

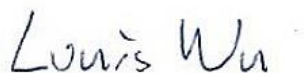


FCC CO-LOCATION RADIO TEST REPORT

FCC ID : 2AEUP-5DYFA2
Equipment : Video Doorbell
Brand Name : ring 
Model Name : 5DFYA2
Applicant : Ring LLC
12515 Cerise Ave, Hawthorne, CA 90250, USA
Manufacturer : Ring LLC
12515 Cerise Ave, Hawthorne, CA 90250, USA
Standard : FCC Part 15 Subpart C §15.249

The product was received on Jul. 11, 2025 and testing was performed from Sep. 10, 2025 to Sep. 15, 2025. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.



Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

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



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History of this test report

Report No.	Version	Description	Issue Date
FR550659-01I	01	Initial issue of report	Sep. 26, 2025

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.249(a) 15.249(d)	Unwanted Emissions	Pass	-
3.2	15.203	Antenna Requirement	Pass	-

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 Bluetooth-LE, Lora, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax, and Wi-Fi 5GHz 802.11a/n/ac/ax and 24GHz Radar.	
Antenna Type Bluetooth-LE: IFA Antenna WLAN: <Ant 1> : IFA Antenna <Ant 2> : IFA Antenna 24GHz Radar: Patch antenna	

Antenna information		
2400 MHz ~ 2483.5 MHz	Peak Gain (dBi)	Bluetooth-LE: 3.0 WLAN: Ant. 1: 0.5 Ant. 2: 0.5
5150 MHz ~ 5250 MHz	Peak Gain (dBi)	Ant. 1: 3.0 Ant. 2: 3.1
24.05 GHz ~ 24.25 GHz	Peak Gain (dBi)	2.0

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

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

Test Site	Sporton International Inc. 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. 03CH18-HY, 03CH23-HY

FCC designation No.: TW3786

1.4 Applicable Standards

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

- ♦ FCC Part 15 Subpart C §15.249
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ ANSI C63.10-2020

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.



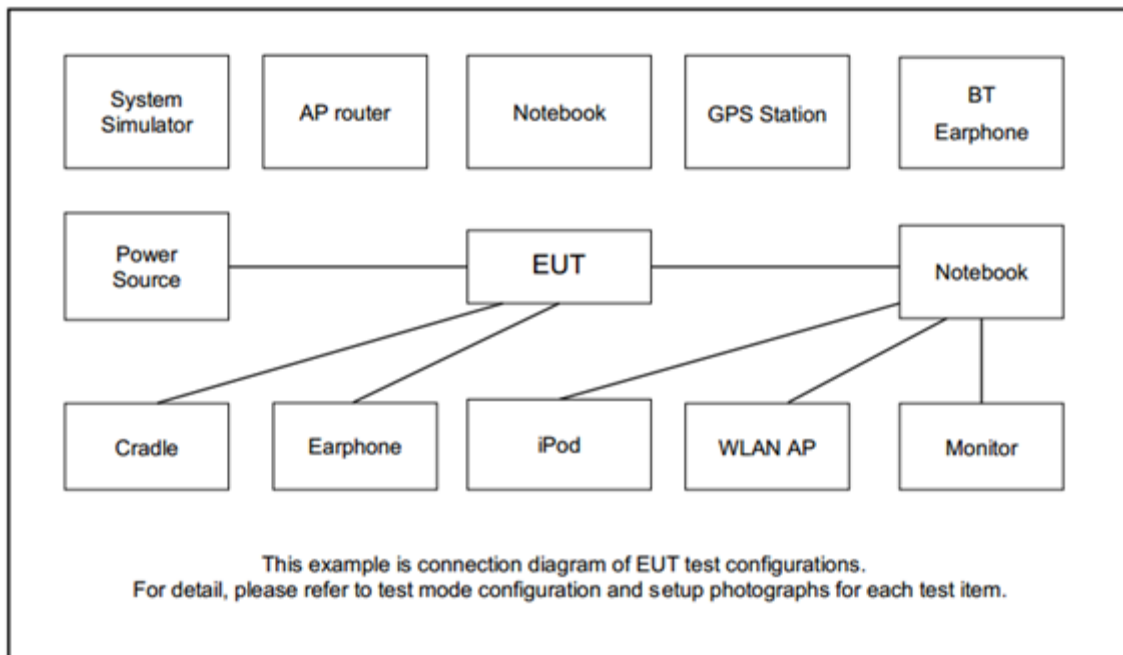
2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). 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 C63.10 exploratory test procedures and only the worst case emissions were reported in this report.

2.1 Test mode

The detailed Radiated test modes are shown in Appendix A

2.2 Connection Diagram of Test System



2.3 EUT Operation Test Setup

The RF test items, utility “Tera tern” were installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

3 Test Result

3.1 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.1.1 Limit of Unwanted Emissions

<For 24GHz Radar >

The field strength measured at 3 meters shall not exceed the limits in the following table:

Rules and specifications	FCC CFR 47 Part 15 section 15.249	
Description	Field strength of fundamental	
24.0~24.25 (GHz)	Fundamental emissions (millivolts/meter) at 3m	Fundamental emissions (dBμV/m) at 3m
Average limits	250	107.95
Peak limits	-	127.95
Description	Field strength of harmonics	
24.0~24.25 (GHz)	Fundamental emissions (microvolts/meter) at 3m	Harmonic emissions (dBμV/m) at 3m
Average limits	2500	67.95
Peak limits	-	87.95
Note: Above 18GHz, the distance correction factor is used, 18GHz to 90GHz : $20\log(1\text{m}/3\text{m}) = -9.54\text{dB}$; 90GHz – 100GHz: $20\log(0.5\text{m}/3\text{m}) = -15.56\text{dB}$.		

