



# FCC RADIO TEST REPORT

**FCC ID** : 2AW3A-2NAC24ACUCM  
**Equipment** : EV Charger  
**Brand Name** : RIVIAN  
**Model Name** : 2NAC24ACUCM  
**Marketing Name** : RIVIAN WAYPOINTS CHARGER  
**Applicant** : Rivian Automotive LLC.  
14600 Myford Road, Irvine Irvine CA, 92606  
**Manufacturer** : Lite-On Technology Corporation  
29F , No.555, Siyuan Rd., Xinzhuang Dist., New Taipei City,  
Taiwan (R.O.C.)  
**Standard** : FCC 47 CFR Part 2, 22(H), 24(E)

The product was received on Mar. 27, 2024 and testing was performed from Jun. 03, 2024 to Jul. 02, 2024. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

**Sporton International Inc. EMC & Wireless Communications Laboratory**

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)



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## History of this test report

Report No.	Version	Description	Issue Date
FG432616A	01	Initial issue of report	Jul. 30, 2024
FG432616A	02	Revise Product Feature This report is an updated version, replacing the report issued on Jul. 30, 2024.	Aug. 21, 2024

## Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	-
	§22.913 (a)(5)	Effective Radiated Power (GSM850)		
	§24.232 (c)	Equivalent Isotropic Radiated Power (GSM1900)		
-	§24.232 (d)	Peak-to-Average Ratio	-	See Note
-	§2.1049 §22.917 (b) §24.238 (b)	Occupied Bandwidth (GSM850) (GSM1900)	-	See Note
-	§2.1051 §22.917 (a) §24.238 (a)	Band Edge Measurement (GSM850) (GSM1900)	-	See Note
-	§2.1051 §22.917 (a) §24.238 (a)	Conducted Emission (GSM850) (GSM1900)	-	See Note
-	§2.1055 §22.355 §24.235	Frequency Stability Temperature & Voltage	-	See Note
4.4	§2.1053 §22.917 (a) §24.238 (a)	Field Strength of Spurious Radiation (GSM850) (GSM1900)	Pass	28.53 dB under the limit at 1704.00 MHz

**Remark:**

- For host device, Radiated Spurious Emission, Effective Radiated Power and Equivalent Isotropic Radiated Power are verified and complies with the limit in this test report.
- For host device, the Conducted Output Power is no difference after compared to module (Model: BG96, BG96 MINPCIE)

**Conformity Assessment Condition:**

- The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
- The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty".

**Disclaimer:**

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

**Reviewed by: Danny Lee**

**Report Producer: Rebecca Wu**



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

Product Feature	
<b>General Specs</b> GSM/LTE, Bluetooth - LE, Wi-Fi 2.4GHz 802.11b/g/n, and NFC.	
<b>Antenna Type</b> WWAN: FPC Antenna WLAN: FPC Antenna Bluetooth - LE: Internal Antenna NFC: Loop Antenna	
<b>Antenna Gain</b>	GSM 850: 2.7 dBi GSM 1900: 2.9 dBi

**Remark:** The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

## 1.2 Modification of EUT

No modifications made to the EUT during the testing.

### 1.3 Testing Location

<b>Test Site</b>	Sporton International Inc. EMC & Wireless Communications Laboratory
<b>Test Site Location</b>	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
<b>Test Site No.</b>	<b>Sporton Site No.</b> TH03-HY
<b>Test Engineer</b>	Eric Wu
<b>Temperature (°C)</b>	24~26
<b>Relative Humidity (%)</b>	51.5~53.5

<b>Test Site</b>	Sporton International Inc. Wensan Laboratory
<b>Test Site Location</b>	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
<b>Test Site No.</b>	<b>Sporton Site No.</b> 03CH11-HY (TAF Code: 3786)
<b>Test Engineer</b>	Yuan Lee, Fu Chen, and Troye Hsieh
<b>Temperature (°C)</b>	19.2~21.5
<b>Relative Humidity (%)</b>	52.9~66.8
<b>Remark</b>	The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory.

**Note:** The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW1190 and TW3786

### 1.4 Applicable Standards

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ ANSI C63.26-2015
- ♦ FCC 47 CFR Part 2, 22(H), 24(E)
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01

**Remark:**

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.

## 2 Test Configuration of Equipment Under Test

### 2.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

Radiated emissions were investigated as following frequency range:

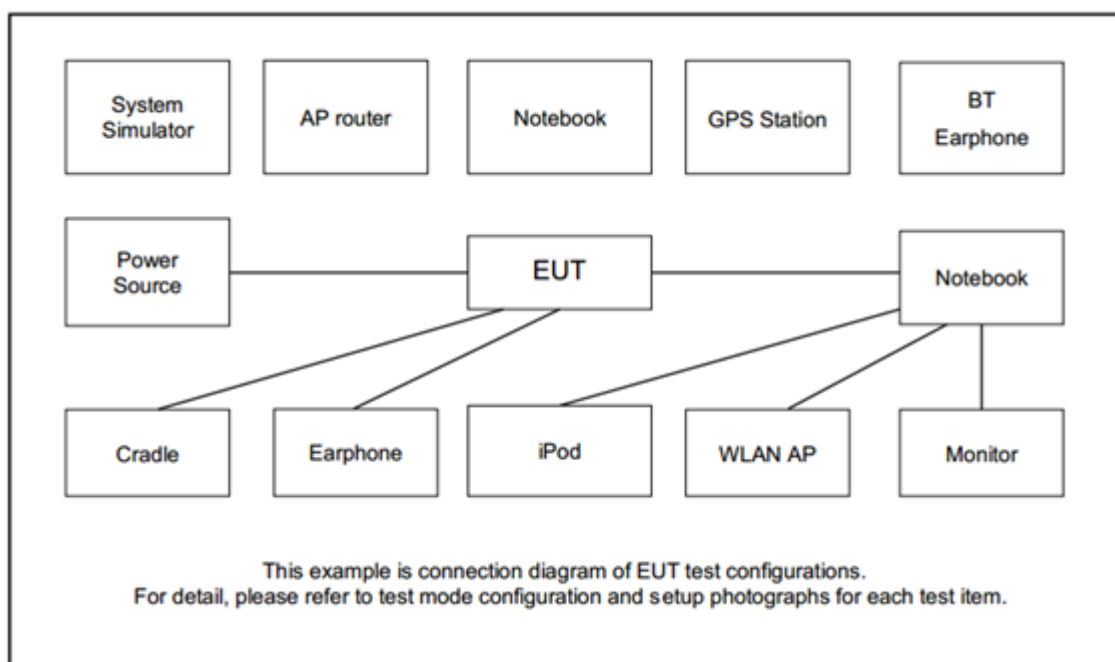
1. 30 MHz to 9000 MHz for GSM8501. 30 MHz to 19100 MHz for GSM1900

