

User manual

SLC-120T42OGA
LTE Network Outdoor CPE



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Introduction to the Product

Thank you for choosing SLC-120T42OGA, Outdoor CPE.

SLC-120T42OGA is offers better performance over Outdoor CPE given that LTE reception is not impeded.

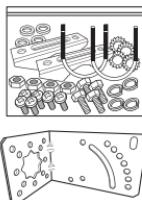
It offers easy installation, reliable network connection, advanced security & authentication features, and more.

Please read this User Manual carefully to learn about the SLC-120T42OGA. It will help you to meet your diverse communication needs, at home and at the office.

1. Package Contents



Main Unit



Mounting Kits



User Manual



PoE



LAN Cable



AC Cord
(100~240V)

Note :

- Please note that it performs the best with the accessories which are contained in the package, and the manufacturer will not be responsible for defects/damage or shortened product life resulting from the use of product in conjunction or connection with accessories, products, or ancillary/peripheral equipment not approved by the manufacturer.
- Please use the product with accessories which are contained in the package.
- The components, appearance of the product, specifications and etc. are subject to change without prior notice for performance improvement.

2. Functional Features

Function		Features
Model Name		SLC-120T42OGA
LTE	Technical Standard	LTE 3GPP Release 12, Category 15, TDD Configuration 2 DL : 580Mbps (4x4 MIMO-2Layer, 4CA, 256QAM), UL : 30Mbps (2CA, 64QAM)
	Frequency Band	43(3650 ~3700MHz)
	Max. Transmit Power	23dBm (+3, -4dB)
	Antenna	Internal Patch Antenna, 4x4 MIMO, 10.59dBi Gain
	HPBW (3dB Beam Width)	+/- 45 degree Dual Linear / Directional
External Interface		1 x Gigabit Ethernet RJ45 LAN port
		1 x Mini USIM Card Slot
		1 x Reset button
LED Indicators	Power	Sharing with Signal Strength
	Signal Strength	5 LEDs with 1 color (5 Level display)
Operating Temperature		-40° to +70°C
Power Supply		IEEE 802.3af, Giga PoE Injector (Input : 100~240VAC, Output : 48V/0.45A)
Dimension		275(W) x 285(D) x 78(H)mm

3. LED Presentation



Status icon & LED indicator	
Boot in progress	Blinking Yellow LED (1), Blinking period = 1sec
Network connection	Number of LED depending on signal strength <ul style="list-style-type: none"> - Most Strong Signal : Five yellow LED - Strong Signal : Four yellow LED - Middle Signal : Three yellow LED - Weak Signal : Two yellow LED - Very Weak Signal : One yellow LED

4. Mounting Configuration

Package List

You need the following :



① One Bracket



② Mounting Bar(2ea)



③ Mounting U-Bolt(2ea)



④ Bolts(4ea)



⑤ Toothed lock washer(4ea)



⑥ Bolt M3(6ea)



⑦ Nuts(4ea)



⑧ Spring Washers(4ea)



⑨ Washer(4ea)

5. Assembly sequence optimization

Step 1

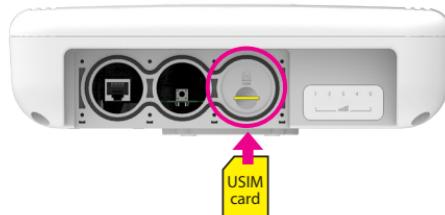
Remove the two Bolt M3 from the outdoor CPE.

* Remaining 6 screws are enclosed in the mounting kits as ⑥



Step 2 (Installing USIM Card)

Carefully insert the USIM Card into USIM slot.



CAUTION :

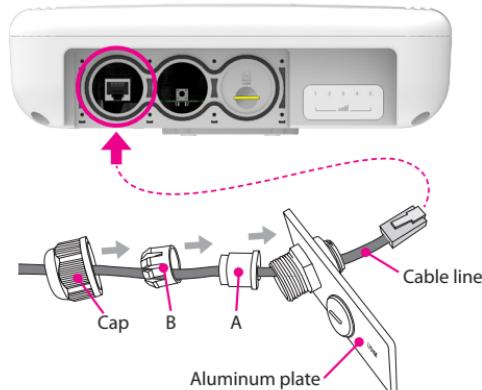
The surface of IC(metal) should be facing downward from the USIM card.



Step 3

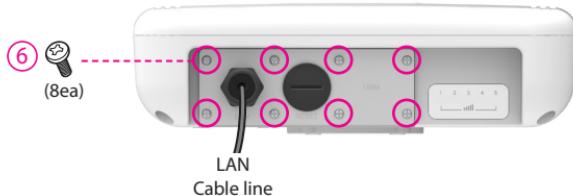
Remove the cap by turning. Then follow the next steps as shown below.

1. Remove the cap.
2. Put A, B, Cap and Aluminum plate to cable line in order.
3. Plug the cable line into the **LAN hole** of outdoor CPE.
4. Connect A and B in order.
5. Lastly, connect Cap to Aluminum plate by turning.



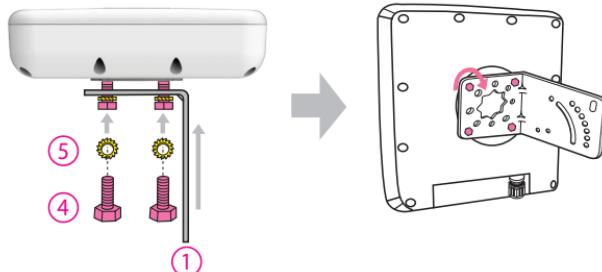
Step 4

Assemble the Aluminum plate and outdoor CPE using the screws Bolt M3(8ea).



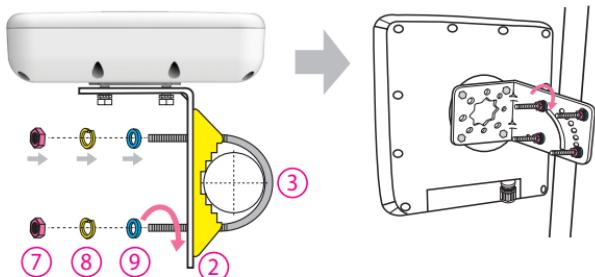
Step 5

Attach item 1 to the back side of the device using item 4 as shown.
(Insert item 5 into item 4 before installing)



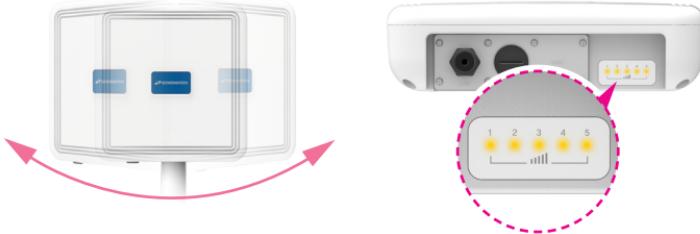
Step 6

Install the device to pole using item 2 and 3, tighten the bracket by using item 7, 8 and 9.



Step 7

Adjust the device, using the different position on the bracket.
Check the LED light (1~5).



