

ANTOP

Leading the future of the global antenna industry

ANTCLOUD MV-9818/4G

INTEGRATED 3G/4G/WI-FI/UHF/VHF/FM/AM SYETEM

USER AND INSTALLATION MANUAL

MV-9818/4G

- Antenna dimensions (diam.*H):300*290mm
- Antenna weight:2kg
- UV waterproof resistant Dome
- Easy installation require only power supply connection 12/24VDC

TECHNICAL SPECIFICATIONS---4G Router PART

- Automatic switch from Wi-Fi registered networks to 4G.
- 4G backup WAN function
- LTE 4G up to 100Mbps in download and 50Mbps in upload
- DC- HSPA+ up to 42Mbps in download and 5.76Mbps in upload
- 2 Diversity (high) performance antennas
- Android and iOS App for an easy control

General Features

- LTE FDD bands:B2/B4/B5/B17, all bands with diversity
- DC-HSPA+/HSPA+/HSPA/WCDMA B2/B4/B5 (1900MHz/1700MHz/850MHz) with diversity
- Output Power:
- WCDMA/HSPA+: +24dBm (Power Class 3)
- LTE: +23dBm (3GPP TS 36.101 R8 Class 3)

Data Features

- UMTS (1900MHz/1700MHz/850MHz) : DL 384 kbps/UL 384 kbps
- DC-HSPA+ (1900MHz/1700MHz/850MHz) : DL 43.2 Mbps/UL 5.76 Mbps
- LTE FDD(B2/B4/B5/B12/B17): DL 100 Mbps/UL 50 Mbps

TECHNICAL SPECIFICATIONS---UHF/VHF/FM/AM PART

- Specially compatible with HDTV of various digital terrestrial signal (DVB-T,ISDB-T,DMB-T/H,ATSC) and DAB/FM/AM radios.
- Omnidirectional antennas receive VHF,UHF,FM,and AM signal from every point regardless of the direction you are travelling.
- Build-in high gain and low noise amplifier,shielded for minimum interference.

• Frequency range

- AM:520-1719 KHz,Gain: 28dB
- FM: 88-108MHz ,Gain: 28dB
- VHF:87.5-230MHz,Gain: 28dB
- UHF:470-700MHz,Gain: 28dB
- Max Output Level 100dBuV Max
- Impedance 75 Ω
- Noise Figure \leq 4.5dB
- Connector :F-connector

1. FOREWORD

1.1 DELIVERY LETTER

Welcome: with the installation of this antenna, the world of fast Internet and the best TV reception comes on board your boat.

This manual has been drafted in order to help you with the correct installation and operation of the ANTCLLOUD to meet all your requirements.

1.2 WARRANTY

ANTOP guarantees the MV-9818/4G against conformity defects for a period of 24 (twenty-four) months from the date of shipment.

Warranty is intended as the repair or replacement of the equipment showing conformity defects when entering the sales contract, with no charge for the materials.

In case of conformity defects, the customer is entitled to the replacement of the goods with no charge.

The warranty is only valid if the product comes with a valid proof of purchase (receipt or invoice).

The non-conforming product must be sent back to a Service Centre or authorized retailer.

The warranty does not apply in case of damage due to carelessness, use or installation not compliant with the instructions given, tampering, product or serial number modification, damage due to accidental causes or to the buyer's negligence. Moreover, warranty does not apply in case of damage consequent to connections of the equipment to different voltages than those indicated or to sudden voltage variations of the network the equipment is connected to, as well as in case of damage caused by leakage, fire, inductive/electrostatic discharges or discharges due to lightning, use of cables different to those provided, overvoltages or other phenomena not related to the equipment.

Finally, the warranty does not apply to problems caused by the telephone operator and at a WI-FI hotspot.

The parts subject to wear consequent to use such as connection cables, connectors, external parts and plastic supports are covered by a one-year period warranty.

After the expiration of the warranty period, the technical support activities will be carried out charging the customer for the replaced parts, the labour costs and freight charges, according to current rates.

