ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION
REFERENCING TEST DATA ACROSS SEPARATE EQUIPMENT
VERIFICATION

OF

Applicant:	Sharp Corporation, Mobile Communication B.U. 2-13-1, Hachihonmatsu-Iida, Higashi-hiroshima-shi, Hiroshima 739-0192, Japan
Manufacturer:	Sharp Corporation 1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-8522, Japan
Product Name:	Smart Phone
Report Number:	T190308W01-RP8
FCC ID:	APYHRO00273
FCC Rule Part:	§15.225 / §15.247, Cat: DSS & DTS / §15.407, Cat: NII
Issue Date:	Apr. 08, 2019
Date of Test:	Mar. 12, 2019 ~ Mar. 22, 2019
Date of EUT Received:	Mar. 12, 2019
Issued by:	Compliance Certification Services Inc.Wugu Lab. No.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.) service@ccsrf.com

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.
The test results of this report relate only to the tested sample (EUT) identified in this report
The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc. (Wugu Laboratory).

Tested By: Wei Chang
Wei Chang / Engineer

Approved By: Kevin Tsai
Kevin Tsai / Deputy Manager

Revision History

Report Number	Revision	Description	Effected Page	Issue Date	Revised By
T190308W01-RP8	Rev.00	Initial creation of document	All	Apr. 08, 2019	Violetta Tang

Contents

1 GENERAL INFORMATION 4
2 SYSTEM TEST CONFIGURATION 6
3 SUMMARY OF TEST RESULTS 8
4 DESCRIPTION OF TEST MODES 9
5 MEASUREMENT UNCERTAINTY 10
6 RADIATED SPURIOUS EMISSION MEASUREMENT 11

1 GENERAL INFORMATION

1.1 Product description

General:

Product Name:	Smart Phone
Hardware Version:	DVT
Software Version:	N/A
Power Supply:	3.85V from Rechargeable Li-ion Battery

1.2 Test Methodology of Applied Standards

FCC Part 15, Subpart C §15.225

FCC Part 15, Subpart C §15.247

FCC KDB 484596 D01 Referencing Test Data v01

FCC KDB 558074 D01 v05r01 DTS Meas. Guidance

FCC Part 15, Subpart E §15.407

FCC KDB 789033 D02 General UNII Test Procedures New Rules V02r01

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10:2013

Note: All test items have been performed and record as per the above standards.

1.3 Test Facility

Compliance Certification Services Inc. Wugu Lab. No.11, Wugong 6th Rd.,

Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.) (TAF code 1309)

FCC Designation number: TW1309

1.4 Special Accessories

There are no special accessories used while test was conducted.

1.5 Equipment Modifications

There was no modification incorporated into the EUT.

2 SYSTEM TEST CONFIGURATION

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

An engineering test mode (software/firmware) that applicant provided was utilized to manipulate the EUT into transmit, selection of the test channel, and modulation scheme.

2.3 Test Procedure

2.3.1 Radiated Emissions for DXX

The EUT is a placed on as turn table which is 0.8 m above ground plan. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through one orthogonal axe and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made “while keeping the antenna in the ‘cone of radiation’ from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response.” is still within the 3dB illumination BW of the measurement antenna.

2.3.2 Radiated Emissions for DSS & DTS & NII

The EUT is a placed on as turn table. For emissions testing at or below 1 GHz, the table height shall be 0.8 m above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made “while keeping the antenna in the ‘cone of radiation’ from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response.” is still within the 3dB illumination BW of the measurement antenna.

2.4 Configuration of Tested System

Fig. 2-1 Radiated Emission Configuration (NFC & BT & BLE & WLAN)

Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Data Cable	Power Cord
1.	NFC Test Software	N/A	N/A	N/A	N/A	N/A
2.	Bluetooth Test Software	N/A	N/A	N/A	N/A	N/A
3.	WLAN Test Software	N/A	N/A	N/A	N/A	N/A
4.	Notebook	Lenovo	T440P	PC-089AH5	Shielded	Unshielded

3 SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§15.225 (a)-(d)	Radiated Emission	Compliant
§15.247(d)	Radiated Spurious Emission	Compliant
§15.407(b)	Undesirable Radiated Emissions	Compliant

4 DESCRIPTION OF TEST MODES

4.1 The Worst Test Modes and Channel Details

1. The EUT has been tested under operating condition.
2. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.
3. Investigation has been done base on the worst case of original FCC ID: APYHRO00272 for DXX, DSS, DTS and NII.

RADIATED EMISSION TEST:

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	Worst Case Position H / E1 / E2
NFC	1	1	ASK	-	H
Bluetooth	0 to 78	78	GFSK	DH5	E1
Bluetooth LE	0 to 39	39	GFSK	1	E1
Bluetooth LE	0 to 39	39	GFSK	2	E1
802.11b	1 to 11	11	DSSS	1	E1
802.11g	1 to 11	11	OFDM	6	E1
802.11n_HT20	1 to 11	11	OFDM	MCS 8	E1
802.11a	36 to 48	48	OFDM	6	E1
802.11n_HT20	100 to 140	116	OFDM	MCS 8	E1
802.11n_HT40	102 to 134	110	OFDM	MCS 8	E1
802.11ac_VHT80	106 to 122	122	OFDM	MCS 8	E1

Note:
The field strength of radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for NFC, BT, BLE, WLAN Transmitter for channel Low, Mid and High, the worst case position was reported.

5 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12 dB
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68 dB
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18 dB
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47 dB
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81 dB
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87 dB

Note:

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.
3. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

6 RADIATED SPURIOUS EMISSION MEASUREMENT

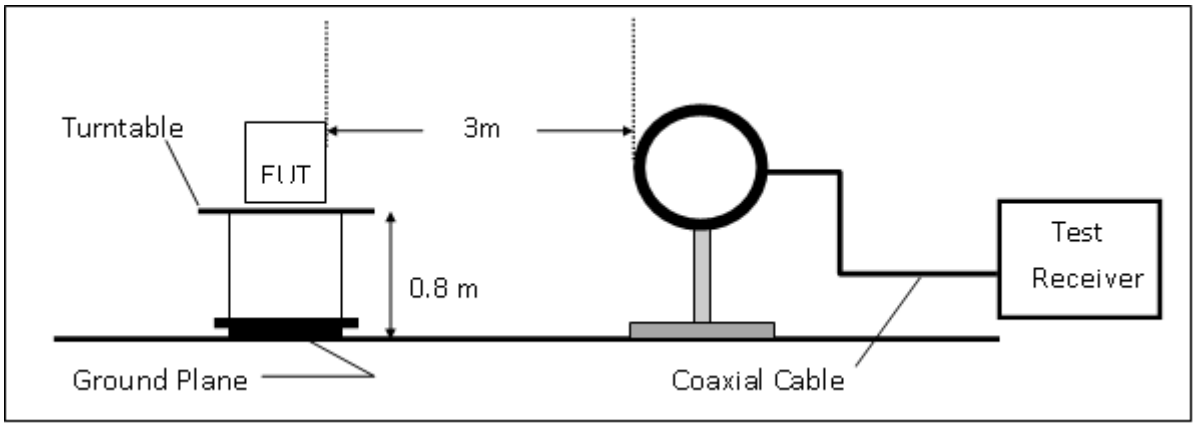
6.1 Measurement Equipment Used:

966A Chamber					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Band Reject Filters	MICRO TRONICS	BRM 50702	120	02/26/2019	02/25/2020
Bilog Antenna	Sunol Sciences	JB3	A030105	07/13/2018	07/12/2019
Cable	HUBER SUHNER	SUCOFLEX 104PEA	25157	02/26/2019	02/25/2020
Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	02/26/2019	02/25/2020
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	01/30/2019	01/29/2020
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	08/20/2018	08/19/2019
High Pass Filter	WI	WHKX7.0/18G-8SS	45	02/26/2019	02/25/2020
Horn Antenna	ETS LINDGREN	3116	00026370	12/26/2018	12/25/2019
Loop Antenna	ETS.LINDGREN	6502	148045	10/08/2018	10/07/2019
Pre-Amplifier	EMEC	EM330	060609	02/26/2019	02/25/2020
Pre-Amplifier	HP	8449B	3008A00965	02/26/2019	02/25/2020
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	05/31/2018	05/30/2019
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	e3 V6.11-20180413				

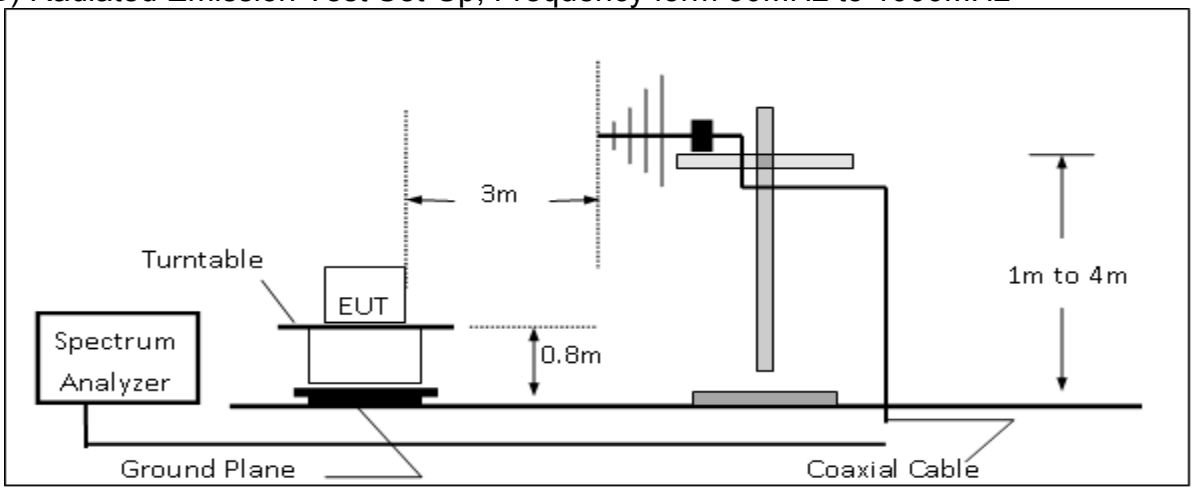
Note: N.C.R refers to Not Calibrated Required.

