

Test Report

Verified code: 038934

Report No.: E202203219481-1

Customer: Fiberhome Telecommunication Technologies Co., Ltd.

Address: No.88 Youkeyuan Road, Hongshan District, Wuhan,Hubei, China

Sample Name: GPON ONU

Sample Model: HG6245Y

Receive Sample Date: Apr.18,2022

Test Date: Apr.19,2022 ~ May.07,2022

Reference Document: CFR 47, FCC Part 15 Subpart C
RADIO FREQUENCY DEVICES: Subpart C—Intentional Radiators
ANSI C63.10-2013

Test Result: Pass

Prepared by: Chen Xiacong

Reviewed by:

Jiang Tao

Approved by:

Xiao Liang



GUANGZHOU GRG METROLOGY & TEST CO., LTD

Issued Date: 2022-05-20

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5. Without the agreement of the laboratory, the client is not authorized to use the test results for unapproved propaganda.

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1. TEST RESULT SUMMARY

Standard	Item	Limit / Severity	Result
CFR 47, FCC Part 15 Subpart C (§15.247)	Antenna Requirement	§15.203	PASS
	Conducted Emissions	§15.207 (a)	PASS
	Radiated Spurious Emission	§15.247(d) §15.205 §15.209	PASS
	6 dB Bandwidth	§15.247 (a)(2)	PASS
	Maximum Peak Output Power	§15.247(b)(3)	PASS
	Power Spectral Density	§15.247(e)	PASS
	Conducted band edges and Spurious Emission	§15.247(d)	PASS
	Restricted bands of operation	§15.205 §15.209 §15.247(d)	PASS

The EUT have two antennas. The antenna is internal antenna.

The max gain of antenna is 3.0dBi, which accordance 15.203 is considered sufficient to comply with the provisions of this section.

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2. GENERAL DESCRIPTION OF EUT

2.1. APPLICANT

Name: Fiberhome Telecommunication Technologies Co., Ltd.
Address: No.88 Youkeyuan Road, Hongshan District, Wuhan,Hubei, China

2.2. MANUFACTURER

Name: Fiberhome Telecommunication Technologies Co., Ltd.
Address: No.88 Youkeyuan Road, Hongshan District, Wuhan,Hubei, China

2.3. FACTORY

Name: Fiberhome Telecommunication Technologies Co., Ltd.
Address: No.67,Chuangye Street,East Lake High-tech Development Zone,Wuhan City,Hubei Province,P.R.China

2.4. BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Product Name: GPON ONU
Product Model: HG6245Y
Adding Model: /
Trade Name: FiberHome
FCC ID: 2AV2N-HG6245Y

Power Supply: DC12.0V power supplied by adapter
Adapter: RD1202500-C55-195MG
Specification: Input:100-240V~50/60Hz 1.5A Max
Output:12V  2.5A

Frequency Band: 2412MHz-2462MHz for 802.11b/g/n HT20/ax HE20
2422MHz-2452MHz: 802.11n HT40/ax HE40

Modulation Type: DSSS for 802.11b mode;
OFDM for 802.11g/n mode
OFDM , OFDMA for 802.11ax mode

Antenna Specification: Internal antenna 1 with 3.0dBi gain (Max)
Internal antenna 2 with 3.0dBi gain (Max)

Temperature Range: -5℃~45℃
Hardware Version: /
Software Version: V1.0

Sample submitting way: ☒ Provided by customer ☐ Sampling

Sample No: E202203219481-0002
Note: /

2.5. CHANNEL LIST

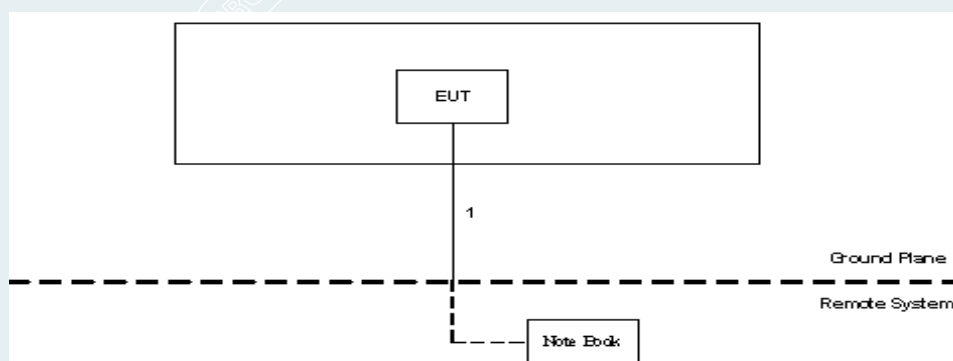
CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n HT20, IEEE 802.11ax HE20							
CH03 – CH09 for IEEE 802.11n HT40, IEEE 802.11ax HE40,							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

2.6. TEST OPERATION MODE

Mode No.	Description of the modes
1	2.4G Wi-Fi TX mode

2.7. LOCAL SUPPORTIVE INSTRUMENTS

Name of Equipment	Manufacturer	Model	Serial Number	Note
Notebook	LENOVO	ZHAOYANG K4e-IML	LRX00A41	/
/	/	/	/	/
Cable				
DC cable	/	/	/	UnShielded, 1.5m
RJ45	/	/	/	UnShielded, 3.0m(for conducted test)
RJ45	/	/	/	UnShielded, 10.0m(for radiated test)

2.8. CONFIGURATION OF SYSTEM UNDER TEST**Test software:**

Software version
CMD Telnet

Power Setting:

Mode	Date Rate	Frequency (MHz)	Power Setting
802.11b(SISO ant1 /ant2)	1M	2412	88
		2437	88
		2462	88
802.11g(SISO ant1 /ant2)	6M	2412	68
		2437	68
		2462	68
802.11n HT20(MIMO ant1&ant2)	MCS8	2412	68
		2437	68
		2462	68
802.11n HT40(MIMO ant1&ant2)	MCS8	2422	60
		2437	60
		2452	60
802.11ax HE20(MIMO ant1&ant2)	MCS0	2412	64
		2437	64
		2462	64
802.11ax HE40(MIMO ant1&ant2)	MCS0	2422	60
		2437	60
		2452	60

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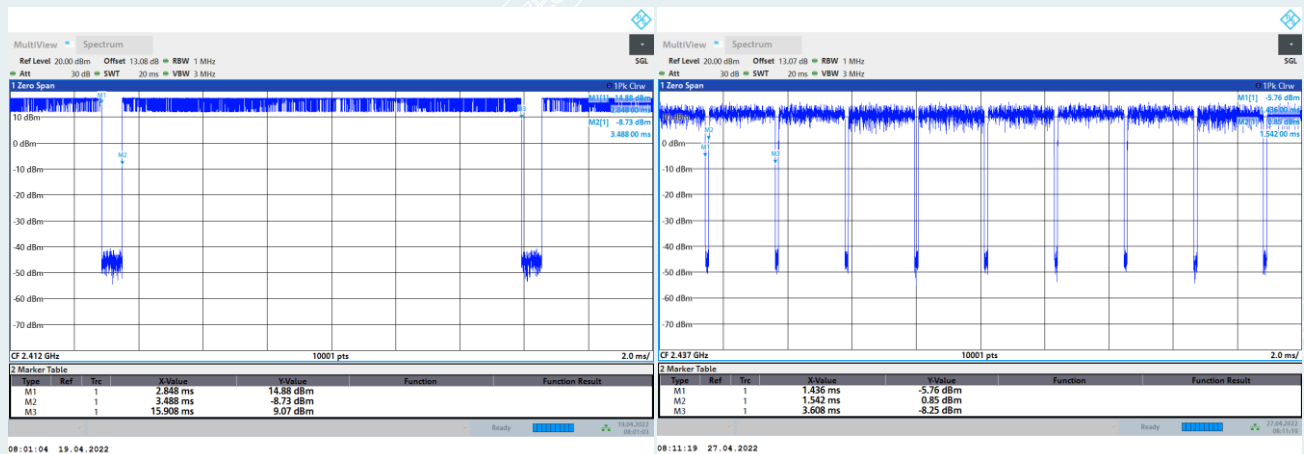
2.9. DUTY CYCLE

EUT Name	GPON ONU	Model	HG6245Y
Environmental Conditions	23.9°C/47%RH	Test Voltage	AC120V/60Hz
Tested By	Liu lingfeng	Tested Date	2022/04/20~04/27

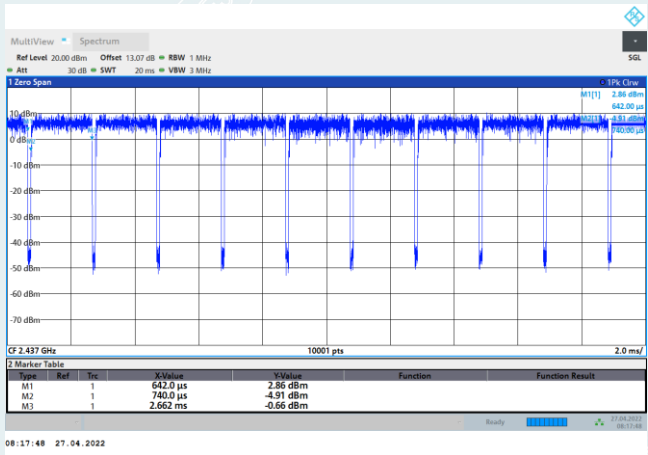
Test Mode	Antenna	Frequency (MHz)	Duty Cycle [%]	Correction Factor (dB)	1/T (kHz)
802.11b	Ant1	2437	95.1	0.22	0.08
802.11g	Ant1	2437	95.12	0.22	0.48
802.11n HT20	Ant1	2437	95.15	0.22	0.52
802.11n HT40	Ant1	2437	90.61	0.43	1.06
802.11ax HE20	Ant1	2437	98.57	0	0.52
802.11ax HE40	Ant1	2437	97.16	0.13	1.04

802.11b_Ant1_2437MHz

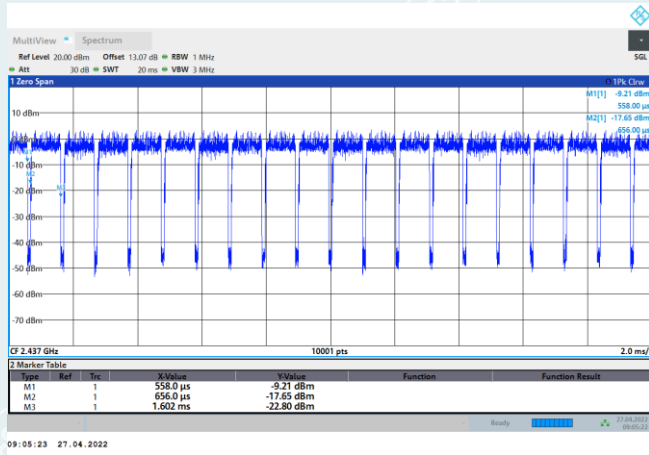
802.11g_Ant1_2437MHz



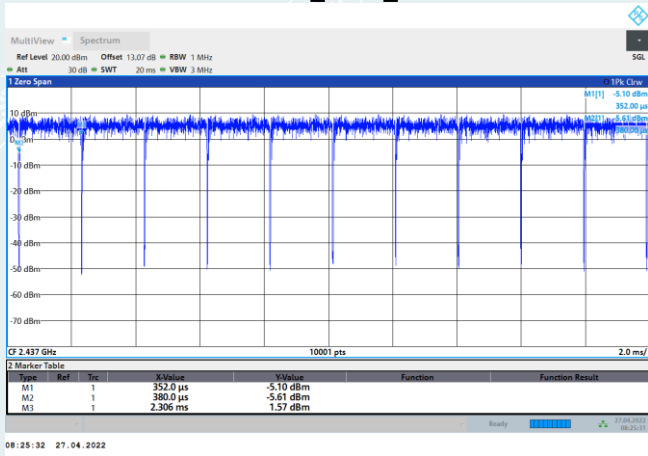
802.11n HT20_Ant1_2437MHz



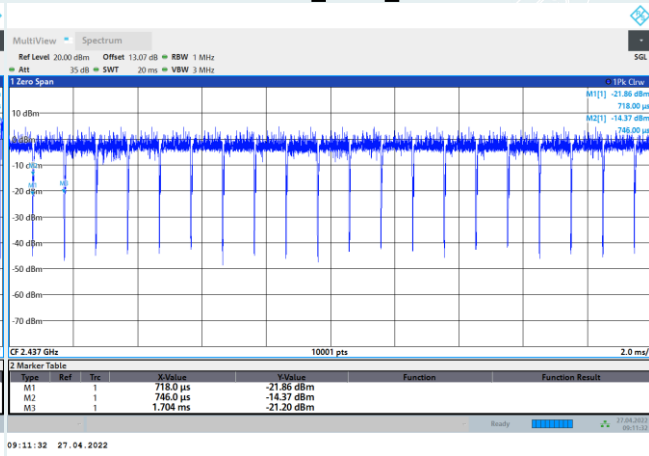
802.11n HT40_Ant1_2437MHz



802.11ax HE20_Ant1_2437MHz



802.11ax HE40_Ant1_2437MHz



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3. LABORATORY AND ACCREDITATIONS

3.1. LABORATORY

The tests & measurements refer to this report were performed by Shenzhen EMC Laboratory of Guangzhou GRG Metrology & Test Co., Ltd.

Add : No.1301 Guangang Road Xinlan Community, Guanlan Street, Longhua District
Shenzhen, 518110, People's Republic of China

P.C. : 518000

Tel : 0755-61180008

Fax : 0755-61180008

3.2. ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA A2LA(Certificate#:2861.01)

China CNAS(L0446)

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada ISED (Company Number: 24897, CAB identifier:CN0069)

USA FCC (Registration Number: 759402, Designation Number:CN1198)

Copies of granted accreditation certificates are available for downloading from our web site,
<http://www.grgtest.com>

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3.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement		Frequency	Uncertainty
Radiated Emission	Horizontal	9kHz~30MHz	4.46dB
		30MHz~1000MHz	4.30dB
		1GHz~18GHz	5.60dB
		18GHz~26.5GHz	3.65dB
	Vertical	9kHz~30MHz	4.46dB
		30MHz~1000MHz	4.30dB
		1GHz~18GHz	5.60dB
		18GHz~26.5GHz	3.65dB
Conduction Emission		9 kHz ~ 150kHz	2.80dB
		150kHz ~ 10MHz	2.80dB
		10MHz ~ 30MHz	2.20dB

Measurement	Uncertainty
RF frequency	6.0×10^{-6}
RF power conducted	0.78 dB
Occupied channel bandwidth	0.4 dB
Unwanted emission, conducted	0.68 dB
Humidity	6 %
Temperature	2 °C

This uncertainty represents an expanded uncertainty factor of k=2.

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4. LIST OF USED TEST EQUIPMENT AT GRGT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Conducted Emissions				
EMI Receiver	R&S	ESCI	100783	2022-09-13
LISN(EUT)	R&S	ENV216	101543	2022-09-14
Test S/W	Tonscend	JS32-CE/		
Radiated Spurious Emission&Restricted bands of operation				
Loop Antenna	TESEQ	HLA6121	52599	2023-04-02
Test Receiver	R&S	ESCI	100088	2022-10-31
Preamplifier	EMEC	EM330	/	2023-03-05
Bi-log Antenna	TESEQ	CBL6143A	32399	2022-11-25
Spectrum Analyzer	Agilent	N9010A	MY55370330	2022-11-08
Horn Antenna	Schwarzbeck	BBHA9120D	286	2022-09-11
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	BBHA 9170-497	2022-10-16
Amplifier	Tonscend	TAP01018048	AP20E8060075	2022-06-07
Amplifier	Tonscend	TAP184050	AP20E806071	2022-05-17
Test S/W	Tonscend	JS32-RE/2.5.1.5		
6 dB Bandwidth				
Spectrum Analyzer	R&S	FSV3044	101223	2023-02-28
Output Power				
Pulse power sensor	Agilent	MA2411B	1126150	2023-03-01
Power meter	Anritsu	ML2495A	1204003	2023-02-28
Conducted band edges and Spurious Emission				
Spectrum Analyzer	R&S	FSV3044	101223	2023-02-28
Power Spectral Density				
Spectrum Analyzer	R&S	FSV3044	101223	2023-02-28

Note: The calibration interval of the above test instruments is 12 months.

5. CONDUCTED EMISSION MEASUREMENT

5.1. LIMITS

Frequency range	Limits (dB μ V)	
	Quasi-peak	Average
150kHz ~ 0.5MHz	66~56	56~46
0.5 MHz ~ 5 MHz	56	46
5 MHz ~ 30 MHz	60	50

NOTE: (1) The lower limit shall apply at the transition frequencies.

(2) The limit decreases in line with the logarithm of the frequency in the range of 150 kHz to 0.5MHz.

5.2. TEST PROCEDURES

Procedure of Preliminary Test

Test procedures follow ANSI C63.10:2013.

For measurement of the disturbance voltage the equipment under test (EUT) is connected to the power supply mains and any other extended network via one or more artificial network(s). An EUT, whether intended to be grounded or not, and which is to be used on a table is configured as follows:

– Either the bottom or the rear of the EUT shall be at a controlled distance of 40 cm from a reference ground plane. This ground plane is normally the wall or floor of a shielded room. It may also be a grounded metal plane of at least 2 m by 2 m. This is physically accomplished as follows:

- 1) place the EUT on a table of non-conducting material which is at least 80 cm high. Place the EUT so that it is 40 cm from the wall of the shielded room, or
- 2) place the EUT on a table of non-conducting material which is 40 cm high so that the bottom of the EUT is 40 cm above the ground plane;

– All other conductive surfaces of the EUT shall be at least 80 cm from the reference ground plane;

– The EUT are placed on the floor that one side of the housings is 40 cm from the vertical reference ground plane and other metallic parts;

– Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth forming a bundle 30 cm to 40 cm long, hanging approximately in the middle between the ground plane and the table.

– I/O cables that are connected to a peripheral shall be bundled in the centre. The end of the cable may be terminated if required using correct terminating impedance. The total length shall not exceed 1 m.

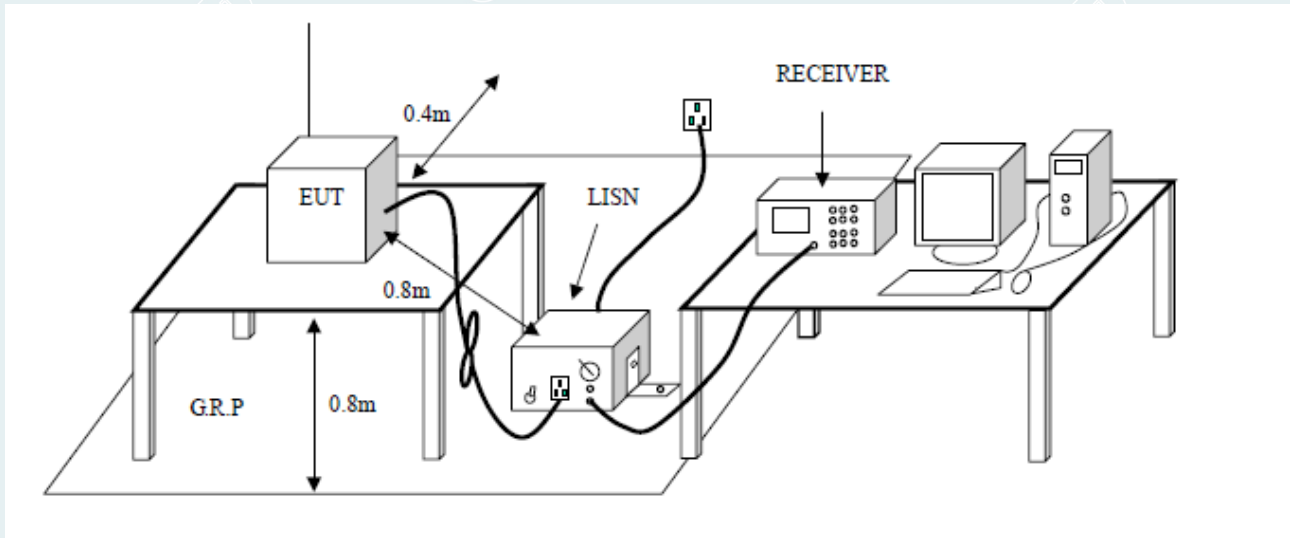
– Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.

The test mode(s) described in Item 2.6 were scanned during the preliminary test. After the preliminary scan, we found the test mode described in Item 2.6 producing the highest emission level. The EUT configuration and cable configuration of the above highest emission levels were recorded for reference of the final test.

Procedure of Final Test

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test. A scan was taken on both power lines, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. The test data of the worst-case condition(s) was recorded.

