

Safety and Product Information









BlackBerry Pearl 8230 Smartphone










Contents

Safety and product information	3
Safety tips.....	3
Safety information.....	5
Compliance information.....	16
Product information.....	23
Legal notice	27

Safety and product information

Safety tips

Tip	Description
	Read the compliance information and the guidelines for the safe use of your BlackBerry® device found in this guide.
	Use only approved accessories with your device.
	Maintain the prescribed distance between your device and your body.
	Do not rely on your device for emergency communications.
	Your device contains small parts that might be a choking hazard.
	Keep your device away from medical devices.
	Do not put your device in contact with liquids.
	Do not put your device in contact with magnets.

Tip	Description
	Your device might produce loud sounds.
	Your device might produce bright and or flashing lights.
	Do not use your device while driving.
	Do not use your device while refueling.
	Do not use or store your device in extreme temperatures.
	Do not dispose of your device in a fire.
	Do not disassemble your device.
	Turn off your device in aircrafts.
	Turn off your device in explosive environments.

Safety information

Please read these safety and operation instructions before using the BlackBerry® device or any accessories provided with the device. Retain these instructions for future use.

In some countries there may be restrictions on using Bluetooth® enabled and wireless devices with encryption software. Check with your local authorities.

Electrical safety

Charge the BlackBerry® device using only the USB cable ASY-18683-001, travel charger ASY-18078-001, or ASY-18080-001, automotive charger ASY-18083-001 or ASY-04195-002, charging pod ASY-14396-006, or other charging accessory provided or specifically approved by Research In Motion for use with this BlackBerry device. Any approval from RIM under this document must be in writing and must be from a person authorized to provide such approval. Use of any other accessory might invalidate any warranty provided with the BlackBerry device and might be dangerous.

Use the charging accessories provided with the BlackBerry device or any other RIM approved charging accessories only from the type of power source indicated on the marking label. Before using any power supply, verify that the mains voltage is in accordance with the voltage printed on the power supply.

Do not overload power outlets, extension cords, or convenience receptacles as this might result in a risk of fire or electric shock. To reduce the risk of damage to the cord or the plug, pull the plug rather than the cord when you disconnect the charging accessory from the power outlet or convenience receptacle.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where the power cord connects to the BlackBerry device. Unplug charging accessories during lightning storms or when unused for long periods of time.

Do not use charging accessories outside or in any area exposed to the elements.

For more information about inserting the lithium-ion battery and connecting the power supply, see the documentation that came with the BlackBerry device.

Battery safety and disposal

The BlackBerry® device contains a removable lithium-ion battery. Do not dispose of either the BlackBerry device or the lithium-ion battery in a fire. Dispose of the lithium-ion battery in accordance with the laws and regulations in your area governing disposal of such cell types.

The lithium-ion battery might present a fire or chemical burn hazard if mistreated. Do not disassemble, crush, or puncture the lithium-ion battery. Do not heat the lithium-ion battery above 140°F (60°C). Do not allow metal objects to contact the battery terminals.

Use only the lithium-ion battery that Research In Motion specifies for use with your particular BlackBerry device model. RIM specifies lithium-ion batteries for use in BlackBerry devices in compliance with IEEE® Std 1725™-200x. Using any other lithium-ion battery might invalidate any warranty provided with the BlackBerry device and might present a risk of fire or explosion.

Battery usage by children should be supervised.



When this icon appears on your BlackBerry device, the lithium-ion battery is not inserted or an invalid lithium-ion battery is inserted. If you have inserted an invalid lithium-ion battery, remove it immediately

and insert the lithium-ion battery that RIM specifies for use with your particular BlackBerry device model. If you have inserted the lithium-ion battery that is specified for use with your particular BlackBerry device model, remove and reinsert the lithium-ion battery. Verify that the battery connectors align with the connectors on your BlackBerry device.

Device disposal



The BlackBerry® device should not be placed in household waste bins. Please check local regulations for information about the disposal of electronic products in your area.

