



FCC RADIO TEST REPORT

FCC ID : QYLFN990F12
Equipment : WWAN Module
Model Name : FN990A28
Applicant : Getac Technology Corporation.
5F., Building A, No. 209, Sec.1, Nangang Rd., Nangang
Dist., Taipei City 115018, Taiwan, R.O.C.
Standard : FCC 47 CFR Part 2, 96

The product was received on May 23, 2025 and testing was performed from Jun. 12, 2025 to Jun. 25, 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 partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory

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



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History of this test report

Report No.	Version	Description	Issue Date
FG552403D	01	Initial issue of report	Aug. 13, 2025

Summary of Test Result

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

Remark:

- For host device, Field Strength of Spurious Radiation, Effective Radiated Power and Equivalent Isotropic Radiated Power are verified and complies with the limit in this test report.
- For host device, the Conducted Output Power is no difference after compared to module (Model: FN990A28)

Conformity Assessment Condition:

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

Disclaimer:

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

Reviewed by: Yun Huang
Report Producer: Clio Lo



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
General Specs WCDMA/LTE/5G NR, and GNSS	
Antenna Type WWAN: PIFA Antenna	
Sample 1	EUT with Host 1
Sample 2	EUT with Host 2

Support Band and Evaluated Information	
Supported Band	LTE Band 48
Evaluated and Tested Band	LTE Band 48

Antenna Information					
Band	Ant 1 MIMO1	Ant 3 MIMO2			
LTE Band 42		2.29			
LTE Band 43		2.95			
LTE Band 48	2.63	2.95			

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



The product was installed into Tablet (Brand Name: Getac, Model Name: F120,F120Y (Y= 10 characters, Y can be 0-9, a-z, A-Z, “-“, “_” or blank for marketing purpose and no impact safety related critical components and constructions.)) during test, and the host information was recorded in the following table.

Host Information	
Host 1	Host with SKU B
Host 2	Host with SKU C

DVT SKUs	SKU B	SKU C
CPU	ULTRA5-236V	ULTRA7-268V
DDR	INTEGRATED 16GB	INTEGRATED 32GB
SSD	512GB	1TB
PANEL	Full FHD AUO	Full FHD AUO
DIGITIZER	EMRright Digitizer	EMRright Digitizer
OPTION BAY	Barcode Reader	Barcode Reader
Expansion Bay	HID RFID	SMART CARD
Right side option	Fingerprinter	RFID (SN-NSVG7-C01)
WLAN/BT	Intel BE201NGW	Intel BE201NGW
WWAN	FN990A28	FN990A28
GNSS	FN990A28	FN990A28
Rear 8M Camera	Support	Support
Webcam FHD	Support	Support
USB3.2 Gen2 x 1 Type-A	Support	Support
Type-C (thunder bolt)	Support	Support

1.2 Modification of EUT

No modifications made to the EUT during the testing.



1.3 Testing Site

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. TH03-HY
Test Engineer	Chris Chiu
Temperature (°C)	22.3~22.9
Relative Humidity (%)	53.2~55.5

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. 03CH23-HY (TAF Code: 3786)
Test Engineer	Leo Li, Karl Hou and Lucifer Jiang
Temperature (°C)	19.4~21.1
Relative Humidity (%)	44.7~65.1
Remark	The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory.

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

FCC Designation No.: TW1190 and TW3786

1.4 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 D01 Power Meas. License Digital Systems v03r01
- ♦ 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.

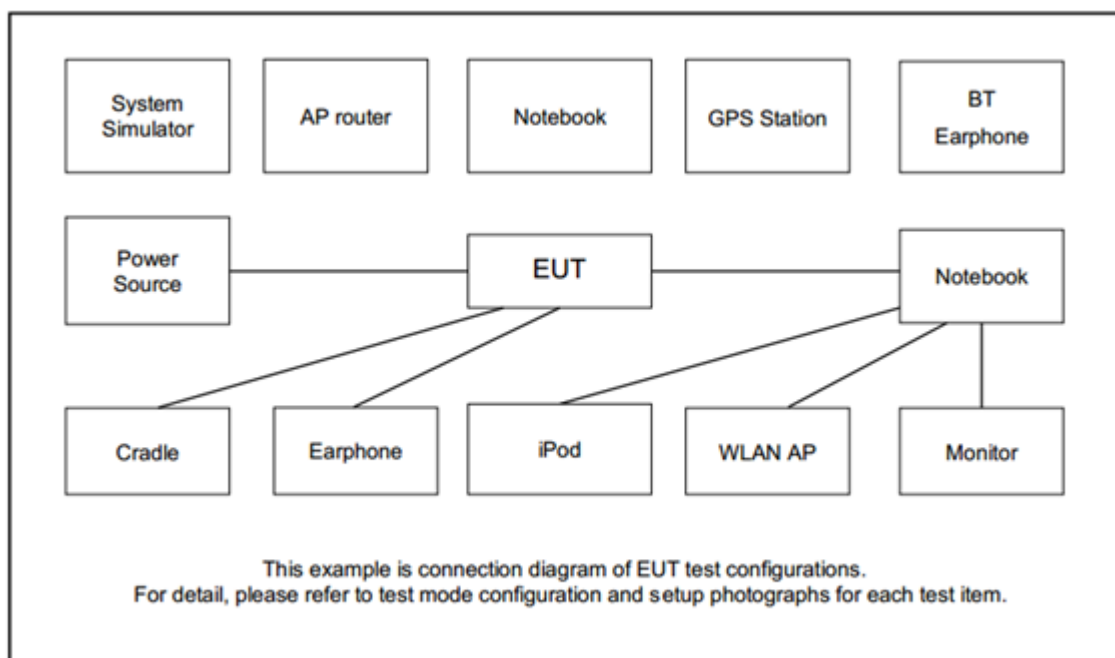
Modulation Type	Modulation
A	QPSK
B	16QAM
C	64QAM
D	256QAM