All modes, data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

Test Modes		
Band	Radiated TCs	Conducted TCs
<b>GSM850</b>	■ GPRS Class 8 Link	■ GPRS Class 8 Link
<b>GSM1900</b>	■ GPRS Class 8 Link	■ GPRS Class 8 Link

### 2.2 Connection Diagram of Test System





## 2.3 Support Unit used in test configuration

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m

## 2.4 Frequency List of Low/Middle/High Channels

Frequency List				
Band	Channel/Frequency(MHz)	Lowest	Middle	Highest
GSM850	Channel	128	189	251
	Frequency	824.2	836.4	848.8
GSM1900	Channel	512	661	810
	Frequency	1850.2	1880.0	1909.8



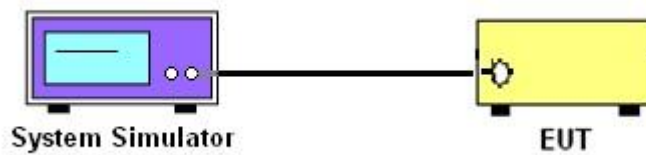
### 3 Conducted Test Result

#### 3.1 Measuring Instruments

Please refer to the measuring equipment list in this test report.

##### 3.1.1 Test Setup

##### 3.1.2 Conducted Output Power



##### 3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

## 3.2 Conducted Output Power and ERP/EIRP

### 3.2.1 Description of the Conducted Output Power and ERP/EIRP

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

The ERP of mobile transmitters must not exceed 7 Watts for GSM850

The EIRP of mobile transmitters must not exceed 2 Watts for GSM1900

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - L_C$ ,  $ERP = EIRP - 2.15$ , where

$P_T$  = transmitter output power in dBm

$G_T$  = gain of the transmitting antenna in dBi

$L_C$  = signal attenuation in the connecting cable between the transmitter and antenna in dB

### 3.2.2 Test Procedures

1. The transmitter output port is connected to the system simulator.
2. Set EUT at maximum power through system simulator.
3. Select the lowest, middle, and the highest channels for each band and different modulation.
4. Measure the maximum burst average power for GSM and maximum average power for other modulation signal.

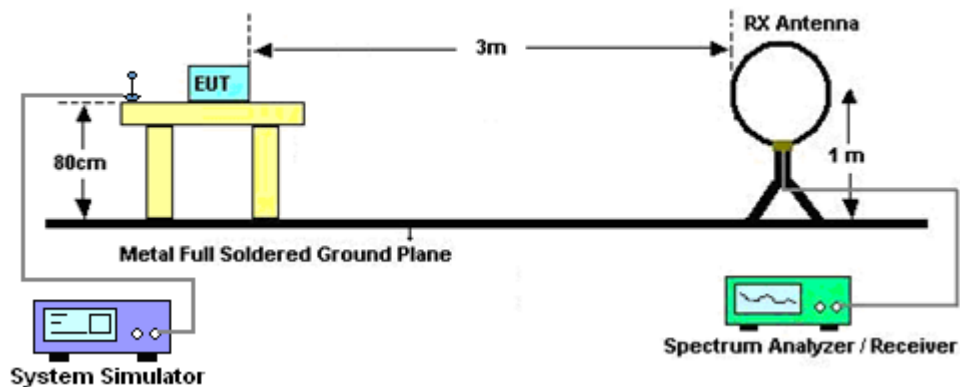
## 4 Radiated Test Items

### 4.1 Measuring Instruments

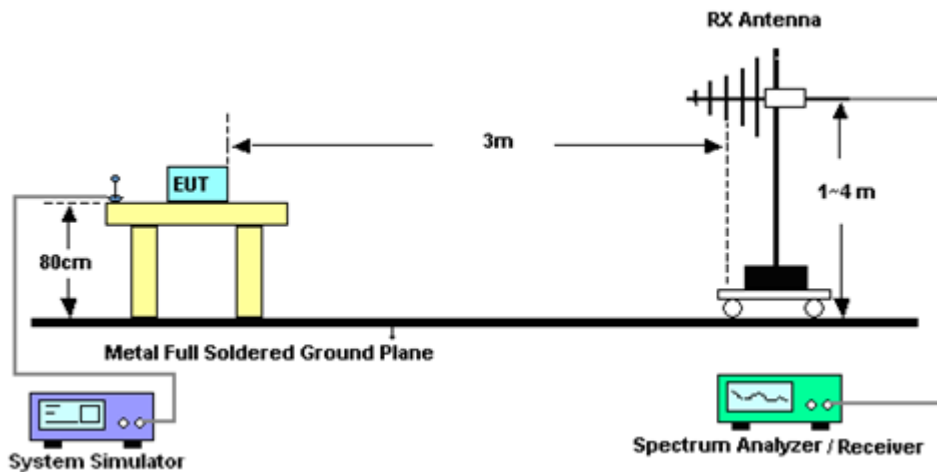
Please refer to the measuring equipment list in this test report.

### 4.2 Test Setup

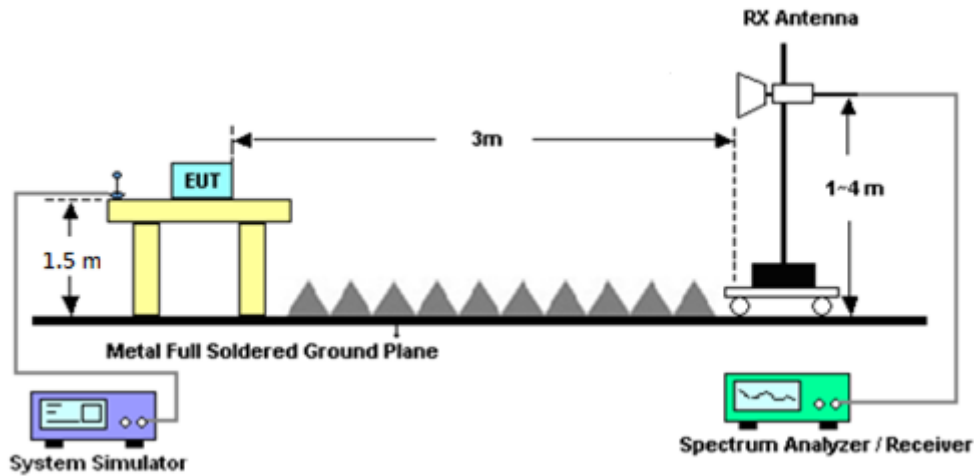
For radiated test below 30MHz



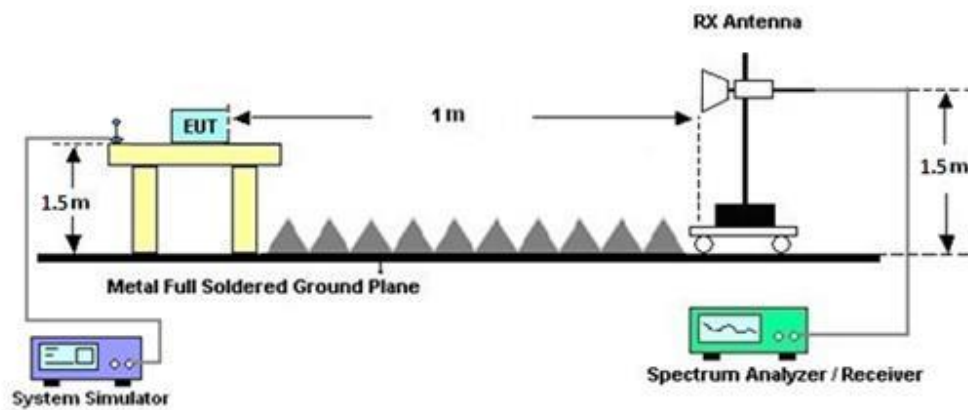
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



### 4.3 Test Result of Radiated Test

Please refer to Appendix B.

