



FCC RADIO TEST REPORT

FCC ID : IHDT56AX5
Equipment : Mobile Cellular Phone
Brand Name : Motorola
Model Name : XT2651V
Applicant : Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA
Manufacturer : Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA
Standard : FCC 47 CFR Part 2, 96

The product was received on Jun. 16, 2026 and testing was performed from Jun. 23, 2026 to Jul. 30, 2026. 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.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010



Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 Product Feature of Equipment Under Test.....	5
1.2 Modification of EUT	5
1.3 Testing Site	6
1.4 Applied Standards	6
2 Test Configuration of Equipment Under Test	7
2.1 Test Mode	7
2.2 Connection Diagram of Test System	8
2.3 Support Unit used in test configuration and system	8
2.4 Frequency List of Low/Middle/High Channels	9
3 Conducted Test Items.....	12
3.1 Measuring Instruments	12
3.2 Conducted Output Power Measurement	13
3.3 Peak-to-Average Ratio	14
3.4 EIRP and Power Density	15
3.5 Occupied Bandwidth	16
3.6 Conducted Band Edge	17
3.7 Conducted Spurious Emission	18
3.8 Frequency Stability	19
4 Radiated Test Items	20
4.1 Measuring Instruments	20
4.2 Test Setup	20
4.3 Test Result of Radiated Test	21
4.4 Radiated Spurious Emission	22
5 List of Measuring Equipment.....	23
6 Measurement Uncertainty	24
Appendix A. Test Results of Radiated Test	
Appendix B. Spot Check Evaluation on IHDT56AX5	
Appendix C. Original Report	



History of this test report

Report No.	Version	Description	Issue Date
FG660814D	01	Initial issue of report	Aug, 05, 2026

**Summary of Test Result**

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	Note
3.3	§96.41	Peak-to-Average Ratio	Pass	Note
3.4	§96.41	Effective Isotropic Radiated Power	Pass	Note
		Power Density	Pass	Note
3.5	§2.1049	Occupied Bandwidth	Pass	Note
3.6	§2.1051 §96.41	Conducted Band Edge Measurement	Pass	Note
3.7	§2.1051 §96.41	Conducted Spurious Emission	Pass	Note
3.8	§2.1055	Frequency Stability for Temperature & Voltage	Pass	Note
4.4	§2.1053 §96.41	Radiated Spurious Emission	Pass	Note

1. The differences between the parent device (FCC ID: IHDT56AW3) and the variant device (FCC ID: IHDT56AX5) are detailed in the ECR document.
2. All radiated tests were performed as full tests. Detailed results are provided in Appendix A.
3. All conducted test results were referenced from FCC ID: IHDT56AW3 (Sporton Test Report FG5N1310I). In accordance with FCC KDB 484596 D01 Referencing Test Data v03, Conducted power spot-check measurements were performed on the variant device. The spot-check results demonstrate comparable RF performance between the parent and variant devices and support the validity of the referenced conducted test data. Detailed results are provided in Appendix B.
4. The referenced data, FCC ID: IHDT56AW3 (Sporton Test Report FG5N1310I) are not covered by TAF accreditation and are not considered TAF-accredited results.

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: Keven Cheng**Report Producer: Dara Chiu**



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
General Specs	GSM/WCDMA/LTE/5G NR/ mmW, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ax/be, Wi-Fi 5GHz 802.11a/n/ac/ax/be, Wi-Fi 6GHz 802.11a/ax/be, GNSS, NFC,WPT and UWB
Antenna Type subject to this standard	WWAN: IFA/Loop Antenna

Support band and evaluated information	
Supported band	B42,B43,B48,B48B,B48C
Evaluated and Tested band	B42,B43,B48,B48B,B48C

FDD/TDD band Power Class				
	SISO PC3	SISO PC2		
B42/B42C	V			
B43	V			
B48/B48B/B48C	V			

Max Antenna Gain information(dBi)								
Band	Ant 0	Ant 1	Ant 2	Ant 3	Ant 4	Ant 6	Ant 8	Main Ant. #
B42			-2.1		-3.03	-5.5	-4.15	8
B43			-3		-2	-5.5	-3.62	8
B48			-2.1		-2	-5.5	-3.62	8

EUT Information List	
S/N	Performed Test Item
352595240018419 352595240018427	Radiated Spurious Emission

Specification of Accessory				
Battery 1	Brand Name	Motorola	Model Name	SH29
Battery 2	Brand Name	Motorola	Model Name	SH31
USB Cable 1	Brand Name	Motorola(SAIBAO)	Model Name	SC18D86731
USB Cable 2	Brand Name	Motorola(Luxshare)	Model Name	SC18E08103

1.2 Modification of EUT

No modifications made to the EUT during the testing.



1.3 Testing Site

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010 TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. 03CH21-HY
Test Engineer	Jack Cheng, Ray Lung
Temperature (°C)	18~26
Relative Humidity (%)	50~70

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

FCC Designation No.: TW3786

1.4 Applied Standards

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

- ♦ ANSI C63.26-2015
- ♦ FCC 47 CFR Part 2, 96
- ♦ FCC KDB 971168 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 940660 D01 Part 96 CBRS Eqpt v03
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01
- ♦ FCC KDB 484596 D01 Referencing Test Data v03

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.
3. 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.

For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape) and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and only the worst case emissions were reported in this report..

The detailed test modes associated with the referenced data are provided in the referenced reports.

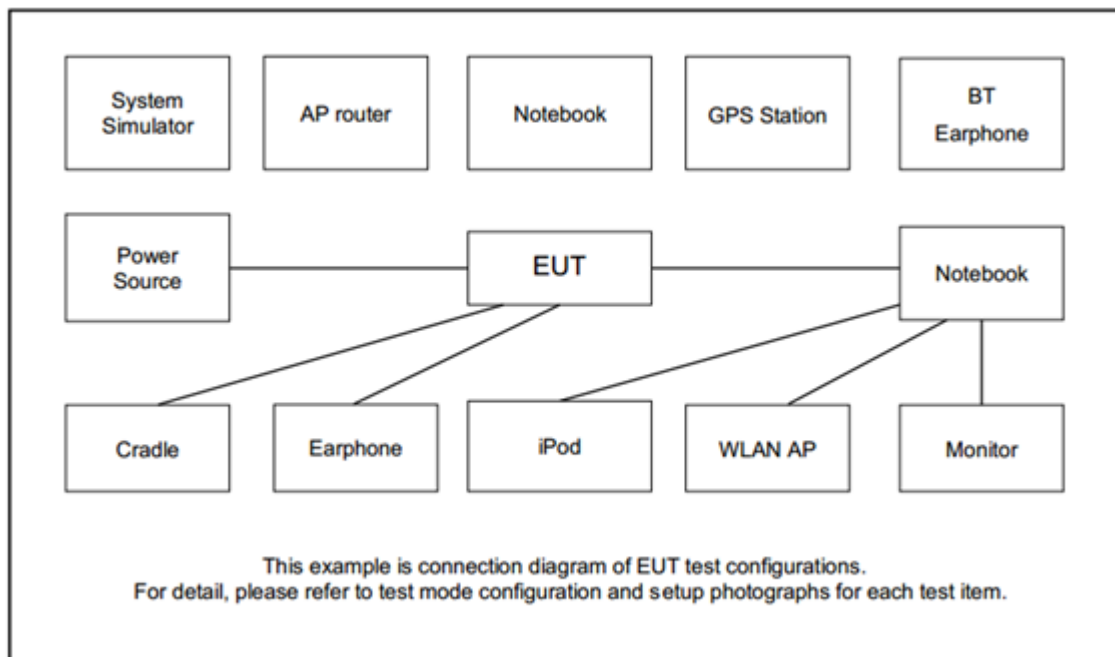
In this report, the conducted output power was measured and compared with the referenced report to confirm consistency. Since the verification results met the acceptance criteria, please refer to the referenced report for the remaining conducted-related test results.

All radiated tests were performed as full tests. Detailed results are provided in Appendix A.