Safe use guidelines

- Do not place heavy objects on the BlackBerry® device.
- Do not attempt to modify or service the BlackBerry device.
- Do not attempt to cover or push objects into openings on the BlackBerry device unless instructed to do so in the device documentation supplied by Research In Motion.
- Do not open or close the flip with excessive force.
- Do not twist the flip.

Driving safety

Check the laws and regulations regarding the use of wireless devices in the areas where you drive. Always obey them. Also, if using the BlackBerry® device in your car, please use the following minimum guidelines:

- Give your full attention to driving; driving safely is your first responsibility.
- Use hands-free operation if it is available.
- Pull off the road and park before using your BlackBerry device in any way.

Research In Motion (RIM) recommends that you do not use the BlackBerry device while driving. Instead, consider having a passenger in the vehicle use the BlackBerry device for you, or find a safe location to stop your vehicle prior to using the device.

Store the BlackBerry device safely before driving your vehicle. Do not use any charging accessory as a means of storing the BlackBerry device while you are in a vehicle. If your vehicle is equipped with an air bag, do not place the BlackBerry device or other objects above the air bag, or in the air bag deployment area. If in-vehicle wireless equipment is improperly stored or installed, and the air bag inflates, serious injury could result.

Radio frequency (RF) signals might affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle. If any equipment has been added to your vehicle, you should also consult the manufacturer of that equipment for information on RF signals.

Accessories

Use only those accessories approved by Research In Motion (RIM). Using any accessories not approved by RIM for use with this particular BlackBerry® device model might invalidate any approval or warranty applicable to the device, might result in the non-operation of the device, and might be dangerous.

Antenna care

Use only the supplied integrated antenna. Unauthorized antenna modifications or attachments could damage the BlackBerry® device and might violate U.S. Federal Communications Commission (FCC) regulations.

Operating and storage temperatures

Situate the BlackBerry® device or device accessories away from heat sources, such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

If you are not going to use the BlackBerry device for more than two weeks, turn off the device power, remove the battery, and follow the operating and storage temperatures listed in the following table:

Device operating	32 to 104°F (0 to 40°C)
Device storage	50 to 86°F (10 to 30°C)
Travel charger operating	32 to 104°F (0 to 40°C)

Interference with electronic equipment

Most modern electronic equipment is shielded from radio frequency (RF) signals. However, certain electronic equipment might not be shielded against the RF signals from the BlackBerry® device.

Pacemakers: Consult a physician or the manufacturer of your pacemaker if you have any questions regarding the effect of RF signals on your pacemaker. If you have a pacemaker, verify that you are using the BlackBerry device in accordance with the safety requirements associated with your particular pacemaker, which might include the following requirements:

- Always keep the BlackBerry device more than 7.88 inches (20 cm) from the pacemaker when the BlackBerry device is turned on.
- Do not carry the BlackBerry device in your breast pocket.
- When using the phone on the BlackBerry device, use the ear opposite the pacemaker for making and receiving calls to minimize the potential interference.
- If you have any reason to suspect that interference is taking place, turn off all wireless connections on the BlackBerry device immediately.

Hearing aids: Some digital wireless devices may interfere with some hearing aids. In the event of such interference, consult your wireless service provider or contact the manufacturer of your hearing aid to discuss alternatives.

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

Health care facilities: Turn off all wireless connections on the BlackBerry device 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.

Aircraft: Federal Aviation Administration (FAA) and Federal Communications Commission (FCC) regulations prohibit using the radio of wireless devices while in the air. Turn off all wireless connections on the BlackBerry device before boarding an aircraft. The effect of using the BlackBerry device with wireless connections turned on in an aircraft is unknown. Such use might affect aircraft instrumentation, communication, and performance, might disrupt the network, might otherwise be dangerous to the operation of the aircraft, and might be illegal. With all wireless connections on the BlackBerry device turned off, use only non-radio based device applications in accordance with airline regulations for electronic devices.

Dangerous areas

The BlackBerry device is not an intrinsically safe device and is not suitable for use in hazardous environments, where such devices are required, including without limitation, in presence of gas fumes, explosive dust situations, operation of nuclear facilities, aircraft navigation or communication services, air traffic control, and life support or weapons systems.

