



EUROFINS PRODUCT SERVICE GMBH



TEST - REPORT

**FCC RULES PARTS 22H and 24E
IC RADIO STANDARDS RSS 132 and RSS 133
for GSM**

**FCC ID: QRICMII
IC: 4708A-CMII**

CardioMessenger II

CM II with G24-L

Test report no.: G0M-1106-1164-P-2224_rev01



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1 General information

1.1 Notes

The results of this test report relate exclusively to the item tested as specified in chapter "Description of test item" and are not transferable to any other test items.

Eurofins Product Service GmbH is not responsible for any generalisations and conclusions drawn from this report. Any modification of the test item can lead to invalidity of test results and this test report may therefore be not applicable to the modified test item.

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OPERATOR

23.02.2012

C. Weber



Date

Eurofins-Lab.

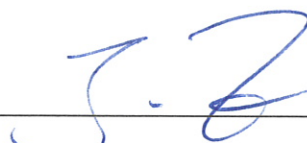
Name

Signature

Technical responsibility for area of testing:

23.02.2012

J. Zimmermann



Date

Name

Signature

1.2 Testing laboratory

1.2.1 Location

EUROFINS PRODUCT SERVICE GMBH
Storkower Strasse 38c
D-15526 Reichenwalde b. Berlin
Germany
Telephone : +49 33631 888 00
Telefax : +49 33631 888 660

1.2.2 Details of accreditation status

DAR ACCREDITED TESTING LABORATORY
DAR-REGISTRATION NUMBER: DAT-P-268/08

RECOGNIZED NOTIFIED BODY EMC
REGISTRATION NUMBER: BNetzA-bS EMV-07/61

RECOGNIZED NOTIFIED BODY R&TTE
REGISTRATION NUMBER: BNetzA-bS-02/51-53

FCC FILED TEST LABORATORY
REG.-No. 96970

A2LA ACCREDITED TESTING LABORATORY
CERTIFICATE NO. 1983.01

BLUETOOTH QUALIFICATION TEST FACILITY (BQTF)
ACCREDITED BY BLUETOOTH QUALIFICATION REVIEW BOARD

INDUSTRY CANADA FILED TEST LABORATORY
REG. NO. IC 3470

1.3 Details of approval holder

Name	: BIOTRONIK SE & Co. KG
Street	: Woermannkehre 1
Town	: 12359 Berlin
Country	: Germany
Telephone	: +49 30 68905 1213
Fax	: +49 30 68905 5409
Contact	: Herr Gunnar Börsch
E-Mail	: gunnar.boersch@biotronik.de

1.4 Application details

Date of receipt of application : 09.06.2011
 Date of receipt of test item : 09.06.2011
 Date of test : 16.06.2011 – 17.06.2011

1.5 Test item

Description of test item : CardioMessenger II
 Type identification : CM II with G24-L
 Serial number : 47127210
 Hardware Version : CardioMessenger II (CE): DMR 356073 (with G24-L)
 CardioMessenger II LLT (CA): DMR 358226 (with G24-L)
 CardioMessenger II LLT (US): DMR 359592 (with G24-L)
 Software Version : 0.6X
 Photos : See annex A.

Technical data

GSM

Frequency range Tx - GSM 850 : 824 - 849 MHz
 Frequency range Tx - PCS : 1850 - 1910 MHz
 Frequency range Rx - GSM 850 : 869 - 894 MHz
 Frequency range Rx - PCS : 1930 - 1990 MHz
 Antenna Type : internal antenna

	<u>GSM 850</u>	<u>PCS 1900</u>
Antenna Gain	: 0dBi	: 0dBi

Power supply : 3.7VDC
 Operating mode : duplex
 Type of modulation : GMSK (GSM, GPRS)
 Emission : GXW (GSM, GPRS)
 Used module : G24-L (Motorola)
 FCC ID module : IHDT56HQ1
 IC ID module : 109O-HQ1

Manufacturer: (if applicable)

Name : BIOTRONIK SE & Co. KG
 Street : Woermannkehre 1
 Town : 12359 Berlin
 Country : Germany

1.6 Test standards

Technical standard : FCC Parts: 22H, 24E, 2, 15
IC Standards: RSS 132 ISSUE 2, RSS 133 ISSUE 5

Additional information : Because of using the GSM 850 as an alternative technology in 850 MHz band, not all test cases of FCC Part 22 are required.

This test report covers the test which are related to GSM radio technology in GSM 850 band and GSM 1900 band only.

The manufacturer declares that the device CardioMessenger II CM II with G24-L used the module G24-L of the company Motorola.

Therefore a shortened test plan was created in confirmation with the manufacturer.

2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed. ☒

or

The deviations as specified in 2.5 were ascertained in the course of the tests performed. ☐

2.2 Test environment

Temperature : 25 ° C

Relative humidity content : 20 ... 75 %

Air pressure : 86 ... 103 kPa

2.3 Test equipment utilized

Measurement Equipment List					
No.:	Measurement device:	Type:	Manufacturer:	Last Cal.	Next Cal.
ETS 0030	Biconical Antenna	HK 116	Rohde & Schwarz	10.02.11	20.02.12
ETS 0295	LPD Antenna	HL 223	Rohde & Schwarz	09.02.11	09.02.12
ETS 0015	LPD Antenna	HL 025	Rohde & Schwarz	14.02.11	14.02.13
ETS 0310	Semi-anechoic chamber	AC 3	Frankonia	25.01.07	25.02.12
ETS 0413	Spectrum Analyzer	FSIQ26	Rohde & Schwarz	15.04.11	15.04.12
ETS 0432	Amplifier-Matrix			02.06.10	02.06.12
ETS 0485	Radio communication tester	CMU 200	Rohde & Schwarz	08.08.11	08.08.13

2.4 General test procedure

POWER LINE CONDUCTED INTERFERENCE: The procedure used was ANSI STANDARD C63.4-2003 5.2 using a 50 μ H LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-2003 6.4 using a spectrum analyzer. The resolution bandwidth of the spectrum analyzer was 100 kHz for measurements below 1 GHz and RBW 1 MHz was used above 1 GHz. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

FORMULA OF CONVERSION FACTORS for Field strength: The Field Strength at 3 m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dB μ V) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

Freq. (MHz)	METER READING + ACF + CABLE LOSS (to the receiver) = FS
33	20 dB μ V + 10.36 dB + 6 dB = 36.36 dB μ V/m @ 3 m

ANSI STANDARD C63.4-2003 6.2.1 MEASUREMENT PROCEDURES: The UUT was placed on a table 80 cm high and with dimensions of 1 m by 1.5 m (non metallic table). The UUT was placed in the center of the table. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to at least 10th harmonic of the fundamental.

Peak readings were taken in three (3) orthogonal planes and the highest readings.

Measurements were made by Eurofins Product Service GmbH at the registered open field test site located at Storkower Str. 38c, 15526 Reichenwalde, Germany.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1 m to 4 m. The antenna was placed in both the horizontal and vertical planes.

ANTENNA & GROUND:

This unit uses internal antennas.

2.5 Test results

☒ 1st test

☐ test after modification

☐ production test

Test case	FCC 47 CFR PART	IC RSS	Required	Result	Remarks
TRANSMITTER PARAMETERS					
RF power output conducted	2.1046 FCC § 22.913(a) FCC § 24.232(c)	Gen §4.6 132 §4.4 133 §4.3	☐	N/A	
RF power output radiated (ERP, EIRP)	22.913(a) 24.232(c)	132 §4.4 133 §4.3	☒	PASS	
Occupied bandwidth	2.1049	Gen §4.4.1	☐	N/A	
Emission bandwidth	22.917(b) 24.238(b)	-	☐	N/A	
Frequency stability	2.1055 22.355 24.235	Gen §4.5 132 §4.3 133 §4.2	☐	N/A	
Spurious emission conducted (antenna terminal)	2.1051 22.917 24.238	Gen §4.7 132 §4.5 133 §4.4	☐	N/A	
Spurious emission radiated	2.1053 22.917 24.238	Gen §4.7 132 §4.5 133 §4.4	☒	PASS	
Block edge compliance	22.917(b) 24.238(b)	132 §4.5.1.1 133 §4.4	☐	N/A	
RECEIVER PARAMETERS					
Radiated spurious emissions	FCC § 15.109	IC RSS- Gen 4.10 IC RSS- Gen 6.1	☒	PASS	
POWER LINE PARAMETERS					
AC power line conducted emissions	FCC § 15.207	IC RSS- Gen. 7.2.4	☐	N/A	

3 Transmitter parameters

3.1 RF power output, radiated

Reference

	Cellular telephone 850 MHz	PCS 1900 MHz
FCC	CFR part 22.913(a)	CFR part 24.232(c)
IC	RSS-132 Issue 2, §4.4	RSS-133 Issue 3, §4.3

Method of measurement

The EUT was positioned on a non-conductive turntable, 0.8m above the ground plane on an open test site. The radiated emission at the fundamental frequency was measured at 3m distance with a test antenna and spectrum analyzer.

Worst case emission was recorded with the rotation of the turntable and the raising and lowering of the test antenna.

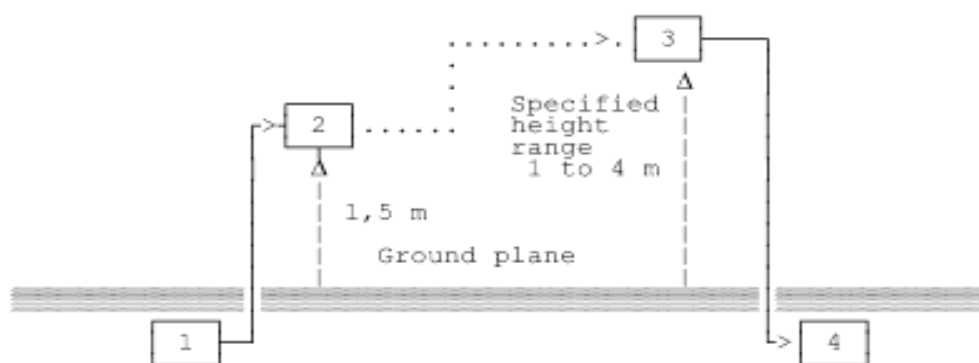
ERP in frequency band 824.2 - 848.8 MHz, and EIRP in frequency band 1850.2 - 1909.8 MHz were measured using a substitution method. The EUT was replaced by half-wave dipole (824.2 - 848.8 MHz) or horn antenna (1850.2 - 1909.8 MHz) connected to a signal generator.

Substitution RF power measurement at Eurofins Product Service GmbH

General:

The applied substitution method follows ANSI/TIA/EIA-603, ANSI/TIA/EIA-102.CAAA or the appropriate ETSI rules respectively.

The actual signal generated by the EUT can be determined by means of a substitution measurement in which a known signal source replaces the device to be measured.



- 1) Signal generator;
- 2) Substitution antenna;
- 3) Test antenna;
- 4) Spectrum analyzer or selective voltmeter.

The substitution antenna replaces the transmitter antenna at the same position and in vertical polarization. The frequency of the signal generator shall be adjusted to the measurement frequency. The test antenna shall be raised or lowered, if necessary, to ensure that the maximum signal is still received. The input signal to the substitution antenna shall be adjusted in level until an equal or a known related level to that detected from the transmitter is obtained in the measurement receiver.

If a fully anechoic chamber is used as test site in order to provide free space conditions there is no need to change the height of the antenna.

The measurement will be repeated in horizontal position.

Calibration:

In order to make this kind of measurement more effective and to avoid subjective measurement faults Eurofins has installed automatic computer controlled measurement procedures.

With the above described substitution method a test site is calibrated over the full frequency range which is used in suitable frequency steps. For a certain power level on the substitution antenna the received power over the whole frequency range is documented. All necessary antenna gains, cable losses, filter losses and amplifications of preamplifiers are taken in consideration. The summary of this calibration measurement performs a transducer factor that is related to the considered test site and a certain measurement distance. Differences of the radiated power levels of different test samples are determined by internal attenuation of the measurement receiver. The proper function of such test site will be maintained by short term plausibility checks and periodical re-calibration.

Testing:

The test sample is put on the table at the defined position and the measurement receiver receives and documents the radiated power. On test sites with ground plane the measurement antenna will be lowered and raised to maximum values at significant frequencies.

For peak power measurements the sample is turned by the turntable over 360 degree in order to find the direction with the maximum radiation or to document the max reading with the MAXHOLD function during the rotation.

Limits

Maximum e.i.r.p. output power limits		
	Cellular telephone 850 MHz	PCS 1900 MHz
FCC	38,5 dBm (7 Watts), ERP	33 dBm (2 Watts), EIRP
IC	38 dBm (6.3 Watts), ERP	33 dBm (2 Watts), EIRP

Test Results

RF output power radiated	
Measurement Conditions	
Measurement distance :	3m
Modulated :	☒ Yes ☐ No
Channel [MHz]	radiated ouput power [dBm]
Cellular telephone 850MHz (GPRS) (ERP)	
128	32.72
188	33.36
251	34.14
PCS 1900MHz (GPRS) (EIRP)	
512	24.33
661	25.82
810	26.08
See attached diagrams in Annex	
Verdict	PASS

3.2 Spurious emission radiated

Reference

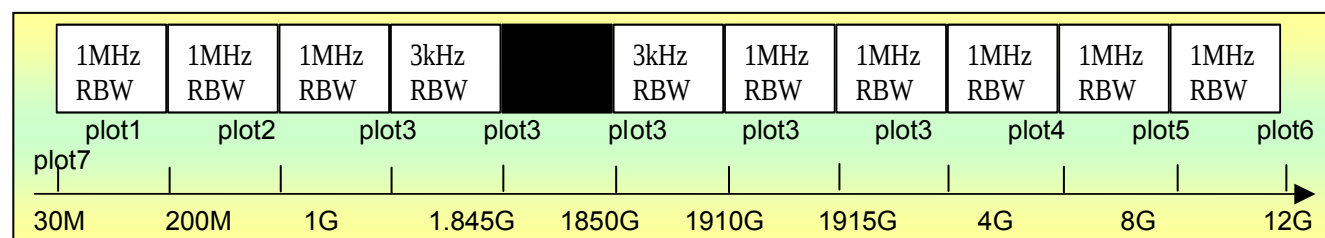
	Cellular telephone 850 MHz	PCS 1900 MHz
FCC	CFR part 22.917, 2.1053	CFR part 24.238, 2.1053
IC	RSS-132 Issue 2, §4.5 RSS-Gen Issue 1, §4.7	RSS-133 Issue 3, §4.4 RSS-Gen Issue 1, §4.7

Method of measurement

The EUT was positioned on a non-conductive turntable, 0.8m above the ground plane. The radiated emission at the fundamental frequency was measured at 3 m distance with a test antenna and spectrum analyzer.

Worst case emission was recorded with the rotation of the turntable and the raising and lowering of the test antenna.

ERP was measured using a substitution method. The EUT was replaced by horn antenna connected to a signal generator.



The frequency range up to tenth harmonic was investigated.

The tests of spurious radiated emission have been carried out with the EKS-Software from Rohde & Schwarz.

The analyzer gives automatic the measurements of spectral plots to the EKS software.

In the 1st 1 MHz band outside the band edge nearest the channel of interest a 3 kHz res. BW is used. The measurements from 30 MHz to 1845 GHz and 1915 GHz to 26.56 GHz were performed with a measurement bandwidth of 1 MHz.

Calculation of test results:

Such factors like antenna correction, cable loss, external attenuation etc. are already included in the provided measurement results. This is done by using validated test software and calibrated test system according the accreditation requirements.

The peak and average spurious emission plots was measured with the average limits. In the Table being listed the critical peak and average value an exhibit the compliance with the above calculated Limits.

Limits

	Cellular telephone 850 MHz	PCS 1900 MHz
FCC	$P_c - (43 + 10 \log (P) \text{ dB})$	$P_c - (43 + 10 \log (P) \text{ dB})$
IC	$P_c - (43 + 10 \log (P) \text{ dB})$	$P_c - (43 + 10 \log (P) \text{ dB})$

Results:

Transmitter radiated spurious emissions						
Measurement Conditions						
Measurement distance :		3m				
Modulated :		☒ Yes ☐ No				
Channel Frequency [MHz]	Emission Frequency [MHz]	Polarization	Measured Field Strength [dBm]	Limit@3m [dBm]	Detector	Margin [dB]
GPRS						
128	0.8239	vertical	-16.70	-13.0	PK	-3.70
251	0.8490	vertical	-14.05	-13.0	PK	-1.05
810	1910	horizontal	-21.51	-13.0	PK	-8.51
See attached diagrams in Annex						
Verdict					PASS	

4 Receiver parameters

4.1 Radiated emissions

Reference

	Cellular telephone 850 MHz	PCS 1900 MHz
FCC	CFR part 15.109, 2.1053	CFR part 15.109, 2.1053
IC	RSS-132 Issue 2, 4.6 RSS-Gen Issue 1, §4.8	RSS-133 Issue 3, §4.5 RSS-Gen Issue 1, §4.8

Method of measurement

The receiver shall be operated in the normal receive mode near the mid-point of the band(s) over which the receiver is designed to operate.

The measurement method is the radiated emission measurement. The measurement starts at 30 MHz and ends at least 3 times the highest tunable local oscillator frequency (6 GHz).

Limits

Receiver spurious emission limits @ 3m				
Frequency range [MHz]	Detector	Limit@3m [µV/m]	Calculated Limit @ 3m [dBµV/m]	Measurement Distance [m]
30 – 88	Quasi-Peak	100	40	3
88 – 216	Quasi-Peak	150	43.5	3
216 – 960	Quasi-Peak	200	46	3
960 – 1000	Quasi-Peak	500	54	3
> 1000	Average	500	54	3

Receiver spurious Emissions						
Measurement Conditions						
Measurement distance :		3m				
Channel Frequency [MHz]	Emission Frequency [kHz]	Polarization	Measured Field Strength [μV/m]	Limit@3m [μV/m]	Detector	Margin [dB]
188	190.802	v	38.84	150	Peak	-111.16
	196.593	h	39.99	150	Peak	-110.01
	987.174	v	13.65	200	Peak	-186.35
	876.553	h	22.21	150	Peak	-127.79
	3940.000	v	110.41	500	Peak	-389.59
	3928.000	h	103.75	500	Peak	-396.25
661	187.395	v	38.19	150	Peak	-111.81
	191.824	h	35.56	150	Peak	-114.44
	996.794	v	13.17	200	Peak	-186.83
	385.972	h	15.89	150	Peak	-134.11
	3982.000	v	102.80	500	Peak	-397.20
	3982.000	h	109.65	500	Peak	-390.35
	7279.000	v	106.78	500	Peak	-393.22
	7872.000	h	119.40	500	Peak	-380.60
See attached diagrams in Annex						
Verdict					PASS	

Annex A Photos



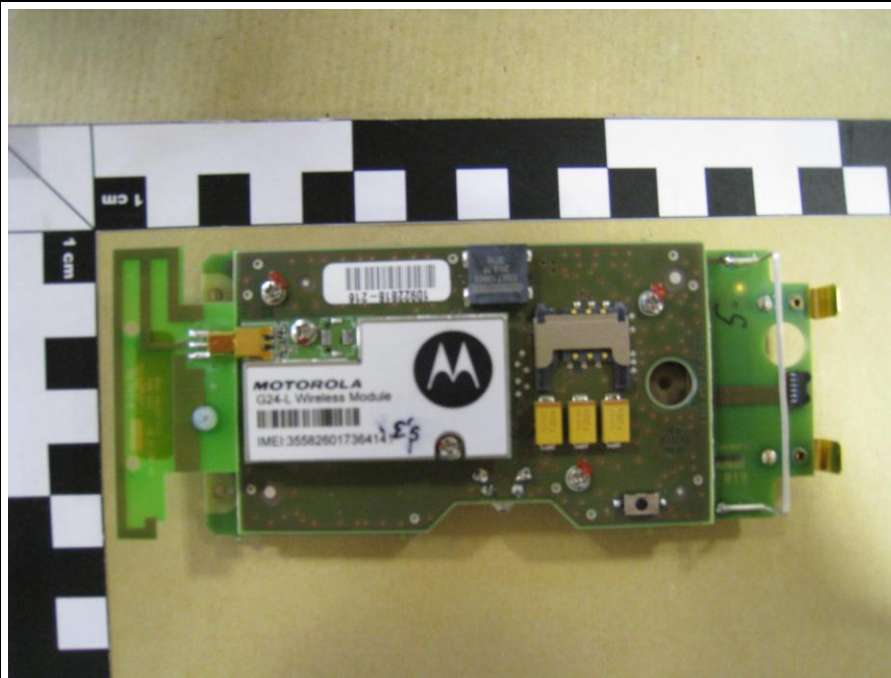
EUT FRONT OPEN



EUT PCB



EUT PCB WITH MODULE G-24L



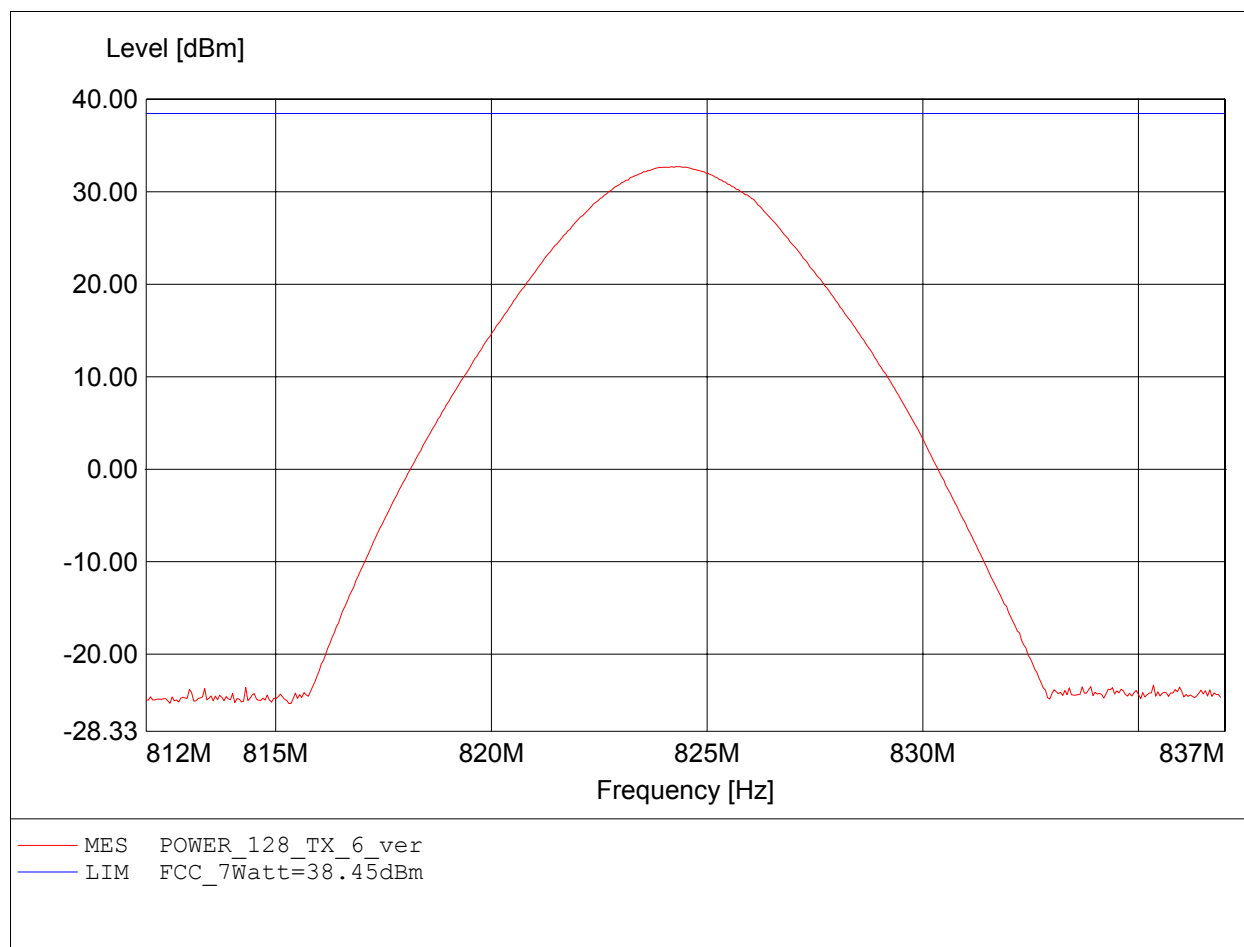
TESTSETUP RADIATED MEASUREMENTS



Annex B RF power output radiated

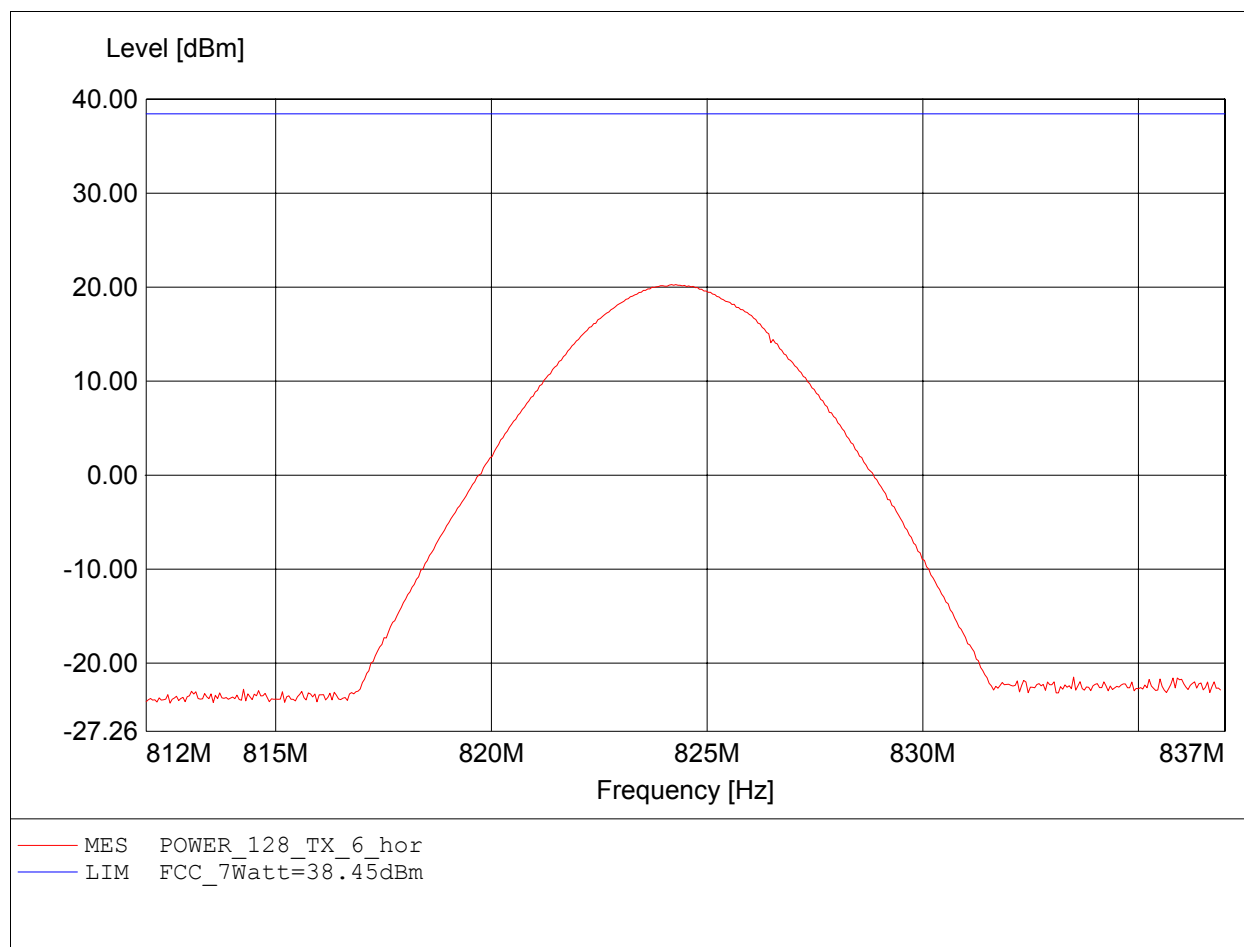
Effective Radiated Power
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 128 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 128
Comment 1: Dist.: 3m, Ant.: HL223
Comment 2: Freq: 824.375MHz, Pmax: 32.72dBm, RBW: 3MHz



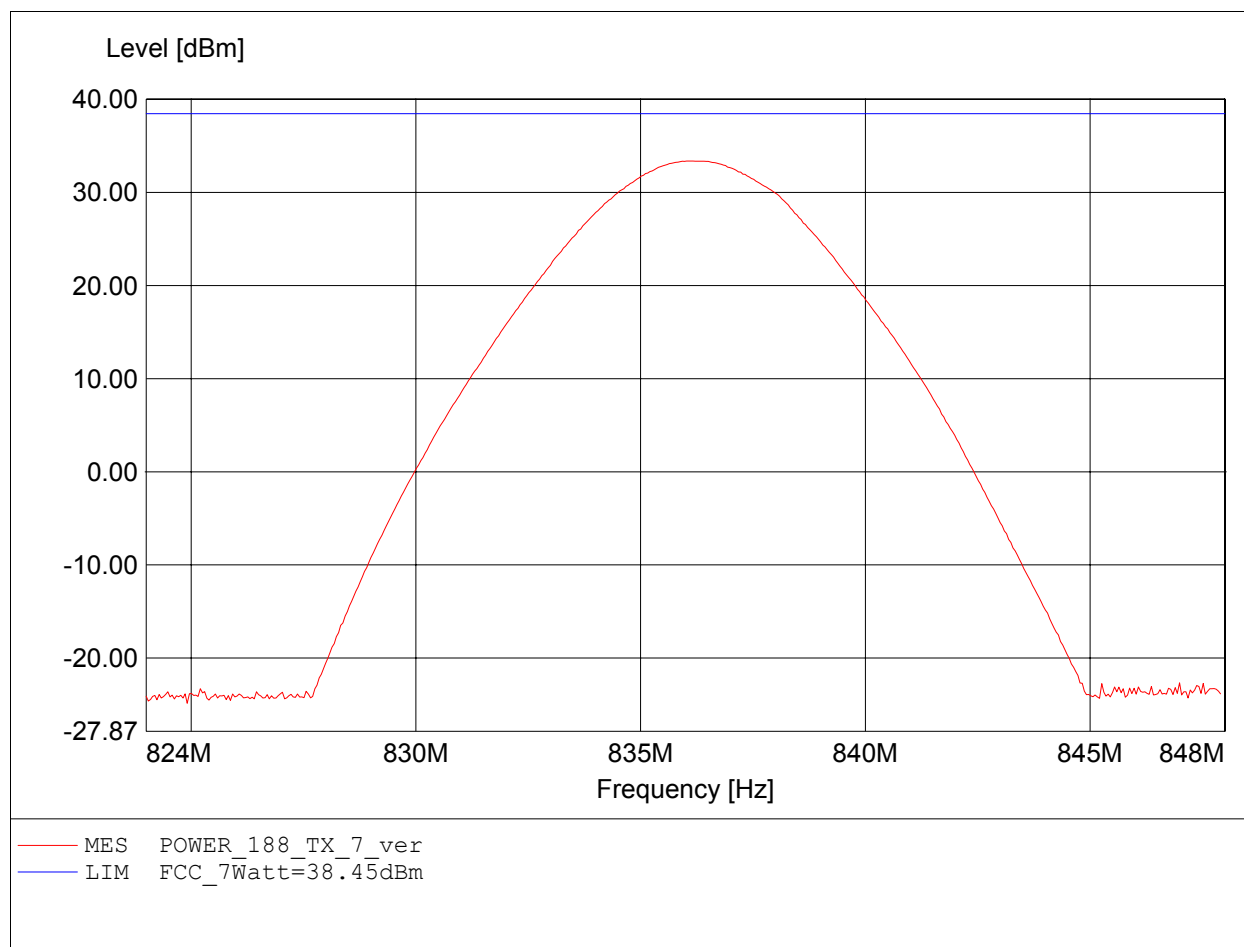
Effective Radiated Power
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 128 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 128
Comment 1: Dist.: 3m, Ant.: HL223
Comment 2: Freq: 824.275MHz, Pmax: 20.27dBm, RBW: 3MHz



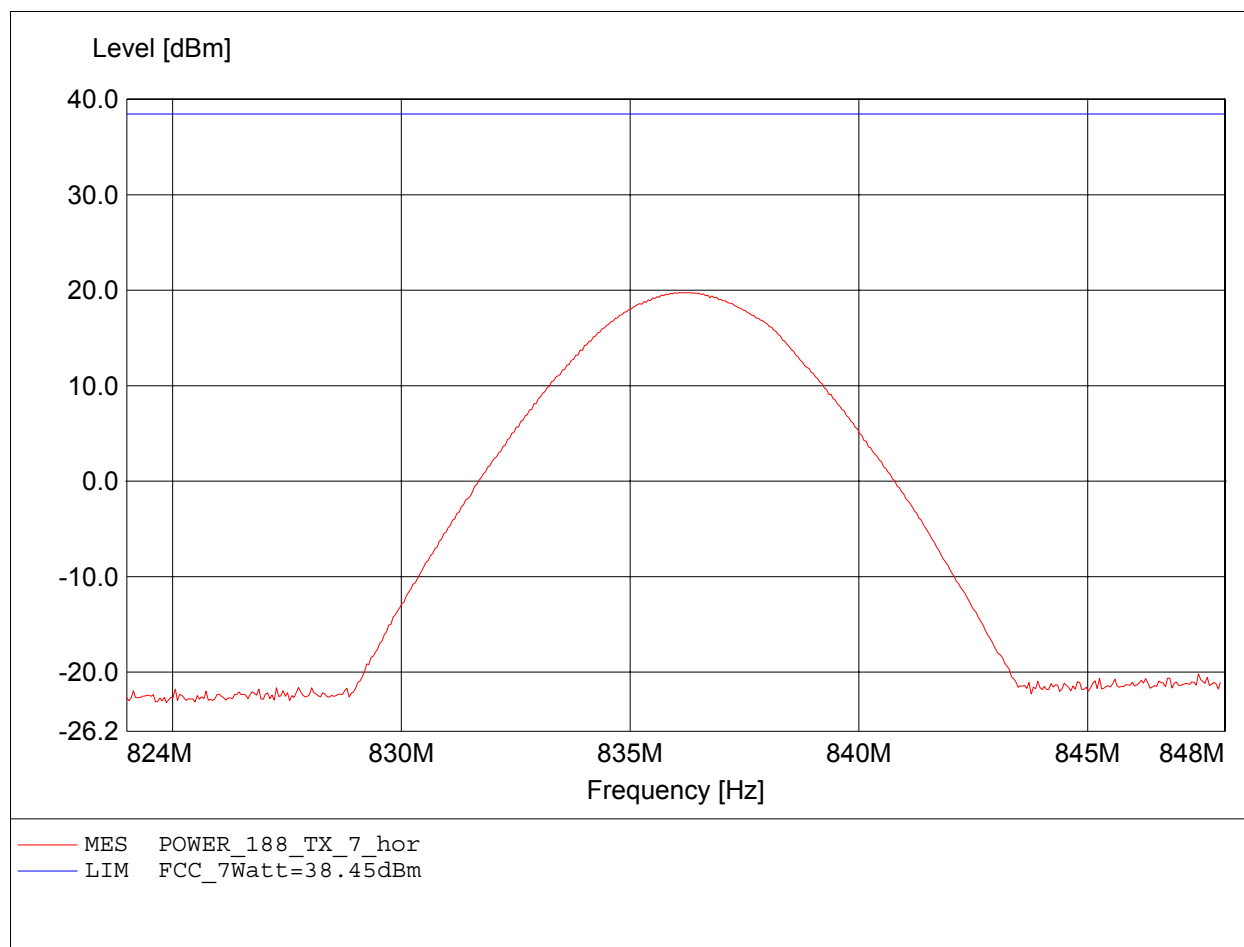
Effective Radiated Power
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL223
Comment 2: Freq: 836.024MHz, Pmax: 33.36dBm, RBW: 3MHz



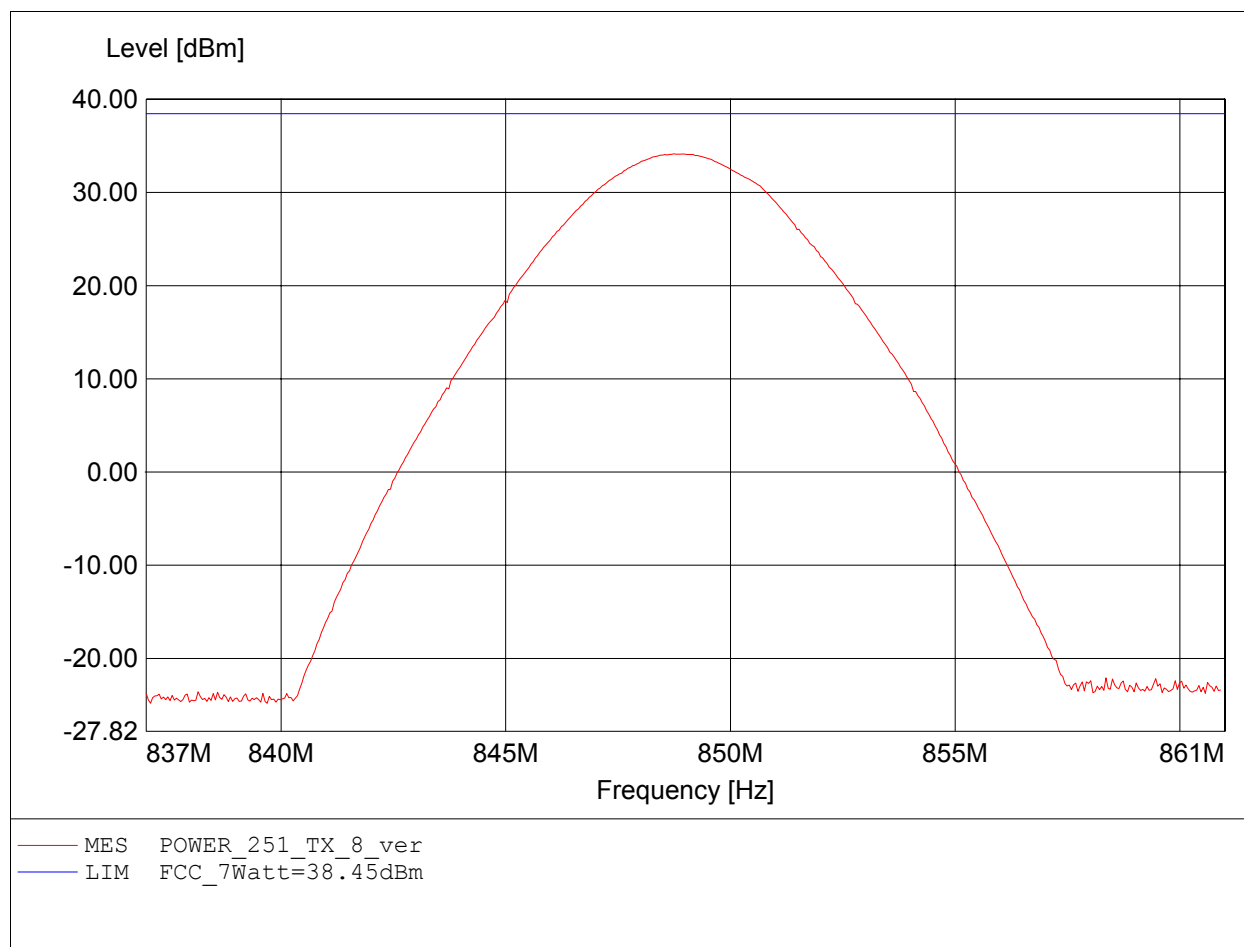
Effective Radiated Power
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL223
Comment 2: Freq: 836.265MHz, Pmax: 19.74dBm, RBW: 3MHz



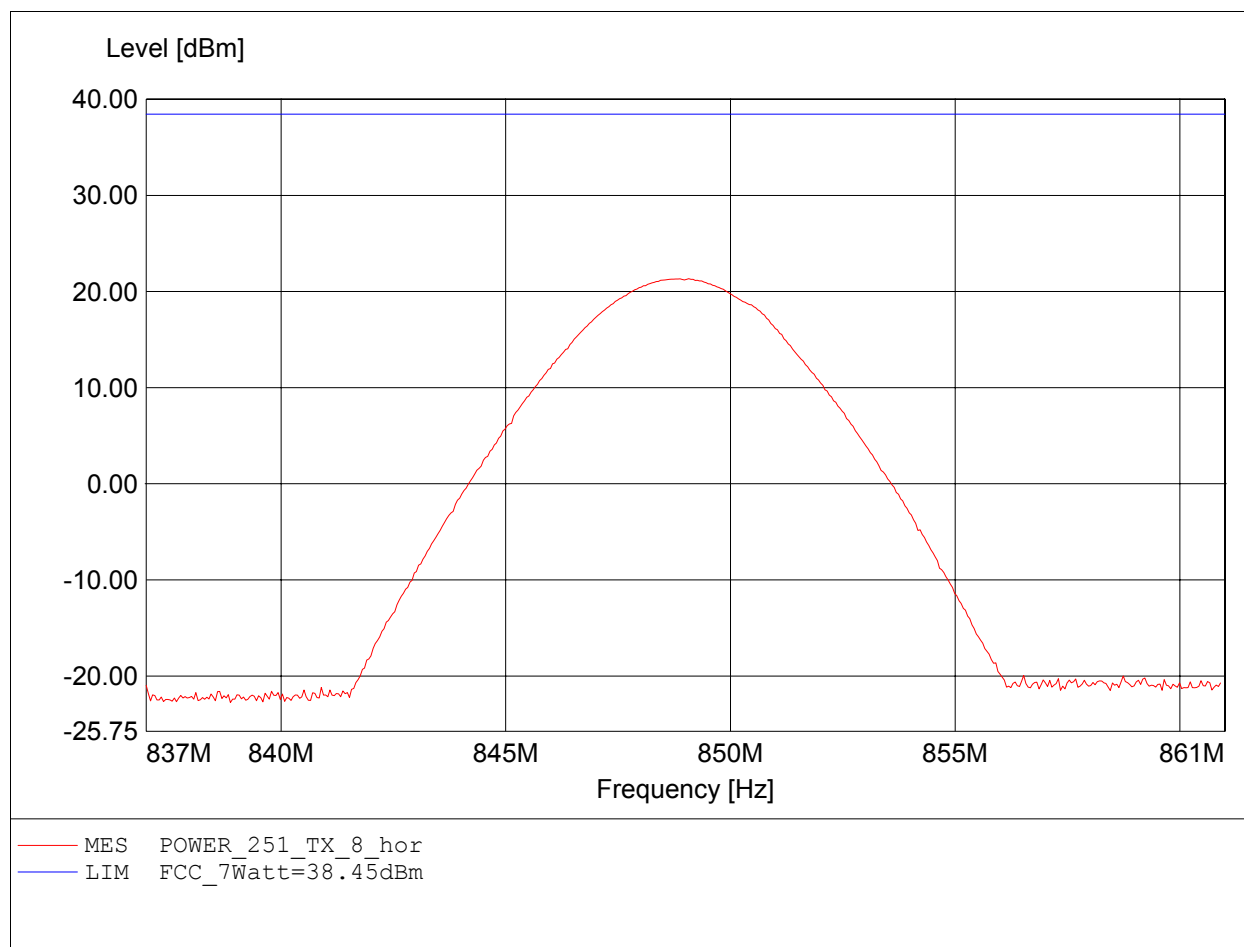
Effective Radiated Power
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 251 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 251
Comment 1: Dist.: 3m, Ant.: HL223
Comment 2: Freq: 848.735MHz, Pmax: 34.14dBm, RBW: 3MHz



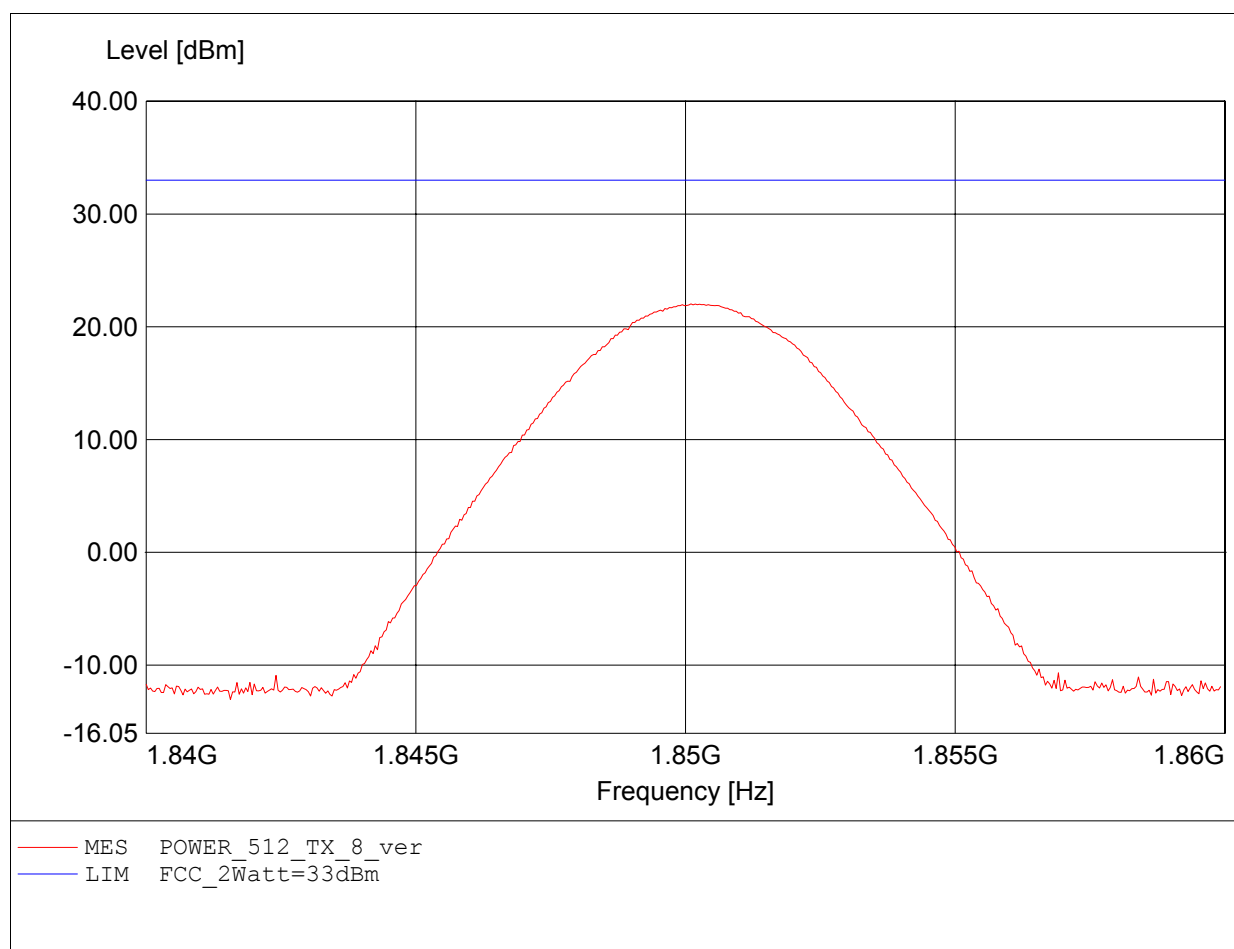
Effective Radiated Power
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 251 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 251
Comment 1: Dist.: 3m, Ant.: HL223
Comment 2: Freq: 849.072MHz, Pmax: 21.33dBm, RBW: 3MHz



