# TEST REPORT
# FROM
# RFI GLOBAL SERVICES LTD

Test of: GN Mobile A/S (GN Netcom A/S).
Jabra BT 135 (Transceiver)

To: FCC Part 15.247: 2004 (Subpart C)

**Test Report Serial No:**
RFI/MPTE1/RP48063JD05A

| | |
|---|---|
| **This Test Report Is Issued Under The Authority Of Andrew Brown, Operations Manager:**<br><br>**pp** | |
| **Tested By: Raul Recio**<br><br>**Pp** | **Checked By: Nigel Davison** |
| **Report Copy No: PDF01** | |
| **Issue Date: 18 May 2006** | **Test Dates: 18 April 2006 to 03 May 2006** |



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# 1. Client Information

| | |
|---|---|
| **Company Name:** | GN Mobile A/S (GN Netcom A/S). |
| **Address:** | Metalbuen 66,<br>P.O. Box 201<br>DK-2750 Ballerup<br>Denmark |
| **Contact Name:** | Mr S Kaiser |

# 2. Equipment Under Test (EUT)

The following information (with the exception of the Date of Receipt) has been supplied by the client:

## 2.1. Identification of Equipment Under Test (EUT)

| | |
|---|---|
| **Brand Name:** | Jabra |
| **Model Name or Number:** | BT135 |
| **Serial Number:** | Not Stated |
| **Hardware Revision:** | 27-00119-b |
| **Software Revision:** | Not Stated |
| **Software Version Number:** | 1-4-0 |
| **FCC ID Number:** | BCE-BT135 |
| **Country of Manufacture:** | China |
| **Date of Receipt:** | 18 April 2006 |

## 2.2. Description of EUT

The equipment under test is a wireless *Bluetooth* headset.

## 2.3. Modifications Incorporated in EUT

During the course of testing the EUT was not modified.

## 2.4. Additional Information Related to Testing

| | | | |
|---|---|---|---|
| **Power Supply Requirement:** | Internal battery supply of 3.7 V<br>Battery Charger 110 V 60 Hz AC Mains | | |
| **Intended Operating Environment:** | Within GSM coverage | | |
| **Equipment Category:** | Portable (standalone battery powered device) | | |
| **Type of Unit:** | *Bluetooth* Transceiver | | |
| **Transmit Frequency Range:** | 2400 to 2483.5 MHz | | |
| **Transmit Channels Tested:** | **Channel ID** | **Channel Number** | **Channel Frequency (MHz)** |
| | Bottom | 1 | 2402 |
| | Middle | 40 | 2441 |
| | Top | 79 | 2480 |
| **Receive Frequency Range:** | 2400 to 2483.5 MHz | | |
| **Receive Channels Tested:** | **Channel ID** | **Channel Number** | **Channel Frequency (MHz)** |
| | Bottom | 1 | 2402 |
| | Middle | 40 | 2441 |
| | Top | 79 | 2480 |
| **Maximum Power Output (EIRP)** | 4 dBm | | |

## 2.5. Port Identification

| Port | Description | Type | Applicable |
|---|---|---|---|
| 1 | USB Charger Port | Mini USB | Charger |

## 2.6. Support Equipment

The following support equipment was used to exercise the EUT during testing:

| | |
|---|---|
| **Description:** | Charger |
| **Brand Name:** | Jabra (Friwo) |
| **Model Name or Number:** | FW7600/05 |
| **Serial Number:** | None stated |
| **Cable Length and Type:** | Unshielded Multicore, 1.2m |
| **Connected to Port:** | Power Supply |

# 3. Test Results

| | |
|---|---|
| **Reference:** | FCC Part 15.247: 2004 Subpart C |
| **Title:** | Code of Federal Regulations, Part 15.247 (47CFR22)<br>(Intentional Radiators operating within the bands 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz) |

## 3.1. Methods and Procedures

The methods and procedures used were as detailed in:

ANSI C63.2 (1987)
Title: American National Standard for Instrumentation - Electromagnetic noise and field strength.

ANSI C63.4 (2003)
Title: American National Standard Methods of Measurement of Electromagnetic Emissions from Low Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

ANSI C63.5 (1988)
Title: American National Standard for the Calibration of antennas used for Radiated Emission measurements in Electromagnetic Interference (EMI) control.

ANSI C63.7 (1988)
Title: American National Standard Guide for Construction of Open Area Test Sites for performing Radiated Emission Measurements.

CISPR 16-1: (1999)
Title: Specification For Radio Disturbance and Immunity Measuring Apparatus and Methods. Part 1: Radio Disturbance and Immunity Measuring Apparatus.

DA00-705 (2000)
Title: Filing and Frequency Measurement Guidelines for Frequency Hopping Spread Spectrum Systems.

## 3.2. Definition of Measurement Equipment

The measurement equipment used complied with the requirements of the standards referenced in the methods & procedures section above. Appendix 1 contains a list of the test equipment used.

## 4. Deviations from the Test Specification

None

# 5. Operation of the EUT during Testing

## 5.1. Operating Modes

The EUT was tested in the following operating modes, unless otherwise stated.

For all transmit mode measurements the *Bluetooth* test mode was active and set to transmit on top, middle and bottom channels and hopping on all channels as necessary with the longest data packet size.

Receive mode measurements were performed with the EUT in *Bluetooth* mode and in its normal search mode.

## 5.2. Configuration and Peripherals

The EUT was tested in the following configuration:

Without charger connected for transmitter testing and with charger connected for standby as this was seen to be worse case.

## 6. Summary of Test Results

| Range of Measurements | Specification Reference | Port Type | Compliancy Status |
|---|---|---|---|
| Idle Mode AC Conducted Emissions (150 kHz to 30 MHz) | C.F.R. 47 FCC Part 15: 2004 Section 15.107 | AC Mains | Complied |
| Idle Mode Radiated Spurious Emissions | C.F.R. 47 FCC Part 15: 2004 Section 15.109 | Antenna | Complied |
| Transmitter AC Conducted Emissions (150 kHz to 30 MHz) | C.F.R. 47 FCC Part 15: 2004 Section 15.207 | AC Mains | Note 1 |
| Transmitter 20 dB Bandwidth | C.F.R. 47 FCC Part 15: 2004 Section 15.247(a)(1) | Antenna Terminals | Complied |
| Transmitter Carrier Frequency Separation | C.F.R. 47 FCC Part 15: 2004 Section 15.247(a)(1) | Antenna Terminals | Complied |
| Transmitter Average Time of Occupancy | C.F.R. 47 FCC Part 15: 2004 Section 15.247(a)(1)(iii) | Antenna Terminals | Complied |
| Transmitter Maximum Peak Output Power | C.F.R. 47 FCC Part 15: 2004 Section 15.247(b)(1) | Antenna Terminals | Complied |
| Transmitter Radiated Emissions | C.F.R. 47 FCC Part 15: 2004 Sections 15.247(d) & 15.209(a) | Antenna Terminals | Complied |
| Transmitter Band Edge Radiated Emissions | C.F.R. 47 FCC Part 15: 2004 Sections 15.247(d) & 15.209(a) | Antenna Terminals | Complied |

**Note(s):**

1. *No testing was performed for Transmitter AC Conducted Emissions as the EUT cannot be placed into transmit mode, whilst the device is charging (i.e. the AC charger is connected and charging via a 110 V AC Mains power supply).*

### 6.1. Location of Tests

All the measurements described in this report were performed at the premises of RFI Global Services Ltd, Ewhurst Park, Ramsdell, Basingstoke, Hampshire, RG26 5RQ.

# 7. Measurements, Examinations and Derived Results

## 7.1. General Comments

This section contains test results only.

Measurement uncertainties are evaluated in accordance with current best practice. Our reported expanded uncertainties are based on standard uncertainties, which are multiplied by an appropriate coverage factor to provide a statistical confidence level of approximately 95%. Please refer to Section 8 for details of measurement uncertainties.

## 7.2. Test Results

### 7.2.1. Idle Mode AC Conducted Spurious Emissions: Section 15.107

The EUT was configured as for ac conducted emission measurements as described in Section 9 of this report.

Tests were performed to identify the maximum emission levels present on the ac mains line of the EUT.

## Results:

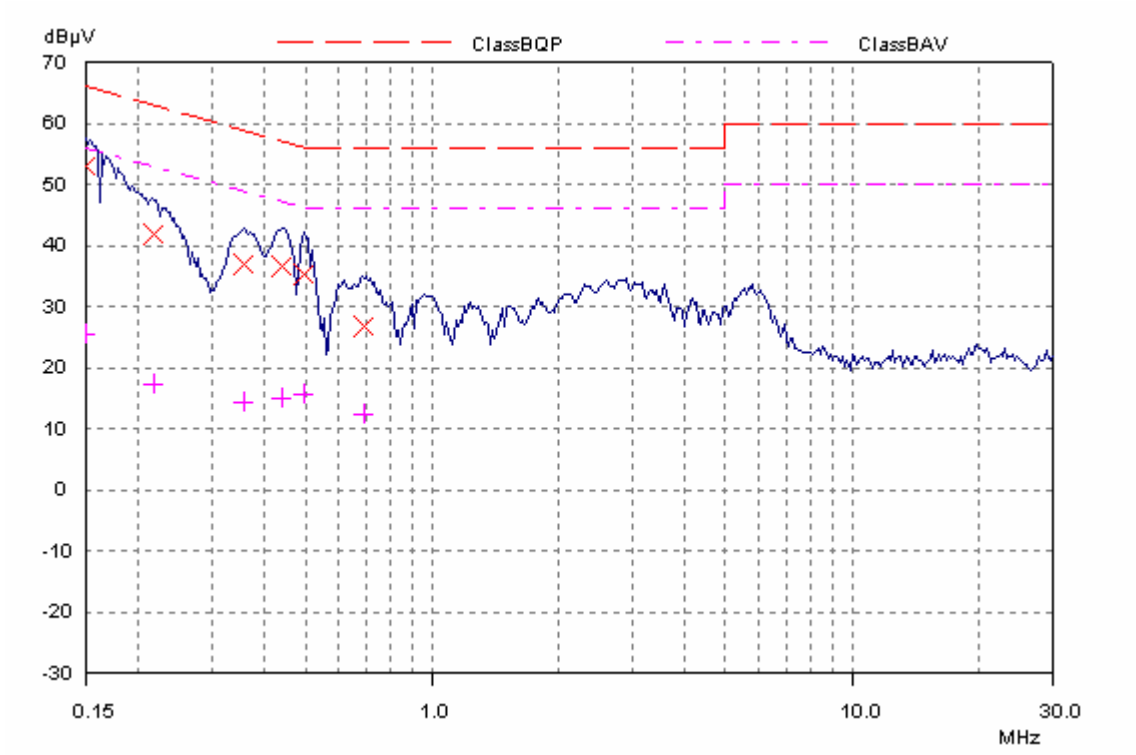
**Quasi-Peak Detector Measurements on Live and Neutral Lines**

| Frequency (MHz) | Line | Level (dBμV) | Limit (dBμV) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 0.15017 | Neutral | 52.85 | 65.99 | 13.14 | Complied |
| 0.21739 | Neutral | 41.95 | 62.92 | 20.97 | Complied |
| 0.35886 | Neutral | 36.93 | 58.75 | 21.82 | Complied |
| 0.44018 | Neutral | 36.42 | 57.06 | 20.64 | Complied |
| 0.49882 | Neutral | 35.35 | 56.02 | 20.67 | Complied |
| 0.68839 | Neutral | 26.77 | 56.00 | 29.23 | Complied |

**Average Detector Measurements on Live and Neutral Lines**

| Frequency (MHz) | Line | Level (dBμV) | Limit (dBμV) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 0.15017 | Neutral | 25.55 | 55.99 | 30.44 | Complied |
| 0.21739 | Neutral | 17.25 | 52.92 | 35.67 | Complied |
| 0.35886 | Neutral | 14.40 | 48.75 | 34.35 | Complied |
| 0.44018 | Neutral | 15.01 | 47.06 | 32.05 | Complied |
| 0.49882 | Neutral | 15.65 | 46.02 | 30.37 | Complied |
| 0.68839 | Neutral | 12.17 | 46.00 | 33.83 | Complied |

## Idle Mode AC Conducted Spurious Emissions: Section 15.107 (Continued)




*Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying tables.*

**7.2.2. Idle Mode Radiated Spurious Emissions: Section 15.109 - Electric Field Strength Measurements (Frequency Range: 30 to 1000 MHz)**

The EUT was configured as for radiated emission testing as described in Section 9 of this report.