RESET Button (When the device turned On)

- Press the reset button once : Device reboot
- Press and hold the reset button 5sec : Factory reset

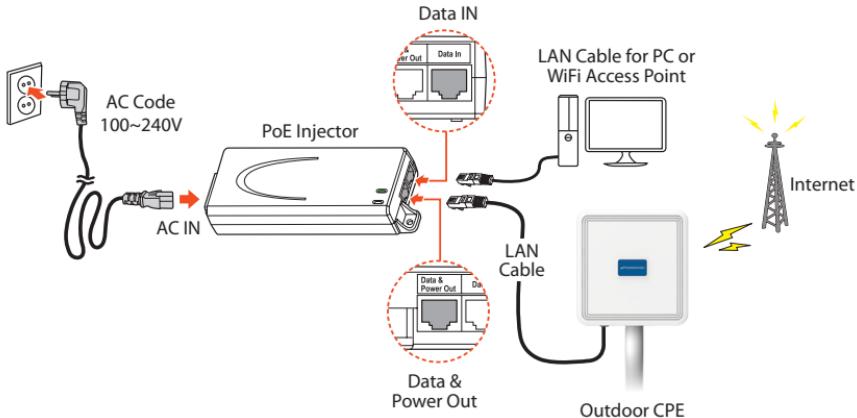


Note : If you forget the Login password for the Outdoor CPE or IP address after making changes, use the reset button to restore the Outdoor CPE to its original factory default settings.

Configuration

1. Network Configuration

External Network



Safety precaution : Do not allow the PSE adapter to get wet. Keep it inside of the building. Liquid could damage your device or cause you injuries. Water damage can void your warranty. It is recommended to use the accessory provided.

Install a Outdoor CPE after connecting to the network.

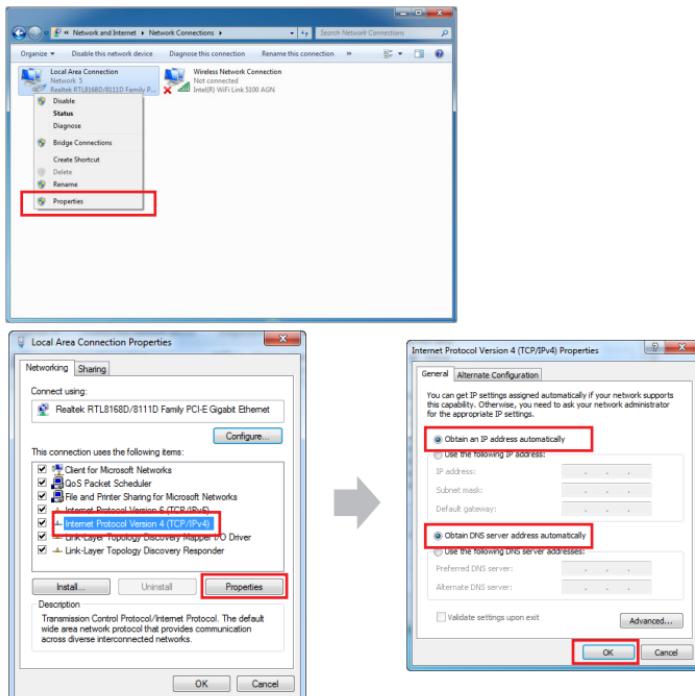
If normal connection between Outdoor CPE and PC is checked, you have to set up the PC and Outdoor CPE. The purpose of PC setup is to control network configuration for Windows Windows 7/8/10 or Mac OS X to use the Internet while the PC is connected to a Outdoor CPE.

The purpose of Outdoor CPE setup is to connect the Outdoor CPE to the Internet. Please refer to the Outdoor CPE Setup chapter.

2. PC Configuration(Windows 7)

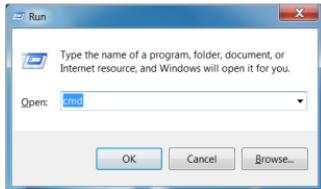
Most computers already have TCP/IP configuration enabled. For your computer to support CPE, please verify that the IP address and DNS settings are automatically generated in the Local Area connection of your Internet Protocol (TCP/IP) properties.

- In a Windows environment :
- Click “Start” button >> Click “Control Panel” >> Click “Network and Internet Connection” >> Click “Network Connection” >> Right-click “Local Area Connection” and Select “Properties” >> Select “Internet Protocol 4 (TCP/IPv4)” and click “Properties” >> Select “obtain an IP address automatically” and “obtain DNS server address automatically” >> Click “OK” .



3. How to check your IP address

- Open the Command Prompt window by clicking the “Start” button and selecting “Run”. Enter “cmd”, and click the “OK” button.



<Run cmd>

- When the Command Prompt window opens, enter the “ipconfig” command to verify the IP address, Subnet mask, and Gateway, which are automatically assigned to your PC.

Note : PCs connected to Device will receive own assigned IP address.

```
C:\>ipconfig
Windows IP Configuration

Ethernet adapter Local Area Connection:
  Connection-specific DNS Suffix  . :
  IP Address. . . . . : 192.168.1.100
  Subnet Mask . . . . . : 255.255.255.0
  Default Gateway . . . . . : 192.168.1.1
C:\>_
```

<Verify IP address>

```
C:\Users\Steve_Kin>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time=1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time=8ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.1:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 8ms, Average = 2ms
```

- If the host can reach the device using the ping command, the device has successfully attached.

Note : If an IP address is not assigned, check the following, and Then restart the PC and check whether an IP address is assigned.

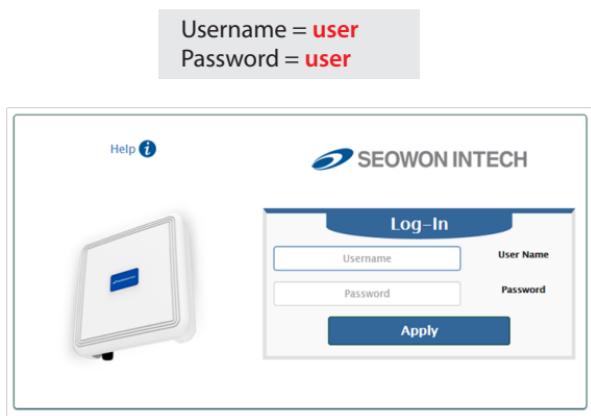
- LAN cable connection between PC and CPE
- Check TCP/IP setup details

Log-in to Web Interface

The Web Browser allows you to manage the Device and to view.

In the Address Bar :

- Go to WEB “<http://192.168.1.1>” then press ENTER to access the login screen.
- The default one is “**user**” for both User Name and Password.
- You can change the Password after logging in
(User Name and Password are case-sensitive).



Note : The Web Interface can be accessed by entering <http://192.168.1.1> in the Address Bar, regardless of the network connection status.
When there is no input for 1 hour after your login to the Web Interface, you will be automatically logged out.

Setup on the web page

1. Dashboard

The screenshot shows the SEOWON INTECH web interface with the following layout:

- Left Sidebar (Menu):**
 - Dashboard (selected)
 - Connection Mode
 - Status
 - Settings
- Top Bar:** Tx, user, English, Logout
- Dashboard Content:**
 - Mobile Network:** Mode: LTE Only, Operator: SEOWON
 - Monitoring:** UL Data Rate: 0 Kbps, UL Max Data Rate: 0 Kbps, DL Data Rate: 0 kbps, DL Max Data Rate: 0 kbps, Device Up Time: 12:12:01 up 2 min
 - About:** Firmware Version: 1.0.4, Firmware Creation Date: 2017.12.06-19:07
 - LTE:** UICC State: UICC Ready, Connection State: Not connected, PDN Type
 - Network:** LAN IP Address: 192.168.1.1, LAN IP Subnet Mask: 255.255.255.0, WAN IP Address, WAN IP Subnet Mask, Operation Mode: NAT
 - Firewall:** Status: Enable

- Select “**Dashboard**” from the left menu.
- You can see the Mobile Network, LTE, Network, Firewall, Monitoring and Firmware Information.