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3



3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

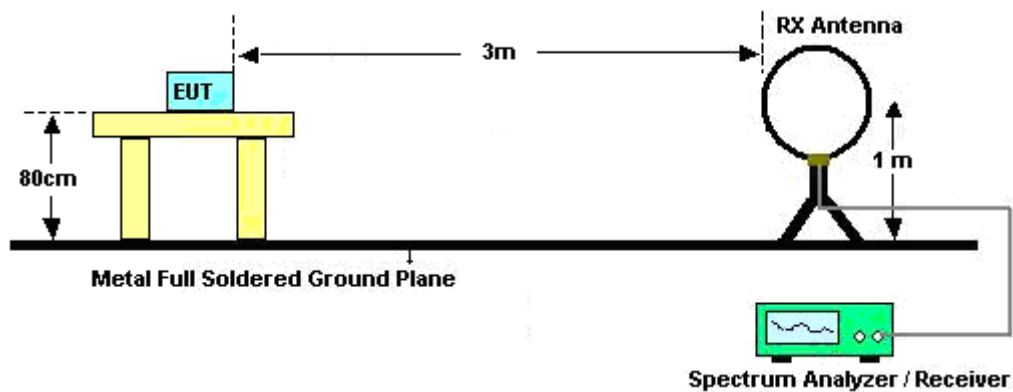
3.1.3 Test Procedures

<For 24GHz Radar >

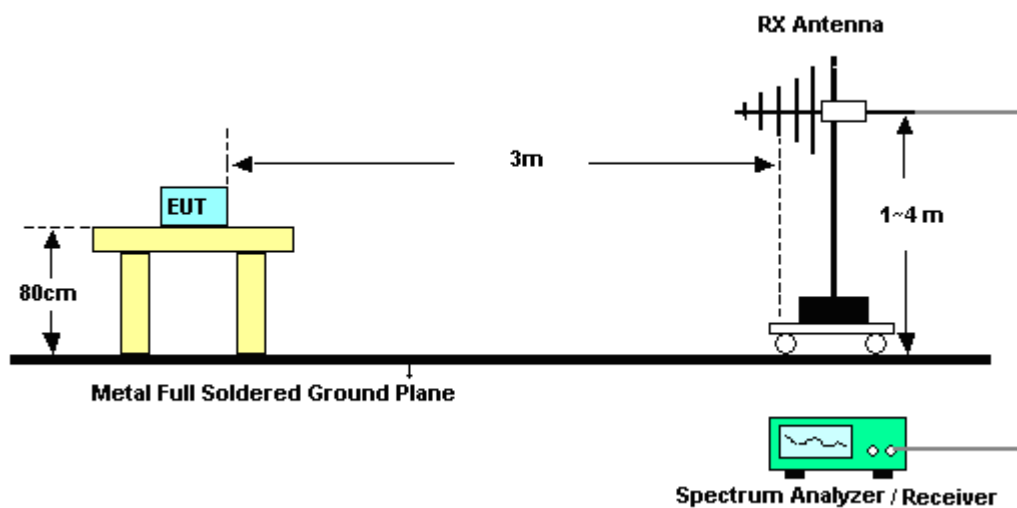
For emissions 9KHz to 40GHz, ANSI C63.10 Section 6.3 Radiated emissions testing follows, and for emissions 40GHz to 100GHz, ANSI C63.10 Section 9.8 and 9.9 radiated measurements follows. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and with 1.5 meter height for frequency above 1GHz, and was arranged test distance as shown in Section 3.4 Test Setup, respectively. For emissions, test results are attenuated more than 20 dB below the permissible value need not be reported in accordance with FCC Part 15.31(O).

3.1.4 Test Setup

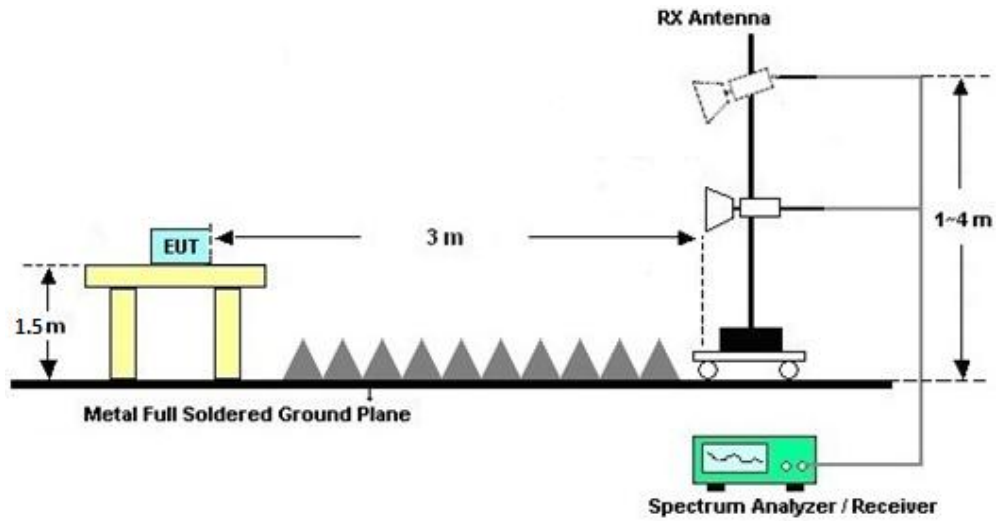
For radiated emissions below 30MHz



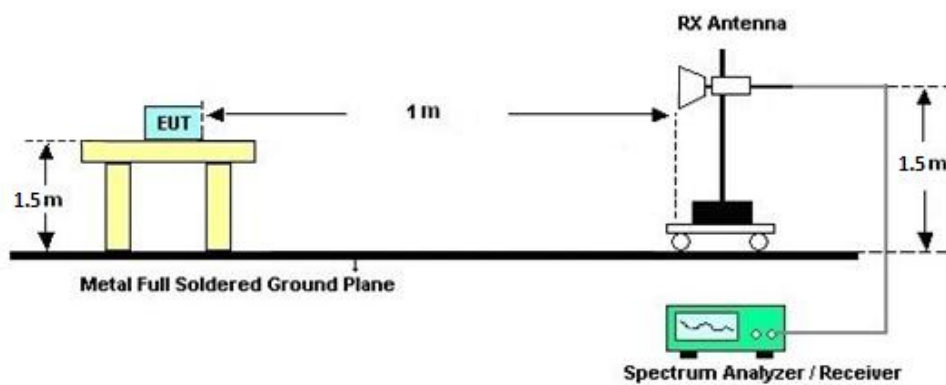
For radiated emissions from 30MHz to 1GHz



