

FCC Part 15.247

TEST REPORT

For

Renesas Design Korea Inc.

7th SiliconPark, 35 Pangyo-ro 255 beon-gil Bundang-gu, Seongnam-si, Gyeonggi-do,
13486

FCC ID: 2AU49-RRQ61051009

Report Type:
Original Report

Product Type:
RRQ61051 Module

Report Producer : Cedric Xu

Report Number : RLK250801005RF04

Report Date : 2026-01-20

Reviewed By: Rory Cheng



Prepared By: Bay Area Compliance Laboratories Corp.

(Linkou Laboratory)

No. 6, Wende 2Rd., Guishan Dist.,

Taoyuan City 33382, Taiwan (R.O.C.).

Tel: +886 (3) 3961072

Fax: +886 (3) 3961027

www.baclcorp.com.tw

Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
0.0	RLK250801005	RLK250801005RF04	2026-01-20	Original Report	Cedric Xu

TABLE OF CONTENTS

1	General Information	5
1.1	Product Description for Equipment under Test (EUT)	5
1.2	Objective	6
1.3	Test Methodology.....	6
1.4	Statement of Compliance	6
1.5	Measurement Uncertainty	7
1.6	Environmental Conditions.....	7
1.7	Test Facility.....	7
2	System Test Configuration.....	8
2.1	Description of Test Configuration.....	8
2.2	EUT Exercise Software	8
2.3	Test Mode.....	9
2.4	Support Equipment List and Details.....	9
2.5	External Cable List and Details.....	9
2.6	Block Diagram of Test Setup	10
2.7	Duty Cycle.....	12
3	Summary of Test Results.....	19
4	Test Equipment List and Details	20
5	FCC §15.203 – Antenna Requirements.....	22
5.1	Applicable Standard	22
5.2	Antenna List and Details	22
6	FCC §15.207(a) – AC Line Conducted Emissions	23
6.1	Applicable Standard	23
6.2	EUT Setup	23
6.3	EMI Test Receiver Setup	24
6.4	Test Procedure.....	24
6.5	Factor & Over Limit Calculation	24
6.6	Test Results	25
7	FCC §15.209, §15.205 , §15.247(d) – Spurious Emissions	26
7.1	Applicable Standard	26
7.2	EUT Setup	27
7.3	EMI Test Receiver & Spectrum Analyzer Setup.....	28
7.4	Test Procedure.....	29
7.5	Factor & Over Limit Calculation	29
7.6	Test Results	30
8	FCC §15.247(a)(2) – 6 dB Emission Bandwidth And Occupied Bandwidth	69
8.1	Applicable Standard	69
8.2	Test Procedure.....	69
8.3	Test Results	70
9	FCC §15.247(b) – Maximum Output Power	87
9.1	Applicable Standard	87
9.2	Test Procedure.....	87
9.3	Test Results	88
10	FCC§15.247(d) – 100 kHz Bandwidth of Frequency Band Edge	90

10.1	Applicable Standard	90
10.2	Test Procedure.....	90
10.3	Test Results	91
11	FCC §15.247(e) – Power Spectral Density	97
11.1	Applicable Standard	97
11.2	Test Procedure.....	97
11.3	Test Results	98

1 General Information

1.1 Product Description for Equipment under Test (EUT)

Applicant	Renesas Design Korea Inc.
	7th SiliconPark, 35 Pangyo-ro 255 beon-gil Bundang-gu, Seongnam-si, Gyeonggi-do, 13486
Manufacturer	Renesas Design Korea Inc.
	7th SiliconPark, 35 Pangyo-ro 255 beon-gil Bundang-gu, Seongnam-si, Gyeonggi-do, 13486
Brand(Trade) Name	Renesas
Product (Equipment)	RRQ61051 Module
Main Model Name	RRQ61051-009
Series Model Name	RRQ61051-010
Model Differences	Different antenna interfaces
Frequency Range	IEEE 802.11b/g/n HT20/ax HE20 Mode: 2412 ~ 2462 MHz BLE(1M): 2402 ~ 2480 MHz
Maximum Conducted Peak Output Power	IEEE 802.11b Mode: 19.59dBm (0.091W) IEEE 802.11g Mode: 19.62dBm (0.092W) IEEE 802.11n HT20 Mode: 19.61dBm (0.091W) IEEE 802.11ax HE20 Mode: 19.68dBm (0.093W) BLE(1M) Mode : 1.42 dBm (0.00139W)
Modulation Technique	IEEE 802.11b Mode: DSSS IEEE 802.11g Mode: OFDM IEEE 802.11n HT20 Mode: OFDM IEEE 802.11ax HE20 Mode: OFDMA BLE(1M) Mode: GFSK
Power Operation (Voltage Range)	☐ AC 120V/60Hz ☐ Adapter ☐ By AC Power Cord ☐ PoE
	☐ DC Type ☐ Battery ☐ DC Power Supply ☐ External from USB Cable ☐ External DC Adapter
	☒ 3.3Vdc
Received Date	Aug 01, 2025
Date of Test	Oct. 20, 2025 ~ Jan. 20, 2026

*All measurement and test data in this report was gathered from production sample serial number:

RLK250801005-01 and RLK250801005-03 (Assigned by BACL, Linkou Laboratory).

**802.11ax mode only support full RU

***This device cannot run both WIFI 2.4G and WIFI 5G simultaneously.

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.
(Linkou Laboratory)

1.2 Objective

This report is prepared on behalf of Renesas Design Korea Inc. in accordance with Part 2, Subpart J, Part 15, Subparts A and C of the Federal Communication Commission's rules.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020+Cor.1-2023, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices KDB 558074 D01 DTS Meas Guidance v05r02

1.4 Statement of Compliance

Decision Rule: No, (The test results do not include MU judgment)

1. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory).
2. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.
3. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
4. The determination of the test results does not require consideration of the uncertainty of the measurement, unless the assessment is required by customer agreement, regulation or standard document specification.
5. Bay Area Compliance Laboratories Corp. (Linkou Laboratory) is not responsible for the authenticity of the information provided by the applicant that affects the test results.

1.5 Measurement Uncertainty

Parameter		Uncertainty
AC Mains		±2.98 (dB)
RF output power, conducted		±3.73 (dB)
Power Spectral Density, conducted		±0.65 (dBm)
Occupied Bandwidth		±0.09 (%)
Unwanted Emissions, conducted		±1.03 (dB)
Emissions, radiated	9kHz~30MHz	±3.20 (dB)
	30 MHz~1GHz	±3.30 (dB)
	1 GHz~18 GHz	±4.99 (dB)
	18 GHz~40 GHz	±4.52 (dB)
Temperature		±0.78 (°C)
Humidity		±0.04 (%)

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

1.6 Environmental Conditions

Test Site	Test Data	Temperature (°C)	Relative Humidity (%)	Test Engineer
AC Line Conducted Emissions	2025/10/21	23.4	52	Cedric Xu
Radiation Spurious Emissions	2025/10/20 ~ 2025/12/24	18.2 ~ 24.5	45~59	Derek
Conducted Spurious Emissions	2025/10/20~2025/10/28	21.7~23.2	42~57	Alan
6 dB Emission Bandwidth	2025/10/20~2025/10/28	21.7~23.2	42~57	Alan
Maximum Output Power	2025/10/20~2026/1/20	21.7~23.2	42~57	Alan
100 kHz Bandwidth of Frequency Band Edge	2025/10/20~2025/10/28	21.7~23.2	42~57	Alan
Power Spectral Density	2025/10/20~2025/10/28	21.7~23.2	42~57	Alan
Duty Cycle	2025/10/20~2026/1/20	21.7~23.2	42~57	Alan

1.7 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Linkou Laboratory) to collect test data is located on

☒ No.6, Wende 2Rd., Guishan Dist., Taoyuan City 33382, Taiwan (R.O.C.).

Bay Area Compliance Laboratories Corp. (Linkou Laboratory) is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3546) and the FCC designation No.TW3546 under the Mutual Recognition Agreement (MRA) in FCC Test.

2 System Test Configuration

2.1 Description of Test Configuration

For WIFI mode, there are totally 11 channels.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437		

For 802.11 b/g/n20/ax20 Modes were tested with channel 1, 6 and 11.

For BLE mode, there are totally 40 channels.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2442
1	2404	--	--
2	2406	--	--
3	2408	37	2476
--	--	38	2478
19	2440	39	2480

For BLE Modes were tested with channel 1, 19 and 39.

The system was configured for testing in engineering mode, which was provided by manufacturer.

2.2 EUT Exercise Software

WIFI 2.4G Used “TeraTerm5” software.

BLE Used “TeraTerm5” software. & SmartSnippets_Toolbox.exe

Test Frequency		Low	Mid	High
Power Level Setting	b Mode	9	9	6
	g Mode	11	11	10
	n20 Mode	9	11	9
	ax20 Mode	10	11	10
	BLE 1M	Default	Default	Default

The worst case data rates are as follows:

802.11b: 1Mbps

802.11g: 6Mbps

802.11n HT20: MCS0

802.11ax HE20: MCS0

BLE 1M : 1 Mbps

2.3 Test Mode

Mode 1: Full System (model: RRQ61051-009) for all test item.

2.4 Support Equipment List and Details

No.	Description	Manufacturer	Model
1	Notebook (Lab provided)	DELL	E6410
2	Notebook (Lab provided)	Acer	N16Q1
3	Test Development Board (Customer provided)	RENESAS	EK-RQ61 565-11-C-0001 Ver 3.1
4	Daughter Board (Customer provided)	RENESAS	RRQ610x1 565-16-B
5	Antenna (Customer provided)	ARISTOTLE	RFA-27-H60-U-GB70

2.5 External Cable List and Details

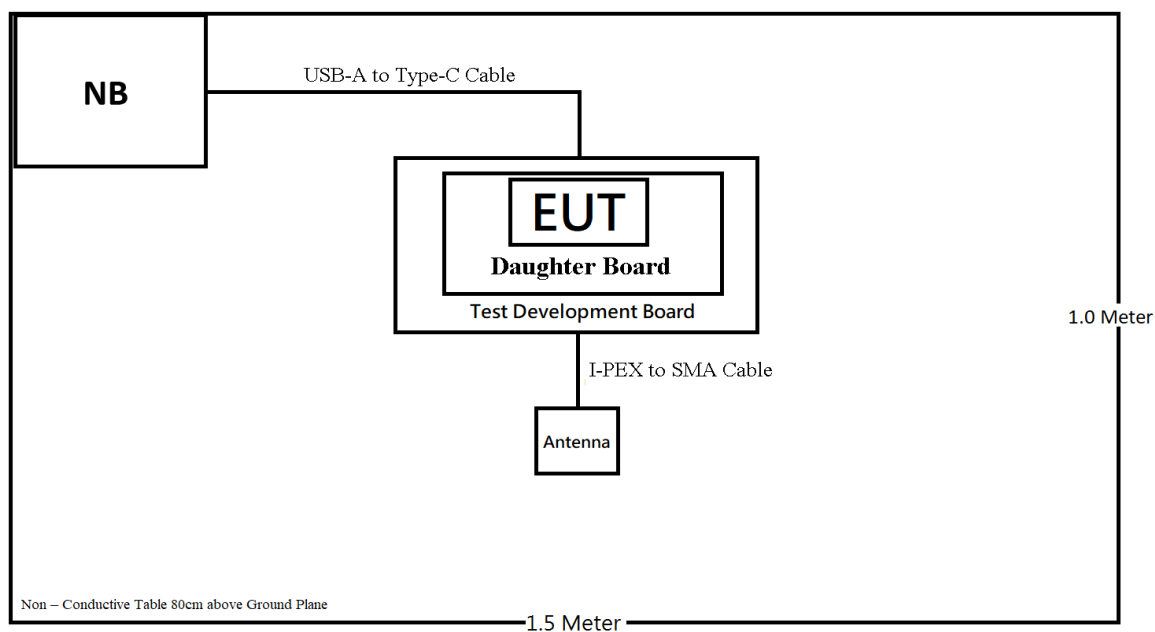
No.	Description	Manufacturer	Model
1	USB-A to C cable (Customer provided)	VENTION	COZ
2	I-PEX to SMA Cable (Customer provided)	TAOGLAS	0.2m

2.6 Block Diagram of Test Setup

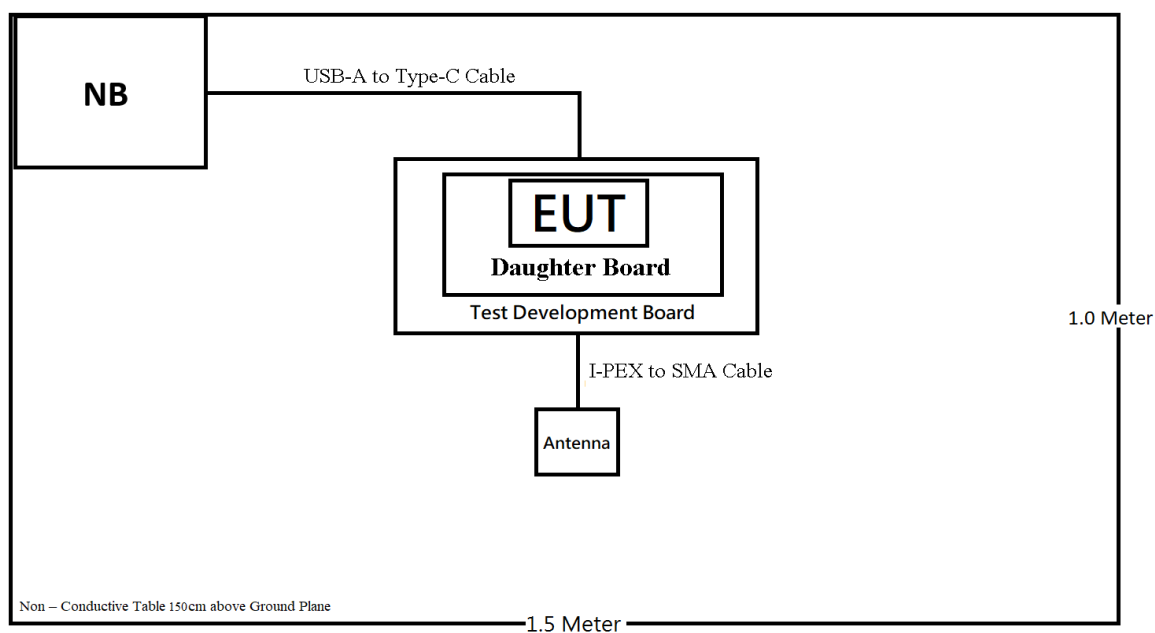
See test photographs attached in setup photos for the actual connections between EUT and support equipment.

Radiation:

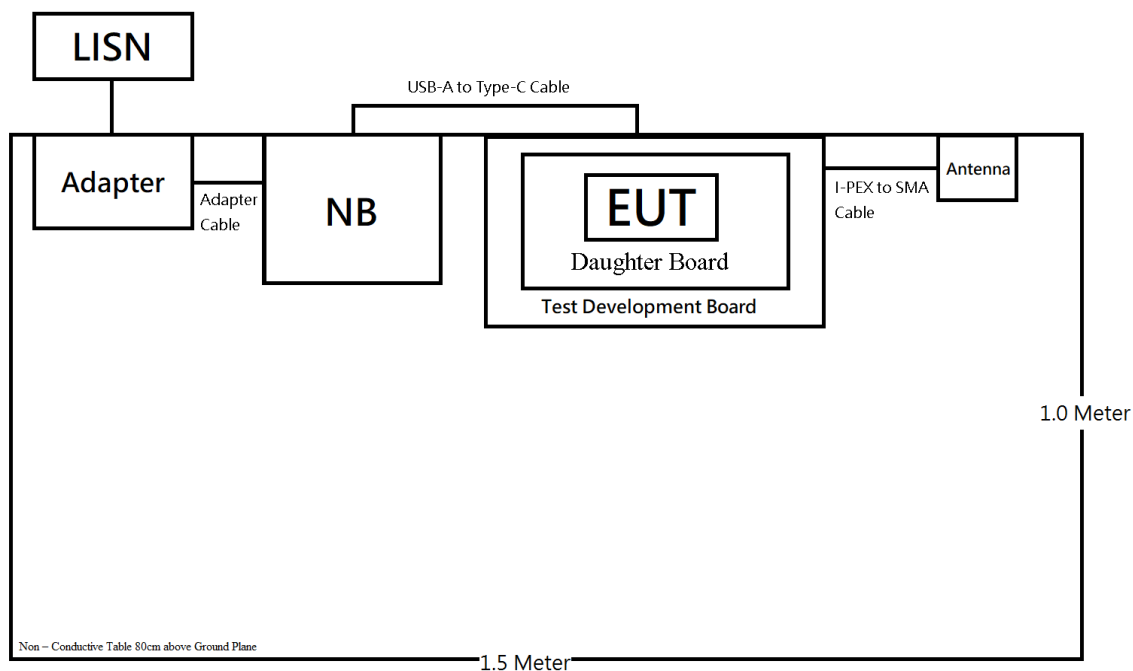
Below 1GHz:



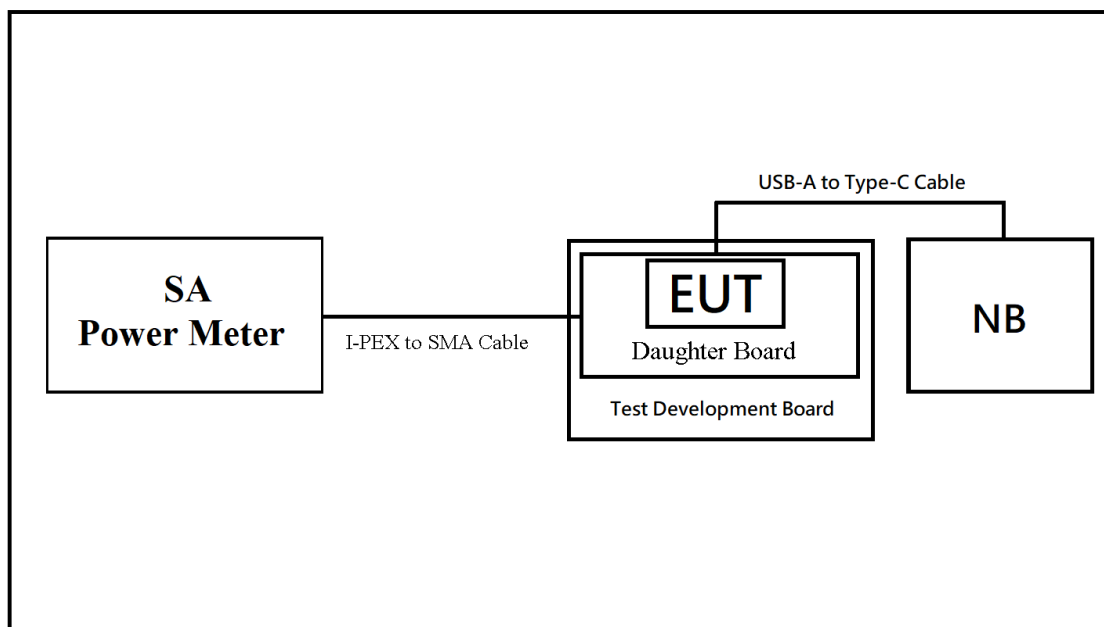
Above 1GHz:



Conduction:



Conducted:



2.7 Duty Cycle

According to KDB 558074 D01 15.247 Meas Guidance v05r02 section 6.0:

All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x, and maximum power transmission duration, T, are required for each tested mode of operation.

Test EUT Mode : RRQ61051-009

Radio Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T VBW Setting (kHz)	1/T (kHz)
802.11b	0.624	0.714	87	0.6	3	1.6
802.11g	0.696	0.79	88	0.56	3	1.44
802.11n20	0.29	0.320	91	0.41	5	3.45
802.11ax20	2.83	2.95	99	0	3	0.35
BLE(1M)	9.94	10.029	99	0	/	0.1

Note: Duty Cycle Correction Factor = $10 \cdot \log(1/\text{duty cycle})$

Please refer to the following plots.

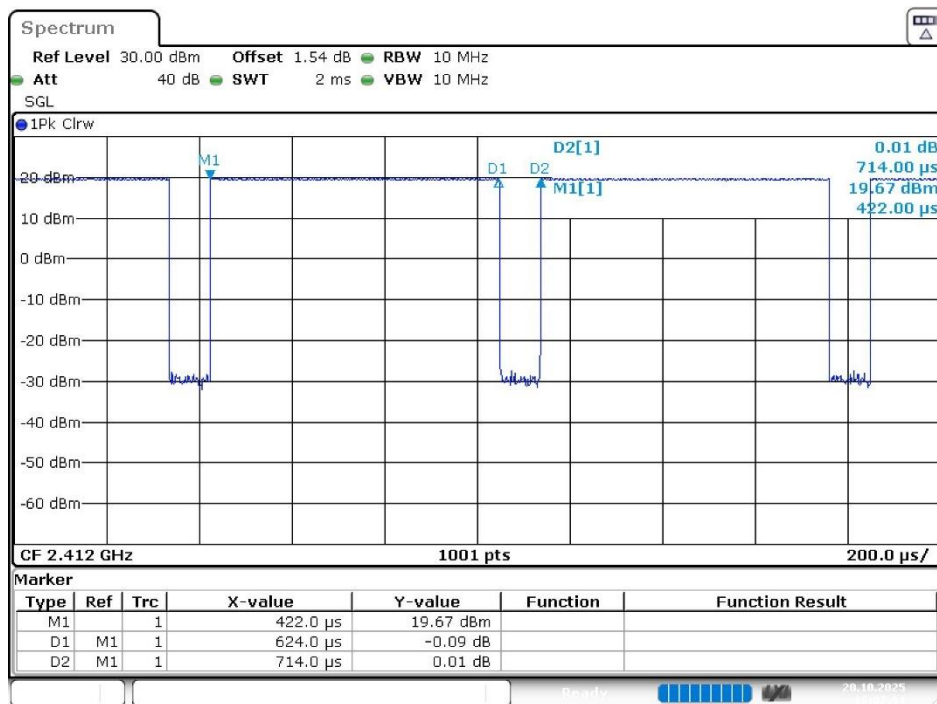
Test EUT Mode : RRQ61051-010

Radio Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T VBW Setting (kHz)	1/T (kHz)
802.11b	0.627	0.648	97	0.13	3	1.6
802.11g	0.696	0.723	96	0.18	3	1.44
802.11n20	0.292	0.320	91	0.41	5	3.45
802.11ax20	2.832	2.87	96	0.18	3	0.35
BLE(1M)	9.93	10.02	99	0	/	0.1

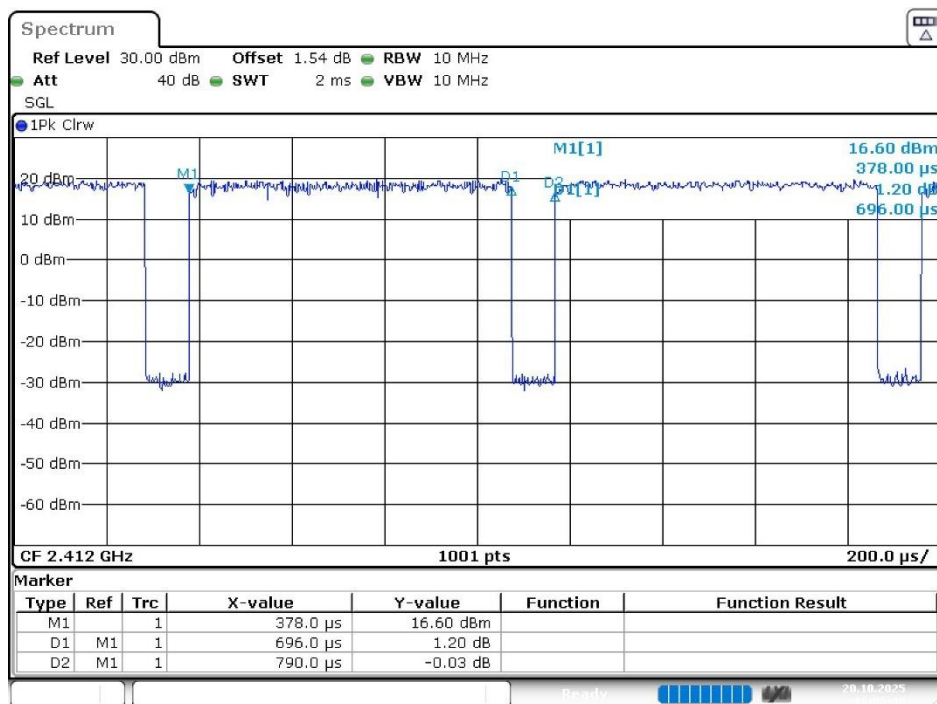
Note: Duty Cycle Correction Factor = $10 \cdot \log(1/\text{duty cycle})$

Please refer to the following plots.