2. Connection Mode

The screenshot shows the SEOWON INTECH web interface. At the top, there is a header with the logo, user information ('user'), language selection ('English'), and a 'Logout' button. Below the header is a left sidebar titled 'Menu' containing links for 'Dashboard', 'Connection Mode' (which is currently selected), 'Status', and 'Settings'. The main content area is titled 'Connection Mode'. It contains two sections: 'Operation' and 'Connect Manager'. In the 'Operation' section, there is a dropdown menu set to 'Auto'. In the 'Connect Manager' section, the status is shown as 'Connecting', and there are 'Connect' and 'Disconnect' buttons.

- Select “**Connection Mode**” from the left menu.
- You can select operation mode Auto or Manual.
- You can see the status of Connect Manager.
- Start LTE Connection by clicking “**Connect**” or stop by clicking “**Disconnect**” button.

3. Status

3.1 LTE

The screenshot shows a web-based management interface for a SEOWON INTECH device. The top navigation bar includes icons for Tx, user, English, and Logout. On the left, a vertical menu bar under the "Menu" heading lists "Dashboard", "Connection Mode", "Status", "LTE" (which is currently selected), "Network", "Device Details", "Device Performance", and "Settings". The main content area is titled "LTE Status" and contains three tabs: "LTE Information", "LTE Status" (which is active and highlighted in blue), and "LTE Statistics". The "LTE Status" tab displays detailed information in a table format:

LTE Status			
LTE Information		LTE Status	
LTE Status			
UICC State	UICC Ready	Connection	Connecting
PDN Type		Band	42
IP v4 Address		IP v6 Address	
PLMN Search	Success	MCC	001
PLMN Selected	00101	MNC	01
Cell Global ID	0x201 (S13)	EMM State	Deregisterd [EMM-DEREISTERED]
eNodeB ID	0x2 (2)	Cell ID	0x1 (1)
UL EARFCN	42890	UL Freq.	3530 MHz
Current UL T/P	0 Kbps	Current DL T/P	0 Kbps
UL MCS	0(0)	TX power	-7 dB
Service Cell State	RRC IDLE		
CQI	0		
Transfer Mode	TM [2]	Auto Refresh	<input type="checkbox"/>
Current CA	Non - CA		
Primary Cell			
Physical CELL ID	0x23 (35)		
DL Frequency	3530 MHz	DL EARFCN	42890

- Select “Status” → “LTE” from the left menu.
- You can see the LTE Information, Status and Statistics by clicking each tab.

3.2 Network

The screenshot shows the SEOWON INTECH network management interface. On the left, a sidebar menu includes 'Menu', 'Dashboard', 'Connection Mode', 'Status' (selected), 'LTE', 'Network' (highlighted in blue), 'Device Details', 'Device Performance', and 'Settings'. The main content area is titled 'Network Information' and contains two tabs: 'WAN' and 'LAN' (selected). Under 'LAN', there is a table with the following data:

DHCP Server	Enable	MAC Address	00:21:07:12:34:62
Gateway IP Address	192.168.1.1	Gateway Subnet Mask	255.255.255.0
Rx packets	1251	Tx packets	1722
Rx bytes	297523	Tx bytes	1985285

Below this is a 'Lease Status Table' with the following data:

No.	Client Host Name	MAC Address	IP Address
1	oskwon-PC	C8:08:E9:6F:CF:57	192.168.1.2

- Select “Status” → “Network” from the left menu.
- You can see the WAN, LAN status and Lease Status Table.

3.3 Device Details

The screenshot shows a web-based management interface for a device. At the top, there is a header with the logo "SEOWON INTECH", user information ("Tx", "user", "English", "Logout"), and a "Menu" button. The left sidebar contains a navigation menu with the following items:

- Dashboard
- Connection Mode
- Status** (selected)
- LTE Network
- Device Details** (selected)
- Device Performance
- Settings

The main content area is titled "Device Details". It is divided into two sections: "Device Time" and "Device Information".

Device Time

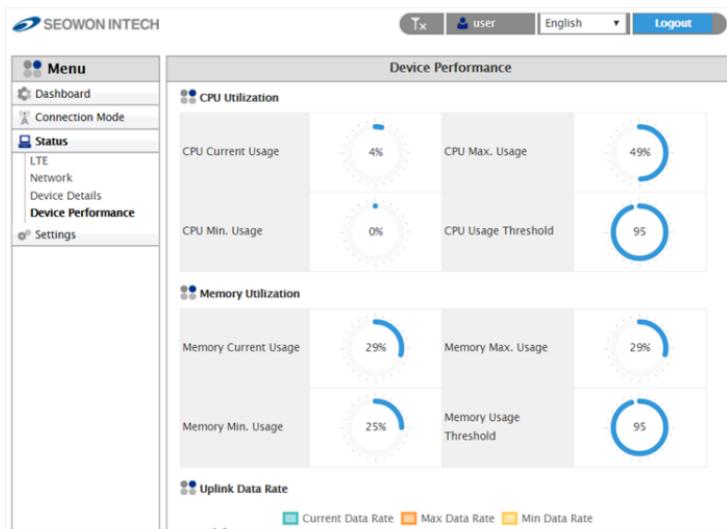
Current Local Time	2017-12-22 12:15:09	Time Server	my.pool.ntp.org
Synchronize With PC	Sync	Time Zone	Seoul
Daylight Saving Time	Disable		

Device Information

ODM	Seowonintech co., LTD.	Product Name	SLC-120T420GA
OUI	00:21:07	Serial Number	SEOWONXX130T03-0000 001
Firmware Version	1.0.4	Firmware Creation Date	2017.12.06-19:07
Hardware Version	1.1		

- Select “Status” → “Device Details” from the left menu.
- You can see the device time and device information.

3.4 Device Performance



- Select “Status” → “Device Performance” from the left menu.
- You can see the system performance such as CPU, memory, UL/DL data rate and firewall status.

4. Settings

4.1 LTE

4.1.1 Cell Selection

The screenshot shows the SEOWON INTECH web interface. At the top, there is a header with the logo, 'SEOWON INTECH', and navigation links for 'Tx', 'user', 'English' (with a dropdown arrow), and 'Logout'. Below the header is a left sidebar menu under 'Menu' with the following options: Dashboard, Connection Mode, Status, Settings (selected), LTE (selected), Cell Selection, Cell Lock, SIM Management, Default PON, Multiple PDN, Internet MTU, IPv6 Settings, Network, Firewall, User Management, Firmware Management, and Monitoring. The main content area is titled 'Cell Selection' and contains a sub-section titled 'Band Selection'. It shows 'Mode' set to 'Full Band' (with a dropdown arrow), 'Status' as '43', and 'Band Selection' with a checked checkbox for 'Band-43'. A blue 'Apply' button is located at the bottom right of this section.

- Select “Settings” → “LTE” → “Cell Selection” from the left menu.
- You can change the mode “Full Band” or “Frequency”.
- Check the box and click the “Apply” button.

4.1.2 Cell Lock

The screenshot shows the SEOWON INTECH web interface. On the left, there is a vertical navigation menu with the following items:

- Menu
- Dashboard
- Connection Mode
- Status
- Settings** (selected)
- LTE
 - Cell Selection
 - Cell Lock** (selected)
- SIM Management
- Default PDN
- Multiple PDN
- Internet MTU
- IPv6 Settings
- Network
- Firewall
- User Management
- Firmware Management
- Monitoring

The main content area is titled "Cell Lock". It contains two sections:

- Search Cell**: A table with the following data:

Check	Index	DL-EARFCN	PCI	RSRP(dBm)	RSRQ(dB)	SINR(dB)
<input checked="" type="checkbox"/>	1	42890	0x23 (35)	-106.4/-107.9	-7.0/-7.1	20.0/21.3

Buttons: Add, Search
- Cell Lock List**: A table with the following columns:

Check	DL-EARFCN	PCI

Buttons: Add +, Delete, Delete All, Apply

- Select “**Settings**” → “**LTE**” → “**Cell Lock**” from the left menu.
- You can add current cell to lock or delete cell to unlock in the list.
- You can manually add cell by clicking “**Add+**” button.
- Finish setup by clicking the “**Apply**” button.

