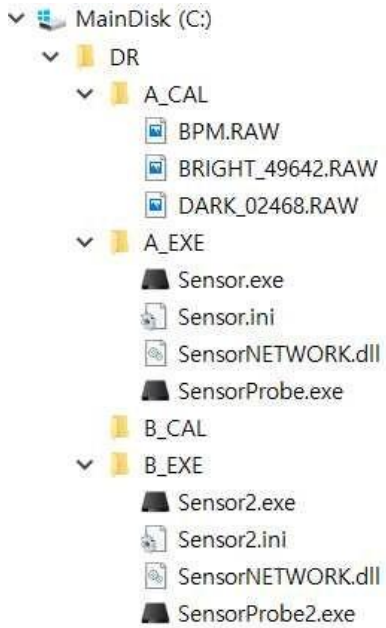
11. Appendix

11.1 Copy the files for console software

The PIXX detector is based on an exe file and works as a detector.
Therefore, user must copy the files to the correct location according to the Console software.
The contents of USB are as follows.



Create a folder and copy files as shown below. (This manual is based on ZView.)



When a dual detector is used, Copy the calibration files of the second detector to B_CAL.

Tip!	If you do not use ZView provided by PIXXGEN, The user must contact the Console software company and copy files to the correct location.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

11.2 Check security programs in your Workstation

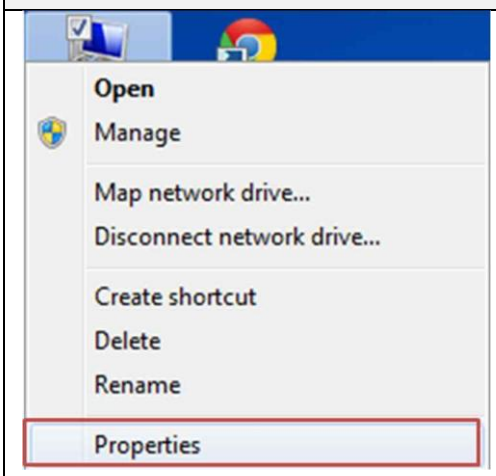
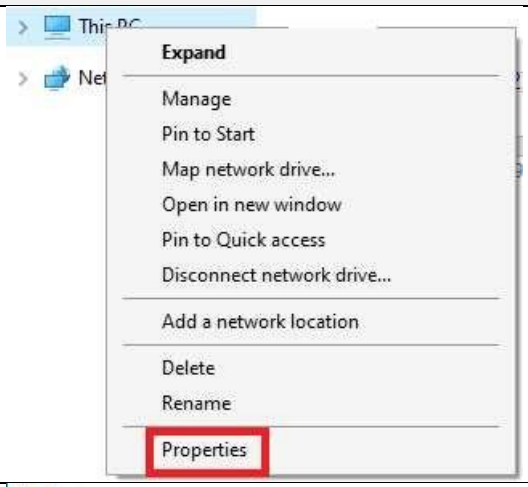
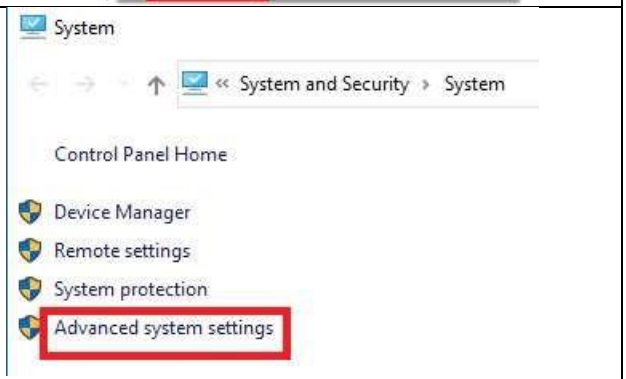
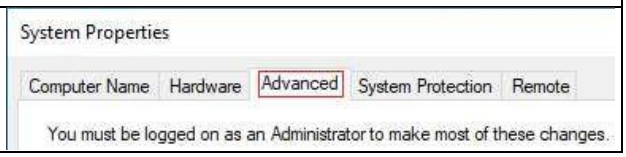
Some security programs might block detector signal since they recognize our software as a virus or malware.

We strongly recommend removing vaccine programs except MS Essential.

