

Mobile Broadband PC Card

PC300 HSDPA/UMTS/EDGE

User Guide



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Sony Ericsson PC300 Mobile Broadband PC Card

First edition (July 2007)

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Publication number: 1202-3264.3

About this guide

Congratulations and thank you for purchasing a Sony Ericsson PC300 Mobile Broadband PC Card. This guide includes an overview of the supported features, detailed technical specifications, system requirements, and safety guidelines for your PC300.

Note:

Be sure to read all safety guidelines in this document before using your PC300.

How this guide is organised

Chapter 1: Overview on page 1, contains an overview of your PC300 and the features that it supports. It also provides a list of the requirements and tools needed to use your new PC300.

Chapter 2: Technical specifications on page 8, provides detailed technical specifications for your PC300.

Chapter 3: Additional information on page 13, provides safety guidelines, warranty information, and regulations that are relevant to your PC300.

Additional resources

Additional resources can be found on the CD provided with your Sony Ericsson PC300 Mobile Broadband PC Card or on the Internet at the Sony Ericsson support Website.

Sony Ericsson support Website

You can use the Sony Ericsson Website to find the most up-to-date product information and support wherever you are. It gives you access to online customer services, user manuals, the latest software downloads, and other useful information. For more information, go to:

www.sonyericsson.com/support

Publications

Sony Ericsson provides the following documents with your PC300. The PDF documents are in Adobe® Portable Document Format and are included on the CD-ROM. They are also copied to your hard drive when the Wireless Manager software is installed. All of the documents are also available for download at www.sonyericsson.com/support

- A printed *Quick Start Guide* aimed at getting you operational as quickly as possible.
- A PDF *Wireless Manager User Guide* that provides a comprehensive description of how to install and use your PC Card with the Sony Ericsson Wireless Manager application. Wireless Manager enables you to set up and make Internet connections, send and receive text messages and manage your Phonebook.
- A PDF *PC Card User Guide* (this document) that contains a detailed description of your PC300 and the features that it supports.

Note:

If necessary you can download and install the Adobe® Reader® from www.adobe.com

Your mobile operator may provide alternative application software and documentation.

Overview

PC300 Communications Summary

Your Sony Ericsson PC300 Mobile Broadband PC Card keeps you in touch, enabling you to use the best available mobile service wherever you are. It supports tri-band UMTS and quad-band GSM:

GSM GPRS EDGE	850MHz	UMTS HSDPA	850MHz
	900MHz		1900MHz
	1800MHz		2100MHz
	1900MHz		

Your PC300 supports the following communications services:

Service	Maximum Download Speed	Maximum Upload Speed
HSDPA	3.6Mbps	384kbps
UMTS	384kbps	384kbps
EDGE	247.4kbps	123.7kbps
GPRS	53.6kbps (CS-2)	26.8kbps (CS-2)
	85.6kbps (CS-4)	42.8kbps (CS-4)
SMS		

Where UMTS service with HSDPA is available, your PC300 can connect at speeds up to 3.6Mbps. Your PC300 provides automatic fallback to to UMTS where HSDPA is not available and to EDGE or GPRS service where UMTS is not available (network support required). This section describes the services that the PC300 supports:

- **High Speed Downlink Packet Access (HSDPA)**
HSDPA is an enhancement to UMTS networks which enables the downlink speed to be dramatically increased; up to 3.6Mbps using the PC300. File downloads will be faster, whilst applications such as video streaming may operate at higher quality and greater reliability. The maximum speed available depends on the configuration of the mobile network and local conditions such as distance to the base station.
- **Universal Mobile Telecommunications System (UMTS)**
UMTS is a 3G technology standard for wide-area wireless data communication that is based on the GSM standard. The UMTS standard uses advanced network operator mobile Internet services to achieve data transfer rates up to 384 kbps, which are ideal for media streaming, video MMS, instant shopping, and banking.

- **Enhanced Data Rates for Global Evolution (EDGE)**

EDGE enhances GPRS by increasing data throughput over GPRS by as much as three times, depending upon the network radio signal strength and quality. GPRS networks that are enhanced with EDGE are often referred to as Enhanced GPRS (E-GPRS) networks. EDGE provides the “always on” capability of GPRS but at faster speeds. EDGE technology is transparent — simply make a GPRS connection as usual and benefit from the increase in speed where EDGE is available in a network. When EDGE is available you can expect increased speeds of up to 200 kbps, dependent on network coverage.

