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ASSESSMENT REPORT

Report No.:
27470IDT.008

REPORT ON: RF EXPOSURE ASSESSMENT OF THE F3507g ERICSSON MOBILE BROADBAND MODULE INSTALLED IN THE DELL XPS M1350 LAPTOP COMPUTER

Product : Ericsson Mobile Broadband Module
Trade Mark : Ericsson
Model : F3507g
FCC ID: : VV7-MBMF3507G-D
Manufacturer : Ericsson AB
Requested by : Ericsson AB
Host Platform : DELL XPS M1350
Standard(s) : OET Bulletin 65 Edition 97-01 August 1997
FCC 47 CFR § 1.1307
FCC 47 CFR § 1.1310
1999/519/EC
Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2003
ARPANSA RPS No. 3
Vodafone requirements [1999/519/EC]

This test report includes 2 annexes and therefore, the total number of pages is 26.

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| Date: 2008-09-03 | Issued by: Date: 2008-09-03  Ricardo Orejas Worldwide Compliance Engineer | Approved by: Date: 2008-09-03  Juan Carlos Mora Technical Manager Laboratories Division | Page: 1 of 26 |
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1. COMPETENCE AND GUARANTEES

AT4 wireless is a testing laboratory competent to carry out the evaluation described in this report.

AT4 wireless guarantees the reliability of the data presented in this report, which is based on the information available at AT4 wireless at the time of performance of the evaluation.

AT4 wireless is liable to the client for the maintenance of the confidentiality of all information related to the item under review and the results of such evaluation

2. GENERAL CONDITIONS

1. This report refers only to the item that has undergone the evaluation as described in Annex A of this report according to the information provided by the applicant.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of AT4 wireless.
4. This report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of AT4 wireless and the Accreditation Bodies.

3. CHARACTERISTICS OF THE EVALUATION

3.1. SERVICES REQUESTED

RF exposure assessment of the F3507g Ericsson Mobile Broadband Module installed in the DELL XPS M1350 laptop computer according to:

| Requirements | Frequency bands |
|--|----------------------------------|
| <p>OET Bulletin 65 Edition 97-01 August 1997 - Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields</p> <p>FCC 47 CFR § 1.1307 - Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.</p> <p>FCC 47 CFR § 1.1310 - Radiofrequency radiation exposure limits.</p> | GSM 850, FDD V, PCS 1900, FDD II |
| <p>1999/519/EC Council Recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)</p> | E-GSM 900, DCS 1800, FDD I |

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| Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2003 ARPANSA RPS No. 3 – Maximum Exposure Levels to Radiofrequency Fields (3 kHz to 300 GHz) | FDD V, E-GSM 900, DCS 1800, FDD I |
| Vodafone requirements [1999/519/EC] | GSM 850, FDD V, E-GSM 900, DCS 1800, PCS 1900, FDD II, FDD I |

3.2. REQUIREMENTS AND METHOD

The evaluation has been carried out according to the following documents and standards:

| Requirements | Frequency bands |
|---|--|
| OET Bulletin 65 Edition 97-01 August 1997 - Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields FCC 47 CFR § 1.1307 - Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared. FCC 47 CFR § 1.1310 - Radiofrequency radiation exposure limits. | GSM 850, FDD V, PCS 1900, FDD II |
| 1999/519/EC Council Recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) | E-GSM 900, DCS 1800, FDD I |
| Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2003 ARPANSA RPS No. 3 – Maximum Exposure Levels to Radiofrequency Fields (3 kHz to 300 GHz) | FDD V, E-GSM 900, DCS 1800, FDD I |
| Vodafone requirements [1999/519/EC] | GSM 850, FDD V, E-GSM 900, DCS 1800, PCS 1900, FDD II, FDD I |

4. IDENTIFICATION DATA SUPPLIED BY THE APPLICANT

Identification data included in this section has been supplied by the client.

4.1. APPLICANT

Name / Company: Ericsson AB

V.A.T. Registration number: 556056-625801

Address: Lindholmospiren 11, SE-417 56 Goteborg

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Country: Sweden

Telephone: +46 31 747 0000

Fax: +46 31 747 6033

4.2. REPRESENTATIVE

Name: Pelle Hellberg

Address: Lindholmospiren 11, SE-417 56 Goteborg

Country: Sweden

Telephone: +46 31 747 0000

Fax: +46 31 747 6033

4.3. IDENTIFICATION OF ITEM/ITEMS EVALUATED

Product: Ericsson Mobile Broadband Module

Trade mark: Ericsson

Model: F3507g

FCC ID: VV7-MBMF3507G-D

Manufacturer: Ericsson AB

Country of manufacture: China

Host platform: DELL XPS M1350

Description: 850/900/1800/1900/2100 MHz GSM/GPRS Class10/EDGE/HSDPA/HSUPA/WCDMA Release 6 Module installed in a DELL XPS M1350 Laptop.

5. EVALUATION RESULTS

Abbreviations used in the VERDICT column of the following tables are:

- C** Compliant with requirements
- NC** Not Compliant with requirements
- NA** Not Applicable
- NE** Not Evaluated

5.1. RESULTS FOR ITEM EVALUATED TRANSMITTING ALONE

| DOCUMENT/STANDARD | VERDICT | | | |
|---|---------|---|----|----|
| | NA | C | NC | NE |
| OET Bulletin 65 Edition 97-01 August 1997 - Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields | | C | | |
| FCC 47 CFR § 1.1307 - Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared. | | | | |
| FCC 47 CFR § 1.1310 - Radiofrequency radiation exposure limits. | | | | |
| 1999/519/EC Council Recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) | | C | | |

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|---|---|
| Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2003 ARPANSA RPS No. 3 – Maximum Exposure Levels to Radiofrequency Fields (3 kHz to 300 GHz) | C |
| Vodafone requirements [1999/519/EC] | C |

5.2. RESULTS FOR ITEM EVALUATED TRANSMITTING SIMULTANEOUSLY WITH OTHER CO-LOCATED TRANSMITTERS

| DOCUMENT/STANDARD | VERDICT | | | |
|---|---------|---|----|----|
| | NA | C | NC | NE |
| OET Bulletin 65 Edition 97-01 August 1997 - Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields FCC 47 CFR § 1.1307 - Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared. FCC 47 CFR § 1.1310 - Radiofrequency radiation exposure limits. | | C | | |
| 1999/519/EC Council Recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) | | C | | |
| Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2003 ARPANSA RPS No. 3 – Maximum Exposure Levels to Radiofrequency Fields (3 kHz to 300 GHz) | | C | | |
| Vodafone requirements [1999/519/EC] | | C | | |

6. REMARKS AND COMMENTS

GSM and GPRS modes have been evaluated together because both modes share the same power class and modulation scheme in the uplink.

WCDMA and HSDPA modes have been evaluated together because HSDPA is an improved mode of operation only for Downlink (equipment reception), but using the normal WCDMA mode for the Uplink (equipment transmission).

7. SUMMARY

Considering the results of the performed analysis and evaluation, stated in annexes A and B, the item under evaluation is **IN COMPLIANCE** with the specifications listed in section 3.1 “ SERVICES REQUESTED”.

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NOTE: The results presented in this report apply only to the particular item under evaluation established in section "4.3. IDENTIFICATION OF ITEM/ITEMS EVALUATED" of this document, as presented for evaluation by the applicant.