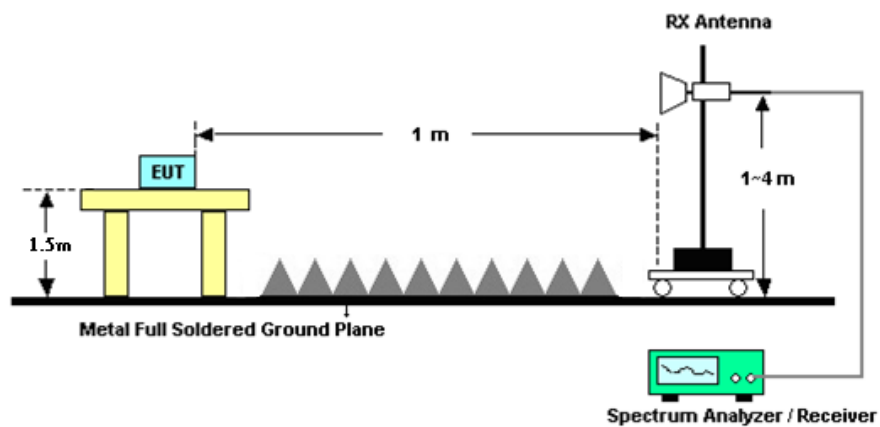
For radiated test from 1GHz to 18GHz



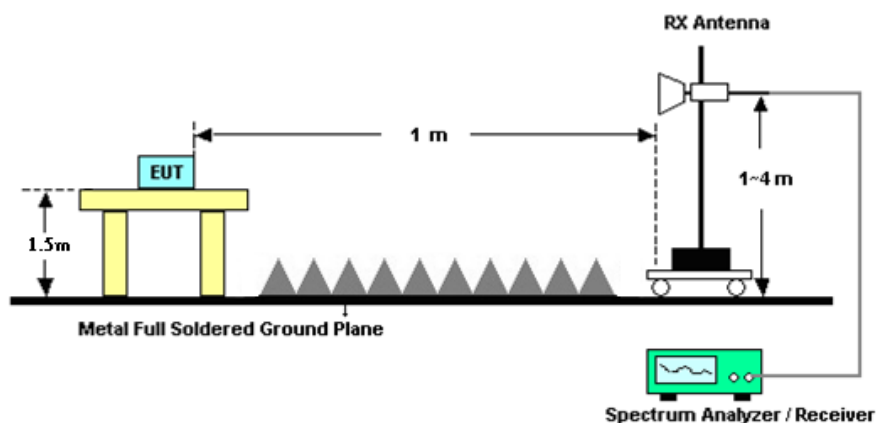
For radiated test above 18GHz



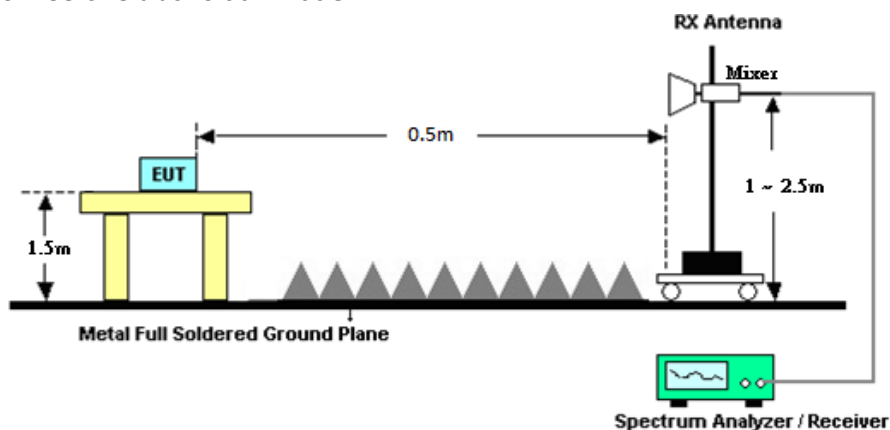
<For radiated emissions from 18 ~ 40GHz>



<For radiated emissions above 40 ~ 90GHz>



<For radiated emissions above 90 ~ 100GHz>



3.1.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.1.6 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix A.



3.2 Antenna Requirements

3.2.1 Standard Applicable

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, 15.213, 15.217, 15.219, 15.221, or § 15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

3.2.2 Antenna Anti-Replacement Construction

Antenna permanently attached.



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2E	101108	9 kHz~ 30 MHz	Dec. 18, 2024	Sep. 12, 2025~ Sep. 15, 2025	Dec. 17, 2025	Radiation (03CH23-HY)
Bilog Antenna	TESEQ & WOKEN	CBL 6111D & 00802N1D-06	62028 & 003	30MHz~1GHz	Nov. 27, 2024	Sep. 12, 2025~ Sep. 15, 2025	Nov. 26, 2025	Radiation (03CH23-HY)
Amplifier	SONOMA	310N	421582	9kHz~1GHz	Jul. 13, 2025	Sep. 12, 2025~ Sep. 15, 2025	Jul. 12 2026	Radiation (03CH23-HY)
Amplifier	EMEC	EM01G18GA	060878	N/A	Sep. 27, 2024	Sep. 12, 2025~ Sep. 15, 2025	Sep. 26, 2025	Radiation (03CH23-HY)
Double Ridged Guide Horn Antenna	RFSPIN	DRH18-E	LE2C05A18 EN	1GHz~18GHz	Jul. 02, 2025	Sep. 12, 2025~ Sep. 15, 2025	Jul. 01, 2026	Radiation (03CH23-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	1225	18GHz~40GHz	Jul. 02, 2025	Sep. 12, 2025~ Sep. 15, 2025	Jul. 01, 2026	Radiation (03CH23-HY)
Preamplifier	EMEC	EM18G40G	060873	18GHz~ 40GHz	Aug. 26, 2025	Sep. 12, 2025~ Sep. 15, 2025	Aug. 25, 2026	Radiation (03CH23-HY)
Signal Analyzer	Keysight	N9010B	MY6217033 7	N/A	Aug. 26, 2025	Sep. 12, 2025~ Sep. 15, 2025	Aug. 25, 2026	Radiation (03CH23-HY)
Hygrometer	TECPEL	DTM-303A	TP211542	N/A	Oct. 21, 2024	Sep. 12, 2025~ Sep. 15, 2025	Oct. 20, 2025	Radiation (03CH23-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Sep. 12, 2025~ Sep. 15, 2025	N/A	Radiation (03CH23-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Sep. 12, 2025~ Sep. 15, 2025	N/A	Radiation (03CH23-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Sep. 12, 2025~ Sep. 15, 2025	N/A	Radiation (03CH23-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Software	Audix	E3 6.09824_2019 122	RK-002348	N/A	N/A	Sep. 12, 2025~ Sep. 15, 2025	N/A	Radiation (03CH23-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804395/2	N/A	Nov. 26, 2024	Sep. 12, 2025~ Sep. 15, 2025	Nov. 25, 2025	Radiation (03CH23-HY)
RF Cable	EMC	EMC101Y	231115/2311 19/231122	N/A	Nov. 26, 2024	Sep. 12, 2025~ Sep. 15, 2025	Nov. 25, 2025	Radiation (03CH23-HY)

