# **Regulatory Agency Identification Numbers**

For regulatory identification purposes your product is assigned a model number PH20AX.

The following accessories have been approved for use with your device. Their assigned model numbers listed below can identify these approved accessories. To ensure continued reliable and safe operation of your Pocket PC Phone, use only the accessories listed below with your PH20A2.

Accessories	Model Number
Cradle	PH25
Battery Pack	PH26X



- The above X may be any alphanumeric character or blank denoting external cosmetic changes.
- This product is intended for use with certified Class 2 Limited Power Source, rated 5 VDC, minimum 2A power supply unit.

## **FCC Compliance Statement**

#### FCC part 15, part 22 and part 24

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions : (!) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### FCC ID : NM8 HARRIER

#### Statement according to FCC part 15.105

**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 :

171

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Modifications: The FCC requires the user to be notified that any changes or modifications made to the device that are not expressly approved by High Tech Computer Corporation may void the Reference authority to operate the equipment.

## **Important Health and Safety Information**

Retain and follow all product safety and operating instructions. Observe all warn and in the operating instructions on the product

To reduce the risk of bodily injury, electric shock, fire, and damage to the equipment observe the following precautions.

### a) General Precautions

#### Heed service markings

Except as explained elsewhere in the Operating or Service documentation, do not service any product yourself. Service needed on components inside these compartments should be done by an authorized service technicians or provider.

#### Damage requiring service

Unplug the product from the electrical outlet and refer servicing to an authorized service technicians or provider under the following conditions:

- Liquid has been spilled or an object has fallen into the product.
- The product has been exposed to rain or water.
- The product has been dropped or dama-ged.
- There are noticeable signs of overheat-ing.
- The product does not operate normally when you follow the operating instructions.

#### Avoid hot areas

The product should be placed away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

#### Avoid wet areas

Never use the product in a wet location.

#### Avoid pushing objects into product Never push objects of any kind into cabinet slots or other openings in the product. Slots and

Mounting Accessories

Do not use the product on an unstable table, cart, stand, tripod, or bracket. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

- Avoid unstable mounting Do not place the product with an unstable base.
- Use product with approved equipment This product should be used only with personal computers and options identified as suitable for use with your equipment.
- Adjust the volume

Turn down the volume before using headphones or other audio devices.

Cleaning

Unplug the product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning, but NEVER use water to clean the LCD screen.

## b) Safety Precautions for Power Supply Unit

#### Use the correct external power source

A product should be operated only from the type of power source indicated on the electrical ratings label. If you are not sure of the type of power source required, consult your authorized service provider or local power company. For a product that operates from battery power or other sources, refer to the operating instructions that are included with the product

#### Handle battery packs carefully

This product contains a Li-ion Polymer battery. There is a risk of fire and burns if the battery pack is handled improperly. Do not attempt to open or service the battery pack. Do not disassemble, crush, puncture, short external contacts or circuits, dispose of in fire or water, or expose a battery pack to temperatures higher than 60°C (140°F).



**Warning:** DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY RE-PLACED. TO REDUCE RISK OF FIRE OR BURNS, DO NOT DISASSEMBLE, CRUSH, PUNCTURE, SHORT EXTERNAL CONTACTS, HEAT ABOVE  $100^{\circ}$ C (212°F), OR DISPOSE OF IN FIRE OR WATER. REPLACE ONLY WITH SPECIFIED BATTERIES. RECYCLE OR DISPOSE OF USED BATTERIES ACCORDING TO THE LOCAL RE-GULATIONS OR REFERENCE GUIDE SUPPLIED WITH YOUR PRODUCT.

## c) SAR Information

THIS MODEL DEVICE MEETS THE GOVERN-MENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your wireless mobile CDMA phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (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 the safety standards previously set by both U.S. and international standards bodies :

- American National Standards Institute (ANSI) IEEE. C95.1-1992
- National Council on Radiation Protection and Measurement (NCRP). Report 86. 1986
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1996
- Ministry of Health (Canada), Safety Code 6. 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 CDMA phone employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg\*.

