



FCC CO-LOCATION RADIO TEST REPORT

FCC ID : B94HNI57CPSR
Equipment : Notebook Computer
Brand Name : HP
Model Name : HSN-I57C
Applicant : HP Inc.
1501 Page Mill Road, Palo Alto CA, 94304, USA
Standard : FCC 47 CFR Part 2, 24(E)

The product was received on Jul. 22, 2025 and testing was performed from Aug. 01, 2025 to Sep. 17, 2025. We, Sporton International Inc. Wensan 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 report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issue Date
FG572221D	01	Initial issue of report	Sep. 15, 2025
FG572221D	02	Add RTL8852CE data This report is an updated version, replacing the report issued on Sep. 15, 2025.	Sep. 18, 2025

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1053 §24.238 (a)	Radiated Spurious Emission (Band 2)	Pass	-
	§2.1053 §27.53 (m)(4)	Radiated Spurious Emission (Band 7)		

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/manufacture 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: Sheng Kuo

Report Producer: Clio Lo



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
General Specs	WCDMA/LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ax, Wi-Fi 5GHz 802.11a/n/ac/ax, Wi-Fi 6GHz 802.11ax, and GNSS
Integrated WLAN Module	Brand Name: RealTek Model Name: RTL8852CE FCC ID: TX2-RTL8852CE
Integrated WLAN Module	Brand Name: Intel Model Name: AX211NGW FCC ID: PD9AX211NG
Antenna Type	WWAN: PIFA Antenna WLAN: <Main>: PIFA Antenna <Aux.>: PIFA Antenna Bluetooth: PIFA Antenna GPS/Glonass/BDS/Galileo: PIFA Antenna

Support band and evaluated information	
Supported band	B2, B4, B5, B7, B12, B13, B14, B17, B25, B26, B30, B38, B41, B66, B71, B48
Evaluated and Tested band	B2, B7
Main Antenna	B2, B7

FDD band Power Class		
	PC3	PC2
B2	V	-
B7	V	-

WWAN Antenna Information for Notebook Mode				
Antenna 5	Manufacturer	Vendor 1	Peak gain (dBi)	LTE Band 2: 0.72 LTE Band 7: 1.47
	Part number	6036B0327801 (81EABL15.G79)	Type	PIFA

WWAN Antenna Information for Tablet Mode				
Antenna 5	Manufacturer	Vendor 1	Peak gain (dBi)	LTE Band 2: 0.16 LTE Band 7: 0.64
	Part number	6036B0327801 (81EABL15.G79)	Type	PIFA

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

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. 03CH21-HY
Test Engineer	Fred Tseng, Ray Lung and Sky Chang
Temperature (°C)	20.5~22.8
Relative Humidity (%)	45.7~64.8

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

FCC Designation No.: TW1190

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, 24(E)
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05r02
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ♦ FCC KDB 987594 D02 U-NII 6 GHz EMC Measurement v01r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

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.

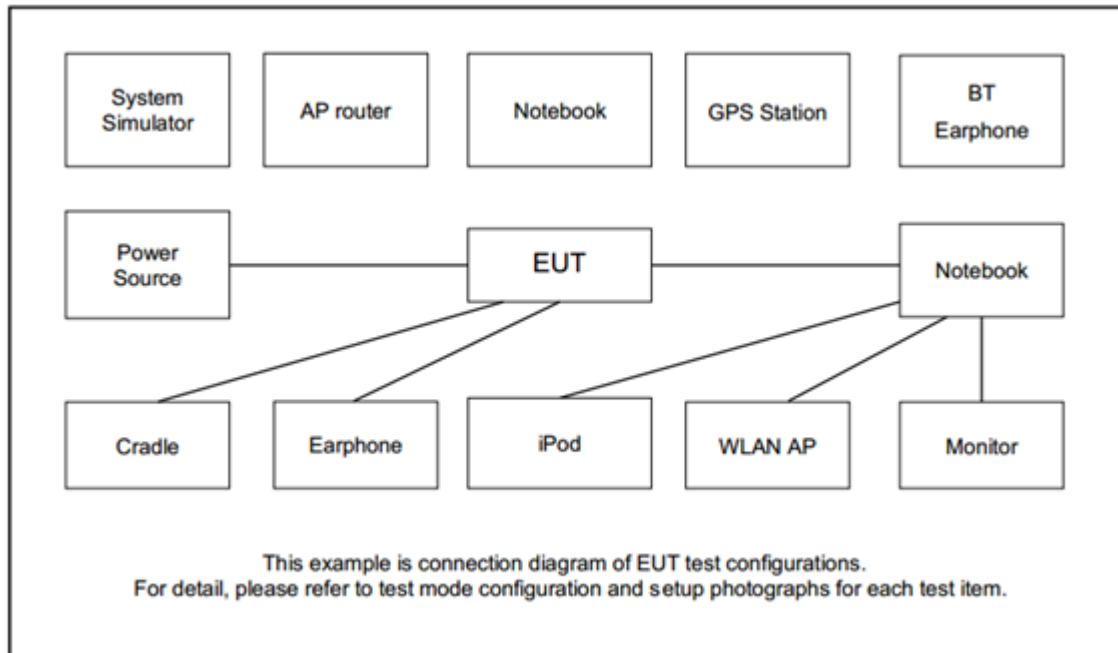
Modulation Type	Modulation
A	QPSK
B	16QAM

Test Item	Modulation Type	Bandwidth	RB Size	Channel
RSE	A	20 MHz or less	1RB	L, M, H

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.
3. During the RSE preliminary test, the standalone mode and charging modes were verified. It is determined that the charging modes is the worst case for the official test.

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.	iPod Earphone	Apple	N/A	Verification	Shielded, 1.2 m	N/A

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

LTE Band 7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20850	21100	21350
	Frequency	2510	2535	2560

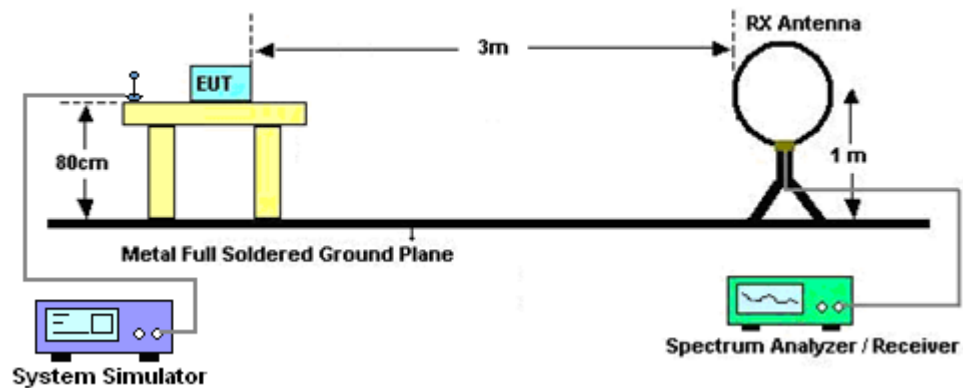
3 Radiated Test Items

3.1 Measuring Instruments

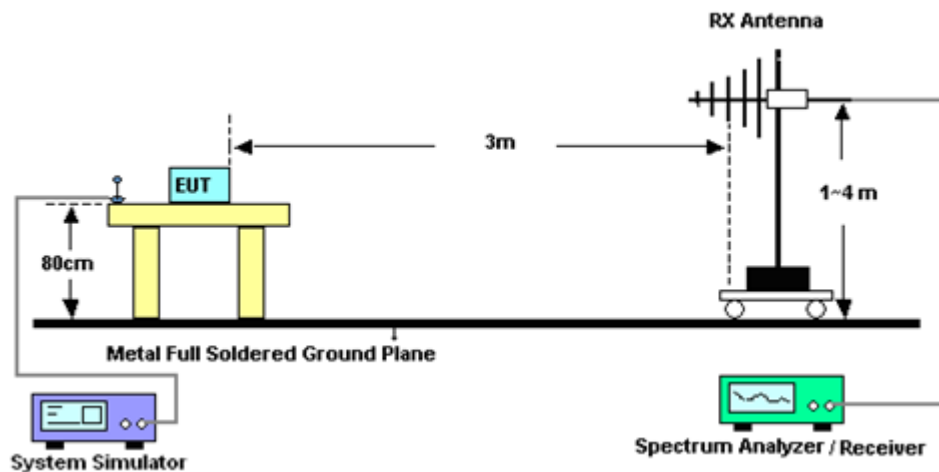
See list of measuring instruments of this test report.

3.1.1 Test Setup

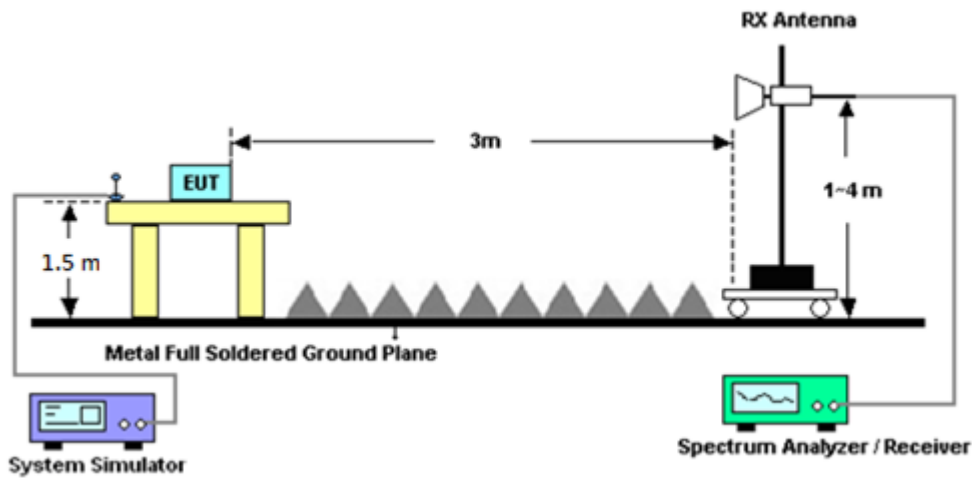
For radiated test below 30MHz



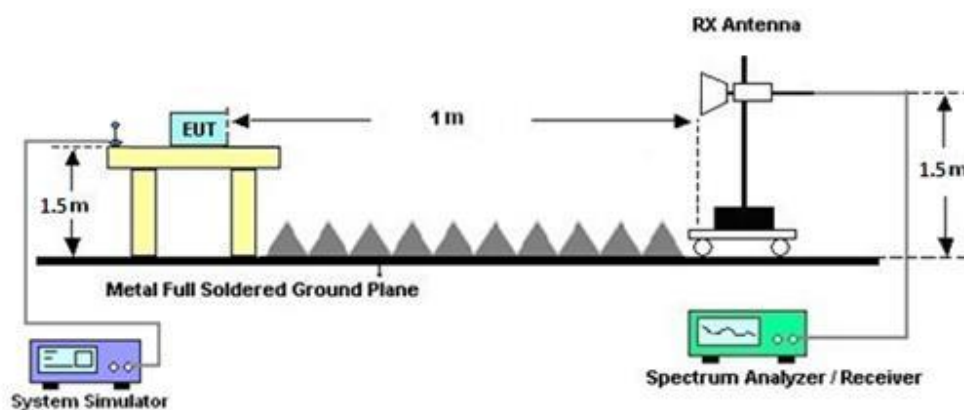
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



3.1.2 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.



3.2 Radiated Spurious Emission Measurement

3.2.1 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.

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

3.2.2 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.
$$\text{Field Strength Level (dBm)} = \text{Spectrum Reading (dBm)} + \text{Antenna Factor} + \text{Cable Loss} + \text{Read Level} - \text{Preamp Factor}.$$
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.