6.2 Test SET-UP

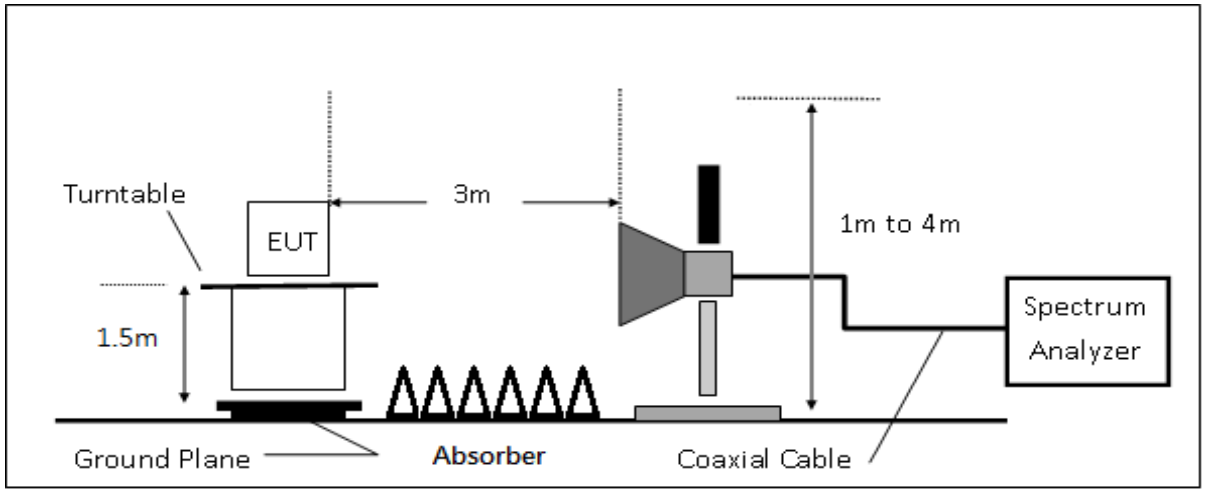
(A) Radiated Emission Test Set-Up Frequency Below 30MHz.



(B) Radiated Emission Test Set-Up, Frequency form 30MHz to 1000MHz



(C) Radiated Emission Test Set-Up Frequency Over 1 GHz



6.3 Measurement Procedure

1. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance & FCC KDB 789033 D02 General UNII Test Procedures New Rules..
2. The EUT was placed on a turn table with 1.5m for frequency> 1GHz above ground plane.
3. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
4. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
5. When measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.
6. Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Peak Detector at frequency above 1 GHz.
7. Set the spectrum analyzer as RBW=1 MHz, VBW=10 Hz (Duty cycle > 98%) or VBW ≥ 1/T (Duty cycle < 98%) for Average Detector at frequency above 1 GHz.
8. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
9. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. On spectrum, change spectrum mode in linear display mode, and reduce VBW = 10Hz if average reading is measured.
10. Repeat above procedures until all default test channel measured were complete.

6.4 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG

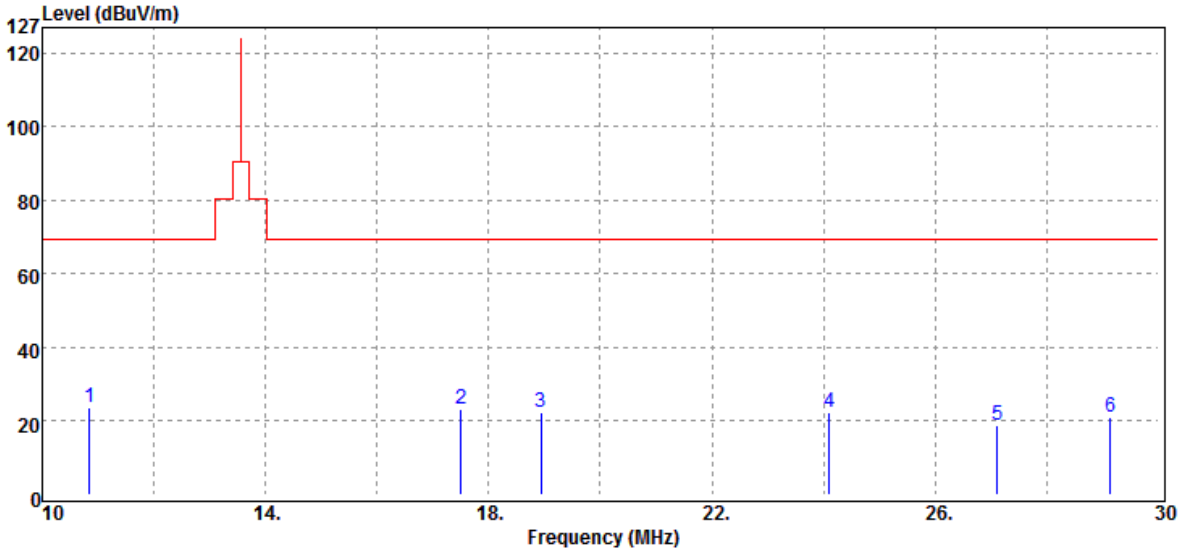
Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

Actual FS(dBμV/m) = SPA. Reading level(dBμV) + Factor(dB)

Factor(dB) = Antenna Factor(dBμV/m) + Cable Loss(dB) – Pre_Amplifier Gain(dB)

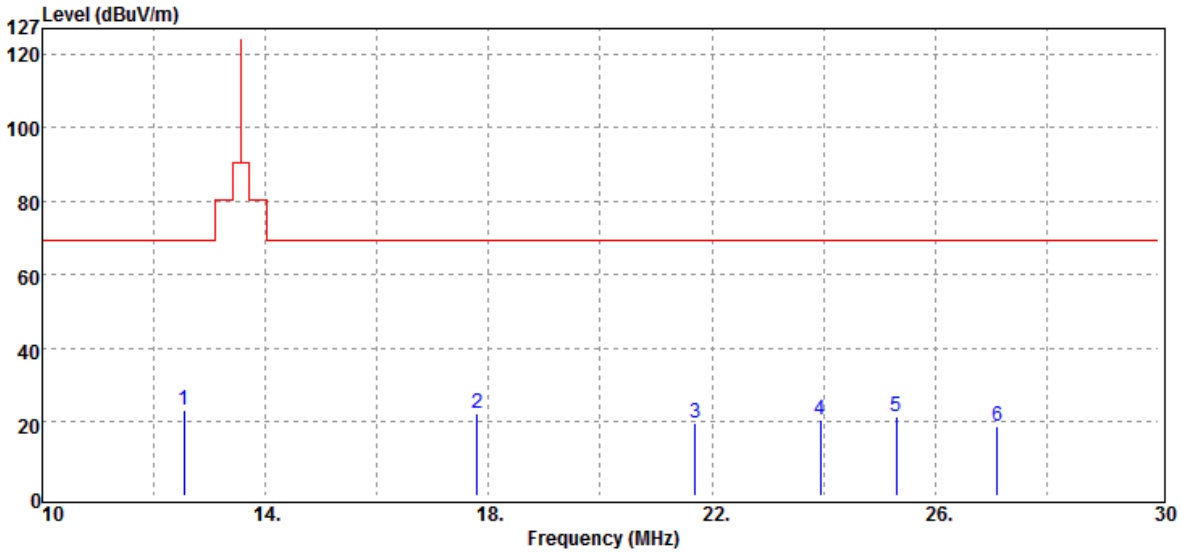
6.5 Measurement Result

Operation Band	:NFC	Test Date	:2019-03-13
Fundamental Frequency	:13.56 MHz	Temp./Humi.	:24.1 deg_C / 65 RH
Operation Mode	:Tx	Engineer	:Wei
EUT Pol.	:H Plane	Measurement Antenna Pol.	:VERTICAL