<18GHz-40GHz>

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA9170	BBHA91705 84	18GHz-40GHz	Dec.06,2024	Sep. 10, 2025 ~ Sep. 11, 2025	Dec.05,2025	Radiation (03CH18-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV3044	101009	10Hz~44GHz	Nov. 22, 2024	Sep. 10, 2025 ~ Sep. 11, 2025	Nov. 21, 2025	Radiation (03CH18-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	May. 26, 2025	Sep. 10, 2025 ~ Sep. 11, 2025	May. 25, 2026	Radiation (03CH18-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804011/2,80 4012/2	18GHz-40GHz	Dec. 31,2024	Sep. 10, 2025 ~ Sep. 11, 2025	Dec.30,2025	Radiation (03CH18-HY)
Turn Table	EMEC	N/A	N/A	Phi/Theta 0~360 Degree	N/A	Sep. 10, 2025 ~ Sep. 11, 2025	N/A	Radiation (03CH18-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table	N/A	Sep. 10, 2025 ~ Sep. 11, 2025	N/A	Radiation (03CH18-HY)

**<40GHz-100GHz>**

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSW43	101456	2Hz to 43.5GHz	Feb. 20, 2025	Sep. 10, 2025 ~ Sep. 11, 2025	Feb. 19, 2026	Radiation (03CH18-HY)
Harmonic Mixer*	Rohde & Schwarz	RPG FS-Z60	101033	40GHz to 60GHz	Jun. 27, 2024	Sep. 10, 2025 ~ Sep. 11, 2025	Jun. 26, 2026	Radiation (03CH18-HY)
Harmonic Mixer*	Rohde & Schwarz	FSZ-90	101867	60GHz to 90GHz	Jun. 27, 2024	Sep. 10, 2025 ~ Sep. 11, 2025	Jun. 26, 2026	Radiation (03CH18-HY)
Harmonic Mixer*	Rohde & Schwarz	RPG FS-Z140	101130	90GHz to 140GHz	Jun. 27, 2024	Sep. 10, 2025 ~ Sep. 11, 2025	Jun. 26, 2026	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-UPRR00	1410300003	40-60 GHz	Jun. 27, 2024	Sep. 10, 2025 ~ Sep. 11, 2025	Jun. 26, 2026	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-EPRR00	1372000000	60-90 GHz	Jun. 27, 2024	Sep. 10, 2025 ~ Sep. 11, 2025	Jun. 26, 2026	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-FPRR00	1011500008	90-140 GHz	Jun. 27, 2024	Sep. 10, 2025 ~ Sep. 11, 2025	Jun. 26, 2025	Radiation (03CH18-HY)
RF Cable	HUBER + SUHNER	SUCOFLE X 102	801607/2	N/A	Dec. 25, 2024	Sep. 10, 2025 ~ Sep. 11, 2025	Dec. 24, 2025	Radiation (03CH18-HY)
RF Cable	HUBER + SUHNER	SUCOFLE X 102	519231/2	N/A	Dec. 25, 2024	Sep. 10, 2025 ~ Sep. 11, 2025	Dec. 24, 2025	Radiation (03CH18-HY)
AC Power Source	AC POWER	AFC-500W	F104070011	50Hz~60Hz	N/A	Sep. 10, 2025 ~ Sep. 11, 2025	N/A	Radiation (03CH18-HY)

Note: (*) Equipment manufacturer's Calibration Certificate.

5 Measurement Uncertainty

<03ch18-HY>

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.50 dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.20 dB
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Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.7 dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.40 dB
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Uncertainty of Radiated Emission Measurement (40000 MHz ~ 100000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.59 dB
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<03ch23-HY>

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.60 dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.40 dB
---	---------

Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.8 dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.70 dB
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Appendix A. Radiated Spurious Emission

Test Engineer :	Eric Jeng	Relative Humidity :	23.4~ 25.7 °C
		Temperature :	58.4~65.1 %

WLAN 2.4G 802.11ax HE20+Lora 500kbps DTS SF7 + 24G Radar

24GHz 24000~24250MHz

40~100GHz

(Radiated Spurious Emission & Harmonic @ 3m)

