Prüfbericht-Nr.: *Test Report No.:*	**60380902 001**	**Auftrags-Nr.:** *Order No.:*	**244197745**	**Seite 1 von 57** *Page 1 of 57*
Kunden-Referenz-Nr.: *Client Reference No.:*	**412131**	**Auftragsdatum:** *Order date.:*	**03.01.2020**	
Auftraggeber: *Client:*	**IKEA of Sweden AB** BOX 702 SE-343 81 Älmhult Sweden			
Prüfgegenstand: *Test item:*	**UNDVIKA Baby Monitor**			
Bezeichnung / Typ-Nr.: *Identification / Type No.:*	**E1901B** **FCC ID: FHO-E1901B** **IC: 10912A-E1901B**			
Auftrags-Inhalt: *Order content:*	**Complete test**			
Prüfgrundlage: *Test specification:*	**FCC CFR47 Part 15, Subpart C Section 15.247** **KDB 558074 D01 15.247 Meas Guidance v05r02** **RSS-Gen Issue 5, Amendment 1, March 2019** **RSS-247 Issue 2, February 2017** **ANSI C63.10: 2013**			

Wareneingangsdatum: *Date of receipt:*	**24.04.2020**
Prüfmuster-Nr.: *Test sample No.:*	**A002814908-003**
Prüfzeitraum: *Testing period:*	**Refer to test report**
Ort der Prüfung: *Place of testing:*	**TÜV Rheinland (Shanghai) Co., Ltd.**
Prüflaboratorium: *Testing laboratory:*	**TÜV Rheinland (Shanghai) Co., Ltd.**
Prüfergebnis*: *Test result*:*	**Pass**

geprüft von / *tested by*:

15.07.2020	Hongfei Wu / PE	
Datum *Date*	**Name/Stellung** *Name/Position*	**Unterschrift** *Signature*

kontrolliert von / *reviewed by*:

15.07.2020	Elliot Zhang / Reviewer	
Datum *Date*	**Name/Stellung** *Name/Position*	**Unterschrift** *Signature*

Sonstiges / *Other:*

HVIN: E1901B

Zustand des Prüfgegenstandes bei Anlieferung: **Prüfmuster vollständig und unbeschädigt**
Condition of the test item at delivery: Test item complete and undamaged

* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut	3 = befriedigend F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	4 = ausreichend N/A = nicht anwendbar	5 = mangelhalt N/T = nicht getestet
Legend:	1 = very good P(ass) = passed a.m. test specifications(s)	2 = good	3 = satisfactory F(ail) = failed a.m. test specifications(s)	4 = sufficient N/A = not applicable	5 = poor N/T = not tested

TEST SUMMARY

5.1.1 ANTENNA REQUIREMENT
RESULT: *Pass*

5.1.2 20DB & 99% BANDWIDTH
RESULT: *Pass*

5.1.3 PEAK OUTPUT POWER
RESULT: *Pass*

5.1.4 FREQUENCY SEPARATION
RESULT: *Pass*

5.1.5 NUMBER OF HOPPING FREQUENCY
RESULT: *Pass*

5.1.6 TIME OF OCCUPANCY
RESULT: *Pass*

5.1.7 CONDUCTED BAND-EDGE
RESULT: *Pass*

5.1.8 CONDUCTED SPURIOUS EMISSIONS
RESULT: *Pass*

5.2.1 CONDUCTED EMISSION
RESULT: *Pass*

5.3.1 RADIATED BAND-EDGE
RESULT: *Pass*

5.3.2 RADIATED SPURIOUS EMISSION
RESULT: *Pass*

Contents

1. General Remarks

1.1 Complementary Materials

Null.

2. Test Sites

2.1 Test Facilities

TÜV Rheinland (Shanghai) Co., Ltd.

Shanghai TUV Rheinland Building No. 177, 178 Lane 777, West Guangzhong Rd, Jing'an District, Shanghai, China

The used test equipment is in accordance with CISPR 16 for measurement of radio interference.

The Federal Communications Commission has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance with the requirements of section 2.948 of the FCC rules. The description of the test facility is listed under FCC registration number 958801.

The Innovation, Science and Economic Development Canada has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance. The description of the test facility is listed under chambers filing number 2932F.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Due Date
3m Anechoic Chamber	Frankonia	SAC3	FJ129002	13.05.2022
EMI Test Receiver	R&S	ESCI	100280	31.10.2020
Spectrum Analyzer	R&S	FSV40	101258	31.10.2021
BiLog Antenna	Teseq	CBL 6112D	40530	13.02.2021
Log-periodic Antenna	R&S	HL050	100692	16.02.2021
Preamplifier	Taiwan EMC Instruments Corporation	EMC051845SE	980612	05.03.2021
Broadband Horn Antenna	Schwarzbeck	BBHA 9170	9170-305	09.07.2021
Preamplifier	Taiwan EMC Instruments Corporation	EMC184045SE	980596	05.03.2021
Spectrum Analyzer	Keysight	N9020A	MY54500180	09.05.2021
DC Power Supply	ALLPOWER	ADC50-20	99223	12.10.2020
Thermohygrometer	Testo	608-H1	1241320614	13.10.2020

2.3 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.

2.5 Measurement Uncertainty

Table 2: Measurement Uncertainty

Measurement Type	Frequency	Uncertainty
Antenna Port Conducted Emission	< 1GHz	±0.39dB
	> 1GHz	±0.68dB
Radiated Emission	9kHz - 30MHz	±2.93 dB
	30MHz - 1GHz	±5.34dB
	> 1GHz	±5.40dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT (Equipment Under Test) is a baby monitor (baby unit) which support other 2.4GHz wirelss technology.
For details refer to the User Manual and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Description of EUT	
Product Name:	UNDVIKA Baby Monitor
Brand Name:	IKEA
Technical Specification of Baby Unit	
Model No.:	E1901B
Rated Voltage:	DC 24V or 3xAAA Battery
Adaptor:	Input: AC100~240V, 50/60Hz; Output: DC 24V
Frequency Range:	2405.377~2477.569MHz
Channel Number:	36 (Hopping Frequency)
Modulation Type:	GFSK
Antenna Type:	PCB antenna
Antenna Gain:	2.85 dBi

Table 4: Hopping Channel List

Channel No.	Frequency [MHz]	Channel No.	Frequency [MHz]	Channel No.	Frequency [MHz]
1	2405.377	13	2430.465	25	2455.041
2	2407.425	14	2432.513	26	2457.089
3	2409.473	15	2434.561	27	2459.137
4	2411.521	16	2436.609	28	2461.185
5	2413.569	17	2438.657	29	2463.233
6	2415.617	18	2440.705	30	2465.281
7	2417.665	19	2442.753	31	2467.329
8	2419.713	20	2444.801	32	2469.377
9	2421.761	21	2446.849	33	2471.425
10	2423.809	22	2448.897	34	2473.473
11	2425.857	23	2450.945	35	2475.521
12	2427.905	24	2452.993	36	2477.569

3.3 Independent Operation Modes

Table 5: Test Modes

Test Mode	Channel	Frequency [MHz]
TM1	1	2405.377
TM2	18	2440.705
TM3	36	2477.569
TM4	Hopping	2405.377~2477.569
Test Mode	Description	
TM5	Communicating and charging via adaptor	
TM6	Communicating and charging with Parent Unit via adaptor	

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.5 Submitted Documents

- Bill of Material
- PCB Layout
- Photo Document
- Circuit Diagram
- Instruction Manual
- Rating Label

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013.

4.3 Special Accessories and Auxiliary Equipment

Table 6: Auxiliary Equipment

Equipment	Module No.	Manufacture
Parent Unit	E1901P	IKEA

4.4 Countermeasures to achieve EMC Compliance

Null.

5. Test Results

5.1 Conducted Testing at Antenna Port

5.1.1 Antenna Requirement

RESULT: **Pass**

According to the manufacturer declared, the EUT has one PCB antenna, the directional gain of antenna is 2.85 dBi and the antenna is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Table 7: Antenna Requirement

FCC 15.203 – Antenna Requirement 1		
Requirement:	No antenna other than that furnished by the responsible party shall be used with the device	
Results:	Antenna type:	PCB antenna
Verdict:	PASS	

FCC 15.204 – Antenna Requirement 2	
Requirement:	An intentional radiator may be operated only with the antenna with which it is authorized. If an antenna is marketed with the intentional radiator, it shall be of a type which is authorized with the intentional radiator.
Results:	Only one integral antenna can be used
Verdict:	PASS

RSS-Gen 6.3 – External Control	
Requirement:	The device shall not have any external controls accessible to the user that enable it to be adjusted, selected or programmed to operate in violation of the limits prescribed in the applicable RSS.
Results:	The device does not have any transmitter external controls accessible to the user that can be adjusted and operated in violation of the limits of this standard.
Verdict:	PASS

RSS-Gen 8.3 – Antenna Requirement		
Requirement:	When a measurement at the antenna connector is used to determine RF output power, the effective gain of the device's antenna shall be stated, based on measurement or on data from the antenna manufacture.	
Results:	a) Antenna Type:	PCB Antenna
	b) Manufacture:	N/A
	c) Model No.:	N/A
	d) Gain with reference to an isotropic radiator:	2.85 dBi
Verdict:	PASS	

5.1.2 20dB & 99% Bandwidth

RESULT: **Pass**

Date of testing	:	21.05.2020
Ambient temperature	:	23.2°C
Relative humidity	:	38.5%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(a)(1) Clause 5.1(a) of RSS-247 Issue 2 February 2017
Test procedure	:	KDB 558074 D01v05r02 ANSI C63.10: 2013
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	TM1 to TM3

Table 8: 20dB & 99% Bandwidth

Test Mode	CH.	Freq. [MHz]	20dB Bandwidht [MHz]	99% Bandwidth [MHz]
TM1	1	2405.377	1.182	1.1458
TM2	18	2440.705	1.180	1.1545
TM3	36	2477.569	1.194	1.1637

Note:
For frequency hopping systems operating in the 2400 – 2483.5MHz band, no bandwidth limit is specified. The test data is provide for reference.
And according to FCC, when the occupied bandwidth limit is not stated in the applicable FCC or reference measurement method, the transmitted signal band width shall be reported as the 99% emission bandwidth.

Figure 1: 20dB & 99% Bandwidth, TM1

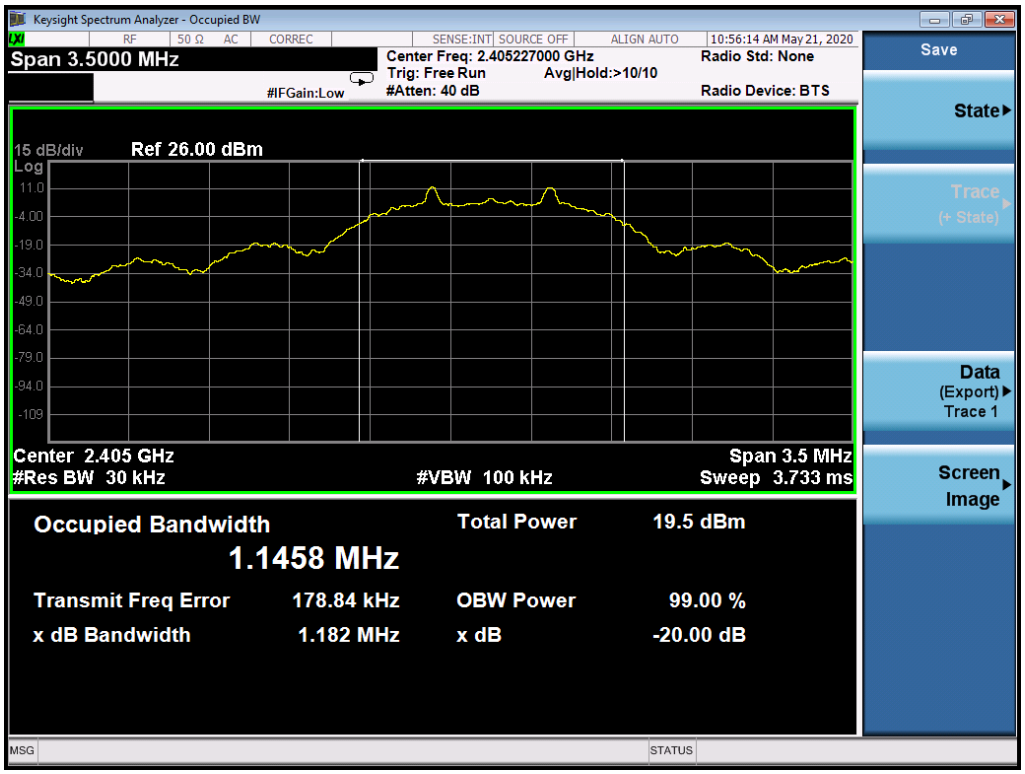


Figure 2: 20dB & 99% Bandwidth, TM2

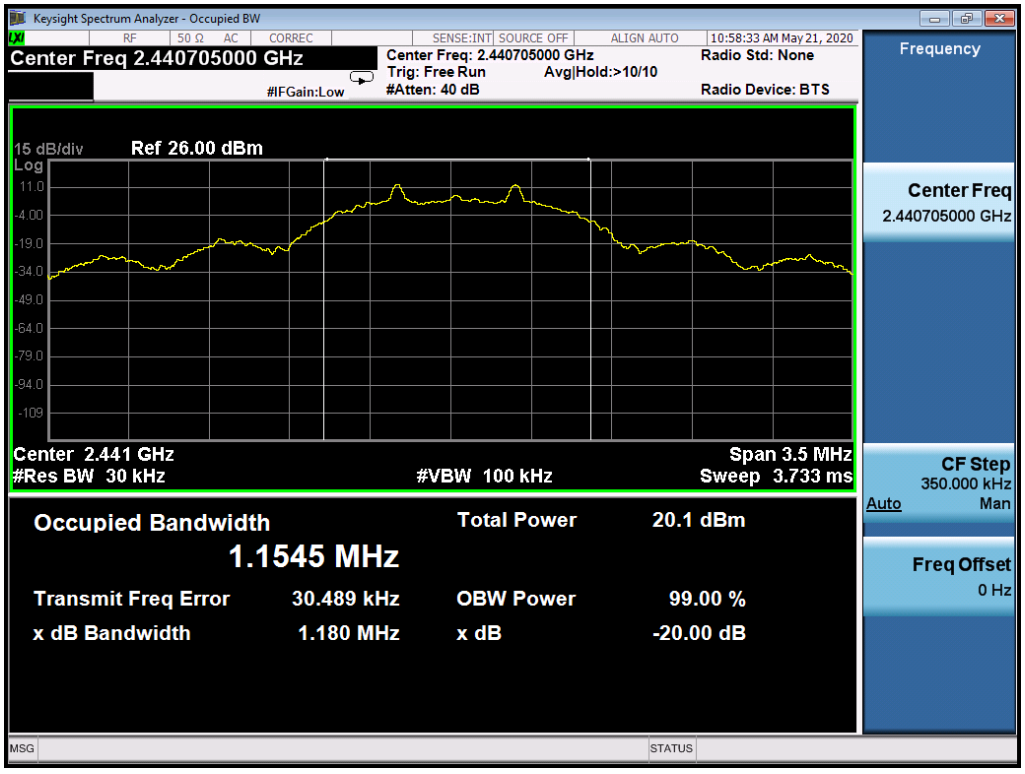
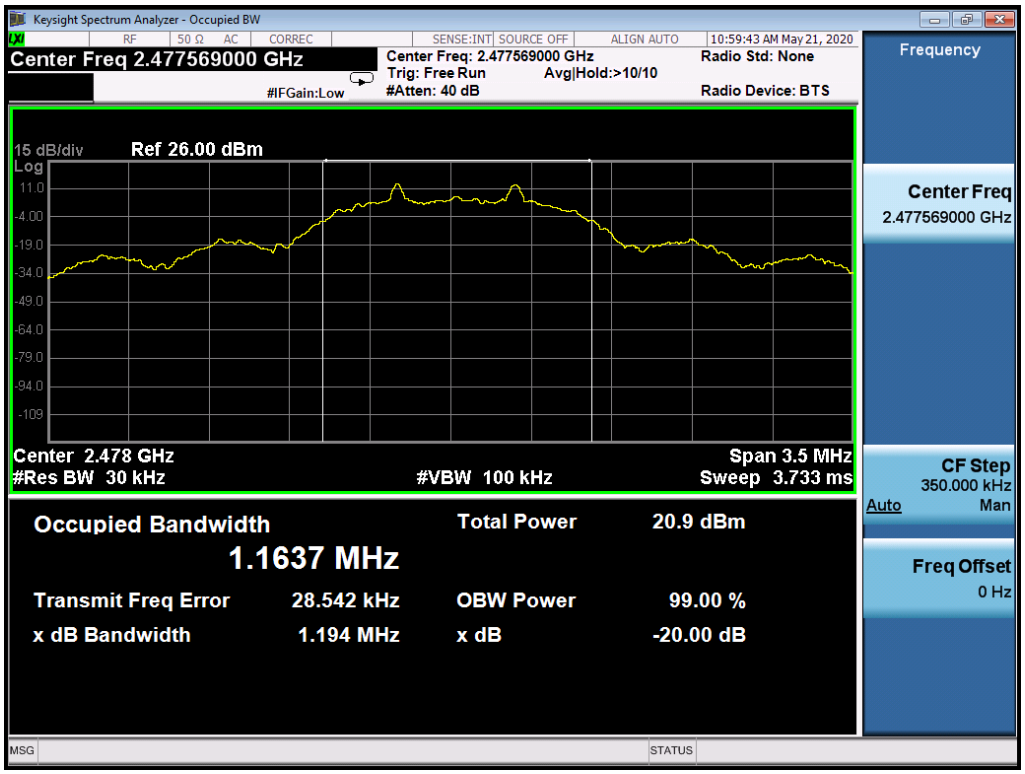