4.1.3 SIM Management

The screenshot shows the SIM Management page of the SEO WON INTECH web interface. The left sidebar has a 'Menu' section with 'LTE' and 'SIM Management' selected. The main content area is titled 'SIM Management'. It contains four sections: 'PIN Information' (PIN Status: PIN DISABLED, RETRIES PIN: 3, RETRIES PUK: 10), 'PIN Management' (PIN Code field with Verify, Enable, and Disable buttons), 'PIN Change' (PIN Code, New PIN Code, and Confirm New PIN Code fields with a Change button), and 'PIN Unblock' (PUK Code and New PIN Code fields with an Unblock button). A 'Refresh' button is located in the top right of the 'PIN Information' section.

- Select “Settings” → “LTE” → “SIM Management” from the left menu.
- You can see the current status of SIM.
- Only the button operation is enabled to match the current status.
 - If you SIM card is locked, PIN Status shows “PIN ENABLED NOT VERIFIED”.
 - Then you should enter the PIN code and click the “Verify” button.
 - After success unlock PIN then you can attached the LTE network.
 - You can set new PIN code by unblocking with PUK code.
 - If you failed to unblock PIN, you never use this SIM card.

4.1.4 Default PDN

The screenshot shows a web-based management interface for a device. At the top, there is a header bar with the SEO WON INTECH logo, user information ('user'), language selection ('English'), and a 'Logout' button. Below the header is a left sidebar menu with the following items:

- Menu
- Dashboard
- Connection Mode
- Status
- Settings** (selected)
- LTE
 - Cell Selection
 - Cell Lock
 - SIM Management
 - Default PDN** (selected)
 - Multiple PDN
 - Internet MTU
 - IPv6 Settings
- Network
- Firewall
- User Management
- Firmware Management
- Monitoring

The main content area is titled "Default PDN" and contains a sub-section titled "Default PDN Connection". It includes three configuration fields:

APN Name	<input type="text"/>
Authentication Type	None
PDN Type	IPv4v6

A blue "Apply" button is located to the right of the fields.

- Select “**Settings**” → “**LTE**” → “**Default PDN**” from the left menu.
- You can set the PDN data such as APN, Authentication Type and PDN type(IPv4, IPv6).
- Put in the data to box then click “**Apply**” button.
- If you set wrong data, the device doesn’t attach the LTE network.

4.1.5 Multiple PDN

The screenshot shows the SEOWON INTECH web interface. The left sidebar menu includes: Menu, Dashboard, Connection Mode, Status, Settings (selected), LTE (Cell Selection, Cell Lock, SIM Management, Default PDN), Multiple PDN (selected), Internet MTU, IPv6 Settings, Network, Firewall, User Management, Firmware Management, and Monitoring.

The main content area is titled "Multiple PDN". It contains a "PDN Configure" section with the following fields:

PDN cid	2
PDN Label	ims
APN Name	
Authentication Type	NONE
PDN Type	IPv4v6
Enable	<input type="checkbox"/>

Below this is a "PDN list" table:

Cid	PDN Label	PDN Type	APN Name	Auth Type	Username	Enable
2	ims	IPv4v6		NONE		Off
3	admin	IPv4		NONE		Off
4	app	IPv4		NONE		Off

Buttons at the bottom right of the "PDN Configure" section are "Apply" (blue) and "Cancel" (green).

- Select “Settings” → “LTE” → “Multiple PDN” from the left menu.
- You can set the multiple PDN data for IMS, admin, App service.
- Select “Cid”, check “Enable”, put in the data to box then click “Apply” button.

4.1.6 Internet MTU

The screenshot shows the SEOWON INTECH web interface. At the top, there is a logo, user information (Tx, user), language selection (English), and a logout button. On the left, a vertical menu bar is visible with the following items:

- Menu
- Dashboard
- Connection Mode
- Status
- Settings** (selected)
- LTE
 - Cell Selection
 - Cell Lock
 - SIM Management
 - Default PDN
 - Multiple PDN
- Internet MTU** (selected)
- IPv6 Settings
- Network
- Firewall
- User Management
- Firmware Management
- Monitoring

The main content area is titled "Internet MTU". It contains the following text: "This page display the maximum number of bytes in the packets transmitted over the internet port." Below this, there is a section titled "Internet MTU Settings" with a form field labeled "Internet MTU" containing the value "1500". A note next to it says "(The default is 1500, do not change unless necessary.)". To the right of the input field is a blue "Apply" button.

- Select “Settings” → “LTE” → “Internet MTU” from the left menu.
- You can change the internet MTU size.
- Put in the data to box then click “Apply” button.

4.1.7 IPv6 Settings

The screenshot shows the SEOWON INTECH web interface. At the top, there is a logo, the text "SEOWON INTECH", and a user session indicator ("user"). To the right of the user session are buttons for "Logout", "English" (with a dropdown arrow), and a language selection icon. On the left, a vertical navigation menu is displayed under the heading "Menu". The "Settings" section is expanded, showing "LTE" and "IPv6 Settings" sub-sections. Under "IPv6 Settings", the following items are listed: "Network", "Firewall", "User Management", "Firmware Management", and "Monitoring". The main content area is titled "IPv6 Settings" and contains two sections: "IPv6 Setup" and "DHCPv6 Address Settings". In the "IPv6 Setup" section, the "IPv6 Enable" dropdown is set to "Enable". In the "DHCPv6 Address Settings" section, the "DHCPv6 Autoconfiguration Mode" dropdown is set to "Stateless" and the "DNS Server Address Mode" dropdown is set to "Auto". A blue "Apply" button is located at the bottom right of the configuration area.

- Select “Settings” → “LTE” → “IPv6 Setup” from the left menu.
- You can Enable or Disable IPv6 function by selecting the list.
- You can set DHCPv6 Auto-configuration mode by selecting the list.
- You can set DNS Server Address Mode to “Auto” or “Manual”.
- After selecting the each mode, put in the data to all boxes.
- Finish setup by clicking the “Apply” button.

4.2 Network

4.2.1 Switch

The screenshot shows a web-based management interface for a SEO WON INTECH device. The top navigation bar includes a logo, the brand name "SEO WON INTECH", and links for "Tx", "user", "English", and "Logout". The left sidebar, titled "Menu", has several sections: "Dashboard", "Connection Mode", "Status", "Settings" (which is currently selected), "LTE", "Network" (selected under Settings), "Switch" (under Network), "DHCP Server", "DMZ", "Port Forwarding", "Port Triggering", "VPN Configuration", "VPN Passthrough", "UPnP", "QoS", "DDNS", "Firewall", "User Management", "Firmware Management", and "Monitoring". The main content area is titled "Switch Setup" and contains a sub-section "Switch Setup". It features a dropdown menu labeled "Switch Mode" with "NAT" selected. At the bottom right of this section is a blue "Apply" button.

- Select “Settings” → “Network” → “Switch” from the left menu.
- You can select Switch Mode to “NAT” or “BRIDGE”.
- Finish setup by clicking the “Apply” button.