24GHz	Note	Frequency (GHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dB/m)	Offset Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
24.24GHz		48.477	56.99	-50.96	107.95	-38.25	45.98	-	-	P	H
		48.477	49.8	-38.15	87.95	-45.44	45.98	-	-	A	H
		47.2721	57.91	-16.09	74	-37.33	45.98	-	-	P	H
		51.1109	47.42	-6.58	54	-47.82	45.98	-	-	A	H
		60.0535	62.14	-11.86	74	-33.1	49.58	-	-	P	H
		60.0275	51.04	-2.96	54	-44.2	49.58	-	-	A	H
		72.72	51.87	-56.08	107.95	-43.37	49.58	-	-	P	H
		72.72	43.64	-44.31	87.95	-51.6	49.58	-	-	A	H
		90.1965	62.5	-11.5	74	-32.72	44.96	-	-	P	H
		90.2215	51.53	-2.47	54	-43.69	44.96	-	-	A	H
		96.96	47.41	-60.54	107.95	-47.81	44.96	-	-	P	H
		96.96	39.76	-48.19	87.95	-55.46	44.96	-	-	A	H
		48.478	58.02	-49.93	107.95	-37.22	45.98	-	-	P	V
		48.477	48.7	-39.25	87.95	-46.54	45.98	-	-	A	V
		48.8811	57.99	-16.01	74	-37.25	45.98	-	-	P	V
		48.8811	46.65	-7.35	54	-48.59	45.98	-	-	A	V
		60.0925	61.04	-12.96	74	-34.2	49.58	-	-	P	V
		60.0145	50.99	-3.01	54	-44.25	49.58	-	-	A	V
		72.72	51.67	-56.28	107.95	-43.57	49.58	-	-	P	V
		72.72	43.69	-44.26	87.95	-51.55	49.58	-	-	A	V
		90.2595	62.53	-11.47	74	-32.69	44.96	-	-	P	V
		90.2555	51.36	-2.64	54	-43.86	44.96	-	-	A	V
		96.96	49.44	-58.51	107.95	-45.78	44.96	-	-	P	V
		96.96	39.82	-48.13	87.95	-55.4	44.96	-	-	A	V
Remark	1.	Except above, no other spurious found.									
	2.	All results are Pass against Peak and Average limit line.									
	3.	Test plots shown in the Annex B use closer distance and above final results are extrapolated to the distance specified by the limit, 3m, by offset with distance correction factor.									
	4.	The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only									
	5.	Distance extrapolation factor = $20 \log (\text{test distance [X m]}/\text{specific distance [3 m]})$ (dB)									



	Distance extrapolation factor = $20\log(1\text{m}/3\text{m}) = -9.54 \text{ (dB)}$ Distance extrapolation factor = $20\log(0.5\text{m}/3\text{m}) = -15.56 \text{ (dB)}$
6.	Offset Factor = Antenna Factor (dB/m) + Cable Loss (dB)
7.	Level (dB μ V/m) = Read Level + 104.78 + Distance extrapolation factor

Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	P eak or A verage
H/V	H orizontal or V ertical



Appendix A1-1. Radiated Spurious Emission Plots

Test Engineer :	Fu Chen and Eric Jeng	Temperature :	19.2~22.6°C
		Relative Humidity :	51.2~65.7%



