| F7X23 Series User Manual | Documentation No. | Product   Version | Page |
|---|---|---|---|
| | | | |
| | Product Name： | | Total: |

# F7X23 Series User Manual

The user manual is suitable for the following model:

| Model | Product Type |
|---|---|
| F7123 | GPS+GPRS ROUTER |
| F7223 | GPS+CDMA ROUTER |
| F7323 | GPS+EDGE ROUTER |
| F7423 | GPS+WCDMA ROUTER |
| F7523 | GPS+TD-SCDMA ROUTER |
| F7623 | GPS+EVDO ROUTER |

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Files Revised Record

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# Contents

# Chapter 1 Brief Introduction of Product

F7X23 series ROUTER is a kind of cellular terminal device that provides data transfer function by public cellular network and GPS function.

It adopts high-powered industrial 32-bits CPU and embedded real time operating system. It supports RS232 (or RS485/RS422) and Ethernet port that can conveniently and transparently connect one device to a cellular network, allowing you to connect to your existing serial and Ethernet devices with only basic configuration. Also, it supports GPS function.

It has been widely used on M2M fields, such as intelligent transportation, smart grid, industrial automation, telemetry, finance, POS, water supply, environment protection, post, weather, and so on.
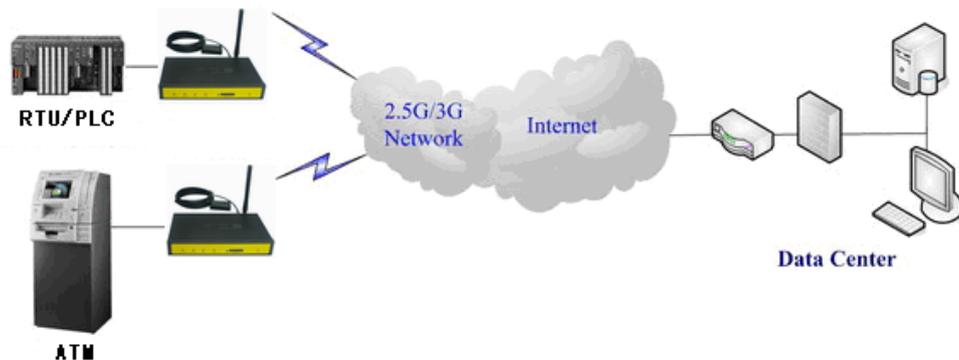


## 1.2 Features and Benefits

**Design for Industrial Application**
◆ High-powered industrial cellular module
◆ High-powered industrial 32bits CPU
◆ High-powered industrial GPS module
◆ Support low-consumption mode, including sleep mode, scheduled online/offline mode, scheduled power-on/power-off mode(optional)
◆ Housing: iron, providing IP30 protection.
◆ Power range: DC 5~35V

**Stability and Reliability**
◆ Support hardware and software WDT
◆ Support auto recovery mechanism, including online detect, auto redial when offline to make router always online
◆ Ethernet port: 1.5KV magnetic isolation protection
◆ RS232/RS485/RS422 port: 15KV ESD protection
◆ SIM/UIM port: 15KV ESD protection
◆ Power port: reverse-voltage and overvoltage protection

◆ Antenna port: lightning protection(optional)

**Standard and Convenience**

◆ Support standard RS232(or RS485/RS422) and Ethernet port that can connect to serial and Ethernet devices directly

◆ Support intellectual mode, enter into communication state automatically when powered

◆ Provide management software for remote management

◆ Support several work modes

◆ Convenient configuration and maintenance interface（WEB or CLI）

**High-performance**

◆ Support data transfer and GPS function

◆ Support NTP server(optional)

◆ Support VPN client(PPTP,L2TP,IPSEC and GRE)(only for VPN version)

◆ Support multi online trigger ways, including SMS, ring and data. Support link disconnection when timeout

◆ Support APN/VPDN

◆ Support wireless video monitoring and dynamic picture transfer

◆ Support DHCP server and client, DDNS, firewall, NAT, DMZ host etc.

◆ Support multi protocols, such as TCP/IP, UDP, ICMP, SMTP, HTTP, POP3, OICQ, TELNET, FTP, SNMP, etc.

## 1.3 Working Principle

The principle chart of the router is as following:
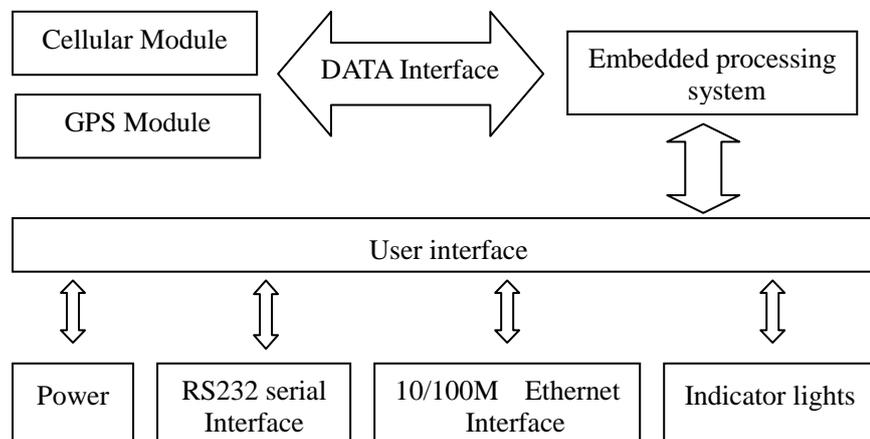


