

**EMC Technologies Report Number: M080719\_Cert\_MC8781\_C2PC**

**APPENDIX E**

**MC8781 WWAN User Manual**

**Host PC User Manual was uploaded with original WLAN and Bluetooth applications (FCC ID: EJE-WB0068)**



Fujitsu Computer Systems Corporation



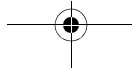
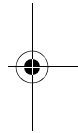
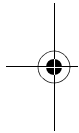
## 3G Mini-Card MC8781

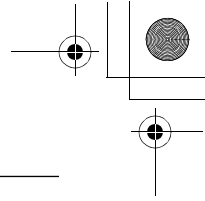
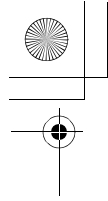
### Regulatory and Safety Information

Please read this document carefully prior to using the 3G Mini-Card MC8781 modem in your Fujitsu Life-Book.

#### Important notice

Because of the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (that is, have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the 3G Mini-Card modem are used in a normal manner with a well-constructed network, the card should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. Sierra Wireless and its affiliates accept no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the 3G Mini-Card modem, or for failure of the modem to transmit or receive such data.





### **Safety and hazards**

The 3G Mini-Card modem **MUST BE POWERED OFF** in all areas that may be susceptible to radio interference. In particular:

#### **Prohibited Areas**

Obey all signs and notices and follow all rules and regulations. Power off the 3G Mini-Card modem when instructed to do so or when you suspect that it may cause interference or danger.

#### **Where explosive atmospheres may be present**

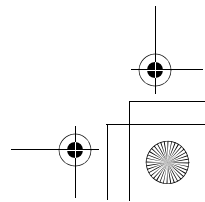
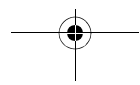
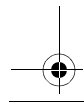
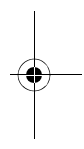
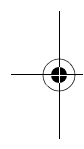
Areas with a potentially explosive atmosphere are not always clearly marked. Such areas include gas stations, fuel depots, chemical transfer or storage facilities, areas where blasting is in progress, areas where the air contains chemicals or particles such as grain, dust, or metal powders, and any other area where you would normally be advised to turn off your cellular phone or vehicle engine.

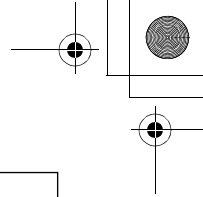
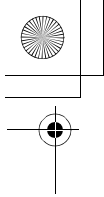
#### **Near medical or life-support equipment**

In areas where medical equipment may be susceptible to any form of radio interference. In such areas the 3G Mini-Card modem can transmit signals that could interfere with this equipment.

#### **On board aircraft**

In addition to Federal Aviation Authority (FAA) requirements, many airline regulations state that you must suspend wireless operations before boarding an aircraft. The 3G Mini-Card modem is capable of transmitting signals that could interfere with various onboard systems and controls.





Failure to observe this instruction may lead to suspension or denial of cellular telephone services to the offender, legal action, or both.

Some airlines may permit the use of cellular phones while the aircraft is on the ground and the door is open. The 3G Mini-Card modem may be used normally at this time.

**While operating a vehicle**

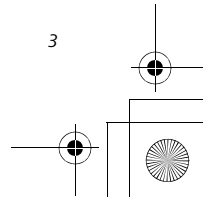
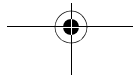
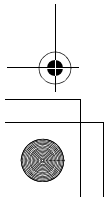
The driver or operator of any vehicle should not use a wireless data device while in control of a vehicle.

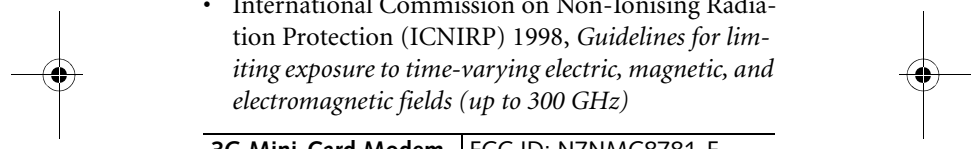
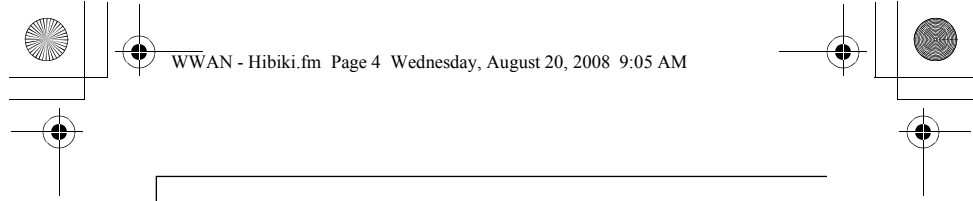
Doing so detracts from the driver or operator's ability to control and operate the vehicle. In some countries, using such communications devices while in control of a vehicle is an offence.

