EUT: SePem 01 Logger

Manufacturer: Hermann Sewerin GmbH



# 1 RADIATED EMISSIONS (RECEIVER)

## 1.1.1 METHOD OF MEASUREMENT (RADIATED EMISSIONS)

For the methods of measurements please refer to document "F082373E01" chapter 5.3.1.

### 1.2 PRELIMINARY MEASUREMENT INTERNAL ANTENNA (9 kHz to 2.5 GHz)

Ambient temperature	20 °C	Rela	tive humidity	53 %
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Position of EUT: The EUT was set-up on a non-conducting table of a height of 0.8 m. The distance

between EUT and antenna was 3 m. For further information of the set up refer to

the pictures in annex A of this test report.

Cable guide: No cables were connectable to the EUT.

Test record: Where not otherwise stated the test was carried out in test mode 5 of the EUT,

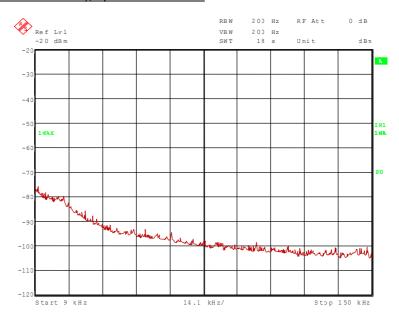
because there was no difference to the test modes 4 or 6. All results are shown in

the following.

Supply voltage: During all measurements the EUT was supplied with 3.6 V DC via the internal

battery.

#### 82373 29.wmf (30 kHz to 150 kHz), operation mode 5:



#### TEST EQUIPMENT USED FOR THE TEST:

29, 31 - 36, 43, 44, 49, 58

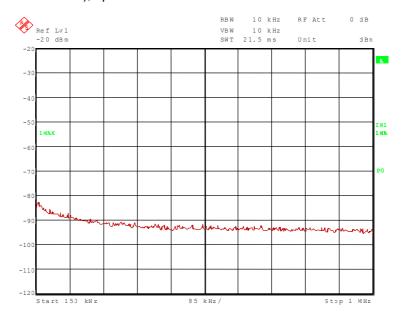
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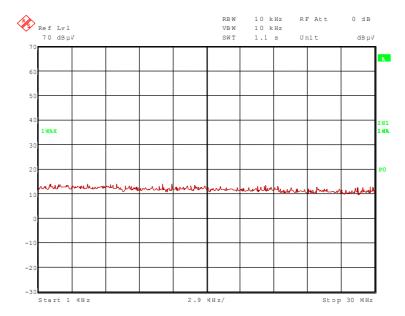
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### 82373\_30.wmf (150 kHz to 1 MHz), operation mode 5:



### 82373 31.wmf (1 MHz to 30 MHz), operation mode 5:



No significant emissions above the noise floor of the measuring system found in this frequency range, so no final measurement on the outdoor test site were carried out.

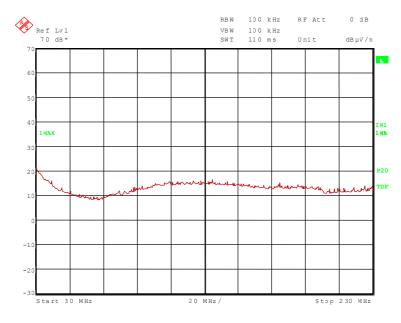
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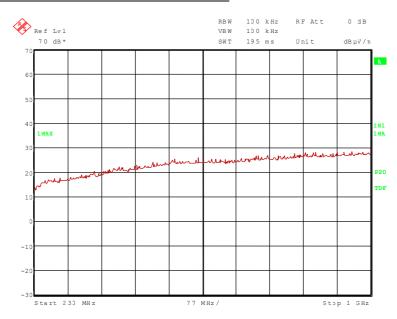
Manufacturer: Hermann Sewerin GmbH



### 82373\_14.wmf: Spurious radiation from 30 MHz to 230 MHz:



### 82373\_13.wmf: Spurious radiation from 230 MHz to 1 GHz:



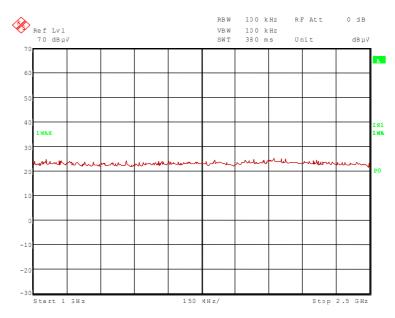
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### 82373\_15.wmf: Spurious radiation from 1 GHz to 2.5 GHz:



No significant emissions above the noise floor of the measuring system found in this frequency range, so no final measurements were carried out.

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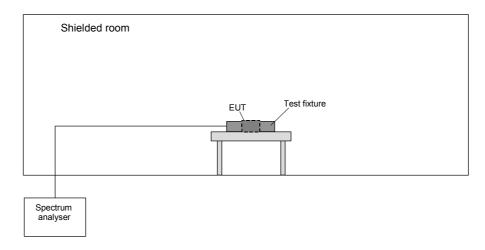
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Manufacturer: Hermann Sewerin GmbH



### **2 99 % BANDWIDTH**

## 2.1 Method of measutement (99 % BANDWIDTH)



The following procedure will be used for the occupied bandwidth measurement:

The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used since a peak or, peak hold, may produce a wider bandwidth than actual.

The trace data points are recovered and are directly summed in linear terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached and that frequency recorded. The process is repeated for the highest frequency data points. This frequency is recorded.

The span between the two recorded frequencies is the occupied bandwidth.

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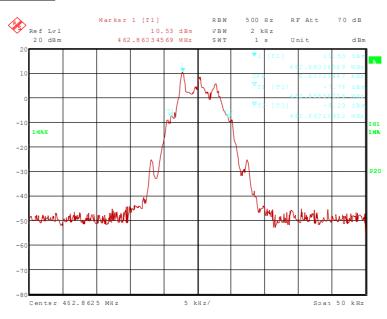


# 2.2 TEST RESULTS (99 % BANDWIDTH)

Ambient temperature:	20 °C	Relative humidity:	53 %
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Transmit mode: Burst transmission

### 81168 .wmf: 99 % Bandwidth:



Lower frequency	Upper frequency	99 % bandwidth
462.858542 MHz	462.867159 MHz	8.617 kHz
Measurement	uncertainty	+0.66 dB / -0.72 dB

TEST EQUIPMENT USED THE TEST:	
3	31

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