



Test Report No.:
FCC2022-0012-RF1

RF Test Report

EUT : WIFI Module
MODEL : WF-U21DS-SSA1,WF-U21DS-SSA2
BRAND NAME : N/A
CLIENT : Sichuan AI-Link Technology Co.,Ltd.
Classification Of Test : N/A

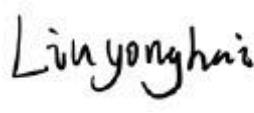
CVC Testing Technology Co., Ltd.



CVC Testing Technology Co., Ltd.

Test Report No.: FCC2022-0012-RF1

Page 2 of 132

Client	Name : Sichuan AI-Link Technology Co.,Ltd. Address : Anzhou Industrial Park, Mianyang, Sichuan, P.R.C		
Manufacturer	Name : Sichuan AI-Link Technology Co.,Ltd. Address : Anzhou Industrial Park, Mianyang, Sichuan, P.R.C		
Equipment Under Test	Name : WIFI Module Model/Type: WF-U21DS-SSA1,WF-U21DS-SSA2 Trade mark : N/A Serial NO.:N/A Sample NO.:2-1,2-2		
Date of Receipt.	2022.02.21	Date of Testing	2022.02.21~2022.09.28
Test Specification		Test Result	
FCC Part 15, Subpart C, Section 15.247		PASS	
Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied. Issue Date: 2022.09.28		
Tested by:  Xu ZhenFei Name Signature	Reviewed by:  Liu YongHai Name Signature	Approved by:  Chen HuaWen Name Signature	
Other Aspects: NONE.			
Abbreviations:OK, Pass= passed		Fail = failed	N/A= not applicable
EUT= equipment, sample(s) under tested			

This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.



TABLE OF CONTENTS

RELEASE CONTROL RECORD	5
1 SUMMARY OF TEST RESULTS	6
1.1 LIST OF TEST AND MEASUREMENT INSTRUMENTS	7
1.2 MEASUREMENT UNCERTAINTY	8
1.3 TEST LOCATION	8
2 GENERAL INFORMATION	9
2.1 GENERAL PRODUCT INFORMATION	9
2.2 DESCRIPTION OF ACCESSORIES	9
2.3 OTHER INFORMATION	10
2.4 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL	11
2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS	13
2.6 DESCRIPTION OF SUPPORT UNITS	13
3 TEST TYPES AND RESULTS	14
3.1 CONDUCTED EMISSION MEASUREMENT	14
3.1.1 <i>Limit</i>	14
3.1.2 <i>Measurement procedure</i>	14
3.1.3 <i>Test setup</i>	14
3.1.4 <i>Test results</i>	15
3.2 RADIATED EMISSION AND BANDEDGE MEASUREMENT	17
3.2.1 <i>Limit</i>	17
3.2.2 <i>Measurement procedure</i>	17
3.2.3 <i>Test setup</i>	18
3.2.4 <i>Test results</i>	20
3.3 6dB BANDWIDTH MEASUREMENT	52
3.3.1 <i>Limits</i>	52
3.3.2 <i>Measurement procedure</i>	52
3.3.3 <i>Test setup</i>	52
3.3.4 <i>Test result</i>	52
3.4 CONDUCTED OUTPUT POWER	53
3.4.1 <i>Limits</i>	53
3.4.2 <i>Measurement procedure</i>	53
3.4.3 <i>Test setup</i>	53
3.4.4 <i>Test result</i>	53
3.5 POWER SPECTRAL DENSITY MEASUREMENT	54
3.5.1 <i>Limits</i>	54
3.5.2 <i>Measurement procedure</i>	54
3.5.3 <i>Test setup</i>	54
3.5.4 <i>Test result</i>	54
3.6 OUT OF BAND EMISSION MEASUREMENT	55
3.6.1 <i>Limits</i>	55
3.6.2 <i>Measurement procedure</i>	55
3.6.3 <i>Test setup</i>	55
3.6.4 <i>Test result</i>	55
3.7 OCCUPIED BANDWIDTH MEASUREMENT	56
3.7.1 <i>Measurement procedure</i>	56
3.7.2 <i>TEST SETUP</i>	56
3.7.3 <i>Test result</i>	56
4 PHOTOGRAPHS OF TEST SETUP	57
5 PHOTOGRAPHS OF THE EUT	58



6 APPENDIX A	59
6.1 6DB BANDWIDTH MEASUREMENT	59
6.1.1 <i>Test Result</i>	59
6.1.2 <i>Test Graphs</i>	60
6.2 CONDUCTED OUTPUT POWER	72
6.2.1 <i>Test Result</i>	72
6.3 POWER SPECTRAL DENSITY MEASUREMENT	73
6.3.1 <i>Test Result</i>	73
6.3.2 <i>Test Graphs</i>	74
6.4 BAND EDGE MEASUREMENTS	86
6.4.1 <i>Test Result</i>	86
6.4.2 <i>Test Graphs</i>	87
6.5 OUT OF BAND EMISSION MEASUREMENT	95
6.5.1 <i>Test Result</i>	95
6.5.2 <i>Test Graphs</i>	97



RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCC2022-0012-RF1	Original release	2022.09.28



1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit.
15.209	Radiated Emissions	PASS	Meet the requirement of limit.
15.247(d) 15.209 8.10 Table 7 8.9 Table 5	Band Edge Measurement	PASS	Meet the requirement of limit.
15.247(d) 5.5	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(a)(2) 5.2(a)	Conducted Output power	PASS	Meet the requirement of limit.
15.247(b) 5.4(d)	Power Spectral Density	PASS	Meet the requirement of limit.
15.247(e) 5.2(b)	Antenna Requirement	PASS	Meet the requirement of limit.



1.1 LIST OF TEST AND MEASUREMENT INSTRUMENTS

Test Equipment	Type/Mode	SERIAL NO.	Equipment No.	Manufacturer	Cal. Due
WIFI & Bluetooth Test System 1					/
Communication Shielded Room 1	4m*3m*3m	CRTDSWKS44301	VGDS-0699	CRT	2024/04/24
Spectrum Analyzer	FSV30	104337	DZ-000235	R&S	2022/11/03
Comprehensive Test Instrument	CMW500	137779	DZ-000220	R&S	2023/07/10
Comprehensive Test Instrument	CMW500	169888	DZ-000342	R&S	2022/12/01
LTE Comprehensive Test Instrument	E7515A	MY58010639	DZ-000173	KEYSIGHT	2023/04/07
Analog Signal Generator	SMA100B	103663	DZ-000239-2	R&S	2023/07/10
Vector Signal Generator	SMBV100B	101757	DZ-000239-1	R&S	2023/06/22
Programmable DC Power Supply	E3644A	MY58036222	DZ-000178	KEYSIGHT	2023/04/21
Radiation Spurious Test System					/
3m Semi-Anechoic Chamber	FACT-4	ST08035	WKNA-0024	ETS	2024/12/12
Spectrum Analyzer	N9010B	MY57470323	DZ-000174	KEYSIGHT	2023/03/02
EMI Test Receiver	N9038A-508	MY532290079	EM-000397	Agilent	2023/03/02
Broadband Antenna	VULB 9163	9163-530	EM-000342	SCHWARZBECK	2023/06/25
Waveguide Horn Antenna	HF906	360306/008	WKNA-0024-8	R&S	2023/03/04
Waveguide Horn Antenna	BBHA9170	00949	DZ-000209-2	SCHWARZBECK	2023/07/31
Preamplifier	BBV 9721	9721-050	DZ-000209-1	SCHWARZBECK	2023/06/05
5G Bandstop Filters	WRCJV12-4 900-5100-5 900-6100-5 OEE	1	DZ-000186	WI	2022/12/20
Comprehensive tester	CMW500	159000	DZ-000240-2	R&S	2022/12/20
Conducted emission					/
EMI Test Receiver	ESCI	100857	WKNB-0081	R&S	2022-12-08
EMI Test Receiver	ESR3	102394	VGDY-0705	R&S	2023-03-04
LISN	NSLK 8127	8127644	VGDY-0150	SCHWARZBECK	2023-09-04
DC LISN	PVDC8301-017	PVDC8301#17	VGDY-0692	SCHWARZBECK	2022-10-09
LISN	NSLK 8129	8129-268	EM-000388	SCHWARZBECK	2023-09-04
Plus Limiter (#1)	VTSD 9561 F-N	00515	VGDY-0808	SCHWARZBECK	2023-03-04
Impedance Stabilization Network	ISN T800	27095	WKNE-0195	TESEQ	2023-09-04
Impedance Stabilization Network	NTFM8158	8158-0092	VGDY-0356	SCHWARZBECK	2023-06-07
Impedance Stabilization Network	NTFM8131	#184	EM-000498	SCHWARZBECK	2023-06-07
Voltage Probe	TK9420	9420-499	VGDY-0128	SCHWARZBECK	2023-03-04
Power Divider	4901.17.B	22643830	DB-0016	HUBER+SUHNER	2023-09-01
Video Signal Generator	GV-798+	151064920001	VGDS-0215	PROMAX	2023-05-30
Audio Signal Generator	GAG-810	EK871591	EM-000309	GW	2022-12-08
Shielding Room(#1)	GP1A	001	WKNF-0001	LEINING	2024-08-08



1.2 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:

No.	ITEM	FREQUENCY	UNCERTAINTY
1	Conducted emissions	9kHz~30MHz	±2.66dB
2	Radiated emissions	9KHz ~ 30MHz	±0.769dB
		30MHz ~ 1GHz	±0.877dB
		1GHz ~ 18GHz	±0.777dB
		18GHz ~ 40GHz	±1.315dB

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

1.3 TEST LOCATION

The tests and measurements refer to this report were performed by EMC testing Lab. of CVC Testing Technology Co., Ltd.

Address: No.3,TiantaiyiRoad,KaitaiAvenue,ScienceCity,Guangzhou,China

Post Code: 510663 Tel: 020-32293888

FAX: 020-32293889 E-mail: office@cvc.org.cn



2 GENERAL INFORMATION

2.1 GENERAL PRODUCT INFORMATION

PRODUCT	WIFI Module
BRAND	N/A
MODEL	WF-U21DS-SSA1
ADDITIONAL MODEL	WF-U21DS-SSA2
FCC ID	2AOIKI-AL5621D
POWER SUPPLY	DC 3.3V
MODULATION TECHNOLOGY	DSSS, GFPSK, OFDM, OFDMA
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 64QAM, 16QAM, QPSK, BPSK for OFDMA GFSK for BT-LE
OPERATING FREQUENCY	2412MHz ~ 2462MHz for 11b/g/n(HT20) 2422MHz ~ 2452MHz for 11n(HT40) 2402MHz ~ 2480MHz for BT-LE
NUMBER OF CHANNEL	802.11b/g/n (HT20): 11 802.11n (HT40): 7 BT-LE: 40
PEAK OUTPUT POWER	WLAN: 20.22dBm (Maximum) BLE: 2.02dBm (Maximum)
ANTENNA TYPE (Remark 4)	WLAN: ANT0: External Antenna, with 3.46dBi gain ANT1: External Antenna, with 3.46dBi gain BT-LE: External Antenna, with 3.46dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

Remark:

1. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. Please refer to the EUT photo document for detailed product photo. (Report NO.: FCC2022-0012-E)
4. Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, CVC is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
5. The EUT have MIMO function, provides 2 completed transmitter and 2 receiver

2.2 Description of Accessories

N/A



2.3 OTHER INFORMATION

Operating frequency of each channel

2.4G WIFI					
802.11b/g/n (HT20)/ax(HE20)					
CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
1	2412	5	2432	9	2452
2	2417	6	2437	10	2457
3	2422	7	2442	11	2462
4	2427	8	2447		
802.11n (HT40) ax(HE40)					
CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
3	2422	6	2437	9	2452
4	2427	7	2442		
5	2432	8	2447		
BT-LE(1 Mbps)					
CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
0	2402	10	2422	20	2442
1	2404	11	2424	21	2444
2	2406	12	2426	22	2446
3	2408	13	2428	23	2448
4	2410	14	2430	24	2450
5	2412	15	2432	25	2452
6	2414	16	2434	26	2454
7	2416	17	2436	27	2456
8	2418	18	2438	28	2458
9	2420	19	2440	29	2460

1. The channels which were indicated in bold type of the above channel list were selected as representative test channel. Therefore only the data of the test channels were recorded in this report.
2. By means of test software which provided by manufacture, the power levels during the tests were set according to the following codes:

2.4G WIFI							
802.11b		802.11g		802.11n(HT20)		802.11n(HT40)	
FREQUENCY(MHZ)	POWER SETTING	FREQUENCY(MHZ)	POWER SETTING	FREQUENCY(MHZ)	POWER SETTING	FREQUENCY(MHZ)	POWER SETTING
2412	17	2412	15	2412	13	2422	13
2437	17	2437	15	2437	13	2437	13
2462	17	2462	15	2462	13	2452	13

BT-LE(1 Mbps)					
GFSK					
CHANNEL	POWER SETTING	CHANNEL	POWER SETTING	CHANNEL	POWER SETTING
0	DEFAULT	19	DEFAULT	39	DEFAULT



2.4 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, xyz axis and antenna ports

EUT CONFIGURE MODE	APPLICABLE TEST ITEMS				DESCRIPTION
	RE<1G	RE≥1G	PLC	APCM	
A	√	√	√	√	2.4G WIFI Function
B	√	√	√	√	BT Function

Where RE<1G: Radiated Emission below 1GHz

RE≥1G: Radiated Emission above 1GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

RADIATED EMISSION TEST (BELOW 1 GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, XYZ axis, antenna ports (if EUT with antenna diversity architecture) and packet type.
- The worst case was found when positioned on x axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11b	1 to 11	1	DSSS	DBPSK	6.0

For the test results, only the worst case was shown in test report.

RADIATED EMISSION TEST (ABOVE 1 GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, XYZ axis, antenna ports (if EUT with antenna diversity architecture) and packet type.
- The worst case was found when positioned on x axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE PARAMETER
A	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0 Mbit/s
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0 Mbit/s
A	802.11n(HT20)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
A	802.11n(HT40)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0
B	BT-LE	0 to 39	0, 19, 39	DTS	GFSK	1.0 Mbit/s



POWER LINE CONDUCTED EMISSION TEST:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and packet types.
- Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	TESTED CONDITION
-	BT LINK + WIFI (2.4G) Link

ANTENNA PORT CONDUCTED MEASUREMENT:

- This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and packet types.
- Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0 Mbit/s
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0 Mbit/s
A	802.11n(HT20)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
A	802.11n(HT40)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0
B	BT-LE	0 to 39	0,19, 39	DTS	GFSK	1.0 Mbit/s

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	TEST VOLTAGE (SYSTEM)	TESTED BY
RE<1G	24deg. C, 55%RH	DC 3.3V from USB host unit	Liu ShiWei
RE≥1G	24deg. C, 55%RH	DC 3.3V from USB host unit	Liu ShiWei
PLC	24deg. C, 55%RH	DC 3.3V from USB host unit	Liu ShiWei
APCM	25deg. C, 58%RH	DC 3.3V from USB host unit	Liu ShiWei



2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

FCC PART 15, Subpart C. Section 15.247
KDB 558074 D01 15.247 Meas Guidance v05r02
ANSI C63.10-2020

All test items have been performed and recorded as per the above standards

2.6 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Support Equipment					
NO	Description	Brand	Model No.	Serial Number	Supplied by
N/A	N/A	N/A	N/A	N/A	N/A

Support Cable							
NO	Description	Quantity (Number)	Length (cm)	Detachable (Yes/ No)	Shielded (Yes/ No)	Cores (Number)	Supplied by
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

3 TEST TYPES AND RESULTS

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 Limit

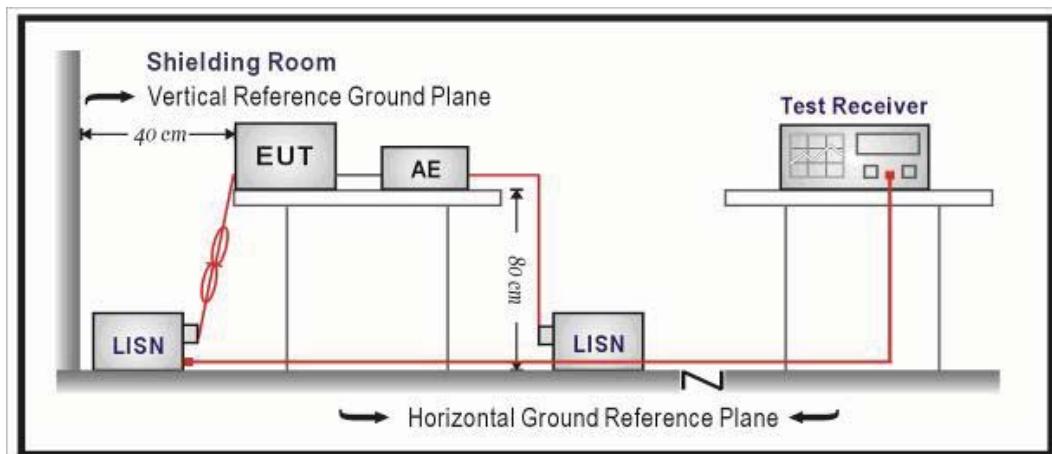
Frequency (MHz)	Conducted Limits(dB μ V)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 *	56 to 46*
0.5 - 5	56	46
5 - 30	60	50

