

RADIO TEST REPORT

No. 307795R1

EQUIPMENT UNDER TEST

Equipment: Bluetooth Headset
Type / model: BlueSpoon Digital
Manufacturer: Nextlink.to A/S
Tested by request of: Jon Hein-Magnussen

SUMMARY

The equipment complies with the requirements of the following standards:

FCC, Part 15, Subpart B (2002) and Subpart C (2002);

Note: This Test Report replaces earlier issued Test Report with same Test Report no. issued September 30, 2003.

Date of issue: October 23, 2003

Tested by:


Jan Adolfsson

Approved by:


Björn Rosenquist



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1. CLIENT INFORMATION

The EUT has been tested by request of

Company: Nextlink.to A/S
Sandtoften 10
DK-2820 Gentofte
Danmark

Name of contact: Jon Hein-Magnussen

2. EQUIPMENT UNDER TEST (EUT)**2.1 Identification of the EUT according to the manufacturer/client declaration**

Equipment: Bluetooth Headset

Type/Model: BlueSpoon Digital

Brand name: Bluespoon Digital

FCC ID Number:

Manufacturer: Nextlink.to A/S

Rating/Supplying voltage: 2,7 – 5,5 V DC

Rating RF output power: 0 dBm

Antenna gain: 2.1 dBi

External antenna connector: No external/sma

Operating temperature range: -10 to +55 °C

Frequency range: 2400 – 2483,5 MHz

Number of channels: 79

Modulation characteristics: GFSK

Stand by mode supported: Yes



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2.2 Additional hardware information about the EUT

The EUT consists of the following unit:

Unit	Type and version	Serial number
BlueSpoon Digital Power adapter	PSC05R-050(CR) Input:100-240V 0,2A 50-60 Hz DC output:+5.25V 0,2A max	130100626A3
Cradle		

2.3 Additional software information about the EUT

During the tests the EUT supported the following software:

Software	Version	Comment
Handsfree headset profile	5.01	

2.4 Modifications during the test

No modifications have been made during the tests.



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3. TEST SPECIFICATIONS

3.1 Standards

FCC (2002): Subpart B – Unintentional radiators and Subpart C – Intentional Radiators; §15.247 for frequency hopping systems operating in the 2400 – 2483.5 MHz and 5725 – 5850 MHz and §15.249 for operating in the 902-908 MHz, 2400-2483.5 MHz, 5725-5875 MHz and 24.0-24.25 GHz.

3.2 Additions, deviations and exclusions from standards

No additions, deviations or exclusions have been made from standards

3.3 Operating environment

If not additionally specified, the tests were performed under the following environmental conditions:

Air temperature:	23 °C
Relative humidity:	48 %



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4. TEST SUMMARY

The results in this report apply only to the sample tested.

FCC reference	Test	Result	Note
15.249	Fundamental field strength	Pass	
15.247(b)	Peak output power	Pass	
15.247(a)	TX Output Spectrum – 20 dB Bandwidth	NT	1
15.247(a)	Carrier frequency separation	NT	1
15.247(a)	Number of hopping frequencies (channels)	NT	1
15.247(a)	Time of occupancy (dwell time)	NT	1
15.247(c)	Band edge compliance	NT	1
15.247 (d)	Peak power spectral density	NT	1
15.107 (a)	Conducted disturbance voltage in the frequency range 0,15 - 30 MHz	Pass	
15.109 (a)	Out of band spurious emissions, radiated	Pass	
15.249(c)	Out of band spurious emissions, radiated	Pass	

Notes 1: NT = Not Tested



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5. FUNDAMENTAL FIELD STRENGTH

5.1 Test protocol

Date of test: June 20, 2002

The EUT was set to the TX mode and hopping off.
Measured at 3.0 m test distance.

Field strength (dB μ V/m)			
F _{min} = 2402 MHz	F _{mid} = 2441 MHz	F _{max} = 2480 MHz	Limit (dB μ V/m)
86	86	88	94.0

Limit according to 15.249.



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6. PEAK OUTPUT POWER**6.1 Test protocol**

Date of test: August 14, 2003

EUT mode of operation: TX and hopping off.

Spectrum analyzer settings:

Span: 10 MHz

RBW: 3 MHz

VBW: 3 MHz

Sweep time: 1 s

Detector: Peak

Trace: Max Hold

Channel (MHz)	Peak Output Power (dBm)	Limit value (dBm)
2402	-0,1	< 30
2441	-0,7	
2480	-1,0	

Measurement results are corrected for attenuation in the set-up configuration and antenna gain declared by the manufacturer.



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7. CONDUCTED DISTURBANCE VOLTAGE IN THE FREQUENCY RANGE 0,150 - 30 MHZ

7.1 Operating environment

Temperature: 23 °C (15 - 35 °C)
 Relative Humidity: 46 % (20 - 75 %)

7.2 Measurement uncertainty

Conducted disturbance voltage, quasi-peak detection: $\pm 2,0$ dB

The measurement uncertainty describes the overall uncertainty of the given measured value during operation of the EUT.

Measurement uncertainty is calculated in accordance with EA-4/02-1997.
 The measurement uncertainty is given with a confidence of 95%.

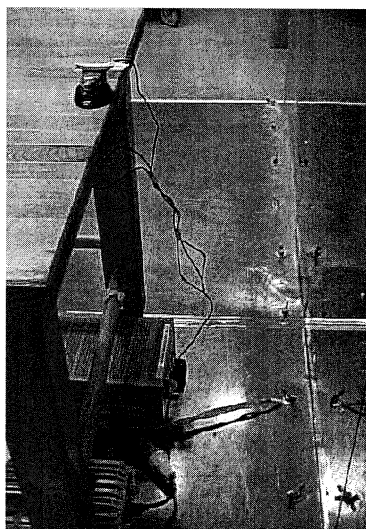
7.3 Test equipment

Test site: FCC

Equipment	Manufacturer	Type	SEMKO No.
Software:	Rohde & Schwarz	ES-K1 V1.60	
Measurement receiver:	Rohde & Schwarz	ESHS 30	4946
Artificial mains network:	Rohde & Schwarz	ESH3-Z5	2727
Transformer:	TUFVASSONS	AFM-1500	375

7.4 Measurement set-up

The mains terminal disturbance voltage was measured with the EUT located 0,8 m above the ground plane and 0,4 m from the vertical ground plane. The EUT was connected to an artificial mains network (AMN). The AMN was placed on a metallic, grounded floor. Amplitude measurements were performed with a quasi-peak detector. The test set-up photo is given below.



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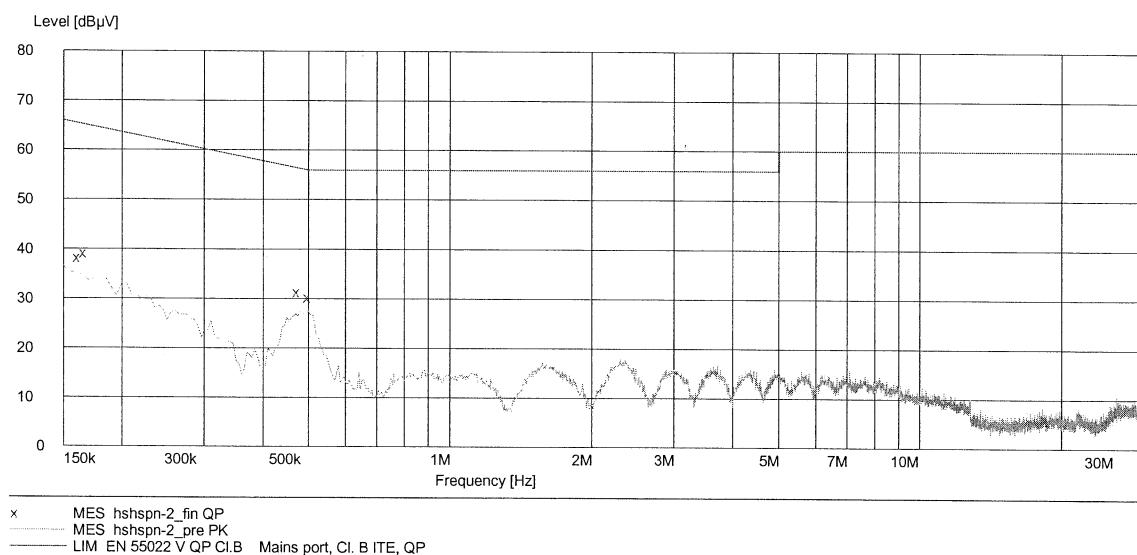
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7.5 Test protocol

Date of test: September 24, 2003

Frequency /MHz	Quasi-Peak	
	Disturbance Level /dB(μV)	Permitted limit /dB(μV)
0,165	38,3	65
0,170	39,2	65
0,485	31,4	56
0,510	30,3	56

An overview sweep performed with a peak detector is shown below.



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