

# SAR INFORMATION

## THIS MODEL PHONE MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your wireless Router is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health. The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. \*

Tests for SAR are conducted with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output. Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model. The highest SAR value for this model Router when tested for use near the body, as described in this user guide, is **1.35 W/Kg**. (Body-worn measurements differ among phone models, depending upon available accessories and FCC requirements). While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure. The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on **FCC ID: CO3BPL-R100**.

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) web-site at <http://www.wow-com.com>. \* In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.

## NEAR BODY OPERATION

This device was tested for typical near body operations with 1 cm from the body. To maintain compliance with FCC RF exposure requirements, it must have a minimum distance including the antenna of 1 cm from the body during normal operation

# **FCC Compliance Information**

This device complies with Part 15 of 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.

# LTE Mobile Hotspot Router

LTE Mobile Hotspot Guide  
Version 18.01.2012

## Table of Contents

The Browser Interface and Settings	2
HOME	3
WWAN	3
Status	3
Diagnostics	4
SIM	5
WiFi	5
Status	5
Profiles	6
Network Address	7
SECURITY	8
Account	8
MAC Filtering	8
Port Filtering	9
ADVANCED	9
VPN Pass Through	9
Port Forwarding	10
DMZ	10
Factory Default	10
HELP	11

## The Browser Interface and Settings

Open your Web browser and enter <http://192.168.1.1/> into the address window. The browser interface will open.

**Note.**

Browser interface recommend IE 7.0 and later with Windows SP3 and later version.

Your LTE and WiFi use a browser interface to configure the router.

The browser interface lets you:

- View the status of aspects of your network.
- Set up DHCP, WEP or WPA or WPA2 security, MAC filtering, Port filtering, Port forwarding, DMZ, and VPN pass through.
- Set up a hotspot to allow a maximum of ten connections to your router without having to share your network name and network key.

The screenshot shows the web interface for the R720 Mobile Hotspot. At the top, there is a navigation bar with the following items: HOME | WWAN | WiFi | SECURITY | ADVANCED. To the right of the navigation bar, there are status indicators: a signal strength icon, '2/10 Connected', and a battery icon. A red arrow points to this navigation bar with the label 'Menu Bar'. Below the navigation bar, the main content area is titled 'Home' and contains two tables:

Internet Connections	
Connected Time	0:02:04
Received	169.13 Kbytes
Transmitted	103.44 Kbytes
IP Address	23.18.0.70
Mask	255.255.255.0
Gateway	23.18.0.70
DNS	67.215.111.51

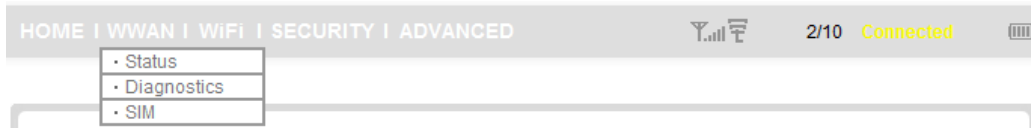
WWLAN	
Network Name	Franklin R720 F789
IP Address	192.168.1.1
Mask	255.255.255.0
Security	WPA-PSK(AES)
Users	2/10

## Home

The Home screen is the first screen you see after logging in to the browser interface. It is the main point of entry for all your work in the browser interface. The menu bar runs horizontally along the top of the browser interface. It shows how many users or devices are connected. It also displays information about your router's connection strength and battery level.

## WWAN

The WWAN menu allows you to set your authentication. It also provides internet connection information as well and traffic counters.



### ● *Status*

The Internet Connections section displays the following information:

- Connection status.
- Duration of the current connection.
- Roaming status.
- Duration of the total connection.
- Total data bytes.
- Current data bytes of received or transmitted.
- The router's IP address and subnet mask.
- Gateways IP address.
- DNS server's IP address.

Internet Connections	
Connection Status	Connected
Connected Time	0:12:08
Roaming	No
Total Connection Time	0:12:08 <input type="button" value="Reset"/>
Total Data	786.67 Kbytes
Received	400.96 Kbytes
Transmitted	385.70 Kbytes
IP Address	23.18.0.70
Mask	255.255.255.0
Gateway	23.18.0.70
DNS	67.215.111.51

Click *Reset* to initialization of counters.

### ● *Diagnostics*

The Diagnostics menu gives you the modem information, and this screen is divided into two sections.

The WWAN Connections section displays the following:

- Connection status information. (ex. Connected, Disconnected)
- Service type. (ex. LTE, EVDO Rev.0, EVDO Rev.A, eHRPD, 1xRTT, or No Service)
- Preferred mode.
- Current roaming status.
- Received Signal Strength Indication (RSSI) – RSSI is router's connection strength.

