RADIO REPORT

FCC 47 CFR Part 24E, FCC 47 CFR Part 27

ISED RSS-133, Issue 6 Amendment 1, ISED Canada RSS-139, Issue 3, ISED Canada RSS-130, Issue 2

Report Reference No	G0M-2108-9942-TFCMOCOLTERSE-V01
Testing Laboratory	Eurofins Product Service GmbH
Address	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation	DAkkS - Registration number : D-PL-12092-01-03 (ISED) ISED Testing Laboratory site: 3470A DAkkS - Registration number : D-PL-12092-01-04 (FCC) FCC Filed Test Laboratory, Reg.-No.: 96970
Applicant	Bridgestone Mobility Solutions B.V.
Address	Beethovenstraat 503 1083 HK Amsterdam Netherlands
Test Specification	47 CFR Part 24E 47 CFR Part 27 ISED RSS-130, Issue 2: 2019-02 ISED RSS-133, Issue 6+A1: 2018-01 ISED RSS-139, Issue 3: 2015-07
Non-Standard Test Method	None
Equipment under Test (EUT):	
Product Description	Telematic Device with GSM+LTE+GNSS+OBD connector
Model(s)	L0245
Additional Model(s)	None
Brand Name(s)	webfleet Link 245
Hardware Version(s)	15/2021
Software Version(s)	3.11
FCC ID	2AGPAL0245
IC	20911-L0245
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 °C – 23 °C	
Test Lab Humidity	32 % – 38 %	
Date of receipt of test item	2022-02-17	
Report:		
Compiled by	Burkhard Pudell	
Tested by (+ signature) (Responsible for Test)	Burkhard Pudell	B. Pudell .....
Approved by (+ signature) (Deputy Head of Lab)	Toralf Jahn	T. J .....
Date of Issue	2022-03-22	
Total number of pages	83	
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	2022-03-22	Initial Release	

ABBREVIATIONS AND ACRONYMS

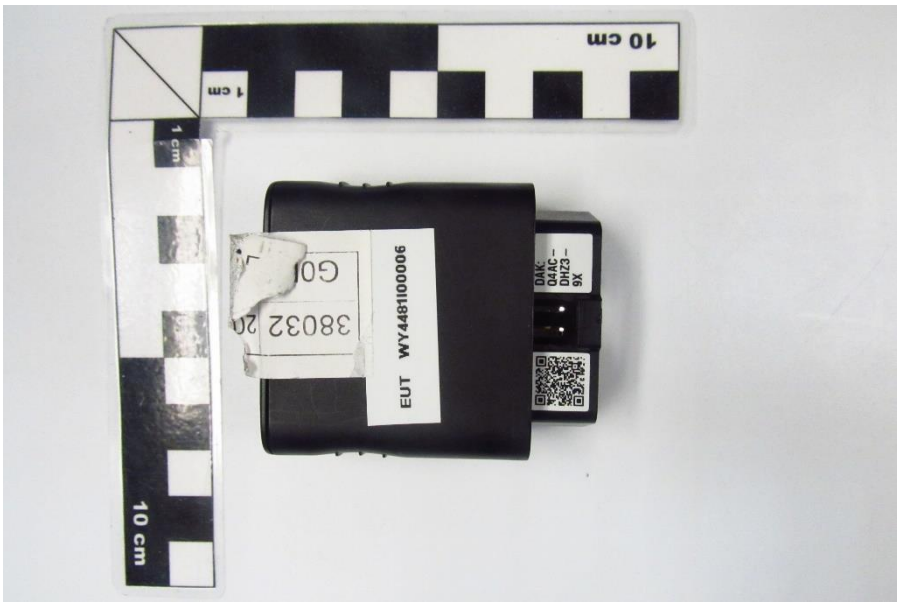
Acronyms	
Acronym	Description
EUT	Equipment Under Test
FCC	Federal Communications Commission
ISED	Innovation, Science and Economic Development Canada
RBW	Resolution bandwidth
RMS	Root mean square
VBW	Video bandwidth
V_{NOM}	Nominal supply voltage

REPORT INDEX

1 Equipment (Test Item) Under Test

Description	Telematic Device with GSM+LTE+GNSS+OBD connector	
Model	L0245	
Additional Model(s)	None	
Brand Name(s)	webfleet Link 245	
Serial Number(s)	WY4481I00006 (SID: 38032)	
Hardware Version(s)	15/2021	
Software Version(s)	3.11	
PMN	L0245	
HVIN	LINK 245	
FVIN	3.11	
HMN	N/A	
IC	20911-L0245	
FCC ID	2AGPAL0245	
Equipment type	End Product	
Radio type	Transceiver	
Radio technologies	LTE	
LTE frequency bands	LTE FDD2 : UL = 1850 - 1910 MHz, DL = 1930 - 1990 MHz LTE FDD4 : UL = 1710 - 1755 MHz, DL = 2110 - 2155 MHz LTE FDD12 : UL = 699 - 716 MHz, DL = 729 - 746 MHz LTE FDD13 : UL = 777 - 787 MHz, DL = 746 - 756 MHz	
LTE Modulations	QPSK, 16-QAM,	
Number of modules	1	
Radio Module	Type	2G/4G module
	Model	EXS82
	Manufacturer	Gemalto (Thales)
	HW Version	A110
	SW Version	01.001
	FCC-ID	QIPEXS82-W
	IC	7830A-EXS82W
Antenna	Type	integrated
	Model	PCS.47.A
	Manufacturer	Taoglas
	Gain	-3.2…-4.2 dBi
Supply Voltage	V_{NOM}	12 VDC
AC/DC-Adaptor	Model	none
	Vendor	none
	Input	none
	Output	none
Manufacturer	Bridgestone Mobility Solutions B.V. Beethovenstraat 503 1083 HK Amsterdam Netherlands	

1.1 Photos – Equipment External

EUT BACK


EUT FRONT


EUT TOP


EUT INTERFACE


EUT RIGHT

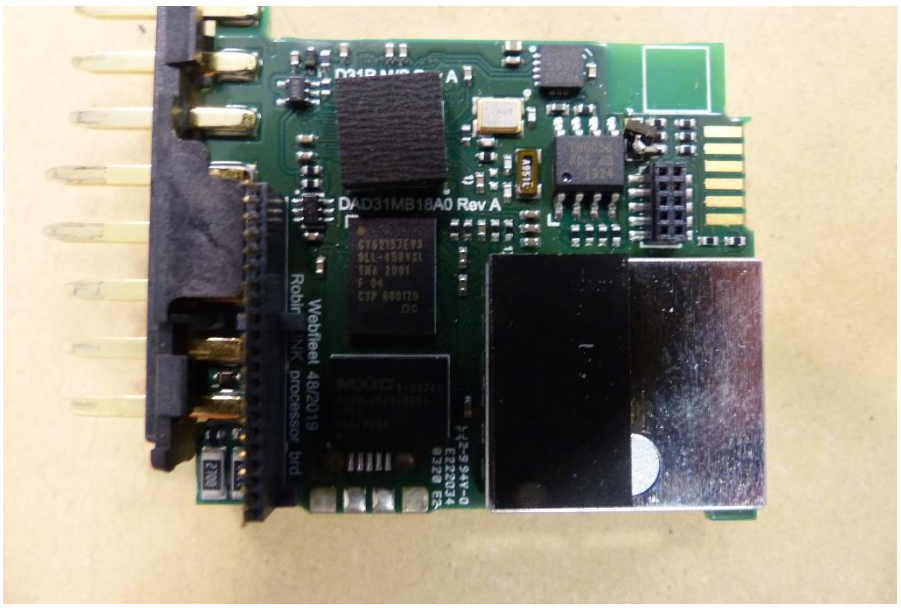

EUT LEFT

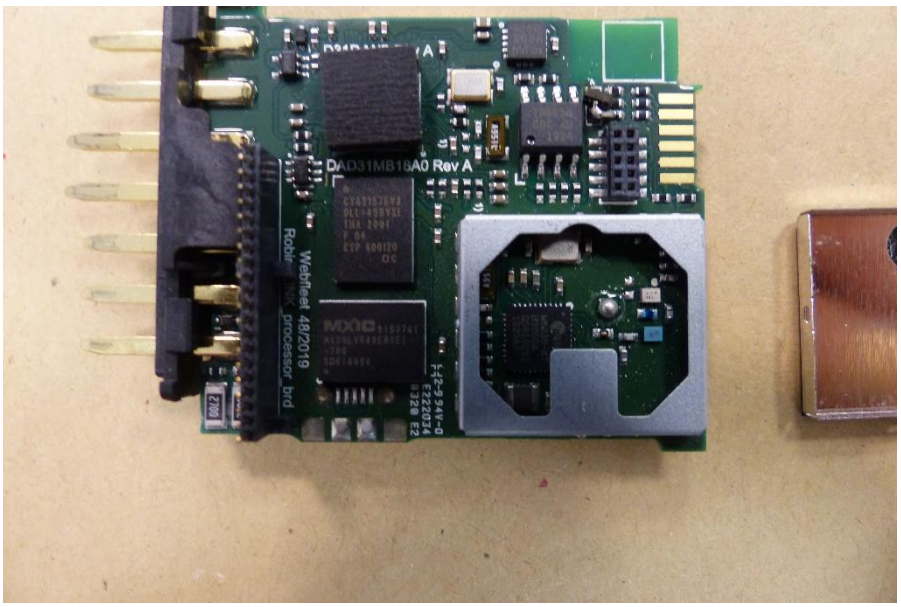

Control Tool


1.2 Photos – Equipment Internal

Interior view A


Interior view B


Interior view C


Interior view D


Cellular Antenna


1.3 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
SIM	Communication Tester	R&S	CMW500	Base Station Simulator
SFT	Remote Control	Quectel	QCOM v1.6	Control unit
AE	USB to CAN bridge	IXXAT	USB to CAN V2	Control unit
Description:				
AE	Auxiliary Equipment			
SIM	Simulator			
CBL	Connecting Cable			
SFT	Software			
Comment:				

1.4 Test Modes

Mode	Description
LTE FDD2 / QPSK	Channel = 18900 (1880 MHz) Mode = RMC TPC = Max. Power Modulation = QPSK Bandwidth = 20 MHz Number of resource blocks = 1 Resource block offset = 0 Duty cycle = 100 %
LTE FDD2 / QAM	Channel = 18900 (1880 MHz) Mode = RMC TPC = Max. Power Modulation = 16-QAM Bandwidth = 20 MHz Number of resource blocks = 1 Resource block offset = 0 Duty cycle = 100 %
LTE FDD2 / PMAX	Channel = 18900 (1880 MHz) Mode = RMC TPC = Max. Power Modulation = 16-QAM Bandwidth = 5 MHz Number of resource blocks = 1 Resource block offset = 0 Duty cycle = 100 %
LTE FDD2 / Receive mode	Channel = 900 (1960 MHz) Mode = RMC Modulation = 16-QAM Bandwidth = 5 MHz Number of resource blocks = 0

LTE FDD4 / QPSK	Channel = 20175 (1732.5 MHz) Mode = RMC TPC = MAX Power Modulation = QPSK Bandwidth = 20 MHz Number of resource blocks = 1 Resource block offset = 0 Duty cycle = 100 %
LTE FDD4 / QAM	Channel = 20175 (1732.5 MHz) Mode = RMC TPC = MAX Power Modulation = 16-QAM Bandwidth = 20 MHz Number of resource blocks = 1 Resource block offset = 0 Duty cycle = 100 %
LTE FDD4 / PMAX	Channel = 20175 (1732.5 MHz) Mode = RMC TPC = MAX Power Modulation = QPSK Bandwidth = 20 MHz Number of resource blocks = 1 Resource block offset = 0 Duty cycle = 100 %
LTE FDD4 / Receive mode	Channel = 2175 (2132.5 MHz) Mode = RMC Modulation = QPSK Bandwidth = 20 MHz Number of resource blocks = 0
LTE FDD12 / QPSK	Channel = 23060 (704 MHz) Mode = RMC TPC = Max Power Modulation = QPSK Bandwidth = 10 MHz Number of resource blocks = 1 Resource block offset = 0 Duty cycle = 100 %
LTE FDD12 / QAM	Channel = 23060 (704 MHz) Mode = RMC TPC = Max Power Modulation = 16-QAM Bandwidth = 10 MHz Number of resource blocks = 1 Resource block offset = 0 Duty cycle = 100 %
LTE FDD12 / PMAX	Channel = 23095 (707.5 MHz) Mode = RMC TPC = Max Power Modulation = QPSK Bandwidth = 5 MHz Number of resource blocks = 1 Resource block offset = 0 Duty cycle = 100 %
LTE FDD12 / Receive mode	Channel = 5095 (737.5 MHz) Mode = RMC Modulation = QPSK Bandwidth = 5 MHz Number of resource blocks = 0

LTE FDD13 / QPSK	Channel = 23230 (782 MHz) Mode = RMC TPC = Max Power Modulation = QPSK Bandwidth = 10 MHz Number of resource blocks = 5 Resource block offset = 0 Duty cycle = 100 %
LTE FDD13 / QAM	Channel = 23230 (782 MHz) Mode = RMC TPC = Max Power Modulation = 16-QAM Bandwidth = 10 MHz Number of resource blocks = 5 Resource block offset = 0 Duty cycle = 100 %
LTE FDD13 / PMAX	Channel = 23230 (782 MHz) Mode = RMC TPC = Max Power Modulation = QPSK Bandwidth = 5 MHz Number of resource blocks = 1 Resource block offset = 0 Duty cycle = 100 %
LTE FDD12 / Receive mode	Channel = 5095 (737.5 MHz) Mode = RMC Modulation = QPSK Bandwidth = 5 MHz Number of resource blocks = 0
Comment: Above worst case scenarios were found in module test report: 191019004RFM-3 issued by Union Trust Quality and Technology (Shenzhen, China) Co., Ltd. on 2019-12-21.	

1.5 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

Test Summary)				
Product Standard Reference	**Requirement**	**Reference Method**	**Result**	**Remarks**
47 CFR §24.232 47 CFR §27.50 ISED RSS-133 §6.4 ISED RSS-139 §6.5 ISED RSS-130 §4.6	Radiated power	ANSI C63.26 KDB 971168	PASS	
47 CFR §24.238 47 CFR §27.53 ISED RSS-133 §6.5 ISED RSS-139 §6.6 ISED RSS-130 §4.7	Transmitter conducted emissions	ANSI C63.26 KDB 971168	N/T	Non removable integrated antenna
47 CFR §24.238 47 CFR §27.53 ISED RSS-133 §6.5 ISED RSS-139 §6.6 ISED RSS-130 §4.7	Transmitter radiated emissions	ANSI C63.26 KDB 971168	PASS	
ISED RSS-133 §3.1 ISED RSS-139 §3.1 ISED RSS-130 §3.3 ISED RSS-Gen §7	Receiver radiated emissions	ANSI C63.4	PASS	
FCC § 15.207; ISED RSS-247, Issue 2 (section 3.1)	AC powerline conducted emissions	ANSI C63.10 6.2	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 - Radiated power

3.1.1 Information

Test Information	
Reference	47 CFR §24.232 47 CFR §27.50 ISED RSS-133 §6.4 ISED RSS-139 §6.5 ISED RSS-130 §4.6
Measurement Method	FCC KDB 971168 D01 Section 5 ANSI C63.26-2015 5.2
Measurement Uncertainty	N/A
Operator	Charline Graf
Date	2022-02-16

3.1.2 Limits

Limits - Portable equipment					
Band	Frequency range [MHz]	Power limit [dBm ERP]	Power limit [W ERP]	Power limit [dBm EIRP]	Power limit [W EIRP]
LTE FDD2	1850 - 1910	30.85	1.22	33	2
LTE FDD4	1710 - 1780	27.85	0.61	30	1
LTE FDD12	699 - 716	34.77	3	36.92	4.92
LTE FDD13	777 - 787	34.77	3	36.92	4.92

3.1.3 Procedure

Test Procedure
1. The highest conducted output power for each radio technology, band, modulation and bandwidth is determined from module test reports: 191019004RFM-3 issued by Union Trust Quality and Technology (Shenzhen, China) Co., Ltd. on 2019-12-21 2. The antenna gain for the corresponding transmission frequency is added to the conducted output power 3. The calculated radiated power is compared to the transmitter output power limit

3.1.4 Results

Test Results - LTE FDD2						
Mode	Power [dBm]	Antenna gain [dBi]	Radiated power [dBm EIRP]	Limit [dBm EIRP]	Margin [dB]	Result
LTE FDD4 / PMAX	21.77	-3.2	18.57	33	-14.43	PASS
LTE FDD2 / QPSK	21.54	-3.2	18.34	33	-14.66	PASS
LTE FDD2 / QAM	21.75	-3.2	18.55	33	-14.45	PASS

Test Results - LTE FDD4						
Mode	Power [dBm]	Antenna gain [dBi]	Radiated power [dBm EIRP]	Limit [dBm EIRP]	Margin [dB]	Result
LTE FDD4 / PMAX	21.80	-3.2	18.60	30	-14.40	PASS
LTE FDD4 / QPSK	21.80	-3.2	18.60	30	-14.40	PASS
LTE FDD4 / QAM	21.25	-3.2	18.05	30	-14.95	PASS

Test Results - LTE FDD12						
Mode	Power [dBm]	Antenna gain [dBi]	Radiated power [dBm EIRP]	Limit [dBm EIRP]	Margin [dB]	Result
LTE FDD12 / PMAX	21.44	-3.2	18.24	36.92	-18.68	PASS
LTE FDD12 / QPSK	21.09	-3.2	17.89	36.92	-19.03	PASS
LTE FDD12 / QAM	21.34	-3.2	18.14	36.92	-18.78	PASS

Test Results - LTE FDD13						
Mode	Power [dBm]	Antenna gain [dBi]	Radiated power [dBm EIRP]	Limit [dBm EIRP]	Margin [dB]	Result
LTE FDD13 / PMAX	21.42	-3.2	18.22	36.92	-18.70	PASS
LTE FDD13 / QPSK	21.09	-3.2	17.89	36.92	-19.03	PASS
LTE FDD13 / QAM	21.31	-3.2	18.11	36.92	-18.81	PASS

3.2 Test Conditions and Results - Transmitter radiated emissions

3.2.1 Information

Test Information	
Reference	47 CFR §24.238 47 CFR §27.53 ISED RSS-133 §6.5 ISED RSS-139 §6.6 ISED RSS-130 §4.7
Measurement Method	FCC KDB 971168 D01 Section 7 ANSI C63.26-2015 5.5
Measurement Uncertainty	± 5.95 dB
Operator	Burkhard Pudell
Date	2022-02-17

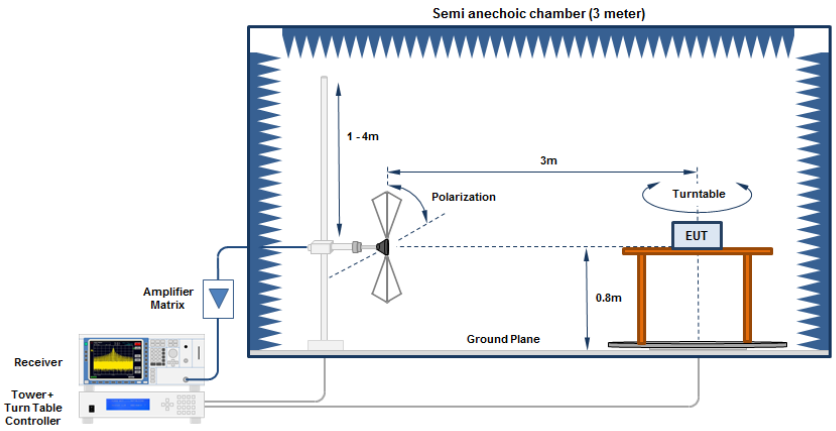
3.2.2 Limits

Limits FCC				
Band	Frequency range [MHz]	Bandwidth	Attenuation [dB]	Limit [dBm EIRP]
LTE FDD2	-	1 MHz	$43+Log_{10}(P[W])$	-13
LTE FDD4	-	1 MHz	$43+Log_{10}(P[W])$	-13
LTE FDD12	-	100 kHz	$43+Log_{10}(P[W])$	-13
LTE FDD13	-	100 kHz	$43+Log_{10}(P[W])$	-13
LTE FDD13	763-775	6.25 kHz	$65+Log_{10}(P[W])$	-35
LTE FDD13	793-805	6.25 kHz	$65+Log_{10}(P[W])$	-35
LTE FDD13	1559-1610	1 MHz	-70 dBW/MHz	-40

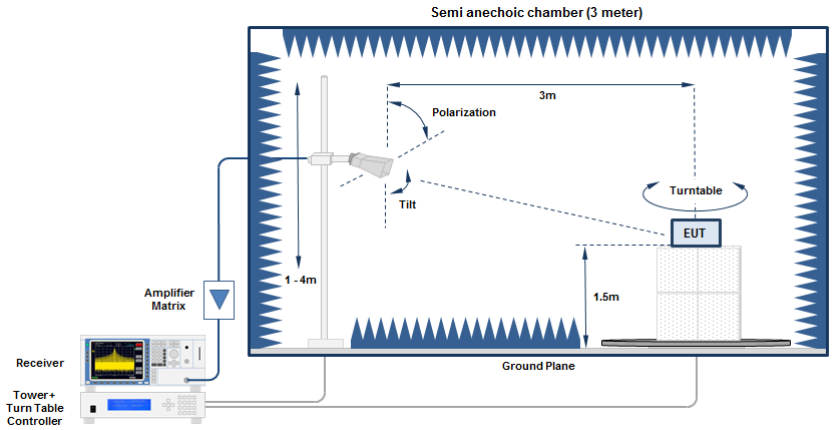
Limits ISED				
Band	Frequency range [MHz]	Bandwidth	Attenuation [dB]	Limit [dBm EIRP]
LTE FDD2	-	1 MHz	$43+Log_{10}(P[W])$	-13
LTE FDD4	-	1 MHz	$43+Log_{10}(P[W])$	-13
LTE FDD12	-	100 kHz	$43+Log_{10}(P[W])$	-13
LTE FDD13	-	100 kHz	$43+Log_{10}(P[W])$	-13
LTE FDD13	763-775	6.25 kHz	$65+Log_{10}(P[W])$	-35
LTE FDD13	793-806	6.25 kHz	$65+Log_{10}(P[W])$	-35
LTE FDD13	1559-1610	1 MHz	-70 dBW/MHz	-40

3.2.3 Setup

Test Setup 30 - 1000 MHz



Test Setup > 1 GHz



3.2.4 Equipment

Test Equipment 30 - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2021-02	2024-02
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2021-07	2022-07
Antenna	R&S	HK 116	EF00030	2021-05	2024-05
Antenna	R&S	HL 223	EF00187	2019-05	2022-05

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC 2	EF01616	2021-09	2022-09
Spectrum Analyzer	R&S	FSU43	EF01631	2021-07	2022-07
Horn Antenna	Schwarzbeck	BBHA 9120B	EF01678	2021-03	2022-03
Antenna	Schwarzbeck	HWRD 650	EF01679	2021-03	2022-03
Antenna	Amplifier Research	AT4560	EF00302	2021-06	2023-06

Test Equipment > 1 GHz used for final measurements					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2021-02	2024-02
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2021-07	2022-07
Antenna	Schwarzbeck	BBHA 9120D	EF00018	2019-10	2022-10

3.2.5 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

3.2.6 Results

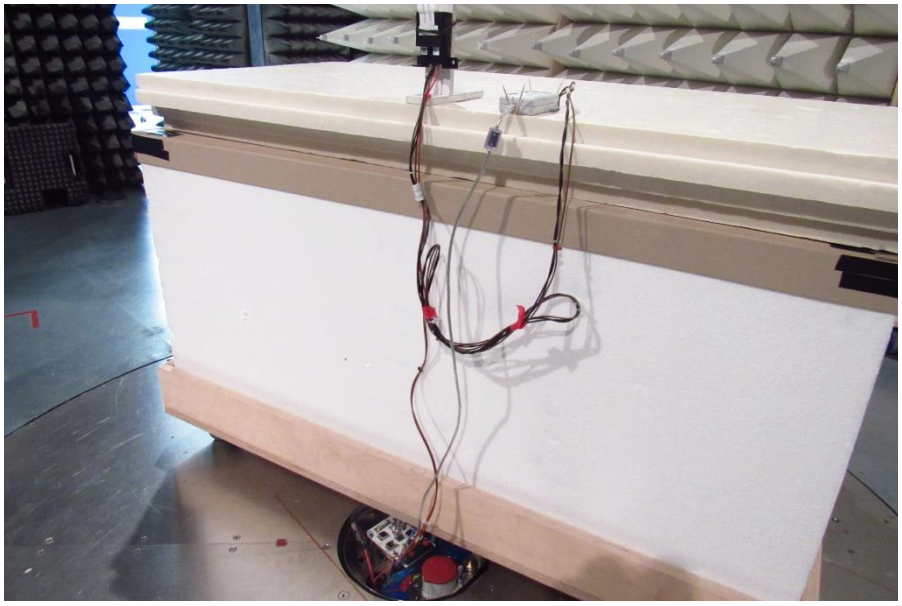
Test Results - LTE FDD2						
Mode	Frequency [MHz]	Level [dBm]	Polarization	Limit [dBm]	Margin [dB]	Result
LTE FDD4 / PMAX	1960	-26.20	ver	-13.00	-13.20	PASS
LTE FDD4 / PMAX	1962	-23.10	ver	-13.00	-13.10	PASS