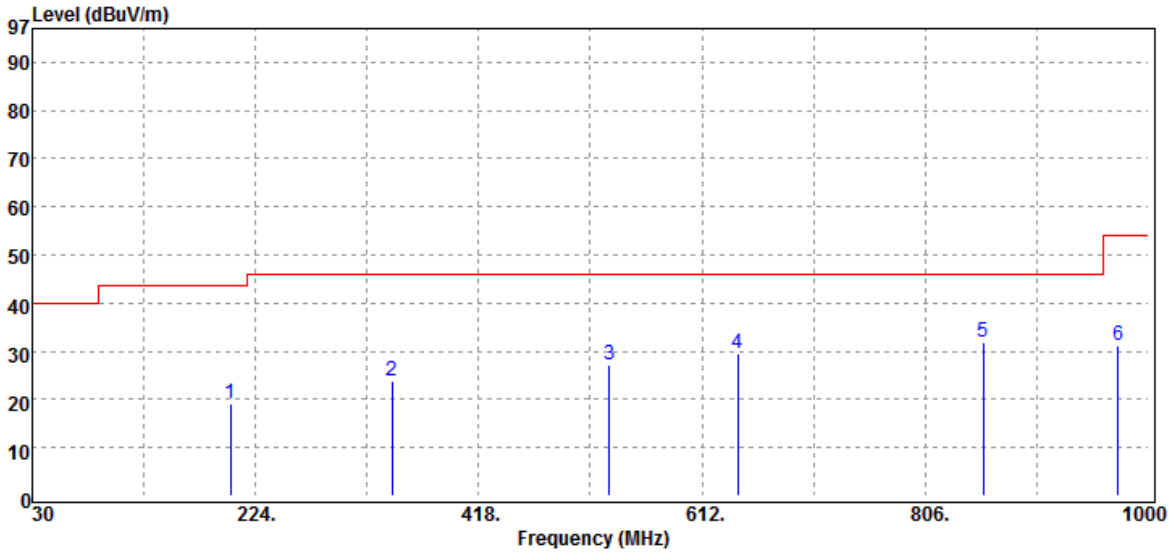
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10.84	Peak	11.63	12.19	23.82	69.54	-45.72
17.50	Peak	11.55	11.71	23.26	69.54	-46.28
18.94	Peak	10.72	11.63	22.35	69.54	-47.19
24.10	Peak	11.92	10.66	22.58	69.54	-46.96
27.12	Peak	8.85	10.08	18.93	69.54	-50.61
29.14	Peak	11.53	9.73	21.26	69.54	-48.28

Operation Band	:NFC	Test Date	:2019-03-13
Fundamental Frequency	:13.56 MHz	Temp./Humi.	:24.1 deg_C / 65 RH
Operation Mode	:Tx	Engineer	:Wei
EUT Pol.	:H Plane	Measurement Antenna Pol.	:HORIZONTAL



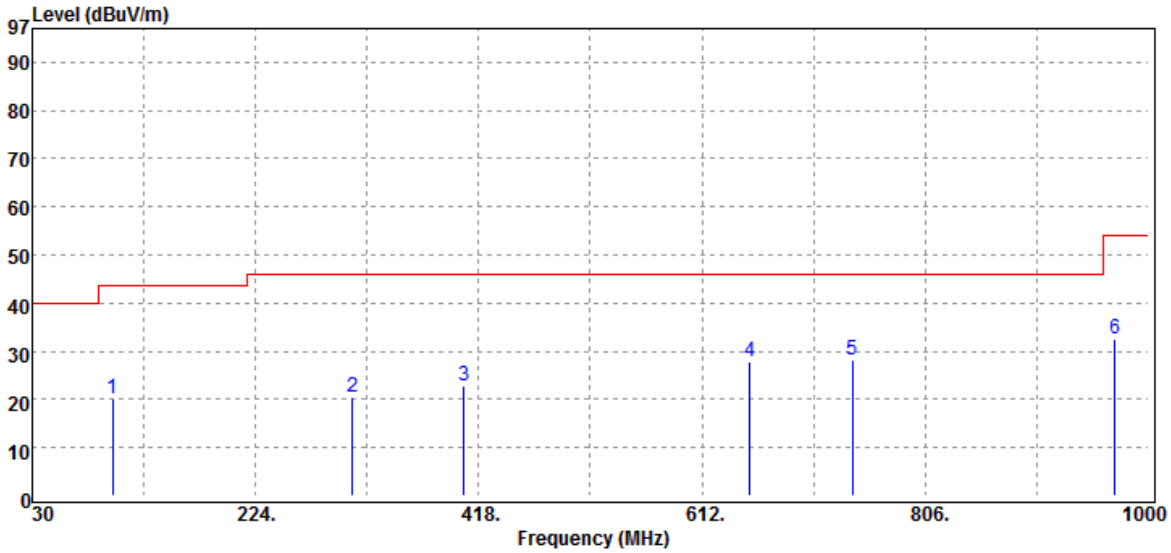
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
12.54	Peak	11.34	12.04	23.38	69.54	-46.16
17.80	Peak	10.66	11.69	22.35	69.54	-47.19
21.70	Peak	8.68	11.18	19.86	69.54	-49.68
23.94	Peak	10.05	10.70	20.75	69.54	-48.79
25.30	Peak	11.05	10.42	21.47	69.54	-48.07
27.12	Peak	8.71	10.08	18.79	69.54	-50.75

Operation Band	:NFC	Test Date	:2019-03-13
Fundamental Frequency	:13.56 MHz	Temp./Humi.	:24.1 deg_C / 65 RH
Operation Mode	:Tx	Engineer	:Wei
EUT Pol.	:H Plane	Measurement Antenna Pol.	:VERTICAL



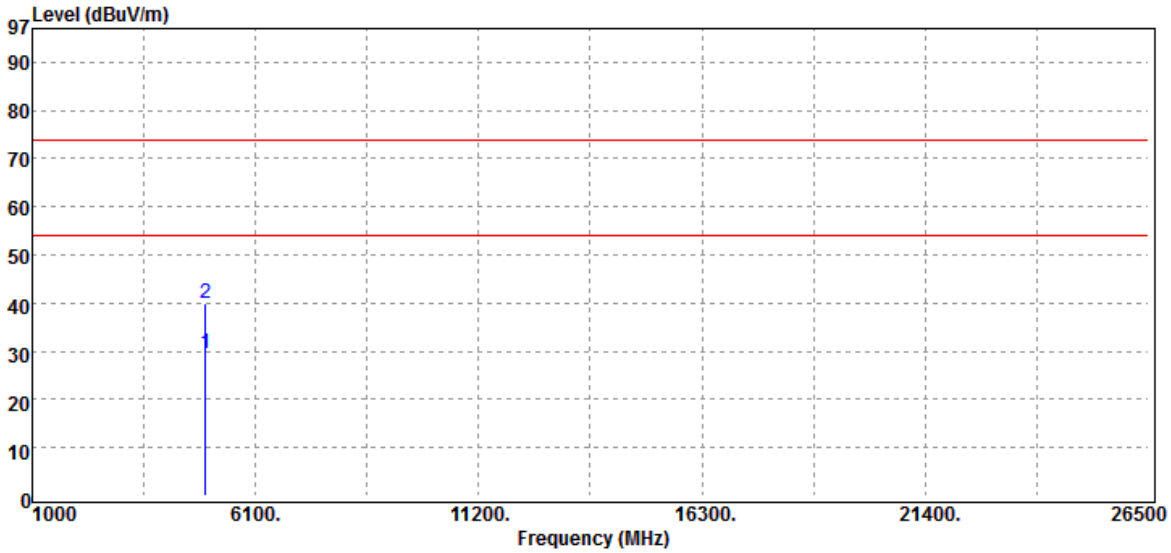
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
202.66	Peak	28.74	-9.77	18.97	43.50	-24.53
342.34	Peak	30.11	-6.42	23.69	46.00	-22.31
531.49	Peak	28.29	-1.17	27.12	46.00	-18.88
643.04	Peak	28.56	0.87	29.43	46.00	-16.57
856.44	Peak	27.75	4.12	31.87	46.00	-14.13
973.81	Peak	24.58	6.64	31.22	54.00	-22.78

Operation Band	:NFC	Test Date	:2019-03-13
Fundamental Frequency	:13.56 MHz	Temp./Humi.	:24.1 deg_C / 65 RH
Operation Mode	:Tx	Engineer	:Wei
EUT Pol.	:H Plane	Measurement Antenna Pol.	:HORIZONTAL



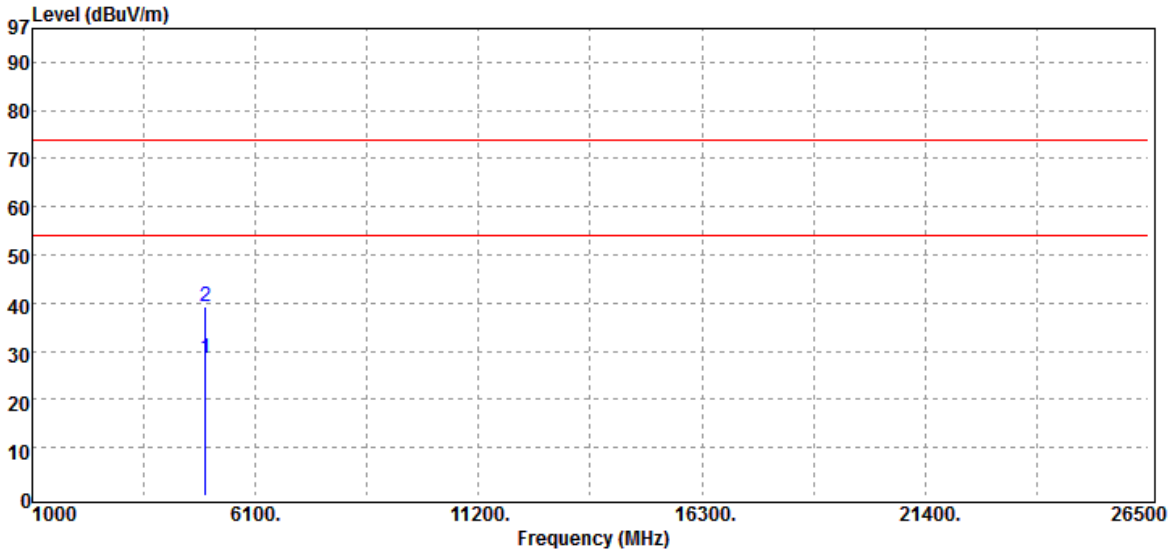
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
99.84	Peak	32.43	-12.20	20.23	43.50	-23.27
308.39	Peak	27.82	-7.25	20.57	46.00	-25.43
405.39	Peak	27.40	-4.56	22.84	46.00	-23.16
653.71	Peak	26.95	0.91	27.86	46.00	-18.14
742.95	Peak	26.11	2.20	28.31	46.00	-17.69
970.90	Peak	25.75	6.65	32.40	54.00	-21.60