- **General Packet Radio Service (GPRS)**

GPRS is a type of network connection that provides “always on” mobility. The connection set up is fast. After you are connected, applications can send and receive data whenever required. In today’s GPRS networks, the PC300 receives data at speeds up to 53.6 kbps and transmits at speeds up to 26.8 kbps.

- **Short Message Service (SMS)**

You can send and receive SMS text messages using the Text Messages window in Wireless Manager or other application software.

Checklist

The following items should be in the box when you unpack it:

- Sony Ericsson PC300 Mobile Broadband PC Card
- Protective case for storing your PC300
- Quick Start Guide
- CD-ROM

The CD contains the necessary drivers, software, and documentation that you need to get started.

Hardware overview

Your Sony Ericsson PC300 Mobile Broadband PC Card is a standard 32-bit CardBus PC Card with a 15mm extension which contains the GSM/UMTS antenna. An access door is provided which allows you to connect an accessory antenna for improved radio performance in low signal locations.



The external antenna connector is an MMCX pattern.

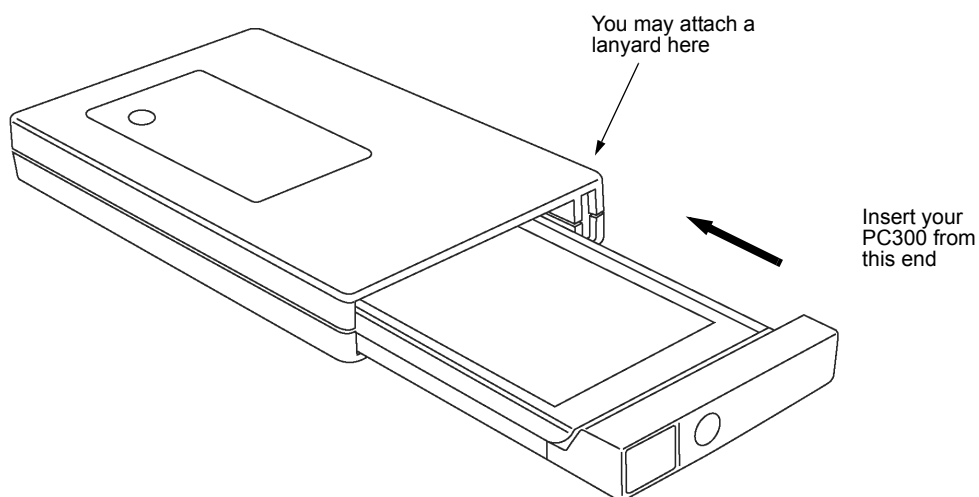
The PC300 is a 3.3 volt PC card and has mechanical keying to prevent insertion in older 5 volt only PCMCIA slots. Laptops 'Designed for Windows 98' and onwards have 3.3 volt support.

The amount of power that your PC300 draws from the laptop battery depends on several factors, including status, frequency band, and distance to the base station that is used.

The PC300 can be turned off under software control from the Wireless Manager application or the signal strength icon in the status tray. It is recommended that the user remove the card from the laptop when flying to prevent any accidental transmission.

Protective Case

When it is not in use, you should store your PC300 in the protective case. You can affix a lanyard to the case if required, so that you can carry your PC300 around your neck. The protective case can also accommodate the accessory antenna.