For body worn operation, this phone has been tested and meets the FCC RF exposure guidelines when used with an accessory that contains no metal and that position the antenna of the CDMA phone a minimum of 1.5cm from the body. The SAR values of this CDMA phone are **1.41** W/g (body) and **0.122** W/g (head). Use of other accessories may not ensure compliance with the FCC RF exposure guidelines.

The FCC has granted an Equipment Authorization for this model device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model device is on file with the FCC and can be found under the Display Grant section of <u>http://www.fcc.gov/oet/fccid</u> after searching on FCC ID: NM8 HARRIER. Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications & Internet Association (CTIA) web-site as <u>http://www.devicefacts.net</u>.

\* In the U.S. and Canada, the SAR limit for mobile CDMA phone 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.

normal condition only to ensure the radiative performance and safety of the interference. As with other mobile radio transmitting equipment, users are advised that for satisfactory operation of the equipment and for the safety of personnel, it is recommended that no part of the human body be allowed to come too close to the antenna during operation of the equipment

175

## **TIA Safety information**

#### Pacemakers

The Health Industry Manufacturers Association recommends that a minimum separation of six (6") inches be maintained between a handheld wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research. Persons with pacemakers:

- Should ALWAYS keep the phone more than six inches from their pacemaker when the phone is turned ON;
- Should not carry the phone in a breast pocket;
- Should use the ear opposite the pacemaker to minimize the potential for interference .

If you have any reason to suspect that interference is taking place, turn your phone OFF immediately

#### **Hearing Aids**

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider [or call the customer service line to discuss alternatives.] Optional for each phone manufacturer.

#### **Other Medical Devices**

If you use any other personal medical device, consult the manufacturer of your device to determine if they are adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information.

Turn your phone OFF in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

## **Driver safety tips:**

Your wireless telephone gives you the powerful ability to communicate by voice-almost anywhere, anytime. But an important responsibility accompanies the benefits of wireless phones, one that every user must uphold.

When driving a car, driving is your first responsibility. When using your wireless phone behind the wheel of a car, practice good common sense and remember the following tips:

1. Get to knew your wireless phone and its features such as speed dial and redial. If available, these features help you to place your call without taking your attention off the road.

When available, use a hands free device. If possible, add an additional layer of convenience and safety to your wireless phone with one of the many hands free accessories available today.

3. Position your wireless phone within easy reach. Be able to access your wireless phone without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voice mail answer it for you.

4. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow, ice, and even heavy traffic can be hazardous.

**5.** Do not take notes or look up phone numbers while driving. Jotting down a "to do" list or flipping through your address book takes attention away from your primary responsibility, driving safely.

6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan calls when your car will be stationary. If you need to make a call while moving, dial only a few numbers, check the road and your mirrors, then continue.

7. Do not engage in stressful or emotional conversations that may be distracting. Make people you are talking with aware you are driving and suspend conversations that have the potential to divert your attention from the road.

8. Use your wireless phone to call for help. Dial 9-1-1 or other local emergency number in the case of fire, traffic accident or medical emergencies. Remember, it is a free call on your wireless phone!

9. Use your wireless phone to help others in emergencies. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 9-1-1 or other local emergency number, as you would want others to do for you.

**10. Call roadside assistance or a special non-emergency wireless assistance number** when necessary. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured, or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number. "The wireless industry reminds you to use your phone safely when driving. " For more information, please call I-888-901 –SAFE, or visit our website www.wow-com.comTM Provided by the Cellular Telecommunications & Internet Association

#### For More information, please refer to: http://www.fda.gov/cellphones

#### Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the stand-by mode. 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 exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

#### What is FDA's role concerning the safety of wireless phones?

Under the law, FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit radiofrequency energy (RF) at a level that is hazardous to the user. In such a case, FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions, FDA has urged the wireless phone industry to take a number of steps, including the following:

- Support needed research into possible biological effects of RF of the type emitted by wireless phones;
- Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and

Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure coordinated efforts at the federal level. The following agencies belong to this working group:

- National Institute for Occupational Safety and Health
- Environmental Protection Agency
- Federal Communications Commission
- Occupational Safety and Health Administration
- National Telecommunications and Information Administration

The National Institutes of Health participates in some interagency working group activities, as well.

FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. FCC relies on FDA and other health agencies for safety questions about wireless phones.

FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the primary subject of the safety questions discussed in this document.