ANNEX A

HOST PLATFORM ANALYSIS

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A.1. INTRODUCTION

DELL XPS M1350 is a widescreen laptop computer which can be fitted with the following transmitters:

MAIN/PRIMARY TRANSMITTER:

WWAN transmitter:

Type of equipment : Ericsson Mobile Broadband Module
 Trade mark : Ericsson
 Model : F3507g
 FCC ID : VV7-MBMF3507G-D

ADDITIONAL/SECONDARY TRANSMITTERS:

Bluetooth/UWB transmitter:

Type of equipment : Bluetooth 2.0 + EDR
 Trade mark : Dell
 Model : Wireless 360
 FCC ID : PIWW360BT

WLAN transmitters:

Type of equipment : 802.11bg WLAN transmitter
 Trade mark : Dell
 Model : Wireless 1395
 FCC ID : QDS-BRCM1028

Type of equipment : 802.11abg WLAN transmitter
 Trade mark : Dell
 Model : Wireless 1490
 FCC ID : QDS-BRCM1019

Type of equipment : 802.11abgn WLAN transmitter
 Trade mark : Dell
 Model : Wireless 1505
 FCC ID : QDS-BRCM1022

Type of equipment : 802.11abg WLAN transmitter
 Trade mark : Intel
 Model : PRO 3945ABG
 FCC ID : E2KWM3945ABG

Type of equipment : 802.11abgn WLAN transmitter
 Trade mark : Intel
 Model : WiFi Link 4965AGN
 FCC ID : E2K4965AGNM

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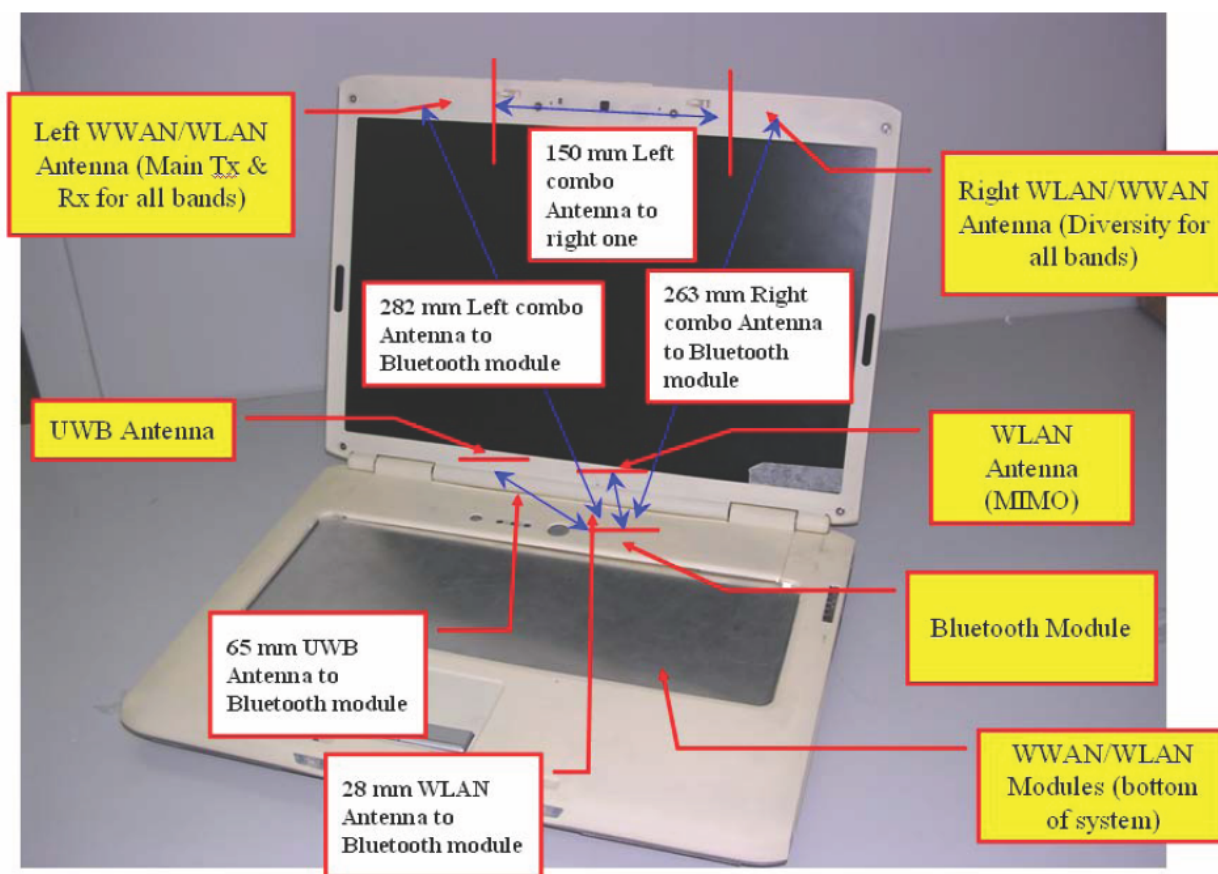
NOTE: - Only one of the listed above WLAN transmitters can be installed in the DELL XPS M1350 laptop computer at one time.

A.2. ANTENNAS INFORMATION

Antennas locations and distances:

| Antenna | Antenna location | Maximum antenna gain (dBi) | Antenna to user distance (mm) | Antenna to WWAN Tx antenna distance (mm) |
|-------------------|---------------------------------|----------------------------|-------------------------------|--|
| WWAN MAIN | Top left corner of the display | 1,6 | > 200 | - |
| WLAN MAIN | Top left corner of the display | 3 | > 200 | < 200 |
| WLAN AUX | Top right corner of the display | 3 | > 200 | 150 |
| WLAN MIMO | Bottom right of the display | 3 | < 200 | > 200 |
| Bluetooth antenna | Bottom left of the display | 3 | < 20 | > 200 |

Diagram of the WWAN, WLAN and Bluetooth transmitters' antennas locations:



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CONCLUSIONS:

- WLAN transmitter is in co-location condition in relation to the WWAN transmitter, Ericsson F3507g, (WWAN antenna to WLAN antennas distance < 20 cm) except for the WLAN MIMO antenna. WLAN contribution has to be considered when evaluating the exposure to electromagnetic fields due to the F3507g Ericsson Mobile Broadband Module installed in the DELL XPS M1350 laptop computer.
- Bluetooth transmitter is NOT in co-location condition in relation to the WWAN transmitter, Ericsson F3507g, (WWAN antenna to Bluetooth antenna distance > 20 cm). Bluetooth contribution does NOT need to be considered when evaluating the exposure to electromagnetic fields due to the F3507g Ericsson Mobile Broadband Module installed in the DELL XPS M1350 laptop computer.
- WWAN transmitter, Ericsson F3507g, WLAN transmitters and Bluetooth transmitters are in mobile exposure conditions (antenna to user distance > 20 cm), except WLAN MIMO antenna which is in portable exposure conditions but it is not co-located with WWAN transmitter.

NOTE: For this report a worst case evaluation distance of 20 cm has been considered to calculate the exposure to electromagnetic fields.

A.3. TRANSMITTERS SPECIFICATIONS

MAIN/PRIMARY TRANSMITTER:

WWAN transmitter:

Type of equipment : Ericsson Mobile Broadband Module
 Trade mark : Ericsson
 Model : F3507g
 FCC ID : VV7-MBMF3507G-D
 Output power : See table