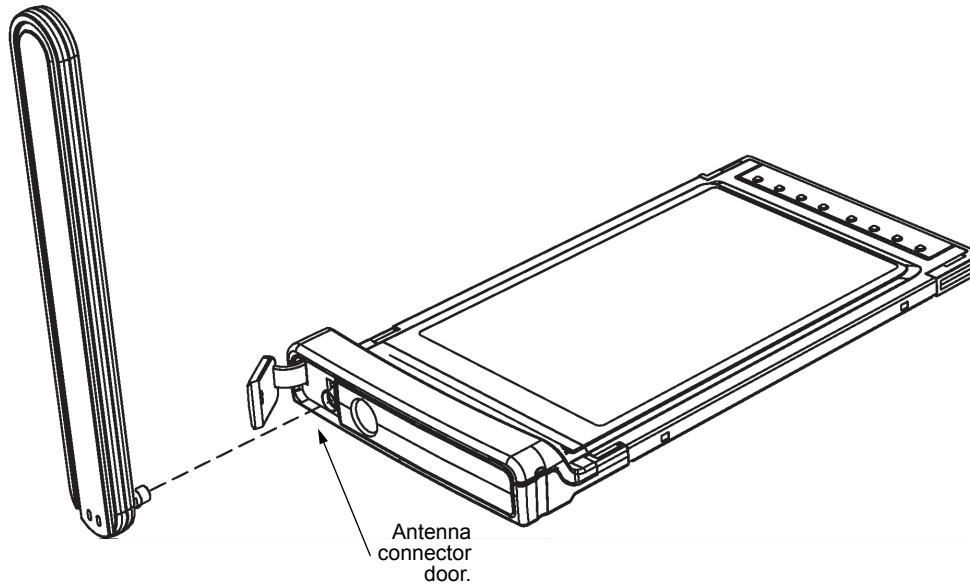


Accessory Antenna GCA-14

GCA-14 is an accessory antenna to be used with PC300 Mobile Broadband PC Card in order to enhance signal strength when using your PC Card in areas far from base stations or in areas with low GSM or UMTS network signal strength.

To attach the accessory antenna

1. Open the antenna connector door in the plastic extension part of your PC300.
2. Plug the accessory antenna in to the antenna connector.



To detach the accessory antenna

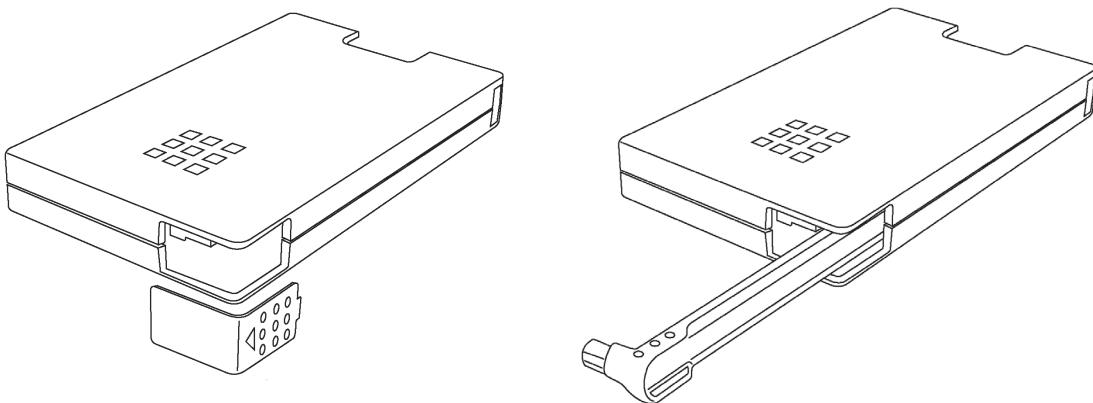
1. Hold the accessory antenna at the base, where it is plugged in to the PC300.
2. Gently pull the antenna plug away from the PC300 antenna connector.
3. Close the antenna connector door.
4. Store your accessory antenna carefully in the protective case provided with your PC300.

Note:

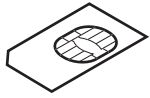
Use of an external antenna is not needed when used in areas where normal GSM or UMTS network signal strength is available.

To store the accessory antenna

1. Open the antenna cover by gently applying pressure in the direction of the arrow, away from the case.
2. Insert the antenna as shown.
3. Replace the antenna cover.

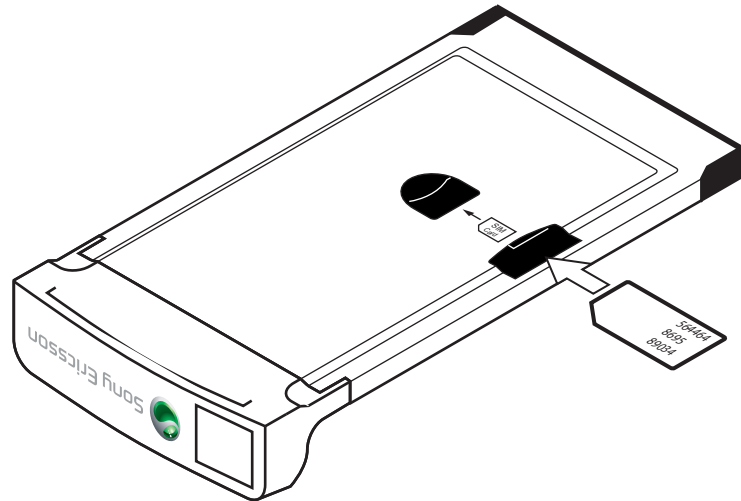


SIM Card



When you subscribe to a mobile network, you are issued a Subscriber Identity Module (SIM) card. Your SIM card contains your personal subscriber data. To connect to a mobile network you must first insert your SIM card that includes the appropriate network subscription into your PC300.