#### What kinds of phones are the subject of this update?

The term "wireless phone" refers here to hand-held wireless phones with built-in antennas, often called "cell," "mobile," or "PCS" phones. These types of wireless phones can expose the user to measurable radiofrequency energy (RF) because of the short distance between the phone and the user's head. These RF exposures are limited by Federal Communications Commission safety guidelines that were developed with the advice of FDA and other federal health and safety agencies. When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person's RF exposure decreases rapidly with increasing distance from the source. The so-called "cordless phones," which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures well within the FCC's compliance limits.

#### What are the results of the research done already?

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of radiofrequency energy (RF) exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer-causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we don't know with certainty what the results of such studies mean for human health.

Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures.

However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

# What research is needed to decide whether RF exposure from wireless phones poses a health risk?

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but 10 or more years' follow-up may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do - may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

# What is FDA doing to find out more about the possible health effects of wireless phone RF?

FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radiofrequency energy (RF).

FDA has been a leading participant in the World Health Organization International Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The Project has also helped develop a series of public information documents on EMF issues.

FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts to independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

# What steps can I take to reduce my exposure to radiofrequency energy from my wireless phone?

If there is a risk from these products--and at this point we do not know that there is--it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radiofrequency energy (RF). Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure.

If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna

Again, the scientific data <u>do not</u> demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

#### What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to radiofrequency energy (RF), the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure.

Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists.

#### What about wireless phone interference with medical equipment?

Radiofrequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, FDA helped develop a detailed test method to measure <u>electromagnetic interference (EMI) of implanted cardiac pacemakers</u> and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical instrumentation (AAMI). The final draft, a joint effort by FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI.

FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that that no interference occurs when a person uses a "compatible" phone and a "compatible" hearing aid at the same time. This standard was approved by the IEEE in 2000.

FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, FDA will conduct testing to assess the interference and work to resolve the problem.

# Which other federal agencies have responsibilities related to potential RF health effects?

Certain agencies in the Federal Government have been involved in monitoring, researching or regulating issues related to human exposure to RF radiation. These agencies include the Food and Drug Administration (FDA), the Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the National Institute for Occupational Safety and Health (NIOSH), the National Telecommunications and Information Administration (NTIA) and the Department of Defense (DOD).

By authority of the Radiation Control for Health and Safety Act of 1968, the Center for Devices and Radiological Health (CDRH) of the FDA develops performance standards for the emission of radiation from electronic products including X-ray equipment, other medical devices, television sets, microwave ovens, laser products and sunlamps. The CDRH established a product performance standard for microwave ovens in 1971 limiting the amount of RF leakage from ovens. However, the CDRH has not adopted performance standards for other RF-emitting products. The FDA is, however, the lead federal health agency in monitoring the latest research developments and advising other agencies with respect to the safety of RF-emitting products used by the public, such as cellular and PCS phones.

The FDA's microwave oven standard is an emission standard (as opposed to an exposure standard) that allows specific levels of microwave leakage (measured at five centimeters from the oven surface). The standard also requires ovens to have two independent interlock systems that prevent the oven from generating microwaves the moment that the latch is released or the door of the oven is opened. The FDA has stated that ovens that meet its standards and are used according to the manufacturer's recommendations are safe for consumer and industrial use. More information is available from: <a href="https://www.fda.gov/cdrh">www.fda.gov/cdrh</a>.

The EPA has, in the past, considered developing federal guidelines for public exposure to RF radiation. However, EPA activities related to RF safety and health are presently limited to advisory functions. For example, the EPA now chairs an Inter-agency Radiofrequency Working Group, which coordinates RF health-related activities among the various federal agencies with health or regulatory responsibilities in this area.