24GHz 24000~24250MHz

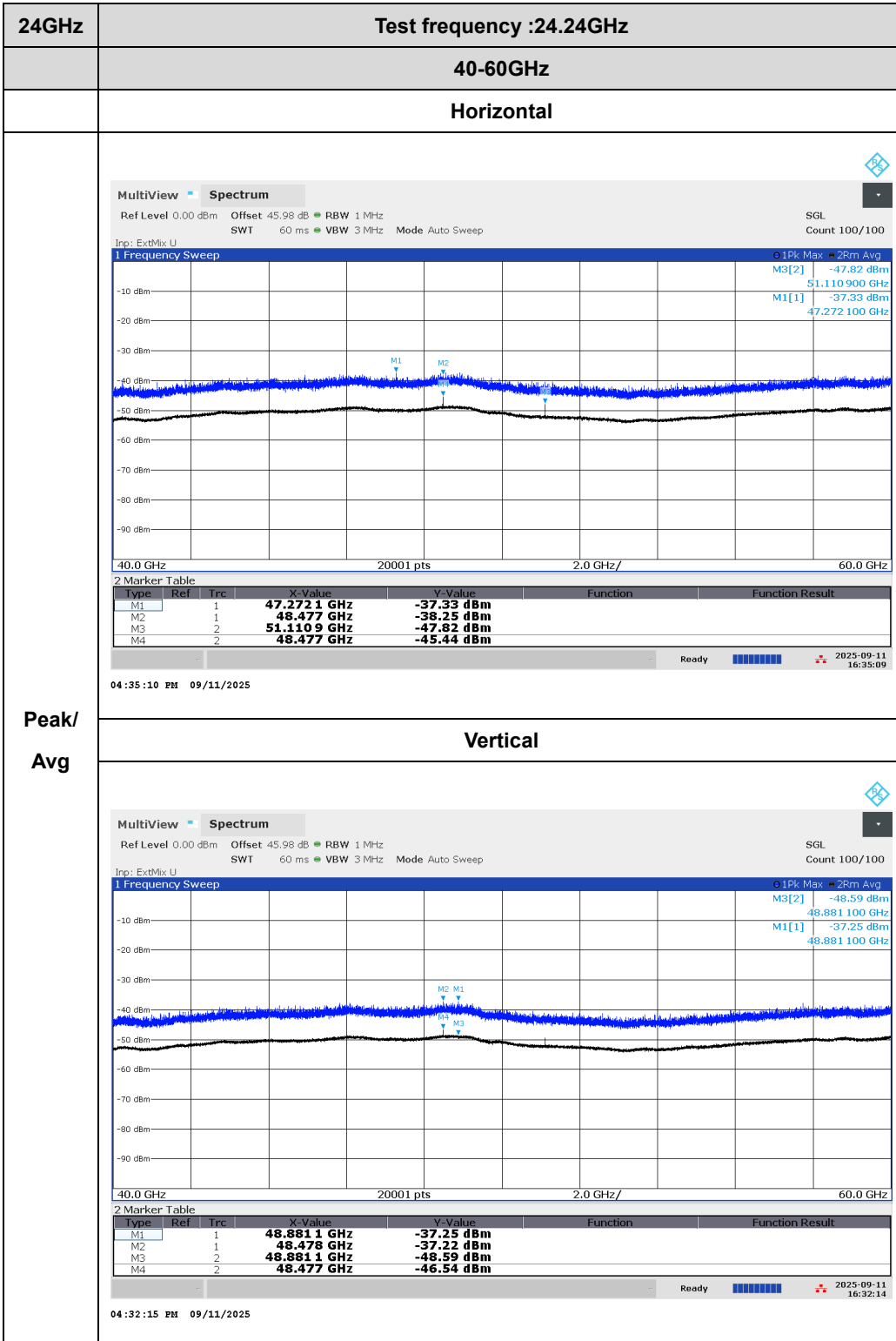
Field strength of fundamental@ 3m

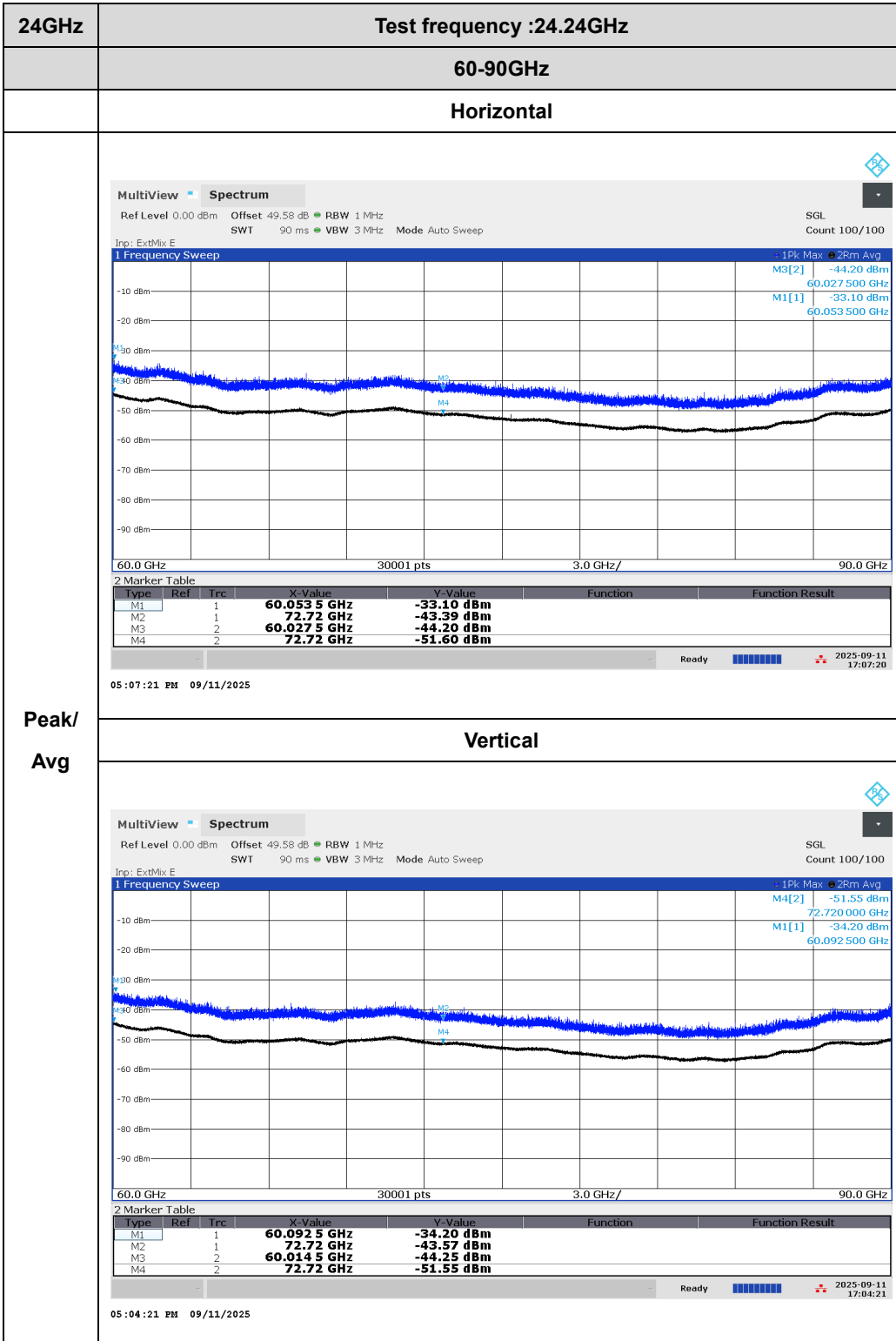
24GHz	Field strength of fundamental																																																																																																													
	Test frequency:24.24GHz																																																																																																													
	Horizontal	Vertical																																																																																																												
Peak	Date: 1 Date: 2025-09-10 Site : 03CH18-HY Condition : 15.249_Peak In 9170584_20241206 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 550659-01 Mode : 7 <table><thead><tr><th></th><th>Freq</th><th>Level</th><th>Over</th><th>Limit</th><th>ReadAntenna</th><th>Cable Preamp</th><th>A/Pos</th><th>T/Pos</th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dB</th><th>dBuV/m</th><th>dBuV</th><th>dB/n</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr></thead><tbody><tr><td>1</td><td>23864.00</td><td>37.89</td><td>-36.91</td><td>74.00</td><td>55.68</td><td>38.93</td><td>6.88</td><td>53.98</td><td>177</td><td>148 Peak</td></tr><tr><td>2</td><td>24238.00</td><td>94.19</td><td>-33.76</td><td>127.95</td><td>112.18</td><td>39.80</td><td>6.16</td><td>53.61</td><td>177</td><td>148 Peak</td></tr><tr><td>3</td><td>24250.00</td><td>62.15</td><td>-11.85</td><td>74.00</td><td>88.13</td><td>39.80</td><td>6.16</td><td>53.60</td><td>177</td><td>148 Peak</td></tr></tbody></table>		Freq	Level	Over	Limit	ReadAntenna	Cable Preamp	A/Pos	T/Pos	Remark		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/n	dB	dB	cm	deg	1	23864.00	37.89	-36.91	74.00	55.68	38.93	6.88	53.98	177	148 Peak	2	24238.00	94.19	-33.76	127.95	112.18	39.80	6.16	53.61	177	148 Peak	3	24250.00	62.15	-11.85	74.00	88.13	39.80	6.16	53.60	177	148 Peak	Date: 3 Date: 2025-09-10 Site : 03CH18-HY Condition : 15.249_Peak In 9170584_20241206 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 550659-01 Mode : 7 <table><thead><tr><th></th><th>Freq</th><th>Level</th><th>Over</th><th>Limit</th><th>ReadAntenna</th><th>Cable Preamp</th><th>A/Pos</th><th>T/Pos</th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dB</th><th>dBuV/m</th><th>dBuV</th><th>dB/n</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr></thead><tbody><tr><td>1</td><td>23776.00</td><td>37.88</td><td>-36.92</td><td>74.00</td><td>55.64</td><td>38.94</td><td>6.87</td><td>54.83</td><td>186</td><td>137 Peak</td></tr><tr><td>2</td><td>24238.00</td><td>94.44</td><td>-33.51</td><td>127.95</td><td>112.43</td><td>39.80</td><td>6.16</td><td>53.61</td><td>186</td><td>137 Peak</td></tr><tr><td>3</td><td>24250.00</td><td>62.63</td><td>-11.37</td><td>74.00</td><td>88.61</td><td>39.80</td><td>6.16</td><td>53.60</td><td>186</td><td>137 Peak</td></tr></tbody></table>		Freq	Level	Over	Limit	ReadAntenna	Cable Preamp	A/Pos	T/Pos	Remark		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/n	dB	dB	cm	deg	1	23776.00	37.88	-36.92	74.00	55.64	38.94	6.87	54.83	186	137 Peak	2	24238.00	94.44	-33.51	127.95	112.43	39.80	6.16	53.61	186	137 Peak	3	24250.00	62.63	-11.37	74.00	88.61	39.80	6.16	53.60	186	137 Peak