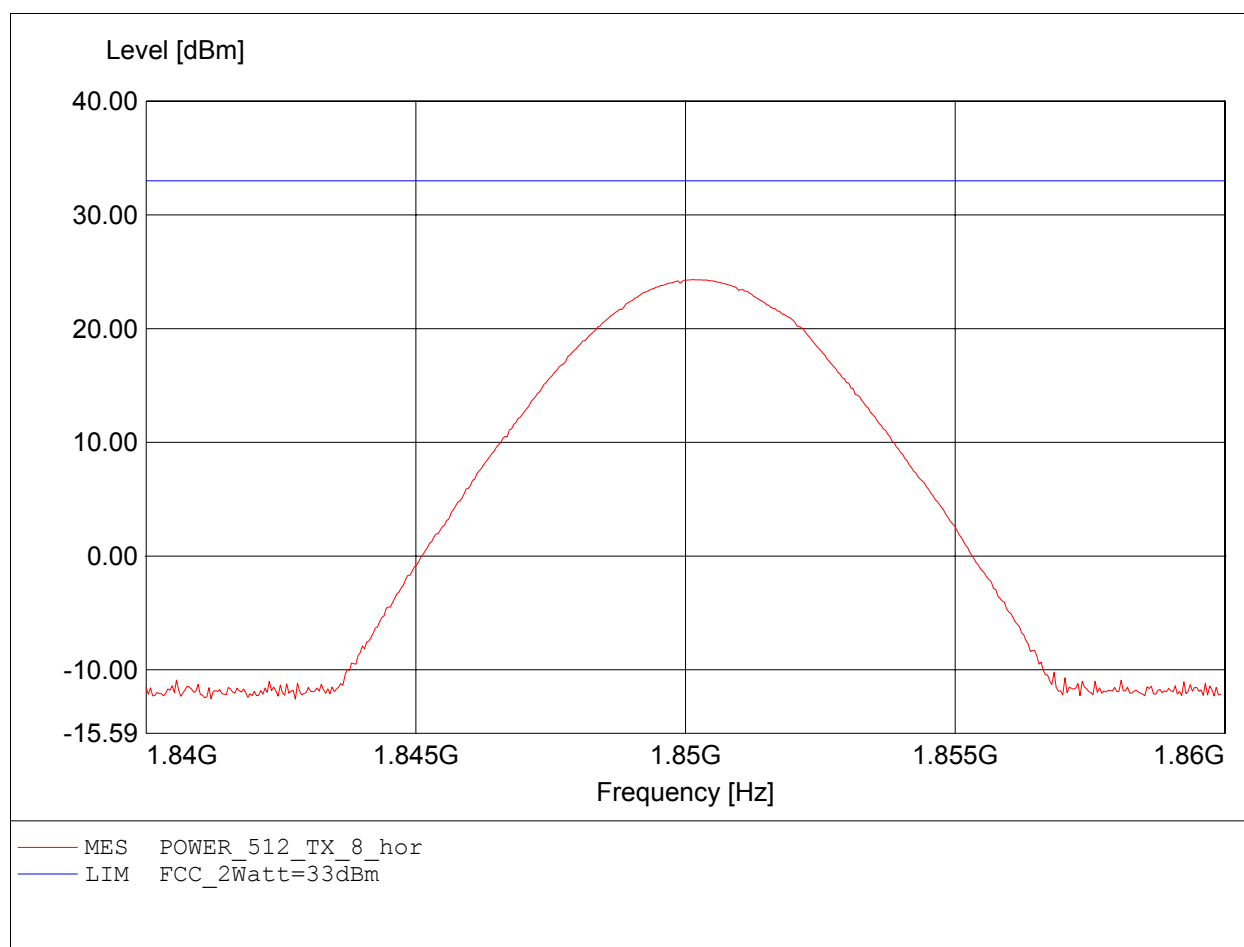
Equivalent Isotropically Radiated Power
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL025,PCL 0
Comment 2: Freq: 1.850GHz, Pmax: 22.02dBm, RBW: 3MHz



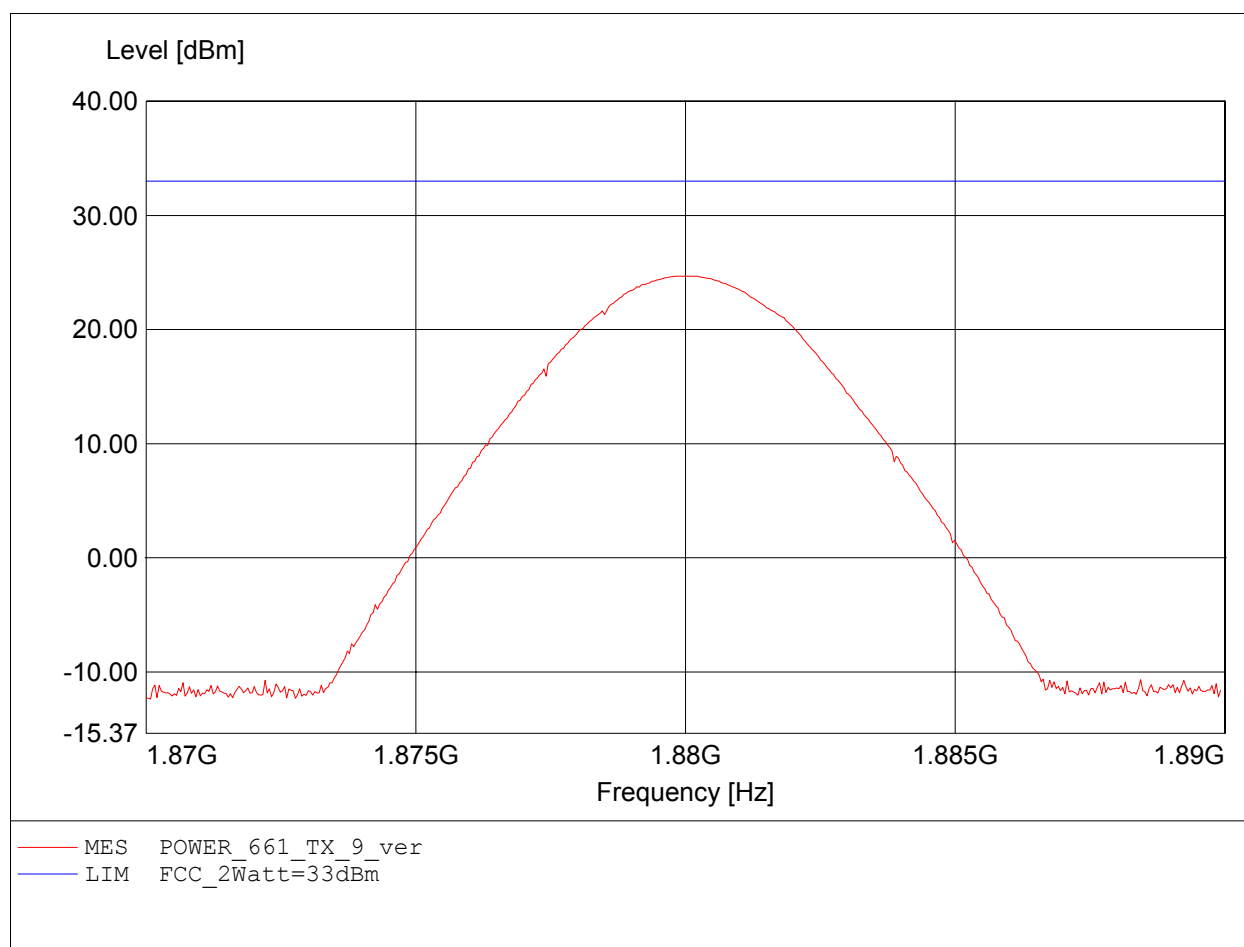
Equivalent Isotropically Radiated Power
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL025,PCL 0
Comment 2: Freq: 1.850GHz, Pmax: 24.33dBm, RBW: 3MHz



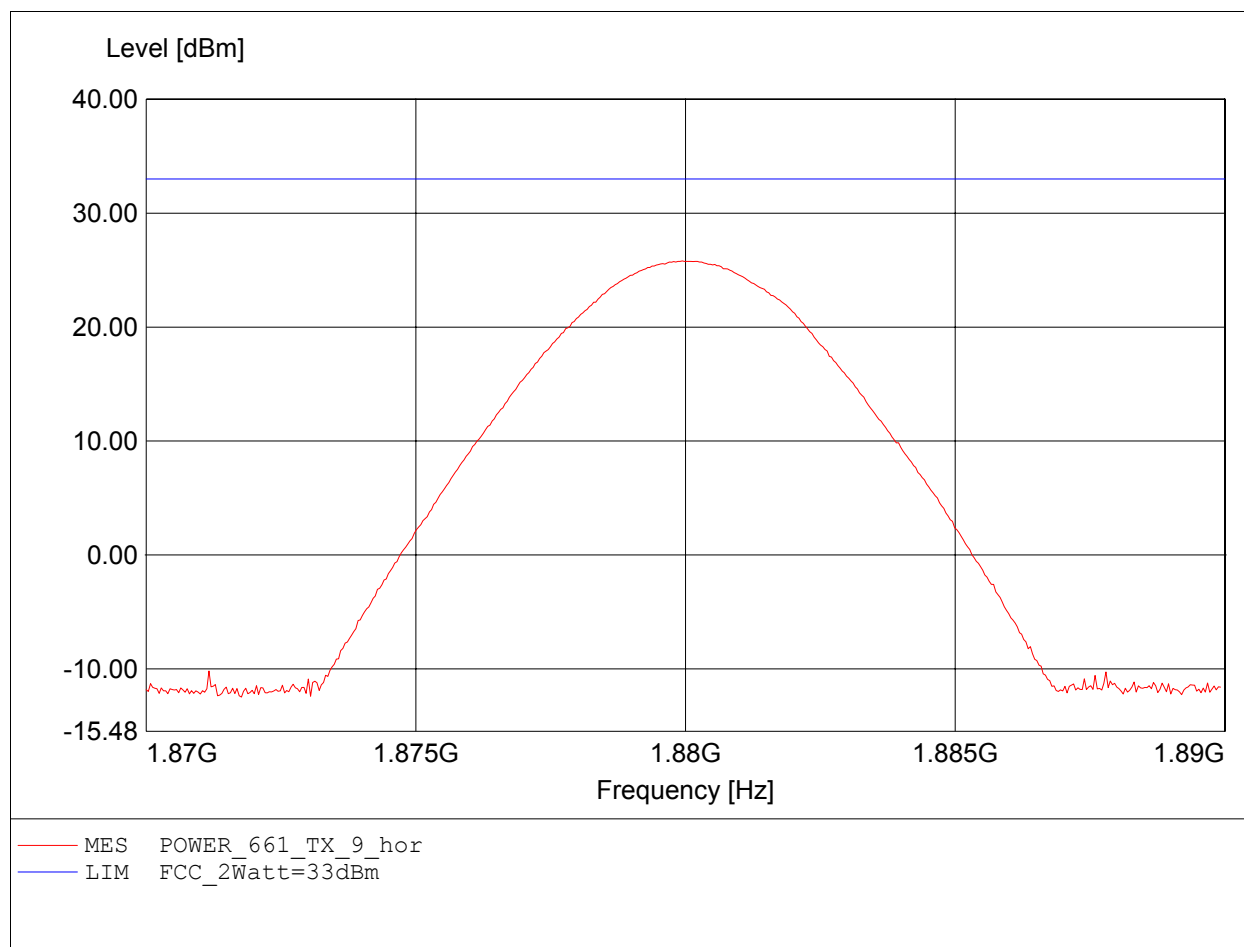
Equivalent Isotropically Radiated Power
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025,PCL 0
Comment 2: Freq: 1.880GHz, Pmax: 24.69dBm, RBW: 3MHz



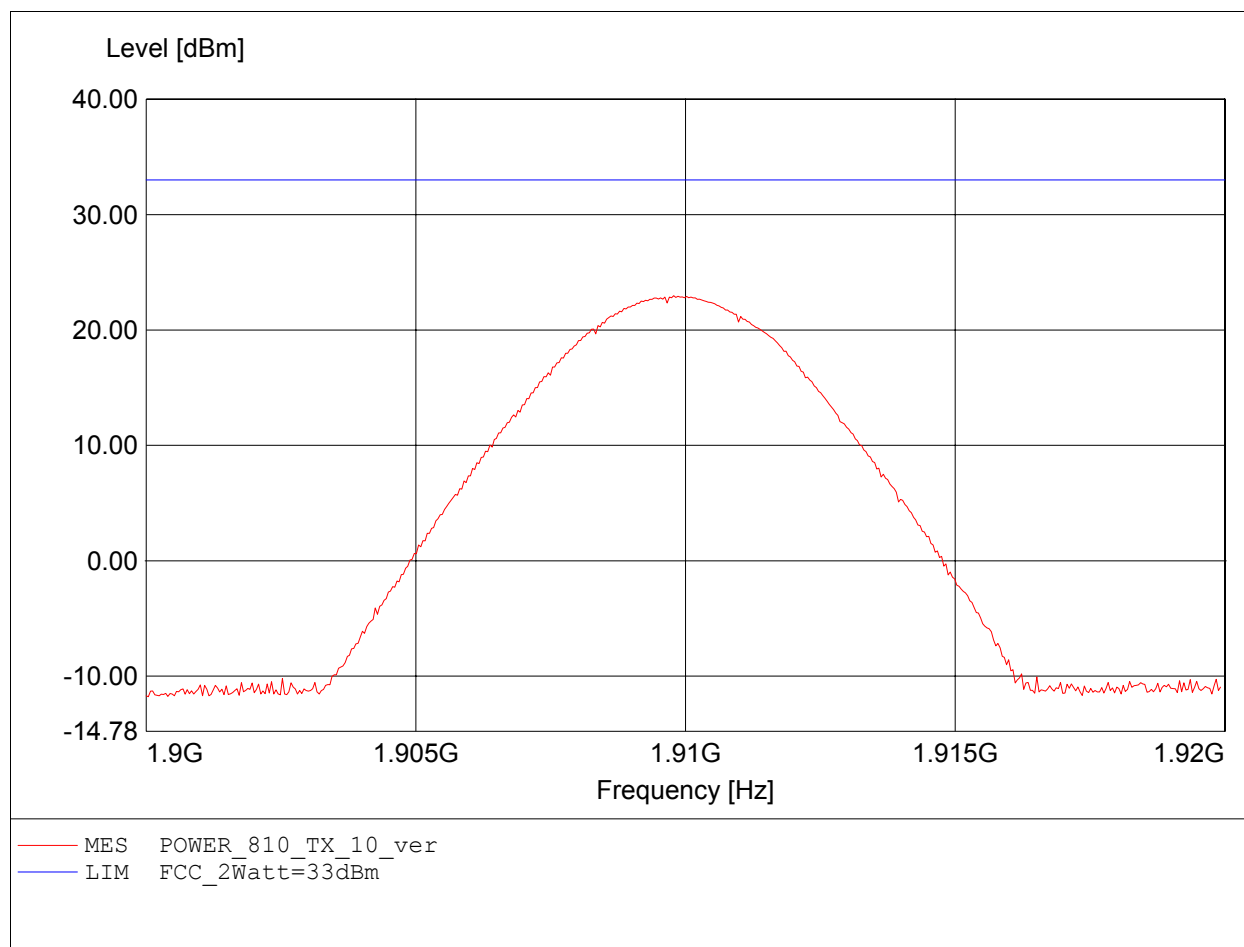
Equivalent Isotropically Radiated Power
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025,PCL 0
Comment 2: Freq: 1.880GHz, Pmax: 25.82dBm, RBW: 3MHz



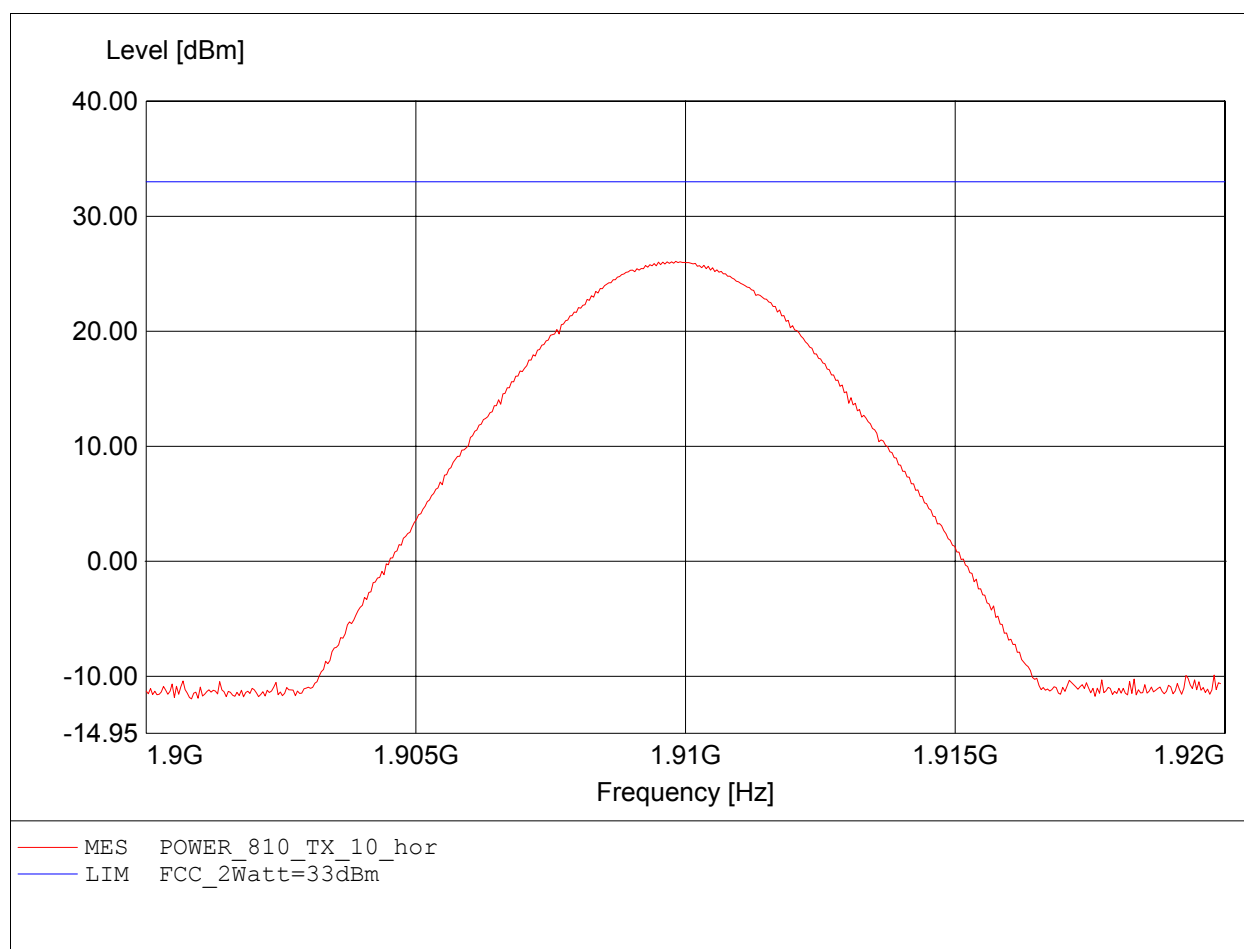
Equivalent Isotropically Radiated Power
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL025,PCL 0
Comment 2: Freq: 1.910GHz, Pmax: 22.97dBm, RBW: 3MHz



Equivalent Isotropically Radiated Power
FCC RULES PART 24 SUBPART E

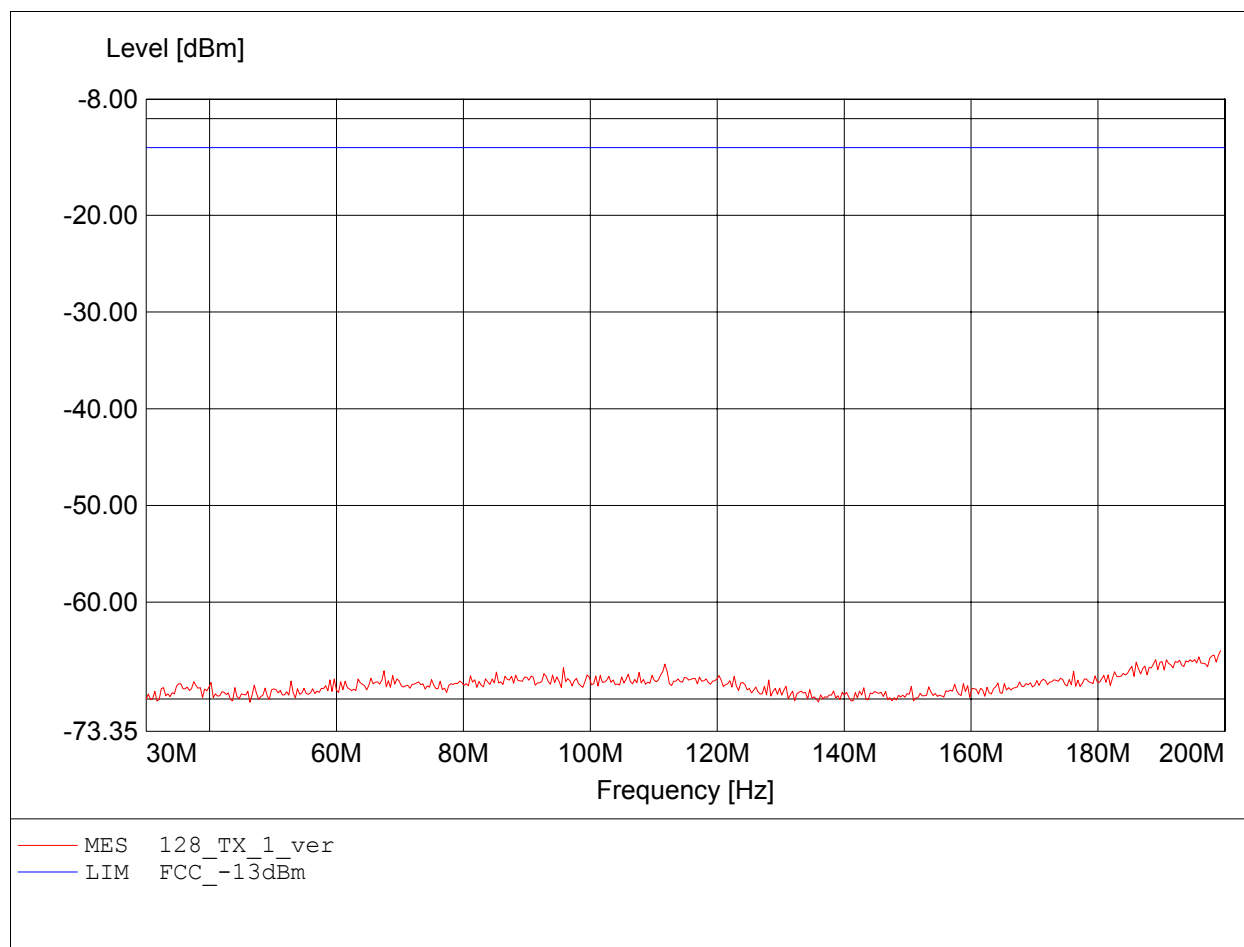
Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL025,PCL 0
Comment 2: Freq: 1.910GHz, Pmax: 26.08dBm, RBW: 3MHz



Annex C Transmitter spurious emission radiated

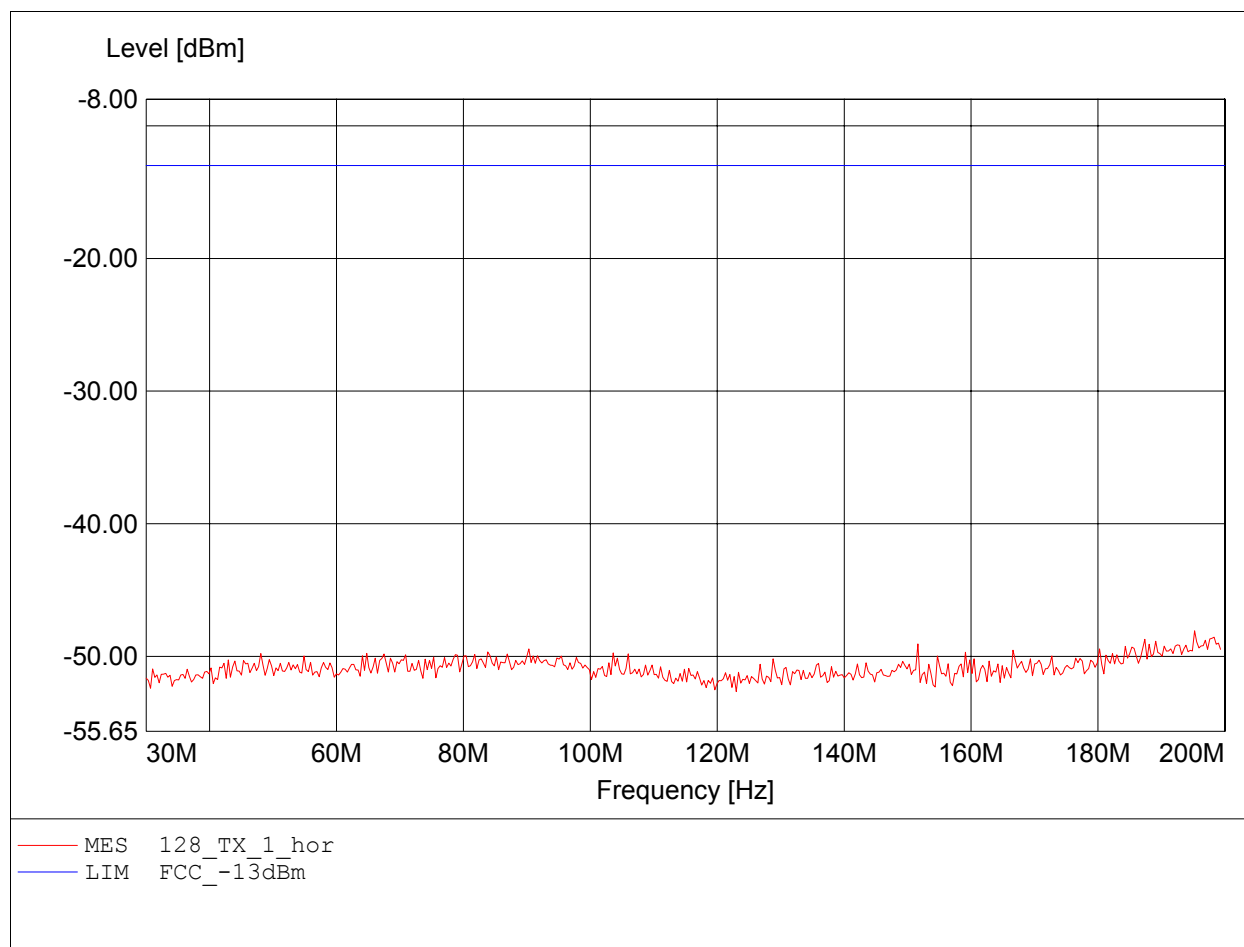
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 128 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 128
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 199.319MHz, Pmax: -65.02dBm, RBW: 100kHz



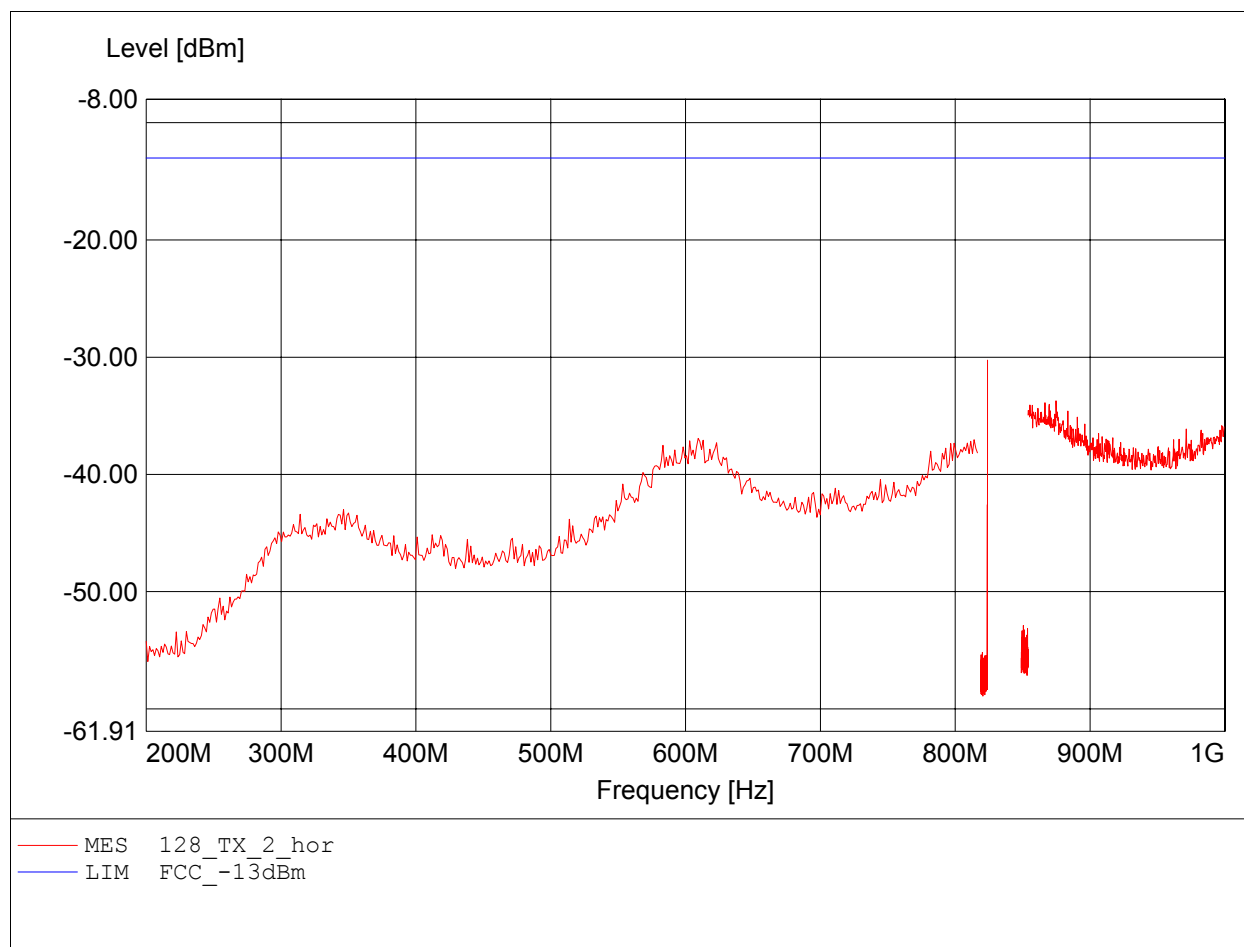
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 128 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 128
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 195.230MHz, Pmax: -48.07dBm, RBW: 100kHz



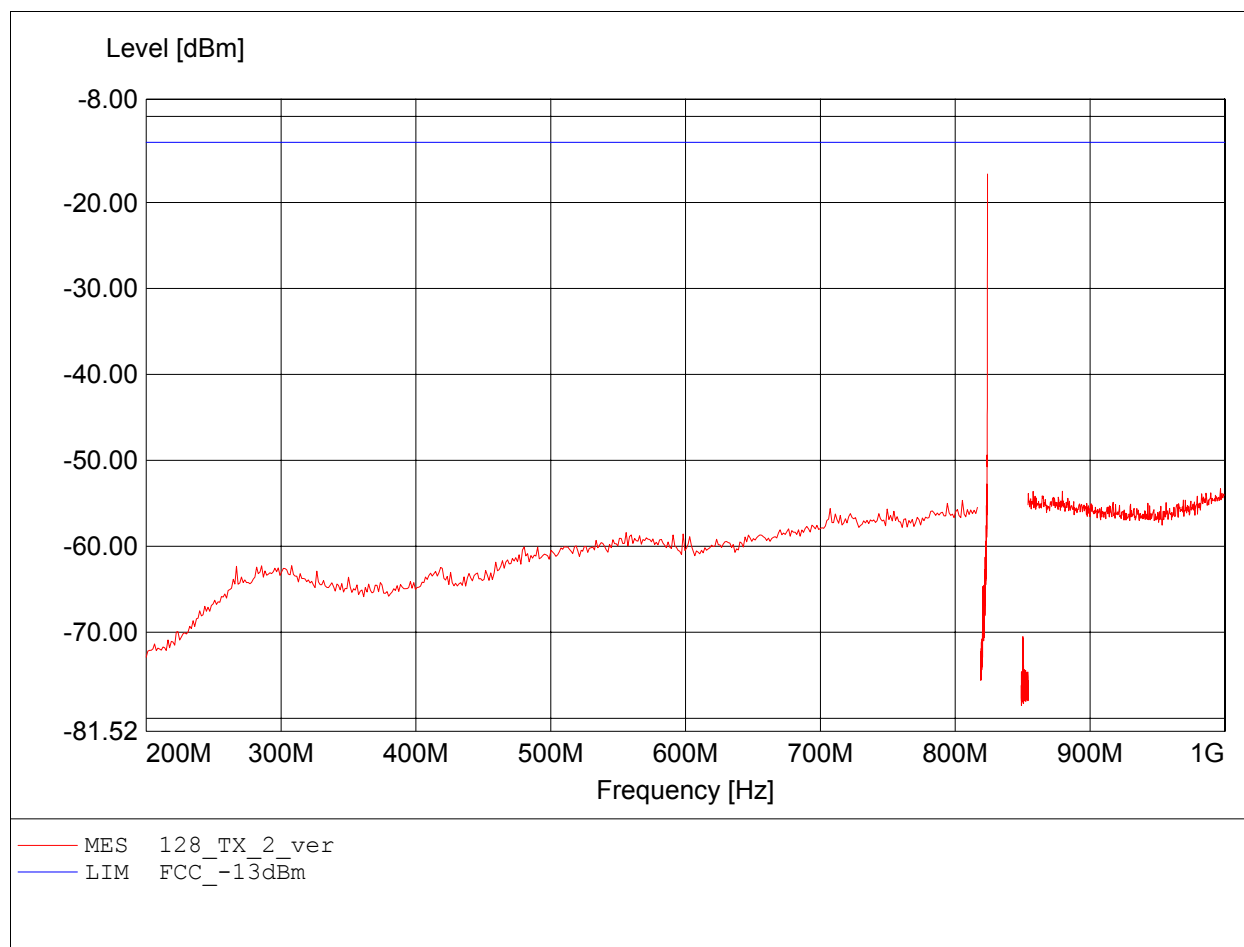
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 128 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 128
Comment 1: Dist.: 3m, Ant.: HL 223+notch
Comment 2: Freq: 823.980MHz, Pmax: -30.25dBm, RBW: 100kHz



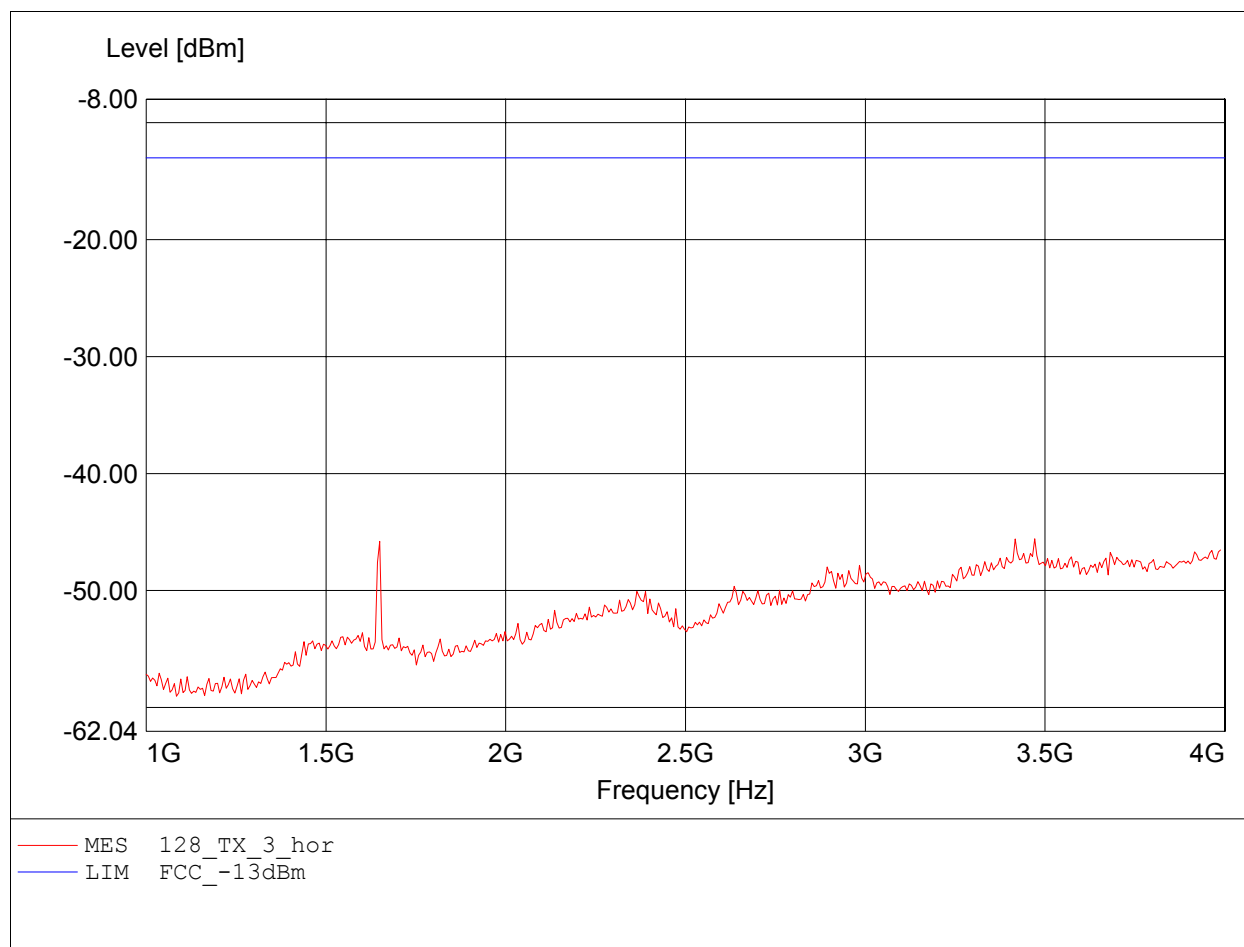
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 128 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 128
Comment 1: Dist.: 3m, Ant.: HL 223+notch
Comment 2: Freq: 823.980MHz, Pmax: -16.70dBm, RBW: 100kHz



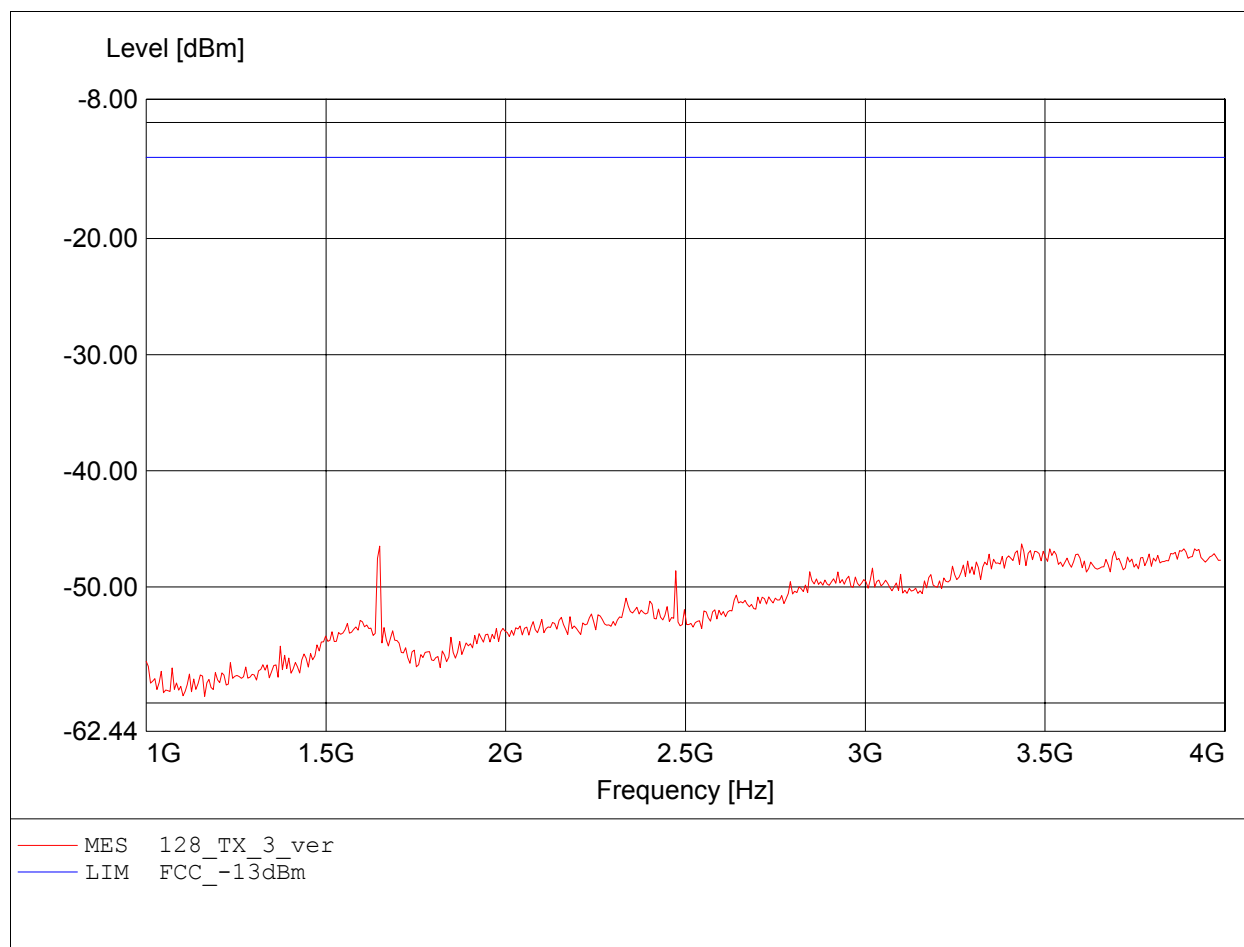
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 128 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 128
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 3.471GHz, Pmax: -45.58dBm, RBW: 1MHz



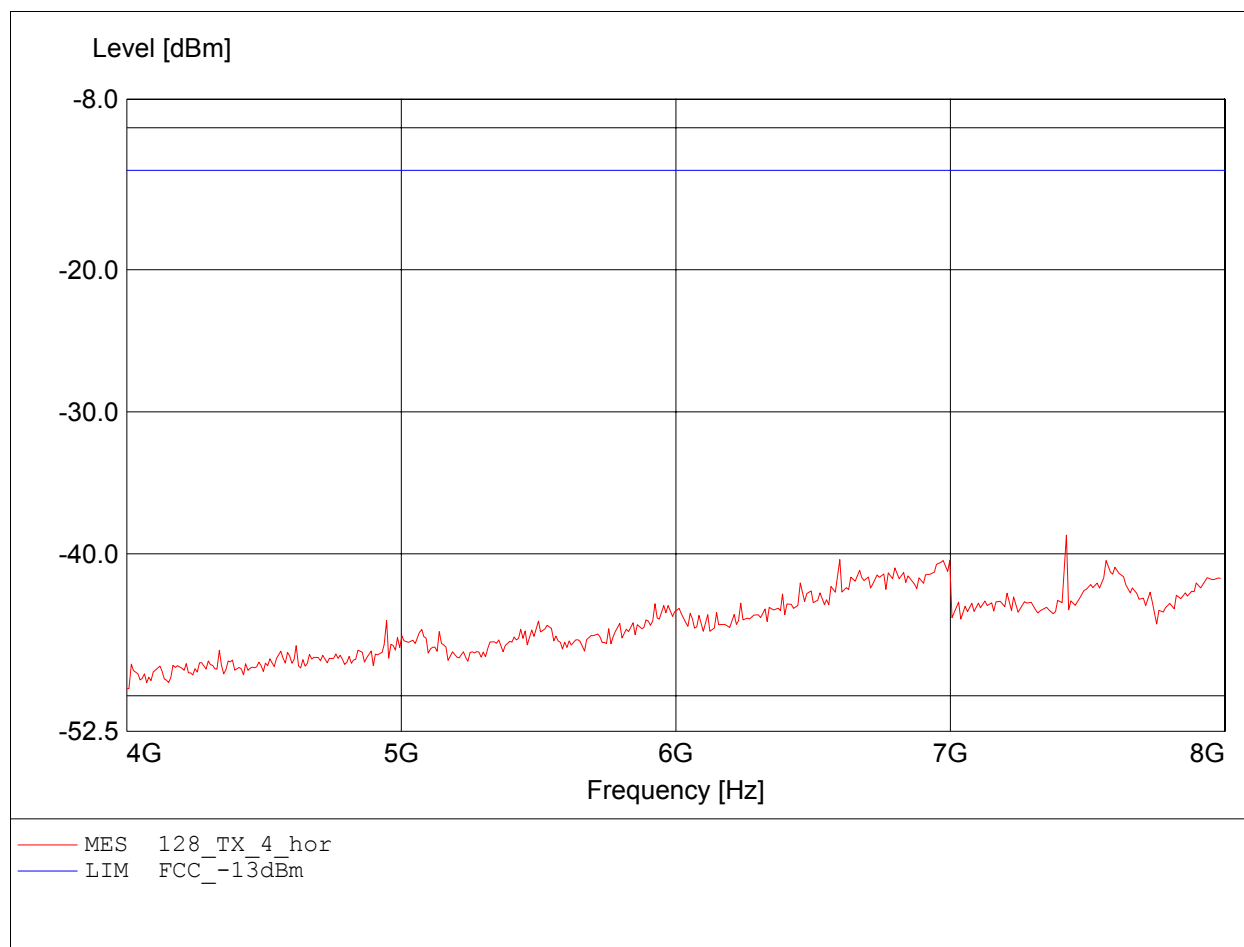
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 128 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 128
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 3.435GHz, Pmax: -46.30dBm, RBW: 1MHz



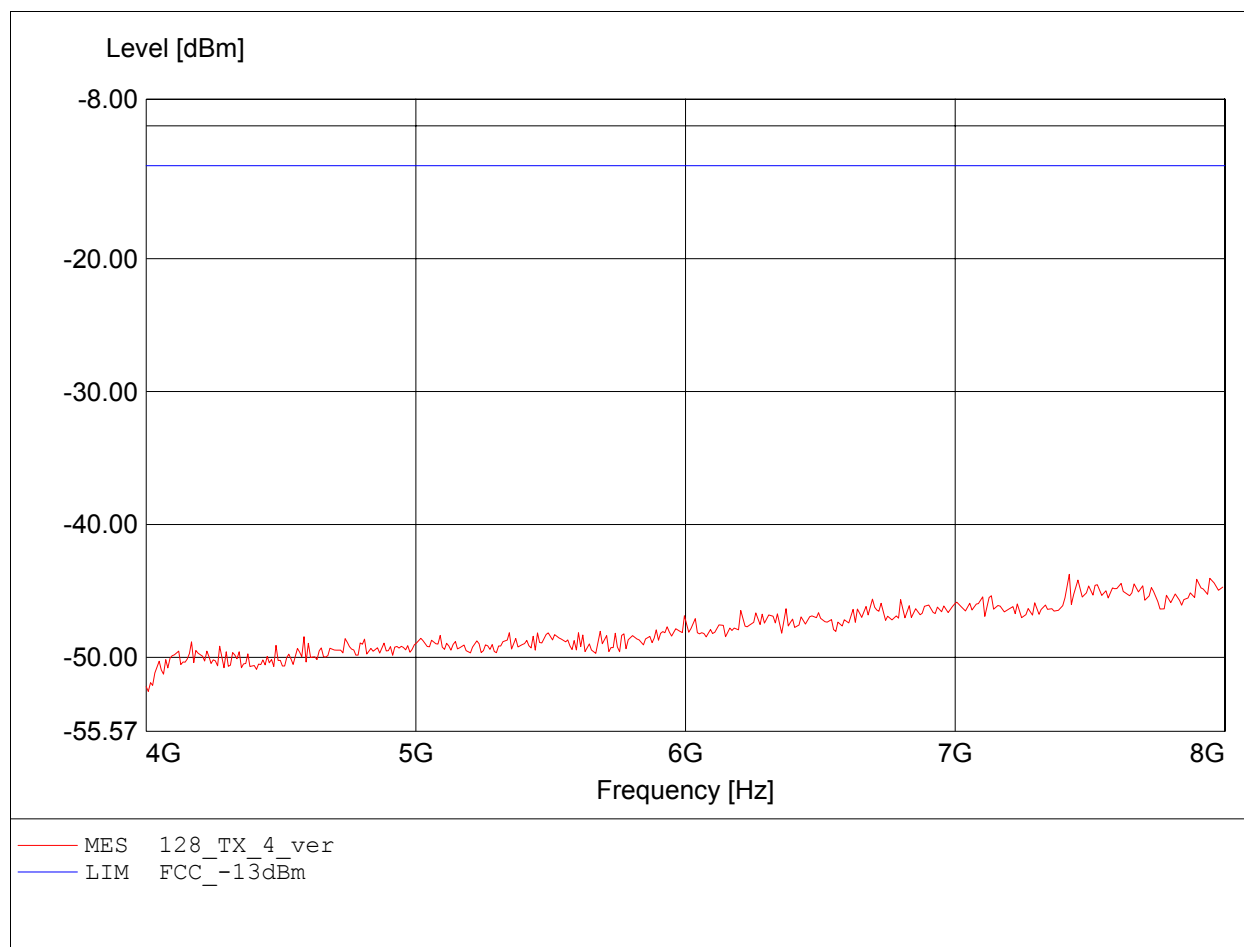
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 128 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 128
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 7.423GHz, Pmax: -38.69dBm, RBW: 1MHz