Operation Band	:BT BR(1M)	Test Date	:2019-03-13
Fundamental Frequency	:2480 MHz	Temp./Humi.	:23 deg_C / 62 RH
Operation Mode	:Tx CH HIGH	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:VERTICAL



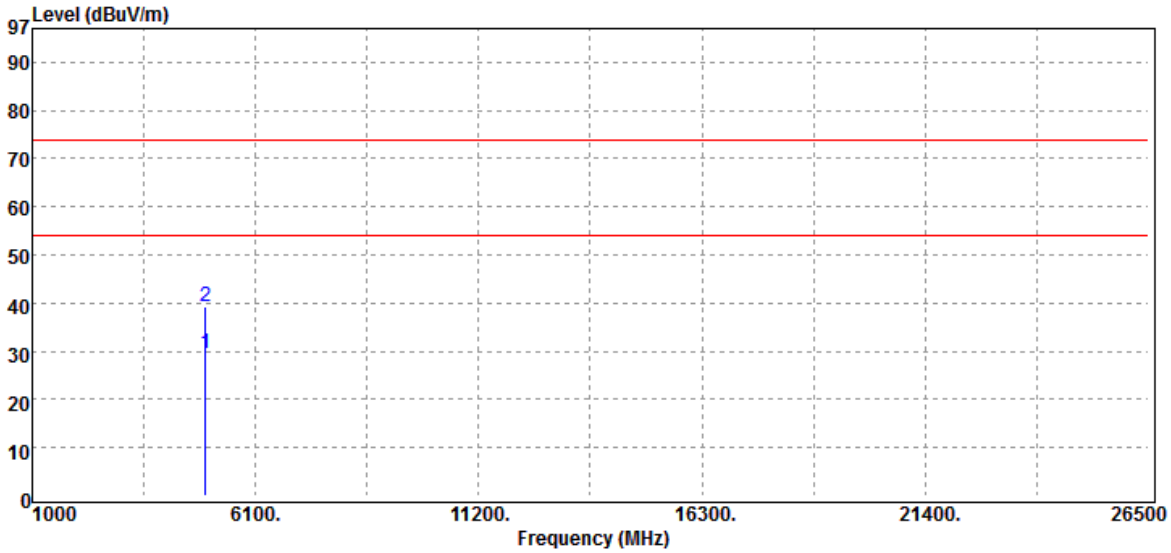
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4960.00	Average	25.13	4.48	29.61	54.00	-24.39
4960.00	Peak	35.53	4.48	40.01	74.00	-33.99

Operation Band	:BT BR(1M)	Test Date	:2019-03-13
Fundamental Frequency	:2480 MHz	Temp./Humi.	:23 deg_C / 62 RH
Operation Mode	:Tx CH HIGH	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:HORIZONTAL



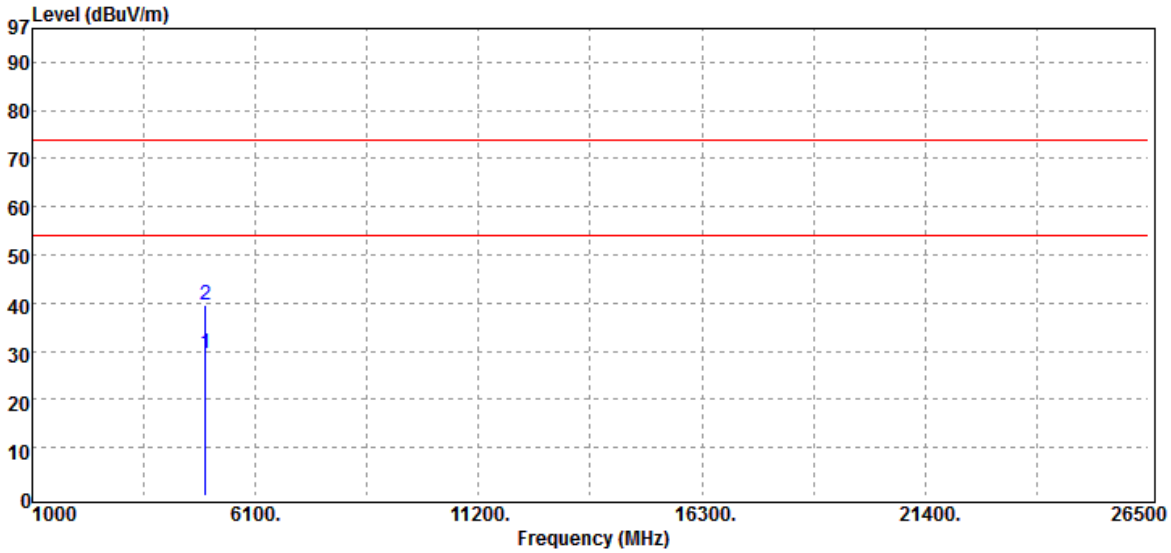
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4960.00	Average	23.89	4.48	28.37	54.00	-25.63
4960.00	Peak	34.91	4.48	39.39	74.00	-34.61

Operation Band	:BLE	Test Date	:2019-03-13
Fundamental Frequency	:2480 MHz	Temp./Humi.	:24.1 deg_C / 65 RH
Operation Mode	:Tx CH HIGH	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:VERTICAL



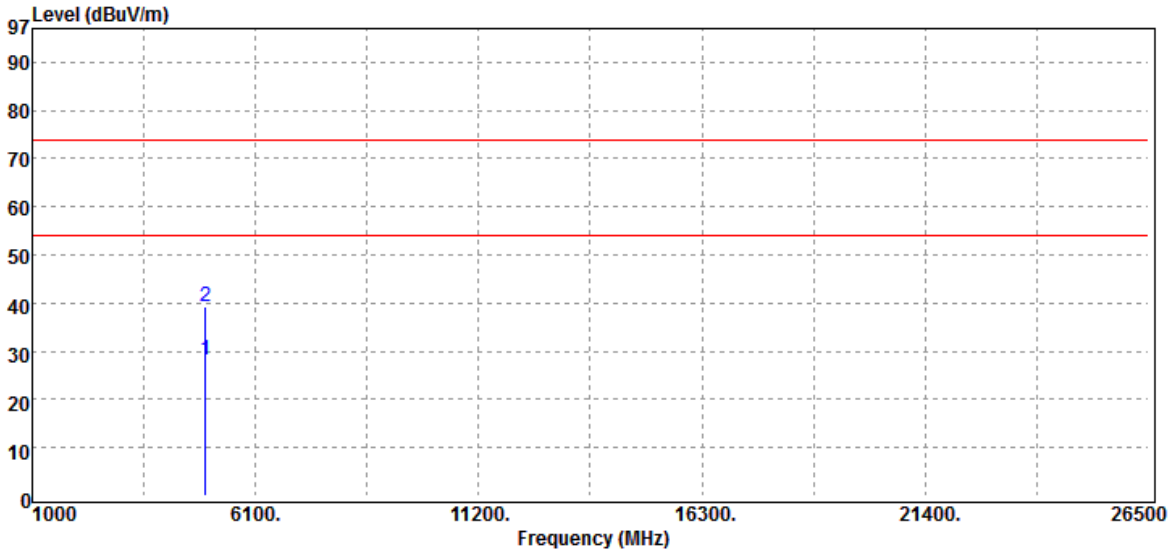
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4960.00	Average	24.97	4.48	29.45	54.00	-24.55
4960.00	Peak	34.65	4.48	39.13	74.00	-34.87

Operation Band	:BLE	Test Date	:2019-03-13
Fundamental Frequency	:2480 MHz	Temp./Humi.	:24.1 deg_C / 65 RH
Operation Mode	:Tx CH HIGH	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:HORIZONTAL