Test Item	Modulation Type	Bandwidth	RB Size	Channel
Conducted Power	A, B, C, D	All	1, Half, Full	L, M, H
EIRP	A, B, C, D	All	1, Half, Full	L, M, H
RSE	A	20MHz	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 Adapter 1, Battery 1, Power Cable 1 and 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	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m

2.4 Frequency List of Low/Middle/High Channels

LTE Band 48 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	55340	55830	56640
	Frequency	3560	3609	3690
15	Channel	55315	55820	56665
	Frequency	3557.5	3608	3692.5
10	Channel	55290	55815	56690
	Frequency	3555	3607.5	3695
5	Channel	55265	55810	56715
	Frequency	3552.5	3607	3697.5



LTE Band 48C Channel and Frequency List_CA					
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

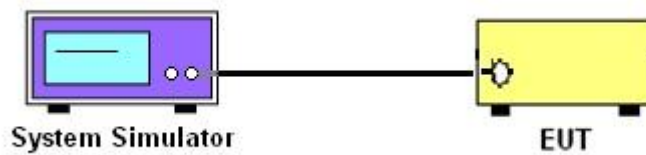
3 Conducted Test Items

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 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 EIRP

3.3.1 Description of the EIRP 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,

$EIRP = P_T + G_T - LC$, where

P_T = transmitter output power in dBm

G_T = 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)
End User Device	23	n/a

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

3.3.2 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.

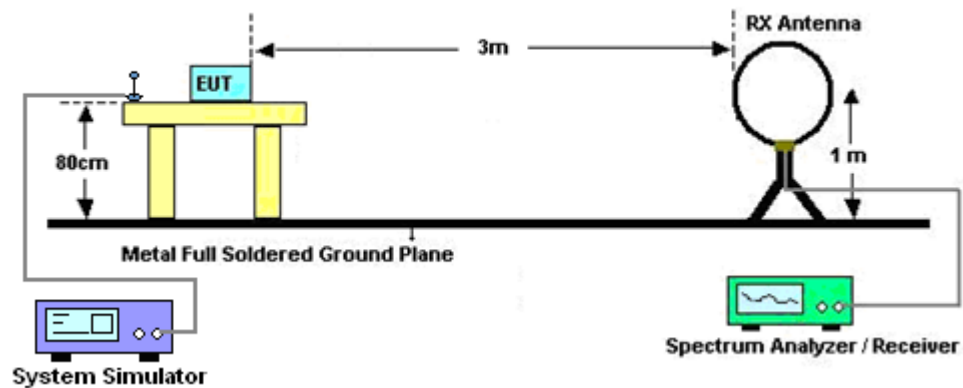
4 Radiated Test Items

4.1 Measuring Instruments

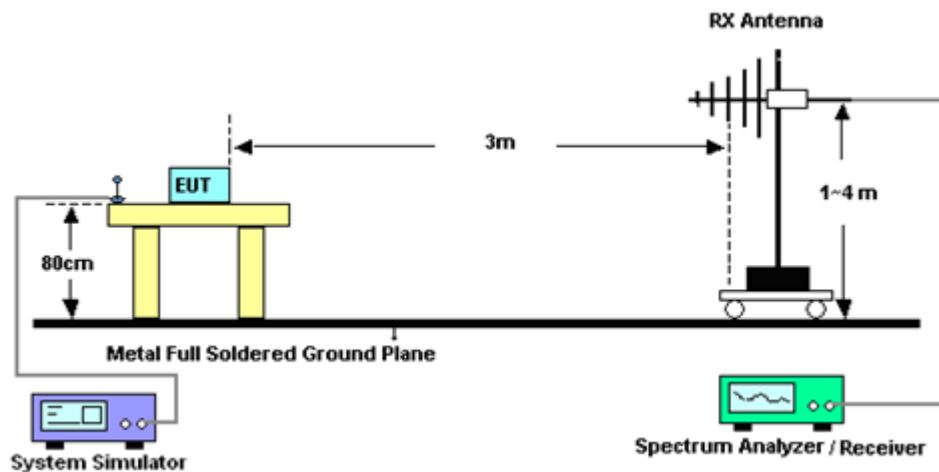
See list of measuring instruments of this test report.

4.2 Test Setup

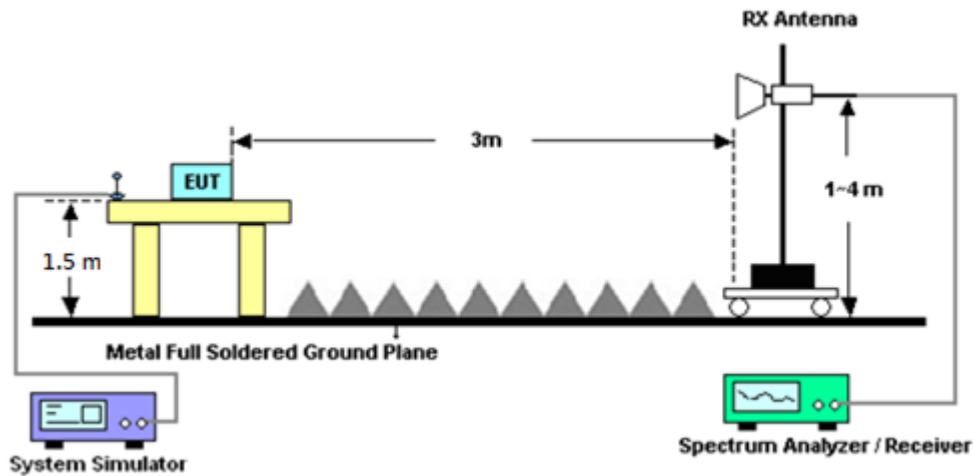
For radiated test below 30MHz



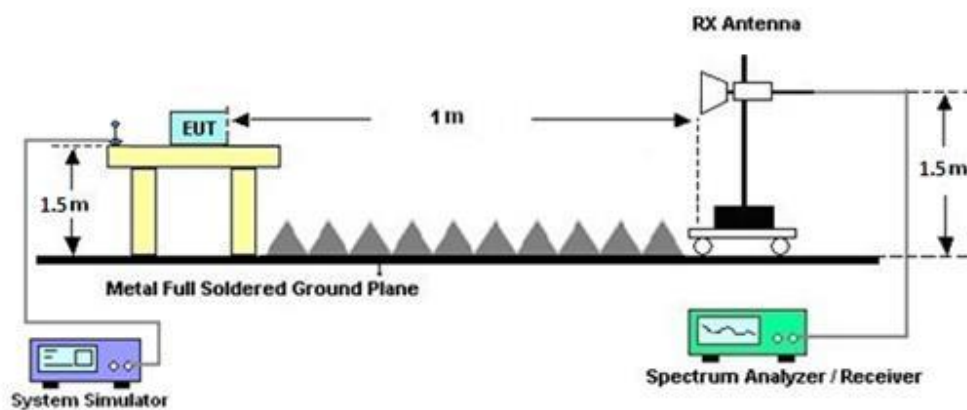
For radiated test from 30MHz to 1GHz



For radiated emissions from 1GHz to 18GHz



For radiated emissions above 18GHz



4.3 Test Result of Radiated Test

Please refer to Appendix 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.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by field strength 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 -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 5.5.4 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 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	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	Jun. 12, 2025~ Jun. 18, 2025	Aug. 28, 2025	Radiation (03CH23-HY)
Bilog Antenna	TESEQ & WOKEN	CBL 6111D & 00802N1D-06	62028 & 003	30MHz~1GHz	Nov. 27, 2024	Jun. 12, 2025~ Jun. 18, 2025	Nov. 26, 2025	Radiation (03CH23-HY)
Amplifier	SONOMA	310N	421582	9kHz~1GHz	Jul. 14, 2024	Jun. 12, 2025~ Jun. 18, 2025	Jul. 13, 2025	Radiation (03CH23-HY)
Amplifier	EMEC	EM01G18GA	060878	N/A	Sep. 27, 2024	Jun. 12, 2025~ Jun. 18, 2025	Sep. 26, 2025	Radiation (03CH23-HY)
Double Ridged Guide Horn Antenna	RFSPIN	DRH18-E	KV2D06A18ES	1GHz~18GHz	Oct. 25, 2024	Jun. 12, 2025~ Jun. 18, 2025	Oct. 24, 2025	Radiation (03CH23-HY)
HF-EHF Horn Antenna	SCHWARZB ECK	BBHA 9170	1225	18GHz~40GHz	Jun. 24, 2024	Jun. 12, 2025~ Jun. 18, 2025	Jun. 23, 2025	Radiation (03CH23-HY)
Preamplifier	EMEC	EM18G40G	060873	18GHz~40GHz	Sep. 02, 2024	Jun. 12, 2025~ Jun. 18, 2025	Sep. 01, 2025	Radiation (03CH23-HY)
Signal Analyzer	Keysight	N9010B	MY62170337	N/A	Aug. 21, 2024	Jun. 12, 2025~ Jun. 18, 2025	Aug. 20, 2025	Radiation (03CH23-HY)
Hygrometer	TECPEL	DTM-303B	TP211542	N/A	Oct. 24, 2024	Jun. 12, 2025~ Jun. 18, 2025	Oct. 23, 2025	Radiation (03CH23-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Jun. 12, 2025~ Jun. 18, 2025	N/A	Radiation (03CH23-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Jun. 12, 2025~ Jun. 18, 2025	N/A	Radiation (03CH23-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Jun. 12, 2025~ Jun. 18, 2025	N/A	Radiation (03CH23-HY)
Software	Audix	E3 6.09824_2019 122	RK-002348	N/A	N/A	Jun. 12, 2025~ Jun. 18, 2025	N/A	Radiation (03CH23-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9kHz~30MHz	Mar. 05, 2025	Jun. 12, 2025~ Jun. 18, 2025	Mar. 04, 2026	Radiation (03CH23-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804395/2	N/A	Nov. 26, 2024	Jun. 12, 2025~ Jun. 18, 2025	Nov. 25, 2025	Radiation (03CH23-HY)
RF Cable	EMC	EMC101Y	231115/231119/ 231122	N/A	Nov. 26, 2024	Jun. 12, 2025~ Jun. 18, 2025	Nov. 25, 2025	Radiation (03CH23-HY)
Radio Communication Analyzer	Anritsu	MT8821C	6262025353	LTE FDD/TDD LTE-2CC DLCA/ULCA	Oct. 01, 2024	Jun. 18, 2025~ Jun. 25, 2025	Sep. 01, 2025	Conducted (TH03-HY)
Coupler+10dB+ RfCable	Warison + WoKen + E-Instument	20dB 25W SMA Directional Coupler+ 10dB 18GHz_5W+S FL405_1.5M	#A+#1+#1+#7	1-18GHz	Jan. 03, 2025	Jun. 18, 2025~ Jun. 25, 2025	Jan. 02, 2026	Conducted (TH03-HY)
Power divider	Anritsu	K241C	2143398	9KHz~40GHz	Jun. 13, 2025	Jun. 18, 2025~ Jun. 25, 2025	Jun. 12, 2026	Conducted (TH03-HY)
Hygrometer	TECPEL	DTM-303B	TP200886	-10 ~ 50°C / 20 ~ 95%RH	Mar. 03, 2025	Jun. 18, 2025~ Jun. 25, 2025	Mar. 02, 2026	Conducted (TH03-HY)