Potentially explosive atmospheres: Turn off all wireless connections on the BlackBerry device when in any area with a potentially explosive atmosphere, and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include fueling areas such as gasoline or petrol stations; below deck on boats; fuel or chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); 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 vehicle engine.

Do not use the phone on the BlackBerry® device to report a gas leak in the vicinity of the leak. Leave the area and, if the phone is available and active on the BlackBerry device, make the call from a safe location.

Blasting areas: To avoid interfering with blasting operations, turn off all wireless connections on the BlackBerry device when in a “blasting area” or in areas posted: “Turn off two-way radio”. Obey all signs and instructions.

Service

Only qualified service personnel should perform repairs to the BlackBerry® device. Disconnect the power supply cables from the computer or electrical outlet and refer the BlackBerry device or charging accessory for service to qualified service personnel if any of the following situations occur:

- the power supply cord, plug, or connector is damaged
- liquid has been spilled or objects have fallen into the BlackBerry device or charging accessory
- the BlackBerry device or charging accessory has been exposed to rain or water
- the BlackBerry device or charging accessory becomes very hot to the touch
- the BlackBerry device or charging accessory has been dropped or damaged in any way

- the BlackBerry device or charging accessory does not operate normally by following the instructions in the user documentation
- the BlackBerry device or charging accessory exhibits a distinct change in performance

Do not attempt to disassemble the BlackBerry device or any charging accessory.

To reduce the risk of fire or electric shock, adjust only those controls that are covered in the user documentation for the BlackBerry device. An improper adjustment of other controls might cause damage and will often require extensive work by a qualified technician to restore the BlackBerry device, charging accessory, or any other accessory to normal operation.

Failure to observe all safety instructions contained in the user documentation for the BlackBerry device will void the Limited Warranty and might lead to suspension or denial of services to the offender, legal action, or both.

Additional safety guidelines

Speakerphone: The BlackBerry® device is equipped with a speakerphone that can generate audio levels loud enough for phone call operation while holding the BlackBerry device at an arm's length from your head. When using your BlackBerry device speakerphone, never hold the BlackBerry device to your ear. Serious and permanent hearing damage could occur.

Camera: Certain jurisdictions might prohibit or restrict your use of certain features on the BlackBerry device. If your BlackBerry device model has a camera, the following statements are applicable to you:

When taking, processing, or using pictures, obey all laws, regulations, procedures, and policies, including, without limitation, any copyright, personal privacy, trade secret, or security laws which might govern or restrict you while using the BlackBerry device. Honor the personal rights of

others. Copyright protections might prevent you from copying, modifying, transferring, or forwarding some pictures, music (including ring tones), or other content. Do not aim the camera directly at the sun or any other bright light. This action could cause serious damage to your eyes or damage the BlackBerry device.

Camera flash LED aperture, LED notification light, and trackball lights: If your BlackBerry device model has a camera, the camera flash LED aperture is located on the front of your BlackBerry device, to the left of the camera lens. The LED notification light is located on the front of your BlackBerry device, to the right of the camera lens. Exposure to flashing lights on the BlackBerry device can cause epileptic seizures or blackouts and might be dangerous to you or others. In the event that you experience, or your use of the BlackBerry device causes in others, any disorientation, loss of awareness, twitching, convulsions, or any involuntary movements, stop using the BlackBerry device immediately and consult a physician. If you are susceptible to epileptic seizures or blackouts, consult your physician before using the BlackBerry device. Caution: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Audio files: The BlackBerry device has the capability to play audio files. When listening to audio files using headphones, permanent hearing loss might occur if headphones are used at a high volume. Avoid increasing the volume of your headphones to block out noisy surroundings. If you experience ringing in your ears or muffled speech, consult a physician to have your hearing checked.

Liquids and foreign objects: Never push objects of any kind into the BlackBerry device or device accessories through openings as this action might cause a short circuit, a fire, or electric shock. Do not use the BlackBerry device or device accessories near water (for example, near a bathtub or a sink, in a wet basement, or near a swimming pool). Never spill liquid of any kind on the BlackBerry device or device accessories.

