GC86

EDGE PC Card

User Guide

Sony Ericsson

Contents

GC86 EDGE PC Card

First edition (August 2006)

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About this guide

Congratulations and thank you for purchasing a Sony Ericsson GC86 PC Card.

This book includes an overview of the supported features, detailed technical specifications, system requirements, and safety guidelines for your Sony Ericsson GC86 PC Card.

Note:
Be sure to read all safety guidelines in this book before using your PC Card.

How this guide is organised

Chapter 1: Overview on page 1, contains an overview of your Sony Ericsson GC86 PC Card and the features that it supports. It also provides a list of the requirements and tools needed to use your new PC Card.

Chapter 2: Technical specifications on page 4, provides detailed technical specifications for your PC Card.

Chapter 3: Additional information on page 9, provides safety guidelines, warranty information, and regulations that are relevant to your Sony Ericsson GC86 PC Card.

Additional resources

Additional resources can be found on the CD that came with your GC86 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:

http://www.SonyEricsson.com

Publications

The following documents are located on the Wireless Manager CD-ROM which is provided with your GC86:

• A printed *Quick Start Guide* aimed at getting you operational as quickly as possible.

• An online *Wireless Manager User Guide* that provides a comprehensive description of how to use Wireless Manager to manage the wireless connections for your GC86. The Wireless Manager User Guide is saved as an Adobe Acrobat PDF file. It is located on the CD-ROM that came with your PC Card.

• An online *GC86 PC Card User Guide* (this document) that contains a detailed description of your GC86 and the features that it supports. The *GC86 PC Card User Guide* is saved as an Adobe Acrobat PDF file on the CD-ROM that came with your PC Card.

The CD-ROM also contains Adobe Acrobat Reader® which you can install if necessary.

Overview

The GC86 is a quad band GSM PC Card. The GC86 is designed for use in the home and at work; it is very simple to install and use; the software provided allows you to select the best data service available so that the GC86 is always available for data transfer.

The GC86 enables your laptop PC to:

- Connect to your corporate network

- Browse the Internet

- Send and receive e-mails

- Receive information services in real time

- Access files, databases and discussion groups

- Send and receive SMS text messages

- Edit SIM card entries

   Note:
   The Wireless Manager software, which is provided with your PC Card, is the software you use to control your PC Card. Before using your PC Card, read the *Wireless Manager User Guide*. Wireless Manager must be installed before you insert your PC Card into your PC.

The GC86 supports the following services and bands:

EDGE	✓	GSM 850	✓
GPRS	✓	GSM 900	✓
CSD	✓	GSM 1800	✓
SMS	✓	GSM 1900	✓

The GSM, GPRS and EDGE facilities provide almost worldwide portable modem access to the Internet or to corporate networks.

- **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 GC86 receives data at speeds up to 53.6 kbps and transmits at speeds up to 26.8 kbps.

- **Circuit Switched Data (CSD)**
  CSD is the original GSM network data transfer method, used in the past for WAP.
  Almost all GSM networks have this capability at 9.6 kbps.

- **Short Message Service (SMS)**
  The PC can send and receive SMS text messages using the SMS Messages window in
  Wireless Manager, see *Wireless Manager – SMS Messages view*, for more information.

Checklist

Make sure the following items are in the box when you unpack it:

- Protective case for storing your PC Card

- Sony Ericsson GC86 PC Card

- 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 GC86 PC Card is a standard 32-bit cardbus PC Card with a 15mm extension
which contains the GSM antenna. An access door is provided which allows you to connect an external
antenna for improved GSM GPRS/EDGE radio performance in low signal locations.

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

Before using the GC86, you must install the Wireless Manager software and applicable drivers on
your computer.

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 GC86.

Software overview

Wireless Manager

Your GC86 comes with Wireless Manager, an application that provides the tools
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:

- Manage your GC86 settings

- Display GSM GPRS/EDGE status information

- Create or modify connection settings

- Connect to the Internet

- Manage phone books saved to your SIM card and hard drive

- Send and receive SMS messages

You can use your GC86 like a modem to provide Intranet/Internet connectivity for other applications.