6 Measurement Uncertainty

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.6 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 6 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.4 dB
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Uncertainty of Radiated Emission Measurement (6 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.8 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.7 dB
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Appendix A. Test Results of Conducted Test

Conducted Output Power (Average power and EIRP)

Part 96 LTE Band 48 Maximum Average Power [dBm] (GT - LC = 2.95 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	19.83	19.94	19.79	22.90	0.1950
20	1	49		19.82	19.87	19.72		
20	1	99		19.74	19.80	19.58		
20	50	0		19.87	19.95	19.91		
20	50	24		19.86	19.89	19.90		
20	50	50		19.84	19.89	19.64		
20	100	0		19.83	19.90	19.89		
20	1	0	16-QAM	19.76	19.82	19.78	22.86	0.1932
20	1	49		19.90	19.82	19.58		
20	1	99		19.67	19.72	19.43		
20	50	0		18.83	18.92	18.97		
20	50	24		18.82	18.89	18.95		
20	50	50		19.91	19.88	19.90		
20	100	0		19.77	19.84	19.86		
20	1	0	64-QAM	19.64	19.68	19.68	22.79	0.1901
20	1	49		19.72	19.84	19.56		
20	1	99		19.74	19.76	19.55		
20	50	0		18.92	18.99	19.35		
20	50	24		18.96	19.01	19.30		
20	50	50		18.91	18.96	19.14		
20	100	0		18.94	18.97	19.29		
20	1	0	256-QAM	16.66	16.61	16.65	19.83	0.0962
20	1	49		16.68	16.57	16.62		
20	1	99		16.83	16.73	16.69		
20	50	0		16.82	16.77	16.69		
20	50	24		16.87	16.75	16.68		
20	50	50		16.88	16.78	16.64		
20	100	0		16.81	16.72	16.69		
Limit	EIRP < 23dBm/10MHz			Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

Part 96 LTE Band 48 Maximum Average Power [dBm] (GT - LC = 2.95 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
15	1	0	QPSK	19.71	19.84	19.67	22.79	0.1901
15	1	37		19.69	19.76	19.58		
15	1	74		19.63	19.68	19.43		
15	36	0		19.75	19.81	19.77		
15	36	20		19.71	19.76	19.78		
15	36	39		19.70	19.74	19.50		
15	75	0		19.69	19.76	19.77		
15	1	0	16-QAM	19.61	19.67	19.65	22.75	0.1884
15	1	37		19.75	19.67	19.44		
15	1	74		19.56	19.62	19.33		
15	36	0		18.73	18.80	18.82		
15	36	20		18.71	18.75	18.85		
15	36	39		19.76	19.76	19.80		
15	75	0		19.62	19.69	19.76		
15	1	0	64-QAM	19.51	19.56	19.54	22.66	0.1845
15	1	37		19.58	19.71	19.46		
15	1	74		19.64	19.62	19.43		
15	36	0		18.81	18.84	19.22		
15	36	20		18.86	18.91	19.19		
15	36	39		18.76	18.81	19.01		
15	75	0		18.80	18.83	19.19		
15	1	0	256-QAM	16.51	16.50	16.52	19.71	0.0935
15	1	37		16.53	16.44	16.51		
15	1	74		16.70	16.58	16.59		
15	36	0		16.71	16.66	16.59		
15	36	20		16.73	16.65	16.55		
15	36	39		16.76	16.64	16.53		
15	75	0		16.69	16.60	16.55		
Limit	EIRP < 23dBm/10MHz			Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

Part 96 LTE Band 48 Maximum Average Power [dBm] (GT - LC = 2.95 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
10	1	0	QPSK	19.72	19.83	19.68	22.78	0.1897
10	1	25		19.72	19.73	19.57		
10	1	49		19.64	19.66	19.48		
10	25	0		19.75	19.82	19.80		
10	25	12		19.74	19.74	19.76		
10	25	25		19.70	19.76	19.51		
10	50	0		19.72	19.78	19.75		
10	1	0	16-QAM	19.64	19.69	19.68	22.75	0.1884
10	1	25		19.75	19.70	19.45		
10	1	49		19.55	19.58	19.30		
10	25	0		18.69	18.81	18.82		
10	25	12		18.70	18.75	18.81		
10	25	25		19.80	19.73	19.80		
10	50	0		19.66	19.73	19.74		
10	1	0	64-QAM	19.53	19.57	19.55	22.68	0.1854
10	1	25		19.59	19.73	19.43		
10	1	49		19.60	19.65	19.45		
10	25	0		18.81	18.86	19.23		
10	25	12		18.83	18.88	19.20		
10	25	25		18.77	18.83	19.01		
10	50	0		18.79	18.84	19.19		
10	1	0	256-QAM	16.56	16.49	16.52	19.73	0.0940
10	1	25		16.57	16.42	16.52		
10	1	49		16.72	16.61	16.55		
10	25	0		16.72	16.65	16.56		
10	25	12		16.73	16.64	16.54		
10	25	25		16.78	16.66	16.53		
10	50	0		16.66	16.60	16.56		
Limit	EIRP < 23dBm/10MHz			Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

Part 96 LTE Band 48 Maximum Average Power [dBm] (GT - LC = 2.95 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
5	1	0	QPSK	19.73	19.79	19.67	22.78	0.1897
5	1	12		19.71	19.77	19.58		
5	1	24		19.59	19.68	19.45		
5	12	0		19.73	19.83	19.78		
5	12	7		19.75	19.75	19.75		
5	12	13		19.71	19.79	19.51		
5	25	0		19.68	19.78	19.74		
5	1	0	16-QAM	19.63	19.67	19.64	22.75	0.1884
5	1	12		19.79	19.68	19.48		
5	1	24		19.53	19.62	19.28		
5	12	0		18.68	18.82	18.82		
5	12	7		18.70	18.77	18.81		
5	12	13		19.80	19.75	19.77		
5	25	0		19.62	19.69	19.76		
5	1	0	64-QAM	19.54	19.56	19.54	22.64	0.1837
5	1	12		19.61	19.69	19.46		
5	1	24		19.63	19.65	19.42		
5	12	0		18.81	18.89	19.25		
5	12	7		18.83	18.89	19.15		
5	12	13		18.80	18.84	19.03		
5	25	0		18.83	18.84	19.15		
5	1	0	256-QAM	16.54	16.51	16.50	19.72	0.0938
5	1	12		16.55	16.43	16.51		
5	1	24		16.72	16.59	16.55		
5	12	0		16.69	16.65	16.55		
5	12	7		16.73	16.64	16.55		
5	12	13		16.77	16.66	16.50		
5	25	0		16.69	16.59	16.55		
Limit	EIRP < 23dBm/10MHz			Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

Part 96 LTE Band 48C_CA Maximum Average Power [dBm] (GT - LC = 2.95 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
	RB Size	RB Offset	RB Size	RB Offset						
20+20	100	0	100	0	QPSK	11.29	11.73	11.78	14.73	0.0297
20+20	1	0	1	99		0.20	0.49	0.64		
20+20	1	99	1	0		0.14	0.55	0.51		
20+20	100	0	100	0	16-QAM	11.34	11.72	11.71	14.67	0.0293
20+20	1	0	1	99		0.46	1.01	1.12		
20+20	1	99	1	0		0.52	1.02	1.13		
20+20	100	0	100	0	64-QAM	11.22	11.73	11.77	14.72	0.0296
20+20	1	0	1	99		0.48	0.94	1.06		
20+20	1	99	1	0		0.49	0.82	0.90		
20+20	100	0	100	0	256-QAM	11.32	11.75	11.72	14.7	0.0295
20+20	1	0	1	99		0.08	0.60	0.80		
20+20	1	99	1	0		0.33	0.60	0.48		
20+15	100	0	75	0	QPSK	11.34	11.77	11.73	14.72	0.0296
20+15	1	0	1	74		0.19	0.64	0.67		
20+15	1	99	1	0		0.19	0.66	0.58		
20+15	100	0	75	0	16-QAM	11.32	11.78	11.76	14.73	0.0297
20+15	1	0	1	74		0.58	1.08	1.12		
20+15	1	99	1	0		0.54	1.11	1.11		
20+15	100	0	75	0	64-QAM	11.22	11.72	11.75	14.7	0.0295
20+15	1	0	1	74		0.52	1.12	1.16		
20+15	1	99	1	0		0.34	0.96	1.10		
20+15	100	0	75	0	256-QAM	11.34	11.68	11.72	14.67	0.0293
20+15	1	0	1	74		0.45	0.89	0.88		
20+15	1	99	1	0		0.60	0.73	0.65		
15+20	75	0	100	0	QPSK	11.29	11.80	11.76	14.75	0.0299
15+20	1	0	1	99		0.14	0.64	0.70		
15+20	1	74	1	0		0.18	0.62	0.60		
15+20	75	0	100	0	16-QAM	11.36	11.81	11.87	14.82	0.0303
15+20	1	0	1	99		0.62	1.11	1.16		
15+20	1	74	1	0		0.53	1.01	1.15		
15+20	75	0	100	0	64-QAM	11.33	11.82	11.82	14.77	0.0300
15+20	1	0	1	99		0.57	1.23	1.20		
15+20	1	74	1	0		0.69	0.98	1.10		
15+20	75	0	100	0	256-QAM	11.36	11.79	11.80	14.75	0.0299
15+20	1	0	1	99		0.31	0.84	0.96		
15+20	1	74	1	0		0.31	0.79	0.83		
Limit	EIRP < 23dBm/10MHz					Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

Part 96 LTE Band 48C_CA Maximum Average Power [dBm] (GT - LC = 2.95 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
	RB Size	RB Offset	RB Size	RB Offset						
20+10	100	0	50	0	QPSK	11.28	11.79	11.78	14.74	0.0298
20+10	1	0	1	49		0.20	0.65	0.74		
20+10	1	99	1	0		0.11	0.64	0.65		
20+10	100	0	50	0	16-QAM	11.29	11.83	11.82	14.78	0.0301
20+10	1	0	1	49		0.53	1.19	1.16		
20+10	1	99	1	0		0.58	1.14	1.16		
20+10	100	0	50	0	64-QAM	11.27	11.83	11.84	14.79	0.0301
20+10	1	0	1	49		0.71	1.01	1.06		
20+10	1	99	1	0		0.49	1.18	1.07		
20+10	100	0	50	0	256-QAM	11.26	11.76	11.83	14.78	0.0301
20+10	1	0	1	49		0.28	1.03	0.91		
20+10	1	99	1	0		0.45	0.75	0.96		
10+20	50	0	100	0	QPSK	11.22	11.69	11.76	14.71	0.0296
10+20	1	0	1	99		0.13	0.66	0.72		
10+20	1	49	1	0		0.03	0.59	0.65		
10+20	50	0	100	0	16-QAM	11.17	11.73	11.76	14.71	0.0296
10+20	1	0	1	99		0.49	1.12	1.26		
10+20	1	49	1	0		0.53	0.96	1.01		
10+20	50	0	100	0	64-QAM	11.22	11.81	11.73	14.76	0.0299
10+20	1	0	1	99		0.57	1.03	1.14		
10+20	1	49	1	0		0.47	1.05	1.15		
10+20	50	0	100	0	256-QAM	11.21	11.73	11.82	14.77	0.0300
10+20	1	0	1	99		0.39	0.82	1.14		
10+20	1	49	1	0		0.31	0.81	0.74		
20+5	100	0	25	0	QPSK	11.24	11.68	11.73	14.68	0.0294
20+5	1	0	1	24		0.05	0.64	0.67		
20+5	1	99	1	0		0.20	0.61	0.53		
20+5	100	0	25	0	16-QAM	11.19	11.68	11.75	14.7	0.0295
20+5	1	0	1	24		0.49	0.78	1.01		
20+5	1	99	1	0		0.55	1.11	1.04		
20+5	100	0	25	0	64-QAM	11.21	11.74	11.69	14.69	0.0294
20+5	1	0	1	24		0.46	0.78	1.08		
20+5	1	99	1	0		0.62	1.09	1.08		
20+5	100	0	25	0	256-QAM	11.29	11.68	11.74	14.69	0.0294
20+5	1	0	1	24		0.65	0.78	0.91		
20+5	1	99	1	0		0.50	0.76	0.93		
Limit	EIRP < 23dBm/10MHz					Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

Part 96 LTE Band 48C_CA Maximum Average Power [dBm] (GT - LC = 2.95 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
	RB Size	RB Offset	RB Size	RB Offset						
5+20	25	0	100	0	QPSK	11.18	11.69	11.68	14.64	0.0291
5+20	1	0	1	99		0.06	0.58	0.61		
5+20	1	24	1	0		0.03	0.61	0.58		
5+20	25	0	100	0	16-QAM	11.20	11.75	11.70	14.7	0.0295
5+20	1	0	1	99		0.60	0.98	1.14		
5+20	1	24	1	0		0.64	1.05	0.90		
5+20	25	0	100	0	64-QAM	11.20	11.68	11.70	14.65	0.0292
5+20	1	0	1	99		0.55	0.93	1.08		
5+20	1	24	1	0		0.60	0.91	0.82		
5+20	25	0	100	0	256-QAM	11.16	11.64	11.74	14.69	0.0294
5+20	1	0	1	99		0.39	0.78	0.78		
5+20	1	24	1	0		0.15	0.93	0.56		
Limit	EIRP < 23dBm/10MHz					Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



Appendix B. Test Results of Radiated Test

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
1	LTE B48	Part 96	L	14204	-49.29	RMS	41.10	-25.47	2.49	-95.23	27.82	-40.00	-9.29	V	MIMO2

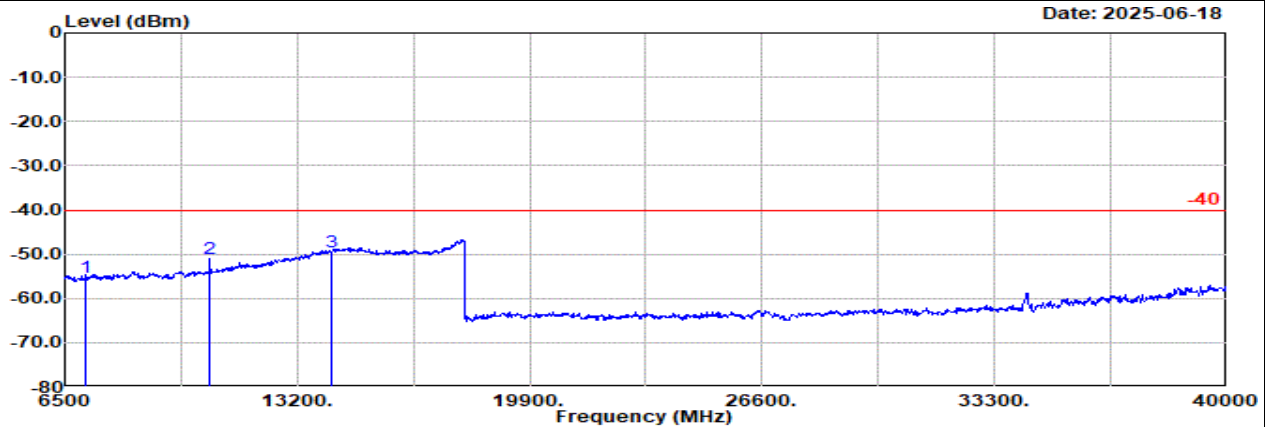


MIMO2 Antenna

Part 96 Mode 1

LTE B48 20M Ch55340 1RB0 QPSK

L

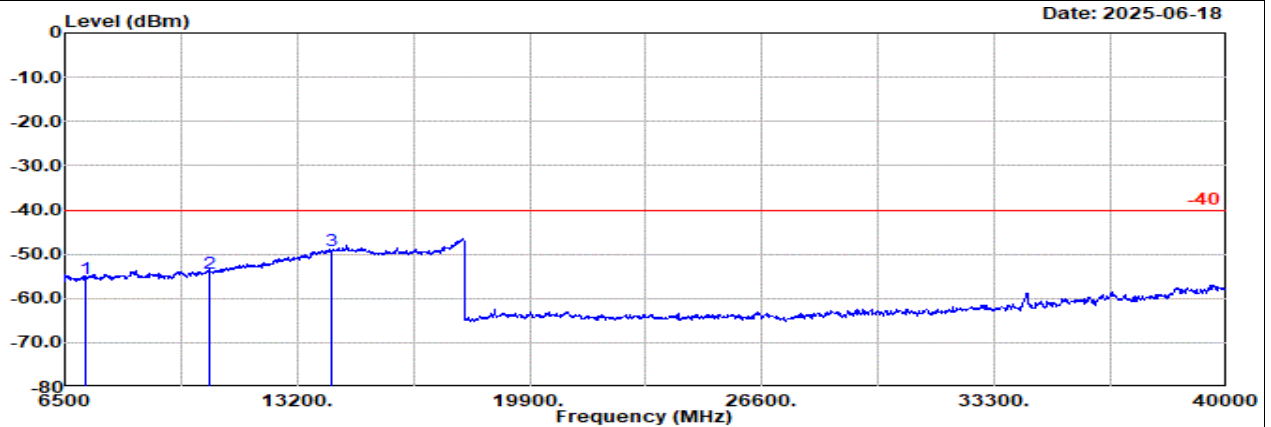


Site : 03CH23-HY

Condition: -40 3m DRH18-E_KV2D06A18ES_241025 Horizontal

: LTE Band 48 20M Ch55340 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin Pol	
				Factor	1					
	MHz	dBm								
1	7102.00	-55.32	RMS	36.40	-23.46	2.44	-95.23	24.53	-40.00	-15.32 Horizontal
2	10653.00	-50.95	RMS	37.50	-24.29	2.24	-95.23	28.83	-40.00	-10.95 Horizontal
3	14204.00	-49.44	RMS	41.10	-25.47	2.49	-95.23	27.67	-40.00	-9.44 Horizontal



Site : 03CH23-HY

Condition: -40 3m DRH18-E_KV2D06A18ES_241025 Vertical

: LTE Band 48 20M Ch55340 1RB0 QPSK

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin Pol	
				Factor	1					
	MHz	dBm								
1	7102.00	-55.48	RMS	36.40	-23.46	2.44	-95.23	24.37	-40.00	-15.48 Vertical
2	10653.00	-54.28	RMS	37.50	-24.29	2.24	-95.23	25.50	-40.00	-14.28 Vertical
3	14204.00	-49.29	RMS	41.10	-25.47	2.49	-95.23	27.82	-40.00	-9.29 Vertical

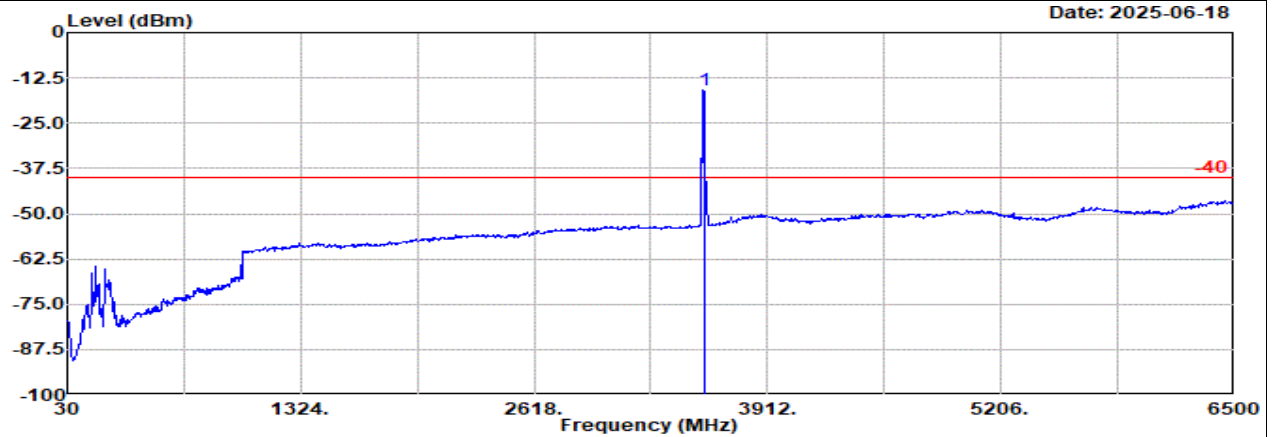


MIMO2 Antenna

Part 96 Mode 1

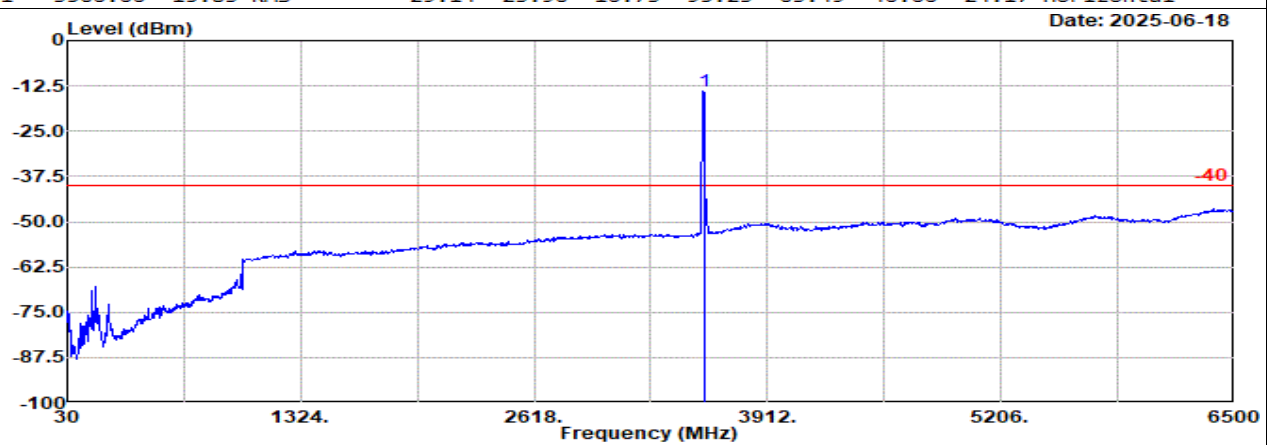
LTE B48 20M Ch55340 1RB0 QPSK

L



Site : 03CH23-HY
Condition: -40 3m DRH18-E_KV2D06A18ES_241025 Horizontal
: LTE Band 48 20M Ch55340 1RB0 QPSK
: #1 is a Fundamental signal

	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	3560.00	-15.83	RMS	29.14	-23.96	10.73	-95.23	63.49	-40.00	24.17 Horizontal



Site : 03CH23-HY
Condition: -40 3m DRH18-E_KV2D06A18ES_241025 Vertical
: LTE Band 48 20M Ch55340 1RB0 QPSK
: #1 is a Fundamental signal

	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	3560.00	-13.87	RMS	29.14	-23.96	10.73	-95.23	65.45	-40.00	26.13 Vertical

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