

1. SIM Card s 5G Dongle Installation



STEP 1: Slide the dongle cover to the right and open the cover.



STEP 2: Slide the sim tray cover to the right and open the sim tray cover.



STEP 3: Insert the SIM card into the slot, ensuring it is properly seated and oriented correctly.



STEP 4: Close the sim tray and slide back the sim tray cover to the left.



STEP 5: Close the cover and slide back the sim tray cover to the left.



STEP 6: Plug the dongle into the USB port on the back of the router.

2. List Compatible Router and Combo Box

i. List of Unifi compatible router and combo box

No.	Brand	Type	Model	Wi-Fi Technology
1	TP-LINK	Smart Internet Router	EX510 PRO	AX3000
2	Fiberhome	Combo Box	HG6145F3	AX3000
3	Skyworth	Combo Box	GN630V	AX3000
4	ZTE	Combo Box	ZXHN F6600P	AX3000
5	Skyworth	Combo Box	SK-G7220	BE7200



Quick Installation Guide Wireless Internet Backup For Smart Internet Router

5G Dongle Model : Skyworth SK7220MU
Smart Router Model: TP-Link EX510 Pro



2. Wireless Internet Backup Installation



STEP 1:
Ensure the connection from the UONU is established. If not, connect an RJ45 cable from the UONU's LAN 1 port to the WAN port of the Smart Internet Router.



STEP 2:
Plug the 5G dongle into the router's USB port. Connect the power adapter to a wall socket and switch on the router.



STEP 3:
Wait for about 2 minutes for the router and 5G dongle to power up. Check the connection status by referring to the ***LED indicator**.



***STEP 4**
Install the Aginet App to check the Smart Internet Router's firmware version. Register and log in to the app. If the firmware version differs, contact the Unifi Contact Center for support.



STEP 5:
Verify the backup internet connection by unplugging the LAN cable from the router's WAN port. The Internet LED on the router should turn off, and the connection will switch to the backup link. Reconnect the cable after verification.



***STEP 6 (OPTIONAL):**
Connect an RJ45 cable from the Smart Internet Router's LAN port to your laptop or PC. You can also verify the backup status by logging in to the web interface and checking the 5G connection status.

*LED INDICATOR:

Internet	Green On	Internet connection is available.
	Orange On	The router's 2.5G WAN port is connected, but the internet service is not available.
	Off	The router's 2.5G WAN port is not connected.

STEP 3a:
Verify the setup and connection by checking the Smart Internet Router's Internet LED indicator:
1. A green Internet LED indicates that the internet connection is established via a fixed line.



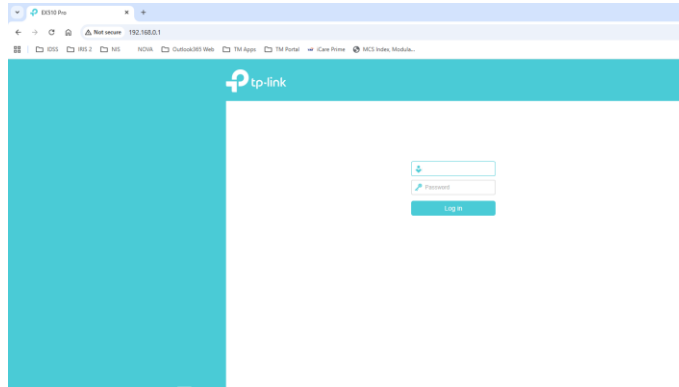
STEP 3b:
Verify the setup and connection by checking the 5G dongle's LED indicators:
1. **SYS LED:** Green indicates the dongle is powered on. **Off indicates power off or a device fault.**
2. **5G LED:** Green or orange indicates a 5G connection, while red indicates no connection.
3. **SIG LED:** Green, orange, and red indicate strong, moderate, and weak signal strength, respectively. **Off indicates no signal or no coverage in the area.**

***Note:** Refer to the LED table for detailed explanations.

***Note:** For configuration or troubleshooting, refer to the next page for step-by-step instructions.

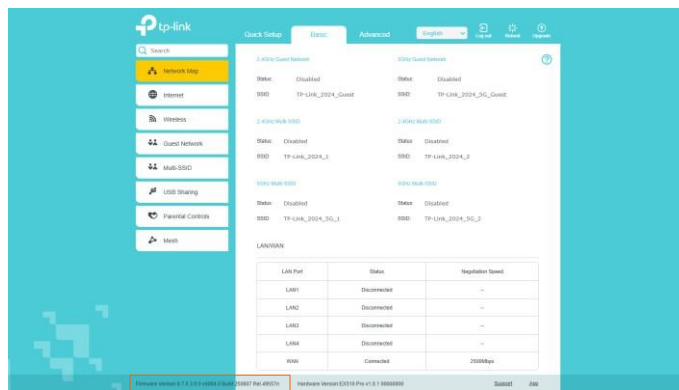
Login to the Smart Internet Router

1. Connect your laptop to the router LAN port using the LAN cable.
2. Open a web browser, enter <http://192.168.0.1>, then log in with username **tmadmin** and password **Adm@XXXX** (where XXXX is the last four digits of the device MAC address).



