



FCC RADIO TEST REPORT

Applicant : D-Link Corporation

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Equipment : Unified AC Concurrent Dual-band PoE Access Point

Model No. : DWL-6610APE

Trade Name : D-Link

FCC ID. : KA2WL6610APEB1

I HEREBY CERTIFY THAT :

The sample was received on Dec. 06, 2016 and the testing was carried out on Mar. 22, 2017 at CerpPASS Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of CerpPASS Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Mark Liao / Assistant Manager

Tested by:

Spree Yei / Engineer

Laboratory Accreditation:

CerpPASS Technology Corporation Test Laboratory





CONTENTS

- 1. Summary of Test Procedure and Test Results 5
 - 1.1. Applicable Standards 5
- 2. Test Configuration of Equipment under Test 6
 - 2.1. Feature of Equipment 6
 - 2.2. Description of Main Source and Second Source 6
 - 2.3. Carrier Frequency of Channels 7
 - 2.4. Test Mode and Test Software 7
 - 2.5. Description of Test System 8
 - 2.6. General Information of Test 9
 - 2.7. Measurement Uncertainty 9
- 3. Test Equipment and Ancillaries Used for Tests 10
- 4. Antenna Requirements 11
 - 4.1. Standard Applicable 11
 - 4.2. Antenna Construction and Directional Gain 11
- 5. Test of AC Power Line Conducted Emission 12
 - 5.1. Test Limit 12
 - 5.2. Test Procedures 12
 - 5.3. Typical Test Setup 13
 - 5.4. Test Result and Data 14
 - 5.5. Test Photographs 22
- 6. Test of Spurious Emission (Radiated) 23
 - 6.1. Test Limit 23
 - 6.2. Test Procedures 23
 - 6.3. Typical Test Setup 24
 - 6.4. Test Result and Data (9kHz ~ 30MHz) 25
 - 6.5. Test Result and Data (30MHz ~ 1GHz) 25
 - 6.6. Test Result and Data (1GHz ~ 40GHz) 41
 - 6.7. Restricted Bands of Operation 101
 - 6.8. Test Photographs (30MHz ~ 1GHz) 102
 - 6.9. Test Photographs (1GHz ~ 40GHz) 104
- 7. On Time, Duty Cycle and Measurement methods 105
 - 7.1. Test Limit 105
 - 7.2. Test Procedure 105
 - 7.3. Test Setup Layout 105
 - 7.4. Test Result and Data 105
 - 7.5. Measurement Methods 105
- 8. 6dB Bandwidth 106
 - 8.1. Test Limit 106
 - 8.2. Test Procedure 106
 - 8.3. Test Setup Layout 106
 - 8.4. Test Result and Data 106
- 9. 26dB Bandwidth 114
 - 9.1. Test Limit 114



- 9.2. Test Procedure 114
- 9.3. Test Setup Layout 114
- 9.4. Test Result and Data 114
- 10. Average Power..... 121
 - 10.1. Test Limit 121
 - 10.2. Test Procedure 121
 - 10.3. Test Setup Layout 121
 - 10.4. Test Result and Data 122
- 11. Output Power and PPSD 124
 - 11.1. Test Limit 124
 - 11.2. Test Procedure 126
 - 11.3. Test Setup Layout 126
 - 11.4. Test Result and Data 127
- 12. Frequency Stability..... 141
 - 12.1. Test Procedure 141
 - 12.2. Test Setup Layout 141
 - 12.3. Test Result and Data 142
- 13. Automatically Discontinue Transmission 143
 - 13.1. Limit of Automatically Discontinue Transmission 143
 - 13.2. Test Result of Automatically Discontinue Transmission 143



1. Summary of Test Procedure and Test Results

1.1. Applicable Standards

ANSI C63.4:2014

ANSI C63.10:2013

FCC Rules and Regulations Part 15 Subpart E §15.407

First R&O 14-30

KDB662911

KDB789033

KDB644545

FCC Rule	Description of Test	Result
15.203	Antenna Requirement	Pass
15.207(a)	AC Power Line Conducted Emission	Pass
15.407(b) 15.209	Radiated Spurious Emission	Pass
15.407(a)	26 dB Occupied Bandwidth	Pass
15.407	6 dB Bandwidth	Pass
15.407 (a) & (a)(3)	Average Power	Pass
15.407(a)	Output and PPSD	Pass



2. Test Configuration of Equipment under Test

2.1. Feature of Equipment

Equipment	Unified AC Concurrent Dual-band PoE Access Point
Model No.	DWL-6610APE
Brand Name	D-Link
Product Description	Please refer to User's Manual.
AC ADAPTER	Adapter Brand: D-Link Model No.: AMS115-1201500FV; AMS115-1201500FU; AMS115-1201500FB; AMS115-1201500FS I/P: AC 100-240V~, 50/60Hz, 0.8A ; O/P: DC 12V, 1.5A
Connecting I/O Port(s)	Please refer to User's Manual.
Frequency Range	802.11b/g/n/ac: 2412-2462 MHz 802.11a/an/ac: 5150MHz-5250MHz, 5725MHz -5850MHz
Modulation Type	OFDM, DSSS, FHSS
Data Rate	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS15, HT20/40 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11ac: MCS0 – MCS9, VHT20/40/80
Antenna Type/ gain	Dipole antenna 2.4G: ANT 1: 3dBi; ANT 2: 3dBi 5G: ANT 1: 4dBi; ANT 2: 4dBi

Note:

- For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- 802.11ac VHT20, VHT40 and VHT80 support beamforming.

2.2. Description of Main Source and Second Source

Component Position	Main Source	Second Source
C857,C859	√	x
T13	√	x
R922	√	x
D36,D37	√	x
R915	√	x
Q8	√	x
R906,R908	0Ω	100Ω
C844	39pF	330pF
R918	0KΩ	10KΩ
Q5	N-Channel Shielded Gate Power Trench	DIODE



2.3. Carrier Frequency of Channels

Band 1: 5150MHz-5250MHz

802.11a, 802.11an HT 20, 802.11ac VHT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*36	5180	*44	5220
40	5200	*48	5240

802.11an HT 40, 802.11ac VHT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*38	5190	*46	5230

802.11ac VHT80

Channel	Frequency(MHz)
*42	5210

Band 4: 5725MHz -5850MHz

802.11a, 802.11an HT20, 802.11ac VHT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*149	5745	161	5805
153	5765	*165	5825
*157	5785		

802.11an HT 40, 802.11ac VHT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*151	5755	*159	5795

802.11ac VHT80

Channel	Frequency(MHz)
*155	5775

Note: Channels remarked * are selected to perform test.

2.4. Test Mode and Test Software

- a. During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
- b. The complete test system included Remote workstation and EUT for RF test. The Remote workstation included Notebook and Battery.
- c. An executive program, "Mtool 2.0.3.2" under WIN 7 was executed to transmit and receive data via WLAN.
- d. The following test modes were performed for the test:
 - Test Mode 1: 802.11a (6Mbps)
 - Test Mode 2: 802.11an HT20 (6.5Mbps)
 - Test Mode 3: 802.11an HT40 (13.5Mbps)
 - Test Mode 4: 802.11ac VHT20 (6.5Mbps)
 - Test Mode 5: 802.11ac VHT40 (13.5Mbps)
 - Test Mode 6: 802.11ac VHT80 (29.3Mbps)

For conduction test, caused "Test Mode 1" generated the worst case, it was reported as the final data.

For radiated test (below 1GHz), caused "Test Mode 1" generated the worst case, it was reported as the final data.

For radiated test (above 1GHz), caused "Test Mode 1,4,5,6" generated the worst case, they were reported as the final data.



2.5. Description of Test System

Device	Manufacturer	Model No.	Description
Remote workstation			
Notebook	DELL	INSPIRON 510m	Power Cable, Unshielding, 1.8m
Notebook	DELL	Vostro 3560	Power Cable, Unshielding, 1.8m
Battery	YUASA	55B24R(S)-CMFII	N/A

Use Cable:

Cable	Quantity	Description
Network	1	Unshielding, 1.2m
RS-232	1	Unshielding, 1.2m

**2.6. General Information of Test**

Test Site	Cerpass Technology Corporation Test Laboratory Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City 33848, Taiwan (R.O.C.) Tel:+886-3-3226-888 Fax:+886-3-3226-881 Address: No.68-1, Shihbachongsi, Shihding Township, New Taipei City 223, Taiwan, R.O.C. Tel: +886-2-2663-8582	
	FCC	TW1079, TW1061, 390316, 228391, 641184
	IC	4934E-1, 4934E-2
	VCCI	T-2205 for Telecommunication Test C-4663 for Conducted emission test R-4218, R-4399 for Radiated emission test G-812, G-813 for radiated disturbance above 1GHz
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 40,000MHz	
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.	

2.7. Measurement Uncertainty

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30 MHz	Line / Neutral	±2.9076 dB
Radiated Emission	9 kHz ~ 25,000 MHz	Vertical / Horizontal	±0.948 dB
Spurious Emission (Conducted)	-	-	±4.011 dB
Maximum Peak and Average Output Power	-	-	±0.322 dB
Power Spectral Density	-	-	±0.322 dB
Bandwidth	-	-	74.224Hz



3. Test Equipment and Ancillaries Used for Tests

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI3	101423	2016/04/08	2017/04/07
LISN	Schwarzbeck	NSLK 8127	8127-740	2016/08/30	2017/08/29
Pulse Limiter	R&S	ESH3-Z2	101933	2016/08/29	2017/08/28
Bilog Antenna	Schwarzbeck	VULB9168	275	2016/08/26	2017/08/25
Active Loop Antenna	EMCO	6507	40855	2016/05/11	2017/05/10
Horn Antenna	EMCO	3115	31601	2016/09/05	2017/09/04
Horn Antenna	EMCO	3116	31970	2017/03/17	2018/03/16
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200207	2017/03/15	2018/03/14
Preamplifier	EM	EM330	60660	2017/02/24	2018/02/23
Preamplifier	EMC INSTRUMENTS	EMC051845SE	980333	2016/09/13	2017/09/12
Preamplifier	Agilent	8449B	3008A01954	2017/02/09	2018/02/08
Preamplifier	EMC INSTRUMENTS	EMC184045	980065	2016/11/04	2017/11/03
MXG MW Analog Signal Generator	KEYSIGHT	N5183A	MY50142931	2017/03/17	2018/03/16
Spectrum Analyzer	R&S	FSP40	100047	2017/02/13	2018/02/12
Bluetooth Tester	R&S	CBT	101133	2017/03/17	2018/03/16
Attenuator	KEYSIGHT	8491B	MY39250703	2017/03/06	2018/03/05
Rotary Attenuator	Agilent	8495B	MY42146680	2017/03/07	2018/03/06
Temp & Humi chamber	T-MACHINE	TMJ-9712	T-12-040111	2016/09/05	2017/09/04
Series Power Meter	Anritsu	ML2495A	1224005	2017/03/01	2018/02/28
Power Sensor	Anritsu	MA2411B	1207295	2017/03/01	2018/02/28
Cable	HUBER SUHNER	SUCOFLEX 102	28422/2	2017/02/25	2018/02/24
Cable	HUBER SUHNER	SUCOFLEX 102	28418/2	2017/02/25	2018/02/24
Software	Farad	Ez-EMC	ver.ct3a1	N/A	N/A
Software	AUDIX	E3	V8.2014-8-6	N/A	N/A
Software	Keysight	N7607B Signal Studio	v2.0.0.1	N/A	N/A
Software	Keysight	Inservice MonitorUtility	N/A	N/A	N/A



4. Antenna Requirements

4.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.2. Antenna Construction and Directional Gain

Antenna Type	Dipole Antenna
Antenna Gain	2.4G: ANT 1: 3dBi; ANT 2: 3dBi 5G: ANT 1: 4dBi; ANT 2: 4dBi

For Non-Beamforming

2.4G

For Power directional gain= $G_{ant} = 3 \text{ dBi}$

For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / NANT]$
= 6.01 (dBi)

5G

For Power directional gain= $G_{ant} = 4 \text{ dBi}$

For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / NANT]$
= 7.01 (dBi)

For Beamforming

5G

For Power directional gain= $G_{ant} = 7.01 \text{ dBi}$

For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / NANT]$
= 7.01 (dBi)



5. Test of AC Power Line Conducted Emission

5.1. Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz, according to the methods defined in ANSI C63.4-2014. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

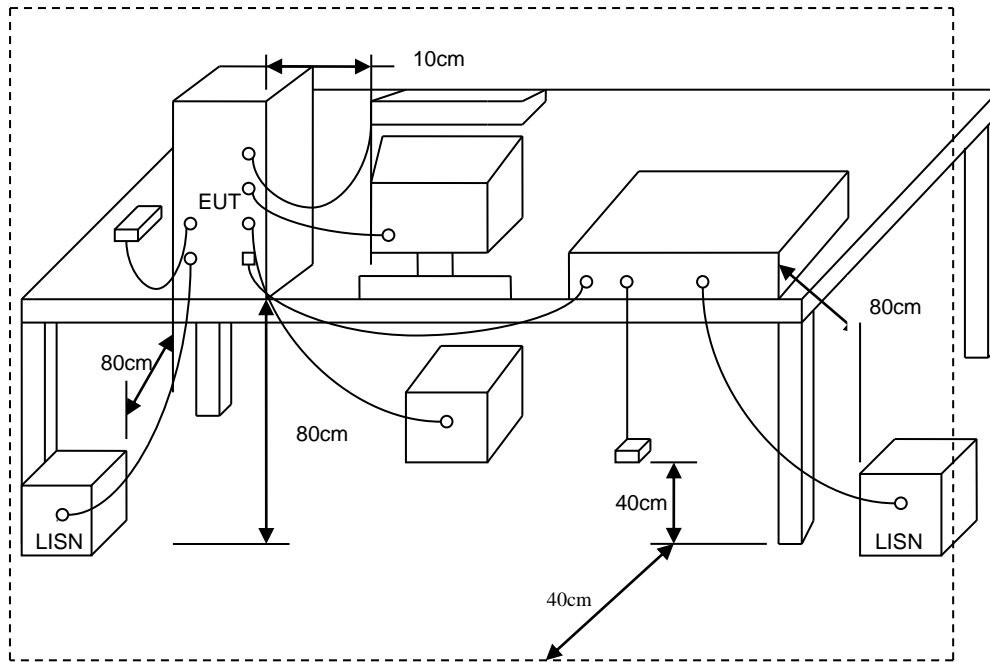
*Decreases with the logarithm of the frequency.

5.2. Test Procedures

- The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- Connect EUT to the power mains through a line impedance stabilization network (LISN).
- All the support units are connecting to the other LISN.
- The LISN provides 50 ohm coupling impedance for the measuring instrument.
- The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- Both sides of AC line were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched.
- Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



5.3. Typical Test Setup

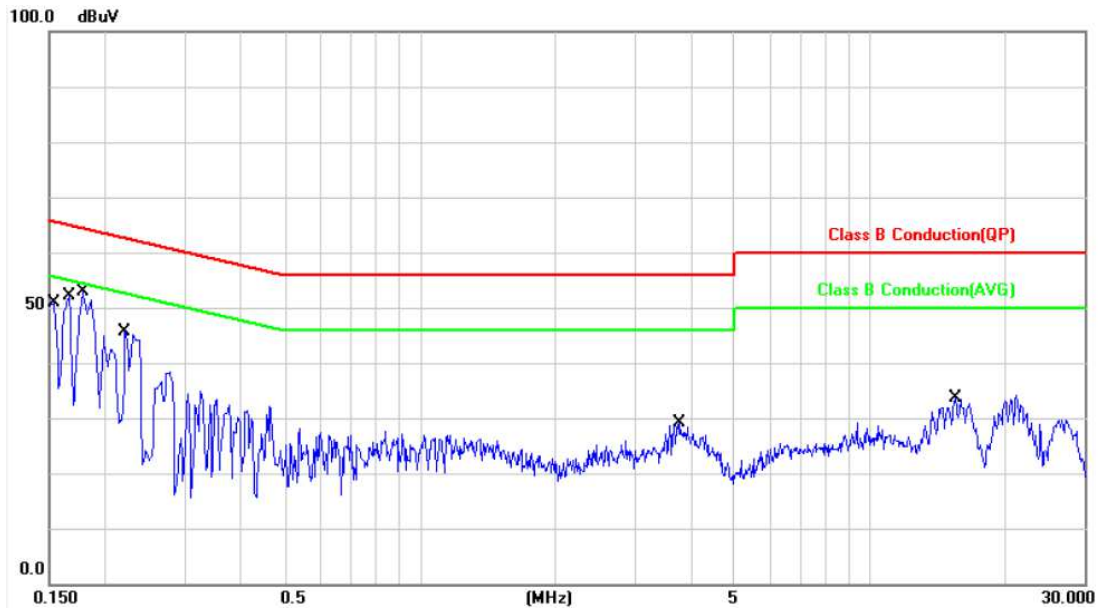




5.4. Test Result and Data

5.4.1. Test Result and Data of Main Source

Power	: AC 120V	Pol/Phase	: LINE
Test Mode	: Mode 1, Band 1	Temperature	: 20 °C
Test date	: Dec. 06, 2016	Humidity	: 56 %

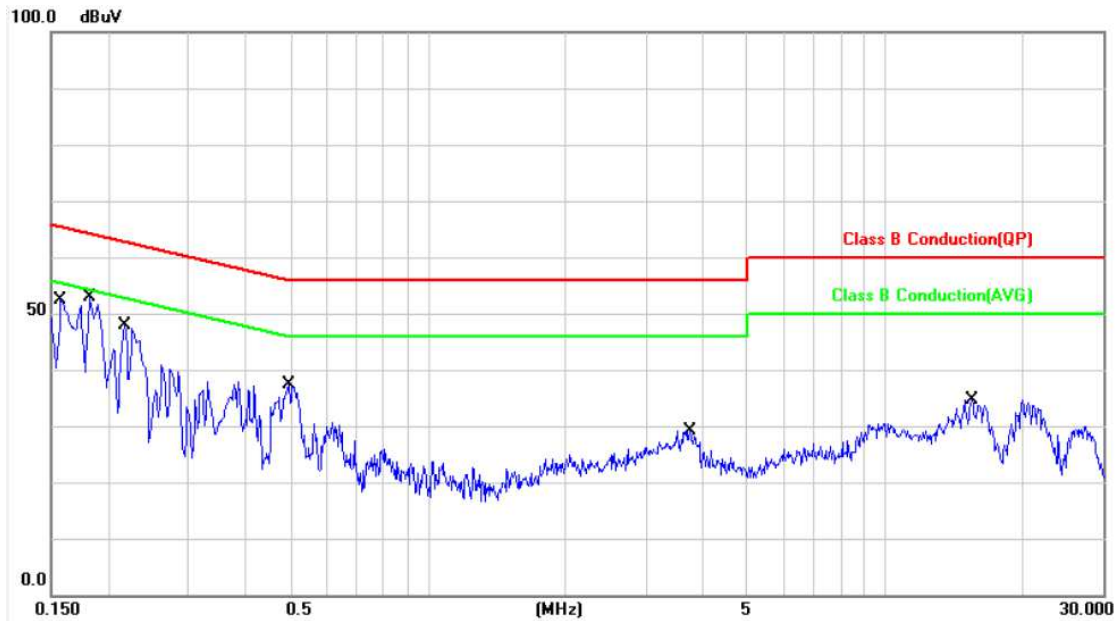


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1539	9.98	35.54	45.52	65.78	-20.26	QP	P
2	0.1539	9.98	15.49	25.47	55.78	-30.31	AVG	P
3	0.1660	9.98	36.07	46.05	65.15	-19.10	QP	P
4	0.1660	9.98	16.90	26.88	55.15	-28.27	AVG	P
5	0.1780	9.97	39.82	49.79	64.57	-14.78	QP	P
6	0.1780	9.97	22.37	32.34	54.57	-22.23	AVG	P
7	0.2220	9.97	32.35	42.32	62.74	-20.42	QP	P
8	0.2220	9.97	13.38	23.35	52.74	-29.39	AVG	P
9	3.7860	10.14	15.99	26.13	56.00	-29.87	QP	P
10	3.7860	10.14	6.89	17.03	46.00	-28.97	AVG	P
11	15.5180	10.39	20.86	31.25	60.00	-28.75	QP	P
12	15.5180	10.39	17.93	28.32	50.00	-21.68	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode	: Mode 1, Band 1	Temperature	: 20 °C
Test date	: Dec. 06, 2016	Humidity	: 56 %