Figure 3: 20dB & 99% Bandwidth, TM3



5.1.3 Peak Output Power

RESULT: **Pass**

Date of testing	:	21.05.2020
Ambient temperature	:	23.2°C
Relative humidity	:	38.5%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(b)(1) Clause 5.4(b) of RSS-247 Issue 2 February 2017
Test procedure	:	KDB 558074 D01v05r02 ANSI C63.10: 2013
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	TM1 to TM3

Table 9: Peak Output Power

Test Mode	Antenna Gain [dBi]	CH.	Freq. [MHz]	Maximum Peak Conducted Output Power [dBm]	Peak Conducted Output Power Limit [dBm]	Maximum EIRP [dBm]	EIRP Limit [dBm]
TM1	2.85	1	2405.377	13.770	20.969	16.620	26.969
TM2		18	2440.705	14.521	20.969	17.371	26.969
TM3		36	2477.569	15.227	20.969	18.077	26.969

Note:
EIRP=Peak Conducted Output Power + Antenna Gain

Figure 4: Peak Output Power, TM1

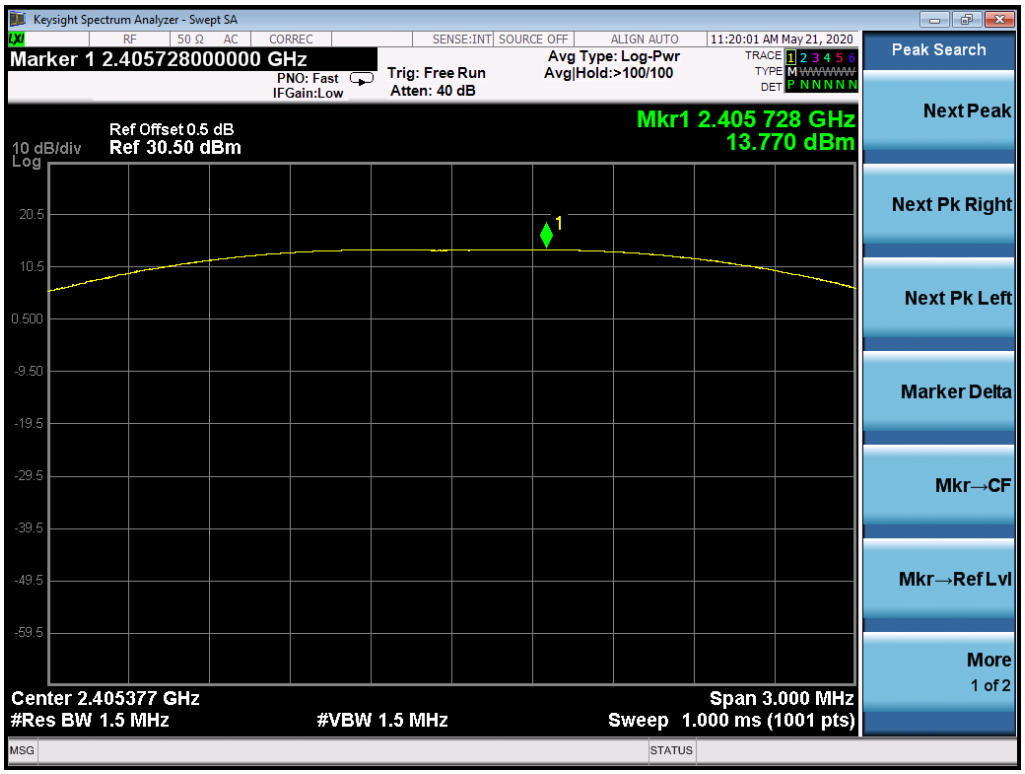


Figure 5: Peak Output Power, TM2

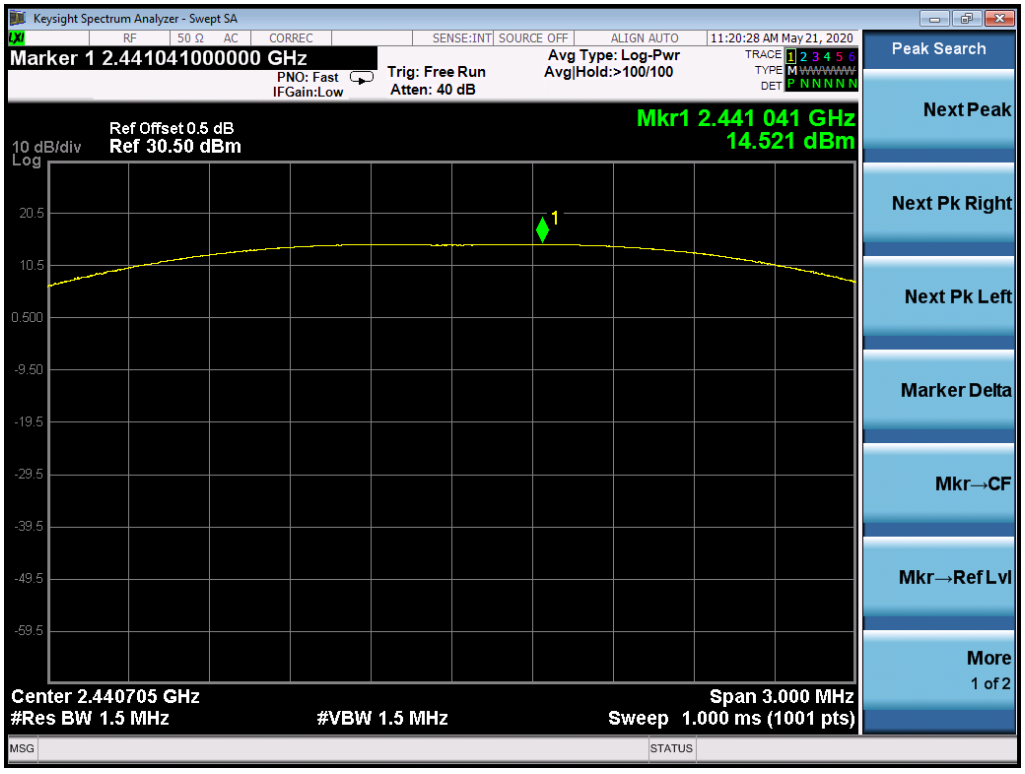
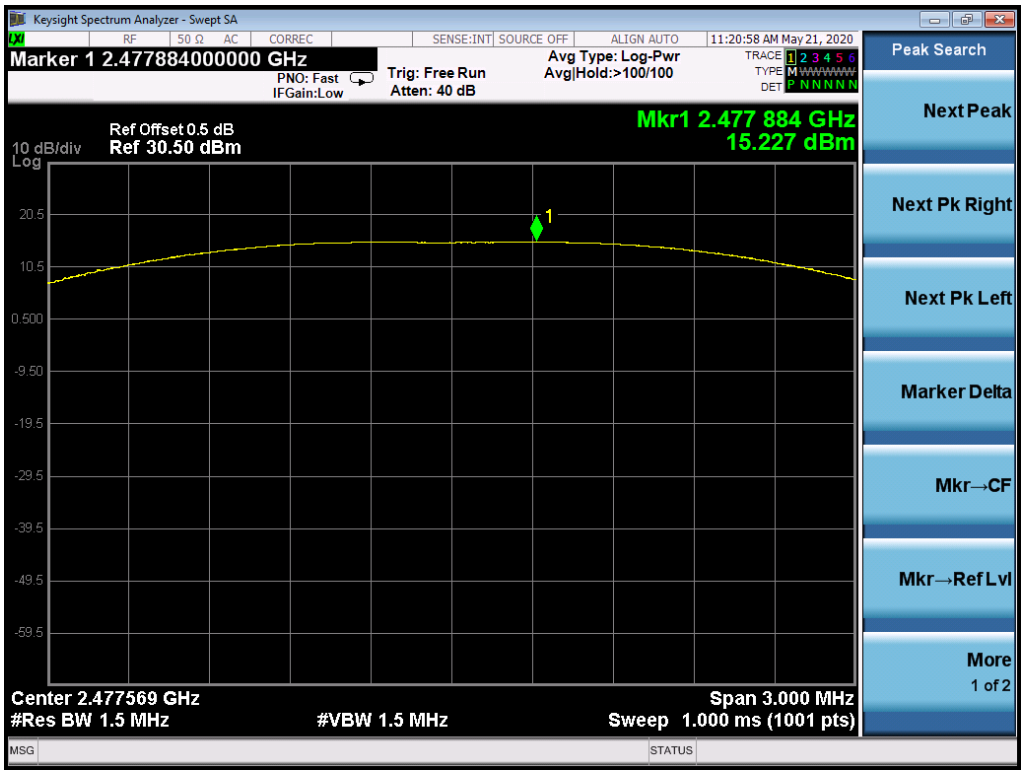


Figure 6: Peak Output Power, TM3



5.1.4 Frequency Separation

RESULT: **Pass**

Date of testing	:	21.05.2020
Ambient temperature	:	23.2°C
Relative humidity	:	38.5%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(a)(1) Clause 5.1(b) of RSS-247 Issue 2 February 2017
Test procedure	:	KDB 558074 D01v05r02 ANSI C63.10: 2013
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	TM4

Table 10: Frequency Separation

Test Mode	CH.	Frequency [MHz]	Frequency Separation [MHz]	Limit [MHz]
TM4	1	2405.377	2.045	≥0.788
	18	2440.705	2.045	≥0.787
	36	2477.569	2.040	≥0.796

