

RADIO REPORT FCC 47 CFR Part 22H, FCC 47 CFR Part 24E ISED Canada RSS-132 Issue 3, ISED RSS-133, Issue 6 Amendment 1	
Report Reference No	G0M-2111-1143-TFCMOCORSEGS-V02
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 22H 47 CFR Part 24E ISED RSS-132, Issue 3: 2013-01 ISED RSS-133, Issue 6+A1: 2018-01
Non-Standard Test Method	None
Equipment under Test (EUT):	
Product Description	Telematic Device with GSM+LTE+GNSS
Model(s)	L0640
Additional Model(s)	None
Brand Name(s)	webfleet LINK 640
Hardware Version(s)	48/2019
Software Version(s)	8.4
FCC ID	2AGPAL0640
IC	20911-L0640
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	2021-12-13	
Report:		
Compiled by	Charline Graf	
Tested by (+ signature) (Responsible for Test)	Burkhard Pudell	
Approved by (+ signature) (Deputy Head of Lab)	Toralf Jahn	
Date of Issue	2022-06-23	
Total number of pages	44	
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	2022-03-30	Initial Release	
01	2022-06-23	Replaced document: G0M-2111-1143-TFCMOCORSEGS-V01 Replaced by: G0M-2111-1143-TFCMOCORSEGS-V02 Reason: Page 2 corrected. Page 6 antenna gain clarified. Page 16 radiated power calculation corrected.	C. Graf

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

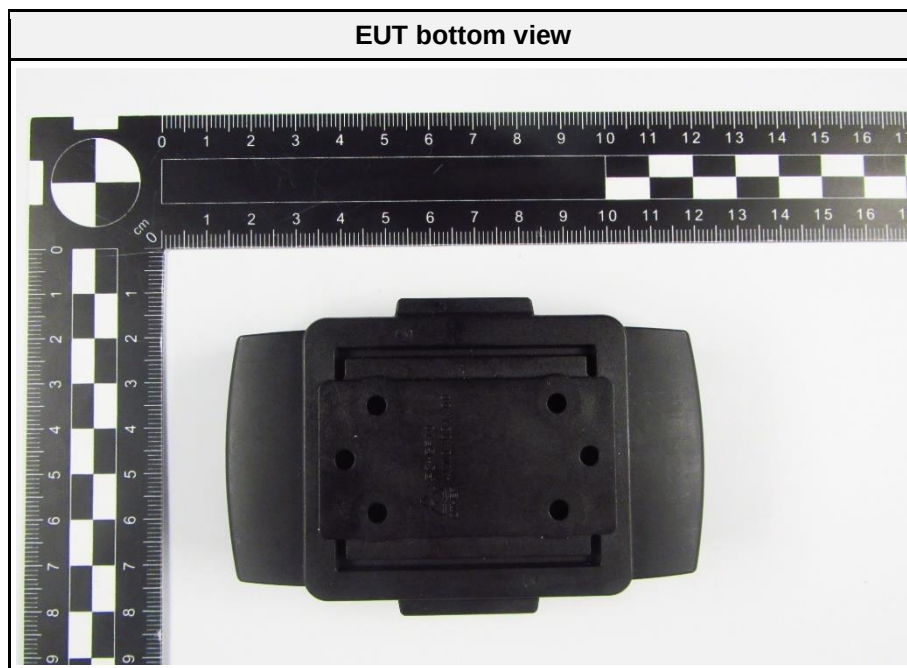
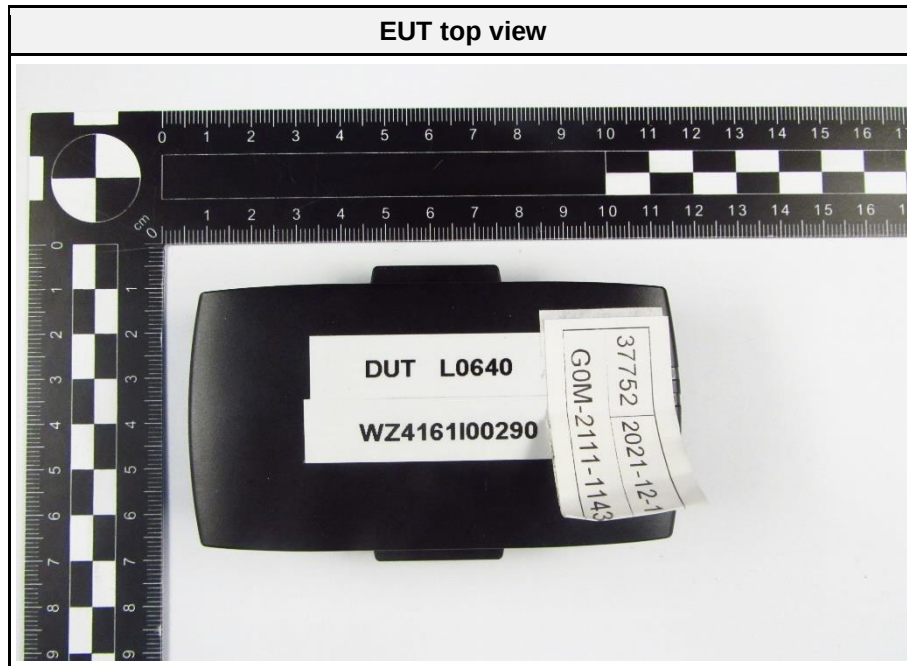
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1 Equipment (Test Item) Under Test

Description	Telematic Device with GSM+LTE+GNSS	
Model	L0640	
Additional Model(s)	None	
Brand Name(s)	webfleet LINK 640	
Serial Number(s)	WZ4161I00290	
Hardware Version(s)	48/2019	
Software Version(s)	8.4	
PMN	LINK 640	
HVIN	L0640	
FVIN	8.4	
HMN	N/A	
IC	20911-L0640	
FCC ID	2AGPAL0640	
Equipment type	End Product	
Radio type	Transceiver	
Radio technologies	GSM	
GSM frequency bands	GSM 850 : UL = 824 - 849 MHz DL = 869 – 894 MHz GSM 1900 : UL = 1850 – 1910 MHz DL = 1930 – 1990 MHz	
GSM Modulations	GMSK, 8-PSK	
Number of modules	1	
Radio Module	Type	Radio Module
	Model	EXS82-W
	Manufacturer	Gemalto
	HW Version	A110
	SW Version	01.001
	FCC-ID	QIPEXS82-W
	IC	7830A-EXS82W
Antenna	Type	Integrated
	Model	SR4L002
	Manufacturer	Antenova
	Gain [dBi]	1.0 (GSM 850), 2.5 (GSM 1900)
Supply Voltage	V _{NOM}	12/24 VDC
Manufacturer	Bridgestone Mobility Solutions B.V. Beethovenstraat 503 1083 HK Amsterdam Netherlands	

1.1 Photos – Equipment External



EUT front view



EUT left view



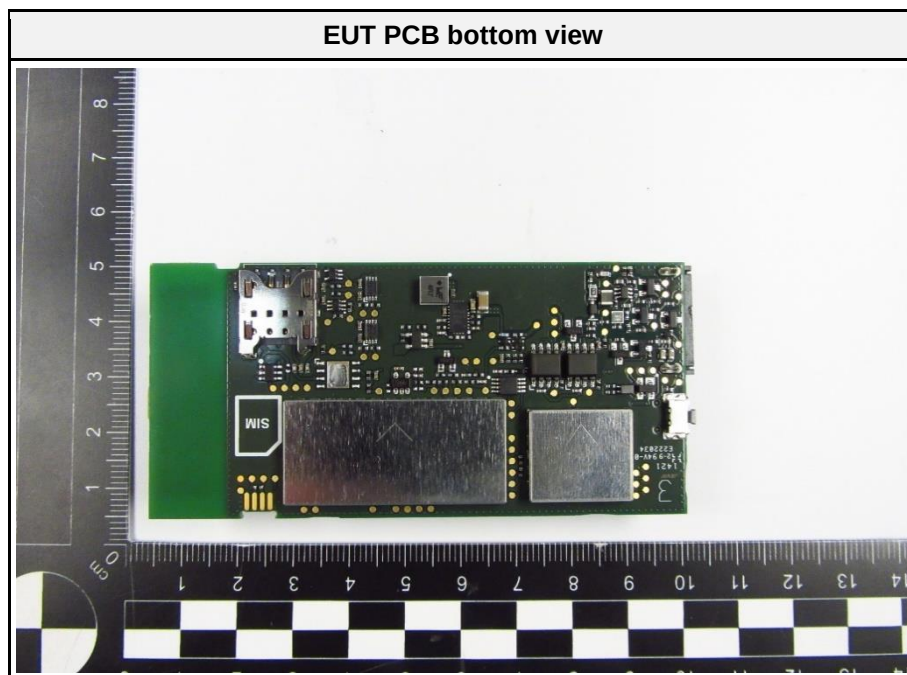
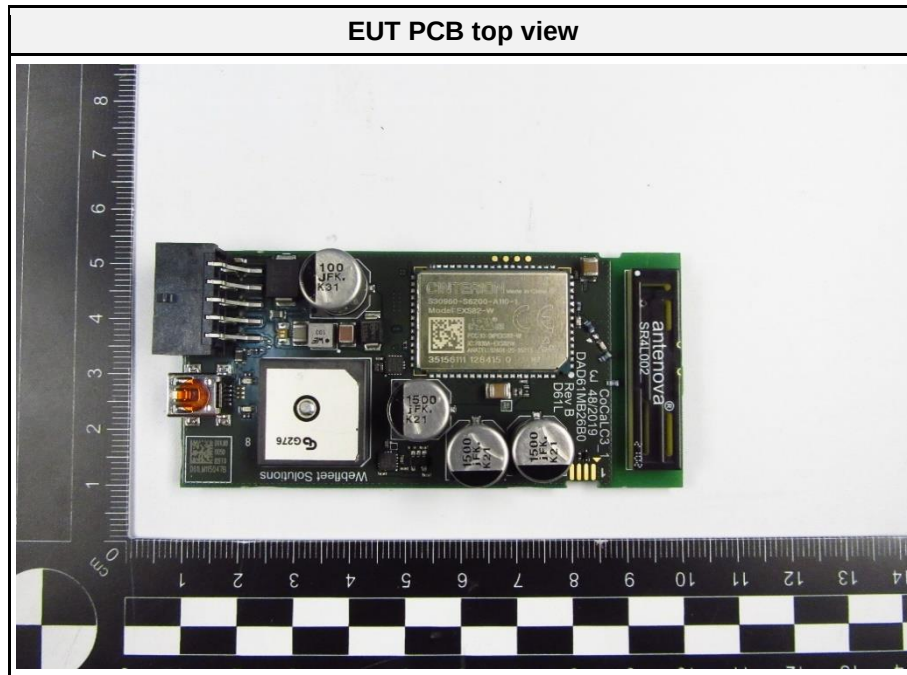
EUT right view

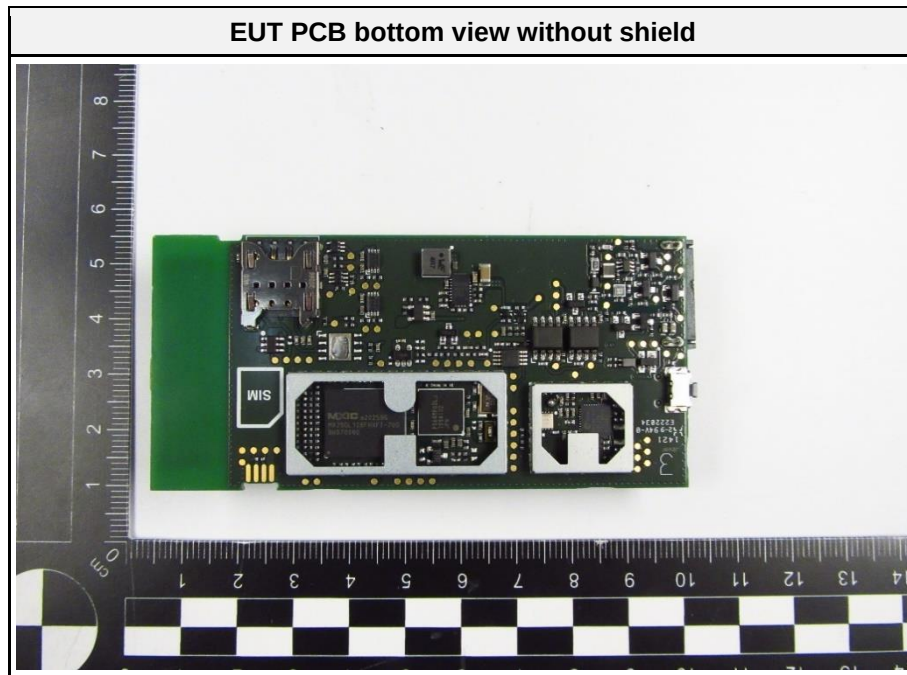


EUT back view



1.2 Photos – Equipment Internal





1.3 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
SIM	Communication Tester	R&S	CMW290	Base Station Simulator
Description:				
AE	Auxiliary Equipment			
SIM	Simulator			
CBL	Connecting Cable			
SFT	Software			
Comment:				

1.4 Test Modes

Mode	Description
GSM850 / GPRS	Channel = 251 Mode = Transmit Power = Maximum Modulation = GMSK Number of time slots = 1 Duty cycle = 12.5 %
GSM1900 / GPRS	Channel = 661 Mode = Transmit Power = Maximum Modulation = GMSK Number of time slots = 1 Duty cycle = 12.5 %
Receive	Idle mode
Comment: Above worst case scenarios/emissions were found in module test report: 191019004RFM-1, December 21, 2019 issued by Union Trust Quality and Technology Co., Ltd. and refer to the spurious emission tests.	

