

TEST REPORT

Report No.: CTC2026187002

FCC ID.....: 2AEIN-J1222

Applicant.....: Huizhou Foryou General Electronics Co., Ltd.

Address.....: No.2 District A, Foryou Industry Park, No. 1 North Shangxia Road, Dongjiang Hi tech Industry Park, 516005 Huizhou city, Guangdong Province, China(PROC)

Manufacturer.....: JVCKENWOOD Corporation

Address.....: 3-12, Moriyacho, Kanagawa-ku, Yokohama-shi, Kanagawa, 221-0022, JAPAN

Product Name.....: Product Name1: JCB UX MEDIA UNIT
Product Name2: DIGITAL MEDIA CAN RADIO

Trade Mark: KENWOOD

Model/Type reference.....: Model1: KMM-J100
Model2: KMM-D110

Standard: FCC CFR Title 47 Part 15 Subpart C Section 15.247

Test Report Form No.....: CTC-TR-059_A5

Master TRF: Dated 2026-06-01

Date of receipt of test sample.....: Apr. 10, 2026

Date of testing.....: Apr. 10, 2026~ Apr. 17, 2026

Date of issue.....: August 11, 2026

Result.....: PASS

Compiled by:

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1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

[FCC Rules Part 15.247](#): Operation within the bands 902–928MHz, 2400–2483.5MHz, and 5725–5850MHz.

[ANSI C63.10-2020](#): American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

1.2. Report Version

Revised No.	Report No.	Date of issue	Description
01	CTC2026187002	August 11, 2026	Original

1.3. Test Description

FCC Part 15 Subpart C (15.247)			
Test Item	Standard Section	Result	Note
Antenna Requirement	15.203	Pass	/
Conducted Emission	15.207	N/A	N/A
Restricted Bands	15.205	Pass	/
Hopping Channel Separation	15.247(a)(1)	Pass	/
Dwell Time	15.247(a)(iii)	Pass	/
Peak Output Power	15.247(b)(1)	Pass	/
Number of Hopping Frequency	15.247(a)(iii)	Pass	/
Conducted Band Edge and Spurious Emissions	15.247(d)	Pass	/
Radiated Band Edge and Spurious Emissions	15.205&15.209&15.247(d)	Pass	/
Radiated Spurious Emission	15.247(d) &15.209	Pass	/
20dB Bandwidth	15.247(a)	Pass	/

Note:

1. The measurement uncertainty is not included in the test result.
2. N/A: means this test item is not applicable for this device according to the technology characteristic of device.

1.4. Test Facility

Address of the report laboratory

CTC Laboratories, Inc.

Add: Room 107, 108, 207, 208 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China

Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Cert. No.: 4340.01

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

Industry Canada (Registration No.: 9783A, CAB Identifier: CN0029)

CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 9783A on Jan, 2016.

FCC (Registration No.: 951311, Designation Number CN1208)

CTC Laboratories, Inc. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 951311, Aug 26, 2017.

1.5. Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2" and is documented in the CTC Laboratories, Inc. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Below is the best measurement capability for CTC Laboratories, Inc.

Test Items	Measurement Uncertainty	Notes
20dB Emission Bandwidth	$\pm 0.0196\%$	(1)
Carrier Frequency Separation	$\pm 1.9\%$	(1)
Number of Hopping Channel	$\pm 1.9\%$	(1)
Time of Occupancy	$\pm 0.028\%$	(1)
Max Peak Conducted Output Power	± 0.743 dB	(1)
Band-edge Spurious Emission	± 1.328 dB	(1)
Conducted RF Spurious Emission	9kHz-1GHz: ± 0.746 dB 1GHz-26GHz: ± 1.328 dB	(1)
Conducted Emissions 9kHz~30MHz	± 3.08 dB	(1)
Radiated Emissions 30~1000MHz	± 4.51 dB	(1)
Radiated Emissions 1~18GHz	± 5.84 dB	(1)
Radiated Emissions 18~40GHz	± 6.12 dB	(1)

Note (1): This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.6. Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15 °C to 35 °C
Relative Humidity:	20 % to 75 %
Air Pressure:	101 kPa

2. GENERAL INFORMATION

2.1. Client Information

Applicant:	Huizhou Foryou General Electronics Co., Ltd.
Address:	No.2 District A, Foryou Industry Park, No. 1 North Shangxia Road, Dongjiang Hi tech Industry Park, 516005 Huizhou city, Guangdong Province, China(PROC)
Manufacturer:	JVCKENWOOD Corporation
Address:	3-12, Moriyacho, Kanagawa-ku, Yokohama-shi, Kanagawa, 221-0022, JAPAN

2.2. General Description of EUT

Product Name:	Product Name1: JCB UX MEDIA UNIT Product Name2: DIGITAL MEDIA CAN RADIO		
Trade Mark:	KENWOOD		
Model/Type reference:	Model1: KMM-J100 Model2: KMM-D110		
Model Difference:	Product name: JCB UX MEDIA UNIT, main model: KMM-J100, additional models KMM-D110 (Product Name: DIGITAL MEDIA CAN RADIO) are consistent with the schematic, PCB layout, hardware version, and software version. The differences are shown in the table below, but they do not affect RF performance:		
	Different content points	Product name: JCB UX MEDIA UNIT	Product Name: DIGITAL MEDIA CAN RADIO
		KMM-J100	KMM-D110
	Flash (DSP)	128Mbit	No
	JCB LOGO (In the metal shell)	Yes	No
	Note: The above products have the same wireless IC, radiation circuit, power circuit and other circuits, with same shell.		
Sample ID:	CTC-GC260408-003-S002		
Power Supply:	Input: DC12V		
Hardware Version:	V1		
Software Version:	MMPU 0.27 MCU 1.09		
Bluetooth 5.3 / BR+EDR			
Modulation:	GFSK, π/4-DQPSK, 8-DPSK		
Operation Frequency:	2402MHz~2480MHz		
Channel Number:	79		
Channel Separation:	1MHz		
Antenna Type:	PCB Antenna		
Antenna Gain:	2.81dBi		

2.3. Accessory Equipment Information

Equipment Information			
Name	Model	S/N	Manufacturer
Notebook	ThinkBook 14 G3 ACL	MP246Q6S	Lenovo
USB TO TTL	FT232RL	/	/
Cable Information			
Name	Shielded Type	Ferrite Core	Length
/	/	/	/
Test Software Information			
Name	Version	/	/
FrequencyTool	v0.3.2	/	/

2.4. Operation State

Operation Frequency List: The EUT has been tested under typical operating condition. The Applicant provides communication tools software to control the EUT for staying in continuous transmitting and receiving mode for testing. BT EDR, 79 channels are provided to the EUT. Channels 00/39/78 were selected for testing.

Operation Frequency List:

Channel	Frequency (MHz)
00	2402
01	2403
:	:
38	2440
39	2441
40	2442
:	:
77	2479
78	2480

Note: The display in grey were the channel selected for testing.

Test Mode:

For RF test items:
The engineering test program was provided and enabled to make EUT continuous transmit.
For AC power line conducted emissions:
The EUT was set to connect with the Bluetooth instrument under large package sizes transmission.
For Radiated spurious emissions test item:
The engineering test program was provided and enabled to make EUT continuous transmit. The EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

2.5. Measurement Instruments List

Radiated emission						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	9168-759	Oct. 17, 2025	Oct. 16, 2027
2	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-648	Dec. 12, 2024	Dec. 11, 2026
3	Test Receiver	Keysight	N9038A	MY56400071	Dec. 13, 2025	Dec. 12, 2026
4	Broadband Amplifier	Schwarzbeck	BBV9743B	259	Dec. 13, 2025	Dec. 12, 2026
5	Mirowave Broadband Amplifier	Schwarzbeck	BBV9718C	111	Dec. 13, 2025	Dec. 12, 2026
6	RE33L-001	COMM	/	014 (9kHz-1GHz)	Feb. 09, 2026	Feb. 08, 2027
7	RE33L-002	COMM	/	015 (9kHz-1GHz)	Feb. 09, 2026	Feb. 08, 2027
8	RE33H-001	SUHB SUCOFLEX	/	016 (1GHz-18GHz)	Feb. 09, 2026	Feb. 08, 2027
9	RE33H-002	HUBENR	/	017 (1GHz-18GHz)	Feb. 09, 2026	Feb. 08, 2027
10	RE33H-003	HUBENR	/	018 (1GHz-18GHz)	Feb. 09, 2026	Feb. 08, 2027
11	RE33H-003	HUBENR	/	019 (18GHz-40GHz)	Feb. 09, 2026	Feb. 08, 2027
12	3m chamber 3	YIHENG	EE106	/	Aug. 29, 2023	Aug. 28, 2026
Test Software						
Name		Manufacturer		Software Version		
EZ-EMC		FARA		FA-03A2		

RF Test System – SRD						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
1	Spectrum Analyzer	R&S	FSV40-N	101654	Dec. 13, 2025	Dec. 12, 2026
2	MXG Vector Signal Generator	Agilent	N5182A	MY47420864	Dec. 13, 2025	Dec. 12, 2026
3	PSG Analog Signal Generator	Agilent	E8257D	MY46521908	Dec. 13, 2025	Dec. 12, 2026
4	USB Wideband Power Sensor	Keysight	U2021XA	MY55130004	Mar. 25, 2026	Mar. 24, 2027
5	USB Wideband Power Sensor	Keysight	U2021XA	MY55130004	Mar. 25, 2026	Mar. 24, 2027
6	USB Wideband Power Sensor	Keysight	U2021XA	MY55130006	Mar. 25, 2026	Mar. 24, 2027
7	Wideband Radio Communication Tester	R&S	CMW500	102257	Mar. 25, 2026	Mar. 24, 2027
8	RF Control Unit	Tonscend	JS0806-2	/	Mar. 25, 2026	Mar. 24, 2027
9	RF Control Unit	Tonscend	JS0806-2	/	Mar. 25, 2026	Mar. 24, 2027
10	High and low temperature test chamber	ESPEC	MT3035	/	Mar. 25, 2026	Mar. 24, 2027
11	High and low	ESPEC	MT3035	/	Mar. 25,	Mar. 24,

CTC Laboratories, Inc.

Room 107, 108, 207, 208 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhua Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No:CTC-TR-059_A5

Master TRF:Dated 2026-06-01

	temperature test chamber				2026	2027
12	RF Cable	HUBER+SUHNER	SUCOFLEX101PE	RF-08	Apr. 16, 2025	Apr. 15, 2026
13	RF Cable	HUBER+SUHNER	SUCOFLEX101PE	RF-08	Apr. 16, 2026	Apr. 15, 2027
Test Software						
Name		Manufacturer			Software Version	
JS1120-3		Tonscend			V2.6.88.0346	

Note: 1. The Cal. Interval was one year.

2. The Cal. Interval was three years of the antenna.

3. The cable loss has been calculated in test result which connection between each test instruments.

3. TEST ITEM AND RESULTS

3.1. Radiated Emission

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.209

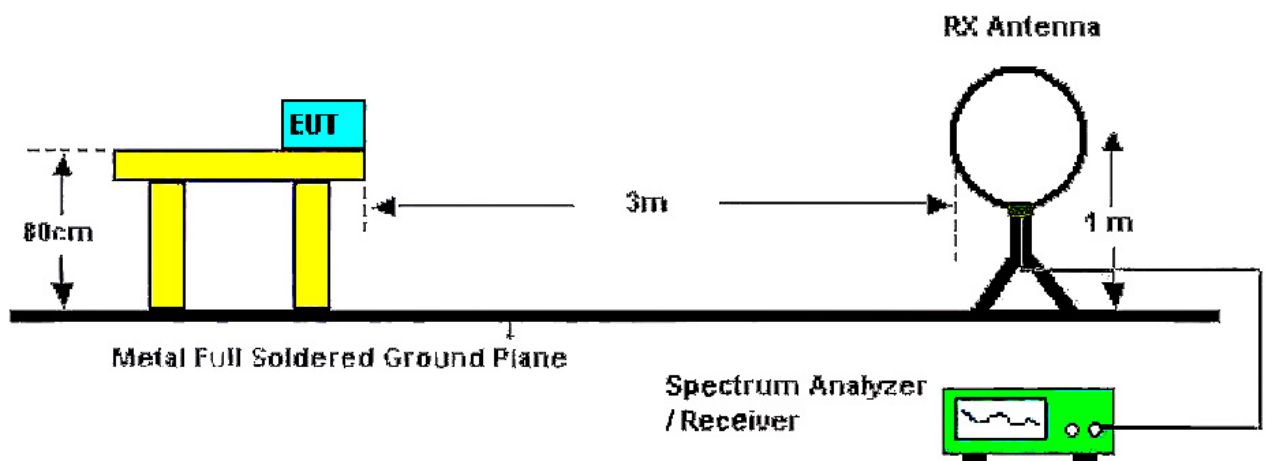
Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F (kHz)	300
0.490~1.705	24000/F (kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Frequency Range (MHz)	dBμV/m (at 3 meters)	
	Peak	Average
Above 1000	74	54

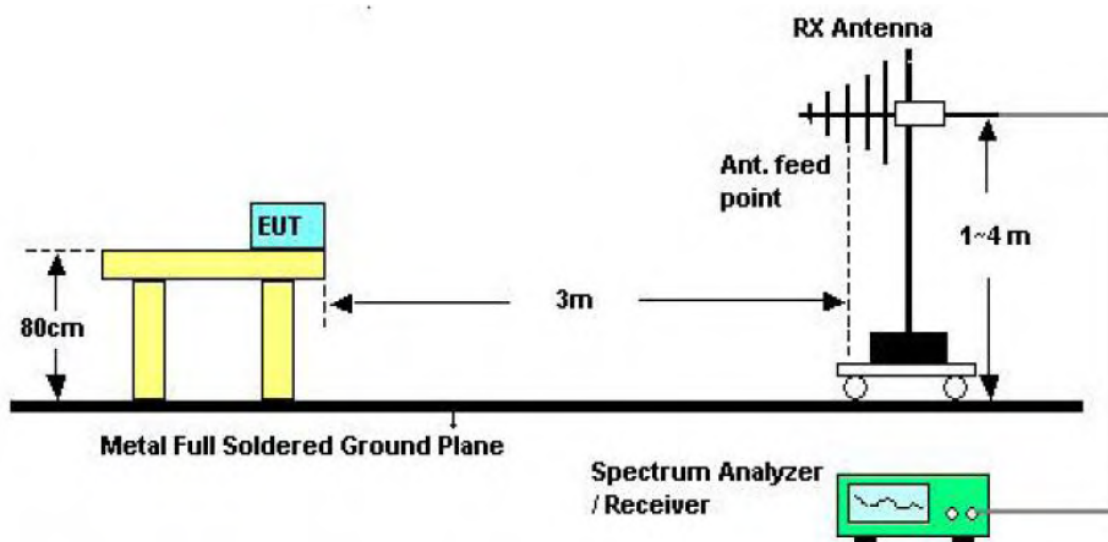
Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level (dBμV/m)=20log Emission Level (μV/m).

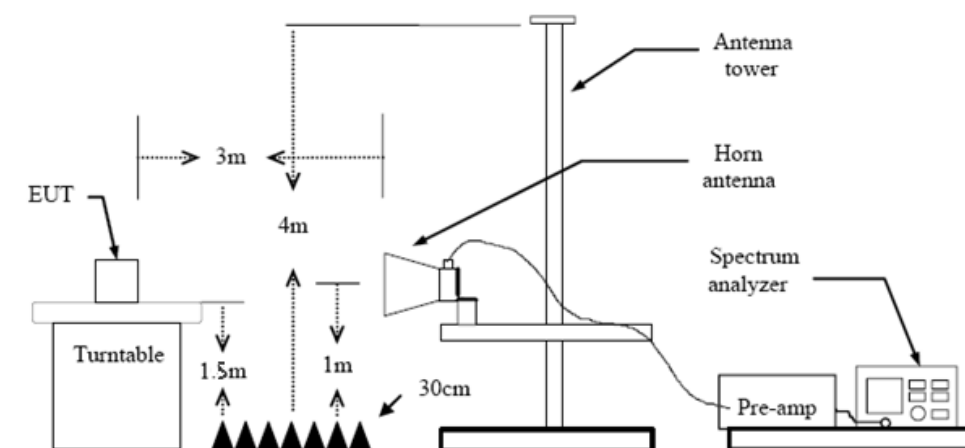
Test Configuration



Below 30MHz Test Setup



30-1000MHz Test Setup



Above 1GHz Test Setup

Test Procedure

1. The EUT was setup and tested according to ANSI C63.10.
 2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
 3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
 4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
 5. Set to the maximum power setting and enable the EUT transmit continuously.
 6. Use the following spectrum analyzer settings
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) 9k – 150kHz:
RBW=300 Hz, VBW=1 kHz, Sweep=auto, Detector function=peak, Trace=max hold
 - (3) 0.15M – 30MHz:
RBW=10 kHz, VBW=30 kHz, Sweep=auto, Detector function=peak, Trace=max hold
 - (4) 30M - 1 GHz:
RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold
- If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the

peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

(5) From 1 GHz to 10th harmonic:

RBW=1MHz, VBW=3MHz Peak detector for Peak value.

