



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), 27

The product was received on Mar. 27, 2024 and testing was performed from Apr. 24, 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 given in ANSI 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
FG432616B	01	Initial issue of report	Jul. 30, 2024
FG432616B	02	Revise Antenna Type 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 (Band 5)	Pass	
	§27.50 (b)(10) §27.50 (c)(10)	Effective Radiated Power (Band 12) (Band 13)		
	§24.232 (c)	Equivalent Isotropic Radiated Power (Band 2) (Band 25)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (Band 4)		
-	§24.232 (d) §27.50 (d)(5)	Peak-to-Average Ratio	-	See Note
-	§2.1049	Occupied Bandwidth	-	See Note
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (c)(2)(4) §27.53 (g) §27.53 (h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 25)	-	See Note



Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (c)(2) §27.53 (g) §27.53 (h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 25)	-	See Note
-	§2.1055 §22.355 §24.235 §27.54	Frequency Stability Temperature & Voltage	-	See Note
4.2	§2.1053 §22.917 (a) §24.238 (a) §27.53 (c)(2) §27.53 (f) §27.53 (g) §27.53 (h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 25)	Pass	12.22 dB under the limit at 1568.00 MHz

Remark:

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

Conformity Assessment Condition:

1. 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/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. 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: Michelle Chen**



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
General Specs GSM/LTE, Bluetooth - LE, Wi-Fi 2.4GHz 802.11b/g/n, and NFC.	
Antenna Type WWAN: FPC Antenna WLAN: FPC Antenna Bluetooth-LE: Internal Antenna NFC: Loop Antenna	
Antenna Gain	LTE Band 2 : 3.2 LTE Band 4 : 2.9 LTE Band 5 : 2.9 LTE Band 12 : 3.9 LTE Band 13 : 2.8 LTE Band 25 : 3.2

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

Support band and evaluated information	
Supported band	B2, B4, B5, B12, B13, B25
Evaluated and Tested band	B2, B4, B5, B12, B13, B25
Band covered information	Wider operating frequency band range covers narrower one when the power is worse as follows: ■ B25 cover B2 (Part 24)

band Power Class		
	PC3	-
B2	V	-
B4	V	-
B5	V	-
B12	V	-
B13	V	-
B25	V	-

1.2 Modification of EUT

No modifications made to the EUT during the testing.



1.3 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. TH03-HY
Test Engineer	Ekko You
Temperature (°C)	22.1~23.7
Relative Humidity (%)	52.2~58.5

Test Site	Sporton International Inc. Wensan Laboratory.
Test Site Location	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
Test Site No.	Sporton Site No. 03CH11-HY (TAF Code: 3786)
Test Engineer	Yuan Lee, Fu Chen and Troye Hsieh
Temperature (°C)	19.2~21.5
Relative Humidity (%)	52.9~66.8
Remark	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 of 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), 27
- ♦ 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 listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

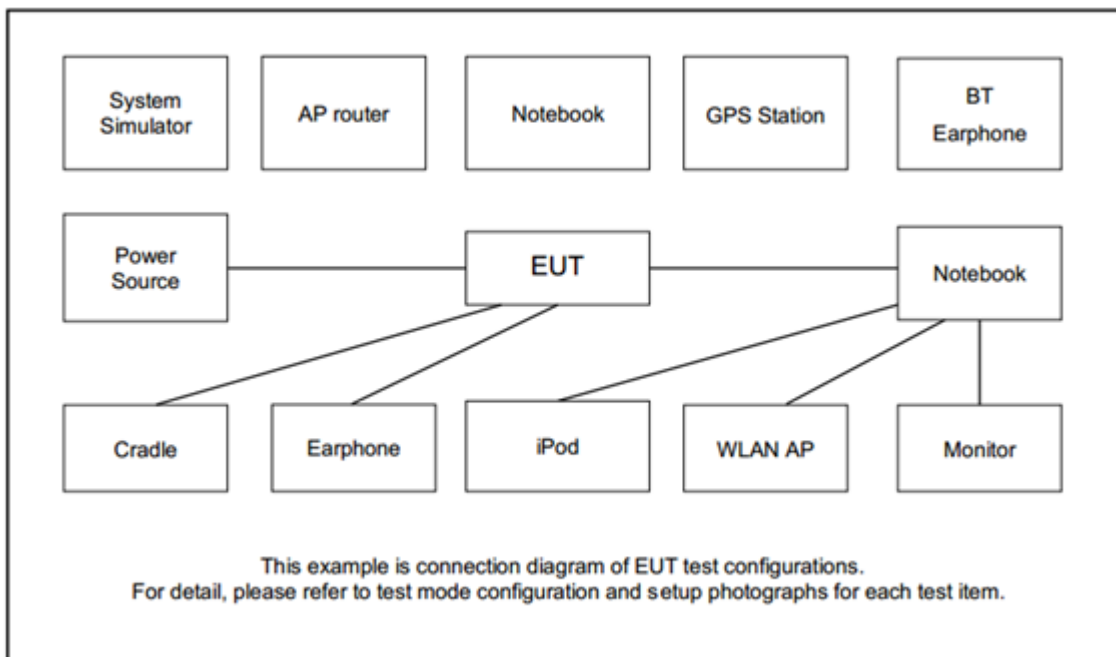
Modulation Type	Modulation
A	QPSK
B	16QAM

Test Item	Modulation Type	Bandwidth	RB Size	Channel
Conducted Power	A, B	All	1, Half, Full	L, M, H
EIRP	A, B	All	1, Half, Full	L, M, H
RSE	A	5MHz for Band 13	1RB	L, M, H
		Max for others		

Remark:

1. Evaluated all the transmitter signal and reporting worst-case configuration among all modulation types.
2. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst-case emissions are reported.

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

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

LTE Band 2 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	18700	18900	19100
	Frequency	1860	1880	1900
15	Channel	18675	18900	19125
	Frequency	1857.5	1880	1902.5
10	Channel	18650	18900	19150
	Frequency	1855	1880	1905
5	Channel	18625	18900	19175
	Frequency	1852.5	1880	1907.5
3	Channel	18615	18900	19185
	Frequency	1851.5	1880	1908.5
1.4	Channel	18607	18900	19193
	Frequency	1850.7	1880	1909.3

LTE Band 4 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20050	20175	20300
	Frequency	1720	1732.5	1745
15	Channel	20025	20175	20325
	Frequency	1717.5	1732.5	1747.5
10	Channel	20000	20175	20350
	Frequency	1715	1732.5	1750
5	Channel	19975	20175	20375
	Frequency	1712.5	1732.5	1752.5
3	Channel	19965	20175	20385
	Frequency	1711.5	1732.5	1753.5
1.4	Channel	19957	20175	20393
	Frequency	1710.7	1732.5	1754.3



LTE Band 5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	20450	20525	20600
	Frequency	829	836.5	844
5	Channel	20425	20525	20625
	Frequency	826.5	836.5	846.5
3	Channel	20415	20525	20635
	Frequency	825.5	836.5	847.5
1.4	Channel	20407	20525	20643
	Frequency	824.7	836.5	848.3

LTE Band 12 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23060	23095	23130
	Frequency	704	707.5	711
5	Channel	23035	23095	23155
	Frequency	701.5	707.5	713.5
3	Channel	23025	23095	23165
	Frequency	700.5	707.5	714.5
1.4	Channel	23017	23095	23173
	Frequency	699.7	707.5	715.3



LTE Band 13 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	-	23230	-
	Frequency	-	782	-
5	Channel	23205	23230	23255
	Frequency	779.5	782	784.5

LTE Band 25 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	26140	26340	26590
	Frequency	1860	1880	1905
15	Channel	26115	26340	26615
	Frequency	1857.5	1880	1907.5
10	Channel	26090	26340	26640
	Frequency	1855	1880	1910
5	Channel	26065	26340	26665
	Frequency	1852.5	1880	1912.5
3	Channel	26055	26340	26675
	Frequency	1851.5	1880	1913.5
1.4	Channel	26047	26340	26683
	Frequency	1850.7	1880	1914.3

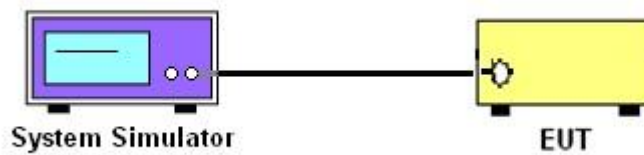
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of 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 Measurement and ERP/EIRP Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output 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 LTE Band 5

The ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12, Band 13

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2, Band 25

The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4

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 was connected to the system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

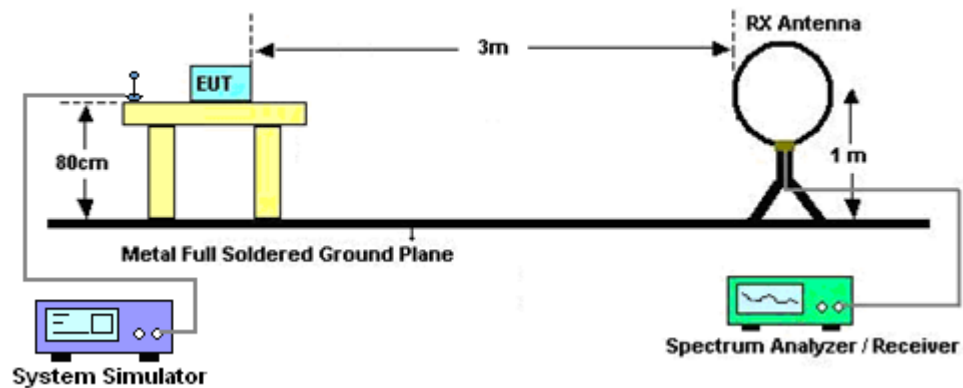
4 Radiated Test Items

4.1 Measuring Instruments

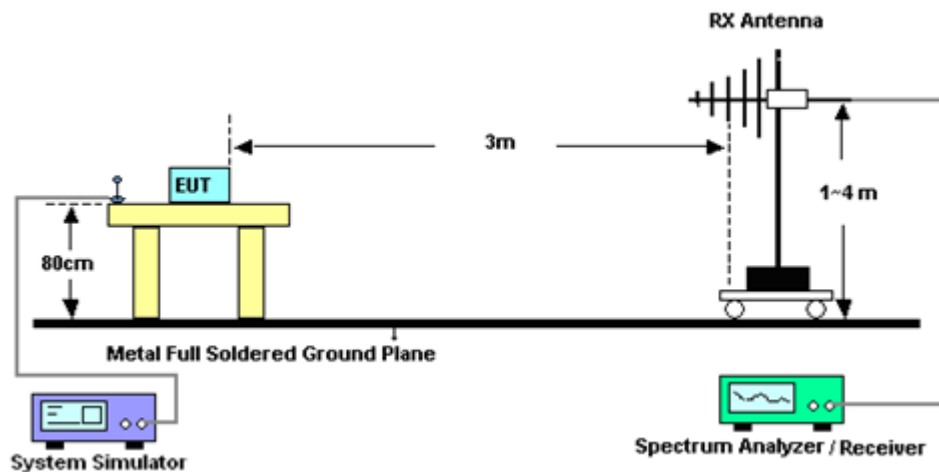
See list of measuring instruments of this test report.

4.1.1 Test Setup

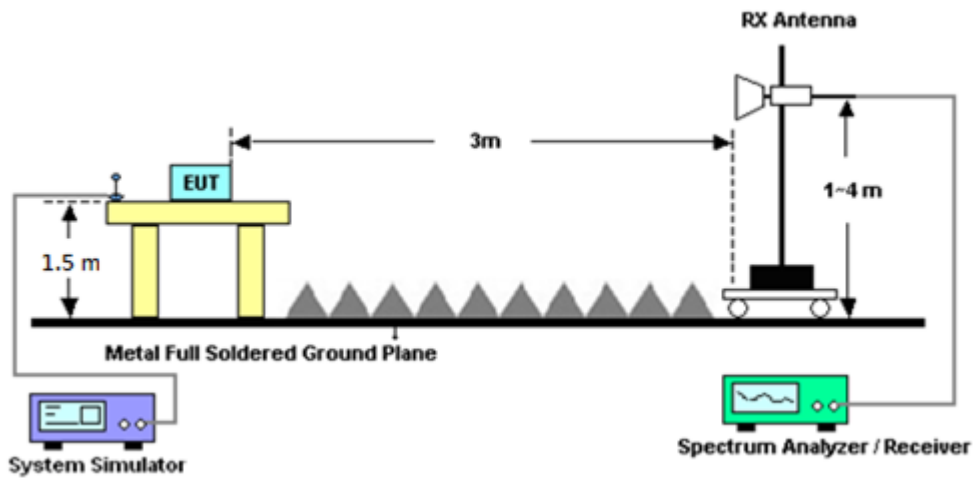
For radiated test below 30MHz



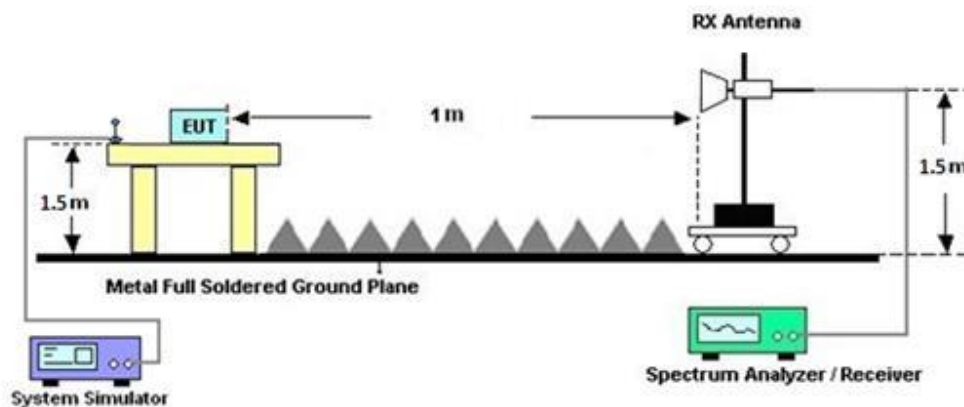
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



4.1.2 Test Result of Radiated Test

Please refer to Appendix B.

