## Mobile Broadband Modem X720

# **User Manual**

Franklin Access Manager™





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Section 1,

# **1. BEFORE USING X720**

- About This User's Manual
- Product Overview
- Product Package Contents
- Introduction to X720 Express Card
- Product Specifications
- Product handling
- Configuration

## About This User's Manual

This user manual contains all the necessary information regarding the device installation and how to use the modem for your internet navigation. Please make sure that you are familiar with the device operation by carefully reading this user manual before using the X720 LTE and EVDO Express Card modem.

#### Instructions

• Install the Franklin Access Manager<sup>™</sup> software by inserting the X720 Install Program CD into your PC. The installation software CD is included in the X720 modem package. When you insert the CD into your computer, the installation process will begin.

• It is highly recommended that you read the safety precautions described in this manual before using the X720.

#### Documents Included on your Modem Memory

- Broadband Usage Conditions, Terms & Conditions
- User Manual

## **Product Overview**

Welcome and thank you for choosing X720 Express Card for your wireless internet connection. The X720 Express Card is a dual-mode wireless Express Card. This device offers the coverage of CDMA, while offering LTE capabilities where service is available.

The X720 is a high-speed wireless device that enables your computer to connect to 4G (LTE) high-speed wireless network. The X720 provides simple yet powerful user interface that is easy to install and use.

## **Product Package Contents**

The following items are included in the product package. If any of the items listed below are missing, please contact the local retail store where you purchased the product.

- ✓ X720 Express Card Modem
- ✓ Quick Start Guide
- ✓ Adaptor

## Introduction to X720 Express Card

The X720 is designed for the Express Card slot on your computer, which is available in most PC models. The X720 allows you to

- ✓ Access the Internet,
- ✓ Send and receive SMS and e-mail
- ✓ Access your corporate network through VPN

With X720, you are always connected whether you are away from home, on the road, or wherever wired Internet access is not readily available.

## **Product Specifications**

• Power management: The X720 utilizes power management and system overhead reduction functions provided by the Express Card interface for maximum power savings.

• Antenna design: Its efficient and innovative design optimizes data transfer rate and sensitivity to network signals.

• Express Card slot interface.

• Offers the coverage of CDMA, while offering LTE capabilities where service is available. (CDMA: Supports Cellular-800MHz bands.)

- Utilizes Qualcomm MDM9600 chipset
- Supports high-speed network technologies

• Support Windows XP, Vista, 7 and Apple Macintosh systems with installed Franklin Access Manager<sup>™</sup> connection manager software and driver.

## **Product handling**

• Do not place any adhesive labels on the Express Card. It may leave a sticky residue that can cause problems inside the PC Express Card slot.

• The X720 Express Card should easily slide into the PC Express Card slot. Do not force the X720 into the Express Card slot as it may cause damage to the modem and/or the port.

• Keep the X720 in a dry and clean place. (Storage temperature: -22°F to 149°F [- 30°C to 65°C]). Keep your device away from liquids, dust and excessive heat.

## Configuration

To use the X720 on your computer, you need to install the Franklin Access Manager<sup>™</sup> software included in the modem package and configure the X720 device. See the next section for more information on software installation and X720 device configuration.

The following section will guide you through the installation and setup process for Franklin Access Manager<sup>™</sup> software. Before getting started, you should become familiar with the documentation that came with your X720 Express Card.

Section 2,

# 2. INSTALLATION AND SETUP FOR FRANKLIN ACCESS MANAGER™

- Installing Software
- Setup Program (for Windows)
- Setup Program (for Mac)

This section will guide you through the installation and setup process for Franklin Access Manager<sup>M</sup> software.

Before getting started, you should become familiar with the documentation that came with your Express Card.

## **Installing Software**

#### Warnings

- Make sure to complete the unplugging/ejection process before removing the X720.
- If you remove the device improperly, the modem may be damaged.