4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
LOOP Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Aug. 29, 2024	Aug. 01, 2025~ Aug. 05, 2025	Aug. 28, 2025	Radiation (03CH21-HY)
Bilog Antenna	TESEQ & WOKEN	CBL 6111D & 00802N1D-06	63303 & 001	30MHz~1GHz	Dec. 17, 2024	Aug. 01, 2025~ Sep. 17, 2025	Dec. 16, 2025	Radiation (03CH21-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1212	1GHz~18GHz	Mar. 27, 2025	Aug. 01, 2025~ Sep. 17, 2025	Mar. 26, 2026	Radiation (03CH21-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	1223	18GHz~40GHz	Jul. 02, 2025	Aug. 01, 2025~ Sep. 17, 2025	Jul. 01, 2026	Radiation (03CH21-HY)
Amplifier	SONOMA	310N	187282	30MHz~1GHz	Dec. 12, 2024	Aug. 01, 2025~ Sep. 17, 2025	Dec. 11, 2025	Radiation (03CH21-HY)
Amplifier	EMEC	EM01G18GA	060876	1GHz~18GHz	Sep. 27, 2024	Aug. 01, 2025~ Sep. 17, 2025	Sep. 26, 2025	Radiation (03CH21-HY)
Preamplifier	EMEC	EM18G40G	060873	18GHz~40GHz	Sep. 02, 2024	Aug. 01, 2025~ Aug. 05, 2025	Sep. 01, 2025	Radiation (03CH21-HY)
Spectrum Analyzer	Keysight	N9010B	MY62170358	10Hz~44GHz	Sep. 06, 2024	Aug. 01, 2025~ Aug. 05, 2025	Sep. 05, 2025	Radiation (03CH21-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9kHz~30MHz	Mar. 05, 2025	Aug. 01, 2025~ Sep. 17, 2025	Mar. 04, 2026	Radiation (03CH21-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804397/2,804612/2,803954/2	30MHz~40GHz	Aug. 12, 2024	Aug. 01, 2025~ Aug. 10, 2025	Aug. 11, 2025	Radiation (03CH21-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804397/2,804612/2,803954/2	30MHz~40GHz	Aug. 11, 2025	Aug. 11, 2025~ Sep. 17, 2025	Aug. 10, 2026	Radiation (03CH21-HY)
Hygrometer	TECPEL	DTM-303A	TP211568	N/A	Oct. 21, 2024	Aug. 01, 2025~ Sep. 17, 2025	Oct. 20, 2025	Radiation (03CH21-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Aug. 01, 2025~ Sep. 17, 2025	N/A	Radiation (03CH21-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Aug. 01, 2025~ Sep. 17, 2025	N/A	Radiation (03CH21-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Aug. 01, 2025~ Sep. 17, 2025	N/A	Radiation (03CH21-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Aug. 01, 2025~ Sep. 17, 2025	N/A	Radiation (03CH21-HY)
LOOP Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Mar. 06, 2025	Sep. 17, 2025	Mar. 05, 2026	Radiation (03CH21-HY)
Preamplifier	EMEC	EM18G40G	060871	18GHz~40GHz	Aug. 25, 2025	Sep. 17, 2025	Aug. 24, 2026	Radiation (03CH21-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY57290111	3Hz~26.5GHz	Nov. 22, 2024	Sep. 17, 2025	Nov. 21, 2025	Radiation (03CH21-HY)



5 Measurement Uncertainty

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.60 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.00 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.70 dB
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Appendix A. Test Results of Radiated Test

<AX211NGW>

A1. Summary of each worse mode

Mode	Part	Band	Ch	Freq (MHz)	Level (dBm)	Det	Ant Factor (dB)	AmplCbl (dB)	Filter (dB)	EIRPCF (dB)	Reading (dBuV)	Limit (dBm)	Margin (dB)	Pol	Ant
1	Part 24E	LTE B2	M	7484	-55.82	RMS	36.36	-20.69	0.71	-95.23	23.03	-13.00	-42.82	H	Main
2	Part 27M	LTE B7	M	7653	-35.02	RMS	36.31	-20.73	0.61	-95.23	44.02	-25.00	-10.02	V	Main

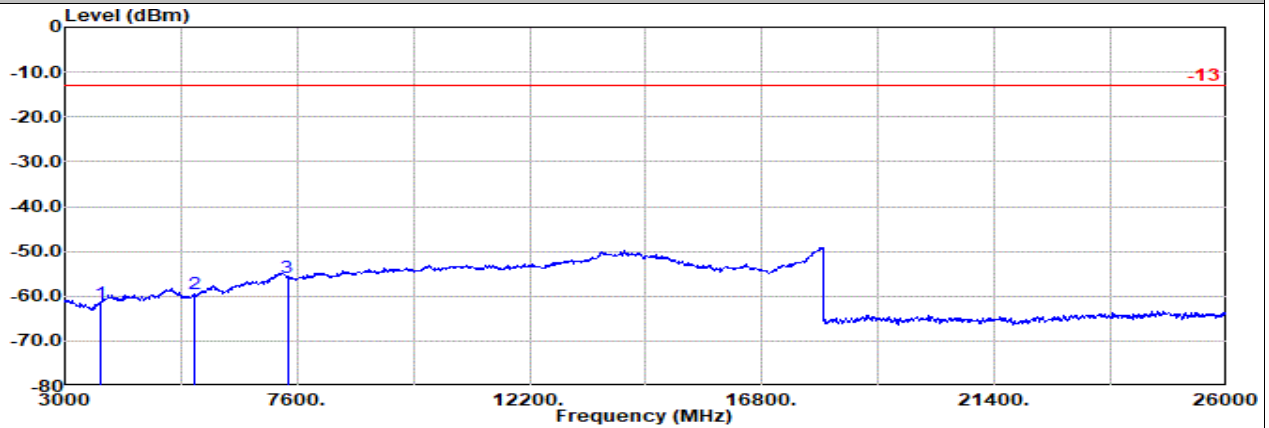


Main Antenna

Part 24E Mode 1

LTE B2 20M Ch18700 1RB0 QPSK

L

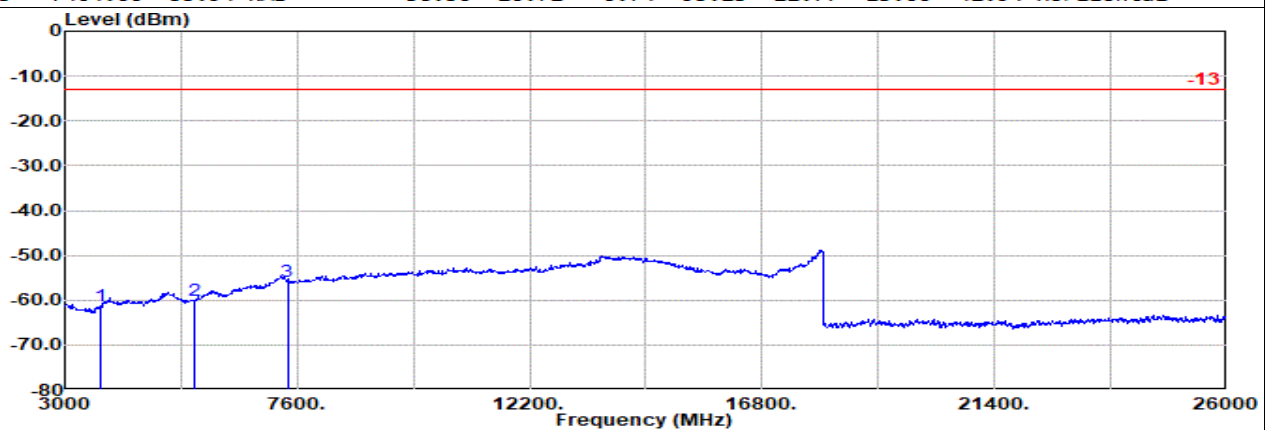


Site : 03CH21-HY

Condition: -13 1m BBHA9170_1223_250702 Horizontal

: LTE Band 2 20M Ch18700 1RB0 QPSK

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter				Readin g	Limit dBm	Margin dB	Pol
				Factor	1	EIRPCF					
1	3702.00	-61.70	RMS	29.91	-22.25	0.26	-95.23	0.00	-13.00	-48.70	Horizontal
2	5553.00	-59.41	RMS	32.89	-21.78	0.66	-95.23	24.05	-13.00	-46.41	Horizontal
3	7404.00	-55.94	RMS	36.50	-20.72	0.74	-95.23	22.77	-13.00	-42.94	Horizontal



Site : 03CH21-HY

Condition: -13 1m BBHA9170_1223_250702 Vertical

: LTE Band 2 20M Ch18700 1RB0 QPSK

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter				Readin g	Limit dBm	Margin dB	Pol
				Factor	1	EIRPCF					
1	3702.00	-61.41	RMS	29.91	-22.25	0.26	-95.23	25.90	-13.00	-48.41	Vertical
2	5553.00	-60.10	RMS	32.89	-21.78	0.66	-95.23	23.36	-13.00	-47.10	Vertical
3	7404.00	-55.85	RMS	36.50	-20.72	0.74	-95.23	22.86	-13.00	-42.85	Vertical

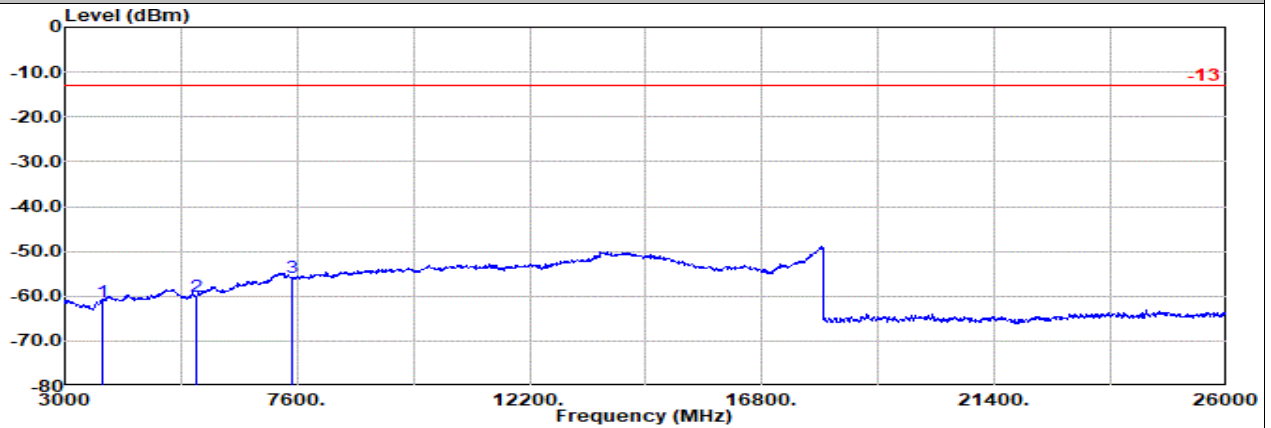


Main Antenna

Part 24E Mode 1

LTE B2 20M Ch18900 1RB0 QPSK

M

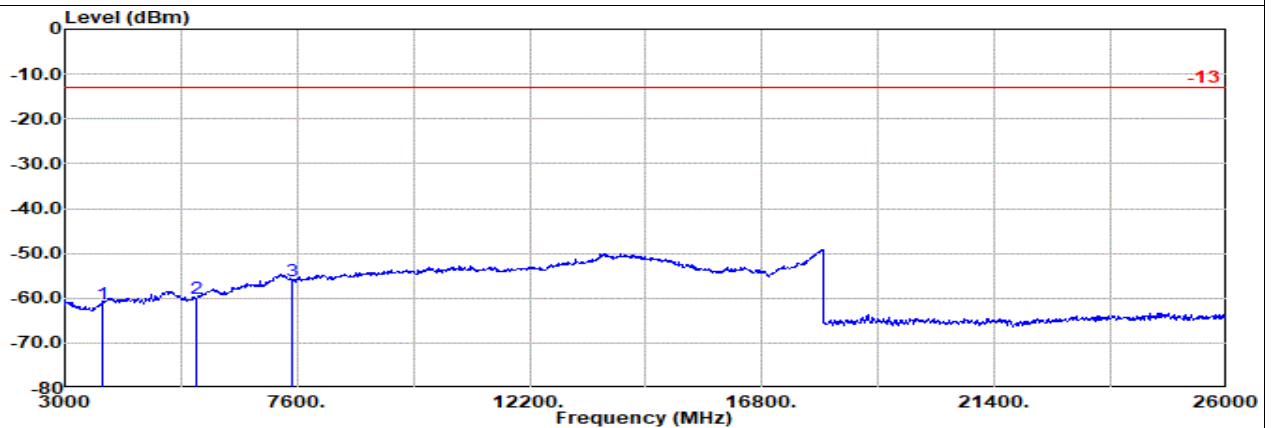


Site : 03CH21-HY

Condition: -13 1m BBHA9170_1223_250702 Horizontal

: LTE Band 2 20M Ch18900 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter				Readin	Limit	Margin Pol	
				Factor	1	EIRPCF					
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	3742.00	-61.41	RMS	30.07	-22.20	0.27	-95.23	25.68	-13.00	-48.41	Horizontal
2	5613.00	-60.00	RMS	32.85	-21.75	0.68	-95.23	23.45	-13.00	-47.00	Horizontal
3	7484.00	-55.82	RMS	36.36	-20.69	0.71	-95.23	23.03	-13.00	-42.82	Horizontal



