

FCC ID: NCMOGL1
Applicant: Option International NV
Correspondence Reference Number: 22637 **Dated:** 2002-05-04
731 Confirmation Number: EA870130

EMC

Answer to 1)

The maximum output power EIRP was 32.8dBm = 1,905 W.

Answer to 2)

The maximum peak output power of the PCS PCMCIA card is 32.8 dB EIRP (1,905 W), so the spurious emission level is: 45,8dBc, therefore the spurious emission level is -13 dBm absolute, in dBμV at 3m distance is then 84.5dBμV/m

So you can see from the tables, that there are no spurious greater than 31.7 dBμV/m at 3m was found.

This means that the highest spurious is 74.7 dB below carrier.

Normally emissions 20 dB below limits are not reported, but we do as customers satisfaction.

Nevertheless will change our reporting system, so that you will have summary tables where spurious are reported in dBc in the future.

The peaks above 2 Ghz were the 1. and 2. harmonics, the power of these peaks are << 20 dB below Limit.

SAR

Answer to 3)

The Conversion Factor is integrated in the DASY Software and can be considered a calculated correction factor, independent of the measurement itself – it is included when the system calculates the SAR values.

The correlation between the SAR value and the ConvF ($SAR_{value} \sim \frac{1}{ConvF}$) can be seen in the enclosed application note "[Data Storage and Evaluation.pdf](#)".

Answer to 4)

The conversion from GSM 1800 to GSM 1900 has been done according to the guidelines stated in the DASY user Manual.

Answer to 5)

We herewith confirm, that the GPRS mode supports only 2 timeslots as indicated.

Answer to 6)

The PCMCIA PCS card will not be delivered with an external antenna. However in case the end user would need an external antenna for having a better reception, Option has specified an external antenna with the characteristics of 50 Ohm nominal impedance and a gain of 0dBi ± 1 dBi, and a cable length of minimum 20 cm.

Please refer also to the uploaded documents "[External Antenna Information.pdf](#)"

Answer to 7)

The worst case operating mode for this device is PCS 1900 with GPRS active – two time slots for uplink. This operating mode however is for data transmission only, hence the use of a headset is not possible.

Answer to 8)

Please refer to the uploaded document "[Safety statement.pdf](#)"

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Answer to 9)

The validation verifies that the system operates within the specifications. This system check gives a sensitivity to the parameter probe, liquid parameter and software settings. When we performed the validation at 1800 MHz, we can check the probe according on fail or vary over time. We can also check the liquid parameter (the ingredients of the liquid for 1800 MHz and 1900 MHz head tissue are the same) and the software settings are described in the measurement plots.

Answer to 10)

Control of maximum power:

The measurement processes in the DASY3 software contain a drift measurement to check the power drift of the device during the measurement.

Device operating configurations:

The communication was performed and monitored with the Rohde&Schwarz universal radio communication tester CMU 200.

Answer to 11)

Please refer to the uploaded document "[Declaration of Conformity](#)"

Answer to 12)

For the Calibration certificate please refer to the last pages of the SAR test report.

Description of the probe:

Isotropic E-Field Probe ET3DV6 for Dosimetric Measurements	
Construction	Symmetrical design with triangular core Built-in optical fibre for surface detection system (ET3DV6 only) Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycol ether)
Calibration	In air from 10 MHz to 2.5 GHz In head tissue simulating liquid (HSL) at 900 (800-1000) MHz and 1.8 GHz (1700-1910 MHz) (accuracy $\pm 9.5\%$; $k=2$) Calibration for other liquids and frequencies upon request
Frequency	10 MHz to 3 GHz (dosimetry); Linearity: ± 0.2 dB (30 MHz to 3 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic Range	5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
Optical Surface Detection	± 0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces (ET3DV6 only)
Dimension ;	Overall length: 330 mm Tip length: 16 mm Body diameter: 12 mm Tip diameter: 6.8 mm Distance from probe tip to dipole centres: 2.7 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (ET3DV6)

Answer to 13)

Please refer to the uploaded documents "[Spatial Peak.pdf](#)" and "[Liquid depth.jpg](#)"

Answer to 14)

Please refer to the uploaded document "[Validation.pdf](#)"

Answer to 15)