1.3 GENERAL SAFETY RULES

Carefully read the instructions and follow the recommended precautions to avoid potential hazards and safeguard your health and safety, before carrying out any installation and maintenance.

This manual contains the following indications:

Failure to comply with the instructions preceded by the above mentioned keywords (WARNING) can cause serious accidents or even the death of the persons involved.

Moreover, in this Manual, some instructions are given with text in italics, preceded by the word NOTE.

The information and specifications given in this manual are based upon the

information available at the moment it is written.

1.4 ENVIRONMENT

Do not throw the appliance away with the normal household waste at the end of its life, but hand it in at an official point for recycling. By doing this, you will help preserve the environment.



2. PRODUCT DESCRIPTION

MV-9818/4G through clever design and reasonable layout, putting the 4G router and television broadcast antenna in a casing, realized the 4G Internet, watching TV and listening to the radio functions of perfect fusion.

4G router part of MV-9818/4G is the new integrated system for surfing the internet with 4G network and Wi-Fi both with the boat anchored in the harbor and along the coast at more than 10 nautical miles, suitable for all types of boats, ships and yachts where coverage of GSM networks and Wi-Fi permits. MV-9818/4G is also compatible with LTE, 3G systems data.

NOTE : The distance from the coast within which the MV-9818/4G works depends on the 3G/4G signal coverage from the transmitter of your telephone operator, on the correct installation of MV-9818/4G and on its height.

Inside the ASA radome there are two 3G/4G antennas, two Wi-Fi antennas, a specifically constructed router with dedicated software to operate on the boat and an access point which, protected from the elements, allow you to have a simple and convenient high-speed internet connection on your boat in a few minutes: simply insert a SIM card (not supplied) into the external slot and you can connect in Wi-Fi any internet devices (iPhone, smartphone, iPad, tablet, PC...) to the Wi-Fi network of the harbor or to the 3G network.

Specially, the router inside the radome automatically switches from 3G/4G network to the Wi-Fi network (where you have already registered), and vice versa to be certain of an internet connection without interruptions and cost-effective. Finally, to manage in an extremely easy and convenient manner the integrated system, ANTOP also offers an App for iOS and Android.

Additionally, in order to meet the needs of watching TV and listening to the radio, MV-9818/4G has a special designed antenna for both analog and digital terrestrial TV broadcasting reception. It can receive all the TV signals of your area in VHF and UHF band, as well as the FM/AM radio signal. It is the best solution for reception and digital portable TV reception. This antenna is an active antenna powered through DC power.

3.1 INSTALLATION

- The installation of the MV-9818/4G near or above a flat metal surface may result in significant reduction of the Wi-Fi and 3G/4G signal strength.
- Do not mount the MV-9818/4G near metal obstructions that may interfere with the Wi-Fi signal.

On metal crafts, the Wi-Fi signal is blocked, for this reason it is necessary to place a second access point (up to a maximum of 4 APs) inside the boat and connect them with a switch (optional) to the router inside of MV-9818/4G via an Ethernet cable (optional) . The access point present inside the radome can be used for the Wi-Fi coverage outside the boat.

Electric connections

For the proper functioning of MV-9818/4G, simply connect the antenna to a 12/24 Vdc power supply cable (not provided) according to the following guidelines.

Connect the red (positive) and the black wire (negative) coming out from the base of MV-9818/4G to the battery through a red/black power cable. The connection can be made by soldering or with a clamp. It is advisable to have this procedure carried out by a technician.

IMPORTANT: The polarity reversal on the power supply will burn the fuse.

The power line (not supplied) which connects the two wires coming out from the base of MV-9818/4G must have cables with a cross section of 1.5 mm² by a length up to 10 m, and 2.5 mm² for longer lengths.

WARNING: in the power line, we recommend placing a switch upstream to avoid electricity consumption when the MV-9818/4G is not used.