4.2.2 DHCP Server

The screenshot shows the SEO WON INTECH web interface. The left sidebar menu is open, showing the following sections:

- Menu
- Dashboard
- Connection Mode
- Status
- Settings** (selected)
- LTE
- Network** (selected)
- Switch
- DHCP Server
- DMZ
- Port Forwarding
- Port Triggering
- VPN Configuration
- VPN Passthrough
- UPnP
- QoS
- DDNS
- Firewall**
- User Management
- Firmware Management
- Monitoring

The main content area is titled "DHCP Server". It contains the following settings:

- Enable DHCP Server: On
- Gateway IP Address: 192.168.1.1
- Gateway Subnet Mask: 255.255.255.0
- Starting IP Address: 192.168.1.2
- Number of users: 253
- From ISP: checked
- Primary DNS: (empty)
- Secondary DNS: (empty)
- Tertiary DNS: (empty)
- DHCP Lease Time: 3600 seconds

Below these settings is a "Lease Reservation Table" section:

Add	Del	Searched List					Add
Select	Host Name	MAC Address	IP Address	Enable	Select	IP/MAC Address	
					<input type="checkbox"/>	192.168.1.2 / C8:08:E9:6 F:CF:57	

At the bottom of the page, there is a note: "Up to 10 rules can be set" and a blue "Apply" button.

- Select “Settings” → “Network” → “DHCP Server” from the left menu.
- Configure DHCP Server Setting.
 - IP address is used in the LAN cable that the device manages.
 - Setup IP address in “Gateway IP Address/ Gateway Subnet Mask” text boxes.
 - Initial Value is “192.168.1.1/255.255.255.0” and only the last byte in “Gateway Subnet Mask” box can be modified.
 - Finish setup by clicking the “Apply” button.

4.2.3 Port Management : DMZ/Port Forwarding/Port Triggering

The screenshot shows the SEOWON INTECH web interface. The left sidebar menu is open, showing the following structure:

- Menu
- Dashboard
- Connection Mode
- Status
- Settings** (selected)
- LTE
- Network** (selected)

 - Switch
 - DHCP Server
 - DMZ** (selected)

 - Port Forwarding
 - Port Triggering
 - VPN Configuration
 - VPN Passthrough
 - UPnP
 - QoS
 - DDNS

- Firewall
- User Management
- Firmware Management
- Monitoring

The main content area is titled "DMZ". It contains the following configuration options:

- Enable DMZ**: Radio buttons for "Enable" (selected) and "Disable".
- Redirect ICMP To The Host**: Radio buttons for "Enable" (disabled) and "Disable".
- Exclude Web Server Port**: Radio buttons for "Enable" (selected) and "Disable".
- Private LAN IP Address**: An input field containing "192.168.1.2".

A blue "Apply" button is located at the bottom right of the configuration section.

- Select “Settings” → “Network” → “DMZ” from the left menu.
- Configure DMZ(Demilitarized Zone)
 - Select whether or not to enable the DMZ function.
 - You can set “Redirect ICMP To The Host” and “Exclude Web Server Port”.
 - Set the IP address to have all ports opened in “Private LAN IP Address” content.
 - Finish setup by clicking the “Apply” button.

The screenshot shows the SEOWON INTECH router's web-based management interface. The left sidebar menu is visible, showing various settings like Network, Port Forwarding, Firewall, and Monitoring. The main content area is titled "Port Forwarding". It contains a form for adding a new rule with fields for Name, Protocol (set to BOTH), Start Port, End Port, Destination IP, and Destination Port. Below this is a table titled "Port Forwarding List" with columns for No., Name, Start Port, End Port, Protocol, IP Address, and Destination Port. A note at the bottom says "Up to 10 rules can be set".

- Select “Settings” → “Network” → “Port Forwarding” from the left menu.
- Configure Port Forwarding
 - Enter the Name.
 - Select one of the listed Protocols (BOTH, TCP, UDP).
 - Enter Start Port, End Port, Destination IP and Destination Port.
 - Click the “Add” button when you finished.
 - You can change the data by clicking “Edit” or “Del” button in the list.

The screenshot shows the router's web-based management interface. The left sidebar menu is expanded, showing various settings like Network, Port Triggering, Firewall, and Monitoring. The main content area is titled "Port Triggering". It contains two sections: "Port Trigger Settings Table" and "Port Trigger List". The "Port Trigger Settings Table" has fields for Name, Port Type (set to RANGE), Trigger Protocol (ALL), Trigger Port (Range: 1-100), Open Protocol (ALL), and Open Port (Range: 1-100). Below this is a table header for "Port Trigger List" with columns: No., Name, Trigger Protocol, Trigger Port(s), Open Protocol, Open Port(s), Edit, and Del. A note below the table says "Up to 10 rules can be set".

- Select “Settings” → “Network” → “Port Triggering” from the left menu.
- Configure Port Triggering
 - Enter the Name.
 - Select one of the Port Type(RANGE or SINGLE).
 - Select Trigger Protocol and Open Protocol(ALL, TCP, UDP)
 - Enter Trigger Port Range and Open Port Range.
 - Click the “Add” button when you finished.
 - You can change the data by clicking “Edit” or “Del” button in the list.

4.2.4 VPN Configuration

The screenshot shows the SEO WON INTECH web-based management interface. At the top, there is a header with the brand logo, user status ('user'), language selection ('English'), and a 'Logout' button. On the left, a vertical navigation menu is displayed under the 'Menu' section. The 'Network' option is currently selected. Other options in the Network section include LTE, Switch, DHCP Server, DMZ, Port Forwarding, Port Triggering, and VPN Configuration. Below the Network section, other menu items like Firewall, User Management, Firmware Management, and Monitoring are listed. The main content area is titled 'VPN Configuration'. It contains a sub-section 'VPN Configuration Settings' with a dropdown menu set to 'L2TP'. Below this, there are several configuration fields: 'Server Address' (dropdown set to 'Disable'), 'Username' (empty input field), 'Password' (empty input field), 'Pre Shared Key' (empty input field), 'Connect Mode' (dropdown set to 'Keep Alive'), and 'Redial Period' (dropdown set to 'Seconds'). At the bottom right of the configuration form are two buttons: 'Apply' (blue) and 'Cancel' (green).

- Select “Settings” → “Network” → “VPN Configuration” from the left menu.
- You can set VPN mode by selecting “GRE”, “L2TP” or “PPTP”.
- After selecting the mode, put in the data to all boxes.
- Then click “Add” button.
- Finish setup by clicking the “Apply” button.

4.2.5 VPN Passthrough

The screenshot shows the SEO WON INTECH web-based management interface. At the top, there is a header with the brand logo, user status (Tx, user), language selection (English), and a logout link. On the left, a vertical navigation menu is displayed under the 'Menu' heading. The 'Network' section is currently selected and highlighted with a blue border. Under 'Network', the following options are listed: Switch, DHCP Server, DMZ, Port Forwarding, Port Triggering, VPN Configuration, and **VPN Passthrough**, which is also highlighted with a blue border. Below these are UPnP, QoS, and DDNS options. Further down the menu are Firewall, User Management, Firmware Management, and Monitoring sections. The main content area is titled 'VPN Passthrough' and contains a sub-section titled 'VPN Pass Through Settings'. It shows two checkboxes: 'VPN Service' (unchecked) and 'PPTP Service' (checked). There is also a third checkbox for 'L2TP/IPSEC Service' which is also checked. A blue 'Apply' button is located at the bottom right of this section.

- Select “Settings” → “Network” → “VPN Passthrough” from the left menu.
- The device support 2 types of service : PPTP Service, L2TP/IPSEC Service.
- Select the type(s) of VPN pass-through to use with the checkboxes.
- Finish setup by clicking the “Apply” button.