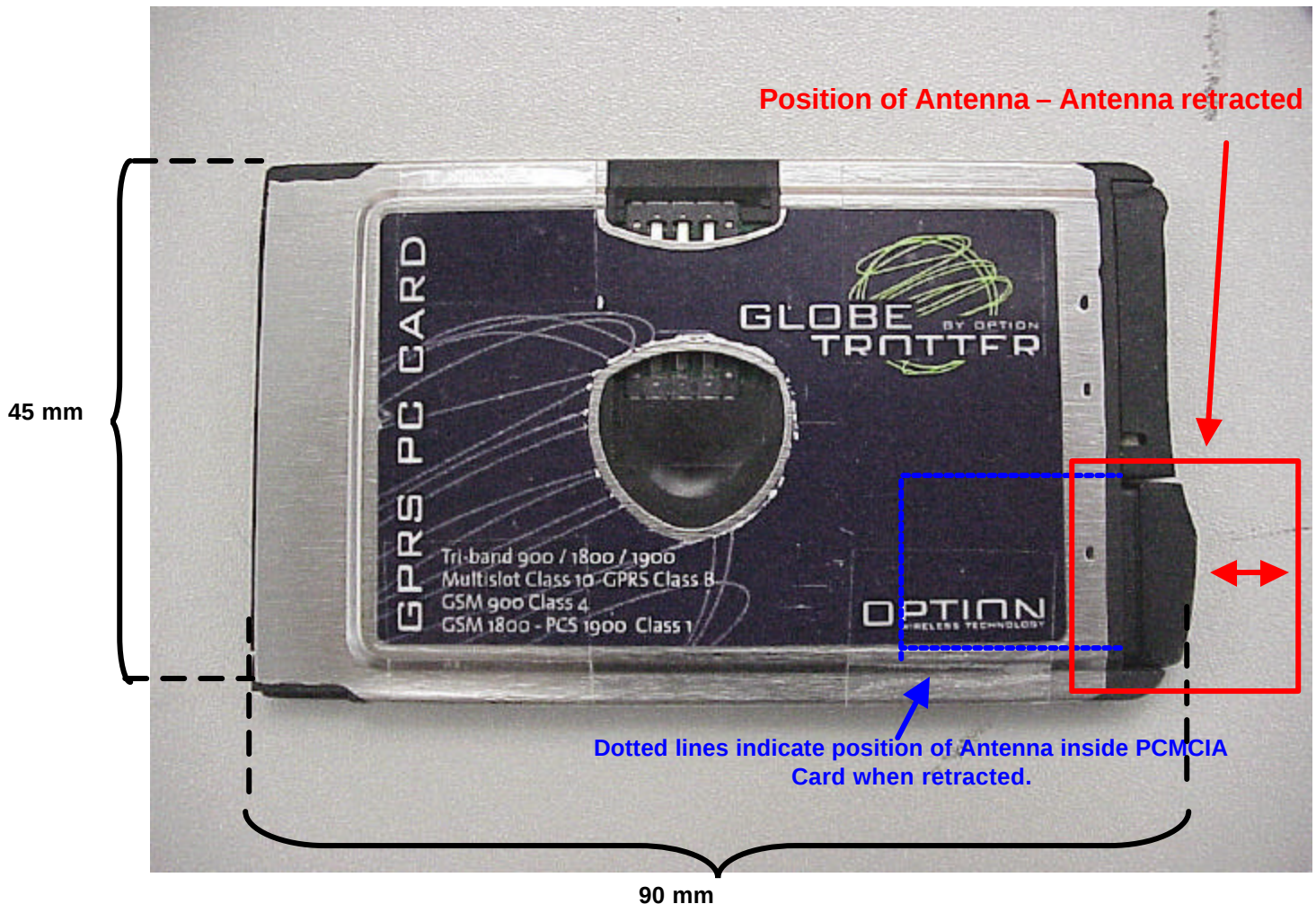
The measurements had been performed during mid of January 2002, where as the requirement for not using stacked papers had been coming up during February TCB Workshop. We have since then changed the EUT support and holders according to the FCC requirements. This in the last SAR report where the measurements have been performed this way. We kindly ask you to re-evaluate your request of new testing.

