RADIO REPORT

FCC 47 CFR Part 15C
ISED Canada RSS-247

Digital transmission systems operating within the 2400 – 2483.5 MHz band

Report Reference No	G0M-1807-7558-TFC247DT-V01
Testing Laboratory	Eurofins Product Service GmbH
Address	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation	A2LA Accredited Testing Laboratory, Certificate No.: 1983.01 FCC Test Firm Designation Number: DE0008 IC Testing Laboratory site: 3470A-2
Applicant	digades GmbH
Address	Äußere Weberstraße 20 02763 Zittau GERMANY
Test Specification	According to FCC/ISED rules
Standard	47 CFR Part 15C RSS-247, Issue 2, 2017-02
Non-Standard Test Method	None
Test Scope	Full compliance test
Equipment under Test (EUT):	
Product Description	VW RemoteStart
Model(s)	Remote Start Receiver - VWRSTR
Additional Model(s)	None
Brand Name(s)	None
Hardware Version(s)	HW 004
Software Version(s)	SW 0702
FCC-ID	QNFVWRSTR
IC	6869A-VWRSTR
Test Result	**PASSED**

Possible test case verdicts:		
required by standard but not tested	N/T	
not required by standard	N/R	
not applicable to EUT	N/A	
test object does meet the requirement	P(PASS)	
test object does not meet the requirement	F(FAIL)	
Testing:		
Test Lab Temperature	20 - 23 °C	
Test Lab Humidity	32 – 38 %	
Date of receipt of test item	2018-08-23	
Report:		
Compiled by	Sebastian Suckow	
Tested by (+ signature) (Responsible for Test)	Sebastian Suckow	.....
Approved by (+ signature) (Deputy Head of Lab)	Toralf Jahn	.....
Date of Issue	2018-09-21	
Total number of pages	74	
General Remarks:		
The test results presented in this report relate only to the object tested. **The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.** This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.		
Additional Comments:		

VERSION HISTORY

Version History			
Version	Issue Date	Remarks	Revised By
01	2018-09-21	Initial Release	

ABBREVIATIONS AND ACRONYMS

Acronyms	
Acronym	Description
EUT	Equipment Under Test
FCC	Federal Communications Commission
ISED	Innovation, Science and Economic Development Canada
RBW	Resolution bandwidth
RMS	Root mean square
VBW	Video bandwidth
V_{NOM}	Nominal supply voltage

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1 Equipment (Test Item) Under Test

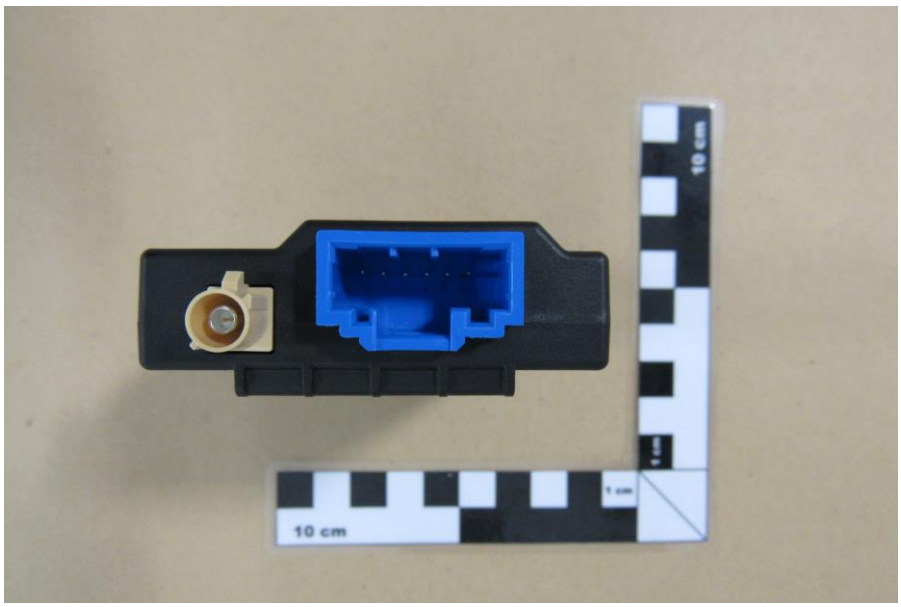
Description	VW RemoteStart	
Model	Remote Start Receiver - VWRSTR	
Additional Model(s)	None	
Brand Name(s)	None	
Serial Number(s)	None	
Hardware Version(s)	HW 004	
Software Version(s)	SW 0702	
PMN	Remote Start Receiver	
HVIN	Remote Start Receiver	
FVIN	-/-	
HMN	-/-	
FCC-ID	QNFVWRSTR	
IC	6869A-VWRSTR	
Equipment type	End Product	
Radio type	Transceiver	
Assigned frequency bands	902.4 - 927.6 MHz	
Radio technology	Digital Modulation	
Modulation	LoRa	
Number of antenna ports	1	
Antenna	Type	External
	Model	2J520-250RG174-C96 Fakra D
	Manufacturer	2J
	Gain	-2.8 dBi
Supply Voltage	V_{NOM}	12.0 VDC
Operating Temperature	T_{NOM}	25 °C
Manufacturer	digades GmbH Äußere Weberstraße 20 02763 Zittau GERMANY	

1.1 Photos – Equipment External

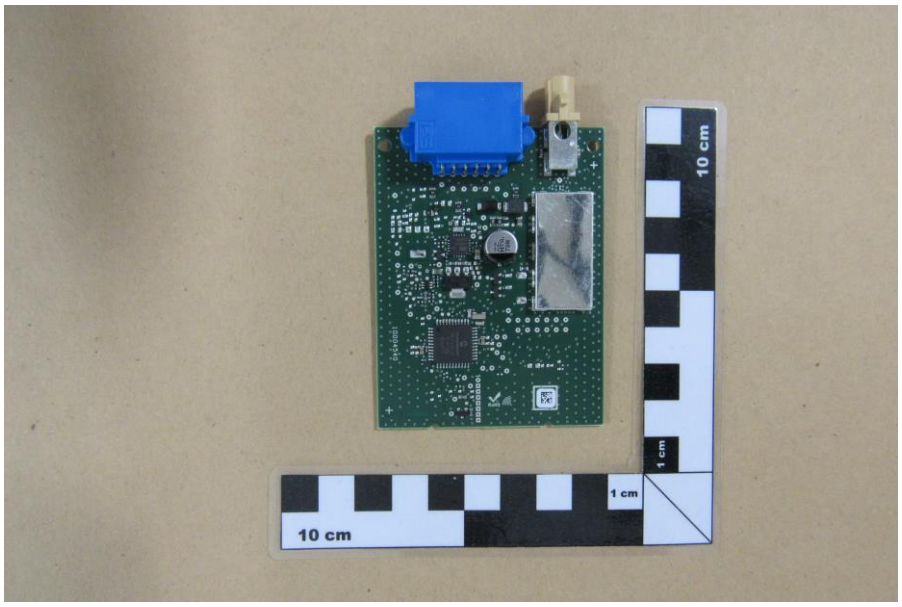
EUT complete

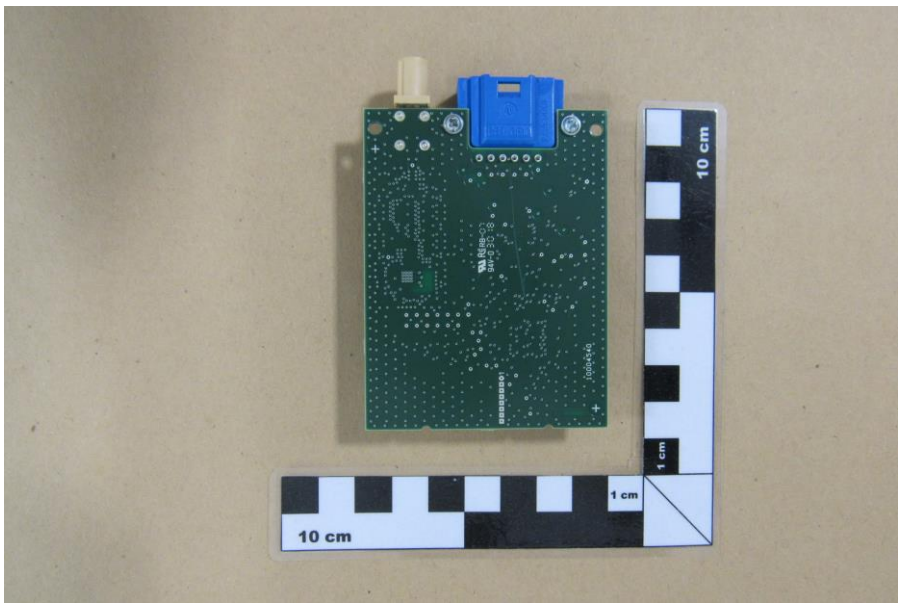
EUT Top

EUT Bottom

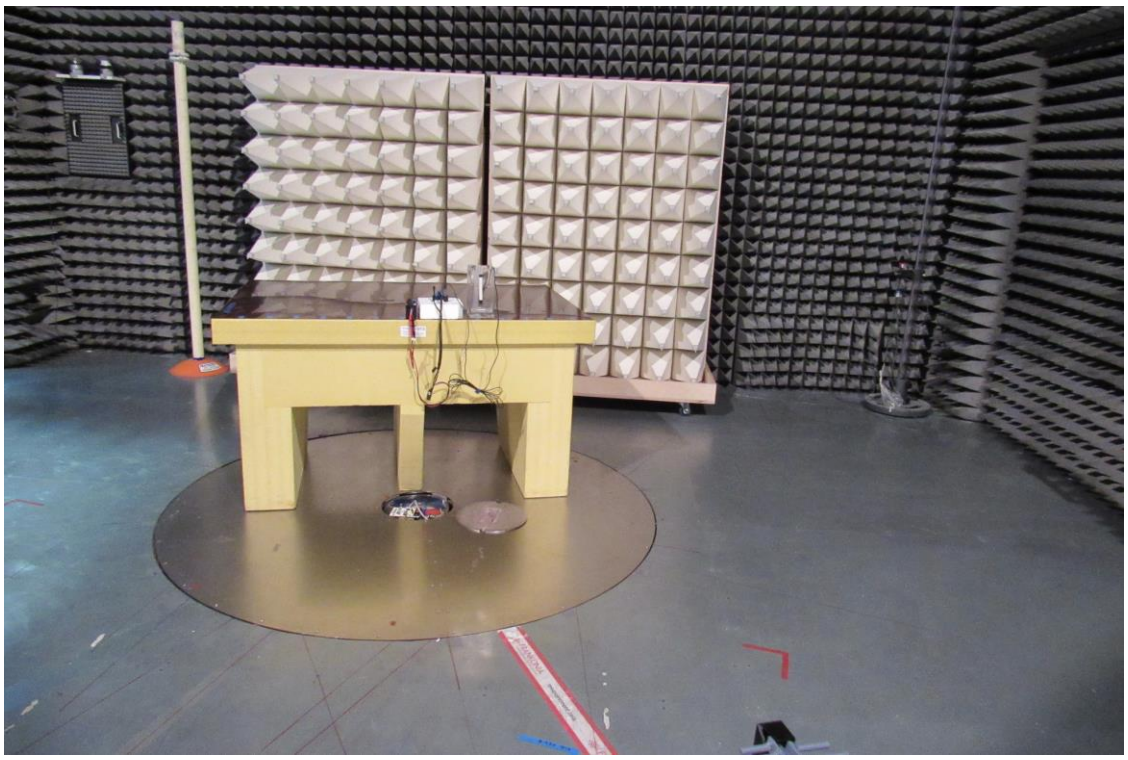
EUT Connector Side


1.2 Photos – Equipment Internal

PCB Top


PCB Bottom


1.3 Photos – Test Setup

Radiated Test Setup


1.4 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
None				
Description:				
AE	Auxiliary Equipment			
SIM	Simulator			
CBL	Connecting Cable			
Comment:				

1.5 Test mode duty cycle

1.5.1 Information

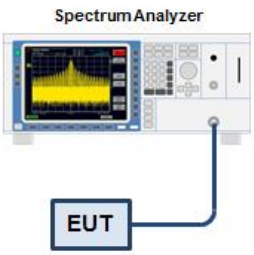
Test Information	
Measurement Method	ANSI C63.10 11.6

1.5.2 Requirements

Requirements	
Duty cycle	Duty cycle correction
≥ 98 %	No correction required
< 98 %	Correction required (10 x Log_{10}(1/DC)

1.5.3 Setup

Test Setup



1.5.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01003	2018-07	2019-07

1.5.5 Procedure

Test Procedure

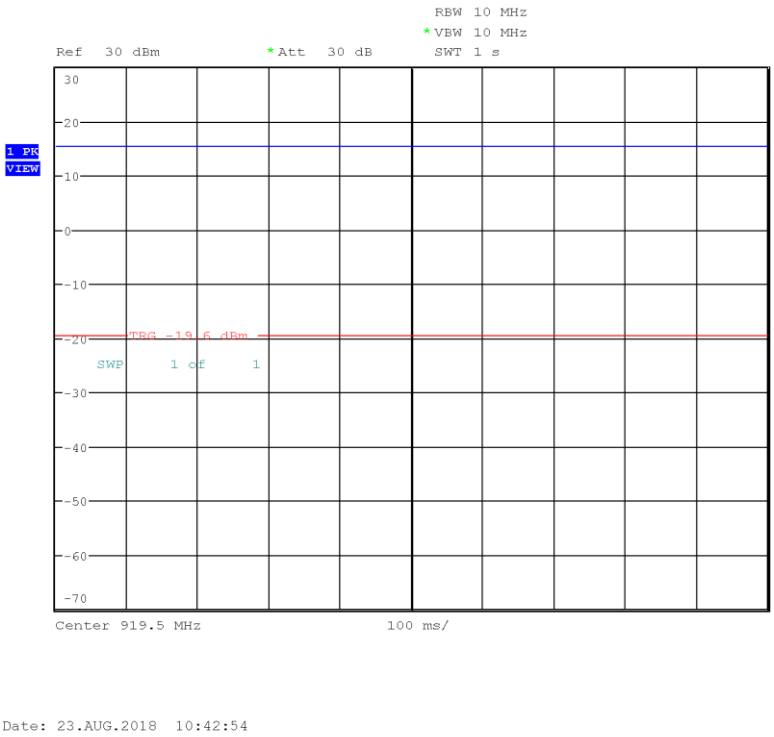
1. EUT set to test mode
2. Span is set to zero span
3. Detector set to peak
4. Sweep time is set long enough to capture at least 5 bursts
5. Envelope peak value of emission spectrum is selected
6. The maximum burst duration T_{ON} is measured using two markers set to the start and the end of the longest burst
7. The minimum idle duration T_{OFF} is measured using two markers set to the start and the end of the shortest idle period
8. The duty cycle is calculated by DC = T_{ON} / (T_{ON} + T_{OFF})
9. The duty cycle correction is calculated by DC = 10 x Log_{10}(T_{ON} / (T_{ON} + T_{OFF}))

1.5.6 Results

Duty Cycle Results		
Mode	Duty Cycle	Correction Factor [dB]
LoRa	100 %	0

Duty Cycle

Project Number:	G0M-1807-7558
Applicant:	digades GmbH
Model Description:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Sample ID:	19985
Reference Standards:	ANSI C63.10:2013
Reference Method:	ANSI C63.10:2013, Section 7.5
Operating Frequency:	919.5 MHz
Operating Conditions:	Tnom/Vnom
Operator:	S. Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2018-08-23
Duty Cycle Period:	100
Maximum Duty Cycle:	1.00
Maximum Duty Cycle [%]:	100
Duty Cycle Correction [dB]:	0.00



1.6 Test Modes

Mode	Description
Transmit	Mode = Transmit Modulation = LoRa Duty cycle = 100 %
Receive	Mode = Receive Modulation = LoRa
Comment:	

1.7 Test Frequencies

Designator	Mode	Channel	Frequency [MHz]
F1	Tx	1	910.5
F2	Tx	2	919.5
F3	Rx	3	915.0

1.8 Sample emission level calculation

The following is a description of terms and a sample calculation, as appears in the radiated emissions data table. The numbers used in the calculation are for example only. There is no direct correlation to the specific data taken for the product described in this document:

Reading:

This is the reading obtained on the spectrum analyzer in dBµV. Any external preamplifiers used are taken into account through internal analyzer settings.

A.F.:

This is the antenna factor for the receiving antenna. It is a conversion factor, which converts electric fields strengths to voltages, which can be measured directly on the spectrum analyzer. It is treated as a loss in dB. Cable losses have been included with the A.F. to simplify the calculations. The antenna factor is used in calculations as follows:

Reading on Analyzer (dBµV) + A.F. (dB) = Net field strength (dBµV/m)

Net:

This is the net field strength measurement (as shown above).

Limit:

This is the FCC Class B radiated emission limit (in units of dBµV/m). The FCC limits are given in units of µV/m. The following formula is used to convert the units of µV/m to dBµV/m:

Limit (dBµV/m) = 20*log (µV/m)

Margin:

This is the margin of compliance below the FCC limit. The units are given in dB. A negative margin indicates the emission was below the limit. A positive margin indicates that the emission exceeds the limit.

Example only:

Reading + AF	= Net Reading	:	Net reading	- FCC limit	= Margin
+21.5 dBµV	+ 26 dB = 47.5 dBµV/m	:	47.5 dBµV/m	- 57.0 dBµV/m	= -9.5 dB

2 Result Summary

FCC 47 CFR Part 15C, ISED RSS-247				
Product Standard Reference	**Requirement**	**Reference Method**	**Result**	**Remarks**
ISED RSS-Gen, Issue 5 (section 6.6)	Occupied Bandwidth	ANSI C63.10-2013	N/R	Informational only
FCC § 15.247(a)(2) ISED RSS-247, Issue 2 (section 5.2)	6 dB Bandwidth	ANSI C63.10-2013	PASS	
FCC § 15.247(b)(1) ISED RSS-247, Issue 2 (section 5.4)	Maximum peak conducted power	ANSI C63.10-2013	PASS	
FCC § 15.247(e) ISED RSS-247, Issue 2 (section 5.2)	Power spectral density	ANSI C63.10-2013	PASS	
FCC § 15.207 ISED RSS-247, Issue 2 (section 3.1)	AC power line conducted emissions	ANSI C63.10-2013	N/R	
FCC § 15.247(d) ISED RSS-247, Issue 2 (section 5.5)	Band edge compliance	ANSI C63.10-2013	PASS	
FCC § 15.247(d) ISED RSS-247, Issue 2 (section 5.5)	Conducted spurious emissions	ANSI C63.10-2013	PASS	
FCC § 15.247(d) FCC § 15.209 ISED RSS-Gen, Issue 5 (section 6.13)	Transmitter radiated spurious emissions	ANSI C63.10-2013	PASS	
ISED RSS-247, Issue 2 (section 3.1)	Receiver radiated spurious emissions	ANSI C63.10-2013	PASS	
Comment:				

Possible Test Case Verdicts	
PASS	Test object does meet the requirements
FAIL	Test object does not meet the requirements
N/T	Required by standard but not tested
N/R	Not required by standard for the test object

3 Test Conditions and Results

3.1 Test Conditions and Results - Occupied bandwidth

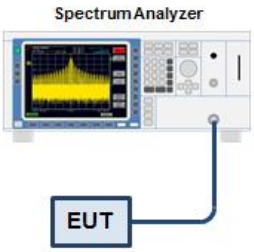
3.1.1 Information

Test Information	
Reference	ISED RSS-Gen, Issue 5 (section 6.6)
Measurement Method	ANSI C63.10 6.9.3
Operator	Sebastian Suckow
Date	2018-08-23

3.1.2 Limits

Limits
None (Informational only)