Note:

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was 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.



4.2 Radiated Spurious Emission Measurement

4.2.1 Description of Radiated Spurious Emission Measurement

The radiated spurious emission was measured by substitution method according to ANSI C63.26-2015. 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.

For LTE Band 13

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.2.2 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 was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was 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 the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the 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.
$$\text{Field Strength Level (dBm)} = \text{Spectrum Reading (dBm)} + \text{Antenna Factor} + \text{Cable Loss} + \text{Read Level} - \text{Preamplifier Factor}.$$
8.
$$\text{ERP (dBm)} = \text{EIRP (dBm)} - 2.15$$
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.



5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
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	TECPEL	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	WHKX12-900-1000-15000-6 OSS	SN12	1GHz High Pass Filter	Sep. 11, 2023	Jun. 03, 2024~ Jul. 02, 2024	Sep. 10, 2024	Radiation (03CH11-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-6 OSS	SN3	3GHz High Pass Filter	Sep. 11, 2023	Jun. 03, 2024~ Jul. 02, 2024	Sep. 10, 2024	Radiation (03CH11-HY)
Base Station (Measure)	Anritsu	MT8821C	6201664755	LTE FDD/TDD(with4), LTE-4CC DLCA/2CC ULCA, CatM1/NB1/NB2	Jul. 18, 2023	Apr. 24, 2024~ Apr. 25, 2024	Jul. 17, 2024	Conducted (TH03-HY)
Coupler	Warison	20dB 25W SMA Directional Coupler	#B	1-18GHz	Jan. 08, 2024	Apr. 24, 2024~ Apr. 25, 2024	Jan. 07, 2025	Conducted (TH03-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)

LTE Band 2 Maximum Average Power [dBm] (GT - LC = 3.2 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	22.14	22.38	22.47	25.67	0.3690
20	1	5		22.09	22.34	22.32		
20	6	0		22.12	22.41	22.41		
20	1	0	16-QAM	21.86	22.27	22.31	25.83	0.3828
20	1	5		21.82	22.21	22.16		
20	5	0		22.34	22.61	22.63		
15	1	0	QPSK	22.21	22.48	22.48	25.72	0.3733
15	1	5		22.18	22.45	22.52		
15	6	0		22.25	22.44	22.45		
15	1	0	16-QAM	22.18	22.36	22.35	25.98	0.3963
15	1	5		22.14	22.34	22.48		
15	5	0		22.51	22.78	22.52		
10	1	0	QPSK	22.15	22.51	22.54	25.74	0.3750
10	1	5		22.18	22.53	22.47		
10	6	0		22.19	22.42	22.52		
10	1	0	16-QAM	22.03	22.21	22.36	25.92	0.3908
10	1	5		22.04	22.26	22.34		
10	5	0		22.32	22.68	22.72		
5	1	0	QPSK	22.37	22.66	22.48	25.93	0.3917
5	1	5		22.41	22.71	22.54		
5	6	0		22.35	22.73	22.51		
5	1	0	16-QAM	22.21	22.49	22.34	25.98	0.3963
5	1	5		22.14	22.43	22.29		
5	5	0		22.61	22.78	22.63		
3	1	0	QPSK	22.46	22.79	22.84	26.04	0.4018
3	1	5		22.48	22.84	22.74		
3	6	0		22.36	22.62	22.64		
3	1	0	16-QAM	22.51	22.90	22.88	26.16	0.4130
3	1	5		22.52	22.96	22.83		
3	5	0		22.12	22.54	22.49		
1.4	1	0	QPSK	22.41	22.77	22.73	25.99	0.3972
1.4	1	5		22.39	22.79	22.71		
1.4	6	0		22.23	22.56	22.51		
1.4	1	0	16-QAM	22.51	22.78	22.75	25.98	0.3963
1.4	1	5		22.42	22.75	22.74		
1.4	5	0		22.16	22.42	22.44		
Limit	EIRP < 2W			Result			Pass	



LTE Band 25 Maximum Average Power [dBm] (GT - LC = 3.2 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	22.73	22.92	23.08	26.39	0.4355
20	1	5		22.71	22.93	23.15		
20	6	0		22.61	23.00	23.19		
20	1	0	16-QAM	22.42	22.79	22.93	26.57	0.4539
20	1	5		22.41	22.83	22.98		
20	5	0		22.81	23.15	23.37		
15	1	0	QPSK	22.71	22.88	23.24	26.47	0.4436
15	1	5		22.66	22.89	23.26		
15	6	0		22.78	23.06	23.27		
15	1	0	16-QAM	22.38	22.74	23.01	26.52	0.4487
15	1	5		22.42	22.76	23.04		
15	5	0		23.07	23.31	23.32		
10	1	0	QPSK	22.72	23.15	23.11	26.41	0.4375
10	1	5		22.64	23.00	23.06		
10	6	0		22.74	23.18	23.21		
10	1	0	16-QAM	22.36	22.74	22.92	26.78	0.4764
10	1	5		22.32	22.76	22.96		
10	5	0		22.84	23.11	23.58		
5	1	0	QPSK	22.73	23.03	23.06	26.32	0.4285
5	1	5		22.75	23.02	23.10		
5	6	0		22.71	23.02	23.12		
5	1	0	16-QAM	22.41	22.86	23.11	26.33	0.4295
5	1	5		22.34	22.72	23.08		
5	5	0		22.86	23.13	23.03		
3	1	0	QPSK	22.87	23.07	23.14	26.37	0.4335
3	1	5		22.81	23.11	23.17		
3	6	0		22.52	22.89	23.05		
3	1	0	16-QAM	22.90	23.34	23.09	26.56	0.4529
3	1	5		22.88	23.36	23.12		
3	5	0		22.44	22.79	22.91		
1.4	1	0	QPSK	22.82	23.16	23.19	26.45	0.4416
1.4	1	5		22.84	23.25	23.17		
1.4	6	0		22.57	22.96	22.91		
1.4	1	0	16-QAM	22.84	23.19	23.24	26.44	0.4406
1.4	1	5		22.83	23.24	23.16		
1.4	5	0		22.47	22.89	22.83		
Limit	EIRP < 2W			Result			Pass	



LTE Band 4 Maximum Average Power [dBm] (GT - LC = 2.9 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	22.35	22.31	22.29	25.33	0.3412
20	1	5		22.41	22.29	22.26		
20	6	0		22.36	22.43	22.37		
20	1	0	16-QAM	22.19	22.56	22.36	25.46	0.3516
20	1	5		22.16	22.54	22.29		
20	5	0		22.48	22.37	22.42		
15	1	0	QPSK	22.33	22.24	22.31	25.32	0.3404
15	1	5		22.31	22.29	22.27		
15	6	0		22.42	22.38	22.29		
15	1	0	16-QAM	22.21	22.02	22.24	25.57	0.3606
15	1	5		22.13	22.06	22.27		
15	5	0		22.61	22.67	22.32		
10	1	0	QPSK	22.34	22.24	22.23	25.24	0.3342
10	1	5		22.29	22.25	22.21		
10	6	0		22.31	22.29	22.27		
10	1	0	16-QAM	22.09	22.05	22.35	25.32	0.3404
10	1	5		22.03	22.07	22.34		
10	5	0		22.42	22.36	22.38		
5	1	0	QPSK	22.25	22.28	22.26	25.22	0.3327
5	1	5		22.32	22.31	22.22		
5	6	0		22.28	22.27	22.21		
5	1	0	16-QAM	22.09	22.07	22.27	25.45	0.3508
5	1	5		22.05	22.06	22.21		
5	5	0		22.55	22.49	22.41		
3	1	0	QPSK	22.56	22.43	22.47	25.46	0.3516
3	1	5		22.55	22.48	22.46		
3	6	0		22.31	22.36	22.37		
3	1	0	16-QAM	22.54	22.44	22.72	25.62	0.3648
3	1	5		22.52	22.47	22.66		
3	5	0		22.34	22.27	22.35		
1.4	1	0	QPSK	22.53	22.44	22.43	25.45	0.3508
1.4	1	5		22.55	22.46	22.41		
1.4	6	0		22.35	22.31	22.38		
1.4	1	0	16-QAM	22.51	22.51	22.52	25.49	0.3540
1.4	1	5		22.49	22.49	22.59		
1.4	5	0		22.34	22.33	22.44		
Limit	EIRP < 1W			Result			Pass	



LTE Band 5 Maximum Average Power [dBm] (GT - LC = 2.9 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	23.41	23.27	23.14	24.16	0.2606
10	1	5		23.39	23.24	23.18		
10	6	0		23.41	23.36	23.22		
10	1	0	16-QAM	23.36	23.16	23.16	24.47	0.2799
10	1	5		23.46	23.21	23.11		
10	5	0		23.72	23.66	23.64		
5	1	0	QPSK	23.43	23.19	23.23	24.19	0.2624
5	1	5		23.41	23.16	23.21		
5	6	0		23.44	23.24	23.31		
5	1	0	16-QAM	23.34	23.11	23.16	24.46	0.2793
5	1	5		23.27	23.09	23.21		
5	5	0		23.71	23.34	23.41		
3	1	0	QPSK	23.68	23.37	23.42	24.46	0.2793
3	1	5		23.71	23.41	23.39		
3	6	0		23.54	23.31	23.21		
3	1	0	16-QAM	23.78	23.37	23.51	24.53	0.2838
3	1	5		23.73	23.51	23.46		
3	5	0		23.37	23.07	23.12		
1.4	1	0	QPSK	23.69	23.37	23.37	24.44	0.2780
1.4	1	5		23.66	23.39	23.41		
1.4	6	0		23.52	23.21	23.19		
1.4	1	0	16-QAM	23.72	23.32	23.39	24.47	0.2799
1.4	1	5		23.71	23.36	23.37		
1.4	5	0		23.34	23.13	23.21		
Limit	ERP < 7W			Result			Pass	



LTE Band 12 Maximum Average Power [dBm] (GT - LC = 3.9 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	22.15	22.29	22.14	24.11	0.2576
10	1	5		22.19	22.26	22.09		
10	6	0		22.13	22.36	22.23		
10	1	0	16-QAM	22.04	22.08	22.08	24.13	0.2588
10	1	5		22.07	22.04	22.07		
10	5	0		22.21	22.31	22.38		
5	1	0	QPSK	22.06	22.08	22.11	23.96	0.2489
5	1	5		22.11	22.17	22.04		
5	6	0		22.13	22.16	22.21		
5	1	0	16-QAM	22.13	22.10	22.05	24.26	0.2667
5	1	5		22.09	22.12	22.07		
5	5	0		22.51	22.49	22.37		
3	1	0	QPSK	22.38	22.36	22.24	24.17	0.2612
3	1	5		22.42	22.29	22.25		
3	6	0		22.09	22.24	22.11		
3	1	0	16-QAM	22.43	22.52	22.31	24.27	0.2673
3	1	5		22.39	22.37	22.27		
3	5	0		22.02	22.23	22.01		
1.4	1	0	QPSK	22.41	22.37	22.32	24.18	0.2618
1.4	1	5		22.32	22.41	22.43		
1.4	6	0		22.16	22.19	22.15		
1.4	1	0	16-QAM	22.25	22.39	22.34	24.17	0.2612
1.4	1	5		22.27	22.42	22.31		
1.4	5	0		22.13	22.31	22.17		
Limit	ERP < 3W			Result			Pass	



LTE Band 13 Maximum Average Power [dBm] (GT - LC = 2.8 dB)									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)	
10	1	0	QPSK	-	22.72	-	23.49	0.2234	
10	1	5			22.75				
10	6	0			22.84				
10	1	0	16-QAM		22.73		-	23.73	0.2360
10	1	5			22.71				
10	5	0			23.08				
5	1	0	QPSK	22.77	22.72	22.62	23.47	0.2223	
5	1	5		22.82	22.77	22.58			
5	6	0		22.76	22.78	22.59			
5	1	0	16-QAM	22.67	22.66	22.38	23.75	0.2371	
5	1	5		22.63	22.64	22.28			
5	5	0		23.09	23.10	22.79			
Limit	ERP < 3W			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	LTE B5	M	1664	-48.39	RMS	25.24	-28.38	0.34	-95.23	49.64	-13.00	-35.39	H	1
2	Part 24E	LTE B25	L	3705	-42.71	RMS	29.64	-24.41	0.75	-95.23	46.54	-13.00	-29.71	H	1
3	Part 27L	LTE B4	H	3480	-34.28	RMS	29.56	-24.85	0.89	-95.23	55.35	-13.00	-21.28	H	1
4	Part 27F	LTE B13	H	1568	-54.37	RMS	25.26	-28.68	0.44	-95.23	43.84	-42.15	-12.22	H	1
5	Part 27H	LTE B12	H	2119	-46.09	RMS	27.40	-26.85	0.15	-95.23	48.44	-13.00	-33.09	V	1