**Note:**

The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

## 4.4 Field Strength of Spurious Radiation Measurement

### 4.4.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $43 + 10 \log (P)$  dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

### 4.4.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI C63.26-2015 section 5.5.4 Radiated measurement using the field strength method.

1. The EUT is placed on a rotatable wooden table 0.8 meters for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz above the ground.
2. The EUT is set 3 meters away from the receiving antenna, which is mounted on the antenna tower.
3. The table is rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1 MHz, VBW = 3 MHz, taking record of maximum spurious emission.
6. To convert spectrum reading E(dBuV/m) to EIRP(dBm)  
$$\text{EIRP(dBm)} = \text{Level (dBuV/m)} + 20\log(d) - 104.77,$$
where d is the distance at which field strength limit is specified in the rules
7. Field Strength Level (dBm) = Spectrum Reading (dBm) + Antenna Factor + Cable Loss + Read Level - Preamp Factor.
8. ERP (dBm) = EIRP (dBm) - 2.15
9. The RF fundamental frequency shall be excluded against the limit line in the operating frequency band.
10. The limit line is derived from  $43 + 10\log(P)$  dB below the transmitter power P(Watts)



## 5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSP30	101329	9kHz~30GHz	Sep. 20, 2023	Jun. 17, 2024	Sep. 19, 2024	Conducted (TH03-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890001	1V~20V 0.5A~4A	Sep. 12, 2023	Jun. 17, 2024	Sep. 11, 2024	Conducted (TH03-HY)
Base Station (Measure)	Rohde & Schwarz	CMU200	117995	GSM / GPRS / WCDMA / CDMA	Aug. 06, 2023	Jun. 17, 2024	Aug. 05, 2024	Conducted (TH03-HY)
Temperature & Humidity Cabinet Chamber	ESPEC	LHU-113	1012005860	-20℃~85℃	Dec. 13, 2023	Jun. 17, 2024	Dec. 12, 2024	Conducted (TH03-HY)
Hygrometer	TECEPEL	DTM-303B	TP210073	N/A	Jun. 26, 2023	Jun. 17, 2024	Jun. 25, 2024	Conducted (TH03-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 07, 2023	Jun. 03, 2024~ Jul. 02, 2024	Oct. 06, 2024	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 12, 2023	Jun. 03, 2024~ Jul. 02, 2024	Sep. 11, 2024	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-01620	1GHz~18GHz	Aug. 17, 2023	Jun. 03, 2024~ Jul. 02, 2024	Aug. 16, 2024	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	1224	18GHz~40GHz	Jul. 10, 2023	Jun. 03, 2024~ Jul. 02, 2024	Jul. 09, 2024	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 08, 2023	Jun. 03, 2024~ Jul. 02, 2024	Dec. 07, 2024	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Mar. 25, 2024	Jun. 03, 2024~ Jul. 02, 2024	Mar. 24, 2025	Radiation (03CH11-HY)
Preamplifier	EMEC	EM18G40G	060871	18GHz~40GHz	Aug. 30, 2023	Jun. 03, 2024~ Jul. 02, 2024	Aug. 29, 2024	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 05, 2023	Jun. 03, 2024~ Jul. 02, 2024	Oct. 04, 2024	Radiation (03CH11-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY55420170	20MHz~8.4GHz	Aug. 02, 2023	Jun. 03, 2024~ Jul. 02, 2024	Aug. 01, 2024	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Jun. 03, 2024~ Jul. 02, 2024	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Jun. 03, 2024~ Jul. 02, 2024	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Jun. 03, 2024~ Jul. 02, 2024	N/A	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Jun. 03, 2024~ Jul. 02, 2024	N/A	Radiation (03CH11-HY)
Hygrometer	TECEPEL	DTM-303B	TP140325	N/A	Dec. 08, 2023	Jun. 03, 2024~ Jul. 02, 2024	Dec. 07, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804013/2	30M~40G	May 23, 2024	Jun. 03, 2024~ Jul. 02, 2024	May 22, 2025	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz~40GHz	Mar. 06, 2024	Jun. 03, 2024~ Jul. 02, 2024	Mar. 05, 2025	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9K~30M	Mar. 06, 2024	Jun. 03, 2024~ Jul. 02, 2024	Mar. 05, 2025	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	30M~40G	Mar. 06, 2024	Jun. 03, 2024~ Jul. 02, 2024	Mar. 05, 2025	Radiation (03CH11-HY)
Filter	Wainwright	WHKX12-900-1000-15000-60SS	SN12	1GHz High Pass Filter	Sep. 11, 2023	Jun. 03, 2024~ Jul. 02, 2024	Sep. 10, 2024	Radiation (03CH11-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60SS	SN3	3GHz High Pass Filter	Sep. 11, 2023	Jun. 03, 2024~ Jul. 02, 2024	Sep. 10, 2024	Radiation (03CH11-HY)



## 6 Measurement Uncertainty

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.290 dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.530 dB
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### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.610 dB
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## Appendix A. Test Results of Conducted Test

### Conducted Output Power(Average power) & ERP / EIRP

GSM850 Maximum Average Power [dBm] (GT - LC = 2.7 dB)					
Channel	128	189	251	ERP (dBm)	ERP (W)
Frequency	824.2	836.4	848.8		
GPRS class 8	32.04	32.16	<b>32.29</b>	32.84	1.9231
Limit	ERP < 7W			Result	Pass

GSM1900 Maximum Average Power [dBm] (GT - LC = 2.9 dB)					
Channel	512	661	810	EIRP (dBm)	EIRP (W)
Frequency	1850.2	1880	1909.8		
GPRS class 8	29.38	<b>29.52</b>	29.43	32.42	1.7458
Limit	EIRP < 2W			Result	Pass