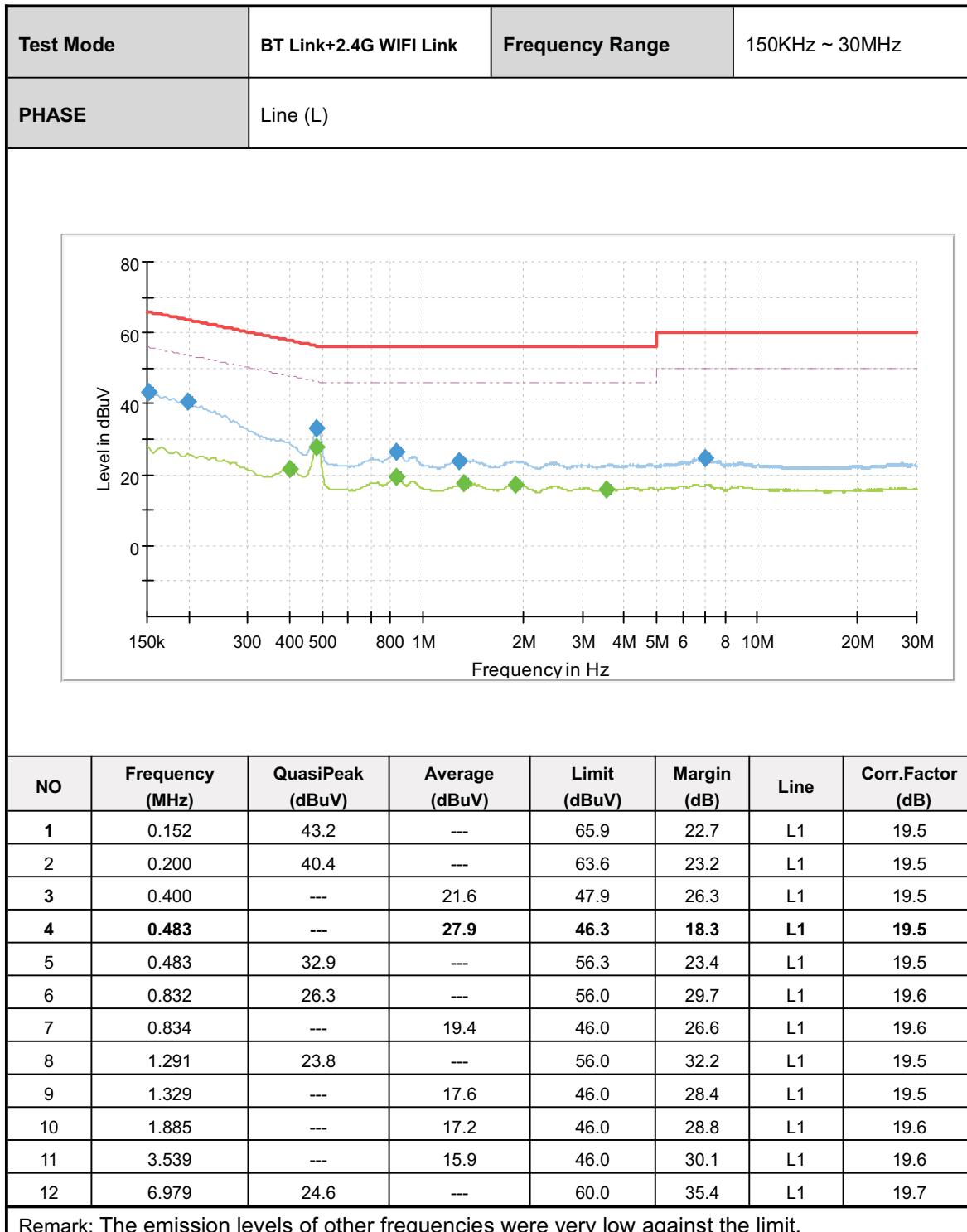
NOTE: 1. The lower limit shall apply at the transition frequencies.
NOTE: 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

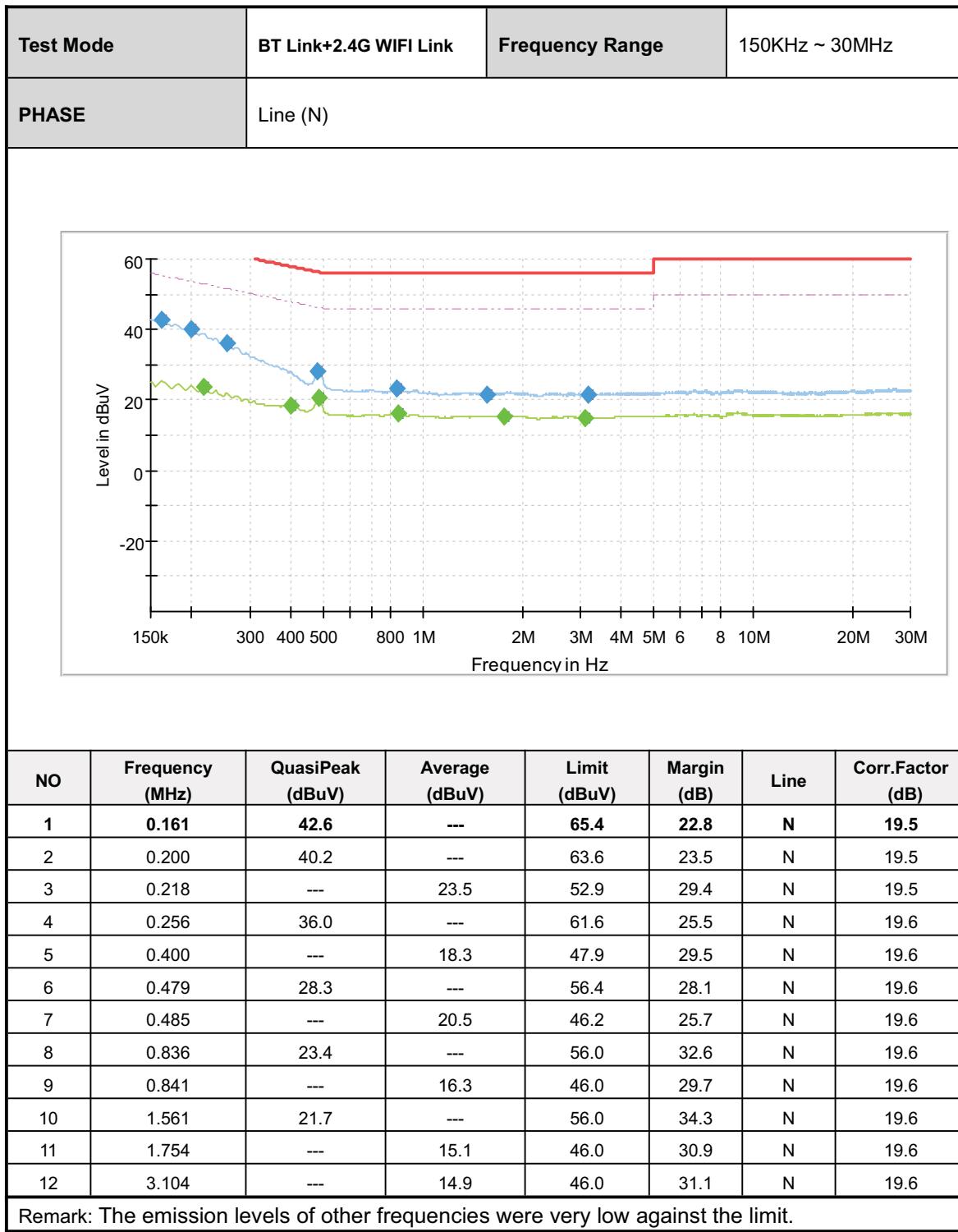
3.1.2 Measurement procedure

- a. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50 μ H coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the Test photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source. The equipment under test shall be placed on a support of non-metallic material, the height of which shall be 1.5m above the ground,
- b. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
- c. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

3.1.3 Test setup



3.1.4 Test results





3.2 RADIATED EMISSION AND BANDEDGE MEASUREMENT

3.2.1 Limit

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

FREQUENCIES (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
Above 960	500	3

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

NOTE: 2. Emission level (dB_{uV/m}) = 20 log Emission level (uV/m).

NOTE: 3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

3.2.2 Measurement procedure

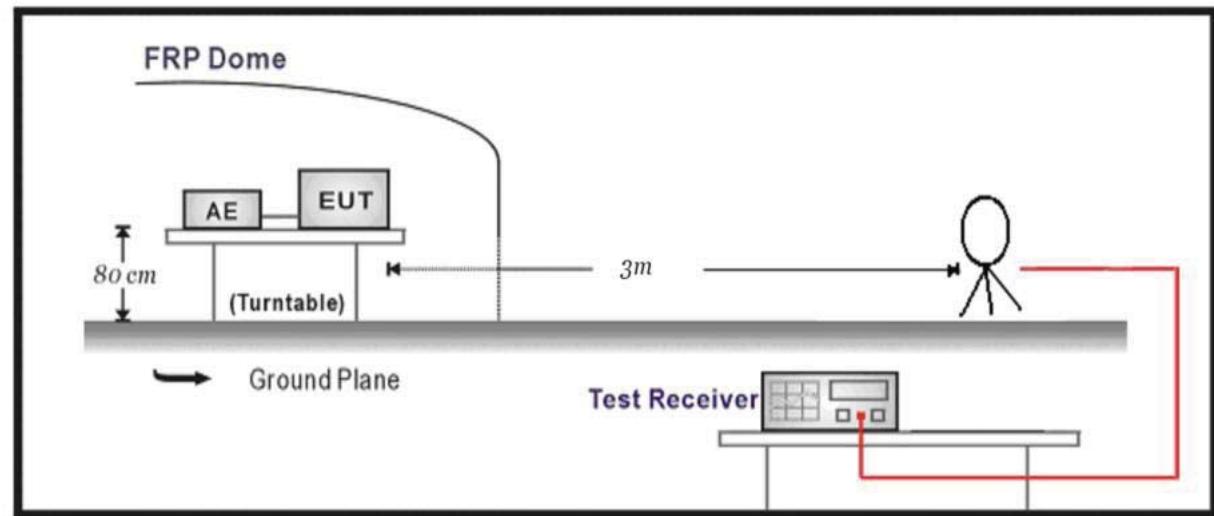
- a. The EUT was placed on the top of a rotating table 1.5 meters(above 1GHz) and 0.8 meters(below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. For below 1GHz was used bilog antenna, and above 1GHz was used horn antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.
- g. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using fresh batteries. The turntable was rotated to maximize the emission level.

NOTE:

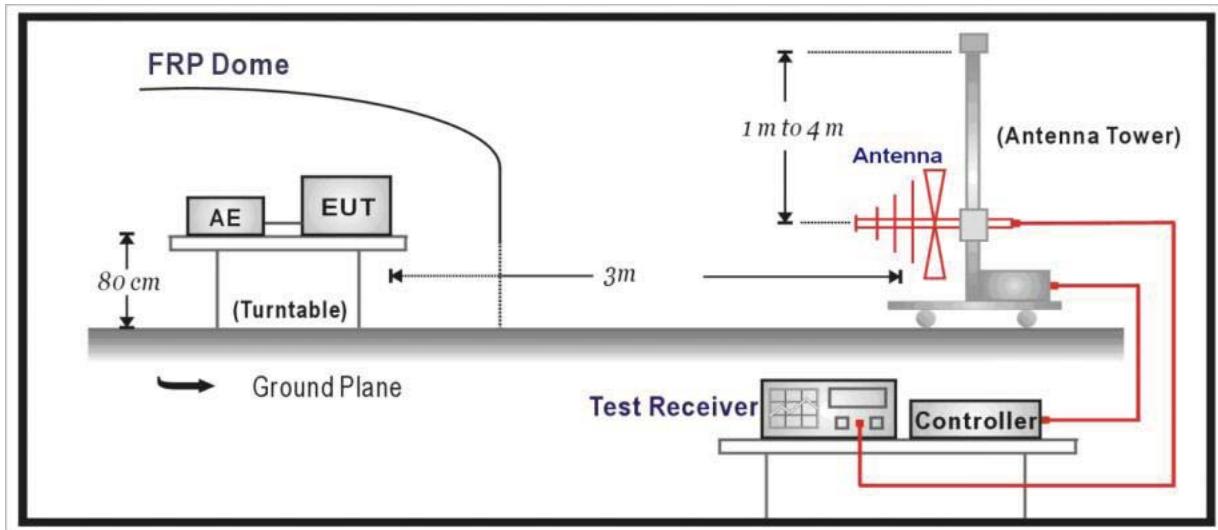
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is \geq 1/T (Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.
5. The testing of the EUT was performed on all 3 orthogonal axes; the worst-case test configuration was reported on the file test setup photo.

3.2.3 Test setup

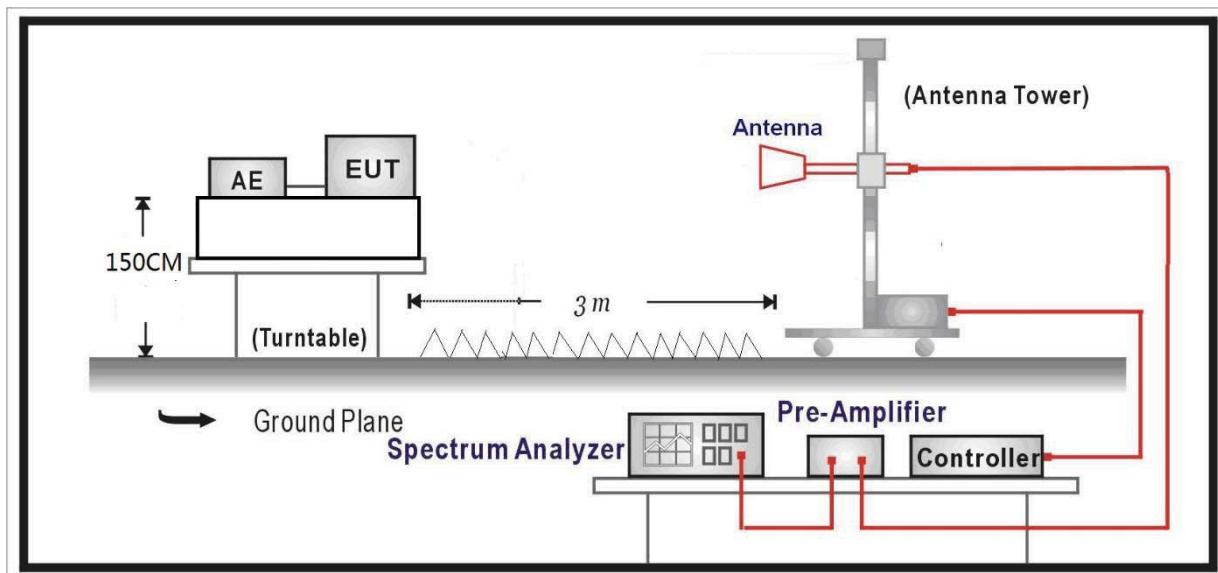
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