NOTE: In order to receive the signal from the MV-9818/4G inside metal crafts, up to a maximum of four access points (according to your needs) must be placed inside the boat, which must be linked with a switch to the router inside the MV-9818/4G via an Ethernet network cable.

3.2 INSERTING THE SIM CARD

Insert the SIM CARD into the upper socket of the "EXTERNAL SLOT" of the MV-9818/4G, which is located at the bottom of the radome.

Insert the SIM card with the contacts facing down and the cut edge of the SIM facing outward, as shown in Fig. Below.



NOTE Insert the SIM CARD with MV-9818/4G off.

IMPORTANT : If the SIM card has a PIN, you must remove the PIN code request before inserting the SIM card into MV-9818/4G. This can be done via a mobile phone and varies according to the individual mobile phones. Please check the steps in the instructions of your mobile phone, or contact your operator.

4. HOW TO CONTROL the MV-9818/4G

NOTE : TV antenna can be used after connect the power supply, do not need to be set.

There are two ways to control the router,one is by WEB and the other is by APP.APP is a simple form of WEB operation and App can be download from the Apple Store for Apple devices or from the Play Store for Android devices.

The following example is operating the router by the WEB:

Firstly,set your computer's wireless network to obtain an IP address automatiacly,then power on the MV-9818/4G,about one minute later,your portable computer will find a SSID named Antop_***** (Fig below), connect it.

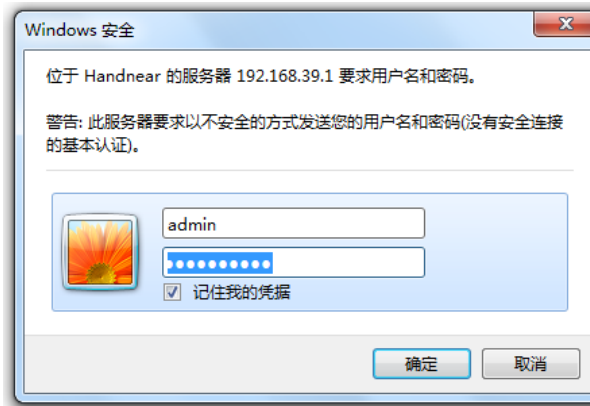


Secondly,open a Web browser and enter the address 192.168.39.1;the Web will pop up a dialogue table (Fig below),then enter:

Default user name:admin

Default password:admin

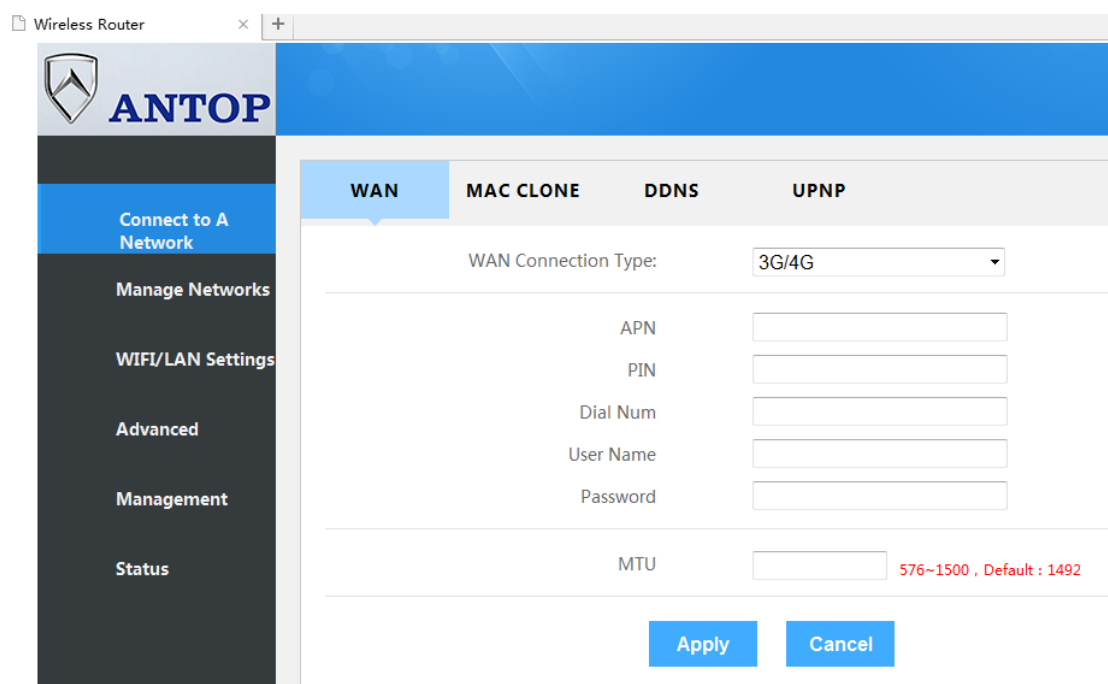
After your entering,then confirm it!