3.1.3 Setup

Test Setup


3.1.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01003	2018-07	2019-07

3.1.5 Procedure

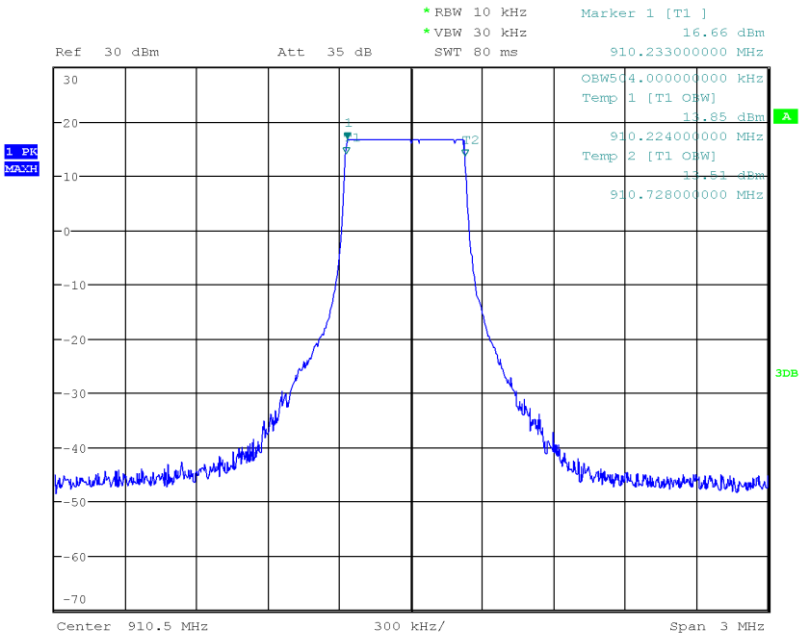
Test Procedure
1. EUT transmitter is activated in test mode under normal conditions 2. The spectrum analyzer is set to peak detection and maximum hold with a span twice the emission spectrum 3. The resolution bandwidth is set to the range of 1 % to 5 % of the occupied bandwidth 4. The occupied bandwidth is measured with the build-in analyzer function

3.1.6 Results

Test Results		
Mode	Frequency [MHz]	Bandwidth [MHz]
Transmit	910.5	0.504
Transmit	919.5	0.507

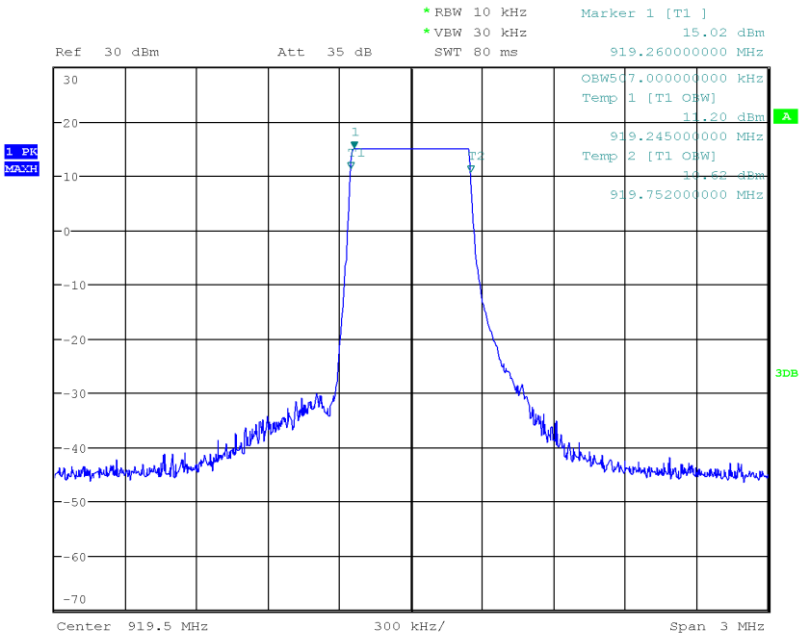
Occupied Bandwidth

Project Number:	G0M-1807-7558
Applicant:	digades GmbH
Model Description:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Sample ID:	19985
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.9.3
Operational Mode:	LoRa, Channel: 910.5 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Sebastian Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2018-08-23
Occupied Bandwidth [MHz]:	0.504



Occupied Bandwidth

Project Number:	G0M-1807-7558
Applicant:	digades GmbH
Model Description:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Sample ID:	19985
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.9.3
Operational Mode:	LoRa, Channel: 919.5 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Sebastian Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2018-08-23
Occupied Bandwidth [MHz]:	0.507



3.2 Test Conditions and Results - 6 dB bandwidth

3.2.1 Information

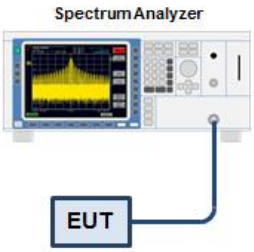
Test Information	
Reference	FCC § 15.247(a)(2); ISED RSS-247, Issue 2 (section 5.2)
Measurement Method	ANSI C63.10 11.8
Operator	Sebastian Suckow
Date	2018-08-23

3.2.2 Limits

Limits
≥ 500kHz

3.2.3 Setup

Test Setup



3.2.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01003	2018-07	2019-07

3.2.5 Procedure

Test Procedure

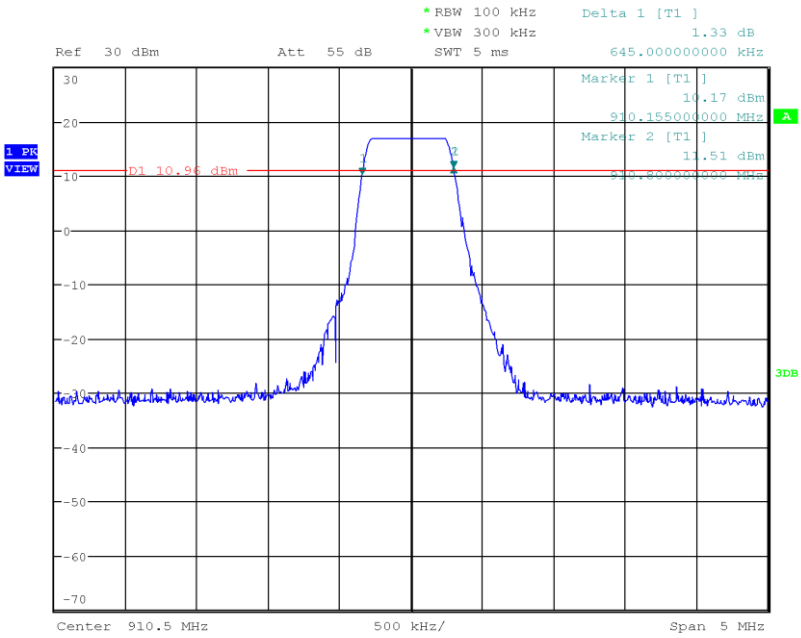
1. EUT set to test mode
2. Span set to at least twice the emission spectrum
3. Detector set to peak and max hold and RBW is set to 100 kHz
4. Envelope peak value of emission spectrum is selected
5. Marker on envelope of spectrum is set to level of -6 dB to the left of the peak
6. Marker on envelope of spectrum is set to level of -6 dB to the right of the peak
7. 6 dB Bandwidth is determined by marker frequency separation

3.2.6 Results

Test Results				
Mode	Frequency [MHz]	Bandwidth [kHz]	Limit [kHz]	Verdict
Transmit	910.5	645	500	PASS
Transmit	919.5	640	500	PASS

DTS (6 dB) Bandwidth

Project Number:	G0M-1807-7558
Applicant:	digades GmbH
Model Description:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Sample ID:	19985
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.8.1 Option 1
Operational Mode:	LoRa, Channel: 910.5 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Sebastian Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2018-08-23
Lower Frequency [MHz]:	910.155
Upper Frequency [MHz]:	910.800
6 dB Bandwidth [kHz]:	645



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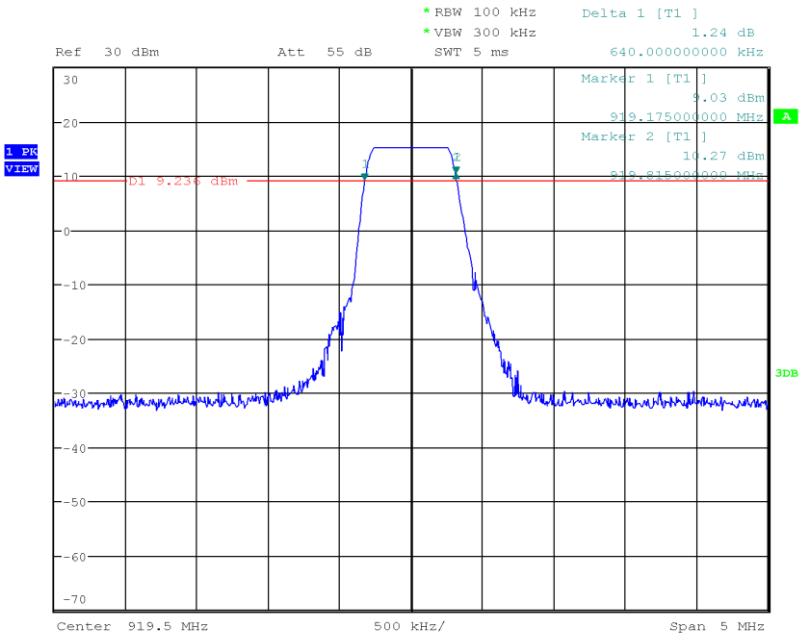
DTS (6 dB) Bandwidth

Project Number:	G0M-1807-7558
Applicant:	digades GmbH
Model Description:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Sample ID:	19985
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.8.1 Option 1
Operational Mode:	LoRa, Channel: 919.5 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Sebastian Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2018-08-23
Lower Frequency [MHz]:	919.175
Upper Frequency [MHz]:	919.815
6 dB Bandwidth [kHz]:	640



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3.3 Test Conditions and Results - Maximum average conducted output power

3.3.1 Information

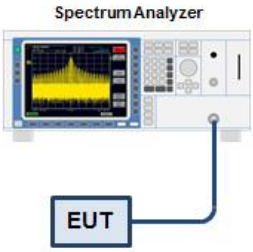
Test Information	
Reference	FCC § 15.247(b)(1); ISED RSS-247, Issue 2 (section 5.4)
Measurement Method	ANSI C63.10 11.9.1
Operator	Sebastian Suckow
Date	2018-08-23

3.3.2 Limits

Limits
1 W (30 dBm)
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.

3.3.3 Setup

Test Setup



3.3.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01003	2018-07	2019-07

3.3.5 Procedure

Test Procedure

1. EUT set to test hopping mode (Communication tester is used if needed)
2. Analyzer resolution bandwidth is set ≥ DTS bandwidth
3. Detector set to peak and max hold
4. Sweep time is set to auto
5. After the trace has stabilized a marker is set to peak of envelope

3.3.6 Results

Test Results				
Channel [MHz]	Power [dBm]	Power [W]	Limit [W]	Verdict
910.5	22.1	0.162	1.0	PASS
919.5	20.8	0.120	1.0	PASS

3.4 Test Conditions and Results - Power spectral density

3.4.1 Information

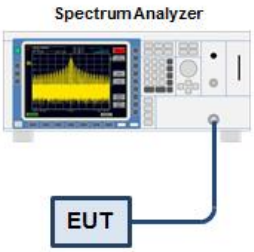
Test Information	
Reference	FCC § 15.247(e); ISED RSS-247, Issue 2 (section 5.2)
Measurement Method	KDB 558074 D01 DTS Measurement Guide V04; Section 10.3
Operator	Sebastian Suckow
Date	2018-08-23

3.4.2 Limits

Limits
8 dBm / 3 kHz

3.4.3 Setup

Test Setup



3.4.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01003	2018-07	2019-07

3.4.5 Procedure

Test Procedure

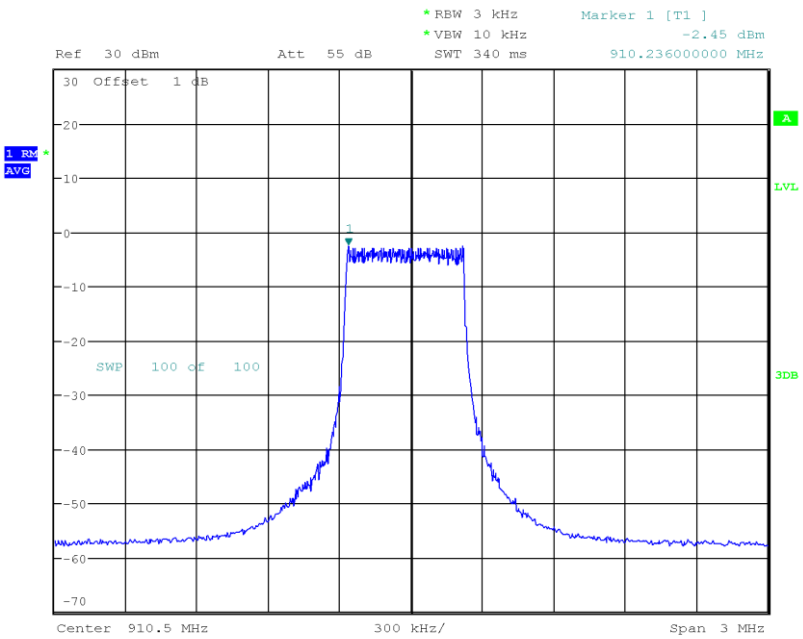
1. EUT set to test mode
2. The analyzer is set to DTS channel center frequency with a span of 1.5 times the DTS bandwidth
3. The RBW is set to 100 kHz with VBW ≥ RBW and the detector is set to peak with max hold
4. After the trace has stabilized a marker is set to the envelope maximum
5. If the power spectral density is above the limit the RBW is reduced (not lower than 3 kHz) and the measurement is repeated
6. If the EUT has more than one transmit chain the procedure is repeated for each transmit chain

3.4.6 Results

Test Results			
Channel [MHz]	PSD [dBm/RBW]	Limit [dBm/3kHz]	Verdict
910.5	-2.45	8.0	PASS
919.5	-5.54	8.0	PASS
RBW = 3 kHz			

Power spectral density 910.5 MHz

Project Number:	G0M-1807-7558
Applicant:	digades GmbH
Model Description:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Sample ID:	19985
Operator:	S. Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2018-08-23
Operating Conditions:	Tnom/Vnom
Reference:	FCC § 15.247(e); ISED RSS-247, Issue 2 (section 5.2)
Measurement Method:	KDB 558074 D01 DTS Measurement Guide V04; Section 10.3



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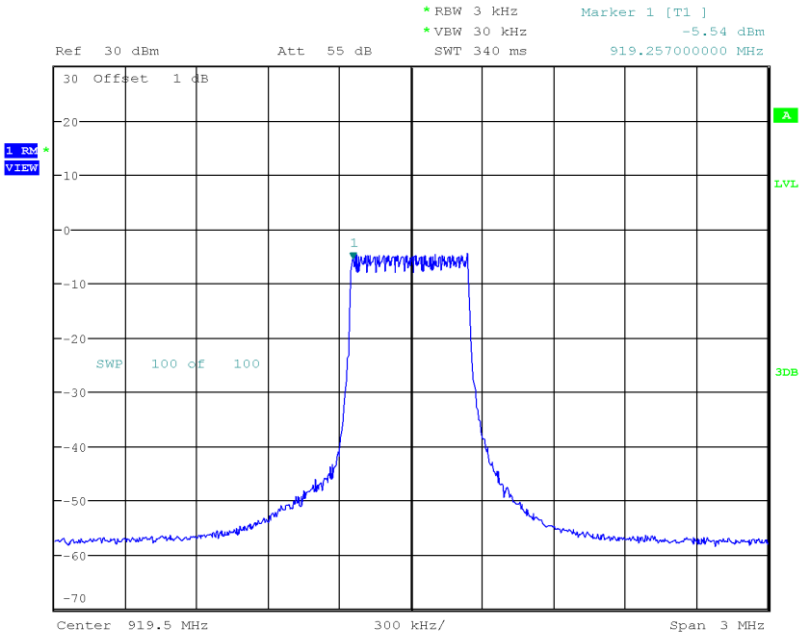
Power spectral density

Project Number:	G0M-1807-7558
Applicant:	digades GmbH
Model Description:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Sample ID:	19985
Operator:	S. Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2018-08-23
Operating Conditions:	Tnom/Vnom
Reference:	FCC § 15.247(e); ISED RSS-247, Issue 2 (section 5.2)
Measurement Method:	KDB 558074 D01 DTS Measurement Guide V04; Section 10.3



3.5 Test Conditions and Results - Band-edge compliance

3.5.1 Information

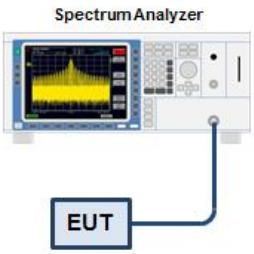
Test Information	
Reference	FCC § 15.247(d); ISED RSS-247, Issue 2 (section 5.5)
Measurement Method	ANSI C63.10 11.13
Operator	Sebastian Suckow
Date	2018-08-23

3.5.2 Limits

Limits	
Power Measurement	Out-of-band attenuation [dB]
RMS	30

3.5.3 Setup

Test Setup



3.5.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01003	2018-07	2019-07

3.5.5 Procedure

Test Procedure

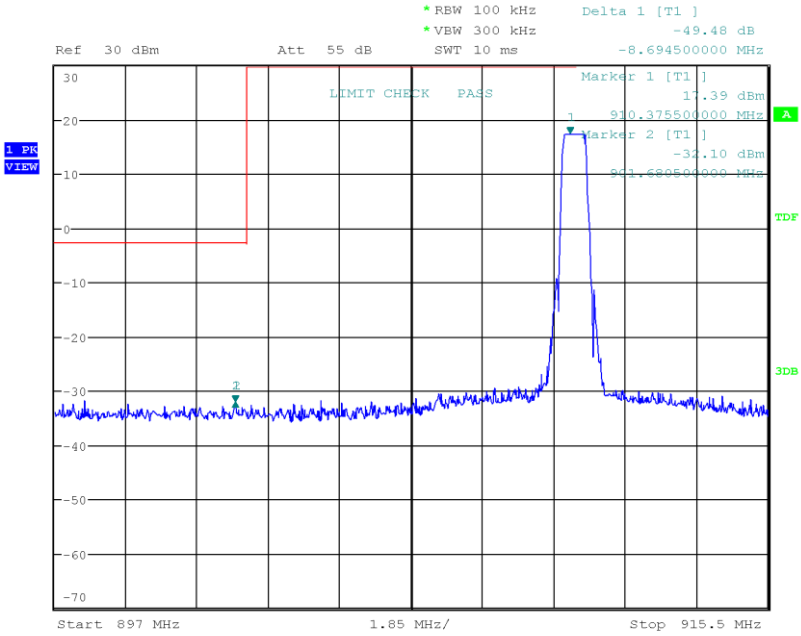
1. EUT set to test mode (Communication tester is used if needed)
2. Span set around lower band edge and detector is set to peak and max hold
3. Resolution bandwidth is set to 100 kHz
4. Markers are set to peak emission levels within frequency band and outside frequency band
5. Band edge attenuation is determined from level difference

3.5.6 Results

Test Results				
Mode	Channel [MHz]	Out-of-band Attenuation [dB]	Limit [dB]	Verdict
Transmit	910.5	-49.48	-30	PASS
Transmit	919.5	-57.66	-30	PASS

Band-edge Compliance

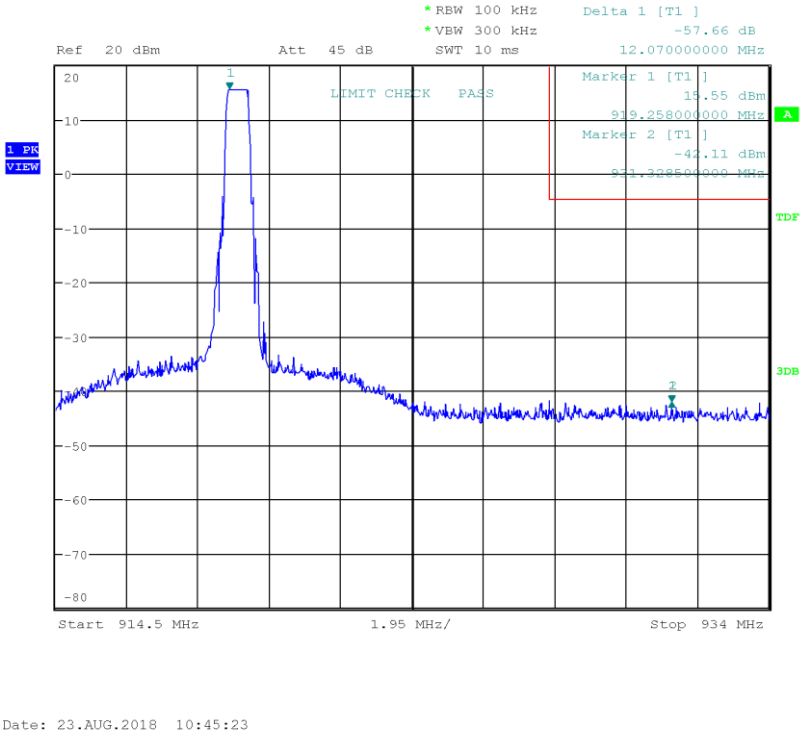
Project Number:	G0M-1807-7558
Applicant:	digades GmbH
Model Description:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Sample ID:	19985
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.10
Operational Mode:	single frequency, Channel: 910.5 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Sebastian Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2018-08-23
Band-edge	Lower
In-band Frequency [MHz]:	910.375
Max. in-band Level [dBm/100 kHz]:	17.386
Out-of-band Frequency [MHz]:	901.681
Max. out-of-band Level [dBm/100 kHz]:	-32.095
Attenuation [dB]:	-49.48