## 1.4 Specifications

**Cellular Specification**

| Standard and Band | Bandwidth | TX power | RX sensitivity |
|---|---|---|---|
| **F7123 GPS+GPRS ROUTER** | | | |
| EGSM900/GSM1800MHz, GSM850/900/1800/1900MHz (optional) Compliant to GSM phase 2/2+ GPRS class 10, class 12(optional) | 85.6Kbps | GSM850/900：<33dBm GSM1800/1900：<30dBm | <-107 dBm |
| **F7223 GPS+CDMA ROUTER** | | | |
| CDMA2000 1xRTT 800MHz, 800/1900MHz(optional) 450MHz(optional) | 153.6Kbps | <30dBm | <-104 dBm |
| **F7323 GPS+EDGE ROUTER** | | | |
| GSM850/900/1800/1900MHz GPRS/EDGE Class 12 | 236.8Kbps | GSM850/900：<33dBm GSM1800/1900：<30dBm | <-106 dBm |
| **F7423 GPS+WCDMA&HSDPA&HSUPA ROUTER** | | | |
| UMTS/WCDMA/HSDPA/HSUPA 850/1900/2100MHz, 850/900/1900/2100MHz(optional) GSM850/900/1800/1900MHz GPRS/EDGE CLASS 12 | HSUPA:5.76Mbps (Upload speed) HSDPA:7.2Mbps (Download speed) UMTS:384Kbps (DL/UL) | <24dBm | <-109 dBm |
| **F7523   GPS+TD-SCDMA ROUTER** | | | |
| TD-SCDMA/HSDPA/HSUPA 1880-1920/2010-2025MHz GSM850/900/1800/1900MHz GPRS/EDGE CLASS 12 | Download  speed:2.8Mbps Upload speed:2.2Mbps | <24dBm | <-108 dBm |
| **F7623   GPS+CDMA2000 1X EVDO ROUTER** | | | |
| CDMA2000 1X EVDO Rev A 800MHz,800/1900MHz(optional) 450MHz (optional) CDMA2000 1X RTT, IS-95 A/B | Download  speed:3.1Mbps Upload speed:1.8Mbps | <23dBm | <-104 dBm |

**GPS Specification**

| Item | Content |
|---|---|
| GPS Module | Industrial GPS module |
| Receiver Type | 50-channel |

|  | GPS L1（1575.42MHz）C/A code<br><br>SBAS: WAAS,EGNOS,MSAS,GAGAN<br><br>Support GALILEO |
|---|---|
| Max. update rate | 4 Hz |
| Accuracy | Position: 2.5m CPE<br><br>SBAS: 2.0m CPE |
| Acquisition | Cold starts: 29S<br><br>Warm starts: 29S<br><br>Aided starts: <1S<br><br>Hot starts: <1S |
| Sensitivity | Tracking: -160dBm<br><br>Reacquisition: -160dBm<br><br>Cold starts: -144dBm |
| Timing accuracy | RMS: 30ns<br><br>99%: <60ns<br><br>Granularity: 21ns |
| Time pulse | Configurable, 0.25 to 1000Hz |

## Hardware System

| Item | Content |
|---|---|
| CPU | Industrial 32bits CPU |
| FLASH | 4MB(Extendable to 16MB) |
| SDRAM | 32MB(Extendable to 64MB) |

## Interface Type

| Item | Content |
|---|---|
| Ethernet | 1 10/100 Mbps Ethernet port(RJ45), auto MDI/MDIX, 1.5KV magnetic isolation protection |
| Serial | 1 RS232(or RS485/RS422) port, 15KV ESD protection<br><br>Data bits: 5, 6 ,7, 8<br><br>Stop bits: 1, 1.5, 2<br><br>Parity: none, even, odd, space, mark<br><br>Baud rate: 110~230400 bps |

| Indicator | "Power", "Online", "GPS", "System", "Link/ACT" |
|---|---|
| Antenna | Cellular: Standard SMA female interface, 50 ohm, lighting protection(optional)<br><br>GPS: Standard SMA female interface, 50 ohm, lighting protection(optional) |
| SIM/UIM | Standard 3V/1.8V user card interface, 15KV ESD protection |
| Power | Standard 3-PIN power jack, reverse-voltage and overvoltage protection |
| Reset | Restore the router to its original factory default settings |



### Power Input

| Item | Content |
|---|---|
| Standard Power | DC 12V/1.5A |
| Power Range | DC 5~35V |
| Consumption | <410mA (12V) |

### Physical Characteristics

| Item | Content |
|---|---|
| Housing | Iron, providing IP30 protection |
| Dimensions | 157x97x25 mm |
| Weight | 445g |

### Environmental Limits

| Item | Content |
|---|---|
| Operating Temperature | -25~+65℃（-13~+149℉） |
| Extended Operating Temperature | -30~+75℃（-22~+167℉） |
| Storage Temperature | -40~+85℃（-40~+185℉） |
| Operating Humidity | 95%（Non-condensing) |