RBW=1MHz, VBW see note 1 with Peak Detector for Average Value.

Note 1: For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 3.10 Duty Cycle.

Test Mode

Please refer to the clause 2.4.

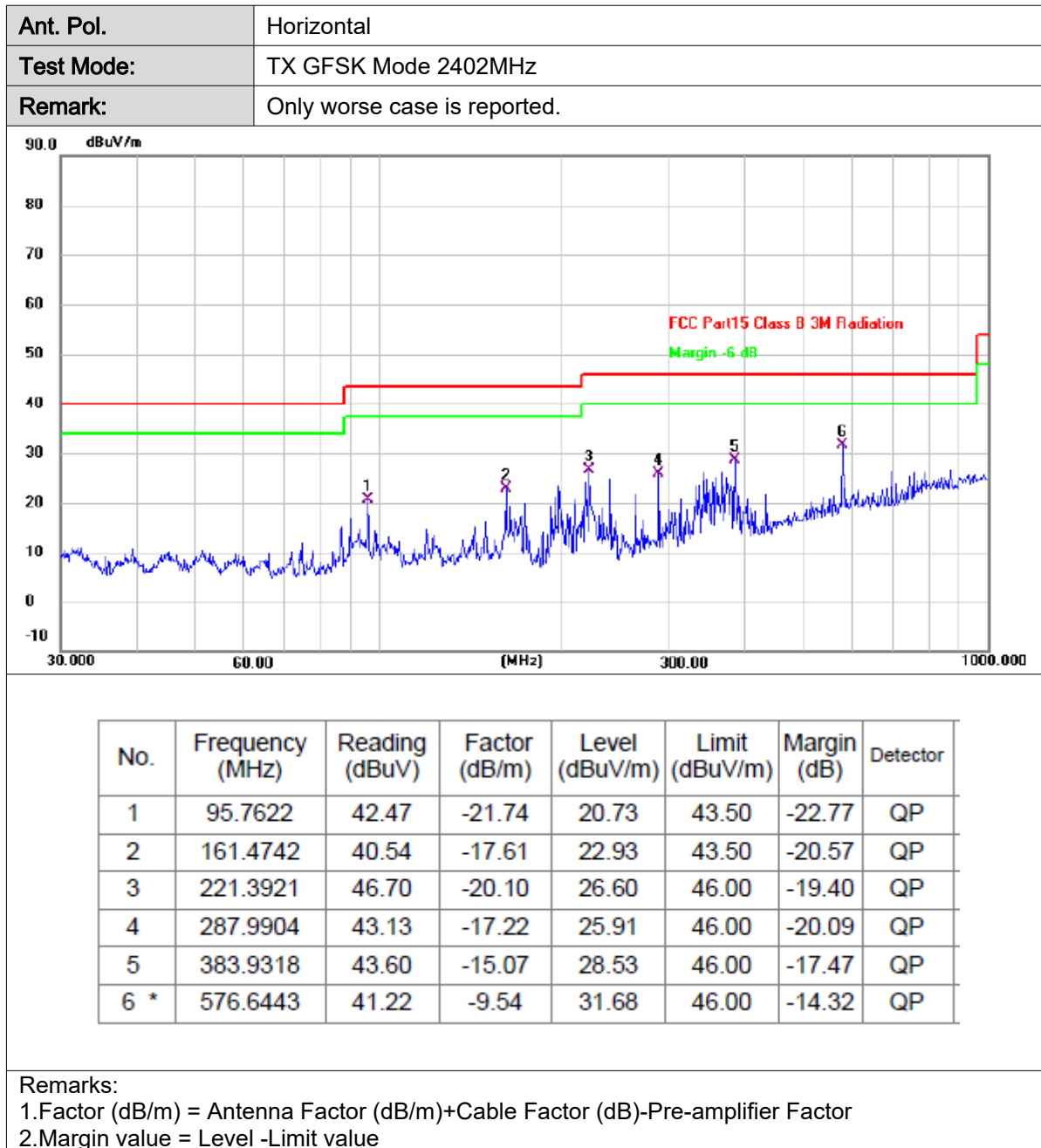
Test Result

9 kHz~30 MHz

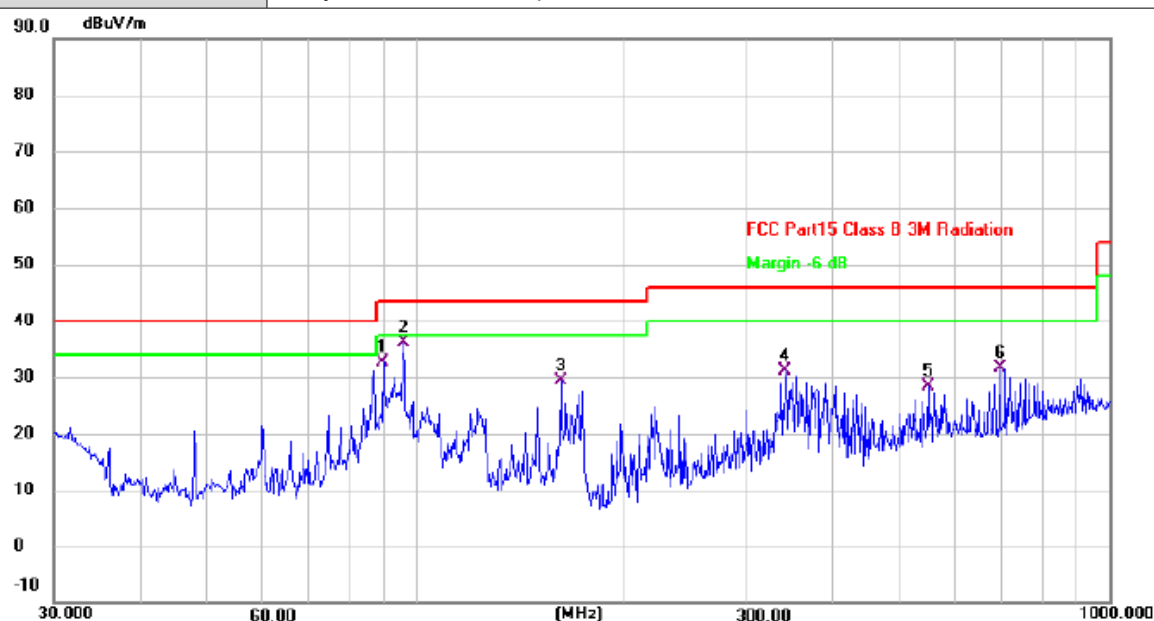
From 9 kHz to 30 MHz: The conclusion is PASS.

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

30MHz-1GHz



Ant. Pol.	Vertical
Test Mode:	TX GFSK Mode 2402MHz
Remark:	Only worse case is reported.



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	89.5899	54.55	-22.01	32.54	43.50	-10.96	QP
2 *	95.7622	57.81	-21.74	36.07	43.50	-7.43	QP
3	161.4742	47.03	-17.61	29.42	43.50	-14.08	QP
4	341.9786	47.15	-16.04	31.11	46.00	-14.89	QP
5	547.0977	38.74	-10.48	28.26	46.00	-17.74	QP
6	694.4174	40.40	-8.83	31.57	46.00	-14.43	QP

Remarks:

1. Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2. Margin value = Level -Limit value

Above 1GHz

Ant. Pol.	Horizontal						
Test Mode:	TX GFSK Mode 2402MHz						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						

Ant. Pol.	Vertical																														
Test Mode:	TX GFSK Mode 2402MHz																														
Remark:	No report for the emission which more than 20 dB below the prescribed limit.																														
<table><tr><th>No.</th><th>Frequency (MHz)</th><th>Reading (dBUV)</th><th>Factor (dB/m)</th><th>Level (dBUV/m)</th><th>Limit (dBUV/m)</th><th>Margin (dB)</th><th>Detector</th></tr><tr><td>1 *</td><td>4803.600</td><td>44.07</td><td>-1.57</td><td>42.50</td><td>54.00</td><td>-11.50</td><td>AVG</td></tr><tr><td>2</td><td>4803.848</td><td>52.62</td><td>-1.57</td><td>51.05</td><td>74.00</td><td>-22.95</td><td>peak</td></tr></table>								No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector	1 *	4803.600	44.07	-1.57	42.50	54.00	-11.50	AVG	2	4803.848	52.62	-1.57	51.05	74.00	-22.95	peak
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector																								
1 *	4803.600	44.07	-1.57	42.50	54.00	-11.50	AVG																								
2	4803.848	52.62	-1.57	51.05	74.00	-22.95	peak																								
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value																															

Ant. Pol.	Horizontal
Test Mode:	TX GFSK Mode 2441MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4881.452	51.31	-1.27	50.04	74.00	-23.96	peak
2 *	4881.540	41.15	-1.27	39.88	54.00	-14.12	AVG

Remarks:

1. Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2. Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX GFSK Mode 2441MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4882.056	51.35	-1.27	50.08	74.00	-23.92	peak
2 *	4882.600	40.31	-1.26	39.05	54.00	-14.95	AVG

Remarks:

1. Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2. Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX GFSK Mode 2480MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4879.606	35.05	-1.27	33.78	54.00	-20.22	AVG
2	4879.894	48.52	-1.27	47.25	74.00	-26.75	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX GFSK Mode 2480MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4959.276	50.77	-1.04	49.73	74.00	-24.27	peak
2 *	4959.552	39.15	-1.04	38.11	54.00	-15.89	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX $\pi/4$ -DQPSK Mode 2402MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4803.708	51.94	-1.57	50.37	74.00	-23.63	peak
2 *	4803.728	39.48	-1.57	37.91	54.00	-16.09	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX $\pi/4$ -DQPSK Mode 2402MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4804.518	36.10	-1.56	34.54	54.00	-19.46	AVG
2	4804.546	49.63	-1.56	48.07	74.00	-25.93	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX $\pi/4$ -DQPSK Mode 2441MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4881.632	48.05	-1.27	46.78	74.00	-27.22	peak
2 *	4882.954	34.99	-1.26	33.73	54.00	-20.27	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX $\pi/4$ -DQPSK Mode 2441MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4881.598	35.91	-1.27	34.64	74.00	-39.36	peak
2 *	4881.844	49.10	-1.27	47.83	54.00	-6.17	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX $\pi/4$ -DQPSK Mode 2480MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4959.386	48.57	-1.04	47.53	74.00	-26.47	peak
2 *	4960.288	34.93	-1.04	33.89	54.00	-20.11	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX $\pi/4$ -DQPSK Mode 2480MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4959.758	36.00	-1.04	34.96	54.00	-19.04	AVG
2	4959.964	49.53	-1.04	48.49	74.00	-25.51	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 8-DPSK Mode 2402MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4803.546	39.55	-1.57	37.98	54.00	-16.02	AVG
2	4803.618	51.34	-1.57	49.77	74.00	-24.23	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 8-DPSK Mode 2402MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4803.344	35.96	-1.57	34.39	54.00	-19.61	AVG
2	4804.532	49.30	-1.56	47.74	74.00	-26.26	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 8-DPSK Mode 2441MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4881.568	35.11	-1.27	33.84	54.00	-20.16	AVG
2	4881.634	48.38	-1.27	47.11	74.00	-26.89	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 8-DPSK Mode 2441MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4881.704	49.83	-1.27	48.56	74.00	-25.44	peak
2 *	4881.746	35.97	-1.27	34.70	54.00	-19.30	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 8-DPSK Mode 2480MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4959.600	34.98	-1.04	33.94	54.00	-20.06	AVG
2	4960.382	49.16	-1.04	48.12	74.00	-25.88	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX8-DPSK Mode 2480MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4959.034	49.22	-1.04	48.18	74.00	-25.82	peak
2 *	4959.456	35.95	-1.04	34.91	54.00	-19.09	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

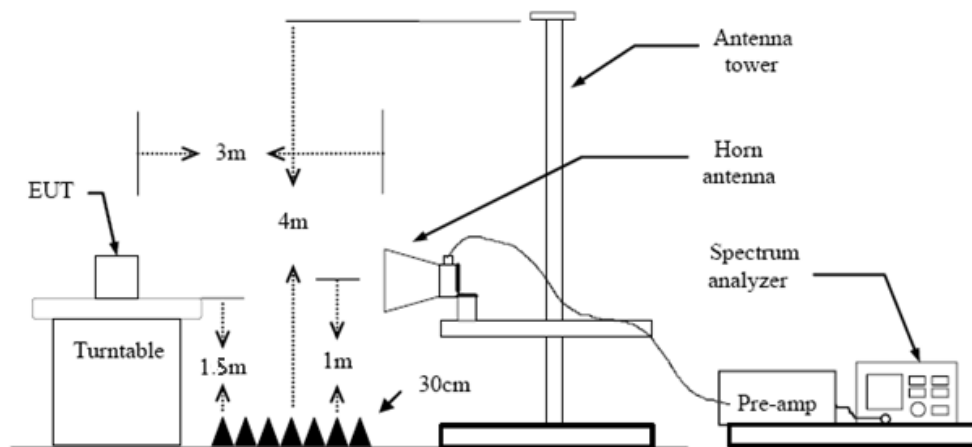
3.2. Band Edge Emissions (Radiated)

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d)

Restricted Frequency Band (MHz)	(dBμV/m) (at 3m)	
	Peak	Average
2310 ~ 2390	74	54
2483.5 ~ 2500	74	54

Test Configuration



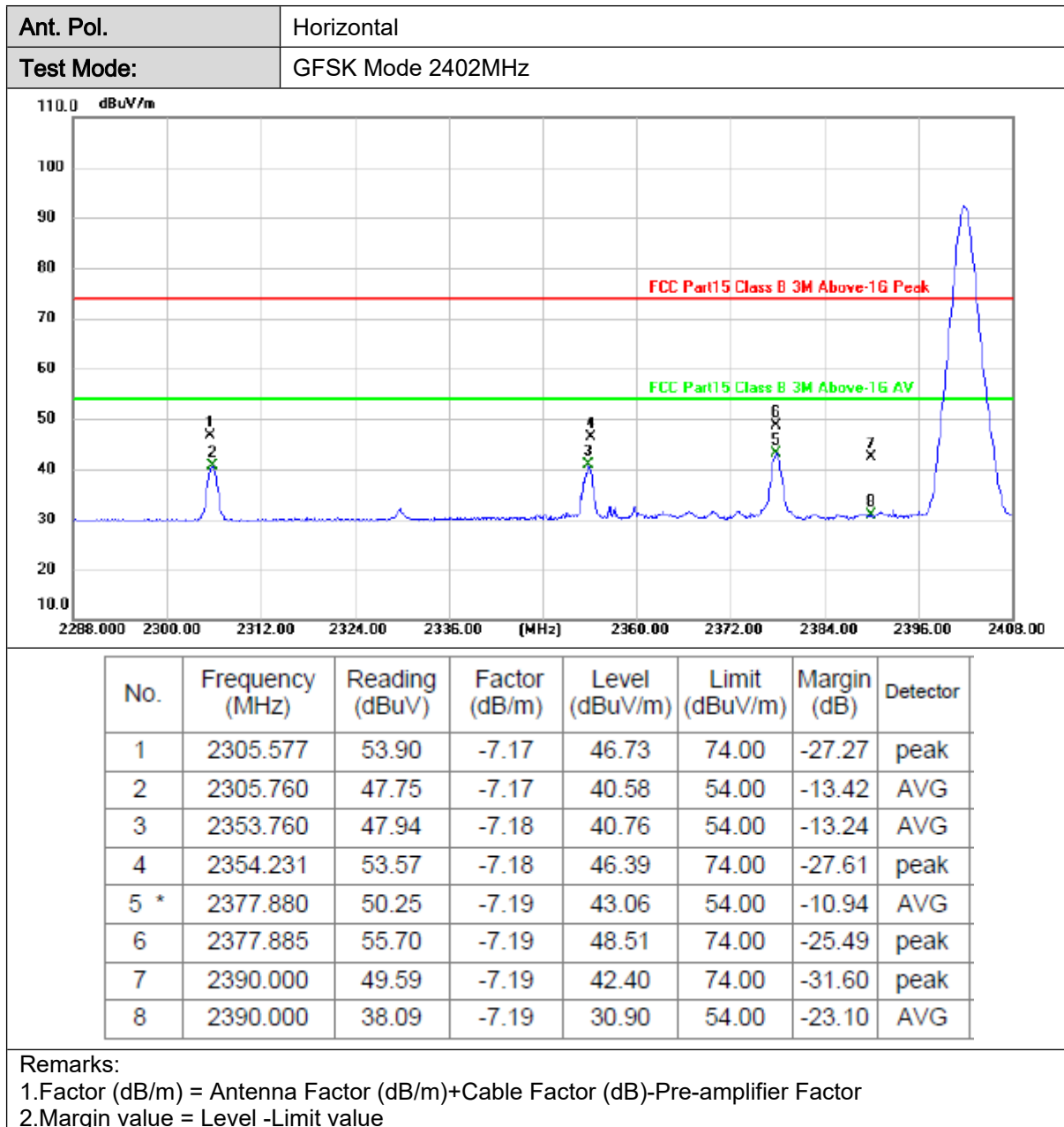
Test Procedure

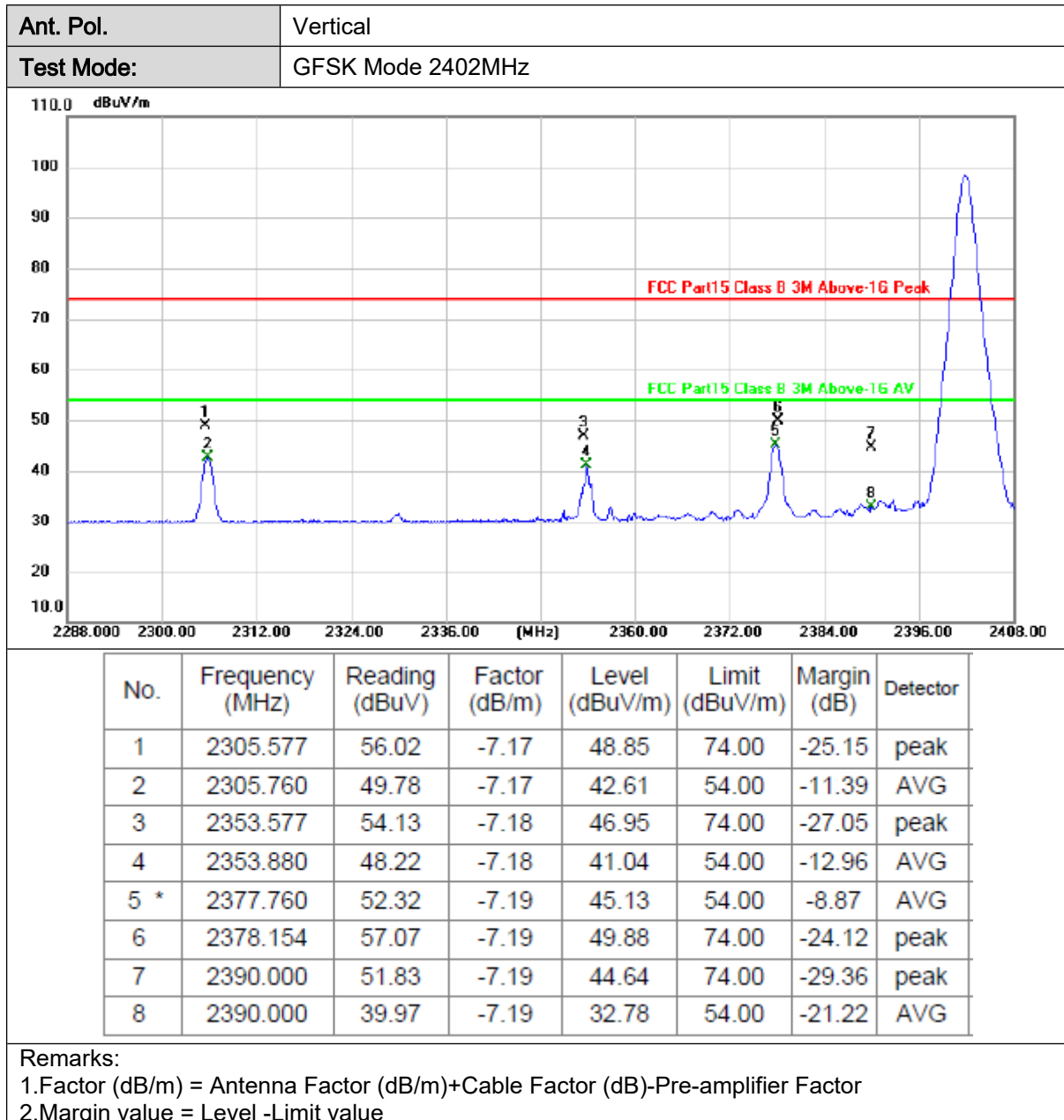
1. The EUT was setup and tested according to ANSI C63.10 requirements.
2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10 on radiated measurement.
5. The receiver set as follow:
 RBW=1MHz, VBW=3MHz Peak detector for Peak value.
 RBW=1MHz, VBW see note 1 with Peak Detector for Average Value.

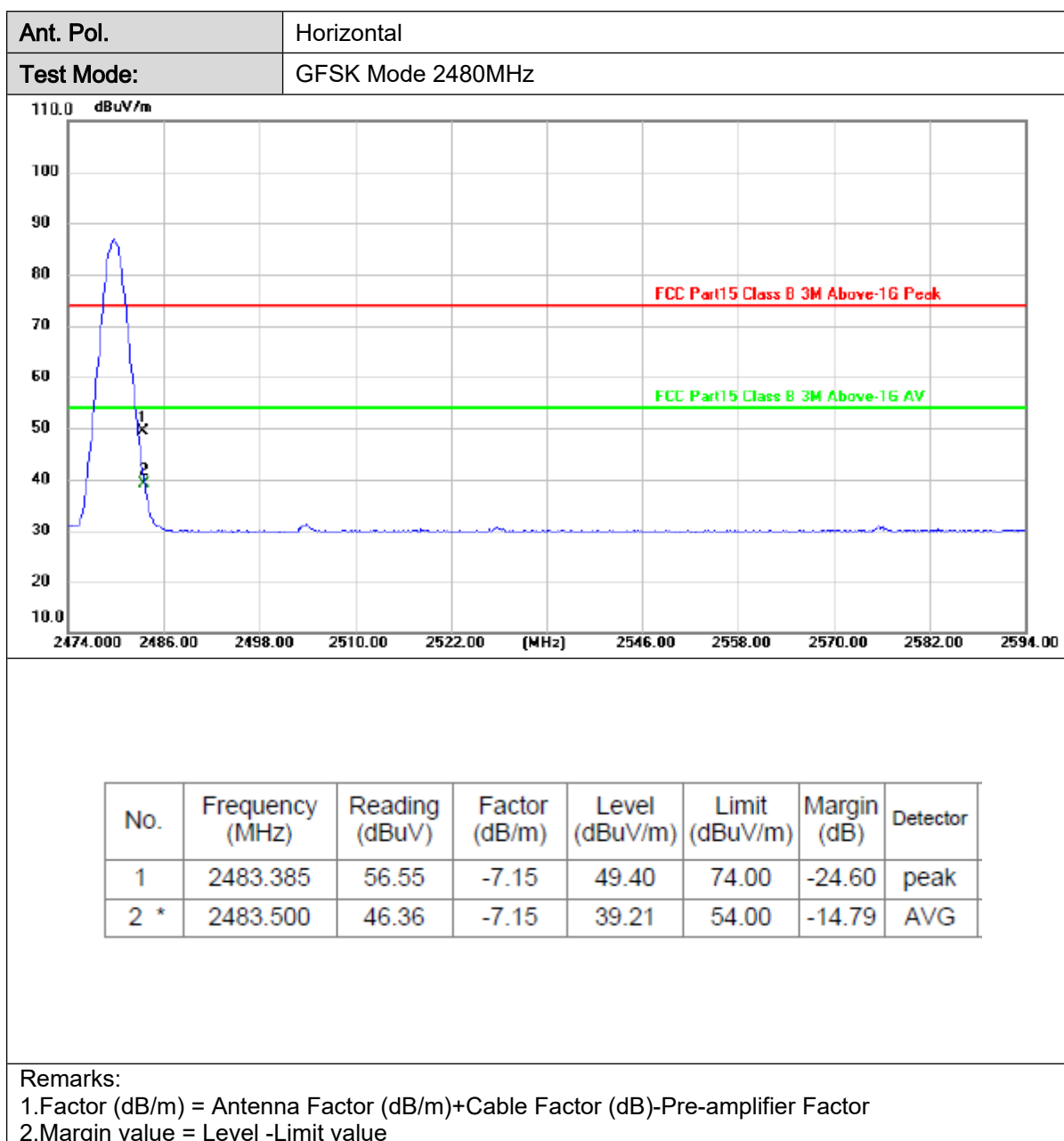
Note 1: For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 3.10 Duty Cycle.

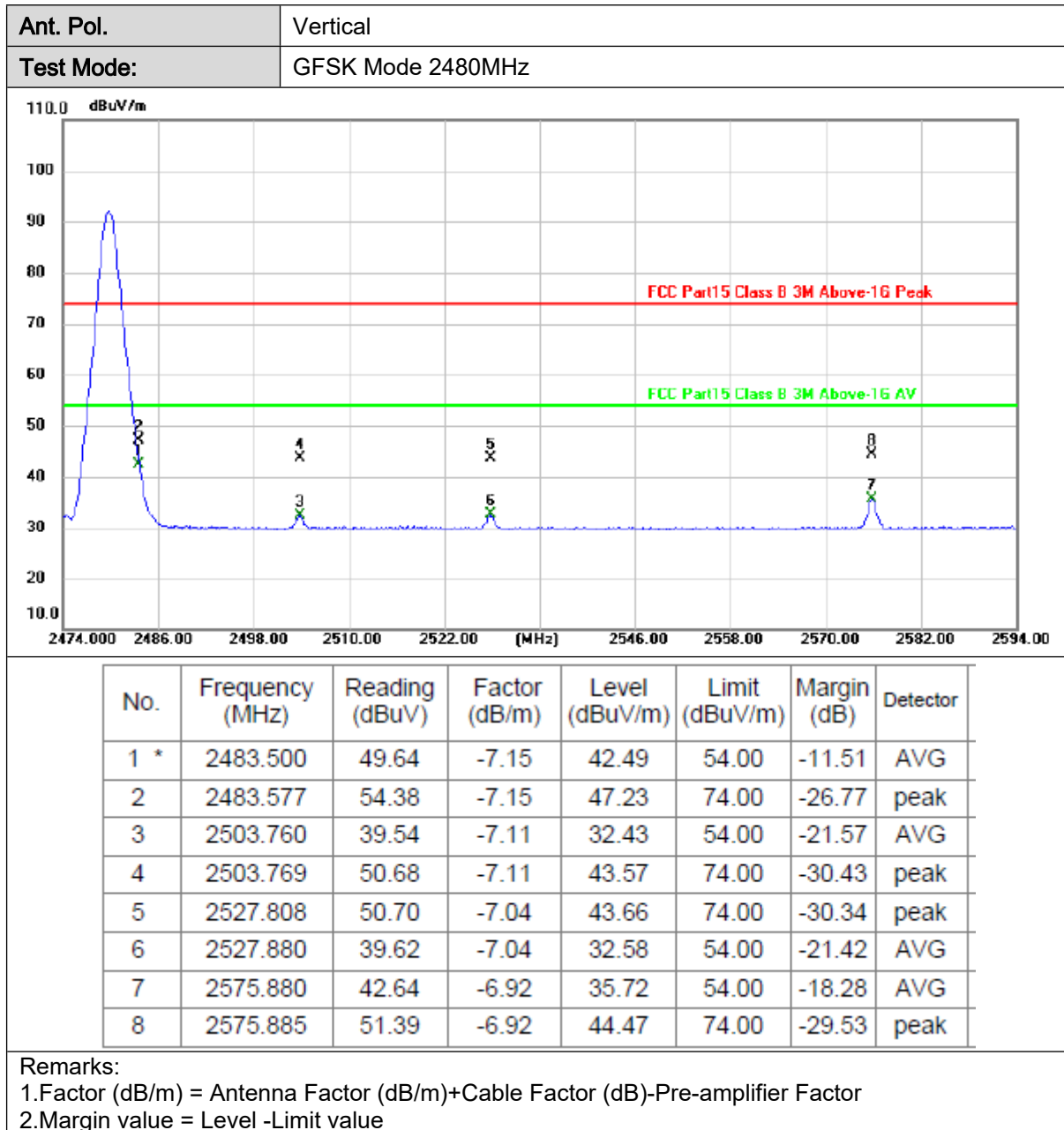
Test Mode

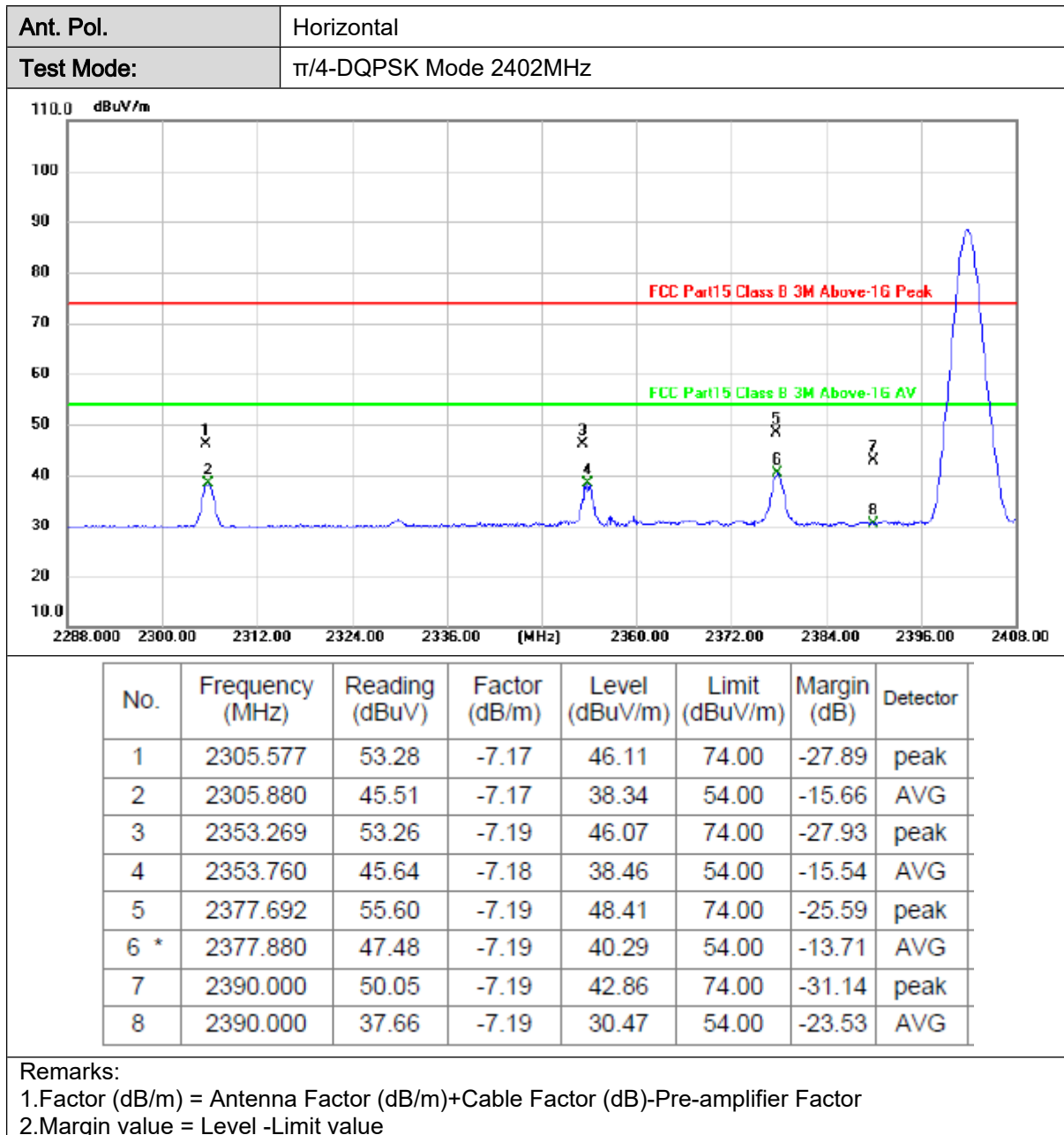
Please refer to the clause 2.4.

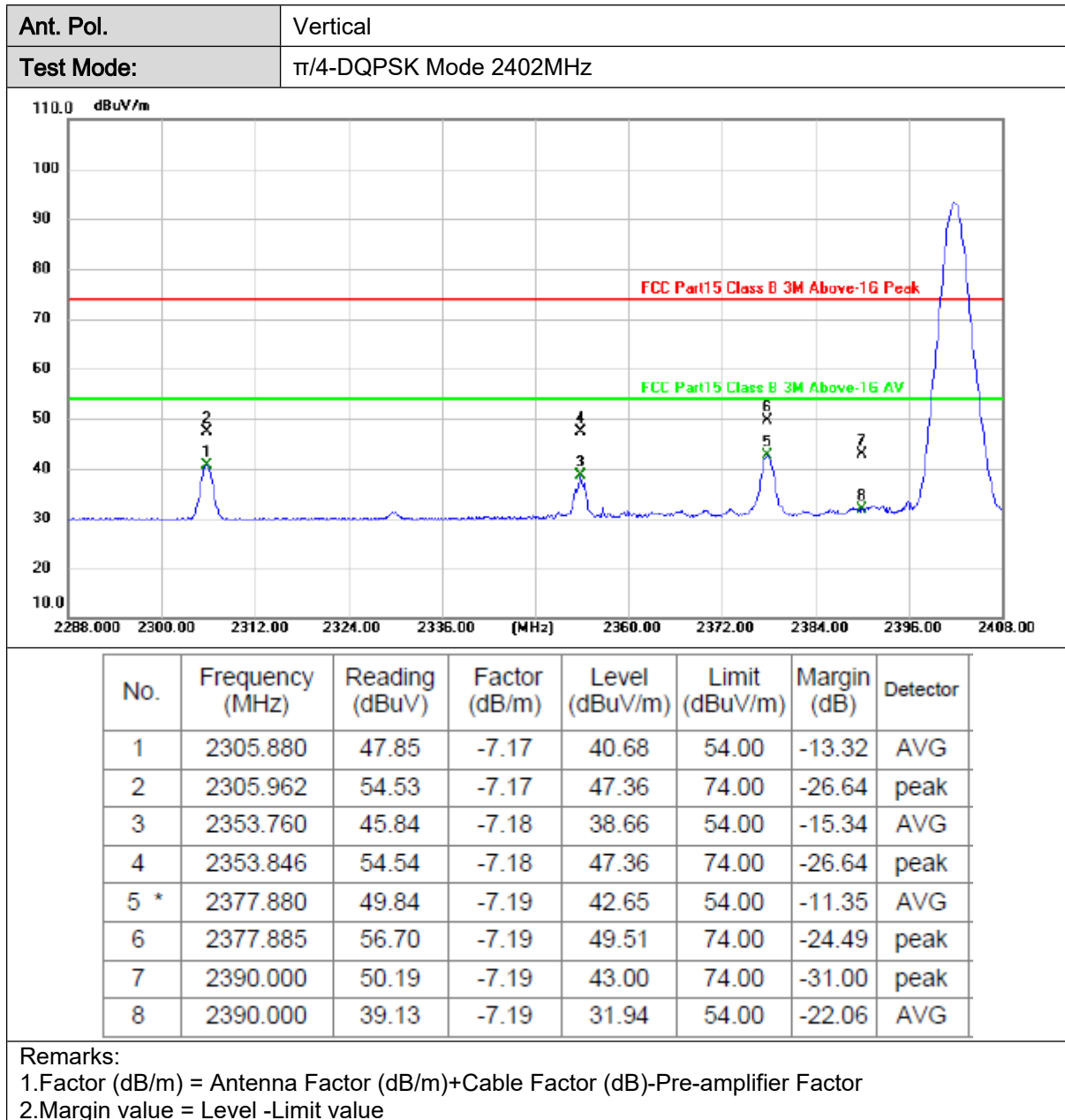
Test Result

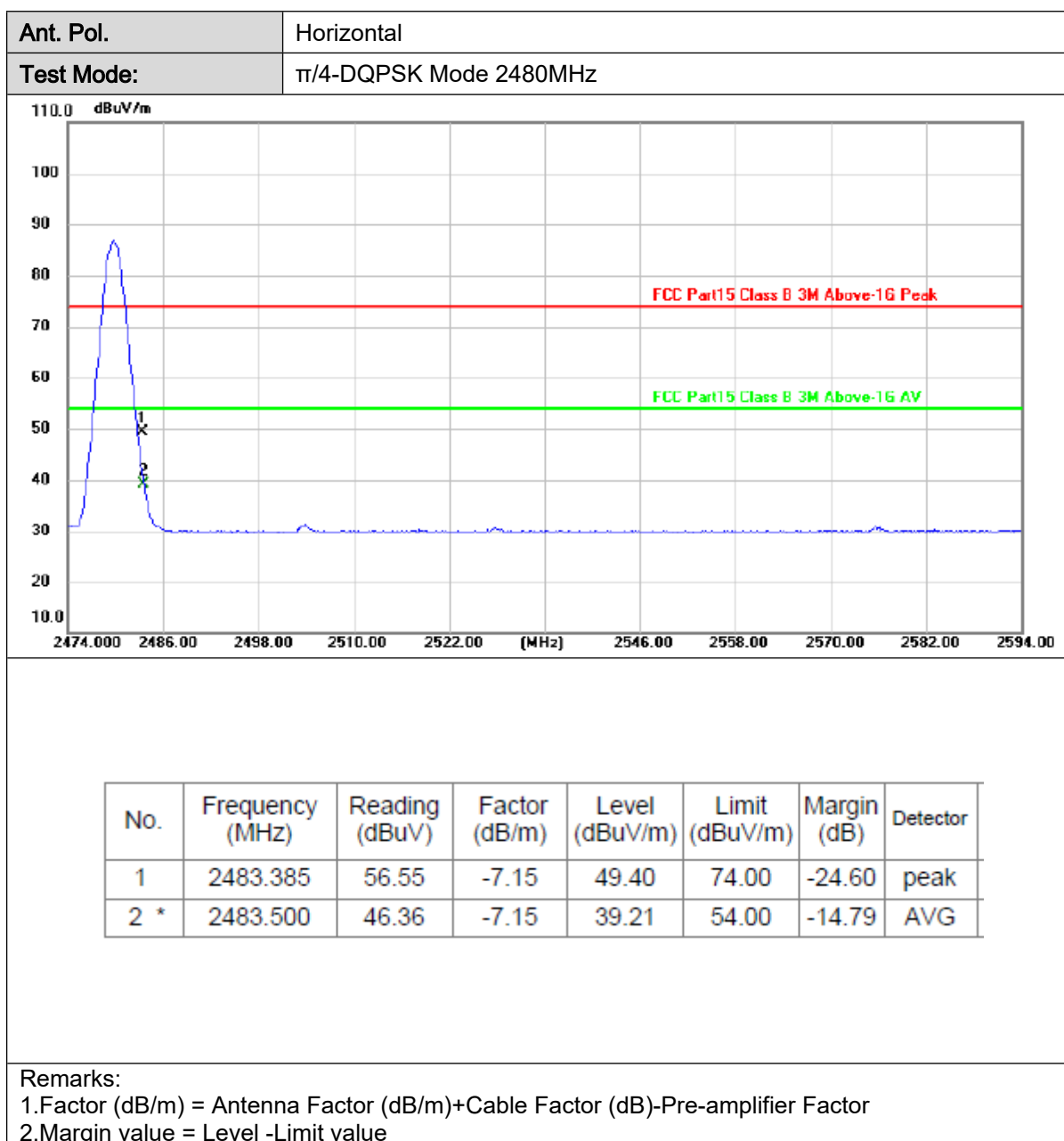


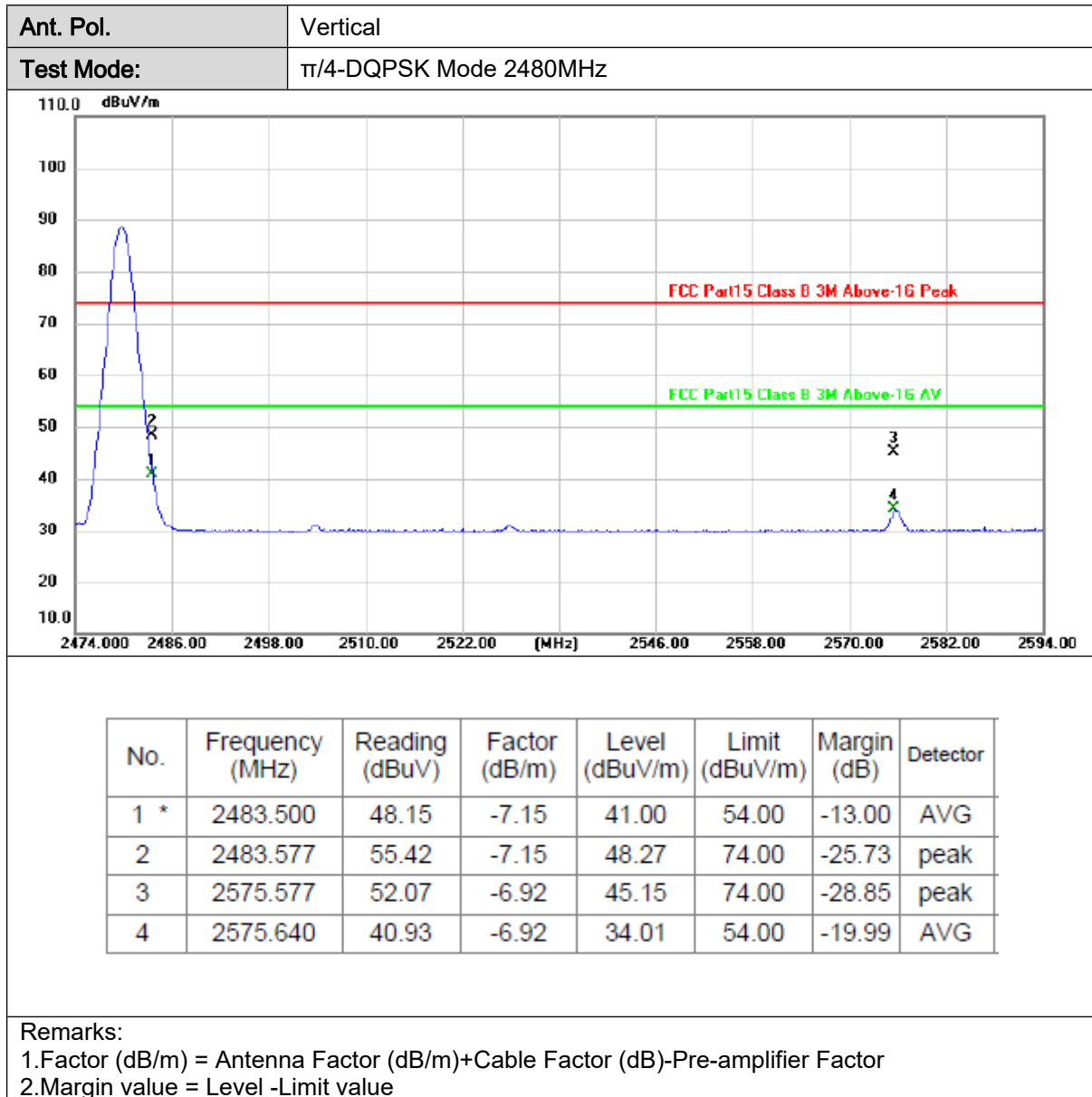


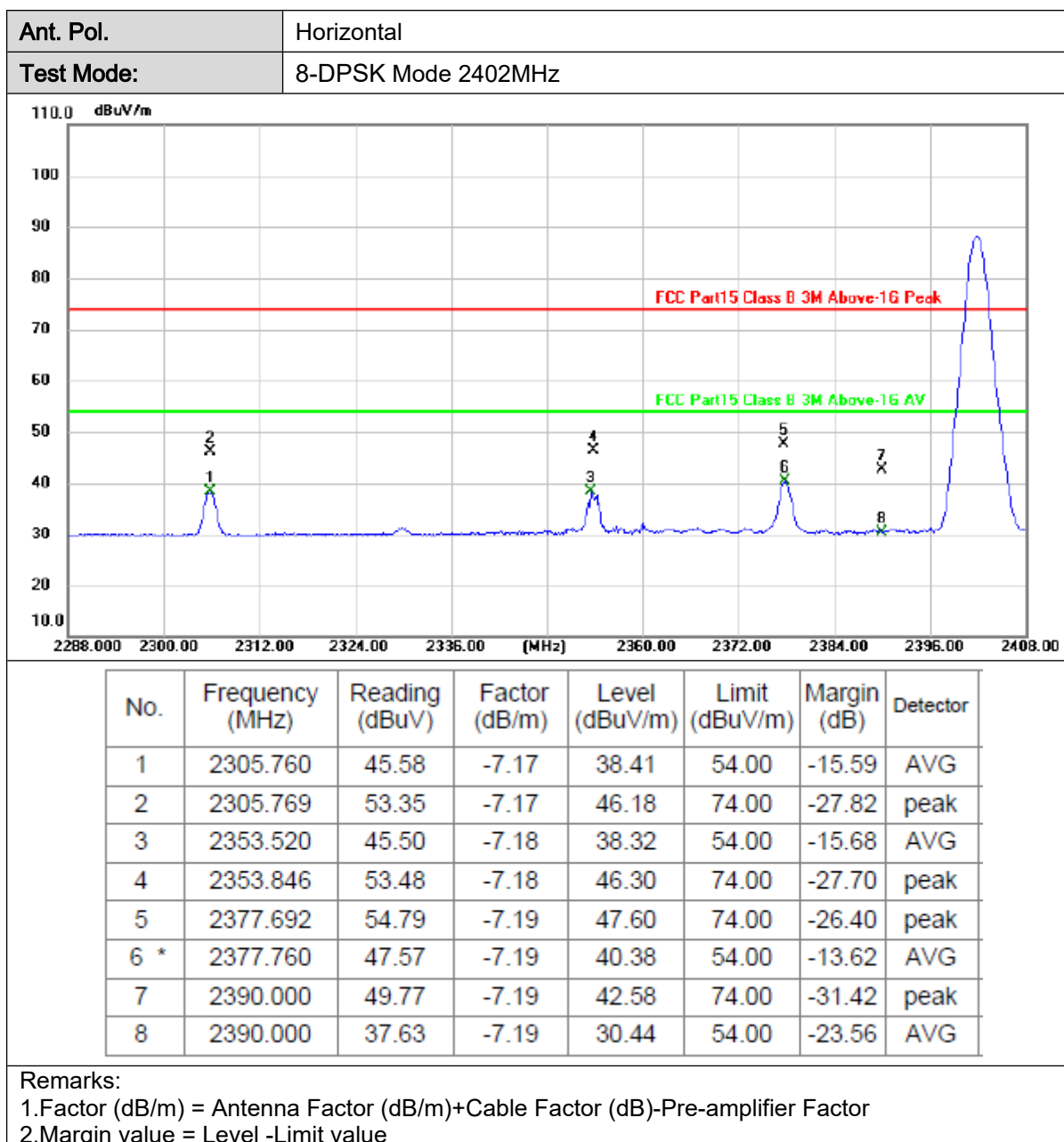


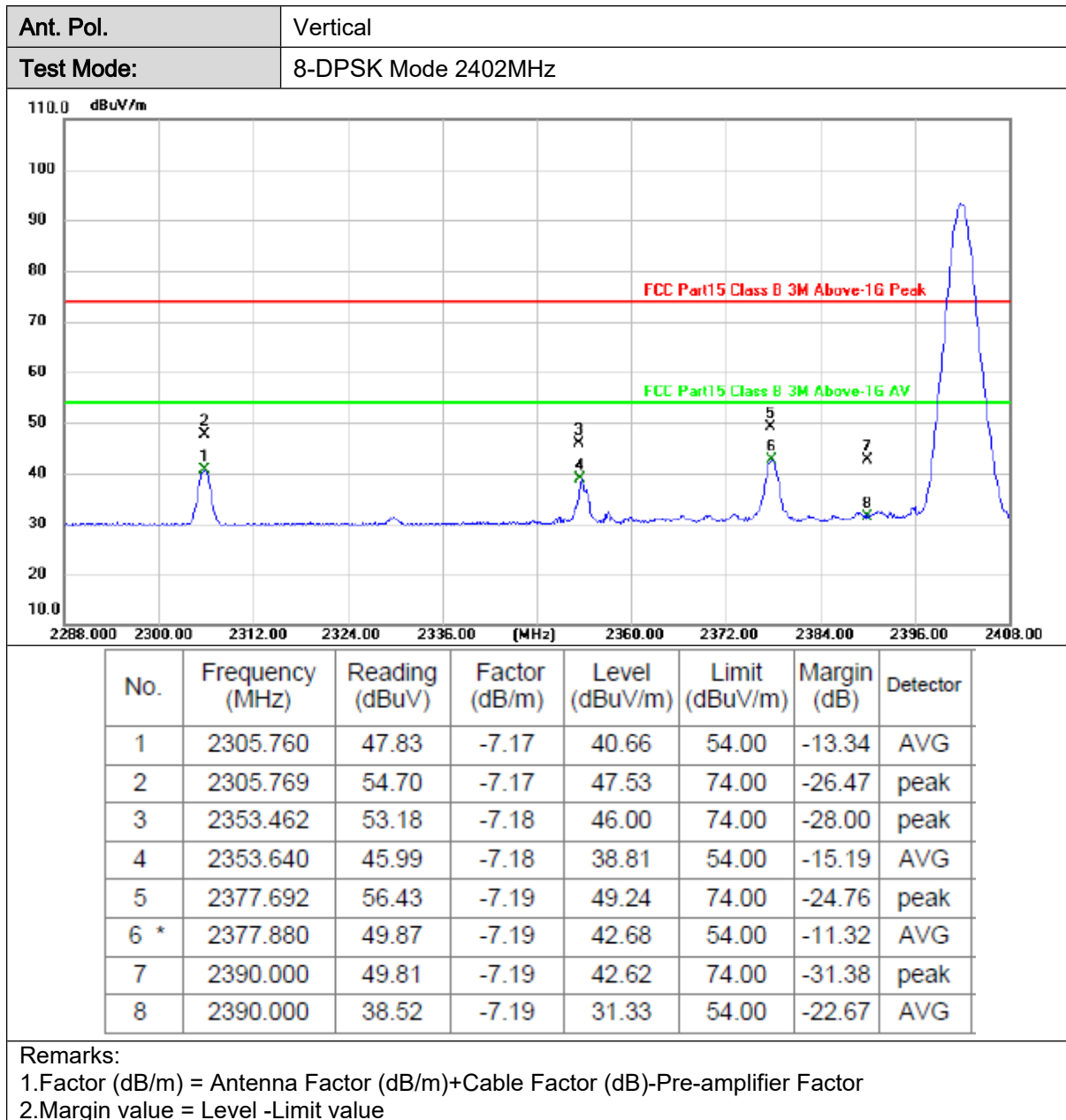


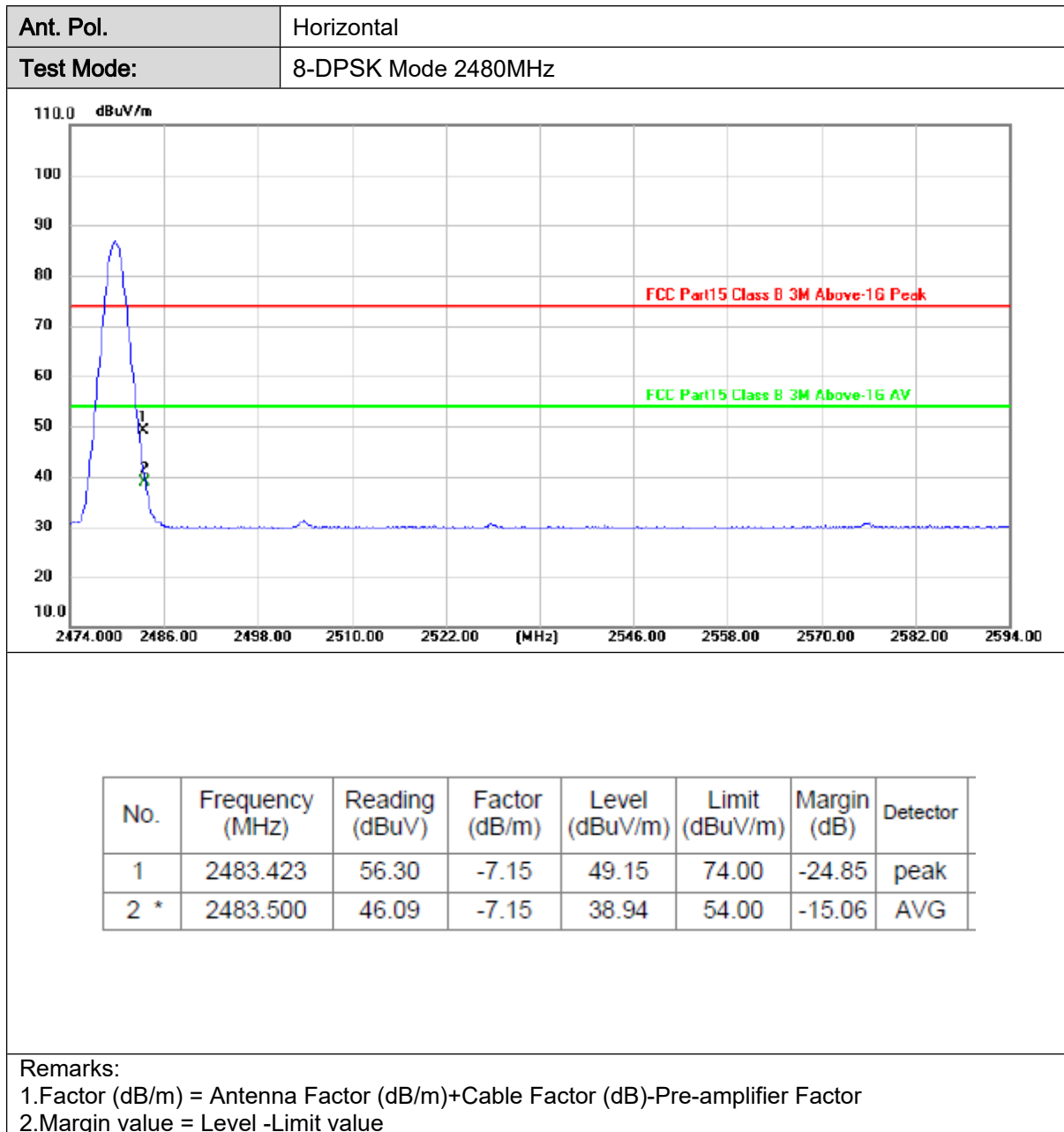


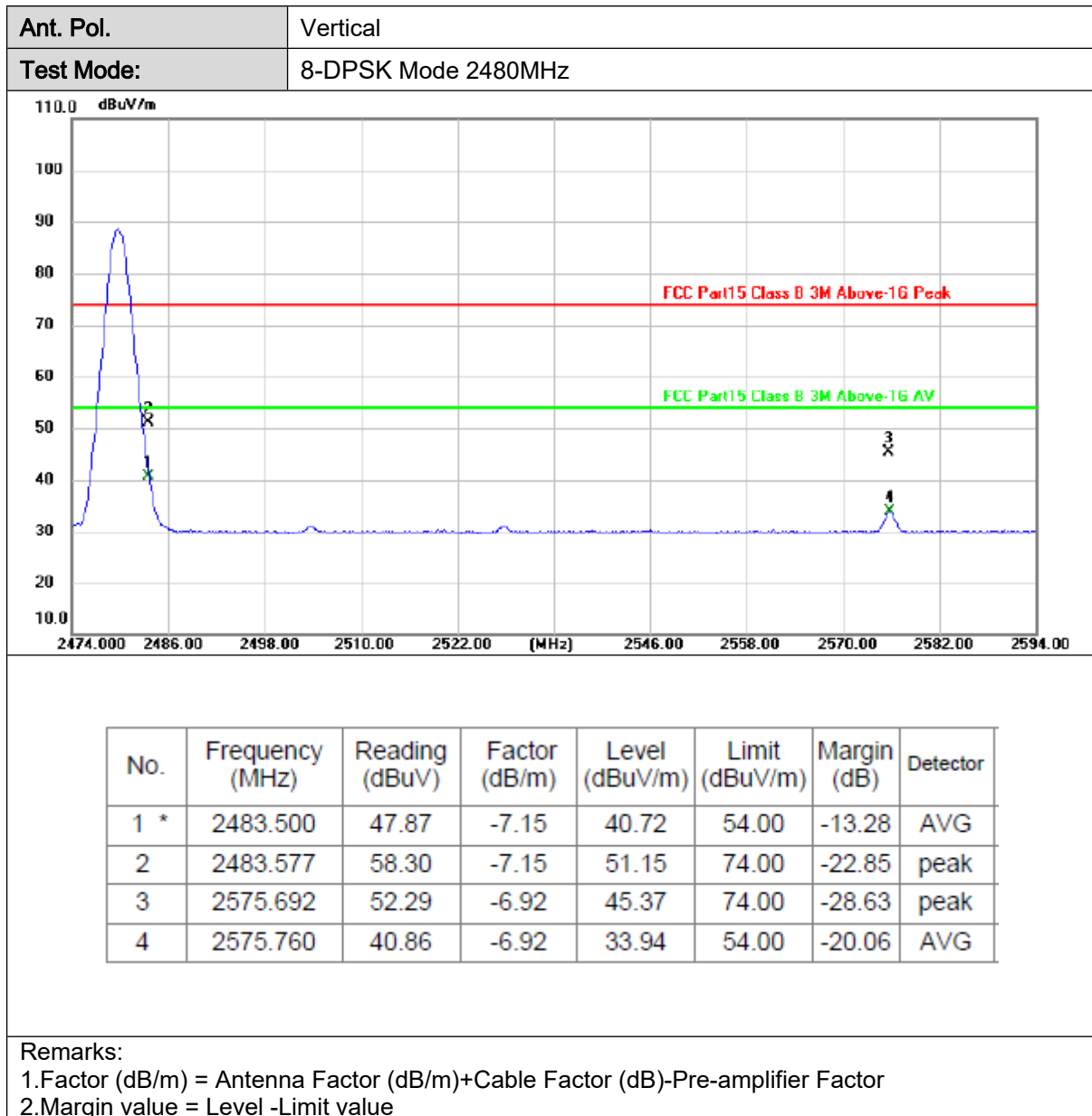












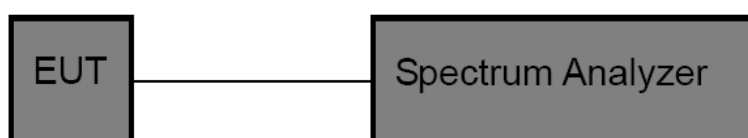
3.3. Band Edge and Spurious Emissions (Conducted)

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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.

Test Configuration



Test Procedure

1. The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. Use the following spectrum analyzer settings:
RBW = 100 kHz, VBW ≥ RBW, scan up through 10th harmonic.
Sweep = auto, Detector function = peak, Trace = max hold.
4. Measure and record the results in the test report.

Test Mode

Please refer to the clause 2.4.

Test Result

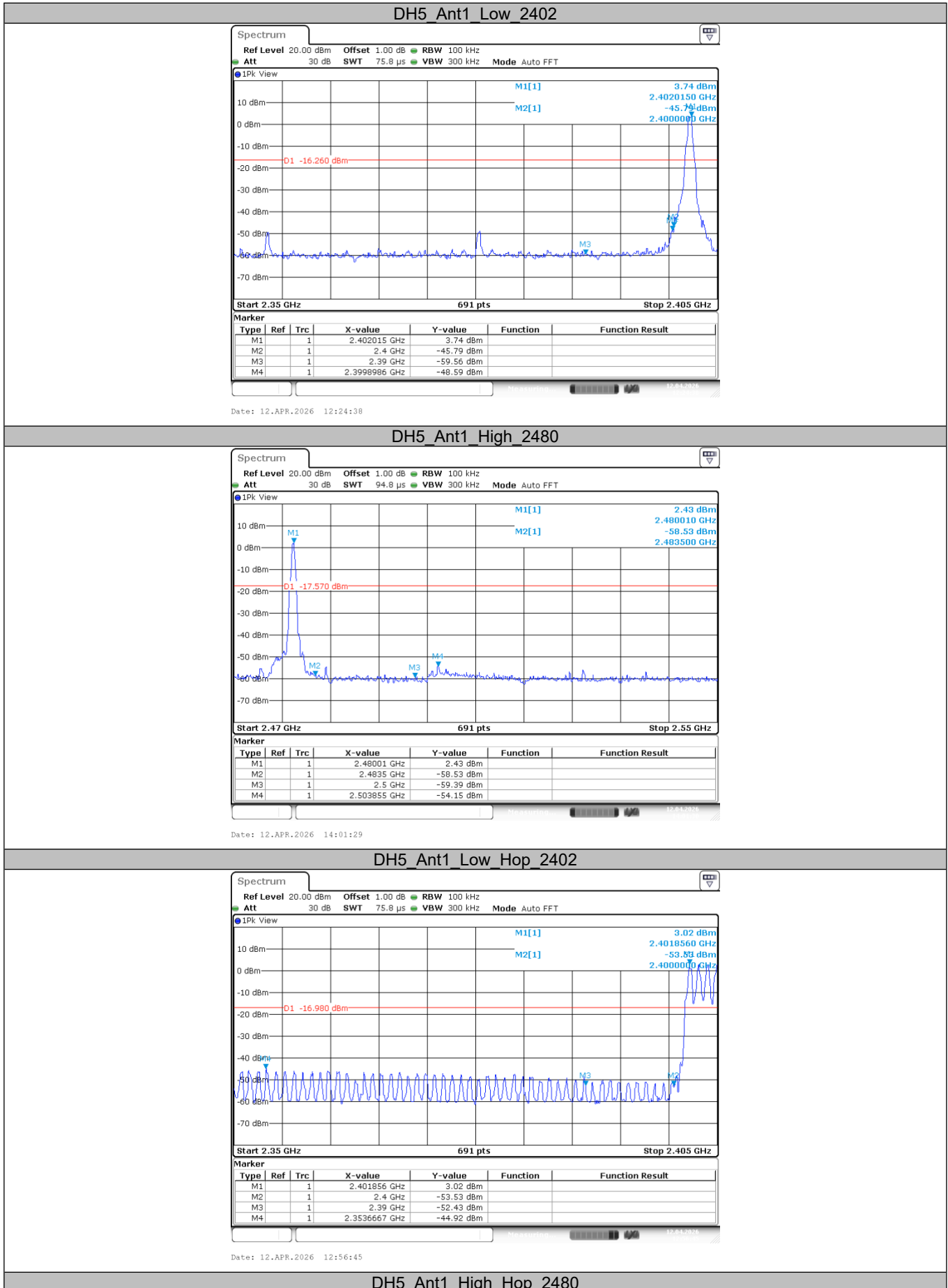
Band Edge Conducted Test

TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	3.74	-48.59	≤-16.26	PASS
		High	2480	2.43	-54.15	≤-17.57	PASS
		Low	Hop_2402	3.02	-44.92	≤-16.98	PASS
		High	Hop_2480	-2.23	-48.06	≤-22.23	PASS
2DH5	Ant1	Low	2402	3.77	-48.53	≤-16.23	PASS
		High	2480	2.47	-55.32	≤-17.53	PASS
		Low	Hop_2402	2.62	-45.69	≤-17.38	PASS
		High	Hop_2480	-2.25	-48.56	≤-22.25	PASS
3DH5	Ant1	Low	2402	3.66	-49.06	≤-16.34	PASS
		High	2480	2.47	-54.91	≤-17.53	PASS
		Low	Hop_2402	1.43	-45.75	≤-18.57	PASS
		High	Hop_2480	-2.47	-49.07	≤-22.47	PASS

Conducted Spurious Emissions Test

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	3.78	3.78	---	PASS
			30~1000	3.78	-58.07	≤ -16.22	PASS
			1000~26500	3.78	-23.93	≤ -16.22	PASS
		2441	Reference	2.74	2.74	---	PASS
			30~1000	2.74	-59.41	≤ -17.26	PASS
			1000~26500	2.74	-25.75	≤ -17.26	PASS
		2480	Reference	2.48	2.48	---	PASS
			30~1000	2.48	-60.09	≤ -17.52	PASS
			1000~26500	2.48	-24.35	≤ -17.52	PASS
2DH5	Ant1	2402	Reference	3.80	3.80	---	PASS
			30~1000	3.80	-60.52	≤ -16.2	PASS
			1000~26500	3.80	-28.23	≤ -16.2	PASS
		2441	Reference	2.82	2.82	---	PASS
			30~1000	2.82	-59.52	≤ -17.18	PASS
			1000~26500	2.82	-24.66	≤ -17.18	PASS
		2480	Reference	2.52	2.52	---	PASS
			30~1000	2.52	-57.69	≤ -17.48	PASS
			1000~26500	2.52	-27.47	≤ -17.48	PASS
3DH5	Ant1	2402	Reference	3.76	3.76	---	PASS
			30~1000	3.76	-58.89	≤ -16.24	PASS
			1000~26500	3.76	-25.39	≤ -16.24	PASS
		2441	Reference	2.76	2.76	---	PASS
			30~1000	2.76	-59.58	≤ -17.24	PASS
			1000~26500	2.76	-26.78	≤ -17.24	PASS
		2480	Reference	2.47	2.47	---	PASS
			30~1000	2.47	-58.14	≤ -17.53	PASS
			1000~26500	2.47	-24.28	≤ -17.53	PASS