Date: 23.AUG.2018 14:59:59

Band-edge Compliance

Project Number:	G0M-1807-7558
Applicant:	digades GmbH
Model Description:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Sample ID:	19985
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.10
Operational Mode:	single frequency, Channel: 919.5 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Sebastian Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2018-08-23
Band-edge	Upper
In-band Frequency [MHz]:	919.258
Max. in-band Level [dBm/100 kHz]:	15.55
Out-of-band Frequency [MHz]:	931.328
Max. out-of-band Level [dBm/100 kHz]:	-42.109
Attenuation [dB]:	-57.66



3.6 Test Conditions and Results - Conducted spurious emissions

3.6.1 Information

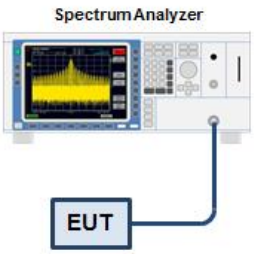
Test Information	
Reference	FCC § 15.247(d); ISED RSS-247, Issue 2 (section 5.5)
Measurement Method	ANSI C63.10 11.11
Operator	Sebastian Suckow
Date	2018-08-23

3.6.2 Limits

Limits	
Power Measurement	Out-of-band attenuation [dB]
RMS	30

3.6.3 Setup

Test Setup



3.6.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01003	2018-07	2019-07

3.6.5 Procedure

Test Procedure

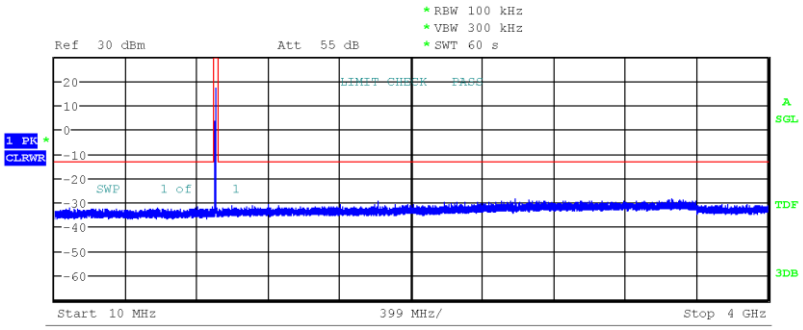
1. EUT set to test mode (Communication tester is used if needed)
2. Span set around lower band edge and detector is set to peak and max hold
3. Resolution bandwidth is set to 100 kHz
4. Markers are set to peak emission levels within frequency band and outside frequency band
5. Band edge attenuation is determined from level difference

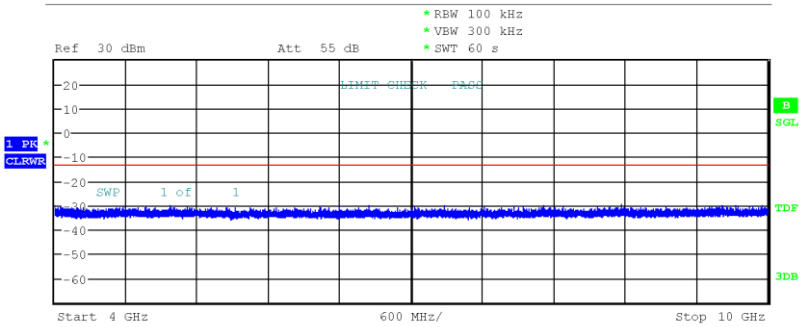
3.6.6 Results

Test Results		
Mode	Channel [MHz]	Verdict
Transmit	910.5	PASS
Transmit	919.5	PASS

Conducted Spurious Emissions

Project Number:	G0M-1807-7558
Applicant:	digades GmbH
Model Description:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Sample ID:	19985
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.11
Operational Mode:	LoRa, Channel: 910.5 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Sebastian Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2018-08-23
Max. in-band Frequency [MHz]:	910.3
Max. in-band Level [dBm/100 kHz]:	17.3
Out-of-band Limit [dBm/100 kHz]:	-12.7

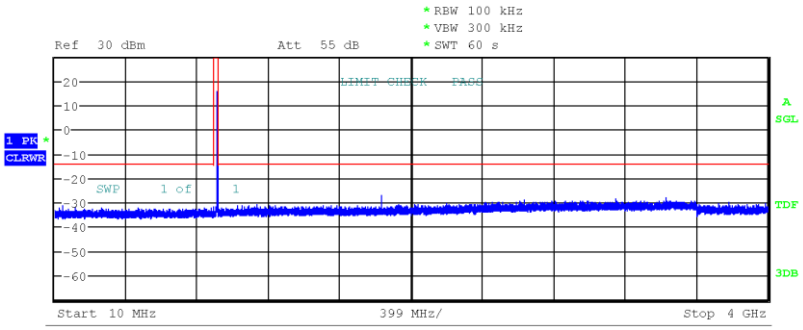


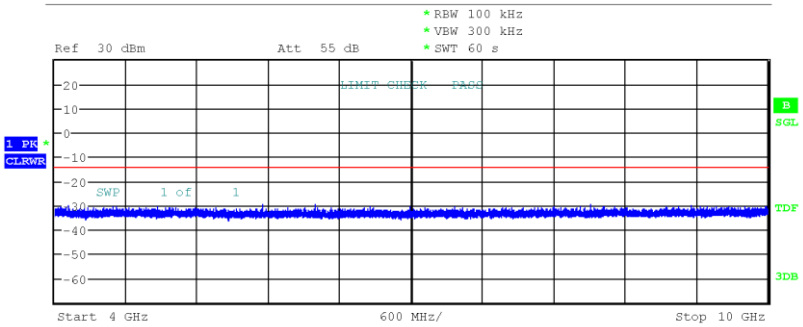


Date: 23.AUG.2018 15:35:00

Conducted Spurious Emissions

Project Number:	G0M-1807-7558
Applicant:	digades GmbH
Model Description:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Sample ID:	19985
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.11
Operational Mode:	LoRa, Channel: 919.5 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Sebastian Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2018-08-23
Max. in-band Frequency [MHz]:	919.3
Max. in-band Level [dBm/100 kHz]:	15.6
Out-of-band Limit [dBm/100 kHz]:	-14.4





Date: 23.AUG.2018 16:11:30

3.7 Test Conditions and Results - Transmitter radiated emissions

3.7.1 Information

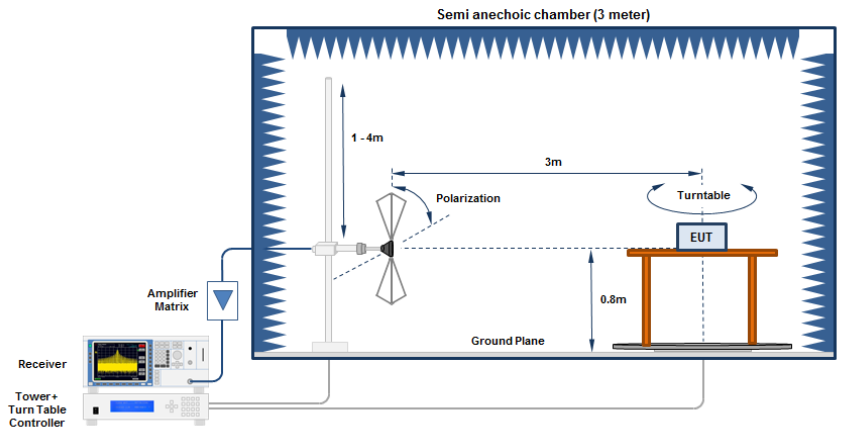
Test Information	
Reference	FCC § 15.247(d); FCC § 15.209; ISED RSS-Gen, Issue 5 (section 6.13)
Measurement Method	ANSI C63.10 6.4, 6.5, 6.6, 11.12
Operator	Sebastian Suckow
Date	2018-08-23 – 2018-08-24

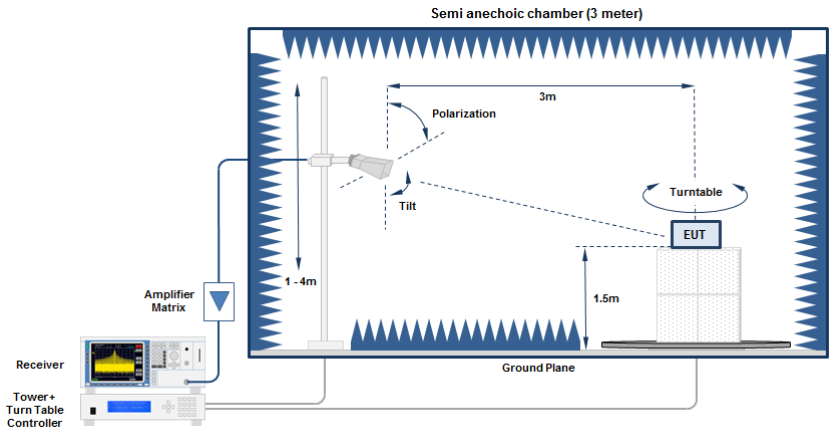
3.7.2 Limits

Limits			
Frequency [MHz]	Detector	Field strength [µV/m]	Measurement distance [m]
0.009 - 0.09	Average	2400/F[kHz]	300
0.09 - 0.110	Quasi-Peak	2400/F[kHz]	300
0.110 - 0.490	Average	2400/F[kHz]	300
0.490 - 1.705	Quasi-Peak	24000/F[kHz]	30
1.705 - 30.0	Quasi-Peak	30	30
30 - 88	Quasi-Peak	100	3
88 - 216	Quasi-Peak	150	3
216 - 960	Quasi-Peak	200	3
960 - 1000	Quasi-Peak	500	3
>1000	Average	500	3

3.7.3 Setup

Test Setup 30 - 1000 MHz



Test Setup > 1 GHz


3.7.4 Equipment

Test Equipment 30 - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	-	-
EMI Test Receiver	R&S	ESR7	EF00943	2018-07	2019-07
Antenna	R&S	HK 116	EF00030	2016-04	2019-04
Antenna	R&S	HL 223	EF00212	2016-04	2019-04
Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	-	-
EMI Test Receiver	R&S	ESR7	EF00943	2018-07	2019-07
Antenna	R&S	BBHA 9120D	EF00018	2016-09	2019-09

3.7.5 Procedure

Test Procedure 30 - 1000 MHz
1. EUT is placed on a non conducting support at the center of a turn table 0.8 m above the ground 2. EUT set to test mode 3. The receiver is set to peak detection with max hold 4. The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m 5. All significant emissions are measured again using the corresponding final detector

Test Procedure > 1 GHz
1. EUT is placed on a non conducting support at the center of a turn table 1.5 m above the ground 2. EUT set to test mode 3. The receiver is set to peak detection with max hold 4. The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m 5. All significant emissions are measured again using the corresponding final detector

3.7.6 Results

Test Results						
Channel [MHz]	Emission [MHz]	Level [dBµV/m]	Det.	Pol.	Limit [dBµV/m]	Margin [dB]
910.5	1821	58.07	pk	hor	95.00	-36.93
910.5	1821	62.83	pk	ver	95.00	-32.17
910.5	2729	40.24	pk	ver	74.00	-33.76
919.5	1836	62.75	pk	hor	95.00	-32.25
919.5	1063	45.68	pk	ver	74.00	-28.32
919.5	1836	66.65	pk	ver	95.00	-28.35
919.5	2759	41.18	pk	ver	74.00	-32.82

3.8 Test Conditions and Results - Receiver radiated emissions

3.8.1 Information

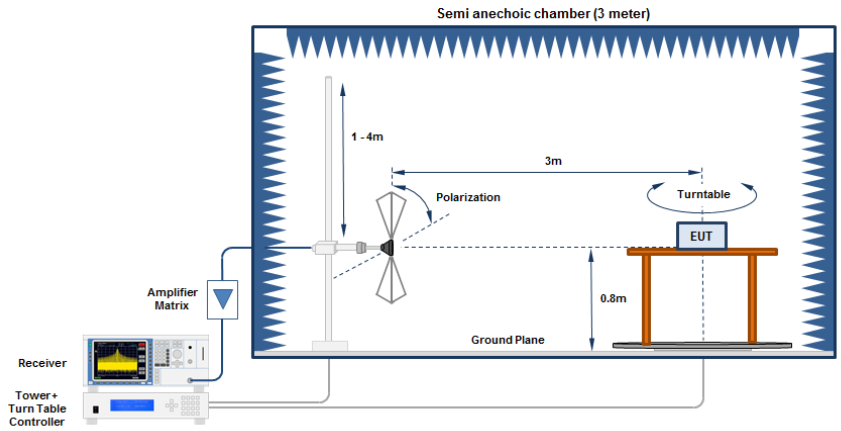
Test Information	
Reference	ISED RSS-247, Issue 2 (section 3.1)
Measurement Method	ANSI C63.10 6.5, 6.6, 11.12
Operator	Sebastian Suckow
Date	2018-08-23 – 2018-08-24

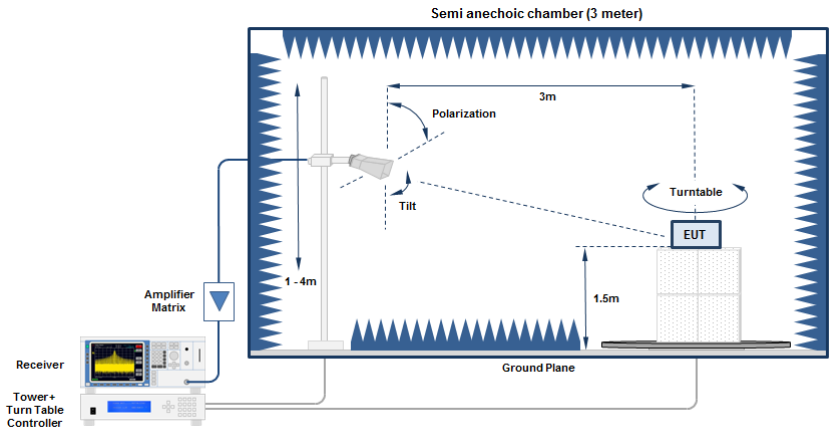
3.8.2 Limits

Limits			
Frequency [MHz]	Detector	Field strength [dBµV/m]	Measurement distance [m]
30 - 88	Quasi-Peak	100	3
88 - 216	Quasi-Peak	150	3
216 - 960	Quasi-Peak	200	3
960 - 1000	Quasi-Peak	500	3
>1000	Average	500	3

3.8.3 Setup

Test Setup 30 - 1000 MHz



Test Setup > 1 GHz


3.8.4 Equipment

Test Equipment 30 - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	-	-
EMI Test Receiver	R&S	ESR7	EF00943	2018-07	2019-07
Antenna	R&S	HK 116	EF00030	2016-04	2019-04
Antenna	R&S	HL 223	EF00212	2016-04	2019-04
Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	-	-
EMI Test Receiver	R&S	ESR7	EF00943	2018-07	2019-07
Antenna	R&S	BBHA 9120D	EF00018	2016-09	2019-09

3.8.5 Procedure

Test Procedure 30 - 1000 MHz
1. EUT is placed on a non conducting support at the center of a turn table 0.8 m above the ground 2. EUT set to test mode 3. The receiver is set to peak detection with max hold 4. The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m 5. All significant emissions are measured again using the corresponding final detector

Test Procedure > 1 GHz
1. EUT is placed on a non conducting support at the center of a turn table 1.5 m above the ground 2. EUT set to test mode 3. The receiver is set to peak detection with max hold 4. The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m 5. All significant emissions are measured again using the corresponding final detector

3.8.6 Results

Test Results						
Channel [MHz]	Emission [MHz]	Level [dBµV/m]	Det.	Pol.	Limit [dBµV/m]	Margin [dB]
915.0	7944	48.30	pk	ver	53.98	-05.68

ANNEX A Transmitter spurious emissions

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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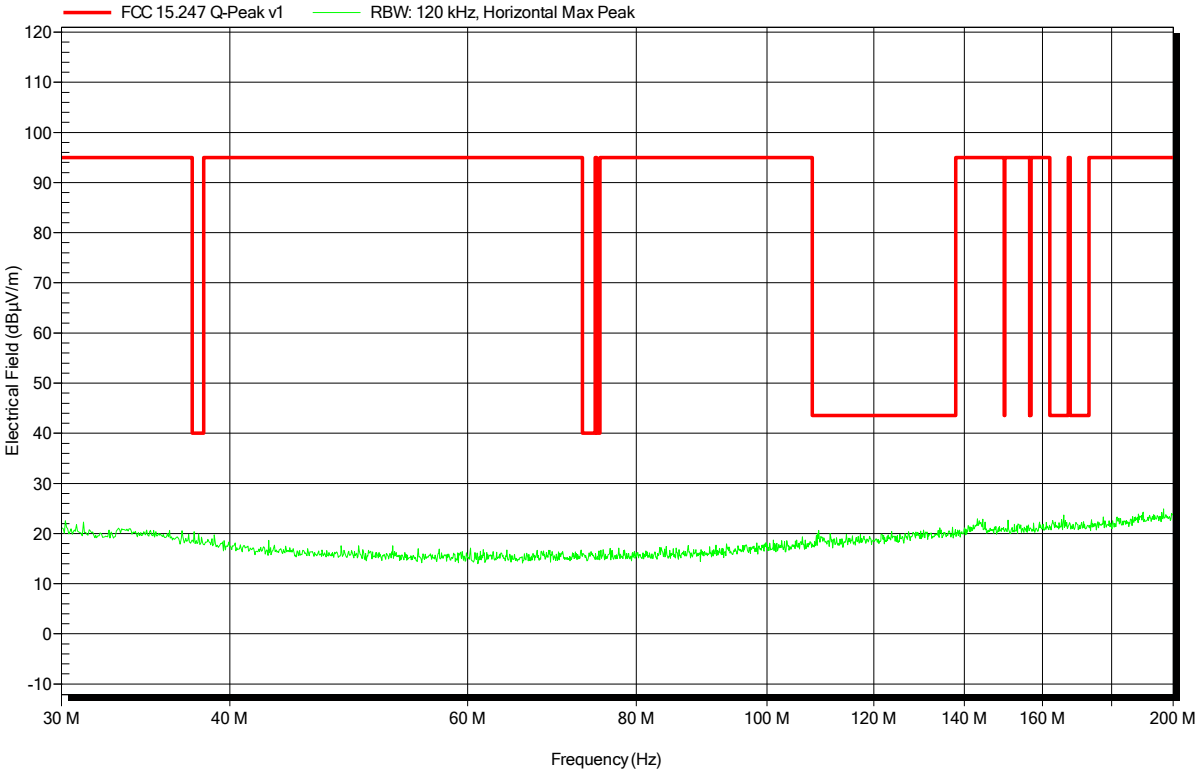

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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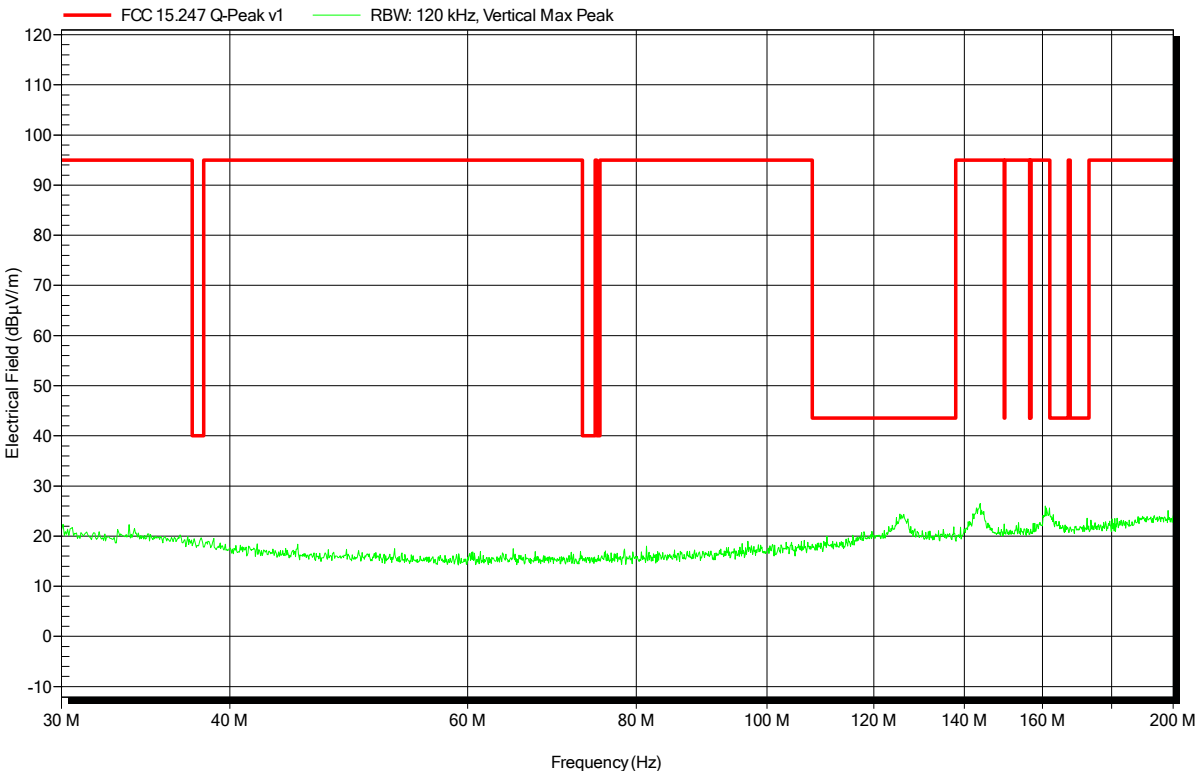

