EUROFINS PRODUCT SERVICE GMBH

Testing Cert #1983.01

TEST- REPORT

Compliance Test Report

FCC PART 15 SUBPART C
IC RSS 210 ISSUE 7

FCC ID: YBN-RBCM-HI-R2

Car tuner with BT

Renault R2

TEST REPORT NUMBER: G0M20910-2636-P-15

Eurofins Product Service GmbH
Storkower Str. 38c, 15526 Reichenwalde,
Germany

Phone +49-33631-888 0
Fax +49-33631-888 660

TABLE OF CONTENTS

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.

The test report may only be reproduced or published in full. Reproducing or publishing extracts of the report requires the prior written approval of the Eurofins Product Service GmbH.

This document is subject to the General Terms and Conditions and the Testing and Certification System of Eurofins Product Service GmbH, available on request or accessible at www.pt.eurofins.com

Operator:

Date	Eurofins-Lab.	Name	Signature
22.03.2010		B. Pudell	W. Trefl

Technical responsibility for area of testing:

Date	Eurofins	Name	Signature
22.03.2010		J. Zimmermann	pp. T.

1.2 Testing laboratory

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

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

Test location, where different:

Name	: ./.
Street	: ./.
Town	: ./.
Country	: ./.
Telephone	: ./.
Fax	: ./.

1.3 Details of approval holder

Name	: Robert Bosch Car Multimedia GmbH
Street	: Robert-Bosch-Straße 200
Town	: 31139 Hildesheim
Country	: GERMANY
Telephone	: +49 5121 49 2608
Fax	: +49 5121 49 2795
Contact	: Herr Manfred Aufzug
Telephone	: +49 5121 49 2608

1.4 Application details

Date of receipt of application	: 04.01.2010
Date of receipt of test item	: 04.01.2010
Date of test	: 04.01.2010 - 11.01.2010; 19.03.2010

1.5 Test item

Description of test item	: Car tuner with BT
Type identification	: Renault R2
Hardware version	: 3035-14-030

Technical data

Frequency range	: 2400 - 2483.5MHz
Tested frequencies	: F_1 2402MHz
Tested frequencies	: F_2 2440MHz
Tested frequencies	: F_3 2480MHz
Antenna type	: internal
Antenna Gain	: 8dBi
Power supply	: 13.2VDC
Operating mode	: duplex
Modulation	: FHSS
Device classification	: Mobile Device (Human Body distance > 20 cm)

Additional information:	The test sample is designed as Bluetooth device. Its pseudo random hopping scheme, authentication, receiver parameters, synchronization procedure and other parameters are deter mined by Bluetooth Core Specification. According to attached declaration of manufacturer this device don't work in master inquiry mode. So we have only one frequency hopping system and the hop-ping sequence of the master inquiry mode is not verified.

Manufacturer:
(if applicable)

Name	: Robert Bosch Car Multimedia GmbH
Street	: Robert-Bosch-Straße 200
Town	: 31139 Hildesheim
Country	: GERMANY

1.6 Test standards

Technical standard	: **FCC PART 15 SUBPART C** **IC RSS 210 ISSUE 7**

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 2.4 were ascertained in the course of the tests performed. ☐

2.2 Test environment

Temperature	: 22	...	26°C
Relative humidity content	: 20	...	75%
Air pressure	: 86	...	103kPa

Extreme conditions parameters:

V_{nom}	:	13.2VDC
V_{min} (V_{nom}-15%)	:	--
V_{max} (V_{nom}+15%)	:	--
T_{nom}	:	25°C

2.3 Test equipment utilized

Measurement Equipment List			
No.	**Measurement device:**	**Type:**	**Manufacturer:**
ETS 0086	Semi-anechoic chamber	AC1	Frankonia
ETS 0271	Spectrum Analyzer	FSEK30	Rhode & Schwarz
ETS 0030	Biconical Antenna	HK 116	Rhode & Schwarz
ETS 0013	LPD Antenna	HL 223	Rhode & Schwarz
ETS 0019	Horn Antenna	BBHA 9120D	Schwarzbeck
ETS 0432	Amplifier-Matrix		
ETS 0259	Power Meter	NRVD	Rhode & Schwarz
ETS 0278	Power Sensor	NRV-Z31	Rhode & Schwarz
ETS 0496	Spectrum Analyzer	FSP30	Rhode & Schwarz
ETS 0543	CBT Bluetooth Tester	CBT	Rhode & Schwarz

2.4 Test results

☒ 1st test ☐ test after modification ☐ production test

Test case	Subclause	Required	Test passed	Test failed
INFORMATIONAL TRANSMITTER PARAMETERS				
Occupied Bandwidth	IC RSS-Gen. 4.6.1	☒		
TRANSMITTER PARAMETERS				
20dB Bandwidth	FCC § 15.247(a)(1) IC RSS-210 § A8.1	☒	☒	☐
Frequency hopping channel number	FCC § 15.247(a)(1)(iii) IC RSS-210 § A8.1	☒	☒	☐
Frequency hopping channel spacing	FCC § 15.247(a)(1) IC RSS-210 § A8.1	☒	☒	☐
Time of occupancy (dwell time)	FCC § 15.247(a)(1)(iii) IC RSS-210 § A8.1	☒	☒	☐
Maximum peak conducted output power	FCC § 15.247(b) IC RSS-210 § A8.4	☒	☒	☐
Maximum peak e.i.r.p. output power	FCC § 15.247(b) IC RSS-210 § A8.4	☐	☐	☐
Band-edge Compliance	FCC § 15.247(d) IC RSS-210 § A8.5	☒	☒	☐
Conducted spurious emissions	FCC § 15.247(d) IC RSS-210 § A8.5	☐	☐	☐
Radiated spurious emissions	FCC § 15.247(d) FCC § 15.209 IC RSS-210 § A8.5 IC RSS-Gen § 4.9	☒	☒	☐
RECEIVER PARAMETERS				
Radiated spurious emissions	FCC § 15.109 IC RSS-Gen § 4.10 IC RSS-Gen § 7.2.3	☐	☐	☐
POWER LINE PARAMETERS				
AC power line conducted emissions	FCC § 15.207 IC RSS-Gen. 7.2.2	☐	☐	☐

3 Informational Transmitter parameters

3.1 Transmitter Modes for conformance testing

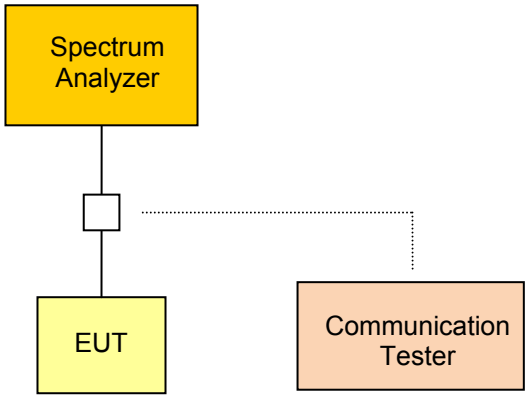
The following transmission modes are elected for compliance testing.

TEST MODE A	
Conditions	
Spread Spectrum :	☒ Yes ☐ No
Spreading Technique :	FHSS
Modulation :	GFSK
Packet Type :	DH5
Data rate :	1Mbps
Duty cycle :	46%

3.2 Occupied Bandwidth

According RSS-Gen Section 4.6.1 the 99% emission bandwidth occupied by the modulated transmitted signal has to be reported as calculated or measured.

3.2.1 Measurement procedure



The eut is connected to a spectrum analyzer and set to transmission mode (using a communication tester if needed) with maximum power under normal test conditions. The span of the analyzer is set wide enough to capture all significant emissions of the modulation spectrum. The resolutions bandwidth is set as close as possible to 1% of the selected span without being below 1%. The occupied bandwidth is than measured evaluated by an internal measurement procedure of the analyzer.

3.2.2 Results

Transmitter occupied bandwidth			
Measurement Conditions			
Test mode :		A	
Power occupation :		99%	
Channel [MHz]	**Lower edge frequency [MHz]**	**Upper edge frequency [MHz]**	**Occupied Bandwidth [MHz]**
2402	2401.5468	2402.4136	0.8668
2441	2440.5424	2441.4048	0.8624
2480	2479.5380	2480.4004	0.8624
See attached diagram in Annex			
Verdict			**PASS**

4 Transmitter parameters

4.1 20dB Bandwidth

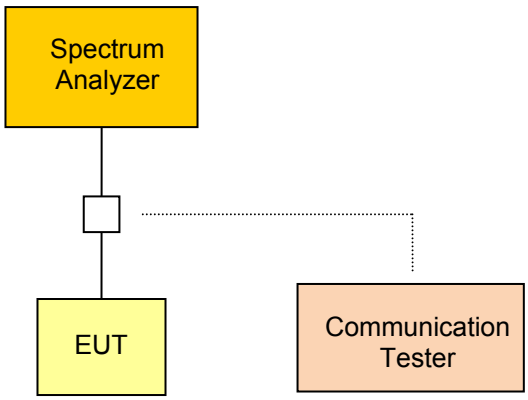
According FCC rules 47 CFR 15.247(a)(1) and RSS-210 Section A8.1 the 20dB Bandwidth determines the necessary carrier spacing used in the frequency hopping system.

4.1.1 Limits

According FCC and IC rules frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

20dB Bandwidth limits	
Output Power	**20dB Bandwidth Limit**
≤ 125mW / 21dBm	1.5 * carrier spacing
125mW – 1W / 21 – 30dBm	1.0 * carrier spacing

4.1.2 Measurement procedure



The eut is connected to a spectrum analyzer and set to transmission mode (using a communication tester if needed) with maximum power under normal test conditions. The resolution bandwidth is set to 1% of the 20dB bandwidth of the emission spectrum (VBW≥RBW). The center frequency is set to the hopping channel center frequency. The span of the analyzer is set to 2 -3 times the 20dB bandwidth. The bandwidth is determined using markers with peak detector and max hold.

According to 47 CFR 15.31 battery power equipment is measured using new batteries and equipment using external power supply is measured with 85%, 100% and 115% of the nominal rated supply voltage.

4.1.3 Results

20dB Bandwidth		
Measurement Conditions		
Test mode :	A	
Max. output power :	0.02dBm	
Carrier spacing :	1MHz	
Channel [MHz]	**20dB Bandwidth [MHz]**	**Bandwidth Limit [MHz]**
2402	0.9306	1.5MHz
2441	0.9306	1.5MHz
2480	0.9306	1.5MHz
See attached diagrams in Annex		
Measurement uncertainty		4.22dB
Verdict		**PASS**

4.2 Frequency hopping channel number

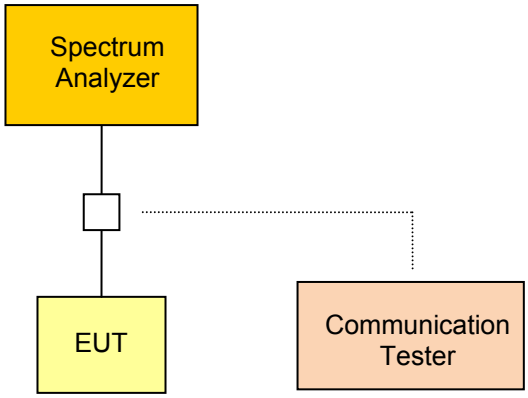
According FCC rules 47 CFR 15.247(a)(1)(iii) and RSS-210 Section A8.1 the number of hopping channels used, determines if the system can be certified as a hopping system and also the power level the system can use.

4.2.1 Limits

According FCC and IC rules frequency hopping systems shall use a minimum of 15 hopping channels. If the hopping system uses at least 75 hopping channels, the maximum conducted output power can be increased from 0.125W to 1W.

Frequency hopping channel number limits	
Max. conducted output Power	**Minimum number of channels**
≤ 125mW / 21dBm	15
125mW – 1W / 21 - 30dBm	75

4.2.2 Measurement procedure



The eut is connected to a spectrum analyzer and set to transmission mode (using a communication tester if needed) with hopping activated. The resolution bandwidth is set to 1% of the span (VBW≥RBW) and the span is set to 2400 – 2483.5MHz. The power level is measured with peak detector and max hold.

4.2.3 Results

Number of hopping channels		
Measurement Conditions		
Test mode :	A	
Max. output power :	0.02dBm	
Number of channels	**Hopping channel limit**	
79	15	
See attached diagrams in Annex		
Measurement uncertainty		4.22dB
Verdict		**PASS**

4.3 Frequency hopping channel spacing

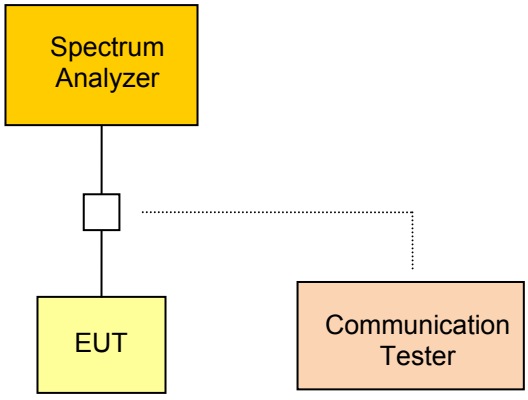
According FCC rules 47 CFR 15.247(a)(1) and RSS-210 Section A8.1 the minimum hopping channel frequency spacing is correlated to the 20dB bandwidth of the hopping channel emission and and maximum peak output power.

4.3.1 Limits

According FCC and IC rules frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

Frequency hopping channel spacing limits	
Max. conducted output Power	**Minimum hopping channel spacing**
≤ 125mW / 21dBm	≥ 25kHz or ⅔ of 20dB bandwidth
125mW – 1W / 21 – 30dBm	≥ 25kHz or 20dB bandwidth

4.3.2 Measurement procedure



The eut is connected to a spectrum analyzer and set to transmission mode (using a communication tester if needed) with hopping activated. The resolution bandwidth is set to 1% of the span (VBW≥RBW) and the span is set wide enough to capture two adjacent channels. The power level is measured with peak detector and max hold.

4.3.3 Results

Frequency hopping channel spacing		
Measurement Conditions		
Test mode :	A	
Tested channel :	2441MHz	
Max. output power :	0.02dBm	
Channel spacing [kHz]	**Channel spacing limit [kHz]**	
1003.2	⅔ * 935 = 580.07	
See attached diagrams in Annex		
Measurement uncertainty		4.22dB
Verdict		**PASS**

4.4 Time of occupancy (Dwell time)

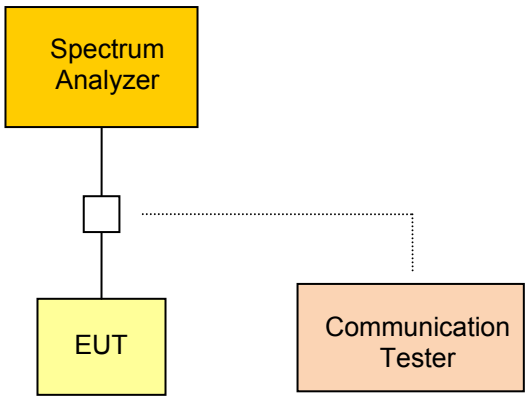
According FCC rules 47 CFR 15.247(a)(1)(iii) and RSS-210 Section A8.1 the average time of occupancy on any channel is limited.

4.4.1 Limits

According FCC and IC rules the average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

Frequency hopping channel number limits	
Dwell time limit	**Channel occupancy period**
0.4s	0.4 * Number of hopping channels

4.4.2 Measurement procedure



The eut is connected to a spectrum analyzer and set to transmission mode (using a communication tester if needed) with hopping activated. The resolution bandwidth is set to 1MHz (VBW≥RBW) and the span is set to zero centered on a hopping channel. The sweep time is set large enough to capture the dwell time. The power level is measured with peak detector and max hold.

4.4.3 Results

Time of occupancy (Dwell time)	
Measurement Conditions	
Test mode :	A
Tested channel :	2441
Number of hopping channels :	79
Time of occupancy	**Channel occupancy periode**
63 * 2.9104ms = 183.355s	31.6s
See attached diagrams in Annex	
Measurement uncertainty	4.22dB
Verdict	**PASS**

4.5 Maximum peak conducted output power

According FCC rules 47 CFR 15.247(b)(1) and RSS-210 Section A8.4 the maximum peak conducted output power is limited and has be verified.

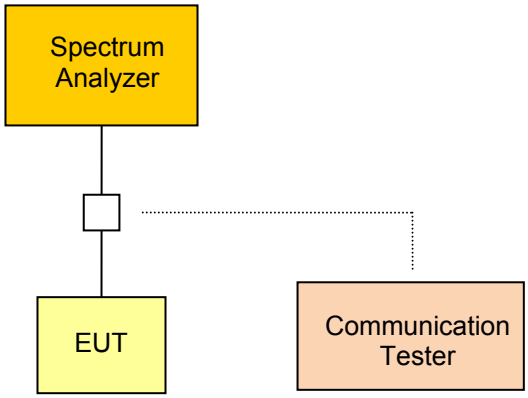
4.5.1 Limits

For frequency hopping systems operating in the band 2400-2483.5 MHz employing at least 75 hopping channels, the maximum peak conducted output power shall not exceed 1 W; for all other frequency hopping systems in the band, the maximum peak conducted output power shall not exceed 0.125 W.

Transmitter spurious emission limits	
Number of Hopping Channels	**Conducted Power Limit**
≥ 75	1W (30dBm)*
15 - 74	125mW (21dBm)*

*) The conducted output power limit specified above is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in the table, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

4.5.2 Measurement procedure



The eut is connected to a spectrum analyzer and set to transmission mode (using a communication tester if needed) with maximum power under normal test conditions. The resolution bandwidth is set higher than the 20dB Bandwidth of the emission spectrum (VBW≥RBW). The span of the analyzer is set larger than 5 times the resolution bandwidth. The maximum power emitted by the EUT is measured using peak detector and max hold.

According to 47 CFR 15.31 battery power equipment is measured using new batteries and equipment using external power supply is measured with 85%, 100% and 115% of the nominal rated supply voltage.

4.5.3 Results

Maximum peak conducted output power		
Measurement Conditions		
Test mode :	A	
Antenna gain :	8dBi	
Power correction :	0dB	
Number of Hopping channels :	79	
Channel [MHz]	**Conducted ouput power [dBm]**	**Power Limit [dBm]**
2402	-0.28	30
2441	0.02	30
2480	-0.91	30
See attached diagrams in Annex		
Measurement uncertainty		4.22dB
Verdict		**PASS**

4.6 Transmitter band-edge compliance

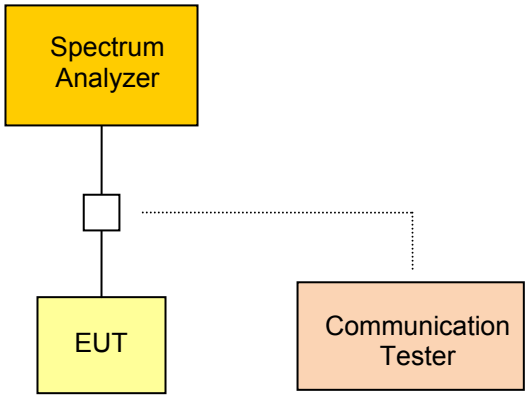
According FCC rules 47 CFR 15.209, 15.247(d) and RSS-210 Section A8.5 the emission level of out-of-band emissions are limited and has be to cvalidated.

4.6.1 Limits

The emission limit of out of band emission in any 100kHz bandwidth outside the frequency band in which the spread spectrum device is operating, the radio frequency power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general limits (see “Transmitter spurious emissions”-measurement) is not required.

Transmitter band-edge emission limits	
TX-Power Detector	**Out of band attenuation**
Peak	-20dBc/100kHz
RMS	-30dBc/100kHz

4.6.2 Measurement procedure



The eut is connected to a spectrum analyzer and set to transmission mode (using a communication tester if needed) without hopping with maximum power under normal test conditions. The span of the analyzer is set large enough to capture the maximum emission within the emission band as well as any modulation product which fall outside the authorized band of operation. The resolution bandwidth is set to 1% of the span (VBW≥RBW). The

A marker is set on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Using the delta-marker function the highest peak of of the in-band emission is measured.

The same measurement procedure is repeated in hopping mode.

4.6.3 Results

Transmitter band-edge emissions		
Measurement Conditions		
Test mode :	A	
Power mode :	Peak	
Mode	**Lower edge emission [dBc]**	**Upper edge emission [dBc]**
Static	-41.98	-42.42
Hopping	-41.94	-38.79
See attached diagram in Annex		
Verdict		**PASS**

4.7 Transmitter radiated spurious emissions

According FCC rules 47 CFR 15.209, 15.247(d) and RSS-210 Section A8.5 unwanted emissions in the spurious domain are power limited and has to be validated.

4.7.1 Limits

The emission limit of out of band emission in any 100kHz bandwidth outside the frequency band in which the spread spectrum device is operating, the radio frequency power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general limits (see “Transmitter spurious emissions”-measurement) is not required.

Transmitter out-of-band emission limits	
TX-Power Detector	**Out of band attenuation**
Peak	-20dBc/100kHz
RMS	-30dBc/100kHz

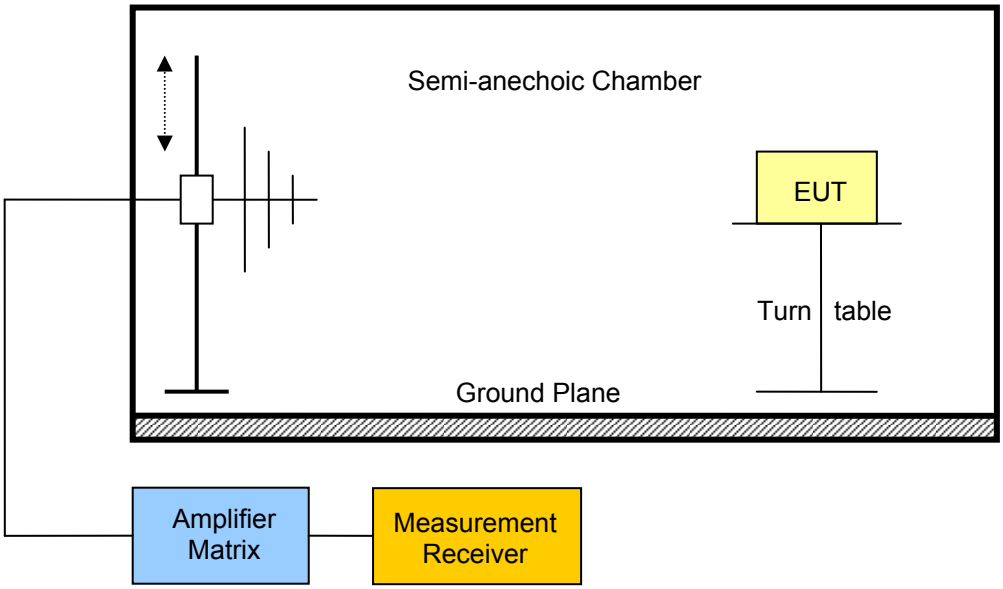
In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Tranmitter restricted band spurious emission limits				
Frequency range [MHz]	**Detector**	**Limit [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

When average radiated emission measurements are specified, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.

4.7.2 Measurement procedure

The spurious emission measurement is performed on 3m a semi-anechoic test site.



The eut is placed on a non-metallic table. Any emission is received by the measurement antenna and measured via a measurement receiver connected to the antenna. To obtain the maximum emission the eut is rortated through 360°.

Due to pratical reasons the spurious emission level check is first performed with a peak detector and the quasi-peak and average limits.

If any emission is detected that gets close to the emission limit the detector is changed and the quasi-peak or average detector is used. Which detector is used is determined by the emission frequency. If pulsed transmission is used, averaging over the pulse train is used.

The measurement values are also corrected to obtain the field strength values at the defined measurement distances of the emission limits.

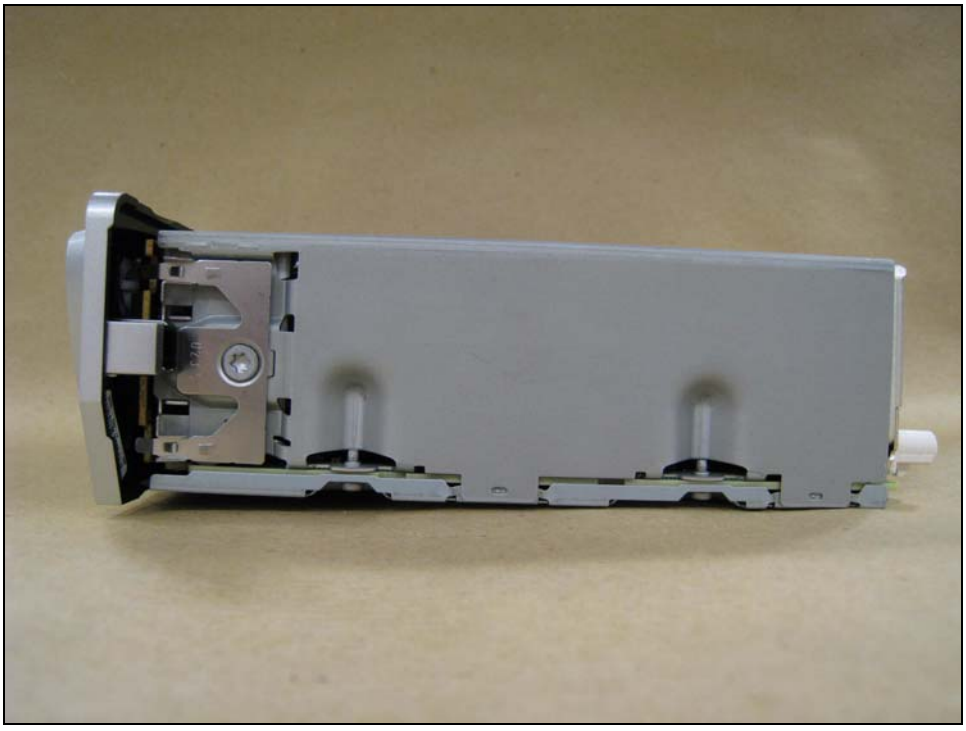
The measurement is performed over the frequency range of 30MHz up to the tenth harmonic.

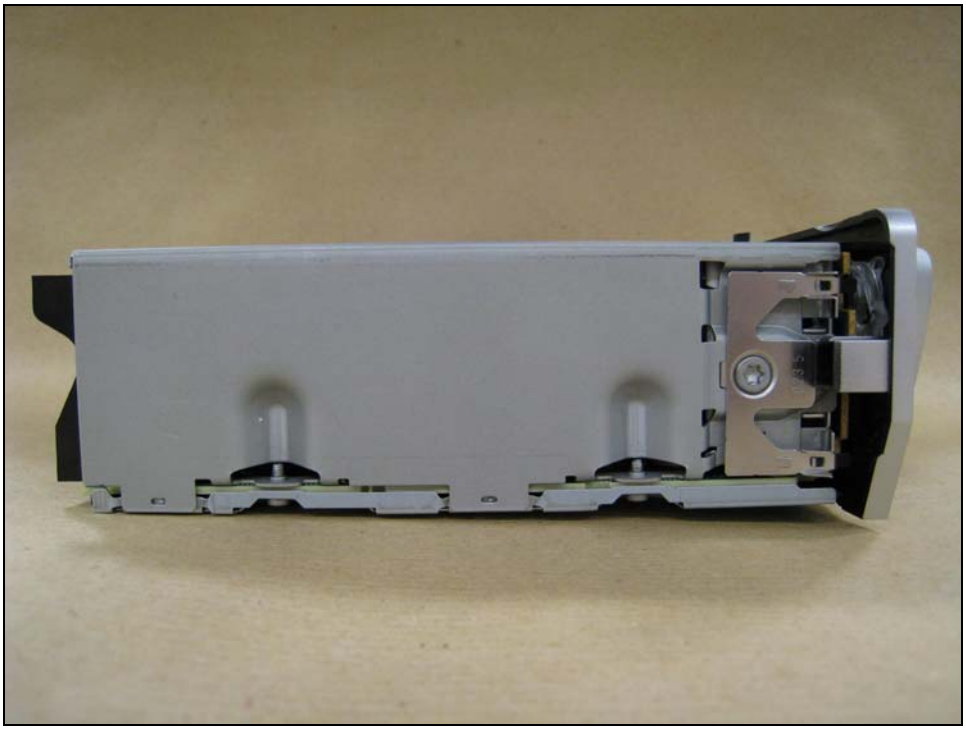
4.7.3 Results

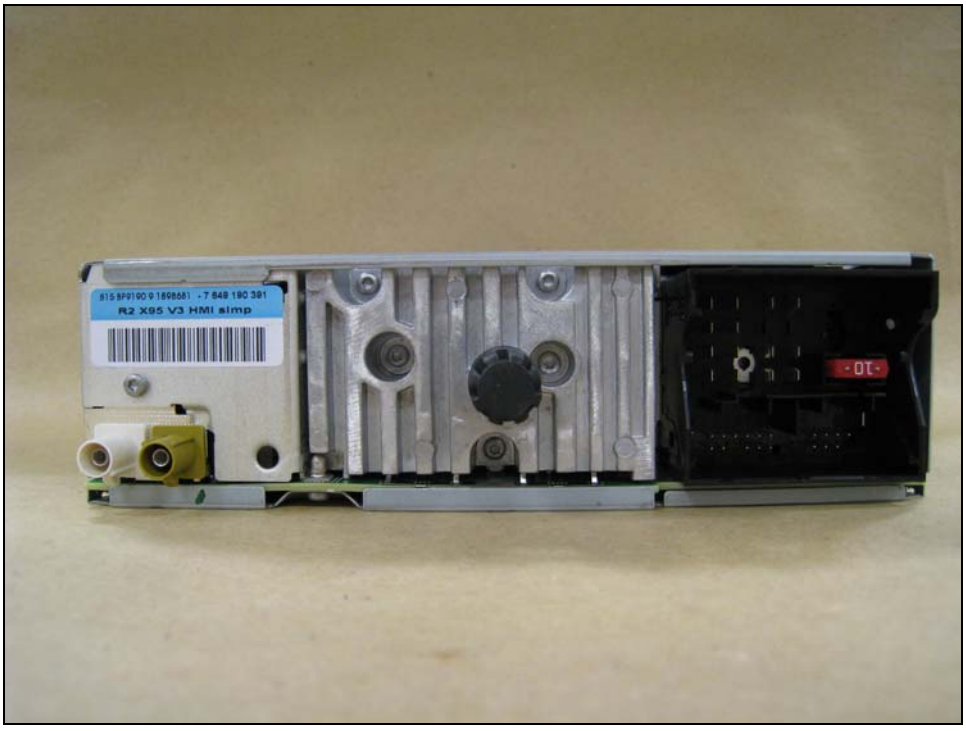
Transmitter radiated spurious Emissions						
Measurement Conditions						
Test mode :	A					
Measurement distance :	3m					
Modulated :	☒ Yes ☐ No					
Peak field strength :	93.41dBµV/m					
Peak emission limit :	73.41dBµV/m					
Channel Frequency [MHz]	**Emission Frequency [MHz]**	**Polarization**	**Measured Field Strength * [dBµV/m]**	**Limit@3m [dBµV/m]**	**Detector**	**Margin [dB]**
2402	3717	Vertical	54.47	74	peak	19.53
2402	3717	Vertical	43.55	54	average	10.45
See attached diagrams in Annex						
Verdict					**PASS**	

*** Note :** The measured field strength values are corrected to reflect the field strength values at the measurement distance stated in the table. Correction acc. $20 \cdot \log_{10}$(measurement distance/limit distance).