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Avg.	Date: 2 Date: 2025-09-10 Site : 03CH18-HY Condition : AVG_54 In 9170584_20241206 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : 550659-01 Mode : 7 <table><thead><tr><th></th><th>Freq</th><th>Level</th><th>Over</th><th>Limit</th><th>ReadAntenna</th><th>Cable Preamp</th><th>A/Pos</th><th>T/Pos</th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dB</th><th>dBuV/m</th><th>dBuV</th><th>dB/n</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr></thead><tbody><tr><td>1</td><td>23886.00</td><td>23.51</td><td>-38.49</td><td>54.00</td><td>42.05</td><td>38.94</td><td>6.88</td><td>54.82</td><td>177</td><td>148 Average</td></tr><tr><td>2</td><td>24238.00</td><td>93.81</td><td>-14.19</td><td>108.00</td><td>111.88</td><td>39.80</td><td>6.16</td><td>53.61</td><td>177</td><td>148 Average</td></tr><tr><td>3</td><td>24250.00</td><td>58.85</td><td>-3.15</td><td>54.00</td><td>68.83</td><td>39.80</td><td>6.16</td><td>53.60</td><td>177</td><td>148 Average</td></tr></tbody></table>		Freq	Level	Over	Limit	ReadAntenna	Cable Preamp	A/Pos	T/Pos	Remark		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/n	dB	dB	cm	deg	1	23886.00	23.51	-38.49	54.00	42.05	38.94	6.88	54.82	177	148 Average	2	24238.00	93.81	-14.19	108.00	111.88	39.80	6.16	53.61	177	148 Average	3	24250.00	58.85	-3.15	54.00	68.83	39.80	6.16	53.60	177	148 Average	Date: 4 Date: 2025-09-10 Site : 03CH18-HY Condition : AVG_54 In 9170584_20241206 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : 550659-01 Mode : 7 <table><thead><tr><th></th><th>Freq</th><th>Level</th><th>Over</th><th>Limit</th><th>ReadAntenna</th><th>Cable Preamp</th><th>A/Pos</th><th>T/Pos</th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dB</th><th>dBuV/m</th><th>dBuV</th><th>dB/n</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr></thead><tbody><tr><td>1</td><td>23886.00</td><td>23.08</td><td>-38.92</td><td>54.00</td><td>41.62</td><td>38.94</td><td>6.88</td><td>54.82</td><td>186</td><td>137 Average</td></tr><tr><td>2</td><td>24238.00</td><td>93.96</td><td>-14.04</td><td>108.00</td><td>111.95</td><td>39.80</td><td>6.16</td><td>53.61</td><td>186</td><td>137 Average</td></tr><tr><td>3</td><td>24250.00</td><td>51.89</td><td>-2.91</td><td>54.00</td><td>69.87</td><td>39.80</td><td>6.16</td><td>53.60</td><td>186</td><td>137 Average</td></tr></tbody></table>		Freq	Level	Over	Limit	ReadAntenna	Cable Preamp	A/Pos	T/Pos	Remark		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/n	dB	dB	cm	deg	1	23886.00	23.08	-38.92	54.00	41.62	38.94	6.88	54.82	186	137 Average	2	24238.00	93.96	-14.04	108.00	111.95	39.80	6.16	53.61	186	137 Average	3	24250.00	51.89	-2.91	54.00	69.87	39.80	6.16	53.60	186	137 Average
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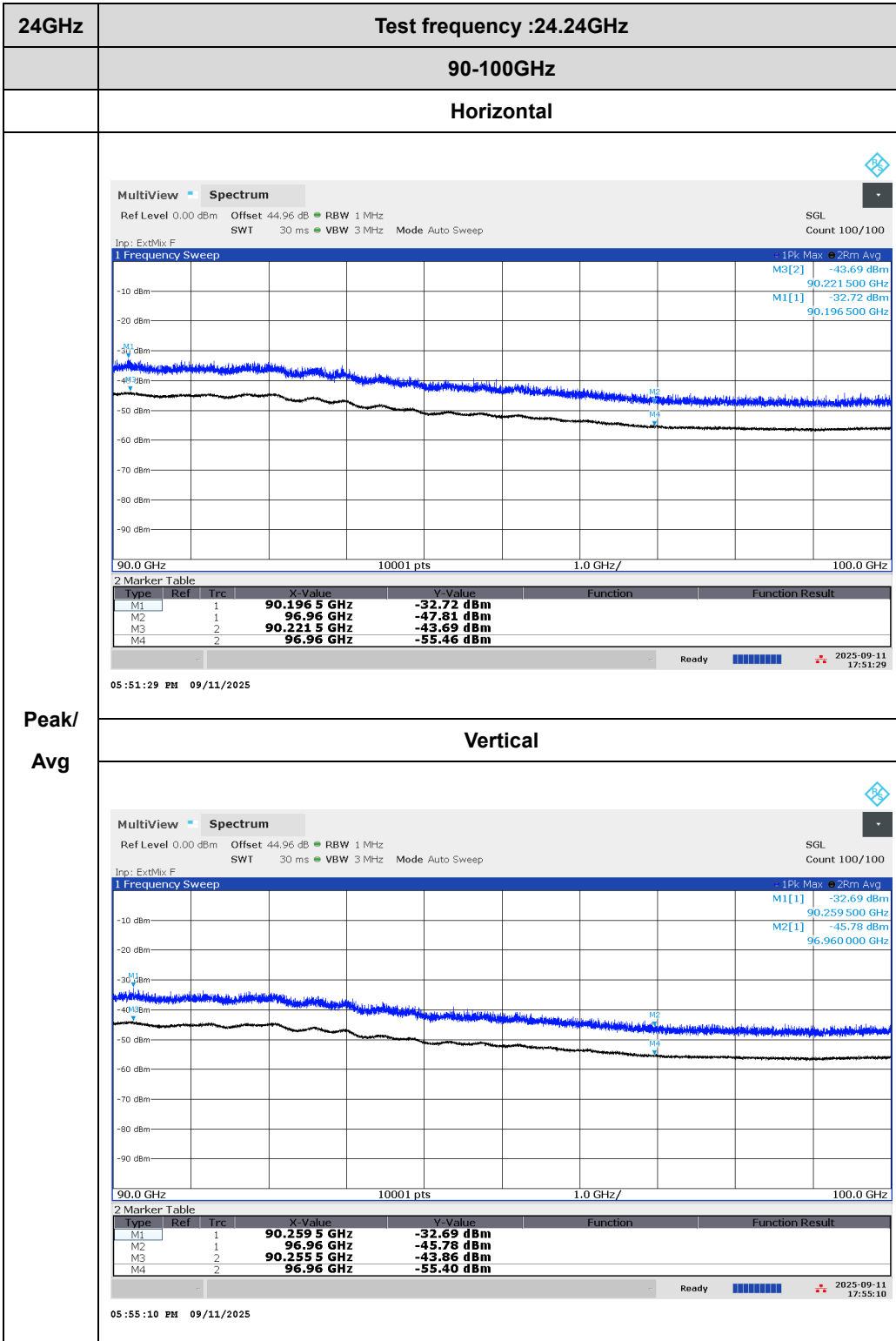