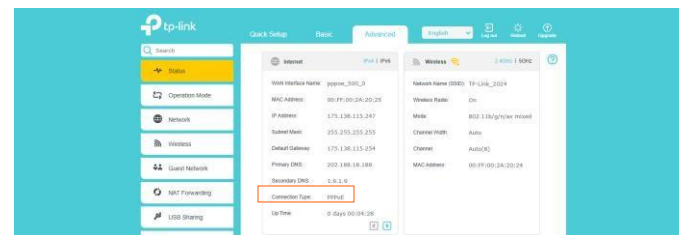
Check the Firmware Version

3. On the 1st page, scroll down to bottom to check the firmware version.



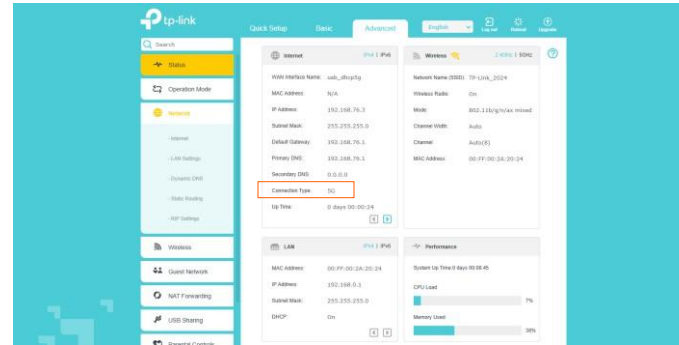
Verify Primary Connection

4. Ensure the connection from the UONU is established.
5. Click **Advance > Status**. On Internet box, verify the connection - PPPOE.



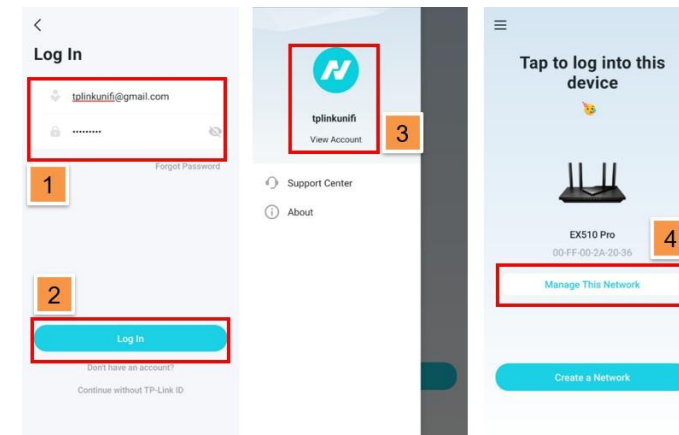
Verify Backup Connection

6. Disconnect LAN cable on the WAN port of the router. Wait 10s - 15s for switching to backup connection.
7. Click **Advance > Status**. On Internet box, verify the connection - 5G.



Mobile App

8. Open Google Play Store or Apple App Store, search for Aginet, tap Download/Get, and open the app after installation.
9. Connect your phone to the Smart Internet Router's Wi-Fi, open the Aginet app, select Manage This Network, enter the router password, and tap Login.
10. Tap the menu button, select **Log in or Create Account**, then tap **Don't have an account** to create a new TP-Link ID. Enter your email address and password, accept the terms of use, tap Sign Up, then open the activation email and click the link to complete registration.
11. Log in to the mobile app using your email and password, tap **Login**, verify the TP-Link ID login is successful, then select **Manage This Network**.



Frequently Asked Questions (FAQ)

- Q1. The dongle is not detected by the router. What should I do?**
- Ensure the dongle is properly inserted into the router's USB port.
 - Confirm the router's firmware supports the 5G dongle.
 - Check the LED indicators — if the SYS LED is off, the dongle may not be powered.

- Q2. The SIM card is not detected (5G LED is RED and SIG LED are off).**

- Make sure the SIM card is active and registered with Unifi.
- Check that the SIM card is properly inserted and oriented correctly.
- Remove and reinsert the SIM card, then restart the dongle.
- The dongle supports only Unifi SIM cards — other operators' SIMs are blocked.