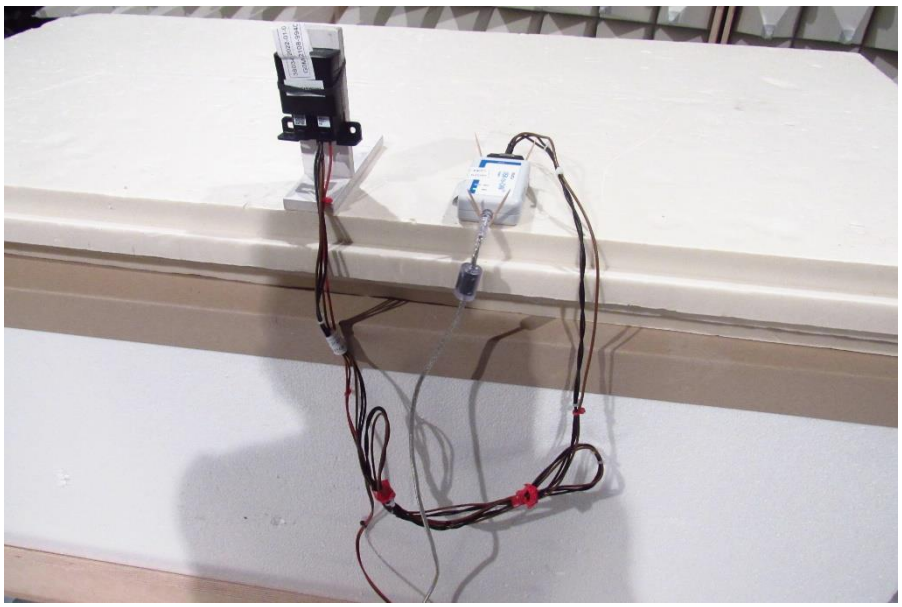
Test Results - LTE FDD4						
Mode	Frequency [MHz]	Level [dBm]	Polarization	Limit [dBm]	Margin [dB]	Result
LTE FDD4 / PMAX	2131	-26.60	ver	-13.00	-13.60	PASS

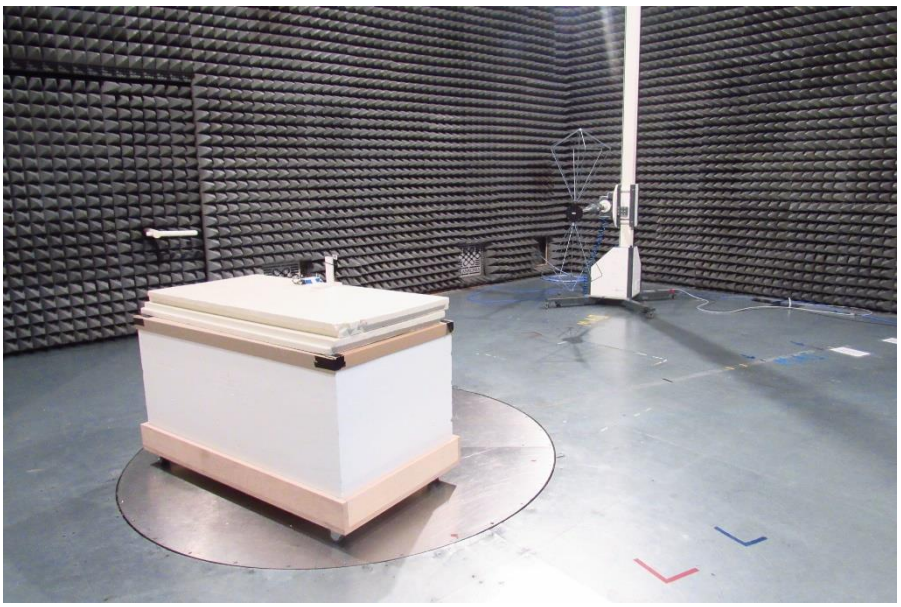
Test Results - LTE FDD12						
Mode	Frequency [MHz]	Level [dBm]	Polarization	Limit [dBm]	Margin [dB]	Result
LTE FDD12 / PMAX	34.212	-68.20	ver	-13.00	-55.20	PASS
LTE FDD12 / PMAX	2116	-35.00	ver	-13.00	-22.02	PASS
LTE FDD12 / PMAX	2116	-32.40	ver	-13.00	-19.39	PASS

Test Results - LTE FDD13						
Mode	Frequency [MHz]	Level [dBm]	Polarization	Limit [dBm]	Margin [dB]	Result
LTE FDD13 / PMAX	1560	-42.00	hor	-40.00	-01.99	PASS
LTE FDD13 / PMAX	1588	-41.20	hor	-40.00	-01.20	PASS
LTE FDD13 / PMAX	1593	-40.50	ver	-40.00	-00.52	PASS
LTE FDD13 / PMAX	1599	-40.50	ver	-40.00	-00.45	PASS
LTE FDD13 / PMAX	1608	-41.30	hor	-40.00	-01.28	PASS

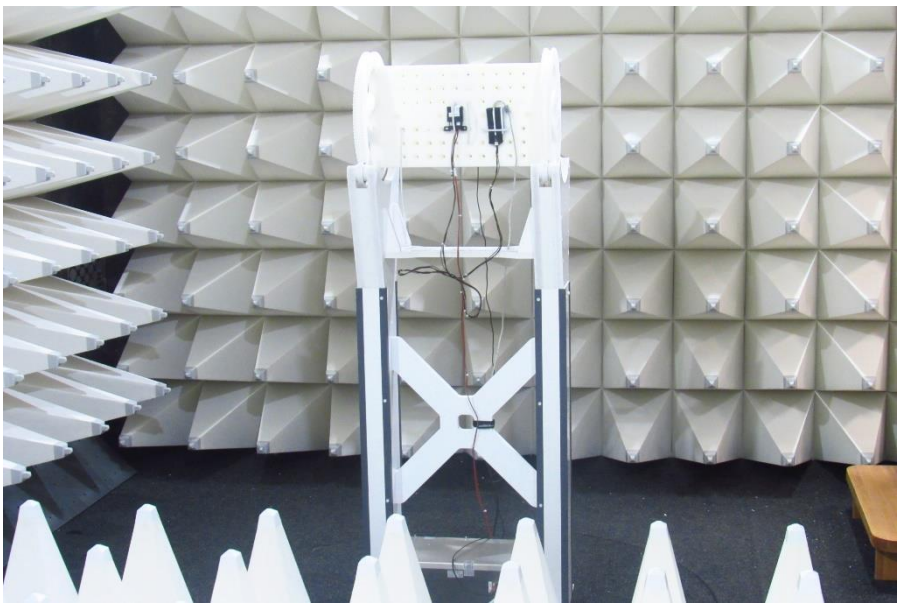
3.2.7 Setup Photos

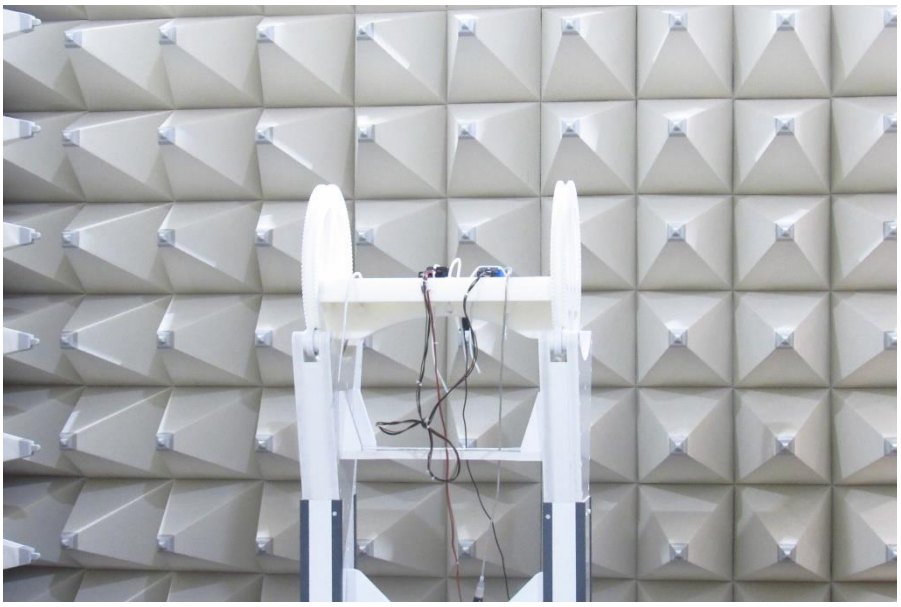
Sample Setup below 1 GHz AC1


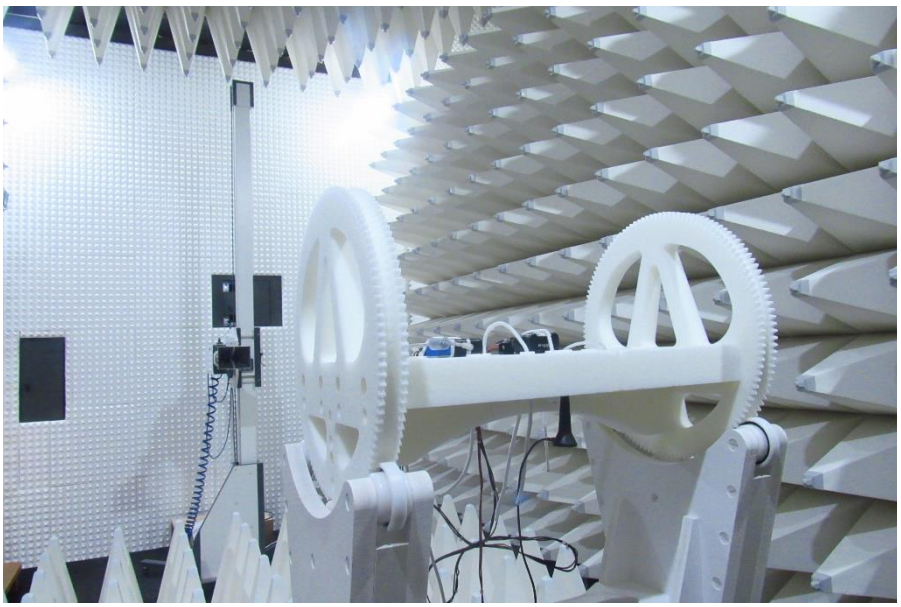
Sample Setup below 1 GHz AC1


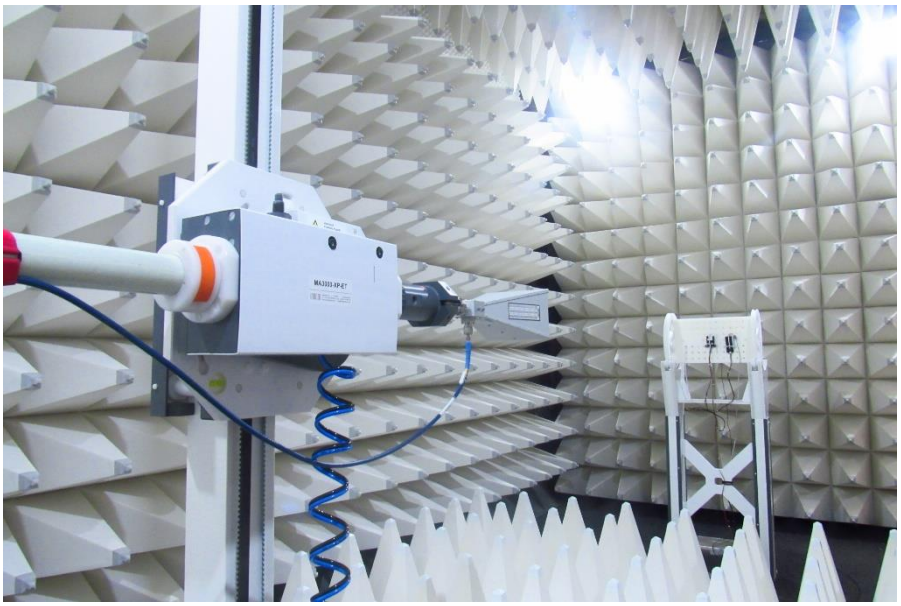
Tx below 1 GHz AC1


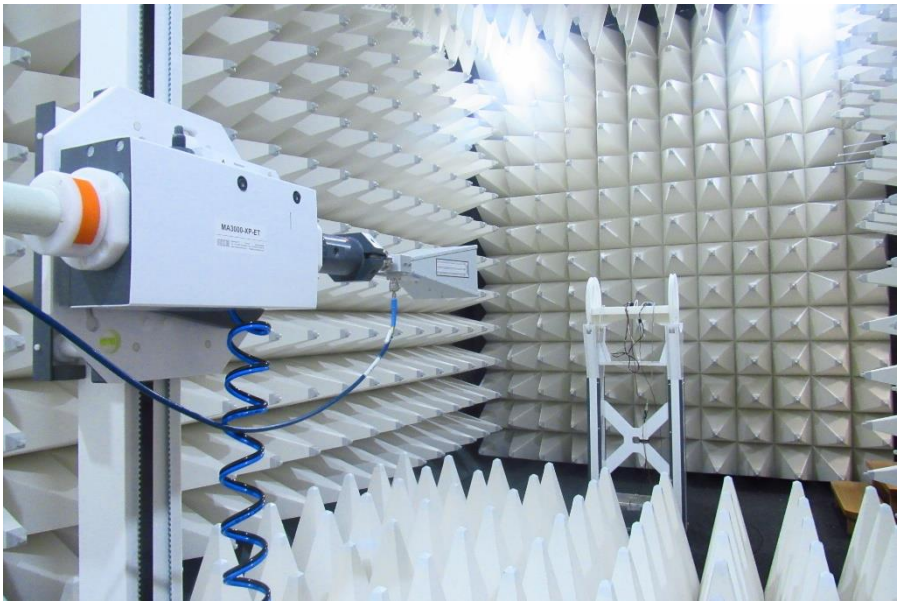
Tx below 1 GHz AC1


Sample Setup above 1 GHz AC2


Sample Setup above 1 GHz AC2


Sample Setup above 1 GHz AC2


Tx above 1 GHz AC2


Tx above 1 GHz AC2


3.3 Test Conditions and Results - Receiver radiated emissions

3.3.1 Information

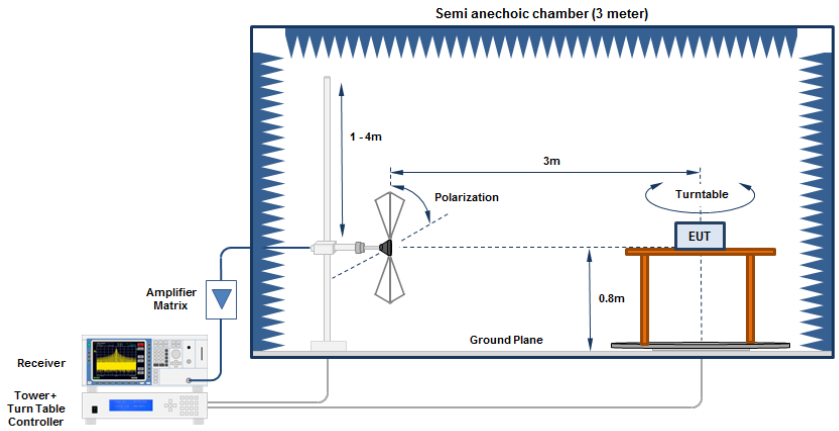
Test Information	
Reference	ISED RSS-133 §3.1 ISED RSS-139 §3.1 ISED RSS-130 §3.3 ISED RSS-Gen §7.4
Measurement Method	ANSI C63.4-2014 8.1-8.3
Measurement Uncertainty	± 5.95 dB
Operator	Burkhard Pudell
Date	2022-02-21

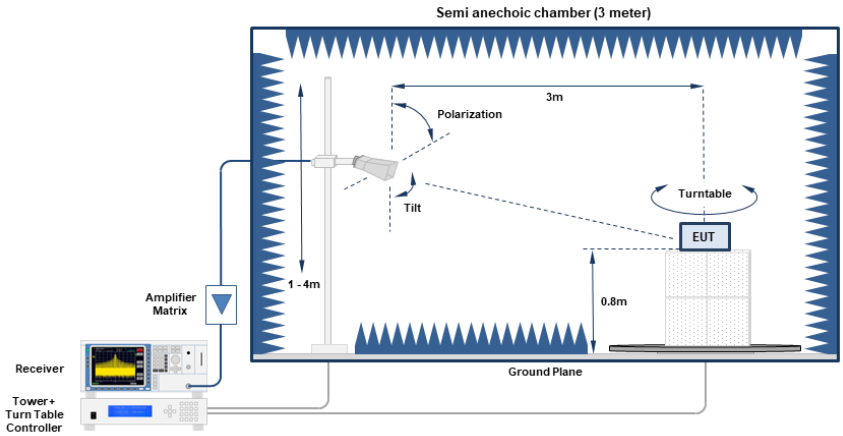
3.3.2 Limits

Limits			
Frequency range [MHz]	Bandwidth	Detector	Limit [dBµV/m @ 3 m]
30 - 88	100 kHz	Quasi-peak	40
88 - 216	100 kHz	Quasi-peak	43.5
216 - 960	100 kHz	Quasi-peak	46
960 - 1000	100 kHz	Quasi-peak	54
> 1000	1 MHz	Average	54

3.3.3 Setup

Test Setup 30 - 1000 MHz



Test Setup > 1 GHz


3.3.4 Equipment

Test Equipment 30 - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2021-02	2024-02
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2021-07	2022-07
Antenna	R&S	HK 116	EF00030	2021-05	2024-05
Antenna	R&S	HL 223	EF00212	2019-05	2022-05

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2021-02	2024-02
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2021-07	2022-07
Antenna	Schwarzbeck	BBHA 9120D	EF00018	2019-10	2022-10

3.3.5 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

3.3.6 Results

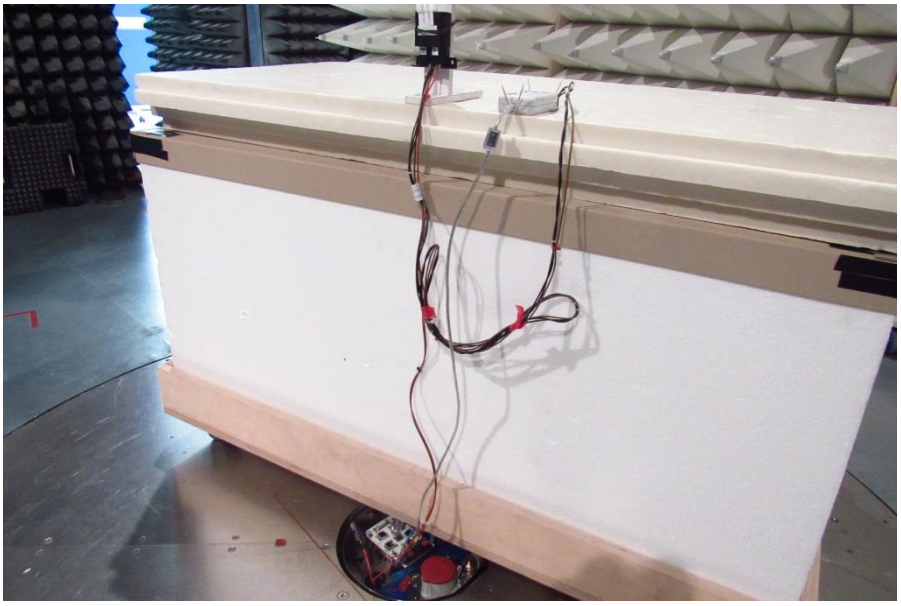
Test Results - LTE FDD2							
Mode	Frequency [MHz]	Level [dBµV/m]	Detector	Polarization	Limit [dBµV/m]	Margin [dB]	Result
LTE FDD2 / Receive mode	34.4667	21.60	pk	ver	40.00	-18.40	PASS
LTE FDD2 / Receive mode	145.1453	21.10	pk	ver	43.50	-22.38	PASS
LTE FDD2 / Receive mode	17305	49.67	pk	ver	74.00	-24.33	PASS
LTE FDD2 / Receive mode	17305	34.02	avg	ver	53.98	-19.96	PASS

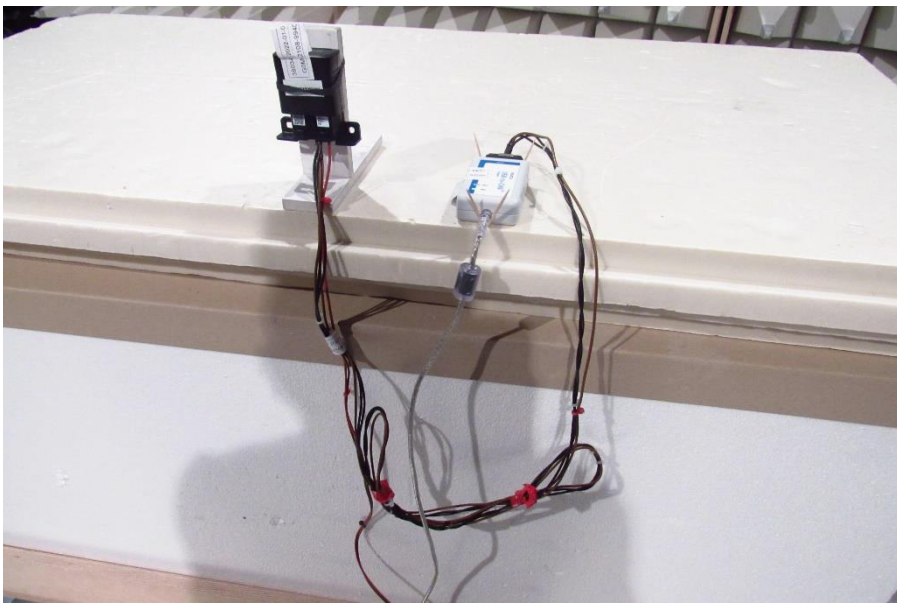
Test Results - LTE FDD4							
Mode	Frequency [MHz]	Level [dBµV/m]	Detector	Polarization	Limit [dBµV/m]	Margin [dB]	Result
LTE FDD2 / Receive mode	No significant emission detected.						

Test Results - LTE FDD12							
Mode	Frequency [MHz]	Level [dBµV/m]	Detector	Polarization	Limit [dBµV/m]	Margin [dB]	Result
LTE FDD12 / Receive mode	33.6337	30.60	pk	ver	40.00	-09.44	PASS
LTE FDD12 / Receive mode	33.6337	22.30	qpk	ver	40.00	-17.71	PASS
LTE FDD12 / Receive mode	17871	50.02	pk	ver	74.00	-23.98	PASS
LTE FDD12 / Receive mode	17871	34.08	avg	ver	53.98	-19.90	PASS

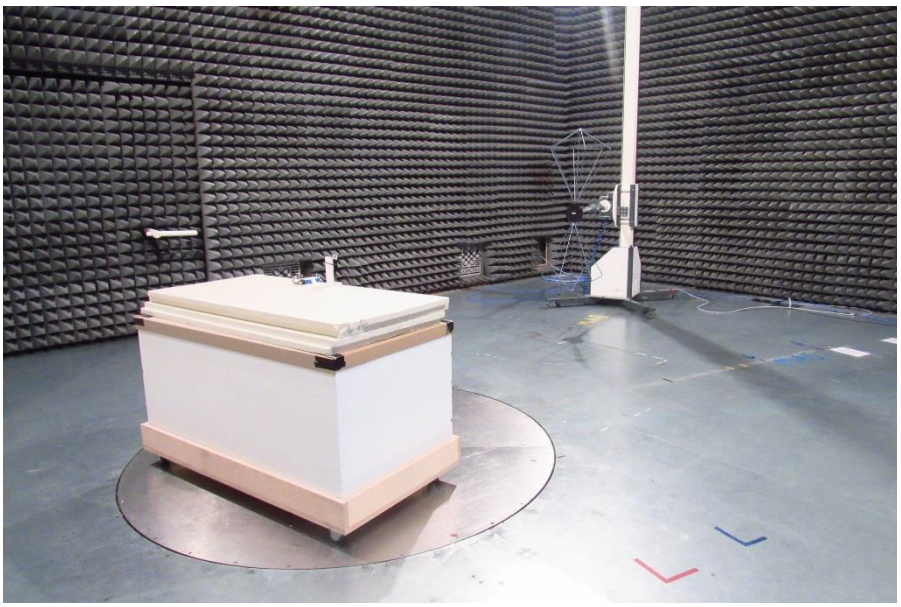
Test Results - LTE FDD13							
Mode	Frequency [MHz]	Level [dBµV/m]	Detector	Polarization	Limit [dBµV/m]	Margin [dB]	Result
LTE FDD13 / Receive mode	34.3987	24.60	qpk	ver	40.00	-15.43	PASS
LTE FDD13 / Receive mode	237.88	31.30	pk	ver	46.00	-14.71	PASS