#### Notes

• If you have inserted the device properly, Windows will inform you of the new hardware. Wait until Windows completes the "Found New Hardware" task.

• In Windows 2000, several windows similar to "Found New Hardware" window can appear and disappear automatically. In Windows XP, several tool tips similar to the "Found New Hardware" function will appear and disappear in the system tray automatically. In Windows Vista, several tool tips similar to the "Installing device driver software" function will appear and disappear in the system tray automatically. Once hardware detection is complete, you will be prompted to start activation.

- It is normal to hear a short beep sound each time you insert or remove the X720.
- It is an audible notification that your PC recognizes the new hardware.

#### Getting Started (Windows)

To install the Franklin Access Manager<sup>™</sup> software:

Turn on your computer then close all applications.

② Insert the X720 modem into your Express Card slot.

③ Your computer will recognize X720 modem and start the installation sequence automatically. If the program does not launch automatically, go to "My Computer" and select the "FAMCD" drive and double click "start.exe" program.

④ Follow the steps in the next section.

## Setup Program for Windows

## STEP 1:

The "Welcome to the Franklin Access Manager Setup Wizard" screen appears. Click the [Next] button to continue with the installation process.

Franklin Access Manager	
Welcome to the Franklin Access Manager Setup Wizard	
The installer will guide you through the steps required to install Franklin Access Man computer.	ager on your
WARNING: This computer program is protected by copyright law and international tr Unauthorized duplication or distribution of this program, or any portion of it, may resul or criminal penalties, and will be prosecuted to the maximum extent possible under th	t in severe civil
Cancel < Back	<u>N</u> ext >

#### **STEP 2:**

You are now ready to select the location on your computer where Franklin Access Manager<sup>M</sup> will be installed. It is recommended that you do not modify the default destination folder. Click the [Next] button to continue.

🙀 Franklin Access Manager	
Confirm Installation	
The installer is ready to install Franklin Access Manager on your computer.	
Click "Next" to start the installation.	
Cancel < <u>B</u> ack	<u>N</u> ext >

😽 Franklin Access Manager	
Select Installation Folder	
The installer will install Franklin Access Manager to the following folder. To install in this folder, click "Next". To install to a different folder, enter it Folder:	below or click "Browse".
C:\Program Files\Franklin\Frank in Access Manager\	B <u>r</u> owse Disk Cost
Cancel < Ba	ck <u>N</u> exi>

## STEP 3:

During this step the components of Franklin Access Manager product are being installed onto your computer. Installation will occur to the destination folder specified in Step 2.

🖟 Franklin Access Manager	
Installing Franklin Access Manager	
Franklin Access Manager is being installed.	
Please wait	
Cancel	<u> </u>

## STEP 4:

Installation of Franklin Access Manager is now complete. Click the [Close] button to leave the Franklin Access Manager setup program and begin using your new software.

😽 Franklin Access Manager	
Installation Complete	
Franklin Access Manager has been successfully installed. Click "Close" to exit.	
Cancel < Bac	k <u>C</u> lose

 $\ensuremath{\mathbbmu}$  The setup program will automatically create a Franklin Access Manager shortcut on your desktop.

## STEP 5:

Please wait while X720 is installed and ready to use.

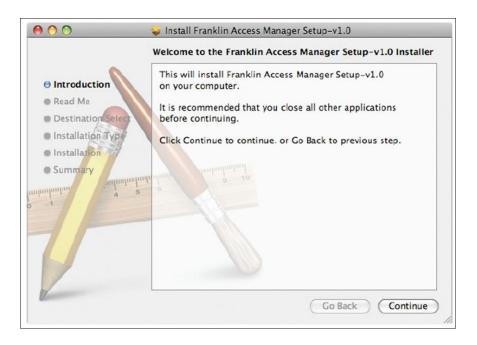


## Setup Program for Mac OS X

**STEP 1:** Insert X720 into the PC, then X720 CD disk drive should be automatically mounted. Double click X720 CD icon on the Desktop. Double click the Franklin Access Manager Setup icon to launch the installer.