OSHA is responsible for protecting workers from exposure to hazardous chemical and physical agents. In 1971, OSHA issued a protection guide for exposure of workers to RF radiation [29 CFR 1910.97]. However, this guide was later ruled to be only advisory and not mandatory. Moreover, it was based on an earlier RF exposure standard that has now been revised. At the present time, OSHA uses the IEEE and/or FCC exposure guidelines for enforcement purposes under OSHA's "general duty clause" (for more information see: <a href="http://www.osha-slc.gov/SLTC/radiofrequencyradiation/index.html">http://www.osha-slc.gov/SLTC/radiofrequencyradiation/index.html</a>

**NIOSH** is part of the U.S. Department of Health and Human Services. It conducts research and investigations into issues related to occupational exposure to chemical and physical agents. NIOSH has, in the past, undertaken to develop RF exposure guidelines for workers, but final guidelines were never adopted by the agency. NIOSH conducts safety-related RF studies through its Physical

Agents Effects Branch in Cincinnati, Ohio.

The NTIA is an agency of the U.S. Department of Commerce and is responsible for authorizing Federal Government use of the RF electromagnetic spectrum. Like the FCC, the NTIA also has NEPA responsibilities and has considered adopting guidelines for evaluating RF exposure from U.S. Government transmitters such as radar and military facilities.

The Department of Defense (DOD) has conducted research on the biological effects of RF energy for a number of years. This research is now conducted primarily at the U.S. Air Force Research Laboratory located at Brooks Air Force Base, Texas. The DOD Web site for RF biological effects information is listed with other sites in conjunction with a question on other sources of information, below.

#### Who funds and carries out research on the biological effects of RF energy?

Research into possible biological effects of RF energy is carried out in laboratories in the United States and around the world. In the U.S., most research has been funded by the Department of Defense, due to the extensive military use of RF equipment such as radar and high-powered radio transmitters. In addition, some federal agencies responsible for health and safety, such as the Environmental Protection Agency (EPA) and the U.S. Food and Drug Administration (FDA), have sponsored and conducted research in this area. At the present time, most of the non-military research on biological effects of RF energy in the U.S. is being funded by industry organizations. More research is being carried out overseas, particularly in Europe.

In 1996, the World Health Organization (WHO) established the International EMF Project to review the scientific literature and work towards resolution of health concerns over the use of RF technology. WHO maintains a Web site that provides extensive information on this project and about RF biological effects and research (<u>www.who.ch/peh-emf</u>).

FDA, EPA and other US government agencies responsible for public health and safety have worked together and in connection with WHO to monitor developments and identify research needs related to RF biological effects.

#### How does FCC Audit Cell Phone RF?

After FCC grants permission for a particular cellular telephone to be marketed, FCC will occasionally conduct "post-grant" testing to determine whether production versions of the phone are being produced to conform with FCC regulatory requirements. The manufacturer of a cell phone that does not meet FCC's regulatory requirements may be required to remove the cell phone from use and to refund the purchase price or provide a replacement phone, and may be subject to civil or criminal penalties. In addition, if the cell phone presents a risk of injury to the user, FDA may also take regulatory action. The most important post-grant test, from a consumer's perspective, is testing of the RF emissions of the phone. FCC measures the Specific Absorption Rate (SAR) of the phone, following a very rigorous testing protocol. As is true for nearly any scientific measurement, there is a possibility that the test measurement may be less than or greater than the actual RF emitted by the phone. This difference between the RF test measurement and actual

RF emission is because test measurements are limited by instrument accuracy, because test measurement and actual use environments are different, and other variable factors. This inherent variability is known as "measurement uncertainty." When FCC conducts post-grant testing of a cell phone, FCC takes into account any measurement uncertainty to determine whether regulatory action is appropriate. This approach ensures that when FCC takes regulatory action, it will have a sound, defensible scientific basis.

FDA scientific staff reviewed the methodology used by FCC to measure cell phone RF, and agreed it is an acceptable approach, given our current understanding of the risks presented by cellular phone RF emissions. RF emissions from cellular phones have not been shown to present a risk of injury to the user when the measured SAR is less than the safety limits set by FCC (an SAR of 1.6 w/kg). Even in a case where the maximum measurement uncertainty permitted by current measurement standards was added to the maximum permissible SAR, the resulting SAR value would be well below any level known to produce an acute effect. Consequently, FCC's approach with measurement uncertainty will not result in consumers being exposed to any known risk from the RF emitted by cellular telephones.

FDA will continue to monitor studies and literature reports concerning acute effects of cell phone RF, and concerning chronic effects of long-term exposure to cellular telephone RF (that is, the risks from using a cell phone for many years). If new information leads FDA to believe that a change to FCC's measurement policy may be appropriate, FDA will contact FCC and both agencies will work together to develop a mutually-acceptable approach.

