Zoom Telephonics, Inc.

Zoom Mobile Broadband Modem/ Router with Wireless-N User's Guide

Content

1   Introduction

1.1   Features

| No.	Items	Specification
1	Standard	Wi-Fi: IEEE 802.11b/g/n Ethernet: IEEE 802.3u
2	Data Rate (HSUPA)	• HSUPA uplink up to 5.76Mbps • HSDPA downlink up to 7.2 Mbps • WCDMA (UMTS) uplink data rate up to 384 kbps • EDGE data up to 237 Kbps DL and 118Kbps UL, • 3GPP Release 4, class 12 • GPRS data up to 85.6 Kbps DL and 42.8 Kbps UL • Circuit switched data: 14.4 and 9.6 Kbps
3	Data Rate(HSPA+)	HSPA＋ DL 21.6Mbps UL 5.76 Mbps HSPA+ DL14.4 Mbps UL 5.76Mbps HSPA DL 7.2Mbps UL 5.76 Mbps UMTS DL/UL 384 kbps GPRS DL 85.6 kbps / UL 42.8 kbps EDGE 3GPP R4, Category 12, DL 237k bps / UL 118K bps
4	Antenna	1 external antenna for 3G 2 internal antennas for Wi-Fi WIFI external antenna: 5dbi WIFI internal antenna: 2.7dbi 3G Antenna: 5dbi
5	Port	4 LAN ports, 1Power, 1 Power Switch, 1 Antenna, 1 USB, 1 S(U)IM card slot
6	Band	Should support Quad-band for 2G (850, 900, 1800, 1900 MHz) & tri band for 3G (850, 900, 1900 , 2100 MHz) optional WiFi:2.4-2.4835GHz
7	RF Power	3G:24dBm(Maximum) WiFi:22dBm(Maximum)
8	Receiver Sensitivity(3G)	less than -106.7 dBm

9	Power	Power Adapter connection (DC12V/1A)
10	Size	142*98*20(mm)
11	Environment	i) Work temperature : -0℃ to +40℃ ii) Storage temperature : -20℃ to +70℃ iii) Relative Humidity : -10% to 90%

1.2 Interface description
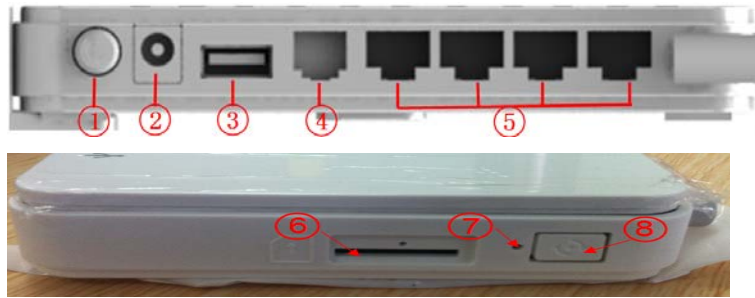
1、 Power switch

2、 Power jack

3、 USB port

4、 Invalid port

5、 RJ-45 ports for 10/100 Base-T Ethernet LAN
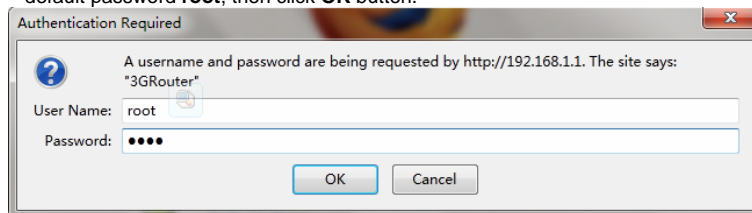
6、 S(U)IM card slot