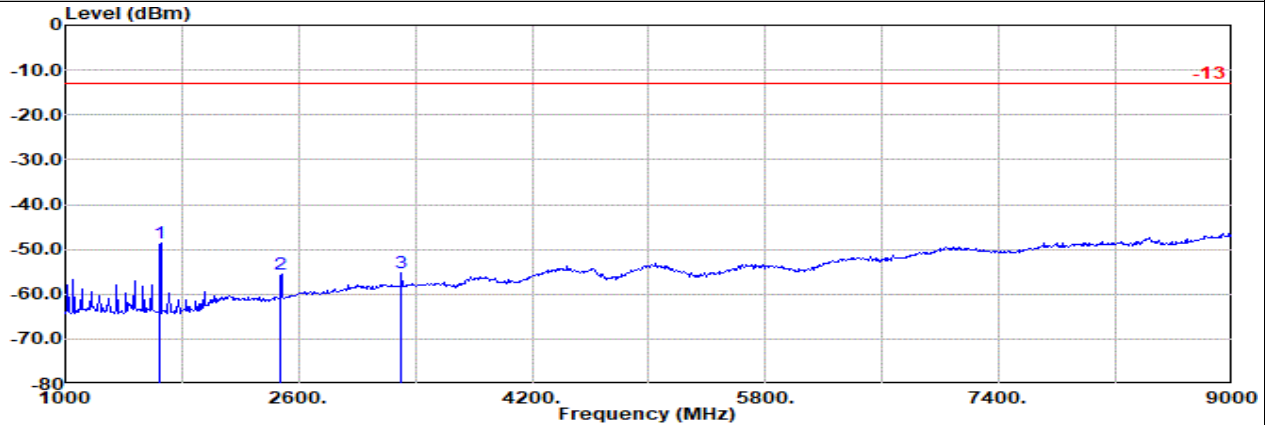


Ant. 1

Part 22H Mode 1

LTE B5 10M Ch20450 1RB0 QPSK

L

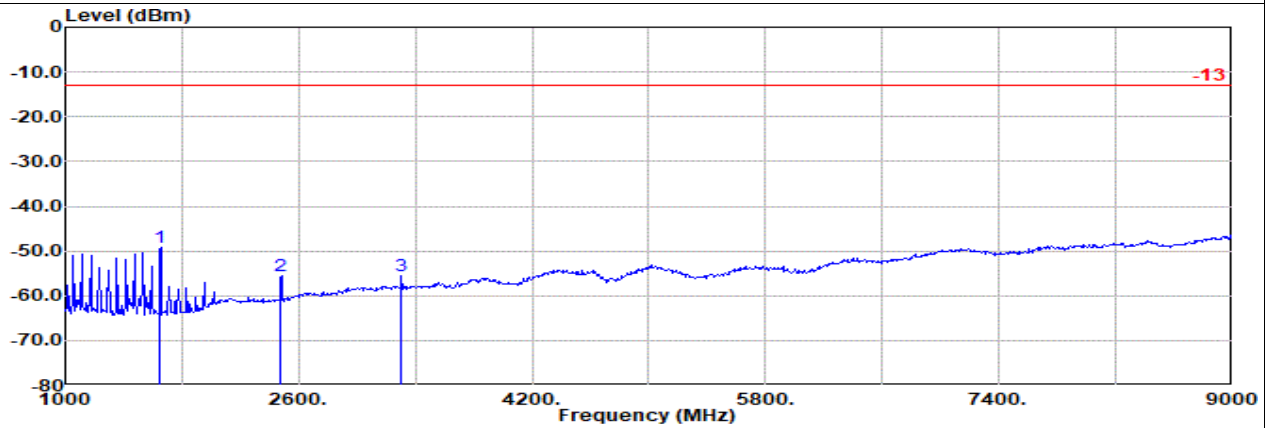


Site : 03CH11-HY

Condition: -13 3m 9120D_01620_230817 Horizontal

: LTE Band 5 10M Ch20450 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin		Pol
				Factor	1		g				
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1649.18	-48.69	RMS	25.21	-28.42	0.35	-95.23	49.40	-13.00	-35.69	Horizontal
2	2473.77	-55.57	RMS	27.64	-26.39	0.22	-95.23	38.19	-13.00	-42.57	Horizontal
3	3298.36	-55.13	RMS	29.60	-25.10	0.26	-95.23	35.34	-13.00	-42.13	Horizontal



Site : 03CH11-HY

Condition: -13 3m 9120D_01620_230817 Vertical

: LTE Band 5 10M Ch20450 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin		Pol
				Factor	1		g				
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1649.18	-49.09	RMS	25.21	-28.42	0.35	-95.23	49.00	-13.00	-36.09	Vertical
2	2473.77	-55.52	RMS	27.64	-26.39	0.22	-95.23	38.24	-13.00	-42.52	Vertical
3	3298.36	-55.55	RMS	29.60	-25.10	0.26	-95.23	34.92	-13.00	-42.55	Vertical

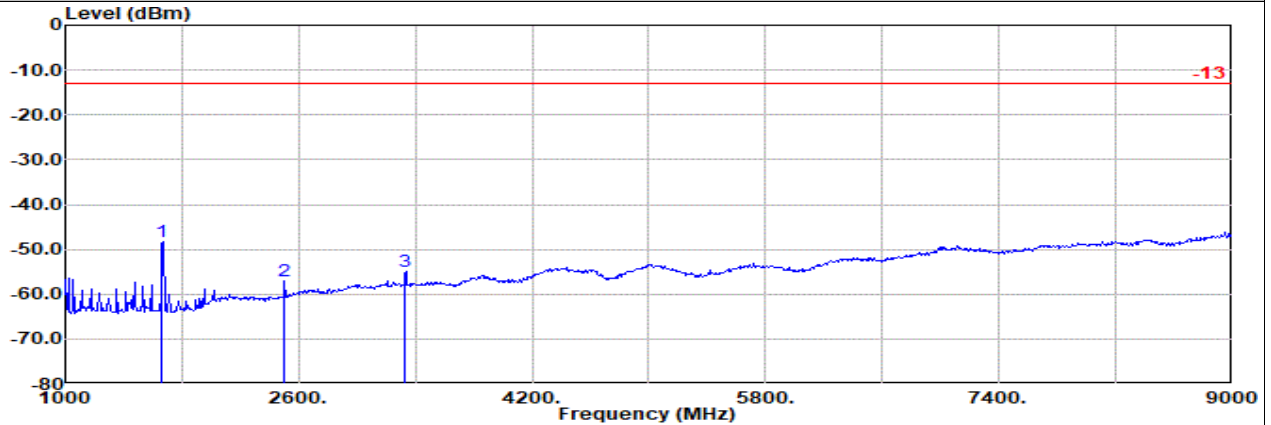


Ant. 1

Part 22H Mode 1

LTE B5 10M Ch20525 1RB0 QPSK

M

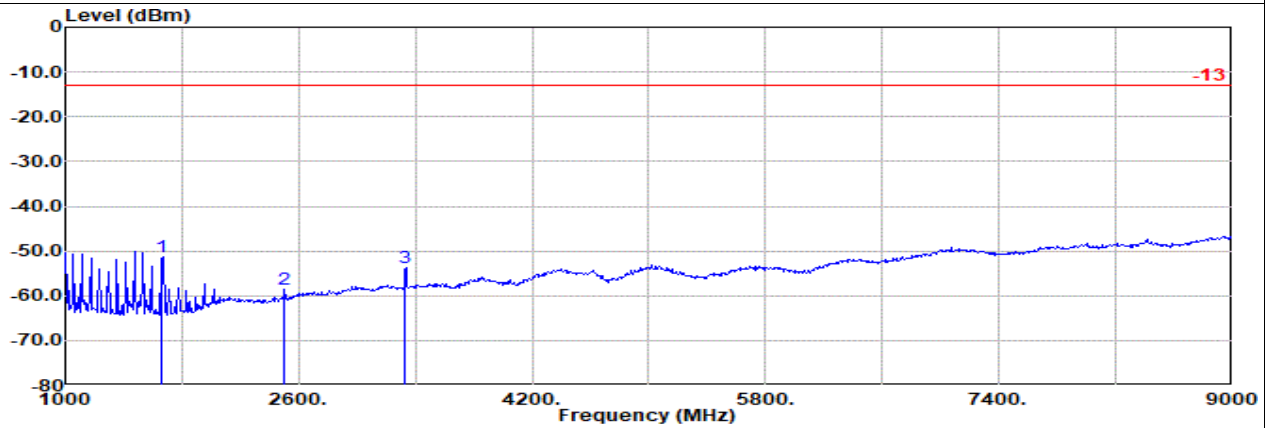


Site : 03CH11-HY

Condition: -13 3m 9120D_01620_230817 Horizontal

: LTE Band 5 10M Ch20525 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin	Pol
				Factor	1		g			
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB
1	1664.18	-48.39	RMS	25.24	-28.38	0.34	-95.23	49.64	-13.00	-35.39
2	2496.27	-57.10	RMS	27.70	-26.34	0.22	-95.23	36.55	-13.00	-44.10
3	3328.36	-54.92	RMS	29.60	-25.05	0.25	-95.23	35.51	-13.00	-41.92



Site : 03CH11-HY

Condition: -13 3m 9120D_01620_230817 Vertical

: LTE Band 5 10M Ch20525 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin	Pol
				Factor	1		g			
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB
1	1664.18	-51.25	RMS	25.24	-28.38	0.34	-95.23	46.78	-13.00	-38.25
2	2496.27	-58.44	RMS	27.70	-26.34	0.22	-95.23	35.21	-13.00	-45.44
3	3328.36	-53.86	RMS	29.60	-25.05	0.25	-95.23	36.57	-13.00	-40.86

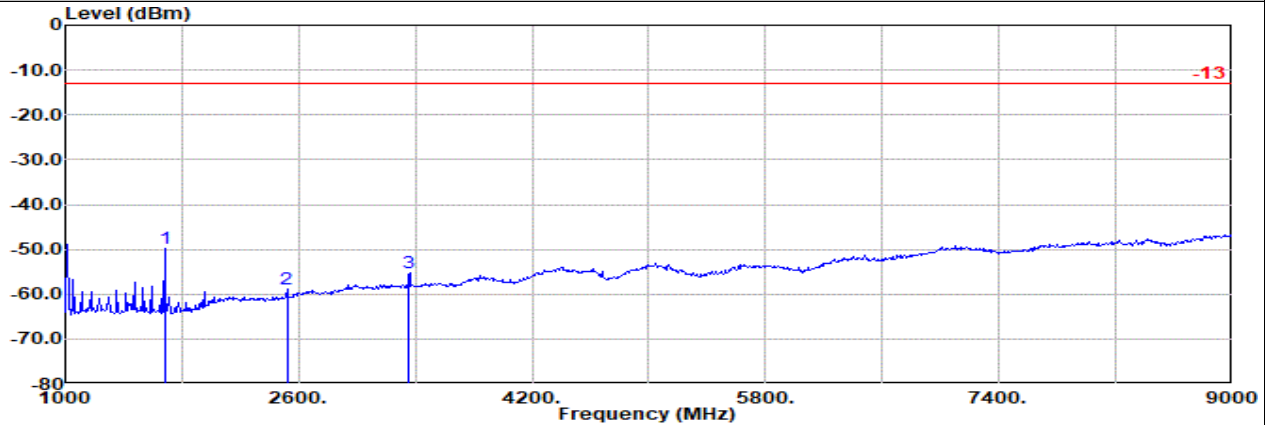


Ant. 1

Part 22H Mode 1

LTE B5 10M Ch20600 1RB0 QPSK

H

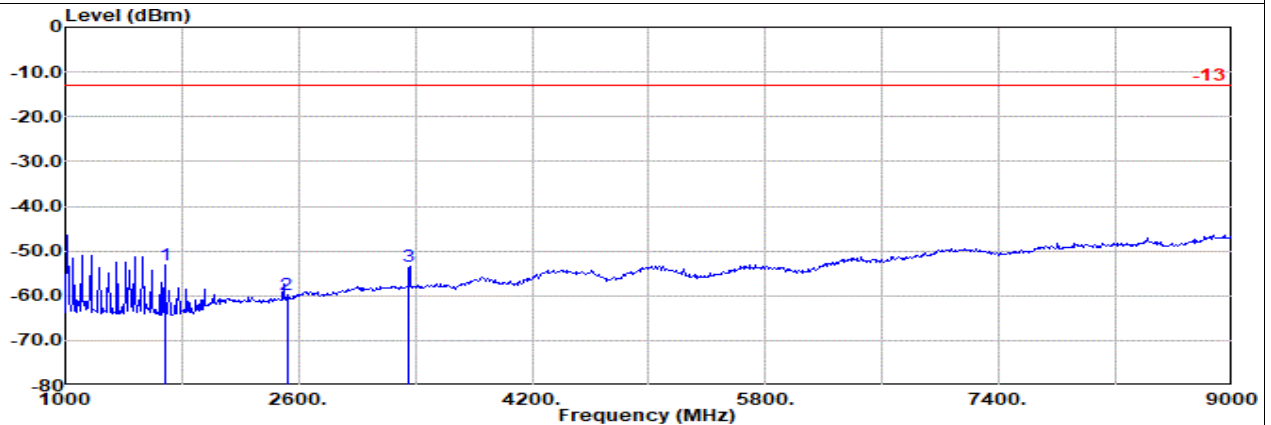


Site : 03CH11-HY

Condition: -13 3m 9120D_01620_230817 Horizontal

: LTE Band 5 10M Ch20600 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin	Pol
				Factor	1		g			
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB
1	1679.18	-49.78	RMS	25.30	-28.33	0.32	-95.23	48.16	-13.00	-36.78
2	2518.77	-59.00	RMS	27.89	-26.31	0.21	-95.23	34.44	-13.00	-46.00
3	3358.36	-55.28	RMS	29.58	-25.01	0.24	-95.23	35.14	-13.00	-42.28