Tests were performed to identify the maximum receiver or standby radiated emission levels.

**Results:**

| Frequency (MHz) | Antenna Polarity | Q-P Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 46.668 | Vertical | 19.3 | 40.0 | 20.7 | Complied |
| 77.219 | Vertical | 16.0 | 40.0 | 24.0 | Complied |
| 95.985 | Vertical | 24.9 | 43.5 | 18.6 | Complied |
| 120.787 | Vertical | 14.4 | 43.5 | 29.1 | Complied |
| 150.416 | Vertical | 17.5 | 43.5 | 26.0 | Complied |
| 163.191 | Vertical | 12.3 | 43.5 | 31.2 | Complied |
| 260.001 | Vertical | 12.0 | 46.0 | 34.0 | Complied |
| 601.182 | Horizontal | 26.4 | 46.0 | 19.6 | Complied |
| 613.346 | Horizontal | 46.0 | 46.0 | 0.0 | Complied |
| 722.050 | Horizontal | 26.5 | 46.0 | 19.5 | Complied |

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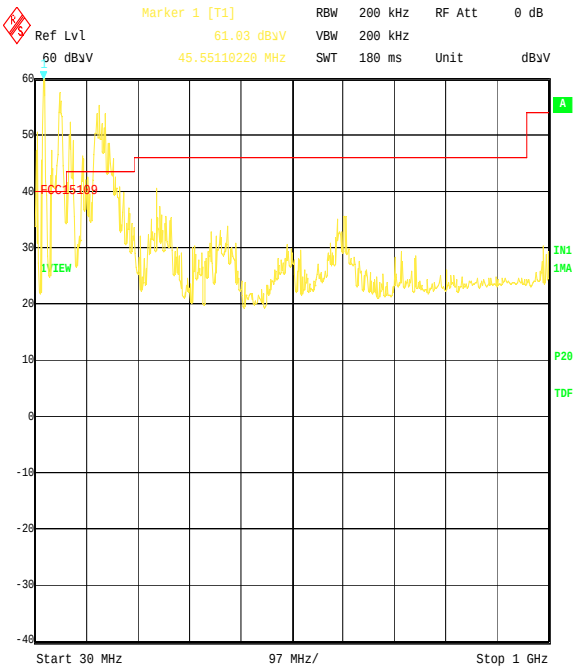
## Idle Mode Radiated Spurious Emissions: Section 15.109 - Electric Field Strength Measurements (Frequency Range: 30 to 1000 MHz) (Continued)




Title: GN Netcom EUT: BT 135 FCC Part 15.247. Rad Emissions
Comment A: 48063JD05 Charging Mode.
Date: 18.APR.2006 20:46:13

*Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying tables.*

## 7.2.3. Idle Mode Radiated Spurious Emissions: Section 15.109 - Electric Field Strength Measurements (Frequency Range: 1 to 12.5 GHz)

**Results:**

**Highest Peak Level:**

| Frequency (GHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 10.688632 | Horizontal | 42.2 | -0.2 | 42.0 | 74.0 | 32.0 | Complied |

**Highest Average Level:**

| Frequency (GHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 10.688632 | Horizontal | 42.2 | -0.2 | 40.3 | 54.0 | 13.7 | Complied |

**Note(s):**

1. *The transducer factor incorporates the antenna factor, cables losses, pre-amplifier gain and attenuations.*

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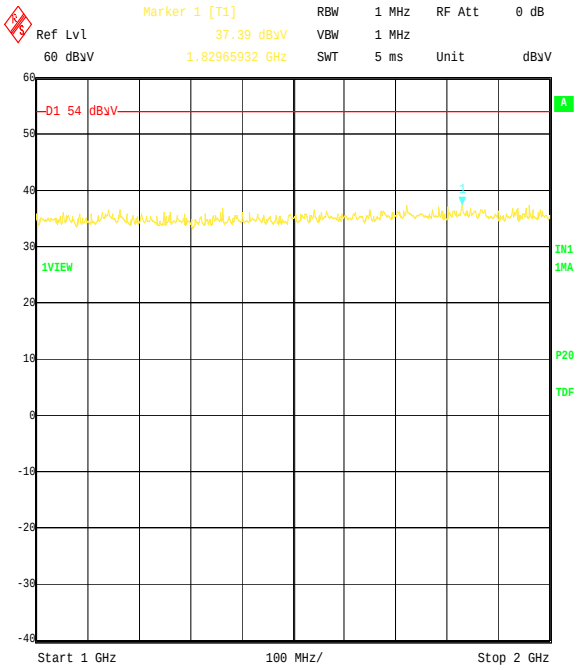
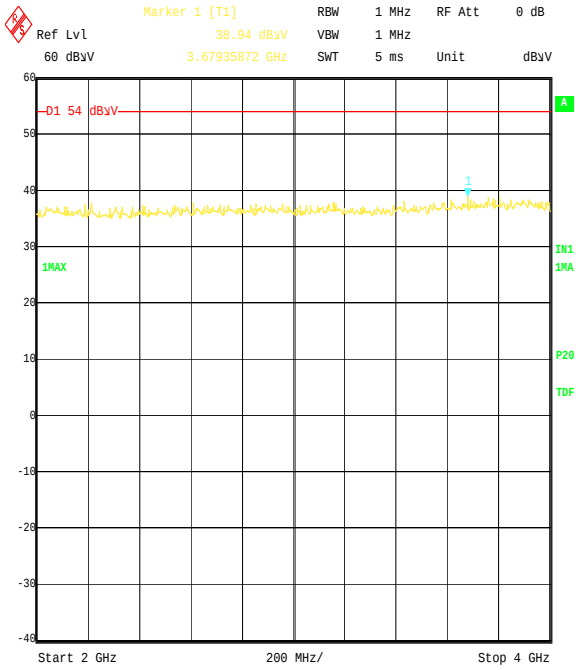
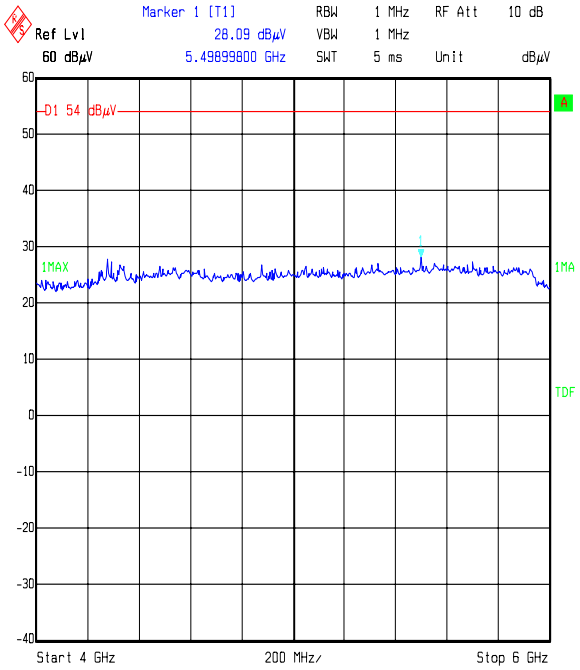
## Idle Mode Radiated Spurious Emissions: Section 15.109 - Electric Field Strength Measurements (Frequency Range: 1 to 12.5 GHz) (Continued)



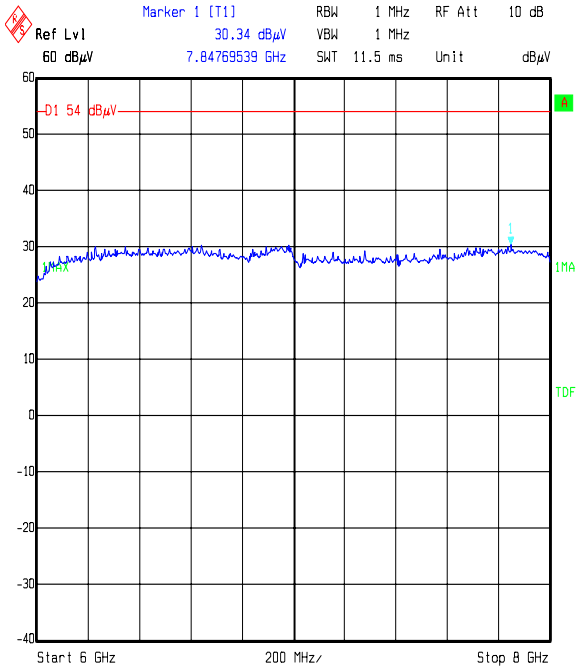

Title: GN Netcom EUT: BT 135 FCC Part 15.247. Rad Emissions
Comment A: 48063JD05 Charging Mode.
Date: 18.APR.2006 21:00:33




Title: GN Netcom EUT: BT 135 FCC Part 15.247. Rad Emissions
Comment A: 48063JD05 Charging Mode.
Date: 18.APR.2006 21:02:01




Title: GN Netcom EUT: Jabra BT 135. FCC P15.247 Rad Emissions
Comment A: 48063JD05 Rx Mode.
Date: 12.MAY 2006 09:46:39




Title: GN Netcom EUT: Jabra BT 135. FCC 15.247 Rad Emissions
Comment A: 48063JD05 Rx Mode.
Date: 12.MAY 2006 09:24:18

*Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.*

**Test of:** GN Mobile A/S (GN Netcom A/S).
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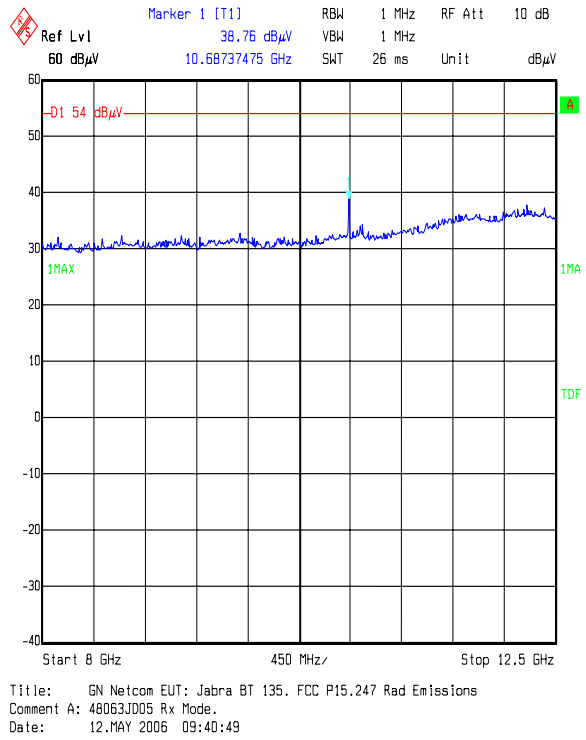
## Idle Mode Radiated Spurious Emissions: Section 15.109 - Electric Field Strength Measurements (Frequency Range: 1 to 12.5 GHz) (Continued)



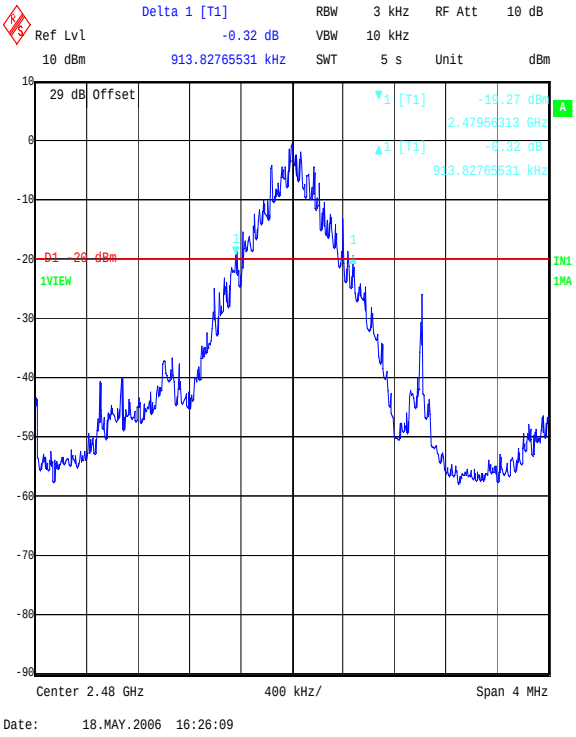

*Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying tables.*

## 7.2.4. Transmitter 20 dB Bandwidth: Section 15.247(a)(1)

The EUT was configured for 20 dB bandwidth measurements as described in Section 9 of this report. Tests were performed to identify the 20 dB bandwidth.

## Results:

| Transmitter 20 dB Bandwidth (kHz) | Limit (kHz) |
|---|---|
| 913.9 | None specified |



### 7.2.5. Transmitter Carrier Frequency Separation: Section 15.247(a)(1)

The EUT was configured for carrier frequency separation measurements as described in Section 9 of this report.

Tests were performed to identify the carrier frequency separation.

## Results:

| Transmitter Carrier Frequency Separation (kHz) | Limit (> 20 dB or $^2/_3$ of 20 dB BW) (kHz) | Margin (kHz) | Result |
|---|---|---|---|
| 990.0 | 925.0 | 65.0 | Complied |

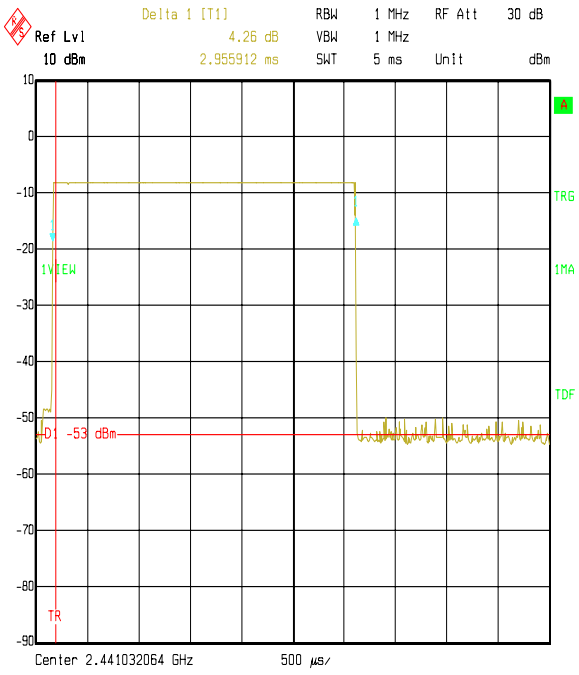
## 7.2.6. Transmitter Average Time of Occupancy: Section 15.247(a)(1)(iii)

The EUT was configured for average time of occupancy measurements as described in Section 9 of this report.

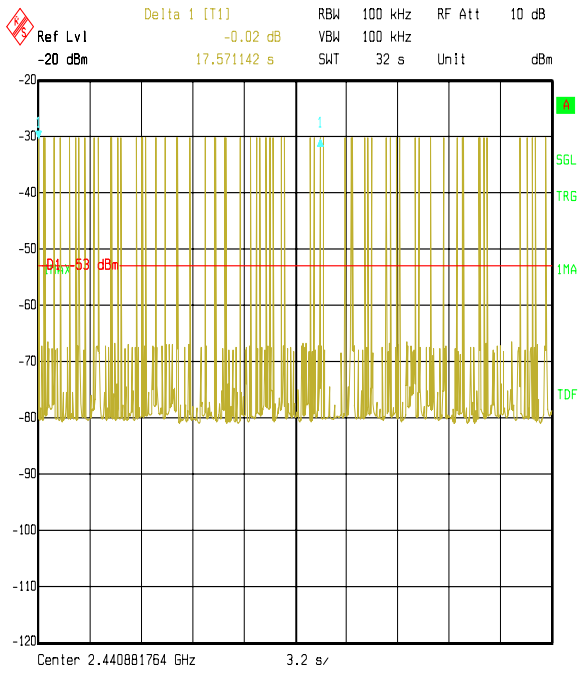
Tests were performed to identify the average time of occupancy in number of channels (79) x 0.4 seconds. The calculated period is 31.6 seconds.

## Results:

| Emission Width (μs) | Number of Hops in 31.6 Seconds | Average Time of Occupancy (s) | Limit (s) | Margin (s) | Result |
|---|---|---|---|---|---|
| 2955.912 | 66 | 0.19509 | 0.4 | 0.2049 | Complied |




Title: 48063JD05 FCC PART 15.247
Comment A: TX Emission Width
Date: 03.MAY 2006 15:57:58




Title: 48063JD05 FCC PART 15.247
Comment A: Number of hops within 31.6 seconds
Date: 03.MAY 2006 15:15:39

## 7.2.7. Transmitter Maximum Peak Output Power: (EIRP) Section 15.247(b)(1)

The EUT was configured for transmitter peak output power measurements as described in Section 9 of this report.

Tests were performed to identify the transmitter maximum peak output power (EIRP) of the EUT.

**Results:**

**Battery Powered Devices**

| Channel | EIRP (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|
| Bottom | 0.6 | 30.0 | 27.4 | Complied |
| Middle | 3.4 | 30.0 | 26.6 | Complied |
| Top | 3.8 | 30.0 | 26.2 | Complied |

**Note(s):**

1. *These tests were performed radiated; therefore the EUT antenna gain is encompassed in the final result and not measurable.*

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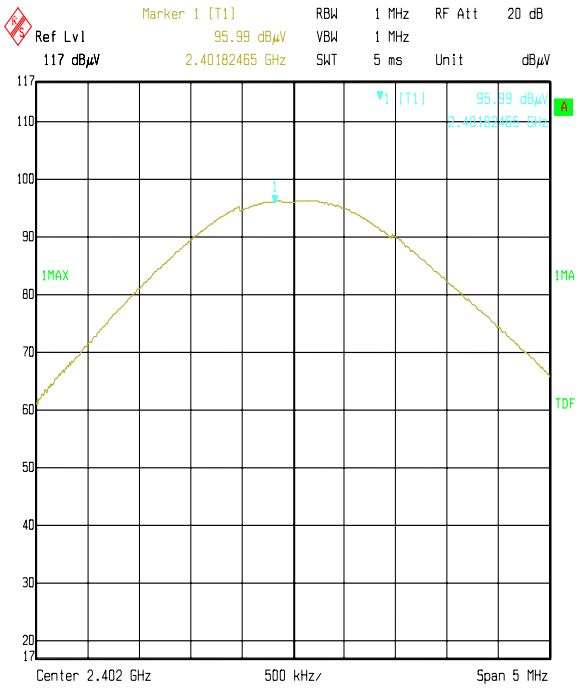
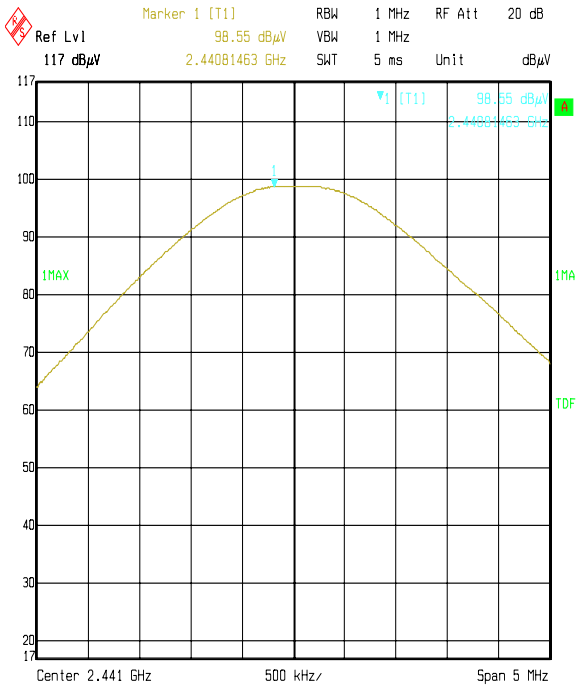
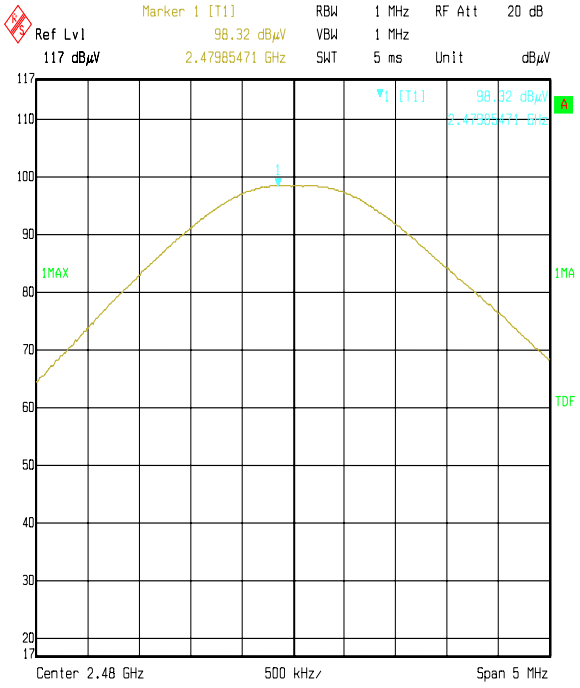
## Transmitter Maximum Peak Output Power: (EIRP) Section 15.247(b)(1) (Continued)




Title: GN Netcom 48063JD05 Jabre BT 135
Date: 19.APR.2006 16:18:02




Title: GN Netcom 48063JD05 Jabre BT 135
Date: 19.APR.2006 15:56:51




Title: GN Netcom 48063JD05 Jabre BT 135
Date: 19.APR.2006 15:50:39

## 7.2.8. Transmitter Radiated Emissions: Section 15.247(d) and 15.209(a) - Electric Field Strength Measurements: 30 to 1000 MHz

The EUT was configured for radiated emission testing as described in Section 9 of this report.

