



Safety manual:

Option GI0205 Data Cards

Version 2.0

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About this document

Overview and Purpose

This document describes the safety measurements that have to be taken into account when using an Option Globetrotter data card.

Version History

Date	Version	Author(s)	Revision(s)	Remarks	Phase
15/09/05	1.0 – Draft	RoelT		Initial version	1.0.0
6/10/06	1.1	JoeriB		Final version	
15/02/07	1.2	ThomasG		Added external antenna distance	
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1. Introduction

This document contains very important information about the safe operation of your Option datacard. We recommend you read this entire document before using the card.

Ignoring these guidelines may be dangerous or illegal.

1.1 Your datacard is like a mobile phone

Your datacard uses the same technology as a mobile phone. It is important that you always obey all safety regulations related to mobile phone use. If you have any doubt about the safe operation of your datacard you should remove the datacard from the PC and seek advice from authorized personnel.

2. Safety Measurements

Please read the following guidelines carefully. Not following these guidelines can cause harm to the card, yourself or other persons.

2.1 General recommendations for use

- Always treat your product with care and keep in a clean and dust-free place. Do not expose your product to open flames or lit tobacco products.
- Do not expose to liquid, moisture or humidity. Do not expose the datacard to rain, or other liquids.
- Do not drop, throw or try to bend your product.
- Do not paint your product.
- Do not attempt to disassemble your product. Doing so may be dangerous and it will void the warranty.
- Do not touch the antenna unnecessarily.

2.2 Traveling

Handle the card with care while traveling. It is recommended to remove the card from the laptop.

2.3 Ambient temperatures

Do not expose the datacard or the antenna to ambient temperatures beyond the range of -25 and +50 degrees Celsius.

2.4 Explosive atmosphere

Turn off your PC in any area with a potentially explosive atmosphere. It is rare, but your PC could generate sparks, which could cause an explosion or fire. Areas with a potentially explosive atmosphere are not always clearly marked. They include fuelling areas (petrol filling stations), below deck on boats, fuel or chemical transfer or storage facilities, and areas where the air contains chemicals or particles, such as grain, dust, or metal powders. Do not transport or store your PC and accessories in the compartment of a vehicle, which contains flammable gas, liquid, or explosives.

2.5 Blasting areas – construction sites

Turn off your PC when in a blasting area in order to avoid interfering with two-way radios used in blasting operations.

2.6 Do not use on aircraft

Using a wireless devices on aircraft can cause interference and is illegal. Remove your datacard if you intend to use your PC whilst in an aircraft. Do not use it when the plane is on the ground without permission from the aircraft crew.

2.7 Do not use in hospitals

Please ensure you follow any local regulations or rules. People are often asked to switch off all electronic devices in some areas of a hospital; this is a recommendation that Option fully supports. Using a datacard close to sensitive electronic devices could possibly result in interference. If you intend to use your PC in such areas, you must remove the datacard.

2.8 Interference from radio signals

Option relies on advice from health authorities and relevant expert bodies about potential undesired responses to radio emissions from datacards.

2.9 Immunity to interference

Electromagnetic interference is the disturbance of the normal operation of a device due to its undesired response to radio signals from an external source. Occasionally in some situations you may hear short sounds coming from audio equipment such as radio or multimedia PC. However, these audible signals do not interfere with the operation of the equipment.

The 1989 Directive from the European Commission (89/336/ECC)¹³ governing all forms of electronic equipment concerns interference that such equipment produces and its immunity to interference from outside. Any equipment compliant with that directive is unlikely to suffer interference. All wireless devices may get interference, which could affect performance.

2.10 Cardiac pacemakers, implanted defibrillators & other medical implant devices

It is possible that some datacards may interfere with some types of pacemakers or implanted defibrillators when operated close to the implanted device. You should seek advice from your doctor that is specific to the implant before using the datacard. Health authorities in many countries have set up advisory services for medical devices and implants including providing advice about maintaining separation distance between datacards or other radio frequency equipment and the implant. Option operating companies reflect the advice given by their relevant health authority or national advisory service and/or as a minimum indicate a separation distance of at least 15cm between datacards or other radio frequency terminal equipment and the embedded device.

2.11 Hearing devices

People with hearing aids or other cochlear implants may experience interfering noises when using mobile devices or when one is nearby. The level of interference will depend on the type of datacard, the type of hearing device and the distance between the two. Increasing the distance between the datacard and hearing device may reduce interference.

2.12 Children

Do not allow children to play with your datacard. They could hurt themselves or others, or could accidentally damage the datacard. Your datacard contains small parts with sharp edges that may cause an injury or which could become detached and create a choking hazard.

2.13 Driving

Do NOT use data card while driving; park the vehicle first.

2.14 SIM cards

To protect against damage from electrostatic discharge (ESD) do not touch the SIM card connectors. As a precaution, always make sure that datacard is already in your hand before you insert or remove the SIM card.

2.15 Accessories

Only use Option approved accessories. Do not connect with incompatible products. When used with accessories such as external antennas Option can only guarantee safe and correct operation of our products if the accessories are tested and approved by us.

To comply with international safety requirements; when using an Option approved external antenna you must ensure that it is kept from the body at a distance greater than 20 cm.

2.16 Safe distance

We advise the end-user to keep a minimum distance of 20 cm between him and the device.

The datacard has been thoroughly tested to comply with SAR requirements. These tests simulate the absorption by the human body of radiation from the datacard.

The SAR tests were performed with the antenna at a distance of 15mm from a phantom as required by the Vodafone Test Specification. The power maximums measured for a mass of 10g (European bands) and a mass of 1g (American bands) are:

Band	Averaged mass	SAR measured
GSM850	1g	0,659 W/kg
GSM900	10g	0,663 W/kg
GSM1800	10g	0,487 W/kg
GSM1900	1g	1,020 W/kg
FDD1	10g	0,544 W/kg

The SAR limit as defined by the European Council Recommendation is 2,0 W/kg for a mass of 10g (R&TTE Directive 1999 519 EC). The FCC guidelines [OET 65] define a limit of 1,6 W/kg averaged over a mass of 1g. We can therefore reasonably assert that the Option datacard complies with SAR requirements.

For day-to-day use we would advise the user to keep a minimum distance from the antenna of 20 cm. When using an external antenna, it is advised to use the same safety distance of 20 cm from the external antenna.

2.17 Supply voltage

The PCMCIA express card has to be supplied by a limited power source according to EN 60950-1:2001.