Band Edge Conducted Test plot as follows:

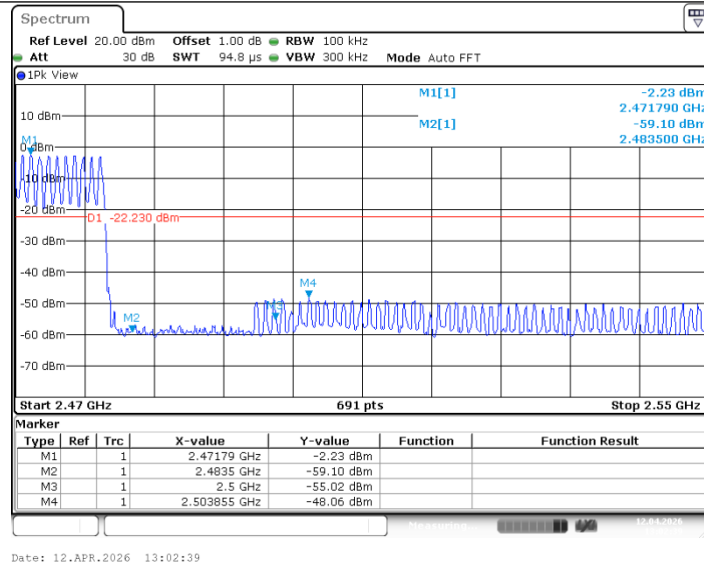


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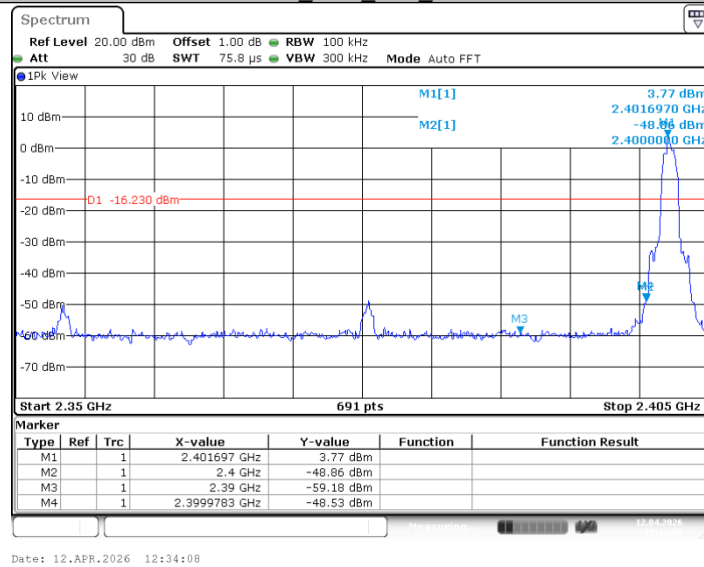
Room 107, 108, 207, 208 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhua Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No:CTC-TR-059_A5

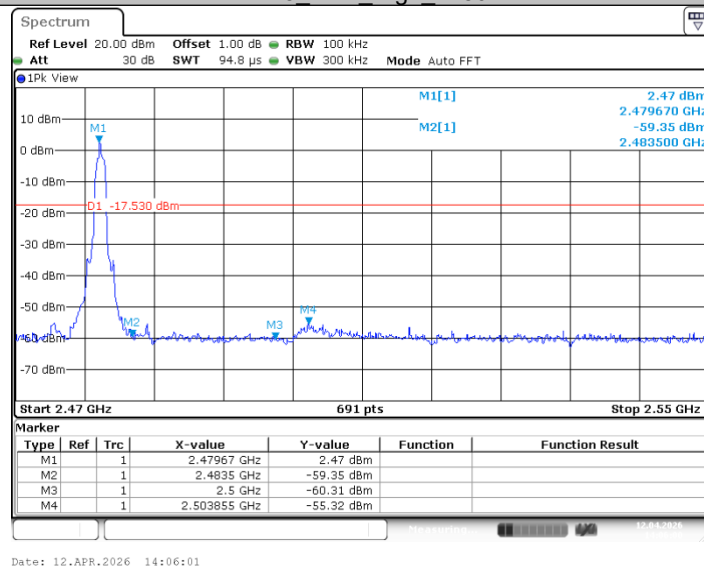
Master TRF:Dated 2026-06-01



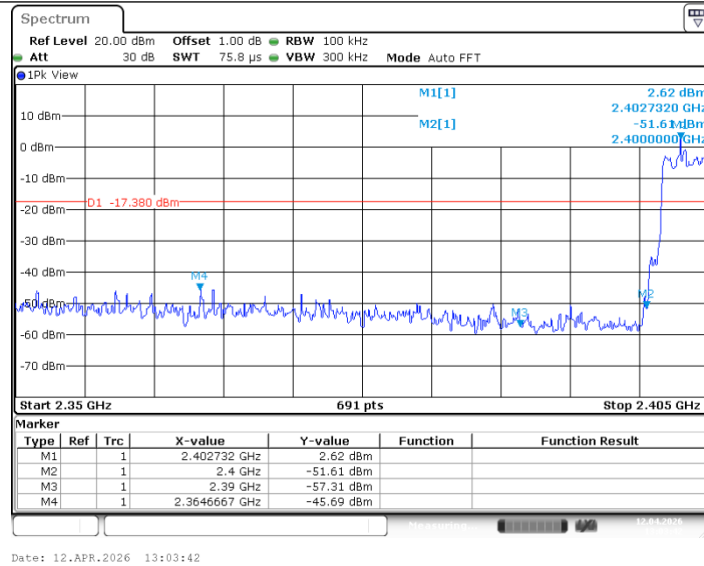
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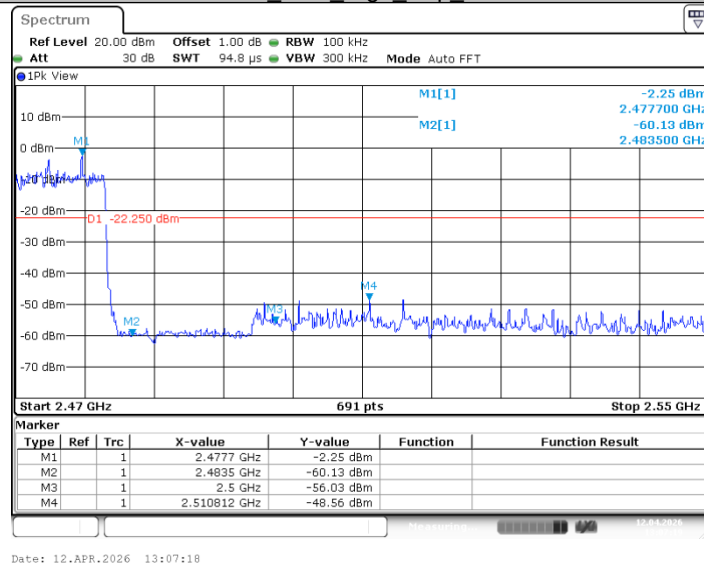
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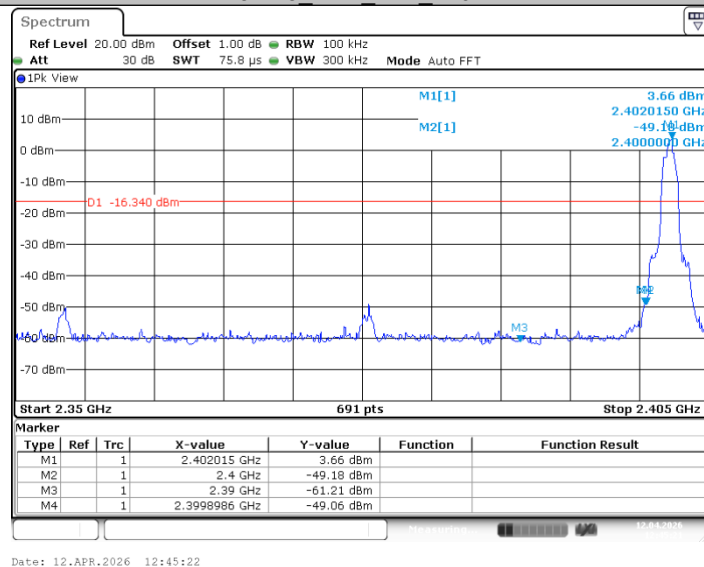
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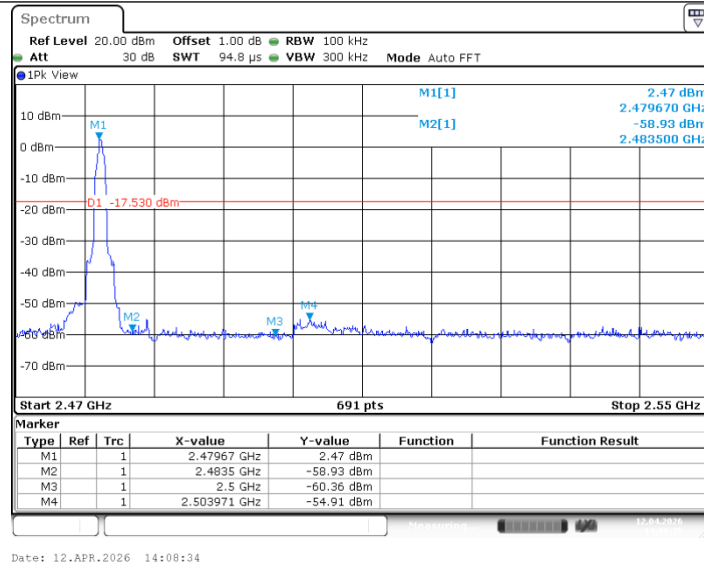
2DH5 Ant1 High Hop 2480



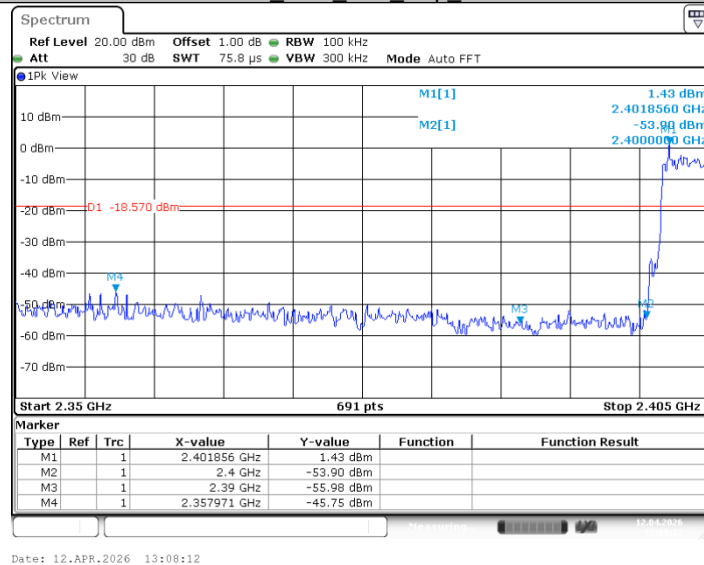
3DH5 Ant1 Low 2402



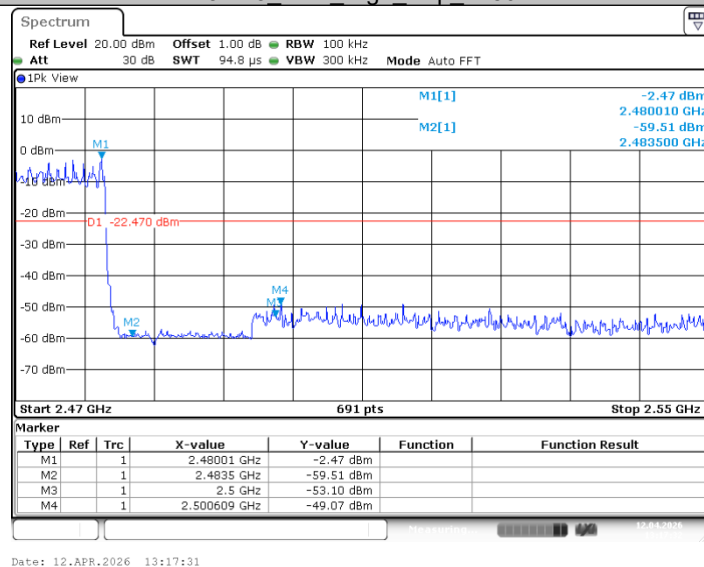
3DH5 Ant1 High 2480



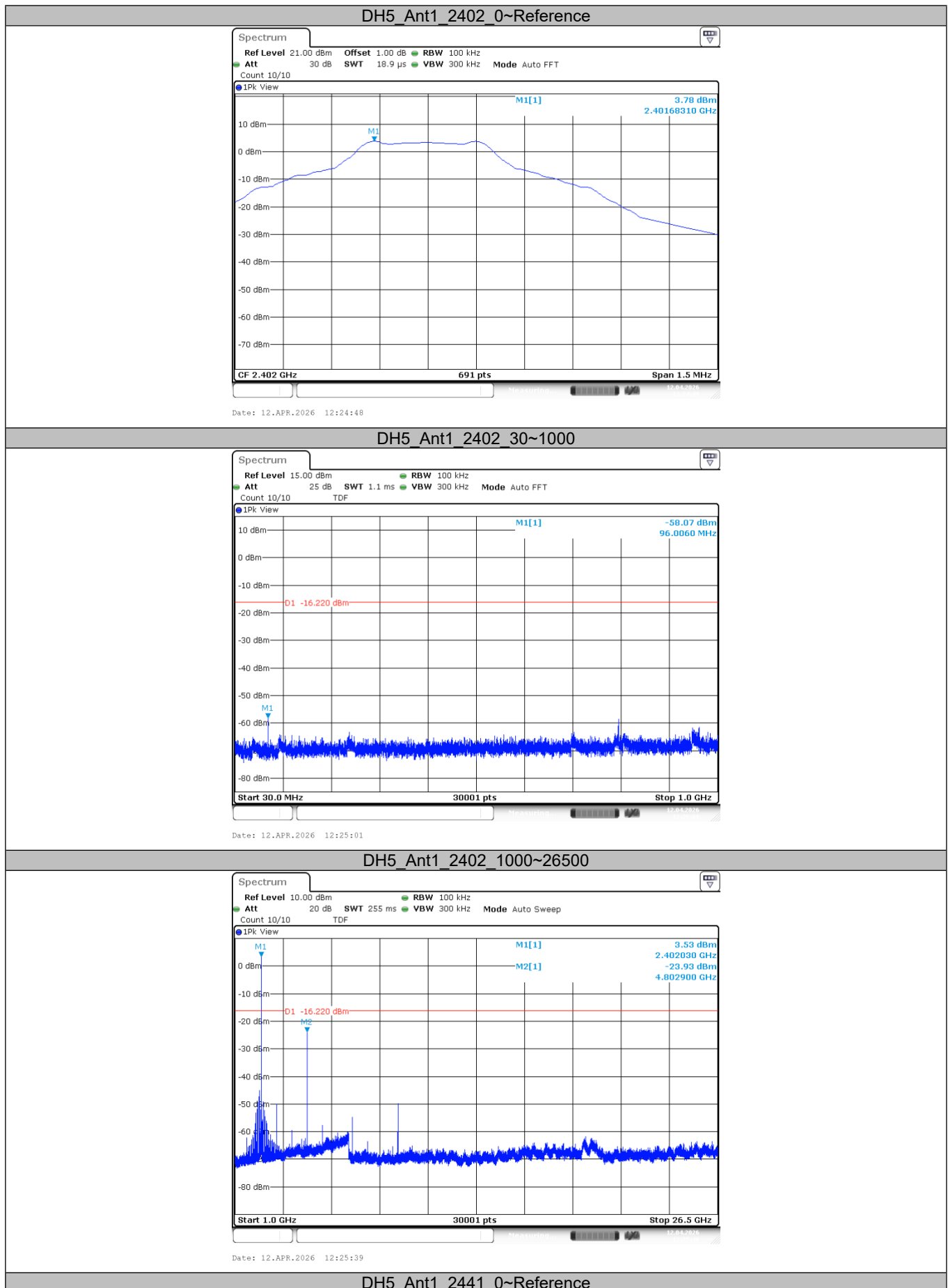
3DH5 Ant1 Low Hop 2402



3DH5 Ant1 High Hop 2480



Conducted Spurious Emissions Test plot as follows

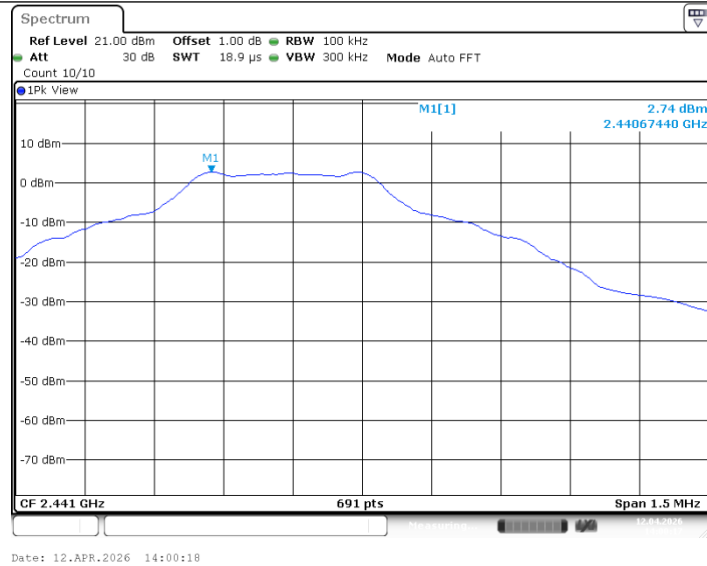


CTC Laboratories, Inc.