3.3.7 Setup Photos

Sample Setup below 1 GHz AC1


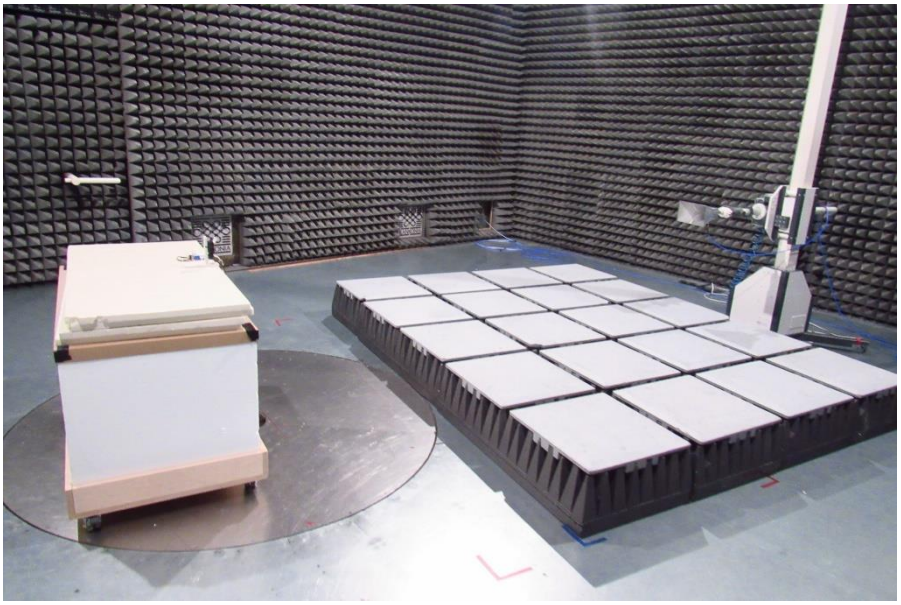
Sample Setup below 1 GHz AC1


Rx below 1 GHz AC1

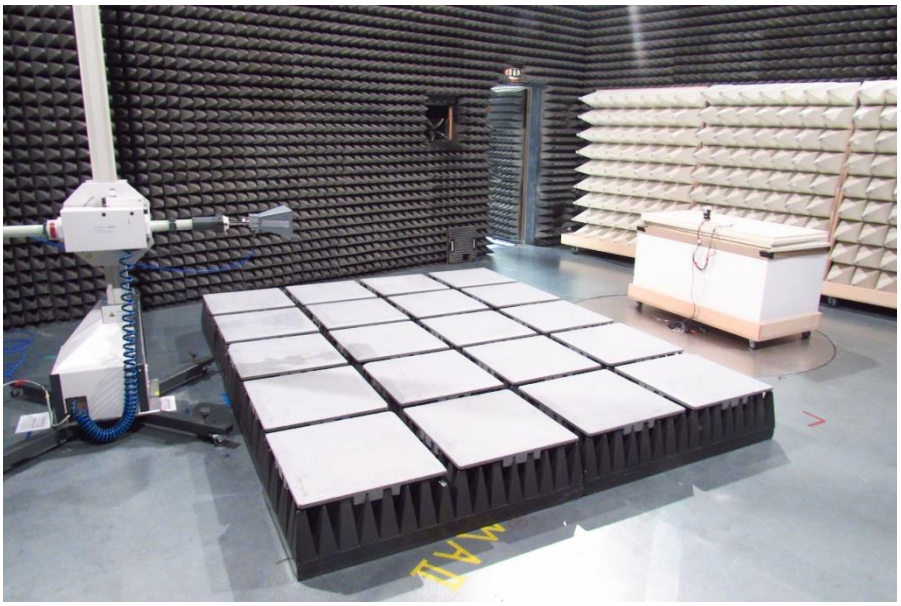


Rx below 1 GHz AC1

Rx above 1 GHz AC1



Rx above 1 GHz AC1



3.4 Test Conditions and Results - AC powerline conducted emissions

3.4.1 Information

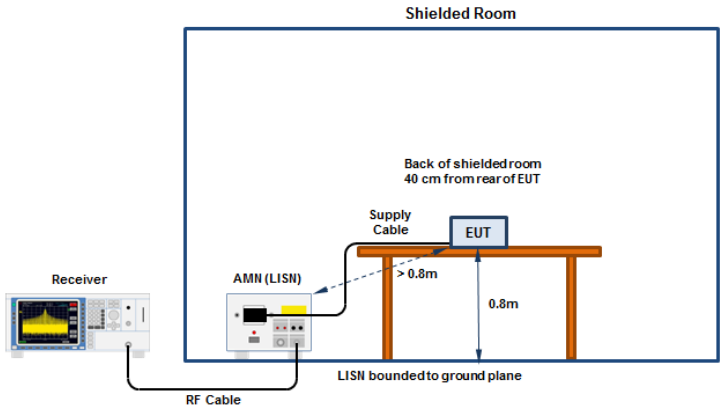
Test Information	
Reference	FCC § 15.207; ISED RSS-247, Issue 2 (section 3.1)
Measurement Method	ANSI C63.10 6.2
Measurement Uncertainty	± 3.82 dB
Operator	Odai Qawasmeh
Date	2022-02-24

3.4.2 Limits

Limits		
Frequency [MHz]	Quasi-Peak [dBµV]	Average [dBµV]
0.15 - 0.5	66 - 56*	56 - 46*
0.5 - 5	56	46
5 - 30	60	50
* Limit decreases linearly with the logarithm of the frequency		

3.4.3 Setup

Test Setup

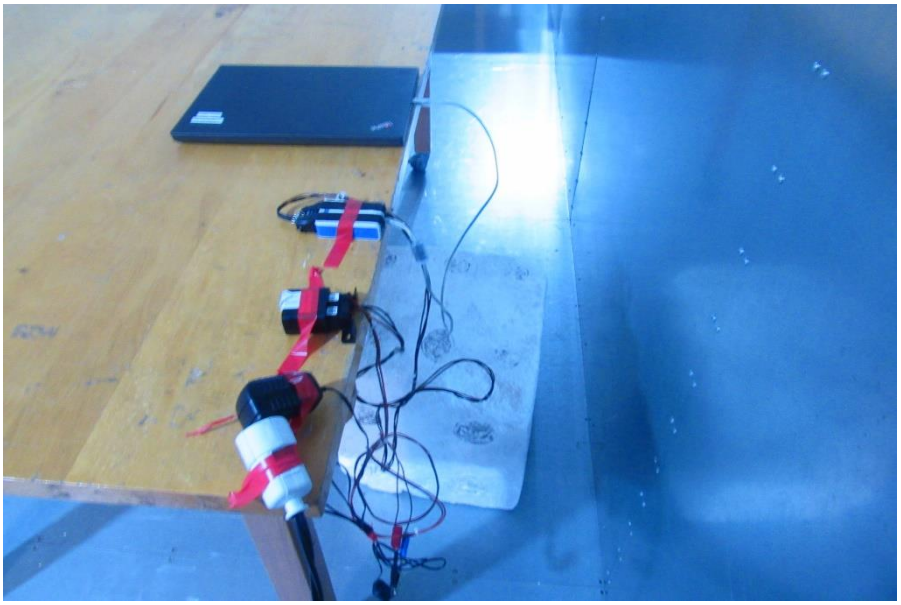


3.4.4 Equipment

Test Software			
Description	Manufacturer	Name	Version
EMC Software	DARE Instruments	RadiMation	2020.1.8

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
EMI Test Receiver	R&S	ESR7	EF00943	2021-08	2022-08
Pulse Limiter	R&S	ESH3-Z2	EF01222	2021-07	2022-07
LISN	Schwarzbeck	NSLK 8127 RC	EF01592	2021-07	2022-07

3.4.5 Setup Photos

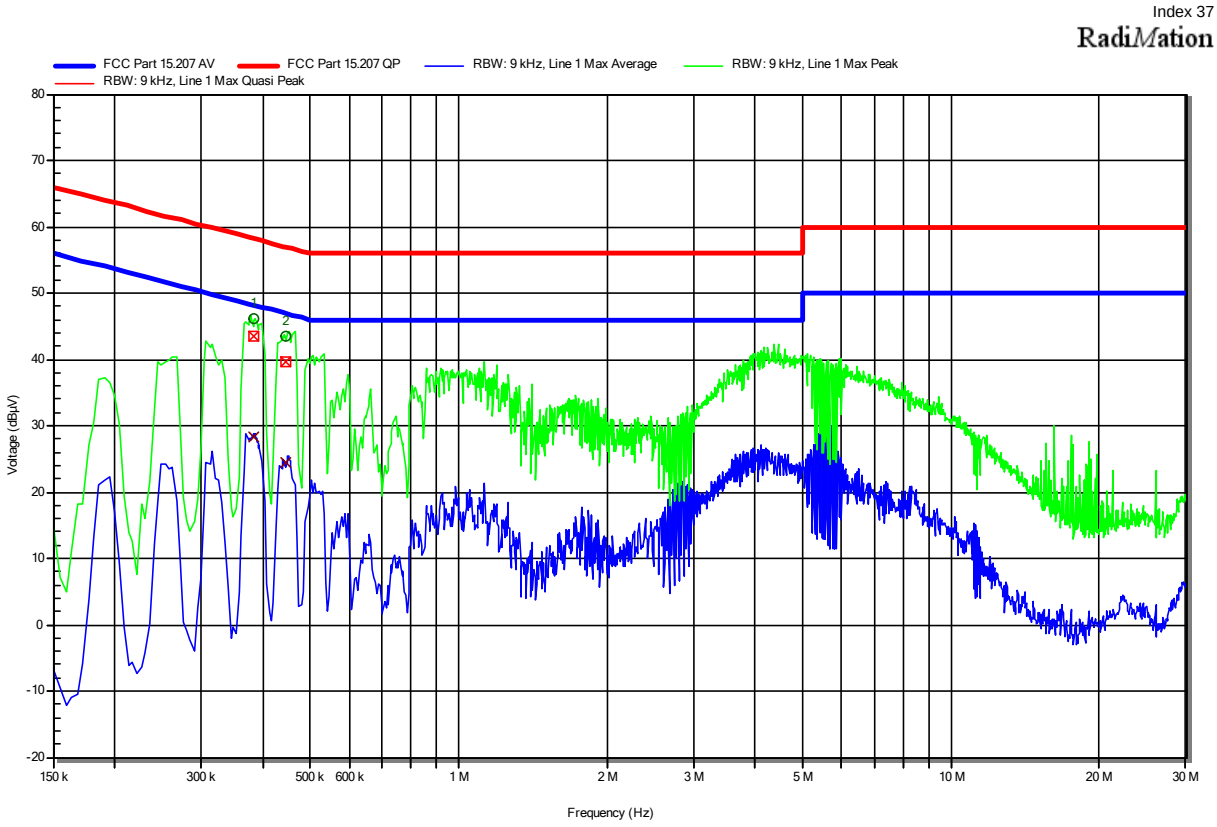
Setup 150 kHz - 30 MHz


Setup 150 kHz - 30 MHz


3.4.6 Results

Conducted emissions at the mains power port according to Part 15.247, FCC Part 22H, ISED RSS-247, Issue 2, ISED RSS-132, Issue 3

Project Number:	G0M-2108-9942
Applicant:	Bridgestone Mobility Solutions B.V.
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-02-24
Operating Conditions:	ambient temperature: 24 °Celsius; power input: 12 VDC
LISN:	Schwarzbeck NSLK 8127 RC L
Operational Mode & EUT Configuration:	BT-BR DH5; 2480 MHz + GSM 850 CH 189 Tx + GNSS on
Applied to Port:	Mains

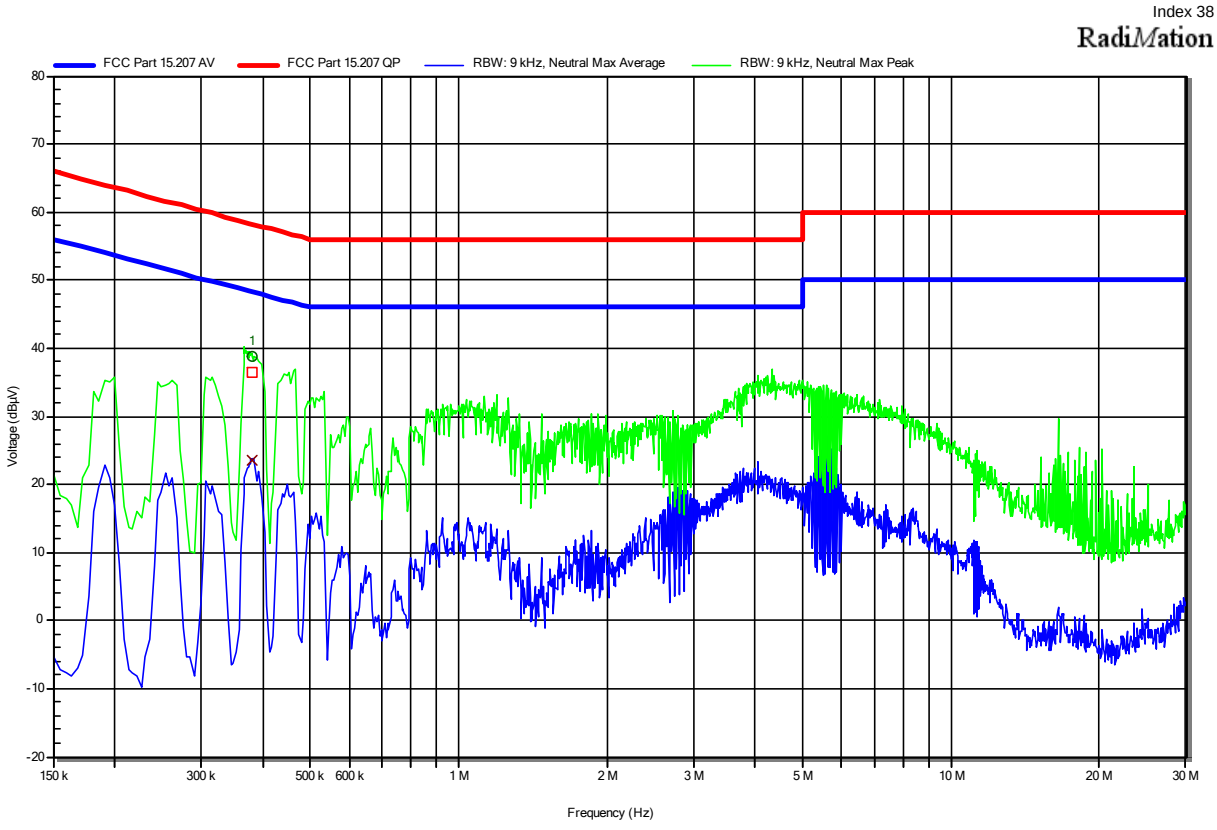


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	384.9 kHz	43.38 dBµV	58.17 dBµV	-14.8 dB	Pass	Line 1
2	447 kHz	39.66 dBµV	56.93 dBµV	-17.27 dB	Pass	Line 1

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	384.9 kHz	28.36 dBµV	48.17 dBµV	-19.82 dB	Pass	Line 1
2	447 kHz	24.35 dBµV	46.93 dBµV	-22.58 dB	Pass	Line 1

Conducted emissions at the mains power port according to Part 15.247, FCC Part 22H, ISED RSS-247, Issue 2, ISED RSS-132, Issue 3

Project Number:	G0M-2108-9942
Applicant:	Bridgestone Mobility Solutions B.V.
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-02-24
Operating Conditions:	ambient temperature: 24 °Celsius; power input: 12 VDC
LISN:	Schwarzbeck NSLK 8127 RC N
Operational Mode & EUT Configuration:	BT-BR DH5; 2480 MHz + GSM 850 CH 189 Tx + GNSS on
Applied to Port:	Mains



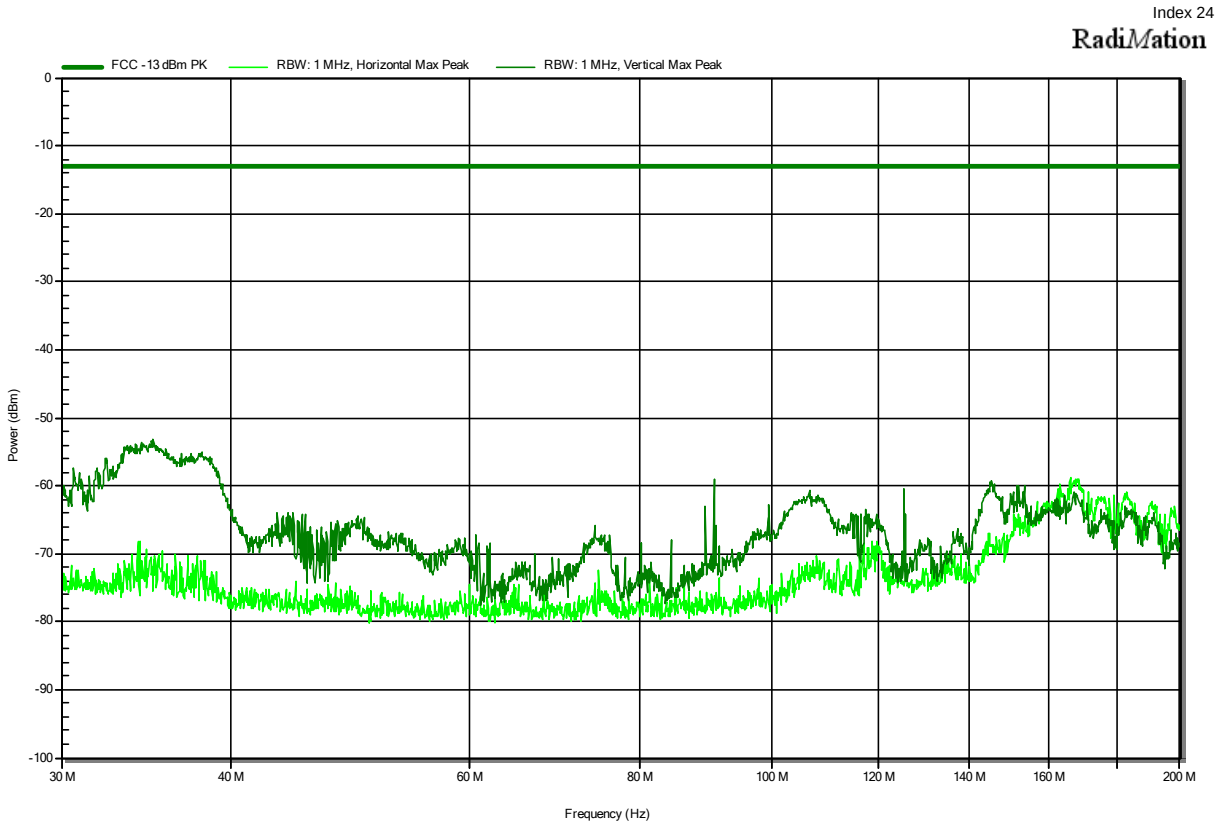
Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	379.5 kHz	36.5 dBµV	58.29 dBµV	-21.79 dB	Pass	Neutral

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	379.5 kHz	23.55 dBµV	48.29 dBµV	-24.74 dB	Pass	Neutral

ANNEX A Transmitter radiated emissions

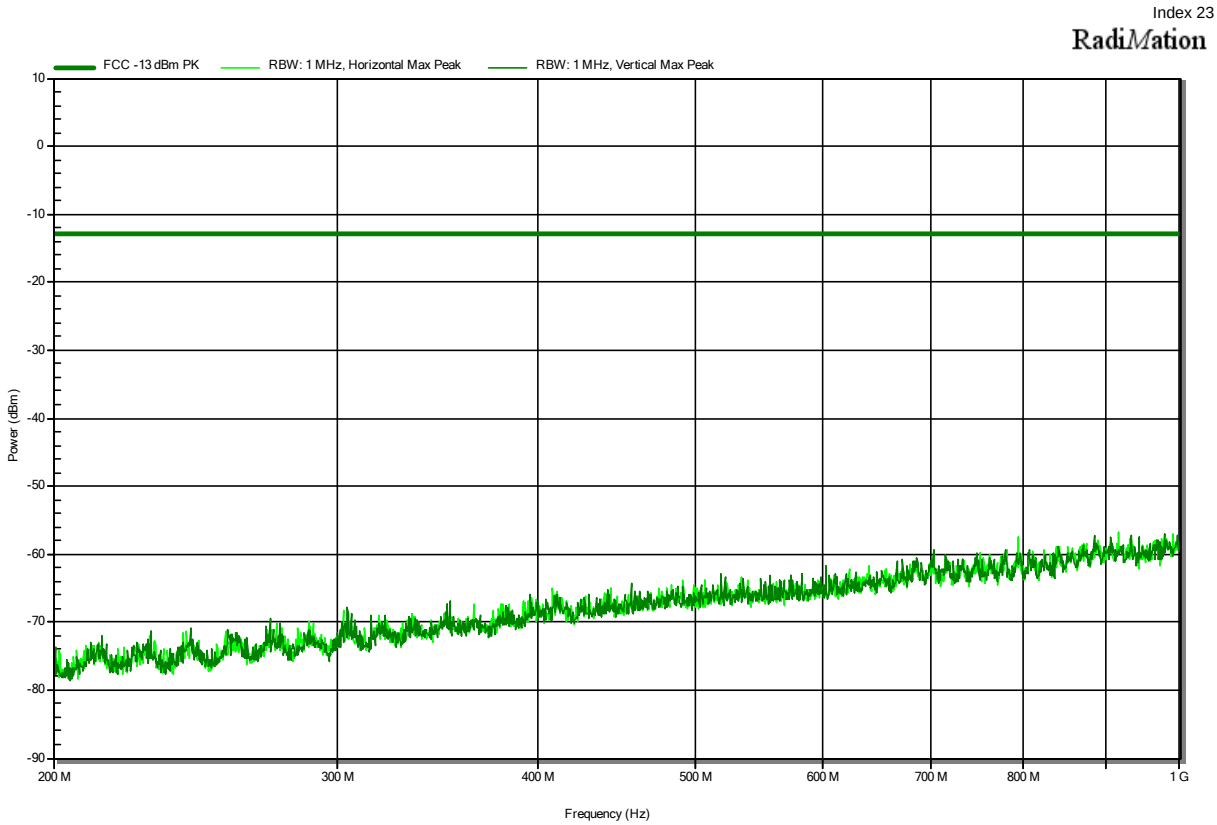
Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133, Issue 6 + A1

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD2, Ch 18900, 16-QAM, BW5, RB 1#0
Test Date:	2022-02-18
Note:	EUT vertical



Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133, Issue 6 + A1

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD2, Ch 18900, 16-QAM, BW5, RB 1#0
Test Date:	2022-02-18
Note:	EUT vertical



Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133, Issue 6 + A1

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD2, Ch 18900, 16-QAM, BW5, RB 1#0
Test Date:	2022-02-17
Note:	EUT horizontal

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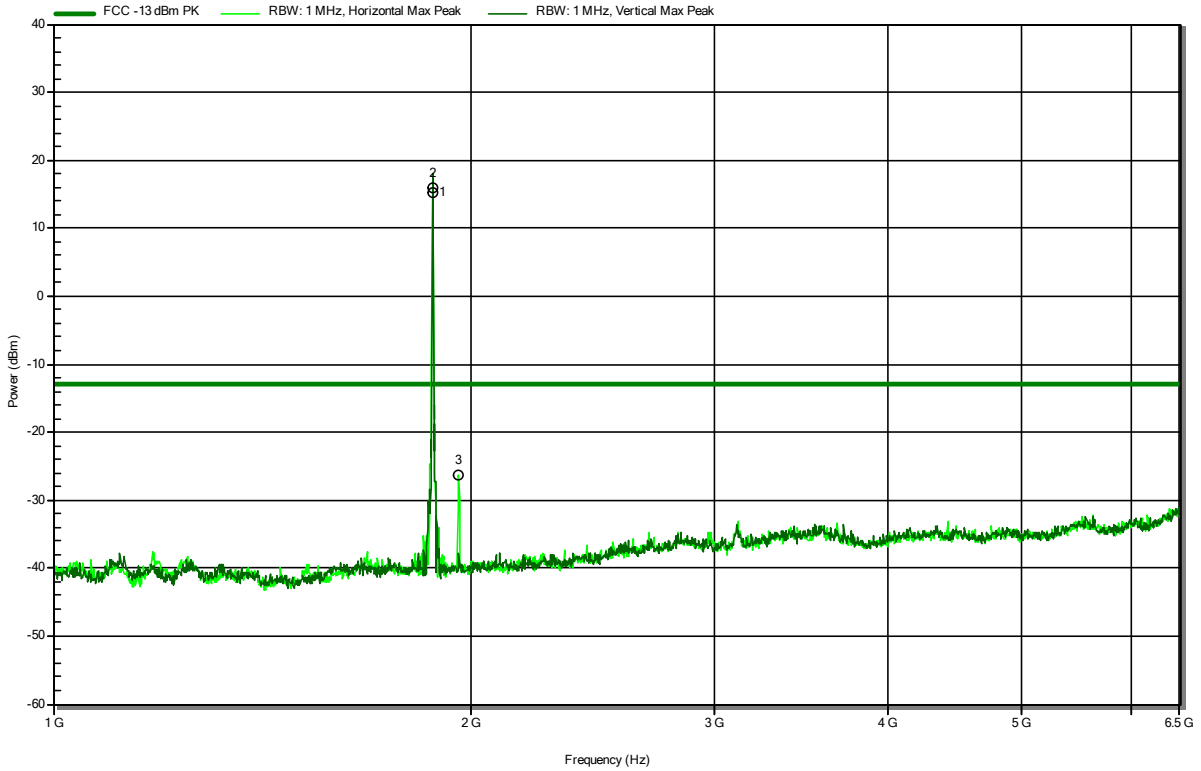
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.878 GHz	14.9 dBm	-13 dBm		UL - Carrier
1.878 GHz	15.9 dBm	-13 dBm		UL - Carrier
1.96 GHz	-26.2 dBm	-13 dBm		DL - Carrier

Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133, Issue 6 + A1

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD2, Ch 18900, 16-QAM, BW5, RB 1#0
Test Date:	2022-02-17
Note:	EUT vertical