7、 Reset button

8、 WPS button

1.3 Hardware connection guide
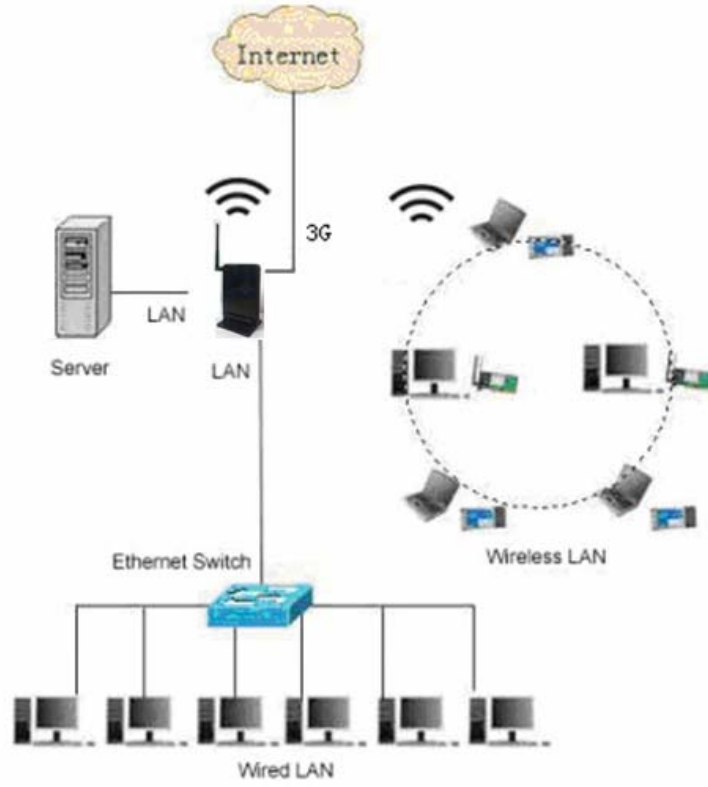
2 Web management interface
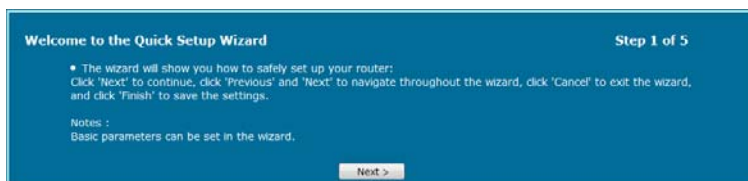
2.1 Login Router

1. Connect LAN adapter on your PC with one of LAN port of this wireless router, then power on it. PC will get an IP address.
2. Run web browser on your PC(e.g.IE), type **http://192.168.1.1** in the address field, then press Enter, shown as follow figure, Input default User name **root** and default password **root**, then click **OK** button.

3. Then the following interface appears.

3 Quick Setup

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Configure WAN Settings   **Step 2 of 5**

Net Mode   3G

3G Mode

APN   movistar.es

PDP Context   IP

Dial Number   *99#

User Name   MOVISTAR

Password   MOVISTAR

Authentification   AUTO

Operation Mode   Manual

[< Previous]   [Next >]   [Cancel]

Configure WiFi Settings   **Step 3 of 5**

WIFI Enable :   ☑

SSID :   WLAN_A444

Mode :   802.11b/g/n mixed

[< Previous]   [Next >]   [Cancel]

Configure WiFi Security   **Step 4 of 5**

Security Mode   WPA2 PSK

WPA

WPA Algorithms   ● TKIP   ○ AES   ● TKIPAES

Pass Phrase   12345678

Key Renewal Interval   3600   Seconds (0 ~ 4194303)

[< Previous]   [Next >]   [Cancel]

Configuration as Follows   **Step 5 of 5**

Connection Type :   3G

Net Mode :   3G

APN :   movistar.es

Dial Number :   *99#

Username :   MOVISTAR

Authentification :   AUTO

Operation Mode :   Manual

WiFi :   Enable

SSID :   WLAN_A444

Wireless Mode :   802.11b/g/n mixed

Security Mode :   WPA2 PSK

[< Previous]   [Finish]   [Cancel]

4   Router Setting

4.1 Port Status

It will show some information to you.

4.2 3G Information

It will show some information about the network.

4.3 statistics

It shows the statistics data.

Statistics

Memory

| Memory Total: | 28404 kB |
| Memory left: | 6492 kB |

\	WAN(3G)	LAN	WIFI
Rx Packets	207	1445	4876
Rx Bytes	42400	124379	1002101
Rx Error	0	0	0
Rx Dropped	0	0	0
Tx Packets	250	1546	504
Tx Bytes	27266	1124365	33260
Tx Error	0	0	0
Tx Dropped	0	0	0

CLICK HELP GET MORE

Memory：The display the router memory total size and the remaining size.
WAN/LAN: Show WAN/LAN transceiver packet situation.
RA0: Show Wireless transceiver packet situation.

4.4 ACS Client

It shows the information of the ACS Client.

WAN Management Protocol (TR-069) allows a Auto-Configuration Server (ACS) to perform auto-configuration, provision, collection, and diagnostics to this device.
  Select the desired values and click 'Apply/Save' to configure the TR-069 client options.

Automatic Configuration Server

Inform	Enable ▾
Inform Interval :	43200
ACS URL :	http://10.10.10.3:90
ACS User Name :	root
ACS Password :	••••
WAN Interface used by TR-069 client :	Any_WAN
Connection Request Authentication	Disable ▾
Connection Request User Name :	admin
Connection Request Password :	•••••
Connection Request URL :	
	Apply/Save

CLICK HELP GET MORE

Inform: Set the status of the inform function.
Inform Interval: Set the inform interval time.
ACS URL: Set the URL of the ACS server.

4.5 DHCP Client

This page shows DHCP client information such as host name, MAC address, IP address and lease time.