Note:
Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

Figure 7: Frequency Separation, TM4, observation CH1

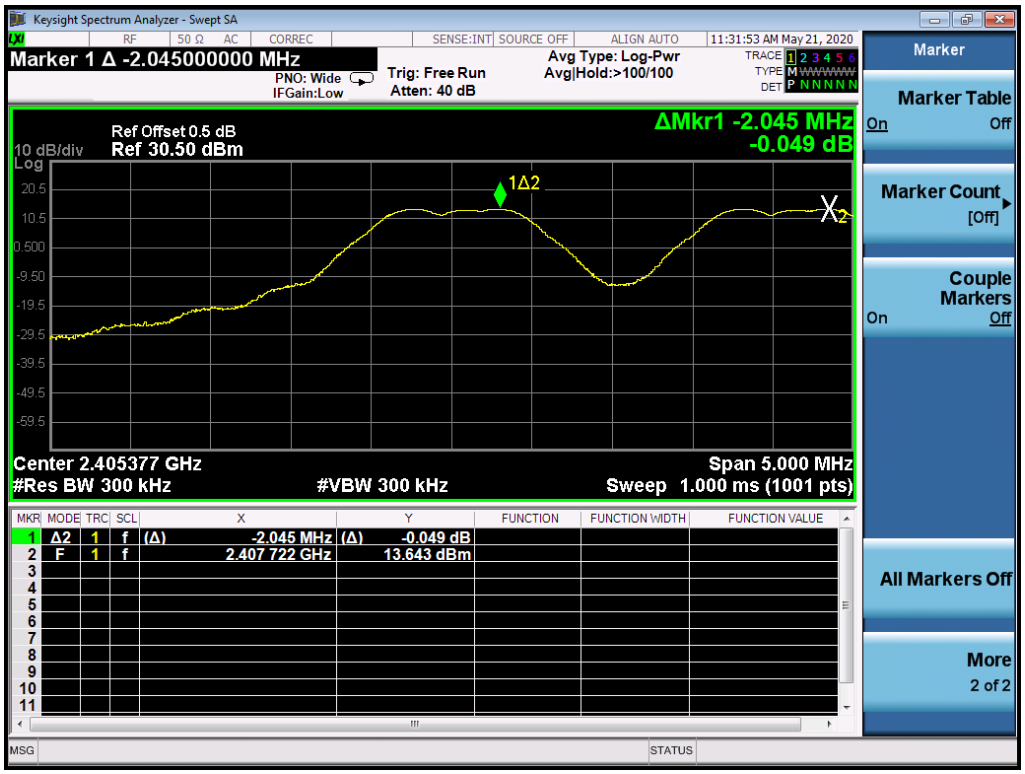


Figure 8: Frequency Separation, TM4, observation CH18

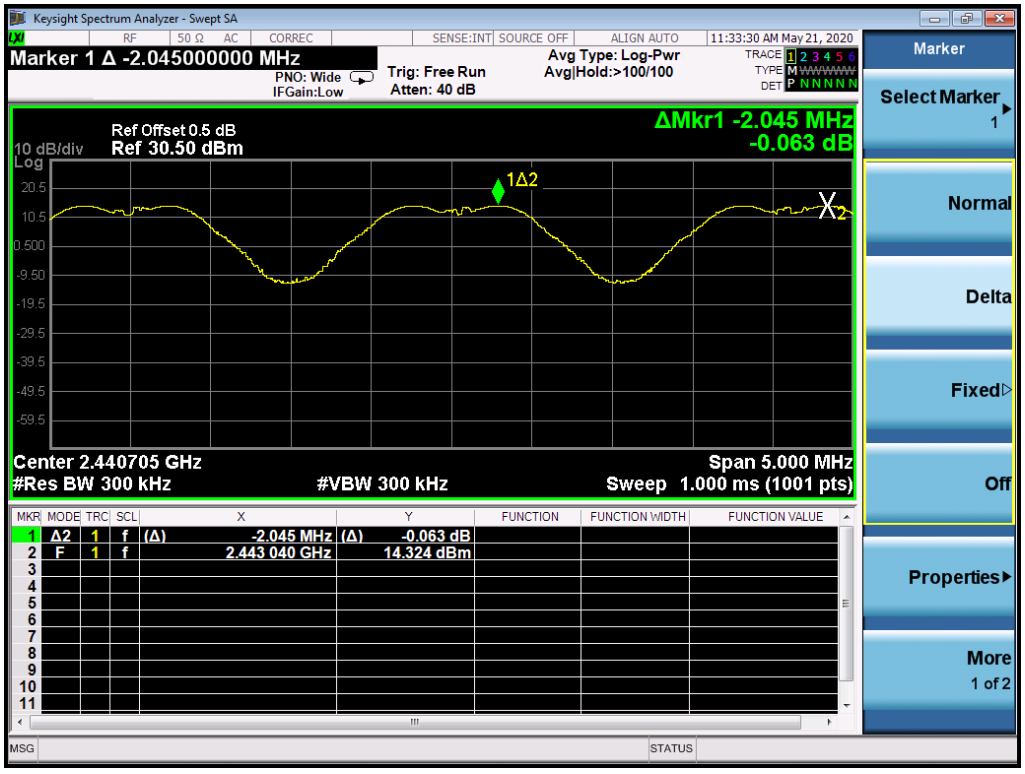


Figure 9: Frequency Separation, TM7, observation CH36

5.1.5 Number of Hopping Frequency

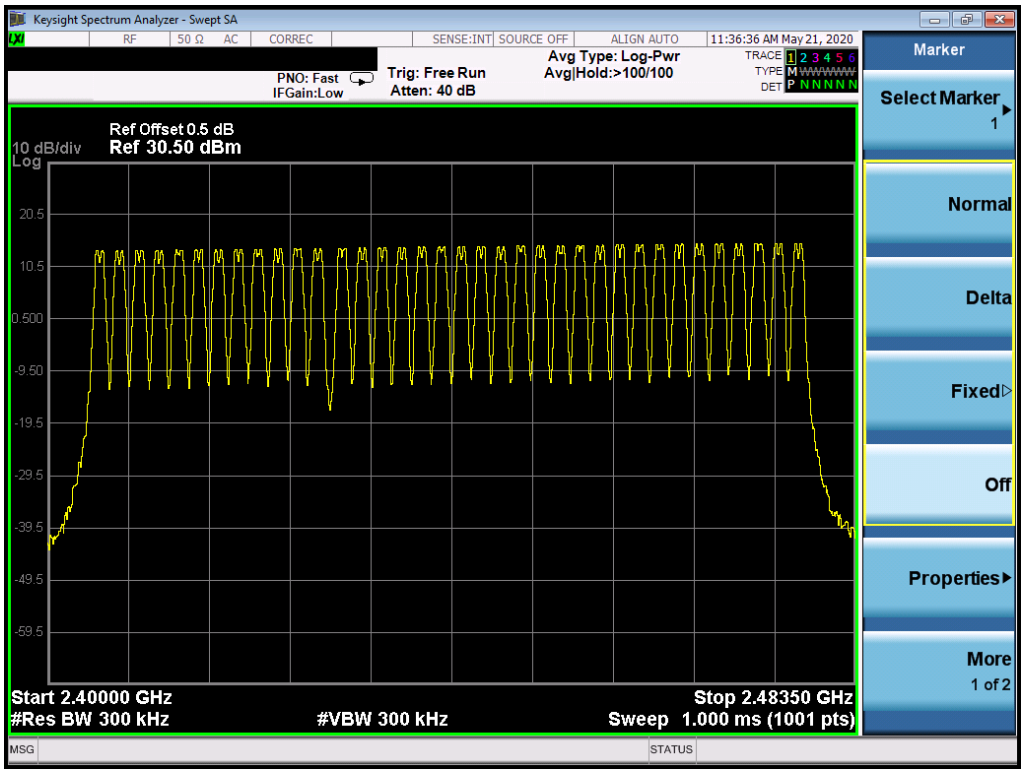
RESULT: **Pass**

Date of testing	:	21.05.2020
Ambient temperature	:	24.4°C
Relative humidity	:	36.1%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC 15.247(a)(1)(iii) Clause 5.1(d) of RSS-247 Issue 2 February 2017
Test procedure	:	KDB 558074 D01v05r02 ANSI C63.10: 2013
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	TM4

Table 11: Number of Hopping Frequency

Frequency Range	Measured Quantity of Hopping Channel	Limit
2405.377 to 2477.569	36	≥15

Figure 10: Number of Hopping Frequency



5.1.6 Time of Occupancy

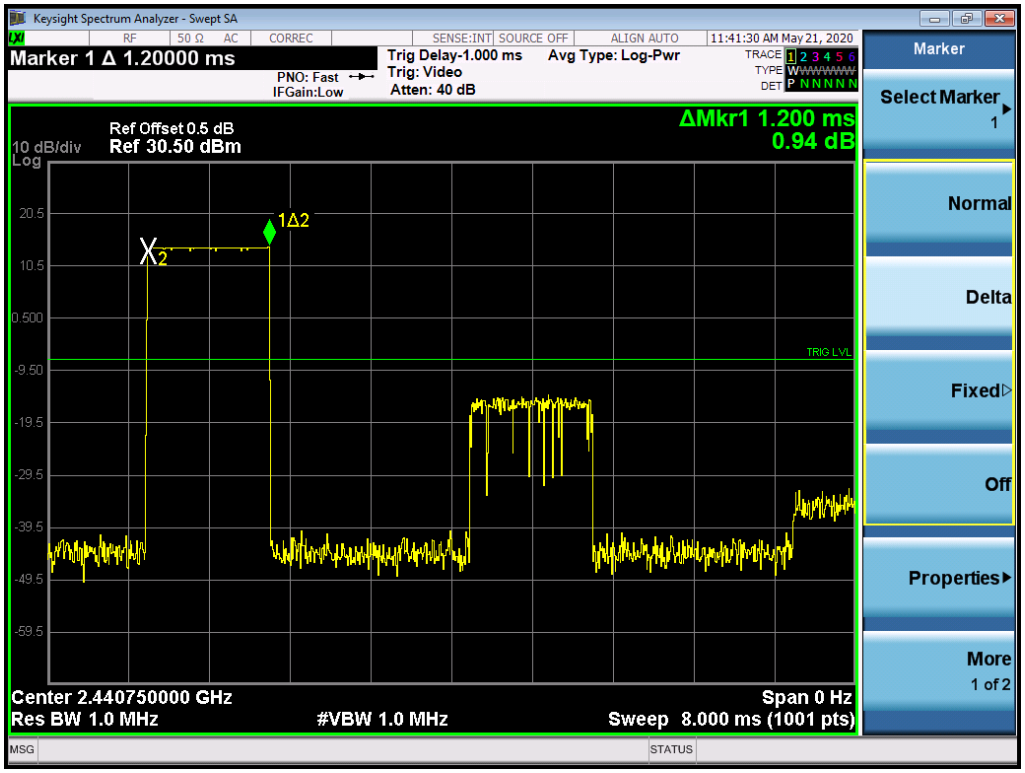
RESULT: **Pass**

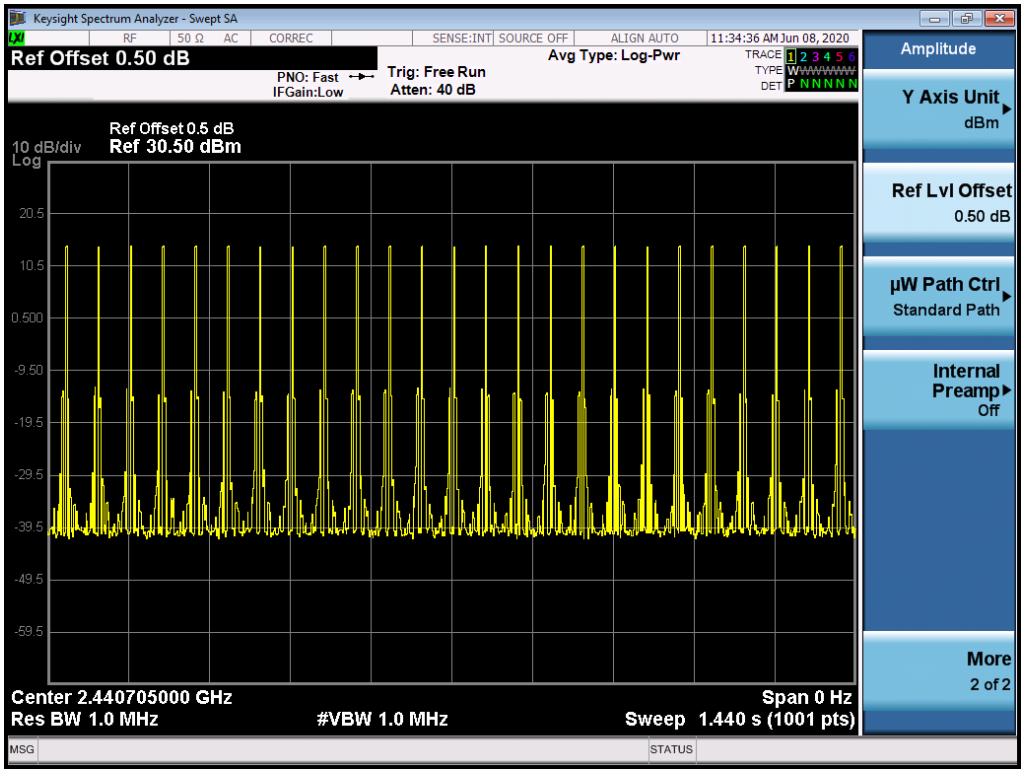
Date of testing	:	21.05.2020~08.06.2020
Ambient temperature	:	26.2°C
Relative humidity	:	32.7%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC 15.247(a)(1)(iii) Clause 5.1(d) of RSS-247 Issue 2 February 2017
Test procedure	:	KDB 558074 D01v05r02 ANSI C63.10: 2013
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	TM4

Table 12: Time of Occupancy

Test Mode	CH.	Frequency [MHz]	Packet Duration [ms]	Hops over Occupancy Time [Hops]	Time of Occupancy [ms]	Limit [ms]
TM4	18	2440.705	1.2	250	300	400

Figure 11: Time of Occupancy, TM4, observation CH18





5.1.7 Conducted Band-Edge

RESULT: **Pass**

Date of testing	:	21.05.2020
Ambient temperature	:	26.1°C
Relative humidity	:	32.7%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC 15.247(d) Clause 5.5 of RSS-247 Issue 2 February 2017
Test procedure	:	KDB 558074 D01v05r02 ANSI C63.10: 2013
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	TM1, TM3, TM4

Figure 12: Conducted Band-Edge, TM1

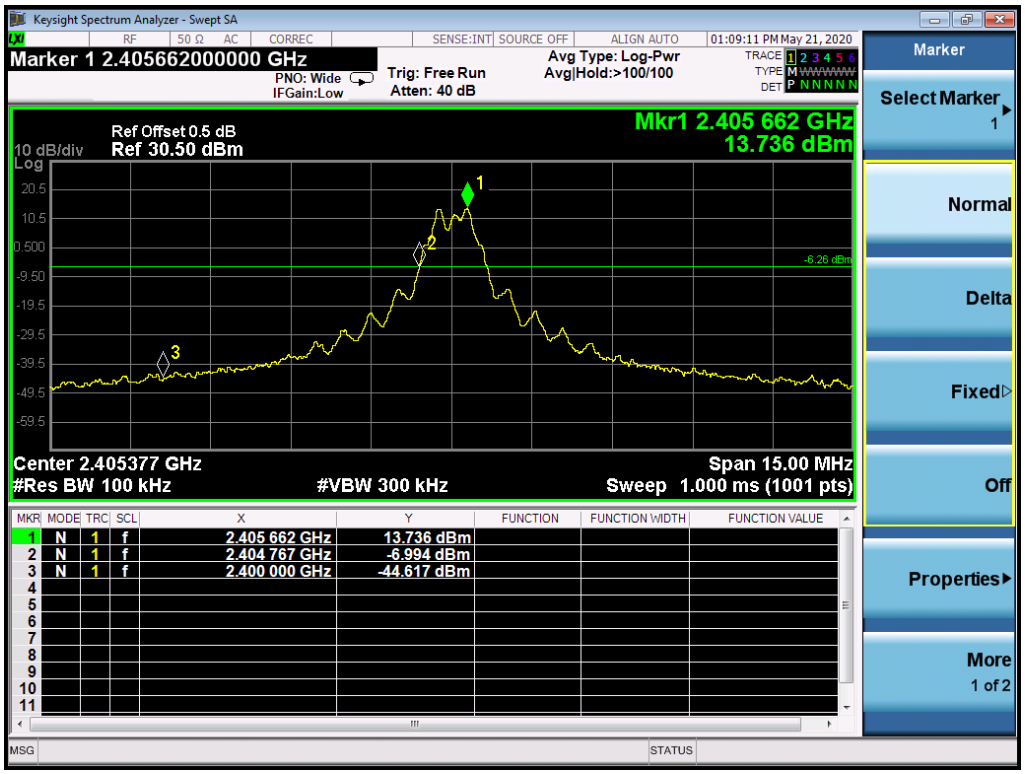


Figure 13: Conducted Band-Edge, TM3

Figure 14: Conducted Band-Edge, TM4 lower band

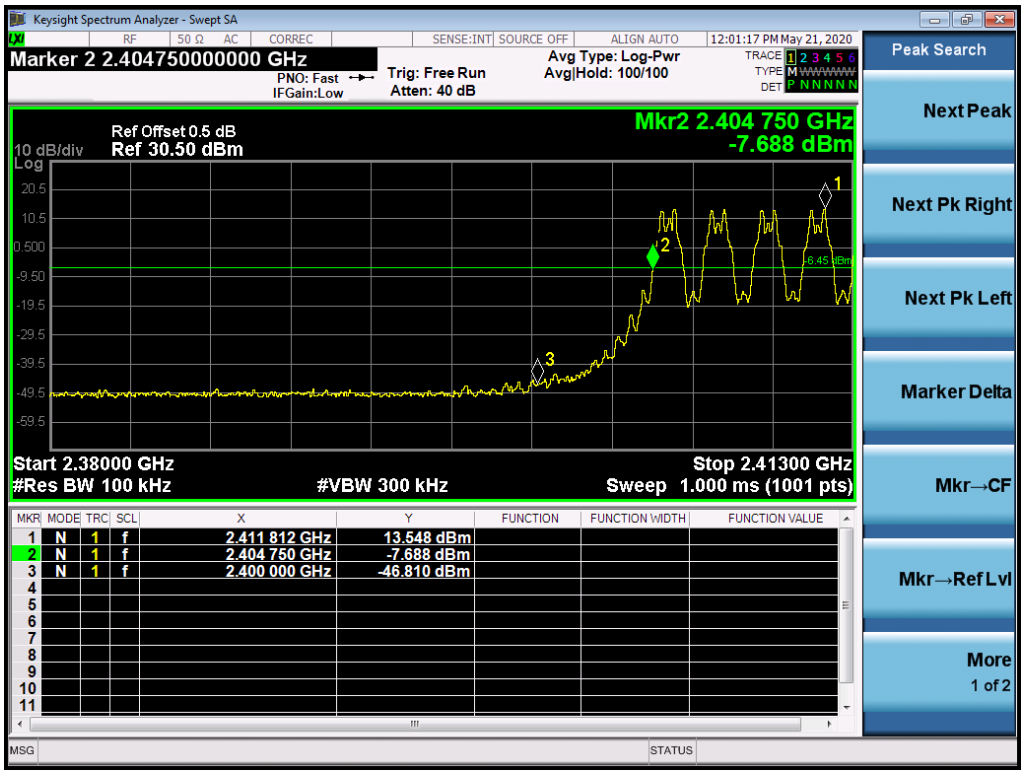


Figure 15: Conducted Band-Edge, TM4, higher band

5.1.8 Conducted Spurious Emissions

RESULT: **Pass**

Date of testing	:	21.05.2020
Ambient temperature	:	25.8°C
Relative humidity	:	33.8%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC 15.247(d) Clause 5.5 of RSS-247 Issue 2 February 2017
Test procedure	:	KDB 558074 D01v05r02 ANSI C63.10: 2013
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	TM1 to TM3