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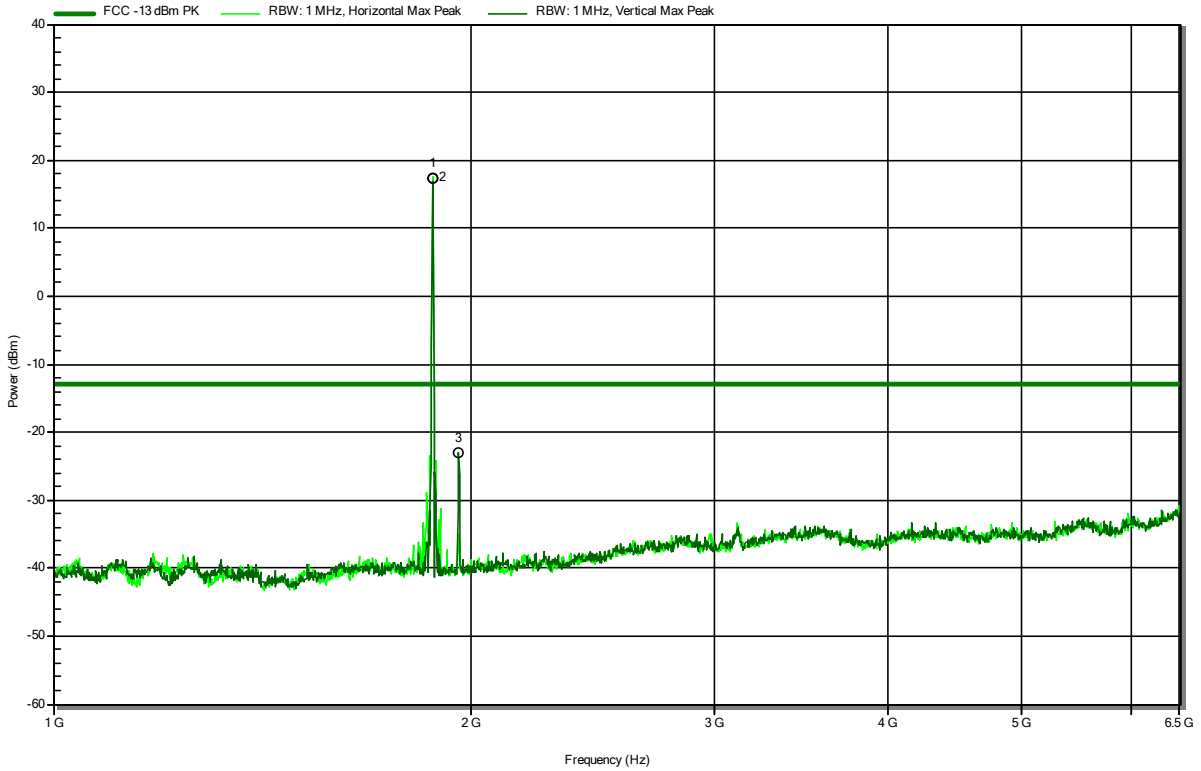
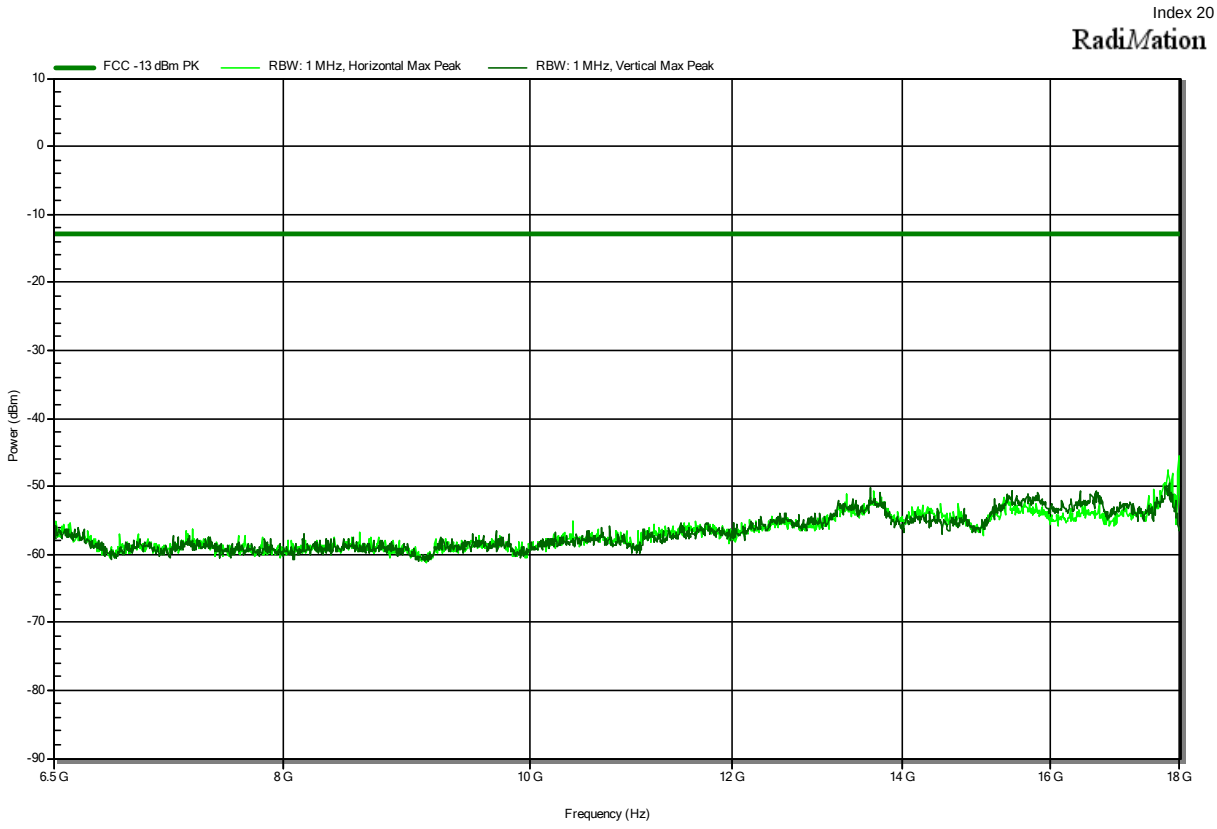
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.878 GHz	17.4 dBm	-13 dBm		UL - Carrier
1.878 GHz	17.4 dBm	-13 dBm		UL - Carrier
1.962 GHz	-23.1 dBm	-13 dBm		DL - Carrier

Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133, Issue 6 + A1

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD2, Ch 18900, 16-QAM, BW5, RB 1#0
Test Date:	2022-02-17
Note:	EUT horizontal



Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133, Issue 6 + A1

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD2, Ch 18900, 16-QAM, BW5, RB 1#0
Test Date:	2022-02-17
Note:	EUT vertical

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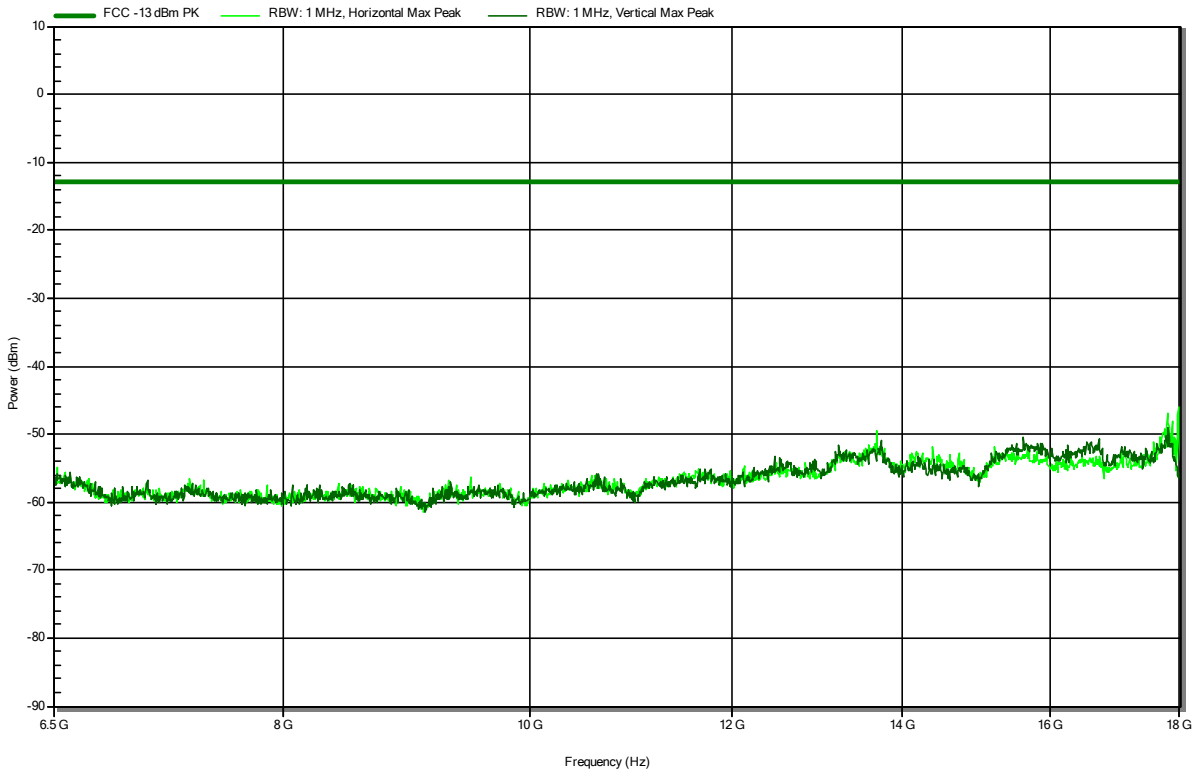
RadiMation



Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133, Issue 6 + A1

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Amplifier Research AT4560
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD2, Ch 18900, 16-QAM, BW5, RB 1#0
Test Date:	2022-02-17
Note:	EUT horizontal

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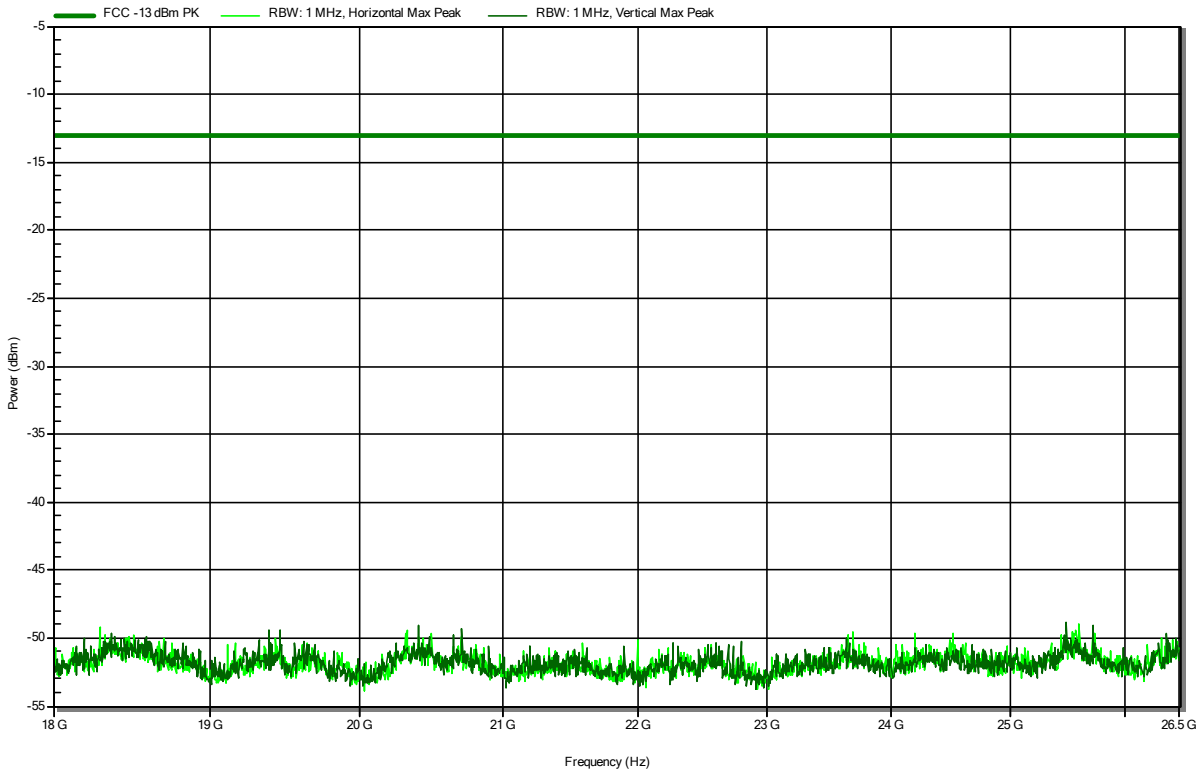
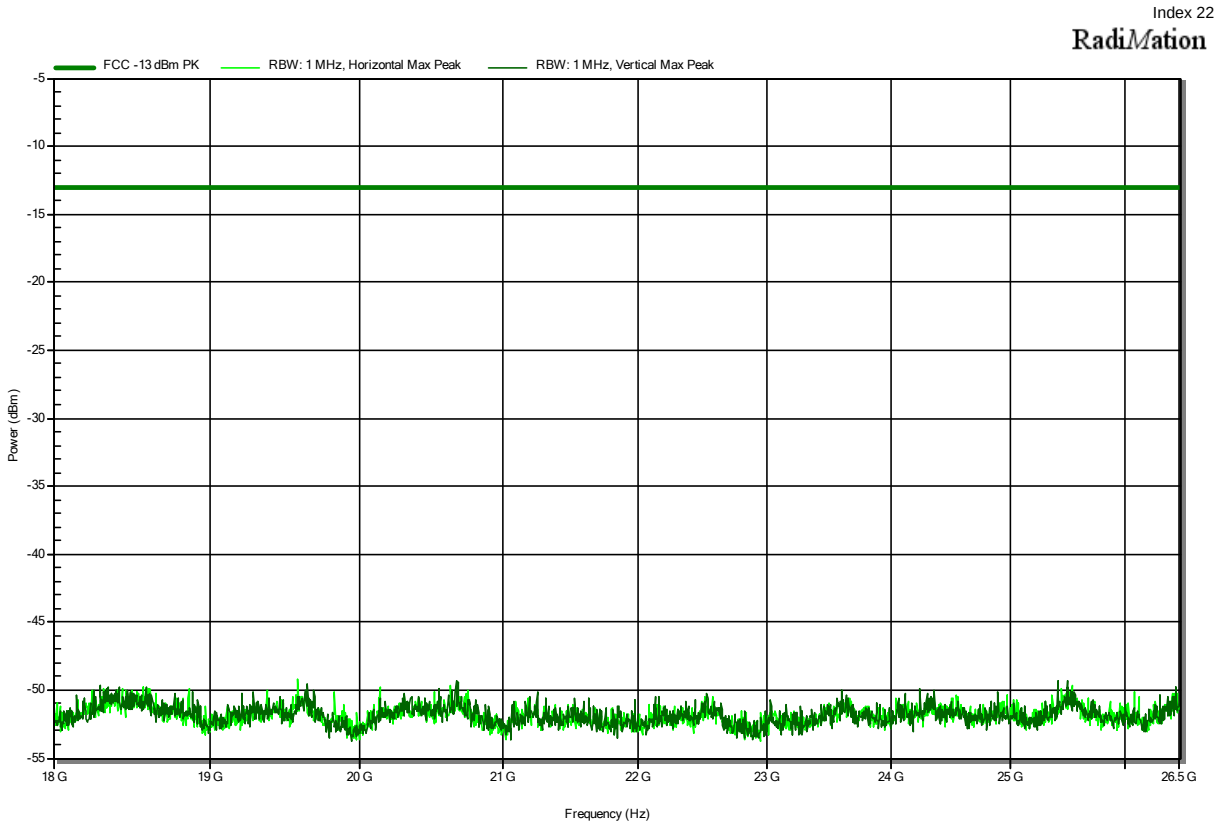
RadiMation



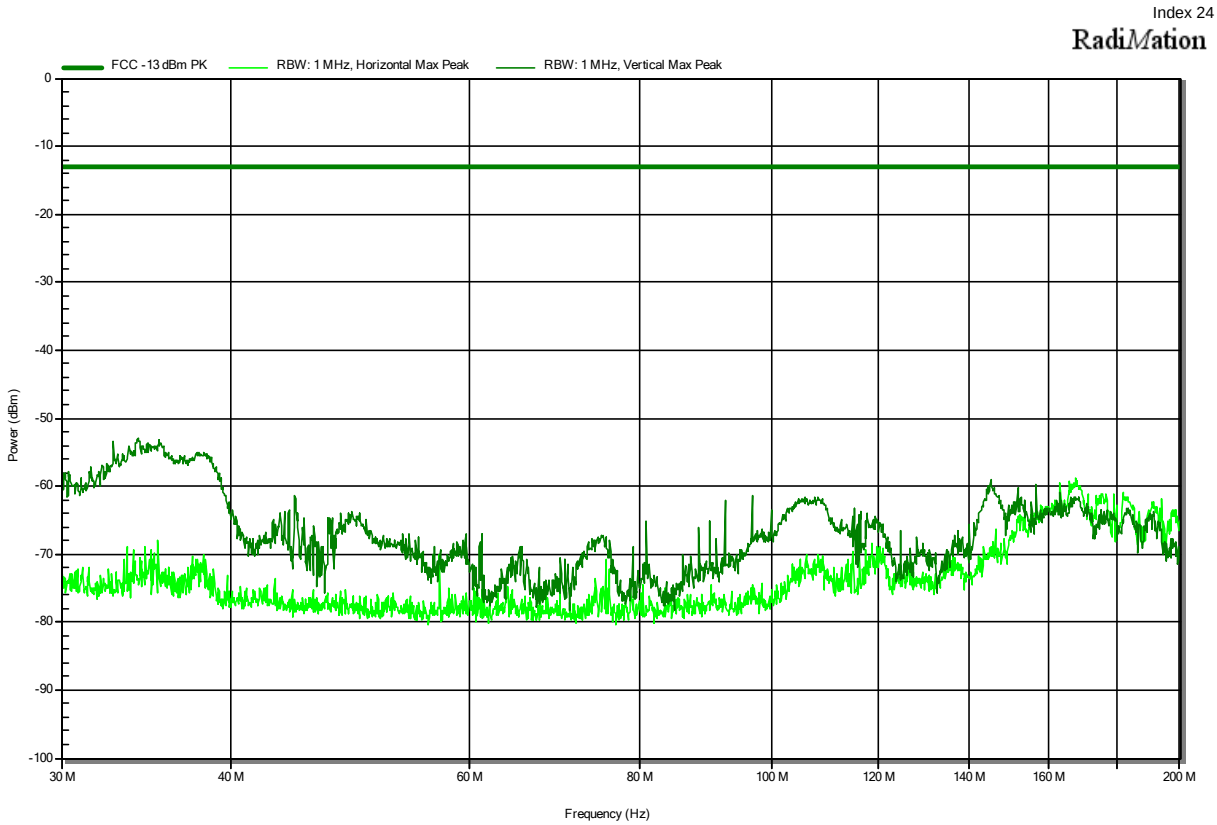
Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133, Issue 6 + A1

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Amplifier Research AT4560
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD2, Ch 18900, 16-QAM, BW5, RB 1#0
Test Date:	2022-02-17
Note:	EUT vertical



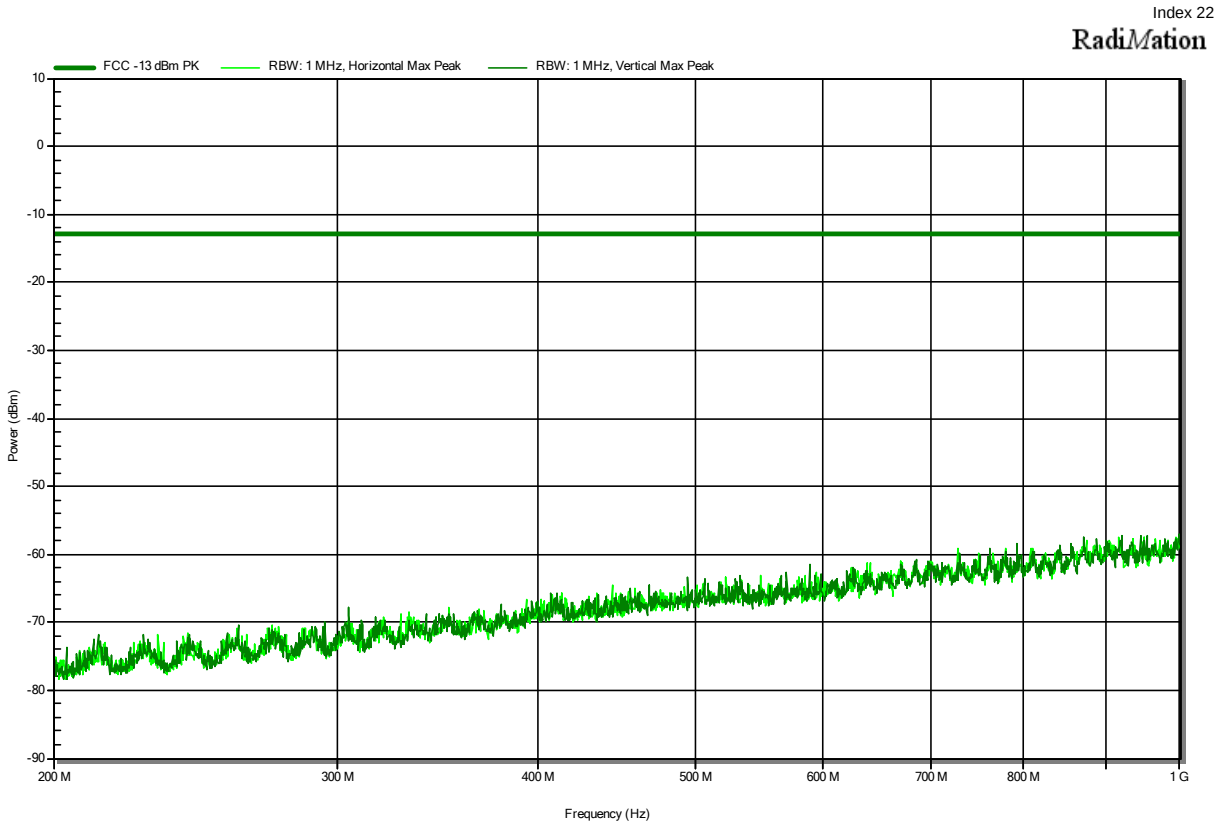
Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-139, Issue 3

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD4, Ch 20175, QPSK, BW20, RB 1#0
Test Date:	2022-02-18
Note:	EUT vertical



Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-139, Issue 3

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD4, Ch 20175, QPSK, BW20, RB 1#0
Test Date:	2022-02-18
Note:	EUT vertical



Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-139, Issue 3

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD4, Ch 20175, QPSK, BW20, RB 1#0
Test Date:	2022-02-17
Note:	EUT horizontal

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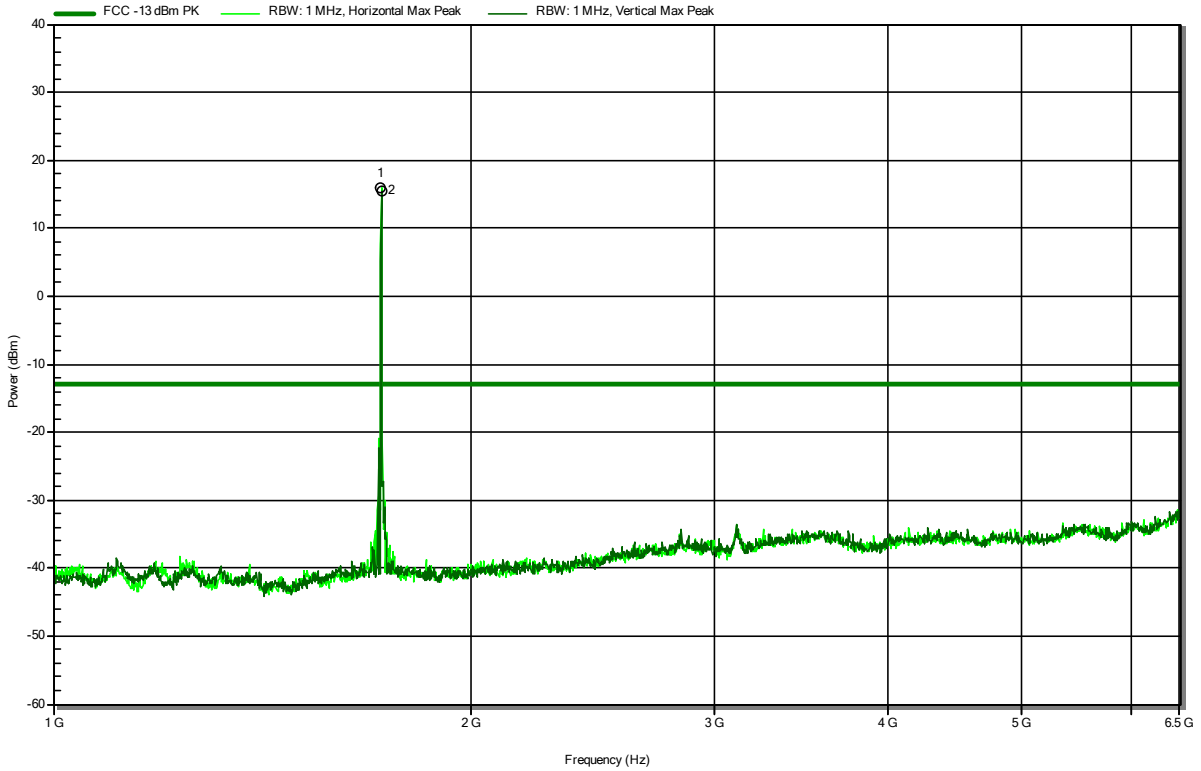
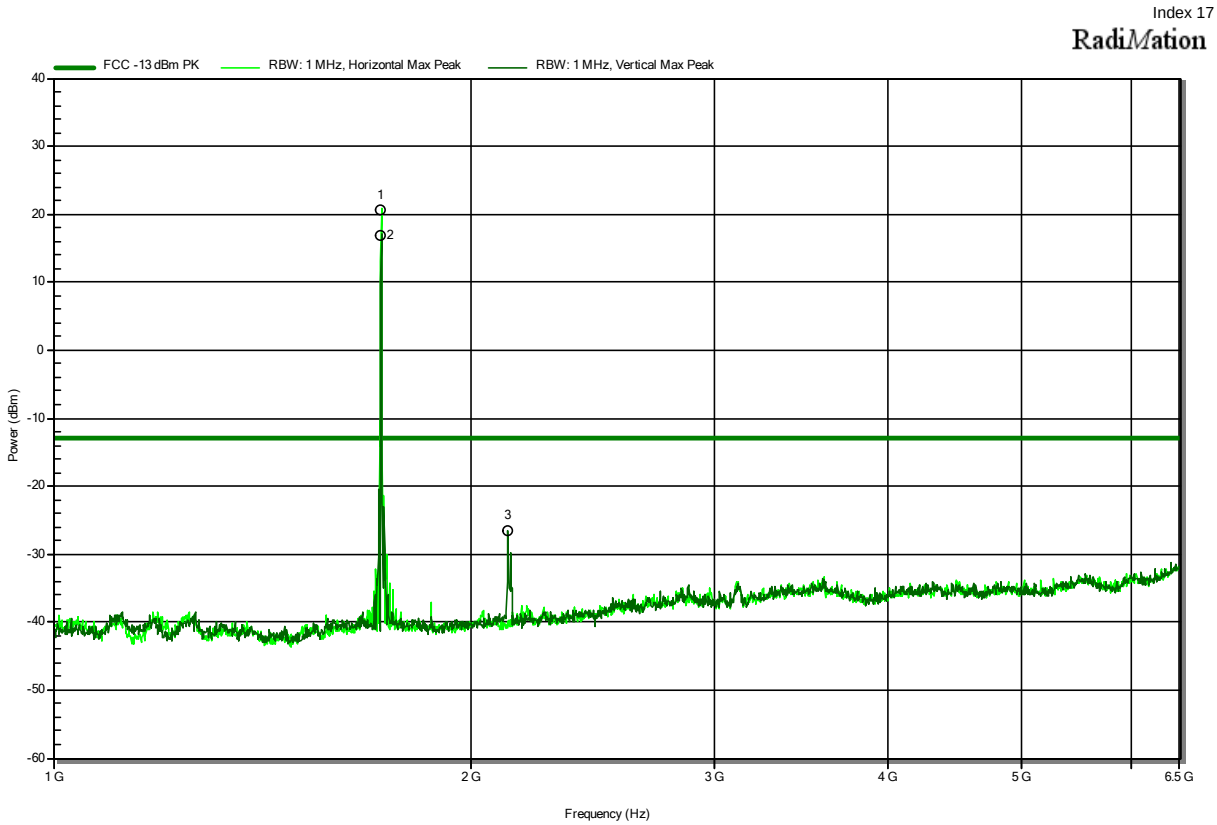
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.731 GHz	16 dBm	-13 dBm		UL - Carrier
1.731 GHz	16 dBm	-13 dBm		UL - Carrier

Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-139, Issue 3

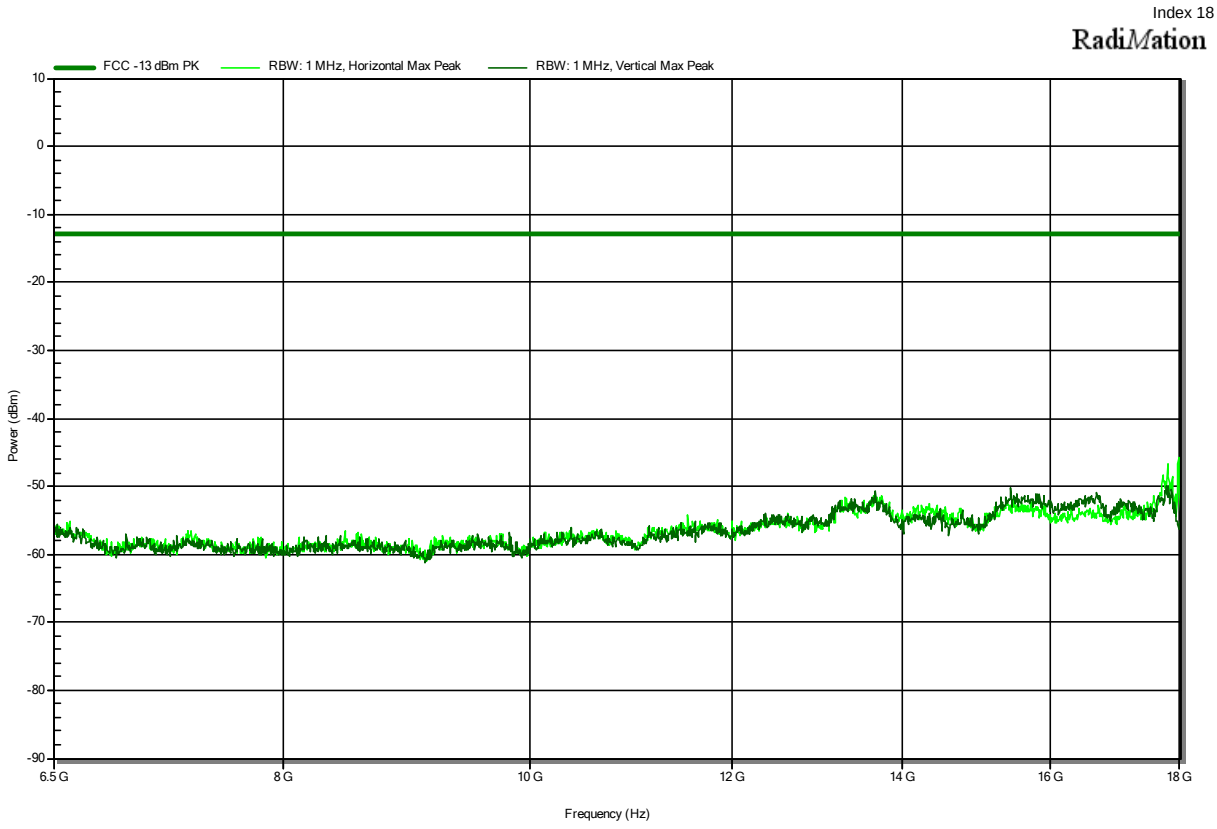
Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD4, Ch 20175, QPSK, BW20, RB 1#0
Test Date:	2022-02-17
Note:	EUT vertical



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.731 GHz	20.8 dBm	-13 dBm		UL - Carrier
1.731 GHz	17 dBm	-13 dBm		UL - Carrier
2.131 GHz	-26.6 dBm	-13 dBm		DL - Carrier

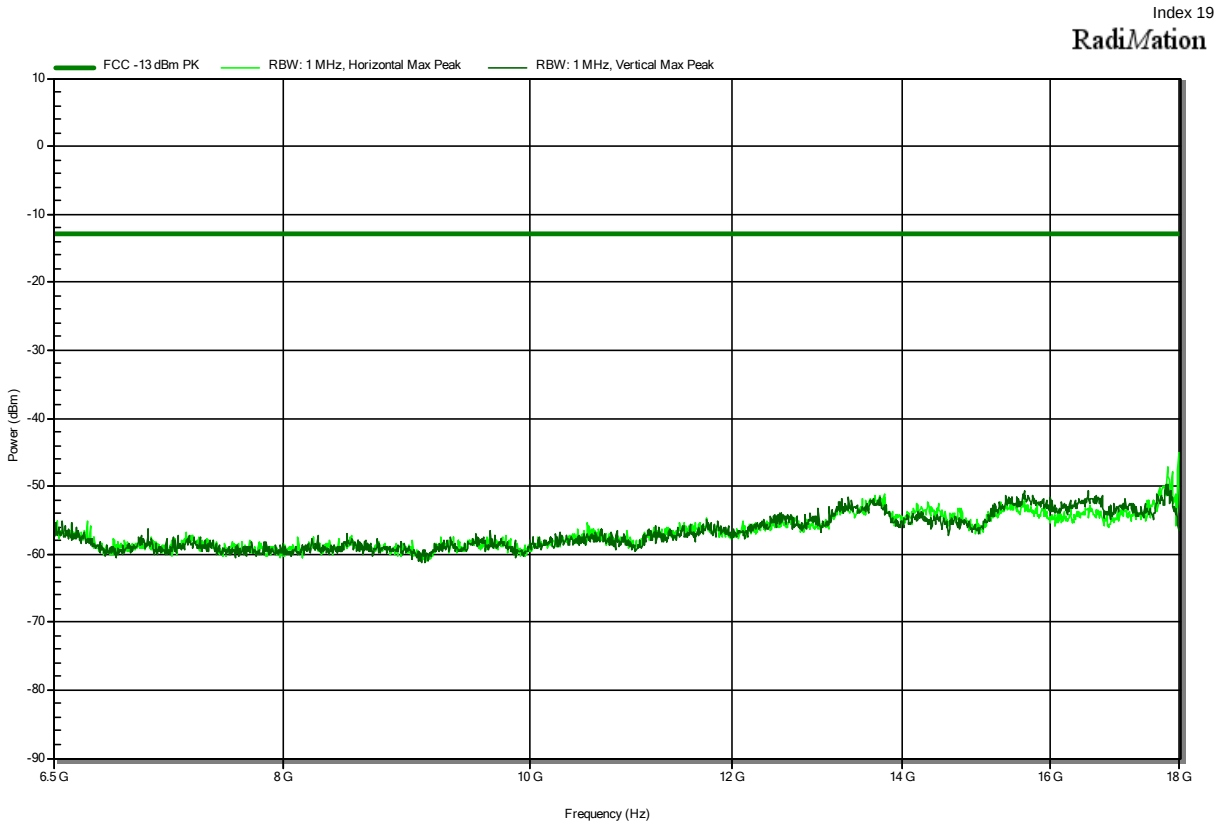
Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-139, Issue 3

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD4, Ch 20175, QPSK, BW20, RB 1#0
Test Date:	2022-02-17
Note:	EUT horizontal



Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-139, Issue 3

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD4, Ch 20175, QPSK, BW20, RB 1#0
Test Date:	2022-02-17
Note:	EUT vertical



Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-139, Issue 3

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Amplifier Research AT4560
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD4, Ch 20175, QPSK, BW20, RB 1#0
Test Date:	2022-02-17
Note:	EUT horizontal

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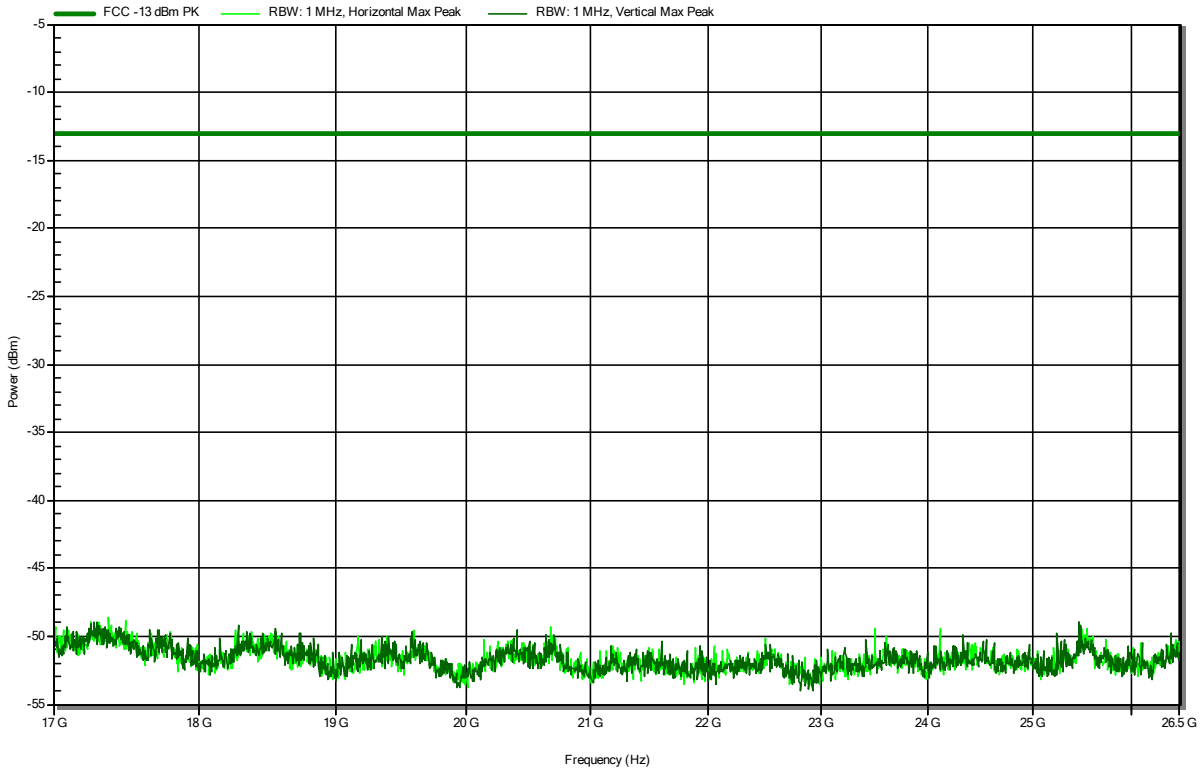
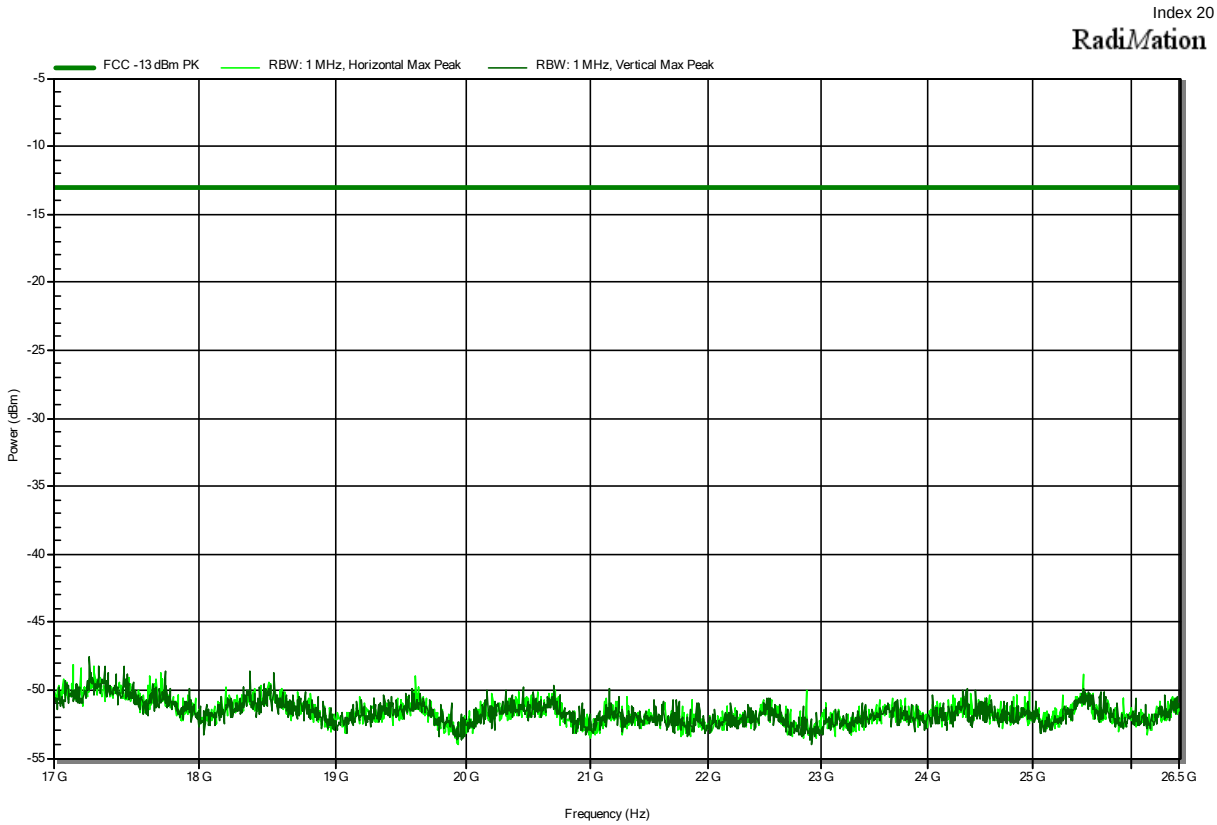
RadiMation



Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-139, Issue 3

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Amplifier Research AT4560
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD4, Ch 20175, QPSK, BW20, RB 1#0
Test Date:	2022-02-17
Note:	EUT vertical



Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-130, Issue 2

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Tx; LTE CatM1 FDD12, Ch 23095, QPSK, BW5, RB1#0
Test Date:	2022-02-18
Note:	EUT vertical

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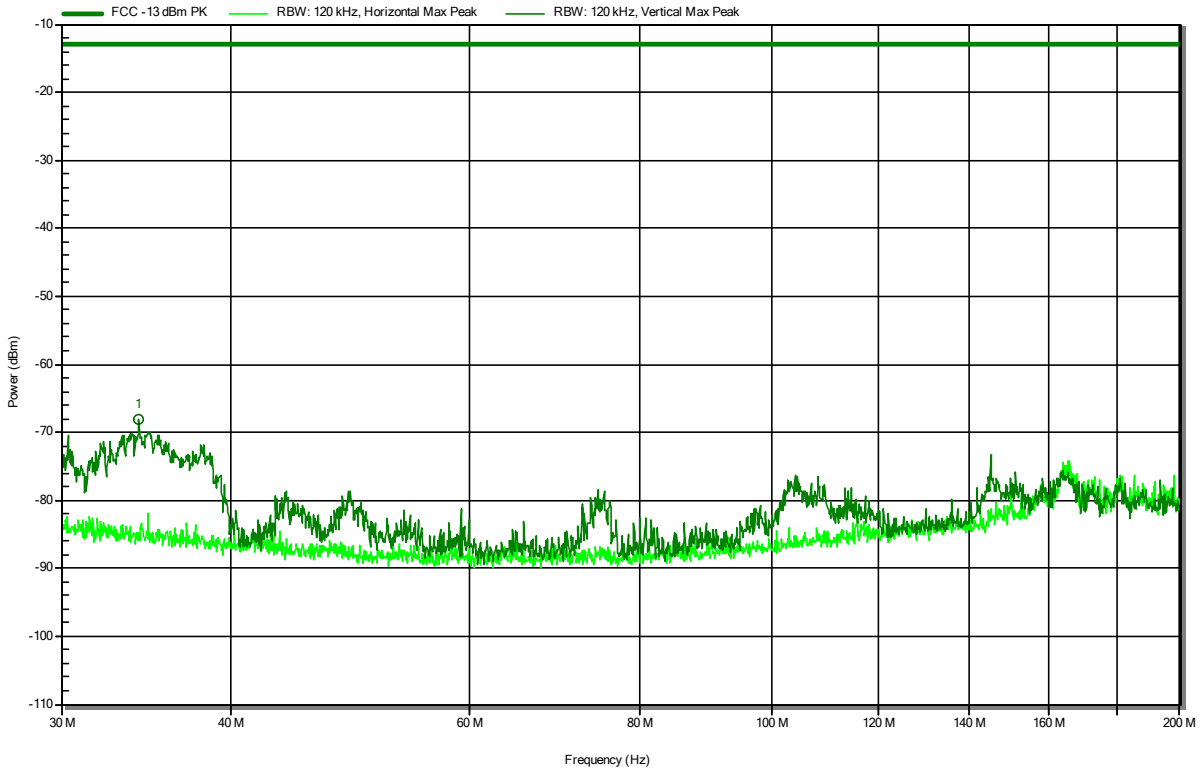
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
34.212 MHz	-68.2 dBm	-13 dBm	-55.2 dB	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-130, Issue 2

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Tx; LTE CatM1 FDD12, Ch 23095, QPSK, BW5, RB1#0
Test Date:	2022-02-18
Note:	EUT vertical

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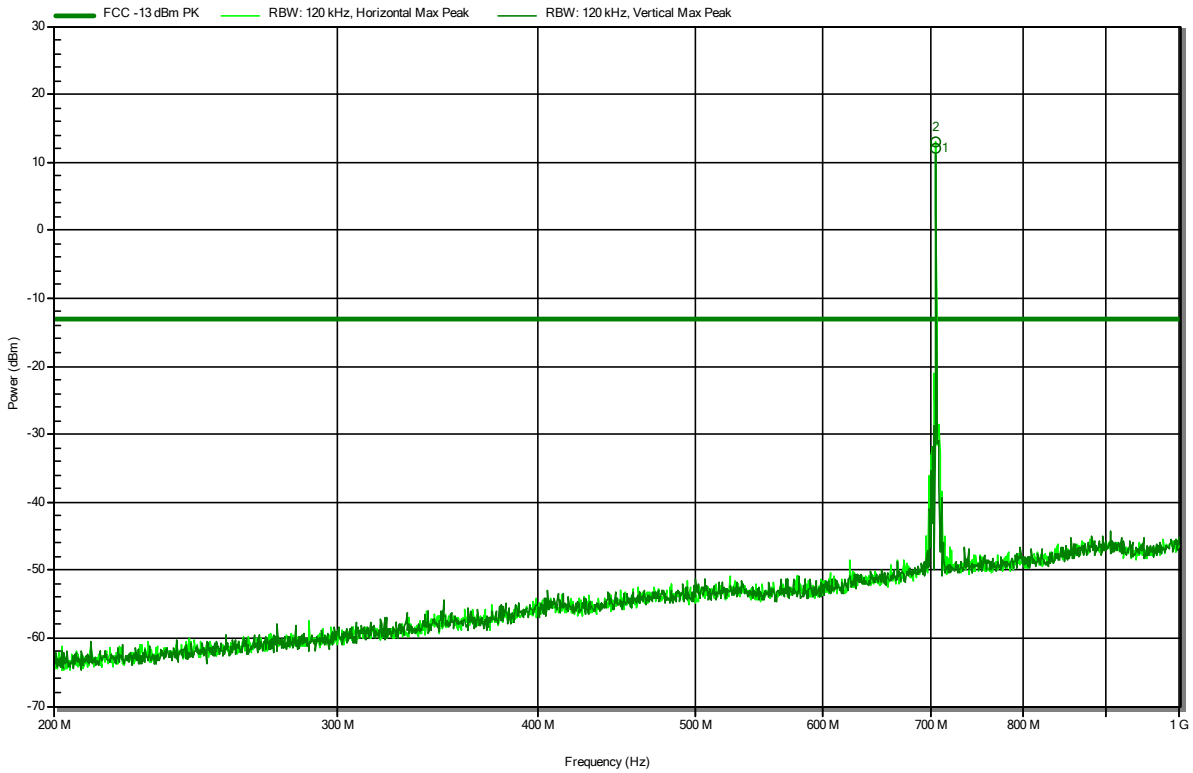
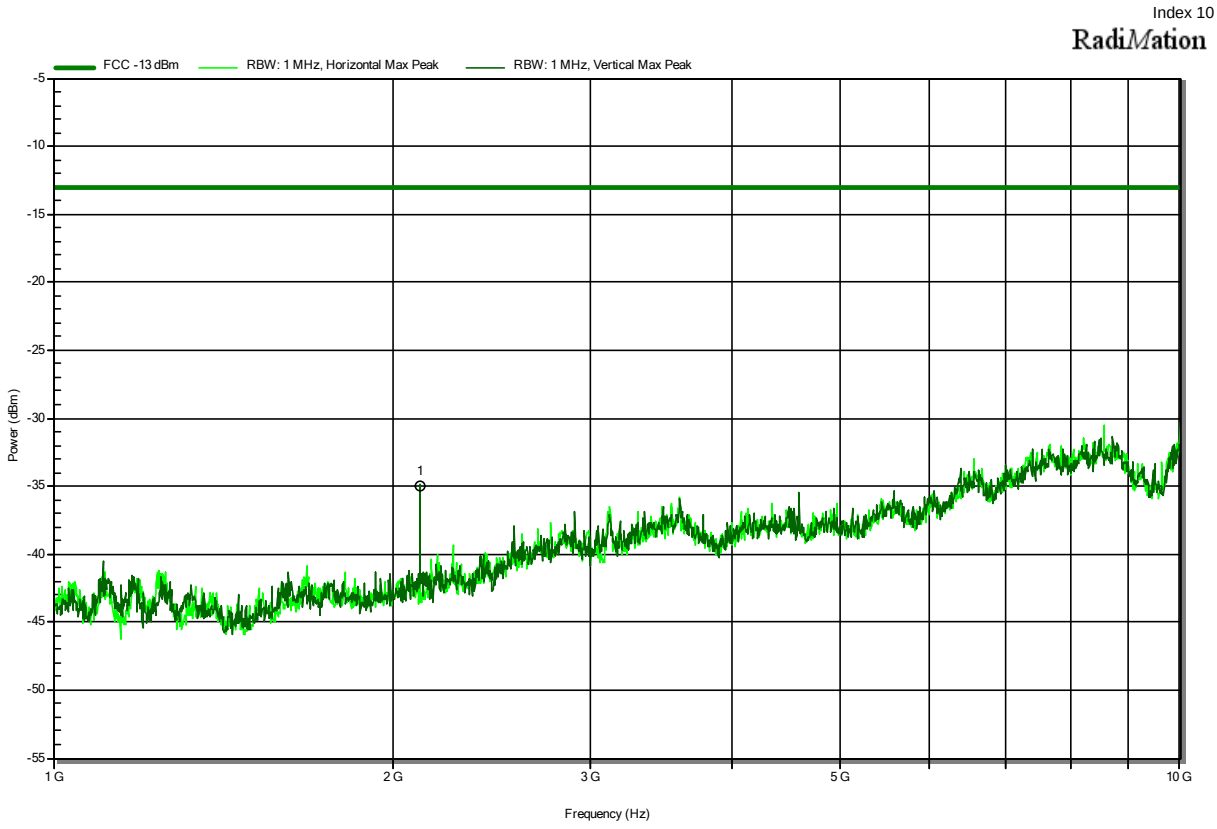
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
706.193 MHz	13 dBm	-13 dBm		UL - Carrier	Vertical
706.195 MHz	12 dBm	-13 dBm		UL - Carrier	Horizontal

Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-130, Issue 2

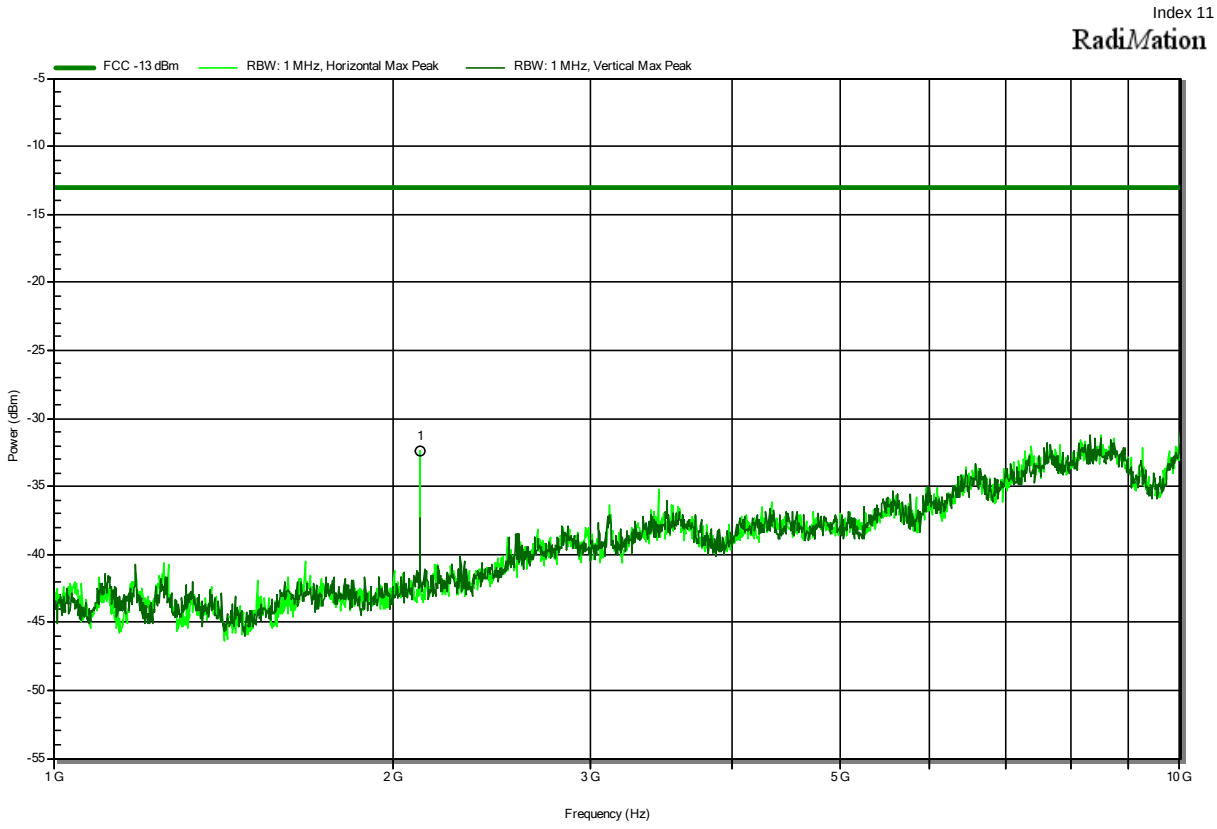
Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; LTE CatM1 FDD12, Ch 23095, QPSK, BW5, RB1#0
Test Date:	2022-02-17
Note:	EUT vertical