By the above operation,we have entered the router setting page(Fig below).On this page, we can set the parameters of the router.

Now generally used parameters are introduced.

WAN setting:WAN connection type should be set to 3G/4G and the rest of the item depends on the information of the SIM card (APN,PIN,Dial Num,etc).



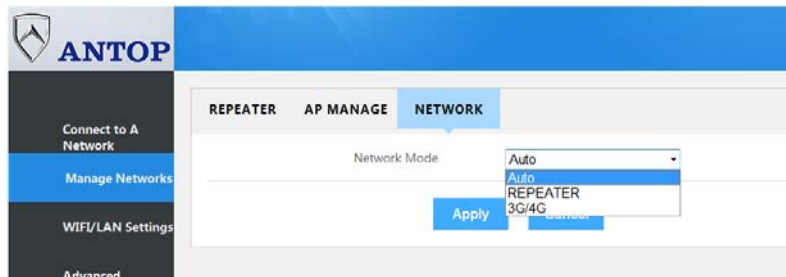
In the Manage Networks bar,we can set the network working mode.

Auto : automatically switches from 3G/4G network to the Wi-Fi network (where you have already registered).The use of the external Wi-Fi network has priority over 3G/4G to limit the service costs.

Repeater: forced to work in the Wi-Fi mode.

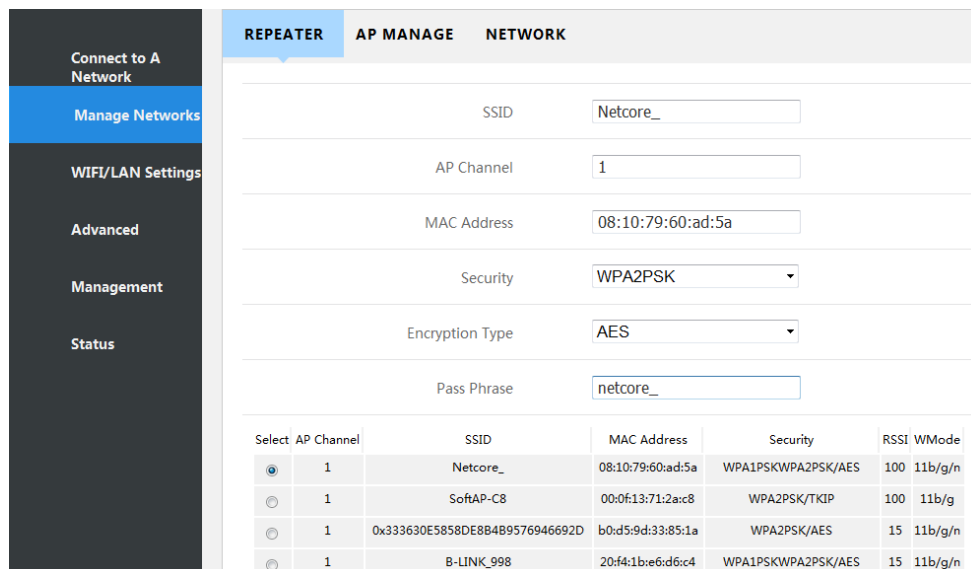
3G/4G: forced to work in the 3G/4G mode.If the Wi-Fi signal is weak, you can force

the use of 3G/4G by clicking on 3G/4G.