Third-party applications

Your network operator or your network administrator may provide an application that works with your GC86. Please refer to the instructions supplied with that application. Functions and features available may be different compared with the Sony Ericsson Wireless Manager application.

Apple Macintosh

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

http://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 Mobile High Speed – Sony Ericsson Edition application.

System requirements

This section lists the network subscriptions and hardware requirements for using your Sony Ericsson GC86 PC Card.

Hardware requirements

You will need the following hardware:

- Laptop PC that meets the minimum specifications recommended by Microsoft to run the version of Windows® installed on it

- 32 bit CardBus type II PC Card slot

- Sony Ericsson GC86 PC Card

- SIM card

Network and subscription requirements

The network subscription you use in conjunction with your GC86 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 (GSM GPRS/EDGE, CSD and SMS).

Note:
Network operators often provide a number of connectivity options via GPRS/EDGE such as WAP and Internet. Verify the services that you require, such as Internet, e-mail or corporate VPN (Virtual Private Network) service is available through your Service operator and enabled on your subscription.

Technical specifications

Product name	GC86
System	GSM 850
	E-GSM 900
	GSM 1800
	GSM 1900
PC Card Type	Type II, 32-bit Cardbus
Services supported	CSD, GPRS/EDGE, SMS
	Speech services are not supported
SIM Card	SIM Lock supported
	Regular (non-GPRS-aware) and GPRS-aware SIMs supported
	Standard, GPRS-aware and USIM (2G functionality) 1.8v & 3v
Type Number	FAF-1051012-BV

Exterior description

Size	**Card part**: 84.6 mm x 54.0 mm x 5.0 mm
	Extension part: 15.5 mm x 54.0 mm x 10.6 mm
Weight	42g, excluding SIM card
Battery	Powered via the PC Card slot. The GC86 uses the laptop battery.
Antenna	50 ohm interface; Antenna supplied.
Antenna connector	MMCX connector (for optional external GSM antenna)

Ambient temperatures

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

Application support

Windows	Wireless Manager
	Third-party software that might be provided by your mobile operator
Apple Macintosh	Mobile High Speed (via download)
	Third-party software that might be provided by your mobile operator

Electrical characteristics

Supported voltages	3.3V $\pm$ 10%
Nominal operating voltage	3.3V
Average Standby Current/Power (Inserted, not active)	< 30mW
Average Idle Current/Power (GPRS attached)	< 150mW
Data Transfer Current/Power (Worst case GPRS transfer)	< 2.2W

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, Network operator and Corporate
Online services (SIM-AT)	Class 2 with call control
USSD	Phase 2+ Support is provided via AT commands; No MMI is provided

CSD technical data

Standards	AT commands industry standard ETSI 07.05, 07.07 and 07.10, V.25ter command set supported
CSD data rates	GSM 9.6 kbps or 14.4 kbps, depending on the GSM network
Compression	MNP5 (Increases data rate up to 2x depending on data type) V.42bis (Increases data rate up to 4x depending on data type) GSM network support required for compression
Error correction	End to End MNP2 and LAPM (V.42) RLP Requires GSM Network support
GSM/ISDN	According to V.110 and V.120

GPRS technical data

GPRS Specification SMG	SMG31bis
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; data connection is established using CS (CSD or GPRS) The user may select CSD or GPRS modes via settings in Wireless Manager or alternative management software.
Attach Modes	GPRS Attach GPRS Detach Combined Attach (CS+GPRS) (CCCH) Combined Detach (CCCH) Combined Attach (CS+GPRS) (PCCCH) Combined Detach (PCCCH)
Network modes	Network Mode 1 Network Mode 2 Network Mode 3
R Reference Point	Physical layer: RS232 virtual COM port Authentication mechanisms PAP and CHAP supported
IP Connectivity	PDP type IP is supported IPv4
SMS over GPRS	Mobile Originated and Mobile Terminated

QoS	Support for all 4 classes.
	QoS Negotiation
PDP Context	Up to 10 PDP context details are stored in GC86 memory.
	Number of parallel PDP Context activated (both MO and MT):1
	Number of PDP Context with traffic in parallel:1
	PDP Context modification (e.g. QoS renegotiation).
	Network initiated PDP Context modification.
	Network initiated PDP Context deactivation.
	Collision of MS and Network initiated PDP Context activation.
SIM	Support for GPRS aware as well as non-GPRS-aware SIMs
Compression	TCP/IP Header Compression
	V42bis
GPRS Encryption	GEA1 and GEA2
GPRS Frequency Hopping	Supported
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 maximums. 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)
	Single Phase Access on RACH

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 maximums, Sony Ericsson cannot guarantee the speed at which your network will operate.

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

SMS Technical Data

Concatenated SMS	Yes.
SMS Cell Broadcast	Supported in Wireless Manager and by AT Commands (excluding Cell ID).
SMS Immediate Display	Supported in Wireless Manager and by 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 or at Sony Ericsson Service Points

Additional information

Guidelines for safe and efficient use

Please read this information before using your GC86 EDGE PC 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 PC card. Use of antenna devices not marketed by Sony Ericsson specifically for this model could damage your PC card, reduce performance, and produce SAR levels above the establish limits (see below).

Efficient use

Do not cover the antenna when in use, as this affects call quality and may cause the GC86 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.

Caution!
The PC Card has been tested for compliance with FCC / IC RF exposure limits in the laptop computer(s) configurations with side PCMCIA representative of laptop computers with substantially similar physical dimensions, construction, and electrical and RF characteristics.

Always place the external 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.

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 GC86 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 GC86. 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.

Disposing of the product

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 GC86.

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 GC86 is already in your hand before you insert or remove the SIM card.

Limited warranty

Sony Ericsson Mobile Communications AB, Nya Vattentornet, SE-221 88 Lund, Sweden, (Sony Ericsson), provides this Limited Warranty for your PC Card and original accessory delivered with your PC Card (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 Centre (national rates may apply) or visit www.SonyEricsson.com for further information.

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, and for a subsequent period of one (1) year.

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 authorised distributors or service partners, in the country/region* 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 issued to the original purchaser by an, for this Product, Sony Ericsson authorised dealer, specifying the date of purchase and serial number** for this product 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 wear and tear, 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.

4. Since the cellular network 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 Ericsson or Sony Ericsson branded original accessories intended for use with the Product.

   Sony Ericsson disclaims any and all warranties, whether express or implied, for failures caused to the Product or peripheral devices as a result of viruses, Trojan horses, spy ware, or other malicious software. Sony Ericsson strongly recommends that you install appropriate virus protection software on your Product and any peripheral devices connected to it, as available, and update it regularly, to better protect your device. It is understood, however, that such software will never fully protect your Product or its peripheral devices and Sony Ericsson disclaims all warranties, whether express or implied, in case of failure by such antivirus software to fulfil its intended purpose.

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.

* European Union (EU)

If you have purchased your Product in an EU country you can have your Product serviced, under the conditions set out above, within the warranty period in any EU country where an identical Product is sold by an authorised Sony Ericsson distributor. To find out if your Product is sold in the EU country you are in, please call the local Sony Ericsson Call Centre. 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 EU countries. It may not be possible to repair SIM-locked Products.

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

Disputes and Governing Law

The validity, construction and performance of this Agreement shall be governed by the laws of Sweden. All disputes, differences or questions between the parties with respect to any matter arising out of or relating to this Agreement shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce, in Stockholm, by three (3) arbitrators appointed in accordance with the said Rules. The proceeding shall be conducted in the English language.

Regulatory information

Declaration of conformity

We, **Sony Ericsson Mobile Communications AB** of

Nya Vattentornet

S-221 88 Lund, Sweden

declare under our sole responsibility that our product

Sony Ericsson type FAF-1051012-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 301489-7 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**.

$C\!\in$ 0682

Research Triangle Park, North Carolina. August 2006

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

FC

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) The device must accept any interference received, including interference that may cause undesired operation.

FCC ID: PY7FF051012

IC: 4170B-FF051012

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 may void the FCC authorization to operate this equipment.

Canadian ICES-003

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

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