FCC RADIO TEST REPORT

FCC ID	:	2AJN7-TP00159AL
Equipment	:	Notebook Computer
Brand Name	:	Lenovo
Model Name	:	TP00159D, TP00159E
Applicant	:	LC Future Center Limited Taiwan Branch 7F., No.780, Beian Rd., Zhongshan Dist., Taipei 104, Taiwan
Manufacturer	:	Lenovo PC HK Limited 23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong, P.R. China
Standard	:	FCC 47 CFR Part 2, 27

Equipment: Quectel EM061K-GL tested inside of Lenovo Notebook Computer.

The product was received on Feb. 12, 2025 and testing was performed from Mar. 11, 2025 to Mar. 14, 2025. 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 variant 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

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History of this test report

Report No.	Version	Description	Issue Date
FG3N1049-17	01	Initial issue of report	Mar. 24, 2025
FG3N1049-17	02	Revise Section 1.1 and Section 1.2 This report is an updated version, replacing the report issued on Mar. 24, 2025.	Apr. 29, 2025
FG3N1049-17	03	Revise Model Name This report is an updated version, replacing the report issued on Apr. 29, 2025.	May 06, 2025

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	-
	§27.50 (b)(10)	Effective Radiated Power (Band 13)	Pass	
	§27.50 (h)(2)	Equivalent Isotropic Radiated Power (Band 7)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (Band 4)		
	§27.50 (a)(3)	Equivalent Isotropic Radiated Power (Band 30)		
-	§27.50 (d)(5)	Peak-to-Average Ratio	Pass	See Note
-	§2.1049	Occupied Bandwidth	Pass	See Note
-	§2.1051 §27.53 (c)(2)(4) §27.53 (h)	Conducted Band Edge Measurement (Band 4) (Band 13)	Pass	See Note
	§2.1051 §27.53 (m)(4)	Conducted Band Edge Measurement (Band 7)		
	§2.1051 §27.53 (a)(4)	Conducted Band Edge Measurement (Band 30)		
-	§2.1051 §27.53 (c)(2) §27.53 (h)	Conducted Spurious Emission (Band 4) (Band 13)	Pass	See Note
	§2.1051 §27.53 (m)(4)	Conducted Spurious Emission (Band 7)		
	§2.1051 §27.53 (a)(4)	Conducted Spurious Emission (Band 30)		
-	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Pass	See Note

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
4.2	§2.1053 §27.53 (c)(2) §27.53 (f) §27.53 (h)	Radiated Spurious Emission (Band 4) (Band 13)	Pass	-
	§2.1053 §27.53 (m)(4)	Radiated Spurious Emission (Band 7)		
	§2.1053 §27.53 (a)(4)	Radiated Spurious Emission (Band 30)		
Remark: This is a variant report by changing Host Marketing, Model name, CPU and Motherboard. All the test cases were performed on original report which can be referred to Sporton Report Number FG3N1049-01A. Based on the upgrading, the test cases were verified.				

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:

1. 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.
2. The purpose of different model name is for marketing segmentation.

Reviewed by: Sheng Kuo

Report Producer: Dara Chiu

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Notebook Computer
Brand Name	Lenovo
Model Name	TP00159D, TP00159E
FCC ID	2AJN7-TP00159AL
Sample 1	EUT with Amphenol Taiwan Corporation Antenna
Sample 2	EUT with AWAN Antenna
Integrated WLAN Module	Brand Name: MediaTek Model Name: MT7925B14L FCC ID: RAS-MT7925B14L
Integrated NFC Module	Brand Name: Foxconn Model Name: T77H747
EUT supports Radios application	WCDMA/HSPA/LTE/GNSS/NFC WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 WLAN 11be EHT20/EHT40/EHT80/EHT160/EHT320 Bluetooth BR/EDR/LE
EUT Stage	Production Unit

Remark:

1. The above EUT's information was declared by manufacturer.
2. Equipment: Quectel EM061K-GL tested inside of Lenovo Notebook Computer.
3. All the tests were performed with TP00159E.

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

TDD band Power Class		
	PC3	**PC2**
B38	V	-
B41	V	-

Antenna Information				
Main Antenna	**Manufacturer**	Amphenol Taiwan Corporation	**Peak gain (dBi)**	LTE Band 4 : -0.25 LTE Band 7 : -1.67 LTE Band 13 : -0.25 LTE Band 30 : -0.81
	Part Number	DC330022K70	**Type**	PIFA
	Manufacturer	AWAN	**Peak gain (dBi)**	LTE Band 4 : -0.25 LTE Band 7 : -1.67 LTE Band 13 : -0.25 LTE Band 30 : -0.81
	Part Number	DC330022H70	**Type**	PIFA

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

1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
Tx Frequency	LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 30: 2307.5 MHz ~ 2312.5 MHz
Rx Frequency	LTE Band 4: 2110.7 MHz ~ 2154.3 MHz LTE Band 7: 2622.5MHz ~ 2687.5 MHz LTE Band 13: 748.5 MHz ~ 753.5 MHz LTE Band 30: 2352.5 MHz ~ 2357.5 MHz
Bandwidth	LTE Band 4: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 7: 5MHz/ 10MHz / 15MHz / 20MHz LTE Band 13: 5MHz / 10MHz LTE Band 30: 5MHz / 10MHz
Maximum Output Power to Antenna	LTE Band 4 : 22.85 dBm LTE Band 7 : 22.84 dBm LTE Band 13 : 22.58 dBm LTE Band 30 : 21.29 dBm
Type of Modulation	QPSK / 16QAM

1.3 Modification of EUT

No modifications made to the EUT during the testing.

1.4 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333
Test Site No.	**Sporton Site No.**
	TH03-HY
Test Engineer	Diego Huang
Temperature (℃)	22.1 ~ 22.9
Relative Humidity (%)	50.1 ~ 55.9

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010
Test Site No.	**Sporton Site No.**
	03CH16-HY (TAF Code: 3786)
Test Engineer	Gary Guo and Steven Wu
Temperature (℃)	19.1 ~ 22.3
Relative Humidity (%)	62.5 ~ 68.3
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

1.5 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, 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

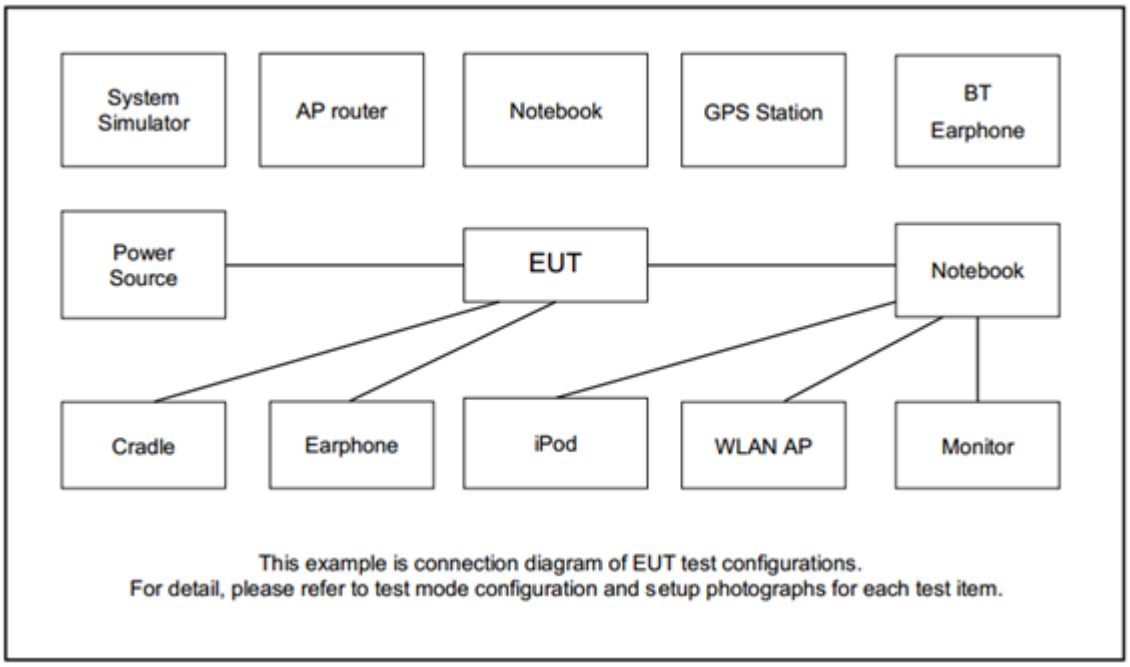
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

Modulation Type	Modulation
A	QPSK
B	16QAM
C	64QAM

Test Item	Modulation Type	Bandwidth	RB Size	Channel
Conducted Power	A, B	All	1, Half, Full	L, M, H
EIRP, ERP	A, B	All	1, Half, Full	L, M, H
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. All the radiated test cases were performed with Sample 1.

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.	Earphone	UGREEN	N/A	N/A	Shielded, 1.8 m	N/A

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

Example :

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.2 + 10 = 14.2 (dB)

2.5 Frequency List of Low/Middle/High Channels

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 7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20850	21100	21350
	Frequency	2510	2535	2560
15	Channel	20825	21100	21375
	Frequency	2507.5	2535	2562.5
10	Channel	20800	21100	21400
	Frequency	2505	2535	2565
5	Channel	20775	21100	21425
	Frequency	2502.5	2535	2567.5

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 30 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	-	27710	-
	Frequency	-	2310	-
5	Channel	27685	27710	27735
	Frequency	2307.5	2310	2312.5

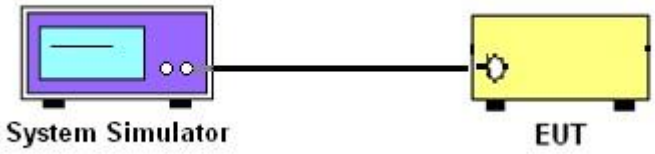
3 Conducted Test Items

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 3 Watts for LTE Band 13
The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 7
The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4
The EIRP of mobile transmitters must not exceed 250mW/5MHz for LTE Band 30
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.

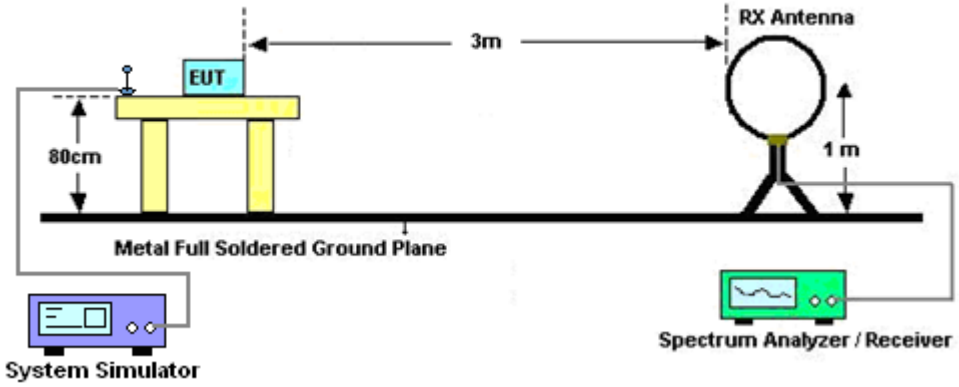
4 Radiated Test Items

4.1 Measuring Instruments

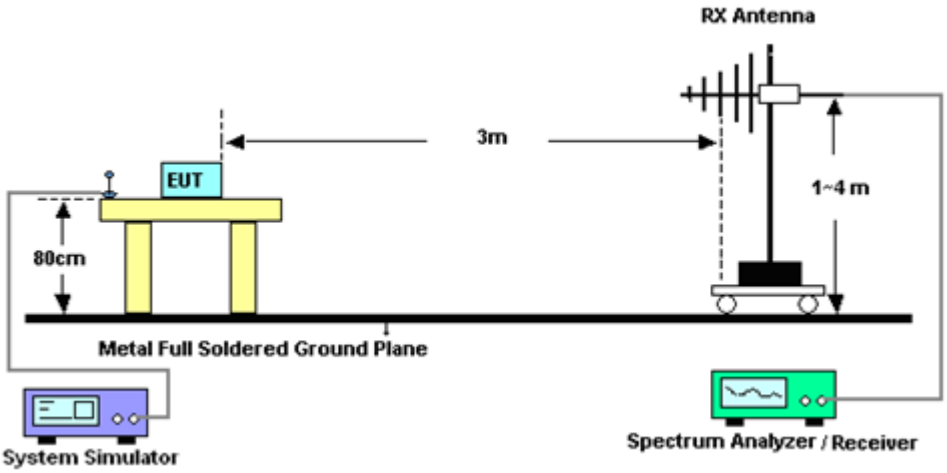
See list of measuring instruments of this test report.