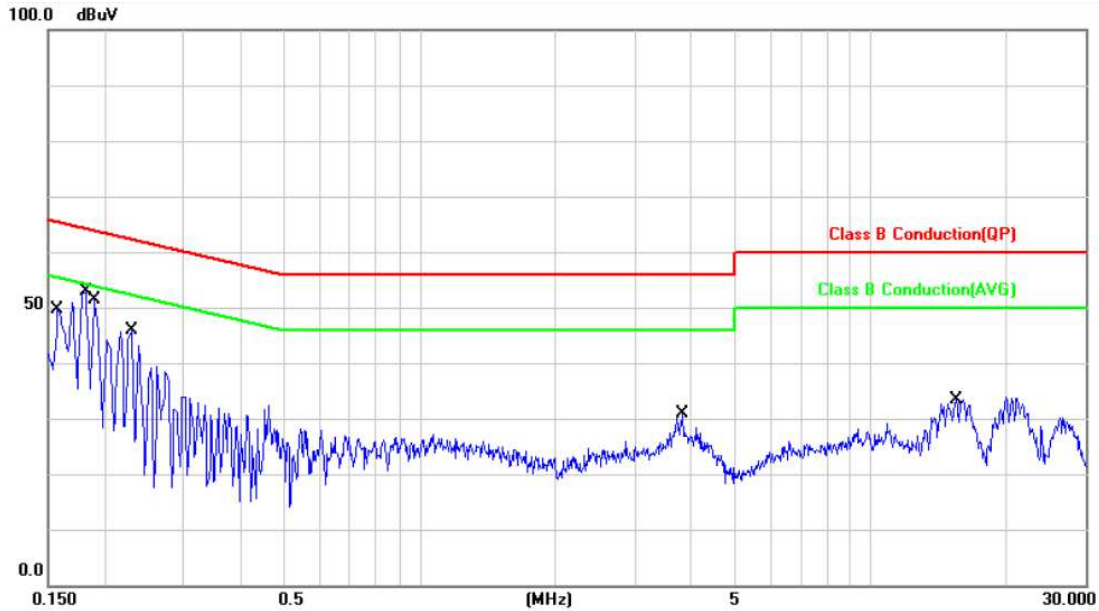


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	9.98	37.07	47.05	65.56	-18.51	QP	P
2	0.1580	9.98	16.15	26.13	55.56	-29.43	AVG	P
3	0.1819	9.98	40.69	50.67	64.39	-13.72	QP	P
4	0.1819	9.98	28.00	37.98	54.39	-16.41	AVG	P
5	0.2180	9.98	32.31	42.29	62.89	-20.60	QP	P
6	0.2180	9.98	13.60	23.58	52.89	-29.31	AVG	P
7	0.4980	9.94	24.54	34.48	56.03	-21.55	QP	P
8	0.4980	9.94	14.80	24.74	46.03	-21.29	AVG	P
9	3.7540	10.13	14.68	24.81	56.00	-31.19	QP	P
10	3.7540	10.13	6.50	16.63	46.00	-29.37	AVG	P
11	15.4820	10.47	21.26	31.73	60.00	-28.27	QP	P
12	15.4820	10.47	18.14	28.61	50.00	-21.39	AVG	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



Power	: AC 120V	Pol/Phase	: LINE
Test Mode	: Mode 1, Band 4	Temperature	: 20 °C
Test date	: Dec. 06, 2016	Humidity	: 56 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	9.98	36.60	46.58	65.56	-18.98	QP	P
2	0.1580	9.98	15.65	25.63	55.56	-29.93	AVG	P
3	0.1819	9.97	40.98	50.95	64.39	-13.44	QP	P
4	0.1819	9.97	27.46	37.43	54.39	-16.96	AVG	P
5	0.1900	9.97	38.27	48.24	64.03	-15.79	QP	P
6	0.1900	9.97	22.87	32.84	54.03	-21.19	AVG	P
7	0.2300	9.97	33.55	43.52	62.45	-18.93	QP	P
8	0.2300	9.97	19.83	29.80	52.45	-22.65	AVG	P
9	3.8340	10.14	14.25	24.39	56.00	-31.61	QP	P
10	3.8340	10.14	6.66	16.80	46.00	-29.20	AVG	P
11	15.5180	10.39	20.83	31.22	60.00	-28.78	QP	P
12	15.5180	10.39	17.79	28.18	50.00	-21.82	AVG	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode	: Mode 1, Band 4	Temperature	: 20 °C
Test date	: Dec. 06, 2016	Humidity	: 56 %



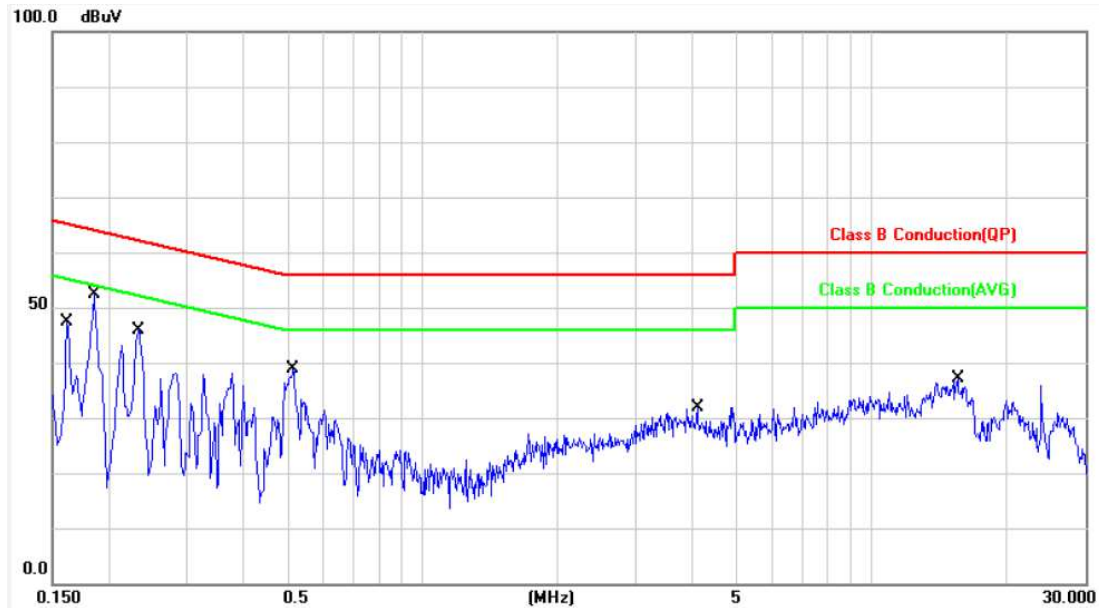
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	9.98	36.34	46.32	65.56	-19.24	QP	P
2	0.1580	9.98	16.55	26.53	55.56	-29.03	AVG	P
3	0.1700	9.98	38.29	48.27	64.96	-16.69	QP	P
4	0.1700	9.98	18.51	28.49	54.96	-26.47	AVG	P
5	0.1819	9.98	40.88	50.86	64.39	-13.53	QP	P
6	0.1819	9.98	28.68	38.66	54.39	-15.73	AVG	P
7	0.2100	9.98	29.87	39.85	63.20	-23.35	QP	P
8	0.2100	9.98	12.17	22.15	53.20	-31.05	AVG	P
9	3.7580	10.13	14.04	24.17	56.00	-31.83	QP	P
10	3.7580	10.13	7.29	17.42	46.00	-28.58	AVG	P
11	15.4780	10.47	21.15	31.62	60.00	-28.38	QP	P
12	15.4780	10.47	18.08	28.55	50.00	-21.45	AVG	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



5.4.2. Test Result and Data of Second Source

Power	: AC 120V	Pol/Phase	: LINE
Test Mode	: Mode 1, Band 1	Temperature	: 23 °C
Test date	: Dec. 21, 2016	Humidity	: 48 %

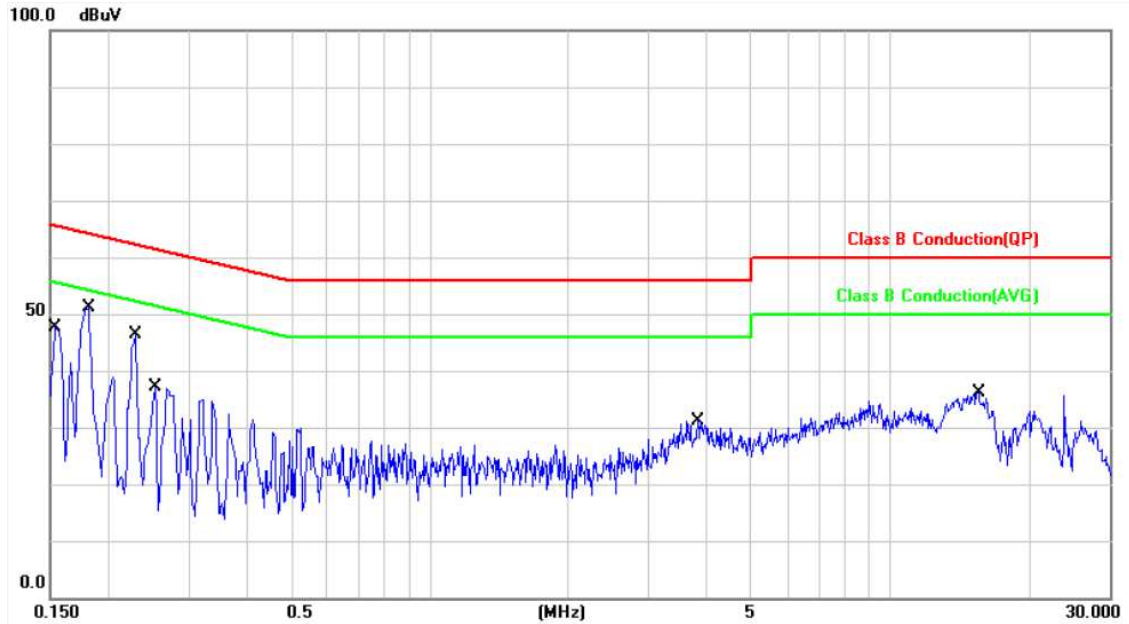


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1620	9.98	35.57	45.55	65.36	-19.81	QP	P
2	0.1620	9.98	18.25	28.23	55.36	-27.13	AVG	P
3	0.1860	9.97	39.89	49.86	64.21	-14.35	QP	P
4	0.1860	9.97	28.12	38.09	54.21	-16.12	AVG	P
5	0.2340	9.97	32.34	42.31	62.30	-19.99	QP	P
6	0.2340	9.97	19.58	29.55	52.30	-22.75	AVG	P
7	0.5180	9.98	26.54	36.52	56.00	-19.48	QP	P
8	0.5180	9.98	17.89	27.87	46.00	-18.13	AVG	P
9	4.1020	10.15	14.66	24.81	56.00	-31.19	QP	P
10	4.1020	10.15	8.44	18.59	46.00	-27.41	AVG	P
11	15.5620	10.39	24.43	34.82	60.00	-25.18	QP	P
12	15.5620	10.39	21.40	31.79	50.00	-18.21	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode	: Mode 1, Band 1	Temperature	: 23 °C
Test date	: Dec. 21, 2016	Humidity	: 48 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1539	9.98	34.79	44.77	65.78	-21.01	QP	P
2	0.1539	9.98	16.20	26.18	55.78	-29.60	AVG	P
3	0.1819	9.98	40.23	50.21	64.39	-14.18	QP	P
4	0.1819	9.98	25.82	35.80	54.39	-18.59	AVG	P
5	0.2300	9.97	33.31	43.28	62.45	-19.17	QP	P
6	0.2300	9.97	19.07	29.04	52.45	-23.41	AVG	P
7	0.2540	9.97	28.57	38.54	61.62	-23.08	QP	P
8	0.2540	9.97	9.27	19.24	51.62	-32.38	AVG	P
9	3.8300	10.14	15.48	25.62	56.00	-30.38	QP	P
10	3.8300	10.14	8.80	18.94	46.00	-27.06	AVG	P
11	15.5540	10.47	20.09	30.56	60.00	-29.44	QP	P
12	15.5540	10.47	15.75	26.22	50.00	-23.78	AVG	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



Power	: AC 120V	Pol/Phase	: LINE
Test Mode	: Mode 1, Band 4	Temperature	: 23 °C
Test date	: Dec. 21, 2016	Humidity	: 48 %

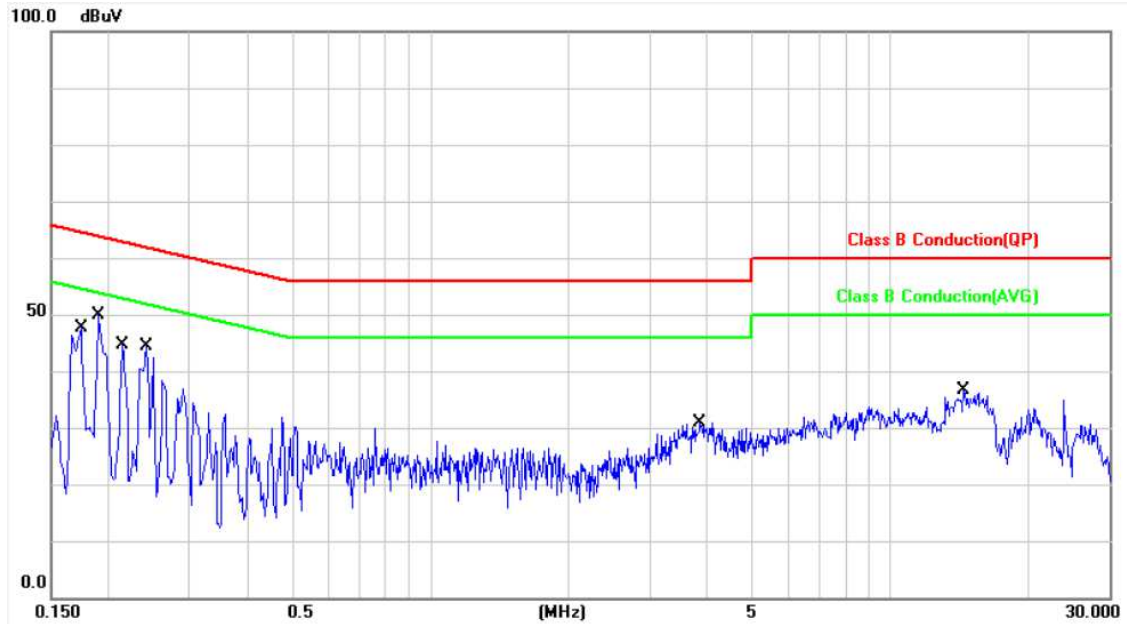


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1620	9.98	33.62	43.60	65.36	-21.76	QP	P
2	0.1620	9.98	17.43	27.41	55.36	-27.95	AVG	P
3	0.1860	9.97	39.84	49.81	64.21	-14.40	QP	P
4	0.1860	9.97	28.06	38.03	54.21	-16.18	AVG	P
5	0.2140	9.97	31.54	41.51	63.04	-21.53	QP	P
6	0.2140	9.97	12.53	22.50	53.04	-30.54	AVG	P
7	0.2860	9.97	24.73	34.70	60.64	-25.94	QP	P
8	0.2860	9.97	10.18	20.15	50.64	-30.49	AVG	P
9	0.4980	9.98	24.59	34.57	56.03	-21.46	QP	P
10	0.4980	9.98	15.16	25.14	46.03	-20.89	AVG	P
11	12.0020	10.32	23.04	33.36	60.00	-26.64	QP	P
12	12.0020	10.32	18.78	29.10	50.00	-20.90	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode	: Mode 1, Band 4	Temperature	: 23 °C
Test date	: Dec. 21, 2016	Humidity	: 48 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1740	9.98	37.88	47.86	64.76	-16.90	QP	P
2	0.1740	9.98	18.48	28.46	54.76	-26.30	AVG	P
3	0.1900	9.98	37.26	47.24	64.03	-16.79	QP	P
4	0.1900	9.98	20.91	30.89	54.03	-23.14	AVG	P
5	0.2140	9.98	30.70	40.68	63.04	-22.36	QP	P
6	0.2140	9.98	10.69	20.67	53.04	-32.37	AVG	P
7	0.2420	9.97	24.88	34.85	62.02	-27.17	QP	P
8	0.2420	9.97	8.32	18.29	52.02	-33.73	AVG	P
9	3.8780	10.14	16.01	26.15	56.00	-29.85	QP	P
10	3.8780	10.14	9.52	19.66	46.00	-26.34	AVG	P
11	14.4820	10.45	23.11	33.56	60.00	-26.44	QP	P
12	14.4820	10.45	19.82	30.27	50.00	-19.73	AVG	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



6. Test of Spurious Emission (Radiated)

6.1. Test Limit

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27dBm/MHz at the band edge.
- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.
- (8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

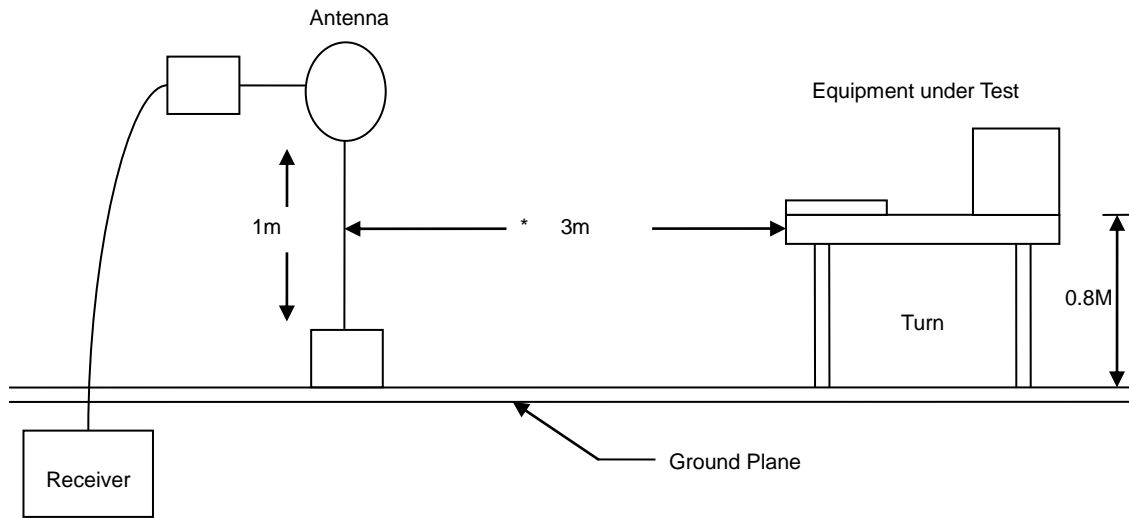
6.2. Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- i. "Cone of radiation" has been considered to be 3dB bandwidth of the measurement antenna.