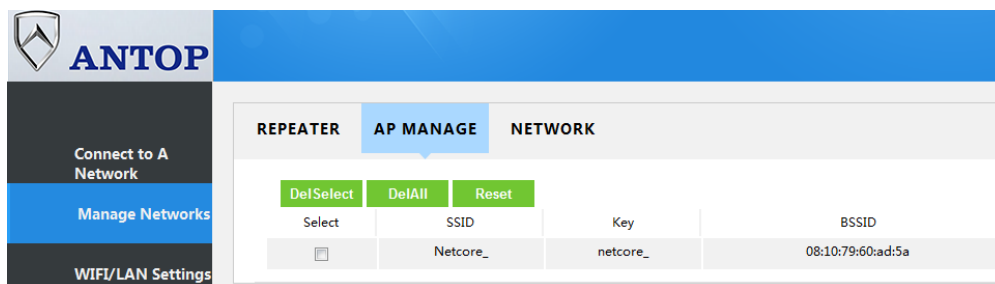


If you want to add a Wi-Fi connection external to the MV-9818/4G to share with the devices on the boat, click "REPEATER" and wait.

A list of available connections will be displayed. Click the name of the Wi-Fi connection required and enter the password for the Wi-Fi network selected,click APPLY to confirm,and wait a few minutes. The information of the Wi-Fi network you have chosen will appear in the AP MANAGE table (Five SSID,MAX.).