Site : 03CH11-HY

Condition: -13 3m 9120D_01620_230817 Vertical

: LTE Band 5 10M Ch20600 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin	Pol
				Factor	1		g			
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB
1	1679.18	-53.07	RMS	25.30	-28.33	0.32	-95.23	44.87	-13.00	-40.07
2	2518.77	-59.66	RMS	27.89	-26.31	0.21	-95.23	33.78	-13.00	-46.66
3	3358.36	-53.29	RMS	29.58	-25.01	0.24	-95.23	37.13	-13.00	-40.29

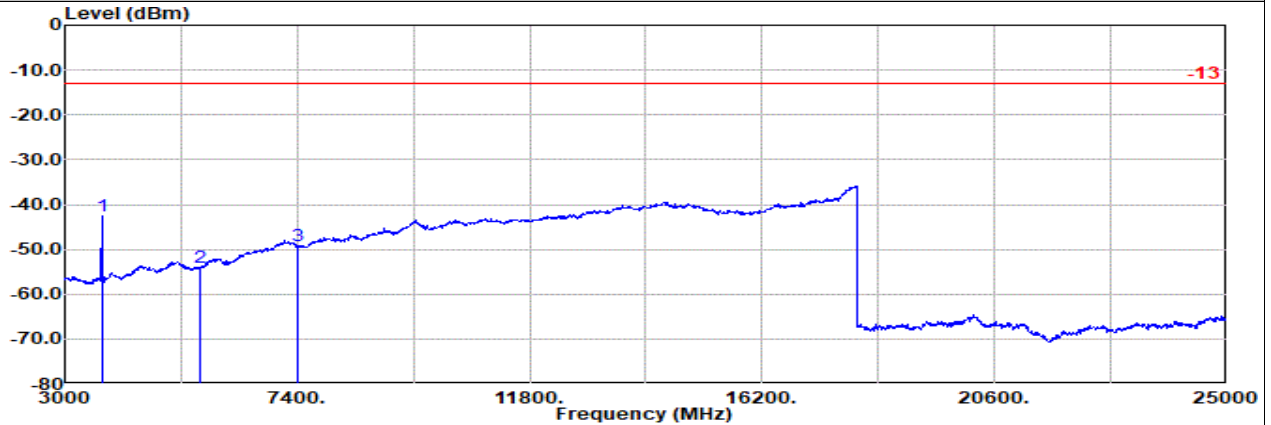


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Part 24E Mode 2

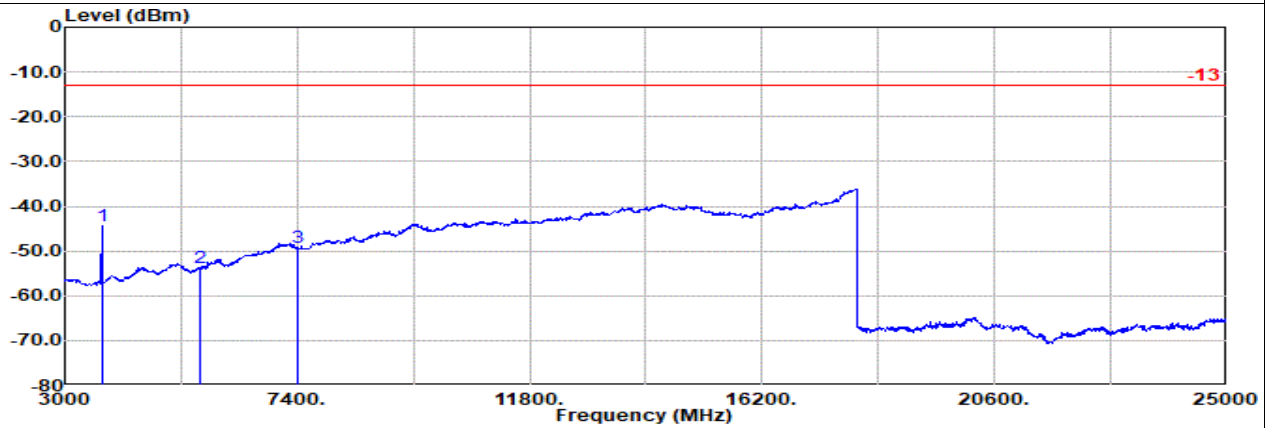
LTE B25 20M Ch26140 1RB0 QPSK

L



Site : 03CH11-HY
Condition: -13 1m SHF_1224_230710 Horizontal
: LTE Band 25 20M Ch26140 1RB0 QPSK

	Freq Level		Detector	Ant Amp\Cb Filter		Factor	Filter 1		EIRPCF	Readin g	Limit		Margin	Pol
	MHz	dBm		dB/m	dB		dB	dB			dBuV	dBm	dB	
1	3705.00	-42.71	RMS	29.64	-24.41	0.75	-95.23	46.54	-13.00	-29.71	Horizontal			
2	5557.00	-53.89	RMS	32.91	-22.15	0.51	-95.23	30.07	-13.00	-40.89	Horizontal			
3	7410.00	-49.31	RMS	36.38	-20.91	0.64	-95.23	29.81	-13.00	-36.31	Horizontal			



Site : 03CH11-HY
Condition: -13 1m SHF_1224_230710 Vertical
: LTE Band 25 20M Ch26140 1RB0 QPSK

	Freq Level		Detector	Ant Amp\Cb Filter		Factor	Filter 1		EIRPCF	Readin g	Limit		Margin	Pol
	MHz	dBm		dB/m	dB		dB	dB			dBuV	dBm	dB	
1	3705.00	-44.53	RMS	29.64	-24.41	0.75	-95.23	44.72	-13.00	-31.53	Vertical			
2	5557.00	-53.66	RMS	32.91	-22.15	0.51	-95.23	30.30	-13.00	-40.66	Vertical			
3	7410.00	-49.26	RMS	36.38	-20.91	0.64	-95.23	29.86	-13.00	-36.26	Vertical			

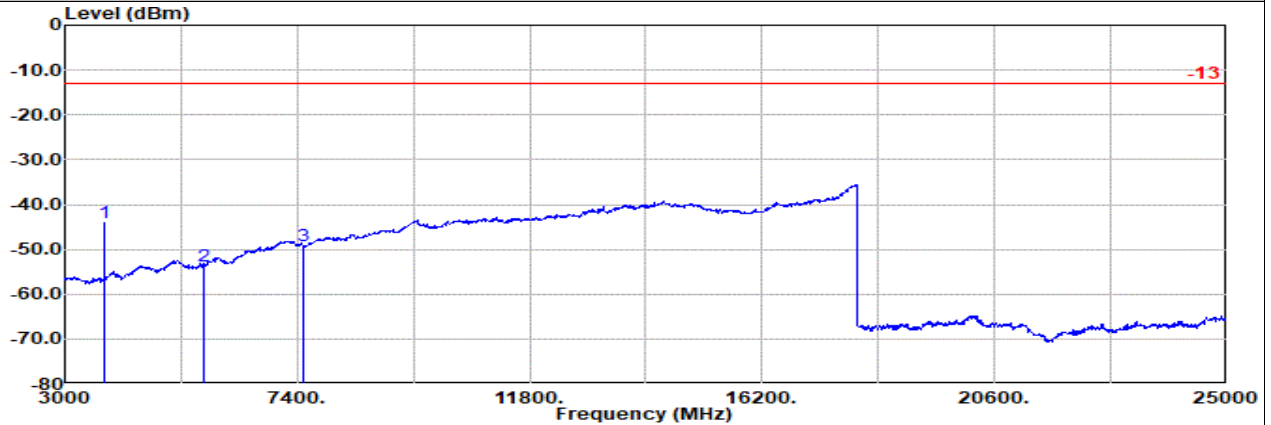


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Part 24E Mode 2

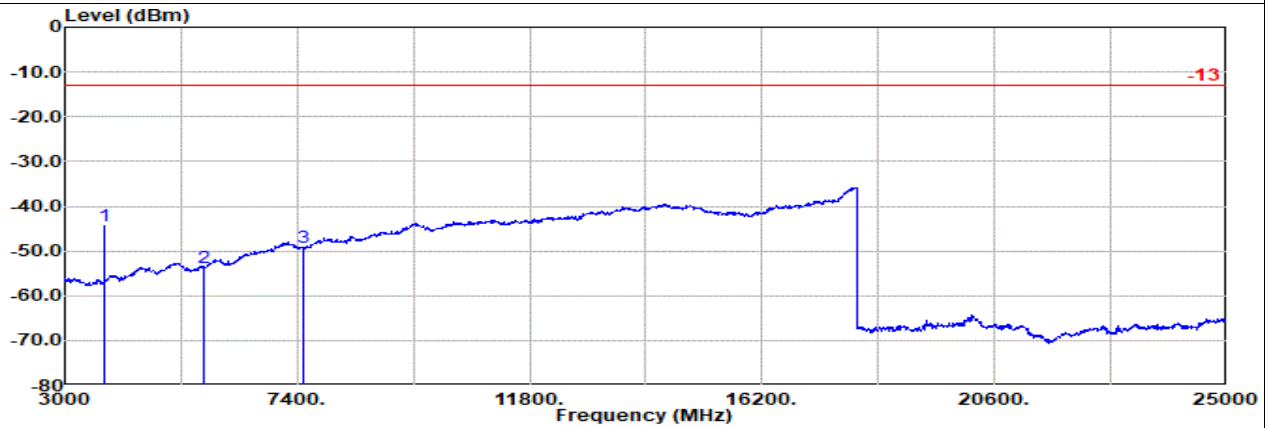
LTE B25 20M Ch26340 1RB0 QPSK

M



Site : 03CH11-HY
Condition: -13 1m SHF_1224_230710 Horizontal
: LTE Band 25 20M Ch26340 1RB0 QPSK

	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	3750.00	-44.15	RMS	30.00	-24.28	0.70	-95.23	44.66	-13.00	-31.15 Horizontal
2	5625.00	-53.84	RMS	33.05	-22.11	0.49	-95.23	29.96	-13.00	-40.84 Horizontal
3	7500.00	-49.24	RMS	36.20	-20.75	0.60	-95.23	29.94	-13.00	-36.24 Horizontal



Site : 03CH11-HY
Condition: -13 1m SHF_1224_230710 Vertical
: LTE Band 25 20M Ch26340 1RB0 QPSK

	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	3750.00	-44.46	RMS	30.00	-24.28	0.70	-95.23	44.35	-13.00	-31.46 Vertical
2	5625.00	-53.74	RMS	33.05	-22.11	0.49	-95.23	30.06	-13.00	-40.74 Vertical
3	7500.00	-49.27	RMS	36.20	-20.75	0.60	-95.23	29.91	-13.00	-36.27 Vertical