Annex A Photos



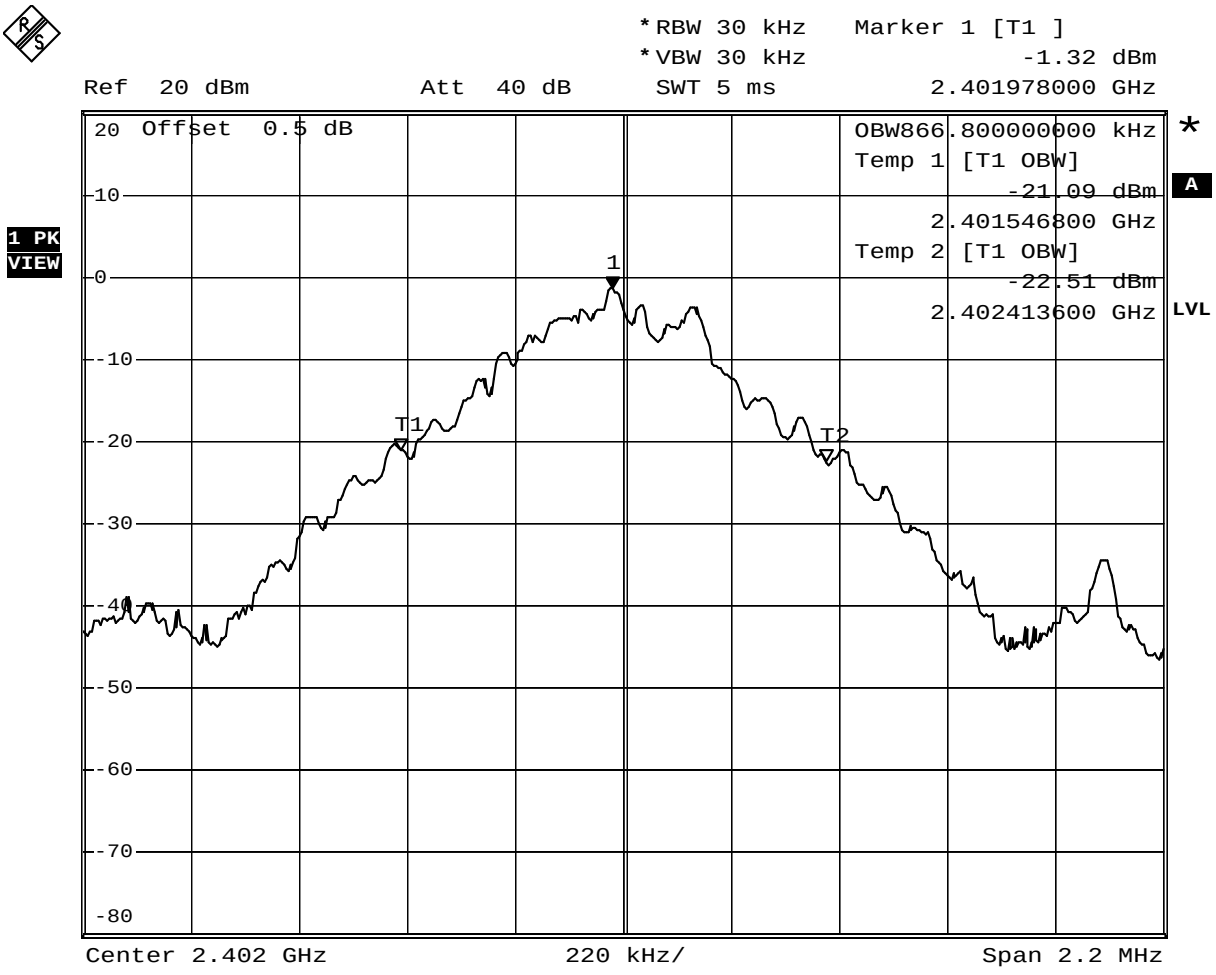



R2 X95 V3 HMI simp

Annex B Transmitter Occupied Bandwidth

RSS Gen
Occupied Bandwidth

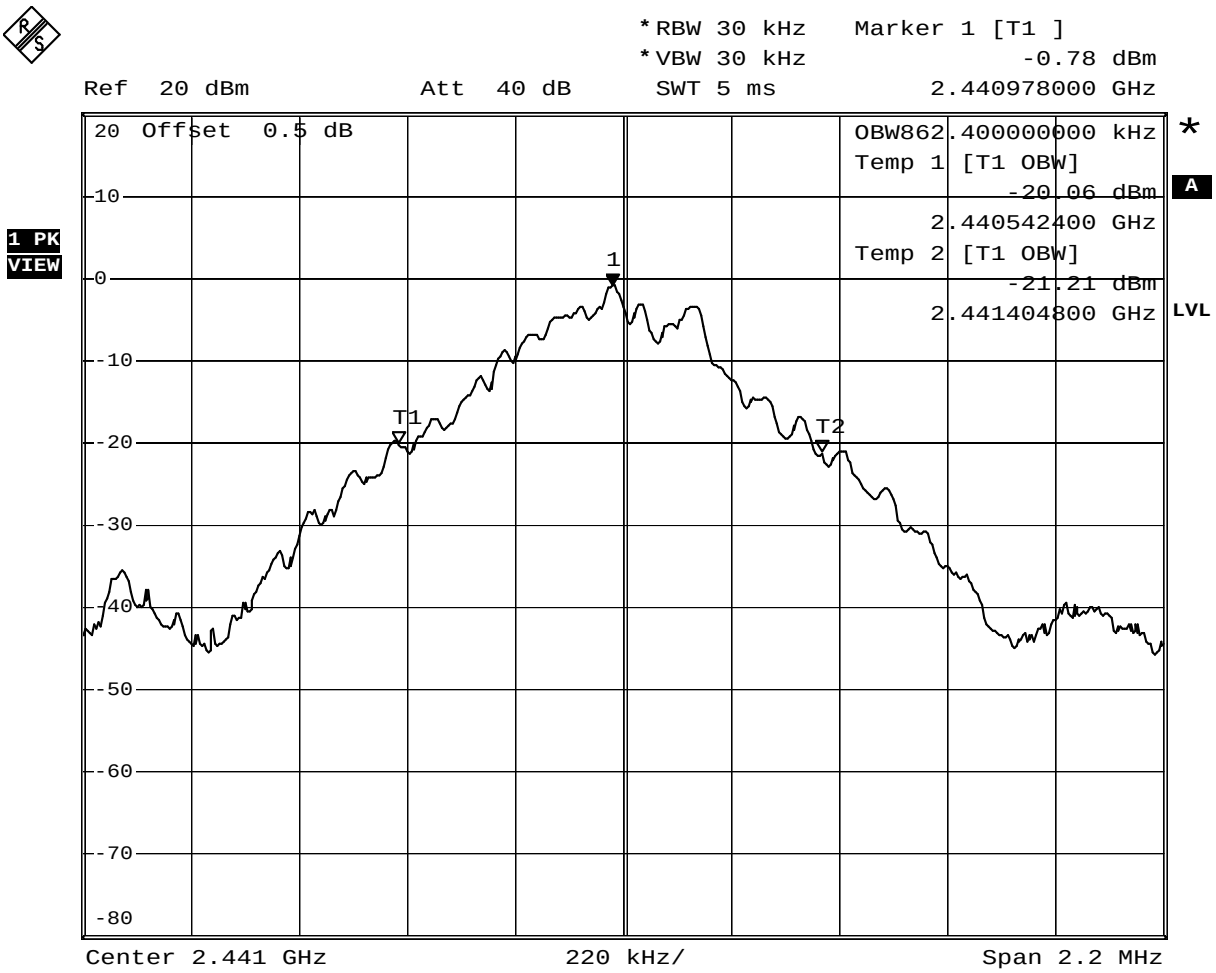
EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 0 / 2402 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	



Comment: Occupied bandwidth: 866.8 KHz
Date: 19.MAR.2010 13:05:42

RSS Gen
Occupied Bandwidth

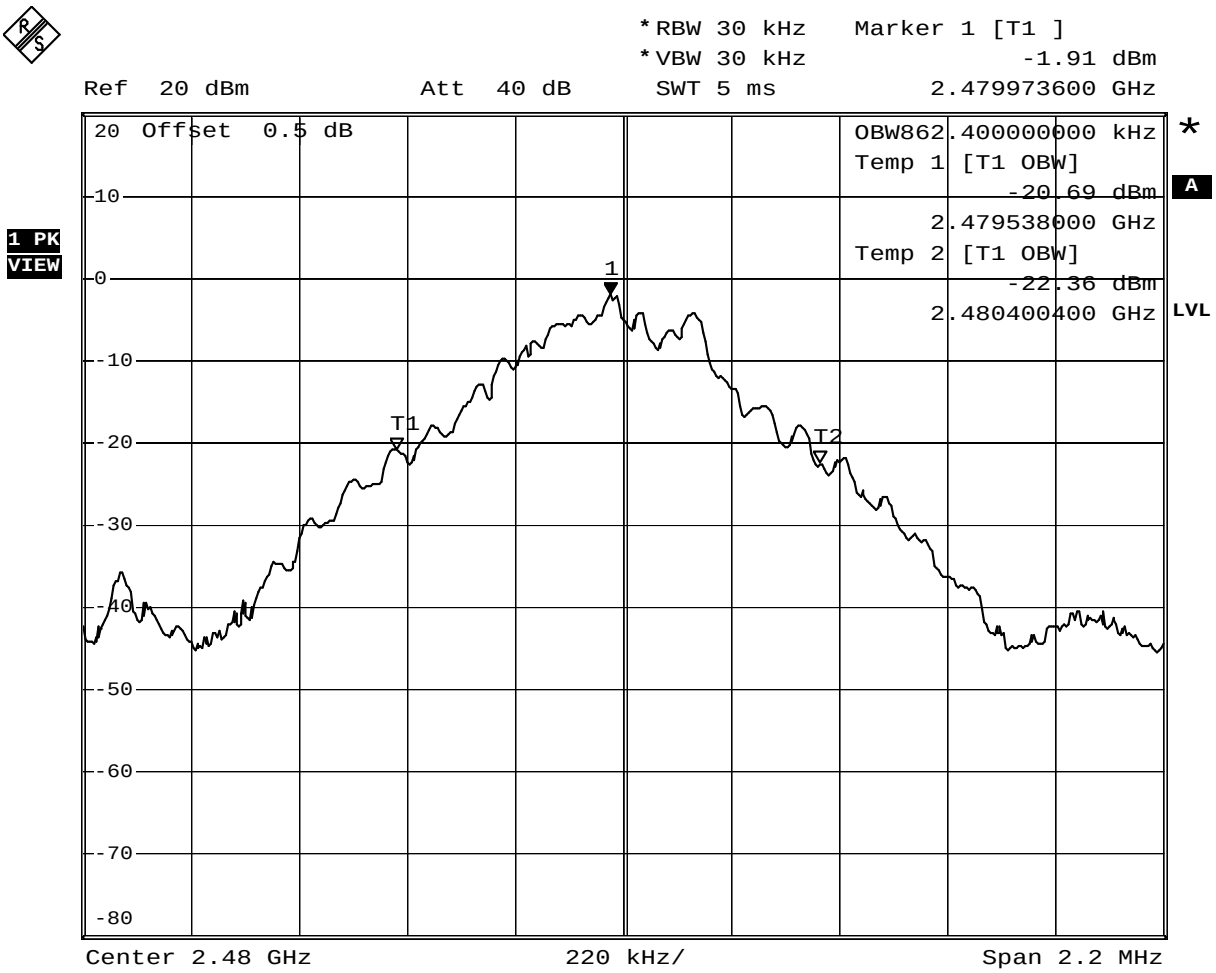
EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 39 / 2441 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	



Comment: Occupied bandwidth: 862.4 KHz
Date: 19.MAR.2010 13:01:01

RSS Gen
Occupied Bandwidth

EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 78 / 2480 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	

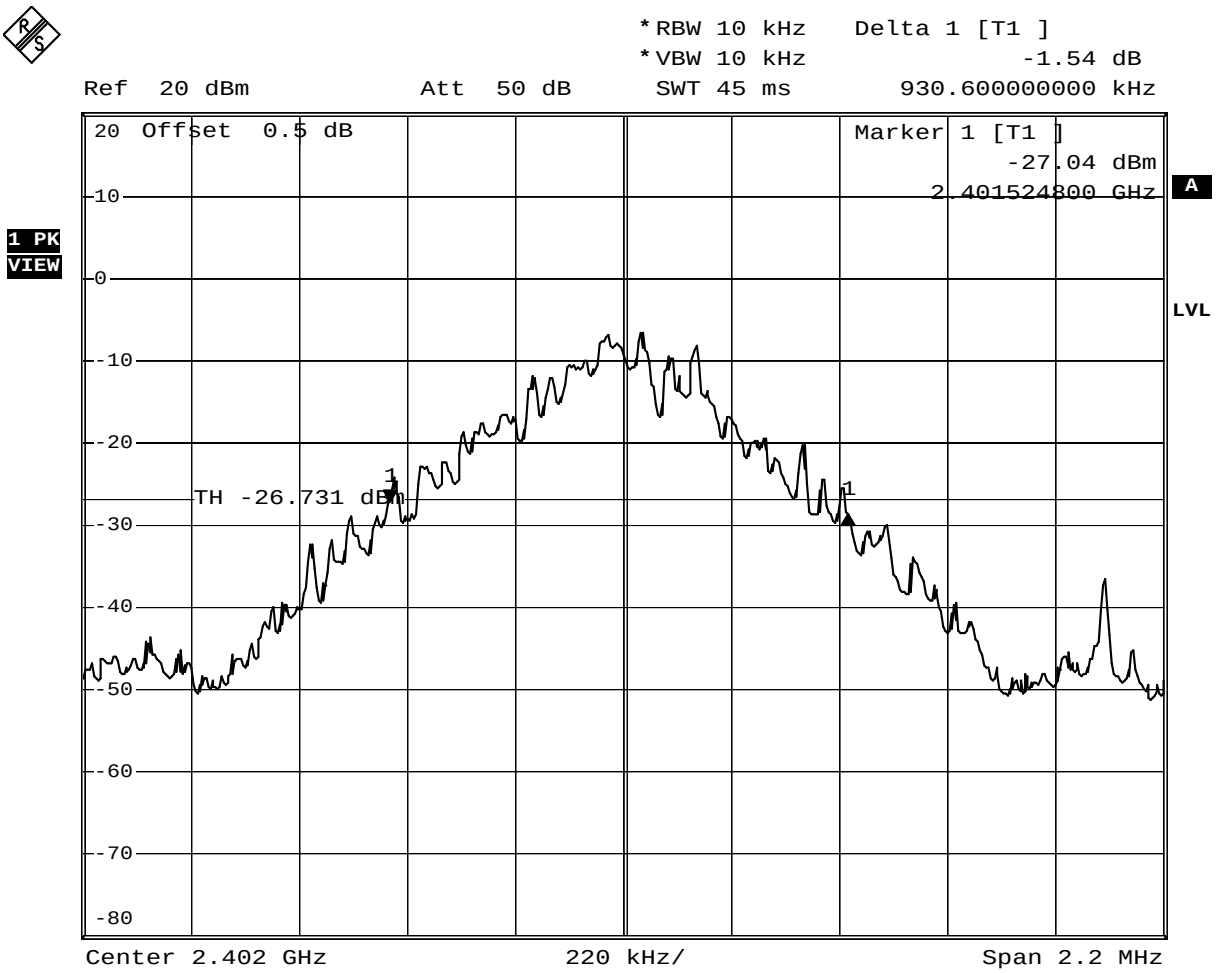


Comment: Occupied bandwidth: 862.4 KHz
Date: 19.MAR.2010 13:08:30

Annex C Transmitter 20dB Bandwidth

FCC part 15.247
20 dB bandwidth

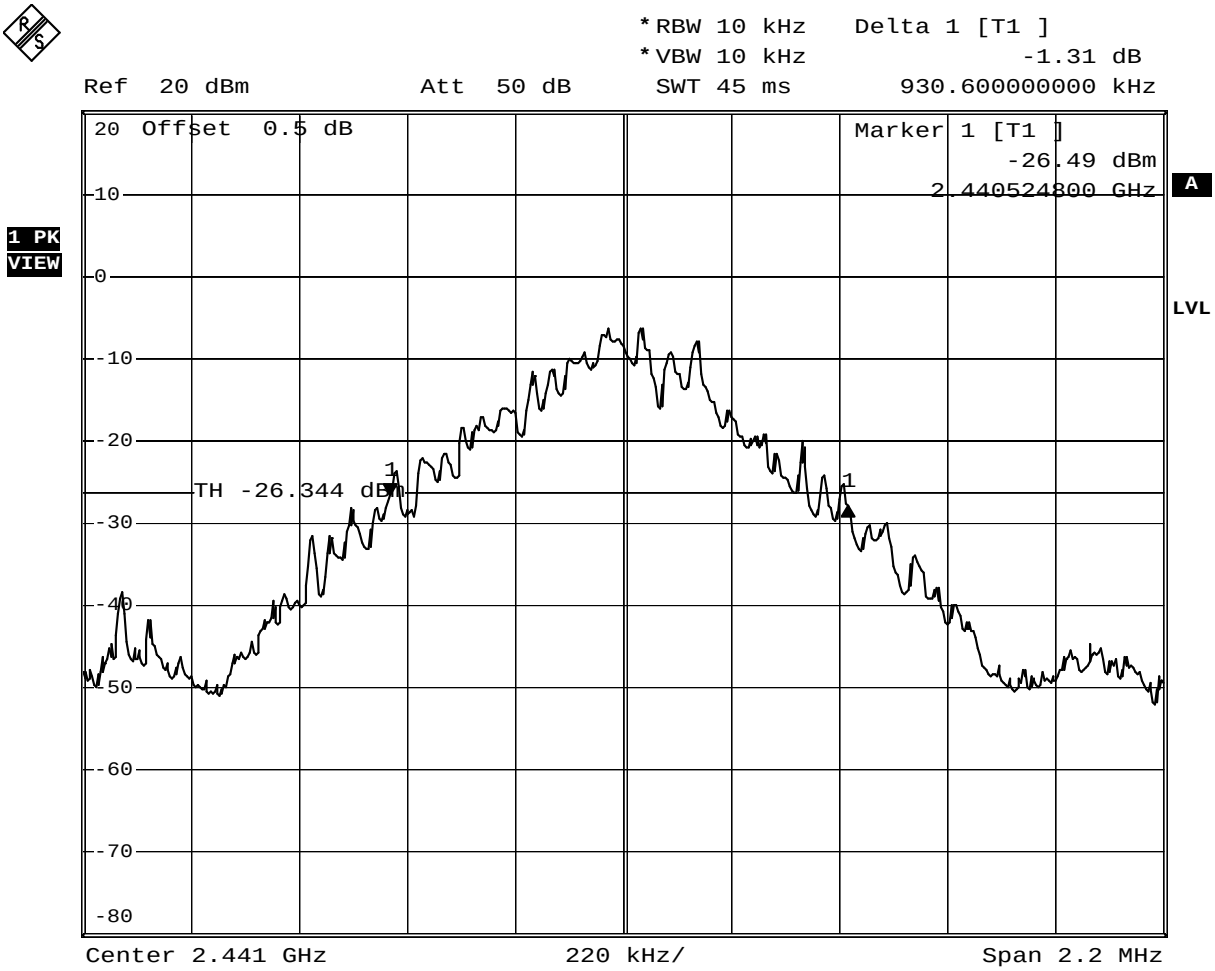
EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(a)
Comment 1	20 dB bandwidth
Comment 2	Channel.: 0 / 2402 MHz / GFSK
Comment 3	



Comment: 20 dB bandwidth: 930.6 KHz
Date: 19.MAR.2010 11:17:53

FCC part 15.247
20 dB bandwidth

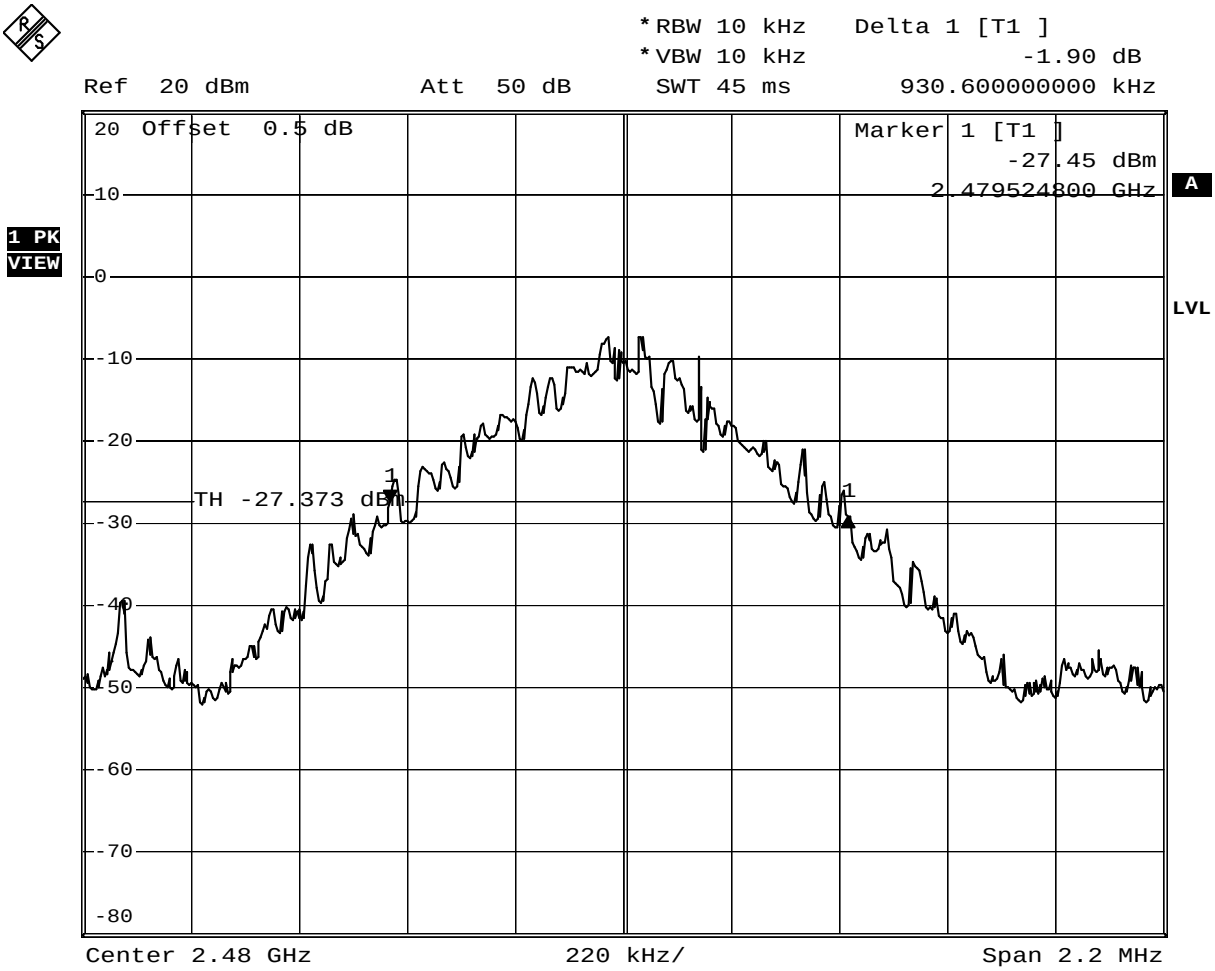
EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(a)
Comment 1	20 dB bandwidth
Comment 2	Channel.: 39 / 2441 MHz
Comment 3	



Comment: 20 dB bandwidth: 930.6 KHz
Date: 19.MAR.2010 11:20:24

FCC part 15.247
20 dB bandwidth

EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(a)
Comment 1	20 dB bandwidth
Comment 2	Channel.: 78 / 2480 MHz
Comment 3	

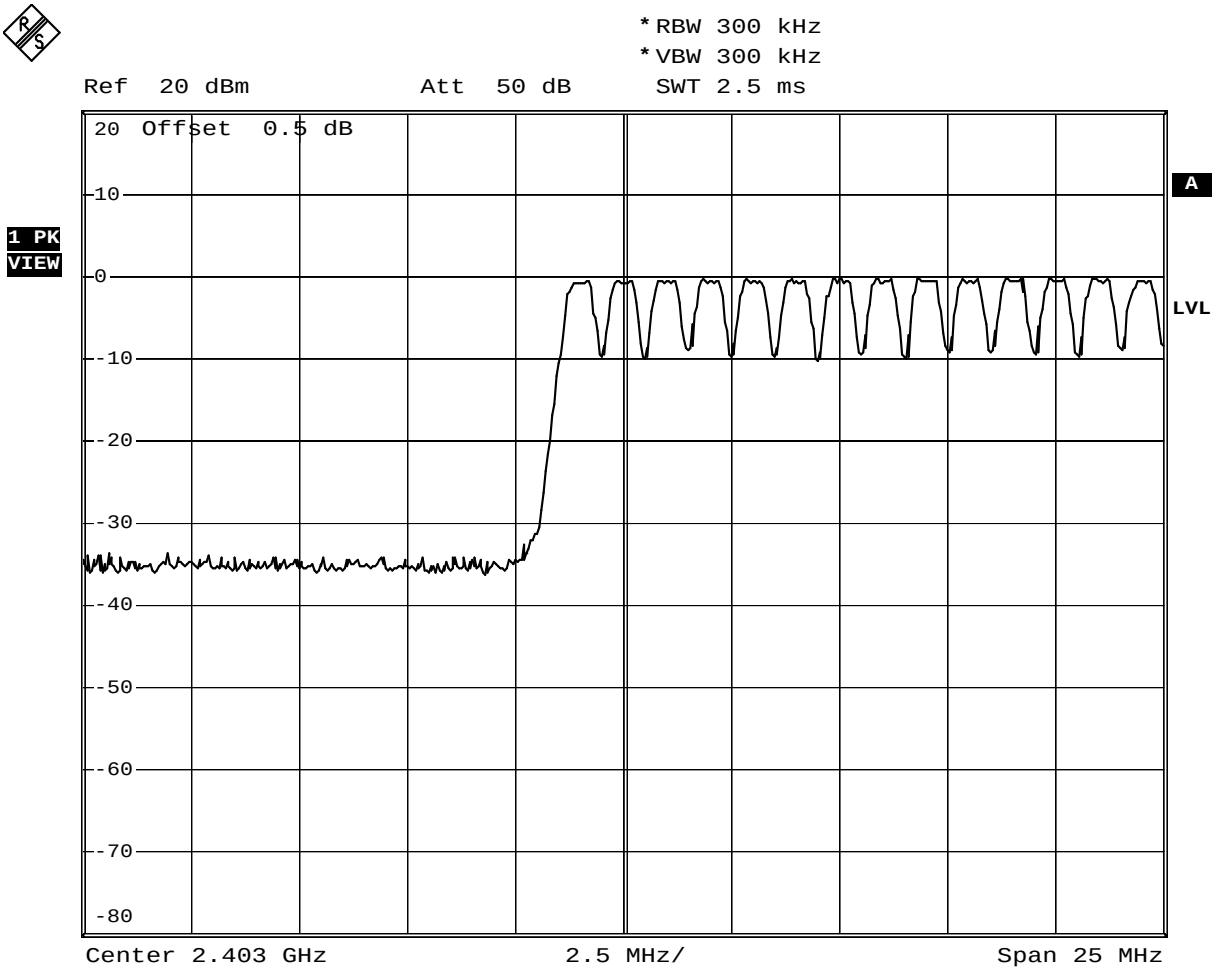


Comment: 20 dB bandwidth: 930.6 KHz
Date: 19.MAR.2010 11:14:32

Annex D Number of Hopping Frequencies

FCC part 15.247
Number of hopping frequencies

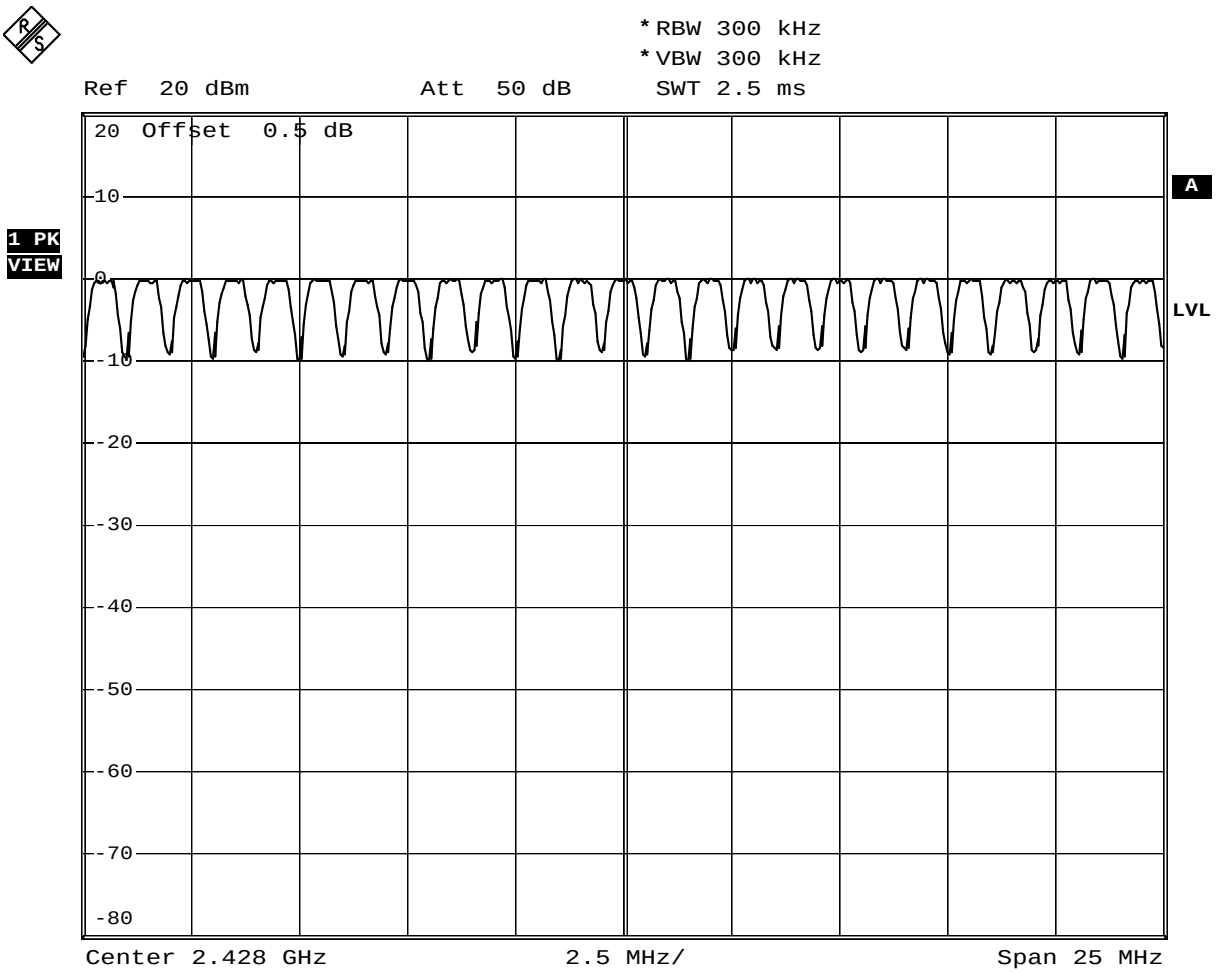
EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(a)
Comment 1	Number of hopping frequencies
Comment 2	Channel.: 0-13
Comment 3	



Comment: Number of hopping frequencies
Date: 19.MAR.2010 11:51:08

FCC part 15.247
Number of hopping frequencies

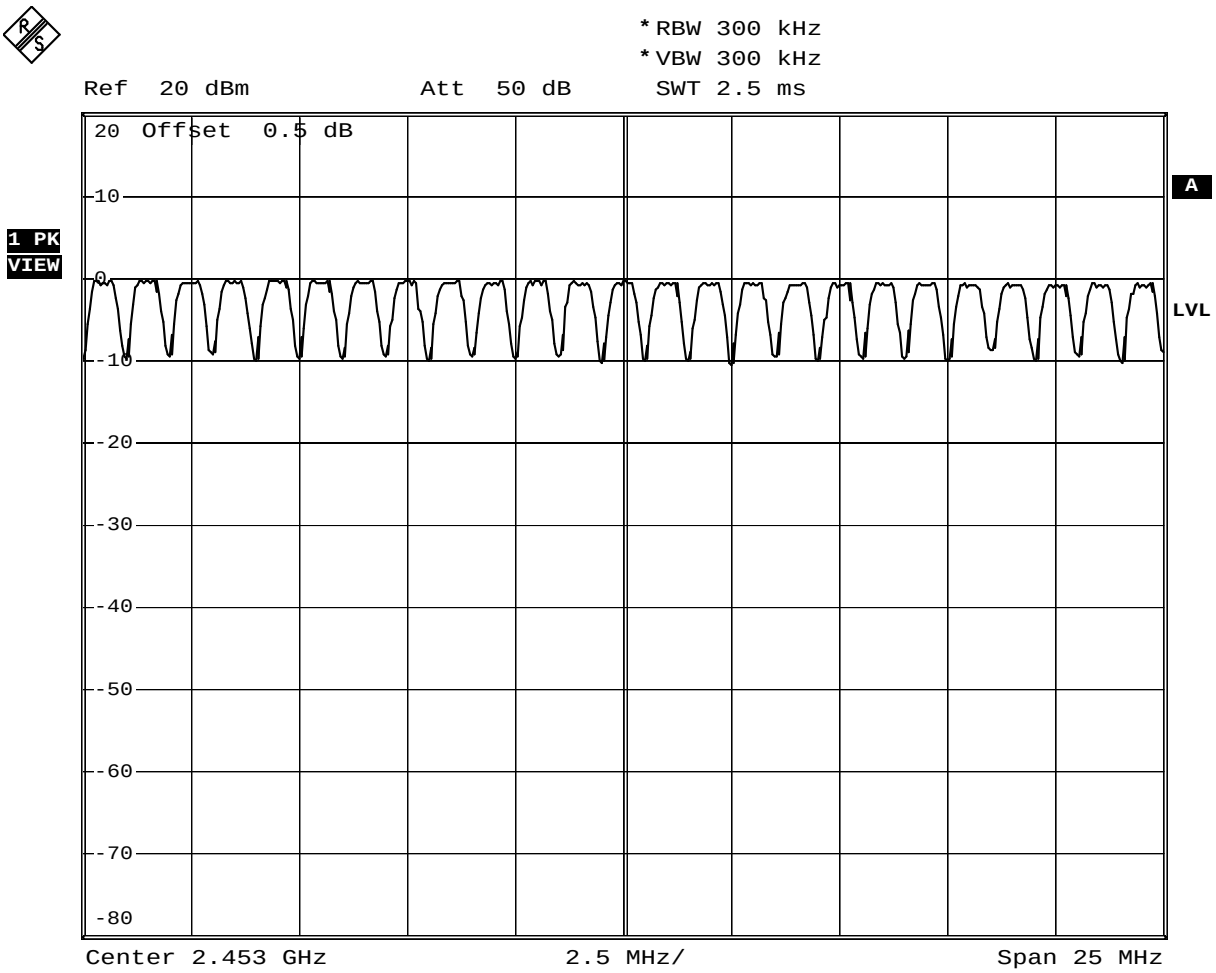
EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(a)
Comment 1	Number of hopping frequencies
Comment 2	Channel.: 14-38
Comment 3	