**STEP 2:** Click [Continue] button in the welcome window to proceed with the installation.



**STEP 3:** The Read Me file appears. Click the [Continue] button.

	Important Information
Introduction     Read Me     Destination Select     Installation Type     Installation     Summary	Installation Frankin Access Manager Application will be installed in the Applications Folder.
	Software Release Note         Project Name       : Franklin Access Manager(tm)         Release Date       : Nov 4, 2009         Base Version       : 1.0         Purpose       : Productivity Test         Release to       : Internal         Version 1.0 - Nov 4, 2009          Print       Save       Go Back       Contain

STEP 4: Click "Install" to begin the standard installation on system volume

	Standard Install on "Macintosh HD"
Introduction     Read Me     Destination Select     Installation     Installation     Summary	This will take 21.6 MB of space on your computer. Click Install to perform a standard installation of this software on the volume "Macintosh HD".
	Customize Go Back Install

**STEP 5:** Finally, the Setup Wizard shows confirm window, click the [OK] button to continue.

	Installer re password.	quires that you type your
	Name:	Franklin
	Password:	
▶ Details		
2		(Cancel) OK

Enter the Name/Password used to log into the computer then click "OK".

**STEP 6:** Franklin Access Manager installation begins.

000	Install Franklin Access Manager Setup-v1.0
Introduction     Read Me     Destination Select     Installation     Summary	Installing Franklin Access Manager Setup-v1.0
	Go Back Continue

**STEP 7:** Installation is now complete. Click "Restart" button to close the setup wizard. Then OS is restarted.

<b>•</b> • • •	install Franklin Access Manager Setup-v1.0
In  In In In In In In In In In In In In	stallation completed successfully <b>Install Succeeded</b> The software was successfully installed. Click Restart to finish installing the software.

Section 3,

# **3. STARTING FRANKLIN ACCESS** MANAGER<sup>™</sup>

- Features
- Getting Started
- Connecting to the Internet

Franklin Access Manager<sup>™</sup> is a connection manager application for X720 Express Card. It allows you to manage and monitor the Internet connection between your computer and the wireless network. It has user friendly interface and is equipped with many useful features that will enhance your internet navigation experience.

## Features

#### WWAN (Wireless Wide Area Network, 1xEV-DO/1xRTT/CDMA/LTE) Specific Features:

- Configures your computer to use your X720 Express Card
- Creates a Data Connection for your X720 Express Card

• Copies utility to create wireless copies of your dial-up connections, if supported by your device

• Test function for WWAN device

 $\,$  A WWAN capable device is required to use the WWAN features. Individual WWAN features are also device dependent as described in the WWAN section above.

#### **Other Features:**

• Logs connections used, duration of the usage, and bytes sent and received.

• See the section "Additional Features" for more information about the features of Franklin Access Manager<sup>™</sup> software.

## LTE-Specific Items

In addition to the standard items, the LTE Connections Interface contains the following:

#### • SINR

Carrier to Interference + Noise Ratio- This is an indication of how strong the desired signal is compared to any interfering signals and noise.

#### • Received Signal Strength

The strength of the received signal is displayed as both a value in dbm and as the familiar signal strength bar graphic.

Center Frequency

The center frequency used by your current LTE connection.

## **Getting Started**

Double click on the Franklin Access Manager icon on your desktop or click on the Windows Start menu and select Franklin Access Manager from the list of programs.



Session Tools Options Help		
¶all lte		
Disconnected,	00:00:00	Connect

## Connecting to the Internet

Once your device is properly configured, connecting to the Internet is as simple as clicking the "Connect" button. Once connected, the "Connect" button will change to "Disconnect". Simply click this "Disconnect" button to end your current connection. To connect to any other network shown, select it, and then click the "Connect" button.

#### The Status Bar

Information regarding your current network connection can be seen in the status bar along the bottom of Franklin Access Manager interface. For more information on this status bar, see the section "The Status Bar" in the "Additional Features" section.