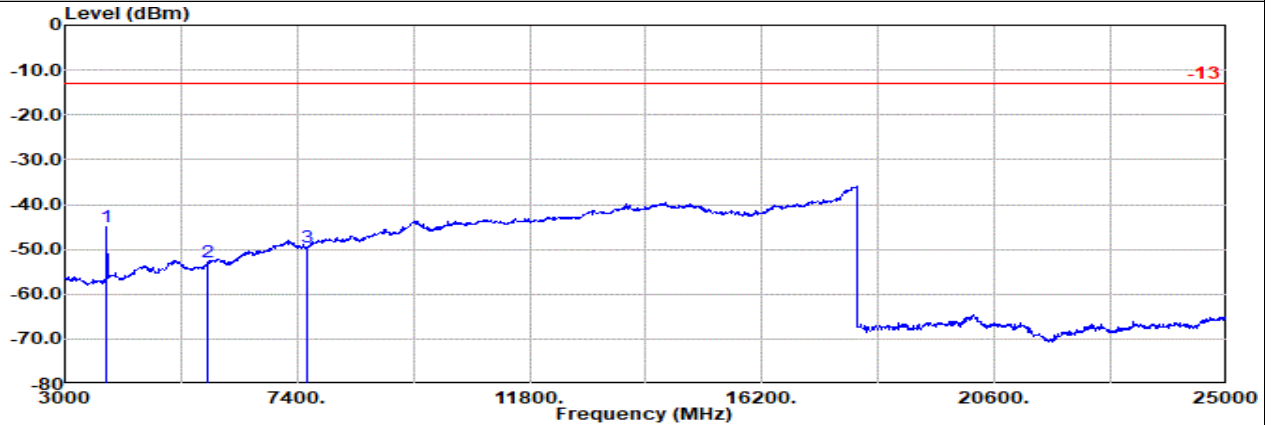


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Part 24E Mode 2

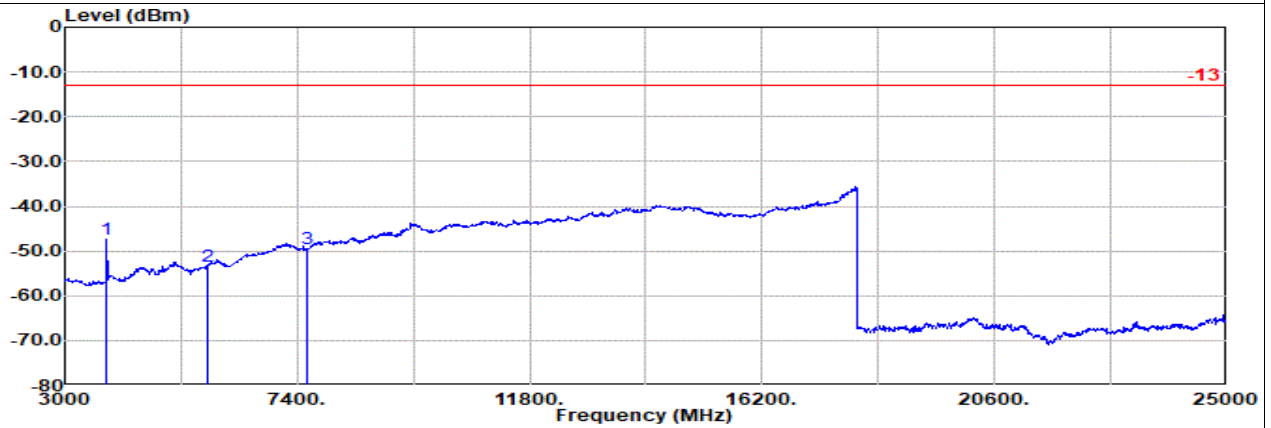
LTE B25 20M Ch26590 1RB0 QPSK

H



Site : 03CH11-HY
Condition: -13 1m SHF_1224_230710 Horizontal
: LTE Band 25 20M Ch26590 1RB0 QPSK

	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	3795.00	-44.89	RMS	30.45	-24.15	0.66	-95.23	43.38	-13.00	-31.89 Horizontal
2	5693.00	-52.93	RMS	33.44	-22.10	0.49	-95.23	30.47	-13.00	-39.93 Horizontal
3	7590.00	-49.62	RMS	36.08	-20.59	0.55	-95.23	29.57	-13.00	-36.62 Horizontal



Site : 03CH11-HY
Condition: -13 1m SHF_1224_230710 Vertical
: LTE Band 25 20M Ch26590 1RB0 QPSK

	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	3795.00	-47.43	RMS	30.45	-24.15	0.66	-95.23	40.84	-13.00	-34.43 Vertical
2	5693.00	-53.39	RMS	33.44	-22.10	0.49	-95.23	30.01	-13.00	-40.39 Vertical
3	7590.00	-49.37	RMS	36.08	-20.59	0.55	-95.23	29.82	-13.00	-36.37 Vertical

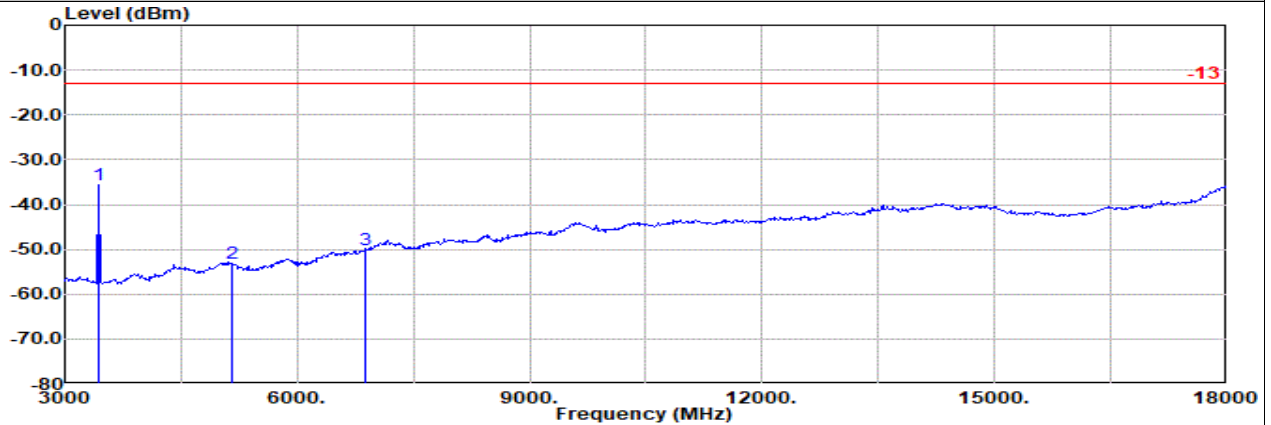


Ant. 1

Part 27L Mode 3

LTE B4 20M Ch20050 1RB0 QPSK

L

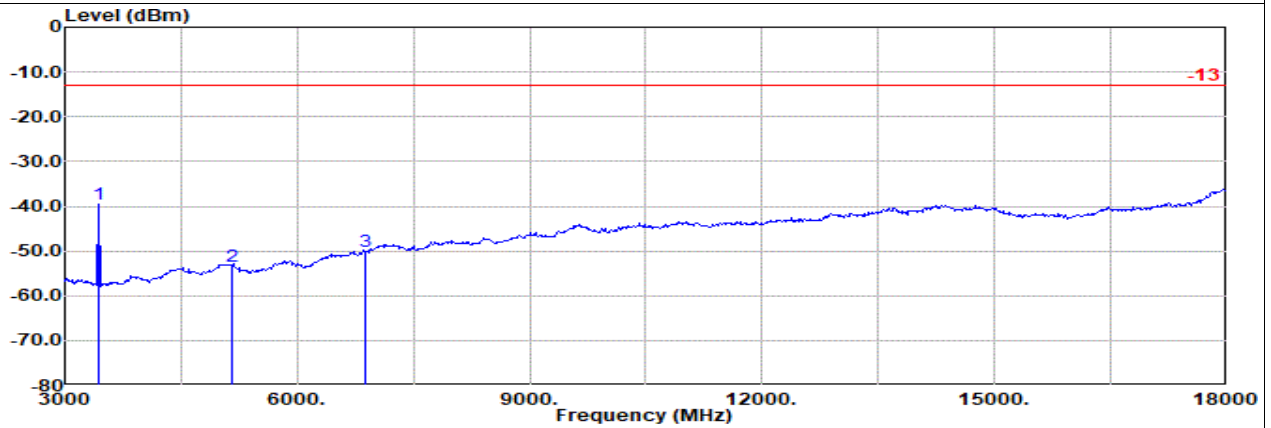


Site : 03CH11-HY

Condition: -13 3m 9120D_01620_230817 Horizontal

: LTE Band 4 20M Ch20050 1RB0 QPSK

	Freq Level		Detector	Ant Amp\Cb Filter		Factor	Filter 1		EIRPCF	Readin g	Limit		Margin	Pol
	MHz	dBm		dB/m	dB		dB	dB			dBuV	dBm	dB	
1	3435.00	-35.48	RMS	29.50	-24.90	0.90	-95.23	54.25	-13.00	-22.48	Horizontal			
2	5160.00	-53.19	RMS	33.18	-22.49	0.51	-95.23	30.84	-13.00	-40.19	Horizontal			
3	6870.00	-50.23	RMS	35.80	-20.62	0.46	-95.23	29.36	-13.00	-37.23	Horizontal			



Site : 03CH11-HY

Condition: -13 3m 9120D_01620_230817 Vertical

: LTE Band 4 20M Ch20050 1RB0 QPSK

	Freq Level		Detector	Ant Amp\Cb Filter		Factor	Filter 1		EIRPCF	Readin g	Limit		Margin	Pol
	MHz	dBm		dB/m	dB		dB	dB			dBuV	dBm	dB	
1	3435.00	-39.66	RMS	29.50	-24.90	0.90	-95.23	50.07	-13.00	-26.66	Vertical			
2	5160.00	-53.32	RMS	33.18	-22.49	0.51	-95.23	30.71	-13.00	-40.32	Vertical			
3	6870.00	-50.21	RMS	35.80	-20.62	0.46	-95.23	29.38	-13.00	-37.21	Vertical			

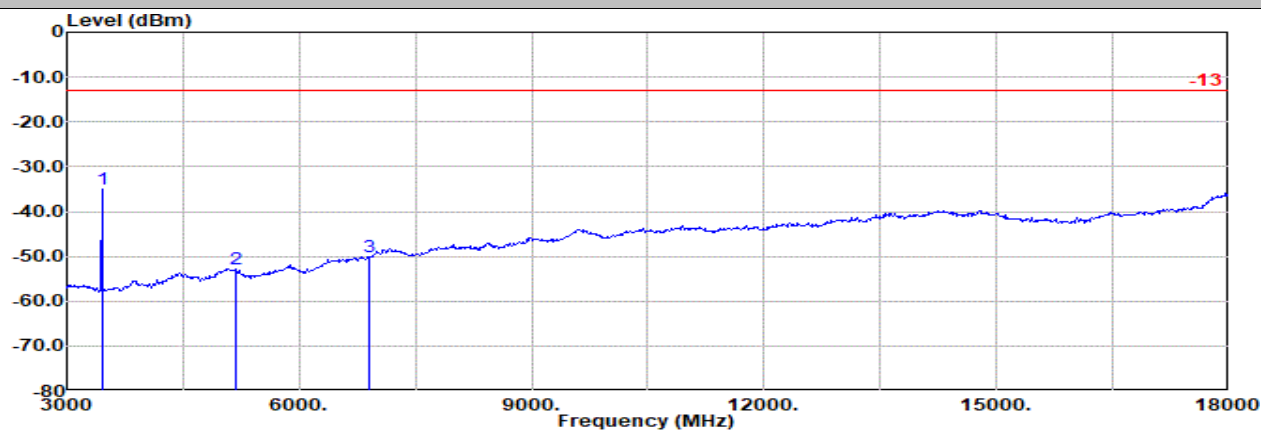


Ant. 1

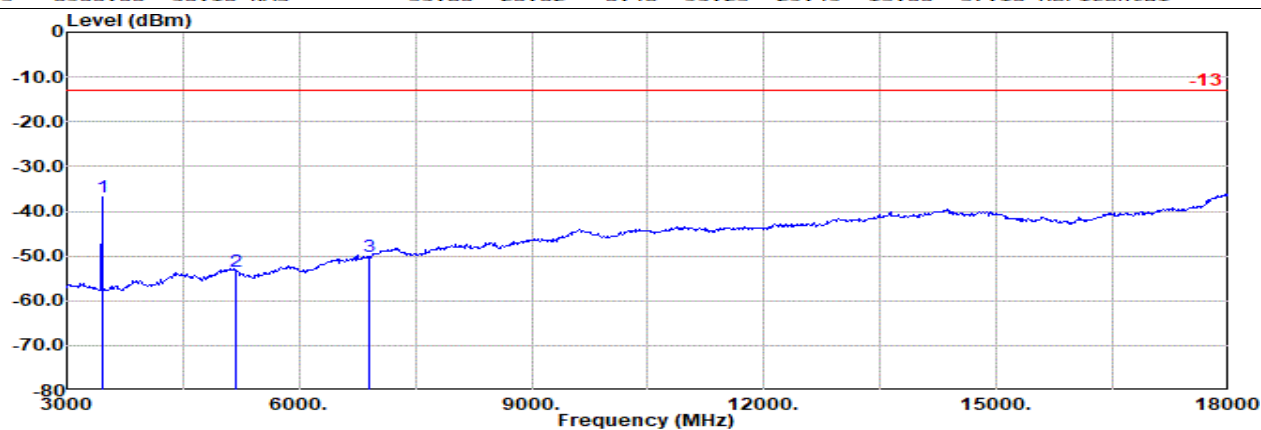
Part 27L Mode 3

LTE B4 20M Ch20175 1RB0 QPSK

M



	Freq Level		Detector	Ant Amp\Cb Filter		Factor	Filter		EIRPCF	Readin g	Limit		Margin	Pol
	MHz	dBm		dB/m	dB		dB	dB			dBuV	dBm	dB	
1	3450.00	-34.92	RMS	29.50	-24.88	0.90	-95.23	54.79	-13.00	-21.92	Horizontal			
2	5175.00	-52.77	RMS	33.15	-22.48	0.51	-95.23	31.28	-13.00	-39.77	Horizontal			
3	6900.00	-50.10	RMS	35.80	-20.62	0.46	-95.23	29.49	-13.00	-37.10	Horizontal			



	Freq Level		Detector	Ant Amp\Cb Filter		Factor	Filter		EIRPCF	Readin g	Limit		Margin	Pol
	MHz	dBm		dB/m	dB		dB	dB			dBuV	dBm	dB	
1	3450.00	-36.72	RMS	29.50	-24.88	0.90	-95.23	52.99	-13.00	-23.72	Vertical			
2	5175.00	-53.36	RMS	33.15	-22.48	0.51	-95.23	30.69	-13.00	-40.36	Vertical			
3	6900.00	-50.25	RMS	35.80	-20.62	0.46	-95.23	29.34	-13.00	-37.25	Vertical			