Comment: Number of hopping frequencies
Date: 19.MAR.2010 12:32:03

FCC part 15.247
Number of hopping frequencies

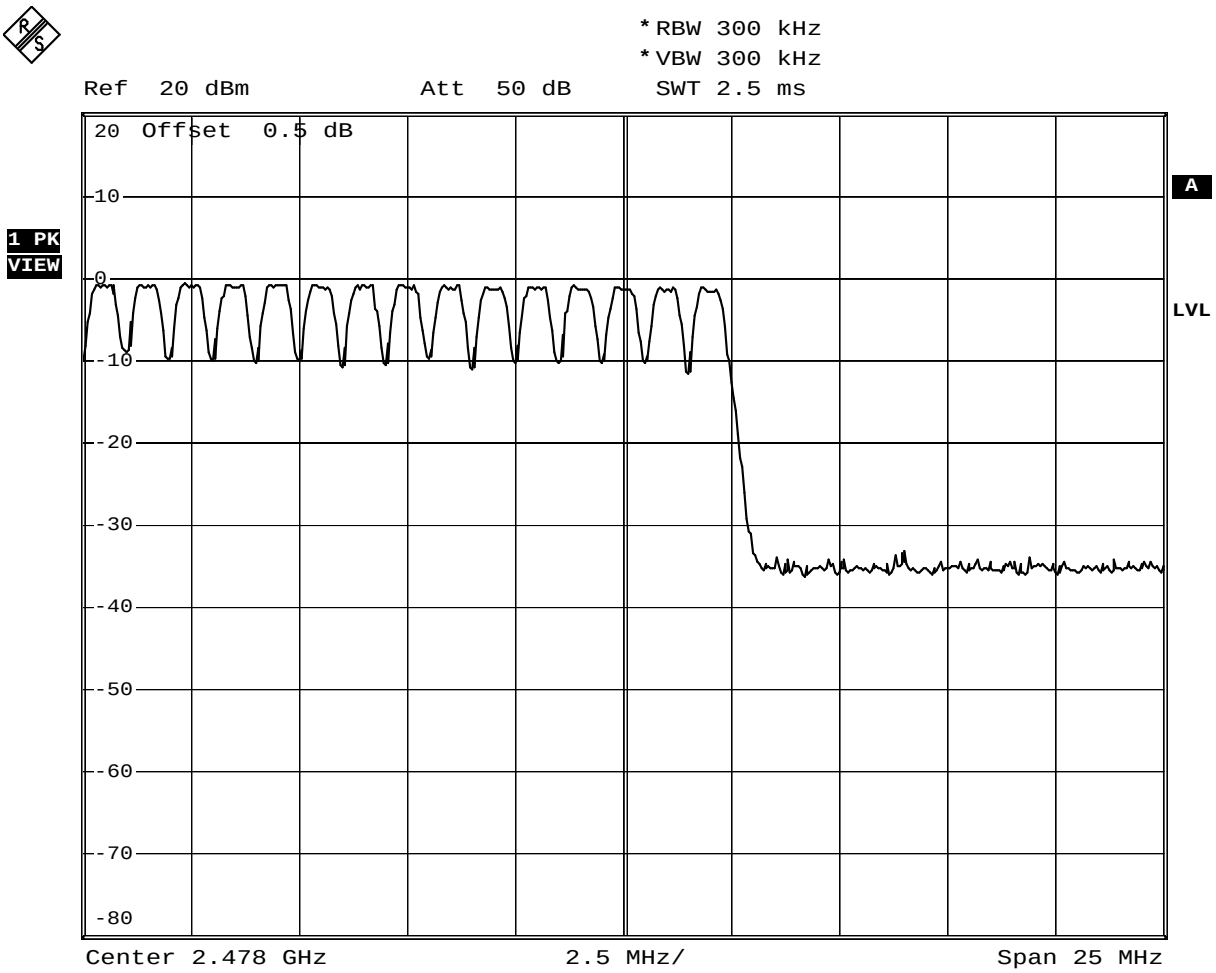
EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(a)
Comment 1	Number of hopping frequencies
Comment 2	Channel.:39-63
Comment 3	



Comment: Number of hopping frequencies
Date: 19.MAR.2010 12:35:42

FCC part 15.247
Number of hopping frequencies

EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(a)
Comment 1	Number of hopping frequencies
Comment 2	Channel.: 64-78
Comment 3	

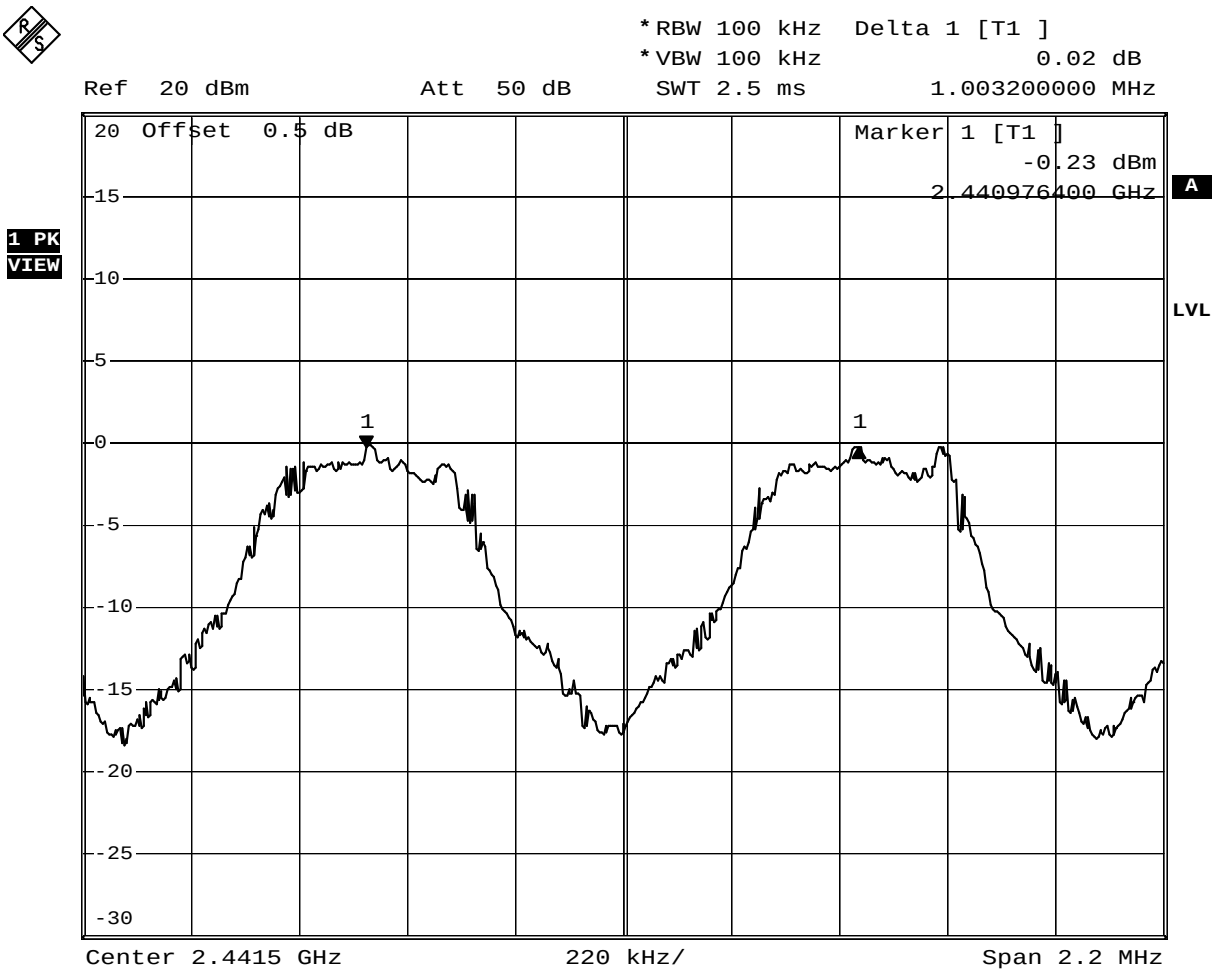


Comment: Number of hopping frequencies
Date: 19.MAR.2010 12:38:40

Annex E Carrier Frequency Separation

FCC part 15.247
Carrier frequency separation

EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(a)(1)
Comment 1	Carrier frequency separation
Comment 2	Channel.: 39/40 / 2441/2442 MHz
Comment 3	Hopping mode

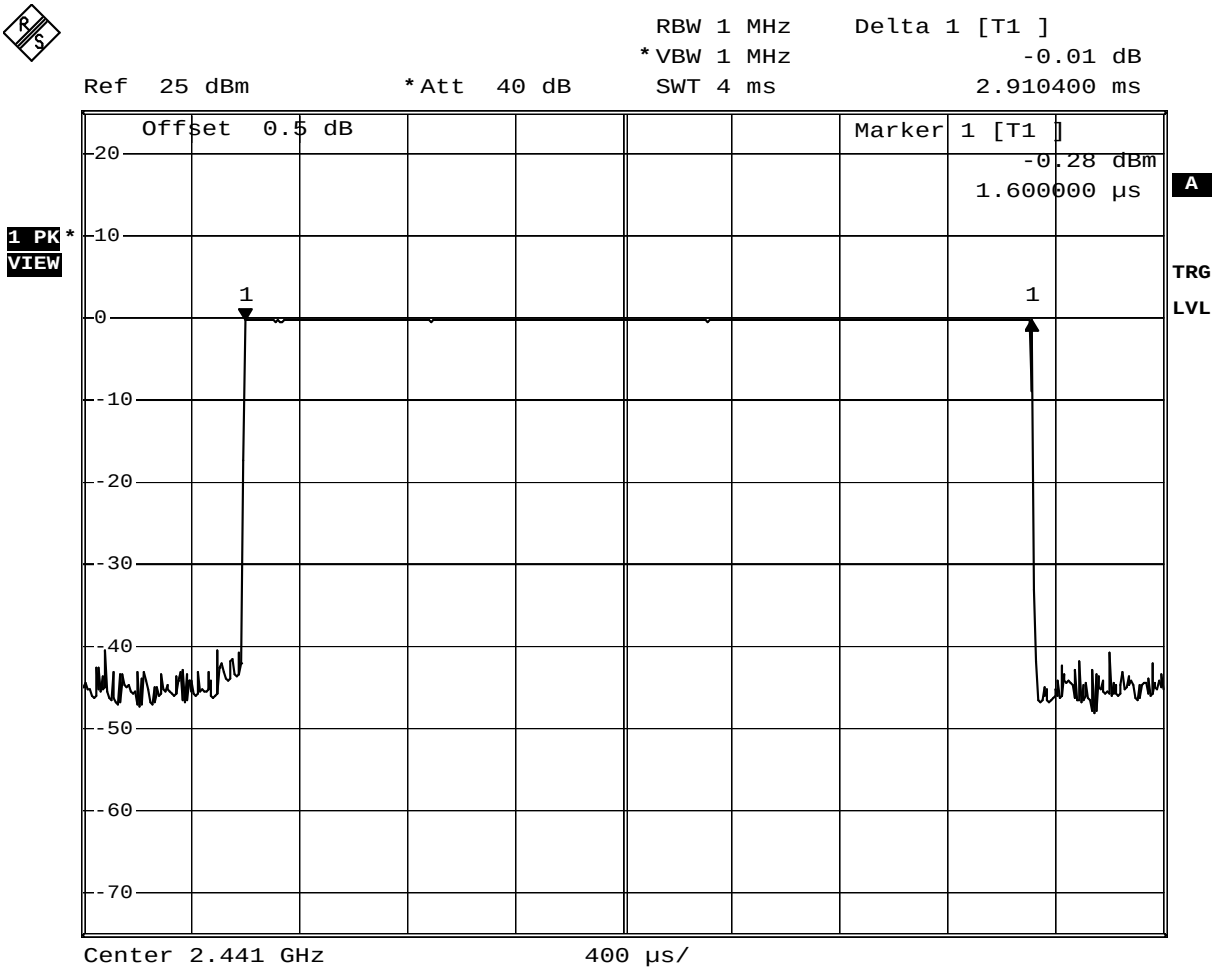


Comment: Limit: > two-thirds of the 20 dB bandwidth ; Result: Pass
Date: 19.MAR.2010 11:46:27

Annex F Time of occupancy

FCC part 15.247
Time of occupancy (dwell time)

EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(a)
Comment 1	Time of occupancy
Comment 2	Channel.: 39 / 2441 MHz (Hopping mode)
Comment 3	63 events * 2.9104 ms result: 183.3552 ms

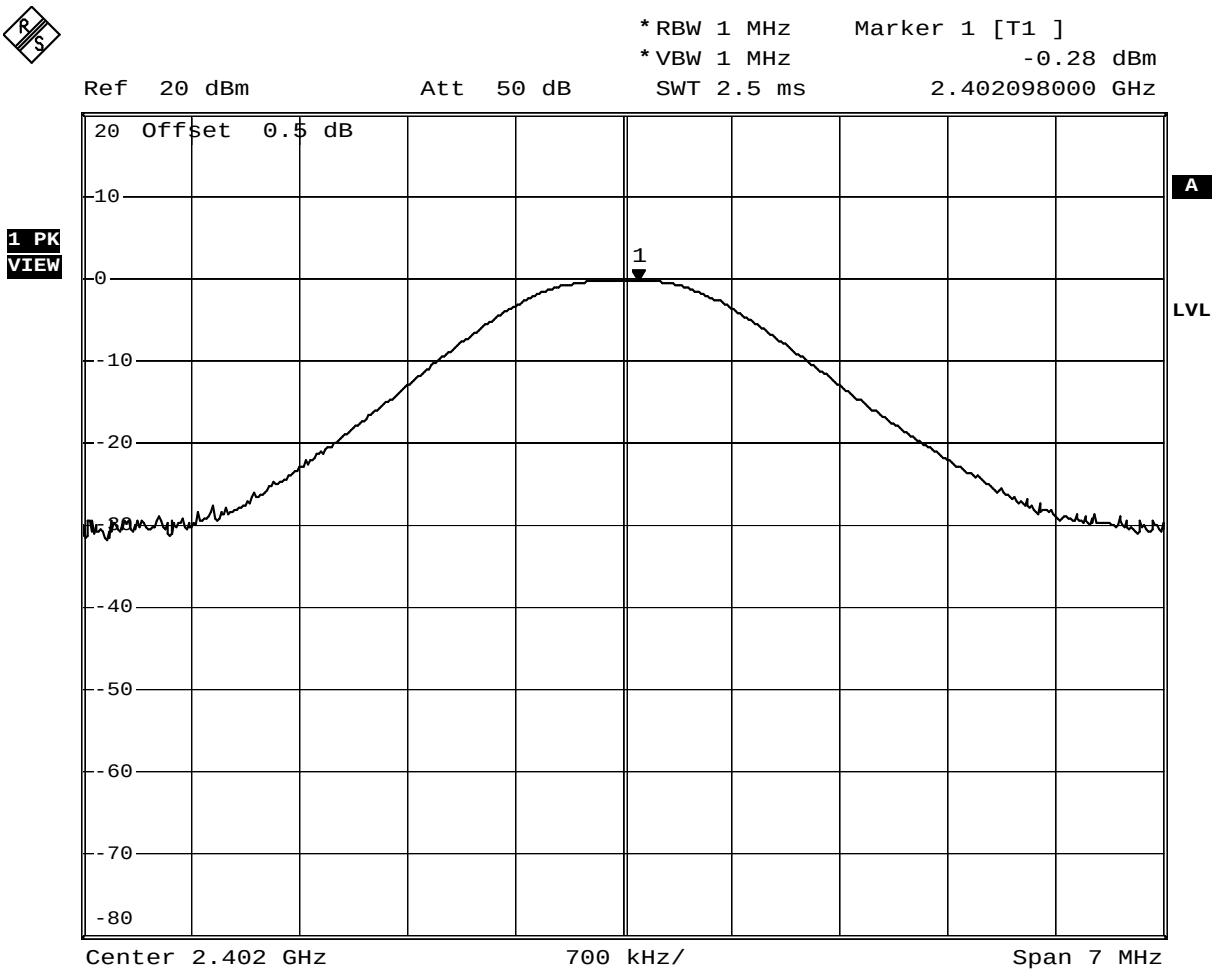


Comment: Burst length=2.9104 ms
Date: 19.MAR.2010 12:45:25

Annex G Conducted output power

FCC part 15.247
Peak output power conducted

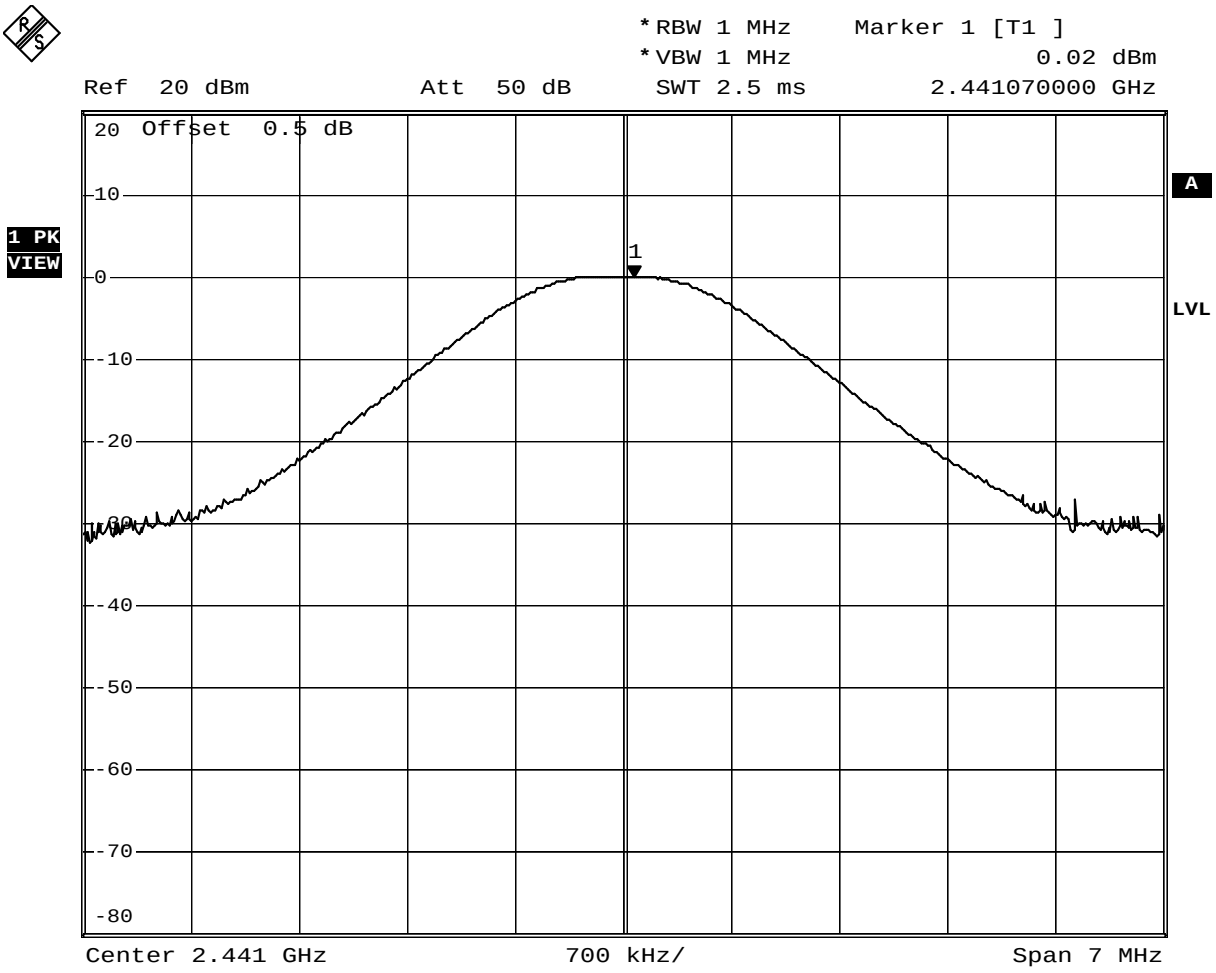
EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(b)
Comment 1	Peak output power
Comment 2	Channel.: 0 / 2402 MHz
Comment 3	



Comment: Output power=-0.28 dBm; verdict: PASS
Date: 19.MAR.2010 10:30:10

FCC part 15.247
Peak output power conducted

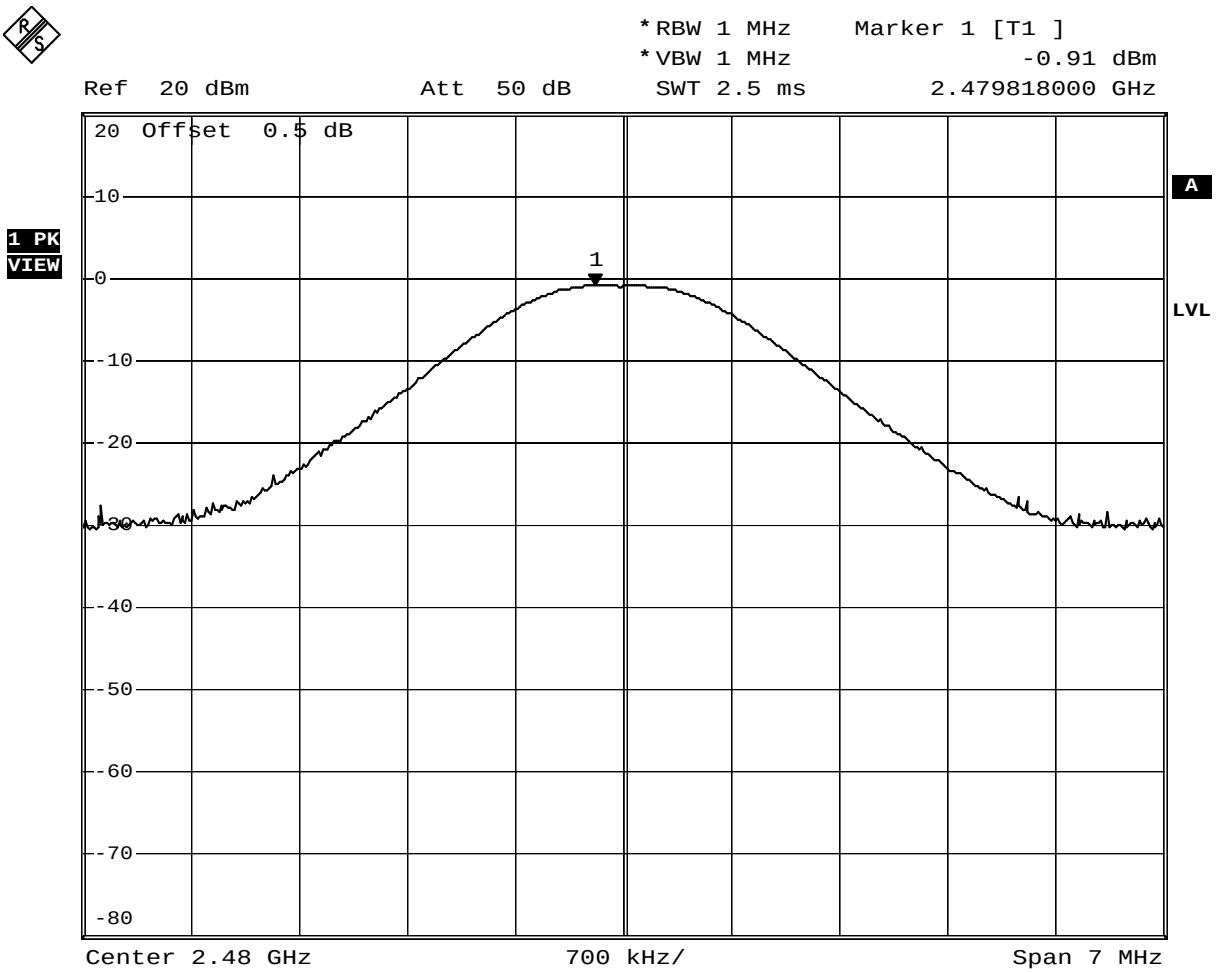
EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(b)
Comment 1	Peak output power
Comment 2	Channel.: 39 / 2441 MHz
Comment 3	



Comment: Output power=0.02 dBm; verdict: PASS
Date: 19.MAR.2010 11:03:59

FCC part 15.247
Peak output power conducted

EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(b)
Comment 1	Peak output power
Comment 2	Channel.: 78 / 2480 MHz
Comment 3	

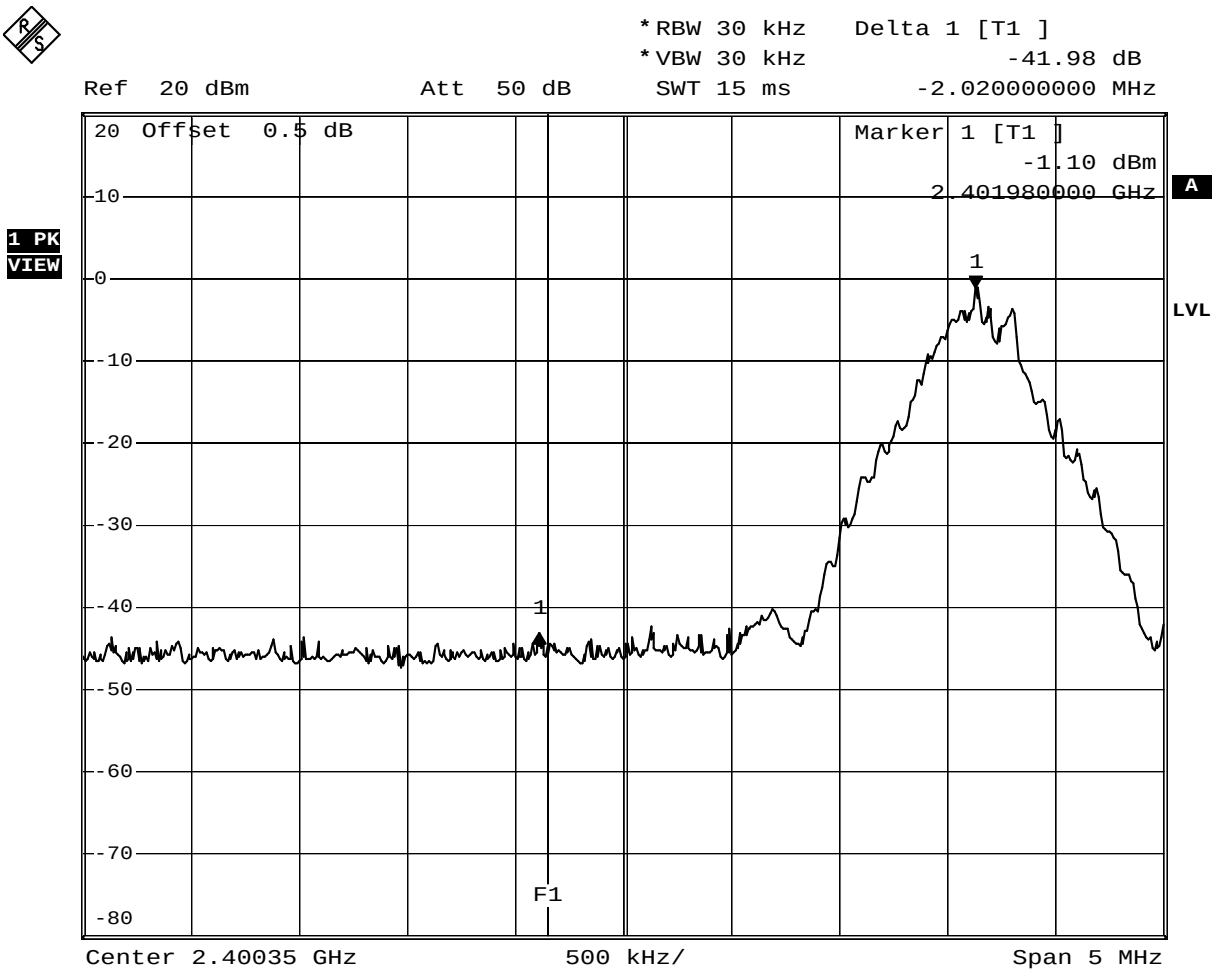


Comment: Output power=-0.91 dBm; verdict: PASS
Date: 19.MAR.2010 11:07:48

Annex H Transmitter band-edge compliance

FCC part 15.247
Band-edge compliance of RF conducted emissions

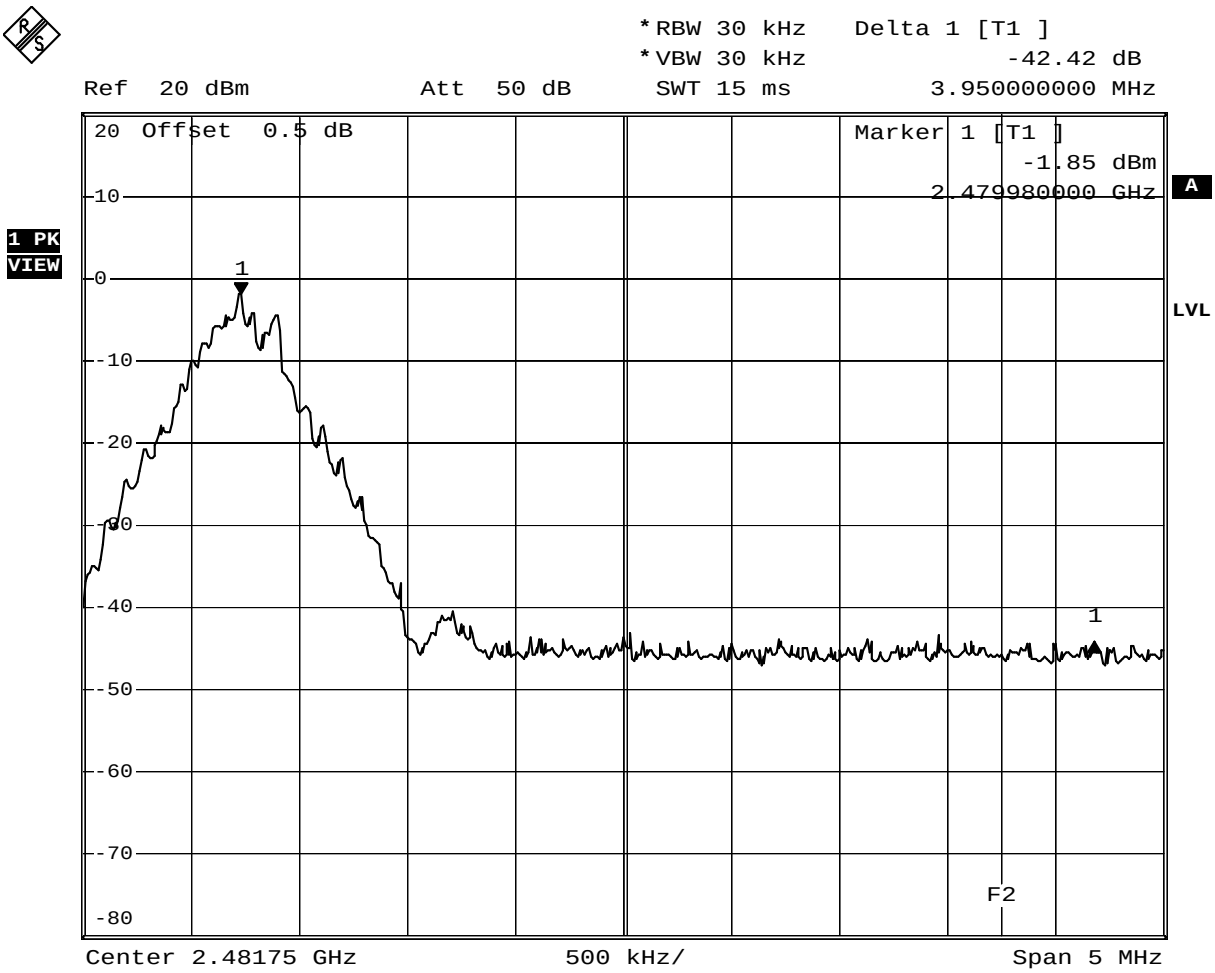
EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 0 / 2402 MHz
Comment 3	Single frequency mode



Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 19.MAR.2010 11:26:01

FCC part 15.247
Band-edge compliance of RF conducted emissions

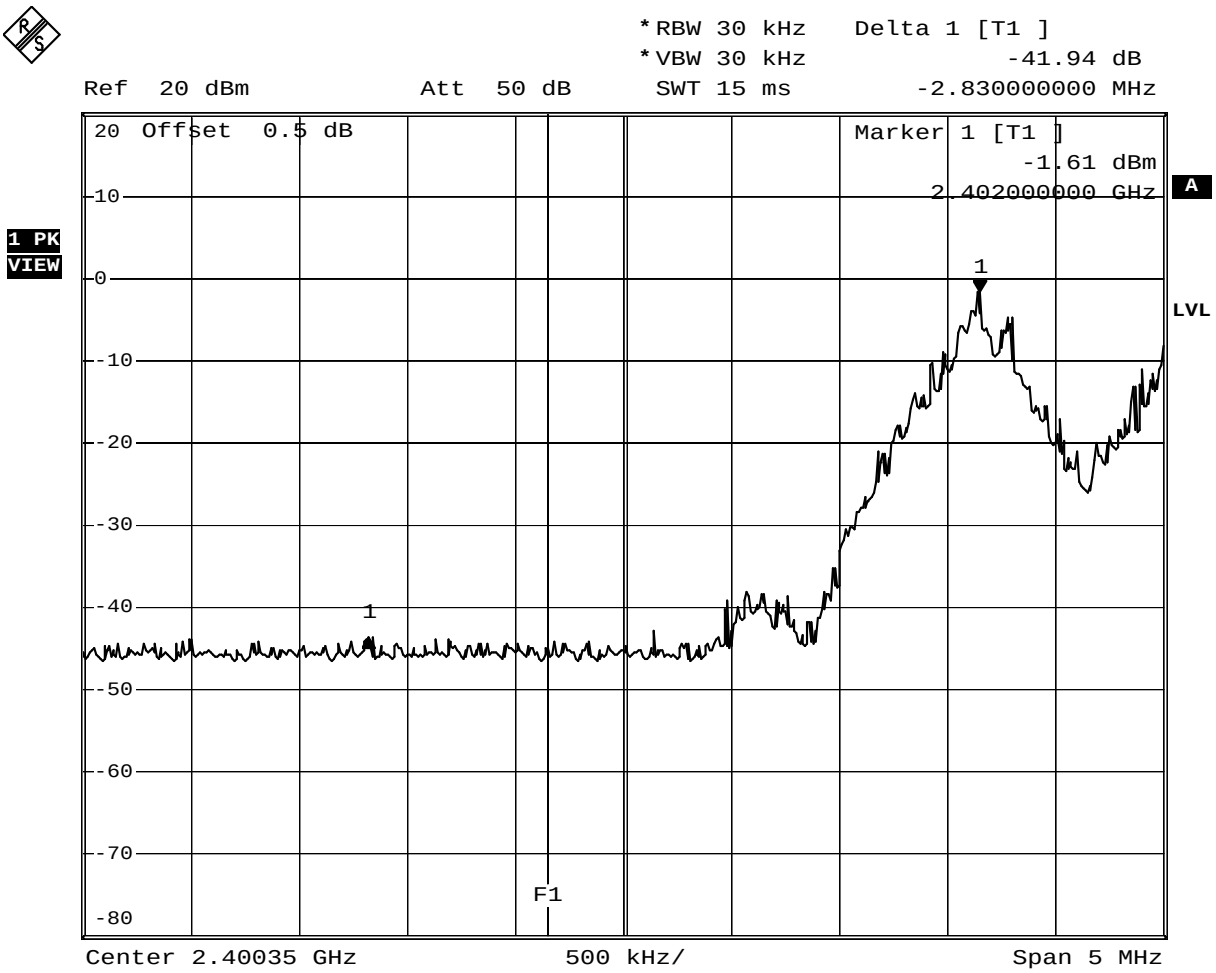
EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 78 / 2480 MHz
Comment 3	Single frequency mode




```
Comment: Limit: Marker Delta value >20 dB;  Result: PASS
Date:      19.MAR.2010  11:28:42
```

FCC part 15.247
Band-edge compliance of RF conducted emissions

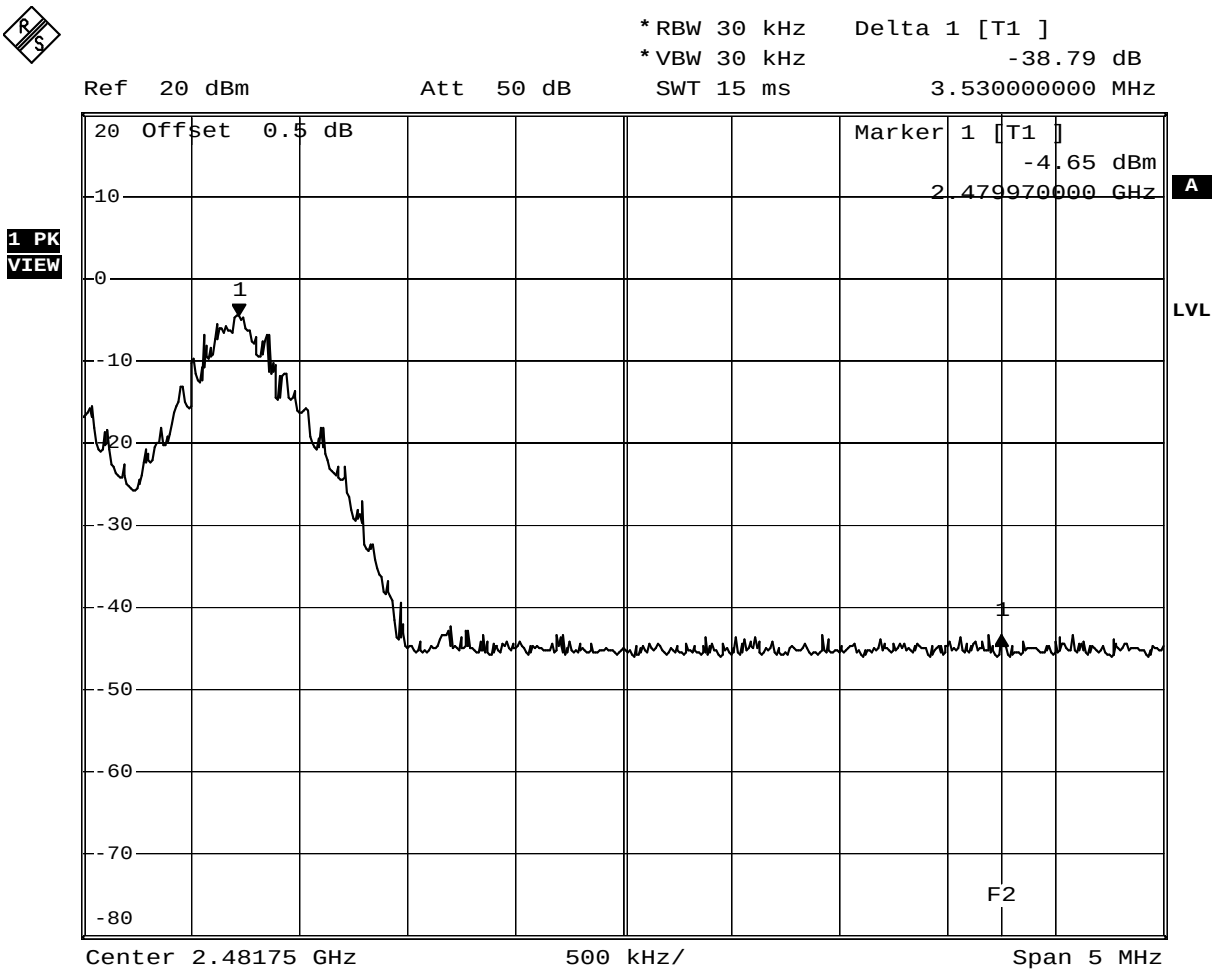
EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 0 / 2402 MHz
Comment 3	Hopping mode



Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 19.MAR.2010 11:34:29

FCC part 15.247
Band-edge compliance of RF conducted emissions

EUT	Car Radio with Bluetooth
Model	Renault R2 RPP
Approval Holder	Robert Bosch Car Multimedia GmbH
Temperature / Voltage	23°C / Vnom = 13,5 V DC
Test Site / Operator	Eurofins Product Service GmbH / Mr. Pudell
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 78 / 2480 MHz
Comment 3	Hopping mode

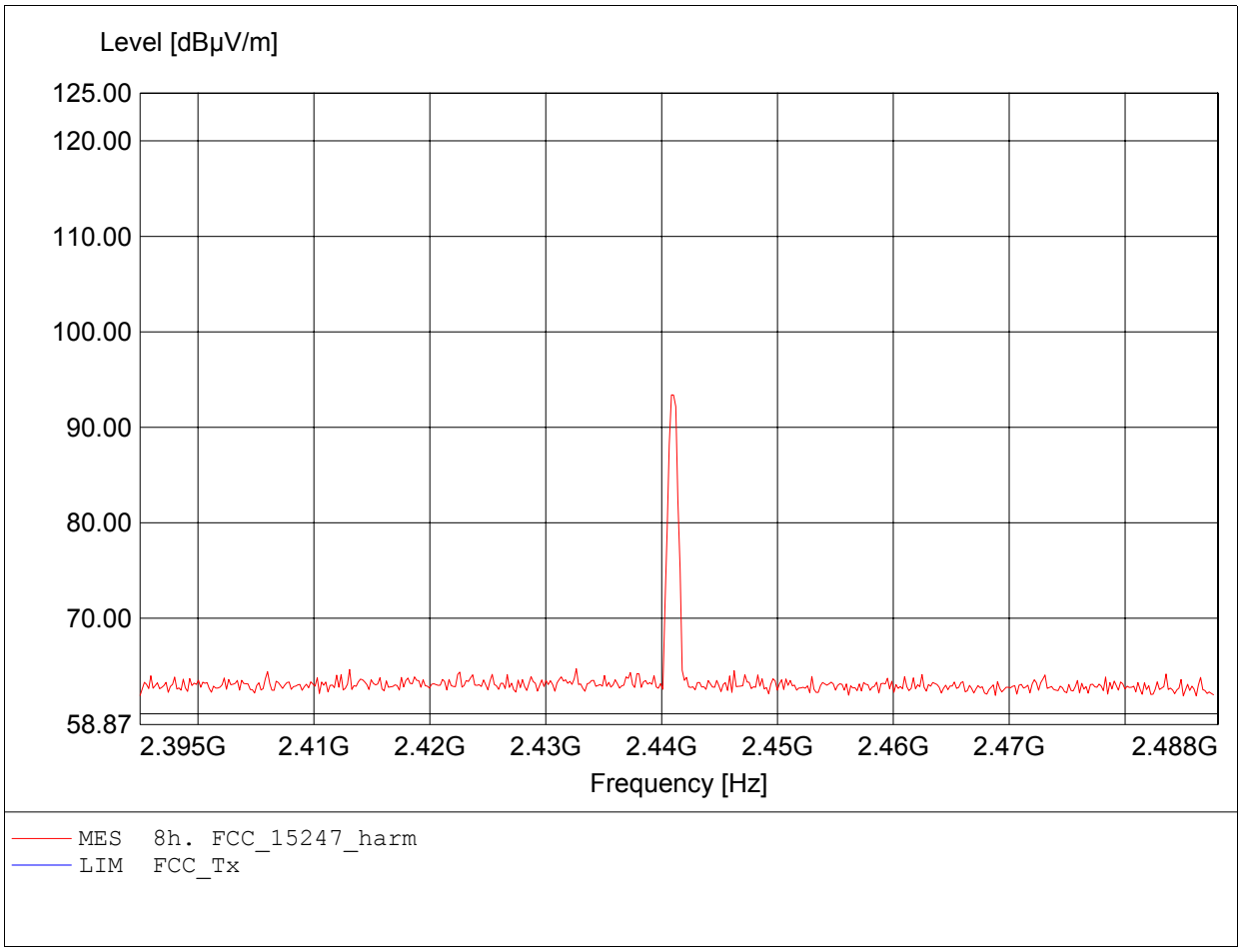


Comment: Limit: Marker Delta value >20 dB; Result: PASS
Date: 19.MAR.2010 11:37:48

Annex I Transmitter spurious emissions

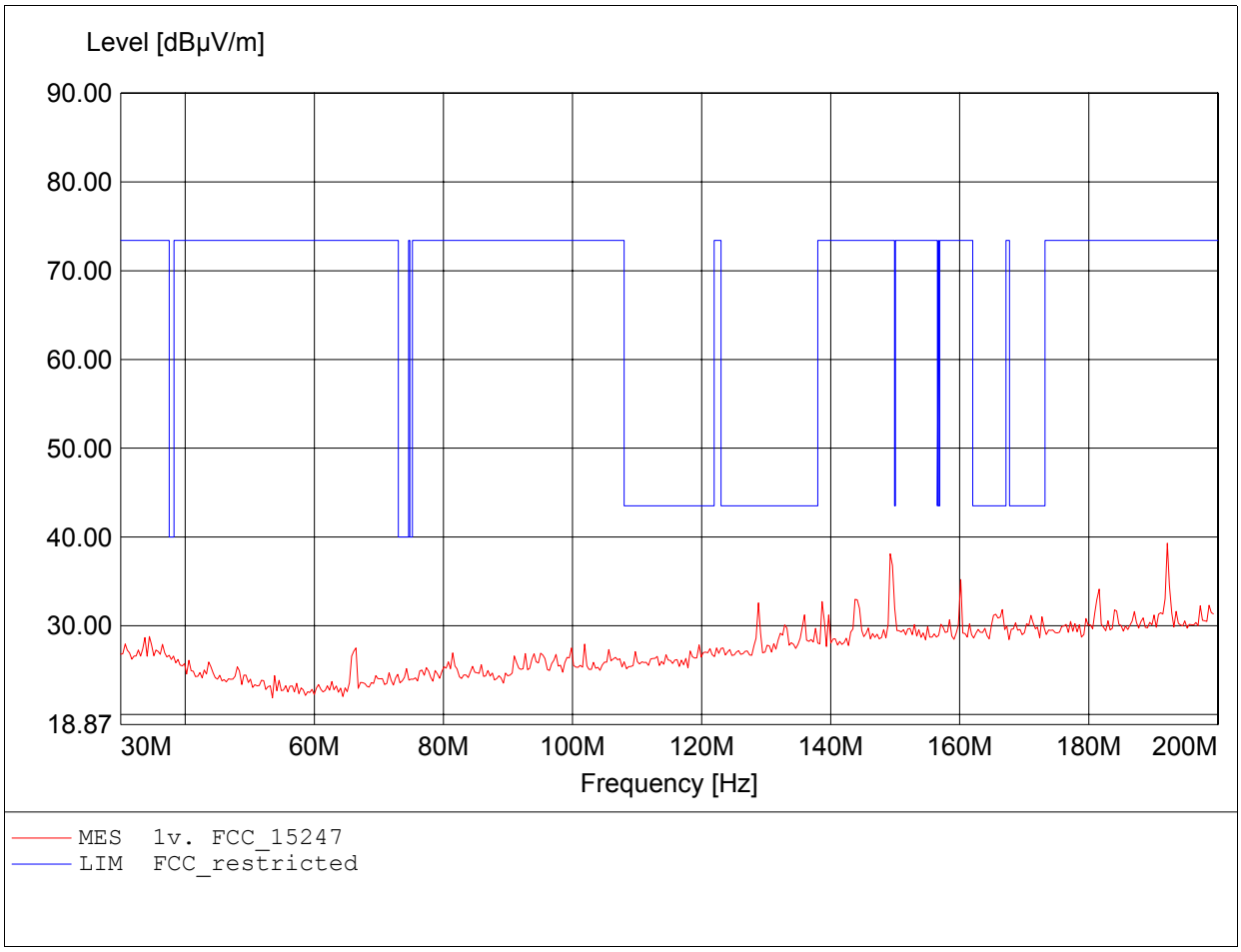
Carrier power (Field Strength)
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HL 025
Comment 2:	Freq: 2.441GHz, Emax: 93.41dBµV/m, RBW: 100kHz



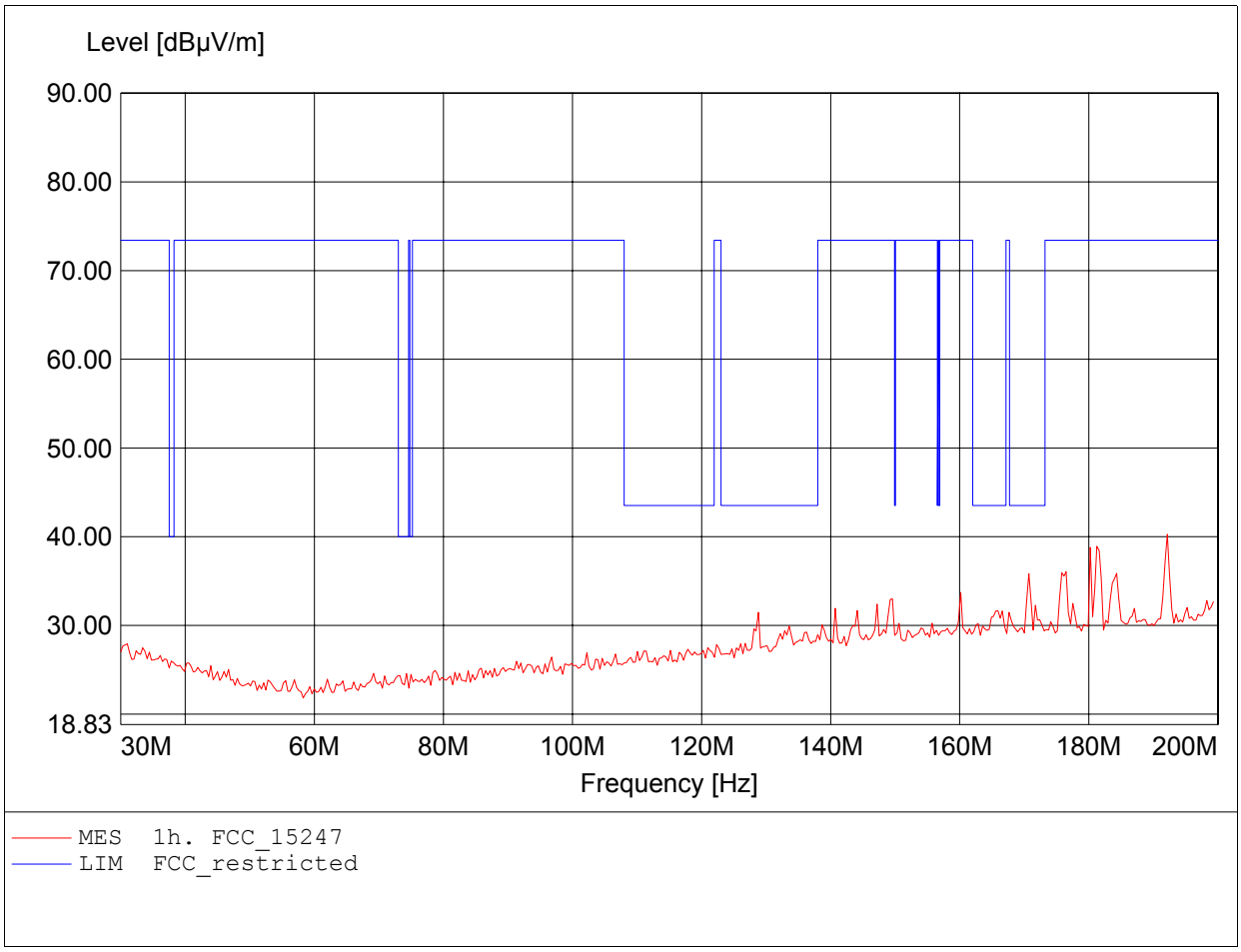
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HK 116
Comment 2:	Freq: 192.164MHz, Emax: 39.30dBµV/m, RBW: 100kHz



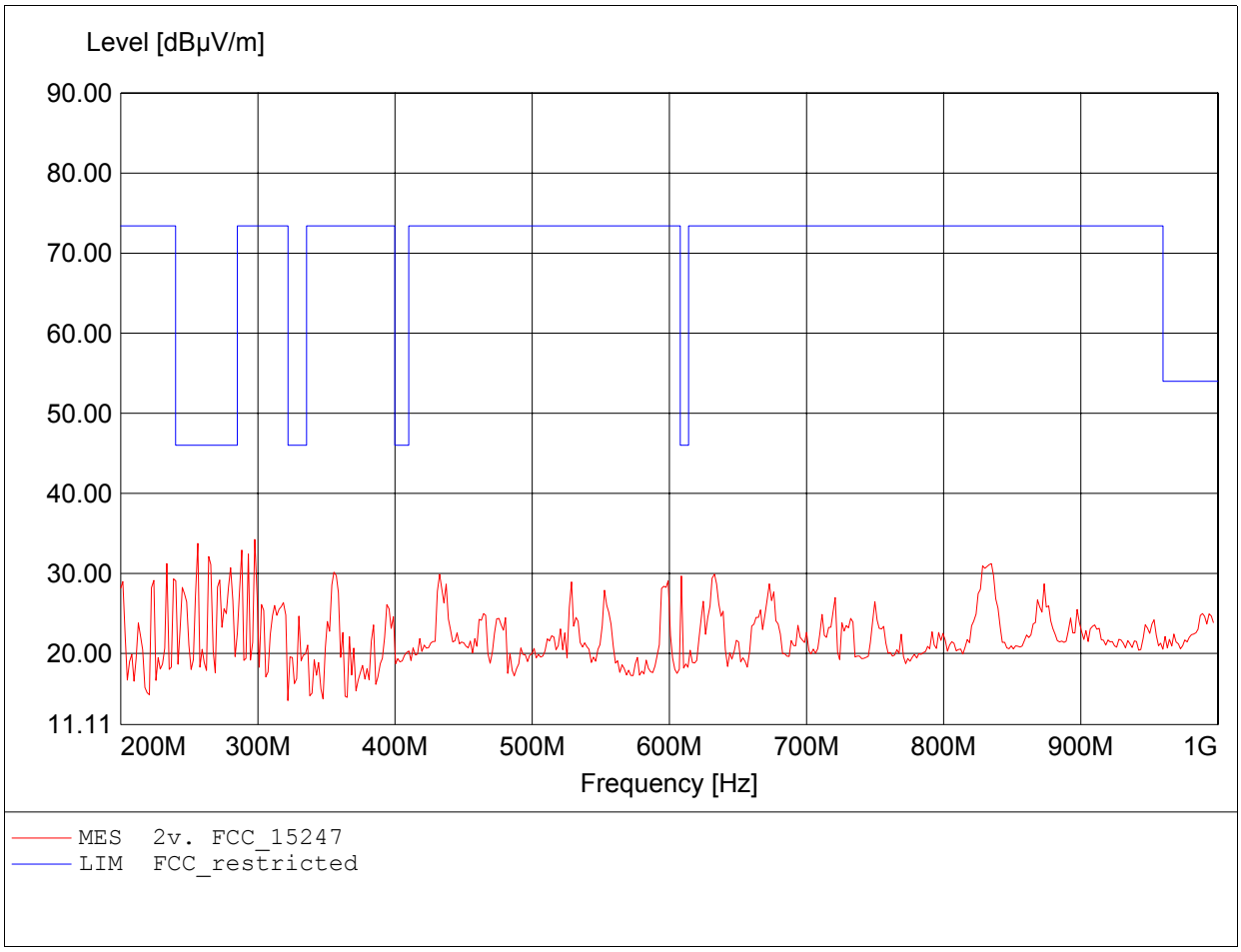
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HK 116
Comment 2:	Freq: 192.164MHz, Emax: 40.27dBµV/m, RBW: 100kHz



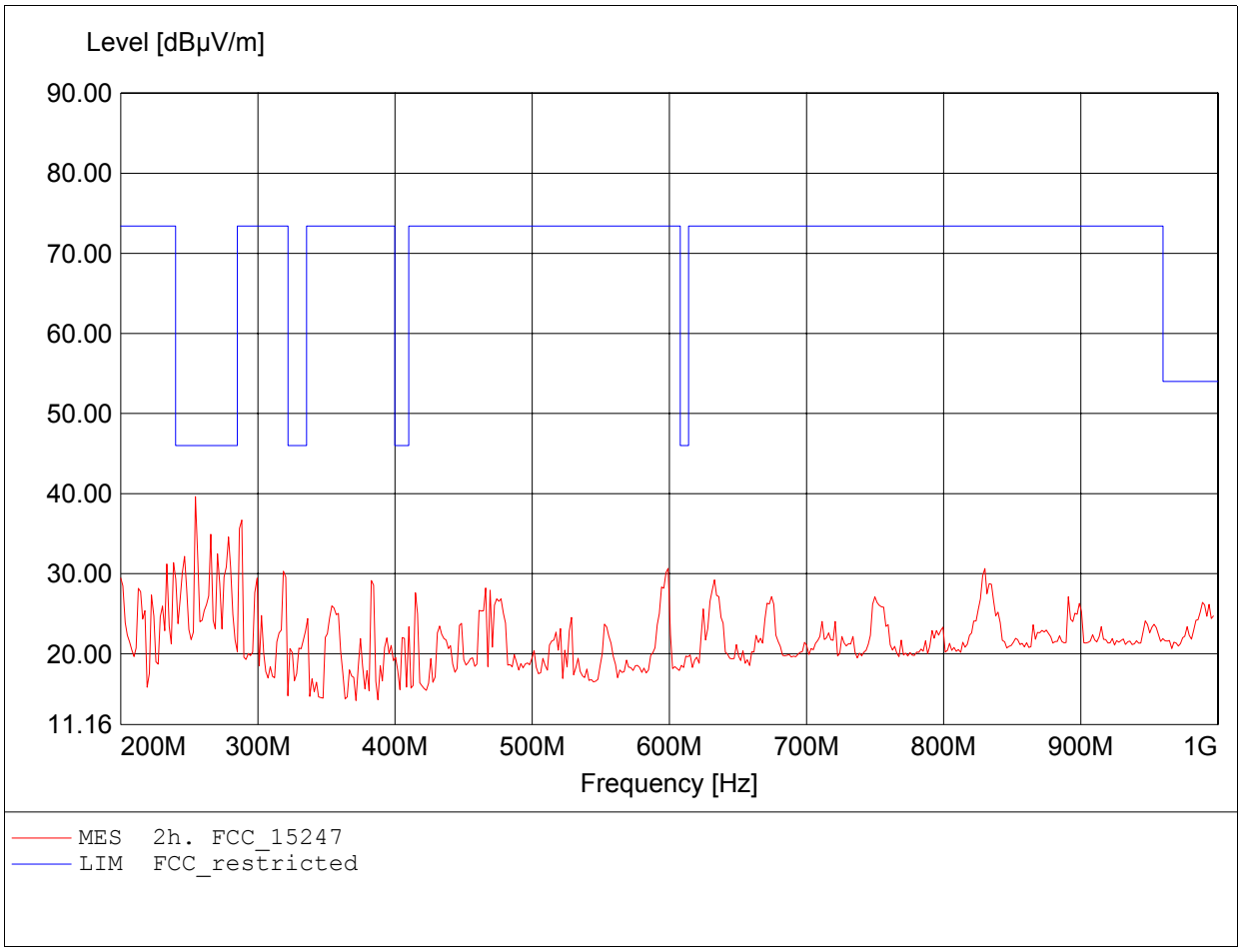
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.
Comment 2:	Freq: 297.796MHz, Emax: 34.24dBµV/m, RBW: 100kHz



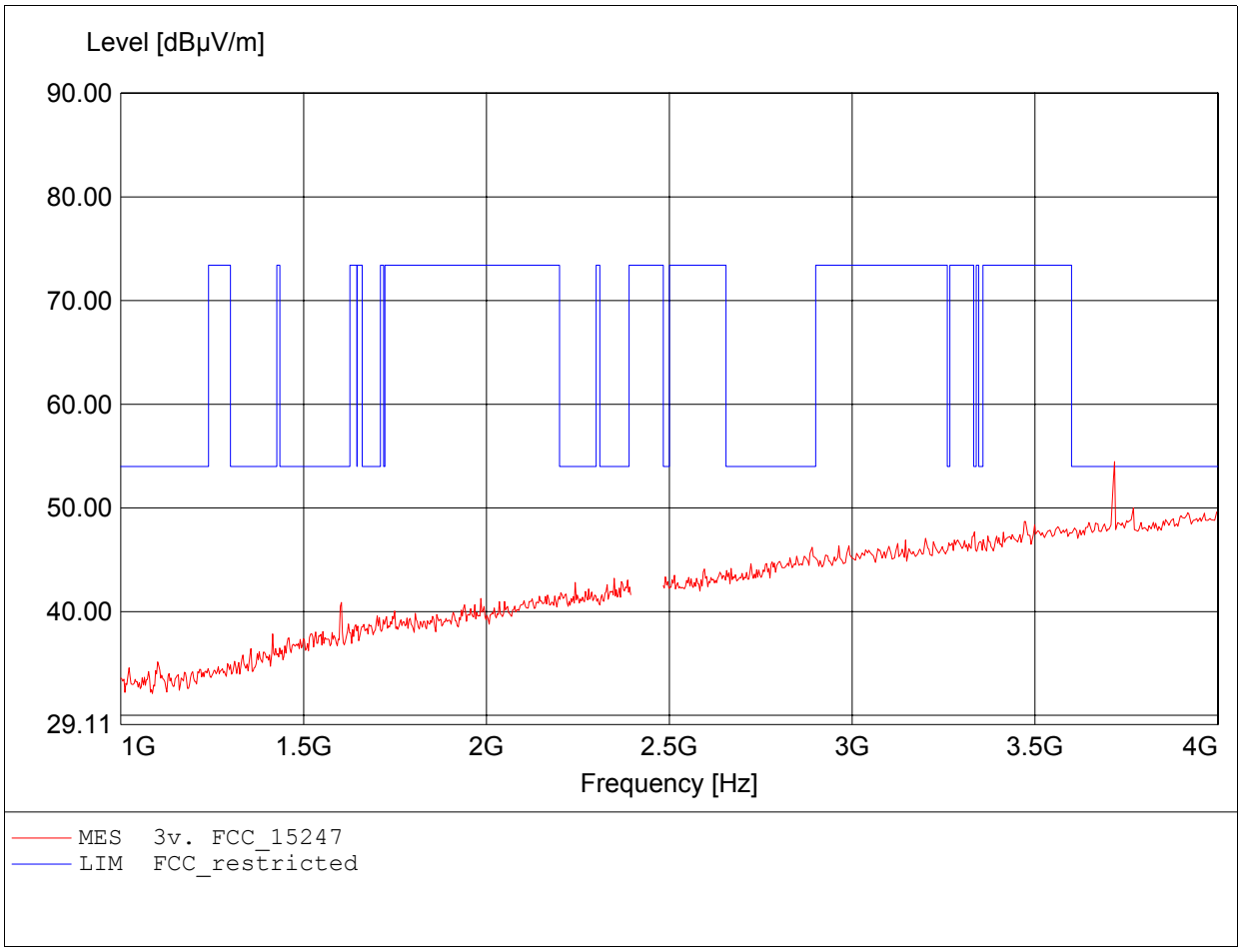
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.
Comment 2:	Freq: 254.509MHz, Emax: 39.63dBµV/m, RBW: 100kHz



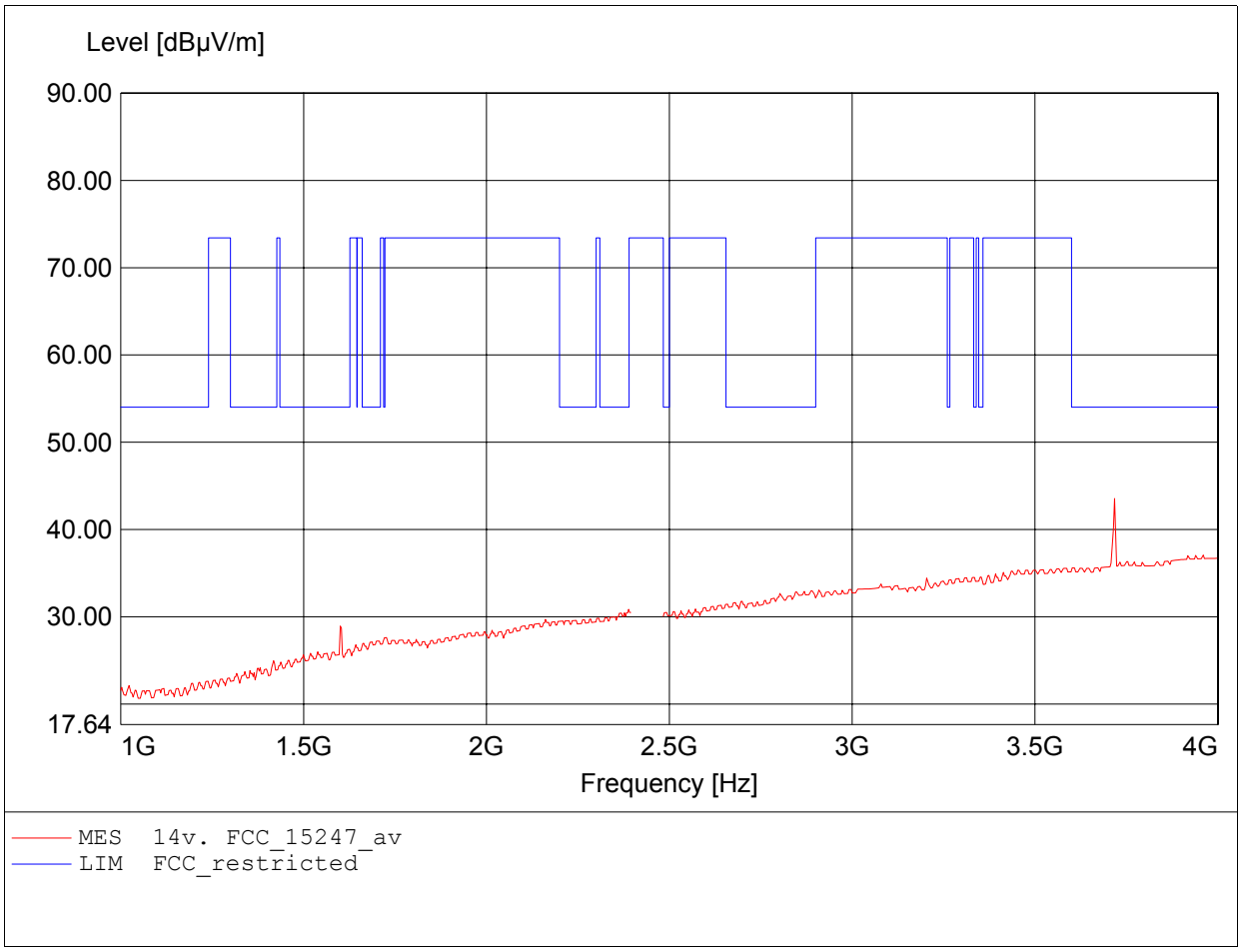
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 3.717GHz, Emax: 54.47dBµV/m, RBW: 1MHz



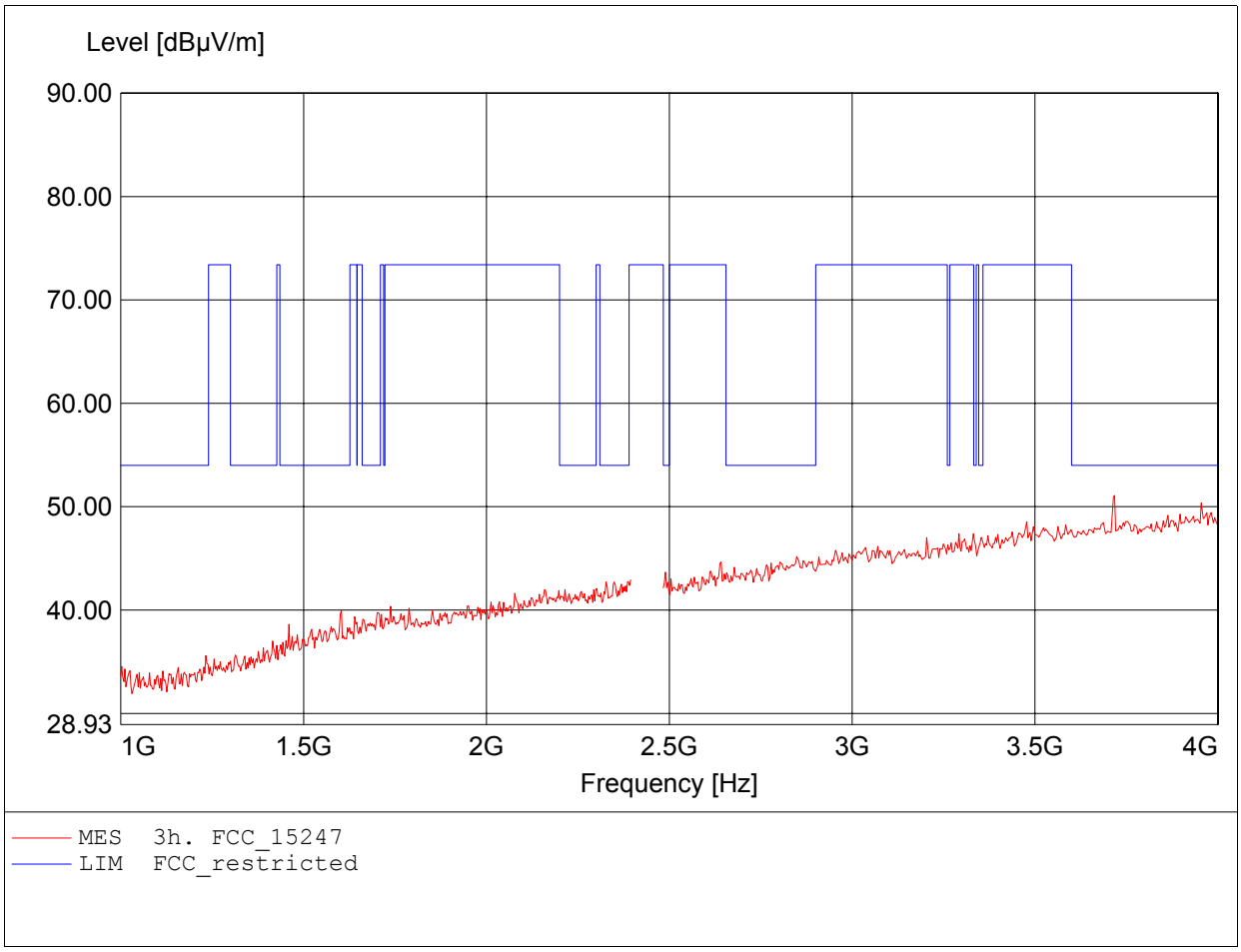
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, average detector
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 3.717GHz, Emax: 43.55dBµV/m, RBW: 1MHz



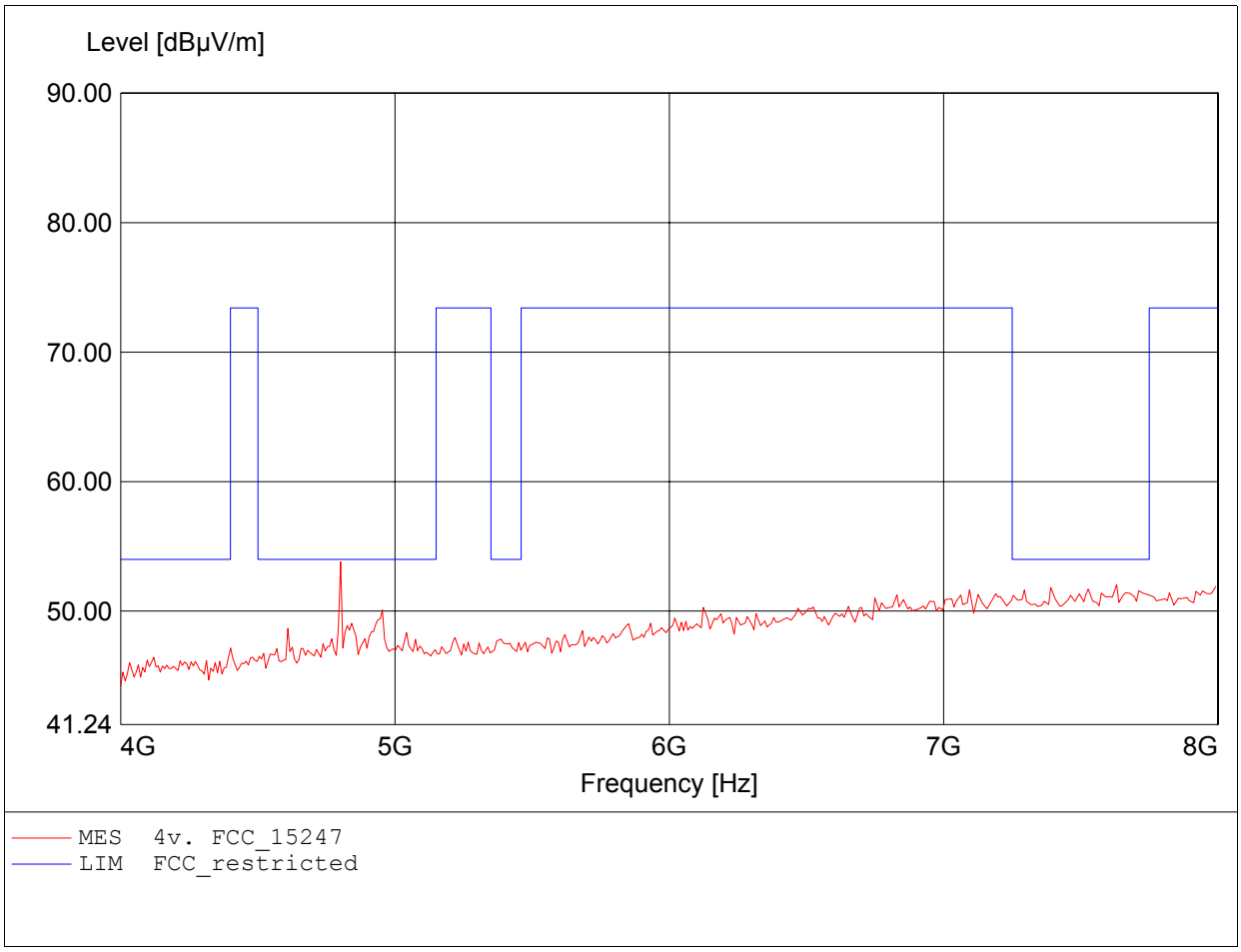
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 3.717GHz, Emax: 51.09dBµV/m, RBW: 1MHz



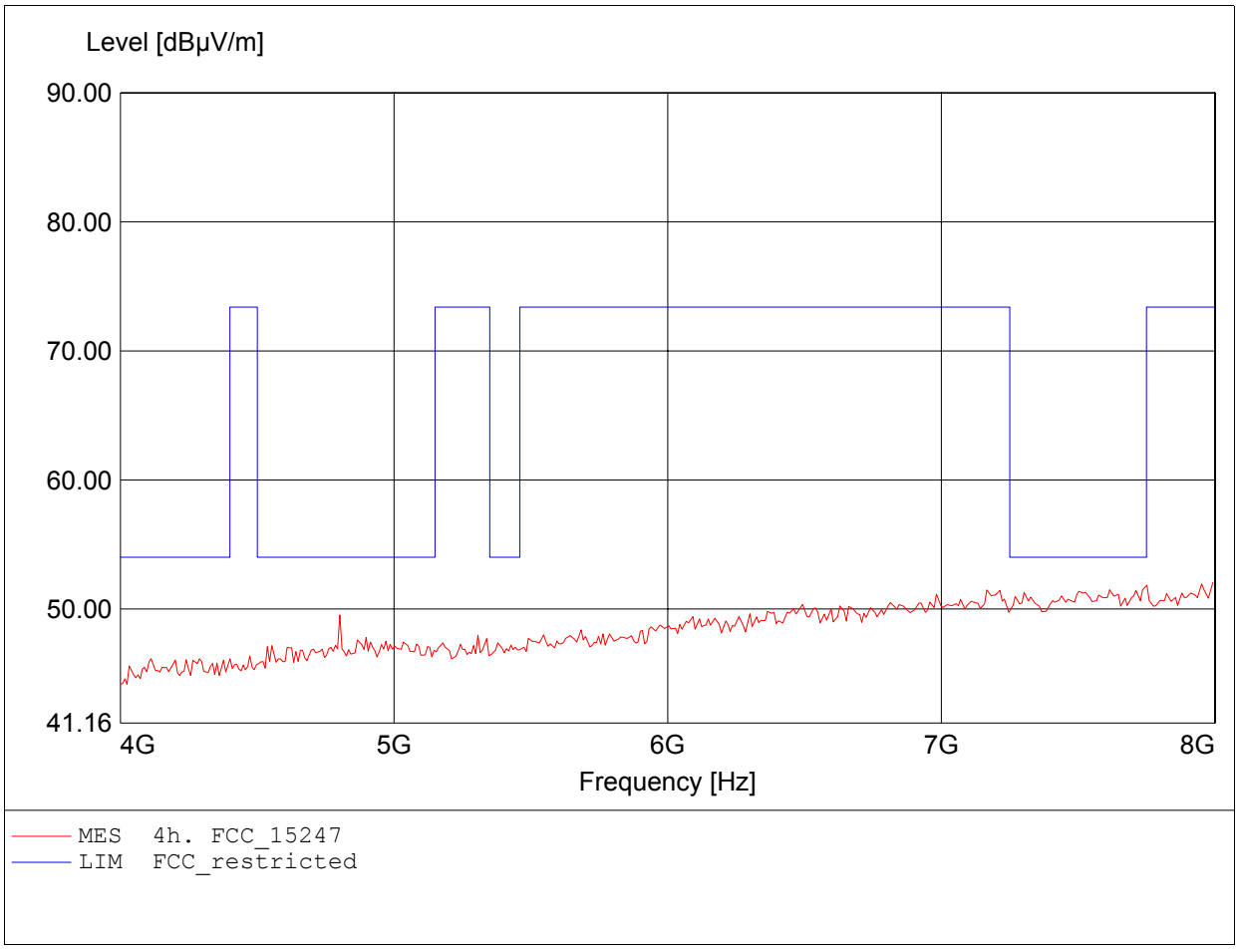
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 4.802GHz, Emax: 53.82dBµV/m, RBW: 1MHz



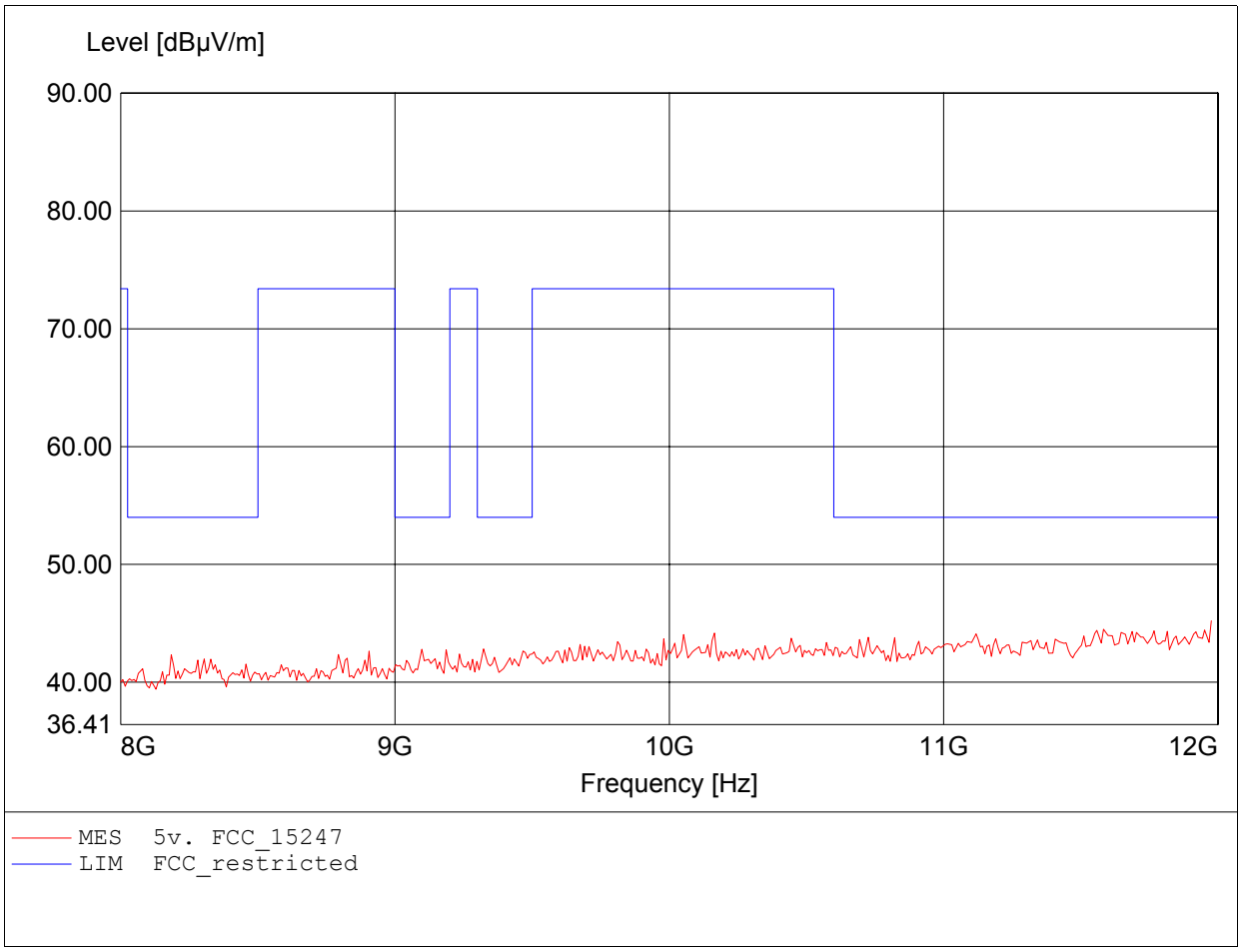
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 7.992GHz, Emax: 52.06dBµV/m, RBW: 1MHz



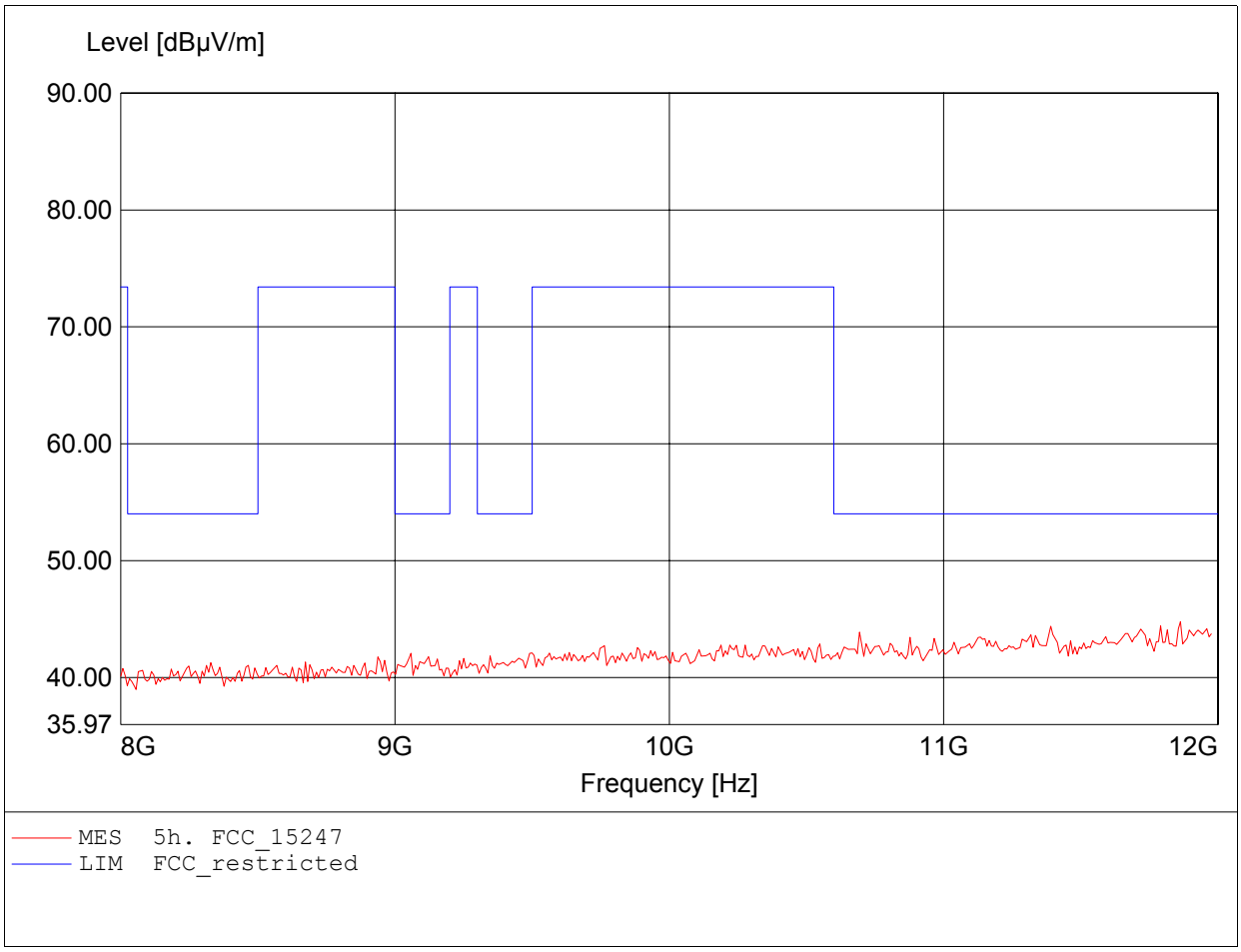
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 11.976GHz, Emax: 45.21dBµV/m, RBW: 1MHz



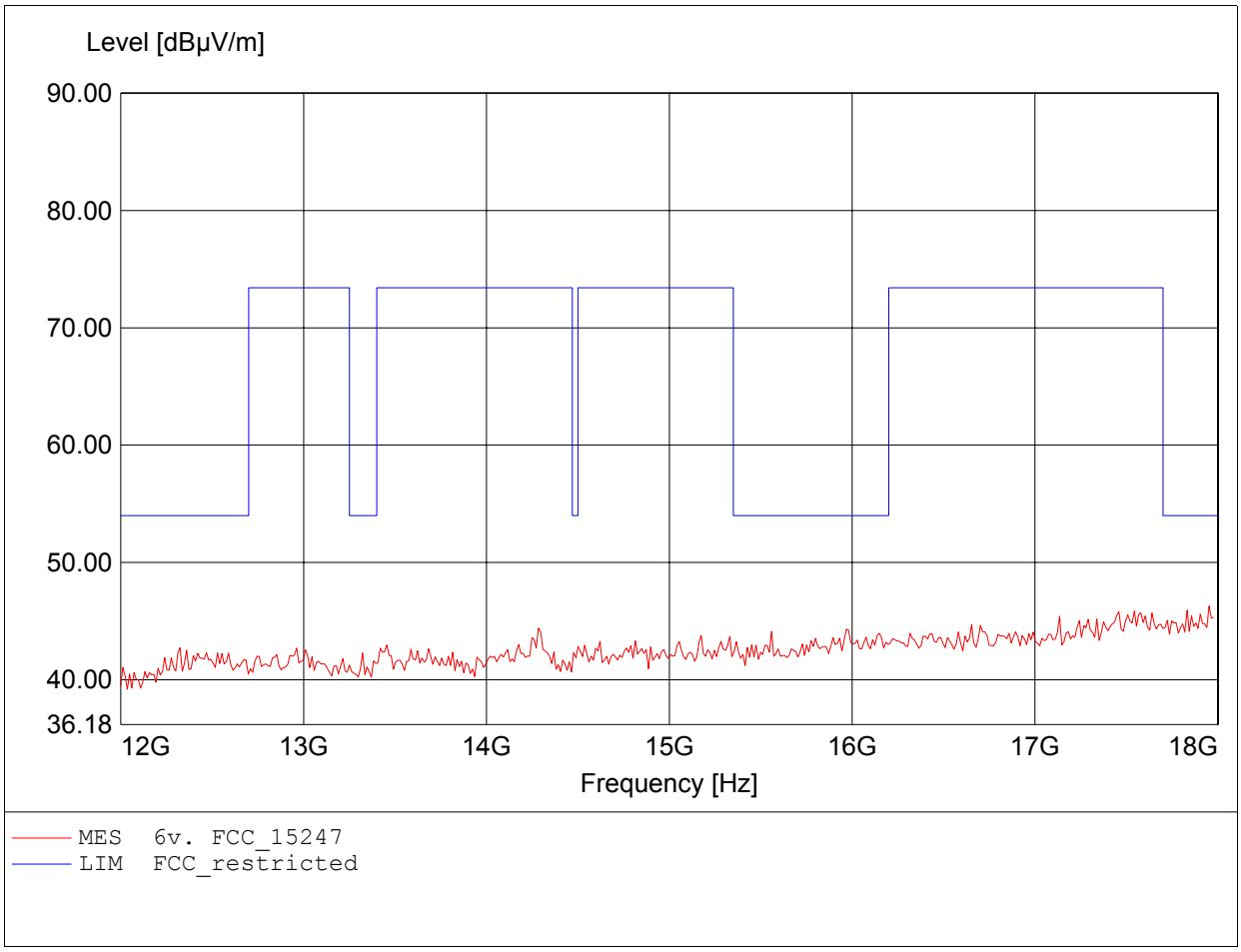
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 11.864GHz, Emax: 44.78dBµV/m, RBW: 1MHz



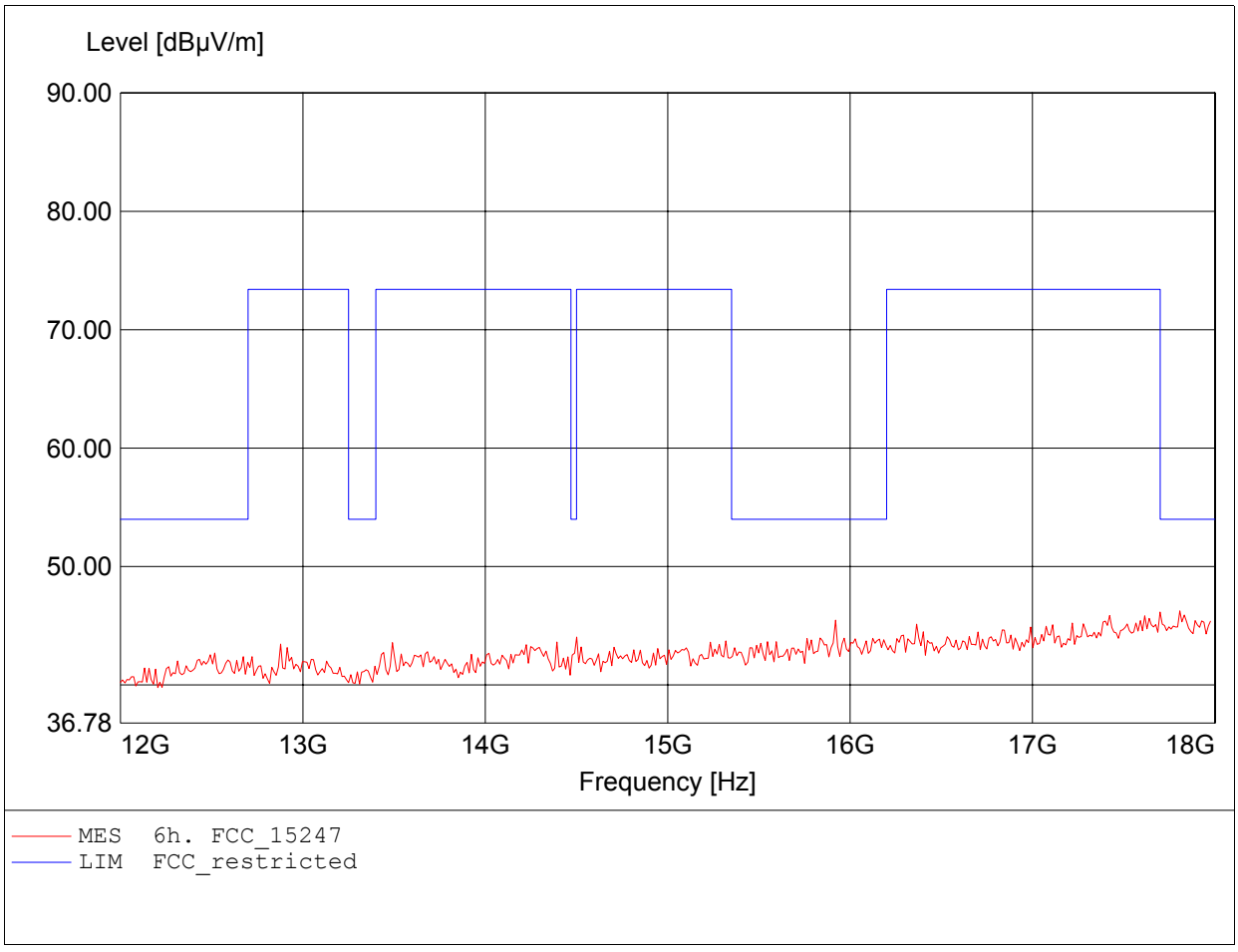
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 17.952GHz, Emax: 46.29dBµV/m, RBW: 1MHz



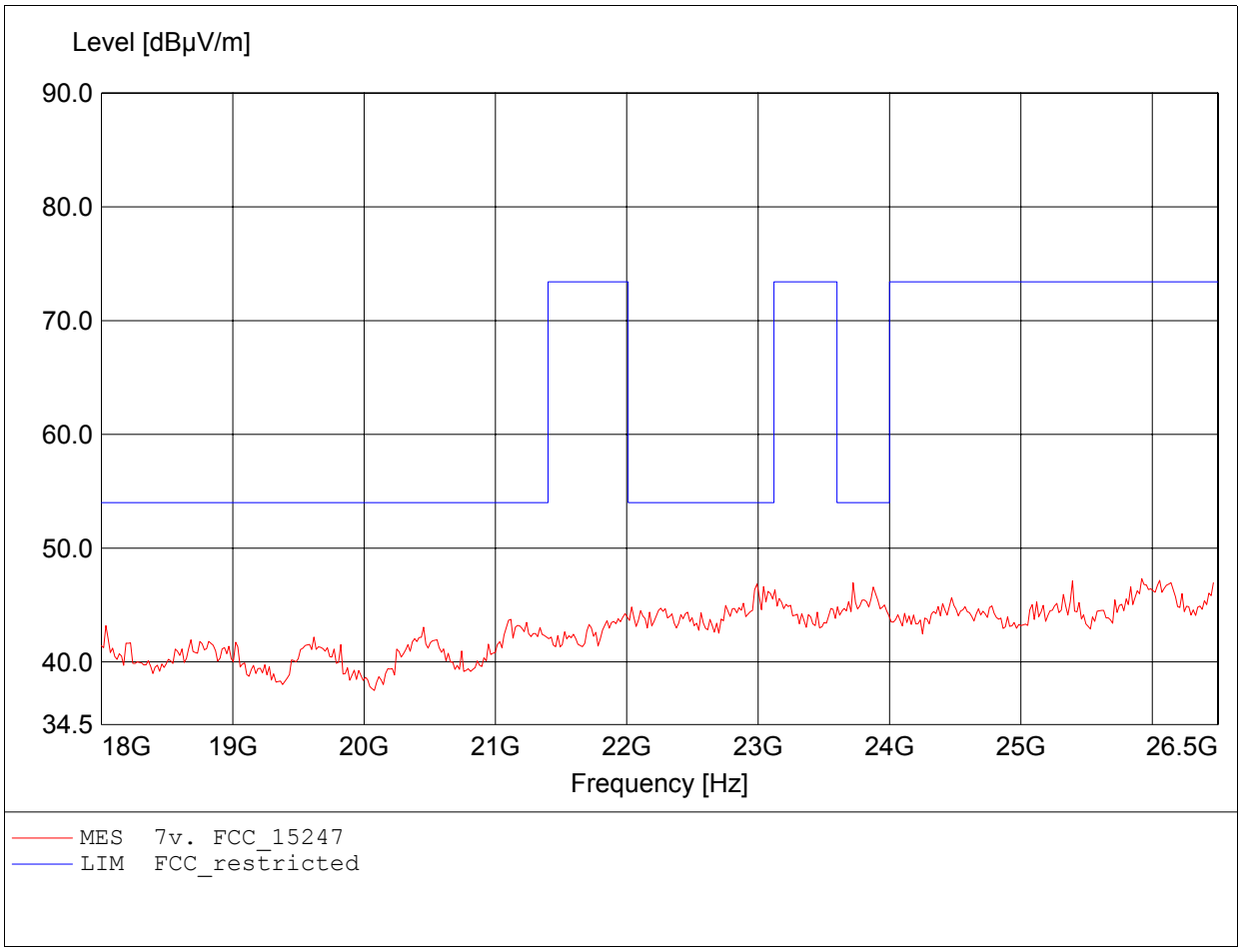
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 17.808GHz, Emax: 46.26dBµV/m, RBW: 1MHz



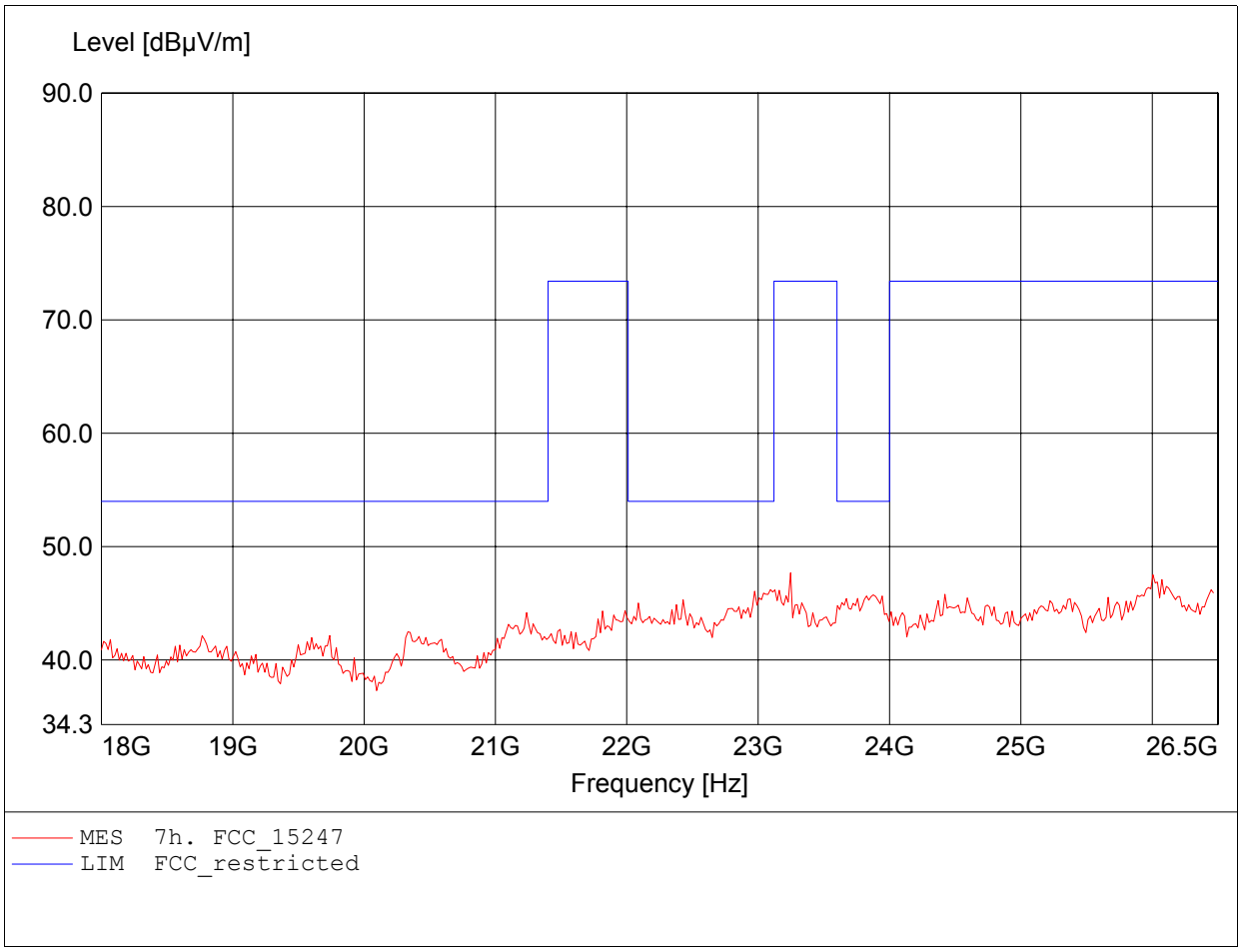
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.
Comment 2:	Freq: 25.921GHz, Emax: 47.34dBµV/m, RBW: 1MHz



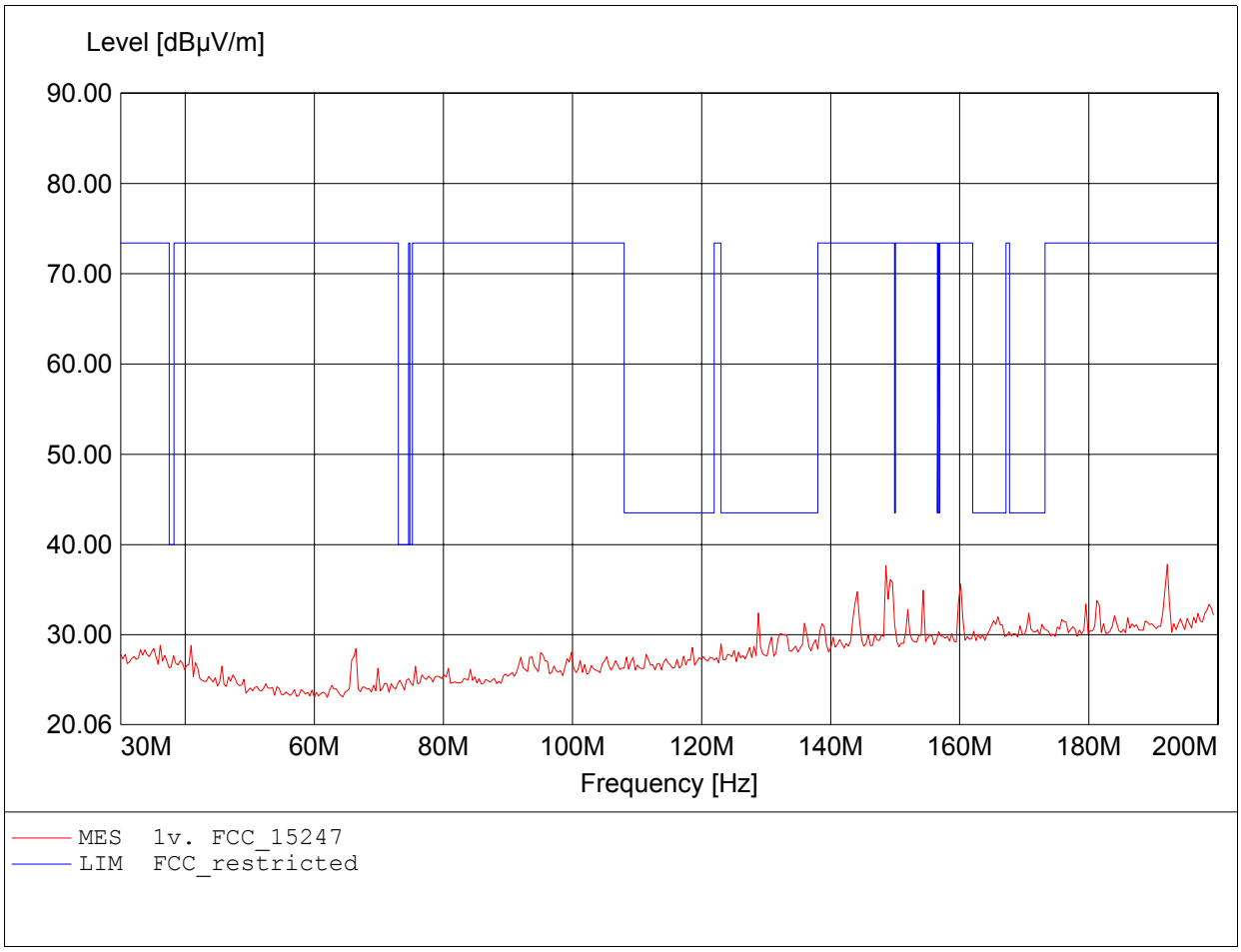
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2402 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.
Comment 2:	Freq: 23.246GHz, Emax: 47.69dBµV/m, RBW: 1MHz



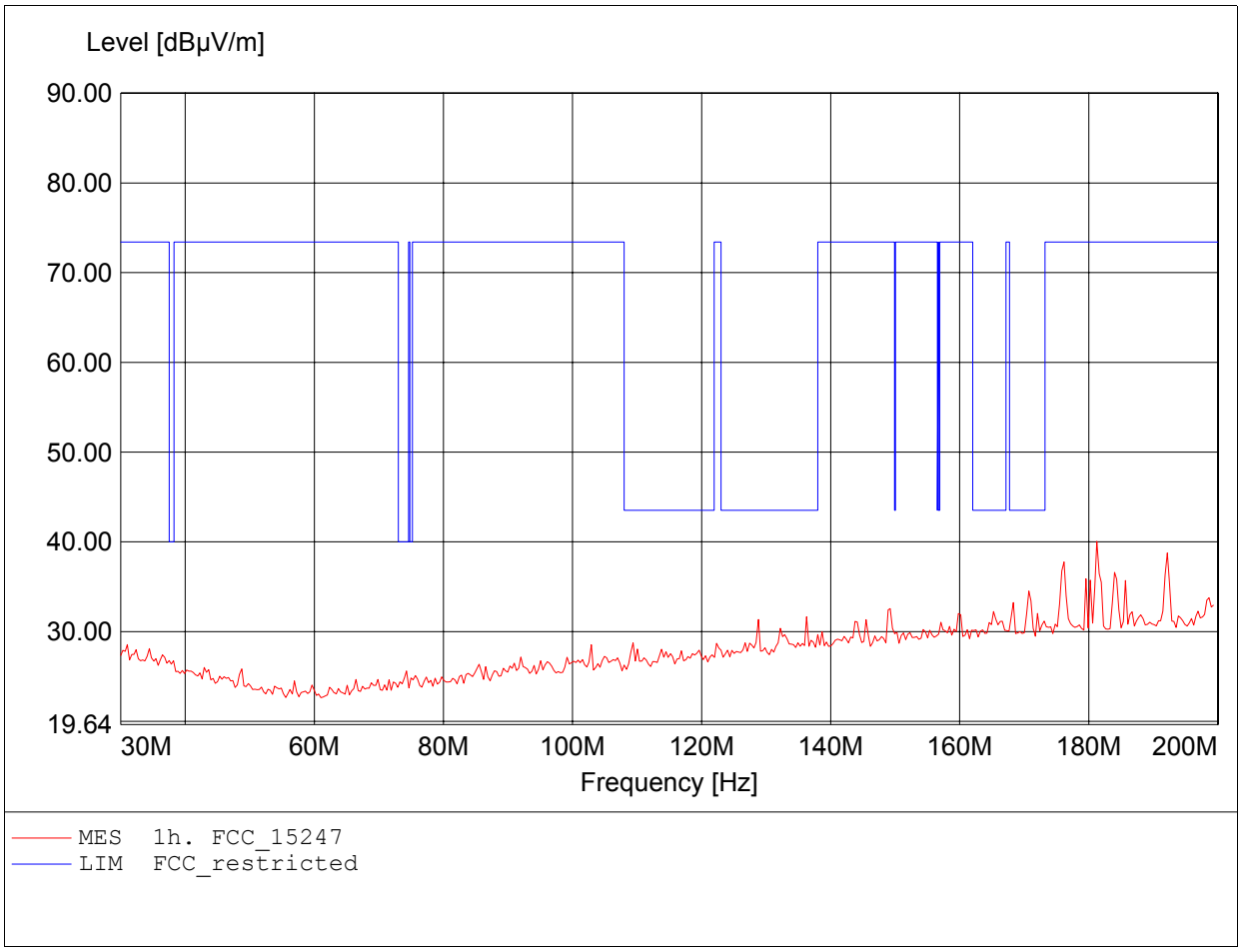
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HK 116
Comment 2:	Freq: 192.164MHz, Emax: 37.81dBµV/m, RBW: 100kHz



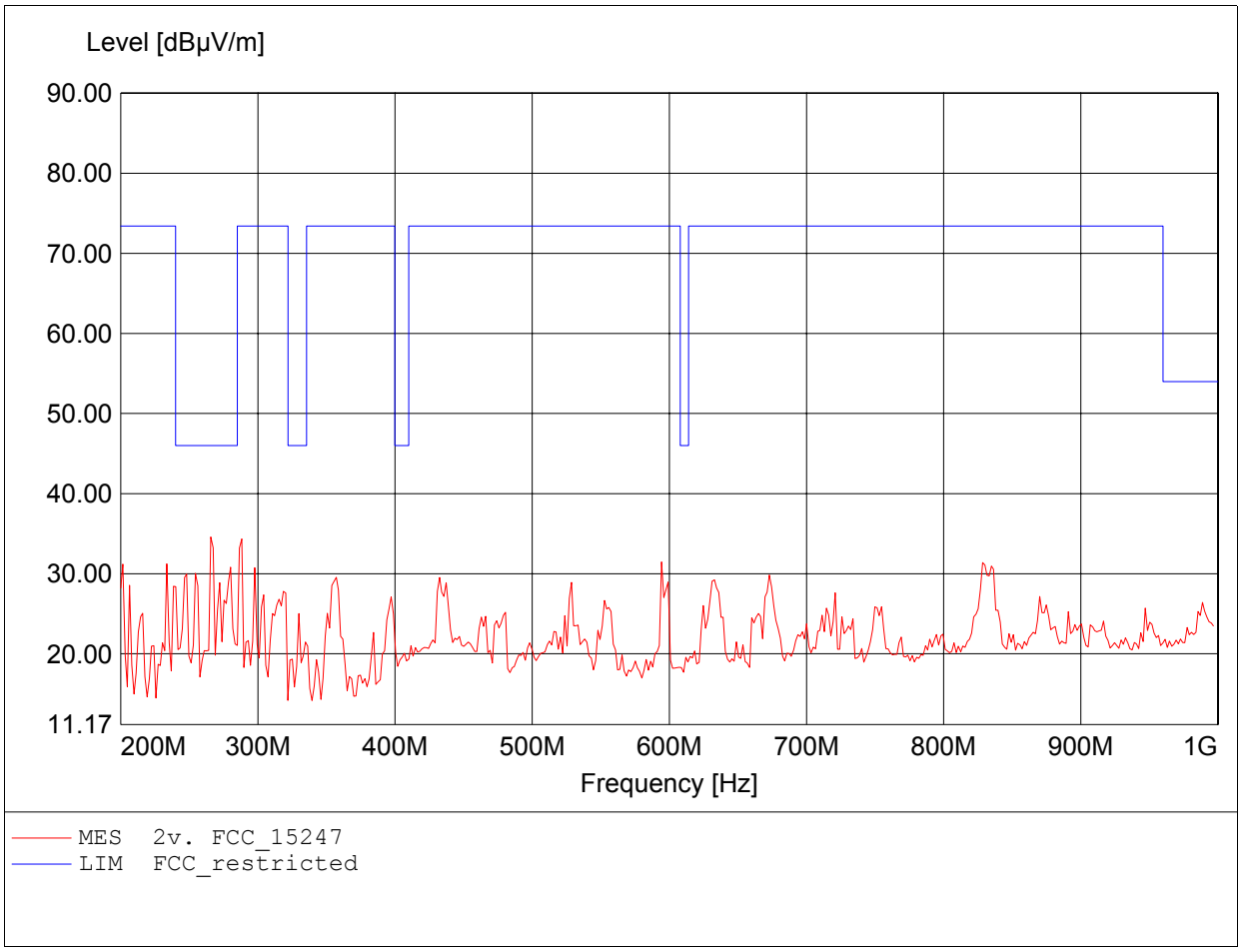
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HK 116
Comment 2:	Freq: 181.263MHz, Emax: 40.05dBµV/m, RBW: 100kHz



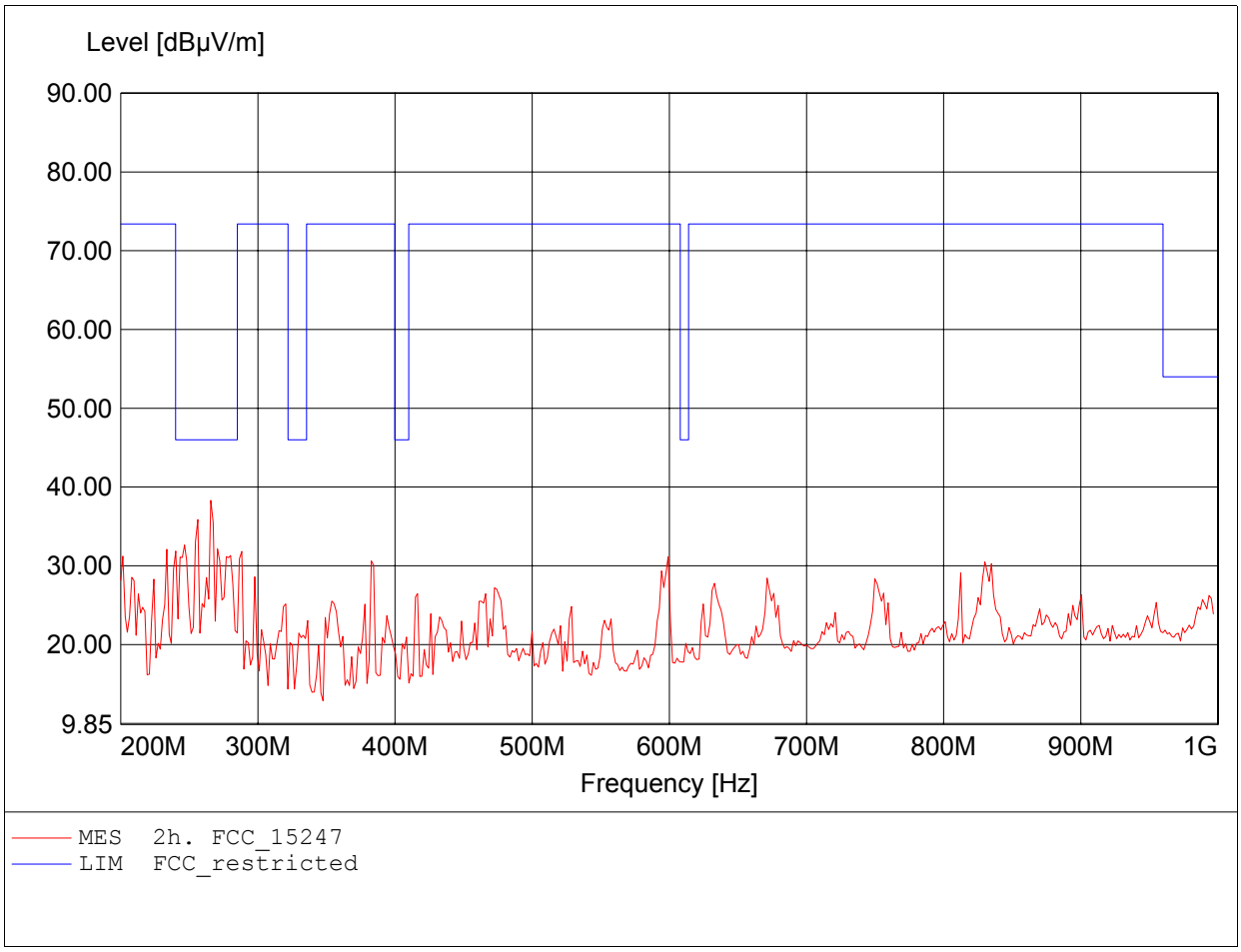
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.
Comment 2:	Freq: 265.731MHz, Emax: 34.59dBµV/m, RBW: 100kHz



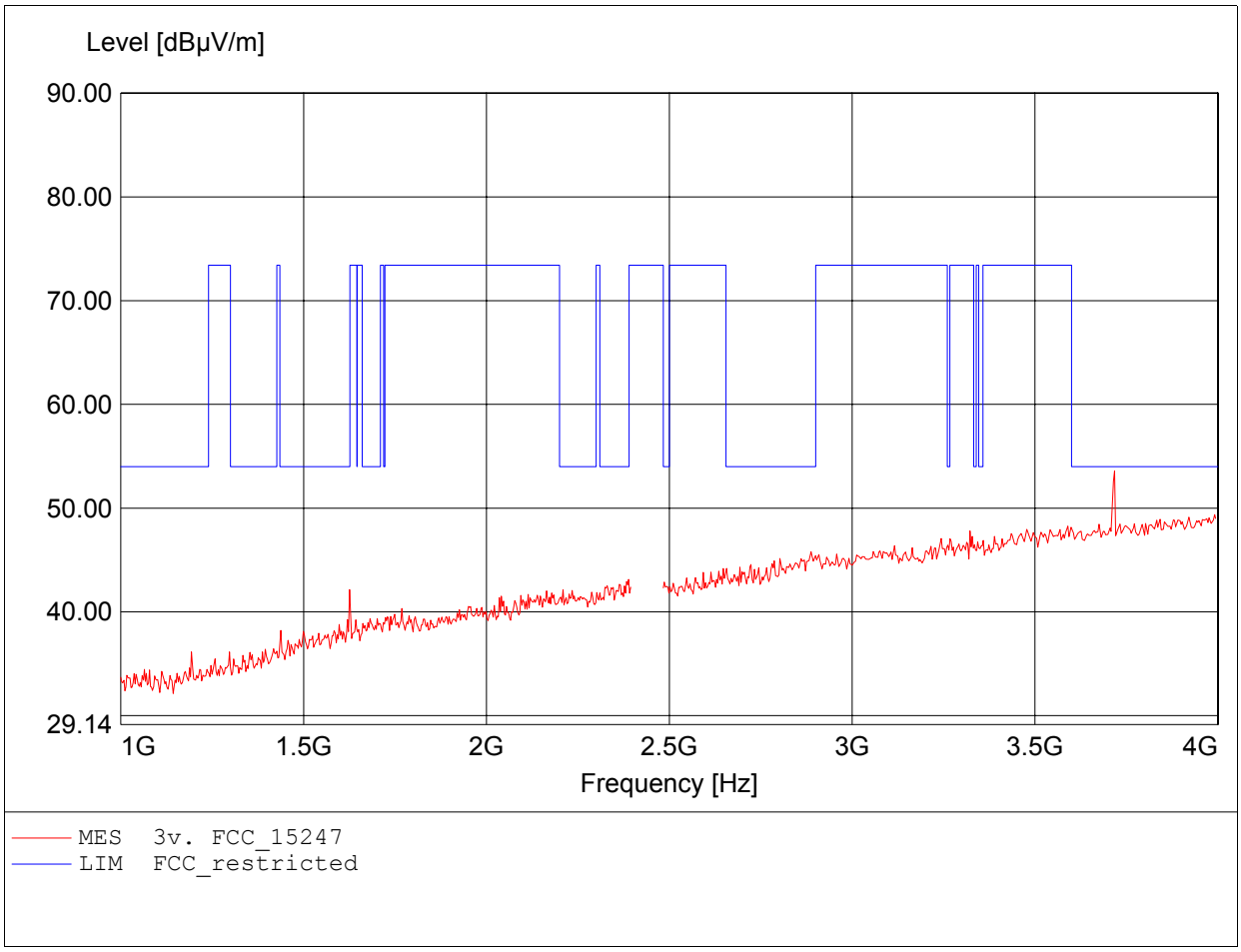
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.
Comment 2:	Freq: 265.731MHz, Emax: 38.30dBµV/m, RBW: 100kHz



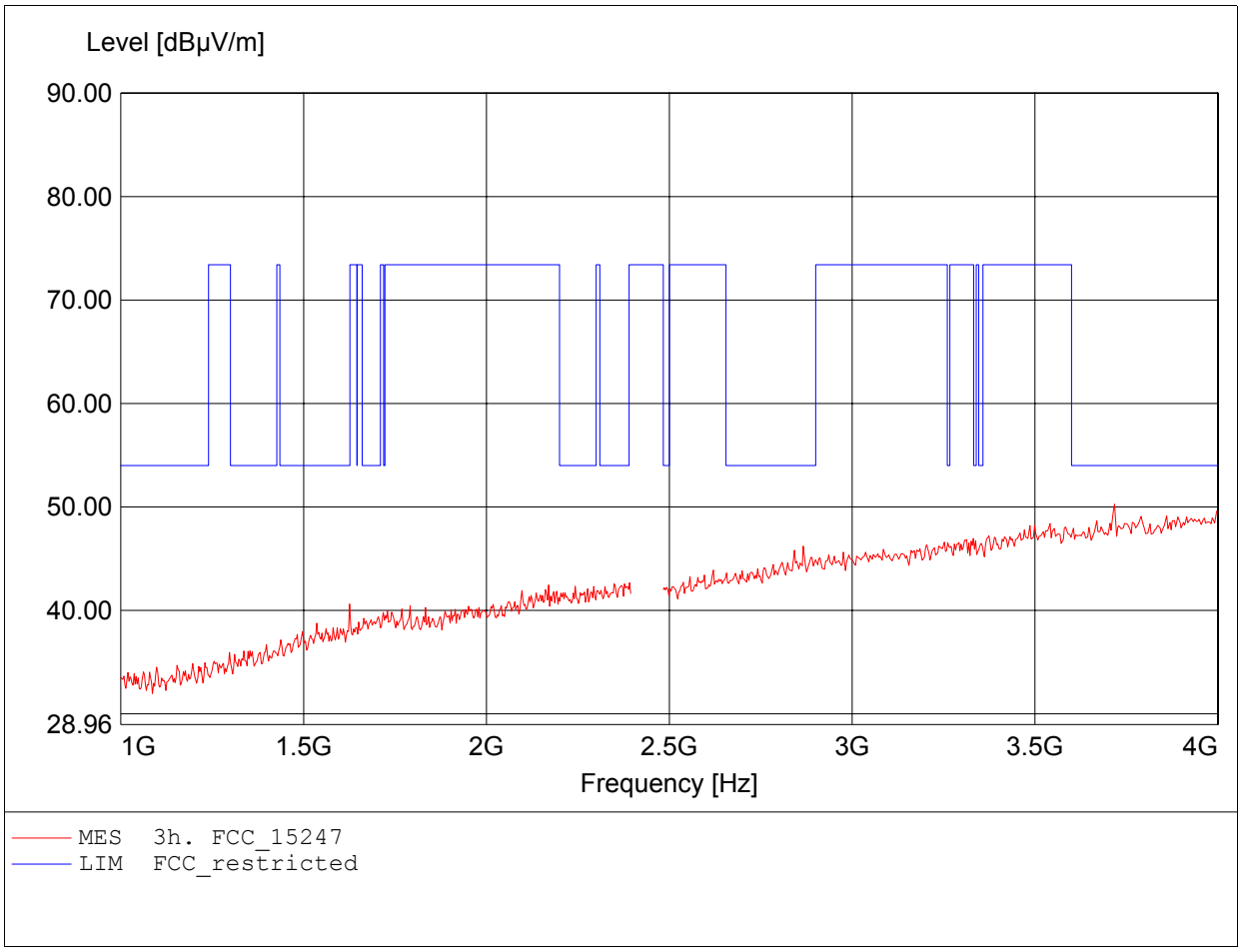
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 3.717GHz, Emax: 53.58dBµV/m, RBW: 1MHz



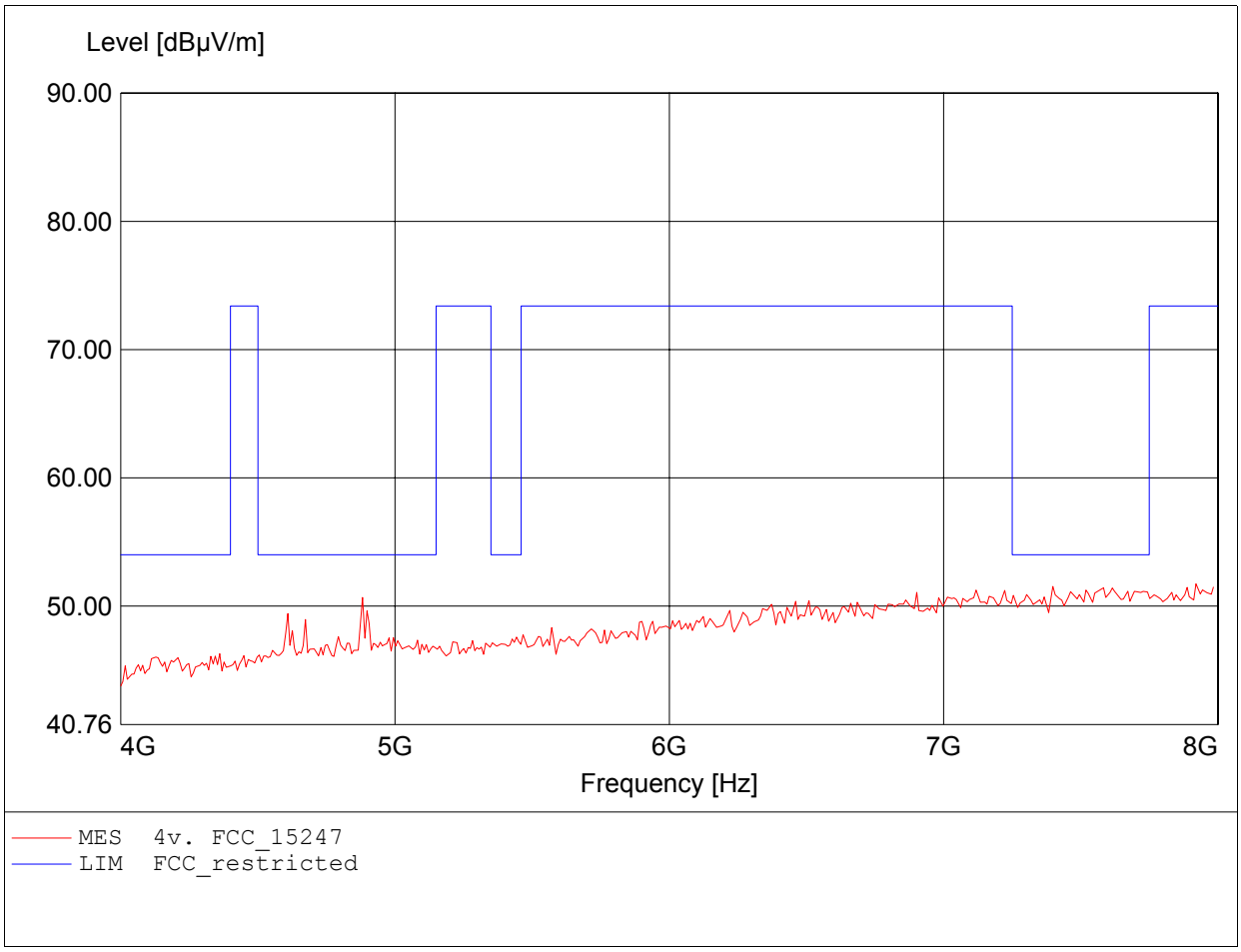
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 3.717GHz, Emax: 50.27dBµV/m, RBW: 1MHz



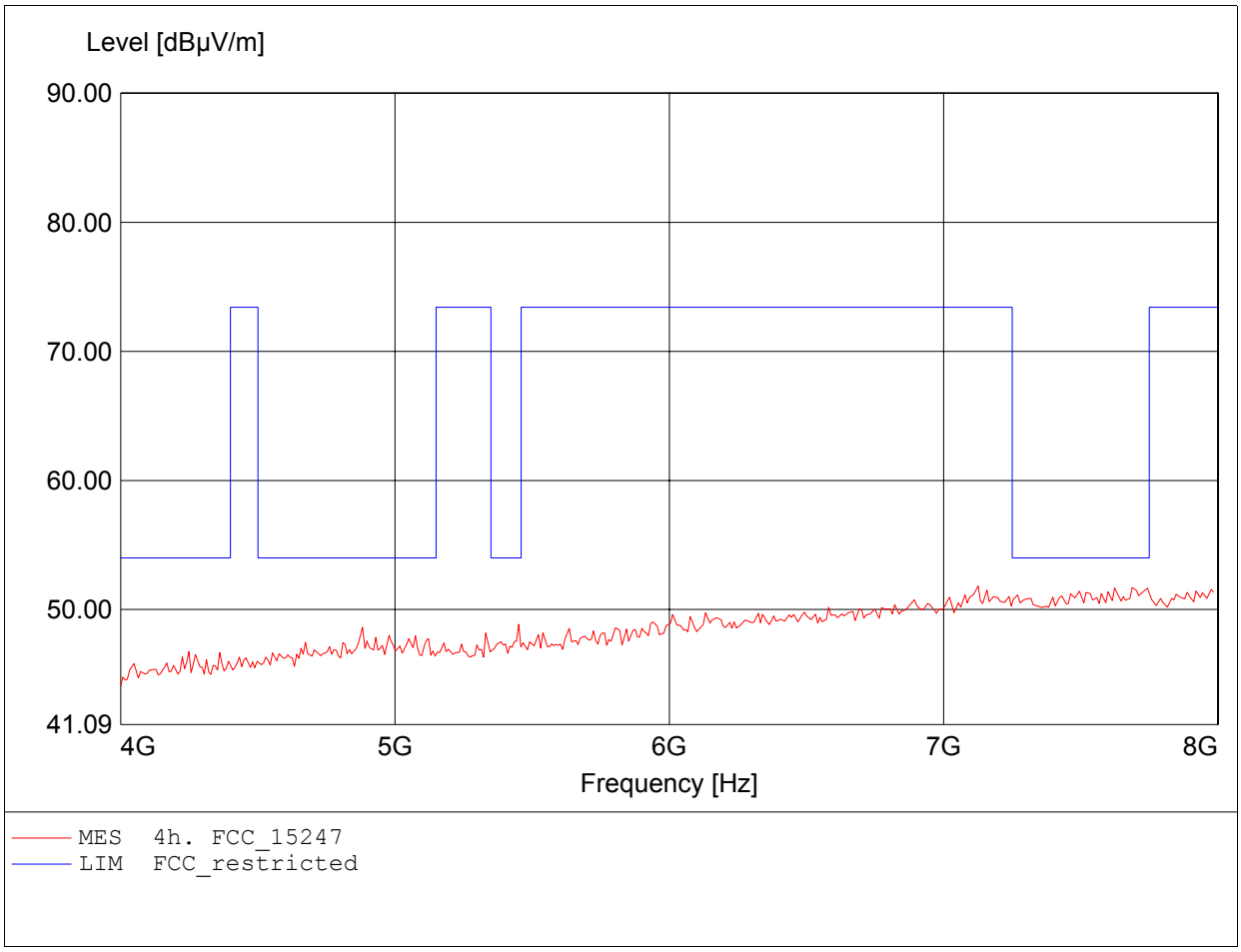
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 7.920GHz, Emax: 51.73dBµV/m, RBW: 1MHz



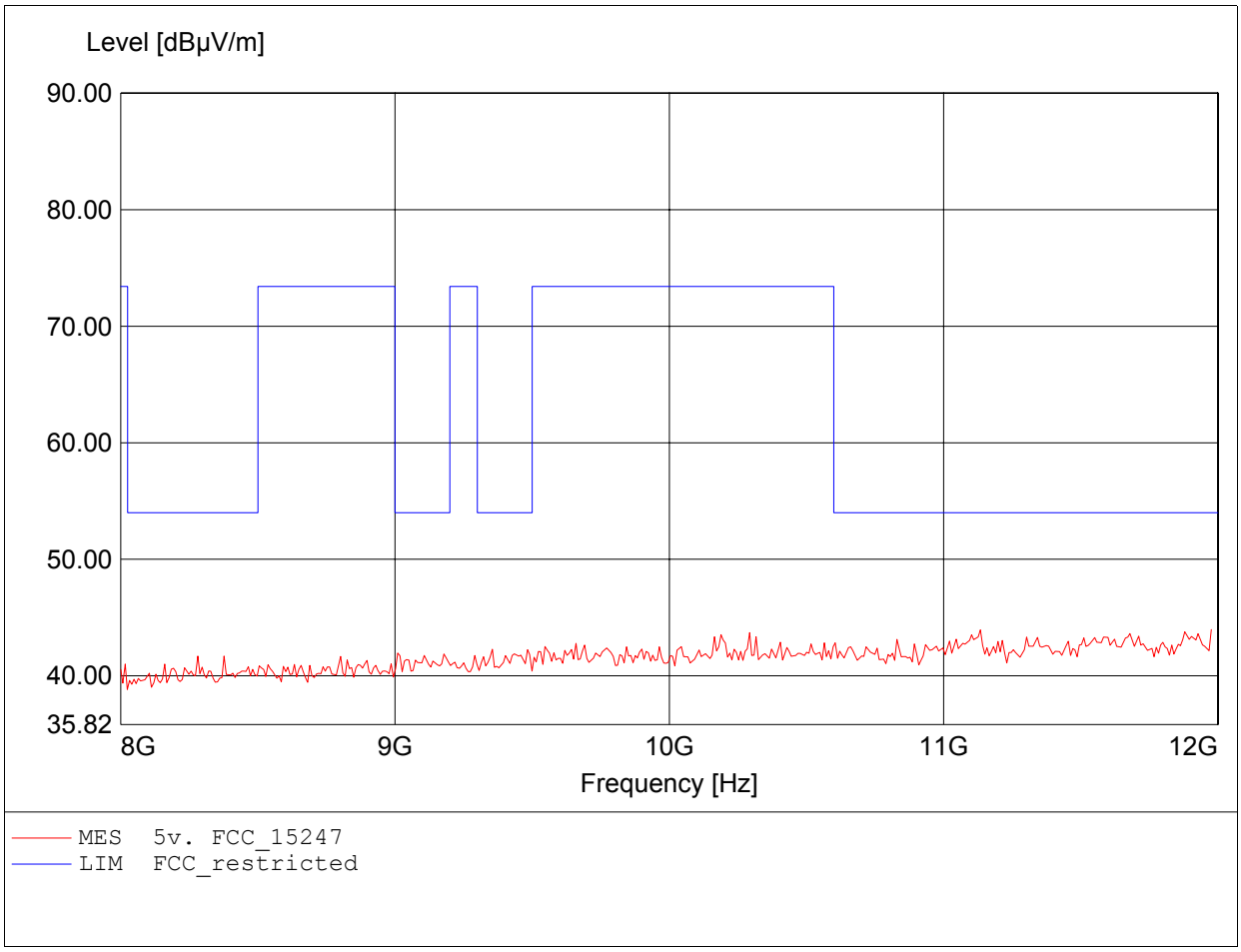
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 7.126GHz, Emax: 51.83dBµV/m, RBW: 1MHz