4.2.6 UPnP

The screenshot shows the SEO WON INTECH web-based management interface. The left sidebar contains a navigation menu with the following items:

- Menu
- Dashboard
- Connection Mode
- Status
- Settings** (selected)
- LTE
- Network** (selected)

 - Switch
 - DHCP Server
 - DMZ
 - Port Forwarding
 - Port Triggering
 - VPN Configuration
 - VPN Passthrough
 - UPnP** (selected)

 - QoS
 - DDNS

- Firewall
- User Management
- Firmware Management
- Monitoring

The main content area is titled "Universal Plug & Play". It has two sections:

- "Universal Plug & Play" section:
 - UPnP Enable/Disable: A radio button group where "Enable" is selected.
 - An "Apply" button.
- "Client List" section:
 - A table header with columns: No., Client Program, Protocol, External Port, IP Address, Internal Port.
 - An "Refresh" button.

- Select “Settings” → “Network” → “UPnP” from the left menu.
- Select whether or not to Enable the Universal Plug & Play function.
- Finish setup by clicking the “Apply” button.
- When UPnP Client is connecting, it will appear on the Client List.

4.2.7 QoS

The screenshot shows the SEO WON INTECH web-based management interface. On the left, there is a vertical navigation menu with the following items:

- Menu
- Dashboard
- Connection Mode
- Status
- Settings** (selected)
- LTE
- Network** (selected)
- Switch
- DHCP Server
- DMZ
- Port Forwarding
- Port Triggering
- VPN Configuration
- VPN Passthrough
- UPnP
- QoS** (selected)
- DDNS
- Firewall
- User Management
- Firmware Management
- Monitoring

The main content area is titled "QoS". It contains two main sections: "QoS Setup" and "QoS Rule Setup".

QoS Setup: This section has two radio buttons: "Disable" (unchecked) and "Enable" (checked). Below it is a "Download(kbps)" input field containing the value "10000". A note below states: "Setting QoS on device might be mandatory for access control and usage tracking, but suffering a performance hit is strictly optional."

QoS Rule Setup: This section includes fields for "QoS Mode" (set to "Down"), "IP Address/Mask" (with a placeholder of ". . . / . . ."), "Protocol" (set to "ALL"), "Start Port" (empty), "End Port" (empty), "Rate(kbps)" (empty), and "Priority" (set to "HIGH").

At the bottom right of the main content area are "Save" and "Cancel" buttons.

QoS List: This section is titled "Download(WAN -> LAN)". It shows a table header with columns: No., IP Address/Mask, Protocol, Port, Rate(kbps), and Priority. Below the header, it says "Up to 10 rules can be set".

- Select “**Settings**” → “**Network**” → “**QoS**” from the left menu.
- To set the QOS, check “**Shaping**”.

The desirable service quality class can be set.

- Setup download speed in “**Download(kbps)**” text box.
- By selecting “**Upload**” and “**Download**” in the list, you can adjust each speed.
- Setup IP address/mask, protocol, port and rate.
- Click the “**Add**” button after setting all items.
- Finish setup by clicking the “**Apply**” button.

4.2.8 DDNS

The screenshot shows the SEO WON INTECH web interface. The left sidebar menu is open, showing various settings sections: Menu, Dashboard, Connection Mode, Status, Settings (selected), LTE, Network (selected), DDNS (selected), Firewall, User Management, Firmware Management, and Monitoring. The main content area is titled "DDNS". It contains two sections: "Dynamic DNS" and "DDNS Setting". Under "Dynamic DNS", there is a checkbox labeled "DDNS Enable" with options "Enable" (checked) and "Disable". Under "DDNS Setting", there are several input fields: "Service" (dyndns.org), "Hostname" (hostname), "Username" (username), "Password" (password), "Check for change IP every" (300), "Check-time unit" (seconds), "Force update every" (80), and "Force-Time unit" (minutes). A blue "Apply" button is located at the bottom right of the form.

- Select “Settings” → “Network” → “DDNS” from the left menu.
- Set the DDNS environment
 - If you want to set the DDNS, check “Enable” in the checkbox to enter necessary inputs.
 - After entering all the necessary information for DDNS Setting, finally, click the “Apply” button to finish setting.

4.3 Firewall

4.3.1 Basic

The screenshot shows the left sidebar menu with "Settings" selected, and the main "Firewall" section under "Basic". The "Firewall Setup" tab is active, displaying five configuration options with radio buttons for "Enable" or "Disable": Firewall Enable/Disable (selected), Allow Ping From WAN (selected), Allow HTTP login from WAN (selected), Allow HTTPS login from WAN (selected), and Multicast Filter (selected). Below this is the "SIP ALG Settings" section, which includes a note about SIP ALG functionality and two input fields: "Enable SIP ALG" (checkbox checked) and "SIP port" (text box containing "5060"). Both sections have a blue "Apply" button at the bottom right.

- Select “Settings” → “Firewall” → “Basic” from the left menu.
- If you want to use the default Firewall function, check the “Enable” checkbox.
- You can set other firewall rules as Ping, HTTP, HTTPS login and Multicast Filter.
- If you want to use SIP ALG function, check enable and type port number in the box.
- For filter set up, select the filter item (IP, MAC, ACCEPT, DROP, BOTH, etc) and fill the blank.
- Finish setup by clicking the “Add” button.
- You can also delete the filter rule by clicking “remove” button in the Filter List.

4.4 User Management

4.4.1 Account

The screenshot shows the device management interface for SEOWON INTECH. At the top, there is a header with the brand name, language selection (English), and a logout button. Below the header is a left sidebar menu titled "Menu". The "User Management" section is expanded, showing "Account" as the selected option. The main content area is titled "Account Management" and contains a form for changing user privileges. The form fields are: Privilege (dropdown menu set to "user"), Username (text input set to "user"), Current Password (empty input field), New Password (empty input field), and Confirm Password (empty input field). A blue "Apply" button is located at the bottom right of the form.

- Select “**Settings**” → “**User Management**” → “**Account**” from the left menu.
- Set the password to be given to the administrator who manages the device.
- Enter the new password.
- Finish setup by clicking the “**Apply**” button.

4.4.2 Language

The screenshot shows the SEOWON INTECH web interface. At the top, there is a header with the logo, user information ('user'), language selection ('English'), and a 'Logout' button. On the left, a vertical navigation menu is displayed under the 'Menu' heading. The 'User Management' section is currently selected. Under 'User Management', the 'Language' option is highlighted. To the right, a 'Language' configuration page is shown with a title 'Language Settings'. It features a dropdown menu set to 'English' and a blue 'Apply' button.

- Select “Settings” → “User Management” → “Language” from the left menu.
- Select the Language.
- Finish setup by clicking the “Apply” button.

4.4.3 Restore Default

The screenshot shows the SEOWON INTECH web interface. At the top, there is a header with the company logo, user information ('user'), language selection ('English'), and a 'Logout' button. On the left, a vertical navigation menu is displayed under the 'Menu' heading. The 'Settings' section is expanded, showing options like LTE, Network, Firewall, User Management, and others. Under 'User Management', the 'Restore Default' option is selected and highlighted with a blue border. The main content area is titled 'Restore Default'. It contains two sections: 'Factory Reset' and 'Last Good Configuration'. The 'Factory Reset' section has a note that it will reset all settings to factory default values and features an 'Apply' button. The 'Last Good Configuration' section indicates that 'Last Good Configuration Not Exist' and includes three buttons: 'Save Last Good' (blue), 'Remove Last Good' (gray), and 'Reset to Last Good' (gray).

- Select “Settings” → “User Management” → “Restore Default” from the left menu.
- To initialize all configurations the device, click “Apply” button.
- If you want to save, remove or reset this configuration click the button.
- The device will reboot automatically and it takes about 70 seconds.