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 dB μ V. 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:

$$\text{Reading on Analyzer (dB}\mu\text{V)} + \text{A.F. (dB)} = \text{Net field strength (dB}\mu\text{V/m)}$$

Net:

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

Limit:

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

$$\text{Limit (dB}\mu\text{V/m)} = 20 \cdot \log (\mu\text{V/m})$$

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 dB μ V	+ 26 dB = 47.5 dB μ V/m	:	47.5 dB μ V/m	- 57.0 dB μ V/m	= -9.5 dB

2 Result Summary

Test Summary)				
Product Standard Reference	Requirement	Reference Method	Result	Remarks
47 CFR §22.913 47 CFR §24.232 ISED RSS-132 §5.4 ISED RSS-133 §6.4	Radiated power	ANSI C63.26 KDB 971168	PASS	
47 CFR §22.917 47 CFR §24.238 ISED RSS-132 §5.5 ISED RSS-133 §6.5	Transmitter conducted emissions	ANSI C63.26 KDB 971168	N/T	
47 CFR §22.917 47 CFR §24.238 ISED RSS-132 §5.5 ISED RSS-133 §6.5	Transmitter radiated emissions	ANSI C63.26 KDB 971168	PASS	
ISED RSS-132 §3.1 ISED RSS-133 §3.1 ISED RSS-Gen §7	Receiver radiated emissions	ANSI C63.4	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 §22.913 47 CFR §24.232 ISED RSS-132 §5.4 ISED RSS-133 §6.4
Measurement Method	FCC KDB 971168 D01 Section 5 ANSI C63.26-2015 5.2
Measurement Uncertainty	± 5.95 dB
Operator	Jens Degenhardt
Date	2022-02-01

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]
GSM850	824 - 849	38.45	7	40.6	11.5
GSM1900	1850 - 1910	30.85	1.22	33	2

3.1.3 Results

Test Results - GSM850				
Mode	Power [dBm EIRP]	Limit [dBm EIRP]	Margin [dB]	Result
GSM850 / GPRS	33.82	40.6	6.78	PASS
Note: The original power values are conducted measurement results from report-no.: 191019004RFM-1. The current antenna gain is added.				

Test Results - GSM1900				
Mode	Power [dBm EIRP]	Limit [dBm EIRP]	Margin [dB]	Result
GSM1900 / GPRS	30.99	33	2.01	PASS
Note: The original power values are conducted measurement results from report-no.: 191019004RFM-1. The current antenna gain is added.				

3.2 Test Conditions and Results - Transmitter radiated emissions

3.2.1 Information

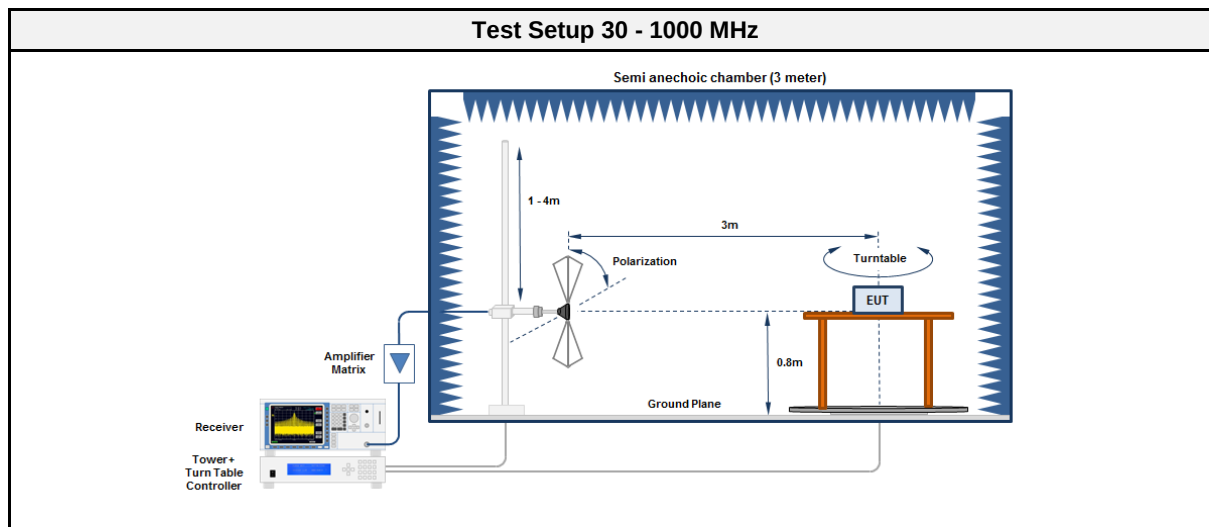
Test Information	
Reference	47 CFR §22.917 47 CFR §24.238 ISED RSS-132 §5.5 ISED RSS-133 §6.5
Measurement Method	FCC KDB 971168 D01 Section 7 ANSI C63.26-2015 5.5
Measurement Uncertainty	± 5.95 dB
Operator	Jens Degenhardt
Date	2022-01-31

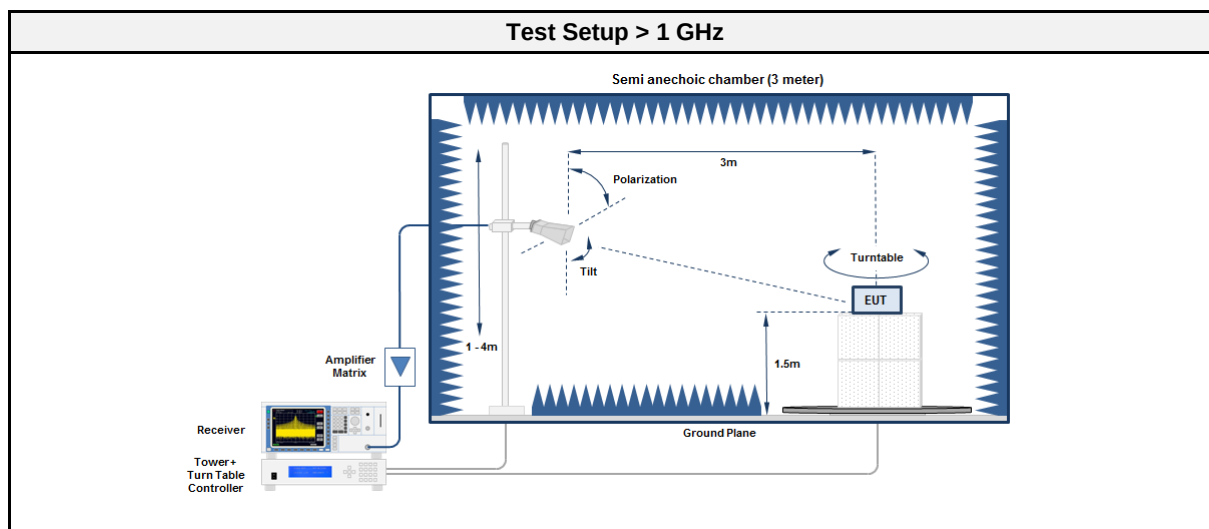
3.2.2 Limits

Limits FCC				
Band	Frequency range [MHz]	Bandwidth	Attenuation [dB]	Limit [dBm EIRP]
GSM850	-	100 kHz / 1 MHz	43+Log ₁₀ (P[W])	-13
GSM1900	-	1 MHz	43+Log ₁₀ (P[W])	-13

Limits ISED				
Band	Frequency range [MHz]	Bandwidth	Attenuation [dB]	Limit [dBm EIRP]
GSM850	-	100 kHz	43+Log ₁₀ (P[W])	-13
GSM1900	-	1 MHz	43+Log ₁₀ (P[W])	-13

3.2.3 Setup





3.2.4 Equipment

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

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	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
Horn Antenna	Schwarzbeck	HWRD 650	EF01679	2021-03	2022-03
Antenna	Amplifier Research	AT4560	EF00302	2021-06	2023-06

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

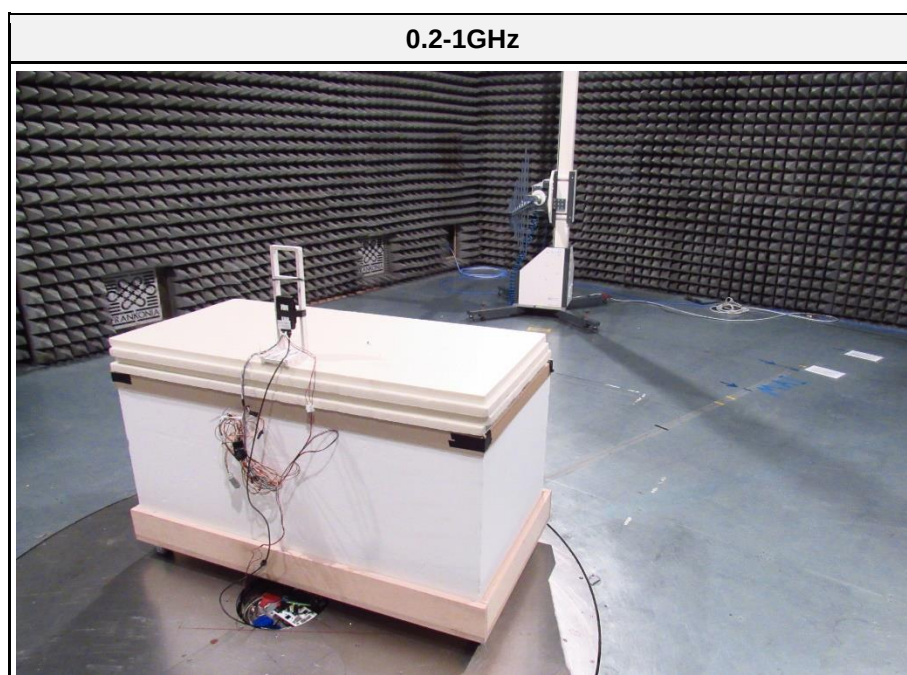
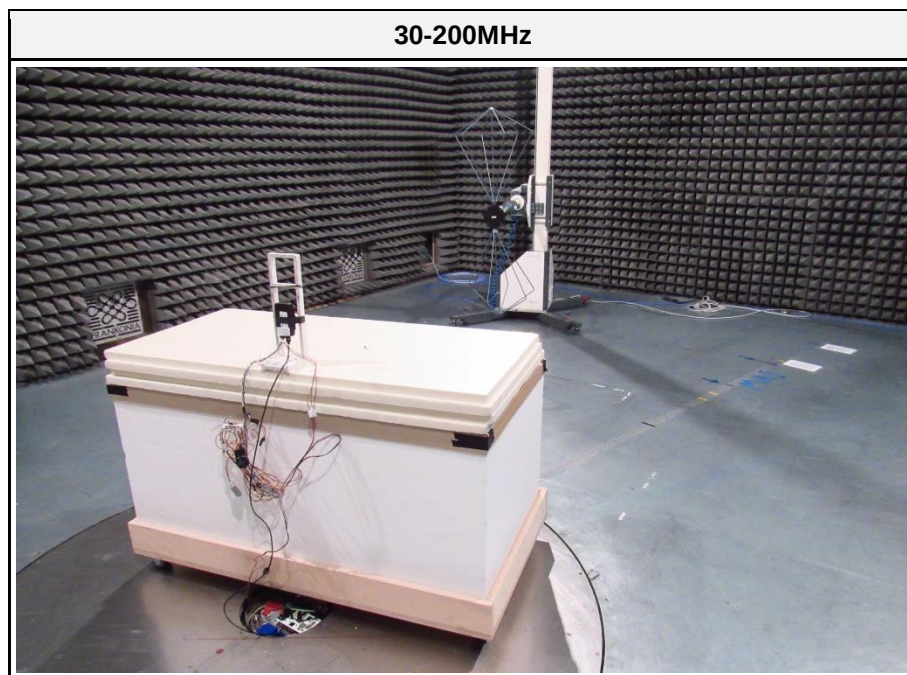
Test Procedure > 1 GHz	
1.	EUT is placed on a non conducting support at the center of a turn table 1.5 m above the ground
2.	EUT set to test mode
3.	The receiver is set to peak detection with max hold
4.	The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m
5.	All significant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