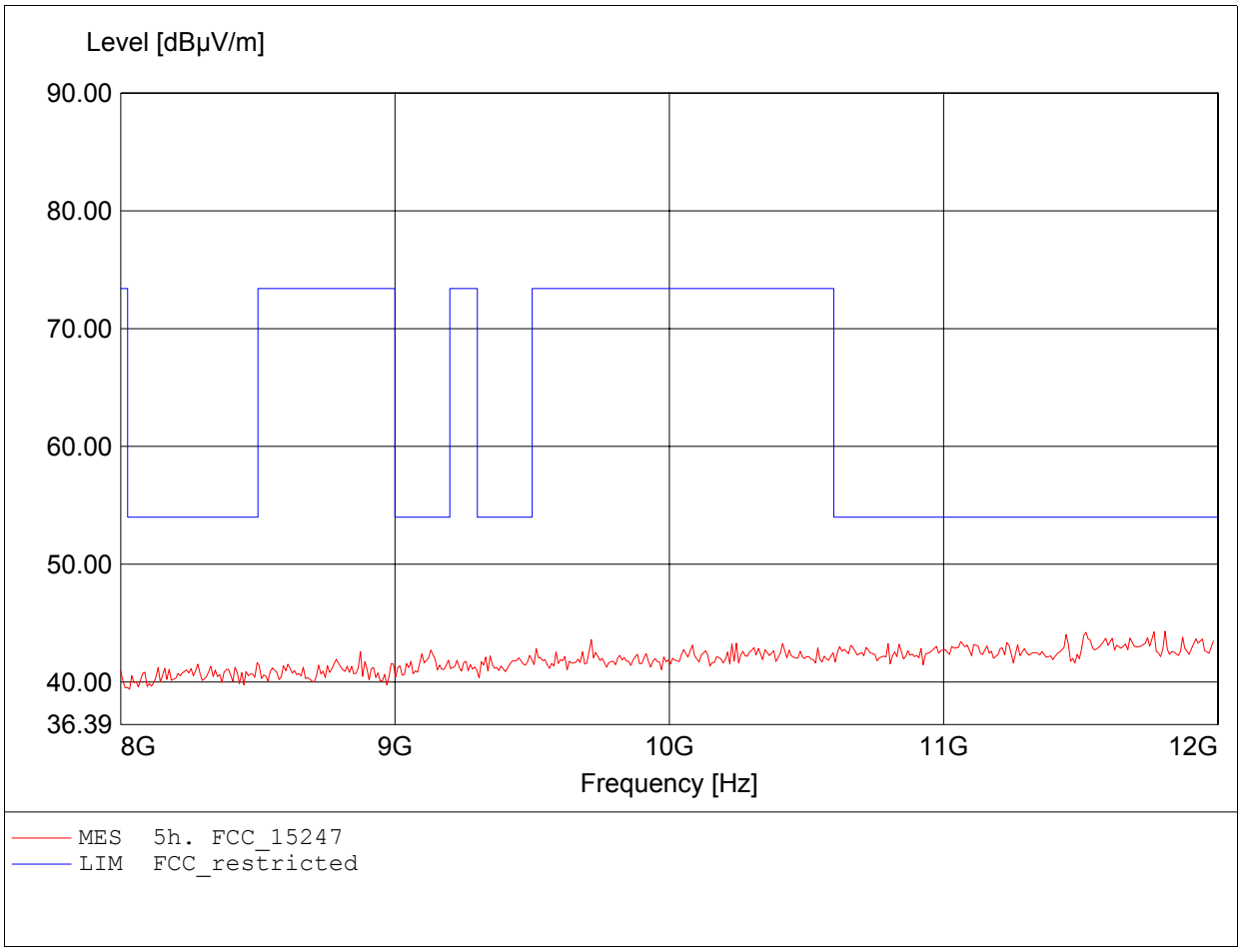
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 11.976GHz, Emax: 43.97dBµV/m, RBW: 1MHz



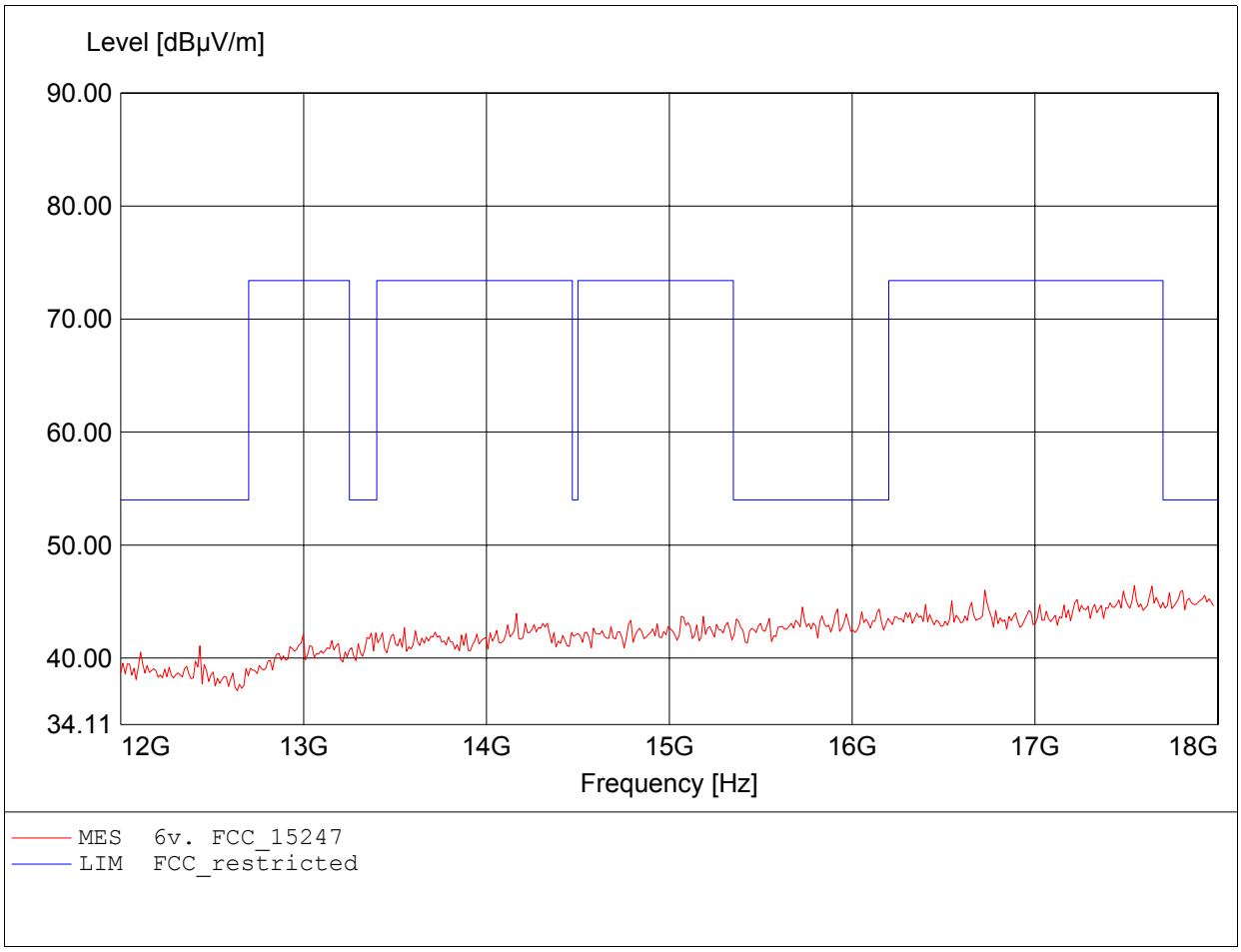
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 11.808GHz, Emax: 44.33dBµV/m, RBW: 1MHz



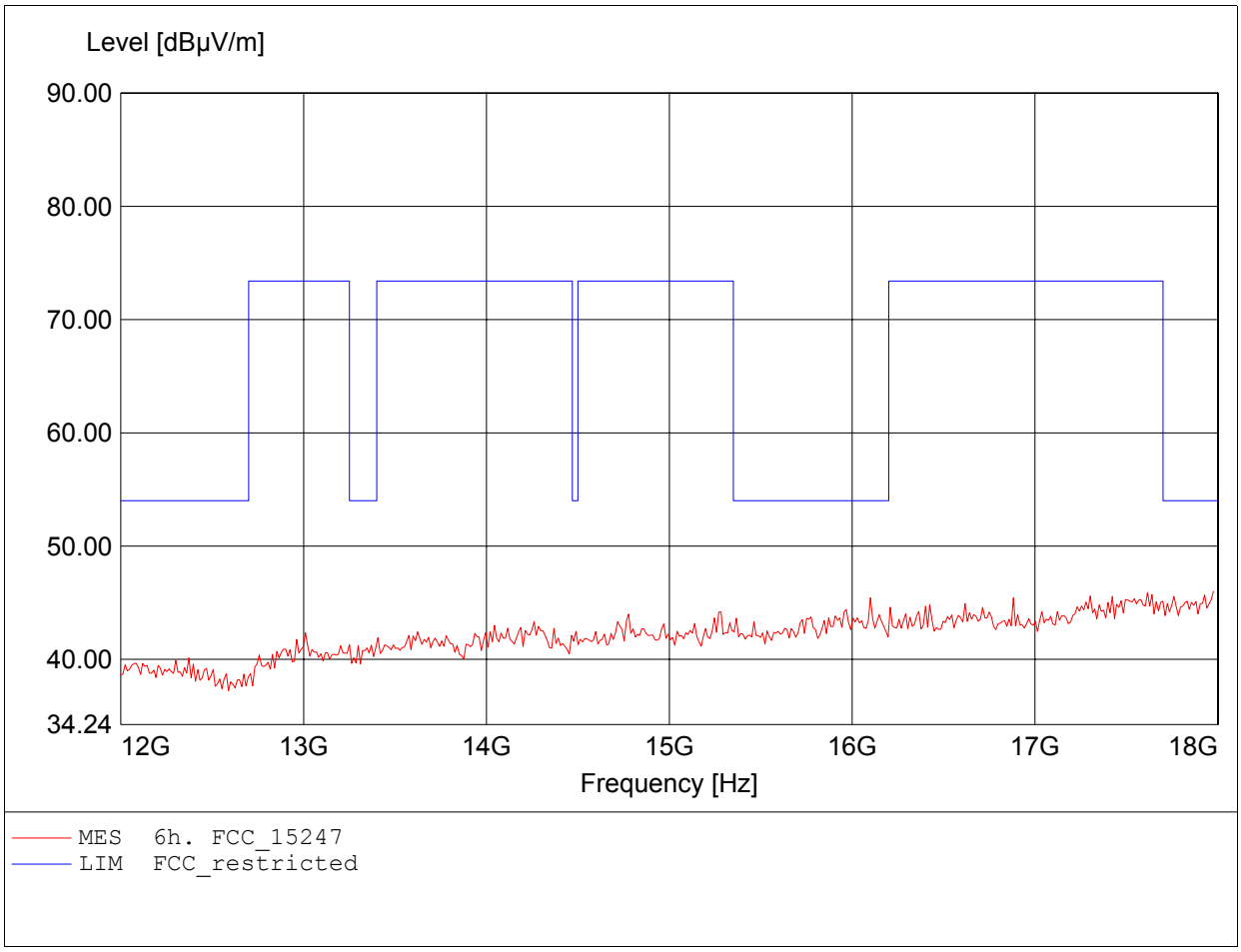
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 17.543GHz, Emax: 46.43dBµV/m, RBW: 1MHz



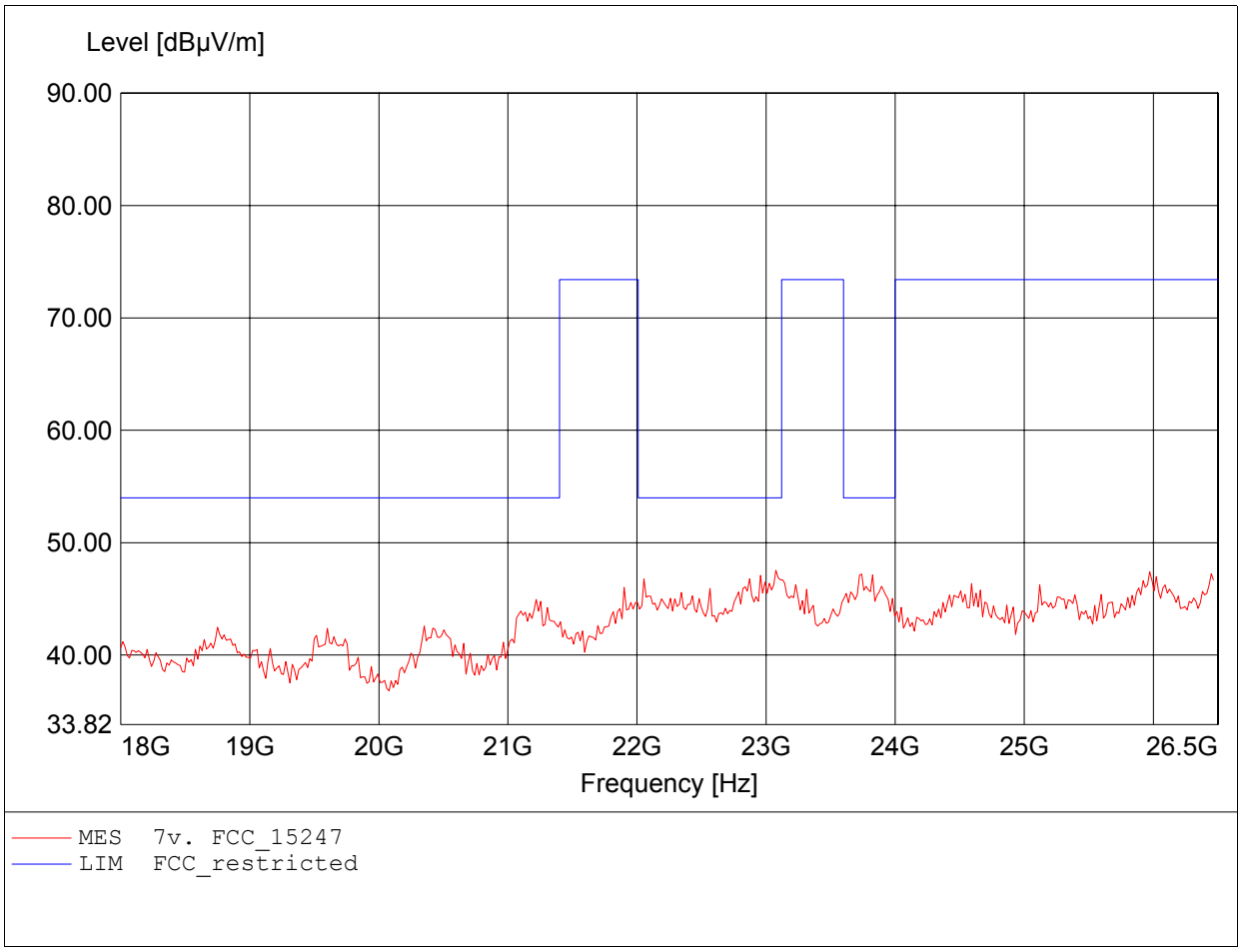
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 17.976GHz, Emax: 46.02dBµV/m, RBW: 1MHz



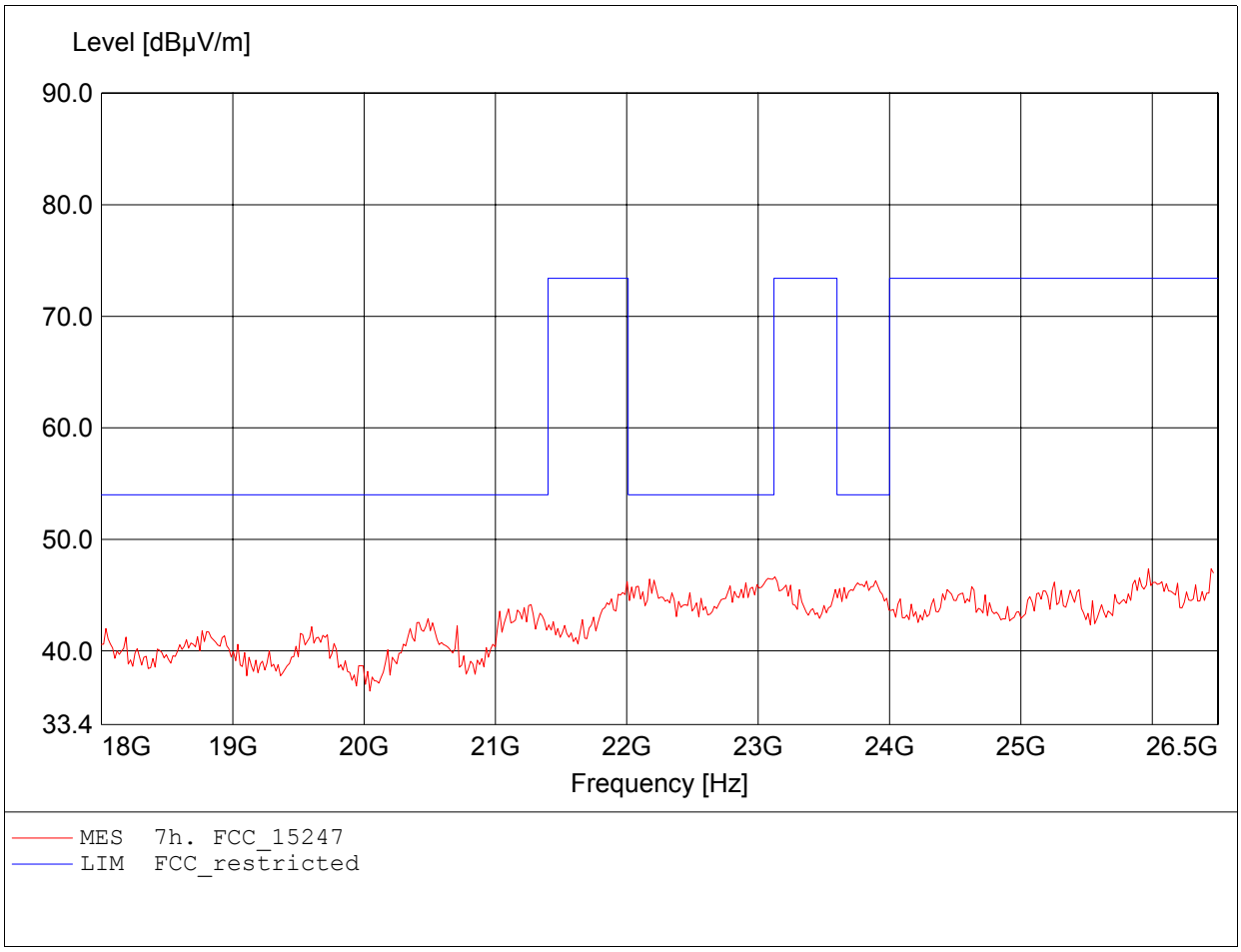
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.
Comment 2:	Freq: 23.076GHz, Emax: 47.55dBµV/m, RBW: 1MHz



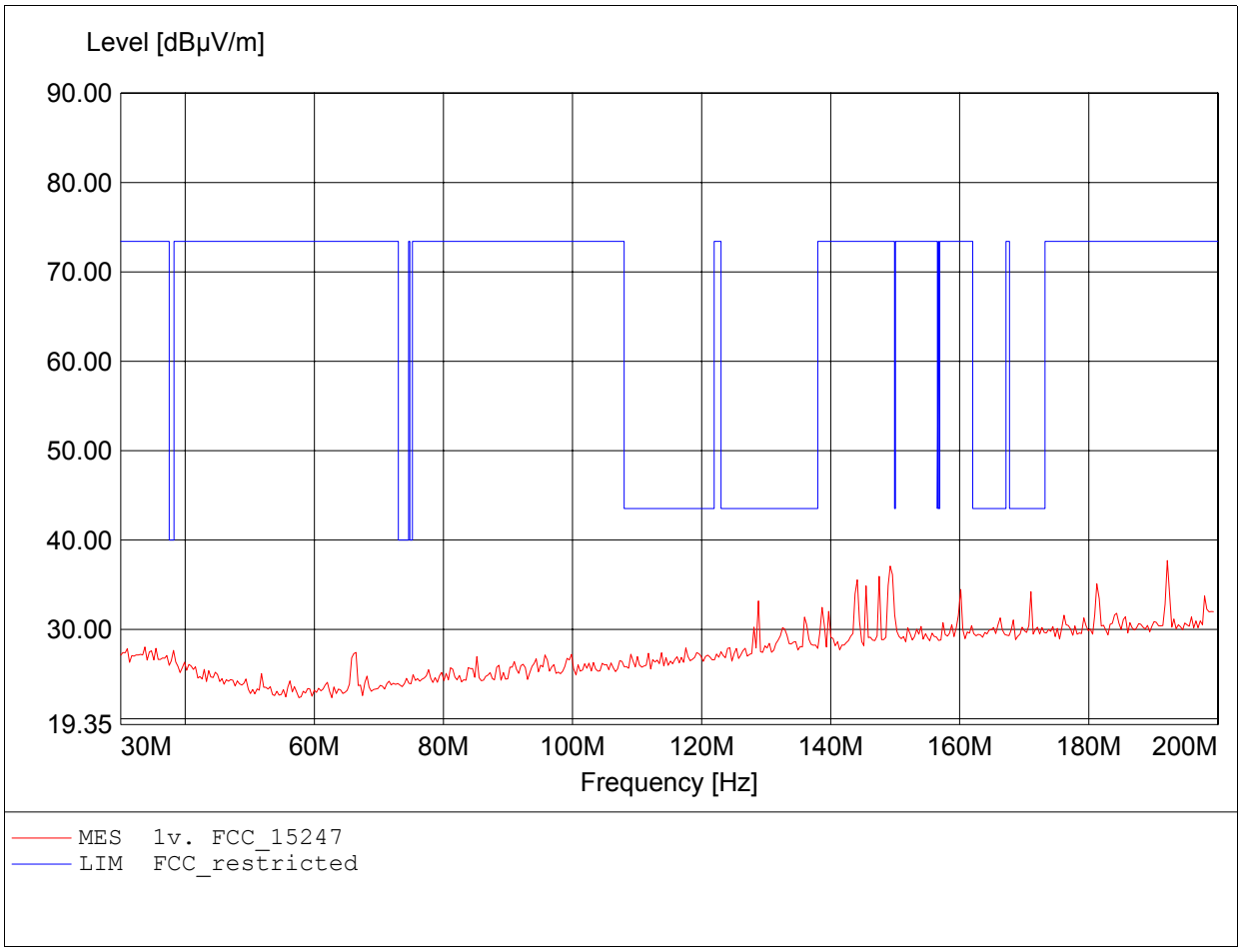
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2441 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.
Comment 2:	Freq: 25.972GHz, Emax: 47.38dBµV/m, RBW: 1MHz



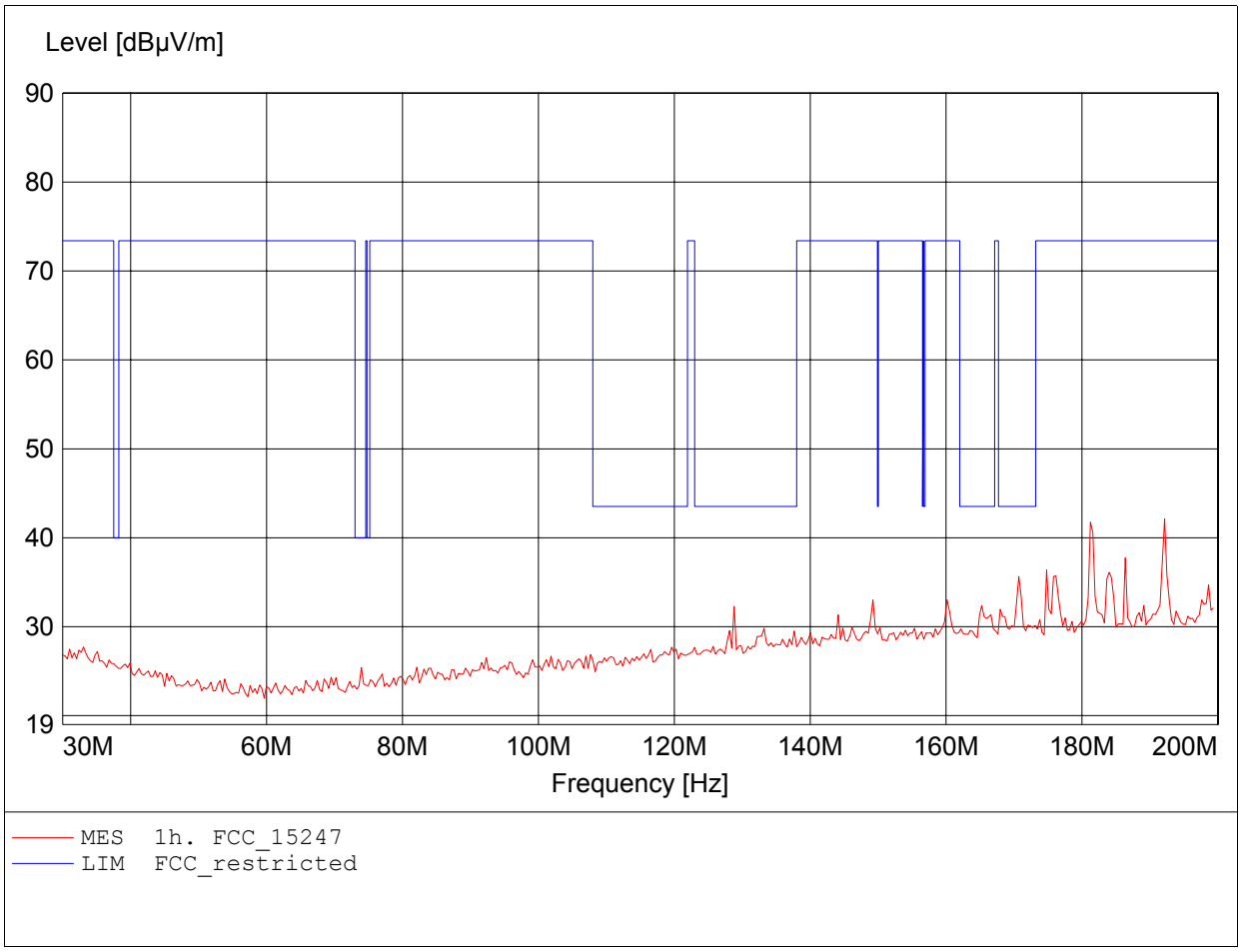
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HK 116
Comment 2:	Freq: 192.164MHz, Emax: 37.71dBµV/m, RBW: 100kHz



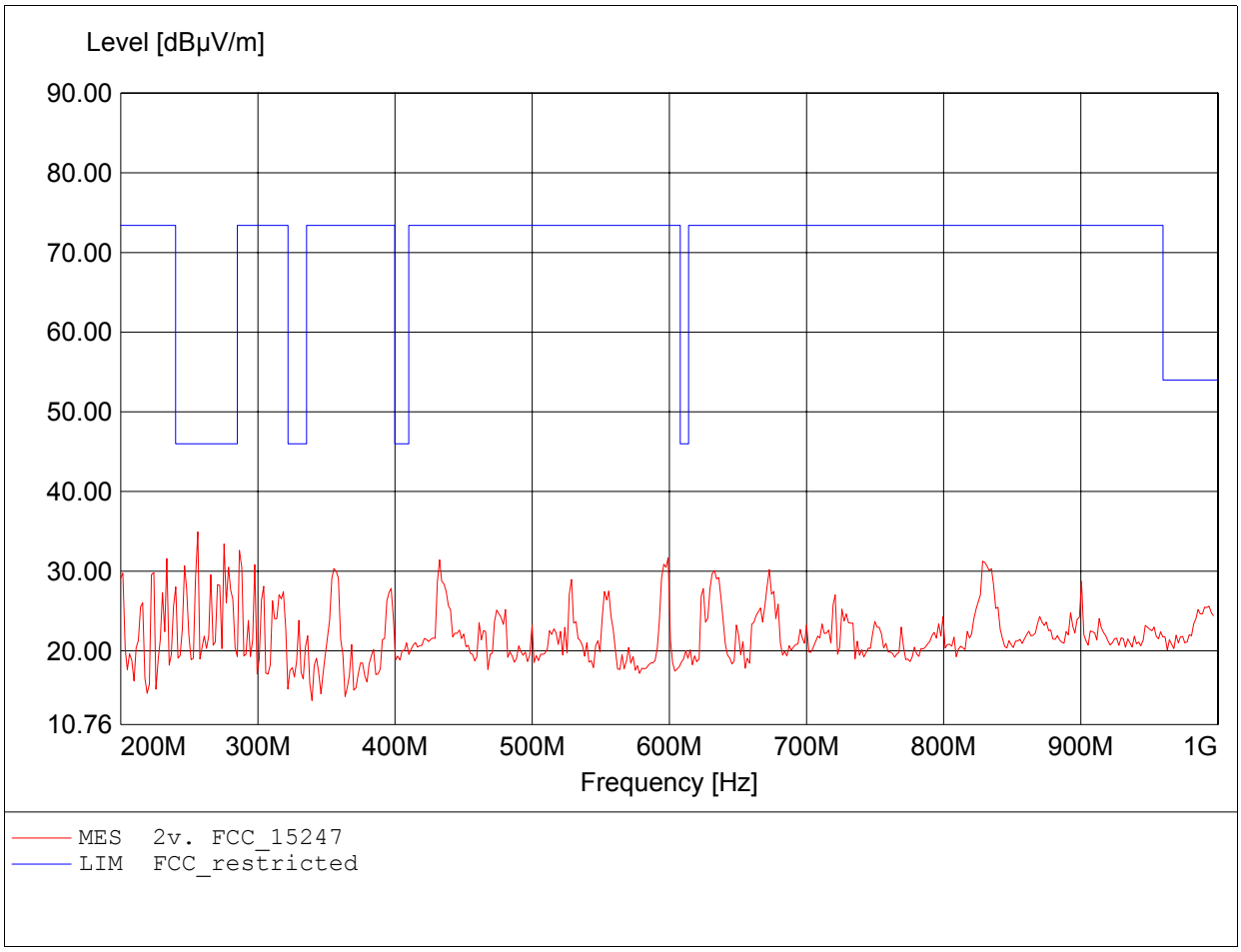
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HK 116
Comment 2:	Freq: 192.164MHz, Emax: 42.14dBµV/m, RBW: 100kHz



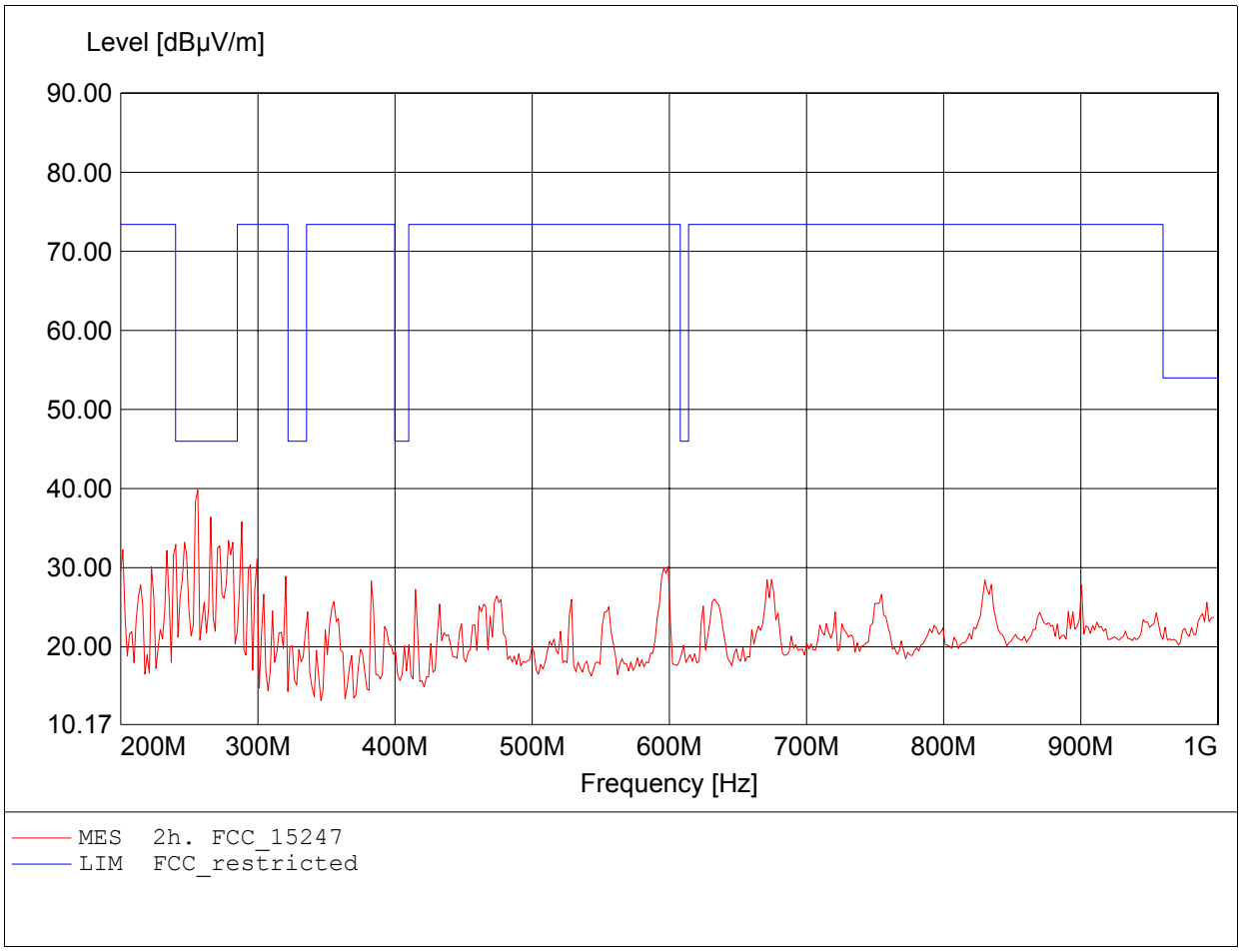
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.
Comment 2:	Freq: 256.112MHz, Emax: 34.94dBµV/m, RBW: 100kHz