4.4.4 Reboot

The screenshot shows a web-based management interface for a device. At the top, there is a header with the logo 'SEOWON INTECH', user information ('Tx', 'user', 'English'), and a 'Logout' button. On the left, a vertical sidebar menu is displayed under the heading 'Menu'. The menu items are: Dashboard, Connection Mode, Status, Settings (which is currently selected), LTE, Network, Firewall, User Management (which is also selected), Account, Language, Restore Default, Reboot (which is also selected), Date and Time, Remote Management, Firmware Management, and Monitoring. The main content area is titled 'System Reboot' and contains a sub-section titled 'Reboot the system'. It includes a message stating 'It takes about 40 seconds to reboot the system' and a blue 'Apply' button.

- Select “Settings” → “User Management” → “Reboot” from the left menu.
- To reboot by software, click “Apply” button.
- The device will reboot automatically and it takes about 60 seconds.

4.4.5 Date and Time

The screenshot shows the SEOWON INTECH web interface. The left sidebar menu includes: Menu, Dashboard, Connection Mode, Status, Settings (selected), LTE, Network, Firewall, User Management, Account, Language, Restore Default, Reboot, Date and Time (selected), Remote Management, Firmware Management, and Monitoring.

The main content area is titled "Date and Time". It has a sub-section titled "Time Zone Setup". Under "Time Zone Setup", there is an "NTP Client" section with "Enable/Disable" options (radio buttons for Enable and Disable, currently selected). Below that is "Local Time" showing the date and time as 2017-12-22 12:30:41. There is a "Time Server" input field containing "my.pool.ntp.org" and a "Time Zone Select" dropdown set to "Seoul". Under "Enable Daylight Saving", there are dropdown menus for "Start Date" (First Sunday of April at 2 o'clock) and "End Date" (Last Sunday of October at 2 o'clock). A blue "Apply" button is located at the bottom right of the form.

- Select “Settings” → “User Management” → “Date and Time” from the left menu.
- Configure Time Zone.
 - If you want to set the NTP Client, select “Enable”.
 - Set the “Time Server”.
 - Select the “Time Zone Select”.
 - If you want to set the “Daylight Saving”, check “Enable Daylight Saving”.
 - If you want to set the duration of “Daylight Saving”, set the below.
 - Finish setup by clicking the “Apply” button.
 - Changed configuration is applied immediately.

4.4.6 Remote Management

The screenshot shows the SEOWON INTECH web interface. At the top, there is a logo, a search bar with placeholder text 'Tx', a user icon labeled 'user', a language selection 'English', and a 'Logout' button. On the left, a vertical navigation menu is displayed under the heading 'Menu'. The 'User Management' section is currently selected and highlighted in blue. It contains the following items: Account, Language, Restore Default, Reboot, Date and Time, Remote Management (which is also highlighted in blue), Firmware Management, and Monitoring.

The main content area is titled 'Remote Management'. It contains two sections: 'HTTP Server' and 'HTTPS Server'.

- HTTP Server:** A 'Remote IP Address' input field is empty. Below it, a 'Port Number' input field contains '80' with the note '(The default is 80)'.
- HTTPS Server:** A 'Enable' checkbox is checked. A 'Port Number' input field contains '443' with the note '(The default is 443)'.

A blue 'Apply' button is located at the bottom right of the configuration area.

- Select “Settings” → “User Management” → “Remote Management” from the left menu.
- You can set HTTP Server port and HTTPS Server port.
- If you want to set https server, check “Enable” and type Port Number.
- Finish setup by clicking the “Apply” button.

4.5 Firmware Management

4.5.1 Software

The screenshot shows a web-based management interface for SEOWON INTECH. At the top, there is a header bar with the company logo, user information ('user'), language selection ('English'), and a 'Logout' button. Below the header is a left sidebar menu titled 'Menu' under 'Settings'. The 'Firmware Management' section is selected and highlighted in blue. The main content area is titled 'Software' and contains a sub-section titled 'Software Upgrade'. This section includes four input fields for 'Filename 1' through 'Filename 4', each with a 'Choose File' button and a message indicating 'No file chosen'. Below these fields is a note: 'Please select the update package file'. Underneath the note, the 'Device Software Version' is listed as '1.0.4'. In the bottom right corner of the main content area, there is a blue 'Update' button.

- Select “**Settings**” → “**Firmware Management**” → “**Software**” from the left menu.
- Select the firmware file by clicking the “**Browse...**” button.
- To start the firmware update, click “**Update**” button.
- The device will be restart automatically.

4.6 Monitoring

4.6.1 Iperf

The screenshot shows the SEOWON INTECH Performance Measurement Tool. At the top, there is a header with a logo, the text "SEOWON INTECH", and navigation links for "Tx", "user", "English", and "Logout". Below the header is a left sidebar menu titled "Menu" with sections for "Dashboard", "Connection Mode", "Status", "Settings" (which is expanded to show "LTE", "Network", "Firewall", "User Management", "Firmware Management", "Monitoring", "Iperf", "Diagnostic", and "Log"), and "Performance Measurement Tool". The main content area is titled "Performance Measurement Tool" and "Iperf Settings". It contains several configuration fields: "Status" with "Enable" and "Disable" radio buttons (disabled), "Last Measurement Date/Time" (empty input field), "Server Address" (empty input field), "Server Port" (input field containing "5001"), "Management Port" (input field containing "5001"), "Measurement Time" (input field containing "60"), "Protocol Type" (dropdown menu set to "TCP"), and "TCP Client Number" (input field containing "1"). At the bottom right of the main area are "Refresh" and "Apply" buttons.

- Select “**Settings**” → “**Monitoring**” → “**Iperf**” from the left menu.
- You can use iperf by clicking the “**Enable**” button.
- Set the all data in the field.
- Finish setup by clicking the “**Apply**” button.
- Whenever you want to see the result, click “**Refresh**” button.

4.6.2 Diagnostic

The screenshot shows the SEOWON INTECH web-based management interface. At the top, there is a header with the logo, user information ('user'), language selection ('English'), and a 'Logout' button. On the left, a vertical navigation menu is displayed under the 'Menu' heading. The 'Settings' section is expanded, showing options like LTE, Network, Firewall, User Management, Firmware Management, Monitoring, Iperf, Diagnostic, and Log. The 'Diagnostic' option under Monitoring is selected. The main content area is titled 'Diagnostic' and contains two tabs: 'Ping' (which is active) and 'Trace router'. The 'Ping' tab has three configuration fields: 'IP Address (URL)' (empty), 'Ping Packet Size (Bytes)' (set to 56), 'Ping Timeout (sec)' (set to 30), and 'Ping Count' (set to 4). Below these fields is a large empty rectangular area for displaying results. At the bottom right of this area is a blue 'Apply' button.

- Select “Settings” → “Monitoring” → “Diagnostic” from the left menu.
- Configure the Ping.
 - If you want to test ping, enter IP Address to “IP Address (URL)”.
 - Set the all data in the field.
 - Click the “Apply” button to test.
 - The results come out below.

The screenshot shows a web-based management interface for a device. At the top left is the logo "SEOWON INTECH". To the right are navigation links for "Tx", "user", "English" (with a dropdown arrow), and "Logout". On the far left is a vertical "Menu" sidebar with the following items: Dashboard, Connection Mode, Status, Settings (which is currently selected, indicated by a blue border), Monitoring, Iperf, Diagnostic (which is also selected), and Log. The main content area is titled "Diagnostic" and contains two tabs: "Ping" and "Trace router" (which is active, shown in blue). Below the tabs is a sub-section titled "Trace router" with the following fields:

- "IP Address (URL)" input field.
- "Set Maximum TTL(Max Hops)" input field set to "30".
- "Set the number of queries at each TTL" dropdown menu set to "3".
- "Report IP Address Only" checkbox.

A large empty rectangular area below these fields is likely a placeholder for the results of the trace route test. At the bottom right of this area is a blue "Apply" button.