Stability: Do not place the BlackBerry device or device accessory on any unstable surface. It could fall, thereby potentially causing serious injury to a person and serious damage to the BlackBerry device or device accessory. Take care when using the BlackBerry device with any charging accessories to route the power cord in a way that reduces the risk of injury to others, such as by tripping or choking.

Cleaning: Do not use liquid, aerosol cleaners, or solvents on or near the BlackBerry device or device accessory. Clean only with a soft dry cloth. Disconnect any cables from the computer and unplug any charging accessories from the electrical outlet before cleaning either the BlackBerry device or the charging accessory.

Repetitive strain: When using the BlackBerry device, take frequent breaks. If you experience any discomfort in your neck, shoulders, arms, wrists, hands (including thumbs and fingers), or other parts of the body when using the BlackBerry device, cease use immediately. If discomfort persists, consult a physician.

Holster: The BlackBerry device might not come with a holster (body-worn accessory). If you wear the BlackBerry device on your body, always put the BlackBerry device in a BlackBerry device holster equipped with an integrated belt clip supplied or approved by Research In Motion. If you do not use a holster equipped with an integrated belt clip supplied or approved by RIM when you carry the BlackBerry device, keep the BlackBerry device at least 0.98 inches (25 mm) from your body when the BlackBerry device is turned on and connected to a wireless network. When using any data feature of the BlackBerry device, with or without a USB cable, hold the BlackBerry device at least 0.98 inches (25 mm) from your body. Using accessories that are not supplied or approved by RIM might cause your BlackBerry device to exceed radio frequency (RF) exposure guidelines. For more information on radio frequency exposure, see the "Compliance information" section of this document.

Carrying solutions: Most BlackBerry carrying solutions for BlackBerry devices, for example holsters, totes, and pouches, incorporate a magnet into the physical structure of the carrying solution. Do not place items containing magnetic strip components such as debit cards, credit cards, hotel key cards, phone cards, or similar items near BlackBerry carrying solutions which incorporate a magnet into the physical structure of the carrying solution as the magnet might damage or erase the data stored on the magnetic strip.

Compliance information

Exposure to radio frequency signals

The BlackBerry® device radio is a low power radio transmitter and receiver. When the BlackBerry device radio is turned on, it receives and also sends out radio frequency (RF) signals. The BlackBerry device is designed to comply with Federal Communications Commission (FCC), Ministry of Internal Affairs and Communications (MIC), and Industry Canada (IC) guidelines respecting safety levels of RF exposure for wireless 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, American National Standards Institute/Institute of Electrical and Electronics Engineers Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
- National Council on Radiation Protection and Measurements (NCRP) Report 86, 1986, Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields

- Health Canada, Safety Code 6, 1999, Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz
- International Commission on Non-Ionizing Radiation Protection (ICNIRP), 1998, Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic fields (up to 300 GHz)
- MIC, 2001, Article 14-2 of the Ordinance for Regulating Radio Equipment

To maintain compliance with FCC and IC RF exposure guidelines when you carry the BlackBerry device on your body, use only accessories equipped with an integrated belt clip that are supplied or approved by Research In Motion (RIM), or accessories that contain no metallic components and provide a separation distance from the body of at least 0.98 inches (25 mm). Use of accessories that are not expressly approved by RIM might violate FCC and IC RF exposure guidelines and might void any warranty applicable to the BlackBerry device. If you do not use a body-worn accessory equipped with an integrated belt clip supplied or approved by RIM when you carry the BlackBerry device, keep the BlackBerry device at least 0.98 inches (25 mm) from your body when the BlackBerry device is turned on and connected to a wireless network. When using any data feature of the BlackBerry device, with or without a USB cable, hold the BlackBerry device at least 0.98 inches (25 mm) from your body. If you use a body-worn accessory not supplied by RIM when you carry the BlackBerry device, verify that the accessory does not contain metal and keep the BlackBerry device at least 0.98 inches (25 mm) from your body when the BlackBerry device is turned on and connected to a wireless network.