3.2.6 Results

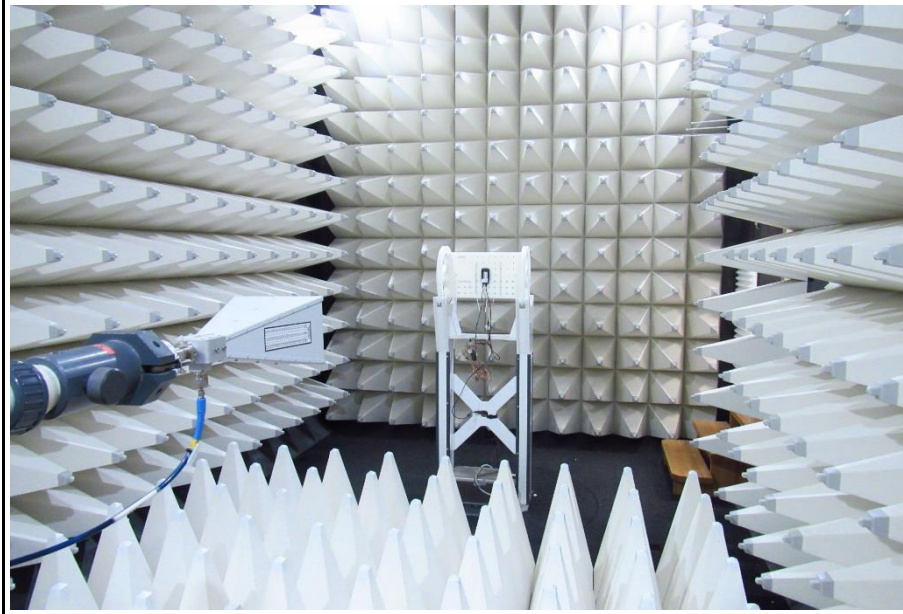
Test Results GSM850 CH251						
Test mode	Emission [MHz]	Level [dBμV/m]	Det.	Pol.	Limit [dBμV/m]	Margin [dB]
GSM850 / GPRS	1698	-21.3 dBm	pk	ver	-13 dBm	-08.32
GSM850 / GPRS	2546	-23.9 dBm	pk	ver	-13 dBm	-10.94
GSM850 / GPRS	7638	-54.2 dBm	pk	ver	-13 dBm	-41.20

Test Results GSM1900 CH661						
Test mode	Emission [MHz]	Level [dBm]	Det.	Pol.	Limit [dBm]	Margin [dB]
GSM1900 / GPRS	117.448	-64.7	pk	ver	-13	-51.75
GSM1900 / GPRS	357.08	-63.6	pk	ver	-13	-50.61
GSM1900 / GPRS	3760	-21.4	pk	ver	-13	-08.45
GSM1900 / GPRS	7520	-37.5	pk	ver	-13	-24.55
GSM1900 / GPRS	9400	-49.9	pk	ver	-13	-36.93
GSM1900 / GPRS	11280	-51.7	pk	ver	-13	-38.74

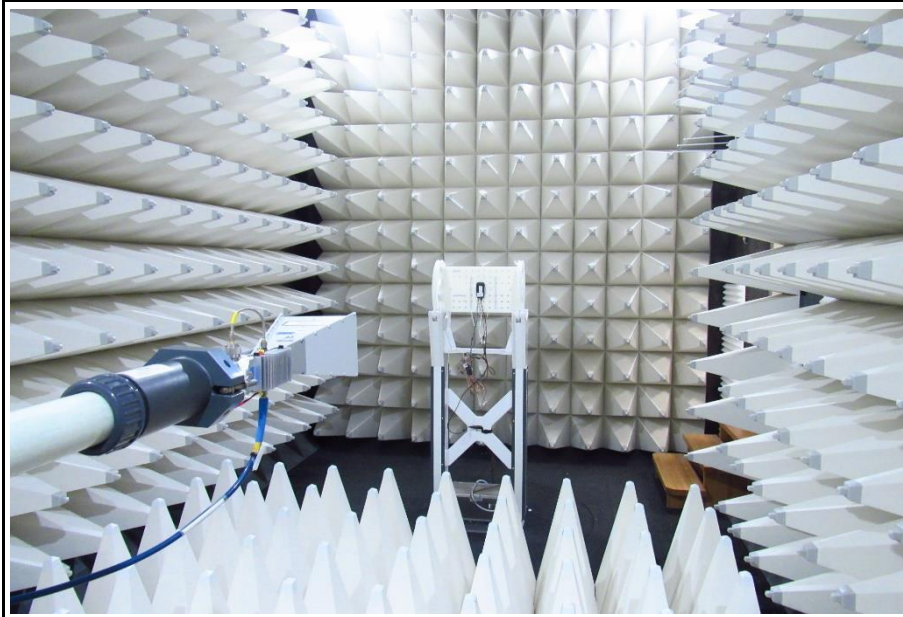
3.2.7 Setup Photos

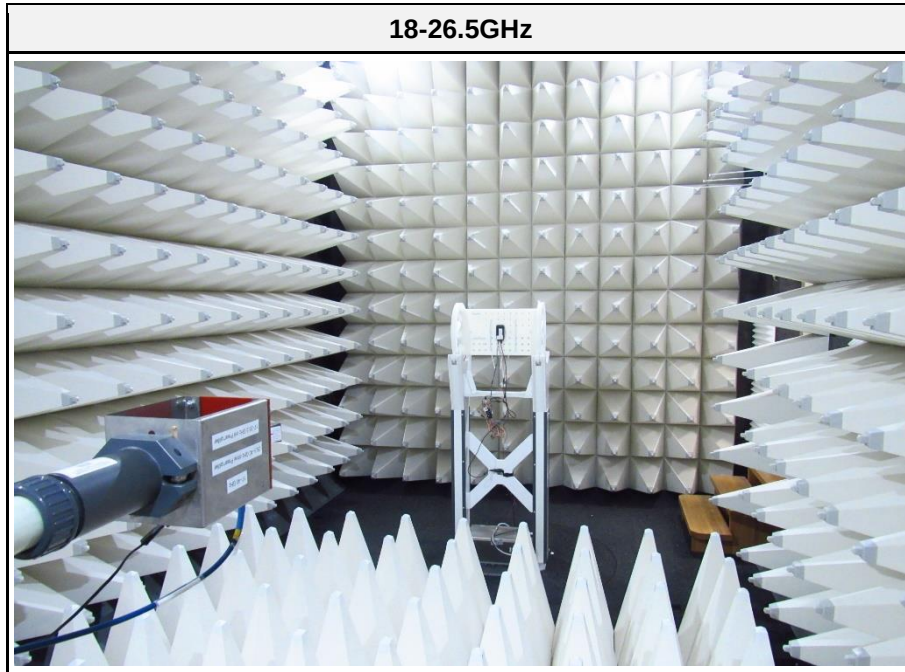


1-6.5GHz



6.5-18GHz





3.3 Test Conditions and Results - Receiver radiated emissions

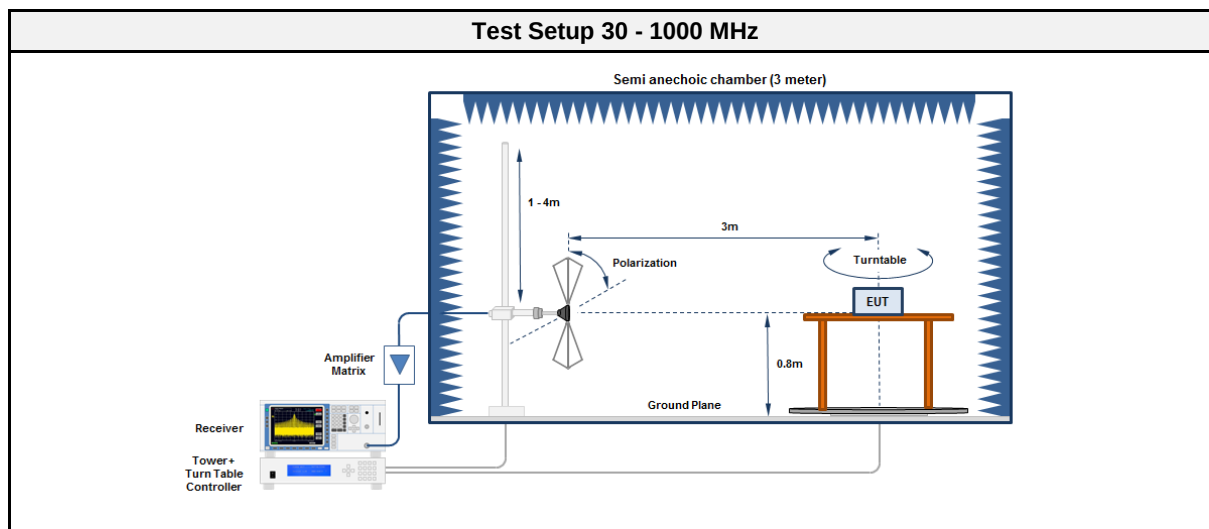
3.3.1 Information

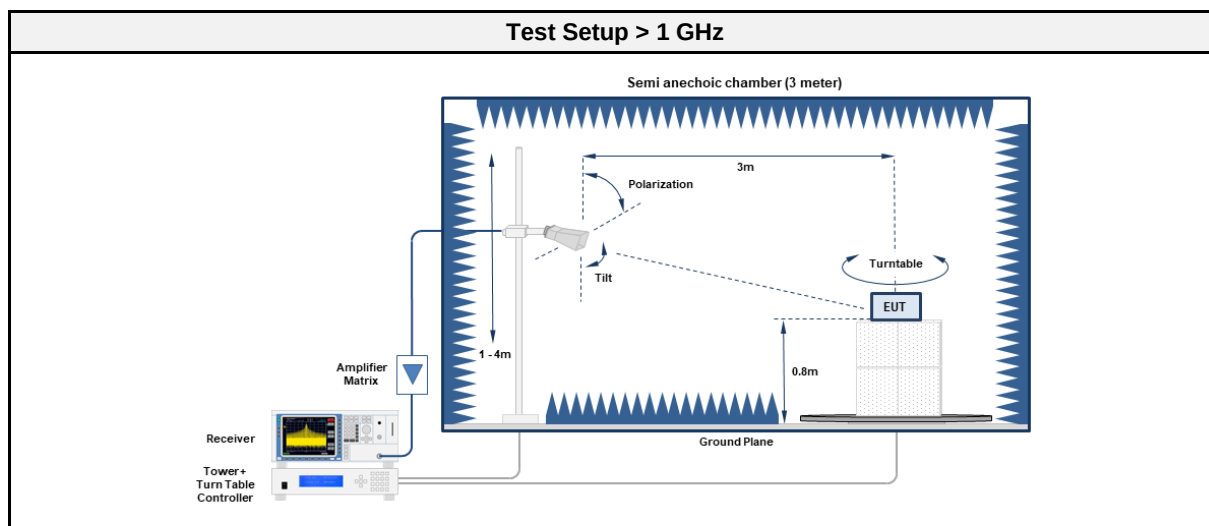
Test Information	
Reference	ISED RSS-132 §3.1 ISED RSS-133 §3.1 ISED RSS-Gen §7.4
Measurement Method	ANSI C63.4-2014 8.1-8.3
Measurement Uncertainty	± 5.95 dB
Operator	Jens Degenhardt
Date	2022-01-31

3.3.2 Limits

Limits			
Frequency range [MHz]	Bandwidth	Detector	Limit [dB μ V/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





3.3.4 Equipment

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

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
Horn antenna	Schwarzbeck	BBHA 9120B	EF01678	2021-03	2022-03
Horn Antenna	Schwarzbeck	HWRD 650	EF01679	2021-03	2022-03