## Appendix B. Test Results of Radiated Test

### B1. Summary of each worse mode

Mode	Part	Band	Ch	Freq (MHz)	Level (dBm)	Det	Ant Factor (dB)	Amp\Cbl (dB)	Filter (dB)	EIRPCF (dB)	Reading (dBuV)	Limit (dBm)	Margin (dB)	Pol	Ant
1	Part 22H	GPRS 850	H	1704	-41.53	RMS	25.10	-28.26	0.30	-95.23	56.56	-13.00	-28.53	H	1
1	Part 24E	GPRS 1900	L	3705	-42.23	RMS	29.64	-24.41	0.75	-95.23	47.02	-13.00	-29.23	H	1

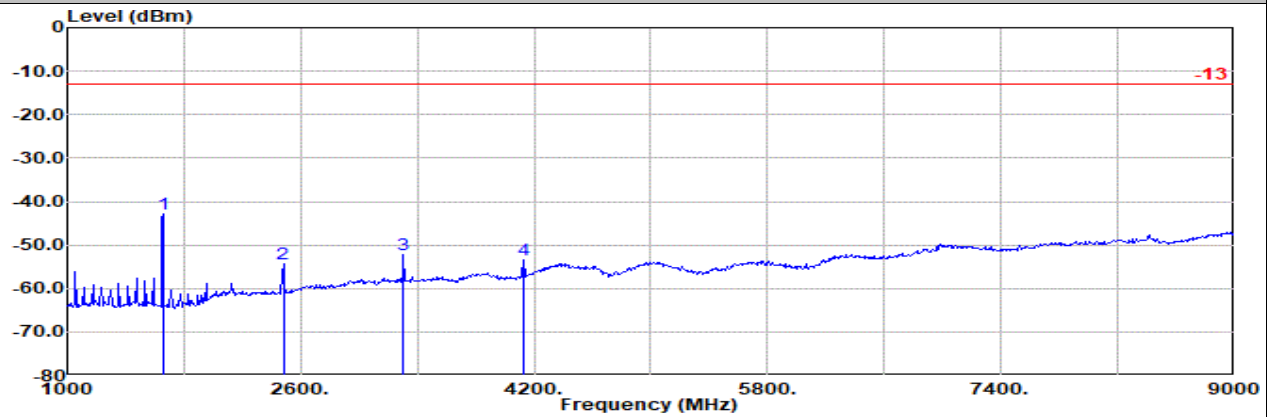


Ant. 1

Part 22H Mode 1

GPRS 850 CH128

L

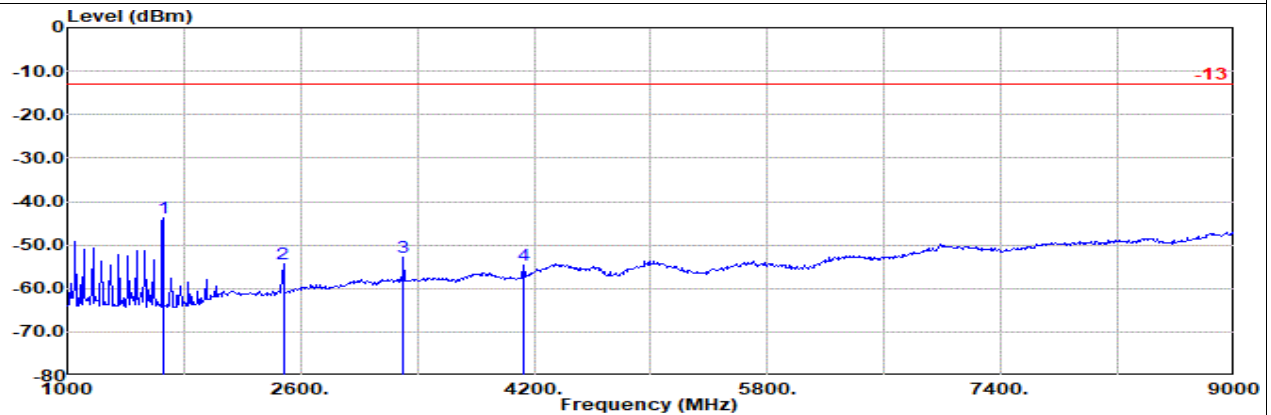


Site : 03CH11-HY

Condition: -13 3m 9120D\_01620\_230817 Horizontal

: GPRS 850 CH128

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm			dB/m	dB	dB	dB	dBuV	dBm	dB
1	1656.00	-42.86	RMS	25.20	-28.40	0.35	-95.23	55.22	-13.00	-29.86	Horizontal
2	2480.00	-54.24	RMS	27.70	-26.38	0.22	-95.23	39.45	-13.00	-41.24	Horizontal
3	3304.00	-52.24	RMS	29.60	-25.10	0.25	-95.23	38.24	-13.00	-39.24	Horizontal
4	4128.00	-53.49	RMS	31.17	-23.64	0.28	-95.23	33.93	-13.00	-40.49	Horizontal



Site : 03CH11-HY

Condition: -13 3m 9120D\_01620\_230817 Vertical

: GPRS 850 CH128

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm			dB/m	dB	dB	dB	dBuV	dBm	dB
1	1656.00	-43.70	RMS	25.20	-28.40	0.35	-95.23	54.38	-13.00	-30.70	Vertical
2	2480.00	-54.44	RMS	27.70	-26.38	0.22	-95.23	39.25	-13.00	-41.44	Vertical
3	3304.00	-52.86	RMS	29.60	-25.10	0.25	-95.23	37.62	-13.00	-39.86	Vertical
4	4128.00	-54.70	RMS	31.17	-23.64	0.28	-95.23	32.72	-13.00	-41.70	Vertical

