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DELTA Test Report



TEST Reg. no. 19

Radio parameter test of Stimulator version 3 and Grinddock version 3 according to FCC requirements

Performed for Medotech A/S

DANAK-19/11963

Project no.: A505843-3

Page 1 of 37

16 March 2012

DELTA

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Title Radio parameter test of Stimulator version 3 and Grinddock version 3 according to FCC requirements

Test object Stimulator version 3 and Grinddock version 3

Report no. DANAK-19/11963

Project no. A505843-3

Test period 03 to 10 December 2008

Client Medotech A/S
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Manufacturer Medotech A/S

Specifications FCC CFR 47 Part 15, Subpart C

Results The test objects were found to be in compliance with the specification

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Date 16 March 2012

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1. Summary of tests

Tests	Test method	Rule section	Results
Antenna requirement	Inspection	15.203	Passed
Conducted emission, AC mains	ANSI C63.4:2003	15.207	Passed
Radiated emission, spurious	ANSI C63.4:2003	15.209	Passed
Occupied bandwidth	ANSI C63.4:2003	15.215	Passed
Radiated emission, fundamental	ANSI C63.4:2003	15.249	Passed

The given result is based on a shared risk principle with respect to the measurement uncertainty.

Conclusion

The test objects mentioned in this report meet the requirements of the standard stated below.

FCC CFR 47 Part 15, Subpart C.

The test results relate only to the objects tested.

2. Test objects

2.1 Test objects

Test object 2.1.1

Name of test object	Stimulator
Model / type	Version 3
Part no.	-
Serial no.	08470008
FCC ID	CO5STIMULATOR
Manufacturer	Medotech A/S
Supply voltage	Battery 3.7 V Lithium
Software version	RF Test: TX code
Cycle time	-
Comments	HW: 3.10, PCB: 033

Test object 2.1.2

Name of test object	Stimulator
Model / type	Version 3
Part no.	-
Serial no.	08470010
FCC ID	CO5STIMULATOR
Manufacturer	Medotech A/S
Supply voltage	Battery 3.7 V Lithium
Software version	TX code / RF jam test
Cycle time	-
Comments	HW: 3.00, PCB: 035, PCB only, Antenna replaced with SMA connector

Test object 2.1.3

Name of test object	Grinddock
Model / type	Version 3
Part no.	-
Serial no.	08470021
FCC ID	CO5GRINDDOCK
Manufacturer	Medotech A/S
Supply voltage	Battery 3.7 V Lithium
Software version	RF test: TX code
Cycle time	-
Comments	HW: 2.10, PCB: 031

Test object 2.1.4

Name of test object	Grinddock
Model / type	Version 3
Part no.	-
Serial no.	08470023
FCC ID	CO5GRINDDOCK
Manufacturer	Medotech A/S
Supply voltage	Battery 3.7 V Lithium
Software version	TX code / RF jam test
Cycle time	-
Comments	HW: 2.10, PCB: 033, PCB only, Antenna replaced with SMA connector

2.2 Auxiliary equipment

Auxiliary equipment 2.2.1

Name of auxiliary equipment	Charger
Model / type	FW7600/05
Part no.	-
Serial no.	1608T
FCC ID	-
Manufacturer	Friwo
Supply voltage	90 - 264 V, 50-60 Hz
Software version	-
Cycle time	-
Comments	-

3. General test conditions

3.1 Test setup during test

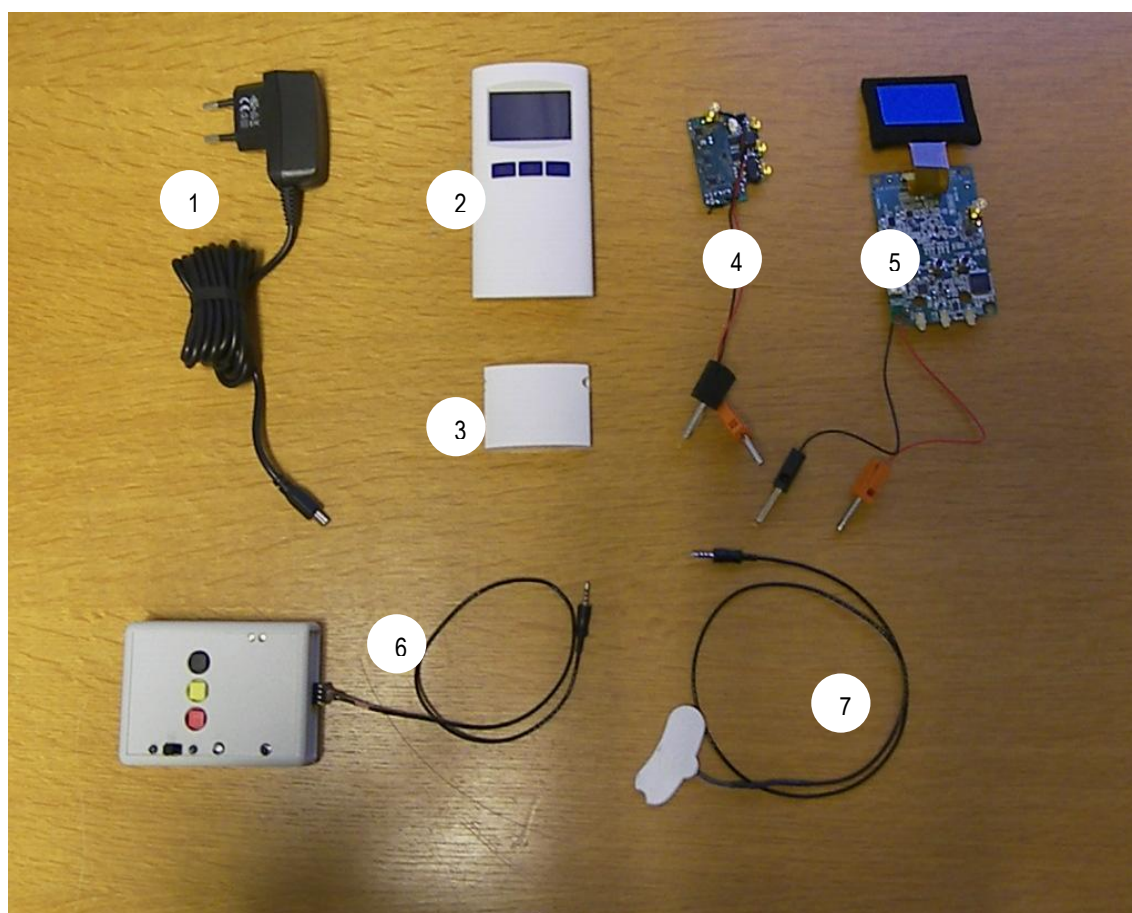
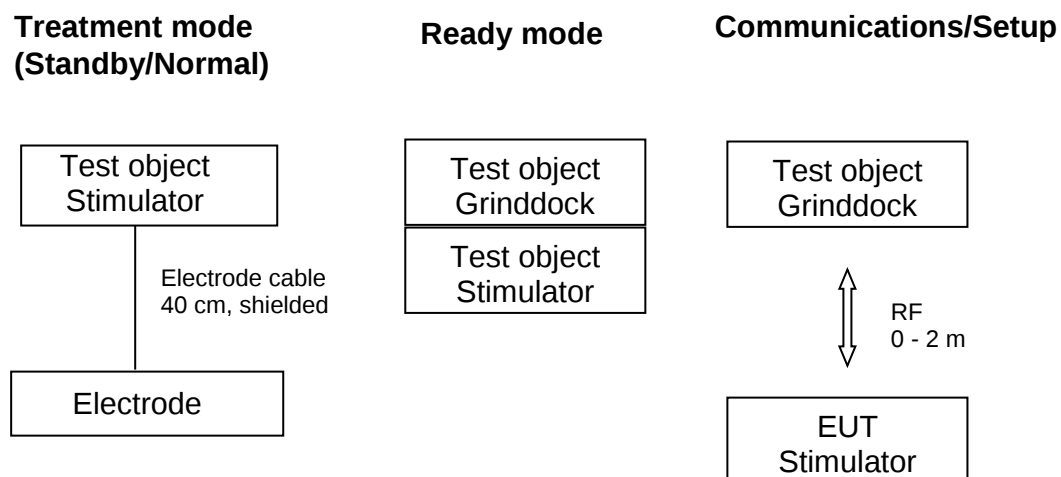


Figure 3.1.1 Picture of test objects, auxiliary equipment and cables.

The test objects, cables and auxiliary equipment are listed below:

1. AC/DC adaptor for Grinddock, used for EMC tests.
2. Grinddock in normal enclosure, used for radiated tests.
3. Stimulator in normal enclosure, used for radiated tests.
4. Stimulator without enclosure, antenna replaced with SMA connector, battery replaced with DC supply, used for conducted tests.
5. Grinddock without enclosure, antenna replaced with SMA connector, battery replaced with DC supply, used for conducted tests.
6. Test box – not used.
7. Standard electrode cable. In normal use, the electrodes are connected to the stimulator used for EMC tests.

In treatment mode, Stimulator is worn on the patient. The electrodes measure physiological signals. When these signals indicate that the patient is grinding his/her teeth, the Stimulator sends stimuli signals through the electrodes to stop/prevent grinding.

In treatment mode, Stimulator is connected to Nano test box. This test box can simulate grinding EMG signals and is used in place of electrodes and patient. The test box can also monitor and indicate stimuli treatment signal timing and levels.

When Stimulator is docked in Grinddock, any treatment is impossible as Electrode cable jack plug has to be removed, before docking is possible. This secures that there is no connection to the patient during charging. (The charger is seen as a non-medical product)

Grinddock controls charging of Stimulator and Grinddock. Status is shown in Grinddock display. This is monitored during test.

Setup/communication mode is used for test and setup stimuli level and other parameters before treatment.

The radio of both test objects has the following specified RF parameters:

Antenna	:	Integral
Operating frequency	:	2432.8 MHz
Transmit power, Grinddock	:	0.02 mW EIRP (78.4 dB μ V/m@3m)
Transmit power, Stimulator	:	0.04 mW EIRP (81.0 dB μ V/m@3m)
Antenna gain, Grinddock	:	-13.1 dBi
Antenna gain, Stimulator	:	-10.0 dBi
No of channels	:	1
Bandwidth	:	1 MHz
Channel separation	:	-
Modulation	:	MSK
Data rate	:	18 kbit/s
Packet length	:	6 to 42 bytes
Duty cycle	:	Max. 8.33 % during normal use
Transmit mode	:	Yes
Receive mode	:	Yes
Standby mode	:	Yes, same as receive mode.
Battery	:	3.7 V Li-Ion Polymer Specified max voltage: 4.2 V
Receiver category	:	2
Temperature category	:	III: 0 to +55 °C.

During test, the test objects were running special test software.

The data content of the packets used during test is: “1, 2, 3, 4, 5, ...”.

3.2 Modifications before test

None.

