RF Exposure Exhibit

Evaluation of Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields

Model:	WIMAN II (FHSS RF Modem)
Applicant:	Airdata Wiman Systems Inc
Configuration:	WIMAN 2 with Omni Antenna 2 dBi (AN-24-2MN360-FNEM)

FCC ID:	NB9WIMAN2A24
Device Category	mobile
RF exposure environment	uncontrolled
Test method:	computation

Preface	The following evaluation is based on the guidelines given in OET Bulletin 65 (Edition 97-01) and Supplement C (Edition 97-01) to OET Bulletin 65. The EUT is a Frequency Hopping Spread Spectrum Transmitter according to CFR 47, section 15.247 of the FCC Rules. The EUT is intended to operate with different antennae with various gain. The antenna is selected during the installation by software. The TX power is adjusted accordingly in order not to exceed the regulatory requirements.

MPE Calculation	MPE has been calculated according to Formula (4) of OET 65, section 2 as a conservative prediction: $$S = \frac{EIRP}{4\pi R2}$$ Assuming a TX power 0f 0.652 Watt and antenna gain of 2 dBi, the power density at 20 cm distance will result in **0.205 mW/cm^2** which is below the limit of 1 mW/cm^2
Note	In order to make a "worst-case" prediction, no time averaging has been applied in this calulation.

Evaluation of Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields

Model:	WIMAN II (FHSS RF Modem)
Applicant:	Airdata Wiman Systems Inc
Configuration:	WIMAN 2 with Omni Antenna 8 dBi (AN-24-8MN360-NM3)

FCC ID:	NB9WIMAN2A24
Device Category	mobile
RF exposure environment	uncontrolled
Test method:	computation

Preface	The following evaluation is based on the guidelines given in OET Bulletin 65 (Edition 97-01) and Supplement C (Edition 97-01) to OET Bulletin 65. The EUT is a Frequency Hopping Spread Spectrum Transmitter according to CFR 47, section 15.247 of the FCC Rules. The EUT is intended to operate with different antennae with various gain. The antenna is selected during the installation by software. The TX power is adjusted accordingly in order not to exceed the regulatory requirements.

MPE Calculation	MPE has been calculated according to Formula (4) of OET 65, section 2 as a conservative prediction:
	$$S = \frac{EIRP}{4\pi R2}$$
	Assuming a TX power of 0.427 Watt and antenna gain of 8 dBi, the power density at 20 cm distance will result in
	0.535 mW/cm^2
	which is below the limit of 1 mW/cm^2

Note	In order to make a "worst-case" prediction, no time averaging has been applied in this calulation.

Evaluation of Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields

Model:	WIMAN II (FHSS RF Modem)
Applicant:	Airdata Wiman Systems Inc
Configuration:	WIMAN 2 with Planar Antenna 8.5 dBi (AN-24-8PL76-SMAF)

FCC ID:	NB9WIMAN2A24
Device Category	mobile
RF exposure environment	uncontrolled
Test method:	computation

Preface	The following evaluation is based on the guidelines given in OET Bulletin 65 (Edition 97-01) and Supplement C (Edition 97-01) to OET Bulletin 65. The EUT is a Frequency Hopping Spread Spectrum Transmitter according to CFR 47, section 15.247 of the FCC Rules. The EUT is intended to operate with different antennae with various gain. The antenna is selected during the installation by software. The TX power is adjusted accordingly in order not to exceed the regulatory requirements.

MPE Calculation	MPE has been calculated according to Formula (4) of OET 65, section 2 as a conservative prediction.
	$$S = \frac{EIRP}{4\pi R2}$$
	Assuming a TX power 0f 0.439 Watt and antenna gain of 8.5 dBi, the power density at 20 cm distance will result in
	0.617 mW/cm^2
	which is below the limit of 1 mW/cm^2
Note	In order to make a "worst-case" prediction, no time averaging has been applied in this calulation.

Evaluation of Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields

Model:	WIMAN II (FHSS RF Modem)
Applicant:	Airdata Wiman Systems Inc
Configuration:	WIMAN 2 with Planar Antenna 16 dBi (AN-24-16PL24-NF)

FCC ID:	NB9WIMAN2A24
Device Category	mobile
RF exposure environment	uncontrolled
Test method:	computation

Preface	The following evaluation is based on the guidelines given in OET Bulletin 65 (Edition 97-01) and Supplement C (Edition 97-01) to OET Bulletin 65. The EUT is a Frequency Hopping Spread Spectrum Transmitter according to CFR 47, section 15.247 of the FCC Rules. The EUT is intended to operate with different antennae with various gain. The antenna is selected during the installation by software. The TX power is adjusted accordingly in order not to exceed the regulatory requirements.

MPE Calculation	MPE has been calculated according to Formula (4) of OET 65, section 2 as a conservative prediction. $$S = \frac{EIRP}{4\pi R2}$$ Assuming a TX power of 0.082 Watt and antenna gain of 16 dBi, the power density at 20 cm distance will result in **0.654 mW/cm^2** which is below the limit of 1 mW/cm^2
Note	In order to make a "worst-case" prediction, no time averaging has been applied in this calulation.

Evaluation of Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields

Model:	WIMAN II (FHSS RF Modem)
Applicant:	Airdata Wiman Systems Inc
Configuration:	WIMAN 2 with Planar Antenna 16.5 dBi (AN-24-16PL85-NF)

FCC ID:	NB9WIMAN2A24
Device Category	mobile
RF exposure environment	uncontrolled
Test method:	computation

Preface	The following evaluation is based on the guidelines given in OET Bulletin 65 (Edition 97-01) and Supplement C (Edition 97-01) to OET Bulletin 65. The EUT is a Frequency Hopping Spread Spectrum Transmitter according to CFR 47, section 15.247 of the FCC Rules. The EUT is intended to operate with different antennae with various gain. The antenna is selected during the installation by software. The TX power is adjusted accordingly in order not to exceed the regulatory requirements.

MPE Calculation	MPE has been calculated according to Formula (4) of OET 65, section 2 as a conservative prediction. $$S = \frac{EIRP}{4\pi R2}$$ Assuming a TX power of 0.057 Watt and antenna gain of 16.5 dBi, the power density at 20 cm distance will result in **0.508 mW/cm^2** which is below the limit of 1 mW/cm^2
Note	In order to make a "worst-case" prediction, no time averaging has been applied in this calulation.

Evaluation of Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields

Model:	WIMAN II (FHSS RF Modem)
Applicant:	Airdata Wiman Systems Inc
Configuration:	WIMAN 2 with Paraflector Antenna 24 dBi (AN-24-24PF8-NF)

FCC ID:	NB9WIMAN2A24
Device Category	mobile
RF exposure environment	uncontrolled
Test method:	computation

Preface	The following evaluation is based on the guidelines given in OET Bulletin 65 (Edition 97-01) and Supplement C (Edition 97-01) to OET Bulletin 65. The EUT is a Frequency Hopping Spread Spectrum Transmitter according to CFR 47, section 15.247 of the FCC Rules. The EUT is intended to operate with different antennae with various gain. The antenna is selected during the installation by software. The TX power is adjusted accordingly in order not to exceed the regulatory requirements.

MPE Calculation	MPE has been calculated according to Formula (4) of OET 65, section 2 as a conservative prediction. $$S = \frac{EIRP}{4\pi R2}$$ Assuming a TX power of 0.014 Watt and antenna gain of 24 dBi, the power density at 20 cm distance will result in **0.588 mW/cm^2** which is below the limit of 1 mW/cm^2
Note	In order to make a "worst-case" prediction, no time averaging has been applied in this calulation.