

FCC/ISED - TEST REPORT

Report Number : **709502502170-00C** Date of Issue: May 06,2025

Model : M800, M800-2

Product Type : DASH CAM

Applicant : 70mai Co., Ltd.

Address : Room 2220, building 2, No. 588, Zixing road, MinHang District,
Shanghai, CHINA.

Manufacturer : 70mai Co., Ltd.

Address : Room 2220, building 2, No. 588, Zixing road, MinHang District,
Shanghai, CHINA.

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including
Appendices : 58



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2 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Issue	Description of Change	Date of Issue
709502502170-00C	First Issue	05/06/2025

3 Details about the Test Laboratory

Test Site 1

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch
No.16 Lane, 1951 Du Hui Road,
Shanghai 201108,
P.R. China

Telephone: +86 21 6141 0123

Fax: +86 21 6140 8600

FCC Registration No.: 820234

FCC Designation Number: CN1183

ISED CAB identifier: CN0101

IC Registration No.: 31668

4 Description of the Equipment under Test

Product: DASH CAM

PMN / HVIN / Model no.: M800, M800-2

FCC ID: 2AOK9-M800

IC: 28033-M800

Rating: For Car charger
Rated Input Voltage: 12-24V DC
For Dash Cam
Rated Input Voltage: 5V DC; Rated Current: 2A

RF Transmission Frequency: For 2.4GHz Wi-Fi:802.11b/g/n-HT20: Wi-Fi:2412-2462MHz
For 802.11n(HT40: 2422~2452 MHz
For Bluetooth LE:2402~2480MHz
For 5GHz Wi-Fi:5180~5240 MHz (U-NII-1)
5745~5825 MHz (U-NII-3)
(Note: In Canada U-NII-I Band will be disabled by firmware)

Modulation: Direct Sequence Spread Spectrum (DSSS) for 802.11b
Orthogonal Frequency Division Multiplexing (OFDM) for
802.11a/g/n; 2.4GHz BLE: GFSK

Channel list:

Bluetooth Low Energy							
Ch	Fre(MHz)	Ch	Fre(MHz)	Ch	Fre(MHz)	Ch	Fre(MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

5180~5240 MHz (U-NII-1):

4 channels for 802.11a, 802.11n (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
40	5200	48	5240

2 channels are for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230

5745~5825 MHz (U-NII-3): Channel 149 – 165

5 channels for 802.11a, 802.11n (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	161	5805
153	5765	165	5825
157	5785		

2 channels for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

802.11b/g/n(HT20)				802.11n(HT40)			
Ch	Fre(MHz)	Ch	Fre(MHz)	Ch	Fre(MHz)	Ch	Fre(MHz)
1	2412	7	2442	3	2422	8	2447MHz
2	2417	8	2447	4	2427	9	2452MHz
3	2422	9	2452	5	2432		
4	2427	10	2457	6	2437		
5	2432	11	2462	7	2442		
6	2437						

Modulation:

Direct Sequence Spread Spectrum (DSSS) for 802.11b
 Orthogonal Frequency Division Multiplexing (OFDM) for
 802.11a/g/n; 2.4GHz BLE: GFSK

Hardware Version:

LGDM003C1

Software Version:

0.014WW

Data speed:

2.4G Wi-Fi

SISO:11b 1-11Mbps, 11g 6-54Mbps

11n HT20 6.5 ~ 72.2Mbps, 11n HT40 13.5 ~ 150Mbps

2.4G BLE: 1/2 Mbps

5G Wi-Fi

SISO: 11a 6 ~ 54Mbps,

11n HT20 6.5 ~ 72.2Mbps, 11n HT40 13.5 ~ 150Mbps

Antenna Type:

FPC Antenna

Antenna Gain:

1.66dBi for 2.4GHz; 0.78dBi for 5GHz

Description of the EUT:

The Equipment Under Test (EUT) is DASH CAM which support 2.4/5GHz Wi-Fi, BLE 5.2 and GNSS function. According to clients' declaration, model M800 only has front camera, M800-2 has both front and rear cameras, So, we chose M800-2 to conduct all tests. The corresponding data is representative for the other model as well. This report is only 2.4GHz BLE included.

Test sample no.:

SHA-899681-2 (RF radiated); SHA-899681-3 (RF conducted)

The sample's mentioned in this report is/are submitted/ supplied/ manufactured by client. The laboratory therefore assumes no responsibility for accuracy of information on the brand name, model number, origin of manufacture, consignment or any information supplied.

5 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C 10-1-2023 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators
RSS-Gen Issue 5 April 2018 + Amendment 1 March 2019 + Amendment 2 February 2021	General Requirements for Compliance of Radio Apparatus
RSS-247 Issue 3 August 2023	Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSS) and License-Exempt Local Area Network (LE- LAN) Devices

All the test methods were according to KDB 558074 D01 15.247 Meas Guidance v05r02 Measurement Guidance and ANSI C63.10-2020.

6 Summary of Test Results

Technical Requirements							
FCC Part 15 Subpart C & RSS-247 Issue 3/RSS-Gen Issue 5							
Test Condition			Pages	Test Site	Test Result		
					Pass	Fail	N/A
§15.207	RSS-GEN 8.8	Conducted emission AC power port	---	Site 1	☒	☐	☐
§15.247 (b) (3)	RSS-247 5.4(d)	Conducted peak output power & e.i.r.p	12-14	Site 1	☒	☐	☐
§15.247(a)(1)	RSS-247 5.1(a) & RSS-Gen 6.7	20dB bandwidth and 99% Occupied Bandwidth	---	---	☐	☐	☒
§15.247(a)(1)	RSS-247 5.1(b)	Carrier frequency separation	---	---	☐	☐	☒
§15.247(a)(1)(iii)	RSS-247 5.1(d)	Number of hopping frequencies	---	---	☐	☐	☒
§15.247(a)(1)(iii)	RSS-247 5.1(d)	Dwell Time - Average Time of Occupancy	---	---	☐	☐	☒
§15.247(a)(2)	RSS-247 5.2(a) & RSS-GEN 6.7	6dB bandwidth and 99% Occupied Bandwidth	15-19	Site 1	☒	☐	☐
§15.247(e)	RSS-247 5.2(b)	Power spectral density	20-22	Site 1	☒	☐	☐
§15.247(e)	RSS-247 5.5	Spurious RF conducted emissions	23-29	Site 1	☒	☐	☐
§15.247(d)	RSS-247 5.5	Band edge	30-34	Site 1	☒	☐	☐
§15.247(d) & §15.209 & §15.205	RSS-247 5.5 & RSS-Gen 6.13	Spurious radiated emissions for transmitter	35-55	Site 1	☒	☐	☐
§15.203	RSS-Gen 6.8	Antenna requirement	See note 1		☒	☐	☐

Remark 1: N/A – Not Applicable. This equipment that is not designed to be connected to the public utility (AC) power line and conducted emission AC power port not required.

Note 1: The EUT uses FPC antenna, which gain is 1.66dBi for 2.4GHz and 0.78dBi for 5GHz. In accordance to §15.203 and RSS-Gen 6.8, it is considered sufficiently to comply with the provisions of this section.

7 General Remarks

Remarks

This submittal(s) (test report) is intended for FCC ID: 2AOK9-M800, IC: 28033-M800 complies with Section 15.209,15.205,15.247 of the FCC Part 15, Subpart C Rules and RSS-247, RSS-GEN.

SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: March 19, 2025

Testing Start Date: March 24, 2025

Testing End Date: April 25, 2025

-TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch

Reviewed by:

Jiaxi Xu

Jiaxi XU
Review Engineer



Prepared by:

Hui Tong

Hui TONG
Project Engineer

Tested by:

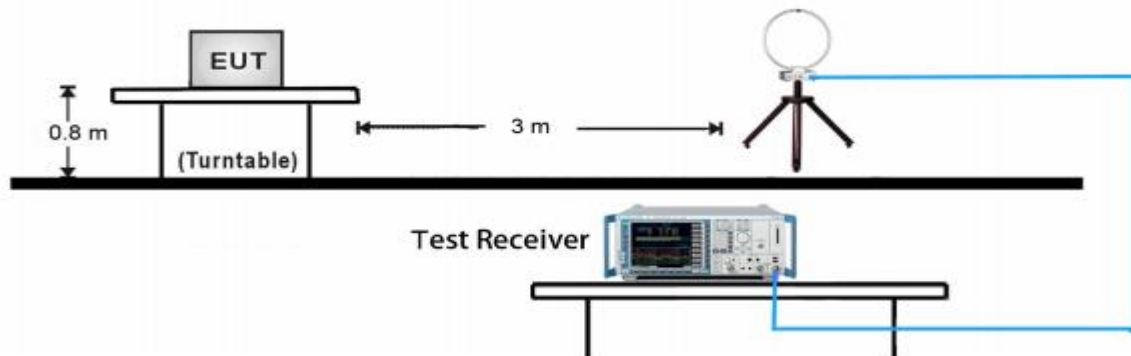
chengjie guo

Chengjie GUO
Test Engineer

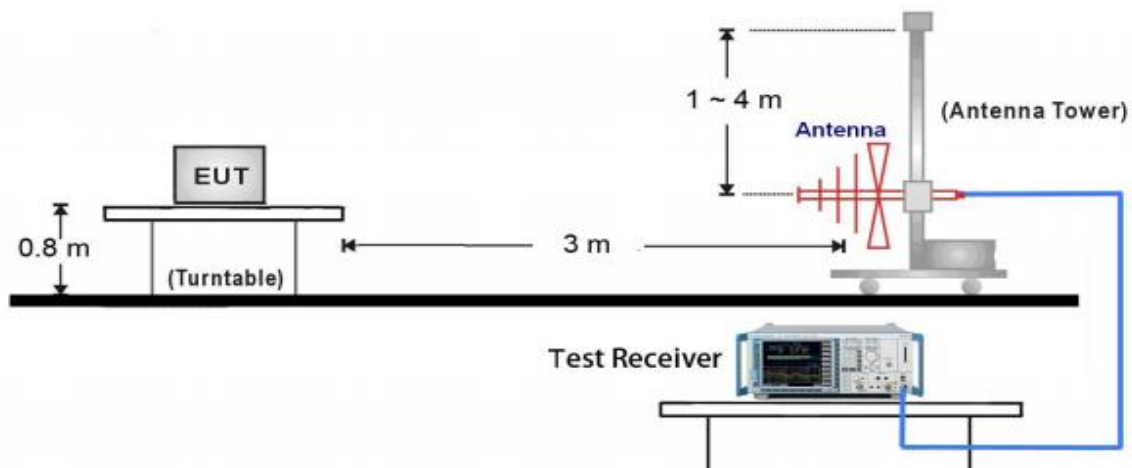
8 Test Setups

8.1 Radiated test setups

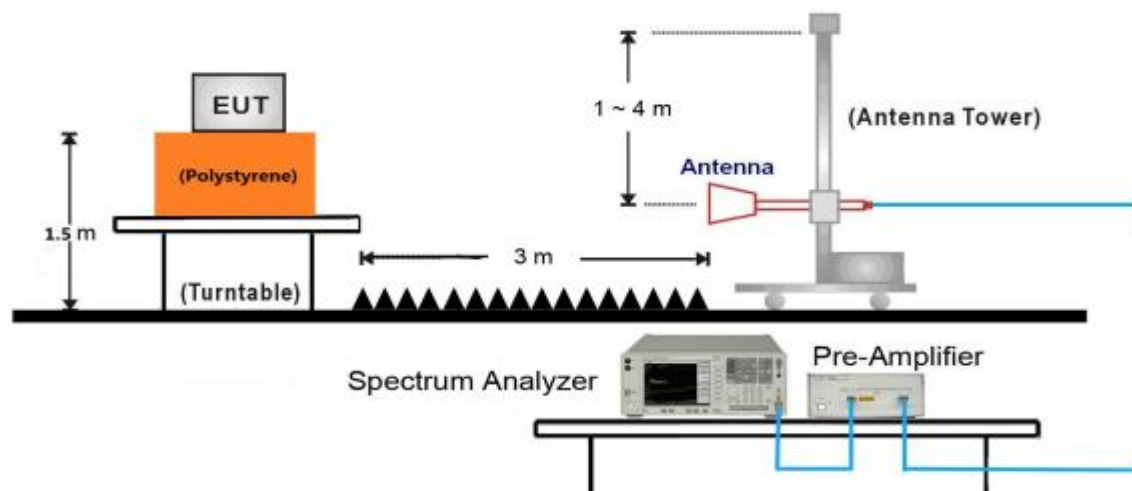
9kHz ~ 30MHz Test Setup:



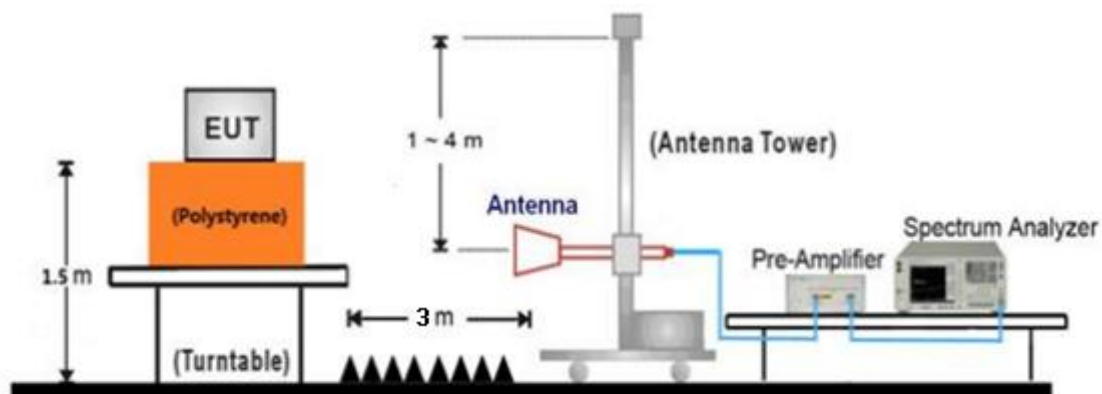
30MHz ~ 1GHz Test Setup:



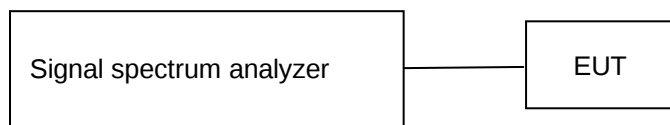
1GHz ~ 18GHz Test Setup:



18GHz ~ 25GHz Test Setup:



7.3 Conducted RF test setups



9 Systems test configuration

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
Notebook	Lenovo	E470	PF-OU5TS7 17/09

Test software: SSCOM V5.13.1, which used to control the EUT in continues transmitting mode

The system was configured to channel 0, 19, and 39 for the test.

Test Mode Applicability and Tested Channel Detail:

Mode	Tested Channel	Data Rate (Mbps)	Modulation	Power level setting
Bluetooth LE	0	1	GFSK	Auto
	19	1	GFSK	Auto
	39	1	GFSK	Auto
Bluetooth LE	0	2	GFSK	Auto
	19	2	GFSK	Auto
	39	2	GFSK	Auto

The system was configured to channel 0, 19, and 39 for the test.

Non-hopping mode: The system was configured to operate at a signal channel transmitting. The test software allows the configuration and operation at the worst-case duty and the highest transmit power.

10 Technical Requirement

10.1 Conducted peak output power and e.i.r.p.

Test Method

1. Use the following spectrum analyzer settings:
RBW > the 6 dB bandwidth of the emission being measured, VBW $\geq$ 3RBW, Span $\geq$ 3RBW
Sweep = auto, Detector function = peak, Trace = max hold.
2. Add a correction factor to the display.
3. Use a power meter to measure the conducted peak output power.

Limits

According to §15.247 (b) (3) & RSS-247 5.4(d) conducted peak output power limit as below:

	Frequency Range	Limit	Limit
	MHz	W	dBm
Conducted peak output power	2400-2483.5	≤ 1	≤ 30
e.i.r.p.	2400-2483.5	≤ 4	≤ 36

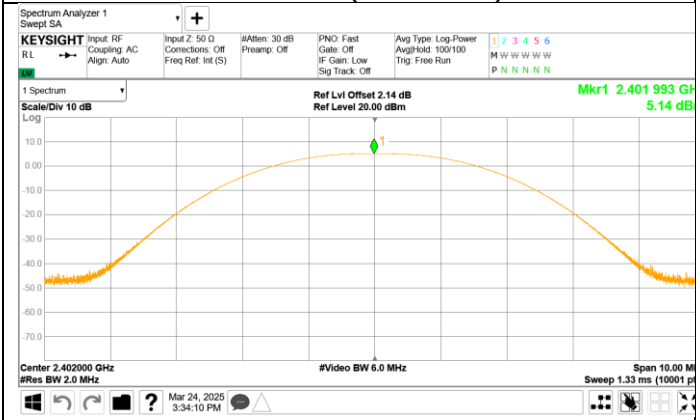
Test result as below table

Antenna gain=1.66dBi					
Test Mode	Frequency MHz	Conducted Peak Output Power(dBm) §15.247 (b) (3)	Result	e.i.r.p.(dBm) RSS-247 5.4(d)	Result
Data rate 1Mbps	2402MHz	5.14	Pass	6.8	Pass
	2440MHz	5.26	Pass	6.92	Pass
	2480MHz	4.98	Pass	6.64	Pass
Data rate 2Mbps	2402MHz	5.42	Pass	7.08	Pass
	2440MHz	5.46	Pass	7.12	Pass
	2480MHz	5.14	Pass	6.8	Pass

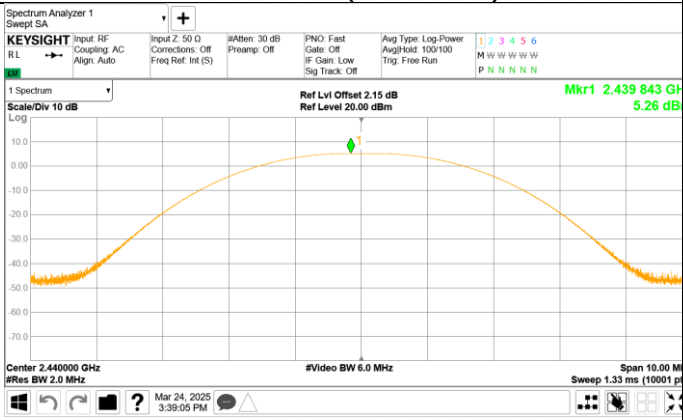


Peak output power (1Mbps)

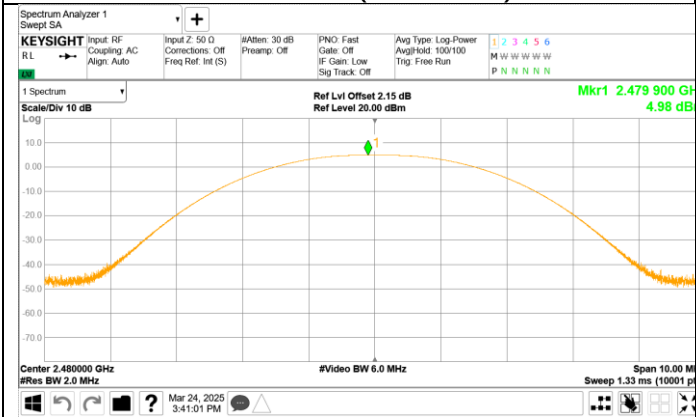
Channel 0 (2402MHz)



Channel 19 (2440MHz)



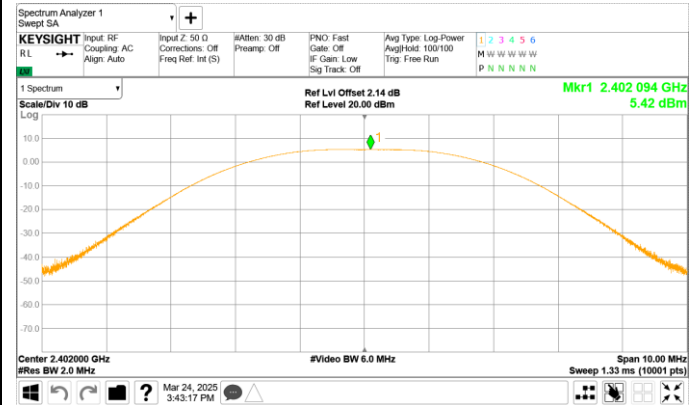
Channel 39 (2480MHz)



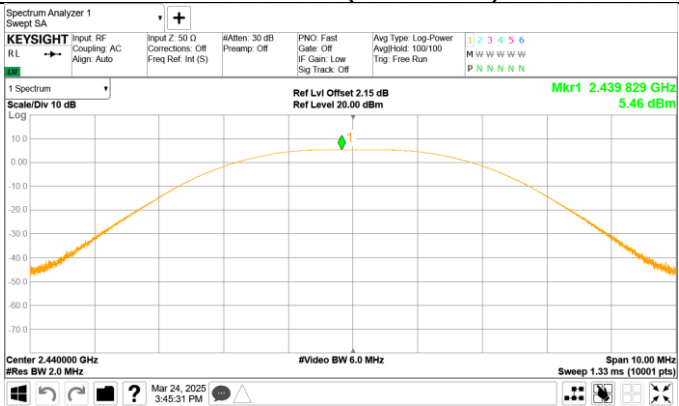


Peak output power (2Mbps)

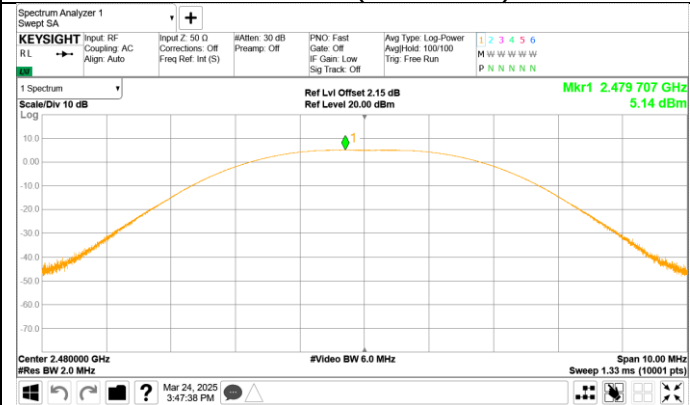
Channel 0 (2402MHz)



Channel 19 (2440MHz)



Channel 39 (2480MHz)



10.26dB bandwidth and 99% Occupied Bandwidth

Test Method

1. The RF output of EUT was connected to the spectrum analyzer. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting, the instrument center frequency is set to the nominal EUT channel center frequency enable the EUT transmit continuously.
3. Use the following spectrum analyzer settings:
RBW=100KHz, VBW $\geq$ 3RBW, Sweep = auto, Detector function = peak, Trace = max hold
4. Use the automatic bandwidth measurement capability of an instrument, use the X dB bandwidth mode with X set to 6 dB.
5. Allow the trace to stabilize, record the 6 dB Bandwidth value.