The SIM card is inserted into a slot in the lower face of the PC300:



Note:

The application software must be installed before you insert your PC Card into your PC or Mac.

Network and subscription requirements

The network subscription you use in conjunction with your PC300 depends on the functions and features that are available from your network operator. Contact your network operator or service provider to make sure the options that you require are available (UMTS/HSPDA, GPRS/EDGE and SMS).

Note:

Network operators often provide a number of connectivity options such as WAP and Internet. These are accessed via different APNs (Access Point Names). Verify the services that you require, such as Internet, e-mail or corporate VPN (Virtual Private Network) service are available through your Service operator and enabled on your subscription.

Software overview

Sony Ericsson Wireless Manager

Sony Ericsson provides the Wireless Manager, an application that provides the ability to configure and manage your wireless connections on your PC. For more information about software requirements, refer to the *Wireless Manager User Guide*.

You can use Wireless Manager to:

- Connect to the Internet or your corporate network
- Display mobile network status information
- Create or modify connection settings
- Manage your PC300 settings and preferences
- Send and receive SMS messages
- Manage phonebooks saved to your SIM card and hard drive

launch2net - Sony Ericsson Edition

To use your PC300 with your Mac OS X system, you will need **launch2net – Sony Ericsson Edition**. This application enables you to set up and use UMTS/HSDPA and GPRS/EDGE connections (subject to network coverage and availability). The software is available for download without charge from this Website:

www.novamedia.de/sonyericsson

Please follow the instructions on the Website to install, configure, and use your PC Card with your Apple PowerBook. Do not use the Quick Start Guide that is included with the PC Card. For more information, refer to documentation that comes with the launch2net – Sony Ericsson Edition application.

Third-party applications

Your network operator or your network administrator may provide an application that works with your PC300. Please refer to the instructions supplied with that application. Functions and features available may be different compared with the Sony Ericsson Wireless Manager application.

Virtual Private Network (VPN)

Your PC300 is tested for compatibility with popular VPN solutions used by corporations to enable remote workers to access the corporate network.

Note:

Sony Ericsson does not provide any VPN software with your PC300.

System requirements

This section lists the hardware and software requirements for using your Sony Ericsson PC300 PC Card.

General

You will need the following hardware:

- 32-bit CardBus type II PC Card slot
- Sony Ericsson PC300 Mobile Broadband PC Card
- SIM card
- Wireless Manager or other application CD or software download

Windows (Wireless Manager)

Wireless Manager works with the following versions of the Windows® operating system:

- Windows 2000 Service Pack 4 (SP4)
- Windows XP Service Pack 2 (SP2); 32-bit (x86) and 64-bit (x64) processors
- Windows Vista™; 32-bit (x86) and 64-bit (x64) processors

Your laptop PC must meet or exceed the minimum system requirements for the installed version of the Windows operating system and have the following:

- A 32-bit CardBus type II PC Card slot
- 110MB of available disk space

Note:

Sony Ericsson periodically releases new versions of Wireless Manager with new features and bugfixes. The exact support for the Windows Operating System may change over time. The readme.txt file on the CD-ROM, and included in the download, always identifies which versions and service packs of the Windows operating system are supported. For more information and downloads, please visit www.sonyericsson.com/support

Apple Macintosh

Please refer to the instructions supplied with launch2net or other application software.