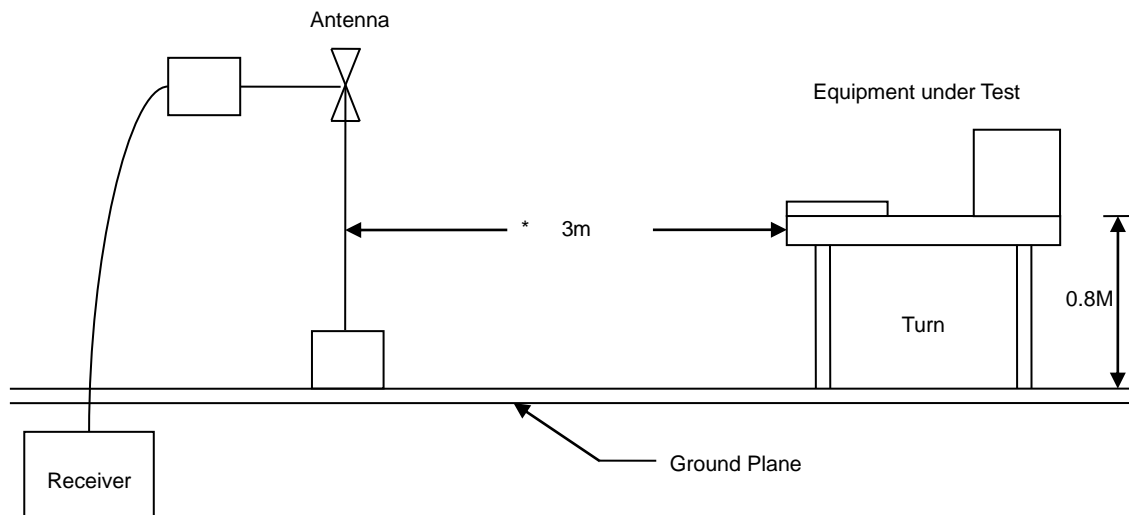


6.3. Typical Test Setup

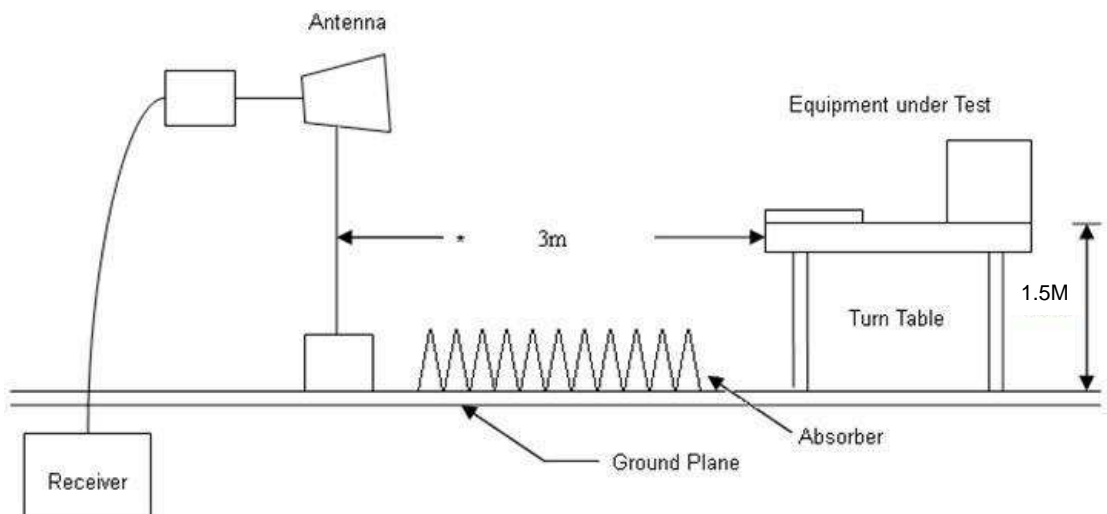
Below 30MHz test setup



30MHz- 1GHz Test Setup



Above 1GHz Test Setup





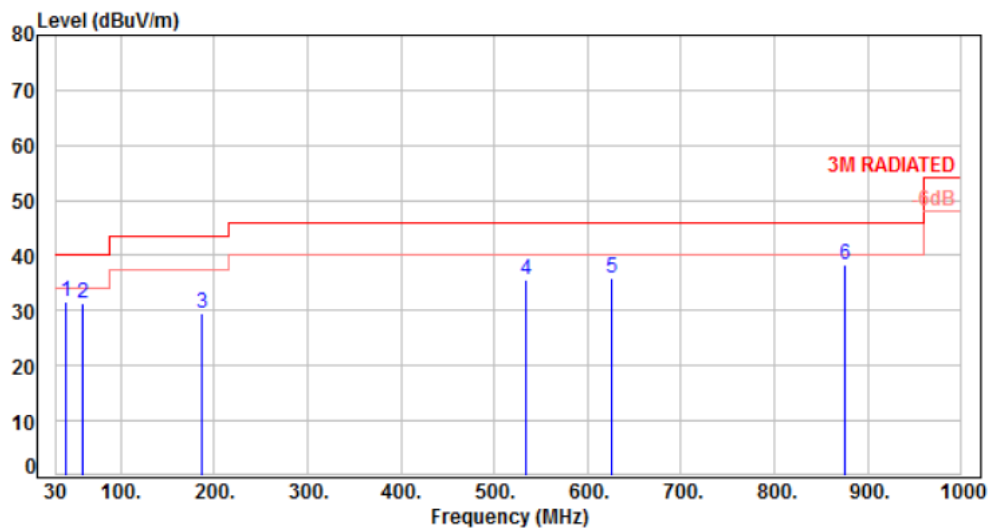
6.4. Test Result and Data (9kHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

6.5. Test Result and Data (30MHz ~ 1GHz)

6.5.1. Test Result and Data of Main Source

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 1	Temperature	: 25 °C
Test Date	: Mar. 20, 2017	Humidity	: 63 %

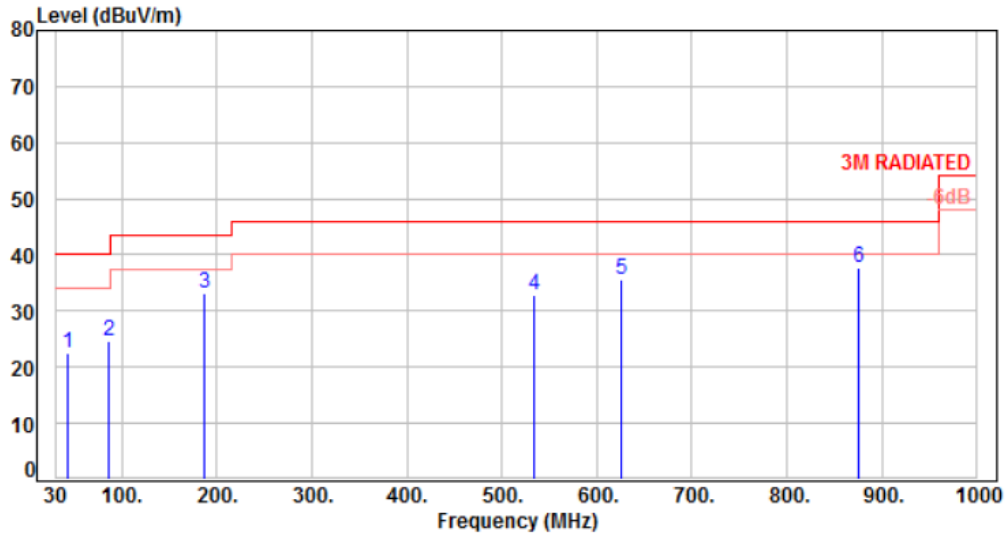


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	41.64	-10.01	41.63	31.62	40.00	-8.38	QP	100	182	P
2	59.10	-10.39	41.62	31.23	40.00	-8.77	QP	100	194	P
3	187.14	-11.96	41.37	29.41	43.50	-14.09	Peak	100	0	P
4	534.40	-3.57	39.06	35.49	46.00	-10.51	Peak	100	0	P
5	625.58	-1.70	37.63	35.93	46.00	-10.07	Peak	100	0	P
6	875.84	1.87	36.49	38.36	46.00	-7.64	Peak	100	0	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 1	Temperature	: 25 °C
Test Date	: Mar. 20, 2017	Humidity	: 63 %

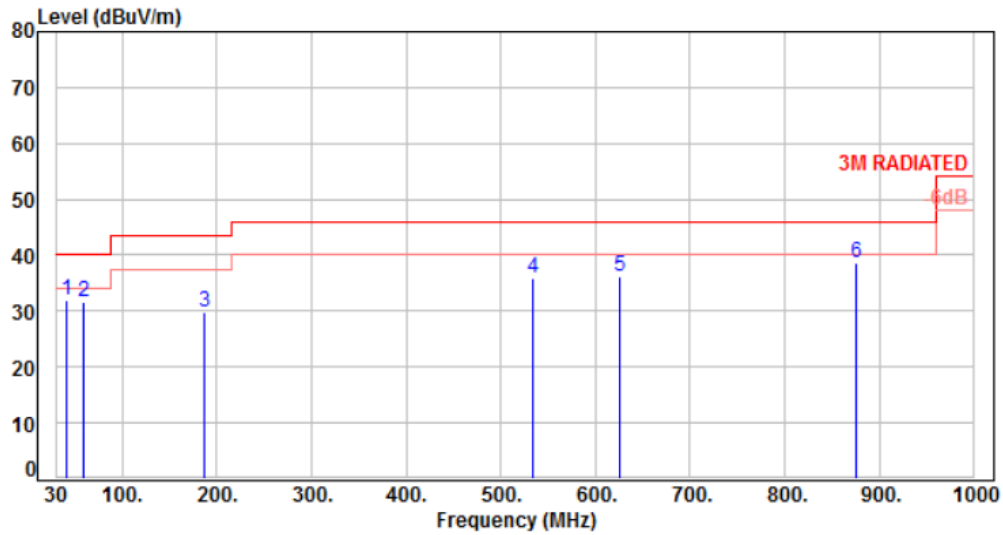


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	43.58	-9.87	32.26	22.39	40.00	-17.61	Peak	100	0	P
2	86.26	-15.72	40.43	24.71	40.00	-15.29	Peak	100	0	P
3	187.14	-11.96	45.16	33.20	43.50	-10.30	Peak	100	0	P
4	534.40	-3.57	36.51	32.94	46.00	-13.06	Peak	100	0	P
5	625.58	-1.70	37.33	35.63	46.00	-10.37	Peak	100	0	P
6	875.84	1.87	35.73	37.60	46.00	-8.40	Peak	100	0	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 4	Temperature	: 25 °C
Test Date	: Mar. 20, 2017	Humidity	: 63 %

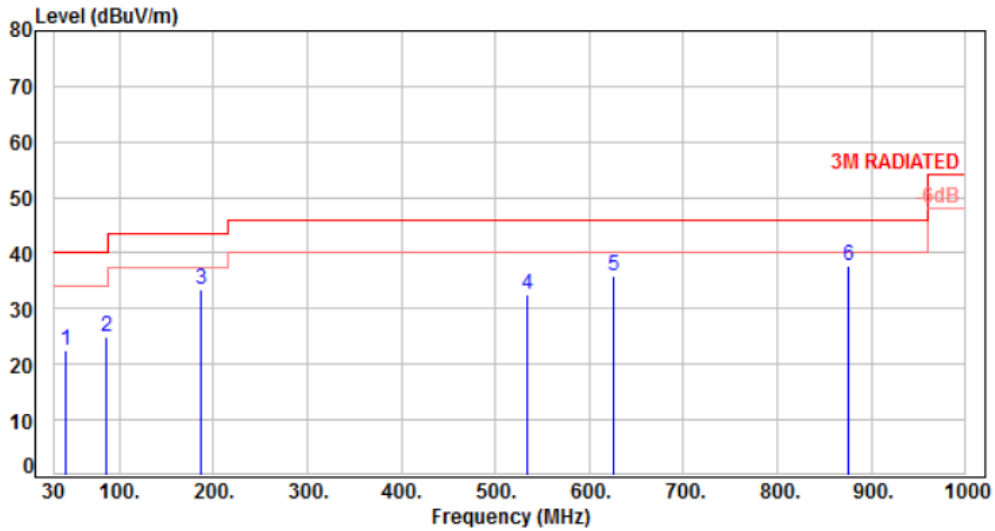


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	41.64	-10.01	41.97	31.96	40.00	-8.04	QP	100	182	P
2	59.10	-10.39	41.88	31.49	40.00	-8.51	QP	100	194	P
3	187.14	-11.96	41.65	29.69	43.50	-13.81	Peak	100	0	P
4	534.40	-3.57	39.34	35.77	46.00	-10.23	Peak	100	0	P
5	625.58	-1.70	37.91	36.21	46.00	-9.79	Peak	100	0	P
6	875.84	1.87	36.65	38.52	46.00	-7.48	Peak	100	0	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 4	Temperature	: 25 °C
Test Date	: Mar. 20, 2017	Humidity	: 63 %

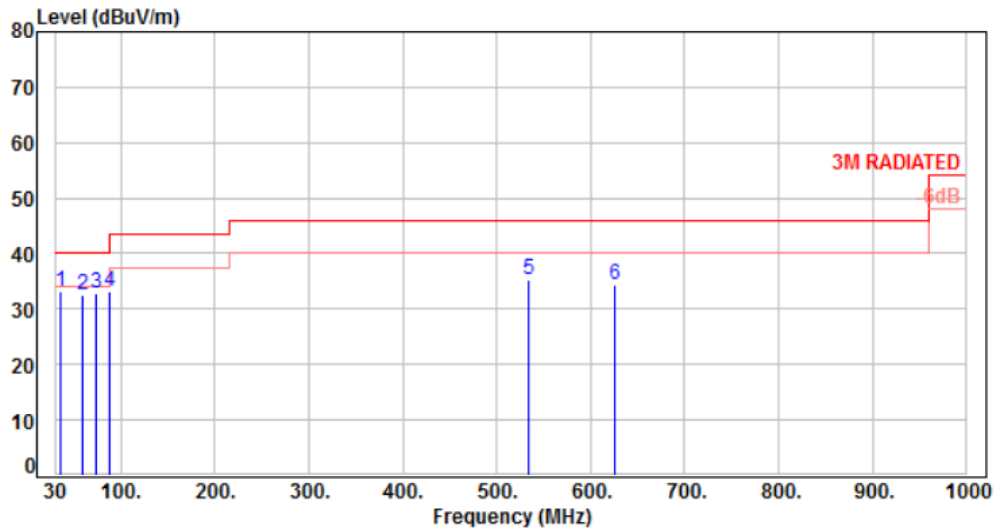


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	43.58	-9.87	32.44	22.57	40.00	-17.43	Peak	100	0	P
2	86.26	-15.72	40.70	24.98	40.00	-15.02	Peak	100	0	P
3	187.14	-11.96	45.35	33.39	43.50	-10.11	Peak	100	0	P
4	534.40	-3.57	36.24	32.67	46.00	-13.33	Peak	100	0	P
5	625.58	-1.70	37.66	35.96	46.00	-10.04	Peak	100	0	P
6	875.84	1.87	35.80	37.67	46.00	-8.33	Peak	100	0	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: PoE	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 1	Temperature	: 22 °C
Test Date	: Mar. 20, 2017	Humidity	: 64 %

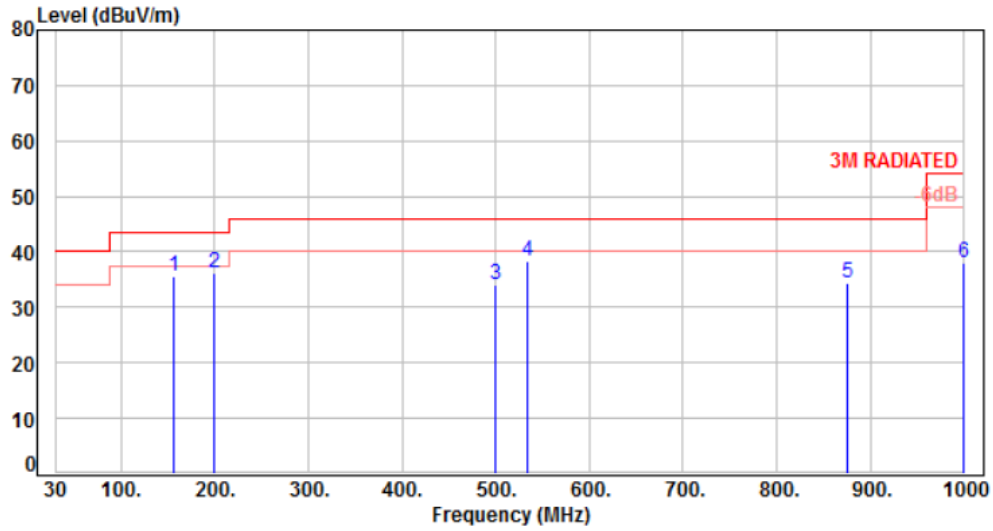


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	36.52	-10.42	43.70	33.28	40.00	-6.72	QP	103	282	P
2	58.36	-10.34	43.00	32.66	40.00	-7.34	QP	105	272	P
3	73.12	-13.23	46.20	32.97	40.00	-7.03	QP	110	99	P
4	87.80	-15.93	49.17	33.24	40.00	-6.76	QP	125	95	P
5	533.43	-3.59	38.85	35.26	46.00	-10.74	Peak	400	0	P
6	625.58	-1.70	36.08	34.38	46.00	-11.62	Peak	400	0	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: PoE	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 1	Temperature	: 22 °C
Test Date	: Mar. 20, 2017	Humidity	: 64 %

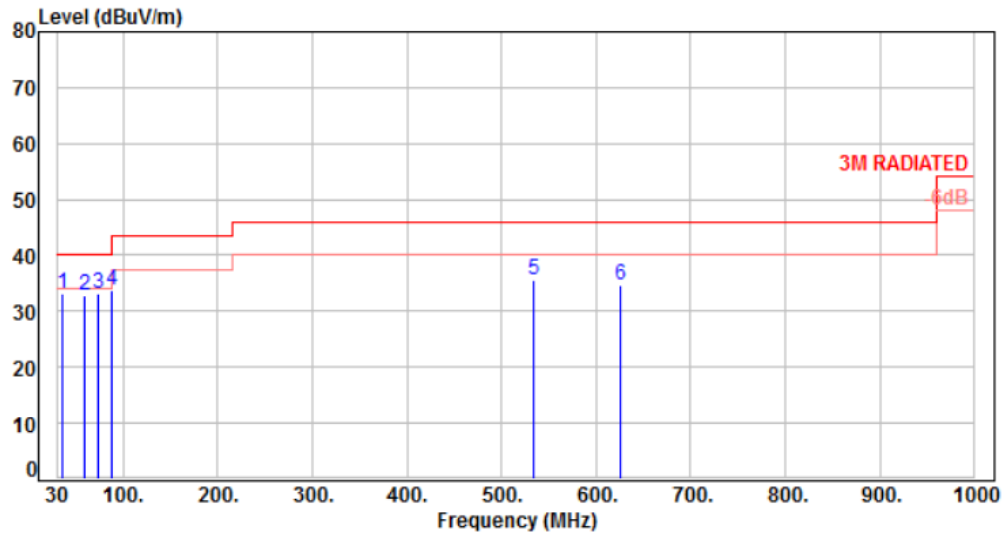


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	157.07	-9.93	45.62	35.69	43.50	-7.81	Peak	100	0	P
2	198.78	-12.50	48.70	36.20	43.50	-7.30	Peak	100	0	P
3	500.45	-4.17	38.17	34.00	46.00	-12.00	Peak	100	0	P
4	533.43	-3.59	41.91	38.32	46.00	-7.68	Peak	100	0	P
5	875.84	1.87	32.47	34.34	46.00	-11.66	Peak	100	0	P
6	1000.00	3.44	34.66	38.10	54.00	-15.90	Peak	100	0	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: PoE	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 4	Temperature	: 22 °C
Test Date	: Mar. 20, 2017	Humidity	: 64 %