Site : 03CH21-HY

Condition: -13 1m BBHA9170_1223_250702 Vertical

: LTE Band 2 20M Ch18900 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter				Readin	Limit	Margin Pol	
				Factor	1	EIRPCF					
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	3742.00	-61.19	RMS	30.07	-22.20	0.27	-95.23	25.90	-13.00	-48.19	Vertical
2	5613.00	-59.94	RMS	32.85	-21.75	0.68	-95.23	23.51	-13.00	-46.94	Vertical
3	7484.00	-56.03	RMS	36.36	-20.69	0.71	-95.23	22.82	-13.00	-43.03	Vertical

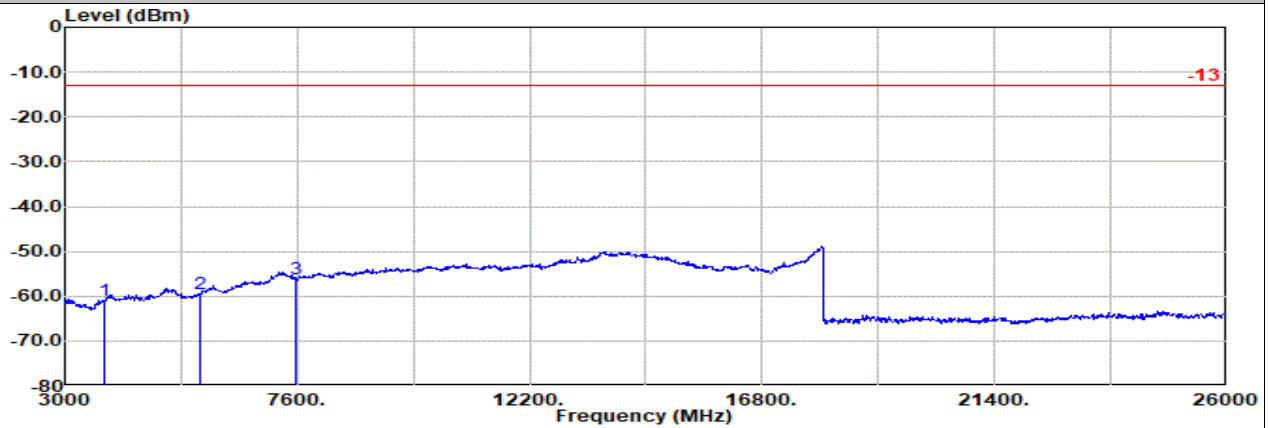


Main Antenna

Part 24E Mode 1

LTE B2 20M Ch19100 1RB0 QPSK

H

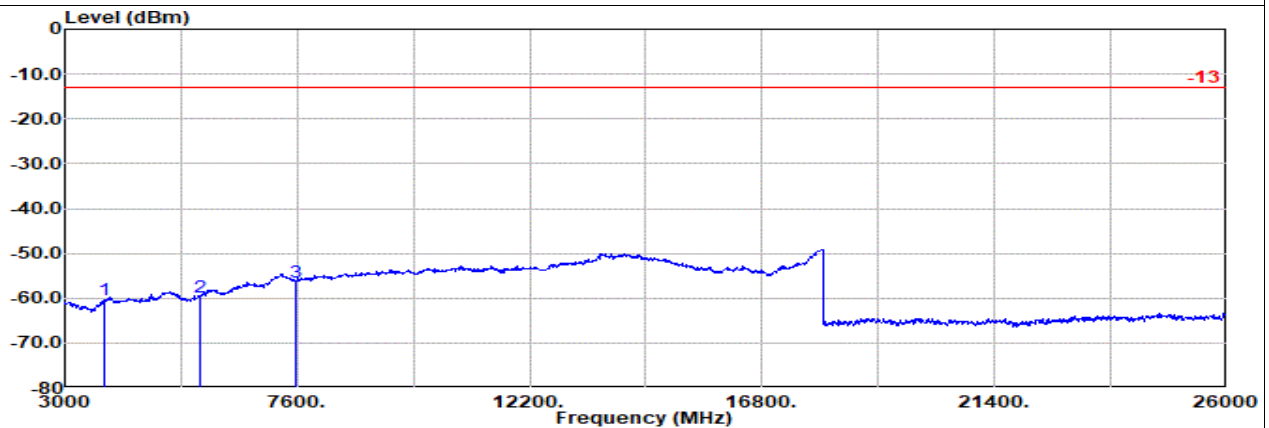


Site : 03CH21-HY

Condition: -13 1m BBHA9170_1223_250702 Horizontal

: LTE Band 2 20M Ch19100 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter				Readin	Limit	Margin	Pol
				Factor	1	EIRPCF					
	MHz	dBm			dB/m	dB	dB	dBuV	dBm	dB	
1	3782.00	-60.84	RMS		30.29	-22.16	0.29	-95.23	25.97	-13.00	-47.84 Horizontal
2	5673.00	-59.57	RMS		33.18	-21.71	0.66	-95.23	23.53	-13.00	-46.57 Horizontal
3	7564.00	-56.08	RMS		36.13	-20.70	0.69	-95.23	23.03	-13.00	-43.08 Horizontal



Site : 03CH21-HY

Condition: -13 1m BBHA9170_1223_250702 Vertical

: LTE Band 2 20M Ch19100 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter				Readin	Limit	Margin	Pol
				Factor	1	EIRPCF					
	MHz	dBm			dB/m	dB	dB	dBuV	dBm	dB	
1	3782.00	-60.50	RMS		30.29	-22.16	0.29	-95.23	26.31	-13.00	-47.50 Vertical
2	5673.00	-59.91	RMS		33.18	-21.71	0.66	-95.23	23.19	-13.00	-46.91 Vertical
3	7564.00	-56.41	RMS		36.13	-20.70	0.69	-95.23	22.70	-13.00	-43.41 Vertical

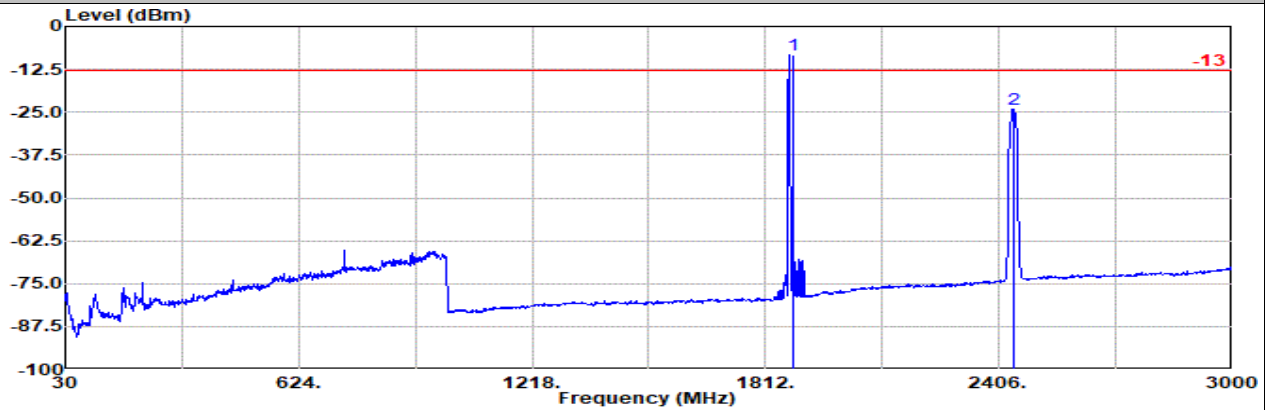


Main Antenna

Part 24E Mode 1

LTE B2 20M Ch18900 1RB0 QPSK

M



Site : 03CH21-HY

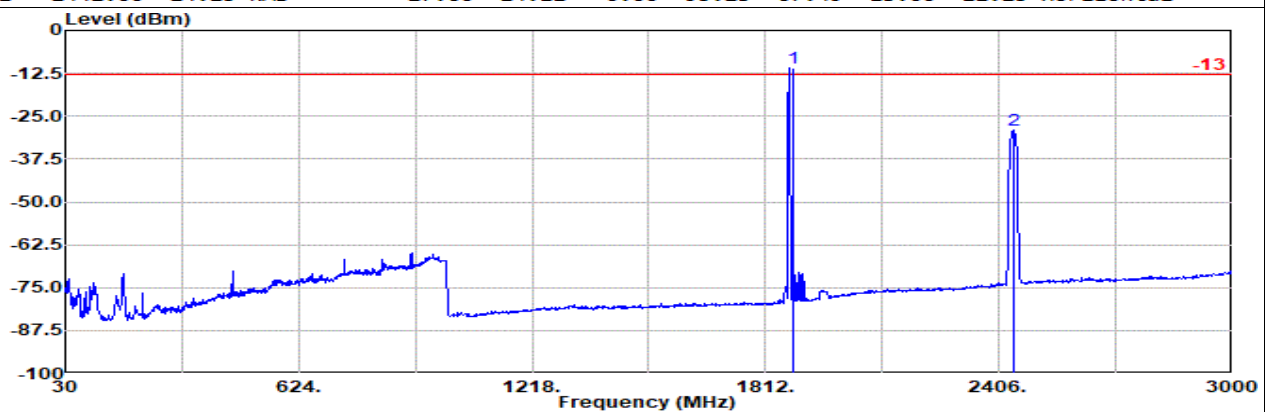
Condition: -13 3m BBHA9120 D_9120D-1212_250327 Horizontal

: LTE Band 2 20M Ch18900 1RB0 QPSK

: #1 is fundamental signal which can be ignored.

: #2 is fundamental signal which can be ignored.

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm									
1	1880.00	-8.18	RMS	25.50	-24.86	0.00	-95.23	86.41	-13.00	4.82	Horizontal
2	2442.00	-24.25	RMS	27.60	-24.11	0.00	-95.23	67.49	-13.00	-11.25	Horizontal



Site : 03CH21-HY

Condition: -13 3m BBHA9120 D_9120D-1212_250327 Vertical

: LTE Band 2 20M Ch18900 1RB0 QPSK

: #1 is fundamental signal which can be ignored.

: #2 is fundamental signal which can be ignored.