- Configure the Trace route.

- If you want to test trace route, enter IP Address to "**IP Address (URL)**".
- Select the "**Set Maximum TTL**" and "**Set the number of queries at each TTL**".
- If you want to see report consisting of IP Address, check the "**Report IP Address Only**".
- Click the "**Apply**" button to test.
- The results come out below.

4.6.3 Log

The screenshot shows the SEOWON INTECH web interface. At the top, there is a logo, user information (Tx, user), language selection (English), and a logout button. The left sidebar contains a navigation menu with the following items:

- Menu
- Dashboard
- Connection Mode
- Status
- Settings
 - LTE
 - Network
 - Firewall
 - User Management
 - Firmware Management
 - Monitoring
 - Iperf
 - Diagnostic
 - Log

The main content area is titled "System log". It includes a section for "System log Enable/Disable" where "Enable" is selected. There is also a "View System Log" section with radio buttons for "System log" (selected) and "Kernel log", and a "Download" button.

- Select “Settings” → “Monitoring” → “Log” from the left menu.
- The device support 2 types of log : System log and Kernel log.
- Configure System log.
 - Check “Enable” in “System log Enable/Disable”.
 - Check “System log” in “View System Log”.
 - Click “Refresh” button or “Clear” button for each action.
 - If you want to download the log to your PC, click “Download” button.

The screenshot shows the SEOWON INTECH web interface. On the left, there's a sidebar with a 'Menu' icon, followed by 'Dashboard', 'Connection Mode', 'Status', and 'Settings'. Under 'Settings', there are sections for 'LTE', 'Network', 'Firewall', 'User Management', 'Firmware Management', and 'Monitoring'. The 'Monitoring' section is expanded, showing 'iperf' and 'Diagnostic'. Below that is a 'Log' section with options for 'Detailed' or 'Simple' log display.

The main content area has a header 'System log' with a 'Logout' button. It contains two tabs: 'System log Enable/Disable' (selected) and 'View System Log'. In the 'Enable/Disable' tab, there's a radio button for 'Disable' and another for 'Enable', with an 'Apply' button. In the 'View System Log' tab, there's a radio button for 'System log' and another for 'Kernel log', with a 'Download' button. The 'View System Log' tab also includes a note: 'Note: It could take a longer time to display detailed log'.

The log content area displays log lines from a Linux system. The log starts with '0001' and continues with several entries, including:

```

0001 -----
0002 KERNEL LOGGING
0003 -----
0007 [Thu Jan 1 09:00:15 LST 1970] <5>Linux version 3.10.0-uc0 (release) #SeowonSW73) (gcc
0008 [Thu Jan 1 09:00:15 LST 1970] <4>CPU: ARMv7 Processor [410fc075] revision 5 (ARMv7), c
0009 [Thu Jan 1 09:00:15 LST 1970] <4>CPU: PPIP / VIPT nonaliasing data cache, VIPT aliasing li
0010 [Thu Jan 1 09:00:15 LST 1970] <4>Machine: GCT GDMT243
0011 [Thu Jan 1 09:00:15 LST 1970] <4>Boot device: nand
0012 [Thu Jan 1 09:00:15 LST 1970] <4>boot mem size: 256MB
0013 [Thu Jan 1 09:00:15 LST 1970] <4>FW Checksum: disable
0014 [Thu Jan 1 09:00:15 LST 1970] <4>Active linux: linux2
0015 [Thu Jan 1 09:00:15 LST 1970] <4>Active rootfs: rootfs
0016 [Thu Jan 1 09:00:15 LST 1970] <4>Active rk : rk

```

- Configure Kernel log.

- Check "Kernel log" in "View System Log".
- Check "Detailed" or "Simple" in below.
- Click "Refresh" button or "Clear" button for each action.
- If you want to download the log to your PC, click "Download" button.

Troubleshooting

Refer to the following if you are having trouble connecting to the Internet:

1 Check the status of outdoor CPE.

- Check if the USIM Card is inserted.
- Check if the each Cable is connected. (Adapter, LAN Cable, PoE Cable)

2 Check the IP address of PC.

- For Windows 7/8/10
- Run [Command Prompt] and enter the [ipconfig] command to check the [IP address].

3 If IP Address is not normal – Set the IP Address of the PC manually.

- For Windows 7/8/10

- ① Start > Control Panel > Network and Internet > Network Connections > Mouse right-click > Local Area Connection and Select Properties
- ② Click Properties of [Internet Protocol Version 4 (TCP/IPv4)] among Components.
- ③ Click [Use the following IP address]
- ④ Enter [192.168.1.2] for IP Address, [255.255.255.0] for Subnet Mask, and [192.168.1.1] for Default Gateway.
- ⑤ Click [Use the following DNS Server Address].
- ⑥ For [Preferred DNS Server], enter the communication company server of each country.
- ⑦ Click [OK]. Click [OK] again in the [Local Area Connection Properties] window.

- For MAC OS X

- ① From the "Apple" menu, Choose "System Preference.."
- ② Click on the [Network] icon in the [Internet & Network] category.
- ③ Click on the [Ethernet] option from the left hand side of the Network setting window.
- ④ Select [Manually] option from the [Configure] drop-down menu.
- ⑤ Enter [192.168.1.2] for IP Address, [255.255.255.0] for Subnet Mask, and [192.168.1.1] for Default Gateway.
- ⑥ For [DNS Server], enter the communication company server of each country.
- ⑦ Click [Apply].

4 Run [MS-DOS] or [Command Prompt] and then perform PING Test with [192.168.1.1].

A message [Reply from 192.168.1.1: bytes=32 time=1ms TTL=64] should appear when running [ping 192.168.1.1] command. If the result of the Ping test does not arrive properly, please contact the Customer Support Center.

Safety Information

Minor injury or product damage can occur the following directions are violated.



- Do not put any object on the product.
- Avoid heating devices.
- Do not disassemble, repair or redesign the product.
- Be careful not to allow any foreign matter inside the product.
- Do not leave the Product in a location where it is exposed to severe static electricity, as this can cause the product to malfunction.
- Do not put any metallic object (coin, hair pin) or flammable object inside the product, or drop the product.
- This equipment should be installed and operated with minimum 20cm between the radiator and your body.

Legal Information

FCC Part 15.105

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 when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Part 15.19

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

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

FCC Part 15.21

Changes or modifications not expressly approved by the manufacturer (or party responsible) for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement:

The output power from the device is below the threshold for requiring RF exposure evaluation and may be used in portable conditions within 20cm of the body.

"This product meets the applicable Innovation, Science and Economic Development Canada technical specifications"



FCC ID: V7MSLC-120T42OGA

Warranty Information

This product is the result of high-class craftsmanship based on strict quality control procedures.

- In case of Product failure or malfunction during normal usage, your product will be repaired free of charge within the Limited Warranty period.
- The Consumer shall bear any labor or parts charges not covered by this Limited Warranty.
- At the request for repair, you must provide the proof of purchase and the warranty.
- Keep the warranty in a safe location because it is not reissued.

Purchase date			
Quality warranty period	1(one) year		
Seller			
Telephone number			
Consumer	Name		
	Address		
	Telephone number		
	E-mail		

The Consumer shall have no coverage or benefits under this Limited Warranty if the Product has been:

- Subjected to inappropriate use, improper storage, unauthorized repair, unauthorized modifications, neglect abuse, inadequate installation, misuse, damage caused by shipping, etc.
- Damaged from fire, flooding, windstorm, lighting, earthquake, theft, blown fuse, internet viruses, worms, Trojan Horses, etc.
- Treated with its Product Serial # removed or defaced.

**SEOWON INTECH.CO.,LTD.**

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