DHCP Client

Hostname	MAC Address	IP Address	Expires in
zero0	04:7D:7B:18:23:57	192.168.1.100	23:57:06
testpc1	60:D8:19:D2:2F:7C	192.168.1.101	23:57:30

Arp Log

No.	IP Address	MAC Address
1	192.168.1.100	04:7D:7B:18:23:57
2	192.168.1.101	60:D8:19:D2:2F:7C
3	192.168.1.100	04:7D:7B:18:23:57

CLICK HELP GET MORE

5   Internet Settings

5.1 WAN Setup

5.1.1 3G Mode

According to your network environment to choose the different connection mode and configure the APN parameters.
When you click on the "Apply" button, system will be reconfigured.
If you want to disconnect the 3G net, click on the "disconnect" button.

WAN Connection Setup

Net Mode	3G
Connection Status	connected
3G Mode	
Frequency	GSM/W900/2100
APN	movistar.es
PDP Context	IP
Dial Number	*99#
User Name	MOVISTAR
Password	MOVISTAR
Authentification	AUTO
Operation Mode	Keep Alive
Redial Period	300 seconds

Disconnect

Apply

CLICK HELP GET MORE

Net Mode: Choose 3G or 2G mode. It will try to use 3G mode at first when you choose

auto.

APN: APN (Access Point Name) is a configurable network identifier.

PDP Context: A Packet Data Protocol (PDP) context.

Dial Number: It is the dial number which will be used when you create a Dial-Up connection with 3G.

Username: It is the user name which will be used when you create a Dial-Up connection with 3G.

Password: It is the password which will be used when you create a Dial-Up connection with 3G.

Authentication: You can choose Password Authentication Protocol (PAP) or Challenge Handshake Authentication Protocol (CHAP) to pass the Authentication.

Operation Mode:

> **Auto**: The 3G Modem automatically dials to access internet when it is switched on.
>
> **Manual**: The 3G Modem dials to connect internet by clicking "connect" the connection page of the management console.
>
> **On Demand**: The 3G Modem automatically dials to connect internet when you attempt to send data through internet.

Apply & Disconnect: connect or disconnect the 3G dial.

5.2 Static Routing

It shows some information of the static routing.

Dest IP: Enter the IP address of the packets that will take this route

Host/Net: Single IP address or an entire network segment

Netmask: Enter the subnet mask to specify the subnet of the IP packets that will take this route.

Gateway: Enter the next hop that will be taken if this route is used.

Comment: Remark your defined rule.

6 LAN Setting

6.1 LAN IP Setup

You can configure the LAN port parameters here.

IP Address: Set LAN IP address of the router.
IP Subnet Mask: Set subnet mask of the router.
LAN 2: Add the LAN IP address, so that LAN users can connect to the router through the LAN network.
Starting IP Address & Ending IP Address: The IP range obtained through DHCP by LAN host.
Subnet Mask: The subnet mask obtained through DHCP by LAN host
Default Gateway: Gateway obtained through DHCP by LAN host.
DefaultDNS Primary IP: DNS server obtained through DHCP by LAN host (If enabled DNS Proxy, you had better fill the LAN IP address, so that when the router DNS change, don't reset this).
DNS Secondary IP: If you can't connect the DefaultDNS Primary IP address, router will try to connect this IP address.
UPNP: To use the Universal Plug and Play (UPnP™) feature click on Enabled.
UPNP provides compatibility with networking equipment, software and peripherals.
DNS proxy: Choose enable if you want to get DNS service.

7   Firewall

7.1 Port Forwarding

IP Address: Enter the IP address of the computer on your local network that you want to allow the incoming service to.

Protocol: Enter the TCP and/or UDP port or ports that you want to open. You can enter a single port or a range of ports. Separate ports with a common. Example: 24,1009,3000-4000

Comment: Enter a name for the rule or select an application from the drop-down menu. Select an application and click to populate the fields.

7.2 Virtual Server

Virtual host can be achieved through the public IP address to access web or FTP services, and the remote user automatically shifted to the local LAN server.
You can define a virtual server service port, external network services all requests to this port will be redirected to the designated router LAN server (specified by IP address), so that users outside the network can successfully access the LAN server, without affecting the internal LAN network security.

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IP Address: Enter the IP address of the computer on your local network that you want to allow the incoming service to.

Public Port/Private Port: Enter the port that you want to open next to Private Port and Public Port. The private and public ports are usually the same. The public port is the port seen from the Internet side, and the private port is the port being used by the application on the computer within your local network.

Protocol: Select TCP, UDP, Both or Other from the drop-down menu.

Comment: Enter a name for the rule or select an application from the drop-down menu. Select an application and click to populate the fields

7.3 IP/MAC Filter

This function is used to configure disable or enable firewall function. Only when the firewall is enabled, access management filter settings IP filter, MAC filter and Port filter can take effect. Otherwise, those functions are disabled.