| Frequency Band | Mode | Frequency range (MHz) | Maximum conducted output power (dBm) | Maximum conducted output power (mW) | Duty Cycle | Equivalent conducted output power (mW) | Maximum antenna gain (dBi) | Maximum antenna gain (numerical) | EIRP (mW) |
|----------------|-------------|-----------------------|--------------------------------------|-------------------------------------|------------|--|----------------------------|----------------------------------|-----------|
| GSM 850 | GSM/GPRS | 824,2 - 848,8 | 33,00 | 1995,26 | 25% | 498,82 | 1,60 | 1,45 | 721,01 |
| | EDGE | 824,2 - 848,8 | 31,00 | 1258,93 | 25% | 314,73 | 1,60 | 1,45 | 454,93 |
| FDD V | WCDMA/HSDPA | 826,4 - 846,6 | 23,62 | 230,14 | 100% | 230,14 | 1,60 | 1,45 | 332,66 |
| | HSUPA | 826,4 - 846,6 | 23,08 | 203,24 | 100% | 203,24 | 1,60 | 1,45 | 293,76 |
| E-GSM 900 | GSM/GPRS | 880,2 - 914,8 | 33,99 | 2506,11 | 25% | 626,53 | 1,60 | 1,45 | 905,61 |
| | EDGE | 880,2 - 914,8 | 27,00 | 501,19 | 25% | 125,30 | 1,60 | 1,45 | 181,11 |
| DCS 1800 | GSM/GPRS | 1710,2 - 1784,8 | 32,54 | 1794,73 | 25% | 448,68 | 1,60 | 1,45 | 648,54 |
| | EDGE | 1710,2 - 1784,8 | 26,10 | 407,38 | 25% | 101,85 | 1,60 | 1,45 | 147,21 |
| PCS 1900 | GSM/GPRS | 1850,2 - 1909,8 | 29,30 | 851,14 | 25% | 212,78 | 1,60 | 1,45 | 307,57 |
| | EDGE | 1850,2 - 1909,8 | 28,70 | 741,31 | 25% | 185,33 | 1,60 | 1,45 | 267,88 |
| FDD II | WCDMA/HSDPA | 1852,4 - 1907,6 | 23,00 | 199,53 | 100% | 199,53 | 1,60 | 1,45 | 288,40 |
| | HSUPA | 1852,4 - 1907,6 | 22,80 | 190,55 | 100% | 190,55 | 1,60 | 1,45 | 275,42 |
| FDD I | WCDMA/HSDPA | 1922,4 - 1977,6 | 22,40 | 173,78 | 100% | 173,78 | 1,60 | 1,45 | 251,19 |
| | HSUPA | 1922,4 - 1977,6 | 22,10 | 162,18 | 100% | 162,18 | 1,60 | 1,45 | 234,42 |

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ADDITIONAL/SECONDARY TRANSMITTERS:

WLAN transmitters:

Type of equipment : 802.11bg WLAN transmitter
 Trade mark : Dell
 Model : Wireless 1395
 FCC ID : QDS-BRCM1028
 Output power : See table

| Model name | FCC ID | Frequency range (MHz) | Maximum conducted output power (dBm) | Maximum conducted output power (mW) | Duty Cycle | Equivalent conducted output power (mW) | Maximum antenna gain (dBi) | Maximum antenna gain (numerical) | EIRP (mW) |
|--------------------|--------------|-----------------------|--------------------------------------|-------------------------------------|------------|--|----------------------------|----------------------------------|-----------|
| Dell Wireless 1395 | QDS-BRCM1028 | 2400 - 2483,5 | 22,53 | 179,00 | 100% | 179,00 | 3,00 | 2,00 | 357,15 |

Type of equipment : 802.11abg WLAN transmitter
 Trade mark : Dell
 Model : Wireless 1490
 FCC ID : QDS-BRCM1019
 Output power : See table

| Model name | FCC ID | Frequency range (MHz) | Maximum conducted output power (dBm) | Maximum conducted output power (mW) | Duty Cycle | Equivalent conducted output power (mW) | Maximum antenna gain (dBi) | Maximum antenna gain (numerical) | EIRP (mW) |
|--------------------|--------------|-----------------------|--------------------------------------|-------------------------------------|------------|--|----------------------------|----------------------------------|-----------|
| Dell Wireless 1490 | QDS-BRCM1019 | 2400,0 - 2483,5 | 26,36 | 432,5 | 100% | 432,50 | 3,00 | 2,00 | 862,95 |
| | | 5150,0 - 5350,0 | 16,51 | 44,8 | 100% | 44,80 | 3,00 | 2,00 | 89,39 |
| | | 5725,0 - 5850,0 | 23,67 | 232,8 | 100% | 232,80 | 3,00 | 2,00 | 464,50 |

Type of equipment : 802.11abgn WLAN transmitter
 Trade mark : Dell
 Model : Wireless 1505
 FCC ID : QDS-BRCM1022
 Output power : See table

| Model name | FCC ID | Frequency range (MHz) | Maximum conducted output power (dBm) | Maximum conducted output power (mW) | Duty Cycle | Equivalent conducted output power (mW) | Maximum antenna gain (dBi) | Maximum antenna gain (numerical) | EIRP (mW) |
|--------------------|--------------|-----------------------|--------------------------------------|-------------------------------------|------------|--|----------------------------|----------------------------------|-----------|
| Dell Wireless 1505 | QDS-BRCM1022 | 2400,0 - 2483,5 | 26,89 | 489,00 | 100% | 489,00 | 3,00 | 2,00 | 975,68 |
| | | 5150,0 - 5350,0 | 20,29 | 107,00 | 100% | 107,00 | 3,00 | 2,00 | 213,49 |
| | | 5725,0 - 5850,0 | 26,09 | 406,00 | 100% | 406,00 | 3,00 | 2,00 | 810,08 |

Type of equipment : 802.11abg WLAN transmitter
 Trade mark : Intel
 Model : PRO 3945ABG
 FCC ID : E2KWM3945ABG
 Output power : See table

| Model name | FCC ID | Frequency range (MHz) | Maximum conducted output power (dBm) | Maximum conducted output power (mW) | Duty Cycle | Equivalent conducted output power (mW) | Maximum antenna gain (dBi) | Maximum antenna gain (numerical) | EIRP (mW) |
|-------------------|--------------|-----------------------|--------------------------------------|-------------------------------------|------------|--|----------------------------|----------------------------------|-----------|
| Intel PRO 3945ABG | E2KWM3945ABG | 2400,0 - 2483,5 | 24,77 | 300,00 | 100% | 300,00 | 3,00 | 2,00 | 598,58 |
| | | 5150,0 - 5350,0 | 18,39 | 69,00 | 100% | 69,00 | 3,00 | 2,00 | 137,67 |
| | | 5725,0 - 5850,0 | 19,73 | 94,00 | 100% | 94,00 | 3,00 | 2,00 | 187,55 |

Type of equipment : 802.11abgn WLAN transmitter
 Trade mark : Intel
 Model : WiFi Link 4965AGN
 FCC ID : E2K4965AGNM
 Output power : See table

| Model name | FCC ID | Frequency range (MHz) | Maximum conducted output power (dBm) | Maximum conducted output power (mW) | Duty Cycle | Equivalent conducted output power (mW) | Maximum antenna gain (dBi) | Maximum antenna gain (numerical) | EIRP (mW) |
|-------------------------|-------------|-----------------------|--------------------------------------|-------------------------------------|------------|--|----------------------------|----------------------------------|-----------|
| Intel WiFi Link 4965AGN | E2K4965AGNM | 2400,0 - 2483,5 | 26,63 | 460,00 | 100% | 460,00 | 3,00 | 2,00 | 917,82 |
| | | 5150,0 - 5350,0 | 20,90 | 123,00 | 100% | 123,00 | 3,00 | 2,00 | 245,42 |
| | | 5725,0 - 5850,0 | 24,81 | 303,00 | 100% | 303,00 | 3,00 | 2,00 | 604,56 |

NOTE: Only co-located secondary transmitters has been considered according to the conclusions of chapter 2 of Annex A included in page 10 of this report.

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ANNEX B

RF EXPOSURE ASSESSMENT

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B.1. MAXIMUM PERMISSIBLE EXPOSURE (MPE) LIMITS

B.1.1. FCC LIMITS

Normative documents:

- OET Bulletin 65 Edition 97-01 August 1997 - Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields
- FCC 47 CFR § 1.1307 - Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.
- FCC 47 CFR § 1.1310 - Radiofrequency radiation exposure limits.1999/519/EC Council Recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)

Reference levels:

The table below is excerpted from Table 1B of 47 CFR 1.1310 titled Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure:

| Frequency Range (MHz) | Power density ($\frac{W}{m^2}$) | Averaging time (minutes) |
|-----------------------|-----------------------------------|--------------------------|
| 300 – 1500 | $\frac{f(MHz)}{1500}$ | 30 |
| 1500 – 100.000 | 1.0 | 30 |

MPE limits:

- Main/Primary transmitter (F3507g Ericsson Mobile Broadband Module):

| Frequency Band | Mode | Frequency Range (MHz) | Reference frequency (MHz) | MPE limit (S_{eq}) ($\frac{mW}{cm^2}$) |
|----------------|-------------|-----------------------|---------------------------|--|
| GSM 850 | GSM/GPRS | 824,2 - 848,8 | 824,20 | 0,5495 |
| | EDGE | 824,2 - 848,8 | 824,20 | 0,5495 |
| FDD V | WCDMA/HSDPA | 826,4 - 846,6 | 826,40 | 0,5509 |
| | HSUPA | 826,4 - 846,6 | 826,40 | 0,5509 |
| PCS 1900 | GSM/GPRS | 1850,2 - 1909,8 | 1850,20 | 1,0000 |
| | EDGE | 1850,2 - 1909,8 | 1850,20 | 1,0000 |
| FDD II | WCDMA/HSDPA | 1852,4 - 1907,6 | 1852,40 | 1,0000 |
| | HSUPA | 1852,4 - 1907,6 | 1852,40 | 1,0000 |

- Additional/Secondary transmitters: All the transmission frequencies for WLAN and Bluetooth modules are above 1.5 GHz, so that the MPE limit is 1 mW/cm².

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B.1.2. EUROPEAN UNION MPE LIMITS

Normative document:

- 1999/519/EC Council Recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)

Reference levels:

The table below is excerpted from Table 2 of 1999/519/EC, titled “Reference levels for electric, magnetic and electromagnetic fields (0 Hz to 300 GHz, unperturbed rms values)”:

| Frequency range | E-field strength ($\frac{V}{m}$) | H-field strength ($\frac{A}{m}$) | B-field (μT) | Equivalent plane wave power density S_{eq} ($\frac{W}{m^2}$) |
|-----------------|---------------------------------------|---------------------------------------|-----------------------------|---|
| 400 - 2000 MHz | $1,375 \cdot f(MHz)^{1/2}$ | $0,0037 \cdot f(MHz)^{1/2}$ | $0,0046 \cdot f(MHz)^{1/2}$ | $\frac{f(MHz)}{200}$ |
| 2 - 300 GHz | 61 | 0,16 | 0,2 | 10 |

MPE limits:

- Main/Primary transmitter (F3507g Ericsson Mobile Broadband Module):

| Frequency Band | Mode | Frequency Range (MHz) | Reference frequency (MHz) | MPE limit (S_{eq}) ($\frac{mW}{cm^2}$) |
|----------------|-------------|-----------------------|---------------------------|---|
| E-GSM 900 | GSM/GPRS | 880,2 - 914,8 | 880,20 | 0,4401 |
| | EDGE | 880,2 - 914,8 | 880,20 | 0,4401 |
| DCS 1800 | GSM/GPRS | 1710,2 - 1784,8 | 1710,20 | 0,8551 |
| | EDGE | 1710,2 - 1784,8 | 1710,20 | 0,8551 |
| FDD I | WCDMA/HSDPA | 1922,4 - 1977,6 | 1922,40 | 0,9612 |
| | HSUPA | 1922,4 - 1977,6 | 1922,40 | 0,9612 |

- Additional/Secondary transmitters: All the transmission frequencies for WLAN and Bluetooth modules are above 2 GHz, so that the MPE limit is 1 mW/cm^2 .

B.1.3. AUSTRALIA MPE LIMITS

Normative documents:

- Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2003
- ARPANSA RPS No. 3 – Maximum Exposure Levels to Radiofrequency Fields (3 kHz to 300 GHz)

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Reference levels:

The table below is excerpted from Table 7 of ARPANSA RPS No. 3, titled “Reference levels for time averaged exposure to RMS electric and magnetic fields (unperturbed rms values)”:

| Exposure category | Frequency range | E-field strength $\left(\frac{V}{m} \text{ rms}\right)$ | H-field strength $\left(\frac{A}{m} \text{ rms}\right)$ | Equivalent plane wave power density S_{eq} $\left(\frac{W}{m^2}\right)$ | Equivalent plane wave power density S_{eq} $\left(\frac{mW}{cm^2}\right)$ |
|-------------------|-----------------|--|--|---|--|
| General public | 400 MHz - 2 GHz | $1,37 \cdot f(MHz)^{1/2}$ | $0,00364 \cdot f(MHz)^{1/2}$ | $\frac{f(MHz)}{200}$ | $\frac{f(MHz)}{2000}$ |
| General public | 2 - 300 GHz | 61 | 0,16 | 10 | 1 |

MPE limits:

- Main/Primary transmitter (F3507g Ericsson Mobile Broadband Module):

| Frequency Band | Mode | Frequency Range (MHz) | Reference frequency (MHz) | MPE limit (S_{eq}) $\left(\frac{mW}{cm^2}\right)$ |
|----------------|-------------|-----------------------|---------------------------|--|
| FDD V | WCDMA/HSDPA | 826,4 - 846,6 | 826,40 | 0,4132 |
| | HSUPA | 826,4 - 846,6 | 826,40 | 0,4132 |
| E-GSM 900 | GSM/GPRS | 880,2 - 914,8 | 880,20 | 0,4401 |
| | EDGE | 880,2 - 914,8 | 880,20 | 0,4401 |
| DCS 1800 | GSM/GPRS | 1710,2 - 1784,8 | 1710,20 | 0,8551 |
| | EDGE | 1710,2 - 1784,8 | 1710,20 | 0,8551 |
| FDD I | WCDMA/HSDPA | 1922,4 - 1977,6 | 1922,40 | 0,9612 |
| | HSUPA | 1922,4 - 1977,6 | 1922,40 | 0,9612 |

- Additional/Secondary transmitters: All the transmission frequencies for WLAN and Bluetooth modules are above 2 GHz, so that the MPE limit is 1 mW/cm^2 .

B.1.4. VODAFONE MPE LIMITS

Normative document:

- 1999/519/EC Council Recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)

Reference levels:

The table below is excerpted from Table 2 of 1999/519/EC, titled “Reference levels for electric, magnetic and electromagnetic fields (0 Hz to 300 GHz, unperturbed rms values)”:

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| Exposure category | Frequency range | E-field strength ($\frac{V}{m}$ rms) | H-field strength ($\frac{A}{m}$ rms) | Equivalent plane wave power density S_{eq} ($\frac{W}{m^2}$) | Equivalent plane wave power density S_{eq} ($\frac{mW}{cm^2}$) |
|-------------------|-----------------|--|--|--|--|
| General public | 400 MHz - 2 GHz | $1,37 \cdot f(MHz)^{1/2}$ | $0,00364 \cdot f(MHz)^{1/2}$ | $\frac{f(MHz)}{200}$ | $\frac{f(MHz)}{2000}$ |
| General public | 2 - 300 GHz | 61 | 0,16 | 10 | 1 |

MPE limits:

- Main/Primary transmitter (F3507g Ericsson Mobile Broadband Module):

| Frequency Band | Mode | Frequency Range (MHz) | Reference frequency (MHz) | MPE limit (S_{Lim}) ($\frac{mW}{cm^2}$) |
|----------------|-------------|-----------------------|---------------------------|--|
| GSM 850 | GSM/GPRS | 824,2 - 848,8 | 824,20 | 0,4121 |
| | EDGE | 824,2 - 848,8 | 824,20 | 0,4121 |
| FDD V | WCDMA/HSDPA | 826,4 - 846,6 | 826,40 | 0,4132 |
| | HSUPA | 826,4 - 846,6 | 826,40 | 0,4132 |
| E-GSM 900 | GSM/GPRS | 880,2 - 914,8 | 880,20 | 0,4401 |
| | EDGE | 880,2 - 914,8 | 880,20 | 0,4401 |
| DCS 1800 | GSM/GPRS | 1710,2 - 1784,8 | 1710,20 | 0,8551 |
| | EDGE | 1710,2 - 1784,8 | 1710,20 | 0,8551 |
| PCS 1900 | GSM/GPRS | 1850,2 - 1909,8 | 1850,20 | 0,9251 |
| | EDGE | 1850,2 - 1909,8 | 1850,20 | 0,9251 |
| FDD II | WCDMA/HSDPA | 1852,4 - 1907,6 | 1852,40 | 0,9262 |
| | HSUPA | 1852,4 - 1907,6 | 1852,40 | 0,9262 |
| FDD I | WCDMA/HSDPA | 1922,4 - 1977,6 | 1922,40 | 0,9612 |
| | HSUPA | 1922,4 - 1977,6 | 1922,40 | 0,9612 |

- Additional/Secondary transmitters: All the transmission frequencies for WLAN and Bluetooth modules are above 2 GHz, so that the MPE limit is 1 mW/cm².

B.2. RF EXPOSURE ASSESSMENT – INDIVIDUAL TRANSMITTERS

B.2.1. INTRODUCTION

Calculations to predict power density levels in the far-field of the antenna are made by use of the following equation:

$$S = \frac{P \cdot G}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$$

where: S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

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B.2.2. RF EXPOSURE ASSESSMENT FOR F3507g ERICSSON MOBILE BROADBAND MODULE INSTALLED IN DELL XPS M1350 LAPTOP COMPUTER

FCC REQUIREMENTS

| Frequency Band | Mode | Frequency Range (MHz) | EIRP (mW) | Evaluation distance (R) (cm) | Power Density (S_{eq}) $S = \frac{P \cdot G}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$ $\left(\frac{mW}{cm^2}\right)$ | MPE limit (S_{Lim}) $\left(\frac{mW}{cm^2}\right)$ | COMPLIANCE ($S_{eq} < S_{Lim}$) $\left(\frac{mW}{cm^2}\right)$ |
|----------------|-------------|-----------------------|-----------|------------------------------|--|---|--|
| GSM 850 | GSM/GPRS | 824,2 - 848,8 | 721,01 | 20,00 | 0,1434 | 0,5495 | COMPLIANT |
| | EDGE | 824,2 - 848,8 | 454,93 | 20,00 | 0,0905 | 0,5495 | COMPLIANT |
| FDD V | WCDMA/HSDPA | 826,4 - 846,6 | 332,66 | 20,00 | 0,0662 | 0,5509 | COMPLIANT |
| | HSUPA | 826,4 - 846,6 | 293,76 | 20,00 | 0,0584 | 0,5509 | COMPLIANT |
| PCS 1900 | GSM/GPRS | 1850,2 - 1909,8 | 307,57 | 20,00 | 0,0612 | 1,0000 | COMPLIANT |
| | EDGE | 1850,2 - 1909,8 | 267,88 | 20,00 | 0,0533 | 1,0000 | COMPLIANT |
| FDD II | WCDMA/HSDPA | 1852,4 - 1907,6 | 288,40 | 20,00 | 0,0574 | 1,0000 | COMPLIANT |
| | HSUPA | 1852,4 - 1907,6 | 275,42 | 20,00 | 0,0548 | 1,0000 | COMPLIANT |

EUROPEAN UNION REQUIREMENTS

| Frequency Band | Mode | Frequency Range (MHz) | EIRP (mW) | Evaluation distance (R) (cm) | Power Density (S_{eq}) $S = \frac{P \cdot G}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$ $\left(\frac{mW}{cm^2}\right)$ | MPE limit (S_{Lim}) $\left(\frac{mW}{cm^2}\right)$ | COMPLIANCE ($S_{eq} < S_{Lim}$) $\left(\frac{mW}{cm^2}\right)$ |
|----------------|-------------|-----------------------|-----------|------------------------------|--|---|--|
| E-GSM 900 | GSM/GPRS | 880,2 - 914,8 | 905,61 | 20,00 | 0,1802 | 0,4401 | COMPLIANT |
| | EDGE | 880,2 - 914,8 | 181,11 | 20,00 | 0,0360 | 0,4401 | COMPLIANT |
| DCS 1800 | GSM/GPRS | 1710,2 - 1784,8 | 648,54 | 20,00 | 0,1290 | 0,8551 | COMPLIANT |
| | EDGE | 1710,2 - 1784,8 | 147,21 | 20,00 | 0,0293 | 0,8551 | COMPLIANT |
| FDD I | WCDMA/HSDPA | 1922,4 - 1977,6 | 251,19 | 20,00 | 0,0500 | 0,9612 | COMPLIANT |
| | HSUPA | 1922,4 - 1977,6 | 234,42 | 20,00 | 0,0466 | 0,9612 | COMPLIANT |

AUSTRALIA REQUIREMENTS

| Frequency Band | Mode | Frequency Range (MHz) | EIRP (mW) | Evaluation distance (R) (cm) | Power Density (S_{eq}) $S = \frac{P \cdot G}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$ $\left(\frac{mW}{cm^2}\right)$ | MPE limit (S_{Lim}) $\left(\frac{mW}{cm^2}\right)$ | COMPLIANCE ($S_{eq} < S_{Lim}$) $\left(\frac{mW}{cm^2}\right)$ |
|----------------|-------------|-----------------------|-----------|------------------------------|--|---|--|
| FDD V | WCDMA/HSDPA | 826,4 - 846,6 | 332,66 | 20,00 | 0,0662 | 0,4132 | COMPLIANT |
| | HSUPA | 826,4 - 846,6 | 293,76 | 20,00 | 0,0584 | 0,4132 | COMPLIANT |
| E-GSM 900 | GSM/GPRS | 880,2 - 914,8 | 905,61 | 20,00 | 0,1802 | 0,4401 | COMPLIANT |
| | EDGE | 880,2 - 914,8 | 181,11 | 20,00 | 0,0360 | 0,4401 | COMPLIANT |
| DCS 1800 | GSM/GPRS | 1710,2 - 1784,8 | 648,54 | 20,00 | 0,1290 | 0,8551 | COMPLIANT |
| | EDGE | 1710,2 - 1784,8 | 147,21 | 20,00 | 0,0293 | 0,8551 | COMPLIANT |
| FDD I | WCDMA/HSDPA | 1922,4 - 1977,6 | 251,19 | 20,00 | 0,0500 | 0,9612 | COMPLIANT |
| | HSUPA | 1922,4 - 1977,6 | 234,42 | 20,00 | 0,0466 | 0,9612 | COMPLIANT |

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XPS M1350 VODAFONE REQUIREMENTS

| Frequency Band | Mode | Frequency Range (MHz) | EIRP (mW) | Evaluation distance (R) (cm) | Power Density (S_{eq}) $S = \frac{P \cdot G}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$ ($\frac{mW}{cm^2}$) | MPE limit (S_{Lim}) ($\frac{mW}{cm^2}$) | COMPLIANCE ($S_{eq} < S_{Lim}$) ($\frac{mW}{cm^2}$) |
|----------------|-------------|-----------------------|-----------|------------------------------|---|---|---|
| GSM 850 | GSM/GPRS | 824,2 - 848,8 | 721,01 | 20,00 | 0,1434 | 0,4121 | COMPLIANT |
| | EDGE | 824,2 - 848,8 | 454,93 | 20,00 | 0,0905 | 0,4121 | COMPLIANT |
| FDD V | WCDMA/HSDPA | 826,4 - 846,6 | 332,66 | 20,00 | 0,0662 | 0,4132 | COMPLIANT |
| | HSUPA | 826,4 - 846,6 | 293,76 | 20,00 | 0,0584 | 0,4132 | COMPLIANT |
| E-GSM 900 | GSM/GPRS | 880,2 - 914,8 | 905,61 | 20,00 | 0,1802 | 0,4401 | COMPLIANT |
| | EDGE | 880,2 - 914,8 | 181,11 | 20,00 | 0,0360 | 0,4401 | COMPLIANT |
| DCS 1800 | GSM/GPRS | 1710,2 - 1784,8 | 648,54 | 20,00 | 0,1290 | 0,8551 | COMPLIANT |
| | EDGE | 1710,2 - 1784,8 | 147,21 | 20,00 | 0,0293 | 0,8551 | COMPLIANT |
| PCS 1900 | GSM/GPRS | 1850,2 - 1909,8 | 307,57 | 20,00 | 0,0612 | 0,9251 | COMPLIANT |
| | EDGE | 1850,2 - 1909,8 | 267,88 | 20,00 | 0,0533 | 0,9251 | COMPLIANT |
| FDD II | WCDMA/HSDPA | 1852,4 - 1907,6 | 288,40 | 20,00 | 0,0574 | 0,9262 | COMPLIANT |
| | HSUPA | 1852,4 - 1907,6 | 275,42 | 20,00 | 0,0548 | 0,9262 | COMPLIANT |
| FDD I | WCDMA/HSDPA | 1922,4 - 1977,6 | 251,19 | 20,00 | 0,0500 | 0,9612 | COMPLIANT |
| | HSUPA | 1922,4 - 1977,6 | 234,42 | 20,00 | 0,0466 | 0,9612 | COMPLIANT |

B.2.3. RF EXPOSURE ASSESSMENT FOR SECONDARY TRANSMITTERS INSTALLED IN DELL XPS M1350 LAPTOP COMPUTER

| Model name | FCC ID | Frequency range (MHz) | EIRP (mW) | Evaluation distance (cm) | Power Density (S_{eq}) $S = \frac{P \cdot G}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$ ($\frac{mW}{cm^2}$) | MPE limit (S_{Lim}) ($\frac{mW}{cm^2}$) | COMPLIANCE ($S_{eq} < S_{Lim}$) |
|-------------------------|--------------|-----------------------|-----------|--------------------------|---|---|-----------------------------------|
| Dell Wireless 1395 | QDS-BRCM1028 | 2400 - 2483,5 | 357,15 | 20,00 | 0,0711 | 1,0000 | COMPLIANT |
| Dell Wireless 1490 | QDS-BRCM1019 | 2400,0 - 2483,5 | 862,95 | 20,00 | 0,1717 | 1,0000 | COMPLIANT |
| | | 5150,0 - 5350,0 | 89,39 | 20,00 | 0,0178 | 1,0000 | COMPLIANT |
| | | 5725,0 - 5850,0 | 464,50 | 20,00 | 0,0924 | 1,0000 | COMPLIANT |
| Dell Wireless 1505 | QDS-BRCM1022 | 2400,0 - 2483,5 | 975,68 | 20,00 | 0,1941 | 1,0000 | COMPLIANT |
| | | 5150,0 - 5350,0 | 213,49 | 20,00 | 0,0425 | 1,0000 | COMPLIANT |
| | | 5725,0 - 5850,0 | 810,08 | 20,00 | 0,1612 | 1,0000 | COMPLIANT |
| Intel PRO 3945ABG | E2KWM3945ABG | 2400,0 - 2483,5 | 598,58 | 20,00 | 0,1191 | 1,0000 | COMPLIANT |
| | | 5150,0 - 5350,0 | 137,67 | 20,00 | 0,0274 | 1,0000 | COMPLIANT |
| | | 5725,0 - 5850,0 | 187,55 | 20,00 | 0,0373 | 1,0000 | COMPLIANT |
| Intel WiFi Link 4965AGN | E2K4965AGNM | 2400,0 - 2483,5 | 917,82 | 20,00 | 0,1826 | 1,0000 | COMPLIANT |
| | | 5150,0 - 5350,0 | 245,42 | 20,00 | 0,0488 | 1,0000 | COMPLIANT |
| | | 5725,0 - 5850,0 | 604,56 | 20,00 | 0,1203 | 1,0000 | COMPLIANT |

NOTE: Only co-located secondary transmitters has been considered according to the conclusions of chapter 2 of Annex A included in page 10 of this report.

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B.3. RF EXPOSURE ASSESSMENT – CO-LOCATION CONSIDERATIONS

B.3.1. INTRODUCTION

In situations where simultaneous exposure to fields of different equipment and frequencies occurs, the possibility that these exposures will be additive in their effects must be considered. Calculations based on this additivity are performed by the sum of relative exposure for each equipment according to the following compliance criteria:

$$\sum_1^N \frac{S_{eqn}}{S_{Limn}} = \frac{S_{eq1}}{S_{Lim1}} + \frac{S_{eq2}}{S_{Lim2}} + \dots + \frac{S_{eqN}}{S_{LimN}} \leq 1$$

where:

S_{eq} is the power density of the electromagnetic field caused, at a given distance (evaluation distance), by a specific equipment transmitting at a defined frequency.

S_{Lim} is the MPE limit for the evaluated transmission frequency.

B.3.2. FCC REQUIREMENTS

RELATIVE EXPOSURE FOR F3507g ERICSSON BROADBAND MODULE

| Frequency Band | Mode | Frequency Range (MHz) | S_{eq} | S_{Lim} | $\frac{S_{eq}}{S_{Lim}}$ |
|----------------|-------------|-----------------------|----------|-----------|--------------------------|
| GSM 850 | GSM/GPRS | 824,2 - 848,8 | 0,1434 | 0,5495 | 0,2611 |
| | EDGE | 824,2 - 848,8 | 0,0905 | 0,5495 | 0,1647 |
| FDD V | WCDMA/HSDPA | 826,4 - 846,6 | 0,0662 | 0,5509 | 0,1201 |
| | HSUPA | 826,4 - 846,6 | 0,0584 | 0,5509 | 0,1061 |
| PCS 1900 | GSM/GPRS | 1850,2 - 1909,8 | 0,0612 | 1,0000 | 0,0612 |
| | EDGE | 1850,2 - 1909,8 | 0,0533 | 1,0000 | 0,0533 |
| FDD II | WCDMA/HSDPA | 1852,4 - 1907,6 | 0,0574 | 1,0000 | 0,0574 |
| | HSUPA | 1852,4 - 1907,6 | 0,0548 | 1,0000 | 0,0548 |

RELATIVE EXPOSURE FOR SECONDARY TRANSMITTERS

| Model name | FCC ID | Frequency range (MHz) | S_{eq} | S_{Lim} | $\frac{S_{eq}}{S_{Lim}}$ |
|--------------------|--------------|-----------------------|----------|-----------|--------------------------|
| Dell Wireless 1395 | QDS-BRCM1028 | 2400 - 2483,5 | 0,0711 | 1,0000 | 0,0711 |
| Dell Wireless 1490 | QDS-BRCM1019 | 2400,0 - 2483,5 | 0,1717 | 1,0000 | 0,1717 |
| | | 5150,0 - 5350,0 | 0,0178 | 1,0000 | 0,0178 |
| | | 5725,0 - 5850,0 | 0,0924 | 1,0000 | 0,0924 |
| Dell Wireless 1505 | QDS-BRCM1022 | 2400,0 - 2483,5 | 0,1941 | 1,0000 | 0,1941 |
| | | 5150,0 - 5350,0 | 0,0425 | 1,0000 | 0,0425 |
| | | 5725,0 - 5850,0 | 0,1612 | 1,0000 | 0,1612 |
| Intel PRO 3945ABG | E2KWM3945ABG | 2400,0 - 2483,5 | 0,1191 | 1,0000 | 0,1191 |
| | | 5150,0 - 5350,0 | 0,0274 | 1,0000 | 0,0274 |
| | | 5725,0 - 5850,0 | 0,0373 | 1,0000 | 0,0373 |