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm									
1	1880.00	-11.03	RMS	25.50	-24.86	0.00	-95.23	83.56	-13.00	1.97	Vertical
2	2442.00	-29.05	RMS	27.60	-24.11	0.00	-95.23	62.69	-13.00	-16.05	Vertical

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

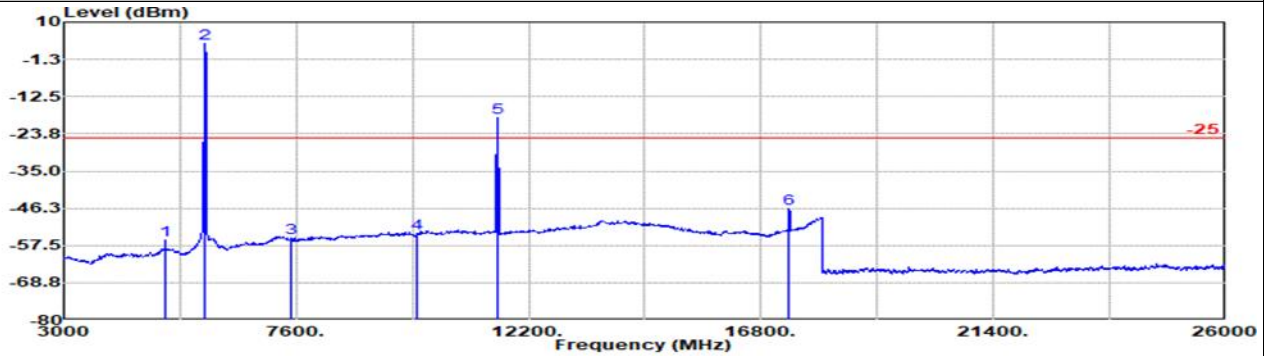


Main Antenna

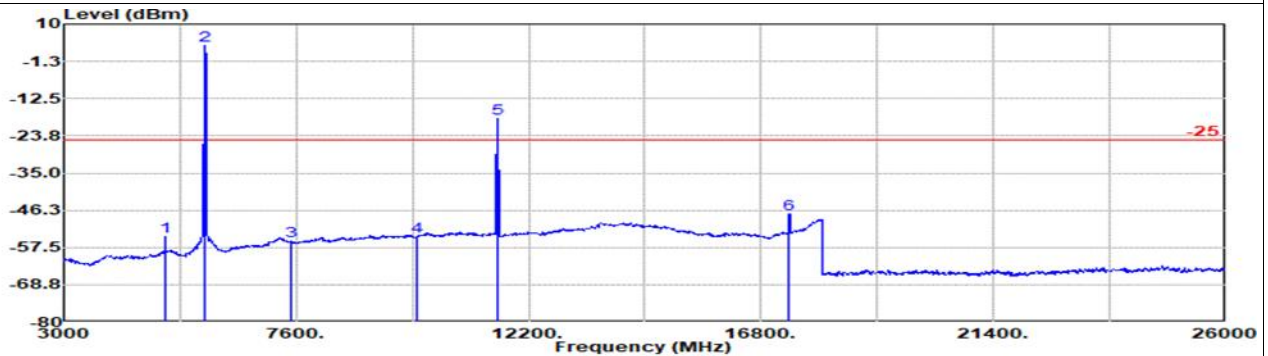
Part 27M Mode 2

LTE B7 20M Ch20850 1RB0 QPSK

L

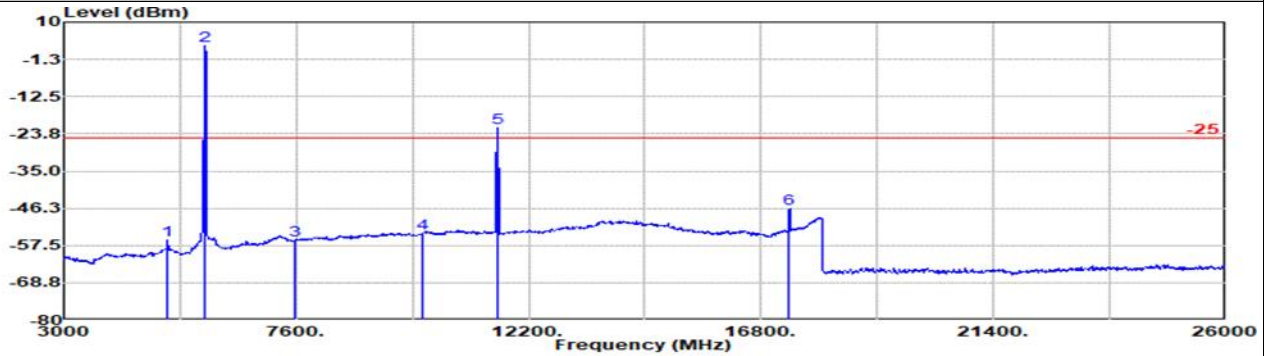


	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit dBm	Margin dB	Pol
				Factor	1					
1	5002.00	-56.00	RMS	33.19	-21.34	0.40 -95.23	0.00	-25.00	-31.00	Horizontal
2	5785.00	3.57	RMS	33.81	-21.63	0.62 -95.23	86.00	-25.00	28.57	Horizontal
3	7503.00	-55.04	RMS	36.29	-20.69	0.71 -95.23	23.88	-25.00	-30.04	Horizontal
4	10004.00	-53.96	RMS	38.22	-20.96	0.51 -95.23	23.50	-25.00	-28.96	Horizontal
5	11570.00	-18.99	RMS	38.72	-21.50	0.49 -95.23	58.53	-25.00	6.01	Horizontal
6	17355.00	-46.40	RMS	37.82	-22.93	0.68 -95.23	33.26	-25.00	-21.40	Horizontal



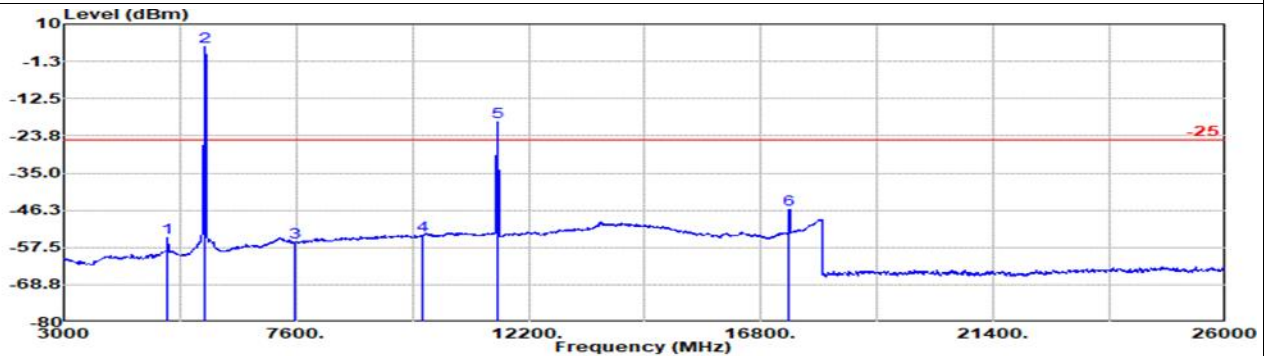
	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit dBm	Margin dB	Pol
				Factor	1					
1	5002.00	-54.07	RMS	33.19	-21.34	0.40 -95.23	28.91	-25.00	-29.07	Vertical
2	5785.00	3.71	RMS	33.81	-21.63	0.62 -95.23	86.14	-25.00	28.71	Vertical
3	7503.00	-55.53	RMS	36.29	-20.69	0.71 -95.23	23.39	-25.00	-30.53	Vertical
4	10004.00	-54.08	RMS	38.22	-20.96	0.51 -95.23	23.38	-25.00	-29.08	Vertical
5	11570.00	-18.56	RMS	38.72	-21.50	0.49 -95.23	58.96	-25.00	6.44	Vertical
6	17355.00	-47.26	RMS	37.82	-22.93	0.68 -95.23	32.40	-25.00	-22.26	Vertical

Remark : #2, #5, #6 is WLAN signal which can be ignored.

Main Antenna
Part 27M Mode 2
LTE B7 20M Ch21100 1RB0 QPSK
M


Site : 03CH21-HY
Condition: -25 1m BBHA9170_1223_250702 Horizontal
: LTE Band 7 20M Ch21100 1RB0 QPSK

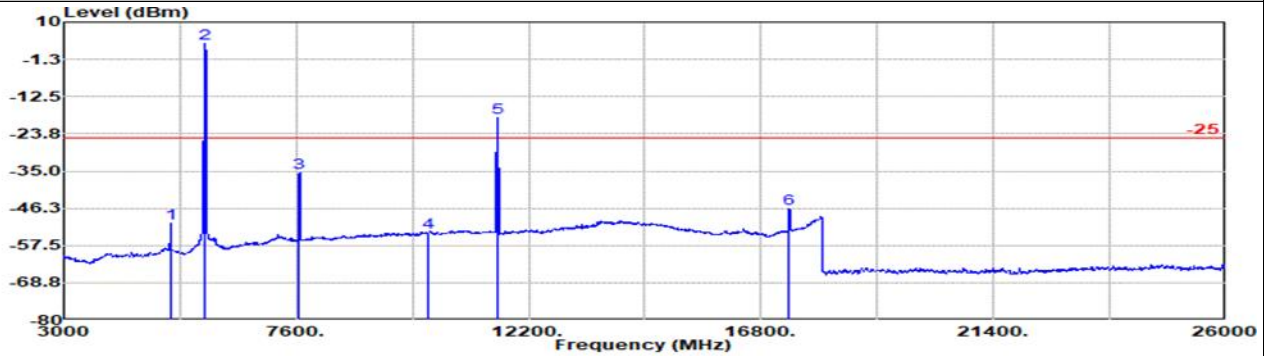
	Freq	Level	Detector	Ant Factor	Amp\Cb 1	Filter	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	5052.00	-55.78	RMS	33.00	-21.39	0.40	-95.23	27.44	-25.00	-30.78	Horizontal
2	5785.00	2.95	RMS	33.81	-21.63	0.62	-95.23	85.38	-25.00	27.95	Horizontal
3	7578.00	-55.98	RMS	36.16	-20.70	0.69	-95.23	23.10	-25.00	-30.98	Horizontal
4	10104.00	-53.79	RMS	38.42	-21.06	0.51	-95.23	23.57	-25.00	-28.79	Horizontal
5	11570.00	-21.80	RMS	38.72	-21.50	0.49	-95.23	55.72	-25.00	3.20	Horizontal
6	17355.00	-46.35	RMS	37.82	-22.93	0.68	-95.23	33.31	-25.00	-21.35	Horizontal



Site : 03CH21-HY
Condition: -25 1m BBHA9170_1223_250702 Vertical
: LTE Band 7 20M Ch21100 1RB0 QPSK

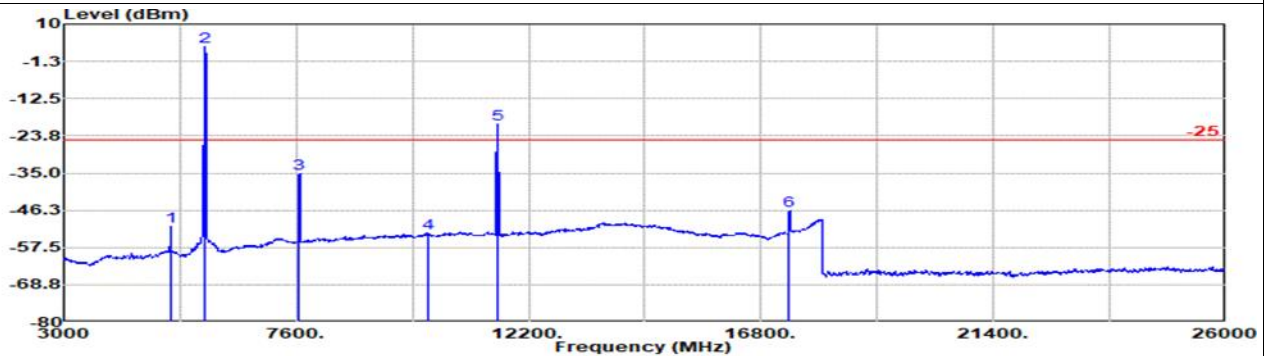
	Freq	Level	Detector	Ant	Amp\Cb	Filter	EIRPCF	Readin	Limit	Margin	Pol
				Factor	1			g			
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	5052.00	-54.55	RMS	33.00	-21.39	0.40	-95.23	28.67	-25.00	-29.55	Vertical
2	5785.00	3.07	RMS	33.81	-21.63	0.62	-95.23	85.50	-25.00	28.07	Vertical
3	7578.00	-55.84	RMS	36.16	-20.70	0.69	-95.23	23.24	-25.00	-30.84	Vertical
4	10104.00	-54.00	RMS	38.42	-21.06	0.51	-95.23	23.36	-25.00	-29.00	Vertical
5	11570.00	-19.53	RMS	38.72	-21.50	0.49	-95.23	57.99	-25.00	5.47	Vertical
6	17355.00	-45.88	RMS	37.82	-22.93	0.68	-95.23	33.78	-25.00	-20.88	Vertical

Remark : #2, #5, #6 is WLAN signal which can be ignored.