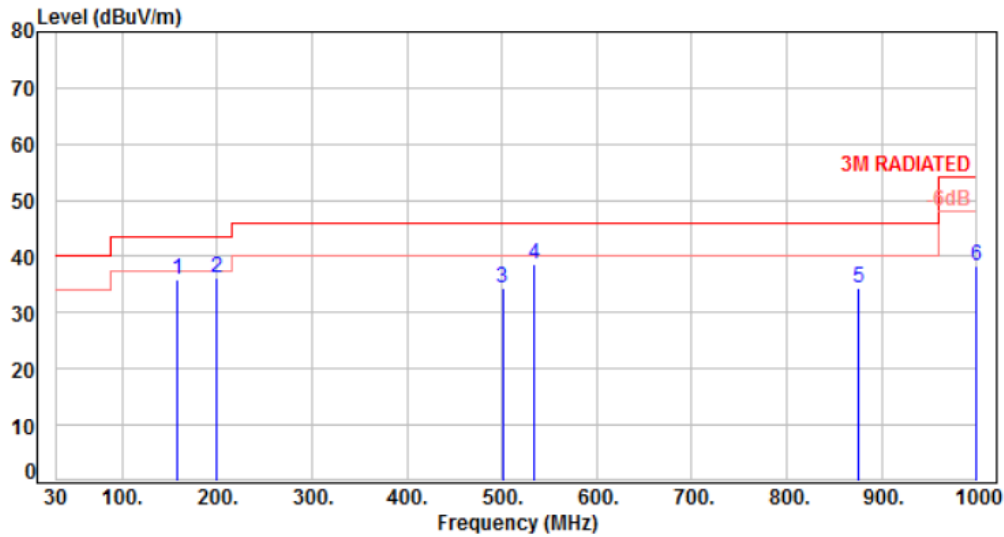


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	36.52	-10.42	43.59	33.17	40.00	-6.83	QP	103	282	P
2	58.48	-10.35	43.34	32.99	40.00	-7.01	QP	105	272	P
3	73.54	-13.33	46.36	33.03	40.00	-6.97	QP	110	99	P
4	87.90	-15.95	49.62	33.67	40.00	-6.33	QP	125	95	P
5	533.77	-3.57	39.20	35.63	46.00	-10.37	Peak	400	0	P
6	625.70	-1.69	36.24	34.55	46.00	-11.45	Peak	400	0	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: PoE	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 4	Temperature	: 22 °C
Test Date	: Mar. 20, 2017	Humidity	: 64 %



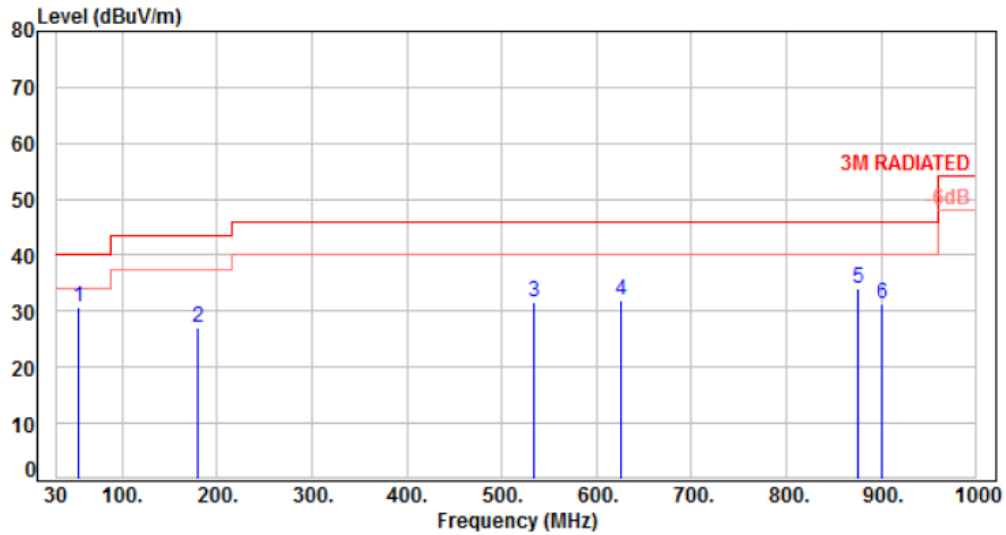
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	157.25	-9.93	45.78	35.85	43.50	-7.65	Peak	100	0	P
2	198.92	-12.51	48.83	36.32	43.50	-7.18	Peak	100	0	P
3	500.66	-4.17	38.45	34.28	46.00	-11.72	Peak	100	0	P
4	533.75	-3.58	42.22	38.64	46.00	-7.36	Peak	100	0	P
5	875.91	1.87	32.65	34.52	46.00	-11.48	Peak	100	0	P
6	1000.00	3.44	34.82	38.26	54.00	-15.74	Peak	100	0	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



6.5.2. Test Result and Data of Second Source

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 1	Temperature	: 25 °C
Test Date	: Mar. 20, 2017	Humidity	: 63 %

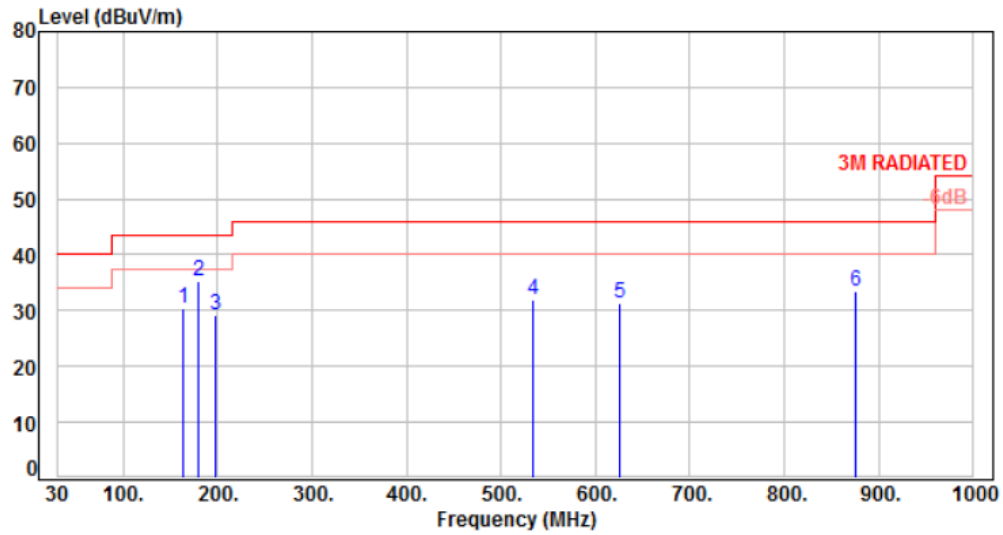


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	53.28	-9.96	40.73	30.77	40.00	-9.23	QP	100	214	P
2	179.38	-11.30	38.46	27.16	43.50	-16.34	Peak	100	0	P
3	534.40	-3.57	35.05	31.48	46.00	-14.52	Peak	100	0	P
4	625.58	-1.70	33.67	31.97	46.00	-14.03	Peak	100	0	P
5	875.84	1.87	32.13	34.00	46.00	-12.00	Peak	100	0	P
6	901.06	2.14	29.05	31.19	46.00	-14.81	Peak	100	0	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 1	Temperature	: 25 °C
Test Date	: Mar. 20, 2017	Humidity	: 63 %

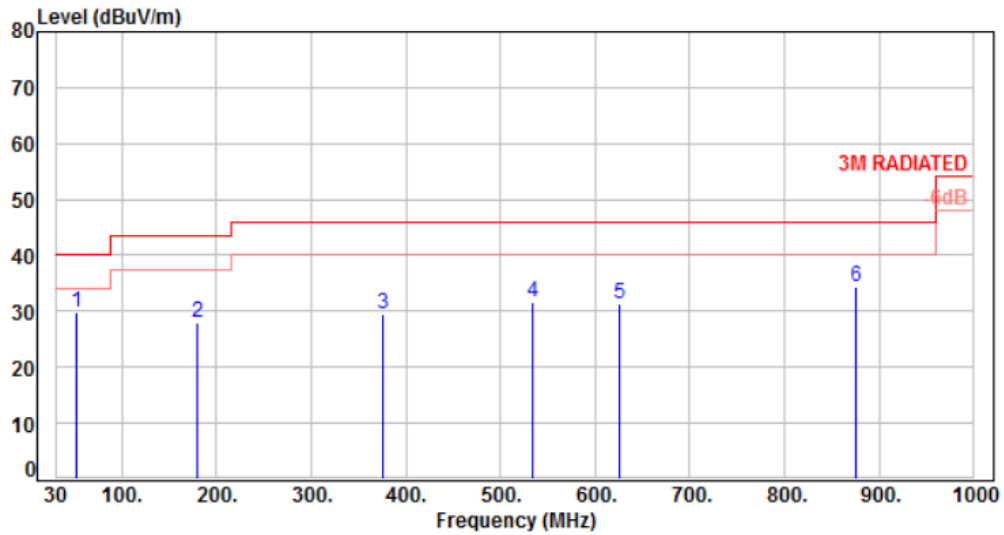


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	163.86	-10.03	40.44	30.41	43.50	-13.09	Peak	100	0	P
2	179.38	-11.30	46.72	35.42	43.50	-8.08	Peak	100	0	P
3	196.84	-12.43	41.77	29.34	43.50	-14.16	Peak	100	0	P
4	534.40	-3.57	35.48	31.91	46.00	-14.09	Peak	100	0	P
5	625.58	-1.70	32.90	31.20	46.00	-14.80	Peak	100	0	P
6	875.84	1.87	31.51	33.38	46.00	-12.62	Peak	100	0	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 4	Temperature	: 25 °C
Test Date	: Mar. 20, 2017	Humidity	: 63 %

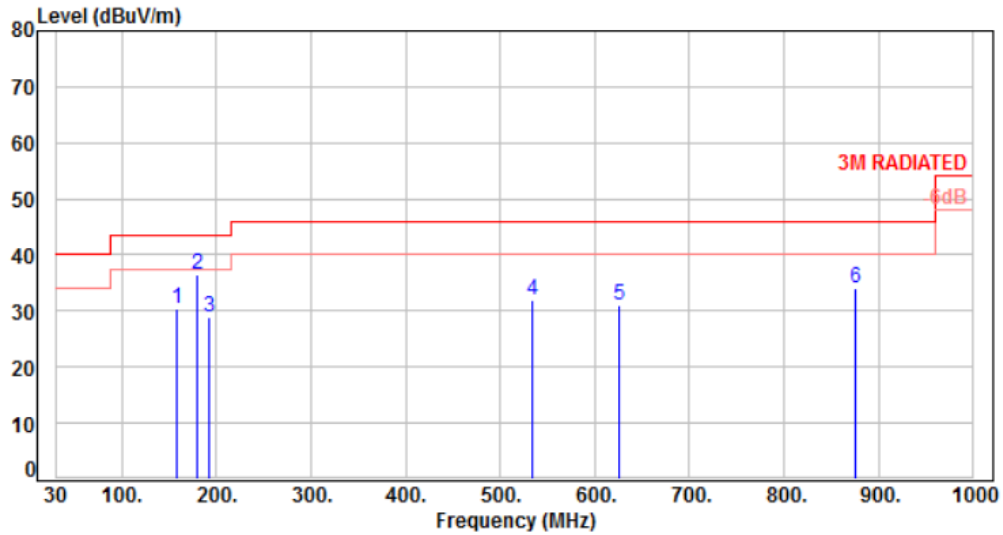


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	51.34	-9.83	39.79	29.96	40.00	-10.04	QP	100	211	P
2	179.38	-11.30	39.15	27.85	43.50	-15.65	Peak	100	0	P
3	375.32	-7.06	36.52	29.46	46.00	-16.54	Peak	100	0	P
4	534.40	-3.57	35.19	31.62	46.00	-14.38	Peak	100	0	P
5	625.58	-1.70	33.04	31.34	46.00	-14.66	Peak	100	0	P
6	875.84	1.87	32.57	34.44	46.00	-11.56	Peak	100	0	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 4	Temperature	: 25 °C
Test Date	: Mar. 20, 2017	Humidity	: 63 %

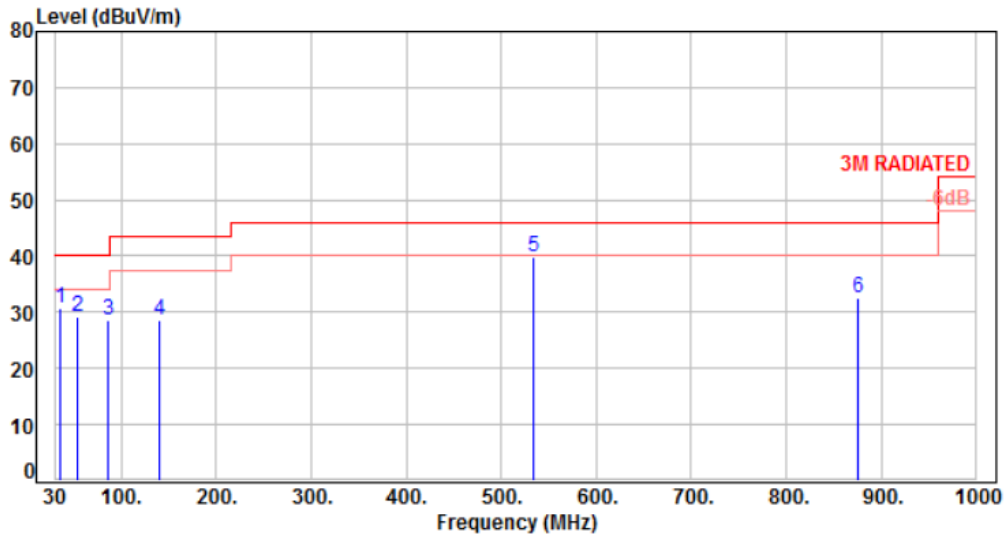


No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV)	Limit (dBUV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	158.04	-9.91	40.39	30.48	43.50	-13.02	Peak	100	0	P
2	179.38	-11.30	47.74	36.44	43.50	-7.06	Peak	100	0	P
3	192.96	-12.31	41.21	28.90	43.50	-14.60	Peak	100	0	P
4	534.40	-3.57	35.61	32.04	46.00	-13.96	Peak	100	0	P
5	625.58	-1.70	32.79	31.09	46.00	-14.91	Peak	100	0	P
6	875.84	1.87	32.33	34.20	46.00	-11.80	Peak	100	0	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: PoE	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 1	Temperature	: 25 °C
Test Date	: Mar. 20, 2017	Humidity	: 63 %

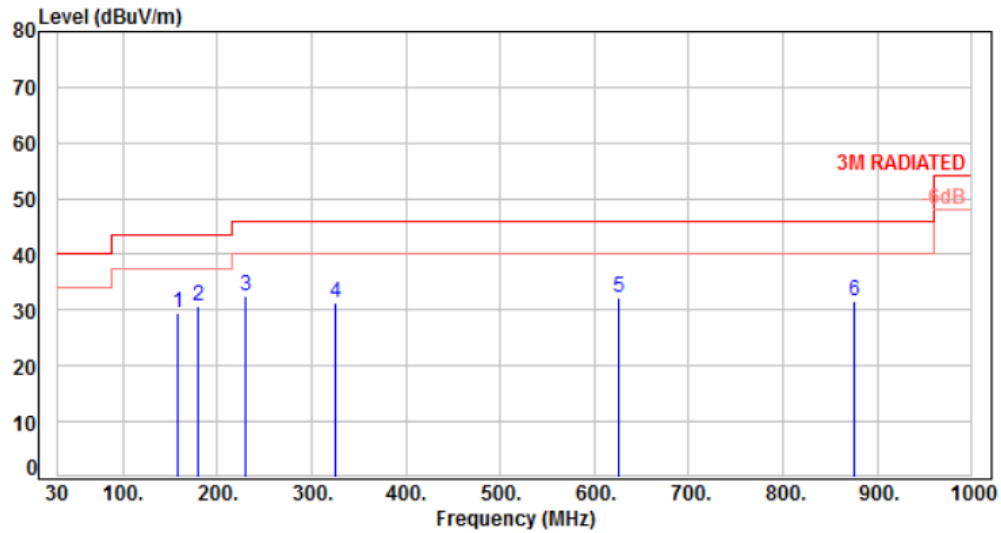


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	35.82	-10.47	41.18	30.71	40.00	-9.29	QP	100	210	P
2	53.28	-9.96	39.30	29.34	40.00	-10.66	Peak	100	0	P
3	86.26	-15.72	44.28	28.56	40.00	-11.44	Peak	100	0	P
4	140.58	-10.33	38.90	28.57	43.50	-14.93	Peak	100	0	P
5	534.40	-3.57	43.46	39.89	46.00	-6.11	Peak	100	0	P
6	875.84	1.87	30.60	32.47	46.00	-13.53	Peak	100	0	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: PoE	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 1	Temperature	: 25 °C
Test Date	: Mar. 20, 2017	Humidity	: 63 %

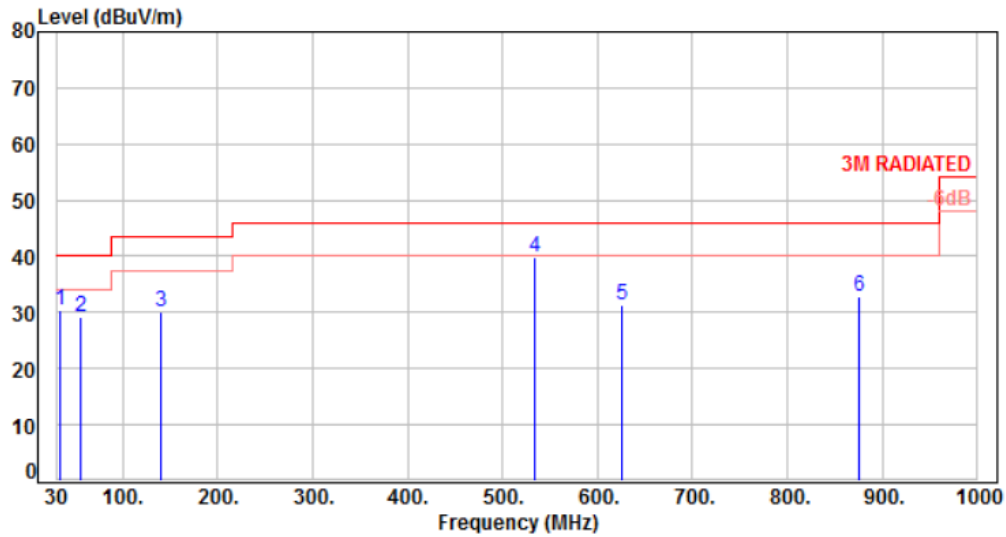


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	158.04	-9.91	39.52	29.61	43.50	-13.89	Peak	100	0	P
2	179.38	-11.30	42.15	30.85	43.50	-12.65	Peak	100	0	P
3	229.82	-12.06	44.75	32.69	46.00	-13.31	Peak	100	0	P
4	324.88	-8.42	39.64	31.22	46.00	-14.78	Peak	100	0	P
5	625.58	-1.70	33.82	32.12	46.00	-13.88	Peak	100	0	P
6	875.84	1.87	29.72	31.59	46.00	-14.41	Peak	100	0	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: PoE	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 4	Temperature	: 25 °C
Test Date	: Mar. 20, 2017	Humidity	: 63 %