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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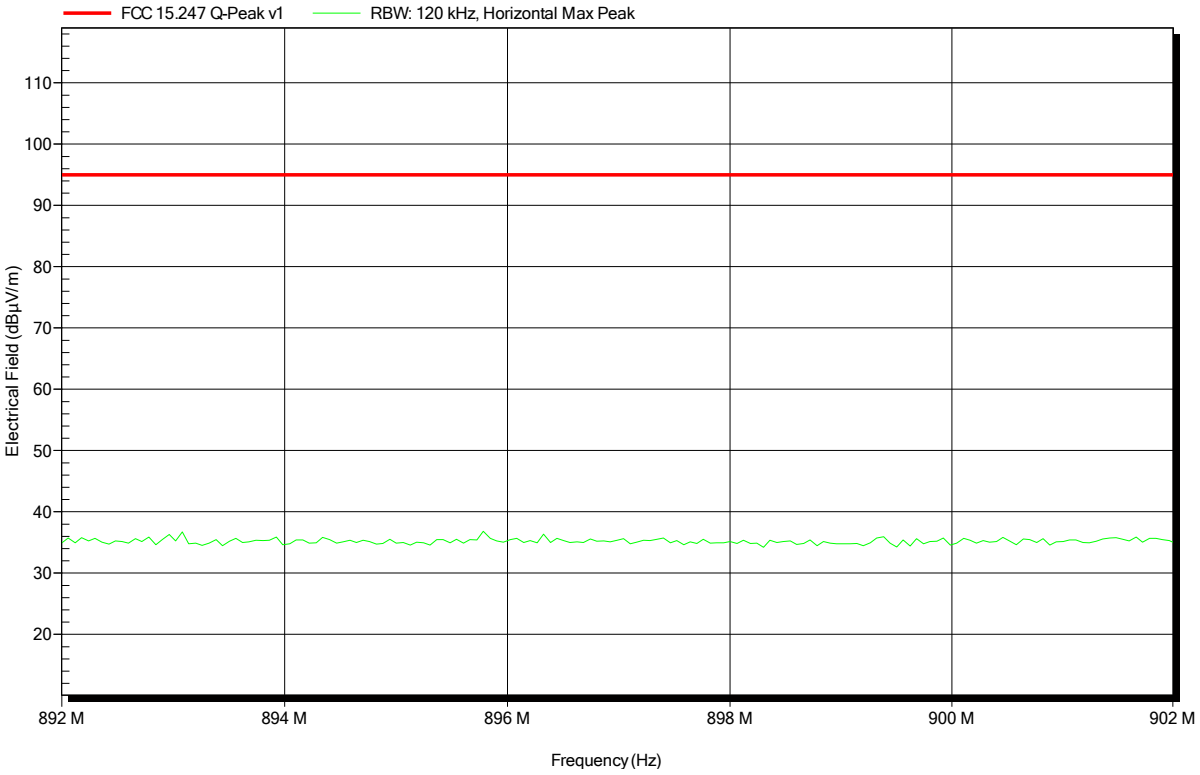

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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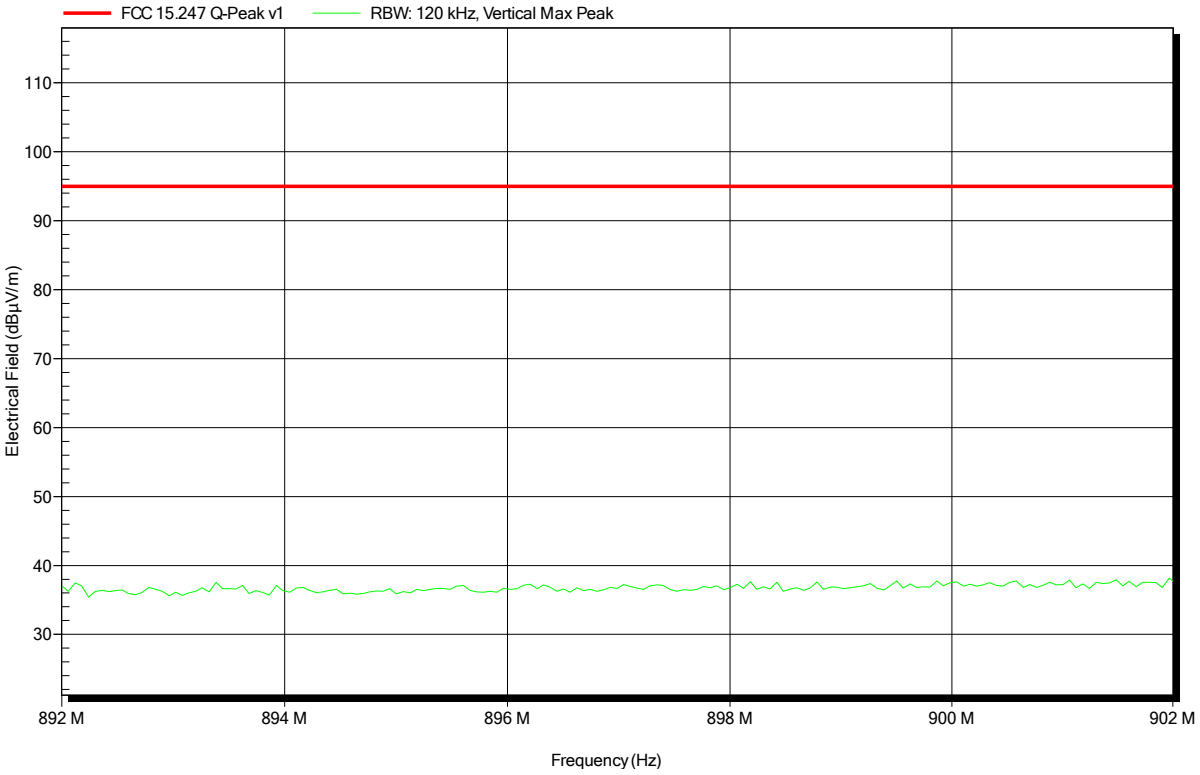

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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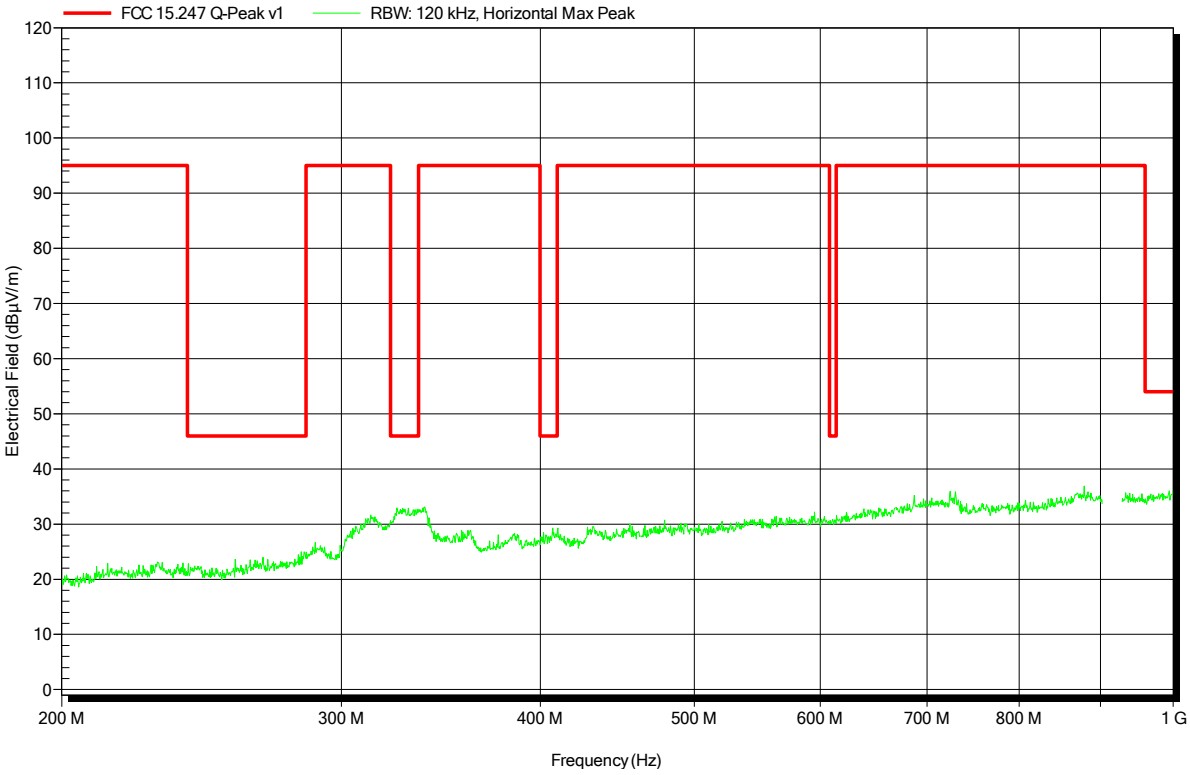

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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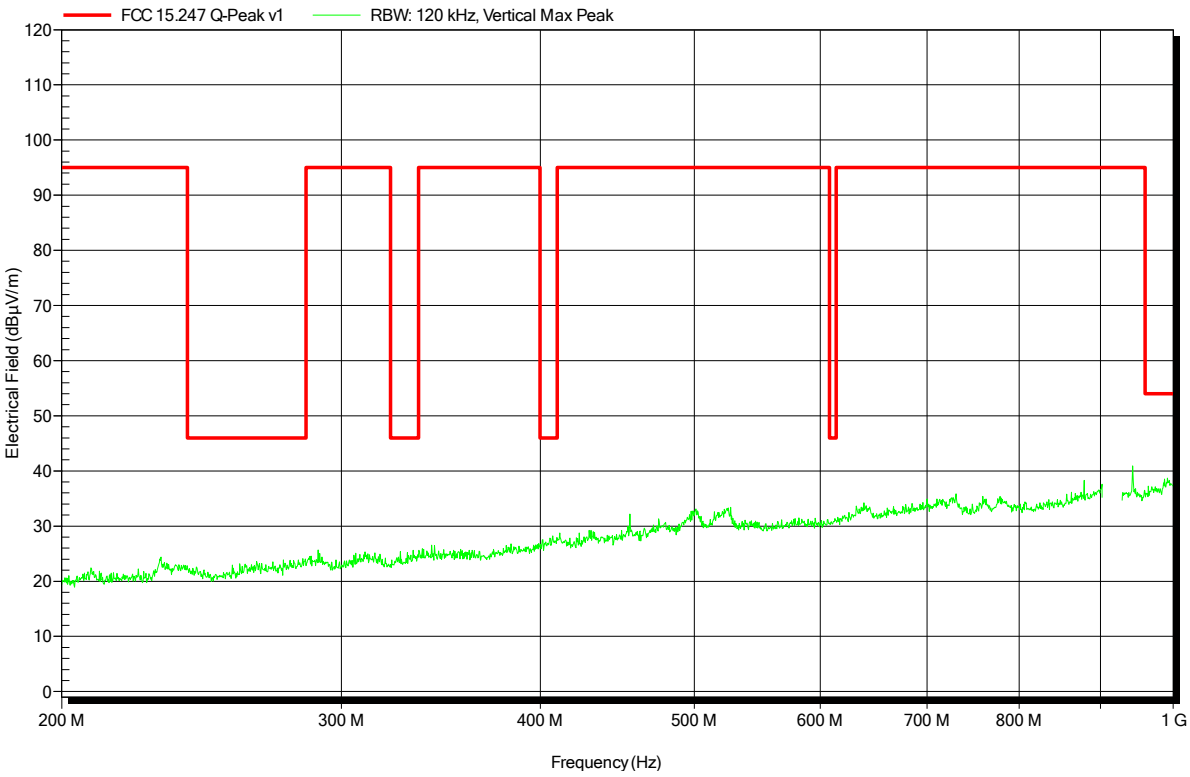

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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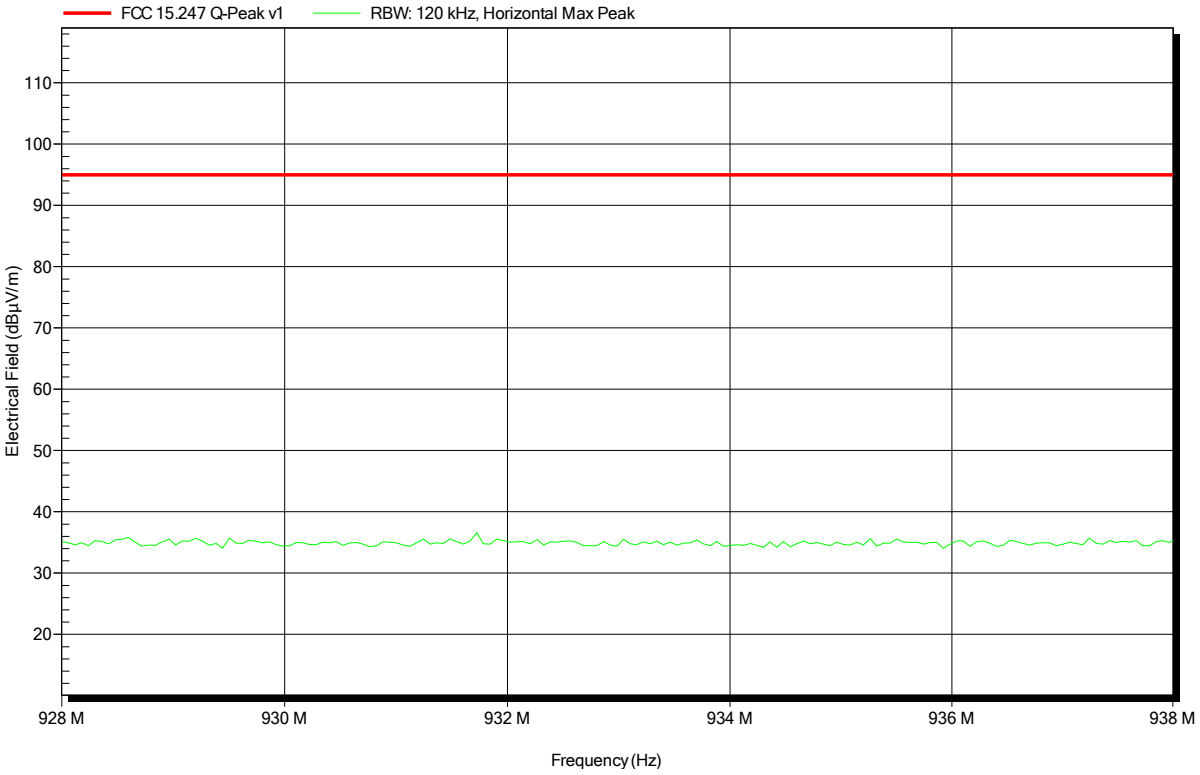

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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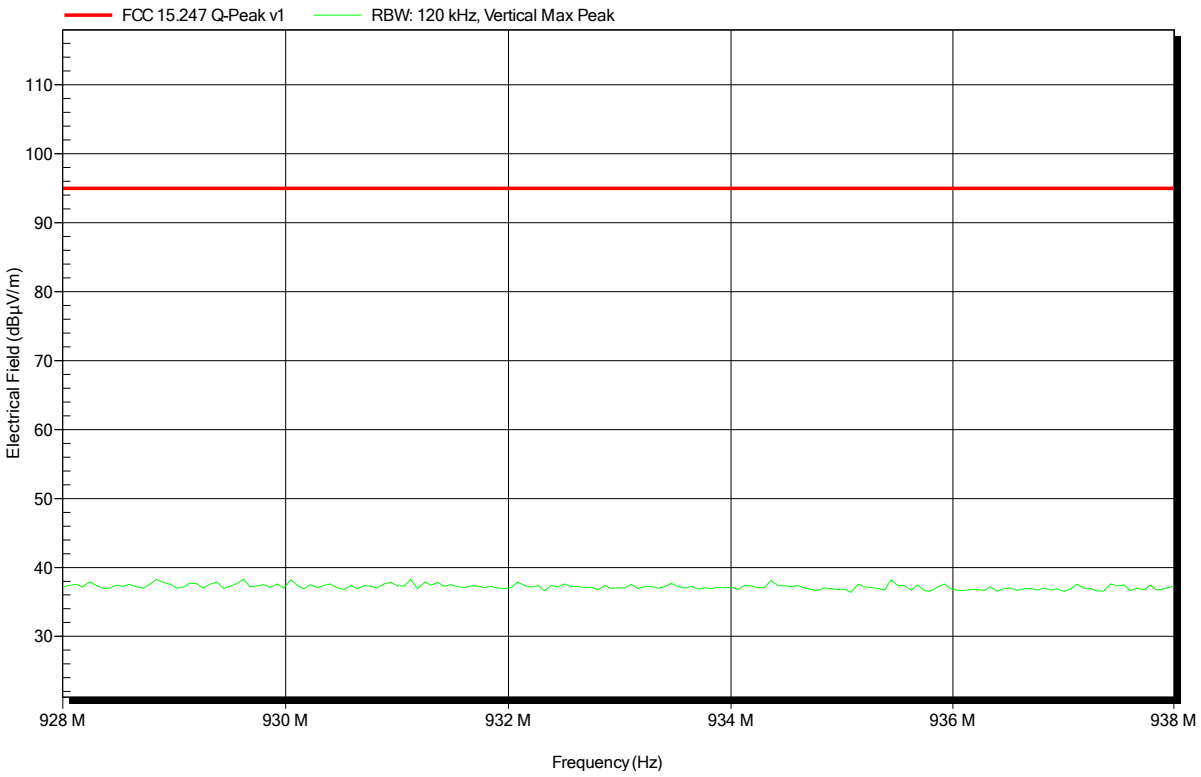

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-23
Note:	

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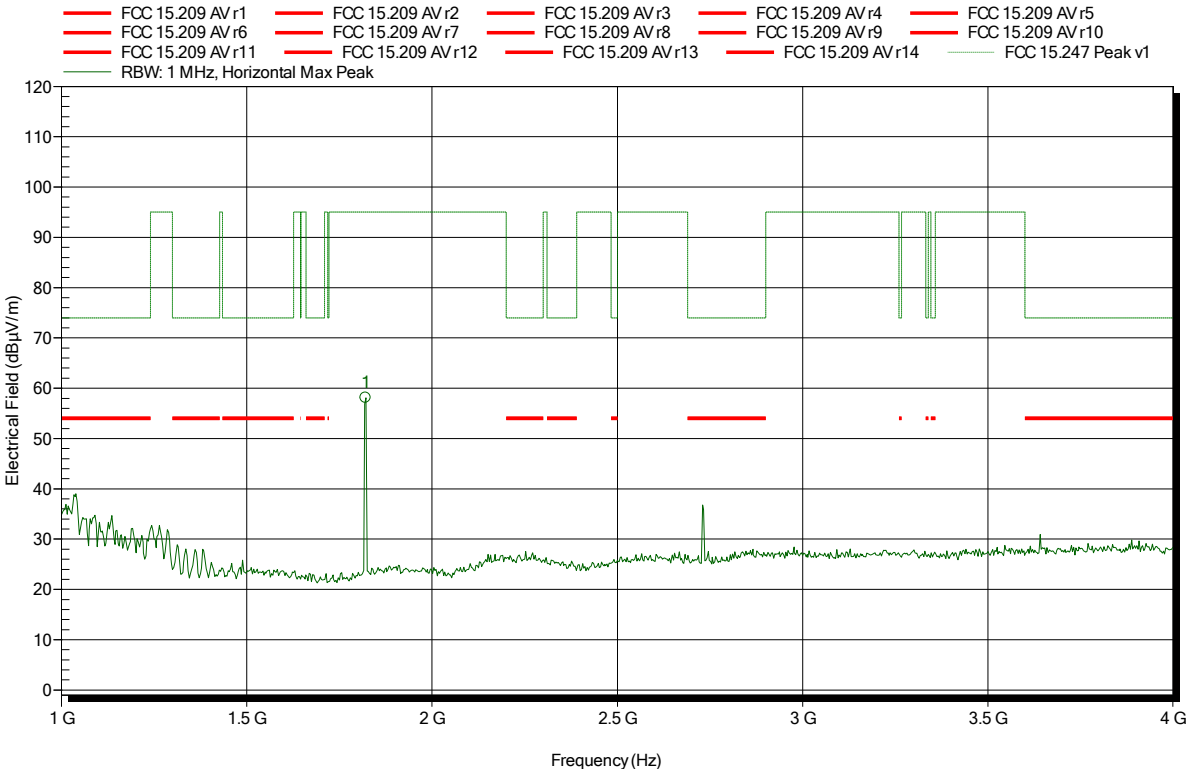