Technical specifications

Product name	PC300
System	GSM 850 E-GSM 900 GSM 1800 GSM 1900 UMTS 850 UMTS 1900 UMTS 2100
PC Card Type	Type II, 32-bit CardBus
Services supported	GSM: GPRS/EDGE, SMS, USSD UMTS: Packet-Switched, HSDPA, Circuit-Switched, SMS, USSD Speech services are not supported
SIM Card	Small plug-in card, 3V and 1.8V type Regular (non-GPRS-aware) and GPRS-aware SIMs supported USIM
Type Number	FAD-3231011-BV

Exterior description

Size	Card part: 85.6 mm x 54.0 mm x 5.0 mm Extension part: 15.4 mm x 54.0 mm x 10.5 mm
Weight	42g, excluding SIM card
Battery	Powered via the PC Card slot. The PC300 uses the laptop battery.
Antenna	GSM/UMTS antenna integrated in to the plastic card extension
Antenna connector	SSMB connector (for optional accessory antenna) 50 ohm impedance

Ambient temperatures

Operating	-10 to 55 degrees C
Storage	-20 to 65 degrees C

Environmental Compliance

Directives	WEEE (Waste Electrical and Electronic Equipment Directive) RoHS (Restriction of use of certain Hazardous Substances)
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Application support

Windows	Sony Ericsson Wireless Manager Third-party software that might be provided by your mobile operator
Apple Macintosh	launch2net - Sony Ericsson Edition (via download) Third-party software that might be provided by your mobile operator

Electrical characteristics

Supported voltages	3.0 - 3.6V
Nominal operating voltage	3.3V
Average Standby Power (Inserted, not active)	< 30mW
Average Idle Power (GPRS attached)	< 150mW
Data Transfer Power (Worst case)	< 2.8W

Note:

All power consumptions are at nominal voltage.

GSM performance and technical characteristics

Dimension	GSM 850	GSM 900 E-GSM 900	GSM 1800	GSM 1900
Modulation	GMSK/8-PSK	GMSK/8-PSK	GMSK/8-PSK	GMSK/8-PSK
Power classes	Class 4 (2W) for GSM/ GPRS and EGPRS/ MCS 1-4 (GMSK); Class E2 (0.5W) for EGPRS/MCS 5-9 (8-PSK)	Class 4 (2W) for GSM/ GPRS and EGPRS/ MCS 1-4 (GMSK); Class E2 (0.5W) for EGPRS/MCS 5-9 (8-PSK)	Class 1 (1W) for GSM/ GPRS and EGPRS/ MCS 1-4 (GMSK); Class E2 (0.4W) for EGPRS/MCS 5-9 (8-PSK)	Class 1 (1W) for GSM/ GPRS and EGPRS/ MCS 1-4 (GMSK); Class E2 (0.4W) for EGPRS/MCS 5-9 (8-PSK)
Transmitter output impedance	50Ω	50Ω	50Ω	50Ω

GSM features supported

ME SIM Lock	Network Network Subset Service Provider Corporate
Online services (SIM-AT)	Supported via AT Commands
USSD	Phase 2+ Support is provided via AT commands; No MMI is provided

GPRS technical data

Data Rates	Multislot class 10 supported (see table below). Coding schemes: CS-1, CS-2, CS-3 and CS-4
Mode of Operation	Class B (attaches to both GSM and GPRS at the same time).
IP Connectivity	PDP type IP is supported IPv4
SMS over GPRS	Mobile Originated and Mobile Terminated
Compression	TCP/IP Header Compression (RFC1144 and RFC 2507) V42bis
GPRS Encryption	GEA1 and GEA2
GPRS IP allocation	Dynamic Static

GPRS maximum data rates

		CS-1 9.05 kbps	CS-2 13.4 kbps	CS-3 15.6 kbps	CS-4 21.4 kbps
4 + 1	RX	36.2	53.6	62.4	85.6
	TX	9.05	13.4	15.6	21.4
3 + 2	RX	27.15	40.2	46.8	64.2
	TX	18.1	26.8	31.2	42.8

Speed achieved depends on the Coding Scheme supported by the GSM network. The speeds given are maxima. Sony Ericsson cannot guarantee the speed at which your network will operate.

Data rate is the payload per slot: header plus data.