WWAN Connections	
Connection Status	Connected
Service Type	LTE
Preferred Mode	Auto <input type="button" value="Apply"/>
Roaming	No
RSSI	-79dBm

You can change operation mode. Select mode and click *Apply* to change preferred mode.

The WWAN Modem section displays the following:

- Router's manufacturer.
- Router's model name.
- Router's firmware version in use.
- Mobile Equipment Identifier (MEID).
- Mobile Directory Number (MDN).
- Mobile Identification Number (MIN).
- Mobile Station International ISDN Number (MSISDN).
- International Mobile Equipment Identity (IMEI).
- PRL version in use.

WWAN Modem	
Manufacturer	Franklin wireless
Model	R720
Firmware Version	BPL_R100_3.0.6_3037PT
MEID	N/A
MDN	6196727310
MIN	6196727310
MSISDN	+16196727310
IMEI	99000062828406
PRL Version	3

### ● SIM

You can set the SIM (Subscribe Identity Module) lock and PIN (Personal Identification Number) code.

**SIM setting**

The current PIN must be provided in order to modify the SIM.

Current PIN

Lock SIM

Unlock SIM

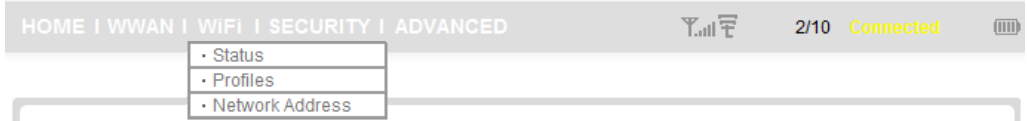
You can choose the SIM lock or unlock. Select the lock type and type the current PIN code. If you set the Lock SIM, must type the PIN code when after visit the browser interface.

PIN setting	
Current PIN	<input type="text"/>
New PIN	<input type="text"/>
Verify PIN	<input type="text"/>

Also, you can change the PIN code of your SIM card. It will be possible when device was operated by the Lock SIM type.

## WiFi

The WiFi menu allows you to view status information for your WiFi network and configure your hotspot.



### ● Status

This Status menu gives you following status information:

- Current security in use.
- Network Name. (also known as SSID)
- Router's MAC address.
- Users (clients) information currently connected to the router.

### Note.

*DHCP Client List section will be display in case of the DHCP Client only.*

WiFi Status	
Security	WPA-PSK(AES)
Network Name (SSID)	Franklin R720 F789
MAC address	00:07:79:07:F7:89

DHCP Client List		
Hostname	MAC Address	IP Address
mybang-PC	5C:AC:4C:07:2B:48	192.168.1.2
android_c74fe6dd6a39f72f	78:D6:F0:31:DB:8B	192.168.1.3

### ● Profiles

This menu allows you to modify WiFi and Secure Profile.

WiFi Basic	
802.11 Mode	802.11b/g/n mixed mode ▾
Channel (Frequency)	Auto ▾
Network Name (SSID)	Franklin R720 F789 <input type="checkbox"/> Don't broadcast SSID

- 802.11 Mode: The type of wireless networking you are currently using. You can choose either mode among 802.11b only, 802.11g only, 802.11n only, 802.11b/g mixed mode, 802.11b/g/n mixed mode,

and Auto. The default mode is 802.11b/g/n mixed mode.

- Frequency (Channel): Available WiFi radio channels are Auto and 1 to 11. The default is Auto.
- Network Name (SSID): You can change or input new Network Name (SSID). System default SSID is R720 XXXX. XXXX is your router's MAC address number last four characters. If you check *Don't broadcast* box, WiFi clients who try to access the LTE Mobile hotspot can't see this SSID.

WiFi Profiles	
Select Security	WPA2-PSK ▼
Encryption	<input type="radio"/> TKIP <input checked="" type="radio"/> AES
Network Key	<input type="text" value="87654321"/> * 8~32 ASCII characters

Apply

- WPA-PSK/WPA2-PSK: New WiFi certification program mode. The default security is WPA2-PSK.
- WEP(64bit or 128bit): Traditional WiFi certification program mode.
- TKIP/AES: Data encryption mode. The default encryption is AES.

WiFi Protected Setup section is easing security setup function in home and small office.

WiFi Protected Setup	
WPS	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Method	PBC ▼

Apply

- PBC(Push Button Configuration) method: It will be operated by WPS button on your router.
  1. Push the WPS button on router. (Router is restarting.)
  2. Or select PBC method, WPS enable, and *Apply* button on browser interface. (Router is restarting.)
  3. Push the WPS button on another device (your PC, smart phone and so on) after the router's reboot.

WiFi Protected Setup	
WPS	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Method	PIN ▼
PIN number	<input type="text"/>

Apply

- PIN method: It will be operating with your device's starting after set the PIN method type.
  1. Select PIN method and enter PIN number(the eight-digit PIN number obtained from STA/client).
  2. Click *Apply*.