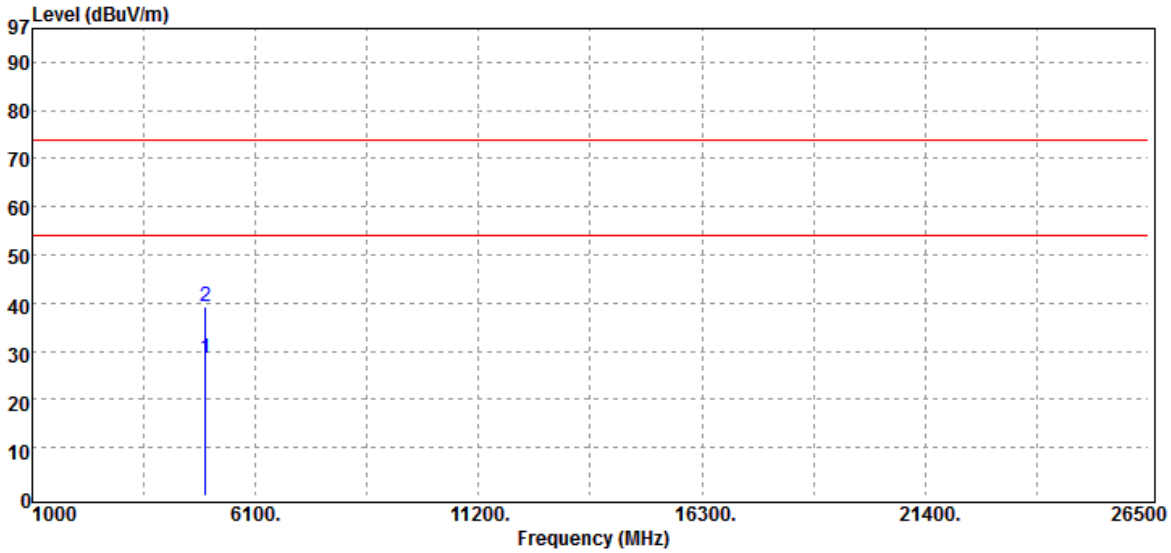
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4960.00	Average	25.05	4.48	29.53	54.00	-24.47
4960.00	Peak	35.24	4.48	39.72	74.00	-34.28

Operation Band	:BLE(2M)	Test Date	:2019-03-13
Fundamental Frequency	:2480 MHz	Temp./Humi.	:24.1 deg_C / 65 RH
Operation Mode	:Tx CH HIGH	Engineer	:Kane
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:VERTICAL



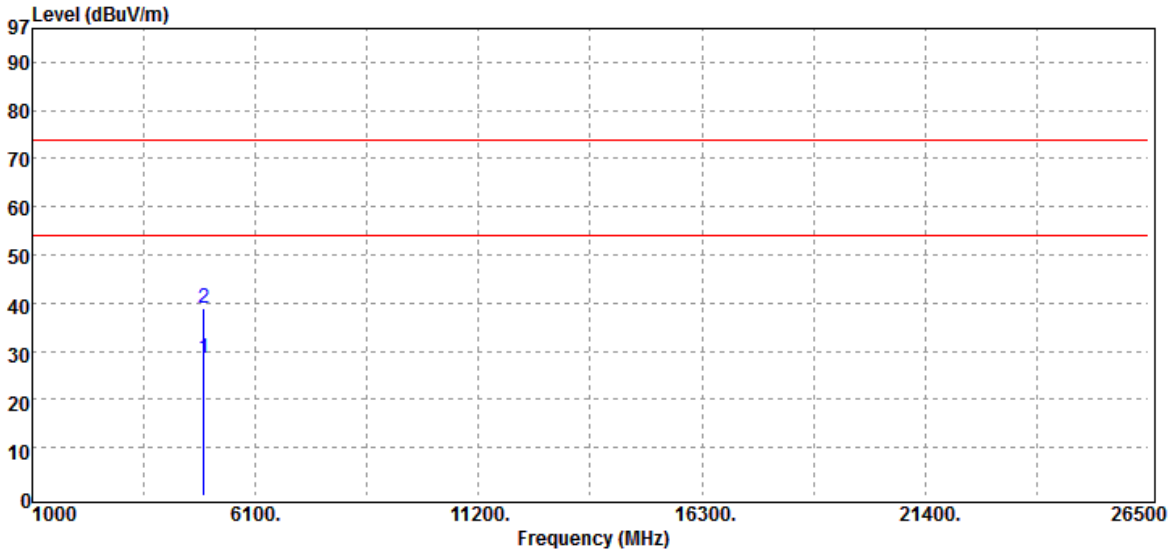
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4960.00	Average	23.74	4.48	28.22	54.00	-25.78
4960.00	Peak	34.63	4.48	39.11	74.00	-34.89

Operation Band	:BLE(2M)	Test Date	:2019-03-13
Fundamental Frequency	:2480 MHz	Temp./Humi.	:24.1 deg_C / 65 RH
Operation Mode	:Tx CH HIGH	Engineer	:Kane
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:HORIZONTAL



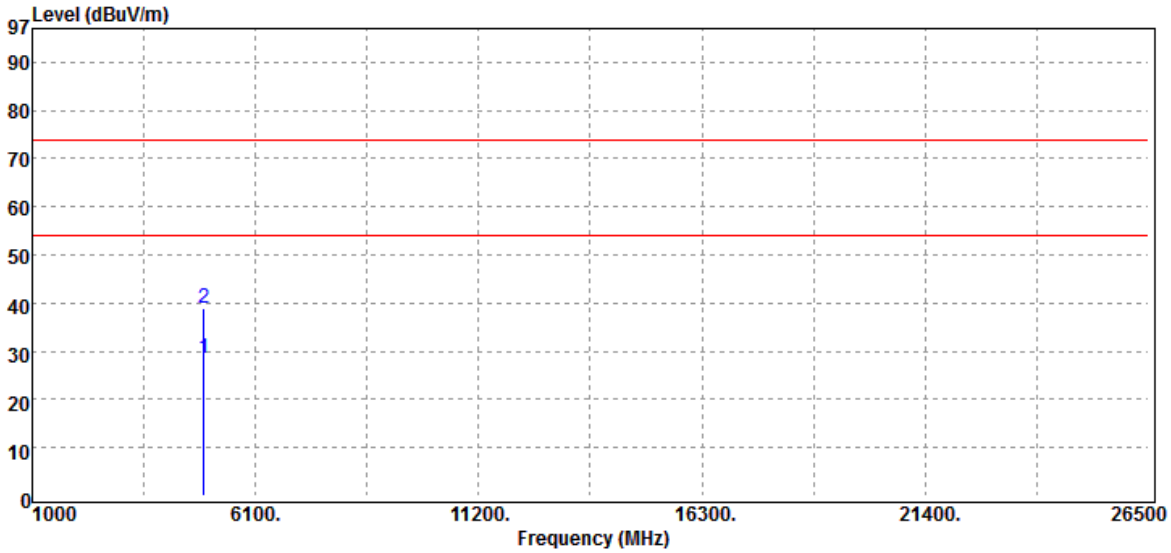
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4960.00	Average	24.09	4.48	28.57	54.00	-25.43
4960.00	Peak	34.63	4.48	39.11	74.00	-34.89

Operation Band	:802.11b	Test Date	:2019-03-13
Fundamental Frequency	:2462 MHz	Temp./Humi.	:21 deg_C / 62 RH
Operation Mode	:Tx CH HIGH	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:VERTICAL



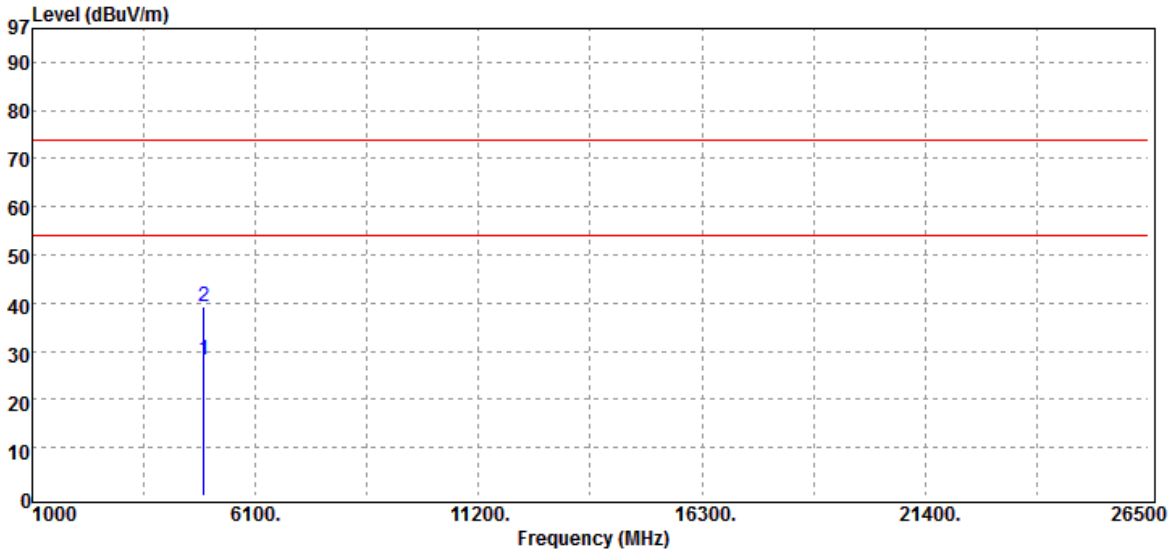
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4924.00	Average	24.52	3.93	28.45	54.00	-25.55
4924.00	Peak	35.02	3.93	38.95	74.00	-35.05

Operation Band	:802.11b	Test Date	:2019-03-13
Fundamental Frequency	:2462 MHz	Temp./Humi.	:21 deg_C / 62 RH
Operation Mode	:Tx CH HIGH	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:HORIZONTAL



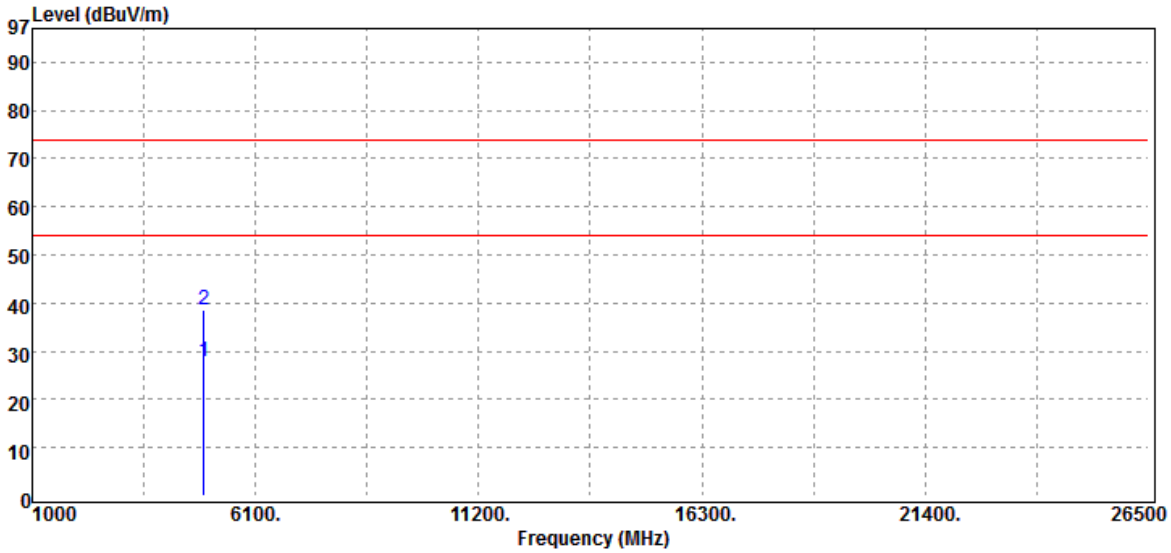
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4924.00	Average	24.73	3.93	28.66	54.00	-25.34
4924.00	Peak	34.89	3.93	38.82	74.00	-35.18

Operation Band	:802.11g	Test Date	:2019-03-13
Fundamental Frequency	:2462 MHz	Temp./Humi.	:21 deg_C / 62 RH
Operation Mode	:Tx CH HIGH	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:VERTICAL



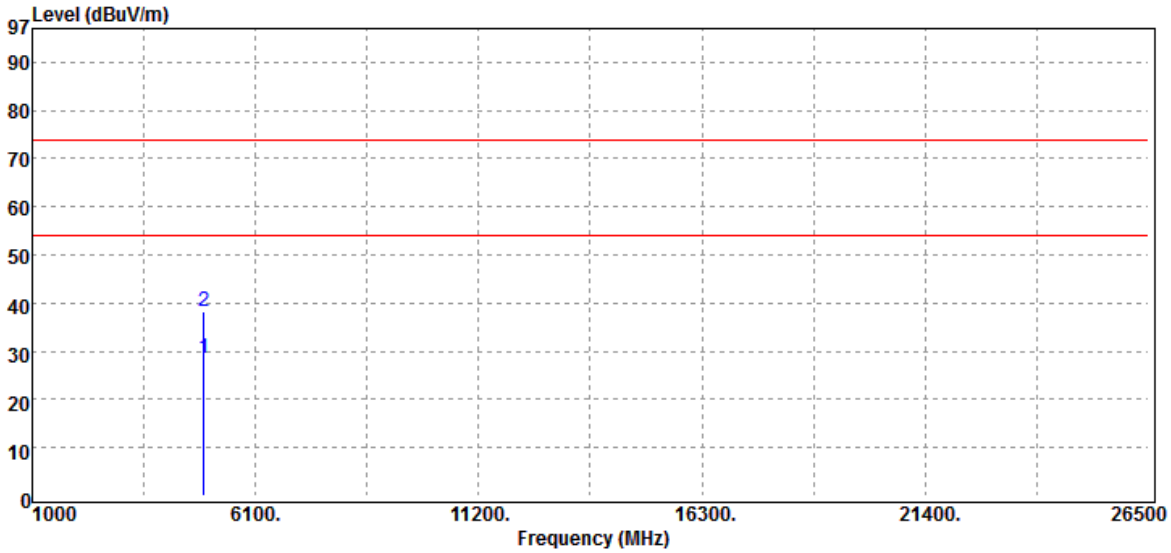
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4924.00	Average	24.21	3.93	28.14	54.00	-25.86
4924.00	Peak	35.49	3.93	39.42	74.00	-34.58

Operation Band	:802.11g	Test Date	:2019-03-13
Fundamental Frequency	:2462 MHz	Temp./Humi.	:21 deg_C / 62 RH
Operation Mode	:Tx CH HIGH	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:HORIZONTAL



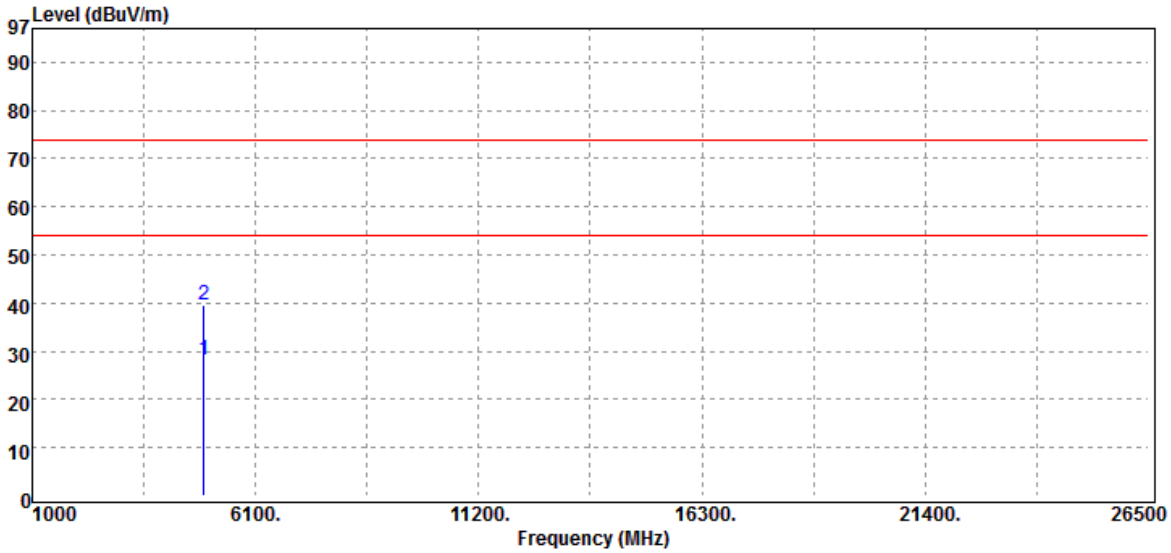
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4924.00	Average	23.91	3.93	27.84	54.00	-26.16
4924.00	Peak	34.72	3.93	38.65	74.00	-35.35

Operation Band	:802.11n20	Test Date	:2019-03-13
Fundamental Frequency	:2462 MHz	Temp./Humi.	:21 deg_C / 62 RH
Operation Mode	:Tx CH HIGH	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:VERTICAL



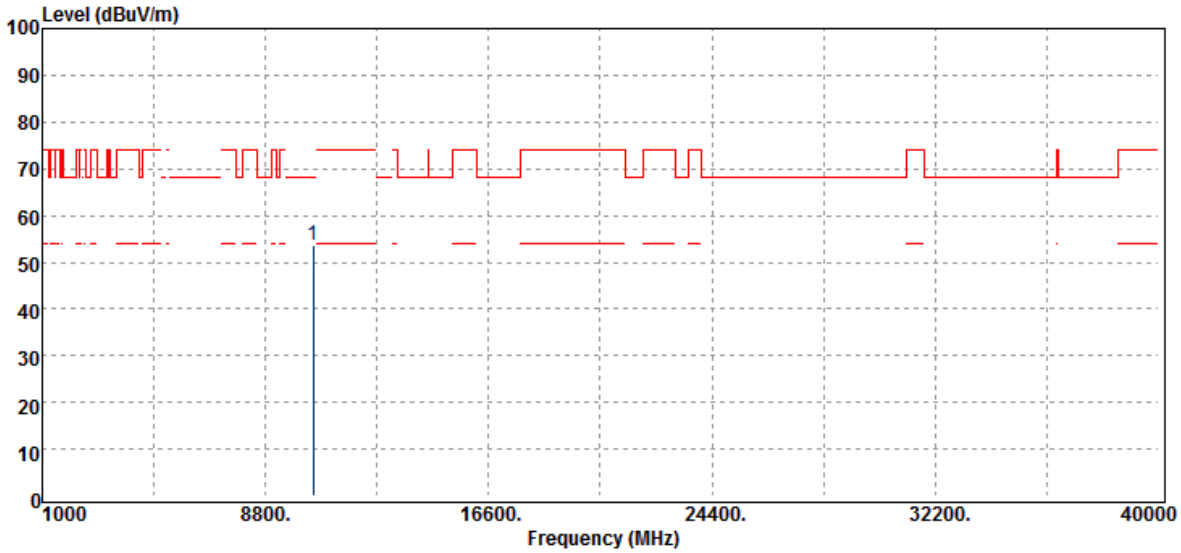
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4924.00	Average	24.72	3.93	28.65	54.00	-25.35
4924.00	Peak	34.41	3.93	38.34	74.00	-35.66