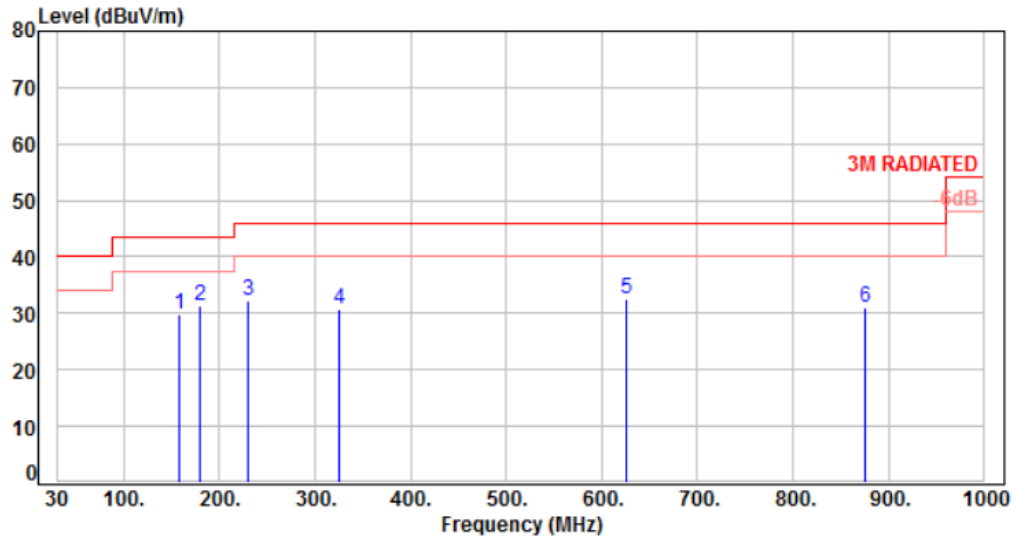


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	33.88	-10.59	41.06	30.47	40.00	-9.53	QP	100	216	P
2	55.22	-10.11	39.35	29.24	40.00	-10.76	Peak	100	0	P
3	140.58	-10.33	40.51	30.18	43.50	-13.32	Peak	100	0	P
4	534.40	-3.57	43.47	39.90	46.00	-6.10	Peak	100	0	P
5	625.58	-1.70	33.00	31.30	46.00	-14.70	Peak	100	0	P
6	875.84	1.87	30.89	32.76	46.00	-13.24	Peak	100	0	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: PoE	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 4	Temperature	: 25 °C
Test Date	: Mar. 20, 2017	Humidity	: 63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	158.04	-9.91	39.68	29.77	43.50	-13.73	Peak	100	0	P
2	179.38	-11.30	42.49	31.19	43.50	-12.31	Peak	100	0	P
3	229.82	-12.06	44.36	32.30	46.00	-13.70	Peak	100	0	P
4	324.88	-8.42	39.02	30.60	46.00	-15.40	Peak	100	0	P
5	625.58	-1.70	34.18	32.48	46.00	-13.52	Peak	100	0	P
6	875.84	1.87	29.29	31.16	46.00	-14.84	Peak	100	0	P

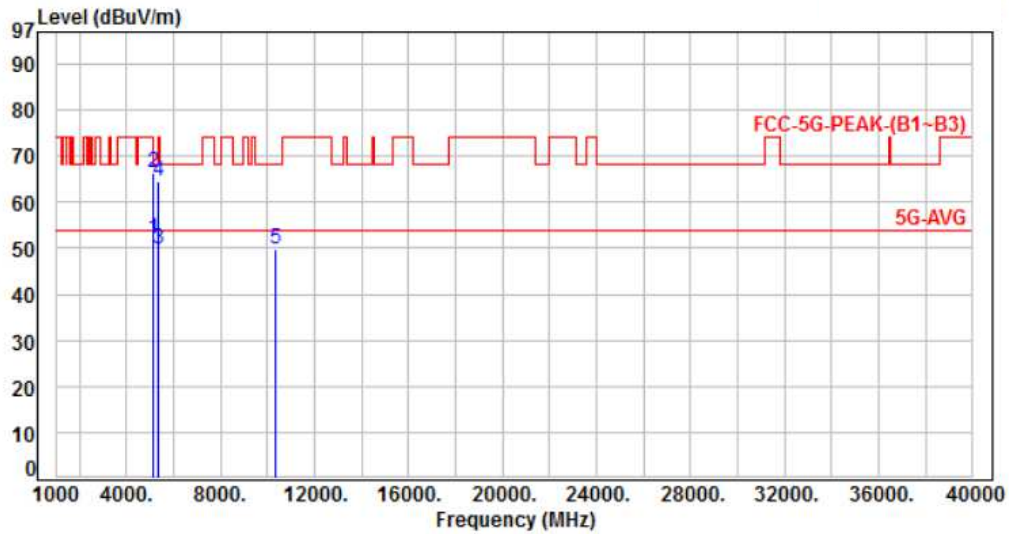
Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



6.6. Test Result and Data (1GHz ~ 40GHz)

6.6.1. Test Result and Data of Non Beamforming

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH36	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

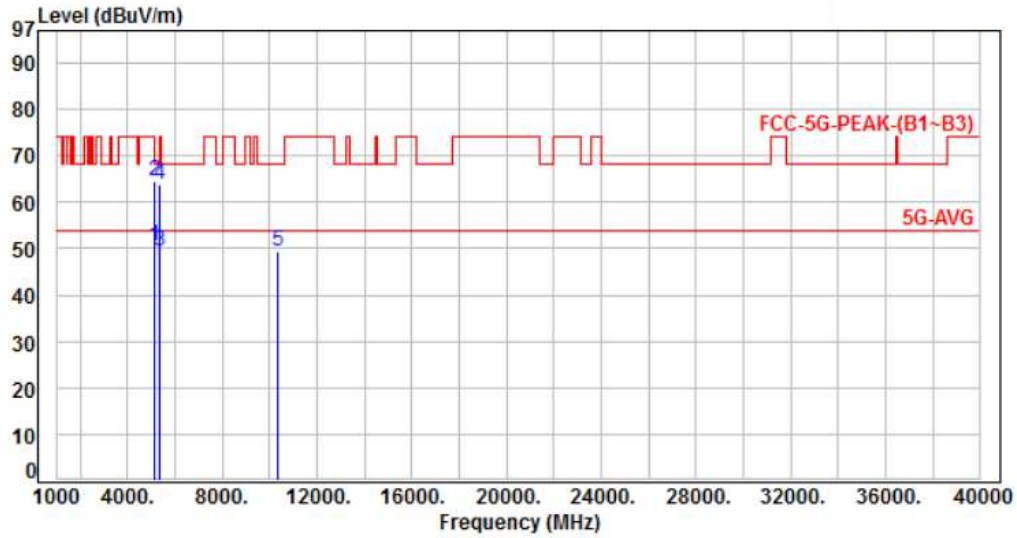


No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV)	Limit (dBUV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	58.70	52.16	54.00	-1.84	Average	249	329	P
2	5150.00	-6.54	72.75	66.21	74.00	-7.79	Peak	249	329	P
3	5350.00	-6.06	55.80	49.74	54.00	-4.26	Average	249	329	P
4	5350.00	-6.06	70.47	64.41	74.00	-9.59	Peak	249	329	P
5	10360.00	0.66	49.30	49.96	68.20	-18.24	Peak	340	100	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH36	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

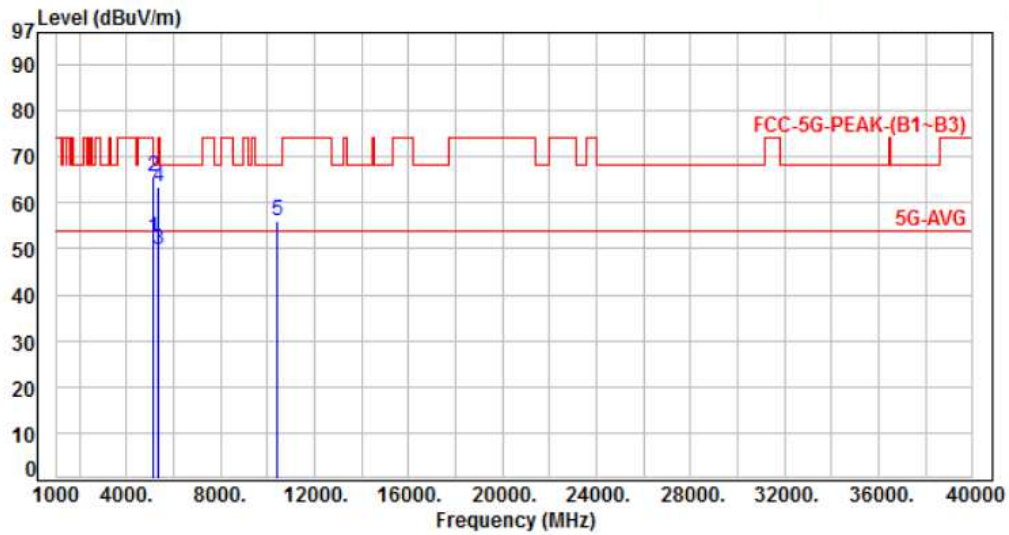


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	56.98	50.44	54.00	-3.56	Average	100	242	P
2	5150.00	-6.54	70.95	64.41	74.00	-9.59	Peak	100	242	P
3	5350.00	-6.06	55.62	49.56	54.00	-4.44	Average	100	242	P
4	5350.00	-6.06	70.05	63.99	74.00	-10.01	Peak	100	242	P
5	10360.00	0.66	48.90	49.56	68.20	-18.64	Peak	116	282	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH44	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

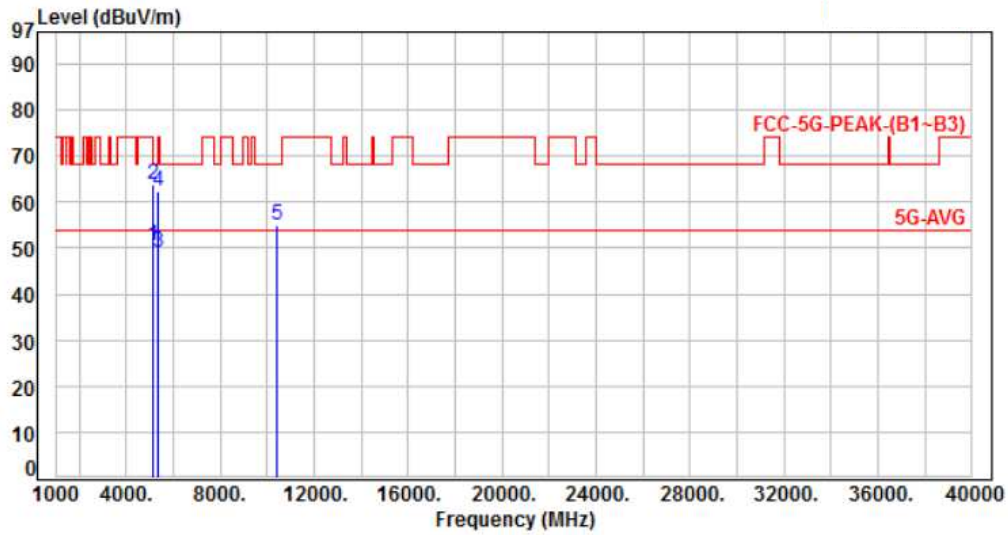


No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV)	Limit (dBUV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	58.84	52.30	54.00	-1.70	Average	400	189	P
2	5150.00	-6.54	72.25	65.71	74.00	-8.29	Peak	400	189	P
3	5350.00	-6.06	55.81	49.75	54.00	-4.25	Average	400	189	P
4	5350.00	-6.06	69.36	63.30	74.00	-10.70	Peak	400	189	P
5	10440.00	0.70	55.28	55.98	68.20	-12.22	Peak	131	354	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH44	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

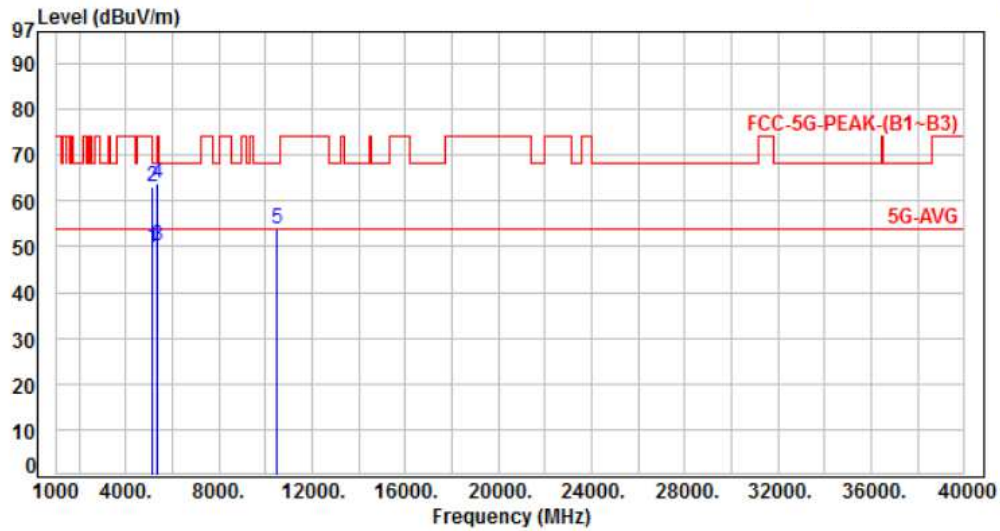


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	56.92	50.38	54.00	-3.62	Average	102	242	P
2	5150.00	-6.54	70.38	63.84	74.00	-10.16	Peak	100	242	P
3	5350.00	-6.06	55.21	49.15	54.00	-4.85	Average	100	242	P
4	5350.00	-6.06	68.55	62.49	74.00	-11.51	Peak	100	242	P
5	10440.00	0.70	54.36	55.06	68.20	-13.14	Peak	112	256	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH48	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

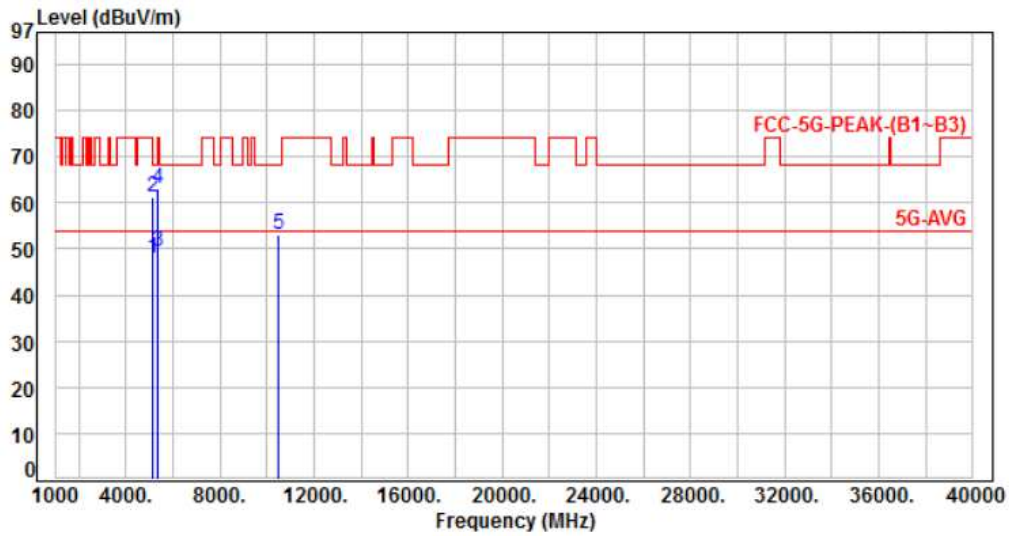


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	56.36	49.82	54.00	-4.18	Average	209	194	P
2	5150.00	-6.54	69.74	63.20	74.00	-10.80	Peak	209	194	P
3	5350.00	-6.06	56.16	50.10	54.00	-3.90	Average	209	194	P
4	5350.00	-6.06	69.97	63.91	74.00	-10.09	Peak	209	194	P
5	10480.00	0.73	53.01	53.74	68.20	-14.46	Peak	130	349	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH48	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

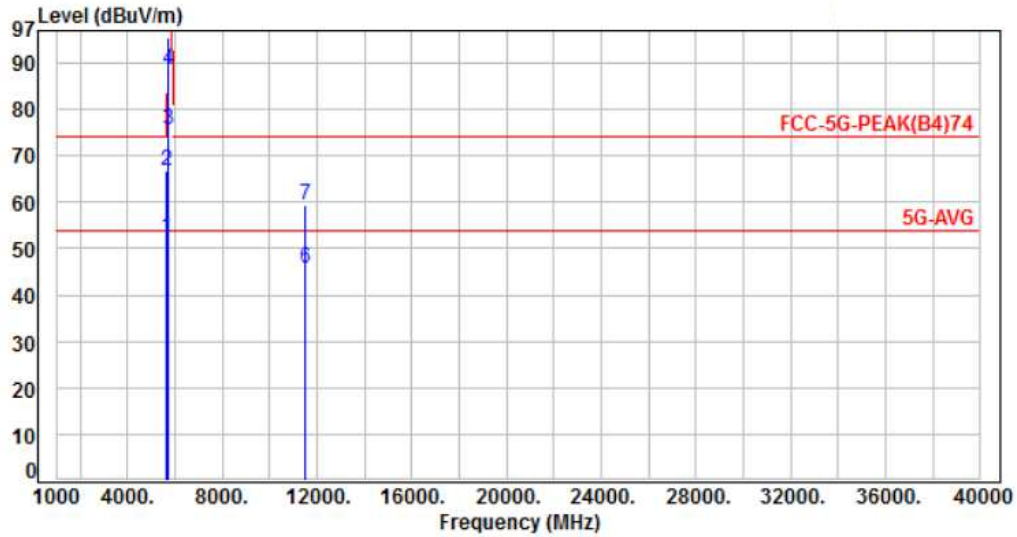


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	54.61	48.07	54.00	-5.93	Average	100	206	P
2	5150.00	-6.54	67.91	61.37	74.00	-12.63	Peak	100	206	P
3	5350.00	-6.06	55.37	49.31	54.00	-4.69	Average	100	206	P
4	5350.00	-6.06	69.15	63.09	74.00	-10.91	Peak	100	206	P
5	10480.00	0.73	52.47	53.20	68.20	-15.00	Peak	121	237	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH149	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