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

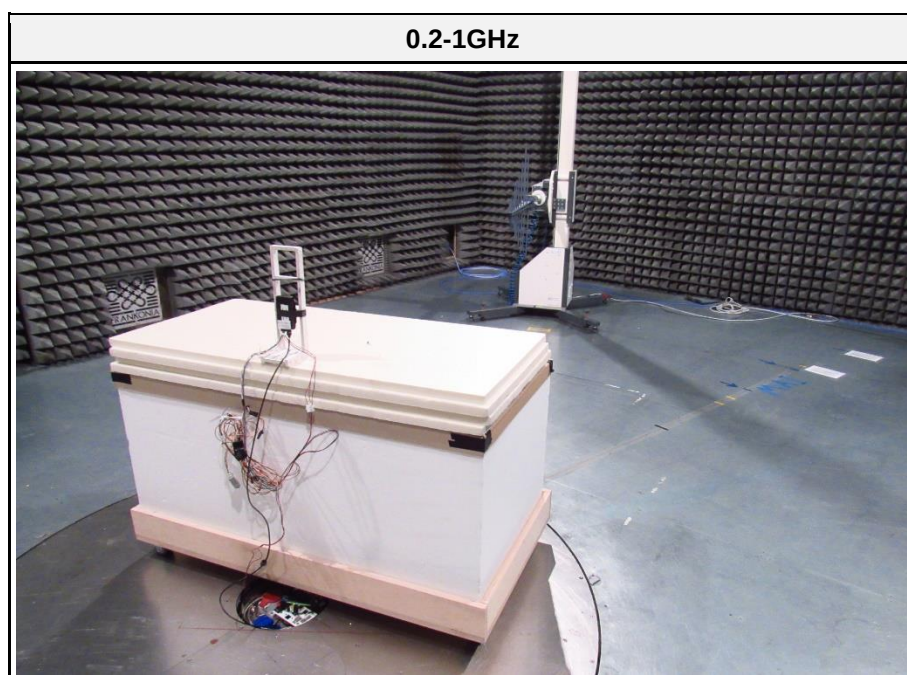
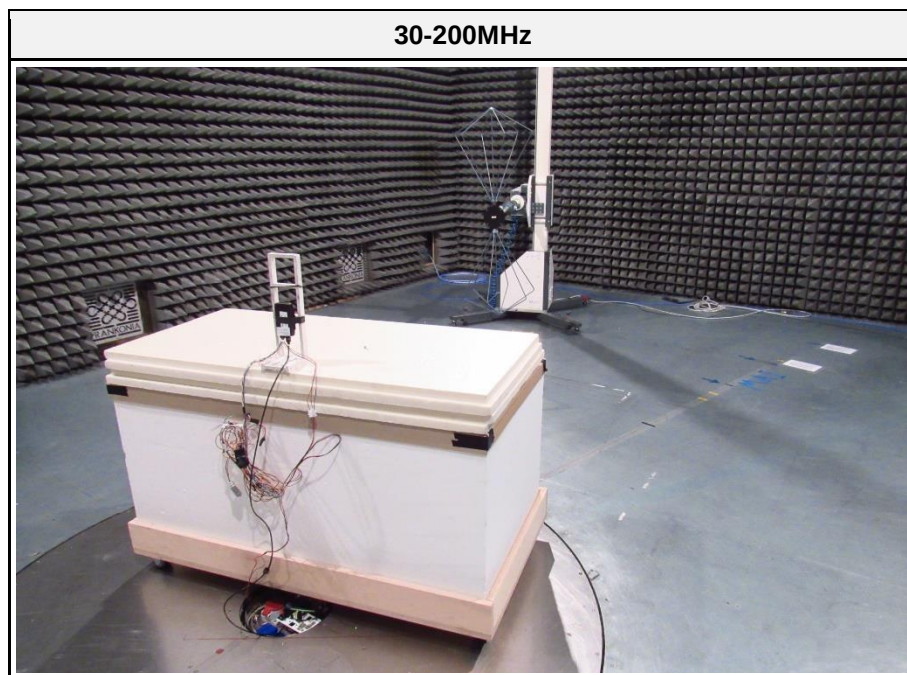
Test Procedure > 1 GHz	
1.	EUT is placed on a non conducting support at the center of a turn table 1.5 m above the ground
2.	EUT set to test mode
3.	The receiver is set to peak detection with max hold
4.	The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m
5.	All significant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

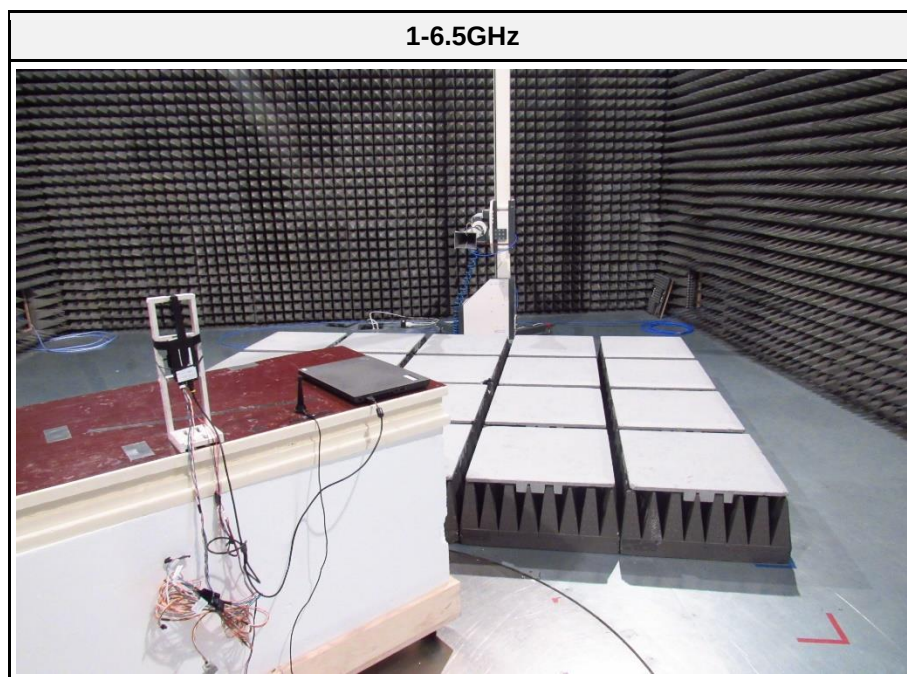
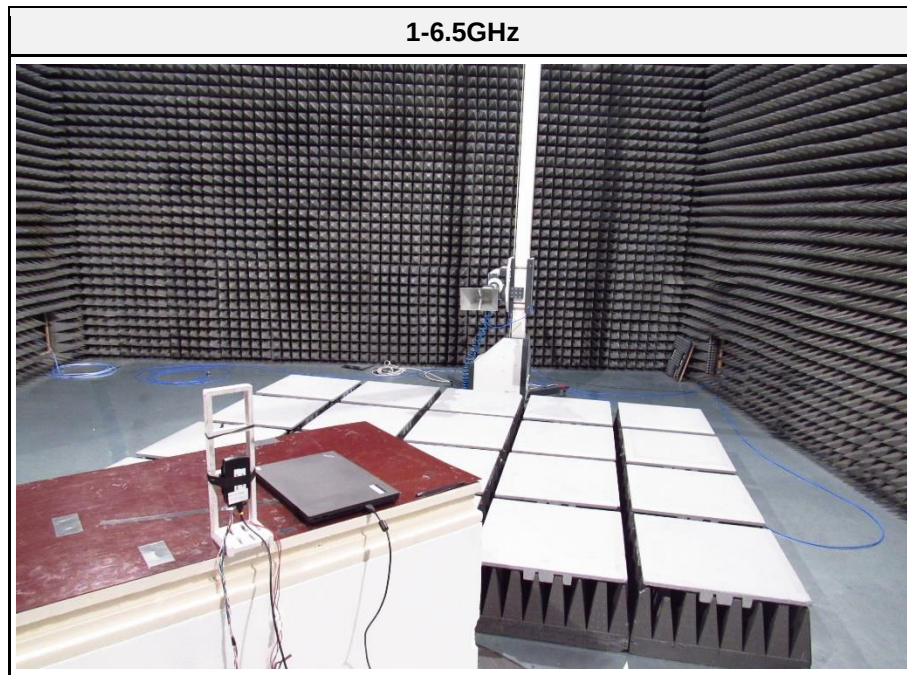
3.3.6 Results

Test Results - GSM850						
Mode	Frequency [MHz]	Level [dBμV/m]	Detector	Polarization	Limit [dBμV/m]	Margin [dB]
GSM850 / GPRS	876.0224	34.10	pk	ver	46.00	-11.94
GSM850 / GPRS	876.0224	27.40	qpk	ver	46.00	-18.56
GSM850 / GPRS	4665	46.83	pk	ver	74.00	-27.17
GSM850 / GPRS	4665	37.19	avg	ver	53.98	-16.79
GSM850 / GPRS	16400	49.20	pk	ver	74.00	-24.80
GSM850 / GPRS	16400	38.40	avg	ver	53.98	-15.58

Test Results - GSM1900						
Mode	Frequency [MHz]	Level [dBμV/m]	Detector	Polarization	Limit [dBμV/m]	Margin [dB]
GSM1900 / GPRS	500.44	24.10	pk	ver	46.00	-21.94
GSM1900 / GPRS	5584	48.48	pk	ver	74.00	-25.52
GSM1900 / GPRS	5584	38.27	avg	ver	53.98	-15.71

3.3.7 Setup Photos





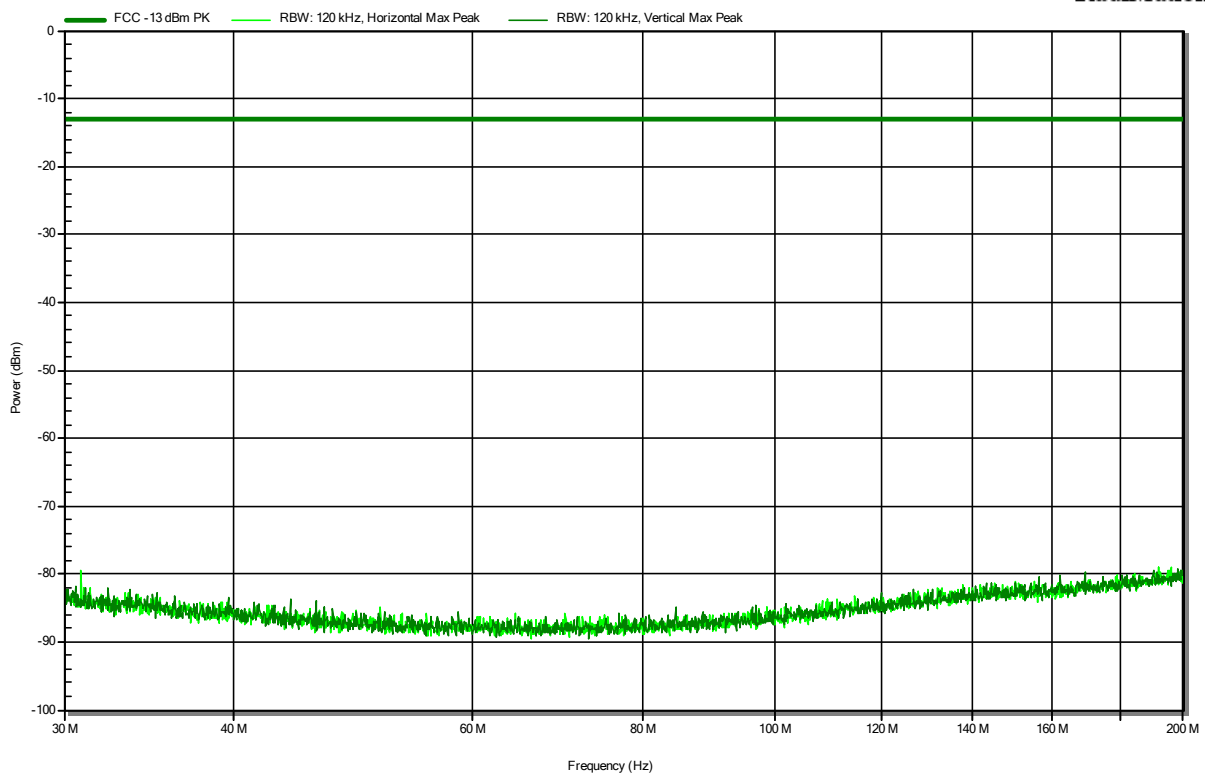
ANNEX A Transmitter radiated emissions

Radiated Spurious Emissions according to FCC Part 22H, RSS-132

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Rohde & Schwarz HK 116
 Measurement distance: 3 m
 Mode: Tx; GSM850, CH251
 Test Date: 2022-01-17
 Note: EUT vertical

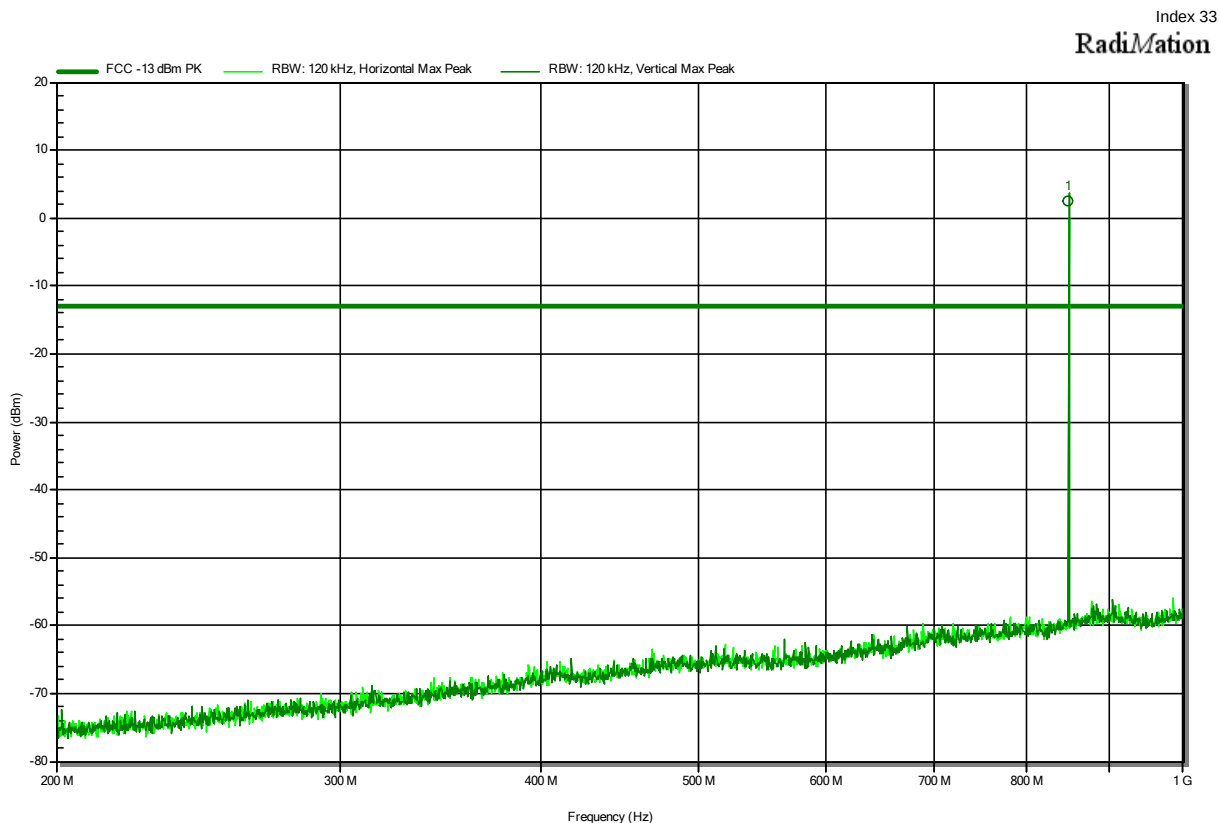
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RadiMation