# Chapter 2 Installation Introduction

## 2.1 General

The router must be installed correctly to make it work properly.
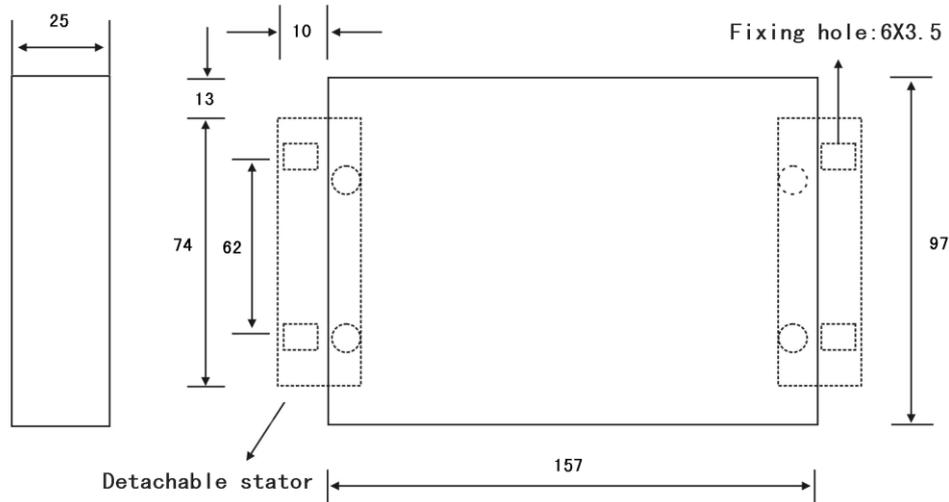
Warning: Forbid to install the router when powered!

## 2.2 Encasement List

| Name | Quantity | Remark |
|---|---|---|
| Router host | 1 | |
| Cellular Antenna | 1 | |
| GPS Antenna | 1 | |
| Network cable | 1 | |
| Console cable | 1 | optional |
| Power adapter | 1 | |
| Manual CD | 1 | |
| Certification card | 1 | |
| Maintenance card | 1 | |
| Stator | 2 | optional |

## 2.3 Installation and Cable Connection

**Dimension: (unit: mm)**

**Dimension: (unit: mm)**



## Installation of SIM/UIM card:

Firstly power off the router, and press the out button of the SIM/UIM card outlet with a needle object. Then the SIM/UIM card sheath will flick out at once. Put SIM/UIM card into the card sheath (Pay attention to put the side which has metal point outside), and insert card sheath back to the SIM/UIM card outlet.

**Warning:** Forbid to install SIM/UIM card when powered!

## Installation of antenna:

Screw the SMA male pin of the cellular antenna to the female SMA interface of the router with sign "Antenna".

Screw the SMA male pin of the GPS antenna to the female SMA interface of the router with sign "GPS".

Warning: The cellular antenna and the GPS antenna can not be connected wrongly. And the antennas must be screwed tightly, or the signal quality of antenna will be influenced!

## Installation of cable:

The router supports RS232 interface and 10/100M Ethernet interface. These two interfaces both adopt RJ45 outlet and distinguish by the sign on panel. The sign of the RS232 interface is "Console" and the sign of the 10/100M Ethernet interface is "ETH".

The router is equipped with a network direct cable and a console cable (optional).

Insert one end of network direct cable into RJ45 outlet with sign "ETH" of the router, and insert the other end into the Ethernet interface of user's device. The signal connection of network direct cable is as follows:

| RJ45-1 | RJ45-2 |
| --- | --- |
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |

| | |
|---|---|
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 |
| 8 | 8 |

Insert the RJ45 end of the console cable into the RJ45 outlet with sign "console" of the router, and insert the DB9F end of the console cable into the RS232 serial interface of user's device.

**Warning**: The network direct cable and the console cable mustn't be inserted wrongly, or the router can't work properly.

The signal connection of the console cable is as follows:

| RJ45 | DB9F |
|---|---|
| 1 | 8 |
| 2 | 6 |
| 3 | 2 |
| 4 | 1 |
| 5 | 5 |
| 6 | 3 |
| 7 | 4 |
| 8 | 7 |

The signal definition of the DB9F serial communication interface is as follows:

| Pin | RS232 signal name | The direction for Router |
|---|---|---|
| 1 | DCD | output |
| 2 | RXD | output |
| 3 | TXD | input |
| 4 | DTR | input |
| 5 | GND | |
| 6 | DSR | output |
| 7 | RTS | input |
| 8 | CTS | output |

## 2.4 Power

The power range of the router is DC 5~35V.

Warning: When we use other power, we should make sure that the power can supply power above 6W.

We recommend user to use the standard DC 12V/1.5A power.

## 2.5 Indicator Lights Introduction

The router provides five indicator lights: "Power", "Online", "GPS", "System", "Link/ACT".

| Indicator Light | State | Introduction |
|---|---|---|
| Power | ON | Router is powered on |
| | OFF | Router is powered off |
| Online | ON | Router has logged on network |
| | OFF | Router hasn't logged on network |
| GPS | ON | GPS is active |
| | OFF | GPS is not active |
| System | BLINK | System works properly |
| | OFF | System does not work |
| Link/ACT | OFF | The interface of Ethernet hasn't been connected |
| | ON / BLINK | The interface of Ethernet has been connected /Communicating |

## 2.6 Reset Button Introduction

The router has a "Reset" button to restore it to its original factory default settings. When user press the "Reset" button for up to 15s, the router will restore to its original factory default settings and restart automatically.

# Chapter 3 Configuration and Management

This chapter describes how to configure and manage the router.