Franklin Access Manager will display status information at the bottom during the connection process as well as while connected.

When it is not connected, the status text in the lower left corner will display "Not connected" for the currently selected network. The timer will display "00:00:00". Once connected, the status text will display "Connected" and the timer will begin to run.

Right clicking on the tray icon provides various options and double clicking on it will always show the application. Placing your mouse pointer on it will display the current connection status. Based on your preferences, your browser can be launched automatically upon connection.

**Using the "Data" connection:** By default Franklin Access Manager enables the software for data connections. If your connection fails when you try to connect, please try to reconnect.

**Dormancy:** The data session can go to dormant mode if you are not sending or receiving any data for an extended period of time. As soon as you resume sending or receiving data, the data session will return to an active state automatically.

Section 4,

# 4. USING FRANKLIN ACCESS MANAGER™

- The Session Menu
- The Tools Menu
- The Options Menu
- The Help Menu
- Additional Features

## The Session Menu

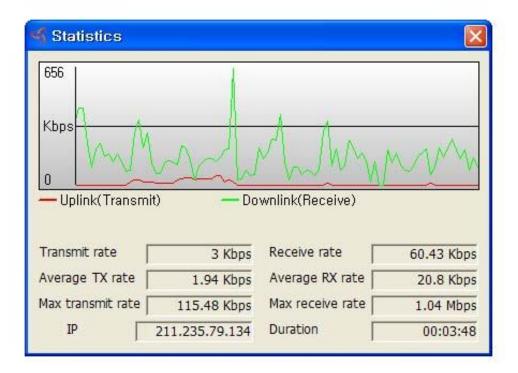


## • Connect / Disconnect:

Use this button to connect or disconnect the wireless networks.

#### • Statistics:

At any time during your connection you can check your current connection speed and throughput stats in the Statistics window. To see this window, select "Statistics" from the "Session" menu.



#### • Exit:

Close the Franklin Access Manager<sup>™</sup> Software

## The Tools Menu

#### • Log:

This feature provides a concise session log of your network activity. Click on a column heading to sort the log. This window also displays the total number of sessions as well as the total connected time. The information displayed in the Usage log can be customized using the controls that appear just below the list.

Sall history						
Connection	Date/Time	Duration	IP Address	Bytes Received	Bytes Sent	Total Bytes
Mobile Broadband	06-16-2009 13:43:04	37	211.235.75.82	54202	14423	68625
View 🗌 Selecteo		x Broadband v 09-06-16 v Clear	To: 2009-06-16	<u>.</u>		

 $\checkmark$  To view only the connection history of a specific network type, check the "Selected connection" checkbox and select the desired type from the drop-down list.

 $\checkmark$  To view only the connections made during a specific interval, check the "Date range checkbox and specify the date in the "From:" and "To:" fields.

 $\checkmark$  To clear the log, press the Clear button. Note that clearing the log cannot be undone.

## • Activation:

Programs the activation code, phone number, and MEID to the X720 Modem.

#### • Test Device:

Retrieve and display detailed information about your WWAN device (1xEV-DO/1xRTT/CDMA/LTE Express Card) such as CM port, model, MEID, MDN, etc. This information can be valuable when troubleshooting a problem.

Fest Device	
Detecting Device: Success.	~
Find CM port: Finding USB device: Device: 'U600 CM Port' Found Device: COM16	
Success.	
Opening CM port: Success. CM Port opened: COM16	
Initializing CM port: Success. Port/Protocol initialized successfully.	
	~
ОК	

## The Options Menu

## [Preferences]

## (1) General Tap

🐴 Prefer	rences	
General Starting Run ( Show	WWAN       LBS       VPN       Updates         g Options       Connection Manager at Startup         v Splash Window       mize Application into Tray	
	OK Cancel	

#### • Starting Options

✓ Run Connection Manager at Startup: If this option is checked the Franklin Access Manager starts automatically when Windows starts.