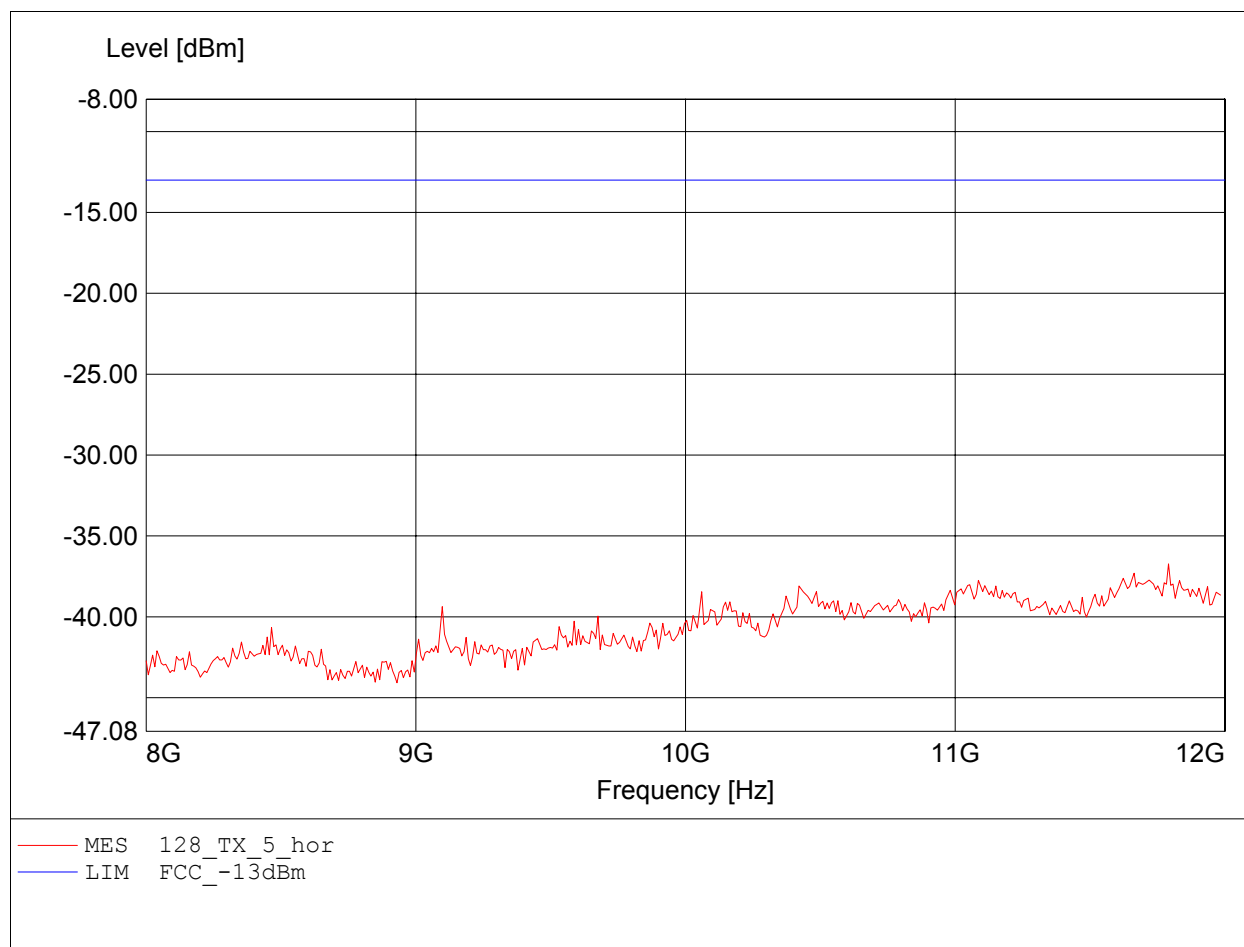
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 128 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 128
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 7.423GHz, Pmax: -43.76dBm, RBW: 1MHz



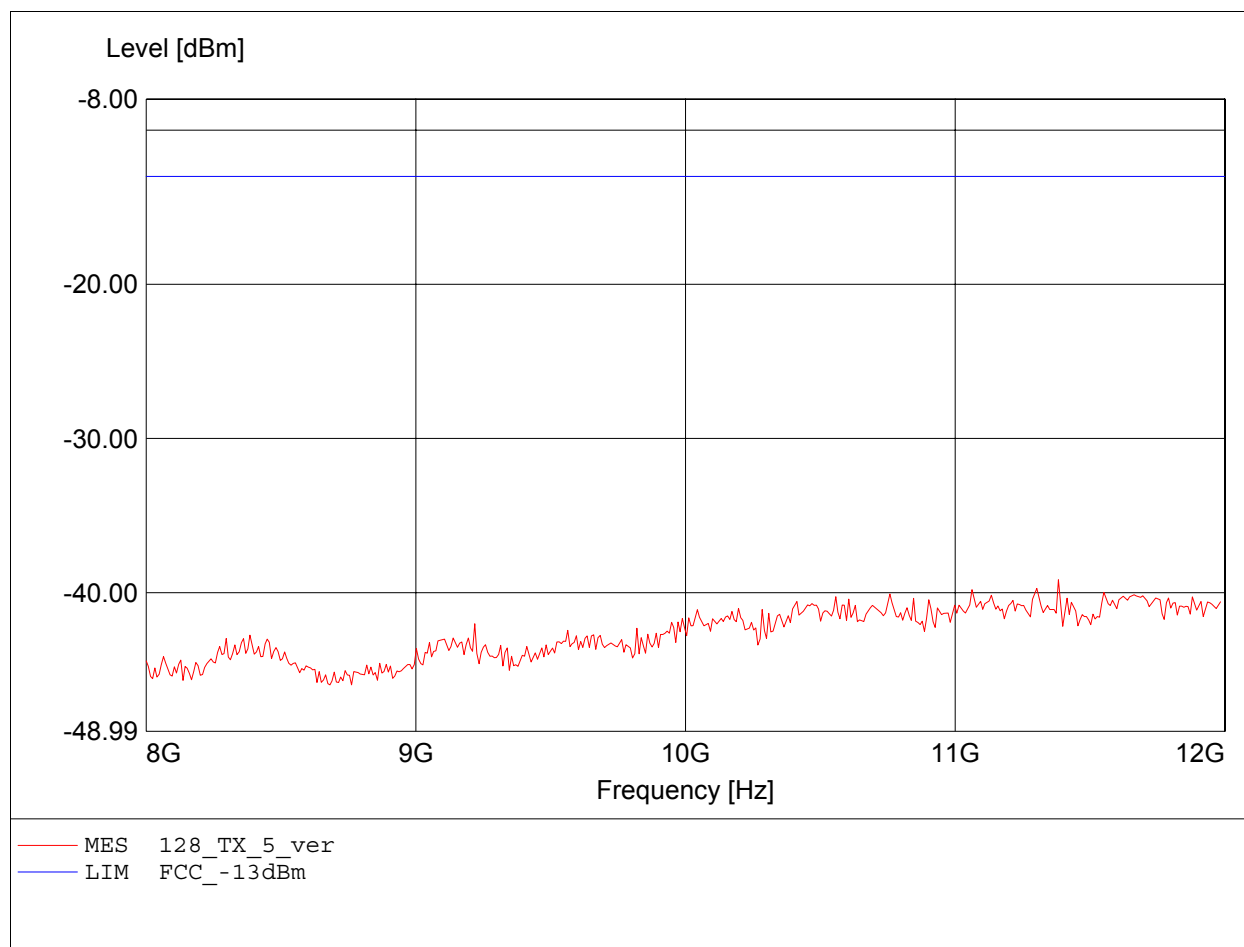
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 128 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 128
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 11.792GHz, Pmax: -36.72dBm, RBW: 1MHz



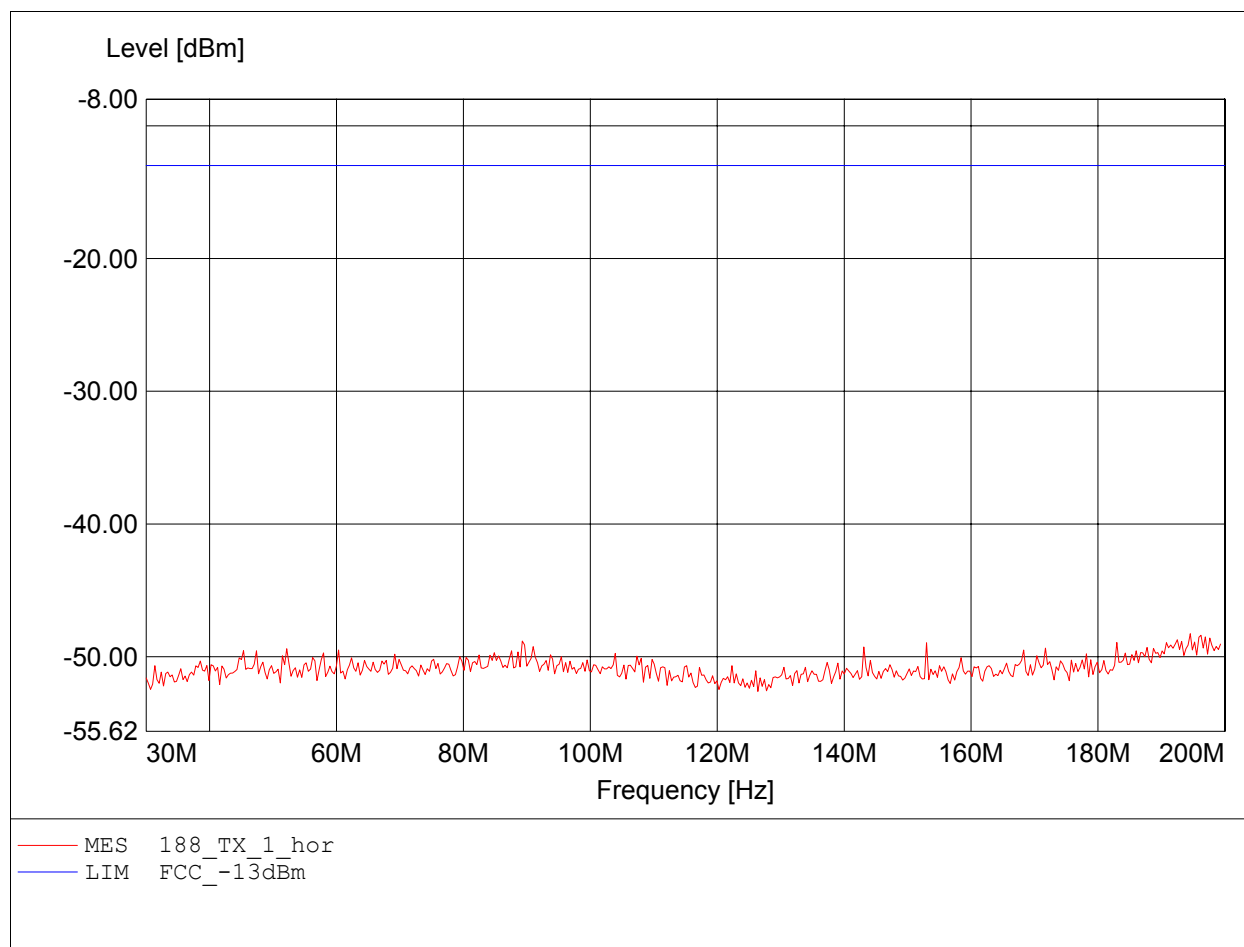
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 128 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 128
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 11.383GHz, Pmax: -39.16dBm, RBW: 1MHz



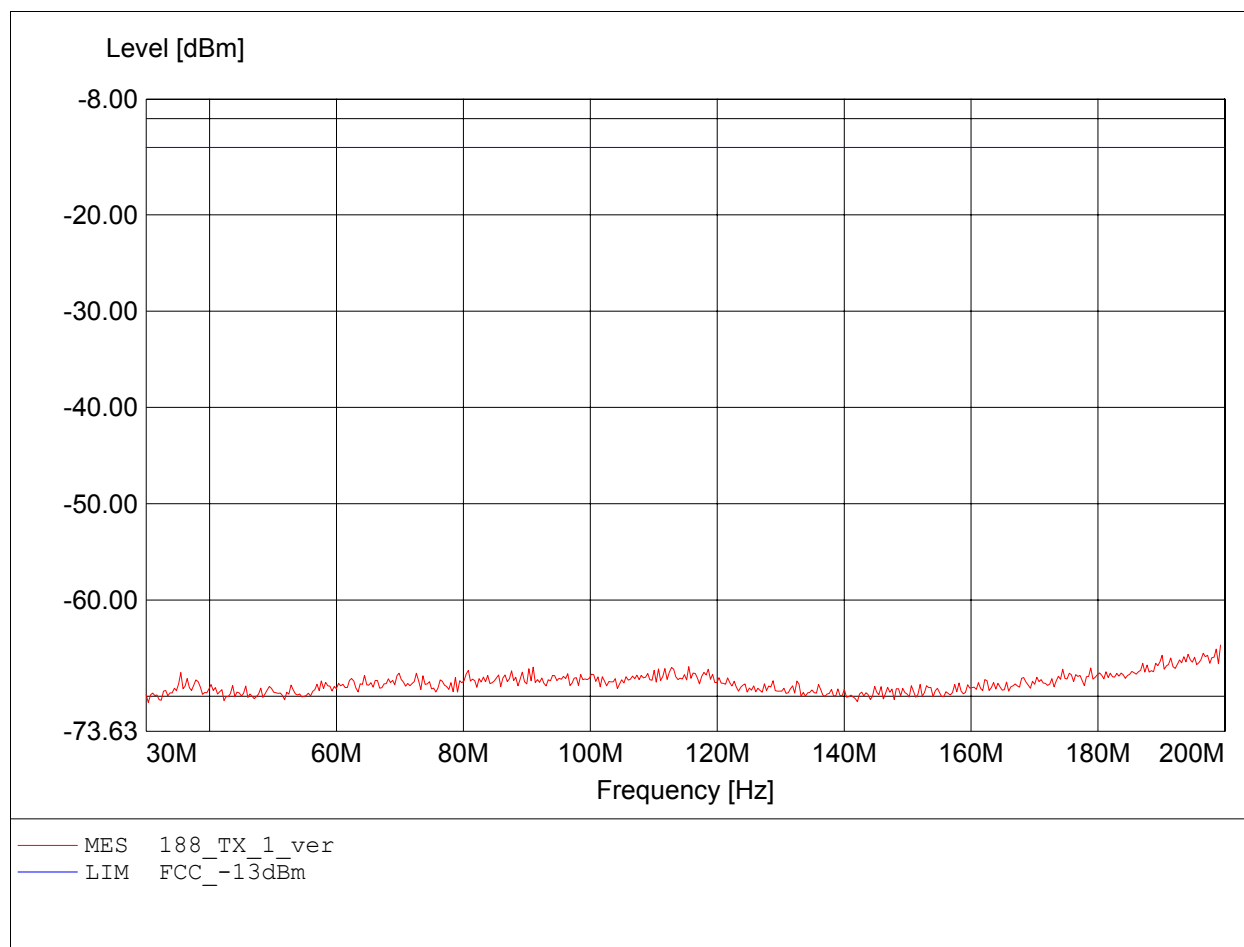
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 194.549MHz, Pmax: -48.26dBm, RBW: 100kHz



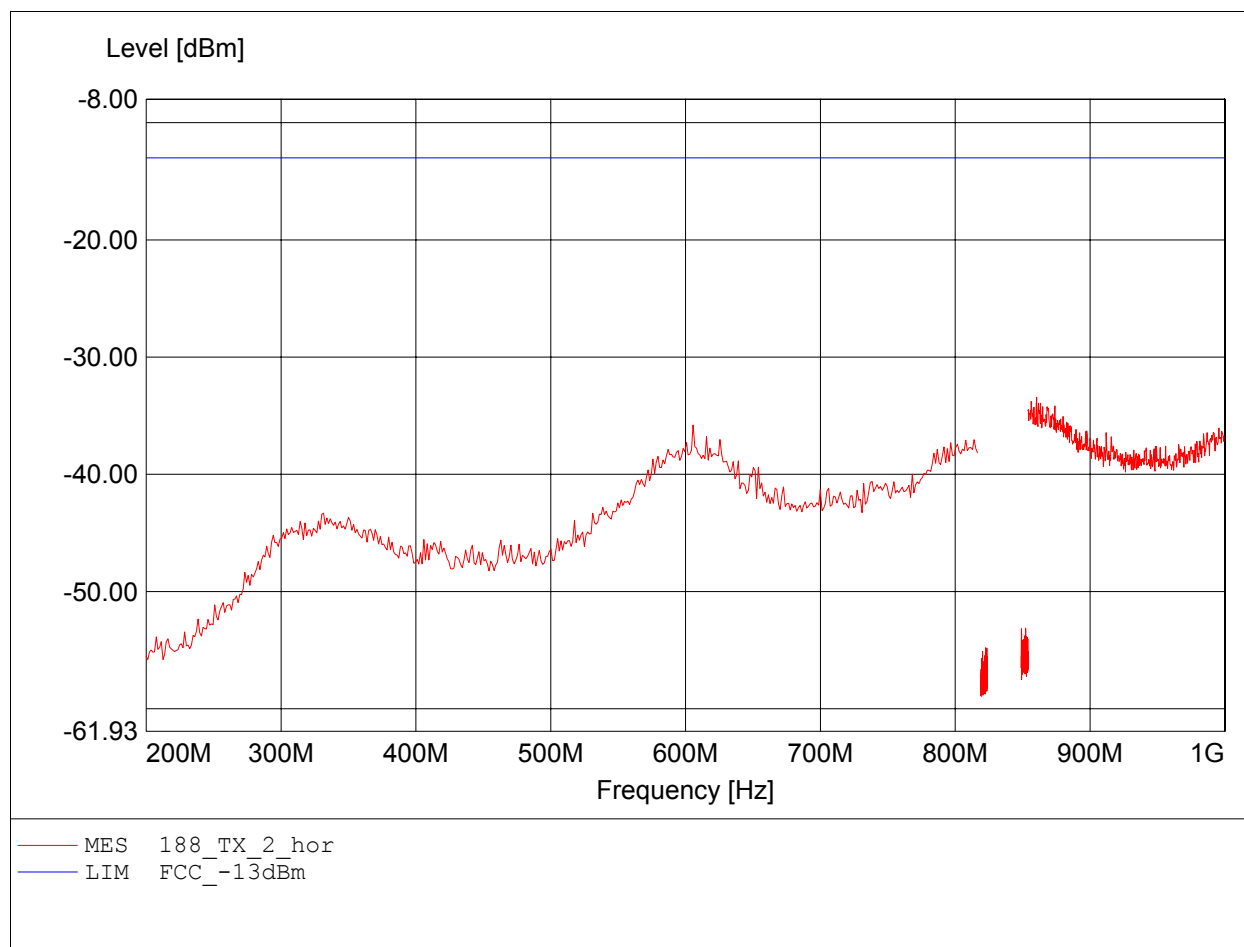
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 199.319MHz, Pmax: -64.68dBm, RBW: 100kHz



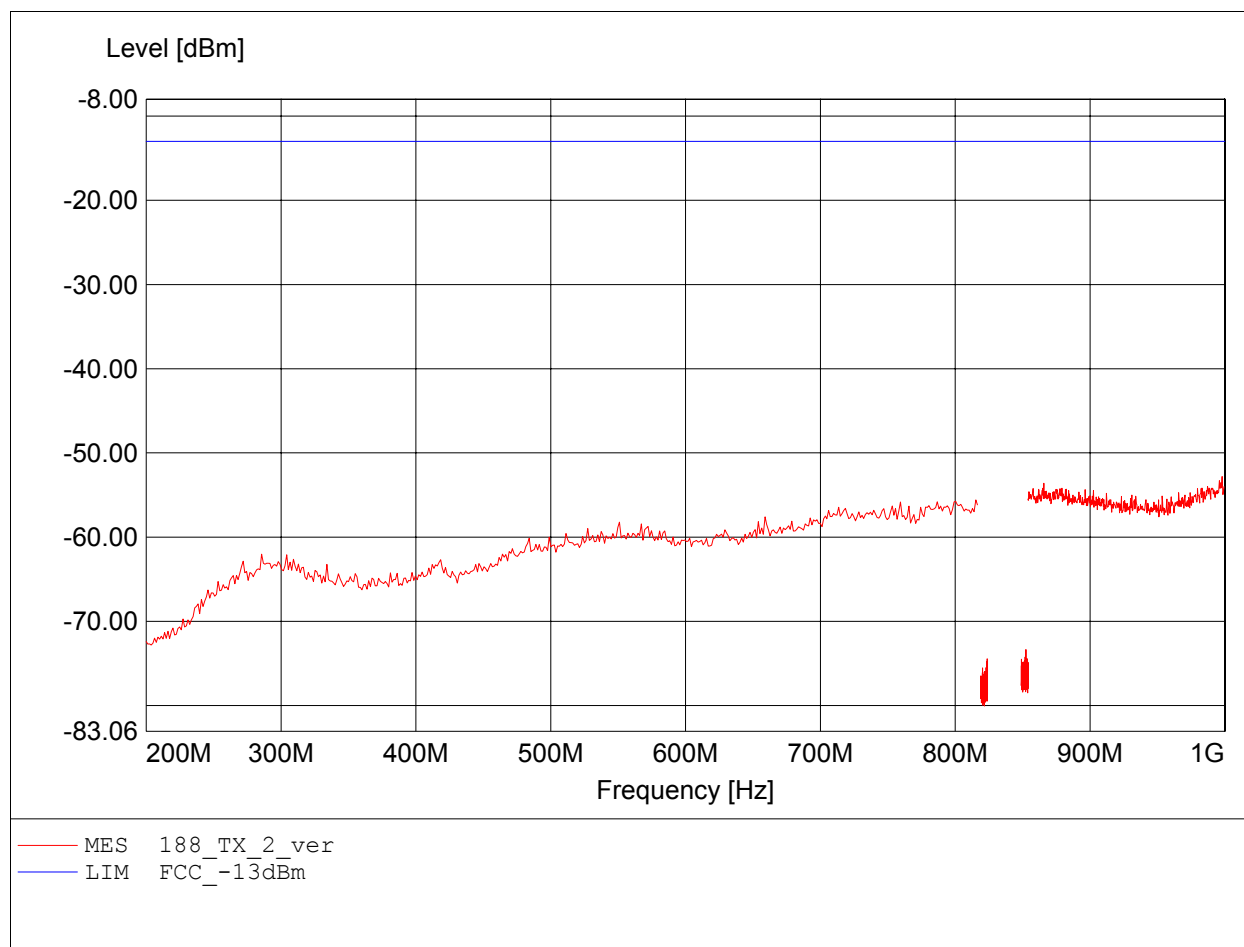
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL 223+notch
Comment 2: Freq: 860.437MHz, Pmax: -33.44dBm, RBW: 100kHz



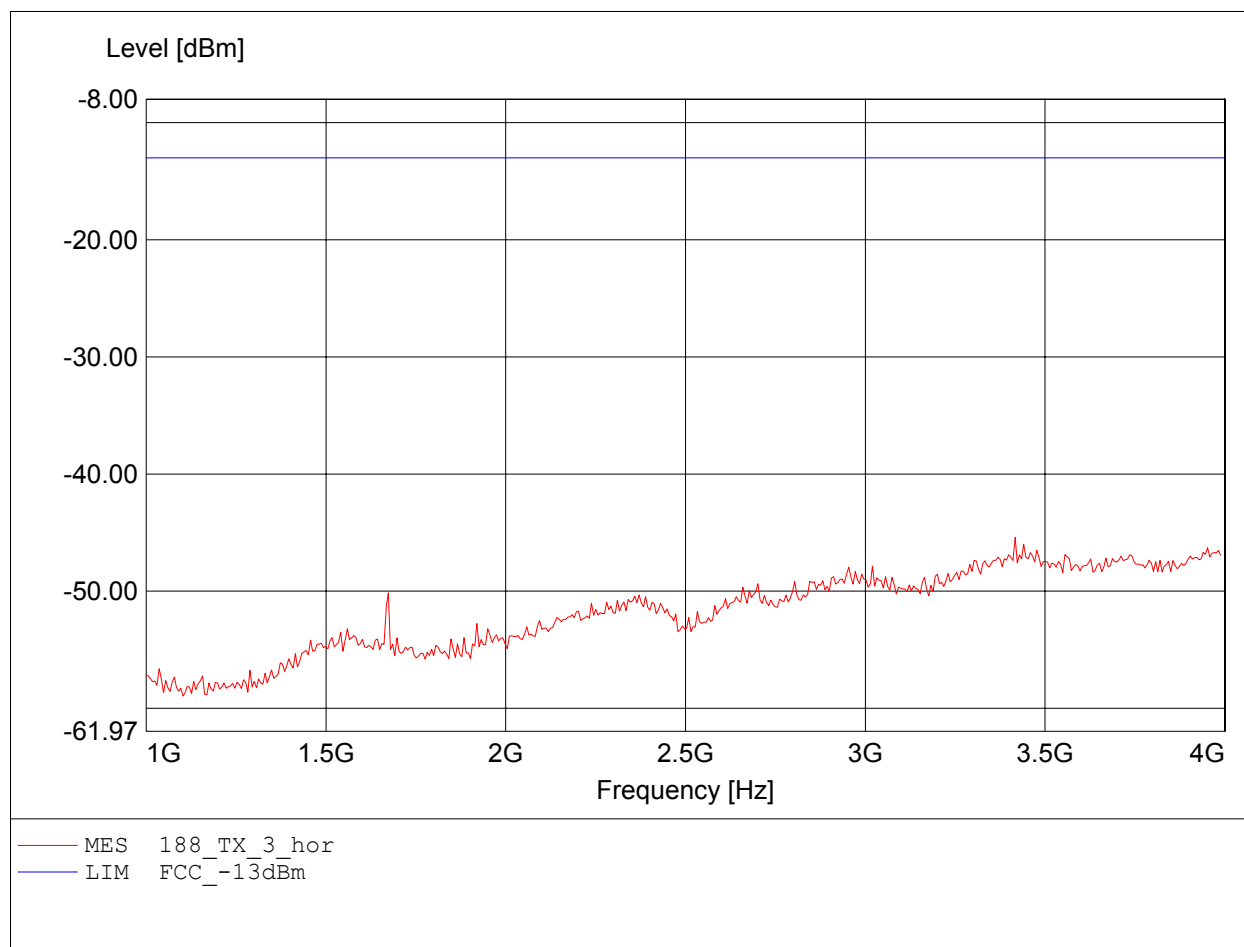
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL 223+notch
Comment 2: Freq: 997.952MHz, Pmax: -52.81dBm, RBW: 100kHz



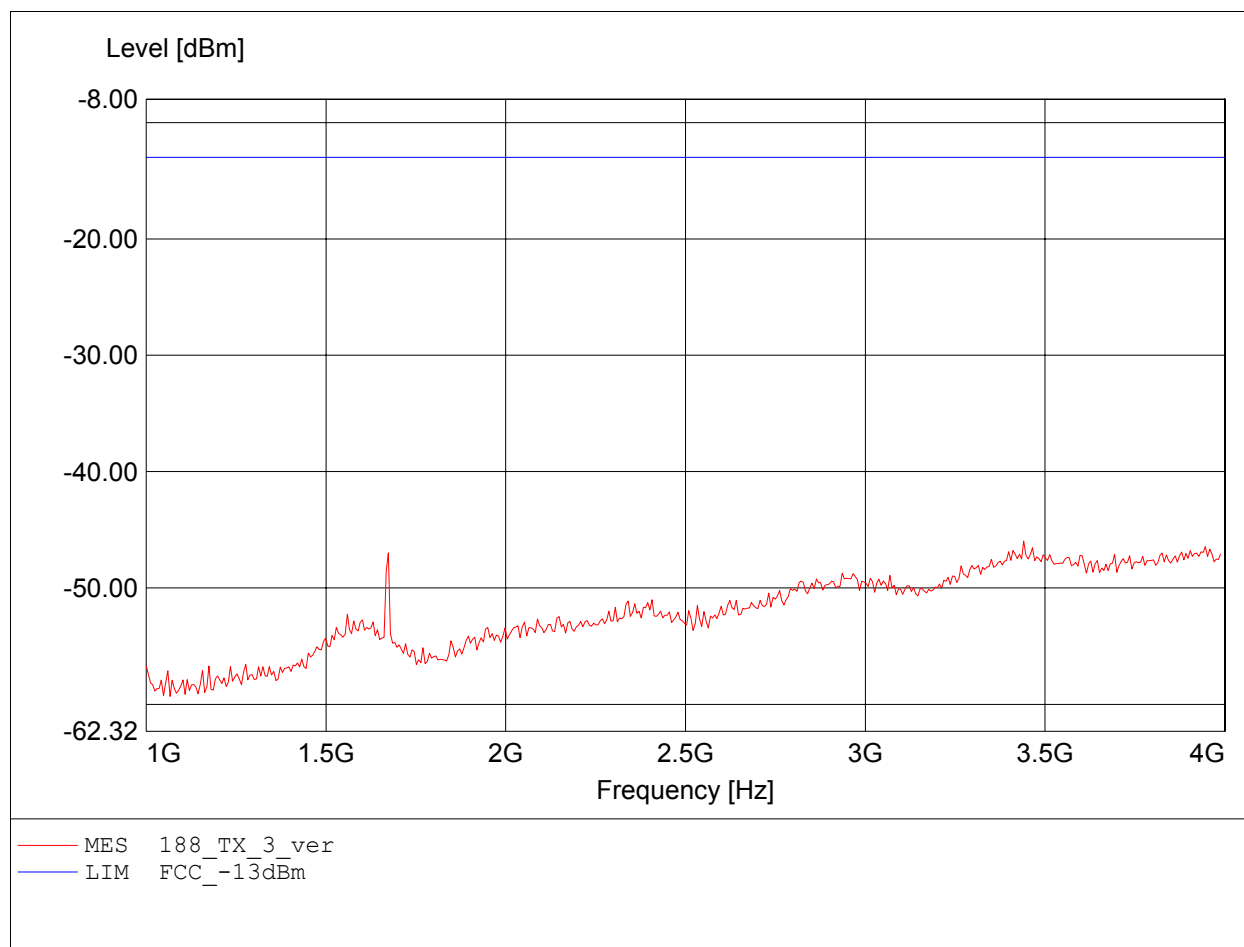
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 3.417GHz, Pmax: -45.40dBm, RBW: 1MHz



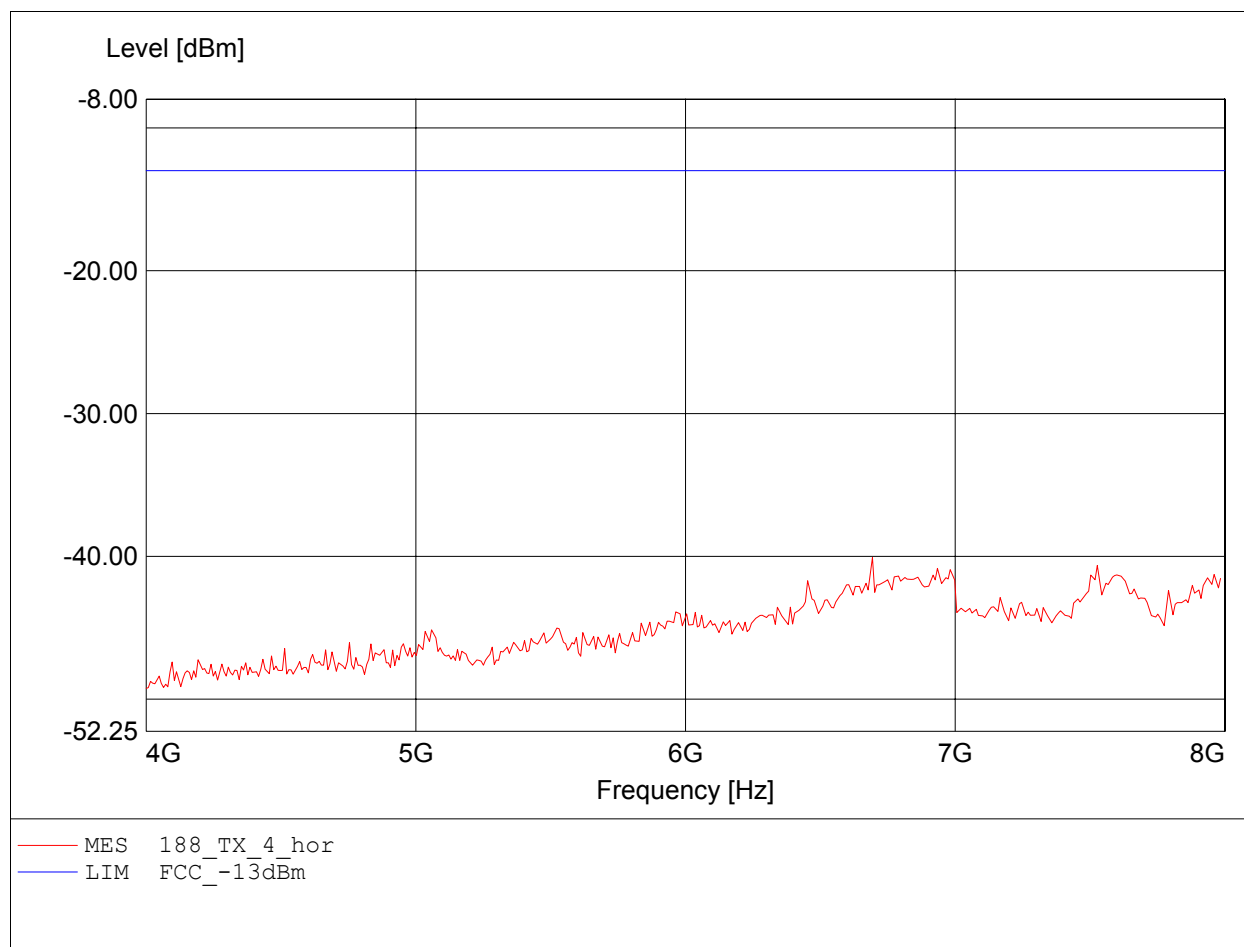
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 3.441GHz, Pmax: -45.96dBm, RBW: 1MHz



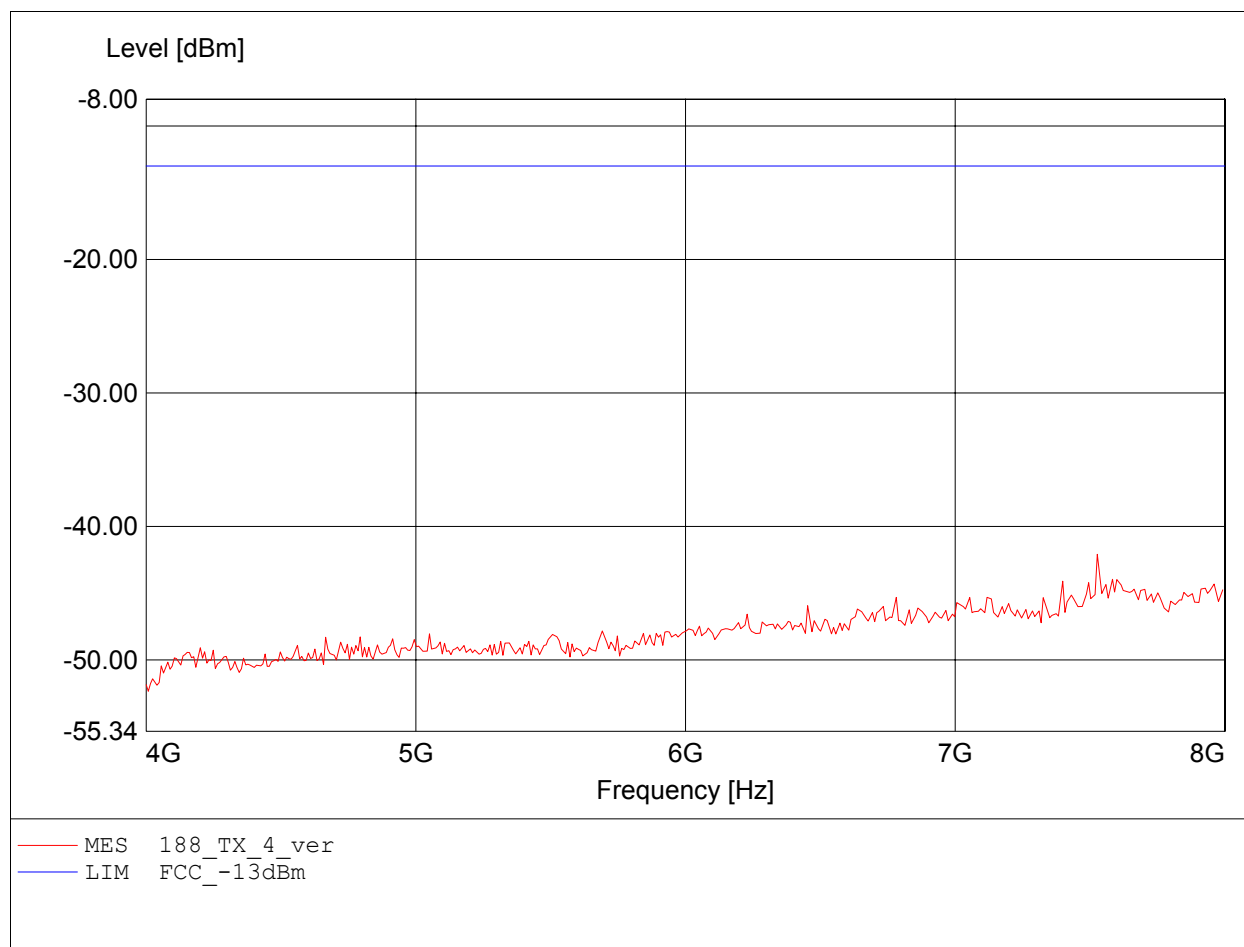
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 6.693GHz, Pmax: -40.07dBm, RBW: 1MHz



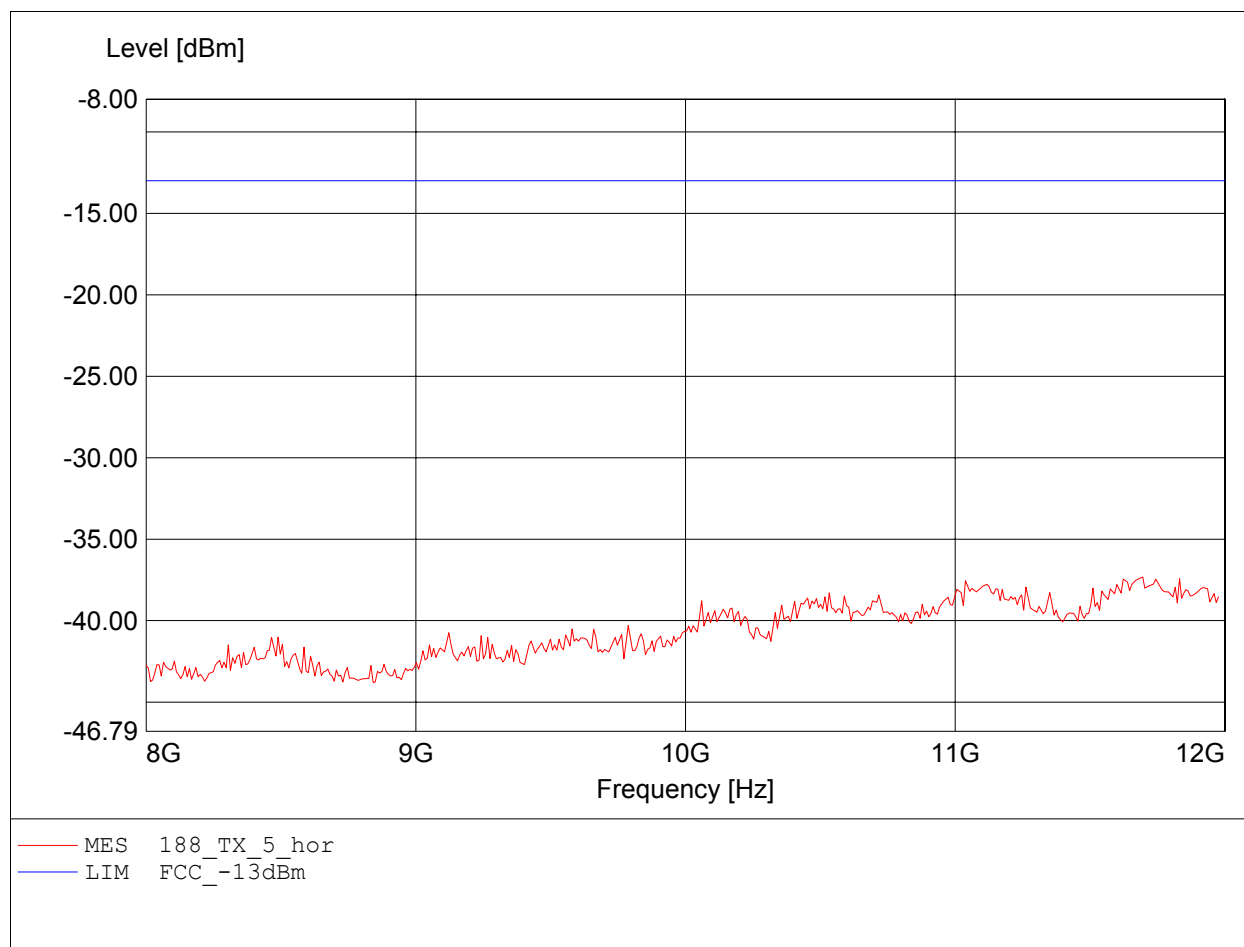
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 7.527GHz, Pmax: -42.08dBm, RBW: 1MHz



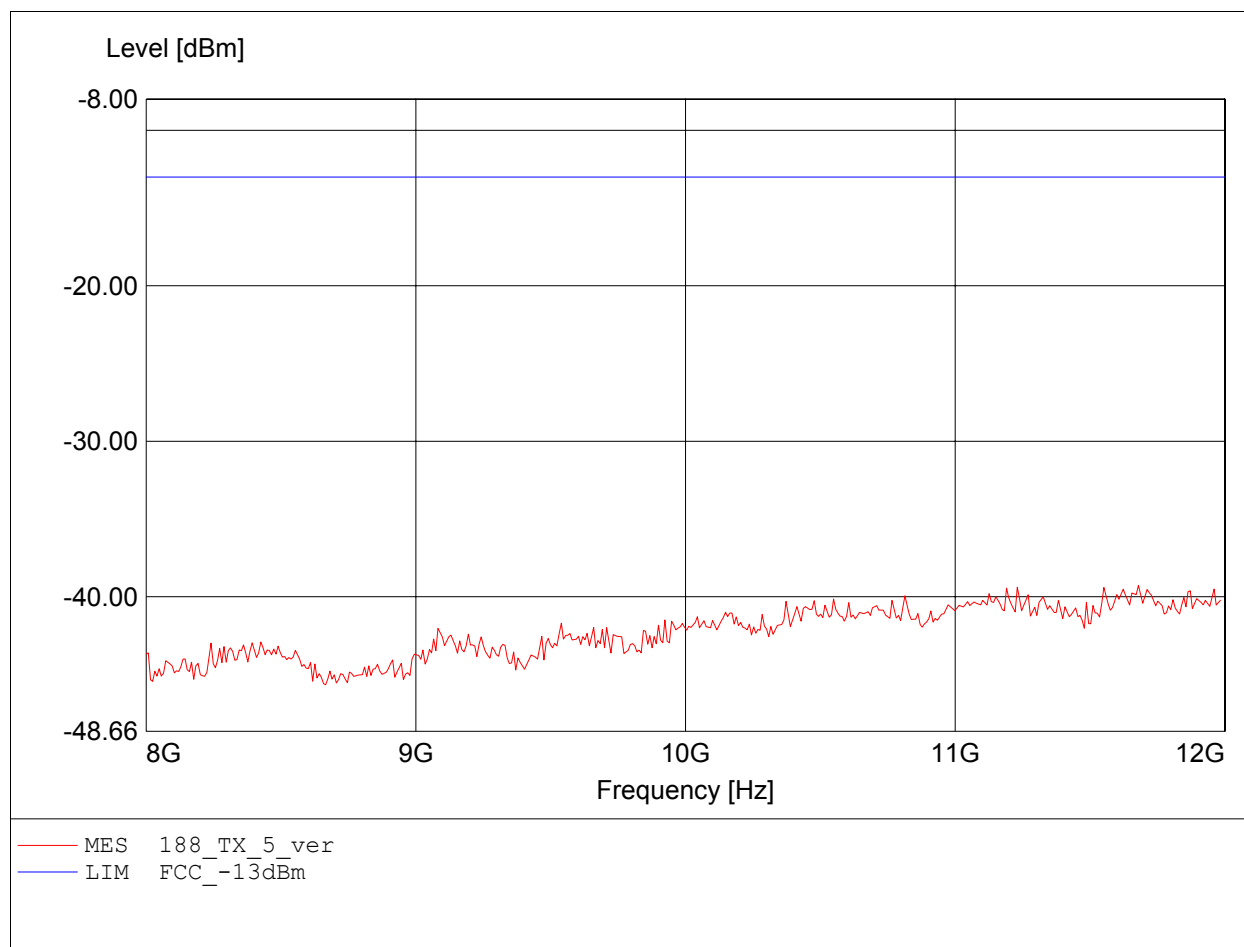
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 11.695GHz, Pmax: -37.32dBm, RBW: 1MHz



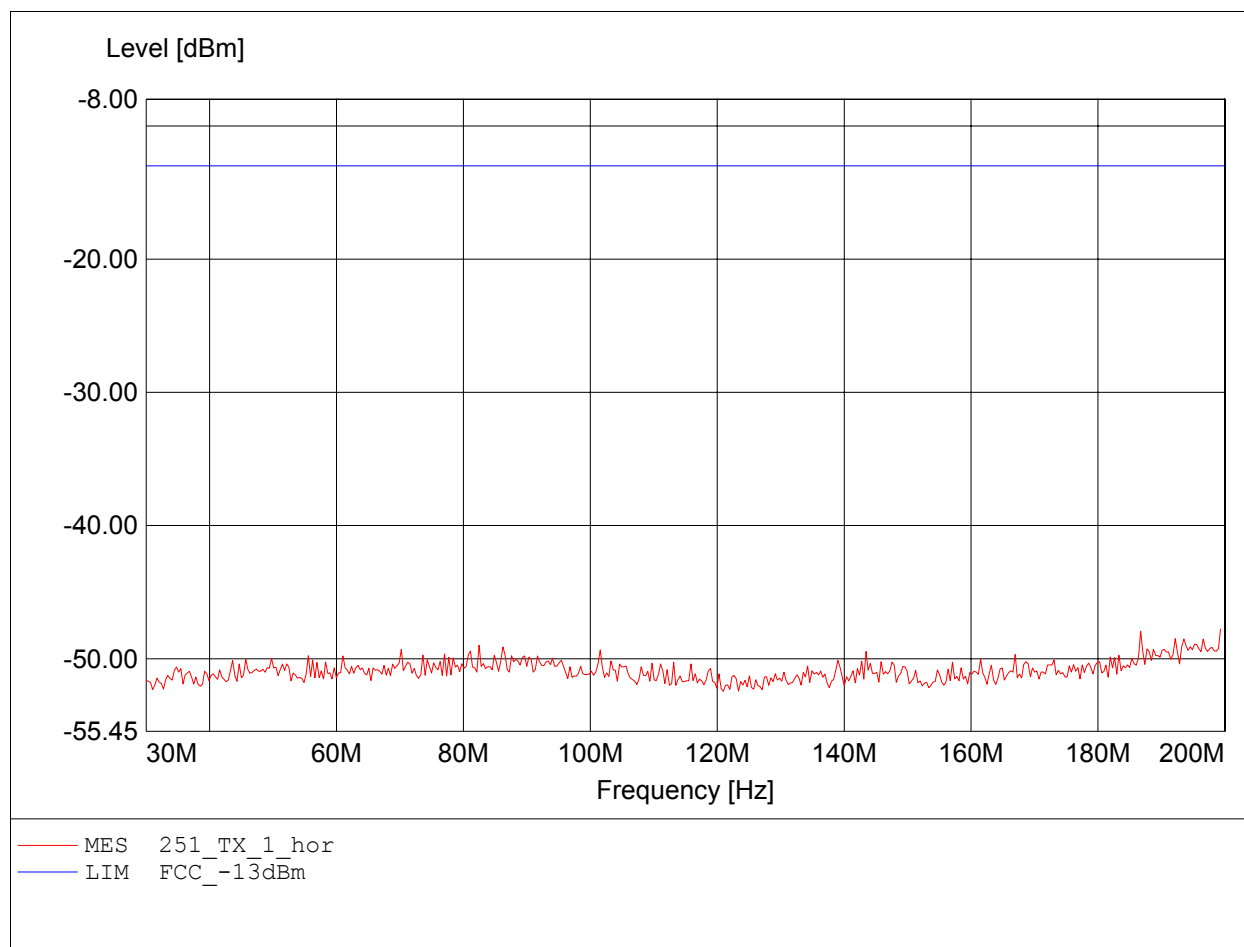
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 11.679GHz, Pmax: -39.28dBm, RBW: 1MHz