Operation Band	:802.11n20	Test Date	:2019-03-13
Fundamental Frequency	:2462 MHz	Temp./Humi.	:21 deg_C / 62 RH
Operation Mode	:Tx CH HIGH	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:HORIZONTAL



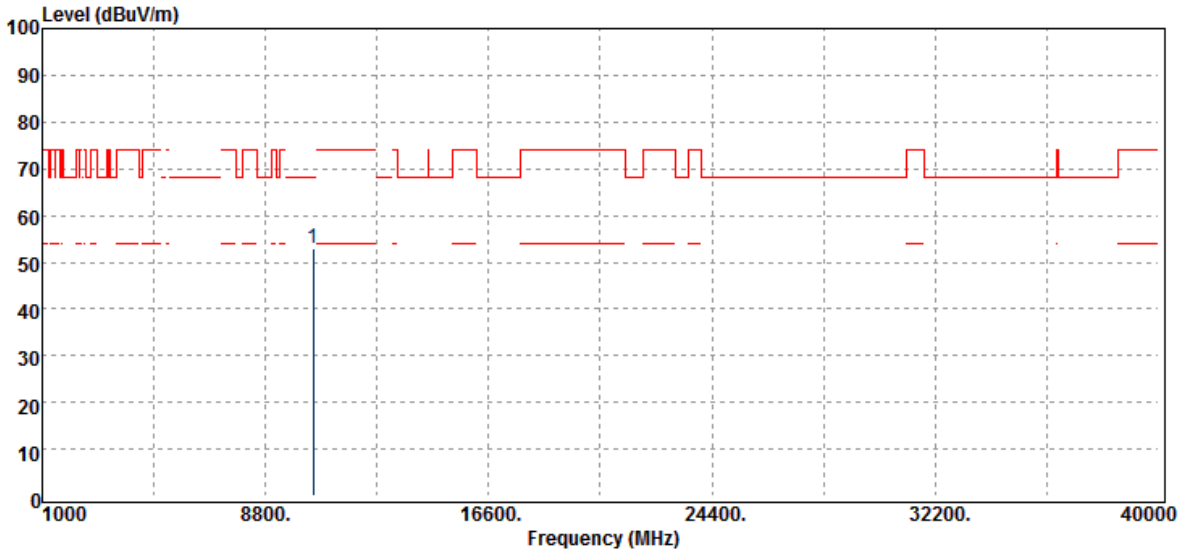
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4924.00	Average	24.43	3.93	28.36	54.00	-25.64
4924.00	Peak	35.67	3.93	39.60	74.00	-34.40

Operation Band	:802.11aB1	Test Date	:2019-03-13
Fundamental Frequency	:5240 MHz	Temp./Humi.	:23 deg_C / 62 RH
Operation Mode	:Tx CH HIGH	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:VERTICAL



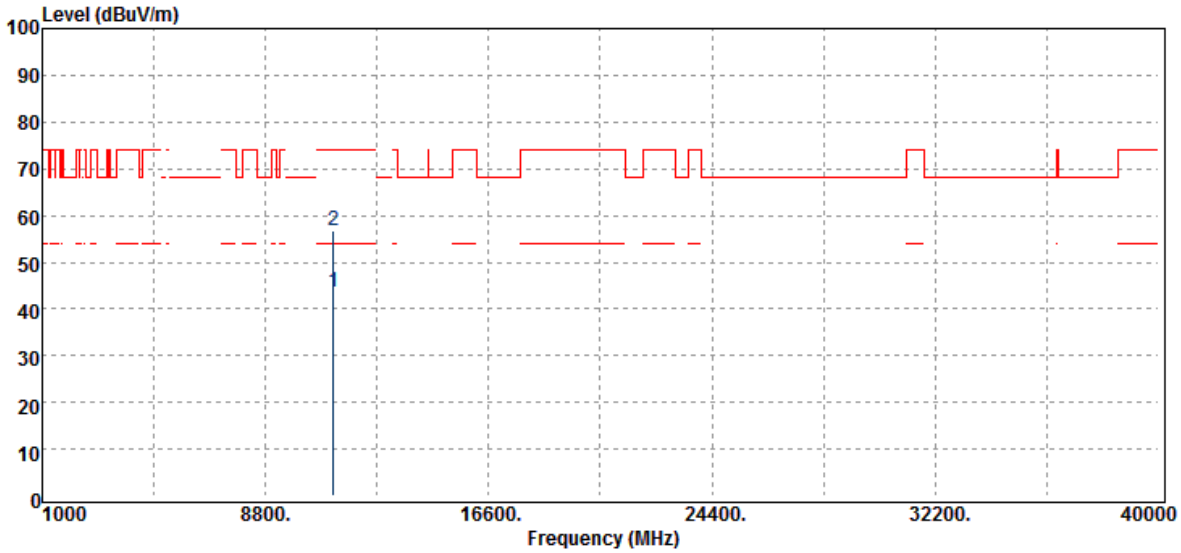
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10480.00	Peak	37.22	16.48	53.70	68.20	-14.50

Operation Band	:802.11aB1	Test Date	:2019-03-13
Fundamental Frequency	:5240 MHz	Temp./Humi.	:23 deg_C / 62 RH
Operation Mode	:Tx CH HIGH	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:HORIZONTAL



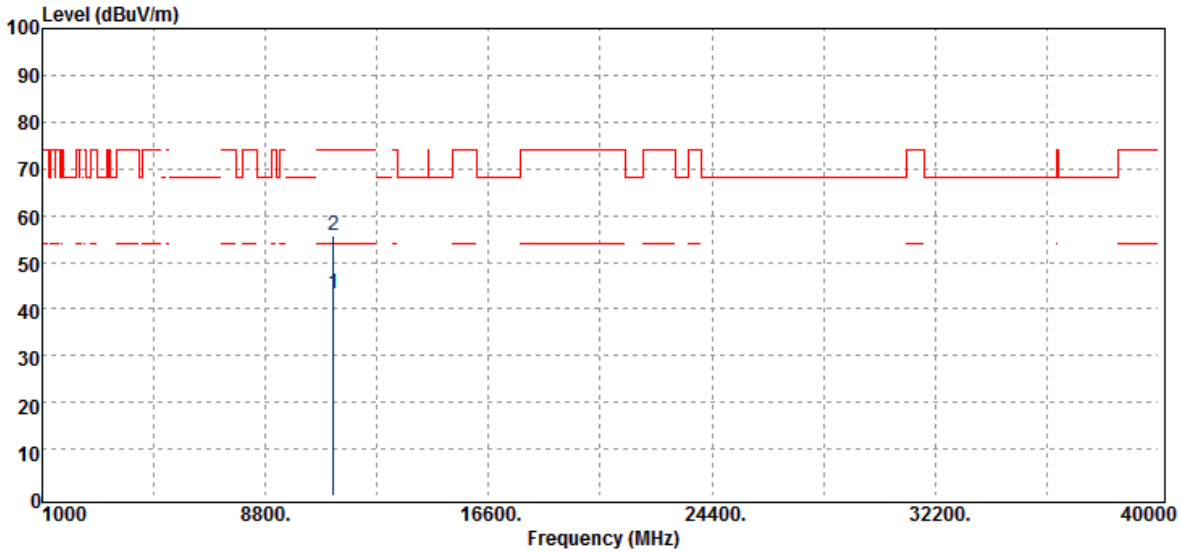
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10480.00	Peak	36.43	16.48	52.91	68.20	-15.29

Operation Band	:802.11n20B3	Test Date	:2019-03-13
Fundamental Frequency	:5580 MHz	Temp./Humi.	:23 deg_C / 62 RH
Operation Mode	:Tx CH MID	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:VERTICAL



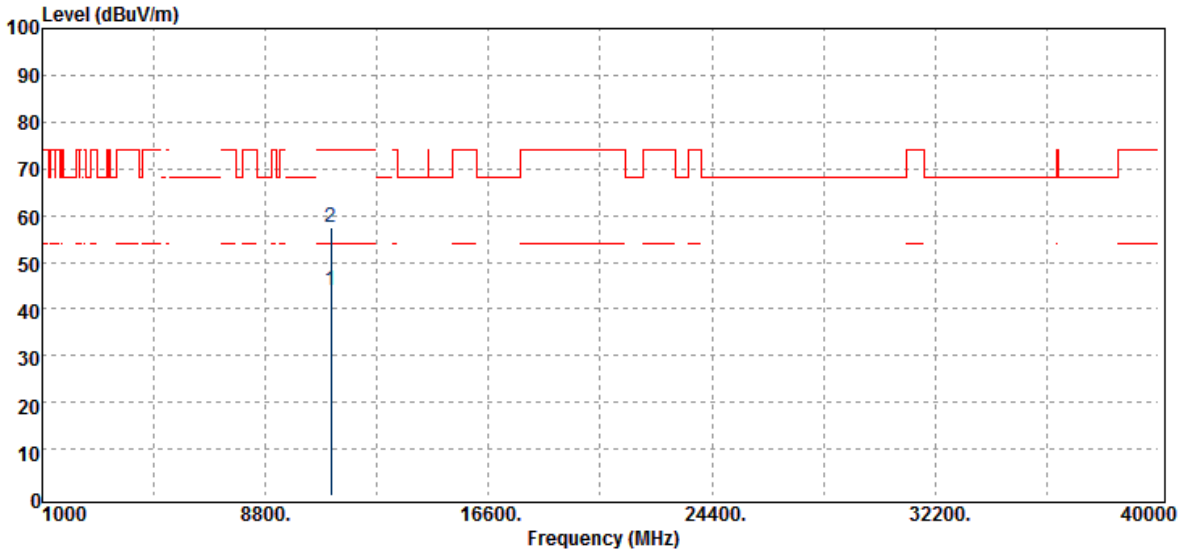
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11160.00	Average	26.90	16.53	43.43	54.00	-10.57
11160.00	Peak	40.39	16.53	56.92	74.00	-17.08