**Note.**

*802.11n only, 802.11b/g/n mixed mode, and Auto is not supported on WEP security and TKIP encryption type of WPA type's security. It will be cause of a lowering of WiFi's speed.*

*The WPS function will be operating as the WPA type's security.*

*If you want to use the WPS function and the WPA2 security, client OS version must be more than windows XP service pack 3.*

- Network Address



This menu allows you to modify WiFi DHCP IP range.

DHCP Setup	
DHCP Server	Enable ▾
DHCP IP Range	192.168.1.2 ~ 99

Apply

- DHCP Server: Enabling the DHCP server allows the device to automatically assign a local IP address to a new device joining your network (such as a wireless printer or an additional laptop). When the DHCP server is disabled, you will have to assign static IP addresses to all devices on your network.

## SECURITY

HOME | WWAN | WIFI | SECURITY | ADVANCED 2/10 Connected

- Account
- MAC Filtering
- Port Filtering

### ● Account

Set Administration	
User ID	<input type="text" value="admin"/>
Password	<input type="password"/>
Verify Password	<input type="password"/>

Apply

Create administrator's name and password.

### ● MAC Filtering

MAC Filtering allows you to limit access to your device to only those devices with a specified MAC address (a unique code assigned to hardware such as network adapters).

Enable MAC Filtering	
<input type="checkbox"/>	Enable MAC Filtering If enabled, only trusted clients can connect to this access point. Trusted clients are identified by their MAC address.

Trusted Clients List	
Add Trusted Clients MAC Address	
<input type="text" value="ex) 00:00:00:00:00:00"/>	<input type="button" value="Add Client"/>
<input type="text"/>	<input type="button" value="Delete Client"/> <input type="button" value="Delete All"/>

Apply

### Finding the MAC Address

The MAC Address is also known as a hardware or physical address for a device, usually a network adapter. It consists of six pairs of numbers and letters (for example, 00:21:9B:1C:64:34).

You can view the MAC address for any device connected to the LTE Mobile device in the DHCP Client List section of the WiFi Status screen. (See "DHCP Client List" on [page 6](#).)

### Note.

When you enable this feature for the first time, ensure you add your wireless MAC first, then click Apply.

### ● Port Filtering

Port filtering allows you to conserve bandwidth by preventing non-business applications from accessing the Internet, and to prevent applications such as online games from accessing the Internet.

Add Rule	
Name	<input type="text"/>
Port	<input type="text"/> ~ <input type="text"/> <span>Select Well-Known Port ▼</span>
Protocol	TCP ▼

Rule Lists				
No.	<input type="checkbox"/>	Name	Port	Protocol
<input type="button" value="Update"/> <input type="button" value="Delete"/>				

1. Select the list box for the applications for which you want to allow access to the Internet.
2. Or enter the application value in the Name, Port, and Protocol boxes.
3. Click *Apply*.

### ADVANCED

HOME | WWAN | WIFI | SECURITY | **ADVANCED** 2/10 **Connected**

- VPN Pass Through
- Port Forwarding
- DMZ
- Factory Default

- *VPN Pass Through*

VPN Pass Through is required if you are going to connect to a VPN. (Such as a corporate system.)

VPN Pass Through	
L2TP Pass Through	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
IPSEC Pass Through	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
PPTP Pass Through	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

- L2TP/IPSEC/PPTP: VPN tunneling protocols.

- *Port Forwarding*

Port Forwarding allows designated users or applications to reach specified servers, such as FTP and DNS servers, on your computer. Also, some online games require incoming access to work properly.

Add Rule	
Name	<input type="text"/>
Port	<input type="text"/> Select Well-Known Port ▼
Protocol	TCP ▼
Destination IP Address	192.168.1. <input type="text"/>

Rule Lists					
No.	<input type="checkbox"/>	Name	Port	Protocol	IP Address

1. Selecting the list box and typing local static IP address of the device hosting the application IP.
2. Or enter the value in the Name, Port, Protocol, and Destination IP Address boxes.
3. Click *Apply*.

**Note.**

*You cannot use port forwarding with some standard data accounts. To use port forwarding, you may need to request a static IP address from your carrier / service provider.*

● **DMZ**

DMZ function is a host on the internal network that has all ports exposed, except those ports otherwise forwarded. The Mode set enable and enter the local static IP address.

DMZ	
Mode	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
IP Address	192.168.1. <input type="text"/>

● **Factory default**

Click *Update* to reset your device to the default factory settings.

Load Factory Defaults	
Load Default	<input type="button" value="Update"/>

**HELP**

Help menu gives you the information about customer service, the Quick Start Guide, full User Guide, Frequently Asked Questions, & Troubleshooting.

- *Customer Service*
- *User Guide*
- *FAQ*
- *Troubleshooting*
- *QSG*

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.

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