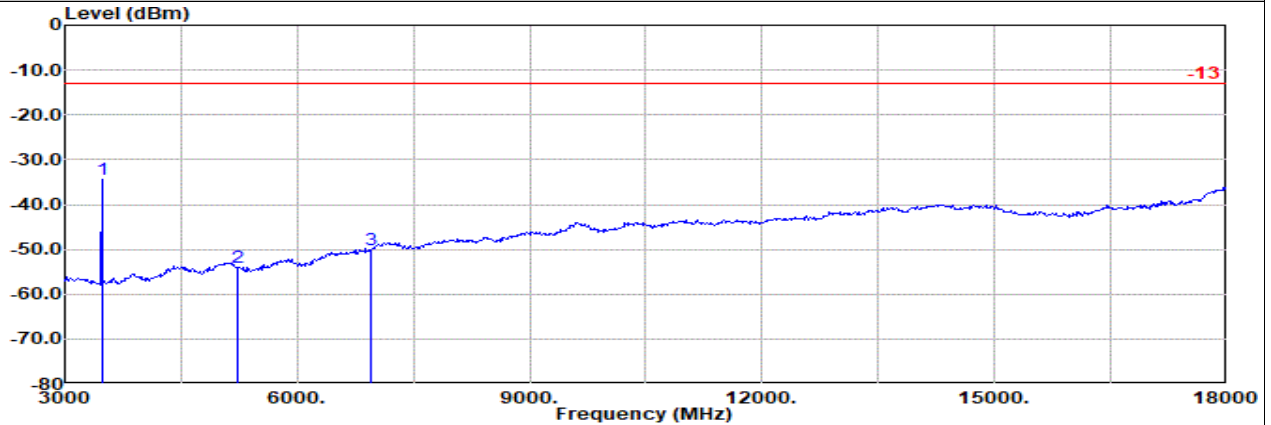


Ant. 1

Part 27L Mode 3

LTE B4 20M Ch20300 1RB0 QPSK

H

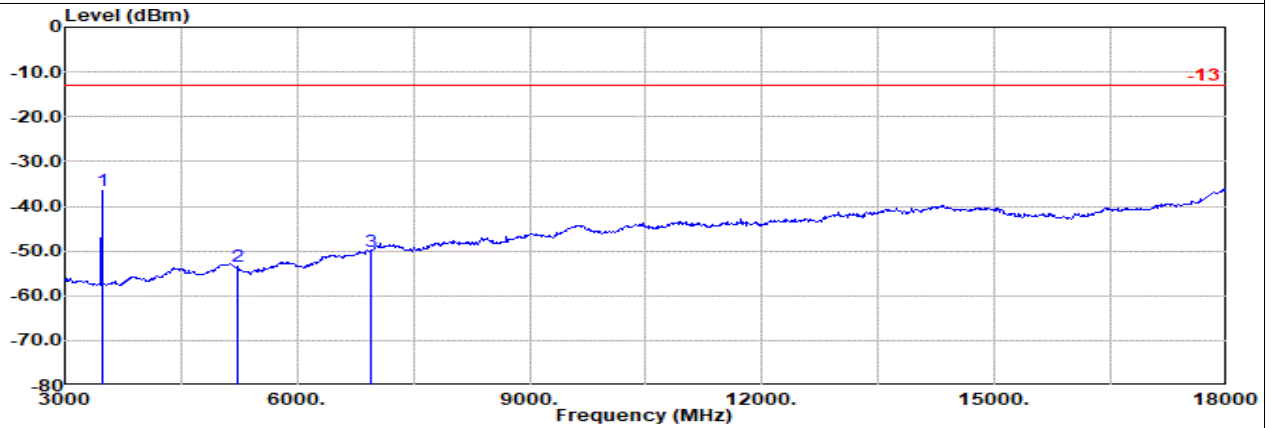


Site : 03CH11-HY

Condition: -13 3m 9120D_01620_230817 Horizontal

: LTE Band 4 20M Ch20300 1RB0 QPSK

	Freq Level		Detector	Ant Amp\Cb Filter		Factor	Filter		EIRPCF	Readin g	Limit		Margin	Pol
	MHz	dBm		dB/m	dB		dB	dB			dBuV	dBm	dB	
1	3480.00	-34.28	RMS	29.56	-24.85	0.89	-95.23	55.35	-13.00	-21.28	Horizontal			
2	5220.00	-53.98	RMS	33.06	-22.44	0.52	-95.23	30.11	-13.00	-40.98	Horizontal			
3	6960.00	-49.97	RMS	35.82	-20.62	0.47	-95.23	29.59	-13.00	-36.97	Horizontal			



Site : 03CH11-HY

Condition: -13 3m 9120D_01620_230817 Vertical

: LTE Band 4 20M Ch20300 1RB0 QPSK

	Freq Level		Detector	Ant Amp\Cb Filter		Factor	Filter		EIRPCF	Readin g	Limit		Margin	Pol
	MHz	dBm		dB/m	dB		dB	dB			dBuV	dBm	dB	
1	3480.00	-36.61	RMS	29.56	-24.85	0.89	-95.23	53.02	-13.00	-23.61	Vertical			
2	5220.00	-53.45	RMS	33.06	-22.44	0.52	-95.23	30.64	-13.00	-40.45	Vertical			
3	6960.00	-50.07	RMS	35.82	-20.62	0.47	-95.23	29.49	-13.00	-37.07	Vertical			

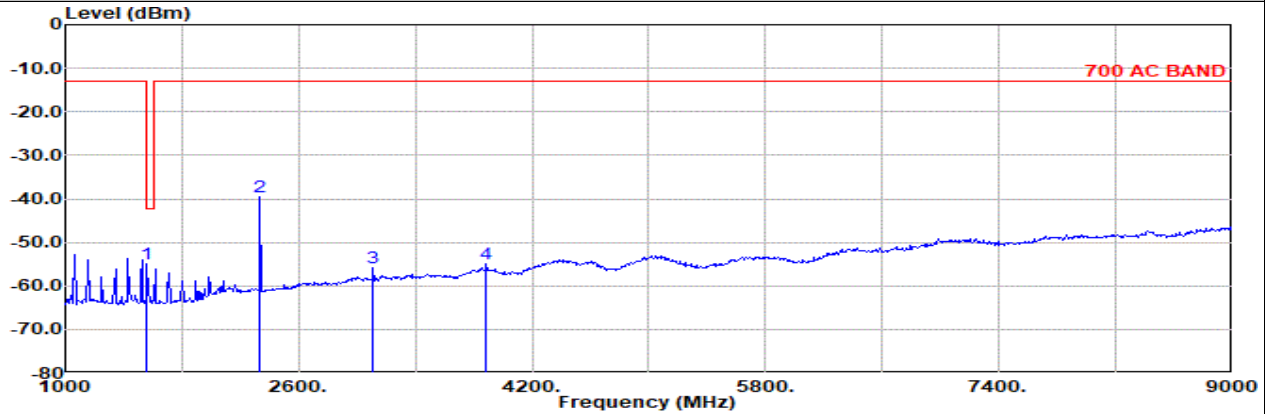


Ant. 1

Part 27F Mode 4

LTE B13 5M Ch23205 1RB0 QPSK

L

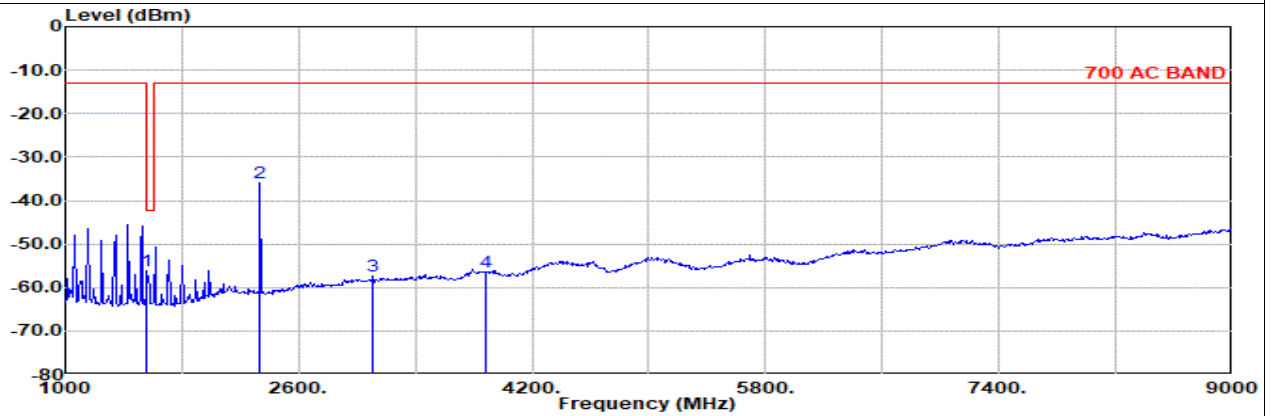


Site : 03CH11-HY

Condition: 700 AC BAND 3m 9120D_01620_230817 Horizontal

: LTE Band 13 5M Ch23205 1RB0 QPSK

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit g	Margin	Pol
				Factor	1					
1	1560.00	-54.81	RMS	25.10	-28.71	0.46	-95.23	43.57	-42.15	-12.66 Horizontal
2	2336.00	-39.67	RMS	27.26	-26.63	0.23	-95.23	54.70	-13.00	-26.67 Horizontal
3	3112.00	-55.87	RMS	29.60	-25.42	0.26	-95.23	34.92	-13.00	-42.87 Horizontal
4	3888.00	-55.09	RMS	30.90	-24.07	0.19	-95.23	33.12	-13.00	-42.09 Horizontal



Site : 03CH11-HY

Condition: 700 AC BAND 3m 9120D_01620_230817 Vertical

: LTE Band 13 5M Ch23205 1RB0 QPSK

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit g	Margin	Pol
				Factor	1					
1	1560.00	-56.14	RMS	25.10	-28.71	0.46	-95.23	42.24	-42.15	-13.99 Vertical
2	2336.00	-35.97	RMS	27.26	-26.63	0.23	-95.23	58.40	-13.00	-22.97 Vertical
3	3112.00	-57.27	RMS	29.60	-25.42	0.26	-95.23	33.52	-13.00	-44.27 Vertical
4	3888.00	-56.54	RMS	30.90	-24.07	0.19	-95.23	31.67	-13.00	-43.54 Vertical

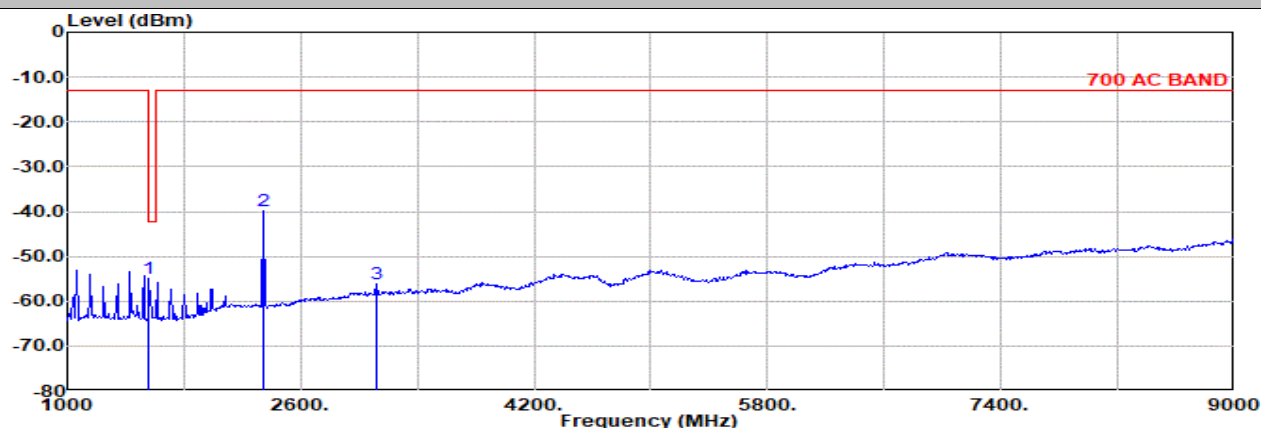


Ant. 1

Part 27F Mode 4

LTE B13 5M Ch23230 1RB0 QPSK

M

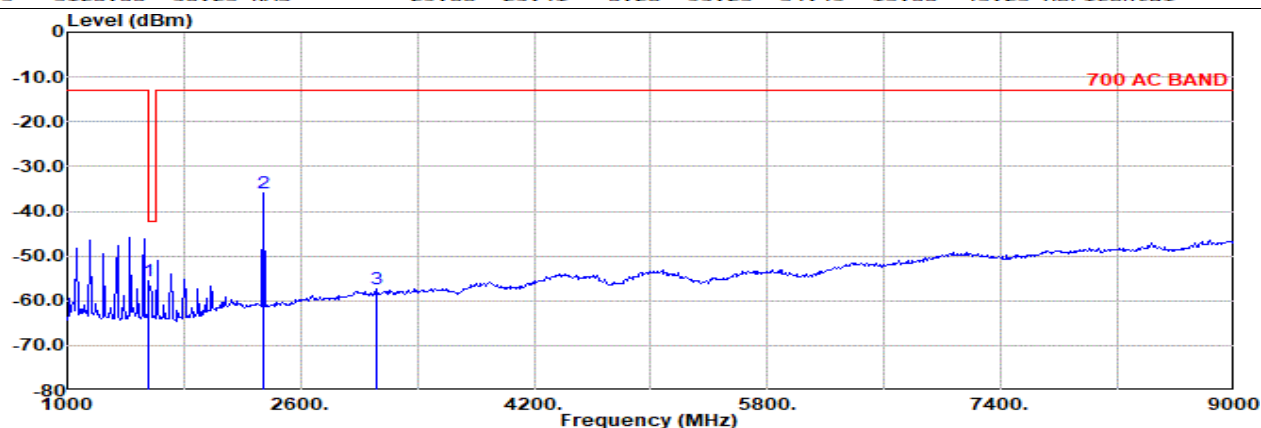


Site : 03CH11-HY

Condition: 700 AC BAND 3m 9120D_01620_230817 Horizontal

: LTE Band 13 5M Ch23230 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin Pol	
				Factor	1		g			
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB
1	1560.00	-55.08	RMS	25.10	-28.71	0.46	-95.23	43.30	-42.15	-12.93 Horizontal
2	2344.00	-39.76	RMS	27.30	-26.62	0.23	-95.23	54.56	-13.00	-26.76 Horizontal
3	3120.00	-56.23	RMS	29.66	-25.41	0.26	-95.23	34.49	-13.00	-43.23 Horizontal