Tests were performed to identify the maximum transmitter radiated emission levels.

**Results:**

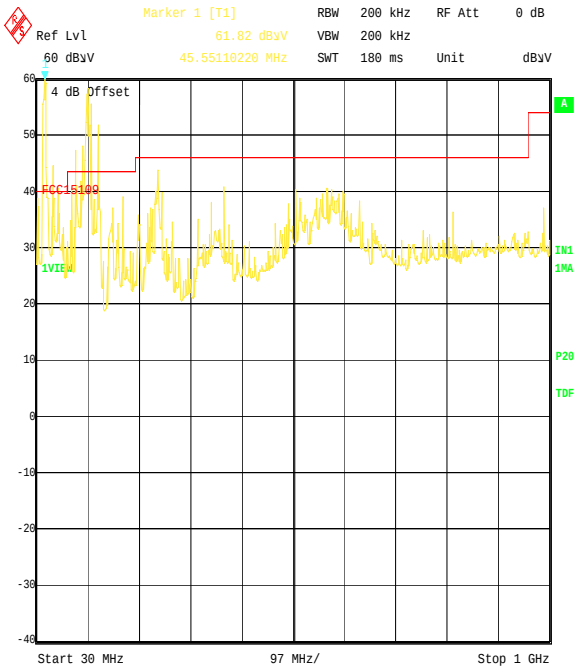
**Top Channel**

| Frequency (MHz) | Antenna Polarity | Q-P Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 126.858 | Vertical | 25.5 | 43.5 | 18.0 | Complied |
| 260.001 | Vertical | 11.8 | 46.0 | 34.2 | Complied |
| 609.850 | Vertical | 23.6 | 46.0 | 22.4 | Complied |
| 986.664 | Vertical | 32.3 | 54.0 | 21.7 | Complied |

**Note(s):**

1. *The preliminary scans showed similar emission levels for each mode below 1 GHz, therefore final radiated emissions measurements were performed with the EUT set to the top channel only.*

## 7.2.9. Transmitter Radiated Emissions: Section 15.247(d) and 15.209(a) - Electric Field Strength Measurements: 30 to 1000 MHz (Continued)




Title: GN Netcom EUT: BT 135 FCC Part 15.247. Rad Emissions
Comment A: 48063JD05 TX Mode. Top Channel
Date: 18.APR.2006 18:59:04

*Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying tables.*

## 7.2.10. Transmitter Radiated Emissions: Section 15.247(d) and 15.209(a) - Electric Field Strength Measurements (Frequency Range: 1 to 25 GHz)

The EUT was configured for radiated emission testing as described in Section 9 of this report.

Tests were performed to identify the maximum transmitter radiated emission levels.

**Results:**

**Highest Peak Level: Bottom Channel**

| Frequency (MHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 1205.040 | Vertical | 23.0 | -12.4 | 35.4 | 74.0 | 38.6 | Complied |
| 1312.050 | Vertical | 21.2 | -12.4 | 33.6 | 74.0 | 40.4 | Complied |
| 2383.870 | Horizontal | 29.8 | -11.0 | 40.8 | 74.0 | 33.2 | Complied |
| 4804.070 | Vertical | 47.4 | -6.5 | 53.9 | 74.0 | 20.1 | Complied |
| 7205.496 | Vertical | 36.1 | -4.4 | 40.5 | 74.0 | 33.5 | Complied |
| 10688.840 | Horizontal | 51.3 | 2.6 | 48.7 | 74.0 | 25.3 | Complied |

**Highest Average Level: Bottom Channel**

| Frequency (MHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 1205.040 | Vertical | 13.6 | -12.4 | 26.4 | 54.0 | 27.6 | Complied |
| 1312.050 | Vertical | 10.8 | -12.4 | 23.2 | 54.0 | 30.8 | Complied |
| 2383.870 | Horizontal | 25.5 | -11.0 | 36.5 | 54.0 | 17.5 | Complied |
| 4804.070 | Vertical | 44.5 | -6.5 | 51.0 | 54.0 | 3.0 | Complied |
| 7205.496 | Vertical | 32.3 | -4.4 | 36.7 | 54.0 | 17.3 | Complied |
| 10688.840 | Horizontal | 27.5 | 2.6 | 24.9 | 54.0 | 29.1 | Complied |

**Transmitter Radiated Emissions: Section 15.247(d) and 15.209(a) - Electric Field Strength Measurements (Frequency Range: 1 to 25 GHz) (Continued)**

**Highest Peak Level: Middle Channel**

| Frequency (MHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 1205.040 | Vertical | 23.0 | -12.4 | 35.4 | 74.0 | 38.6 | Complied |
| 1312.050 | Vertical | 21.2 | -12.4 | 33.6 | 74.0 | 40.4 | Complied |
| 1609.990 | Vertical | 25.2 | -11.9 | 37.1 | 74.0 | 36.9 | Complied |
| 4882.070 | Vertical | 45.4 | -6.2 | 51.6 | 74.0 | 22.4 | Complied |
| 7322.700 | Vertical | 33.9 | -4.4 | 38.3 | 74.0 | 35.7 | Complied |
| 10688.840 | Horizontal | 50.3 | 2.6 | 48.7 | 74.0 | 25.3 | Complied |

**Highest Average Level: Middle Channel**

| Frequency (MHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 1205.040 | Vertical | 14.0 | -12.4 | 26.4 | 54.0 | 27.6 | Complied |
| 1312.050 | Vertical | 10.8 | -12.4 | 23.2 | 54.0 | 30.8 | Complied |
| 1609.990 | Vertical | 19.8 | -11.9 | 31.7 | 54.0 | 22.3 | Complied |
| 4882.070 | Vertical | 41.1 | -6.2 | 48.0 | 54.0 | 6.0 | Complied |
| 7322.700 | Vertical | 28.7 | -4.4 | 33.1 | 54.0 | 20.9 | Complied |
| 10688.840 | Horizontal | 27.5 | 2.6 | 24.9 | 54.0 | 29.1 | Complied |

**Highest Peak Level: Top Channel**

| Frequency (MHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 1205.040 | Vertical | 23.0 | -12.4 | 35.4 | 74.0 | 38.6 | Complied |
| 1312.050 | Vertical | 21.2 | -12.4 | 33.6 | 74.0 | 40.4 | Complied |
| 2383.870 | Horizontal | 29.8 | -11.0 | 40.8 | 74.0 | 33.2 | Complied |
| 4960.080 | Vertical | 46.1 | -5.9 | 52.0 | 74.0 | 22.0 | Complied |
| 7639.965 | Vertical | 31.3 | -4.3 | 35.6 | 74.0 | 38.4 | Complied |
| 10688.840 | Horizontal | 51.3 | 2.6 | 48.7 | 74.0 | 25.3 | Complied |

**Test of:** GN Mobile A/S (GN Netcom A/S).
Jabra BT 135 (Transceiver)
**To:** FCC Part 15.247: 2004 (Subpart C)

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**Transmitter Radiated Emissions: Section 15.247(d) and 15.209(a) - Electric Field Strength Measurements (Frequency Range: 1 to 25 GHz) (Continued)**

**Highest Average Level: Top Channel**

| Frequency (MHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 1205.040 | Vertical | 14.0 | -12.4 | 26.4 | 54.0 | 27.6 | Complied |
| 1312.050 | Vertical | 11.2 | -12.4 | 23.6 | 54.0 | 30.4 | Complied |
| 2383.870 | Horizontal | 25.5 | -11.0 | 36.5 | 54.0 | 17.5 | Complied |
| 4960.080 | Vertical | 42.9 | -5.9 | 48.8 | 54.0 | 5.2 | Complied |
| 7639.965 | Vertical | 24.3 | -4.3 | 28.6 | 54.0 | 25.4 | Complied |
| 10688.840 | Horizontal | 27.5 | 2.6 | 24.9 | 54.0 | 29.1 | Complied |

**Highest Peak Level: Hopping Mode**

| Frequency (MHz) | Antenna Polarity | Detector Level (dBμV) | Antenna Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 1205.040 | Vertical | 23.0 | -12.4 | 35.4 | 74.0 | 38.6 | Complied |
| 1312.540 | Vertical | 21.2 | -12.4 | 33.6 | 74.0 | 40.4 | Complied |
| 4804.070 | Vertical | 47.4 | -6.5 | 53.9 | 74.0 | 20.1 | Complied |
| 7235.476 | Vertical | 25.7 | -4.4 | 40.1 | 74.0 | 33.9 | Complied |
| 10688.840 | Horizontal | 47.9 | -0.8 | 48.7 | 74.0 | 25.3 | Complied |

**Highest Average Level: Hopping Mode**

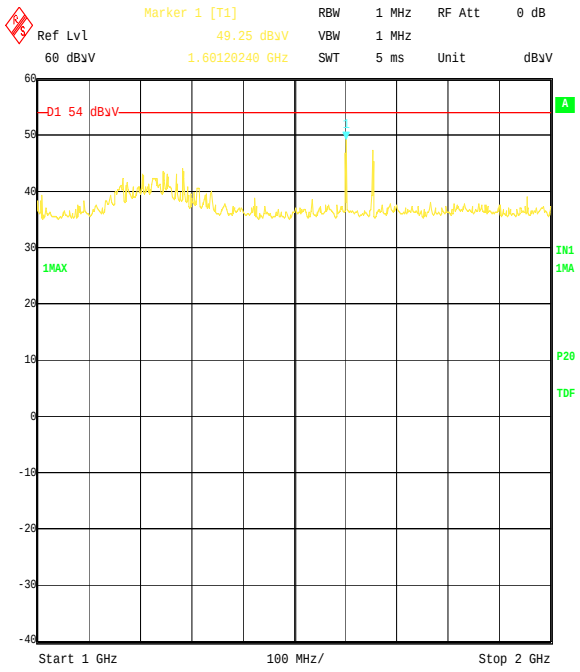
| Frequency (MHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 1205.040 | Vertical | 14.0 | -12.4 | 26.4 | 54.0 | 27.6 | Complied |
| 1312.540 | Vertical | 10.8 | -12.4 | 23.2 | 54.0 | 30.8 | Complied |
| 4804.070 | Vertical | 44.5 | -6.5 | 51.0 | 54.0 | 3.0 | Complied |
| 7235.476 | Vertical | 31.4 | -4.4 | 35.8 | 54.0 | 18.2 | Complied |
| 10688.840 | Horizontal | 24.1 | -0.8 | 24.9 | 54.0 | 29.1 | Complied |