Answer to 16)

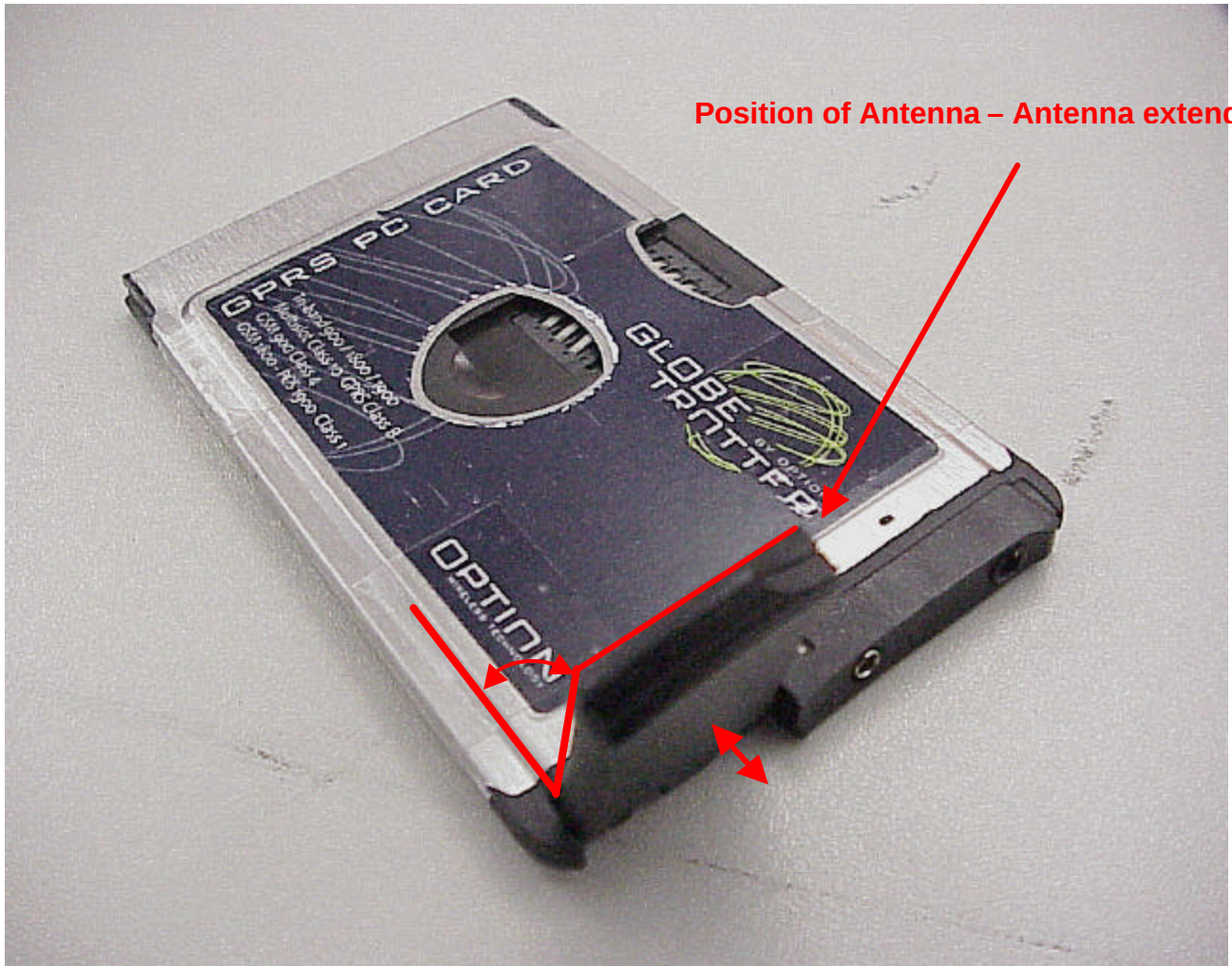
The PCMCIA card is intended for use in Notebooks as described in the filing.

Answer to 17)

Please find below additional photographs of the product. The red arrows indicate the position of the antenna.



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Answer to 18)

Please refer to the uploaded document "[Setup description.pdf](#)"

Answer to 19)

Due to conversion of the SAR test report from Word to pdf, the device overlay mask contours in some of the plots. Please refer to the uploaded "[SAR Report revised.doc](#)", which is in Word Format. Thence the shades of the device are visible but do not cover the SAR plots.