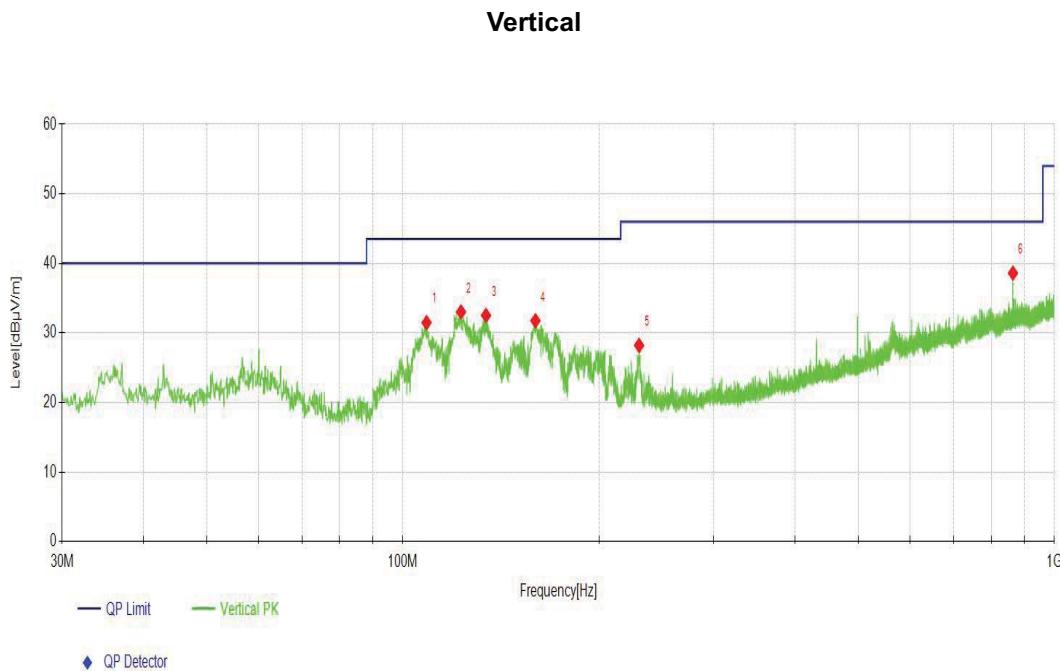
3.2.4 Test results

MODEL:WF-U21DS-SSA1

BELOW 1GHz WORST-CASE DATA:

Worst Test Mode	802.11b	Channel	CH 1					
Frequency Range	9KHz ~ 1GHz	Detector Function	Quasi-Peak (QP)					
Horizontal								
<p>Level [dBuV/m]</p> <p>Frequency [Hz]</p> <p>— QP Limit — Horizontal PK</p> <p>◆ QP Detector</p>								
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]
1	108.5779	9.50	16.81	26.31	43.50	17.19	300	122
2	123.1293	10.60	18.00	28.60	43.50	14.90	200	359
3	187.2527	13.32	17.50	30.82	43.50	12.68	200	149
4	520.5781	8.45	24.41	32.86	46.00	13.14	200	127
5	691.1211	9.21	27.42	36.63	46.00	9.37	300	0
6	863.9924	12.69	29.84	42.53	46.00	3.47	100	195
Remark: 1. 9KHz~30MHz have been test and test data more than 20dB margin. 2. The emission levels of other frequencies were greater than 20dB margin. 3. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB). 4. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 5. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]								

Worst Test Mode	802.11b	Channel	CH 1
Frequency Range	9Khz ~ 1GHz	Detector Function	Quasi-Peak (QP)



NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]
1	108.7719	14.66	16.82	31.48	43.50	12.02	100	132
2	122.8383	15.04	17.97	33.01	43.50	10.49	100	31
3	134.1884	13.33	19.18	32.51	43.50	10.99	100	93
4	159.7990	10.83	20.92	31.75	43.50	11.75	100	59
5	230.5191	10.26	17.94	28.20	46.00	17.80	100	98
6	863.9924	8.76	29.84	38.60	46.00	7.40	200	233

Remark: 1. 9KHz~30MHz have been test and test data more than 20dB margin.

2. The emission levels of other frequencies were greater than 20dB margin.

3. Level (dB_{BV}/m) = Reading (dB_{BV}/m) + Factor (dB).

4. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

5. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]



ABOVE 1GHz DATA

Channel	802.11b CH 1	Frequency	2412MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2390	37.30	-0.15	37.15	54.00	16.85	150	184	AV
2	2390	46.02	-0.15	45.87	74.00	28.13	150	199	PK
3	2412	89.01	0.16	89.17			150	339	RMS
4	2414	90.93	0.19	91.12			150	339	PK
5	4824	42.34	9.68	52.02	74.00	21.98	108	99	PK
6	4824	34.68	9.68	44.36	54.00	9.64	217	86	AV
7	7236	19.47	12.39	31.86	54.00	22.14	283	357	AV
8	7236	28.18	12.39	40.57	74.00	33.43	314	354	PK
9	9648	26.97	13.13	40.10	74.00	33.90	160	354	PK
10	9648	19.46	13.13	32.59	54.00	21.41	320	348	AV

Vertical

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2390	37.26	-0.15	37.11	54.00	16.89	150	118	AV
2	2390	45.22	-0.15	45.07	74.00	28.93	150	302	PK
3	2412	89.67	0.16	89.83			150	118	RMS
4	2414	91.52	0.19	91.71			150	118	PK
5	4824	42.36	9.68	52.04	74.00	21.96	209	109	PK
6	4824	35.28	9.68	44.96	54.00	9.04	336	76	AV
7	7236	19.82	12.39	32.21	54.00	21.79	275	125	AV
8	7236	27.40	12.39	39.79	74.00	34.21	152	225	PK
9	9648	28.31	13.13	41.44	74.00	32.56	218	252	PK
10	9648	19.29	13.13	32.42	54.00	21.58	145	1	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		802.11b CH 6		Frequency		2437MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	4874	46.92	9.70	56.62	74.00	17.38	150	118	PK
2	4874	42.72	9.70	52.42	54.00	1.58	150	143	AV
3	7311	30.65	11.03	41.68	54.00	12.32	150	347	AV
4	7311	35.14	11.03	46.17	74.00	27.83	150	360	PK
5	9748	27.86	13.23	41.09	74.00	32.91	150	6	PK
6	9748	20.20	13.23	33.43	54.00	20.57	150	312	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	4874	45.87	9.70	55.57	74.00	18.43	150	50	PK
2	4874	40.54	9.70	50.24	54.00	3.76	150	79	AV
3	7311	29.57	11.03	40.60	54.00	13.40	150	82	AV
4	7311	34.79	11.03	45.82	74.00	28.18	150	82	PK
5	9748	27.61	13.23	40.84	74.00	33.16	150	200	PK
6	9748	19.26	13.23	32.49	54.00	21.51	150	195	AV
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]									



Channel		802.11b CH 11		Frequency		2462MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2462.0000	90.42	0.79	91.21			176	31	AV
2	2462.0000	92.38	0.79	93.17			312	31	PK
3	2483.5000	36.65	0.46	37.11	54.00	16.89	176	31	AV
4	2483.5000	43.96	0.46	44.42	74.00	29.58	106	359	PK
5	4926	43.46	10.07	53.53	74.00	20.47	150	90	PK
6	4926	34.16	10.07	44.23	54.00	9.77	150	215	AV
7	7386	20.63	9.80	30.43	54.00	23.57	150	213	AV
8	7386	29.49	9.80	39.29	74.00	34.71	150	39	PK
9	9848	27.26	13.24	40.50	74.00	33.50	150	292	PK
10	9848	19.23	13.24	32.47	54.00	21.53	150	70	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2462.0000	96.48	0.79	97.27			297	351	AV
2	2462.0000	98.35	0.79	99.14			135	345	PK
3	2483.5000	40.62	0.46	41.08	54.00	12.92	348	345	AV
4	2483.5000	48.40	0.46	48.86	74.00	25.14	163	12	PK
5	4926	41.53	10.07	51.60	74.00	22.40	150	217	PK
6	4926	33.86	10.07	43.93	54.00	10.07	150	335	AV
7	7386	20.94	9.80	30.74	54.00	23.26	150	320	AV
8	7386	29.10	9.80	38.90	74.00	35.10	150	320	PK
9	9848	27.92	13.24	41.16	74.00	32.84	150	0	PK
10	9848	19.73	13.24	32.97	54.00	21.03	150	290	AV
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]									



Channel	802.11g CH 1	Frequency	2412MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2390	58.47	-0.15	58.32	74.00	15.68	150	169	PK
2	2390	44.63	-0.15	44.48	54.00	9.52	150	169	AV
3	2415	89.05	0.20	89.25			150	244	RMS
4	2415	95.85	0.20	96.05			150	11	PK
5	4824	37.13	9.68	46.81	54.00	7.19	150	315	AV
6	4824	44.20	9.68	53.88	74.00	20.12	150	290	PK
7	7236	34.78	12.39	47.17	74.00	26.83	150	156	PK
8	7236	25.94	12.39	38.33	54.00	15.67	150	162	AV
9	9648	19.65	13.13	32.78	54.00	21.22	150	308	AV
10	9648	27.78	13.13	40.91	74.00	33.09	150	14	PK

Vertical

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2390	56.13	-0.15	55.98	74.00	18.02	150	204	PK
2	2390	44.27	-0.15	44.12	54.00	9.88	150	177	AV
3	2415	90.31	0.20	90.51			150	191	RMS
4	2418	97.34	0.25	97.59			150	191	PK
5	4824	40.79	9.68	50.47	54.00	3.53	150	182	AV
6	4824	48.02	9.68	57.70	74.00	16.30	150	176	PK
7	7236	27.28	12.39	39.67	54.00	14.33	150	264	AV
8	7236	35.03	12.39	47.42	74.00	26.58	150	264	PK
9	9648	27.79	13.13	40.92	74.00	33.08	150	320	PK
10	9648	20.38	13.13	33.51	54.00	20.49	150	3	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		802.11g CH 6		Frequency		2437MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	4874	45.00	9.70	54.70	74.00	19.30	150	67	PK
2	4874	36.21	9.70	45.91	54.00	8.09	150	106	AV
3	7311	26.53	11.03	37.56	54.00	16.44	150	12	AV
4	7311	35.00	11.03	46.03	74.00	27.97	150	12	PK
5	9748	26.98	13.23	40.21	74.00	33.79	150	268	PK
6	9748	19.27	13.23	32.50	54.00	21.50	150	358	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	4874	45.00	9.70	54.70	74.00	19.30	150	67	PK
2	4874	36.21	9.70	45.91	54.00	8.09	150	106	AV
3	7311	26.53	11.03	37.56	54.00	16.44	150	12	AV
4	7311	35.00	11.03	46.03	74.00	27.97	150	12	PK
5	9748	26.98	13.23	40.21	74.00	33.79	150	268	PK
6	9748	19.27	13.23	32.50	54.00	21.50	150	358	AV
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]									



Channel		802.11g CH 11		Frequency		2462MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2458	91.51	0.56	92.07			150	165	RMS
2	2459	98.36	0.56	98.92			150	199	PK
3	2483	49.00	0.46	49.46	54.00	4.54	150	99	AV
4	2483	63.98	0.46	64.44	74.00	9.56	150	99	PK
5	4926	36.43	10.07	46.50	54.00	7.50	150	142	AV
6	4926	43.13	10.07	53.20	74.00	20.80	150	108	PK
7	7386	33.11	9.80	42.91	74.00	31.09	150	30	PK
8	7386	24.97	9.80	34.77	54.00	19.23	150	30	AV
9	9848	19.43	13.24	32.67	54.00	21.33	150	139	AV
10	9848	27.76	13.24	41.00	74.00	33.00	150	3	PK
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2455	90.19	0.57	90.76			150	118	RMS
2	2458	98.07	0.56	98.63			150	105	PK
3	2483	59.90	0.46	60.36	74.00	13.64	150	164	PK
4	2483	48.67	0.46	49.13	54.00	4.87	150	164	AV
5	4926	43.88	10.07	53.95	74.00	20.05	150	56	PK
6	4926	35.81	10.07	45.88	54.00	8.12	150	46	AV
7	7378	34.90	9.95	44.85	74.00	29.15	150	79	PK
8	7386	23.76	9.80	33.56	54.00	20.44	150	79	AV
9	9848	19.74	13.24	32.98	54.00	21.02	150	79	AV
10	9848	27.65	13.24	40.89	74.00	33.11	150	9	PK
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]									



Channel	802.11n20 CH 1	Frequency	2412MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2390	42.26	-0.15	42.11	54.00	11.89	150	106	AV
2	2390	54.04	-0.15	53.89	74.00	20.11	150	106	PK
3	2414	91.37	0.18	91.55			150	342	PK
4	2419	84.67	0.26	84.93			150	106	RMS
5	4824	43.09	9.68	52.77	74.00	21.23	150	216	PK
6	4824	36.11	9.68	45.79	54.00	8.21	150	147	AV
7	7236	21.67	12.39	34.06	54.00	19.94	150	341	AV
8	7236	30.78	12.39	43.17	74.00	30.83	150	16	PK
9	9648	29.07	13.13	42.20	74.00	31.80	150	1	PK
10	9648	19.93	13.13	33.06	54.00	20.94	150	20	AV

Vertical

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2390	53.20	-0.15	53.05	74.00	20.95	150	111	PK
2	2390	41.15	-0.15	41.00	54.00	13.00	150	296	AV
3	2418	91.17	0.24	91.41			150	111	PK
4	2419	84.78	0.25	85.03			150	119	RMS
5	4824	42.92	9.68	52.60	74.00	21.40	150	120	PK
6	4824	35.25	9.68	44.93	54.00	9.07	150	76	AV
7	7236	21.98	12.39	34.37	54.00	19.63	150	117	AV
8	7236	30.32	12.39	42.71	74.00	31.29	150	103	PK
9	9648	27.82	13.13	40.95	74.00	33.05	150	310	PK
10	9648	19.94	13.13	33.07	54.00	20.93	150	54	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		802.11n20 CH 6		Frequency		2437MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	4874	46.33	9.70	56.03	74.00	17.97	150	111	PK
2	4874	37.49	9.70	47.19	54.00	6.81	150	111	AV
3	7311	29.84	11.03	40.87	54.00	13.13	150	345	AV
4	7311	37.17	11.03	48.20	74.00	25.80	150	1	PK
5	9748	28.06	13.23	41.29	74.00	32.71	150	104	PK
6	9748	19.17	13.23	32.40	54.00	21.60	150	282	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	4874	42.87	9.70	52.57	74.00	21.43	150	228	PK
2	4874	34.47	9.70	44.17	54.00	9.83	150	155	AV
3	7311	21.83	11.03	32.86	54.00	21.14	150	210	AV
4	7311	30.88	11.03	41.91	74.00	32.09	150	210	PK
5	9748	27.73	13.23	40.96	74.00	33.04	150	340	PK
6	9748	19.10	13.23	32.33	54.00	21.67	150	137	AV
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]									



Channel		802.11n20 CH 11		Frequency		2462MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2469	93.97	0.82	94.79			150	163	RMS
2	2469	101.27	0.84	102.11			150	163	PK
3	2483	48.49	0.46	48.95	54.00	5.05	150	163	AV
4	2483	68.51	0.46	68.97	74.00	5.03	150	208	PK
5	4926	46.63	10.07	56.70	74.00	17.30	150	109	PK
6	4926	39.03	10.07	49.10	54.00	4.90	150	142	AV
7	7386	27.43	9.80	37.23	54.00	16.77	150	332	AV
8	7386	35.31	9.80	45.11	74.00	28.89	150	3	PK
9	9848	27.81	13.24	41.05	74.00	32.95	150	177	PK
10	9848	19.36	13.24	32.60	54.00	21.40	150	316	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2465	99.42	0.71	100.13			150	111	PK
2	2469	92.25	0.83	93.08			150	105	RMS
3	2483	64.88	0.46	65.34	74.00	8.66	150	124	PK
4	2483	49.30	0.46	49.76	54.00	4.24	150	105	AV
5	4926	45.23	10.07	55.30	74.00	18.70	150	280	PK
6	4926	36.70	10.07	46.77	54.00	7.23	150	188	AV
7	7386	27.14	9.80	36.94	54.00	17.06	150	80	AV
8	7386	35.47	9.80	45.27	74.00	28.73	150	80	PK
9	9848	27.15	13.24	40.39	74.00	33.61	150	323	PK
10	9848	19.36	13.24	32.60	54.00	21.40	150	334	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		802.11n40 CH 3		Frequency		2422MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2390	39.79	-0.15	39.64	54.00	14.36	150	202	AV
2	2390	51.43	-0.15	51.28	74.00	22.72	150	111	PK
3	2419	87.55	0.25	87.80			150	342	RMS
4	2419	94.23	0.25	94.48			150	111	PK
5	4830	37.95	9.79	47.74	54.00	6.26	150	59	RMS
6	4833	46.76	9.81	56.57	74.00	17.43	150	113	PK
7	7241	35.72	12.32	48.04	74.00	25.96	150	342	PK
8	7241	25.39	12.32	37.71	54.00	16.29	150	346	RMS
9	9688	19.56	13.15	32.71	54.00	21.29	150	287	AV
10	9688	27.83	13.15	40.98	74.00	33.02	150	194	PK
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2390	40.84	-0.15	40.69	54.00	13.31	150	301	AV
2	2390	51.82	-0.15	51.67	74.00	22.33	150	301	PK
3	2418	94.06	0.25	94.31			150	117	RMS
4	2419	88.35	0.25	88.60			150	124	PK
5	4823	46.57	9.67	56.24	74.00	17.76	150	291	PK
6	4830	38.23	9.79	48.02	54.00	5.98	150	79	RMS
7	7240	25.32	12.32	37.64	54.00	16.36	150	68	RMS
8	7243	33.88	12.31	46.19	74.00	27.81	150	177	PK
9	9872	29.45	13.35	42.80	74.00	31.20	150	24	PK
10	10004	20.07	13.95	34.02	54.00	19.98	150	0	RMS