Mac/IP/Port Filtering: Select "Disable", this function does not take effect, select "Enable", the effect of this function.
Default Policy: The packet that doesn't match with any rules would be dropped or accepted.
MAC Address: Enter the MAC address to define the rules.
Dest IP Address: Enter the destination IP address filtering.
Source IP Address: Enter the local IP address filtering.
Protocol: Select the protocol of the controlled packet.
Dest Port Range: Enter the port range to drop or accept.
Action: Rule is defined to drop or accept, in contrast with default policy.
Comment: Remark your defined rule.

7.4 DMZ

Receive all the data from external network interface forwarded to "DMZ IP address".

Enable DMZ: If an application has trouble working from behind the router, you can expose one computer to the Internet and run the application on that computer.
Note: Placing a computer in the DMZ may expose that computer to a variety of security risks. Use of this option is only recommended as a last resort.
DMZ Address: Specify the IP address of the computer on the LAN that you want to have unrestricted Internet communication.

7.5 system Security

Remote Management: Enable this function, it will allow access Web management pages through the external network interface.
PING from wan Filter: Enable this function, it will allow PING router via external network interface.
SPI Status: Select "Enable", to activate the SPI firewall.

7.6 URL filter

URL Filters: Select Deny computers access to only these sites.
Reset: Click to delete all entries in the list.
Keyword Filters: Enter the keywords or URLs that you want to deny.

8   Application

8.1 USB Storage

User Name/Password: Add a user to use the SAMBA server.
FTP Server: Enable/Disable the FTP Server competence.
SAMBA Server: Enable/Disable the SAMBA Server competence.

Folder List: Display USB storage folder.
Delete: Selected a folder to delete.
Folder   Add: Adding a new folder.

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SAMBA Server: Enable/Disable the SAMBA Server.
SAMBA Work Group: Enter the name of the SAMBA Working Group.
Net Bios Name: Enter the name of the Net Bios.
Add/Edit Directory Permit: Allows users to access files

8.2 USB Printer

USB Printer Server: Enable/Disable the USB Printer Server.

8.3 USB Web Cam

Web Camera: Enable/Disable the Web Camera.
Resolution: You can choose 640x480, 320x240, 160x120 resolution.
Frames Per Second: You can choose 5,10,15,20,25,30 frames.
Port: Access to the camera's need the port number.

8.4 DDNS

This function allows you to provide Internet users with a domain name (instead of an IP address) to access your virtual servers. This router supports dynamic DNS service provided by the provider "http://www.dyndns.org" or "http://www.freedns.afraid.org". Please register this service at these providers firstly.

System Management
DDNS Settings

Dynamic DNS Provider	None
Account	
Password	
DDNS	

Apply   Cancel

CLICK HELP *GET MORE*

DDNS Provider: Select the website provides dynamic domain name service.
Account: Login registered username on the DDNS provider.
Password: Password registered on the DDNS provider.
DDNS: Domain name registered on the DDNS provider.

8.5 NTP Setting

NTP Settings

Current Time	Sat Jan 1 01:16:18 (	
Time Zone:	(GMT+01:00) Germ	
NTP Server	hora.ngn.rima-tde.net	*ex: time.nist.gov ; ntp0.broad.mit.edu ; time.stdtime.gov.tw*
NTP Synchronization		(1-300secs)

Apply   Cancel

CLICK HELP *GET MORE*

Time Zone：Select the time region.
NTP Server：Enter network time protocol Server.
NTP synchronization：Synchronization time with NTP server.

8.6 PIN Setting

Unlock PIN | Enable/Disable PIN | Modify PIN

PIN status	PIN Ready
PIN Code	
Remaining time of PIN Code: 3 PUK : 10	

Unlock PIN

CLICK HELP *GET MORE*

PIN Code: Enter the PIN Code to Unlock PIN.

PIN Enabled: Enable/Disable the S(U)IM card PIN function.
PUK: PIN Unlocking Key, unlock PIN code (PIN1)

Modify PIN: Modify the S(U)IM card PIN Code.

9　Administration

9.1 System Settings

You can set the account and the password which used to login.

Apply: system will be restored the factory settings.

9.2 Router Upgrade

Update Firmware: After you have downloaded the new firmware, click Browse to locate the firmware update on your hard drive. Click Upload to complete the firmware upgrade.

9.3 System Log

Display the log information of starting and running system.

Display the log information of 3G dial-up.

10   Save/Reboot

Reboot System: system will be rebooted.
Save/Reboot: system will save the configuration and reboot.
Reboot System: system will be reboot.

FCC Statement

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

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

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter, except in accordance with FCC multi-transmitter product procedures.

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

Contains Inside FCC ID:QISMU609