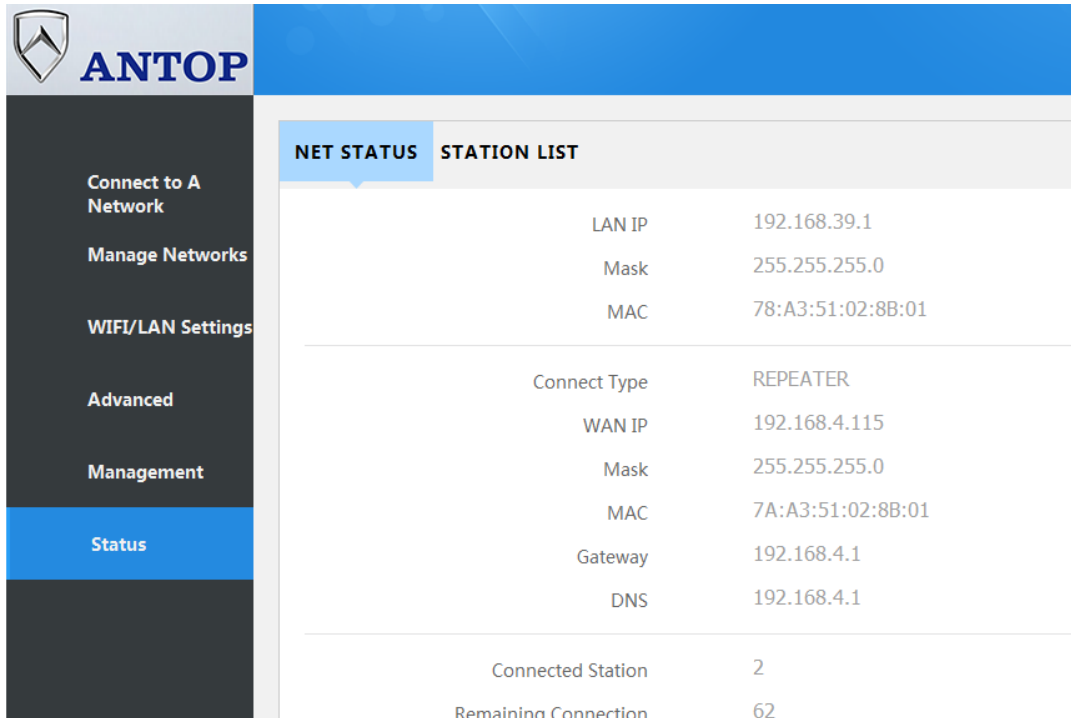


Select	AP Channel	SSID	MAC Address	Security	RSSI	WMode
<input checked="" type="radio"/>	1	Netcore_	08:10:79:60:ad:5a	WPA1PSKWPA2PSK/AES	100	11b/g/n
<input type="radio"/>	1	SoftAP-C8	00:0f:13:71:2a:c8	WPA2PSK/TKIP	100	11b/g
<input type="radio"/>	1	0x333630E5858DE8B489576946692D	b0:d5:9d:33:85:1a	WPA2PSK/AES	15	11b/g/n
<input type="radio"/>	1	B-LINK_998	20:f4:1b:e6:d6:c4	WPA1PSKWPA2PSK/AES	15	11b/g/n



Select	SSID	Key	BSSID
<input type="checkbox"/>	Netcore_	netcore_	08:10:79:60:ad:5a

Connect the Status bar,the page will show the net status,connet type will show current working mode (REPEATER or 4G,fig below).



The screenshot shows the 'NET STATUS' page in the ANTOP web interface. The left sidebar contains navigation options: 'Connect to A Network', 'Manage Networks', 'WIFI/LAN Settings', 'Advanced', 'Management', and 'Status' (which is highlighted). The main content area has two tabs: 'NET STATUS' (active) and 'STATION LIST'. The 'NET STATUS' tab displays network configuration details for both LAN and WAN interfaces, along with connection statistics.

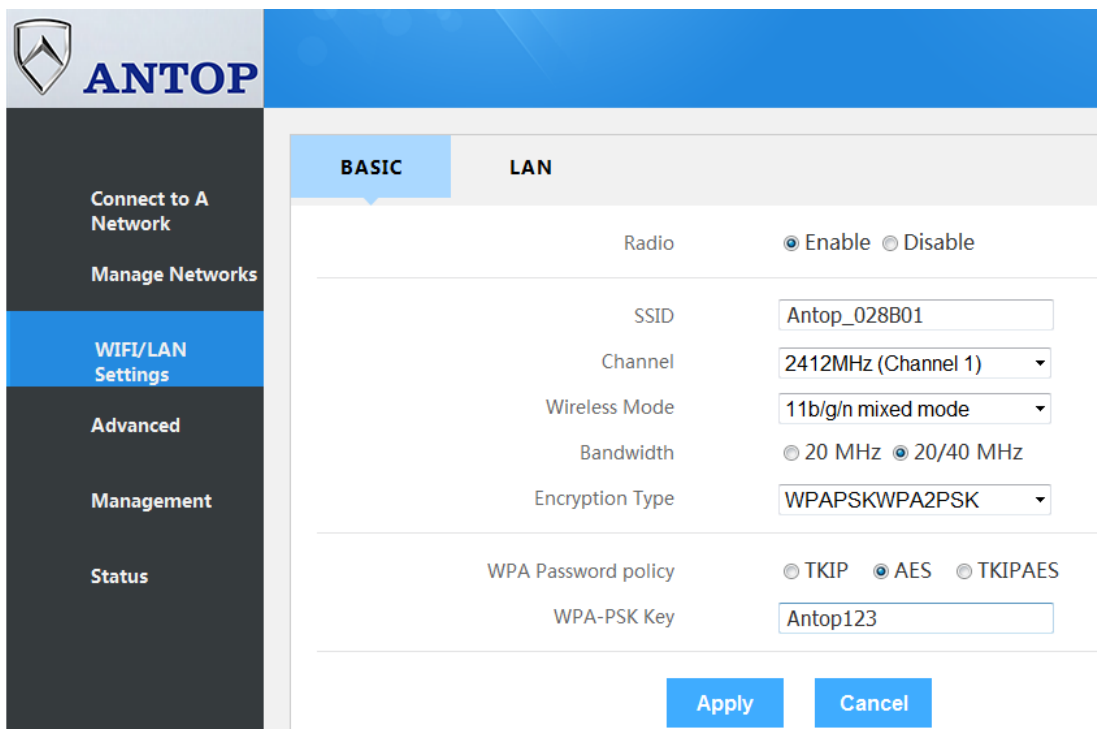
Parameter	Value
LAN IP	192.168.39.1
Mask	255.255.255.0
MAC	78:A3:51:02:8B:01
Connect Type	REPEATER
WAN IP	192.168.4.115
Mask	255.255.255.0
MAC	7A:A3:51:02:8B:01
Gateway	192.168.4.1
DNS	192.168.4.1
Connected Station	2
Remaining Connection	62