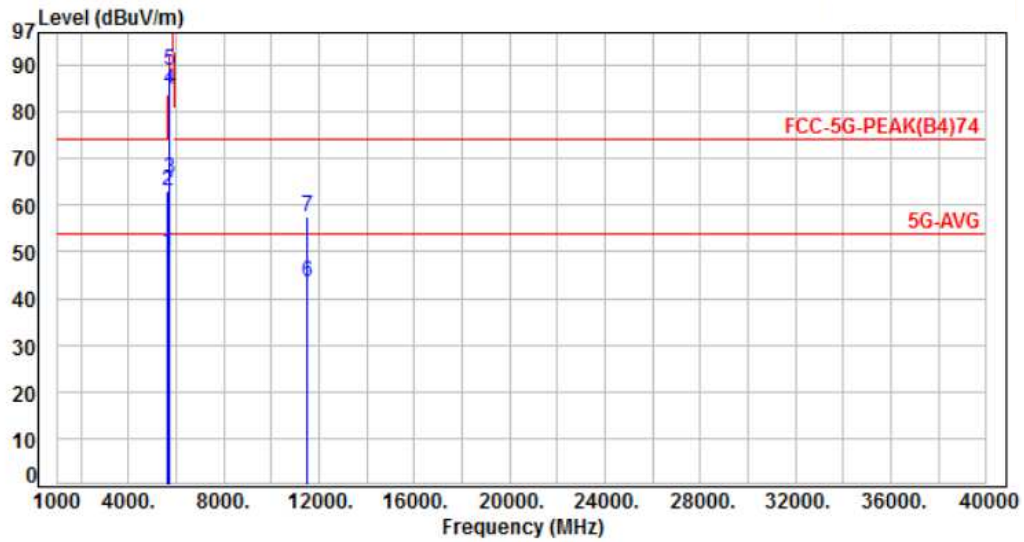


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-5.77	58.26	52.49	54.00	-1.51	Average	305	189	P
2	5650.00	-5.77	72.41	66.64	74.00	-7.36	Peak	305	189	P
3	5700.00	-5.79	81.42	75.63	105.20	-29.57	Peak	305	189	P
4	5720.00	-5.80	94.46	88.66	110.80	-22.14	Peak	305	189	P
5	5725.00	-5.80	101.43	95.63	122.20	-26.57	Peak	305	189	P
6	11490.00	2.06	43.67	45.73	54.00	-8.27	Average	295	334	P
7	11490.00	2.06	57.27	59.33	74.00	-14.67	Peak	295	334	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH149	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

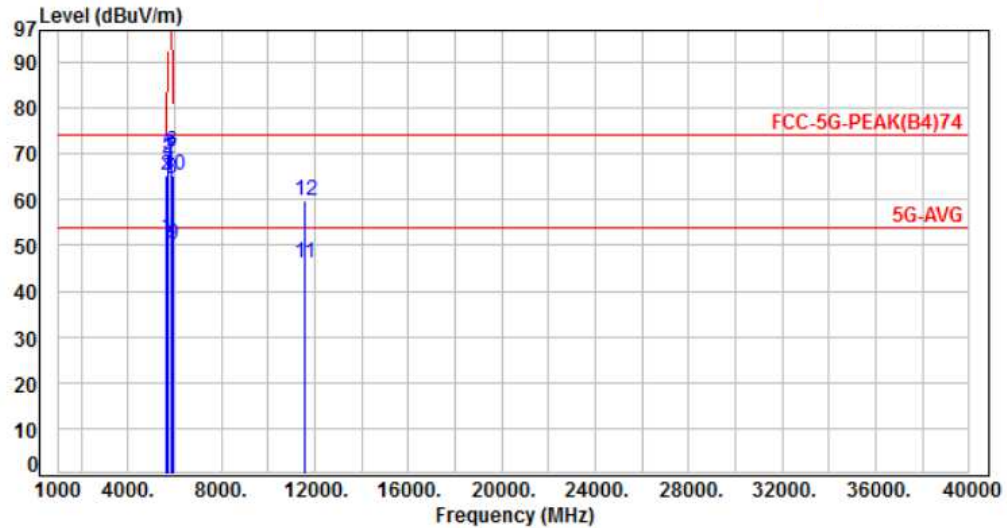


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-5.77	55.73	49.96	54.00	-4.04	Average	119	269	P
2	5650.00	-5.77	68.69	62.92	74.00	-11.08	Peak	119	269	P
3	5700.00	-5.79	71.59	65.80	105.20	-39.40	Peak	119	269	P
4	5720.00	-5.80	90.47	84.67	110.80	-26.13	Peak	119	269	P
5	5725.00	-5.80	94.80	89.00	122.20	-33.20	Peak	119	269	P
6	11490.00	2.06	41.38	43.44	54.00	-10.56	Average	118	202	P
7	11490.00	2.06	55.59	57.65	74.00	-16.35	Peak	118	202	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH157	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

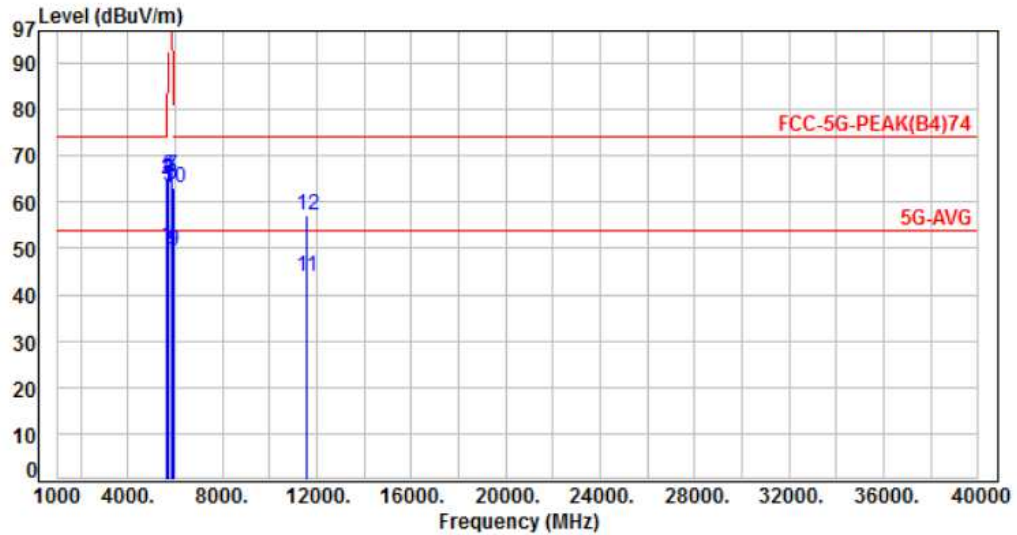


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-5.77	57.52	51.75	54.00	-2.25	Average	295	275	P
2	5650.00	-5.77	70.99	65.22	74.00	-8.78	Peak	295	275	P
3	5700.00	-5.79	72.64	66.85	105.20	-38.35	Peak	295	275	P
4	5720.00	-5.80	73.97	68.17	110.80	-42.63	Peak	295	275	P
5	5725.00	-5.80	75.45	69.65	122.20	-52.55	Peak	295	275	P
6	5850.00	-5.84	76.20	70.36	122.20	-51.84	Peak	295	275	P
7	5855.00	-5.84	74.98	69.14	110.80	-41.66	Peak	295	275	P
8	5875.00	-5.85	70.49	64.64	105.20	-40.56	Peak	295	275	P
9	5925.00	-5.87	55.86	49.99	54.00	-4.01	Average	295	275	P
10	5925.00	-5.87	71.03	65.16	74.00	-8.84	Peak	295	275	P
11	11570.00	2.09	44.12	46.21	54.00	-7.79	Average	278	312	P
12	11570.00	2.09	57.65	59.74	74.00	-14.26	Peak	278	312	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH157	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

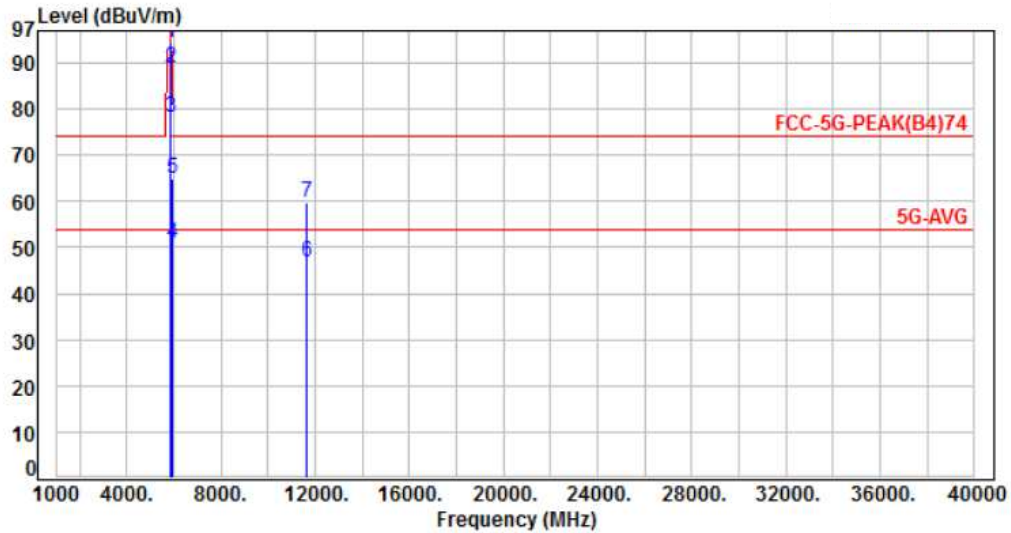


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-5.77	56.41	50.64	54.00	-3.36	Average	106	261	P
2	5650.00	-5.77	70.58	64.81	74.00	-9.19	Peak	106	261	P
3	5700.00	-5.79	69.12	63.33	105.20	-41.87	Peak	106	261	P
4	5720.00	-5.80	71.11	65.31	110.80	-45.49	Peak	106	261	P
5	5725.00	-5.80	71.63	65.83	122.20	-56.37	Peak	106	261	P
6	5850.00	-5.84	69.73	63.89	122.20	-58.31	Peak	106	261	P
7	5855.00	-5.84	71.41	65.57	110.80	-45.23	Peak	106	261	P
8	5875.00	-5.85	69.64	63.79	105.20	-41.41	Peak	106	261	P
9	5925.00	-5.87	55.18	49.31	54.00	-4.69	Average	106	261	P
10	5925.00	-5.87	68.88	63.01	74.00	-10.99	Peak	106	261	P
11	11570.00	2.09	41.63	43.72	54.00	-10.28	Average	121	216	P
12	11570.00	2.09	55.18	57.27	74.00	-16.73	Peak	121	216	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH165	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

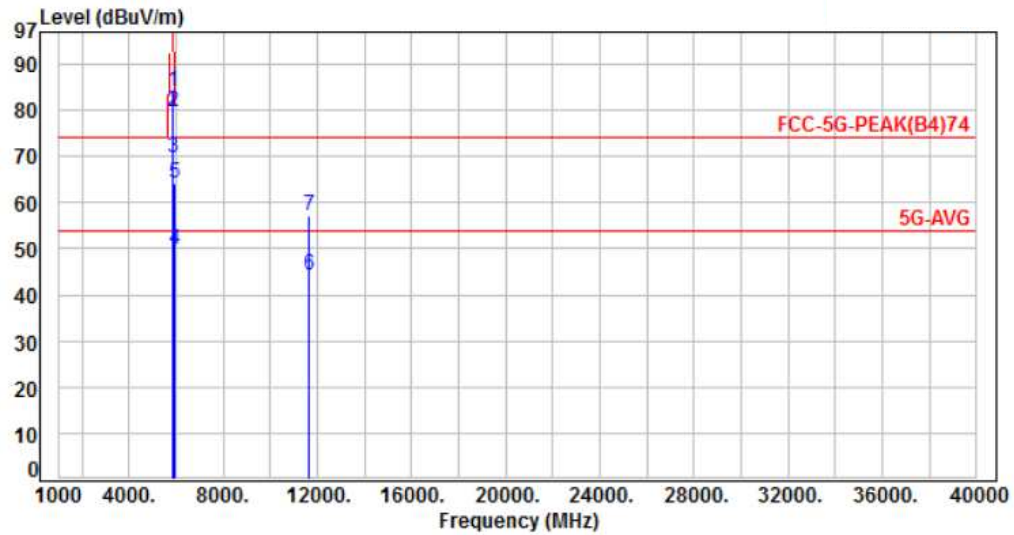


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5850.00	-5.84	100.38	94.54	122.20	-27.66	Peak	295	196	P
2	5855.00	-5.84	94.56	88.72	110.80	-22.08	Peak	295	196	P
3	5875.00	-5.85	84.00	78.15	105.20	-27.05	Peak	295	196	P
4	5925.00	-5.87	56.72	50.85	54.00	-3.15	Average	295	196	P
5	5925.00	-5.87	70.81	64.94	74.00	-9.06	Peak	295	196	P
6	11650.00	2.12	44.61	46.73	54.00	-7.27	Average	318	206	P
7	11650.00	2.12	57.72	59.84	74.00	-14.16	Peak	318	206	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH165	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

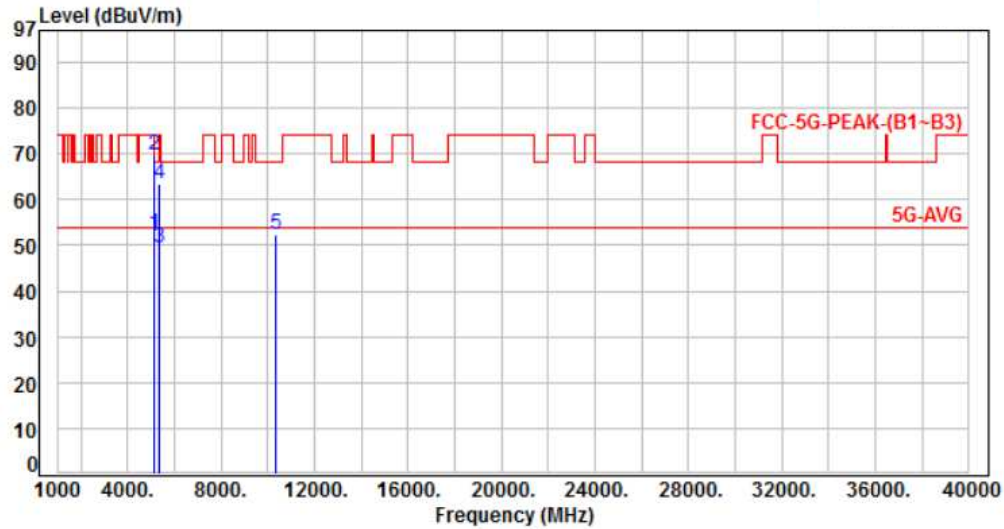


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5850.00	-5.84	90.07	84.23	122.20	-37.97	Peak	100	268	P
2	5855.00	-5.84	85.54	79.70	110.80	-31.10	Peak	100	268	P
3	5875.00	-5.85	75.71	69.86	105.20	-35.34	Peak	100	268	P
4	5925.00	-5.87	55.76	49.89	54.00	-4.11	Average	100	268	P
5	5925.00	-5.87	70.20	64.33	74.00	-9.67	Peak	100	268	P
6	11650.00	2.12	42.13	44.25	54.00	-9.75	Average	124	228	P
7	11650.00	2.12	55.07	57.19	74.00	-16.81	Peak	124	228	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH36	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

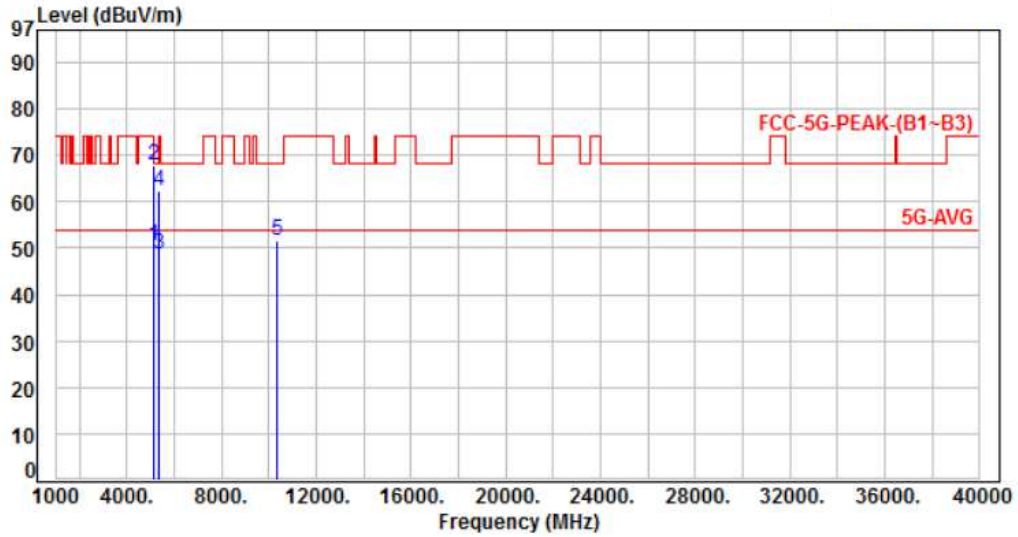


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	58.93	52.39	54.00	-1.61	Average	386	238	P
2	5150.00	-6.54	76.09	69.55	74.00	-4.45	Peak	386	238	P
3	5350.00	-6.06	55.54	49.48	54.00	-4.52	Average	386	238	P
4	5350.00	-6.06	69.35	63.29	74.00	-10.71	Peak	386	238	P
5	10360.00	0.66	51.72	52.38	68.20	-15.82	Peak	123	348	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH36	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

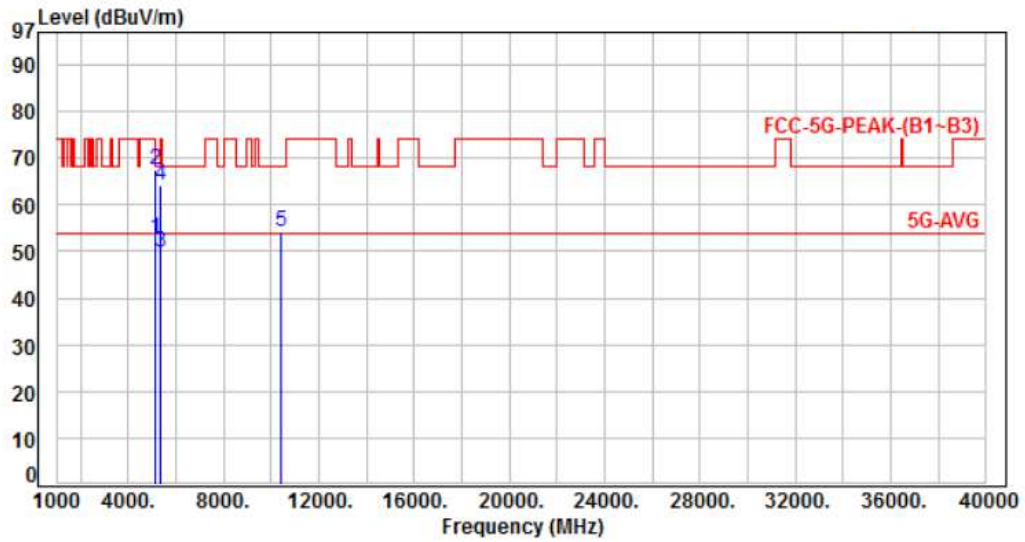


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	57.16	50.62	54.00	-3.38	Average	106	268	P
2	5150.00	-6.54	74.37	67.83	74.00	-6.17	Peak	106	268	P
3	5350.00	-6.06	54.72	48.66	54.00	-5.34	Average	106	268	P
4	5350.00	-6.06	68.45	62.39	74.00	-11.61	Peak	106	268	P
5	10360.00	0.66	50.89	51.55	68.20	-16.65	Peak	135	289	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH44	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