4. Test results

4.1 Antenna requirement

Test object	Stimulator, Grinddock	Sheet	X-1
Type.	Version 3, Version 3	Project no.	A505843-3
Serial no.	08470008, 08470021	Date	03 Dec. 2008
Client	Medotech A/S	Initials	CRA
Specification	FCC CFR 47 15.203		

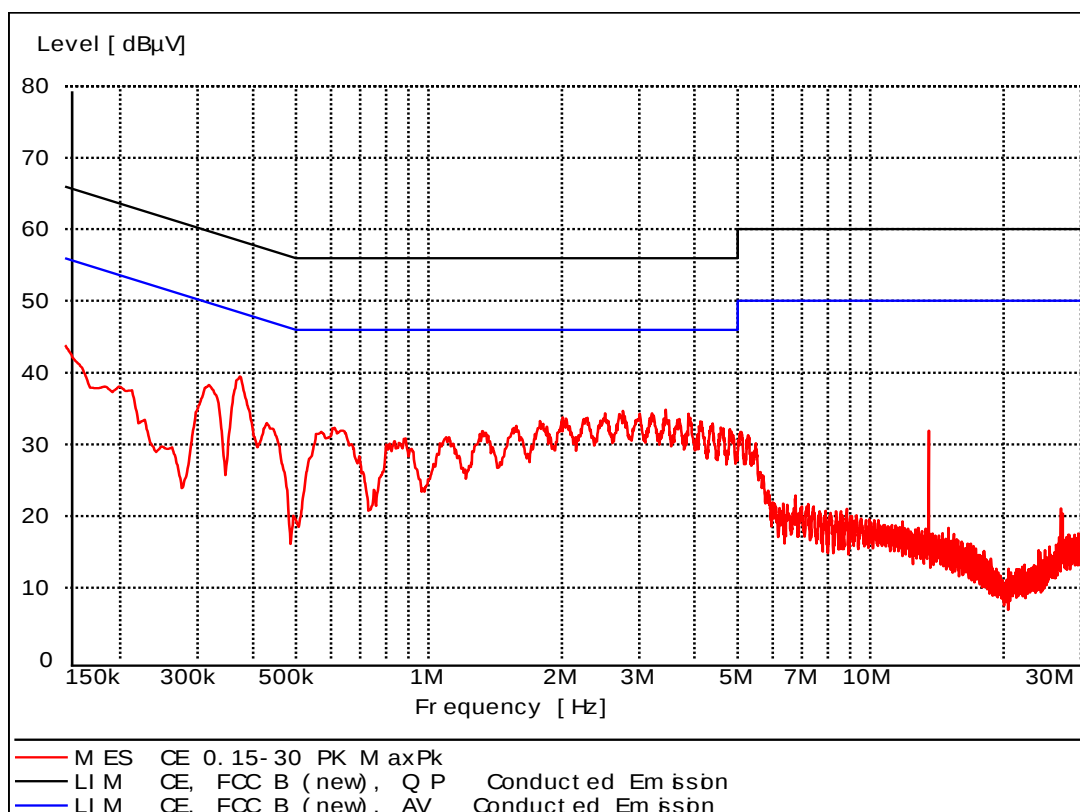
Test method	Visual inspection
Evaluation criteria Section 15.203 of the rules states that the subject device must meet at least one of the following criteria: (a) Antenna to be permanently attached to the unit. (b) Antenna must use a unique type of connector to attach to the test object. (c) Unit must be professionally installed. Installer shall be responsible for verifying that the correct antenna is employed with the unit. Evaluation result The antenna of both test objects is a soldered on chip antenna, installed inside the enclosure, which is in compliance with evaluation criteria (a) above.	

Evaluation result	Both the Stimulator and the Grinddock test objects meet evaluation criteria (a)
Comments	None
Compliant	Yes

4.2 Conducted emission, AC mains

Test object	Stimulator, Grinddock	Sheet	CE-1
Type	Version 3, Version 3	Project no.	A505843-3
Serial no.	08470008, 08470021	Date	05 Dec. 2008
Client	Medotech A/S	Initials	RIK
Specification	FCC CFR 47 15.207	Frequency	0.15-30 MHz

Test method	ANSI C63.4:2003	Temperature	22 °C
Characteristics	Artificial mains network: 50 Ω , 50 μ H	Humidity	35 % RH
Detector	Peak	Bandwidth	10 kHz
Test equipm.	EMC room 4 Hørsholm 29300 29301 49361 29306	Uncertainty	2 dB



Line under test

Line

Test result

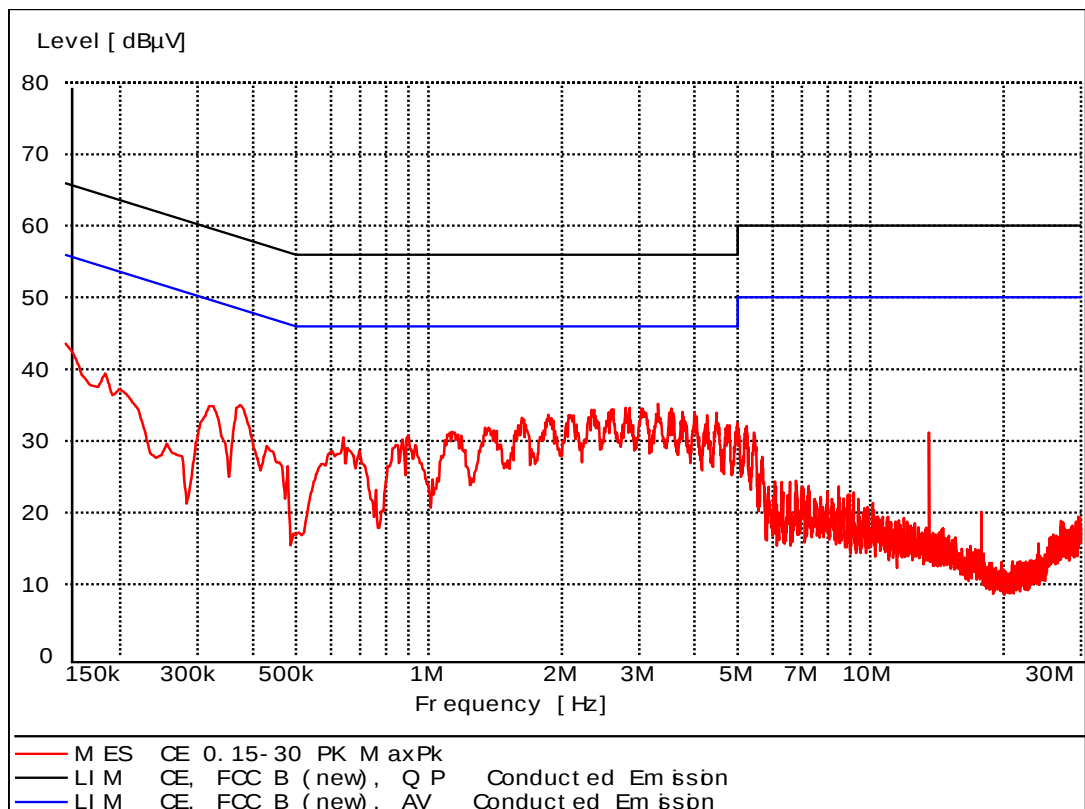
The measured voltages were below the limit

Comments

Mains voltage: 120 VAC

Test object	Stimulator, Grinddock	Sheet	CE-2
Type	Version 3, Version 3	Project no.	A505843-3
Serial no.	08470008, 08470021	Date	05 Dec. 2008
Client	Medotech A/S	Initials	RIK
Specification	FCC CFR 47 15.207	Frequency	0.15-30 MHz

Test method	ANSI C63.4:2003	Temperature	22 °C
Characteristics	Artificial mains network: 50 Ω , 50 μ H	Humidity	35 % RH
Detector	Peak	Bandwidth	10 kHz
Test equipm.	EMC room 4 Hørsholm 29300 29301 49361 29306	Uncertainty	2 dB



Line under test Neutral

Test result The measured voltages were below the limit

Comments Mains voltage: 120 VAC

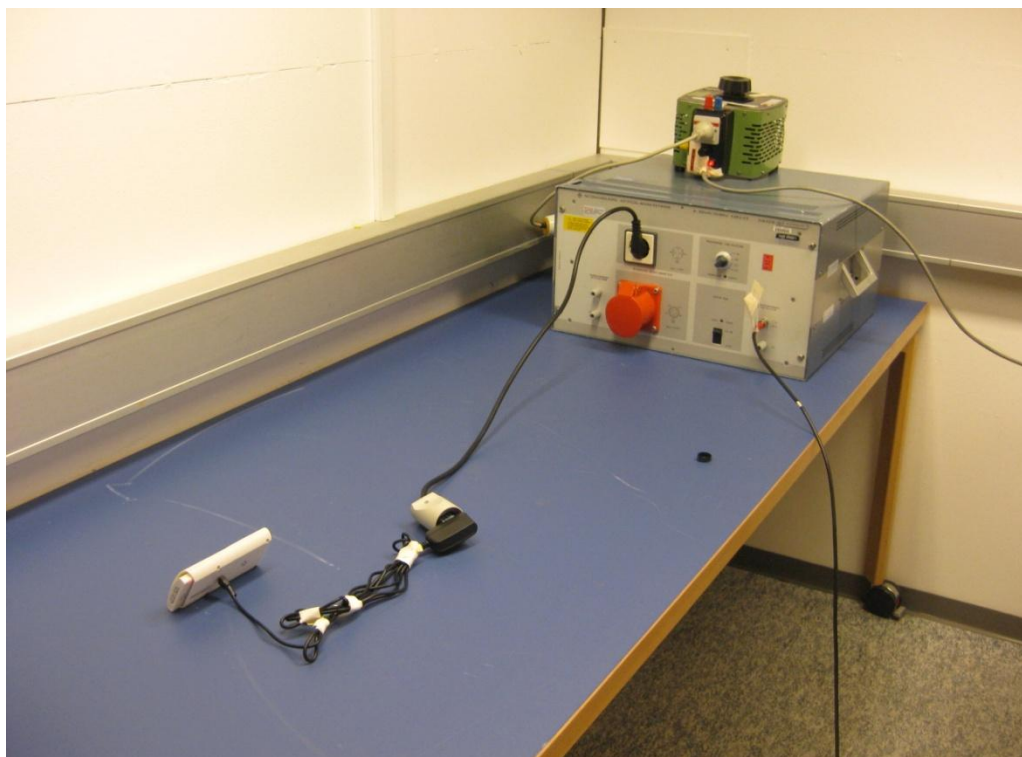
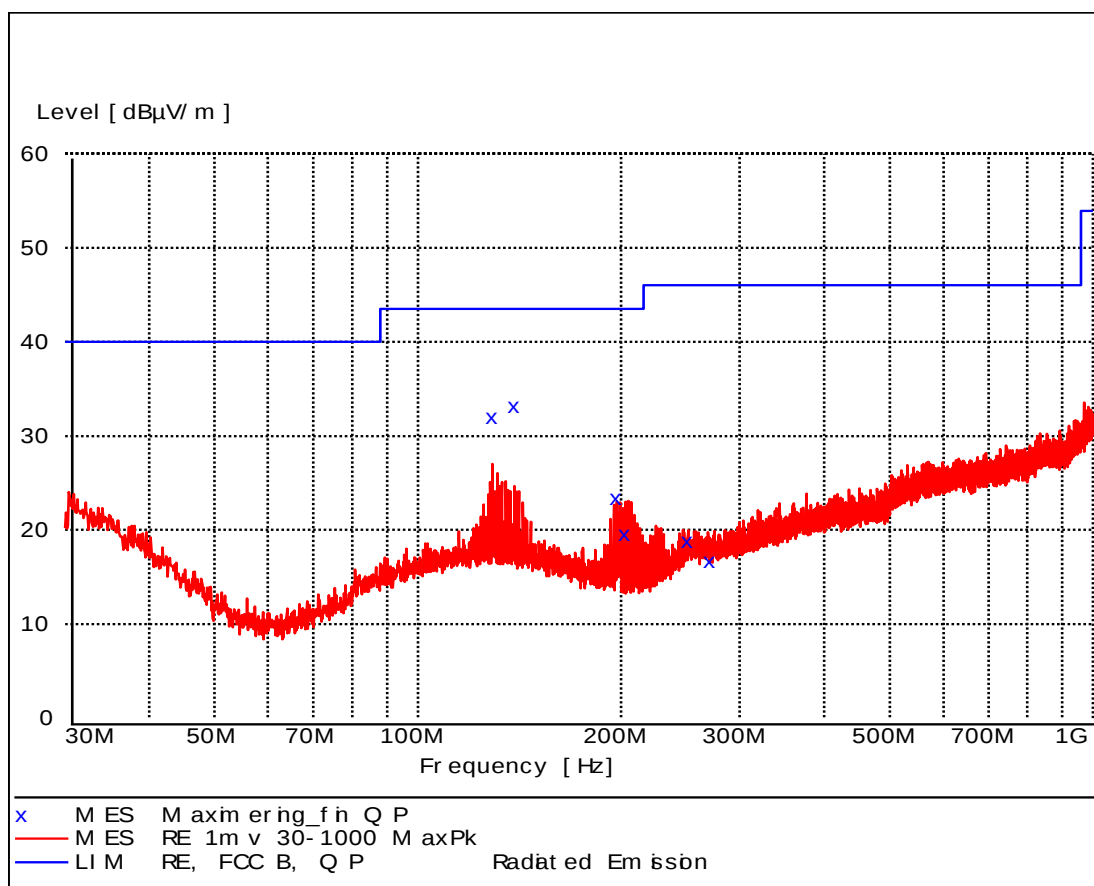