 $\checkmark$  Show Splash Window: Display splash window when Franklin Access Manager starts.

✓ **Minimize Application into Tray:** When you minimize the application it will now appear in the Windows task bar. To restore the application click on Franklin Access Manager tray icon, and select[Open].

## (2) WWAN Specific Settings

#### • When Connected:

This is used to set various WWAN connection settings.

🜱 Prefer	ences					
	tion	LBS	VPN	Updates		
			ОК		ancel	

✓ Open Web Browser: If it is checked, y, Franklin Access Manager will launch the default web-browser automatically when the data connection is established successfully.

 $\checkmark$  Go to URL: Use this option to enable web-browser go to web site you defined using URL field below.

 $\checkmark$  **URL:** Website URL for starting page of web browser started automatically upon connecting to the Franklin Access Manager network.

#### ✓ NDIS(Network Driver Interface Specification) Option

 $\checkmark$  **Enable NDIS:** When enabled, this feature allows automatic internet connection without user interaction

## (3) LBS settings

This feature allows Franklin Access Manager software to setup LBS options.

🗳 Prefer	ences		×
General	WWAN LBS	S VPN Updates	
Enab	e GPS Function e NMEA port	nt Agreement for 'Location & Search Services' men	u
		ces p Quest 🔿 Yahoo! Maps 🔘 Google Maps	
Test	Number HEPE: Ur Latitude: Longitud Altitude:	Port: Unknown r of Satellites: Unknown Unknown e: Unknown ide: Unknown e: Unknown odated: Unknown	
		OK Cancel	

 $\checkmark$  LBS Options: Enable/Disable LBS function and confirmation screen for Privacy Consent Agreement.

 $\checkmark$  Mapping & Search Services: You can choose the map service for result of "Location & Search Services".

 $\checkmark$  **GPS Testing:** You can see current GPS signal level and perform functionality test. If you click the button "Test GPS", test results will be updated.

 $\checkmark$  You are using a dual-mode CDMA/LTE Mobile Broadband device and that device is currently connected to a LTE network.

## (4) VPN Settings

General WWAN	LBS VPN	Updates		
VPN Options				
<ul> <li>None</li> <li>Microsoft VPN</li> </ul>				
O External VPN Ap	inlication			
	preserver			
rofile				
Diffon(VPN)			~	
PN Application				

#### • VPN Options

✓ None: Do not use VPN

✓ **Microsoft VPN:** Use VPN client of Microsoft Windows.

 $\checkmark$  **External VPN Application:** Use other VPN client application provided another vendor. Specify other VPN client application. To choose the application from your local disk, click"" button.

✓ **Profile (Microsoft VPN only):** Select Microsoft VPN Profile.

## (5) Update settings

This feature allows Franklin Access Manager software to check for software updates and it can be updated manually or automatically.

Prefer	ences				
General	WWAN	LBS VPN	Updates		
Opdate	ally	Daily	~		
				(	Update Now
		(		7	
		OK	Cancel		

#### • Update Option

✓ **Manually:** If you choose this option, the software will only check for update when you select "Update Now" button or select "Help", then "Check for updates" from main screen.

✓ **Automatically:** You can allow the software to automatically check for updates, daily, weekly, or monthly. It only checks when the application is running and when it detects that you are connected and able to access the Internet.

## [Language]

You can change language setting between English and Spanish.

## The Help Menu

## • Contents:

It provides contents for additional information.

## • Check for Updates:

Select this option to check for the available latest software.

#### • About:

Displays copyright and X720 device information

	<u>C</u> ontents	
Tul LTE	Check for <u>U</u> pdates, <u>A</u> bout,	
Disconnected,	00:00:00	Sonnect

## **Additional Features**

In addition to the basic features mentioned in previous sections, Franklin Access Manager has the additional features listed below.

#### • Status Bar

The details of your current connection can be seen in the status bar at the bottom of Franklin Access Manager interface. This status bar is always visible when the interface is fully expanded.



#### • Connection Status

The text on the status bar reflects your current state. During an active connection, this text will change to "Connected". If you are not connected, it will display "Disconnected".

## • X720 Express Card Status Area:

The text can change to the following:

✓ **No Device:** Your X720 Express Card is removed from the laptop.



 $\checkmark$  **Device not activated:** Your Express Card needs to be activated. Select "Activation from the Tools menu.



## • Throughput

The amount of data that you have sent and received since the current network connection was initiated can be seen by holding the mouse over.

Session To	ols Options	Help	
Till LTE			
		Sent:58	686/Received:741572

## • Elapsed Time

The amount of time that has elapsed since the current network connection was initiated is tracked on the lower left side of the status bar.

Section 5,

# **5. INSTALLING X720**

- Recommended System Requirements
- Remove the Modem from your computer
- Trouble Shooting
- Care and Maintenance
- Warranty
- SAR Information
- Safety Information
- U.S.A

## **Recommended System Requirements**

To successfully install and use the X720 modem in your PC, the following system specifications are required.

Item	Required Specification
Operating system	Windows® 2000/XP/Vista/7 Mac OS X 10.4/10.5/10.6
Card Slot	Express Card Slot
Processor/Memory	Minimum required system to support the above OS

## Remove the Modem from your Computer

 $\checkmark$  Remove the X720 from your laptop. When removing the modem, always use the push button of the Express Card slot and pull modem carefully.

## Trouble Shooting

The following is a partial listing of errors and possible solutions. Please refer to the Inline Help and the Franklin Access Manager Manager User Manual for a full listing.

 $\checkmark$  Ensure that the Franklin Access Manager Connection Manager has been correctly installed on your computer.

- $\checkmark$  Ensure that your X720 modem has been activated.
- $\checkmark$  Ensure that the Express Card is fully plugged into the card slot.
- $\checkmark$  Ensure that the LED light is on; otherwise connect and then reconnect the Express Card

## CARE AND MAINTENANCE

Your device is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you protect your warranty coverage.

(a) Keep the device dry. Precipitation, humidity and all types of liquids or moisture can contain minerals that will corrode electronic circuits.

(b) Do not use or store the device in dusty, dirty areas. Its moving parts and electronic components can be damaged.

(c) Do not store the device in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.

(d) Do not store the device in cold areas. When the device returns to its normal temperature, moisture can form inside the device and damage electronic circuit boards.

(e) Do not attempt to disassemble the device.

(f) Do not drop, knock, or shake the device. Rough handling can break internal circuit boards and fine mechanics.

(g) Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device.

(h) Do not paint the device. Paint can clog the moving parts and prevent proper operation.

(i) Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the device and may violate regulations governing radio devices.

All of the above suggestions apply equally to your device, battery, charger, or any enhancement. If any device is not working properly, take it to the nearest authorized service facility for service.

## WARRANTY

#### Manufacture's Limited One-Year Warranty:

Franklin Wireless (the company) warrants to the original retail purchaser of this device, that should product or any part thereof, during normal consumer usage conditions, be defective in material or workmanship that results in product failure within the first twelve (12) month period from the date of purchase, such defects will be repaired or replaced (with new or refurbished) product at the Company"s discretion, without charge for parts and labor directly related to the defect(s). This warranty extends to consumers who purchase the product in the United States or Canada and it"s not transferable or assignable. This warranty does not apply to:

(a) Product subject to abnormal use or conditions, accident, mishandling, neglect, unauthorized alteration, misuse, improper installation or repair or improper storage;

(b) Products whose mechanical serial number or electronic serial number has been removed, altered, or defaced

(c) Damage from exposure to moisture, humidity, excessive temperature or extreme environment conditions;

(d) Damage resulting from connection to, or use of any accessory or other product not approved or authorized by the company;

(e) Defects in appearance, cosmetic, decorative or structural items such as framing and non-operative parts;(f) Product damaged from external causes such as fire, flooding, dirt, sand, weather conditions, battery leakage blown fuse, theft or improper usage of any electrical source.

The Company disclaims liability for removal or reinstallation of the product, for geographic coverage, for inadequate signal reception by the antenna or for communications range or operation of the cellular system as a whole.

When sending your wireless device to Franklin Wireless" authorized distributions for repair or service, please note that any personal data or software stored on the device may be inadvertently erased or altered. Therefore, we strongly recommend you make a back up copy of all data and software contained on your device before submitting it for repair or service. This includes all contact lists, downloads (i.e. third-party software applications games and graphics) and any other data added to your device. Franklin Wireless is not responsible for and does not guarantee restoration of any third-party software, personal information or memory data contained in, stored on, or integrated with any wireless device, whether under warranty or not, returned to Franklin Wireless" authorized distributors for repair or service. To obtain repairs or replacement within the terms of this Warranty, the product should be delivered with proof of Warranty coverage (e.g. dated bill of sale), the consumer"s return address, daytime phone number and/or fax number and complete description of the problem, transportation prepaid, to the Company at the address shown below or to the place of purchase for repair or replacement processing. In addition, for reference to an authorized Warranty station in your area, please call (800)959-3558 in the United States.

The extent of the company's liability under this warranty is limited to the repair or replacement provided above and, in no event, shall the company's liability exceed the purchase price paid by purchaser for the product.

Any implied warranties, including any implied warranty of merchant ability or fitness for a particular purpose, shall be limited to the duration of this written warranty. Any action for breach of any warranty must be brought within a period of 18 months from date of original purchase, but in no case shall the company be liable for a special consequential or incidental damages for breach of this or any other warranty, express or implied, whatsoever. The company shall not be liable for the delay in pending service under this warranty or loss of use during the time the produce is being repaired or replaced.

No person or representative is authorized to assume for the Company any liability other than expressed herein in connection with the sale of this product.

Some states or provinces do not allow limitations on how long an implied warranty lasts on the exclusion or limitation of incidental or consequential damage so the above limitation or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights, which vary from state to state or province to province.

Franklin"s Authorized Service Center Address: 6205 Lusk Blvd, San Diego, CA 92121 San Diego, CA 92121

## SAR INFORMATION

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

Your wireless modem 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 modem 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 modem 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 modem while operating can be well below the maximum value. This is because the modem 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 modem 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 modem when tested for use near the body, as described in this user guide, is 1.16 W/Kg. While there may be differences between the SAR levels of various modems and at various positions, they all meet the government requirement for safe exposure. The FCC has granted an Equipment Authorization for this model modem with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model modem 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: XHG-X720. 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 modems 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.

## SAFETY INFORMATION

#### SAFETY INFORMATION FOR FIXED WIRELESS TERMINALS POTENTIALLY EXPLOSIVE ATMOSPHERES

Turn your modem OFF when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cauls e an explosion or fire resulting in bodily injury or even death. INTERFERENCE TO MEDICAL DIVICES Certain electronic equipment may be shielded against RF signal from your wireless modem. (pacemakers, Hearing Aids, and so on) Turn your modem OFF in health c are facilities when any regulations posted in these areas instruct you to do so. RF signals may affect improperly installed or inadequately shielded electronic system in motor vehicles. EXPOSURE TO RF ENERGY Use only the supplied or an approved replacement antenna. Do not touch the antenna unnecessarily when the modem is in use. Do not move the antenna close to, or couching any exposed part of the body when making a call. NEAR BODY OPERATION This device was tested for typical near body operations with the back of the modem kept 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

## U.S.A.

# U.S.FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

INFORMATION TO THE USER 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 of a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for assistance.

Changes or modification not expressly approved by the party responsible for Compliance could void the user"s authority to operate the equipment. Connecting of peripherals requires the use of grounded shielded signal cables.

## 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.