## 3.1 Configuration Connection

Before configuration, you should connect the router with your configuration PC with the supplied network cable. Plug the cable's one end into the LAN port (ETH) of the router, and another end into your configure PC's Ethernet port. The connection diagram is as following:
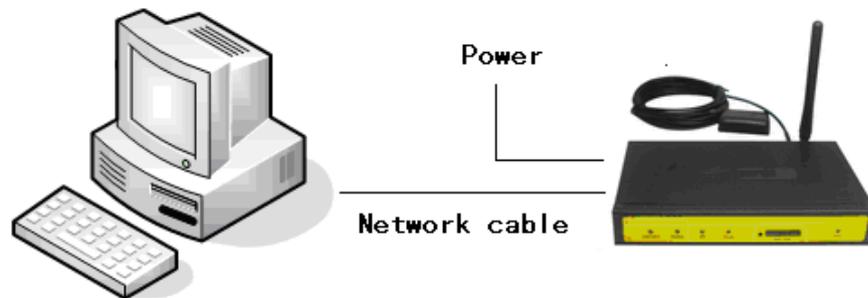


Please modify the IP address of PC as the same network segment address of the router, for instance, 192.168.1.9. Modify the mask code of PC as 255.255.255.0 and set the default gateway of PC as the router's IP address (192.168.1.2).

## 3.2 Access the Configuration Web Page

Start a web browser and type 192.168.1.2 in the Address (URL) field (The Default IP Address of the Ethernet port is 192.168.1.2). It will prompt a login page. The default username and password are both "admin". Please input the username and password login to access the configuration pages.

## 3.3 Configuration

### 3.3.1 Welcome

The "Welcome" page will give some contact information, if you have any question or problem, please contact us.
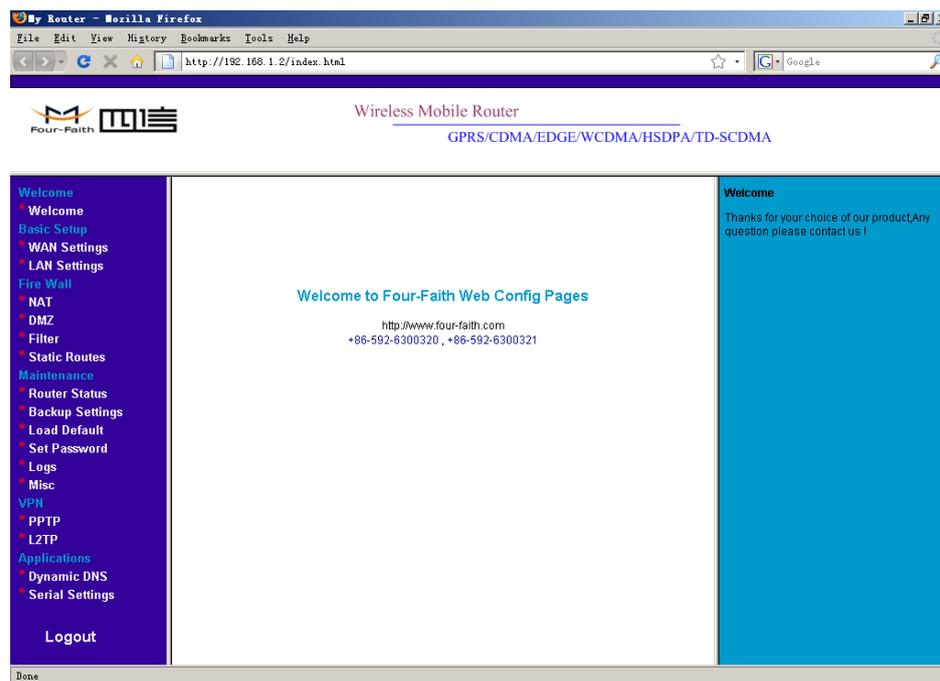


### 3.3.2 WAN Settings

This page is used to configure the Internet access parameters.

**WAN Wireless**



Note:

| Model | APN | Username and password | Call center |
|-------|-----|----------------------|-------------|
| F7123 | Cmnet Uninet | null | *99***1# |
| F7223 | null | card | #777 |
| F7323 | cmnet | null | *99***1# |
| F7423 | 3gnet | null | *99# |
| F7523 | cmnet | null | *98*1# |
| F7623 | null | card | #777 |

UserName: username used to login your ISP(Internet Service Provider)

Password: password used to login your ISP

Call Center: The dial number of your ISP

APN: The access point name of your ISP

Internet IP Address



Normally, The Internet IP Address of the router is allocated by the ISP automatically, you can also fix this address if the ISP agree.

Domain Name Server (DNS) Address



Normally, the Domain Name Server (DNS) Address of the router is allocated by the ISP automatically. You can also use your own DNS address. If you want to use your own DNS, please make sure the DNS address you configured is usable and stable.

Keep Online Detection

This function is used to detect whether the Internet connection is active, if you set it and when the router detect the connection is inactive ,it will redial to you ISP immediately to make the connection active.

Detection Method:

None: do not set this function

Ping: Send ping packet to detect the connection, when choose this method, you should also configure "Detection Interval", "Primary Detection Server IP" and "Backup Detection Server IP" items.

Route: Detect connection with route method, when choose this method, you should also configure "Detection Interval", "Primary Detection Server IP" and "Backup Detection Server IP" items.

PPP: Detect connection with PPP method, when choose this method, you should also configure "Detection Interval" item.

Detection Interval: The time interval between two detections, unit is second

Primary Detection Server IP: The server used to response the router's detection packet. This item is only valid for method "Ping" and "Route".