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.821 GHz	58.07 dBµV/m	95 dBµV/m	-36.93 dB	Pass

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-23
Note:	

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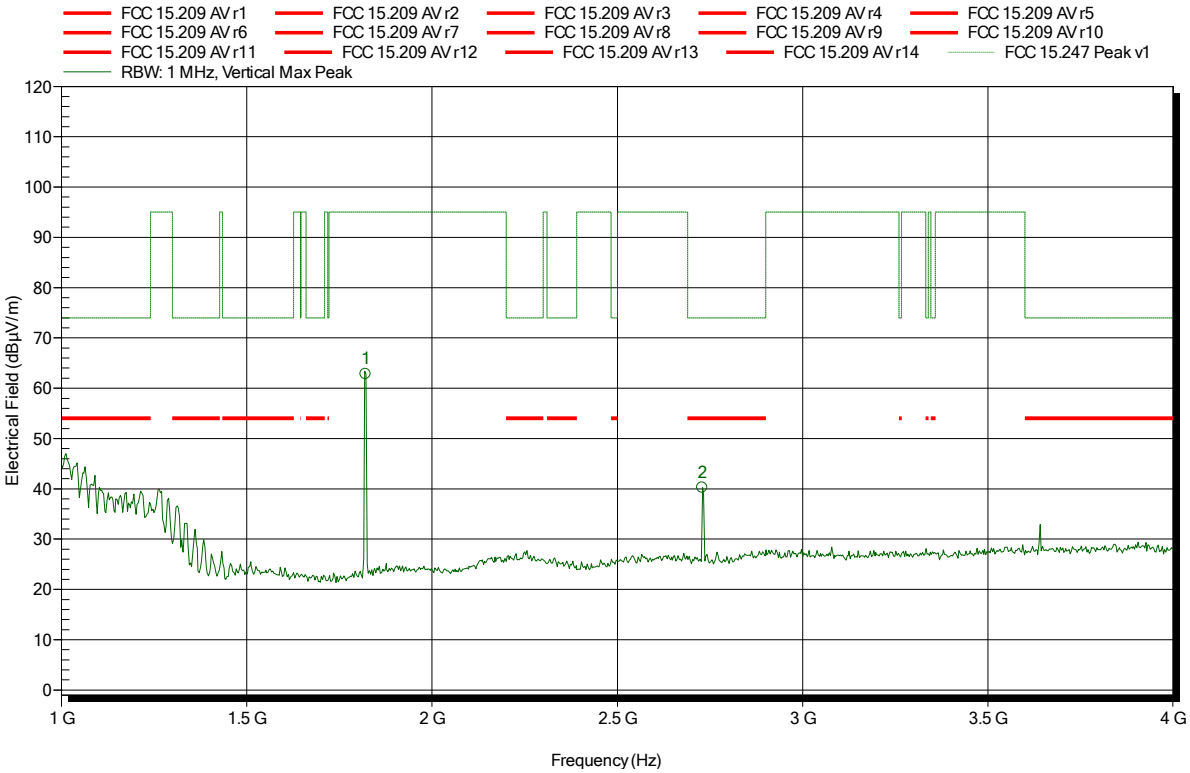

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.821 GHz	62.83 dBµV/m	95 dBµV/m	-32.17 dB	Pass
2.729 GHz	40.24 dBµV/m	74 dBµV/m	-33.76 dB	Pass

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-23
Note:	

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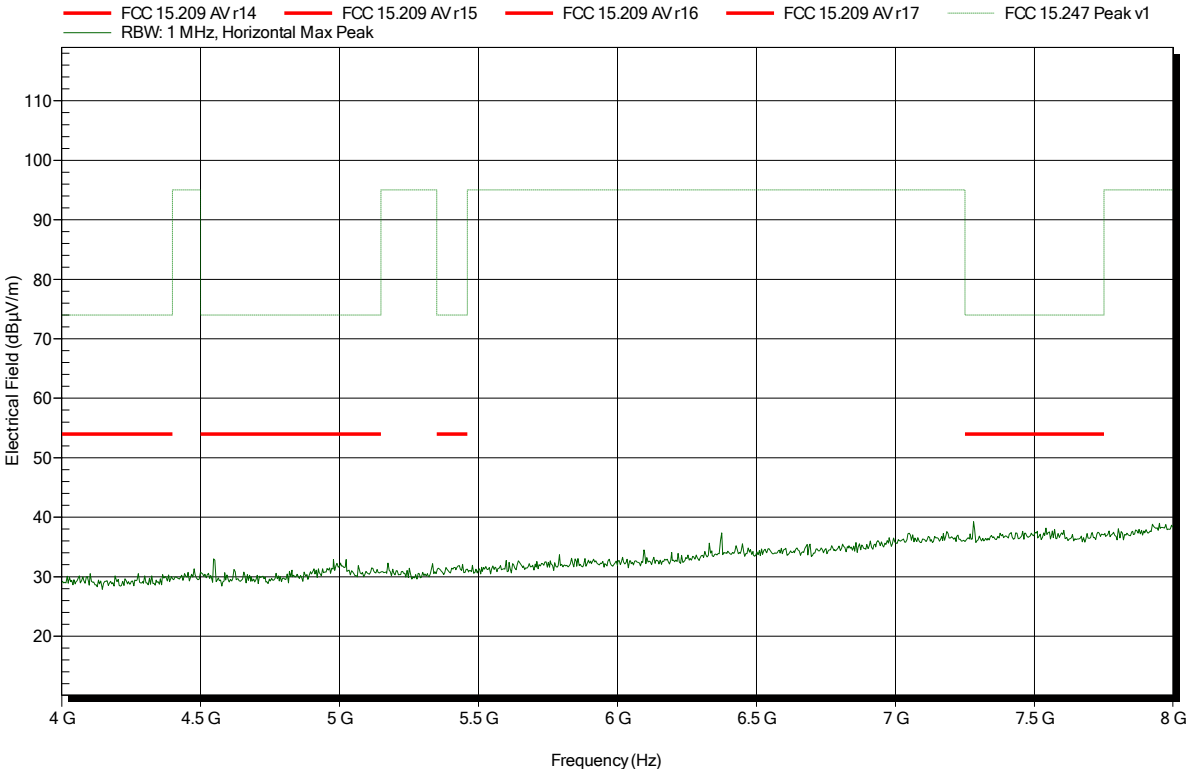

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-23
Note:	

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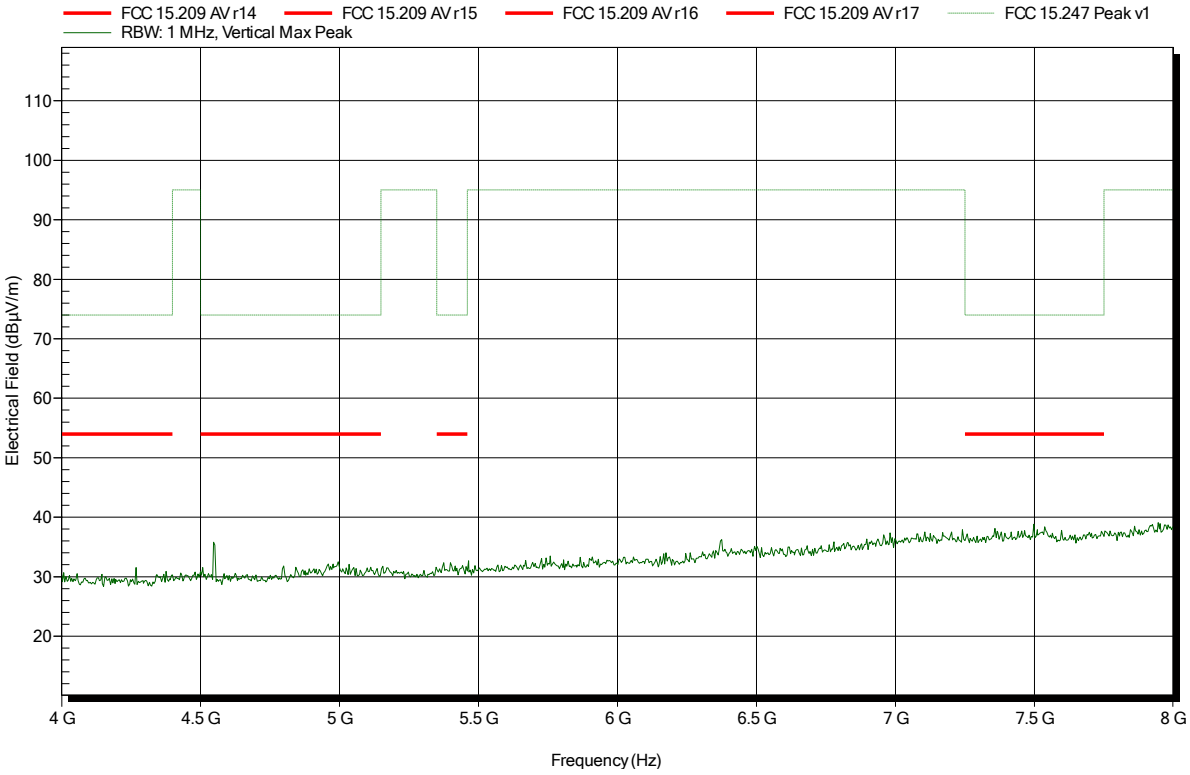

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-23
Note:	

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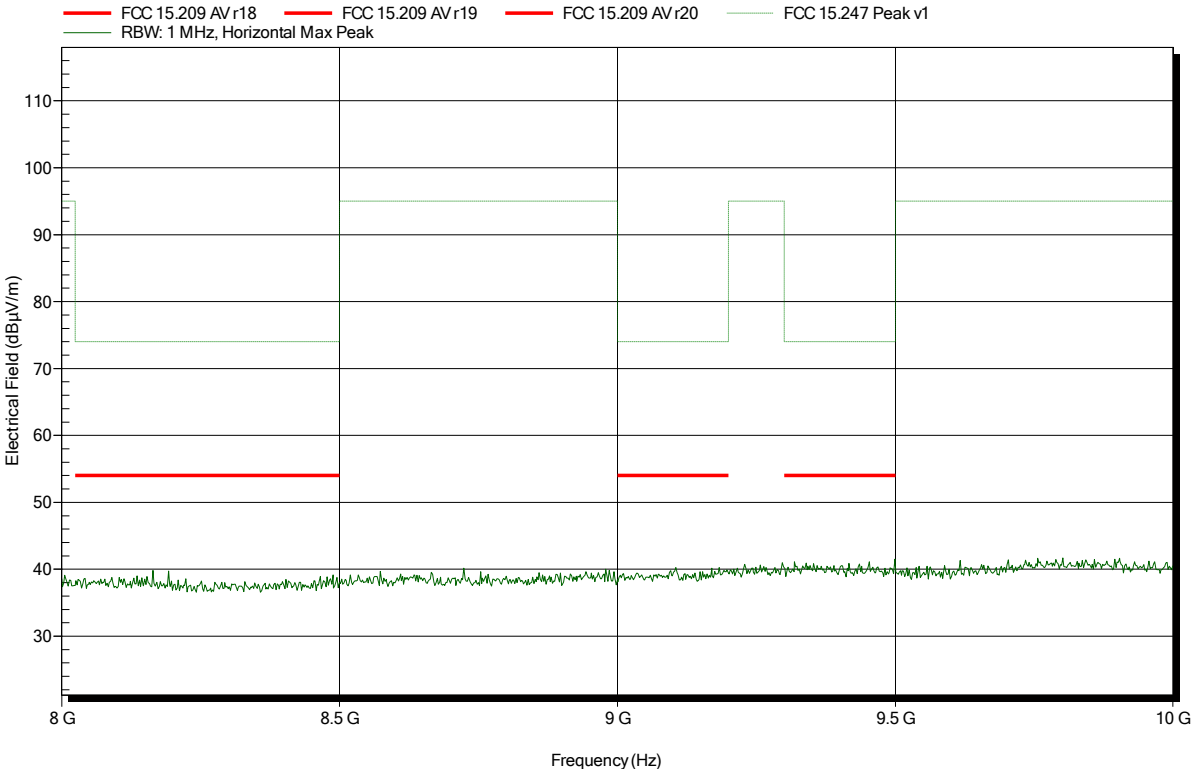

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; SRD 910.5 MHz LoRa
Test Date:	2018-08-23
Note:	

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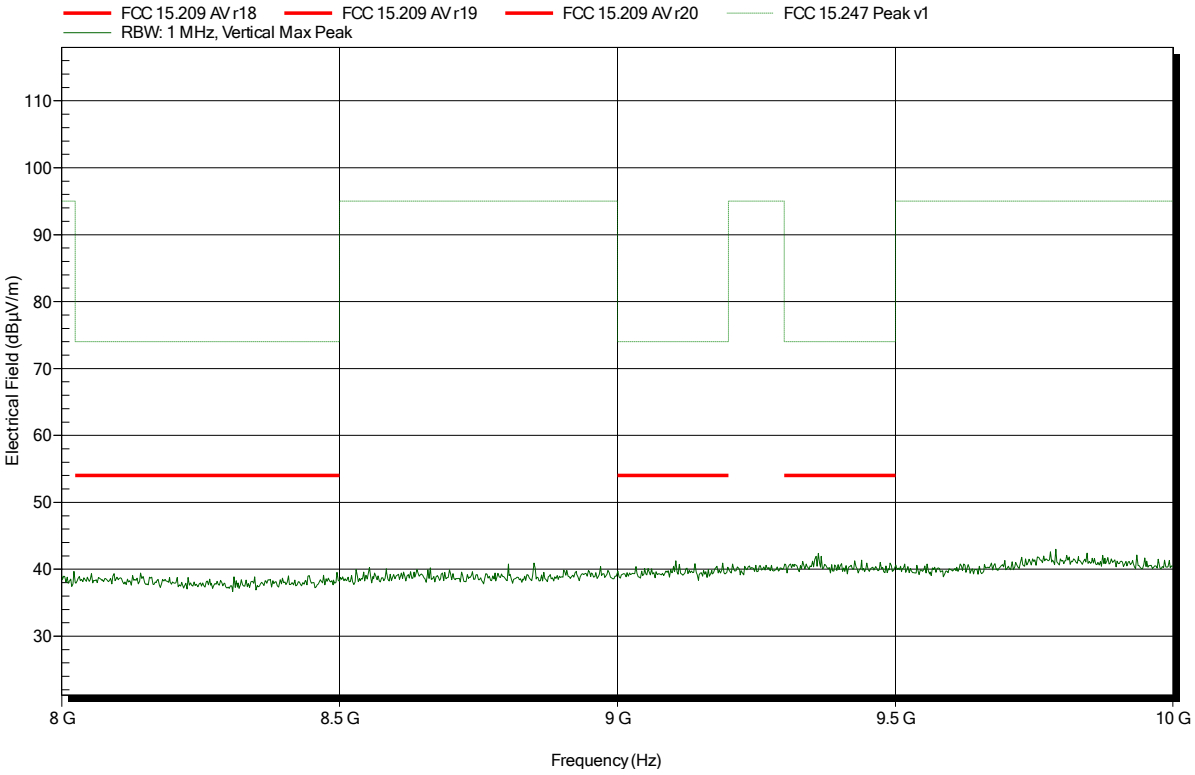

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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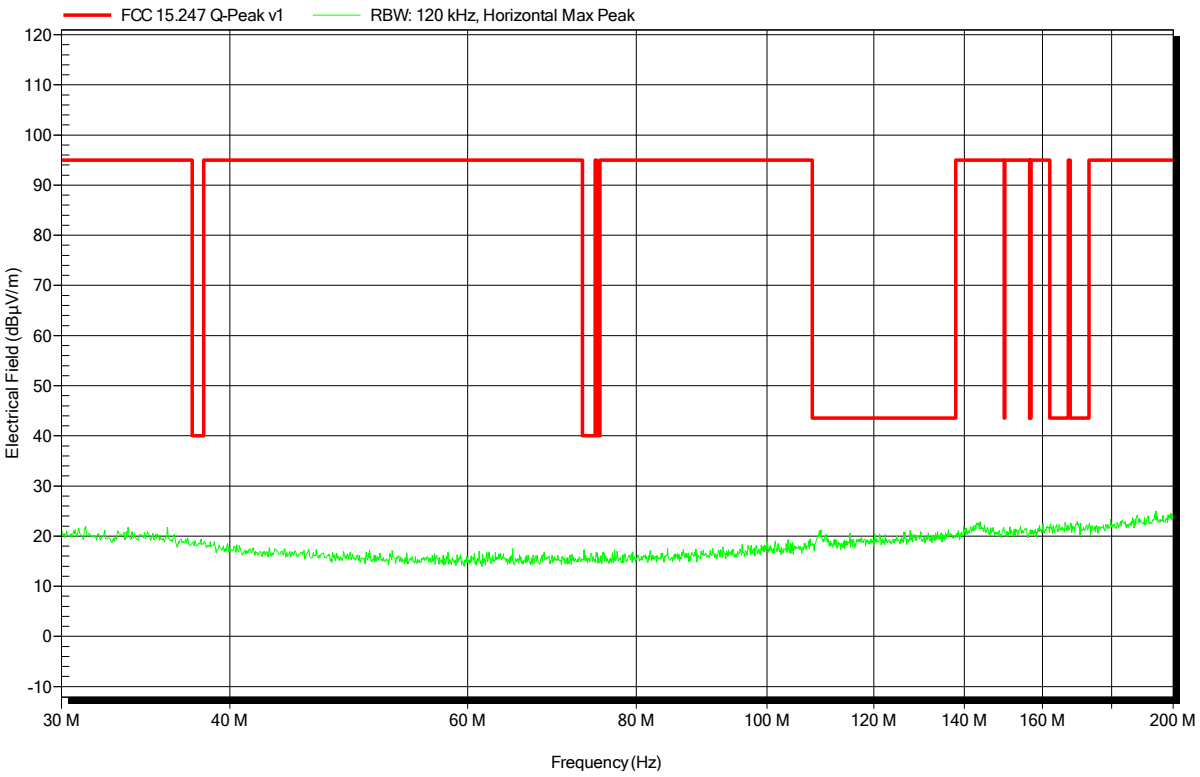

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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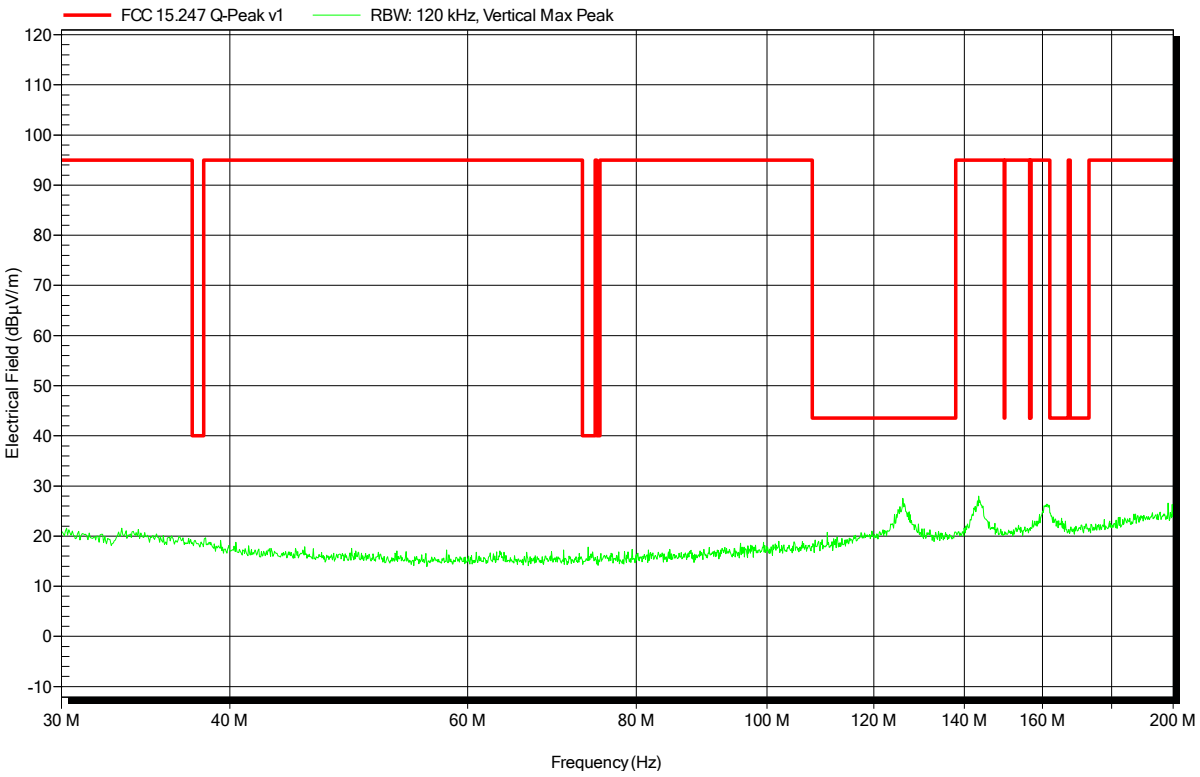
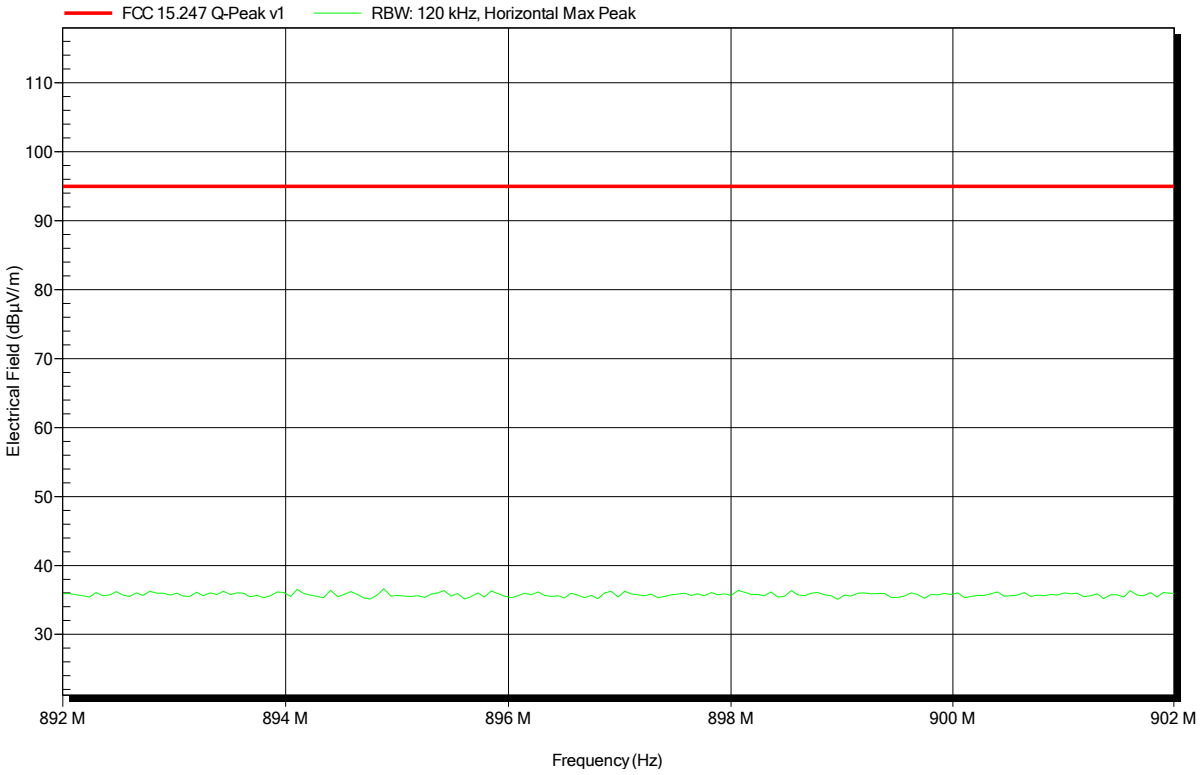


Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-24
Note:	

Index 1



Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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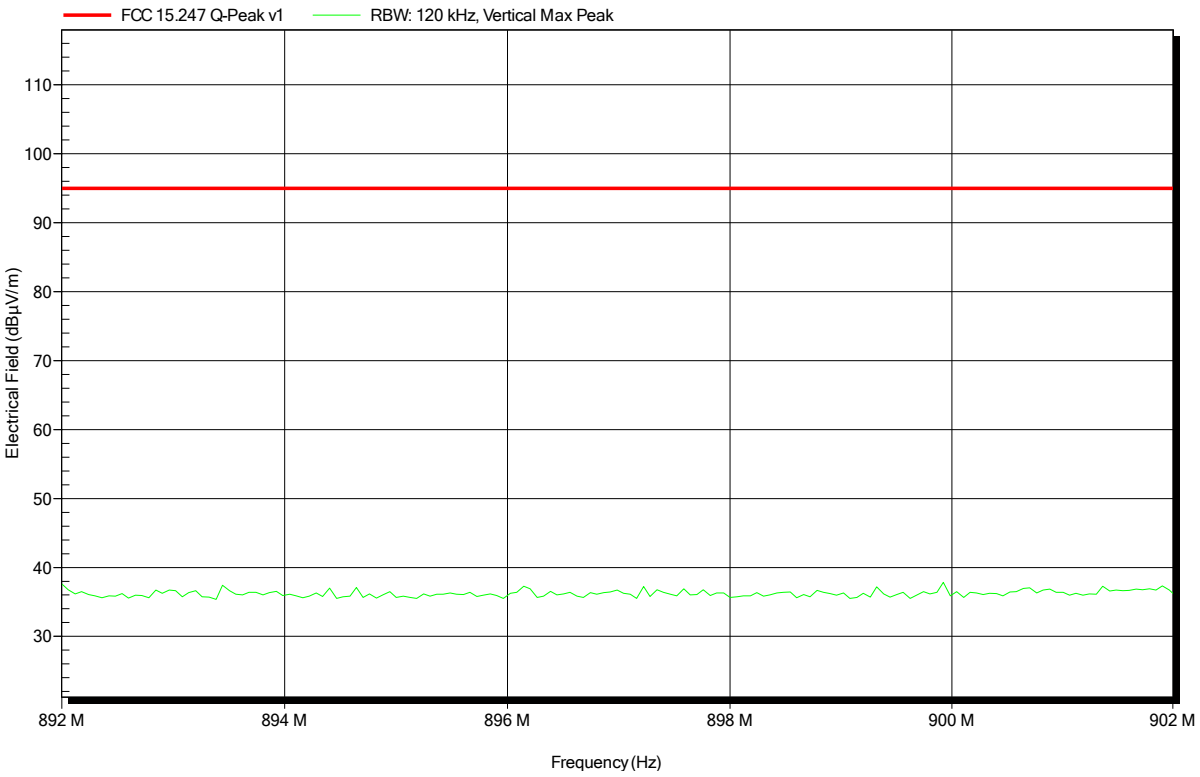

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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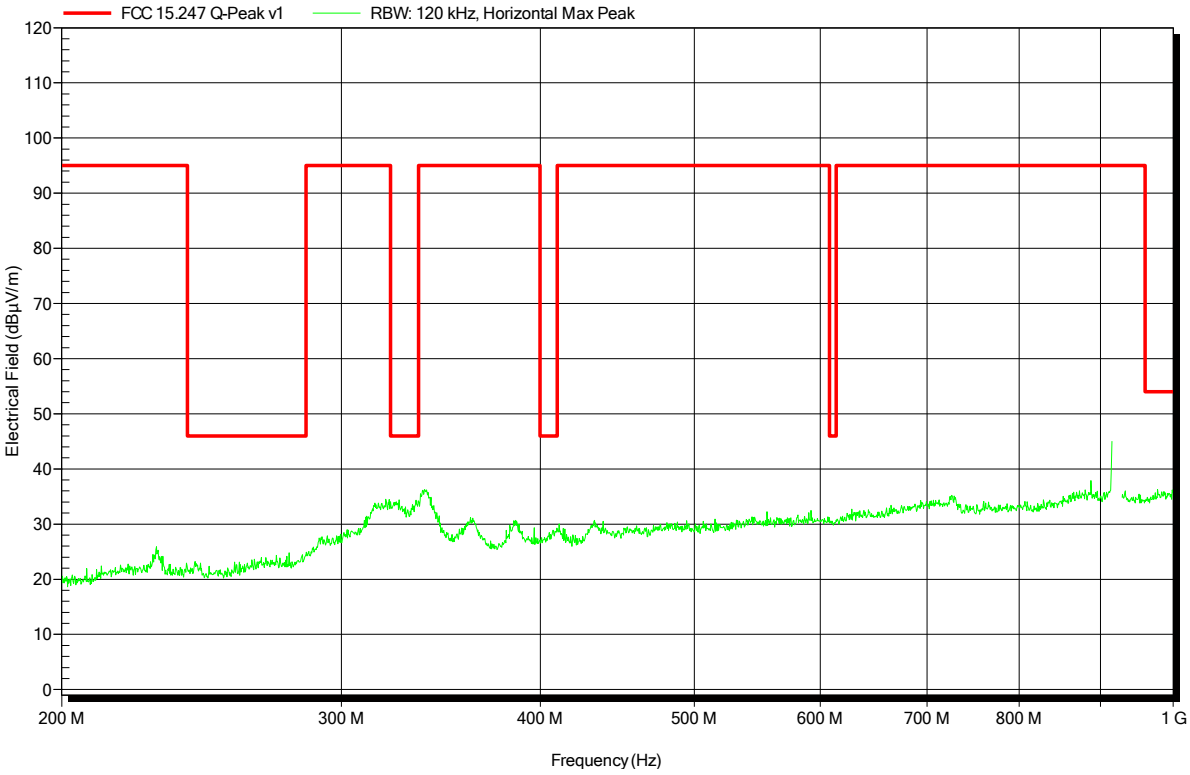

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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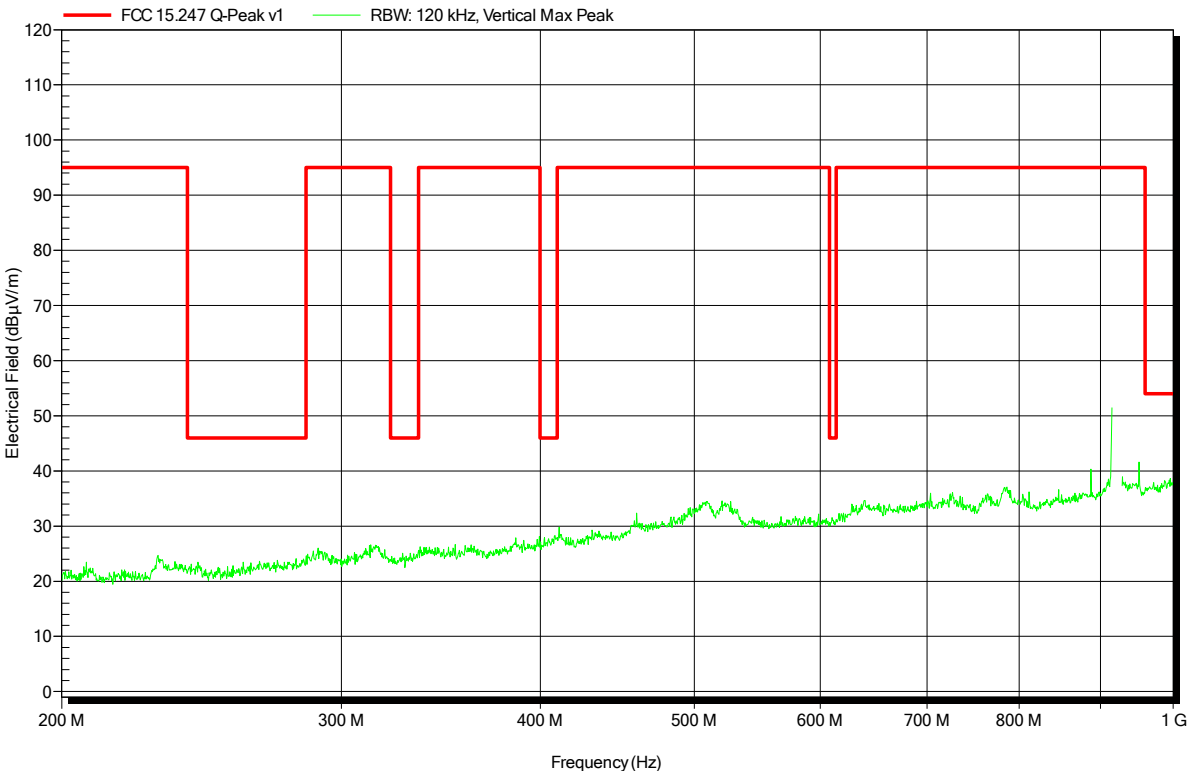

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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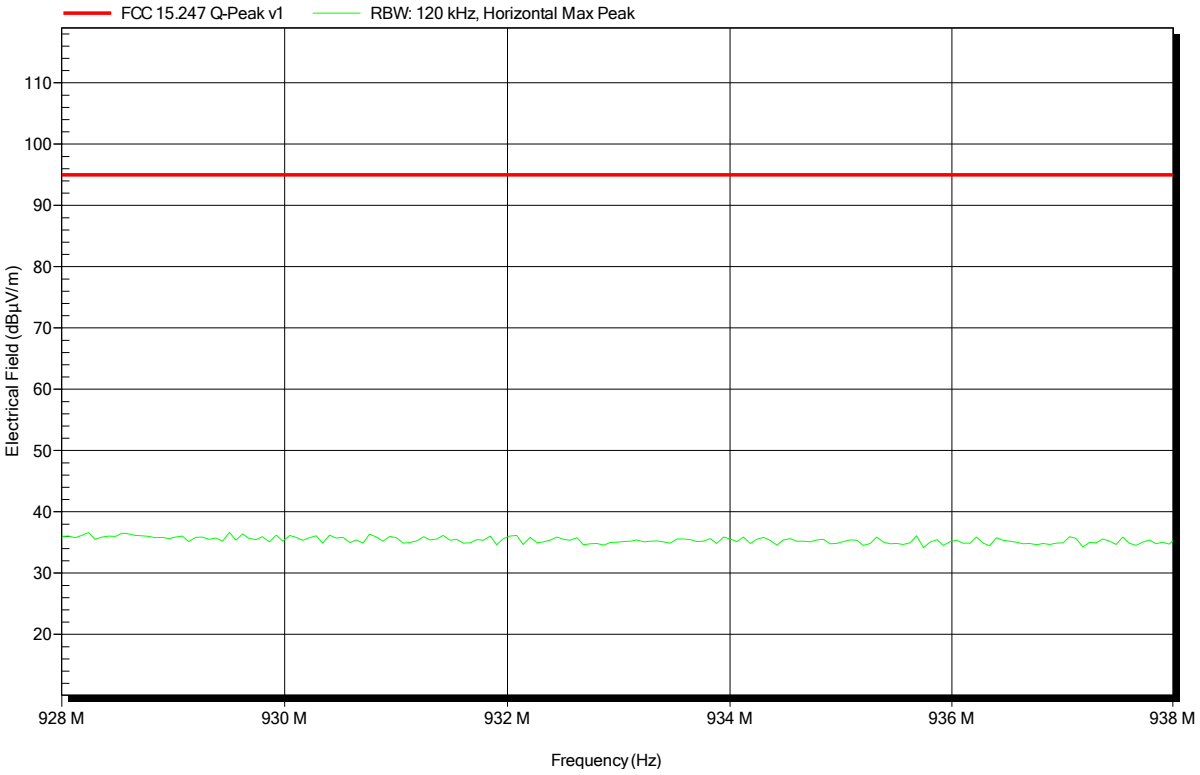

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-24
Note:	

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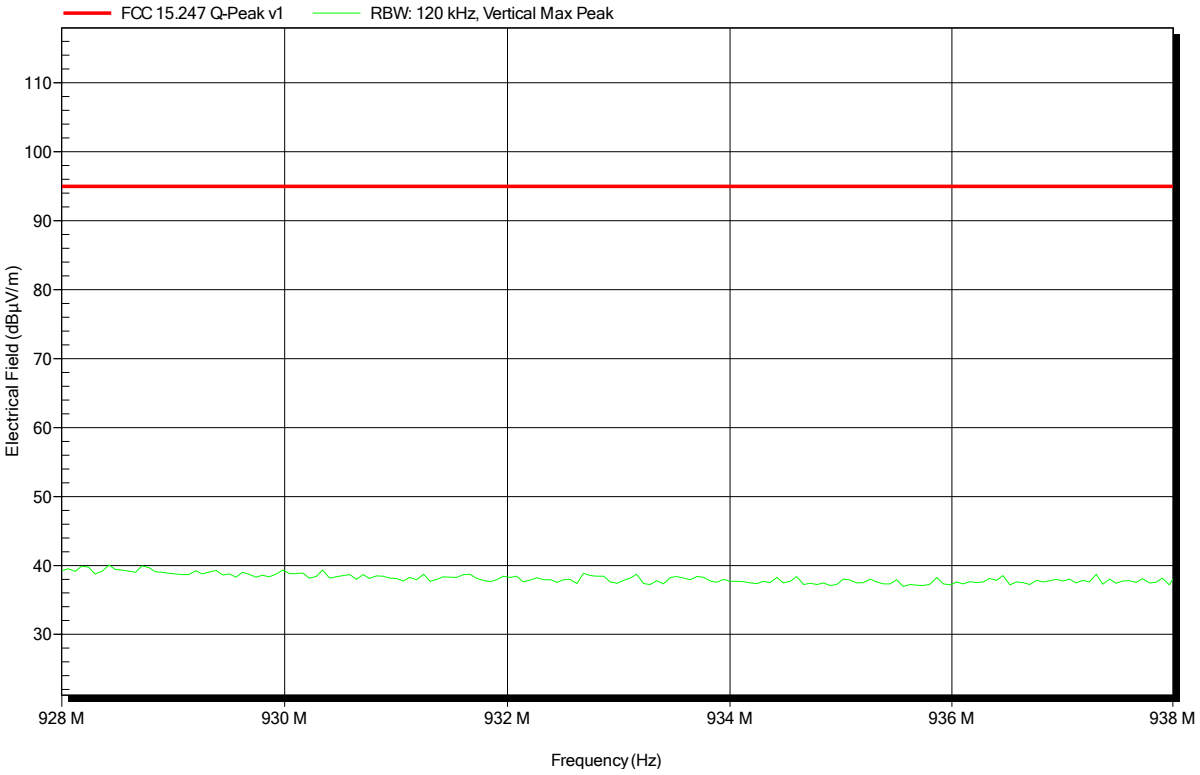
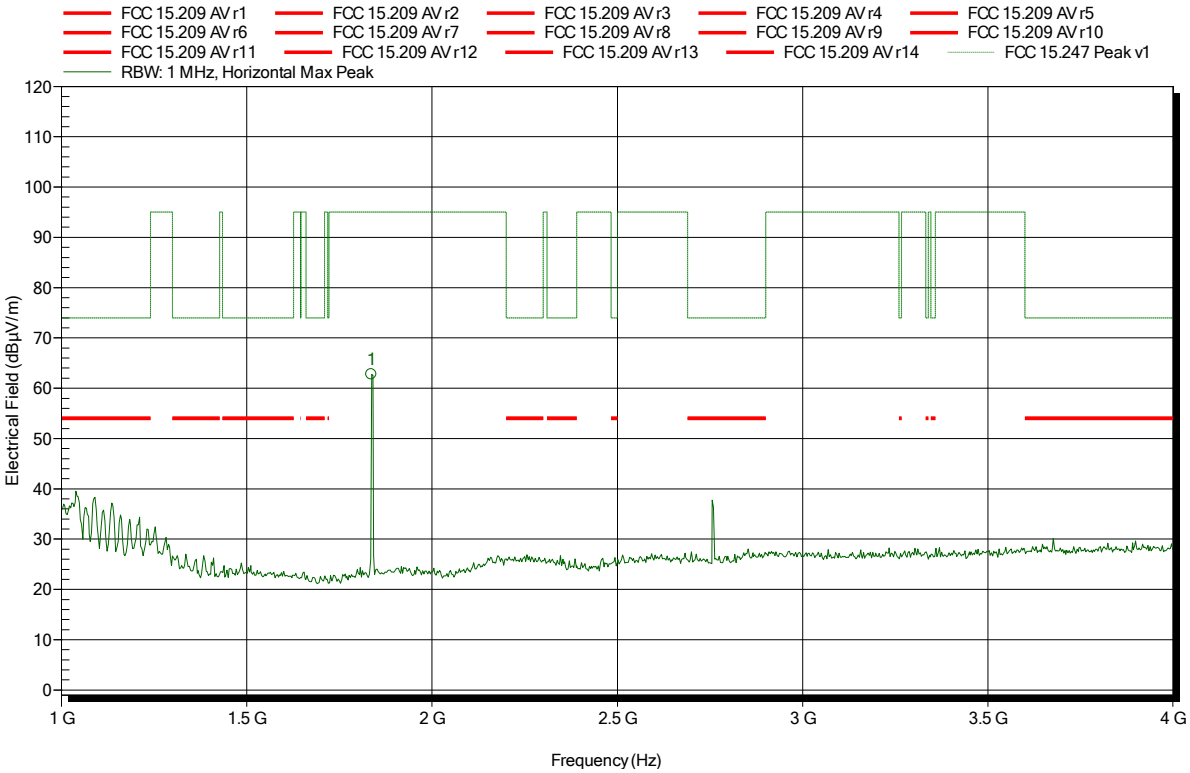


Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-23
Note:	

Index 1



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.836 GHz	62.75 dBµV/m	95 dBµV/m	-32.25 dB	Pass

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-23
Note:	

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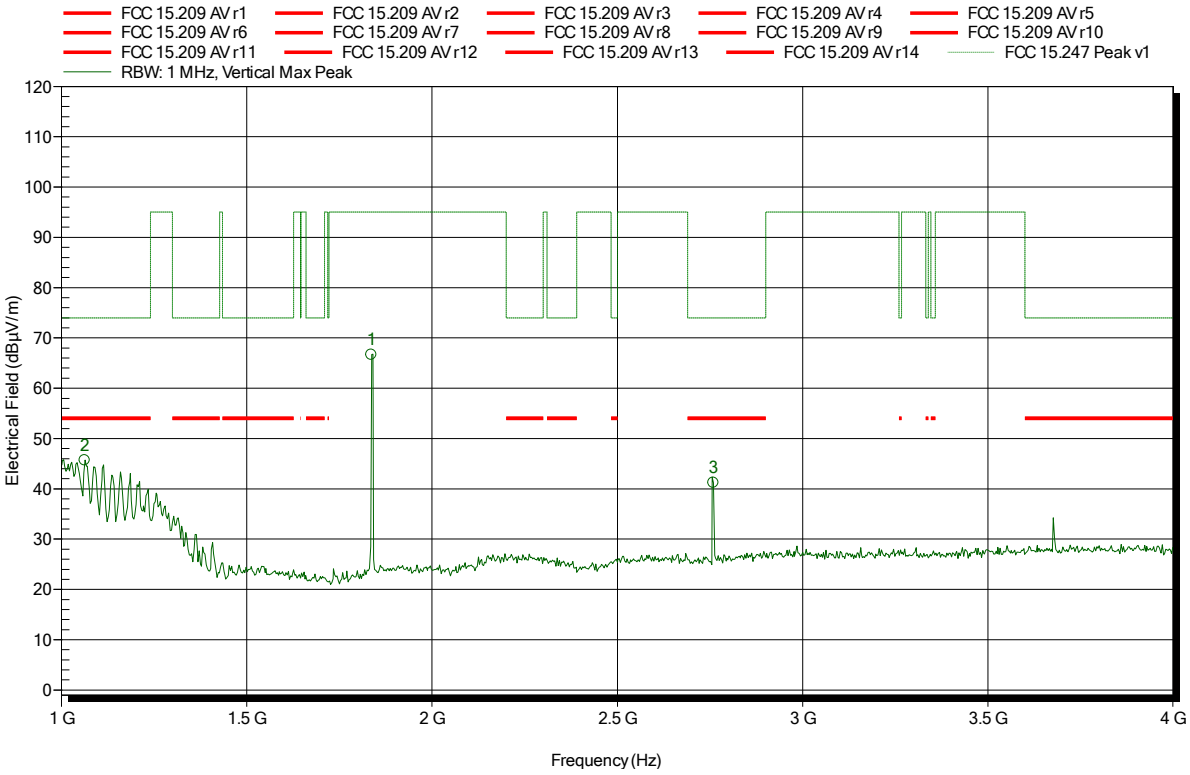

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.063 GHz	45.68 dBµV/m	74 dBµV/m	-28.32 dB	Pass
1.836 GHz	66.65 dBµV/m	95 dBµV/m	-28.35 dB	Pass
2.759 GHz	41.18 dBµV/m	74 dBµV/m	-32.82 dB	Pass

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-23
Note:	

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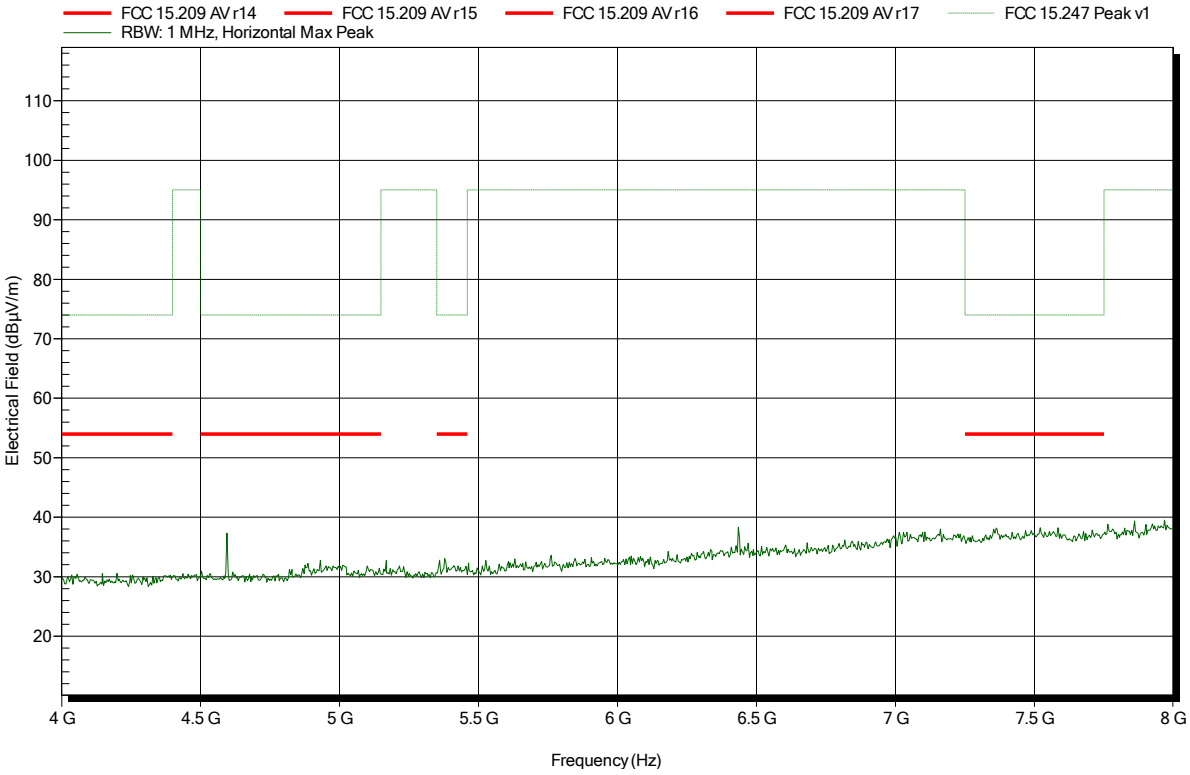

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-23
Note:	

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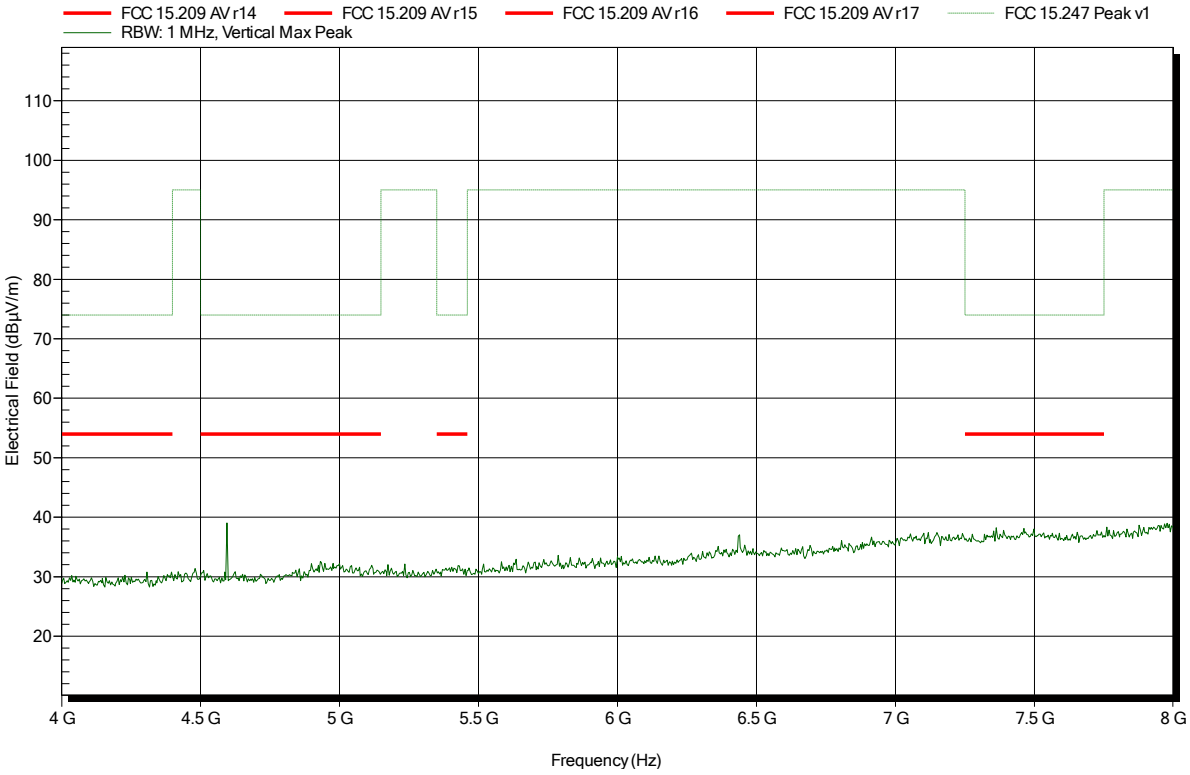

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-23
Note:	

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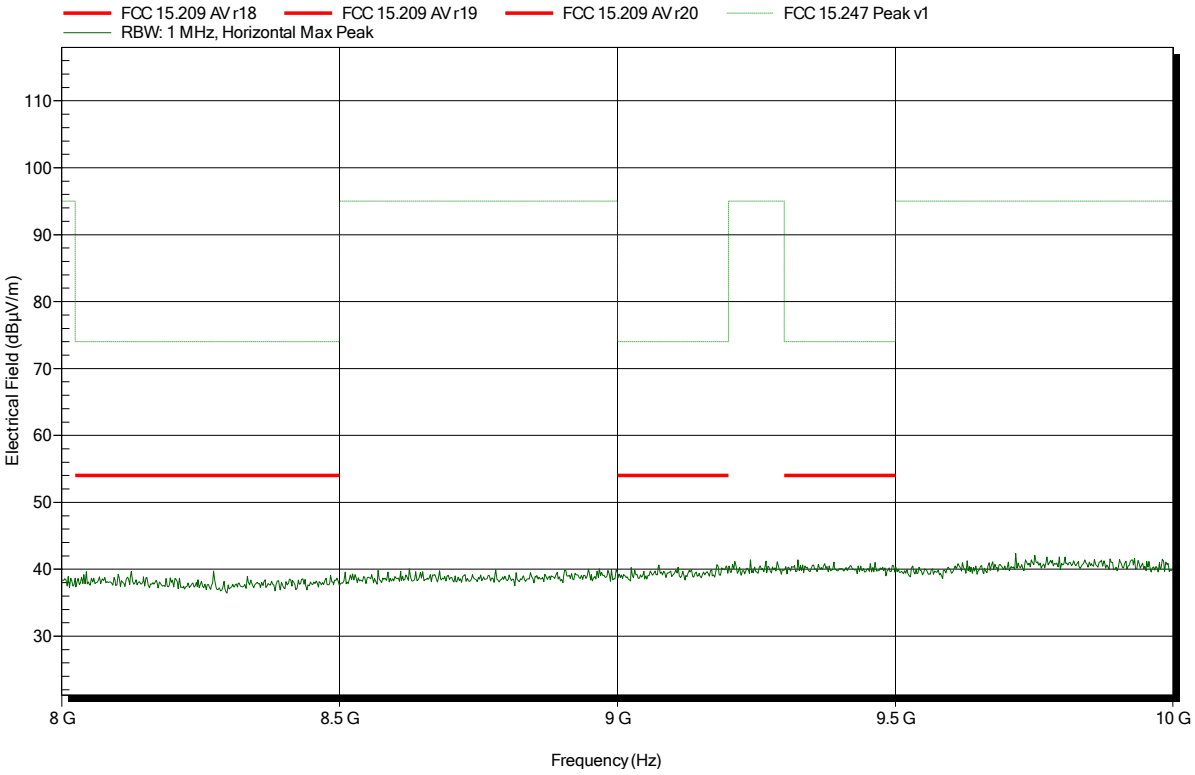

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; SRD 919.5 MHz LoRa
Test Date:	2018-08-23
Note:	

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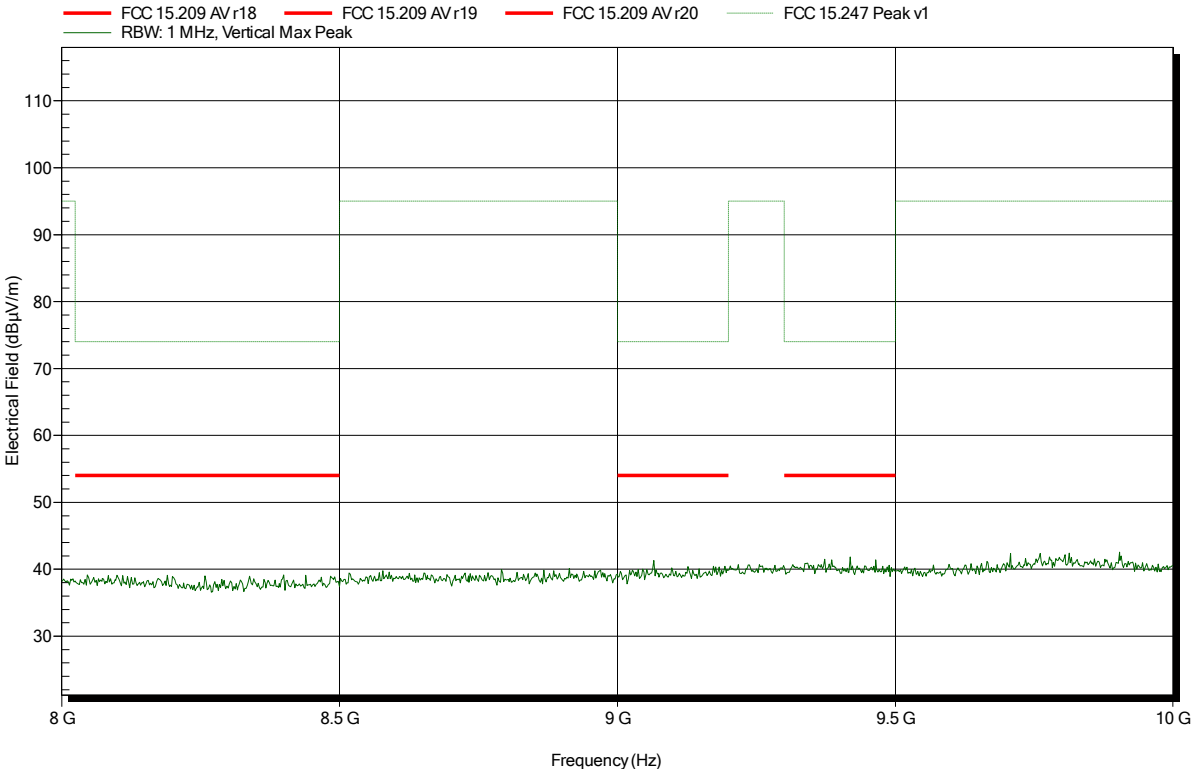

ANNEX B Receiver spurious emissions

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	RX; SRD 915 MHz LoRa
Test Date:	2018-08-24
Note:	

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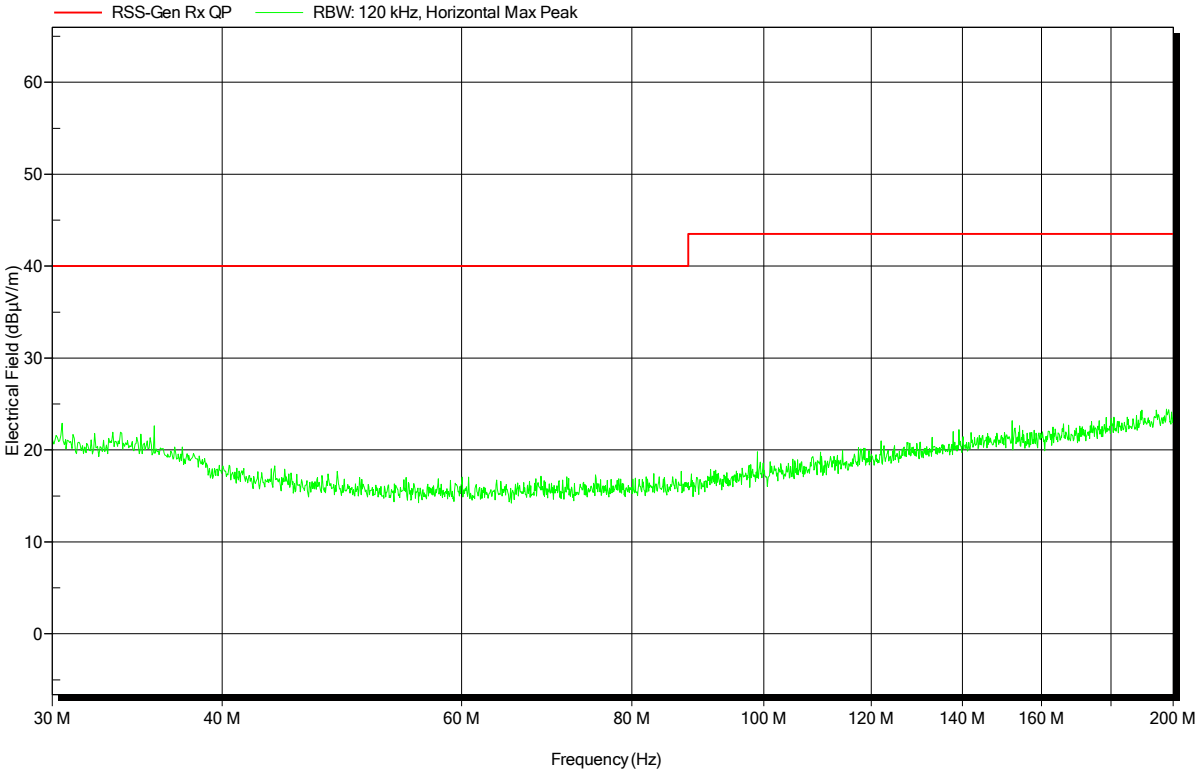

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	RX; SRD 915 MHz LoRa
Test Date:	2018-08-24
Note:	