Radiated Spurious Emissions according to FCC Part 22H, RSS-132

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Rohde & Schwarz HL 223
 Measurement distance: 3 m
 Mode: Tx; GSM850, CH251
 Test Date: 2022-01-17
 Note: EUT vertical
 Marker 1 : uplink



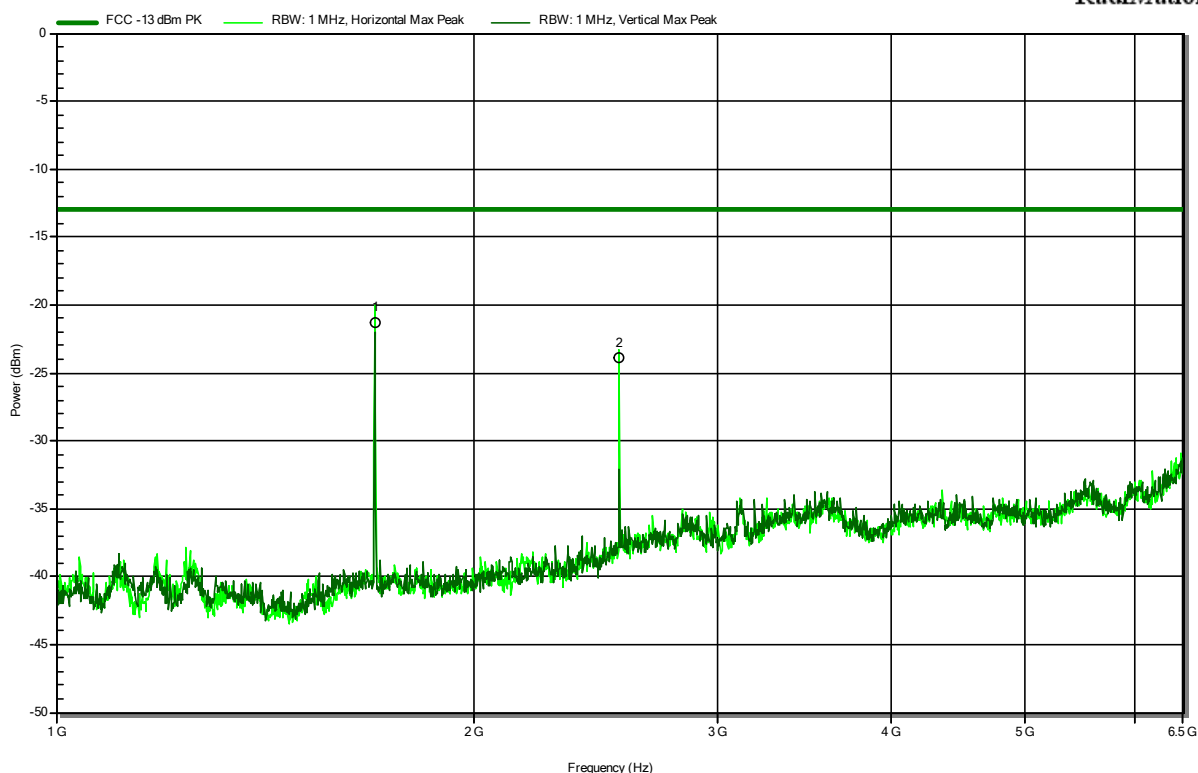
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
848.82 MHz	2.5 dBm	-13 dBm	15.52 dB	Uplink

Radiated Spurious Emissions according to FCC Part 22H, RSS-132

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; GSM850, CH251
 Test Date: 2022-01-13
 Note: EUT vertical

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RadiMation



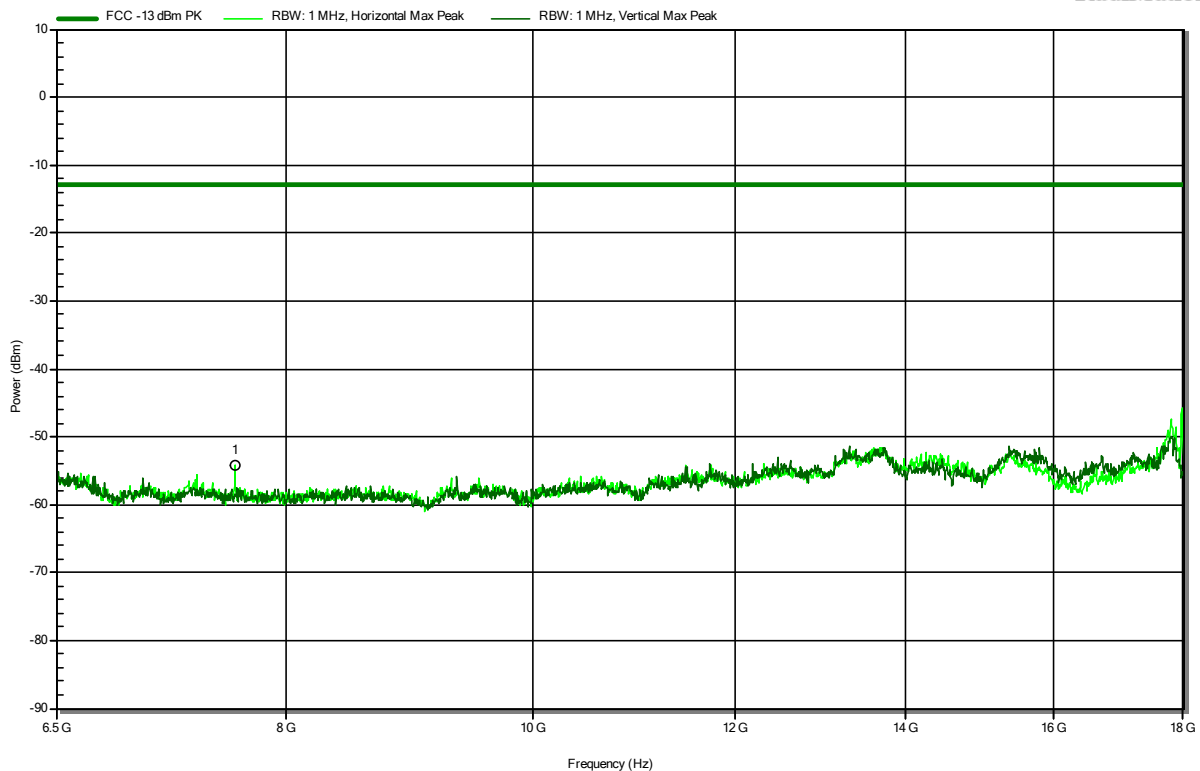
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.698 GHz	-21.3 dBm	-13 dBm	-8.32 dB	Pass
2.546 GHz	-23.9 dBm	-13 dBm	-10.94 dB	Pass

Radiated Spurious Emissions according to FCC Part 22H, RSS-132

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Tx; GSM850, CH251
 Test Date: 2022-01-13
 Note: EUT vertical

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RadiMation



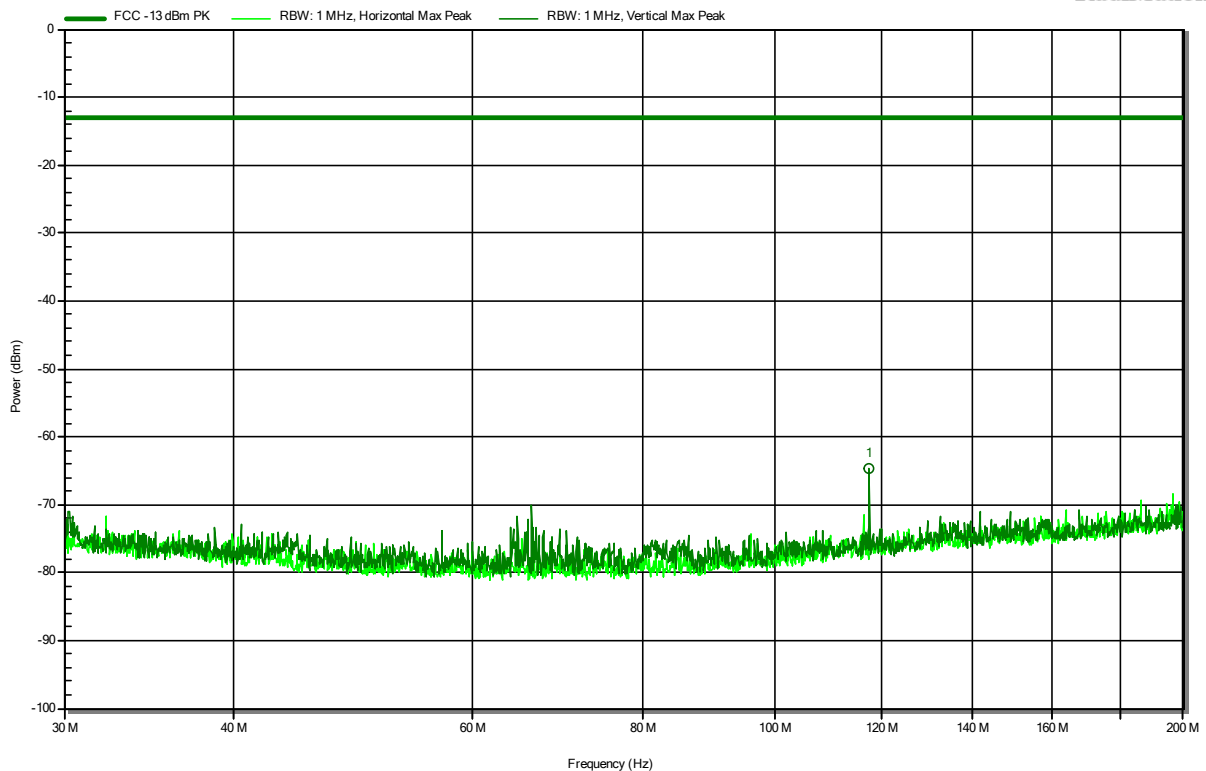
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
7.638 GHz	-54.2 dBm	-13 dBm	-41.2 dB	Pass

Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Rohde & Schwarz HK 116
 Measurement distance: 3 m
 Mode: Tx; GSM1900, CH661
 Test Date: 2022-01-17
 Note: EUT vertical

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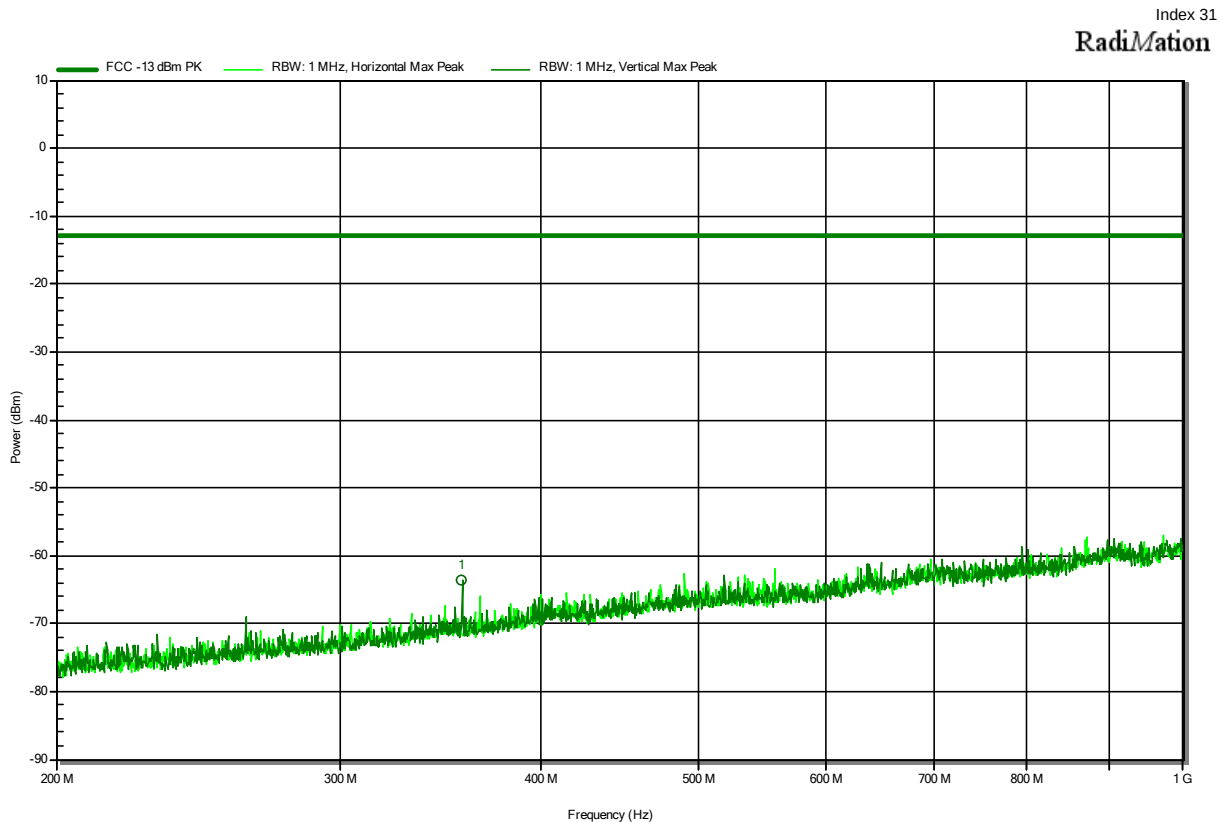
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
117.448 MHz	-64.7 dBm	-13 dBm	-51.75 dB	Pass

Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133

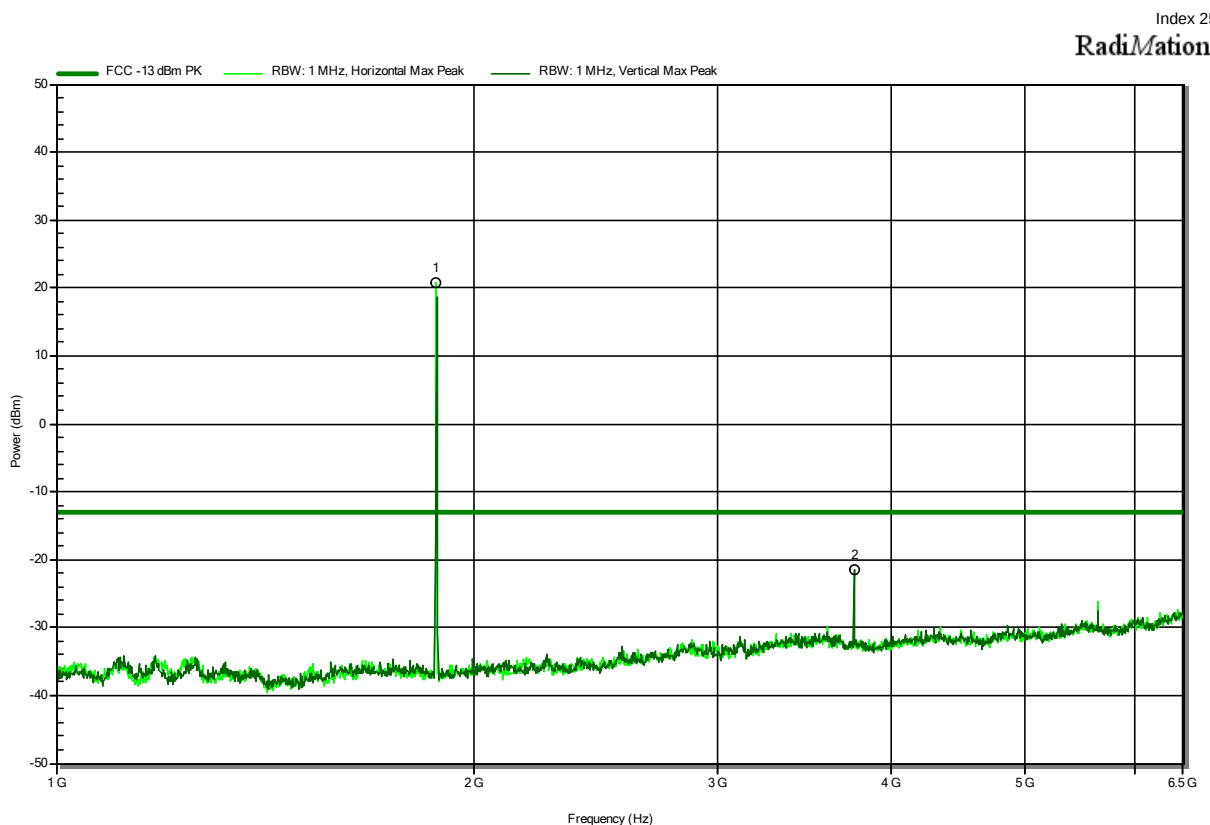
Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Rohde & Schwarz HL 223
 Measurement distance: 3 m
 Mode: Tx; GSM1900, CH661
 Test Date: 2022-01-17
 Note: EUT vertical



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
357.08 MHz	-63.6 dBm	-13 dBm	-50.61 dB	Pass

Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; GSM1900, CH661
 Test Date: 2022-01-13
 Note: EUT vertical
 Marker 1 : uplink



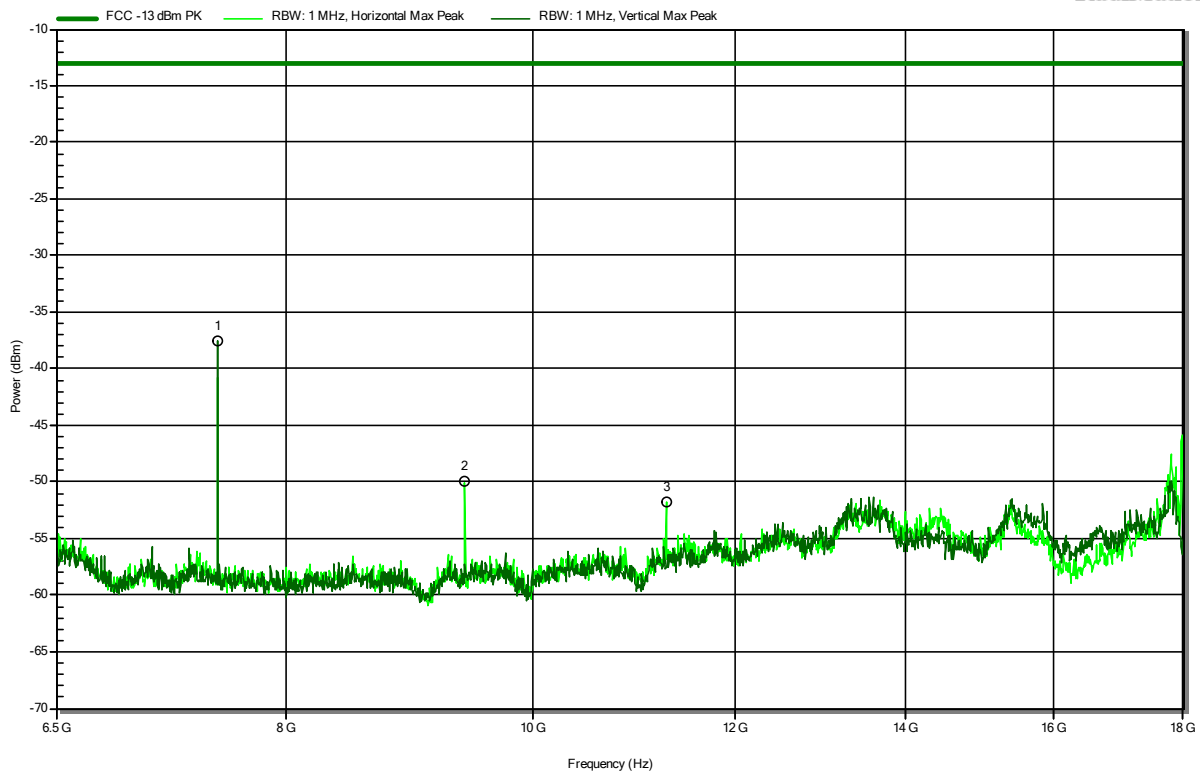
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
1.88 GHz	20.7 dBm	-13 dBm	33.68 dB	Uplink
3.76 GHz	-21.4 dBm	-13 dBm	-8.45 dB	Pass

Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Tx; GSM1900, CH661
 Test Date: 2022-01-13
 Note: EUT vertical

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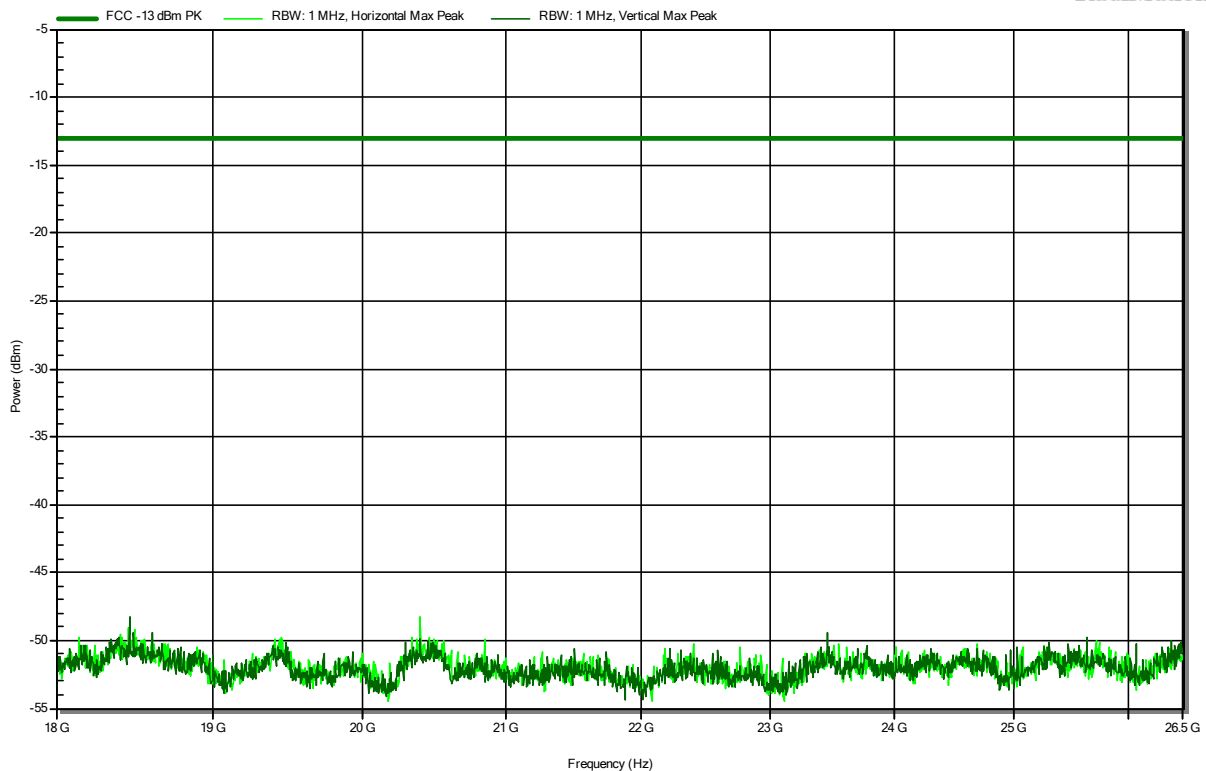
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
7.52 GHz	-37.5 dBm	-13 dBm	-24.55 dB	Pass
9.4 GHz	-49.9 dBm	-13 dBm	-36.93 dB	Pass
11.28 GHz	-51.7 dBm	-13 dBm	-38.74 dB	Pass

Radiated Spurious Emissions according to 47 CFR Part 24 Subpart E, RSS-133

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Amplifier Research AT4560
 Measurement distance: 3 m
 Mode: Tx; GSM1900, CH661
 Test Date: 2022-01-13
 Note: EUT vertical