Specific absorption rate data

THIS WIRELESS DEVICE MODEL MEETS GOVERNMENT REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

The BlackBerry® device 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 (FCC) of the U.S. Government and Industry Canada of the Canadian Government (IC). 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 devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC/IC is 1.6W/kg*. Tests for SAR are conducted using standard operating positions specified by the FCC/IC with the device 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 device while operating can be well below the maximum value. This is because the device 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 wireless device model is available for sale to the public, it must be tested and certified to the FCC and IC that it does not exceed the limit established by the government-adopted requirement for safe exposure under the recommendations of the International Commission on Non-Ionizing Radiation Protection (ICNIRP). The tests are performed in positions and locations (for example, at the ear and worn on the body) as required by the FCC and IC and for each model.

The highest SAR value for each device model when tested for use at the ear is outlined below:

Device	1 g SAR (W/kg)
--------	----------------

The highest reported SAR value for this BlackBerry device when clipped on a belt, in a Research In Motion approved holster equipped with an integrated belt clip, is outlined below. Carrying solutions, including RIM approved carrying solutions and carrying solutions not approved by RIM, that do not come equipped with an integrated belt clip SHOULD NOT be worn or carried on the body. For more information regarding the wearing or carrying of this BlackBerry device without using a RIM approved carrying solution equipped with an integrated belt clip, see the Holster information in the "Additional safety guidelines" section of this document.

Device	1 g SAR (W/kg)
BlackBerry Pearl 8230 smartphone	0.95

Body-worn measurements differ among wireless device and phone models, depending upon available accessories and FCC and IC requirements.

The FCC has granted an Equipment Authorization for this wireless device model with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this wireless device model is on file with the FCC and can be found under the Display Grant section of www.fcc.gov/oet/ea after searching on FCC ID L6ARCE20CW. Additional information on Specific Absorption Rates (SAR) can be found on the CTIA - The Wireless Association® web site at www.ctia.org, on the Association of Radio Industries and Businesses (ARIB) web site at www.arib-emf.org/index.html, or on the Telecommunications Bureau of the Ministry of Internal Affairs and Communications (MIC) web site at www.tele.soumu.go.jp/e/index.htm.

* In the United States and Canada, the SAR limit for mobile devices used by the public is 1.6 watts/kg (W/kg) averaged over 1 gram of tissue for the body or head (4.0 W/kg averaged over 10 grams of tissue for the extremities - hands, wrists, ankles and feet). The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.

The long-term characteristics or the possible physiological effects of Radio Frequency Electromagnetic fields have not been evaluated by Underwriters Laboratories Inc. (UL).

FCC compliance statement (United States)

FCC Class B Part 15

This device complies with Part 15 of the Federal Communications Commission (FCC) Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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 manufacturer's instructions, may cause interference harmful to radio communications.

There is no guarantee, however, 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 to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.

US Information Concerning the Federal Communications Commission ("FCC") Requirements for Hearing Aid Compatibility with Wireless Devices

When wireless devices are used near hearing devices (such as hearing aids and cochlear implants), users may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference, and wireless devices also vary in the amount of interference that they generate.

The wireless telephone industry has developed ratings to assist hearing device users in finding wireless devices that may be compatible with their hearing devices. Not all wireless devices have been rated. Wireless devices that are rated will have the rating displayed on the box together with other relevant approval markings.

The ratings are not guarantees. Results will vary depending on the user's hearing device and hearing loss. If your hearing device is vulnerable to interference, you may not be able to use a rated wireless device successfully.

Consulting with your hearing health professional and testing the wireless device with your hearing device is the best way to evaluate it for your personal needs.

How the ratings work

M-Ratings: Wireless devices rated M3 or M4 meet FCC requirements and are likely to generate less interference to hearing devices than wireless devices that are not labeled. M4 is the better/higher of the two ratings.

T-Ratings: Wireless devices rated T3 or T4 meet FCC requirements and are likely to be more usable with a hearing device's telecoil ("T Switch" or "Telephone Switch") than unrated wireless devices. T4 is the better/higher of the two ratings. (Note that not all hearing devices have telecoils in them.)

Hearing devices may also be measured for immunity to this type of interference. Your hearing device manufacturer or hearing health professional may help you find results for your hearing device. The more immune your hearing aid is, the less likely you are to experience interference noise from wireless devices.

For additional information about the FCC's actions with regard to hearing aid compatible wireless devices and other steps that the FCC has taken to ensure that individuals with disabilities have access to telecommunications services, please go to www.fcc.gov/cgb/dro.

Industry Canada certification

This BlackBerry® device complies with Industry Canada RSS 102, RSS 132, RSS 133, and RSS 210, under certification number 2503A-RCE20CW.

Class B compliance

This BlackBerry® device complies with the Class B limits for radio noise emissions as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of Industry Canada.

Additional regulatory conformance

Specific details about compliance to the following standards and regulatory bodies may be obtained from Research In Motion:

- Underwriters Laboratories (UL) 60950-1 requirements for Canada and the United States
- International Electrotechnical Commission (IEC) 60825-1 2001: Safety of Laser Products

Product information

Product information

Mechanical properties

weight	approximately 3.55 (100.5) including lithium-ion battery
size (L x W x H)	3.9 x 2.0 x 0.7 in. (101 x 50 x 17.8 mm)
memory	128-MB flash memory

Power

battery	removable, rechargeable lithium-ion cell
port	micro-USB-compatible port for data synchronization and charging

LED camera flash

LED class	Class 1 LED product
maximum radiated power	770.4 uW

Device radio specifications

dual-band support	CDMA 800 MHz and CDMA 1900 MHz
networks	CDMA2000® 1X, EVDO
power class	Class 3 (CDMA 800), Class 2 (CDMA 1900)
transmitting frequency	Cell 824.70 to 848.31 MHz, PCS 1851.25 to 1908.75 MHz

receiving frequency	Cell 869.70 to 893.31 MHz, PCS 1931.25 to 1988.75 MHz, A-GPS: 1575 MHz, A-GPS E911: 1575 MHz
---------------------	---

Bluetooth radio specifications

single-band support	ISM 2.4 GHz
power class	Bluetooth® Class 2
transmitting and receiving frequency	2402 to 2480 MHz

Legal notice

©2009 Research In Motion Limited. All rights reserved. BlackBerry®, RIM®, Research In Motion®, SureType®, SurePress™ and related trademarks, names, and logos are the property of Research In Motion Limited and are registered and/or used in the U.S. and countries around the world.

Bluetooth is a trademark of Bluetooth SIG. CDMA2000 is a trademark of the Telecommunications Industry Association. IEEE Std 1725 is a trademark of the Institute of Electrical and Electronics Engineers, Inc. All other trademarks are the property of their respective owners.

Portions of the BlackBerry® Device Software are copyright © 2007-2008 The FreeType Project (www.freetype.org). All rights reserved.

The BlackBerry smartphone and other devices and/or associated software are protected by copyright, international treaties, and various patents, including one or more of the following U.S. patents: 6,278,442; 6,271,605; 6,219,694; 6,075,470; 6,073,318; D445,428; D433,460; D416,256. Other patents are registered or pending in the U.S. and in various countries around the world. Visit www.rim.com/patents for a list of RIM (as hereinafter defined) patents.

This documentation including all documentation incorporated by reference herein such as documentation provided or made available at www.blackberry.com/go/docs is provided or made accessible "AS IS" and "AS AVAILABLE" and without condition, endorsement, guarantee, representation, or warranty of any kind by Research In Motion Limited and its affiliated companies ("RIM") and RIM assumes no responsibility for any typographical, technical, or other inaccuracies, errors, or omissions in this documentation. In order to protect RIM proprietary and confidential information and/or trade secrets, this documentation may describe some aspects of RIM technology in generalized terms. RIM reserves the right to periodically change

information that is contained in this documentation; however, RIM makes no commitment to provide any such changes, updates, enhancements, or other additions to this documentation to you in a timely manner or at all.

This documentation might contain references to third-party sources of information, hardware or software, products or services including components and content such as content protected by copyright and/or third-party web sites (collectively the "Third Party Products and Services"). RIM does not control, and is not responsible for, any Third Party Products and Services including, without limitation the content, accuracy, copyright compliance, compatibility, performance, trustworthiness, legality, decency, links, or any other aspect of Third Party Products and Services. The inclusion of a reference to Third Party Products and Services in this documentation does not imply endorsement by RIM of the Third Party Products and Services or the third party in any way.

EXCEPT TO THE EXTENT SPECIFICALLY PROHIBITED BY APPLICABLE LAW IN YOUR JURISDICTION, ALL CONDITIONS, ENDORSEMENTS, GUARANTEES, REPRESENTATIONS, OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY CONDITIONS, ENDORSEMENTS, GUARANTEES, REPRESENTATIONS OR WARRANTIES OF DURABILITY, FITNESS FOR A PARTICULAR PURPOSE OR USE, MERCHANTABILITY, MERCHANTABILITY, NON-INFRINGEMENT, SATISFACTORY QUALITY, OR TITLE, OR ARISING FROM A STATUTE OR CUSTOM OR A COURSE OF DEALING OR USAGE OF TRADE, OR RELATED TO THE DOCUMENTATION OR ITS USE, OR PERFORMANCE OR NON-PERFORMANCE OF ANY SOFTWARE, HARDWARE, SERVICE, OR ANY THIRD PARTY PRODUCTS AND SERVICES REFERENCED HEREIN, ARE HEREBY EXCLUDED. YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY BY STATE OR PROVINCE. SOME JURISDICTIONS MAY NOT ALLOW THE EXCLUSION OR LIMITATION OF IMPLIED WARRANTIES AND CONDITIONS. TO THE EXTENT PERMITTED BY LAW, ANY IMPLIED WARRANTIES OR CONDITIONS RELATING TO THE DOCUMENTATION TO THE EXTENT THEY CANNOT BE EXCLUDED AS SET OUT

ABOVE, BUT CAN BE LIMITED, ARE HEREBY LIMITED TO NINETY (90) DAYS FROM THE DATE YOU FIRST ACQUIRED THE DOCUMENTATION OR THE ITEM THAT IS THE SUBJECT OF THE CLAIM.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW IN YOUR JURISDICTION, IN NO EVENT SHALL RIM BE LIABLE FOR ANY TYPE OF DAMAGES RELATED TO THIS DOCUMENTATION OR ITS USE, OR PERFORMANCE OR NON-PERFORMANCE OF ANY SOFTWARE, HARDWARE, SERVICE, OR ANY THIRD PARTY PRODUCTS AND SERVICES REFERENCED HEREIN INCLUDING WITHOUT LIMITATION ANY OF THE FOLLOWING DAMAGES: DIRECT, CONSEQUENTIAL, EXEMPLARY, INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE, OR AGGRAVATED DAMAGES, DAMAGES FOR LOSS OF PROFITS OR REVENUES, FAILURE TO REALIZE ANY EXPECTED SAVINGS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, LOSS OF BUSINESS OPPORTUNITY, OR CORRUPTION OR LOSS OF DATA, FAILURES TO TRANSMIT OR RECEIVE ANY DATA, PROBLEMS ASSOCIATED WITH ANY APPLICATIONS USED IN CONJUNCTION WITH RIM PRODUCTS OR SERVICES, DOWNTIME COSTS, LOSS OF THE USE OF RIM PRODUCTS OR SERVICES OR ANY PORTION THEREOF OR OF ANY AIRTIME SERVICES, COST OF SUBSTITUTE GOODS, COSTS OF COVER, FACILITIES OR SERVICES, COST OF CAPITAL, OR OTHER SIMILAR PECUNIARY LOSSES, WHETHER OR NOT SUCH DAMAGES WERE FORESEEN OR UNFORESEEN, AND EVEN IF RIM HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW IN YOUR JURISDICTION, RIM SHALL HAVE NO OTHER OBLIGATION, DUTY, OR LIABILITY WHATSOEVER IN CONTRACT, TORT, OR OTHERWISE TO YOU INCLUDING ANY LIABILITY FOR NEGLIGENCE OR STRICT LIABILITY.