Photo 4.2.1 Test setup regarding conducted emission, AC mains.

4.3 Radiated emission, spurious

Test object	Stimulator, Grinddock	Sheet	RE-1
Type	Version 3, Version 3	Project no.	A505843-3
Serial no.	08470008, 08470021	Date	03 Dec. 2008
Client	Medotech A/S	Initials	HEN
Specification	FCC CFR 47 15.209	Frequency	30-1000 MHz

Test method	ANSI C63.4:2003	Temperature	22 °C
Characteristics	Pre-scan, Antenna at 3 m, 1 m height, vert. pol.	Humidity	34 % RH
Detector	Peak and Quasi Peak	Bandwidth	120 kHz
Test equipm.	EMI room Hørsholm 29797 29499 29916 29861	Uncertainty	4 dB

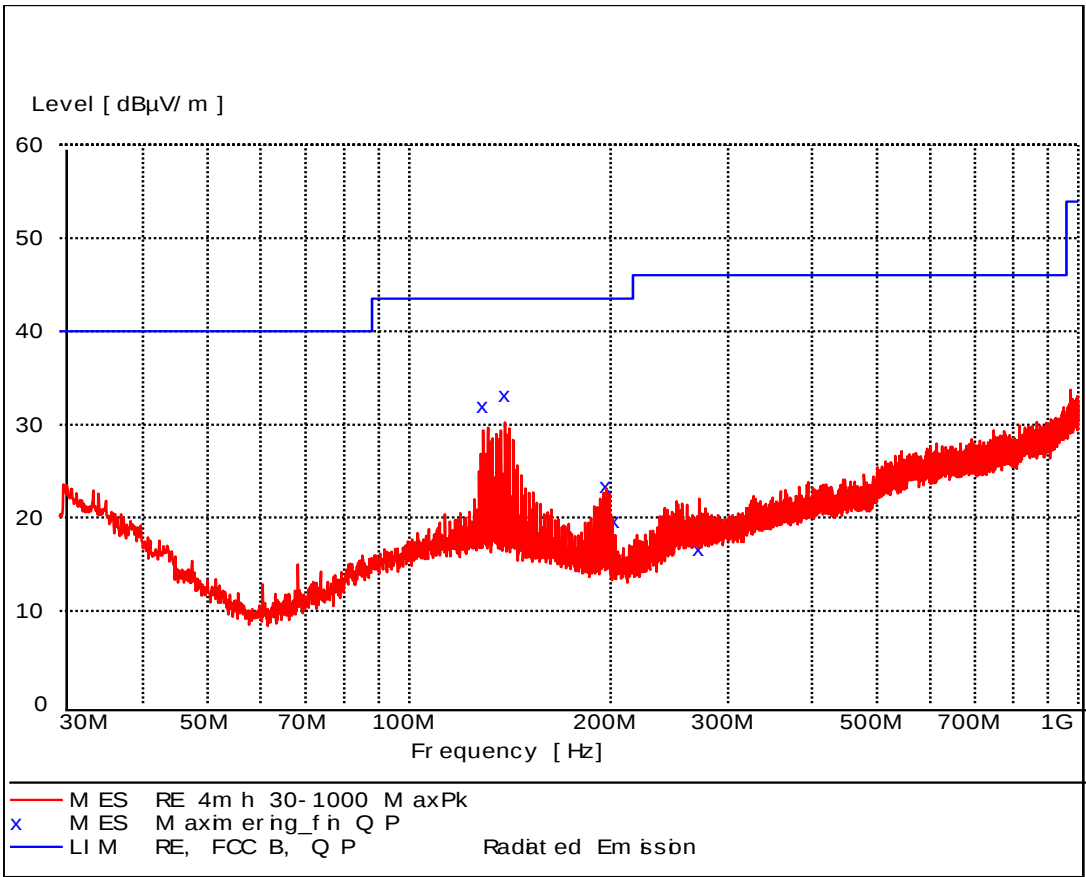


Comments

None

Test object	Stimulator, Grinddock	Sheet	RE-2
Type	Version 3, Version 3	Project no.	A505843-3
Serial no.	08470008, 08470021	Date	03 Dec. 2008
Client	Medotech A/S	Initials	HEN
Specification	FCC CFR 47 15.209	Frequency	30-1000 MHz

Test method	ANSI C63.4:2003	Temperature	22 °C
Characteristics	Pre-scan, Antenna at 3 m, 4 m height, hor. pol.	Humidity	34 % RH
Detector	Peak and Quasi Peak	Bandwidth	120 kHz
Test equipm.	EMI room Hørsholm 29797 29499 29916 29861	Uncertainty	4 dB



Comments None

Test object	Stimulator, Grinddock	Sheet	RE-3
Type	Version 3, Version 3	Project no.	A505843-3
Serial no.	08470008, 08470021	Date	03 Dec. 2008
Client	Medotech A/S	Initials	HEN
Specification	FCC CFR 47 15.209	Frequency	30-1000 MHz

Test method	ANSI C63.4:2003	Temperature	22 °C
Characteristics	Peak search ant. at 3 m, height: 1-4 m, v/h pol.	Humidity	34 % RH
Detector	Quasi Peak	Bandwidth	120 kHz
Test equipm.	EMI room Hørsholm 29797 29499 29916 29861	Uncertainty	4 dB

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarisation
129.050000	32.00	13.9	43.5	11.5	122.0	15.00	HORIZONTAL
139.060000	33.20	13.8	43.5	10.3	112.0	24.00	HORIZONTAL
197.080000	23.40	11.4	43.5	20.1	177.0	1.00	HORIZONTAL
203.080000	19.60	12.1	43.5	23.9	110.0	182.00	VERTICAL
251.100000	18.80	14.8	46.0	27.2	202.0	74.00	HORIZONTAL
271.110000	16.70	15.1	46.0	29.3	122.0	15.00	HORIZONTAL

Test result The measured field strengths are below the limit

Compliant Yes

Comments Final maximal measurements by variation of turntable azimuth, antenna height, and antenna polarisation



Photo 4.3.1 Test setup regarding radiated emission, spurious, 30-1000 MHz.