# **Specifications**

System Information		
Processor	Intel PXA 263 CPU at 400MHz / Qualcomm MSM5500	
Memory	- ROM : 64MB	
	- RAM : 128MB	
Operating System	Windows Mobile <sup>™</sup> software	
Display		
Туре	TFT-LCD 16bit, touch-sensitive, 3.5 inches	
Resolution	240 x 320 at 64K colors	
CDMA Module (D	Dual Band)	
PCS	1900MHZ	
Celluar	800MHZ	
	!xRTT/1xEV-DO	
Camera Module		
Туре	Color CMOS camera module	
Resolution	VGA 480 x 640	
Video Light	Yes	
Physical		
Dimensions (typical)	69.8mm (w) x 125mm (h) x 18.7mm (l)	
Weight (typical)	210 <b>g</b>	
Expansion Slots		
SDIO/MMC supports	Yes	

Controls and Lights	
Navigation	5-way navigation pad
Buttons	<ul> <li>8 program buttons : Calendar, Contacts, Start, Inbox, menu, Done/OK</li> </ul>
	- 2 phone function : Send (Yes) & End (No)
	- Volume control button (up, down)
	- Power on / off
	- Reset switch
Keyboard	- Built-in 39 keys extractable QWERTY keyboard
LED Lights	- Event notification
	- Charge status
	- CDMA signals
Connection	
Infrared	SIR
I/O port	22 pin individual port for signals (for USB slave, Serial, and power)
Audio	Stereo headphone jack (2.5Ø)
Bluetooth	1.1 compliant
Audio	
Audio controller	AGC
Microphone/Speaker	Built-in
Headphone	WAV/WMA/MP3 stereo
<b>Power Supply</b>	
Battery	<ul> <li>Main : 1490mAh Removable, rechargeable Li-ion Polymer battery, data retention time : 72 hrs</li> </ul>
	- Backup : 20mAh rechargeable,
	Data retention time : 20 mins. (in full charge)
	Battery life:150hrs of PDA only (without RF) [TBD]
	-Talktime: 3~4hrs (at normal RF Tx power level)
	- Standby: 168hrs
AC adapter	- AC input / Frequency :100 ~ 240 VAC / 50 ~ 60Hz

# Troubleshooting

If you encounter any problems with your Pocket PC Phone, consult the following **Trouble Guide**. If you are still having problems after reviewing these, contact **Technical Support** or your dealer.

## **Operating Problems**

	Problem	Solution
•	My Pocket PC Phone keeps turning itself off.	Your Pocket PC Phone is designed by default to turn itself off if not used for 3 minutes. This period can be set up to 5 minutes. Check the auto-off function on the Advanced tab on Power setting in <i>Chapter 5</i> .
•	My Pocket PC Phone is not making any sound.	<ol> <li>Tap ◄ at the right corner of title bar to check the volume status.</li> <li>Check the settings of Sound and Notifications on the Personal tab by tapping  → Settings.</li> </ol>
•	My Pocket PC Phone does not vibrate when the phone rings or alarms occur.	<ol> <li>Tap ◄ in the right corner of title bar to check if the vibrate function is activate.</li> <li>Check the setting of Sound and Notifications on the Personal tab by tapping → Settings.</li> <li>Check the event note in your Calendar to see if the Reminder has been activated.</li> </ol>
•	Screen freezes or no re- sponse	Reset your device. See <i>Reset your Pocket PC Phone</i> and clear memory section in <i>Appendix A</i> .
1	Screen is blank.	<ul> <li>If your Pocket PC does not respond when you briefly press the Power button, press and hold the button for a full second. If that does not work :</li> <li>Plug the AC power into the device to charge it.</li> <li>Reset the device. See <i>Reset your Pocket PC Phone and clear memory</i> section in <i>Appendix A</i>.</li> </ul>