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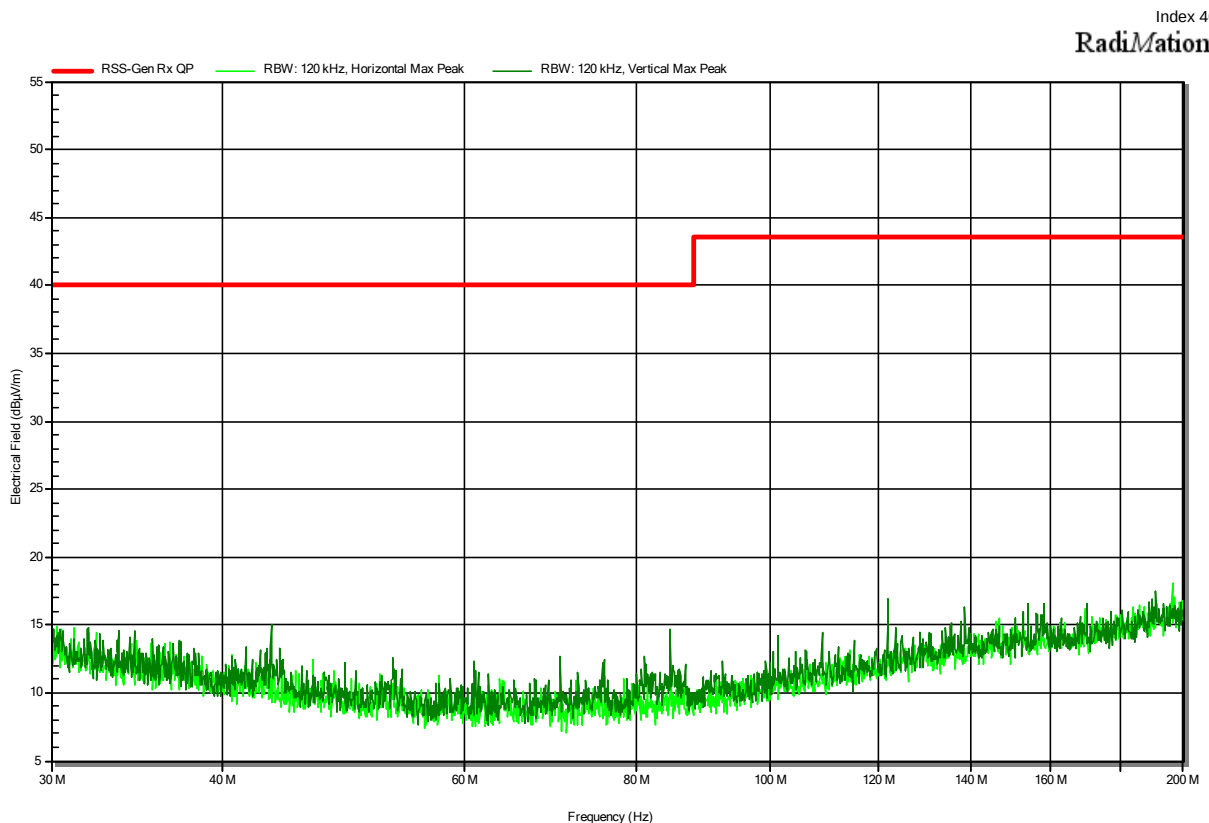
RadiMation



ANNEX B Receiver radiated emissions

Radiated Spurious Emissions according to RSS-Gen Issue 5

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Rohde & Schwarz HK 116
 Measurement distance: 3 m
 Mode: Rx; GSM850, CH251
 Test Date: 2022-01-17
 Note: EUT vertical

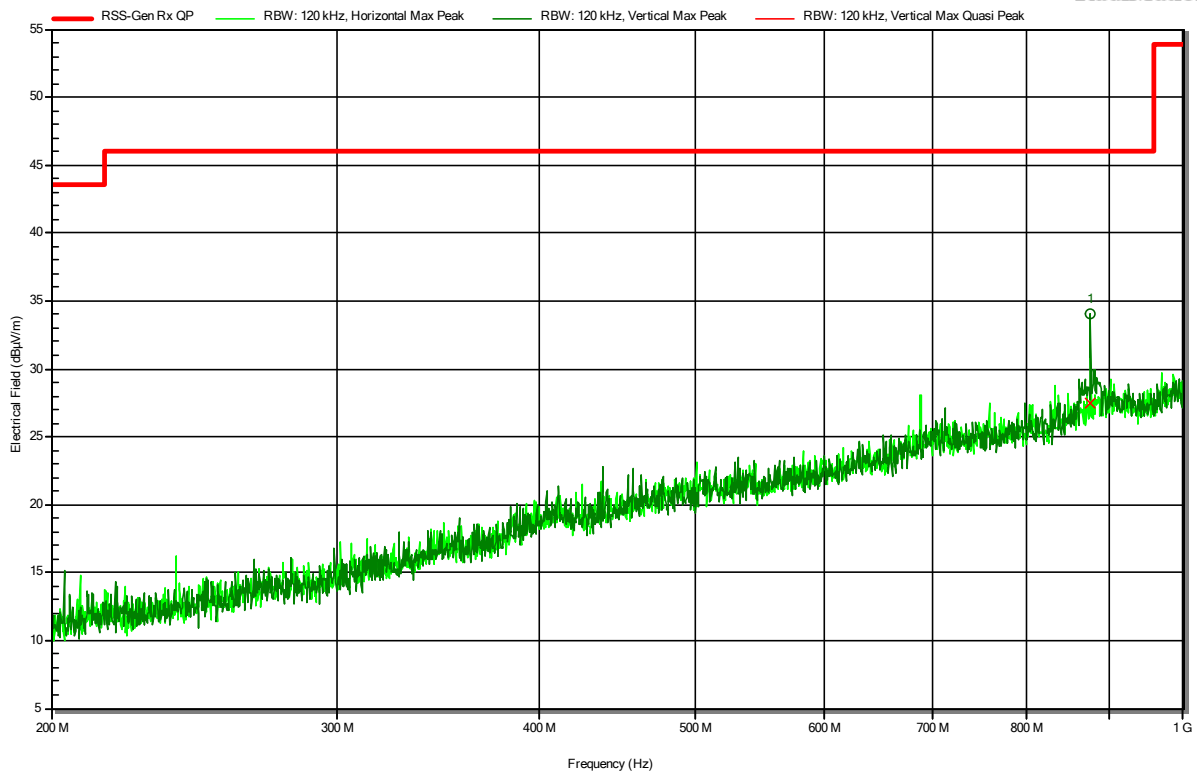


Radiated Spurious Emissions according to RSS-Gen Issue 5

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Rohde & Schwarz HL 223
 Measurement distance: 3 m
 Mode: Rx; GSM850, CH251
 Test Date: 2022-01-17
 Note: EUT vertical

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Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
876.0224 MHz	34.1 dBµV/m	46 dBµV/m	-11.94 dB	Pass	Vertical
Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Polarization
876.0224 MHz	27.4 dBµV/m	46 dBµV/m	-18.56 dB	Pass	Vertical

Test Report No.: G0M-2111-1143-TFCMOCORSEGS-V02

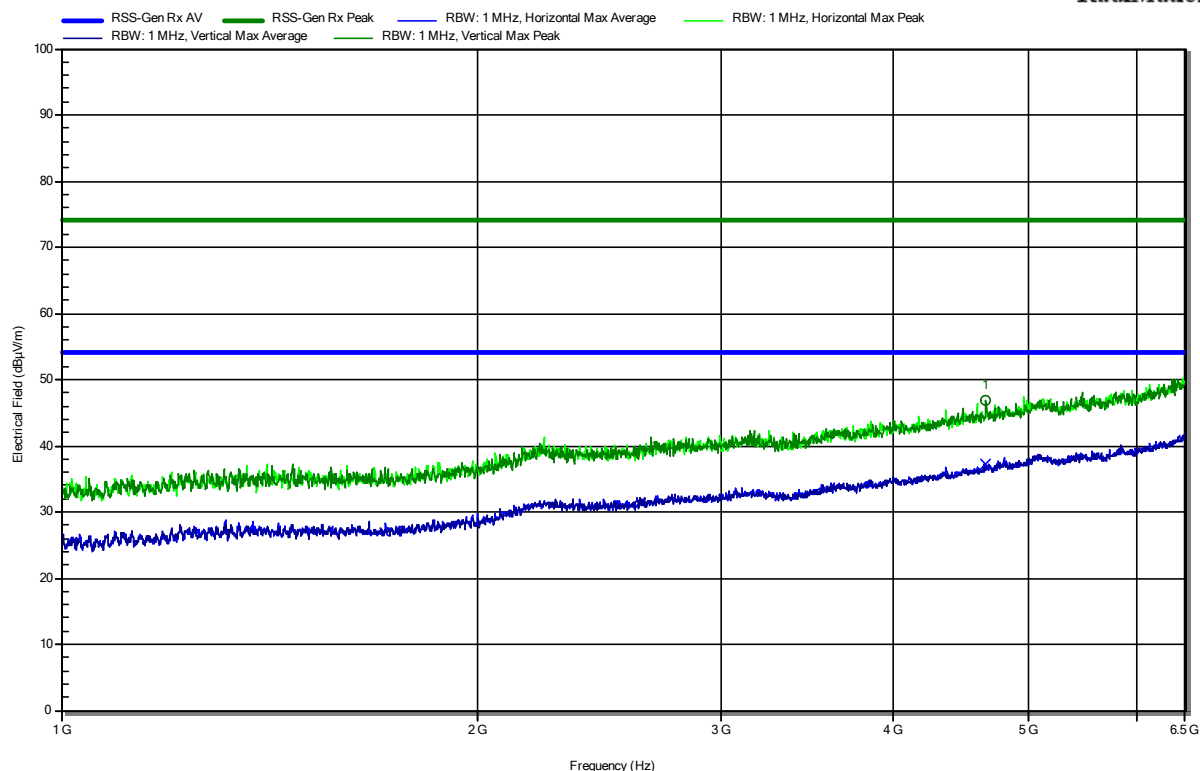
Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Radiated Spurious Emissions according to RSS-Gen Issue 5

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Schwarzbeck BBHA 9120D
 Measurement distance: 3 m
 Mode: Rx; GSM850, CH251
 Test Date: 2022-01-17
 Note: EUT vertical

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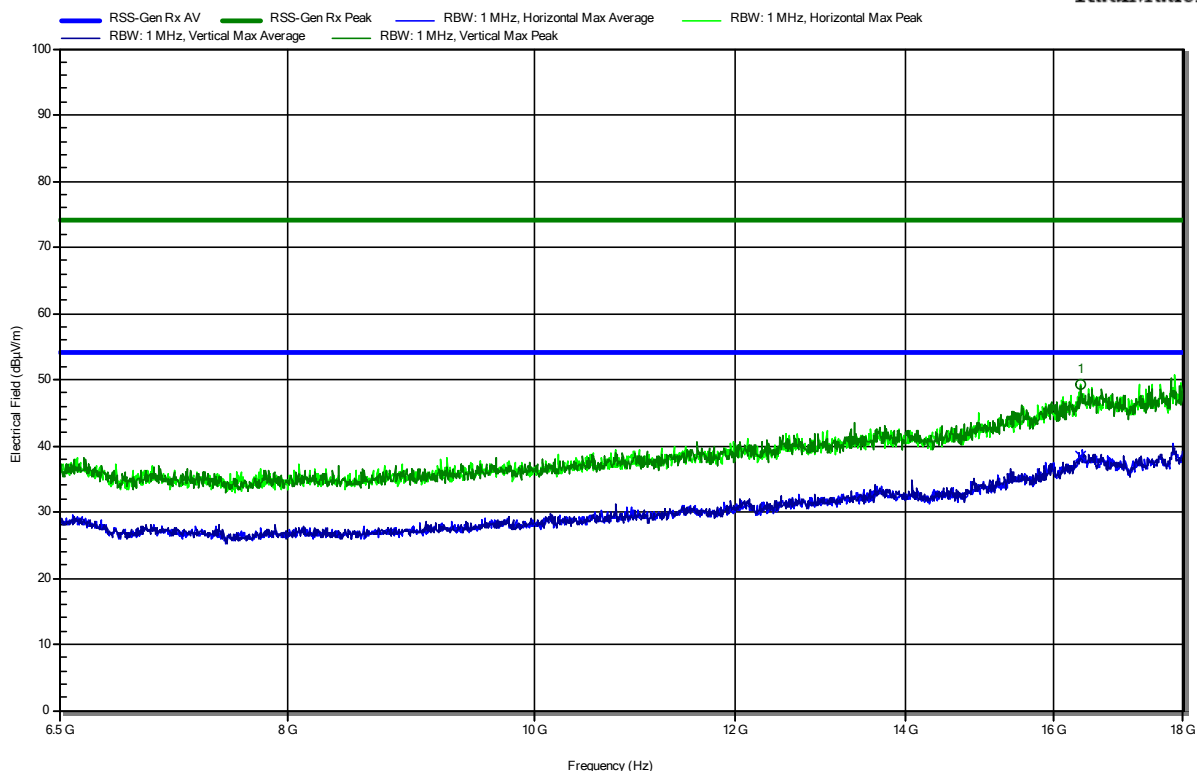
Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
4.665 GHz	46.83 dBµV/m	74 dBµV/m	-27.17 dB	Pass	Vertical
Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
4.665 GHz	37.19 dBµV/m	53.98 dBµV/m	-16.79 dB	Pass	Vertical

Radiated Spurious Emissions according to RSS-Gen Issue 5

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Rx; GSM850, CH251
 Test Date: 2022-01-17
 Note: EUT vertical

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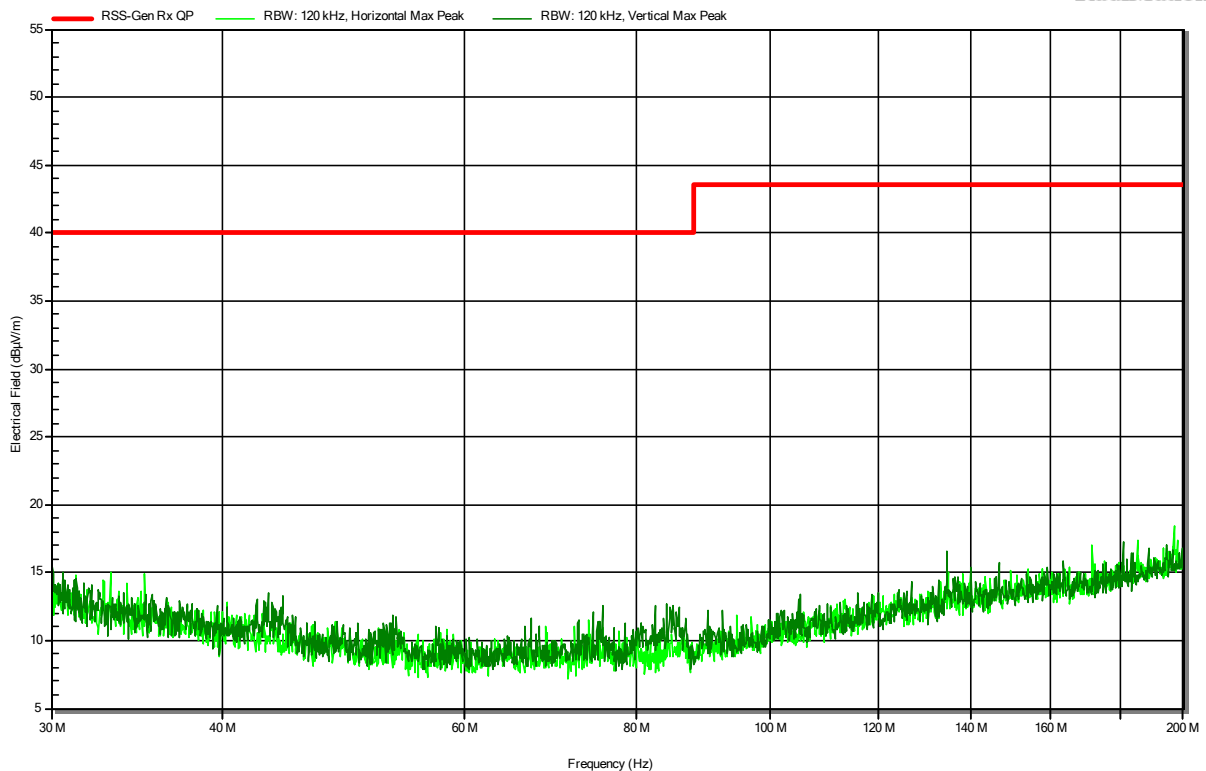
Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
16.4 GHz	49.2 dBµV/m	74 dBµV/m	-24.8 dB	Pass	Horizontal
Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
16.4 GHz	38.4 dBµV/m	53.98 dBµV/m	-15.58 dB	Pass	Horizontal

Radiated Spurious Emissions according to RSS-Gen Issue 5

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Rohde & Schwarz HK 116
 Measurement distance: 3 m
 Mode: Rx; GSM1900, CH661
 Test Date: 2022-01-17
 Note: EUT vertical

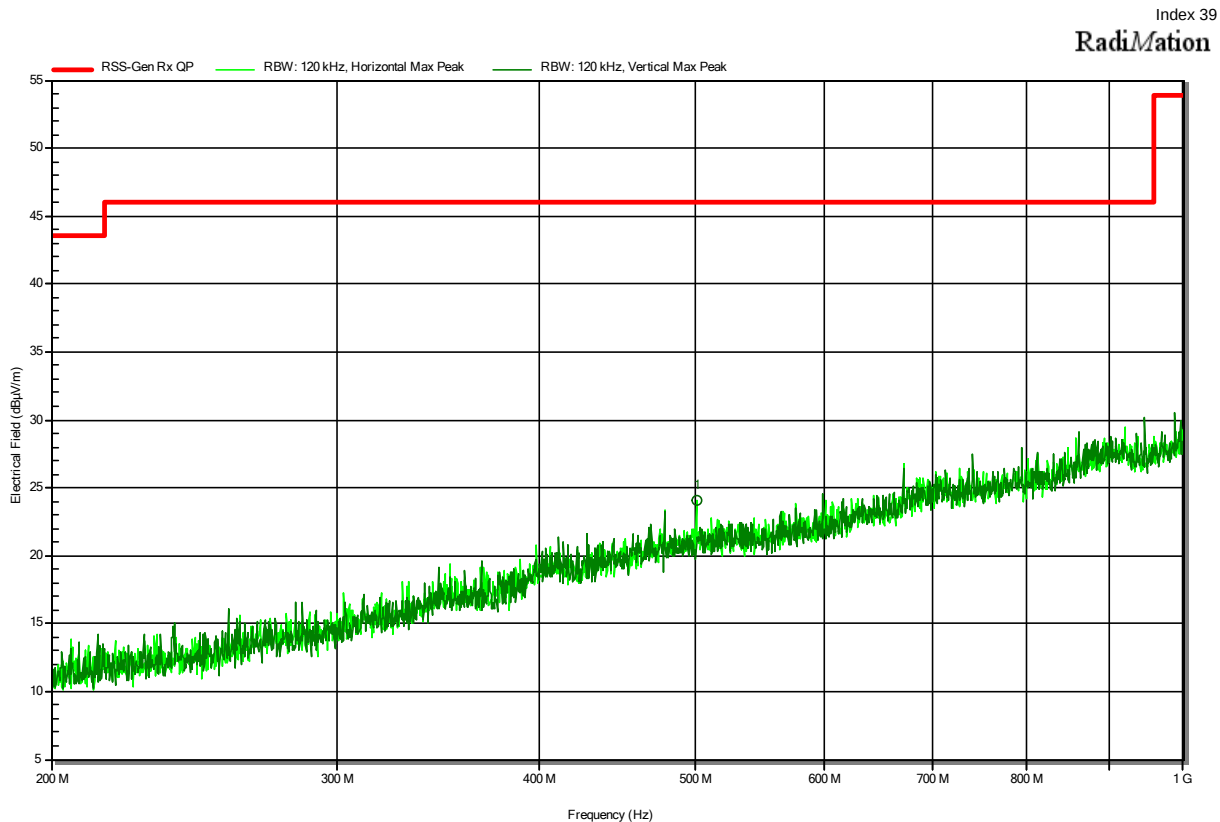
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Radiated Spurious Emissions according to RSS-Gen Issue 5

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Rohde & Schwarz HL 223
 Measurement distance: 3 m
 Mode: Rx; GSM1900, CH661
 Test Date: 2022-01-17
 Note: EUT vertical



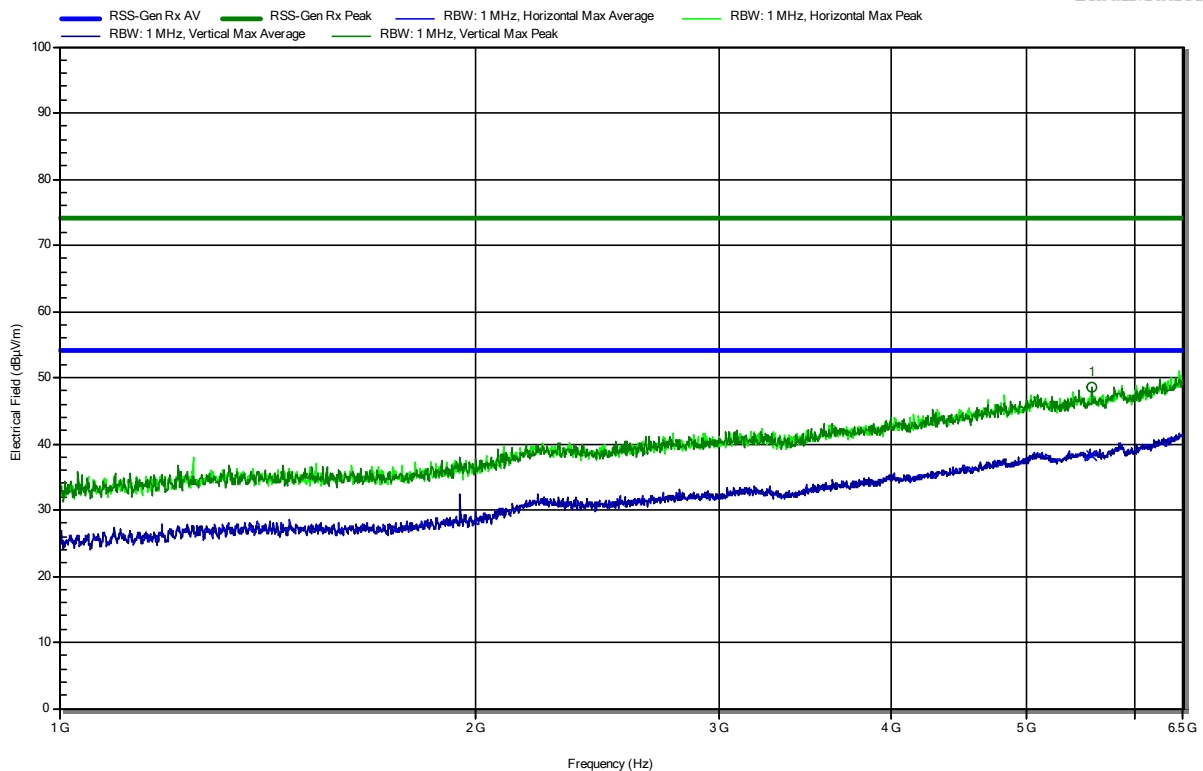
Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
500.44 MHz	24.1 dBµV/m	46 dBµV/m	-21.94 dB	Pass	Horizontal

Radiated Spurious Emissions according to RSS-Gen Issue 5

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 12VDC
 Antenna: Schwarzbeck BBHA 9120D
 Measurement distance: 3 m
 Mode: Rx; GSM1900, CH661
 Test Date: 2022-01-17
 Note: EUT vertical

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RadiMation



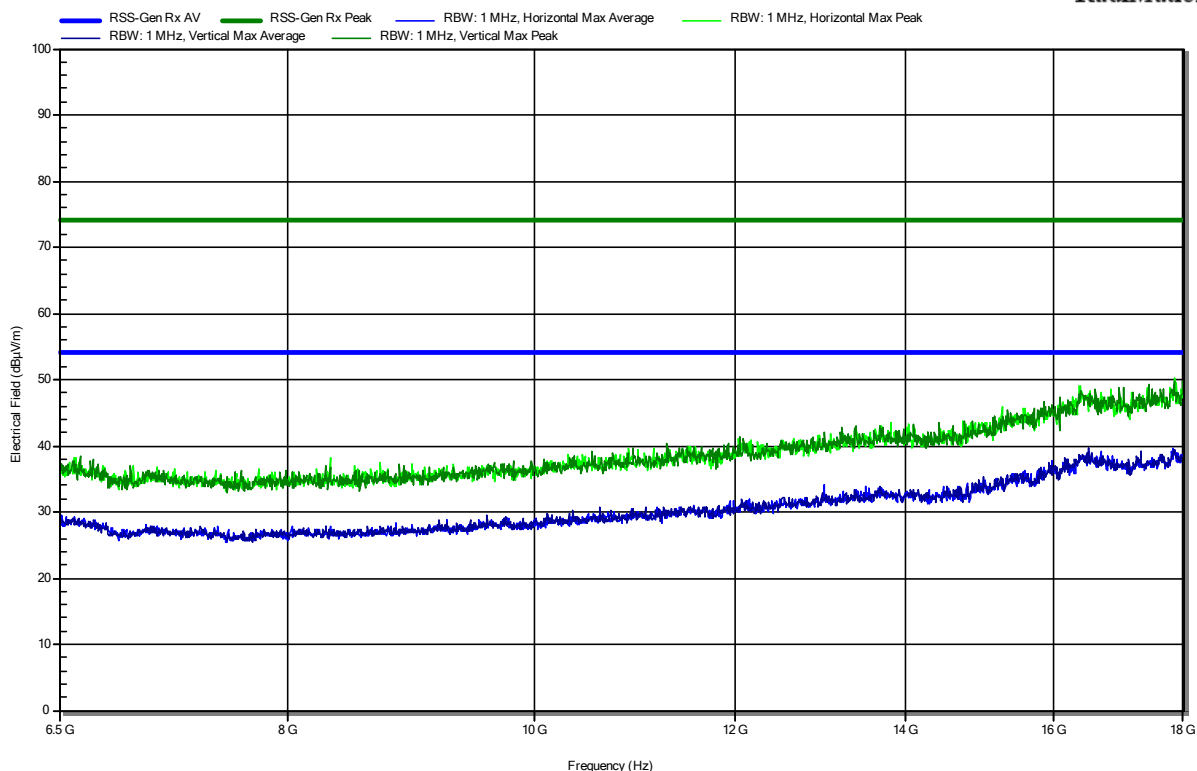
Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
5.584 GHz	48.48 dBµV/m	74 dBµV/m	-25.52 dB	Pass	Vertical
Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
5.584 GHz	38.27 dBµV/m	53.98 dBµV/m	-15.71 dB	Pass	Vertical

Radiated Spurious Emissions according to RSS-Gen Issue 5

Project Number: G0M-2111-1143
 Applicant: Webfleet Solutions Development Germany GmbH
 Model Description: Telematic Device with GSM+LTE+GNSS
 Model: L0640
 Test Sample ID: 37752
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Degenhardt
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom:
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Rx; GSM1900, CH661
 Test Date: 2022-01-17
 Note: EUT vertical

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=== End of test report ===

Test Report No.: G0M-2111-1143-TFCMOCORSEGS-V02

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