- Q3. The dongle powers on but cannot connect to the network, SIG LED is Off.**

- Check the SIG LED: Green = Strong, Orange = Moderate, Red = Weak, Off = No signal.
- If the router is fixed and cannot be relocated, use the provided USB extender cable to position the dongle in an open area with better signal reception.
- Avoid placing the dongle near thick walls, metal objects, or inside cabinets.
- If still off, contact Unifi support for further assistance.

- Q4. Internet connection does not switch to backup (5G) mode when the main line is down.**

- Ensure the 5G dongle is correctly connected to the router's USB port.
- Confirm the router's firmware supports the 5G dongle.
- Verify that the router is included in the list of compatible models.
- Check the router's Internet LED status — it should turn off when the main line is disconnected and switch to the 5G link after a short period of 10-15s.
- Confirm that the SIM card is active and the dongle LED shows 5G connection (green/orange).

- Q5. The LED indicators show no light at all.**

- Confirm the router's USB port is supplying power.
- Try plugging the dongle into another router's USB port to test.
- If still off, contact Unifi support for further assistance.

- Q6. Can I use the dongle directly on a laptop or PC?**

- No. The 5G dongle is designed exclusively for use with Unifi Smart Internet Routers or Combo Boxes.
- Direct connection to laptops or PCs is blocked and not supported.

Quick Installation Guide Wireless Internet Backup For Combo Box

5G Dongle Model : Skyworth SK7220MU



2. Wireless Internet Backup Installation



STEP 1:
Ensure the connection to the combo box is established.



STEP 2:
Plug the 5G dongle into the combo box's USB port. Connect the power adapter to a wall socket and switch on the combo box.



STEP 3:
Wait for about 2 minutes for the combo box and 5G dongle to power up. Check the connection status by referring to the ***LED indicator**.



***STEP 4**
Install the combo box app to check the combo box's firmware version. Register and log in to the app. If the firmware version differs, contact the Unifi Contact Center for support.



STEP 5:
Verify the backup internet connection by unplugging the optical cable from the combo box's optical port. The Internet LOS LED on the combo box will blink red, and the connection will switch to the backup link. Reconnect the cable after verification.



***STEP 6 (OPTIONAL):**
Connect an RJ45 cable from the combo box's LAN port to your laptop or PC. You can also verify the backup status by logging in to the web interface and checking the 5G connection status.



*LED INDICATOR:



STEP 3a:

Verify the setup and connection by checking the combo box's LED indicator:
1. A blue **PON**, **LOS** and **Internet** LED indicates that the internet connection is established via a fixed line.



STEP 3b:

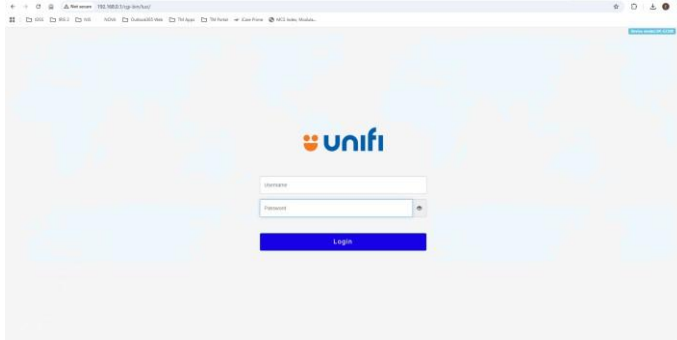
- Verify the setup and connection by checking the 5G dongle's LED indicators:
- SYS LED:** Green indicates the dongle is powered on. **Off indicates power off or a device fault.**
 - 5G LED:** Green or orange indicates a 5G connection, while red indicates no connection.
 - SIG LED:** Green, orange, and red indicate strong, moderate, and weak signal strength, respectively. **Off indicates no signal or no coverage in the area.**

***Note:** Refer to the LED table for detailed explanations.

***Note:** For configuration or troubleshooting, refer to the next page for step-by-step instructions.

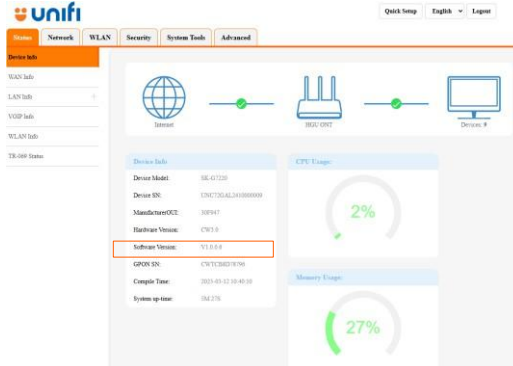
Login to the Combo Box

1. Connect your laptop to the router LAN port using the LAN cable.
2. Open a web browser, enter <https://1G2.168.0.1>, then log in with username **tmadmin** and password **Adm@XXXX** (where XXXX is the last four digits of the device MAC address).



