



DS262/DS262W Vital Signs Detection Radar User Manual

Table of Contents

Summary	2
Key Features	2
Trademarks & Acknowledgments	2
LILIN HTTP API	2
Disclaimer	2
Caution	2
Chapter 1 System Overview	3
Chapter 1-1 System Requirements	3
Chapter 1-2 Software Requirements	3
Chapter 1-2-1 Windows and Apple Mac OS	3
Chapter 2 Before Accessing the Vital Signs Detection Radar	3
Chapter 2-1 Configure IP Addresses using the IPScan Utility	3
Chapter 2-2 Configure IP Addresses through HTML Connection	4
Chapter 2-3 Login	4
Chapter 3 The Vital Signs Detection Radar Operations	4
Chapter 3-1 HTML Operations	5
Chapter 4 Settings	5
Chapter 4-1 System	5
Chapter 4-1-1 General	5
Chapter 4-1-2 User	6
Chapter 4-1-3 Timer Settings	6
Chapter 4-1-4 System Log	6
Chapter 4-2 Network	7
Chapter 4-2-1 General	7
Chapter 4-2-2 Wireless Network (Wi-Fi Model)	8
Chapter 4-2-3 HTTP Service	8
Chapter 4-3 Notification	9
Chapter 4-3-1 Notification	9
Chapter 4-4 Maintenance	10
Chapter 4-5 LPKG	11
Appendix	12
Advanced Port Forwarding Technology	12
Restore to Factory Default	12



Summary

LILIN's vital signs detection radar is a contactless device capable of detecting human heartbeat and respiration rate.

Key Features

- 60GHz Non-contact Heartbeat and Respiration Detection Radar
- 2 Transmitters and 4 Receivers (Continuous Frequency Modulated Wave – FMCW Mode)
- Radar Detection Angle: 90 Degrees
- Maximum Detection Frequency: 20 Hz
- RJ-45 cable or WiFi model available

Trademarks & Acknowledgments

Windows 11, and Internet Explorer are registered trademarks of Microsoft Corporation in the U.S. and/or other countries. Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries. Linux is registered trademarks of the respective holders. Intel, Pentium, and Intel® Core™ 2 Duo are registered trademarks of Intel Corporation. FFmpeg is a trademark of [Fabrice Bellard](#), originator of the FFmpeg project. Other names of companies and their products mentioned in this manual may be trademarks or registered trademarks of their respective owners.

LILIN HTTP API

For non-ONVIF integration, see the LILIN HTTP API document.

Disclaimer

Please be aware that this user manual may cover a range of product specifications for various models. Characteristics and features discussed and/or illustrated in this manual may not be applicable or available to all models. We reserve the right to change product specifications, designs and equipment without notice and without incurring obligation.

Caution

- Do not drop or damage the equipment
- Do not install the equipment near fire or heat sources
- Keep the equipment from rain, moisture, smoke, or dust
- Do not cover the opening of the cabinet with cloth and/or plastic or install the unit in poorly ventilated places. Allow 10cm between this unit and its surroundings
- Do not continue to operate the unit under abnormal conditions such as smoke, odor, or loss of signal whilst power is turned on
- Do not touch the power cord with wet hands
- Do not damage the power cord or leave it under pressure
- To avoid unnecessary magnetic interference, do not operate this unit near magnets, speaker systems, etc.
- All connection cables should be grounded properly



Chapter 1 System Overview

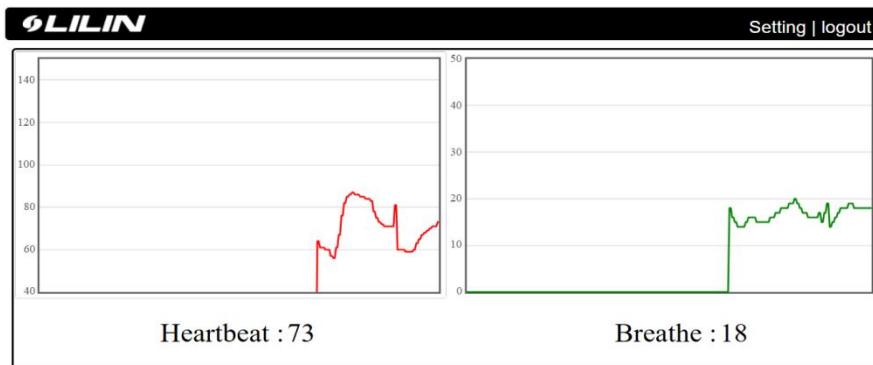
Chapter 1-1 System Requirements

LILIN's vital signs detection radar is a contactless device capable of detecting human heartbeat and respiration rate. Before using this vital signs detection radar, make sure that the network cable and power supply are properly connected. The vital signs detection radar is capable of detecting vital signs ranging from 30CM to 180CM at 90 degree for human.

Chapter 1-2 Software Requirements

Chapter 1-2-1 Windows and Apple Mac OS

The vital signs detection radar uses HTML5 streaming which supports Safari browser for accessing the vital signs detection radar streaming on Windows and Apple Mac OS without any software plug-in.



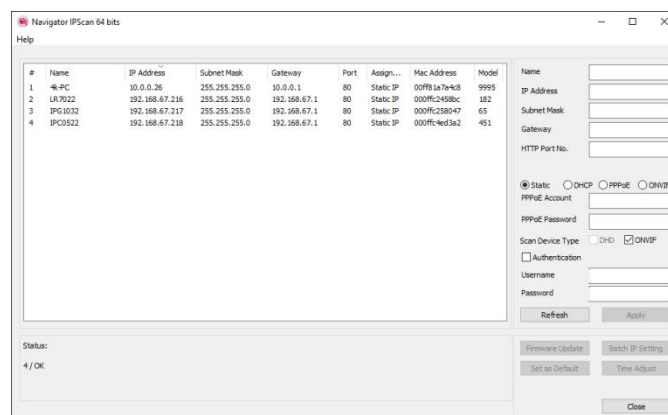
Chapter 2 Before Accessing the Vital Signs Detection Radar

Before accessing the vital signs detection radar, make sure that the vital signs detection radar's RJ-45 network connector and power cable are properly connected. To set the IP address, consult your network administrator. The default IP address for each vital signs detection radar is 192.168.0.200. Users can use the default IP address to verify the vital signs detection radar's network connection.

Chapter 2-1 Configure IP Addresses using the IPScan Utility

To configure the IP address of the vital signs detection radar, download [IPScan](#) from our official website. Or, you can execute the IPScan installer from company website. To change the IP address, subnet mask, gateway, or HTTP port of your vital signs detection radars, follow the steps below:

- Run the IPScan utility
- Click **Refresh**. All available devices will be listed on the screen
- Select the device item from the device list
- To edit or modify IP address, subnet mask, gateway, or HTTP port, use the box
- Click **Apply** for the changes to take effect
- Click **Refresh** again to verify the changed settings



Chapter 2-2 Configure IP Addresses through HTML Connection

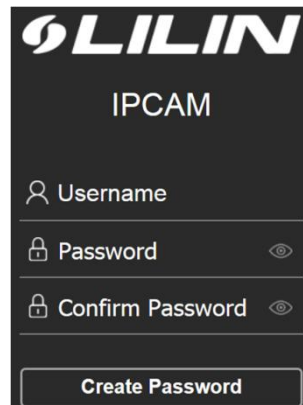
To change an IP address on a webpage, type the default IP address (192.168.0.200) into the browser address bar and follow the steps below:

- Due to security reason, create the username and password for the first login. To login to the IP vital signs detection radar, please create the username and password on the login page. Press **Confirm** to complete the setting and login simultaneously.
- Click **Setup**→**Network** to edit or modify IP address, subnet mask, gateway, or HTTP port
- Click **Submit** for the changes to take effect.

Network	☒ Static ☐ DHCP
IP Address	192.168.3.164
Subnet Mask	255.255.255.0
Gateway	192.168.3.254
Primary DNS	168.95.1.1
Secondary DNS	168.95.1.1
OK	

Chapter 2-3 Login

Due to security reason, create the username and password for the first login. To login to the IP vital signs detection radar, please create the username and password on the login page. Press **Confirm** to complete the setting and login simultaneously.



The login page features the LILIN logo at the top, followed by the title 'IPCAM'. Below the title are three input fields: 'Username' with a person icon, 'Password' with a lock icon and an eye icon for toggling visibility, and 'Confirm Password' with a lock icon and an eye icon. At the bottom is a 'Create Password' button.

Minimum Password Strength Requirements:

1. The password length must be 8 or more characters.
2. The password must include at least 1 number (0 ~ 9), 1 uppercase letter, 1 lowercase letter and 1 symbol (~ ? / + = , ; : . ' @ # ¥ % ^ & * () _ -).

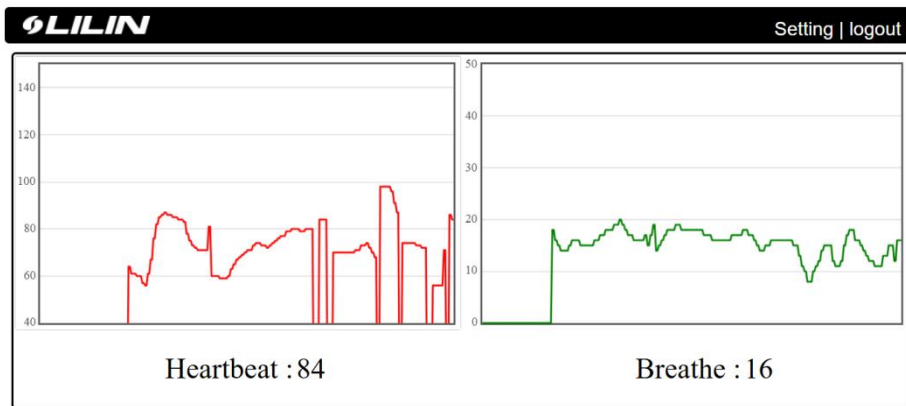
Note: Please keep the username and password for accessing the vital signs detection radar properly. Forgetting the credential for accessing the vital signs detection radar, please perform hardware factory default.

Chapter 3 The Vital Signs Detection Radar Operations

When logged in as an administrator, two main features are available: 1) vital signs detection radar operations and 2) configurations.

Chapter 3-1 HTML Operations

The default page can see both heartbeat and breathe read from the device.

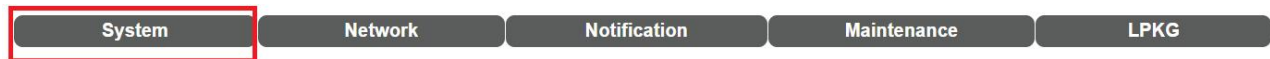


Chapter 4 Settings

As an administrator, you can configure the vital signs detection radar via a standard HTML webpage. Click **Setup** at the top-right corner of the screen after you log in to the vital signs detection radar.



Chapter 4-1 System



Chapter 4-1-1 General

Under **System Settings**→**General**, you will see server system information, such as MAC address, firmware version, OS version, system reboot time, and device name settings. To modify these options, follow the instructions below:

Setup > System > General

MAC Address	00:0f:fc:23:65:48
Firmware Version	13.0.001.3321
OS Version	Linux 4.9.84
System Reboot Time	2022/01/11 14:05:19 Tue CST
Device Name	P6R3782E2

OK

- **MAC Address:** The MAC address of the IP vital signs detection radar
- **Firmware Version:** Firmware version of the IP vital signs detection radar
- **OS Version:** The OS version number of the IP vital signs detection radar
- **System Reboot Time:** The last time your system was rebooted.
- **Device Name:** The device name can be found using the IPscan utility, which allows you to identify the IP vital signs detection radars. To change the device name, enter a new name for the vital signs detection radar and click **OK**.

Chapter 4-1-2 User

The vital signs detection radar supports up to 10 user accounts. Each account can be individually configured for its access rights. To add/edit a user, click **Add/Edit User**. To access the vital signs detection radar without authentication, switch the Bypass Logon option to **On**. Enable IPScan Bypass Logon to log in the vital signs detection radar through IPScan without authentication. To add a user, press **Add User**, and you will see the following screen:

Setup > System > User

Bypass Logon ☐ OFF

IPScan Bypass Logon ☒ ON

Password Strength ☐ OFF

Authentication Security ☐ OFF Within: 30 Min. Failed Login Attempts: 5 IP Block Length: 5 Min.

Operation Timeout ☒ ON 10 Min.

Account

New Password

Confirm Password

User Group ☒ Administrator ☐ Operator ☐ Viewer

OK Cancel

Password has to meet the following criteria:
 (1) More than or equal to 8 characters.
 (2) Allow uppercase letter, lowercase letter, number digit, and special character.
 (3) Must have at least three types of character sets.

Enter the account name, password and confirm password to add new account, and then check to assign the access rights for this account. Click **OK** to update the settings.

To edit account information, select user for edit and click **Edit User**. To delete a user, select user for delete and click **Remove User**. Click **Submit** to update the settings.

Chapter 4-1-3 Timer Settings

You can change the time of the vital signs detection radar through a HTML web page. Simply select the date and time in the drop-down menus, and click **OK** to apply. You may also set the holiday list in this page.

Setup > System > Timer

Server Time 2025/05/08 14:39:22 GMT+0800

Synchronize with NTP ☐ Every Hour ☒ Off

Time Server time.stdtime.gov.tw

Time Zone (GMT+08:00) Taipei

Time 2025/5/8 14:39:20

Synchronize with PC

OK

Synchronize with an NTP server

To synchronize with an NTP server, change the Synchronize with NTP to Every Hour. The vital signs detection radar will synchronize its system time with a time server every hour.

Note: This function requires Internet connection.

Chapter 4-1-4 System Log

You can view the system-generated log in this page. Click **Save** icon to export the log to a text file. You can also search for log file by selecting the type keyword.

Setup > System > System Log

Page 1 of 4 Type: ALL Displaying 1 to 5 of 19 items

IP Address	User	Date & Time	Log Description
192.168.3.153	admin	2022/01/11 14:40:06	User Login(SYSTEM MESSAGE)
192.168.3.153	admin	2022/01/11 14:39:45	HTTP User Reject(SYSTEM WRONG)
192.168.3.153	admin	2022/01/11 14:39:36	User Logout(SYSTEM MESSAGE)
192.168.3.153	admin	2022/01/11 14:04:53	Restore Default Settings(SYSTEM MESSAGE)
192.168.3.153	admin	2022/01/11 13:57:08	Updated Video Settings(SYSTEM MESSAGE)

Chapter 4-2 Network



Chapter 4-2-1 General

Network settings are the basic settings that connect the vital signs detection radar to the network. The default IP address of the vital signs detection radar is at 192.168.0.200. Enter this IP address into your web browser to verify the network connection between a local PC and the vital signs detection radar.

To set up a local area network, enter the IP address, subnet mask, gateway, and DNS. Click **OK** to update the settings.

Network	☒ Static ☐ DHCP
IP Address	192.168.3.164
Subnet Mask	255.255.255.0
Gateway	192.168.3.254
Primary DNS	168.95.1.1
Secondary DNS	168.95.1.1
OK	

To acquire Internet access, contact your local Internet Service Provider (ISP) for a global IP address. Enter the IP address (global), subnet mask, and gateway IP provided by your ISP.

- **Primary DNS** —The IP address of the default and first DNS server
- **Secondary DNS** —The IP address of the backup and second DNS server to the default DNS

A router, gateway, or other DHCP software server can remotely assign an IP address to your vital signs detection radar. There is no need to manually configure the IP address, subnet mask, and gateway. However, every time the DHCP service is rebooted, the IP address of the vital signs detection radar may vary. You may need to use IPScan to search for the IP vital signs detection radar. To enable DHCP, click the **DHCP option** and click **Submit**.

Note: Once the DHCP option is enabled, the vital signs detection radar is assigned an IP address by the DHCP server. This feature is only permitted in LAN environments.

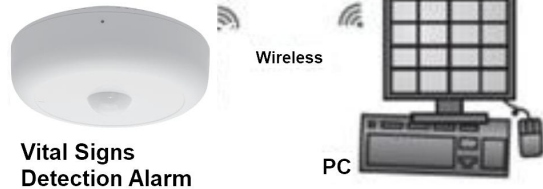
Chapter 4-2-2 Wireless Network (Wi-Fi Model)

Wireless network settings are only available for Wi-Fi models.

Setup > Network > Wireless Network

Wifi Mode	①	☒ AP ☐ STA
MAC Address	②	00:0f:fc:36:78:11
IP Address	⑤	192.168.0.200
Hidden Network	⑥	☒ Disable ☐ Use Hidden Network
Security	⑦	WPA/WPA2
SSID	③	DS262W_367811
Password	④	*****
		ok Refresh

AP Mode



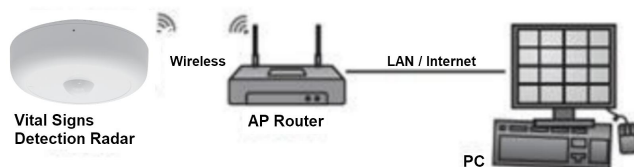
1. WiFi Mode: Default is AP mode (Use computer and vital signs detection radar to make wireless connection, and set up wireless network after connection)
2. MAC Address: Displays the MAC address of the vital signs detection radar's wireless network module.
3. SSID: The SSID of the vital signs detection radar is set as "Host Name"-"Last 6 digits of wireless MAC address"
Example: WiFi MAC: 00:0F:FC:36:78:11, SSID is DS262W-367811
4. Password: The default password for AP mode is pass1234.
5. IP Address: The default IP address in AP mode is 192.168.15.1.
6. Hidden Network: You can select whether to hide the SSID
7. Security: Allows selection of the WiFi encryption method.

Setup > Network > Wireless Network

Wifi Mode	①	☐ AP ☒ STA
MAC Address	②	00:0f:fc:36:78:11
IP Address	⑤	192.168.15.3
Hidden Network	⑥	☒ Disable ☐ Use Hidden Network
Security	⑦	WPA/WPA2
SSID	③	NETGEAR60_5G
Password	④	*****
		ok Refresh

③ ESSID
NETGEAR60_5G
TyMetro
Steve
NETGEAR60
Zyxel

STA Mode



1. WiFi Mode: STA mode (wirelessly connect the vital signs detection radar to the AP Router)
2. MAC Address: Displays the MAC address of the vital signs detection radar wireless network module
3. SSID: Select the SSID name of the AP Router to be connected from the ESSID list.
4. Password: Enter the password of the selected AP router.
5. IP Address: After connecting to the AP router, the assigned IP address will be displayed.
6. Hidden Network: You can select whether to hide the SSID
7. Security: Allows selection of the WiFi encryption method.

Chapter 4-2-3 HTTP Service

HTTP is a reliable protocol for vital signs detection radar streaming. With correct port forwarding, videos can be sent over the Internet. Details are described in the appendix. To change the HTTP port number, consult your network administrator. Choose the streaming type you want to use (HTTP & HTTPs or HTTPs). Click **OK** for the changes to take effect.

Setup > Network > HTTP Service

HTTP Port

HTTP Connection Policy ☒ HTTP & HTTPS ☐ HTTPS Service

OK

Chapter 4-3 Notification

System Network **Notification** Maintenance LPKG

For notifying the heartbeat and respiration to a HTTP cloud, please specify the HTTP server via HTTP Post page.

Setup > Notification > HTTP POST

Number	HTTP POST Server Name	HTTP POST Server IP/DNS	Port
1	httpservername	httpserver.com	80
2	httpservername1	httpserver.com	80
3	httpservername2	httpserver.com	80
4	httpservername3	httpserver.com	80
5	httpservername4	httpserver.com	80

Chapter 4-3-1 Notification

Through the HTTP POST protocol, the vital signs detection radar can automatically send heartbeat and respiration rate notification to a website (HTTP server).

Setup > Notification > HTTP POST Service

Number

HTTP POST Server Name

HTTP POST Server IP/DNS

HTTP POST Server Port

Account

Password

HTTP POST URL

HTTP POST JSON

OK Cancel

- **HTTP POST Server Name:** The HTTP POST server
- **HTTP POST Server IP/DNS:** The IP/DNS address of the HTTP Post server
- **HTTP POST Server Port:** The port number of the HTTP Post server
- **Account:** The account name for logging into the HTTP Post server.
- **Password:** The password for that account
- **HTTP POST URL :** The CGI command to send HTTP POST
- **HTTP POST JSON :** The JSON text editor

You can also place the token in the JSON edit box. For example, if %breathe% token is added, the breathe data from the vital signs detection radar can be sent to a server dynamically.

%breathe% => Breathe
 %heartbeat% => Heartbeat
 %presence% => Presence Or Not
 %distance% => Distance
 %slowscore% => Slow score

Setup > Notification > HTTP POST

Number 1

Enable ☐

Trigger 5 Sec.

HTTP POST Server Name httpservername

HTTP POST Server IP/DNS httpserver.com

HTTP POST Server Port 80

Account admin

Password *****

HTTP POST URL /url

HTTP POST JSON

You can customize the message in the tray icon tip.
The max length is 127 characters including spaces.
HTTP POST URL & HTTP POST JSON Available symbols:

%mac_addr% => MAC Address
%YYYY% => Year
%MM% => Month
%DD% => Day
%hh% => Hour
%mm% => Minute
%ss% => Sec
%breathe% => Breathe
%heartbeat% => Heartbeat
%presence% => Presence Or Not
%distance% => Distance
%slowscore% => Slow score

Chapter 4-4 Maintenance

System Network Notification **Maintenance** LPKG

In the Maintenance page, you can click **Load Default** to restore the vital signs detection radar to factory settings, or click **Reboot System** to restart the vital signs detection radar. Restoring to factory settings does not affect IP addresses.

To export vital signs detection radar settings, click on **Export Config File** for other vital signs detection radars. Click on **Import Config File** for importing vital signs detection radar settings.

To update the firmware of your IP vital signs detection radar, click **Browse** and locate the update file. Click **Submit** to start the firmware update.

Setup > Maintenance > Firmware Update

Please do not turn off power and wait until this web page shows up automatically. Fail to update firmware correctly due to network communication issue may damage this machine and may be required to ship back to your vendor for repair.

flasht9852x.bin:Application Firmware
flasht9852x-s.bin:Encrypted Application Firmware
pluginnt9852x.bin:plug-in package
pluginnt9852x-s.bin:plug-in package

Browse... Submit

Upload 0%

Export Config File Export

Network Setting ☐
System Setting ☒
Controls Setting ☒
Event Setting ☒
Services Setting ☒
Video Setting ☒

Import Config File Browse... Upgrade

Reboot System Reboot System

Default Settings
☒ Initialize without Network Settings & System Setting
☐ Initialize All Settings Load Default

Warning: Never disconnect the power during the update. This could cause irreversible damage to your device.



Note: If you forget your password, please contact your vendor or send the device to us.

Chapter 4-5 LPKG

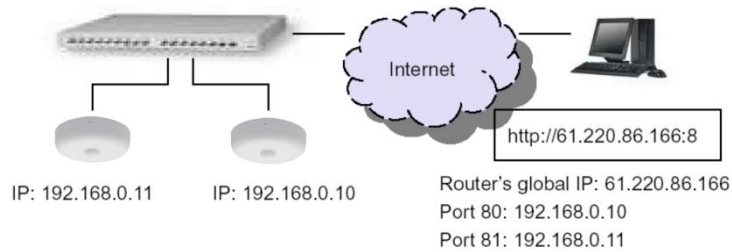


The LPKG is for future use only.

Appendix

Advanced Port Forwarding Technology

Communication port forwarding technology has been widely used to share a global Internet IP to other devices on the network. The infrastructure of this technology is shown in the below figure, in which the port 80 of the IP router is forwarded to the device with an IP of 192.168.0.10, and the port 81 of the router is forwarded to the device with an IP of 192.168.0.11. When a remote PC on the Internet tries to access the port 81, the user is actually accessing 192.168.0.11, private IP given by the router.



Restore to Factory Default

To restore the vital signs detection radar to the factory default, follow the below procedures:

1. Press and hold "Reset Key" for 15 seconds and release.
2. The vital signs detection radar will restart.
3. Launch to IPScan Utility to search for the IP vital signs detection radar.
4. Access the vital signs detection radar via an Internet browser.
5. Due to security reason, create the username and password for the first login. To login to the IP vital signs detection radar, please create the username and password on the login page. Press Confirm to complete the setting and login simultaneously.