Now you can enjoy your journey to the Internet !

Warning: if you change the SIM card in the MV-9818/4G,repeat the procedure from chapter3.2.

Other basic settings are showing below:

Wi-Fi basic settings:

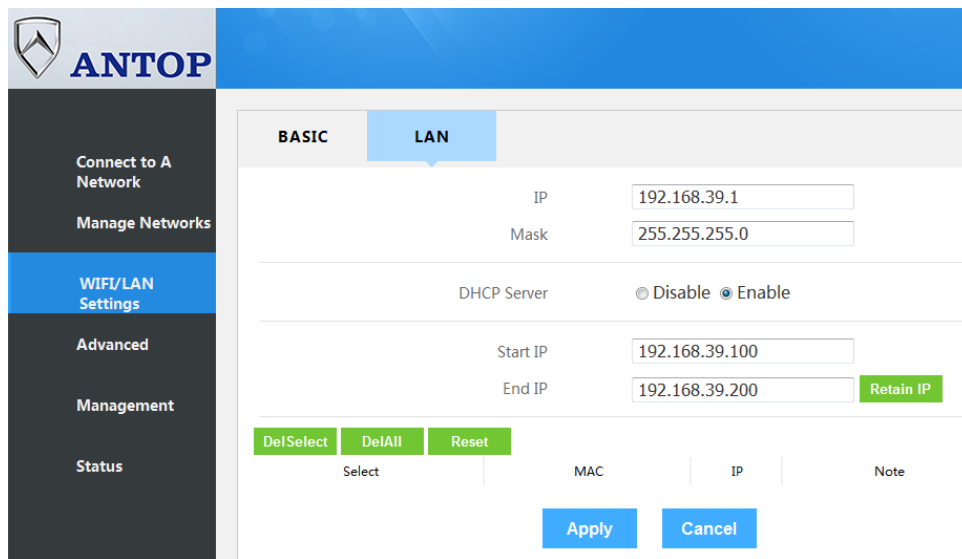


The screenshot shows the 'WIFI/LAN Settings' page in the ANTOP web interface. The left sidebar has 'WIFI/LAN Settings' highlighted. The main content area has two tabs: 'BASIC' (active) and 'LAN'. The 'BASIC' tab displays various Wi-Fi configuration options.

Radio	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
SSID	<input type="text" value="Antop_028B01"/>
Channel	<input type="text" value="2412MHz (Channel 1)"/>
Wireless Mode	<input type="text" value="11b/g/n mixed mode"/>
Bandwidth	<input type="radio"/> 20 MHz <input checked="" type="radio"/> 20/40 MHz
Encryption Type	<input type="text" value="WPAPSKWPA2PSK"/>
WPA Password policy	<input type="radio"/> TKIP <input checked="" type="radio"/> AES <input type="radio"/> TKIPAES
WPA-PSK Key	<input type="text" value="Antop123"/>

At the bottom of the settings page, there are two buttons: 'Apply' and 'Cancel'.