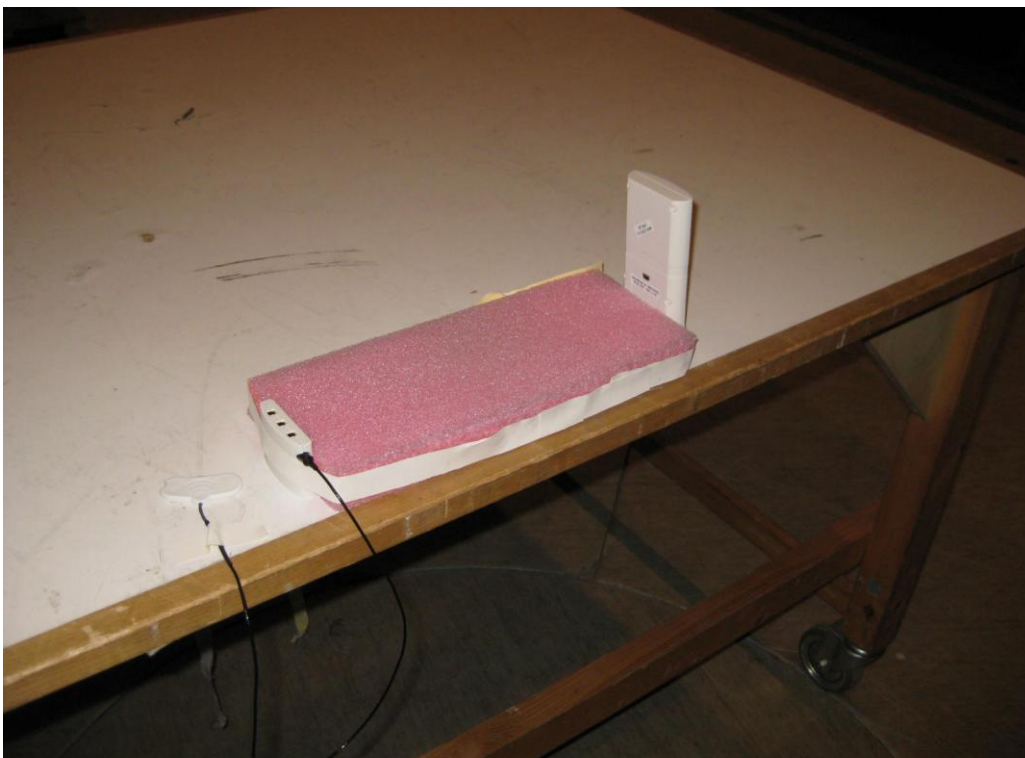
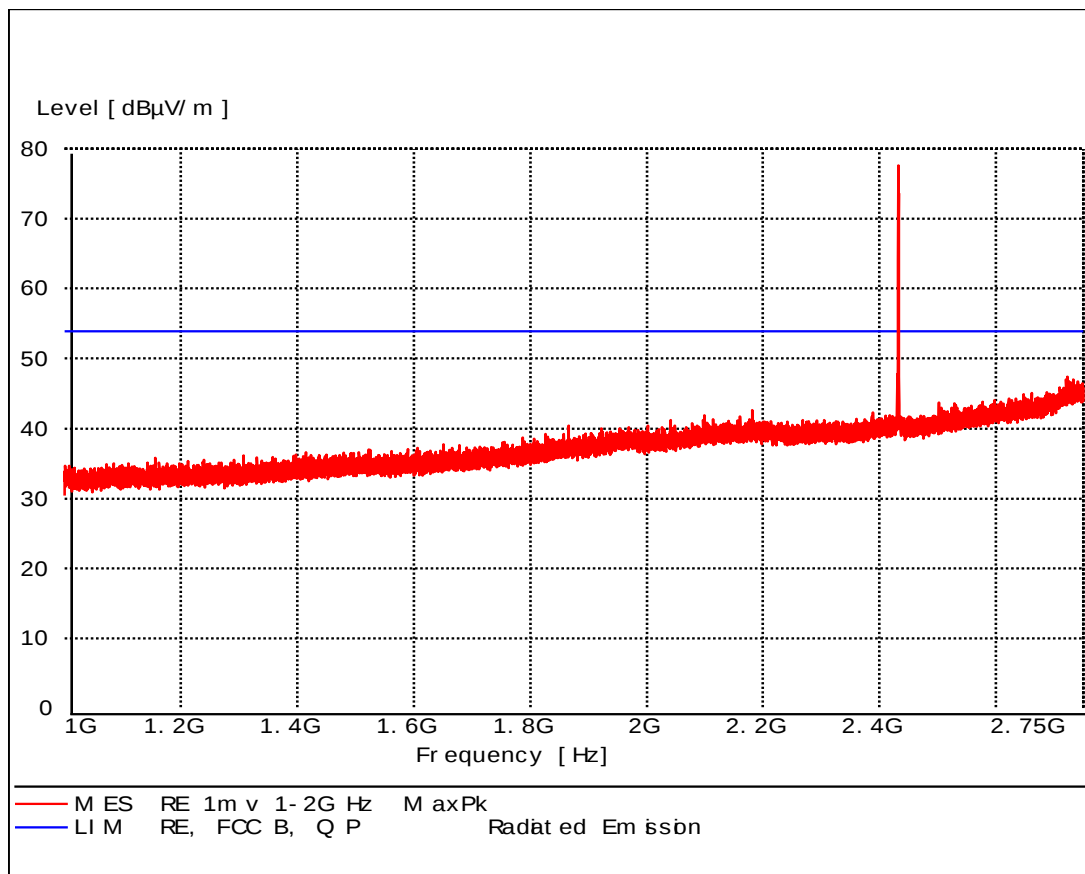


Photo 4.3.2 Test setup regarding radiated emission, spurious, 30-1000 MHz.

Test object	Stimulator, Grinddock	Sheet	RE-4
Type	Version 3, Version 3	Project no.	A505843-3
Serial no.	08470008, 08470021	Date	03 Dec. 2008
Client	Medotech A/S	Initials	HEN
Specification	FCC CFR 47 15.209	Frequency	1-2.75 GHz

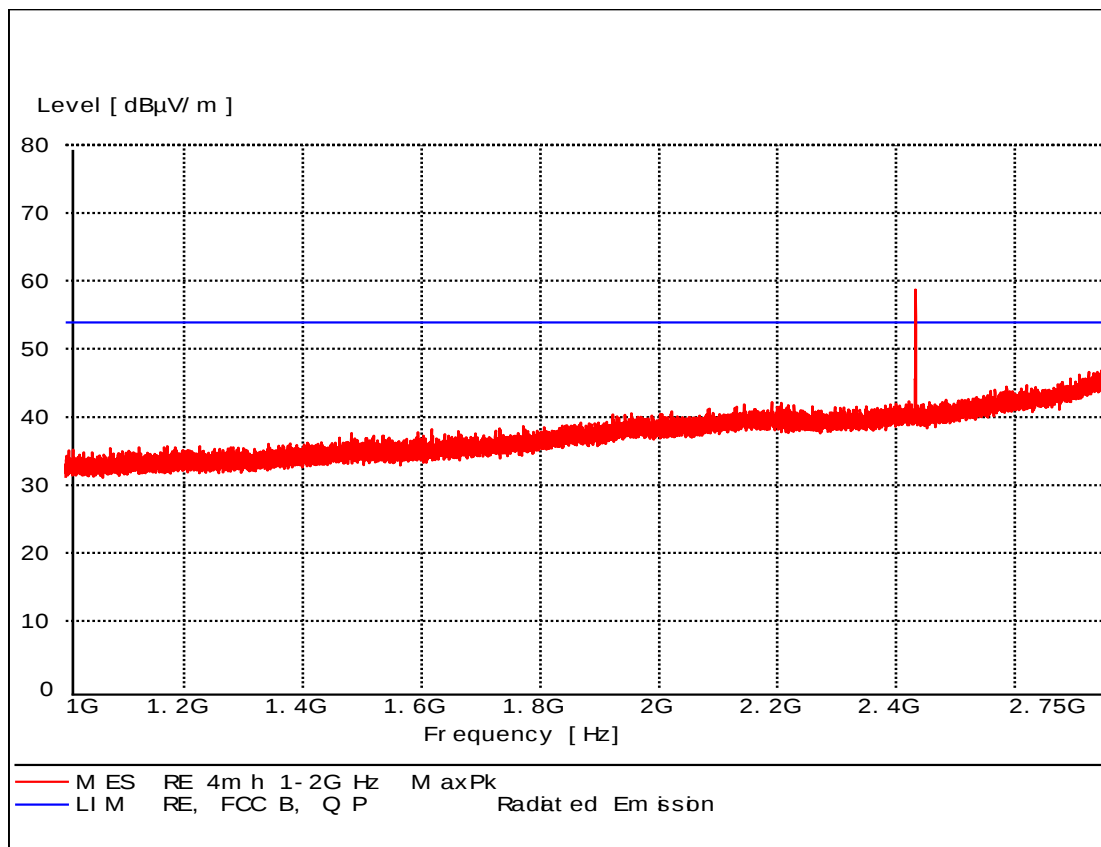
Test method	ANSI C63.4:2003	Temperature	22 °C
Characteristics	Pre-scan, Antenna at 3 m, 1 m height, vert. pol.	Humidity	34 % RH
Detector	Peak	Bandwidth	120 kHz
Test equipm.	EMI room Hørsholm 29876 49555 29861	Uncertainty	4 dB



Test result	The measured field strengths are below the limit
Compliant	Yes
Comments	Operating transmitter frequency at 2432.8 MHz. Final maximal measurements by variation of turntable azimuth, antenna height, and antenna polarisation

Test object	Stimulator, Grinddock	Sheet	RE-5
Type	Version 3, Version 3	Project no.	A505843-3
Serial no.	08470008, 08470021	Date	03 Dec. 2008
Client	Medotech A/S	Initials	HEN
Specification	FCC CFR 47 15.209	Frequency	1-2.75 GHz

Test method	ANSI C63.4:2003	Temperature	22 °C
Characteristics	Pre-scan, Antenna at 3 m, 4 m height, hor. pol.	Humidity	34 % RH
Detector	Peak	Bandwidth	120 kHz
Test equipm.	EMI room Hørsholm 29876 49555 29861	Uncertainty	4 dB



Test result	The measured field strengths are below the limit
Compliant	Yes
Comments	Operating transmitter frequency at 2432.8 MHz. Final maximal measurements by variation of turntable azimuth, antenna height, and antenna polarisation



Photo 4.3.3 Test setup regarding radiated emission, spurious, 1-2.75 GHz.

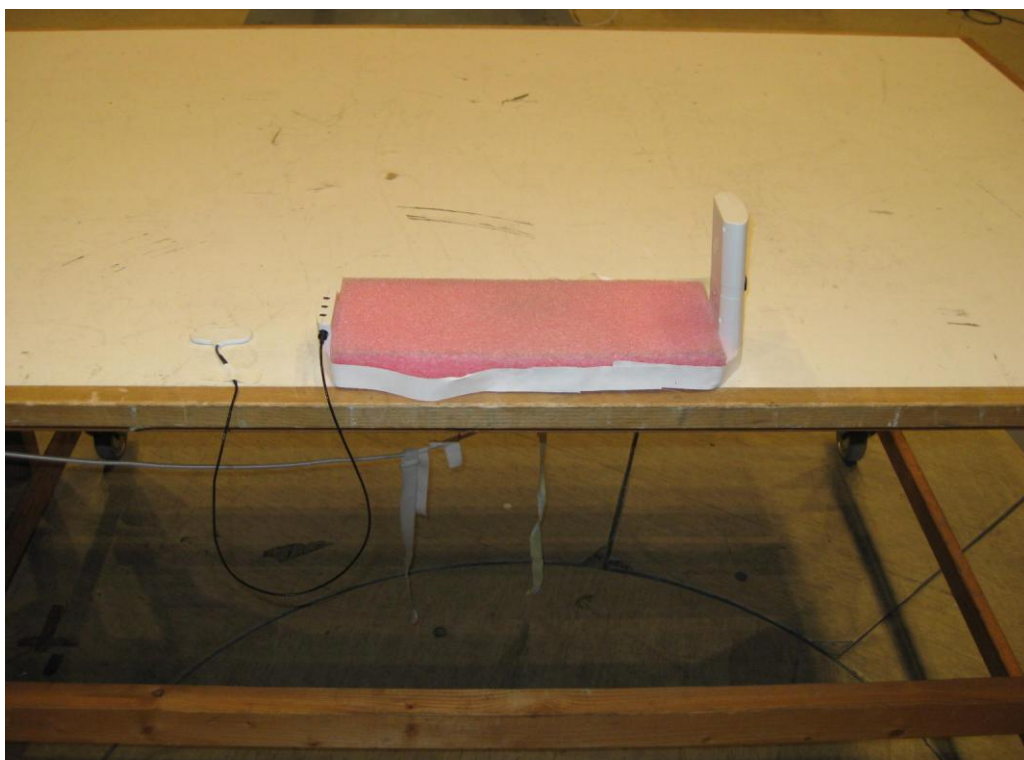
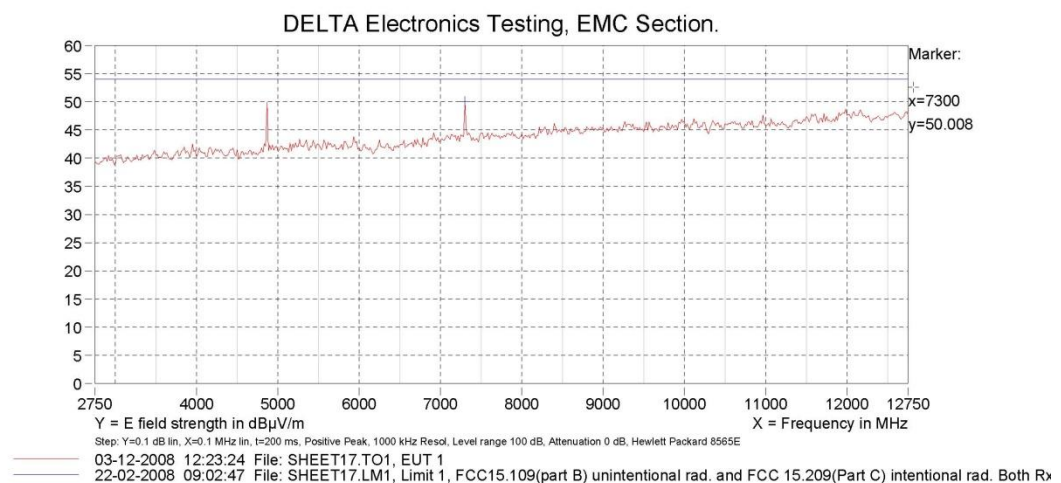