Site : 03CH11-HY

Condition: 700 AC BAND 3m 9120D_01620_230817 Vertical

: LTE Band 13 5M Ch23230 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin Pol	
				Factor	1		g			
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB
1	1560.00	-55.69	RMS	25.10	-28.71	0.46	-95.23	42.69	-42.15	-13.54 Vertical
2	2344.00	-35.94	RMS	27.30	-26.62	0.23	-95.23	58.38	-13.00	-22.94 Vertical
3	3120.00	-57.21	RMS	29.66	-25.41	0.26	-95.23	33.51	-13.00	-44.21 Vertical

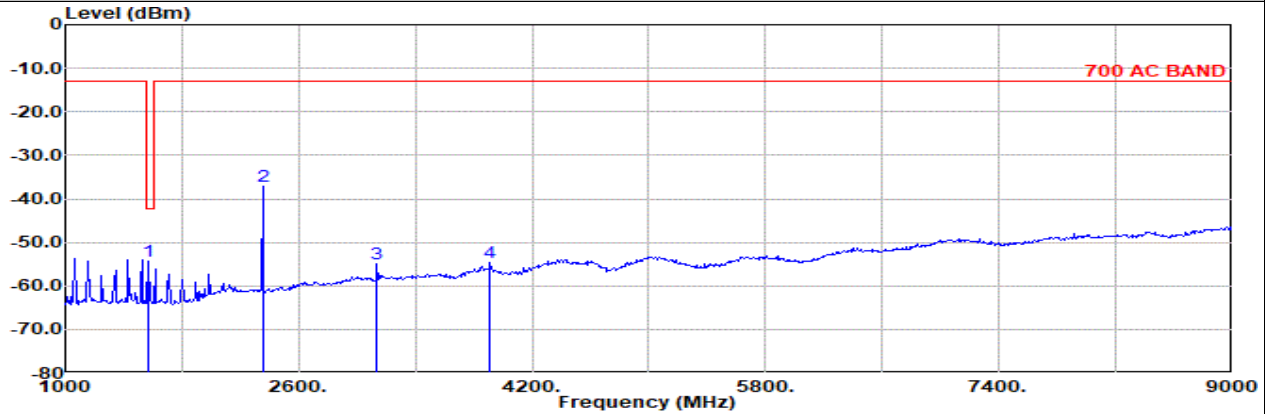


Ant. 1

Part 27F Mode 4

LTE B13 5M Ch23255 1RB0 QPSK

H

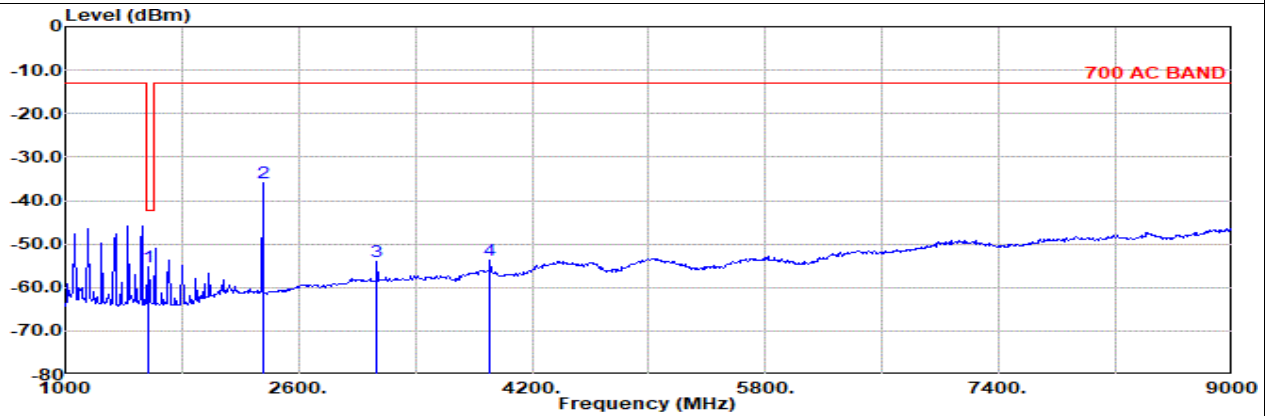


Site : 03CH11-HY

Condition: 700 AC BAND 3m 9120D_01620_230817 Horizontal

: LTE Band 13 5M Ch23255 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cb 1	Filter	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1568.00	-54.37	RMS	25.26	-28.68	0.44	-95.23	43.84	-42.15	-12.22	Horizontal
2	2352.00	-37.11	RMS	27.30	-26.61	0.23	-95.23	57.20	-13.00	-24.11	Horizontal
3	3136.00	-54.92	RMS	29.79	-25.38	0.27	-95.23	35.63	-13.00	-41.92	Horizontal
4	3912.00	-54.49	RMS	30.90	-24.04	0.19	-95.23	33.69	-13.00	-41.49	Horizontal



Site : 03CH11-HY

Condition: 700 AC BAND 3m 9120D_01620_230817 Vertical

: LTE Band 13 5M Ch23255 1RB0 QPSK

	Freq	Level	Detector	Ant	Amp\Cb	Filter	EIRPCF	Readin	Limit	Margin	Pol
				Factor	1				g		
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1568.00	-55.35	RMS	25.26	-28.68	0.44	-95.23	42.86	-42.15	-13.20	Vertical
2	2352.00	-35.86	RMS	27.30	-26.61	0.23	-95.23	58.45	-13.00	-22.86	Vertical
3	3136.00	-54.11	RMS	29.79	-25.38	0.27	-95.23	36.44	-13.00	-41.11	Vertical
4	3912.00	-53.86	RMS	30.90	-24.04	0.19	-95.23	34.32	-13.00	-40.86	Vertical

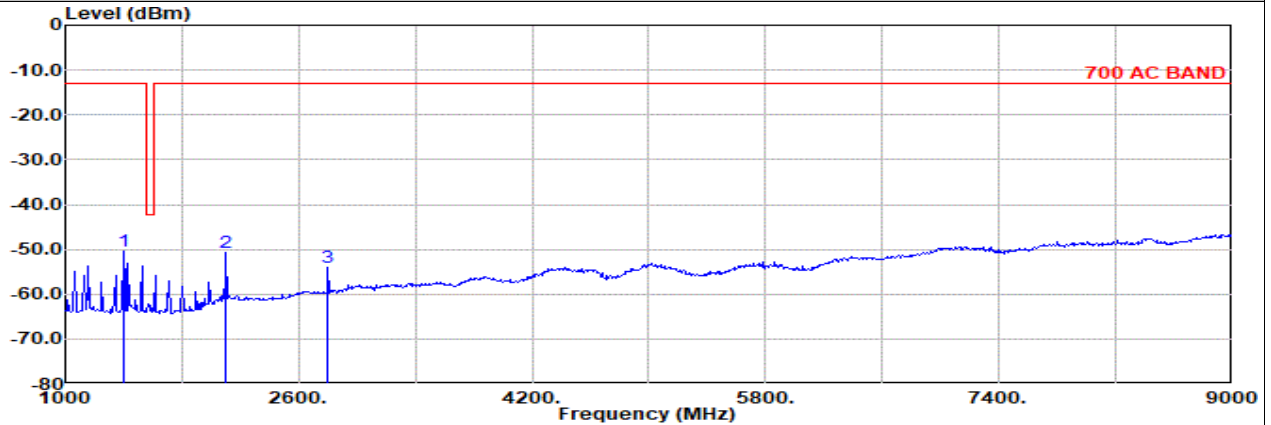


Ant. 1

Part 27H Mode 5

LTE B12 10M Ch23060 1RB0 QPSK

L

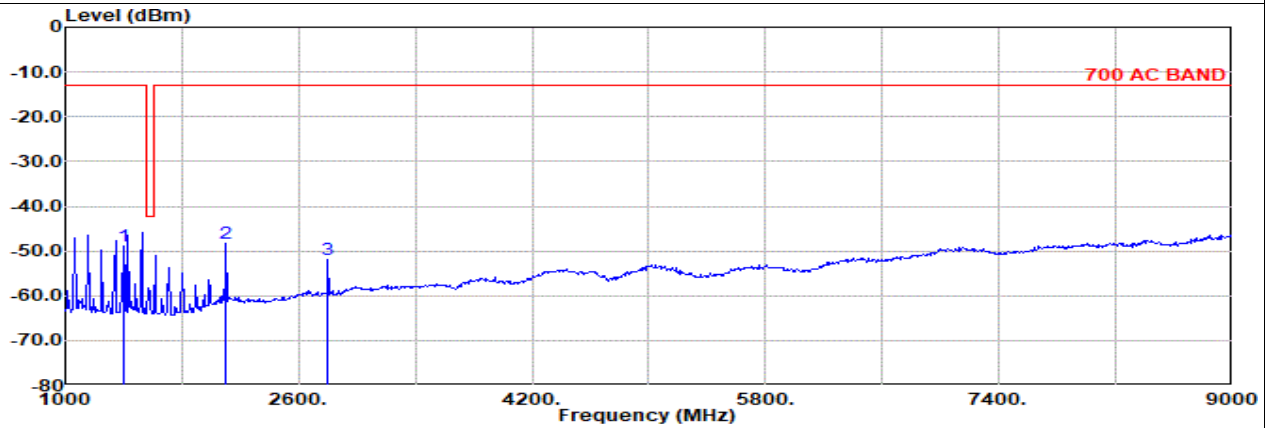


Site : 03CH11-HY

Condition: 700 AC BAND 3m 9120D_01620_230817 Horizontal

: LTE Band 12 10M Ch23060 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm									
1	1399.18	-50.44	RMS	25.90	-29.61	0.68	-95.23	-63.56	-13.00	-37.44	Horizontal
2	2098.77	-50.73	RMS	27.21	-26.86	0.13	-95.23	44.02	-13.00	-37.73	Horizontal
3	2798.36	-54.16	RMS	28.20	-25.93	0.25	-95.23	38.55	-13.00	-41.16	Horizontal



Site : 03CH11-HY

Condition: 700 AC BAND 3m 9120D_01620_230817 Vertical

: LTE Band 12 10M Ch23060 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm									
1	1399.18	-48.82	RMS	25.90	-29.61	0.68	-95.23	49.44	-13.00	-35.82	Vertical
2	2098.77	-48.22	RMS	27.21	-26.86	0.13	-95.23	46.53	-13.00	-35.22	Vertical
3	2798.36	-51.80	RMS	28.20	-25.93	0.25	-95.23	40.91	-13.00	-38.80	Vertical