4.1.1 Test Setup

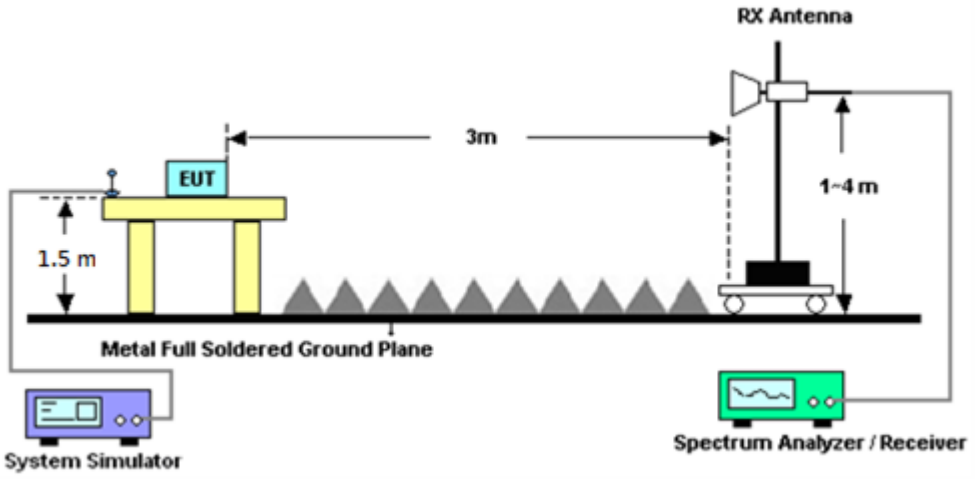
For radiated test below 30MHz



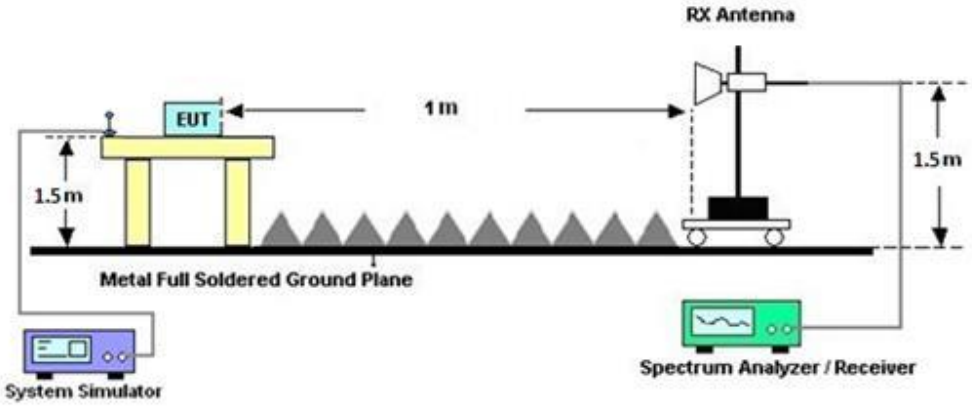
For radiated test from 30MHz to 1GHz



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 7
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 55 + 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.
For LTE Band 30
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 70 + 10 log (P) dB.

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)

   EIRP(dBm) = Level (dBuV/m) + 20log(d) -104.77,

   where d is the distance at which filed 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 should be excluded against the limit line in the operating frequency band.

   The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
   For LTE Band 30

   The limit line is derived from 70 + 10log(P)dB below the transmitter power P(Watts)
   For LTE Band 7
   The limit line is derived from 55 + 10log(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
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Aug. 29, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Aug. 28, 2025	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	1224	18GHz-40GHz	Jun. 24, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Jun. 23, 2025	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY57290111	3Hz~26.5GHz	Nov. 22, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Nov. 21, 2025	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01N-06	47020 & 06	30MHz to 1GHz	Oct. 05, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Oct. 04, 2025	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1G~18GHz	Mar. 28, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Mar. 27, 2025	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1GHz	Jul. 02, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Jul. 01, 2025	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 05, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Dec. 04, 2025	Radiation (03CH16-HY)
Preamplifier	EMEC	EM1G18G	060812	1GHz~18GHz	Dec. 24, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Dec. 23, 2025	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	May 27, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	May 26, 2025	Radiation (03CH16-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN17	1.53GHz Low Pass Filter	Jan. 14, 2025	Mar. 11, 2025 ~ Mar. 14, 2025	Jan. 13, 2026	Radiation (03CH16-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60ST	SN3	3GHz High Pass Filter	Jun. 28, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Jun. 27, 2025	Radiation (03CH16-HY)
Notch Filter	ST1	STI15_9935_5150-5850	NA	N/A	Apr. 05, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Apr. 04, 2025	Radiation (03CH16-HY)
Notch Filter	Wainwright	WRCQV14-5425-5825-6525-6925-60SS	SN1	N/A	Jan. 03, 2025	Mar. 11, 2025 ~ Mar. 14, 2025	Jan. 02, 2026	Radiation (03CH16-HY)
Filter	Wainwright	WHKX6-7268-9200-26500-40CD	SN2	9GHz High Pass Filter	May 22, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	May 21, 2025	Radiation (03CH16-HY
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801606/2	9KHz ~ 40GHz	Apr. 22, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Apr. 21, 2025	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102/SUCOFLEX 104	EC-A5-300-5757,805935/4,802434/4	30MHz~18GHz	Aug. 07, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Aug. 06, 2025	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804011/2,804012/2	18-40GHz	Dec. 31, 2024	Mar. 11, 2025 ~ Mar. 14, 2025	Dec. 30, 2025	Radiation (03CH16-HY)
Software	Audix	E3 230621 V9	RK-002393	N/A	N/A	Mar. 11, 2025 ~ Mar. 14, 2025	N/A	Radiation (03CH16-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Mar. 11, 2025 ~ Mar. 14, 2025	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Mar. 11, 2025 ~ Mar. 14, 2025	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Mar. 11, 2025 ~ Mar. 14, 2025	N/A	Radiation (03CH16-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Radio Communication Analyzer	Anritsu	MT8821C	6262025353	LTE FDD/TDD LTE-2CC DLCA/ULCA	Oct. 01, 2024	Mar. 12, 2025	Sep. 30, 2025	Conducted (TH03-HY)
Coupler+10dB+ RFcable	Warison + WoKen + E-Instument	20dB 25W SMA Directional Coupler+ 10dB 18GHz_5W+SFL405_1.5M	#A+#1+#1+#7	1-18GHz	Jan. 03, 2025	Mar. 12, 2025	Jan. 02, 2026	Conducted (TH03-HY)
Power divider	Anritsu	K241C	2143398	9KHz~40GHz	Jun. 13, 2024	Mar. 12, 2025	Jun. 12, 2025	Conducted (TH03-HY)
Software	Sporton	LTE Conducted Test Tools	N/A	Conducted Test Item	N/A	Mar. 12, 2025	N/A	Conducted (TH03-HY)
Hygrometer	TECPEL	DTM-303B	TP210073	-10 ~ 50°C / 20 ~ 95%RH	Jun. 05, 2024	Mar. 12, 2025	Jun. 04, 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))	**6.5 dB**

Uncertainty of Radiated Emission Measurement (1 GHz ~ 6 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.9 dB**

Uncertainty of Radiated Emission Measurement (6 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.1 dB**

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.3 dB**

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power & ERP/EIRP)

LTE Band 4 Maximum Average Power [dBm] (GT - LC = -0.25 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	22.85	22.81	22.82	22.60	0.1820
20	1	0	16-QAM	22.04	22.02	22.02	21.79	0.1510
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = -0.25 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
15	1	0	QPSK	22.68	22.68	22.65	22.43	0.1750
15	1	0	16-QAM	21.95	21.87	21.91	21.70	0.1479
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = -0.25 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
10	1	0	QPSK	22.81	22.66	22.68	22.56	0.1803
10	1	0	16-QAM	21.90	21.94	21.97	21.72	0.1486
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = -0.25 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
5	1	0	QPSK	22.82	22.61	22.65	22.57	0.1807
5	1	0	16-QAM	21.94	21.98	21.86	21.73	0.1489
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = -0.25 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
3	1	0	QPSK	22.75	22.66	22.82	22.57	0.1807
3	1	0	16-QAM	21.85	22.01	22.00	21.76	0.1500
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = -0.25 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
1.4	1	0	QPSK	22.73	22.72	22.80	22.55	0.1799
1.4	1	0	16-QAM	21.97	21.97	22.10	21.85	0.1531
Limit	EIRP < 1W			Result			Pass	

LTE Band 7 Maximum Average Power [dBm] (GT - LC = -1.67 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	22.84	22.76	22.39	21.17	0.1309
20	1	0	16-QAM	22.18	21.92	21.71	20.51	0.1125
Limit	EIRP < 2W			Result			Pass	

LTE Band 7 Maximum Average Power [dBm] (GT - LC = -1.67 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
15	1	0	QPSK	22.77	22.58	22.25	21.10	0.1288
15	1	0	16-QAM	22.06	21.82	21.57	20.39	0.1094
Limit	EIRP < 2W			Result			Pass	

LTE Band 7 Maximum Average Power [dBm] (GT - LC = -1.67 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
10	1	0	QPSK	22.76	22.75	22.20	21.09	0.1285
10	1	0	16-QAM	22.01	21.78	21.71	20.34	0.1081
Limit	EIRP < 2W			Result			Pass	

LTE Band 7 Maximum Average Power [dBm] (GT - LC = -1.67 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
5	1	0	QPSK	22.80	22.76	22.22	21.13	0.1297
5	1	0	16-QAM	22.10	21.76	21.54	20.43	0.1104
Limit	EIRP < 2W			Result			Pass	

LTE Band 13 Maximum Average Power [dBm] (GT - LC = -0.25 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	-	22.51	-	20.11	0.1026
10	1	0	16-QAM		21.76		19.36	0.0863
Limit	ERP < 3W			Result			Pass	

LTE Band 13 Maximum Average Power [dBm] (GT - LC = -0.25 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
5	1	0	QPSK	22.56	22.55	22.58	20.18	0.1042
5	1	0	16-QAM	21.59	21.74	21.61	19.34	0.0859
Limit	ERP < 3W			Result			Pass	

LTE Band 30 Maximum Average Power [dBm] (GT - LC = -0.81 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
10	1	0	QPSK	-	21.29	-	20.48	0.1117
10	1	0	16-QAM		20.42		19.61	0.0914
Limit	EIRP < 250mW/5MHz			Result			Pass	

Total EIRP power is less than partial EIRP limit 250 mW/5MHz.

LTE Band 30 Maximum Average Power [dBm] (GT - LC = -0.81 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
5	1	0	QPSK	21.10	21.28	21.24	20.47	0.1114
5	1	0	16-QAM	20.27	20.38	20.40	19.59	0.0910
Limit	EIRP < 250mW/5MHz			Result			Pass	

Total EIRP power is less than partial EIRP limit 250 mW/5MHz.

Appendix B. Test Results of Radiated Test

B.1. Summary of each worse mode

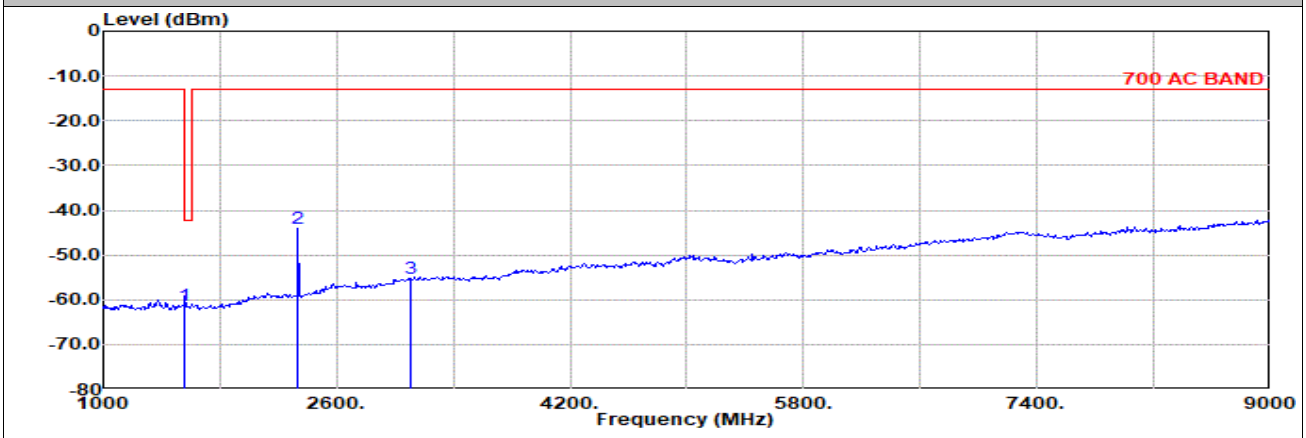
Mode	Part	Band	Ch	Freq (MHz)	Level (dBm)	Det	Ant Factor (dB)	Amp\Cbl (dB)	Filter (dB)	EIRPCF (dB)	Reading (dBuV)	Limit (dBm)	Margin (dB)	Pol	Ant
1	Part 27F	LTE B13	M	1560	-58.66	RMS	25.30	-24.68	0.55	-95.23	35.40	-42.15	-16.51	H	Main
2	Part 27F	LTE B13	M	2336	-43.44	RMS	27.10	-22.73	0.37	-95.23	47.05	-13.00	-30.44	V	Main
1	Part 27L	LTE B4	H	6945	-45.93	RMS	35.80	-17.67	0.52	-95.23	30.65	-13.00	-32.93	V	Main
1	Part 27M	LTE B7	H	7665	-44.52	RMS	36.23	-52.20	0.49	-95.23	66.19	-25.00	-19.52	V	Main
1	Part 27D	LTE B30	M	9231	-56.83	RMS	37.80	-51.05	0.57	-95.23	51.08	-40.00	-16.83	V	Main
2	Part 27D	LTE B30	M	9222	-57.45	RMS	37.80	-51.06	0.58	-95.23	50.46	-40.00	-17.45	H	Main

Main

Part 27F Mode 1

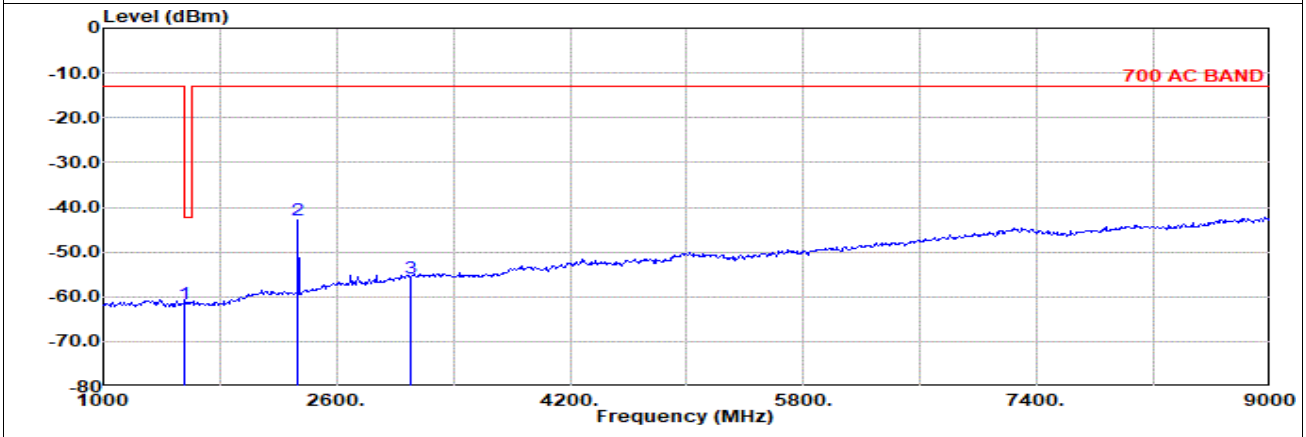
LTE B13 5M Ch23205 1RB0 QPSK

L



Site : 03CH16-HY
Condition: 700 AC BAND 3m 9120D-1522_240328 Horizontal
: LTE Band 13 5M Ch23205 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1552.00	-61.28	RMS	25.30	-24.70	0.56	-95.23	32.79	-13.00	-48.28	Horizontal
2	2336.00	-44.02	RMS	27.10	-22.73	0.37	-95.23	46.47	-13.00	-31.02	Horizontal
3	3112.00	-55.31	RMS	29.62	-21.42	0.32	-95.23	31.40	-13.00	-42.31	Horizontal



Site : 03CH16-HY
Condition: 700 AC BAND 3m 9120D-1522_240328 Vertical
: LTE Band 13 5M Ch23205 1RB0 QPSK

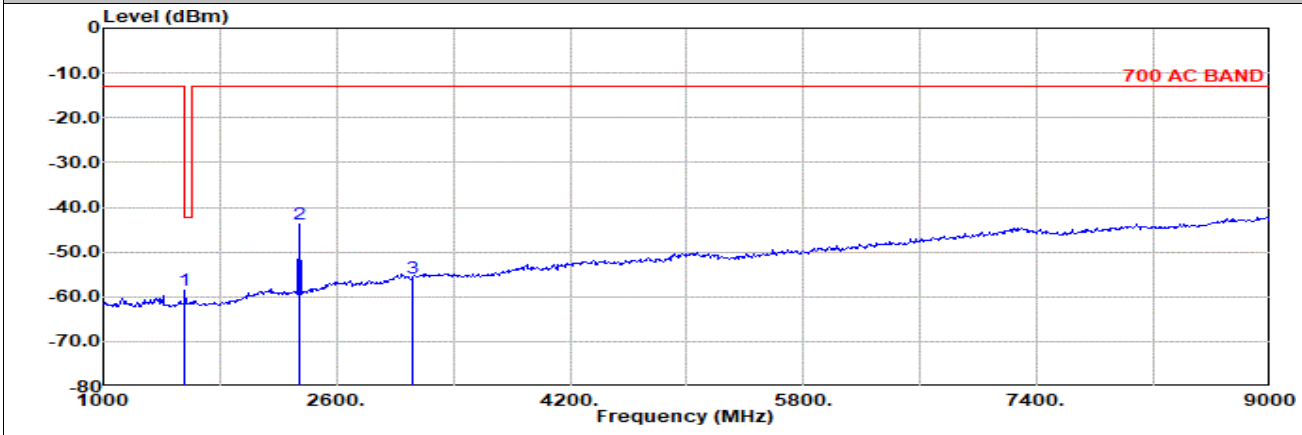
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1552.00	-61.53	RMS	25.30	-24.70	0.56	-95.23	32.54	-13.00	-48.53	Vertical
2	2336.00	-42.86	RMS	27.10	-22.73	0.37	-95.23	47.63	-13.00	-29.86	Vertical
3	3112.00	-55.85	RMS	29.62	-21.42	0.32	-95.23	30.86	-13.00	-42.85	Vertical

Main

Part 27F Mode 1

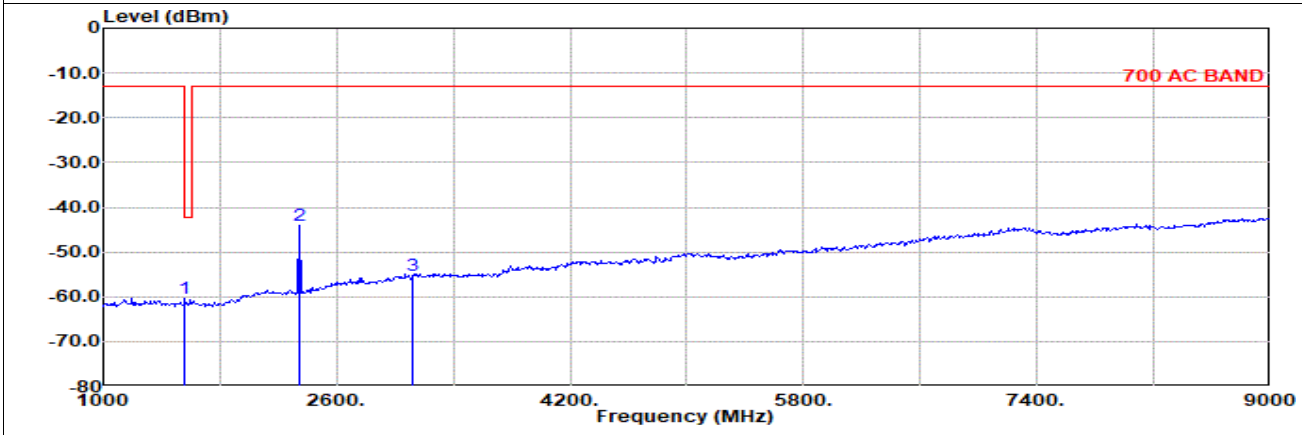
LTE B13 5M Ch23230 1RB0 QPSK

M



Site : 03CH16-HY
Condition: 700 AC BAND 3m 9120D-1522_240328 Horizontal
: LTE Band 13 5M Ch23230 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1560.00	-58.66	RMS	25.30	-24.68	0.55	-95.23	35.40	-42.15	-16.51	Horizontal
2	2344.00	-43.89	RMS	27.10	-22.71	0.38	-95.23	46.57	-13.00	-30.89	Horizontal
3	3120.00	-55.82	RMS	29.64	-21.41	0.32	-95.23	30.86	-13.00	-42.82	Horizontal



Site : 03CH16-HY
Condition: 700 AC BAND 3m 9120D-1522_240328 Vertical
: LTE Band 13 5M Ch23230 1RB0 QPSK

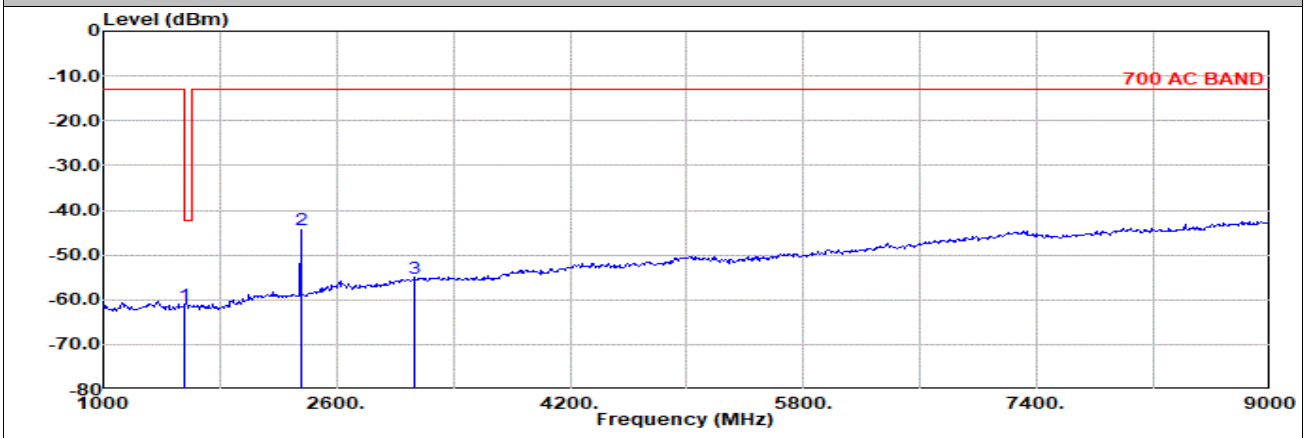
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1560.00	-60.27	RMS	25.30	-24.68	0.55	-95.23	33.79	-42.15	-18.12	Vertical
2	2344.00	-44.00	RMS	27.10	-22.71	0.38	-95.23	46.46	-13.00	-31.00	Vertical
3	3120.00	-55.23	RMS	29.64	-21.41	0.32	-95.23	31.45	-13.00	-42.23	Vertical

Main

Part 27F Mode 1

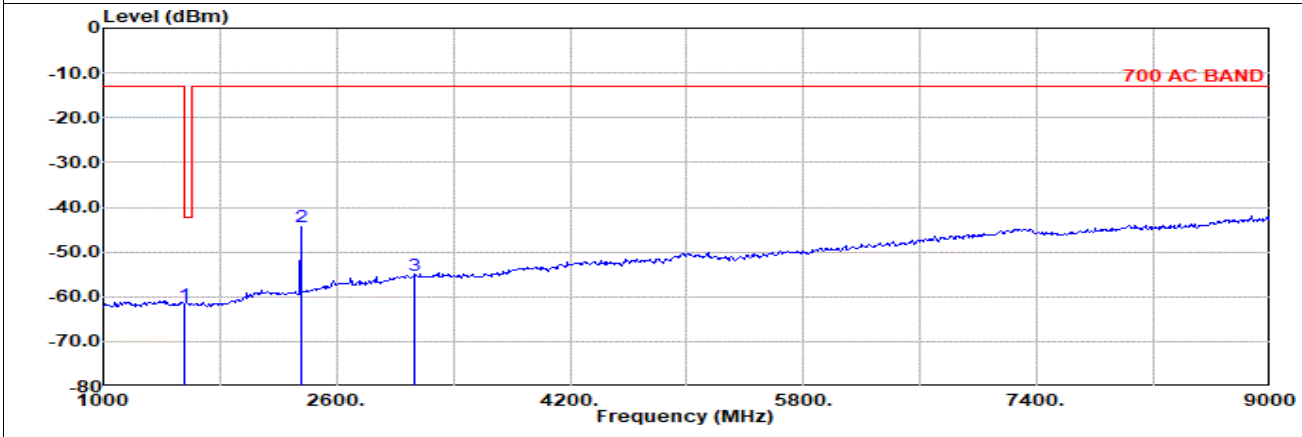
LTE B13 5M Ch23255 1RB0 QPSK

H



Site : 03CH16-HY
Condition: 700 AC BAND 3m 9120D-1522_240328 Horizontal
: LTE Band 13 5M Ch23255 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1560.00	-61.38	RMS	25.30	-24.68	0.55	-95.23	32.68	-42.15	-19.23	Horizontal
2	2352.00	-44.46	RMS	27.12	-22.70	0.38	-95.23	45.97	-13.00	-31.46	Horizontal
3	3128.00	-55.34	RMS	29.66	-21.40	0.32	-95.23	31.31	-13.00	-42.34	Horizontal



Site : 03CH16-HY
Condition: 700 AC BAND 3m 9120D-1522_240328 Vertical
: LTE Band 13 5M Ch23255 1RB0 QPSK

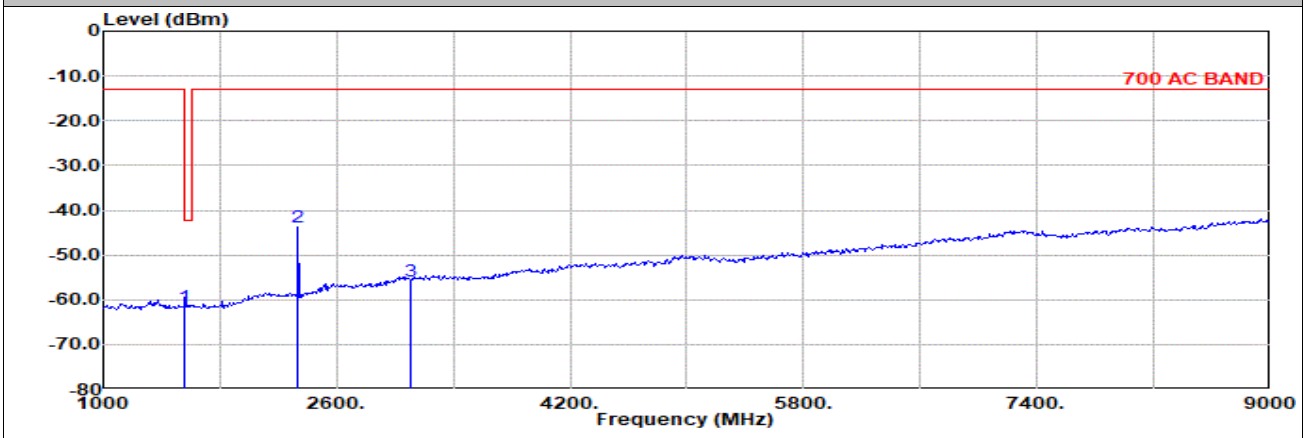
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1560.00	-61.98	RMS	25.30	-24.68	0.55	-95.23	32.08	-42.15	-19.83	Vertical
2	2352.00	-44.48	RMS	27.12	-22.70	0.38	-95.23	45.95	-13.00	-31.48	Vertical
3	3128.00	-55.23	RMS	29.66	-21.40	0.32	-95.23	31.42	-13.00	-42.23	Vertical

Main

Part 27F Mode 2

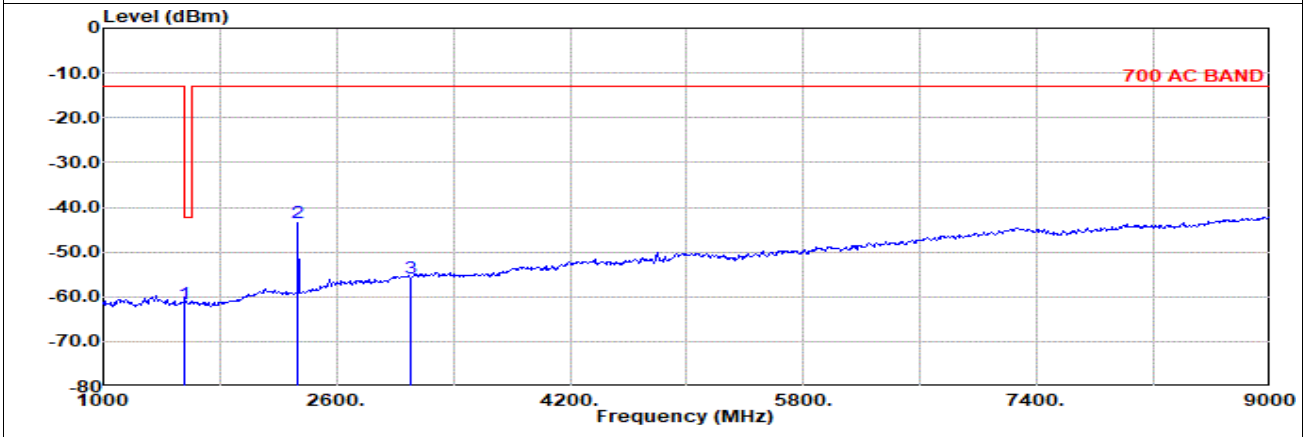
LTE B13 10M Ch23230 1RB0 QPSK

M



Site : 03CH16-HY
Condition: 700 AC BAND 3m 9120D-1522_240328 Horizontal
: LTE Band 13 10M Ch23230 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1552.00	-61.58	RMS	25.30	-24.70	0.56	-95.23	32.49	-13.00	-48.58	Horizontal
2	2336.00	-43.81	RMS	27.10	-22.73	0.37	-95.23	46.68	-13.00	-30.81	Horizontal
3	3112.00	-55.80	RMS	29.62	-21.42	0.32	-95.23	30.91	-13.00	-42.80	Horizontal



Site : 03CH16-HY
Condition: 700 AC BAND 3m 9120D-1522_240328 Vertical
: LTE Band 13 10M Ch23230 1RB0 QPSK

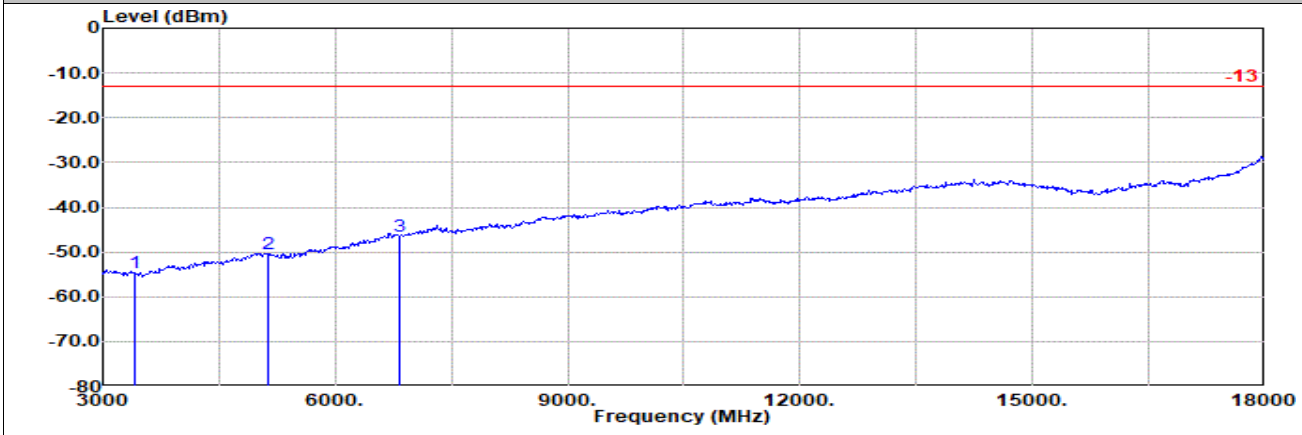
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1552.00	-61.72	RMS	25.30	-24.70	0.56	-95.23	32.35	-13.00	-48.72	Vertical
2	2336.00	-43.44	RMS	27.10	-22.73	0.37	-95.23	47.05	-13.00	-30.44	Vertical
3	3112.00	-55.89	RMS	29.62	-21.42	0.32	-95.23	30.82	-13.00	-42.89	Vertical

Main

Part 27L Mode 1

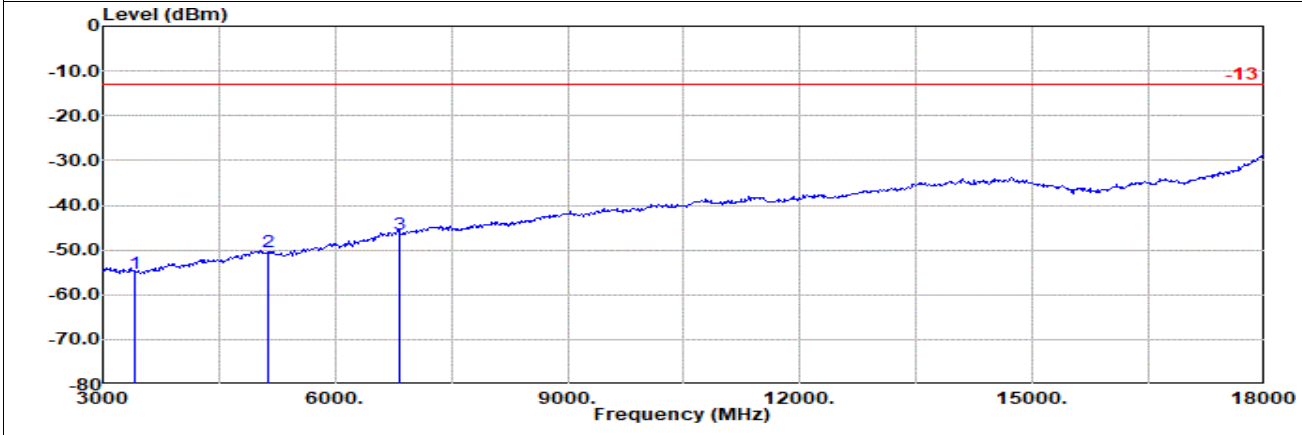
LTE B4 20M Ch20050 1RB0 QPSK

L



Site : 03CH16-HY
Condition: -13 3m 9120D-1522_240328 Horizontal
: LTE Band 4 20M Ch20050 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cb l	Filter	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	3420.00	-54.57	RMS	29.46	-20.94	0.94	-95.23	31.20	-13.00	-41.57	Horizontal
2	5130.00	-50.33	RMS	32.96	-18.57	0.40	-95.23	30.11	-13.00	-37.33	Horizontal
3	6840.00	-46.42	RMS	35.74	-17.68	0.59	-95.23	30.16	-13.00	-33.42	Horizontal



Site : 03CH16-HY
Condition: -13 3m 9120D-1522_240328 Vertical
: LTE Band 4 20M Ch20050 1RB0 QPSK

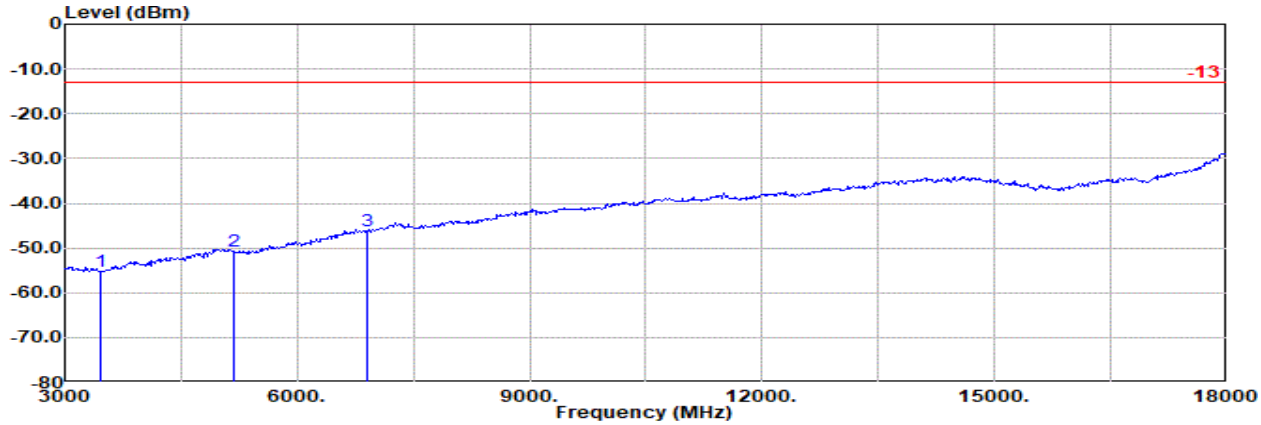
	Freq	Level	Detector	Ant Factor	Amp\Cb l	Filter	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	3420.00	-55.16	RMS	29.46	-20.94	0.94	-95.23	30.61	-13.00	-42.16	Vertical
2	5130.00	-50.31	RMS	32.96	-18.57	0.40	-95.23	30.13	-13.00	-37.31	Vertical
3	6840.00	-46.48	RMS	35.74	-17.68	0.59	-95.23	30.10	-13.00	-33.48	Vertical

Main

Part 27L Mode 1

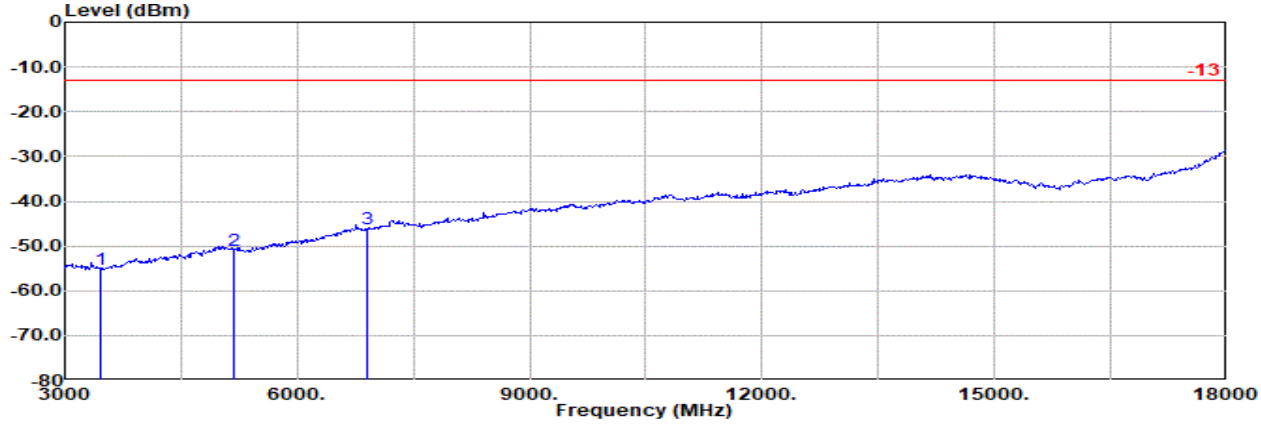
LTE B4 20M Ch20175 1RB0 QPSK

M



Site : 03CH16-HY
Condition: -13 3m 9120D-1522_240328 Horizontal
: LTE Band 4 20M Ch20175 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	3450.00	-55.15	RMS	29.40	-20.90	0.95	-95.23	30.63	-13.00	-42.15	Horizontal
2	5175.00	-50.62	RMS	33.00	-18.53	0.35	-95.23	29.79	-13.00	-37.62	Horizontal
3	6900.00	-46.25	RMS	35.80	-17.67	0.55	-95.23	30.31	-13.00	-33.25	Horizontal



Site : 03CH16-HY
Condition: -13 3m 9120D-1522_240328 Vertical
: LTE Band 4 20M Ch20175 1RB0 QPSK

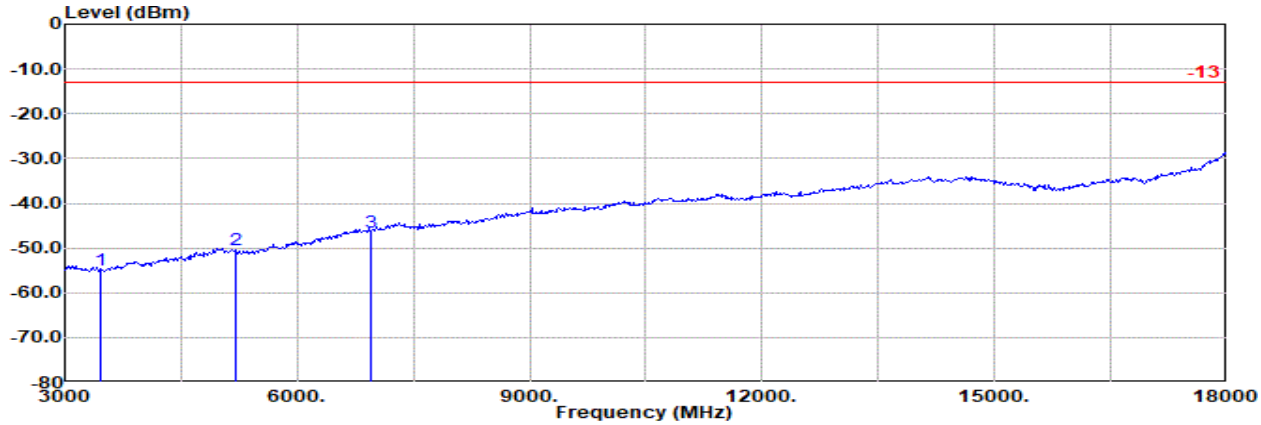
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	3450.00	-55.13	RMS	29.40	-20.90	0.95	-95.23	30.65	-13.00	-42.13	Vertical
2	5175.00	-50.93	RMS	33.00	-18.53	0.35	-95.23	29.48	-13.00	-37.93	Vertical
3	6900.00	-46.15	RMS	35.80	-17.67	0.55	-95.23	30.41	-13.00	-33.15	Vertical

Main

Part 27L Mode 1

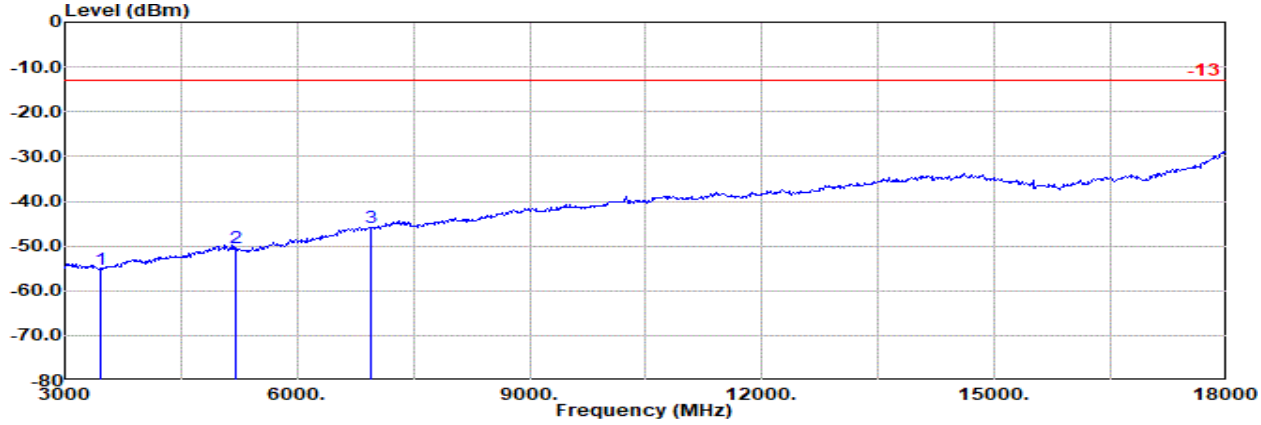
LTE B4 20M Ch20300 1RB0 QPSK

H



Site : 03CH16-HY
Condition: -13 3m 9120D-1522_240328 Horizontal
: LTE Band 4 20M Ch20300 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	3465.00	-55.05	RMS	29.40	-20.88	0.96	-95.23	30.70	-13.00	-42.05	Horizontal
2	5205.00	-50.53	RMS	32.99	-18.50	0.32	-95.23	29.89	-13.00	-37.53	Horizontal
3	6945.00	-46.34	RMS	35.80	-17.67	0.52	-95.23	30.24	-13.00	-33.34	Horizontal



Site : 03CH16-HY
Condition: -13 3m 9120D-1522_240328 Vertical
: LTE Band 4 20M Ch20300 1RB0 QPSK

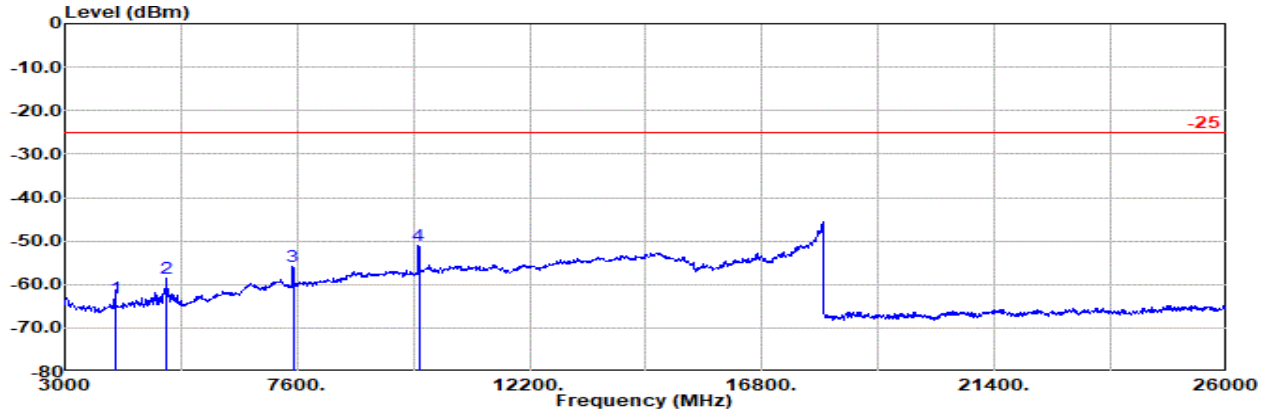
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	3465.00	-55.16	RMS	29.40	-20.88	0.96	-95.23	30.59	-13.00	-42.16	Vertical
2	5205.00	-50.45	RMS	32.99	-18.50	0.32	-95.23	29.97	-13.00	-37.45	Vertical
3	6945.00	-45.93	RMS	35.80	-17.67	0.52	-95.23	30.65	-13.00	-32.93	Vertical

Main

Part 27M Mode 1

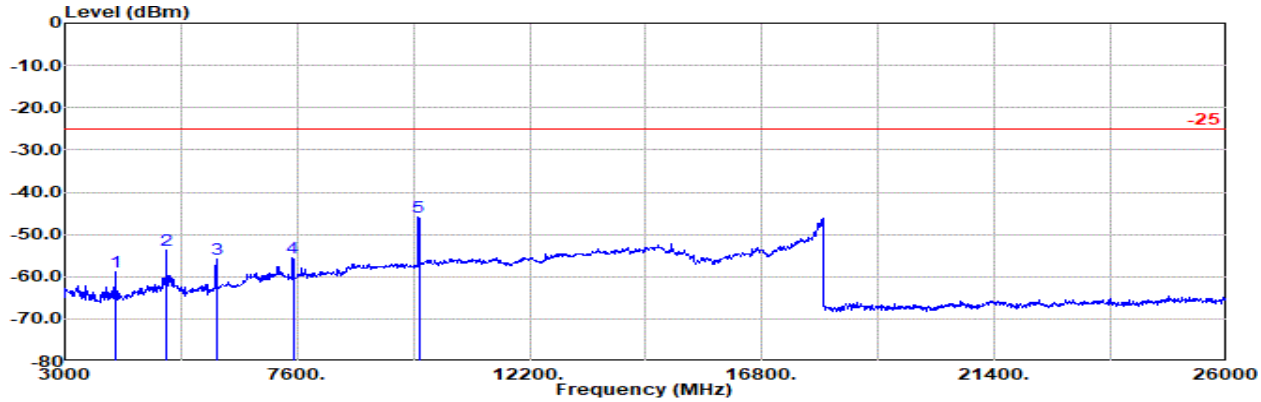
LTE B7 20M Ch20850 1RB0 QPSK

L



Site : 03CH16-HY
Condition: -25 1m SHF_1224_240624 Horizontal
: LTE Band 7 20M Ch20850 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4005.00	-63.17	RMS	30.80	-57.02	0.59	-95.23	0.00	-25.00	-38.17	Horizontal
2	5010.00	-58.59	RMS	33.06	-55.16	0.53	-95.23	58.21	-25.00	-33.59	Horizontal
3	7515.00	-55.82	RMS	36.14	-52.33	0.52	-95.23	55.08	-25.00	-30.82	Horizontal
4	10005.00	-50.92	RMS	38.12	-51.36	0.46	-95.23	57.09	-25.00	-25.92	Horizontal



Site : 03CH16-HY
Condition: -25 1m SHF_1224_240624 Vertical
: LTE Band 7 20M Ch20850 1RB0 QPSK

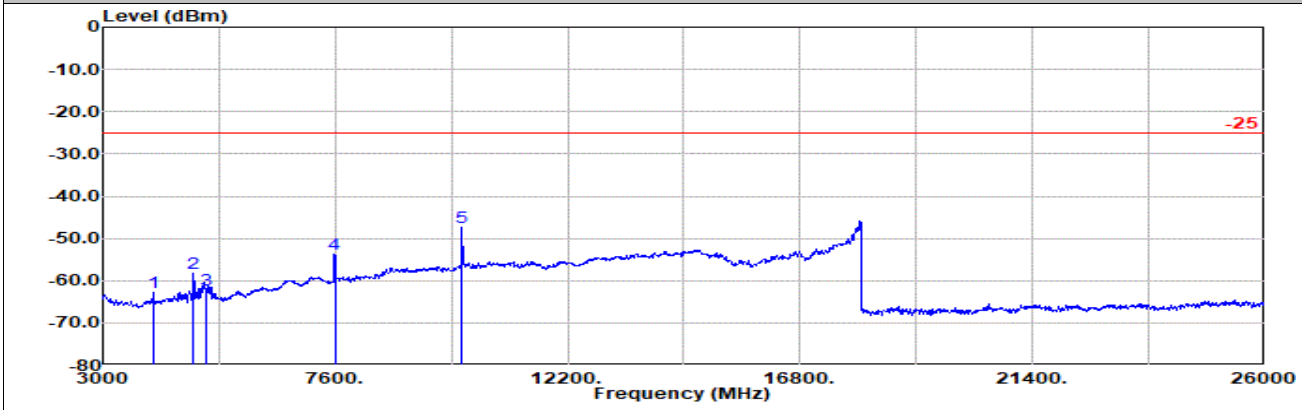
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4005.00	-58.91	RMS	30.80	-57.02	0.59	-95.23	61.95	-25.00	-33.91	Vertical
2	5010.00	-53.83	RMS	33.06	-55.16	0.53	-95.23	62.97	-25.00	-28.83	Vertical
3	6000.00	-55.94	RMS	34.10	-53.44	0.31	-95.23	58.32	-25.00	-30.94	Vertical
4	7515.00	-55.61	RMS	36.14	-52.33	0.52	-95.23	55.29	-25.00	-30.61	Vertical
5	10005.00	-45.81	RMS	38.12	-51.36	0.46	-95.23	62.20	-25.00	-20.81	Vertical

Main

Part 27M Mode 1

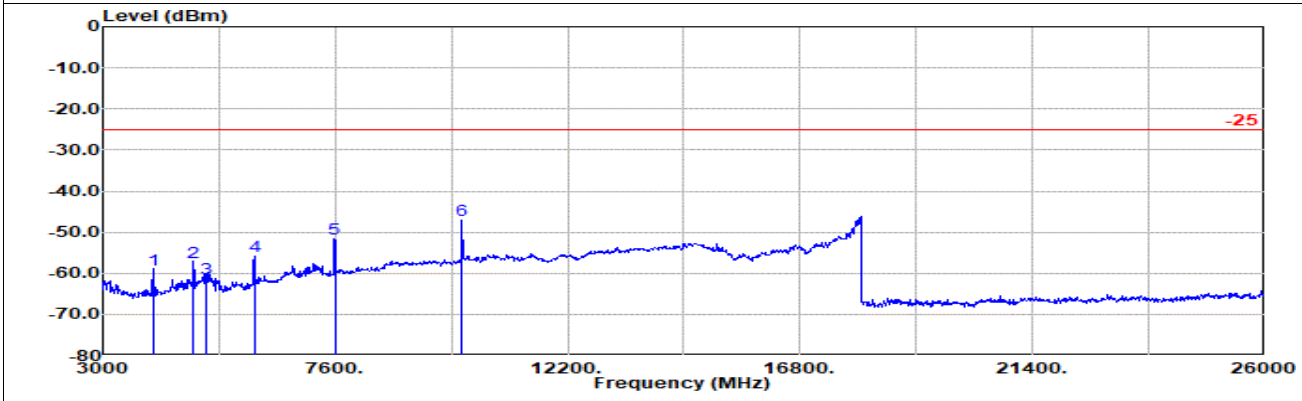
LTE B7 20M Ch21100 1RB0 QPSK

M



Site : 03CH16-HY
Condition: -25 1m SHF_1224_240624 Horizontal
: LTE Band 7 20M Ch21100 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4005.00	-62.74	RMS	30.80	-57.02	0.59	-95.23	58.12	-25.00	-37.74	Horizontal
2	4800.00	-58.29	RMS	32.30	-55.36	0.48	-95.23	59.52	-25.00	-33.29	Horizontal
3	5055.00	-62.23	RMS	32.90	-55.09	0.48	-95.23	54.71	-25.00	-37.23	Horizontal
4	7590.00	-53.73	RMS	36.08	-52.28	0.54	-95.23	57.16	-25.00	-28.73	Horizontal
5	10110.00	-47.36	RMS	38.24	-51.18	0.46	-95.23	60.35	-25.00	-22.36	Horizontal



Site : 03CH16-HY
Condition: -25 1m SHF_1224_240624 Vertical
: LTE Band 7 20M Ch21100 1RB0 QPSK

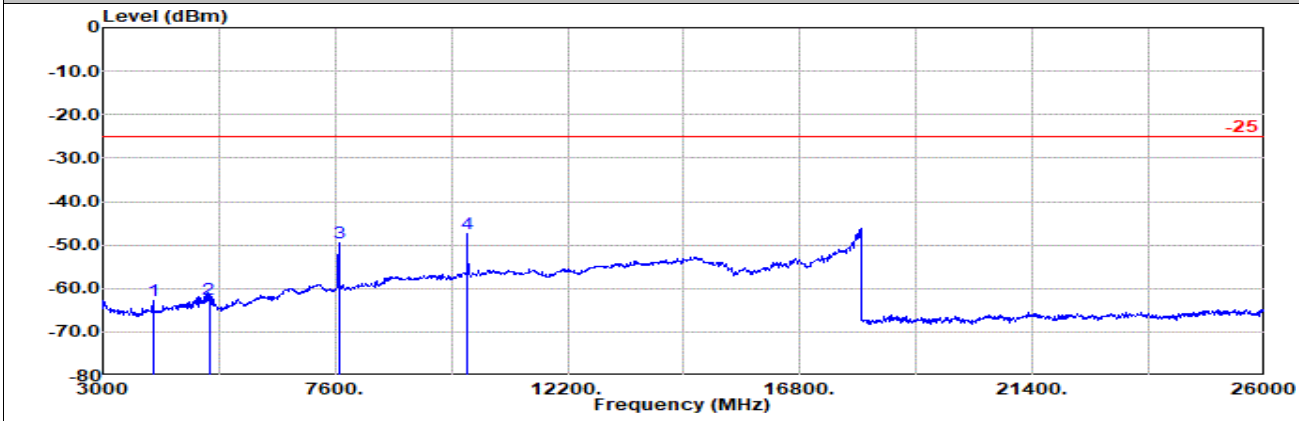
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4005.00	-59.16	RMS	30.80	-57.02	0.59	-95.23	61.70	-25.00	-34.16	Vertical
2	4800.00	-57.25	RMS	32.30	-55.36	0.48	-95.23	60.56	-25.00	-32.25	Vertical
3	5055.00	-61.23	RMS	32.90	-55.09	0.48	-95.23	55.71	-25.00	-36.23	Vertical
4	6000.00	-55.79	RMS	34.10	-53.44	0.31	-95.23	58.47	-25.00	-30.79	Vertical
5	7590.00	-51.48	RMS	36.08	-52.28	0.54	-95.23	59.41	-25.00	-26.48	Vertical
6	10110.00	-46.99	RMS	38.24	-51.18	0.46	-95.23	60.72	-25.00	-21.99	Vertical

Main

Part 27M Mode 1

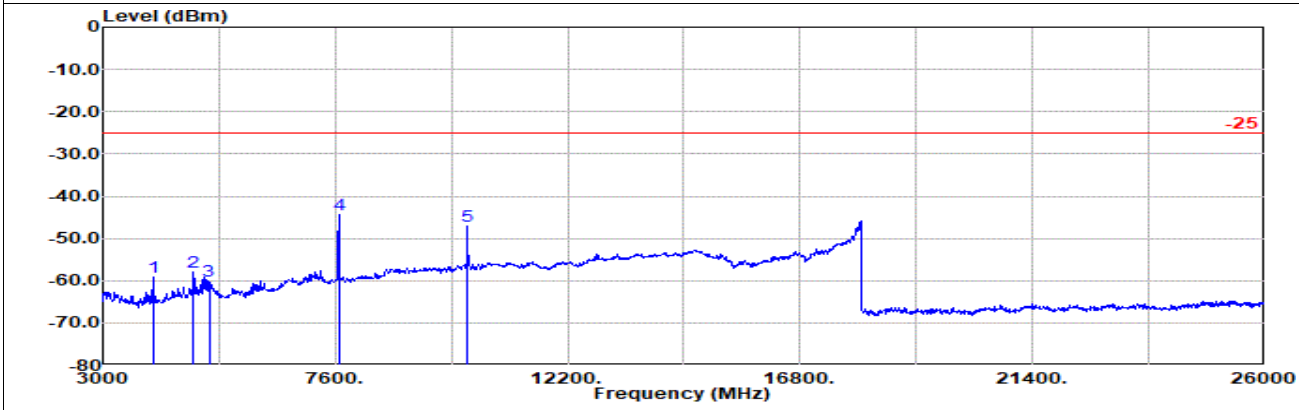
LTE B7 20M Ch21350 1RB0 QPSK

H



Site : 03CH16-HY
Condition: -25 1m SHF_1224_240624 Horizontal
: LTE Band 7 20M Ch21350 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	3990.00	-62.83	RMS	30.80	-57.04	0.60	-95.23	58.04	-25.00	-37.83	Horizontal
2	5100.00	-62.45	RMS	32.90	-55.01	0.43	-95.23	54.46	-25.00	-37.45	Horizontal
3	7665.00	-49.57	RMS	36.23	-52.20	0.49	-95.23	61.14	-25.00	-24.57	Horizontal
4	10215.00	-47.51	RMS	38.53	-51.00	0.45	-95.23	59.74	-25.00	-22.51	Horizontal



Site : 03CH16-HY
Condition: -25 1m SHF_1224_240624 Vertical
: LTE Band 7 20M Ch21350 1RB0 QPSK

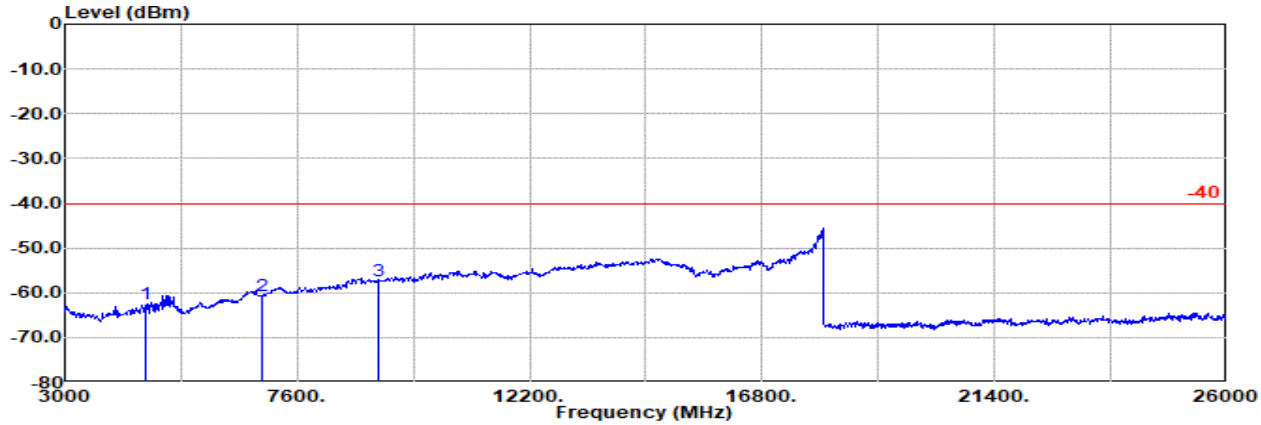
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4005.00	-59.28	RMS	30.80	-57.02	0.59	-95.23	61.58	-25.00	-34.28	Vertical
2	4800.00	-58.01	RMS	32.30	-55.36	0.48	-95.23	59.80	-25.00	-33.01	Vertical
3	5100.00	-60.14	RMS	32.90	-55.01	0.43	-95.23	56.77	-25.00	-35.14	Vertical
4	7665.00	-44.52	RMS	36.23	-52.20	0.49	-95.23	66.19	-25.00	-19.52	Vertical
5	10215.00	-47.18	RMS	38.53	-51.00	0.45	-95.23	60.07	-25.00	-22.18	Vertical

Main

Part 27D Mode 1

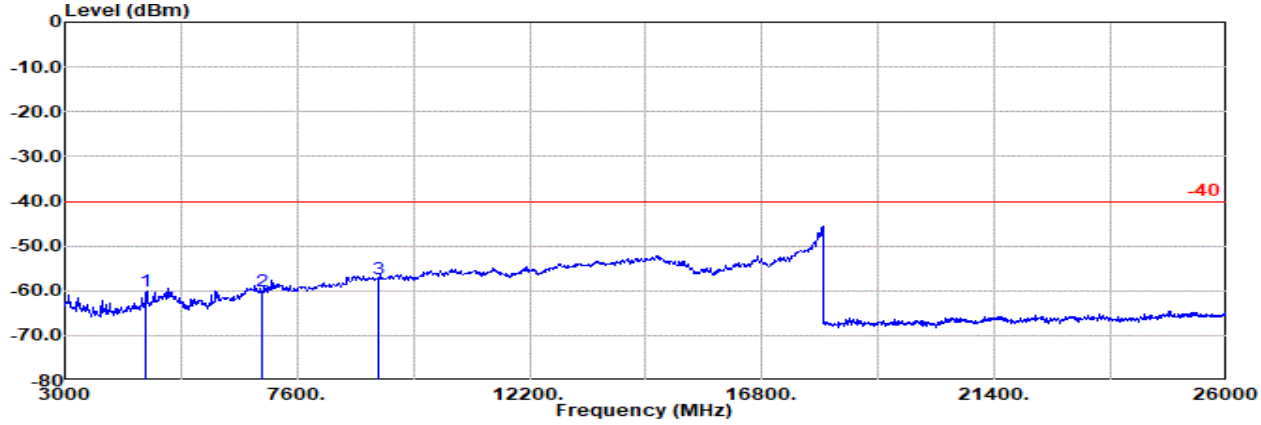
LTE B30 5M Ch27685 1RB0 QPSK

L



Site : 03CH16-HY
Condition: -40 1m SHF_1224_240624 Horizontal
: LTE Band 30 5M Ch27685 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4611.00	-62.60	RMS	31.64	-55.81	0.52	-95.23	0.00	-40.00	-22.60	Horizontal
2	6916.00	-60.65	RMS	35.80	-52.77	0.54	-95.23	51.01	-40.00	-20.65	Horizontal
3	9221.00	-57.49	RMS	37.80	-51.06	0.58	-95.23	50.42	-40.00	-17.49	Horizontal



Site : 03CH16-HY
Condition: -40 1m SHF_1224_240624 Vertical
: LTE Band 30 5M Ch27685 1RB0 QPSK

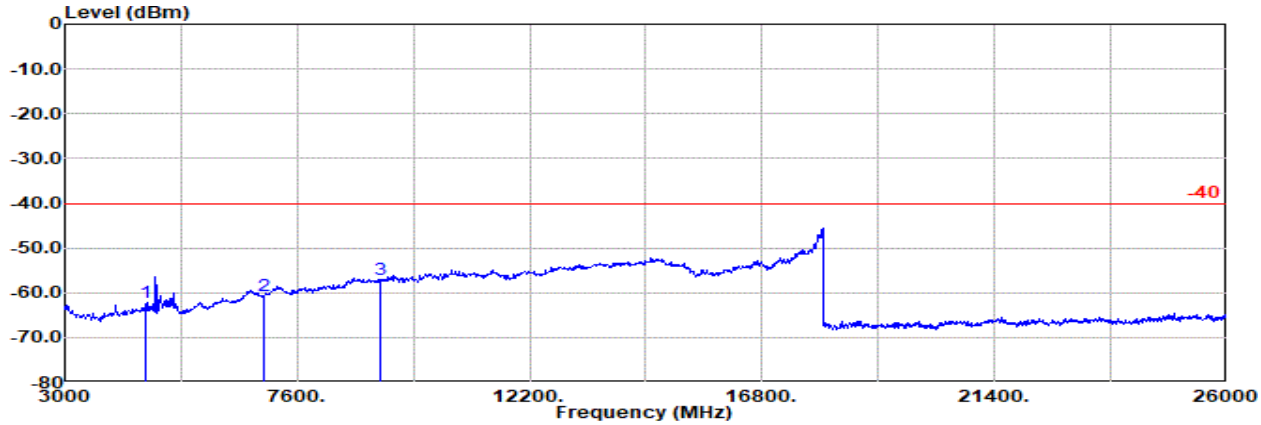
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4611.00	-60.16	RMS	31.64	-55.81	0.52	-95.23	58.72	-40.00	-20.16	Vertical
2	6916.00	-59.93	RMS	35.80	-52.77	0.54	-95.23	51.73	-40.00	-19.93	Vertical
3	9221.00	-57.39	RMS	37.80	-51.06	0.58	-95.23	50.52	-40.00	-17.39	Vertical

Main

Part 27D Mode 1

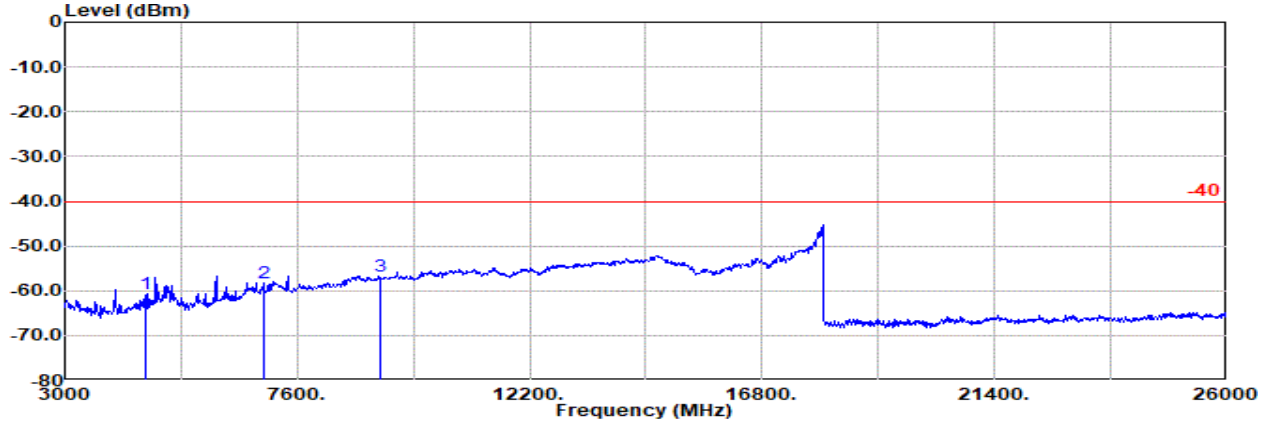
LTE B30 5M Ch27710 1RB0 QPSK

M



Site : 03CH16-HY
Condition: -40 1m SHF_1224_240624 Horizontal
: LTE Band 30 5M Ch27710 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4616.00	-62.09	RMS	31.66	-55.80	0.52	-95.23	56.76	-40.00	-22.09	Horizontal
2	6924.00	-60.72	RMS	35.80	-52.77	0.54	-95.23	50.94	-40.00	-20.72	Horizontal
3	9231.00	-57.09	RMS	37.80	-51.05	0.57	-95.23	50.82	-40.00	-17.09	Horizontal



Site : 03CH16-HY
Condition: -40 1m SHF_1224_240624 Vertical
: LTE Band 30 5M Ch27710 1RB0 QPSK

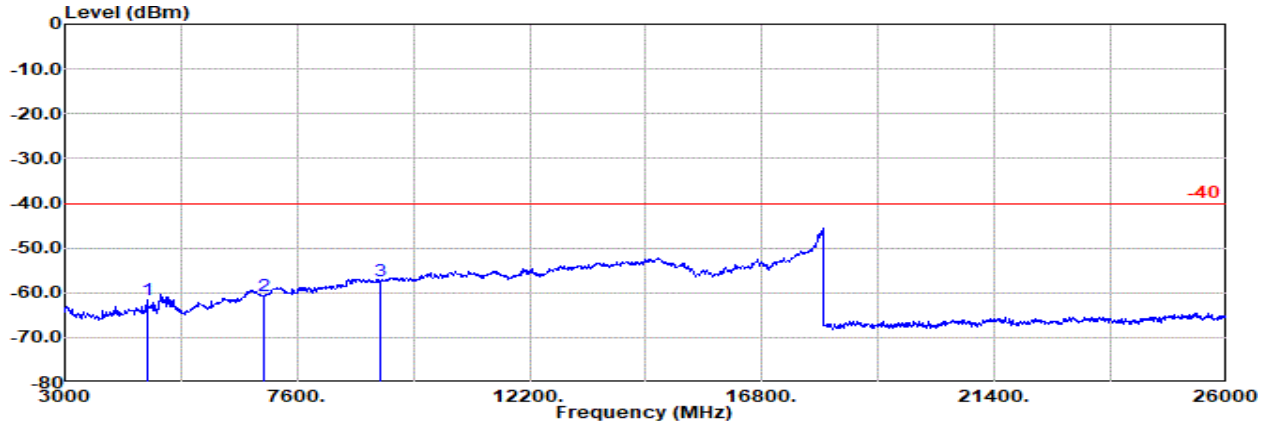
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4616.00	-60.81	RMS	31.66	-55.80	0.52	-95.23	58.04	-40.00	-20.81	Vertical
2	6924.00	-58.14	RMS	35.80	-52.77	0.54	-95.23	53.52	-40.00	-18.14	Vertical
3	9231.00	-56.83	RMS	37.80	-51.05	0.57	-95.23	51.08	-40.00	-16.83	Vertical

Main

Part 27D Mode 1

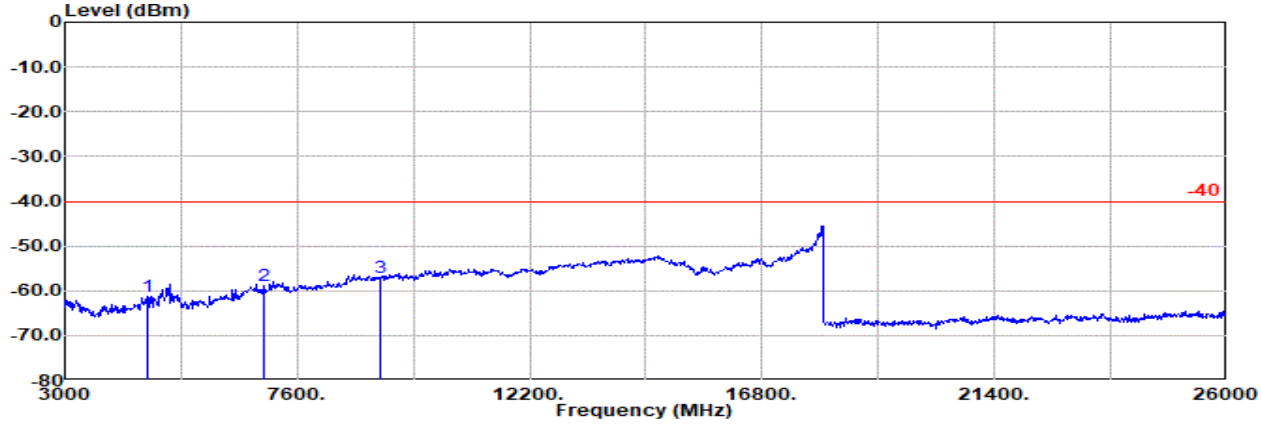
LTE B30 5M Ch27735 1RB0 QPSK

H



Site : 03CH16-HY
Condition: -40 1m SHF_1224_240624 Horizontal
: LTE Band 30 5M Ch27735 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4621.00	-61.59	RMS	31.68	-55.79	0.52	-95.23	57.23	-40.00	-21.59	Horizontal
2	6931.00	-60.58	RMS	35.80	-52.76	0.53	-95.23	51.08	-40.00	-20.58	Horizontal
3	9241.00	-57.26	RMS	37.80	-51.04	0.56	-95.23	50.65	-40.00	-17.26	Horizontal



Site : 03CH16-HY
Condition: -40 1m SHF_1224_240624 Vertical
: LTE Band 30 5M Ch27735 1RB0 QPSK

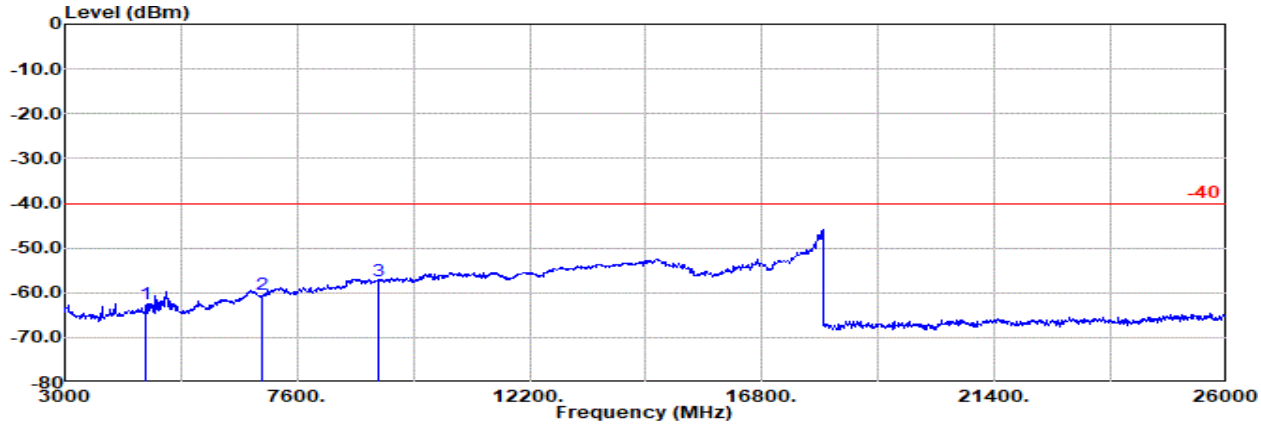
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4621.00	-61.37	RMS	31.68	-55.79	0.52	-95.23	57.45	-40.00	-21.37	Vertical
2	6931.00	-58.76	RMS	35.80	-52.76	0.53	-95.23	52.90	-40.00	-18.76	Vertical
3	9241.00	-57.14	RMS	37.80	-51.04	0.56	-95.23	50.77	-40.00	-17.14	Vertical

Main

Part 27D Mode 2

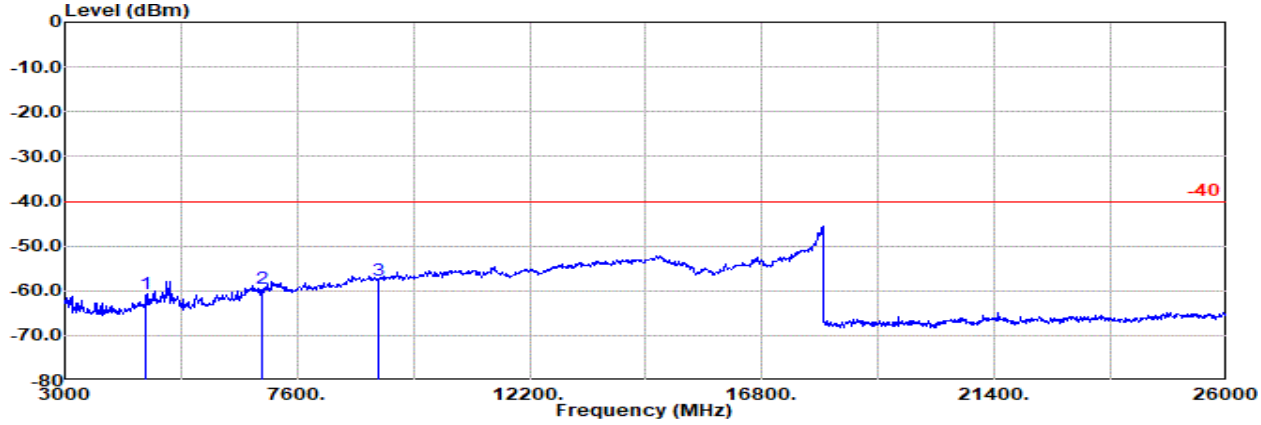
LTE B30 10M Ch27710 1RB0 QPSK

M



Site : 03CH16-HY
Condition: -40 1m SHF_1224_240624 Horizontal
: LTE Band 30 10M Ch27710 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4611.00	-62.51	RMS	31.64	-55.81	0.52	-95.23	56.37	-40.00	-22.51	Horizontal
2	6917.00	-60.47	RMS	35.80	-52.77	0.54	-95.23	51.19	-40.00	-20.47	Horizontal
3	9222.00	-57.45	RMS	37.80	-51.06	0.58	-95.23	50.46	-40.00	-17.45	Horizontal



Site : 03CH16-HY
Condition: -40 1m SHF_1224_240624 Vertical
: LTE Band 30 10M Ch27710 1RB0 QPSK

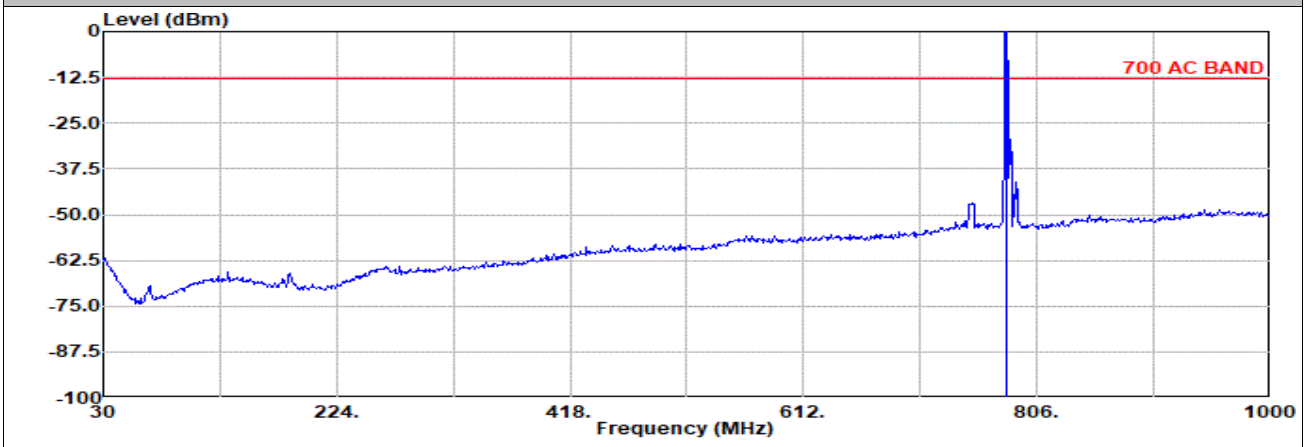
	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	4611.00	-60.56	RMS	31.64	-55.81	0.52	-95.23	58.32	-40.00	-20.56	Vertical
2	6917.00	-59.35	RMS	35.80	-52.77	0.54	-95.23	52.31	-40.00	-19.35	Vertical
3	9222.00	-57.56	RMS	37.80	-51.06	0.58	-95.23	50.35	-40.00	-17.56	Vertical

Main

Part 27F Mode 1

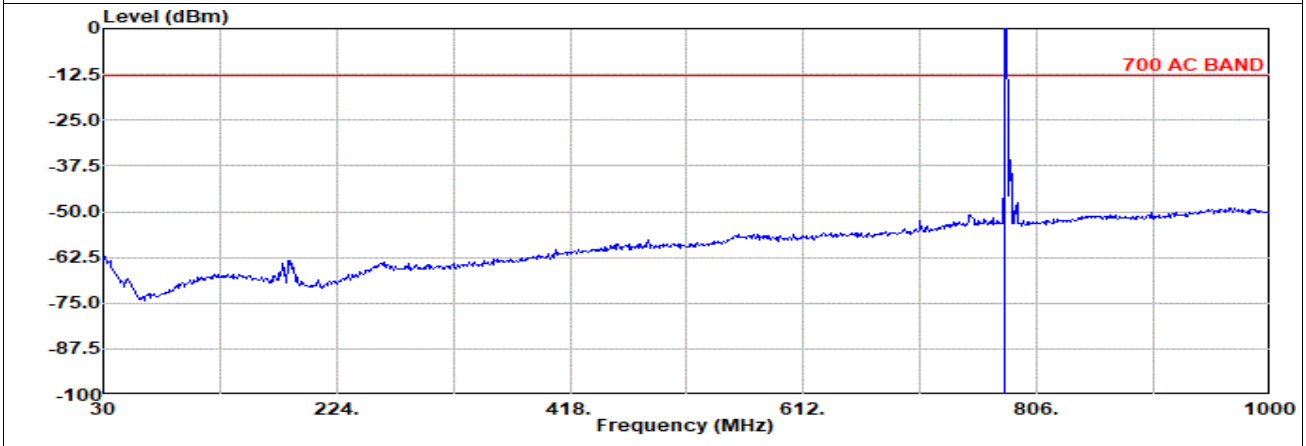
LTE B13 5M Ch23230 1RB0 QPSK

M



Site : 03CH16-HY
Condition: 700 AC BAND 3m CBL6111D _47020 & 06_241005 Horizontal
: LTE Band 13 5M Ch23230 1RB0 QPSK
: #1 is fundamental signal which can be ignored.

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	780.78	25.01	RMS	28.16	4.33	0.00	-95.23	87.75	-13.00	38.01	Horizontal



Site : 03CH16-HY
Condition: 700 AC BAND 3m CBL6111D _47020 & 06_241005 Vertical
: LTE Band 13 5M Ch23230 1RB0 QPSK
: #1 is fundamental signal which can be ignored.

	Freq	Level	Detector	Ant Factor	Amp\Cbl	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	779.81	18.19	RMS	28.17	4.33	0.00	-95.23	80.92	-13.00	31.19	Vertical