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|----------------------------|-------------|-----------------|--------|--------|--------|
| Intel WiFi Link 4965AGN | E2K4965AGNM | 2400,0 - 2483,5 | 0,1826 | 1,0000 | 0,1826 |
| | | 5150,0 - 5350,0 | 0,0488 | 1,0000 | 0,0488 |
| | | 5725,0 - 5850,0 | 0,1203 | 1,0000 | 0,1203 |

SIMULTANEOUS EXPOSURE

| Equipment | | Maximum $\frac{S_{eq}}{S_{Lim}}$ | Maximum $\frac{S_{Pri}}{S_{Lim_Pri}} + \frac{S_{Sec_WLAN}}{S_{Lim_Sec_WLAN}}$ | COMPLIANCE $\frac{S_{Pri}}{S_{Lim_Pri}} + \frac{S_{Sec_WLAN}}{S_{Lim_Sec_WLAN}} < 1$ |
|------------------------------|-------------------------|-------------------------------------|--|---|
| Primary transmitter | Ericsson F3507g | 0,2611 | - | - |
| Secondary transmitter (WLAN) | Dell Wireless 1395 | 0,0711 | 0,3321 | COMPLIANT |
| Secondary transmitter (WLAN) | Dell Wireless 1490 | 0,1717 | 0,4327 | COMPLIANT |
| Secondary transmitter (WLAN) | Dell Wireless 1505 | 0,1941 | 0,4552 | COMPLIANT |
| Secondary transmitter (WLAN) | Intel PRO 3945ABG | 0,1191 | 0,3801 | COMPLIANT |
| Secondary transmitter (WLAN) | Intel WiFi Link 4965AGN | 0,1826 | 0,4436 | COMPLIANT |

NOTE: Only co-located secondary transmitters has been considered according to the conclusions of chapter 2 of Annex A included in page 10 of this report.

B.3.3. EUROPEAN UNION REQUIREMENTS

RELATIVE EXPOSURE FOR F3507g ERICSSON BROADBAND MODULE

| Frequency Band | Mode | Frequency Range (MHz) | S_{eq} | S_{Lim} | $\frac{S_{eq}}{S_{Lim}}$ |
|----------------|-------------|-----------------------|----------|-----------|--------------------------|
| E-GSM 900 | GSM/GPRS | 880,2 - 914,8 | 0,1802 | 0,4401 | 0,4094 |
| | EDGE | 880,2 - 914,8 | 0,0360 | 0,4401 | 0,0819 |
| DCS 1800 | GSM/GPRS | 1710,2 - 1784,8 | 0,1290 | 0,8551 | 0,1509 |
| | EDGE | 1710,2 - 1784,8 | 0,0293 | 0,8551 | 0,0342 |
| FDD I | WCDMA/HSDPA | 1922,4 - 1977,6 | 0,0500 | 0,9612 | 0,0520 |
| | HSUPA | 1922,4 - 1977,6 | 0,0466 | 0,9612 | 0,0485 |

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RELATIVE EXPOSURE FOR SECONDARY TRANSMITTERS

| Model name | FCC ID | Frequency range (MHz) | S _{eq} | S _{Lim} | $\frac{S_{eq}}{S_{Lim}}$ |
|-------------------------|--------------|-----------------------|-----------------|------------------|--------------------------|
| Dell Wireless 1395 | QDS-BRCM1028 | 2400 - 2483,5 | 0,0711 | 1,0000 | 0,0711 |
| Dell Wireless 1490 | QDS-BRCM1019 | 2400,0 - 2483,5 | 0,1717 | 1,0000 | 0,1717 |
| | | 5150,0 - 5350,0 | 0,0178 | 1,0000 | 0,0178 |
| | | 5725,0 - 5850,0 | 0,0924 | 1,0000 | 0,0924 |
| Dell Wireless 1505 | QDS-BRCM1022 | 2400,0 - 2483,5 | 0,1941 | 1,0000 | 0,1941 |
| | | 5150,0 - 5350,0 | 0,0425 | 1,0000 | 0,0425 |
| | | 5725,0 - 5850,0 | 0,1612 | 1,0000 | 0,1612 |
| Intel PRO 3945ABG | E2KWM3945ABG | 2400,0 - 2483,5 | 0,1191 | 1,0000 | 0,1191 |
| | | 5150,0 - 5350,0 | 0,0274 | 1,0000 | 0,0274 |
| | | 5725,0 - 5850,0 | 0,0373 | 1,0000 | 0,0373 |
| Intel WiFi Link 4965AGN | E2K4965AGNM | 2400,0 - 2483,5 | 0,1826 | 1,0000 | 0,1826 |
| | | 5150,0 - 5350,0 | 0,0488 | 1,0000 | 0,0488 |
| | | 5725,0 - 5850,0 | 0,1203 | 1,0000 | 0,1203 |

SIMULTANEOUS EXPOSURE

| Equipment | | Maximum $\frac{S_{eq}}{S_{Lim}}$ | Maximum $\frac{S_{Pri}}{S_{Lim_Pri}} + \frac{S_{Sec_WLAN}}{S_{Lim_Sec_WLAN}}$ | COMPLIANCE $\frac{S_{Pri}}{S_{Lim_Pri}} + \frac{S_{Sec_WLAN}}{S_{Lim_Sec_WLAN}} < 1$ |
|------------------------------|-------------------------|----------------------------------|---|--|
| Primary transmitter | Ericsson F3507g | 0,4094 | - | - |
| Secondary transmitter (WLAN) | Dell Wireless 1395 | 0,0711 | 0,4804 | COMPLIANT |
| Secondary transmitter (WLAN) | Dell Wireless 1490 | 0,1717 | 0,5811 | COMPLIANT |
| Secondary transmitter (WLAN) | Dell Wireless 1505 | 0,1941 | 0,6035 | COMPLIANT |
| Secondary transmitter (WLAN) | Intel PRO 3945ABG | 0,1191 | 0,5285 | COMPLIANT |
| Secondary transmitter (WLAN) | Intel WiFi Link 4965AGN | 0,1826 | 0,5920 | COMPLIANT |

NOTE: Only co-located secondary transmitters has been considered according to the conclusions of chapter 2 of Annex A included in page 10 of this report.

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B.3.4. AUSTRALIA REQUIREMENTS

RELATIVE EXPOSURE FOR F350g ERICSSON BROADBAND MODULE

| Manufacturer | Model name | Frequency range (MHz) | S _{eq} | S _{Lim} | $\frac{S_{eq}}{S_{Lim}}$ |
|--------------|-------------|-----------------------|-----------------|------------------|--------------------------|
| FDD V | WCDMA/HSDPA | 826,4 - 846,6 | 0,0662 | 0,4132 | 0,1602 |
| | HSUPA | 826,4 - 846,6 | 0,0584 | 0,4132 | 0,1414 |
| E-GSM 900 | GSM/GPRS | 880,2 - 914,8 | 0,1802 | 0,4401 | 0,4094 |
| | EDGE | 880,2 - 914,8 | 0,0360 | 0,4401 | 0,0819 |
| DCS 1800 | GSM/GPRS | 1710,2 - 1784,8 | 0,1290 | 0,8551 | 0,1509 |
| | EDGE | 1710,2 - 1784,8 | 0,0293 | 0,8551 | 0,0342 |
| FDD I | WCDMA/HSDPA | 1922,4 - 1977,6 | 0,0500 | 0,9612 | 0,0520 |
| | HSUPA | 1922,4 - 1977,6 | 0,0466 | 0,9612 | 0,0485 |