5.3. TEST SETUP



5.4. DATA SAMPLE

Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
X.XXXX	32.69	25.65	11.52	44.21	37.17	65.78	55.79	-21.57	-18.62	Pass

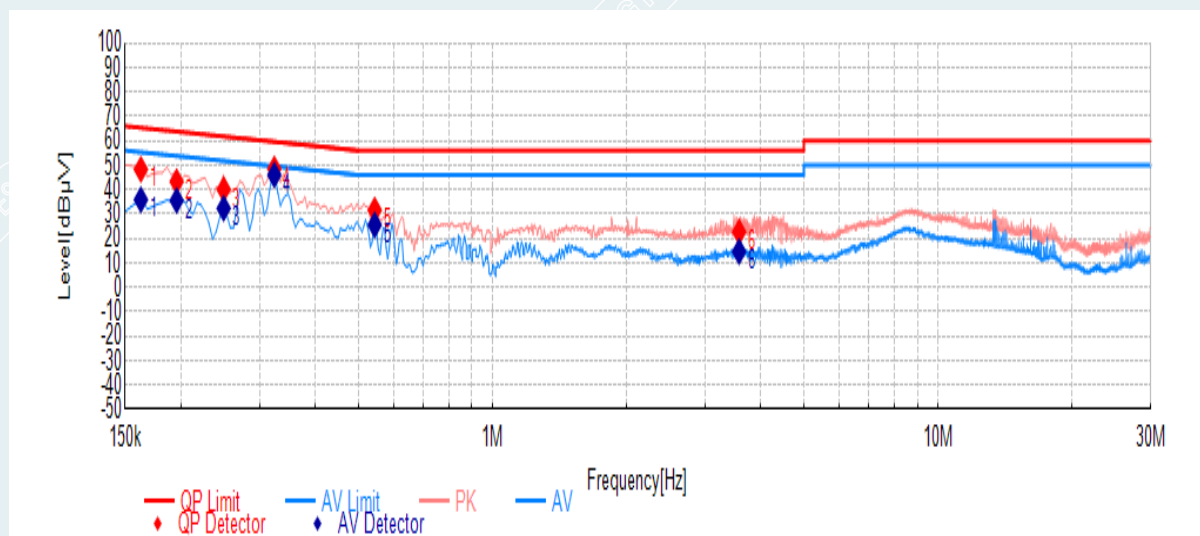
- Factor = Insertion loss of LISN + Cable Loss
Result = Quasi-peak Reading/ Average Reading + Factor
Limit = Limit stated in standard
Margin = Result (dBuV) – Limit (dBuV)

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5.5. TEST RESULTS

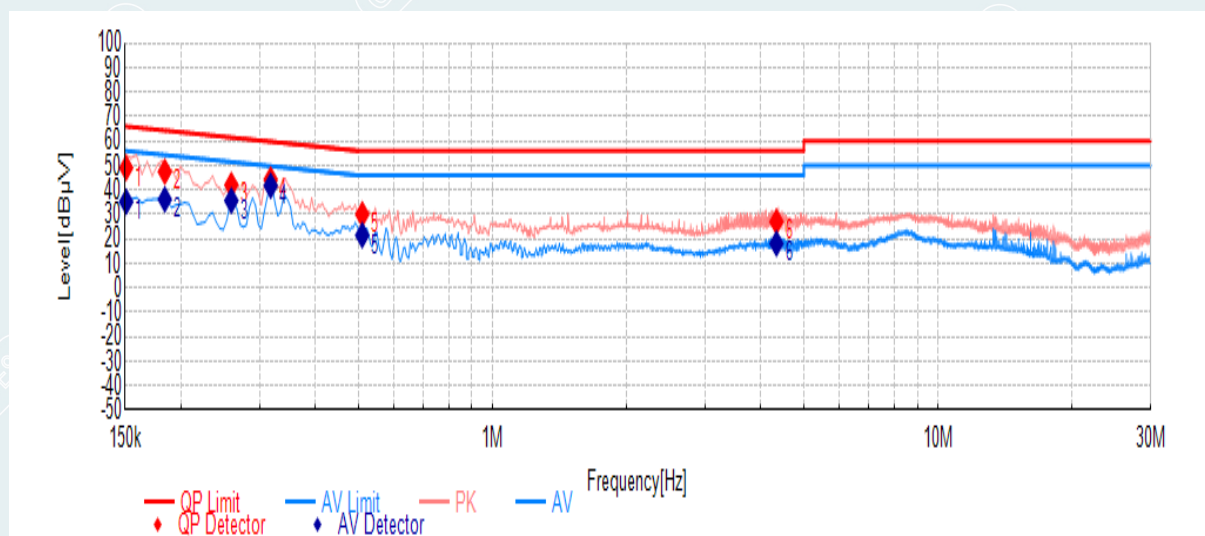
All models were pretested and only the worst modes and channels were recorded in this report. (IEEE 802.11b 2412MHz ant2)

EUT Name	GPON ONU	Model	HG6245Y
Environmental Conditions	23.9°C/47%RH	Test Mode	Mode 1
Tested By	Liu lingfeng	Line	L
Tested Date	2022/4/24	Test Voltage	AC120V/60Hz



No.	Frequency [MHz]	QP result [dBμV]	QP limit [dBμV]	QP margin [dB]	AV result [dBμV]	AV limit [dBμV]	AV margin [dB]	Remark
1	0.1626	48.32	65.33	17.01	35.90	55.33	19.43	PASS
2	0.1956	43.30	63.79	20.49	35.53	53.79	18.26	PASS
3	0.2494	40.11	61.78	21.67	32.34	51.78	19.44	PASS
4	0.3240	48.55	59.60	11.05	45.97	49.60	3.63	PASS
5	0.5443	31.68	56.00	24.32	25.53	46.00	20.47	PASS
6	3.5793	22.74	56.00	33.26	14.67	46.00	31.33	PASS

EUT Name	GPON ONU	Model	HG6245Y
Environmental Conditions	23.9°C/47%RH	Test Mode	Mode 1
Tested By	Liu lingfeng	Line	N
Tested Date	2022/4/24	Test Voltage	AC120V/60Hz



No.	Frequency	QP result	QP limit	QP margin	AV result	AV limit	AV margin	Remark
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dB]	
1	0.1507	49.04	65.96	16.92	35.23	55.96	20.73	PASS
2	0.1840	47.47	64.30	16.83	36.16	54.30	18.14	PASS
3	0.2595	42.02	61.45	19.43	35.67	51.45	15.78	PASS
4	0.3180	44.26	59.76	15.50	41.73	49.76	8.03	PASS
5	0.5104	30.06	56.00	25.94	21.54	46.00	24.46	PASS
6	4.3409	27.05	56.00	28.95	18.13	46.00	27.87	PASS

6. RADIATED SPURIOUS EMISSIONS

6.1. LIMITS

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

Frequency (MHz)	Quasi-peak($\mu\text{V/m}$)	Measurement distance(m)	Quasi-peak(dB $\mu\text{V/m}$)@distance 3m
0.009-0.490	$2400/F(\text{kHz})$	300	93.8~128.5
0.490-1.705	$24000/F(\text{kHz})$	30	62.96~73.8
1.705-30.0	30	30	69.5
30 ~ 88	100	3	40
88~216	150	3	43.5
216 ~ 960	200	3	46
Above 960	500	3	54

NOTE:

- (1) The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.
- (2) The lower limit shall apply at the transition frequencies.
- (3) Above 18GHz test distance is 1m, so the Peak Limit= $74+20*\log(3/1)=83.54$ (dB $\mu\text{V/m}$).
The Avg Limit= $54+20*\log(3/1)=63.54$ (dB $\mu\text{V/m}$).

6.2. TEST PROCEDURES

1) Sequence of testing 9kHz to 30MHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
- If the EUT is a floor standing device, it is placed on the ground.
- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.
- The EUT is placed on a desktop position in the center of the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Pre measurement:

- The turntable rotates from 0 °to 360 °.
- The antenna height is 1.0 meter.
- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

--- Identified emissions during the pre measurement the software maximizes by rotating the turntable position (0 ° to 360 °) and by rotating the elevation axes (0 ° to 360 °).

--- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QP detector.

--- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement and the limit will be stored.

2) Sequence of testing 30MHz to 1GHz**Setup:**

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.

--- The EUT is placed on a desktop position in the center of the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Pre measurement:

--- The turntable rotates from 0 ° to 360 °.

--- The antenna is polarized vertical and horizontal.

--- The antenna height changes from 1 to 4 meter.

--- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement:

--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable rotates from 0 ° to 360 ° and antenna movement between 1 and 4 meter.

--- The final measurement will be done with QP detector with an EMI receiver.

--- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

3) Sequence of testing 1GHz to 18GHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.
- The EUT is placed on a desktop position in the center of the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Pre measurement:

- The turntable rotates from 0 °to 360 °.
- The antenna is polarized vertical and horizontal.
- The antenna height scan range is 1 meter to 4 meter.
- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.

Final measurement:

- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable rotates from 0 °to 360 °and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.
- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement with marked maximum final measurements and the limit will be stored.

4) Sequence of testing above 18GHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.
- The EUT is placed on a desktop position in the center of the turntable.
- The measurement distance is 1 meter.
- The EUT was set into operation.

Pre measurement:

--- The antenna is moved spherical over the EUT in different polarizations of the antenna.

Final measurement:

--- The final measurement will be performed at the position and antenna orientation for all detected emissions that were found during the pre-measurements with Peak and Average detector.

--- The final levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre-measurement and the limit will be stored.

NOTE:

(a).The frequency from 9KHz to 150KHz, Set RBW=300Hz(for Peak&AVG), VBW=300Hz(for Peak&AVG). the frequency from 150KHz to 30MHz, Set RBW=9KHz, VBW=9KHz, (for QP Detector).

(b).The frequency from 30MHz to 1GHz, Set RBW=120KHz, VBW=300KHz, (for QP Detector).

(c). The frequency above 1000MHz, set the RBW=1MHz, VBW=3MHz for PK Detector.

(d). The frequency above 1000MHz, The AVG value measurement is based on duty cycle. If the EUT is configured to transmit with duty cycle $\geq 98\%$, set RBW=1MHz, $VBW \leq RBW/100$ (i.e., 10kHz) but not less than 10 Hz; If the EUT duty cycle is $< 98\%$, set RBW=1MHz, $VBW \geq 1/T$, Where T is defined in section 2.9.

6.3. TEST SETUP

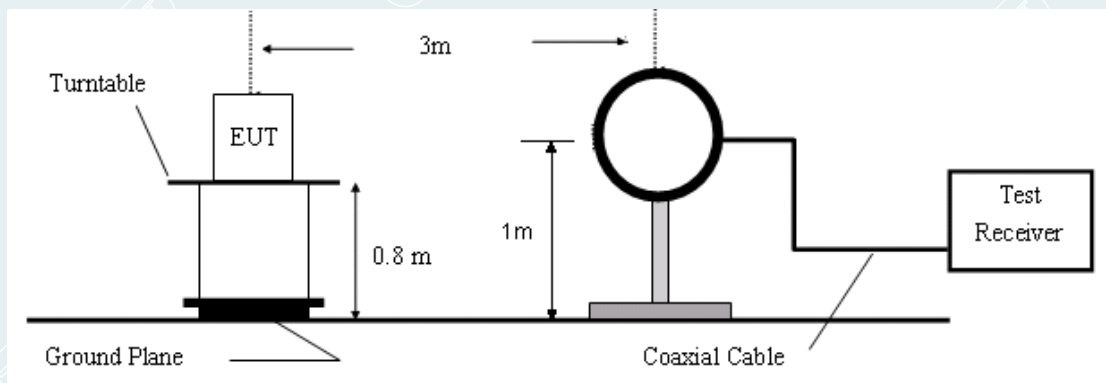


Figure 1. 9 kHz to 30MHz radiated emissions test configuration

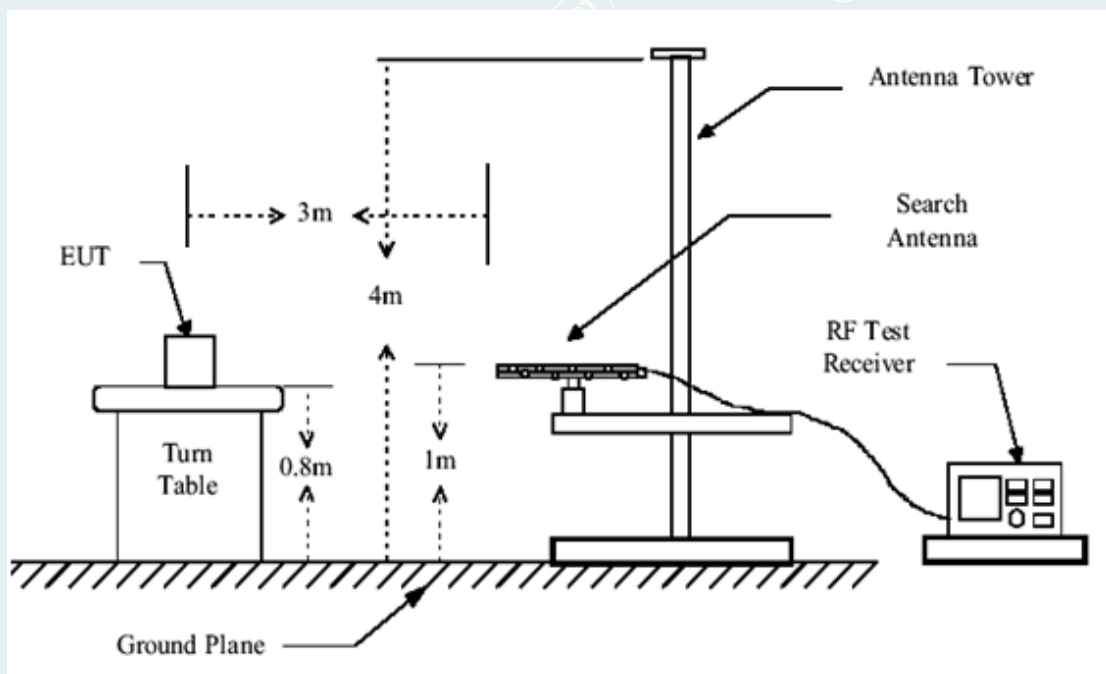


Figure 2. 30MHz to 1GHz radiated emissions test configuration

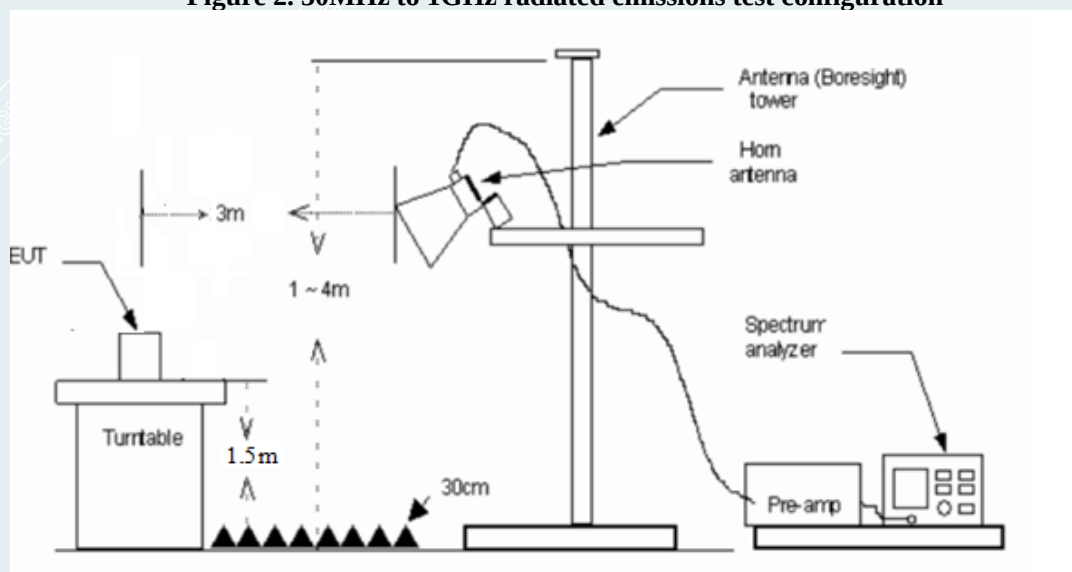


Figure 3. 1GH to 18GHz radiated emissions test configuration

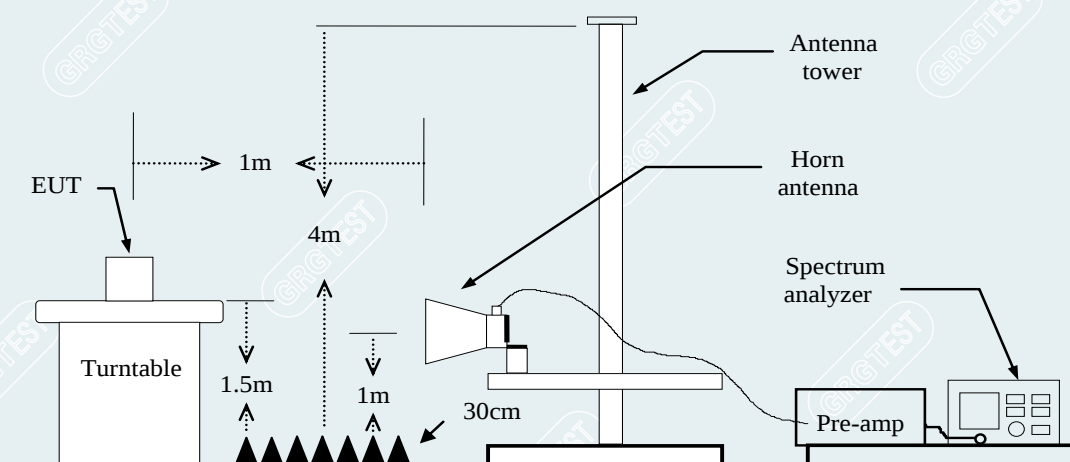


Figure 4. 18GHz to 26.5GHz radiated emissions test configuration

6.4. DATA SAMPLE

30MHz to 1GHz

No.	Frequency (MHz)	Reading (dBuV/m)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Pole
xxx	xxx	37.06	-15.48	21.58	40.00	-18.42	QP	Vertical

Above 1GHz-18GHz

No.	Frequency (MHz)	Reading (dBuV/m)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Pole
xxx	xxx	65.45	-11.12	54.33	74.00	-19.67	peak	Vertical
xxx	xxx	63.00	-11.12	51.88	54.00	-2.12	AVG	Vertical

Above 18GHz

No.	Frequency (MHz)	Reading (dBuV/m)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Pole
xxx	xxx	68.86	57.66	-11.20	83.54	25.88	peak	Vertical
xxx	xxx	68.89	-11.20	57.69	63.54	5.85	AVG	Vertical

Frequency (MHz) = Emission frequency in MHz

Ant.Pol. (H/V) = Antenna polarization

Reading (dBuV) = Uncorrected Analyzer / Receiver reading

Correction Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain

Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)

Limit (dBuV/m) = Limit stated in standard

Margin (dB) = Remark Result (dBuV/m) – Limit (dBuV/m)

Peak = Peak Reading

QP = Quasi-peak Reading

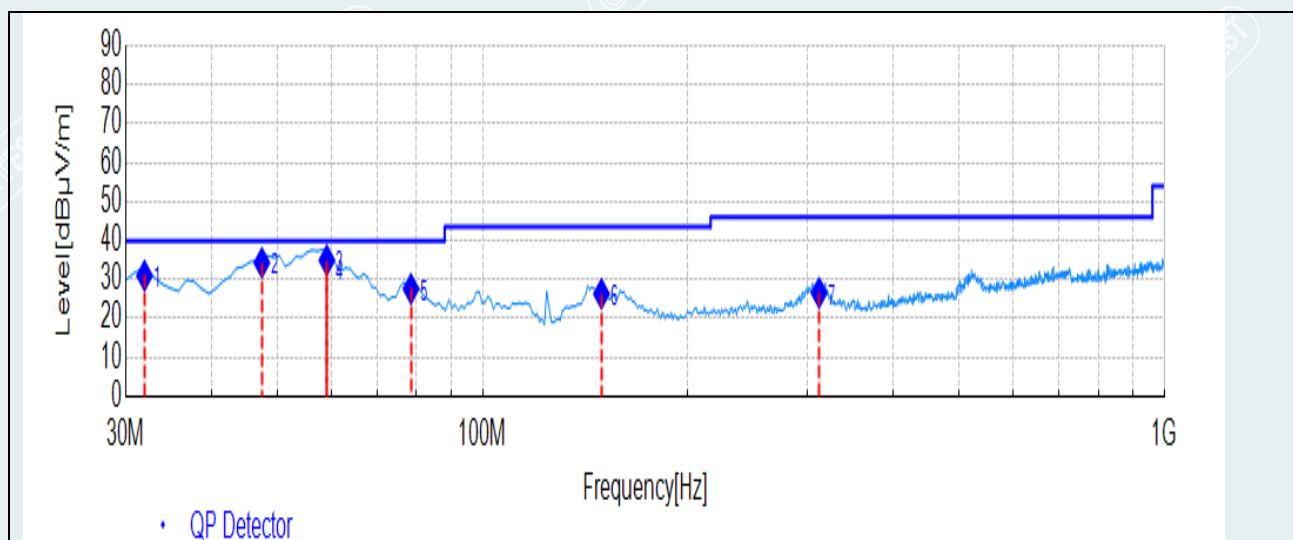
AVG = Average Reading

6.5. TEST RESULTS

Below 1GHz

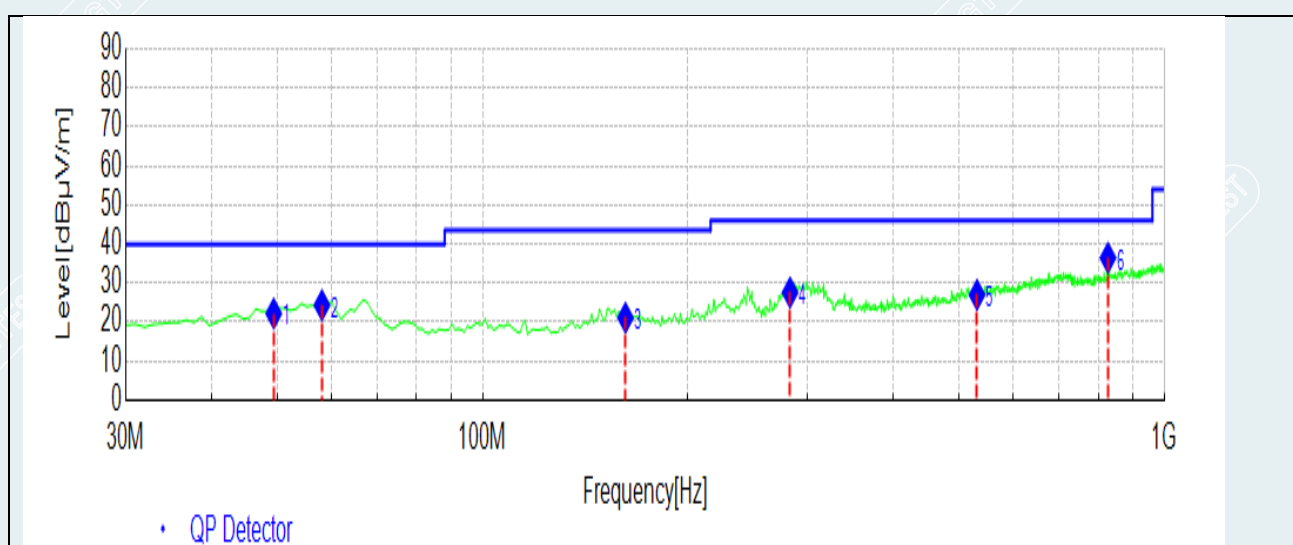
All models were pretested and only the worst modes and channels were recorded in this report. (IEEE 802.11b 2412MHz ant2)

EUT Name	GPON ONU	Model	HG6245Y
Environmental Conditions	25.5°C/45%RH	Test Voltage	AC120V/60Hz
Test Mode	IEEE 802.11b ant 2 (2412MHz)	Polarity	Vertical
Tested By	Liu lingfeng	Tested Date	2022/05/05
Note	/		



NO.	Freq. [MHz]	QP Reading[dBμV/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity
1	31.9419	18.8	12.22	31.02	40.00	8.98	Vertical
2	47.4775	19.32	15.01	34.33	40.00	5.67	Vertical
3	59.1291	19.87	15.12	34.99	40.00	5.01	Vertical
4	59.1431	17.85	15.12	32.97	40.00	7.03	Vertical
5	78.5485	17.49	10.13	27.62	40.00	12.38	Vertical
6	149.4294	14.1	12.25	26.35	43.50	17.15	Vertical
7	311.5816	10.84	15.75	26.59	46.00	19.41	Vertical

EUT Name	GPON ONU	Model	HG6245Y
Environmental Conditions	25.5°C/45%RH	Test Voltage	AC120V/60Hz
Test Mode	IEEE 802.11b ant 2(2412MHz)	Polarity	Horizontal
Tested By	Liu lingfeng	Tested Date	2022/05/05
Note	/		



NO.	Freq. [MHz]	QP Reading[dBμV/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity
1	49.4194	7.02	15.19	22.21	40.00	17.79	Horizontal
2	58.1582	9.2	15.14	24.34	40.00	15.66	Horizontal
3	162.0521	8.58	12.55	21.13	43.50	22.37	Horizontal
4	282.4525	12.25	15.34	27.59	46.00	18.41	Horizontal
5	531.0210	7.26	19.75	27.01	46.00	18.99	Horizontal
6	826.1962	12.14	24.35	36.49	46.00	9.51	Horizontal

Remark:

- 1 No emission found between lowest internal used/generated frequency to 30MHz.
- 2 Radiated emissions measured in frequency range from 9 kHz to 1GHz were made with an instrument using Quasi-peak detector mode.
- 3 Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- 4 The IF bandwidth of Receiver between 30MHz to 1GHz was 120 kHz.