Modulation Type	Modulation	Modulation Type	Modulation
A	DFT-s-OFDM PI/2 BPSK	N/A	N/A
B	DFT-s-OFDM QPSK	F	CP-OFDM QPSK
C	DFT-s-OFDM 16QAM	G	CP-OFDM 16QAM
D	DFT-s-OFDM 64QAM	H	CP-OFDM 64QAM
E	DFT-s-OFDM 256QAM	I	CP-OFDM 256QAM

Test Item	Modulation Type	Bandwidth	RB Size	Channel
Conducted Power EIRP	A, B, C,D	All	1, Half, Full	L, M, H
RSE	A	Max	1RB	M

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	LTE Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m



2.4 Frequency List of Low/Middle/High Channels

LTE Band 42 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	43190	43340	43490
	Frequency	3560.0	3575.0	3590.0
15	Channel	43165	43340	43515
	Frequency	3557.5	3575.0	3592.5
10	Channel	43140	43340	43540
	Frequency	3555.0	3575.0	3595.0
5	Channel	43115	43340	43565
	Frequency	3552.5	3575.0	3597.5

LTE Band 43 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	43690	44090	44490
	Frequency	3610.0	3650.0	3690.0
15	Channel	43665	44090	44515
	Frequency	3607.5	3650.0	3692.5
10	Channel	43640	44090	44540
	Frequency	3605.0	3650.0	3695.0
5	Channel	43615	44090	44565
	Frequency	3602.5	3650.0	3697.5

LTE Band 48 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	55340	55990	56640
	Frequency	3560	3625	3690
15	Channel	55315	55990	56665
	Frequency	3557.5	3625	3692.5
10	Channel	55290	55990	56690
	Frequency	3555	3625	3695
5	Channel	55265	55990	56715
	Frequency	3552.5	3625	3697.5



LTE Band 48C 3550MHz ~ 3700MHz Channel and Frequency List_CA (Part96)					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
20 + 20	PCC	Channel	55340	55891	56442
		Frequency	3560	3615.1	3670.2
	SCC	Channel	55538	56089	56640
		Frequency	3579.8	3634.9	3690.0
20 + 15	PCC	Channel	55340	55916	56491
		Frequency	3560	3617.6	3675.1
	SCC	Channel	55511	56087	56662
		Frequency	3577.1	3634.7	3692.2
15 + 20	PCC	Channel	55318	55893	56469
		Frequency	3557.8	3615.3	3672.9
	SCC	Channel	55489	56064	56640
		Frequency	3574.9	3632.4	3690.0
20 + 10	PCC	Channel	55340	55941	56541
		Frequency	3560	3620.1	3680.1
	SCC	Channel	55484	56085	56685
		Frequency	3574.4	3634.5	3694.5
10 + 20	PCC	Channel	55295	55896	56496
		Frequency	3555.5	3615.6	3675.6
	SCC	Channel	55439	56040	56640
		Frequency	3569.9	3630	3690
20 + 5	PCC	Channel	55340	55965	56590
		Frequency	3560	3622.5	3685
	SCC	Channel	55457	56082	56707
		Frequency	3571.7	3634.2	3696.7
5 + 20	PCC	Channel	55273	55896	56523
		Frequency	3553.3	3615.6	3678.3
	SCC	Channel	55390	56015	56640
		Frequency	3565	3627.5	3690.0



LTE Band 48B_CA Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
10 + 10	PCC	Channel	55290	55941	56591
		Frequency	3555	3620.1	3685.1
	SCC	Channel	55389	56039	56690
		Frequency	3564.9	3629.9	3695

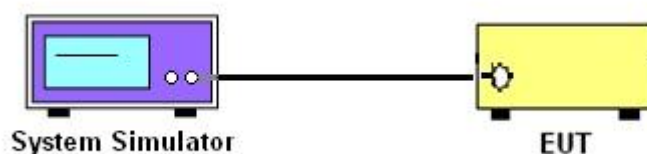
3 Conducted Test Items

3.1 Measuring Instruments

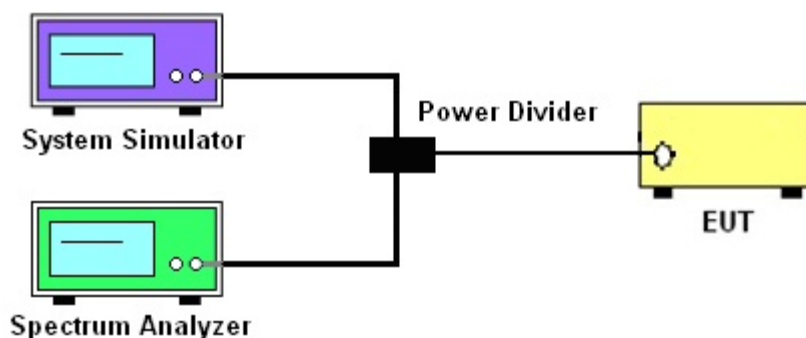
See list of measuring instruments of this test report.

3.1.1 Test Setup

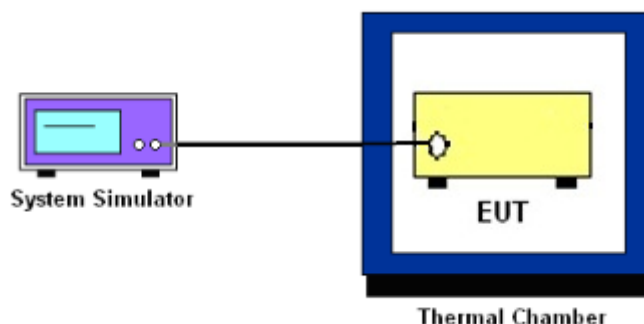
3.1.2 Conducted Output Power



3.1.3 EIRP and Power Density, Peak-to-Average Ratio, Occupied Bandwidth, Conducted Band-Edge, and Conducted Spurious Emission



3.1.4 Frequency Stability



3.1.5 Test Result of Conducted Test

Please refer to FCC ID: IHDT56AW3 (Sporton Test Report FG5N1310I).



3.2 Conducted Output Power Measurement

3.2.1 Description of the Conducted Output Power Measurement

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

3.2.2 Test Procedures

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



3.3 Peak-to-Average Ratio

3.3.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.3.2 Test Procedures

The testing follows ANSI C63.26-2015 Section 5.2.6

1. The EUT was connected to spectrum and system simulator via a power divider.
2. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
3. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
4. Record the deviation as Peak to Average Ratio.



3.4 EIRP and Power Density

3.4.1 Description of the EIRP and Power Density Measurement

The EIRP of mobile transmitters must not exceed 23 dBm /10 megahertz for LTE Band 48.

The testing follows ANSI C63.26-2015 Section 5.2.5.5.

According to KDB 412172 D01 Power Approach,

$EIRP = PT + GT - LC$, where

PT = transmitter output power in dBm

GT = gain of the transmitting antenna in dBi

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

Device		Maximum EIRP (dBm/10 MHz)	Maximum PSD (dBm/MHz)
Applied	End User Device	23	n/a
☐	Category A CBSD	30	20
☐	Category B CBSD	47	37

Remark:

Total channel power is complied with EIRP limit 23dBm/10MHz.

3.4.2 Test Procedures

The testing follows procedure in Section 5.2 of ANSI C63.26-2015 and KDB 940660 D01 Part 96 CBRS Eqpt v03 Section 3.2(b)(2)

Determine the EIRP by adding the effective antenna gain to the measured average conducted power level.



3.5 Occupied Bandwidth

3.5.1 Description of Occupied Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

3.5.2 Test Procedures

The testing follows ANSI C63.26-2015 Section 5.4.3 (26dB) and Section 5.4.4 (99OB)

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
3. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
4. Set the detection mode to peak, and the trace mode to max hold.
5. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace.
(this is the reference value)
6. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
7. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
8. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.



3.6 Conducted Band Edge

3.6.1 Description of Conducted Band Edge Measurement

The conducted power of any End User Device emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed -13 dBm/MHz within 0 to B megahertz (where B is the bandwidth in megahertz of the assigned channel or multiple contiguous channels of the End User Device) above the upper CBSD-assigned channel edge and within 0 to B megahertz below the lower CBSD-assigned channel edge. At all frequencies greater than B megahertz above the upper CBSD assigned channel edge and less than B megahertz below the lower CBSD-assigned channel edge, the conducted power of any End User Device emission shall not exceed -25 dBm/MHz. Notwithstanding the emission limits in this paragraph, the Adjacent Channel Leakage Ratio for End User Devices shall be at least 30 dB.

3.6.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 6.1.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured.
3. Set RBW $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. Beyond the 1 MHz band from the band edge, RBW=1MHz was used
5. Set spectrum analyzer with RMS detector.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. Checked that all the results comply with the emission limit line.

For Adjacent Channel Leakage Ratio (ACLR) measurement,

1. The Adjacent Channel Leakage Ratio (ACLR) is the ratio of the average power in the assigned aggregated channel bandwidth to the average power over the equivalent adjacent channel bandwidth.
2. The option ACLR of spectrum analyzer is used and measures the ACLR ratio by setting equivalent channel bandwidth.
3. The measured ACLR ratio shall be at least 30 dB.