**Note(s):**

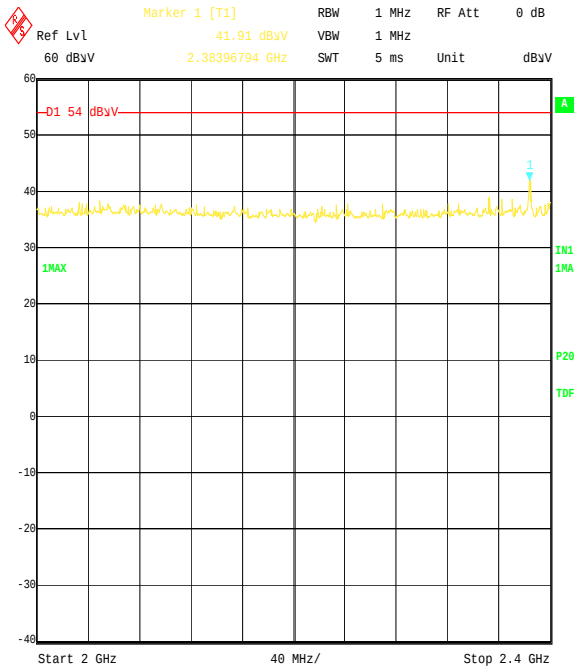
*1. The transducer factor incorporates the antenna factor, cables losses, pre-amplifier gain and attenuations.*

**Test of:** GN Mobile A/S (GN Netcom A/S).
Jabra BT 135 (Transceiver)
**To:** FCC Part 15.247: 2004 (Subpart C)

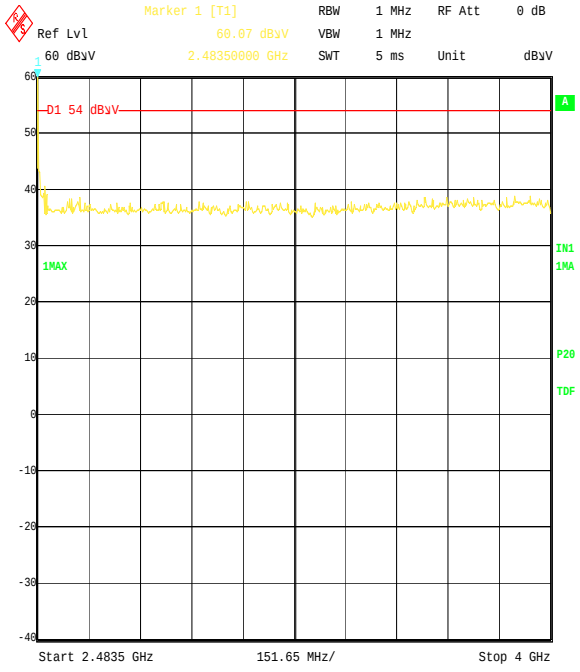
## Transmitter Radiated Emissions: Section 15.247(d) and 15.209(a) - Electric Field Strength Measurements (Frequency Range: 1 to 25 GHz) (Continued)



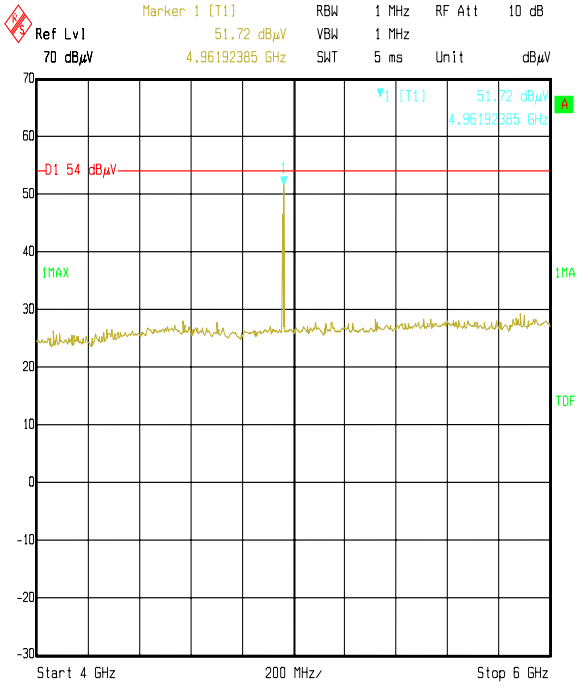

Title: GN Netcom EUT: BT 135 FCC Part 15.247. Rad Emissions
Comment A: 48063JD05 TX Mode. Top Channel
Date: 18.APR.2006 19:23:25




Title: GN Netcom EUT: BT 135 FCC Part 15.247. Rad Emissions
Comment A: 48063JD05 TX Mode. Top Channel
Date: 18.APR.2006 19:30:20




Title: GN Netcom EUT: BT 135 FCC Part 15.247. Rad Emissions
Comment A: 48063JD05 TX Mode. Top Channel
Date: 18.APR.2006 19:32:38

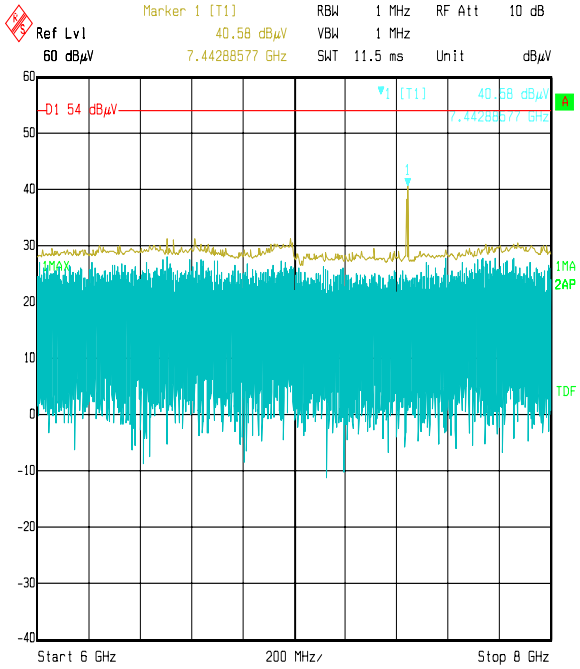



Title: GN Netcom 48063JD05 Jabre BT 135
Date: 20.APR.2006 10:07:50

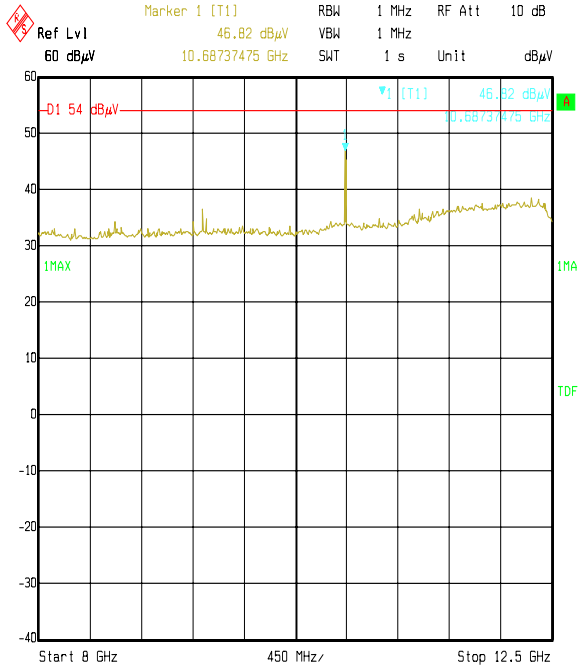
*Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.*

**Test of:** GN Mobile A/S (GN Netcom A/S).
Jabra BT 135 (Transceiver)
**To:** FCC Part 15.247: 2004 (Subpart C)

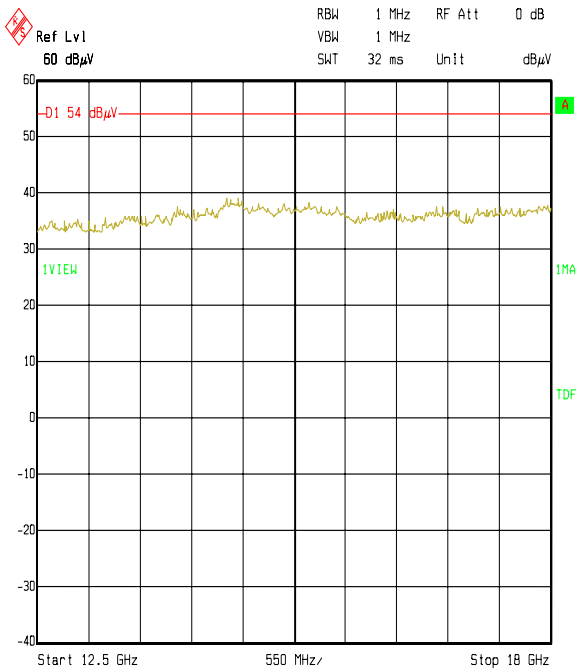
## Transmitter Radiated Emissions: Section 15.247(d) and 15.209(a) - Electric Field Strength Measurements (Frequency Range: 1 to 25 GHz) (emissions occurring in the restricted bands) (Continued)



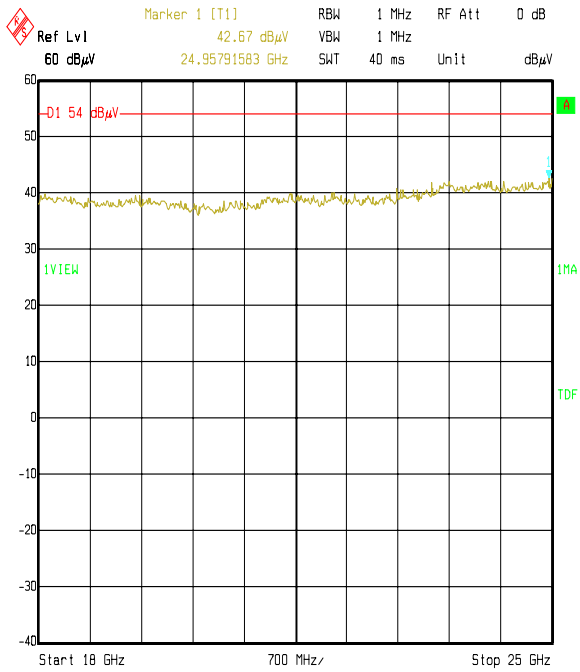

Title: GN Netcom 48063JD05 Jabre BT 135
Comment A: top channel, Hi power.
Date: 20.APR.2006 11:38:44




Title: GN Netcom 48063JD05 Jabre BT 135
Comment A: Top channel, Hi power.
Date: 20.APR.2006 12:03:15




Title: 48063JD05 GN NETCOM A/S BLUETOOTH HEADSET FCC PART 15.247
Comment A: RADIATED SPURIOUS EMISSIONS TX MODE
Date: 28.APR.2006 14:45:17




Title: 48063JD05 FCC PART 15.247
Comment A: RADIATED SPURIOUS EMISSIONS RX MODE
Date: 28.APR.2006 16:24:34

*Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.*

## 7.2.11. Transmitter Band Edge Radiated Emissions: Section 15.247(d) & 15.209(a) - Electric Field Strength Measurements

The EUT was configured for band edge compliance of radiated emission measurements as described in Section 9 of this report.