24GHz 24000~24250MHz
(Radiated Spurious Emission& Harmonic @ 3m)

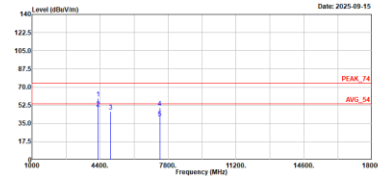
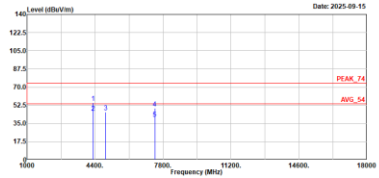
24GHz	Test frequency :24.24GHz	
	18-40GHz	
	Horizontal	Vertical
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24GHz	Test frequency :24.24GHz																																																																																																																																																																																																																									
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Emission below 1GHz

24GHz

24GHz

24GHz

Test frequency :24.24GHz_LF

Horizontal

Vertical

QP /
Peak

Site : 83CH23-HV
Condition: QP 3e CR0.0110_G3028 & 003_241127 HORIZONTAL
Node : 31
Setting :

	Freq	Level	Limit	Line Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
	MHz	dBm/100kHz	dBm/100kHz	dB	dBm/100kHz	dB	dB	dB	dB	dB	dB	
1	38.97	38.64	48.00	-9.36	25.87	23.90	0.64	32.57	0.62	--	--	Peak
2	132.22	29.39	45.58	-14.29	31.67	17.02	1.60	32.45	0.90	--	--	Peak
3	244.37	29.95	46.00	-18.05	38.71	28.85	2.81	32.51	0.87	--	--	Peak
4	538.33	34.34	46.00	-11.66	38.86	24.17	3.83	32.68	0.12	--	--	Peak
5	721.61	39.52	46.00	-6.48	31.57	27.20	3.62	32.63	0.13	--	--	Peak
6	982.56	43.24	54.00	-18.76	29.13	38.78	4.25	38.08	0.24	--	--	Peak

Site : 83CH23-HV
Condition: QP 3e CR0.0110_G3028 & 003_241127 VERTICAL
Node : 31
Setting :

	Freq	Level	Limit	Line Margin	Read	Ant	Cable	Preamp	Aux	APos	TPos	Remark
	MHz	dBm/100kHz	dBm/100kHz	dB	dBm/100kHz	dB	dB	dB	dB	dB	dB	
1	31.94	38.12	48.00	-9.88	28.87	23.57	0.65	32.57	0.62	--	--	Peak
2	187.69	29.98	45.58	-13.68	34.79	16.67	1.35	32.58	0.95	--	--	Peak
3	251.18	29.16	46.00	-16.84	29.88	29.88	2.88	32.52	0.87	--	--	Peak
4	497.54	34.87	46.00	-11.93	38.88	23.98	3.88	32.67	0.12	--	--	Peak
5	741.81	39.68	46.00	-6.48	38.83	28.87	3.88	32.56	0.14	--	--	Peak
6	988.98	45.45	54.00	-6.35	31.48	31.89	4.28	38.05	0.22	--	--	Peak