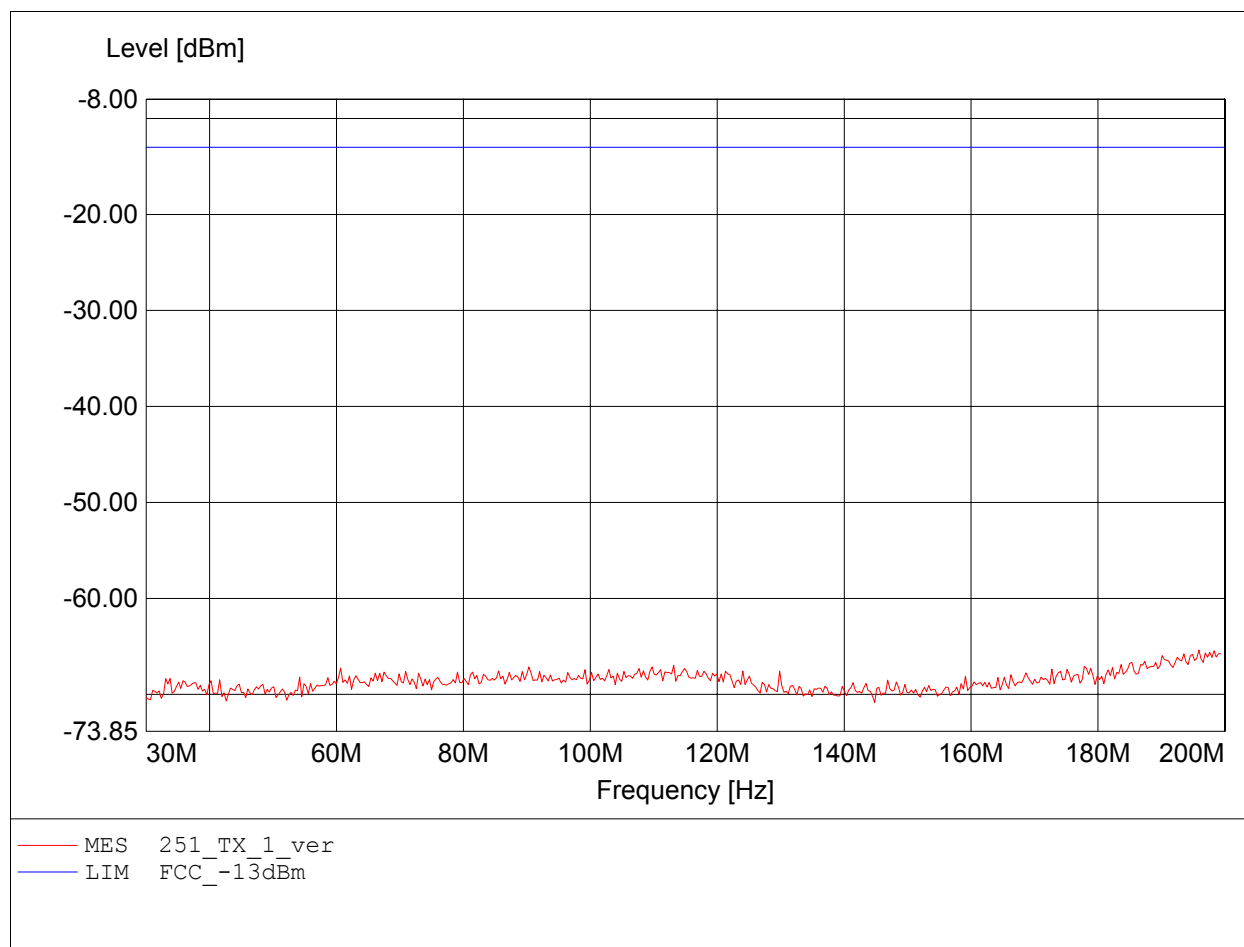
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 251 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 251
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 199.319MHz, Pmax: -47.79dBm, RBW: 100kHz



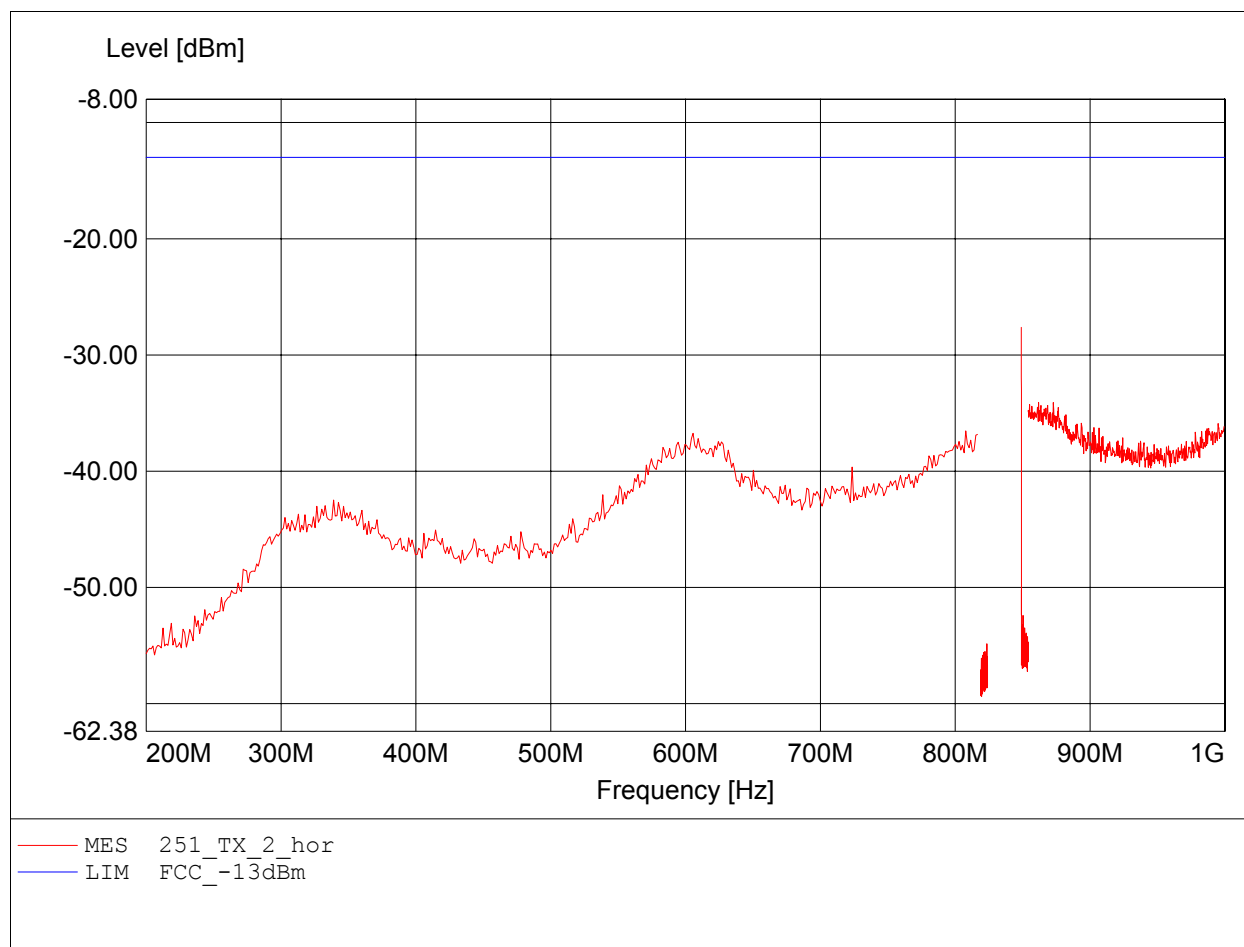
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 251 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 251
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 195.912MHz, Pmax: -65.38dBm, RBW: 100kHz



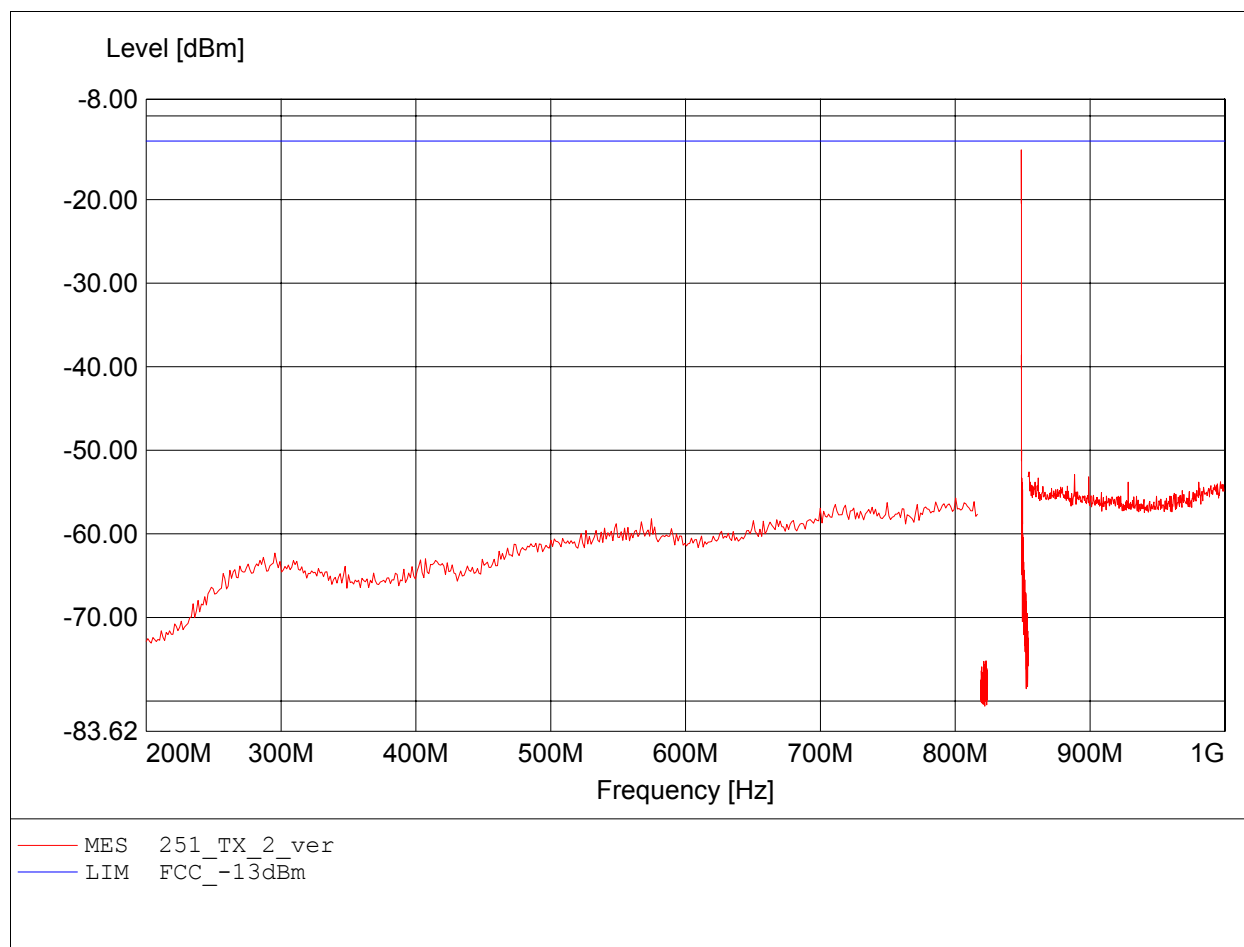
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 251 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 251
Comment 1: Dist.: 3m, Ant.: HL 223+notch
Comment 2: Freq: 849.000MHz, Pmax: -27.62dBm, RBW: 100kHz



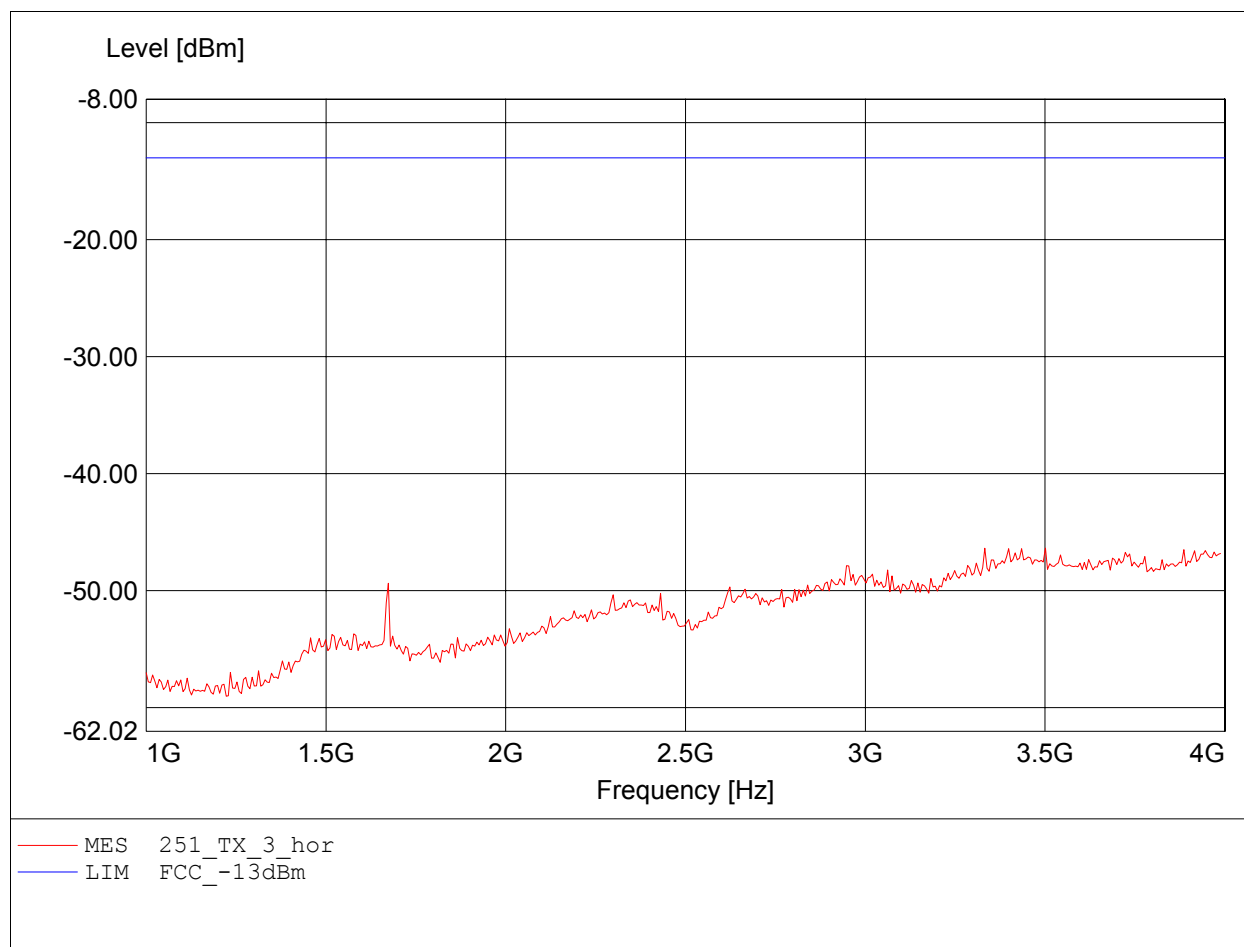
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 251 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 251
Comment 1: Dist.: 3m, Ant.: HL 223+notch
Comment 2: Freq: 849.010MHz, Pmax: -14.05dBm, RBW: 100kHz



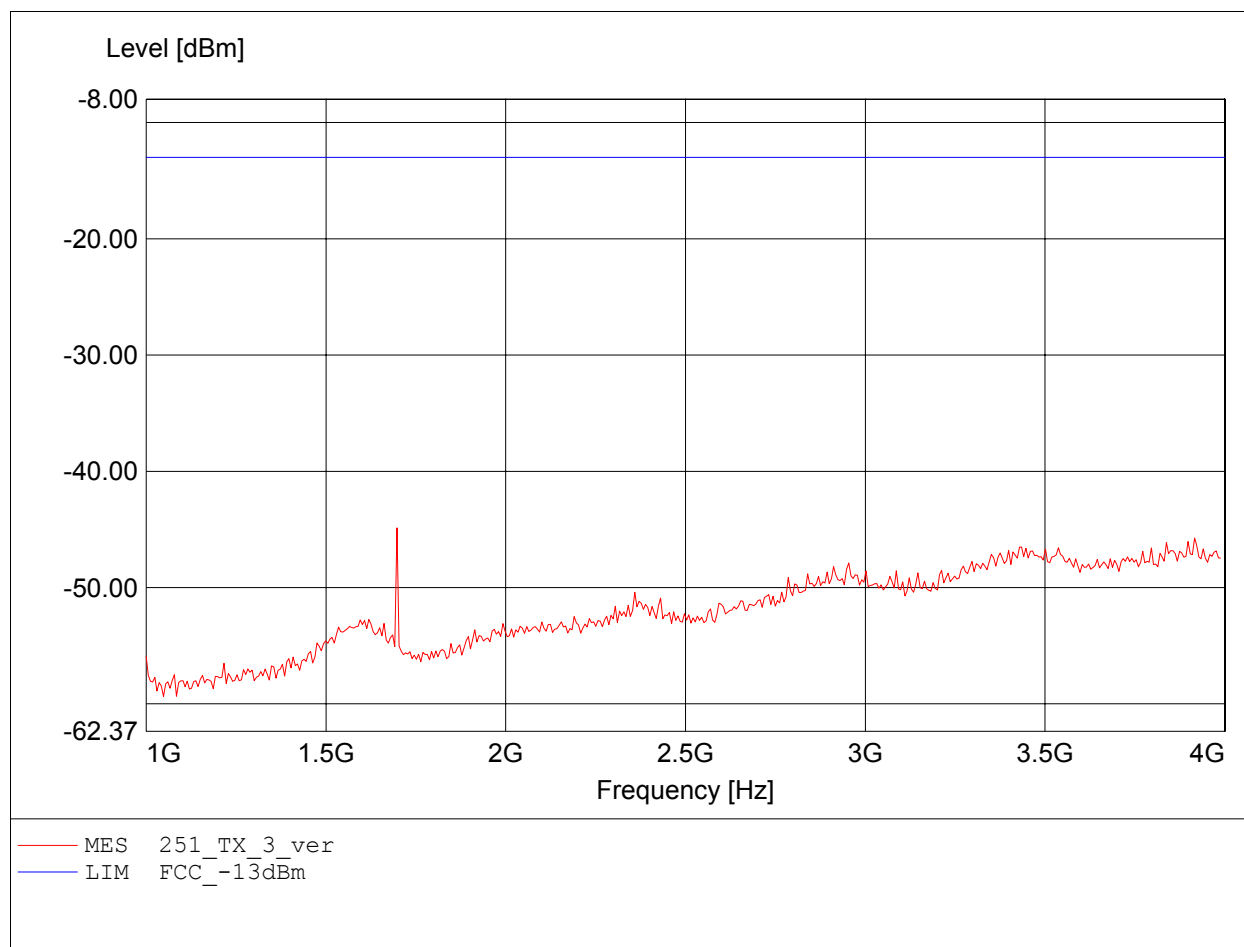
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 251 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 251
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 3.501GHz, Pmax: -46.36dBm, RBW: 1MHz



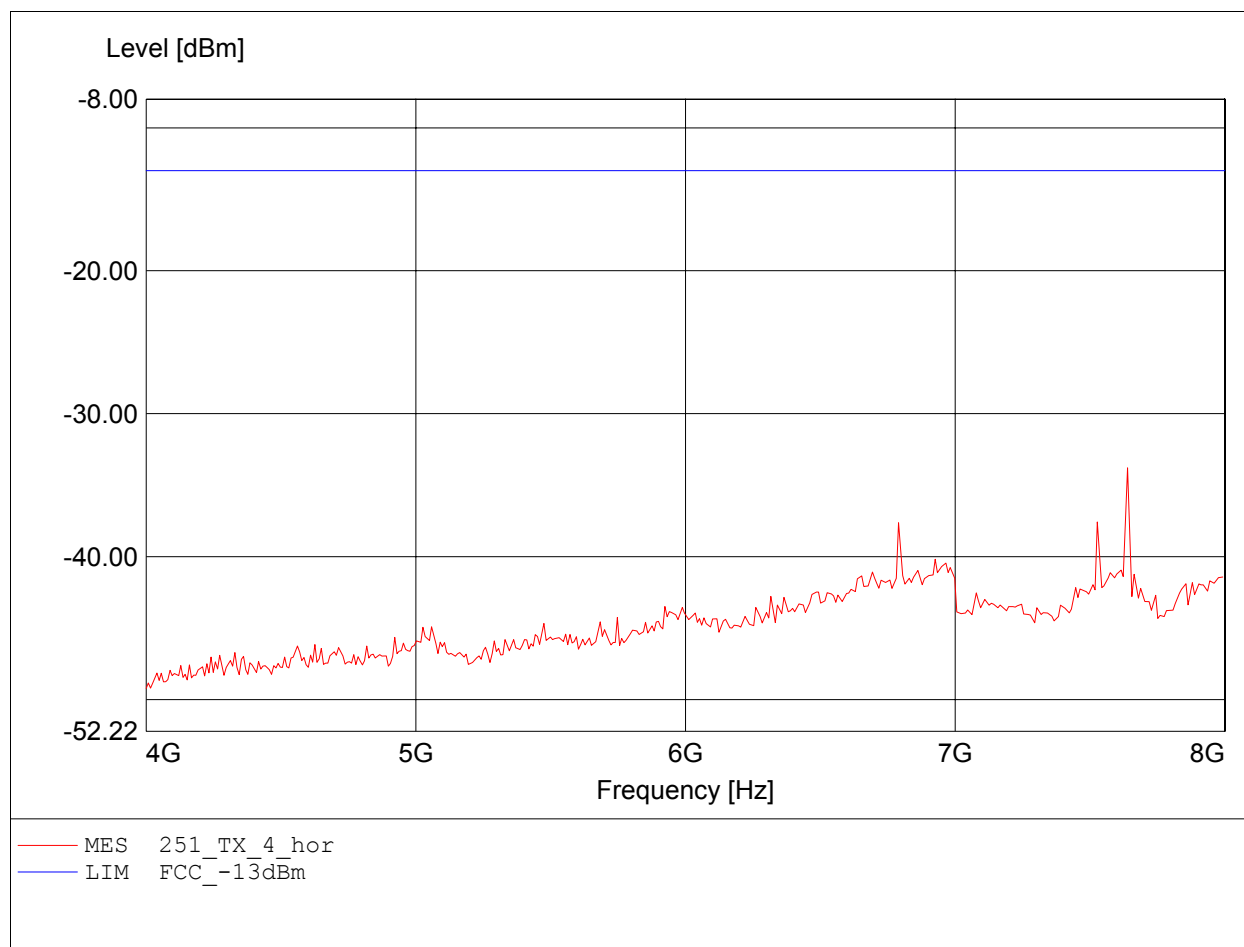
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 251 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 251
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 1.697GHz, Pmax: -44.87dBm, RBW: 1MHz



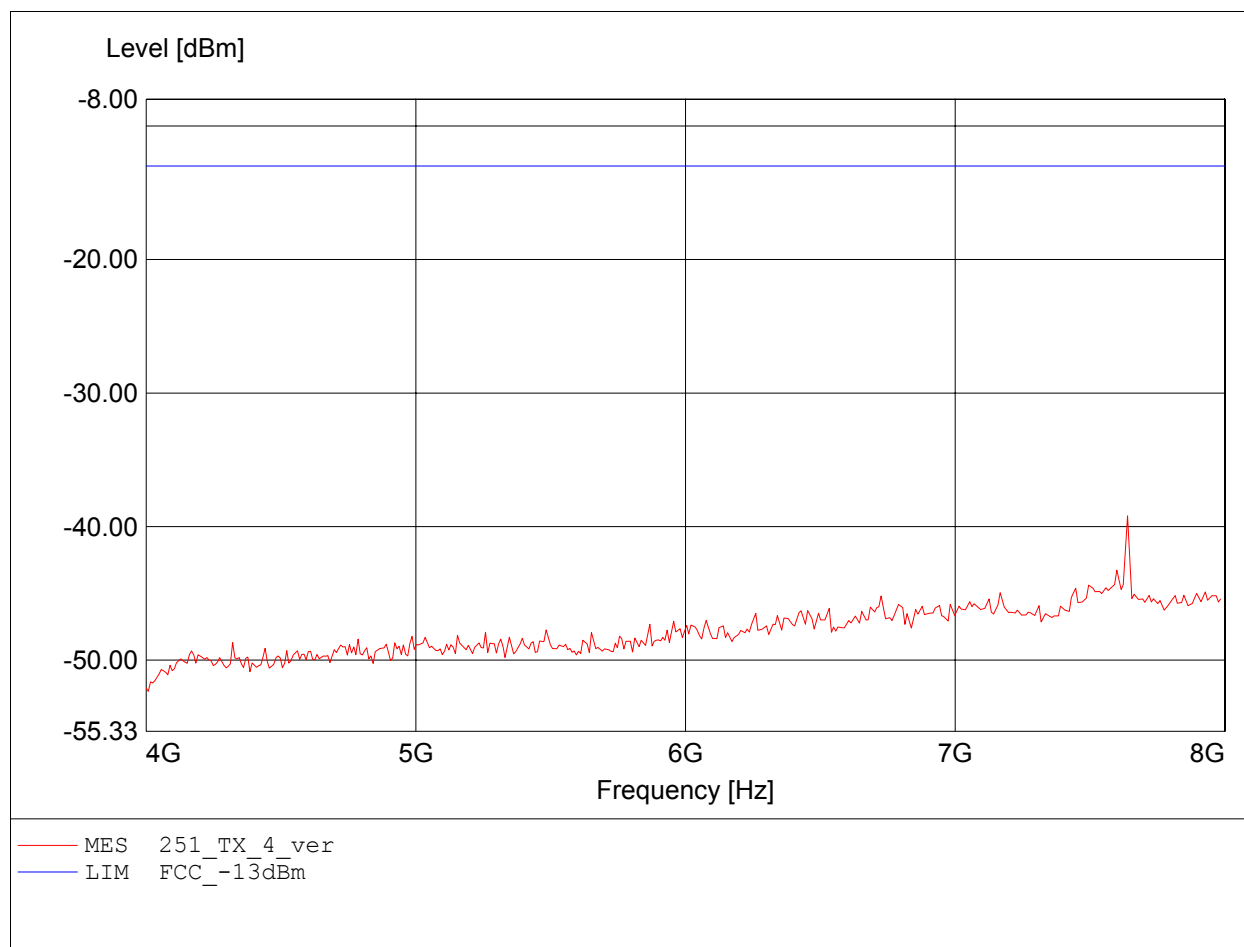
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 251 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 251
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 7.639GHz, Pmax: -33.79dBm, RBW: 1MHz



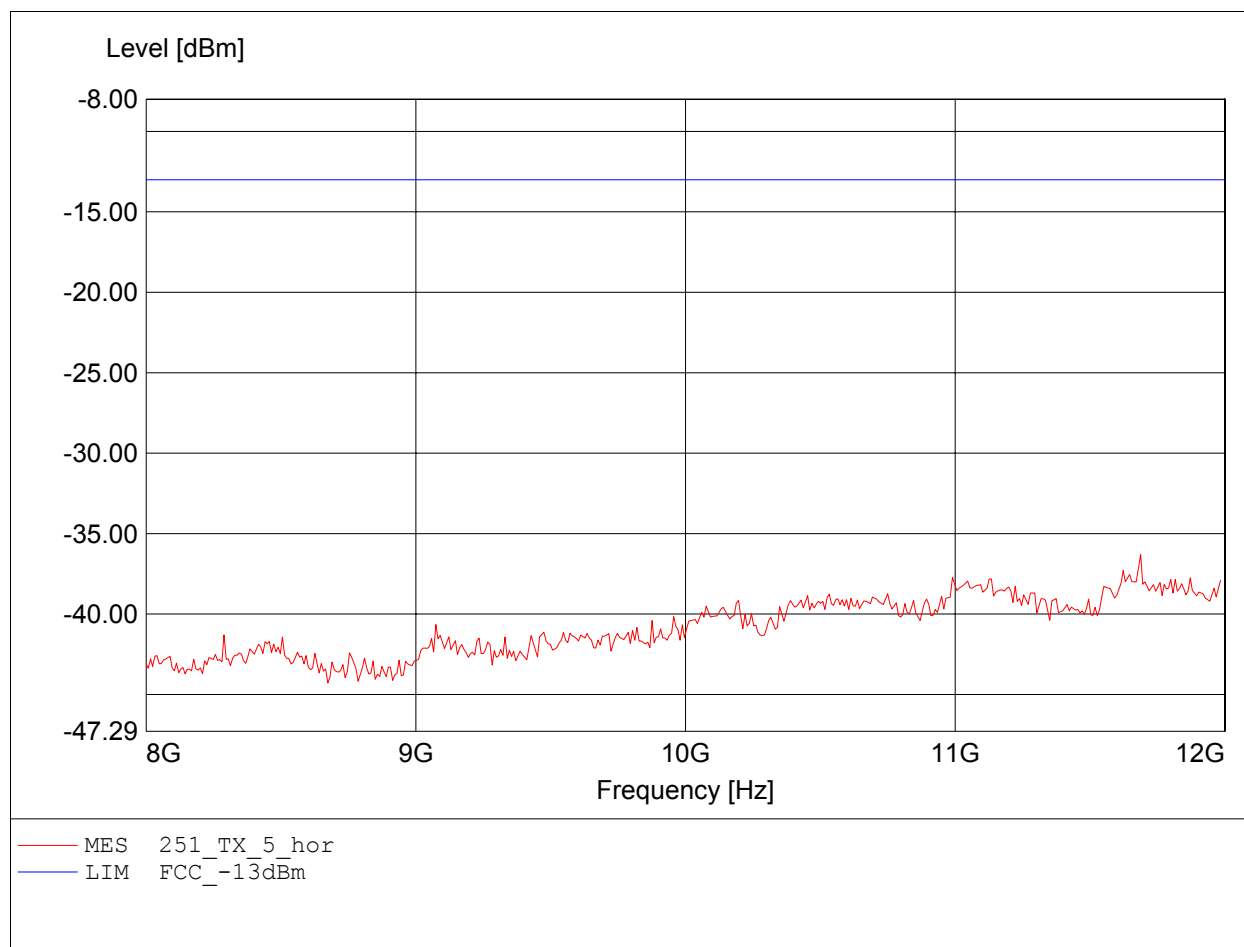
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 251 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 251
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 7.639GHz, Pmax: -39.19dBm, RBW: 1MHz



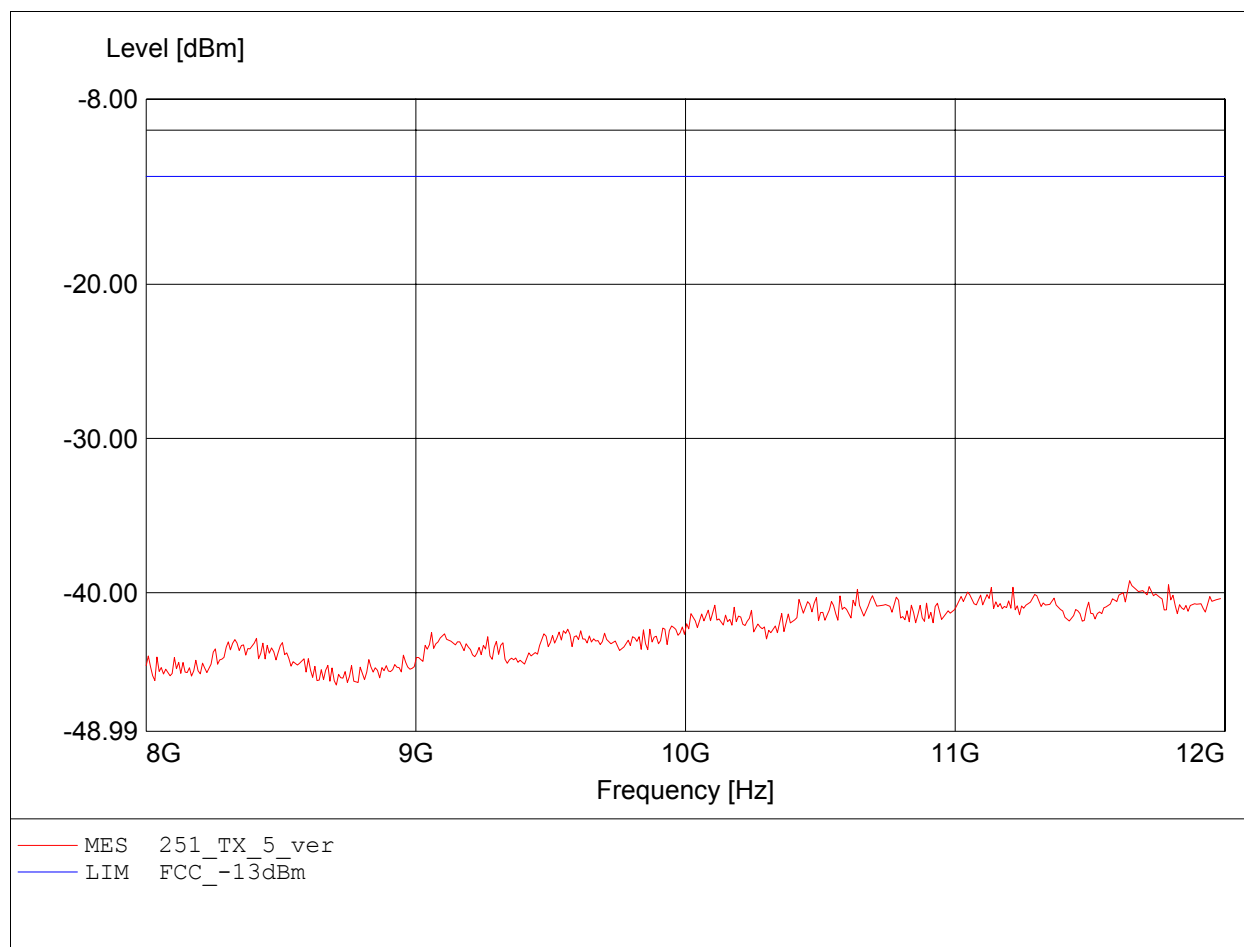
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 251 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 251
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 11.687GHz, Pmax: -36.31dBm, RBW: 1MHz



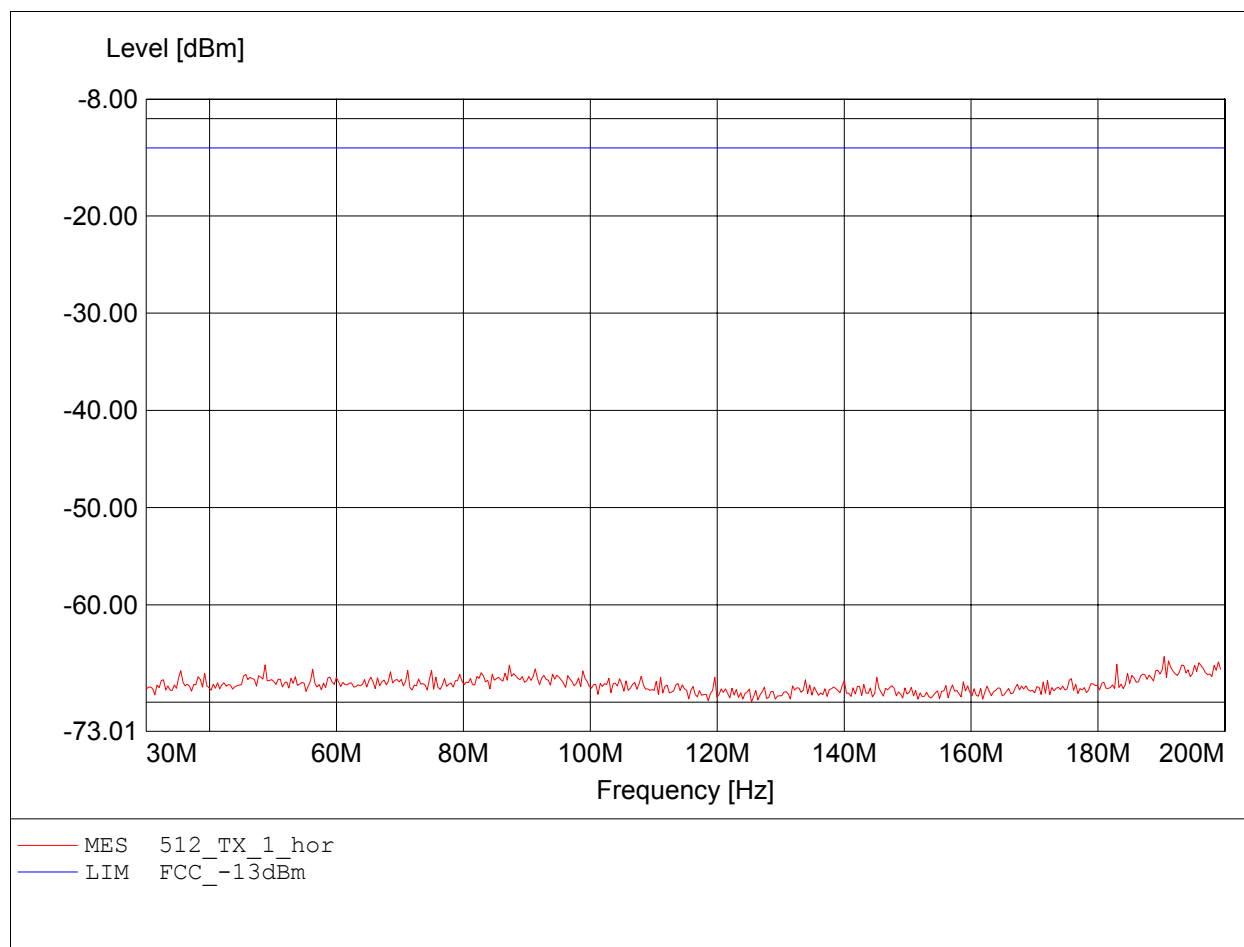
Radiated Emissions Tx
FCC RULES PART 22 SUBPART H

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 251 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 251
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 11.647GHz, Pmax: -39.22dBm, RBW: 1MHz



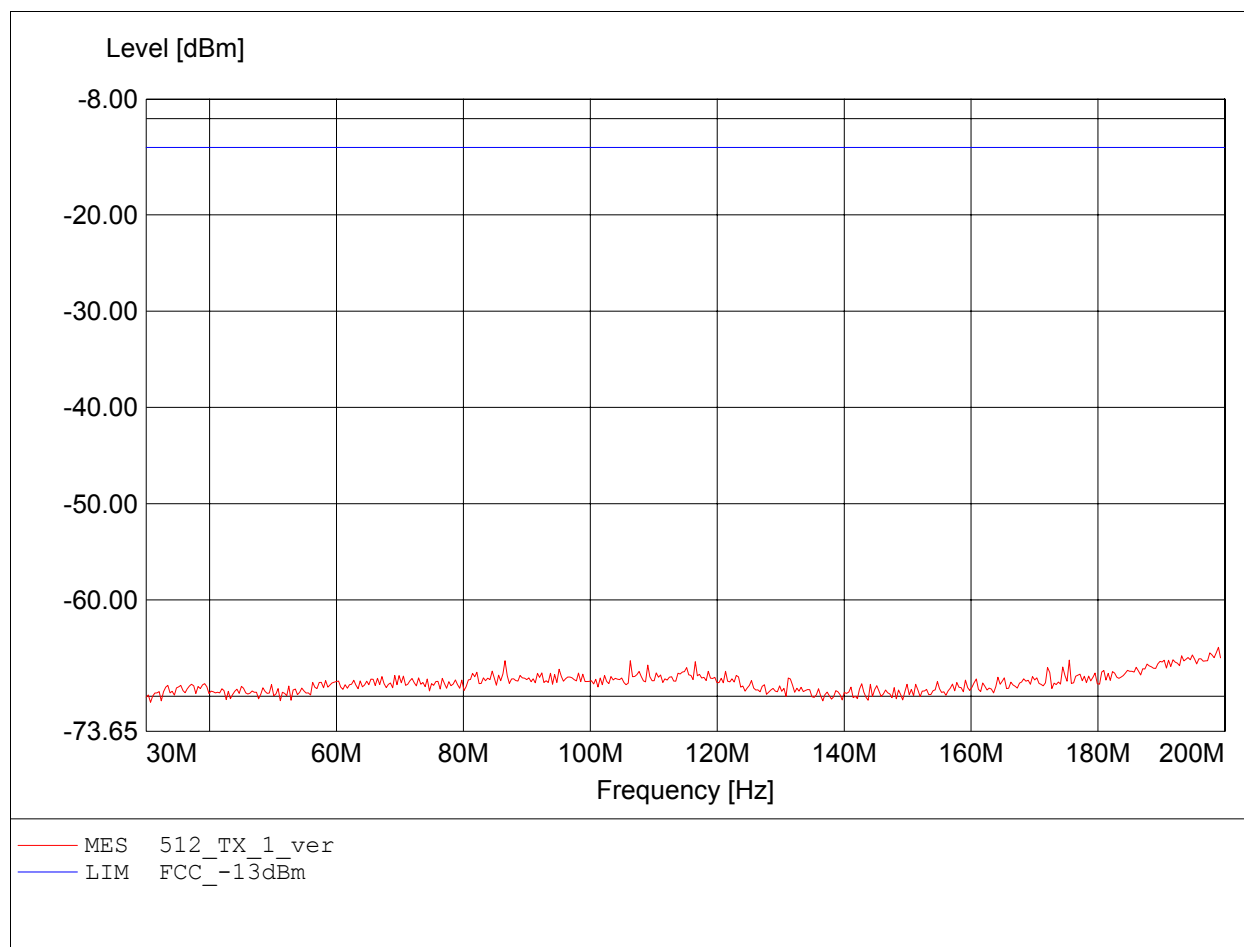
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 190.461MHz, Pmax: -65.32dBm, RBW: 100kHz



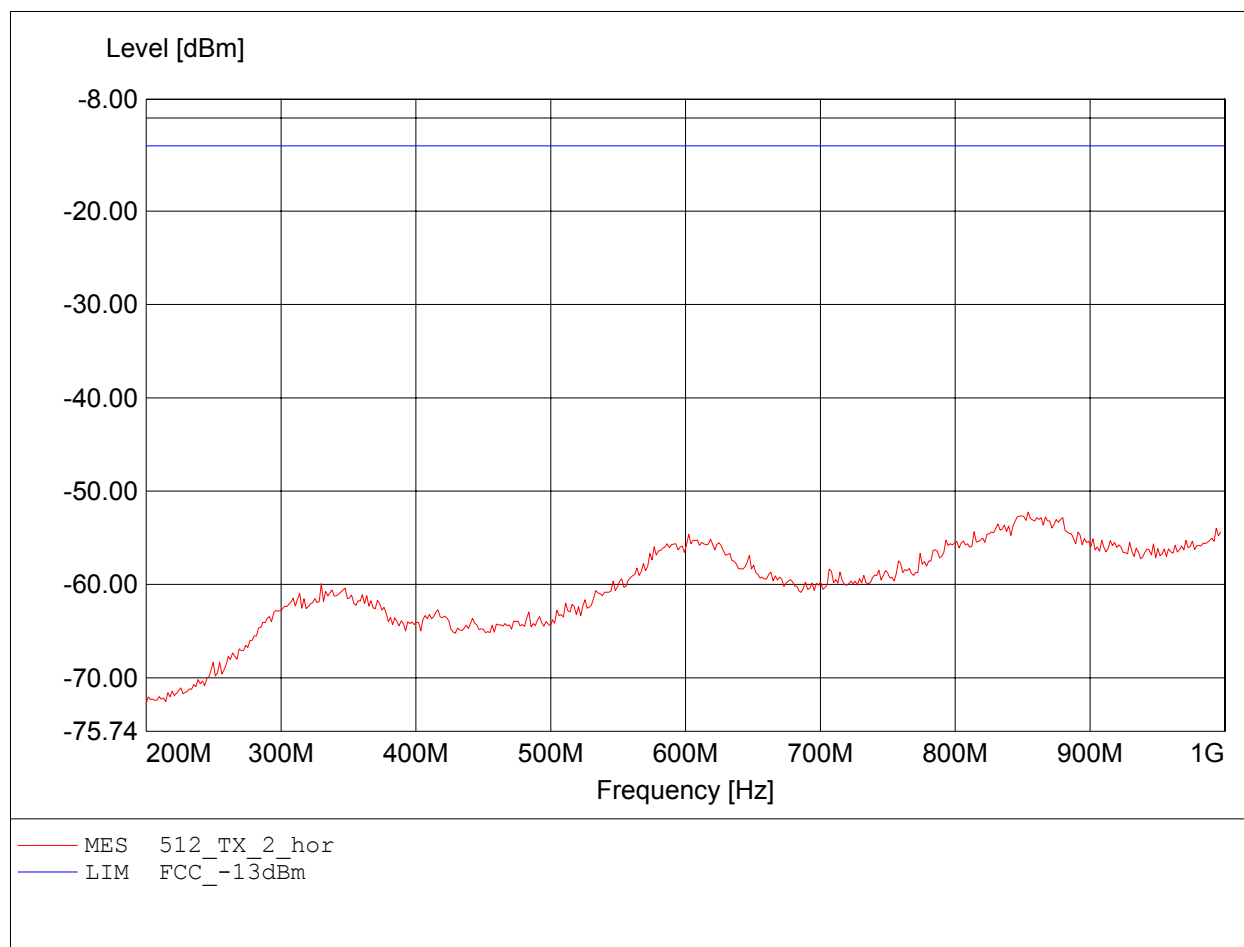
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 198.978MHz, Pmax: -64.93dBm, RBW: 100kHz



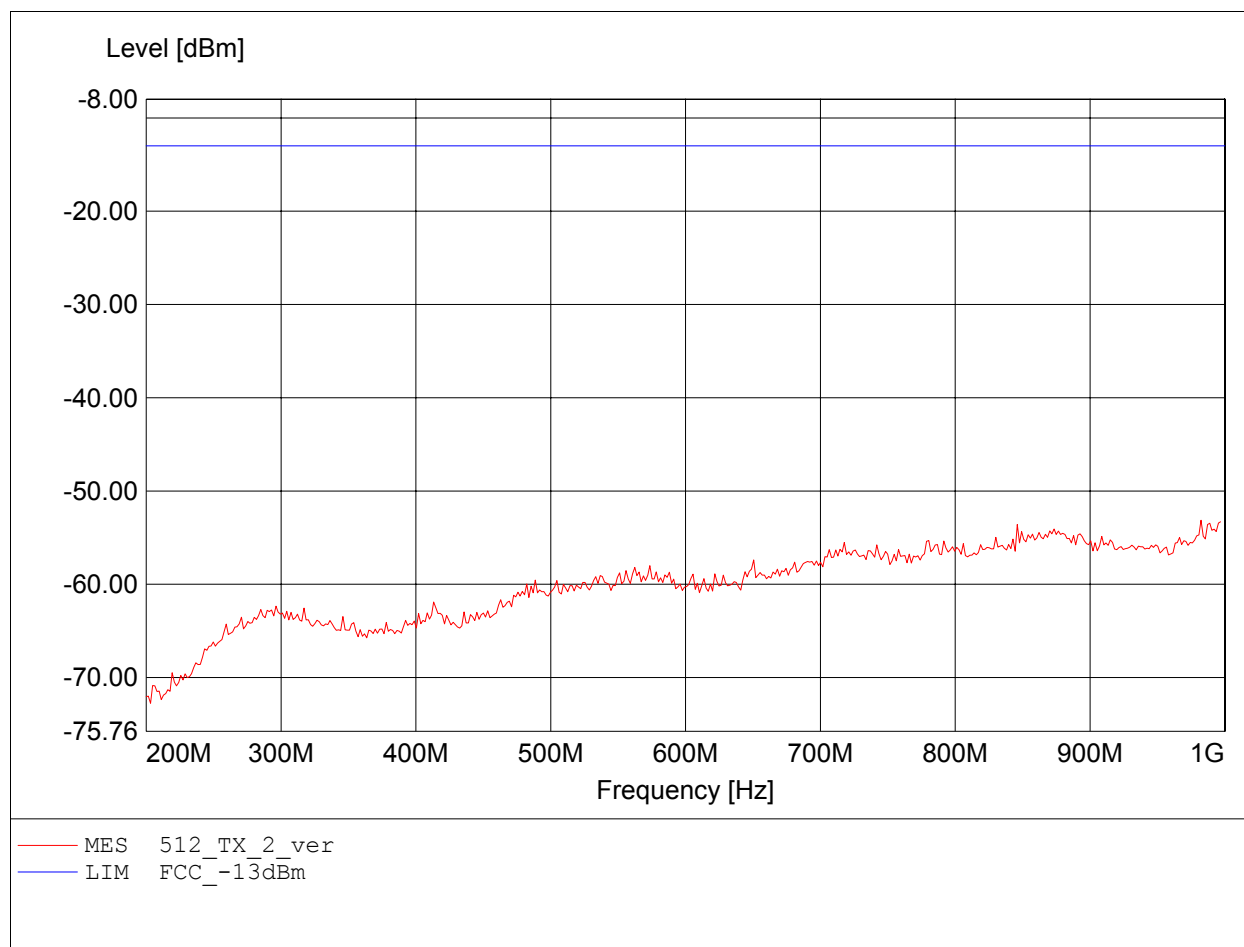
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL 223
Comment 2: Freq: 854.108MHz, Pmax: -52.24dBm, RBW: 100kHz



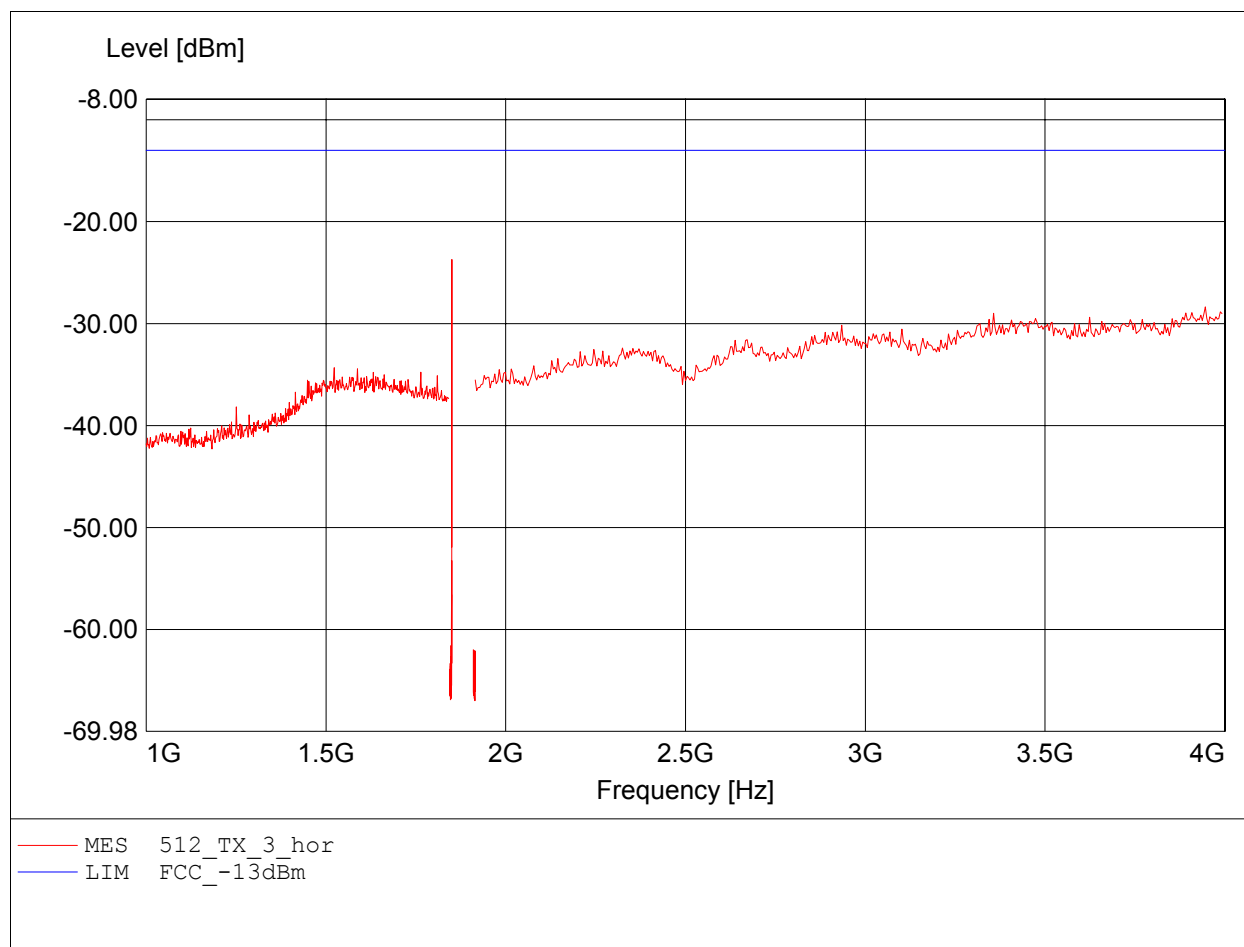
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL 223
Comment 2: Freq: 982.365MHz, Pmax: -53.13dBm, RBW: 100kHz



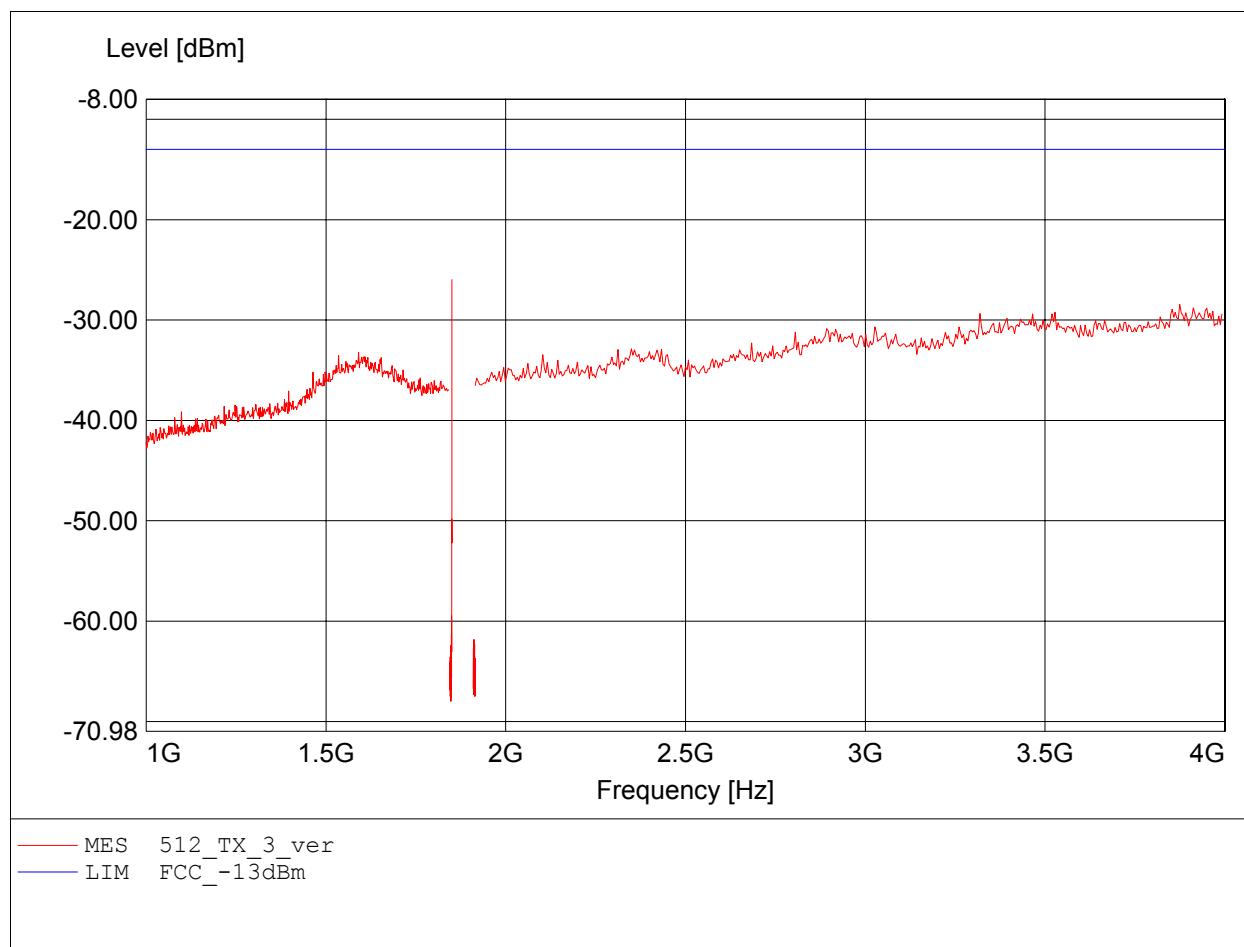
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL025
Comment 2: Freq: 1.850GHz, Pmax: -23.71dBm, RBW: 1MHz/3kHz



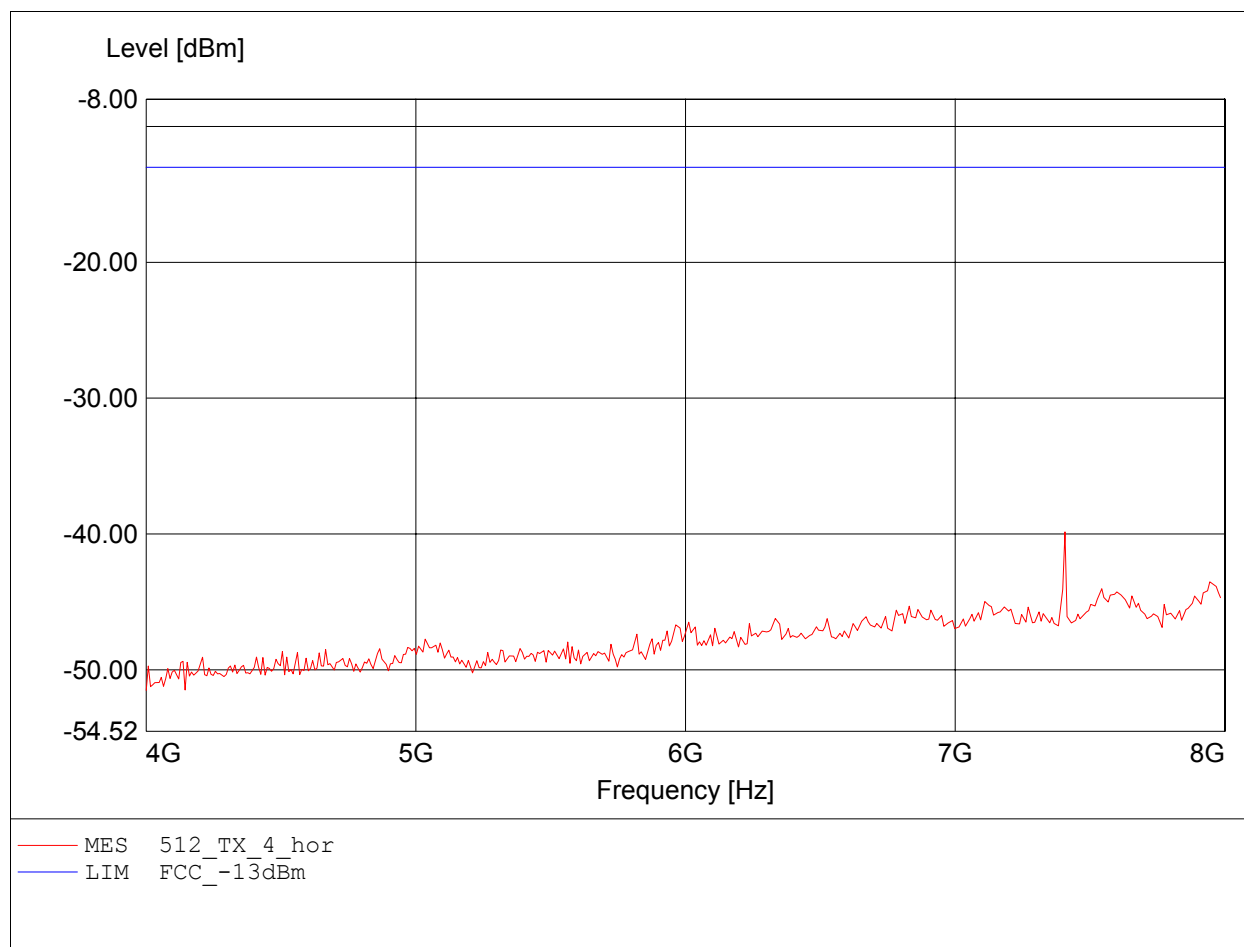
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL025
Comment 2: Freq: 1.850GHz, Pmax: -25.98dBm, RBW: 1MHz/3kHz



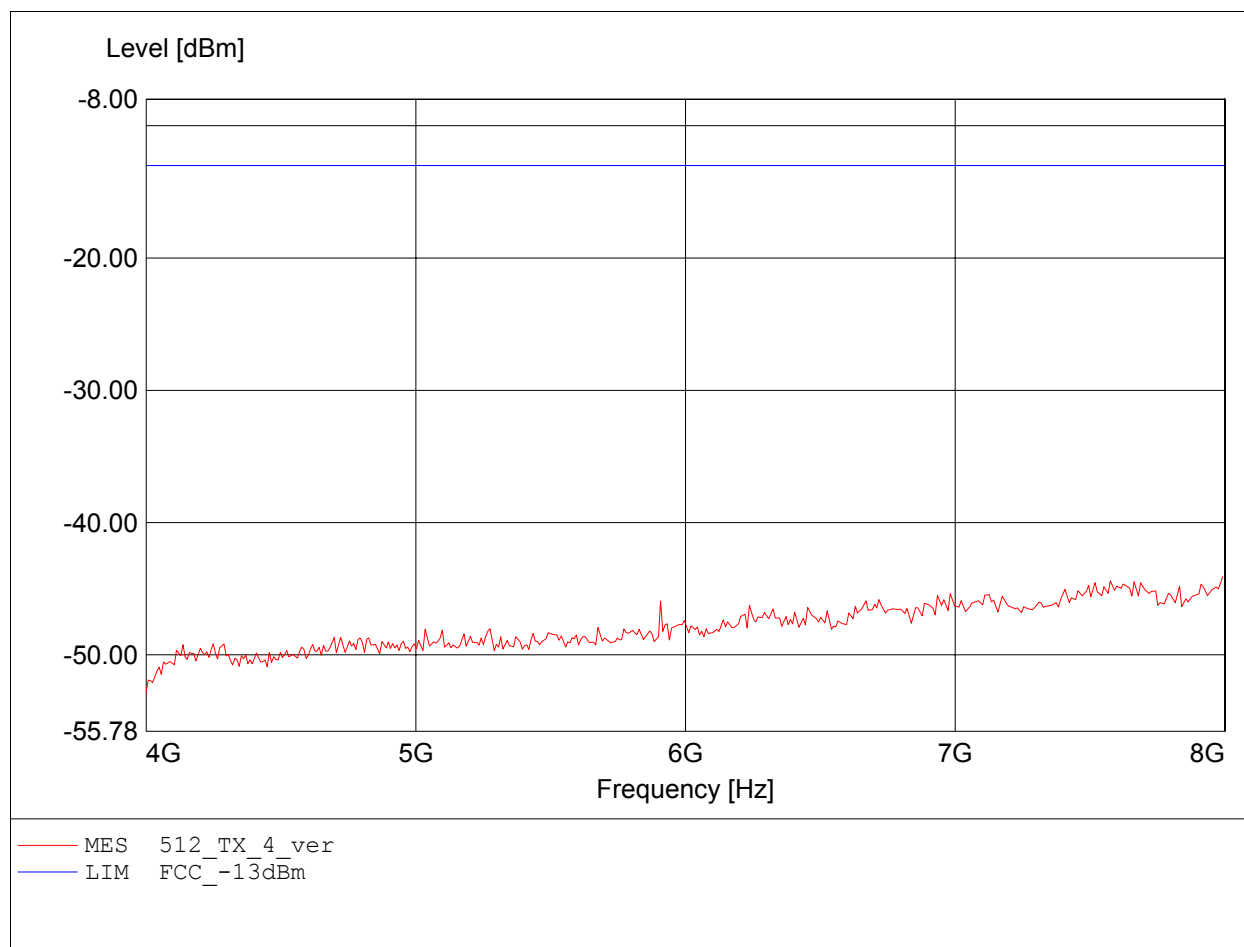
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 7.407GHz, Pmax: -39.84dBm, RBW: 1MHz



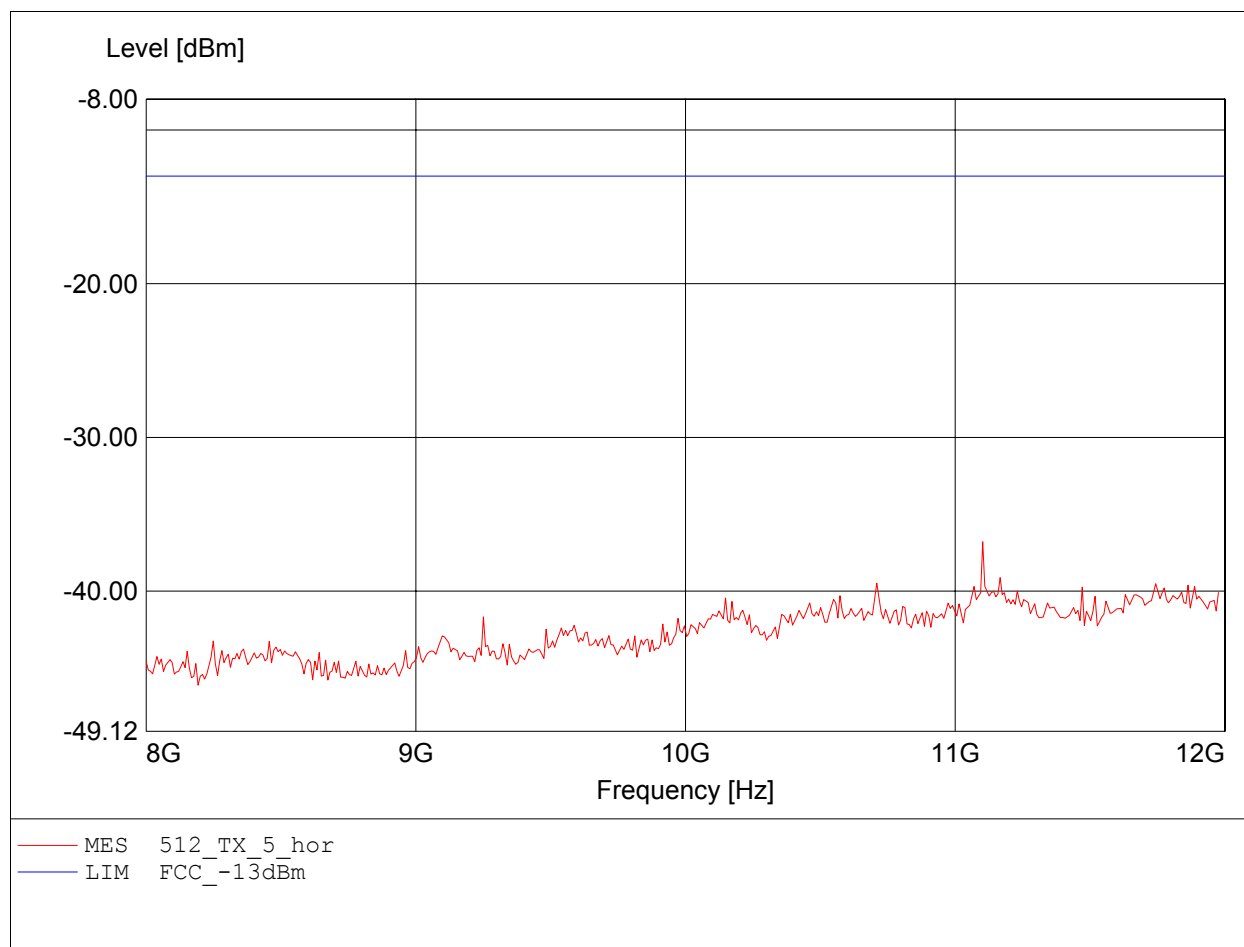
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 7.992GHz, Pmax: -44.10dBm, RBW: 1MHz



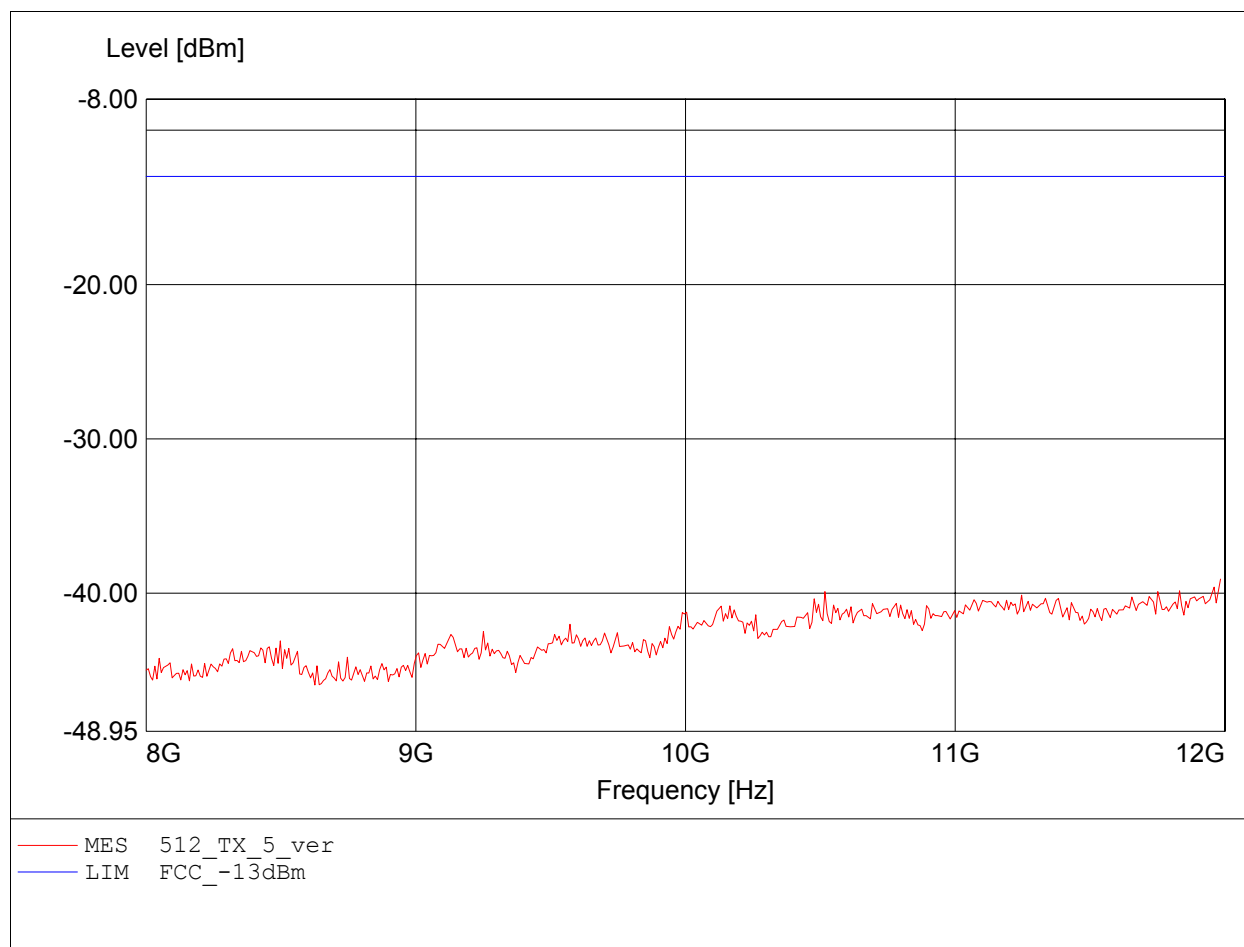
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 11.102GHz, Pmax: -36.79dBm, RBW: 1MHz



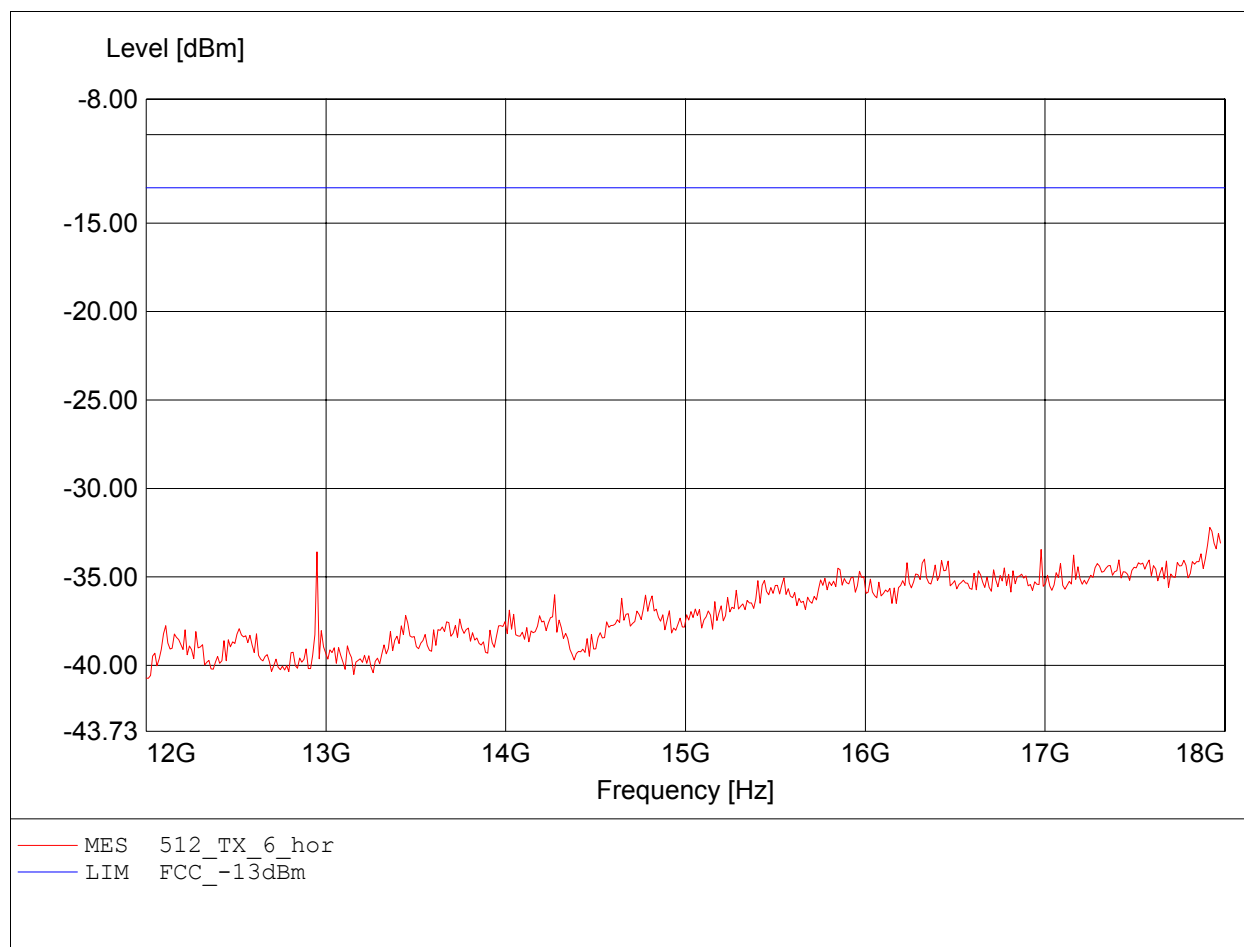
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 11.984GHz, Pmax: -39.09dBm, RBW: 1MHz



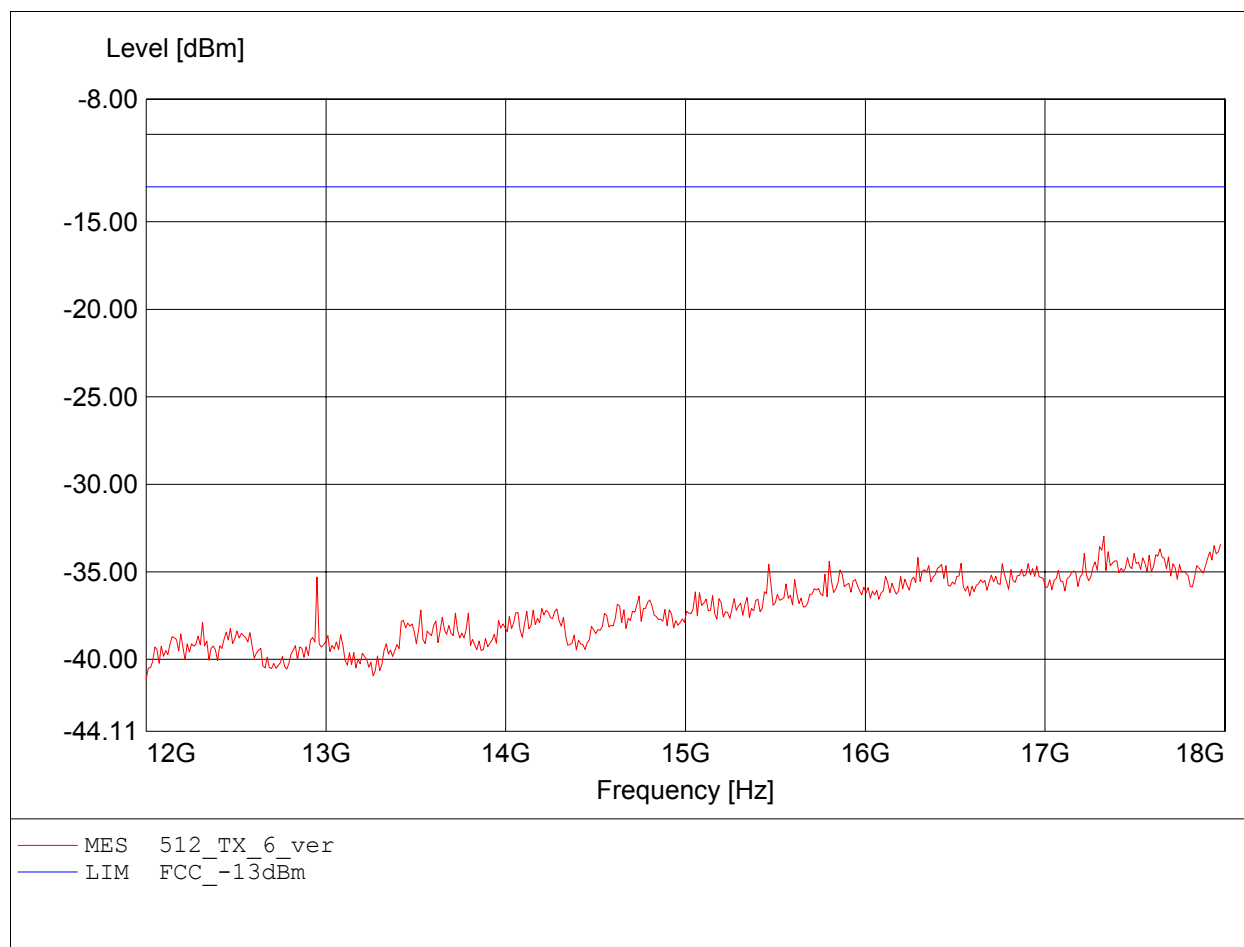
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 17.916GHz, Pmax: -32.20dBm, RBW: 1MHz



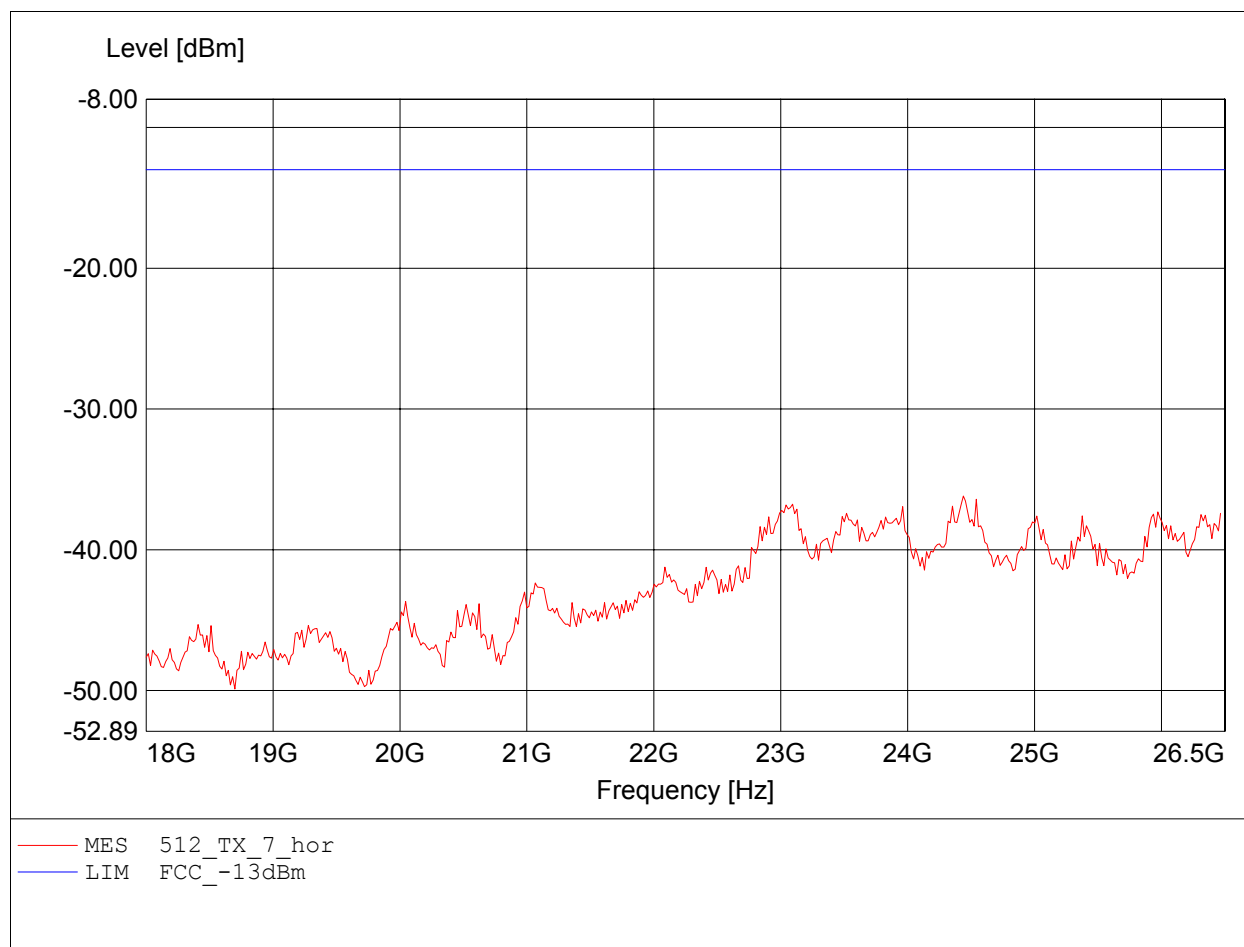
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 17.327GHz, Pmax: -32.96dBm, RBW: 1MHz



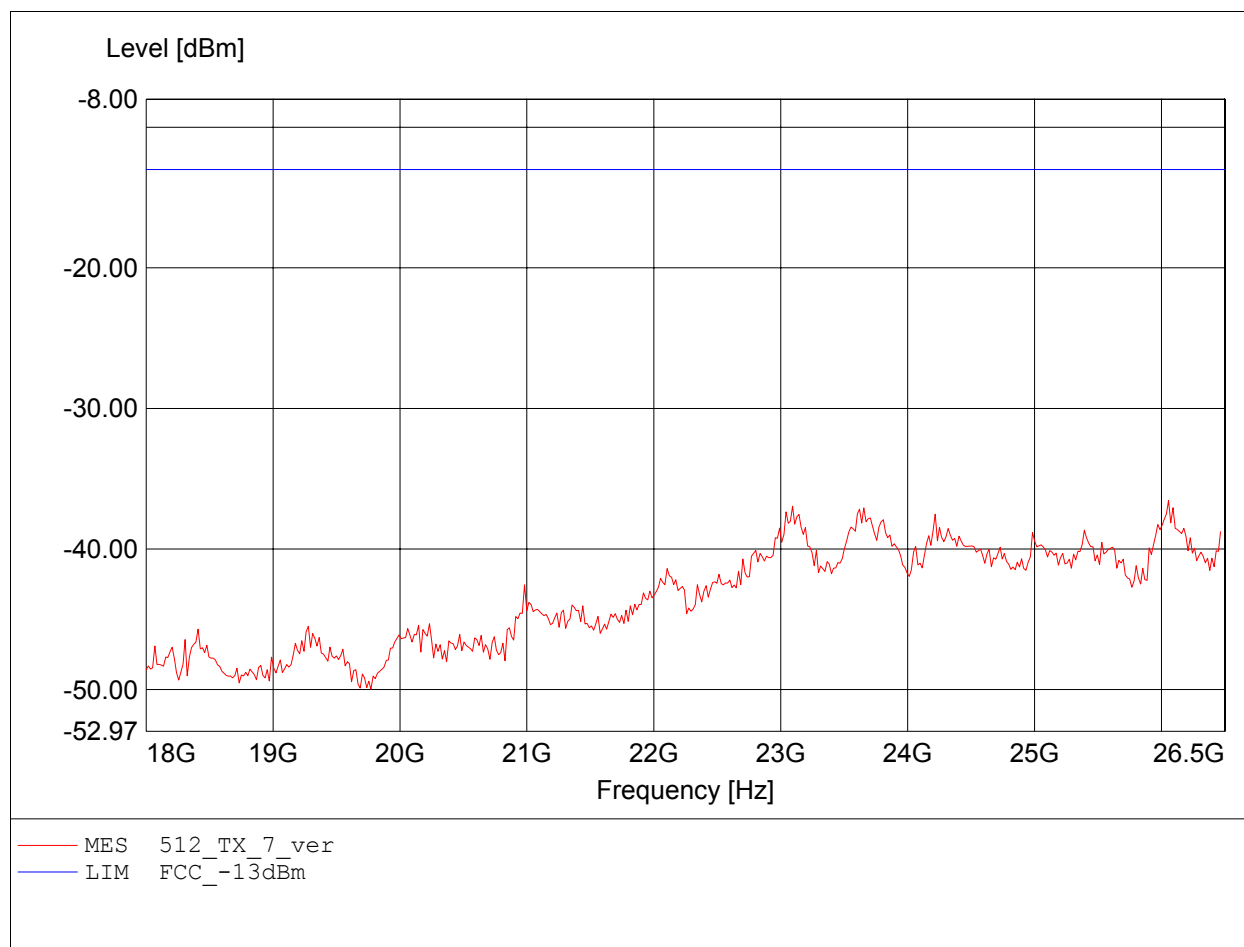
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Comment 2: Freq: 24.439GHz, Pmax: -36.18dBm, RBW: 1MHz



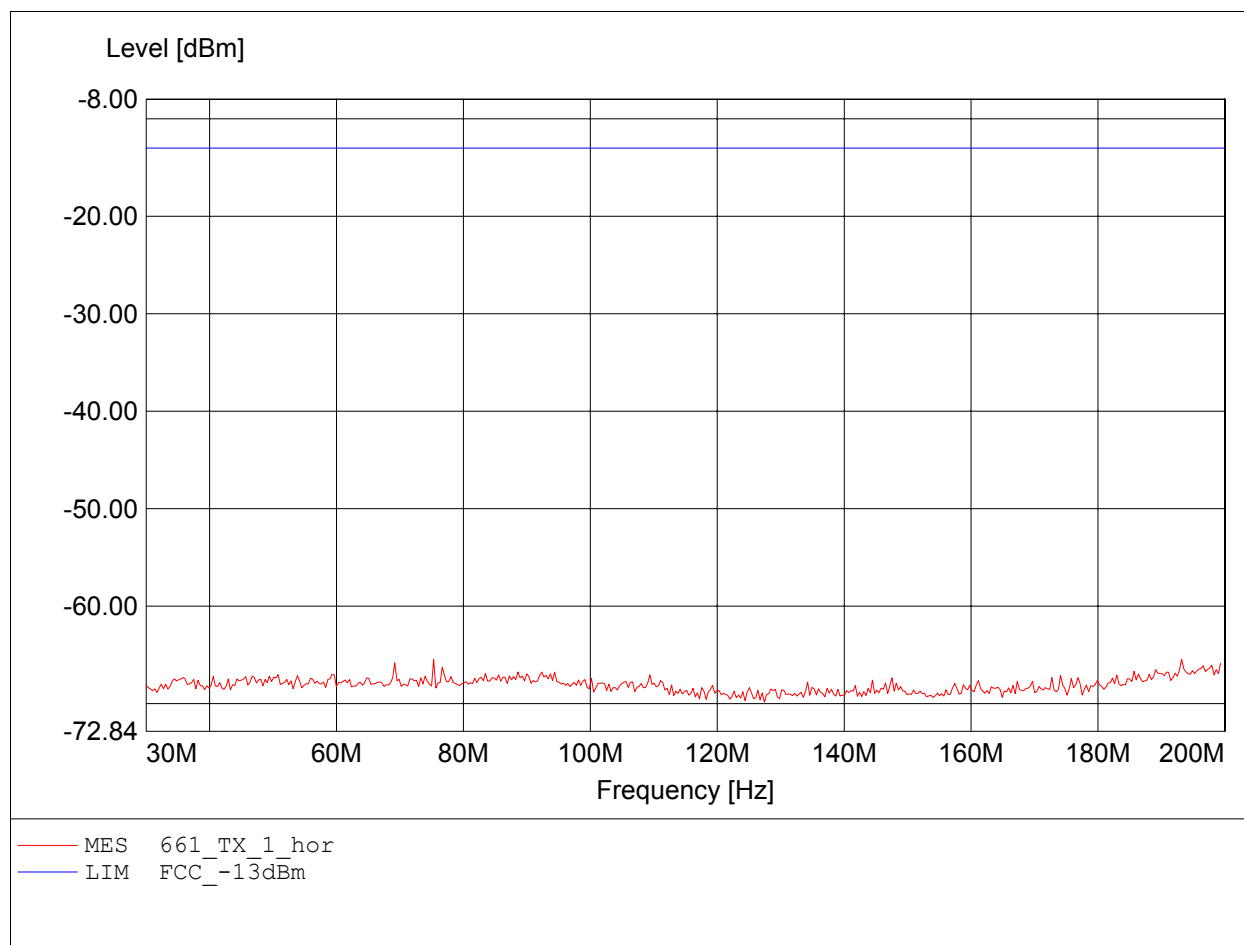
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 512 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 512
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Comment 2: Freq: 26.057GHz, Pmax: -36.55dBm, RBW: 1MHz



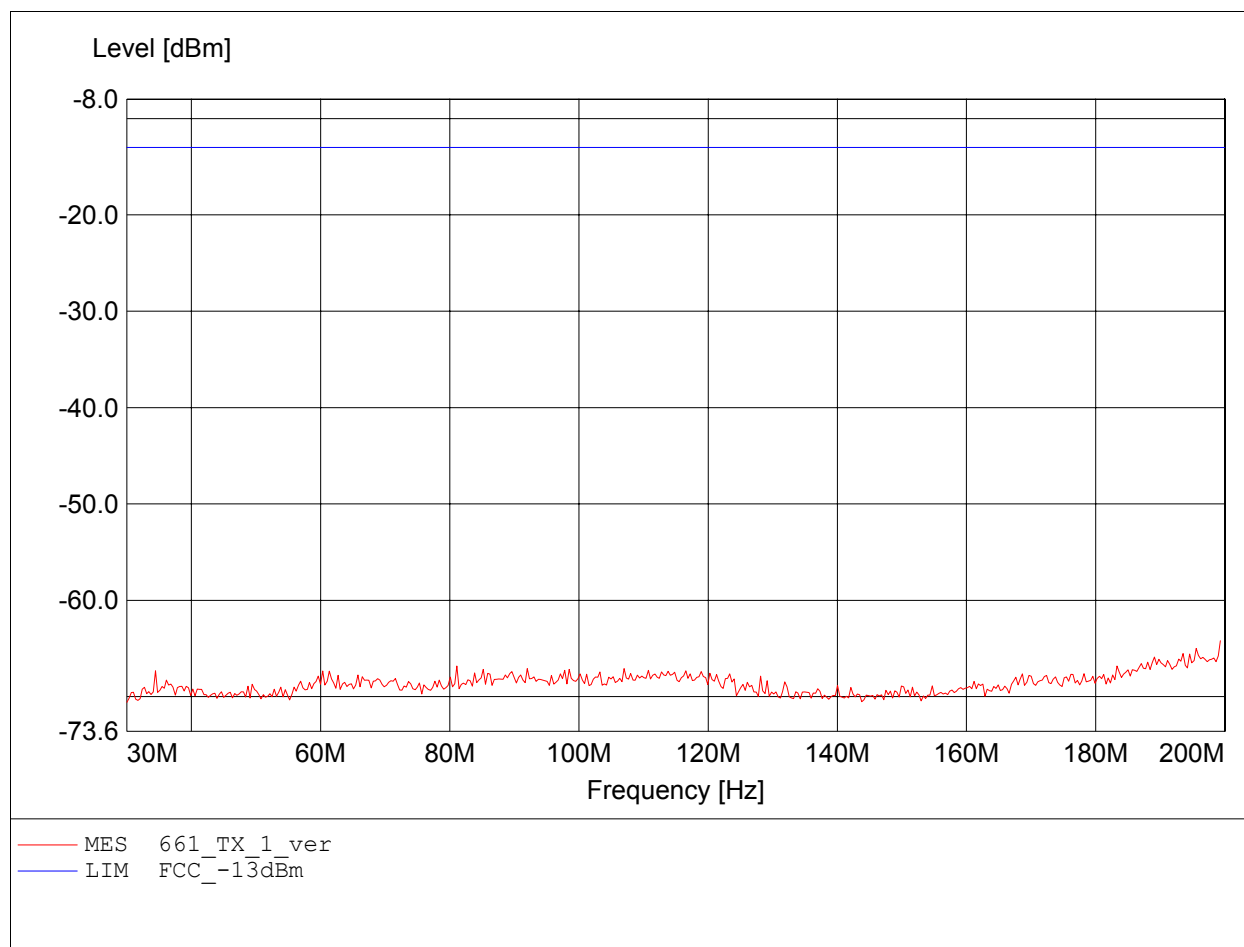
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 193.186MHz, Pmax: -65.45dBm, RBW: 100kHz



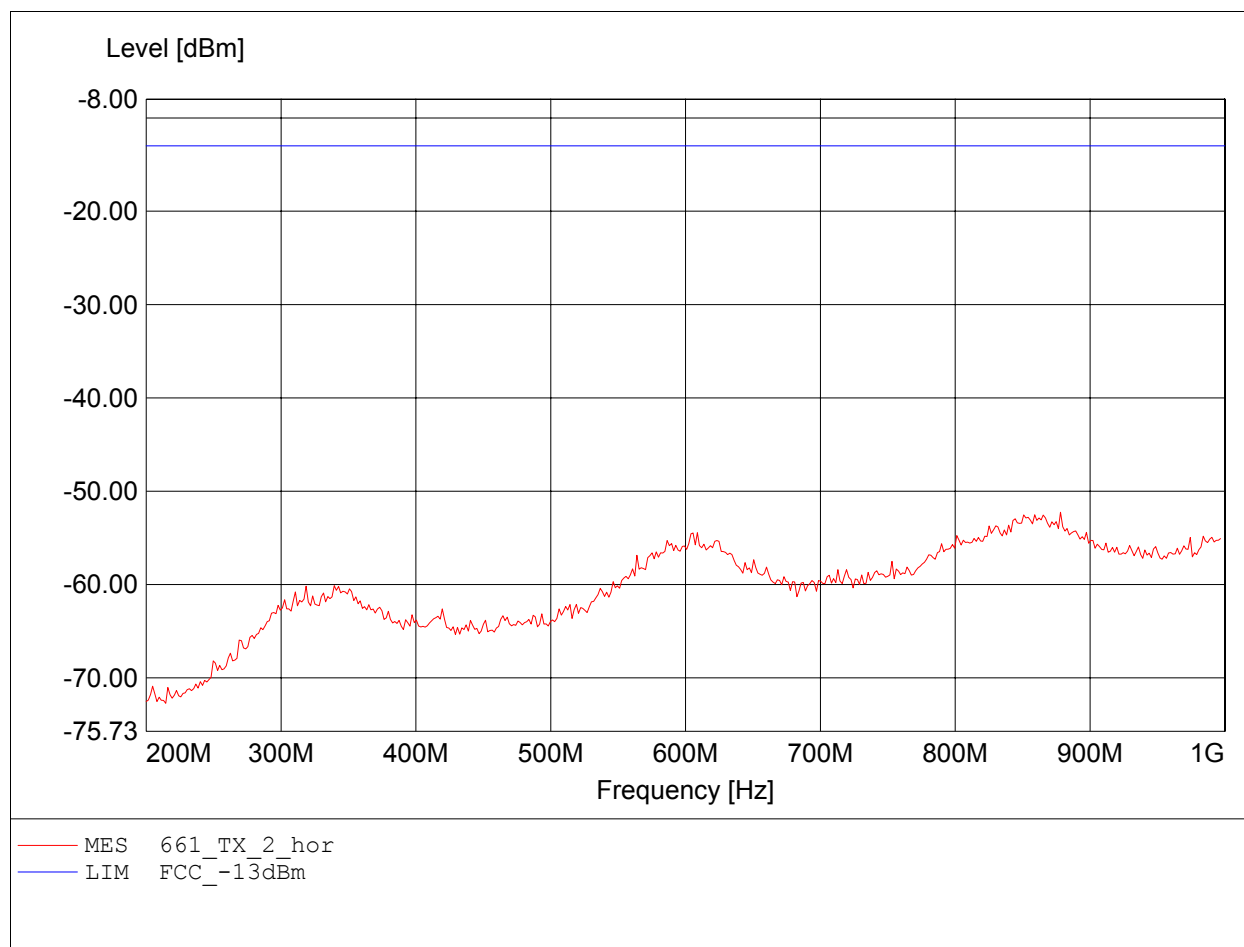
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 199.319MHz, Pmax: -64.20dBm, RBW: 100kHz



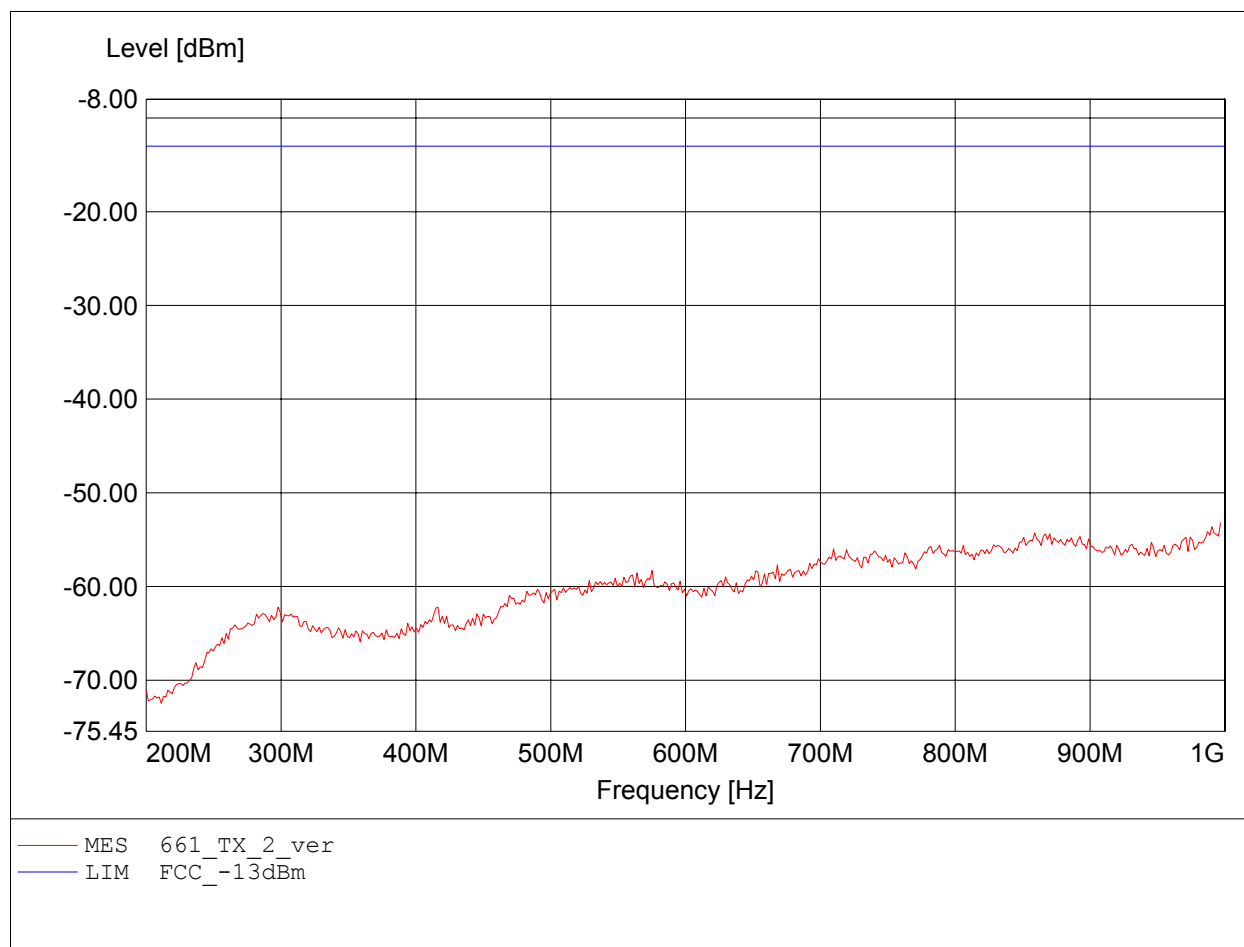
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL 223
Comment 2: Freq: 878.156MHz, Pmax: -52.25dBm, RBW: 100kHz



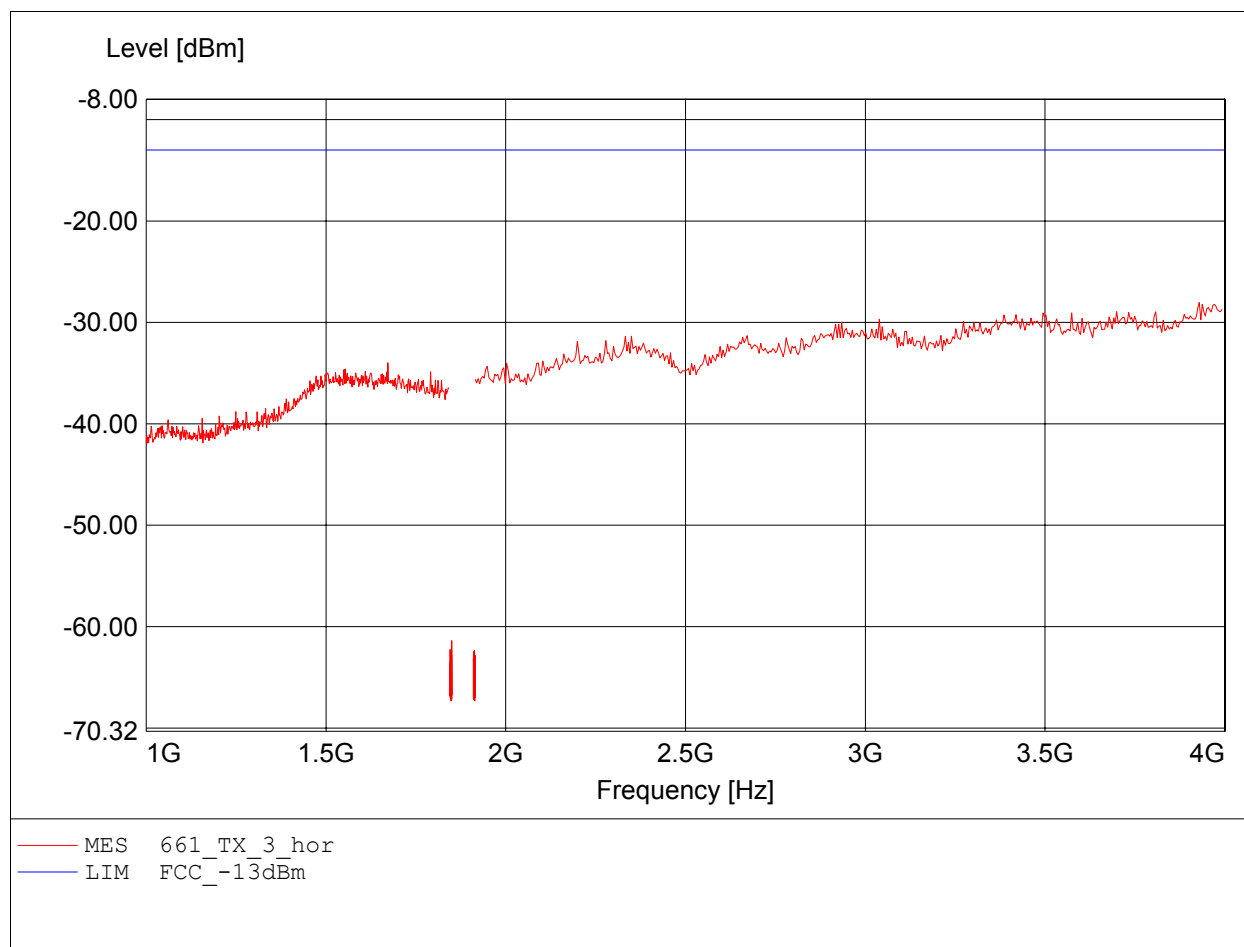
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL 223
Comment 2: Freq: 996.794MHz, Pmax: -53.22dBm, RBW: 100kHz



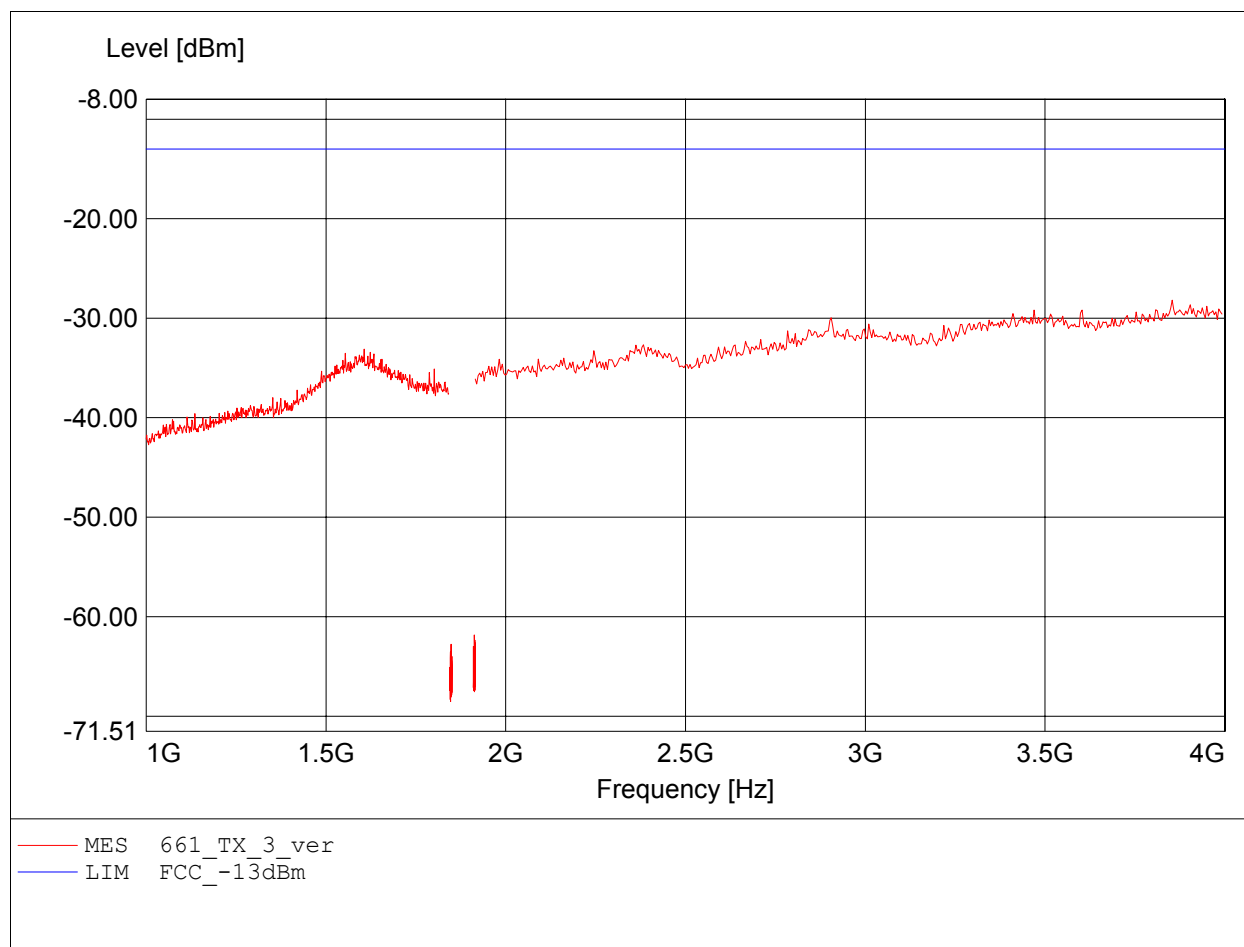
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025
Comment 2: Freq: 3.929GHz, Pmax: -28.04dBm, RBW: 1MHz/3kHz



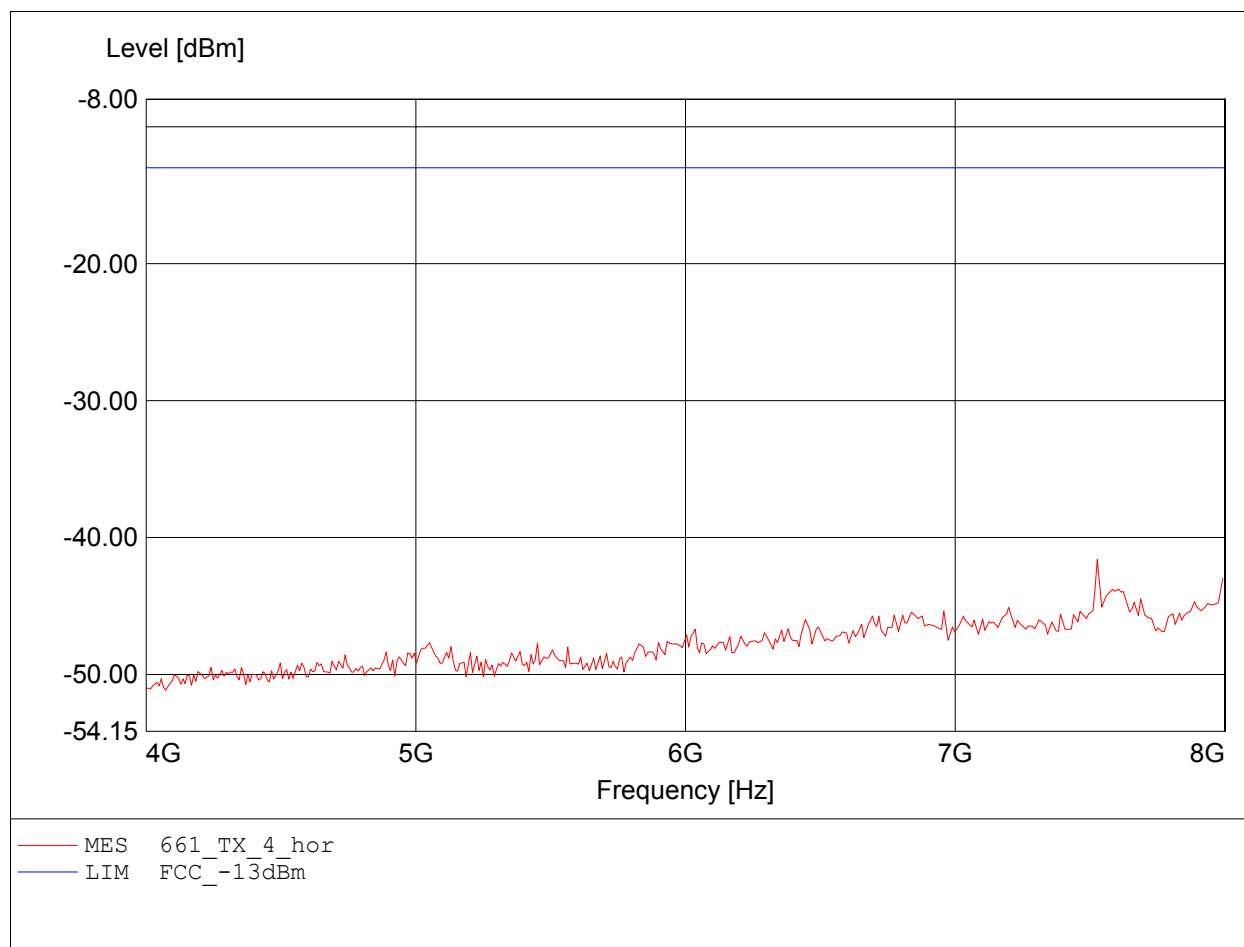
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025
Comment 2: Freq: 3.854GHz, Pmax: -28.17dBm, RBW: 1MHz/3kHz



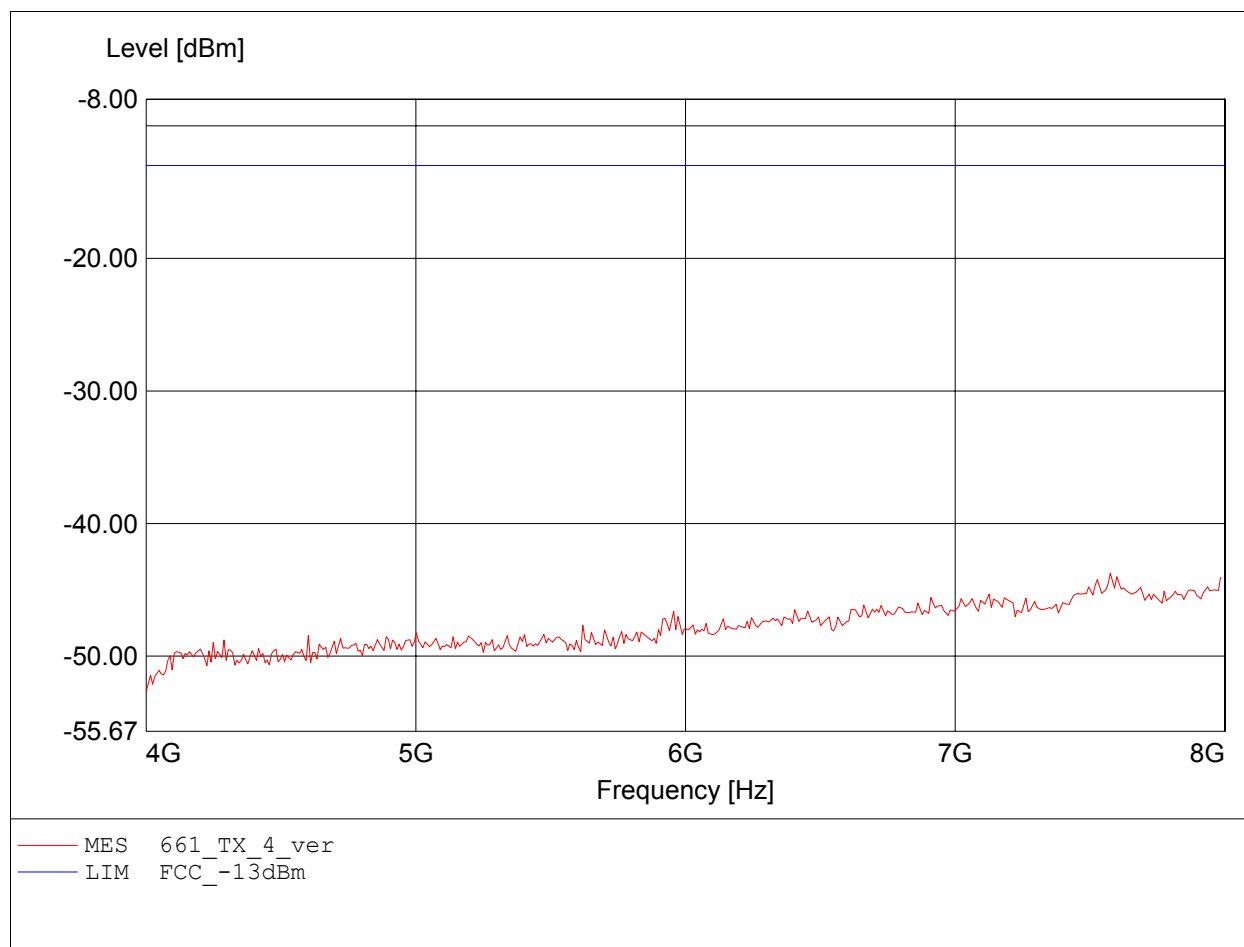
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 7.527GHz, Pmax: -41.61dBm, RBW: 1MHz



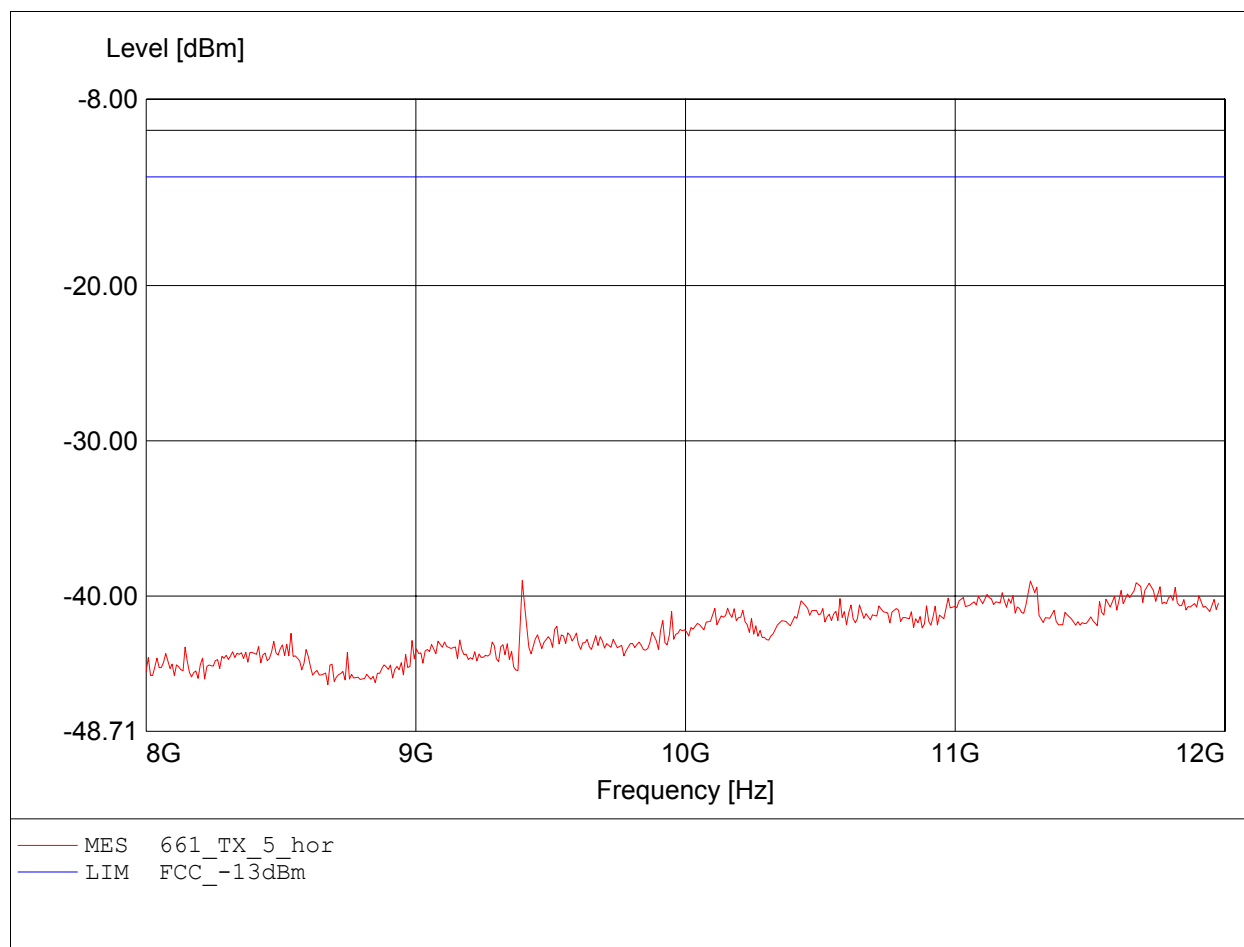
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 7.575GHz, Pmax: -43.76dBm, RBW: 1MHz



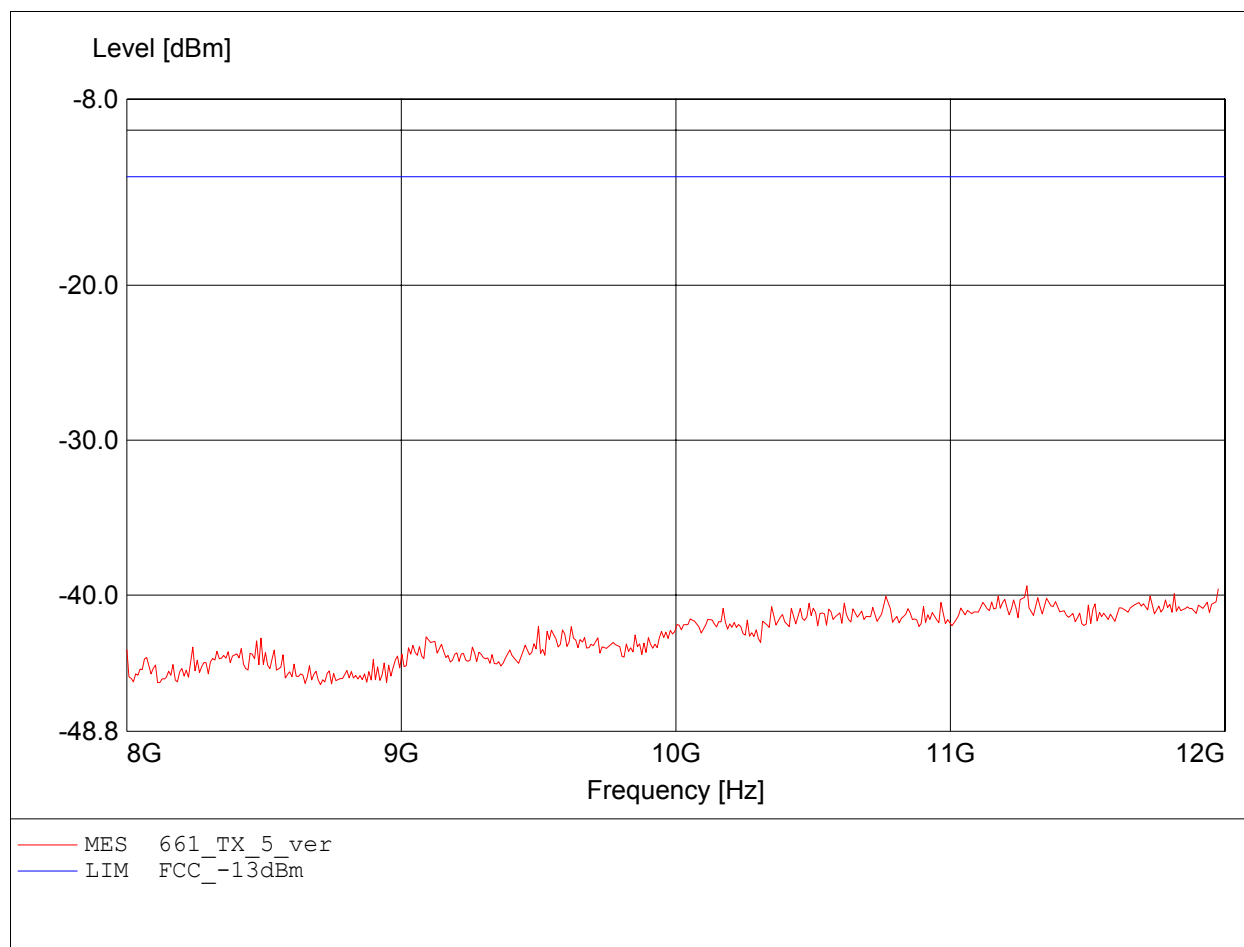
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 9.395GHz, Pmax: -38.99dBm, RBW: 1MHz



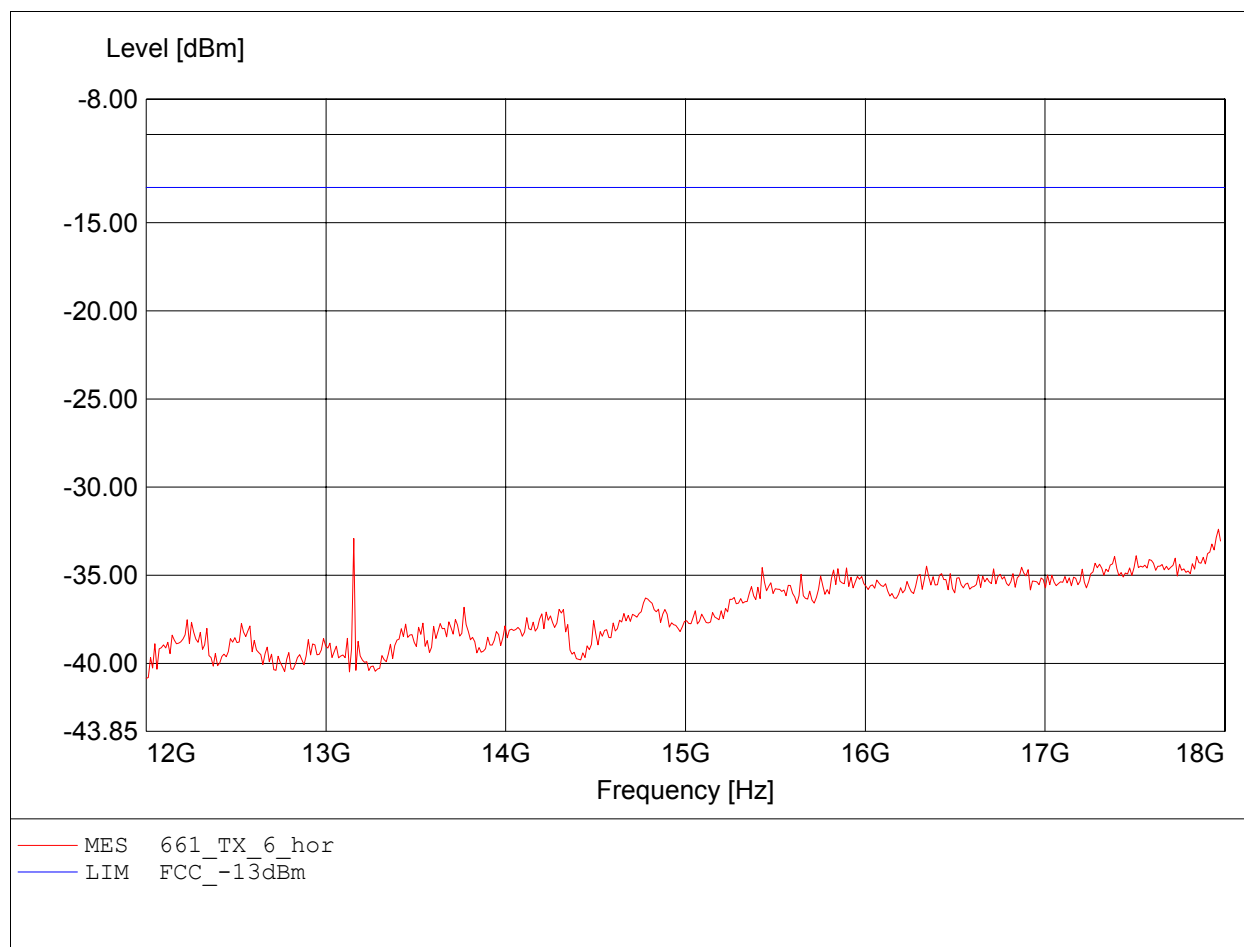
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 11.279GHz, Pmax: -39.40dBm, RBW: 1MHz



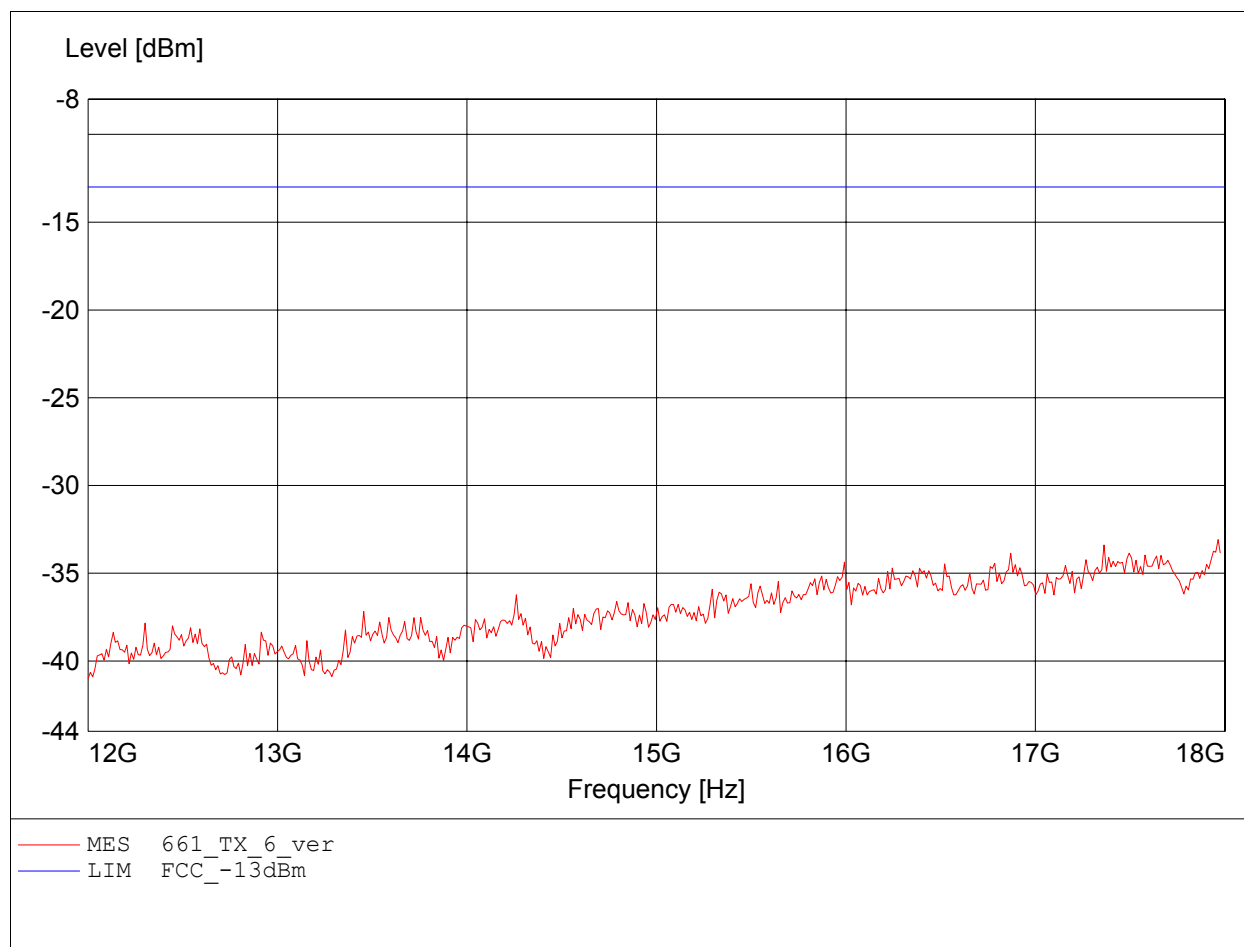
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 17.964GHz, Pmax: -32.38dBm, RBW: 1MHz



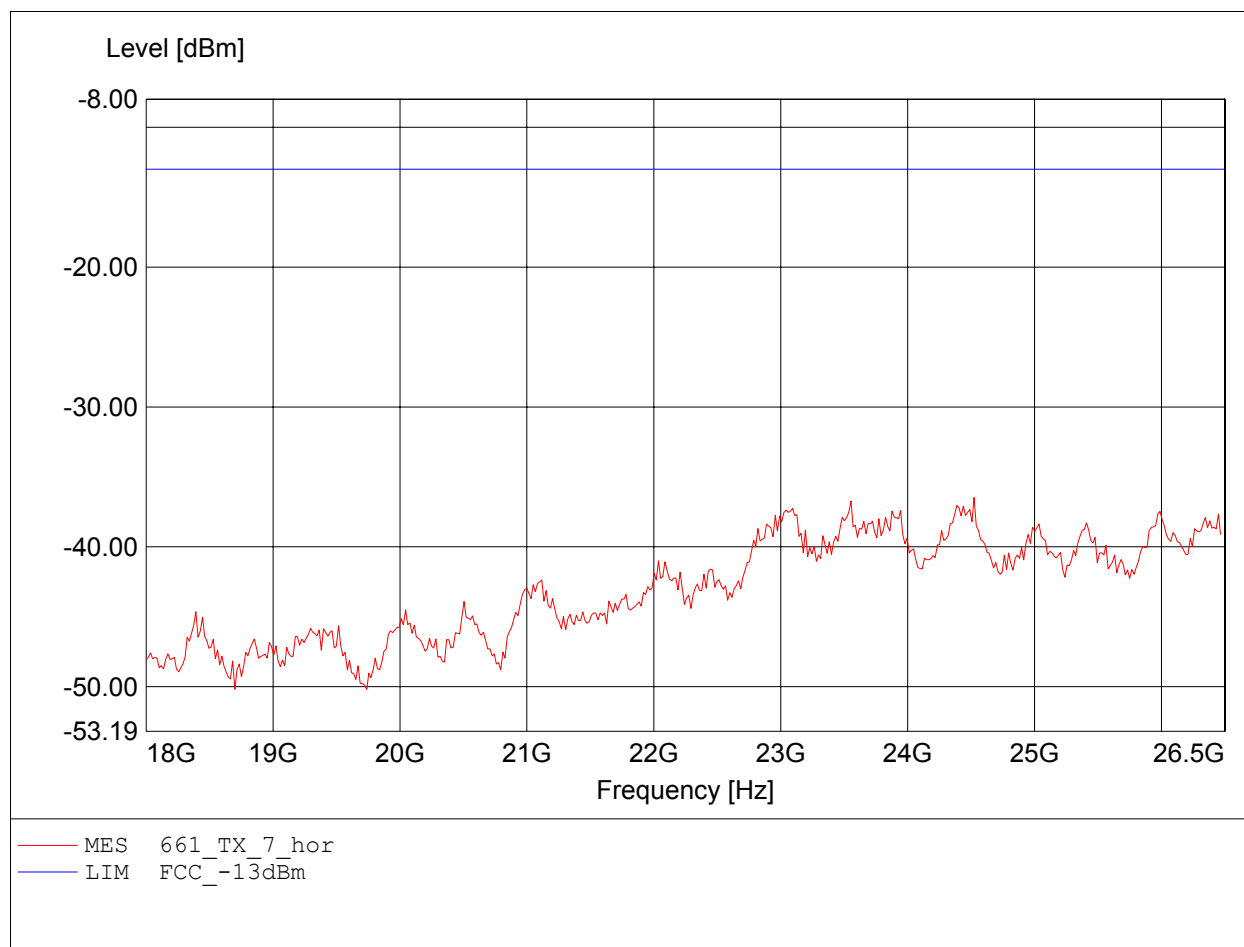
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 17.964GHz, Pmax: -33.08dBm, RBW: 1MHz



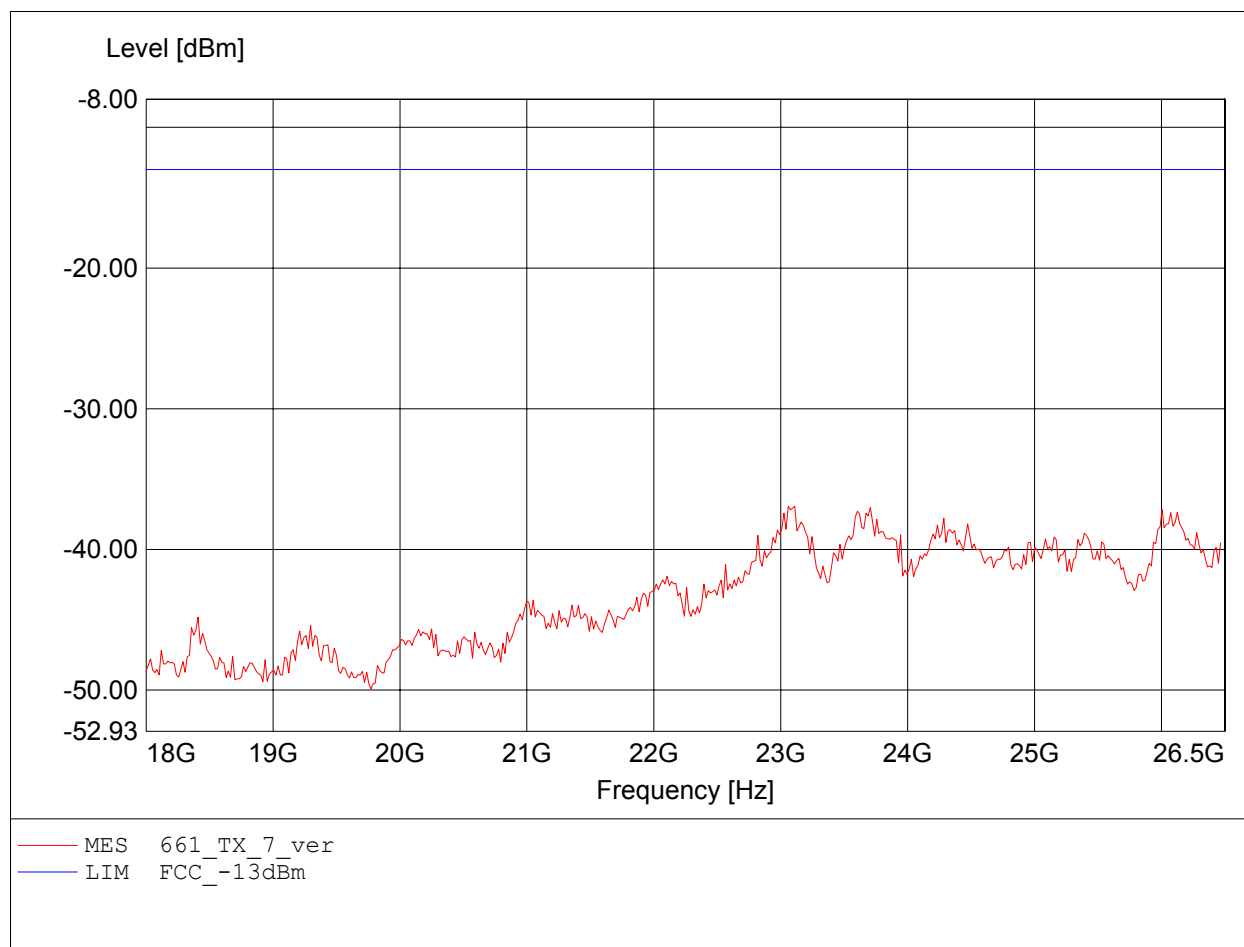
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Comment 2: Freq: 24.524GHz, Pmax: -36.48dBm, RBW: 1MHz



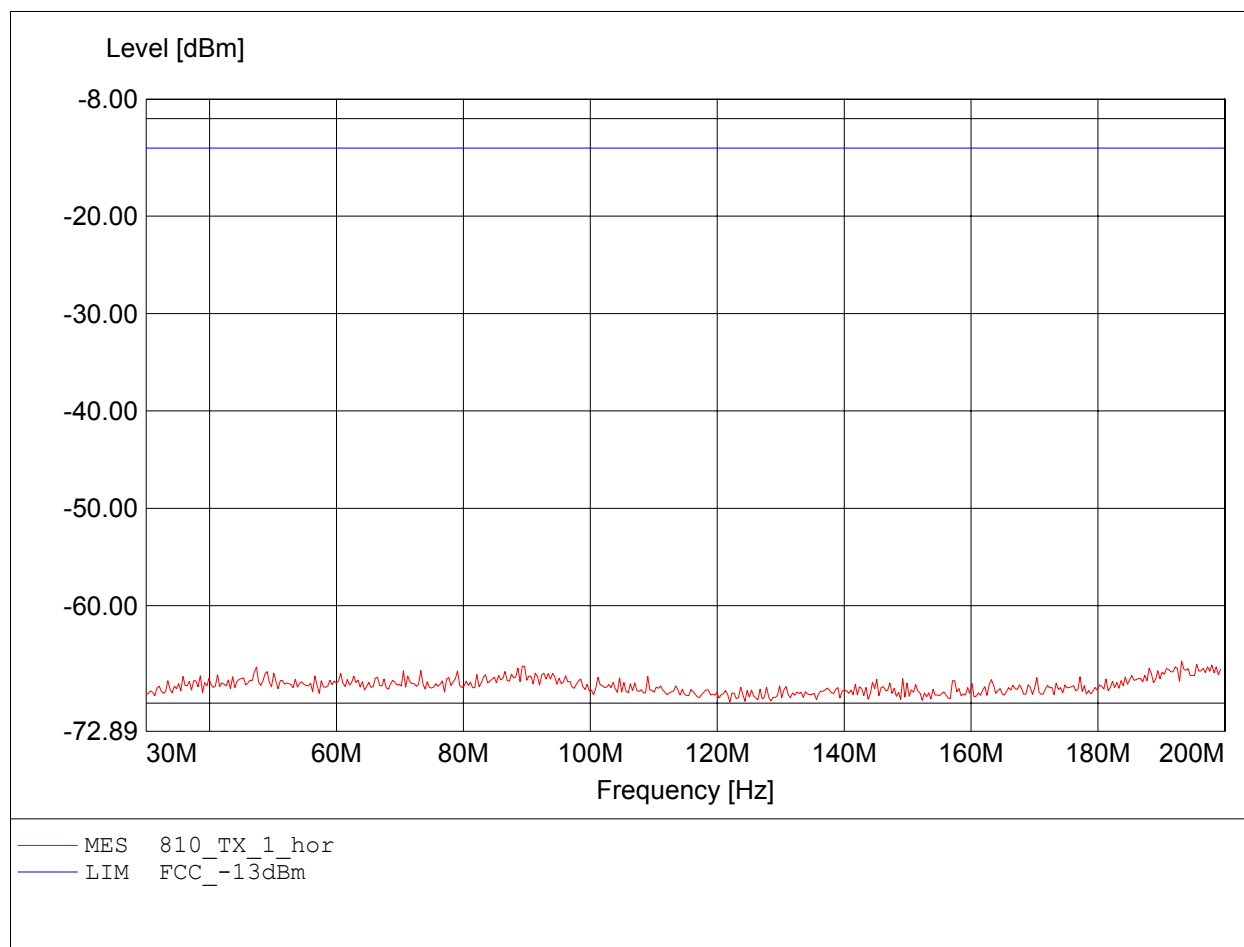
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Comment 2: Freq: 23.110GHz, Pmax: -36.92dBm, RBW: 1MHz



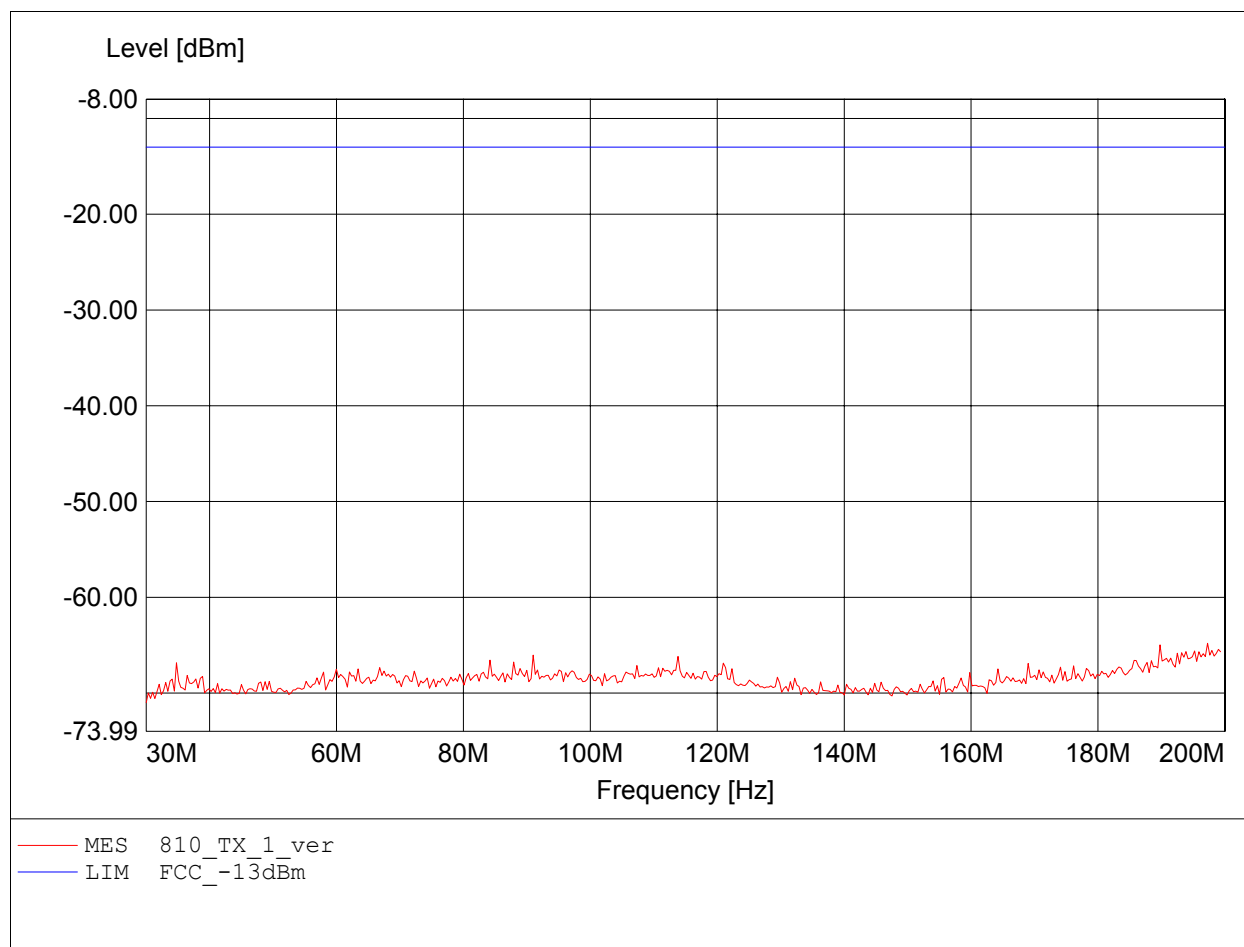
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 193.186MHz, Pmax: -65.68dBm, RBW: 100kHz



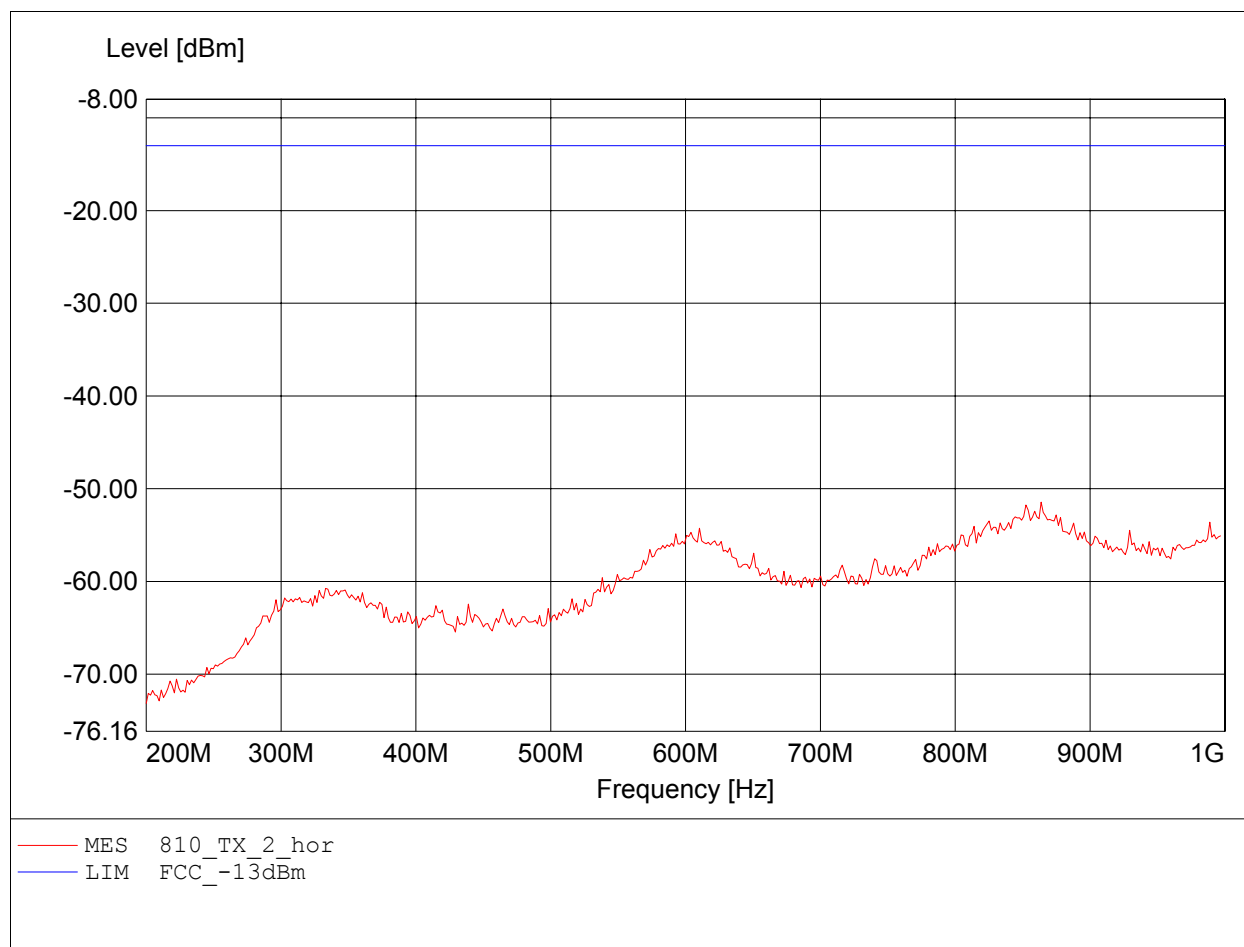
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 197.275MHz, Pmax: -64.80dBm, RBW: 100kHz



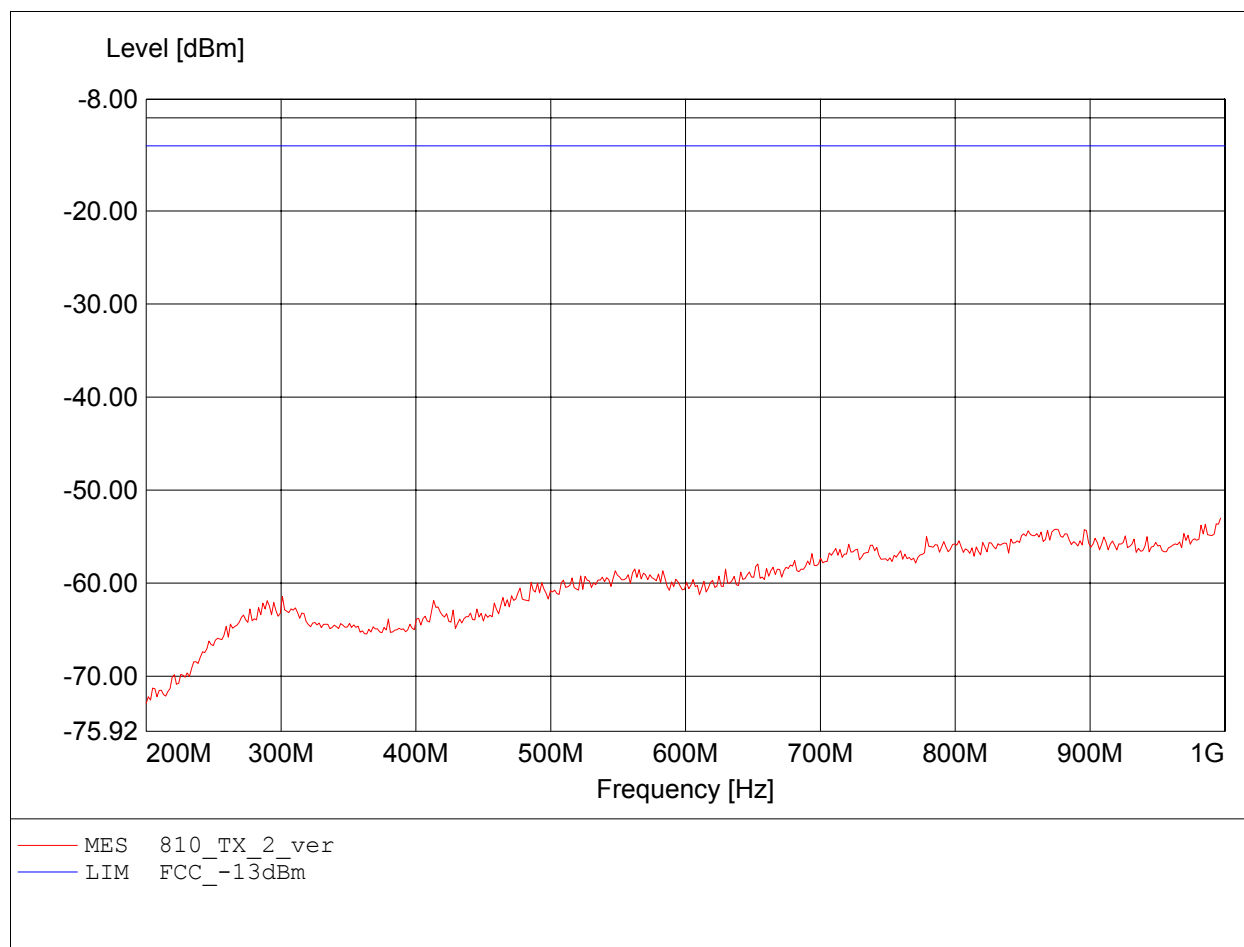
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL 223
Comment 2: Freq: 863.727MHz, Pmax: -51.45dBm, RBW: 100kHz



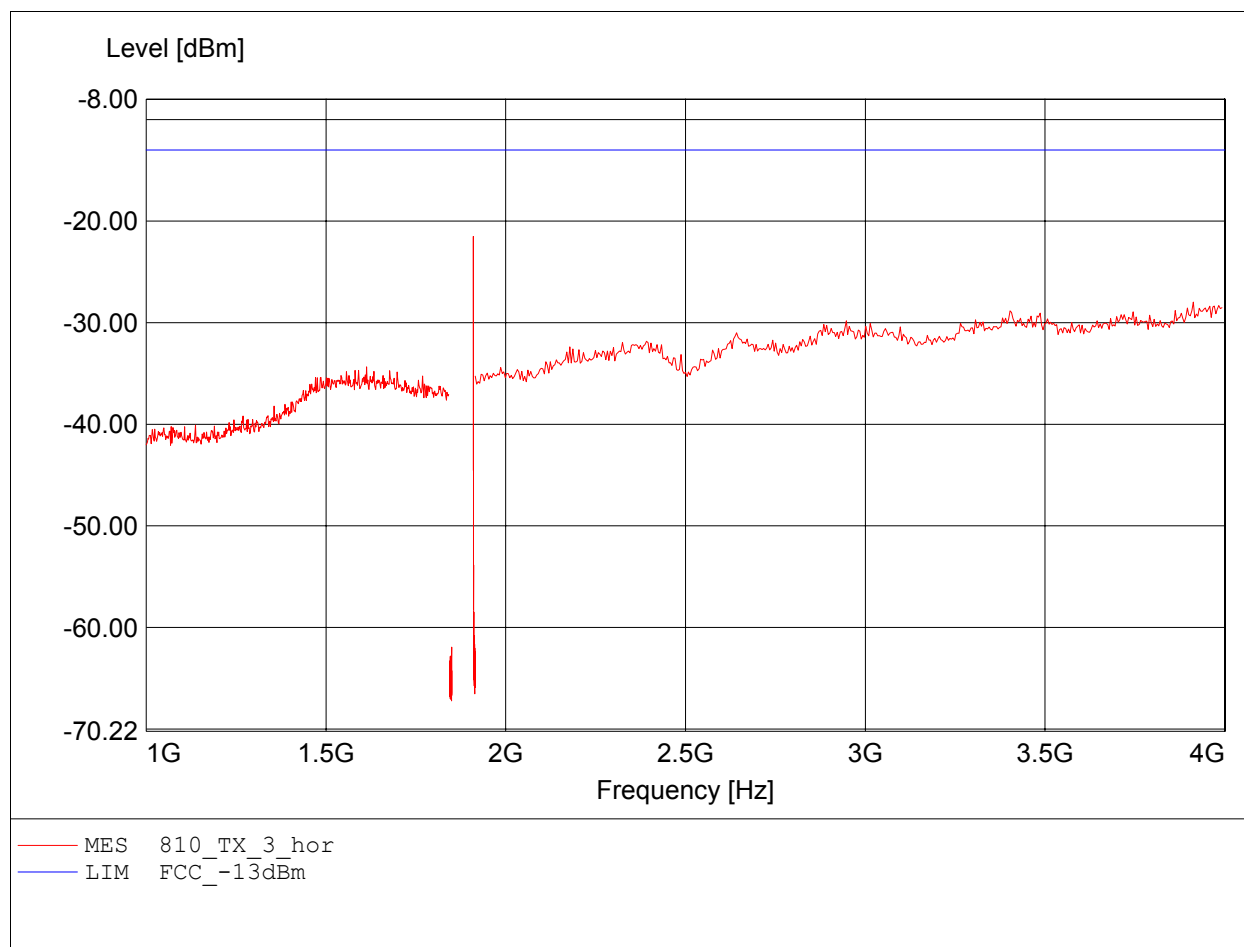
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL 223
Comment 2: Freq: 996.794MHz, Pmax: -53.00dBm, RBW: 100kHz



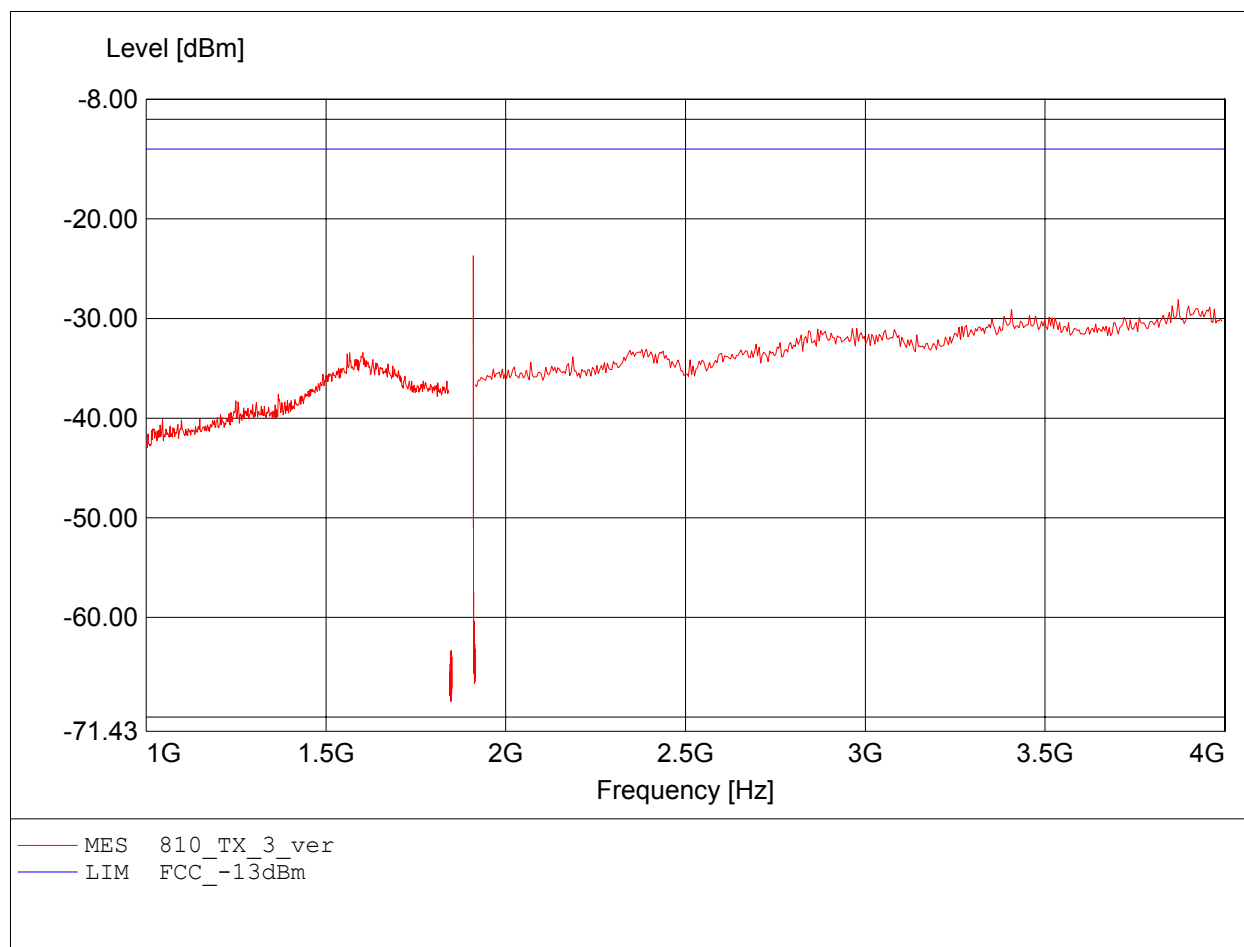
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL025
Comment 2: Freq: 1.910GHz, Pmax: -21.51dBm, RBW: 1MHz/3kHz



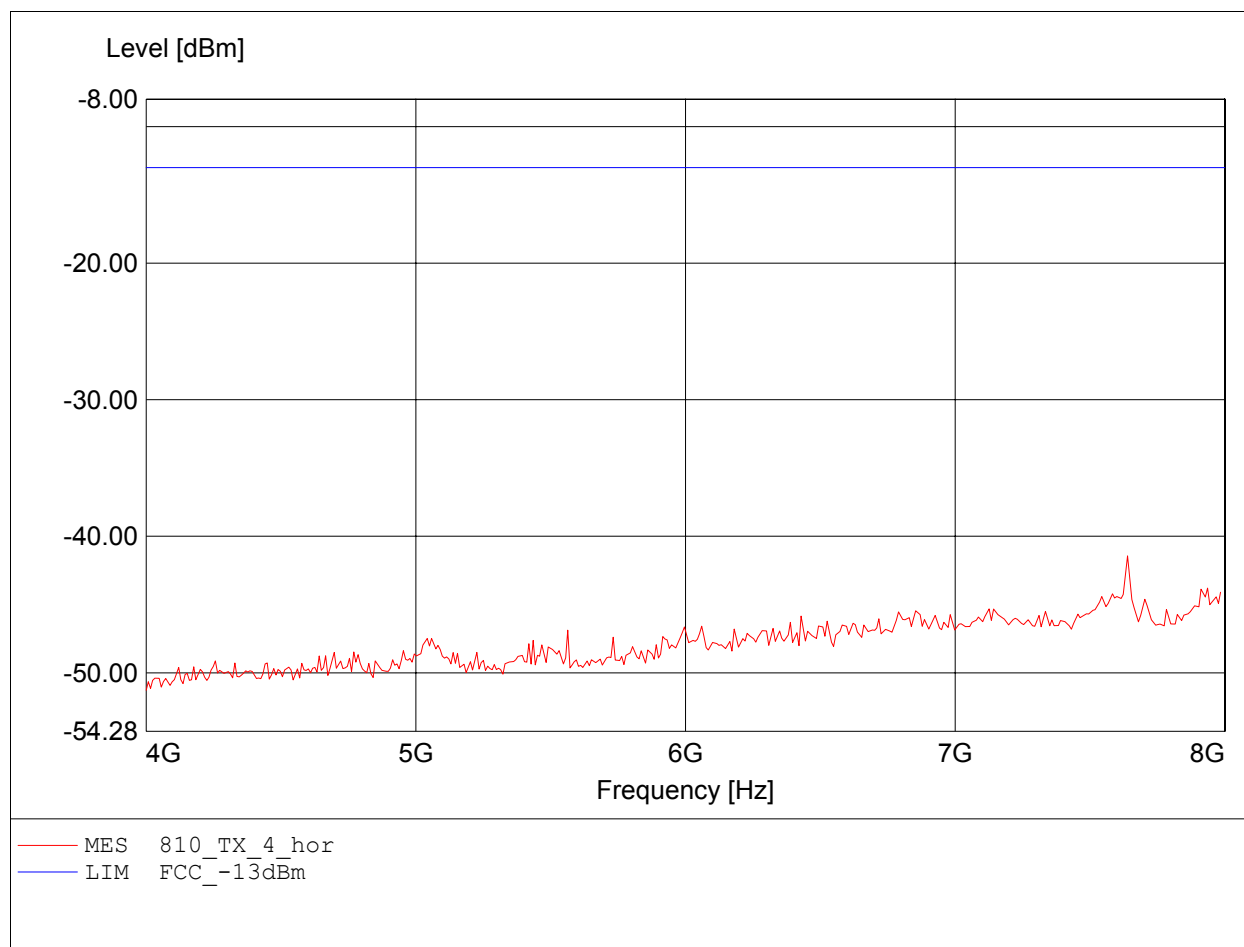
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL025
Comment 2: Freq: 1.910GHz, Pmax: -23.71dBm, RBW: 1MHz/3kHz



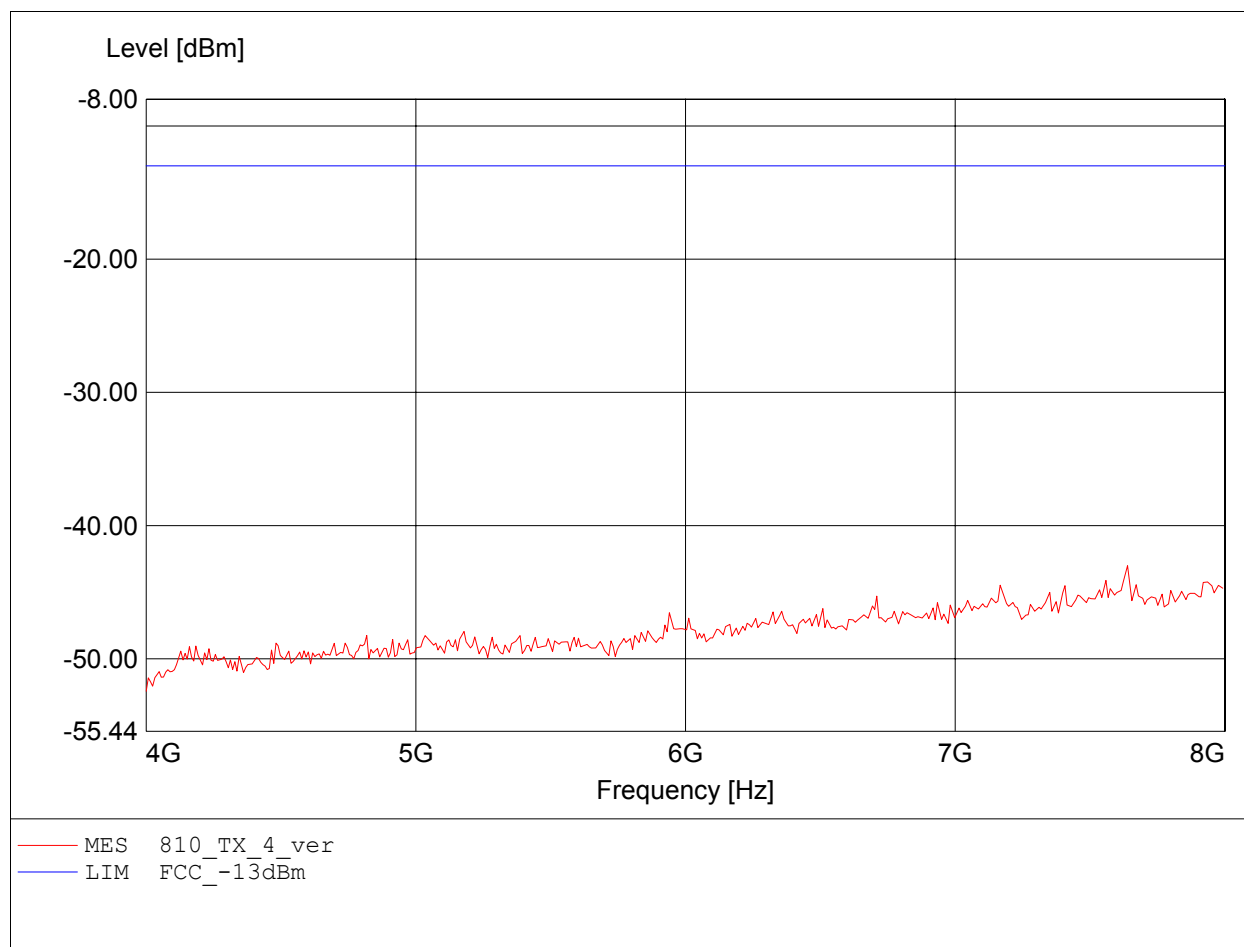
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 7.639GHz, Pmax: -41.44dBm, RBW: 1MHz



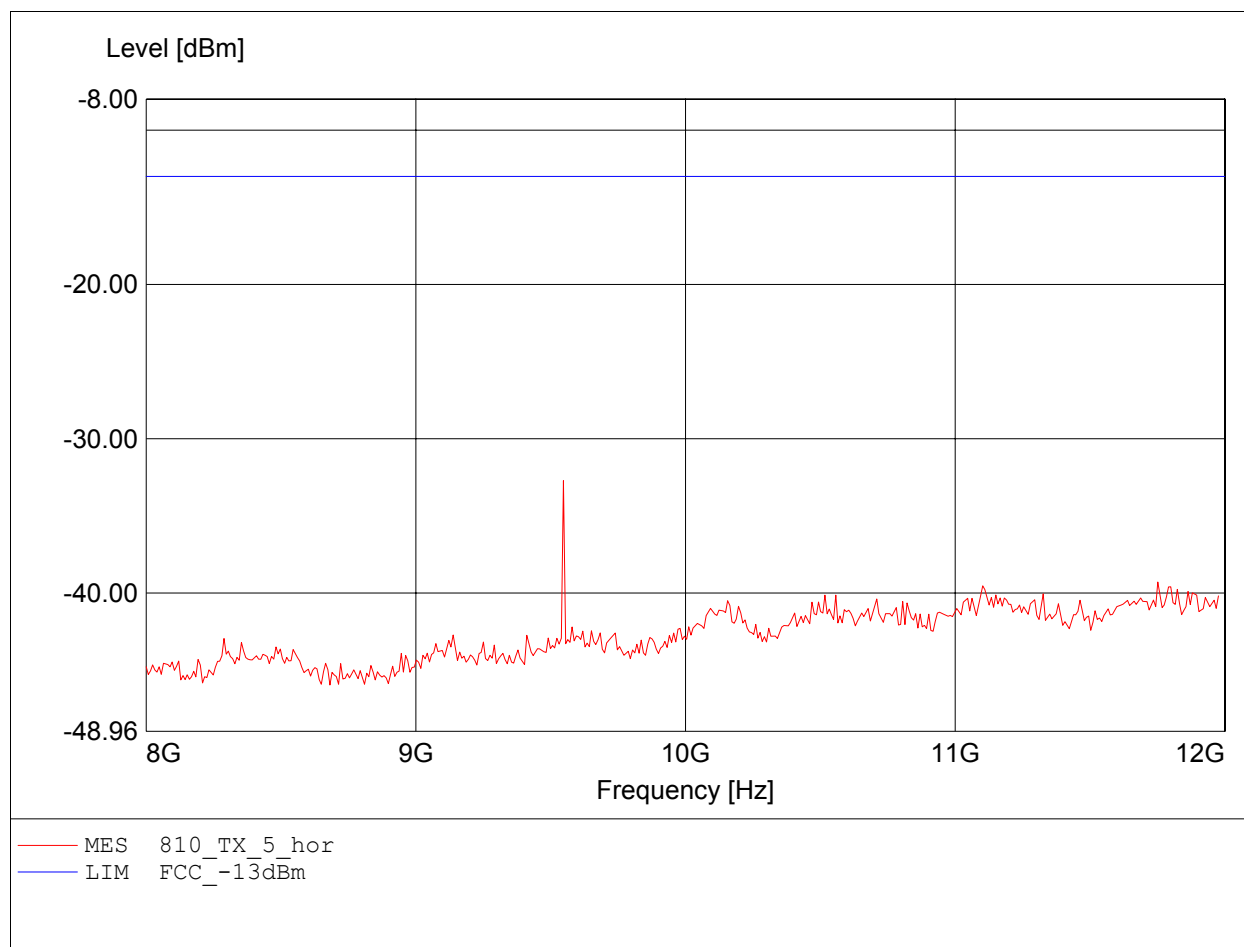
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 7.639GHz, Pmax: -43.01dBm, RBW: 1MHz



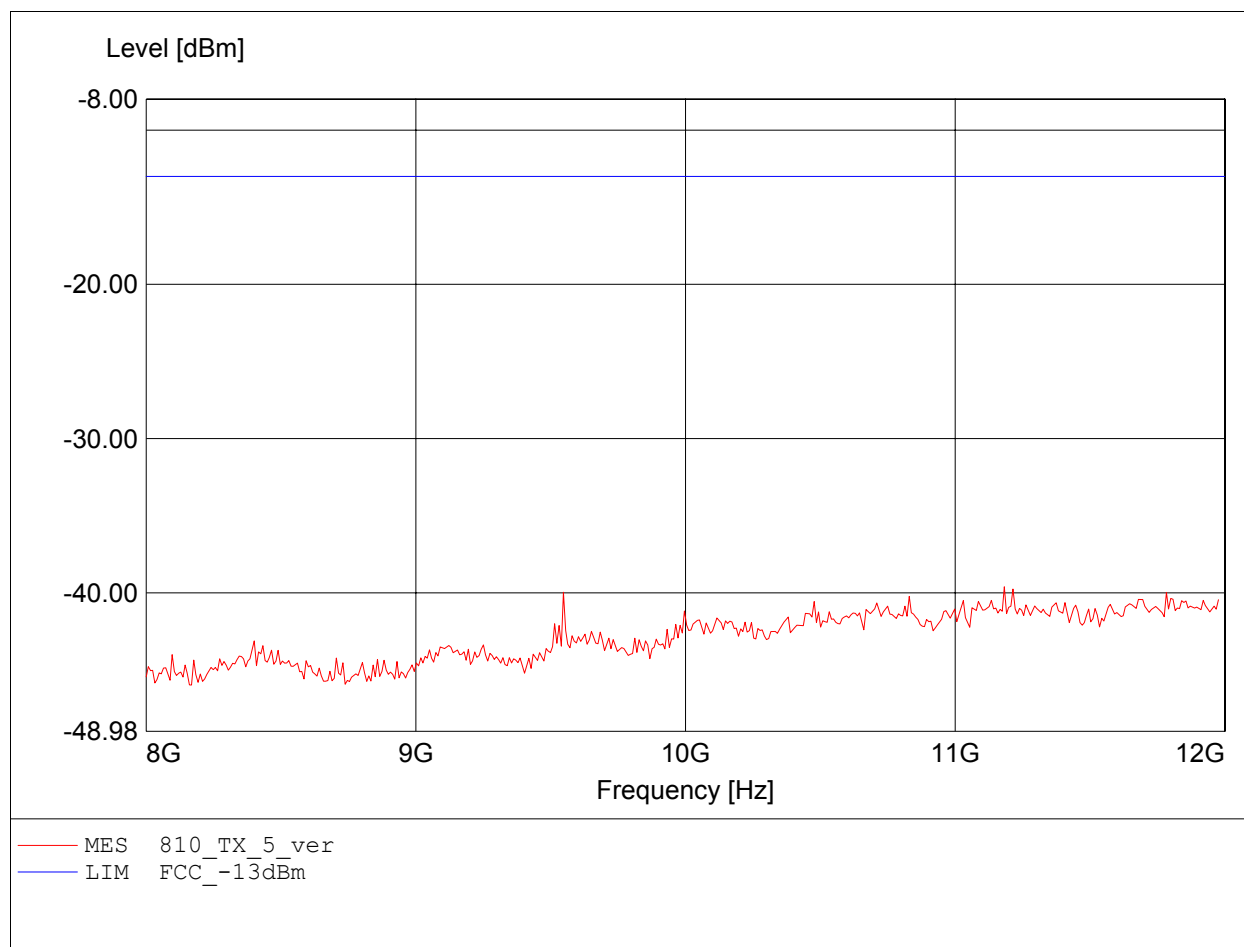
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 9.547GHz, Pmax: -32.72dBm, RBW: 1MHz



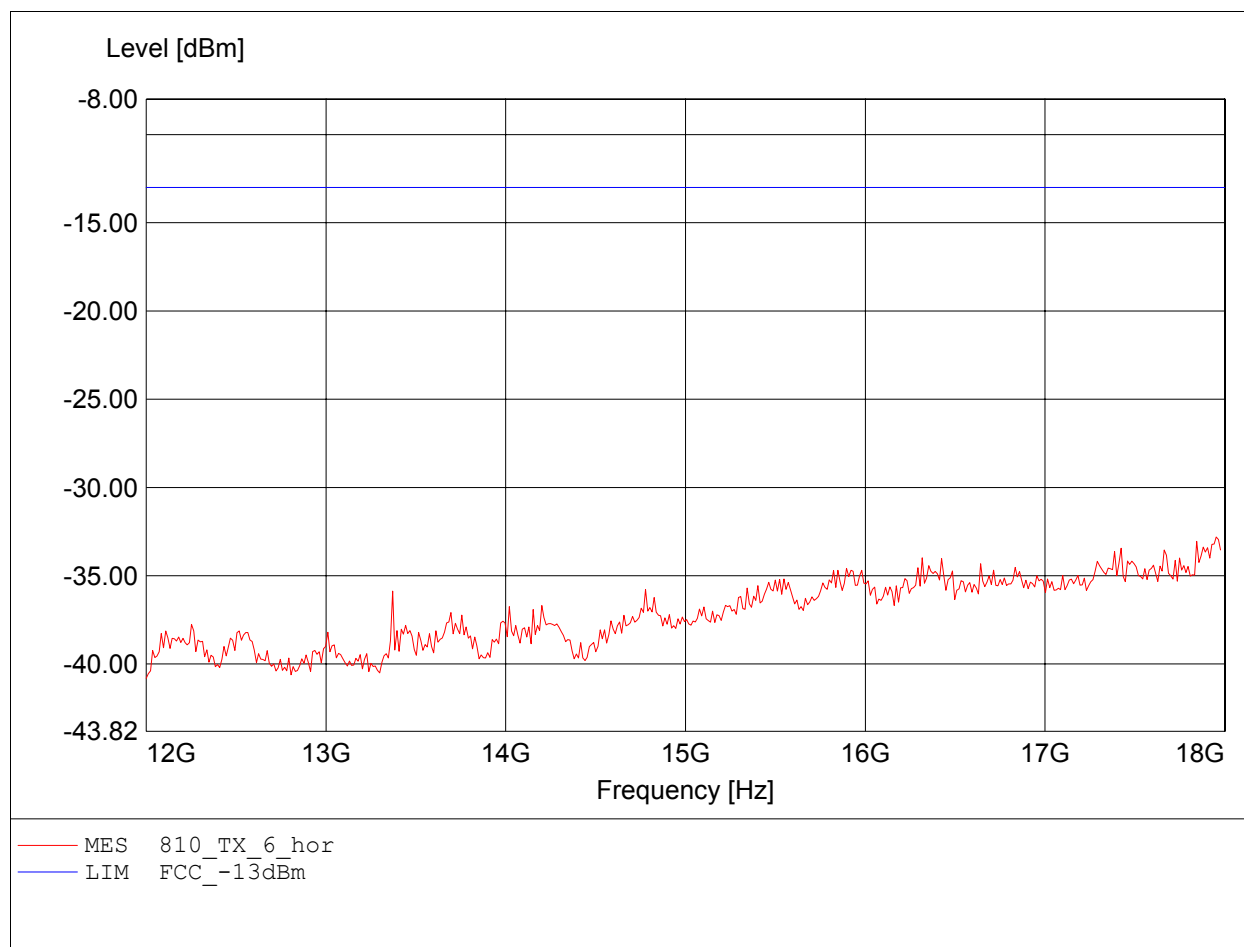
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 11.182GHz, Pmax: -39.61dBm, RBW: 1MHz



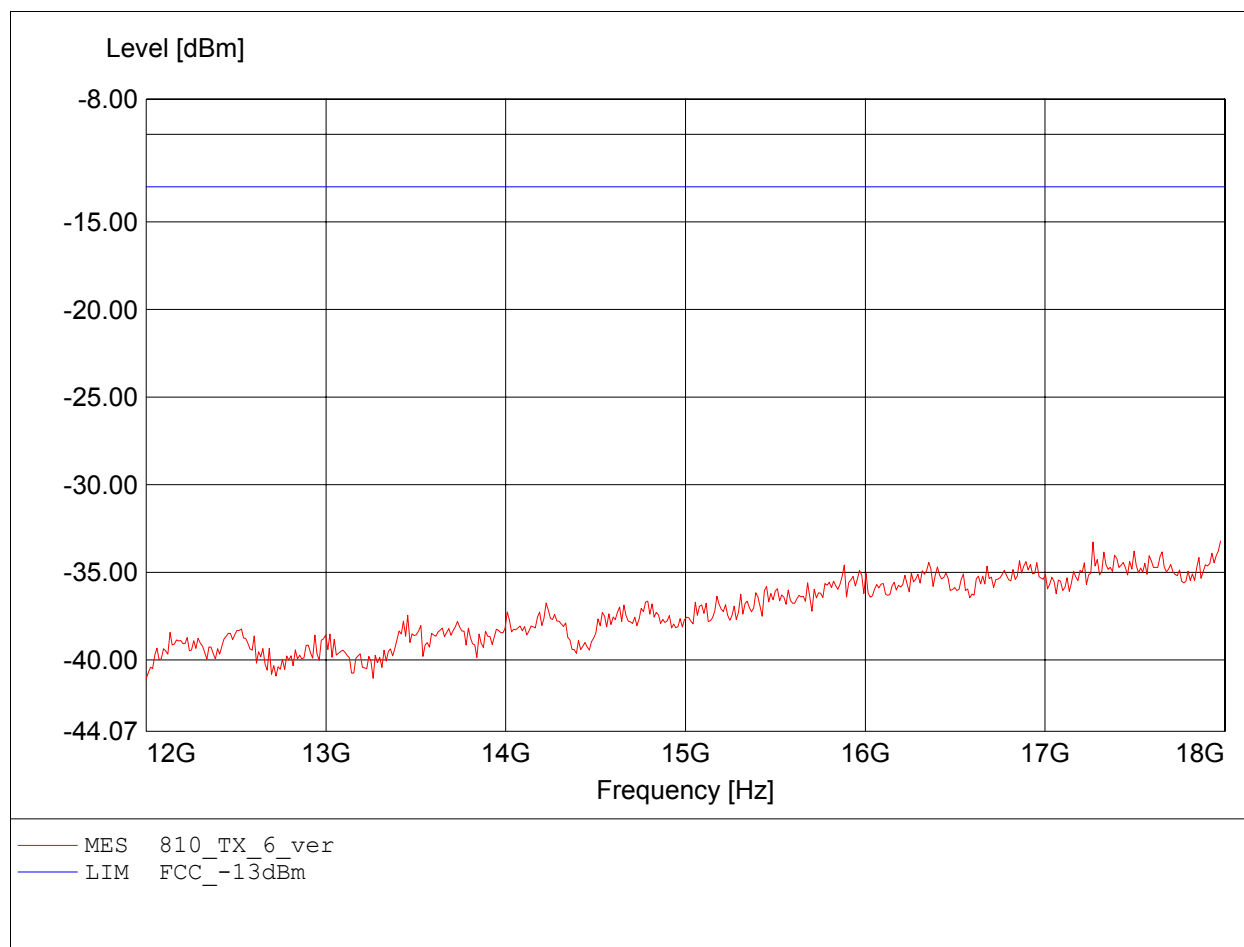
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 17.952GHz, Pmax: -32.81dBm, RBW: 1MHz



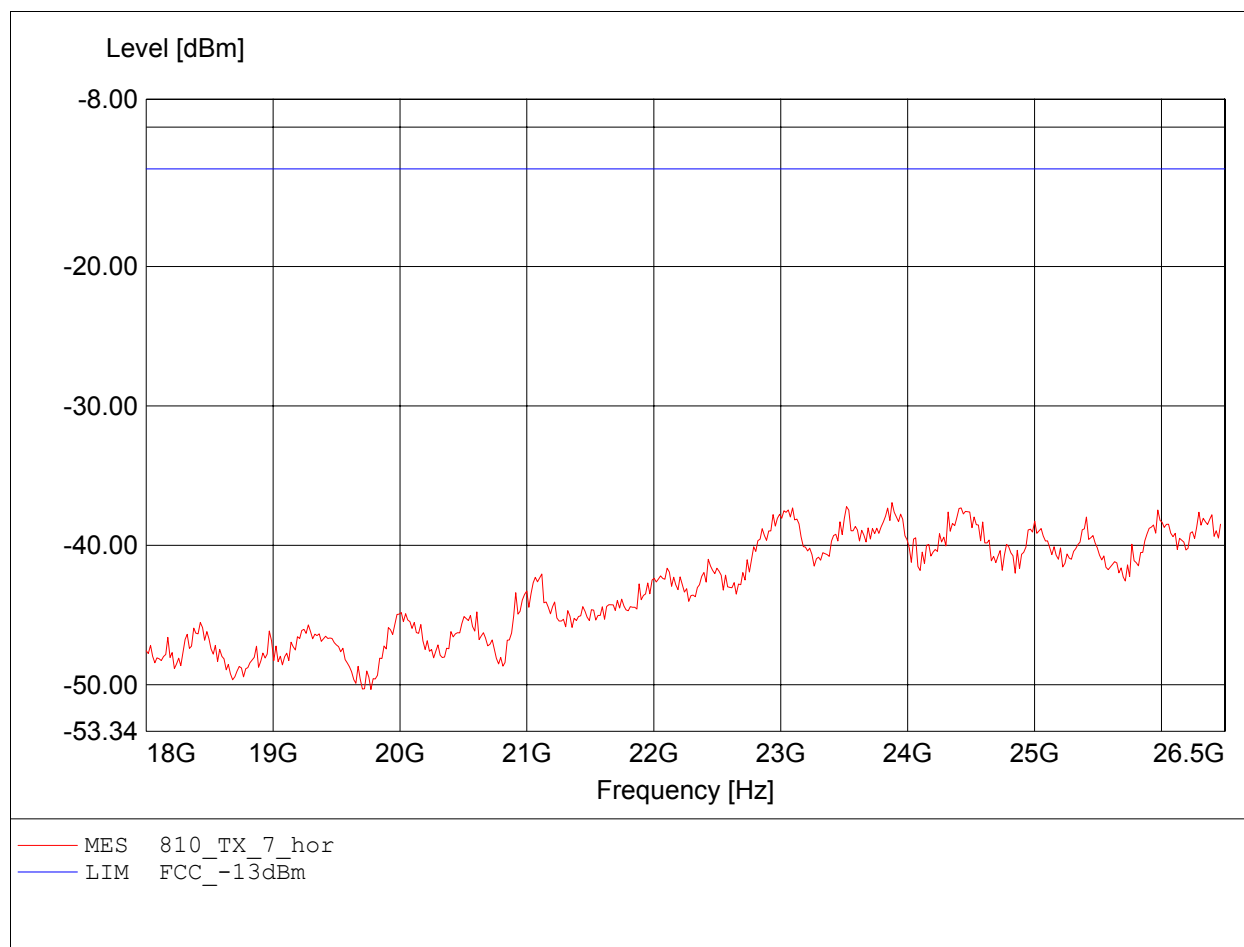
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Comment 2: Freq: 17.976GHz, Pmax: -33.21dBm, RBW: 1MHz



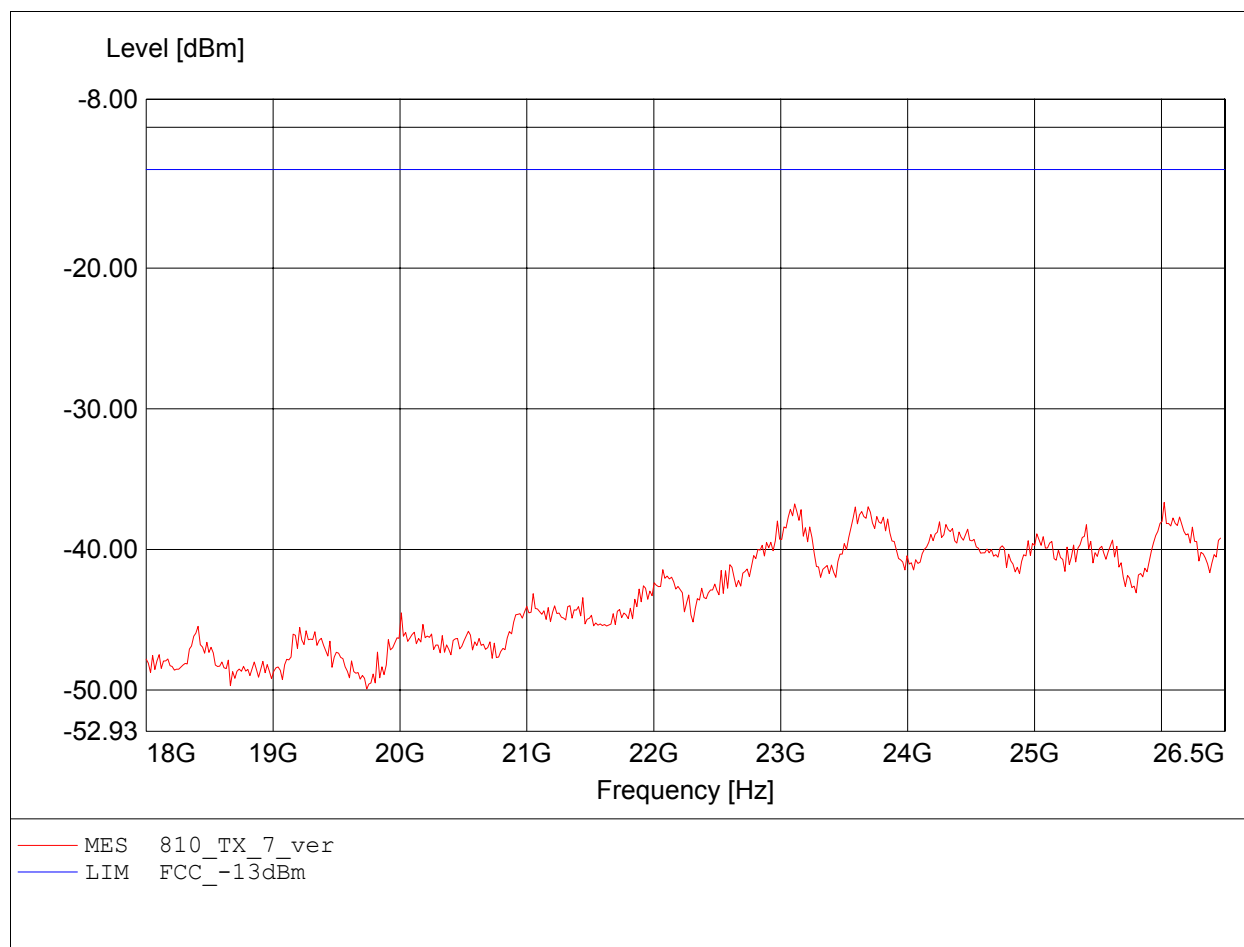
Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Comment 2: Freq: 23.877GHz, Pmax: -36.93dBm, RBW: 1MHz



Radiated Emissions Tx
FCC RULES PART 24 SUBPART E

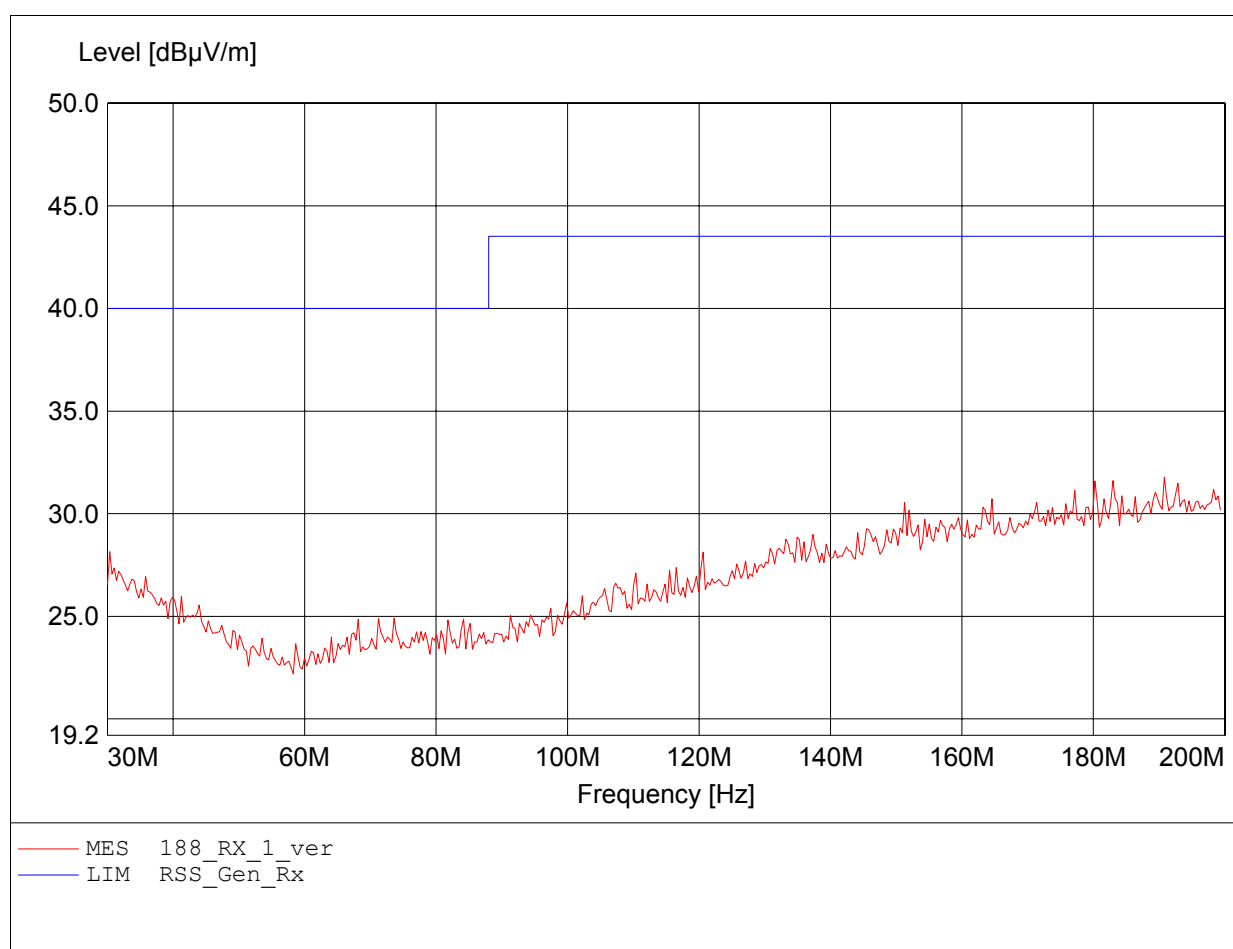
Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 810 / 2xSlot / Pmax / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 810
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Comment 2: Freq: 26.023GHz, Pmax: -36.66dBm, RBW: 1MHz