Main Antenna
Part 27M Mode 2
LTE B7 20M Ch21350 1RB0 QPSK
H


Site : 03CH21-HY
Condition: -25 1m BBHA9170_1223_250702 Horizontal
: LTE Band 7 20M Ch21350 1RB0 QPSK

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit dBm	Margin	Pol
				Factor	1					
1	5102.00	-50.78	RMS	33.00	-21.44	0.39 -95.23	32.50	-25.00	-25.78	Horizontal
2	5785.00	3.66	RMS	33.81	-21.63	0.62 -95.23	86.09	-25.00	28.66	Horizontal
3	7653.00	-35.66	RMS	36.31	-20.73	0.61 -95.23	43.38	-25.00	-10.66	Horizontal
4	10204.00	-53.52	RMS	38.70	-21.16	0.51 -95.23	23.66	-25.00	-28.52	Horizontal
5	11570.00	-18.72	RMS	38.72	-21.50	0.49 -95.23	58.80	-25.00	6.28	Horizontal
6	17355.00	-46.44	RMS	37.82	-22.93	0.68 -95.23	33.22	-25.00	-21.44	Horizontal



Site : 03CH21-HY
Condition: -25 1m BBHA9170_1223_250702 Vertical
: LTE Band 7 20M Ch21350 1RB0 QPSK

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit dBm	Margin	Pol
				Factor	1					
1	5102.00	-51.27	RMS	33.00	-21.44	0.39 -95.23	32.01	-25.00	-26.27	Vertical
2	5785.00	3.15	RMS	33.81	-21.63	0.62 -95.23	85.58	-25.00	28.15	Vertical
3	7653.00	-35.02	RMS	36.31	-20.73	0.61 -95.23	44.02	-25.00	-10.02	Vertical
4	10204.00	-53.21	RMS	38.70	-21.16	0.51 -95.23	23.97	-25.00	-28.21	Vertical
5	11570.00	-20.22	RMS	38.72	-21.50	0.49 -95.23	57.30	-25.00	4.78	Vertical
6	17355.00	-46.32	RMS	37.82	-22.93	0.68 -95.23	33.34	-25.00	-21.32	Vertical

Remark : #2, #5, #6 is WLAN signal which can be ignored.

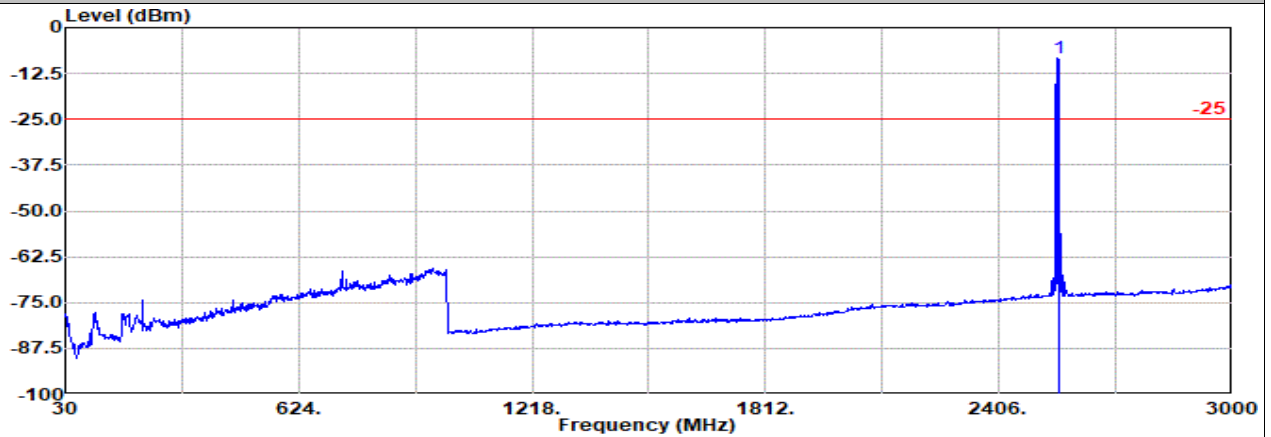


Main Antenna

Part 27M Mode 2

LTE B7 20M Ch21350 1RB0 QPSK

H



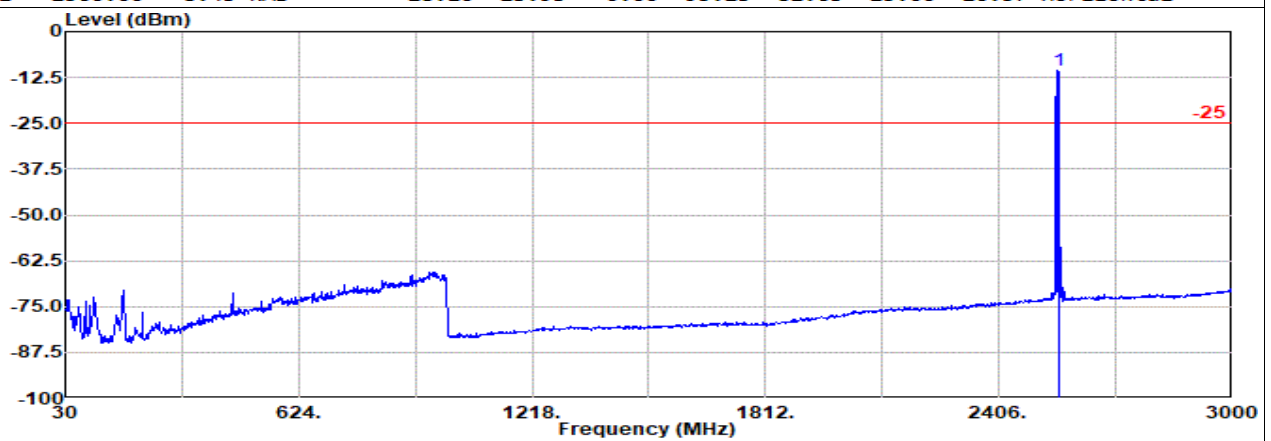
Site : 03CH21-HY

Condition: -25 3m BBHA9120 D_9120D-1212_250327 Horizontal

: LTE Band 7 20M Ch21350 1RB0 QPSK

: #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	2560.00	-8.43	RMS	28.10	-23.93	0.00	-95.23	82.63	-25.00	16.57	Horizontal



Site : 03CH21-HY

Condition: -25 3m BBHA9120 D_9120D-1212_250327 Vertical

: LTE Band 7 20M Ch21350 1RB0 QPSK

: #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	2560.00	-10.74	RMS	28.10	-23.93	0.00	-95.23	80.32	-25.00	14.26	Vertical

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

**<RTL8852CE>****A2. Summary of each worse mode**

Mode	Part	Band	Ch	Freq (MHz)	Level (dBm)	Det	Ant Factor (dB)	AmplCbl (dB)	Filter (dB)	EIRPCF (dB)	Reading (dBuV)	Limit (dBm)	Margin (dB)	Pol	Ant
1	Part 24E	LTE B2	L	3073	-38.60	RMS	28.11	-23.38	2.23	-95.23	49.67	-13.00	-25.60	V	Main
2	Part 27M	LTE B7	H	5102	-55.33	RMS	32.5	-21.64	0.69	-95.23	28.35	-25.00	-30.33	V	Main

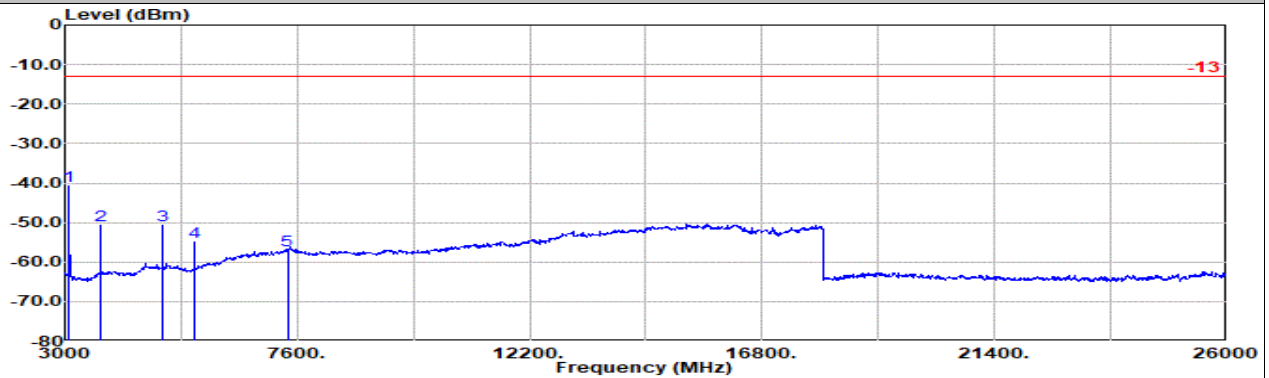


Main Antenna

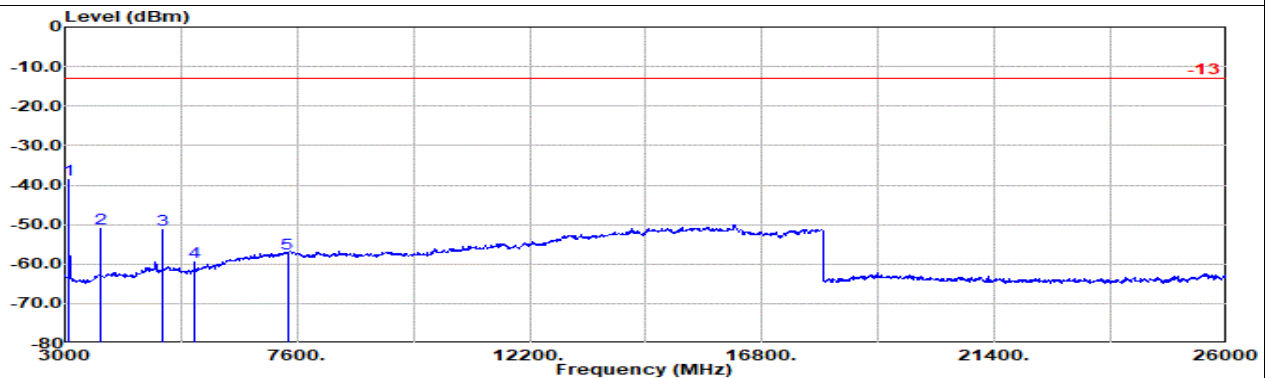
Part 24E Mode 3

LTE B2 20M Ch18700 1RB0 QPSK

L



	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	3073.00	-40.67	RMS	28.11	-23.38	2.23	-95.23	47.60	-13.00	-27.67	Horizontal
2	3702.00	-50.75	RMS	29.62	-23.09	0.95	-95.23	37.00	-13.00	-37.75	Horizontal
3	4924.00	-50.71	RMS	32.50	-21.66	0.72	-95.23	32.96	-13.00	-37.71	Horizontal
4	5553.00	-55.07	RMS	32.71	-21.98	0.71	-95.23	28.72	-13.00	-42.07	Horizontal
5	7404.00	-57.08	RMS	36.89	-21.25	0.92	-95.23	21.59	-13.00	-44.08	Horizontal