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.116 GHz	-35 dBm	-13 dBm	-22.02 dB	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-130, Issue 2

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; LTE CatM1 FDD12, Ch 23095, QPSK, BW5, RB1#0
Test Date:	2022-02-17
Note:	EUT horizontal



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.116 GHz	-32.4 dBm	-13 dBm	-19.39 dB	Pass	Horizontal

Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-130, Issue 2

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD13, Ch 23230, QPSK, BW5, RB 1#0
Test Date:	2022-02-18
Note:	EUT vertical

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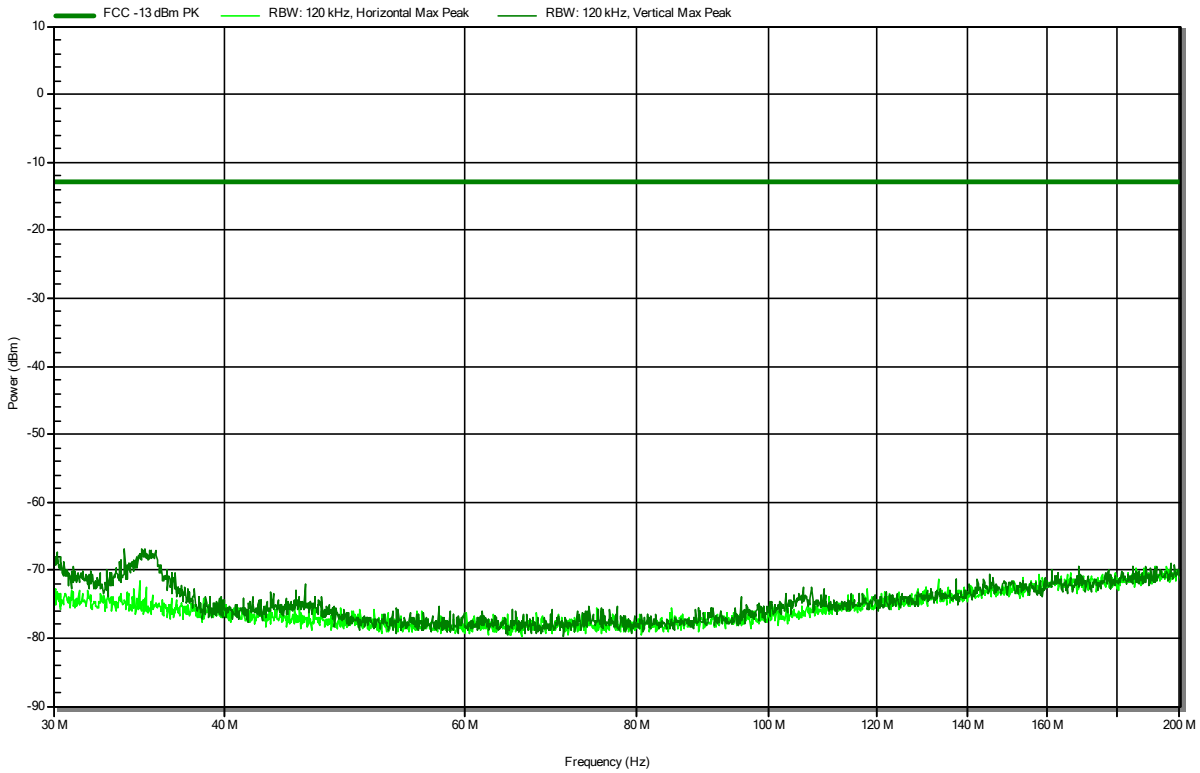
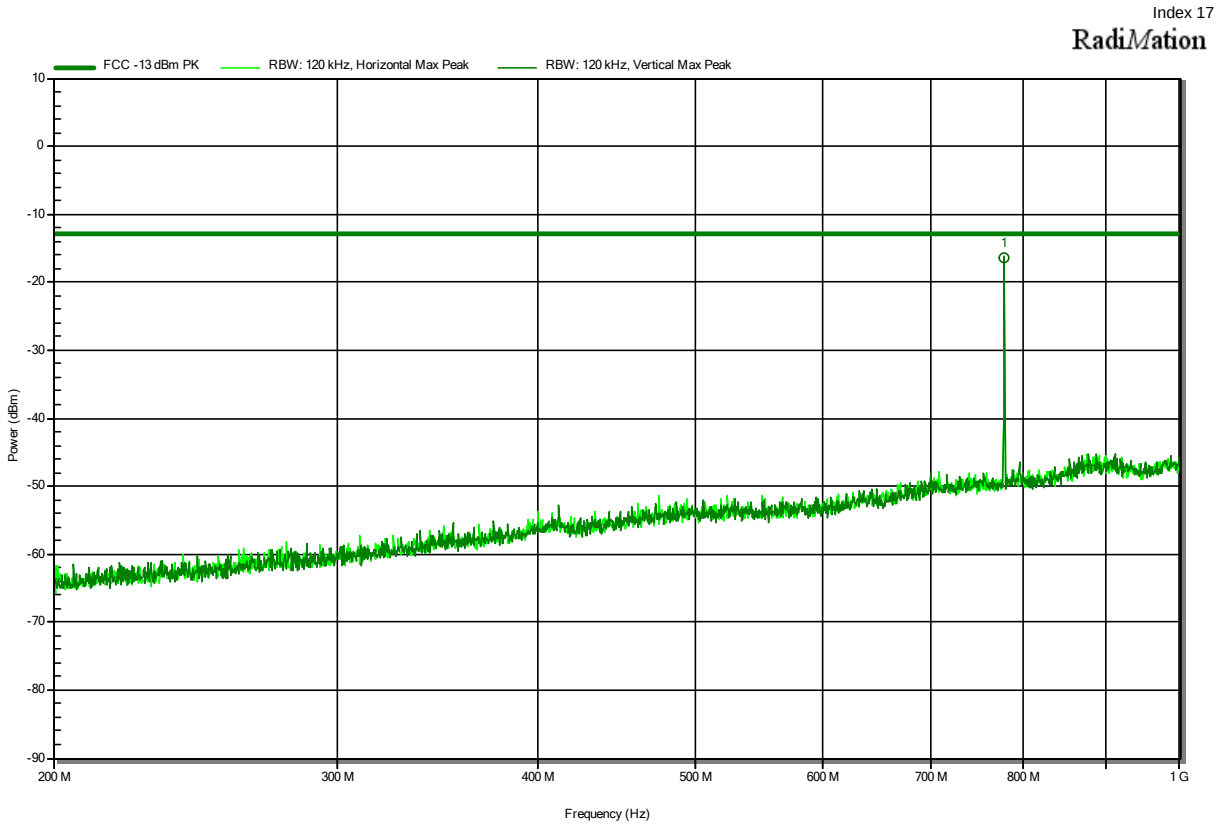
RadiMation



Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-130, Issue 2

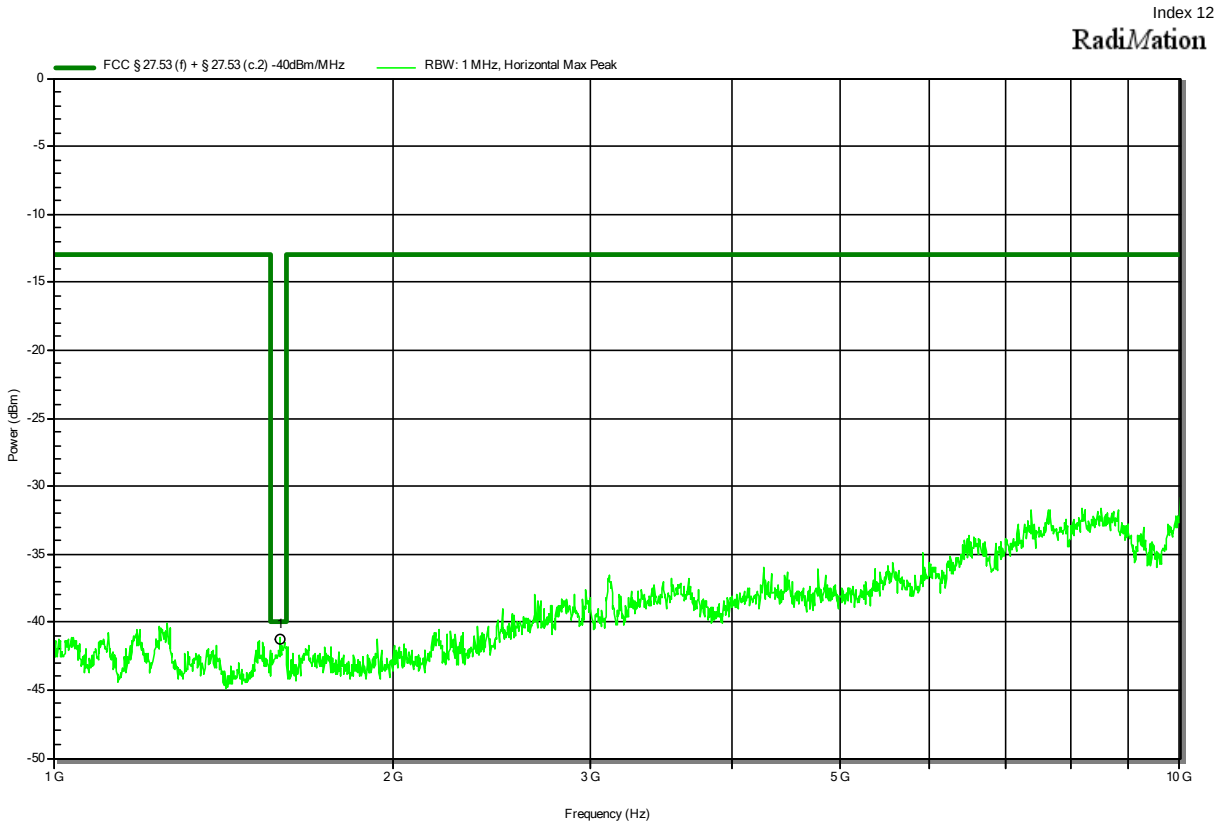
Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD13, Ch 23230, QPSK, BW5, RB 1#0
Test Date:	2022-02-18
Note:	EUT vertical



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
781.481 MHz	-16.3 dBm	-13 dBm		UL - Carrier

Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-130, Issue 2

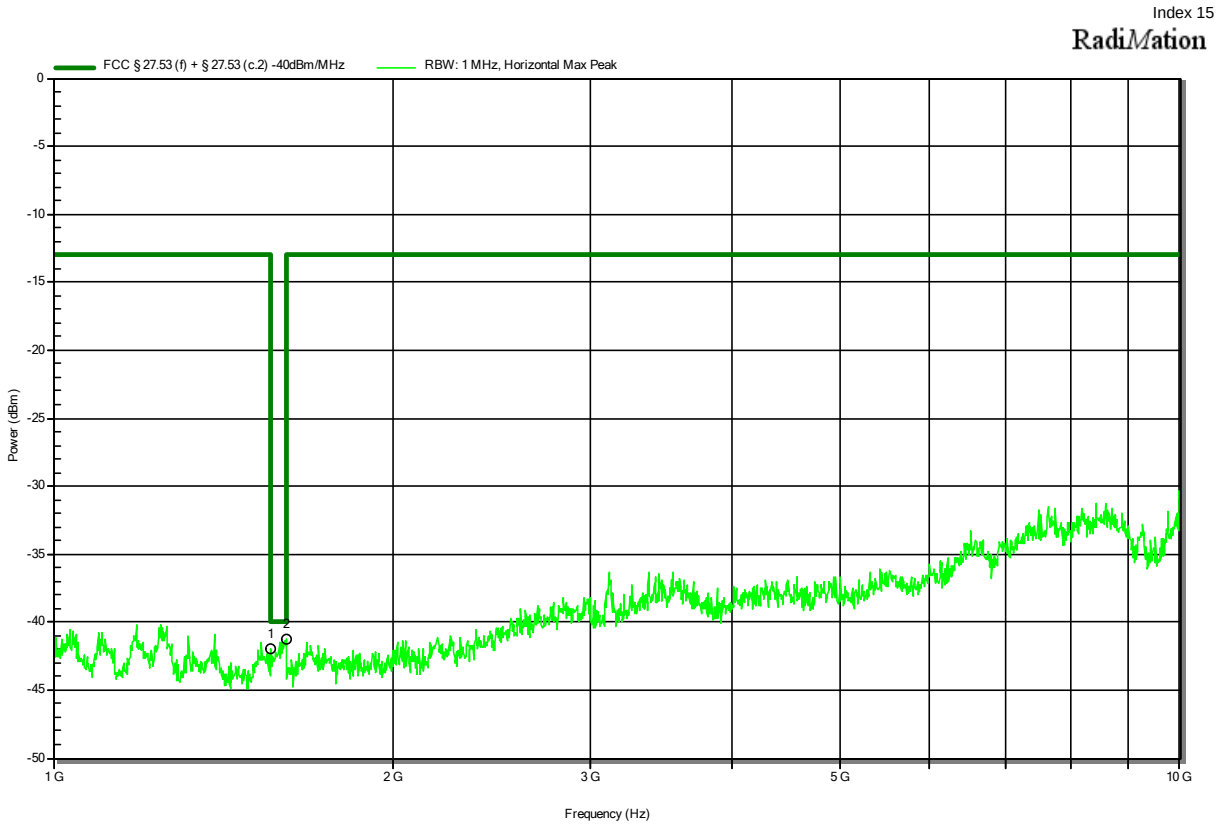
Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120B, Horizontal
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD13, Ch 23230, QPSK, BW5, RB 1#0
Test Date:	2022-02-17
Note:	EUT horizontal



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.588 GHz	-41.2 dBm	-40 dBm	-1.2 dB	Pass

Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-130, Issue 2

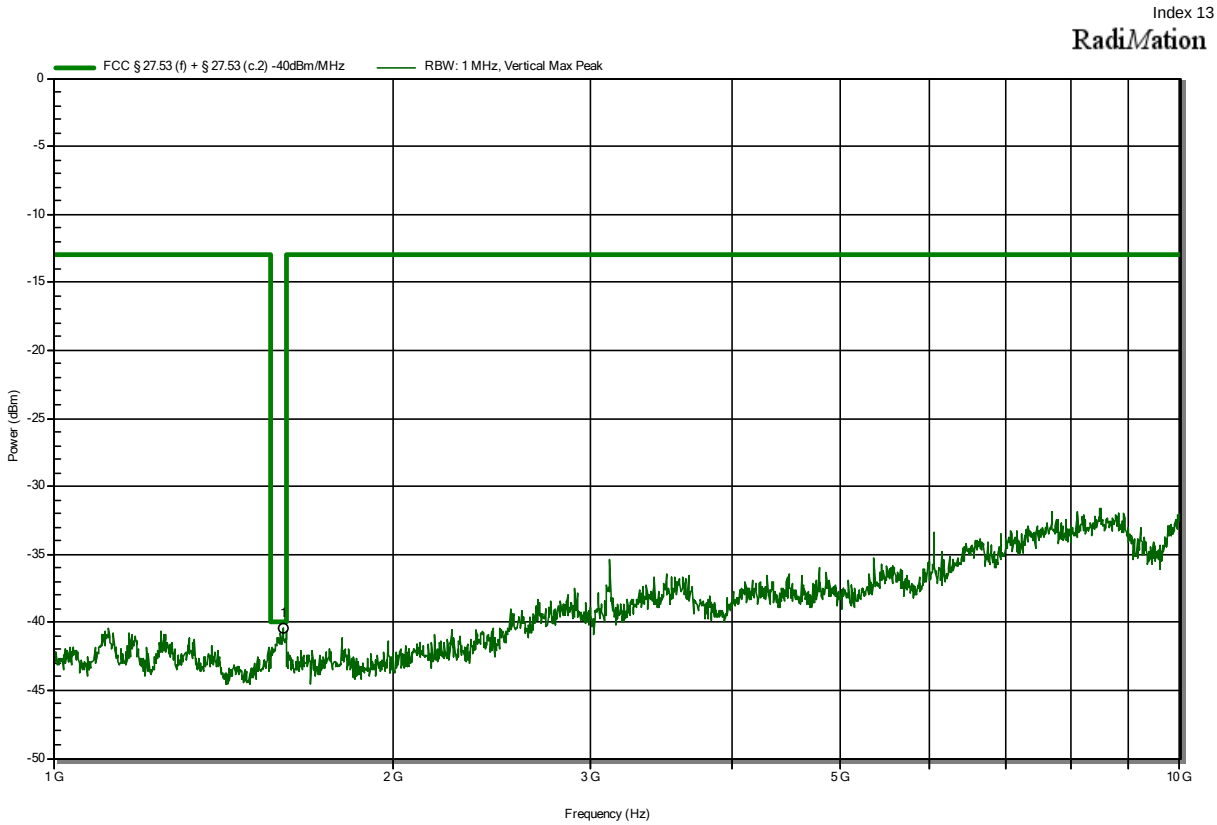
Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120B, Horizontal
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD13, Ch 23230, QPSK, BW5, RB 1#0
Test Date:	2022-02-17
Note:	EUT vertical



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.56 GHz	-42 dBm	-40 dBm	-1.99 dB	Pass
1.608 GHz	-41.3 dBm	-40 dBm	-1.28 dB	Pass

Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-130, Issue 2

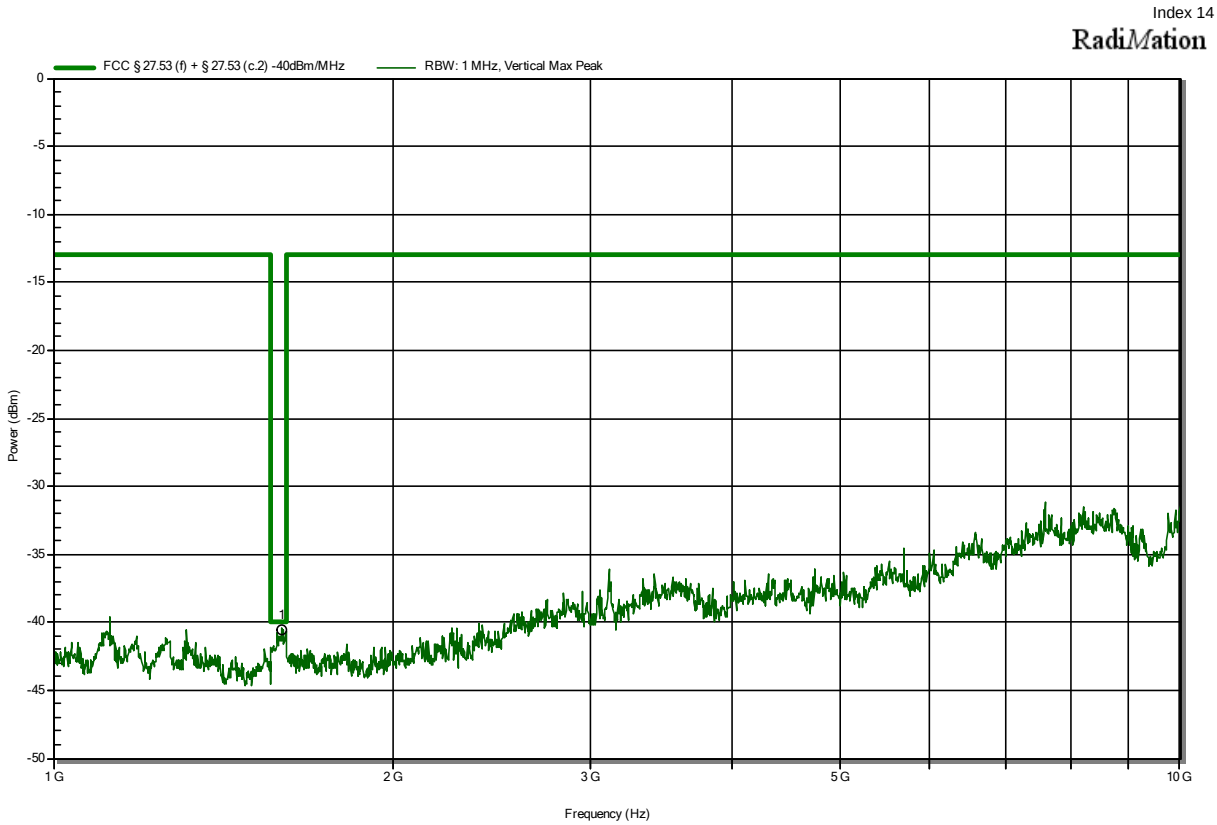
Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120B, Vertical
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD13, Ch 23230, QPSK, BW5, RB 1#0
Test Date:	2022-02-17
Note:	EUT horizontal



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.599 GHz	-40.5 dBm	-40 dBm	-0.45 dB	Pass

Radiated Spurious Emissions according to 47 CFR Part 27 Subpart C, RSS-130, Issue 2

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032 (SN: WY4481I00006)
Test Site:	Eurofins Product Service GmbH
Operator:	Mrs Hoang
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120B, Vertical
Measurement distance:	3 m
Mode:	Tx; LTE CatM1, FDD13, Ch 23230, QPSK, BW5, RB 1#0
Test Date:	2022-02-17
Note:	EUT vertical

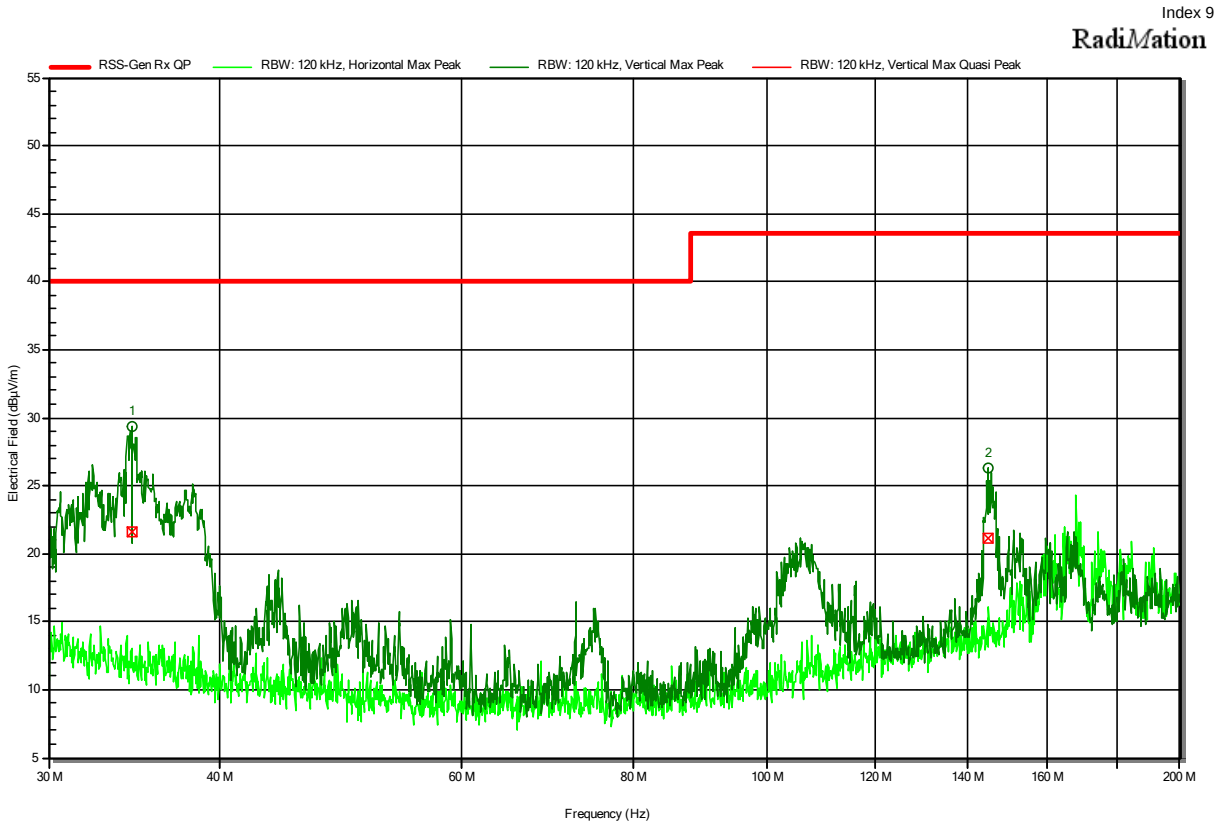


Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.593 GHz	-40.5 dBm	-40 dBm	-0.52 dB	Pass