Annex D Receiver spurious emission radiated

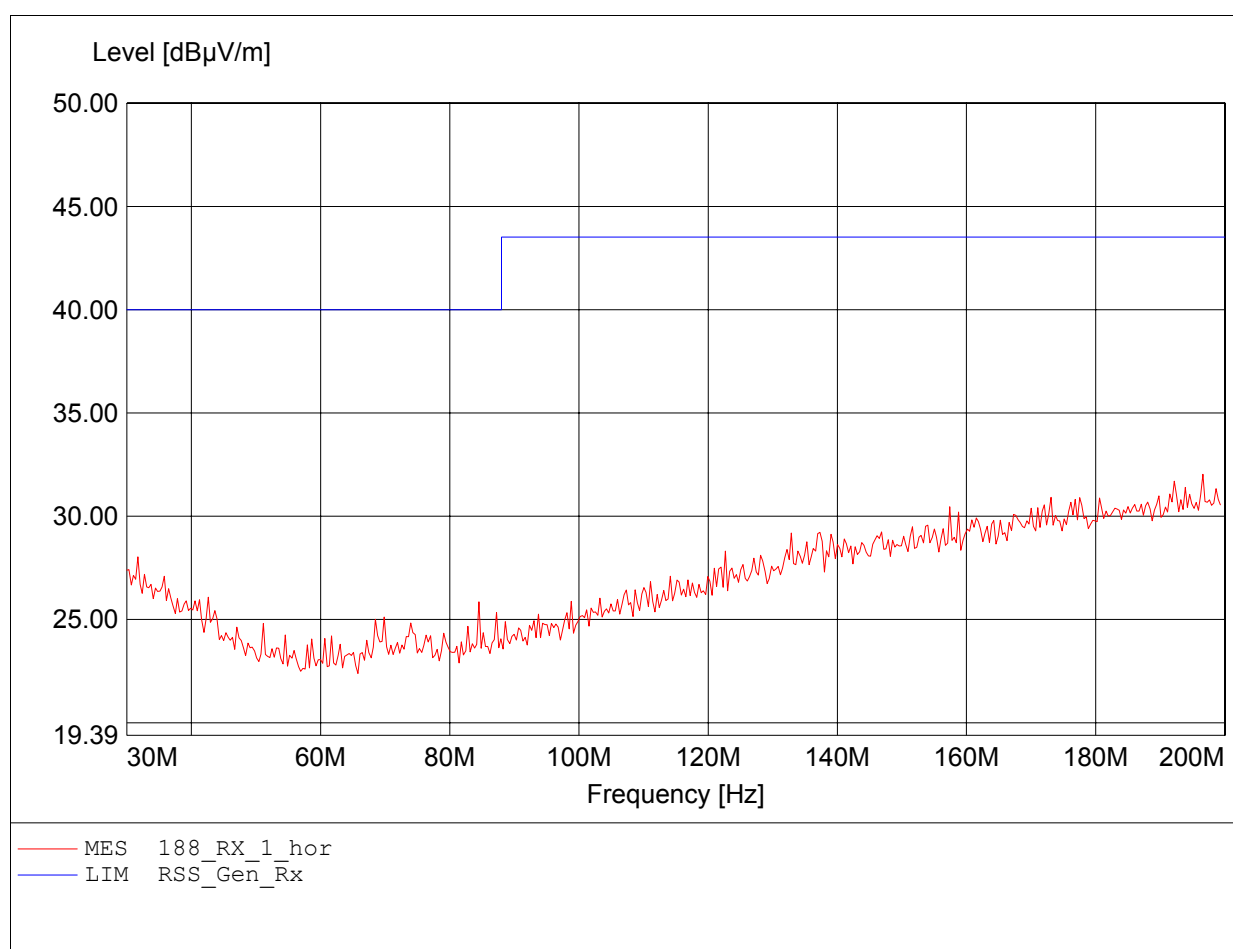
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq:190.802MHz Emax:31.78dBμV/m RBW: 100 kHz



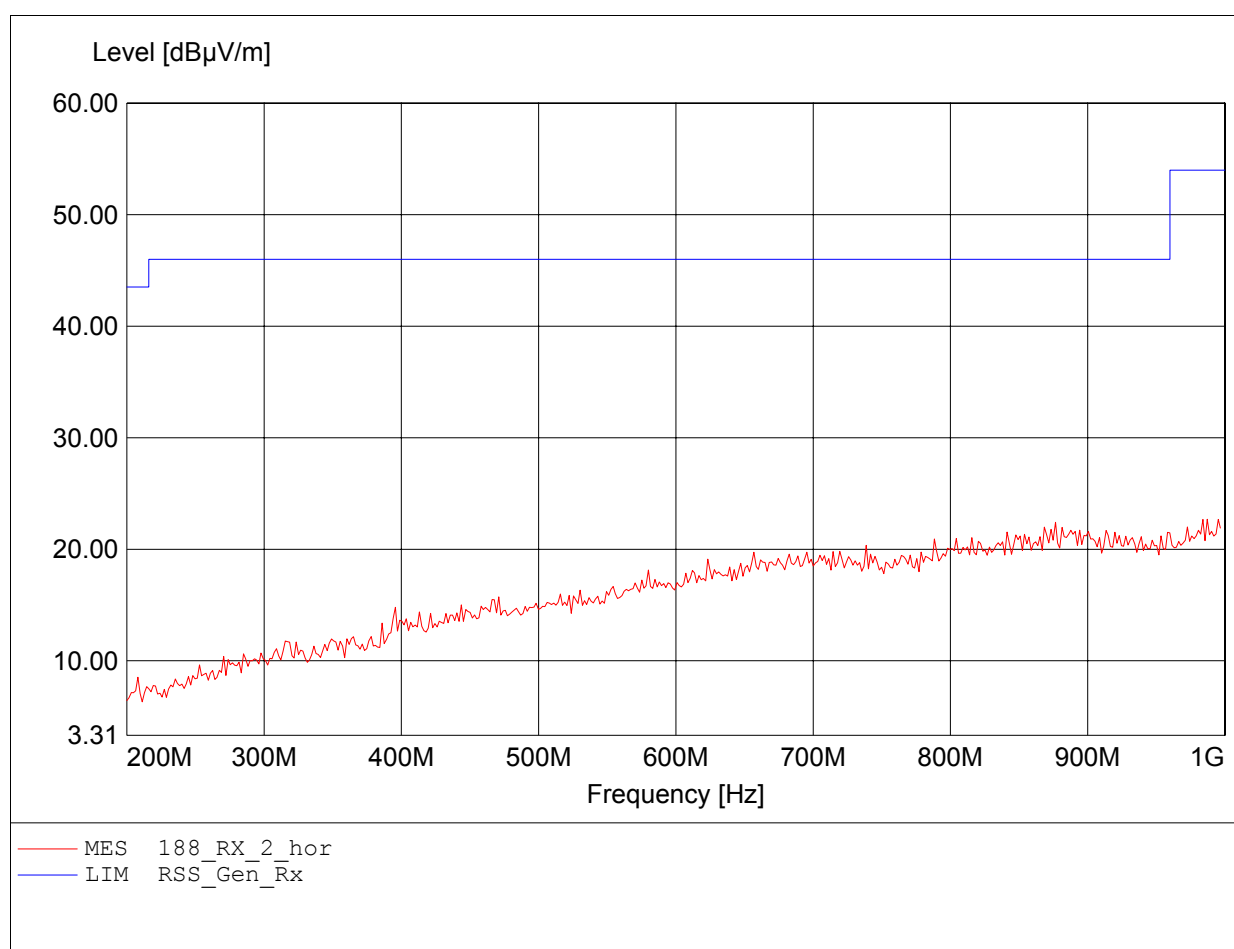
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq:196.593MHz Emax:32.04dBμV/m RBW: 100 kHz



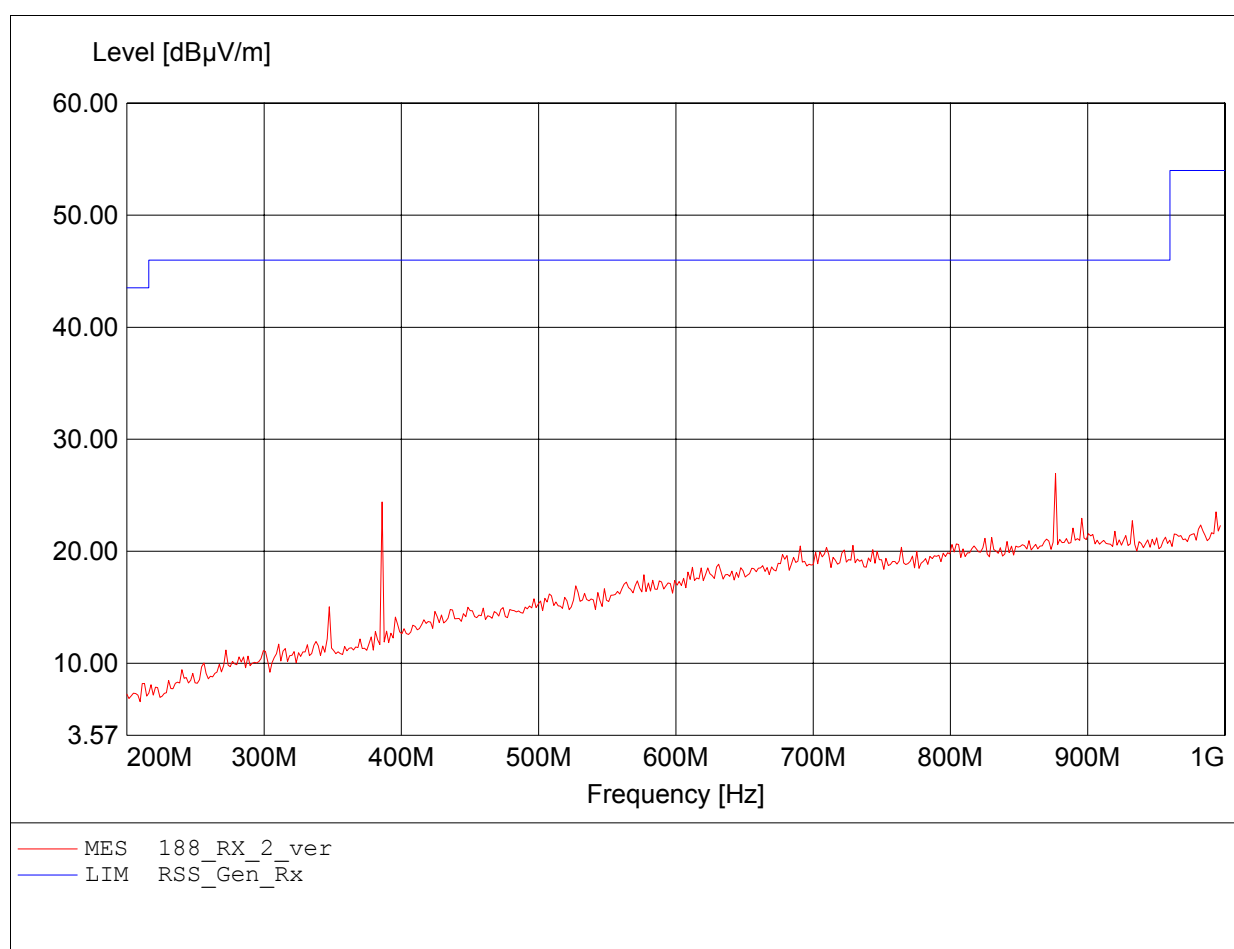
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Comment 2: Freq:987.174MHz Emax:22.70dBμV/m RBW: 100 kHz



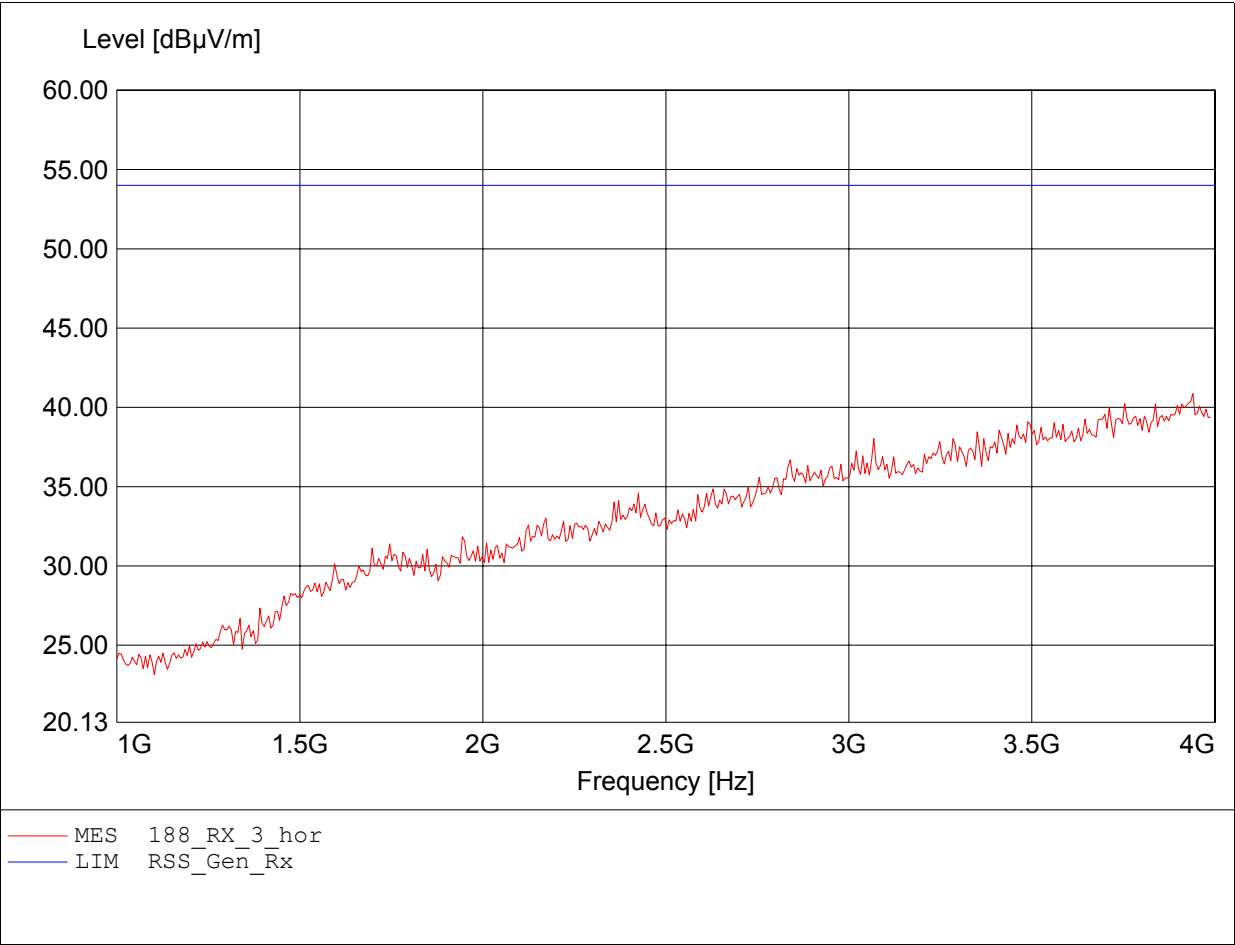
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Comment 2: Freq:876.553MHz Emax:26.93dBµV/m RBW: 100 kHz



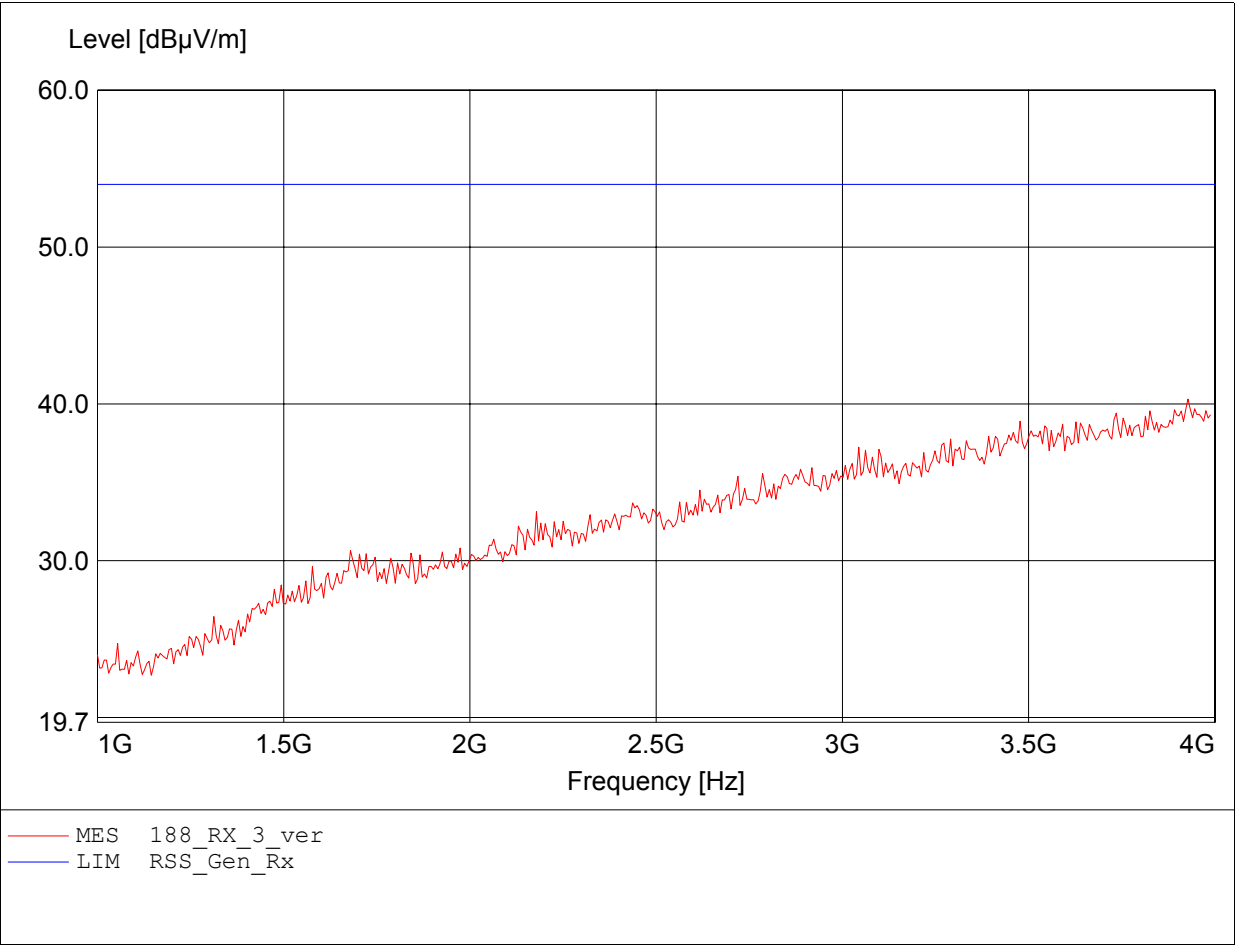
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL025, ampl.
Comment 2: Freq:3.940GHz Emax:40.86dBµV/m RBW: 1 MHz



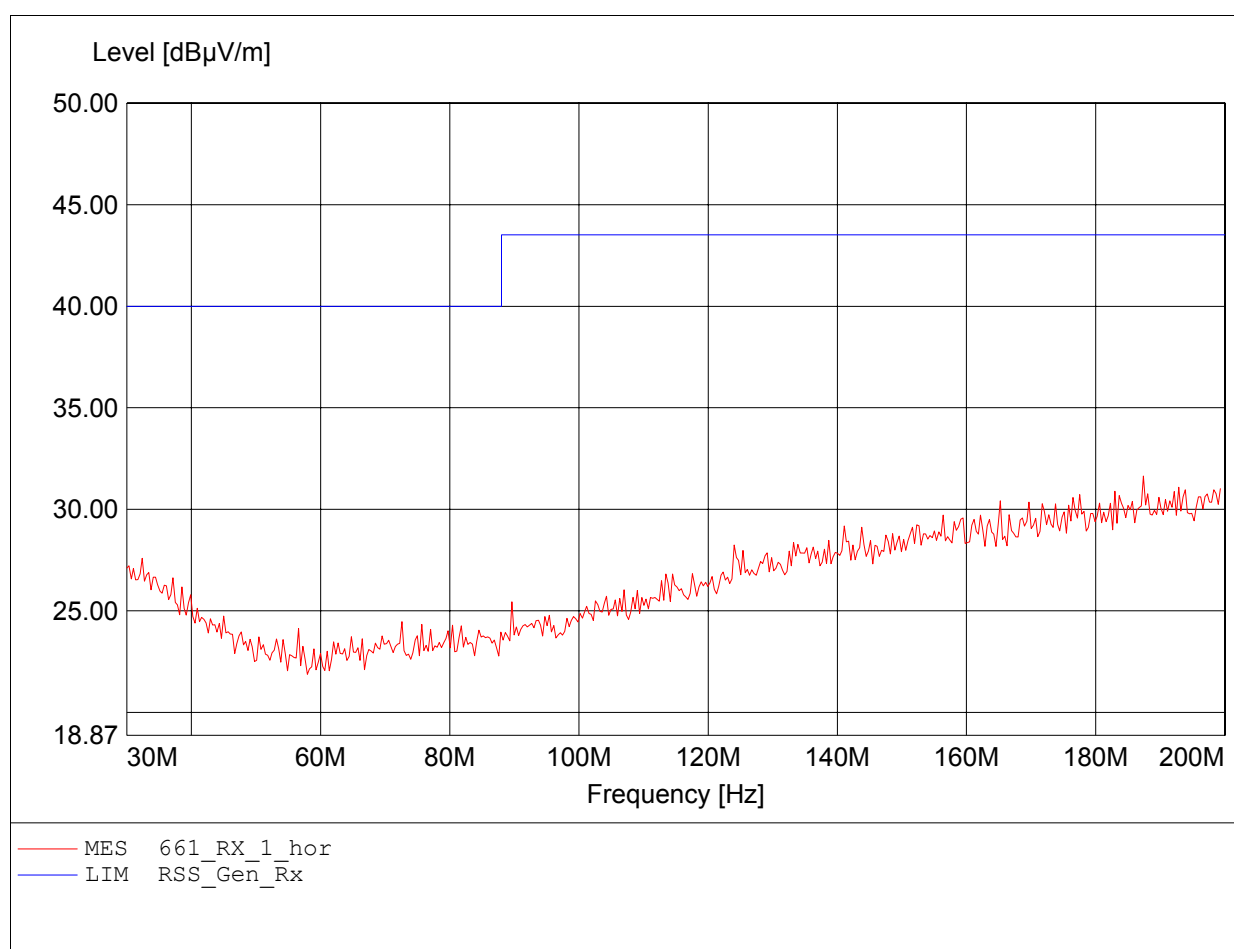
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 850 / CH: 188 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 188
Comment 1: Dist.: 3m, Ant.: HL025, ampl.
Comment 2: Freq:3.928GHz Emax:40.32dBµV/m RBW: 1 MHz



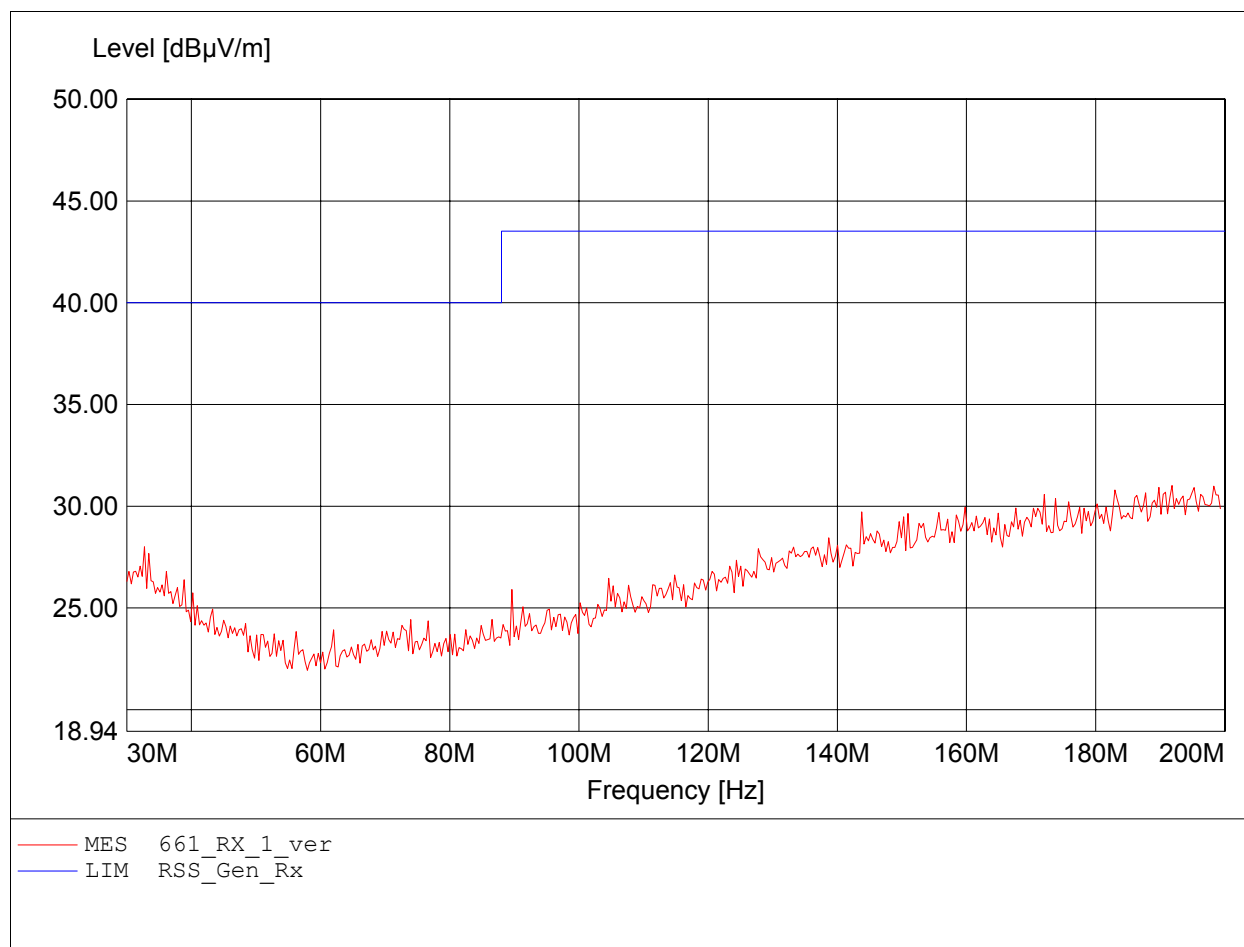
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq:187.395MHz Emax:31.64dBμV/m RBW: 100 kHz



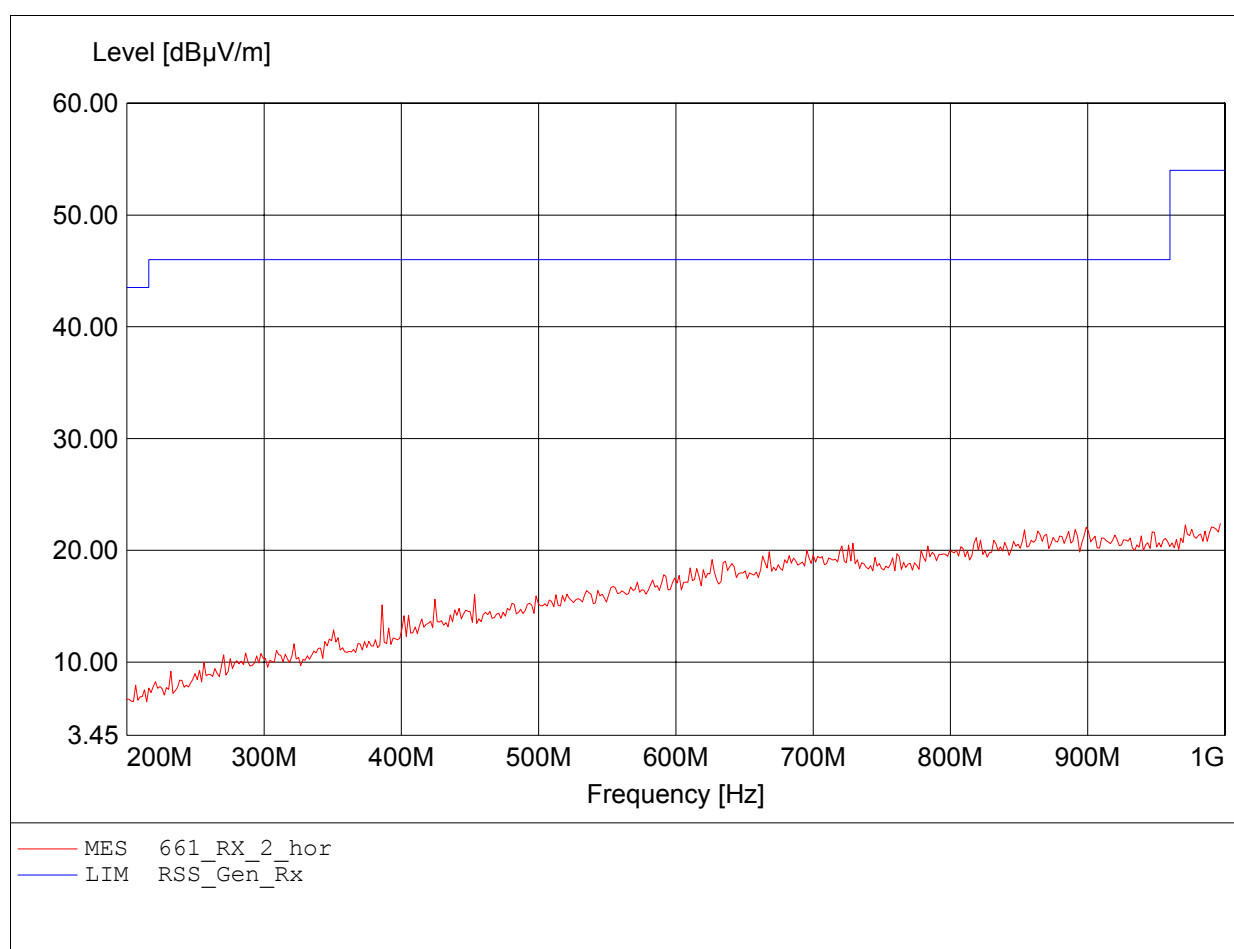
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq:191.824MHz Emax:31.02dBµV/m RBW: 100 kHz



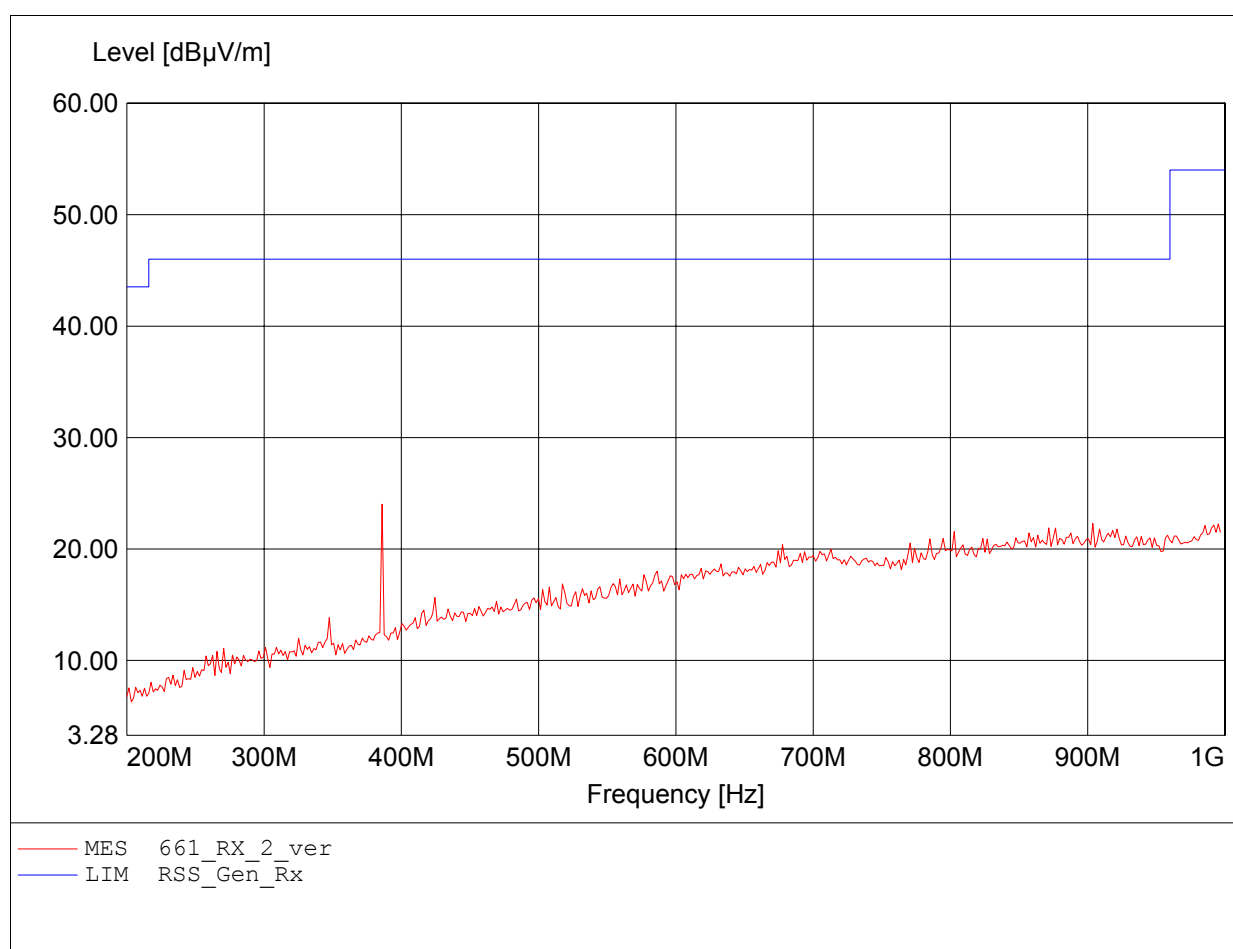
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Comment 2: Freq:996.794MHz Emax:22.39dBµV/m RBW: 100 kHz



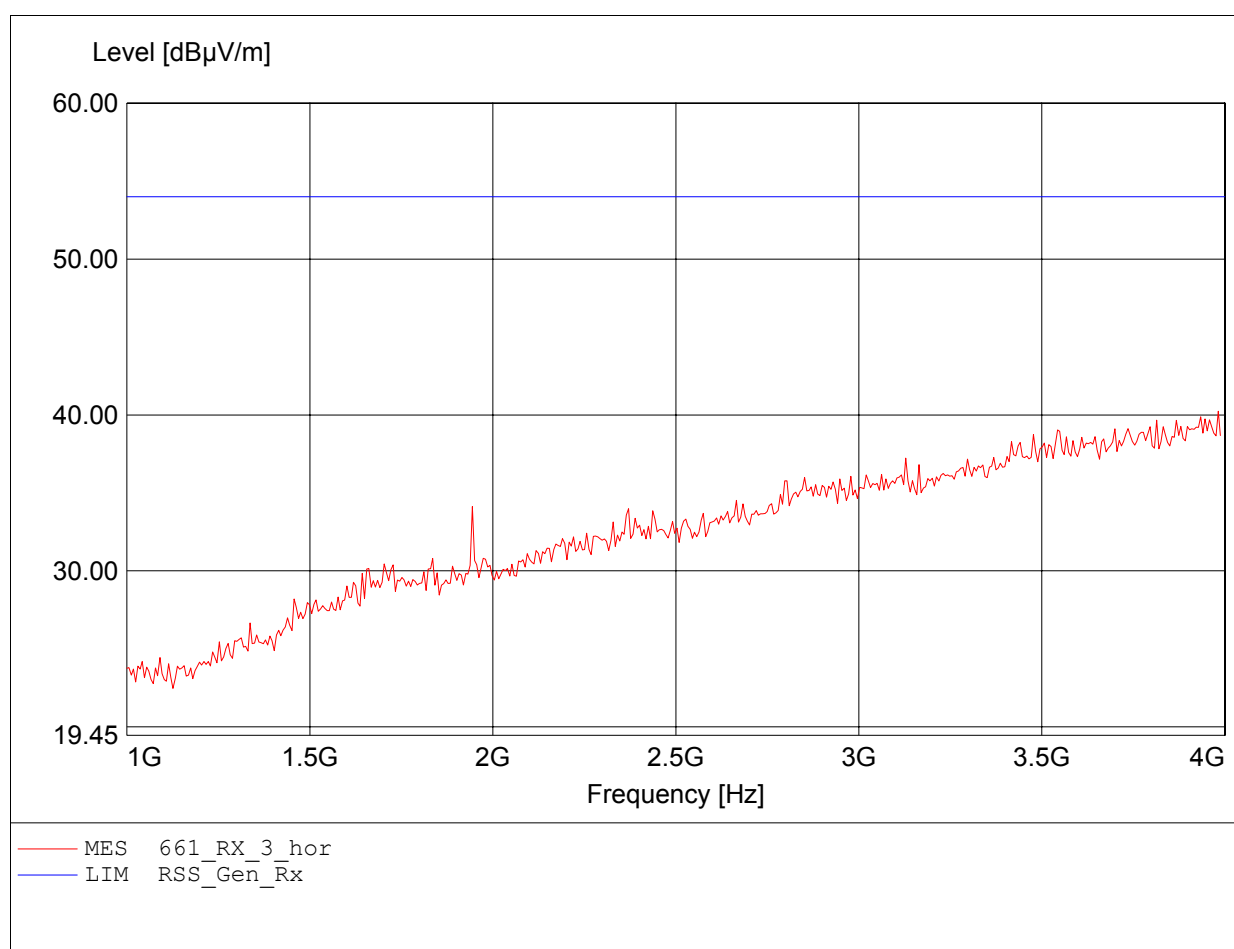
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Comment 2: Freq:385.972MHz Emax:24.02dBμV/m RBW: 100 kHz



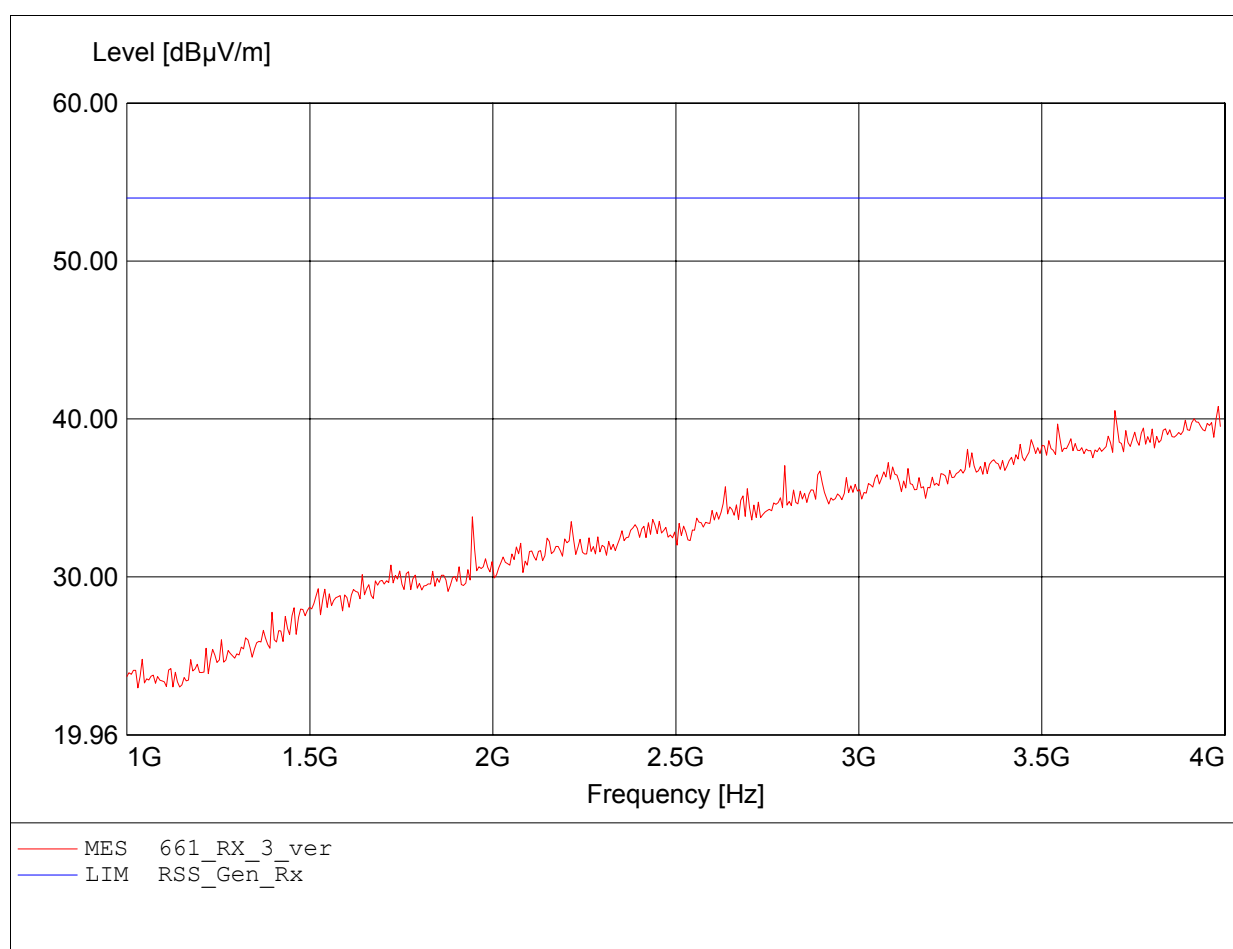
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025, ampl.
Comment 2: Freq:3.982GHz Emax:40.24dBµV/m RBW: 1 MHz



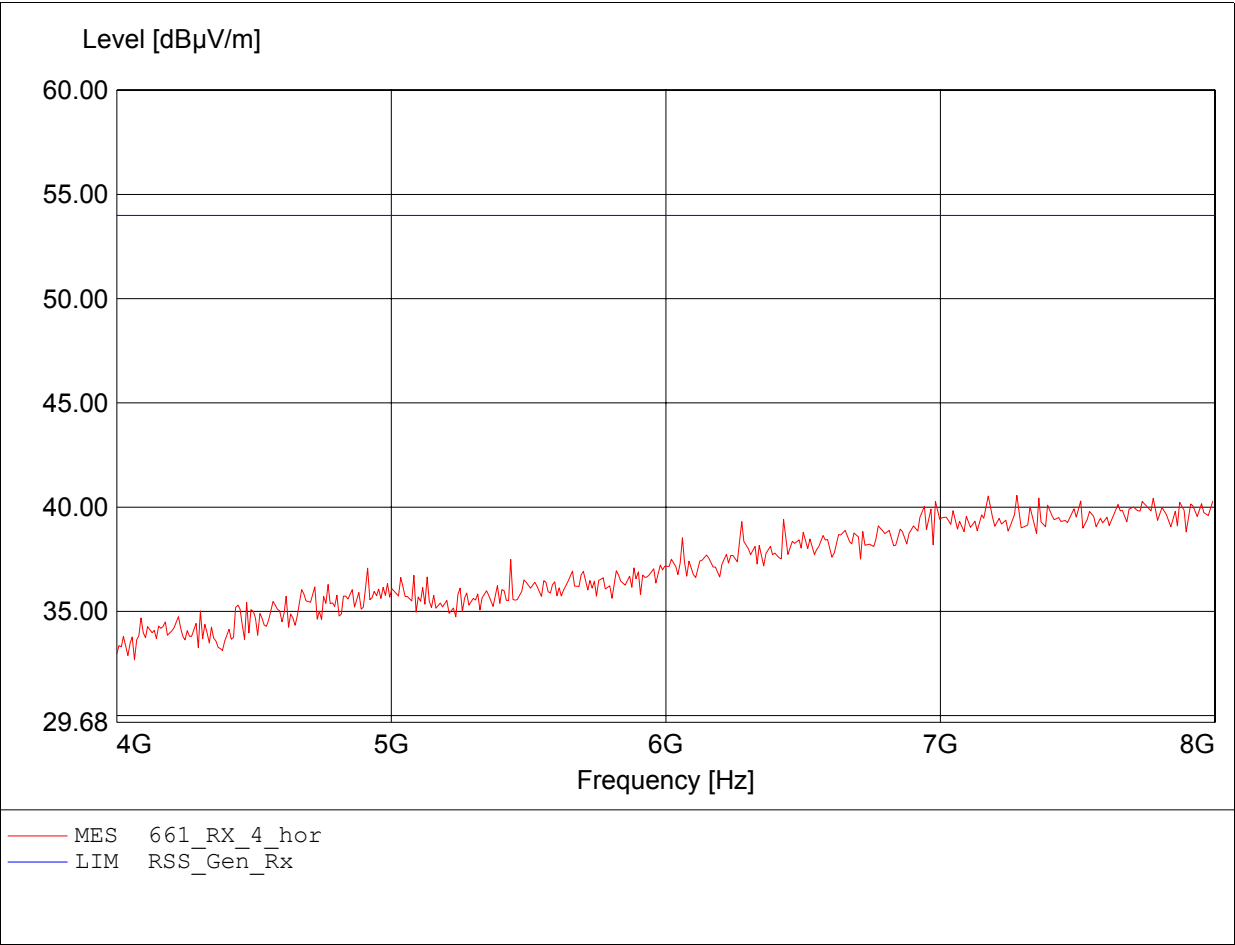
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025, ampl.
Comment 2: Freq:3.982GHz Emax:40.80dBµV/m RBW: 1 MHz



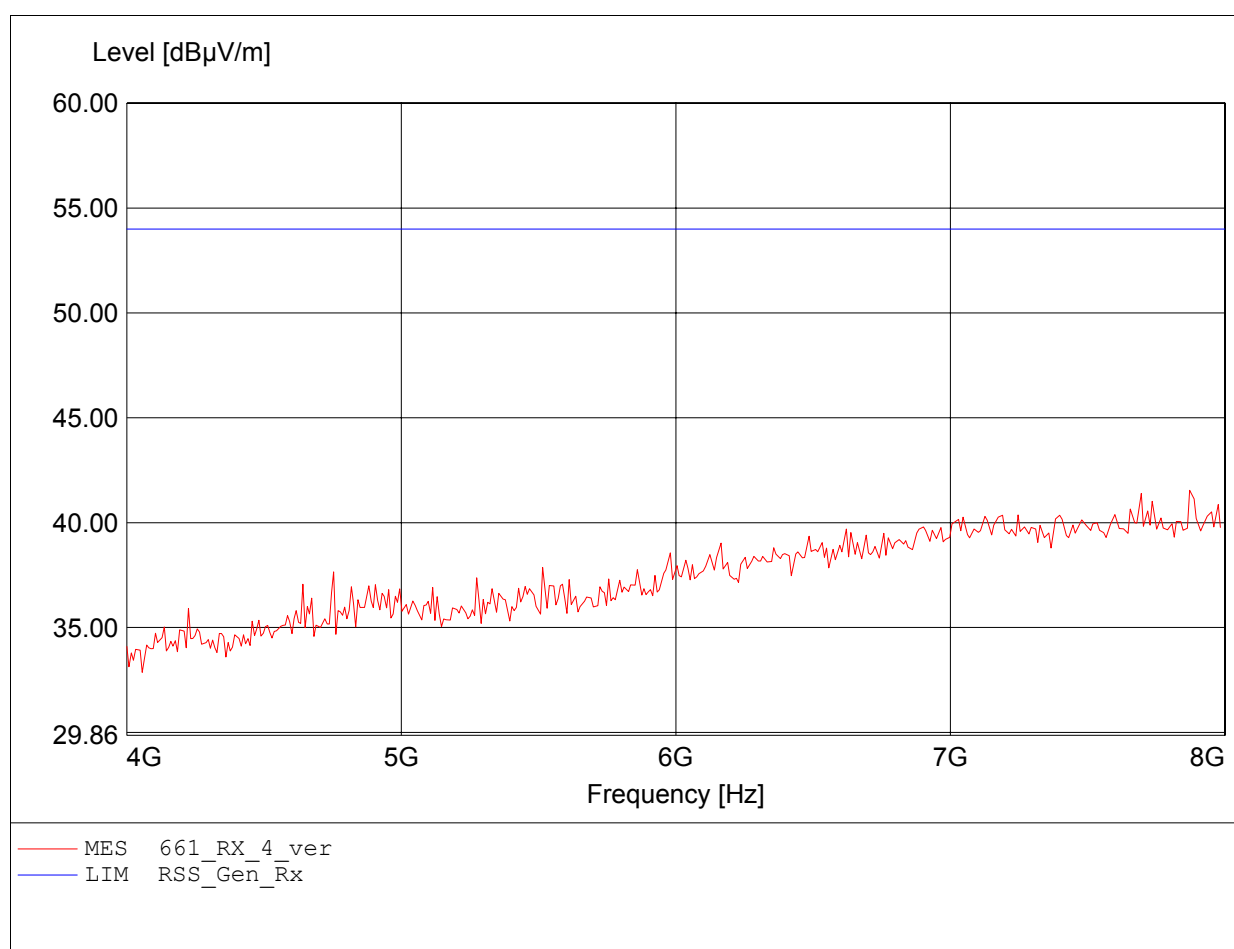
Field Strength under normal conditions
Standards Industry Canada, RSS-GEN

Approval Holder: BIOTRONIK SE & Co. KG / GOM-1106-1164
EUT / Model: Cardiomessenger II / CM II with G24-L
GPRS 1900 / CH: 661 / RX_Idle / vertical
Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025, ampl.
Comment 2: Freq:7.279GHz Emax:40.57dBµV/m RBW: 1 MHz



Field Strength under normal conditions
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Test Site / Operator: Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1: Tnom.: 24°C / Unom: 3.7 VDC (Li-Ion accu)
Test Conditions 2: Freq. / CH: 661
Comment 1: Dist.: 3m, Ant.: HL025, ampl.
Comment 2: Freq:7.872GHz Emax:41.54dBµV/m RBW: 1 MHz



Revision History

Revision	Issue Date	Revision		Revised by
01	23.02.2012	Replaced document:	G0M-1106-1164-P-2224	A. Bartusch
		Replaced by:	G0M-1106-1164-P-2224-rev01	
		Reason:		
			• Page 5: The IC ID for the module was added. • Page 6: Technical standard was updated.	