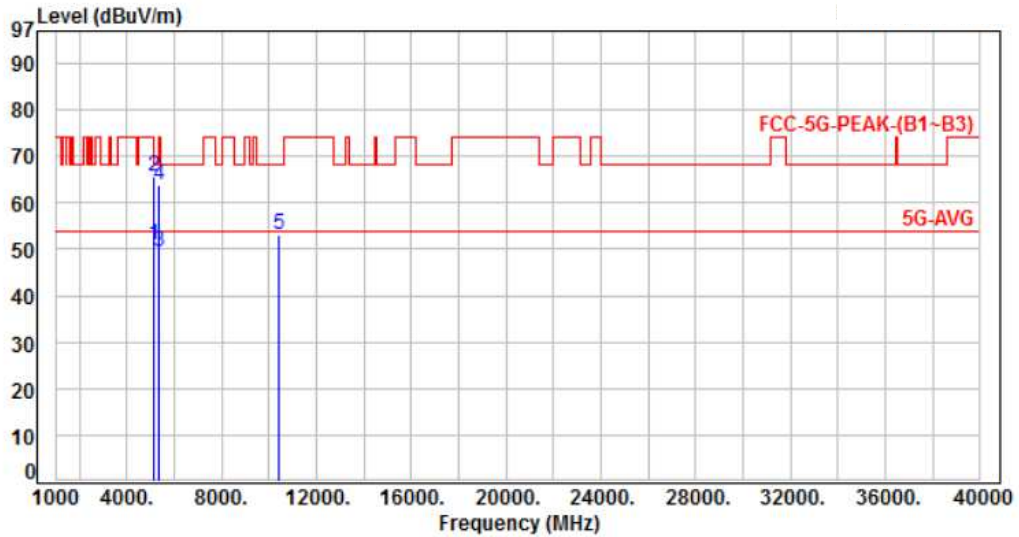


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	59.26	52.72	54.00	-1.28	Average	400	188	P
2	5150.00	-6.54	73.91	67.37	74.00	-6.63	Peak	400	188	P
3	5350.00	-6.06	56.03	49.97	54.00	-4.03	Average	400	188	P
4	5350.00	-6.06	70.41	64.35	74.00	-9.65	Peak	400	188	P
5	10440.00	0.70	53.39	54.09	68.20	-14.11	Peak	123	351	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH44	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

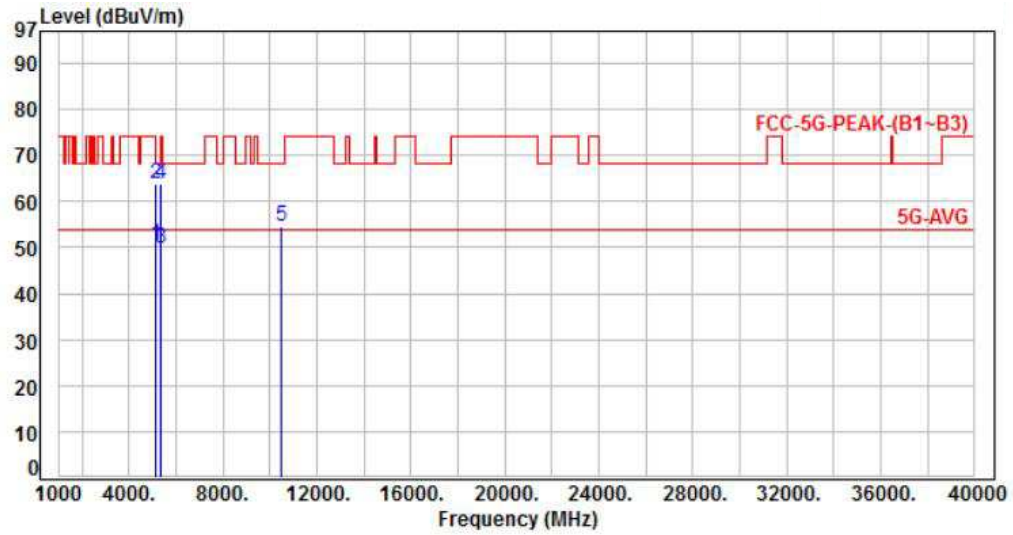


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	57.59	51.05	54.00	-2.95	Average	103	239	P
2	5150.00	-6.54	72.25	65.71	74.00	-8.29	Peak	103	239	P
3	5350.00	-6.06	55.44	49.38	54.00	-4.62	Average	103	239	P
4	5350.00	-6.06	69.78	63.72	74.00	-10.28	Peak	103	239	P
5	10440.00	0.70	52.56	53.26	68.20	-14.94	Peak	135	289	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH48	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

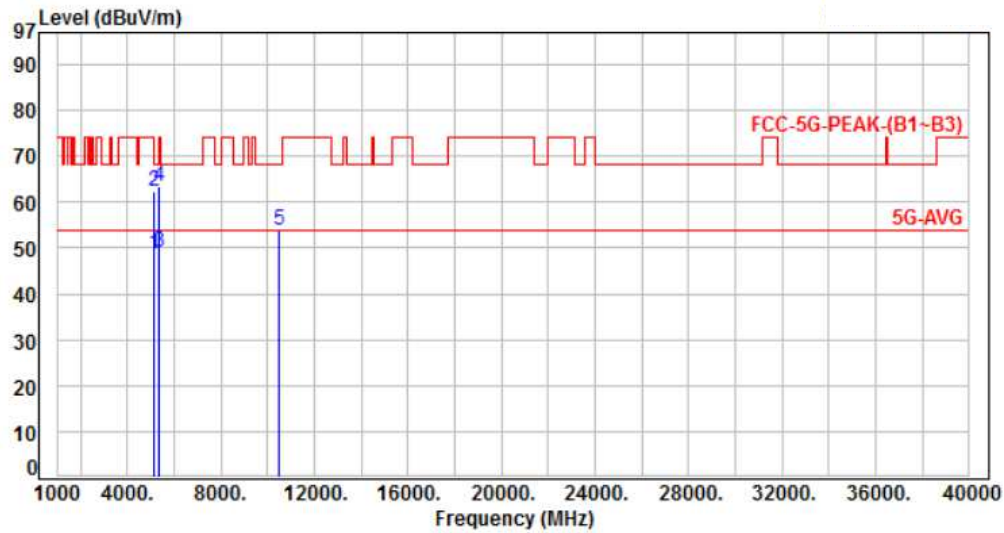


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	56.96	50.42	54.00	-3.58	Average	400	188	P
2	5150.00	-6.54	70.51	63.97	74.00	-10.03	Peak	400	188	P
3	5350.00	-6.06	55.82	49.76	54.00	-4.24	Average	400	188	P
4	5350.00	-6.06	70.00	63.94	74.00	-10.06	Peak	400	188	P
5	10480.00	0.73	53.98	54.71	68.20	-13.49	Peak	131	351	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH48	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

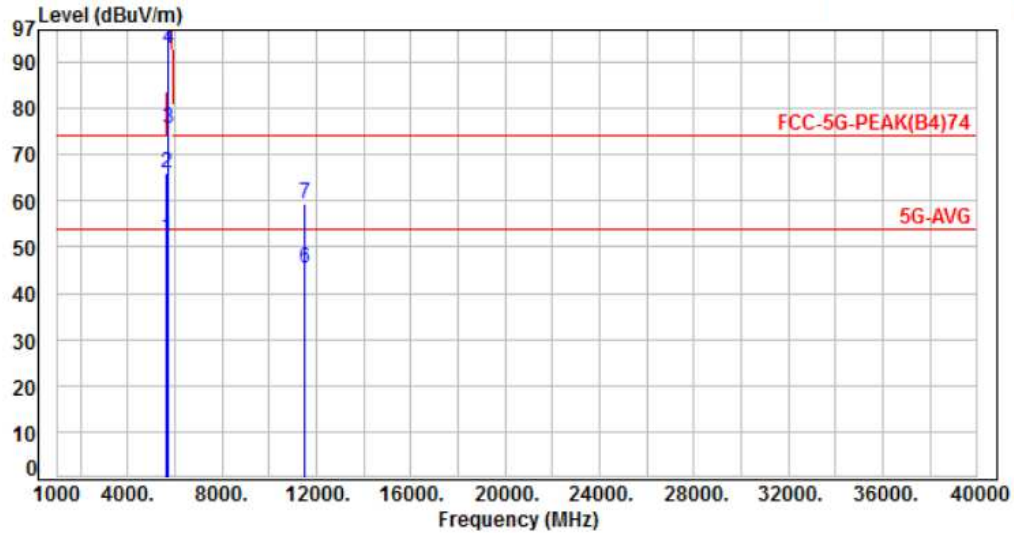


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	55.25	48.71	54.00	-5.29	Average	102	214	P
2	5150.00	-6.54	68.79	62.25	74.00	-11.75	Peak	102	214	P
3	5350.00	-6.06	55.13	49.07	54.00	-4.93	Average	102	214	P
4	5350.00	-6.06	69.34	63.28	74.00	-10.72	Peak	102	214	P
5	10480.00	0.73	53.29	54.02	68.20	-14.18	Peak	136	277	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH149	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

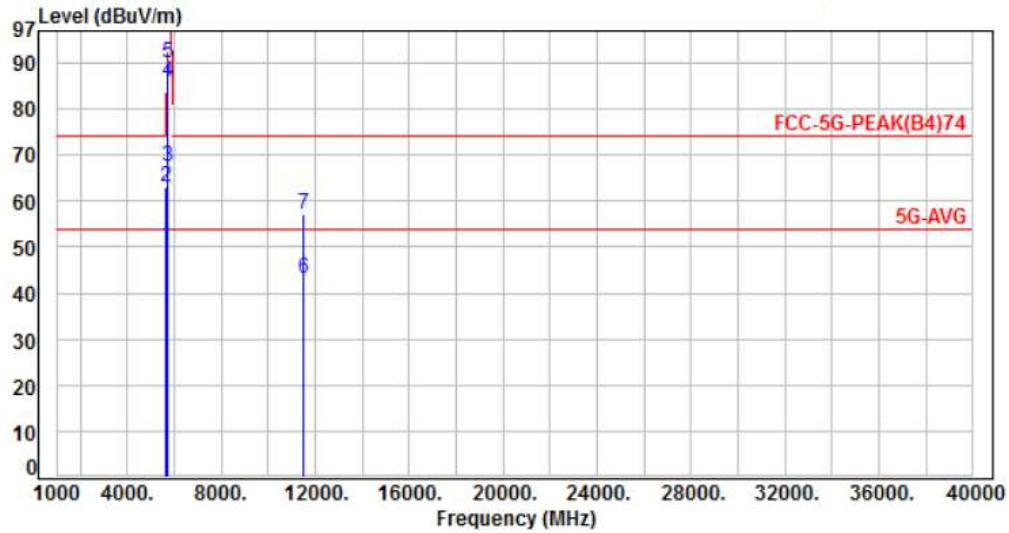


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-5.77	57.72	51.95	54.00	-2.05	Average	331	205	P
2	5650.00	-5.77	71.92	66.15	74.00	-7.85	Peak	331	205	P
3	5700.00	-5.79	81.32	75.53	105.20	-29.67	Peak	331	205	P
4	5720.00	-5.80	98.86	93.06	110.80	-17.74	Peak	331	205	P
5	5725.00	-5.80	108.24	102.44	122.20	-19.76	Peak	331	205	P
6	11490.00	2.06	43.29	45.35	54.00	-8.65	Average	289	311	P
7	11490.00	2.06	57.25	59.31	74.00	-14.69	Peak	289	311	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH149	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

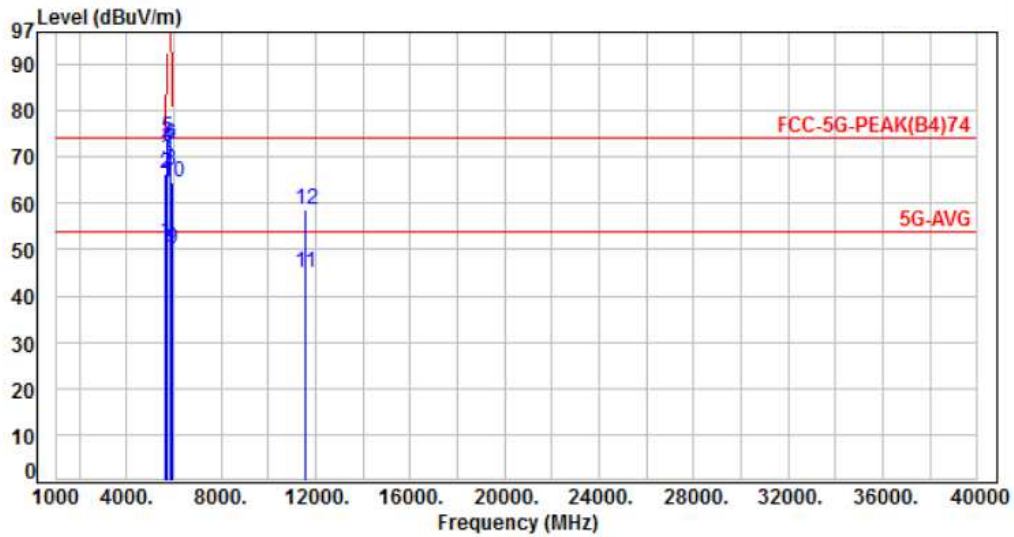


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-5.77	55.92	50.15	54.00	-3.85	Average	121	275	P
2	5650.00	-5.77	68.81	63.04	74.00	-10.96	Peak	121	275	P
3	5700.00	-5.79	73.45	67.66	105.20	-37.54	Peak	121	275	P
4	5720.00	-5.80	91.88	86.08	110.80	-24.72	Peak	121	275	P
5	5725.00	-5.80	95.77	89.97	122.20	-32.23	Peak	121	275	P
6	11490.00	2.06	41.02	43.08	54.00	-10.92	Average	134	205	P
7	11490.00	2.06	55.13	57.19	74.00	-16.81	Peak	134	205	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH157	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

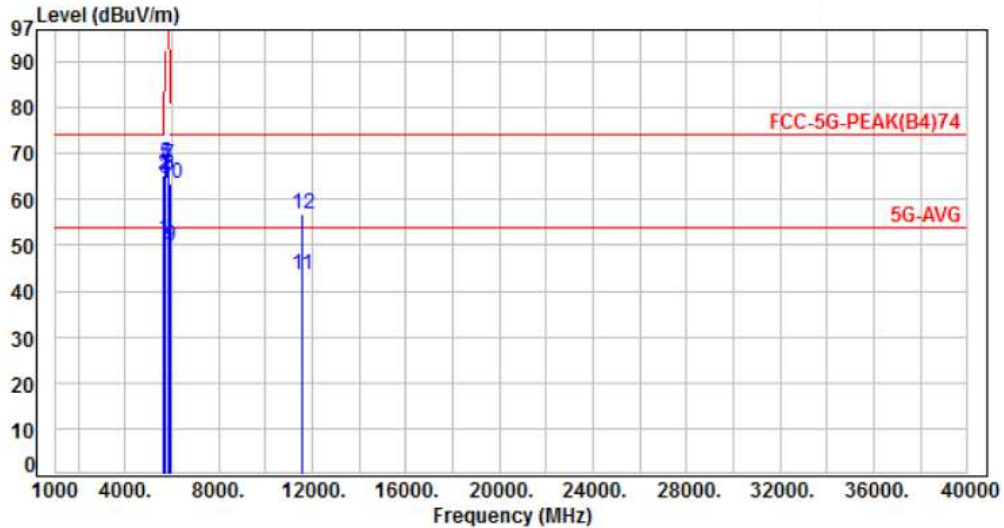


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-5.77	57.57	51.80	54.00	-2.20	Average	329	219	P
2	5650.00	-5.77	71.99	66.22	74.00	-7.78	Peak	329	219	P
3	5700.00	-5.79	74.96	69.17	105.20	-36.03	Peak	329	219	P
4	5720.00	-5.80	78.05	72.25	110.80	-38.55	Peak	329	219	P
5	5725.00	-5.80	79.80	74.00	122.20	-48.20	Peak	329	219	P
6	5850.00	-5.84	78.42	72.58	122.20	-49.62	Peak	329	219	P
7	5855.00	-5.84	77.44	71.60	110.80	-39.20	Peak	329	219	P
8	5875.00	-5.85	73.11	67.26	105.20	-37.94	Peak	329	219	P
9	5925.00	-5.87	56.16	50.29	54.00	-3.71	Average	329	219	P
10	5925.00	-5.87	70.24	64.37	74.00	-9.63	Peak	329	219	P
11	11570.00	2.09	42.89	44.98	54.00	-9.02	Average	273	338	P
12	11570.00	2.09	56.55	58.64	74.00	-15.36	Peak	273	338	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH157	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

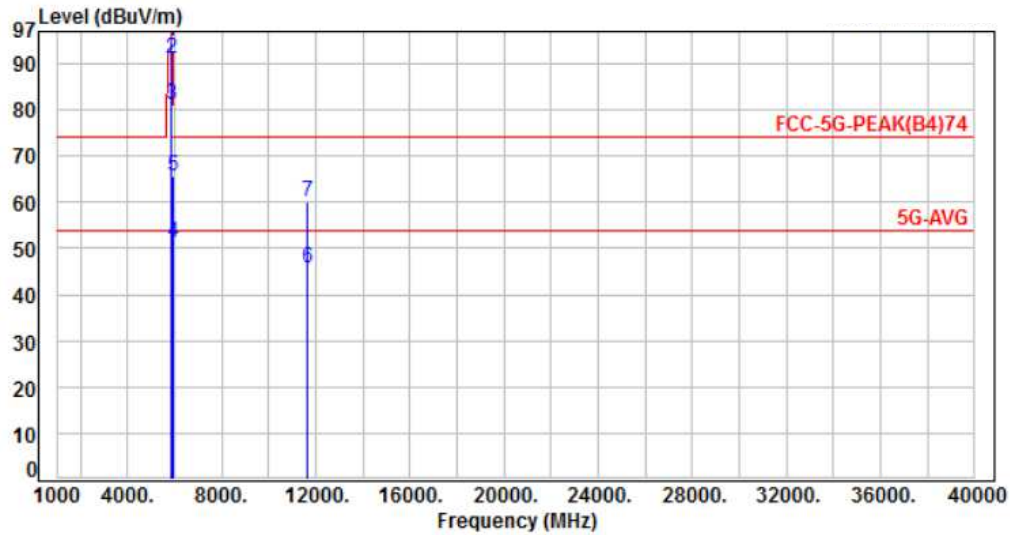


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-5.77	56.89	51.12	54.00	-2.88	Average	108	254	P
2	5650.00	-5.77	70.89	65.12	74.00	-8.88	Peak	108	254	P
3	5700.00	-5.79	70.35	64.56	105.20	-40.64	Peak	108	254	P
4	5720.00	-5.80	73.06	67.26	110.80	-43.54	Peak	108	254	P
5	5725.00	-5.80	73.63	67.83	122.20	-54.37	Peak	108	254	P
6	5850.00	-5.84	71.15	65.31	122.20	-56.89	Peak	108	254	P
7	5855.00	-5.84	73.31	67.47	110.80	-43.33	Peak	108	254	P
8	5875.00	-5.85	71.15	65.30	105.20	-39.90	Peak	108	254	P
9	5925.00	-5.87	55.65	49.78	54.00	-4.22	Average	108	254	P
10	5925.00	-5.87	69.37	63.50	74.00	-10.50	Peak	108	254	P
11	11570.00	2.09	41.25	43.34	54.00	-10.66	Average	137	224	P
12	11570.00	2.09	54.61	56.70	74.00	-17.30	Peak	137	224	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH165	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