Operation Band	:802.11n20B3	Test Date	:2019-03-13
Fundamental Frequency	:5580 MHz	Temp./Humi.	:23 deg_C / 62 RH
Operation Mode	:Tx CH MID	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:HORIZONTAL



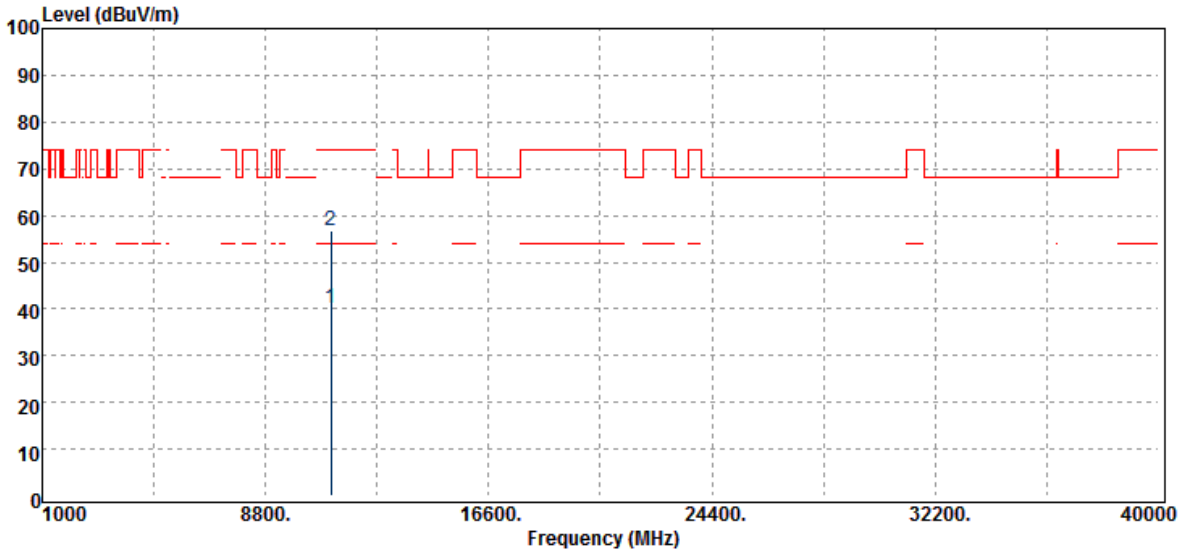
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11160.00	Average	26.64	16.53	43.17	54.00	-10.83
11160.00	Peak	39.31	16.53	55.84	74.00	-18.16

Operation Band	:802.11n40B3	Test Date	:2019-03-13
Fundamental Frequency	:5550 MHz	Temp./Humi.	:23 deg_C / 62 RH
Operation Mode	:Tx CH MID	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:VERTICAL



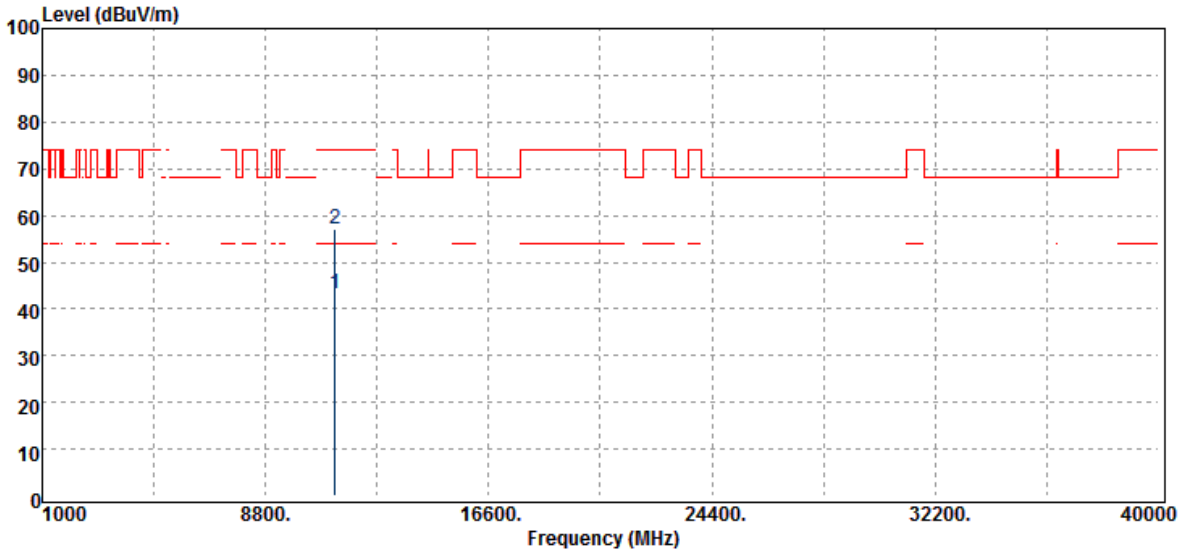
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11100.00	Average	26.71	17.25	43.96	54.00	-10.04
11100.00	Peak	40.12	17.25	57.37	74.00	-16.63

Operation Band	:802.11n40B3	Test Date	:2019-03-13
Fundamental Frequency	:5550 MHz	Temp./Humi.	:23 deg_C / 62 RH
Operation Mode	:Tx CH MID	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:HORIZONTAL



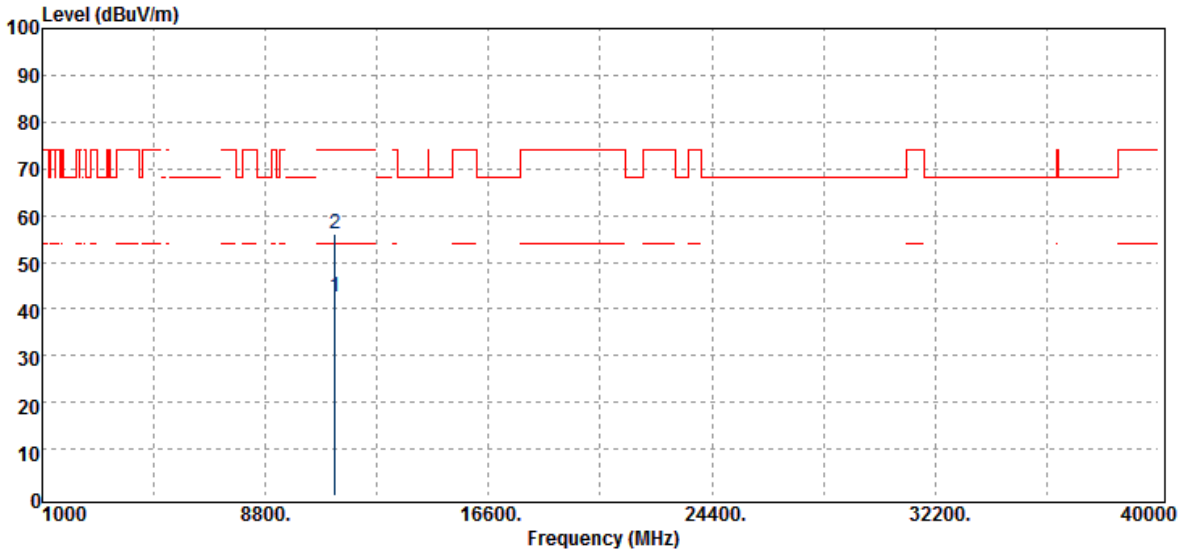
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11100.00	Average	22.88	17.25	40.13	54.00	-13.87
11100.00	Peak	39.41	17.25	56.66	74.00	-17.34

Operation Band	:802.11ac80B3	Test Date	:2019-03-13
Fundamental Frequency	:5610 MHz	Temp./Humi.	:23 deg_C / 62 RH
Operation Mode	:Tx CH MID	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:VERTICAL



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11220.00	Average	26.64	16.53	43.17	54.00	-10.83
11220.00	Peak	40.59	16.53	57.12	74.00	-16.88

Operation Band	:802.11ac80B3	Test Date	:2019-03-13
Fundamental Frequency	:5610 MHz	Temp./Humi.	:23 deg_C / 62 RH
Operation Mode	:Tx CH MID	Engineer	:Wei
EUT Pol.	:E1 Plane	Measurement Antenna Pol.	:HORIZONTAL



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11220.00	Average	26.13	16.53	42.66	54.00	-11.34
11220.00	Peak	39.54	16.53	56.07	74.00	-17.93

~ End of Report ~