Backup Detection Server IP: The server used to response the router's detection packet. This item is valid for method "Ping" and "Route".

Note: When you choose the "Route" or "Ping" method, it's quite important to make sure that the "Primary Detection Server IP" and "Backup Detection Server IP" are usable and stable, because they have to response the detection packet frequently.

### 3.3.3 LAN Settings

IP Address: the LAN port IP Address.

   Note: If you change the LAN IP Address, you have to reboot the router to make it valid.

IP Subnet Mask: the LAN port subnet mask.

MAC Address: the LAN port Ethernet MAC Address



Use Router as DHCP Server: Enable or disable the router work as a DHCP server.

Starting IP Address: The starting IP Address of the DHCP server's Address pool
Ending IP Address: The ending IP Address of the DHCP server's Address pool

## 3.3.4 NAT

   The router causes your entire local network to appear as a single machine to the Internet, You can make a local server visible and available to the Internet, This is done using the NAT ( Network Address Translation). The NAT configuration page is as following:

Add a NAT item

Service Name: This NAT item's name

Service Type: The protocol type of the target packet

Outside Starting Port: The target packet's destination port

Inside Start Port: The destination port of packet which has been processed by the NAT module.

Port Numbers: Port numbers which will be processed by the router.

Server IP Address: Local server IP Address.

Example:

Configure an item as following



Once adding it, The custom NAT items table will displays this item



This item will make the router process packet with the destination port from 5001 ~ 5003 (total 3 port numbers), after processed by the NAT module, the destination port will be 5001~ 5003 correspondingly and the packet will be sent to host 192.168.1.249.

Delete a NAT item

To delete a NAT item, you should choose this item and press "Delete Item" button.

## 3.3.5 DMZ

Incoming traffic from the Internet is normally discarded by the router unless the traffic is a response to one of your local computers or a service that you have configured in the NAT page. Instead of discarding traffic for services you have not defined, you can have it forwarded to one computer on your network. This computer is called the Default DMZ Server.

| Enable DMZ | ○ Enable ⊙ Disable |
|---|---|
| DMZ IP | 192 . 168 . 1 . 9 |

Enable DMZ: Enable or disable DMZ function.
DMZ IP: DMZ server IP Address.

## 3.3.6 Filter

To block some packets getting Internet access or block some Internet packets getting local network access, you can configure filter items to block these packets.

Packet Filter
Packet filter function is realized based on IP address or port of packets.

| Enable Packet Filter | ○ Enable ⊙ Disable |
|---|---|
| Policy | Discard The Following ▼ |
| | Apply |

Enable Packet Filter: Enable or disable "packet filter" function
Policy: The filter rule's policy, you can choose the following options
   Discard The Following--Discard all packets matched the custom filter rules, Accept all other packets
   Only Accept The Following--Accept all packets matched the custom filter rules, Discard all

other packets

Add Filter Item



Direction
    input: packet from WAN to LAN
    output: packet from LAN to WAN

Protocol: packet protocol type

Source Port: packet's source port

Destination Port: packet's destination port

Source IP: packet's source IP address

Destination IP: packet's destination IP address

Note:
  "Source Port" ,"Destination Port" ,"Source IP" ,"Destination IP" could not be all empty ,you have
to input at least one of these four parameters.

Example:
    If want to block local network PC 192.168.1.249 telnet(TCP port 23) to any other Internet
Address ,the filter item could be configured as following:

**Add Filter Item**

| | |
|---|---|
| Direction | output |
| Protocol | TCP |
| Source Port | (1~65534) |
| Destination Port | 23 (1~65534) |
| Source IP | 192 . 168 . 1 . 249 |
| Destination IP | . . . |

Add Item

The following is the configured filter item:

| Choose | # | Source IP | Source Port | Destination IP | Destination Port | Direction | Protocol |
|---|---|---|---|---|---|---|---|
| ○ | 1 | 192.168.1.249 | * | * | 23 | output | TCP |

Delete Item

MAC Restrict
This filter function is based on the Ethernet MAC address.

| | |
|---|---|
| Enable MAC Restrict | ○ Enable ◉ Disable |
| Policy | Discard The Following |

Apply

Enable MAC Restrict: Enable or disable MAC Restrict function

Policy:
Discard The Following -- Discard all packets matched the custom MAC Restrict rules, Accept all other packets
Only Accept The Following -- Accept all packets matched the custom MAC Restrict rules, Discard all other packets

| | |
|---|---|
| MAC Address | : : : : : |

Add Item

MAC Address: The MAC Address applied to this MAC Restrict item.

## 3.3.7 Static Routes

Static Routes provide additional routing information to your router. Under normal circumstances, the router has adequate routing information after it has been configured for Internet access, and you do not need to configure additional static routes. You must configure static routes only for unusual cases such as configured VPN tunnel or multiple IP subnets located on your local network.

### Static Routes

| | # | Name | Destination | Mask | Gateway |
|---|---|------|-------------|------|---------|

Add    Delete

Press "Add" button to start add a custom static route:

### Static Routes

Route Name

Destination IP Address

IP Subnet Mask

Gateway IP Address

Metric    3

Apply    Cancel

Route Name: This static route's name, It is for identification purpose only

Destination IP Address: The packet's destination IP Address

IP Subnet Mask: The subnet mask for this destination, If the destination is a single host, please input 255.255.255.255

Gateway IP Address: The gateway IP Address of this packet.