EDGE technical data

Device class	EDGE Class 10
Modulation Coding Schemes	MCS-1 to MCS-9
EDGE features	Link Adaptation Incremental Redundancy Extended Uplink Temporary Block Flow (TBF) Network Assisted Cell Change (NACC)

EDGE maximum data rates

Coding scheme	Data rate per slot	4 + 1		3 + 2	
		Rx	Tx	Rx	Tx
MCS-1	10.60	42.40	10.60	31.80	21.20
MCS-2	13.00	52.00	13.00	39.00	26.00
MCS-3	16.60	66.40	16.60	49.80	33.20
MCS-4	19.40	77.60	19.40	58.20	38.80
MCS-5	24.05	96.20	24.05	72.15	48.10
MCS-6	31.25	125.00	31.25	93.75	62.50
MCS-7	47.45	189.80	47.45	142.35	94.90
MCS-8	57.05	228.20	57.05	171.15	114.10
MCS-9	61.85	247.40	61.85	185.55	123.70

Speed achieved depends on the Coding scheme supported by the GSM Network. The speeds given are maxima, Sony Ericsson cannot guarantee the speed at which your network will operate.

Data rate is the payload per slot: header plus data.

UMTS technical data

Power class	Class 3 (0.25W, 24dBm)
Maximum Downlink speed	384kbps
Maximum Uplink speed	384kbps
UMTS features	Inter-Mode Handover (UMTS/EDGE/GPRS) Inter-Mode Reselection (UMTS/EDGE/GPRS)
Quality Of Service	UMTS classes supported via AT Command
Modes	PPP, IP Transparent, Non-Transparent
IP Allocation	Static, Dynamic
R4 Enhancements	Extended TBF Uplink Network Assisted Cell Change (NACC)

HSDPA technical data

Maximum Downlink speed	3.6Mbps
HSDPA Categories	Speeds up to Category 6

SMS Technical Data


Concatenated SMS	Supported in Wireless Manager or via third party software
SMS Cell Broadcast	Supported via AT Commands.
SMS interface	Wireless Manager. AT Command.

Firmware upgrade




PC Card firmware upgrade	Via secure Internet download using the Sony Ericsson Update Service, www.sonyericsson.com/support or at Sony Ericsson Service Points
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Additional information

Guidelines for safe and efficient use

Please read this information before using your PC300 Mobile BroadbandPC Card. 

Recommendations

- Always treat your product with care and keep it in a clean and dust-free place.
- Do not expose your product to liquid or moisture or humidity.
- Do not expose your product to extreme high or low temperatures. 
- Do not expose your product to open flames or lit tobacco products. 
- Do not drop, throw or try to bend your product.
- Do not paint your product.
- Do not use your product near medical equipment without requesting permission from your treating physician or authorised medical staff.
- Do not use your product when in, or around aircraft, or areas showing the sign “turn off two-way radio”.
- Do not use your product in an area where a potentially explosive atmosphere exists.
- Do not place your product or install wireless equipment in the area above your car’s air bag.
- Do not attempt to disassemble your product. Only Sony Ericsson authorised personnel should perform service. 

Antenna

Only use an antenna that has been specifically designed by Sony Ericsson for your PC300. Use of antenna devices not marketed by Sony Ericsson specifically for this model could damage your PC300, reduce performance and produce SAR levels above the established limits (see below).

Efficient use

Do not cover the antenna when in use, as this affects call quality and may cause the PC300 to operate at a higher power level than needed, thus shortening talk and standby times.

Radio Frequency (RF) exposure and SAR

Your PC Card is a low-power radio transmitter and receiver (transceiver). When it is turned on, it emits low levels of radio frequency energy (also known as radio waves or radio frequency fields).

Governments around the world have adopted comprehensive international safety guidelines, developed by scientific organisations, e.g. ICNIRP (International Commission on Non-Ionising Radiation Protection) and IEEE (The Institute of Electrical and Electronics Engineers Inc.), through periodic and thorough evaluation of scientific studies. These guidelines establish permitted levels of radio wave exposure for the general population. The levels include a safety margin designed to assure the safety of all persons, regardless of age and health, and to account for any variations in measurements.

Specific Absorption Rate (SAR) is the unit of measurement for the amount of radio frequency energy absorbed by the body when using a transceiver. The SAR value is determined at the highest certified power level in laboratory conditions, but the actual SAR level of the transceiver while operating can be well below this value. This is because the transceiver is designed to use the minimum power required to reach the network.

Variations in SAR below the radio frequency exposure guidelines do not mean that there are variations in safety. While there may be differences in SAR levels among mobile phones, all Sony Ericsson PC cards are designed to meet radio frequency exposure guidelines.

More information on radio frequency exposure and SAR can be found on:
www.sonyericsson.com.