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		802.11n40 CH 9		Frequency		2452MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2451	85.34	0.57	85.91	54.00	-31.91	150	15	RMS
2	2452	92.85	0.57	93.42	74.00	-19.42	150	15	PK
3	2483	48.73	0.46	49.19	54.00	4.81	150	118	AV
4	2483	63.53	0.46	63.99	74.00	10.01	150	2	PK
5	4904	41.85	10.07	51.92	74.00	22.08	314	359	PK
6	4904	34.20	10.07	44.27	54.00	9.73	235	330	AV
7	7356	20.47	9.80	30.27	54.00	23.73	284	206	AV
8	7356	28.92	9.80	38.72	74.00	35.28	110	79	PK
9	9808	26.68	13.24	39.92	74.00	34.08	276	187	PK
10	9808	18.77	13.24	32.01	54.00	21.99	116	3	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2451	89.88	0.57	90.45	74.00	-16.45	150	7	PK
2	2452	86.85	0.57	87.42	54.00	-33.42	150	7	RMS
3	2483	48.81	0.46	49.27	54.00	4.73	150	229	AV
4	2483	61.97	0.46	62.43	74.00	11.57	150	196	PK
5	4904	41.99	10.07	52.06	74.00	21.94	138	197	PK
6	4904	34.87	10.07	44.94	54.00	9.06	127	20	AV
7	7356	20.37	9.80	30.17	54.00	23.83	241	227	AV
8	7356	28.29	9.80	38.09	74.00	35.91	151	178	PK
9	9808	27.22	13.24	40.46	74.00	33.54	215	286	PK
10	9808	18.91	13.24	32.15	54.00	21.85	159	188	AV
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]									



Channel	BT-LE CH0	Frequency	2402MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2390	36.50	-0.15	36.35	54.00	17.65	150	328	AV
2	2390	45.72	-0.15	45.57	74.00	28.43	150	295	PK
3	2401	95.24	-0.04	95.20			150	174	RMS
4	2402	96.42	-0.03	96.39			150	174	PK
5	4804	43.22	9.29	52.51	74.00	21.49	150	256	PK
6	4804	34.61	9.29	43.90	54.00	10.10	150	206	AV
7	7206	22.01	12.81	34.82	54.00	19.18	150	150	AV
8	7206	31.10	12.81	43.91	74.00	30.09	150	164	PK
9	9608	27.24	13.32	40.56	74.00	33.44	150	359	PK
10	9608	19.63	13.32	32.95	54.00	21.05	150	234	AV

Vertical

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2390	36.57	-0.15	36.42	54.00	17.58	150	271	AV
2	2390	45.15	-0.15	45.00	74.00	29.00	150	338	PK
3	2401	96.84	-0.04	96.80			150	198	PK
4	2401	96.15	-0.03	96.12			150	192	RMS
5	4804	42.31	9.29	51.60	74.00	22.40	150	334	PK
6	4804	34.63	9.29	43.92	54.00	10.08	150	158	AV
7	7206	22.54	12.81	35.35	54.00	18.65	150	326	AV
8	7206	31.30	12.81	44.11	74.00	29.89	150	266	PK
9	9608	27.99	13.32	41.31	74.00	32.69	150	326	PK
10	9608	19.48	13.32	32.80	54.00	21.20	150	326	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		BT-LE CH19		Frequency		2440MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	4880	42.51	9.80	52.31	74.00	21.69	150	1	PK
2	4880	35.17	9.80	44.97	54.00	9.03	150	224	AV
3	7204	26.79	12.83	39.62	54.00	14.38	150	349	RMS
4	7205	33.11	12.82	45.93	74.00	28.07	150	10	PK
5	9760	27.90	13.25	41.15	74.00	32.85	150	220	PK
6	9760	19.27	13.25	32.52	54.00	21.48	150	344	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	4880	42.32	9.80	52.12	74.00	21.88	150	319	PK
2	4880	34.42	9.80	44.22	54.00	9.78	150	309	AV
3	7204	26.54	12.83	39.37	54.00	14.63	150	166	RMS
4	7204	32.84	12.83	45.67	74.00	28.33	150	166	PK
5	9760	28.84	13.25	42.09	74.00	31.91	150	56	PK
6	9760	19.54	13.25	32.79	54.00	21.21	150	320	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



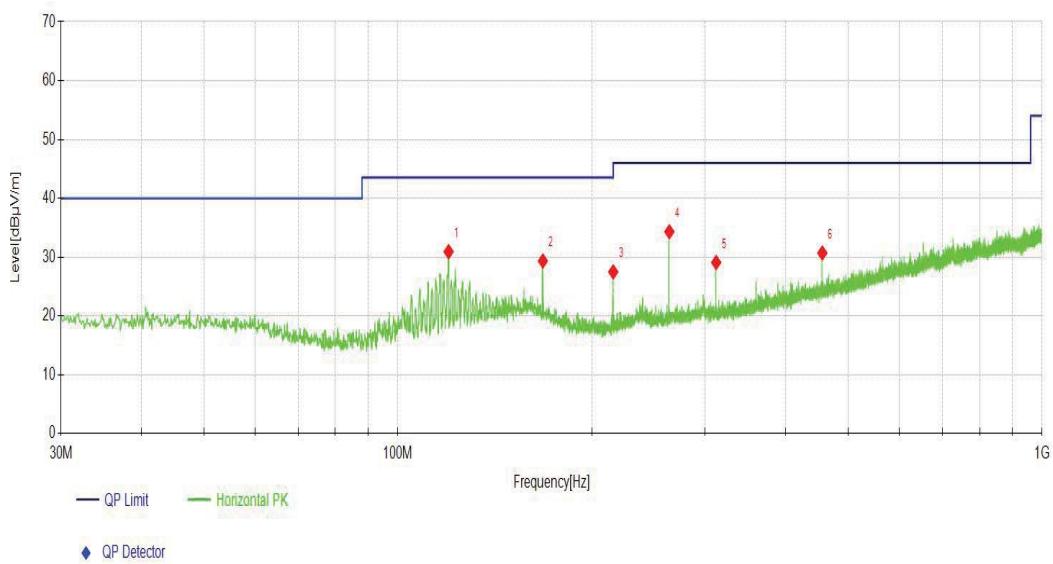
Channel		BT-LE CH39		Frequency		2480MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2479	93.38	0.33	93.71	74.00	-19.71	150	248	PK
2	2479	92.61	0.32	92.93	54.00	-38.93	150	254	RMS
3	2483	36.80	0.46	37.26			150	220	AV
4	2483	44.98	0.46	45.44			150	148	PK
5	4960	42.64	10.69	53.33	74.00	20.67	150	239	PK
6	4960	34.47	10.69	45.16	54.00	8.84	150	86	AV
7	7440	22.58	9.75	32.33	54.00	21.67	150	164	AV
8	7440	29.87	9.75	39.62	74.00	34.38	150	189	PK
9	9920	27.07	13.83	40.90	74.00	33.10	150	169	PK
10	9920	19.70	13.83	33.53	54.00	20.47	150	299	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2479	92.60	0.33	92.93			150	198	PK
2	2479	91.82	0.33	92.15			150	192	RMS
3	2483	44.99	0.46	45.45	74.00	28.55	150	312	PK
4	2483	36.94	0.46	37.40	54.00	16.60	150	105	AV
5	4960	43.90	10.69	54.59	74.00	19.41	150	354	PK
6	4960	34.55	10.69	45.24	54.00	8.76	150	175	AV
7	7440	22.61	9.75	32.36	54.00	21.64	150	231	AV
8	7440	30.04	9.75	39.79	74.00	34.21	150	231	PK
9	9920	27.03	13.83	40.86	74.00	33.14	150	176	PK
10	9920	19.81	13.83	33.64	54.00	20.36	150	6	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]

MODEL:WF-U21DS-SSA2
BELOW 1GHz WORST-CASE DATA:

Worst Test Mode	802.11b	Channel	CH 1
Frequency Range	9KHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Horizontal


NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]
1	119.9280	13.30	17.60	30.90	43.50	12.60	300	74
2	167.9478	9.09	20.23	29.32	43.50	14.18	200	37
3	215.9676	10.25	17.22	27.47	43.50	16.03	100	345
4	263.9874	15.71	18.59	34.30	46.00	11.70	100	300
5	312.0072	8.94	20.13	29.07	46.00	16.93	100	311
6	455.9696	7.39	23.29	30.68	46.00	15.32	200	252

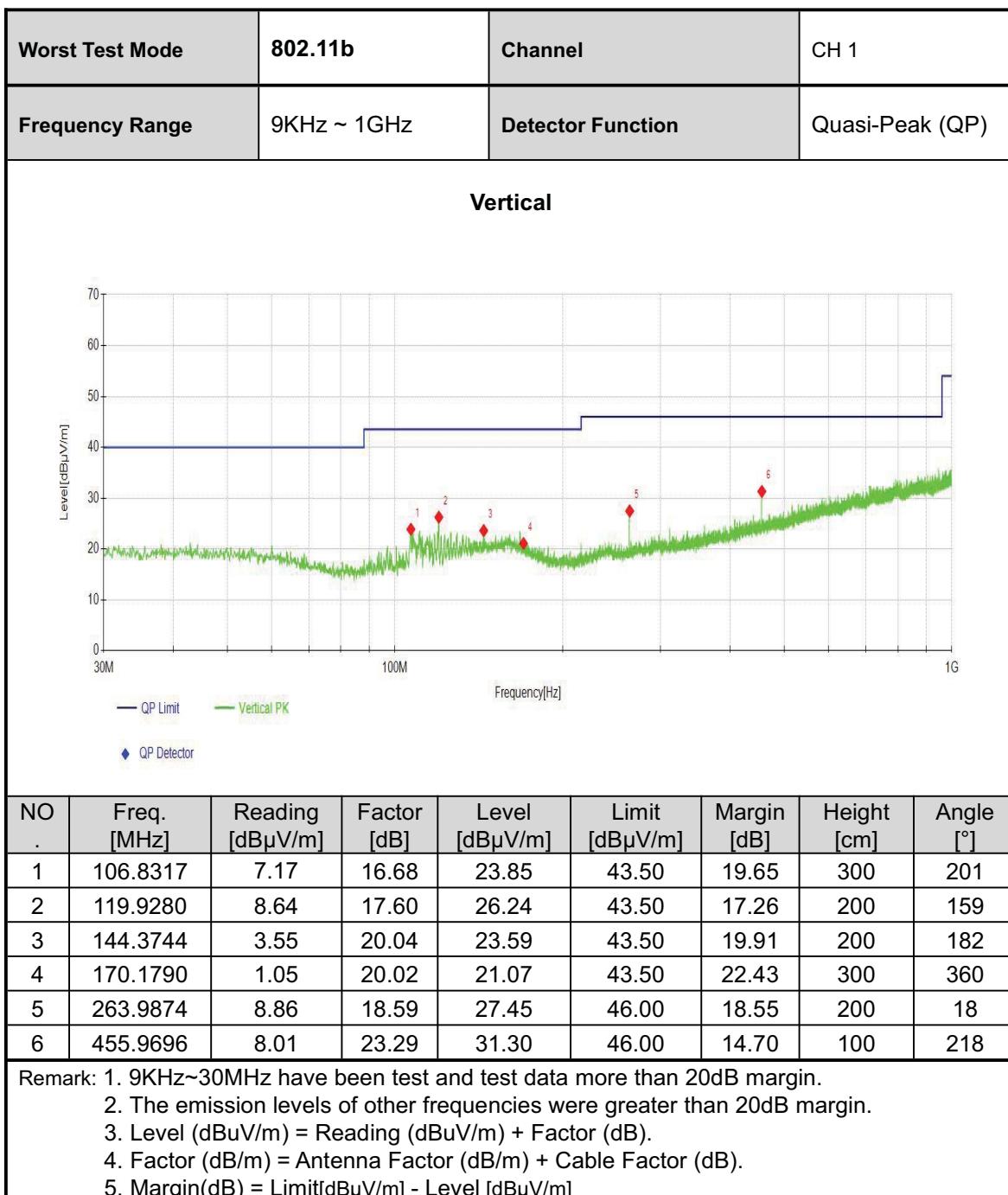
Remark: 1. 9KHz~30MHz have been test and test data more than 20dB margin.

2. The emission levels of other frequencies were greater than 20dB margin.

 3. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

4. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

 5. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]





ABOVE 1GHz DATA

Channel	802.11b CH 1	Frequency	2412MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2390	38.18	-0.15	38.03	54.00	15.97	179	142	AV
2	2390	45.65	-0.15	45.50	74.00	28.50	202	16	PK
3	2414	89.24	0.18	89.42			332	142	RMS
4	2414	91.41	0.19	91.60			175	142	PK
5	4824	41.28	9.68	50.96	54.00	3.04	105	232	RMS
6	4824	46.14	9.68	55.82	74.00	18.18	316	26	PK
7	7233	26.39	12.42	38.81	54.00	15.19	138	191	RMS
8	7234	32.22	12.40	44.62	74.00	29.38	154	200	PK
9	9648	27.40	13.13	40.53	74.00	33.47	248	225	PK
10	9648	19.28	13.13	32.41	54.00	21.59	222	38	AV

Vertical

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2390	36.57	-0.15	36.42	54.00	17.58	255	191	AV
2	2390	43.67	-0.15	43.52	74.00	30.48	328	12	PK
3	2414	86.61	0.18	86.79			186	85	RMS
4	2414	88.80	0.19	88.99			177	85	PK
5	4824	47.47	9.68	57.15	74.00	16.85	271	92	PK
6	4824	42.78	9.68	52.46	54.00	1.54	240	102	RMS
7	7234	34.23	12.40	46.63	74.00	27.37	312	42	PK
8	7234	29.03	12.40	41.43	54.00	12.57	202	42	RMS
9	9648	19.40	13.13	32.53	54.00	21.47	297	121	AV
10	9648	26.39	13.13	39.52	74.00	34.48	364	175	PK

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		802.11b CH 6		Frequency		2437MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	4874	45.96	9.70	55.66	74.00	18.34	150	341	PK
2	4873	40.59	9.70	50.29	54.00	3.71	150	20	RMS
3	7309	26.62	11.04	37.66	54.00	16.34	150	289	RMS
4	7309	32.17	11.04	43.21	74.00	30.79	150	344	PK
5	9748	18.94	13.23	32.17	54.00	21.83	150	12	AV
6	9748	27.77	13.23	41.00	74.00	33.00	150	17	PK
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	4874	39.78	9.70	49.48	54.00	4.52	150	95	AV
2	4874	44.67	9.70	54.37	74.00	19.63	150	86	PK
3	7311	32.81	11.03	43.84	74.00	30.16	150	32	PK
4	7311	28.45	11.03	39.48	54.00	14.52	150	32	AV
5	9748	18.96	13.23	32.19	54.00	21.81	150	86	AV
6	9748	27.19	13.23	40.42	74.00	33.58	150	150	PK
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]									



Channel		802.11b CH 11		Frequency		2462MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2461	94.09	0.59	94.68			150	103	PK
2	2464	91.94	0.68	92.62			150	103	RMS
3	2483	46.92	0.46	47.38	74.00	26.62	150	70	PK
4	2483	37.45	0.46	37.91	54.00	16.09	150	103	AV
5	4926	42.88	10.07	52.95	74.00	21.05	150	21	PK
6	4926	34.67	10.07	44.74	54.00	9.26	150	268	AV
7	7386	27.69	9.80	37.49	54.00	16.51	150	195	AV
8	7386	33.05	9.80	42.85	74.00	31.15	150	274	PK
9	9848	19.34	13.24	32.58	54.00	21.42	150	97	AV
10	9951	29.72	13.69	43.41	74.00	30.59	150	309	PK
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2459	91.34	0.56	91.90			150	85	PK
2	2460	89.36	0.56	89.92			150	85	RMS
3	2483	37.16	0.46	37.62	54.00	16.38	150	157	AV
4	2483	45.19	0.46	45.65	74.00	28.35	150	144	PK
5	4924	42.68	10.14	52.82	54.00	1.18	150	294	RMS
6	4924	46.79	10.14	56.93	74.00	17.07	150	294	PK
7	7384	32.96	9.85	42.81	74.00	31.19	150	150	PK
8	7386	32.24	9.80	42.04	74.00	31.96	150	129	PK
9	9848	26.13	13.24	39.37	74.00	34.63	150	3	PK
10	9848	18.43	13.24	31.67	54.00	22.33	150	204	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel	802.11g CH 1	Frequency	2412MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2390	44.77	-0.15	44.62	54.00	9.38	150	165	AV
2	2390	57.70	-0.15	57.55	74.00	16.45	150	165	PK
3	2418	92.88	0.23	93.11			150	138	PK
4	2418	86.13	0.24	86.37			150	144	RMS
5	4824	43.64	9.68	53.32	74.00	20.68	129	294	PK
6	4824	36.06	9.68	45.74	54.00	8.26	106	288	AV
7	7236	23.53	12.39	35.92	54.00	18.08	110	107	AV
8	7236	31.13	12.39	43.52	74.00	30.48	168	107	PK
9	9648	27.94	13.13	41.07	74.00	32.93	335	211	PK
10	9648	19.12	13.13	32.25	54.00	21.75	284	359	AV

Vertical

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2389	54.85	-0.15	54.70	74.00	19.30	150	85	PK
2	2389	42.70	-0.15	42.55	54.00	11.45	150	85	RMS
3	2415	90.95	0.21	91.16			150	91	PK
4	2416	83.98	0.21	84.19			150	91	RMS
5	4824	43.90	9.68	53.58	74.00	20.42	213	102	PK
6	4824	35.73	9.68	45.41	54.00	8.59	385	107	AV
7	7230	25.84	12.48	38.32	54.00	15.68	256	40	RMS
8	7234	34.89	12.40	47.29	74.00	26.71	182	65	PK
9	9648	27.60	13.13	40.73	74.00	33.27	336	86	PK
10	9648	19.22	13.13	32.35	54.00	21.65	166	184	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		802.11g CH 6		Frequency		2437MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	4874	44.47	9.70	54.17	74.00	19.83	353	356	PK
2	4874	35.81	9.70	45.51	54.00	8.49	145	356	AV
3	7305	24.17	11.14	35.31	54.00	18.69	167	290	RMS
4	7308	34.10	11.07	45.17	74.00	28.83	322	106	PK
5	9748	26.79	13.23	40.02	74.00	33.98	199	91	PK
6	9748	19.54	13.23	32.77	54.00	21.23	200	96	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	4874	43.46	9.70	53.16	74.00	20.84	220	298	PK
2	4874	36.05	9.70	45.75	54.00	8.25	188	328	AV
3	7311	25.38	11.03	36.41	54.00	17.59	346	41	AV
4	7311	32.26	11.03	43.29	74.00	30.71	291	31	PK
5	9748	26.54	13.23	39.77	74.00	34.23	121	234	PK
6	9748	19.11	13.23	32.34	54.00	21.66	355	120	AV
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]									



Channel	802.11g CH 11	Frequency	2462MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2458	96.61	0.56	97.17			262	103	PK
2	2459	88.67	0.56	89.23			244	103	RMS
3	2483	49.64	0.46	50.10	54.00	3.90	238	103	AV
4	2483	65.00	0.46	65.46	74.00	8.54	317	103	PK
5	4926	35.05	10.07	45.12	54.00	8.88	372	105	AV
6	4926	43.53	10.07	53.60	74.00	20.40	370	120	PK
7	7378	33.95	9.95	43.90	74.00	30.10	396	87	PK
8	7386	25.14	9.80	34.94	54.00	19.06	295	333	AV
9	9848	27.05	13.24	40.29	74.00	33.71	146	180	PK
10	9848	18.38	13.24	31.62	54.00	22.38	336	343	AV

Vertical

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2455	86.16	0.57	86.73			163	92	RMS
2	2459	93.08	0.56	93.64			382	85	PK
3	2483	42.80	0.46	43.26	54.00	10.74	273	157	AV
4	2483	60.14	0.46	60.60	74.00	13.40	293	73	PK
5	4926	42.87	10.07	52.94	74.00	21.06	256	63	PK
6	4926	35.24	10.07	45.31	54.00	8.69	234	63	AV
7	7386	23.78	9.80	33.58	54.00	20.42	136	128	AV
8	7386	31.73	9.80	41.53	74.00	32.47	275	40	PK
9	9848	27.13	13.24	40.37	74.00	33.63	366	349	PK
10	9848	19.44	13.24	32.68	54.00	21.32	330	349	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel	802.11n20 CH 1	Frequency	2412MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2390	51.86	-0.15	51.71	74.00	22.29	104	215	PK
2	2390	40.12	-0.15	39.97	54.00	14.03	348	215	AV
3	2414	90.68	0.18	90.86			219	142	PK
4	2419	83.83	0.25	84.08			307	142	RMS
5	4824	43.67	9.68	53.35	74.00	20.65	306	359	PK
6	4824	36.78	9.68	46.46	54.00	7.54	355	260	AV
7	7236	22.45	12.39	34.84	54.00	19.16	267	225	AV
8	7236	30.23	12.39	42.62	74.00	31.38	339	220	PK
9	9648	27.57	13.13	40.70	74.00	33.30	137	265	PK
10	9648	19.28	13.13	32.41	54.00	21.59	248	111	AV

Vertical

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2390	38.14	-0.15	37.99	54.00	16.01	322	91	AV
2	2390	47.22	-0.15	47.07	74.00	26.93	315	31	PK
3	2419	82.24	0.25	82.49			100	84	RMS
4	2419	88.39	0.26	88.65			106	91	PK
5	4824	43.94	9.68	53.62	74.00	20.38	358	68	PK
6	4824	34.90	9.68	44.58	54.00	9.42	201	155	AV
7	7236	24.82	12.39	37.21	54.00	16.79	155	46	AV
8	7252	34.42	12.25	46.67	74.00	27.33	397	125	PK
9	9648	27.35	13.13	40.48	74.00	33.52	306	95	PK
10	9648	19.41	13.13	32.54	54.00	21.46	134	356	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		802.11n20 CH 6		Frequency		2437MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	4874	43.61	9.70	53.31	74.00	20.69	256	16	PK
2	4874	34.88	9.70	44.58	54.00	9.42	305	16	AV
3	7311	21.62	11.03	32.65	54.00	21.35	280	27	AV
4	7311	30.00	11.03	41.03	74.00	32.97	279	52	PK
5	9748	26.66	13.23	39.89	74.00	34.11	145	304	PK
6	9748	18.80	13.23	32.03	54.00	21.97	132	151	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	4874	44.51	9.70	54.21	74.00	19.79	103	174	PK
2	4874	34.92	9.70	44.62	54.00	9.38	264	174	AV
3	7311	24.57	11.03	35.60	54.00	18.40	184	291	AV
4	7311	31.19	11.03	42.22	74.00	31.78	337	17	PK
5	9748	28.48	13.23	41.71	74.00	32.29	168	316	PK
6	9748	19.38	13.23	32.61	54.00	21.39	195	276	AV
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]									



Channel		802.11n20 CH 11		Frequency		2462MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2460	88.80	0.59	89.39			298	149	PK
2	2460	80.84	0.59	81.43			112	149	RMS
3	2483	38.14	0.46	38.60	54.00	15.40	208	43	AV
4	2483	50.67	0.46	51.13	74.00	22.87	143	122	PK
5	4926	43.85	10.07	53.92	74.00	20.08	263	360	PK
6	4926	35.42	10.07	45.49	54.00	8.51	384	293	AV
7	7386	21.23	9.80	31.03	54.00	22.97	128	90	AV
8	7386	29.79	9.80	39.59	74.00	34.41	238	184	PK
9	9848	26.82	13.24	40.06	74.00	33.94	381	174	PK
10	9848	18.85	13.24	32.09	54.00	21.91	333	299	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2458	79.83	0.56	80.39			261	80	RMS
2	2458	87.27	0.56	87.83			253	92	PK
3	2483	37.69	0.46	38.15	54.00	15.85	141	92	AV
4	2483	53.17	0.47	53.64	74.00	20.36	243	99	PK
5	4926	43.10	10.07	53.17	74.00	20.83	160	108	PK
6	4926	35.90	10.07	45.97	54.00	8.03	270	294	AV
7	7386	22.33	9.80	32.13	54.00	21.87	357	106	AV
8	7386	30.62	9.80	40.42	74.00	33.58	223	27	PK
9	9848	26.72	13.24	39.96	74.00	34.04	310	4	PK
10	9848	18.85	13.24	32.09	54.00	21.91	151	171	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		802.11n40 CH 3		Frequency		2422MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2390	39.25	-0.15	39.10	54.00	14.90	143	130	AV
2	2390	49.43	-0.15	49.28	74.00	24.72	239	103	PK
3	2416	87.67	0.22	87.89			283	110	PK
4	2416	78.81	0.22	79.03			358	123	RMS
5	4844	34.67	9.94	44.61	54.00	9.39	359	360	AV
6	4844	42.29	9.94	52.23	74.00	21.77	256	307	PK
7	7266	27.70	11.99	39.69	74.00	34.31	127	9	PK
8	7266	20.62	11.99	32.61	54.00	21.39	104	226	AV
9	9688	19.12	13.15	32.27	54.00	21.73	204	2	AV
10	9688	27.08	13.15	40.23	74.00	33.77	197	29	PK
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2389	49.98	-0.15	49.83	74.00	24.17	130	111	PK
2	2390	38.47	-0.15	38.32	54.00	15.68	200	171	AV
3	2429	84.39	0.35	84.74			336	118	PK
4	2433	76.67	0.38	77.05			211	111	RMS
5	4844	35.31	9.94	45.25	54.00	8.75	239	258	AV
6	4844	43.01	9.94	52.95	74.00	21.05	164	224	PK
7	7266	24.13	11.99	36.12	54.00	17.88	214	195	AV
8	7266	31.86	11.99	43.85	74.00	30.15	299	77	PK
9	9688	28.16	13.15	41.31	74.00	32.69	113	46	PK
10	9688	19.50	13.15	32.65	54.00	21.35	325	46	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		802.11n40 CH 9		Frequency		2452MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2453	85.13	0.57	85.70			383	35	PK
2	2458	77.62	0.56	78.18			219	35	RMS
3	2483	39.21	0.46	39.67	54.00	14.33	327	181	AV
4	2483	48.87	0.46	49.33	74.00	24.67	317	215	PK
5	4904	42.54	10.10	52.64	74.00	21.36	173	70	PK
6	4904	34.73	10.10	44.83	54.00	9.17	100	286	AV
7	7356	21.18	10.31	31.49	54.00	22.51	191	344	AV
8	7356	29.19	10.31	39.50	74.00	34.50	133	205	PK
9	9808	26.82	13.20	40.02	74.00	33.98	300	359	PK
10	9808	18.77	13.20	31.97	54.00	22.03	289	285	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2452	78.24	0.57	78.81			226	111	RMS
2	2458	85.90	0.56	86.46			316	111	PK
3	2483	39.24	0.46	39.70	54.00	14.30	383	91	AV
4	2483	50.83	0.46	51.29	74.00	22.71	135	85	PK
5	4904	42.89	10.10	52.99	74.00	21.01	255	284	PK
6	4904	33.99	10.10	44.09	54.00	9.91	338	264	AV
7	7356	22.08	10.31	32.39	54.00	21.61	233	3	AV
8	7356	29.92	10.31	40.23	74.00	33.77	287	7	PK
9	9808	28.00	13.20	41.20	74.00	32.80	285	282	PK
10	9808	18.61	13.20	31.81	54.00	22.19	318	46	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel	BT-LE CH0	Frequency	2402MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2390	36.18	-0.15	36.03	54.00	17.97	172	312	AV
2	2390	44.05	-0.15	43.90	74.00	30.10	198	112	PK
3	2401	91.73	-0.04	91.69			369	120	PK
4	2401	90.91	-0.03	90.88			270	120	RMS
5	4804	43.96	9.29	53.25	74.00	20.75	276	26	PK
6	4804	34.94	9.29	44.23	54.00	9.77	355	12	AV
7	7206	19.57	12.81	32.38	54.00	21.62	137	163	AV
8	7206	27.47	12.81	40.28	74.00	33.72	326	138	PK
9	9608	27.25	13.32	40.57	74.00	33.43	142	158	PK
10	9608	19.34	13.32	32.66	54.00	21.34	154	279	AV

Vertical

NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2390	36.29	-0.15	36.14	54.00	17.86	158	211	AV
2	2390	44.99	-0.15	44.84	74.00	29.16	260	211	PK
3	2401	88.84	-0.04	88.80			139	98	PK
4	2401	87.78	-0.03	87.75			381	91	RMS
5	4804	42.26	9.29	51.55	74.00	22.45	145	349	PK
6	4804	34.48	9.29	43.77	54.00	10.23	220	38	AV
7	7206	20.34	12.81	33.15	54.00	20.85	239	94	AV
8	7206	28.14	12.81	40.95	74.00	33.05	138	252	PK
9	9608	27.11	13.32	40.43	74.00	33.57	230	252	PK
10	9608	19.79	13.32	33.11	54.00	20.89	219	207	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		BT-LE CH19		Frequency		2440MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	4880.0000	43.13	9.80	52.93	74.00	21.07	352	256	PK
2	4880.0000	34.42	9.80	44.22	54.00	9.78	313	310	AV
3	7320.0000	20.81	11.01	31.82	54.00	22.18	305	250	AV
4	7320.0000	28.91	11.01	39.92	74.00	34.08	343	314	PK
5	9760.0000	28.11	13.25	41.36	74.00	32.64	125	107	PK
6	9760.0000	19.05	13.25	32.30	54.00	21.70	338	186	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	4880.0000	42.59	9.80	52.39	74.00	21.61	165	274	PK
2	4880.0000	34.97	9.80	44.77	54.00	9.23	367	131	AV
3	7320.0000	23.38	11.01	34.39	54.00	19.61	356	200	AV
4	7320.0000	29.78	11.01	40.79	74.00	33.21	390	200	PK
5	9760.0000	27.84	13.25	41.09	74.00	32.91	355	343	PK
6	9760.0000	19.03	13.25	32.28	54.00	21.72	236	27	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]



Channel		BT-LE CH39		Frequency		2480MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	2480	83.39	0.32	83.71			244	107	RMS
2	2480	84.98	0.33	85.31			287	114	PK
3	2483	36.29	0.46	36.75	54.00	17.25	143	295	AV
4	2483	45.51	0.46	45.97	74.00	28.03	225	3	PK
5	4960	42.09	10.69	52.78	74.00	21.22	135	30	PK
6	4960	35.04	10.69	45.73	54.00	8.27	386	339	AV
7	7440	20.62	9.75	30.37	54.00	23.63	163	270	AV
8	7440	29.24	9.75	38.99	74.00	35.01	337	68	PK
9	9920	26.85	13.83	40.68	74.00	33.32	337	167	PK
10	9920	18.71	13.83	32.54	54.00	21.46	188	2	AV
Vertical									
NO .	Freq. [MHz]	Reading [dB μ V/m]	Factor [dB]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	2479	82.60	0.32	82.92			229	92	RMS
2	2480	83.53	0.32	83.85			101	100	PK
3	2483	35.85	0.46	36.31	54.00	17.69	368	277	AV
4	2483	44.19	0.46	44.65	74.00	29.35	376	277	PK
5	4960	43.45	10.69	54.14	74.00	19.86	180	121	PK
6	4960	34.32	10.69	45.01	54.00	8.99	268	201	AV
7	7440	20.28	9.75	30.03	54.00	23.97	231	36	AV
8	7440	29.43	9.75	39.18	74.00	34.82	375	7	PK
9	9920	26.95	13.83	40.78	74.00	33.22	232	7	PK
10	9920	19.41	13.83	33.24	54.00	20.76	399	135	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB μ V/m) = Reading (dB μ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB μ V/m] - Level [dB μ V/m]

3.3 6dB BANDWIDTH MEASUREMENT

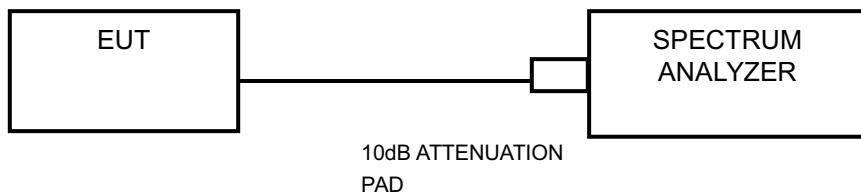
3.3.1 Limits

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

3.3.2 Measurement procedure

- a. Set resolution bandwidth (RBW) = 100KHz
- b. Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- c. Trace mode = max hold.
- d. Sweep = auto couple.
- e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.3.3 Test setup



3.3.4 Test result

Please refer Annex A

3.4 CONDUCTED OUTPUT POWER

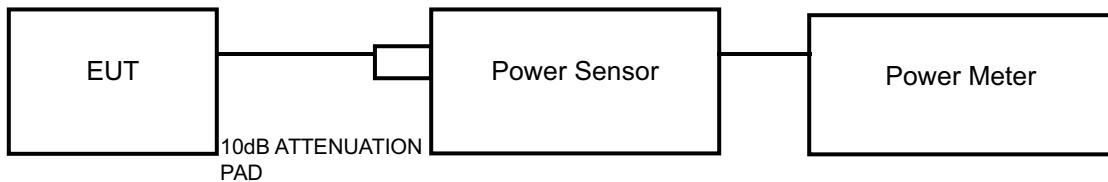
3.4.1 Limits

For systems using digital modulation in the 2400–2483.5 MHz band: 1 Watt (30dBm).

3.4.2 Measurement procedure

- a. A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor and set the detector to PEAK. Record the power level.
- b. An average power sensor was used on the output port of the EUT. A power meter was used to read the response of the average power sensor and set the detector to AVERAGE. Record the power level.

3.4.3 Test setup



3.4.4 Test result

Please refer Annex A.

3.5 POWER SPECTRAL DENSITY MEASUREMENT

3.5.1 Limits

The Maximum of Power Spectral Density Measurement is 8dBm/3KHz.

3.5.2 Measurement procedure

- a. Set instrument center frequency to DTS channel center frequency.
- b. Set the span to 1.5 times the DTS bandwidth.
- c. Set RBW to: 3KHz
- d. Set VBW $\geq 3 \times$ RBW.
- e. Detector = peak
- f. Ensure that the number of measurement points in the sweep $\geq 2 \times$ span/RBW.
- g. Sweep time = auto couple.
- h. Use the peak marker function to determine the maximum amplitude level.

3.5.3 Test setup



3.5.4 Test result

Please refer Annex A.

3.6 OUT OF BAND EMISSION MEASUREMENT

3.6.1 Limits

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

3.6.2 Measurement procedure

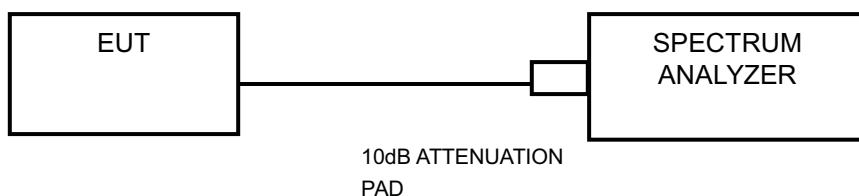
Measurement Procedure -Reference Level

- a. Set the RBW = 100 kHz.
- b. Set the VBW \geq 300 kHz.
- c. Detector = peak.
- d. Sweep time = auto couple.
- e. Trace mode = max hold.
- f. Allow trace to fully stabilize.
- g. Use the peak marker function to determine the maximum power level in any 100 kHzband segment within the fundamental EBW.

Measurement Procedure –Unwanted Emission Level

- a. Set RBW = 100 kHz.
- b. Set VBW \geq 300 kHz.
- c. Set span to encompass the spectrum to be examined
- d. Detector = peak.
- e. Trace Mode = max hold.
- f. Sweep = auto couple.

3.6.3 Test setup



3.6.4 Test result

Please refer Annex A.

3.7 OCCUPIED BANDWIDTH MEASUREMENT

3.7.1 Measurement procedure

The transmitter antenna output was connected to the spectrum analyzer through an attenuator. The resolution bandwidth shall be set to the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth.

below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

3.7.2 TEST SETUP



3.7.3 Test result

Please refer Annex A.



4 PHOTOGRAPHS OF TEST SETUP

Please refer to the attached file (Test Setup Photo).



5 PHOTOGRAPHS OF THE EUT

Please refer to the attached file (External Photos report and Internal Photos).



6 Appendix A

Please refer to the following pages for test results.

6.1 6DB BANDWIDTH MEASUREMENT

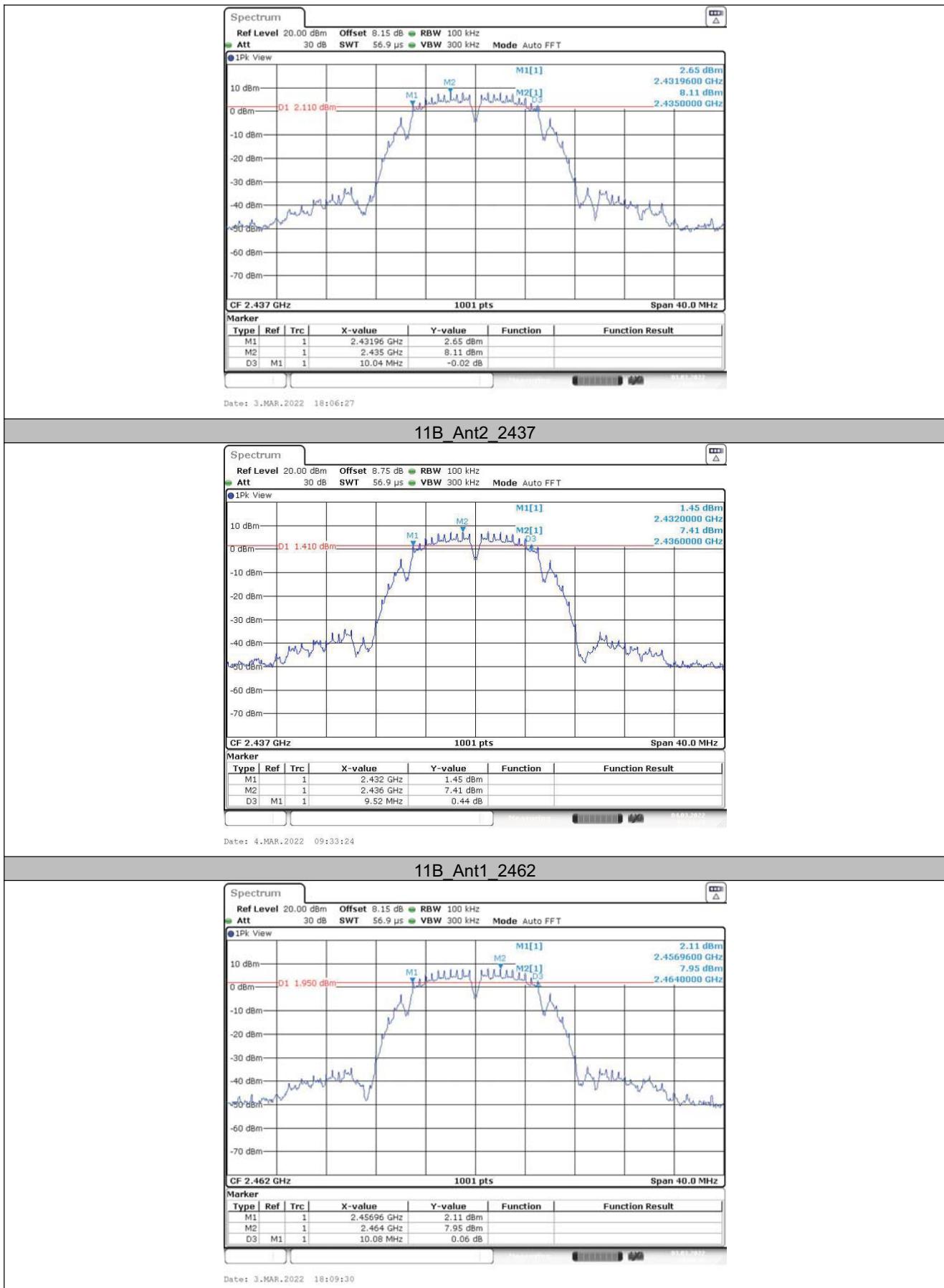
6.1.1 Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.08	2406.96	2417.04	0.5	PASS
	Ant2	2412	9.04	2407.48	2416.52	0.5	PASS
	Ant1	2437	10.04	2431.96	2442.00	0.5	PASS
	Ant2	2437	9.52	2432.00	2441.52	0.5	PASS
	Ant1	2462	10.08	2456.96	2467.04	0.5	PASS
	Ant2	2462	9.04	2457.48	2466.52	0.5	PASS
11G	Ant1	2412	16.32	2403.84	2420.16	0.5	PASS
	Ant2	2412	16.32	2403.84	2420.16	0.5	PASS
	Ant1	2437	16.36	2428.80	2445.16	0.5	PASS
	Ant2	2437	16.36	2428.80	2445.16	0.5	PASS
	Ant1	2462	16.32	2453.84	2470.16	0.5	PASS
	Ant2	2462	16.32	2453.84	2470.16	0.5	PASS
11N20MIMO	Ant1	2412	17.52	2403.24	2420.76	0.5	PASS
	Ant2	2412	17.32	2403.44	2420.76	0.5	PASS
	Ant1	2437	17.36	2428.20	2445.56	0.5	PASS
	Ant2	2437	16.32	2428.20	2444.52	0.5	PASS
	Ant1	2462	17.28	2453.48	2470.76	0.5	PASS
	Ant2	2462	16.96	2453.20	2470.16	0.5	PASS
11N40MIMO	Ant1	2422	35.84	2404.08	2439.92	0.5	PASS
	Ant2	2422	29.44	2410.72	2440.16	0.5	PASS
	Ant1	2437	36.08	2419.08	2455.16	0.5	PASS
	Ant2	2437	35.12	2419.40	2454.52	0.5	PASS
	Ant1	2452	35.20	2434.40	2469.60	0.5	PASS
	Ant2	2452	26.72	2434.08	2460.80	0.5	PASS

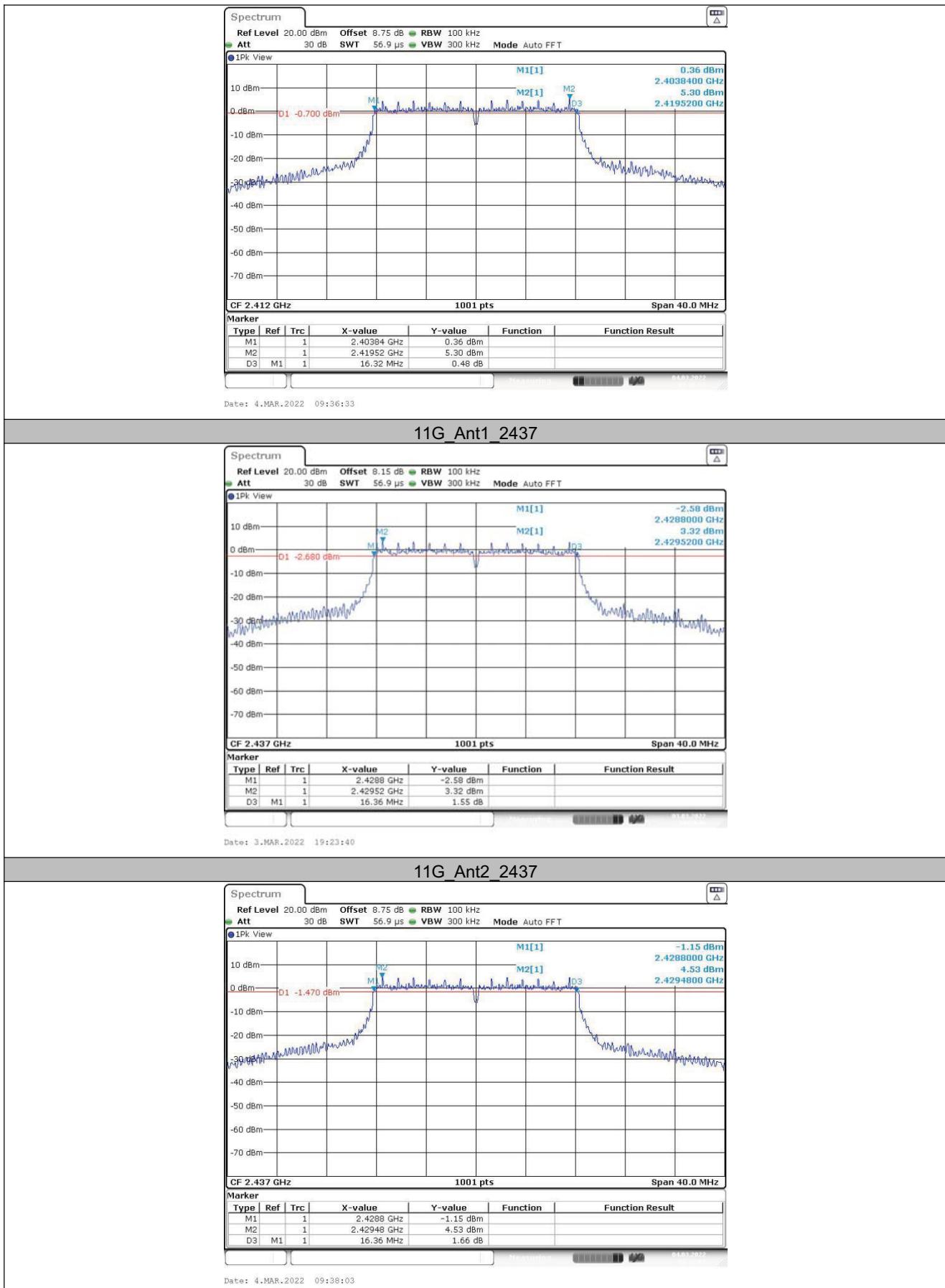
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.66	2401.68	2402.34	0.5	PASS
		2440	0.66	2439.68	2440.34	0.5	PASS
		2480	0.66	2479.68	2480.34	0.5	PASS
BLE_2M	Ant1	2402	1.13	2401.43	2402.56	0.5	PASS
		2440	1.12	2439.43	2440.55	0.5	PASS
		2480	1.13	2479.43	2480.56	0.5	PASS

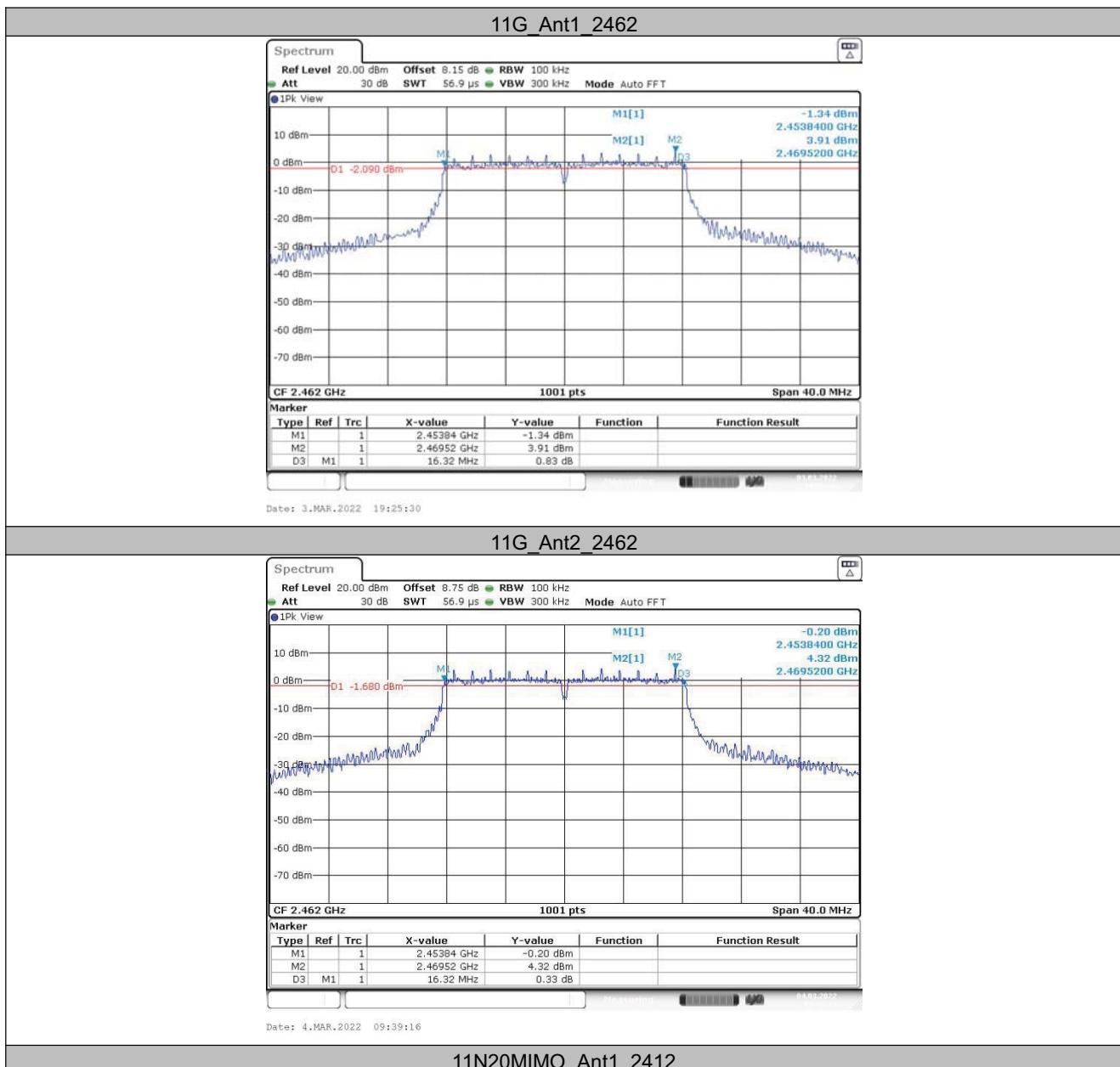
6.1.2 Test Graphs

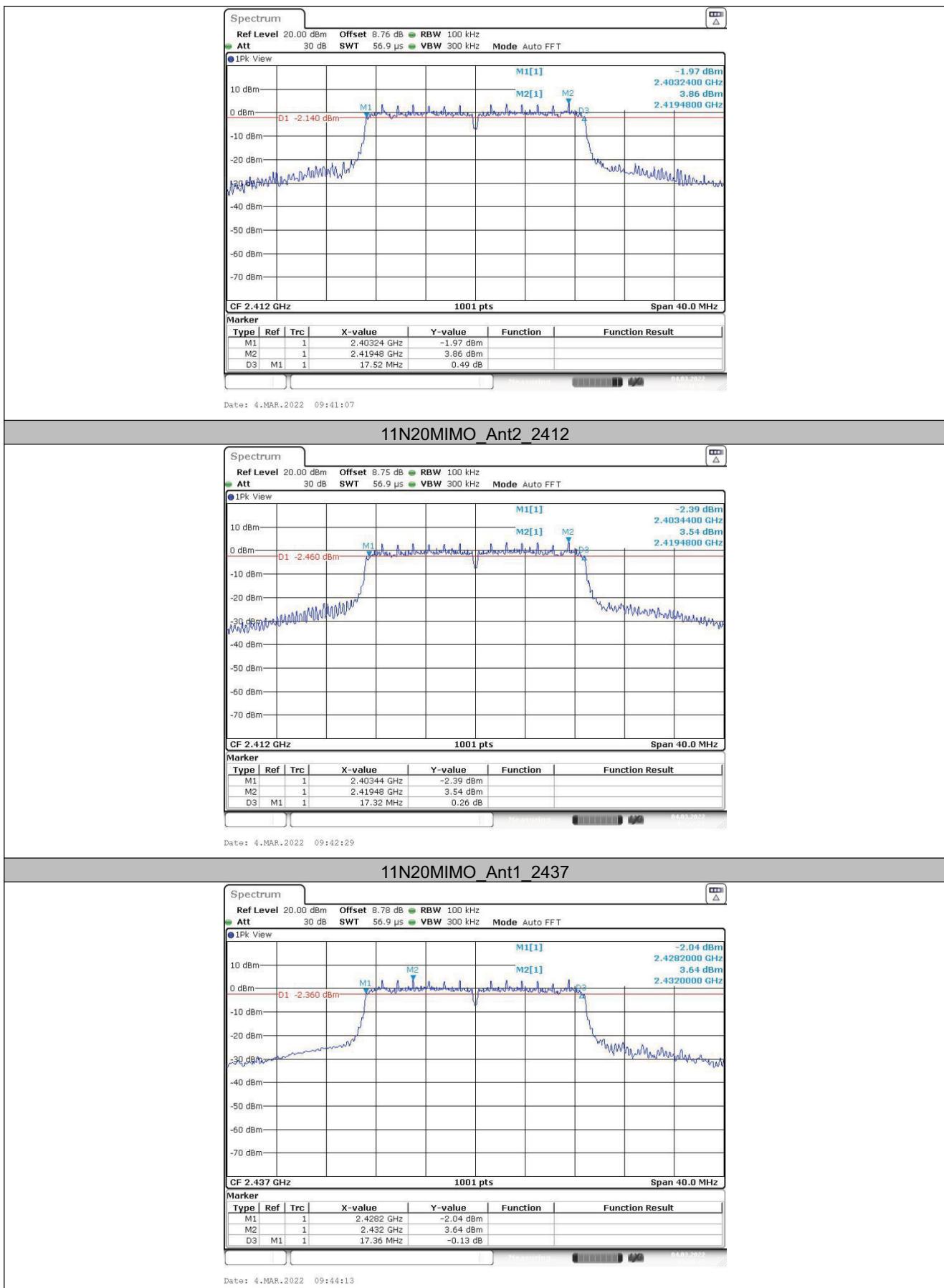


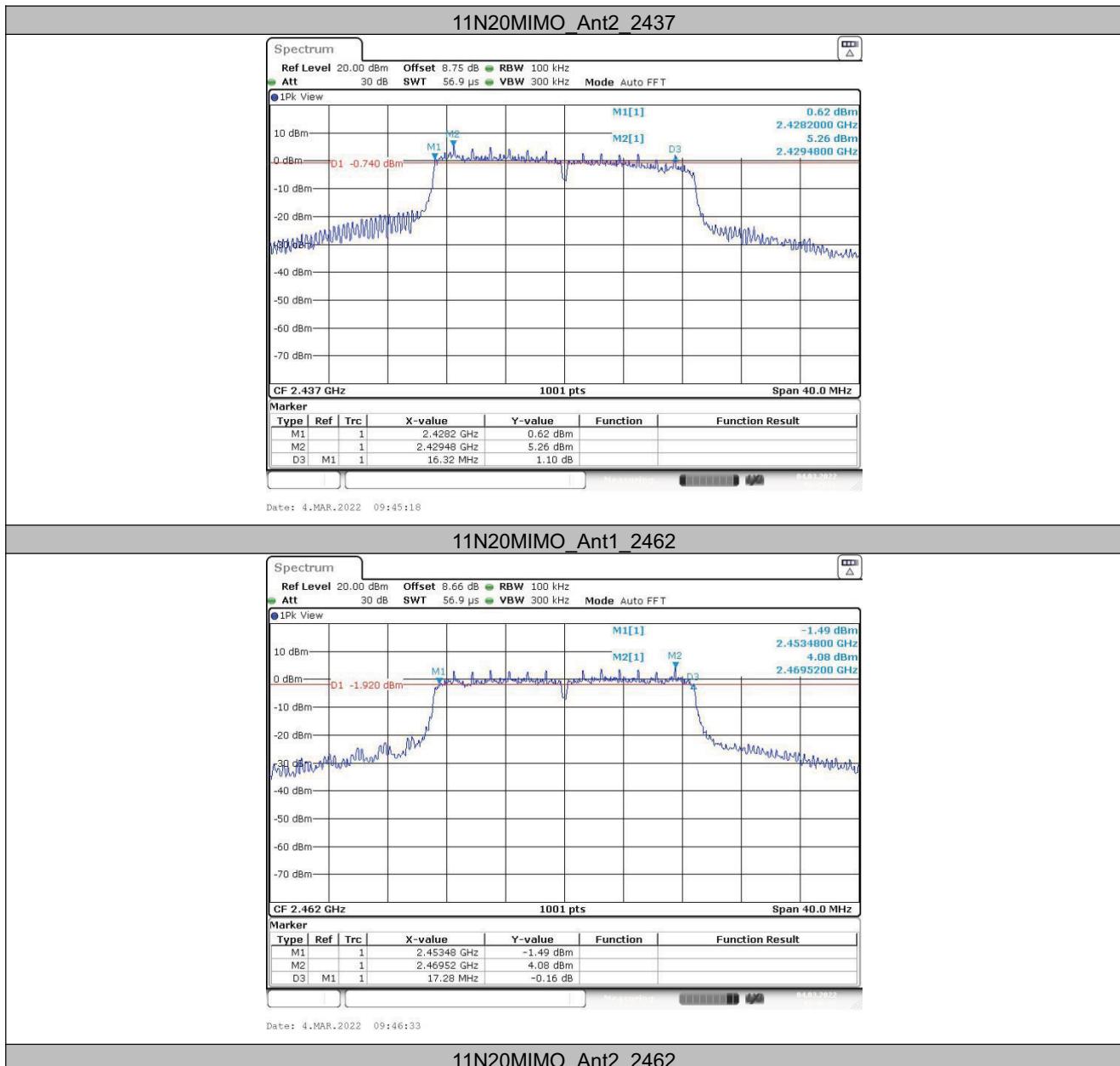


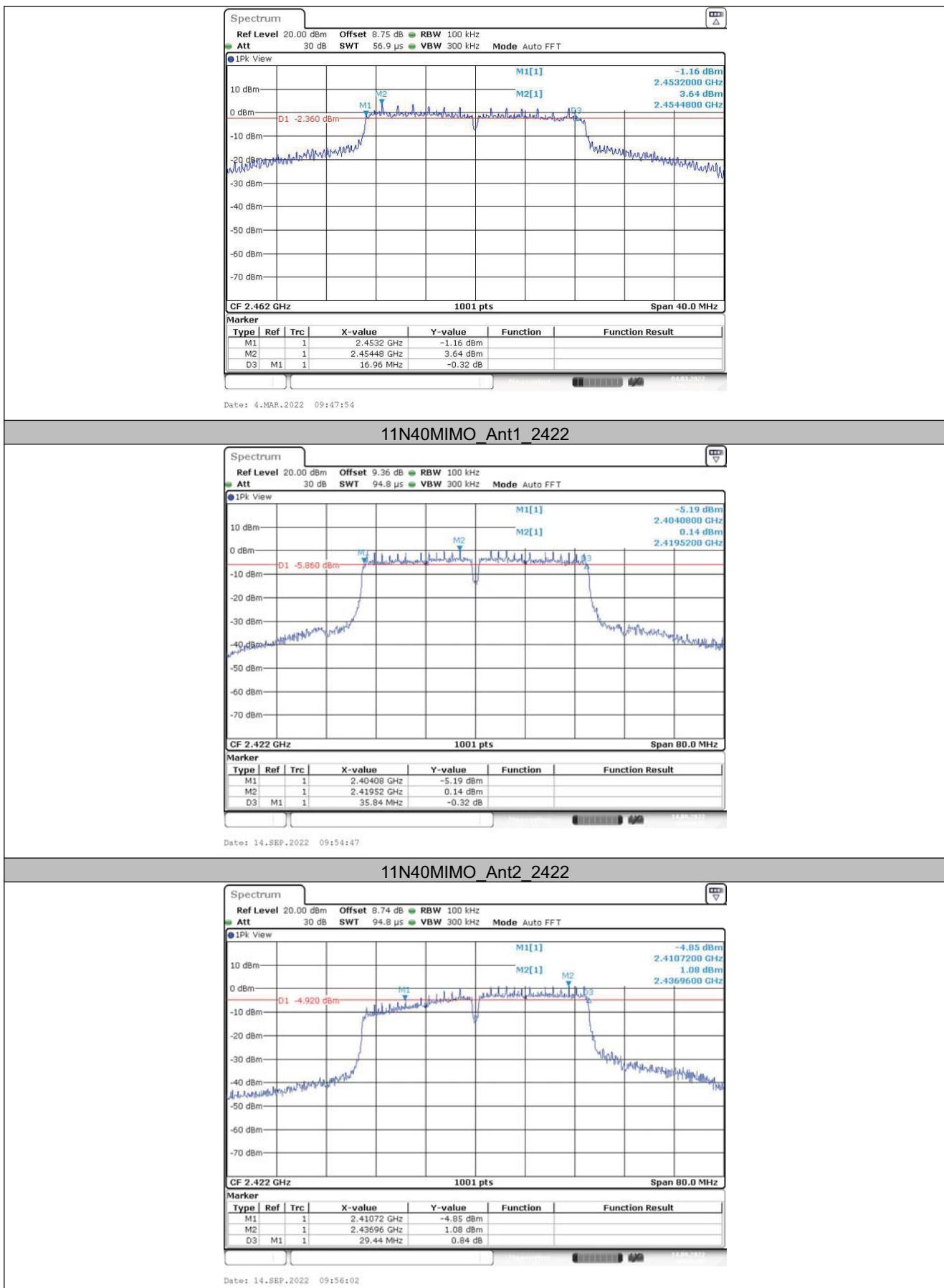


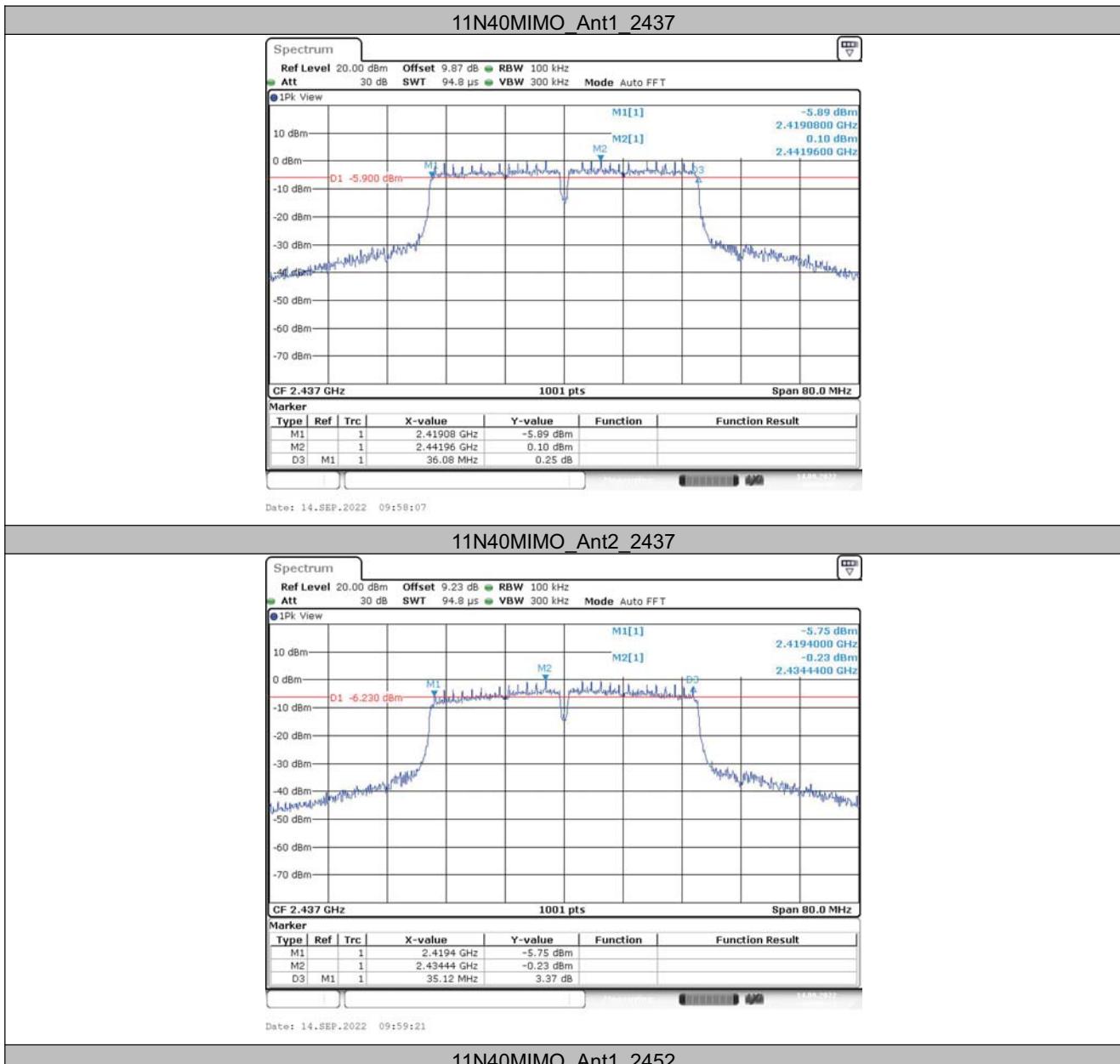


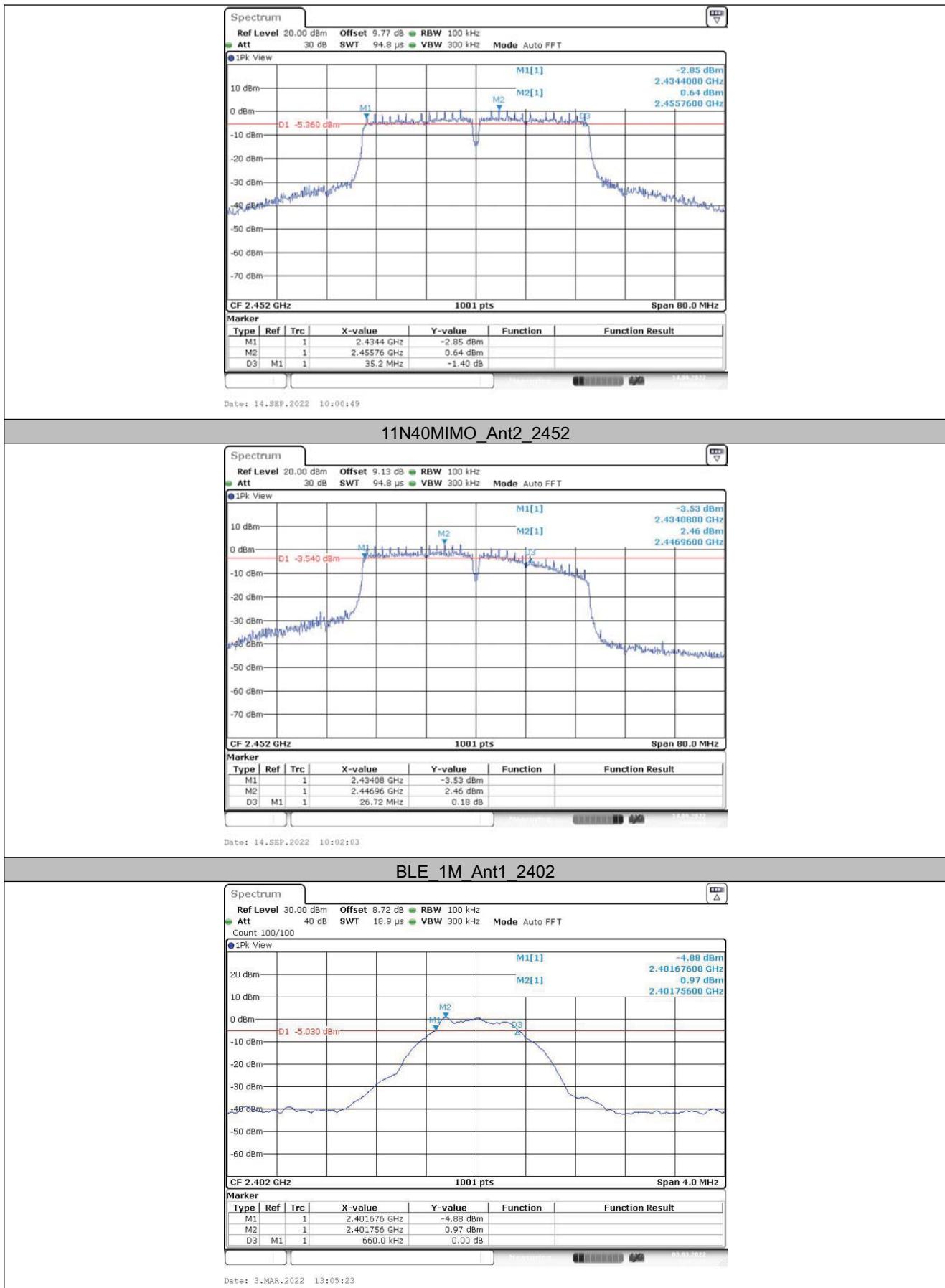


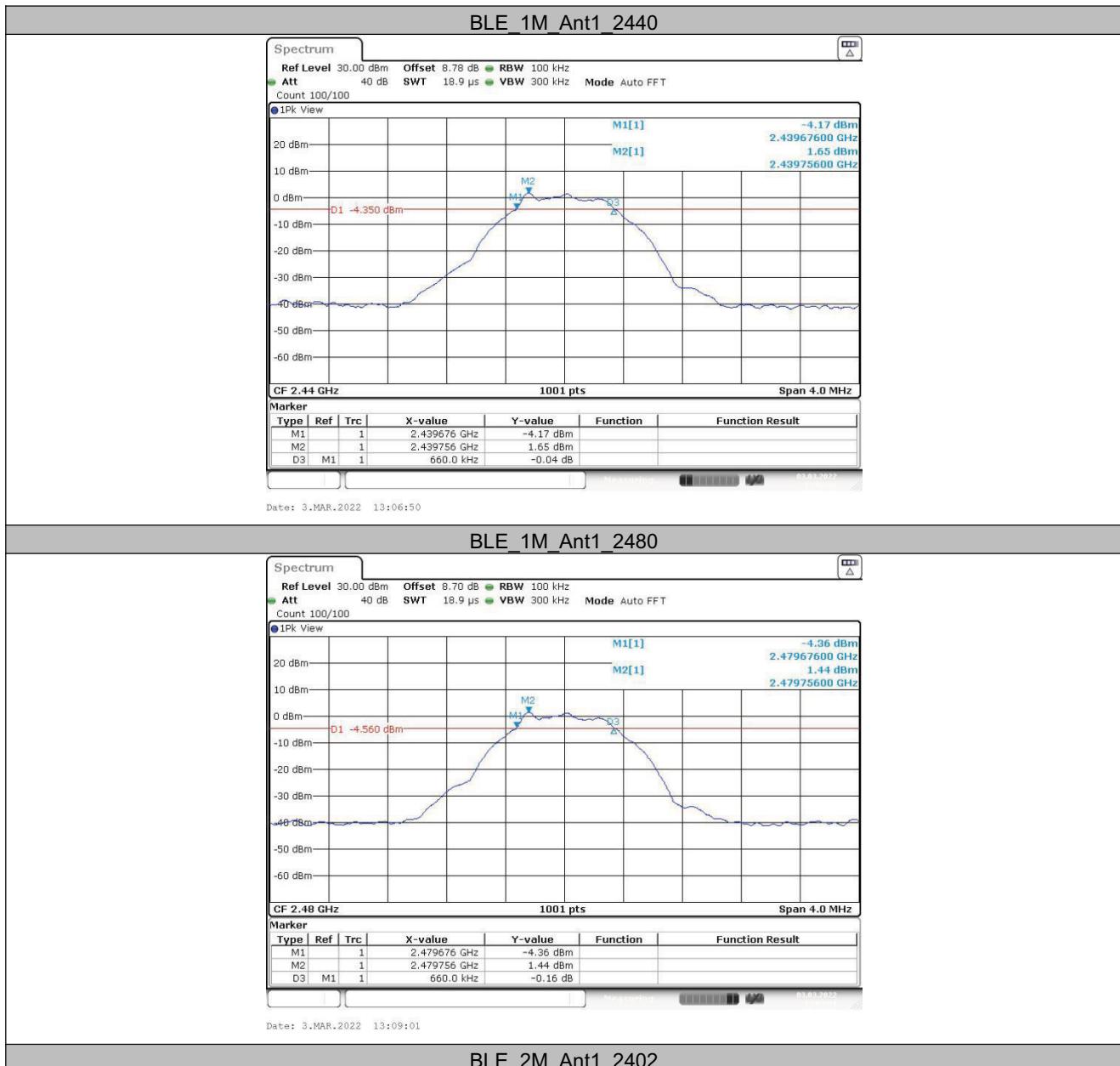


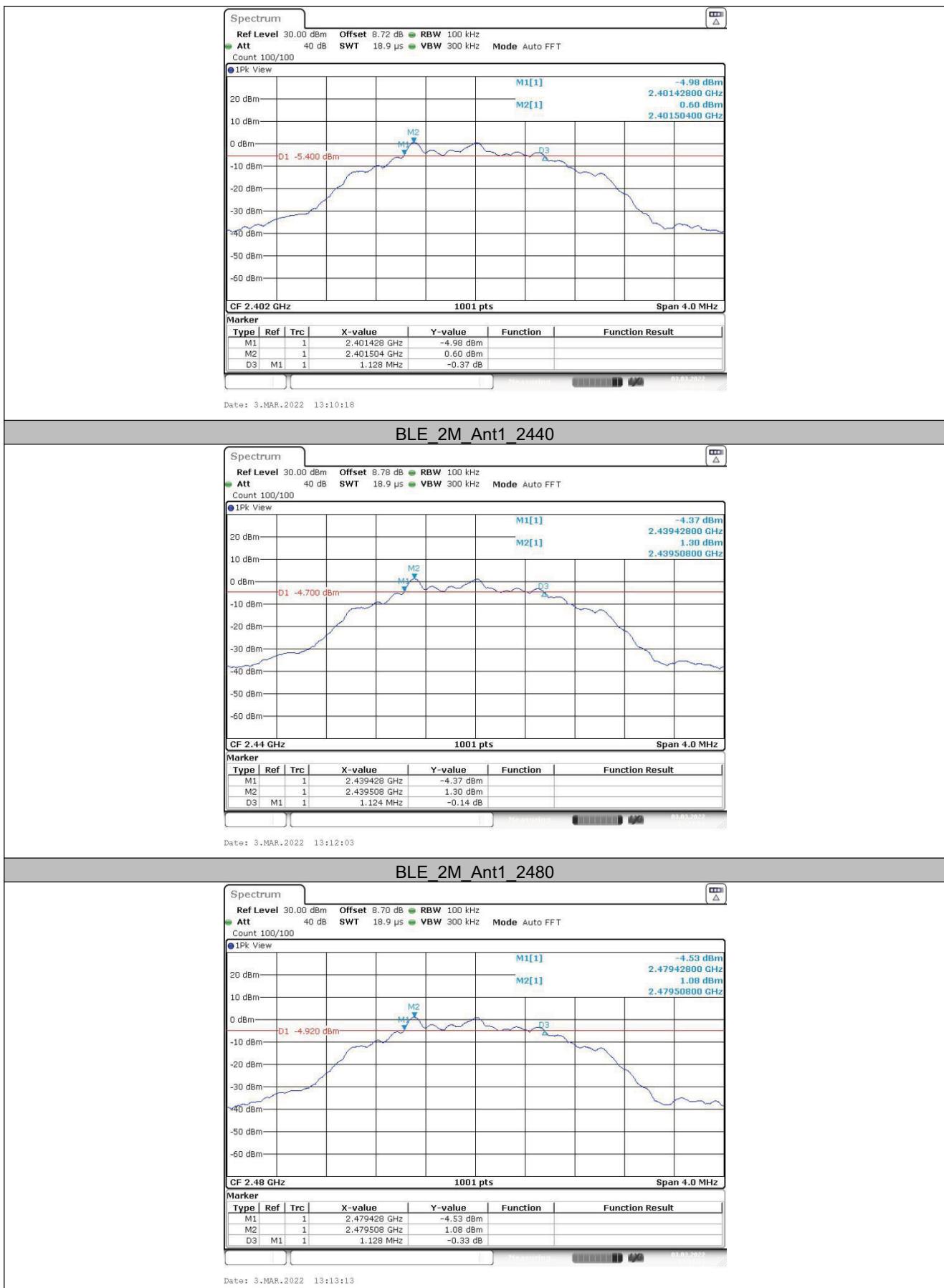














6.2 CONDUCTED OUTPUT POWER

6.2.1 Test Result

PK

TestMode	Antenna	Frequency[MHz]	Peak Power[dBm]	Conducted Limit[dBm]	EIRP [dBm]	EIRP Limit[dBm]	Verdict
11B	Ant1	2412	19.27	≤30	19.27	≤36	PASS
	Ant2	2412	18.43	≤30	18.43	≤36	PASS
	Ant1	2437	19.51	≤30	19.51	≤36	PASS
	Ant2	2437	18.41	≤30	18.41	≤36	PASS
	Ant1	2462	19.36	≤30	19.36	≤36	PASS
	Ant2	2462	18.70	≤30	18.70	≤36	PASS
11G	Ant1	2412	16.92	≤30	16.92	≤36	PASS
	Ant2	2412	18.87	≤30	18.87	≤36	PASS
	Ant1	2437	17.20	≤30	17.20	≤36	PASS
	Ant2	2437	18.50	≤30	18.50	≤36	PASS
	Ant1	2462	17.19	≤30	17.19	≤36	PASS
	Ant2	2462	17.31	≤30	17.31	≤36	PASS
11N20MIMO	Ant1	2412	17.80	≤30	17.80	≤36	PASS
	Ant2	2412	17.23	≤30	17.23	≤36	PASS
	total	2412	19.4	≤30	19.36	≤36	PASS
	Ant1	2437	17.70	≤30	17.70	≤36	PASS
	Ant2	2437	17.91	≤30	17.91	≤36	PASS
	total	2437	19.8	≤30	19.84	≤36	PASS
	Ant1	2462	17.63	≤30	17.63	≤36	PASS
	Ant2	2462	16.92	≤30	16.92	≤36	PASS
	total	2462	19.4	≤30	19.36	≤36	PASS
	Ant1	2422	16.40	≤30	16.40	≤36	PASS
11N40MIMO	Ant2	2422	17.63	≤30	17.63	≤36	PASS
	total	2422	19.2	≤30	19.19	≤36	PASS
	Ant1	2437	16.89	≤30	16.89	≤36	PASS
	Ant2	2437	18.97	≤30	18.97	≤36	PASS