Metric: A number between 1 and 15, It represents the number of routers between your network and the destination. Usually, a setting of 2 or 3 works

If you want to delete one custom static route, choose this item and press "Delete" button.

## 3.3.8 Router Status

This page displays the router's status information.

**System**

| | |
|---|---|
| Account Name | admin |
| Firmware Version | V-1.0:2008-10-31 12:12:00 |
| Module Type | SIEMENS MODULE |

Account Name: The username to login the router.

Firmware Version: Software version information

Module Type: The wireless module used to get the Internet access

**Internet Port**

| | |
|---|---|
| Status | online |
| IP Address | 10.95.208.253 |
| Gateway | 10.64.64.64 |
| Domain Name Server | 211.138.151.161 |
| | 211.136.18.171 |

Status: the current Internet access status

At State --- System is initialize the module

Dialing --- System is dialing to ISP

Online --- System has got Internet access

IP Address: The local Internet IP Address

Gateway: The ISP gateway IP Address

Domain Name Server: The Domain Name Server (DNS) IP Address.

**LAN Port**

| | |
|---|---|
| IP Address | 192.168.1.2 |
| DHCP | Enable |
| IP Subnet Mask | 255.255.255.0 |

IP Address: the LAN port IP Address

DHCP: the DHCP server status

IP Subnet Mask: The LAN port subnet mask

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Status: current PPTP client status.

Interface: The interface name of the PPTP tunnel when the tunnel is up.

Local Tunnel IP: The local tunnel IP Address when the tunnel is up.

Remote Tunnel IP: the PPTP server's tunnel IP Address when the tunnel is up.



Status: current L2TP client status.

Interface: The interface name of the L2TP tunnel when the tunnel is up.

Local Tunnel IP: The local tunnel IP Address when the tunnel is up.

Remote Tunnel IP: the L2TP server's (LNS) tunnel IP Address when the tunnel is up.

### 3.3.9 Backup Settings

This function can save the router's current configuration to a file. You can restore the configuration with the file later.

<span style="color:red">Note:</span>

<span style="color:red">Please do not edit the saved file.If the file used to restore configuration is not correct, the router will restore to factory default setting.</span>



To save your configuration, click the "Backup" button, your browser will extract the configuration file from the router and will prompt you for a location on your computer to

store the file. The default file name is "router-config.txt". You can also give the file a more meaningful name.

To restore your configuration from a saved file, enter the full path to the file on your computer or click the "Browse" button to browse to the file. When you have located it, click the "Restore" button to send the file to the router to restore configuration.

### 3.3.10 Load Default

**Load Default**

Load Factory Default Settings

Load Default

It is sometimes desirable to restore the router to the factory default settings. This can be done by using the "Load Default" function, which will restore all factory settings.

To load default settings, please click the "Load Default" button. A prompt page will give you a choice to give up this operation or continue. Click "YES" button to load default and "No" to give up.

**Load Default**

Loading the Factory Default Settings will erase all the current settings.

Are you sure you want to do this?

Yes   No

### 3.3.11 Set Password

The default username and password are both "admin".

To change the username and password, type the new username, old password and new password.

## 3.3.12 Logs

This function is used to debug the software, when there is some problem with the router, you can get the log information and send it to us to diagnose the problem. Normally this function should be disabled.



Enable Log: Enable or disable this function
Log Way: there are three log ways

Web:



The log message is displayed on this web page. You can save the log message to a file by click

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"Save Log" button.



Console:



The log message is output to the console port.

To use this way, you should connect the router's console port and your PC's serial port with the supplied console cable. Then open hyper terminal with the following serial port settings:
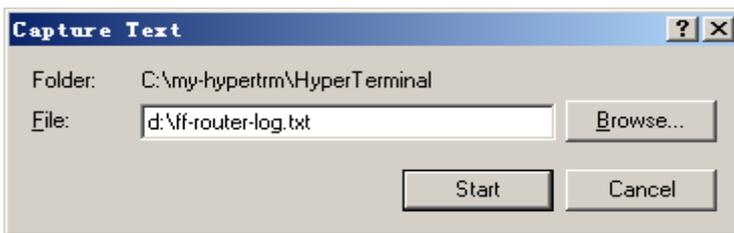
    Baud :        115200 bps

    Databit:      8

    Parity :      None

    Stopbit:      1

    Flow control:   None

When you configure the serial port settings , press "call" button ,The router log message will be displayed.
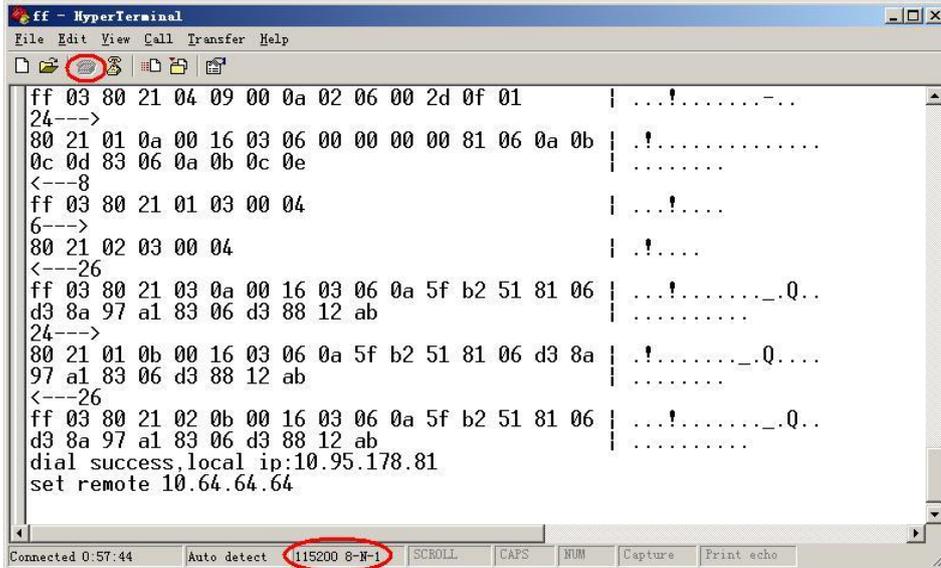
You can capture the log message into a file:

From the menu, choose "Transfer" ➔"capture text"



Input the log file name and press "start" button, the output message are now stored in the log file.

When enough message captured, you can stop capturing:

From the menu, choose "Transfer"➔"capture text"➔"stop"

Syslog:
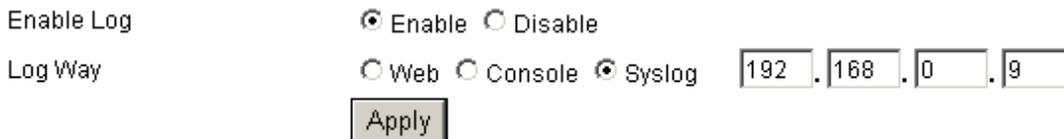


The log message is output to a syslog server, if choose this way, you should input a syslog server's IP Address and run a syslog server program on it. .

### 3.3.13 Misc

Normally, the four-faith web config tool listens on port 80. If you want to change listening port, please configure "web config port" item.

Web Config Port          80
                         Apply

To reboot the router , press the "Reboot" button.

Reboot System          Reboot

### 3.3.14 PPTP Client

**PPTP Client**

☑ **Enable PPTP Client**

PPTP Server IP        222 . 33 . 9 . 43
Local Tunnel IP       ⦿ Auto  ◯ Fixed IP [    ] . [    ] . [    ] . [    ]
User Name             test
Password              ●●●●

                      Apply   Cancel

Enable PPTP Client: Enable or disable PPTP Client function
PPTP Server IP:        The PPTP server's IP Address
Local Tunnel IP:      The local tunnel IP Address, if you choose "Auto", the Address is allocated by
                       the PPTP Server dynamically. You can also use the fixed local tunnel IP if the
                       PPTP Server support
User Name: Username to login the PPTP Server.
Password: Password to log into the PPTP Server.

### 3.3.15 L2TP Client

## L2TP Client

☑ **Enable L2TP Client**

L2TP Server IP (LNS)    222 . 33 . 9 . 43

Local Tunnel IP    ⊙ Auto  ○ Fixed IP ___ . ___ . ___ . ___

User Name    test

Password    ●●●●

[ Apply ]  [ Cancel ]

Enable L2TP Client: Enable or disable L2TP Client function

L2TP Server IP (LNS):     The L2TP server's IP Address

Local Tunnel IP:     The local tunnel IP Address, if you choose "Auto", the Address is allocated by the L2TP Server dynamically. You can also use the fixed local tunnel IP if the L2TP Server support

User Name: Username to login the L2TP Server.

Password: Password to login the L2TP Server.

## 3.3.16 IPSEC Client



## 3.3.17 Dynamic DNS

If your network has a permanently assigned IP address, you can register a domain name and have that name linked with your IP address by public Domain Name Servers (DNS). However, if your Internet account uses a dynamically assigned IP address, you will not know in advance what your IP address will be, and the address can change frequently. In this case, you can use a commercial dynamic DNS service, which will allow you to register your domain to their IP address, and will forward traffic directed at your domain to your frequently-changing IP address.

The four-faith router currently support 88ip(www.88ip.net) and 3322(www.3322.org) Dynamic DNS provider.

88ip:

## Dynamic DNS



Enable Dynamic DNS Service: Enable DDNS service

Service Provider: the DDNS service provider

Host Name: The 88ip provider's server hostname

Backup Host Name: The 88ip provider's backup server hostname

User Name: Your 88ip account username

Password: Your 88ip account password

Update Interval: The time interval of IP Address update, unit is second

3322:



Enable Dynamic DNS Service: Enable DDNS service

Service Provider: the DDNS service provider

Host Name: The 3322 provider's server hostname

Customer Domain: Your custom 3322 domain name.

User Name: Your 3322 account username

Password: Your 3322 account password

Update Interval: The time interval of IP Address update.

The "Show Status" button is used to display the current DDNS status.
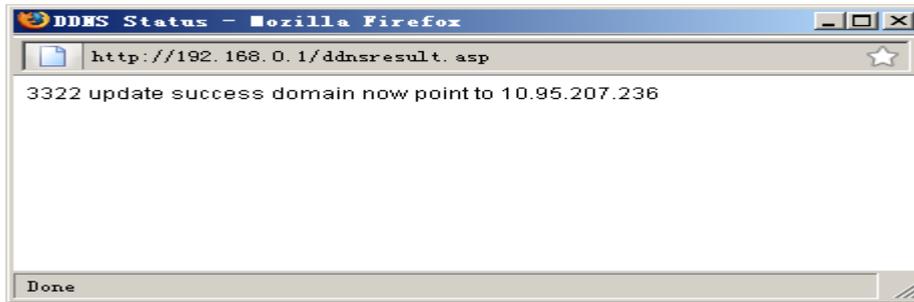


  The above DDNS status page shows the domain name tomjerry555.3322.org now point to IP Address 10.95.207.236

## 3.3.18 Serial Settings

  There is a console port on Four-Faith router. Normally, this port is used to debug the router. This port can also be used as a serial port. The router has embedded a serial to TCP program. The data sent to the serial port is encapsulated by TCP/IP protocol stack and then is sent to the destination server. This function can work as a Four-Faith DTU (Data Terminal Unit). Please refer www.four-faith.com for more information about this product.