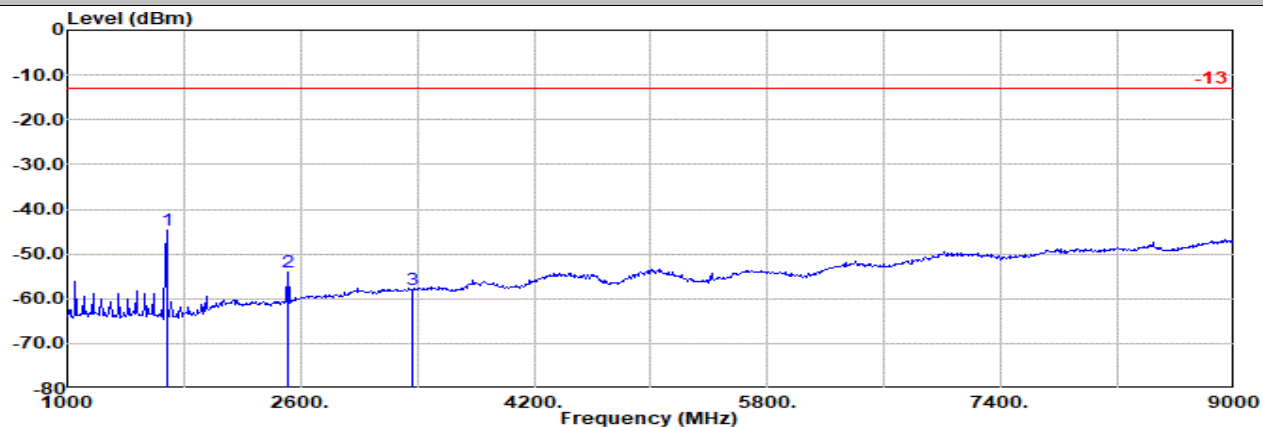


Ant. 1

Part 22H Mode 1

GPRS 850 CH189

M

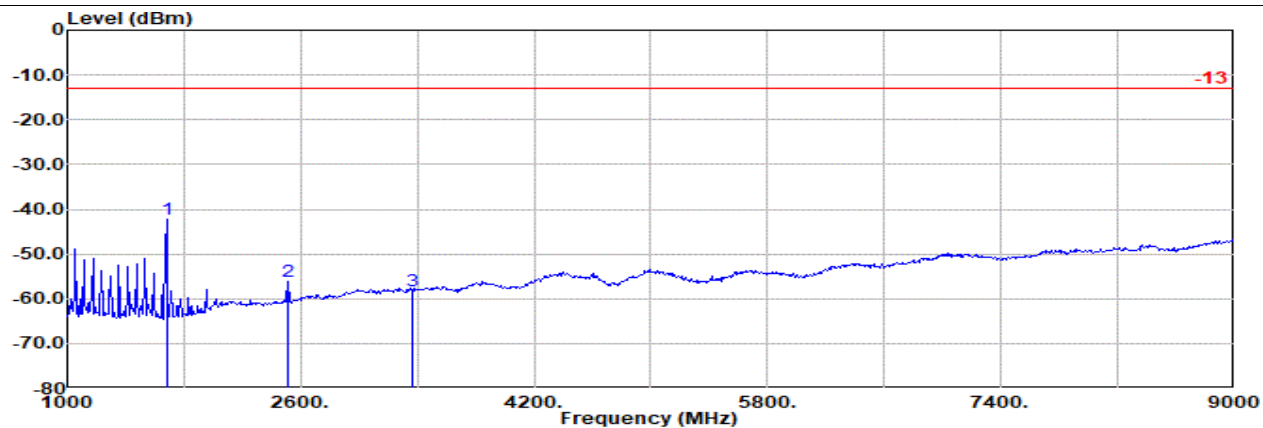


Site : 03CH11-HY

Condition: -13 3m 9120D\_01620\_230817 Horizontal

: GPRS 850 CH189

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin Pol	
				Factor	1					
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB
1	1680.00	-44.67	RMS	25.30	-28.33	0.32	-95.23	53.27	-13.00	-31.67 Horizontal
2	2512.00	-53.93	RMS	27.82	-26.32	0.21	-95.23	39.59	-13.00	-40.93 Horizontal
3	3360.00	-57.98	RMS	29.58	-25.00	0.24	-95.23	32.43	-13.00	-44.98 Horizontal



Site : 03CH11-HY

Condition: -13 3m 9120D\_01620\_230817 Vertical

: GPRS 850 CH189

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin Pol	
				Factor	1					
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB
1	1680.00	-42.14	RMS	25.30	-28.33	0.32	-95.23	55.80	-13.00	-29.14 Vertical
2	2512.00	-56.17	RMS	27.82	-26.32	0.21	-95.23	37.35	-13.00	-43.17 Vertical
3	3360.00	-58.13	RMS	29.58	-25.00	0.24	-95.23	32.28	-13.00	-45.13 Vertical

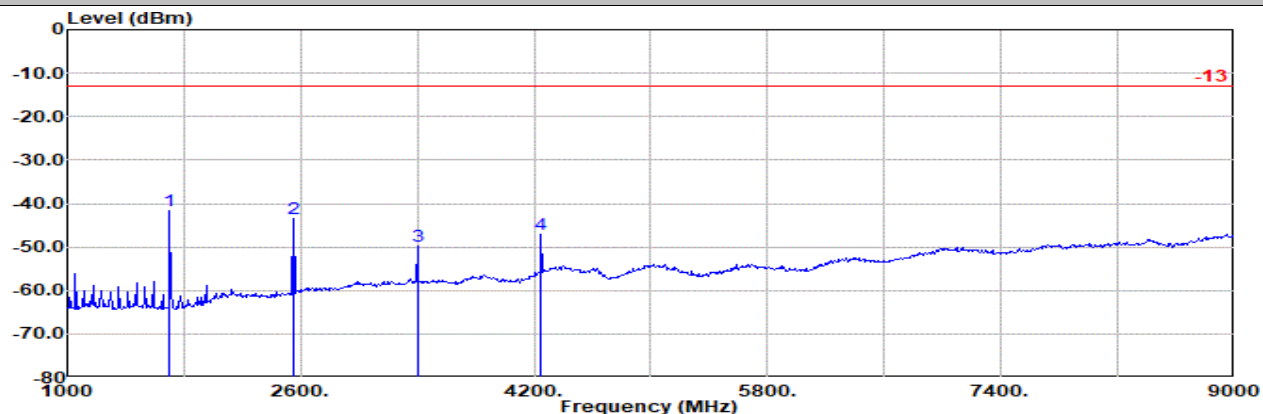


## Ant. 1

## Part 22H Mode 1

## GPRS 850 CH251

## H

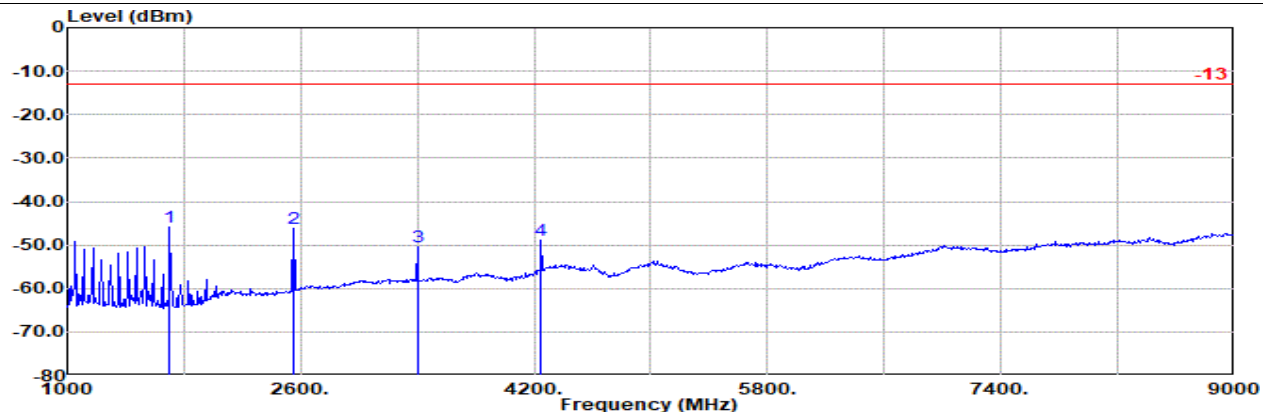


Site : 03CH11-HY

Condition: -13 3m 9120D\_01620\_230817 Horizontal

: GPRS 850 CH251

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit dBm	Margin	Pol
				Factor	1					
1	1704.00	-41.53	RMS	25.10	-28.26	0.30	-95.23	56.56	-13.00	-28.53 Horizontal
2	2552.00	-43.56	RMS	28.00	-26.27	0.21	-95.23	49.73	-13.00	-30.56 Horizontal
3	3400.00	-49.70	RMS	29.50	-24.94	0.23	-95.23	40.74	-13.00	-36.70 Horizontal
4	4248.00	-47.02	RMS	31.30	-23.20	0.31	-95.23	39.80	-13.00	-34.02 Horizontal