	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	3073.00	-38.60	RMS	28.11	-23.38	2.23	-95.23	49.67	-13.00	-25.60	Vertical
2	3702.00	-51.02	RMS	29.62	-23.09	0.95	-95.23	36.73	-13.00	-38.02	Vertical
3	4924.00	-51.46	RMS	32.50	-21.66	0.72	-95.23	32.21	-13.00	-38.46	Vertical
4	5553.00	-59.53	RMS	32.71	-21.98	0.71	-95.23	24.26	-13.00	-46.53	Vertical
5	7404.00	-57.40	RMS	36.89	-21.25	0.92	-95.23	21.27	-13.00	-44.40	Vertical

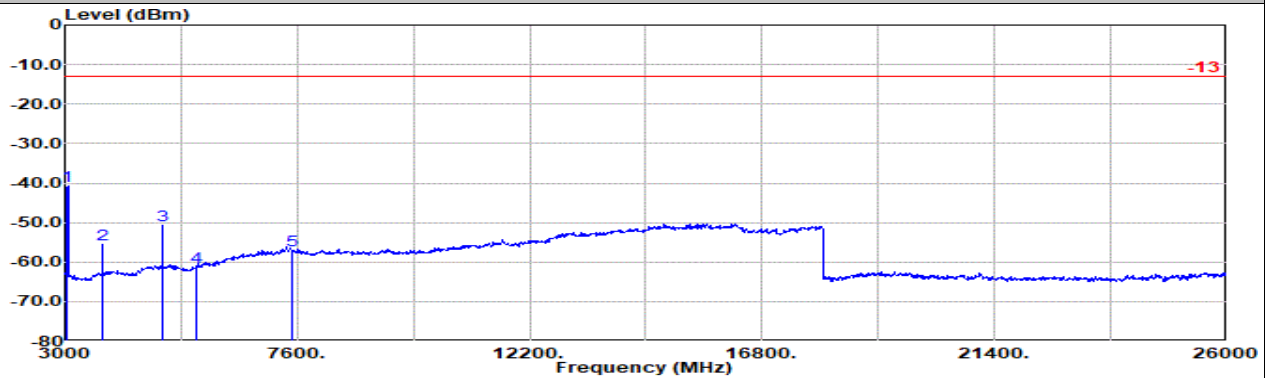


Main Antenna

Part 24E Mode 3

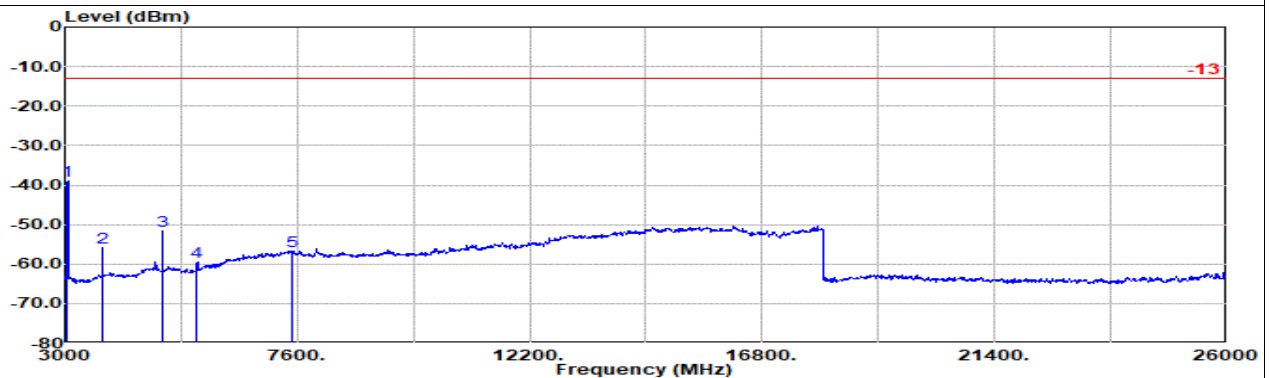
LTE B2 20M Ch18900 1RB0 QPSK

M



Site : 03CH21-HY
Condition: -13 1m BBHA9170_1225_250702 Horizontal
: LTE Band 2 20M Ch18900 1RB0 QPSK
: #1 is IM3.
: #3 is WLAN harmonic signal which can be ignored.

Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
MHz	dBm									
1	3053.00	-40.68 RMS	28.19	-23.39	2.34	-95.23	47.41	-13.00	-27.68	Horizontal
2	3742.00	-55.56 RMS	29.94	-23.05	0.94	-95.23	31.84	-13.00	-42.56	Horizontal
3	4924.00	-50.59 RMS	32.50	-21.66	0.72	-95.23	33.08	-13.00	-37.59	Horizontal
4	5613.00	-61.37 RMS	32.95	-21.94	0.69	-95.23	22.16	-13.00	-48.37	Horizontal
5	7484.00	-57.17 RMS	36.73	-21.23	0.95	-95.23	21.61	-13.00	-44.17	Horizontal



Site : 03CH21-HY
Condition: -13 1m BBHA9170_1225_250702 Vertical
: LTE Band 2 20M Ch18900 1RB0 QPSK
: #1 is IM3.
: #3 is WLAN harmonic signal which can be ignored.

Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
MHz	dBm									
1	3053.00	-38.98 RMS	28.19	-23.39	2.34	-95.23	49.11	-13.00	-25.98	Vertical
2	3742.00	-55.78 RMS	29.94	-23.05	0.94	-95.23	31.62	-13.00	-42.78	Vertical
3	4924.00	-51.71 RMS	32.50	-21.66	0.72	-95.23	31.96	-13.00	-38.71	Vertical
4	5613.00	-59.59 RMS	32.95	-21.94	0.69	-95.23	23.94	-13.00	-46.59	Vertical
5	7484.00	-56.79 RMS	36.73	-21.23	0.95	-95.23	21.99	-13.00	-43.79	Vertical

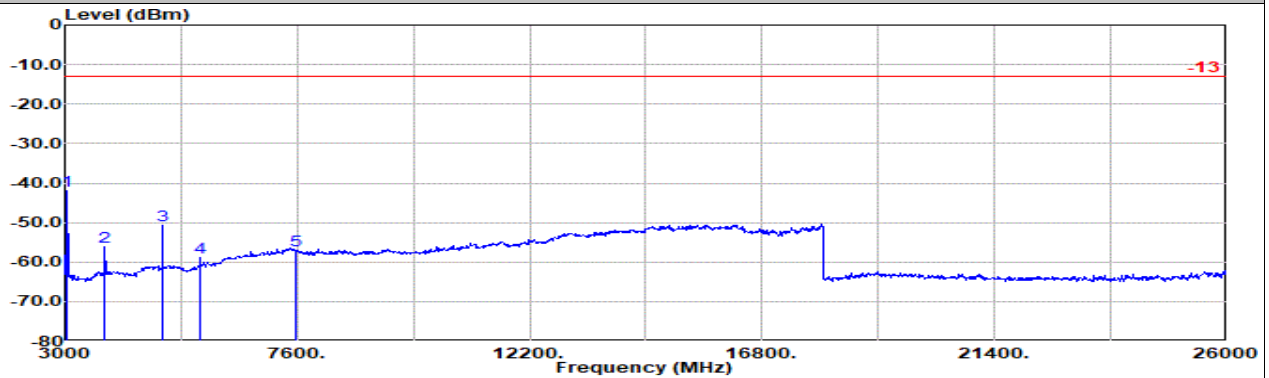


Main Antenna

Part 24E Mode 3

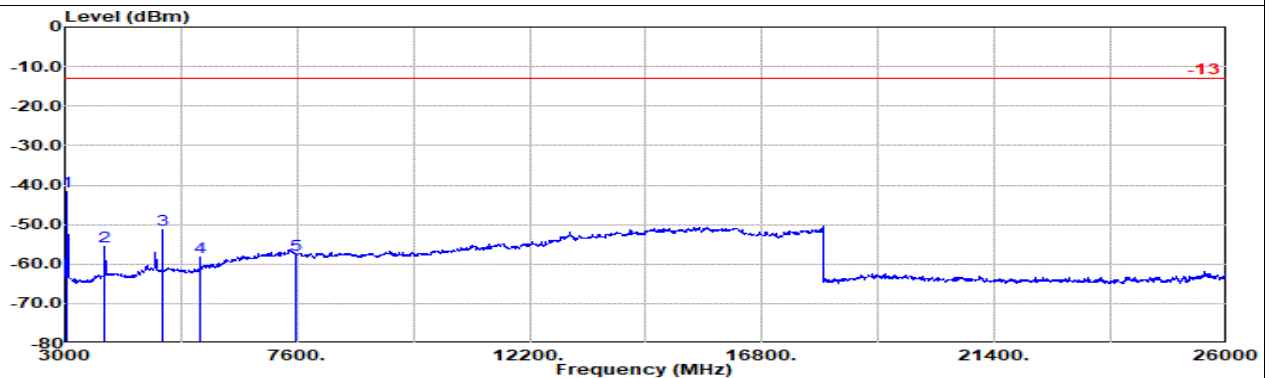
LTE B2 20M Ch19100 1RB0 QPSK

H



Site : 03CH21-HY
Condition: -13 1m BBHA9170_1225_250702 Horizontal
: LTE Band 2 20M Ch19100 1RB0 QPSK
: #1 is IM3.
: #3 is WLAN harmonic signal which can be ignored.

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm				dB	dB	dBuV	dBm	dB	
1	3033.00	-41.94	RMS	28.30	-23.39	2.44	-95.23	45.94	-13.00	-28.94	Horizontal
2	3782.00	-56.05	RMS	30.13	-23.00	0.93	-95.23	31.12	-13.00	-43.05	Horizontal
3	4924.00	-50.79	RMS	32.50	-21.66	0.72	-95.23	32.88	-13.00	-37.79	Horizontal
4	5673.00	-58.92	RMS	33.24	-21.89	0.70	-95.23	24.26	-13.00	-45.92	Horizontal
5	7564.00	-57.12	RMS	36.60	-21.24	0.98	-95.23	21.77	-13.00	-44.12	Horizontal



Site : 03CH21-HY
Condition: -13 1m BBHA9170_1225_250702 Vertical
: LTE Band 2 20M Ch19100 1RB0 QPSK
: #1 is IM3.
: #3 is WLAN harmonic signal which can be ignored.

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm				dB	dB	dBuV	dBm	dB	
1	3033.00	-41.81	RMS	28.30	-23.39	2.44	-95.23	46.07	-13.00	-28.81	Vertical
2	3782.00	-55.41	RMS	30.13	-23.00	0.93	-95.23	31.76	-13.00	-42.41	Vertical
3	4924.00	-51.33	RMS	32.50	-21.66	0.72	-95.23	32.34	-13.00	-38.33	Vertical
4	5673.00	-58.39	RMS	33.24	-21.89	0.70	-95.23	24.79	-13.00	-45.39	Vertical
5	7564.00	-57.56	RMS	36.60	-21.24	0.98	-95.23	21.33	-13.00	-44.56	Vertical