  Baudrate: The serial port's baudrate

  Databit: The serial port's databit

  Parity:   The serial port's parity

Stopbit: The serial port's stopbit

Flow Control: The serial port's flow control type.

Enable Serial TCP Function: Enable the serial to TCP function

Protocol Type: The protocol type to transmit data.

    UDP(DTU) – Data transmit with UDP protocol , work as a Four-Faith DTU which has

          application protocol and hear beat mechanism.

    Pure UDP – Data transmit with standard UDP protocol.

    TCP(DTU) -- Data transmit with TCP protocol , work as a Four-Faith DTU which has

          application protocol and hear beat mechanism.

    Pure TCP -- Data transmit with standard TCP protocol.

Server Address: The data service center's IP Address or domain name.

Server Port: The data service center's listening port.

Device ID: The router's identity number.

Heartbeat Interval:    The time interval to send heart beat packet. This item is valid only when you

          choose UDP(DTU) or TCP(DTU)    protocol type.

## 3.3.19 GPS Settings



Enable GPS: Enable or disable GPS function

GPS Output Interface: This item selects the GPS output interface including network and serial port

GPS Center Address: The GPS center's IP Address or domain name

GPS Center Listening Port: The GPS center's listening port.

GPS Information Update Interval(Seconds): The time interval between two GPS information update, unit is second

When GPS output interface is serial port, we should set the following serial port settings:

**Xiamen Four-Faith Communication Technology Co.,Ltd.**     Page 36 of 39
Add：    J1-J3,3$^{rd}$Floor,No.44,GuanRiRoad,SoftWare Park,XiaMen .361008.China
http：//www.fourfaith.com    Tel：+86 592-6300326    6300325    6300324    Fax：+86 592-5912735

## Serial Port Settings

| | |
|---|---|
| Baudrate: | 115200 |
| Databit: | 8 |
| Parity: | None |
| Stopbit: | 1 |
| Flow Control: | None |

[ Apply ]  [ Cancel ]

# Chapter 4 Appendix

The following steps describe how to setup Windows XP Hyper Terminal.

1.  Press "Start"→"Programs"→"Accessories"→"Communications"→"Hyper Terminal"
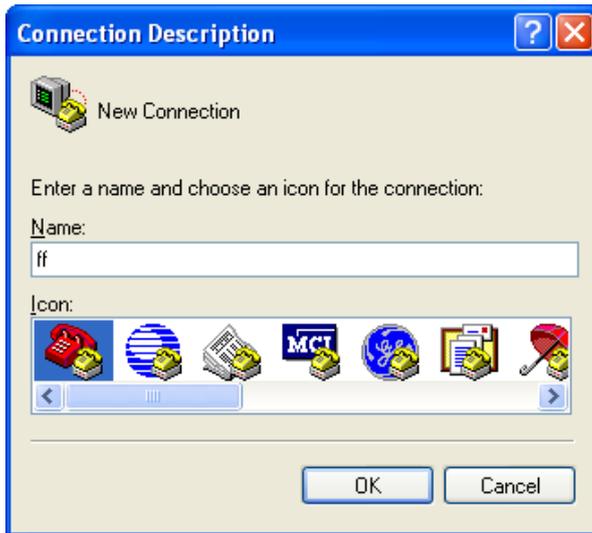
2.  Input connection name, choose "OK"

3.  Choose the correct COM port which connects to modem, choose "OK"

4.  Configure the serial port parameters as following, choose "OK"
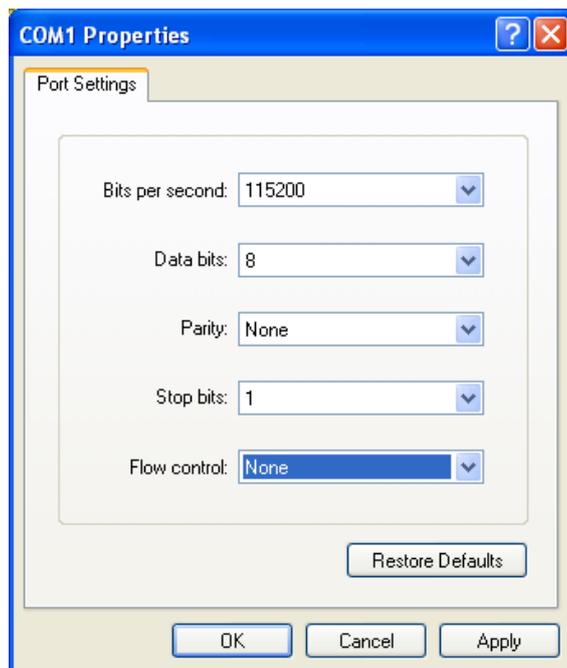
Bits per second: 115200

Data bits: 8

Parity: None

Stop bits: 1

Flow control: None



5. Complete Hyper Terminal operation, It runs as following