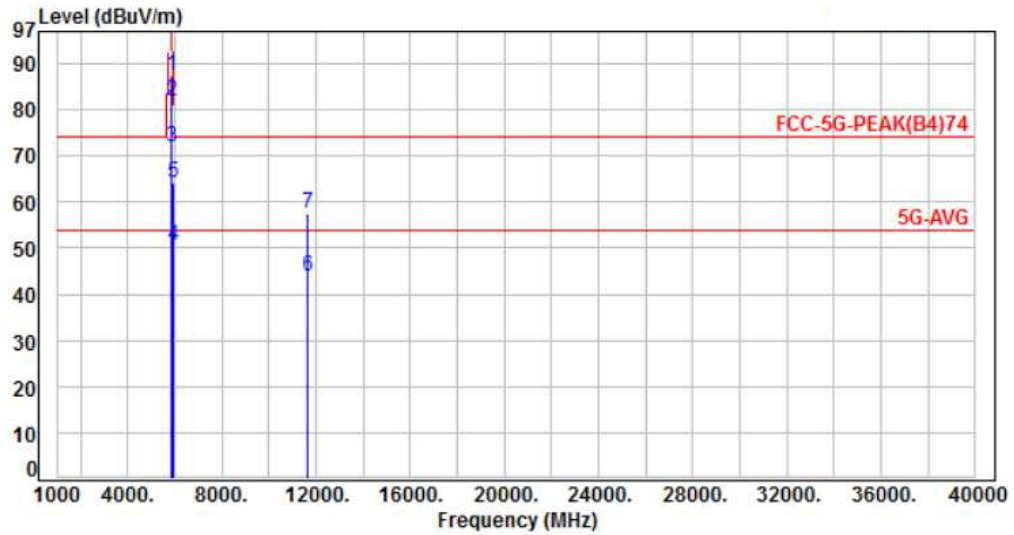


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5850.00	-5.84	100.71	94.87	122.20	-27.33	Peak	310	221	P
2	5855.00	-5.84	96.79	90.95	110.80	-19.85	Peak	310	221	P
3	5875.00	-5.85	86.88	81.03	105.20	-24.17	Peak	310	221	P
4	5925.00	-5.87	57.08	51.21	54.00	-2.79	Average	310	221	P
5	5925.00	-5.87	71.47	65.60	74.00	-8.40	Peak	310	221	P
6	11650.00	2.12	43.69	45.81	54.00	-8.19	Average	255	312	P
7	11650.00	2.12	58.13	60.25	74.00	-13.75	Peak	255	312	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH165	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

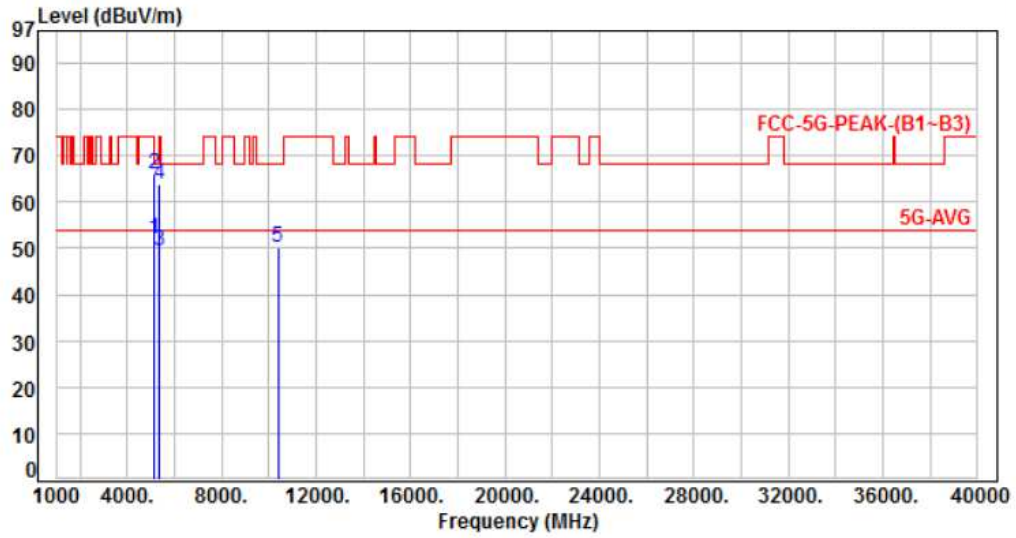


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5850.00	-5.84	93.37	87.53	122.20	-34.67	Peak	103	272	P
2	5855.00	-5.84	87.59	81.75	110.80	-29.05	Peak	103	272	P
3	5875.00	-5.85	77.69	71.84	105.20	-33.36	Peak	103	272	P
4	5925.00	-5.87	56.31	50.44	54.00	-3.56	Average	103	272	P
5	5925.00	-5.87	70.05	64.18	74.00	-9.82	Peak	103	272	P
6	11650.00	2.12	41.87	43.99	54.00	-10.01	Average	116	234	P
7	11650.00	2.12	55.31	57.43	74.00	-16.57	Peak	116	234	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, CH38	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

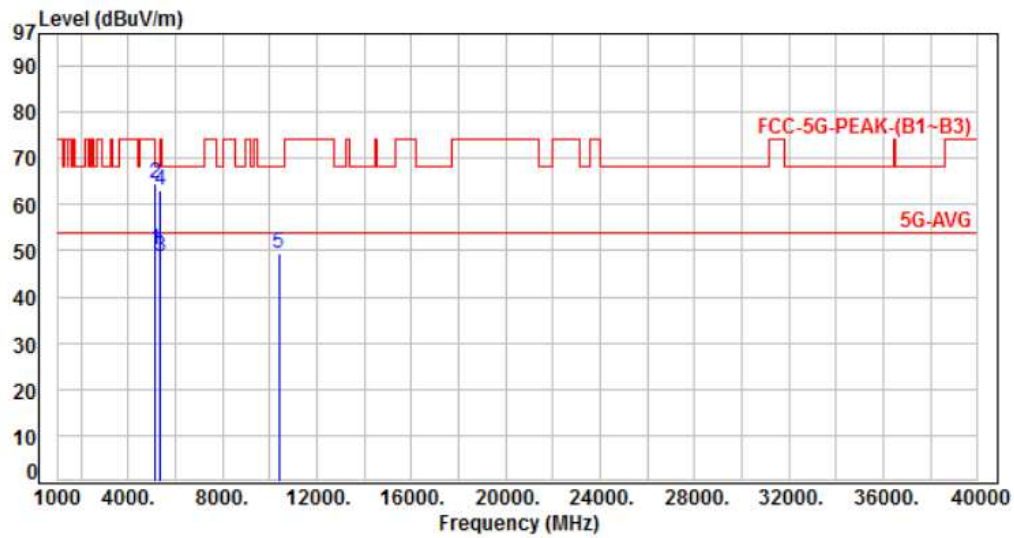


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	58.57	52.03	54.00	-1.97	Average	400	211	P
2	5150.00	-6.54	72.66	66.12	74.00	-7.88	Peak	400	211	P
3	5350.00	-6.06	55.43	49.37	54.00	-4.63	Average	400	211	P
4	5350.00	-6.06	69.72	63.66	74.00	-10.34	Peak	400	211	P
5	10380.00	0.68	49.30	49.98	68.20	-18.22	Peak	135	358	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 5, CH38	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

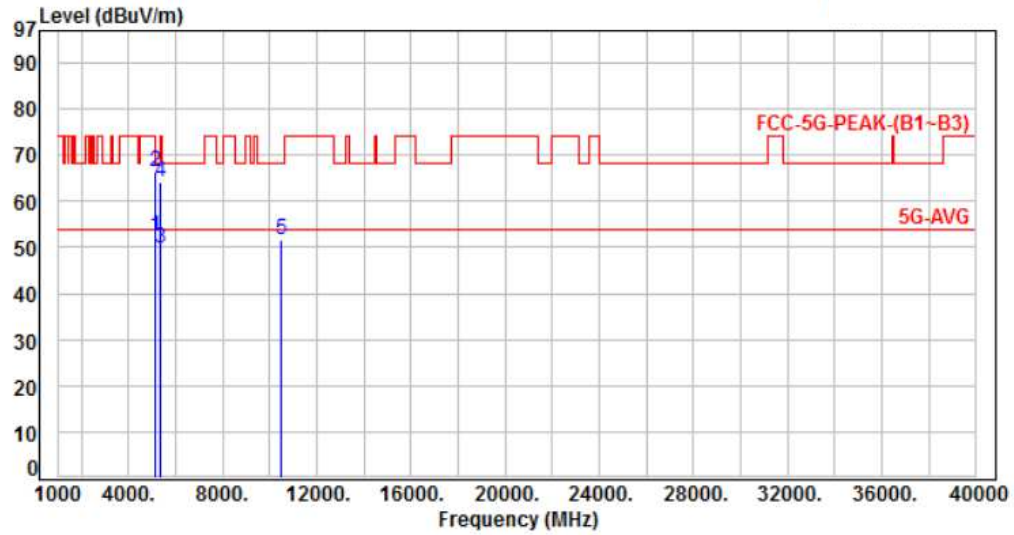


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	56.84	50.30	54.00	-3.70	Average	100	226	P
2	5150.00	-6.54	70.92	64.38	74.00	-9.62	Peak	100	226	P
3	5350.00	-6.06	54.85	48.79	54.00	-5.21	Average	100	226	P
4	5350.00	-6.06	69.03	62.97	74.00	-11.03	Peak	100	226	P
5	10380.00	0.68	48.72	49.40	68.20	-18.80	Peak	134	298	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, CH46	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

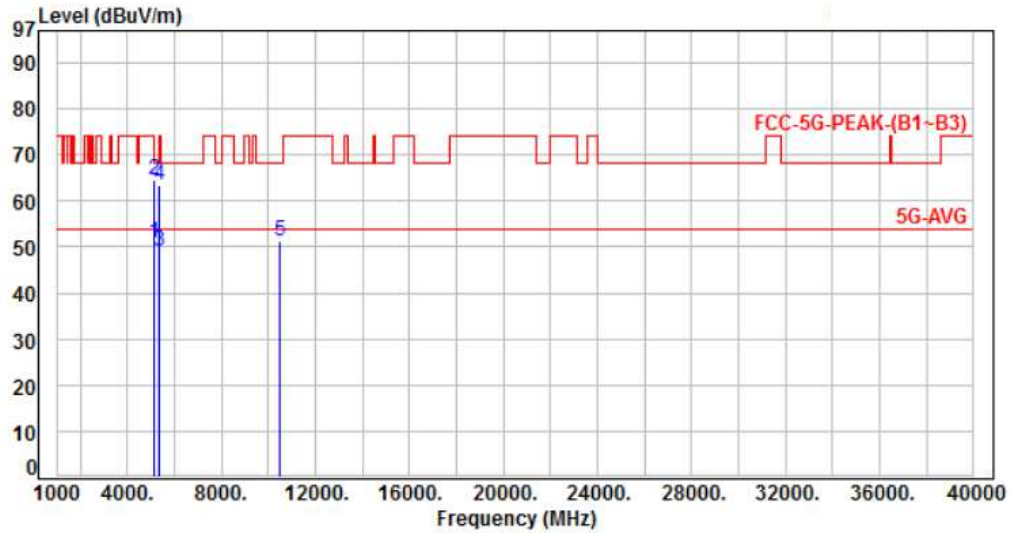


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	58.92	52.38	54.00	-1.62	Average	400	212	P
2	5150.00	-6.54	72.74	66.20	74.00	-7.80	Peak	400	212	P
3	5350.00	-6.06	55.87	49.81	54.00	-4.19	Average	400	212	P
4	5350.00	-6.06	70.36	64.30	74.00	-9.70	Peak	400	212	P
5	10460.00	0.72	51.03	51.75	68.20	-16.45	Peak	135	350	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 5, CH46	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

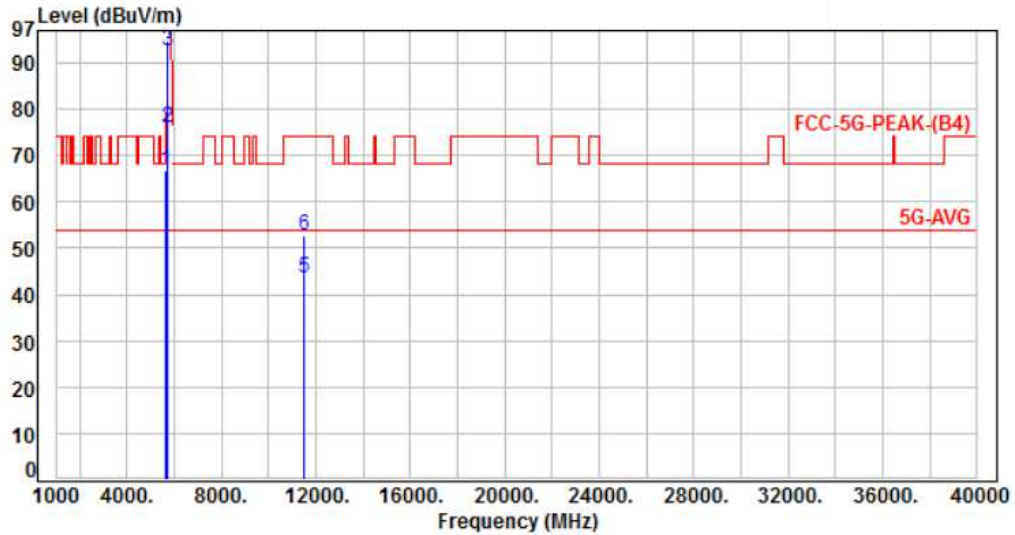


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	-6.54	57.29	50.75	54.00	-3.25	Average	101	233	P
2	5150.00	-6.54	71.15	64.61	74.00	-9.39	Peak	101	233	P
3	5350.00	-6.06	55.23	49.17	54.00	-4.83	Average	101	233	P
4	5350.00	-6.06	69.62	63.56	74.00	-10.44	Peak	101	233	P
5	10460.00	0.72	50.48	51.20	68.20	-17.00	Peak	141	302	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, CH151	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

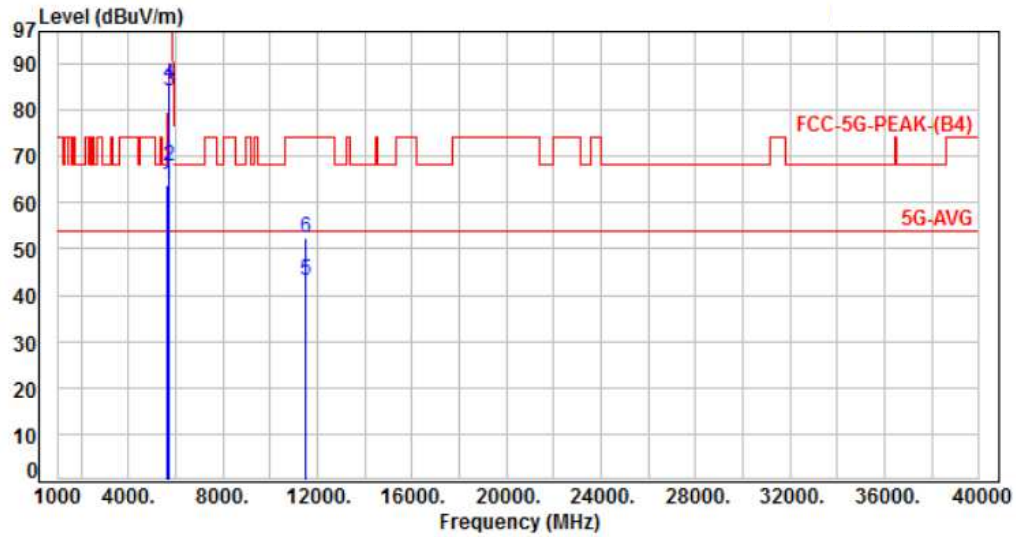


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-5.77	72.37	66.60	68.20	-1.60	Peak	327	203	P
2	5700.00	-5.79	81.74	75.95	105.20	-29.25	Peak	327	203	P
3	5720.00	-5.80	98.47	92.67	110.80	-18.13	Peak	327	203	P
4	5725.00	-5.80	100.65	94.85	122.20	-27.35	Peak	327	203	P
5	11510.00	2.07	41.35	43.42	54.00	-10.58	Average	153	350	P
6	11510.00	2.07	50.55	52.62	74.00	-21.38	Peak	153	350	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 5, CH151	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%

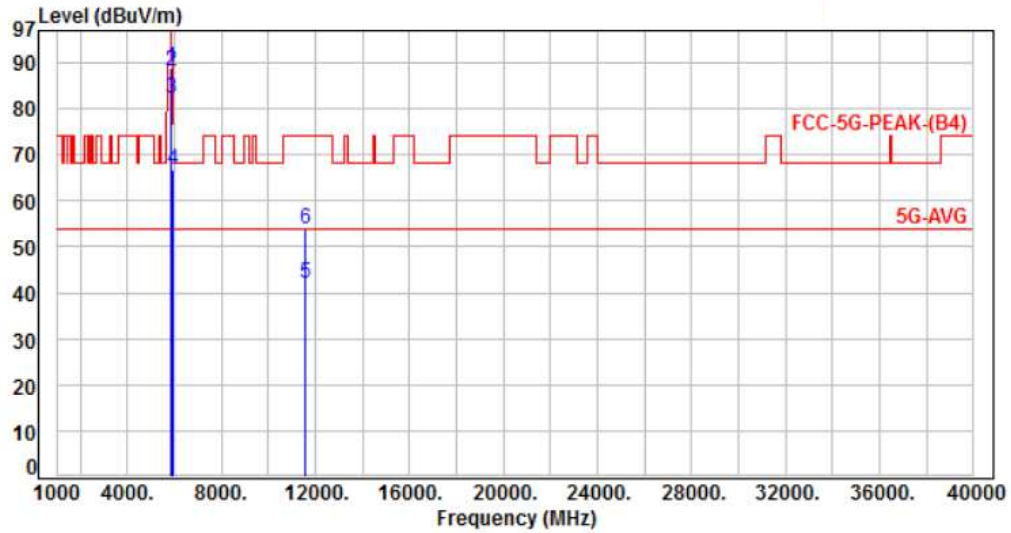


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	-5.77	69.63	63.86	68.20	-4.34	Peak	129	272	P
2	5700.00	-5.79	73.62	67.83	105.20	-37.37	Peak	129	272	P
3	5720.00	-5.80	90.06	84.26	110.80	-26.54	Peak	129	272	P
4	5725.00	-5.80	91.51	85.71	122.20	-36.49	Peak	129	272	P
5	11510.00	2.07	40.96	43.03	54.00	-10.97	Average	225	292	P
6	11510.00	2.07	50.18	52.25	74.00	-21.75	Peak	225	292	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, CH159	Temperature	: 25°C
Test Date	: Mar. 20, 2017	Humidity	: 63%



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5850.00	-5.84	94.64	88.80	122.20	-33.40	Peak	294	325	P
2	5855.00	-5.84	93.91	88.07	110.80	-22.73	Peak	294	325	P
3	5875.00	-5.85	88.18	82.33	105.20	-22.87	Peak	294	325	P
4	5925.00	-5.87	72.51	66.64	68.20	-1.56	Peak	294	325	P
5	11590.00	2.10	40.09	42.19	54.00	-11.81	Average	294	325	P
6	11590.00	2.10	51.67	53.77	74.00	-20.23	Peak	294	325	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor