

# 3. Testobject Data

## 3.1 General EUT Description

| Equipment under Test:         | Bluetooth (TM) Transceiver |
|-------------------------------|----------------------------|
| Type Designation:             | PC card II                 |
| Kind of Device:<br>(optional) |                            |
| Voltage Type:                 | DC                         |
| Voltage level:                | 5V                         |

#### General product description:

Bluetooth is a short-range radio link intended to be a cable replacement between portable and/or fixed electronic devices.

Bluetooth operates in the unlicensed ISM Band at 2.4 GHz. In the US a band of 83.5 MHz width is available. In this band, 79 RF channels spaced 1MHz apart are defined. The channel is represented by a pseudo-random hopping sequence through the 79 channels. The channel is devided into time slots, with a nominal slot length of 625µs, where each slot corresponds to different RF hop frequencies. The nominal hop rate is 1600 hops/s. All frequencies are equally used. The average time of occupancy is 0.3797 s within a 30 second period. The symbol rate on the channel is 1 Ms/s.

#### The EUT provides the following ports:

Ports temporary antenna connector PCMCIA Enclosure

The main components of EUT are listed and described in Chapter 3.2



#### 3.2 EUT Main components: Type, S/N, Short Descriptions etc. used in this Test Report

| Short<br>Description | Equipment<br>under Test | Type<br>Designation | Serial No. | HW Status | SW Status | Date of<br>Receipt |
|----------------------|-------------------------|---------------------|------------|-----------|-----------|--------------------|
| EUT A                | Transceiver             | PC card II          | -          | 8a        | 526       | 13.01.2003         |
|                      |                         |                     |            |           |           |                    |
| EUT A is equip       | ped with an integrate   | ed antenna.         |            |           |           |                    |

EUT B is equipped with a temporary antenna connector.

NOTE: The short description is used to simplify the identification of the EUT in this test report

#### 3.3 Ancillary Equipment

For the purposes of this test report, ancillary equipment is defined as equipment which is used in conjunction with the EUT to provide operational and control features to the EUT. It is necessary to configure the system in a typical fashion, as a customer would normally use it. But never the less Ancillary Equipment can influence the test results.

| Short<br>Description | Equipment<br>under Test | Type<br>Designation | HW Status | SW Status | Serial No. | FCC Id |
|----------------------|-------------------------|---------------------|-----------|-----------|------------|--------|
| AE 1                 | Laptop                  | IBM Thinkpad        | -         | -         | -          | -      |

### 3.4 EUT Setups

This chapter describes the combination of EUT's and ancillary equipment used for testing.

| Setup No. | Combination of EUTs | Description                     |
|-----------|---------------------|---------------------------------|
| setup 1   | EUT A + AE1         | used for radiated measurements  |
| setup 2   | EUT B + AE1         | used for conducted measurements |



## 3.5 Operating Modes

This chapter describes the operating modes of the EUT's used for testing.

| Op. Mode  | Description of Operating Modes                      | Remarks   |
|-----------|---|---|
| op-mode 1 | TX mode, the EUT transmits continuously on 2402 MHz |   |
| op-mode 2 | TX mode, the EUT transmits continuously on 2441 MHz |   |
| op-mode 3 | TX mode, the EUT transmits continuously on 2480 MHz |   |
| op-mode 4 | inquiry mode  |   |
| op-mode 5 | paging mode   |   |
| op-mode 6 | 10 neighbouring channels                            | The EUT is set to transmit on ten neighbouring channels one after<br>the other to see the channel separation. |