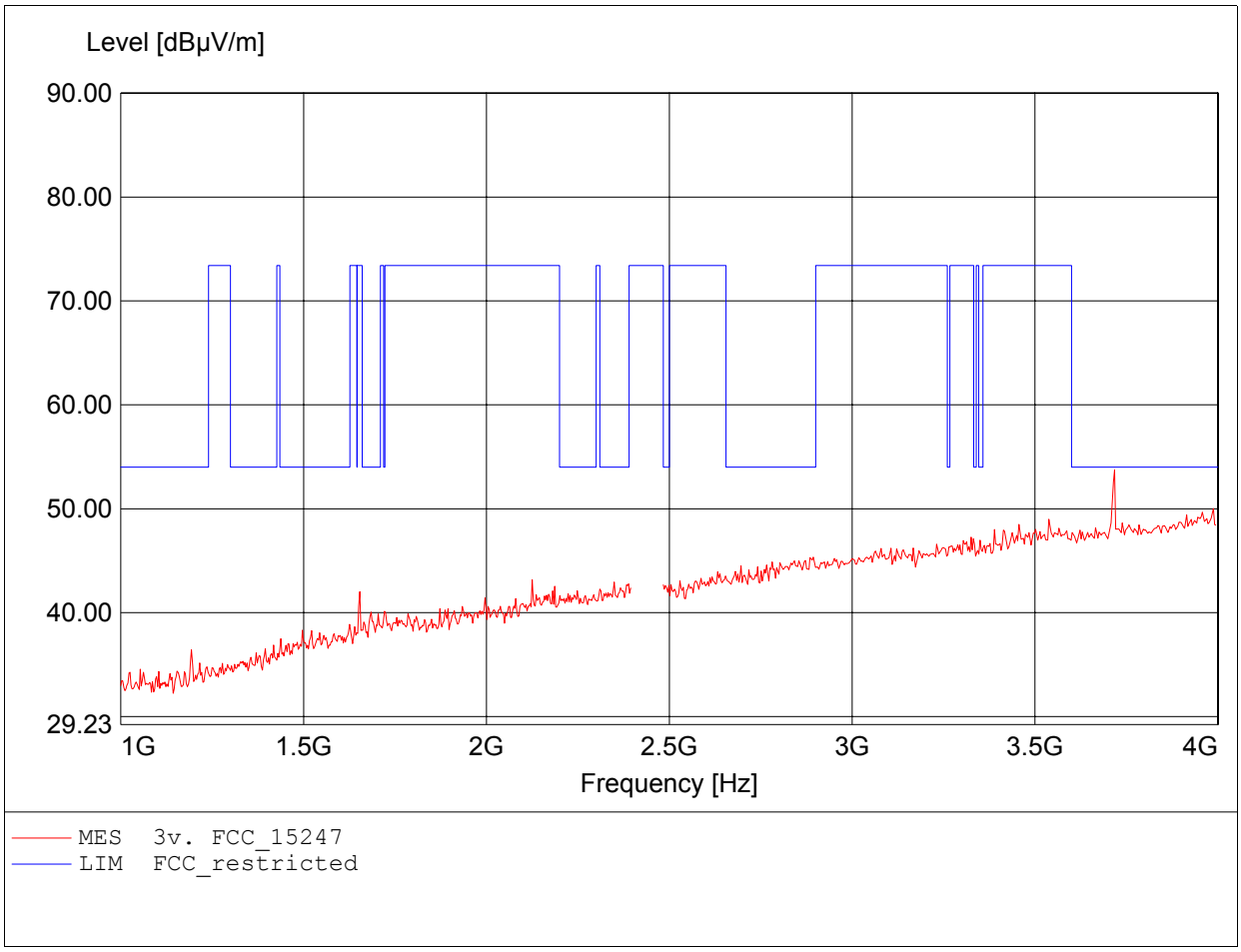
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.
Comment 2:	Freq: 256.112MHz, Emax: 39.83dBµV/m, RBW: 100kHz



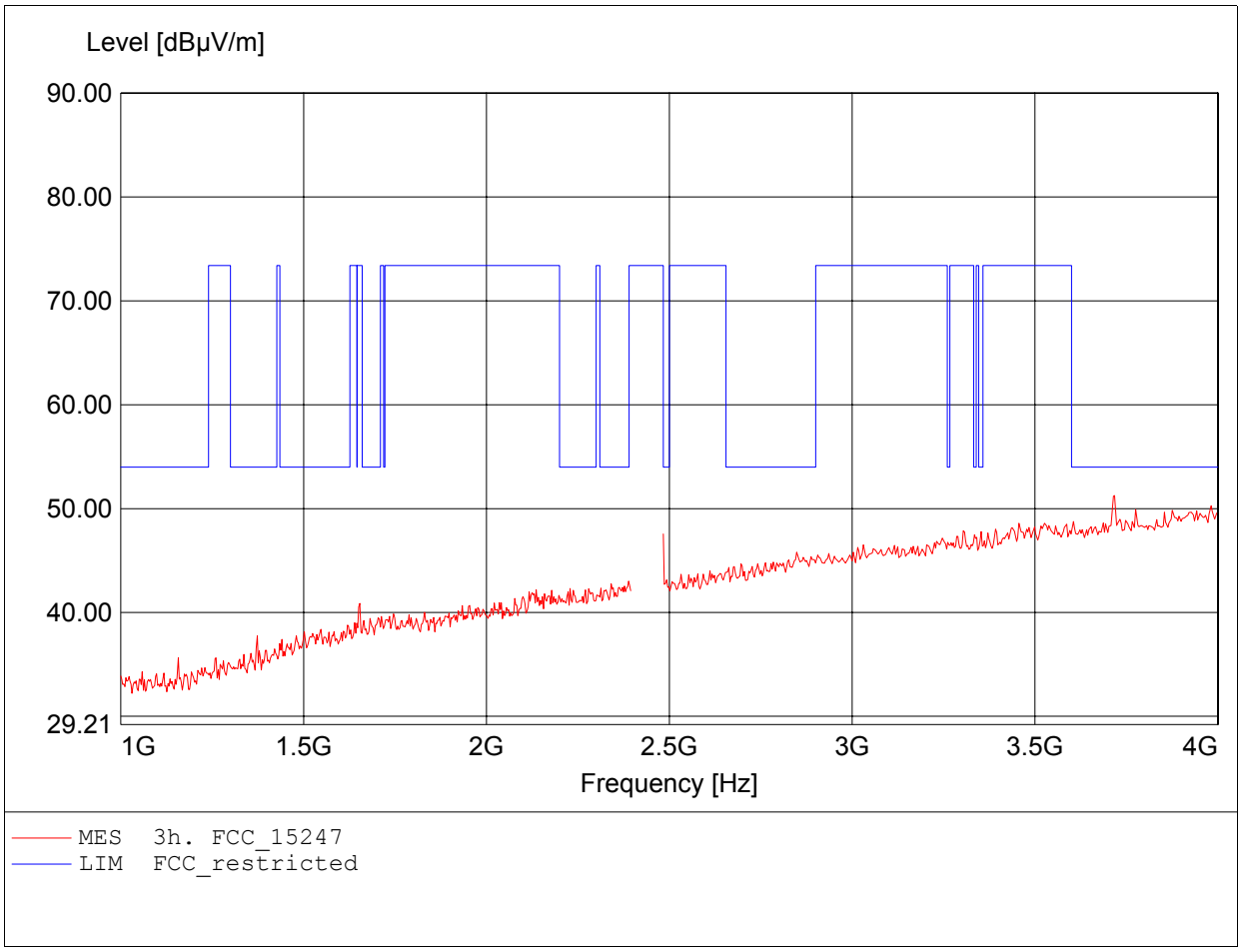
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 3.717GHz, Emax: 53.75dBµV/m, RBW: 1MHz



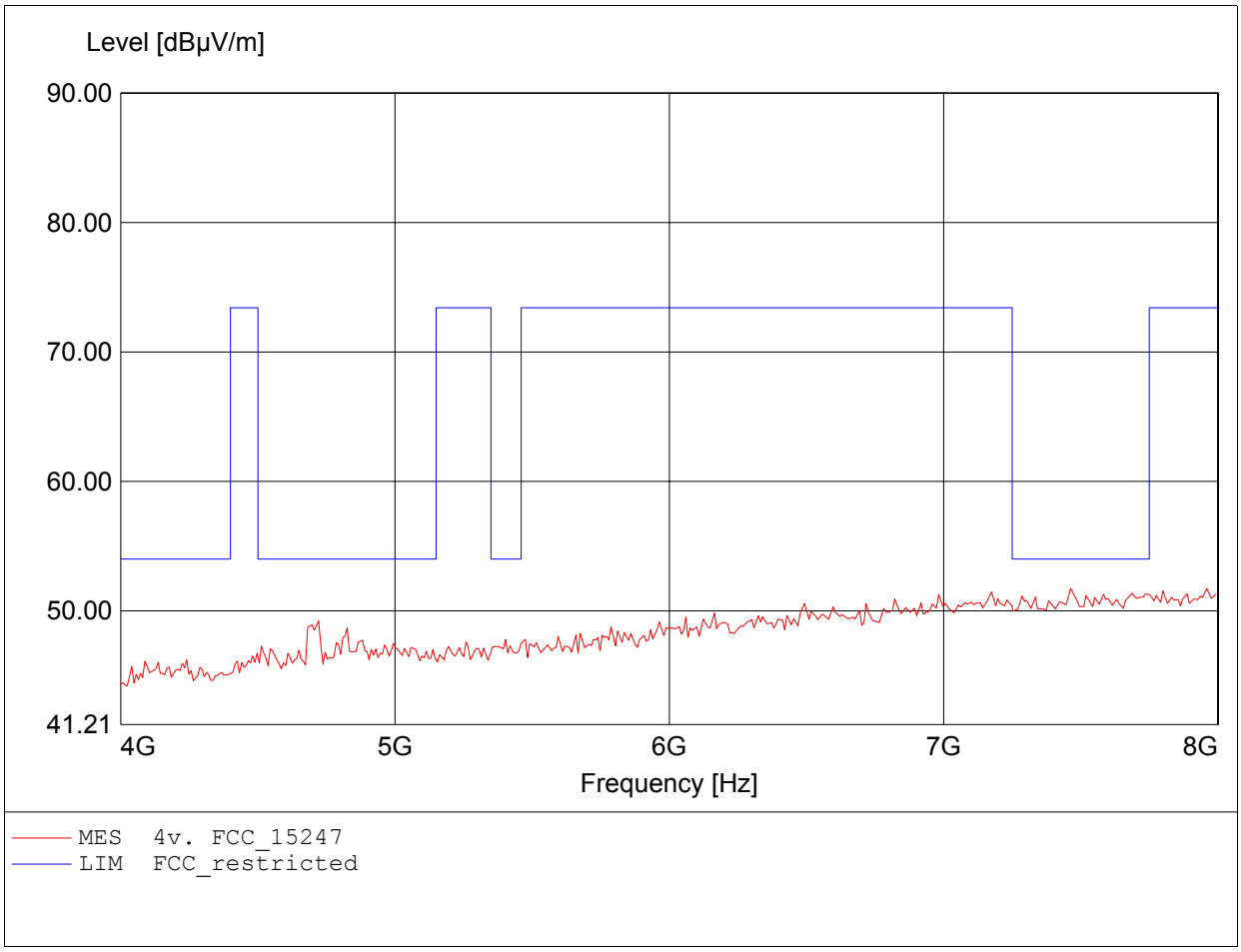
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 3.717GHz, Emax: 51.26dBµV/m, RBW: 1MHz



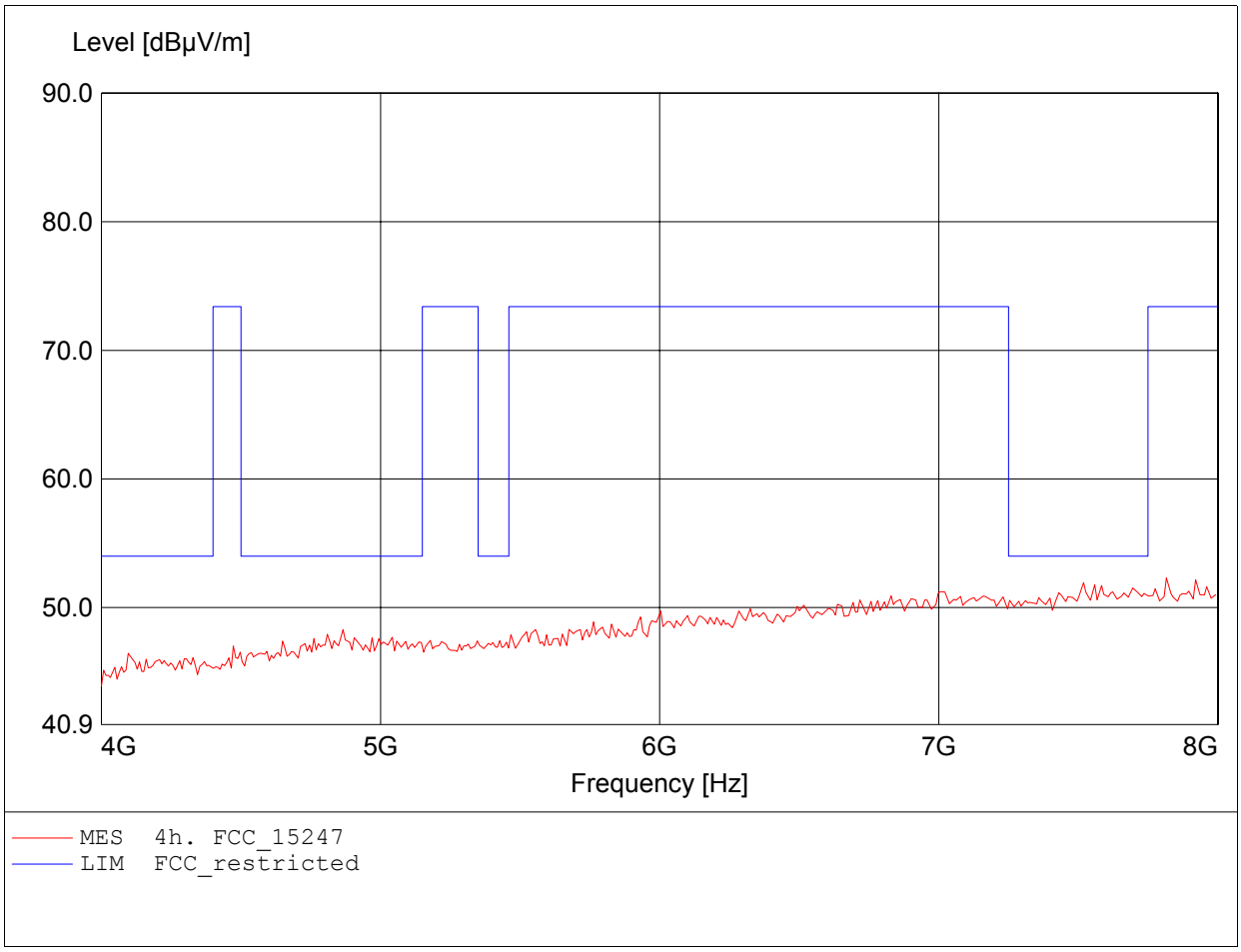
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 7.960GHz, Emax: 51.74dBµV/m, RBW: 1MHz



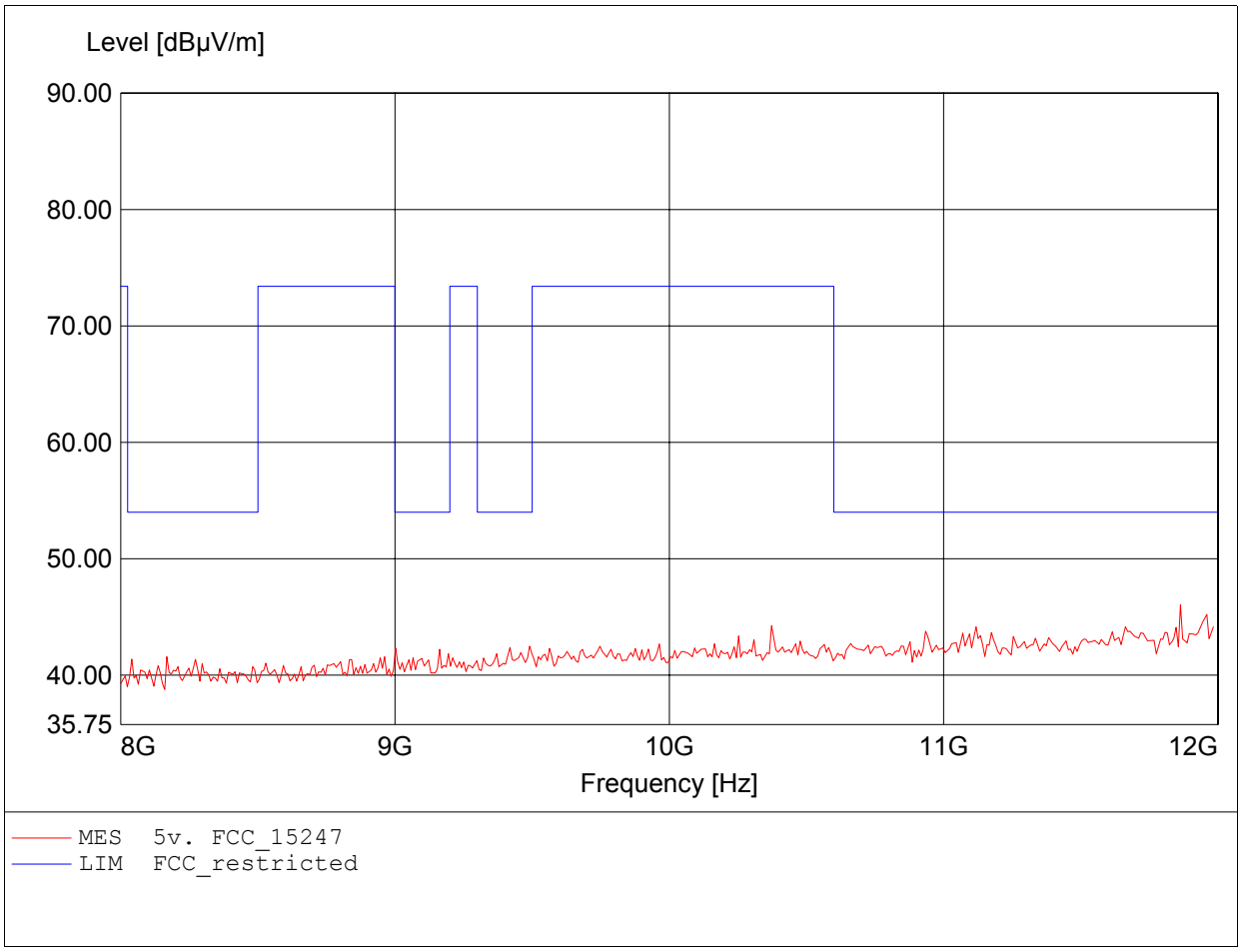
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 7.816GHz, Emax: 52.31dBµV/m, RBW: 1MHz



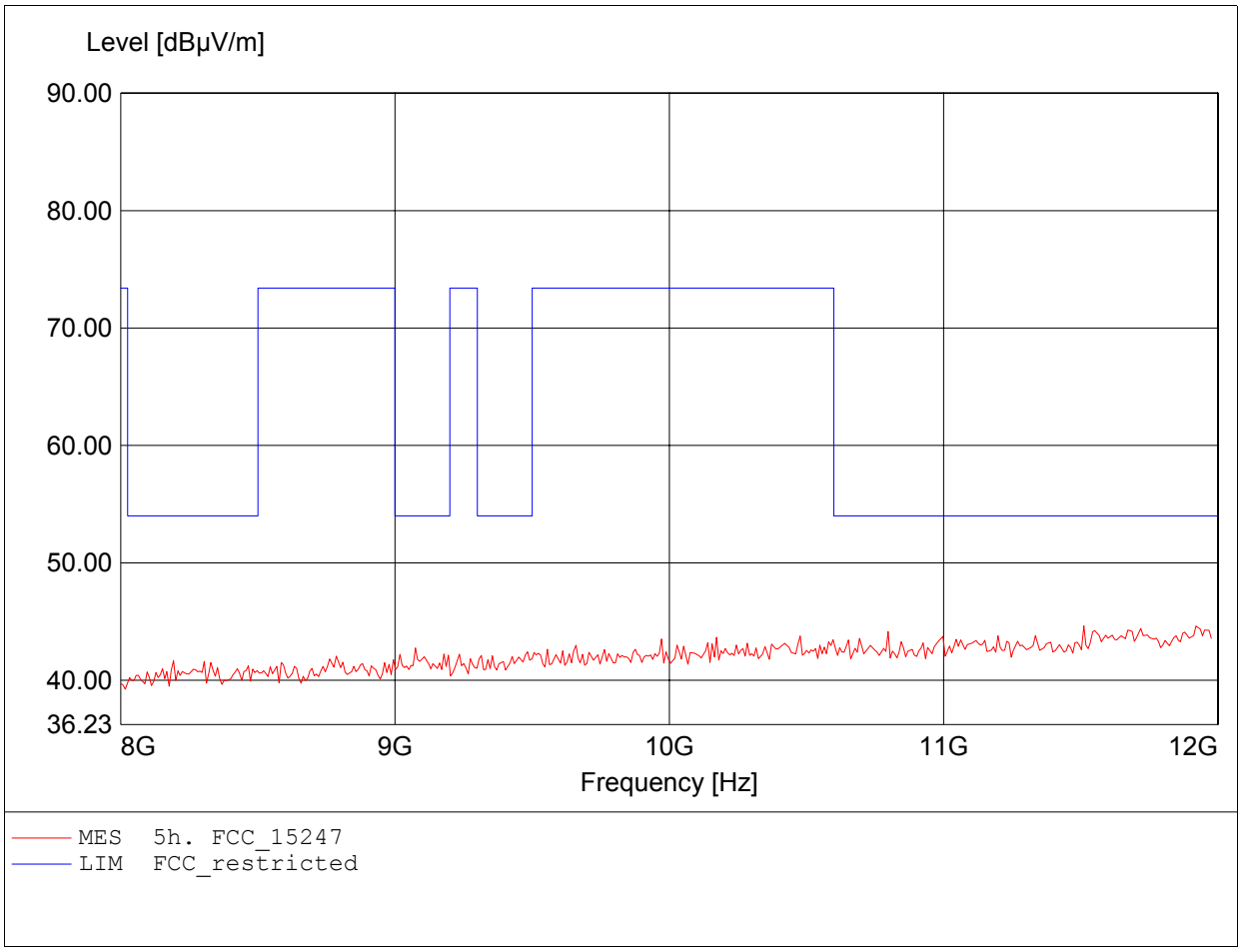
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 11.864GHz, Emax: 46.06dBµV/m, RBW: 1MHz



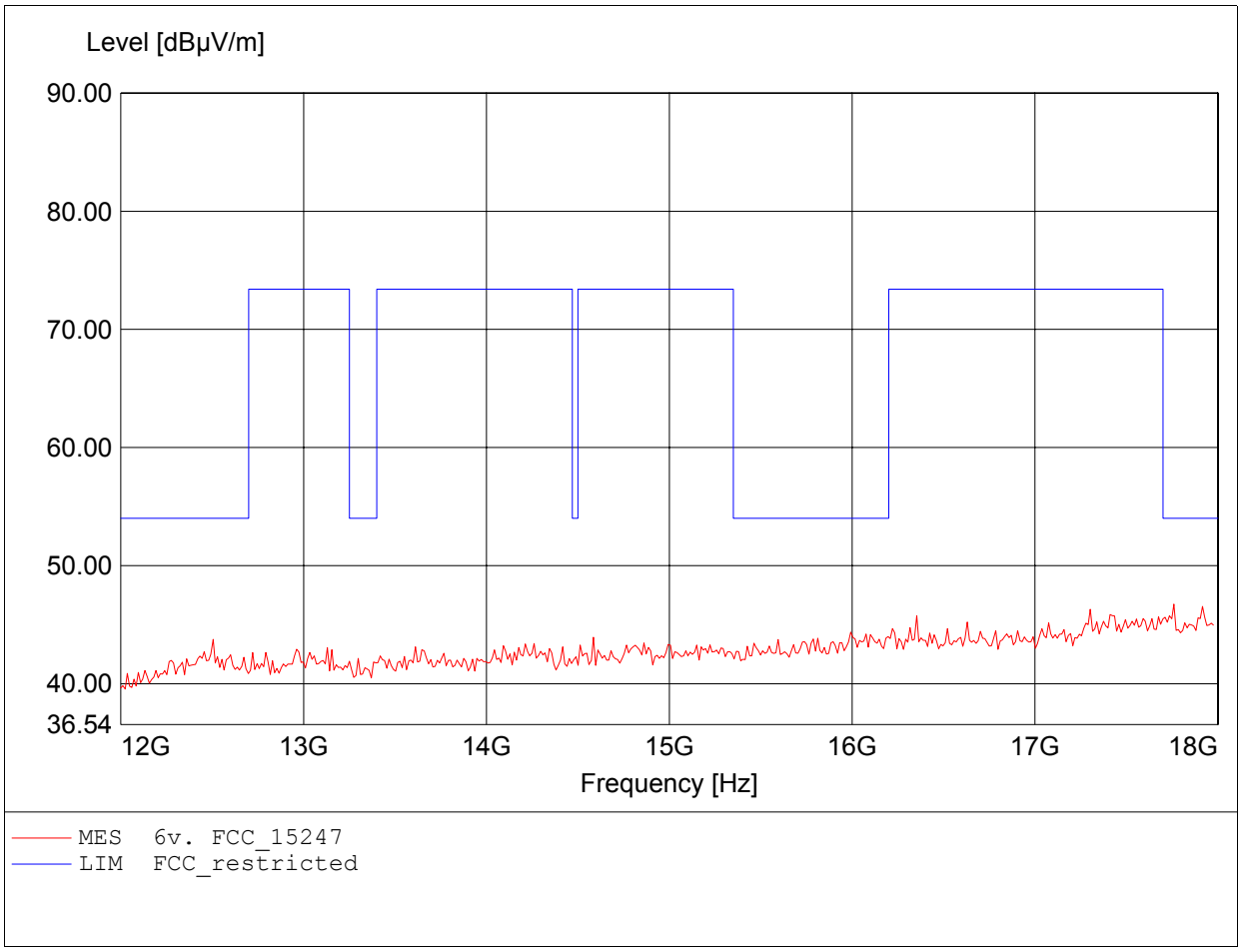
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 11.511GHz, Emax: 44.64dBµV/m, RBW: 1MHz



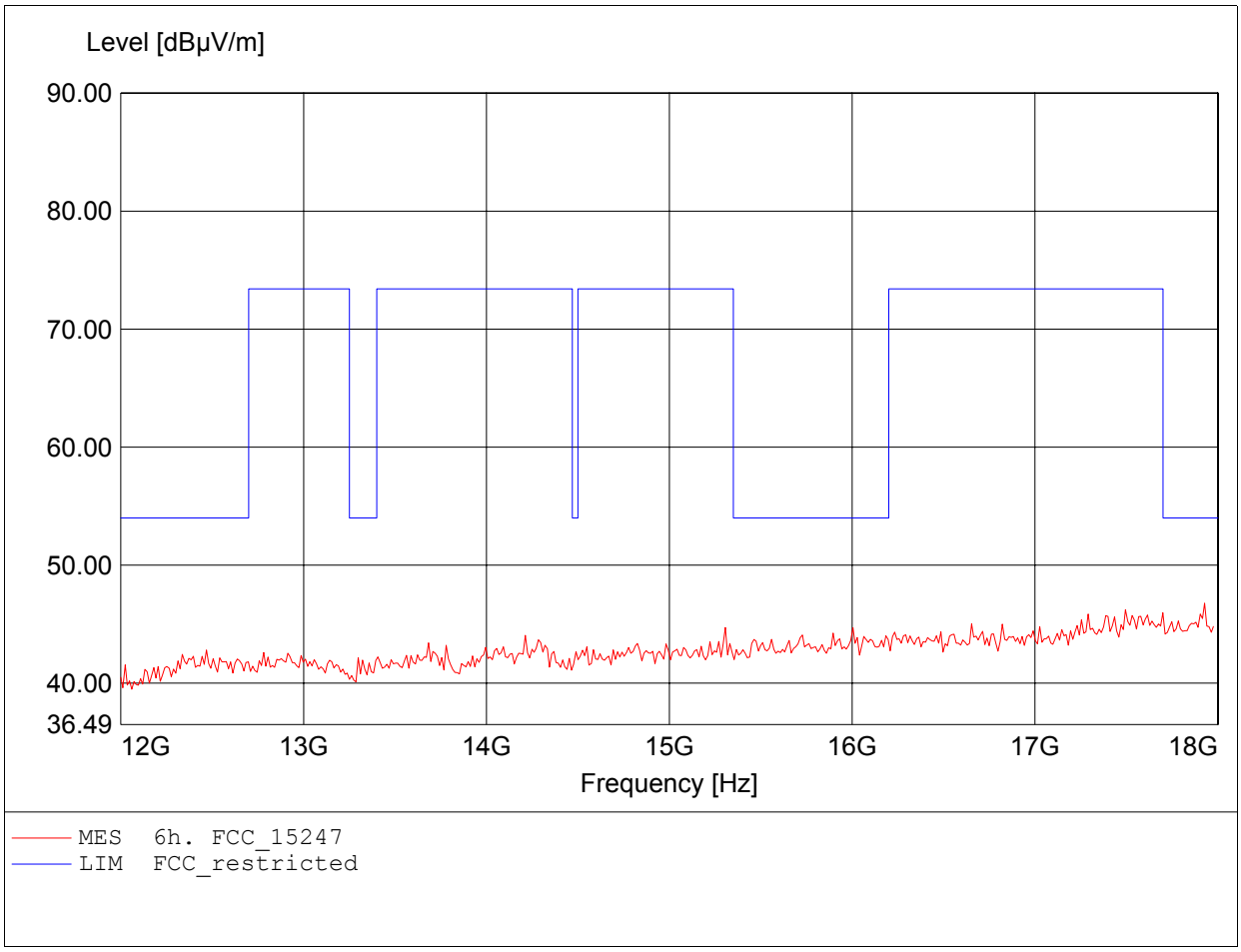
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 17.760GHz, Emax: 46.73dBµV/m, RBW: 1MHz



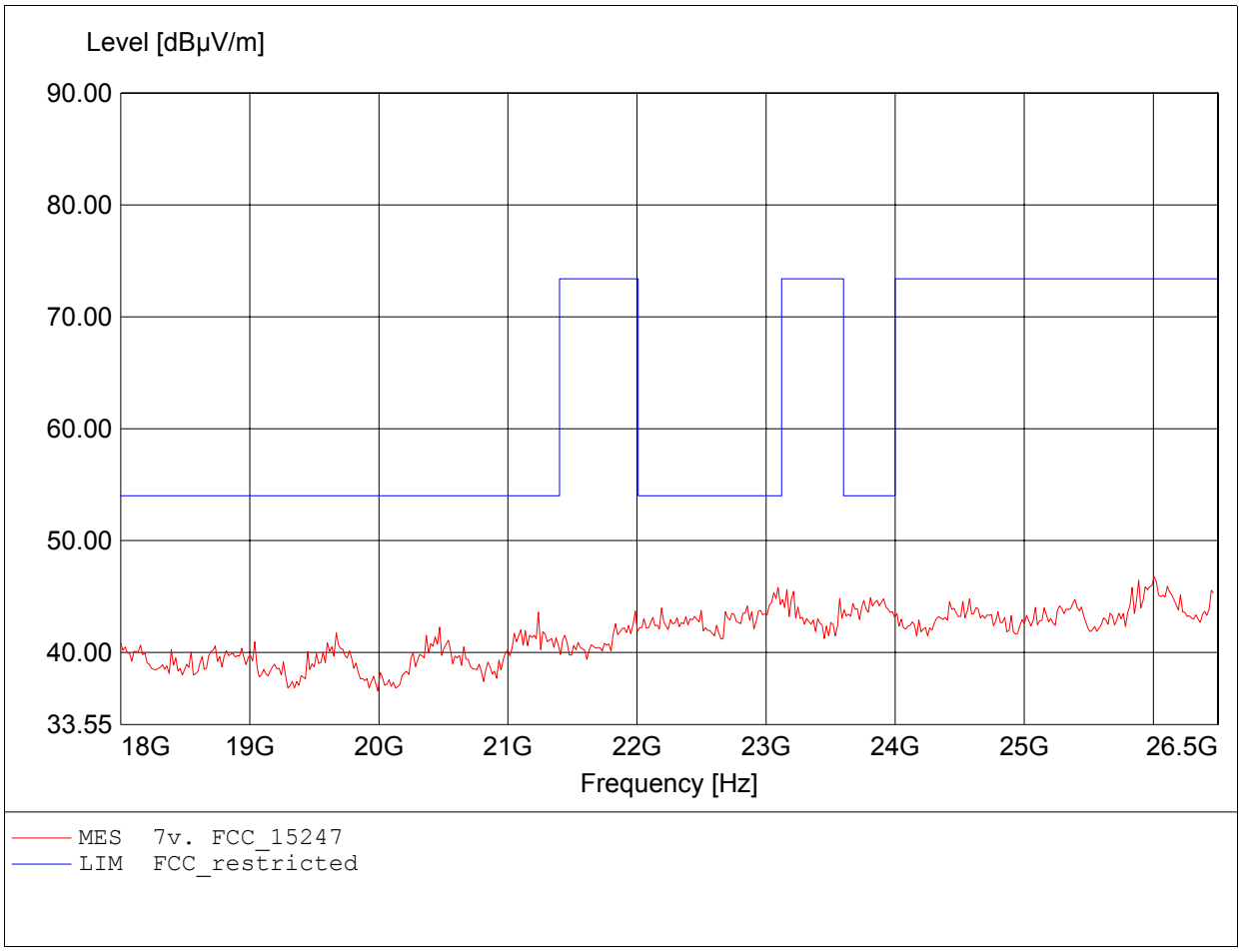
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 17.928GHz, Emax: 46.77dBµV/m, RBW: 1MHz



Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.
Comment 2:	Freq: 26.006GHz, Emax: 46.77dBµV/m, RBW: 1MHz



Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

Approval Holder:	Robert Bosch Car Multimedia GmbH
EUT / Model:	Renault R2 RPP / G0M20910-2636
	2480 MHz / DH5 / Power 46 / S8
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Conditions 1:	Tnom: 24°C / Vnom.: 13.5V DC (car battery)
Test Conditions 2:	according to §15.247, peak detector
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.
Comment 2:	Freq: 25.989GHz, Emax: 46.68dBµV/m, RBW: 1MHz