3.7 Conducted Spurious Emission

3.7.1 Description of Conducted Spurious Emission Measurement

96.41 (e)(2)

The conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed -40dBm/MHz.

3.7.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 6.1.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
The path loss was compensated to the results for each measurement.
3. The middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
6. Set spectrum analyzer with RMS detector.
7. Taking the record of maximum spurious emission.
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
9. The test reduction is applied to 1RB case for 10MHz Bandwidth to cover the all operation bandwidths. RBW 500kHz is applied to the 0-1MHz offset from the edge of the frequency block group for 1RB mode in order to represent the worst case condition.



3.8 Frequency Stability

3.8.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block.

3.8.2 Test Procedures for Temperature Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.8.3 Test Procedures for Voltage Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

1. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simulator.
2. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

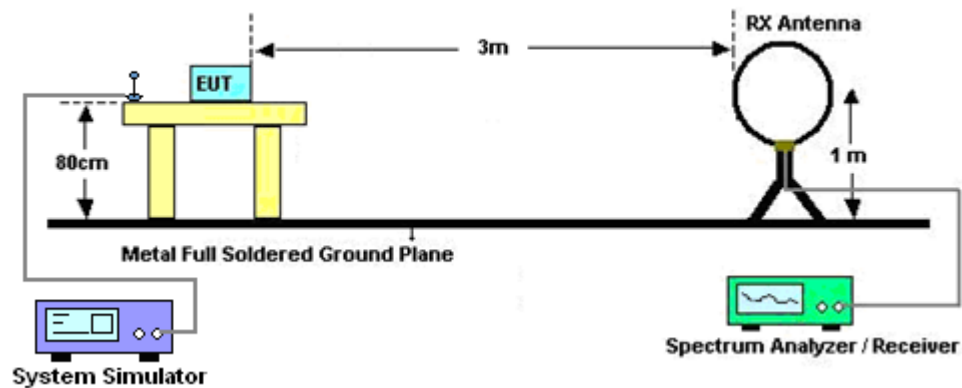
4 Radiated Test Items

4.1 Measuring Instruments

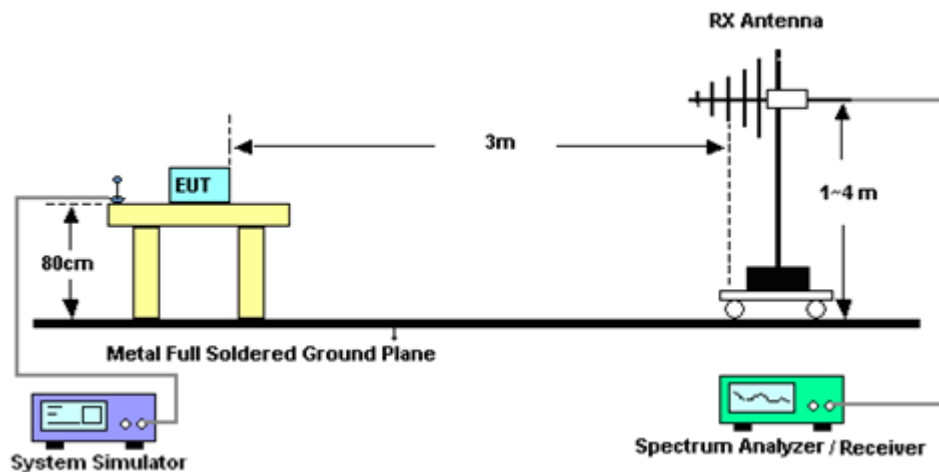
See list of measuring instruments of this test report.

4.2 Test Setup

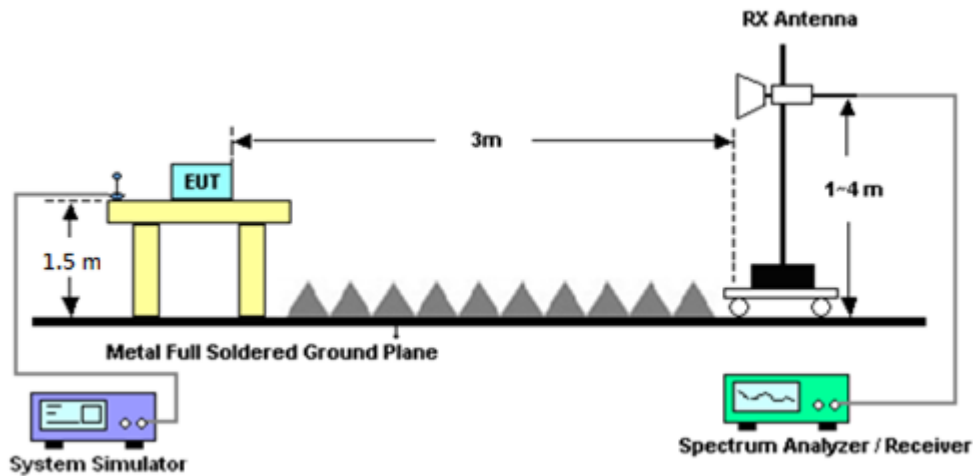
For radiated test below 30MHz



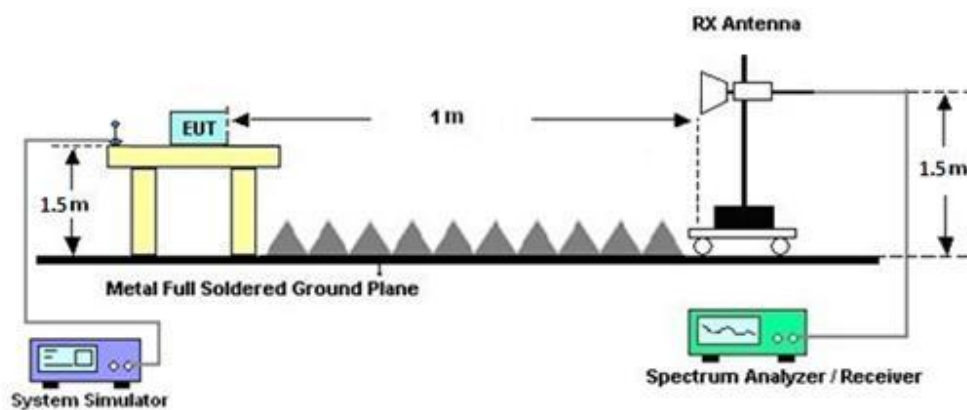
For radiated test from 30MHz to 1GHz



For radiated emissions from 1GHz to 18GHz



For radiated emissions above 18GHz



4.3 Test Result of Radiated Test

Please refer to Appendix A

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.



4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

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 -40dBm / MHz

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

4.4.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI C63.26-2015 section 5.5.7 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 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 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
5. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. 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
8. Field Strength Level (dBm) = Spectrum Reading (dBm) + Antenna Factor + Cable Loss + Read Level - Preamp Factor.
9. ERP (dBm) = EIRP (dBm) - 2.15
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
LOOP Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Mar. 16, 2026	Jun. 23, 2026 ~ Jul. 30, 2026	Mar. 15, 2027	Radiation (03CH21-HY)
Bilog Antenna	TESEQ & WOKEN	CBL 6111D & 00802N1D-06	63303 & 001	30MHz~1GHz	Nov. 26, 2025	Jun. 23, 2026 ~ Jul. 30, 2026	Nov. 25, 2026	Radiation (03CH21-HY)
Double Ridged Guide Horn Antenna	RFSPIN	DRH18-E	LE2C03 A18EN	1GHz~18GHz	Aug. 07, 2025	Jun. 23, 2026 ~ Jul. 30, 2026	Aug. 06, 2026	Radiation (03CH21-HY)
SHF-EHF Horn Antenna	SCHWARZBEC K	BBHA 9170	1450	18GHz~40GHz	May. 28, 2026	Jun. 23, 2026 ~ Jul. 30, 2026	May. 27, 2027	Radiation (03CH21-HY)
Amplifier	SONOMA	310N	421580	30MHz~1GHz	Jul. 13, 2025	Jun. 23, 2026 ~ Jul. 11, 2026	Jul. 12, 2026	Radiation (03CH21-HY)
Amplifier	SONOMA	310N	371607	30MHz~1GHz	Jun. 29, 2026	Jul. 12, 2026 ~ Jul. 30, 2026	Jun. 28, 2027	Radiation (03CH21-HY)
Amplifier	EMEC	EM01G18GA	060876	1GHz~18GHz	Sep. 26, 2025	Jun. 23, 2026 ~ Jul. 30, 2026	Sep. 25, 2026	Radiation (03CH21-HY)
Preamplifier	EMEC	EM18G40G	060873	18GHz~40GHz	Aug. 26, 2025	Jun. 23, 2026 ~ Jul. 30, 2026	Aug. 25, 2026	Radiation (03CH21-HY)
EXA Signal Analyzer	Keysight	N9010B	MY6217 0358	10Hz~44GHz	Sep. 09, 2025	Jun. 23, 2026 ~ Jul. 30, 2026	Sep. 08, 2026	Radiation (03CH21-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/ 2	9kHz~30MHz	Mar. 04, 2026	Jun. 23, 2026 ~ Jul. 30, 2026	Mar. 03, 2027	Radiation (03CH21-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804397/ 2,80461 2/2,803 954/2	30MHz~40GHz	Aug. 11, 2025	Jun. 23, 2026 ~ Jul. 30, 2026	Aug. 10, 2026	Radiation (03CH21-HY)
RF Cable	EMCI	EMC101Y-KM-KM -1000	240906	30MHz~40GHz	Oct. 21, 2025	Jun. 23, 2026 ~ Jul. 30, 2026	Oct. 20, 2026	Radiation (03CH21-HY)
Hygrometer	TECPEL	DTM-303A	TP2115 68	N/A	Oct. 21, 2025	Jun. 23, 2026 ~ Jul. 30, 2026	Oct. 20, 2026	Radiation (03CH21-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Jun. 23, 2026 ~ Jul. 30, 2026	N/A	Radiation (03CH21-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Jun. 23, 2026 ~ Jul. 30, 2026	N/A	Radiation (03CH21-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Jun. 23, 2026 ~ Jul. 30, 2026	N/A	Radiation (03CH21-HY)
Software	Audix	E3 6.2009-8-24	RK-001 053	N/A	N/A	Jun. 23, 2026 ~ Jul. 30, 2026	N/A	Radiation (03CH21-HY)



6 Measurement Uncertainty

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.4 dB
--	--------

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.8 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. Radiated Spurious Emission Test Data

Test Engineer :	Jack Cheng, Ray Lung	Temperature :	21.1 ~ 25.7°C
		Relative Humidity :	55.8 ~ 63.2%

B1.Summary of each worse mode

Mode	Band	Part	Ch	Freq (MHz)	Level (dBm)	Det	Ant Factor (dB)	AmplCbl (dB)	Filter (dB)	EIRPCF (dB)	Reading (dBuV)	Limit (dBm)	Margin (dB)	Pol	Ant
83	LTE B48	Part 96	M	14464	-48.81	RMS	41.06	-23.00	2.21	-95.23	26.15	-40.00	-8.81	V	8
84	LTE B48	Part 96	M	14464	-49.78	RMS	41.06	-23.00	2.21	-95.23	25.18	-40.00	-9.78	H	6
85	LTE CA 48B	Part 96	M	14519	-42.40	RMS	41.24	-23.07	2.20	-95.23	32.46	-40.00	-2.40	V	2
86	LTE CA 48B	Part 96	M	14500	-49.57	RMS	41.20	-23.06	2.20	-95.23	25.32	-40.00	-9.57	V	4
87	LTE CA 48C	Part 96	M	14496	-41.37	RMS	41.18	-23.05	2.21	-95.23	33.52	-40.00	-1.37	V	8
88	LTE CA 48C	Part 96	M	14496	-47.80	RMS	41.18	-23.05	2.21	-95.23	27.09	-40.00	-7.80	H	6

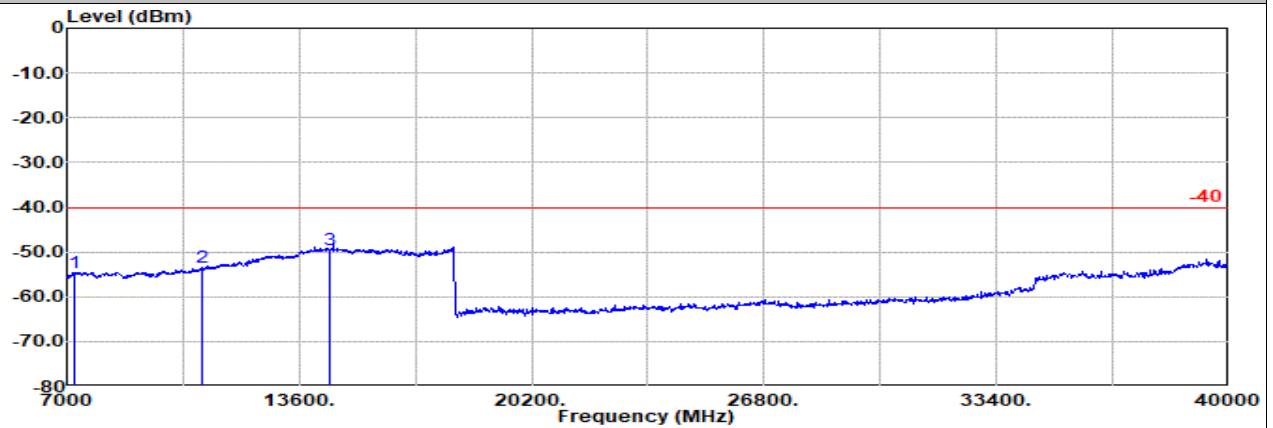


Ant. 8

Part 96 Mode 83

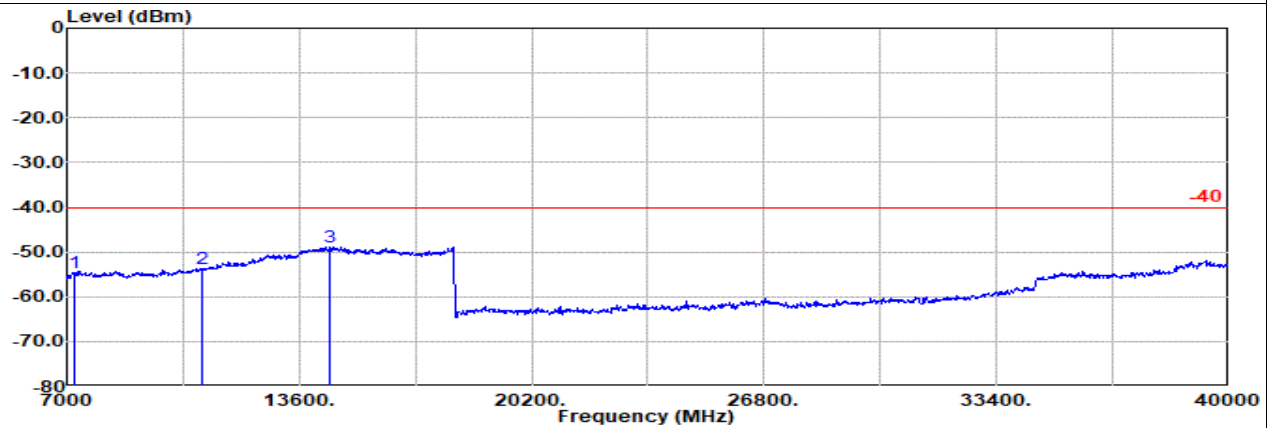
LTE B48 20M Ch55990 1RB0 QPSK

M



Site : 03CH21-HY
Condition: -40 1m BBHA9170_1450 Horizontal
: LTE B48 20M Ch55990 1RB0 QPSK

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	7232.00	-54.63 RMS	36.40	-21.39	1.99	-95.23	23.60	-40.00	-14.63	Horizontal
2	10848.00	-53.45 RMS	37.60	-21.75	1.86	-95.23	24.07	-40.00	-13.45	Horizontal
3	14464.00	-49.47 RMS	41.06	-23.00	2.21	-95.23	25.49	-40.00	-9.47	Horizontal



Site : 03CH21-HY
Condition: -40 1m BBHA9170_1450 Vertical
: LTE B48 20M Ch55990 1RB0 QPSK

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	7232.00	-54.61 RMS	36.40	-21.39	1.99	-95.23	23.62	-40.00	-14.61	Vertical
2	10848.00	-53.81 RMS	37.60	-21.75	1.86	-95.23	23.71	-40.00	-13.81	Vertical
3	14464.00	-48.81 RMS	41.06	-23.00	2.21	-95.23	26.15	-40.00	-8.81	Vertical

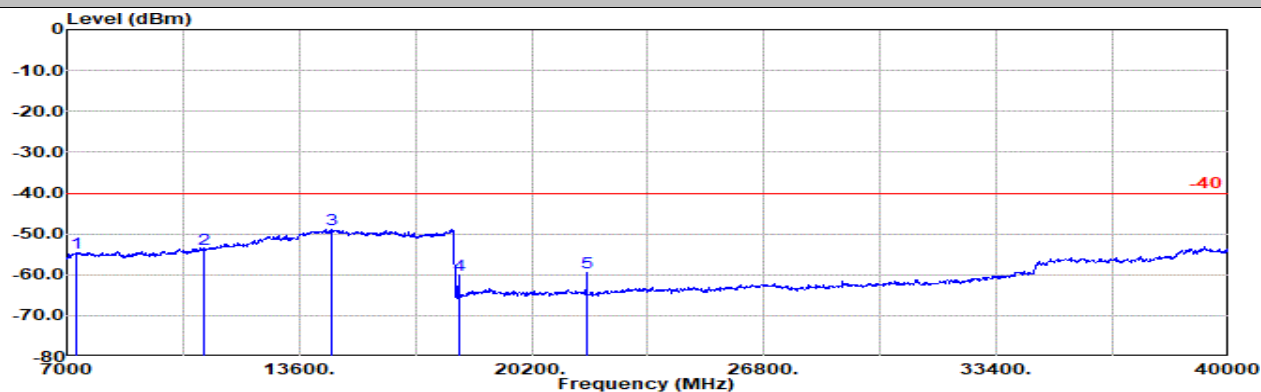


Ant. 8

Part 96 Mode 87

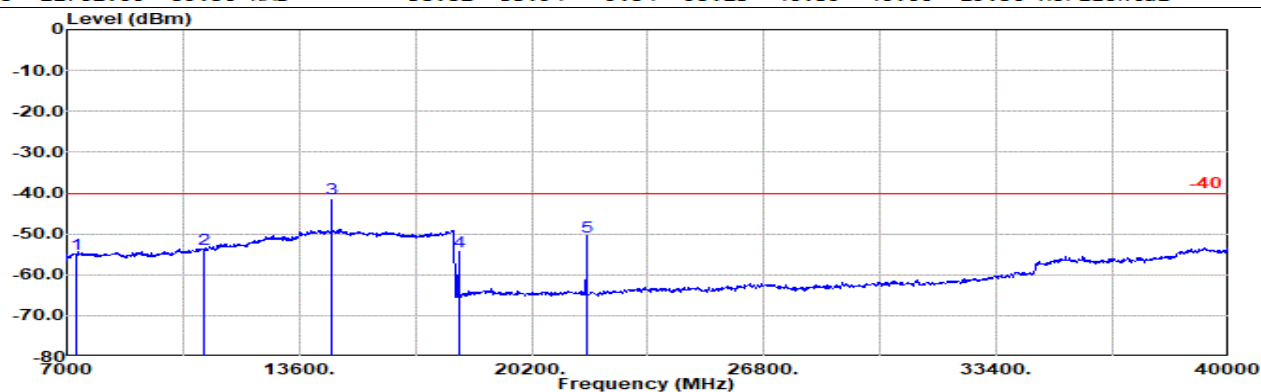
LTE CA 48C 20M + 20M Ch55891 1RB99 QPSK + Ch56089 1RB0 QPSK

M



Site : 03CH21-HY
Condition: -40 1m BBHA9170_1450 Horizontal
: LTE B48 20M Ch55891 1RB99 QPSK
: LTE B48 20M Ch56089 1RB0 QPSK

	Freq Level		Detector	Ant Factor	Amp\Cb		Filter	EIRPCF	Readin g	Limit		Margin	Pol
	MHz	dBm			dB/m	dB	dB	dB	dBuV	dBm	dB		
1	7248.00	-54.79	RMS	36.40	-21.38	1.96	-95.23	23.46	-40.00	-14.79	Horizontal		
2	10872.00	-53.71	RMS	37.60	-21.74	1.87	-95.23	23.79	-40.00	-13.71	Horizontal		
3	14496.00	-48.87	RMS	41.18	-23.05	2.21	-95.23	26.02	-40.00	-8.87	Horizontal		
4	18132.00	-59.98	RMS	38.33	-39.54	-9.54	-95.23	46.00	-40.00	-19.98	Horizontal		
5	21762.00	-59.50	RMS	38.82	-33.94	-9.54	-95.23	40.39	-40.00	-19.50	Horizontal		



Site : 03CH21-HY
Condition: -40 1m BBHA9170_1450 Vertical
: LTE B48 20M Ch55891 1RB99 QPSK
: LTE B48 20M Ch56089 1RB0 QPSK

	Freq Level		Detector	Ant Factor	Amp\Cb		Filter	EIRPCF	Readin g	Limit		Margin	Pol
	MHz	dBm			dB/m	dB	dB	dB	dBuV	dBm	dB		
1	7248.00	-54.96	RMS	36.40	-21.38	1.96	-95.23	23.29	-40.00	-14.96	Vertical		
2	10872.00	-53.79	RMS	37.60	-21.74	1.87	-95.23	23.71	-40.00	-13.79	Vertical		
3	14496.00	-41.37	RMS	41.18	-23.05	2.21	-95.23	33.52	-40.00	-1.37	Vertical		
4	18132.00	-54.47	RMS	38.33	-39.54	-9.54	-95.23	51.51	-40.00	-14.47	Vertical		
5	21762.00	-50.61	RMS	38.82	-33.94	-9.54	-95.23	49.28	-40.00	-10.61	Vertical		

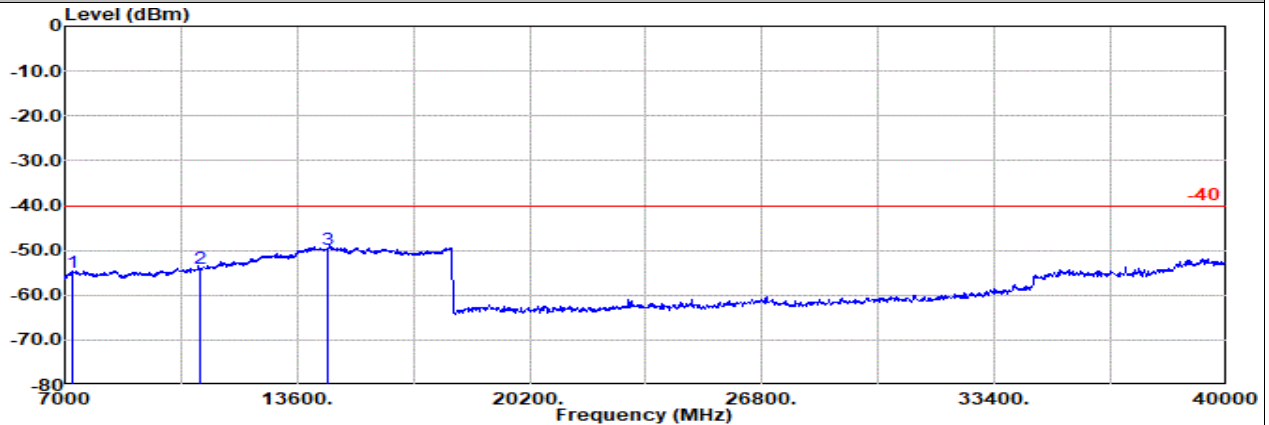


Ant. 6

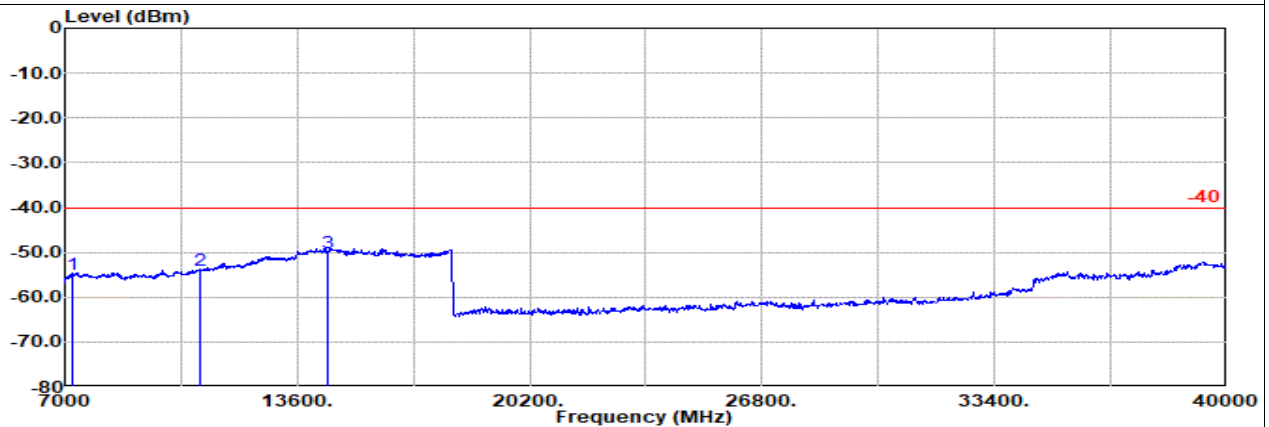
Part 96 Mode 84

LTE B48 20M Ch55990 1RB0 QPSK

M



	Freq Level		Detector	Ant Amp\Cb		Filter	EIRPCF	Readin	Limit		Margin	Pol
	MHz	dBm		Factor	dB				dBuV	dBm		
1	7232.00	-54.97	RMS	36.40	-21.39	1.99	-95.23	23.26	-40.00	-14.97	Horizontal	
2	10848.00	-53.98	RMS	37.60	-21.75	1.86	-95.23	23.54	-40.00	-13.98	Horizontal	
3	14464.00	-49.78	RMS	41.06	-23.00	2.21	-95.23	25.18	-40.00	-9.78	Horizontal	



	Freq Level		Detector	Ant Amp\Cb		Filter	EIRPCF	Readin	Limit		Margin	Pol
	MHz	dBm		Factor	dB				dBuV	dBm		
1	7232.00	-54.87	RMS	36.40	-21.39	1.99	-95.23	23.36	-40.00	-14.87	Vertical	
2	10848.00	-54.00	RMS	37.60	-21.75	1.86	-95.23	23.52	-40.00	-14.00	Vertical	
3	14464.00	-49.97	RMS	41.06	-23.00	2.21	-95.23	24.99	-40.00	-9.97	Vertical	

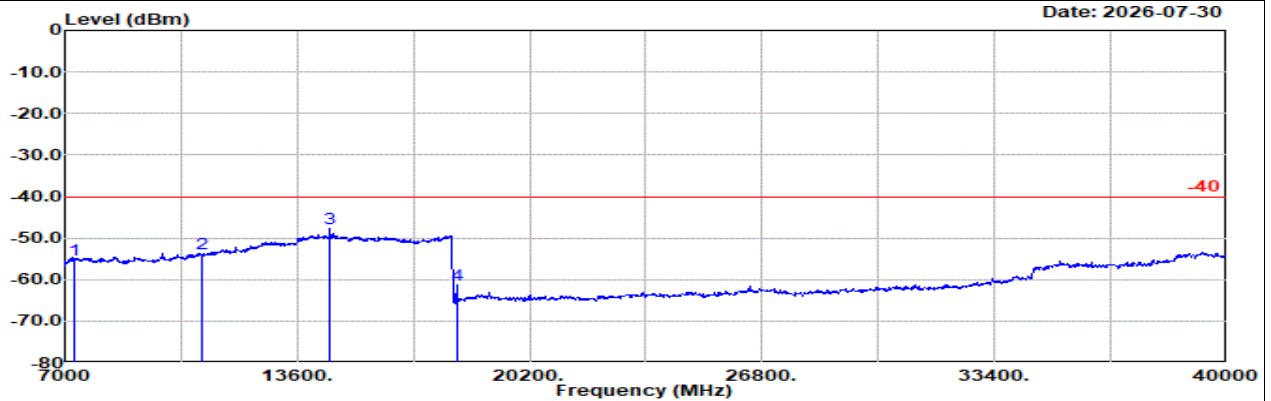


Ant. 6

Part 96 Mode 88

LTE CA 48C 20M + 20M Ch55891 1RB99 QPSK + Ch56089 1RB0 QPSK

M



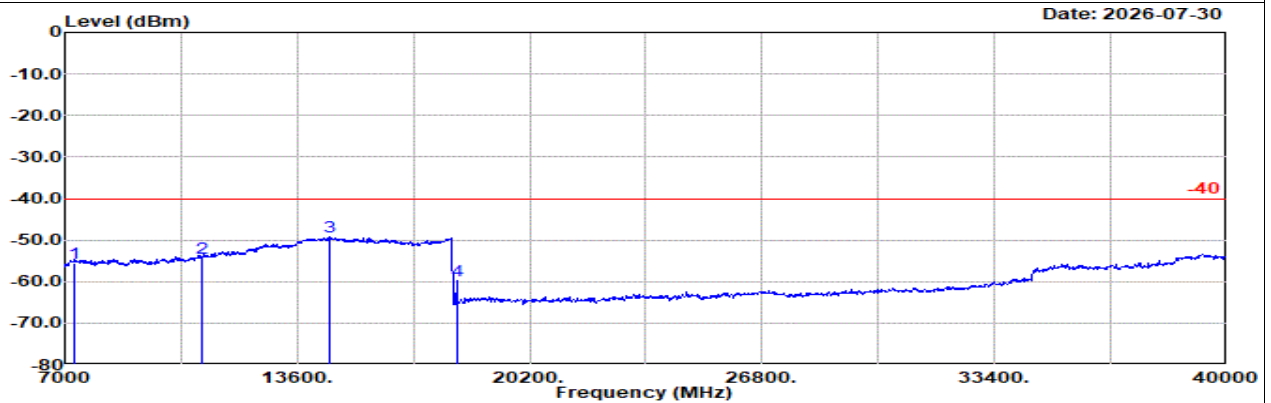
Site : 03CH21-HY

Condition: -40 3m DRH18-E_LE2C03A18EN_250807 Horizontal

: LTE B48 20M Ch55891 1RB99 QPSK

: LTE B48 20M Ch56089 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter	EIRPCF	Readin	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	7248.00	-55.30	RMS	36.40	-21.38	1.96	-95.23	22.95	-40.00	-15.30	Horizontal
2	10872.00	-53.73	RMS	37.60	-21.74	1.87	-95.23	23.77	-40.00	-13.73	Horizontal
3	14496.00	-47.80	RMS	41.18	-23.05	2.21	-95.23	27.09	-40.00	-7.80	Horizontal
4	18132.00	-61.21	RMS	38.33	-39.54	-9.54	-95.23	44.77	-40.00	-21.21	Horizontal



Site : 03CH21-HY

Condition: -40 3m DRH18-E_LE2C03A18EN_250807 Vertical

: LTE B48 20M Ch55891 1RB99 QPSK

: LTE B48 20M Ch56089 1RB0 QPSK

	Freq	Level	Detector	Ant Factor	Amp\Cb 1	Filter	EIRPCF	Reading	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	7248.00	-55.54	RMS	36.40	-21.38	1.96	-95.23	22.71	-40.00	-15.54	Vertical
2	10872.00	-54.23	RMS	37.60	-21.74	1.87	-95.23	23.27	-40.00	-14.23	Vertical
3	14496.00	-49.12	RMS	41.18	-23.05	2.21	-95.23	25.77	-40.00	-9.12	Vertical
4	18132.00	-59.92	RMS	38.33	-39.54	-9.54	-95.23	46.06	-40.00	-19.92	Vertical

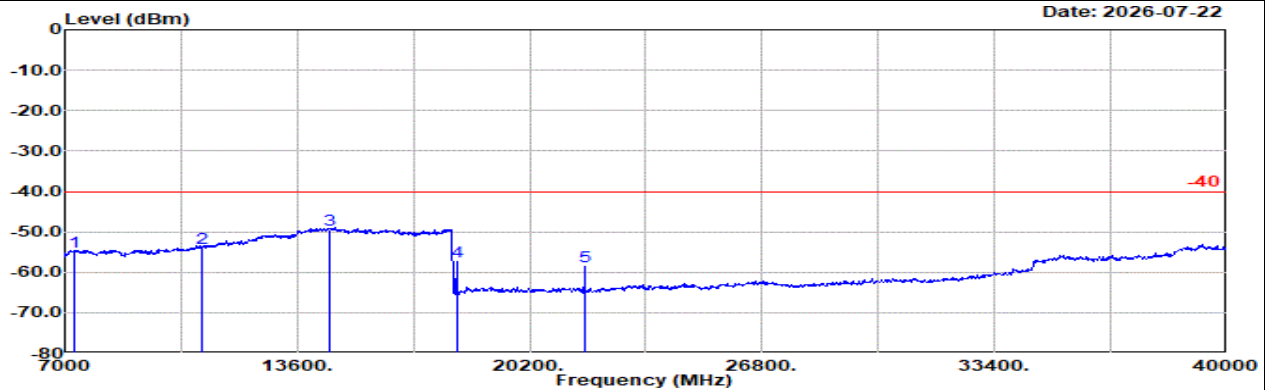


Ant. 2

Part 96 Mode 85

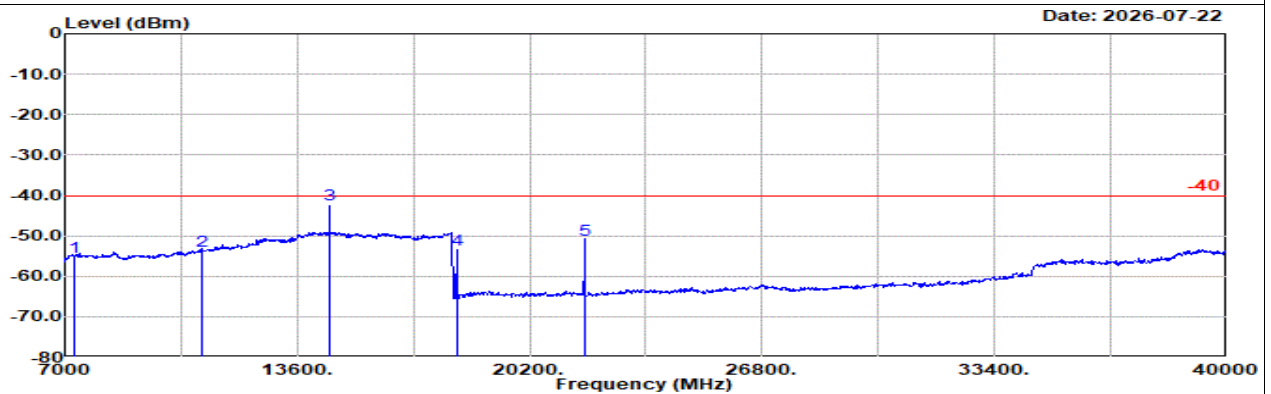
LTE CA 48B 10M + 10M Ch55945 1RB49 QPSK + Ch56044 1RB0 QPSK

M



Site : 03CH21-HY
Condition: -40 3m DRH18-E_LE2C03A18EN_250807 Horizontal
: LTE B48 10M Ch55945 1RB49 QPSK
: LTE B48 10M Ch56044 1RB0 QPSK

	Freq	Level	Detector	Ant		Filter	EIRPCF		Readin	Limit	Margin	Pol
				Factor	Amp\Cb		1					
	MHz	dBm					dB	dB	dBuV	dBm	dB	
1	7260.00	-54.92	RMS	36.44	-21.37	1.94	-95.23	23.30	-40.00	-14.92	Horizontal	
2	10889.00	-54.12	RMS	37.60	-21.74	1.87	-95.23	23.38	-40.00	-14.12	Horizontal	
3	14519.00	-49.38	RMS	41.24	-23.07	2.20	-95.23	25.48	-40.00	-9.38	Horizontal	
4	18132.00	-57.35	RMS	38.33	-39.54	-9.54	-95.23	48.64	-40.00	-17.35	Horizontal	
5	21762.00	-58.57	RMS	38.82	-33.94	-9.54	-95.23	41.32	-40.00	-18.57	Horizontal	



Site : 03CH21-HY
Condition: -40 3m DRH18-E_LE2C03A18EN_250807 Vertical
: LTE B48 10M Ch55945 1RB49 QPSK
: LTE B48 10M Ch56044 1RB0 QPSK

	Freq	Level	Detector	Ant		Filter	EIRPCF		Readin	Limit	Margin	Pol
				Factor	Amp\Cb		1					
	MHz	dBm					dB	dB	dBuV	dBm	dB	
1	7260.00	-55.16	RMS	36.44	-21.37	1.94	-95.23	23.06	-40.00	-15.16	Vertical	
2	10889.00	-53.79	RMS	37.60	-21.74	1.87	-95.23	23.71	-40.00	-13.79	Vertical	
3	14519.00	-42.40	RMS	41.24	-23.07	2.20	-95.23	32.46	-40.00	-2.40	Vertical	
4	18132.00	-53.34	RMS	38.33	-39.54	-9.54	-95.23	52.64	-40.00	-13.34	Vertical	
5	21762.00	-50.89	RMS	38.82	-33.94	-9.54	-95.23	49.00	-40.00	-10.89	Vertical	

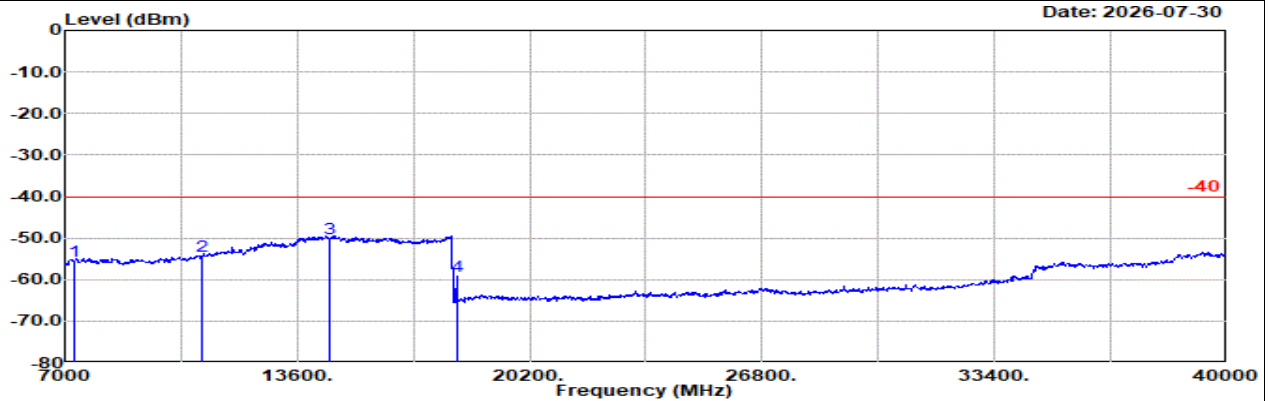


Ant. 4

Part 96 Mode 86

LTE CA 48B 10M + 10M Ch55945 1RB49 QPSK + Ch56044 1RB0 QPSK

M



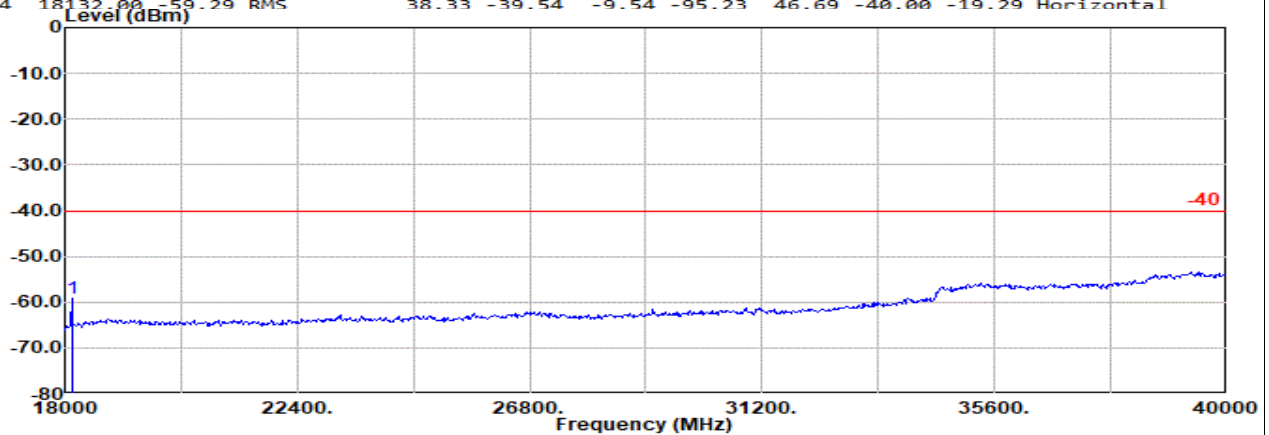
Site : 03CH21-HY

Condition: -40 3m DRH18-E_LE2C03A18EN_250807 Horizontal

: LTE B48 10M Ch55945 1RB49 QPSK

: LTE B48 10M Ch56044 1RB0 QPSK

Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
MHz	dBm			dB	dB	dB	dBuV	dBm	dB	
1 7250.00	-55.66	RMS	36.40	-21.38	1.96	-95.23	22.59	-40.00	-15.66	Horizontal
2 10875.00	-54.20	RMS	37.60	-21.74	1.87	-95.23	23.30	-40.00	-14.20	Horizontal
3 14500.00	-50.08	RMS	41.20	-23.06	2.20	-95.23	24.81	-40.00	-10.08	Horizontal
4 18132.00	-59.29	RMS	38.33	-39.54	-9.54	-95.23	46.69	-40.00	-19.29	Horizontal



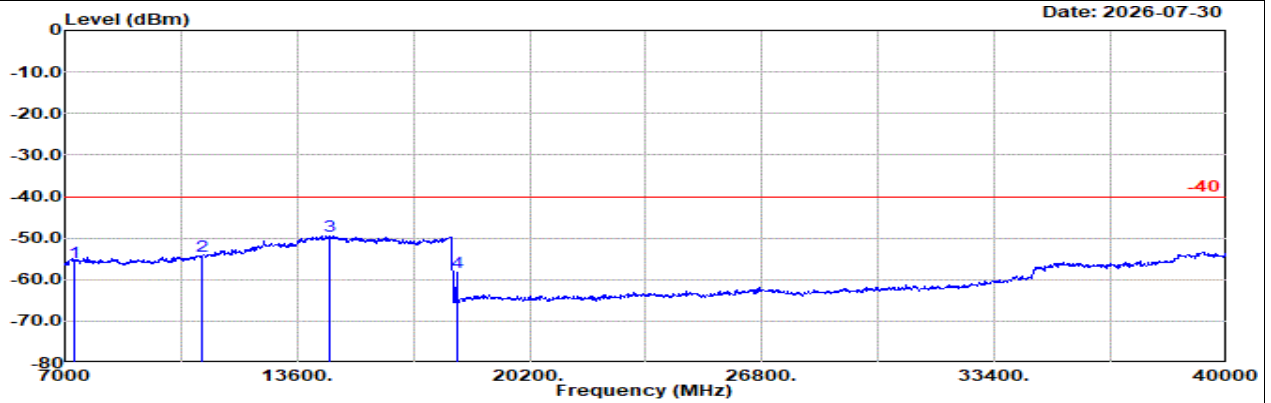
Site : 03CH21-HY

Condition: -40 1m BBHA9170_1450 Horizontal

: LTE B48 10M Ch55945 1RB49 QPSK

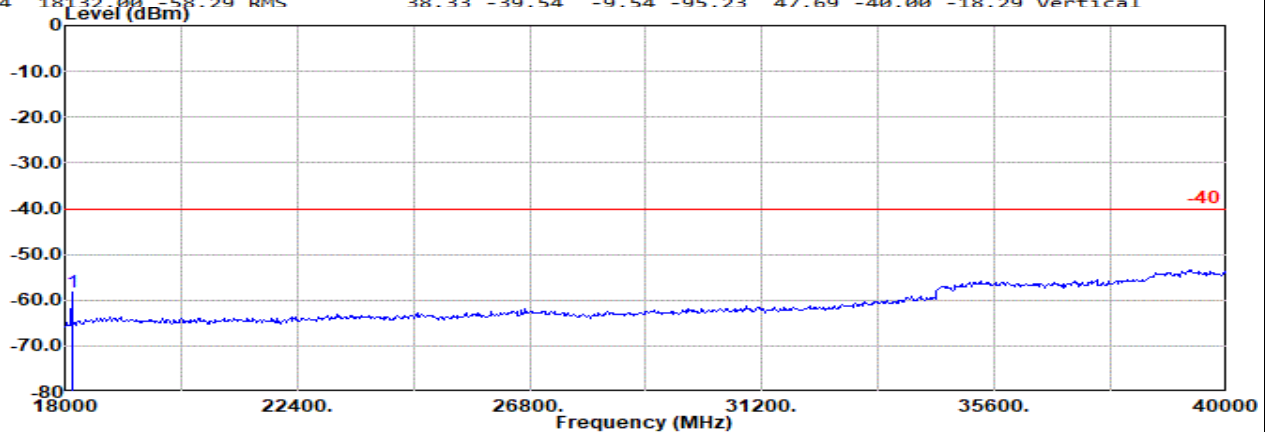
: LTE B48 10M Ch56044 1RB0 QPSK

Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
MHz	dBm			dB	dB	dB	dBuV	dBm	dB	
1 18132.00	-59.29	RMS	38.33	-39.54	-9.54	-95.23	46.69	-40.00	-19.29	Horizontal



Site : 03CH21-HY
Condition: -40 3m DRH18-E_LE2C03A18EN_250807 Vertical
: LTE B48 10M Ch55945 1RB49 QPSK
: LTE B48 10M Ch56044 1RB0 QPSK

	Freq MHz	Level dBm	Detector	Ant Amp\Cb		Filter	EIRPCF	Readin g	Limit		Margin	Pol
				Factor	1				dBm	dB		
1	7250.00	-55.78	RMS	36.40	-21.38	1.96	-95.23	22.47	-40.00	-15.78	Vertical	
2	10875.00	-54.37	RMS	37.60	-21.74	1.87	-95.23	23.13	-40.00	-14.37	Vertical	
3	14500.00	-49.57	RMS	41.20	-23.06	2.20	-95.23	25.32	-40.00	-9.57	Vertical	
4	18132.00	-58.29	RMS	38.33	-39.54	-9.54	-95.23	47.69	-40.00	-18.29	Vertical	



Site : 03CH21-HY
Condition: -40 1m BBHA9170_1450 Vertical
: LTE B48 10M Ch55945 1RB49 QPSK
: LTE B48 10M Ch56044 1RB0 QPSK

	Freq MHz	Level dBm	Detector	Ant Amp\Cb		Filter	EIRPCF	Readin g	Limit		Margin	Pol
				Factor	1				dBm	dB		
1	18132.00	-58.29	RMS	38.33	-39.54	-9.54	-95.23	47.69	-40.00	-18.29	Vertical	



Appendix B. Spot Check Verification Data Section

Conclusion:

Conducted power spot-check measurements were performed on the worst-case channel identified for each band in the reference model (FCC ID: IHDT56AW3) to verify the applicability of the referenced conducted test data in accordance with FCC KDB 484596 D01 Referencing Test Data v03.

The spot-check results demonstrate comparable RF performance between the parent device and the variant device, with all observed differences within the acceptance criterion of 3 dB. Therefore, the referenced test data are considered representative of the variant device.

Test Item	Mode	IHDT56AW3 Parent Worst mode Test Result	IHDT56AW5 Variant Check Test Result	Deviation (dB)	Deviation Limit (dB)
Conducted Power (dBm)	Average Power (dBm)				
	B42-ANT2	20.79	20.67	0.12	3
	B43-ANT2	20.74	20.69	0.05	3
	B48-ANT2	22.22	21.91	0.31	3
	B42 C-ANT2	20.68	20.41	0.27	3
	B48 B-ANT2	22.71	21.03	1.68	3
	B42-ANT4	23.06	22.3	0.76	3
	B43-ANT4	23.19	23.05	0.14	3
	B48-ANT4	23.22	22.90	0.32	3
	B42 C-ANT4	22.98	22.65	0.33	3
	B48 C-ANT4	23.95	21.01	2.94	3
	B48 B-ANT4	24.63	22.01	2.62	3
	B42-ANT6	21.97	21.86	0.11	3
	B43-ANT6	21.88	21.73	0.15	3
	B48-ANT6	21.93	20.77	1.16	3
	B42 C-ANT6	21.95	21.8	0.15	3
	B48 B-ANT6	23.44	21.08	2.36	3
	B42-ANT8	23.28	23.08	0.2	3
	B43-ANT8	23.14	23.01	0.13	3
	B48-ANT8	23.55	23.01	0.44	3
	B42 C-ANT8	23.22	22.77	0.45	3
	B48 C-ANT8	23.39	20.51	2.88	3
	B48 B-ANT8	24.97	22.14	2.83	3



Test Items / Referenced Items	Remark
Conducted Output Power	Spot Check Evaluation
Peak-to-Average Ratio	Please refer to FCC ID: IHDT56AW3 (Sporton Test Report FG5N1310I)
Effective Isotropic Radiated Power	Please refer to FCC ID: IHDT56AW3 (Sporton Test Report FG5N1310I)
Power Density	Please refer to FCC ID: IHDT56AW3 (Sporton Test Report FG5N1310I)
Occupied Bandwidth	Please refer to FCC ID: IHDT56AW3 (Sporton Test Report FG5N1310I)
Conducted Band Edge Measurement	Please refer to FCC ID: IHDT56AW3 (Sporton Test Report FG5N1310I)
Conducted Spurious Emission	Please refer to FCC ID: IHDT56AW3 (Sporton Test Report FG5N1310I)
Frequency Stability for Temperature & Voltage	Please refer to FCC ID: IHDT56AW3 (Sporton Test Report FG5N1310I)
Radiated Spurious Emission	Full Test (See Appendix A) inter-band CA Please refer to FCC ID: IHDT56AW3 (Sporton Test Report FG5N1310U)
FCC Part 96.47 End User Device Additional Requirement (Reference Only)	Please refer to FCC ID: IHDT56AW3 (Sporton Test Report FG5N1310J) for the FCC Part 96.47 evaluation.



Appendix C. Original Report