Site : 03CH11-HY

Condition: -13 3m 9120D\_01620\_230817 Vertical

: GPRS 850 CH251

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit dBm	Margin	Pol
				Factor	1					
1	1704.00	-46.00	RMS	25.10	-28.26	0.30	-95.23	52.09	-13.00	-33.00 Vertical
2	2552.00	-46.16	RMS	28.00	-26.27	0.21	-95.23	47.13	-13.00	-33.16 Vertical
3	3400.00	-50.33	RMS	29.50	-24.94	0.23	-95.23	40.11	-13.00	-37.33 Vertical
4	4248.00	-48.90	RMS	31.30	-23.20	0.31	-95.23	37.92	-13.00	-35.90 Vertical

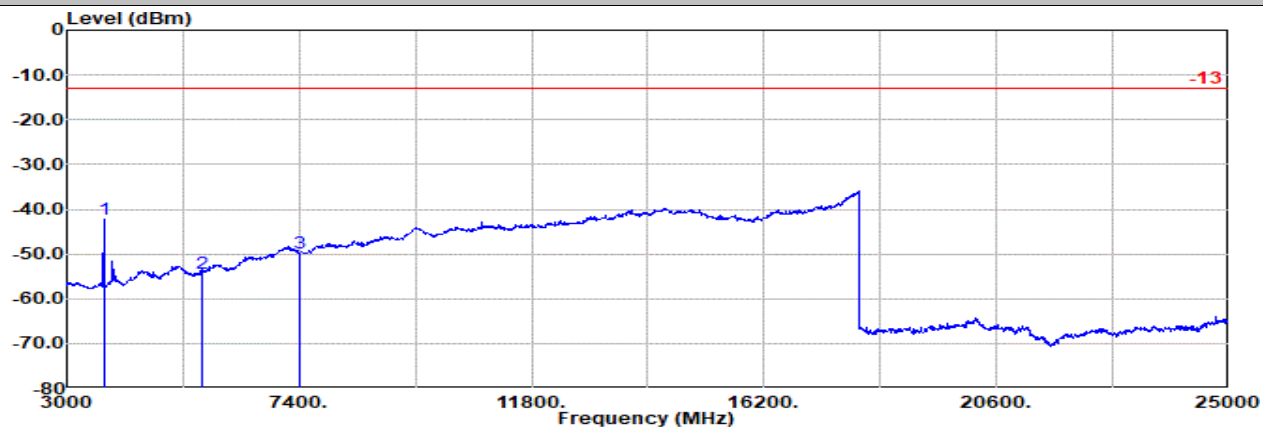


Ant. 1

Part 24E Mode 1

GPRS 1900 CH512

L

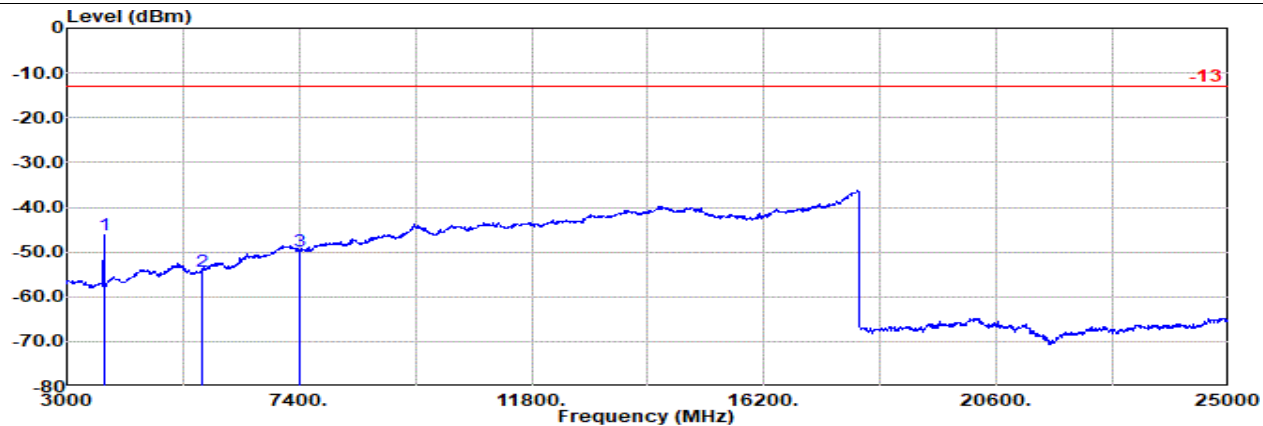


Site : 03CH11-HY

Condition: -13 1m SHF\_1224\_230710 Horizontal

: GPRS 1900 Ch512

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit g	Margin Pol	
				Factor	1					
1	3705.00	-42.23	RMS	29.64	-24.41	0.75	-95.23	47.02	-13.00	-29.23 Horizontal
2	5557.00	-54.26	RMS	32.91	-22.15	0.51	-95.23	29.70	-13.00	-41.26 Horizontal
3	7410.00	-49.72	RMS	36.38	-20.91	0.64	-95.23	29.40	-13.00	-36.72 Horizontal



Site : 03CH11-HY

Condition: -13 1m SHF\_1224\_230710 Vertical

: GPRS 1900 Ch512

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit g	Margin Pol	
				Factor	1					
1	3705.00	-46.08	RMS	29.64	-24.41	0.75	-95.23	43.17	-13.00	-33.08 Vertical
2	5557.00	-54.26	RMS	32.91	-22.15	0.51	-95.23	29.70	-13.00	-41.26 Vertical
3	7410.00	-49.93	RMS	36.38	-20.91	0.64	-95.23	29.19	-13.00	-36.93 Vertical

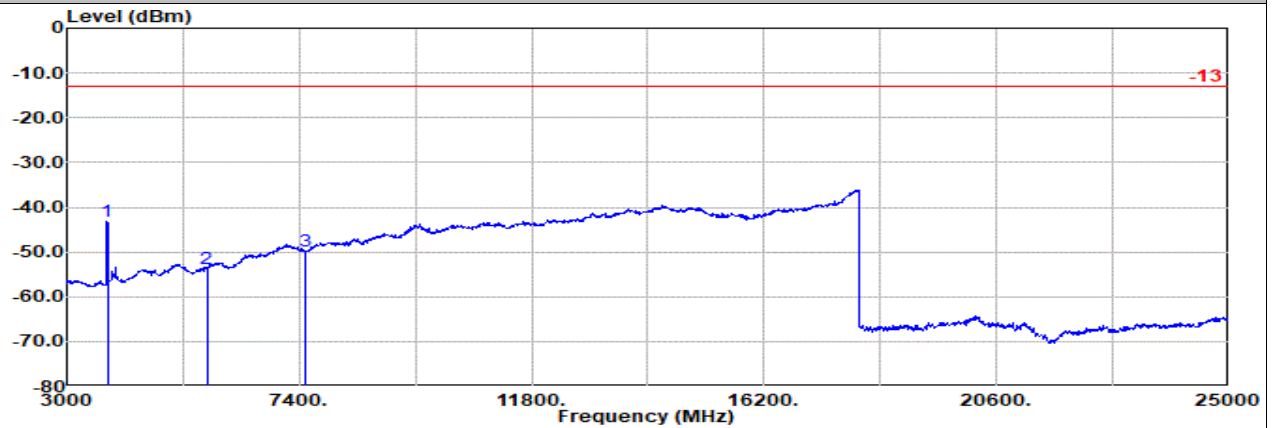


Ant. 1

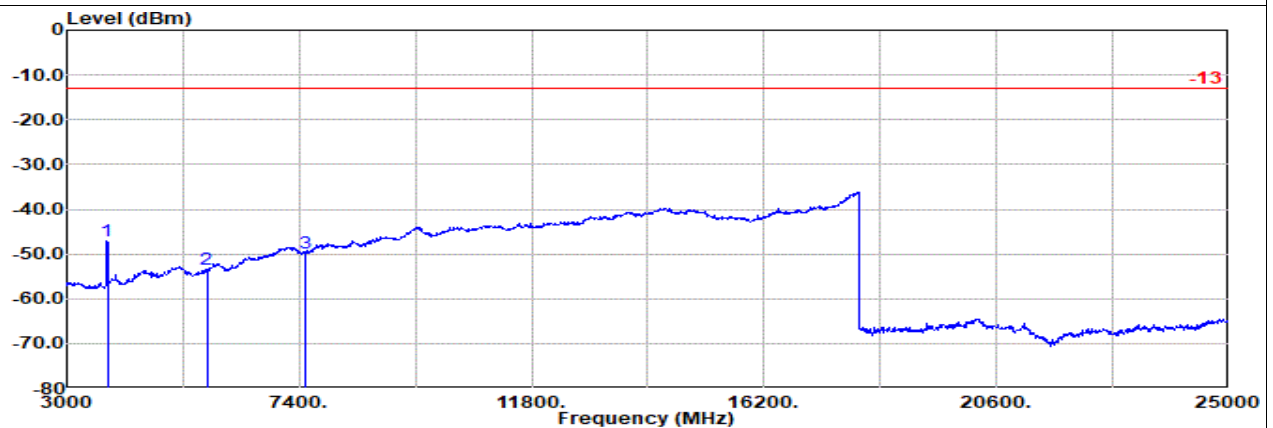
Part 24E Mode 1

GPRS 1900 CH661

M



	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin	Pol
				Factor	1					
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB
1	3765.00	-43.09	RMS	30.15	-24.24	0.69	-95.23	45.54	-13.00	-30.09
2	5648.00	-53.75	RMS	33.10	-22.11	0.49	-95.23	30.00	-13.00	-40.75
3	7530.00	-49.75	RMS	36.08	-20.70	0.58	-95.23	29.52	-13.00	-36.75



	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin	Pol
				Factor	1					
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB
1	3765.00	-47.14	RMS	30.15	-24.24	0.69	-95.23	41.49	-13.00	-34.14
2	5648.00	-53.54	RMS	33.10	-22.11	0.49	-95.23	30.21	-13.00	-40.54
3	7530.00	-49.74	RMS	36.08	-20.70	0.58	-95.23	29.53	-13.00	-36.74

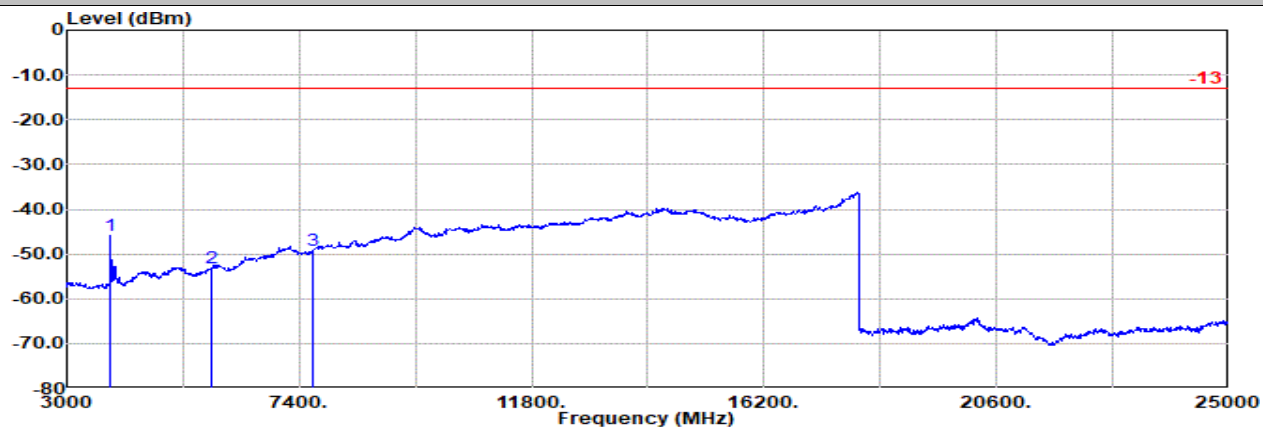


## Ant. 1

## Part 24E Mode 1

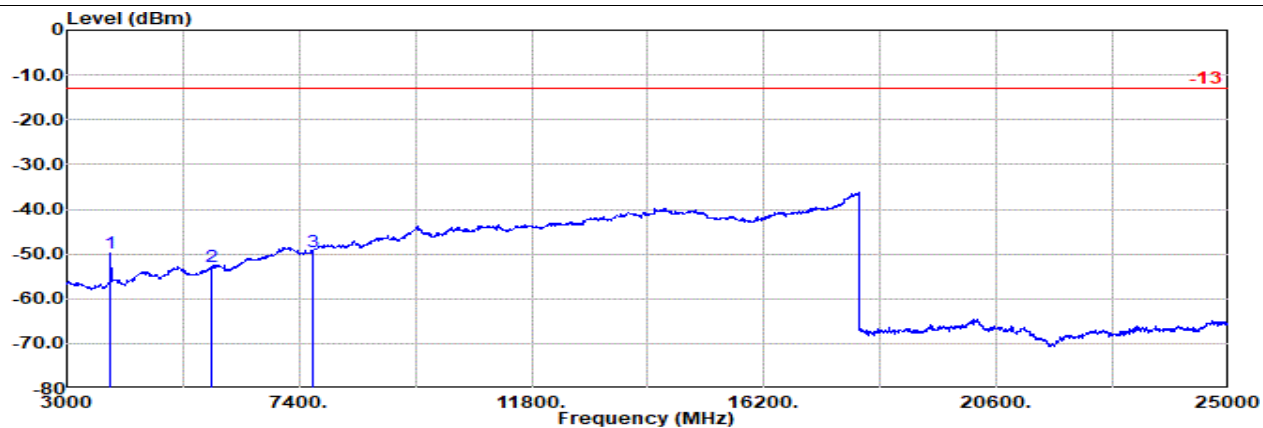
## GPRS 1900 CH810

## H



Site : 03CH11-HY  
Condition: -13 1m SHF\_1224\_230710 Horizontal  
: GPRS 1900 Ch810

	Freq	Level	Detector	Ant Amp\Cb		Filter	EIRPCF	Readin	Limit	Margin	Pol
				Factor	1						
	MHz	dBm			dB	dB	dB	dBuV	dBm	dB	
1	3825.00	-45.99	RMS	30.70	-24.12	0.66	-95.23	42.00	-13.00	-32.99	Horizontal
2	5738.00	-53.01	RMS	33.65	-22.09	0.50	-95.23	30.16	-13.00	-40.01	Horizontal
3	7650.00	-49.26	RMS	36.30	-20.57	0.55	-95.23	29.69	-13.00	-36.26	Horizontal



Site : 03CH11-HY  
Condition: -13 1m SHF\_1224\_230710 Vertical  
: GPRS 1900 Ch810

	Freq	Level	Detector	Ant Amp\Cb		Filter	EIRPCF	Readin	Limit	Margin	Pol
				Factor	1						
	MHz	dBm			dB	dB	dB	dBuV	dBm	dB	
1	3825.00	-49.72	RMS	30.70	-24.12	0.66	-95.23	38.27	-13.00	-36.72	Vertical
2	5738.00	-52.88	RMS	33.65	-22.09	0.50	-95.23	30.29	-13.00	-39.88	Vertical
3	7650.00	-49.37	RMS	36.30	-20.57	0.55	-95.23	29.58	-13.00	-36.37	Vertical

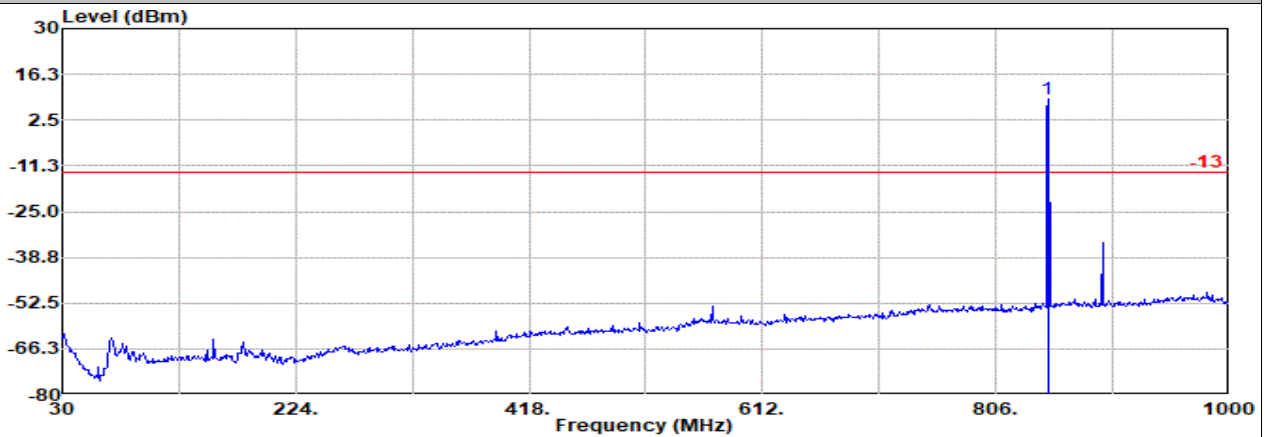


Ant. 1

Part 22H Mode 1

GPRS 850 CH251

H



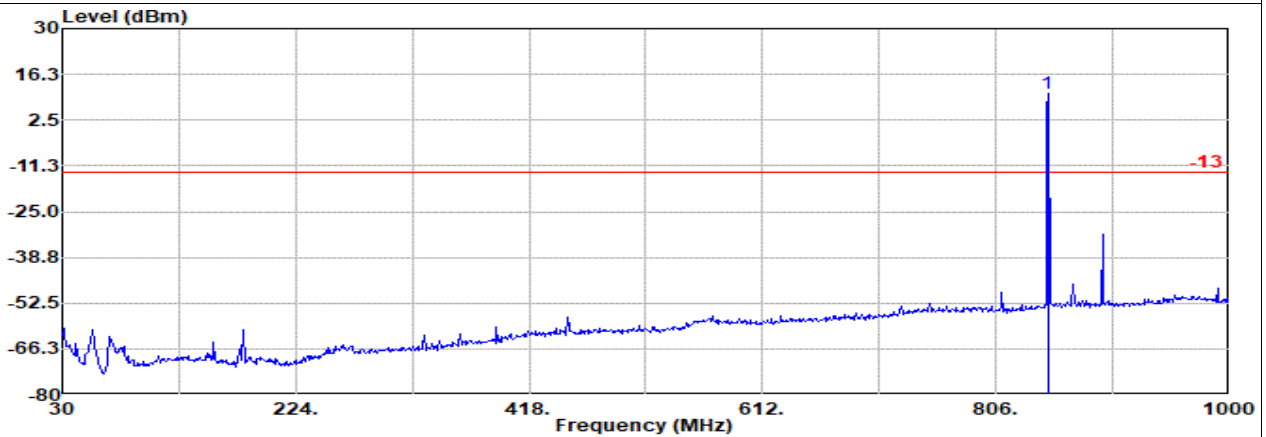
Site : 03CH11-HY

Condition: -13 3m Bilog\_35414\_231007 Horizontal

: GPRS 850 CH251

: #1 is fundamental signal which can be ignored.

1	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm									
1	848.80	8.77	RMS	28.95	3.73	0.00	-95.23	71.32	-13.00	21.77	Horizontal



Site : 03CH11-HY

Condition: -13 3m Bilog\_35414\_231007 Vertical

: GPRS 850 CH251

: #1 is fundamental signal which can be ignored.

1	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm									
1	848.80	10.59	RMS	28.95	3.73	0.00	-95.23	73.14	-13.00	23.59	Vertical

**Remark:** #1 is fundamental signal which can be ignored.