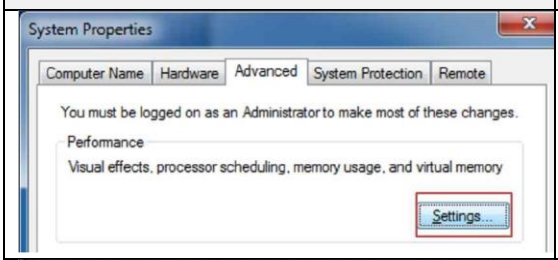
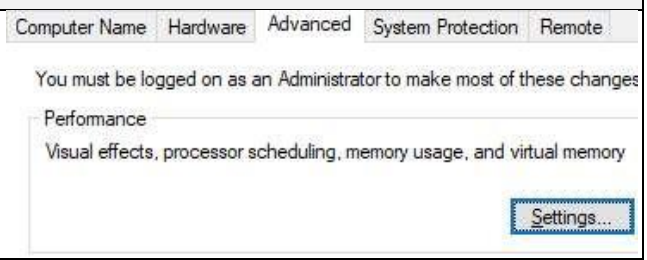
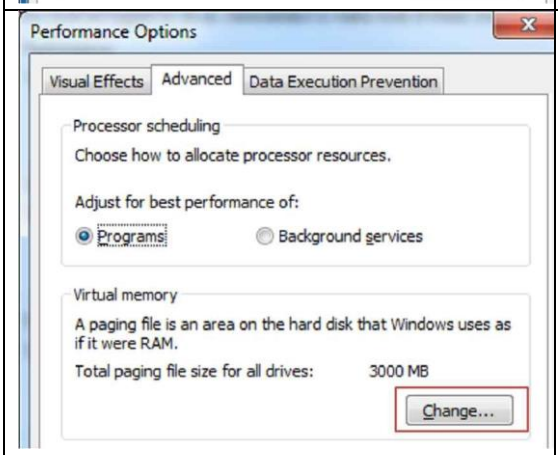
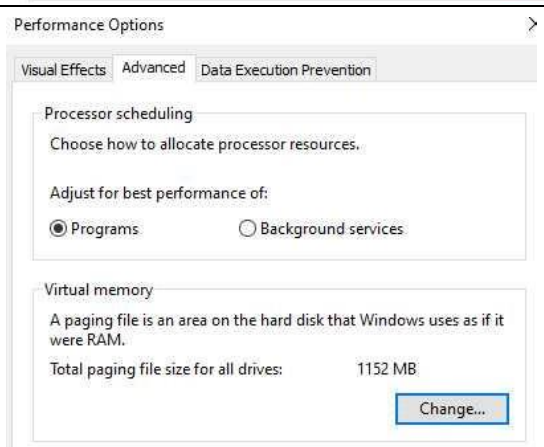
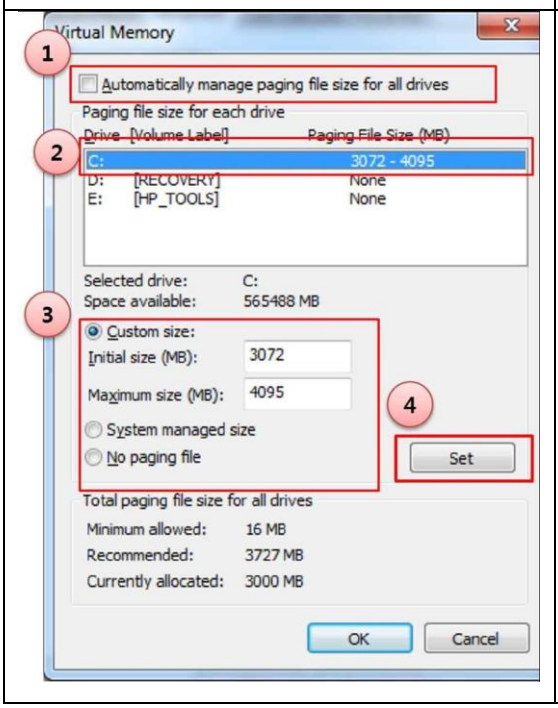
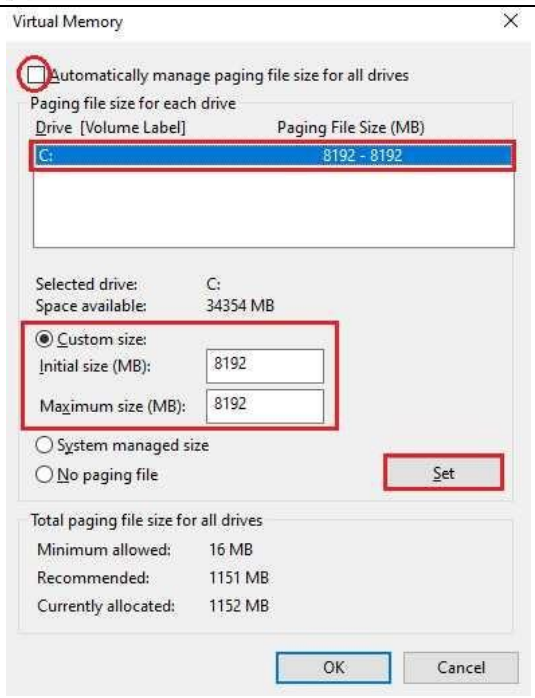
11.3 Virtual Memory / DEP