	total	2437	20.2	≤30	20.22	≤36	PASS
	Ant1	2452	15.87	≤30	15.87	≤36	PASS
	Ant2	2452	16.41	≤30	16.41	≤36	PASS
	total	2452	18.5	≤30	18.45	≤36	PASS

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.33	≤30	1.33	≤36	PASS
		2440	2.02	≤30	2.02	≤36	PASS
		2480	1.87	≤30	1.87	≤36	PASS
BLE_2M	Ant1	2402	1.17	≤30	1.17	≤36	PASS
		2440	1.9	≤30	1.9	≤36	PASS
		2480	1.65	≤30	1.65	≤36	PASS



6.3 POWER SPECTRAL DENSITY MEASUREMENT

6.3.1 Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-14.32	≤8	PASS
	Ant2	2412	-13.91	≤8	PASS
	Ant1	2437	-13.6	≤8	PASS
	Ant2	2437	-14.45	≤8	PASS
	Ant1	2462	-13.62	≤8	PASS
	Ant2	2462	-13.24	≤8	PASS
11G	Ant1	2412	-18.4	≤8	PASS
	Ant2	2412	-17.3	≤8	PASS
	Ant1	2437	-18.1	≤8	PASS
	Ant2	2437	-15.86	≤8	PASS
	Ant1	2462	-17.84	≤8	PASS
	Ant2	2462	-16.62	≤8	PASS
11N20MIMO	Ant1	2412	-17.71	≤8	PASS
	Ant2	2412	-17.52	≤8	PASS
	total	2412	-14.60	≤8	PASS
	Ant1	2437	-17.25	≤8	PASS
	Ant2	2437	-15.13	≤8	PASS
	total	2437	-13.05	≤8	PASS
	Ant1	2462	-17.3	≤8	PASS
	Ant2	2462	-17.33	≤8	PASS
	total	2462	-14.30	≤8	PASS
	Ant1	2422	-20.89	≤8	PASS
11N40MIMO	Ant2	2422	-19.35	≤8	PASS
	total	2422	-17.04	≤8	PASS
	Ant1	2437	-19.98	≤8	PASS
	Ant2	2437	-20.3	≤8	PASS
	total	2437	-17.13	≤8	PASS
	Ant1	2452	-20.46	≤8	PASS
	Ant2	2452	-18.81	≤8	PASS
	total	2452	-16.55	≤8	PASS

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-8.23	≤8	PASS
		2440	-7.45	≤8	PASS
		2480	-7.78	≤8	PASS
BLE_2M	Ant1	2402	-10.35	≤8	PASS
		2440	-9.6	≤8	PASS
		2480	-9.89	≤8	PASS

6.3.2 Test Graphs