

Mobile Broadband Module

EM400 HSDPA/UMTS/EDGE

User Guide

Contents

Contents	ii
About this guide	iv
How this guide is organised	iv
Additional resources	iv
Overview	1
EM400 Communications Summary	1
Network and subscription requirements	2
Software overview	2
Additional information	5
Guidelines for safe and efficient use	5
Generic SEMC Limited warranty	7
Regulatory information	11
Declaration of conformity	11
FCC statement	12
Industry Canada Statement	12
Technical specifications	13
Index	18

EM400 Mobile Broadband Module

First edition (April 2008)

All rights reserved.

About this guide

Congratulations and thank you for purchasing an EM400 Mobile Broadband Module.

This guide includes an overview of the supported features, detailed technical specifications, system requirements, and safety guidelines for your EM400.

Note:

Be sure to read all safety guidelines in this document before using your EM400.

How this guide is organised

Chapter 1: Overview on page 1, contains an overview of your EM400 and the features that it supports. It also provides a list of the requirements and tools needed to use your new EM400.

Chapter 2: Additional information on page 5, provides safety guidelines, warranty information, and regulations that are relevant to your EM400.

Chapter 3: Technical specifications on page 13, provides detailed technical specifications for your EM400.

Additional resources

Sony Ericsson support Website

Additional resources can be found on the Internet at the 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 to help you use your EM400:

- A printed *Quick Start Guide* aimed at getting you operational as quickly as possible.
- A PDF *EM400 User Guide* (this document) that contains a detailed description of your EM400 and the features that it supports. This document is copied to your hard drive when Wireless Manager is installed and can be accessed by selecting **Start** ➔ **All Programs** ➔ **Sony Ericsson** ➔ **Wireless Manager** ➔ **EM400 User Guide**
- *Online Help* built into Wireless Manager. Select Help or press F1 to access online help.
- A PDF *Wireless Manager User Guide* which contains the same detailed information as the online help in a conventional printable format. This document is available from the support website only.

Note:

PDF documents are in Adobe® Portable Document Format. If your PC cannot open these documents, download and install the Adobe® Reader® from www.adobe.com.

Note:

Your mobile operator may provide alternative application software and documentation.

Overview

EM400 Communications Summary

Your EM400 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 900MHz 1800MHz 1900MHz	UMTS HSDPA	850MHz 1900MHz 2100MHz
----------------------------	--	----------------------	------------------------------

Your EM400 supports SMS text messaging and the following communications services:

Service	Maximum Download Speed	Maximum Upload Speed
HSPA	7.2Mb/s	2.0Mb/s
UMTS	384kb/s	384kb/s
EDGE	247.4kb/s	123.7kb/s
GPRS	53.6kb/s (CS-2) 85.6kb/s (CS-4)	26.8kb/s (CS-2) 42.8kb/s (CS-4)

Where UMTS service with HSDPA is available, your EM400 can connect at speeds up to 7.2Mb/s. Your EM400 provides automatic fallback to UMTS where HSPA is not available and to EDGE or GPRS service where UMTS is not available (network support required). This section describes the services that the EM400 supports:

- High Speed Packet Access (HSPA)**
 HSPA is an enhancement to UMTS networks. HSDPA (High Speed *Downlink* Packet Access) enables the downlink speed to be dramatically increased; up to 7.2Mbps using the EM400. 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. HSUPA (High Speed *Uplink* Packet Access) enables the EM400 to upload data at speeds up to 2.0Mbps.
- 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 384kbps, 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 kb/s, 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 EM400 receives data at speeds up to 53.6 kb/s and transmits at speeds up to 26.8 kb/s.

- **Short Message Service (SMS)**

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

Network and subscription requirements

The network subscription you use in conjunction with your EM400 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 mobile operator and enabled on your subscription.

Software overview

Sony Ericsson Wireless Manager

Sony Ericsson provides 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 EM400 settings and preferences
- Send and receive SMS messages
- Manage phonebooks saved to your SIM card and hard drive

Third-party applications

Your network operator or your network administrator may provide an application that works with your EM400. 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 EM400 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 EM400.

Additional information

Guidelines for safe and efficient use

Please read this information before using your EM400. 

Recommendations

- Always treat your product with care and keep it in a clean and dust-free place.
- Do not expose your product to liquid, 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. 

Efficient use

Do not cover the EM400 when in use, as this affects call quality.

Radio Frequency (RF) exposure and SAR

Your EM400 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 organizations, 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 Mobile Broadband Modules 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

Mobile Broadband Modules may affect the operation of cardiac pacemakers and other implanted equipment. If a minimum distance of 15 cm (6 inches) is kept between the EM400 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 EM400. 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 EM400. THEY COULD HURT THEMSELVES OR OTHERS, OR COULD ACCIDENTALLY DAMAGE THE MOBILE BROADBAND MODULE. YOUR MOBILE BROADBAND MODULE 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 EM400.

Emergency calls

Mobile Broadband Modems 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 EM400 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-3232011-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. March 2008

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:** PY7F3232011**IC:** 4170B-F3232011

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 Sony Ericsson USB device has been tested for compliance with FCC/IC RF exposure limits in the laptop computer(s) configurations with a USB port and can be used in laptop computers with substantially similar physical dimensions, construction, and electrical and RF characteristics.

Note: If this Sony Ericsson USB device 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.

Technical specifications

General

Product name	EM400
System	GSM 850 E-GSM 900 GSM 1800 GSM 1900 UMTS 850 UMTS 1900 UMTS 2100 GPS
PC Card Type	PCI MiniCard
Services supported	GSM: GPRS/EDGE, SMS, USSD UMTS: Packet-Switched, HSDPA, HSUPA, Circuit-Switched, SMS, USSD Speech services are not supported GPS positioning
SIM Card	Small plug-in card, 3V and 1.8V type Regular (non-GPRS-aware) and GPRS-aware SIMs supported USIM
Type Number	

Exterior description

Size	Length: 51mm Width: 30mm Depth: 4.2mm
Weight	12g
Battery	Powered via the notebook.
Antenna	Diversity antenna integrated in laptop.

Ambient temperatures

Operating	-20 to 65 degrees C
Storage	-20 to 70degrees C

Environmental Compliance

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

Electrical characteristics

Supported voltages	3.0 - 3.6 V
Nominal operating voltage	3.3V
Average Standby Power (inactive)	30mW
Average Idle Power (GPRS attached)	< 50mW
Data Transfer Power (Worst case)	< 3.0W

Note:

All power consumptions are at nominal voltage.

GSM performance and technical characteristics

Dimension	Modulation	Power classes
GSM 850	GMSK/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)
GSM 900 E-GSM 900	GMSK/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)
GSM 1800	GMSK/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)
GSM 1900	GMSK/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)

GSM features supported

ME SIM Lock	Network Network Subset Service Provider Corporate
Online services (SIM-AT)	Supported
USSD	Phase 2+

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 kb/s	CS-2 13.4 kb/s	CS-3 15.6 kb/s	CS-4 21.4 kb/s
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

		4 + 1		3 + 2	
Coding scheme	Data rate per slot	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.

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

UMTS technical data

Power class	Class 3 (0.25W, 24dBm)
Maximum Downlink speed	384kb/s
Maximum Uplink speed	384kb/s
UMTS features	Inter-Mode Handover (UMTS/EDGE/GPRS) Inter-Mode Reselection (UMTS/EDGE/GPRS)
Quality Of Service	Supported
Modes	IP
IP Allocation	Static, Dynamic
USAT	UMTS SIM Application Toolkit: Supported
R4 Enhancements	Extended TBF Uplink Network Assisted Cell Change (NACC)

Speed achieved depends on the numerous factors such as signal strength, traffic levels and the configuration of the UMTS Network.

HSPA (HSDPA / HSUPA) technical data

Maximum Downlink speed	7.2Mb/s
HSDPA Categories	1-8
Maximum Uplink speed	2.0Mb/s
HSUPA Categories	1, 3 and 5

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

EM400 firmware upgrade	See www.sonyericsson.com for upgrade information
-------------------------------	--

GPS Technical Data

Interface	USB virtual COM port Automatic receiver enable upon port open Simultaneous port open for multiple GPS applications
Protocol	NMEA 2.0
Channels	8 hardware channels Up to 20 satellite tracking via software channels
Antenna	Antenna integrated in laptop

Index

D

declaration of conformity 11

E

EDGE

- definition 1
- maximum data rates 16
- technical data 15

F

FCC 12
firmware 17
firmware upgrade 17

G

GPRS

- definition 2
- maximum data rates 15
- technical data 15

GSM

- features supported 14
- performance 14

guidelines

- children 6
- overview 5
- personal medical devices 6
- recommendations 5
- RF exposure and SAR 5
- SIM handling 6

H

HSDPA

- definition 1
- technical data 16

M

Mobile Broadband Modem
disposal of 6

N

network
requirements 2

P

personal medical devices, guidelines 6

R

requirements
network and subscription 2
RF
exposure 5

S

SAR 5
SIM Card
guidelines 6
SMS
definition 2
technical data 17
software
overview 2
third-party applications 2
Wireless Manager 2
specifications 13
support
Sony Ericsson Website iv

T

technical specifications 13
third-party applications 2

U

UMTS
definition 1
technical data 16

V

VPN 3

W

warranty
limited 7
Wireless Manager
description 2