1GHz-18GHz:

Mode: IEEE 802.11b ant2

Lowest Frequency (2412MHz)

Environment: 25°C/60%RH

Tested By: Liu lingfeng

Date: 2022/05/05

Voltage: AC120V/60Hz

/

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1624.0000	58.95	-19.44	39.51	74.00	34.49	Horizontal
2	3187.5000	62.64	-15.17	47.47	74.00	26.53	Horizontal
3	4770.0000	55.51	-9.59	45.92	74.00	28.08	Horizontal
4	7320.0000	54.28	-2.78	51.50	74.00	22.50	Horizontal
5	11370.0000	52.58	4.48	57.06	74.00	16.94	Horizontal
6	14910.0000	51.51	7.97	59.48	74.00	14.52	Horizontal

AV Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1624.0000	48.29	-19.44	28.85	54.00	25.15	Horizontal
2	3187.5000	45.55	-15.17	30.38	54.00	23.62	Horizontal
3	4770.0000	45.28	-9.59	35.69	54.00	18.31	Horizontal
4	7320.0000	43.14	-2.78	40.36	54.00	13.64	Horizontal
5	11370.0000	39.83	4.48	44.31	54.00	9.69	Horizontal
6	14910.0000	39.99	7.97	47.96	54.00	6.04	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1064.0000	67.6	-20.01	47.59	74.00	26.41	Vertical
2	1512.0000	60.71	-19.47	41.24	74.00	32.76	Vertical
3	3172.5000	60.85	-15.18	45.67	74.00	28.33	Vertical
4	4822.5000	63.74	-9.25	54.49	74.00	19.51	Vertical
5	10342.5000	52.3	2.85	55.15	74.00	18.85	Vertical
6	14527.5000	52.18	7.82	60.00	74.00	14.00	Vertical

AV Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1064.0000	45.12	-20.01	25.11	54.00	28.89	Vertical
2	1512.0000	52.83	-19.47	33.36	54.00	20.64	Vertical
3	3172.5000	44.64	-15.18	29.46	54.00	24.54	Vertical
4	4822.5000	53.06	-9.25	43.81	54.00	10.19	Vertical
5	10342.5000	41.19	2.85	44.04	54.00	9.96	Vertical
6	14527.5000	41.62	7.82	49.44	54.00	4.56	Vertical

Mode: IEEE 802.11b ant2
 Middle Frequency (2437 MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz
 /

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.72	-19.47	41.25	74.00	32.75	Horizontal
2	3165.0000	60.4	-15.19	45.21	74.00	28.79	Horizontal
3	4860.0000	58.17	-9.00	49.17	74.00	24.83	Horizontal
4	7927.5000	53.82	-0.74	53.08	74.00	20.92	Horizontal
5	11145.0000	52.77	4.10	56.87	74.00	17.13	Horizontal
6	14317.5000	52.2	7.63	59.83	74.00	14.17	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.72	-19.47	33.25	54.00	20.75	Horizontal
2	3165.0000	45.02	-15.19	29.83	54.00	24.17	Horizontal
3	4860.0000	44.46	-9.00	35.46	54.00	18.54	Horizontal
4	7927.5000	43.44	-0.74	42.70	54.00	11.30	Horizontal
5	11145.0000	42.51	4.10	46.61	54.00	7.39	Horizontal
6	14317.5000	40.81	7.63	48.44	54.00	5.56	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1598.0000	64.89	-19.25	45.64	74.00	28.36	Vertical
2	4867.5000	59.88	-8.95	50.93	74.00	23.07	Vertical
3	6900.0000	68.65	-3.74	64.91	74.00	9.09	Vertical
4	7995.0000	53.54	-0.48	53.06	74.00	20.94	Vertical
5	12105.0000	53.68	4.14	57.82	74.00	16.18	Vertical
6	14985.0000	50.44	8.00	58.44	74.00	15.56	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin[dB]	Polarity
1	1598.0000	45.18	-19.25	25.93	54.00	28.07	Vertical
2	4867.5000	48.03	-8.95	39.08	54.00	14.92	Vertical
3	6900.0000	47.49	-3.74	43.75	54.00	10.25	Vertical
4	7995.0000	43.20	-0.48	42.72	54.00	11.28	Vertical
5	12105.0000	42.02	4.14	46.16	54.00	7.84	Vertical
6	14985.0000	37.91	8.00	45.91	54.00	8.09	Vertical

Mode: IEEE 802.11b ant2
 Highest Frequency (2462MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz
 /

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	59.77	-19.47	40.30	74.00	33.70	Horizontal
2	3187.5000	60.55	-15.17	45.38	74.00	28.62	Horizontal
3	4860.0000	58.38	-9.00	49.38	74.00	24.62	Horizontal
4	7702.5000	53.05	-1.63	51.42	74.00	22.58	Horizontal
5	12937.5000	51.57	5.58	57.15	74.00	16.85	Horizontal
6	14107.5000	51.49	7.42	58.91	74.00	15.09	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	51.67	-19.47	32.20	54.00	21.80	Horizontal
2	3187.5000	45.66	-15.17	30.49	54.00	23.51	Horizontal
3	4860.0000	45.63	-9.00	36.63	54.00	17.37	Horizontal
4	7702.5000	43.50	-1.63	41.87	54.00	12.13	Horizontal
5	12937.5000	41.92	5.58	47.50	54.00	6.50	Horizontal
6	14107.5000	39.50	7.42	46.92	54.00	7.08	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1596.0000	61.53	-19.25	42.28	74.00	31.72	Vertical
2	3397.5000	65.25	-14.95	50.30	74.00	23.70	Vertical
3	4920.0000	60.89	-8.60	52.29	74.00	21.71	Vertical
4	7920.0000	55.72	-0.77	54.95	74.00	19.05	Vertical
5	11152.5000	52.07	4.11	56.18	74.00	17.82	Vertical
6	14490.0000	51.86	7.80	59.66	74.00	14.34	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1596.0000	45.89	-19.25	26.64	54.00	27.36	Vertical
2	3397.5000	43.92	-14.95	28.97	54.00	25.03	Vertical
3	4920.0000	48.59	-8.60	39.99	54.00	14.01	Vertical
4	7920.0000	43.61	-0.77	42.84	54.00	11.16	Vertical
5	11152.5000	42.47	4.11	46.58	54.00	7.42	Vertical
6	14490.0000	42.05	7.80	49.85	54.00	4.15	Vertical

Mode: IEEE 802.11g ant2
 Lowest Frequency (2412MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2021-10-18
 Voltage: AC120V/60Hz
 /

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1487.0000	56.39	-22.96	33.43	74.00	40.57	Horizontal
2	3804.0000	53.00	-14.29	38.71	74.00	35.29	Horizontal
3	4821.0000	61.80	-9.72	52.08	74.00	21.92	Horizontal
4	5911.5000	50.21	-7.72	42.49	74.00	31.51	Horizontal
5	7237.5000	56.06	-3.55	52.51	74.00	21.49	Horizontal
6	9643.5000	52.12	2.09	54.21	74.00	19.79	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.95	-19.47	33.48	54.00	20.52	Horizontal
2	2654.0000	45.36	-18.19	27.17	54.00	26.83	Horizontal
3	3187.5000	45.34	-15.17	30.17	54.00	23.83	Horizontal
4	3997.5000	47.00	-12.99	34.01	54.00	19.99	Horizontal
5	9210.0000	42.60	0.30	42.90	54.00	11.10	Horizontal
6	14055.0000	41.29	7.37	48.66	54.00	5.34	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1597.0000	57.20	-22.92	34.28	74.00	39.72	Vertical
2	3319.5000	54.39	-16.03	38.36	74.00	35.64	Vertical
3	4824.0000	65.57	-9.71	55.86	74.00	18.14	Vertical
4	7227.0000	59.42	-3.43	55.99	74.00	18.01	Vertical
5	9648.0000	47.07	2.20	49.27	74.00	24.73	Vertical
6	12057.0000	45.79	3.97	49.76	74.00	24.24	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1584.0000	46.88	-19.28	27.60	54.00	26.40	Vertical
2	3997.5000	46.32	-12.99	33.33	54.00	20.67	Vertical
3	4822.5000	50.39	-9.25	41.14	54.00	12.86	Vertical
4	7920.0000	43.70	-0.77	42.93	54.00	11.07	Vertical
5	11160.0000	41.94	4.12	46.06	54.00	7.94	Vertical
6	14542.5000	41.75	7.83	49.58	54.00	4.42	Vertical

Mode: IEEE 802.11g ant2
 Middle Frequency (2437 MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2021-10-18
 Voltage: AC120V/60Hz

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.93	-19.47	41.46	74.00	32.54	Horizontal
2	3180.0000	58.13	-15.17	42.96	74.00	31.04	Horizontal
3	4860.0000	57.74	-9.00	48.74	74.00	25.26	Horizontal
4	6667.5000	54.45	-4.49	49.96	74.00	24.04	Horizontal
5	10912.5000	52.63	3.79	56.42	74.00	17.58	Horizontal
6	14542.5000	51.5	7.83	59.33	74.00	14.67	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.28	-19.47	32.81	54.00	21.19	Horizontal
2	3180.0000	44.81	-15.17	29.64	54.00	24.36	Horizontal
3	4860.0000	44.61	-9.00	35.61	54.00	18.39	Horizontal
4	6667.5000	43.42	-4.49	38.93	54.00	15.07	Horizontal
5	10912.5000	42.18	3.79	45.97	54.00	8.03	Horizontal
6	14542.5000	41.38	7.83	49.21	54.00	4.79	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	61.08	-19.47	41.61	74.00	32.39	Vertical
2	3195.0000	60.24	-15.16	45.08	74.00	28.92	Vertical
3	3997.5000	57.51	-12.99	44.52	74.00	29.48	Vertical
4	4875.0000	58.54	-8.90	49.64	74.00	24.36	Vertical
5	10657.5000	52.86	3.61	56.47	74.00	17.53	Vertical
6	14062.5000	51.18	7.37	58.55	74.00	15.45	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	53.09	-19.47	33.62	54.00	20.38	Vertical
2	3195.0000	45.29	-15.16	30.13	54.00	23.87	Vertical
3	3997.5000	45.69	-12.99	32.70	54.00	21.30	Vertical
4	4875.0000	48.73	-8.90	39.83	54.00	14.17	Vertical
5	10657.5000	41.88	3.61	45.49	54.00	8.51	Vertical
6	14062.5000	42.25	7.37	49.62	54.00	4.38	Vertical

Mode: IEEE 802.11g ant2
 Highest Frequency (2462MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2021-10-18
 Voltage: AC120V/60Hz
 /

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	61.23	-19.47	41.76	74.00	32.24	Horizontal
2	2644.0000	65.82	-18.22	47.60	74.00	26.40	Horizontal
3	3180.0000	62.56	-15.17	47.39	74.00	26.61	Horizontal
4	4860.0000	57.48	-9.00	48.48	74.00	25.52	Horizontal
5	10290.0000	52.92	2.63	55.55	74.00	18.45	Horizontal
6	14542.5000	52.41	7.83	60.24	74.00	13.76	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.42	-19.47	32.95	54.00	21.05	Horizontal
2	2644.0000	46.14	-18.22	27.92	54.00	26.08	Horizontal
3	3180.0000	46.43	-15.17	31.26	54.00	22.74	Horizontal
4	4860.0000	44.52	-9.00	35.52	54.00	18.48	Horizontal
5	10290.0000	42.24	2.63	44.87	54.00	9.13	Horizontal
6	14542.5000	42.39	7.83	50.22	54.00	3.78	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	61.48	-19.47	42.01	74.00	31.99	Vertical
2	3997.5000	57.59	-12.99	44.60	74.00	29.40	Vertical
3	4935.0000	57.64	-8.50	49.14	74.00	24.86	Vertical
4	7762.5000	53.28	-1.39	51.89	74.00	22.11	Vertical
5	11167.5000	53.28	4.13	57.41	74.00	16.59	Vertical
6	14527.5000	52.59	7.82	60.41	74.00	13.59	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.72	-19.47	33.25	54.00	20.75	Vertical
2	3997.5000	45.87	-12.99	32.88	54.00	21.12	Vertical
3	4935.0000	46.32	-8.50	37.82	54.00	16.18	Vertical
4	7762.5000	42.98	-1.39	41.59	54.00	12.41	Vertical
5	11167.5000	40.91	4.13	45.04	54.00	8.96	Vertical
6	14527.5000	42.02	7.82	49.84	54.00	4.16	Vertical

Mode: IEEE 802.11n HT20
 Lowest Frequency (2412MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz
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PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1620.0000	64.49	-19.41	45.08	74.00	28.92	Horizontal
2	3165.0000	66.5	-15.19	51.31	74.00	22.69	Horizontal
3	3480.0000	65.38	-14.86	50.52	74.00	23.48	Horizontal
4	4860.0000	60.75	-9.00	51.75	74.00	22.25	Horizontal
5	12990.0000	51.97	5.80	57.77	74.00	16.23	Horizontal
6	14542.5000	52.23	7.83	60.06	74.00	13.94	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1620.0000	57.51	-19.41	38.10	54.00	15.90	Horizontal
2	3165.0000	45.07	-15.19	29.88	54.00	24.12	Horizontal
3	3480.0000	44.66	-14.86	29.80	54.00	24.20	Horizontal
4	4860.0000	45.49	-9.00	36.49	54.00	17.51	Horizontal
5	12990.0000	41.16	5.80	46.96	54.00	7.04	Horizontal
6	14542.5000	41.51	7.83	49.34	54.00	4.66	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1590.0000	66.99	-19.27	47.72	74.00	26.28	Vertical
2	3780.0000	60.11	-13.80	46.31	74.00	27.69	Vertical
3	4830.0000	66.71	-9.20	57.51	74.00	16.49	Vertical
4	8287.5000	54.58	-1.13	53.45	74.00	20.55	Vertical
5	11152.5000	53	4.11	57.11	74.00	16.89	Vertical
6	14077.5000	53	7.39	60.39	74.00	13.61	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1590.0000	47.28	-19.27	28.01	54.00	25.99	Vertical
2	3780.0000	46.65	-13.80	32.85	54.00	21.15	Vertical
3	4830.0000	52.70	-9.20	43.50	54.00	10.50	Vertical
4	8287.5000	42.85	-1.13	41.72	54.00	12.28	Vertical
5	11152.5000	42.94	4.11	47.05	54.00	6.95	Vertical
6	14077.5000	40.63	7.39	48.02	54.00	5.98	Vertical

Mode: IEEE 802.11n HT20
 Middle Frequency (2437 MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz
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PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1620.0000	64.33	-19.41	44.92	74.00	29.08	Horizontal
2	3172.5000	62.63	-15.18	47.45	74.00	26.55	Horizontal
3	4860.0000	60.06	-9.00	51.06	74.00	22.94	Horizontal
4	8010.0000	53.96	-0.48	53.48	74.00	20.52	Horizontal
5	10042.5000	52.82	1.61	54.43	74.00	19.57	Horizontal
6	14542.5000	52.19	7.83	60.02	74.00	13.98	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1620.0000	56.01	-19.41	36.60	54.00	17.40	Horizontal
2	3172.5000	44.83	-15.18	29.65	54.00	24.35	Horizontal
3	4860.0000	47.58	-9.00	38.58	54.00	15.42	Horizontal
4	8010.0000	43.29	-0.48	42.81	54.00	11.19	Horizontal
5	10042.5000	41.47	1.61	43.08	54.00	10.92	Horizontal
6	14542.5000	41.40	7.83	49.23	54.00	4.77	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	63.34	-19.47	43.87	74.00	30.13	Vertical
2	3780.0000	61.41	-13.80	47.61	74.00	26.39	Vertical
3	4875.0000	62.69	-8.90	53.79	74.00	20.21	Vertical
4	7972.5000	52.86	-0.57	52.29	74.00	21.71	Vertical
5	11257.5000	52.52	4.29	56.81	74.00	17.19	Vertical
6	14542.5000	51.67	7.83	59.50	74.00	14.50	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	55.93	-19.47	36.46	54.00	17.54	Vertical
2	3780.0000	46.29	-13.80	32.49	54.00	21.51	Vertical
3	4875.0000	50.97	-8.90	42.07	54.00	11.93	Vertical
4	7972.5000	42.91	-0.57	42.34	54.00	11.66	Vertical
5	11257.5000	41.99	4.29	46.28	54.00	7.72	Vertical
6	14542.5000	43.14	7.83	50.97	54.00	3.03	Vertical

Mode: IEEE 802.11n HT20
 Highest Frequency (2462MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz
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PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1620.0000	63.77	-19.41	44.36	74.00	29.64	Horizontal
2	3195.0000	63.29	-15.16	48.13	74.00	25.87	Horizontal
3	3780.0000	61.69	-13.80	47.89	74.00	26.11	Horizontal
4	4860.0000	61.06	-9.00	52.06	74.00	21.94	Horizontal
5	8032.5000	53.96	-0.54	53.42	74.00	20.58	Horizontal
6	14535.0000	52.26	7.82	60.08	74.00	13.92	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1620.0000	52.79	-19.41	33.38	54.00	20.62	Horizontal
2	3195.0000	45.45	-15.16	30.29	54.00	23.71	Horizontal
3	3780.0000	47.26	-13.80	33.46	54.00	20.54	Horizontal
4	4860.0000	47.32	-9.00	38.32	54.00	15.68	Horizontal
5	8032.5000	41.92	-0.54	41.38	54.00	12.62	Horizontal
6	14535.0000	42.16	7.82	49.98	54.00	4.02	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	62.51	-19.47	43.04	74.00	30.96	Vertical
2	3780.0000	61.69	-13.80	47.89	74.00	26.11	Vertical
3	4920.0000	62.42	-8.60	53.82	74.00	20.18	Vertical
4	7867.5000	53.59	-0.98	52.61	74.00	21.39	Vertical
5	11205.0000	53.09	4.20	57.29	74.00	16.71	Vertical
6	14010.0000	51.76	7.32	59.08	74.00	14.92	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	54.24	-19.47	34.77	54.00	19.23	Vertical
2	3780.0000	46.42	-13.80	32.62	54.00	21.38	Vertical
3	4920.0000	50.03	-8.60	41.43	54.00	12.57	Vertical
4	7867.5000	41.92	-0.98	40.94	54.00	13.06	Vertical
5	11205.0000	42.79	4.20	46.99	54.00	7.01	Vertical
6	14010.0000	41.34	7.32	48.66	54.00	5.34	Vertical

Mode: IEEE 802.11n HT40
 Lowest Frequency (2422MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz
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PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.28	-19.47	40.81	74.00	33.19	Horizontal
2	3165.0000	63.16	-15.19	47.97	74.00	26.03	Horizontal
3	4860.0000	57.99	-9.00	48.99	74.00	25.01	Horizontal
4	7057.5000	54.74	-3.31	51.43	74.00	22.57	Horizontal
5	10785.0000	53.02	3.70	56.72	74.00	17.28	Horizontal
6	13980.0000	52.44	7.20	59.64	74.00	14.36	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.99	-19.47	33.52	54.00	20.48	Horizontal
2	3165.0000	45.59	-15.19	30.40	54.00	23.60	Horizontal
3	4860.0000	45.31	-9.00	36.31	54.00	17.69	Horizontal
4	7057.5000	41.81	-3.31	38.50	54.00	15.50	Horizontal
5	10785.0000	41.08	3.70	44.78	54.00	9.22	Horizontal
6	13980.0000	41.07	7.20	48.27	54.00	5.73	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.04	-19.47	40.57	74.00	33.43	Vertical
2	3997.5000	57.78	-12.99	44.79	74.00	29.21	Vertical
3	4860.0000	58.82	-9.00	49.82	74.00	24.18	Vertical
4	6742.5000	54.79	-4.25	50.54	74.00	23.46	Vertical
5	11145.0000	52.89	4.10	56.99	74.00	17.01	Vertical
6	14550.0000	52.06	7.83	59.89	74.00	14.11	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	51.21	-19.47	31.74	54.00	22.26	Vertical
2	3997.5000	45.80	-12.99	32.81	54.00	21.19	Vertical
3	4860.0000	45.37	-9.00	36.37	54.00	17.63	Vertical
4	6742.5000	43.21	-4.25	38.96	54.00	15.04	Vertical
5	11145.0000	43.31	4.10	47.41	54.00	6.59	Vertical
6	14550.0000	41.51	7.83	49.34	54.00	4.66	Vertical

Mode: IEEE 802.11n HT40
 Middle Frequency (2437 MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz
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PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.37	-19.47	40.90	74.00	33.10	Horizontal
2	3165.0000	63.34	-15.19	48.15	74.00	25.85	Horizontal
3	4245.0000	57.53	-12.20	45.33	74.00	28.67	Horizontal
4	5317.5000	56.15	-7.71	48.44	74.00	25.56	Horizontal
5	9952.5000	53.74	1.38	55.12	74.00	18.88	Horizontal
6	14527.5000	51.7	7.82	59.52	74.00	14.48	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.51	-19.47	33.04	54.00	20.96	Horizontal
2	3165.0000	45.32	-15.19	30.13	54.00	23.87	Horizontal
3	4245.0000	45.35	-12.20	33.15	54.00	20.85	Horizontal
4	5317.5000	44.71	-7.71	37.00	54.00	17.00	Horizontal
5	9952.5000	42.35	1.38	43.73	54.00	10.27	Horizontal
6	14527.5000	41.32	7.82	49.14	54.00	4.86	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.93	-19.47	41.46	74.00	32.54	Vertical
2	3997.5000	57.18	-12.99	44.19	74.00	29.81	Vertical
3	6277.5000	53.03	-6.15	46.88	74.00	27.12	Vertical
4	7942.5000	53.83	-0.69	53.14	74.00	20.86	Vertical
5	11625.0000	52.42	4.59	57.01	74.00	16.99	Vertical
6	14767.5000	53.22	7.92	61.14	74.00	12.86	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.21	-19.47	32.74	54.00	21.26	Vertical
2	3997.5000	46.78	-12.99	33.79	54.00	20.21	Vertical
3	6277.5000	42.46	-6.15	36.31	54.00	17.69	Vertical
4	7942.5000	42.78	-0.69	42.09	54.00	11.91	Vertical
5	11625.0000	42.06	4.59	46.65	54.00	7.35	Vertical
6	14767.5000	41.52	7.92	49.44	54.00	4.56	Vertical

Mode: IEEE 802.11n HT40
 Highest Frequency (2452MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.36	-19.47	40.89	74.00	33.11	Horizontal
2	3165.0000	63.74	-15.19	48.55	74.00	25.45	Horizontal
3	3997.5000	57.7	-12.99	44.71	74.00	29.29	Horizontal
4	4860.0000	58.68	-9.00	49.68	74.00	24.32	Horizontal
5	7867.5000	54.67	-0.98	53.69	74.00	20.31	Horizontal
6	13102.5000	52.5	5.60	58.10	74.00	15.90	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.80	-19.47	33.33	54.00	20.67	Horizontal
2	3165.0000	44.51	-15.19	29.32	54.00	24.68	Horizontal
3	3997.5000	45.88	-12.99	32.89	54.00	21.11	Horizontal
4	4860.0000	44.60	-9.00	35.60	54.00	18.40	Horizontal
5	7867.5000	42.28	-0.98	41.30	54.00	12.70	Horizontal
6	13102.5000	40.25	5.60	45.85	54.00	8.15	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1586.0000	64.22	-19.28	44.94	74.00	29.06	Vertical
2	3997.5000	57.36	-12.99	44.37	74.00	29.63	Vertical
3	4860.0000	59.15	-9.00	50.15	74.00	23.85	Vertical
4	7275.0000	54.12	-2.87	51.25	74.00	22.75	Vertical
5	11152.5000	52.7	4.11	56.81	74.00	17.19	Vertical
6	14542.5000	51.75	7.83	59.58	74.00	14.42	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1586.0000	45.45	-19.28	26.17	54.00	27.83	Vertical
2	3997.5000	45.56	-12.99	32.57	54.00	21.43	Vertical
3	4860.0000	46.11	-9.00	37.11	54.00	16.89	Vertical
4	7275.0000	42.15	-2.87	39.28	54.00	14.72	Vertical
5	11152.5000	42.61	4.11	46.72	54.00	7.28	Vertical
6	14542.5000	41.79	7.83	49.62	54.00	4.38	Vertical

Mode: IEEE 802.11ax HE20
 Lowest Frequency (2412MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz
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PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.41	-19.47	40.94	74.00	33.06	Horizontal
2	1728.0000	57.61	-20.12	37.49	74.00	36.51	Horizontal
3	3172.5000	60.99	-15.18	45.81	74.00	28.19	Horizontal
4	4965.0000	57.13	-8.30	48.83	74.00	25.17	Horizontal
5	7860.0000	55.12	-1.01	54.11	74.00	19.89	Horizontal
6	14535.0000	52.67	7.82	60.49	74.00	13.51	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.09	-19.47	32.62	54.00	21.38	Horizontal
2	1728.0000	47.51	-20.12	27.39	54.00	26.61	Horizontal
3	3172.5000	45.22	-15.18	30.04	54.00	23.96	Horizontal
4	4965.0000	43.80	-8.30	35.50	54.00	18.50	Horizontal
5	7860.0000	43.40	-1.01	42.39	54.00	11.61	Horizontal
6	14535.0000	38.65	7.82	46.47	54.00	7.53	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1592.0000	64.38	-19.26	45.12	74.00	28.88	Vertical
2	3997.5000	56.97	-12.99	43.98	74.00	30.02	Vertical
3	4860.0000	59.21	-9.00	50.21	74.00	23.79	Vertical
4	7987.5000	53.68	-0.51	53.17	74.00	20.83	Vertical
5	11025.0000	52.43	3.89	56.32	74.00	17.68	Vertical
6	14542.5000	52.21	7.83	60.04	74.00	13.96	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1592.0000	45.22	-19.26	25.96	54.00	28.04	Vertical
2	3997.5000	45.90	-12.99	32.91	54.00	21.09	Vertical
3	4860.0000	45.69	-9.00	36.69	54.00	17.31	Vertical
4	7987.5000	43.51	-0.51	43.00	54.00	11.00	Vertical
5	11025.0000	40.76	3.89	44.65	54.00	9.35	Vertical
6	14542.5000	42.99	7.83	50.82	54.00	3.18	Vertical