Photo 4.3.4 Test setup regarding radiated emission, spurious, 1-2.75 GHz.

Test object	Stimulator, Grinddock	Sheet	RE-6
Type	Version 3, Version 3	Project no.	A505843-3
Serial no.	08470008, 08470021	Date	03 Dec. 2008
Client	Medotech A/S	Initials	HEN
Specification	FCC CFR 47 15.209	Frequency	2.75-12.75 GHz

Test method	ANSI C63.4:2003	Temperature	22 °C
Characteristics	Peak search ant. at 3 m, height: 1-4 m, v/h pol.	Humidity	34 % RH
Detector	Peak	Bandwidth	1 MHz
Test equipm.	EMI room Hørsholm 29876 49555 29861 49037 49097	Uncertainty	4 dB



Test result	The measured field strengths are below the limit
Compliant	Yes
Comments	Final maximal measurements by variation of turntable azimuth, antenna height, and antenna polarisation



Photo 4.3.5 Test setup regarding measurement of radio frequency electromagnetic field, 2.75-12.75 GHz.

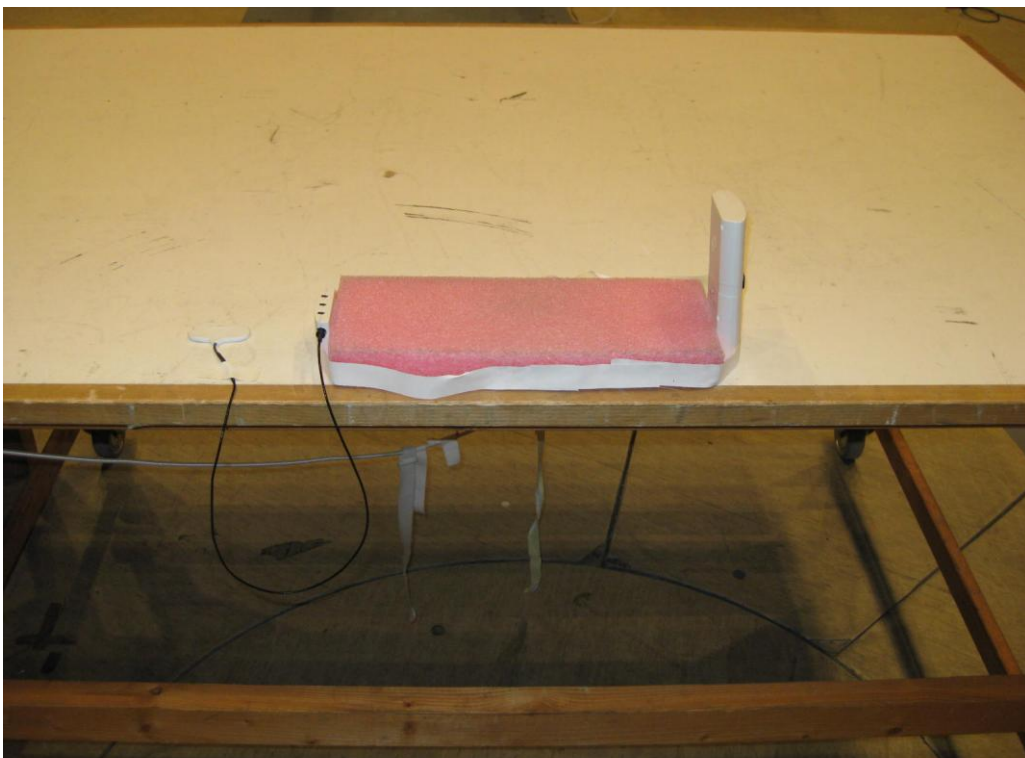
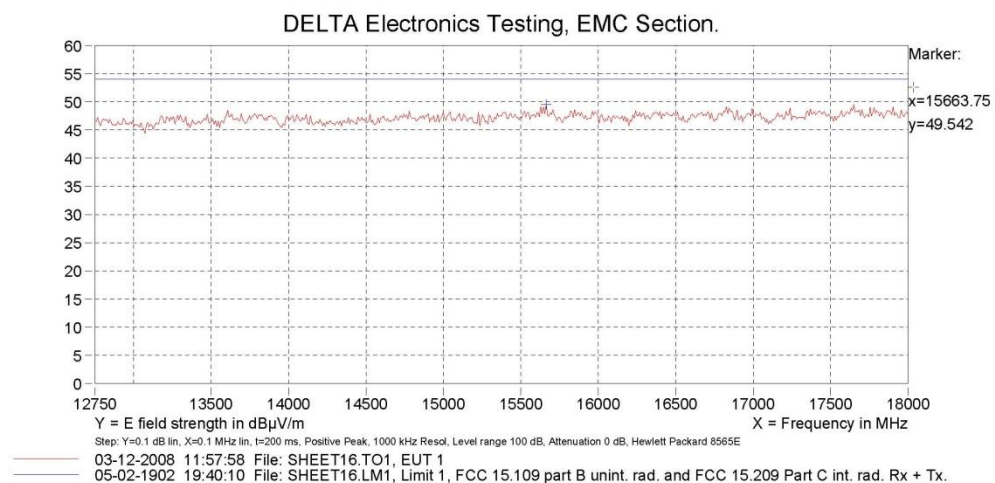


Photo 4.3.6 Test setup regarding measurement of radio frequency electromagnetic field, 2.75-12.75 GHz.

Test object	Stimulator, Grinddock	Sheet	RE-7
Type	Version 3, Version 3	Project no.	A505843-3
Serial no.	08470008, 08470021	Date	03 Dec. 2008
Client	Medotech A/S	Initials	HEN
Specification	FCC CFR 47 15.209	Frequency	12.75-18 GHz

Test method	ANSI C63.4:2003	Temperature	22 °C
Characteristics	Peak search ant. at 3 m, height: 1-4 m, v/h pol.	Humidity	34 % RH
Detector	Peak	Bandwidth	1 MHz
Test equipm.	EMI room Hørsholm 29448 29837 49555 49086	Uncertainty	4 dB



Test result	The measured field strengths are below the limit
Compliant	Yes
Comments	Final maximal measurements by variation of turntable azimuth, antenna height, and antenna polarisation



Photo 4.3.7 Test setup regarding radiated emission, spurious, 12.75-18 GHz.

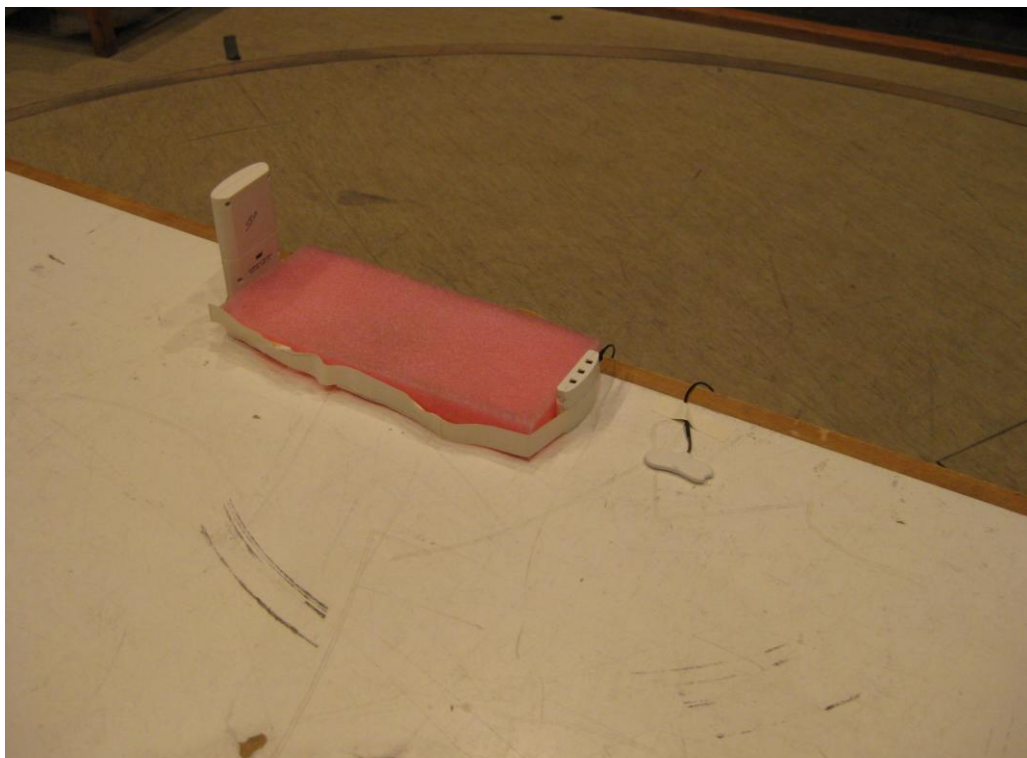
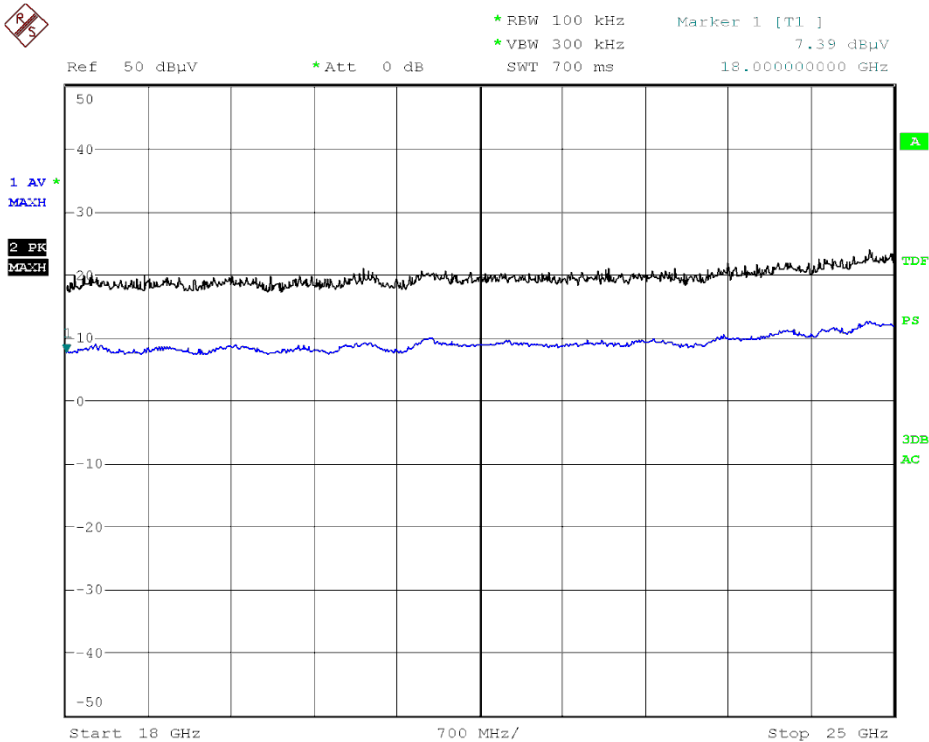