ANNEX B Receiver radiated emissions

Radiated Spurious Emissions according to RSS-133, Issue 6 + A1

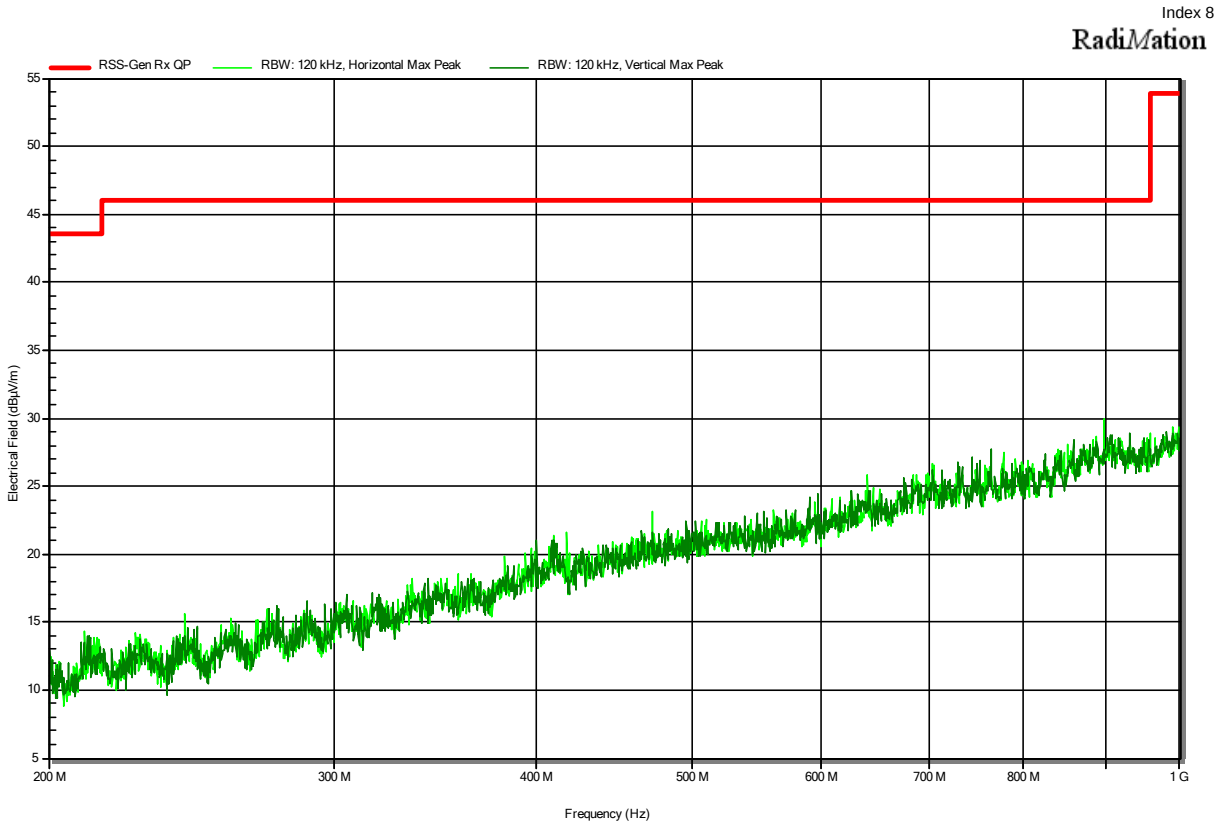
Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Rx; LTE CatM1 FDD 2, Ch 900, 16-QAM, BW5, RB 0
Test Date:	2022-02-18
Note:	EUT vertical



Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Polarization
34.4667 MHz	21.6 dBµV/m	40 dBµV/m	-18.4 dB	Pass	Vertical
145.1453 MHz	21.1 dBµV/m	43.5 dBµV/m	-22.38 dB	Pass	Vertical

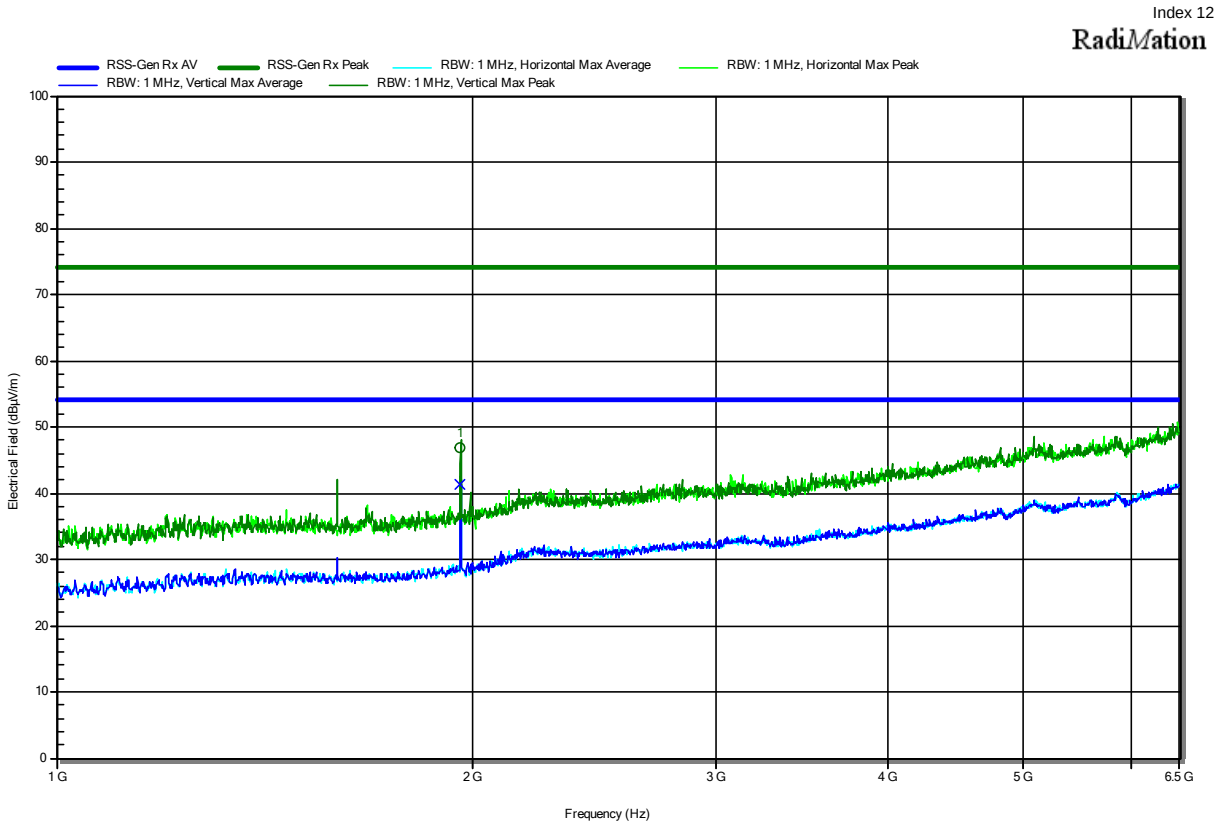
Radiated Spurious Emissions according to RSS-133, Issue 6 + A1

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Rx; LTE CatM1 FDD 2, Ch 900, 16-QAM, BW5, RB 0
Test Date:	2022-02-18
Note:	EUT vertical



Radiated Spurious Emissions according to RSS-133, Issue 6 + A1

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D
Measurement distance:	3 m
Mode:	Rx; LTE CatM1 FDD 2, Ch 900, 16-QAM, BW5, RB 0
Test Date:	2022-02-23
Note:	EUT vertical

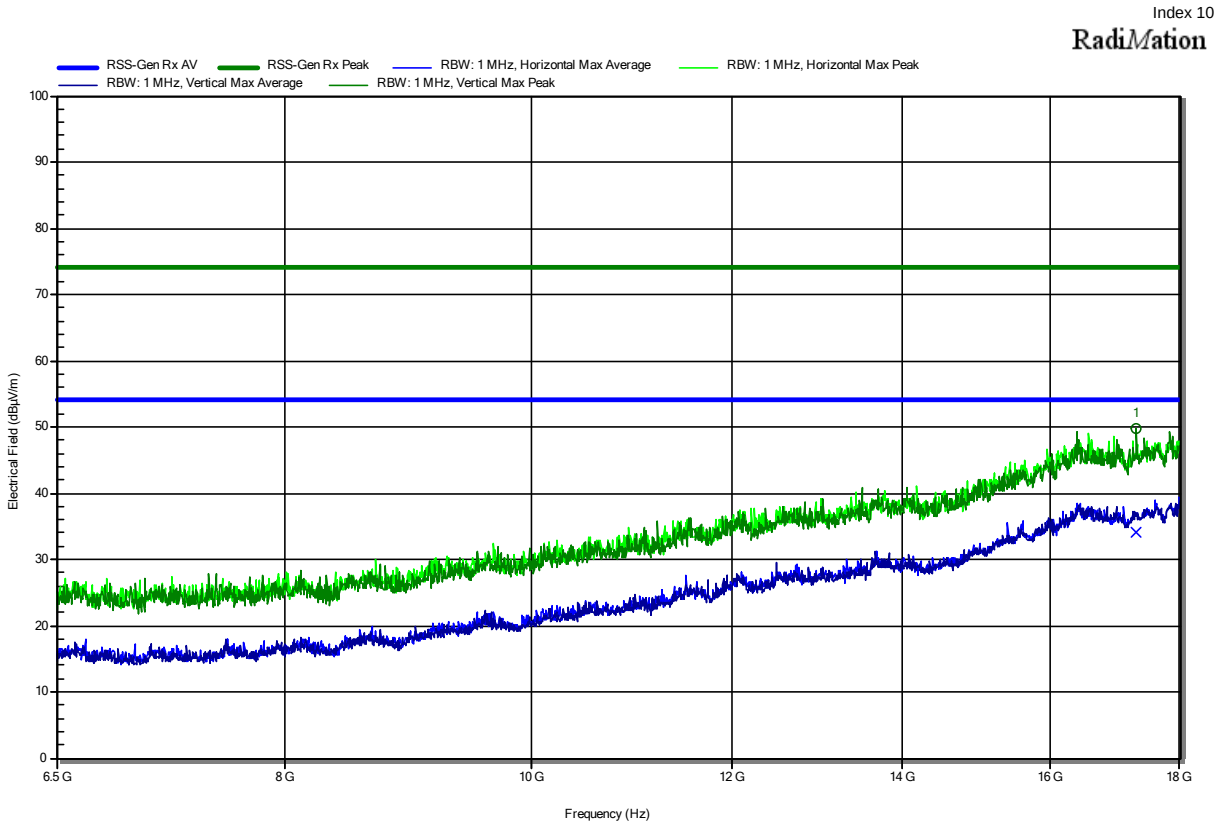


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
1.960 GHz	46.97 dBµV/m	74 dBµV/m		DL - Carrier	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
1.960 GHz	41.35 dBµV/m	53.98 dBµV/m		DL - Carrier	Vertical

Radiated Spurious Emissions according to RSS-133, Issue 6 + A1

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Rx; LTE CatM1 FDD 2, Ch 900, 16-QAM, BW5, RB 0
Test Date:	2022-02-18
Note:	EUT vertical

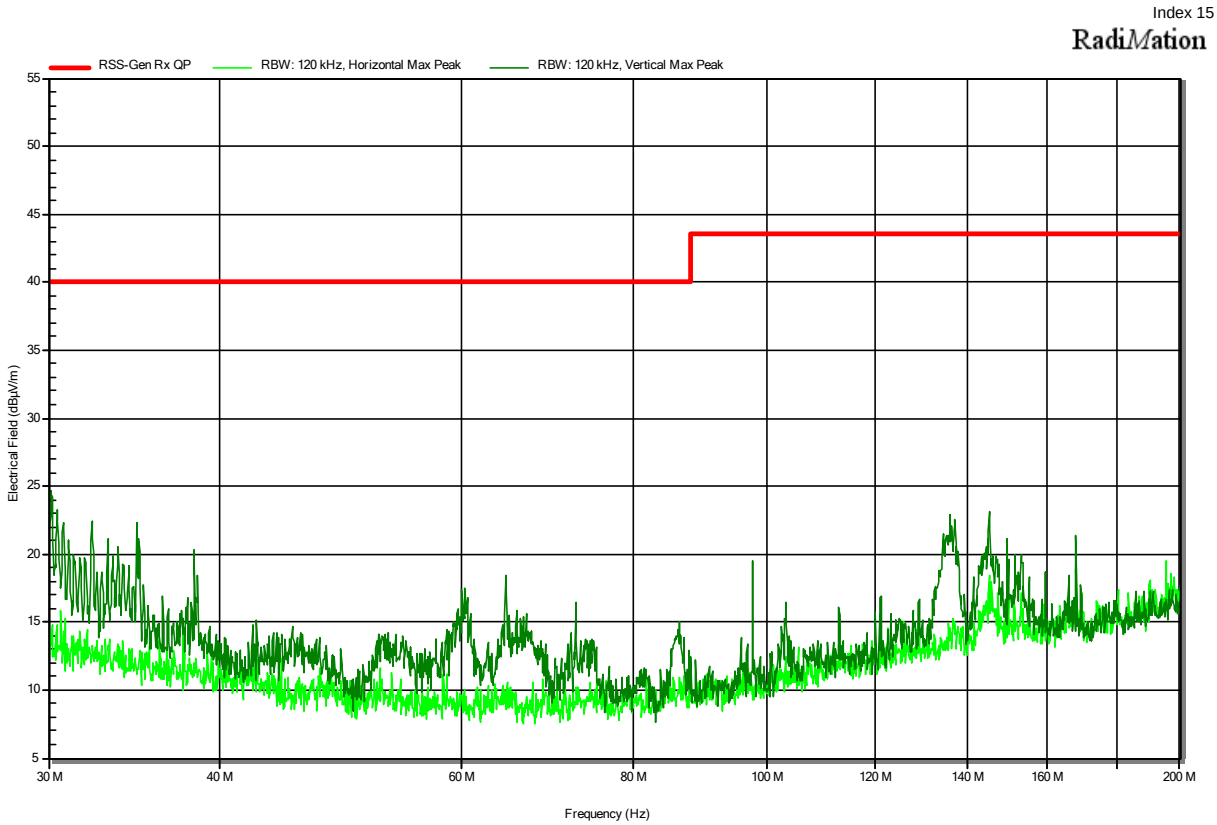


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
17.305 GHz	49.67 dBµV/m	74 dBµV/m	-24.33 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
17.305 GHz	34.02 dBµV/m	53.98 dBµV/m	-19.96 dB	Pass	Vertical

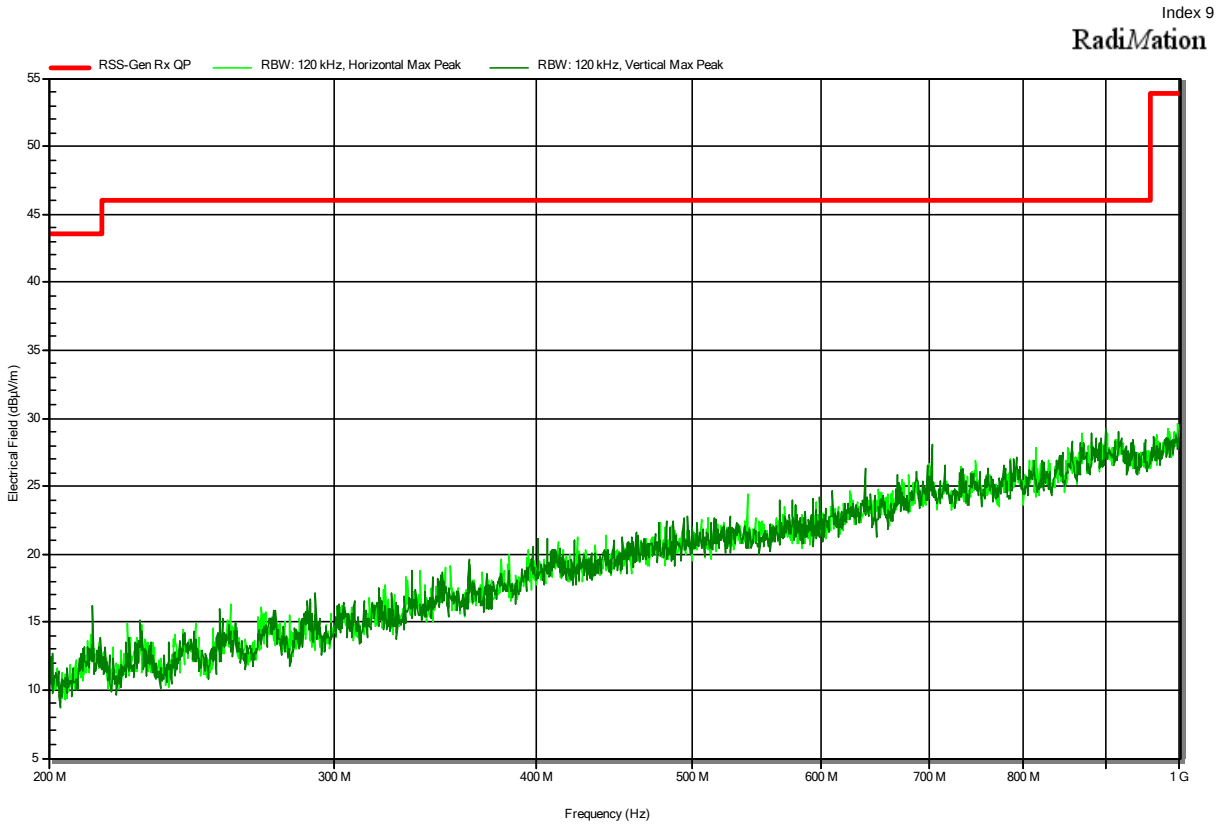
Radiated Spurious Emissions according to RSS-139 Issue 3

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Rx; LTE CatM1, FDD4, Ch 2175, QPSK, BW20, RB 0
Test Date:	2022-02-22
Note:	EUT vertical



Radiated Spurious Emissions according to RSS-139 Issue 3

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Rx; LTE CatM1, FDD4, Ch 2175, QPSK, BW20, RB 0
Test Date:	2022-02-18
Note:	EUT vertical



Radiated Spurious Emissions according to RSS-139 Issue 3

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D
Measurement distance:	3 m
Mode:	Rx; LTE CatM1, FDD4, Ch 2175, QPSK, BW20, RB 0
Test Date:	2022-02-23
Note:	EUT vertical

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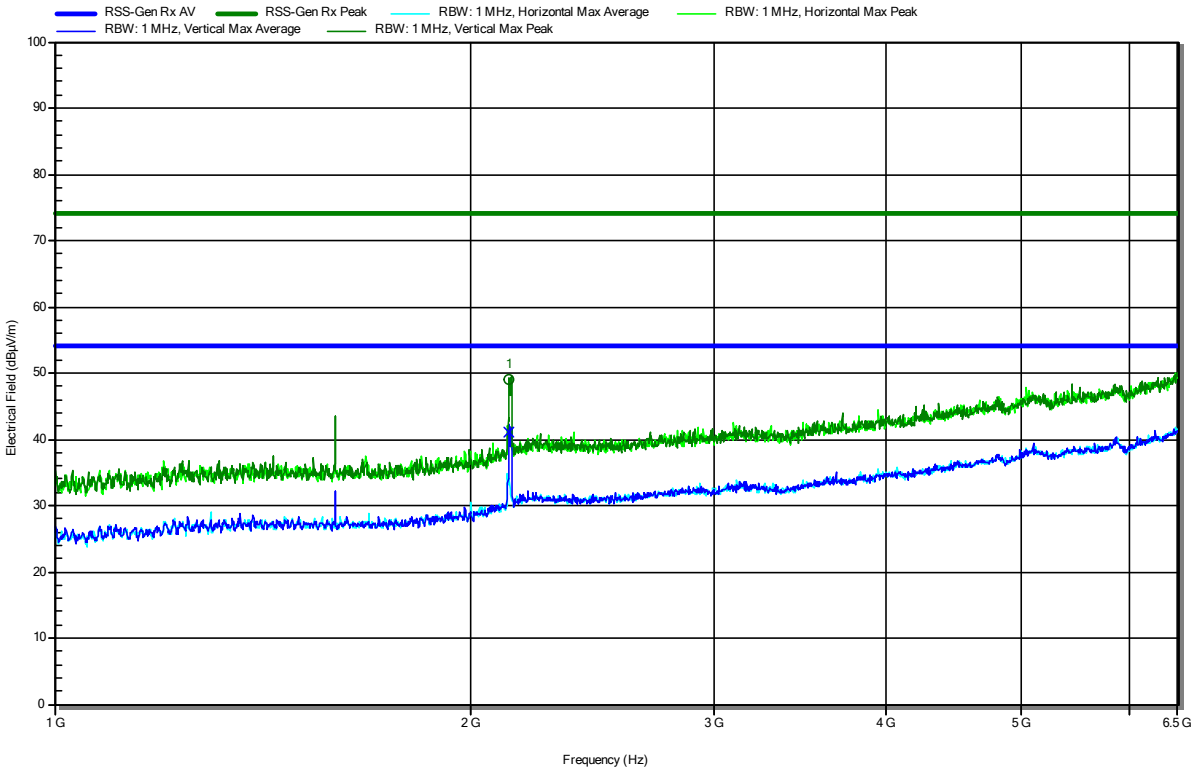

Frequency 2.133 GHz	Peak 49.07 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference	Peak Status DL - Carrier	Polarization Vertical
Frequency 2.133 GHz	Average 41.04 dBµV/m	Average Limit 53.98 dBµV/m	Average Difference	Average Status DL - Carrier	Polarization Vertical

Radiated Spurious Emissions according to RSS-139 Issue 3

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Rx; LTE CatM1, FDD4, Ch 2175, QPSK, BW20, RB 0
Test Date:	2022-02-18
Note:	EUT vertical

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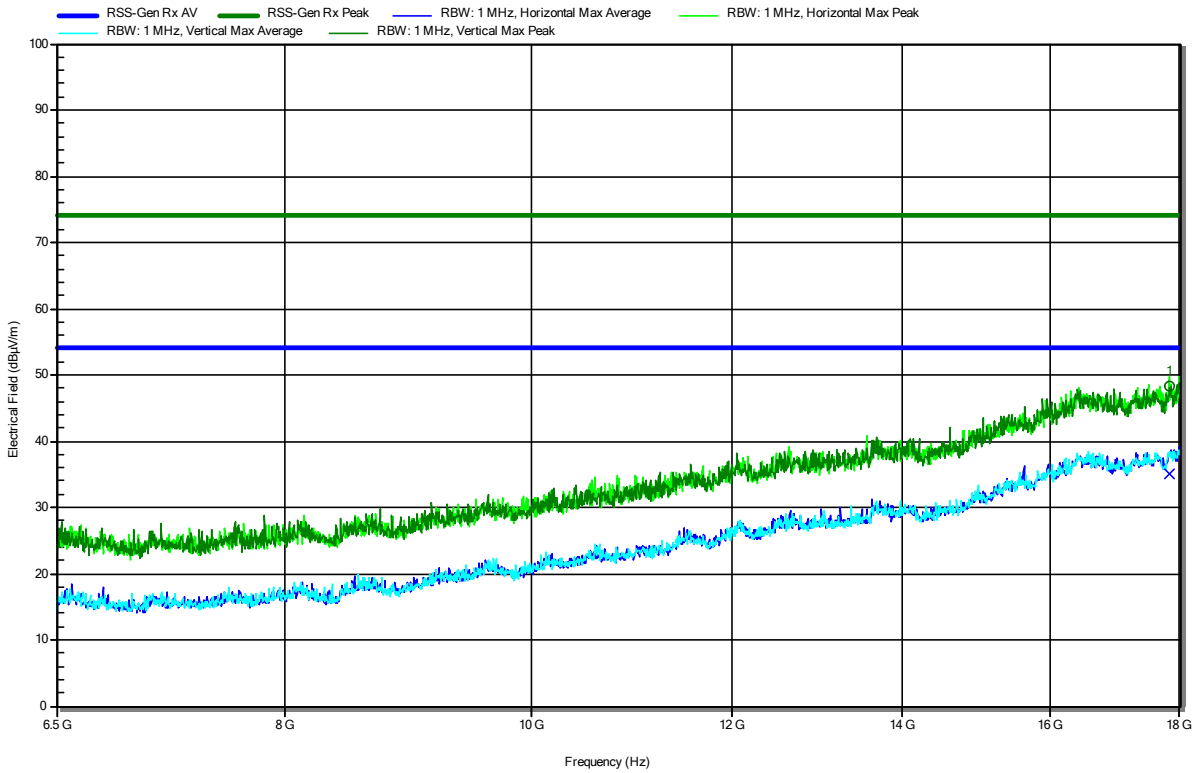
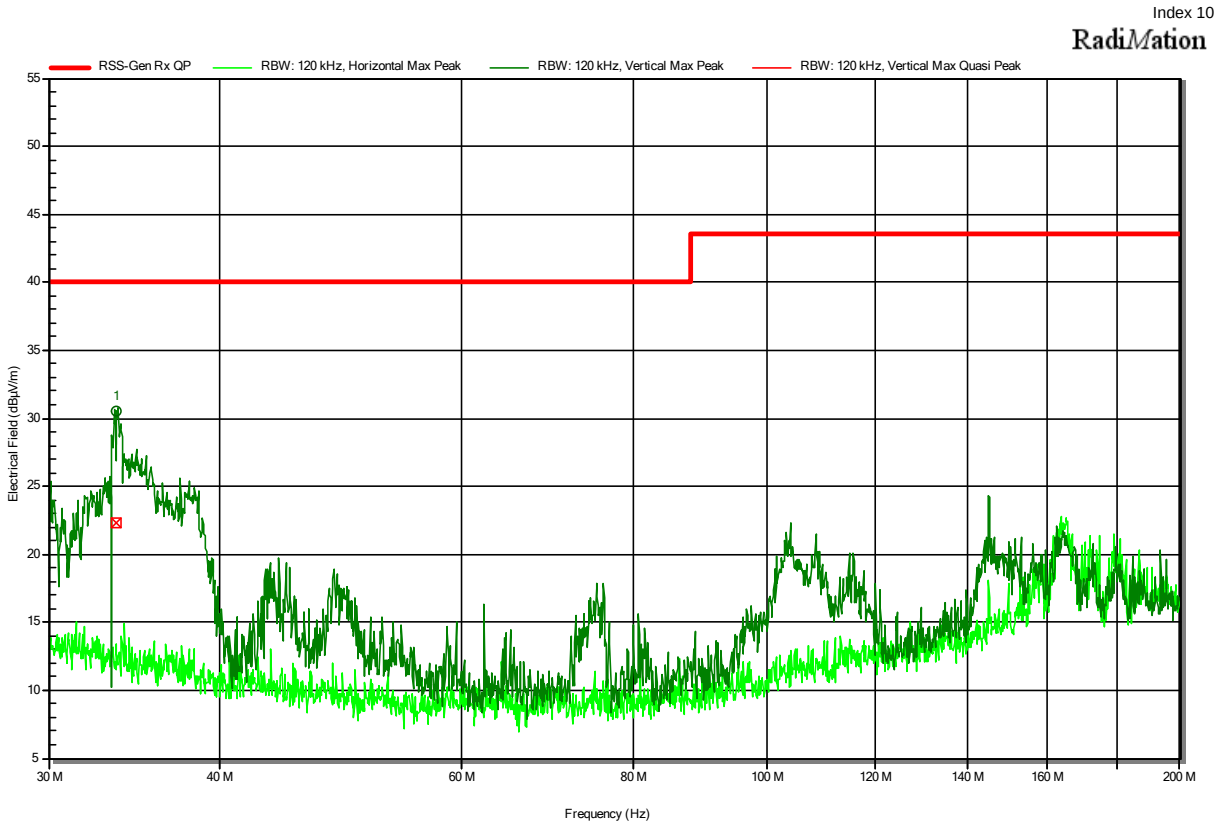
RadiMation