Some console software (not SensorProbe) may experience DEP or Virtual memory problems.

Virtual memory setting

Win7	Win10
	
	
	

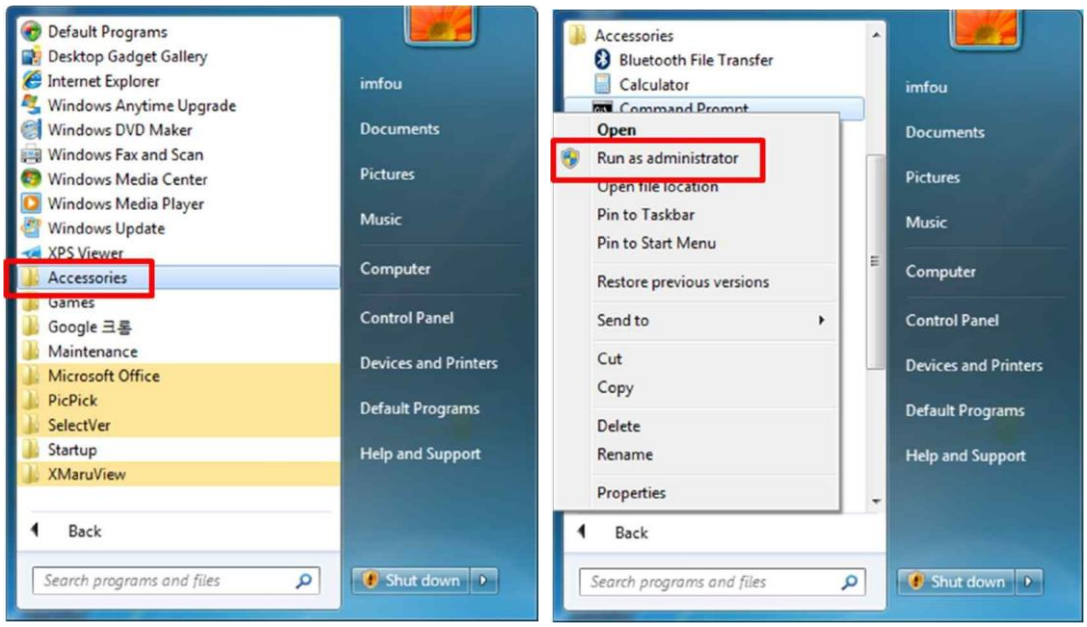
©2020. PIXXGEN Corporation. All rights reserved.

Win7	Win10
	
	
	

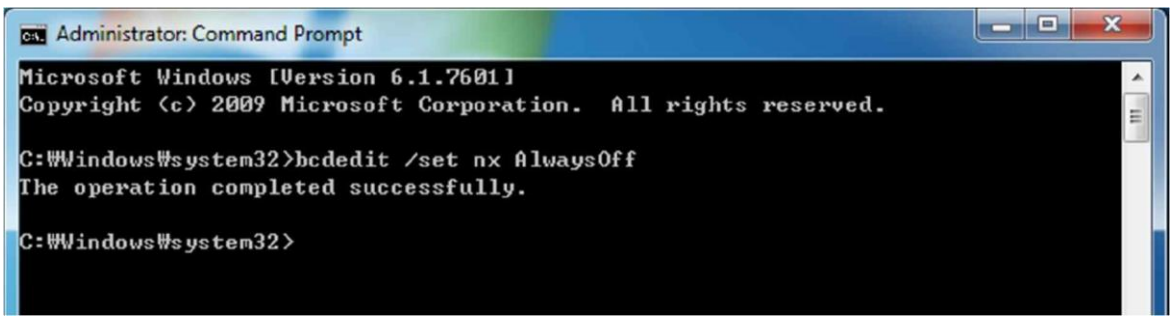
ⓒ2020. PIXXGEN Corporation. All rights reserved.