Photo 4.3.8 Test setup regarding radiated emission, spurious, 12.75-18 GHz.

Test object	Stimulator	Sheet	RE-8
Type	Version 3	Project no.	A505843-3
Serial no.	08470008	Date	05 Dec. 2008
Client	Medotech A/S	Initials	CRA
Specification	FCC CFR 47 15.209	Frequency	18-25 GHz

Test method	ANSI C63.4:2003	Temperature	22 °C
Characteristics	Peak search ant. at 0.15 m, height scanned manually, v/h pol.	Humidity	34 % RH
Detector	Peak and Average	Bandwidth	100/300 kHz
Test equipm.	Midilab Hørsholm 49328 49555	Uncertainty	4 dB



Antenna Factor (including cable loss) and limit measured at antenna terminal		AF	Limit
	18 GHz	53.1 dB/m	26.9 dBμV
	22 GHz	54.8 dB/m	25.2 dBμV
	25 GHz	55.9 dB/m	24.1 dBμV

Test result The measured field strengths are below the limit

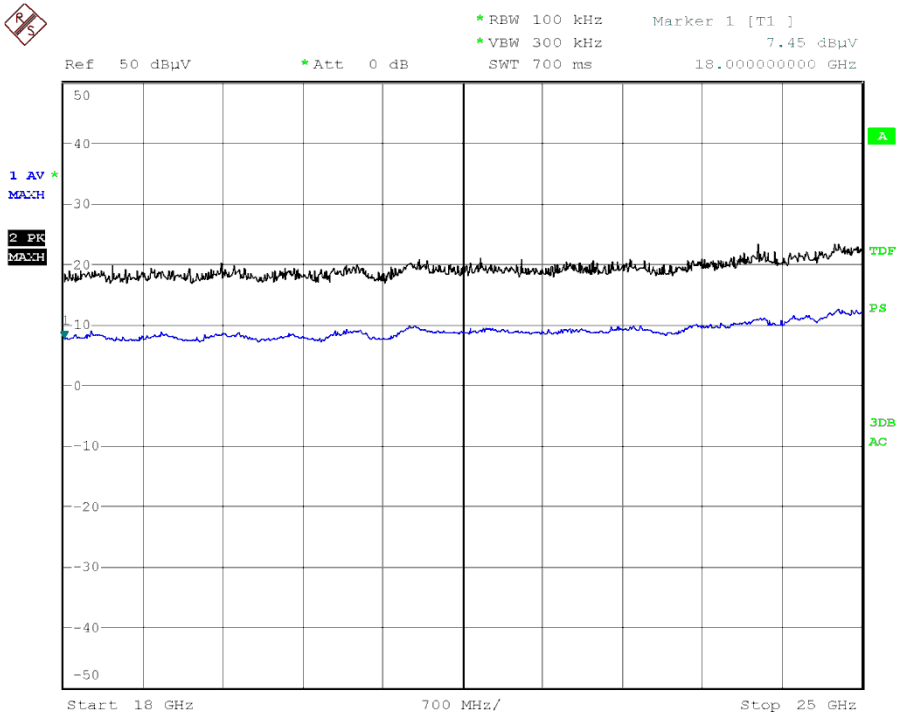
Compliant Yes

Comments Final maximal measurements by manual variation of test object azimuth, antenna height, and antenna polarisation



Test object	Grinddock	Sheet	RE-9
Type	Version 3	Project no.	A505843-3
Serial no.	08470021	Date	05 Dec. 2008
Client	Medotech A/S	Initials	CRA
Specification	FCC CFR 47 15.209	Frequency	18-25 GHz

Test method	ANSI C63.4:2003	Temperature	22 °C
Characteristics	Peak search ant. at 0.15 m, height scanned manually, v/h pol.	Humidity	34 % RH
Detector	Peak and Average	Bandwidth	100/300 kHz
Test equipm.	Midilab Hørsholm 49328 49555	Uncertainty	4 dB



Antenna Factor (including cable loss) and limit measured at antenna terminal		AF	Limit
	18 GHz	53.1 dB/m	26.9 dBμV
	22 GHz	54.8 dB/m	25.2 dBμV
	25 GHz	55.9 dB/m	24.1 dBμV

Test result The measured field strengths are below the limit

Compliant Yes

Comments Final maximal measurements by manual variation of test object azimuth, antenna height, and antenna polarisation



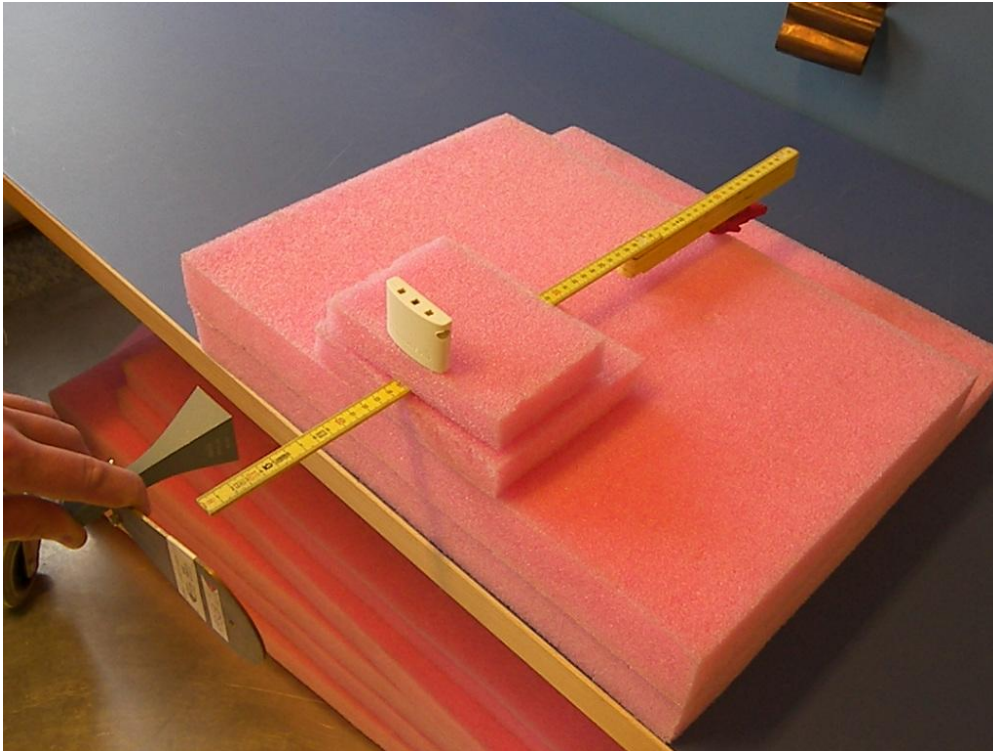


Photo 4.3.9 Test setup regarding radiated emission, spurious, 18-25 GHz.

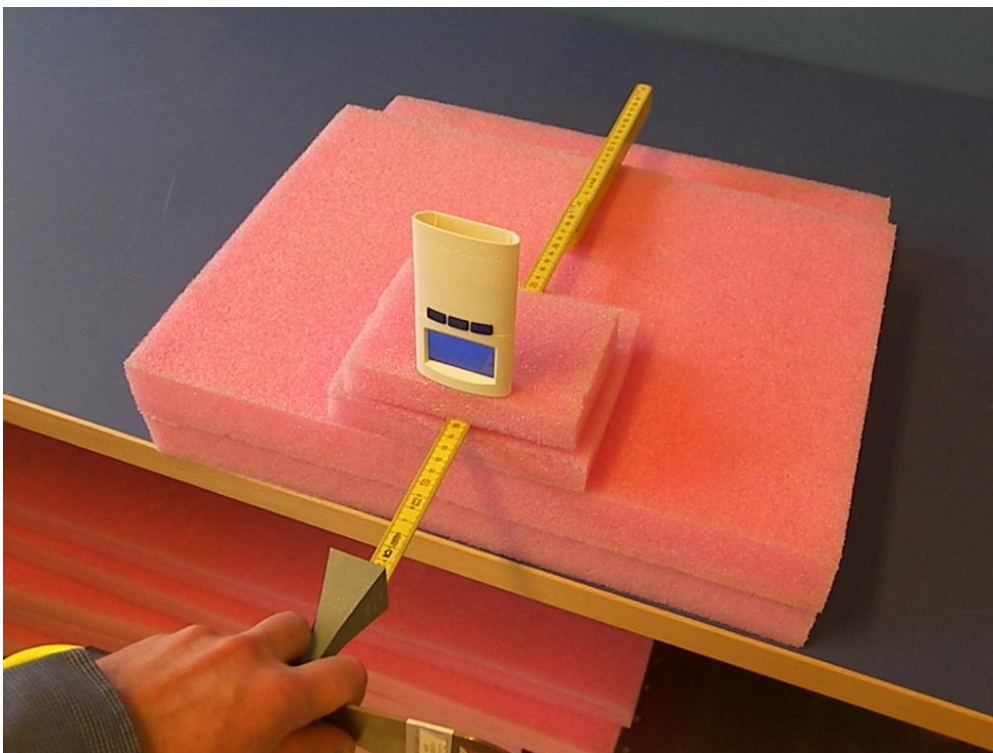
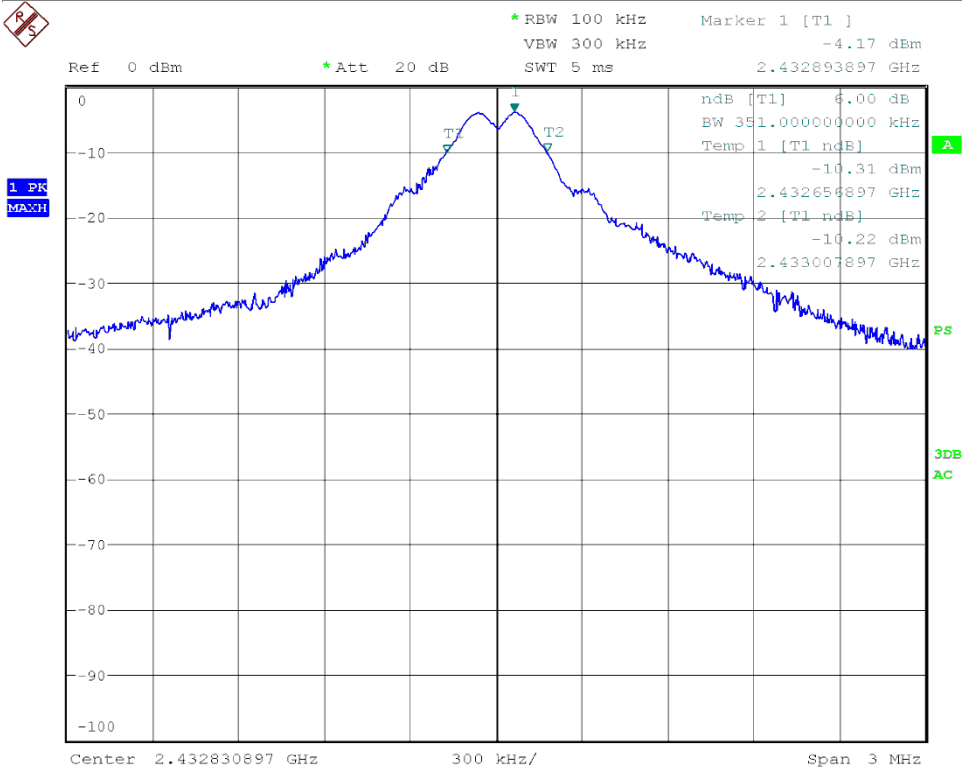


Photo 4.3.10 Test setup regarding radiated emission, spurious, 18-25 GHz.

4.4 Occupied bandwidth

Test object	Stimulator	Sheet	X-2
Type.	Version 3	Project no.	A505843-3
Serial no.	08470010	Date	04 Dec. 2008
Client	Medotech A/S	Initials	CRA
Specification	FCC CFR 47 15.215	Frequency	2432.8 MHz

Test method	ANSI C63.4:2003	Temperature	20°C
Characteristics	20 dB BW	Humidity	34 % RH
Test equipm.	Midilab Hørsholm 49328 49555		

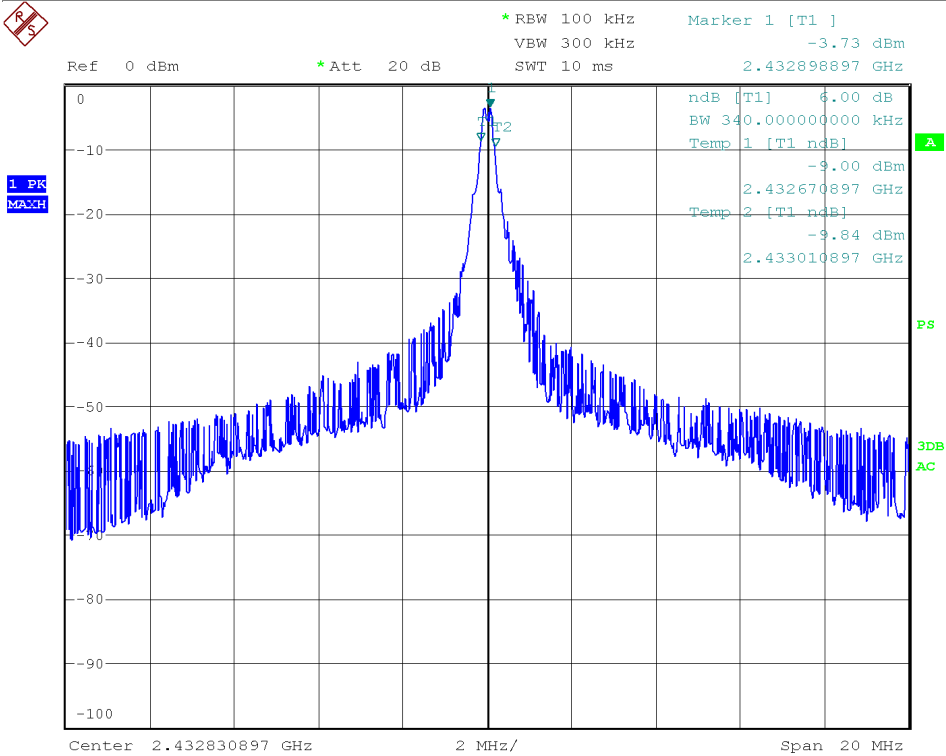


Test result	The measured 20 dB bandwidth is 800 kHz
Comments	None
Compliant	Yes



Test object	Grinddock	Sheet	X-3
Type.	Version 3	Project no.	A505843-3
Serial no.	08470023	Date	04 Dec. 2008
Client	Medotech A/S	Initials	CRA
Specification	FCC CFR 47 15.215	Frequency	2431.8 MHz

Test method	ANSI C63.4:2003	Temperature	20°C
Characteristics	20 dB BW	Humidity	34 % RH
Test equipm.	Midilab Hørsholm 49328 49555		



Test result	The measured 20 dB bandwidth is 800 kHz
Comments	None
Compliant	Yes





Photo 4.4.1 Test setup regarding measurement of occupied bandwidth.

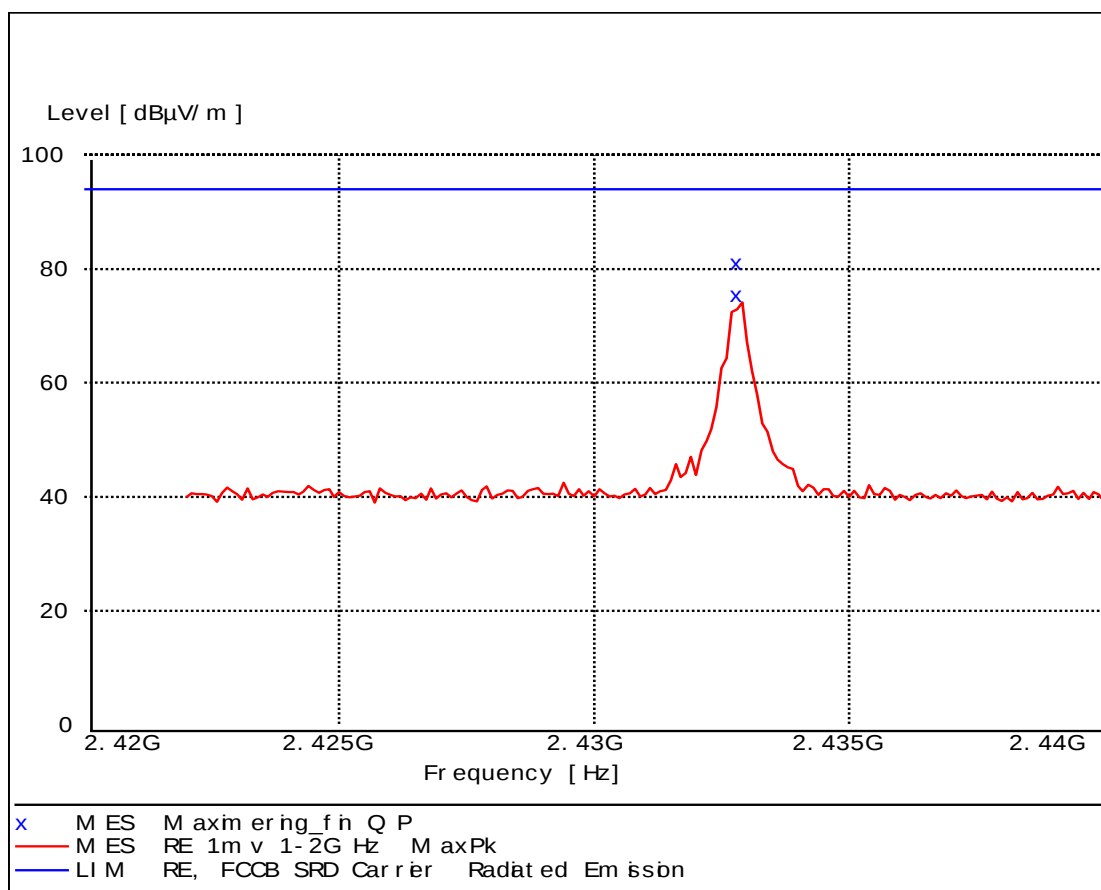


Photo 4.4.2 Test setup regarding measurement of occupied bandwidth.

4.5 Radiated emission, fundamental

Test object	Stimulator	Sheet	RE-10
Type	Version 3	Project no.	A505843-3
Serial no.	08470008	Date	10 Dec. 2008
Client	Medotech A/S	Initials	HEN
Specification	FCC CFR 47 15.249	Frequency	2432.8 MHz

Test method	ANSI C63.4:2003	Temperature	23 °C
Characteristics	Peak search ant. at 3 m, height: 1-4 m, v/h pol.	Humidity	31 % RH
Detector	Peak and Average	Bandwidth	120 kHz
Test equipm.	EMI room Hørsholm 29876 49555 29861	Uncertainty	4 dB



Comments None

Test object	Stimulator	Sheet	RE-11
Type	Version 3	Project no.	A505843-3
Serial no.	08470008	Date	10 Dec. 2008
Client	Medotech A/S	Initials	HEN
Specification	FCC CFR 47 15.249	Frequency	2432.8 MHz

Test method	ANSI C63.4:2003	Temperature	23 °C
Characteristics	Peak search ant. at 3 m, height: 1-4 m, v/h pol.	Humidity	31 % RH
Detector	Peak and Average	Bandwidth	120 kHz
Test equipm.	EMI room Hørsholm 29876 49555 29861	Uncertainty	4 dB

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarisation
2432.800000	81.00	35.8	94.0	13.0	125.0	172.00	VER--PK
2432.800000	75.40	35.8	94.0	18.6	125.0	172.00	VER--AV