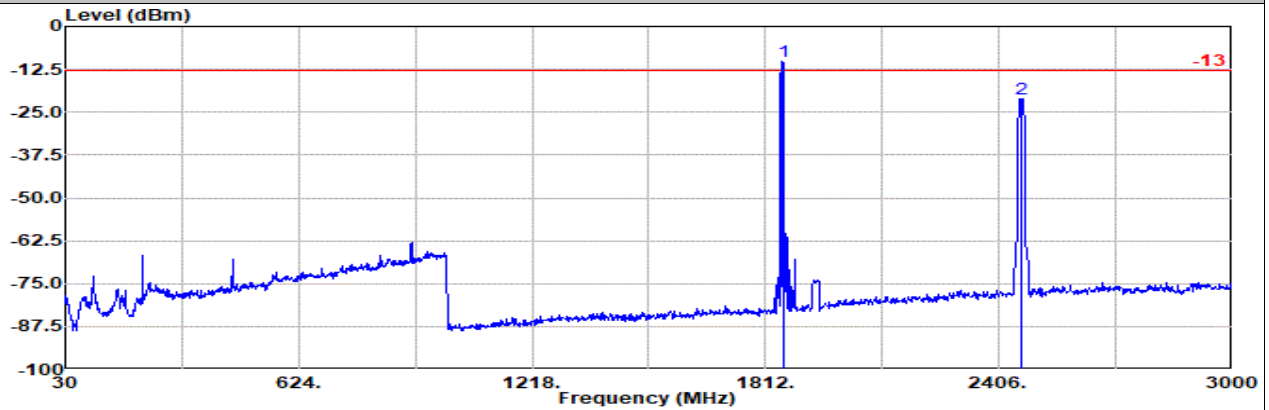


Main Antenna

Part 24E Mode 3

LTE B2 20M Ch18900 1RB0 QPSK

M



Site : 03CH21-HY

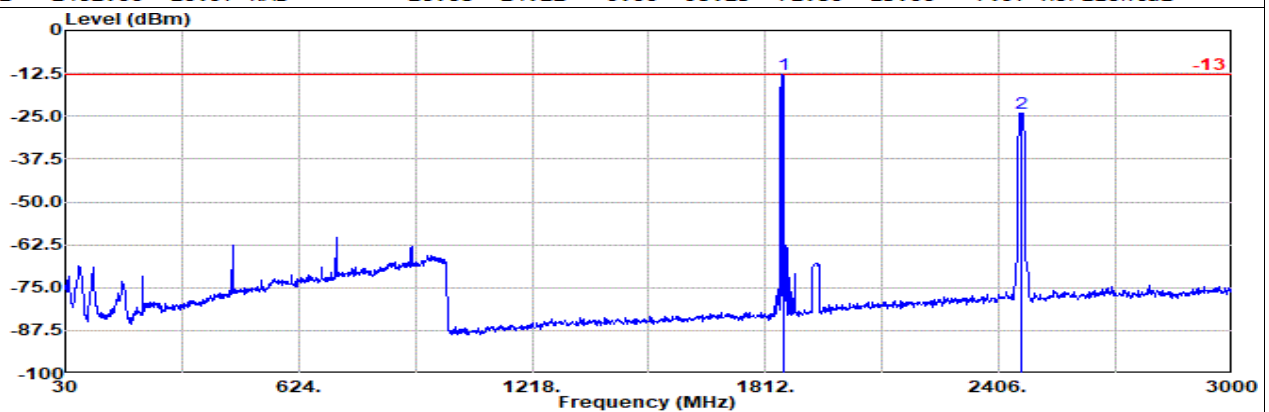
Condition: -13 3m LF_63303&001_241217 Horizontal

: LTE Band 2 10M Ch18700 1RB0 QPSK

: #1 is fundamental signal which can be ignored.

: #2 is fundamental signal which can be ignored.

	Freq		Level	Detector	Ant Factor	Amp\Cb		Filter	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm				dB/m	dB				dBm	dB	
1	1860.00	-10.02	RMS		25.00	-24.96	0.00	-95.23	-95.23	85.17	-13.00	2.98	Horizontal
2	2462.00	-20.97	RMS		26.68	-24.22	0.00	-95.23	-95.23	71.80	-13.00	-7.97	Horizontal



Site : 03CH21-HY

Condition: -13 3m LF_63303&001_241217 Vertical

: LTE Band 2 10M Ch18700 1RB0 QPSK

: #1 is fundamental signal which can be ignored.

: #2 is fundamental signal which can be ignored.

	Freq		Level	Detector	Ant Factor	Amp\Cb		Filter	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm				dB/m	dB				dBm	dB	
1	1860.00	-12.97	RMS		25.00	-24.96	0.00	-95.23	-95.23	82.22	-13.00	0.03	Vertical
2	2462.00	-24.06	RMS		26.68	-24.22	0.00	-95.23	-95.23	68.71	-13.00	-11.06	Vertical

Remark: #1 & #2 is fundamental signal which can be ignored.

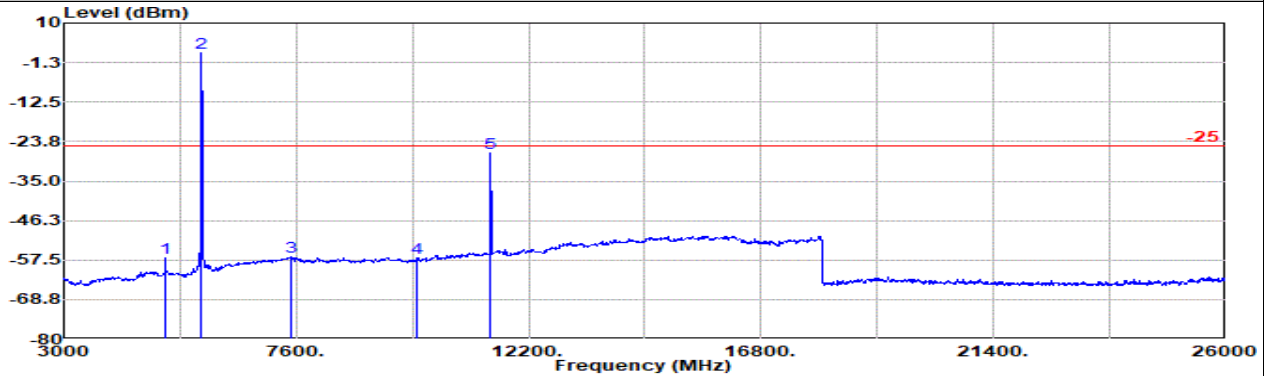


Main Antenna

Part 27M Mode 4

LTE B7 20M Ch20850 1RB0 QPSK

L



Site : 03CH21-HY

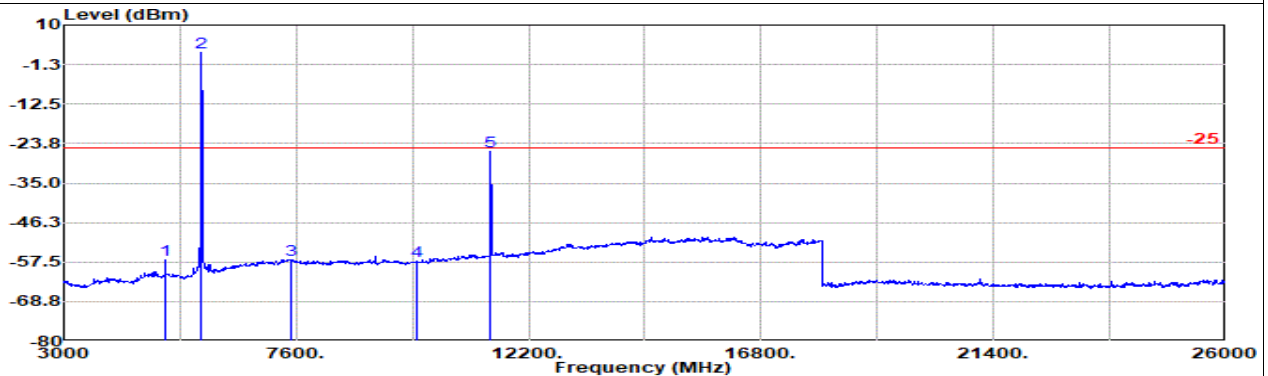
Condition: -25 1m BBHA9170_1225_250702 Horizontal

: LTE Band 7 20M Ch20850 1RB0 QPSK

: #2 is fundamental signal which can be ignored.

: #5 is WLAN harmonic signal which can be ignored.

Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
MHz	dBm			dB/m	dB	dB	dB	dBm	dB	
1	5002.00	-56.76 RMS	32.80	-21.55	0.65	-95.23	26.57	-25.00	-31.76	Horizontal
2	5720.00	1.39 RMS	33.52	-21.84	0.71	-95.23	84.23	-25.00	26.39	Horizontal
3	7503.00	-56.62 RMS	36.69	-21.23	0.96	-95.23	22.19	-25.00	-31.62	Horizontal
4	10004.00	-56.98 RMS	37.10	-21.14	0.57	-95.23	21.72	-25.00	-31.98	Horizontal
5	11440.00	-26.90 RMS	38.40	-21.53	0.58	-95.23	50.88	-25.00	-1.90	Horizontal



Site : 03CH21-HY

Condition: -25 1m BBHA9170_1225_250702 Vertical

: LTE Band 7 20M Ch20850 1RB0 QPSK

: #2 is fundamental signal which can be ignored.

: #5 is WLAN harmonic signal which can be ignored.

Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
MHz	dBm			dB/m	dB	dB	dB	dBm	dB	
1	5002.00	-56.79 RMS	32.80	-21.55	0.65	-95.23	26.54	-25.00	-31.79	Vertical
2	5720.00	2.07 RMS	33.52	-21.84	0.71	-95.23	84.91	-25.00	27.07	Vertical
3	7503.00	-56.84 RMS	36.69	-21.23	0.96	-95.23	21.97	-25.00	-31.84	Vertical
4	10004.00	-57.11 RMS	37.10	-21.14	0.57	-95.23	21.59	-25.00	-32.11	Vertical
5	11440.00	-25.96 RMS	38.40	-21.53	0.58	-95.23	51.82	-25.00	-0.96	Vertical

Remark: #2 & #5 is fundamental signal which can be ignored.

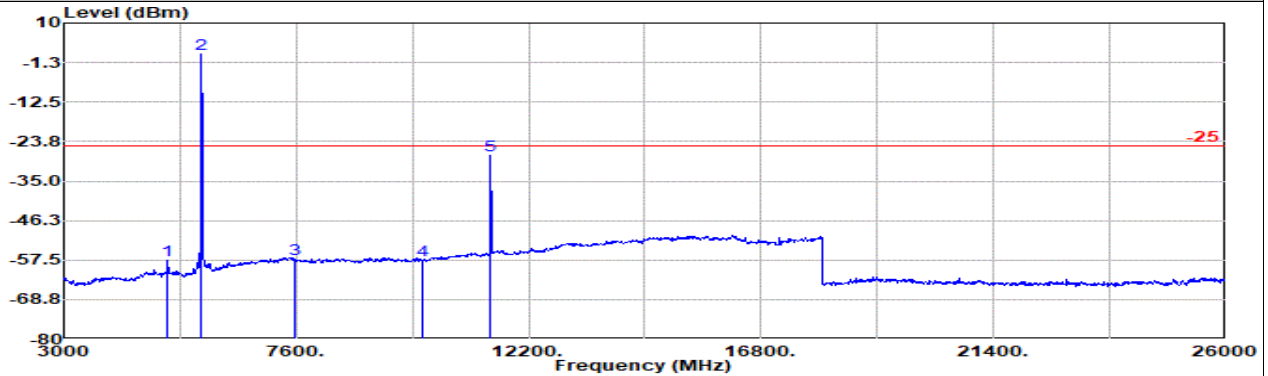


Main Antenna

Part 27M Mode 4

LTE B7 20M Ch21100 1RB0 QPSK

M



Site : 03CH21-HY

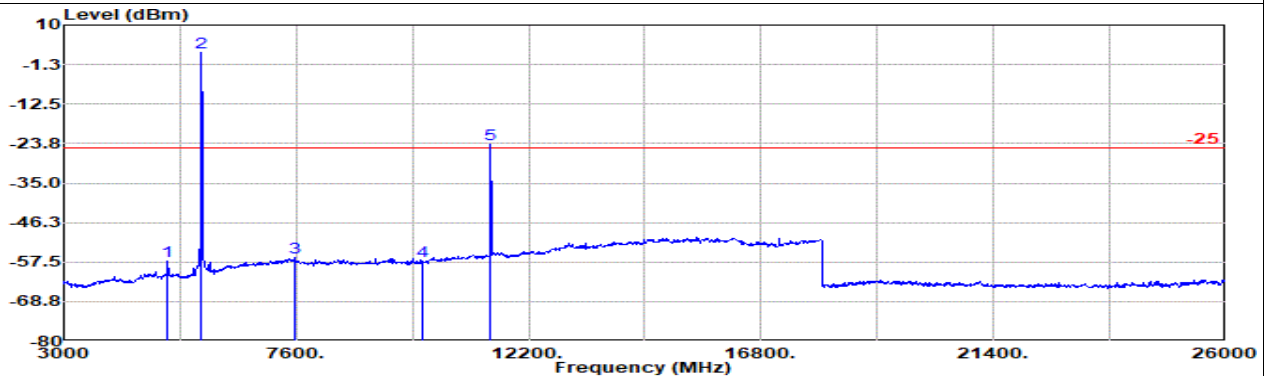
Condition: -25 1m BBHA9170_1225_250702 Horizontal

: LTE Band 7 20M Ch21100 1RB0 QPSK

: #2 is fundamental signal which can be ignored.