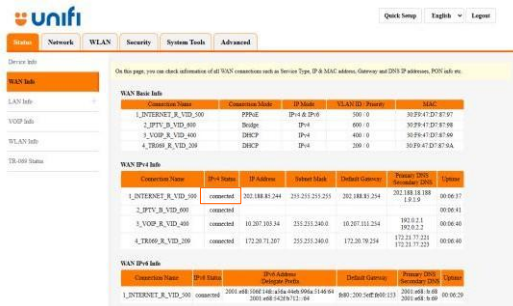
Check the Firmware Version

3. On the 1st page, **Status > Device Info**, verify the software version.



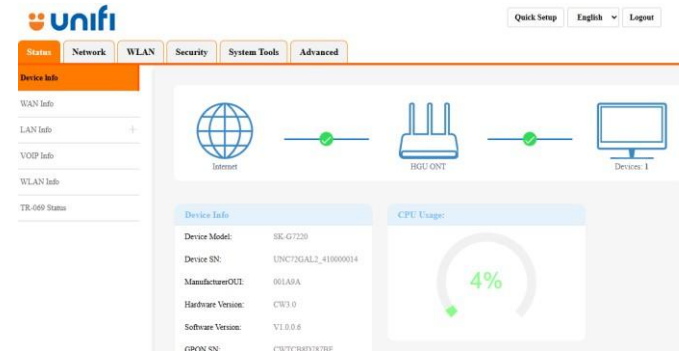
Verify Primary Connection

4. Ensure the combo box connection is established.
5. Click **Status > WAN Info**. On **WAN IPV4 Info**, verify the status - connected.



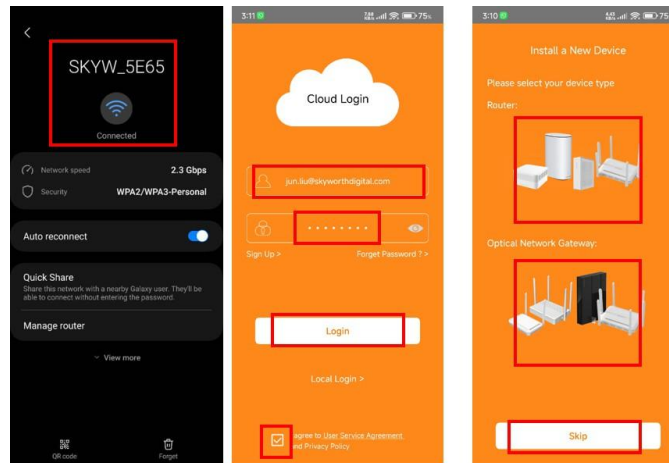
Verify Backup Connection

6. Disconnect optical fiber on the optical port of the combo box. Wait 10s - 15s for switching to backup connection.
7. Click **Status > Device Info**. Internet status still online after disconnect optical fiber.



Mobile App

8. Open Google Play Store or Apple App Store, search for Nanominds Elite, tap Install/Get, and open the app after installation.
9. Open the Nanominds Elite app, select **Malaysia as your region** and tap OK, then tap **Sign Up**, enter your nickname, and tap Continue to proceed.
10. Enter your **registered email address**, create a password for cloud login, tap **Get Verify Code**, copy the code from the verification email, enter it, and tap **Sign Up** to complete your account registration.
11. Connect your phone to the Unifi Networking CPE Wi-Fi, open the Nanominds Elite app, enter your registered email and password, agree to the terms, and tap **Login**.



Frequently Asked Questions (FAQ)

Q1. The dongle is not detected by the combo box. What should I do?

- Ensure the dongle is properly inserted into the combo box's USB port.
- Confirm the combo box's firmware supports the 5G dongle.
- Check the LED indicators — if the SYS LED is off, the dongle may not be powered.

Q2. The SIM card is not detected (5G LED is RED and SIG LED are off).

- Make sure the SIM card is active and registered with Unifi.
- Check that the SIM card is properly inserted and oriented correctly.
- Remove and reinsert the SIM card, then restart the dongle.
- The dongle supports only Unifi SIM cards — other operators' SIMs are blocked.

Q3. The dongle powers on but cannot connect to the network, SIG LED is Off.

- Check the SIG LED: Green = Strong, Orange = Moderate, Red = Weak, Off = No signal.
- If the combo box is fixed and cannot be relocated, use the provided USB extender cable to position the dongle in an open area with better signal reception.
- Avoid placing the dongle near thick walls, metal objects, or inside cabinets.
- If still off, contact Unifi support for further assistance.

Q4. Internet connection does not switch to backup (5G) mode when the main line is down.

- Ensure the 5G dongle is correctly connected to the combo box's USB port.
- Confirm the combo box's firmware supports the 5G dongle.
- Verify that the combo box is included in the list of compatible models.
- Check the combo box's Internet LED status — it should turn off when the main line is disconnected and switch to the 5G link after a short period of 10 - 15s.
- Confirm that the SIM card is active and the dongle LED shows 5G connection (green/orange).

Q5. The LED indicators show no light at all.

- Confirm the combo box's USB port is supplying power.
- Try plugging the dongle into another router's USB port to test.
- If still off, contact Unifi support for further assistance.

Q6. Can I use the dongle directly on a laptop or PC?

- No. The 5G dongle is designed exclusively for use with Unifi Smart Internet Routers or Combo Boxes.
- Direct connection to laptops or PCs is blocked and not supported.

Combo Box LED Indicator



LED	Color	Status	Indication
PWR	Green	On	Power On
	Off	Off	Power Off
	Green	On	The ONT has already registered to OLT
PON	Off	Off	The ONT is disabled by the OLT or no optical power received
	Green	Flash	The ONT is received optical power and registering to the OLT
LOS	Red	Flash	The fiber is not connected properly or no optical power received.
	Off	Off	Optical power received normally
	Green	On	Got WAN IP Address Successfully
Internet	Green	Flash	Data Under Transmitting
	Off	Off	Device in bridged mode or no IP
	Green	On	LAN device Connected
WAN/LAN1	Green	Flash	Data Under Transmitting
	Off	Off	No Connection
	Green	On	LAN/WAN device Connected
LAN2 - 4	Green	Flash	Data Under Transmitting
	Off	Off	No Connection
	Green	On	2.4G Wi-Fi Enabled
2.4G	Green	Flash	Data Under Transmitting
	Off	Off	Disable
	Green	On	5G Wi-Fi Enabled
5G	Green	Flash	Data Under Transmitting
	Off	Off	Disable
	Green	On	Pairing ok or WPS progress ending
WPS	Green	Flash	In pairing or WPS in progress
	Off	Off	Not activated/not triggered or WPS progress ended
	Green	On	USB device connected
USB	Off	Off	No USB device connected
	Green	On	VoIP WAN got IP Address successfully
VOIP	Green	Flash	Data Under Transmitting
	Off	Off	Device in bridged mode or no IP
	Green	On	VoIP Registered to IMS OK
TEL	Green	Flash (Slow)	Registering to IMS server
	Green	Flash (Fast)	Phone off-hook or ringing state
	Off	Off	Voice disabled, or not Registered to IMS server
Off			

Smart Internet Router LED Indicator

LED	Status	Indication
Power	On	Power is on.
	Flashing	The system is starting up or the firmware is being upgraded.
	Off	Power is off.
2.4G/WPS	On	The 2.4GHz wireless radio band is enabled.
	Flashing	WPS connection or mesh networking is in progress (about 2 minutes).
5G/WPS	Off	The 2.4GHz wireless radio band is disabled.
	On	The 5GHz wireless radio band is enabled.
	Flashing	WPS connection or mesh networking is in progress (about 2 minutes).
Internet	Off	The 5GHz wireless radio band is disabled.
	Green On	Internet connection is available.
	Orange On	The router's 2.5G WAN port is connected, but the internet service is not available.
LAN	Off	The router's 2.5G WAN port is not connected.
	On	A device is connected to the LAN port.
	Off	No device is connected to the LAN port.
USB	On	The USB device is ready to use.
	Flashing	A new USB device is being identified.
	Off	No USB device is plugged into the USB port.

5G Dongle LED Indicator



LED	Color	Status	Description
SYS	Green	On (Steady)	Power On
	Off	Off	Power Off
	Green	On (Steady)	5G connected with data transfer for both SA & NSA mode.
5G	Orange	On (Steady)	LTE connected with data transfer
	Red	On (Steady)	Disconnected
	Green	On (Steady)	Strong Power Signal (RSRP Value range)
SIG	Orange	On (Steady)	Moderate Power Signal (RSRP Value range)
	Red	On (Steady)	Weak Power Signal (RSRP Value range)
	Off	Off	No signal
Off			