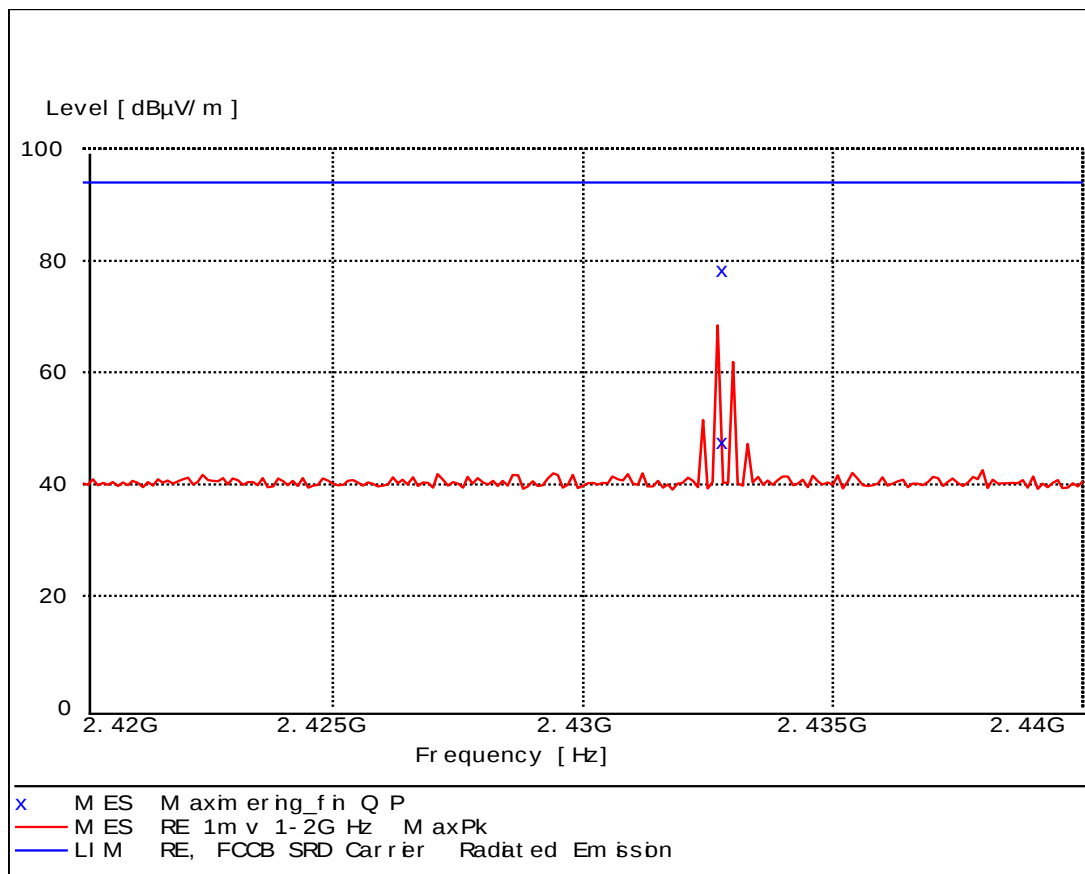
Test result The measured field strengths are below the limit

Compliant Yes

Comments Final maximal measurements by variation of turntable azimuth, antenna height, and antenna polarisation

Test object	Grinddock	Sheet	RE-12
Type	Version 3	Project no.	A505843-3
Serial no.	08470021	Date	10 Dec. 2008
Client	Medotech A/S	Initials	HEN
Specification	FCC CFR 47 15.249	Frequency	2432.8 MHz

Test method	ANSI C63.4:2003	Temperature	23 °C
Characteristics	Peak search ant. at 3 m, height: 1-4 m, v/h pol.	Humidity	31 % RH
Detector	Peak and Average	Bandwidth	120 kHz
Test equipm.	EMI room Hørsholm 29876 49555 29861	Uncertainty	4 dB



Comments None

Test object	Grinddock	Sheet	RE-13
Type	Version 3	Project no.	A505843-3
Serial no.	08470021	Date	10 Dec. 2008
Client	Medotech A/S	Initials	HEN
Specification	FCC CFR 47 15.249	Frequency	2432.8 MHz

Test method	ANSI C63.4:2003	Temperature	23 °C
Characteristics	Peak search ant. at 3 m, height: 1-4 m, v/h pol.	Humidity	31 % RH
Detector	Peak and Average	Bandwidth	120 kHz
Test equipm.	EMI room Hørsholm 29876 49555 29861	Uncertainty	4 dB

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarisation
2432.800000	78.40	35.8	94.0	15.6	133.0	335.00	VER--PK
2432.800000	47.60	35.8	94.0	46.4	133.0	335.00	VER--AV

Test result The measured field strengths are below the limit

Compliant Yes

Comments Final maximal measurements by variation of turntable azimuth, antenna height, and antenna polarisation



Photo 4.5.1 Test setup regarding radiated emission, fundamental.

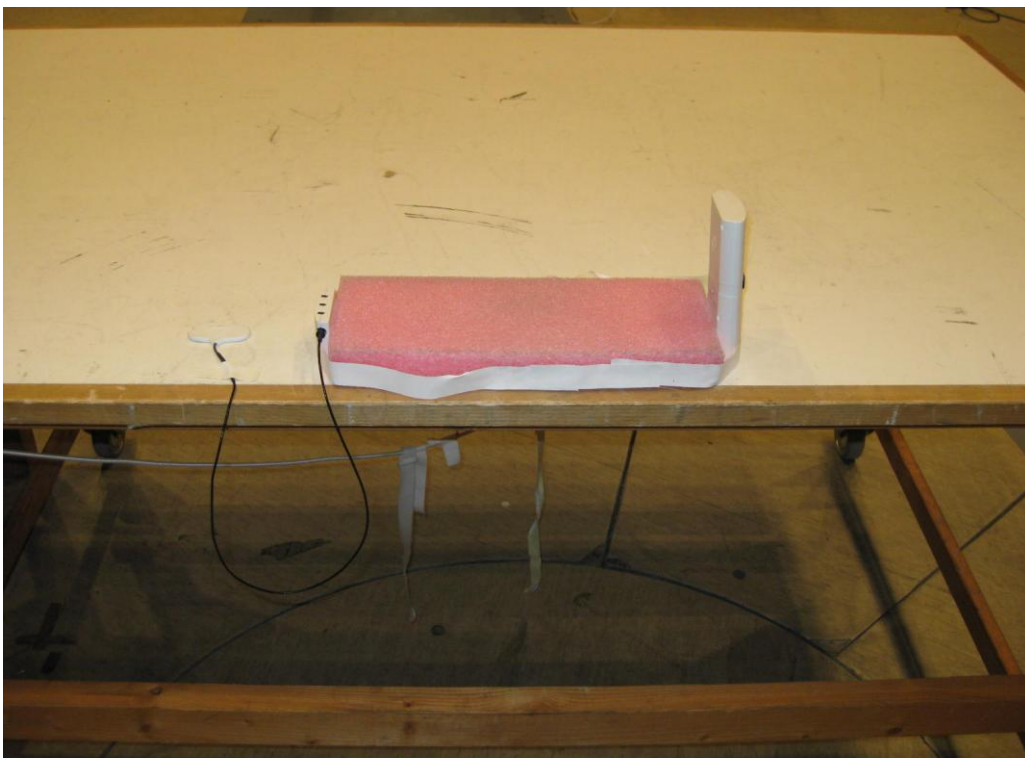


Photo 4.5.2 Test setup regarding radiated emission, fundamental.

5. National registrations and accreditations

5.1 FCC Registrations

Organization: Federal Communications Commission, USA

Registration Number: 90529

Facilities: EMC room 2 Hørsholm (EMC-2)
EMC room 3 Hørsholm (EMC-3)
EMC room 4 Hørsholm (EMC-4)
EMI room Hørsholm (EMC-5)

5.2 VCCI Registrations

Organization: Voluntary Control Council for Interference by Information Technology, Japan

Member Number: 910

Facilities: EMC room 2 Hørsholm (EMC-2): C-707 and T-246
EMC room 3 Hørsholm (EMC-3): C-2532 and T-247
EMC room 4 Hørsholm (EMC-4): C-2533 and T-248
EMI room Hørsholm (EMC-5): R-1180, C-706 and T-249

5.3 IC Registrations

Organization: Industry Canada, Certification and Engineering Bureau

Registration Number: IC4187-5

Facilities: EMI room Hørsholm (EMC-5)

5.4 DANAK Accreditation

Organization: Danish Accreditation and Metrology Fund - DANAK, see www.danak.dk and www.ilac.org

Registration Number: 19C

DANAK is part of ILAC (International Laboratory Accreditation Cooperation) including its MRA (Mutual Recognition Arrangement). The MRA includes the Australian NATA and Canadian SCC.

CISPR 22 is equivalent to AS/NZS CISPR 22, and therefore this report can be used for applying the **Australian C-Tick mark** for IT equipment, when this test has been passed.

CISPR 22:2002 is equivalent to ICES-003:2004, and therefore this report can be used for approval in Canada for IT equipment, when this test has been passed.

6. List of instruments

NO.	INSTRUMENT	MANUFACTURER	TYPE NO.	Cal. Date	Cal. Due
29448	HORN ANTENNA, 12.4-18 GHz w. SUHNER ADAPTOR 3101.19.A	FLANN MICRO-WAVE	1824-20	Jun. 08	Jun.10
29623	DIGITAL MULTIMETER, ROOM 5 (EMI)	FLUKE	77	Mar. 08	Mar. 09
29797	BILOG ANTENNA, 30-2000 MHz	CHASE ELECTRICS LTD	CBL 6111A	Oct. 08	Oct.10
29837	BROADBAND POWER AMPLIFIER, 8-18 GHz, 1 W	MITEQ	AMF-9B-080180-30P	Jan. 08	Jan. 09
29861	EMI-SOFTWARE VER. 1.60	ROHDE & SCHWARZ	ES-K1, PART: 1026.6790.02	N.A.	N.A.
29876	RIDGED GUIDE HORN ANTENNA, 1-12.75 (18) GHz	EMCO	3115	Sep. 08	Sep. 11
29916	AUTOMATIC TEST RECEIVER, 9 kHz - 2.75 GHz	ROHDE & SCHWARZ	ESCS 30 1102.4500.30	Nov. 08	Nov. 09
49037	BROADBAND MICROWAVE PRE-AMPLIFIER, 1-12.8 GHz	MITEQ / DELTA	AMF-5D-001128-35-11P	Feb. 08	Feb. 09
49086	REMI EMISSION SOFTWARE PACKAGE v. 2.133, ROOM 5	NeWeTec	REMI	N.A.	N.A.
49097	MICROWAVE HP FILTER 2.75-12.75 GHz, MAX. 2 W	MICRO-TRONICS	HPM13106	Jan. 08	Jan. 09
49328	STANDARD GAIN HORN, 18-26.5 GHz	NARDA	638	Sep. 08	Sep. 11
49555	SPECTRUM ANALYZER / MEASUREMENT RECEIVER	ROHDE & SCHWARZ	ESU26	Jun. 08	Jun. 09