: #5 is WLAN harmonic signal which can be ignored.

Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
MHz	dBm									
1	5052.00	-57.67 RMS	32.69	-21.60	0.67	-95.23	25.80	-25.00	-32.67	Horizontal
2	5720.00	1.31 RMS	33.52	-21.84	0.71	-95.23	84.15	-25.00	26.31	Horizontal
3	7578.00	-57.20 RMS	36.60	-21.24	0.98	-95.23	21.69	-25.00	-32.20	Horizontal
4	10104.00	-57.44 RMS	37.11	-21.22	0.57	-95.23	21.33	-25.00	-32.44	Horizontal
5	11440.00	-27.87 RMS	38.40	-21.53	0.58	-95.23	49.91	-25.00	-2.87	Horizontal



Site : 03CH21-HY

Condition: -25 1m BBHA9170_1225_250702 Vertical

: LTE Band 7 20M Ch21100 1RB0 QPSK

: #2 is fundamental signal which can be ignored.

: #5 is WLAN harmonic signal which can be ignored.

Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
MHz	dBm									
1	5052.00	-57.32 RMS	32.69	-21.60	0.67	-95.23	26.15	-25.00	-32.32	Vertical
2	5720.00	2.04 RMS	33.52	-21.84	0.71	-95.23	84.88	-25.00	27.04	Vertical
3	7578.00	-56.38 RMS	36.60	-21.24	0.98	-95.23	22.51	-25.00	-31.38	Vertical
4	10104.00	-57.23 RMS	37.11	-21.22	0.57	-95.23	21.54	-25.00	-32.23	Vertical
5	11440.00	-23.91 RMS	38.40	-21.53	0.58	-95.23	53.87	-25.00	1.09	Vertical

Remark: #2 & #5 is fundamental signal which can be ignored.

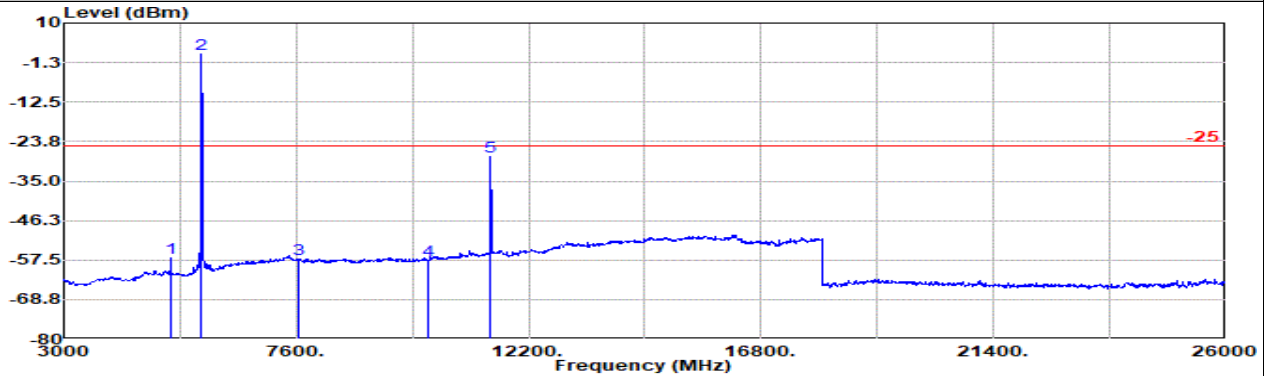


Main Antenna

Part 27M Mode 4

LTE B7 20M Ch21350 1RB0 QPSK

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Site : 03CH21-HY

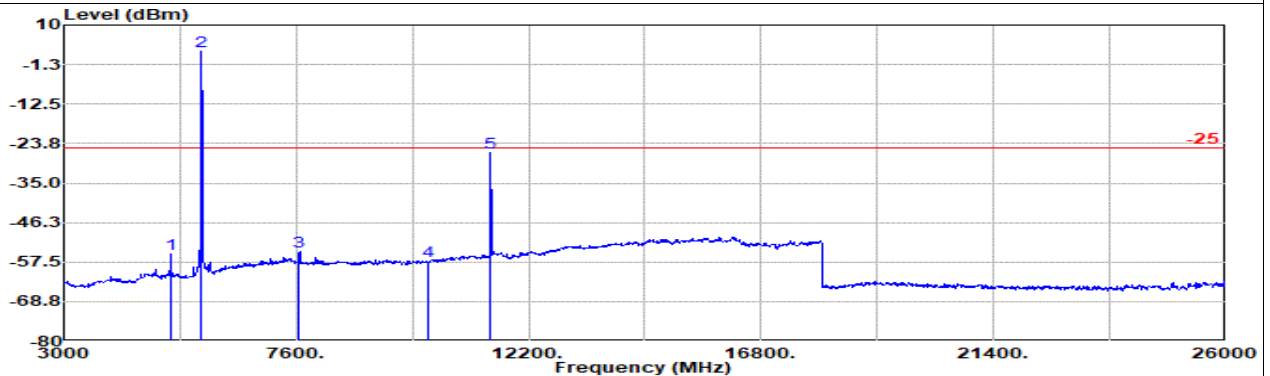
Condition: -25 1m BBHA9170_1225_250702 Horizontal

: LTE Band 7 20M Ch21350 1RB0 QPSK

: #2 is fundamental signal which can be ignored.

: #5 is WLAN harmonic signal which can be ignored.

Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
MHz	dBm									
1	5102.00	-57.01 RMS	32.50	-21.64	0.69	-95.23	26.67	-25.00	-32.01	Horizontal
2	5720.00	1.29 RMS	33.52	-21.84	0.71	-95.23	84.13	-25.00	26.29	Horizontal
3	7653.00	-57.35 RMS	36.59	-21.25	0.95	-95.23	21.59	-25.00	-32.35	Horizontal
4	10204.00	-57.59 RMS	37.29	-21.31	0.57	-95.23	21.09	-25.00	-32.59	Horizontal
5	11440.00	-28.06 RMS	38.40	-21.53	0.58	-95.23	49.72	-25.00	-3.06	Horizontal



Site : 03CH21-HY

Condition: -25 1m BBHA9170_1225_250702 Vertical

: LTE Band 7 20M Ch21350 1RB0 QPSK

: #2 is fundamental signal which can be ignored.

: #5 is WLAN harmonic signal which can be ignored.

Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
MHz	dBm									
1	5102.00	-55.33 RMS	32.50	-21.64	0.69	-95.23	28.35	-25.00	-30.33	Vertical
2	5720.00	2.41 RMS	33.52	-21.84	0.71	-95.23	85.25	-25.00	27.41	Vertical
3	7653.00	-54.37 RMS	36.59	-21.25	0.95	-95.23	24.57	-25.00	-29.37	Vertical
4	10204.00	-57.39 RMS	37.29	-21.31	0.57	-95.23	21.29	-25.00	-32.39	Vertical
5	11440.00	-26.43 RMS	38.40	-21.53	0.58	-95.23	51.35	-25.00	-1.43	Vertical

Remark: #2 & #5 is fundamental signal which can be ignored.

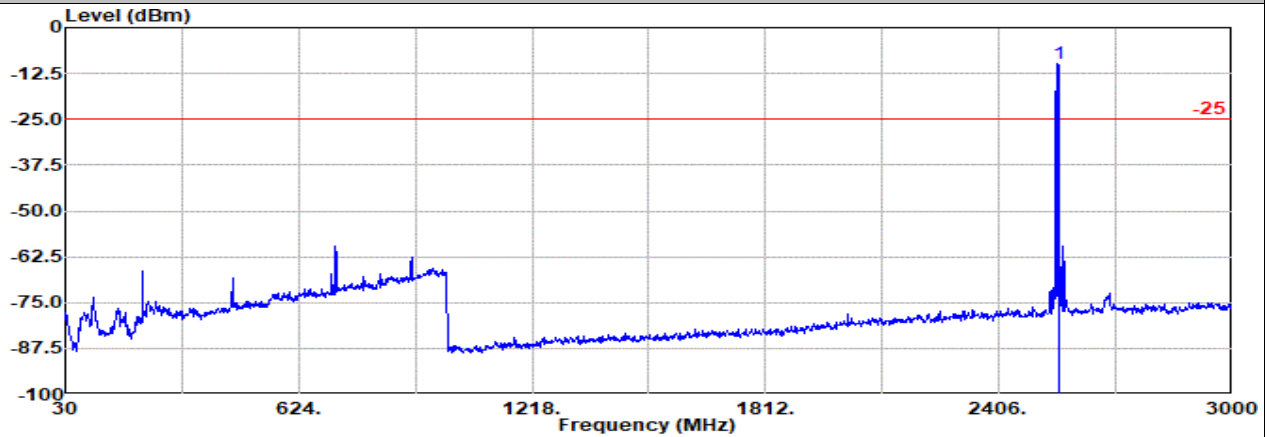


Main Antenna

Part 27M Mode 4

LTE B7 20M Ch21350 1RB0 QPSK

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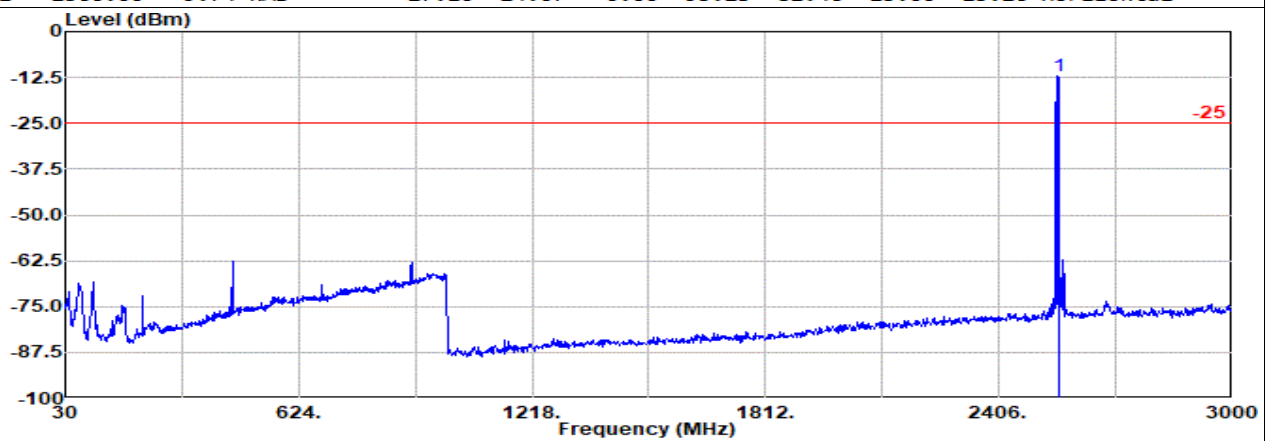
Site : 03CH21-HY

Condition: -25 3m LF_63303&001_241217 Horizontal

: LTE Band 7 20M Ch21350 1RB0 QPSK

: #1 is fundamental signal which can be ignored.

Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
MHz	dBm									
1	2560.00	-9.74	RMS	27.10	-24.07	0.00	-95.23	82.46	-25.00	15.26 Horizontal



Site : 03CH21-HY

Condition: -25 3m LF_63303&001_241217 Vertical

: LTE Band 7 20M Ch21350 1RB0 QPSK

: #1 is fundamental signal which can be ignored.

Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
MHz	dBm									
1	2560.00	-12.05	RMS	27.10	-24.07	0.00	-95.23	80.15	-25.00	12.95 Vertical

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