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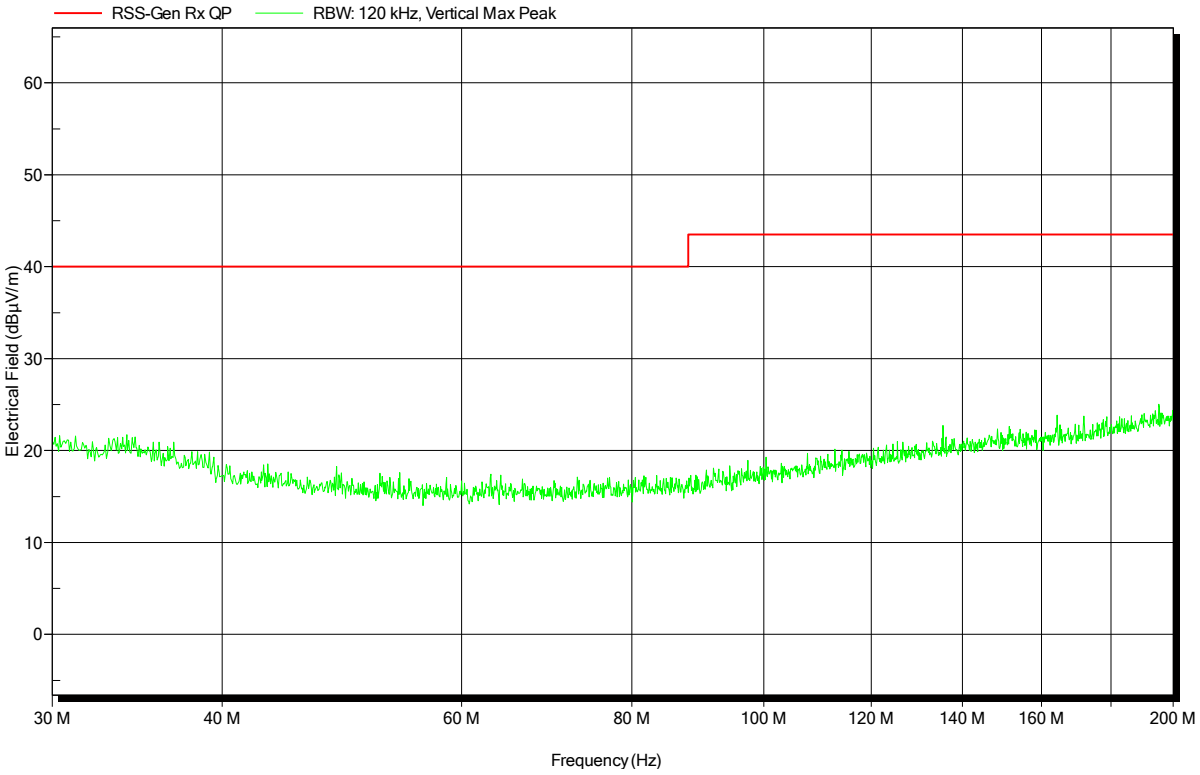

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	RX; SRD 915 MHz LoRa
Test Date:	2018-08-24
Note:	

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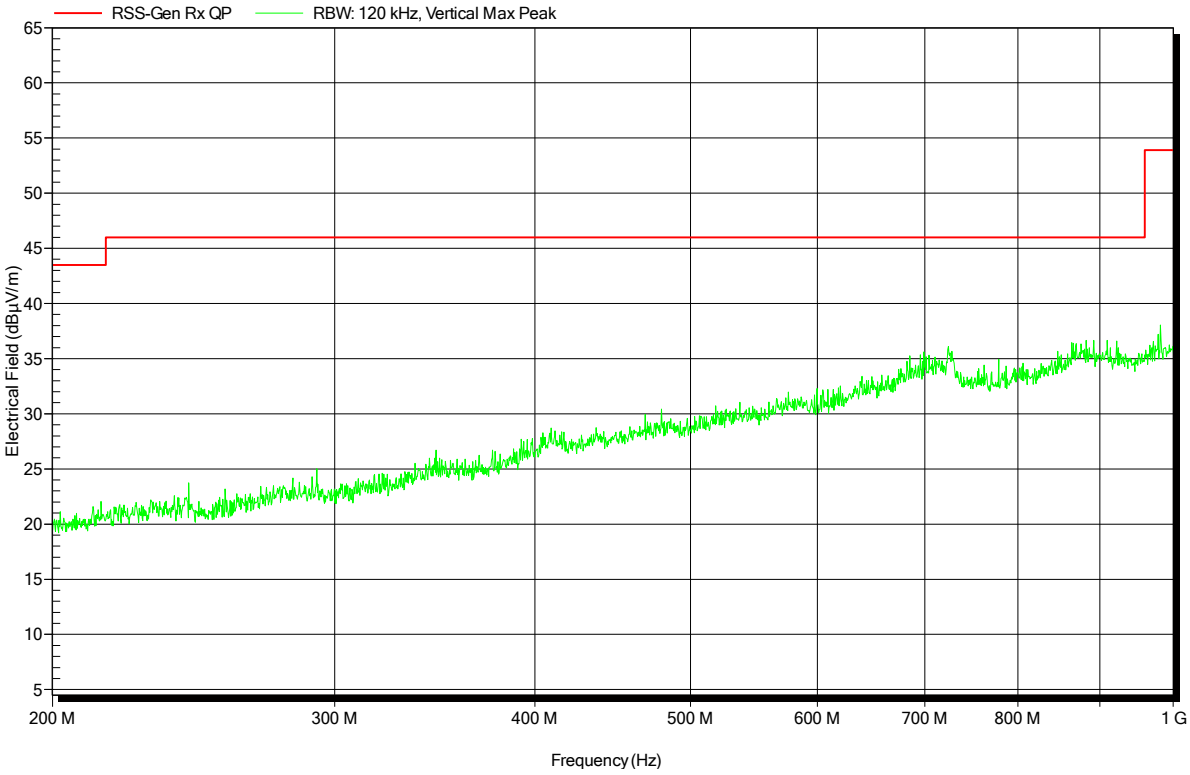

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 26°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	RX; SRD 915 MHz LoRa
Test Date:	2018-08-24
Note:	

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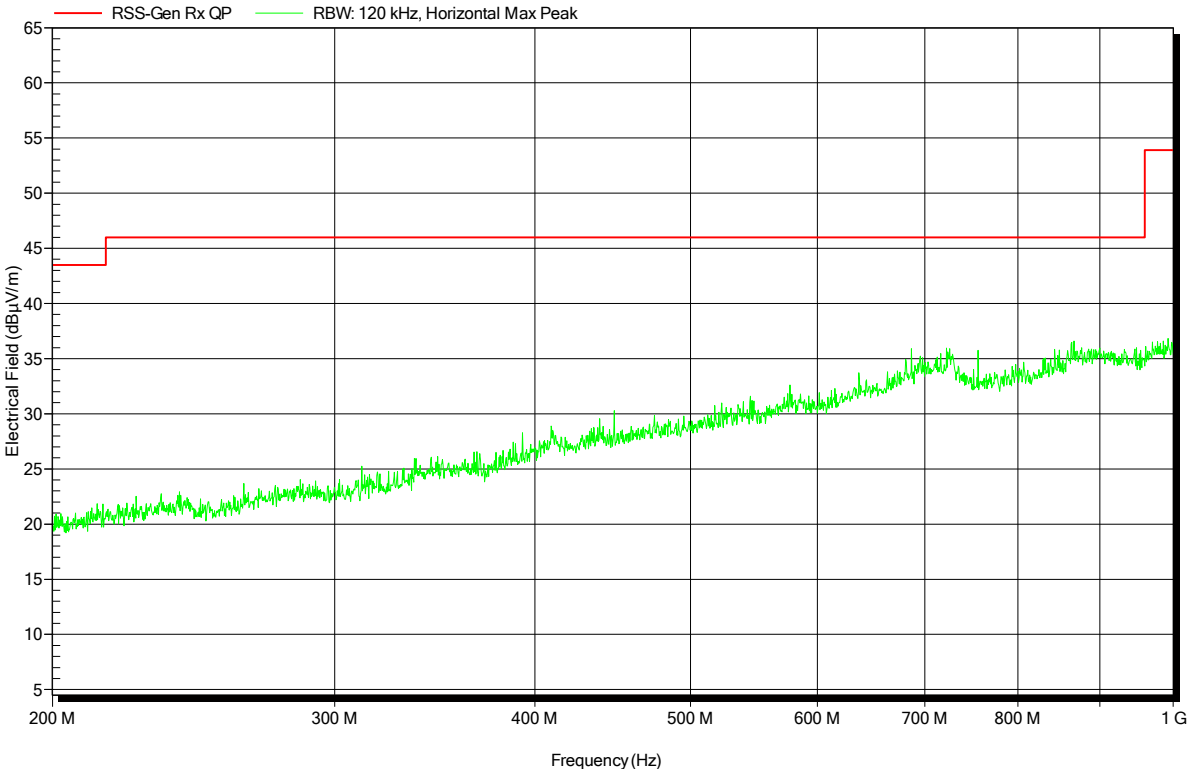

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	RX; SRD 915 MHz LoRa
Test Date:	2018-08-23
Note:	

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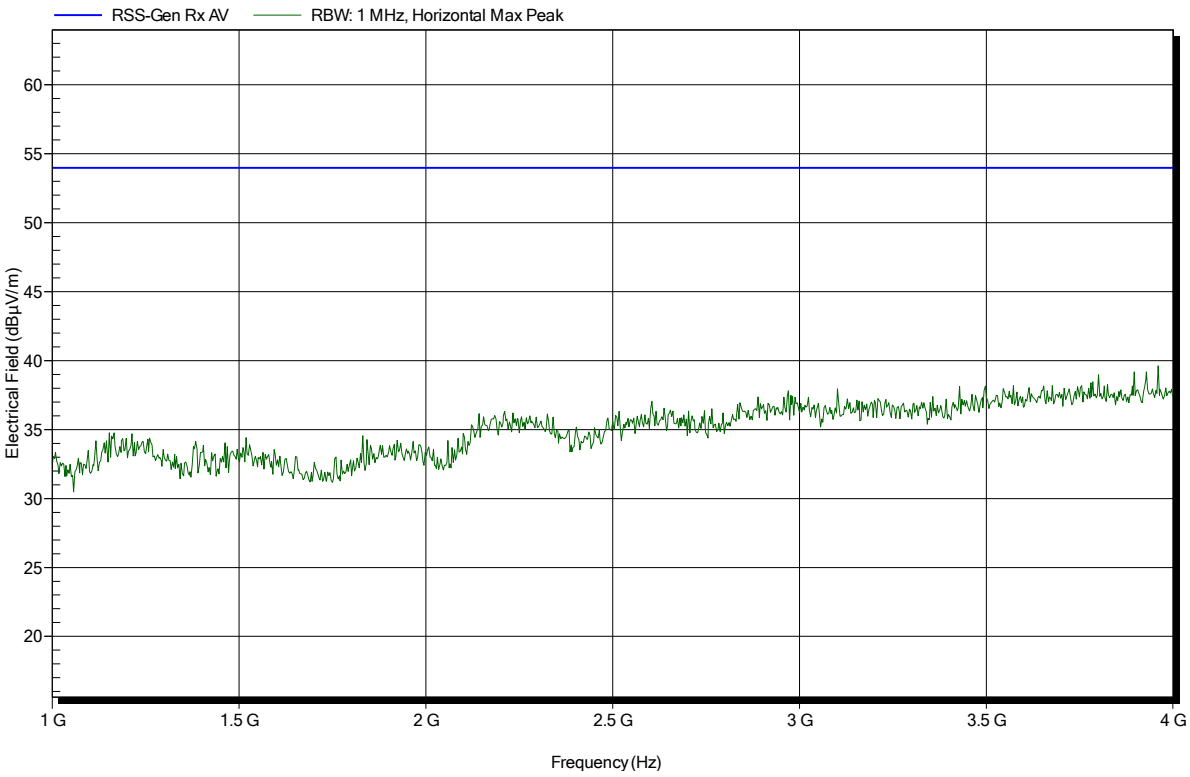

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	RX; SRD 915 MHz LoRa
Test Date:	2018-08-23
Note:	

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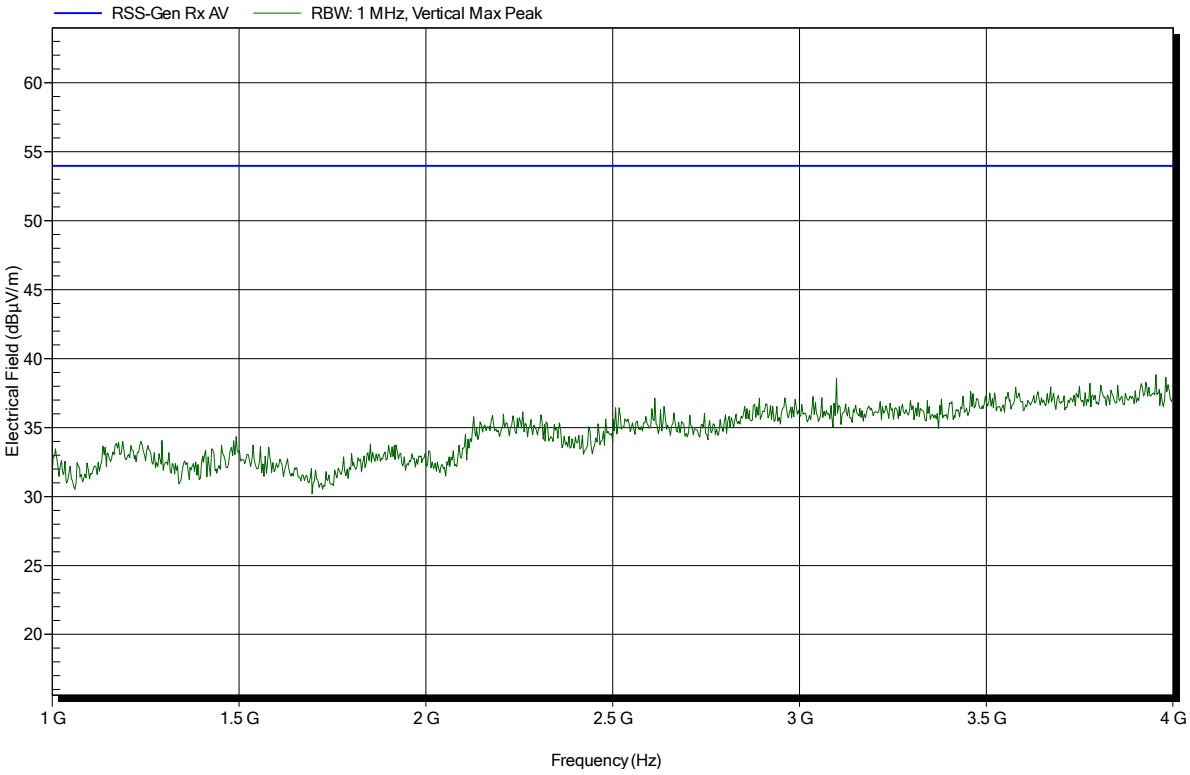

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	RX; SRD 915 MHz LoRa
Test Date:	2018-08-23
Note:	

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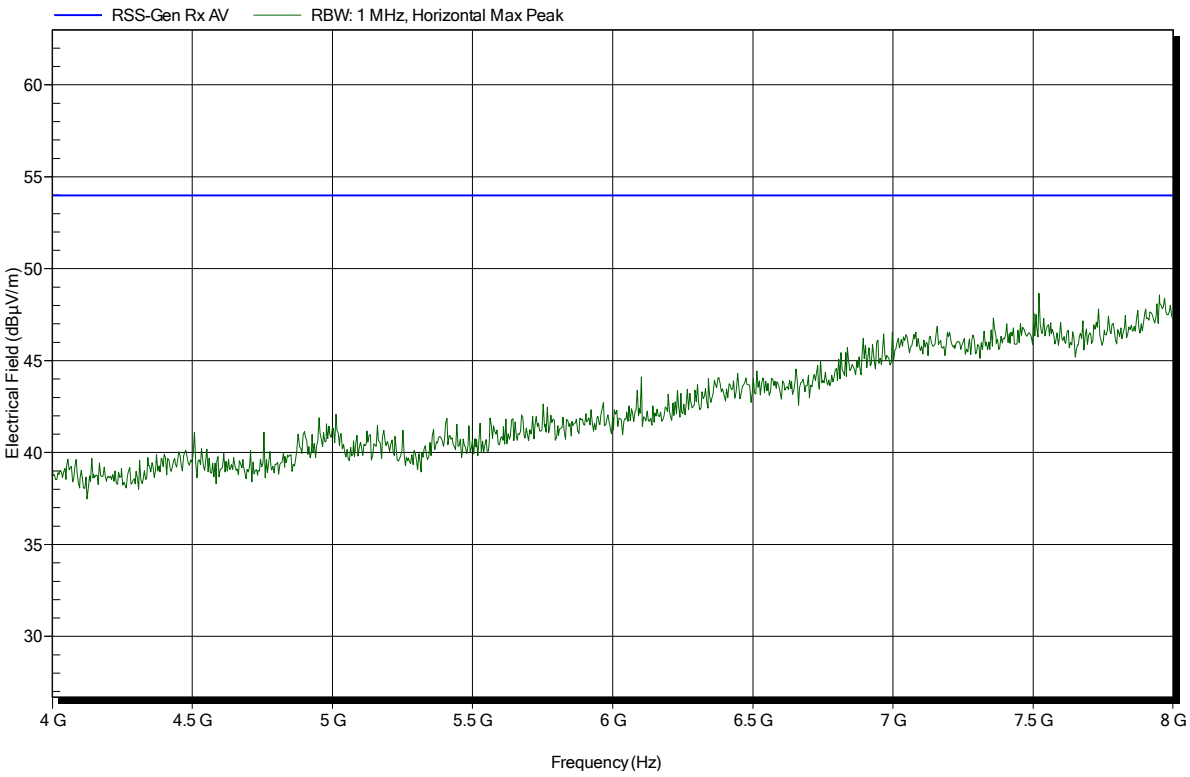

Spurious emissions according to FCC 15.247

Project number:	G0M-1807-7558
Applicant:	digades GmbH
EUT Name:	VW RemoteStart
Model:	Remote Start Receiver - VWRSTR
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 25°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	RX; SRD 915 MHz LoRa
Test Date:	2018-08-23
Note:	

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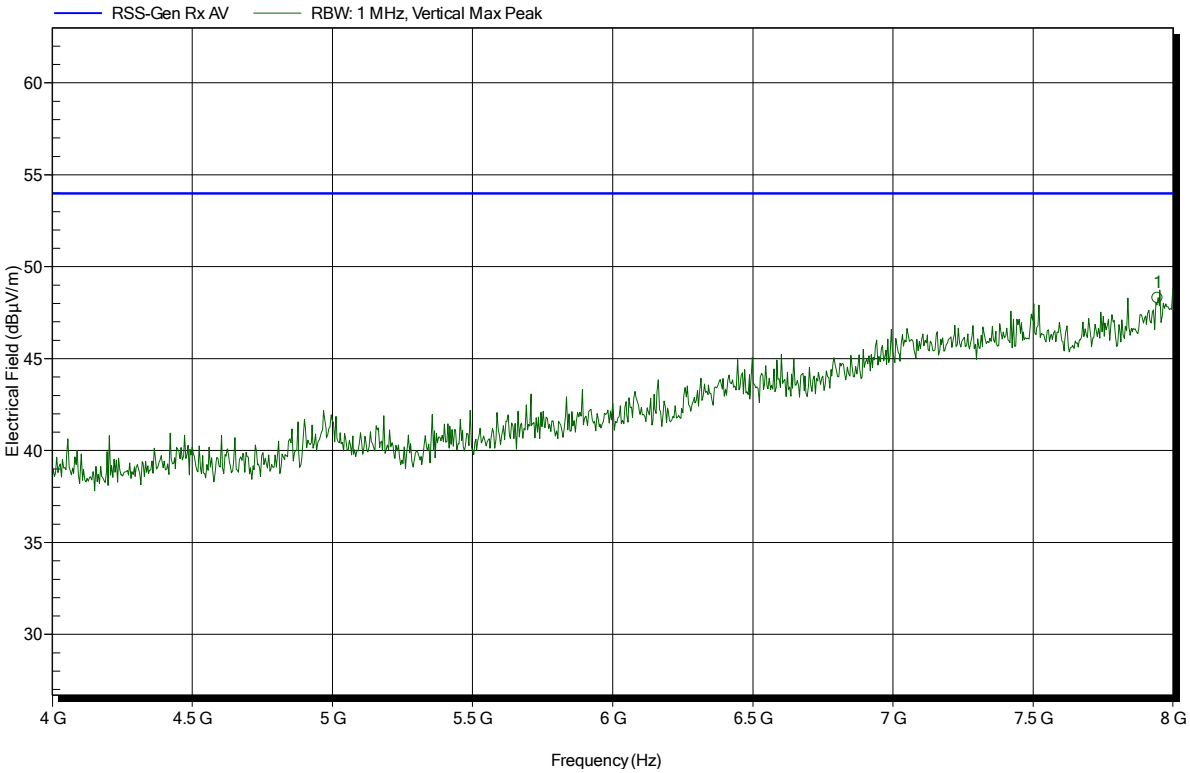

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
7.944 GHz	48.3 dBµV/m	53.98 dBµV/m	-5.68 dB	Pass