

FCC ID: DO4EVOLVE

## 5.2 Field strength of the fundamental wave

For test instruments and accessories used see section 6 Part **CPR 1**.

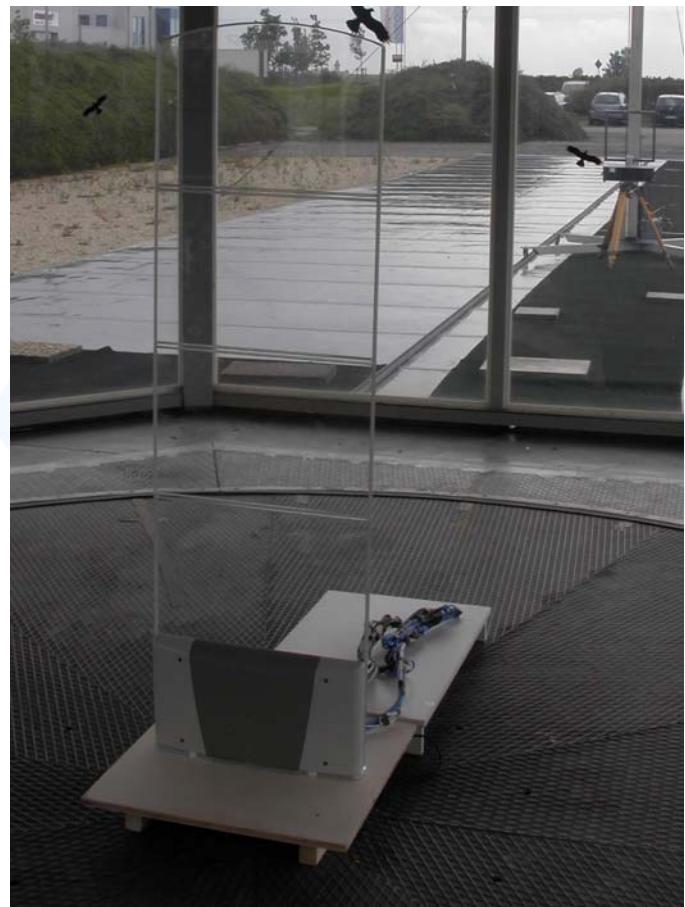
### 5.2.1 Description of the test location

Test location: OATS1

Test distance: 10 metres

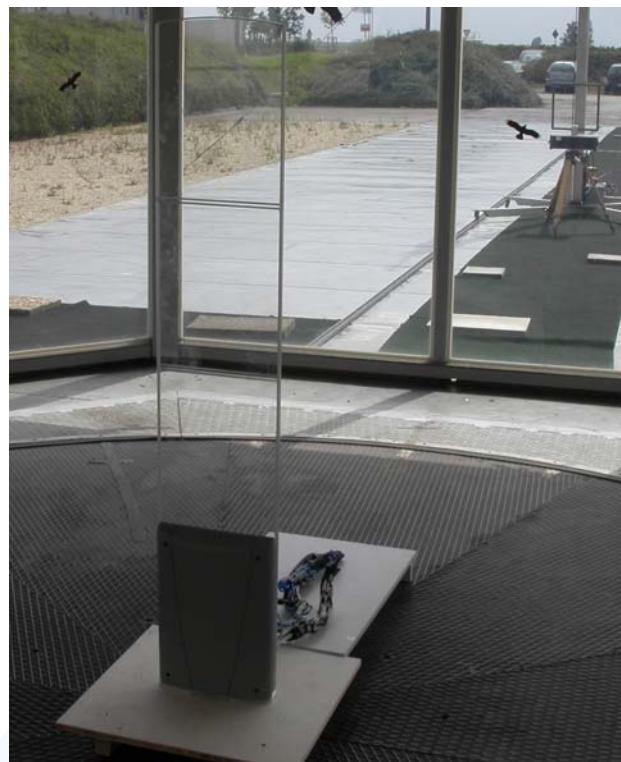
### 5.2.2 Photo documentation of the test set-up

Evolve G10:



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Evolve G20:



Evolve P10:



Evolve P20:



### 5.2.3 Description of Measurement

The magnetic field strength from the EuT will be measured on an open area test site in the frequency range of 9 kHz to 30 MHz using a tuned receiver and a shielded loop antenna. The set up of the Equipment under test will be in accordance to ANSI C63.4-2003. The antenna was positioned 3, 10 or 30 meters horizontally from the EuT. Measurements have been made in all three orthogonal axes and the shielded loop antenna was rotated to locate the maximum of the emissions. In the case where larger measuring distances are required the results will extrapolated based on the values measured on the closer distances according to Section 15.31 (f) (2) [2]. The final measurement will be performed with an EMI Receiver set to an average and a peak detector.

The final level, expressed in  $\text{dB}\mu\text{V/m}$ , is arrived at by taking the reading from the EMI receiver (Level  $\text{dB}\mu\text{V}$ ) and adding the antenna correction factor and cable loss factor (Factor dB) to it. This result then has to be compared with the relevant FCC limit.

The resolution bandwidth during the measurement was 300 kHz.

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### 5.3 Spurious emissions (Magnetic field) 9 kHz – 30 MHz

For test instruments and accessories used see section 6 Part **SER 1**.

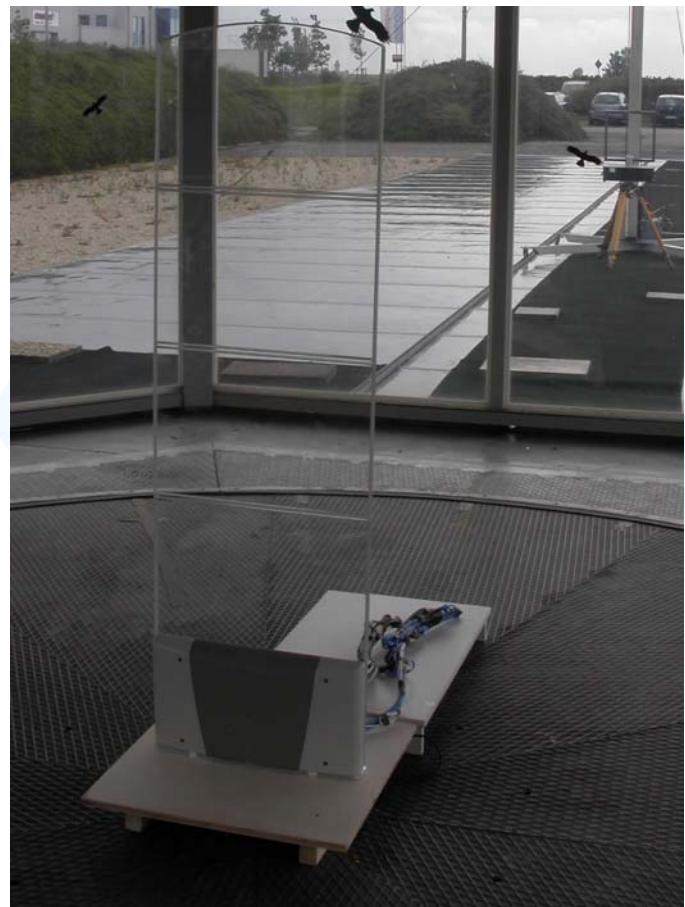
#### 5.3.1 Description of the test location

Test location: OATS1

Test distance: 10 metres

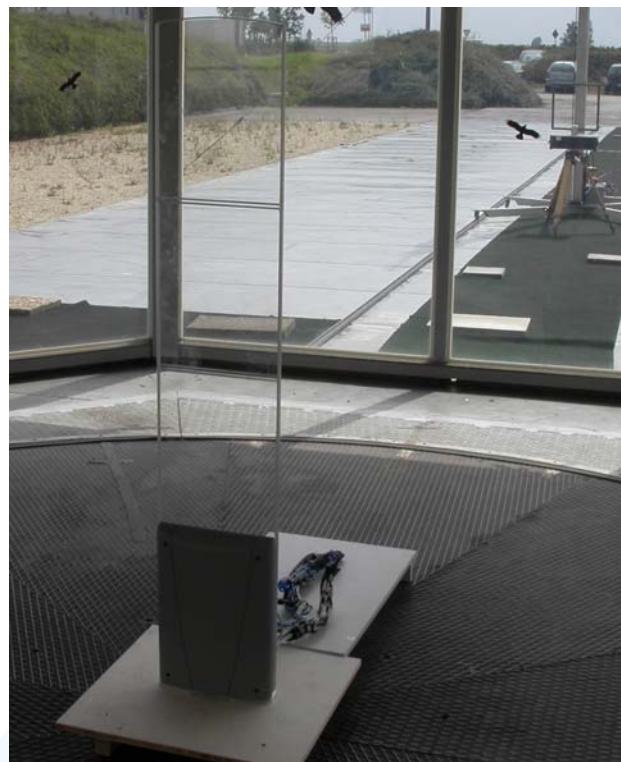
#### 5.3.2 Photo documentation of the test set-up

Evolve G10:



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Evolve G20:

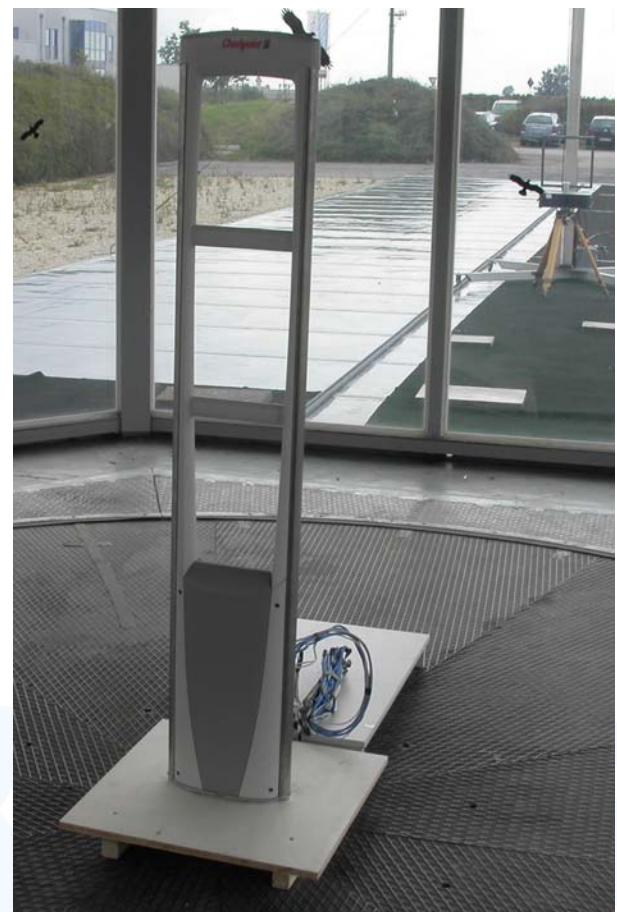


Evolve P10:



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Evolve P20:



### 5.3.3 Description of Measurement

The spurious emissions from the EuT will be measured on an open area test site in the frequency range of 9 kHz to 30 MHz using a tuned receiver and a shielded loop antenna. The antenna was positioned 3, 10 or 30 meters horizontally from the EuT. Measurements have been made in all three orthogonal axes and the shielded loop antenna was rotated to locate the maximum of the emissions. In the case where larger measuring distances are required the results will extrapolated based on the values measured on the closer distances according to Section 15.31 (f) (2) [2]. The final measurement will be performed with an EMI Receiver set to Quasi Peak detector except for the frequency bands 9 kHz to 90 kHz and 110 to 490 kHz where an average detector will be used according to Section 15.209 (d) [2].

The final level, expressed in  $\text{dB}\mu\text{V}/\text{m}$ , is arrived at by taking the reading from the EMI receiver (Level  $\text{dB}\mu\text{V}$ ) and adding the antenna correction factor and cable loss factor (Factor dB) to it. This result then has to be compared with the relevant FCC limit.

The resolution bandwidth during the measurement is as follows:

9 kHz – 150 kHz: ResBW: 200 Hz

150 kHz – 30 MHz: ResBW: 300 kHz

Example:

Frequency (MHz)	Level ( $\text{dB}\mu\text{V}$ )	+	Factor (dB)	=	Level ( $\text{dB}\mu\text{V}/\text{m}$ )	Limit ( $\text{dB}\mu\text{V}/\text{m}$ )	=	Delta (dB)
1.705	5	+	20	=	25	30	=	5

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## 5.4 Radiated emissions (electric field) 30 MHz – 1 GHz

For test instruments and accessories used see section 6 Part **SER 2**.

### 5.4.1 Description of the test location

Test location: OATS1

Test distance: 3 metres

### 5.4.2 Photo documentation of the test set-up

Evolve G10:



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Evolve G20:



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Evolve P10:



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Evolve P20:

