APPLICATION CERTIFICATION FCC Part 15C
On Behalf of
SSK CORPORATION

Portable Smart Storage
Model No.: SSM-F200

FCC ID: 2AKKJ-SSM-F200

Prepared for	:	SSK CORPORATION
Address	:	3F, M-10, centre of Hi-Tech Industrial district, Shenzhen 518057, Guangdong, China.
Prepared by	:	ACCURATE TECHNOLOGY CO., LTD
Address	:	F1, Bldg. A, Chan Yuan New Material Port, Keyuan Rd. Science & Industry Park, Nan Shan, Shenzhen, Guangdong P.R. China Tel: (0755) 26503290 Fax: (0755) 26503396

Report No.	:	ATE20162354
Date of Test	:	November 16-29, 2016
Date of Report	:	December 6, 2016

TABLE OF CONTENTS

Description Page

Test Report Certification

Applicant : SSK CORPORATION

Manufacturer : SHENGZHEN MAYA ELECTRONICS CREATION CO., LIMITED

EUT Description : Portable Smart Storage

(A) MODEL NO.: SSM-F200

(B) Trade Mark : SSK

(C) Voltage: DC 3.7V & DC 5V (Powered by USB port)

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247:2016
ANSI C63.10: 2013

The EUT was tested according to DTS test procedure of Apr 08, 2016 KDB558074 D01 DTS Meas Guidance v03r05 for compliance to FCC 47CFR 15.247 requirements

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.247 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test : November 16-29, 2016
Date of Report: December 6, 2016

Prepared by : Bob Wang
(Bob Wang, Engineer)

Approved & Authorized Signer : Sean Liu
(Sean Liu, Manager)

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT	:	Portable Smart Storage
Model Number	:	SSM-F200
Frequency Range	:	802.11b/g/n(20MHz): 2412-2462MHz 802.11n(40MHz): 2422-2452MHz
Number of Channels	:	802.11b/g/n (20MHz):11 802.11n (40MHz): 7
$G_{ANT\ MAX}$	:	2dBi(two antennas have the same gain)
Array Gain	:	For power spectral density (PSD) measurements on all devices, Array Gain = 10 log(N_{ANT}/N_{SS}) dB.=10log(2/1)=3.01 devices can operate with one spatial stream (N_{SS} = 1), N_{ANT} = number of transmit antennas. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leqslant 4$
Directional gain	:	G_{ANT} + Array Gain=5.01
Type of Antenna	:	MIMO Antenna
Power Supply	:	DC 3.7V & DC 5V (Powered by USB port)
Data Rate	:	802.11b: 11, 5.5, 2, 1 Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps 802.11n: up to 150Mbps
Modulation Type	:	CCK, OFDM
Applicant	:	SSK CORPORATION
Address	:	3F, M-10, centre of Hi-Tech Industrial district, Shenzhen 518057, Guangdong, China..
Manufacturer	:	SHENGZHEN MAYA ELECTRONICS CREATION CO., LIMITED
Address	:	B1, Xinjianxing Technology Industrial Park, FengxinRd., Loucun, Gongming Street Guangming New Area, Shenzhen City, China
Date of sample received	:	November 14, 2016
Date of Test	:	November 16-29, 2016

1.2.Description of Test Facility

EMC Lab	:	Accredited by TUV Rheinland Shenzhen Listed by FCC The Registration Number is 752051 Listed by Industry Canada The Registration Number is 5077A-2 Accredited by China National Accreditation Committee for Laboratories The Certificate Registration Number is L3193
Name of Firm	:	ACCURATE TECHNOLOGY CO. LTD
Site Location	:	F1, Bldg. A, Changyuan New Material Port, Keyuan Rd. Science & Industry Park, Nanshan, Shenzhen, Guangdong P.R. China

1.3.Measurement Uncertainty

Conducted Emission Expanded Uncertainty	=	2.23dB, k=2
Radiated emission expanded uncertainty (9kHz-30MHz)	=	3.08dB, k=2
Radiated emission expanded uncertainty (30MHz-1000MHz)	=	4.42dB, k=2
Radiated emission expanded uncertainty (Above 1GHz)	=	4.06dB, k=2

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated dates	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 10, 2016	Jan. 09, 2017
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 10, 2016	Jan. 09, 2017
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 10, 2016	Jan. 09, 2017
Pre-Amplifier	Rohde&Schwarz	CBLU1183540-01	3791	Jan. 10, 2016	Jan. 09, 2017
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 14, 2016	Jan. 13, 2017
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 14, 2016	Jan. 13, 2017
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 14, 2016	Jan. 13, 2017
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 14, 2016	Jan. 13, 2017
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 10, 2016	Jan. 09, 2017
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 10, 2016	Jan. 09, 2017
Highpass Filter	Wainwright Instruments	WHKX3.6/18G-10SS	N/A	Jan. 10, 2016	Jan. 09, 2017
Band Reject Filter	Wainwright Instruments	WRCG2400/2485-2375/2510-60/11SS	N/A	Jan. 10, 2016	Jan. 09, 2017

3. OPERATION OF EUT DURING TESTING

3.1.Operating Mode

The mode is used: **1.802.11b Transmitting mode**
Low Channel: 2412MHz
Middle Channel: 2437MHz
High Channel: 2462MHz

2.802.11g Transmitting mode
Low Channel: 2412MHz
Middle Channel: 2437MHz
High Channel: 2462MHz

3.802.11n (20MHz) Transmitting mode
Low Channel: 2412MHz
Middle Channel: 2437MHz
High Channel: 2462MHz

4.802.11n (40MHz) Transmitting mode
Low Channel: 2422MHz
Middle Channel: 2437MHz
High Channel: 2452MHz

3.2.Carrier Frequency of Channels

802.11b, 802.11g, 802.11n (20MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437	---	---

802.11n (40MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
---	---	07	2442
---	---	08	2447
03	2422	09	2452
04	2427	---	---
05	2432	---	---
06	2437	---	---

3.3.Configuration and peripherals

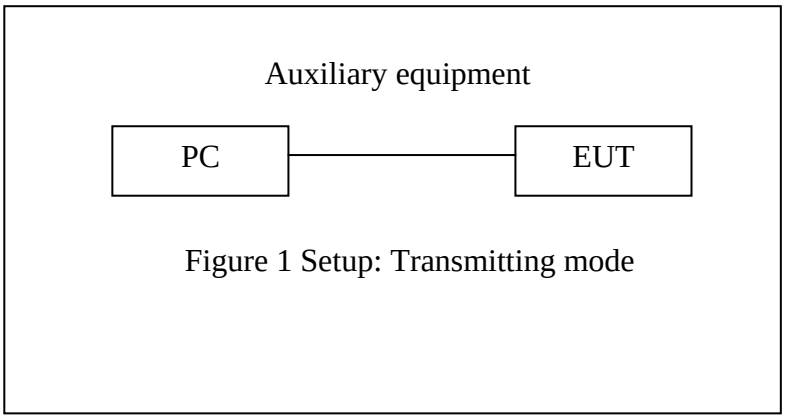


Figure 1 Setup: Transmitting mode

(EUT: Portable Smart Storage)

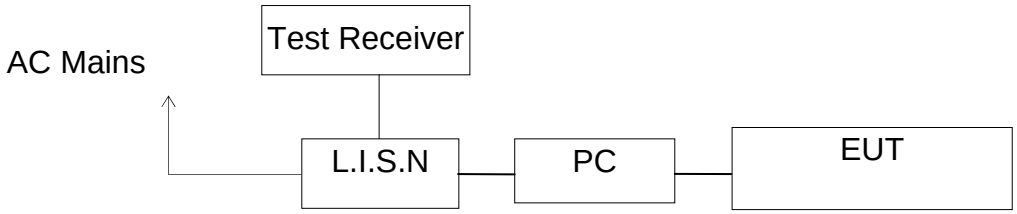
Note: The EUT have two antenna(1 and 2), They can transmit simultaneously,

4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.207	AC power Line Conducted Emission Test	Compliant
Section 15.247(a)(2)	6dB Occupied Bandwidth Test	Compliant
Section 15.247(b)(3)	Conducted Peak Output Power Test	Compliant
Section 15.247(e)	Power Spectral Density Test	Compliant
Section 15.205 Section 15.209	Radiated Spurious Emissions Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.203	Antenna Requirement	Compliant

5. POWER LINE CONDUCTED MEASUREMENT

5.1.Block Diagram of Test Setup



(EUT: Portable Smart Storage)

5.2.Power Line Conducted Emission Measurement Limits

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0
NOTE1: The lower limit shall apply at the transition frequencies. NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		

5.3.Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

5.4.Operating Condition of EUT

5.4.1.Setup the EUT and simulator as shown as Section 5.1.

5.4.2.Turn on the power of all equipment.

5.4.3.Let the EUT work in test mode and measure it.

5.5.Test Procedure

The EUT is put on the plane 0.1m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10 on Conducted Emission Measurement.
The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

5.6.Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Test mode : Charging (AC 120V/60Hz)
EUT mode : SSM-F200

MEASUREMENT RESULT: "MY-1116-04_fin"

11/16/2016 10:47AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.155000	48.80	10.5	66	16.9	QP	N	GND
0.500000	38.60	10.7	56	17.4	QP	N	GND
1.810000	30.10	11.0	56	25.9	QP	N	GND
3.030000	27.60	11.1	56	28.4	QP	N	GND
5.130000	26.00	11.2	60	34.0	QP	N	GND
27.145000	24.90	11.5	60	35.1	QP	N	GND

MEASUREMENT RESULT: "MY-1116-04_fin2"

11/16/2016 10:47AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.215000	33.70	10.5	53	19.3	AV	N	GND
0.500000	35.70	10.7	46	10.3	AV	N	GND
1.970000	28.90	11.0	46	17.1	AV	N	GND
2.230000	23.90	11.0	46	22.1	AV	N	GND
6.460000	16.90	11.2	50	33.1	AV	N	GND
23.125000	24.00	11.4	50	26.0	AV	N	GND

MEASUREMENT RESULT: "MY-1116-03_fin"

11/16/2016 10:42AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	51.30	10.5	66	14.7	QP	L1	GND
0.505000	39.30	10.7	56	16.7	QP	L1	GND
2.100000	30.80	11.0	56	25.2	QP	L1	GND
2.500000	29.80	11.0	56	26.2	QP	L1	GND
6.570000	21.90	11.2	60	38.1	QP	L1	GND
27.220000	26.50	11.5	60	33.5	QP	L1	GND

MEASUREMENT RESULT: "MY-1116-03_fin2"

11/16/2016 10:42AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.195000	34.80	10.5	54	19.0	AV	L1	GND
0.500000	35.70	10.7	46	10.3	AV	L1	GND
1.965000	28.20	11.0	46	17.8	AV	L1	GND
2.380000	25.00	11.0	46	21.0	AV	L1	GND
6.400000	16.90	11.2	50	33.1	AV	L1	GND
26.485000	24.30	11.5	50	25.7	AV	L1	GND

Test mode : Charging (AC 240V/60Hz)
EUT mode : SSM-F200

MEASUREMENT RESULT: "MY-1116-02_fin"

11/16/2016 10:38AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.170000	49.20	10.5	65	15.8	QP	N	GND
0.490000	36.80	10.7	56	19.4	QP	N	GND
1.790000	29.80	11.0	56	26.2	QP	N	GND
2.670000	28.90	11.0	56	27.1	QP	N	GND
5.230000	21.10	11.2	60	38.9	QP	N	GND
27.955000	27.60	11.5	60	32.4	QP	N	GND

MEASUREMENT RESULT: "MY-1116-02_fin2"

11/16/2016 10:38AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	35.80	10.5	56	20.2	AV	N	GND
0.490000	32.70	10.7	46	13.5	AV	N	GND
1.850000	24.00	11.0	46	22.0	AV	N	GND
2.220000	23.30	11.0	46	22.7	AV	N	GND
5.350000	15.70	11.2	50	34.3	AV	N	GND
26.485000	24.00	11.5	50	26.0	AV	N	GND

MEASUREMENT RESULT: "MY-1116-01_fin"

11/16/2016 10:34AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	53.10	10.5	66	12.9	QP	L1	GND
0.515000	37.00	10.7	56	19.0	QP	L1	GND
1.475000	34.00	10.9	56	22.0	QP	L1	GND
2.540000	34.50	11.0	56	21.5	QP	L1	GND
5.230000	30.60	11.2	60	29.4	QP	L1	GND
26.170000	28.00	11.5	60	32.0	QP	L1	GND

MEASUREMENT RESULT: "MY-1116-01_fin2"

11/16/2016 10:34AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.160000	40.20	10.5	56	15.3	AV	L1	GND
0.495000	34.20	10.7	46	11.9	AV	L1	GND
1.850000	30.00	11.0	46	16.0	AV	L1	GND
2.220000	30.30	11.0	46	15.7	AV	L1	GND
5.250000	20.60	11.2	50	29.4	AV	L1	GND
25.075000	22.70	11.5	50	27.3	AV	L1	GND

Emissions attenuated more than 20 dB below the permissible value are not reported.
The spectral diagrams are attached as below.

ACCURATE TECHNOLOGY CO.,LTD

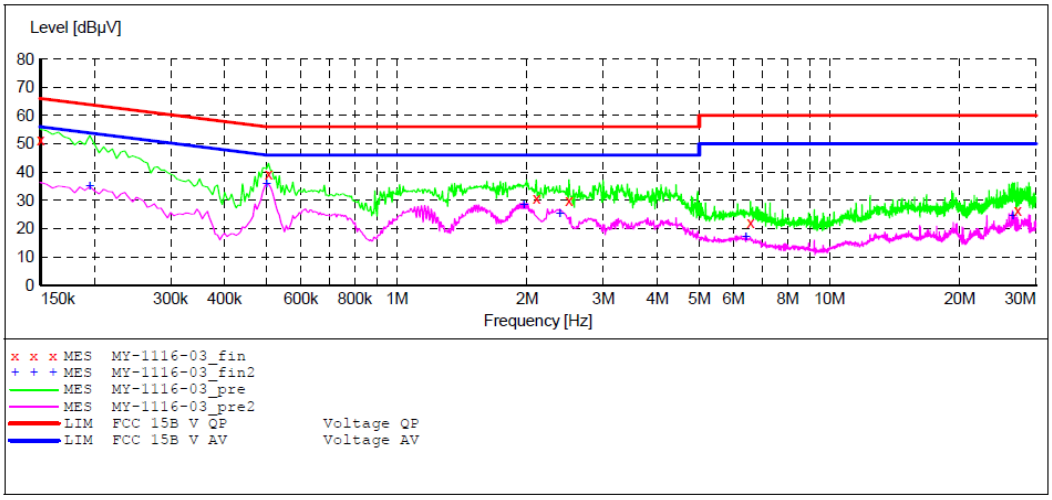
CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Portable Smart Storage M/N:SSM-F200
Manufacturer: MAYA
Operating Condition: Charging
Test Site: 1#Shielding Room
Operator: DING
Test Specification: L 120V/60Hz
Comment: Report NO.:ATE20162354
Start of Test: 11/16/2016 / 10:39:26AM

SCAN TABLE: "V 9K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak Average	1.0 s	200 Hz	NSLK8126 2008
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak Average	1.0 s	9 kHz	NSLK8126 2008



MEASUREMENT RESULT: "MY-1116-03_fin"

11/16/2016 10:42AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	51.30	10.5	66	14.7	QP	L1	GND
0.505000	39.30	10.7	56	16.7	QP	L1	GND
2.100000	30.80	11.0	56	25.2	QP	L1	GND
2.500000	29.80	11.0	56	26.2	QP	L1	GND
6.570000	21.90	11.2	60	38.1	QP	L1	GND
27.220000	26.50	11.5	60	33.5	QP	L1	GND

MEASUREMENT RESULT: "MY-1116-03_fin2"

11/16/2016 10:42AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.195000	34.80	10.5	54	19.0	AV	L1	GND
0.500000	35.70	10.7	46	10.3	AV	L1	GND
1.965000	28.20	11.0	46	17.8	AV	L1	GND
2.380000	25.00	11.0	46	21.0	AV	L1	GND
6.400000	16.90	11.2	50	33.1	AV	L1	GND
26.485000	24.30	11.5	50	25.7	AV	L1	GND

ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

```
EUT:                  Portable Smart Storage M/N:SSM-F200
Manufacturer:         MAYA
Operating Condition:  Charging
Test Site:            1#Shielding Room
Operator:             DING
Test Specification:   N  120V/60Hz
Comment:              Report NO.:ATE20162354
Start of Test:        11/16/2016 / 10:43:52AM
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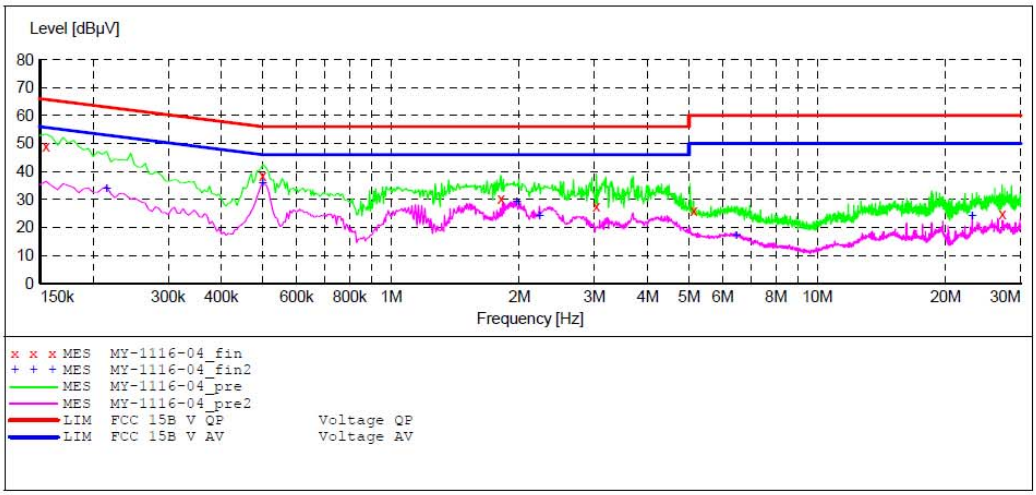
SCAN TABLE: "V 9K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak Average	1.0 s	200 Hz	NSLK8126 2008
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak Average	1.0 s	9 kHz	NSLK8126 2008



MEASUREMENT RESULT: "MY-1116-04_fin"

11/16/2016 10:47AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.155000	48.80	10.5	66	16.9	QP	N	GND
0.500000	38.60	10.7	56	17.4	QP	N	GND
1.810000	30.10	11.0	56	25.9	QP	N	GND
3.030000	27.60	11.1	56	28.4	QP	N	GND
5.130000	26.00	11.2	60	34.0	QP	N	GND
27.145000	24.90	11.5	60	35.1	QP	N	GND

MEASUREMENT RESULT: "MY-1116-04_fin2"

11/16/2016 10:47AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.215000	33.70	10.5	53	19.3	AV	N	GND
0.500000	35.70	10.7	46	10.3	AV	N	GND
1.970000	28.90	11.0	46	17.1	AV	N	GND
2.230000	23.90	11.0	46	22.1	AV	N	GND
6.460000	16.90	11.2	50	33.1	AV	N	GND
23.125000	24.00	11.4	50	26.0	AV	N	GND

ACCURATE TECHNOLOGY CO.,LTD

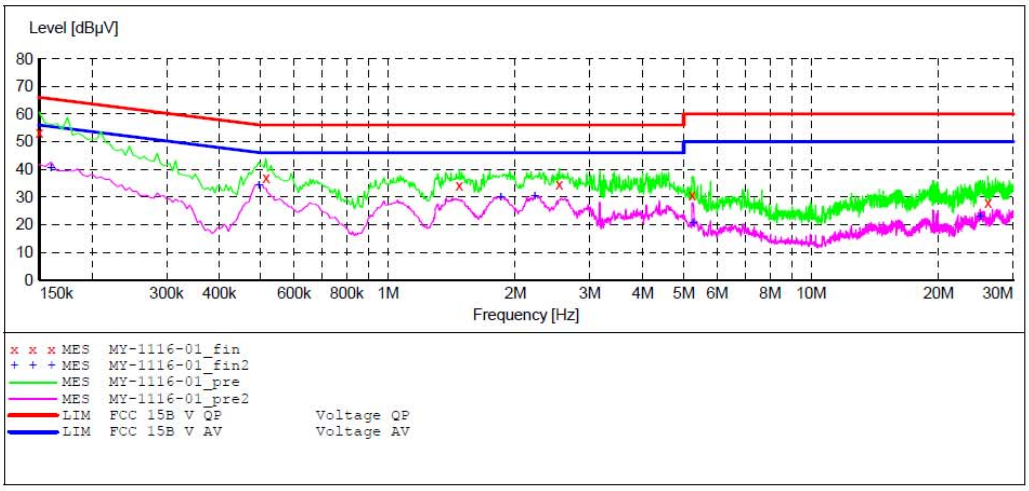
CONDUCTED EMISSION STANDARD FCC PART 15B

```
EUT:                  Portable Smart Storage M/N:SSM-F200
Manufacturer:         MAYA
Operating Condition:  Charging
Test Site:            1#Shielding Room
Operator:             DING
Test Specification:   L  240V/60Hz
Comment:              Report NO.:ATE20162354
Start of Test:        11/16/2016 / 10:28:26AM
```

SCAN TABLE: "V 9K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak Average	1.0 s	200 Hz	NSLK8126 2008
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak Average	1.0 s	9 kHz	NSLK8126 2008



MEASUREMENT RESULT: "MY-1116-01_fin"

11/16/2016 10:34AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	53.10	10.5	66	12.9	QP	L1	GND
0.515000	37.00	10.7	56	19.0	QP	L1	GND
1.475000	34.00	10.9	56	22.0	QP	L1	GND
2.540000	34.50	11.0	56	21.5	QP	L1	GND
5.230000	30.60	11.2	60	29.4	QP	L1	GND
26.170000	28.00	11.5	60	32.0	QP	L1	GND

MEASUREMENT RESULT: "MY-1116-01_fin2"

11/16/2016 10:34AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.160000	40.20	10.5	56	15.3	AV	L1	GND
0.495000	34.20	10.7	46	11.9	AV	L1	GND
1.850000	30.00	11.0	46	16.0	AV	L1	GND
2.220000	30.30	11.0	46	15.7	AV	L1	GND
5.250000	20.60	11.2	50	29.4	AV	L1	GND
25.075000	22.70	11.5	50	27.3	AV	L1	GND

ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

```
EUT:                Portable Smart Storage M/N:SSM-F200
Manufacturer:       MAYA
Operating Condition: Charging
Test Site:          1#Shielding Room
Operator:           DING
Test Specification: N  240V/60Hz
Comment:            Report NO.:ATE20162354
Start of Test:      11/16/2016 / 10:35:22AM
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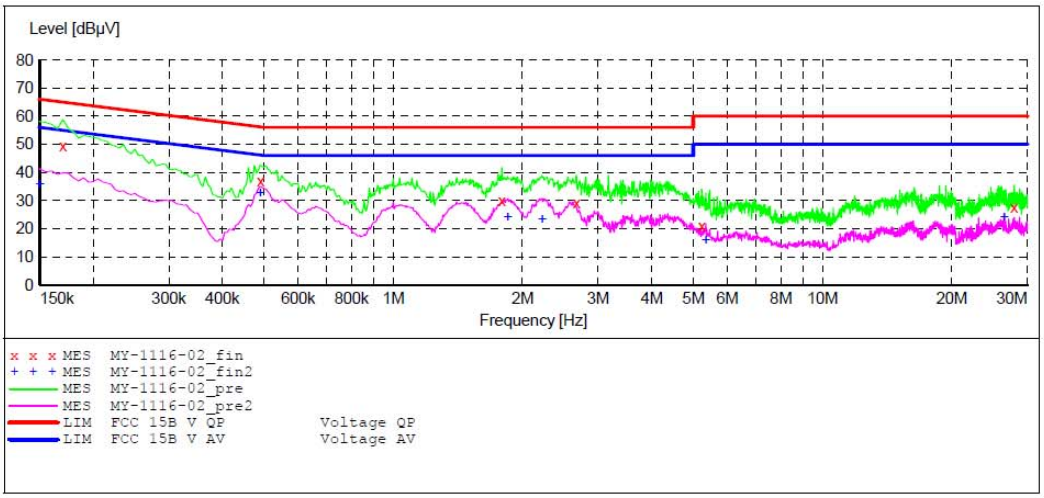
SCAN TABLE: "V 9K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak Average	1.0 s	200 Hz	NSLK8126 2008
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak Average	1.0 s	9 kHz	NSLK8126 2008



MEASUREMENT RESULT: "MY-1116-02_fin"

11/16/2016 10:38AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.170000	49.20	10.5	65	15.8	QP	N	GND
0.490000	36.80	10.7	56	19.4	QP	N	GND
1.790000	29.80	11.0	56	26.2	QP	N	GND
2.670000	28.90	11.0	56	27.1	QP	N	GND
5.230000	21.10	11.2	60	38.9	QP	N	GND
27.955000	27.60	11.5	60	32.4	QP	N	GND

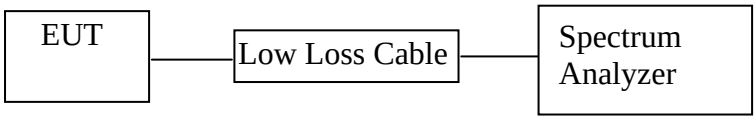
MEASUREMENT RESULT: "MY-1116-02_fin2"

11/16/2016 10:38AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	35.80	10.5	56	20.2	AV	N	GND
0.490000	32.70	10.7	46	13.5	AV	N	GND
1.850000	24.00	11.0	46	22.0	AV	N	GND
2.220000	23.30	11.0	46	22.7	AV	N	GND
5.350000	15.70	11.2	50	34.3	AV	N	GND
26.485000	24.00	11.5	50	26.0	AV	N	GND

6. 6DB OCCUPIED BANDWIDTH TEST

6.1.Block Diagram of Test Setup



(EUT: Portable Smart Storage)

6.2.The Requirement For Section 15.247(a)(1)

Section 15.247(a)(2): 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 band-width shall be at least 500 kHz

6.3.EUT Configuration on Measurement

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.4.Operating Condition of EUT

6.4.1.Setup the EUT and simulator as shown as Section 5.1.

6.4.2.Turn on the power of all equipment.

6.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

6.5.Test Procedure

6.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.

6.5.2.Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz.

6.5.3.The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

6.6.Test Result

The test was performed with 802.11b				
Channel	Frequency (MHz)	6dB Bandwidth ANT 1 (MHz)	6dB Bandwidth ANT 2(MHz)	Limit (MHz)
Low	2412	10.072	10.072	> 0.5MHz
Middle	2437	10.101	10.101	> 0.5MHz
High	2462	10.101	10.101	> 0.5MHz

The test was performed with 802.11g				
Channel	Frequency (MHz)	6dB Bandwidth ANT 1 (MHz)	6dB Bandwidth ANT 2(MHz)	Limit (MHz)
Low	2412	16.469	16.469	> 0.5MHz
Middle	2437	16.469	16.469	> 0.5MHz
High	2462	16.469	16.469	> 0.5MHz

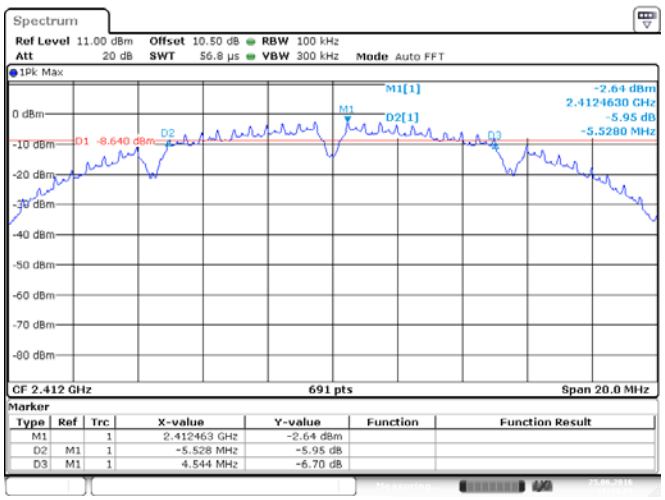
The test was performed with 802.11n (Bandwidth: 20 MHz)				
Channel	Frequency (MHz)	6dB Bandwidth ANT 1 (MHz)	6dB Bandwidth ANT 2(MHz)	Limit (MHz)
Low	2412	17.626	17.626	> 0.5MHz
Middle	2437	17.626	17.626	> 0.5MHz
High	2462	17.627	17.627	> 0.5MHz

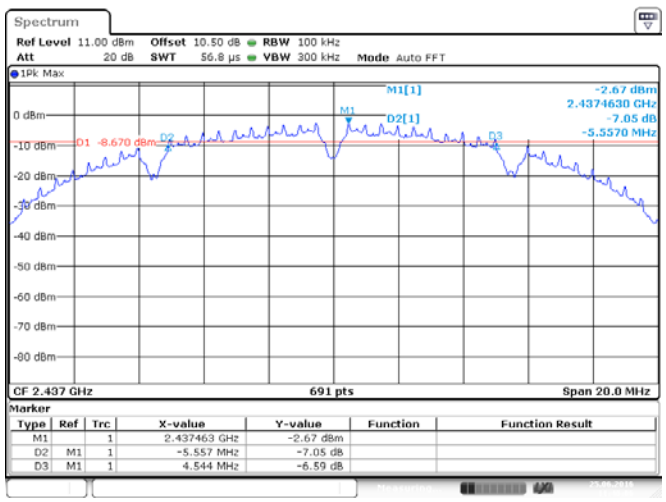
The test was performed with 802.11n (Bandwidth: 40 MHz)				
Channel	Frequency (MHz)	6dB Bandwidth ANT 1 (MHz)	6dB Bandwidth ANT 2(MHz)	Limit (MHz)
Low	2422	36.006	36.006	> 0.5MHz
Middle	2437	35.882	35.882	> 0.5MHz
High	2452	35.875	35.875	> 0.5MHz

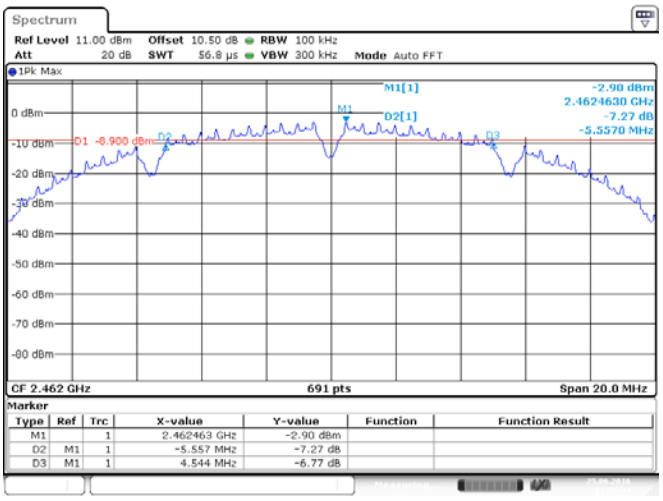
The spectrum analyzer plots are attached as below.

6dB Bandwidth

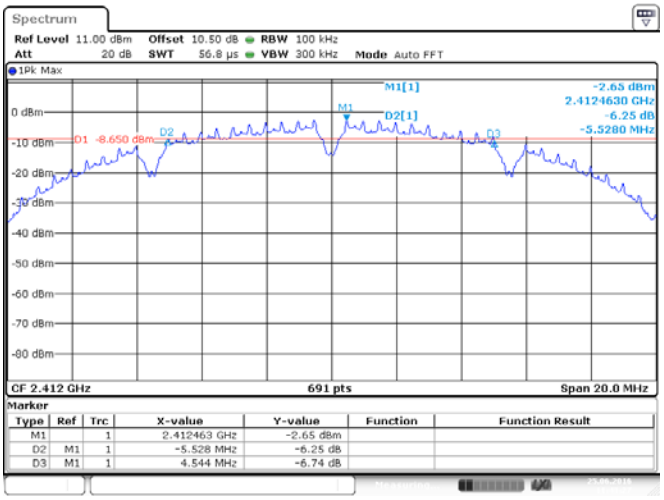
ANT 1(802.11b)

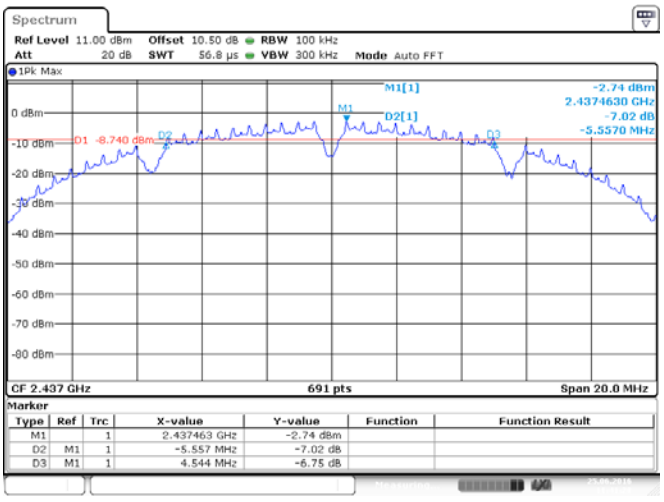


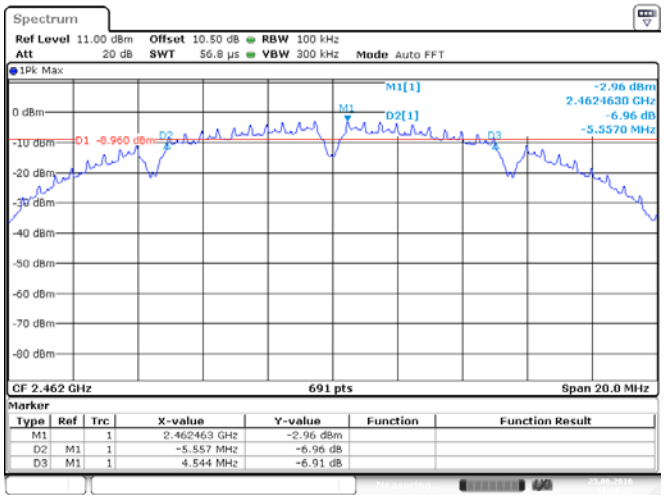




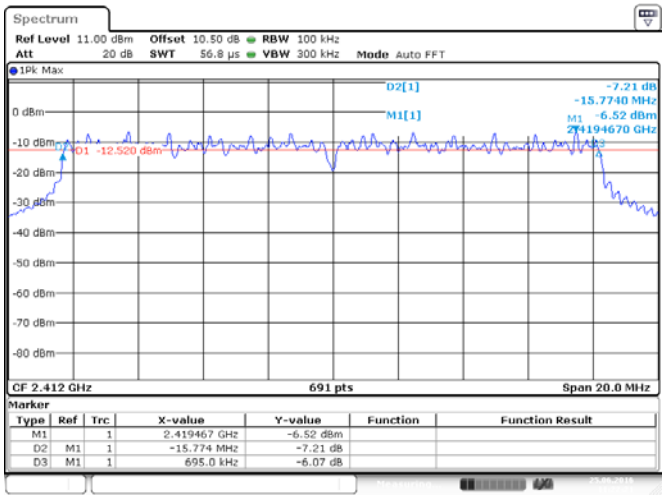
ANT 2(802.11b)



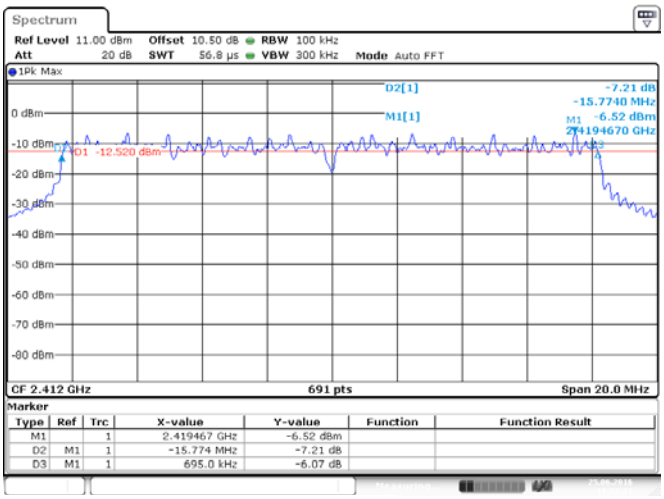


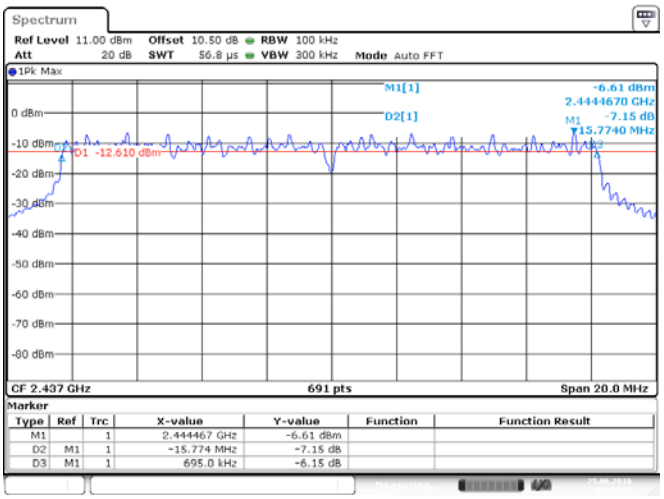


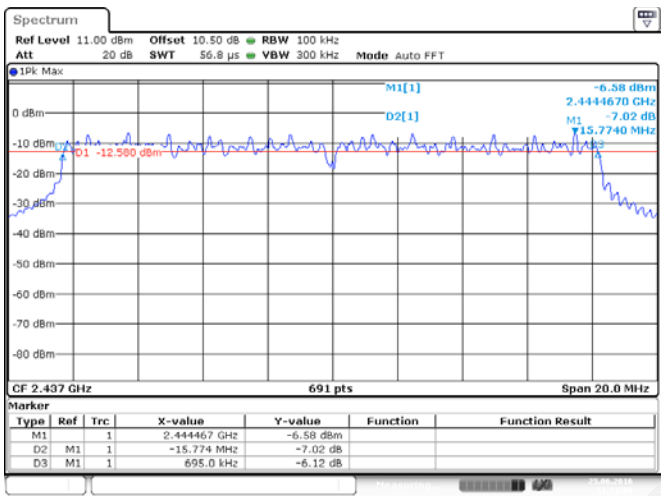
ANT 1(802.11g)

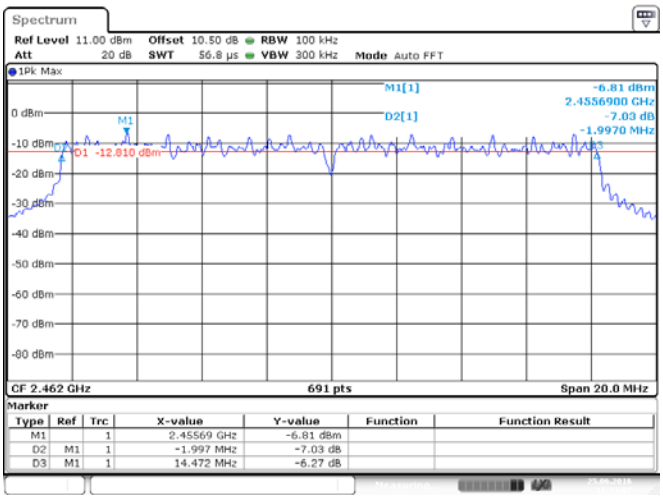


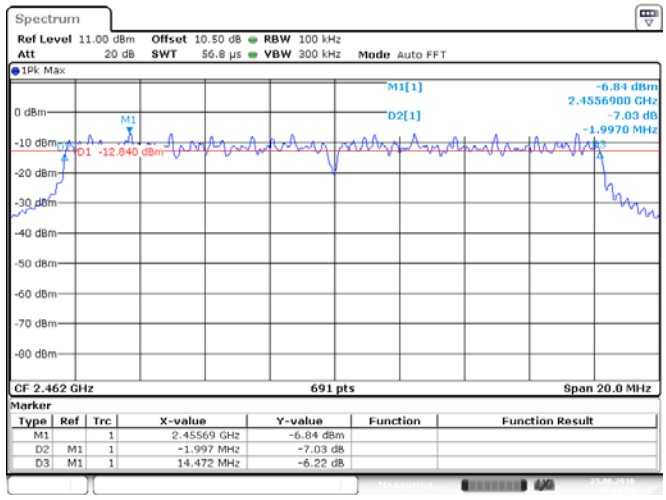
ANT 2(802.11g)



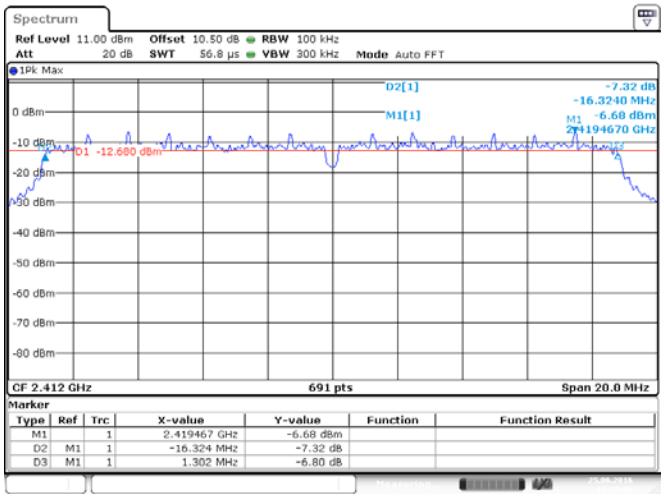




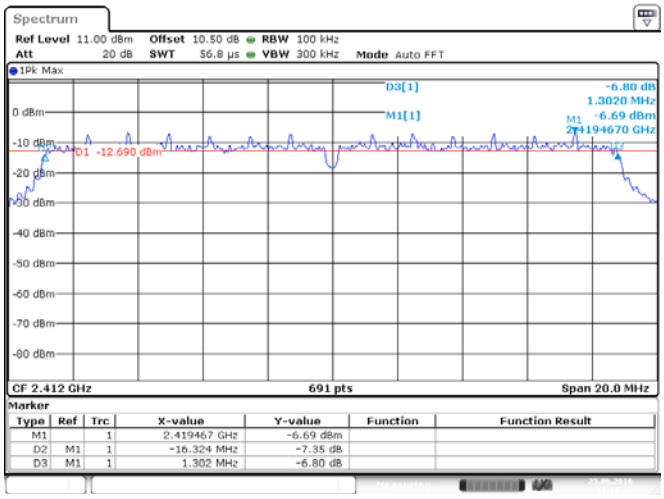


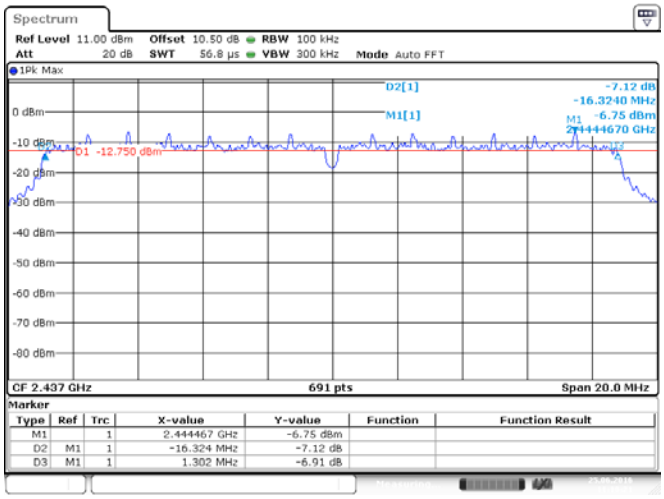


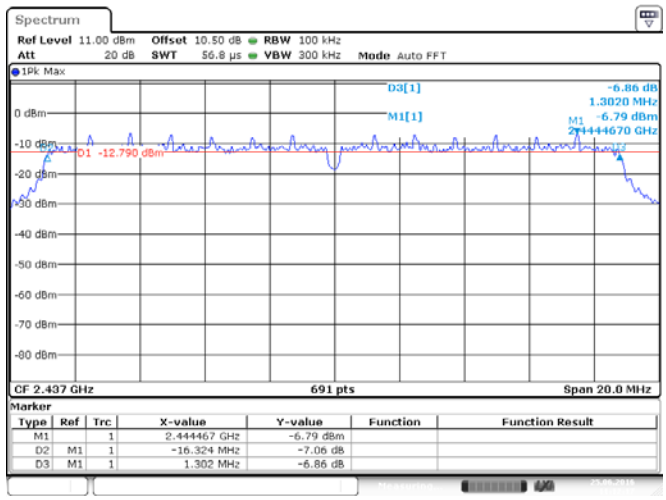
ANT 1(802.11n20)

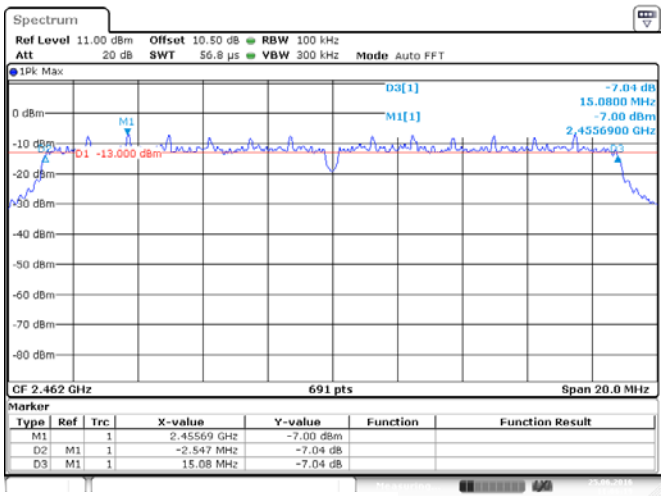


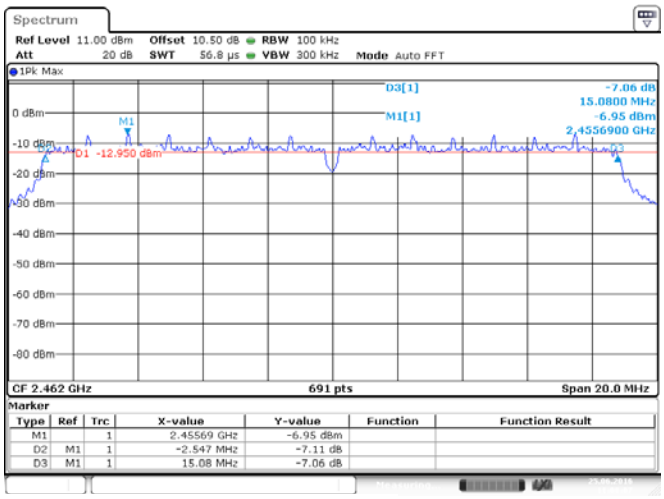
ANT 2(802.11 n20)



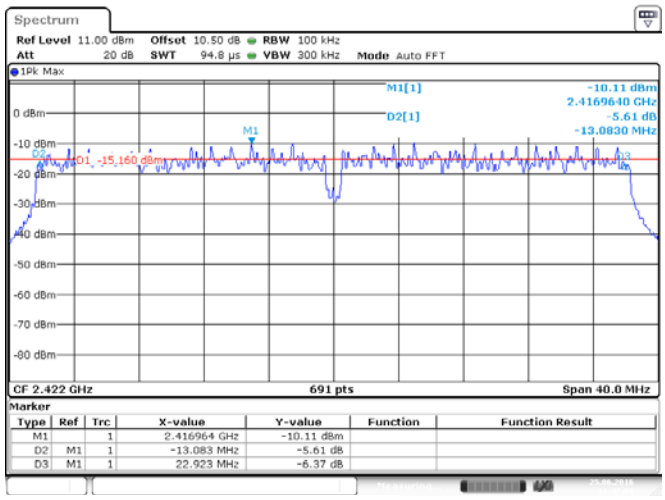




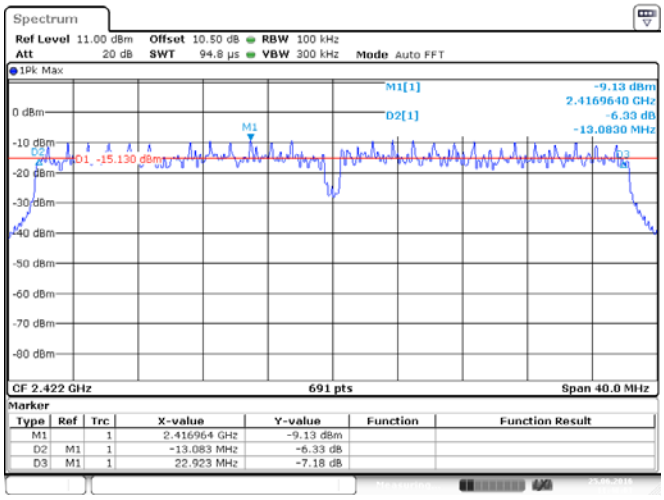


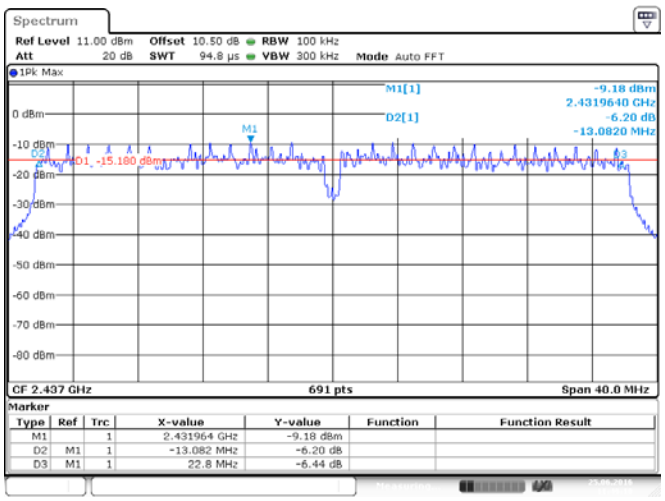


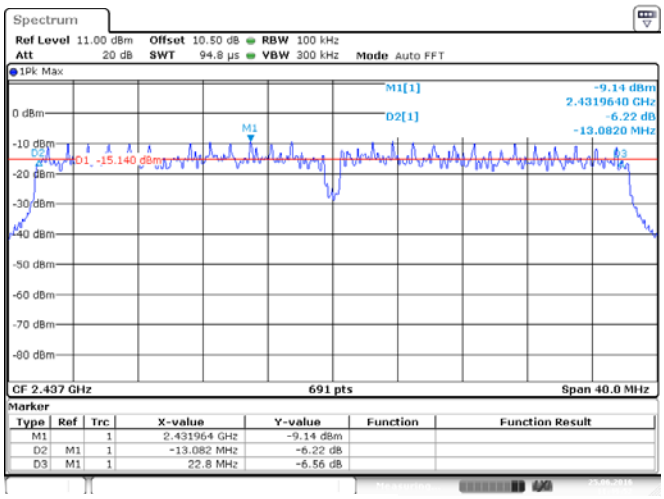
ANT 1(802.11n40)

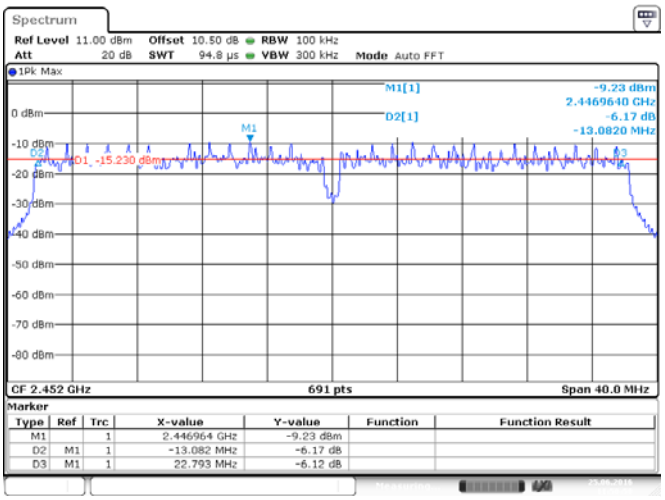


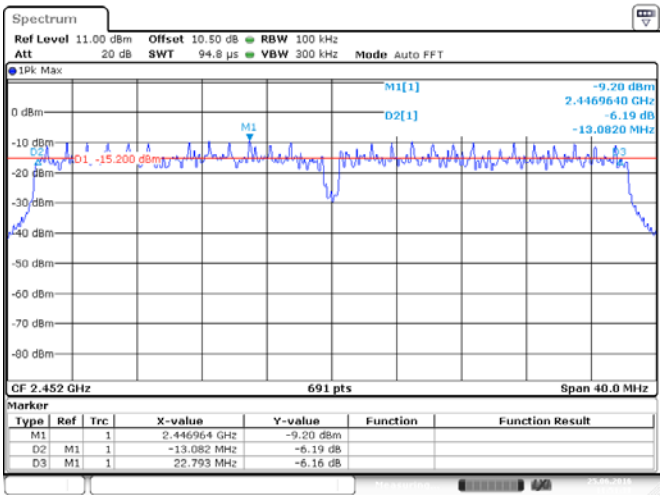
ANT 2(802.11n40)





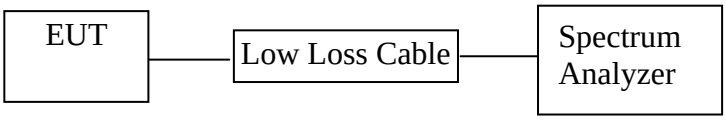






7. 20DB BANDWIDTH MEASUREMENT

7.1.Block Diagram of Test Setup



7.2.EUT Configuration on Measurement

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.3.Operating Condition of EUT

7.3.1.Setup the EUT and simulator as shown as Section 6.1.

7.3.2.Turn on the power of all equipment.

7.3.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

7.4.Test Procedure

1. Set resolution bandwidth (RBW) = 1%-5% OBW.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Once the reference level is established, the equipment is conditioned with typical modulating signals to produce the worst-case (i.e., the widest) bandwidth. Unless otherwise specified for an unlicensed wireless device, measure the bandwidth at the －20 dB levels with respect to the reference level

7.5.Test Result

The test was performed with 802.11b			
Channel	Frequency (MHz)	20dB Bandwidth ANT1 (MHz)	20dB Bandwidth ANT2 (MHz)
Low	2412	17.308	17.308
Middle	2437	17.250	17.308
High	2462	17.250	17.250

The test was performed with 802.11g			
Channel	Frequency (MHz)	20dB Bandwidth ANT1 (MHz)	20dB Bandwidth ANT2 (MHz)
Low	2412	18.871	18.929
Middle	2437	18.813	18.871
High	2462	18.871	18.813

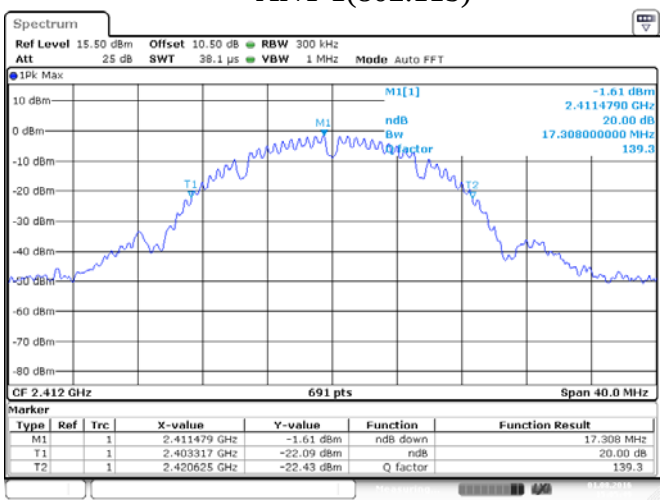
The test was performed with 802.11n20			
Channel	Frequency (MHz)	20dB Bandwidth ANT1 (MHz)	20dB Bandwidth ANT2 (MHz)
Low	2412	20.384	20.644
Middle	2437	20.644	20.579
High	2462	20.579	20.644

The test was performed with 802.11n40			
Channel	Frequency (MHz)	20dB Bandwidth ANT1 (MHz)	20dB Bandwidth ANT2 (MHz)
Low	2412	40.116	40.116
Middle	2437	40.116	40.203
High	2462	40.203	40.203

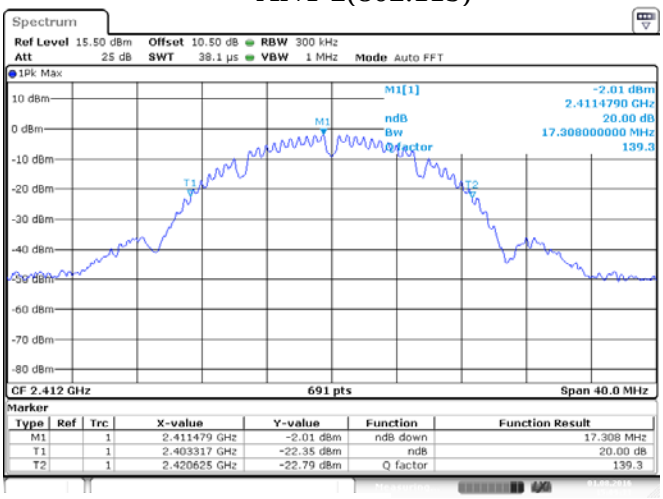
The spectrum analyzer plots are attached as below.

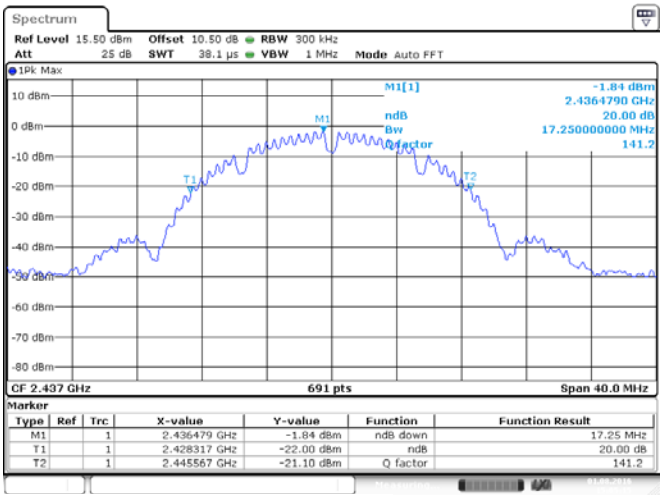
20dB Bandwidth

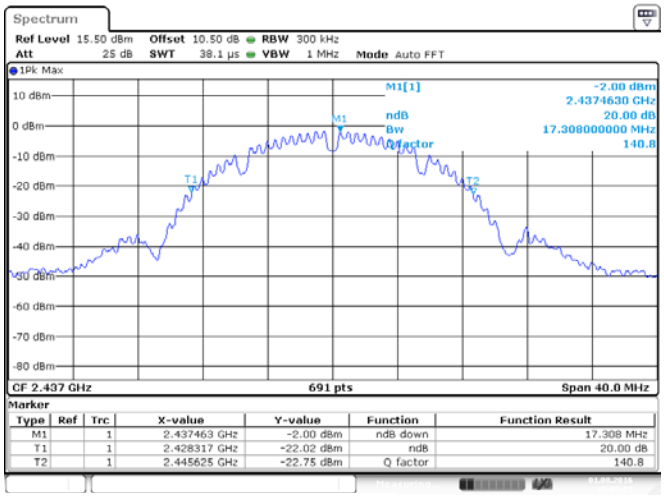
ANT 1(802.11b)

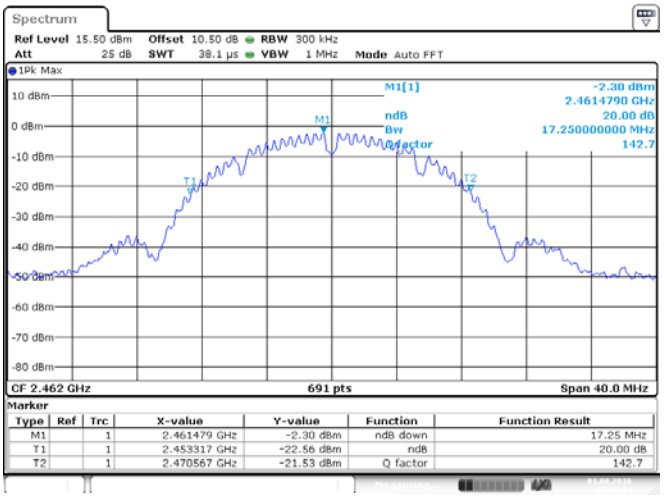


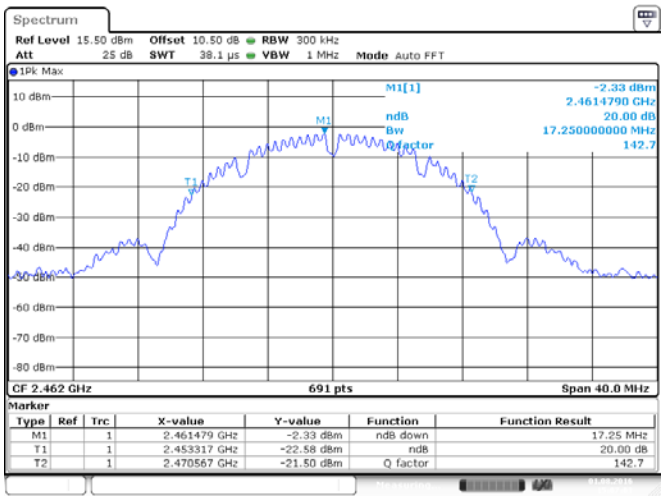
ANT 2(802.11b)



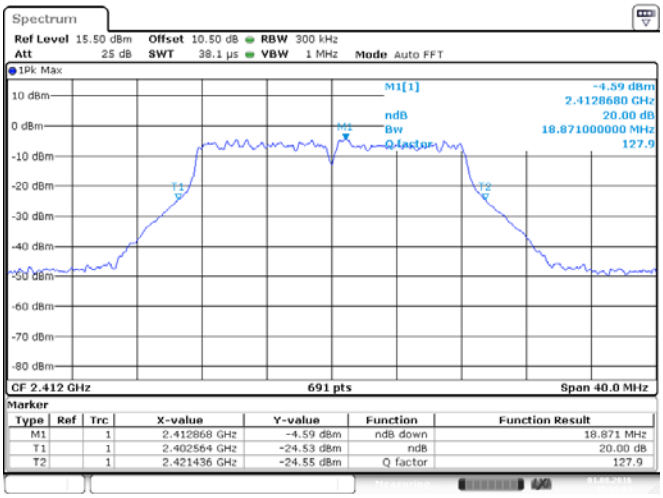




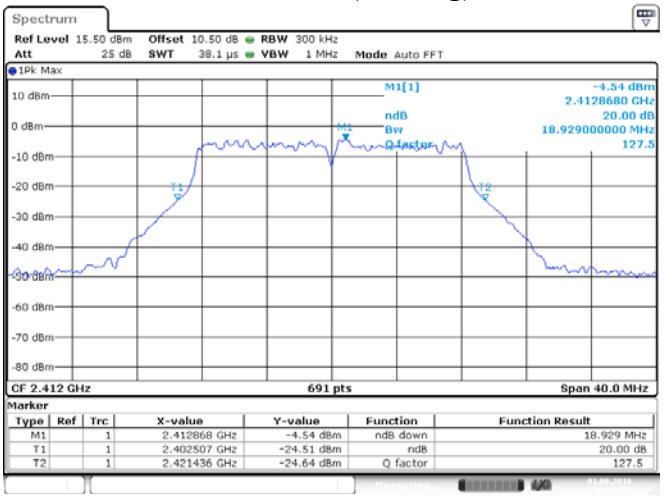


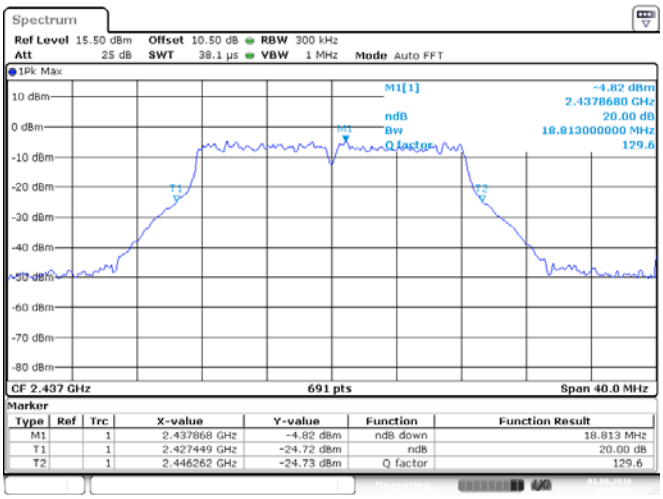


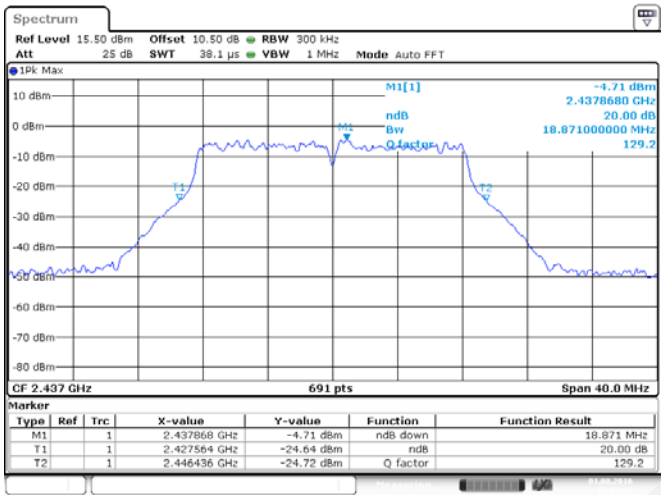
ANT 1(802.11g)

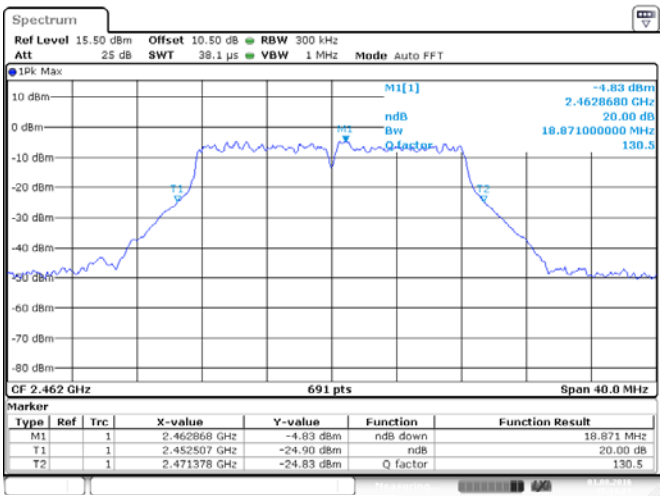


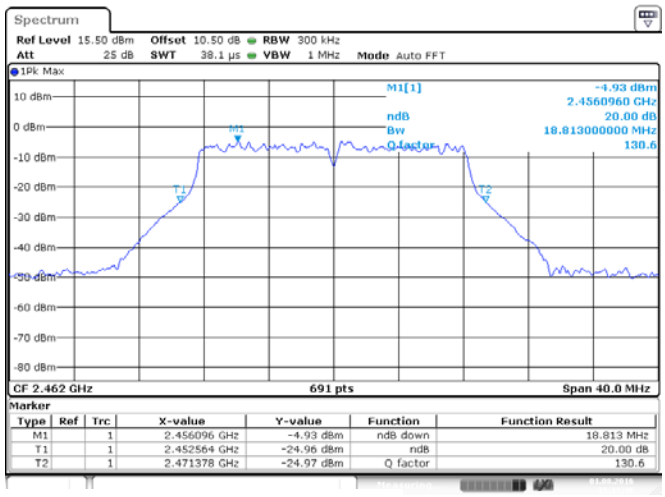
ANT 2(802.11g)



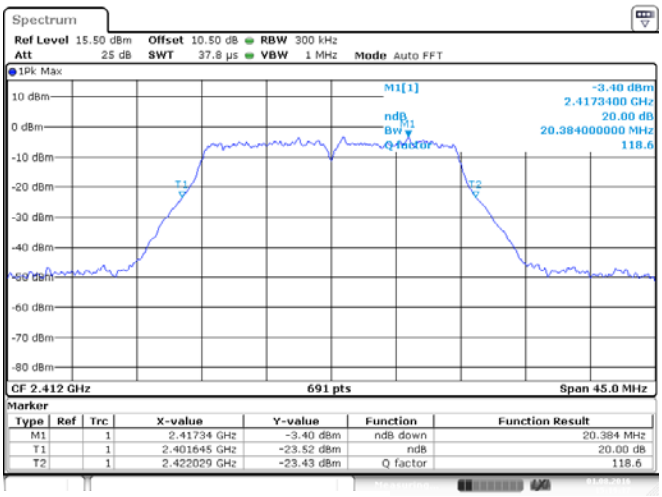




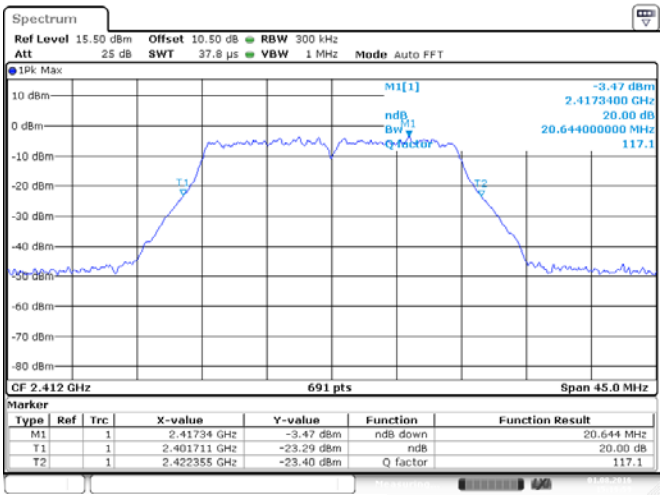


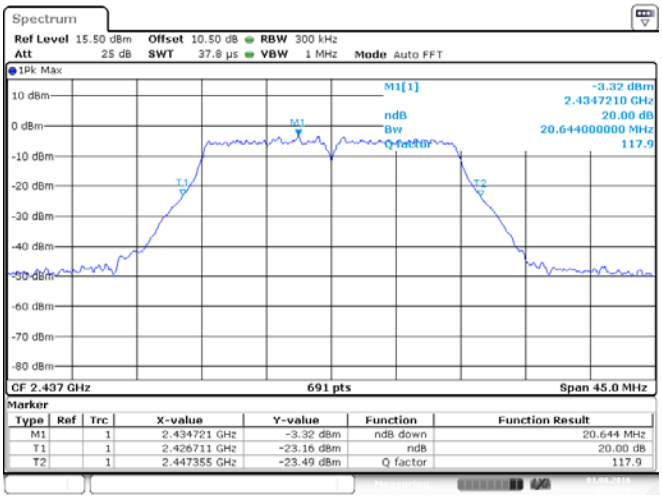


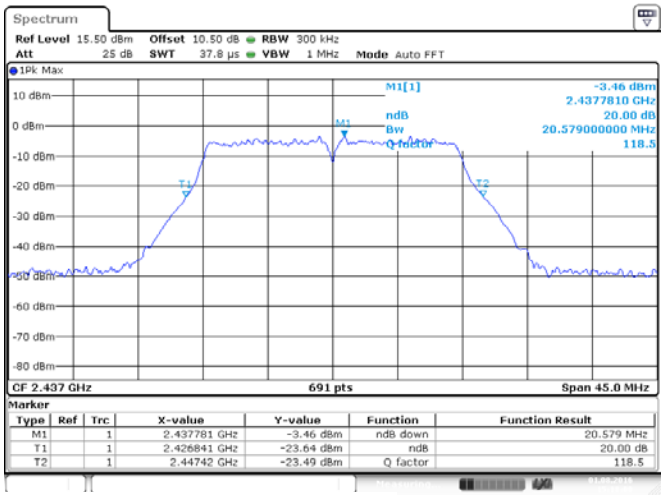
ANT 1(802.11n20)

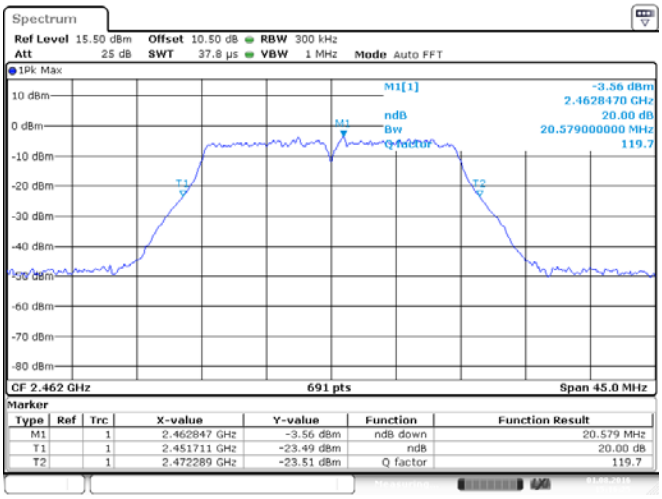


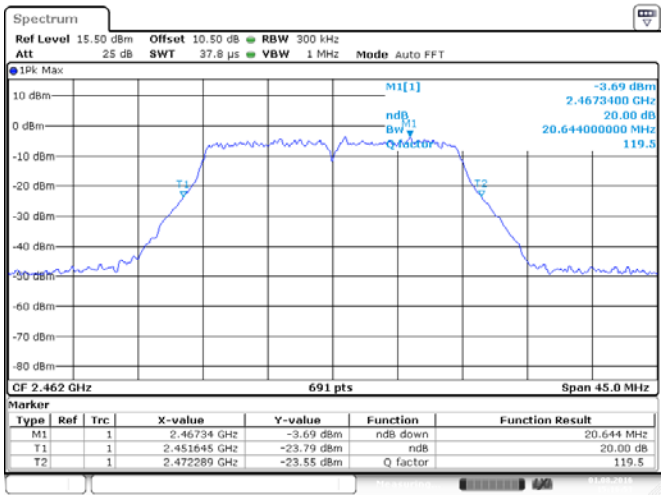
ANT 2(802.11 n20)



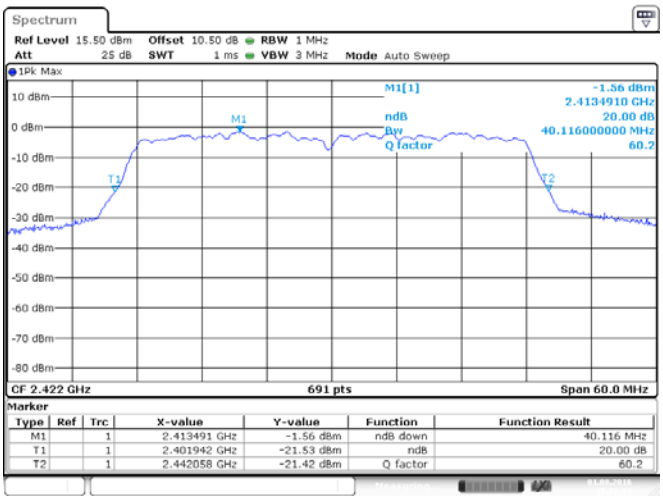




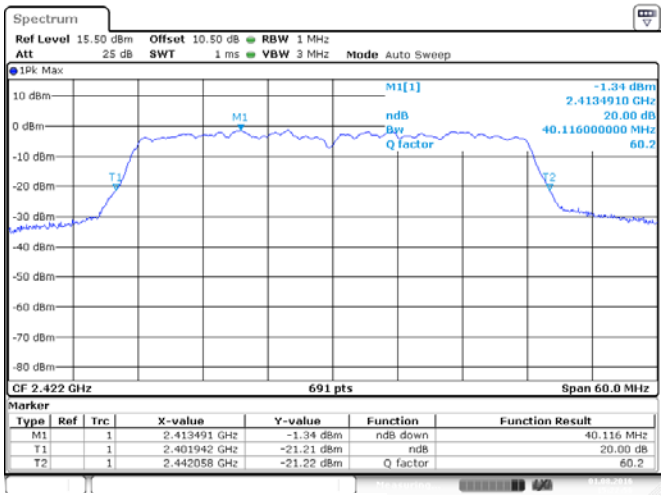


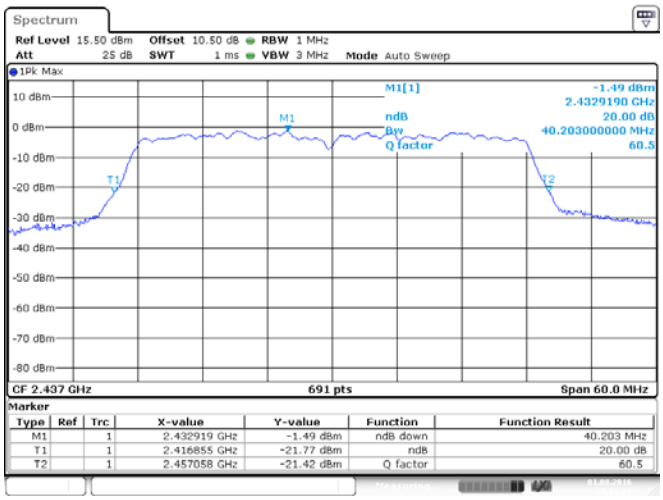


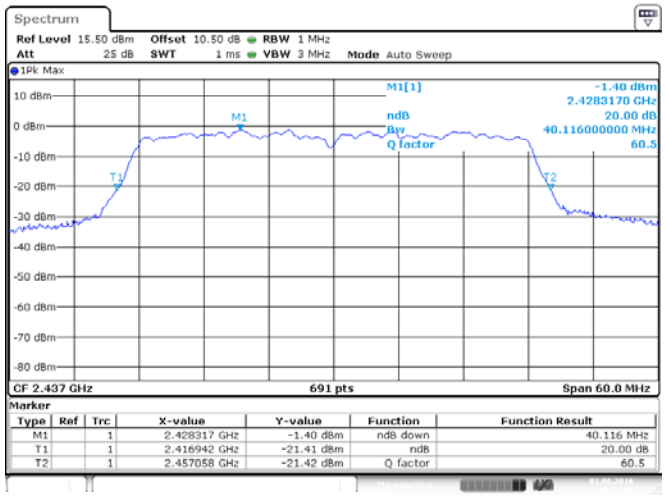
ANT 1(802.11n40)

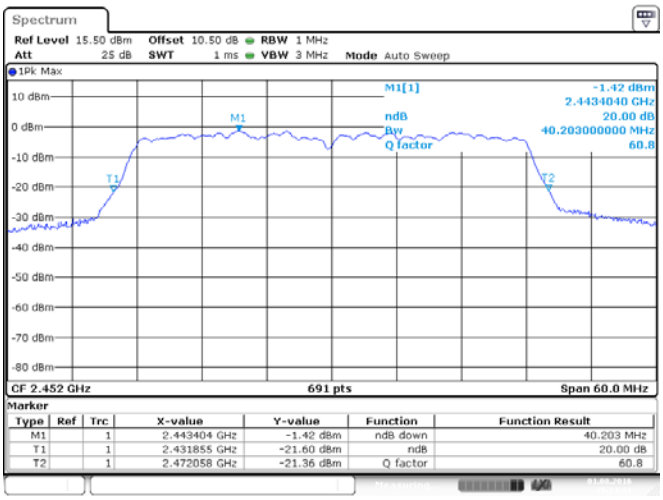


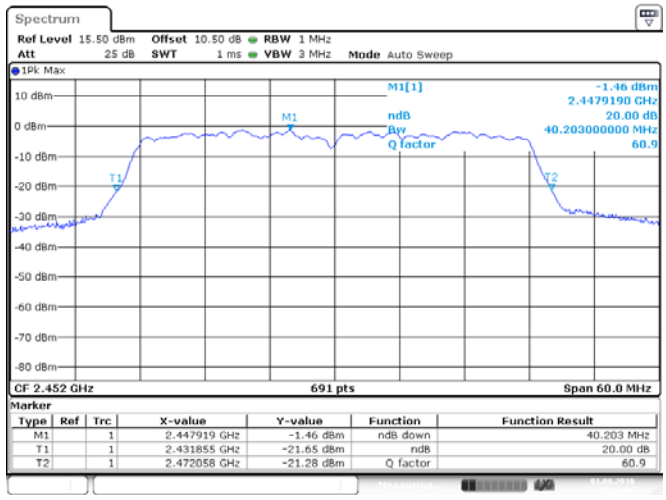
ANT 2(802.11n40)





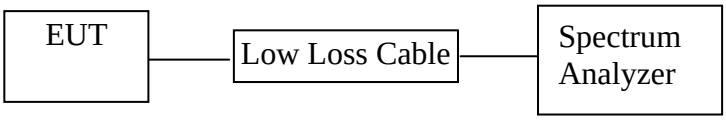






8. POWER SPECTRAL DENSITY TEST

8.1.Block Diagram of Test Setup



8.2.The Requirement For Section 15.247(e)

Section 15.247(e): 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.

8.3.EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

8.4.Operating Condition of EUT

8.4.1.Setup the EUT and simulator as shown as Section 7.1.

8.4.2.Turn on the power of all equipment.

8.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

8.5.Test Procedure

8.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.

8.5.2.Measurement Procedure PKPSD:

This procedure must be used if maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit, and is optional if the maximum (average) conducted output power was used to demonstrate compliance.

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the RBW 3 kHz $\leqslant$ RBW $\leqslant$ 100 kHz.

4. Set the VBW ≥ 3 x RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

8.5.3.Measurement the maximum power spectral density.

8.6.Test Result

The test was performed with 802.11b(SISO)				
Channel	Frequency (MHz)	Power Spectral Density ANT 1(dBm)	Power Spectral Density ANT 2(dBm)	Limits (dBm)
Low	2412	-19.03	-19.06	8 dBm
Middle	2437	-19.15	-19.17	8 dBm
High	2462	-19.43	-19.40	8 dBm

The test was performed with 802.11g(SISO)				
Channel	Frequency (MHz)	Power Spectral Density ANT 1(dBm)	Power Spectral Density ANT 2(dBm)	Limits (dBm)
Low	2412	-26.53	-26.36	8 dBm
Middle	2437	-26.33	-26.30	8 dBm
High	2462	-26.41	-26.55	8 dBm

The test was performed with 802.11n20(SISO)				
Channel	Frequency (MHz)	Power Spectral Density ANT 1(dBm)	Power Spectral Density ANT 2(dBm)	Limits (dBm)
Low	2412	-26.46	-26.53	8 dBm
Middle	2437	-27.02	-26.65	8 dBm
High	2462	-26.83	-26.77	8 dBm

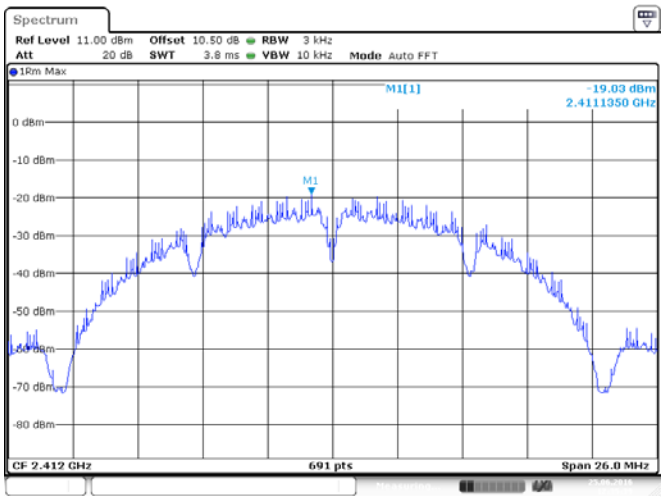
The test was performed with 802.11n40(SISO)				
Channel	Frequency (MHz)	Power Spectral Density ANT 1(dBm)	Power Spectral Density ANT 2(dBm)	Limits (dBm)
Low	2422	-29.86	-29.45	8 dBm
Middle	2437	-29.69	-29.55	8 dBm
High	2452	-29.61	-29.79	8 dBm

The test was performed with 802.11n20(MIMO)					
Channel	Frequency (MHz)	Power Spectral Density ANT 1(dBm)	Power Spectral Density ANT 2(dBm)	Power Spectral Density total(dBm)	Limits (dBm)
Low	2412	-29.56	-29.86	-26.70	8 dBm
Middle	2437	-29.71	-29.60	-26.64	8 dBm
High	2462	-29.85	-29.72	-26.78	8 dBm

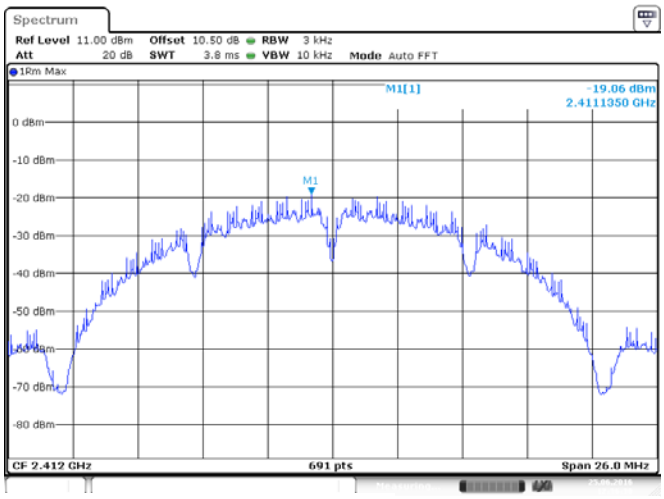
The test was performed with 802.11n40(MIMO)					
Channel	Frequency (MHz)	Power Spectral Density ANT 1(dBm)	Power Spectral Density ANT 2(dBm)	Power Spectral Density total(dBm)	Limits (dBm)
Low	2422	-33.35	-33.30	-30.31	8 dBm
Middle	2437	-33.42	-33.52	-30.46	8 dBm
High	2452	-32.52	-32.45	-29.45	8 dBm

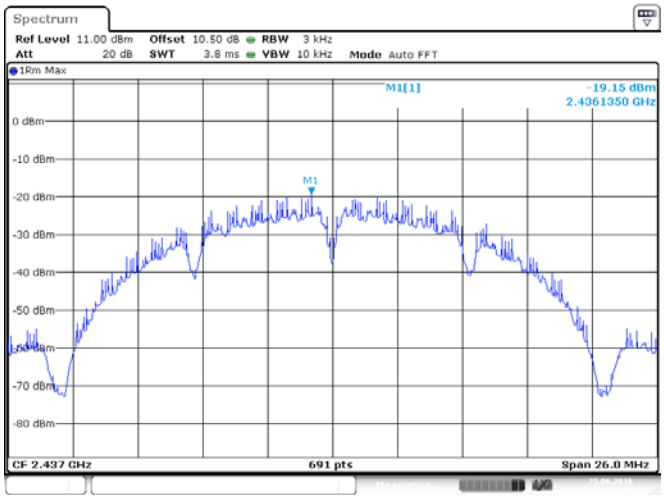
Test mode: SISO
The spectrum analyzer plots are attached as below.

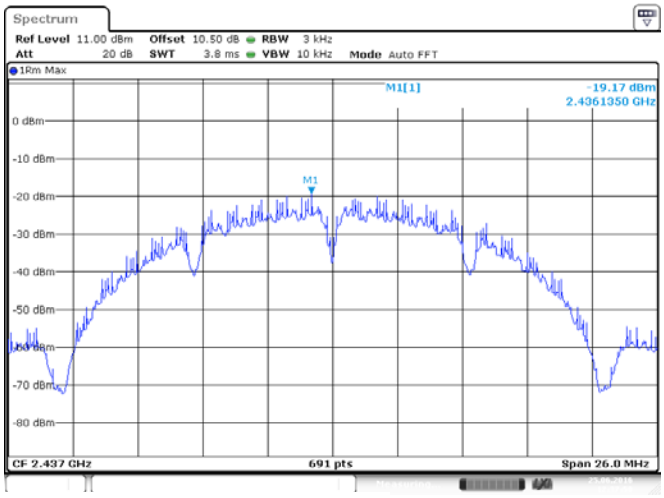
ANT 1(802.11b)

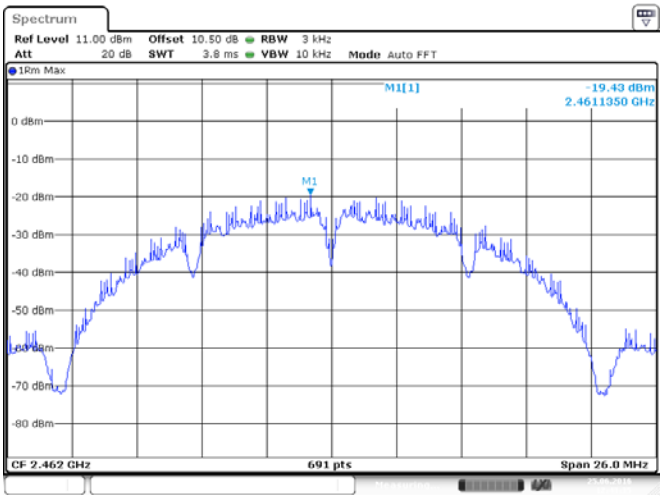


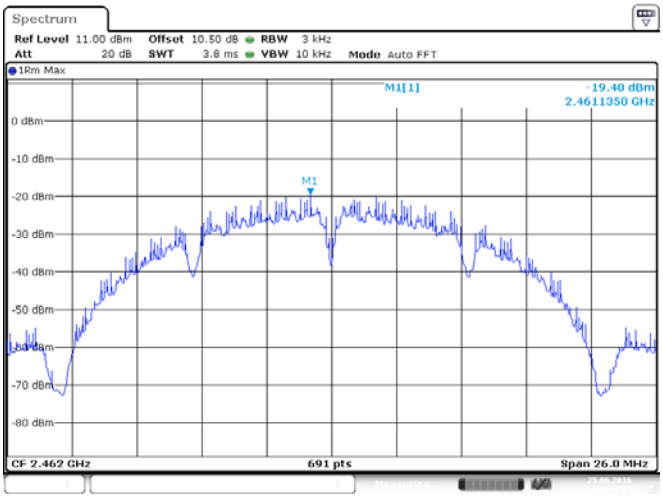
ANT 2(802.11b)



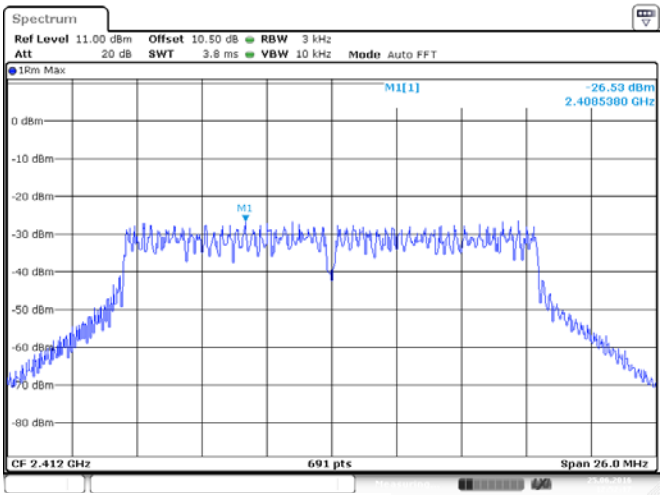


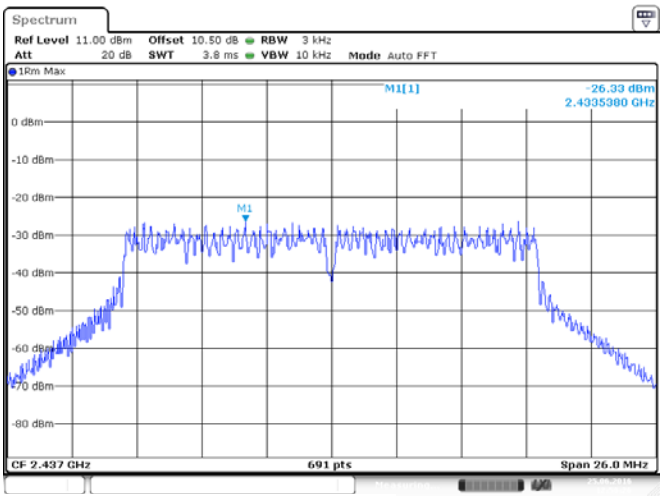


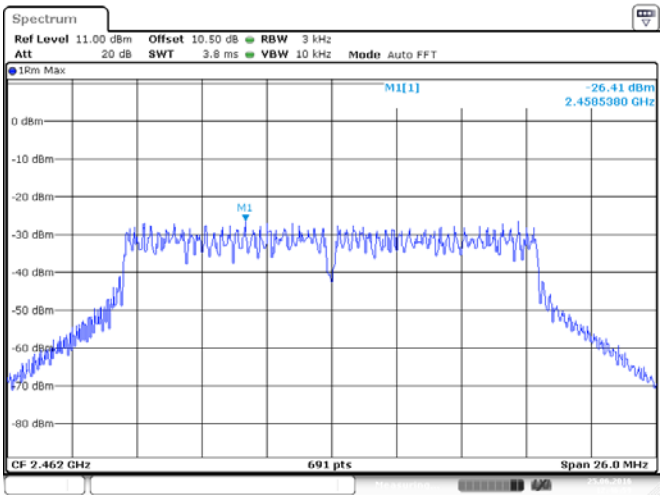




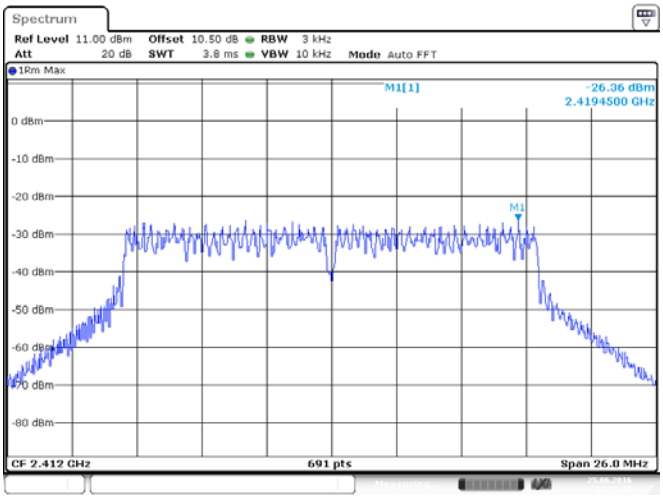
ANT 1(802.11g)

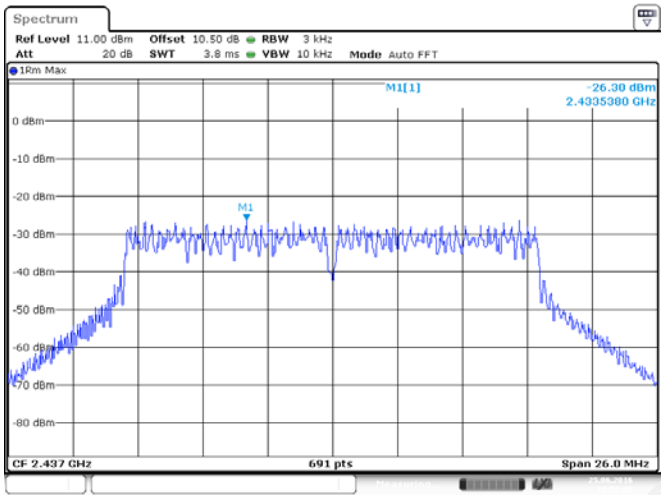


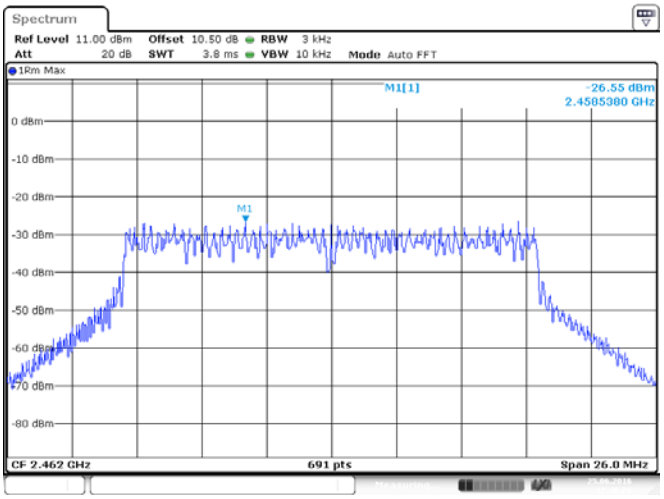




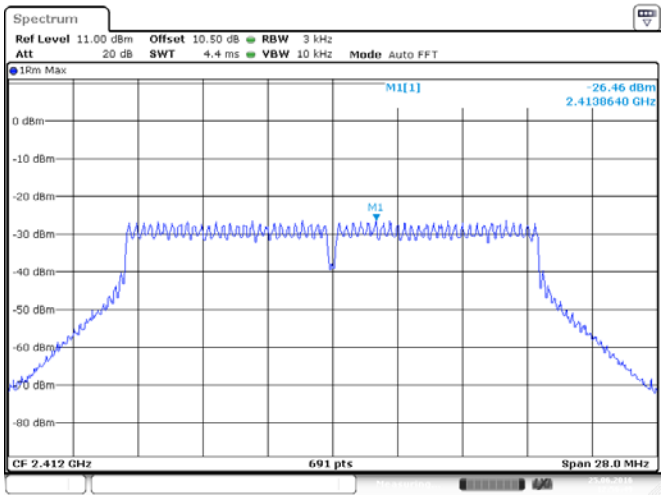
ANT 2(802.11g)



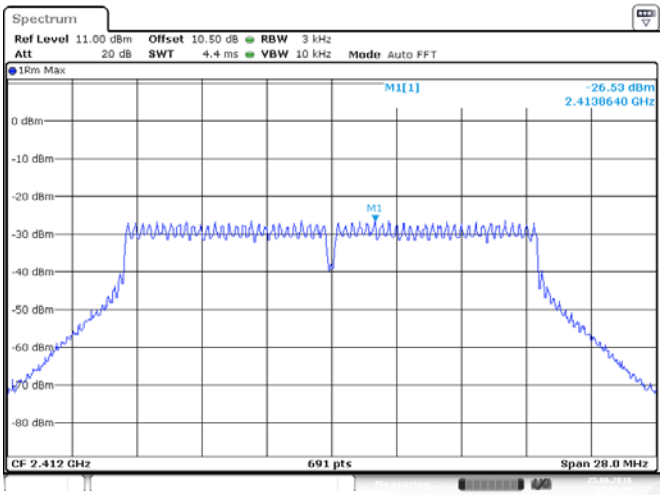


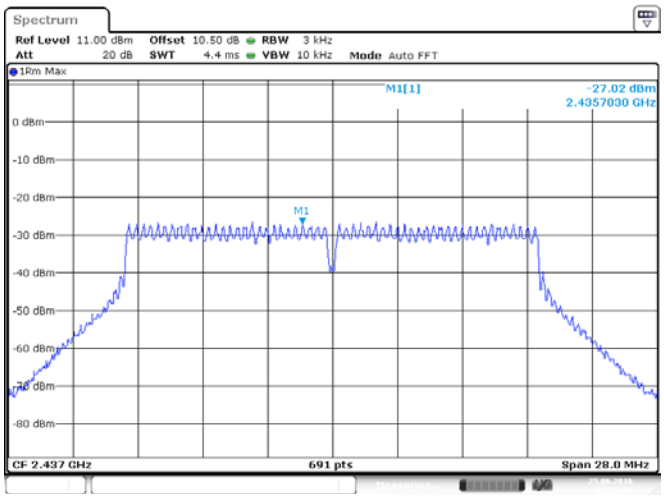


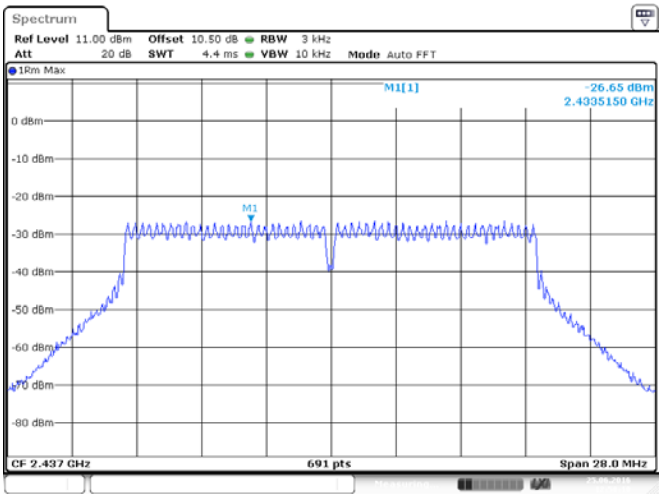
ANT 1(802.11n20)

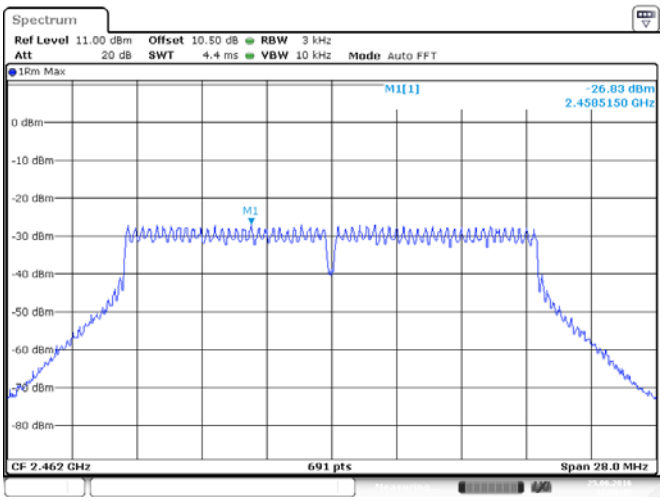


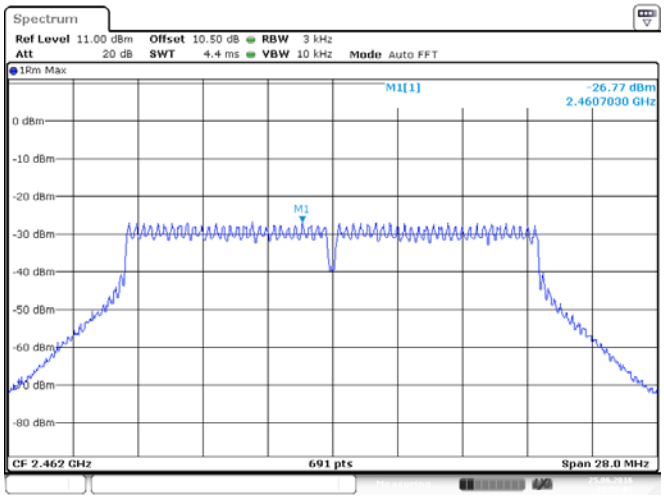
ANT 2(802.11 n20)



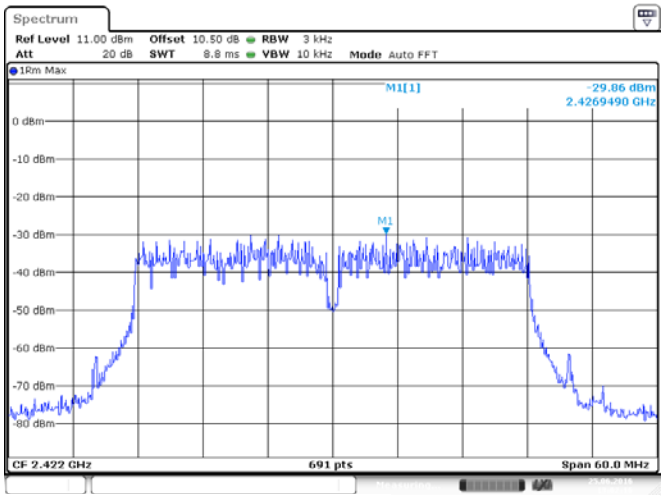


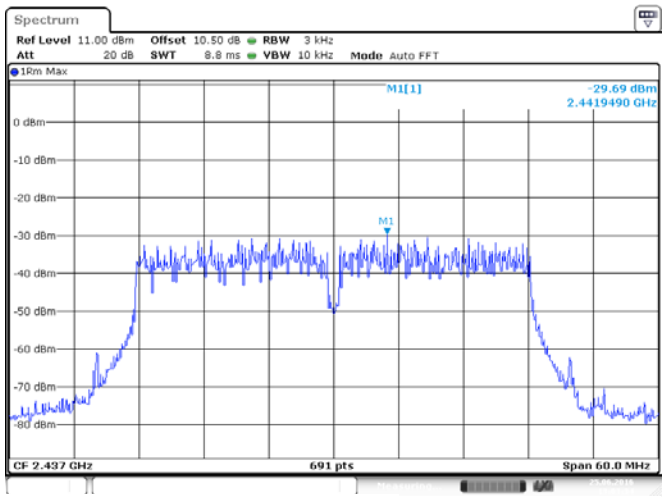


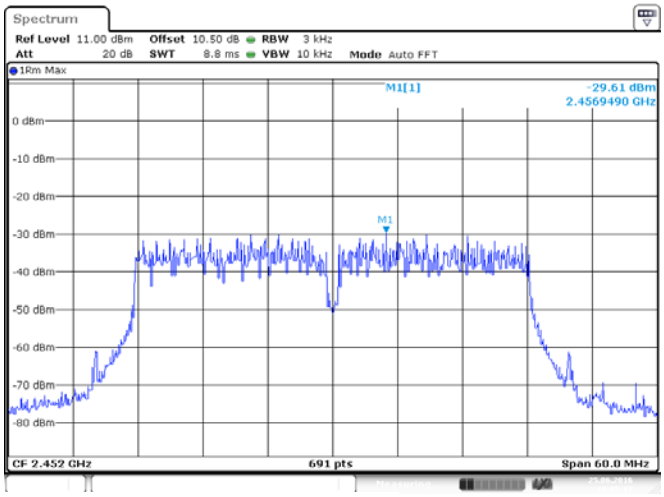




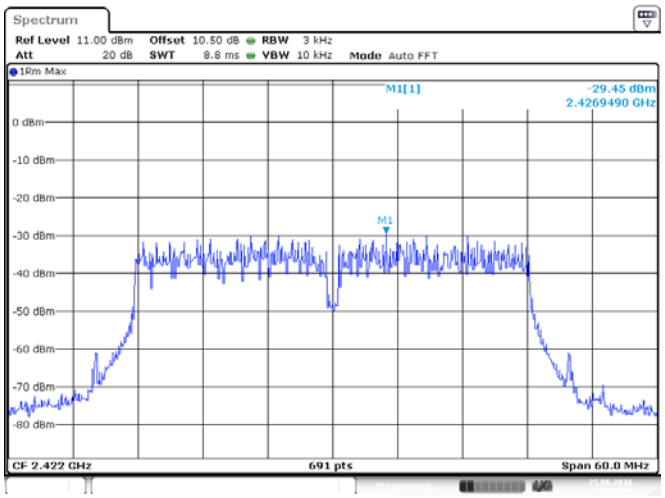
ANT 1(802.11n40)

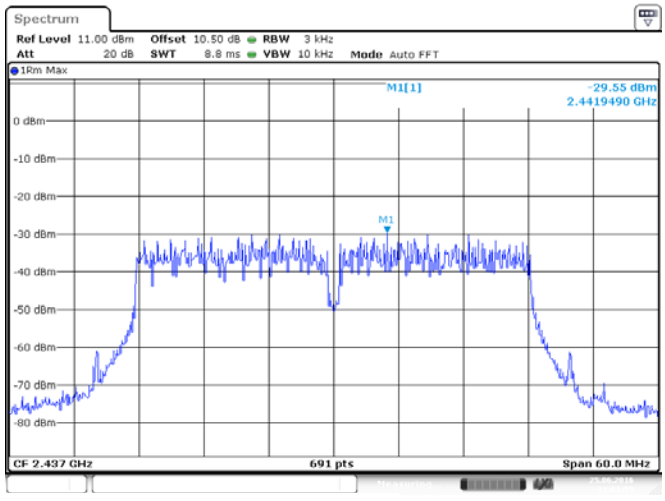


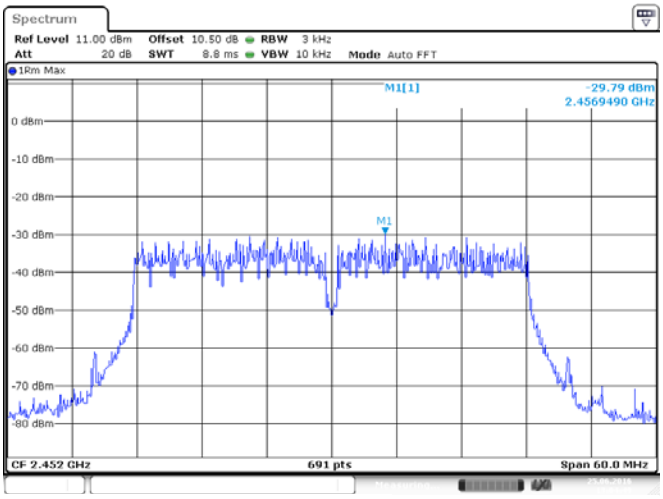




ANT 2(802.11n40)

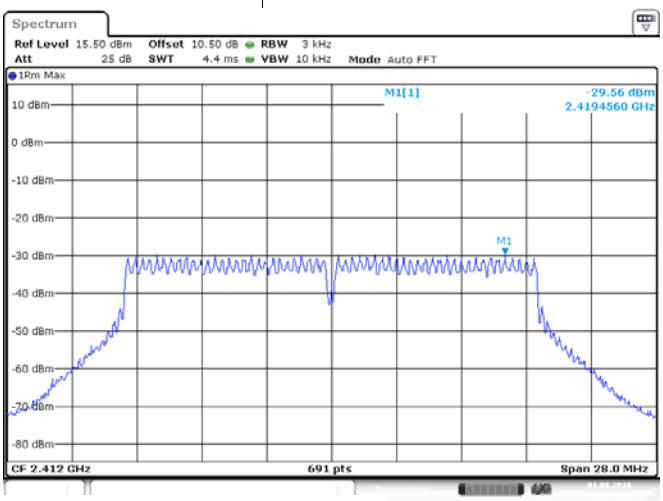


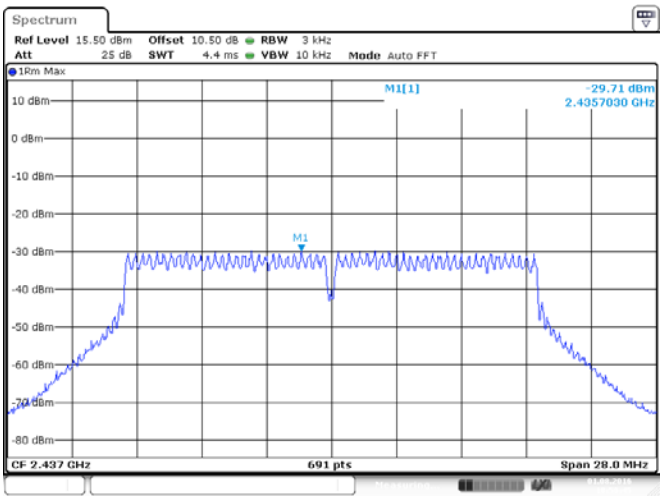


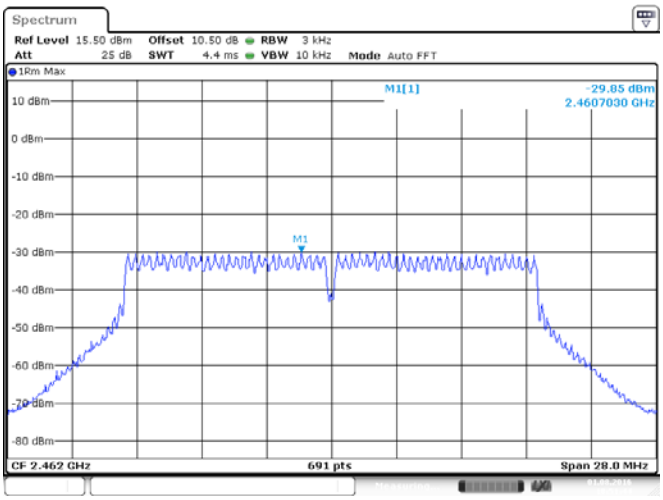


Test mode: MIMO
The spectrum analyzer plots are attached as below.

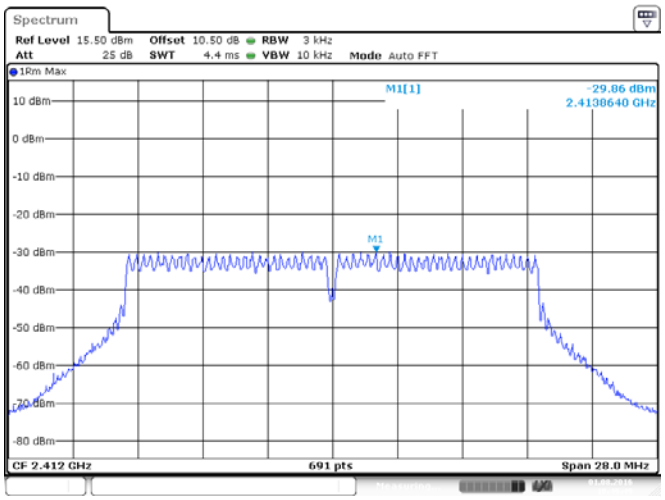
ANT 1(802.11n20)

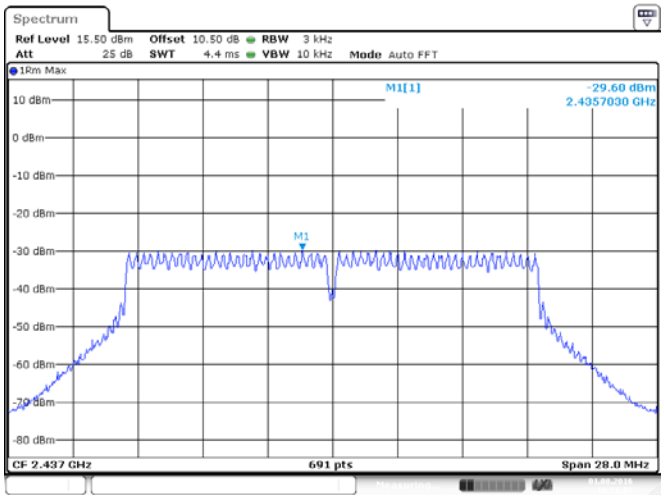


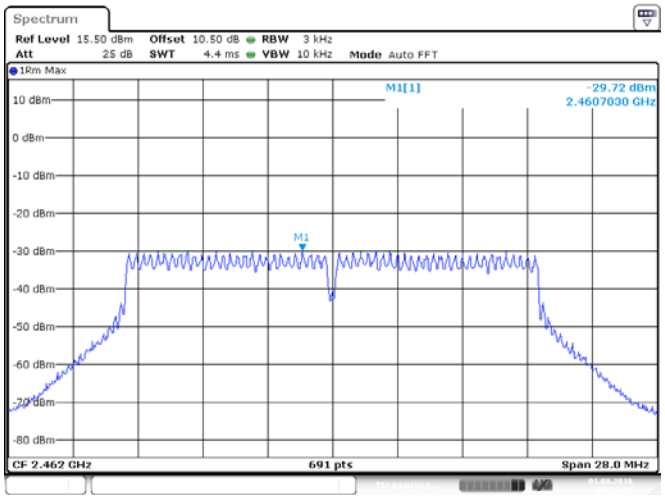




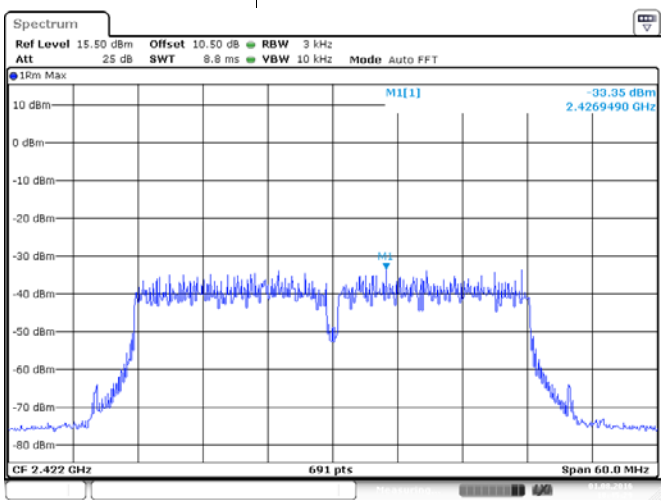
ANT 2(802.11 n20)



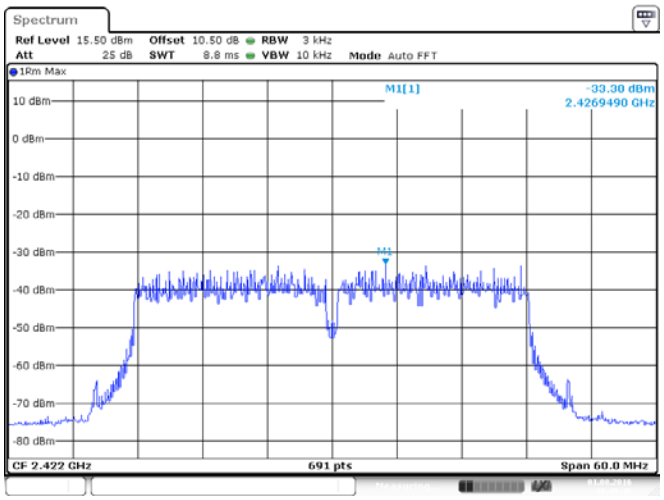


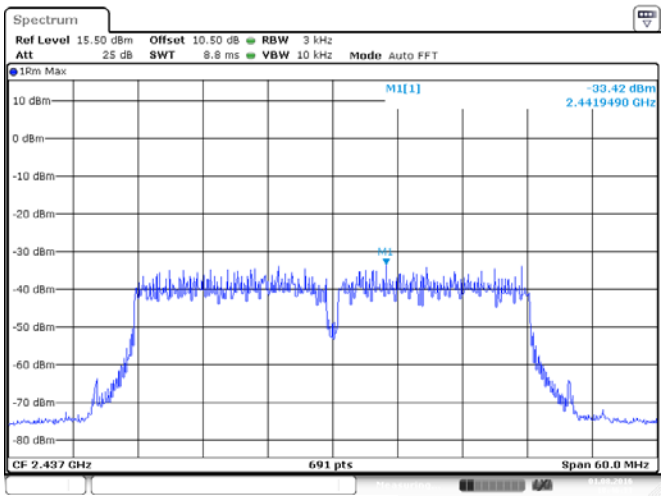


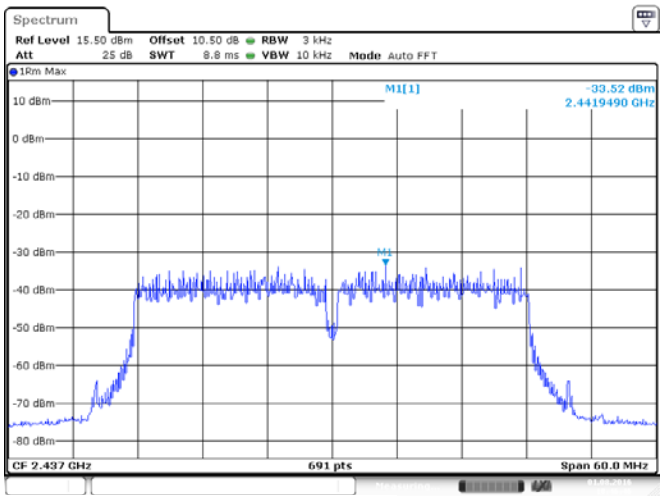
ANT 1(802.11n40)

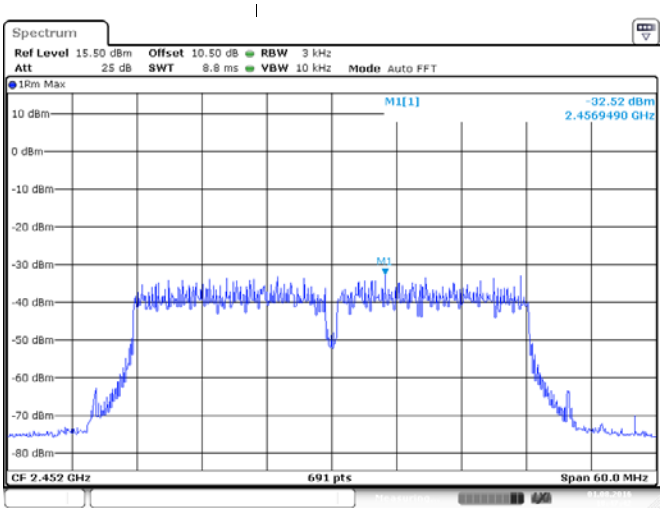


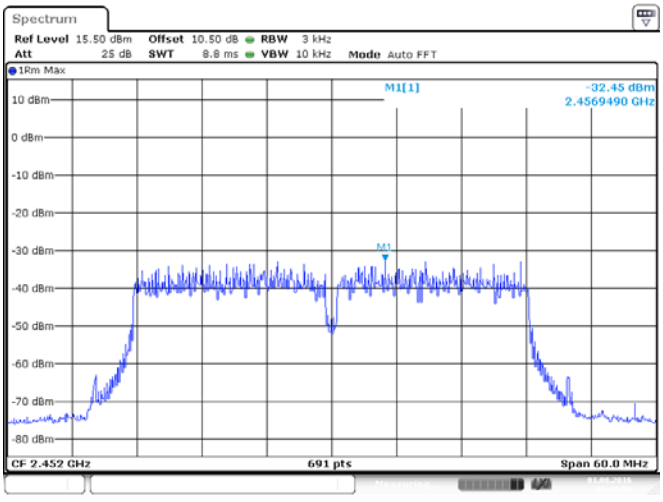
ANT 2(802.11n40)





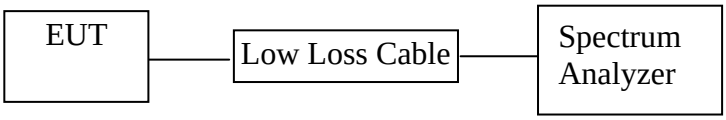






9. MAXIMUM CONDUCTED (AVERAGE) OUTPUT POWER

9.1.Block Diagram of Test Setup



9.2.The Requirement For Section 15.247(b)(3)

Section 15.247(b)(3): For systems using digital modulation in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands: 1 Watt.

9.3.EUT Configuration on Measurement

The equipment is installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

9.4.Operating Condition of EUT

9.4.1.Setup the EUT and simulator as shown as Section 8.1.

9.4.2.Turn on the power of all equipment.

9.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

9.5.Test Procedure

9.5.1.The EUT was tested according to DTS test procedure of Apr 08, 2016 KDB558074 D01 DTS Meas Guidance v03r05 for compliance to FCC 47CFR 15.247 requirements.

9.5.2.The transmitter output was connected to the spectrum analyzer through a low loss cable.

9.5.3.Set RBW = 1-5% of the OBW, not to exceed 1 MHz, VBW $\geqslant$ 3 x RBW, Sweep time = auto, Set span to at least 1.5 times the OBW, Detector = RMS.

9.5.4.Measurement the Maximum conducted (average) output power.