Figure 16: Conducted Spurious Emission, TM1

Figure 17: Conducted Spurious Emission, TM2

Figure 18: Conducted Spurious Emission, TM3

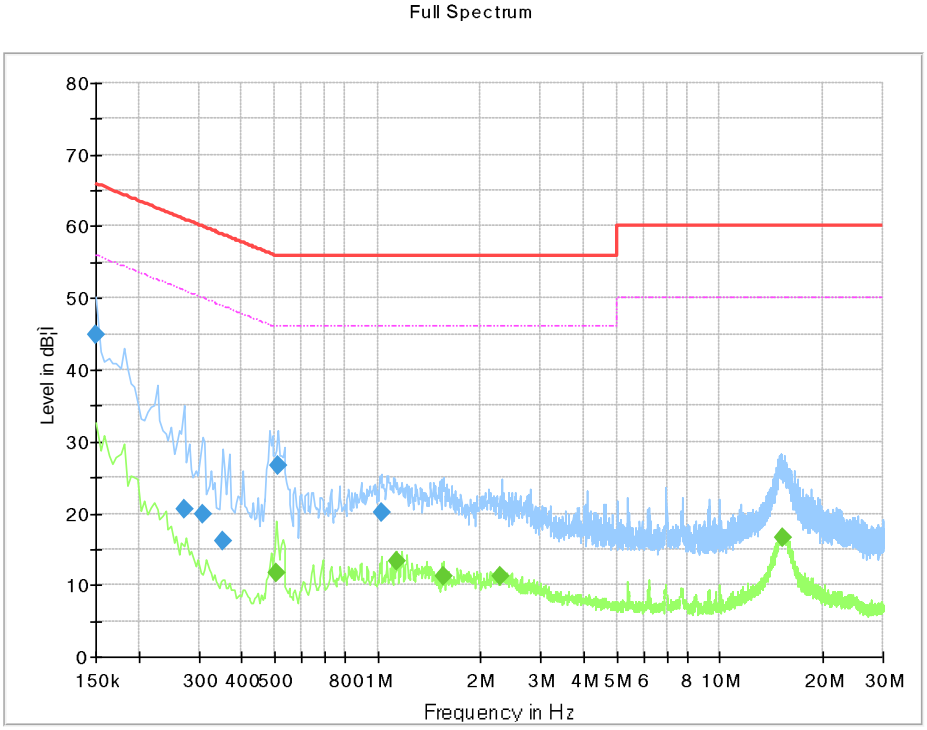
5.2 Emission in the Frequency Range up to 30MHz

5.2.1 Conducted Emission

RESULT: **Pass**

Date of testing	:	01.06.2020~02.06.2020
Ambient temperature	:	23.6°C
Relative humidity	:	45.3%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC 15.207(a) Clause 8.8 of RSS-Gen Issue 5, March 2019
Test procedure	:	KDB 558074 D01v05r02 ANSI C63.10: 2013
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	TM5, TM6

Figure 19: Conducted Emission, TM5, L



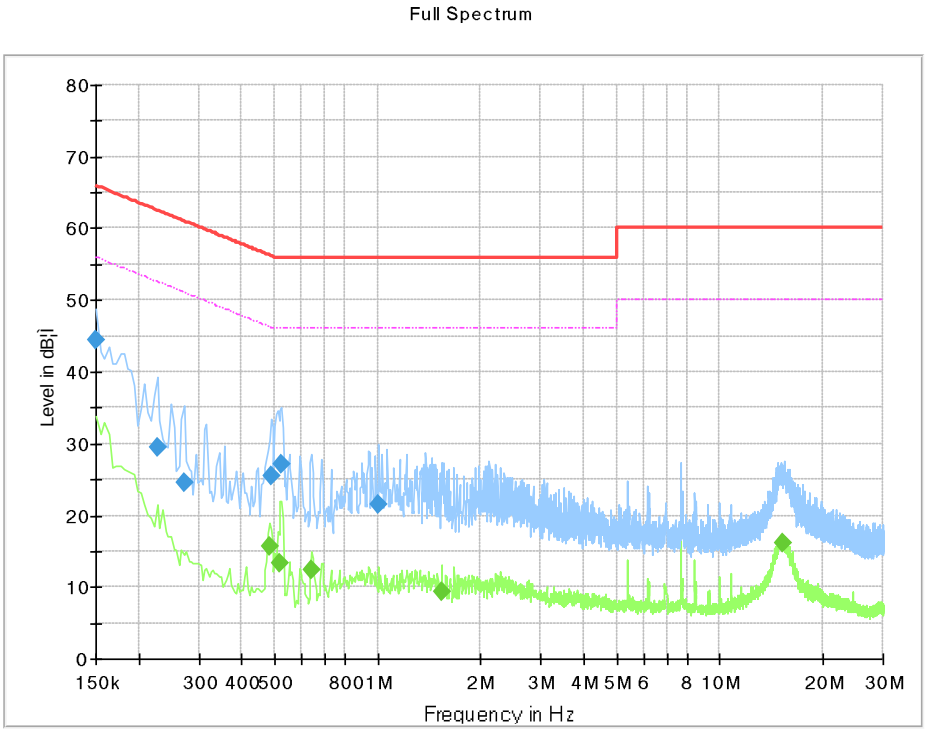
QP Result

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	44.87	66.00	21.13	1000.0	0.200	L1	9.5
0.271500	20.51	61.07	40.56	1000.0	9.000	L1	9.6
0.307500	19.80	60.04	40.24	1000.0	9.000	L1	9.6
0.352500	16.13	58.90	42.77	1000.0	9.000	L1	9.6
0.510000	26.63	56.00	29.37	1000.0	9.000	L1	9.6
1.023000	20.01	56.00	35.99	1000.0	9.000	L1	9.6

AV Result

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.505500	11.78	46.00	34.22	1000.0	9.000	L1	9.6
1.140000	13.45	46.00	32.55	1000.0	9.000	L1	9.6
1.558500	11.12	46.00	34.88	1000.0	9.000	L1	9.6
2.283000	11.32	46.00	34.68	1000.0	9.000	L1	9.7
15.207000	16.67	50.00	33.33	1000.0	9.000	L1	10.2

Figure 20: Conducted Emission, TM5, N



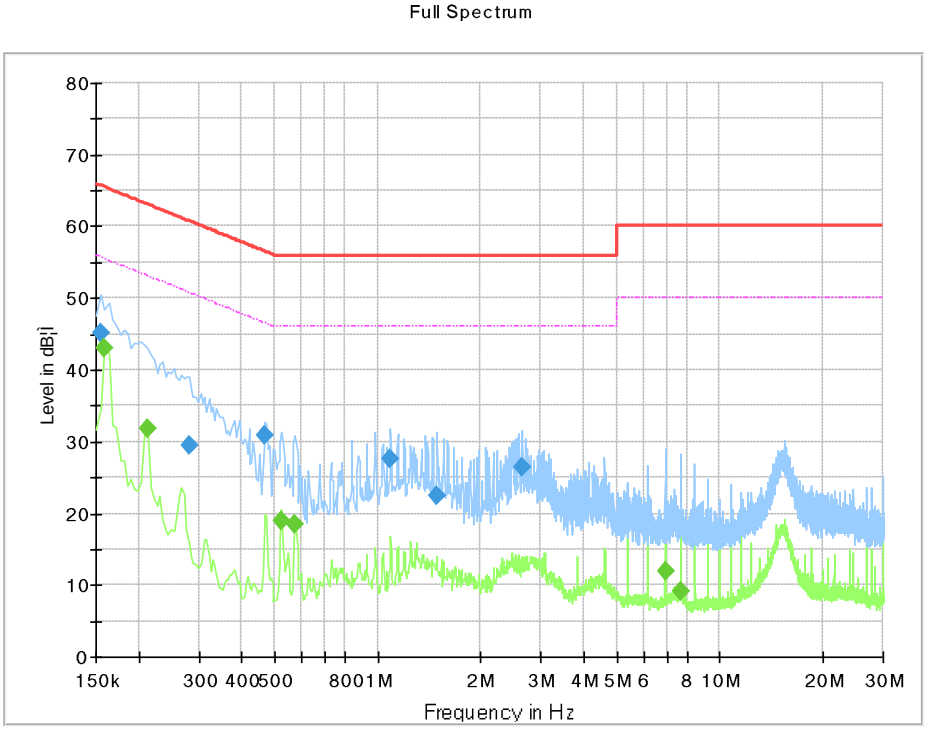
QP Result

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	44.54	66.00	21.46	1000.0	0.200	N	9.5
0.226500	29.49	62.58	33.08	1000.0	9.000	N	9.5
0.271500	24.49	61.07	36.58	1000.0	9.000	N	9.5
0.487500	25.58	56.21	30.63	1000.0	9.000	N	9.6
0.523500	27.20	56.00	28.80	1000.0	9.000	N	9.6
1.009500	21.56	56.00	34.44	1000.0	9.000	N	9.6

AV Result

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.483000	15.75	46.29	30.54	1000.0	9.000	N	9.6
0.519000	13.22	46.00	32.78	1000.0	9.000	N	9.6
0.640500	12.43	46.00	33.57	1000.0	9.000	N	9.6
1.536000	9.46	46.00	36.54	1000.0	9.000	N	9.6
15.337500	16.21	50.00	33.79	1000.0	9.000	N	9.9

Figure 21: Conducted Emission, TM6, L



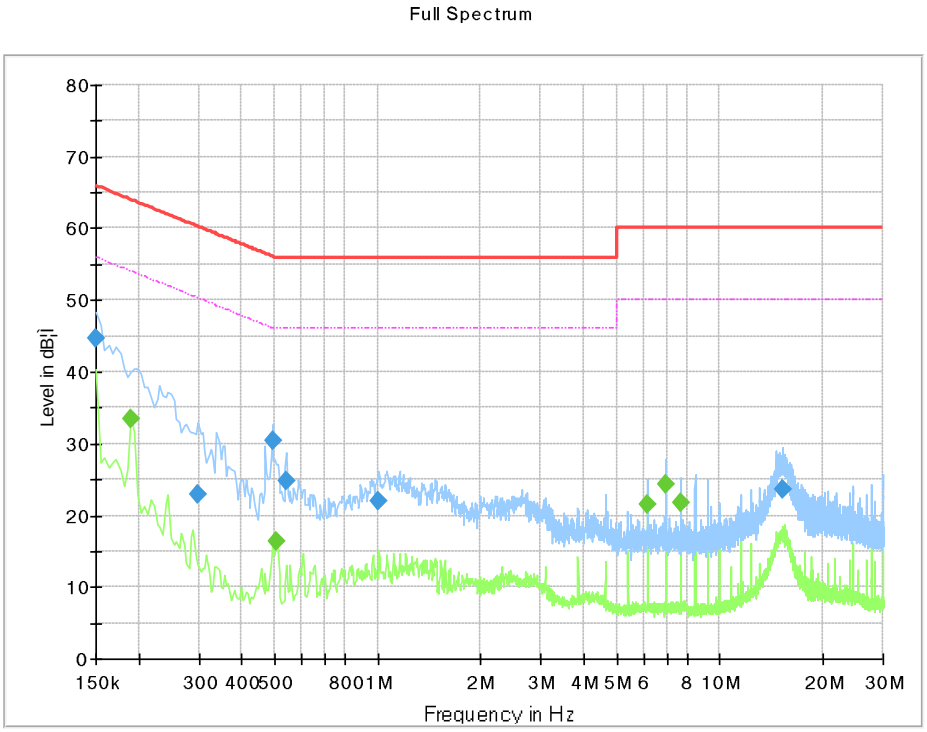
QP Result

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.154500	45.26	65.75	20.50	1000.0	9.000	L1	9.5
0.280500	29.45	60.80	31.35	1000.0	9.000	L1	9.6
0.469500	30.99	56.52	25.53	1000.0	9.000	L1	9.6
1.090500	27.55	56.00	28.45	1000.0	9.000	L1	9.6
1.491000	22.54	56.00	33.46	1000.0	9.000	L1	9.6
2.643000	26.38	56.00	29.62	1000.0	9.000	L1	9.7

AV Result

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.159000	43.11	55.52	12.41	1000.0	9.000	L1	9.5
0.213000	31.70	53.09	21.38	1000.0	9.000	L1	9.5
0.523500	18.93	46.00	27.07	1000.0	9.000	L1	9.6
0.573000	18.38	46.00	27.62	1000.0	9.000	L1	9.6
6.918000	11.83	50.00	38.17	1000.0	9.000	L1	9.8
7.683000	9.03	50.00	40.97	1000.0	9.000	L1	9.8

Figure 22: Conducted Emission, TM6, N



QP Result

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	44.69	66.00	21.31	1000.0	0.200	N	9.5
0.298500	22.92	60.28	37.36	1000.0	9.000	N	9.5
0.492000	30.30	56.13	25.83	1000.0	9.000	N	9.6
0.541500	24.89	56.00	31.11	1000.0	9.000	N	9.6
1.009500	21.92	56.00	34.08	1000.0	9.000	N	9.6
15.238500	23.54	60.00	36.46	1000.0	9.000	N	9.9

AV Result

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.190500	33.37	54.02	20.65	1000.0	9.000	N	9.5
0.505500	16.41	46.00	29.59	1000.0	9.000	N	9.6
6.157500	21.60	50.00	28.40	1000.0	9.000	N	9.7
6.927000	24.33	50.00	25.67	1000.0	9.000	N	9.7
7.696500	21.82	50.00	28.18	1000.0	9.000	N	9.7

5.3 Emission in the Frequency Range above 30MHz

5.3.1 Radiated Band-Edge

RESULT: **Pass**

Date of testing	:	01.06.2020
Ambient temperature	:	26.1°C
Relative humidity	:	32.7%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC 15.247(d) FCC 15.205(a) FCC 15.209(a) Clause 5.5 of RSS-247 Issue 2 February 2017 Clause 8.90 of RSS-Gen Issue 5, March 2019 Clause 8.10 of RSS-Gen Issue 5, March 2019
Test procedure	:	KDB 558074 D01v05r02 ANSI C63.10: 2013
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	TM1, TM3