DEP Setup in Windows 7

Run Command prompt as administrator



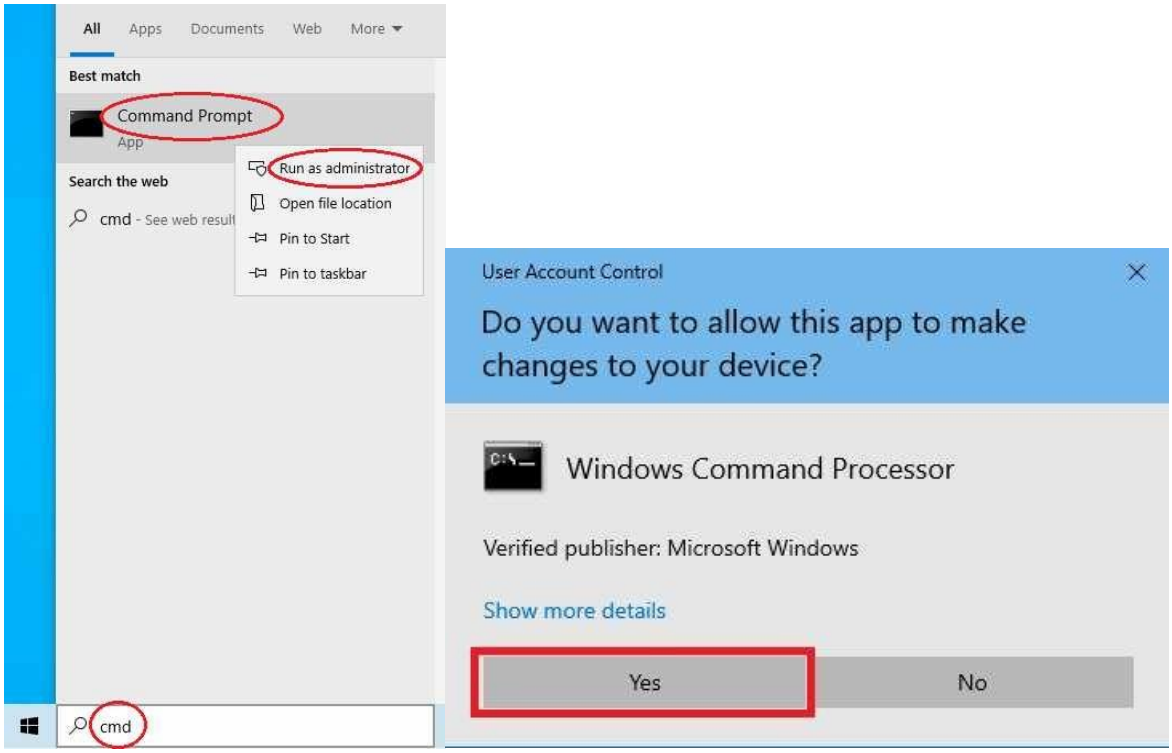
Input text like this "bcdedit /set nx alwaysoff"



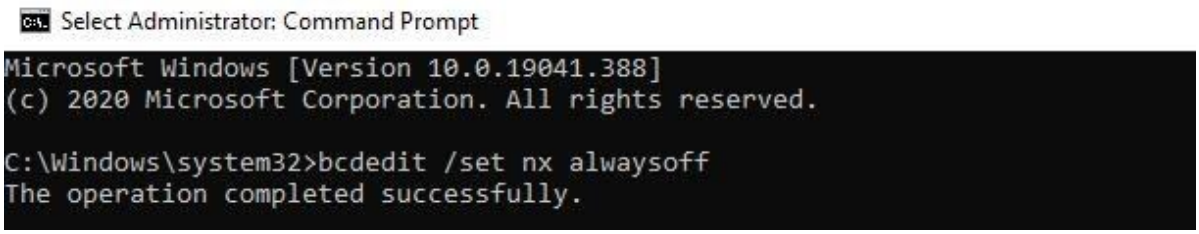
ⓒ2020. PIXXGEN Corporation. All rights reserved.

DEP Setup in Windows 10

Run Command prompt as administrator



Input text like this "bcdedit /set nx alwaysoff"



ⓒ2020. PIXXGEN Corporation. All rights reserved.

11.4 Check List

	Is PICB Power On?
Status	PIXX is powered by PICB.
Tips	Check the Blue light at the front of PICB. If you still have the light turned off even though all problems are solved, consult with our friendly technical support team.

	Have you installed Gigabit NETWORK?
Status	PIXX demands gigabit communication for fast image transmission. It is essential to install gigabit network to operate PIXX system.
Tips	Check network driver version and network speed at network connection in the control panel. If the speed of network is not faster than 1 Gigabit, see Chapter. 3-1 Network Adapter Setting. If Gigabit is lower than 1, do not use it.

	Have you network adapter problem?
Status	Expansion LAN cards can break for unknown reasons.
Tips	Try using the motherboard's LAN port instead of an expansion LAN card.

	Does the calibration files exist?
Status	It is impossible to obtain clear images unless the calibration data saved correctly.
Tips	Check the calibration data in 'C:\DR\A_CAL' or 'C:\DR\B_CAL' folder. If no data exists in the folder, create one. See Chapter. 10 Calibration for more information.

	Are all cables connected tightly?
Status	Be sure all the connecting cables are secured tightly. - DATA LINK cable Power supplying and data transmitting to PIXX - LAN cable Sending image to acquisition program - USB cable Connecting devices for Manual mode (External S/W Triggered)
Tips	- DATA LINK cable Check the power indicating LED, and then review firmware version of PIXX in the Config folder of SensorProbe. - LAN cable Check unidentified network at network connection in the control panel.

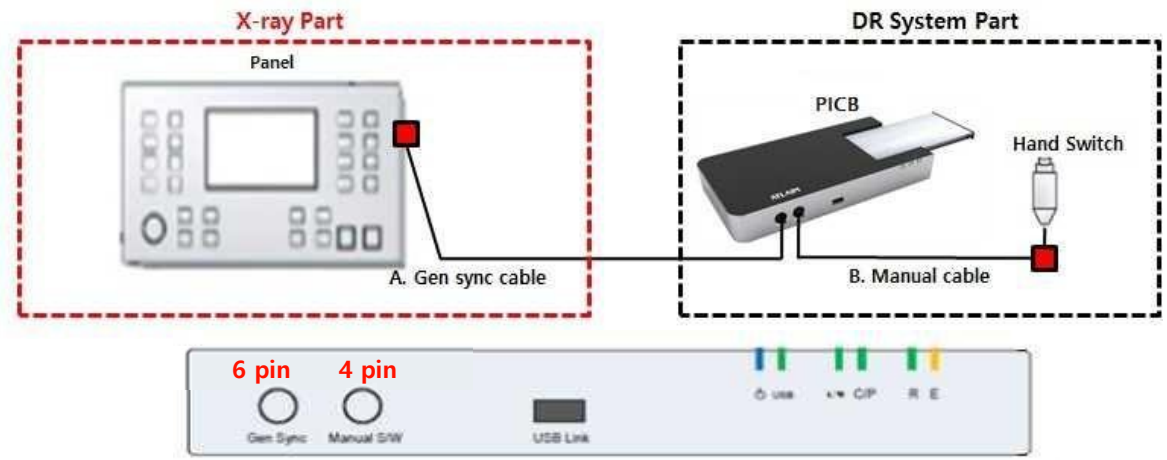
ⓒ2020. PIXXGEN Corporation. All rights reserved.

	- USB cable Proceed to the control panel, device Manager and check the Virtual Serial Port Should you have unidentified devices, be sure all cables are connected tightly. See Chapter. 3.2. and Chapter. 5. for more information. If you cannot solve the problems, contact the technical support team.

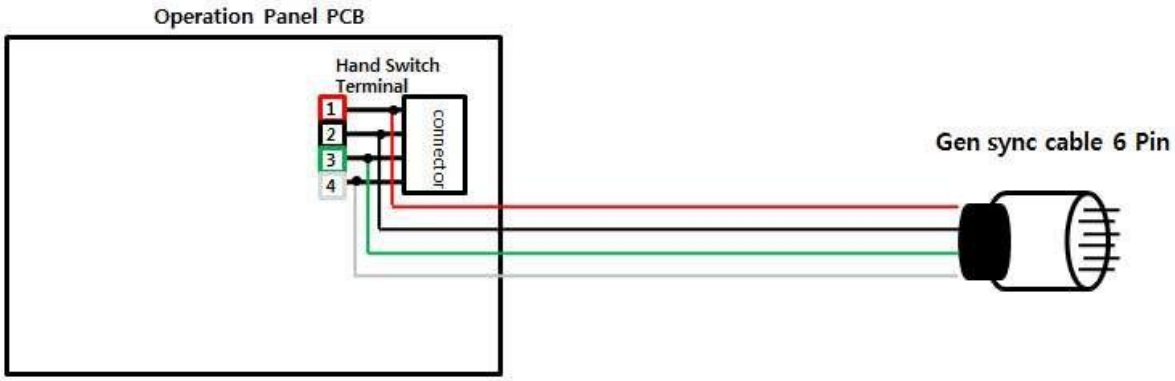
	Have you performed initial SensorProbe set-up?
Status	SensorProbe should be set up at first in order to link with acquisition program.
Tips	Check if SENSOR is properly inked with the acquisition program. If not linked, see Chapter. 4-2 SensorProbe and set up SensorProbe. Contact the technical support team, if you cannot solve the problems.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

11.5 Hand Switch Connection for Manual mode (External S/W Triggered)



A. "Gen Sync" Cable Connection (Connection X-Ray Generator trigger port with "Gen Sync")



- 4 strands of ***6 Pin "Gen Sync" Cable*** need to be connected to PCB board of X-Ray Generator Operation Panel by each color.

CAUTION!	Wiring position of the Operation Panel may differ for respective equipment. Need to follow the pin map displayed on the PCB board of X-Ray Generator Operation Panel.

B. Manual Cable Connection

ⓒ2020. PIXXGEN Corporation. All rights reserved.

Hand Switch **Manual cable 4 Pin**

- 4 strands of ***4 Pin "Manual S/W" Cable*** need to be connected to Hand Switch by each color.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

11.6 SensorProbe Vs Detector Firmware Compatibility table

Date	Sensor Probe (Build)	Firmware (Build)
2020.09.08	1.0.0.3 (Build.20)	1.0.0 (build.41)

ⓒ2020. PIXXGEN Corporation. All rights reserved.

11.7 Wired, Bridge, Direct, and Wi-Fi Router (DHCP server) setting for Multiple detectors.

When user using multiple detectors, PIXXGEN recommend to use like below.

<Wired connection Setting>

	1st DR	**2nd DR**	**3rd DR**
Detector IP	192.168.100.111	192.168.101.112	192.168.102.113
PC (Network Adapter)	192.168.100.101	192.168.101.102	192.168.102.103

<Bridge Connection Setting>

	1st DR	**2nd DR**	**3rd DR**
Detector IP	192.168.120.1	192.168.121.1	192.168.122.1
Detector SSID	PIXXAP120	PIXXAP121	PIXXAP122
Bridge (Repeater) IP	192.168.120.2	192.168.121.2	192.168.122.2
PC (Network Adapter)	192.168.120.3	192.168.121.3	192.168.122.3

<Direct Connection Setting> Detector to Laptop PC

	1st DR	**2nd DR**	**3rd DR**
Detector IP	192.168.120.1	192.168.121.1	192.168.122.1
Detector SSID	PIXXAP120	PIXXAP121	PIXXAP122
PC (Network Adapter)	192.168.120.3	192.168.121.3	192.168.122.3

<Wi-Fi Router using DHCP server Setting >

	1st DR	**2nd DR**	**3rd DR**
Detector IP	192.168.100.111	192.168.100.112	192.168.100.113
Wi-Fi Router (DHCP server)	192.168.100.1 / SSID: PIXX		
PC (Network Adapter)	192.168.100.101		

We recommend rather Bridge or Direct connection than Wi-Fi Router for wireless connection.

ⓒ2020. PIXXGEN Corporation. All rights reserved.

11.8 Trouble shooting

a. The network connection is poor or lost.

☞ Refer 4.1 and 4.2.

PIXXGEN Corporation
5F, SMARTBAY, 123, Beolmal-ro, Dongan-gu
Anyang-si Gyeonggi-do, 14056 Korea
Tel: +82-70-4846-8888 FAX: +82-2-6455-2905
Web: Http://www.PIXXGEN.com

ⓒ2020. PIXXGEN Corporation. All rights reserved.