Tests were performed to identify the maximum radiated band edge emissions.

## Results:

### Peak Power Level Hopping Mode:

| Frequency (GHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 2.4000 | Vertical | 55.0 | -11.0 | 44.0 | 78.5 | 34.5 | Complied |
| 2.4835 | Vertical | 63.8 | -11.4 | 52.4 | 74.0 | 21.6 | Complied |

### Average Power Level Hopping Mode:

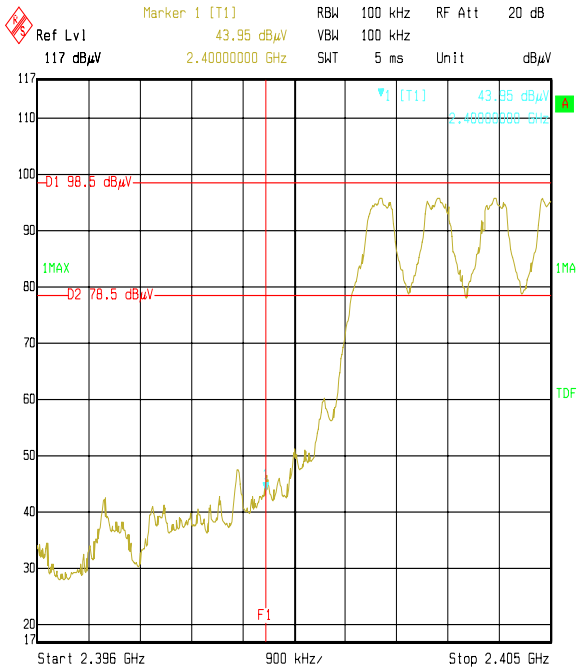
| Frequency (GHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 2.4835 | Vertical | 46.6 | -11.4 | 35.2 | 54.0 | 18.8 | Complied |

### Note(s):

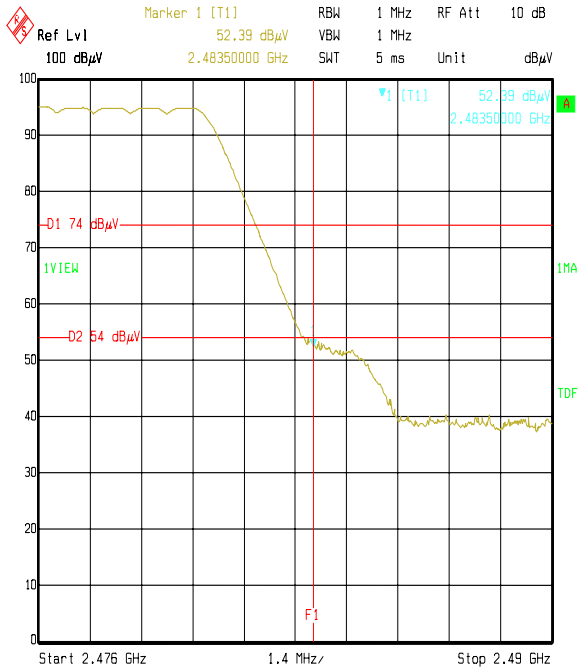
*1. The transducer factor incorporates the antenna factor, cables losses, pre-amplifier gain and attenuations.*

**Test of:** GN Mobile A/S (GN Netcom A/S).
Jabra BT 135 (Transceiver)
**To:** FCC Part 15.247: 2004 (Subpart C)

## Transmitter Band Edge Radiated Emissions: Section 15.247(d) & 15.209(a) - Electric Field Strength Measurements (Continued)




Title: GN Netcom 48063JD05 Jabre BT 135
Comment A: band edge (hopping lo mode)
Date: 19.APR.2006 16:33:57




Title: GN Netcom 48063JD05 Jabre BT 135
Comment A: band edge (hopping hi mode)
Date: 19.APR.2006 16:40:48

## 7.2.12. Transmitter Band Edge Radiated Emissions: Section 15.247(d) & 15.209(a)

The EUT was configured for band edge compliance of radiated emission measurements as described in Section 9 of this report.

Tests were performed to identify the average radiated band edge emissions.

**Results:**

**Peak Power Level Static Mode:**

| Frequency (GHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 2.4000 | Vertical | 58.1 | -11.0 | 47.1 | 75.3 | 28.2 | Complied |
| 2.4835 | Vertical | 65.7 | -11.4 | 54.3 | 74.0 | 19.7 | Complied |

**Average Power Level Static Mode:**

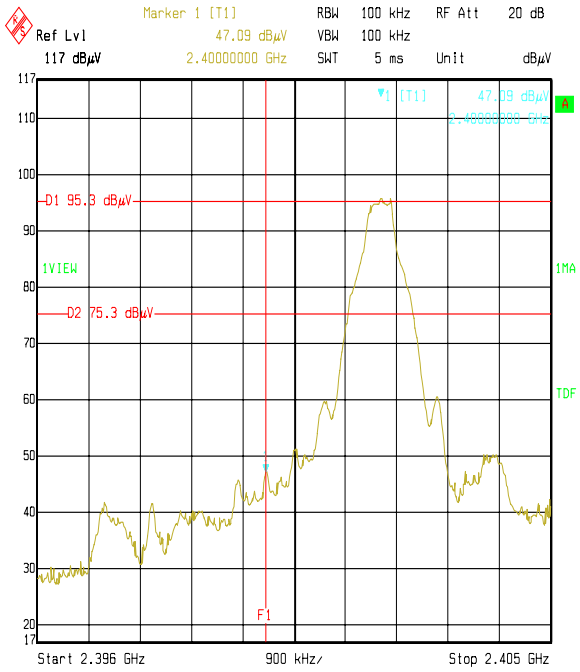
| Frequency (GHz) | Antenna Polarity | Detector Level (dBμV) | Transducer Factor (dB) | Actual Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|---|---|---|---|---|---|---|---|
| 2.4835 | Vertical | 53.3 | -11.4 | 41.9 | 54.0 | 12.1 | Complied |

**Note(s):**

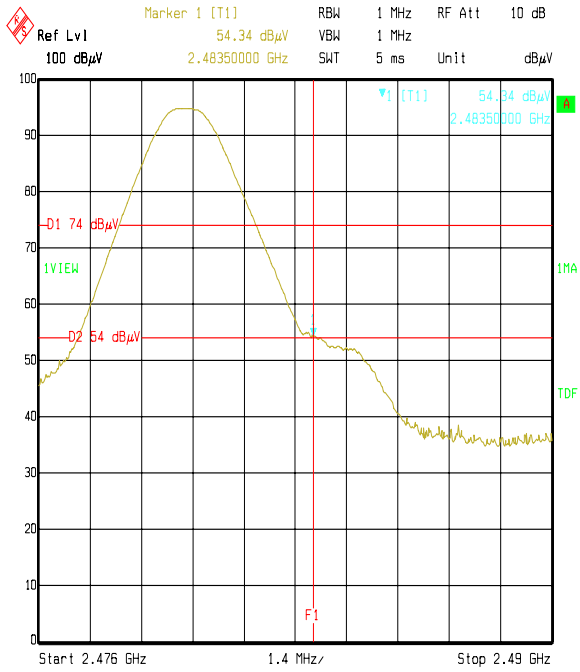
*1. The transducer factor incorporates the antenna factor, cables losses, pre-amplifier gain and attenuations.*

**Test of:** GN Mobile A/S (GN Netcom A/S).
Jabra BT 135 (Transceiver)
**To:** FCC Part 15.247: 2004 (Subpart C)

## Transmitter Band Edge Radiated Emissions: Section 15.247(d) & 15.209(a) (Continued)




Title: GN Netcom 48063JD05 Jabre BT 135
Comment A: band edge (static mode)
Date: 19.APR.2006 16:30:26




Title: GN Netcom 48063JD05 Jabre BT 135
Comment A: band edge (static mode)
Date: 19.APR.2006 16:42:42

## 8. Measurement Uncertainty

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently, the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor, such that a confidence level of approximately 95% is maintained. For the purposes of this document “approximately” is interpreted as meaning “effectively” or “for most practical purposes”.

| Measurement Type | Range | Confidence Level (%) | Calculated Uncertainty |
|---|---|---|---|
| AC Conducted Spurious Emissions | 0.15 MHz to 30 MHz | 95% | ±3.25 dB |
| Transmitter Maximum Peak Output Power | Not applicable | 95% | ±2.94 dB |
| Transmitter Carrier Frequency Separation | Not applicable | 95% | ±0.01 ppm |
| Transmitter Average Time of Occupancy | Not applicable | 95% | ±10 % |
| 20 dB Bandwidth | Not applicable | 95% | ± 0.12 % |
| Radiated Spurious Emissions | 30 MHz to 1000 MHz | 95% | ± 5.26 dB |
| Radiated Spurious Emissions | 1 GHz to 40 GHz | 95% | ±2.94 |

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty, the published guidance of the appropriate accreditation body is followed.

# 9. Measurement Methods

## 9.1. AC Mains Conducted Emissions

AC Mains conducted emissions measurements were performed in accordance with the standard, against appropriate limits for each detector function.

The test was performed in a shielded enclosure with the equipment arranged as detailed in the standard on a wooden bench using the floor of the screened enclosure as the ground reference plane. The EUT was powered with 110V 60 Hz ac mains supplied via a line impedance stabilisation network (LISN).

Initial measurements in the form of swept scans covering the entire measurement band were performed in order to identify frequencies on which the EUT was generating interference. In order to minimise the time taken for these swept measurements, a peak detector was used in conjunction with the appropriate detector IF measuring bandwidths (see table below). Repetitive scans were performed to allow for emissions with low repetition rates, and the duty cycle of the EUT. The test configuration was the same for the initial scans as for the final measurements.

Following the initial scans, a graph was produced giving an overview of the emissions from the EUT plotted against the appropriate specification limit. A tolerance line was set 6 dB below the specification limit and levels above the tolerance line were re-tested (at individual frequencies) using the appropriate detector function.

The test equipment settings for conducted emissions measurements were as follows:

| Receiver Function | Initial Scan | Final Measurements |
|---|---|---|
| Detector Type: | Peak | Quasi-Peak (CISPR)/Average |
| Mode: | Max Hold | Not applicable |
| Bandwidth: | 10 kHz | 9 kHz |
| Amplitude Range: | 60 dB | 20 dB |
| Measurement Time: | Not applicable | >1 s |
| Observation Time: | Not applicable | >15 s |
| Step Size: | Continuous sweep | Not applicable |
| Sweep Time: | Coupled | Not applicable |

## 9.2. Radiated Emissions

Radiated emissions measurements were performed in accordance with the standard, against appropriate limits for each detector function.

Initial measurements covering the entire measurement band in the form of swept scans in a shielded enclosure were performed in order to identify frequencies on which the EUT was generating interference. This determined the frequencies on which the EUT should be re-measured in full on the open area test site. In order to minimise the time taken for the swept measurements, a peak detector was used in conjunction with the appropriate detector IF measuring bandwidth (see table below). Repetitive scans were performed to allow for emissions with low repetition rates.

The initial scans were performed using an antenna height of 1.5 m and a measurement distance of 3 m. Following the initial scans, graphs were produced giving an overview of the emissions from the EUT plotted against the appropriate specification limit. Any emission within 20 dB of the limit were then measured on the open area test site, except in cases where the noise floor was within 20 dB of the limit, in these cases the highest point of the noise floor was measured.

Where an emission fell inside a restricted band, measurements were made at the appropriate test distance using a measuring receiver with a quasi peak detector for measurements below 1000 MHz and an average and peak detector for measurements above 1000 MHz. A peak detector was used for all other measurements.

For the final measurements the EUT was arranged on a non-conducting turn table on a standard test site compliant with ANSI C63.4 – 2003 Clause 5.4.

All measurements on the open area test site were performed using broadband antennas in both vertical and horizontal polarisations.

On the open area test site, at each frequency where a signal was to be measured, the trace was maximised by rotating a turntable through 360°. The angle at which the maximum signal was observed was locked out. For frequencies below 1000 MHz the test antenna was varied in height between 1 m and 4 m in order to further maximise the target emission.

For frequencies above 1000 MHz where a horn antenna was used, height searching was performed to locate the optimal height of the horn with respect to the EUT. At this point the horn was locked off and the turntable was again rotated through 360° to maximise the target signal. It should be noted that the received signal from the EUT would diminish very quickly after it exits the beam width of the horn antenna, for this reason it may not be necessary to fully height search with the horns.

## Radiated Emissions (Continued)

At this point, any signals found to be between the limit and a level 6 dB below it were further maximised by changing the configuration of the EUT, e.g. re-routing cables to peripherals and moving peripherals with respect to the EUT.

Scans were performed to the upper frequency limits as stated in Section 15.33

The final field strength was determined as the indicated level in dBμV plus cable loss and antenna factor.

The test equipment settings for radiated emissions measurements were as follows:

| Receiver Function | Initial Scan | Final Measurements <1 GHz | Final Measurements ≥1 GHz |
|---|---|---|---|
| Detector Type: | Peak | Quasi-Peak (CISPR) | Peak / Average |
| Mode: | Max Hold | Not applicable | Max Hold |
| Bandwidth: | (120 kHz <1 GHz)<br>(1 MHz ≥1 GHz) | 120 kHz | 1 MHz |
| Amplitude Range: | 100 dB | 100 dB | 100 dB |
| Step Size: | Continuous sweep | Not applicable | Not applicable |
| Sweep Time: | Coupled | Not applicable | Not applicable |

## 9.3. Carrier Frequency Separation / 20 dB Bandwidth

The EUT and spectrum analyser was configured as for conducted antenna port / radiated measurements, and as per FCC Public Notice DA 00-705, Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems.

To determine the bandwidth and separation of each transmission channel the measurement analyser was configured to measure two adjacent channels whilst the EUT was in hopping mode. The spectrum analyser was configured with a resolution bandwidth and video bandwidth greater than 1% of the frequency span.

The analyser was set for a maximum hold scan to capture the profile of the signal. The peak points on the two adjacent channels were noted and the separation between them recorded.

To determine the occupied bandwidth, a resolution bandwidth of 10 kHz was used, which is greater than 1% of the 20 dB bandwidth. A video bandwidth of, at least, the same value was used.

The analyser was set for a maximum hold scan to capture the profile of the signal. The peak level was then determined, and a reference line was drawn 20 dB below the peak level.

The bandwidth was determined at the points where the 20 dB reference line intercepted the power envelope of the emission.

## 9.4. Average Time of Occupancy

The EUT and spectrum analyser was configured as for conducted antenna port / radiated measurements, and as per FCC Public Notice DA 00-705, Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems.

First the maximum packet length was determined on the centre channel.

The measurement analyser was configured to the time domain mode by setting the span to zero with a sweep time sufficiently wide enough to measure one pulse.

The EUT was configured to operate in normal mode of operation. The pulse width of one transmission was then recorded. The measurement analyser was then configured in zero span i.e. in the time domain and the sweep time was set to 32 seconds (the closest allowable setting to 31.6 seconds). This 31.6 second period was determined by multiplying the number of channels the device operates over (79) by 0.4 seconds.

The number of transmissions within this period was noted and multiplied by the pulse width recorded earlier. This gives the maximum occupancy over 31.6 seconds.

## 9.5. Effective Isotropic Radiated Power (EIRP)

EIRP measurements were performed in accordance with the standard, against appropriate limits.

The EIRP was measured with the EUT arranged on a non-conducting turn table on a standard test site compliant with ANSI C63.4 – 2003 Clause 5.4. The transmitter was fitted with an integral antenna; therefore all radiated tests were performed with the unit operating into the integral antenna.

The level of the EIRP was measured using a spectrum analyser.

The test antenna was positioned in the horizontal plane. The EUT was oriented in the X plane. The test antenna was then raised and lowered until a maximum peak was observed. The turntable was then rotated through 360 degrees and the maximum peak reading obtained. The height search was then repeated to take into consideration the new angular position of the turntable. The maximum reading observed was then recorded. This procedure was then repeated with the EUT oriented in the Y and Z planes. The highest reading taken in all 3 planes was recorded. The entire procedure was then repeated with the test antenna set in the vertical polarity.

Once the final amplitude (maximised) had been obtained, the EUT was substituted with a horn antenna. The centre of the substitution antenna was set to approximately the same centre location as the EUT. The substitution antenna was set to the horizontal polarity. The substitution antenna was matched into a signal generator using a 6 dB or greater attenuator. The signal generator was tuned to the EUT's frequency under test.

The test antenna was then raised and lowered to obtain a maximum reading on the spectrum analyser. The level of the signal generator output was then adjusted until the maximum recorded EUT level was observed. The signal generator level was noted. This procedure was repeated with both test antenna and substitution antenna vertically polarised. The EIRP was calculated as:-

EIRP = Signal Generator Level - Cable Loss + Antenna Gain

## Effective Isotropic Radiated Power (EIRP) (Continued)

Circumstances where the signal generator could not produce the desired a power substitution was performed with the signal generator set to 0 dBm. The radiated signal was maximised as previously described. The level indicated on the measuring receiver was noted. The delta between this level and the maximum level for the EUT was calculated and also noted. The EIRP of the signal generator was calculated using the above formulae. The recorded delta was added to the calculated EIRP to obtain the substituted EUT EIRP.

Delta (dB) = EUT – SG

where :

EUT = spectrum analyser indicated EUT raw level

SG = spectrum analyser indicated signal generator raw level

The signal generator actual EIRP is calculated as:

EIRP SG= Signal Generator Level - Cable Loss + Antenna Gain

The EUT EIRP is calculated as:

EIRP EUT = EIRP SG + Delta.

The test equipment settings for EIRP measurements were as follows:

| Receiver Function | Setting |
|---|---|
| Detector Type: | Peak |
| Mode: | Not applicable |
| Bandwidth: | 1 MHz |
| Amplitude Range: | 100 dB |
| Sweep Time: | Coupled |

## 9.6. Band Edge Compliance of RF Radiated Emissions

The EUT and spectrum analyser were configured as for radiated measurements and as per FCC Public Notice DA 00-705, Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems.

To determine band edge compliance, the analyser resolution bandwidth was set to >= 1% of the analyser span. The video bandwidth was set to be ≥ to the resolution bandwidth. The sweep was set to auto and the detector to peak. The trace was set to max hold and a trace was produced.

A plot of the lower band edge of the allocated frequency band was produced. A marker was set to the level of the highest in band emission with a limit line set to 20 dB below this. The marker was then placed on the highest out of band emission (the specification states that either the band edge level must be measured or the highest out of band emission, whichever is the greater). The plots show that the highest out of band emission complies with the -20 dBc limit.

The above procedure was then repeated for the upper band edge except that, as the upper band edge fell on a restricted band edge (as defined in Section 15.205(a)), the limit for the restricted band was applied instead of the -20 dBc limit i.e. the general limits defined in Section 15.209(a).

Final measurements were performed on the worst-case configuration as described in Part 15.31(i).

## Appendix 1. Test Equipment Used

| RFI No. | Instrument | Manufacturer | Type No. | Serial No. |
|---|---|---|---|---|
| A027 | Horn Antenna | Eaton | 9188-2 | 301 |
| A031 | 2 to 4 GHz Eaton Horn Antenna | Eaton | 91889-2 | 557 |
| A067 | LISN | Rohde & Schwarz | ESH3-Z5 | 890603/002 |
| A1037 | Chase Bilog Antenna | Chase EMC Ltd | CBL6112B | 2413 |
| A1360 | ESH3-Z2 Pulse Limiter | Rohde & Schwarz | ESH3-Z2 | A1360-20112003 |
| A1534 | Preamplifier 1-26.5 GHz | Hewlett Packard | 8449B OPT H02 | 3008A00405 |
| A209 | Microwave WG 22 attenuator | Lectronic Research | MA 576 F | None |
| A255 | WG 16 Horn | Flann Microwave | 16240-20 | 519 |
| A256 | WG 18 Horn | Flann Microwave | 18240-20 | 400 |
| A392 | 3 dB attenuator (9) | Suhner | 6803.17.B | None |
| A427 | WG 14 horn | Flann | 14240-20 | 150 |
| A428 | WG 12 horn | Flann | 12240-20 | 134 |
| A430 | WG 18 horn | Flann | 18240-20 | 425 |
| A436 | WG 20 horn | Flann | 20240-20 | 330 |
| A490 | Bilog Antenna | Chase | CBL6111A | 1590 |
| C1002 | Cable | Rosenberger | FA210A1010M50509 | 001 |
| C1164 | 1.5m N-type Cable | Rosenberger Micro-Coax | FA210A1015007070 | 43188-1 |
| C1166 | 2m N-Type Cable | Rosenberger Micro-Coax | FA210A1020007070 | 43189-02 |
| C151 | Cable | Rosenberger | UFA210A-1-1181-70x70 | None |
| C323 | Cable | Rosenberger | UFA 210A-1-0788-50x50 | 96A0121 |
| C363 | BNC Cable | Rosenberger | RG142 | None |
| C364 | BNC Cable | Rosenberger | RG142 | None |
| C453 | Cable | Rosenberger | RG142XX-001-RFIB | C453-10081998 |
| C468 | N-Type Coaxial Cable | Rosenberger | UFA210A-1-3937-504504 | 98L0440 |
| G023 | OPT.H64 Amplifier | Hewlett Packard | 8447F | 3113A05059 |
| M003 | Spectrum Monitor | Rohde & Schwarz | EZM | 883 580/008 |
| M090 | Receiver / Spectrum Analyser System | Rohde & Schwarz | ESBI | DU:838494/005 RU:836833/001 |

## Test Equipment Used (Continued)

| RFI No. | Instrument | Manufacturer | Type No. | Serial No. |
|---|---|---|---|---|
| M1149 | *Bluetooth* Test Set | Anritsu | MT8852A | 6K00001529 |
| M1178 | Thermo-Hygro | RS | 212-124 | N/A |
| M1242 | FSEM30 Spectrum Analyser | Rohde & Schwarz, Inc. | FSEM30 | 845986_022 |
| M1252 | HP 83640A 40 GHz Signal Generator | HP | 83640A | 3119A00489 |
| M1263 | ESIB | Rohde & Schwarz | ESIB7 | 100265 |
| M166 | Digital Environmental Monitor | EuroCom | None | None |
| M505 | Analyser Display Unit | Rohde & Schwarz | ESAI-D | 825316/010 |
| M506 | RF unit | Rohde & Schwarz | ESBI-RF | 827060/004 |
| S0529 | DC Power Supply | ISO-Tech | IPS2302A | 504E005G2 |
| S201 | Site 1 | RFI | 1 | |
| S202 | Site 2 | RFI | 2 | S202-15011990 |
| S209 | Site 9 | RFI | 9 | |
| S212 | Site 12 | RFI | 12 | |

**NB** In accordance with UKAS requirements, all the measurement equipment is on a calibration schedule.

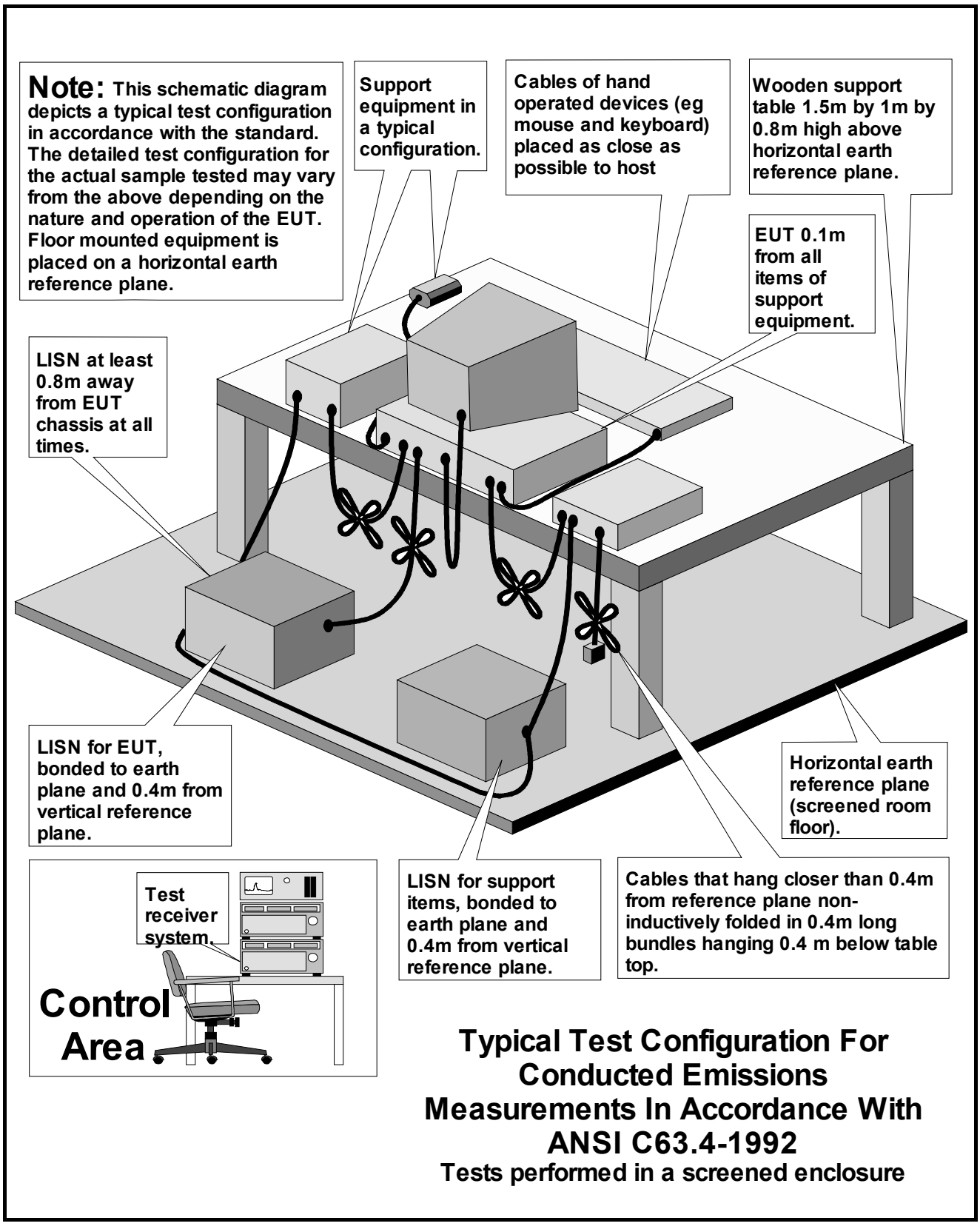
## Appendix 2. Test Configuration Drawings

This appendix contains the following drawings:

| Drawing Reference Number | Title |
|---|---|
| DRG\48063JD05\EMICON | Test configuration for measurement of conducted emissions. |
| DRG\48063JD05\EMIRAD | Test configuration for measurement of radiated emissions. |

Test of: GN Mobile A/S (GN Netcom A/S).
Jabra BT 135 (Transceiver)
To: FCC Part 15.247: 2004 (Subpart C)

DRG\48063JD05\EMICON



**Test of:** GN Mobile A/S (GN Netcom A/S).
Jabra BT 135 (Transceiver)
**To:** FCC Part 15.247: 2004 (Subpart C)

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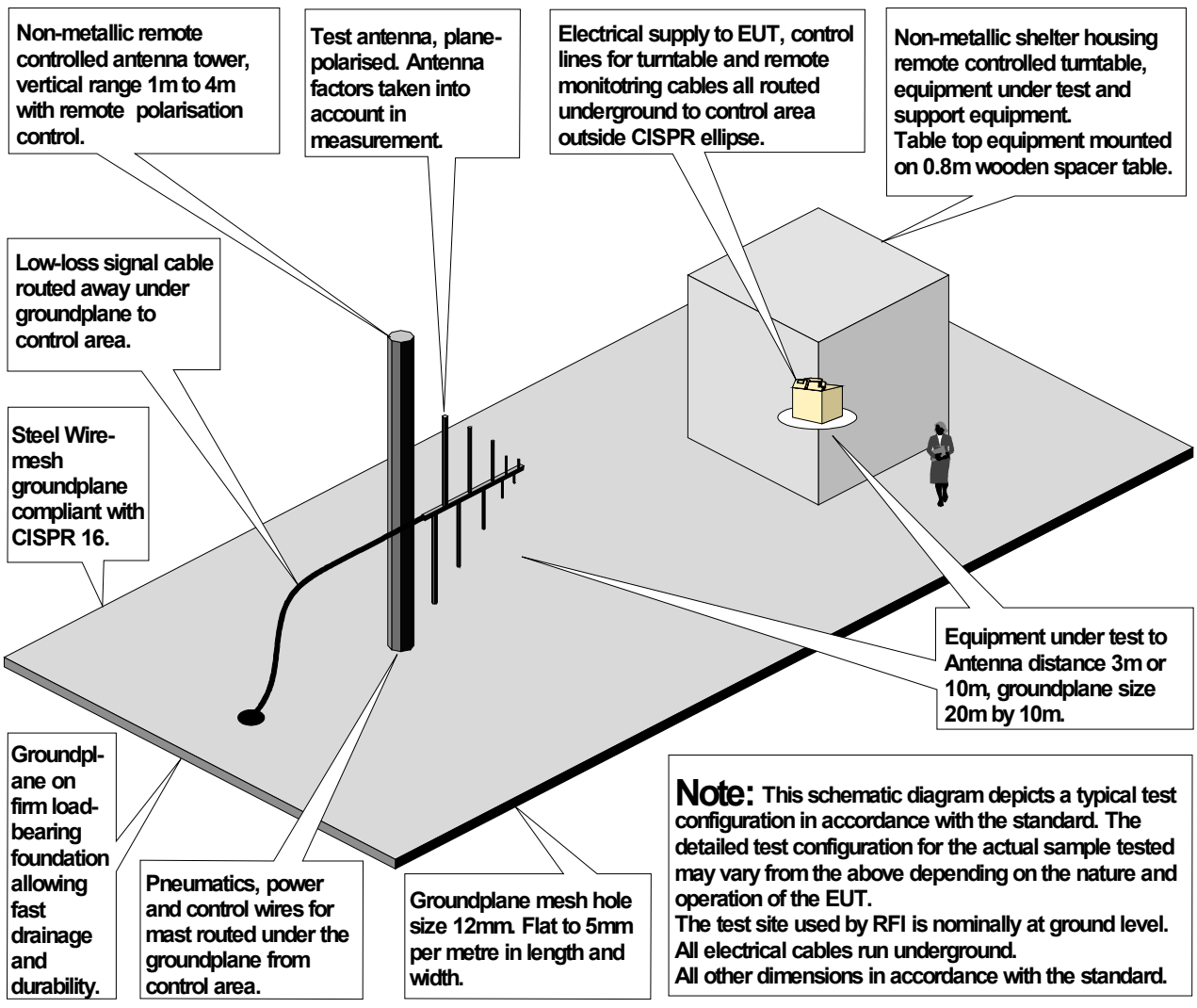
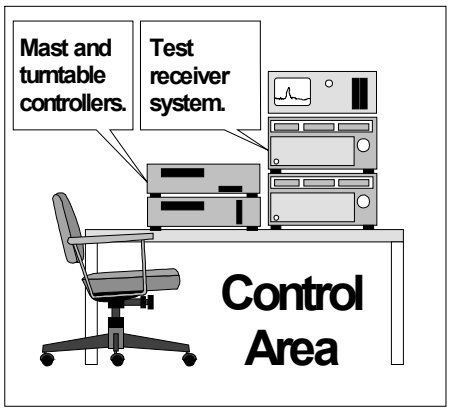
**DRG\48063JD05\EMIRAD**




**Note:** This schematic diagram depicts a typical test configuration in accordance with the standard. The detailed test configuration for the actual sample tested may vary from the above depending on the nature and operation of the EUT.
The test site used by RFI is nominally at ground level.
All electrical cables run underground.
All other dimensions in accordance with the standard.

## Test Configuration For Radiated Emissions Measurements

**Reflection-free area: >60m by 52m (CISPR ellipse)**
**Groundplane Earthed**
**Control room outside CISPR ellipse**



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