THE LIMITATIONS, EXCLUSIONS, AND DISCLAIMERS HEREIN SHALL APPLY: (A) IRRESPECTIVE OF THE NATURE OF THE CAUSE OF ACTION, DEMAND, OR ACTION BY YOU INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, NEGLIGENCE, TORT, STRICT

LIABILITY OR ANY OTHER LEGAL THEORY AND SHALL SURVIVE A FUNDAMENTAL BREACH OR BREACHES OR THE FAILURE OF THE ESSENTIAL PURPOSE OF THIS AGREEMENT OR OF ANY REMEDY CONTAINED HEREIN; AND (B) TO RIM AND ITS AFFILIATED COMPANIES, THEIR SUCCESSORS, ASSIGNS, AGENTS, SUPPLIERS (INCLUDING AIRTIME SERVICE PROVIDERS), AUTHORIZED RIM DISTRIBUTORS (ALSO INCLUDING AIRTIME SERVICE PROVIDERS) AND THEIR RESPECTIVE DIRECTORS, EMPLOYEES, AND INDEPENDENT CONTRACTORS.

IN ADDITION TO THE LIMITATIONS AND EXCLUSIONS SET OUT ABOVE, IN NO EVENT SHALL ANY DIRECTOR, EMPLOYEE, AGENT, DISTRIBUTOR, SUPPLIER, INDEPENDENT CONTRACTOR OF RIM OR ANY AFFILIATES OF RIM HAVE ANY LIABILITY ARISING FROM OR RELATED TO THE DOCUMENTATION.

Prior to subscribing for, installing, or using any Third Party Products and Services, it is your responsibility to ensure that your airtime service provider has agreed to support all of their features. Some airtime service providers might not offer Internet browsing functionality with a subscription to the BlackBerry® Internet Service. Check with your service provider for availability, roaming arrangements, service plans and features. Installation or use of Third Party Products and Services with RIM's products and services may require one or more patent, trademark, copyright, or other licenses in order to avoid infringement or violation of third party rights. You are solely responsible for determining whether to use Third Party Products and Services and if any third party licenses are required to do so. If required you are responsible for acquiring them. You should not install or use Third Party Products and Services until all necessary licenses have been acquired. Any Third Party Products and Services that are provided with RIM's products and services are provided as a convenience to you and are provided "AS IS" with no express or implied conditions, endorsements, guarantees, representations, or warranties of any kind by RIM and RIM assumes no liability whatsoever, in relation thereto. Your use of Third Party

Products and Services shall be governed by and subject to you agreeing to the terms of separate licenses and other agreements applicable thereto with third parties, except to the extent expressly covered by a license or other agreement with RIM.

Certain features outlined in this documentation require a minimum version of BlackBerry® Enterprise Server, BlackBerry® Desktop Software, and/or BlackBerry® Device Software.

The terms of use of any RIM product or service are set out in a separate license or other agreement with RIM applicable thereto. NOTHING IN THIS DOCUMENTATION IS INTENDED TO SUPERSEDE ANY EXPRESS WRITTEN AGREEMENTS OR WARRANTIES PROVIDED BY RIM FOR PORTIONS OF ANY RIM PRODUCT OR SERVICE OTHER THAN THIS DOCUMENTATION.

Licensed by QUALCOMM Incorporated under one or more of the following United States Patents and/or their counterparts in other nations:

4,901,307	5,490,165	5,056,109	5,504,773	5,101,501
5,506,865	5,109,390	5,511,073	5,228,054	5,535,239
5,267,261	5,544,196	5,267,262	5,568,483	5,337,338
5,600,754	5,414,796	5,657,420	5,416,797	5,659,569
5,710,784	5,778,338			

BlackBerry® Pearl™ 8230 smartphone model number: RCE21CW

Research In Motion Limited
295 Phillip Street
Waterloo, ON N2L 3W8

Canada

Research In Motion UK Limited
Centrum House
36 Station Road
Egham, Surrey TW20 9LF
United Kingdom

Published in Canada