Test Method for 99 % Bandwidth

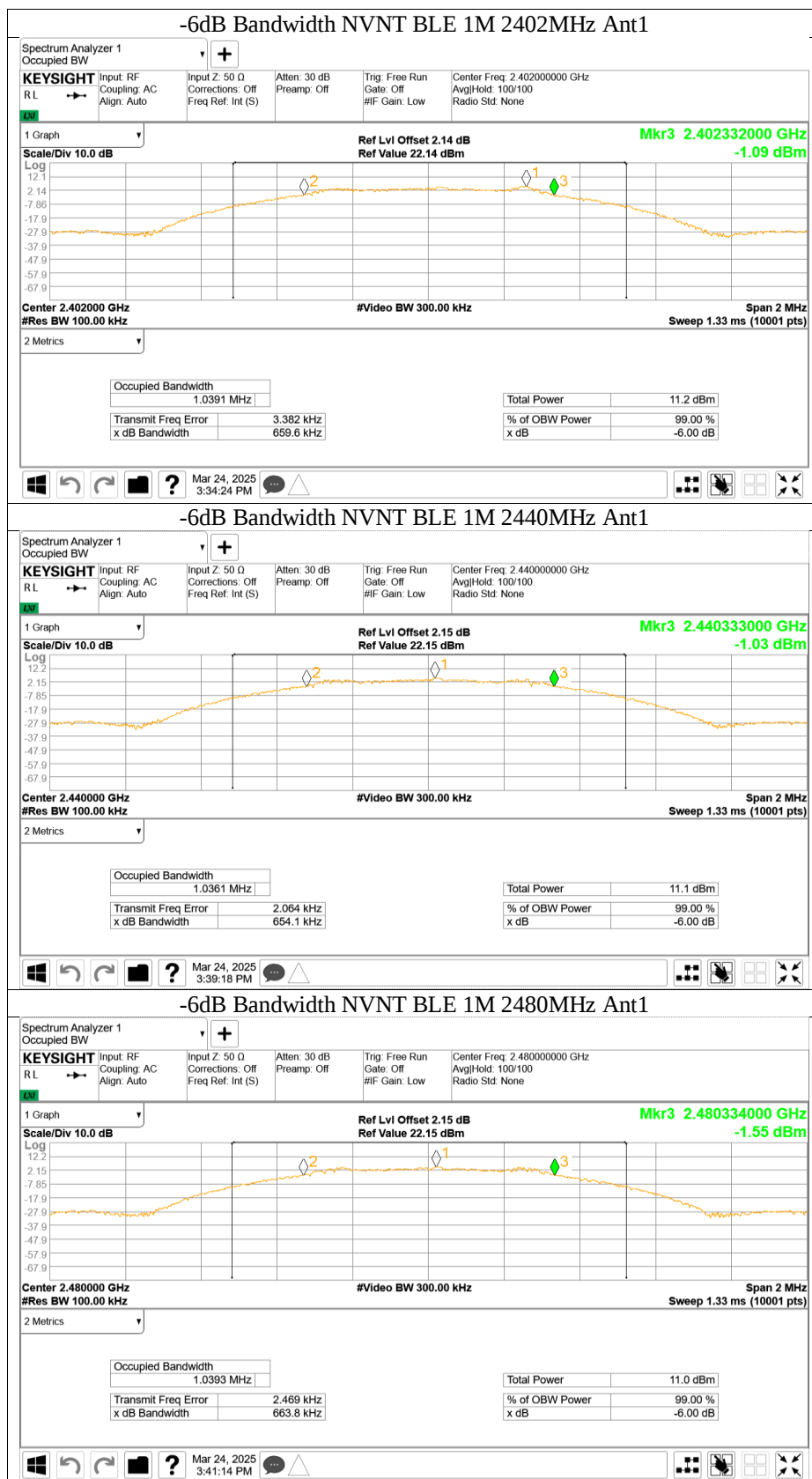
1. Connect EUT test port to spectrum analyzer.
Use the following spectrum analyzer settings:
RBW=1% to 5% of the actual occupied, VBW $\geq$ 3RBW, Sweep = auto,
Detector function = peak, Trace = max hold
2. Use the occupied bandwidth measurement capability of test receiver.
3. Allow the trace to stabilize, record the occupied bandwidth value.

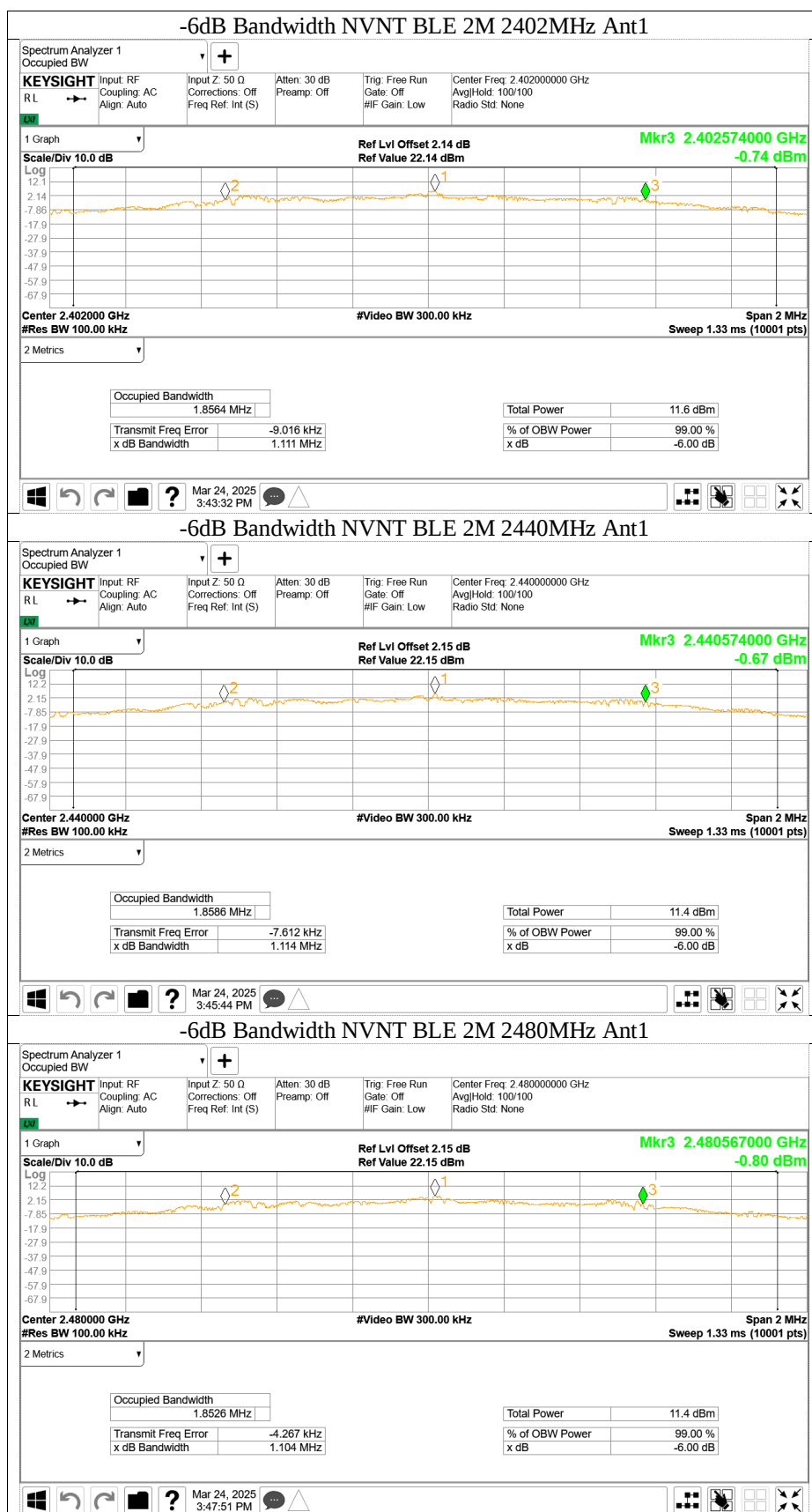
Limit

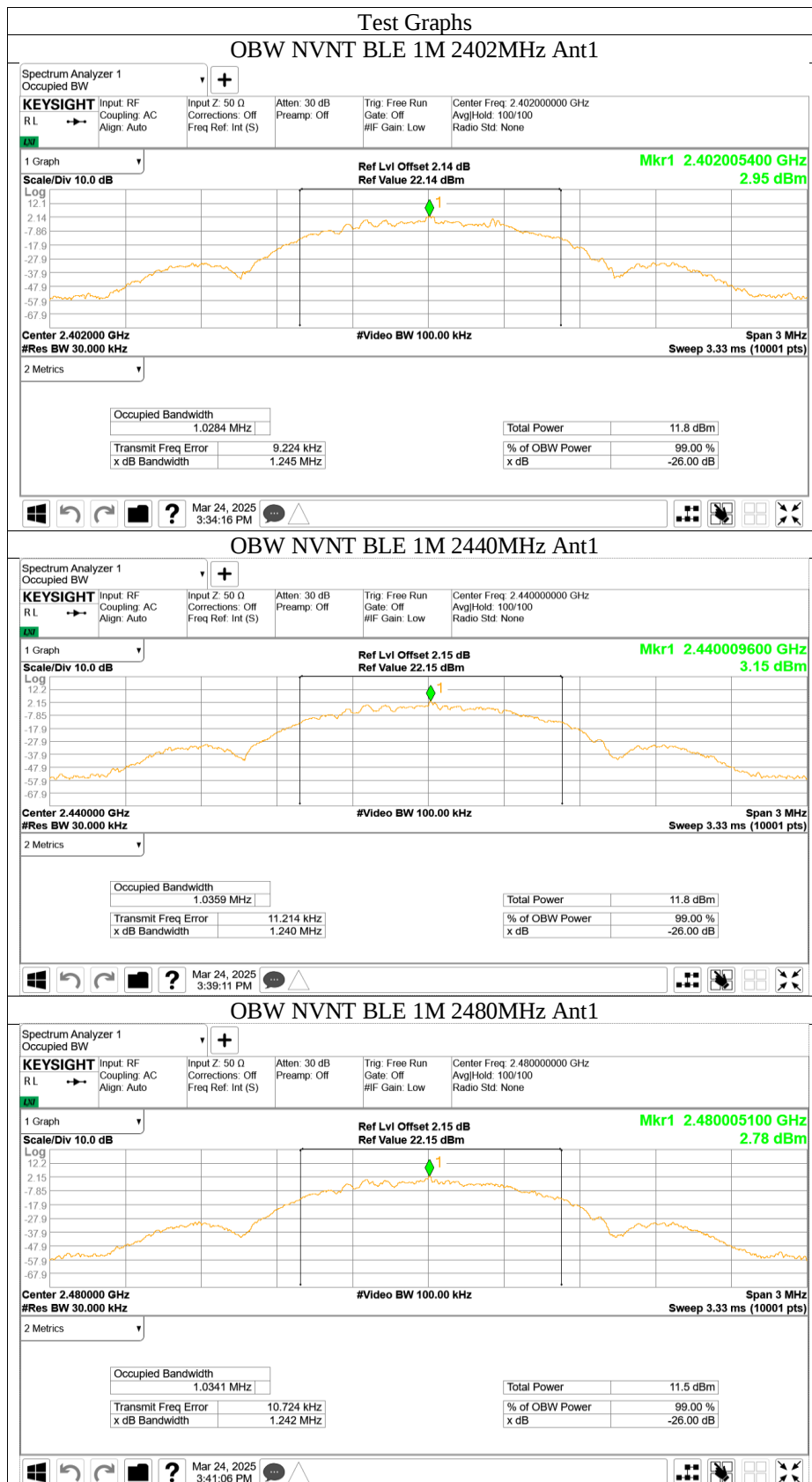
6dB bandwidth Limit [kHz]	99% bandwidth Limit [kHz]
≥ 500	--

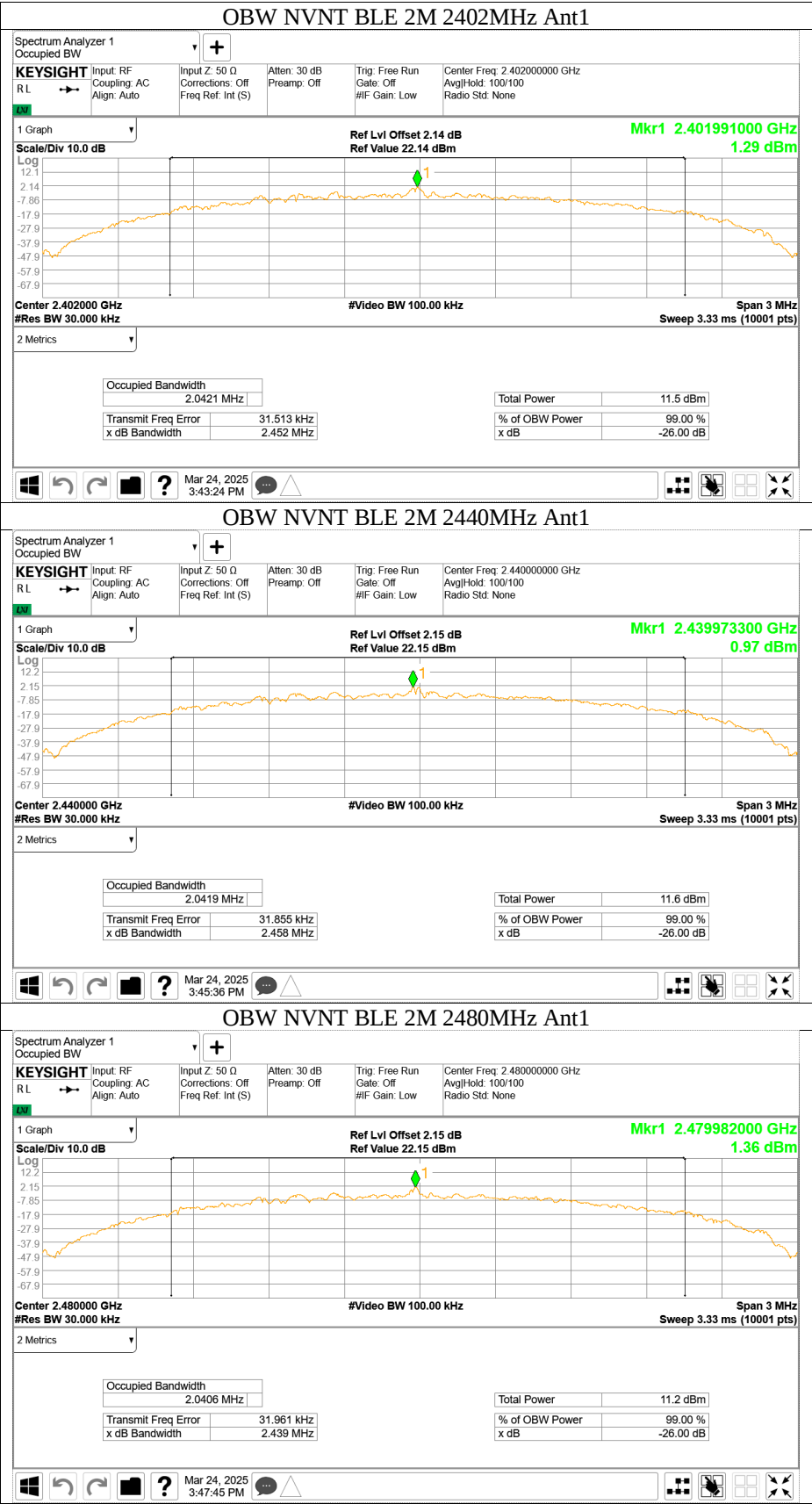
Test result

Test Mode	Frequency MHz	6dB bandwidth (MHz)		Result	99% occupied bandwidth MHz
		result	limit	verdict	
Data rate 1Mbps	2402	0.660	≥ 0.5	Pass	1.028
	2440	0.654	≥ 0.5	Pass	1.036
	2480	0.664	≥ 0.5	Pass	1.034
Data rate 2Mbps	2402	1.111	≥ 0.5	Pass	2.042
	2440	1.114	≥ 0.5	Pass	2.042
	2480	1.104	≥ 0.5	Pass	2.041

6dB Bandwidth



99% Occupied Bandwidth



10.3 Power spectral density

Test Method

This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance:

1. The RF output of EUT was connected to the spectrum analyzer. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting, the instrument center frequency is set to the nominal EUT channel center frequency enable the EUT transmit continuously.
3. Use the following spectrum analyzer settings:
4. Set analyzer center frequency to DTS channel center frequency. RBW=3kHz, VBW $\geq$ 3RBW, Span=1.5 times DTS bandwidth, Detector=Peak, Sweep=auto, Trace= max hold.
5. Allow trace to fully stabilize, use the peak marker function to determine the maximum amplitude level within the RBW.
6. Repeat above procedures until other frequencies measured were completed.

Limit

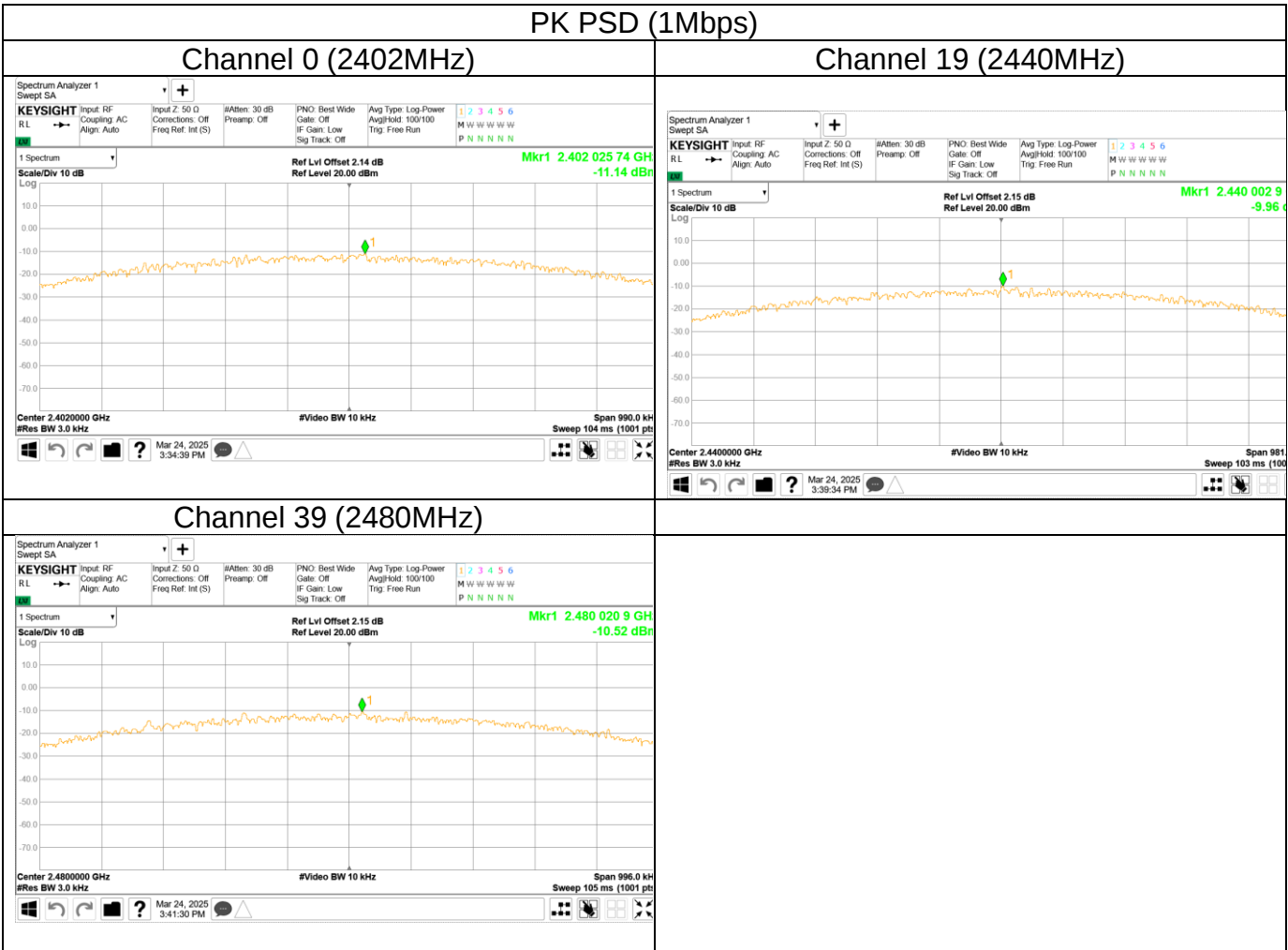
Limit [dBm/3kHz]