**Important safety/compliance information for North American users**

*Caution: Unauthorized modifications or changes not expressly approved by Sierra Wireless, Inc. could void compliance with regulatory rules, and thereby your authority to use this equipment.*

The design of the 3G Mini-Card modem complies with U.S. Federal Communications Commission (FCC) and Industry Canada (IC) guidelines respecting safety levels of radio frequency (RF) exposure for portable devices, which in turn are consistent with the following safety standards previously set by Canadian, U.S. and international standards bodies:

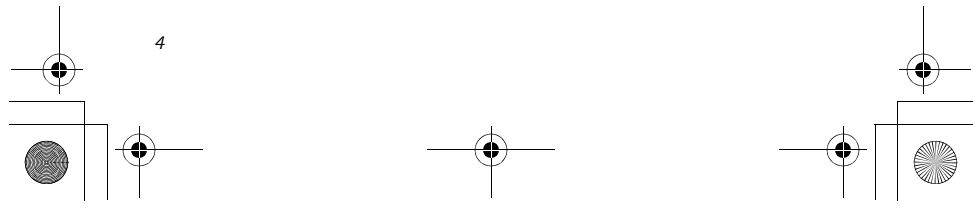


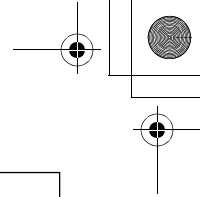
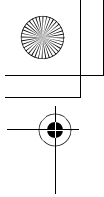


- ANSI / IEEE C95.1-1999, *IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz*
- National Council on Radiation Protection and Measurements (NCRP) Report 86, -1986, *Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields*
- Health Canada, Safety Code 6, 1999, *Limits of Human Exposure to Radio Frequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz*
- International Commission on Non-Ionising Radiation Protection (ICNIRP) 1998, *Guidelines for limiting exposure to time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz)*

<b>3G Mini-Card Modem MC8781</b>	FCC ID: N7NMC8781-F IC: 2417C-MC8781
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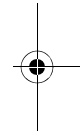
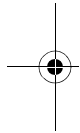
**Caution:** The 3G Mini-Card modem has been evaluated for compliance with FCC/IC RF exposure limits in this laptop configuration. This 3G Mini-Card modem must not be collocated or operated in conjunction with any other antenna or transmitter other than the transmitters that have been approved with this laptop. Use of this device in any other configuration may exceed the FCC RF Exposure compliance limit.





### FCC Radio Frequency Exposure statement

The available scientific evidence does not show that any health problems are associated with using low power wireless devices. There is no proof, however, that these low power wireless devices are absolutely safe. Low power wireless devices emit low levels of radio frequency energy (RF) in the microwave range while being used. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low-level RF that does not produce heating effects causes no known adverse health effects. Many studies of low-level RF exposure have not found any biological effects. Some studies have suggested that some biological effects might occur, but such findings have not been confirmed by additional research. The UMTS WWAN and the WLAN radio devices have been tested and found to comply with FCC radiation exposure limits set forth for an uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65.

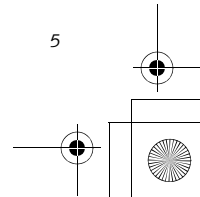
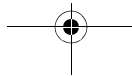


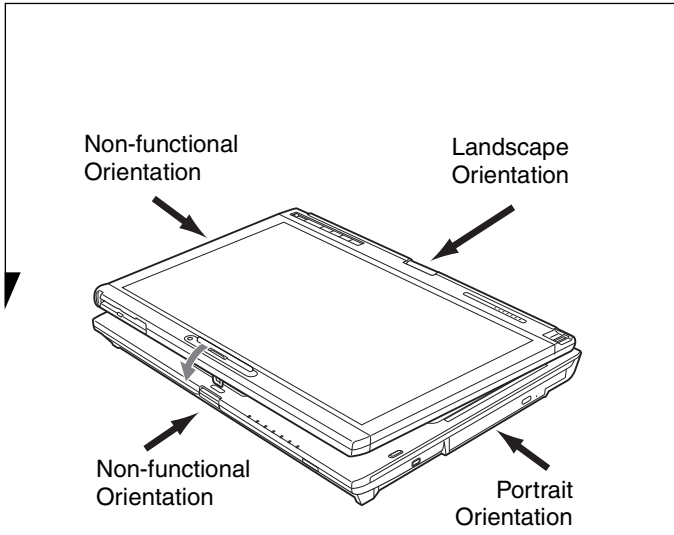
### Proper LifeBook Orientations

Your computer can be used in tablet configuration in two different orientations. (Figure 1):

**Portrait Orientation:** Hold the system with the display positioned vertically with the latch on the left.

**Landscape Orientation:** Hold the system with the display positioned horizontally with the latch on the top.

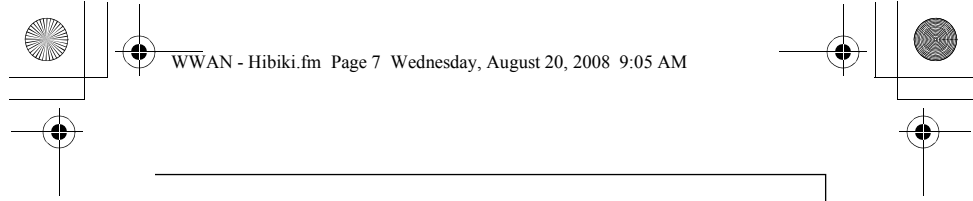




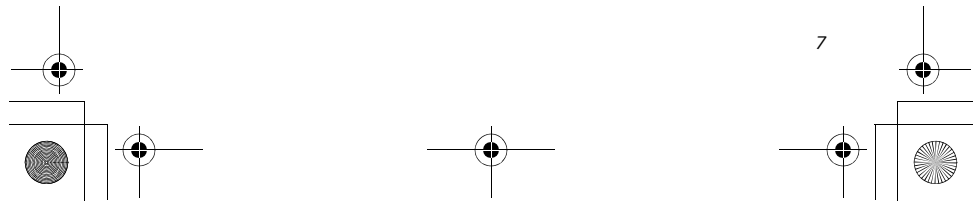
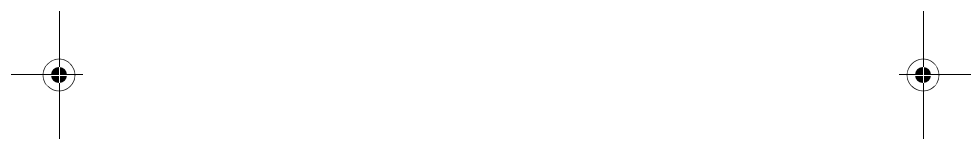
**Figure 1. Tablet Mode**



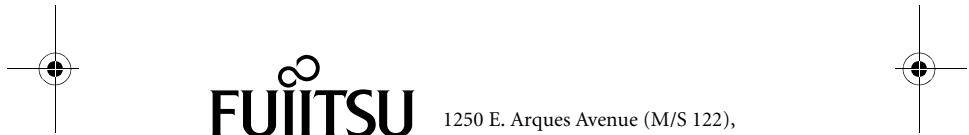
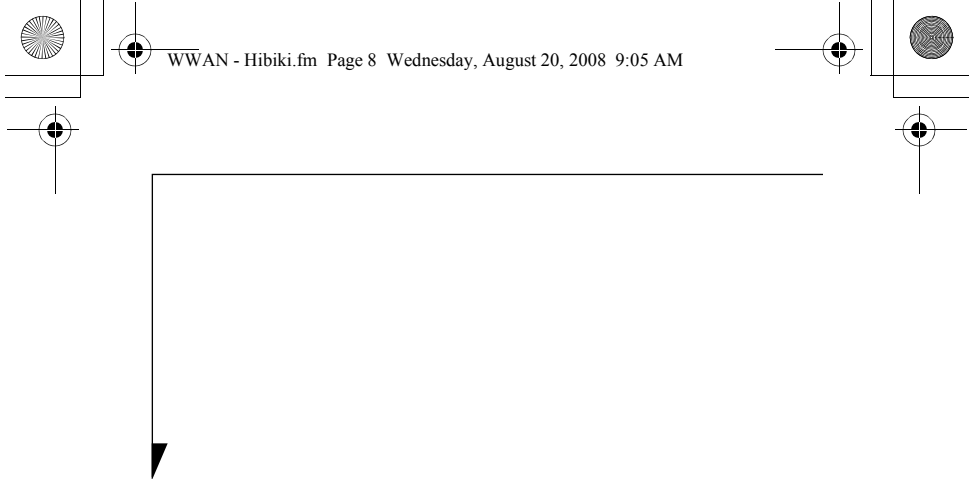
Holding the system horizontally with the latch at the bottom could result in damage to the WWAN antenna. Additionally, this is not a functional orientation



Radio Frequency and Electrical Specifications	
Compliance	GSM Release 6
UMTS bands	IMT 2100 / 850 / 1900 MHz (Band Class I, II, V)
GSM / EDGE bands	850 / 900 / 1800 / 1900 MHz
Channel spacing	200 kHz (GSM) 5 MHz (WCDMA)
Channel raster	200 kHz
Frequency stability	0.1 ppm







**FUJITSU**

1250 E. Arques Avenue (M/S 122),  
Sunnyvale, California 94085

For more information, call 1-877-372-3473 or visit our website at [www.shopfujitsu.com](http://www.shopfujitsu.com). For technical support call 1-800-8fujitsu

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