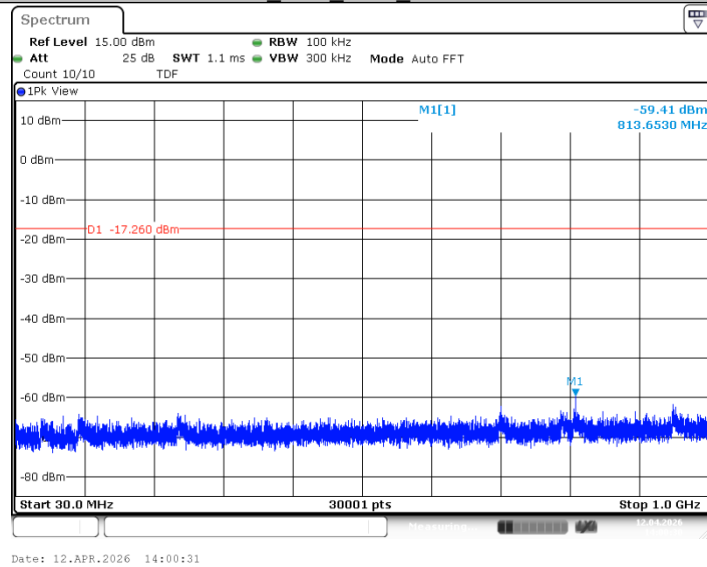
Room 107, 108, 207, 208 of Building A, Room 101 of Building B, No.7, Langqing 1st Road, Luhua Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No:CTC-TR-059_A5

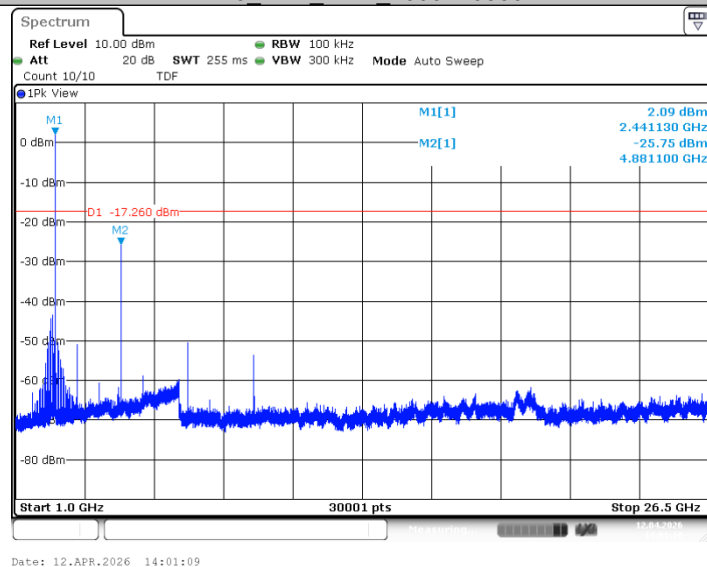
Master TRF:Dated 2026-06-01



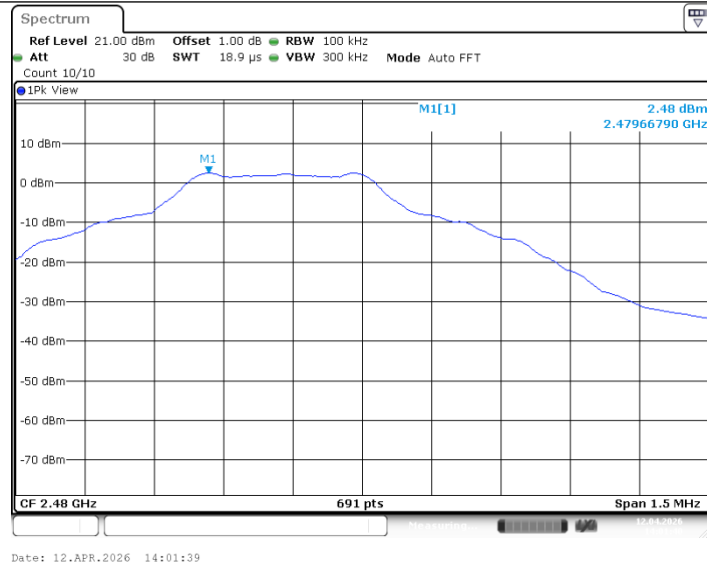
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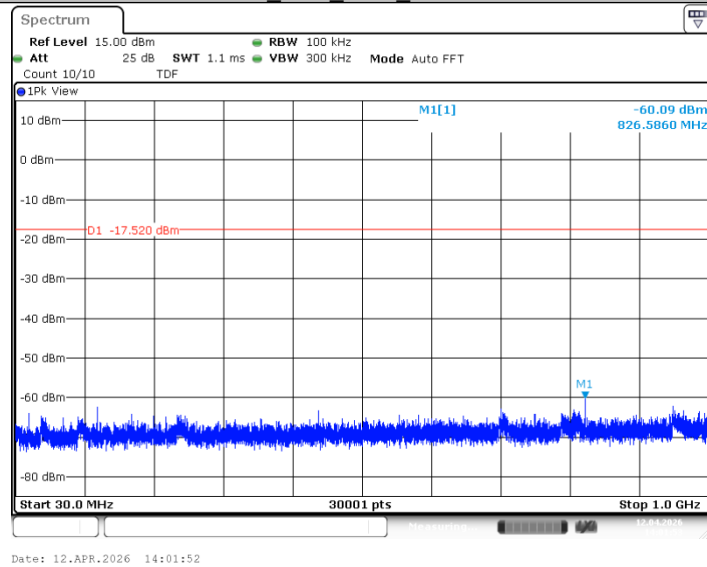
DH5_Ant1_2441_1000~26500



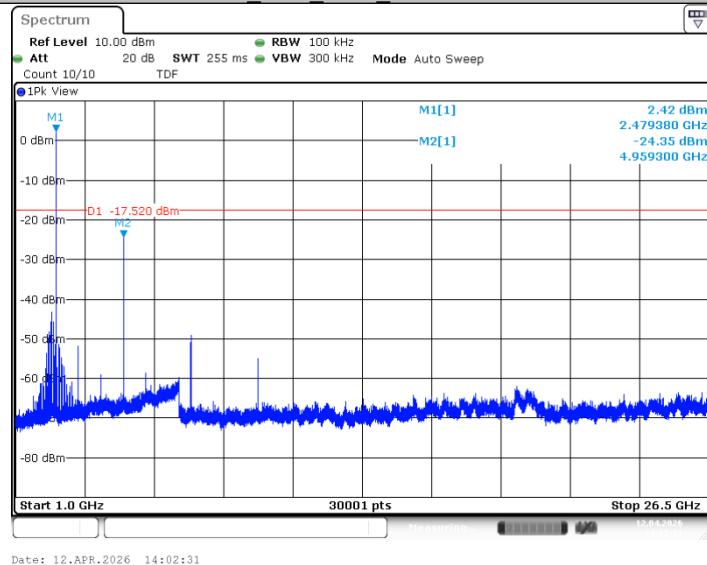
DH5_Ant1_2480_0~Reference



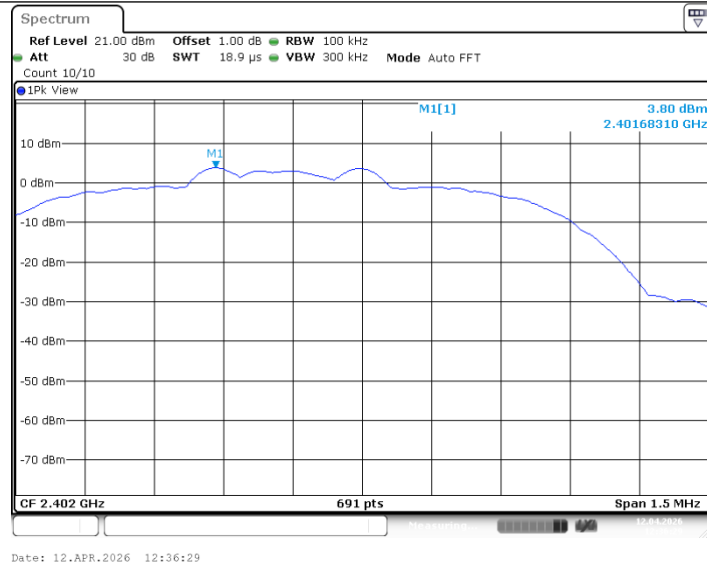
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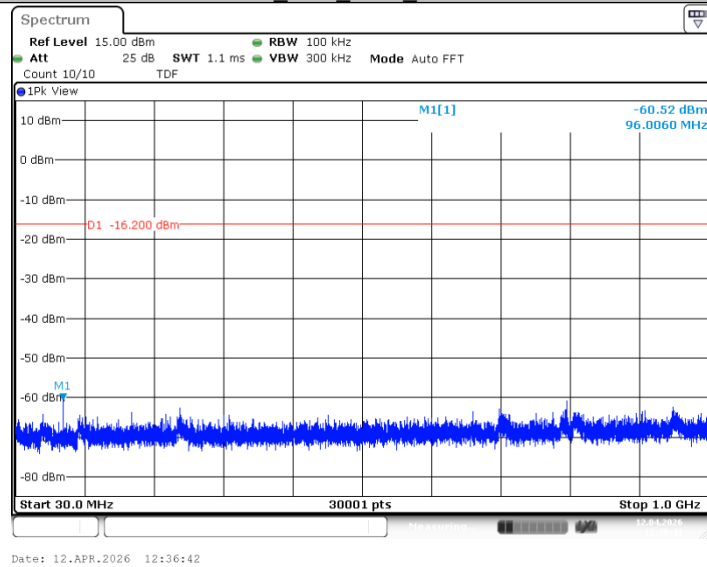
DH5_Ant1_2480_1000~26500



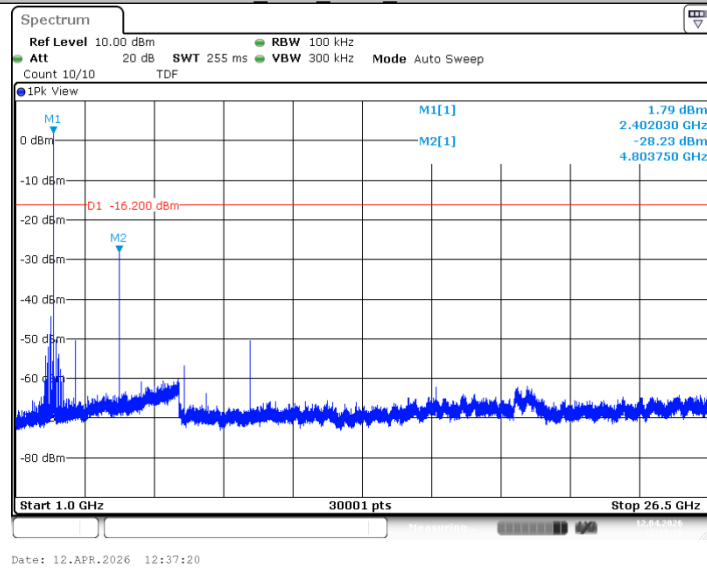
2DH5_Ant1_2402_0~Reference



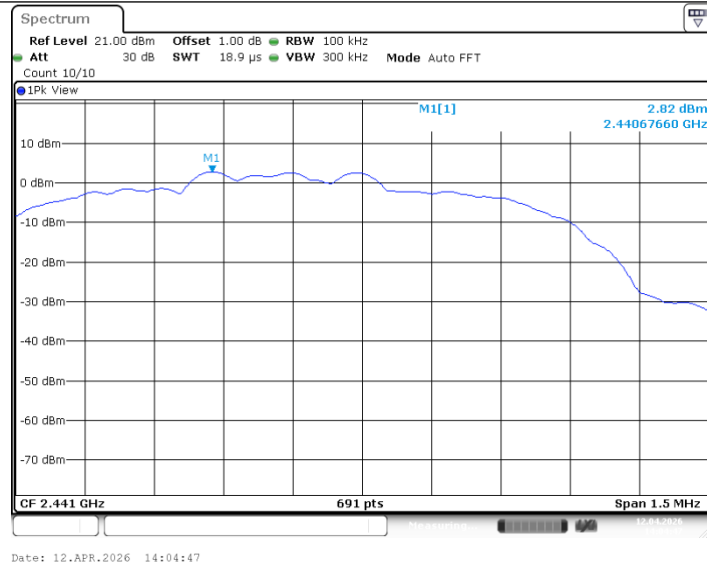
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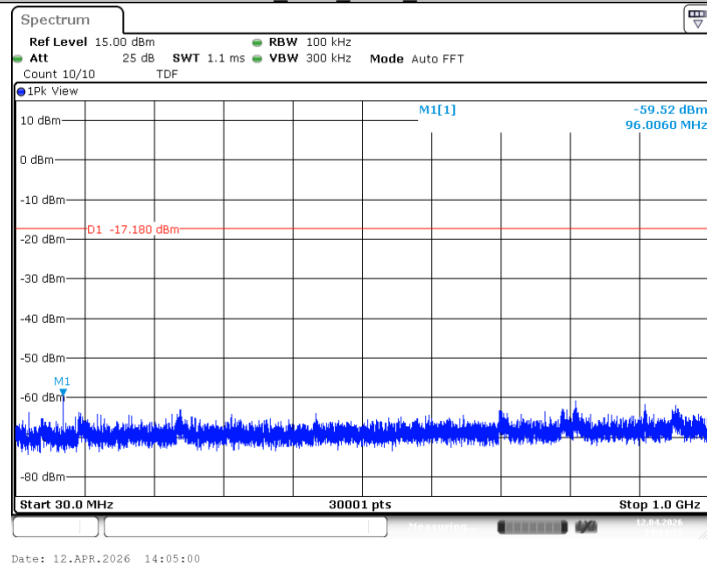
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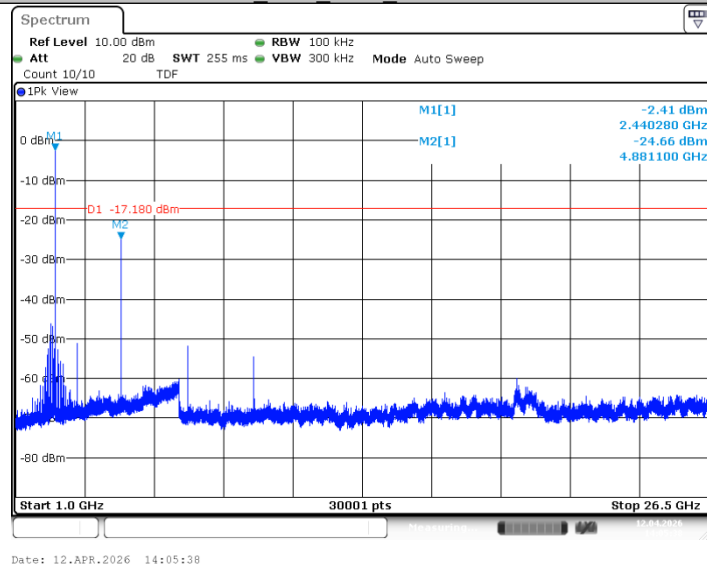
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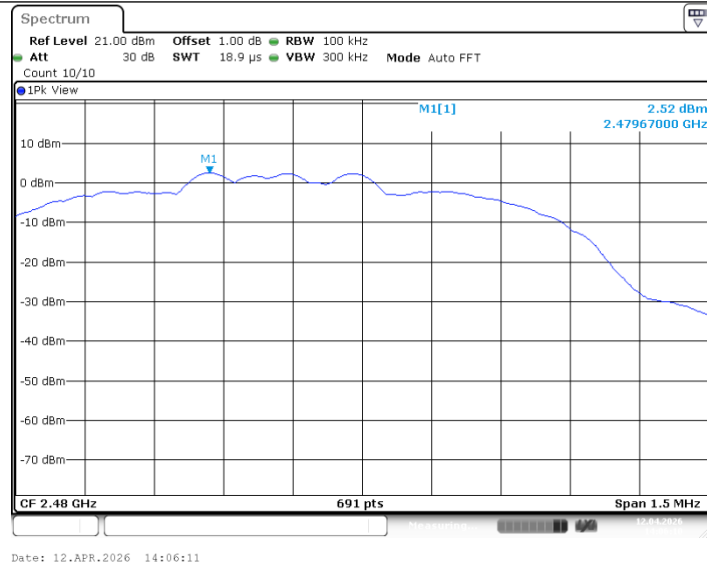
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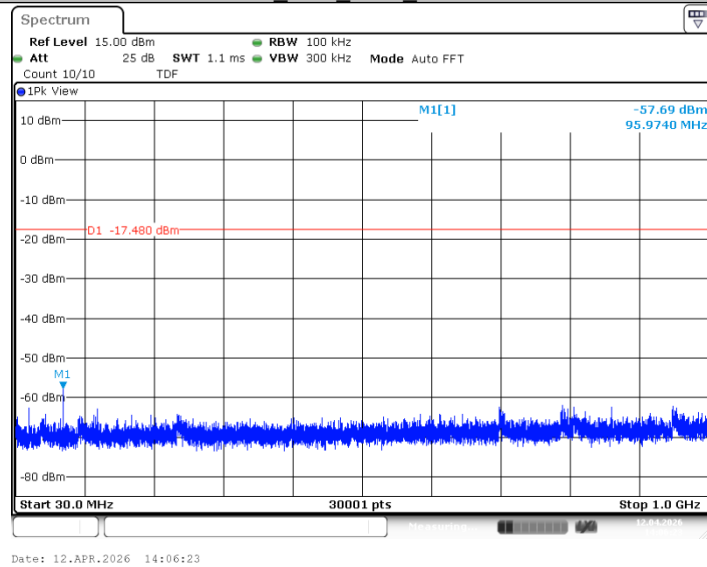
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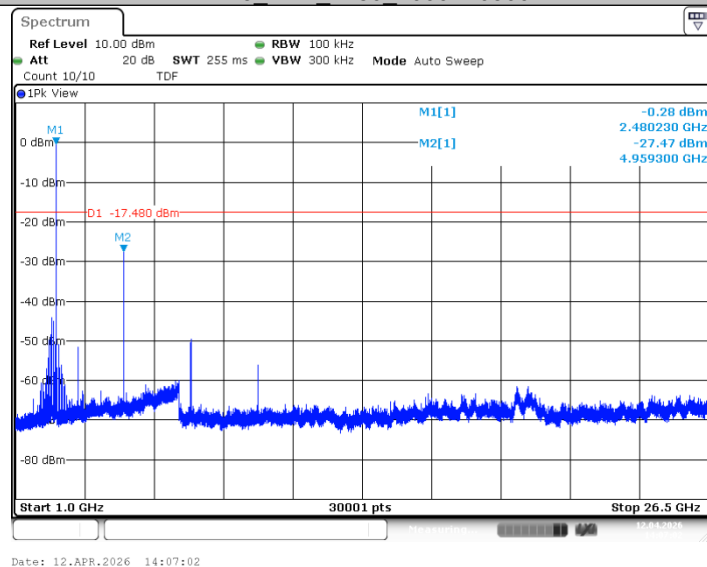
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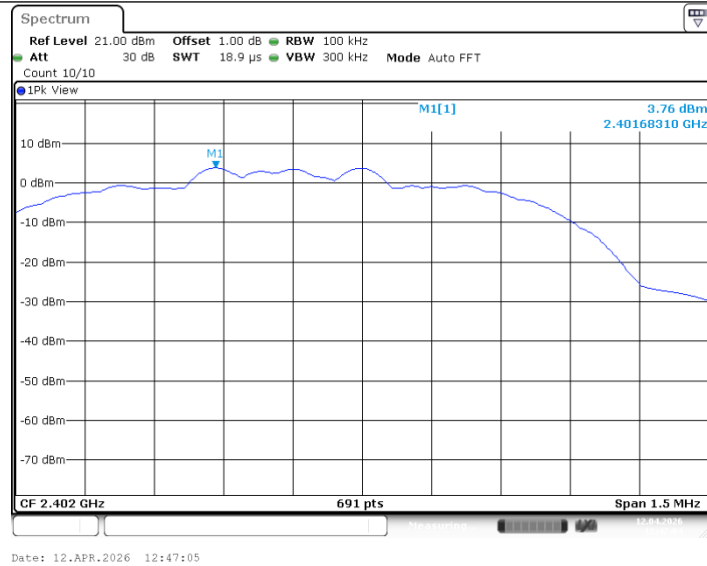
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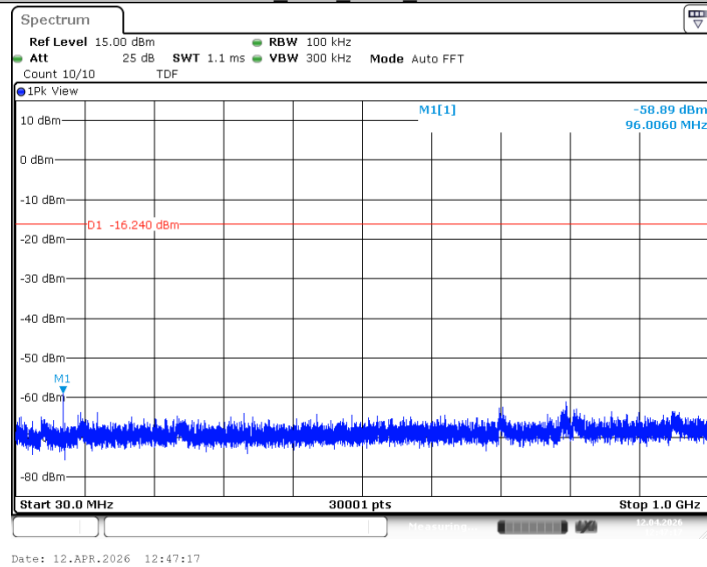
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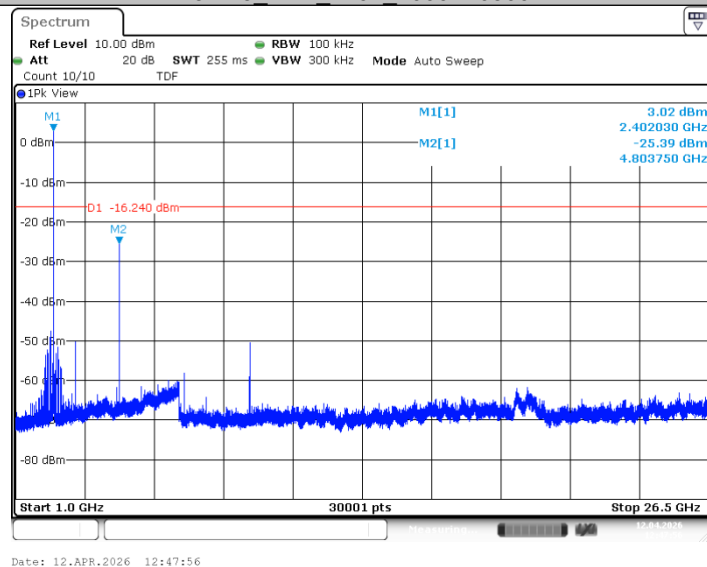
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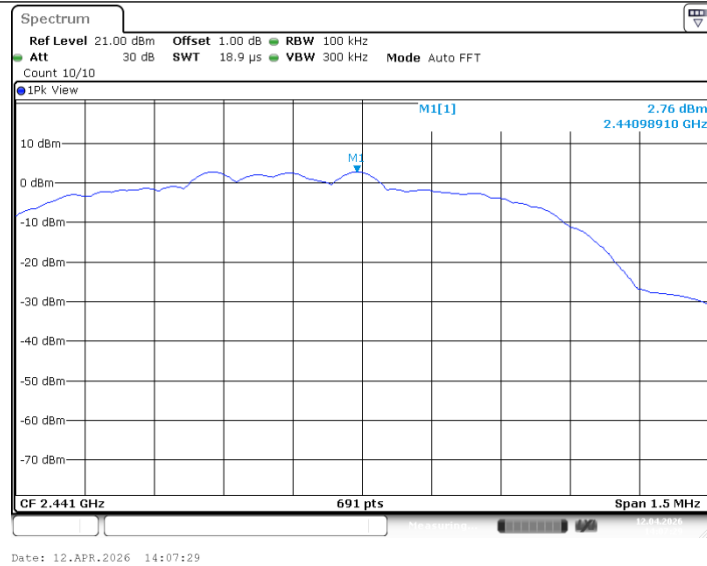
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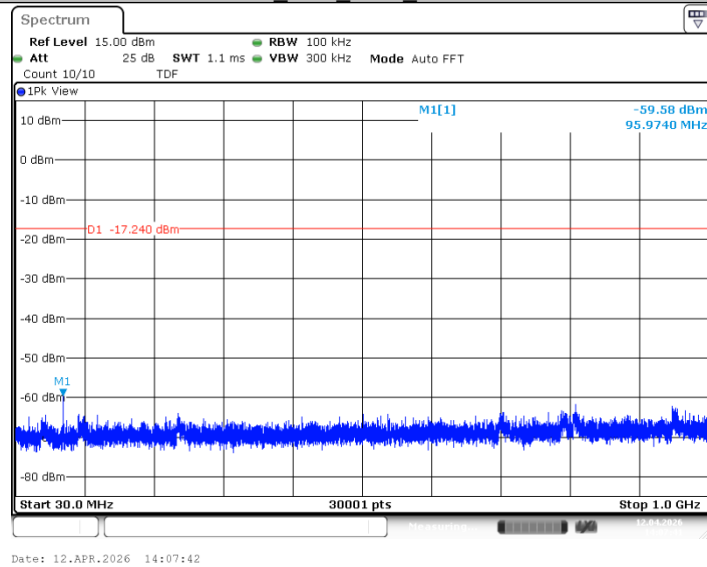
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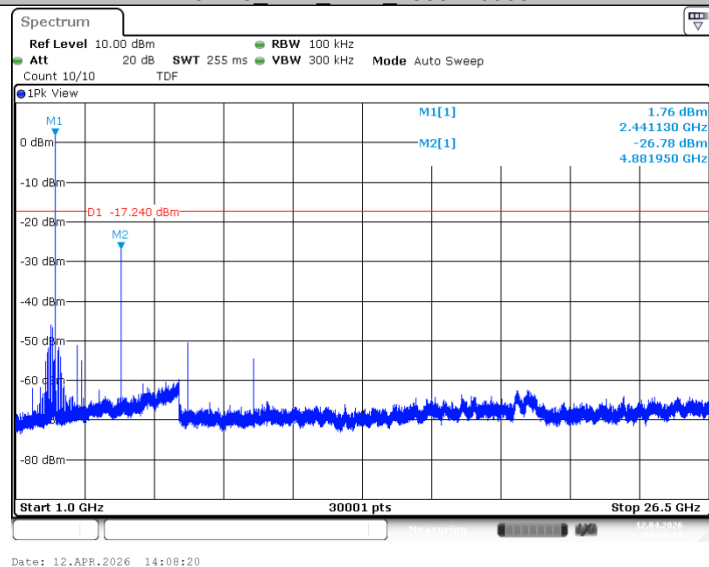
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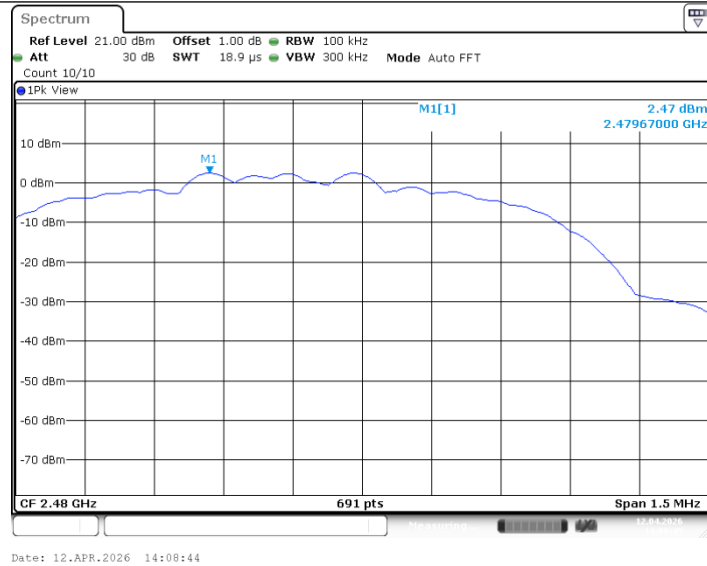
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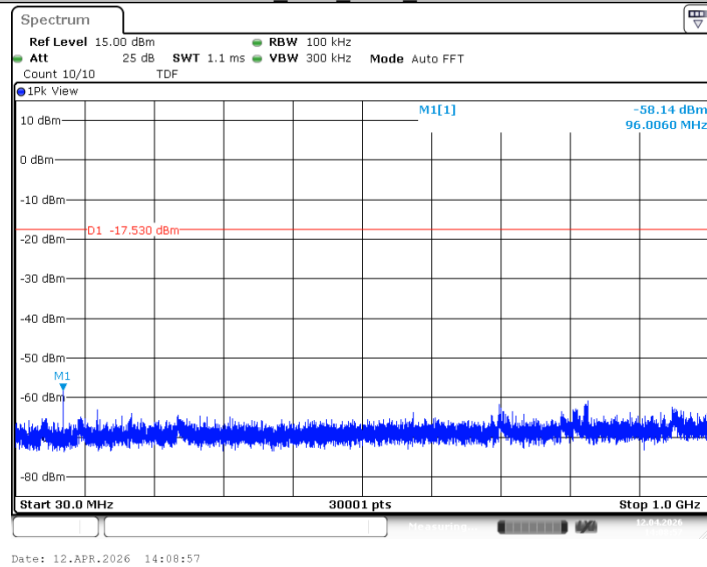
3DH5_Ant1_2441_1000~26500



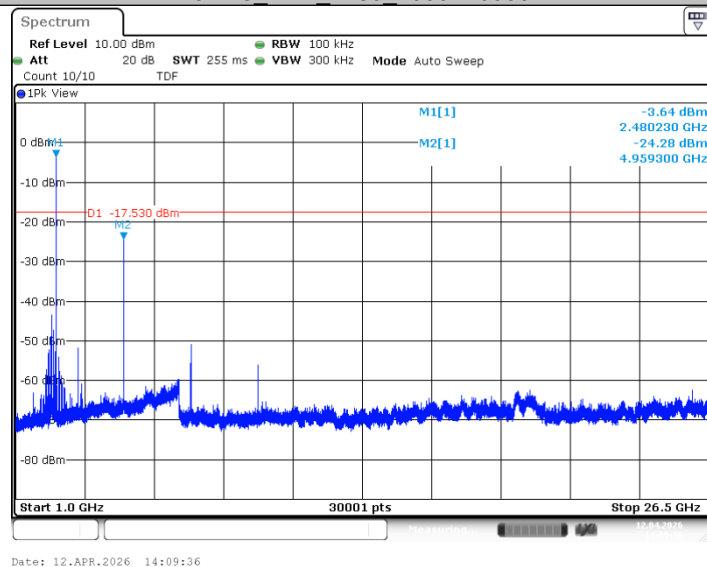
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500

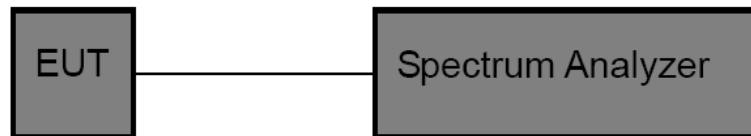


3.4. 20dB Bandwidth

Limit

N/A

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. OCB and 20dB Spectrum Setting:
 - (1) Set RBW = 1% ~ 5% occupied bandwidth.
 - (2) Set the video bandwidth (VBW) ≥ 3 RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.

Note: The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

Test Mode

Please refer to the clause 2.4.

Test Result

Test Mode	Frequency (MHz)	99% Bandwidth (MHz)	20dB Bandwidth (MHz)	20dB Bandwidth *2/3 (MHz)
GFSK	2402	0.869	0.98	0.65
	2441	0.866	1.01	0.67
	2480	0.872	1.03	0.69
$\pi/4$ -DQPSK	2402	1.199	1.30	0.87
	2441	1.19	1.31	0.87
	2480	1.19	1.32	0.88
8-DPSK	2402	1.181	1.31	0.87
	2441	1.181	1.31	0.87
	2480	1.187	1.32	0.88