Mode: IEEE 802.11ax HE20
 Middle Frequency (2437 MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.54	-19.47	41.07	74.00	32.93	Horizontal
2	3997.5000	58.5	-12.99	45.51	74.00	28.49	Horizontal
3	4860.0000	58.28	-9.00	49.28	74.00	24.72	Horizontal
4	7987.5000	54.05	-0.51	53.54	74.00	20.46	Horizontal
5	11797.5000	53.14	4.43	57.57	74.00	16.43	Horizontal
6	14542.5000	51.96	7.83	59.79	74.00	14.21	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	53.04	-19.47	33.57	54.00	20.43	Horizontal
2	3997.5000	46.45	-12.99	33.46	54.00	20.54	Horizontal
3	4860.0000	44.87	-9.00	35.87	54.00	18.13	Horizontal
4	7987.5000	43.12	-0.51	42.61	54.00	11.39	Horizontal
5	11797.5000	41.27	4.43	45.70	54.00	8.30	Horizontal
6	14542.5000	41.64	7.83	49.47	54.00	4.53	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1590.0000	65.41	-19.27	46.14	74.00	27.86	Vertical
2	3397.5000	59.49	-14.95	44.54	74.00	29.46	Vertical
3	4860.0000	56.68	-9.00	47.68	74.00	26.32	Vertical
4	7687.5000	53.04	-1.69	51.35	74.00	22.65	Vertical
5	11152.5000	53.27	4.11	57.38	74.00	16.62	Vertical
6	14302.5000	51.68	7.61	59.29	74.00	14.71	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1590.0000	47.31	-19.27	28.04	54.00	25.96	Vertical
2	3397.5000	43.61	-14.95	28.66	54.00	25.34	Vertical
3	4860.0000	44.80	-9.00	35.80	54.00	18.20	Vertical
4	7687.5000	42.87	-1.69	41.18	54.00	12.82	Vertical
5	11152.5000	43.70	4.11	47.81	54.00	6.19	Vertical
6	14302.5000	41.71	7.61	49.32	54.00	4.68	Vertical

Mode: IEEE 802.11ax HE20
 Highest Frequency (2462MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz
 /

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1624.0000	59.6	-19.44	40.16	74.00	33.84	Horizontal
2	2658.0000	62.23	-18.18	44.05	74.00	29.95	Horizontal
3	3172.5000	62.25	-15.18	47.07	74.00	26.93	Horizontal
4	4860.0000	58.9	-9.00	49.90	74.00	24.10	Horizontal
5	11992.5000	52.46	4.25	56.71	74.00	17.29	Horizontal
6	14527.5000	51.4	7.82	59.22	74.00	14.78	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1624.0000	49.51	-19.44	30.07	54.00	23.93	Horizontal
2	2658.0000	45.58	-18.18	27.40	54.00	26.60	Horizontal
3	3172.5000	44.89	-15.18	29.71	54.00	24.29	Horizontal
4	4860.0000	45.55	-9.00	36.55	54.00	17.45	Horizontal
5	11992.5000	42.28	4.25	46.53	54.00	7.47	Horizontal
6	14527.5000	41.73	7.82	49.55	54.00	4.45	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.18	-19.47	40.71	74.00	33.29	Vertical
2	3412.5000	60.5	-14.93	45.57	74.00	28.43	Vertical
3	5137.5000	55.01	-7.91	47.10	74.00	26.90	Vertical
4	7920.0000	53.57	-0.77	52.80	74.00	21.20	Vertical
5	10702.5000	52.73	3.64	56.37	74.00	17.63	Vertical
6	14542.5000	52.44	7.83	60.27	74.00	13.73	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	51.94	-19.47	32.47	54.00	21.53	Vertical
2	3412.5000	45.26	-14.93	30.33	54.00	23.67	Vertical
3	5137.5000	44.01	-7.91	36.10	54.00	17.90	Vertical
4	7920.0000	43.34	-0.77	42.57	54.00	11.43	Vertical
5	10702.5000	41.96	3.64	45.60	54.00	8.40	Vertical
6	14542.5000	41.75	7.83	49.58	54.00	4.42	Vertical

Mode: IEEE 802.11ax HE40
 Lowest Frequency (2422MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.52	-19.47	41.05	74.00	32.95	Horizontal
2	4860.0000	58.54	-9.00	49.54	74.00	24.46	Horizontal
3	7680.0000	54.02	-1.71	52.31	74.00	21.69	Horizontal
4	10860.0000	53.21	3.75	56.96	74.00	17.04	Horizontal
5	14070.0000	52.37	7.38	59.75	74.00	14.25	Horizontal
6	17647.5000	45.2	15.89	61.09	74.00	12.91	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	53.29	-19.47	33.82	54.00	20.18	Horizontal
2	4860.0000	45.24	-9.00	36.24	54.00	17.76	Horizontal
3	7680.0000	42.85	-1.71	41.14	54.00	12.86	Horizontal
4	10860.0000	40.80	3.75	44.55	54.00	9.45	Horizontal
5	14070.0000	41.54	7.38	48.92	54.00	5.08	Horizontal
6	17647.5000	27.09	15.89	42.98	54.00	11.02	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.91	-19.47	41.44	74.00	32.56	Vertical
2	3397.5000	59.14	-14.95	44.19	74.00	29.81	Vertical
3	4965.0000	55.1	-8.30	46.80	74.00	27.20	Vertical
4	6750.0000	54.96	-4.23	50.73	74.00	23.27	Vertical
5	9157.5000	52.98	0.18	53.16	74.00	20.84	Vertical
6	11602.5000	52.65	4.61	57.26	74.00	16.74	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	47.22	-19.47	27.75	54.00	26.25	Vertical
2	3397.5000	45.10	-14.95	30.15	54.00	23.85	Vertical
3	4965.0000	44.09	-8.30	35.79	54.00	18.21	Vertical
4	6750.0000	43.71	-4.23	39.48	54.00	14.52	Vertical
5	9157.5000	43.21	0.18	43.39	54.00	10.61	Vertical
6	11602.5000	42.29	4.61	46.90	54.00	7.10	Vertical

Mode: IEEE 802.11ax HE40
 Middle Frequency (2437 MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz
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PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	61.19	-19.47	41.72	74.00	32.28	Horizontal
2	3172.5000	63.24	-15.18	48.06	74.00	25.94	Horizontal
3	4965.0000	54.98	-8.30	46.68	74.00	27.32	Horizontal
4	7920.0000	54.02	-0.77	53.25	74.00	20.75	Horizontal
5	10867.5000	51.71	3.76	55.47	74.00	18.53	Horizontal
6	14767.5000	52.47	7.92	60.39	74.00	13.61	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	50.77	-19.47	31.30	54.00	22.70	Horizontal
2	3172.5000	45.01	-15.18	29.83	54.00	24.17	Horizontal
3	4965.0000	44.08	-8.30	35.78	54.00	18.22	Horizontal
4	7920.0000	42.91	-0.77	42.14	54.00	11.86	Horizontal
5	10867.5000	41.08	3.76	44.84	54.00	9.16	Horizontal
6	14767.5000	40.06	7.92	47.98	54.00	6.02	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.94	-19.47	41.47	74.00	32.53	Vertical
2	3405.0000	58.95	-14.94	44.01	74.00	29.99	Vertical
3	4860.0000	59.28	-9.00	50.28	74.00	23.72	Vertical
4	8025.0000	53.47	-0.52	52.95	74.00	21.05	Vertical
5	12382.5000	52.43	3.89	56.32	74.00	17.68	Vertical
6	14767.5000	52.01	7.92	59.93	74.00	14.07	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.16	-19.47	32.69	54.00	21.31	Vertical
2	3405.0000	44.53	-14.94	29.59	54.00	24.41	Vertical
3	4860.0000	46.15	-9.00	37.15	54.00	16.85	Vertical
4	8025.0000	42.96	-0.52	42.44	54.00	11.56	Vertical
5	12382.5000	42.36	3.89	46.25	54.00	7.75	Vertical
6	14767.5000	41.25	7.92	49.17	54.00	4.83	Vertical

Mode: IEEE 802.11ax HE40
 Highest Frequency (2452MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022/05/05
 Voltage: AC120V/60Hz
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PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	61.09	-19.47	41.62	74.00	32.38	Horizontal
2	3180.0000	63.23	-15.17	48.06	74.00	25.94	Horizontal
3	4860.0000	57.58	-9.00	48.58	74.00	25.42	Horizontal
4	8362.5000	54.87	-1.31	53.56	74.00	20.44	Horizontal
5	11205.0000	52.17	4.20	56.37	74.00	17.63	Horizontal
6	14055.0000	52.51	7.37	59.88	74.00	14.12	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.23	-19.47	32.76	54.00	21.24	Horizontal
2	3180.0000	46.46	-15.17	31.29	54.00	22.71	Horizontal
3	4860.0000	44.00	-9.00	35.00	54.00	19.00	Horizontal
4	8362.5000	43.85	-1.31	42.54	54.00	11.46	Horizontal
5	11205.0000	42.18	4.20	46.38	54.00	7.62	Horizontal
6	14055.0000	41.35	7.37	48.72	54.00	5.28	Horizontal

PK Final Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	1512.0000	60.16	-19.47	40.69	74.00	33.31	Vertical
2	1728.0000	59.54	-20.12	39.42	74.00	34.58	Vertical
3	3172.5000	62.02	-15.18	46.84	74.00	27.16	Vertical
4	4965.0000	56.1	-8.30	47.80	74.00	26.20	Vertical
5	9202.5000	53.39	0.28	53.67	74.00	20.33	Vertical
6	12060.0000	53	4.18	57.18	74.00	16.82	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Reading [dBμV/m]	Factor [dB]	AV Level [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1512.0000	52.13	-19.47	32.66	54.00	21.34	Vertical
2	1728.0000	48.40	-20.12	28.28	54.00	25.72	Vertical
3	3172.5000	45.55	-15.18	30.37	54.00	23.63	Vertical
4	4965.0000	44.46	-8.30	36.16	54.00	17.84	Vertical
5	9202.5000	42.84	0.28	43.12	54.00	10.88	Vertical
6	12060.0000	41.01	4.18	45.19	54.00	8.81	Vertical

18GHz-26.5GHz:

Pre-scan all modes and recorded the worst case results in this report (IEEE 802.11b)
The peak test results is less than the average limits, so the average test results had not reported.

Mode: IEEE 802.11b

Lowest Frequency (2412MHz)

Environment: 25°C/60%RH

Tested By: Liu lingfeng

Date: 2022-05-07

Voltage: AC120V/60Hz

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Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	18978.4785	48.62	-6.65	41.97	83.54	41.57	Horizontal
2	20986.4865	47.75	-6.72	41.03	83.54	42.51	Horizontal
3	21701.2012	50.75	-6.97	43.78	83.54	39.76	Horizontal
4	23088.0881	47.64	-5.29	42.35	83.54	41.19	Horizontal
5	23836.8368	45.79	-5.77	40.02	83.54	43.52	Horizontal
6	25521.5215	46.61	-4.79	41.82	83.54	41.72	Horizontal

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	19310.3103	48.94	-6.81	42.13	83.54	41.41	Vertical
2	20969.4695	47.35	-6.72	40.63	83.54	42.91	Vertical
3	22203.2032	48.93	-6.70	42.23	83.54	41.31	Vertical
4	23113.6136	48.82	-5.30	43.52	83.54	40.02	Vertical
5	24432.4324	47.45	-5.40	42.05	83.54	41.49	Vertical
6	24976.9770	47.5	-4.81	42.69	83.54	40.85	Vertical

Note:

Above 18G test distance is 1m, so the Peak Limit=74+20*log(3/1)=83.54 (dBμV/m).

----- The following blanks -----

Mode: IEEE 802.11b
Middle Frequency (2437MHz)
Environment: 25°C/60%RH
Tested By: Liu lingfeng

Date: 2022-05-07
Voltage: AC120V/60Hz
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Suspected Data List							
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity
1	19148.6486	49.48	-6.72	42.76	83.54	40.78	Horizontal
2	20731.2312	46.2	-6.84	39.36	83.54	44.18	Horizontal
3	22126.6266	49.87	-6.85	43.02	83.54	40.52	Horizontal
4	23300.8008	46.5	-5.42	41.08	83.54	42.46	Horizontal
5	24560.0601	48.13	-5.26	42.87	83.54	40.67	Horizontal
6	25564.0641	47.31	-4.79	42.52	83.54	41.02	Horizontal

Suspected Data List							
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity
1	19004.0040	47.27	-6.64	40.63	83.54	42.91	Vertical
2	20280.2803	46.44	-7.06	39.38	83.54	44.16	Vertical
3	21122.6226	48.41	-6.76	41.65	83.54	41.89	Vertical
4	22279.7798	49.3	-6.56	42.74	83.54	40.8	Vertical
5	23317.8178	45.99	-5.43	40.56	83.54	42.98	Vertical
6	25045.0450	46.24	-4.78	41.46	83.54	42.08	Vertical

Note:

Above 18G test distance is 1m, so the Peak Limit=74+20*log(3/1)=83.54 (dBμV/m).

----- The following blanks -----

Mode: IEEE 802.11b
 Highest Frequency (2462MHz)
 Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Date: 2022-05-07
 Voltage: AC120V/60Hz
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Suspected Data List							
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	19114.6146	47.97	-6.70	41.27	83.54	42.27	Horizontal
2	21003.5035	48.79	-6.71	42.08	83.54	41.46	Horizontal
3	22526.5265	47.07	-6.11	40.96	83.54	42.58	Horizontal
4	23802.8028	47.44	-5.74	41.70	83.54	41.84	Horizontal
5	24993.9940	47.06	-4.79	42.27	83.54	41.27	Horizontal
6	25963.9640	46.4	-4.80	41.60	83.54	41.94	Horizontal

Suspected Data List							
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	19140.1401	48.46	-6.72	41.74	83.54	41.8	Vertical
2	20782.2823	46.85	-6.82	40.03	83.54	43.51	Vertical
3	22118.1181	49.31	-6.86	42.45	83.54	41.09	Vertical
4	23130.6306	48.32	-5.31	43.01	83.54	40.53	Vertical
5	23828.3283	47.73	-5.76	41.97	83.54	41.57	Vertical
6	24985.4855	46.38	-4.80	41.58	83.54	41.96	Vertical

Note:

Above 18G test distance is 1m, so the Peak Limit=74+20*log(3/1)=83.54 (dBμV/m).

----- The following blanks -----

7. 6DB BANDWIDTH

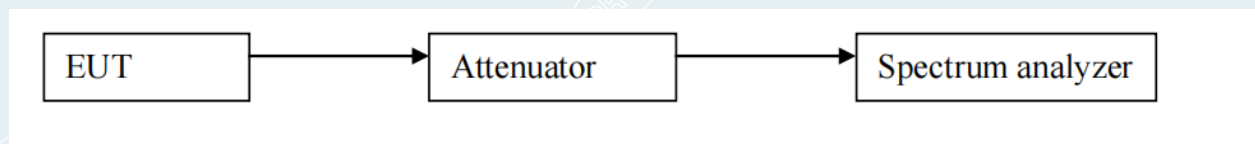
7.1. LIMITS

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

7.2. TEST PROCEDURES

- 1) Remove the antenna from the EUT, and then connect a low loss RF cable from antenna port to the spectrum analyzer.
- 2) Set resolution bandwidth (RBW) = 100kHz. Set the video bandwidth (VBW) $\geq 3 \times$ RBW. Detector = Peak. Trace mode = max hold. Sweep = auto couple. Allow the trace to stabilize, record 6dB bandwidth value.
- 3) Repeat above procedures until all frequencies measured were complete.

7.3. TEST SETUP



----- The following blanks -----

7.4. TEST RESULTS

Environment: 25°C/60%RH

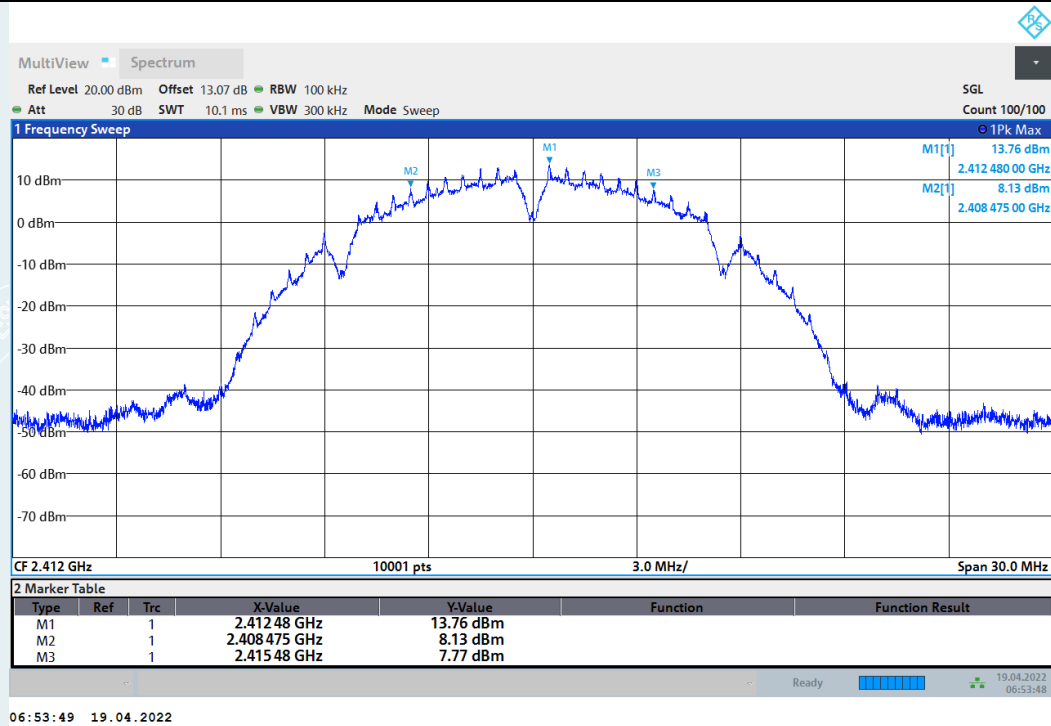
Tested By: Liu lingfeng

Voltage: AC120V/60Hz

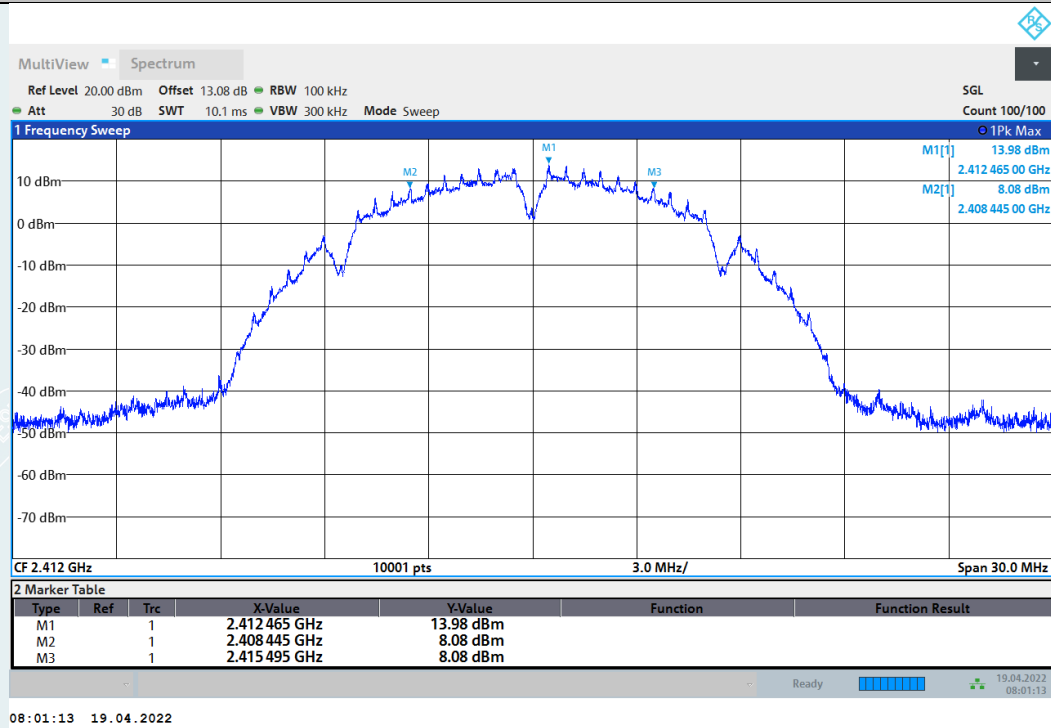
Date: 2022-4-19~4-27

TestMode	Antenna	Frequency[MHz]	DTS BW[MHz]	Limit[MHz]	Verdict
802.11b	Ant1	2412	7.005	≥ 0.5	PASS
	Ant2	2412	7.050	≥ 0.5	PASS
	Ant1	2437	7.041	≥ 0.5	PASS
	Ant2	2437	6.540	≥ 0.5	PASS
	Ant1	2462	7.056	≥ 0.5	PASS
	Ant2	2462	6.537	≥ 0.5	PASS
802.11g	Ant1	2412	16.314	≥ 0.5	PASS
	Ant2	2412	16.326	≥ 0.5	PASS
	Ant1	2437	16.332	≥ 0.5	PASS
	Ant2	2437	16.338	≥ 0.5	PASS
	Ant1	2462	16.341	≥ 0.5	PASS
	Ant2	2462	16.338	≥ 0.5	PASS
802.11n HT20	Ant1	2412	17.571	≥ 0.5	PASS
	Ant2	2412	17.562	≥ 0.5	PASS
	Ant1	2437	17.565	≥ 0.5	PASS
	Ant2	2437	17.568	≥ 0.5	PASS
	Ant1	2462	17.568	≥ 0.5	PASS
	Ant2	2462	17.580	≥ 0.5	PASS
802.11n HT40	Ant1	2422	36.054	≥ 0.5	PASS
	Ant2	2422	36.084	≥ 0.5	PASS
	Ant1	2437	36.078	≥ 0.5	PASS
	Ant2	2437	36.282	≥ 0.5	PASS
	Ant1	2452	36.084	≥ 0.5	PASS
	Ant2	2452	36.264	≥ 0.5	PASS
802.11ax HE20	Ant1	2412	17.559	≥ 0.5	PASS
	Ant2	2412	17.568	≥ 0.5	PASS
	Ant1	2437	17.562	≥ 0.5	PASS
	Ant2	2437	17.550	≥ 0.5	PASS
	Ant1	2462	17.568	≥ 0.5	PASS
	Ant2	2462	17.571	≥ 0.5	PASS
802.11ax HE40	Ant1	2422	36.288	≥ 0.5	PASS
	Ant2	2422	35.904	≥ 0.5	PASS
	Ant1	2437	36.036	≥ 0.5	PASS
	Ant2	2437	36.276	≥ 0.5	PASS
	Ant1	2452	36.264	≥ 0.5	PASS
	Ant2	2452	36.030	≥ 0.5	PASS

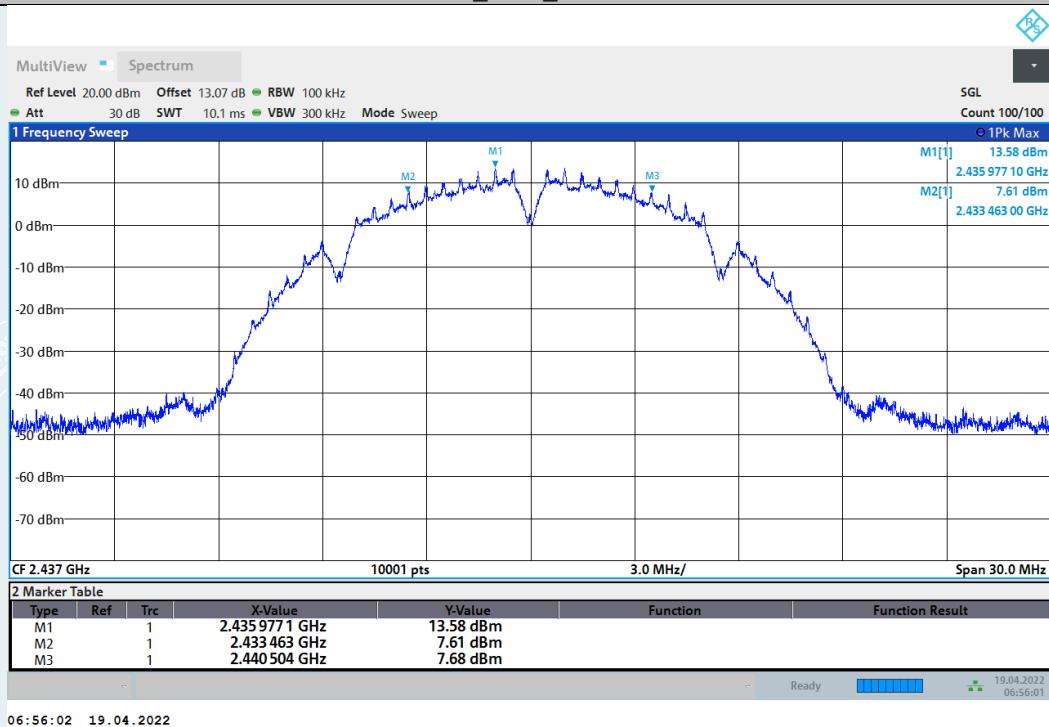
802.11b_Ant1_2412MHz



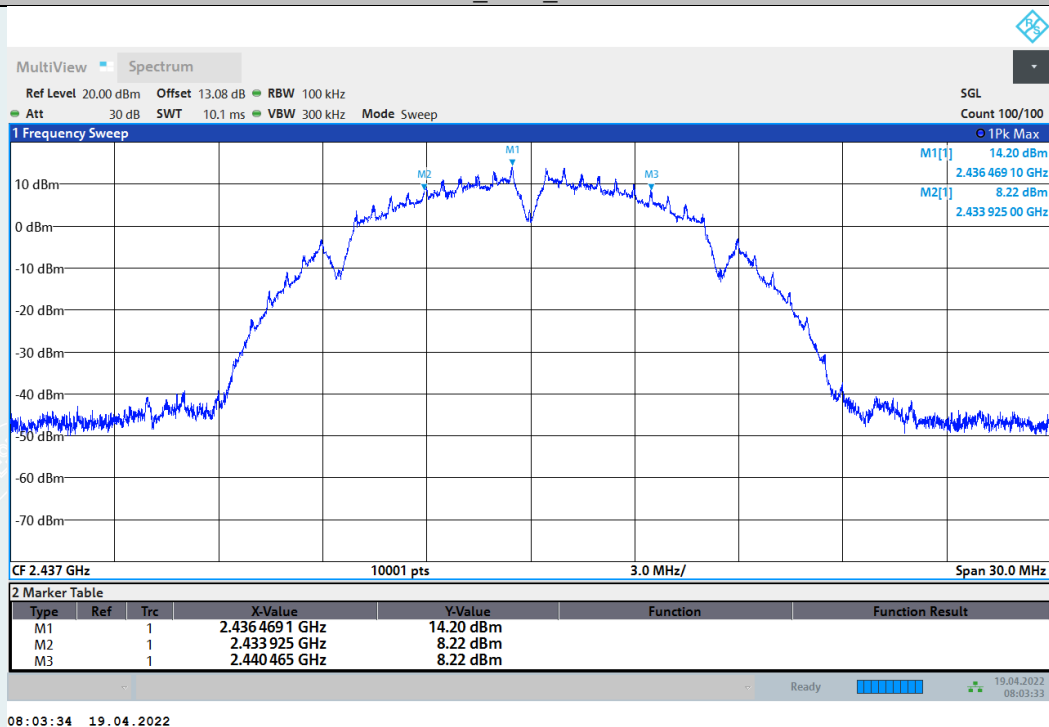
802.11b_Ant2_2412 MHz



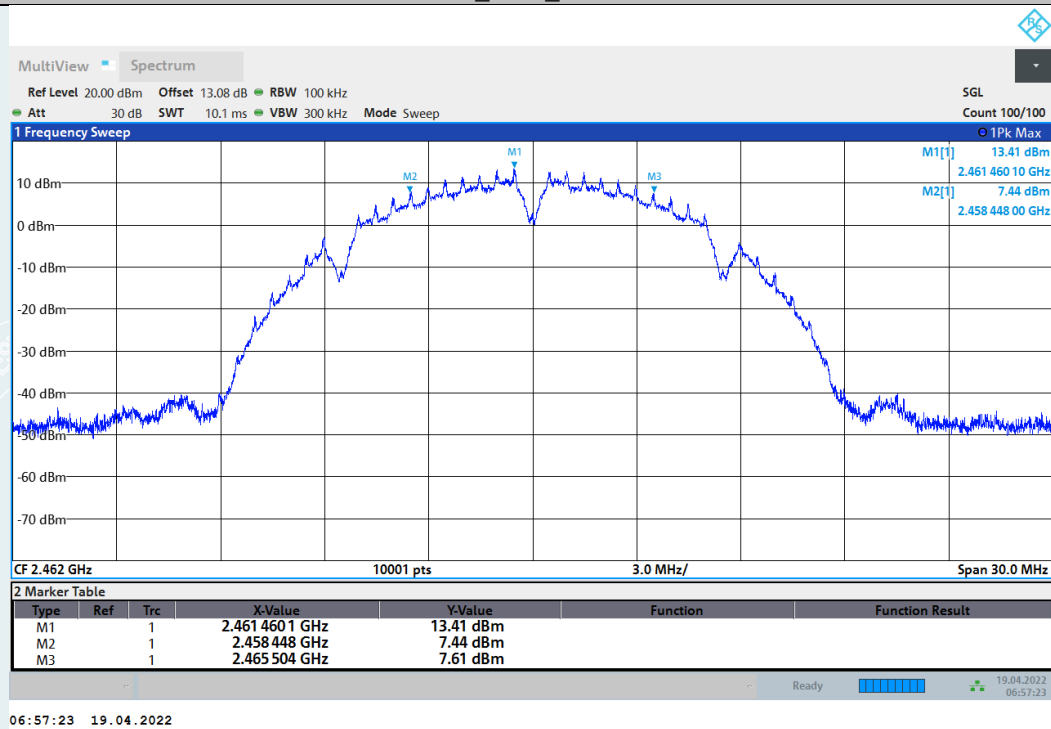
802.11b_Ant1_2437 MHz



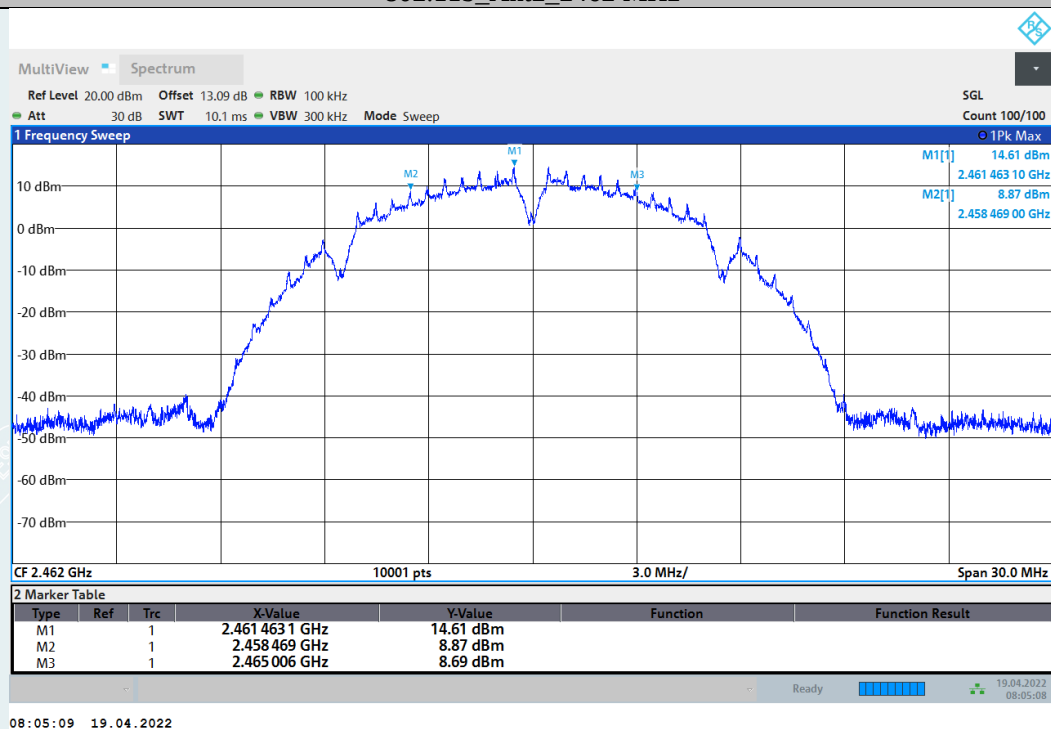
802.11b_Ant2_2437 MHz



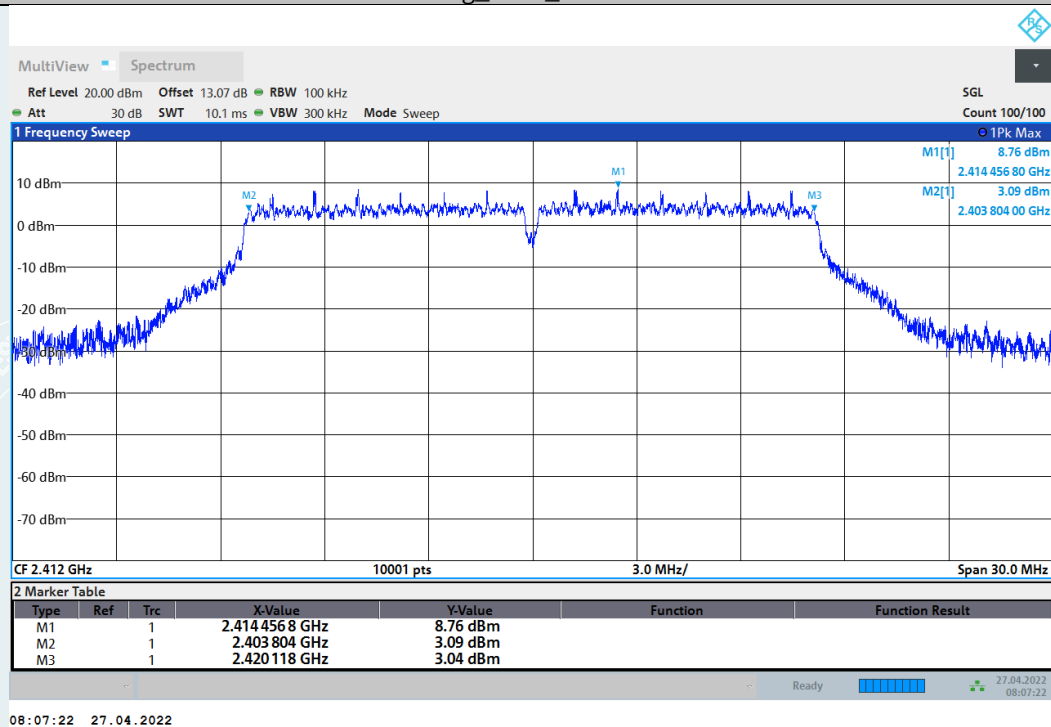
802.11b_Ant1_2462 MHz



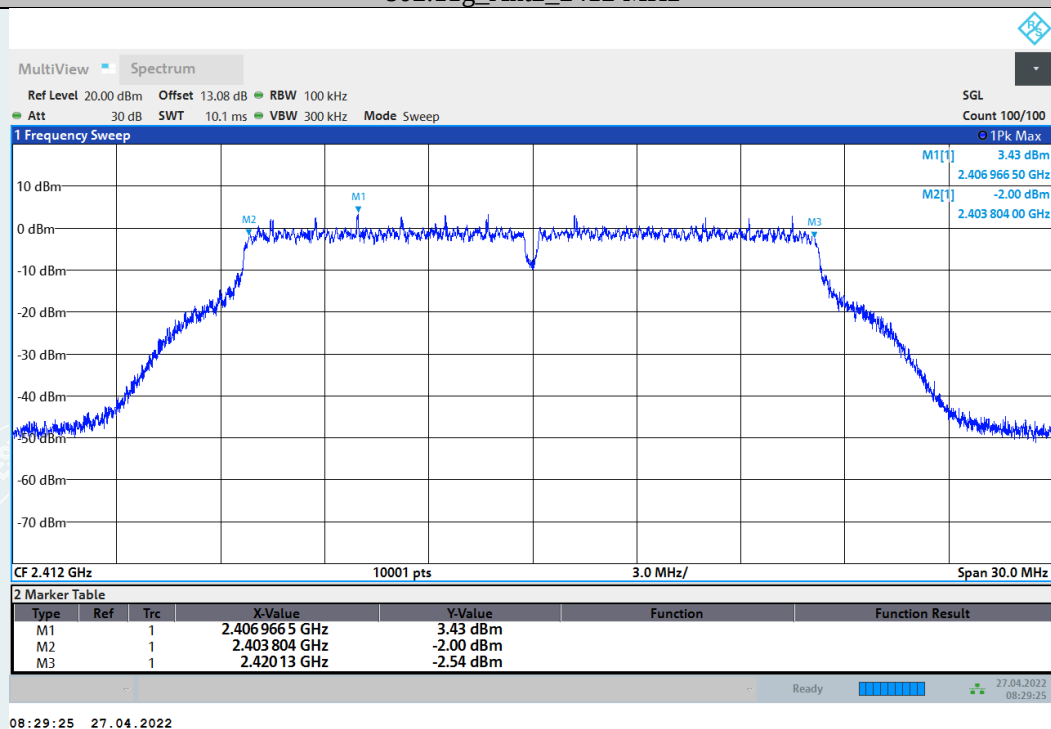
802.11b_Ant2_2462 MHz



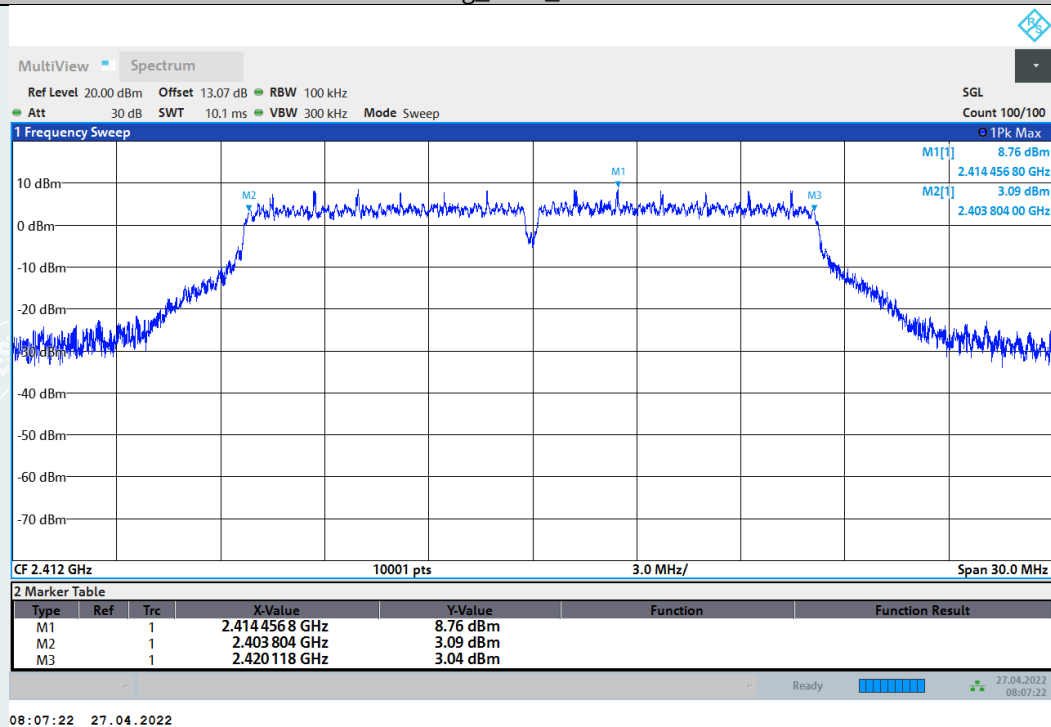
802.11g_Ant1_2412 MHz



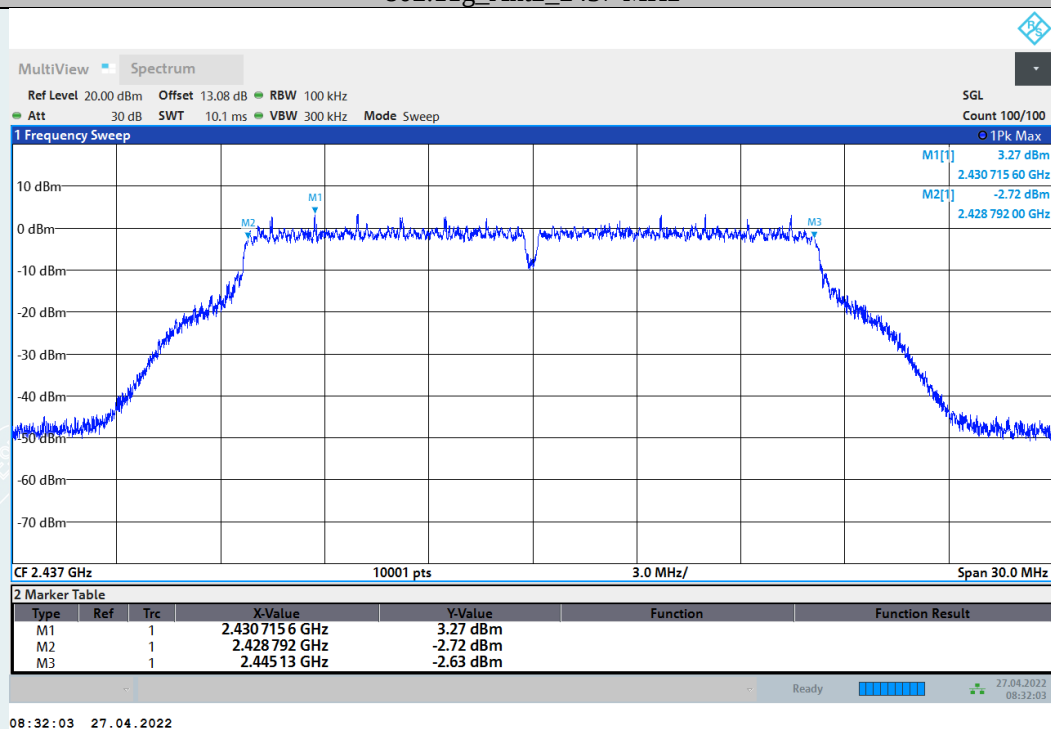
802.11g_Ant2_2412 MHz

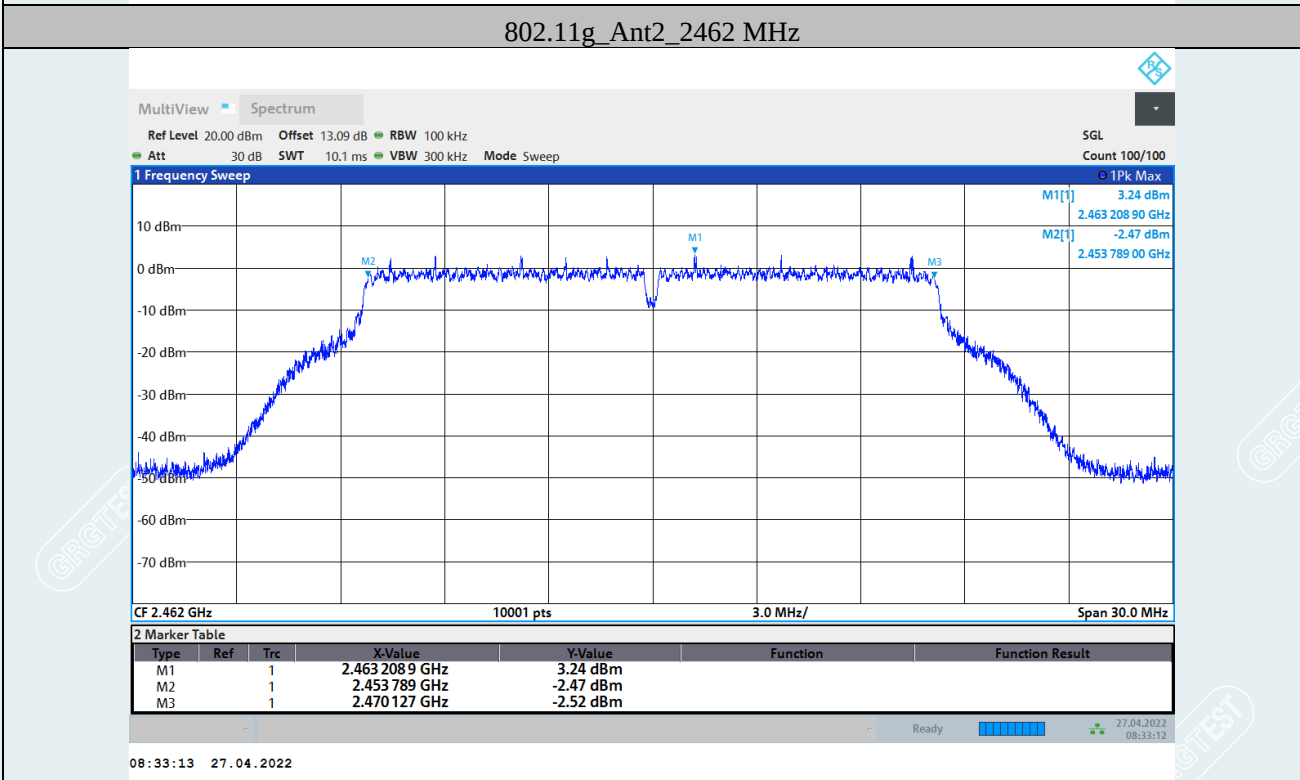
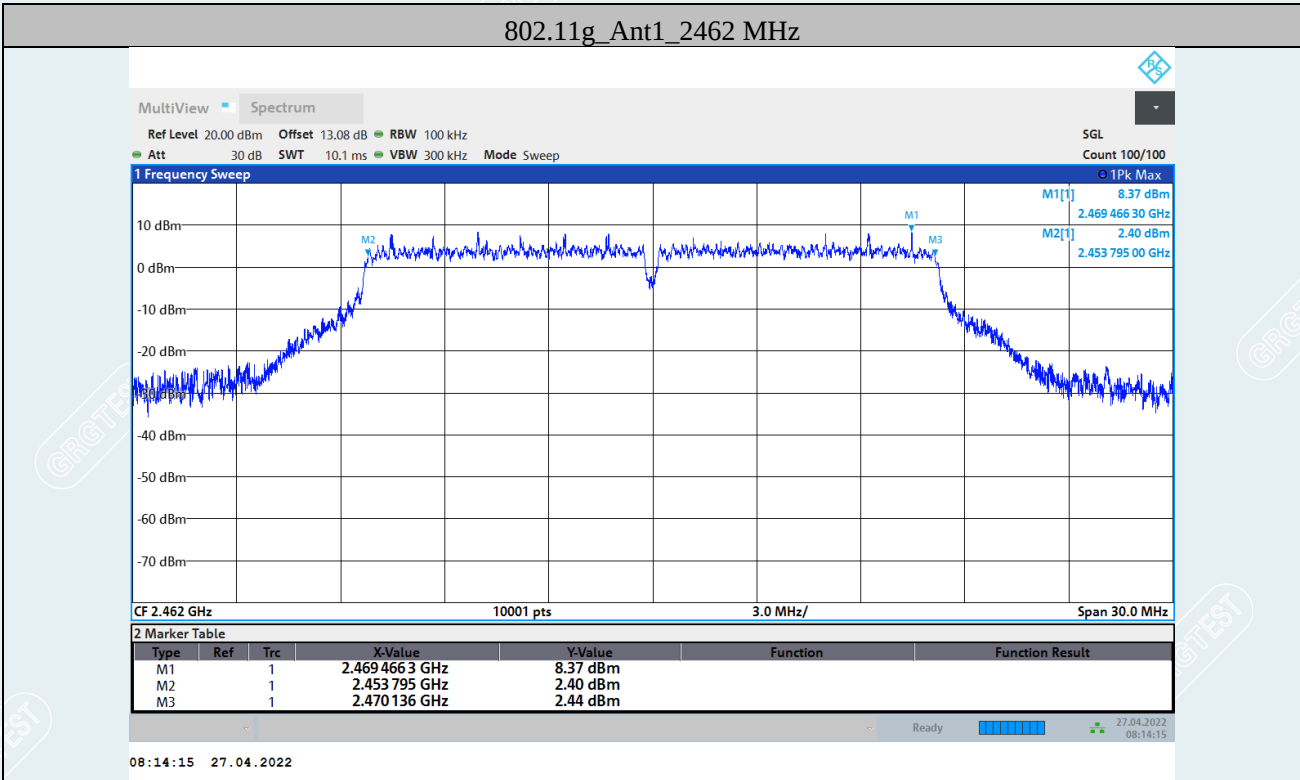


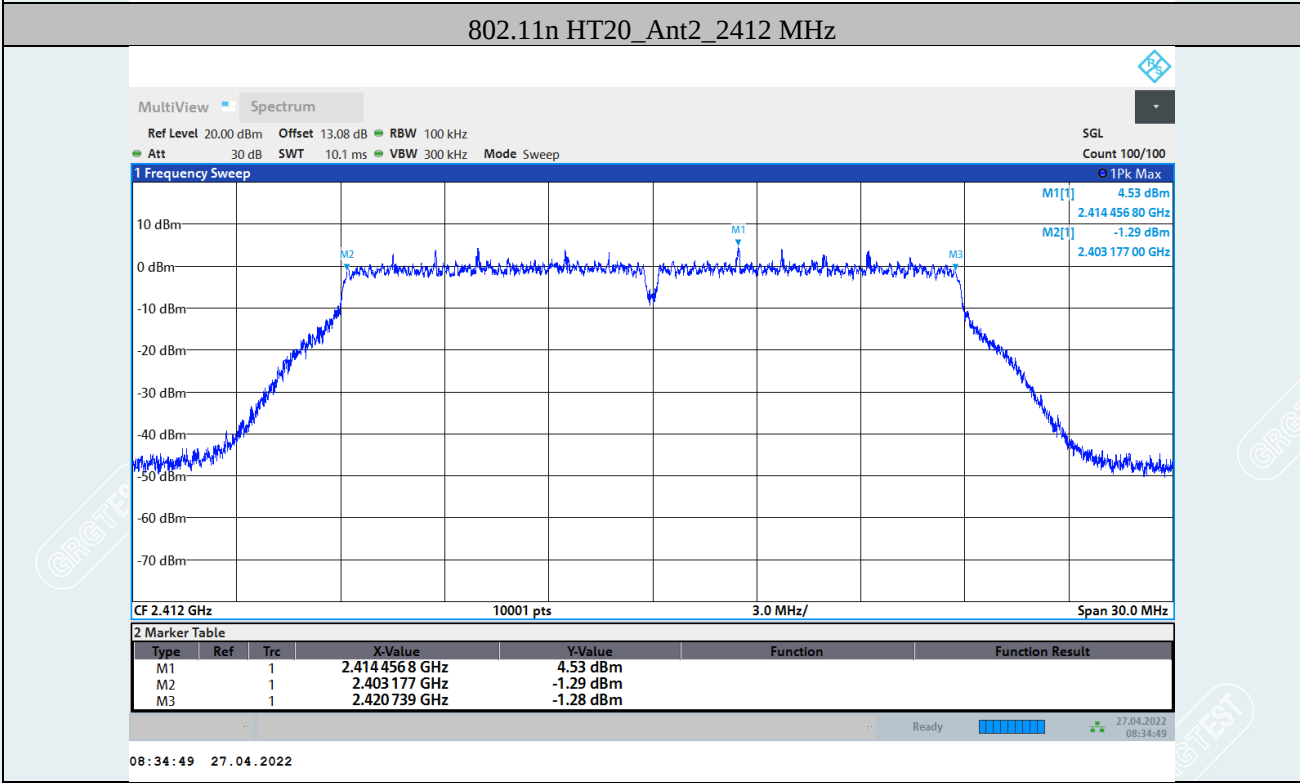
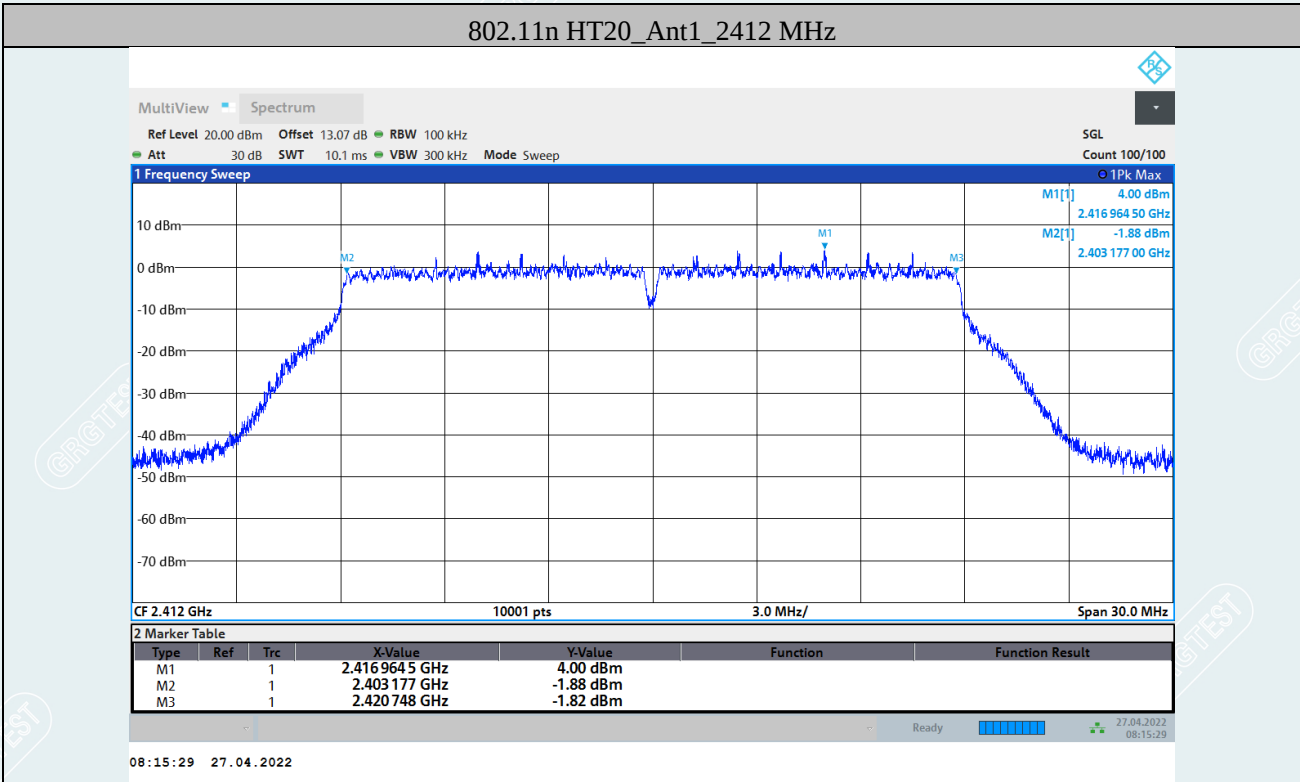
802.11g_Ant1_2437 MHz



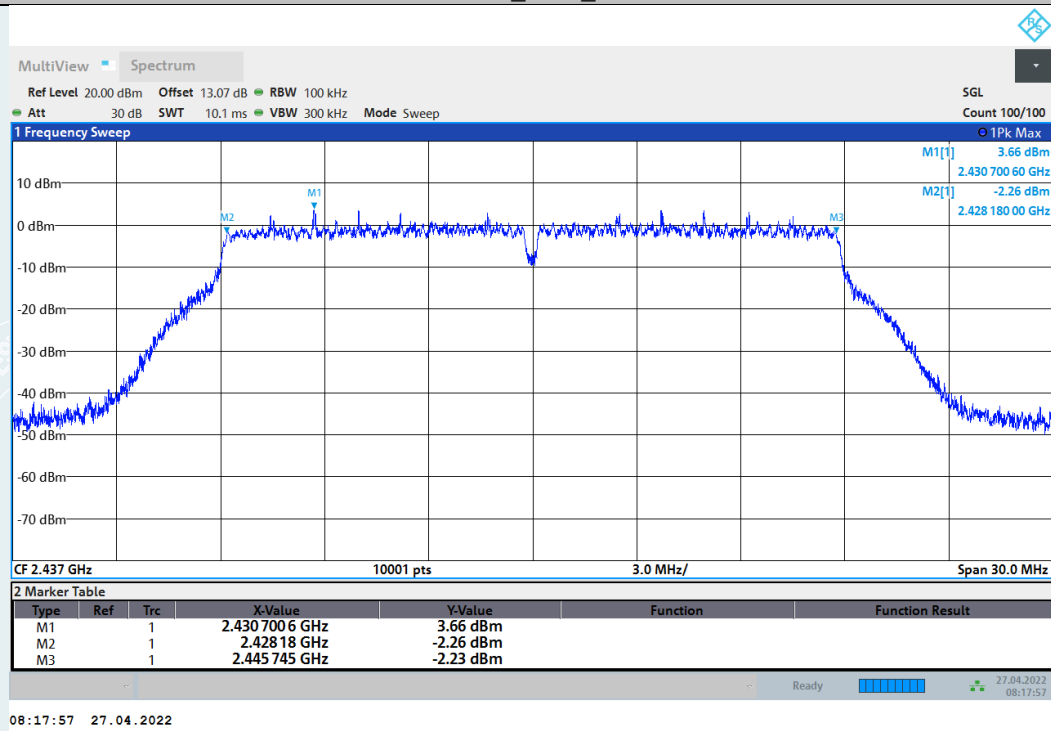
802.11g_Ant2_2437 MHz



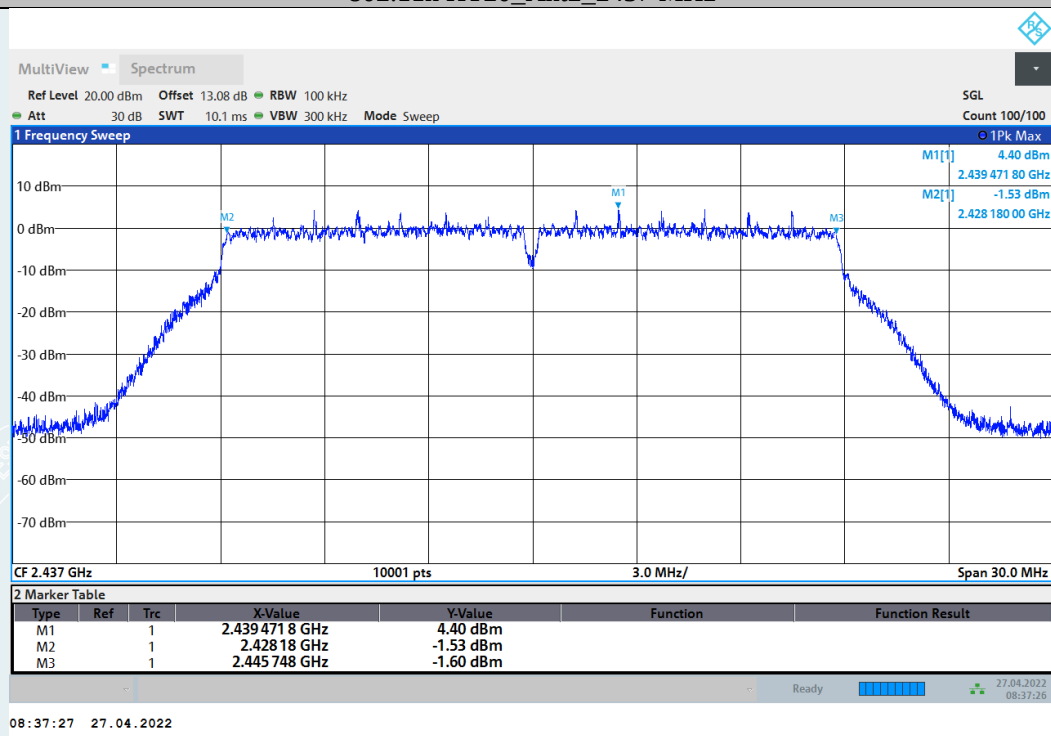




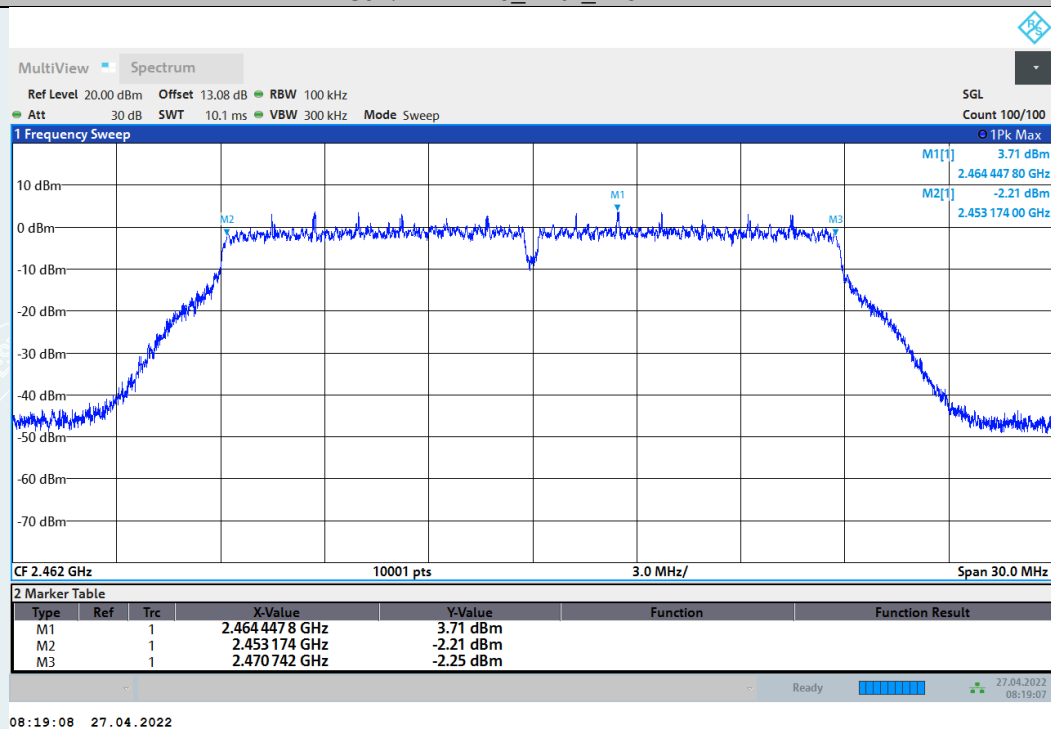
802.11n HT20_Ant1_2437 MHz



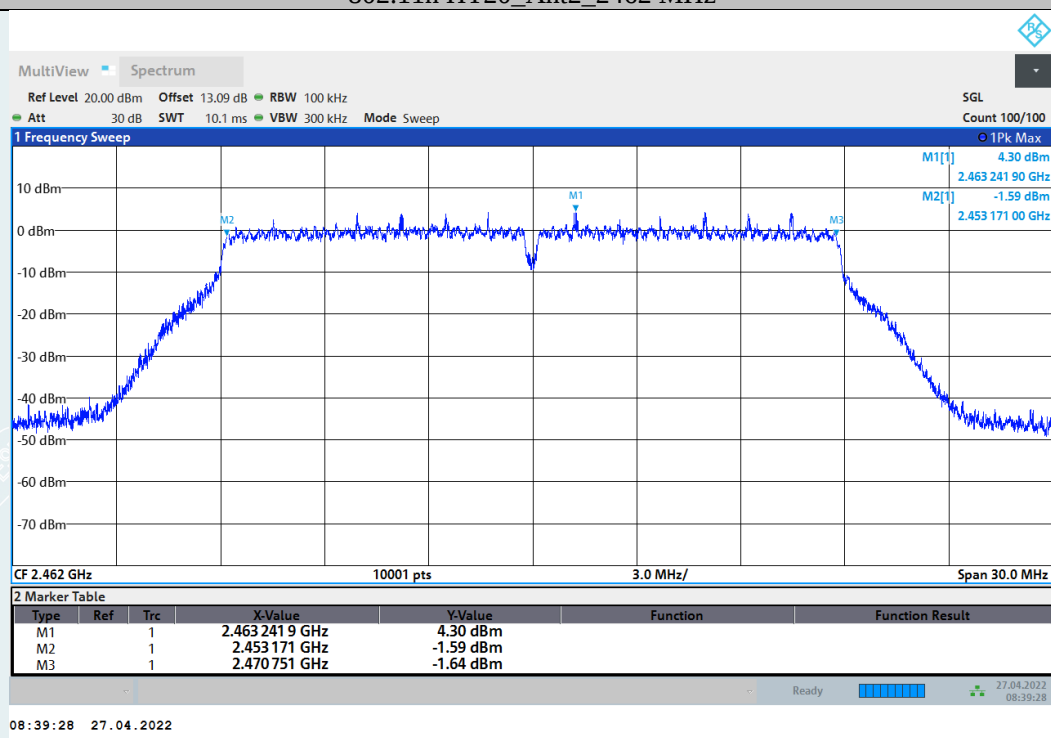
802.11n HT20_Ant2_2437 MHz



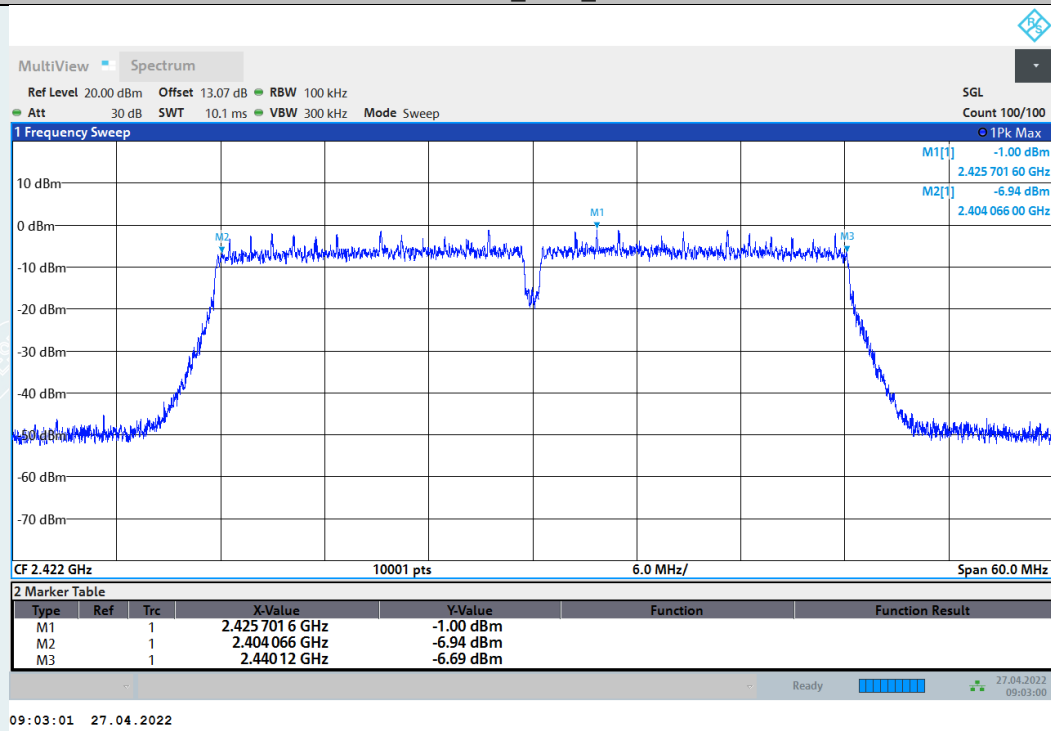
802.11n HT20_Ant1_2462 MHz



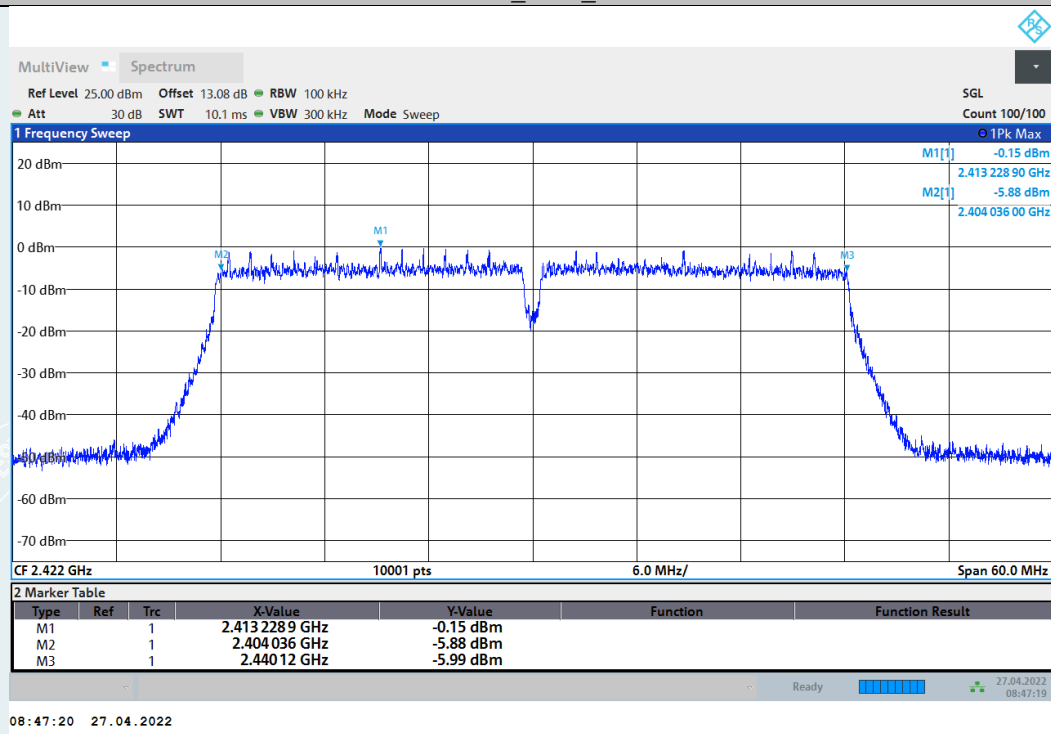
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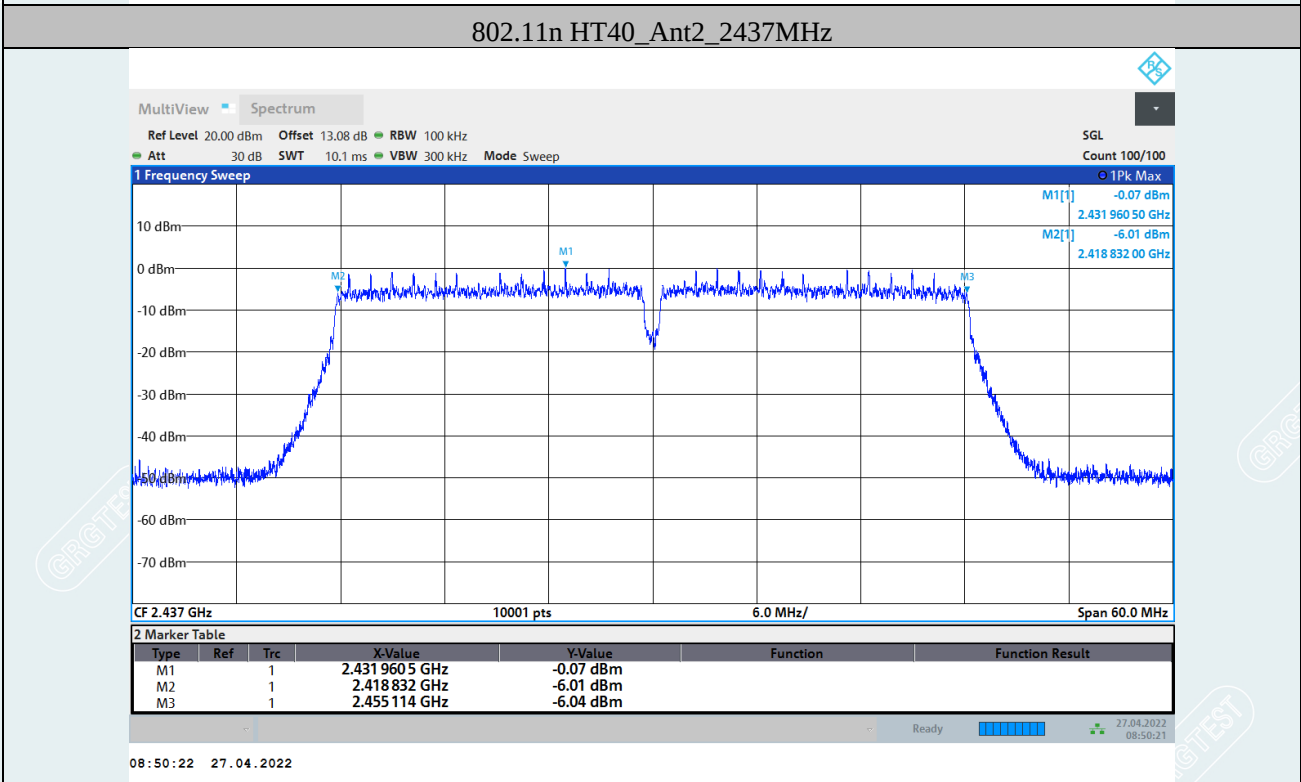
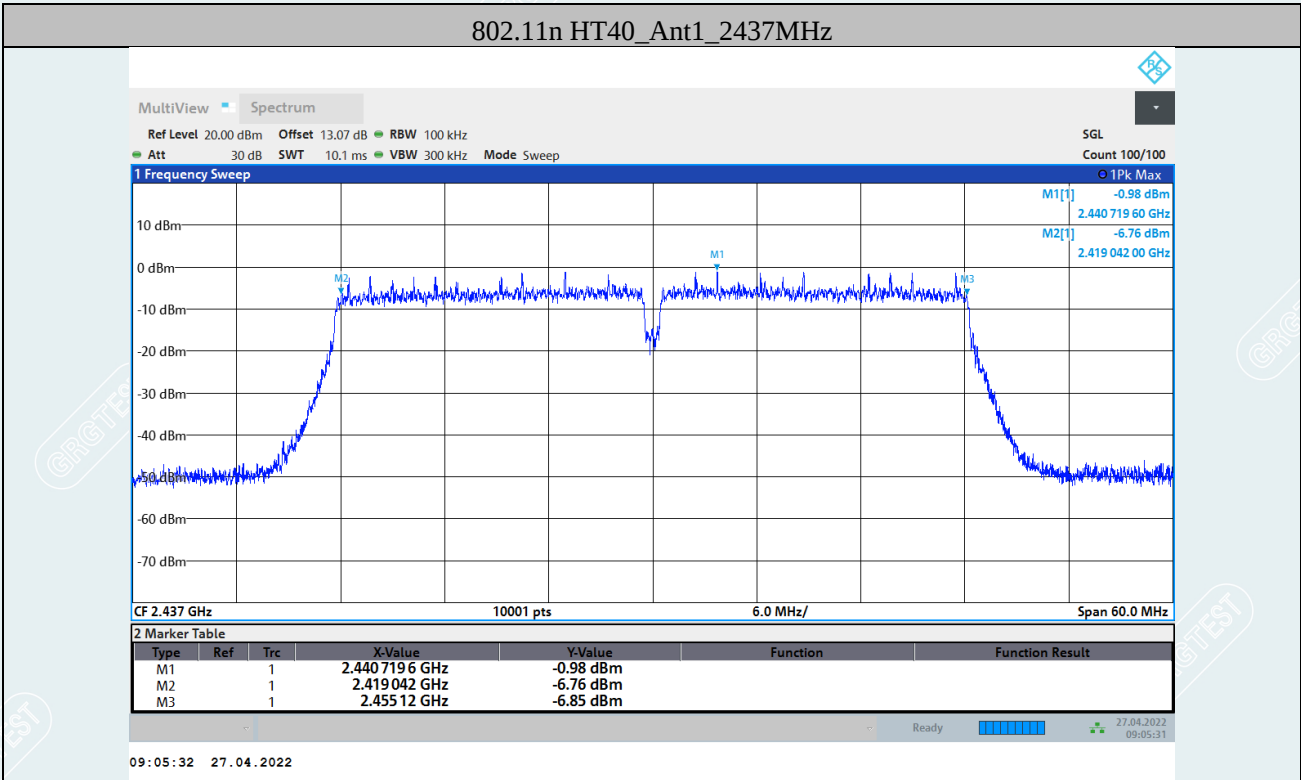


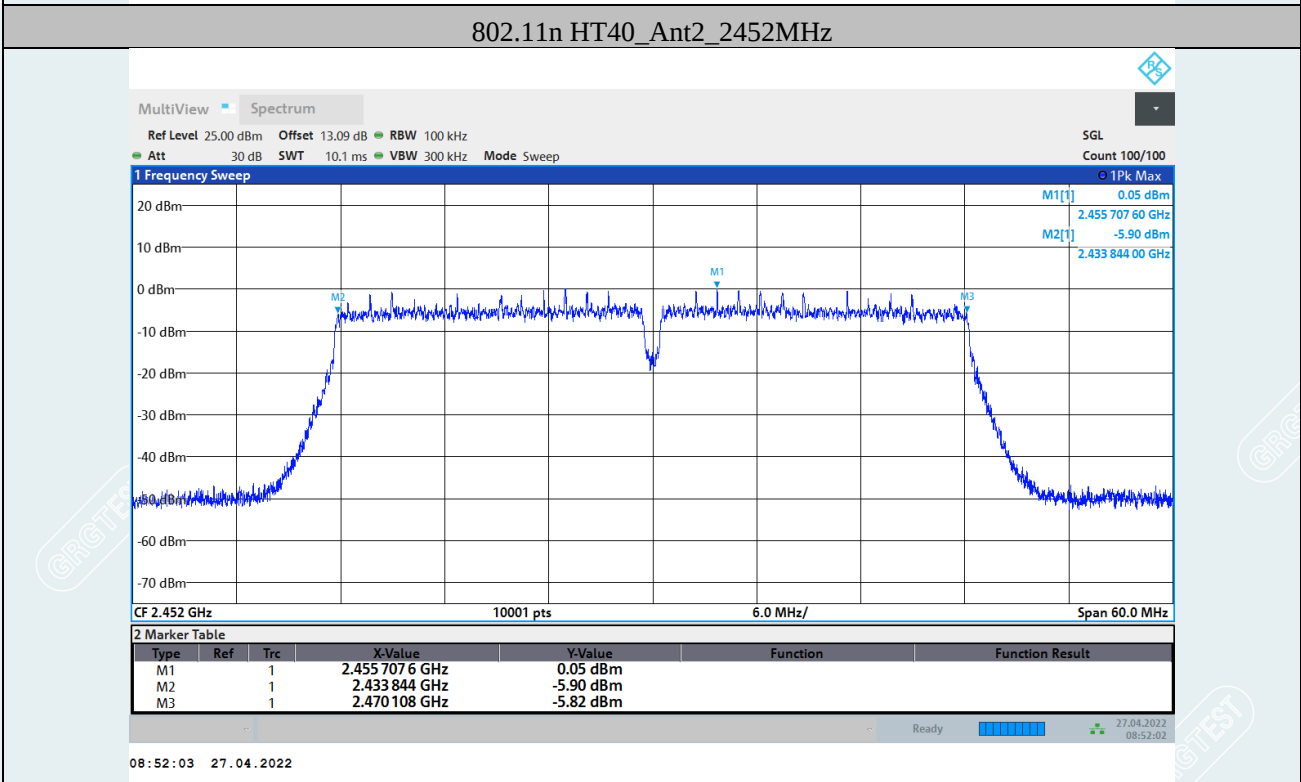
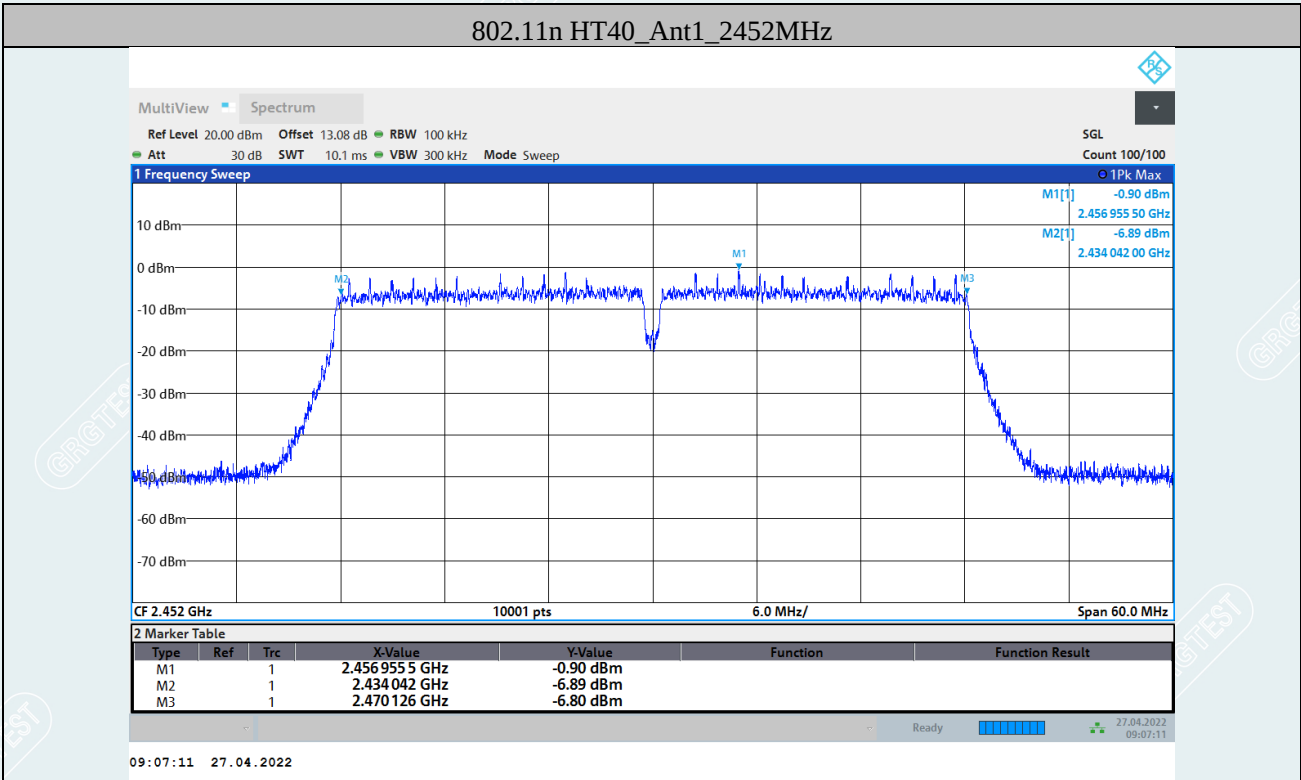
802.11n HT40_Ant1_2422 MHz