LAN settings:



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Connect to A Network
Manage Networks
WIFI/LAN Settings
Advanced
Management
Status

BASIC LAN

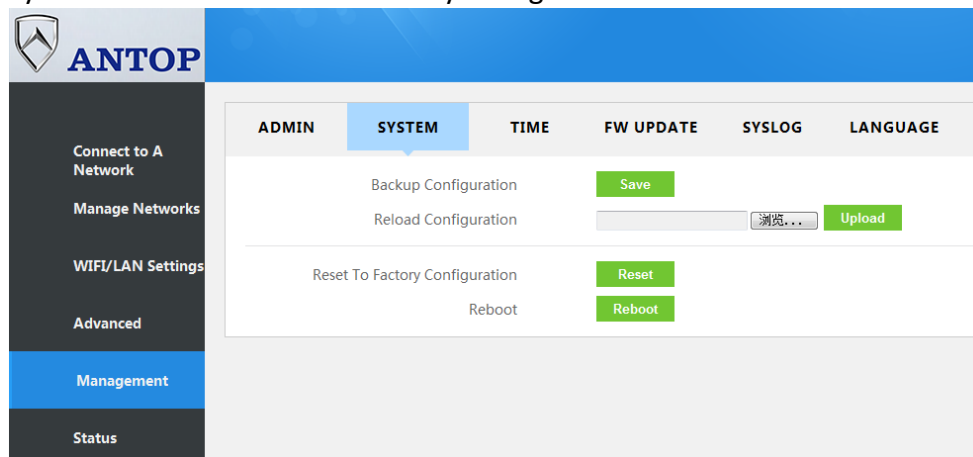
IP: 192.168.39.1
Mask: 255.255.255.0

DHCP Server: Disable Enable

Start IP: 192.168.39.100
End IP: 192.168.39.200

Select	MAC	IP	Note

System reboot and reset to factory configuration:



ANTOP

Connect to A Network
Manage Networks
WIFI/LAN Settings
Advanced
Management
Status

ADMIN SYSTEM TIME FW UPDATE SYSLOG LANGUAGE

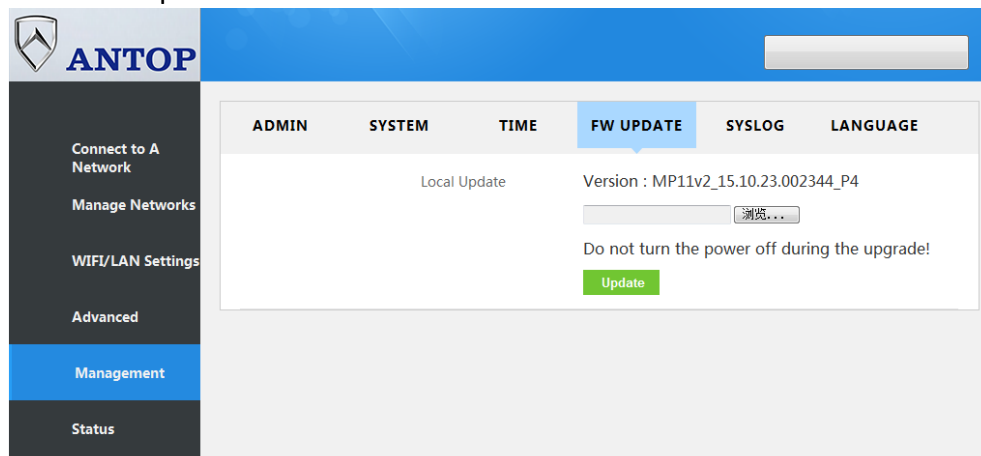
Backup Configuration

Reload Configuration

Reset To Factory Configuration

Reboot

Firmware Update:



ANTOP

Connect to A Network
Manage Networks
WIFI/LAN Settings
Advanced
Management
Status

ADMIN SYSTEM TIME FW UPDATE SYSLOG LANGUAGE

Local Update
Version : MP11v2_15.10.23.002344_P4

Do not turn the power off during the upgrade!



Federal Communication Commission (FCC) Radiation Exposure Statement

When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.

FCC statements:

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.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.