RELATIVE EXPOSURE FOR SECONDARY TRANSMITTERS

| Model name | FCC ID | Frequency range (MHz) | S _{eq} | S _{Lim} | $\frac{S_{eq}}{S_{Lim}}$ |
|-------------------------|--------------|-----------------------|-----------------|------------------|--------------------------|
| Dell Wireless 1395 | QDS-BRCM1028 | 2400 - 2483,5 | 0,0711 | 1,0000 | 0,0711 |
| Dell Wireless 1490 | QDS-BRCM1019 | 2400,0 - 2483,5 | 0,1717 | 1,0000 | 0,1717 |
| | | 5150,0 - 5350,0 | 0,0178 | 1,0000 | 0,0178 |
| | | 5725,0 - 5850,0 | 0,0924 | 1,0000 | 0,0924 |
| Dell Wireless 1505 | QDS-BRCM1022 | 2400,0 - 2483,5 | 0,1941 | 1,0000 | 0,1941 |
| | | 5150,0 - 5350,0 | 0,0425 | 1,0000 | 0,0425 |
| | | 5725,0 - 5850,0 | 0,1612 | 1,0000 | 0,1612 |
| Intel PRO 3945ABG | E2KWM3945ABG | 2400,0 - 2483,5 | 0,1191 | 1,0000 | 0,1191 |
| | | 5150,0 - 5350,0 | 0,0274 | 1,0000 | 0,0274 |
| | | 5725,0 - 5850,0 | 0,0373 | 1,0000 | 0,0373 |
| Intel WiFi Link 4965AGN | E2K4965AGNM | 2400,0 - 2483,5 | 0,1826 | 1,0000 | 0,1826 |
| | | 5150,0 - 5350,0 | 0,0488 | 1,0000 | 0,0488 |
| | | 5725,0 - 5850,0 | 0,1203 | 1,0000 | 0,1203 |

SIMULTANEOUS EXPOSURE

| Equipment | | Maximum $\frac{S_{eq}}{S_{Lim}}$ | Maximum $\frac{S_{Pri}}{S_{Lim_Pri}} + \frac{S_{Sec_WLAN}}{S_{Lim_Sec_WLAN}}$ | COMPLIANCE $\frac{S_{Pri}}{S_{Lim_Pri}} + \frac{S_{Sec_WLAN}}{S_{Lim_Sec_WLAN}} < 1$ |
|------------------------------|-------------------------|-------------------------------------|--|---|
| Primary transmitter | Ericsson F3507g | 0,4094 | - | - |
| Secondary transmitter (WLAN) | Dell Wireless 1395 | 0,0711 | 0,4804 | COMPLIANT |
| Secondary transmitter (WLAN) | Dell Wireless 1490 | 0,1717 | 0,5811 | COMPLIANT |
| Secondary transmitter (WLAN) | Dell Wireless 1505 | 0,1941 | 0,6035 | COMPLIANT |
| Secondary transmitter (WLAN) | Intel PRO 3945ABG | 0,1191 | 0,5285 | COMPLIANT |
| Secondary transmitter (WLAN) | Intel WiFi Link 4965AGN | 0,1826 | 0,5920 | COMPLIANT |

NOTE: Only co-located secondary transmitters has been considered according to the conclusions of chapter 2 of Annex A included in page 10 of this report.

B.3.5. VODAFONE REQUIREMENTS

RELATIVE EXPOSURE FOR F350g ERICSSON BROADBAND MODULE

| Manufacturer | Model name | Frequency range (MHz) | S_{eq} | S_{Lim} | $\frac{S_{eq}}{S_{Lim}}$ |
|--------------|-------------|-----------------------|----------|-----------|--------------------------|
| GSM 850 | GSM/GPRS | 824,2 - 848,8 | 0,1434 | 0,4121 | 0,3481 |
| | EDGE | 824,2 - 848,8 | 0,0905 | 0,4121 | 0,2196 |
| FDD V | WCDMA/HSDPA | 826,4 - 846,6 | 0,0662 | 0,4132 | 0,1602 |
| | HSUPA | 826,4 - 846,6 | 0,0584 | 0,4132 | 0,1414 |
| E-GSM 900 | GSM/GPRS | 880,2 - 914,8 | 0,1802 | 0,4401 | 0,4094 |
| | EDGE | 880,2 - 914,8 | 0,0360 | 0,4401 | 0,0819 |
| DCS 1800 | GSM/GPRS | 1710,2 - 1784,8 | 0,1290 | 0,8551 | 0,1509 |
| | EDGE | 1710,2 - 1784,8 | 0,0293 | 0,8551 | 0,0342 |
| PCS 1900 | GSM/GPRS | 1850,2 - 1909,8 | 0,0612 | 0,9251 | 0,0661 |
| | EDGE | 1850,2 - 1909,8 | 0,0533 | 0,9251 | 0,0576 |
| FDD II | WCDMA/HSDPA | 1852,4 - 1907,6 | 0,0574 | 0,9262 | 0,0619 |
| | HSUPA | 1852,4 - 1907,6 | 0,0548 | 0,9262 | 0,0592 |
| FDD I | WCDMA/HSDPA | 1922,4 - 1977,6 | 0,0500 | 0,9612 | 0,0520 |
| | HSUPA | 1922,4 - 1977,6 | 0,0466 | 0,9612 | 0,0485 |

RELATIVE EXPOSURE FOR SECONDARY TRANSMITTERS

| Model name | FCC ID | Frequency range (MHz) | S _{eq} | S _{Lim} | $\frac{S_{eq}}{S_{Lim}}$ |
|-------------------------|--------------|-----------------------|-----------------|------------------|--------------------------|
| Dell Wireless 1395 | QDS-BRCM1028 | 2400 - 2483,5 | 0,0711 | 1,0000 | 0,0711 |
| Dell Wireless 1490 | QDS-BRCM1019 | 2400,0 - 2483,5 | 0,1717 | 1,0000 | 0,1717 |
| | | 5150,0 - 5350,0 | 0,0178 | 1,0000 | 0,0178 |
| | | 5725,0 - 5850,0 | 0,0924 | 1,0000 | 0,0924 |
| Dell Wireless 1505 | QDS-BRCM1022 | 2400,0 - 2483,5 | 0,1941 | 1,0000 | 0,1941 |
| | | 5150,0 - 5350,0 | 0,0425 | 1,0000 | 0,0425 |
| | | 5725,0 - 5850,0 | 0,1612 | 1,0000 | 0,1612 |
| Intel PRO 3945ABG | E2KWM3945ABG | 2400,0 - 2483,5 | 0,1191 | 1,0000 | 0,1191 |
| | | 5150,0 - 5350,0 | 0,0274 | 1,0000 | 0,0274 |
| | | 5725,0 - 5850,0 | 0,0373 | 1,0000 | 0,0373 |
| Intel WiFi Link 4965AGN | E2K4965AGNM | 2400,0 - 2483,5 | 0,1826 | 1,0000 | 0,1826 |
| | | 5150,0 - 5350,0 | 0,0488 | 1,0000 | 0,0488 |
| | | 5725,0 - 5850,0 | 0,1203 | 1,0000 | 0,1203 |

SIMULTANEOUS EXPOSURE

| Equipment | | Maximum $\frac{S_{eq}}{S_{Lim}}$ | Maximum $\frac{S_{Pri}}{S_{Lim_Pri}} + \frac{S_{Sec_WLAN}}{S_{Lim_Sec_WLAN}}$ | COMPLIANCE $\frac{S_{Pri}}{S_{Lim_Pri}} + \frac{S_{Sec_WLAN}}{S_{Lim_Sec_WLAN}} < 1$ |
|------------------------------|-------------------------|----------------------------------|---|--|
| Primary transmitter | Ericsson F3507g | 0,4094 | - | - |
| Secondary transmitter (WLAN) | Dell Wireless 1395 | 0,0711 | 0,4804 | COMPLIANT |
| Secondary transmitter (WLAN) | Dell Wireless 1490 | 0,1717 | 0,5811 | COMPLIANT |
| Secondary transmitter (WLAN) | Dell Wireless 1505 | 0,1941 | 0,6035 | COMPLIANT |
| Secondary transmitter (WLAN) | Intel PRO 3945ABG | 0,1191 | 0,5285 | COMPLIANT |
| Secondary transmitter (WLAN) | Intel WiFi Link 4965AGN | 0,1826 | 0,5920 | COMPLIANT |

| | | |
|-----------------------------|--|----------------|
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