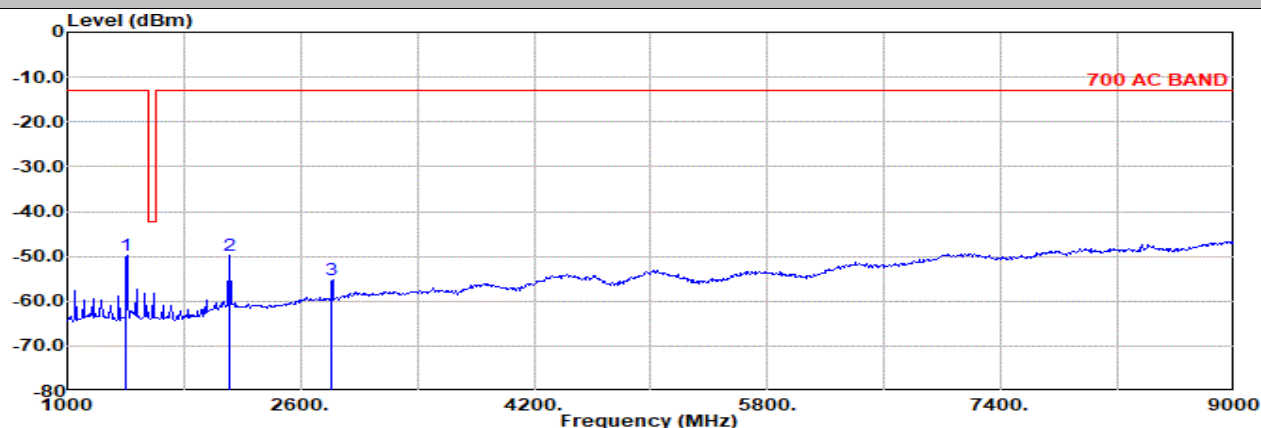


Ant. 1

Part 27H Mode 5

LTE B12 10M Ch23095 1RB0 QPSK

M

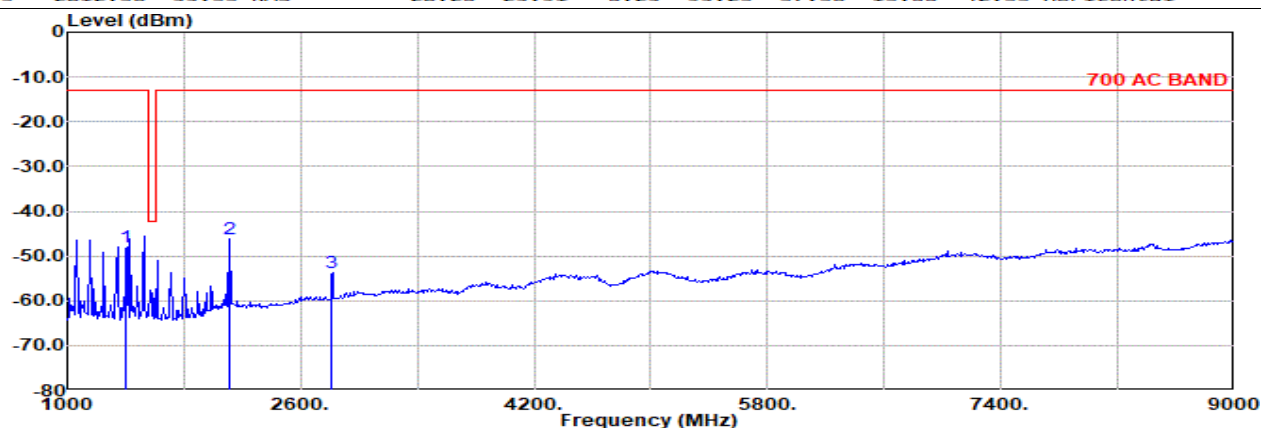


Site : 03CH11-HY

Condition: 700 AC BAND 3m 9120D_01620_230817 Horizontal

: LTE Band 12 10M Ch23095 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin Pol	
				Factor	1					
	MHz	dBm		dB/m	dB	dB	dBuV	dBm	dB	
1	1406.18	-49.74	RMS	25.84	-29.56	0.67	-95.23	48.54	-13.00	-36.74 Horizontal
2	2109.27	-49.88	RMS	27.39	-26.86	0.14	-95.23	44.68	-13.00	-36.88 Horizontal
3	2812.36	-55.33	RMS	28.20	-25.91	0.25	-95.23	37.36	-13.00	-42.33 Horizontal



Site : 03CH11-HY

Condition: 700 AC BAND 3m 9120D_01620_230817 Vertical

: LTE Band 12 10M Ch23095 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin	Pol
				Factor	1					
	MHz	dBm		dB/m	dB	dB	dBuV	dBm	dB	
1	1406.18	-47.88	RMS	25.84	-29.56	0.67	-95.23	50.40	-13.00	-34.88 Vertical
2	2109.27	-46.12	RMS	27.39	-26.86	0.14	-95.23	48.44	-13.00	-33.12 Vertical
3	2812.36	-53.79	RMS	28.20	-25.91	0.25	-95.23	38.90	-13.00	-40.79 Vertical

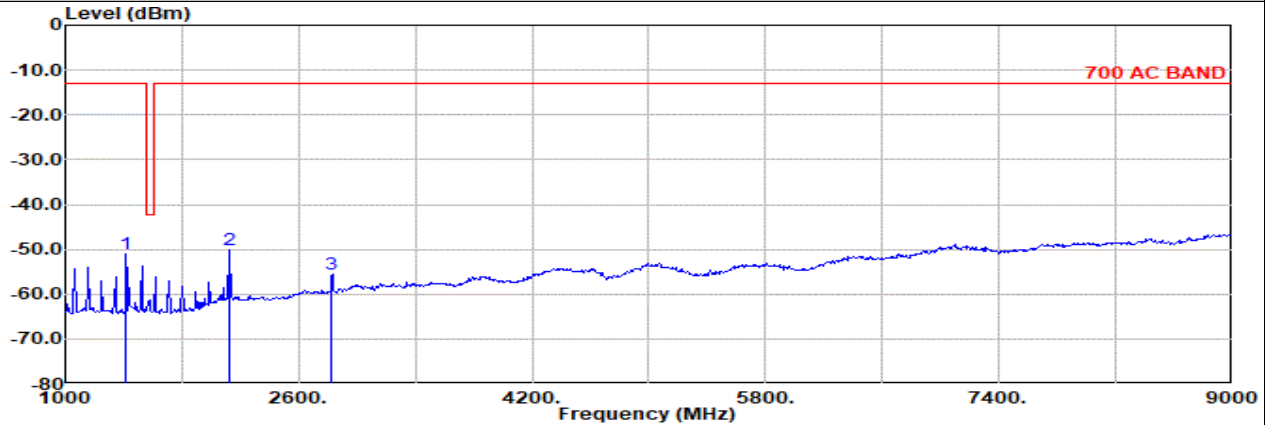


Ant. 1

Part 27H Mode 5

LTE B12 10M Ch23130 1RB0 QPSK

H

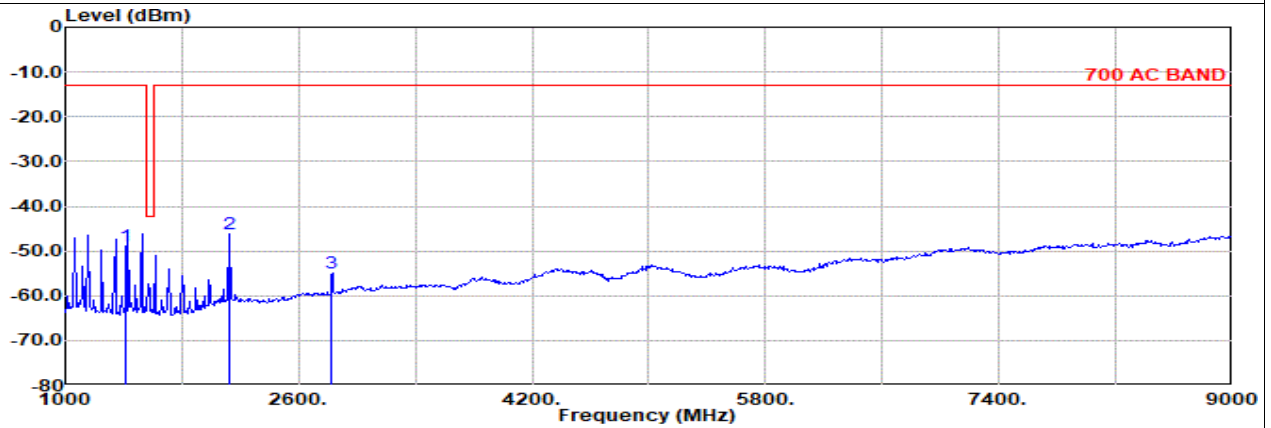


Site : 03CH11-HY

Condition: 700 AC BAND 3m 9120D_01620_230817 Horizontal

: LTE Band 12 10M Ch23130 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin Pol	
				Factor	1		g			
	MHz	dBm								
1	1413.18	-51.06	RMS	25.83	-29.52	0.66	-95.23	47.20	-13.00	-38.06 Horizontal
2	2119.77	-50.14	RMS	27.40	-26.85	0.15	-95.23	44.39	-13.00	-37.14 Horizontal
3	2826.36	-55.52	RMS	28.26	-25.89	0.25	-95.23	37.09	-13.00	-42.52 Horizontal



Site : 03CH11-HY

Condition: 700 AC BAND 3m 9120D_01620_230817 Vertical

: LTE Band 12 10M Ch23130 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin Pol	
				Factor	1		g			
	MHz	dBm								
1	1413.18	-48.77	RMS	25.83	-29.52	0.66	-95.23	49.49	-13.00	-35.77 Vertical
2	2119.77	-46.09	RMS	27.40	-26.85	0.15	-95.23	48.44	-13.00	-33.09 Vertical
3	2826.36	-54.93	RMS	28.26	-25.89	0.25	-95.23	37.68	-13.00	-41.93 Vertical

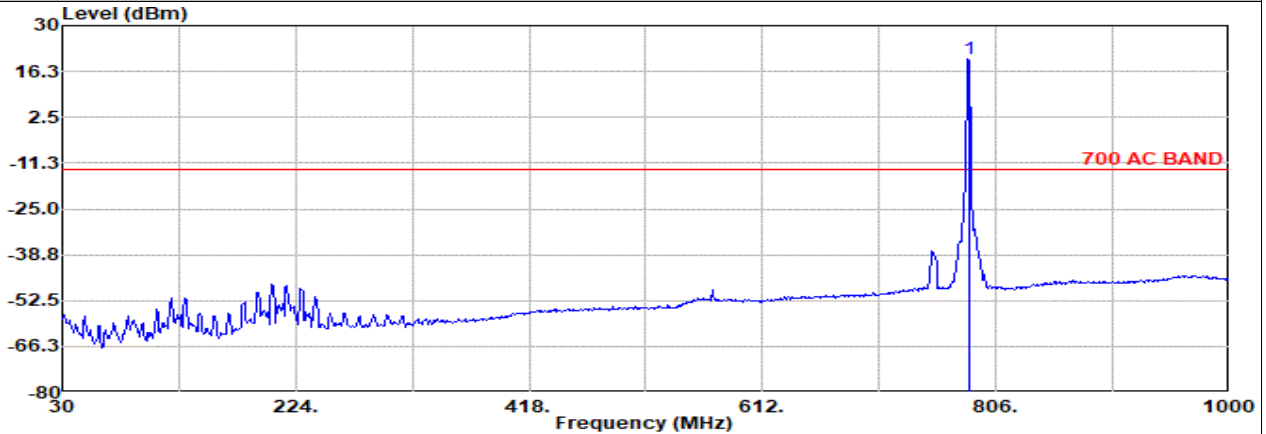


Ant. 1

Part 27F Mode 4

LTE B13 5M Ch23255 1RB0 QPSK

H



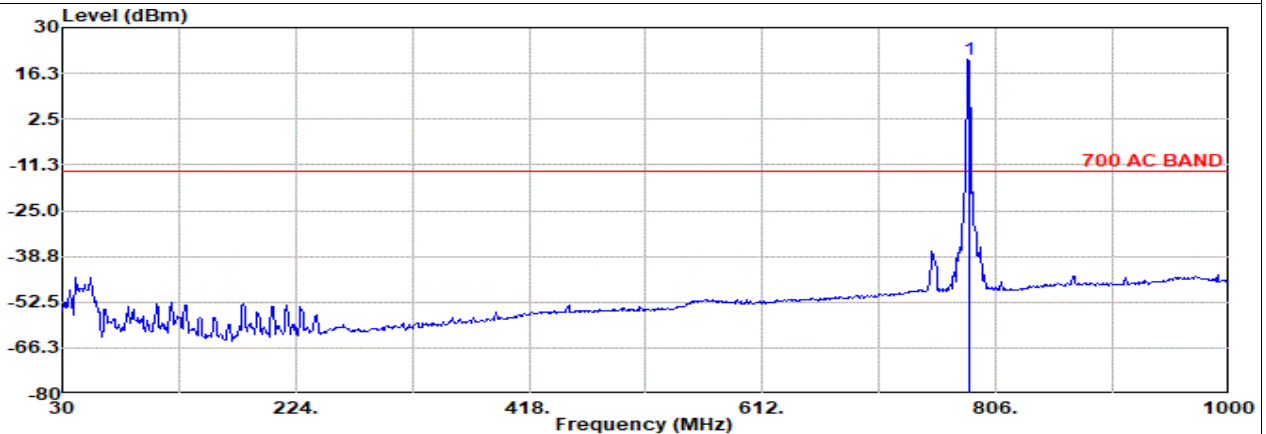
Site : 03CH11-HY

Condition: 700 AC BAND 3m Bilog_35414_231007 Horizontal

: LTE Band 13 5M Ch23255 1RB0 QPSK

: #1 is fundamental signal which can be ignored.

1	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF		Readin	Limit	Margin Pol	
	MHz	dBm		Factor	1	dB	dB	dBuV	dBm	dB	
1	784.50	20.12	RMS	28.10	3.67	0.00	-95.23	83.58	-13.00	33.12	Horizontal



Site : 03CH11-HY

Condition: 700 AC BAND 3m Bilog_35414_231007 Vertical

: LTE Band 13 5M Ch23255 1RB0 QPSK

: #1 is fundamental signal which can be ignored.

1	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF		Readin	Limit	Margin Pol	
	MHz	dBm		Factor	1	dB	dB	dBuV	dBm	dB	
1	784.50	20.39	RMS	28.10	3.67	0.00	-95.23	83.85	-13.00	33.39	Vertical

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