Problem	Solution
Screen is dark.	<ol> <li>Check the Brightness setting by tapping → Settings → System tab → Backlight → Brightness tab.</li> <li>Prolonged exposure to direct sunlight may also cause your Pocket PC Phone screen to temporarily darken. This is normal for LCD screens and is not permanent.</li> </ol>
A warning message about Running out of memory pops up on the screen.	<ul> <li>Memory on you Pocket PC Phone is shared between storage memory and program memory :</li> <li>1 Delete any unnecessary information you have entered to release storage memory space.</li> <li>2 Delete the unnecessary programs you have installed to release program memory space.</li> <li>See Managing memory section in Appendix A.</li> </ul>
<ul> <li>The warning message about Battery low pops up on the screen.</li> </ul>	Plug the AC power in to your device to charge it.
Screen is hard to read, or the text on the screen is too small for you.	<ul> <li>If you are having a hard time viewing a document in Notes, try changing the size of the view, just tap a zoom percentage on the Tools menu.</li> <li>1 In Pocket Word and Pocket Excel, on the View menu, tap Zoom and then select a zoom percentage.</li> <li>2 In Pocket Internet Explorer, on the View menu, tap Text Size and then select a size.</li> </ul>

3 In Pocket Outlook data, try enlarging the display font. To do this within Calendar, Tasks or Contacts, tap Tools, then Options, and then select Use large font.

## **Tapping and Writing Problems**

Problem

Solution

- Device buttons do not respond or bring up the wrong program.
  Check the Buttons setting to see if the program assignment for each function button is set as you want. Tap → Settings → Personal tab → Buttons. For detailed information about Button settings, see Chapter 5.
- Inaccurate response to stylus Adjust the touch screen to respond more accurately to screen taps. Tap → Settings → System tab → Screen → Align Screen.
- Pocket PC does not recognize your Pocket PC to recognize your handwriting input with the stylus, you need to use Transcriber writing. To learn how to write in Transcriber, see Chapter 2.

## **ActiveSync Problems**

Problem	Solution
ActiveSync operation cannot be performed or connected.	<ol> <li>Make sure the ActiveSync cradle/cable is connected securely.</li> <li>Make sure you have installed the ActiveSync</li> </ol>
	2 Make sure you have installed the ActiveSync

- 2 Make sure you have installed the ActiveSync software included on the Pocket PC Phone 2003 companion CD.
- 3 Make sure you selected Local USB or Local Serial, as appropriate, from the Connection Settings on ActiveSync Manager menu on your desktop computer.
- 4 If you are using the optional serial cradle/cable, make sure you are not running another program which also works with the serial port you selected when installed.
- 5 If ActiveSync still doesn't work, remove the ActiveSync software from your desktop computer then re-install it.

#### Problem

 ActiveSync is connected, but data or information cannot be transferred. On your desktop computer, check the **Sync Options** on **ActiveSync Manager** menu to see if the information type for the program you want has been selected for synchronizing. See more detail s about synchronizing information in *Chapter 4*.

Solution

## **Connection Problems**

	Problem	Solution
•	Unable to use Infrared (IR) to transfer information.	<ul> <li>Try the following:</li> <li>Line up the IR ports so that they are unobstructed and within a close range with 20cm.</li> <li>Make sure nothing is between the two IR ports.</li> <li>Adjust the room lighting. Some types of light interfere with IR connections. Try moving to a different location or turning off some lights.</li> </ul>
•	Cannot connect to <i>Internet</i> , web surfing doesn't work.	Try the following : 1 Check that you have set up and connected to an Internet service provider.

- 2 Check that your wireless connection to your mobile service provider is switched on and the signal is unobstructed.
- 3 Verify with your Internet service provider that your user name and password are correct.

See *Chapter 7 Getting Connected*. Additional information is also available in *Connections Help* on the Pocket PC Phone and *ActiveSync Help* on the PC.

Problem	Solution
Problems in cable and cradle connection.	<ol> <li>Ensure your Pocket PC Phone is turned on.</li> <li>Ensure that you do not have any other active connections . Tap → Today, and then tap Today, and then tap         Today at the bottom of the screen and then Disconnect.     </li> </ol>
	3 Ensure the cable is securely plugged into the COM port on the back of your PC. Use the cable that came with the Pocket PC Phone without any extra cables or extenders attached.
	4 Plug the other end of the cable securely into the correct port on your Pocket PC Phone. If you are using a cradle, push your Pocket PC Phone securely into the cradle.