Figure 23: Radiated Band-Edge, TM1, H

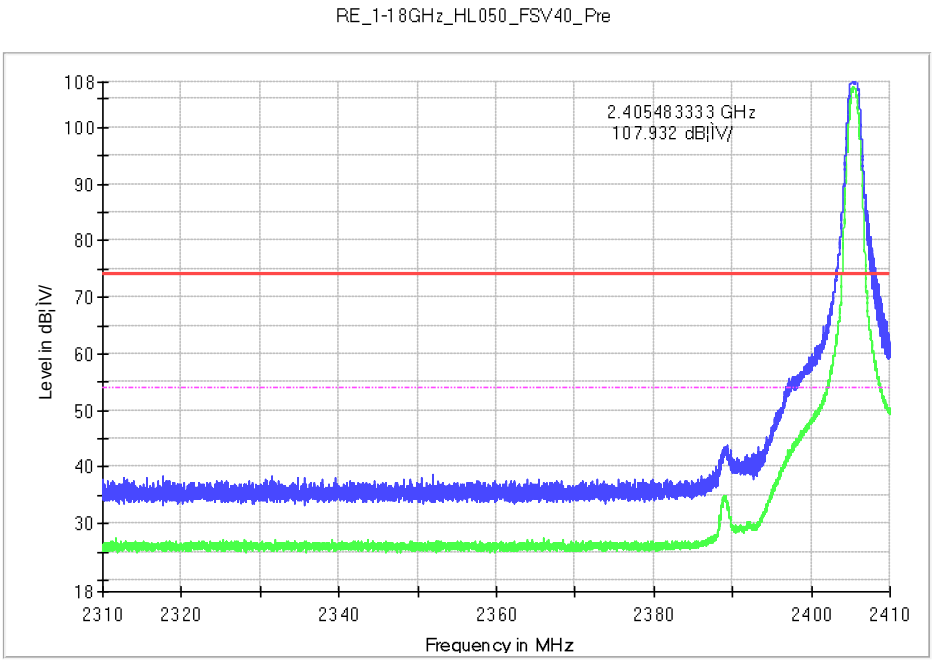


Figure 24: Radiated Band-Edge, TM1, V

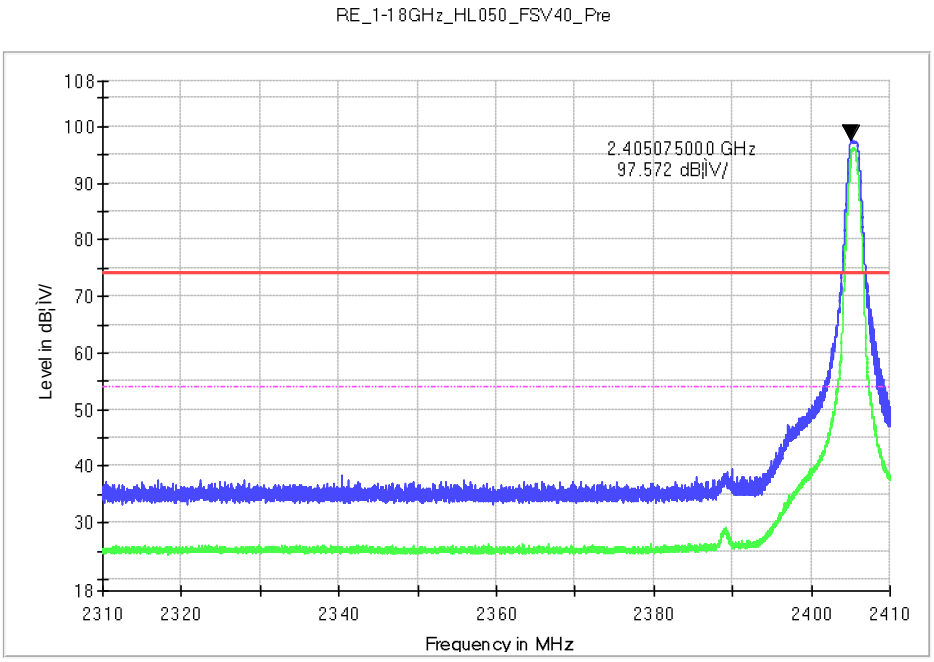


Figure 25: Radiated Band-Edge, TM3, H

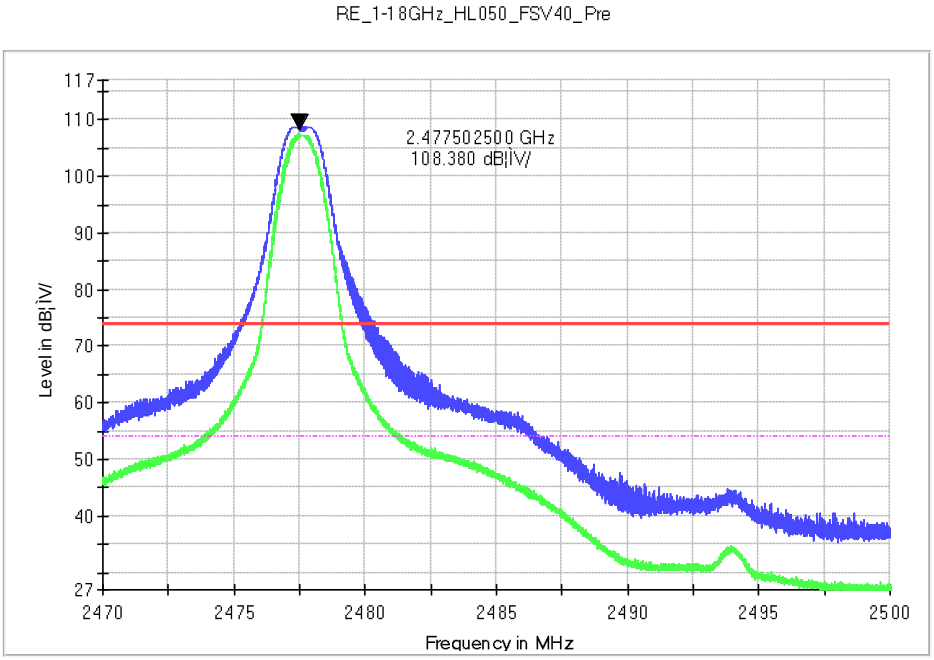
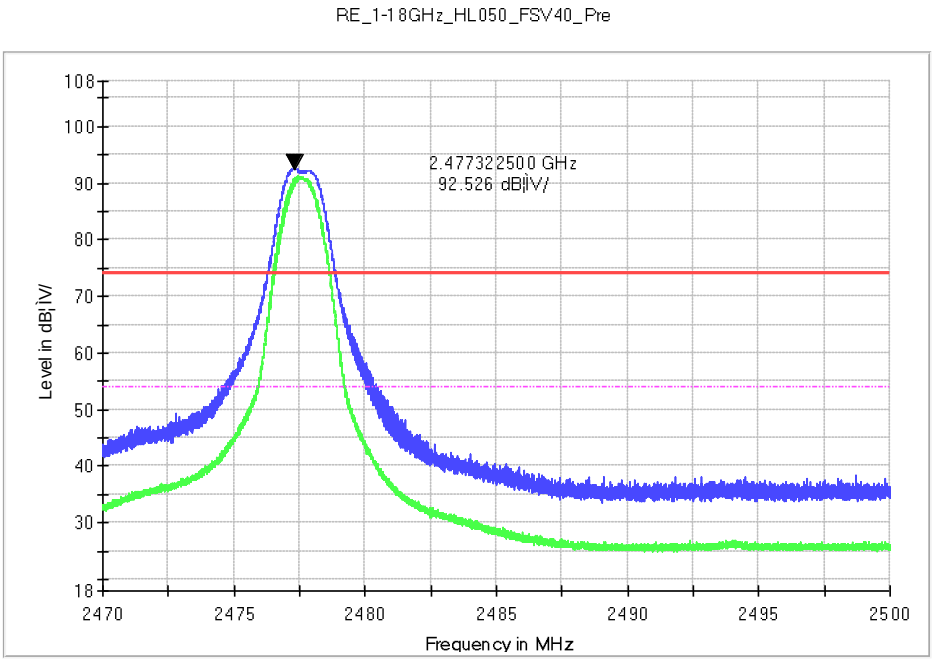


Figure 26: Radiated Band-Edge, TM3, V

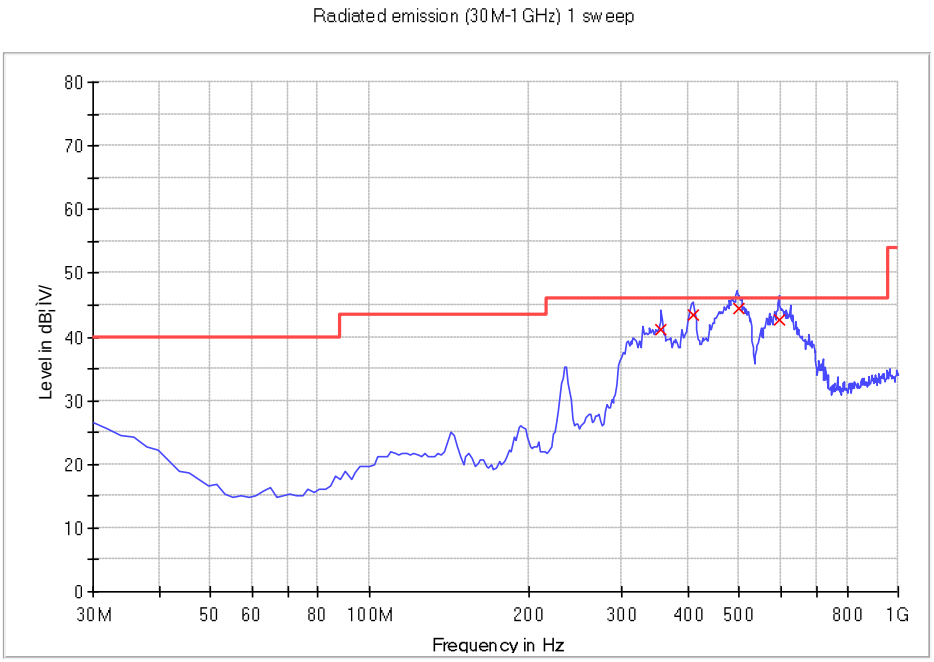


5.3.2 Radiated Spurious Emission

RESULT: **Pass**

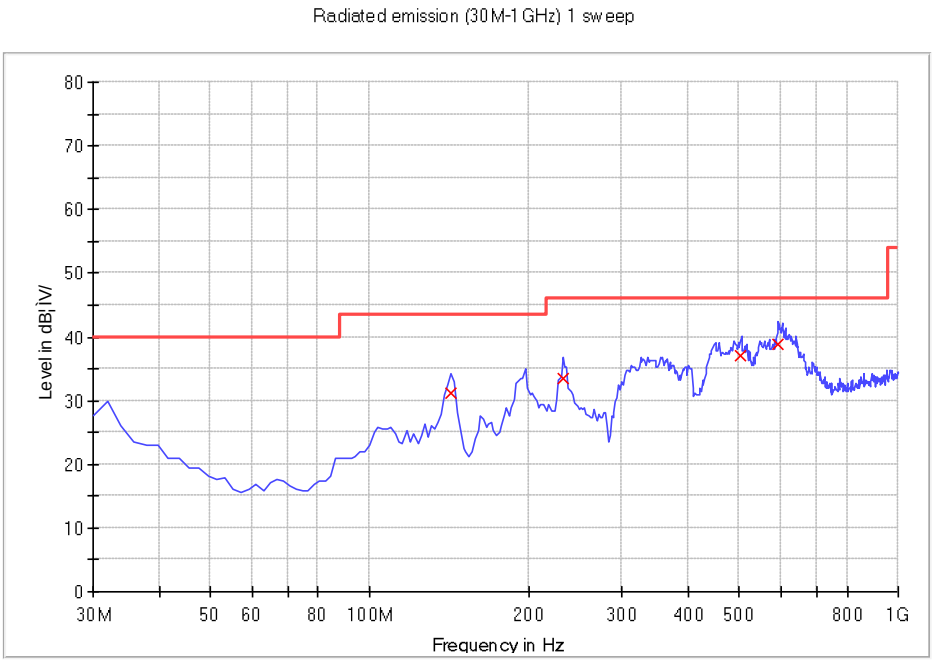
Date of testing	:	01.06.2020~02.06.2020
Ambient temperature	:	23.2°C
Relative humidity	:	38.5%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.209(a) FCC Part 15.247(d) RSS-247 Issue 2, February 2017, Clause 5.5 RSS-Gen Issue 5, Amendment 1, March 2019, Clause 8.9
Test procedure	:	KDB 558074 D01v05r02 ANSI C63.10: 2013
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	TM1 to TM3
Kind of test site		3m Anechoic Chamber

Figure 27: Radiated Spurious Emission, TM1, 30MHz to 1GHz, H



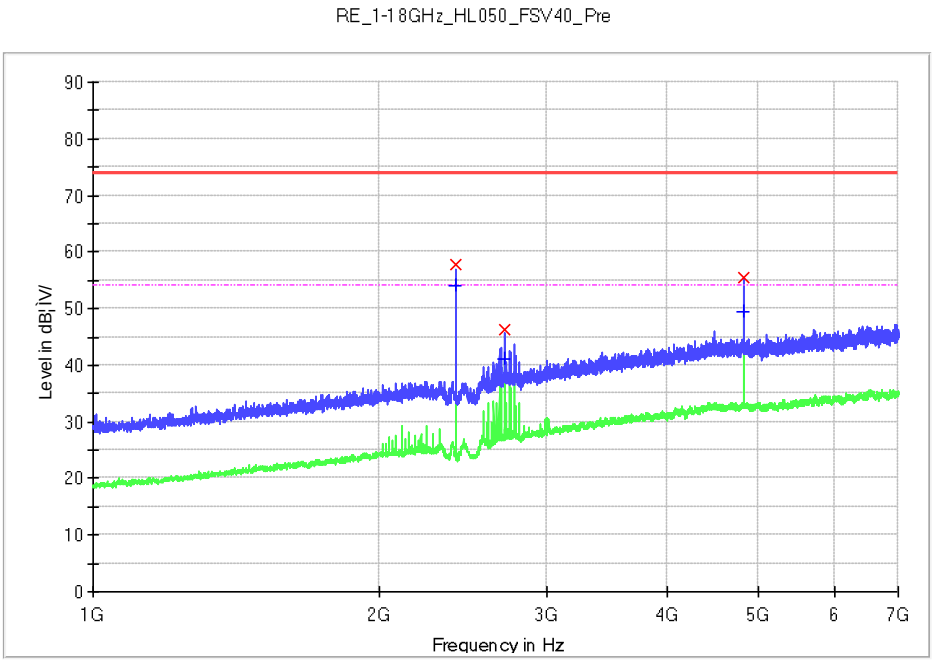
Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
356.573146	41.2	H	21.6	4.8	46.0
409.058116	43.4	H	23.0	2.6	46.0
500.420842	44.5	H	25.0	1.5	46.0
595.671343	42.8	H	26.2	3.2	46.0

Figure 28: Radiated Spurious Emission, TM1, 30MHz to 1GHz, V



Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
142.745491	31.2	V	17.9	12.3	43.5
232.164329	33.5	V	17.2	12.5	46.0
504.308617	37.1	V	24.9	8.9	46.0
593.727455	38.8	V	26.2	7.2	46.0

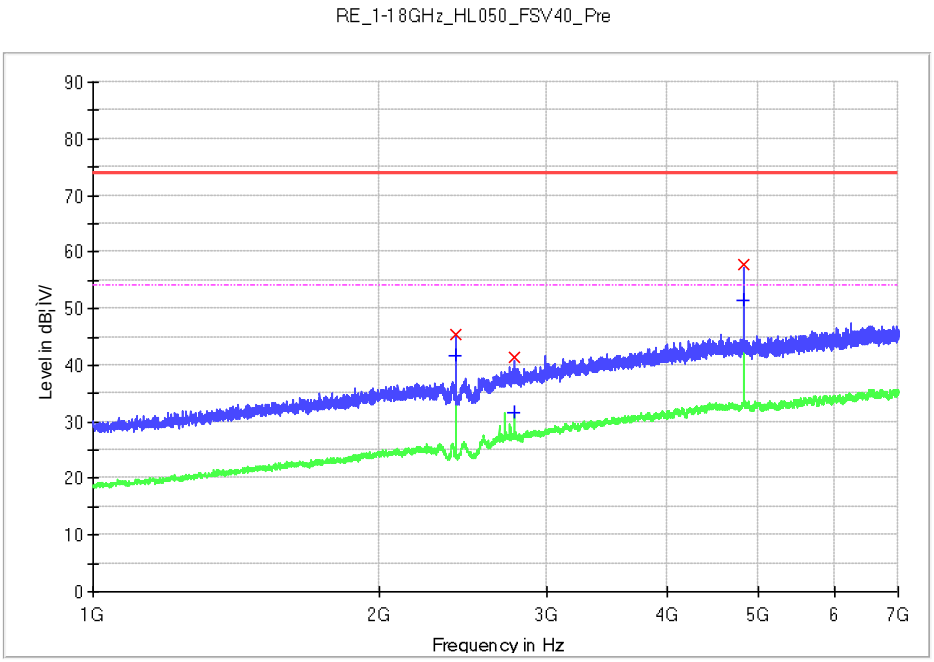
Figure 29: Radiated Spurious Emission, TM1, 1GHz to 7GHz, H



Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2405.000000	57.9	H	-14.4	N/A	N/A
2700.000000	46.3	H	-13.1	27.7	74.0
4811.500000	55.6	H	-6.5	18.4	74.0

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2405.000000	54.2	H	-14.4	N/A	N/A
2700.000000	41.2	H	-13.1	12.8	54.0
4811.500000	49.4	H	-6.5	4.6	54.0

Figure 30: Radiated Spurious Emission, TM1, 1GHz to 7GHz, V



Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2405.000000	45.4	V	-14.4	N/A	N/A
2765.500000	41.3	V	-12.8	32.7	74.0
4810.500000	57.7	V	-6.5	16.3	74.0

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2405.000000	41.6	V	-14.4	N/A	N/A
2765.500000	31.5	V	-12.8	22.5	54.0
4810.500000	51.5	V	-6.5	2.5	54.0

Figure 31: Radiated Spurious Emission, TM1, 7GHz to 18GHz, H

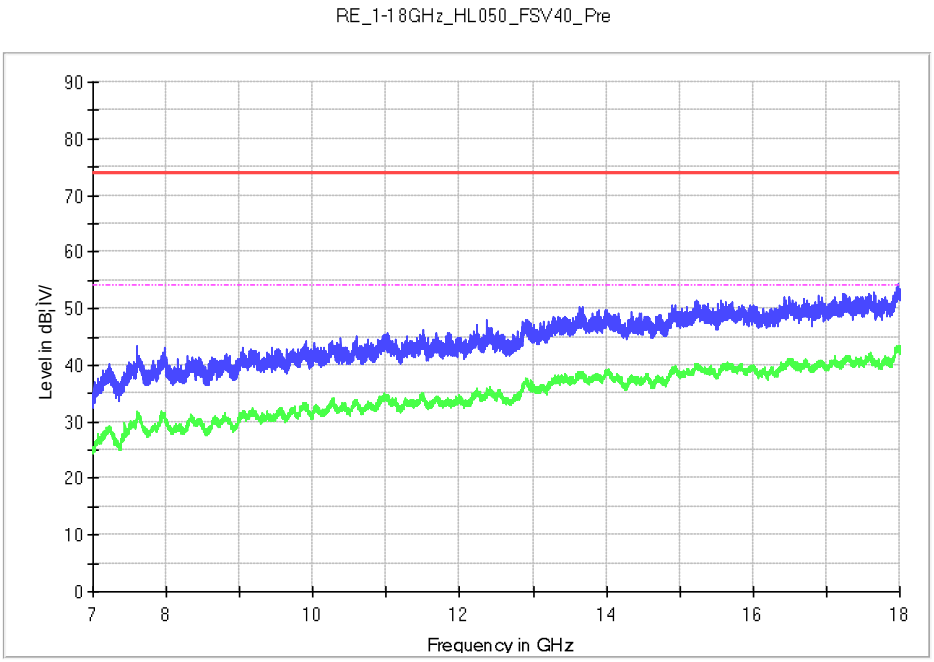


Figure 32: Radiated Spurious Emission, TM1, 7GHz to 18GHz, V

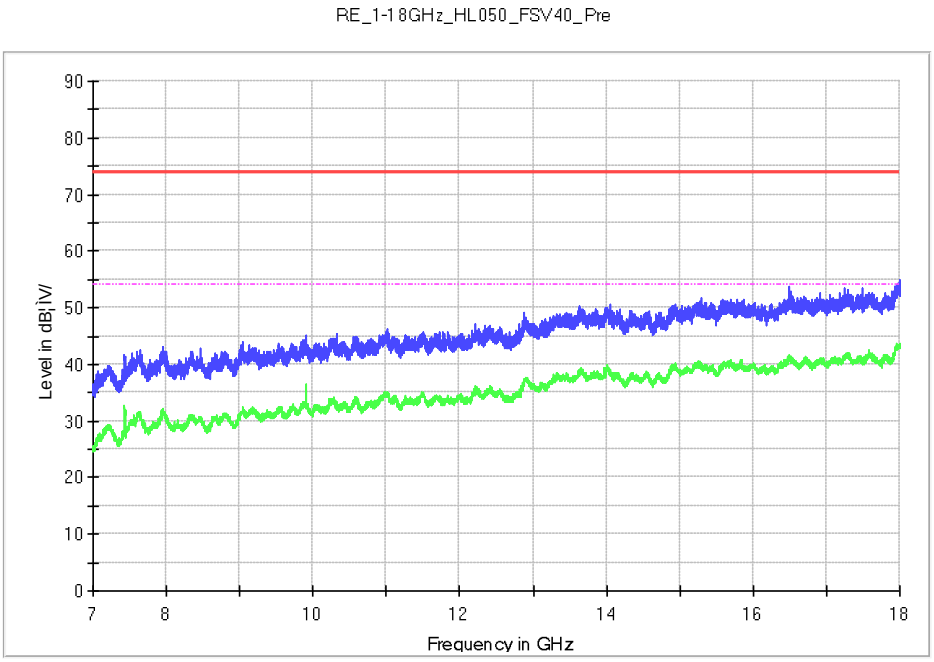


Figure 33: Radiated Spurious Emission, TM1, 18GHz to 25GHz, H

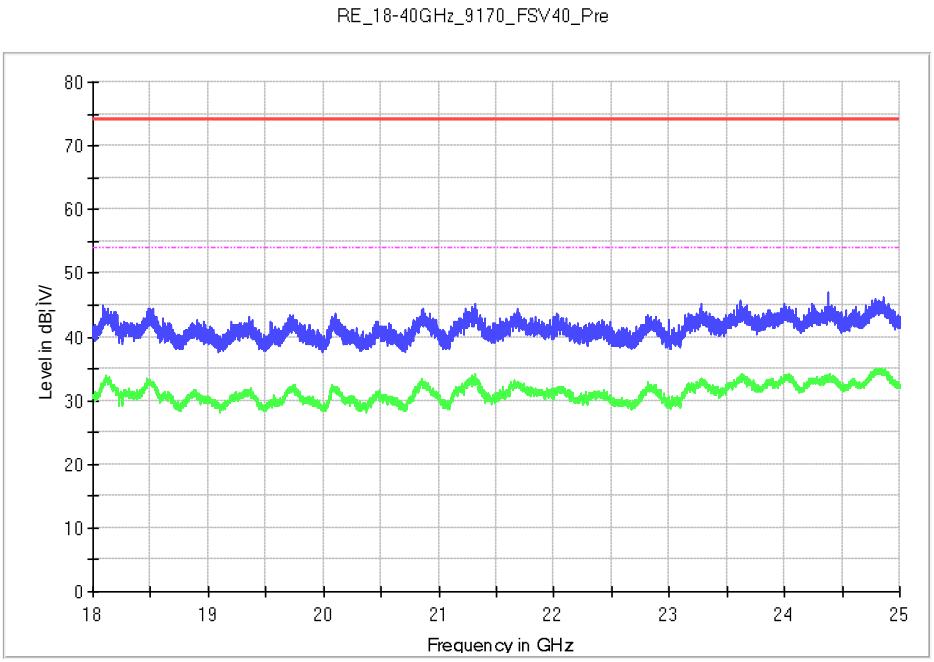


Figure 34: Radiated Spurious Emission, TM1, 18GHz to 25GHz, V

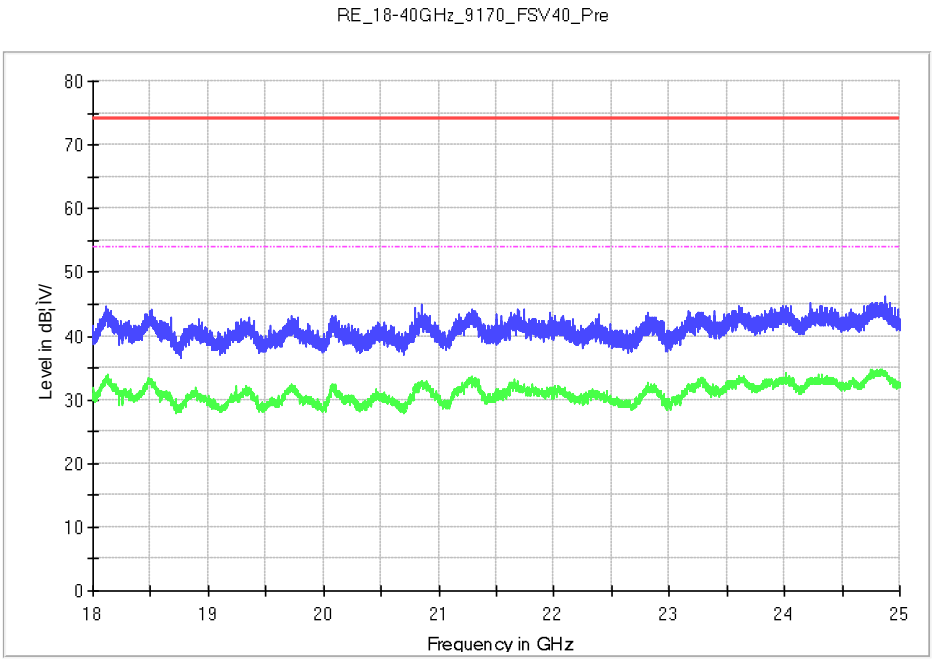
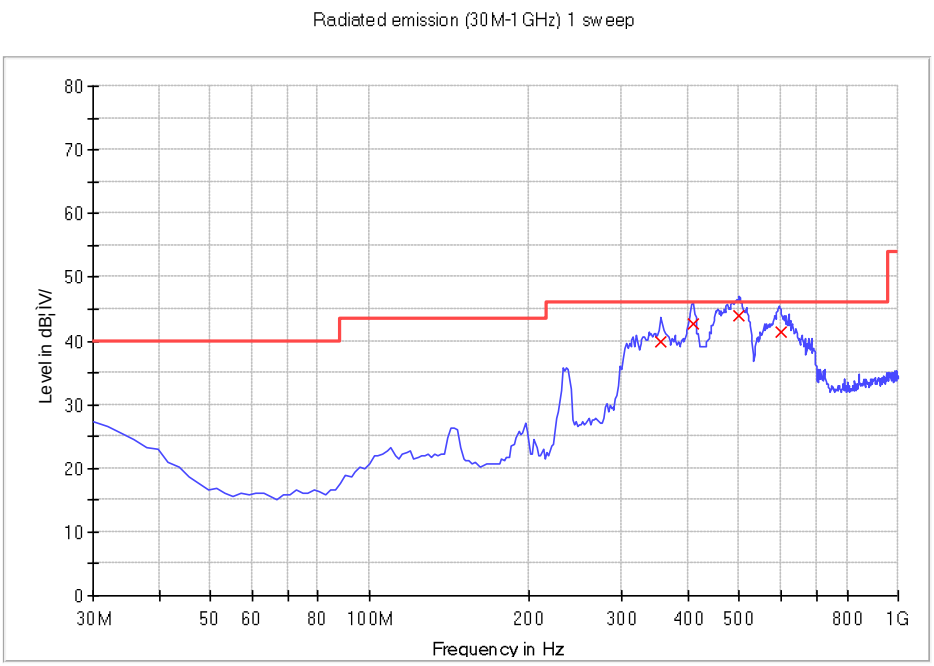
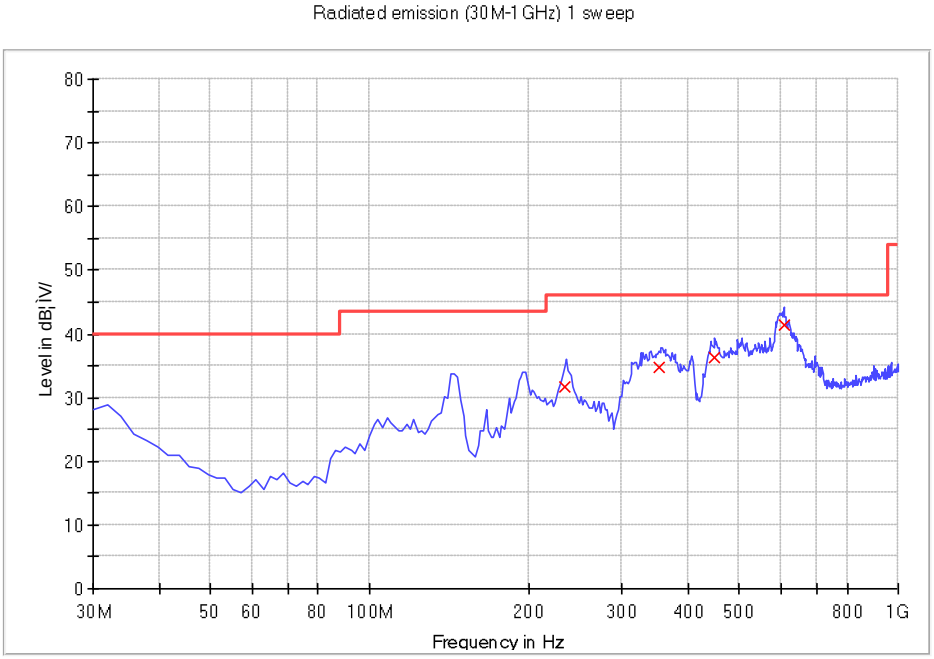


Figure 35: Radiated Spurious Emission, TM2, 30MHz to 1GHz, H



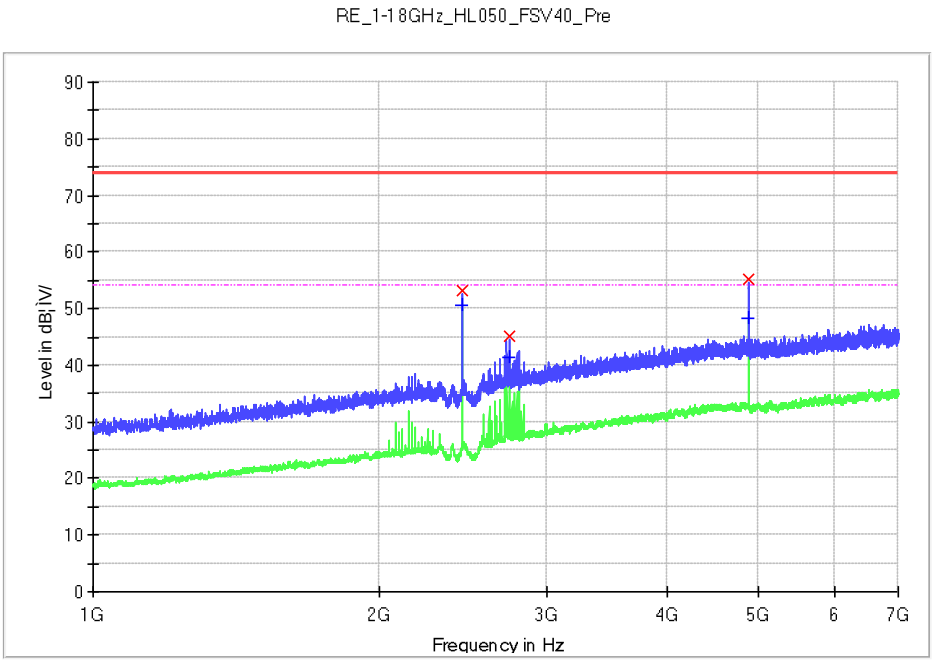
Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
354.629259	40.0	H	21.5	6.0	46.0
411.002004	42.8	H	23.1	3.2	46.0
500.420842	43.9	H	25.0	2.1	46.0
599.559118	41.5	H	26.2	4.5	46.0

Figure 36: Radiated Spurious Emission, TM2, 30MHz to 1GHz, V



Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
234.108216	31.7	V	17.4	14.3	46.0
352.685371	34.8	V	21.3	11.2	46.0
449.879760	36.4	V	24.1	9.6	46.0
607.334669	41.3	V	26.2	4.7	46.0

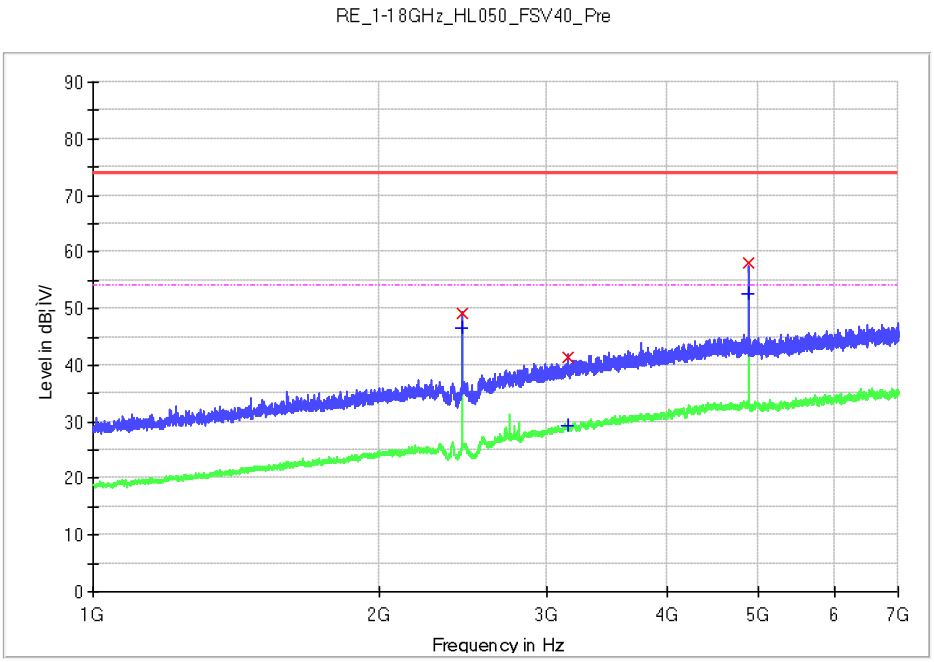
Figure 37: Radiated Spurious Emission, TM2, 1GHz to 7GHz, H



Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2440.500000	53.1	H	-14.3	N/A	N/A
2736.000000	45.2	H	-12.9	28.8	74.0
4881.000000	55.3	H	-6.5	18.7	74.0

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2440.500000	50.5	H	-14.3	N/A	N/A
2736.000000	41.3	H	-12.9	12.7	54.0
4881.000000	48.2	H	-6.5	5.8	54.0

Figure 38: Radiated Spurious Emission, TM2, 1GHz to 7GHz, V



Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2440.500000	49.3	V	-14.3	N/A	N/A
3152.500000	41.3	V	-11.0	32.7	74.0
4881.000000	58.2	V	-6.5	15.8	74.0

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2440.500000	46.5	V	-14.3	N/A	N/A
3152.500000	29.4	V	-11.0	24.6	54.0
4881.000000	52.7	V	-6.5	1.3	54.0

Figure 39: Radiated Spurious Emission, TM2, 7GHz to 18GHz, H

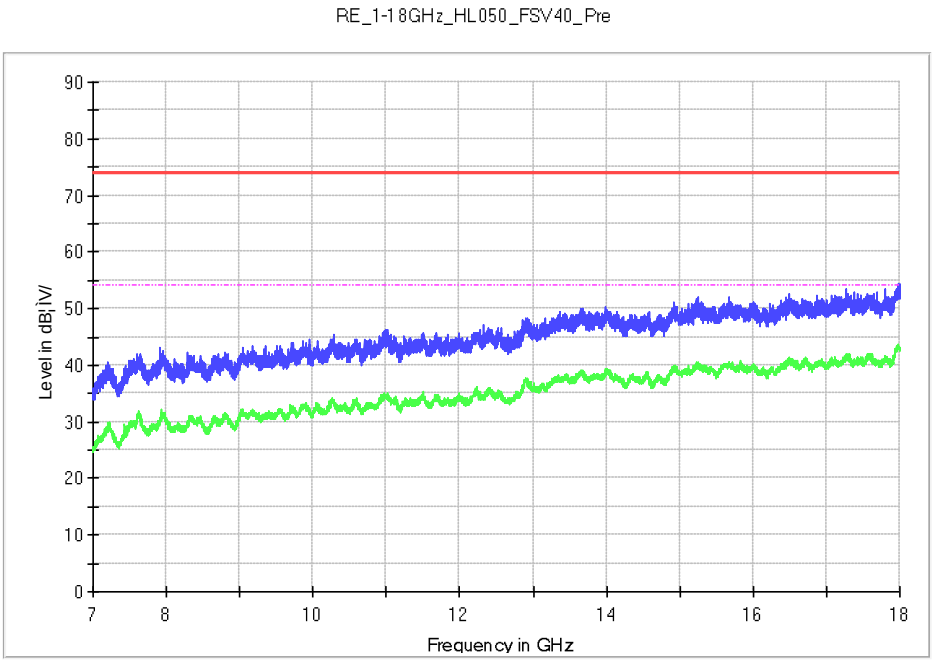


Figure 40: Radiated Spurious Emission, TM2, 7GHz to 18GHz, V

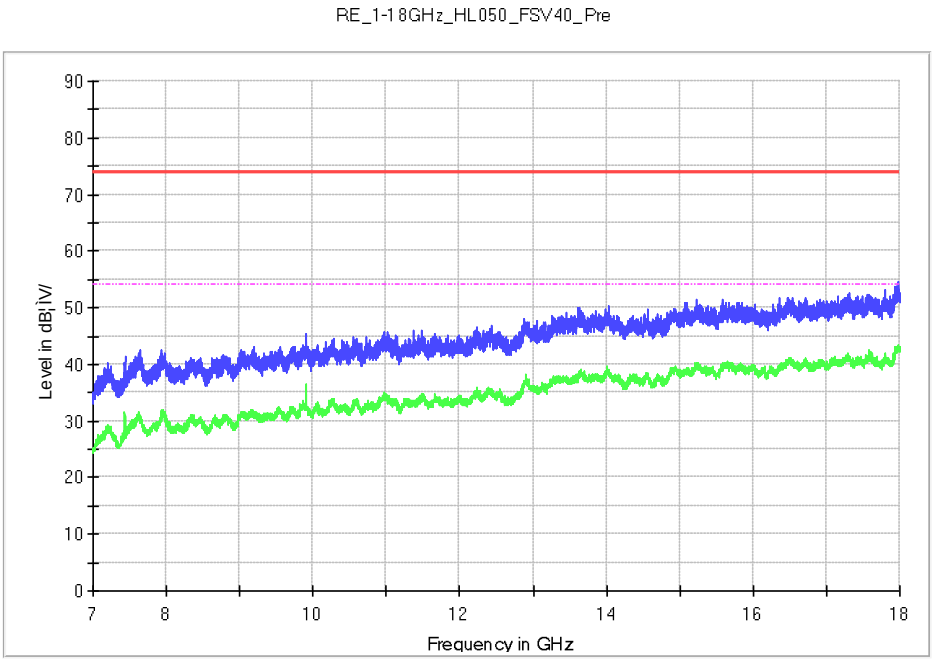


Figure 41: Radiated Spurious Emission, TM2, 18GHz to 25GHz, H

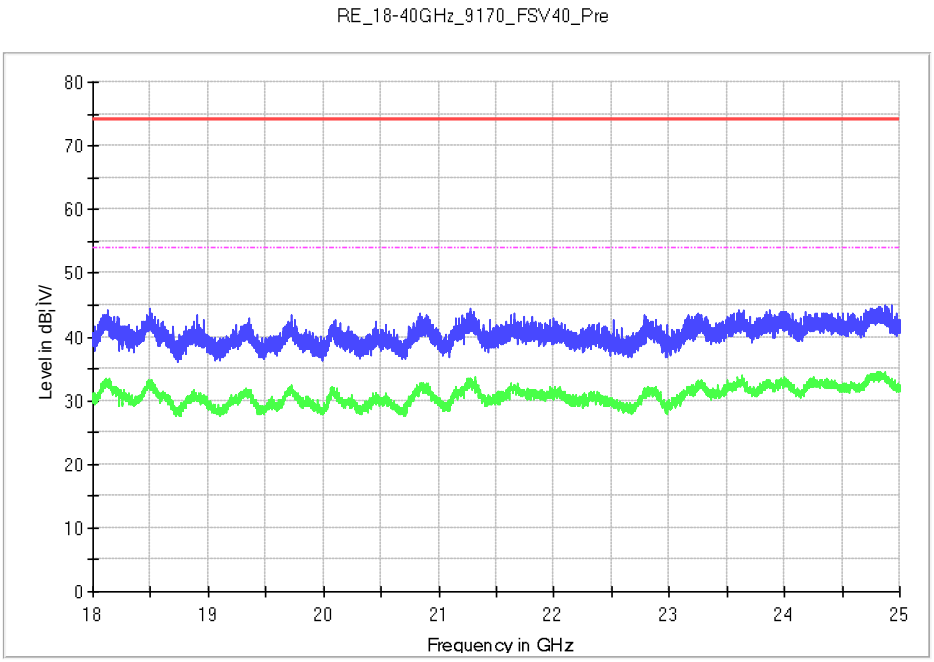


Figure 42: Radiated Spurious Emission, TM2, 18GHz to 25GHz, V

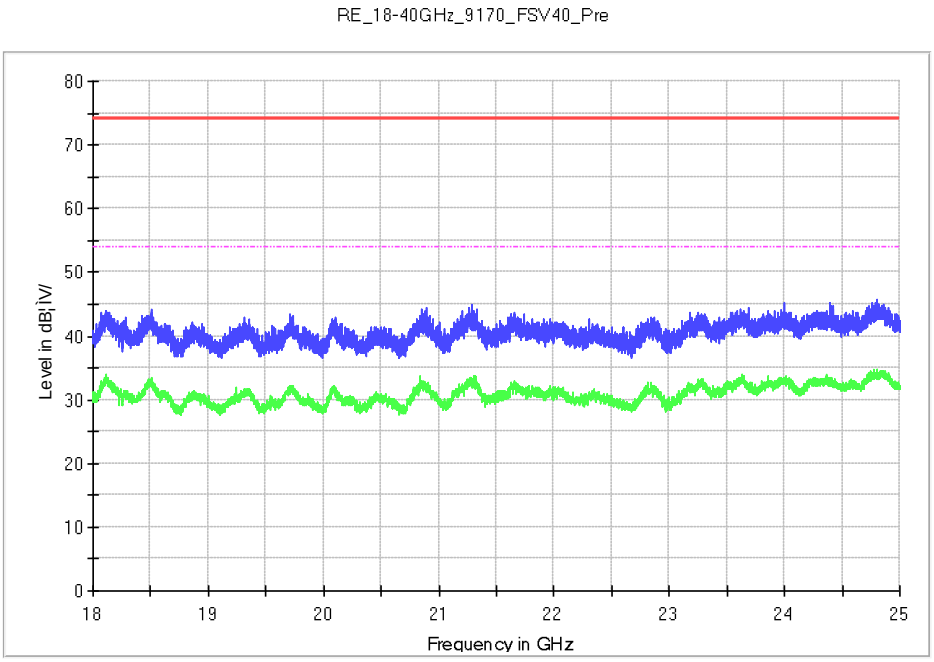
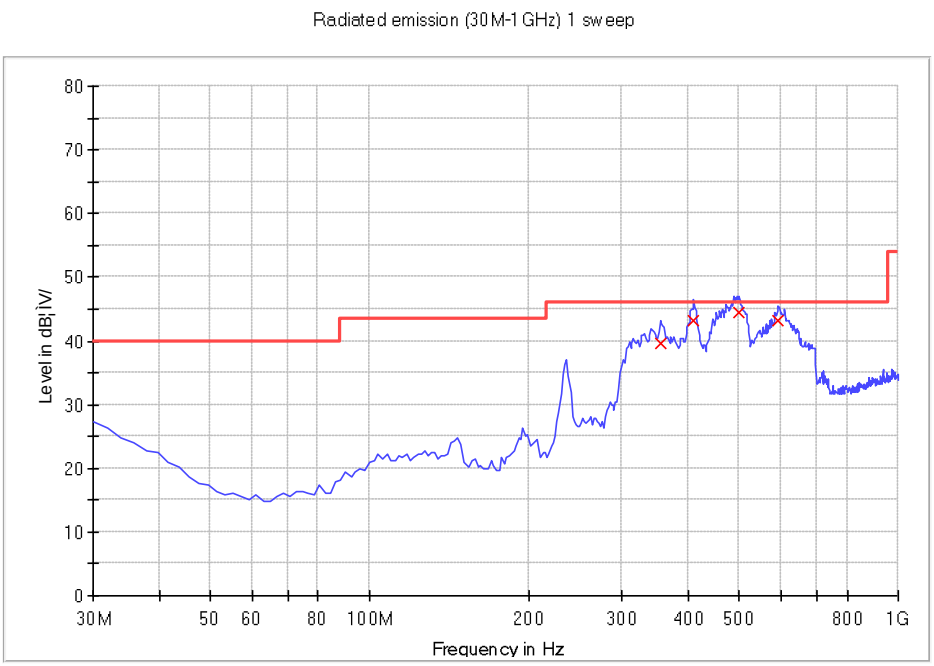
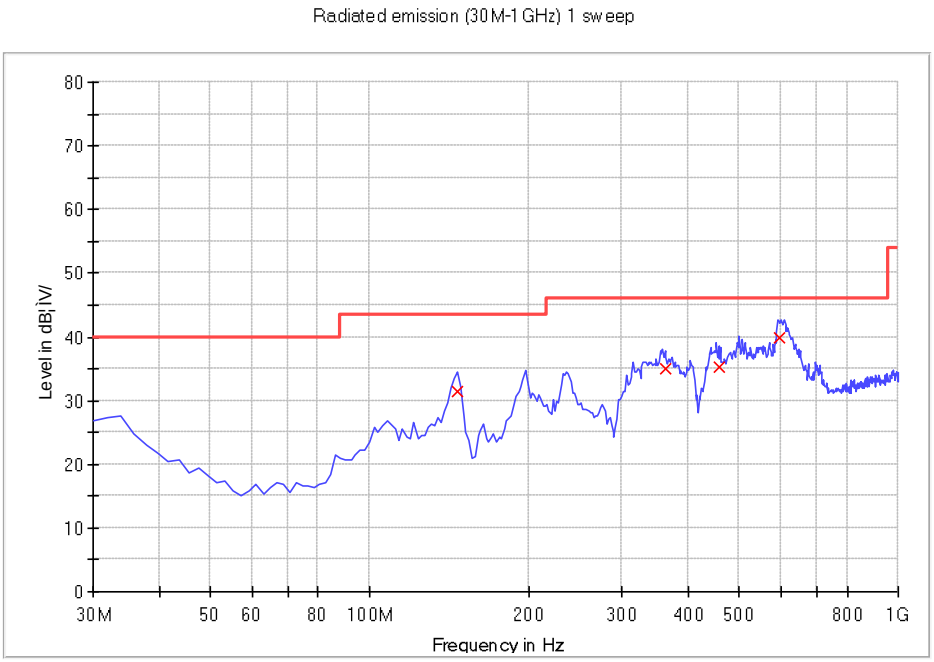


Figure 43: Radiated Spurious Emission, TM3, 30MHz to 1GHz, H



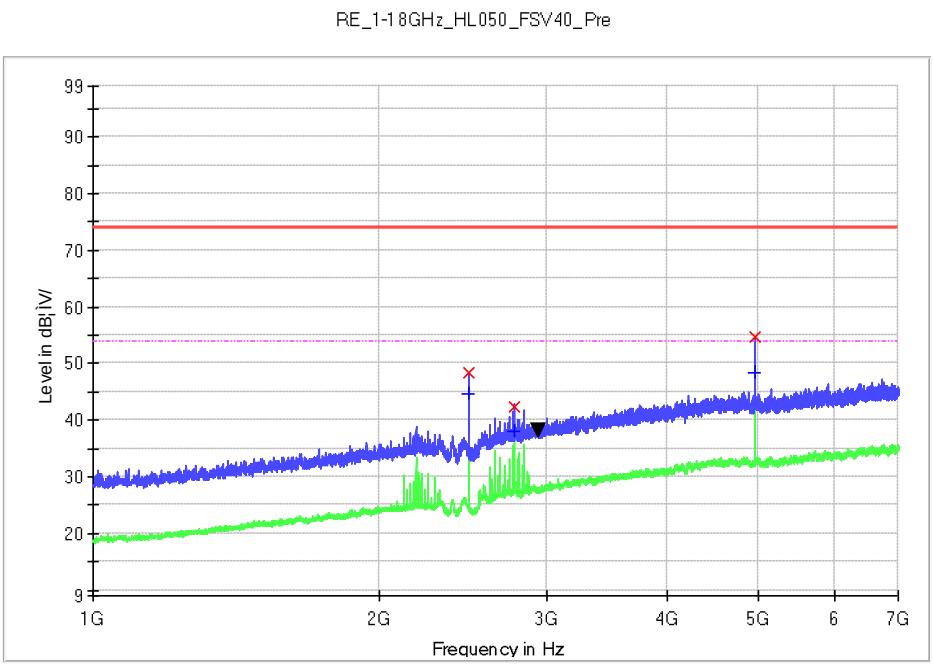
Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
356.573146	39.7	H	21.6	6.3	46.0
411.002004	43.1	H	23.1	2.9	46.0
500.420842	44.6	H	25.0	1.4	46.0
593.727455	43.3	H	26.2	2.7	46.0

Figure 44: Radiated Spurious Emission, TM3, 30MHz to 1GHz, V



Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
146.633267	31.5	V	17.6	12.0	43.5
362.404810	34.9	V	21.8	11.1	46.0
457.655311	35.2	V	24.3	10.8	46.0
595.671343	39.8	V	26.2	6.2	46.0

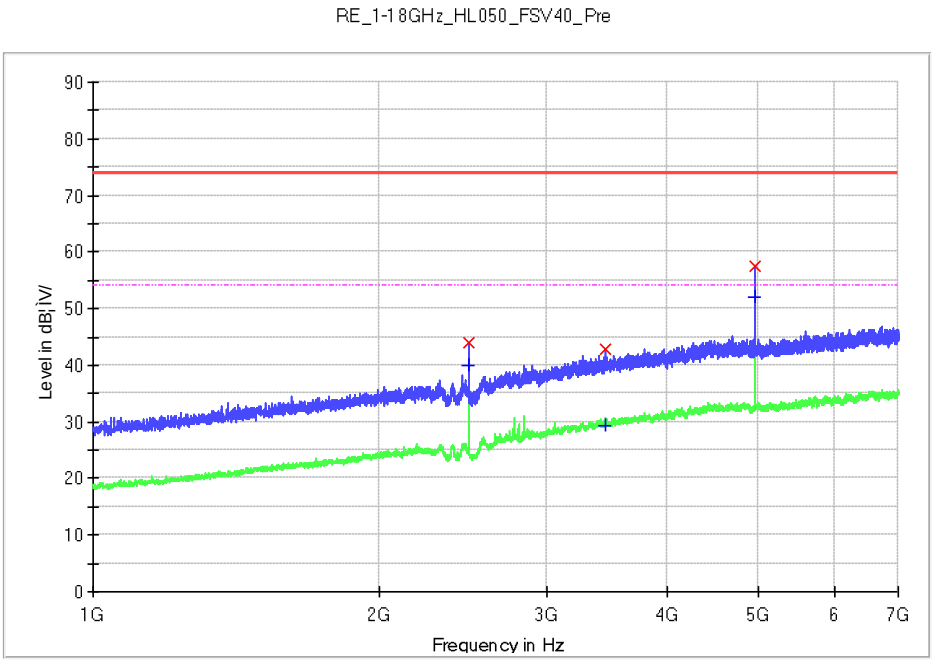
Figure 45: Radiated Spurious Emission, TM3, 1GHz to 7GHz, H



Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2477.000000	48.3	H	-14.2	N/A	N/A
2772.000000	42.4	H	-12.8	31.6	74.0
4954.500000	54.8	H	-6.6	19.2	74.0

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2477.000000	44.7	H	-14.2	N/A	N/A
2772.000000	38.0	H	-12.8	16.0	54.0
4954.500000	48.3	H	-6.6	5.7	54.0

Figure 46: Radiated Spurious Emission, TM3, 1GHz to 7GHz, V



Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2477.500000	43.9	V	-14.2	N/A	N/A
3447.000000	42.7	V	-9.7	31.3	74.0
4954.500000	57.5	V	-6.6	16.5	74.0

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2477.500000	40.1	V	-14.2	N/A	N/A
3447.000000	29.3	V	-9.7	24.7	54.0
4954.500000	52.1	V	-6.6	1.9	54.0

Figure 47: Radiated Spurious Emission, TM3, 7GHz to 18GHz, H

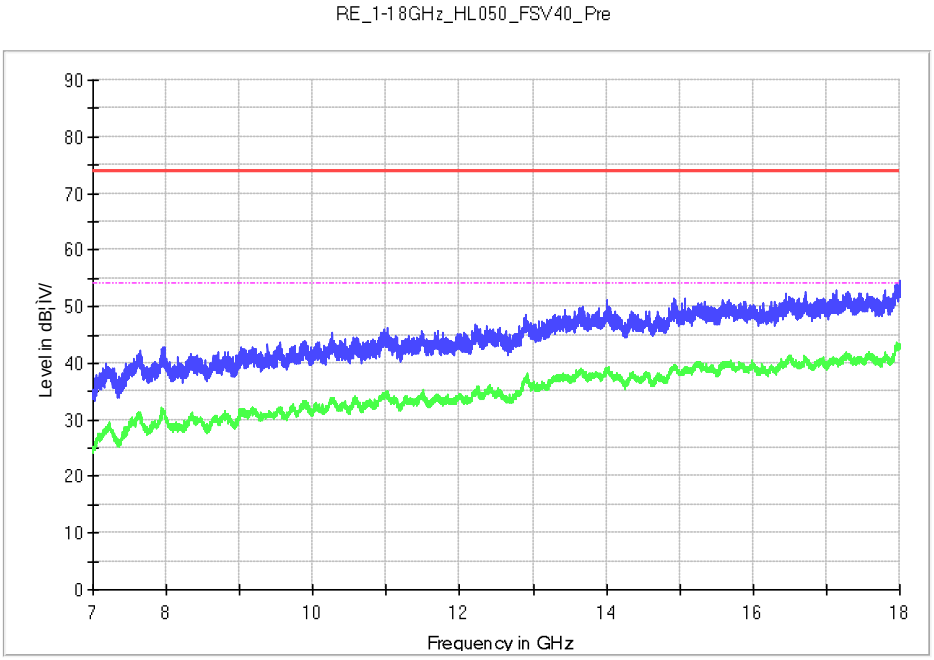


Figure 48: Radiated Spurious Emission, TM3, 7GHz to 18GHz, V

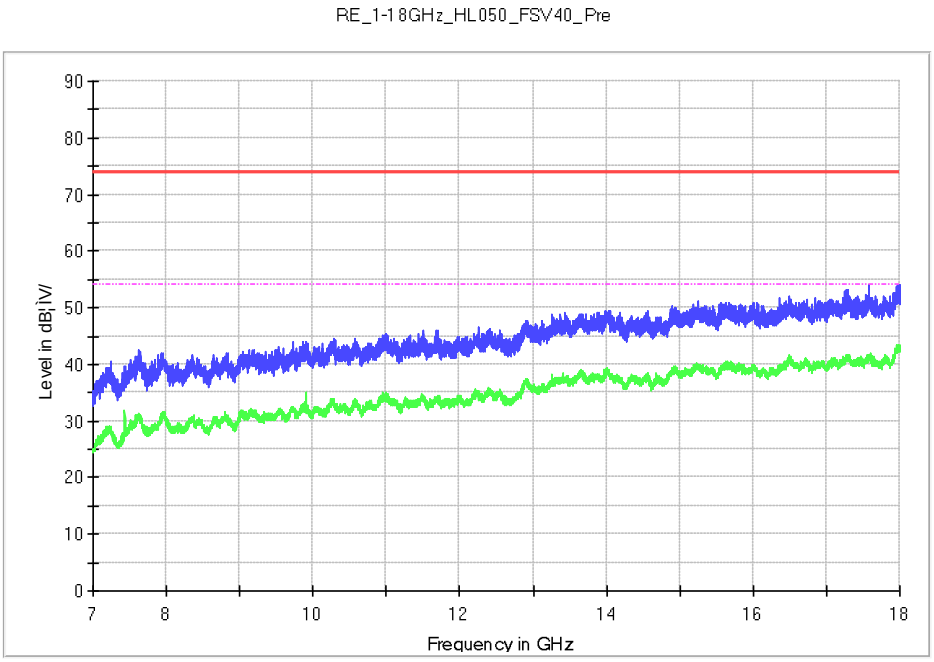


Figure 49: Radiated Spurious Emission, TM3, 18GHz to 25GHz, H

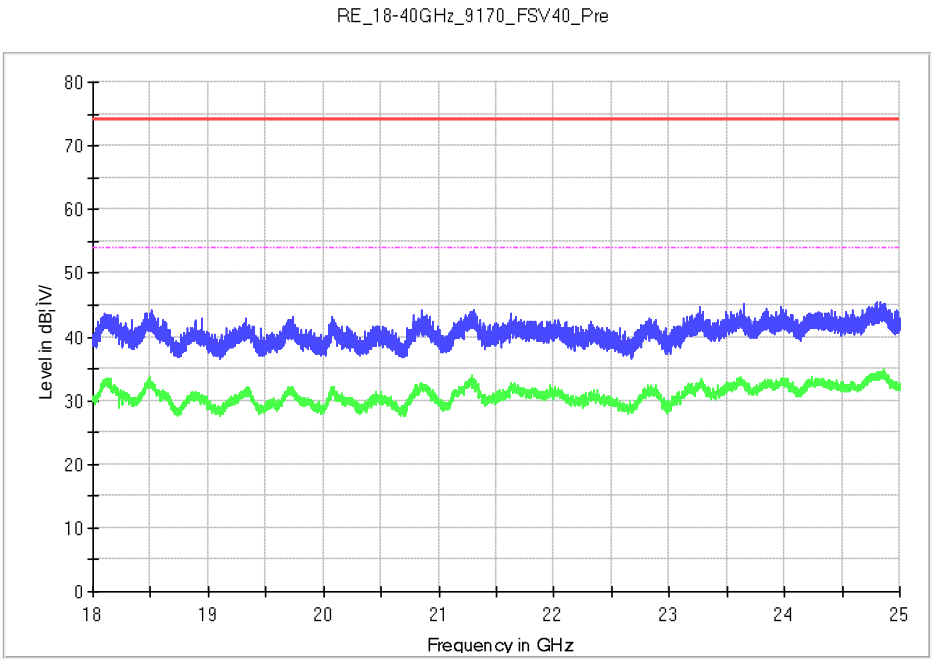
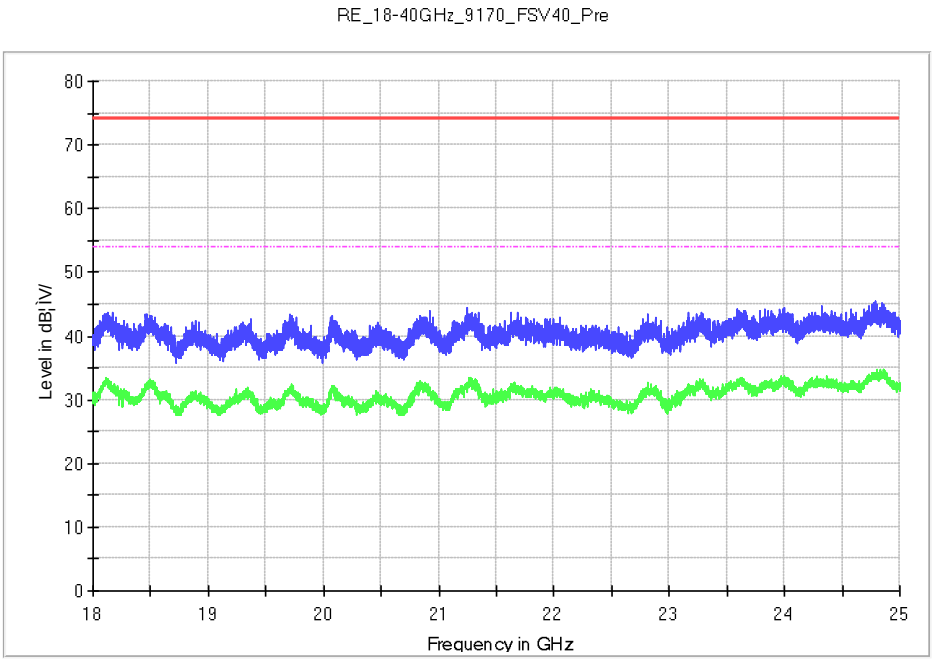


Figure 50: Radiated Spurious Emission, TM3, 18GHz to 25GHz, V



6. List of Tables

7. List of Figures