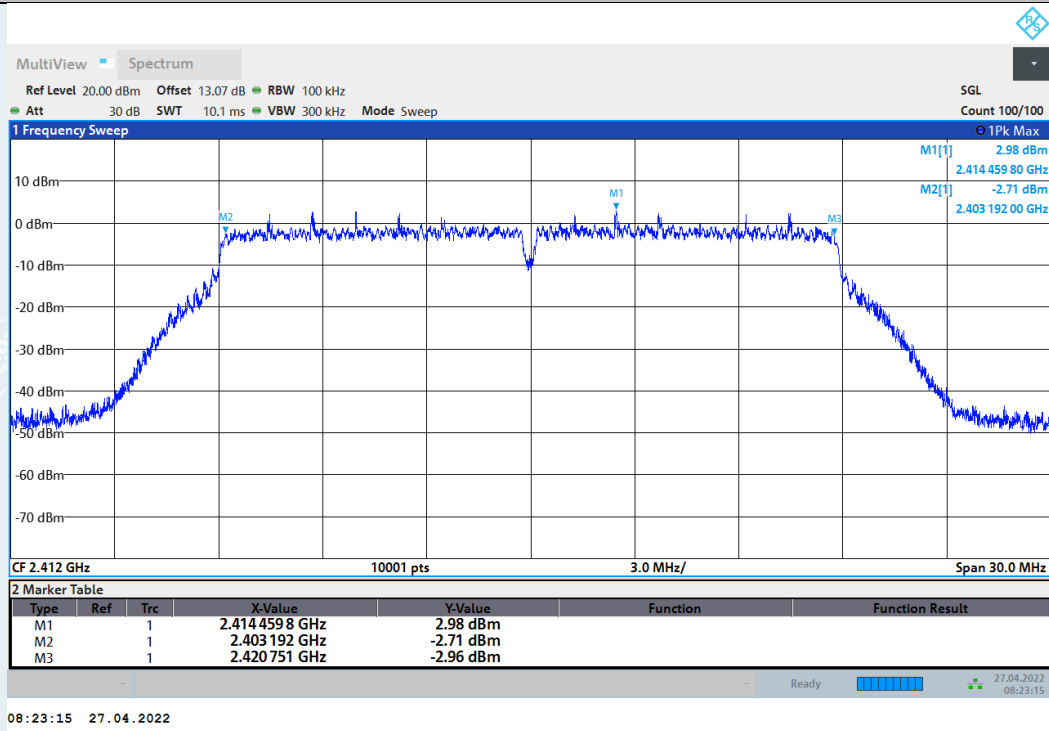
802.11n HT40_Ant2_2422 MHz



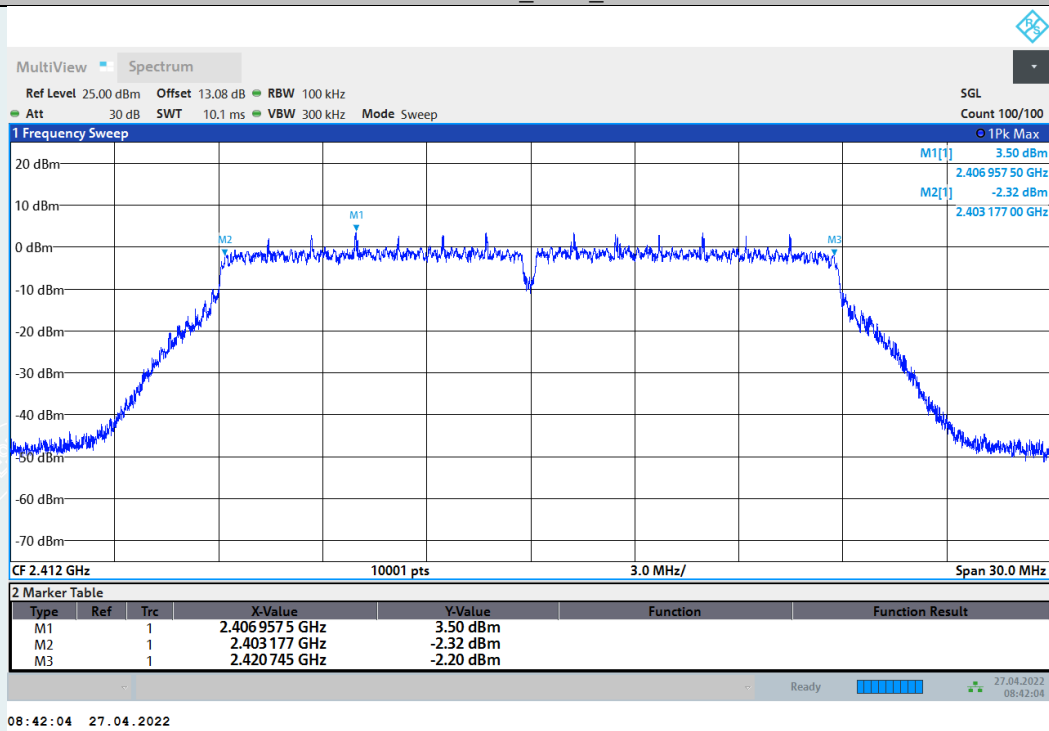




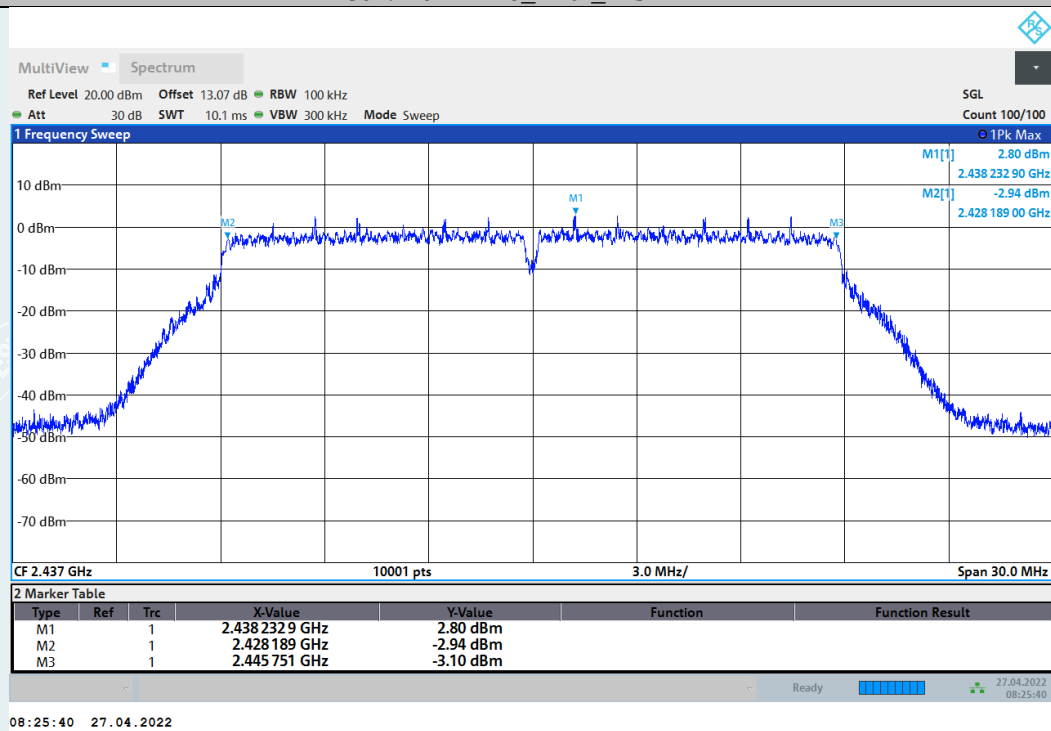
802.11ax HE20_Ant1_2412MHz



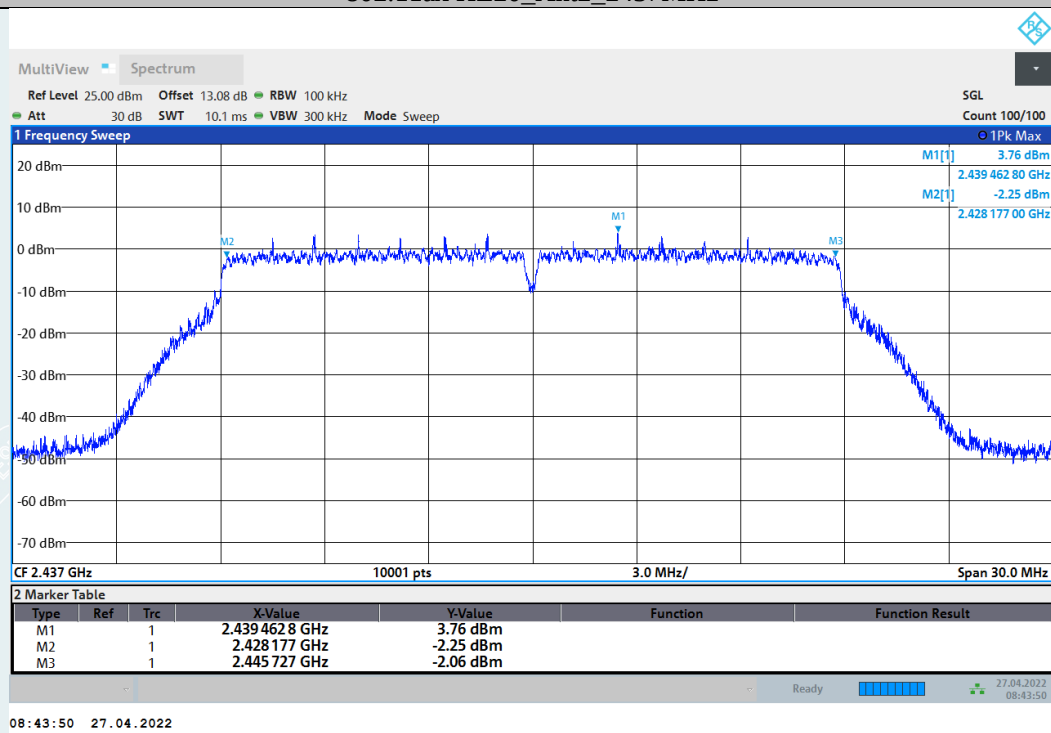
802.11ax HE20_Ant2_2412MHz

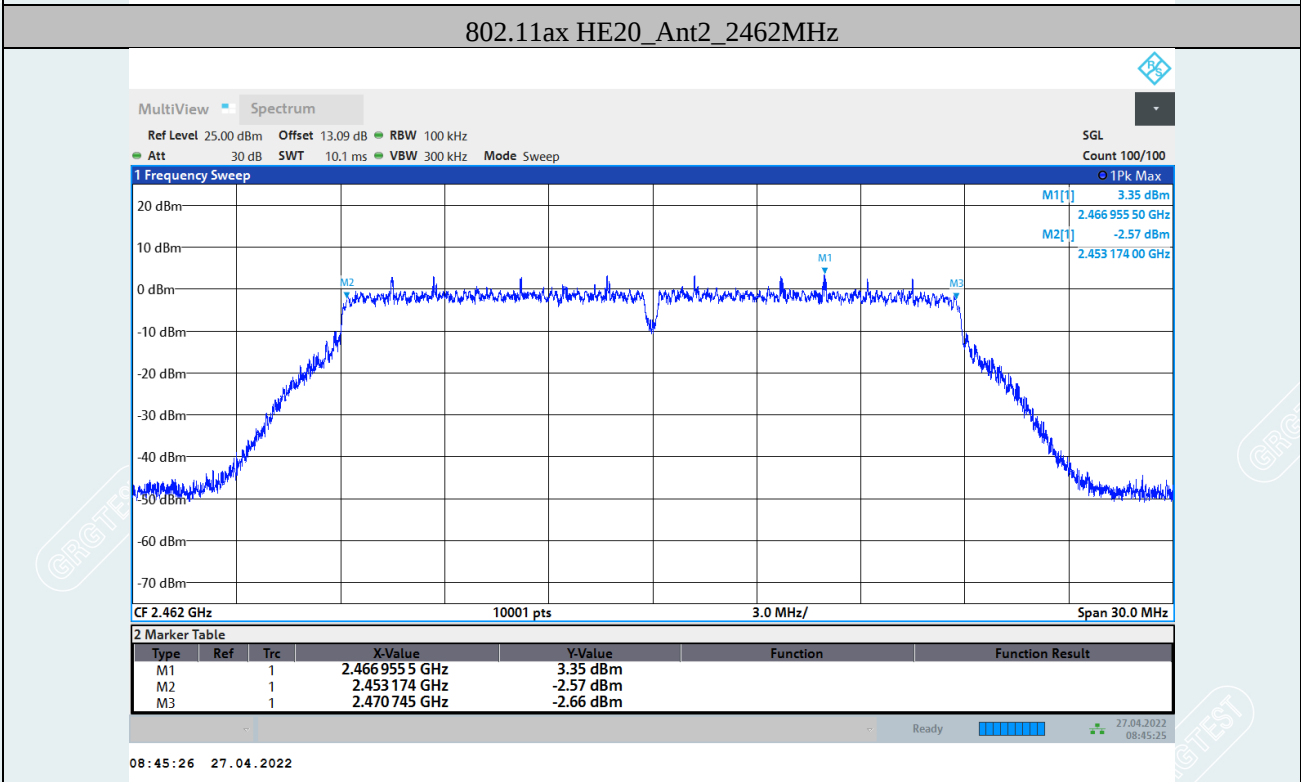
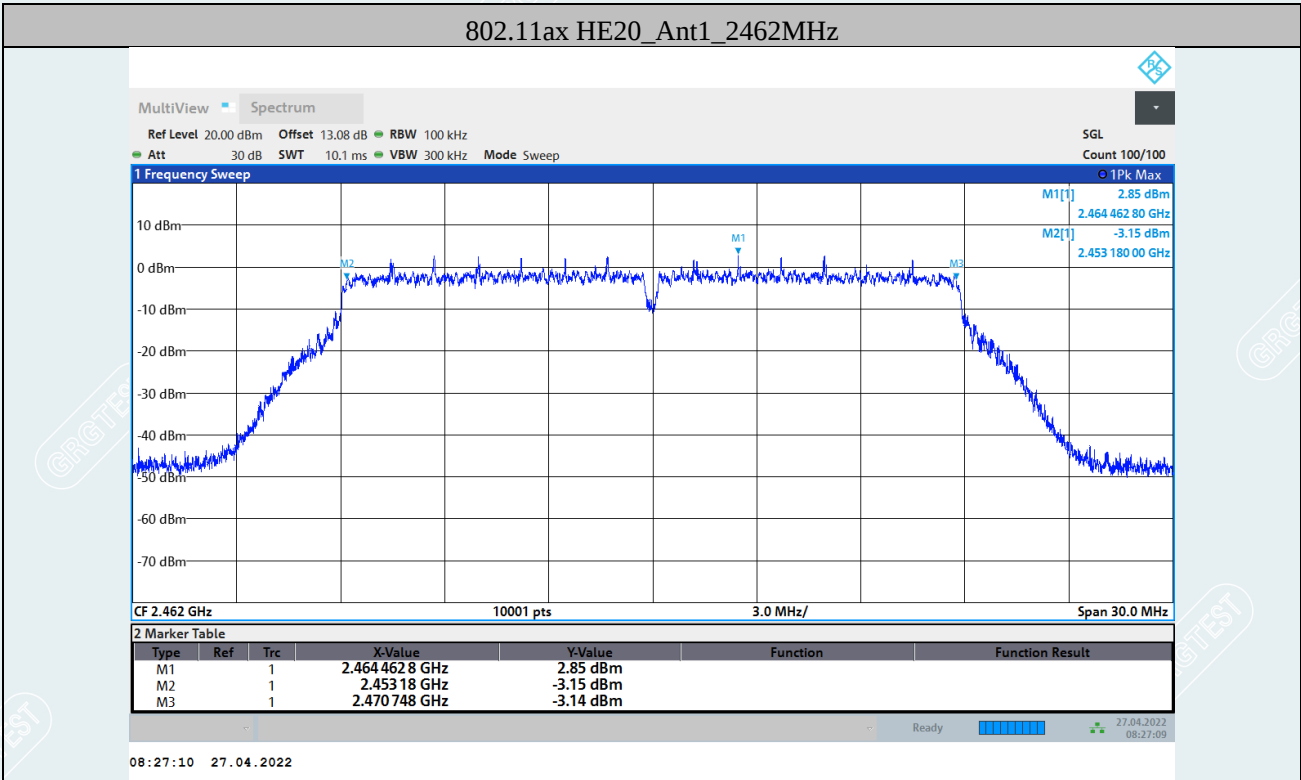


802.11ax HE20_Ant1_2437MHz

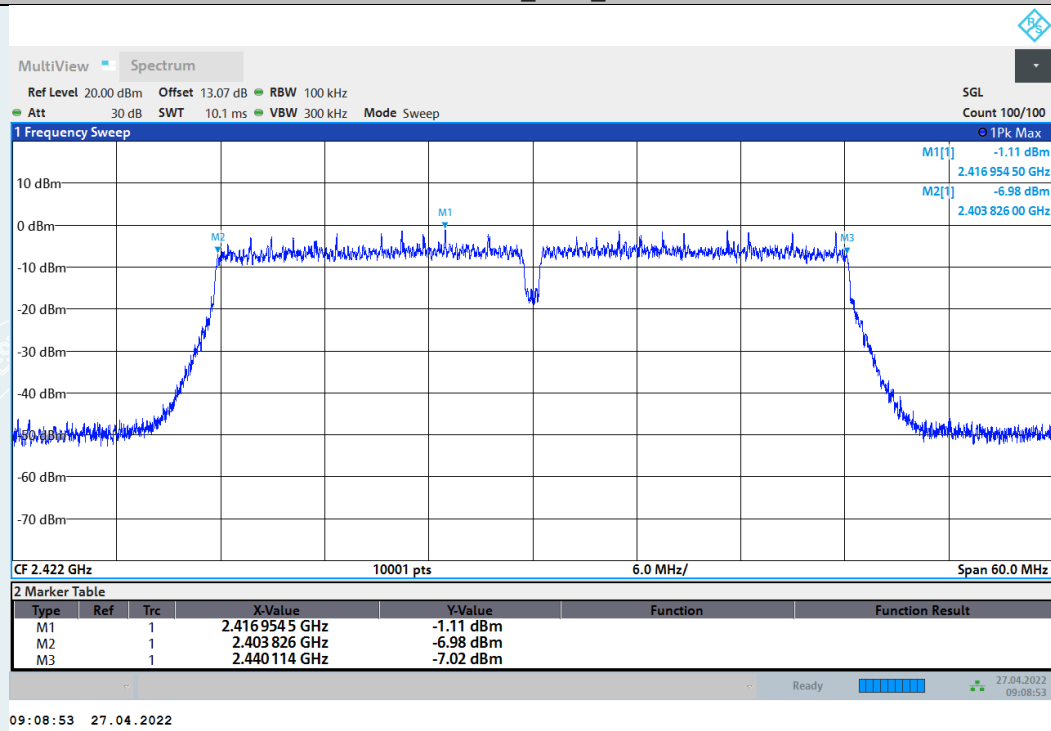


802.11ax HE20_Ant2_2437MHz

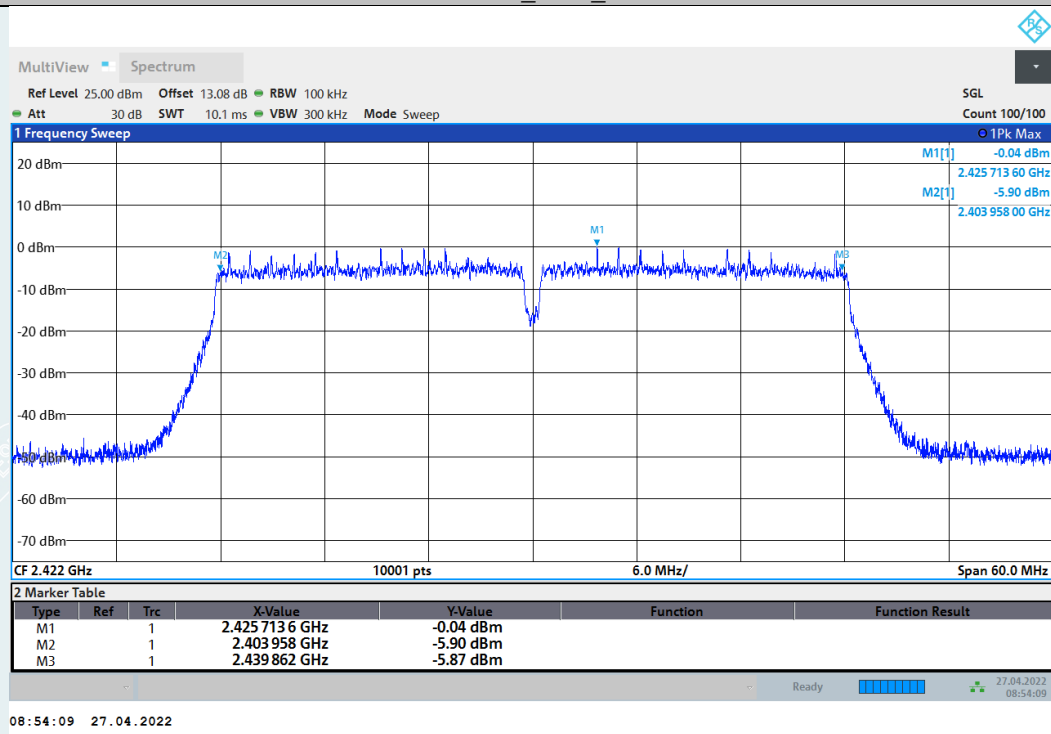




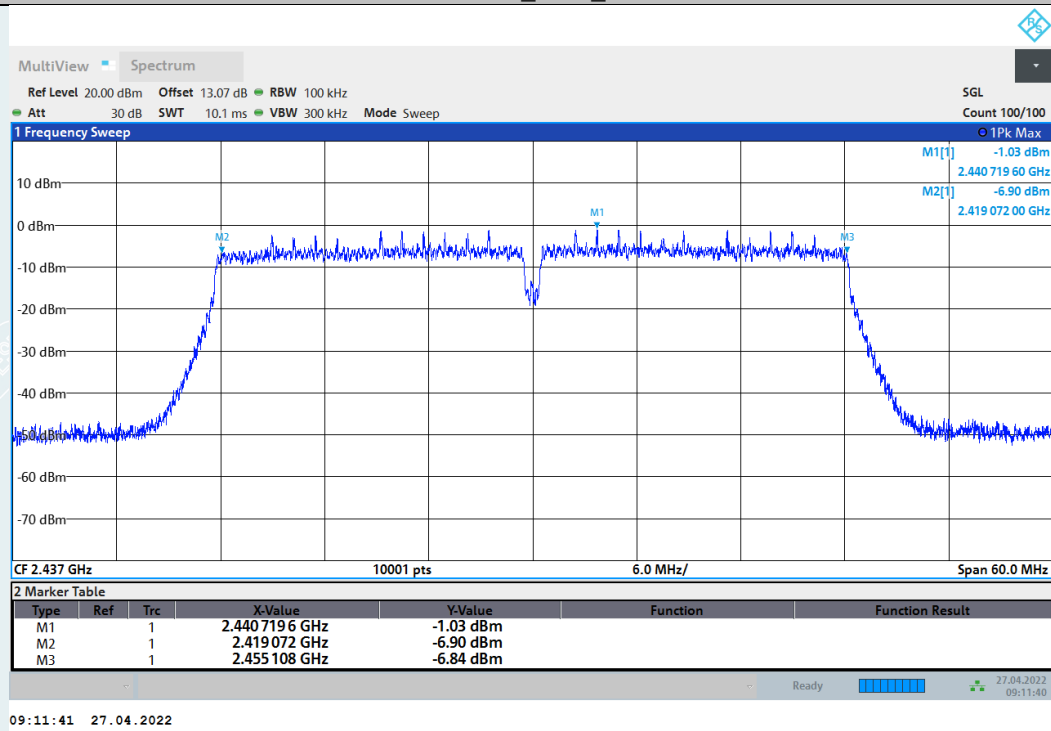
802.11ax HE40_Ant1_2422MHz



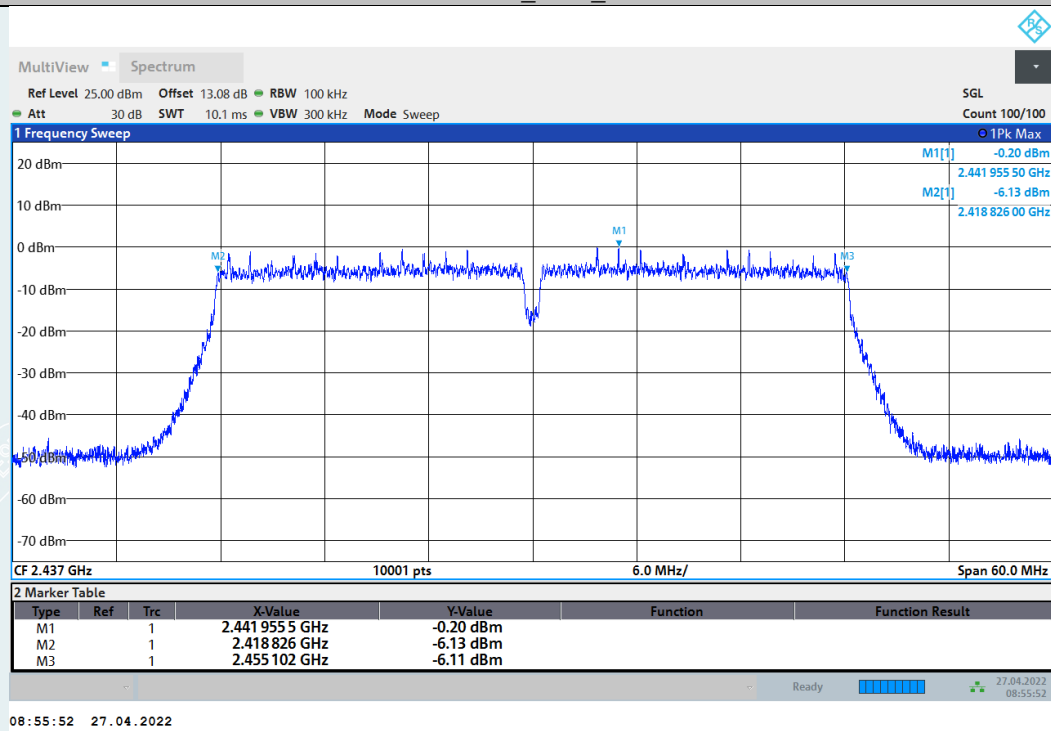
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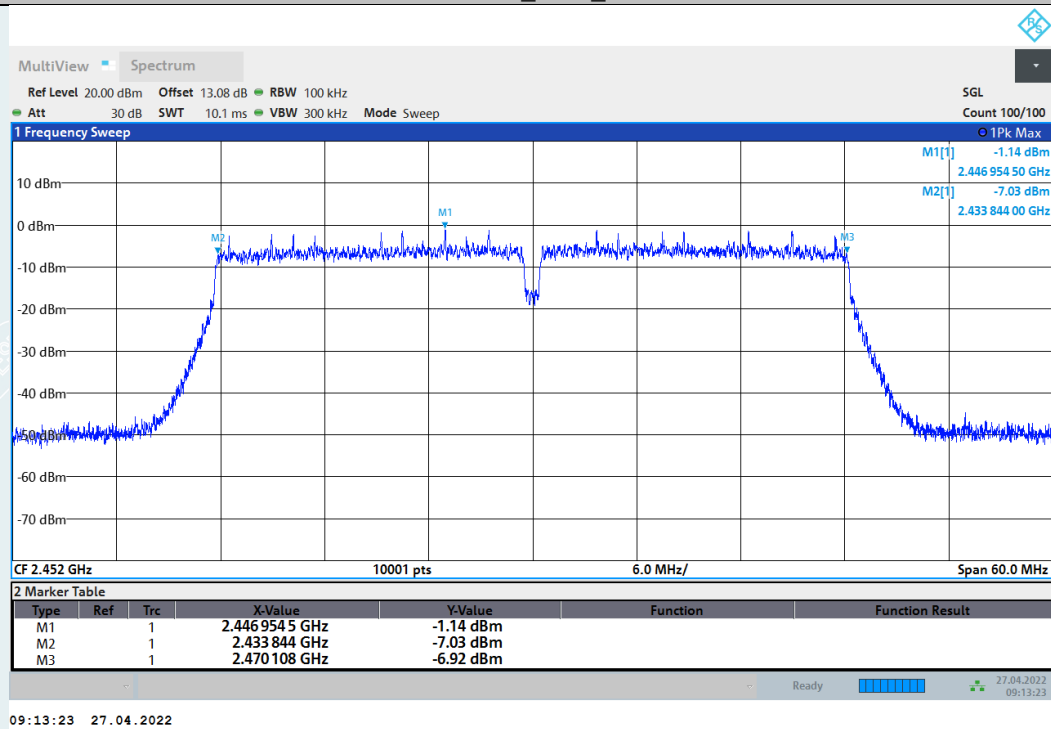
802.11ax HE40_Ant1_2437MHz



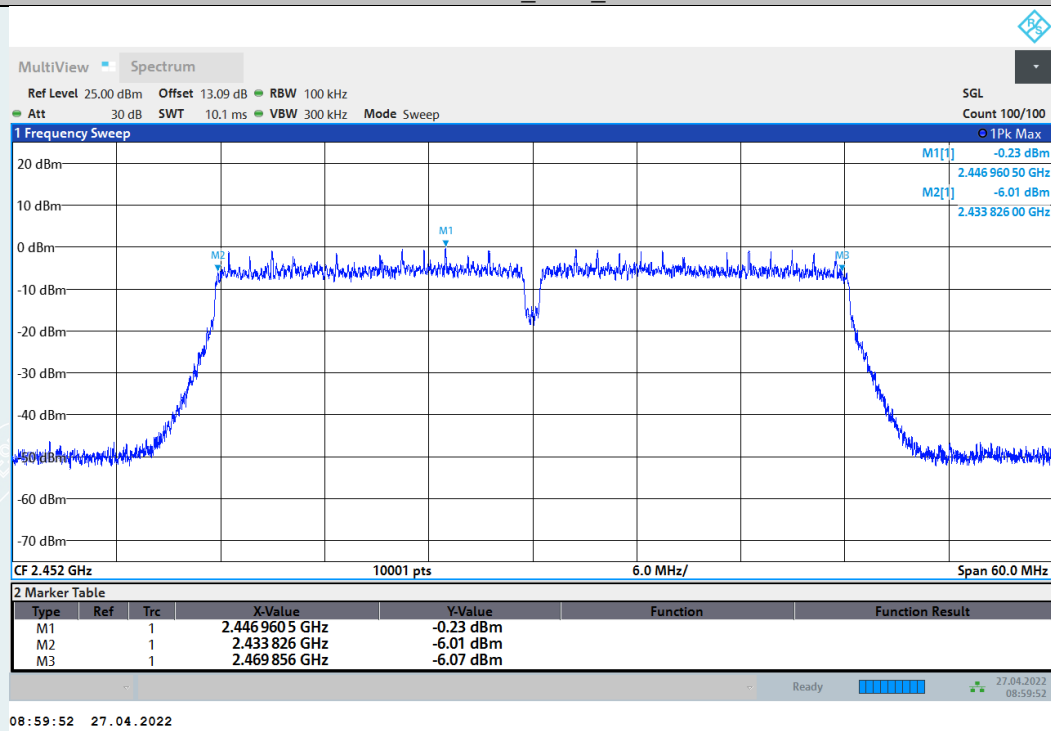
802.11ax HE40_Ant2_2437MHz



802.11ax HE40_Ant1_2452MHz



802.11ax HE40_Ant2_2452MHz



8. MAXIMUM PEAK OUTPUT POWER

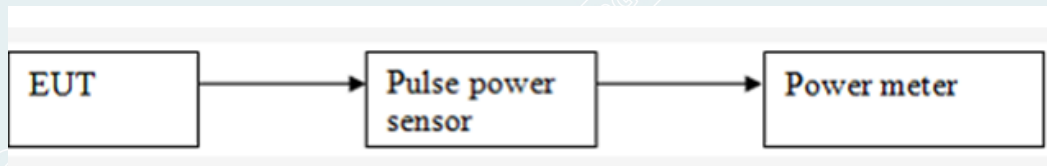
8.1. LIMITS

The maximum Peak output power measurement is 1W

8.2. TEST PROCEDURES

- 1) RF output of EUT was connected to the broadband peak RF power meter by RF cable and 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) Measure the conducted output power and record the results in the test report.

8.3. TEST SETUP



----- The following blanks -----

8.4. TEST RESULT

Environment: 25°C/60%RH
 Tested By: Liu lingfeng

Voltage: AC120V/60Hz
 Date: 2022-4-19~4-27

802.11b Mode (antenna 1):

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)	Peak / AVG	Limit	Result
1	2412	21.45	Peak	30dBm	Pass
6	2437	21.42			Pass
11	2462	21.20			Pass

802.11b Mode (antenna 2):

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)	Peak / AVG	Limit	Result
1	2412	22.26	Peak	30dBm	Pass
6	2437	21.73			Pass
11	2462	22.23			Pass

802.11g Mode (antenna 1):

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)	Peak / AVG	Limit	Result
1	2412	15.32	Peak	30dBm	Pass
6	2437	15.67			Pass
11	2462	15.75			Pass

802.11g Mode (antenna 2):

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)	Peak / AVG	Limit	Result
1	2412	15.77	Peak	30dBm	Pass
6	2437	15.91			Pass
11	2462	15.57			Pass

802.11n HT20 Mode:

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)			Peak/ AVG	Limit	Result
		antenna 1	antenna 2	total			
1	2412	15.81	16.53	19.20	Peak	30dBm	Pass
6	2437	15.6	16.6	19.14			Pass
11	2462	15.45	16.58	19.06			Pass

802.11n HT40 Mode:

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)			Peak/ AVG	Limit	Result
		antenna 1	antenna 2	total			
3	2422	13.7	14.89	17.35	Peak	30dBm	Pass
6	2437	13.77	14.94	17.40			Pass
9	2452	13.71	14.79	17.29			Pass

802.11ax HE20 Mode:

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)			Peak/ AVG	Limit	Result
		antenna 1	antenna 2	total			
1	2412	14.77	15.53	18.18	Peak	30dBm	Pass
6	2437	14.69	15.68	18.22			Pass
11	2462	14.57	15.54	18.09			Pass

802.11ax HE40 Mode:

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)			Peak/ AVG	Limit	Result
		antenna 1	antenna 2	total			
3	2422	13.72	14.92	17.37	Peak	30dBm	Pass
6	2437	13.7	14.8	17.30			Pass
9	2452	13.73	14.82	17.32			Pass

Note: 1. This EUT supports MIMO 2X2, any transmit signals are correlated with each other,
For power measurements on IEEE 802.11 devices, $\text{Array Gain} = 0 \text{ dB}$ (i.e., no array gain) for $N_{\text{ANT}} \leq 4$.

----- The following blanks -----

9. POWER SPECTRAL DENSITY

9.1. LIMITS

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

9.2. TEST PROCEDURES

- 1) Remove the antenna from the EUT, and then connect a low loss RF cable from antenna port to the spectrum analyzer.
- 2) Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- 3) The following procedure shall be used if maximum peak conducted output power was used to determine compliance, and it is optional if the maximum conducted (average) output power was used to determine compliance:
 - a) Set analyzer center frequency to DTS channel center frequency.
 - b) Set the span to 1.5 times the DTS bandwidth.
 - c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
 - d) Set the VBW $\geq [3 \times \text{RBW}]$.
 - e) Detector = peak
 - f) Sweep time = auto couple.
 - g) Trace mode = max hold.
 - h) Allow trace to fully stabilize.
 - i) Use the peak marker function to determine the maximum amplitude level within the RBW.
 - j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.
- 4) Repeat above procedures until all frequencies measured were complete.

9.3. TEST SETUP