Radiated Spurious Emissions according to RSS-130 Issue 2

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Rx; LTE CatM1 FDD12, Ch 5095, QPSK, BW5, RB 0
Test Date:	2022-02-18
Note:	EUT vertical

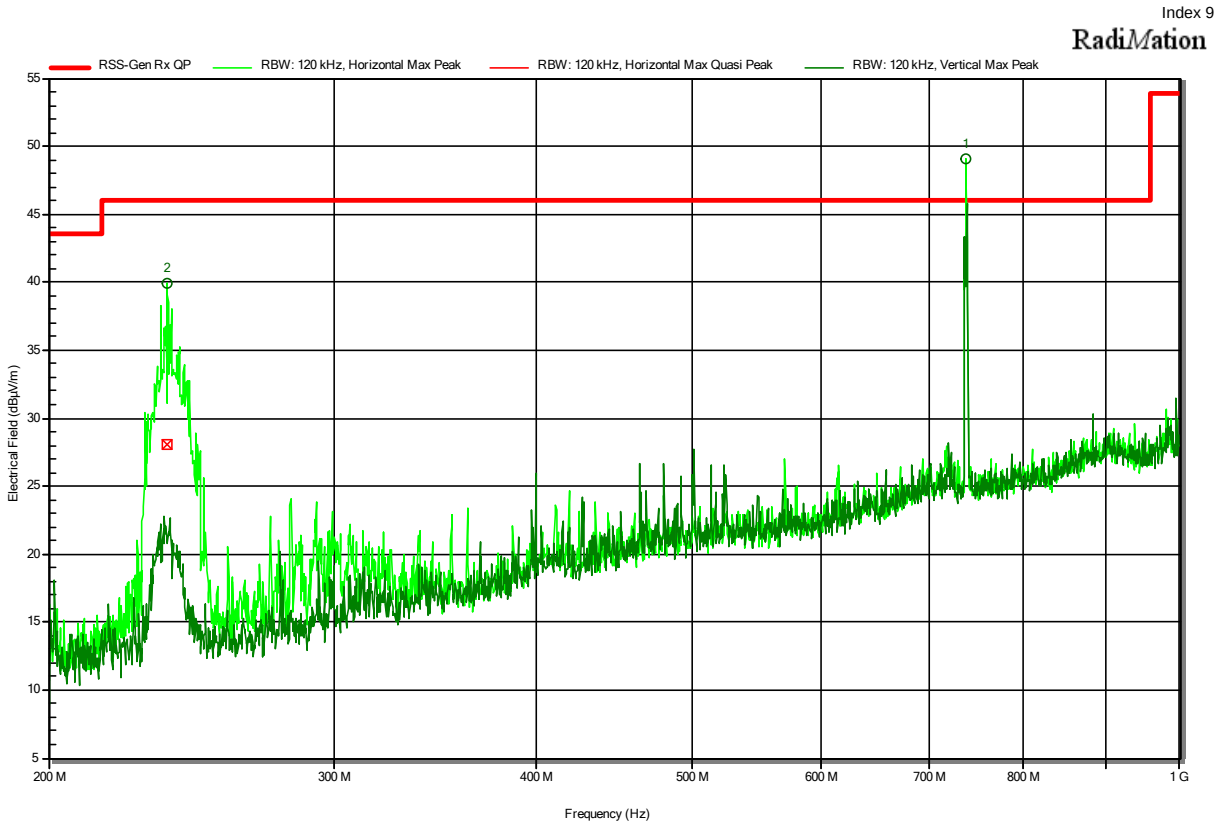


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
33.6337 MHz	30.6 dBµV/m	40 dBµV/m	-9.44 dB	Pass	Vertical

Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Polarization
33.6337 MHz	22.3 dBµV/m	40 dBµV/m	-17.71 dB	Pass	Vertical

Radiated Spurious Emissions according to RSS-130 Issue 2

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Rx; LTE CatM1 FDD12, Ch 5095, QPSK, BW5, RB 0
Test Date:	2022-02-18
Note:	EUT vertical



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
737.26 MHz	49.1 dBµV/m	46 dBµV/m		DL - Carrier	Horizontal

Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Polarization
236.5808 MHz	28.1 dBµV/m	46 dBµV/m	-17.9 dB	Pass	Horizontal

Radiated Spurious Emissions according to RSS-130 Issue 2

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D
Measurement distance:	3 m
Mode:	Rx; LTE CatM1 FDD12, Ch 5095, QPSK, BW5, RB 0
Test Date:	2022-02-23
Note:	EUT vertical

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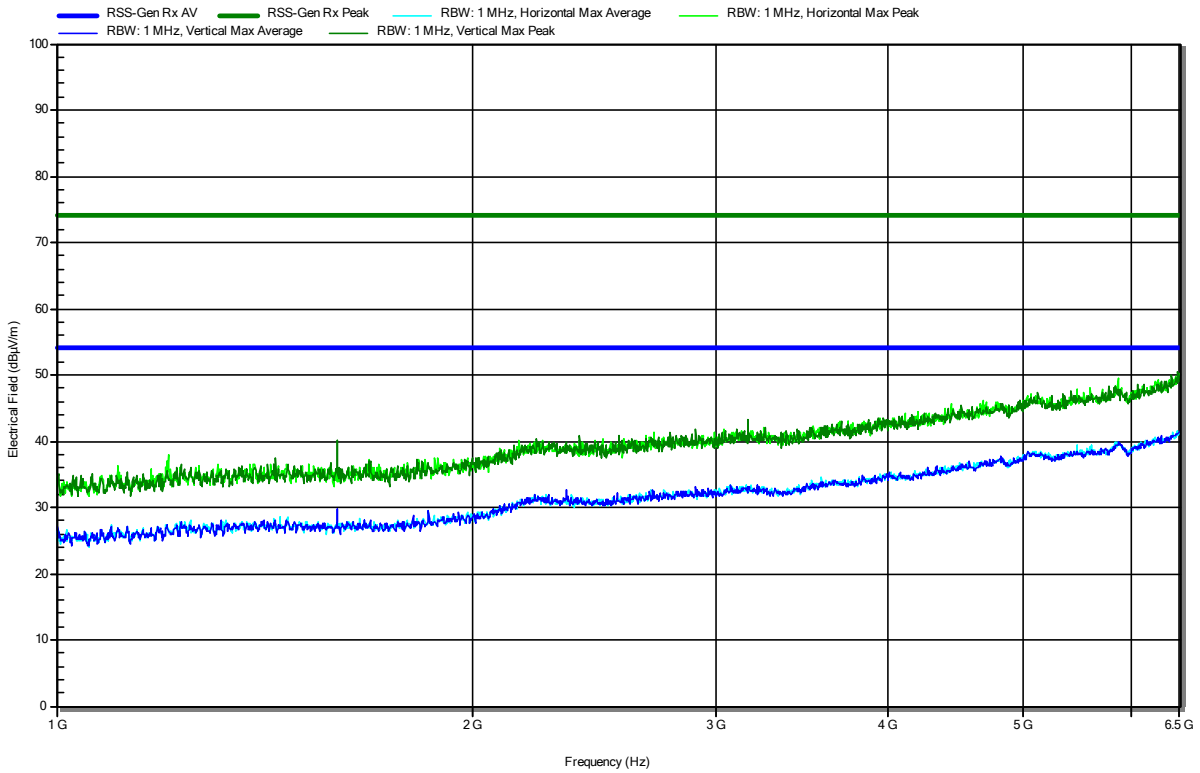
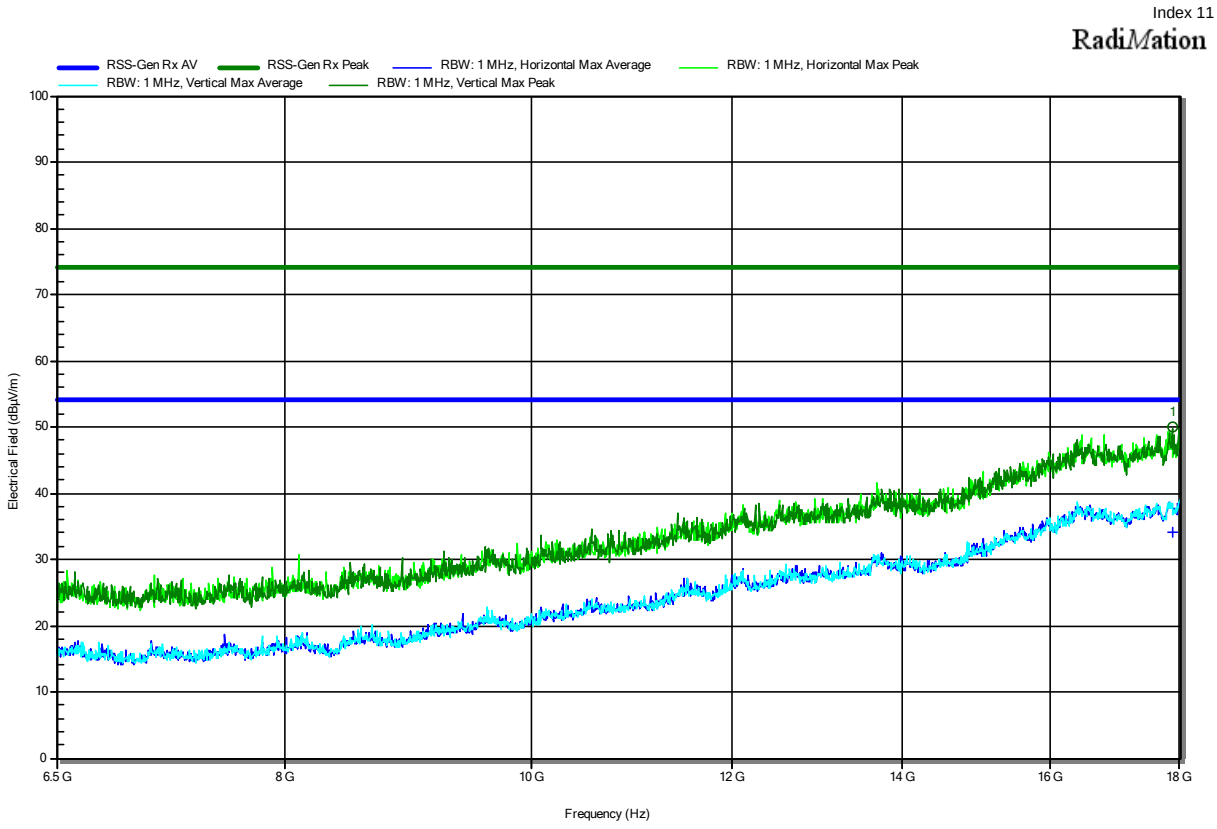
RadiMation



Radiated Spurious Emissions according to RSS-130 Issue 2

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Rx; LTE CatM1 FDD12, Ch 5095, QPSK, BW5, RB 0
Test Date:	2022-02-18
Note:	EUT vertical

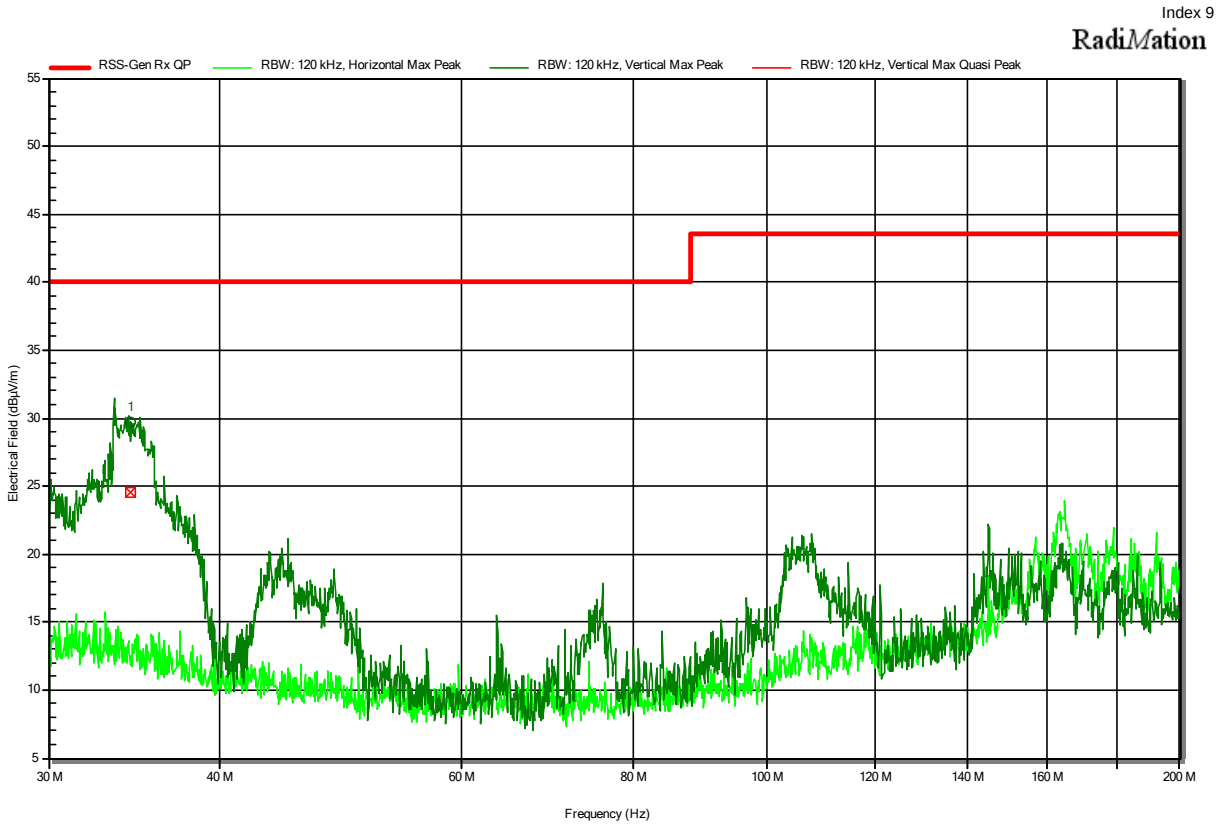


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
17.871 GHz	50.02 dBµV/m	74 dBµV/m	-23.98 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
17.871 GHz	34.08 dBµV/m	53.98 dBµV/m	-19.9 dB	Pass	Vertical

Radiated Spurious Emissions according to RSS-130 Issue 2

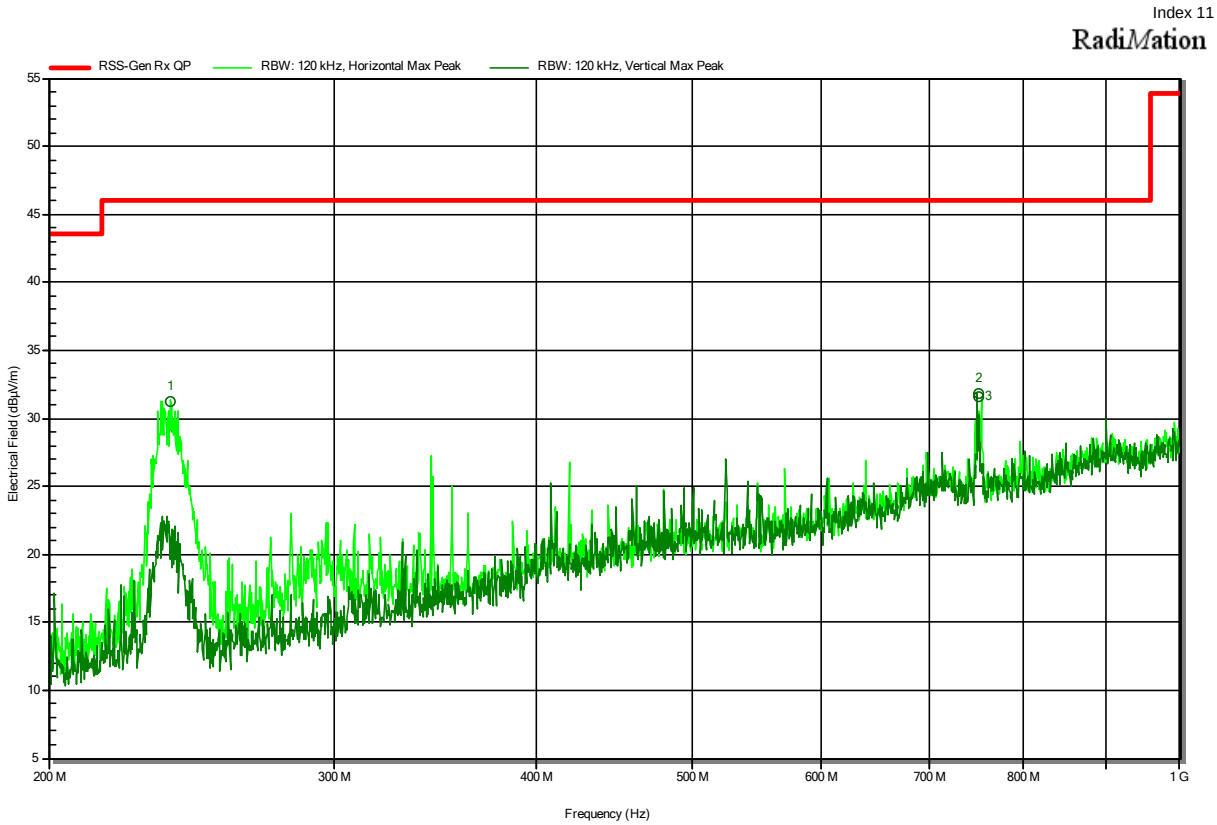
Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Rx; LTE CatM1 FDD13, Ch 5230, QPSK, BW5, RB 0
Test Date:	2022-02-18
Note:	EUT vertical



Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Polarization
34.3987 MHz	24.6 dBµV/m	40 dBµV/m	-15.43 dB	Pass	Vertical

Radiated Spurious Emissions according to RSS-130 Issue 2

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Rx; LTE CatM1 FDD13, Ch 5230, QPSK, BW5, RB 0
Test Date:	2022-02-18
Note:	EUT vertical



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
237.88 MHz	31.3 dBµV/m	46 dBµV/m	-14.71 dB	Pass	Horizontal
751.1669 MHz	31.6 dBµV/m	46 dBµV/m		DL - Carrier	Horizontal
751.2078 MHz	31.8 dBµV/m	46 dBµV/m		DL - Carrier	Vertical

Radiated Spurious Emissions according to RSS-130 Issue 2

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D
Measurement distance:	3 m
Mode:	Rx; LTE CatM1 FDD13, Ch 5230, QPSK, BW5, RB 0
Test Date:	2022-02-23
Note:	EUT vertical

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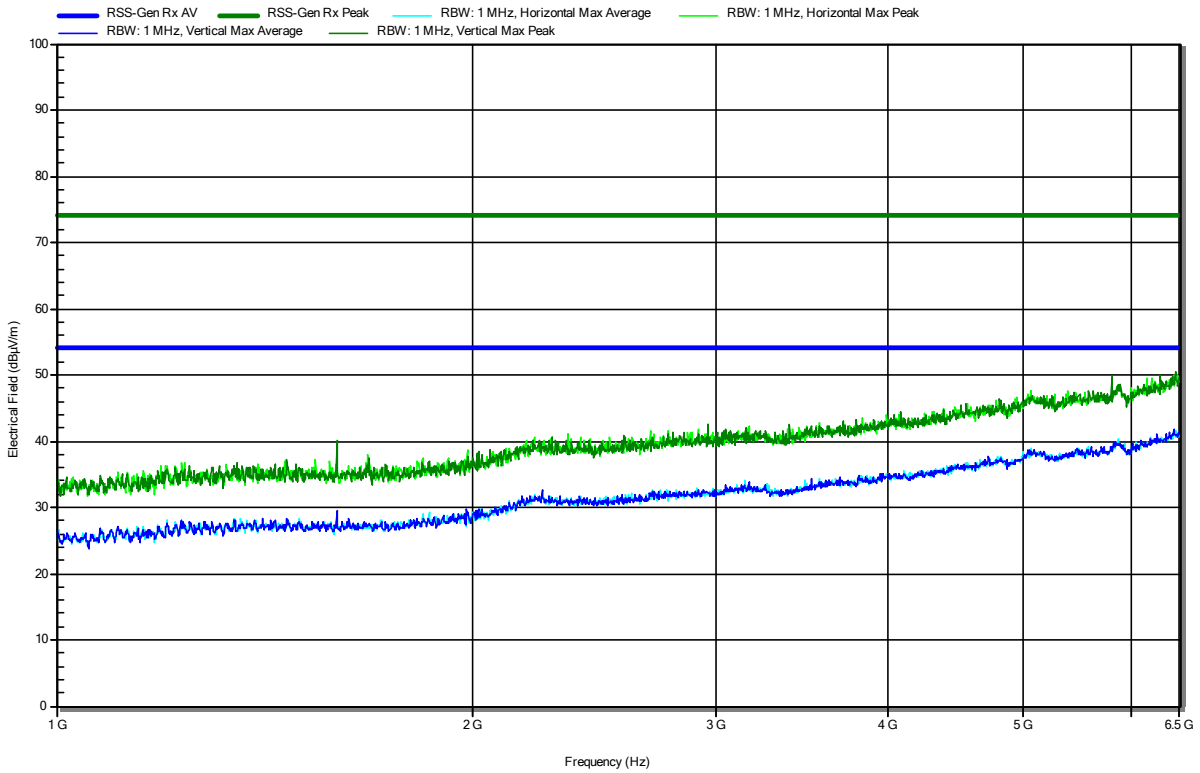

Radiated Spurious Emissions according to RSS-130 Issue 2

Project Number:	G0M-2108-9942
Applicant:	Webfleet Solutions Development Germany GmbH
Model Description:	Telematic Device with GSM+LTE+GNSS+OBD connector
Model:	L0245
Test Sample ID:	38032
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Degenhardt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 12 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Rx; LTE CatM1 FDD13, Ch 5230, QPSK, BW5, RB 0
Test Date:	2022-02-18
Note:	EUT vertical

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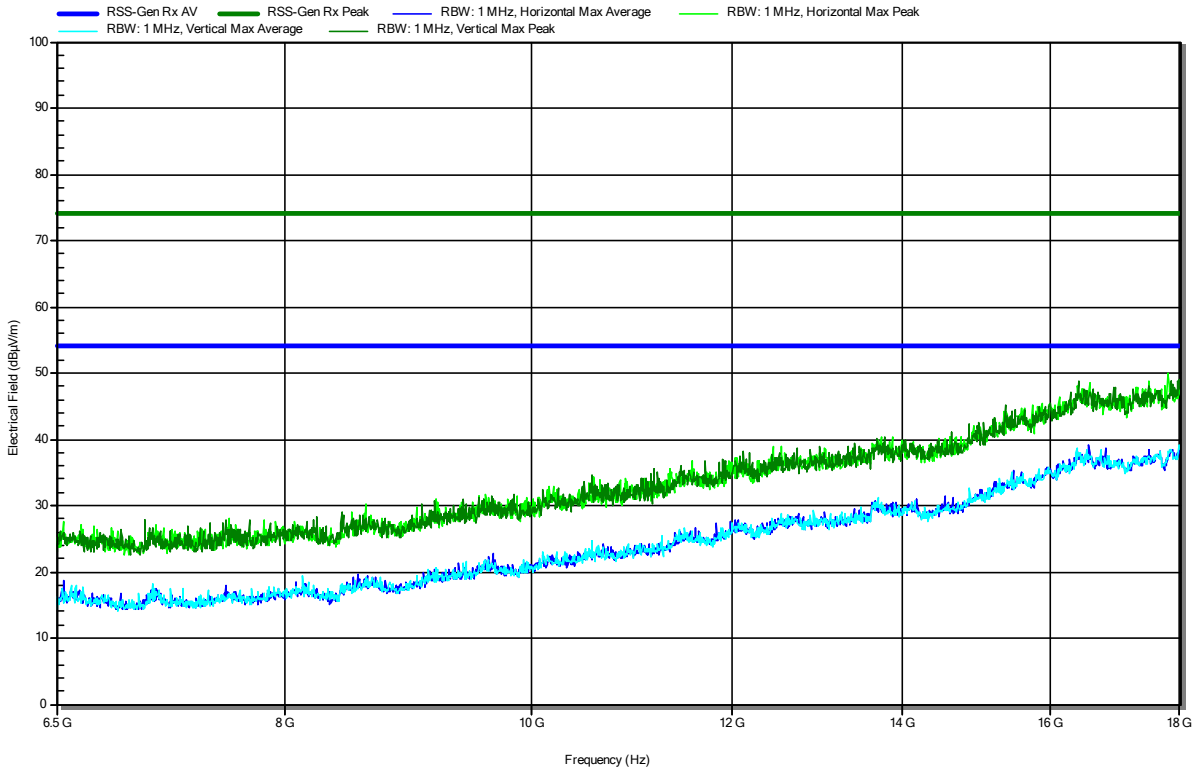

=== End of test report ===