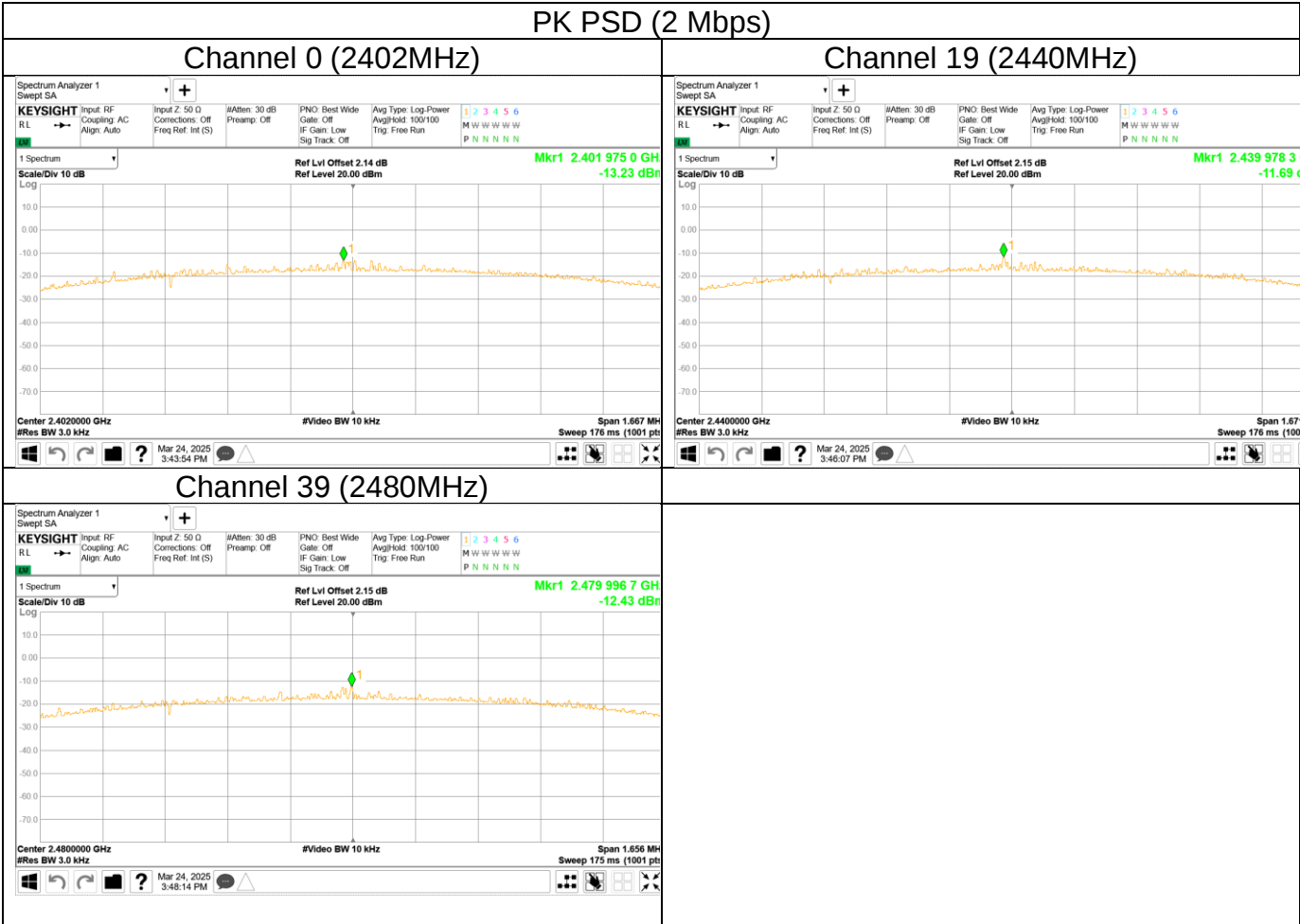
≤ 8

Test result

Data transmission rate	Frequency	Power spectral density	Result
1Mbps	MHz	dBm/3kHz	
	Top channel 2402MHz	-11.14	Pass
	Middle channel 2440MHz	-9.96	Pass
	Bottom channel 2480MHz	-10.52	Pass

Data transmission rate	Frequency	Power spectral density	Result
2Mbps	MHz	dBm/3kHz	
	Top channel 2402MHz	-13.23	Pass
	Middle channel 2440MHz	-11.69	Pass
	Bottom channel 2480MHz	-12.43	Pass





10.4 Spurious RF conducted emissions

Test Method

1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting, the instrument center frequency is set to the nominal EUT channel center frequency enable the EUT transmit continuously.
3. Use the following spectrum analyzer settings:
Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.
RBW = 100 kHz, VBW $\geq$ 3RBW, Sweep = auto, Detector function = peak, Trace = max hold
4. Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded.
5. The level displayed must comply with the limit specified in this Section. Submit these plots.
6. Repeat above procedures until all frequencies measured were complete.

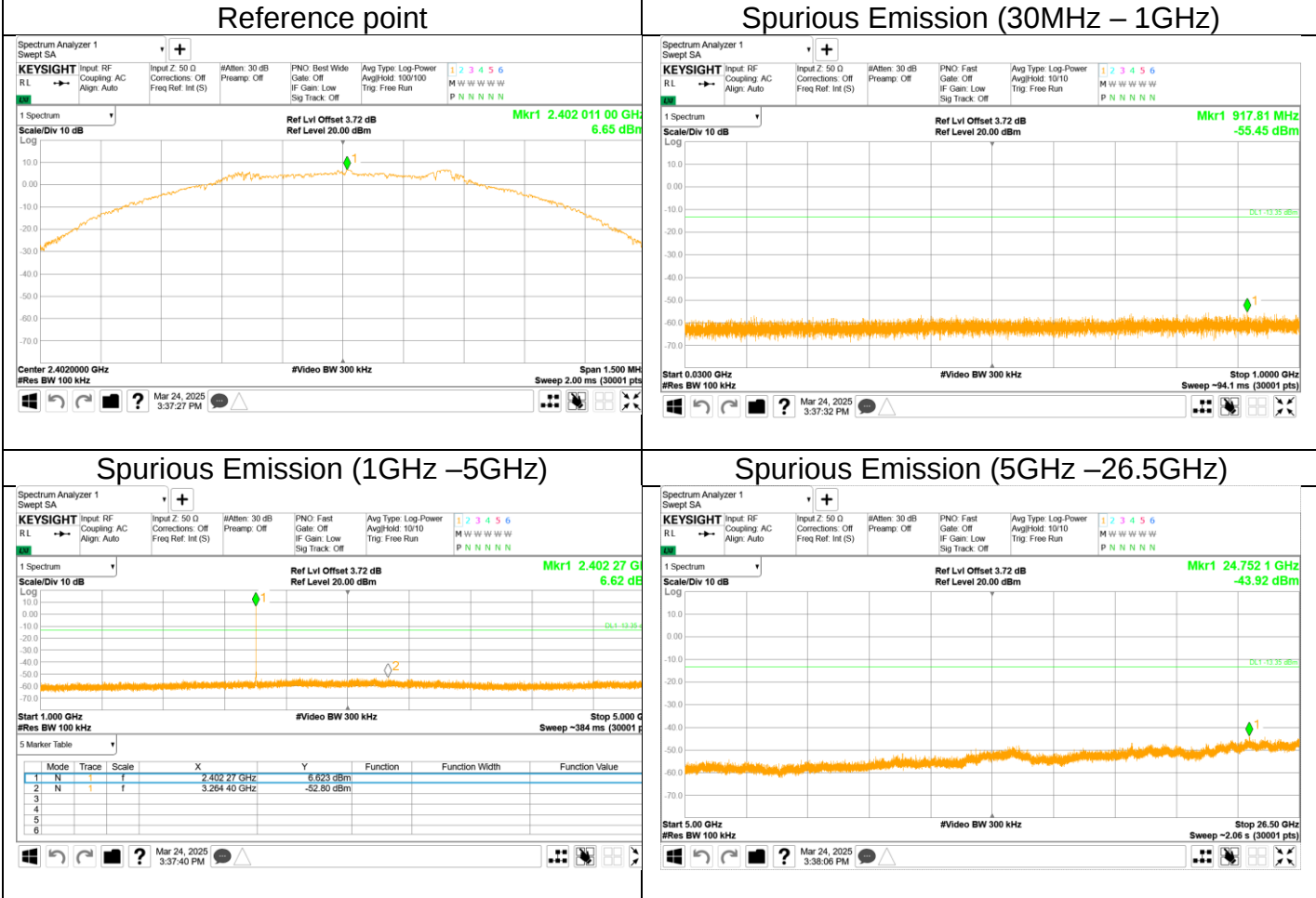
Limit

Frequency Range MHz	Limit (dBc)
30-25000	-20



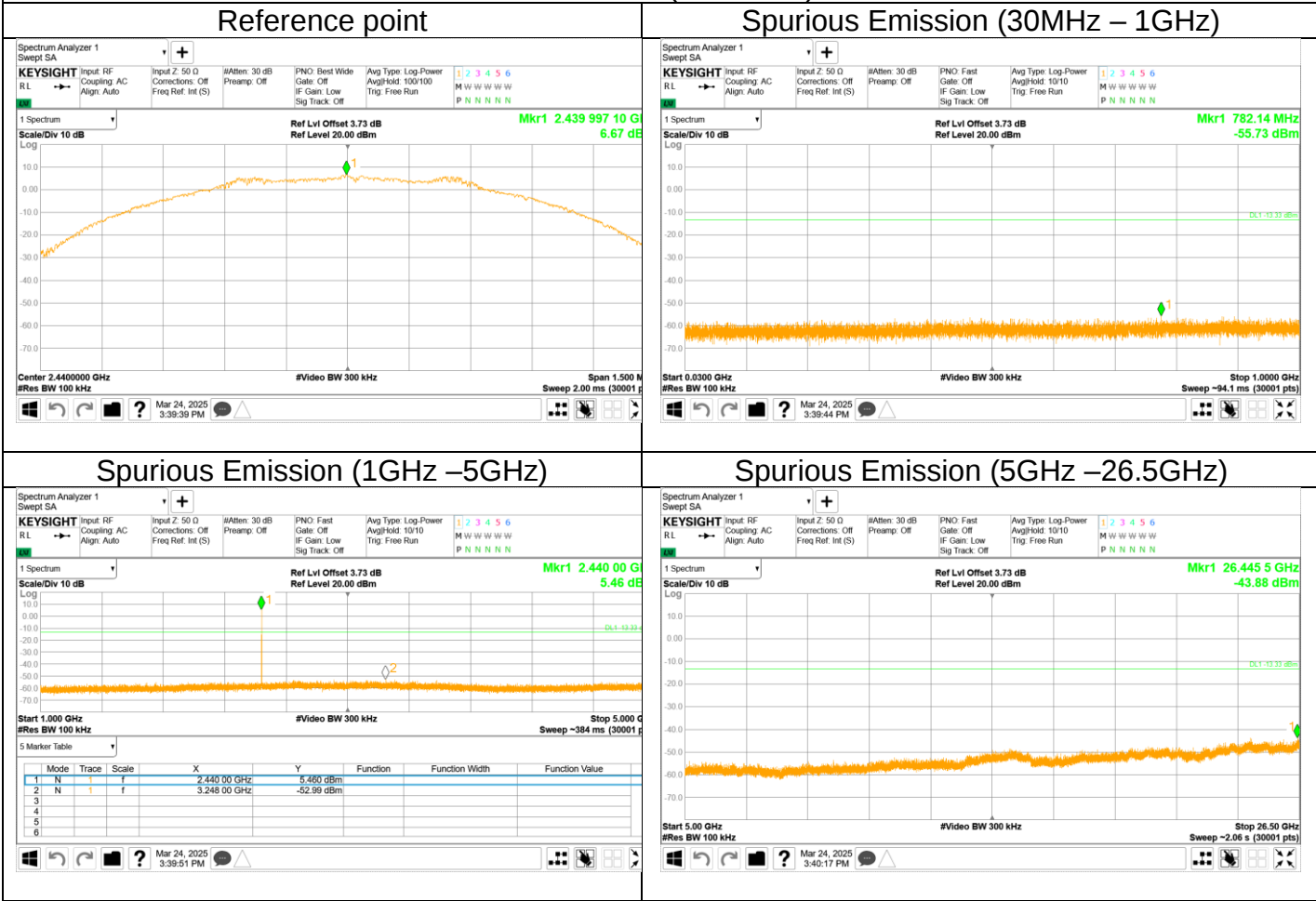
Spurious RF conducted emissions

Out-of-Band Emissions (1Mbps)
Channel 0 (2402MHz)



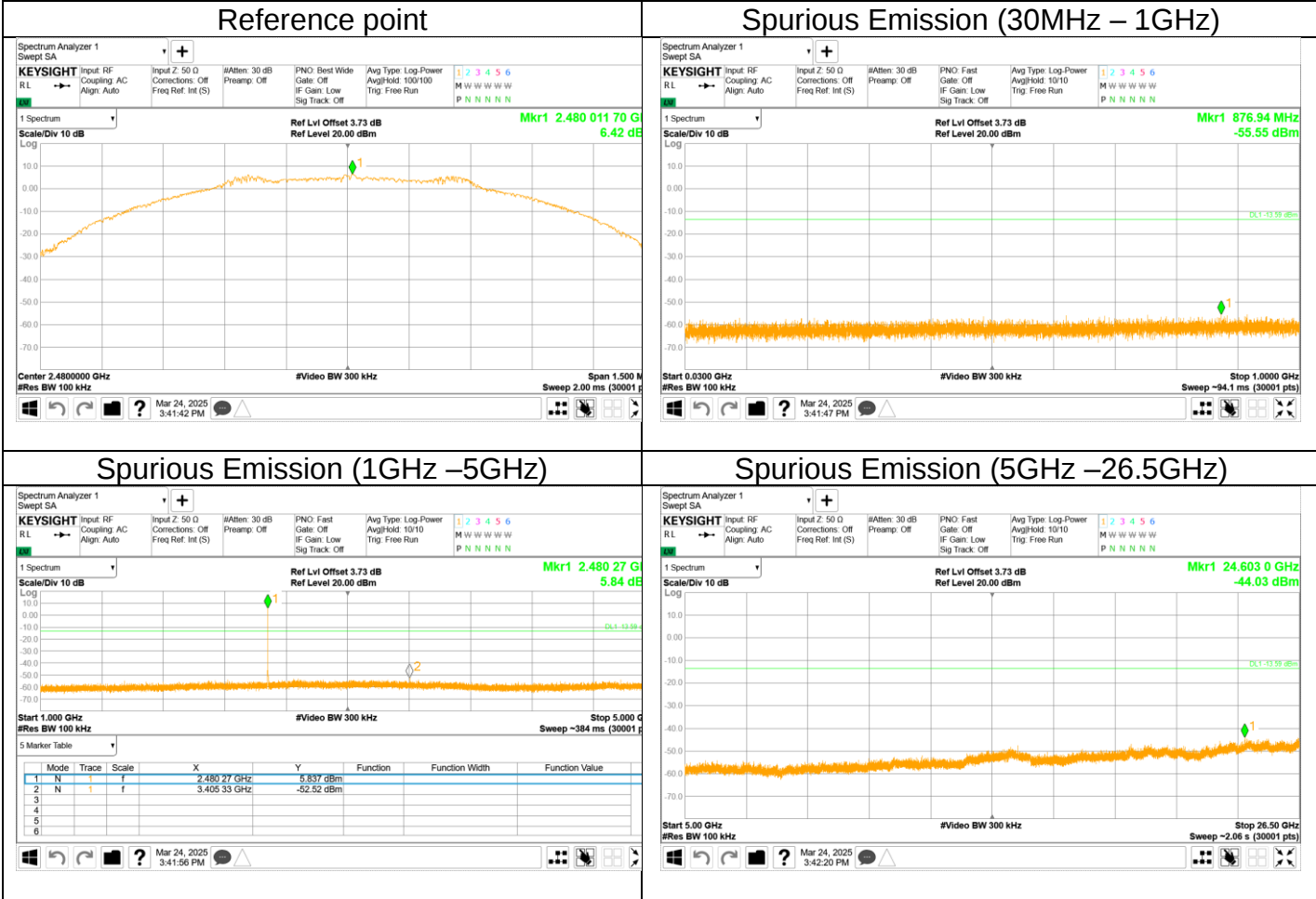


Out-of-Band Emissions (1Mbps)
Channel 19 (2440MHz)



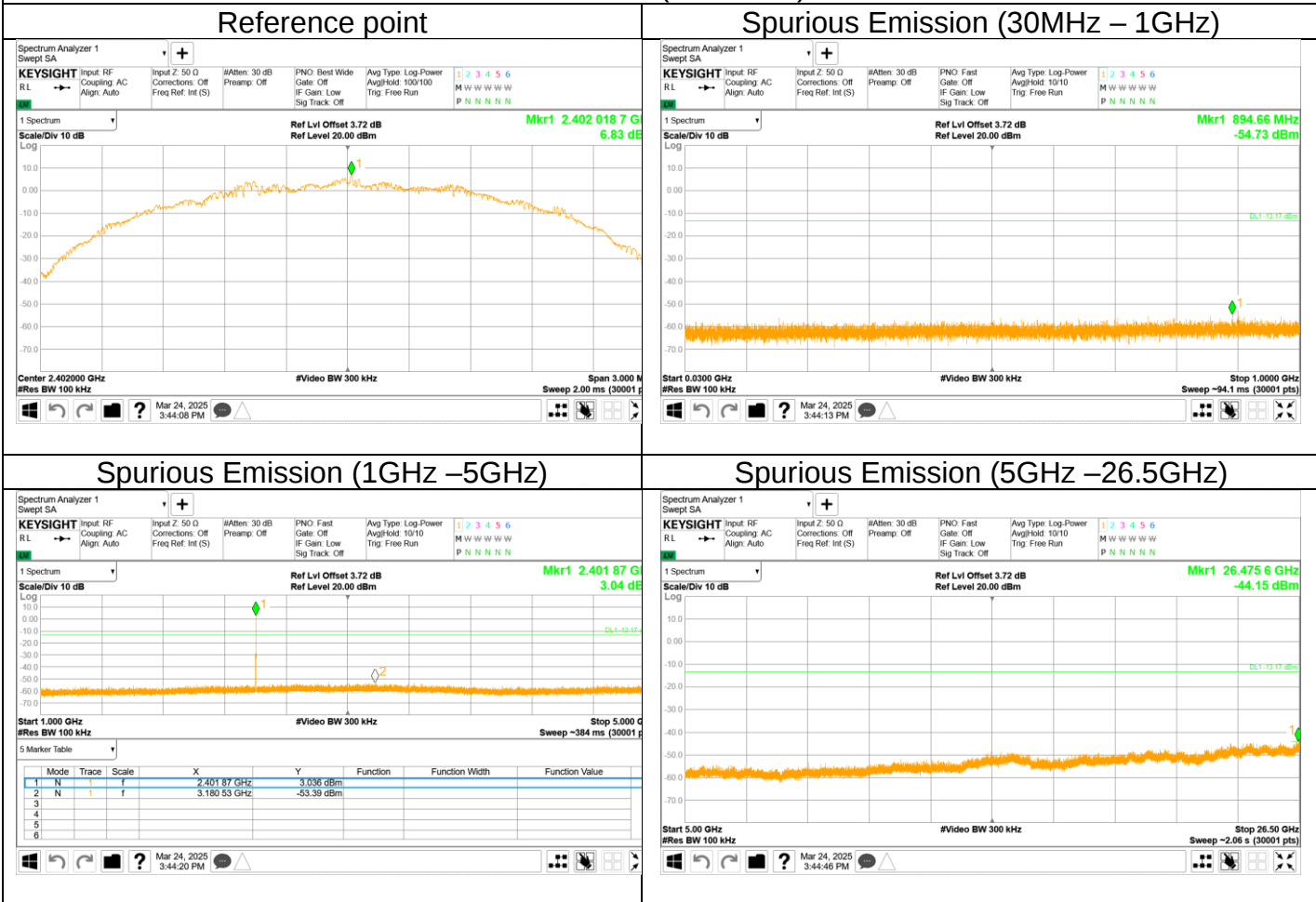


Out-of-Band Emissions (1Mbps)
Channel 39 (2480MHz)





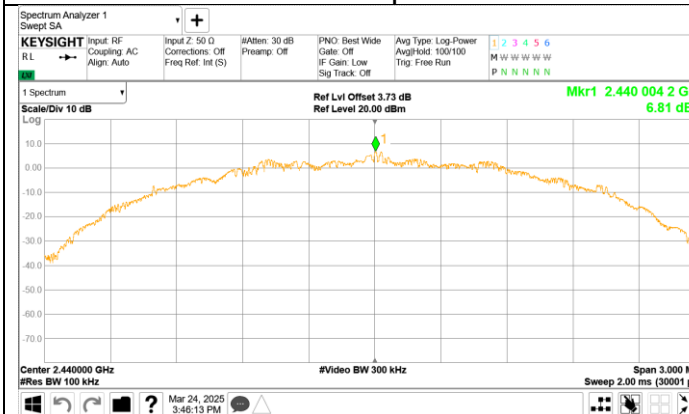
Out-of-Band Emissions (2Mbps)
Channel 0 (2402MHz)



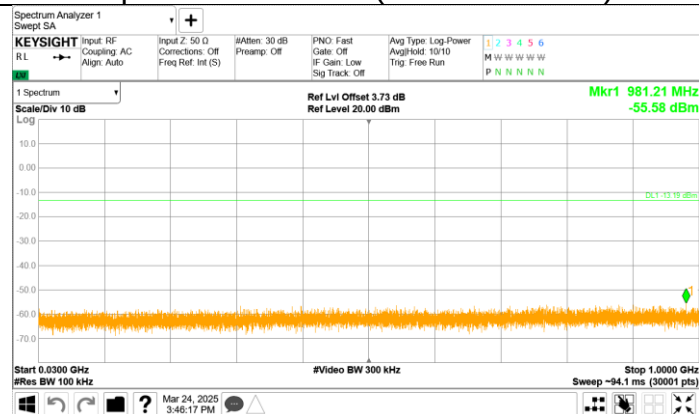
Out-of-Band Emissions (2Mbps)

Channel 19 (2440MHz)

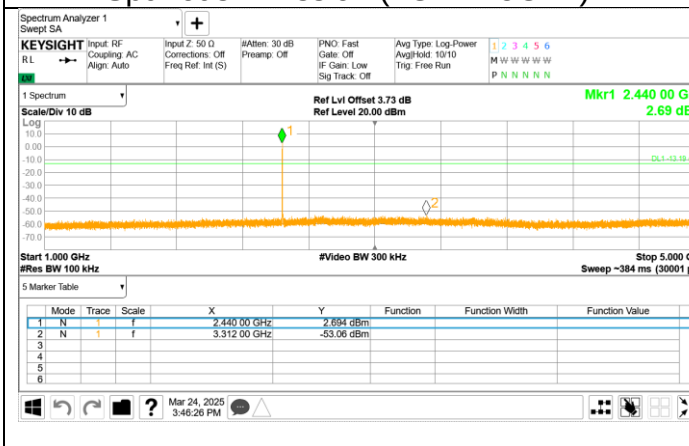
Reference point



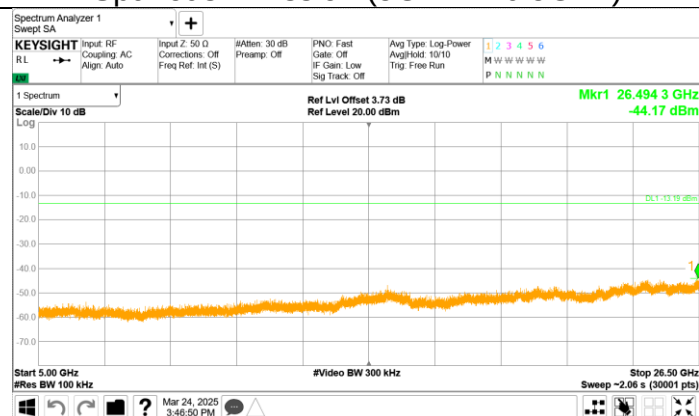
Spurious Emission (30MHz – 1GHz)



Spurious Emission (1GHz – 5GHz)

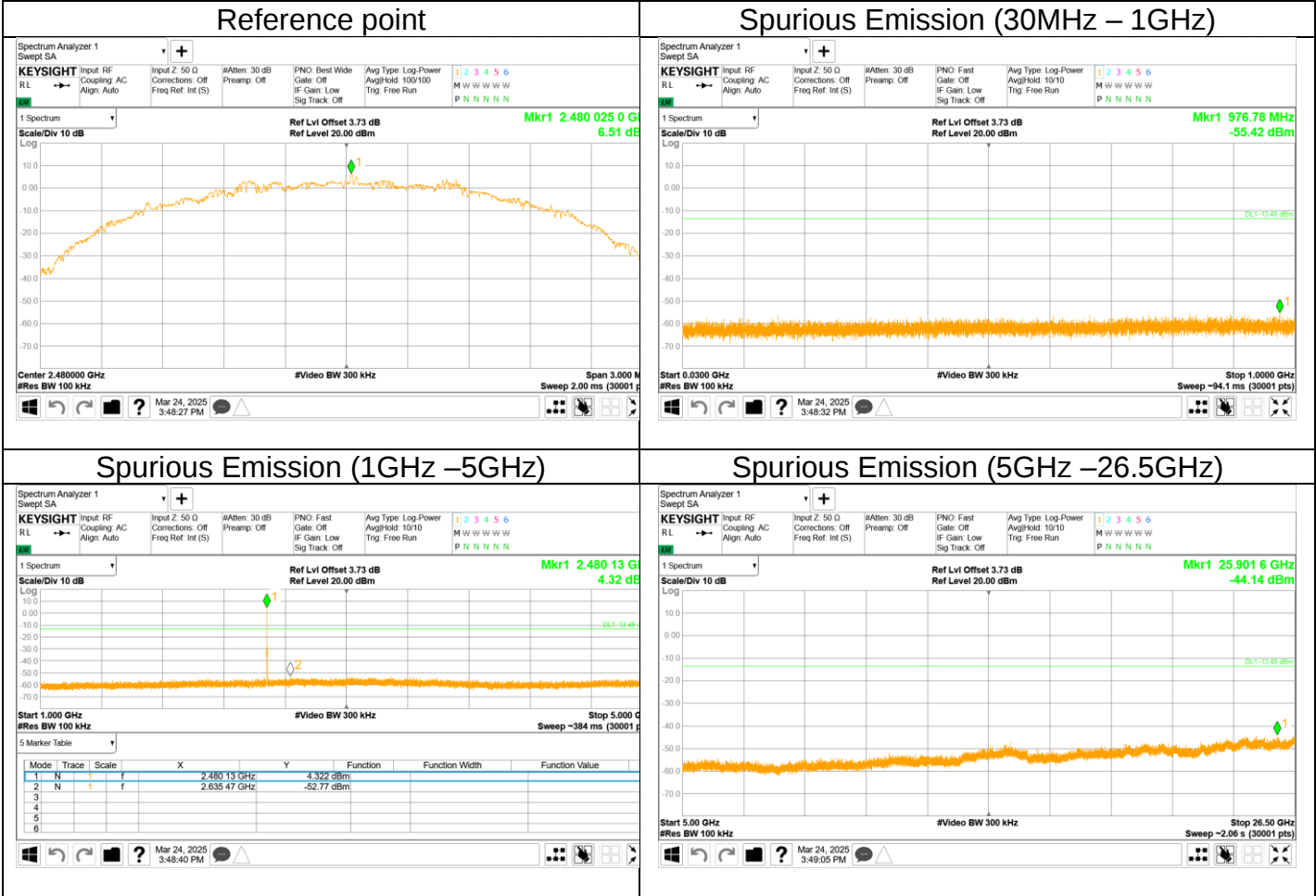


Spurious Emission (5GHz – 26.5GHz)





Out-of-Band Emissions (2Mbps)
Channel 39 (2480MHz)



10.5 Band edge

Test Method

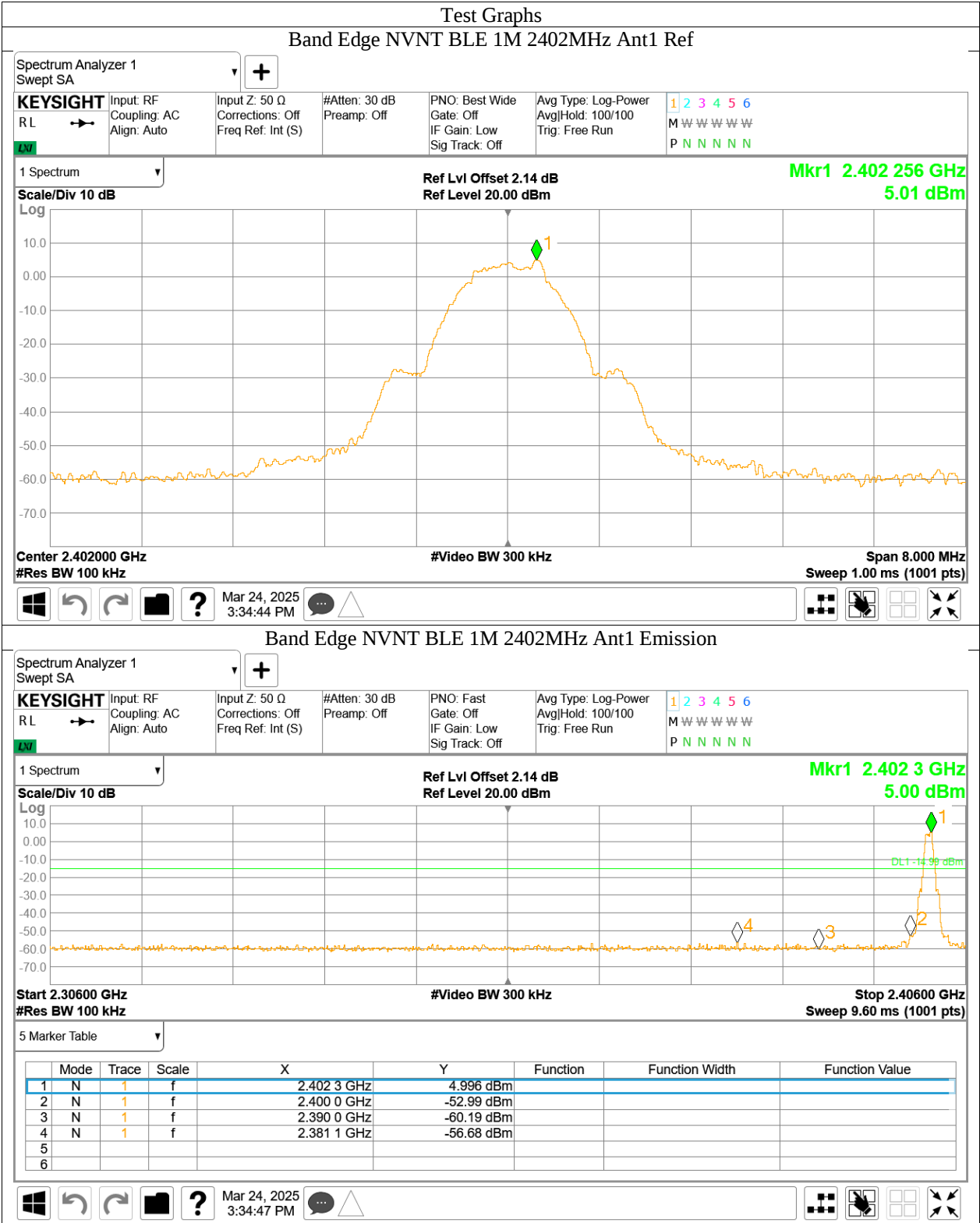
1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting, the instrument center frequency is set to the nominal EUT channel center frequency enable the EUT transmit continuously.
3. Use the following spectrum analyzer settings:
Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 100 kHz, VBW $\geq$ 3RBW, Sweep = auto, Detector function = peak, Trace = max hold
4. Allow the trace to stabilize, use the peak and delta measurement to record the result.
5. The level displayed must comply with the limit specified in this Section.
6. Repeat above procedures until all frequencies measured were complete and submit all the plots.

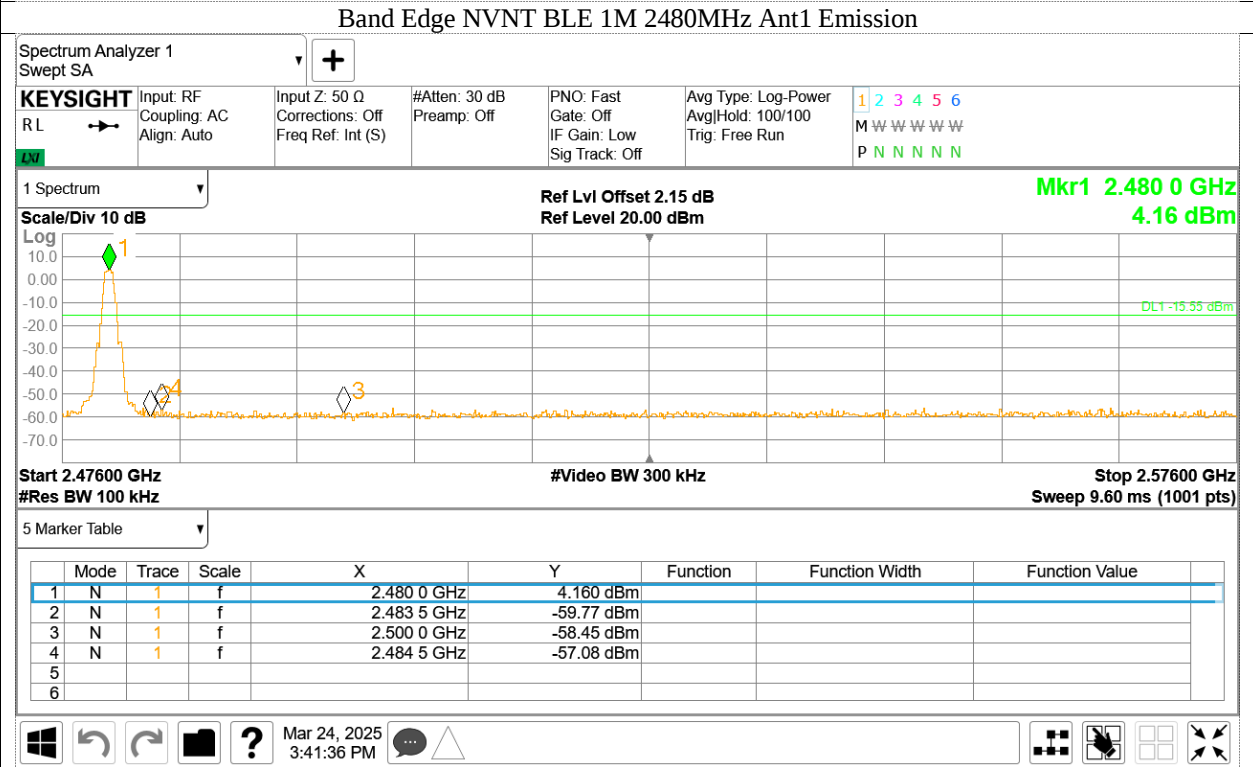
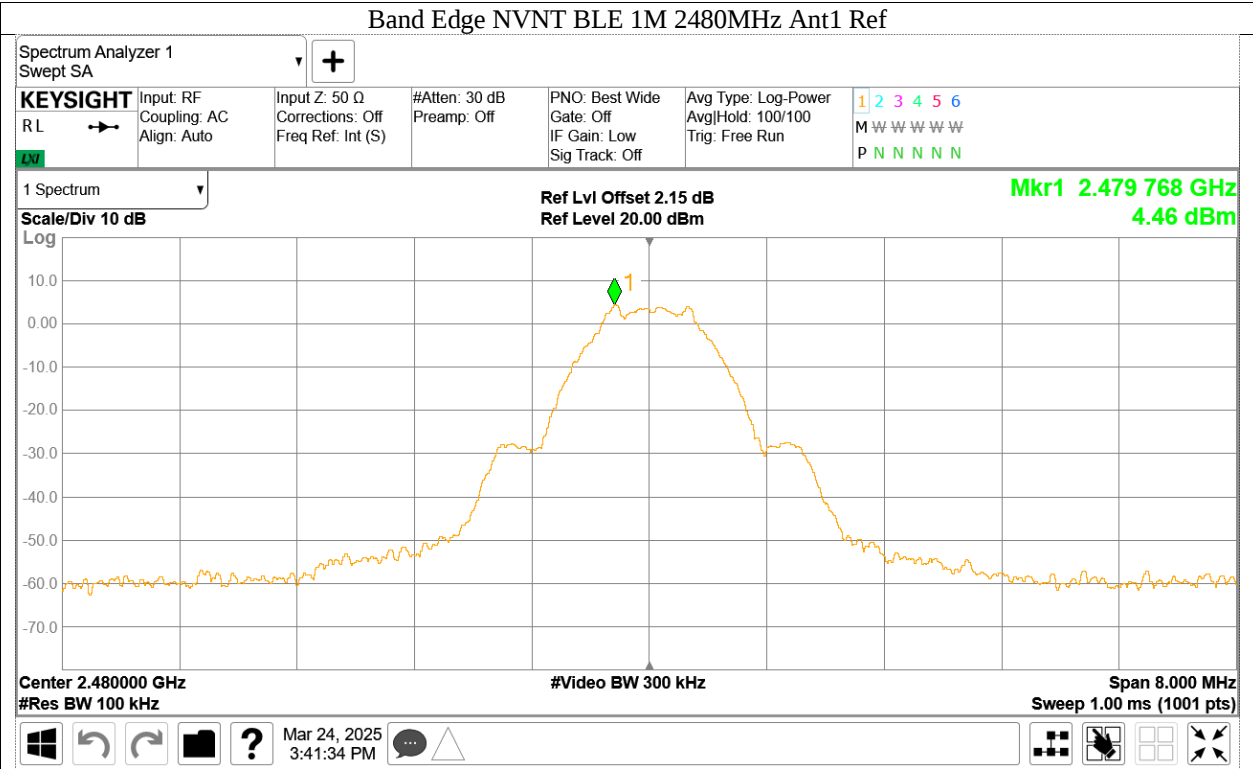
Limit

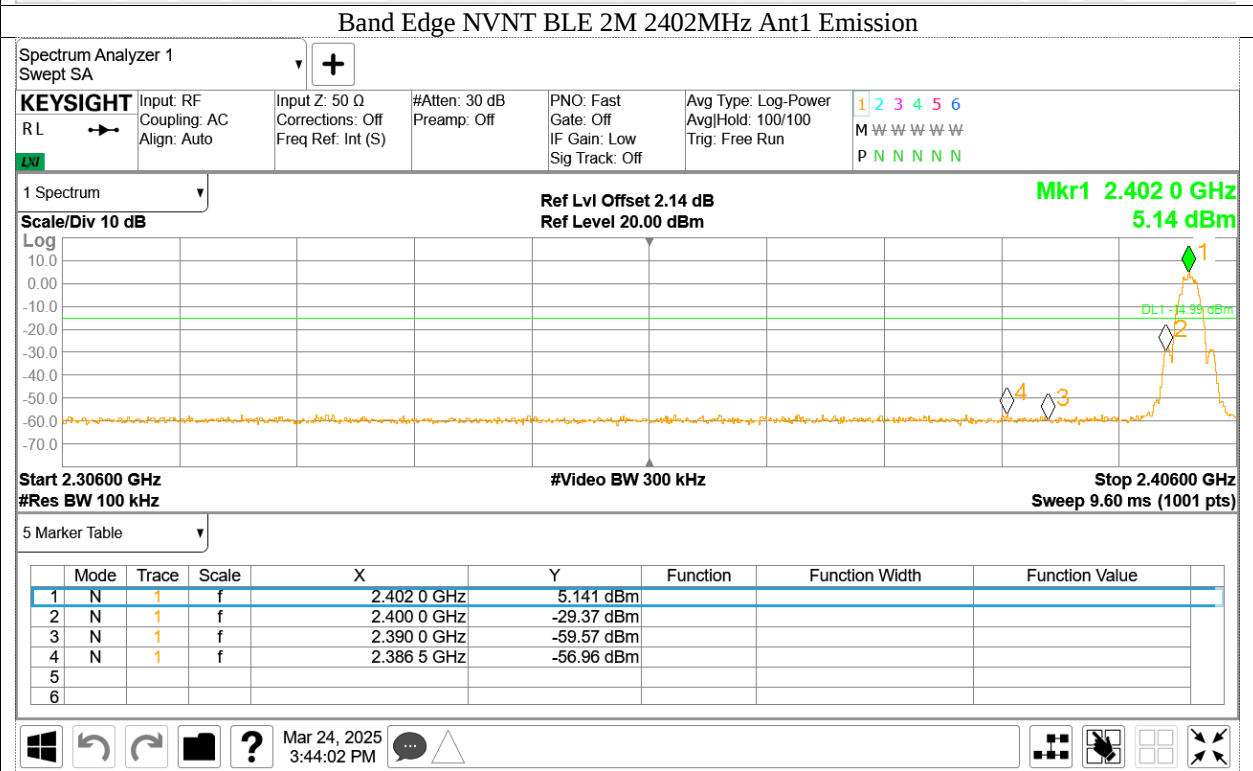
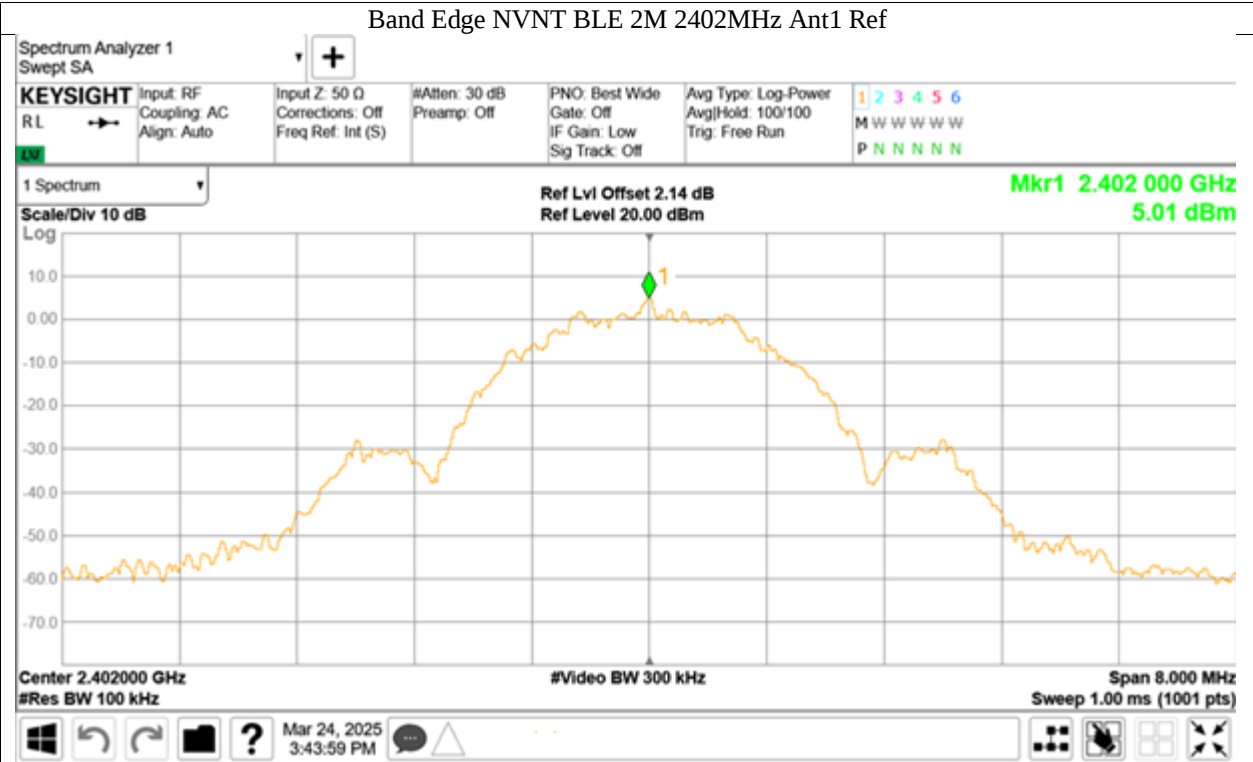
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that 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 § 15.247(b)(3) and RSS-247 section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB.

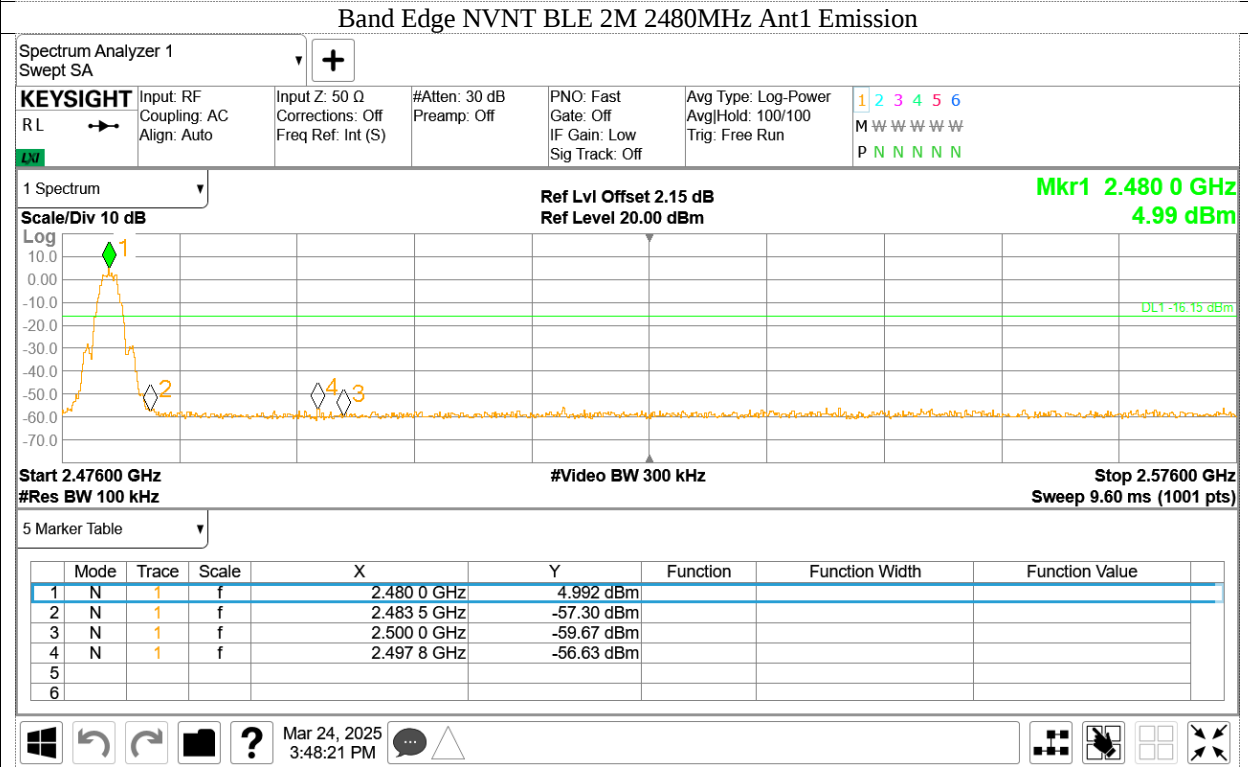
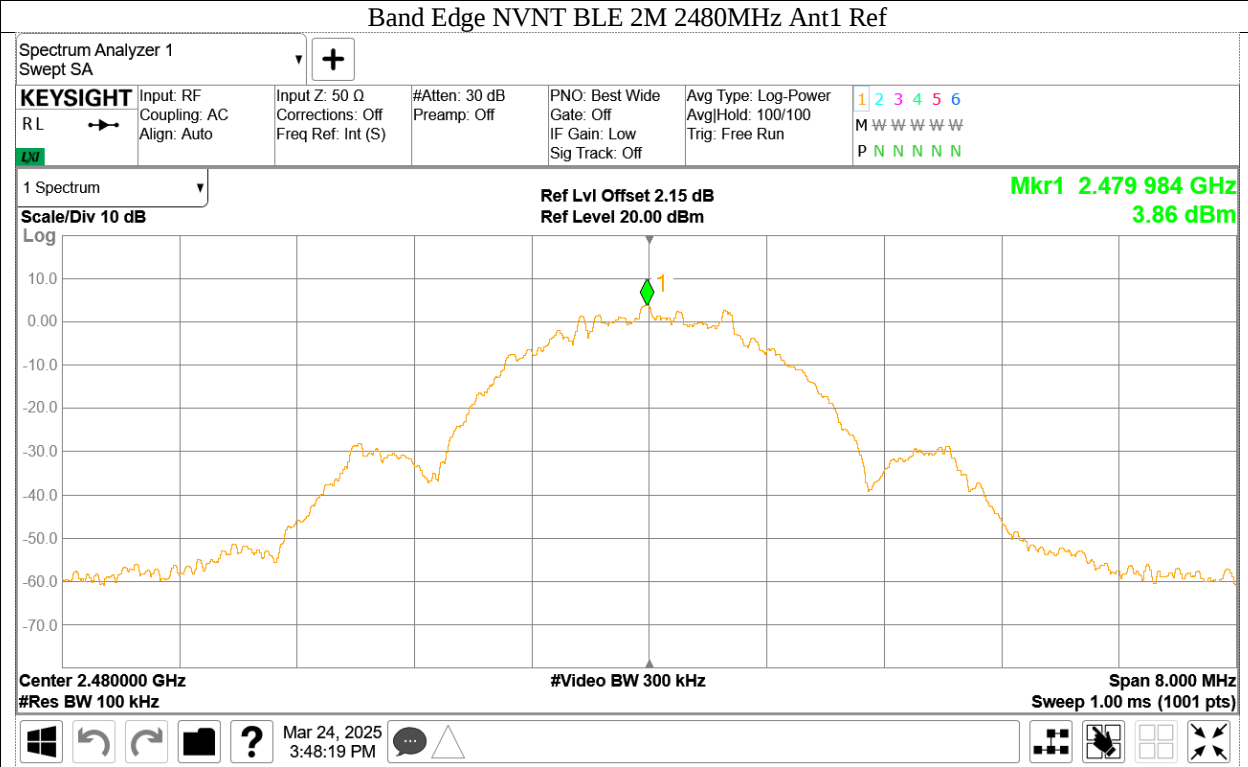


Test result









10.6 Spurious radiated emissions for transmitter

Test Method

1. The EUT was placed on a turn table which is 1.5m above ground plane for above 1GHz and 0.8m above ground for below 1GHz at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
3. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. Use the following spectrum analyzer settings According to C63.10
 - 1) Procedure for Unwanted Emissions Measurements Below 1000 MHz
Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 100 kHz to 120kHz, VBW ≥ RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.
 - 2) For Peak unwanted emissions Above 1GHz:
Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 1MHz, VBW ≥ RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

Procedures for average unwanted emissions measurements above 1GHz

 - a) RBW = 1MHz.
 - b) $VBW \leq [3 \times RBW]$.
 - c) Detector = RMS (power averaging), if $[\text{span} / (\# \text{ of points in sweep})] \leq RBW / 2$.
Satisfying this condition can require increasing the number of points in the sweep or reducing the span. If the condition is not satisfied, then the detector mode shall be set to peak.
 - d) Averaging type = power (i.e., rms) (As an alternative, the detector and averaging type may be set for linear voltage averaging. Some instruments require linear display mode to use linear voltage averaging. Log or dB averaging shall not be used.)
 - e) Sweep time = auto.
 - f) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, then the number of traces shall be increased by a factor of $1 / D$, where D is the duty cycle. For example, with 50% duty cycle, at least 200 traces shall be averaged. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—then rather than turning ON and OFF with the transmit cycle, at least 100 traces shall be averaged.)
 - g) If tests are performed with the EUT transmitting at a duty cycle less than 98%, then a correction factor shall be added to the measurement results prior to comparing with the emission limit, to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:
 - 1) If power averaging (rms) mode was used in the preceding step e), then the correction factor is $[10 \log (1 / D)]$, where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB shall be added to the measured emission levels.

2) If linear voltage averaging mode was used in the preceding step e), then the correction factor is $[20 \log (1 / D)]$, where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB shall be added to the measured emission levels.

3) If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning ON and OFF with the transmit cycle, then no duty cycle correction is required for that emission (AV) at frequency above 1GHz.

Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that 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 § 15.247(b)(3) and RSS 247 section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in § 15.209(a) and RSS-Gen is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a) and RSS-Gen section 8.9, must also comply with the radiated emission limits specified in § 15.209(a) and RSS-Gen section 8.10.

RSS-Gen section 8.9: Field strength limits at frequencies below 30 MHz

Frequency MHz	Magnetic Field Strength $\mu\text{A/m}$	Detector	Measurement distance meters
0.009-0.490	6.37/F (F in kHz)	AV	300
0.490-1.705	63.7/F (F in kHz)	QP	30
1.705-30	0.08	QP	30

When the limit is in terms of magnetic field, the following equation applies:

$$H[\text{dB}(\mu\text{A/m})] = V[\text{dB}(\mu\text{V})] + L_c [\text{dB}] - G_{PA} [\text{dB}] + A_F^E [\text{dB}(\text{m}^{-1})] - 51.5 [\text{dB}\Omega]$$

When the limit is in terms of electric field, the following equation applies:

$$E[\text{dB}(\mu\text{V/m})] = V[\text{dB}(\mu\text{V})] + L_c [\text{dB}] - G_{PA} [\text{dB}] + A_F^E [\text{dB}(\text{m}^{-1})]$$

The magnetic field limit is converted to the electric field limit by the equation:

$$E_{\text{limit}}[\text{dB}(\mu\text{V/m})] = H_{\text{limit}} [\text{dB}(\mu\text{A/m})] + 51.5 [\text{dB}\Omega]$$

Note 1: Limit 3m(dB $\mu\text{V/m}$)=Limit 300m(dB $\mu\text{V/m}$)+40Log(300m/3m) (Below 30MHz)

Note 2: Limit 3m(dB $\mu\text{V/m}$)=Limit 30m(dB $\mu\text{V/m}$)+40Log(30m/3m) (Below 30MHz)

where

H is the magnetic field strength (to be compared with the limit),

V is the voltage level measured by the receiver or spectrum analyzer.

L_c is the cable loss.

G_{PA} is the gain of the preamplifier (if used), and A_{FH} is the magnetic antenna factor.

FCC part 15.209(a): Field strength limits at frequencies below 30 MHz

Frequency MHz	Field Strength $\mu\text{V/m}$	Field Strength $\text{dB}\mu\text{V/m}$	Detector	Measurement distance meters
0.009-0.490	2400/F(kHz)	48.5-13.8	AV	300
0.490-1.705	24000/F(kHz)	33.8-23.0	QP	30
1.705-30	30	29.5	QP	30

Note 1: $\text{Limit } 3\text{m}(\text{dB}\mu\text{V/m}) = \text{Limit } 300\text{m}(\text{dB}\mu\text{V/m}) + 40\text{Log}(300\text{m}/3\text{m})$ (Below 30MHz)

Note 2: $\text{Limit } 3\text{m}(\text{dB}\mu\text{V/m}) = \text{Limit } 30\text{m}(\text{dB}\mu\text{V/m}) + 40\text{Log}(30\text{m}/3\text{m})$ (Below 30MHz)

Spurious radiated emissions for transmitter

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

Test result

Worst case Radiated Emission 9KHz-30MHz

0.009-30MHz Radiated Emission**EUT Information**

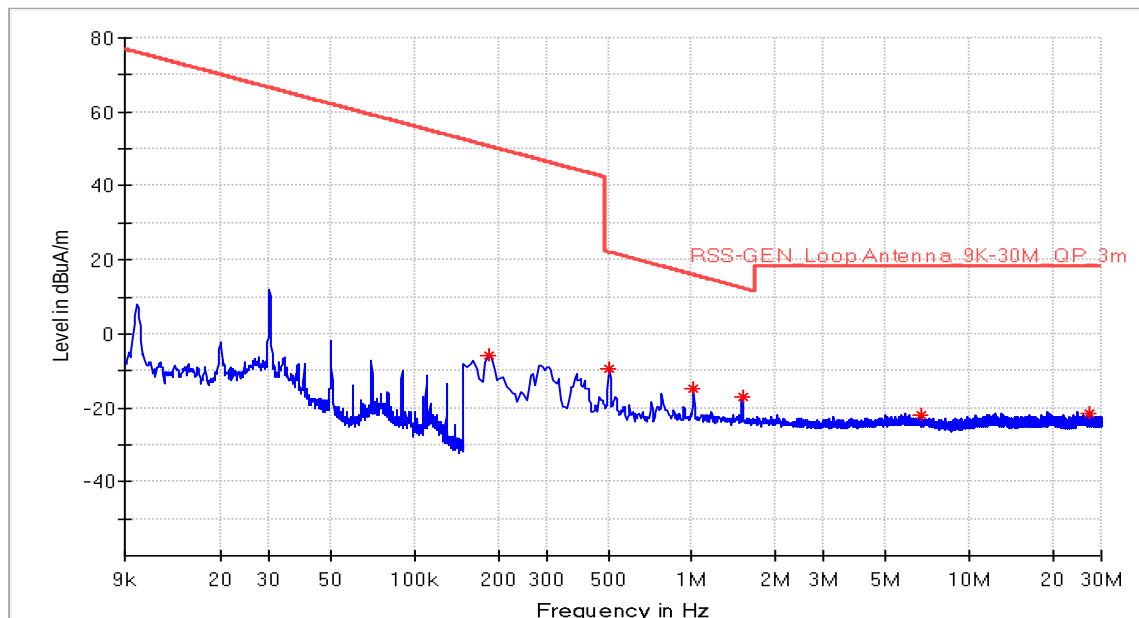
EUT Name: DASH CAM
 Model: M800-2
 Client: 70mai Co., Ltd.
 Op Cond: Power on and TX_2440MHz at 1Mbps mode
 Operator: Chengjie Guo
 Test Spec: RSS-GEN 8.9
 Comment: Horizontal
 Sample No: SHA-899681-2

Sweep Setup: RE_Loop E_pre [EMI radiated]

Hardware Setup: RE_Loop Antenna V
 Receiver: [ESR 3]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
9 kHz - 150 kHz	88.125 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4.39 kHz	PK+	9 kHz	0.01 s	0 dB

Full Spectrum

**Critical Freqs**

Frequency (MHz)	MaxPeak (dBuA/m)	Limit (dBuA/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.185118	-5.66	50.74	56.4	100.0	H	220.0	-32.8
0.505566	-9.51	22.01	31.52	100.0	H	197.0	-32.8
1.010383	-14.98	15.23	30.21	100.0	H	173.0	-32.7
1.519588	-16.98	12.45	29.43	100.0	H	197.0	-32.6
6.681882	-22.19	18.06	40.25	100.0	H	262.0	-32.6
27.317890	-21.68	18.06	39.74	100.0	H	150.0	-32.1

0.009-30MHz Radiated Emission

EUT Information

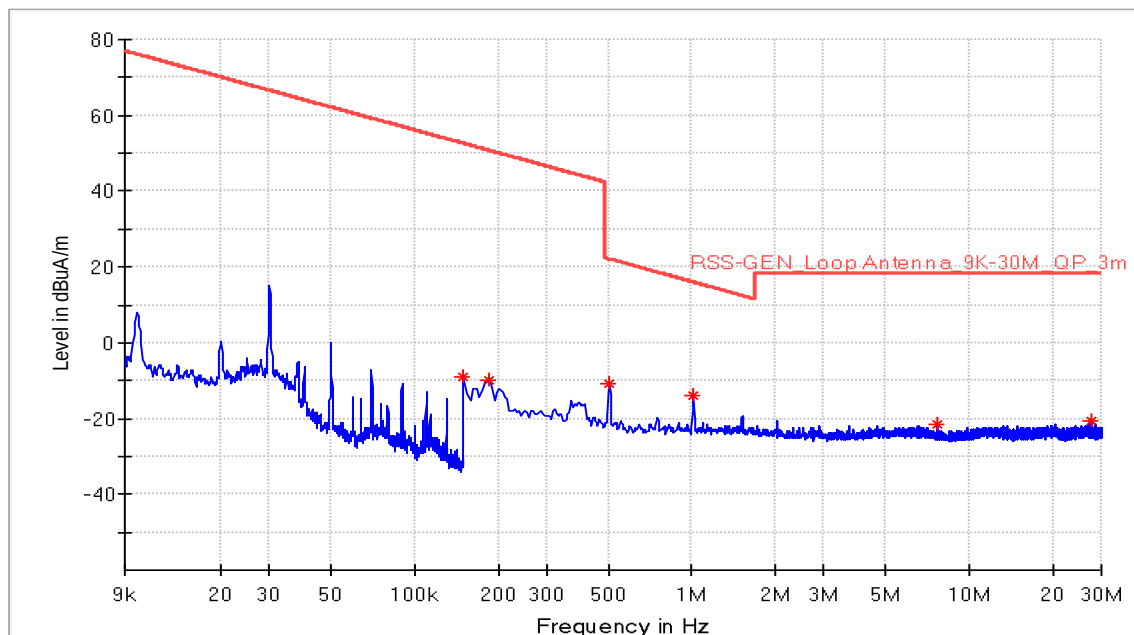
EUT Name: DASH CAM
 Model: M800-2
 Client: 70mai Co., Ltd.
 Op Cond: Power on and TX_2440MHz at 1Mbps mode
 Operator: Chengjie Guo
 Test Spec: RSS-GEN 8.9
 Comment: Vertical
 Sample No: SHA-899681-2

Sweep Setup: RE_Loop E_pre [EMI radiated]

Hardware Setup: RE_Loop Antenna V
 Receiver: [ESR 3]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
9 kHz - 150 kHz	88.125 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4.39 kHz	PK+	9 kHz	0.01 s	0 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuA/m)	Limit (dBuA/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.150000	-8.86	52.56	61.42	100.0	V	45.0	-32.8
0.185118	-10.06	50.74	60.8	100.0	V	285.0	-32.8
0.505566	-10.80	22.01	32.81	100.0	V	211.0	-32.8
1.010383	-14.04	15.23	29.27	100.0	V	211.0	-32.7
7.735412	-21.49	18.06	39.55	100.0	V	194.0	-32.7
27.625169	-20.47	18.06	38.53	100.0	V	102.0	-32.1

0.009-30MHz Radiated Emission

EUT Information

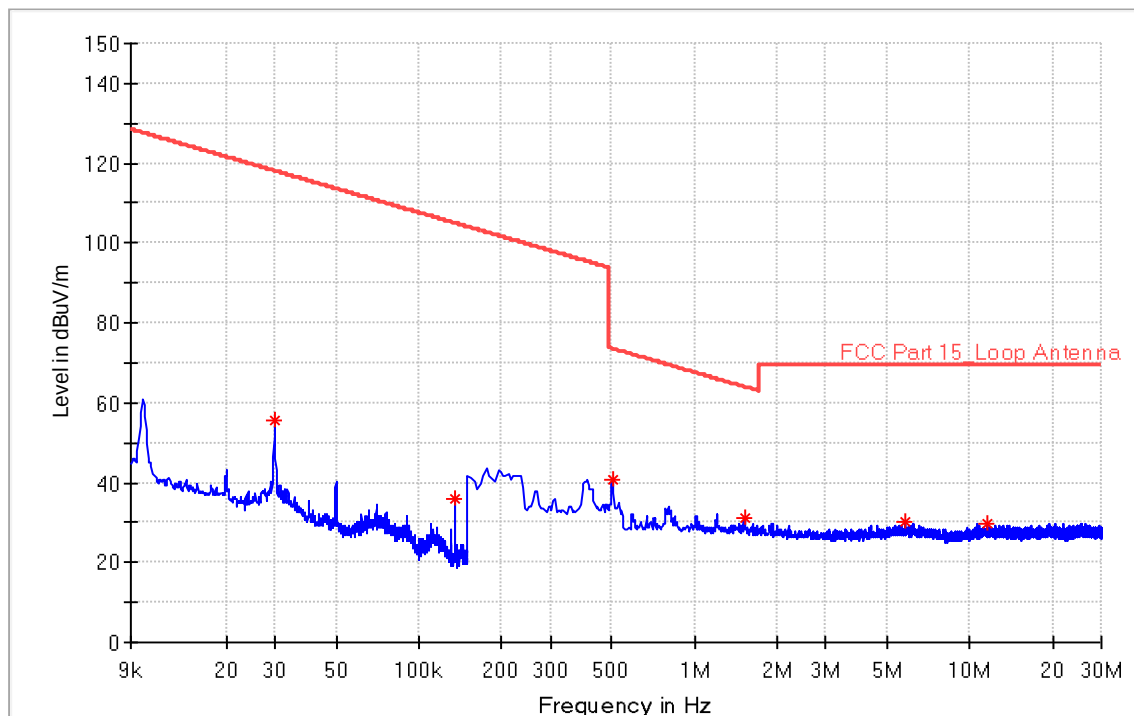
EUT Name: DASH CAM
 Model: M800-2
 Client: 70mai Co., Ltd.
 Op Cond: Power on and TX_2440MHz at 1Mbps mode
 Operator: Chengjie Guo
 Test Spec: FCC part 15.209(a)
 Comment: Horizontal
 Sample No: SHA-899681-2

Sweep Setup: RE_Loop E_pre [EMI radiated]

Hardware Setup: RE_Loop Antenna V
 Receiver: [ESR 3]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
9 kHz - 150 kHz	88.125 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4.39 kHz	PK+	9 kHz	0.01 s	0 dB

Full Spectrum



Critical_Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.029974	55.39	118.07	62.67	100.0	H	204.0	18.9
0.134402	36.15	105.04	68.89	100.0	H	219.0	18.8
0.505566	40.54	73.53	32.99	100.0	H	48.0	18.7
1.519588	30.99	63.97	32.98	100.0	H	229.0	18.8
5.843449	29.98	69.54	39.56	100.0	H	49.0	19.0
11.545677	29.84	69.54	39.71	100.0	H	45.0	18.9

0.009-30MHz Radiated Emission

EUT Information

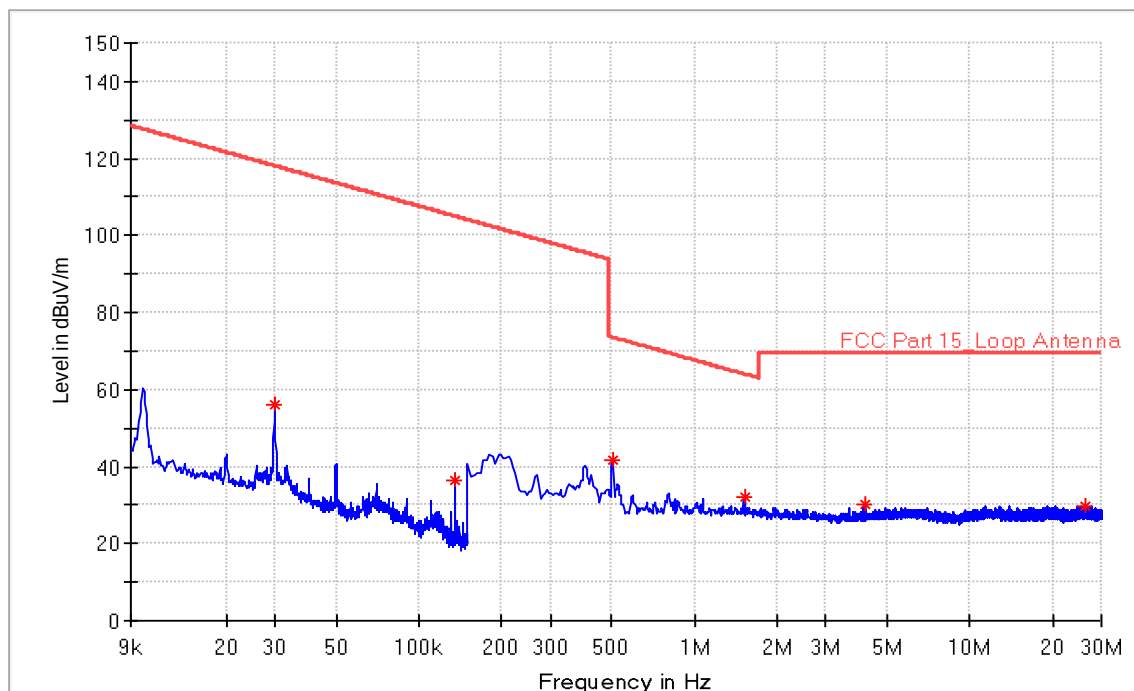
EUT Name: DASH CAM
 Model: M800-2
 Client: 70mai Co., Ltd.
 Op Cond: Power on and TX_2440MHz at 1Mbps mode
 Operator: Chengjie Guo
 Test Spec: FCC part 15.209(a)
 Comment: Vertical
 Sample No: SHA-899681-2

Sweep Setup: RE_Loop E_pre [EMI radiated]

Hardware Setup: RE_Loop Antenna V
 Receiver: [ESR 3]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
9 kHz - 150 kHz	88.125 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4.39 kHz	PK+	9 kHz	0.01 s	0 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.029974	55.96	118.07	62.11	100.0	V	53.0	18.9
0.134490	36.38	105.04	68.66	100.0	V	202.0	18.8
0.505566	41.46	73.53	32.07	100.0	V	59.0	18.7
1.519588	31.90	63.97	32.07	100.0	V	59.0	18.8
4.179750	30.22	69.54	39.32	100.0	V	0.0	19.2
26.216074	29.88	69.54	39.66	100.0	V	103.0	19.5

Worst case Radiated Emission 30MHz-1GHz

30-1000MHz Radiated Emission

EUT Information

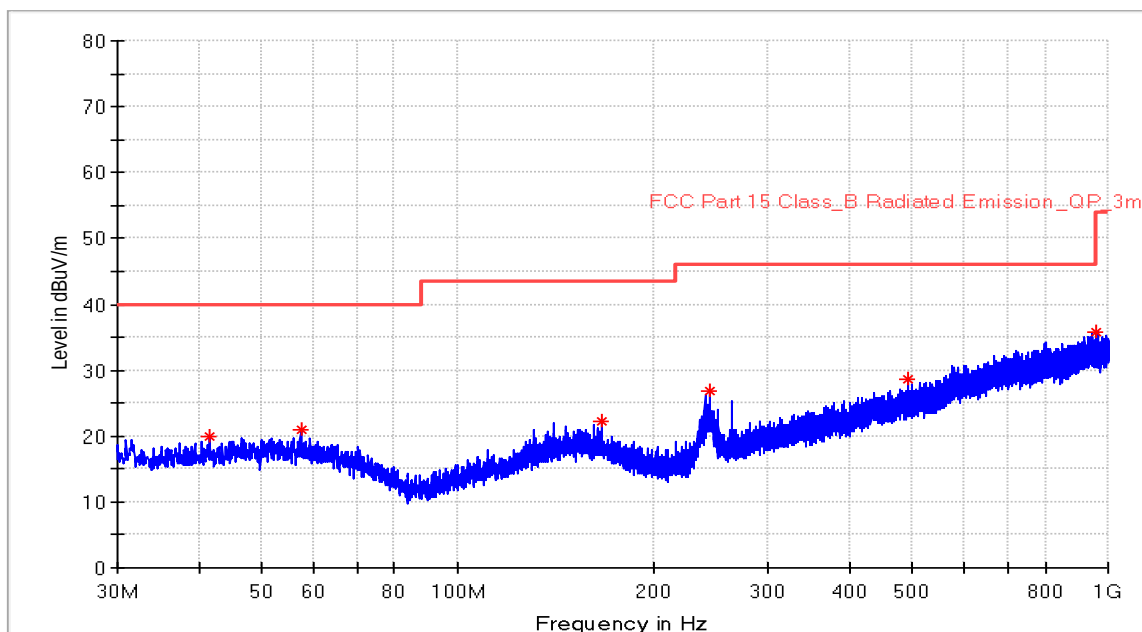
EUT Name: DASH CAM
 Model: M800-2
 Client: 70mai Co., Ltd.
 Op Cond: Power on and TX_2440MHz at 1Mbps mode
 Operator: Chengjie Guo
 Test Spec: FCC 15.209 (a) and RSS-GEN 8.9
 Comment: Horizontal
 Sample No: SHA-899681-2

Sweep Setup: RE_VULB9168_pre_Cont_30-1000 [EMI radiated]

Hardware Setup: RE_VULB9168
 Receiver: [ESR 3]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.2 s	20 dB

Full Spectrum



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
41.591500	19.90	40.00	20.10	250.0	H	95.0	20.0
57.402500	20.85	40.00	19.15	100.0	H	296.0	20.8
166.721500	22.31	43.50	21.19	30.0	H	333.0	20.6
244.176000	26.81	46.00	19.19	150.0	H	43.0	19.9
493.902500	28.63	46.00	17.37	100.0	H	242.0	26.9
955.186000	35.79	46.00	10.21	150.0	H	314.0	34.7

Remark:

- (1) Emission level= Original Receiver Reading + Correct Factor
- (2) Correct Factor = Antenna Factor + Cable Loss -Amplifier gain
- (3) Margin = limit – Corrected Reading

30-1000MHz Radiated Emission

EUT Information

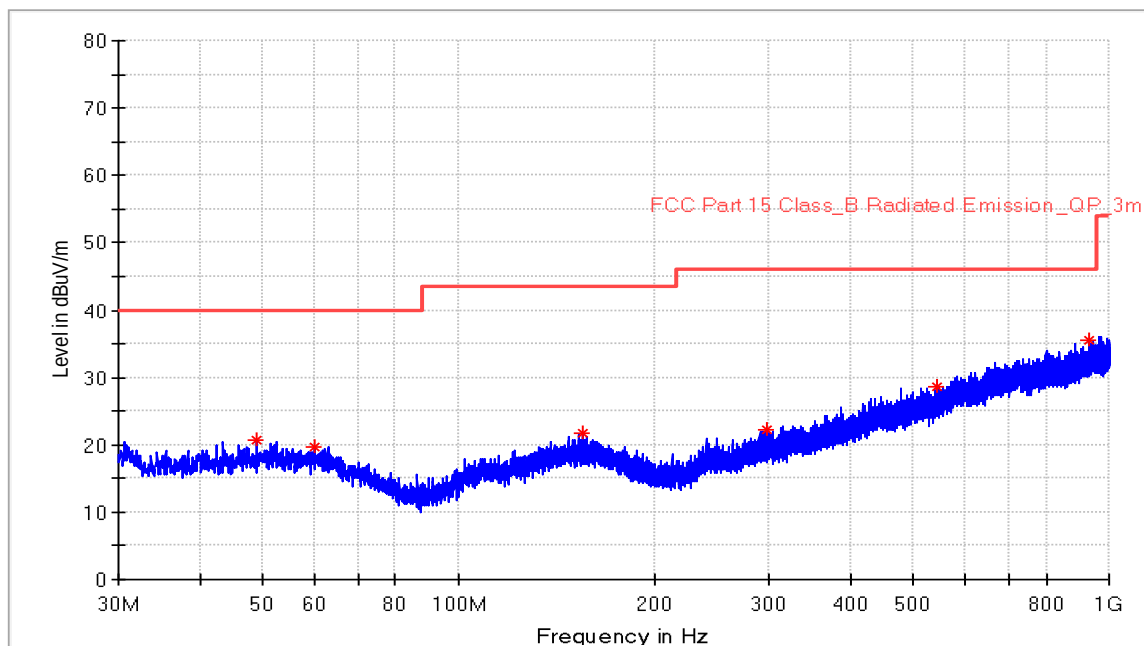
EUT Name: DASH CAM
 Model: M800-2
 Client: 70mai Co., Ltd.
 Op Cond: Power on and TX_2440MHz at 1Mbps mode
 Operator: Chengjie Guo
 Test Spec: FCC 15.209 (a) and RSS-GEN 8.9
 Comment: Vertical
 Sample No: SHA-899681-2

Sweep Setup: RE_VULB9168_pre_Cont_30-1000 [EMI radiated]

Hardware Setup: RE_VULB9168
 Receiver: [ESR 3]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamplifier
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.2 s	20 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
48.963500	20.62	40.00	19.38	150.0	V	95.0	20.8
60.070000	19.76	40.00	20.24	100.0	V	67.0	20.6
154.887500	21.79	43.50	21.72	200.0	V	104.0	21.0
297.962500	22.26	46.00	23.74	300.0	V	336.0	21.8
542.499500	28.70	46.00	17.30	100.0	V	86.0	27.5
929.578000	35.42	46.00	10.58	250.0	V	54.0	34.5

Remark:

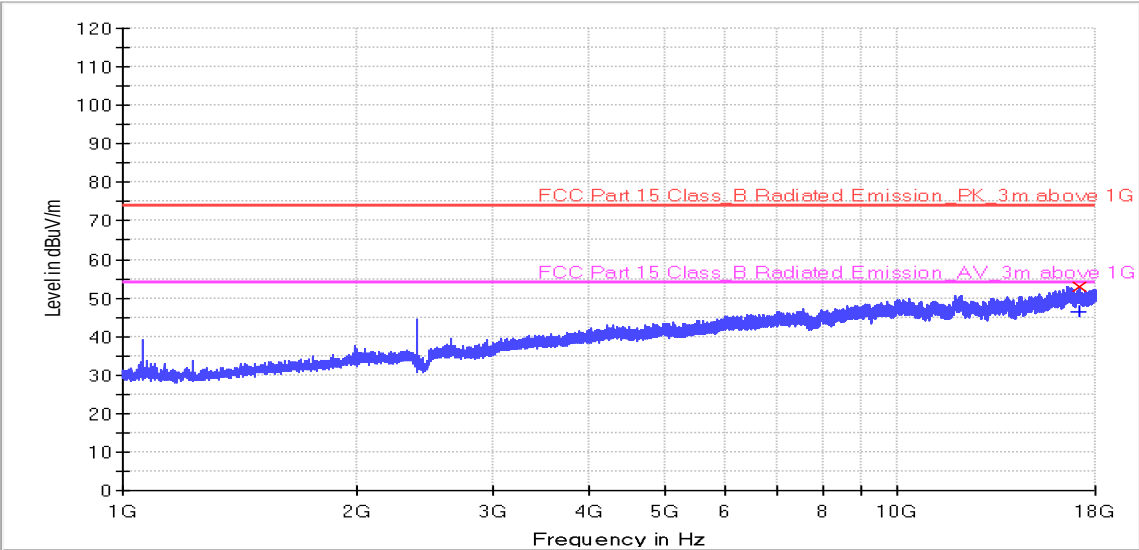
- (4) Emission level= Original Receiver Reading + Correct Factor
- (5) Correct Factor = Antenna Factor + Cable Loss -Amplifier gain
- (6) Margin = limit – Corrected Reading



Radiated Emission 1-18 GHz

Frequency:2402MHz at 1Mbps

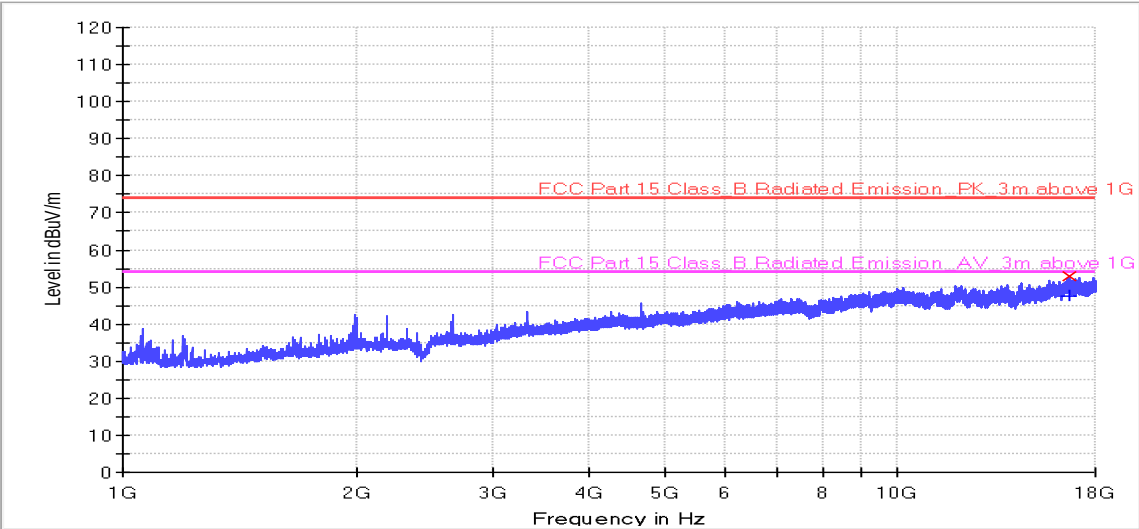
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
17140.900000	52.7	46.2	250.0	H	143.0	7.2	21.3	74.0	7.8	54.0

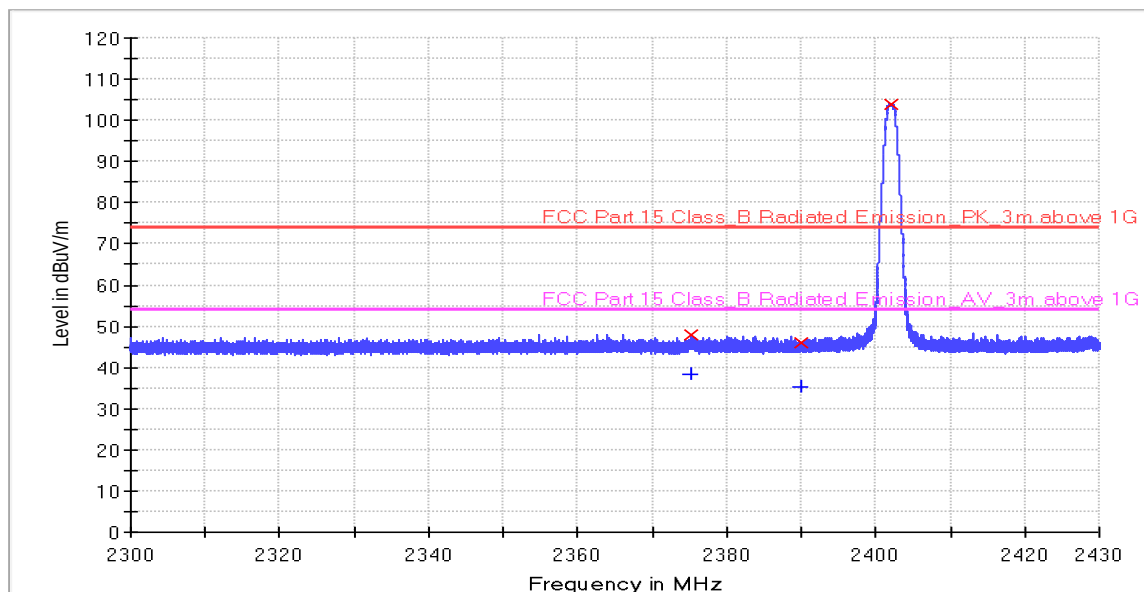
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
16706.500000	52.9	47.4	150.0	V	295.0	7.1	21.1	74.0	6.6	54.0

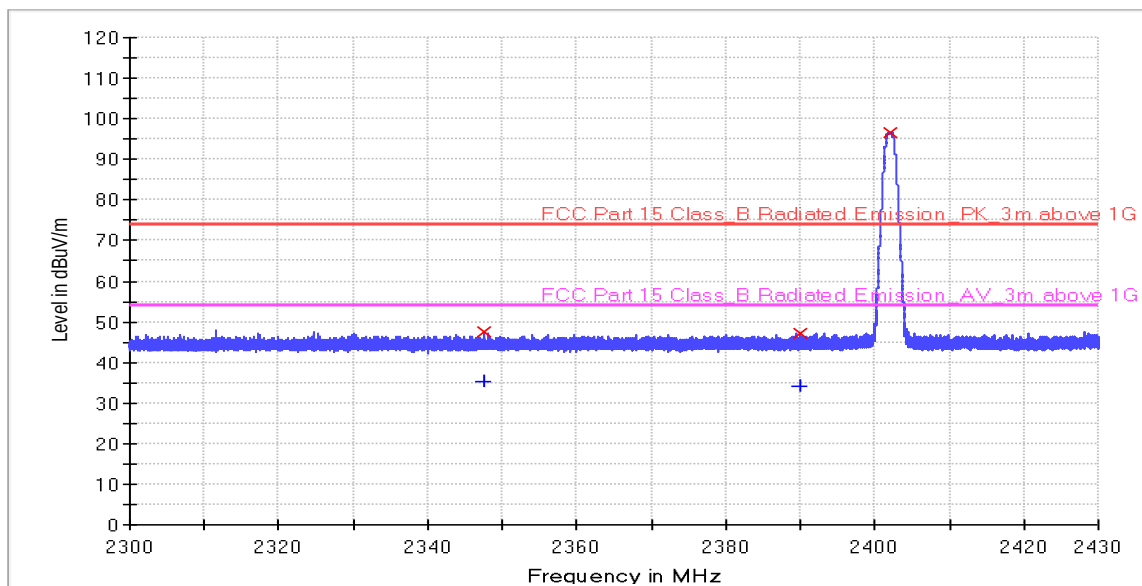
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
2375.326875	47.9	38.4	150.0	H	219.0	-10.8	26.1	74.0	15.6	54.0
2390.000000	45.9	35.2	250.0	H	143.0	-10.8	28.1	74.0	18.8	54.0
2402.000000	103.8	---	200.0	H	317.0	-10.8	-29.8	74.0	---	---

RE_HF907_BRF_Pre



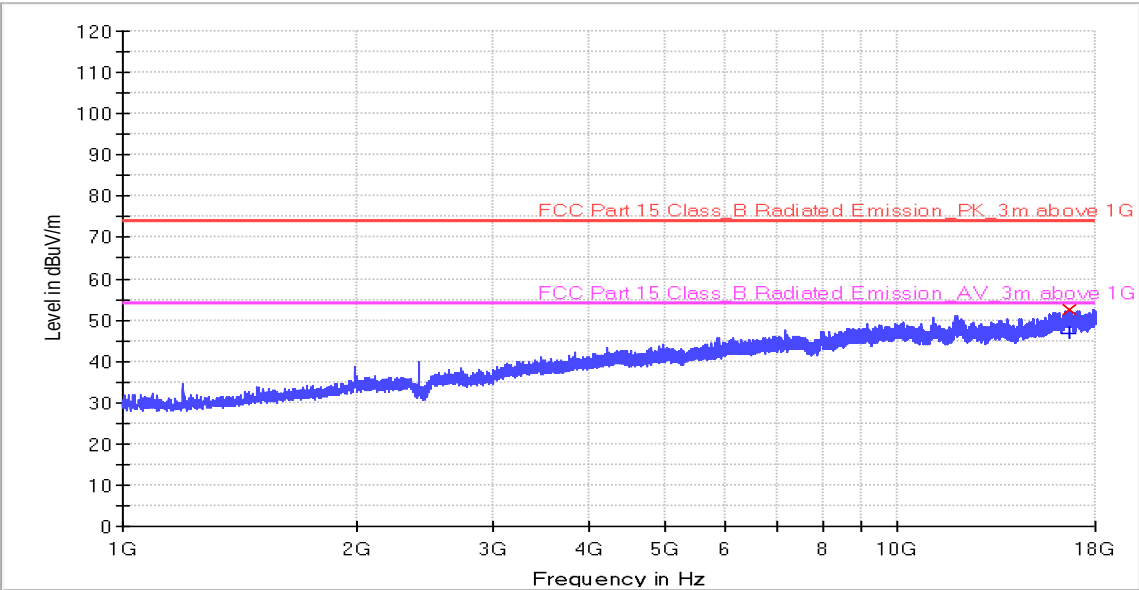
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
2347.531250	47.4	35.2	200.0	V	255.0	-11.0	26.6	74.0	18.8	54.0
2390.000000	47.0	34.1	150.0	V	150.0	-10.8	27.0	74.0	19.9	54.0
2402.000000	96.5	---	300.0	V	308.0	-10.8	-22.5	74.0	---	---



Frequency:2440MHz at 1Mbps

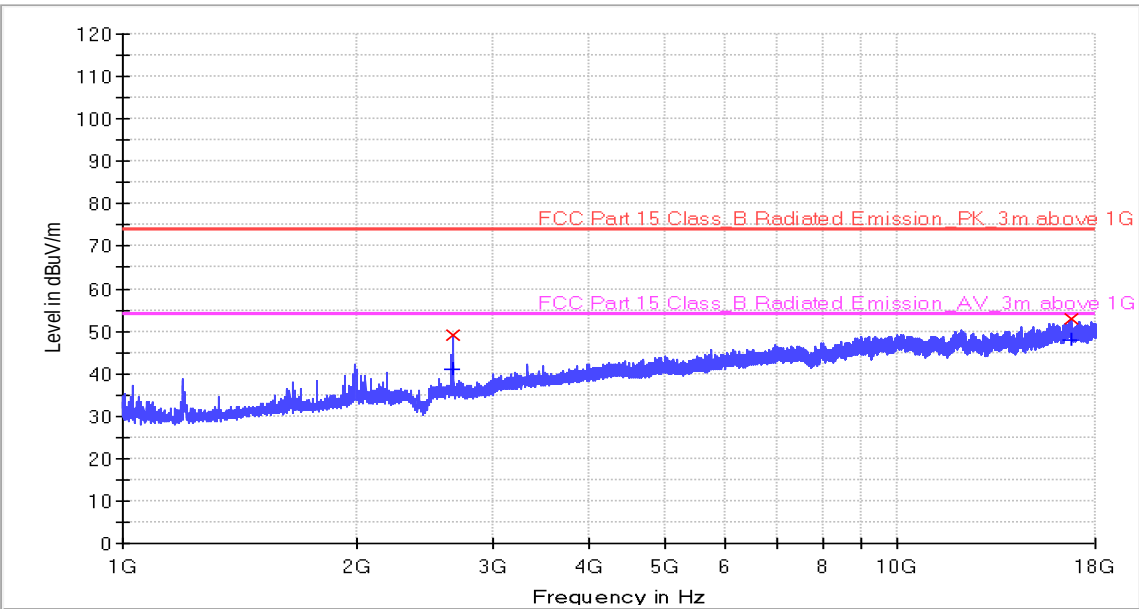
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
16657.000000	52.6	46.8	200.0	H	148.0	7.0	21.4	74.0	7.2	54.0

RE_HF907_BRF_Pre



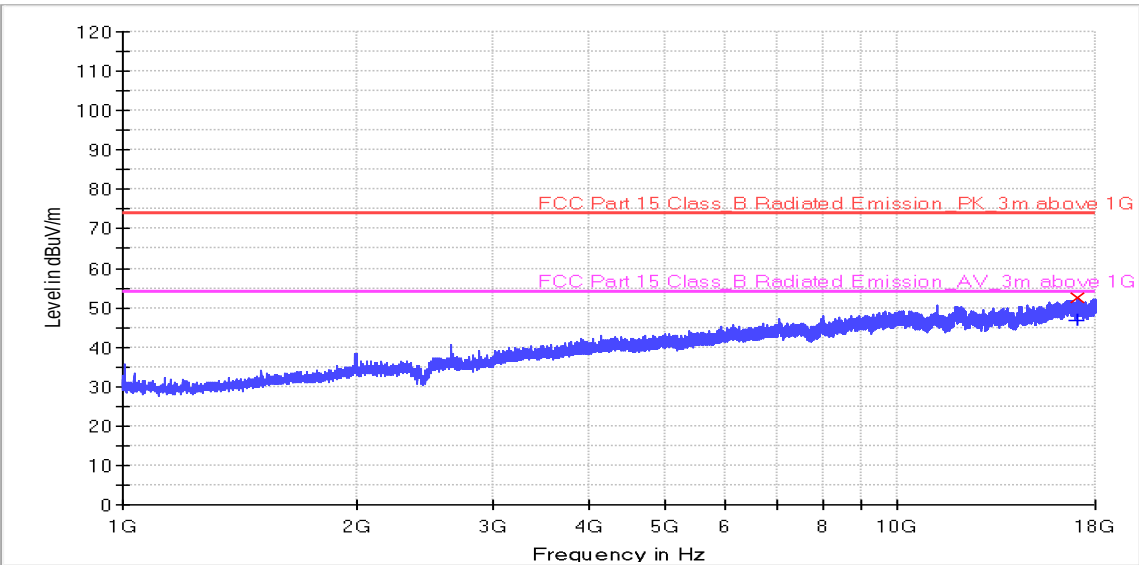
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
2665.000000	49.1	41.1	200.0	V	248.0	-9.6	24.9	74.0	12.9	54.0
16740.937500	52.7	48.0	150.0	V	147.0	7.1	21.3	74.0	6.0	54.0



Frequency:2480MHz at 1Mbps

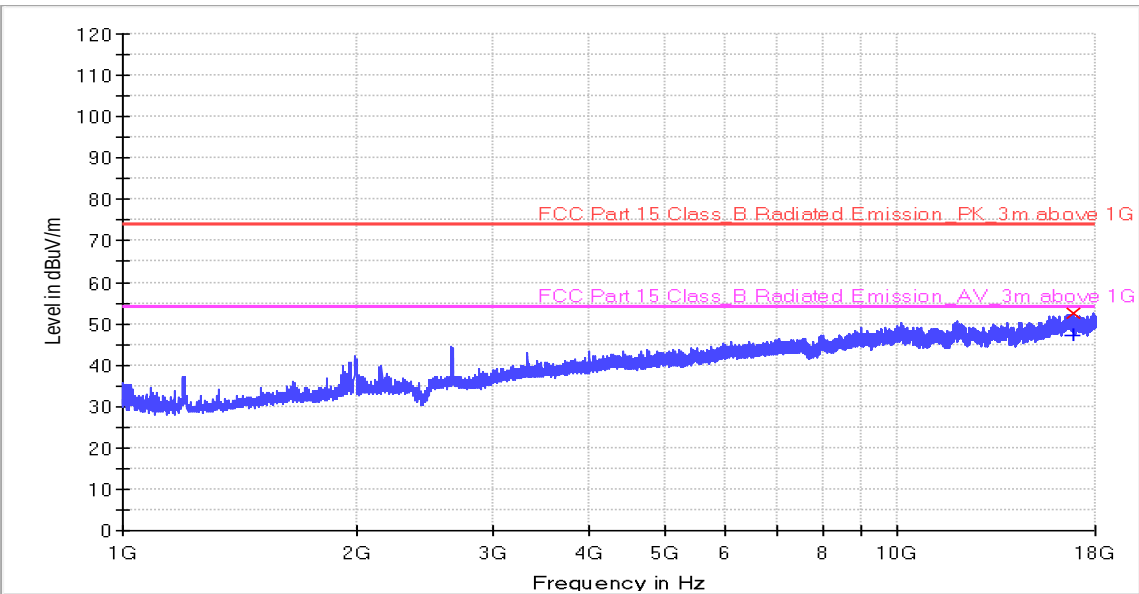
RE_HF 907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
17096.200000	52.5	46.9	250.0	H	192.0	7.2	21.5	74.0	7.1	54.0

RE_HF 907_BRF_Pre

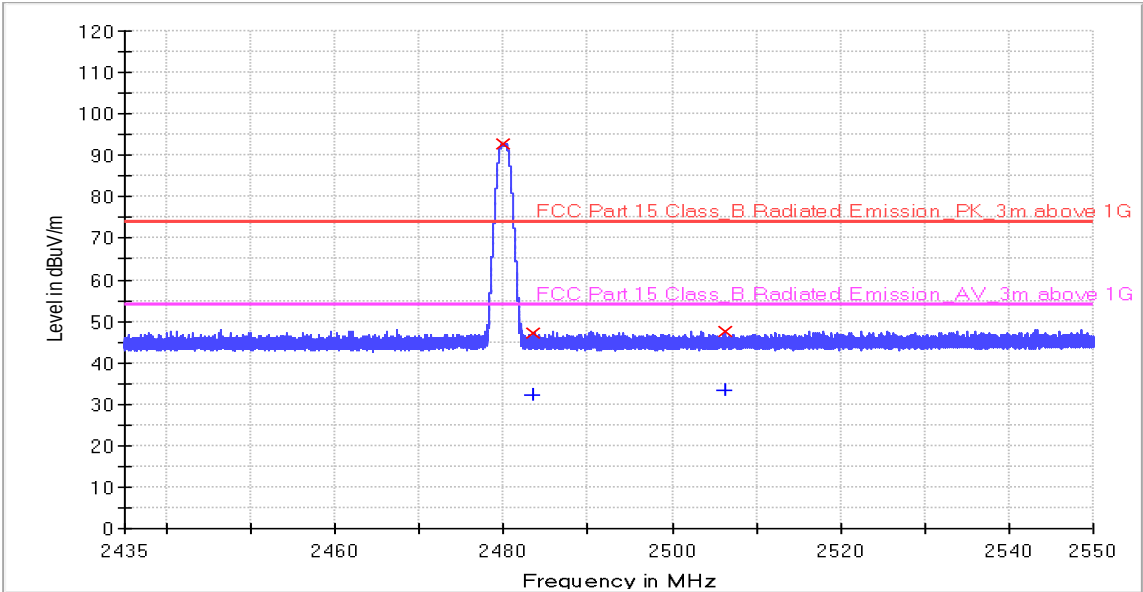


Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
16887.100000	52.5	47.3	200.0	V	157.0	6.8	21.5	74.0	6.7	54.0



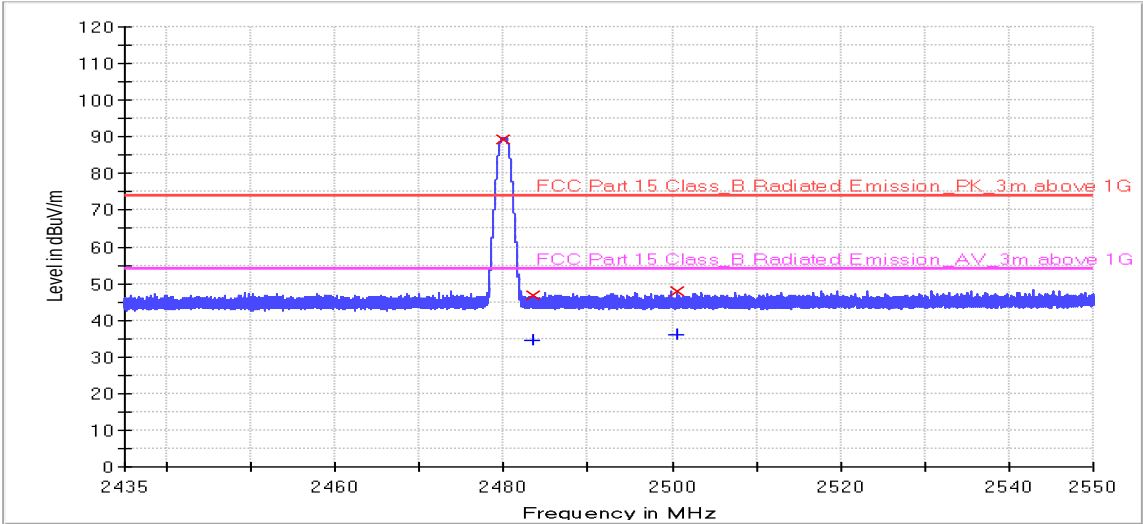
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
2480.000000	92.8	---	200.0	H	223.0	-10.3	-18.8	74.0	---	---
2483.500000	47.0	32.1	150.0	H	309.0	-10.3	27.0	74.0	21.9	54.0
2506.353906	47.7	33.5	300.0	H	142.0	-10.2	26.3	74.0	20.5	54.0

RE_HF907_BRF_Pre



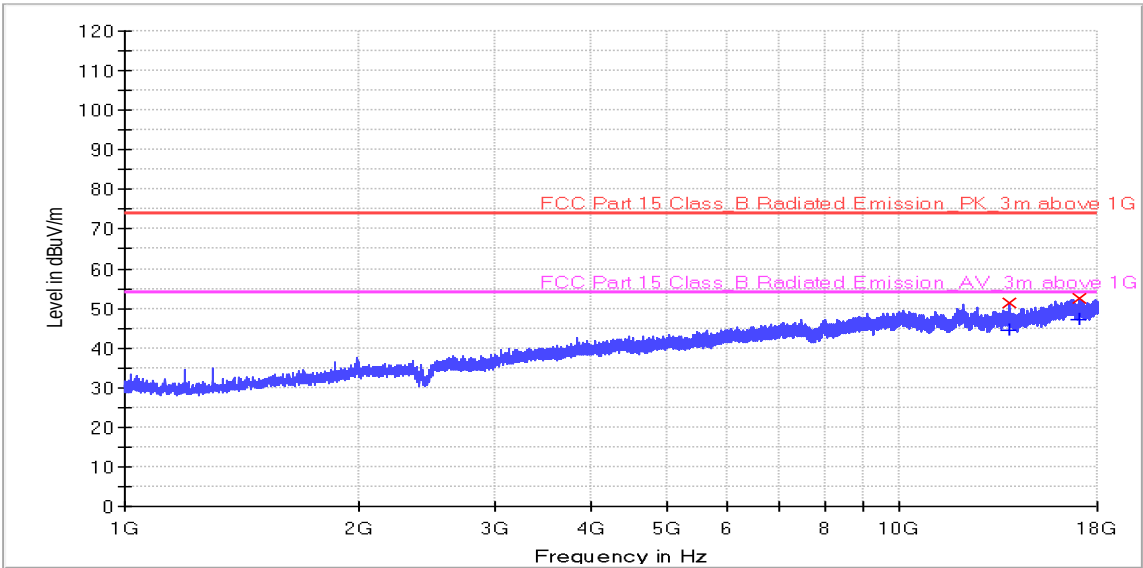
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
2480.000000	89.5	---	300.0	V	115.0	-10.3	-15.5	74.0	---	---
2483.500000	46.6	34.5	150.0	V	247.0	-10.3	27.4	74.0	19.5	54.0
2500.614688	48.0	36.2	200.0	V	327.0	-10.2	26.0	74.0	17.8	54.0



Frequency:2402MHz at 2Mbps

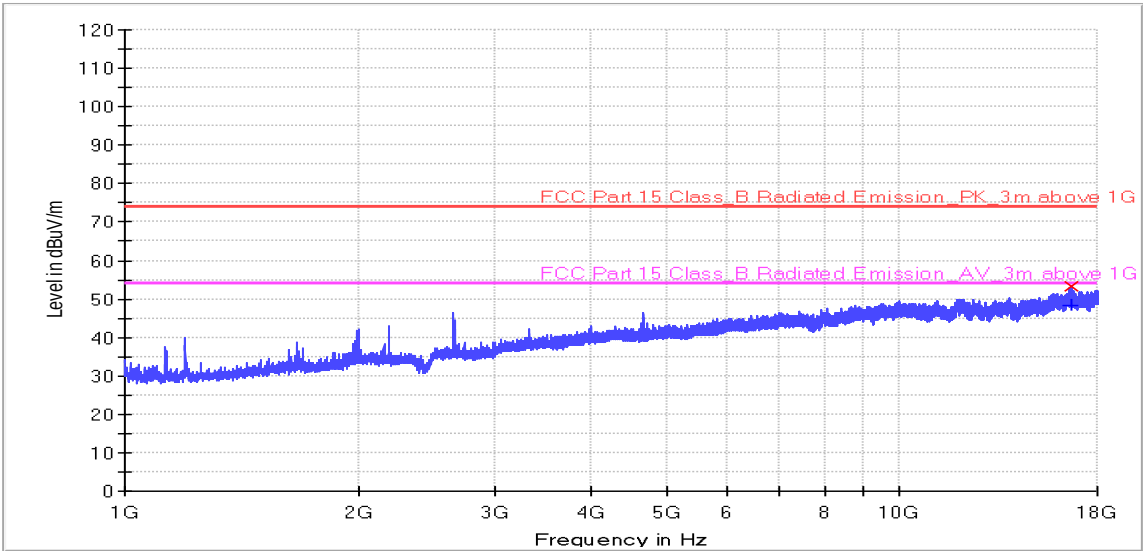
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
13842.400000	51.4	44.4	150.0	H	149.0	4.3	22.6	74.0	9.7	54.0
17109.100000	52.5	47.3	200.0	H	238.0	7.2	21.5	74.0	6.7	54.0

RE_HF907_BRF_Pre

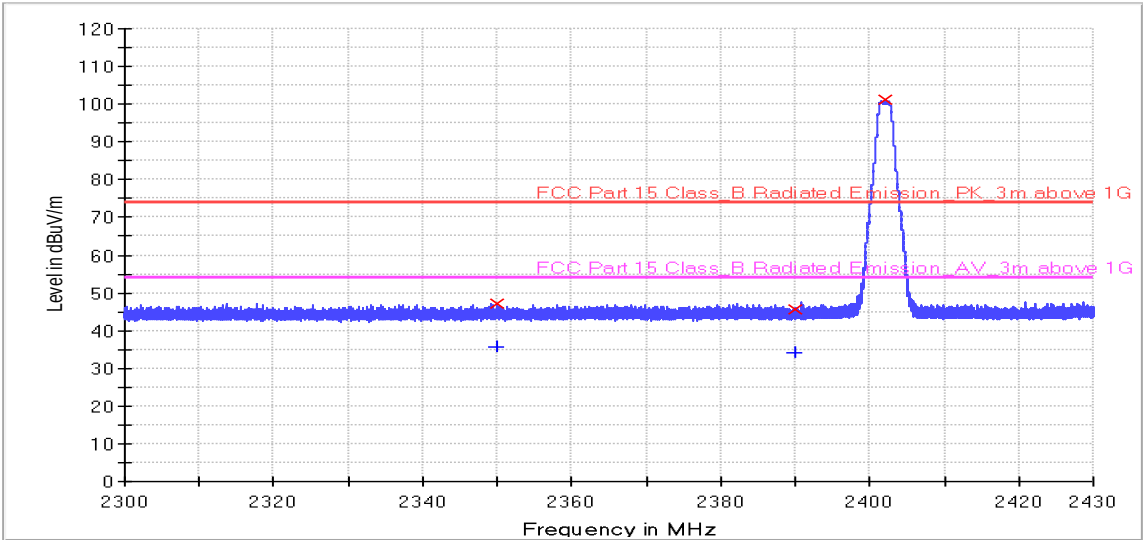


Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
16692.100000	53.3	48.4	150.0	V	322.0	7.1	20.7	74.0	5.6	54.0



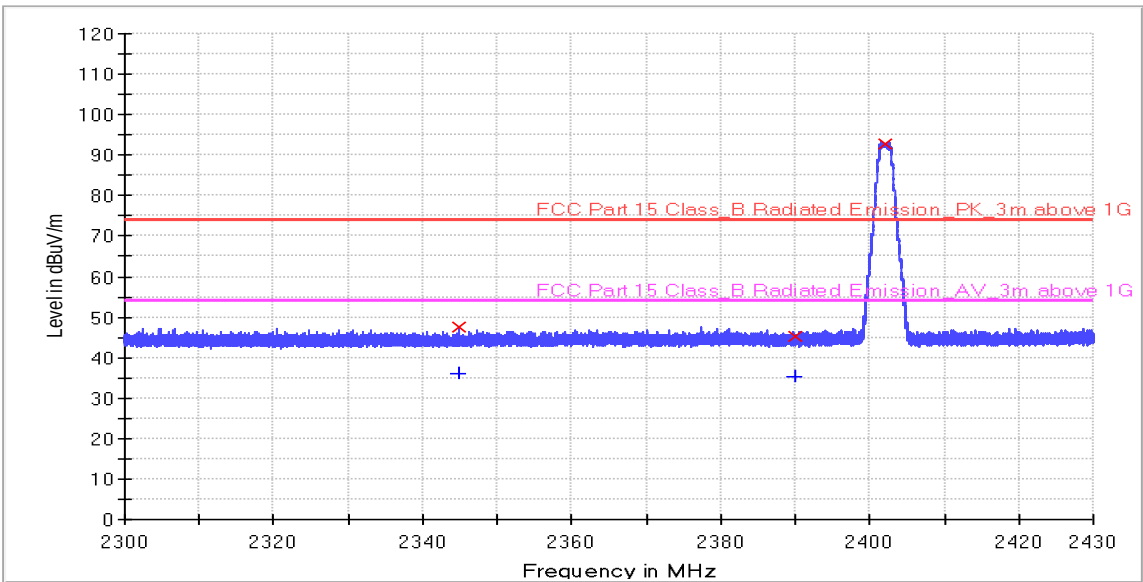
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
2350.029688	47.1	35.6	150.0	H	248.0	-11.0	26.9	74.0	18.4	54.0
2390.000000	45.8	34.2	200.0	H	302.0	-10.8	28.2	74.0	19.8	54.0
2402.000000	101.1	---	150.0	H	149.0	-10.8	-27.1	74.0	---	---

RE_HF907_BRF_Pre



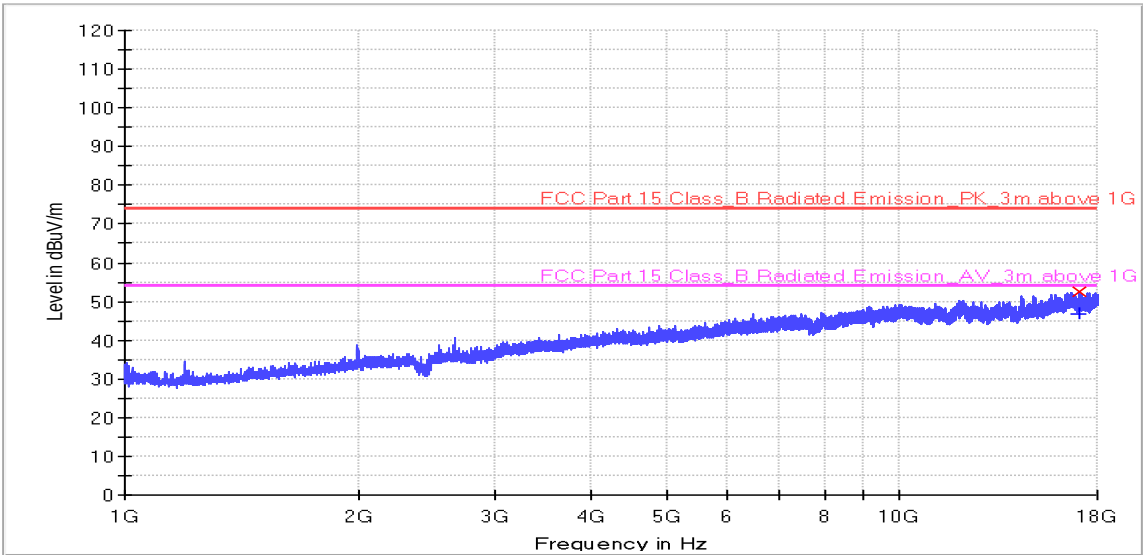
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
2344.732188	47.6	36.1	200.0	V	116.0	-11.0	26.4	74.0	17.9	54.0
2390.000000	46.3	35.3	150.0	V	218.0	-10.8	27.7	74.0	18.7	54.0
2402.000000	92.9	---	200.0	V	329.0	-10.8	-18.9	74.0	---	---



Frequency:2440MHz at 2Mbps

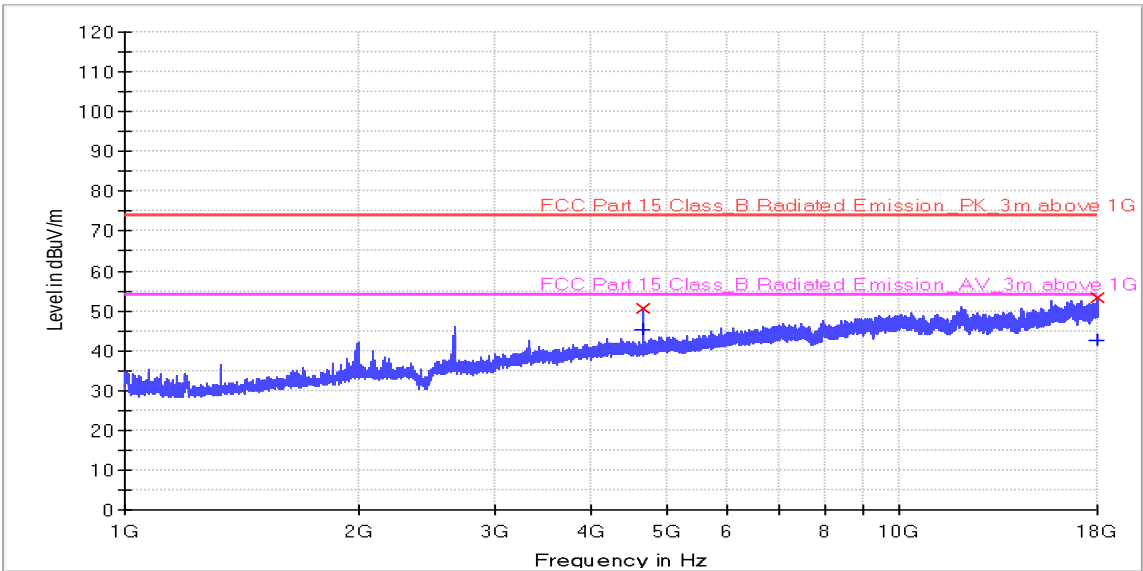
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
17020.900000	52.4	46.8	250.0	H	143.0	7.0	21.6	74.0	7.2	54.0

RE_HF907_BRF_Pre



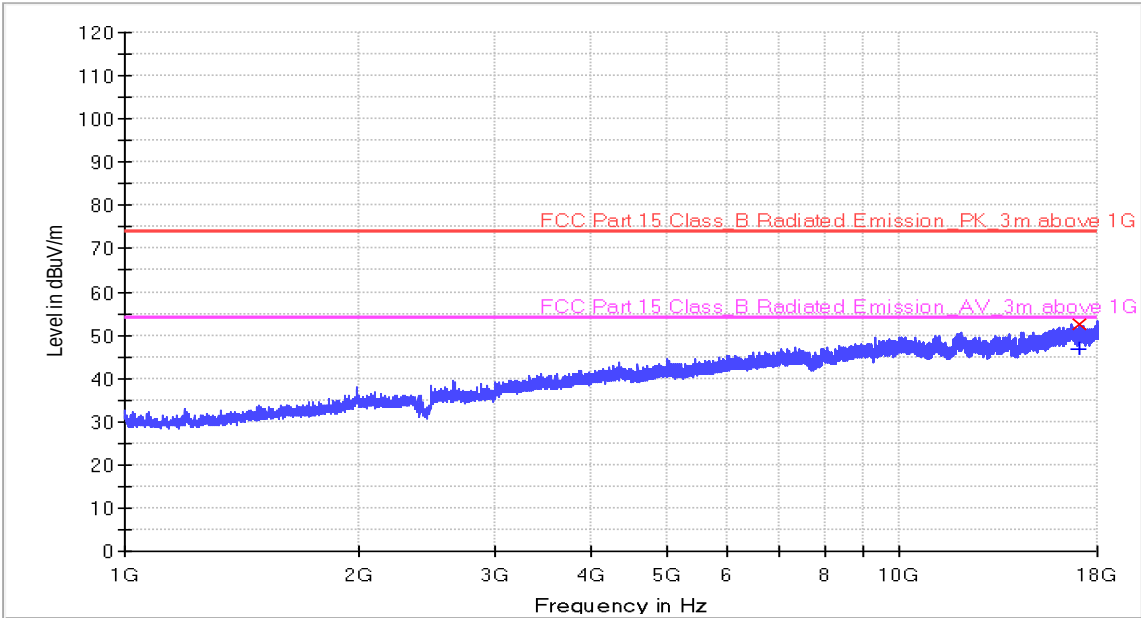
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4660.900000	50.8	45.2	200.0	V	89.0	-3.4	23.2	74.0	8.8	54.0
17964.400000	53.2	42.4	150.0	V	252.0	7.9	20.8	74.0	11.6	54.0



Frequency:2480MHz at 2Mbps

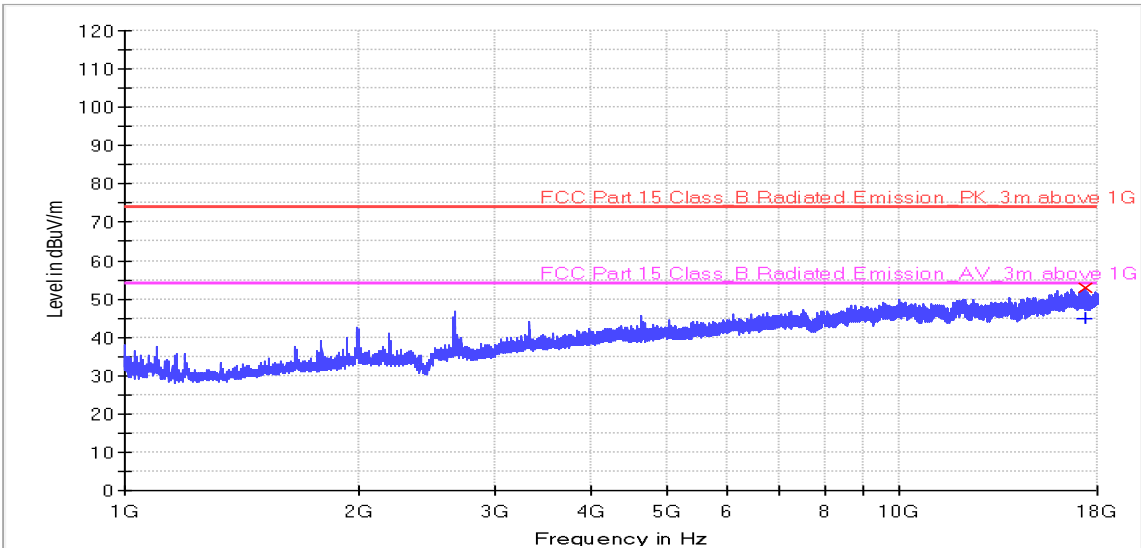
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
17100.700000	52.4	46.7	150.0	H	246.0	7.2	21.6	74.0	7.3	54.0

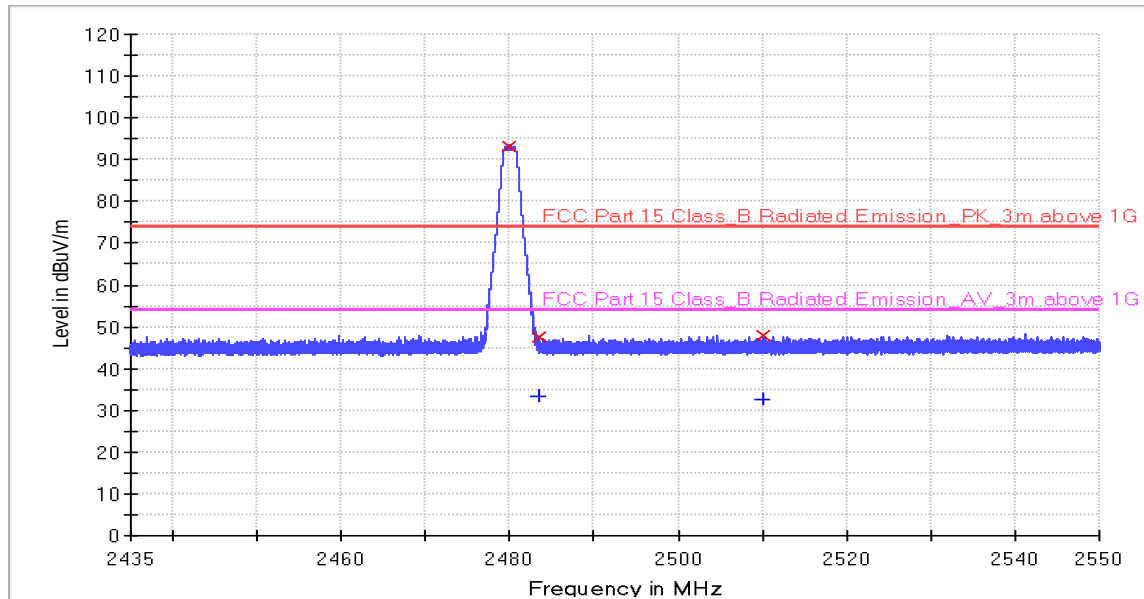
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
17382.100000	52.8	44.8	250.0	V	249.0	7.3	21.2	74.0	9.2	54.0

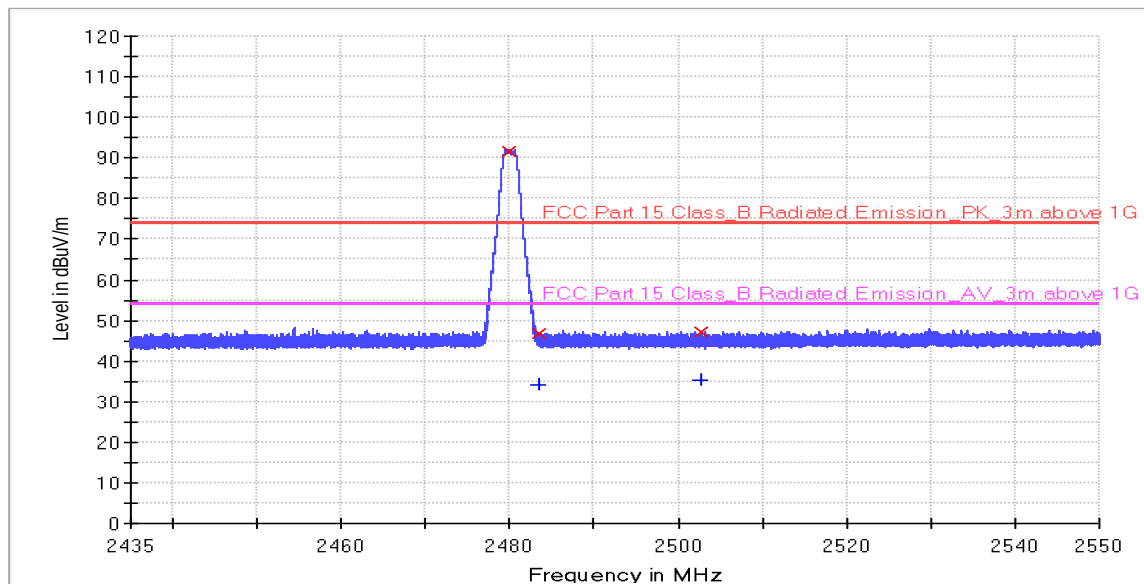
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
2480.000000	93.3	---	150.0	H	128.0	-10.3	-19.3	74.0	---	---
2483.500000	47.5	33.5	300.0	H	324.0	-10.3	26.5	74.0	20.6	54.0
2510.188480	47.8	32.6	200.0	H	172.0	-10.2	26.2	74.0	21.4	54.0

RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
2480.000000	91.8	---	250.0	V	249.0	-10.3	-17.8	74.0	---	---
2483.500000	46.8	34.3	150.0	V	91.0	-10.3	27.2	74.0	19.7	54.0
2502.800000	47.3	35.1	150.0	V	116.0	-10.2	26.7	74.0	18.9	54.0

Worst case Radiated Emission 18-25 GHz

18-25GHz Radiated Emission

EUT Information

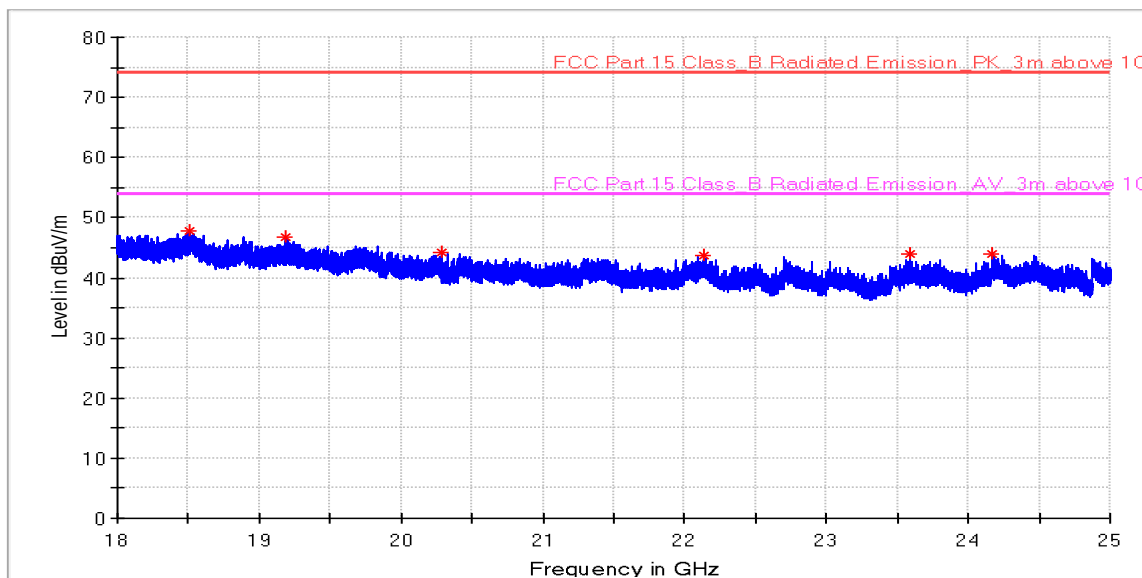
EUT Name: DASH CAM
 Model: M800-2
 Client: 70mai Co., Ltd.
 Op Cond: Power on and TX_2440MHz at 1Mbps mode
 Operator: Chengjie Guo
 Test Spec: FCC 15.209 (a) and RSS-GEN 8.9
 Comment: Horizontal
 Sample No: SHA-899681-2

Sweep Setup: RE_3116C_pre [EMI radiated]

Hardware Setup: RE_3116C
 Receiver: [FSV 40]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
18 GHz - 25 GHz	500 kHz	PK+ ; AVG	1 MHz	0.05 s	0 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18507.500000	47.77	74.00	26.23	100.0	H	131.0	8.1
19191.968750	46.88	74.00	27.12	100.0	H	157.0	8.2
20283.093750	44.29	74.00	29.71	100.0	H	7.0	8.3
22133.937500	43.62	74.00	30.38	100.0	H	201.0	8.8
23584.687500	44.02	74.00	29.98	100.0	H	190.0	8.9
24172.250000	43.94	74.00	30.06	100.0	H	190.0	9.0

Remark:

- (1) Emission level= Original Receiver Reading + Correct Factor
- (2) Correct Factor = Antenna Factor + Cable Loss -Amplifier gain
- (3) Margin = limit – Corrected Reading

18-25GHz Radiated Emission

EUT Information

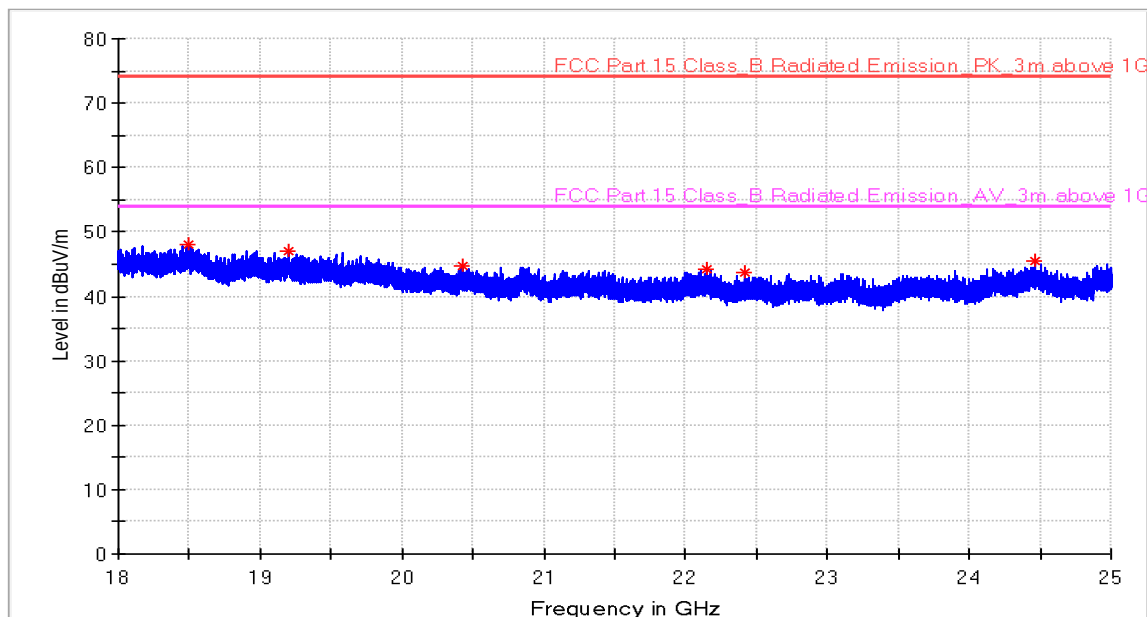
EUT Name: DASH CAM
 Model: M800-2
 Client: 70mai Co., Ltd.
 Op Cond: Power on and TX_2440MHz at 1Mbps mode
 Operator: Chengjie Guo
 Test Spec: FCC 15.209 (a) and RSS-GEN 8.9
 Comment: Vertical
 Sample No: SHA-899681-2

Sweep Setup: RE_3116C_pre [EMI radiated]

Hardware Setup: RE_3116C
 Receiver: [FSV 40]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
18 GHz - 25 GHz	500 kHz	PK+ ; AVG	1 MHz	0.05 s	0 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18492.625000	48.00	74.00	26.00	100.0	V	315.0	8.1
19194.593750	46.93	74.00	27.07	100.0	V	133.0	8.2
20432.062500	44.68	74.00	29.32	100.0	V	99.0	8.4
22143.125000	44.28	74.00	29.72	100.0	V	219.0	8.8
22417.875000	43.67	74.00	30.33	100.0	V	13.0	8.9
24463.625000	45.42	74.00	28.58	100.0	V	32.0	9.0

Remark:

- (4) Emission level= Original Receiver Reading + Correct Factor
- (5) Correct Factor = Antenna Factor + Cable Loss -Amplifier gain
- (6) Margin = limit – Corrected Reading

11 Test Equipment List

List of Test Instruments
Test Site1

	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DATE	CAL. DUE DATE
C	Signal spectrum analyzer	Agilent	N9020B	MY59050168	2025-2-19	2026-2-18
RE	EMI Test Receiver	Rohde & Schwarz	ESR3	101906	2024-8-1	2025-7-31
	Signal Analyzer	Rohde & Schwarz	FSV40	101091	2024-8-1	2025-7-31
	Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9168	961	2024-8-30	2025-8-29
	Double-ridged waveguide horn antenna	Rohde & Schwarz	HF907	102868	2024-4-14	2025-4-13
	Pre-amplifier	Shenzhen HzEMC	HPA-081843	HYP A23026	2024-4-16	2025-4-15
	Loop antenna	Rohde & Schwarz	HFH2-Z2	100443	2024-6-26	2025-6-25
	Double Ridged Horn Antenna	ETS-Lindgren	3116C	00246076	2023-7-7	2026-7-6
	3m Semi-anechoic chamber	TDK	9X6X6	----	2024-5-8	2027-5-7
	Band reject filter	Wainwright	WRCGV10-2382-2402-2480-2500-52SS	38	2024-8-1	2025-7-31
	Coaxial Cable	----	----	RE Cable 01	2024-8-1	2025-7-31
	Coaxial Cable	----	----	RE Cable 02	2024-8-1	2025-7-31
	Coaxial Cable	----	----	RE Cable 03	2024-8-1	2025-7-31
	Coaxial Cable	----	----	RE Cable 04	2024-8-1	2025-7-31

Measurement Software Information			
Test Item	Software	Manufacturer	Version
C	MTS 8310	MWR Ftest	3.0.0.0
RE	EMC 32	Rohde & Schwarz	V10.50.40

C - Conducted RF tests

- Conducted peak output power
- 6dB bandwidth and 99% Occupied Bandwidth
- Power spectral density
- Spurious RF conducted emissions
- Band edge



12 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

Items	Extended Uncertainty
Conducted Disturbance at Mains Terminals	150kHz to 30MHz, LISN, 3.16dB
Radiated Disturbance	9kHz to 30MHz, 3.52dB 30MHz to 1GHz, 5.03dB (Horizontal) 5.12dB (Vertical) 1GHz to 18GHz, 5.49dB 18GHz to 40GHz, 5.63dB
RF Conducted Measurement	Power related: 1.16dB Frequency related: 6.00×10 ⁻⁸

Measurement Uncertainty Decision Rule:

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2023, clause 4.3.3.



13 Photographs of Test Set-ups

Refer to the < Test Setup photos >.

14 Photographs of EUT

Refer to the < External Photos > & < Internal Photos >.

-----End of Test Report-----