Test EUT Mode : RRQ61051-009

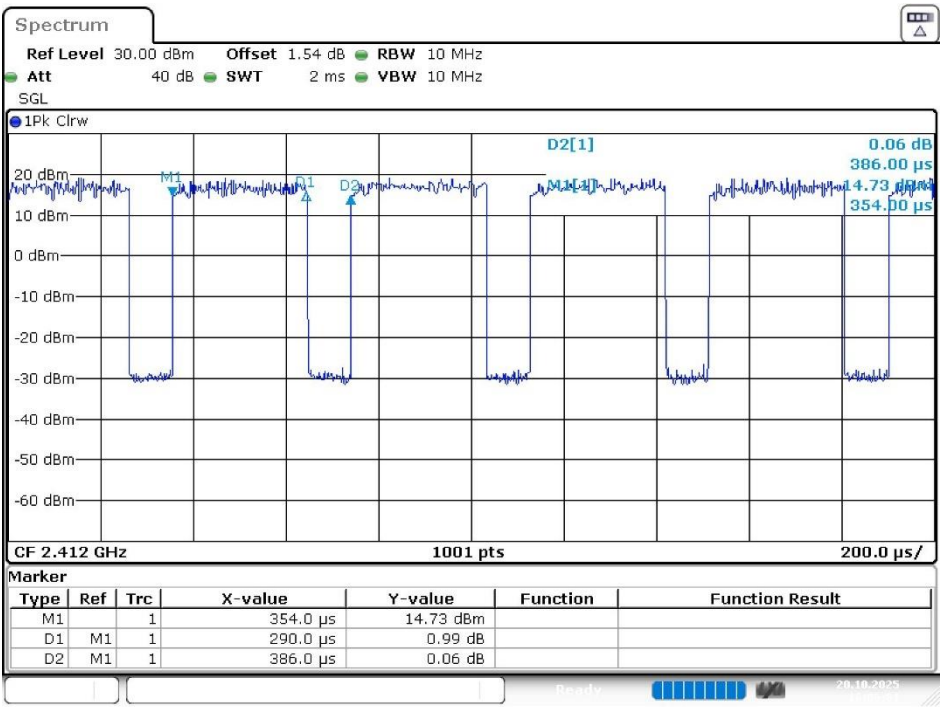
b Mode

Date: 20.OCT.2025 16:07:31

g Mode

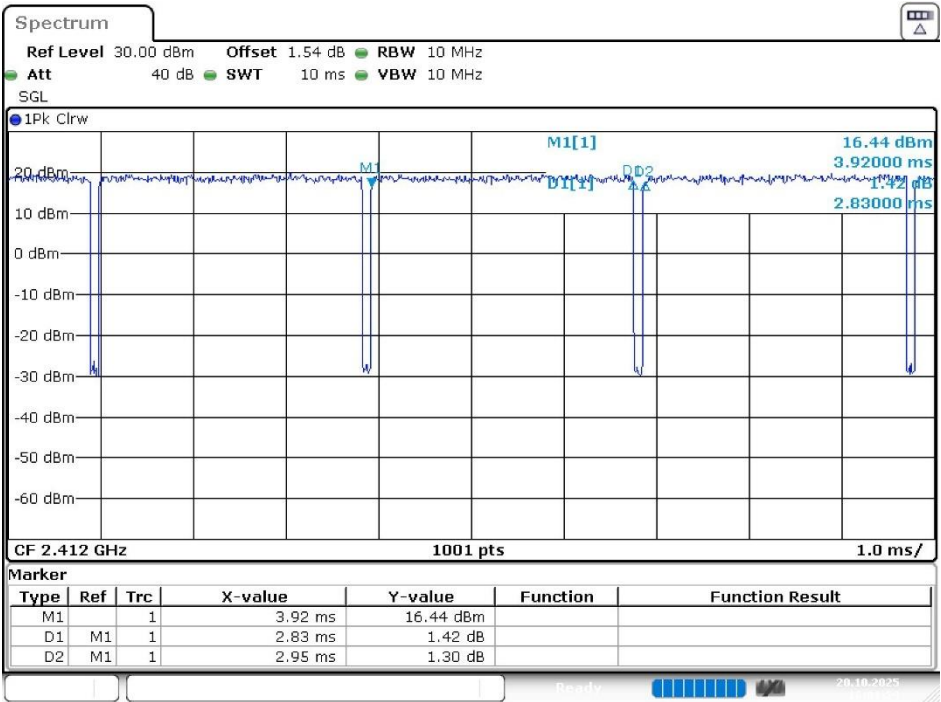
Date: 20.OCT.2025 16:06:49

n20 Mode



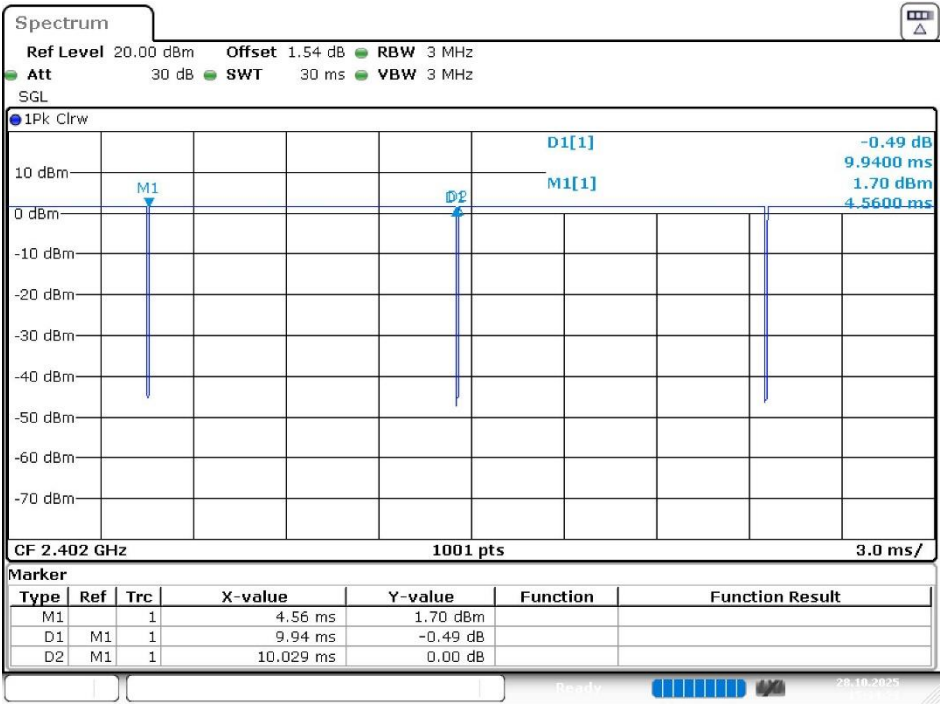
Date: 20.OCT.2025 16:06:01

ax20 Mode



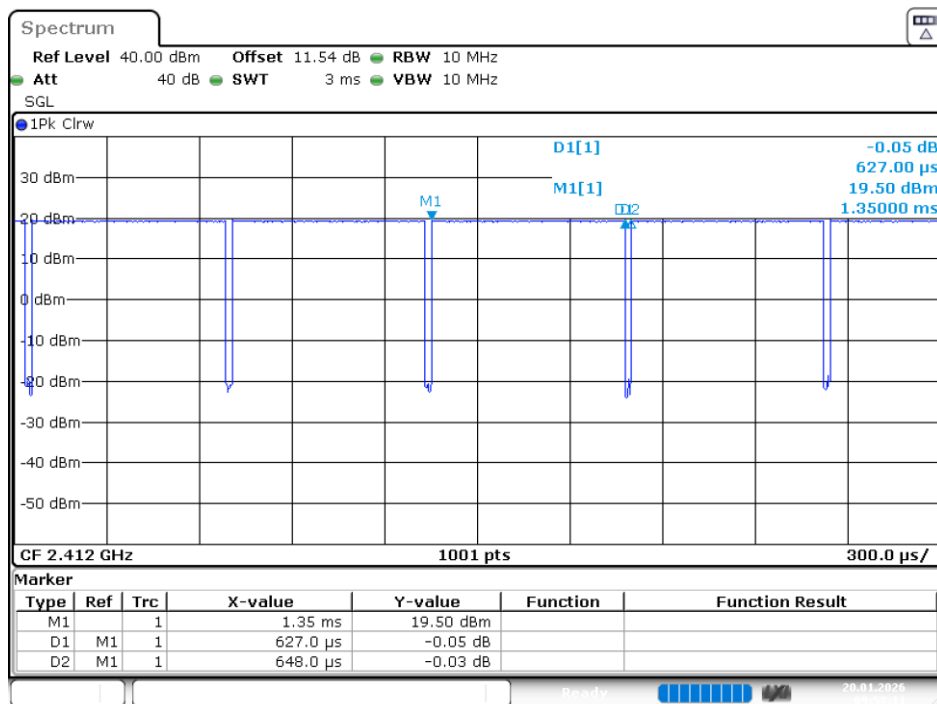
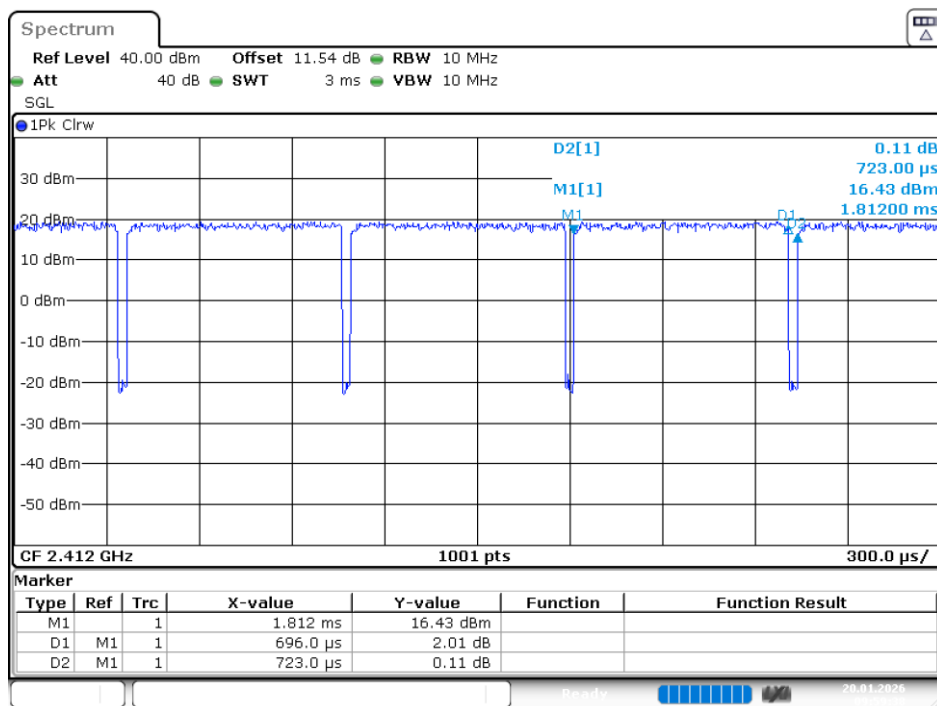
Date: 20.OCT.2025 16:01:29

BLE (1M) Mode

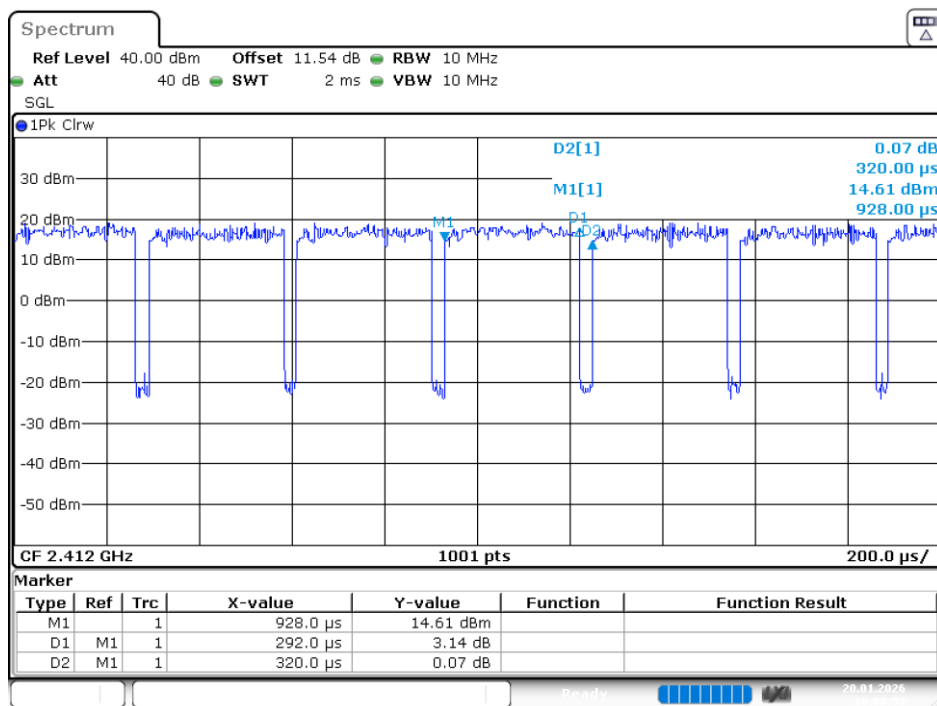


Date: 28.OCT.2025 15:34:23

Test EUT Mode : RRQ61051-010

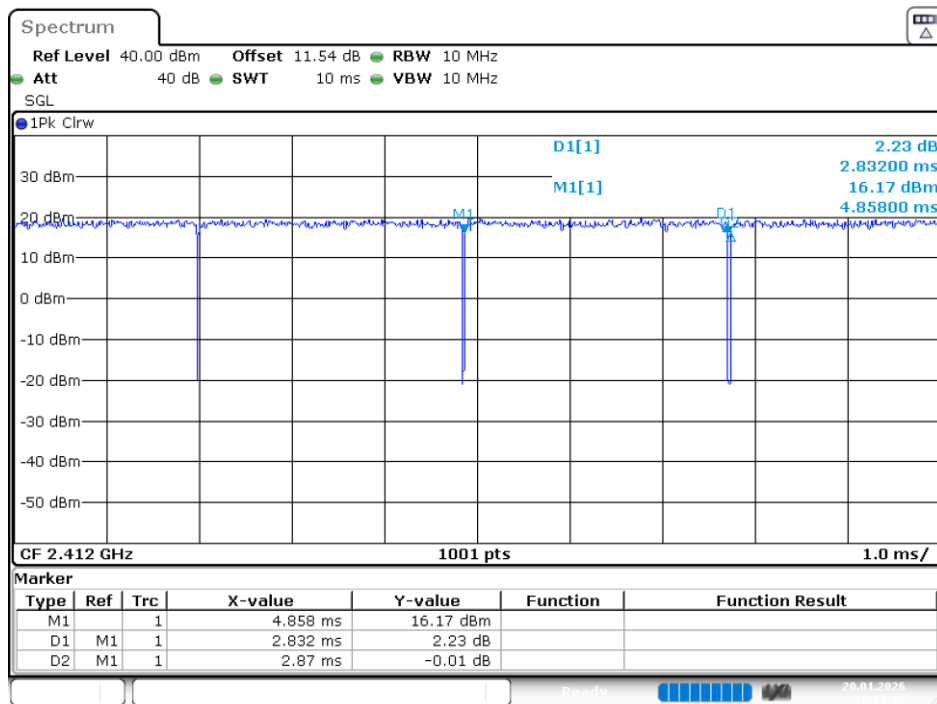
b Mode**g Mode**

n20 Mode



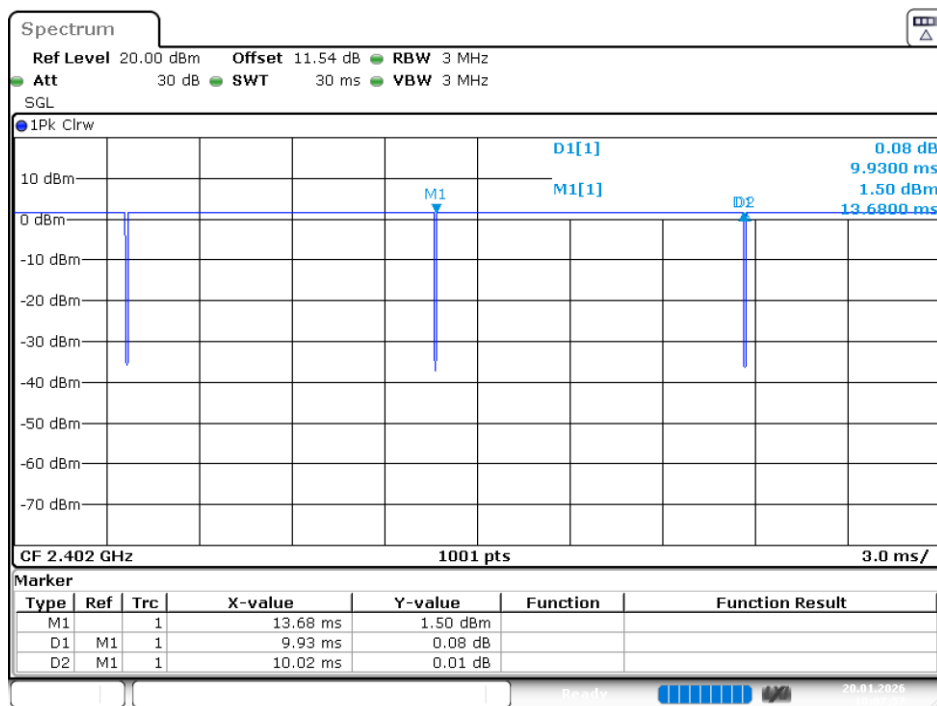
Date: 20.JAN.2026 10:00:54

ax20 Mode



Date: 20.JAN.2026 10:02:19

BLE (1M) Mode



Date: 20.JAN.2026 10:07:58

3 Summary of Test Results

FCC Rules	Description of Test	Results
§15.203	Antenna Requirement	Compliance
§15.207(a)	AC Line Conducted Emissions	Compliance
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliance
§15.247(a)(2)	6 dB Emission Bandwidth	Compliance
§15.247(b)(3)	Maximum Peak Output Power	Compliance
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliance
§15.247(e)	Power Spectral Density	Compliance

4 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
AC Line Conduction Room (CON-A)					
Pulse Limiter	SCHWARZBECK	VTSD 9561-F	00432	2025/08/14	2026/08/14
ESR EMI Test Receiver	Rohde & Schwarz	ESCI7	100769	2025/04/02	2026/04/02
RF Cable	EMCI	EMCCFD300-BM-BM-3000	221013	2025/10/16	2026/10/16
Two-Line V-Network	Rohde & Schwarz	ENV216	100037	2025/09/15	2026/09/15
Software	Audix	e3 v9	E3LK-03	N.C.R	N.C.R
Radiated Room (966-B)					
Bilog Antenna & 6 dB Attenuator	SUNOL SCIENCES & EMCI	JB3 & N-6-06	A071318 & AT-N0670	2025/08/14	2026/08/14
Active Loop Antenna	ETS-Lindgren	6502	0001-3322	2025/03/27	2026/03/27
Horn Antenna	ETS-Lindgren	3115	85775	2025/10/03	2026/10/03
Horn Antenna	ETS-Lindgren	3160-09	123853	2025/08/28	2026/08/28
18-40GHz Preamplifier	GLOBAL	1313-A1840	5031371	2025/04/28	2026/04/28
30M-18GHz Preamplifier	A.H. Systems	PAM-0118P	479	2025/09/05	2026/09/05
ESR EMI Test Receiver	Rohde & Schwarz	ESR3	102430	2025/04/25	2026/04/25
Spectrum Analyzer	Rohde & Schwarz	FSV40	101456	2025/06/05	2026/06/05
Microflex Cable (1m)	EMCI	EMCI02-KM-KM-1000	180524	2025/08/01	2026/08/01
Microflex Cable (2m)	EMCI	EMCI06-SM-SM-2000	180516	2025/08/01	2026/08/01
Microflex Cable (8m)	UTIFLEX	UFA210A-1-3149-300300	MFR 64639 232490-002	2025/08/01	2026/08/01
Software	AUDIX	E3 V9	E3LK-02	N.C.R	N.C.R
-10dB Attenuator	MTJ	MTJ604-10	004	2025/04/07	2026/04/07
Band Reject Filter	MICRO-TRONICS	BRM50702	G613	2025/04/30	2026/04/30
Conducted Room					

Cable	MTJ	MT40S	620620-MT40S-100	2024/12/26	2026/01/05
Cable	MTJ	MT40S	620620-MT40S-100	2026/01/05	2027/01/05
Signal and Spectrum Analyzer	Rohde & Schwarz	FSV40	101457	2024/12/04	2025/12/04
Signal and Spectrum Analyzer	Rohde & Schwarz	FSV40	101457	2025/12/03	2026/12/03
USB Wideband Power Sensor	AGILENT	U2021XA	MY54080011	2025/08/26	2026/08/26
10dB Attenuator	MCL	BW-S10W5+	605	2025/04/14	2026/04/14

***Statement of Traceability:** BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to the SI System of Units via the R.O.C. Center for Measurement Standards of the Electronics Testing Center, Taiwan (ETC) or to another internationally recognized National Metrology Institute (NMI), and were compliant with the current Taiwan Accreditation Foundation (TAF) requirements

5 FCC §15.203 – Antenna Requirements

5.1 Applicable Standard

According to § 15.203,

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 user of a standard antenna jack or electrical connector is prohibited.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna does not exceed 6dBi.

5.2 Antenna List and Details

Manufacturer	Model	Antenna Type	Antenna Gain
Aristotle	RFA-27-H60-U-GB70	Dipole Antenna	3.3 dBi

Unit uses a unique coupling to the intentional radiator.

2.4 Cable Loss of the I-Pex Cable used for antenna connection : 1.54 dB

Result: Compliance

6 FCC §15.207(a) – AC Line Conducted Emissions

6.1 Applicable Standard

According to §15.207

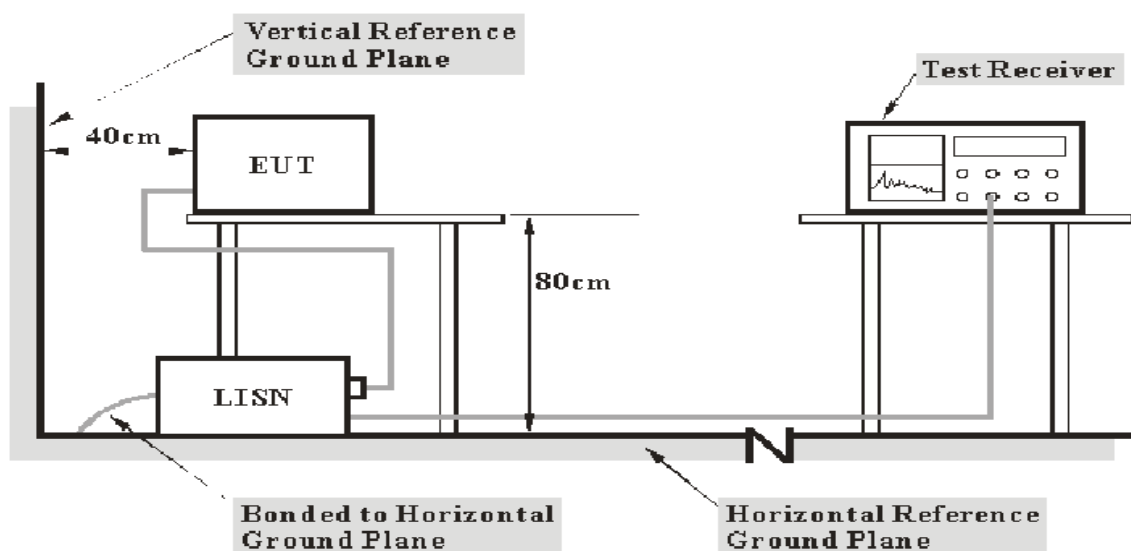
For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequencies ranges.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56 Note 1	56 to 46 Note 2
0.5-5	56	46
5-30	60	50

Note 1: Decreases with the logarithm of the frequency.

Note 2: A linear average detector is required

6.2 EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2020+Cor.1-2023 measurement procedure. The specification used was with the FCC Part 15.207 limits.

6.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150kHz to 30MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations

Frequency Range	IF B/W
150kHz – 30MHz	9kHz

6.4 Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

6.5 Factor & Over Limit Calculation

The factor is calculated by adding LISN/ISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss} + \text{Transient Limiter Attenuation}$$

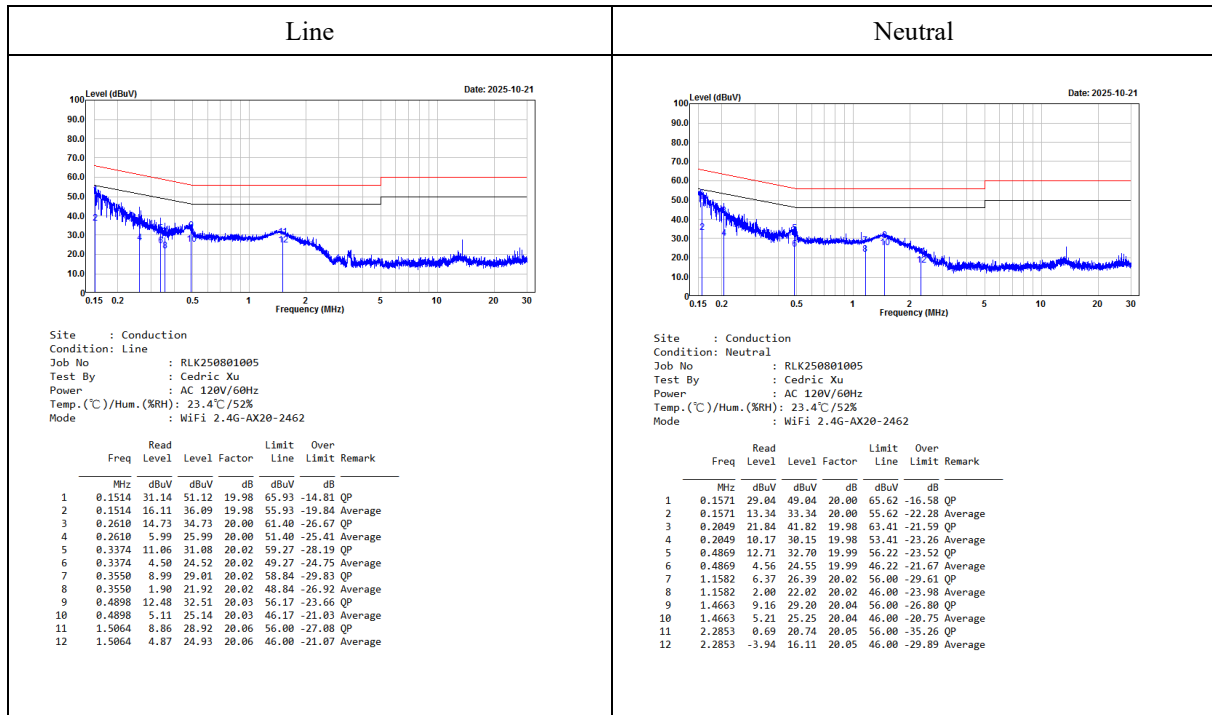
The “Over Limit” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of -7 dB means the emission is 7 dB below the limit. The equation for Over Limit calculation is as follows:

$$\text{Over Limit} = \text{Level} - \text{Limit Line}$$

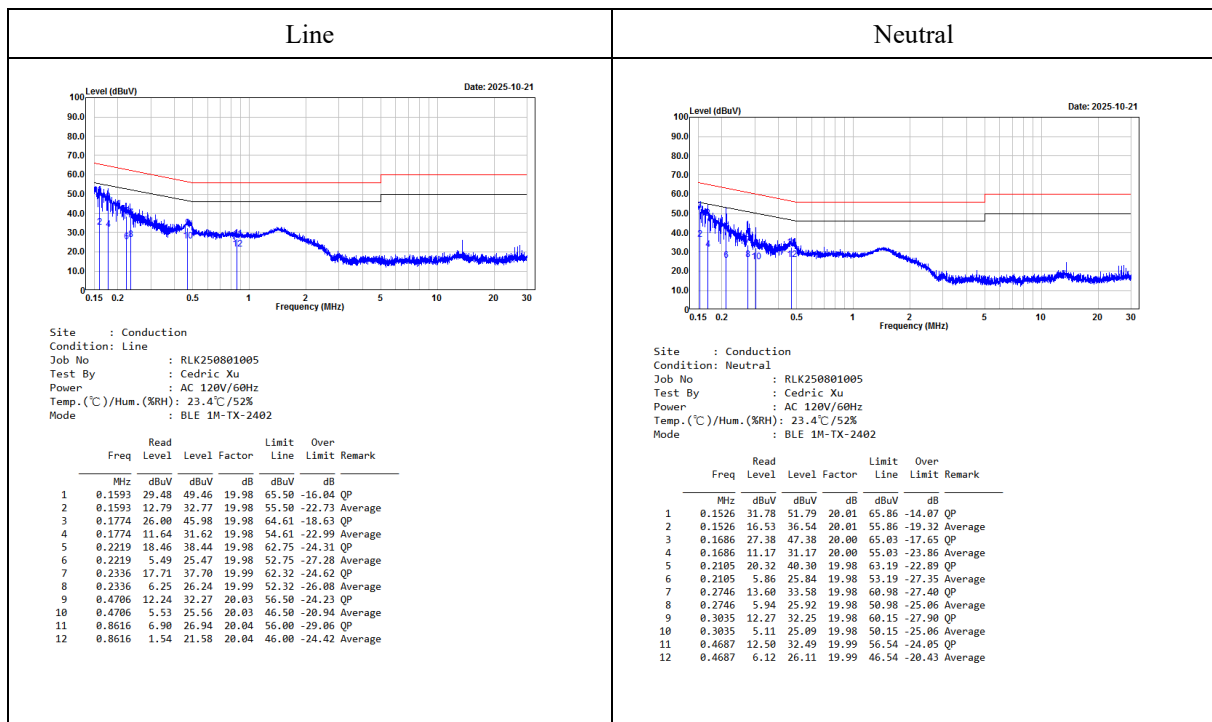
6.6 Test Results

Test Mode: Transmitting

(Worst case is 802.11ax20 mode, High Channel)



(Worst case is BLE 1M mode, Low Channel)



Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

7 FCC §15.209, §15.205 , §15.247(d) – Spurious Emissions

7.1 Applicable Standard

As per FCC §15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1MHz.

As Per FCC §15.205(a) except as show in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 – 0.110	16.42 – 16.423	608 – 614	4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525	960 – 1240	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	1300 – 1427	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1435 – 1626.5	8.025 – 8.5
4.17725 – 4.17775	37.5 – 38.25	1645.5 – 1646.5	9.0 – 9.2
4.20725 – 4.20775	73 – 74.6	1660 – 1710	9.3 – 9.5
6.215 – 6.218	74.8 – 75.2	1718.8 – 1722.2	10.6 – 12.7
6.26775 – 6.26825	108 – 121.94	2200 – 2300	13.25 – 13.4
6.31175 – 6.31225	123 – 138	2310 – 2390	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2483.5 – 2500	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2690 – 2900	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	3260 – 3267	22.01 – 23.12
8.41425 – 8.41475	162.0125 – 167.17	3.332 – 3.339	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3.3458 – 3.358	31.2 – 31.8
12.51975 – 12.52025	240 – 285	3.600 – 4.400	36.43 – 36.5
12.57675 – 12.57725	322 – 335.4		Above 38.6
13.36 – 13.41	399.9 – 410		

As per FCC §15.209(a): Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (micro volts/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

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

According to ANSI C63.10-2020+Cor.1-2023, section 5.3.3

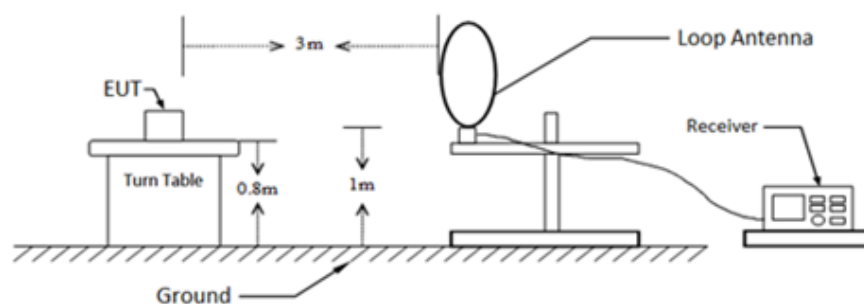
Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field, and the emissions to be measured can be detected by the measurement equipment (see 4.3.4).

Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. Measurements from 18 GHz to 40 GHz are typically made at distances significantly less than 3 m from the EUT. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade of distance (inverse of linear distance for field-strength measurements or inverse of linear distance-squared for power-density measurements).

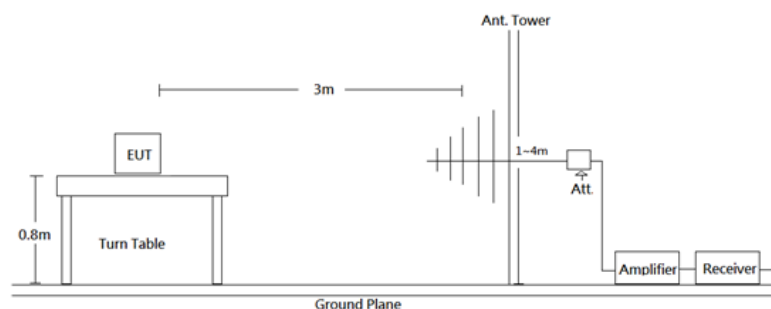
As per FCC §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

7.2 EUT Setup

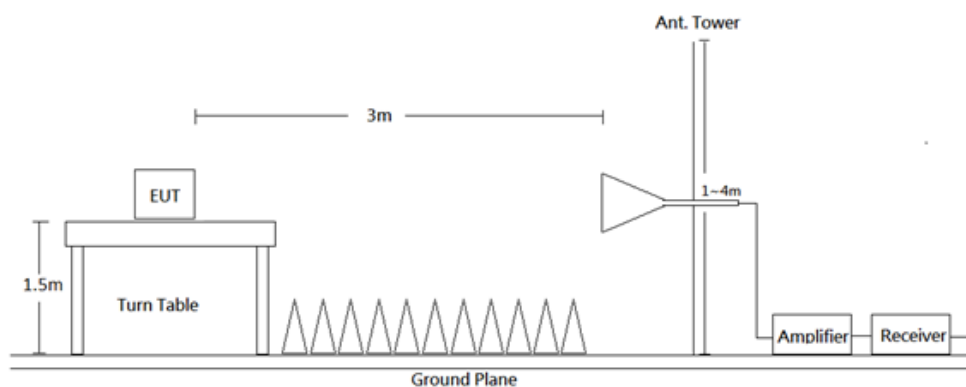
9kHz-30MHz:



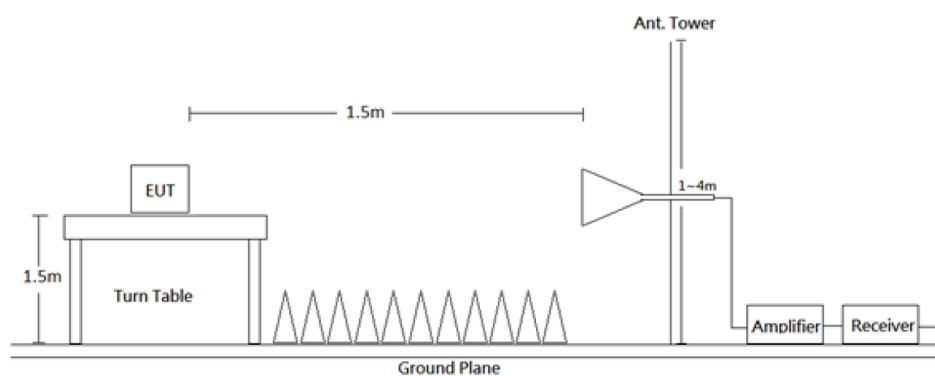
30MHz- 1GHz:



1-18 GHz:



18-26.5 GHz:



Radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the C63.10-2020+Cor.1-2023. The specification used was the FCC Part 15.209 and FCC 15.247 Limits.

7.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 26.5 GHz. During the radiated emission test, the EMI test receiver was set with the following configurations measurement method 6.3 in ANSI C63.10-2020+Cor.1-2023

Frequency Range	RBW	VBW	Duty cycle	Measurement method	Detector
9 kHz - 150 kHz	200 Hz/300 Hz	1 kHz	/	QP/AV	QP/AV
150 kHz - 30 MHz	9 kHz/10 kHz	30 kHz	/	QP/AV	QP/AV
30-1000 MHz	120 kHz	500 kHz	/	QP	QP
Above 1 GHz	Pre-scan :				
	1 MHz	3 MHz	/	PK	PK
	1 MHz	1 kHz	>98%	Ave	PK
	1 MHz	$\geq 1/\text{Ton}$, not less than 1 Hz	<98%	Ave	PK
	Final measurement for emission identified during pre-scan :				
	1 MHz	3 MHz	/	PK	PK
	1 MHz	10 Hz	>98%	Ave	PK
	1 MHz	$\geq 1/\text{Ton}$	<98%	Ave	PK

Note: T is minimum transmission duration

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

7.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in Quasi-peak and average detector mode from 9 kHz to 30 MHz, Quasi-peak detector mode from 30 MHz to 1 GHz and PK and average detector modes for frequencies above 1 GHz.

7.5 Factor & Over Limit Calculation

The Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “Over Limit” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of -7 dB means the emission is 7 dB below the limit. The equation for Over Limit calculation is as follows:

$$\text{Over Limit} = \text{Level} - \text{Limit Line}$$

7.6 Test Results

Test Mode: Transmitting

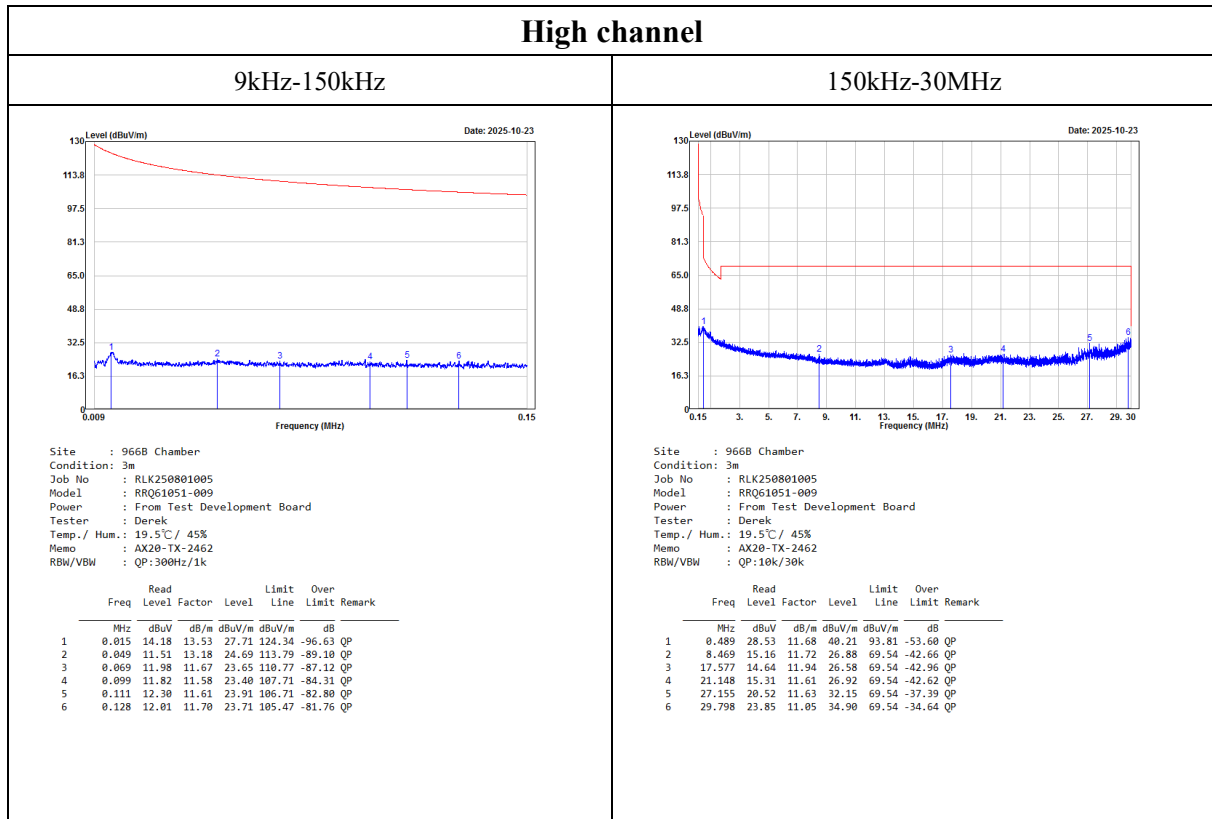
(Pre-scan with three orthogonal axis, and worse case as Z axis.)

Test EUT Mode : RRQ61051-009

9kHz-30MHz:

(Worst case is 802.11ax20 mode, High Channel)

(Pre-scan using three directional polarities, worst case as parallel.)



Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

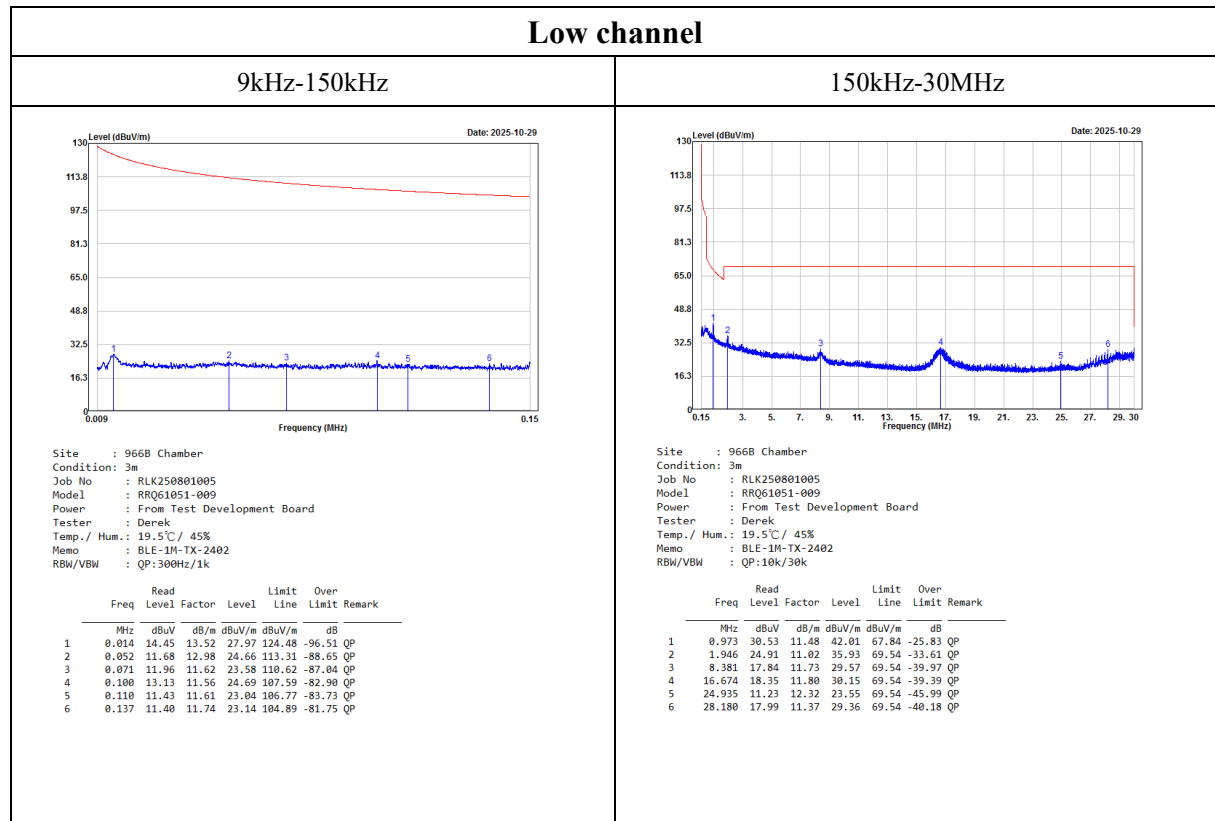
Factor = Antenna Factor + Cable Loss – Amplifier Gain

Test EUT Mode : RRQ61051-009

(Worst case is BLE(1M) mode, Low Channel)

(Pre-scan with three orthogonal axis, and worse case as Z axis.)

(Pre-scan using three directional polarities, worst case as parallel.)



Note:

Level = Read Level + Factor

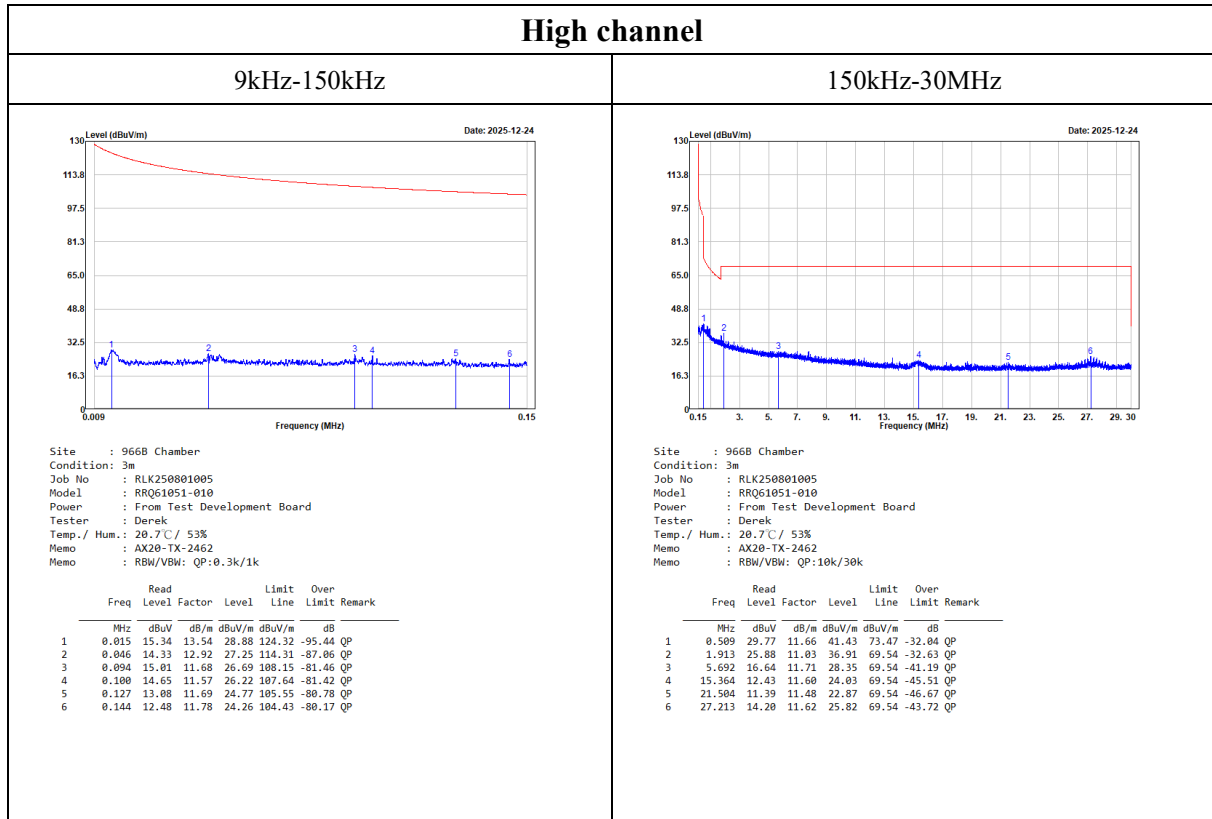
Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

Test EUT Mode : RRQ61051-010**9kHz-30MHz:**

(Worst case is 802.11ax20 mode, High Channel)

(Pre-scan using three directional polarities, worst case as parallel.)



Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

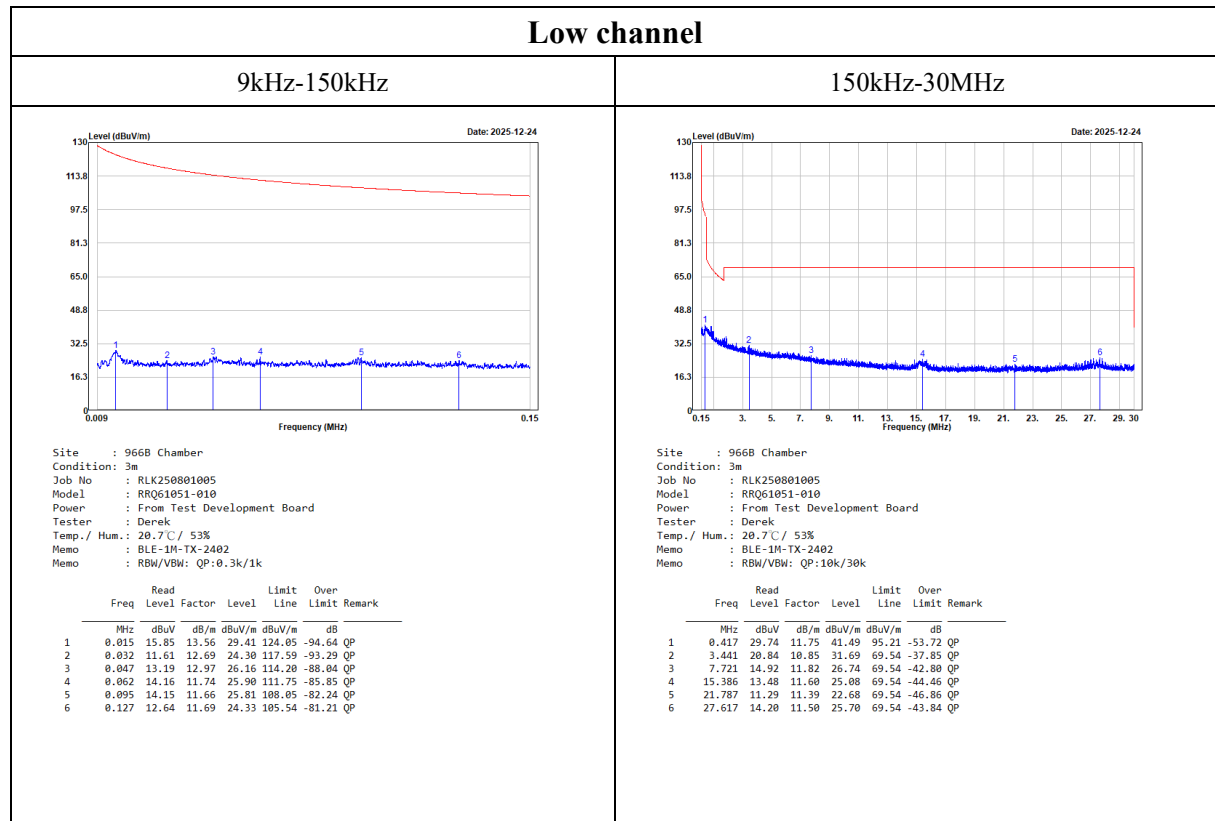
Factor = Antenna Factor + Cable Loss – Amplifier Gain

Test EUT Mode : RRQ61051-010

(Worst case is BLE(1M) mode, Low Channel)

(Pre-scan with three orthogonal axis, and worse case as Z axis.)

(Pre-scan using three directional polarities, worst case as parallel.)



Note:

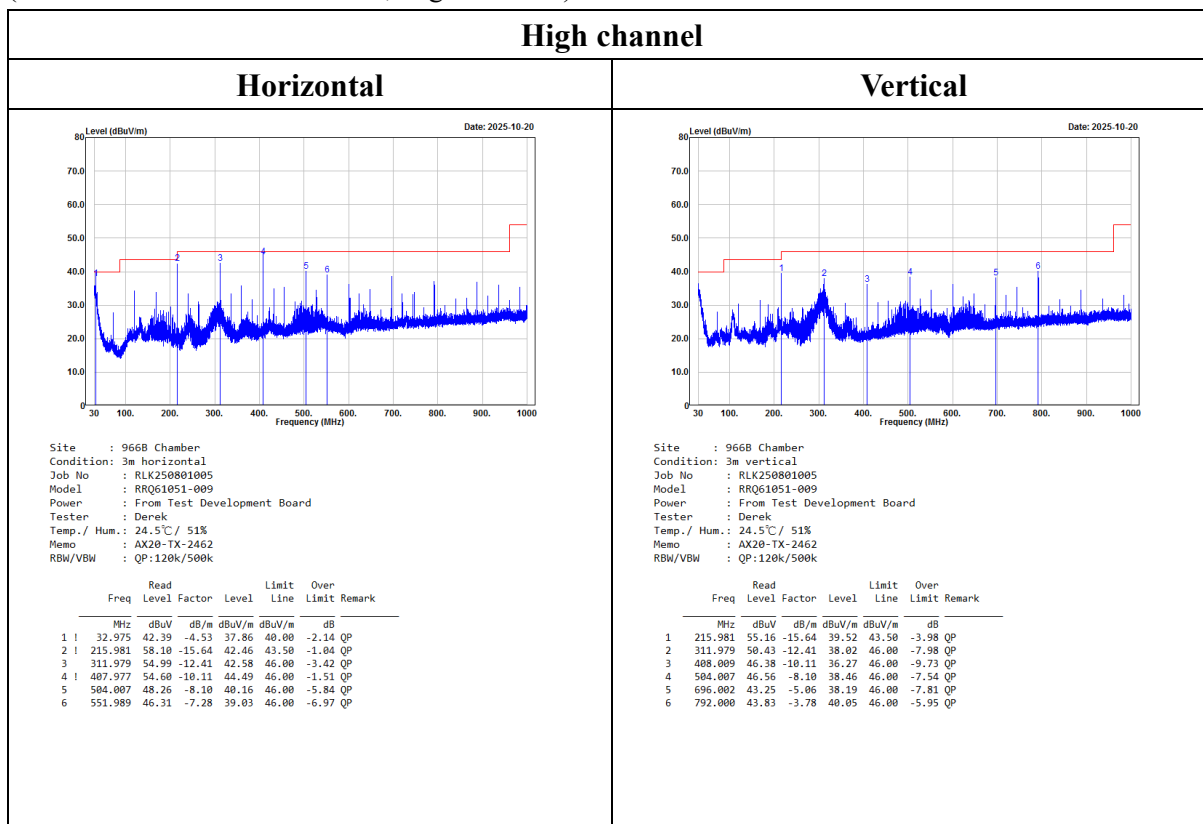
Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

Test EUT Mode : RRQ61051-009**30MHz-1GHz:**

(worst case is 802.11 ax20 mode, High Channel)



Note:

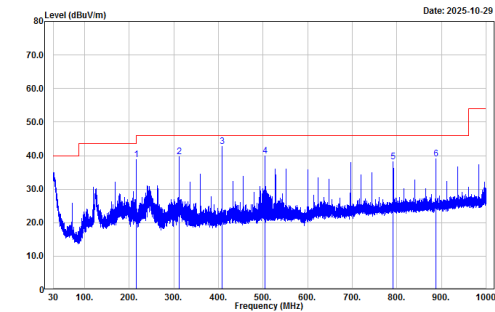
Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

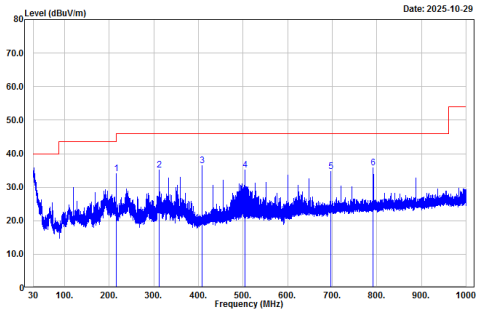
Test EUT Mode : RRQ61051-009

(Worst case is BLE(1M) mode, Low Channel)

Low channel**Horizontal**

Site : 966B Chamber
Condition: 3m horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 19.5°C / 45%
Memo : BLE-1M-TX-2402
RBW/VBW : QP:120k/500k

	Read		Limit	Over	
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 215.981	54.54	-15.64	38.90	43.50	-4.60 QP
2 311.979	52.00	-12.41	39.59	46.00	-6.41 QP
3 407.977	52.72	-10.11	42.61	46.00	-3.39 QP
4 504.007	47.97	-8.10	39.87	46.00	-6.13 QP
5 792.000	41.89	-3.78	38.11	46.00	-7.89 QP
6 887.997	41.67	-2.73	38.94	46.00	-7.06 QP

Vertical

Site : 966B Chamber
Condition: 3m vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 19.5°C / 45%
Memo : BLE-1M-TX-2402
RBW/VBW : QP:120k/500k

	Read		Limit	Over	
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 215.981	49.69	-15.64	34.05	43.50	-9.45 QP
2 311.979	47.44	-12.41	35.03	46.00	-10.97 QP
3 407.977	46.63	-10.11	36.52	46.00	-9.48 QP
4 504.007	43.16	-8.10	35.06	46.00	-10.94 QP
5 696.002	39.65	-5.06	34.59	46.00	-11.41 QP
6 792.000	39.46	-3.78	35.68	46.00	-10.32 QP

Note:

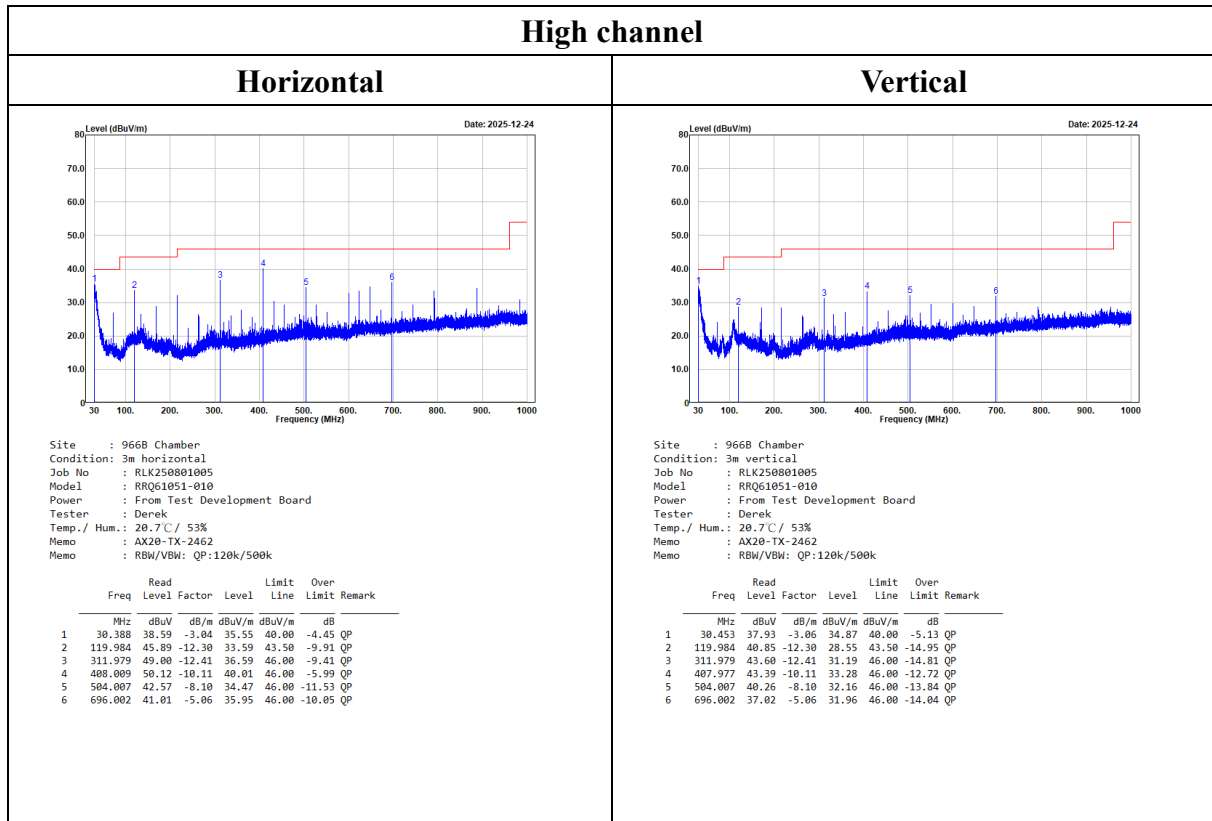
Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

Test EUT Mode : RRQ61051-010**30MHz-1GHz:**

(worst case is 802.11 ax20 mode, High Channel)



Note:

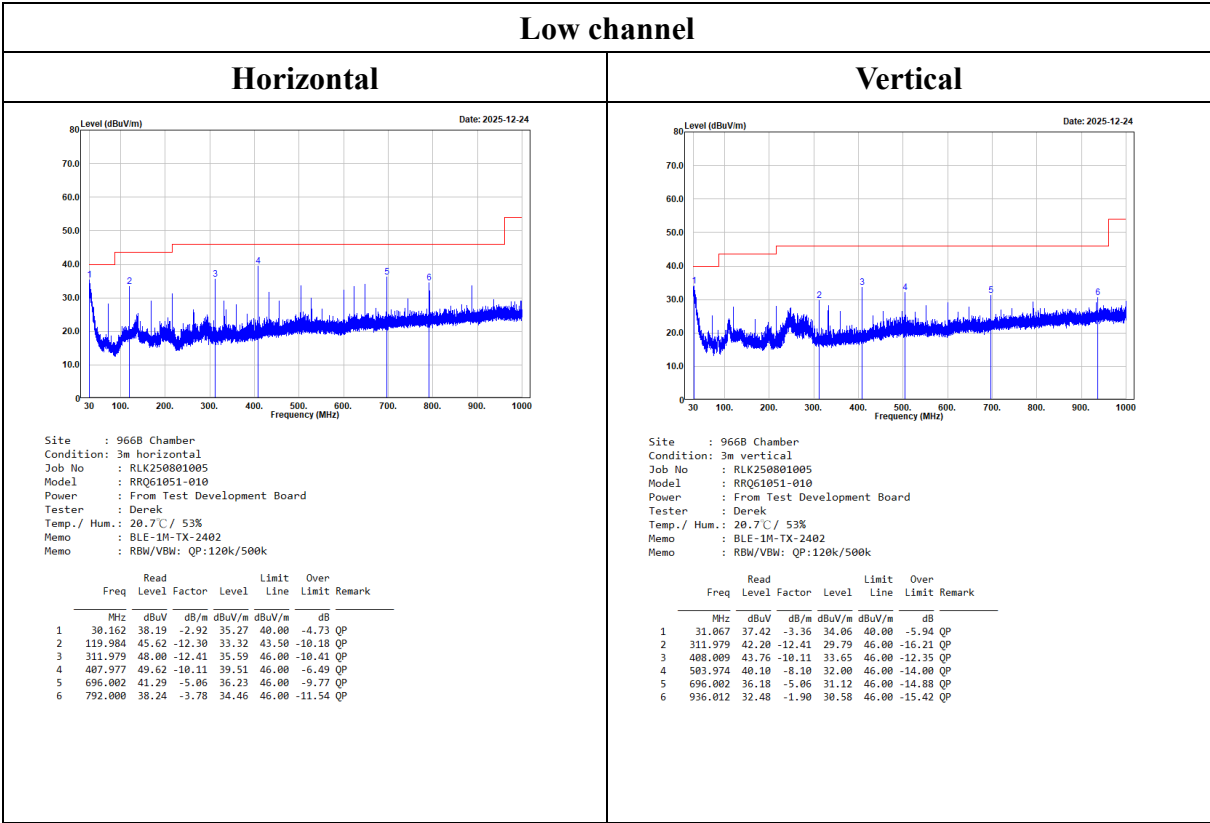
Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

Test EUT Mode : RRQ61051-010

(Worst case is BLE(1M) mode, Low Channel)



Note:

Level = Read Level + Factor

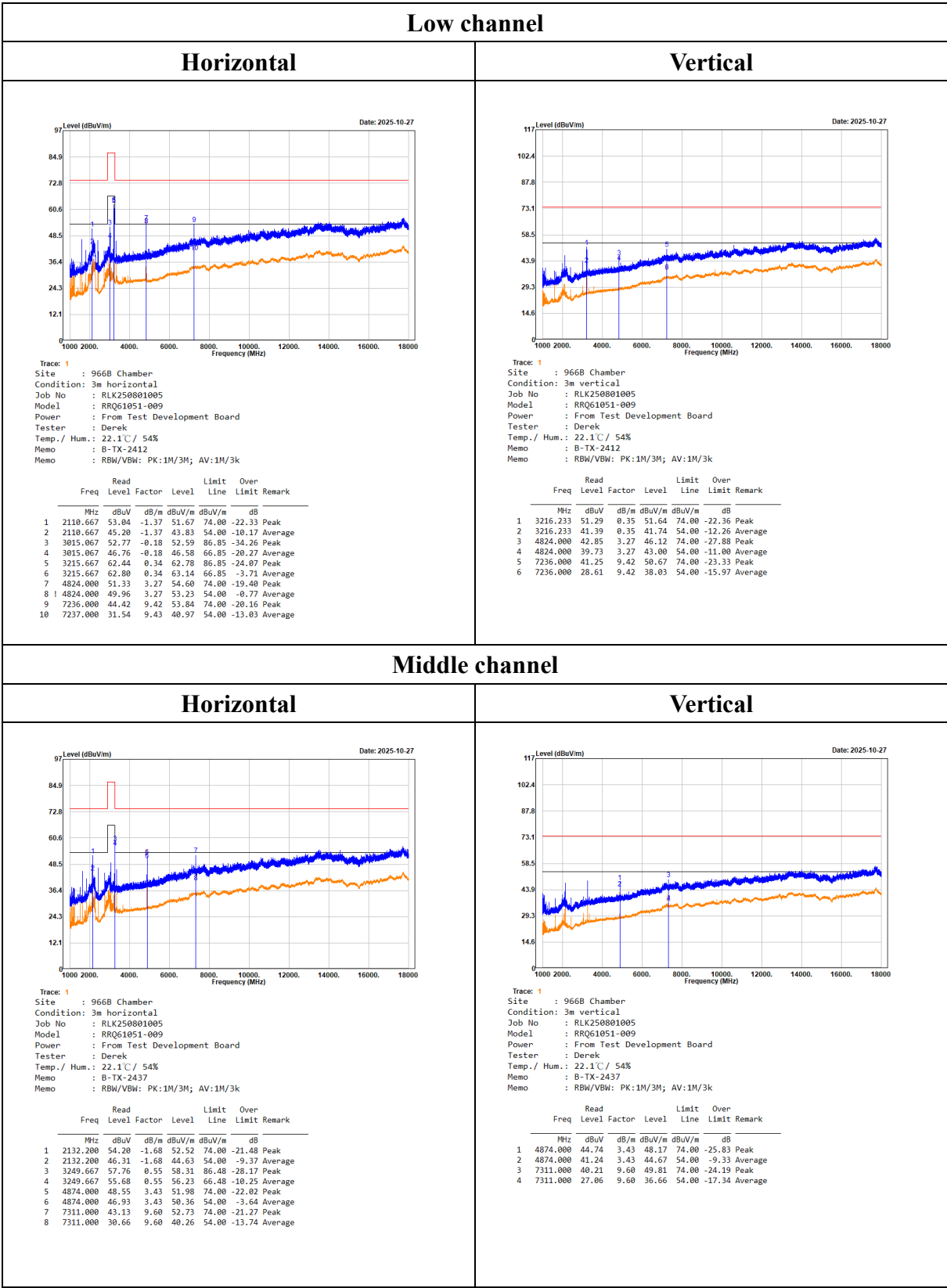
Over Limit = Level – Limit Line

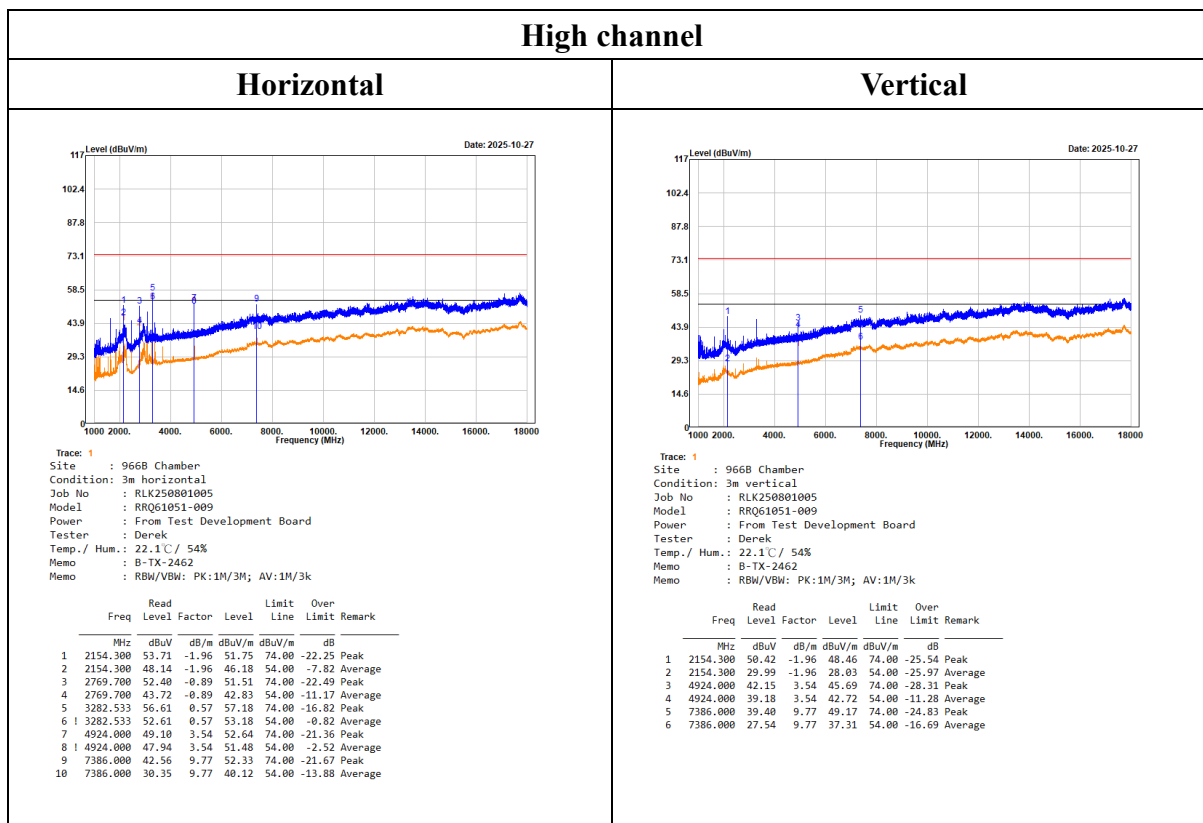
Factor = Antenna Factor + Cable Loss – Amplifier Gain

Test EUT Mode : RRQ61051-009

802.11b Mode

1GHz-18GHz:





Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

For Not Restricted bands of operation Limit.

Convert the Main Frequency Peak Power -20dB=Peak Limit

Convert the Main Frequency Peak Power -40dB=Average Limit

802.11b Low channel Horizontal For Not Restricted bands of operation Limit :

Peak Limit =106.85dB -20dB=86.85 dBuV/m

Average Limit =106.85dB -40dB=66.85dBuV/m

802.11b Middle channel Horizontal For Not Restricted bands of operation Limit :

Peak Limit =106.48dB -20dB=86.48 dBuV/m

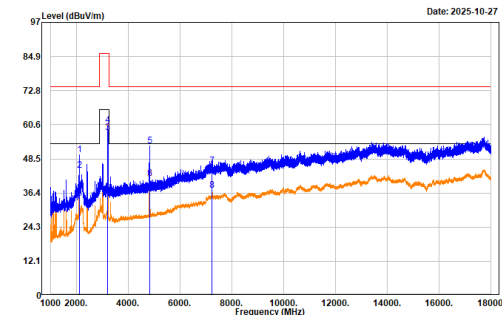
Average Limit =106.48dB -40dB=66.48 dBuV/m

802.11g Mode

1GHz-18GHz:

Low channel

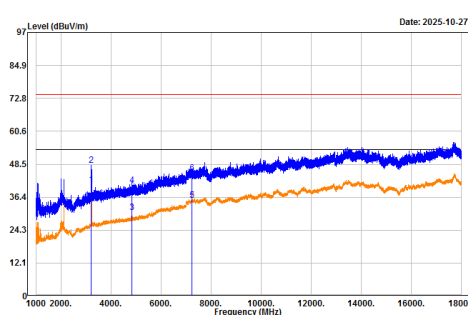
Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : G-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read			Limit	Over
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV		dB/m	dBuV/m	dB
1 2110.100	51.23	-1.36	49.87	74.00	-24.13 Peak
2 2110.100	45.67	-1.36	44.31	54.00	-9.69 Average
3 3215.233	57.59	0.34	57.93	66.00	-8.07 Average
4 3216.233	60.17	0.35	60.52	86.00	-25.48 Peak
5 4824.000	49.90	3.27	53.17	74.00	-20.83 Peak
6 4824.000	38.31	3.27	41.58	54.00	-12.42 Average
7 7236.000	36.52	9.42	45.94	74.00	-28.06 Peak
8 7236.000	27.97	9.42	37.39	54.00	-16.61 Average

Vertical

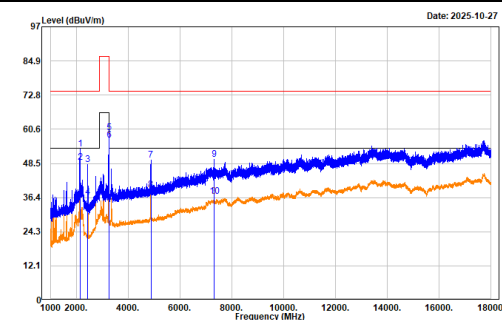


Trace: 1
Site : 966B Chamber
Condition: 3m vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : G-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read			Limit	Over
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV		dB/m	dBuV/m	dB
1 3216.233	40.61	0.35	40.96	54.00	-13.04 Average
2 3216.233	47.72	0.35	48.07	74.00	-25.93 Peak
3 4824.000	27.37	3.27	30.64	54.00	-23.36 Average
4 4824.000	37.38	3.27	40.65	74.00	-33.35 Peak
5 7236.000	25.70	9.42	35.12	54.00	-18.88 Average
6 7236.000	35.80	9.42	45.22	74.00	-28.78 Peak

Middle channel

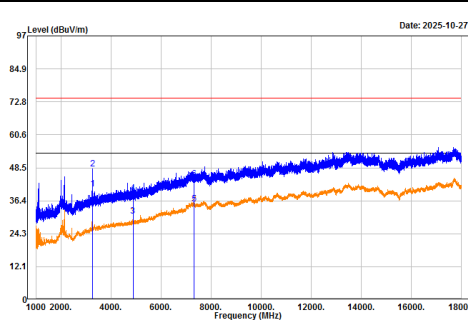
Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : G-TX-2437
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

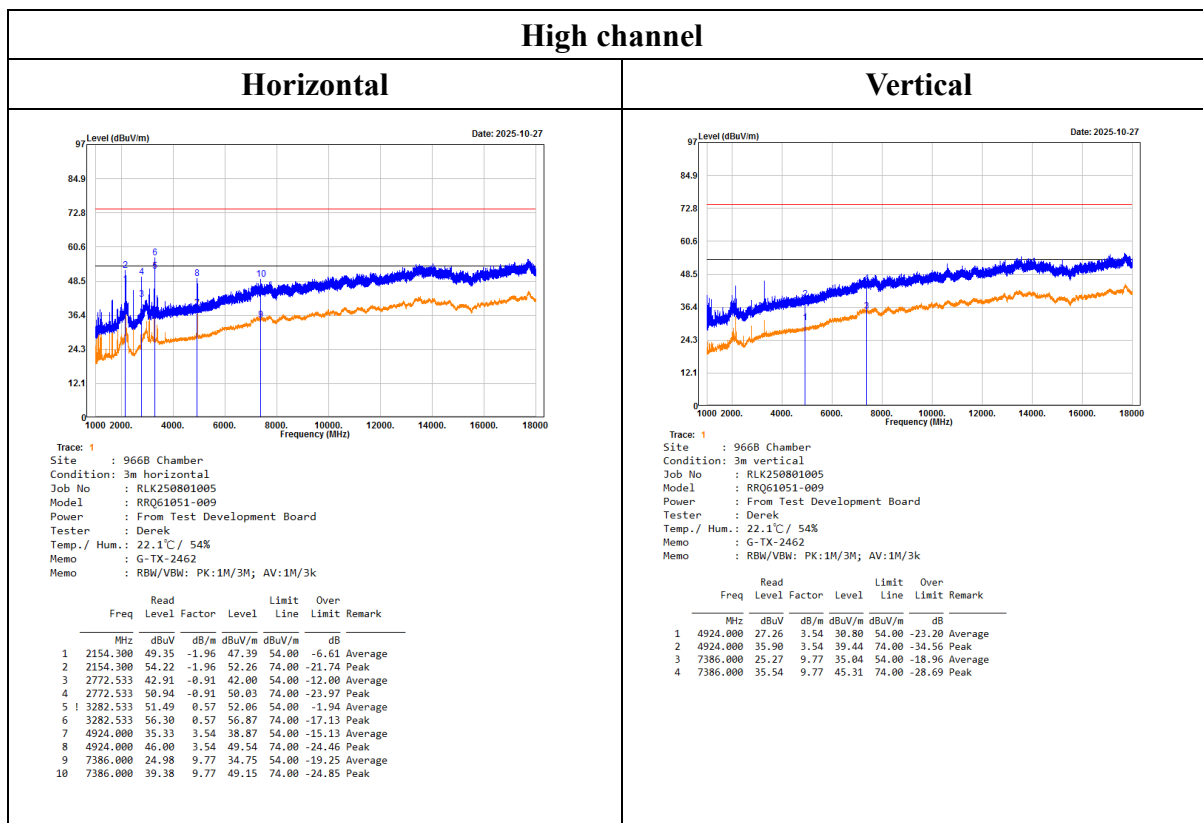
	Read			Limit	Over
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV		dB/m	dBuV/m	dB
1 2132.200	55.40	-1.68	53.72	74.00	-20.28 Peak
2 2132.200	50.70	-1.68	49.02	54.00	-4.98 Average
3 2438.767	50.09	-2.00	48.01	74.00	-25.99 Peak
4 2438.767	38.53	-2.00	36.45	54.00	-17.55 Average
5 3249.100	58.81	0.54	59.35	86.47	-27.12 Peak
6 3249.100	56.28	0.54	56.82	66.47	-9.65 Average
7 4874.000	46.25	3.43	49.68	74.00	-24.32 Peak
8 4874.000	35.81	3.43	39.24	54.00	-14.76 Average
9 7311.000	40.45	9.60	50.05	74.00	-23.95 Peak
10 7311.000	27.18	9.60	36.78	54.00	-17.22 Average

Vertical



Trace: 1
Site : 966B Chamber
Condition: 3m vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : G-TX-2437
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read			Limit	Over
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV		dB/m	dBuV/m	dB
1 3249.667	40.31	0.55	40.86	54.00	-13.14 Average
2 3249.667	47.48	0.55	48.03	74.00	-25.97 Peak
3 4874.000	27.22	3.43	30.65	54.00	-23.35 Average
4 4874.000	35.84	3.43	39.27	74.00	-34.73 Peak
5 7311.000	25.52	9.60	35.12	54.00	-18.88 Average
6 7311.000	34.76	9.60	44.36	74.00	-29.64 Peak



Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

For Not Restricted bands of operation Limit.

Convert the Main Frequency Peak Power -20dB=Peak Limit

Convert the Main Frequency Peak Power -40dB=Average Limit

802.11g Low channel Horizontal For Not Restricted bands of operation Limit :

Peak Limit =106.00dB -20dB=86.00 dBuV/m

Average Limit =106.00dB -40dB=66.00dBuV/m

802.11g Middle channel Horizontal For Not Restricted bands of operation Limit :

Peak Limit =106.47dB -20dB=86.47 dBuV/m

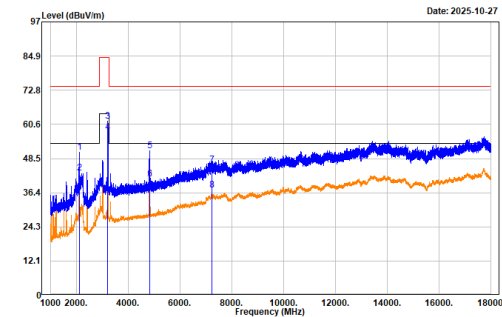
Average Limit =106.47dB -40dB=66.47 dBuV/m

802.11n HT20 Mode

1GHz-18GHz:

Low channel

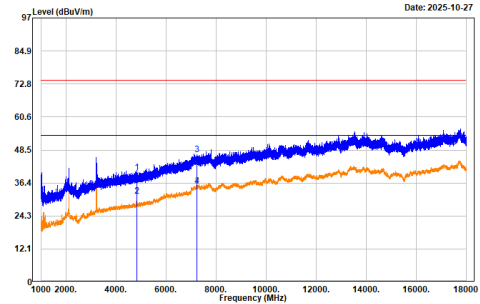
Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : N20-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/5k

	Read				Limit	Over
	Freq	Level	Factor	Level	Line	Limit
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	2110.667	52.19	-1.37	50.82	74.00	-23.18 Peak
2	2110.667	44.83	-1.37	43.46	54.00	-10.54 Average
3	3216.233	61.37	0.35	61.72	84.37	-22.65 Peak
4	3216.233	57.44	0.35	57.79	64.37	-6.58 Average
5	4824.000	47.99	3.27	51.26	74.00	-22.74 Peak
6	4824.000	38.08	3.27	41.35	54.00	-12.65 Average
7	7236.000	36.97	9.42	46.39	74.00	-27.61 Peak
8	7236.000	27.92	9.42	37.34	54.00	-16.66 Average

Vertical

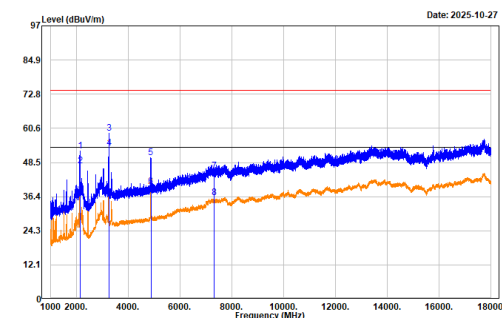


Trace: 1
Site : 966B Chamber
Condition: 3m Vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : N20-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/5k

	Read				Limit	Over
	Freq	Level	Factor	Level	Line	Limit
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	4824.000	36.97	3.27	40.24	74.00	-33.76 Peak
2	4824.000	28.23	3.27	31.50	54.00	-22.50 Average
3	7236.000	37.35	9.42	46.77	74.00	-27.23 Peak
4	7236.000	25.84	9.42	35.26	54.00	-18.74 Average

Middle channel

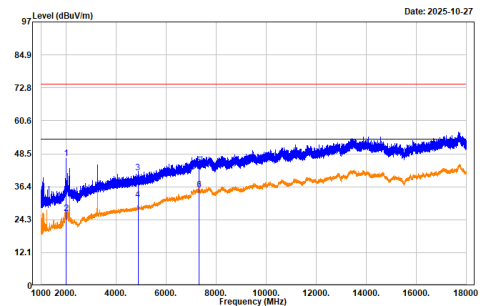
Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : N20-TX-2437
Memo : RBW/VBW: PK:1M/3M; AV:1M/5k

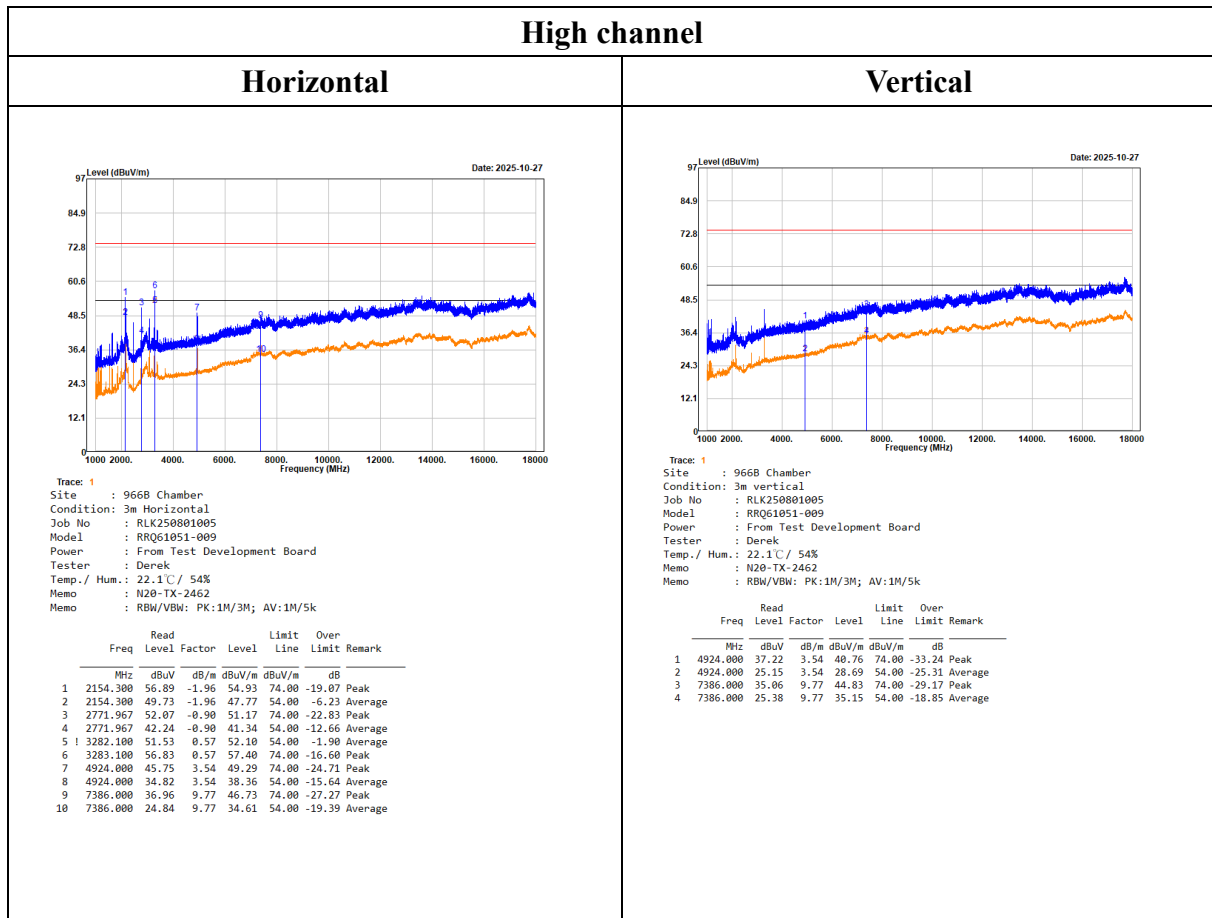
	Read				Limit	Over
	Freq	Level	Factor	Level	Line	Limit
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	2132.200	54.34	-1.68	52.66	74.00	-21.34 Peak
2	2132.200	48.97	-1.68	47.29	54.00	-6.71 Average
3	3249.100	58.35	0.54	58.89	74.00	-15.11 Peak
4	3249.100	53.06	0.54	53.60	54.00	-0.40 Average
5	4874.000	46.68	3.43	50.11	74.00	-23.89 Peak
6	4874.000	36.49	3.43	39.92	54.00	-14.08 Average
7	7311.000	35.75	9.60	45.35	74.00	-28.65 Peak
8	7311.000	26.34	9.60	35.94	54.00	-18.06 Average

Vertical



Trace: 1
Site : 966B Chamber
Condition: 3m Vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : N20-TX-2437
Memo : RBW/VBW: PK:1M/3M; AV:1M/5k

	Read				Limit	Over
	Freq	Level	Factor	Level	Line	Limit
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	2090.167	48.55	-1.75	46.80	74.00	-27.20 Peak
2	2090.167	28.37	-1.75	26.62	54.00	-27.38 Average
3	4874.000	38.18	3.43	41.61	74.00	-32.39 Peak
4	4874.000	28.23	3.43	31.66	54.00	-22.34 Average
5	7311.000	34.64	9.60	44.24	74.00	-29.76 Peak
6	7311.000	25.58	9.60	35.18	54.00	-18.82 Average



Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

For Not Restricted bands of operation Limit.

Convert the Main Frequency Peak Power -20dB=Peak Limit

Convert the Main Frequency Peak Power -40dB=Average Limit

802.11n20 Low channel Horizontal For Not Restricted bands of operation Limit :

Peak Limit =104.37dB -20dB=84.37 dBuV/m

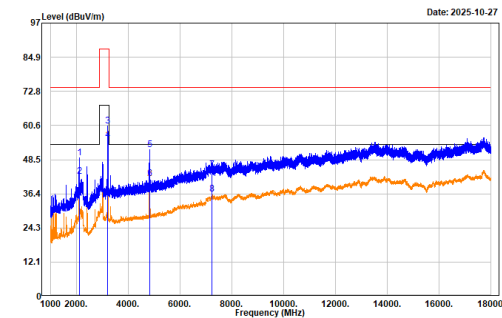
Average Limit =104.37dB -40dB=64.37dBuV/m

802.11ax HE20 Mode

1GHz-18GHz:

Low channel

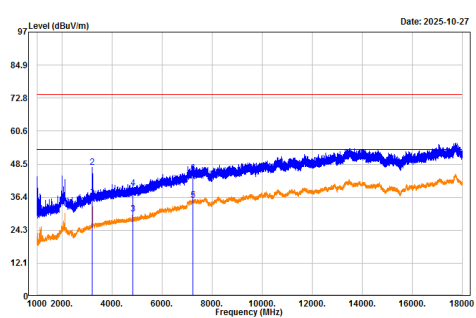
Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : AX20-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

Freq	Read		Level	Limit		Over
	Level	Factor		Line	Limit	
MHz	dBuV		dB/m	dBuV/m	dBuV/m	dB
1 2110.100	50.61	-1.36	49.25	74.00	-24.75	Peak
2 2110.100	44.00	-1.36	42.64	54.00	-11.36	Average
3 3216.233	60.19	0.35	60.54	87.83	-27.29	Peak
4 3216.233	55.24	0.35	55.59	67.83	-12.24	Average
5 4824.000	48.91	3.27	52.18	74.00	-21.82	Peak
6 4824.000	38.51	3.27	41.78	54.00	-12.22	Average
7 7236.000	35.47	9.42	44.89	74.00	-29.11	Peak
8 7236.000	26.79	9.42	36.21	54.00	-17.79	Average

Vertical

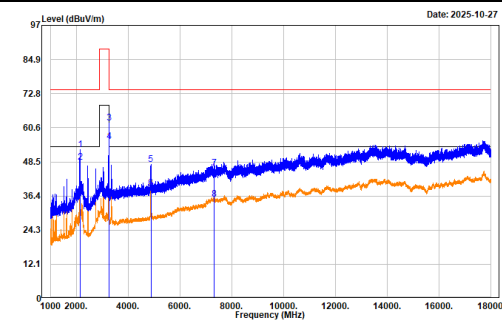


Trace: 1
Site : 966B Chamber
Condition: 3m vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : AX20-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

Freq	Read		Level	Limit		Over
	Level	Factor		Line	Limit	
MHz	dBuV		dB/m	dBuV/m	dBuV/m	dB
1 3215.667	36.18	0.34	36.52	54.00	-17.48	Average
2 3215.667	46.91	0.34	47.25	74.00	-26.75	Peak
3 4824.000	27.03	3.27	30.30	54.00	-23.70	Average
4 4824.000	36.46	3.27	39.73	74.00	-34.27	Peak
5 7236.000	25.94	9.42	35.36	54.00	-18.64	Average
6 7236.000	35.72	9.42	45.14	74.00	-28.86	Peak

Middle channel

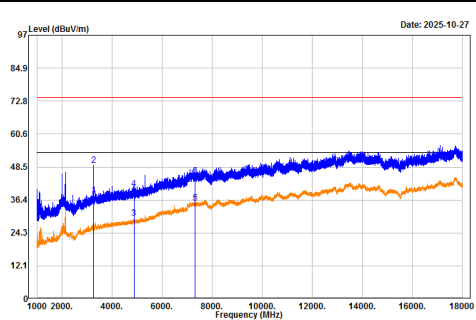
Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : AX20-TX-2437
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

Freq	Read		Level	Limit		Over
	Level	Factor		Line	Limit	
MHz	dBuV		dB/m	dBuV/m	dBuV/m	dB
1 2132.767	54.49	-1.70	52.79	74.00	-21.21	Peak
2 2132.767	50.02	-1.70	48.32	54.00	-5.68	Average
3 3249.100	61.71	0.54	62.25	88.64	-26.39	Peak
4 3249.100	55.29	0.54	55.83	68.64	-12.81	Average
5 4874.000	44.08	3.43	47.51	74.00	-26.49	Peak
6 4874.000	35.79	3.43	39.22	54.00	-14.78	Average
7 7311.000	36.66	9.60	46.26	74.00	-27.74	Peak
8 7311.000	25.72	9.60	35.32	54.00	-18.68	Average

Vertical

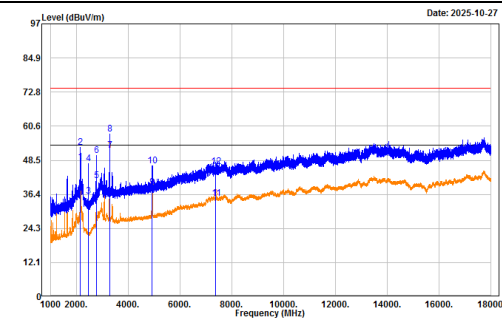


Trace: 1
Site : 966B Chamber
Condition: 3m vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : AX20-TX-2437
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

Freq	Read		Level	Limit		Over
	Level	Factor		Line	Limit	
MHz	dBuV		dB/m	dBuV/m	dBuV/m	dB
1 3249.667	37.53	0.55	38.08	54.00	-15.92	Average
2 3249.667	48.61	0.55	49.16	74.00	-24.84	Peak
3 4874.000	26.29	3.43	29.72	54.00	-24.28	Average
4 4874.000	37.08	3.43	40.51	74.00	-33.49	Peak
5 7311.000	25.54	9.60	35.14	54.00	-18.86	Average
6 7311.000	35.60	9.60	45.20	74.00	-28.80	Peak

High channel

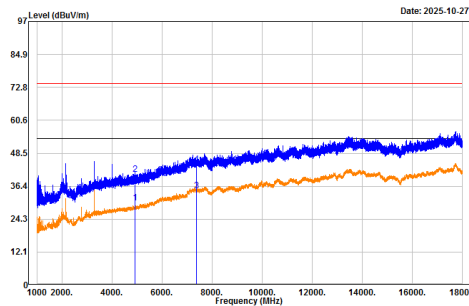
Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : AX20-TX-2462
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Factor	Level	Limit	Over	
Freq	Level			Line	Limit	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1 2154.300	49.80	-1.96	47.84	54.00	-6.16	Average
2 2154.300	54.99	-1.96	53.03	74.00	-20.97	Peak
3 2463.133	38.12	-2.32	35.80	54.00	-18.20	Average
4 2463.133	49.73	-2.32	47.41	74.00	-26.59	Peak
5 2772.533	42.24	-0.91	41.33	54.00	-12.67	Average
6 2772.533	51.22	-0.91	50.31	74.00	-23.69	Peak
7 3282.533	51.46	0.57	52.03	54.00	-1.97	Average
8 3282.533	57.34	0.57	57.91	74.00	-16.09	Peak
9 4924.000	35.25	3.54	38.79	54.00	-15.21	Average
10 4924.000	43.02	3.54	46.56	74.00	-27.44	Peak
11 7386.000	25.18	9.77	34.95	54.00	-19.05	Average
12 7386.000	36.46	9.77	46.23	74.00	-27.77	Peak

Vertical



Trace: 1
Site : 966B Chamber
Condition: 3m vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : AX20-TX-2462
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Factor	Level	Limit	Over	
Freq	Level			Line	Limit	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1 4924.000	26.64	3.54	30.18	54.00	-23.82	Average
2 4924.000	37.33	3.54	40.87	74.00	-33.13	Peak
3 7386.000	25.04	9.77	34.81	54.00	-19.19	Average
4 7386.000	34.77	9.77	44.54	74.00	-29.46	Peak

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

For Not Restricted bands of operation Limit.

Convert the Main Frequency Peak Power -20dB=Peak Limit

Convert the Main Frequency Peak Power -40dB=Average Limit

802.11ax20 Low channel Horizontal For Not Restricted bands of operation Limit :

Peak Limit =107.83dB -20dB=87.83 dBuV/m

Average Limit =107.83dB -40dB=67.83 dBuV/m

802.11 ax 20 Middle channel Horizontal For Not Restricted bands of operation Limit :

Peak Limit =108.64dB -20dB=88.64 dBuV/m

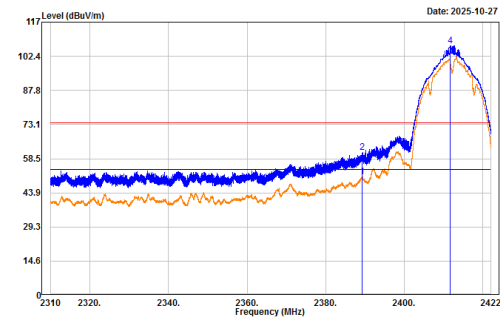
Average Limit =108.64dB -40dB=68.64dBuV/m

Test EUT Mode : RRQ61051-009

Main Frequency Power

802.11b

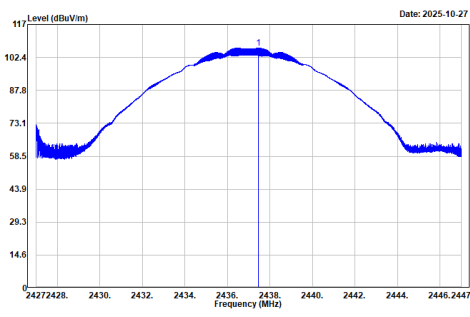
Low channel Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : B-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	2389.180	52.84	-2.04	50.80	54.00	-3.20 Average
2	2389.180	63.12	-2.04	61.08	74.00	-12.92 Peak
3	2411.674	104.40	-2.12	102.28	-----	Average
4	2411.674	108.97	-2.12	106.85	-----	Peak

Middle channel Horizontal

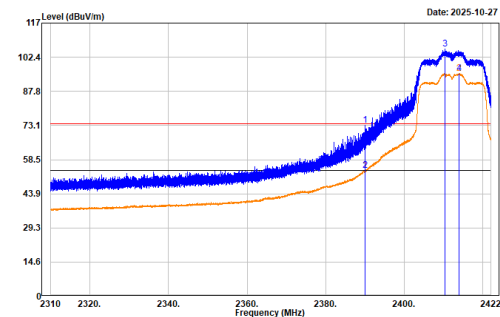


Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : B-TX-2437
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	2437.459	108.56	-2.08	106.48	-----	Peak

802.11g

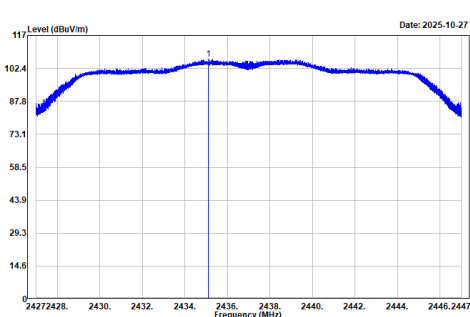
Low channel Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : See Ch 1
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : G-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	2389.938	75.25	-2.02	73.23	74.00	-0.77 Peak
2	2389.938	55.78	-2.02	53.76	54.00	-0.24 Average
3	2410.244	108.10	-2.10	106.00	-----	Peak
4	2413.940	97.64	-2.14	95.50	-----	Average

Middle channel Horizontal

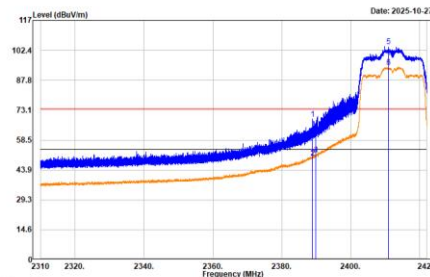


Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : G-TX-2437
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	2435.093	108.55	-2.08	106.47	-----	Peak

802.11n20

Low channel Horizontal

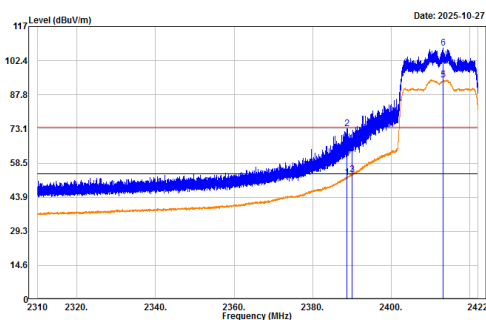


Trace: 1
Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : N20-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/5K

		Read		Limit	Over	
	Freq	Level	Factor	Level	Line	Remark
	MHz	dBuV		dBuV/m	dBuV/m	dB
1	2388.896	70.89	-2.04	68.85	74.00	-5.15 Peak
2	2388.896	51.94	-2.04	49.90	54.00	-4.10 Average
3	2389.725	63.30	-2.03	61.27	74.00	-12.73 Peak
4	2389.725	53.35	-2.03	51.32	54.00	-2.68 Average
5	2410.875	106.47	-2.10	104.37	-----	----- Peak
6	2410.875	96.18	-2.11	94.07	-----	----- Average

802.11ax20

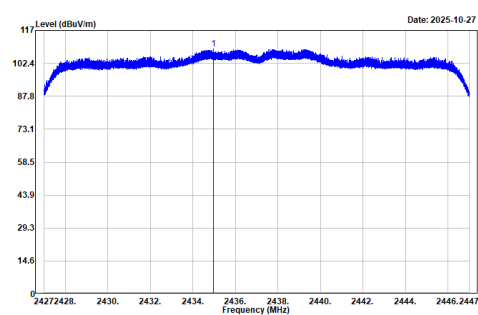
Low channel Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : AX20-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Freq	Read Level	Factor	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2388.714	54.43	-2.05	52.38	54.00	-1.62	Average
2	2388.714	75.36	-2.05	73.31	74.00	-0.69	Peak
3	2389.960	55.74	-2.02	53.72	54.00	-0.28	Average
4	2389.960	68.07	-2.02	66.05	74.00	-7.95	Peak
5	2413.122	96.29	-2.13	94.16	-----	-----	Average
6	2413.122	109.96	-2.13	107.83	-----	-----	Peak

Middle channel Horizontal



Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : AX20-TX-2437
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

		Read		Limit	Over	
	Freq	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	2434.976	110.72	-2.08	108.64	-----	----- Peak

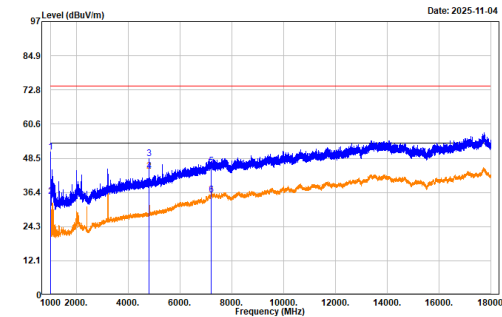
Test EUT Mode : RRQ61051-009

BLE(1M) Mode

1GHz-18GHz:

Low channel

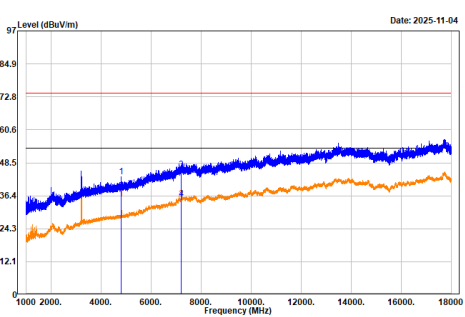
Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 20.6°C / 59%
Memo : BLE-1M-TX-2402
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Read	Limit	Over	
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 1000.000	58.66	-7.95	50.71	74.00	-23.29 Peak
2 1000.000	42.87	-7.95	34.92	54.00	-19.08 Average
3 4804.000	45.08	3.18	48.26	74.00	-25.74 Peak
4 4804.000	40.85	3.18	44.03	54.00	-9.97 Average
5 7206.000	36.34	9.27	45.61	74.00	-28.39 Peak
6 7206.000	26.12	9.27	35.39	54.00	-18.61 Average

Vertical

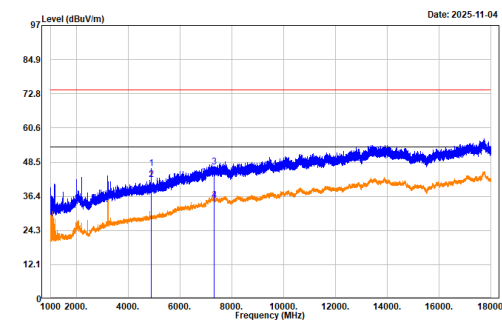


Trace: 1
Site : 966B Chamber
Condition: 3m Vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 20.6°C / 59%
Memo : BLE-1M-TX-2402
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Read	Limit	Over	
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 4804.000	40.14	3.18	43.32	74.00	-30.68 Peak
2 4804.000	35.03	3.18	38.21	54.00	-15.79 Average
3 7206.000	36.84	9.27	46.11	74.00	-27.89 Peak
4 7206.000	25.88	9.27	35.15	54.00	-18.85 Average

Middle channel

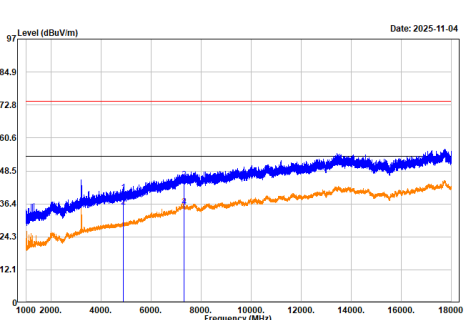
Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 20.6°C / 59%
Memo : BLE-1M-TX-2440
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

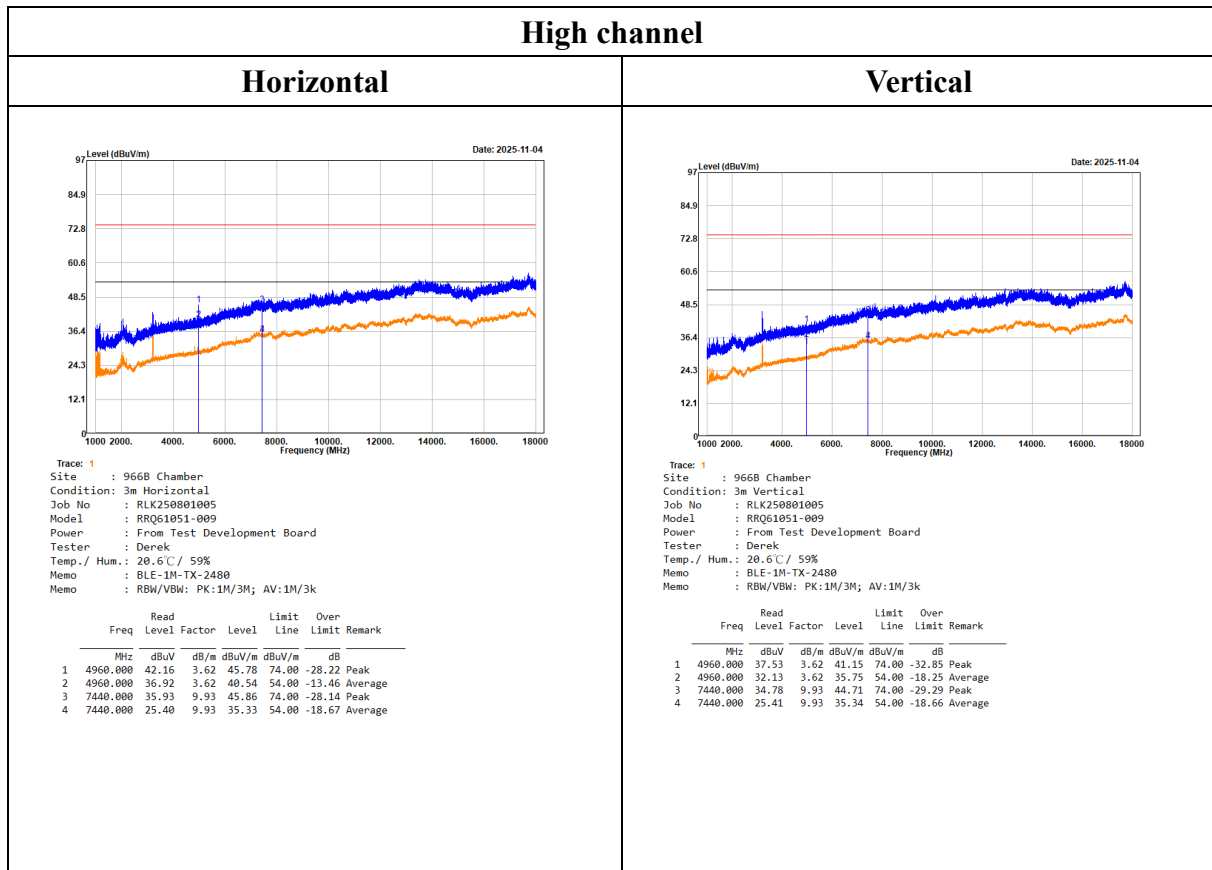
	Read	Read	Limit	Over	
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 4880.000	42.91	3.44	46.35	74.00	-27.65 Peak
2 4880.000	38.95	3.44	42.39	54.00	-11.61 Average
3 7320.000	37.15	9.63	46.78	74.00	-27.22 Peak
4 7320.000	25.35	9.63	34.98	54.00	-19.02 Average

Vertical



Trace: 1
Site : 966B Chamber
Condition: 3m Vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 20.6°C / 59%
Memo : BLE-1M-TX-2440
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Read	Limit	Over	
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 4880.000	37.11	3.44	40.55	74.00	-33.45 Peak
2 4880.000	31.86	3.44	35.30	54.00	-18.70 Average
3 7320.000	35.60	9.63	45.23	74.00	-28.77 Peak
4 7320.000	25.66	9.63	35.29	54.00	-18.71 Average



Note:

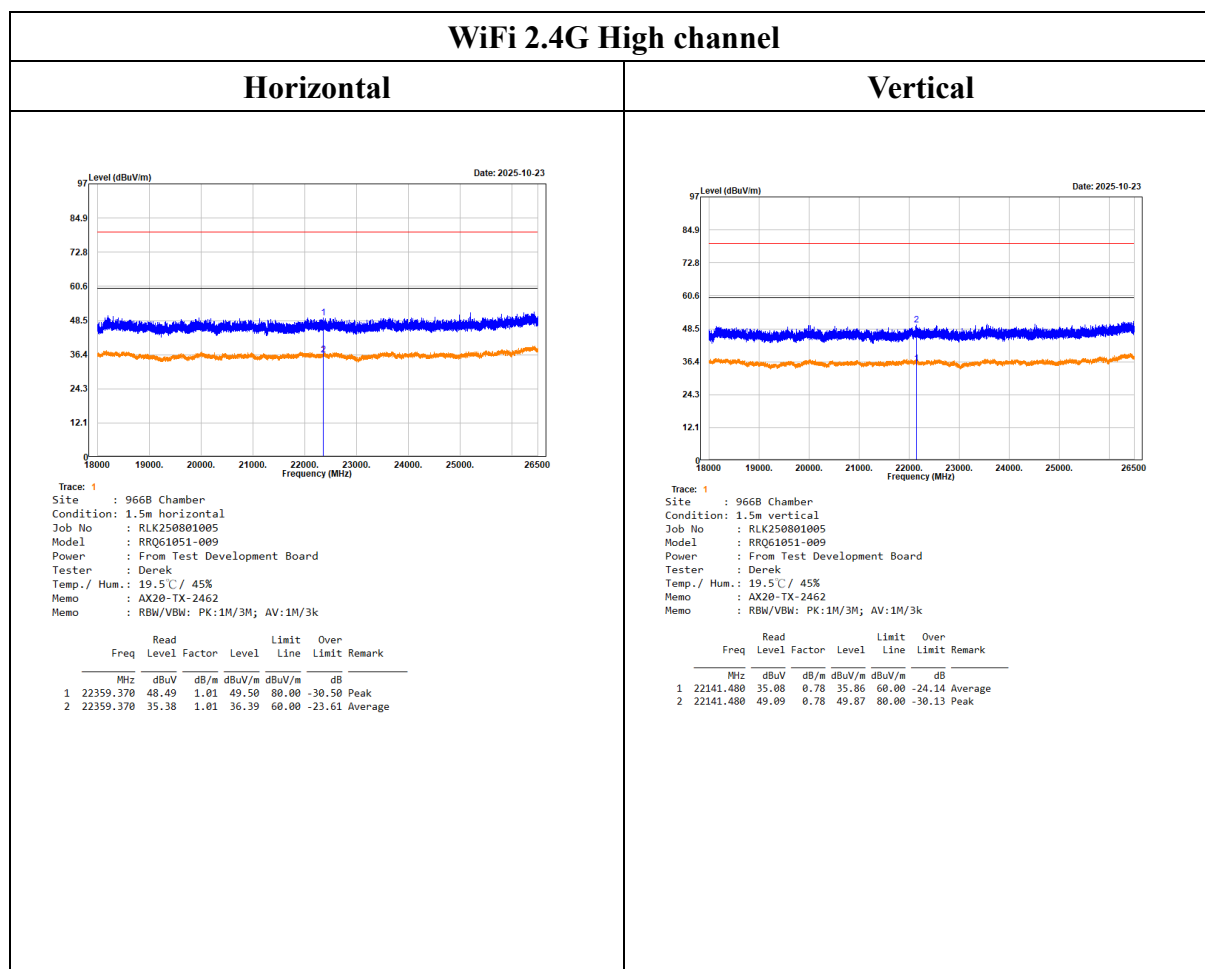
Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

Test EUT Mode : RRQ61051-009

18GHz-26.5GHz:



Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

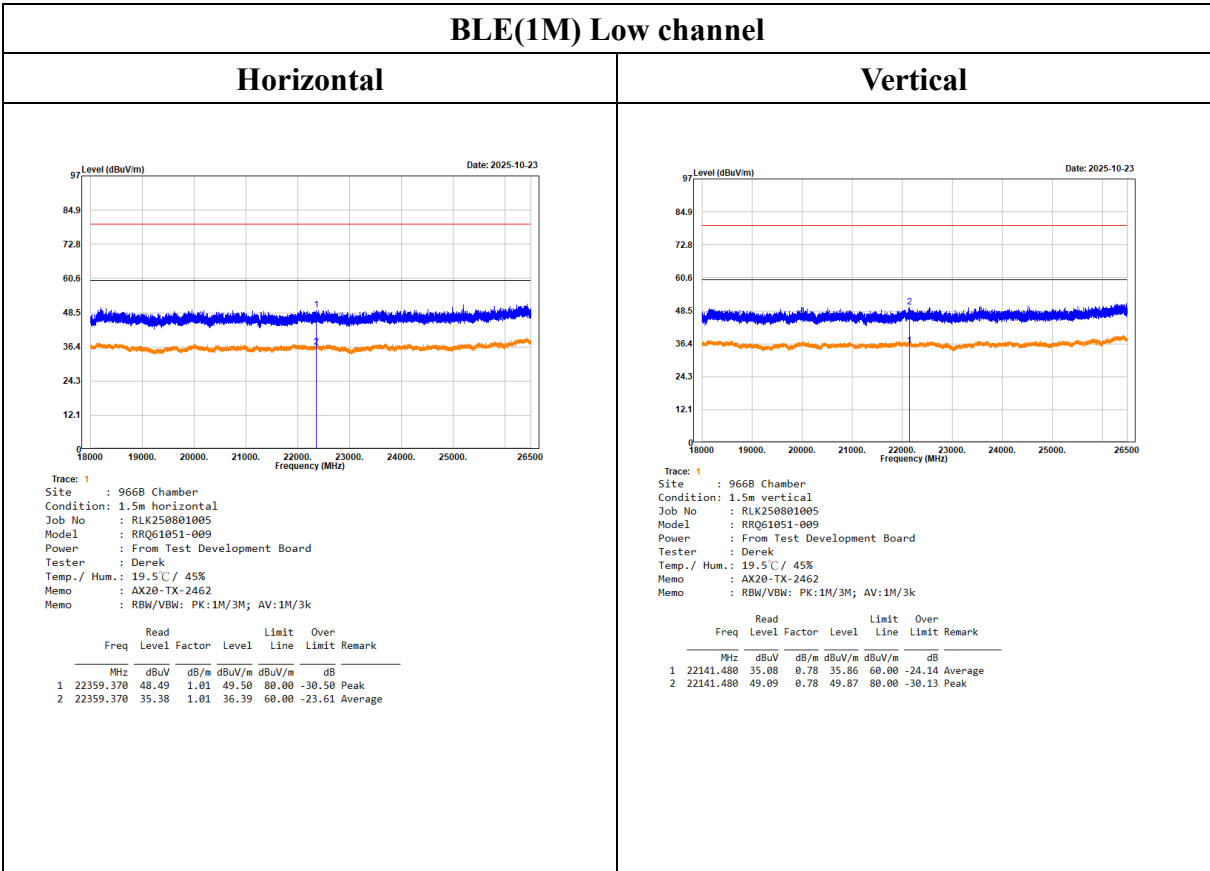
Factor = Antenna Factor + Cable Loss – Amplifier Gain

For 18-26.5GHz Convert the test distance limit of 3 meters to a limit of 1.5 meter:

Conversion factor = $20 \log (1.5\text{m}/3\text{m}) = 6 \text{ dB}$,

Average Limit = $54+6 = 60 \text{ dBuV/m}@1.5\text{m}$, Peak Limit = $60+20 = 80 \text{ dBuV/m}@1.5\text{m}$

Test EUT Mode : RRQ61051-009
18GHz-26.5GHz:



Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

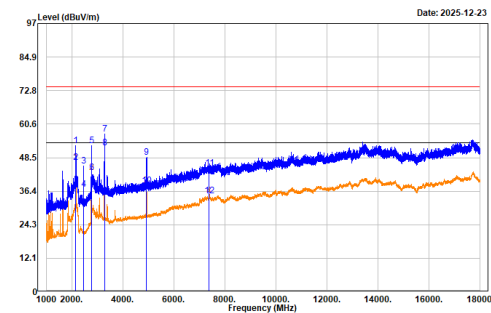
For 18-26.5GHz Convert the test distance limit of 3 meters to a limit of 1.5 meter:

Conversion factor = 20 log (1.5m/3m) = 6 dB,

Average Limit = 54+6 = 60 dBuV/m@1.5m , Peak Limit = 60+20 = 80 dBuV/m@1.5m

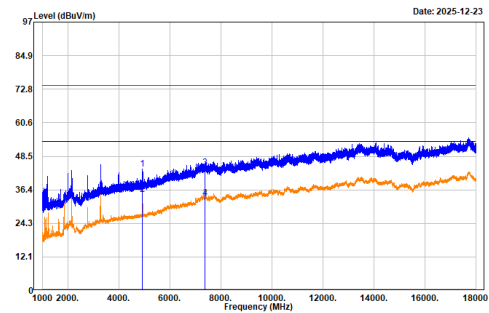
Test EUT Mode : RRQ61051-010**802.11ax HE20 Mode** (Worst case is 802.11ax20 mode, High Channel)

1GHz-26.5GHz:

High channel**Horizontal**

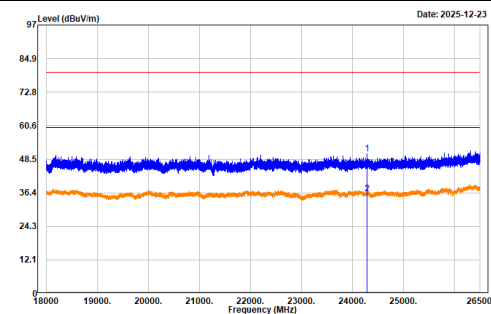
Trace: 1
Site : 966B Chamber
Condition: 3m horizontal
Job No : RLK250801005
Model : RRQ61051-010
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 20.7°C / 57%
Memo : AX20-TX-2462
Memo : RBW/VBW: PK:1M/3M AV:1M/3k

	Read	Factor	Level	Limit	Over
Freq	Level			Line	Limit
MHz	dBuV		dB/m	dBuV/m	dB
1	2154.300	54.83	-1.96	52.87	74.00
2	2154.300	48.80	-1.96	46.84	54.00
3	2468.300	47.78	-2.36	45.42	74.00
4	2468.300	39.43	-2.36	37.07	54.00
5	2775.367	53.88	-0.93	52.95	74.00
6	2775.367	44.15	-0.93	43.22	54.00
7	3282.533	56.37	0.57	56.94	74.00
8	3282.533	51.49	0.57	52.06	54.00
9	4924.000	45.06	3.54	48.60	74.00
10	4924.000	34.79	3.54	38.33	54.00
11	7386.000	35.00	9.77	44.77	74.00
12	7386.000	24.80	9.77	34.57	54.00

Vertical

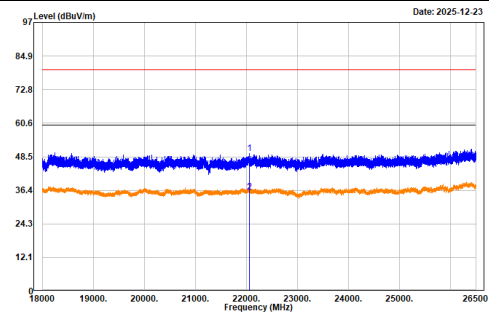
Trace: 1
Site : 966B Chamber
Condition: 3m vertical
Job No : RLK250801005
Model : RRQ61051-010
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 20.7°C / 57%
Memo : AX20-TX-2462
Memo : RBW/VBW: PK:1M/3M AV:1M/3k

	Read	Factor	Level	Limit	Over
Freq	Level			Line	Limit
MHz	dBuV		dB/m	dBuV/m	dB
1	4924.000	40.32	3.54	43.86	74.00
2	4924.000	31.05	3.54	34.59	54.00
3	7386.000	34.72	9.77	44.49	74.00
4	7386.000	23.69	9.77	33.46	54.00

Horizontal

Trace: 1
Site : 966B Chamber
Condition: 1.5m horizontal
Job No : RLK250801005
Model : RRQ61051-010
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 20.7°C / 57%
Memo : AX20-TX-2462
Memo : RBW/VBW: PK:1M/3M AV:1M/3k

	Read	Factor	Level	Limit	Over
Freq	Level			Line	Limit
MHz	dBuV		dB/m	dBuV/m	dB
1	24284.050	48.80	1.79	50.59	80.00
2	24284.050	34.30	1.79	36.09	60.00

Vertical

Trace: 1
Site : 966B Chamber
Condition: 1.5m vertical
Job No : RLK250801005
Model : RRQ61051-010
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 20.7°C / 57%
Memo : AX20-TX-2462
Memo : RBW/VBW: PK:1M/3M AV:1M/3k

	Read	Factor	Level	Limit	Over
Freq	Level			Line	Limit
MHz	dBuV		dB/m	dBuV/m	dB
1	22060.170	49.08	0.67	49.75	80.00
2	22060.170	34.99	0.67	35.66	60.00

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

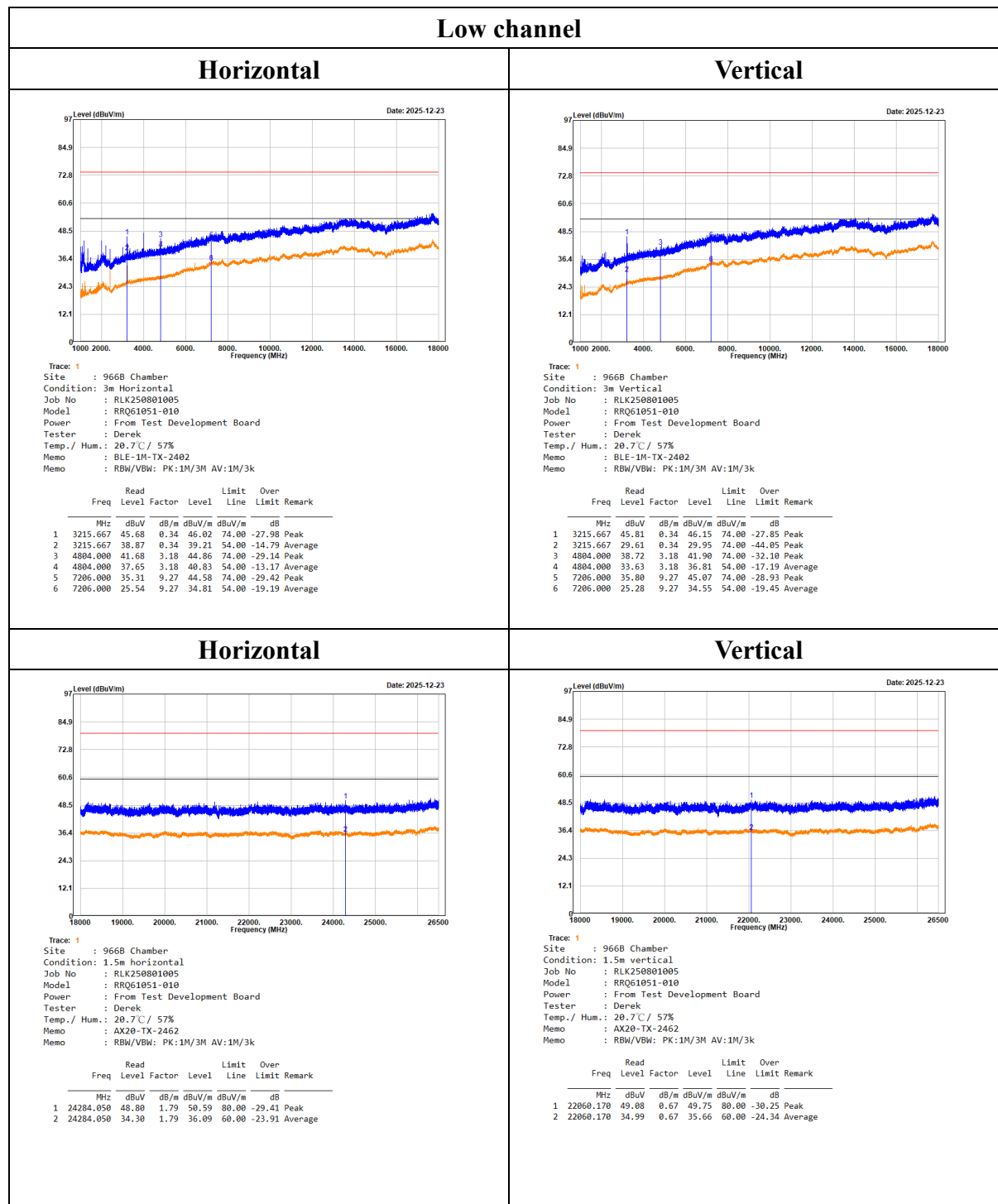
For 18-26.5GHz Convert the test distance limit of 3 meters to a limit of 1.5 meter:

Conversion factor = $20 \log(1.5m/3m) = 6 \text{ dB}$,Average Limit = $54+6 = 60 \text{ dBuV/m}@1.5m$, Peak Limit = $60+20 = 80 \text{ dBuV/m}@1.5m$

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.
(Linkou Laboratory)

Test EUT Mode : RRQ61051-010**BLE(1M) Mode** (Worst case is BLE(1M) mode, Low Channel)

1GHz-26.5GHz:



Note:

Level = Read Level + Factor

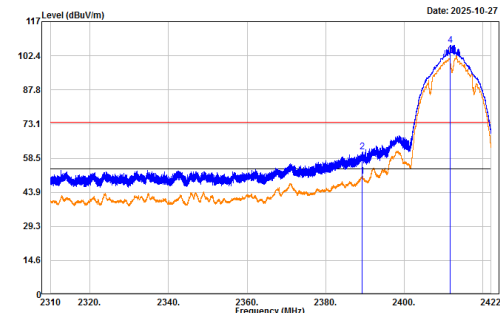
Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

For 18-26.5GHz Convert the test distance limit of 3 meters to a limit of 1.5 meter:

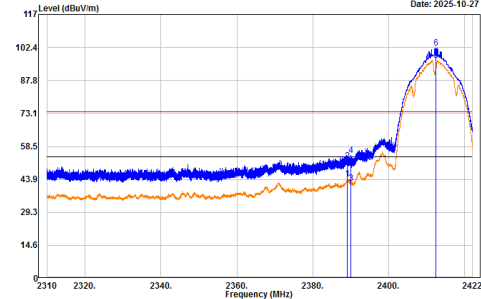
Conversion factor = $20 \log(1.5\text{m}/3\text{m}) = 6 \text{ dB}$,Average Limit = $54+6 = 60 \text{ dBuV/m}@1.5\text{m}$, Peak Limit = $60+20 = 80 \text{ dBuV/m}@1.5\text{m}$

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

Band-Edge:**Test EUT Mode : RRQ61051-009****802.11b Mode****Low channel****Horizontal**

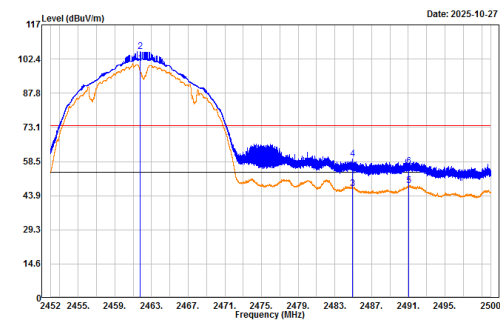
Trace: 1
Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : B-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Factor	Level	Limit	Over	Remark
	Freq			Line	Limit	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	2389.180	52.84	-2.04	50.80	54.00	-3.20 Average
2	2389.180	63.12	-2.04	61.08	74.00	-12.92 Peak
3	2411.674	104.40	-2.12	102.28	-----	----- Average
4	2411.674	108.97	-2.12	106.85	-----	----- Peak

Vertical

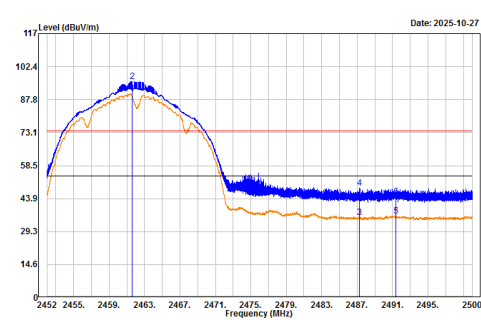
Trace: 1
Site : 966B Chamber
Condition: 3m Vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : B-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Factor	Level	Limit	Over	Remark
	Freq			Line	Limit	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	2389.094	46.09	-2.04	44.05	54.00	-9.95 Average
2	2389.094	54.19	-2.04	52.15	74.00	-21.85 Peak
3	2389.976	44.30	-2.02	42.28	54.00	-11.72 Average
4	2389.976	56.49	-2.02	54.47	74.00	-19.53 Peak
5	2412.450	98.97	-2.12	96.85	-----	----- Average
6	2412.450	104.07	-2.12	101.95	-----	----- Peak

High channel**Horizontal**

Trace: 1
Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : B-TX-2462
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Factor	Level	Limit	Over	Remark
	Freq			Line	Limit	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	2461.768	102.74	-2.33	100.41	-----	----- Average
2	2461.768	107.85	-2.33	105.52	-----	----- Peak
3	2484.902	49.11	-2.08	47.03	54.00	-6.97 Average
4	2484.902	61.55	-2.08	59.47	74.00	-14.53 Peak
5	2491.024	50.32	-2.03	48.29	54.00	-5.71 Average
6	2491.024	58.47	-2.03	56.44	74.00	-17.56 Peak

Vertical

Trace: 1
Site : 966B Chamber
Condition: 3m Vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : B-TX-2462
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Factor	Level	Limit	Over	Remark
	Freq			Line	Limit	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1	2461.606	92.56	-2.33	90.23	-----	----- Average
2	2461.606	98.24	-2.33	95.91	-----	----- Peak
3	2487.237	37.48	-2.06	35.42	54.00	-18.58 Average
4	2487.237	50.67	-2.06	48.61	74.00	-25.39 Peak
5	2491.392	38.31	-2.03	36.28	54.00	-17.72 Average
6	2491.392	46.65	-2.03	44.62	74.00	-29.38 Peak

Note:

Level = Read Level + Factor

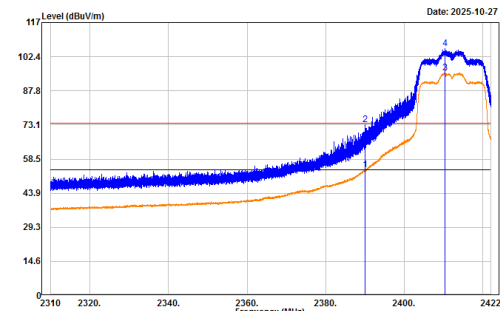
Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

802.11g Mode

Low channel

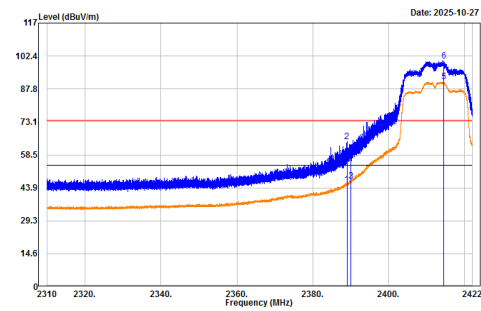
Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : G-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Factor	Level	Limit	Over
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 2389.938	55.78	-2.02	53.76	54.00	-0.24 Average
2 2389.938	75.25	-2.02	73.23	74.00	-0.77 Peak
3 2410.244	97.60	-2.10	95.50	-----	Average
4 2410.244	108.10	-2.10	106.00	-----	Peak

Vertical

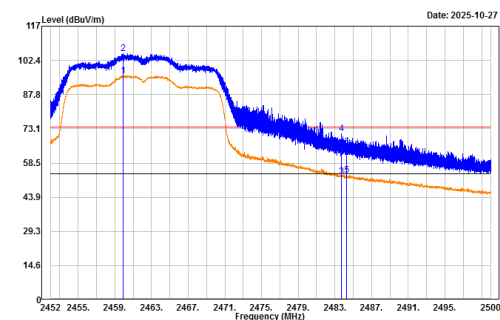


Trace: 1
Site : 966B Chamber
Condition: 3m Vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : G-TX-2412
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Factor	Level	Limit	Over
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 2388.964	47.44	-2.04	45.40	54.00	-8.60 Average
2 2388.964	66.42	-2.04	64.38	74.00	-9.62 Peak
3 2389.938	49.02	-2.02	47.00	54.00	-7.00 Average
4 2389.938	60.65	-2.02	58.63	74.00	-15.37 Peak
5 2414.511	93.07	-2.15	90.92	-----	Average
6 2414.511	102.26	-2.15	100.11	-----	Peak

High channel

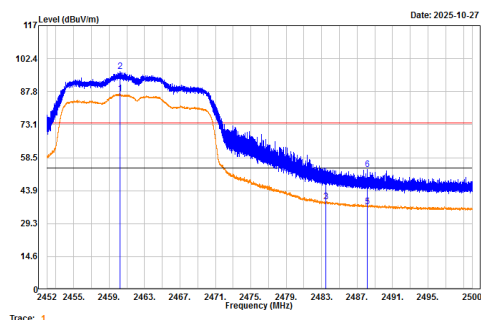
Horizontal



Trace: 1
Site : 966B Chamber
Condition: 3m Horizontal
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : G-TX-2462
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Factor	Level	Limit	Over
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 2459.920	98.27	-2.36	95.91	-----	Average
2 2459.920	107.63	-2.36	105.27	-----	Peak
3 2483.694	54.65	-2.09	52.56	54.00	-1.44 Average
4 2483.694	73.00	-2.09	70.91	74.00	-3.09 Peak
5 2484.281	55.51	-2.09	53.42	54.00	-0.58 Average
6 2484.281	67.32	-2.09	65.23	74.00	-8.77 Peak

Vertical



Trace: 1
Site : 966B Chamber
Condition: 3m Vertical
Job No : RLK250801005
Model : RRQ61051-009
Power : From Test Development Board
Tester : Derek
Temp./ Hum.: 22.1°C / 54%
Memo : G-TX-2462
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Factor	Level	Limit	Over
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 2460.202	89.14	-2.36	86.78	-----	Average
2 2460.202	98.92	-2.36	96.56	-----	Peak
3 2483.500	41.13	-2.10	39.03	54.00	-14.97 Average
4 2483.500	50.02	-2.10	47.92	74.00	-26.08 Peak
5 2488.152	38.89	-2.05	36.84	54.00	-17.16 Average
6 2488.152	55.21	-2.05	53.16	74.00	-20.84 Peak

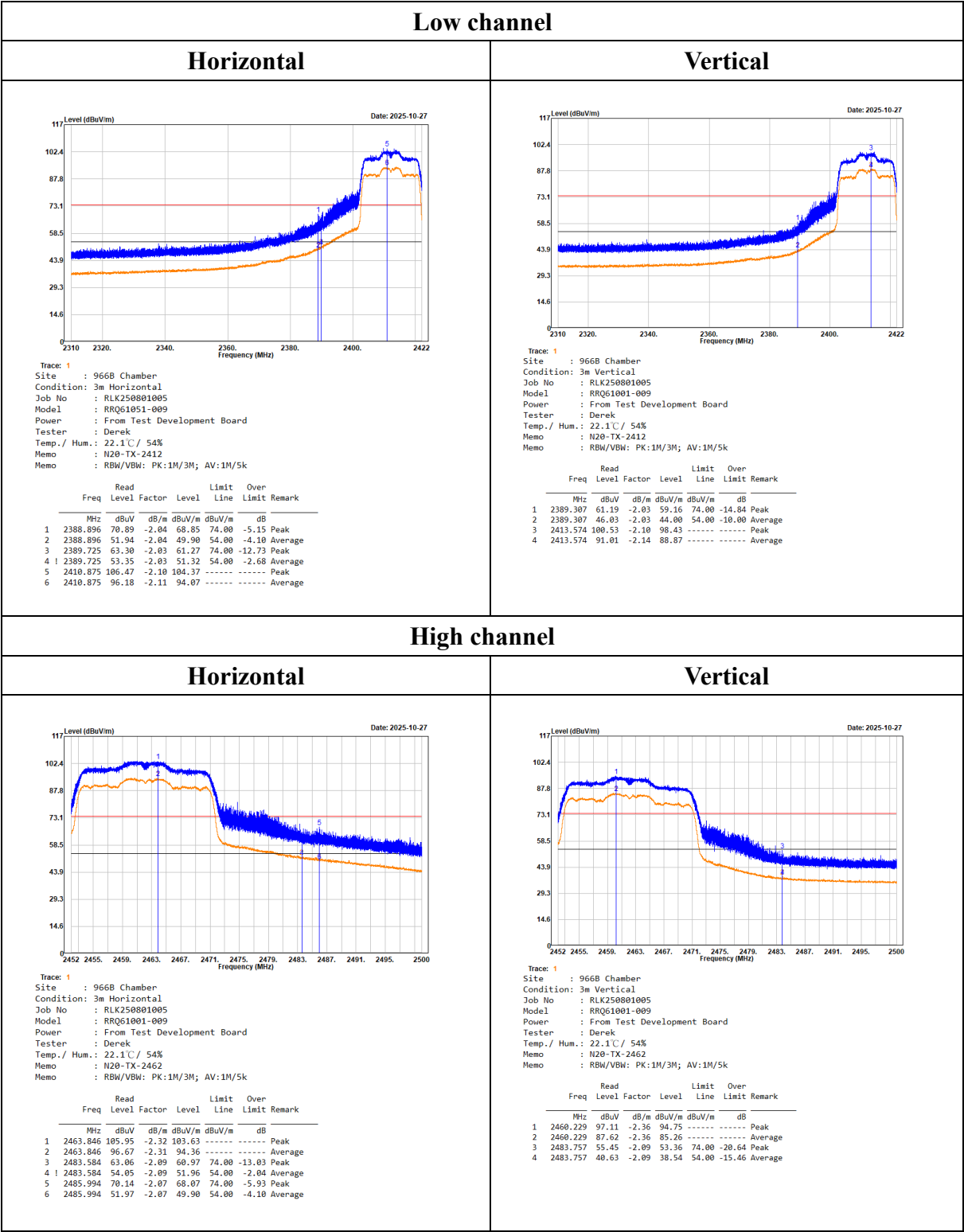
Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

802.11n HT20 Mode



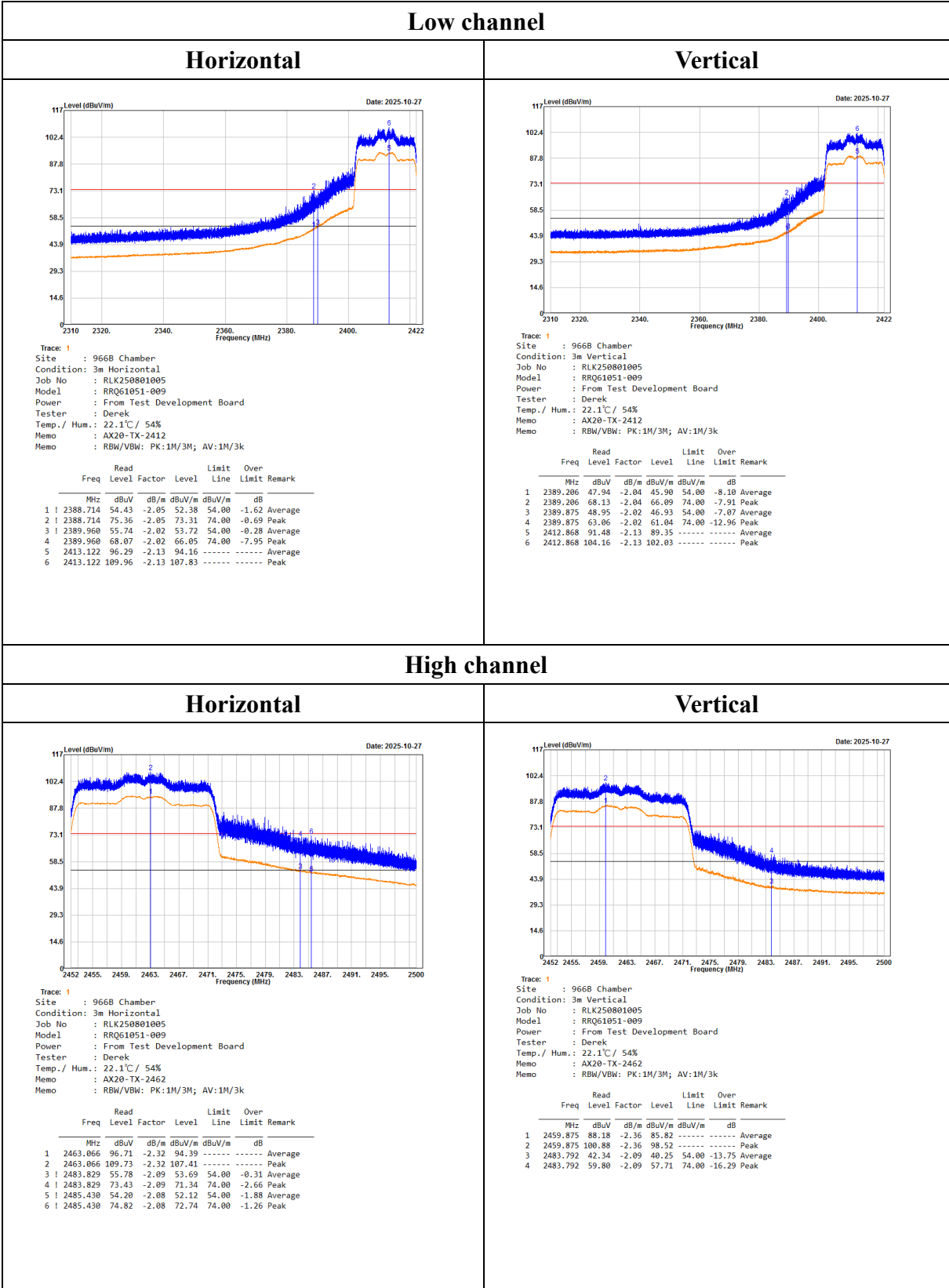
Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

802.11ax HE20 Mode



Note:

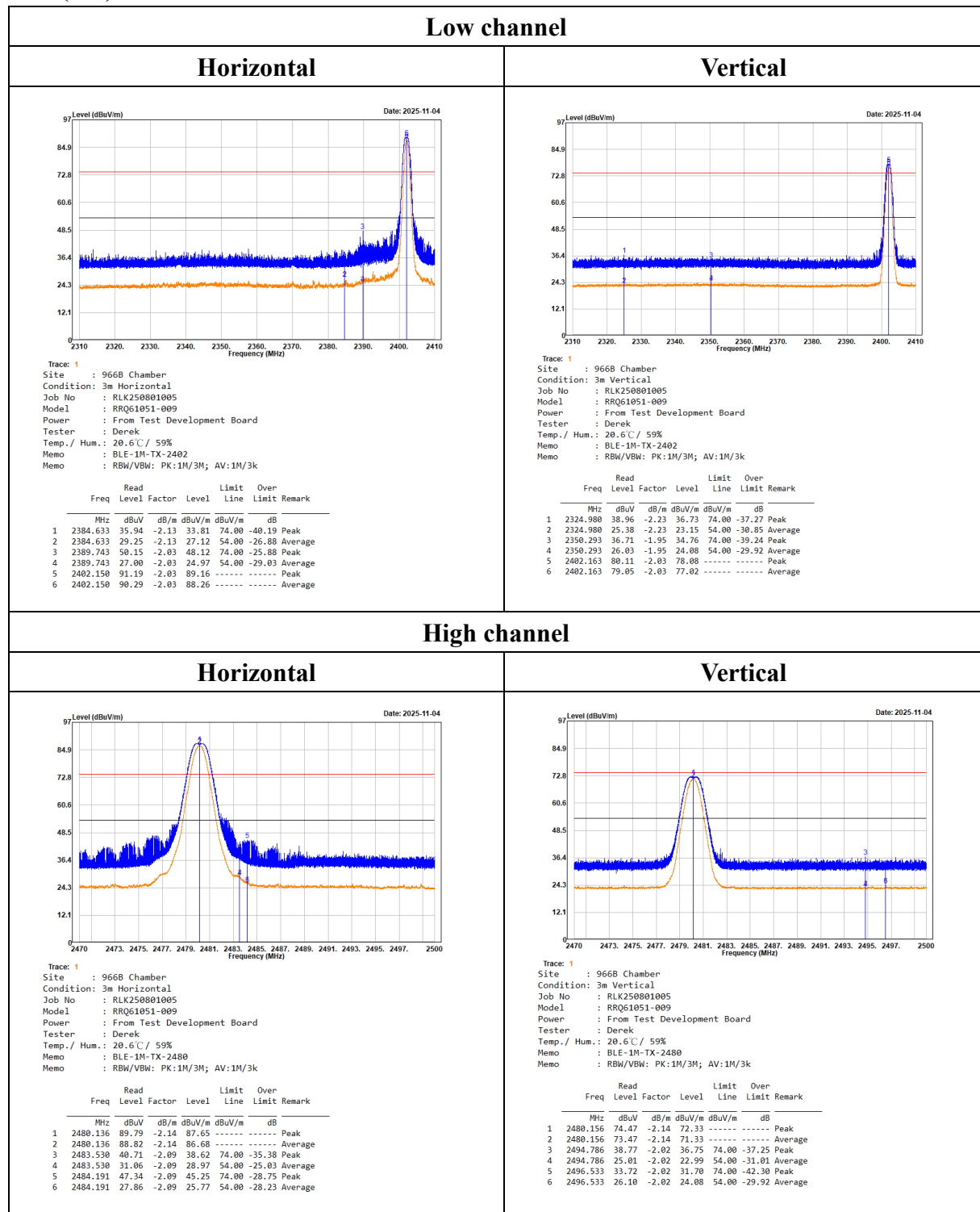
Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

Test EUT Mode : RRQ61051-009

BLE(1M) Mode

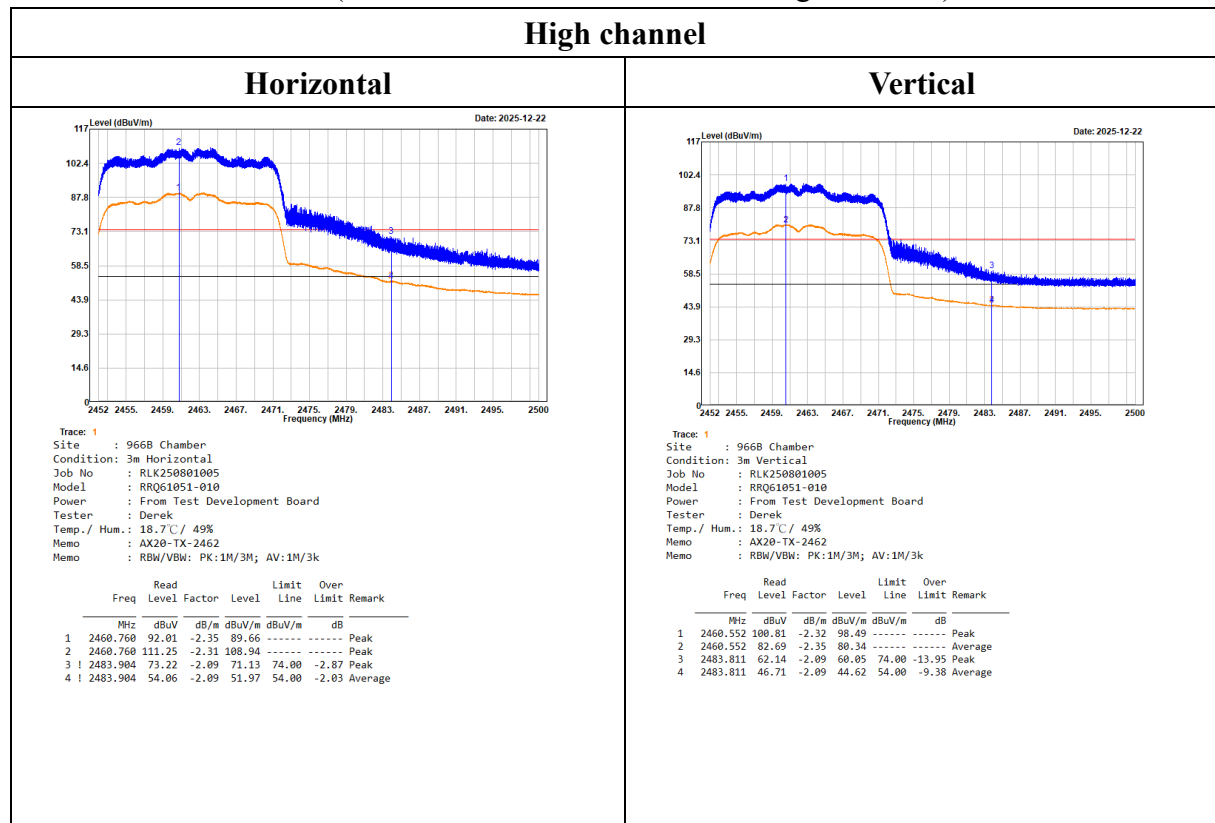
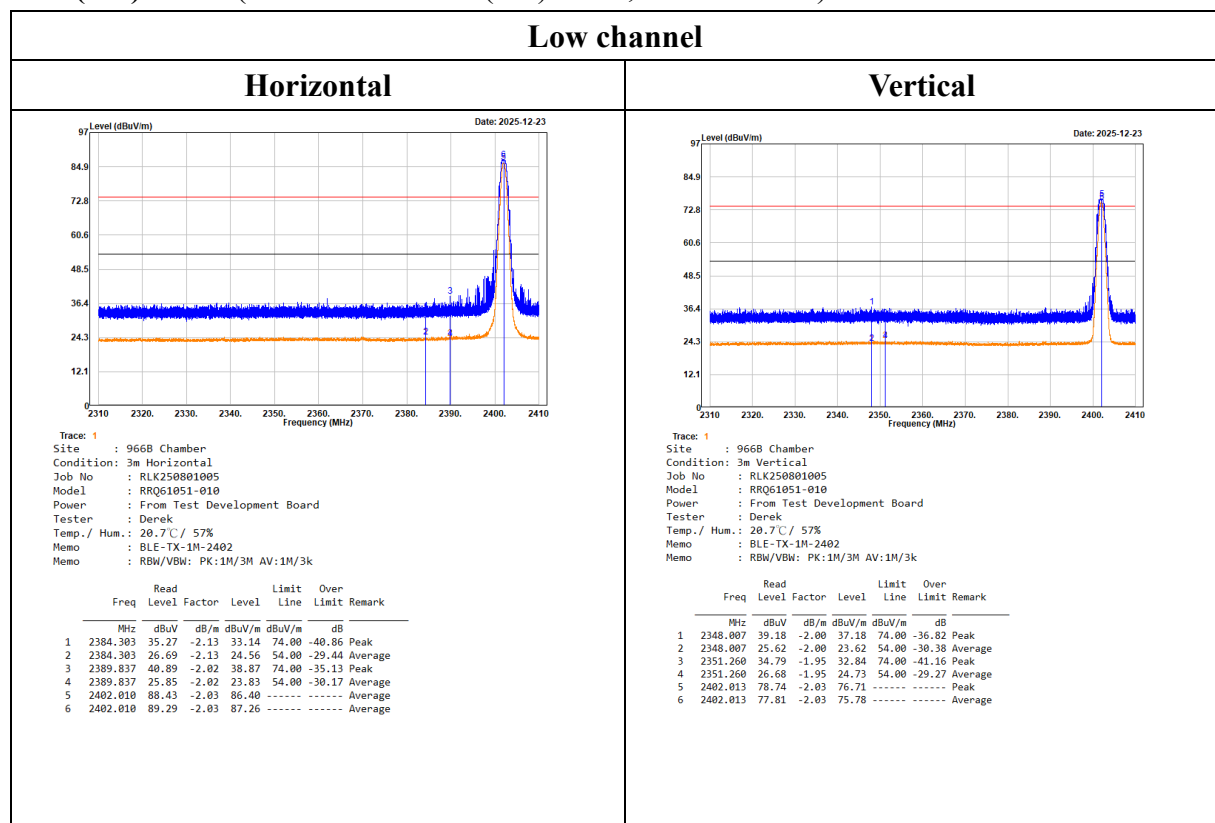


Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

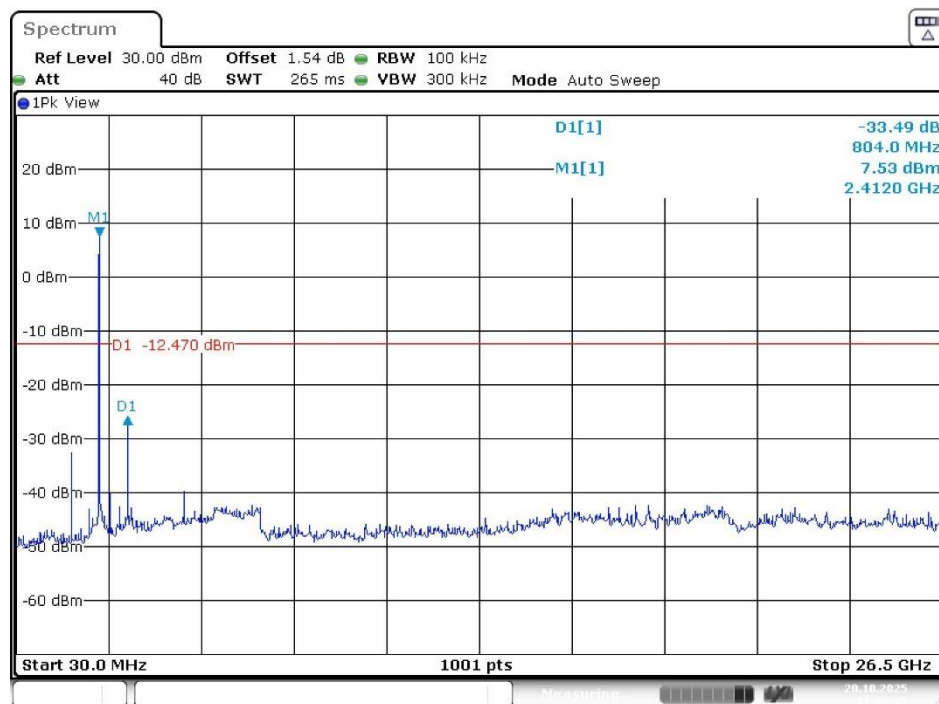
Factor = Antenna Factor + Cable Loss – Amplifier Gain

Test EUT Mode : RRQ61051-010**802.11ax HE20 Mode** (Worst case is 802.11ax20 mode, High Channel)**BLE(1M) Mode** (Worst case is BLE(1M) mode, Low Channel)

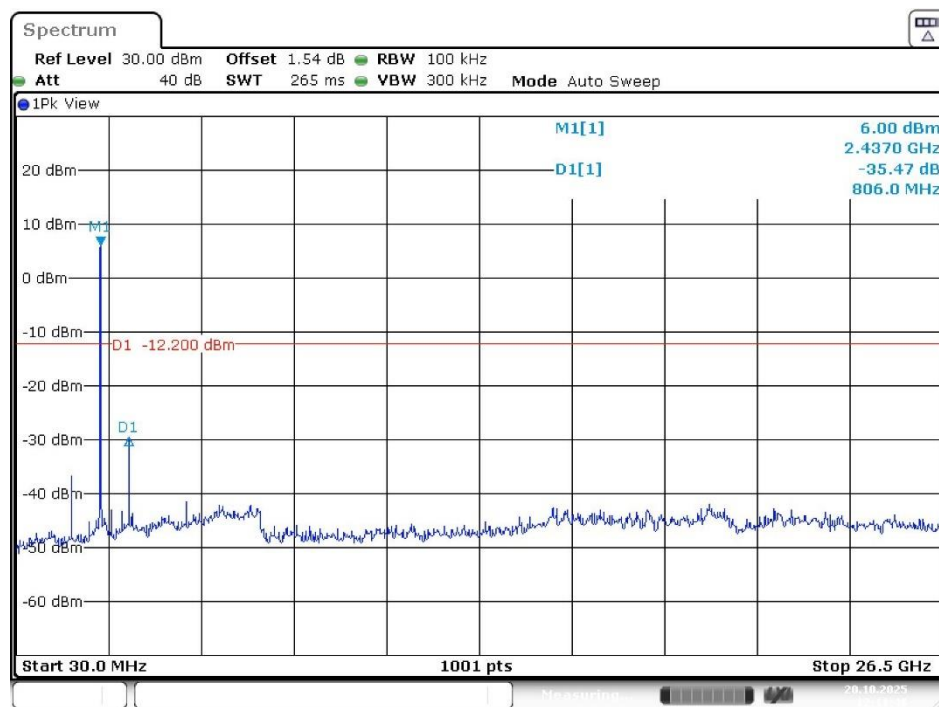
Conducted Spurious Emissions:

Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
b Mode				
Low	2412	33.49	≥ 20	PASS
Mid	2437	35.47	≥ 20	PASS
High	2462	35.27	≥ 20	PASS
g Mode				
Low	2412	32.77	≥ 20	PASS
Mid	2437	30.66	≥ 20	PASS
High	2462	33.3	≥ 20	PASS
n20 Mode				
Low	2412	37.55	≥ 20	PASS
Mid	2437	35.31	≥ 20	PASS
High	2462	37.17	≥ 20	PASS
ax20 Mode				
Low	2412	32.95	≥ 20	PASS
Mid	2437	32.14	≥ 20	PASS
High	2462	32.34	≥ 20	PASS
BLE Mode				
Low	2402	51.61	≥ 20	PASS
Mid	2440	51.91	≥ 20	PASS
High	2480	51.37	≥ 20	PASS

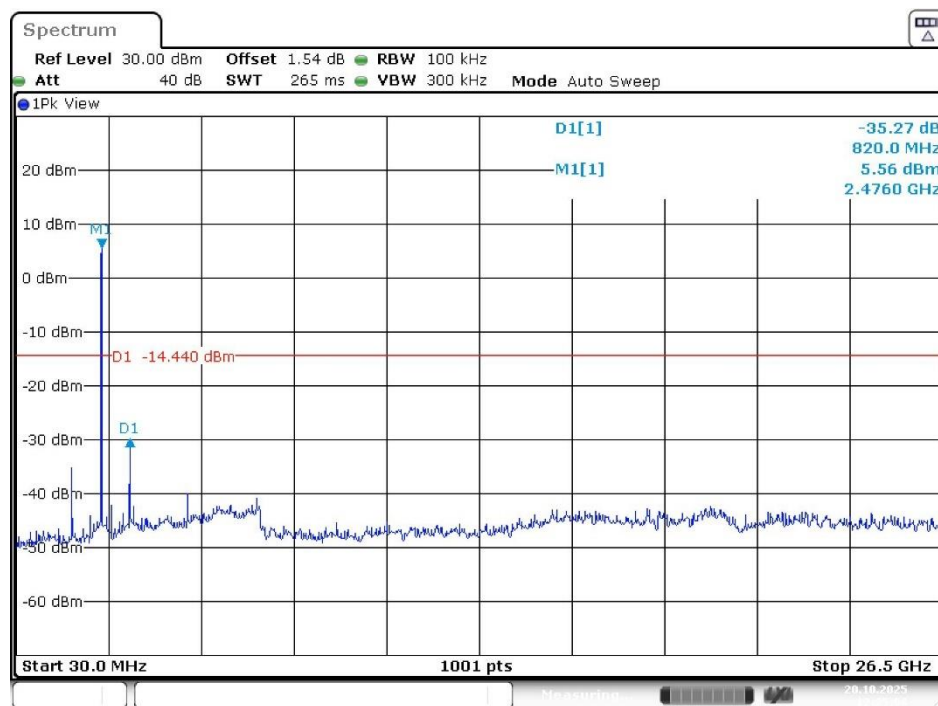
b Mode Low Channel



Middle Channel

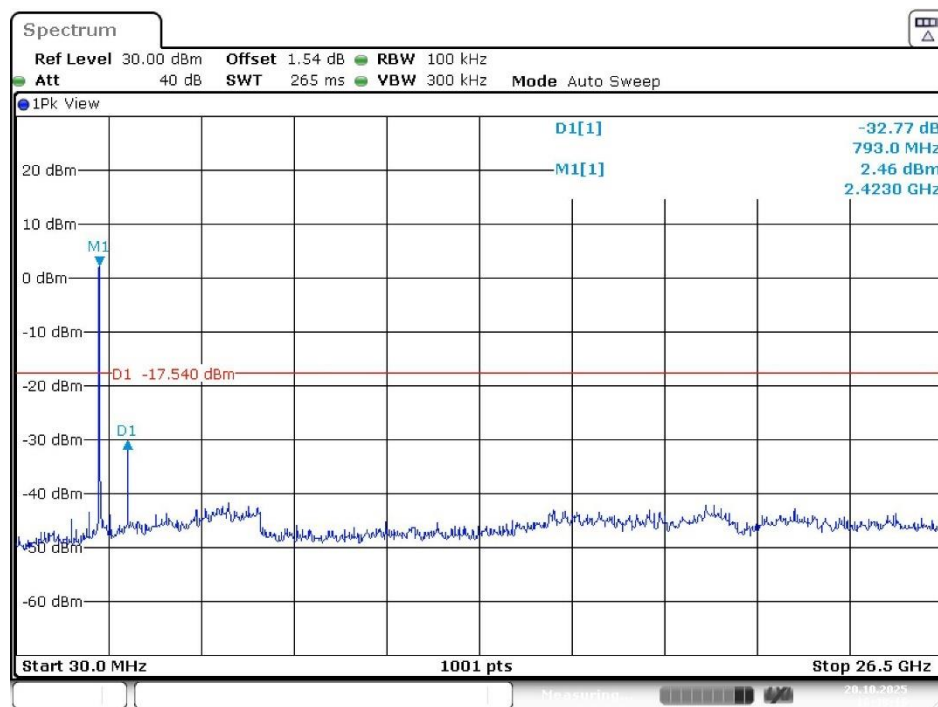


High Channel

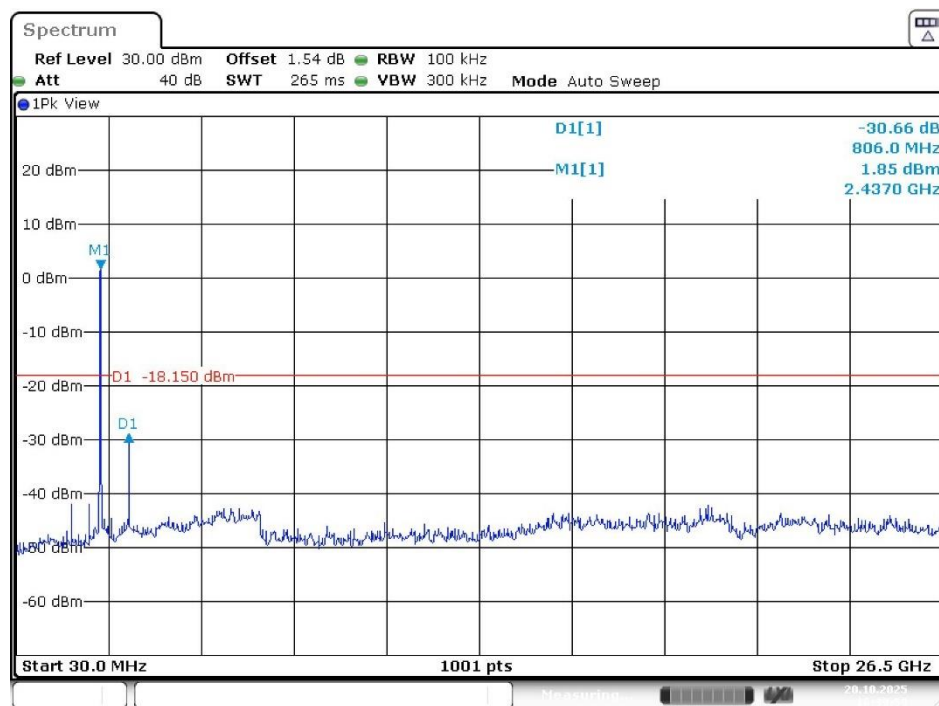


g Mode

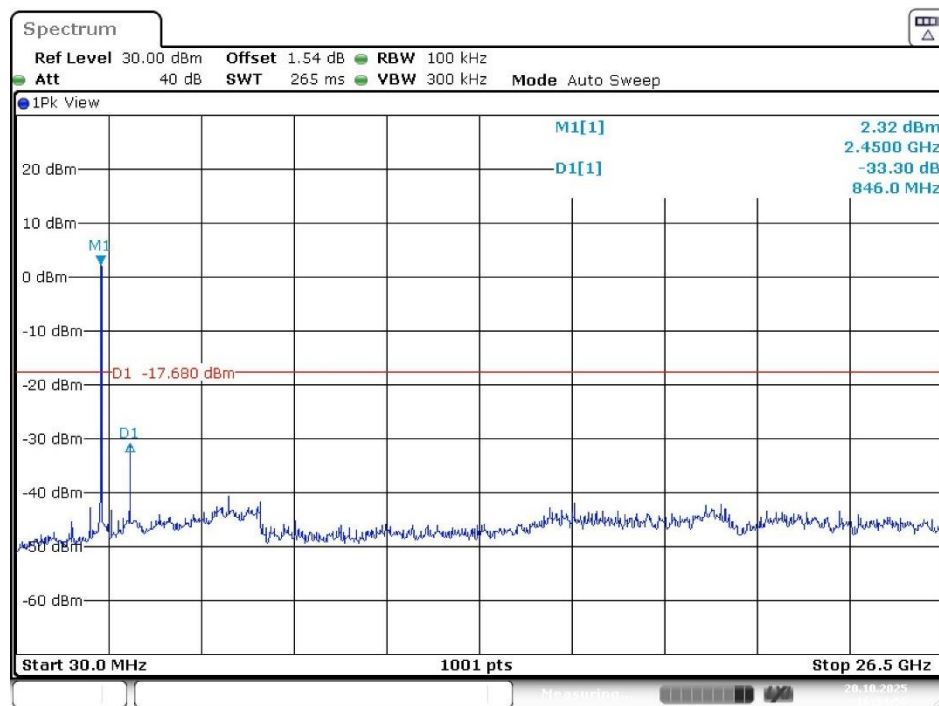
Low Channel



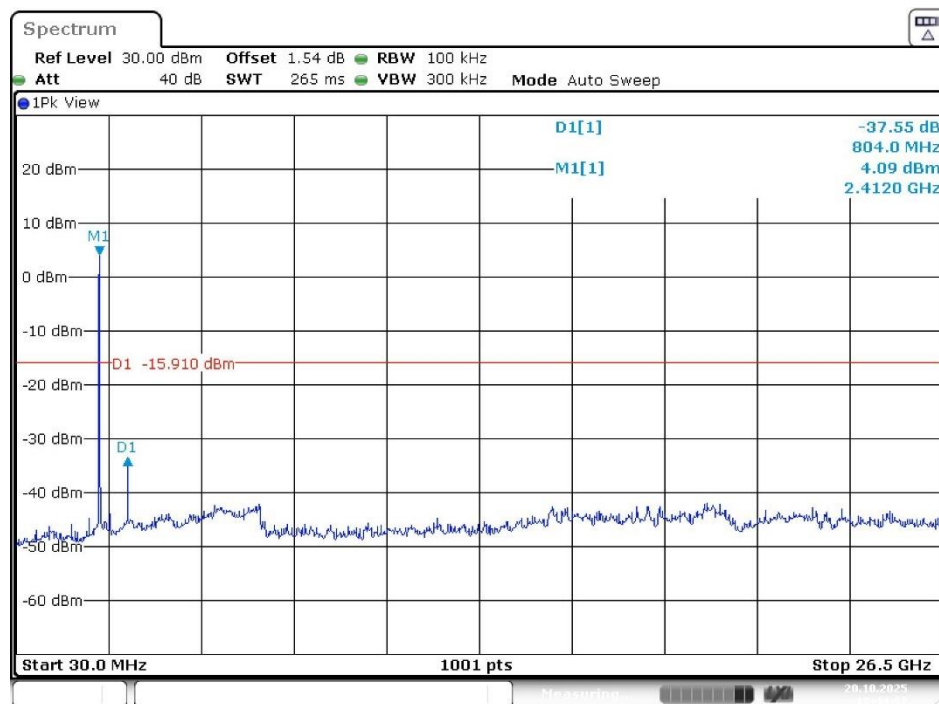
Middle Channel



High Channel



n20 Mode Low Channel



Middle Channel