Personal medical devices

PC Cards may affect the operation of cardiac pacemakers and other implanted equipment.

If a minimum distance of 15 cm (6 inches) is kept between the PC300 and the pacemaker, the risk of interference is limited. If you have any reason to suspect that interference is taking place, immediately turn off your PC300. Contact your cardiologist for more information.

For other medical devices, please consult your physician and the manufacturer of the device.

Children

DO NOT ALLOW CHILDREN TO PLAY WITH YOUR PC CARD OR ITS ANTENNA. THEY COULD HURT THEMSELVES OR OTHERS, OR COULD ACCIDENTALLY DAMAGE THE PC CARD OR ANTENNA. YOUR PC CARD OR ITS ANTENNA MAY CONTAIN SMALL PARTS THAT COULD BE DETACHED AND CREATE A CHOKING HAZARD.

Disposal of old electrical & electronic equipment

This symbol indicates that all electrical and electronic equipment included shall not be treated as household waste. Instead it shall be left at the appropriate collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased your PC300.

Emergency calls

PC Cards manufactured by Sony Ericsson do not support voice calls and should not be relied upon for essential communications.

Inserting and removing the SIM card – precautions against electrostatic discharge (ESD)

Do not touch the SIM card connectors. As a precaution, always make sure that the PC300 is already in your hand before you insert or remove the SIM card.

Generic SEMC Limited warranty

Limited Warranty

Sony Ericsson Mobile Communications AB, Nya Vattentorget, SE-221 88 Lund, Sweden, (Sony Ericsson) or its local affiliated company, provides this Limited Warranty for your mobile phone, original accessory delivered with your mobile phone, and/or your mobile computing product (hereinafter referred to as "Product").

Should your Product need warranty service, please return it to the dealer from whom it was purchased, or contact your local Sony Ericsson Call Center (national rates may apply) or visit www.sonyericsson.com to get further information.

Warranty requirements may differ by country or region. Please visit www.sonyericsson.com/support to review the Sony Ericsson warranty applicable to the country or region where you purchased your product, which may differ from the default generic warranty included with your user materials.

OUR WARRANTY

Subject to the conditions of this Limited Warranty, Sony Ericsson warrants this Product to be free from defects in design, material and workmanship at the time of its original purchase by a consumer. This Limited Warranty will last for a period of one (1) year as from the original date of purchase of the Product.

WHAT WE WILL DO

If, during the warranty period, this Product fails to operate under normal use and service, due to defects in design, materials or workmanship, Sony Ericsson authorized distributors or service partners, in the country* where you purchased the Product, will, at their option, either repair or replace the Product in accordance with the terms and conditions stipulated herein.

Sony Ericsson and its service partners reserve the right to charge a handling fee if a returned Product is found not to be under warranty according to the conditions below.

Please note that some of your personal settings, downloads and other information may be lost when your Sony Ericsson Product is repaired or replaced. At present Sony Ericsson may be prevented by applicable law, other regulation or technical restrictions from making a backup copy of certain downloads. Sony Ericsson does not take any responsibility for any lost information of any kind and will not reimburse you for any such loss. You should always make backup copies of all the information stored on your Sony Ericsson Product such as downloads, calendar and contacts before handing in your Sony Ericsson Product for repair or replacement.

CONDITIONS

1. This Limited Warranty is valid only if the original proof of purchase for this Product issued by a Sony Ericsson authorized dealer specifying the date of purchase and serial number**, is presented with the Product to be repaired or replaced. Sony Ericsson reserves the right to refuse warranty service if this information has been removed or changed after the original purchase of the Product from the dealer.
2. If Sony Ericsson repairs or replaces the Product, the repair for the defect concerned, or the replaced Product shall be warranted for the remaining time of the original warranty period or for ninety (90) days from the date of repair, whichever is longer. Repair or replacement may involve the use of functionally equivalent reconditioned units. Replaced parts or components will become the property of Sony Ericsson.
3. This warranty does not cover any failure of the Product due to normal tear and wear, or due to misuse, including but not limited to use in other than the normal and customary manner, in accordance with the Sony Ericsson instructions for use and maintenance of the Product. Nor does this warranty cover any failure of the Product due to accident, software or hardware modification or adjustment, acts of God or damage resulting from liquid.

A rechargeable battery can be charged and discharged more than a hundred times. However, it will eventually wear out - this is not a defect and corresponds to normal wear and tear. When the talk-time or standby time is noticeably shorter, it is time to replace your battery. Sony Ericsson recommends that you use only batteries and chargers approved by Sony Ericsson.

Minor variations in display brightness and colour may occur between the phones. There may be tiny bright or dark dots on the display. These are called defective pixels and occur when individual dots have malfunctioned and can not be adjusted. Two defective pixels are deemed acceptable.

Minor variations in camera image appearance may occur between phones. This is nothing uncommon and is not regarded as a defective camera module.

4. Since the cellular system on which the Product is to operate is provided by a carrier independent from Sony Ericsson, Sony Ericsson will not be responsible for the operation, availability, coverage, services or range of that system.
5. This warranty does not cover Product failures caused by installations, modifications, or repair or opening of the Product performed by a non-Sony Ericsson authorised person.
6. The warranty does not cover Product failures which have been caused by use of accessories or other peripheral devices which are not Sony Ericsson branded original accessories intended for use with the Product.
7. Tampering with any of the seals on the Product will void the warranty.
8. THERE ARE NO EXPRESS WARRANTIES, WHETHER WRITTEN OR ORAL, OTHER THAN THIS PRINTED LIMITED WARRANTY. ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. IN NO EVENT SHALL Sony Ericsson OR ITS LICENSORS BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS OR COMMERCIAL LOSS; TO THE FULL EXTENT THOSE DAMAGES CAN BE DISCLAIMED BY LAW.

Some countries/states do not allow the exclusion or limitation of incidental or consequential damages, or limitation of the duration of implied warranties, so the preceding limitations or exclusions may not apply to you.

The warranty provided does not affect the consumer's statutory rights under applicable legislation in force, nor the consumer's rights against the dealer arising from their sales / purchase contract.

***GEOGRAPHICAL SCOPE OF THE WARRANTY**

If you have purchased your Product in a country member of the European Economic Area (EEA) or in Switzerland or the Republic of Turkey, and such Product was intended for sale in the EEA or in Switzerland or in Turkey, you can have your Product serviced in any EEA country or in Switzerland or in Turkey, under the warranty conditions prevailing in the country in which you require servicing, provided that an identical Product is sold in such country by an authorised Sony Ericsson distributor. To find out if your Product is sold in the country you are in, please call the local Sony Ericsson Call Center. Please observe that certain services may not be possible elsewhere than in the country of original purchase, for example due to the fact that your Product may have an interior or exterior which is different from equivalent models sold in other countries. Please note in addition that it may sometimes not be possible to repair SIM-locked Products.

** In some countries/regions additional information (such as a valid warranty card) may be requested.

Regulatory information

Declaration of conformity

We, **Sony Ericsson Mobile Communications AB** of
Nya Vattentorget
S-221 88 Lund, Sweden

declare under our sole responsibility that our product

Sony Ericsson type FAD-3231011-BV

and in combination with our accessories, to which this declaration relates is in conformity with the appropriate standards 3GPP TS 51.010-1, EN 301908-1, EN 301908-2, EN 301489-7, EN 301489-24 and EN 60950, following the provisions of Radio Equipment and Telecommunication Terminal Equipment directive 99/5/EC with requirements covering EMC directive 89/336/EEC, and Low Voltage directive 73/23/EEC.

CE 0682

Research Triangle Park, North Carolina. August 2007

Place and date of issue



Najmi Jarwala
President - US & Canada
Sony Ericsson Mobile Communications (USA) Inc.

We fulfil the requirements of the R&TTE Directive (99/5/EC).

FCC statement



FCC ID: PY7F3231011

IC: 4170B-F3231011

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

WARNING: Changes or modifications made to this equipment not expressly approved by Sony Ericsson Mobile Communications AB may void the FCC authorization to operate this equipment.

CAUTION: The PC Card has been tested for compliance with FCC / IC RF exposure limits in the laptop computer(s) configurations with side PCMCIA slot and can be used in laptop computers with substantially similar physical dimensions, construction, and electrical and RF characteristics.

Always place the optional accessory antenna in the upright position (oriented vertically) when using the PC Card in a notebook computer.

Note: If this PC Card is intended for use in any other portable device, you are responsible for separate approval to satisfy the SAR requirements of Part 2.1093 of FCC rules.

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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