



FCC TEST REPORT

according to

FCC Part 15, Subpart C (15.249) / ANSI C63.4: 2003

Applicant	: Beauty Up Co., Ltd.
Address	: 6F, No. 3, Jeng E Road, Chung-Ho City, Taipei Hsien, 235 Taiwan, R.O.C.
Equipment	: Dongle
Model No.	: ITR-9124
FCC ID	: RRYITR9124
Trade Name	: BEUP

Laboratory Accreditation



- 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.



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CERTIFICATE OF COMPLIANCE

according to

FCC Part 15, Subpart C (15.249) / ANSI C63.4: 2003

Applicant	: Beauty Up Co., Ltd.
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Equipment	: Dongle
Model No.	: ITR-9124
FCC ID	: RRYITR9124

I HEREBY CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4**. The equipment was ***passed*** the test performed according to **FCC Part 15, Subpart C (15.249) / ANSI C63.4: 2003**.

The test was carried out on Oct. 20, 2009 at ***CerpPASS Technology Corp.***

Signature

Jonson Lee
EMC/RF B.U. Senior Manager



1. Report of Measurements and Examinations

1.1. List of Measurements and Examinations

FCC Rule	Test Type	Result	Remark
15.207	Conducted Emission	Pass	6Vdc from batteries
15.209 15.249	Radiated Emission	Pass	Minimum Passing margin is -9.08 at 936.30 MHz

Note: the information of measurement uncertainty is available upon the customer's request.



2. Test Configuration of Equipment under Test

2.1. Feature of Equipment under Test

Transmission Technology	RF2.4GHz
Distance	10m
Data Transmission Rate	12Mbps
Interface	USB A
Signal	1. Power, 2. Signal transmitting
Power Supply	USB
Power Consumption	39.7mA
Humidity	-20℃ ~ 50℃
Dimensions	80 x 25 x 13mm
Weight	15g
RF Sepc.	
Frequency Band:	2402 ~ 2471MHz
Number of Channels	1 ~ 15 (15 Channels)
Carrier Frequency of each channel	CH01: 2402, CH02: 2410, CH03: 2411, CH04: 2420, CH05: 2421, CH06: 2430, CH07: 2431, CH08: 2440, CH09: 2441, CH10: 2450, CH11: 2451, CH12: 2460, CH13: 2461, CH14: 2470, CH15: 2471
Data Rates:	500kbps
Modulation Type:	FSK

2.2. Carrier Frequency of Channels

Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	2402	09	2441
02	2410	10	2450
03	2411	11	2451
04	2420	12	2460
05	2421	13	2461
06	2430	14	2470
07	2431	15	2471
08	2440		

2.3. Test Mode and Test Software

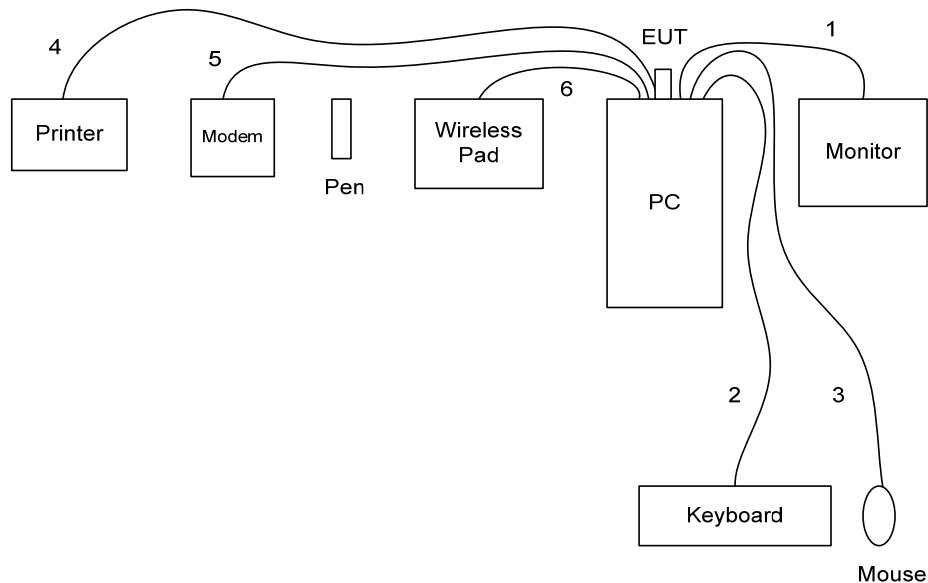
- During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
- The complete test system included PC, Monitor, Mouse, Keyboard, Modem, Printer, Wireless Pad and EUT for EMI test.
- An executive program, "Paint" under WIN XP, which display the message sent from EUT via wireless to PC.
- The EUT keeps to transmit and receive data by wireless.



2.4. Description of Test System

Device	Manufacturer	Model No.	Description
PC	IBM	IGV	Power Cable, Unshielding 1.8 m
Monitor	SlimAGE	510A	Data Cable, VGA Shielding 1.35 m Power Cable, Adapter Unshielding 1.8 m
Keyboard	IBM	KB-0225	Data Cable, PS2 Shielding 1.35 m
Mouse	IBM	MU29J	Data Cable, PS2 Shielding 1.85 m
Modem	ACEXX	DM-1414	Data Cable, RS232 Unshielding 1.35 m Power Cable, Adapter Unshielding 1.8 m
Printer	HP	Desk Jet 400	Data Cable, PRINT Unshielding 1.6 m Power Cable, Adapter Unshielding 1.8 m
Wireless Pad	BEUP	ITT-9575	Data Cable, USB Unshielding, 1.35m Power Cable, Adapter Unshielding 1.8 m

2.5. Connection Diagram of Test System



1. The VGA cable is connected from PC to the Monitor.
 2. The PS/2 cable is connected from PC to the Keyboard.
 3. The PS/2 cable is connected from PC to the Mouse.
 4. The Print cable is connected from PC to the Printer.
 5. The RS232 cable is connected from PC to the Modem.
 6. The USB cable is connected from PC to the Wireless Pad.
- * The EUT keeps to transmit and receive data by Wireless.



☐ Additional attachment as following record:

[illegible]



3. General Information of Test

Test Site :	Cerpass Technology Corp. 2F-11, No. 3, Yuan Qu St., (Nankang Software Park), Taipei, Taiwan 115, R.O.C.
Test Site Location (OATS1-SD):	No. 7-2, Moshihkeng, Fongtian Village, Shihding Township, Taipei County, Taiwan, R.O.C.
FCC Registration Number :	TW1049, TW1056, 982971, 488071
IC Registration Number :	4934C-1, 4934D-1
Test Voltage:	AC 120V/60Hz, DC 5V
Test in Compliance with:	FCC Part 15, Subpart C (15.231) / ANSI C63.4: 2001
Frequency Range Investigated:	Conducted Emission Test: from 150kHz to 30 MHz Radiated Emission Test: from 30 MHz to 25000 MHz
Modulation Type:	FSK
Test Distance:	The test distance of radiated emission above 1GHz from antenna to EUT is 3 M.



4. Test of Conducted Emission

4.1. Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. 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

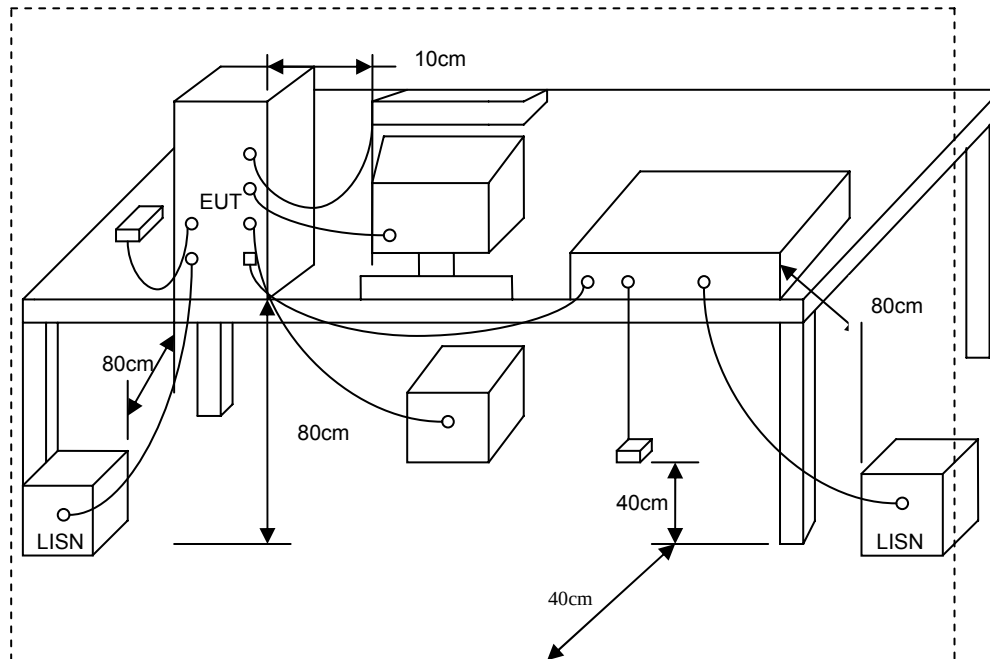
*Decreases with the logarithm of the frequency.

4.2. 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.



4.3. Typical Test Setup



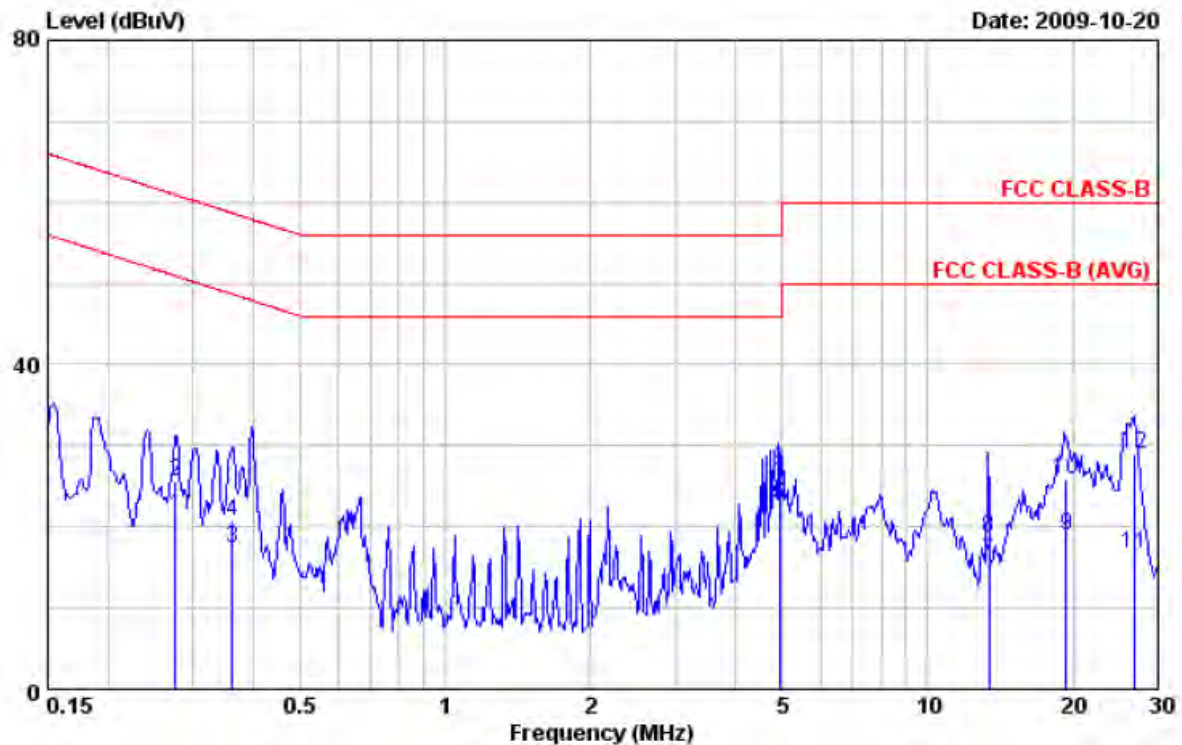
4.4. Measurement Equipment

Instrument/ Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date.
EMI Receiver	R&S	ESCI	100443	2008/12/19	2009/12/18
LISN	NSLK 8127	Schwarzbeck	8127-516	2009/05/15	2010/05/14
LISN	ROLF HEINE	NNB-2/16Z	03/10058	2009/04/18	2010/04/17



4.5. Test Result and Data

Power	: AC 120V	Pol/Phase	: LINE
Test Mode	: Link Wireless	Temperature	: 25 °C
Memo	:	Humidity	: 65 %



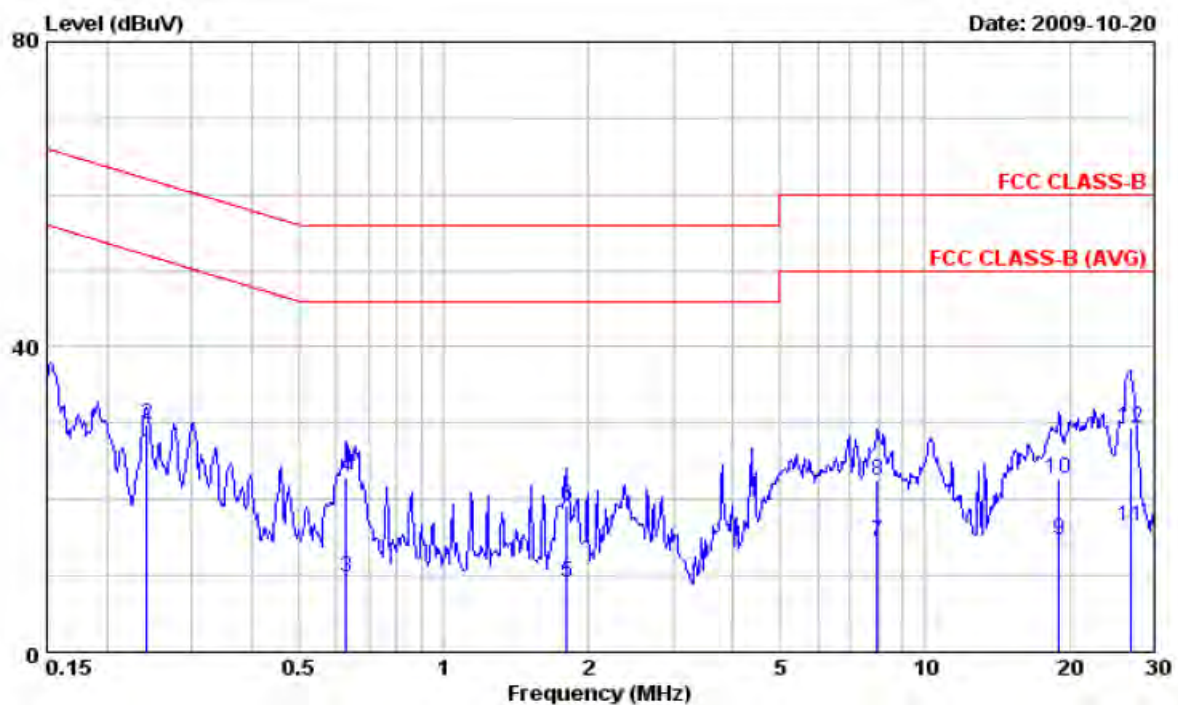
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.28	21.21	0.11	21.32	50.94	-29.62	Average
2	0.28	25.46	0.11	25.57	60.94	-35.37	QP
3	0.36	17.26	0.11	17.37	48.67	-31.30	Average
4	0.36	20.56	0.11	20.67	58.67	-38.00	QP
5	4.94	23.42	0.34	22.76	46.00	-23.24	Average
6	4.94	26.69	0.34	27.03	56.00	-28.97	QP
7	13.39	15.32	0.43	15.75	50.00	-34.25	Average
8	13.39	18.27	0.43	18.70	60.00	-41.30	QP
9	19.40	18.45	0.45	18.90	50.00	-31.10	Average
10	19.40	25.48	0.45	25.93	60.00	-34.07	QP
11	26.70	16.21	0.46	16.67	50.00	-33.33	Average
12	26.70	28.54	0.46	29.00	60.00	-31.00	QP

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. According to technical experiences, all spurious emission of FSK mode at channel 1, 6, 11 are almost the same below 1GHz, so that the channel 1 was chosen as representative in final test.
4. The data is worse case.



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode	: Link Wireless	Temperature	: 25 °C
Memo	:	Humidity	: 65 %



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.24	25.99	0.13	26.12	52.04	-25.92	Average
2	0.24	29.69	0.13	29.82	62.04	-32.22	QP
3	0.63	9.56	0.16	9.72	46.00	-36.28	Average
4	0.63	22.83	0.16	22.99	56.00	-33.01	QP
5	1.81	9.02	0.22	9.24	46.00	-36.76	Average
6	1.81	18.97	0.22	19.19	56.00	-36.81	QP
7	7.98	14.11	0.39	14.50	50.00	-35.50	Average
8	7.98	22.11	0.39	22.50	60.00	-37.50	QP
9	19.02	14.11	0.60	14.71	50.00	-35.29	Average
10	19.02	22.19	0.60	22.79	60.00	-37.21	QP
11	26.79	15.81	0.63	16.44	50.00	-33.56	Average
12	26.79	28.79	0.63	29.42	60.00	-30.58	QP

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. According to technical experiences, all spurious emission of FSK mode at channel 1, 6, 11 are almost the same below 1GHz, so that the channel 1 was chosen as representative in final test.
4. The data is worse case.

Test engineer: Ben



5. Test of Radiated Emission

5.1. Test Limit

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

Frequency (MHz)	Distance	Limit ($\mu\text{V}/\text{m}$)
0.09 ~ 0.490	300m	2400/F(kHz)
0.490 ~ 1.705	30m	24000/ F(kHz)
1.705 ~ 30	30m	30
30 ~ 88	3m	100
88 ~ 216	3m	150
216 ~ 960	3m	200
Above 960	3m	500

Fundamental Frequency:

Fundamental Frequency (MHz)	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
2400-2483.5	50	500
5725-5875	50	500
24000-24250	250	2500

5.2. Test Procedures

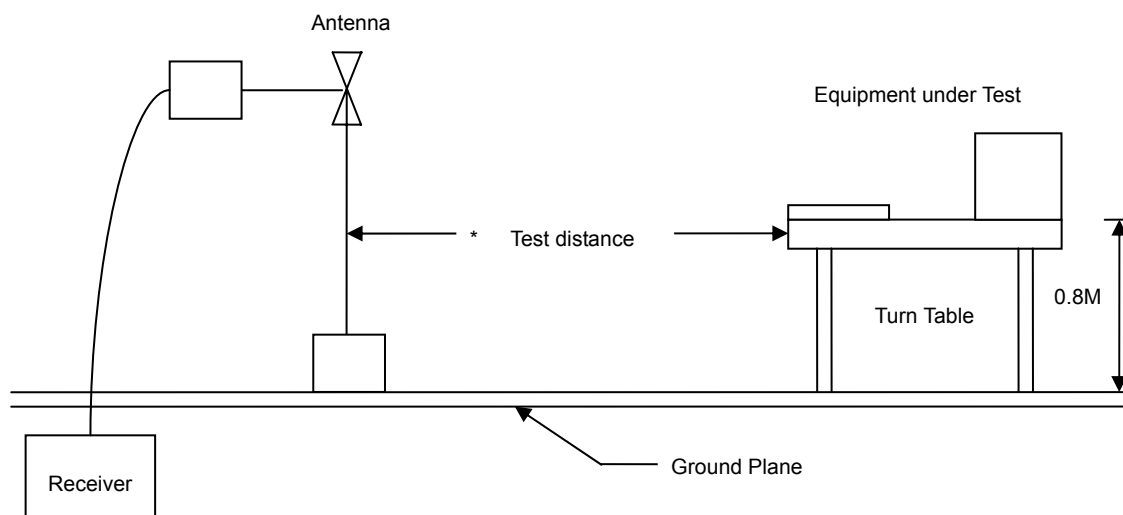
- The EUT was placed on a rotatable table top 0.8 meter above ground.
- The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- The table was rotated 360 degrees to determine the position of the highest radiation.
- The antenna 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.
- 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.
- Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- 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.
- 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.
- "Cone of radiation" has been considered to be 3dB beamwidth of the measurement antenna.

NOTE:

- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.



5.3. Typical Test Setup Layout of Radiated Emission



5.4. Measurement equipment

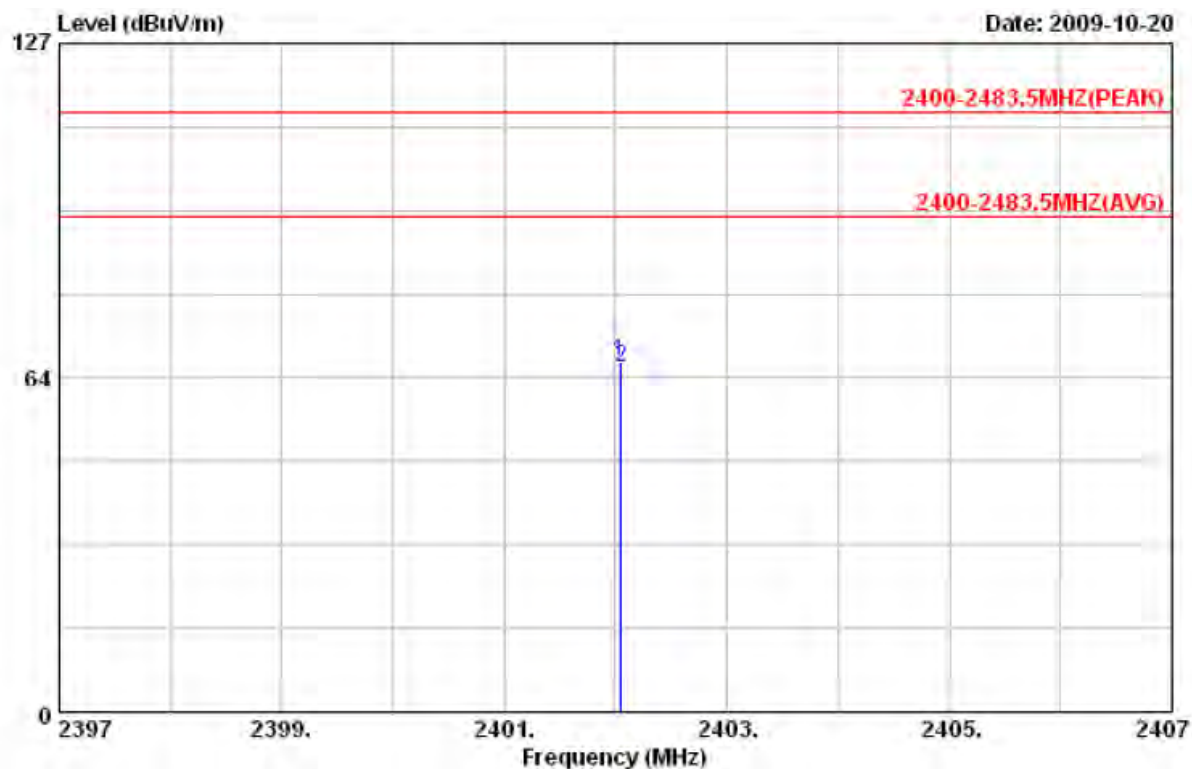
Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Bilog Antenna	Schaffner	CBL6112B	2840	2009/05/14	2010/05/13
Signal Generator	HP	8648B	3629U00612	2008/10/08	2009/10/07
Amplifier	Agilent	8447D	2944A10593	2009/05/21	2010/05/20
EMI Receiver	HP	8546A	3807A00454	2008/08/07	2009/08/06
RF Filter Section	HP	85460A	3704A00386	2008/08/07	2009/08/06
AC Power Converter	APC	AFC-11005	F103120008	N/A	N/A



5.5. Test Result and Data

5.5.1. Test Result of Fundamental Emission

Power	: DC 5V	Pol/Phase	: VERTICAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 1	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



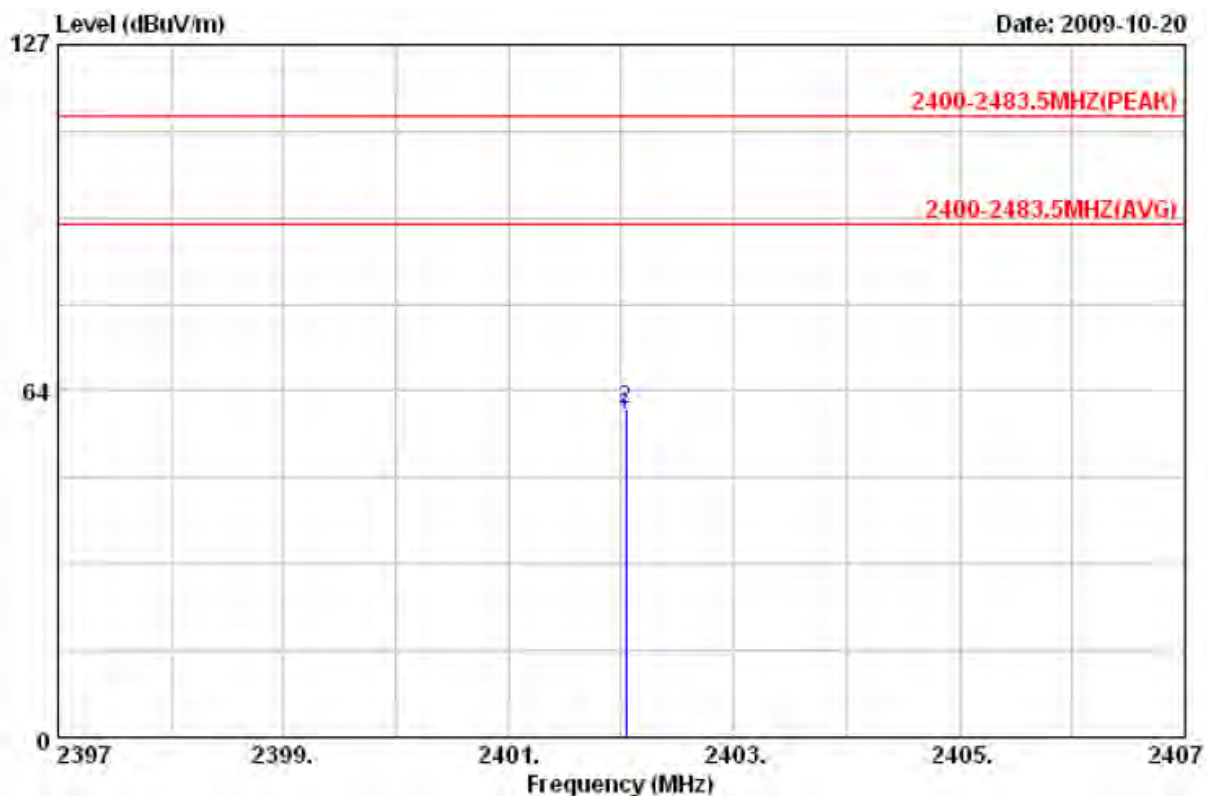
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	2402.04	71.21	-4.86	66.35	114.00	-47.65	Peak	105	360
2	2402.05	70.23	-4.86	65.37	94.00	-28.63	Average	105	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



Power	: DC 5V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 1	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



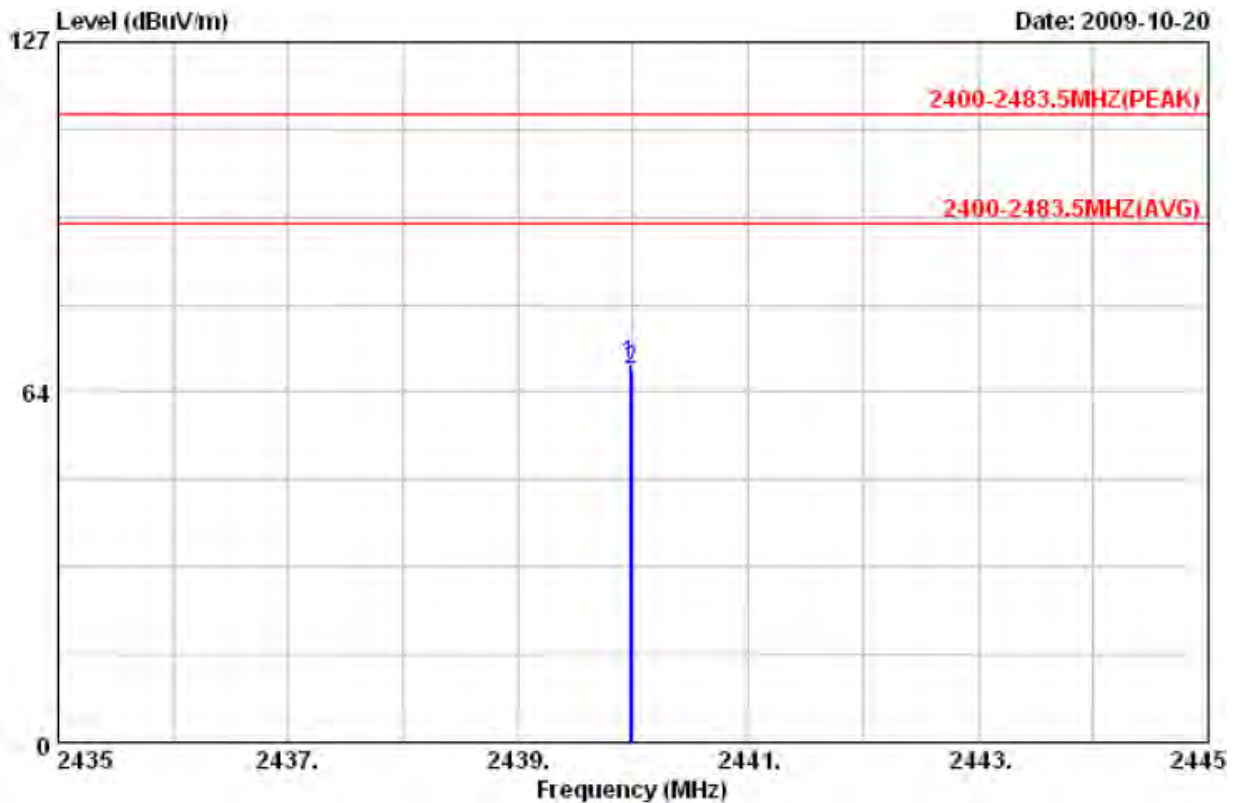
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	2402.04	63.85	-4.86	58.99	94.00	-35.01	Average	105	360
2	2402.04	65.17	-4.86	60.31	114.00	-53.69	Peak	105	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



Power	: DC 5V	Pol/Phase	: VERTICAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 8	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



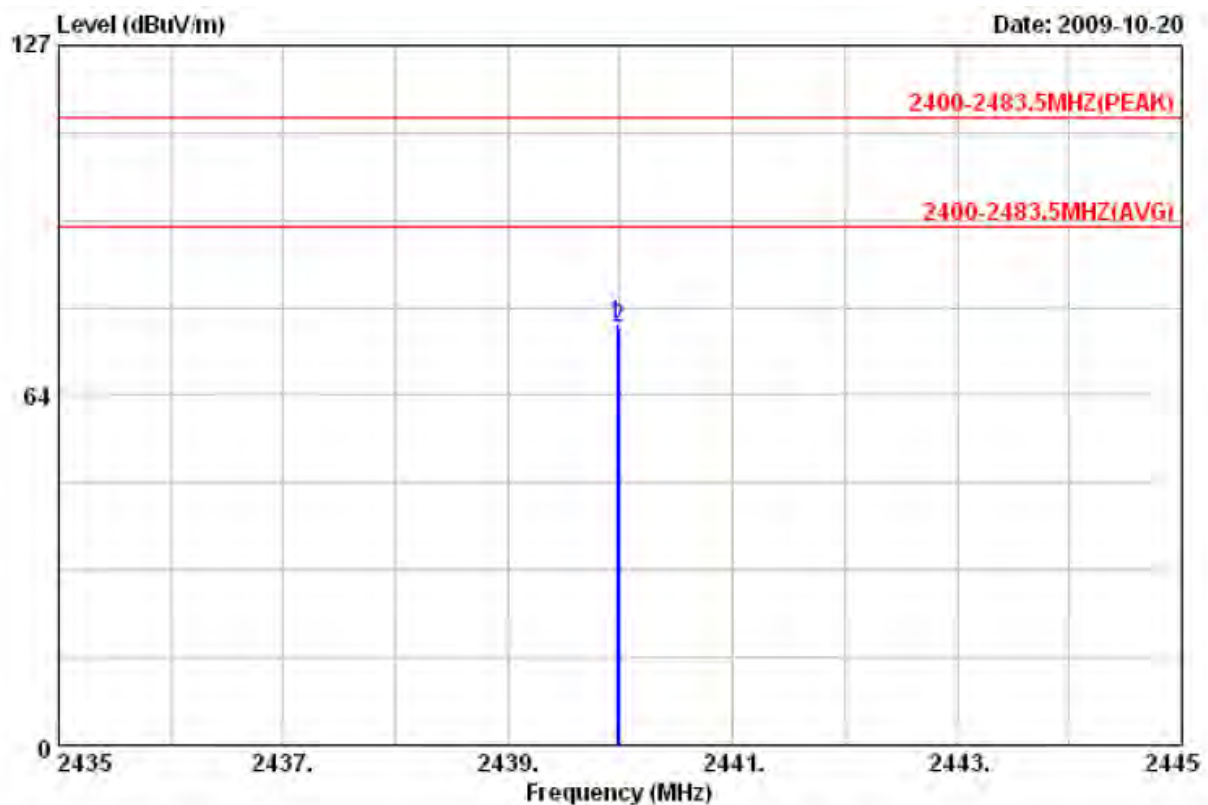
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	2439.97	73.33	-4.74	68.59	114.00	-45.41	Peak	105	305
2	2439.99	72.15	-4.74	67.41	94.00	-26.59	Average	105	305

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



Power	: DC 5V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 8	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



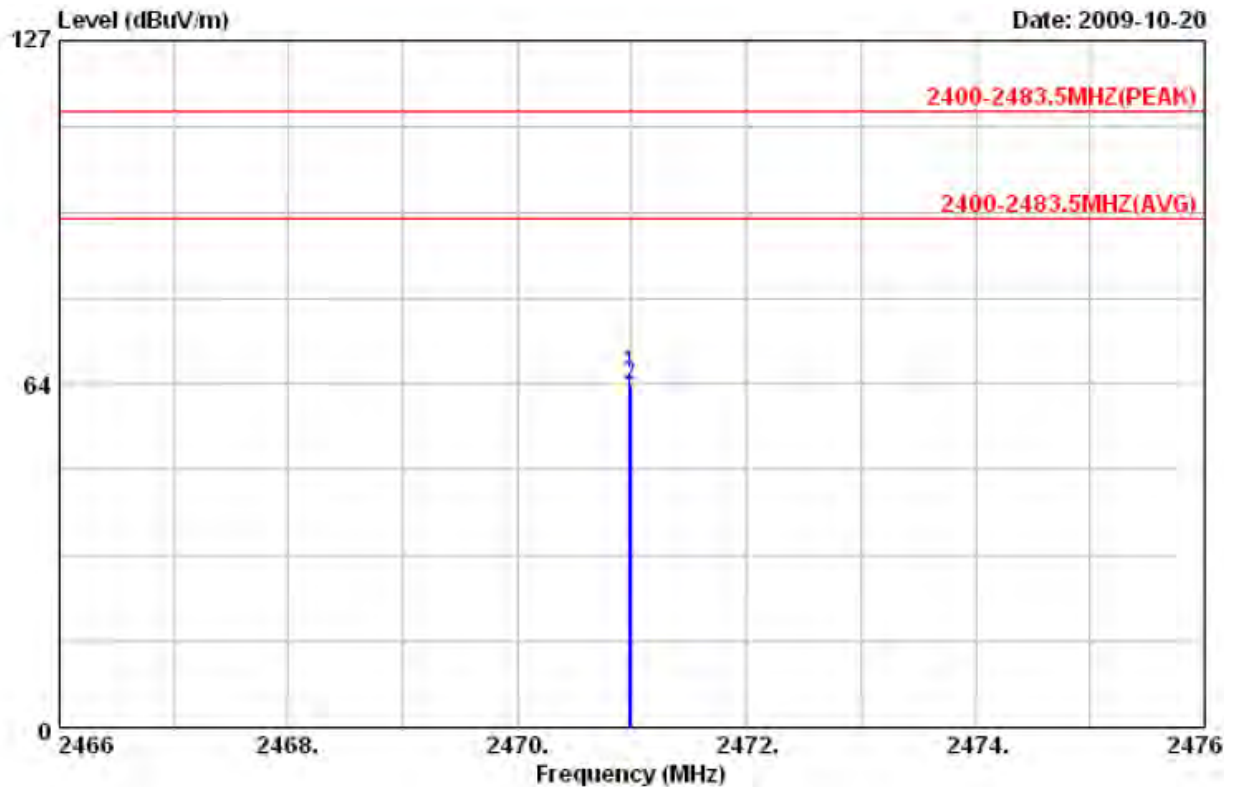
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	2439.97	81.02	-4.74	76.28	114.00	-37.72	Peak	105	210
2	2439.99	80.58	-4.74	75.84	94.00	-18.16	Average	105	210

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



Power	: DC 5V	Pol/Phase	: VERTICAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 15	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



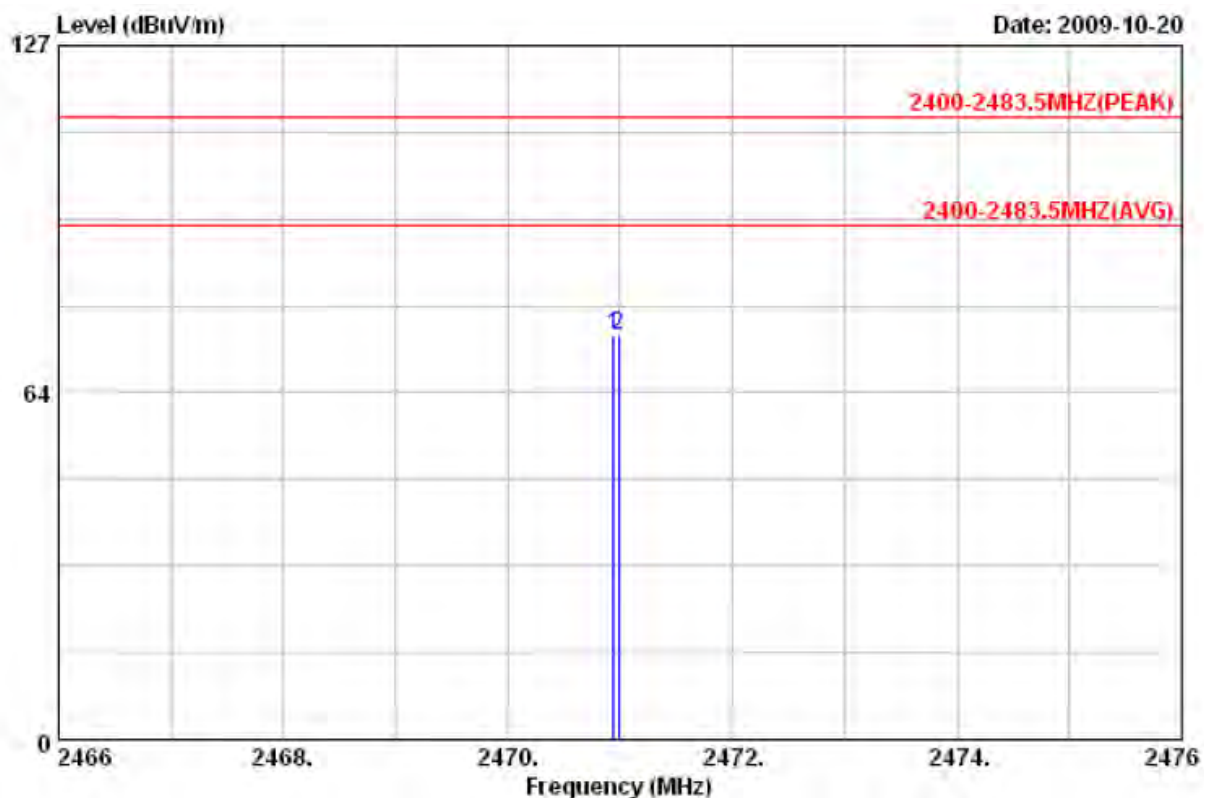
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	2470.98	70.14	-4.64	65.50	114.00	-48.50	Peak	105	240
2	2470.99	67.85	-4.64	63.21	94.00	-30.79	Average	105	240

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



Power	: DC 5V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 15	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	2470.94	78.73	-4.64	74.09	114.00	-39.91	Peak	105	180
2	2470.99	78.48	-4.64	73.84	94.00	-20.16	Average	105	180

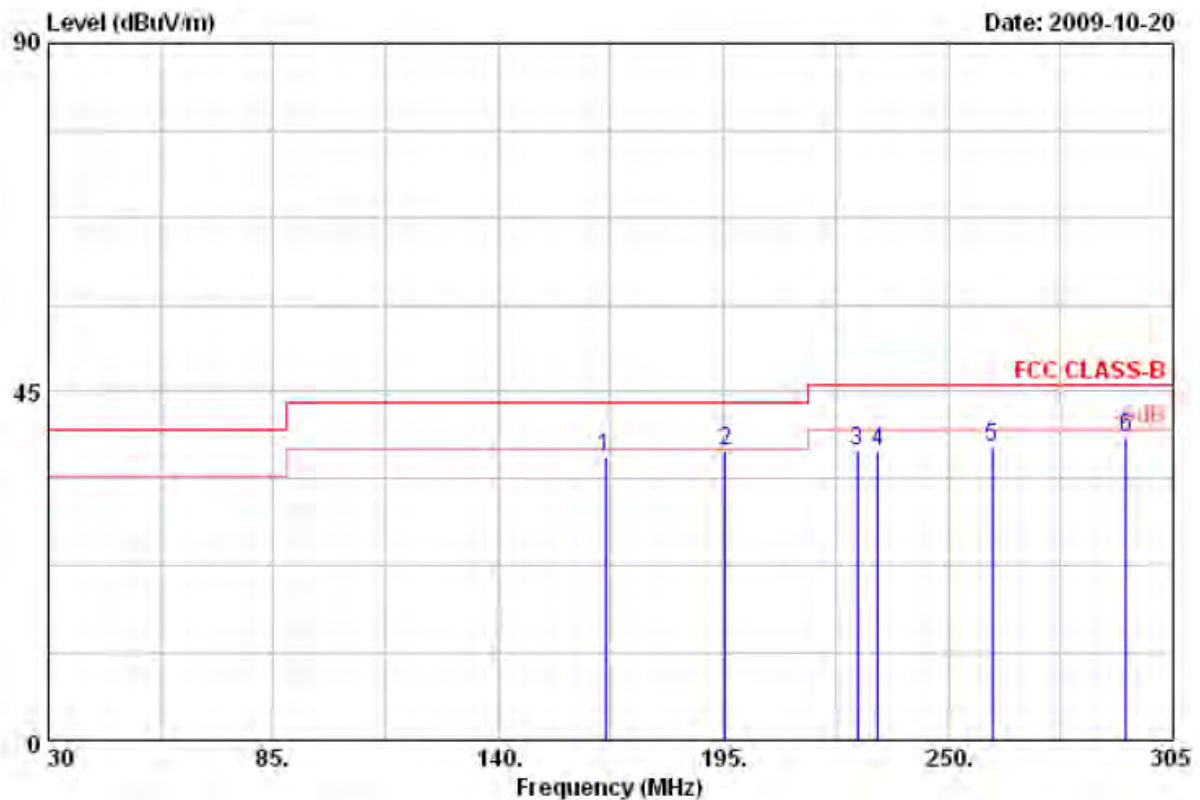
Notes:

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4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



5.5.2. Test Result of Unwanted Spurious emission

Power	: DC 5V	Pol/Phase	: VERTICAL
Test Mode	: Transmit	Temperature	: 23 °C
Operation Channel	: 1	Humidity	: 66 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



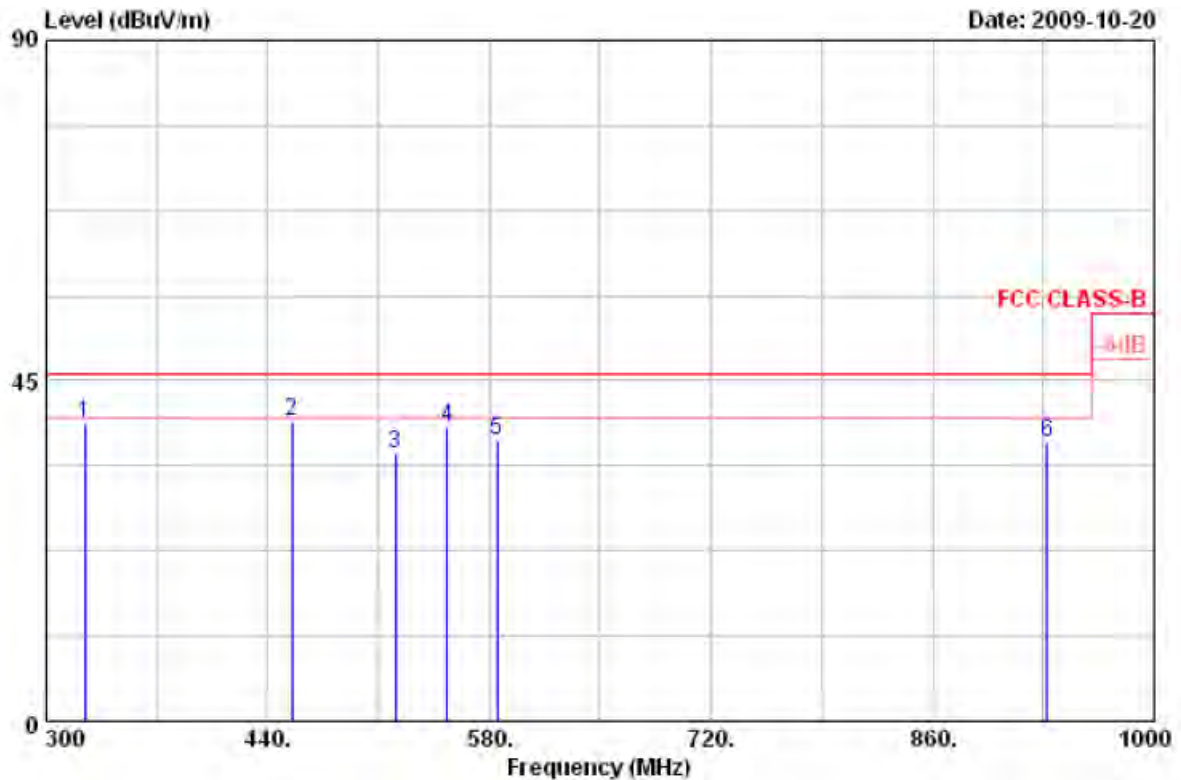
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	166.13	51.54	-15.04	36.50	43.50	-7.00	Peak	150	0
2	195.55	51.19	-13.72	37.47	43.50	-6.03	Peak	150	0
3	227.73	50.95	-13.56	37.39	46.00	-8.61	Peak	150	0
4	232.95	50.16	-12.87	37.29	46.00	-8.71	Peak	150	0
5	260.73	48.10	-10.24	37.86	46.00	-8.14	Peak	150	0
6	293.45	49.32	-10.16	39.16	46.00	-6.84	Peak	150	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences, all spurious emission of FSK mode at channel 1,3,6 are almost the same below 1GHz, so that the channel 1 was chosen as representative in final test.
5. The data is worse case.



Power	: DC 5V	Pol/Phase	: VERTICAL
Test Mode	: Transmit	Temperature	: 23 °C
Operation Channel	: 1	Humidity	: 66 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



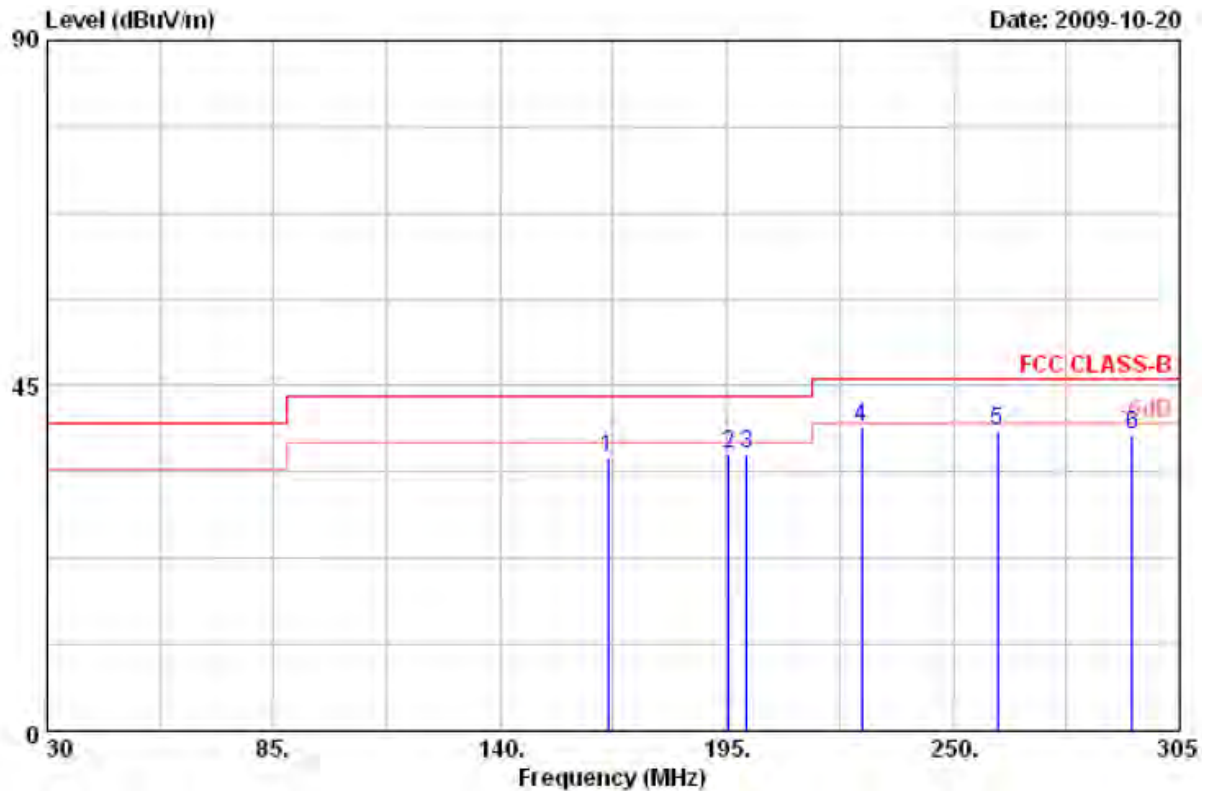
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	324.50	47.93	-8.59	39.34	46.00	-6.66	Peak	100	0
2	455.40	44.63	-4.96	39.67	46.00	-6.33	Peak	100	0
3	520.50	39.95	-4.66	35.29	46.00	-10.71	Peak	100	0
4	553.40	42.79	-3.86	38.93	46.00	-7.07	Peak	100	0
5	584.90	40.16	-3.15	37.01	46.00	-8.99	Peak	100	0
6	932.10	38.18	-1.32	36.86	46.00	-9.14	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences, all spurious emission of FSK mode at channel 1,3,6 are almost the same below 1GHz, so that the channel 1 was chosen as representative in final test.
5. The data is worse case.



Power	: DC 5V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit	Temperature	: 23 °C
Operation Channel	: 1	Humidity	: 66 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



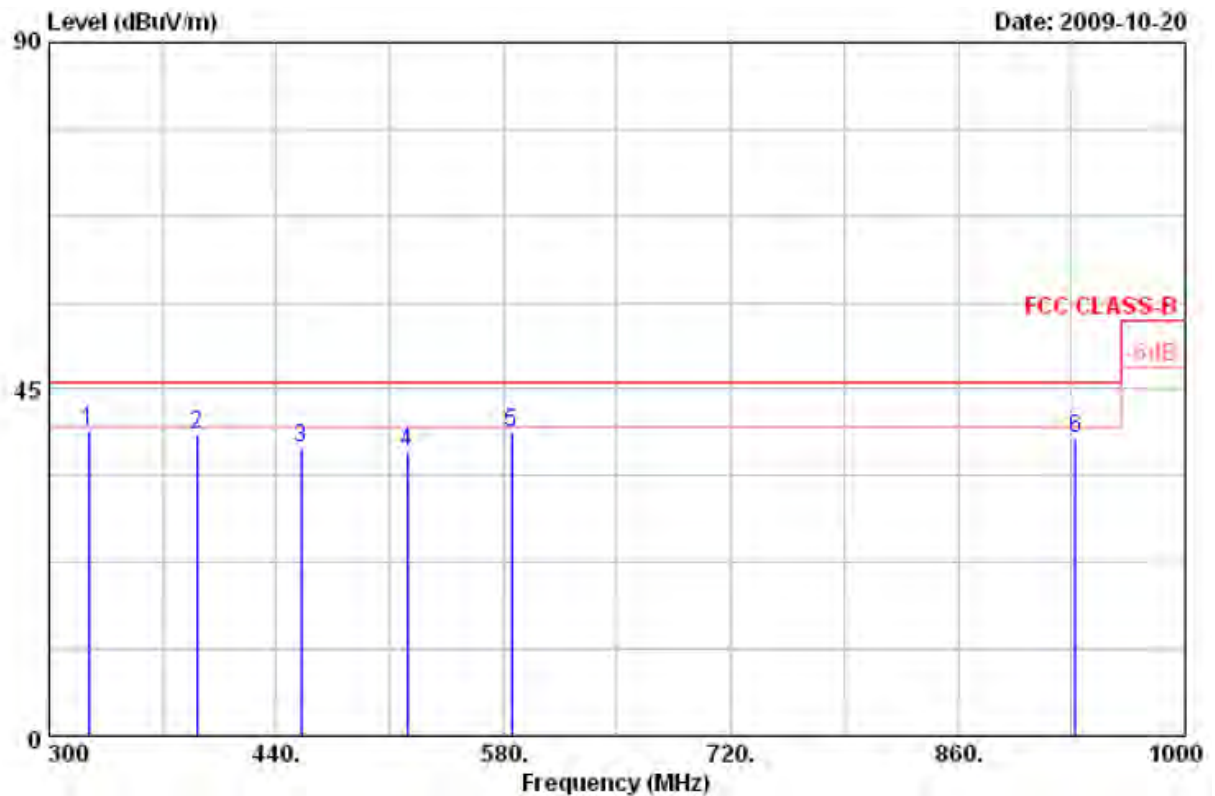
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	166.13	49.10	-13.46	35.64	43.50	-7.86	Peak	150	0
2	195.55	50.43	-14.41	36.02	43.50	-7.48	Peak	150	0
3	199.95	50.43	-14.27	36.16	43.50	-7.34	Peak	150	0
4	227.73	53.44	-13.78	39.66	46.00	-6.34	Peak	150	0
5	260.73	49.20	-10.15	39.05	46.00	-6.95	Peak	150	0
6	293.45	47.98	-9.31	38.67	46.00	-7.33	Peak	150	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences, all spurious emission of FSK mode at channel 1,3,6 are almost the same below 1GHz, so that the channel 1 was chosen as representative in final test.
5. The data is worse case.



Power	: DC 5V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 1	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



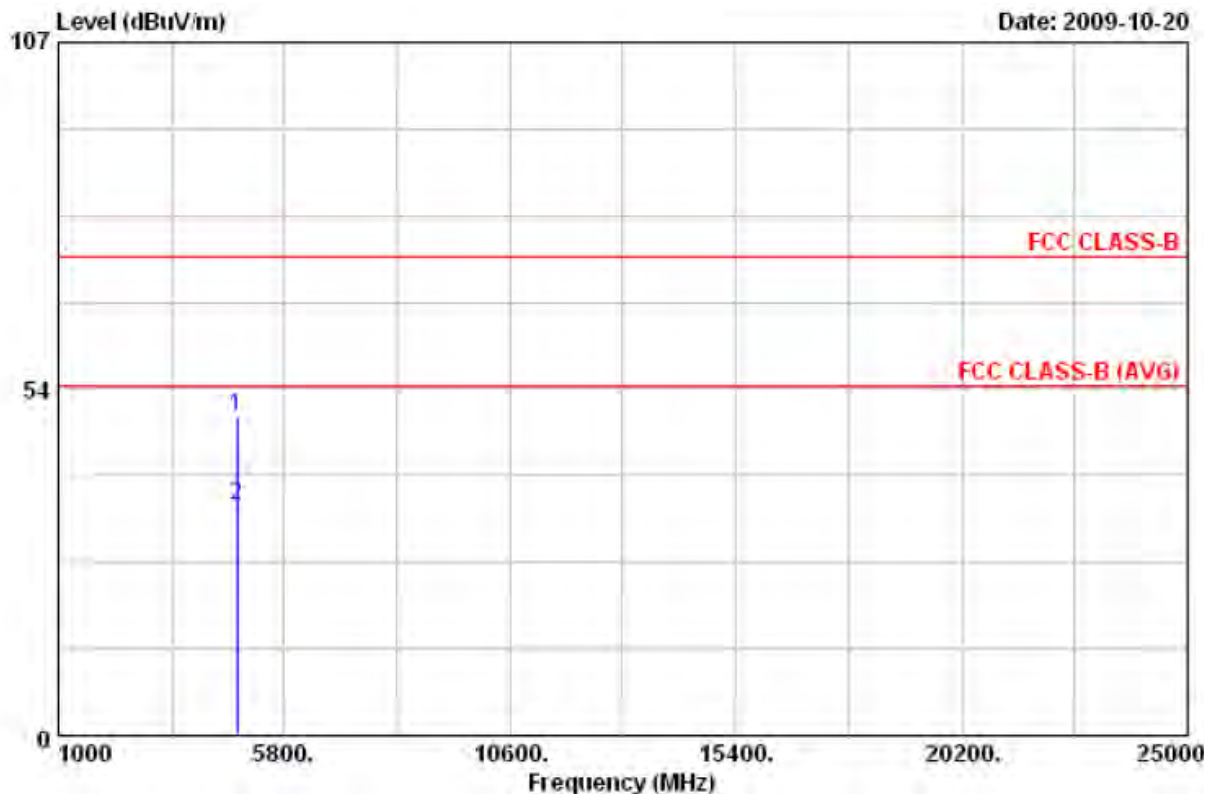
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	324.50	48.06	-8.49	39.57	46.00	-6.43	Peak	100	0
2	391.00	45.47	-6.43	39.04	46.00	-6.96	Peak	100	0
3	455.40	42.57	-5.18	37.39	46.00	-8.61	Peak	100	0
4	520.50	40.87	-3.90	36.97	46.00	-9.03	Peak	100	0
5	584.90	42.32	-2.92	39.40	46.00	-6.60	Peak	100	0
6	932.10	38.74	-0.17	38.57	46.00	-7.43	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences, all spurious emission of FSK mode at channel 1,3,6 are almost the same below 1GHz, so that the channel 1 was chosen as representative in final test.
5. The data is worse case.



Power	: DC 5V	Pol/Phase	: VERTICAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 1	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



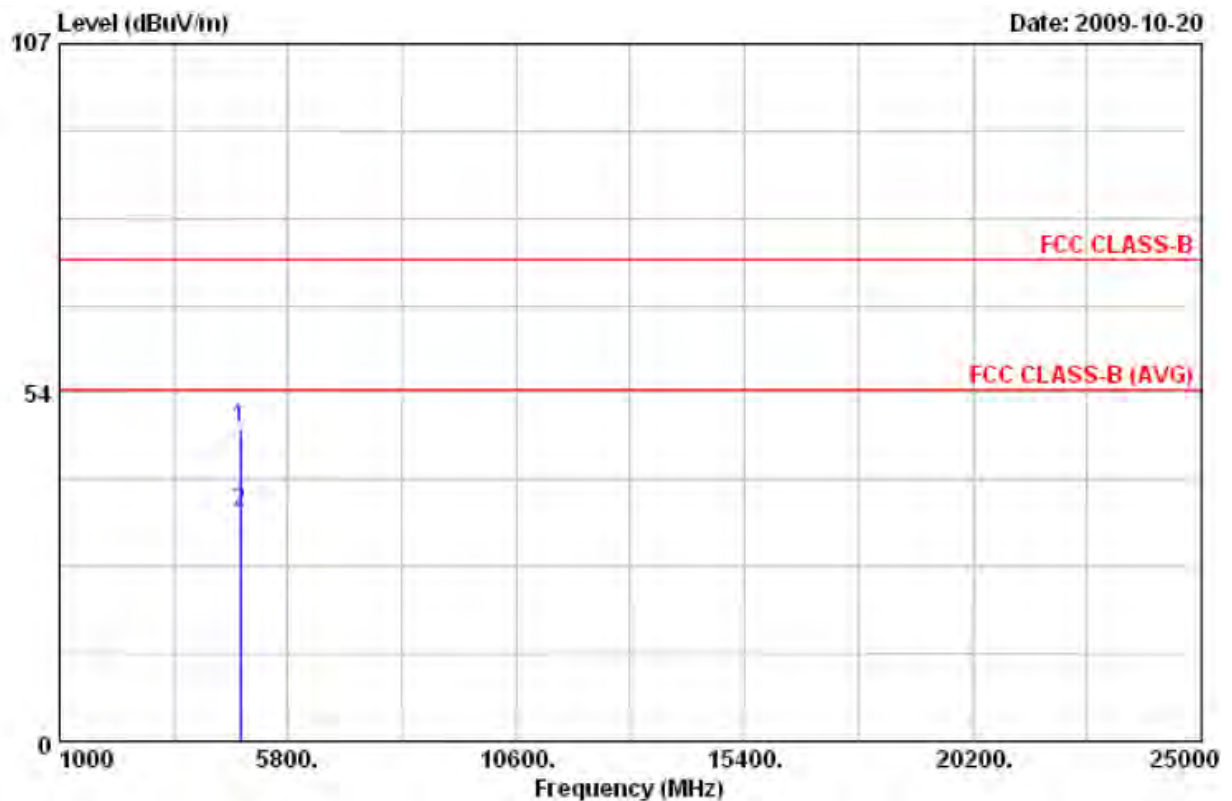
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4804.00	46.44	2.67	49.11	74.00	-24.89	Peak	200	360
2	4804.12	32.83	2.67	35.50	54.00	-18.50	Average	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



Power	: DC 5V	Pol/Phase	: VERTICAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 1	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



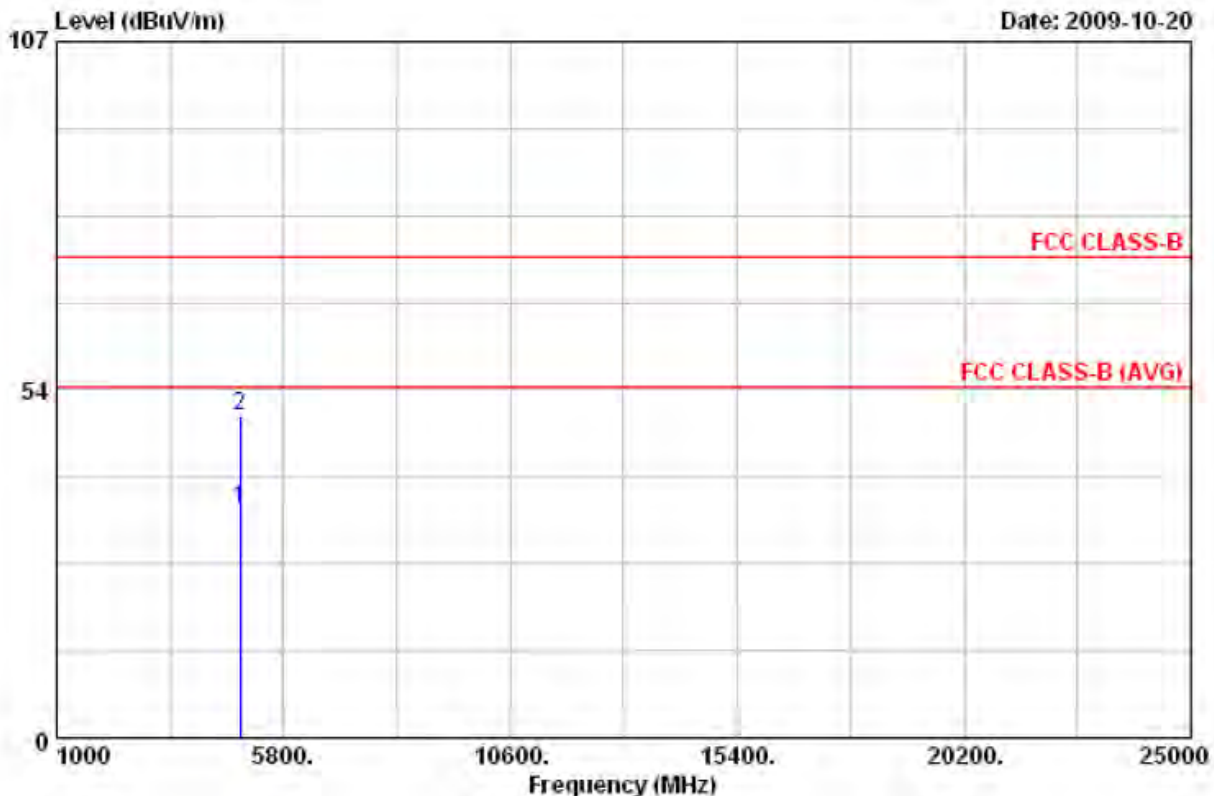
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4804.00	45.38	2.67	48.05	74.00	-25.95	Peak	105	360
2	4804.01	32.50	2.67	35.17	54.00	-18.83	Average	105	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



Power	: DC 5V	Pol/Phase	: VERTICAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 8	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



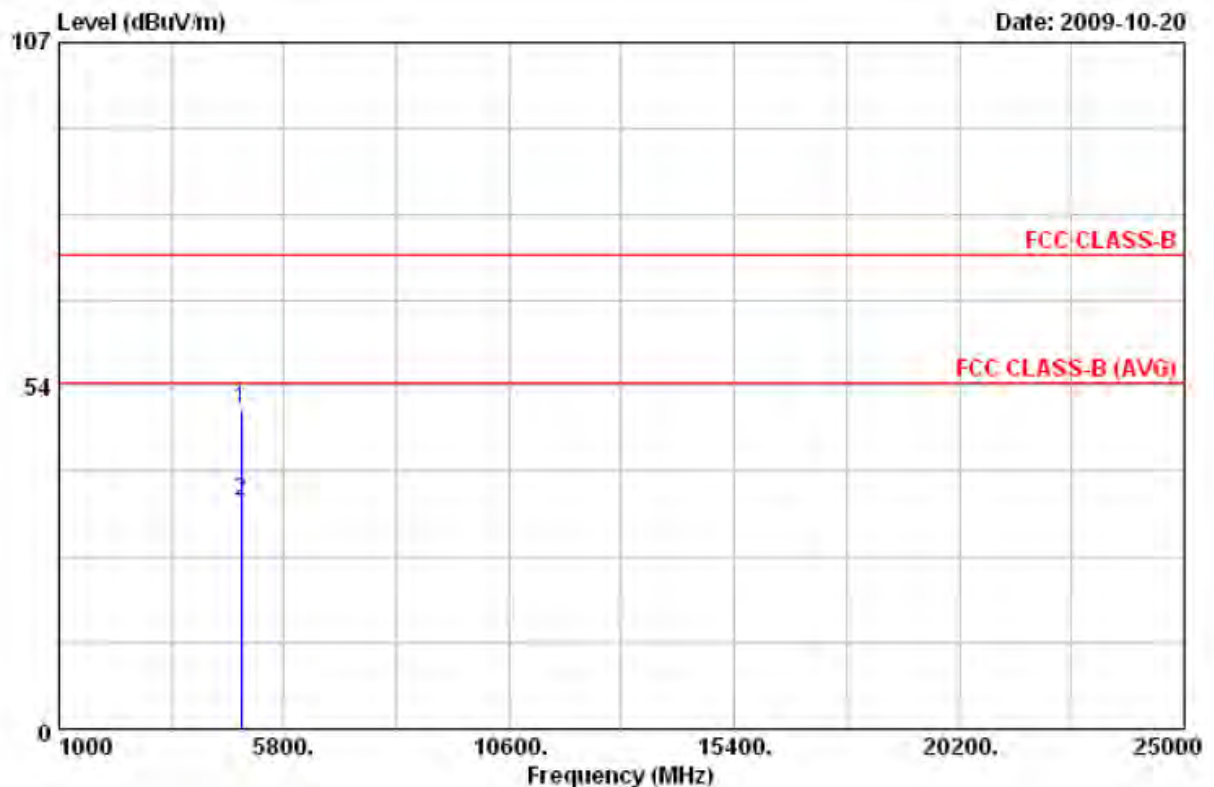
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4883.78	32.32	2.90	35.22	54.00	-18.78	Average	105	192
2	4884.45	46.56	2.90	49.46	74.00	-24.54	Peak	105	192

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300KHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



Power	: DC 5V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 8	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



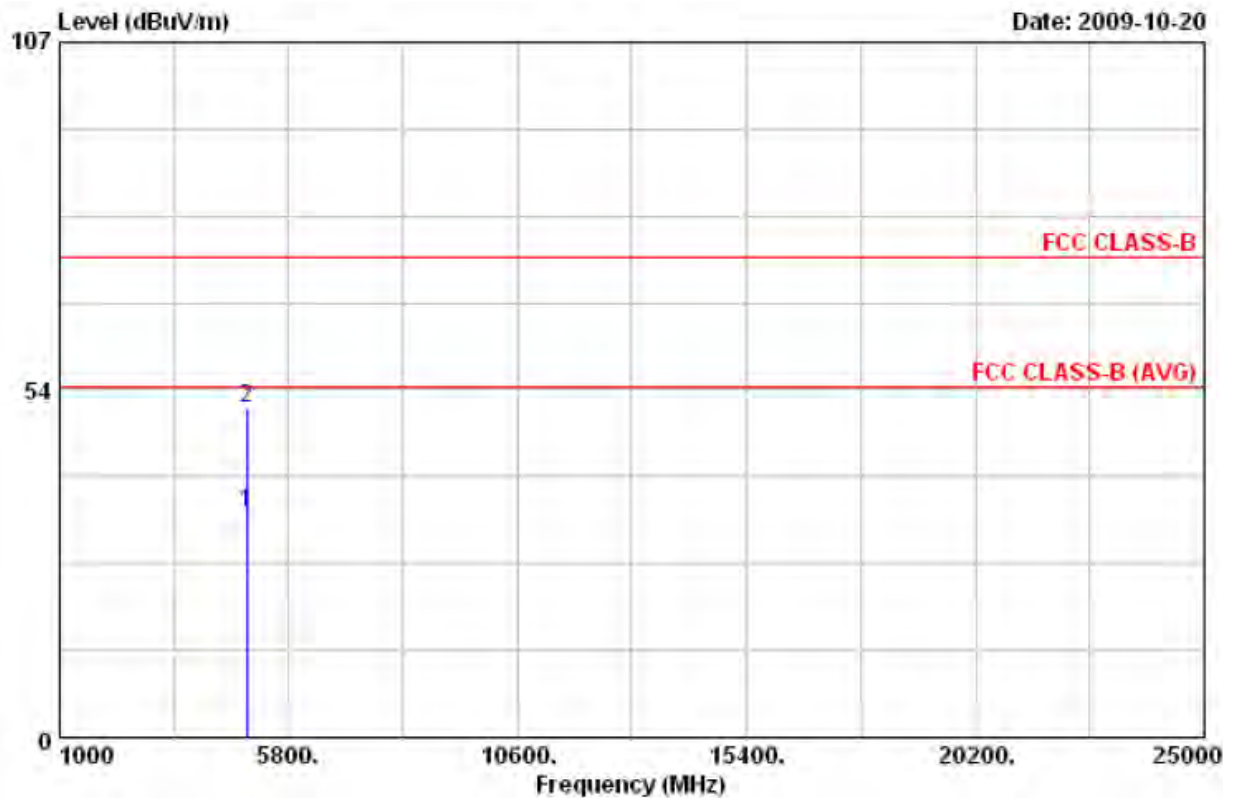
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4883.43	46.91	2.90	49.81	74.00	-24.19	Peak	105	325
2	4883.76	32.61	2.90	35.51	54.00	-18.49	Average	105	325

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



Power	: DC 5V	Pol/Phase	: VERTICAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 15	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



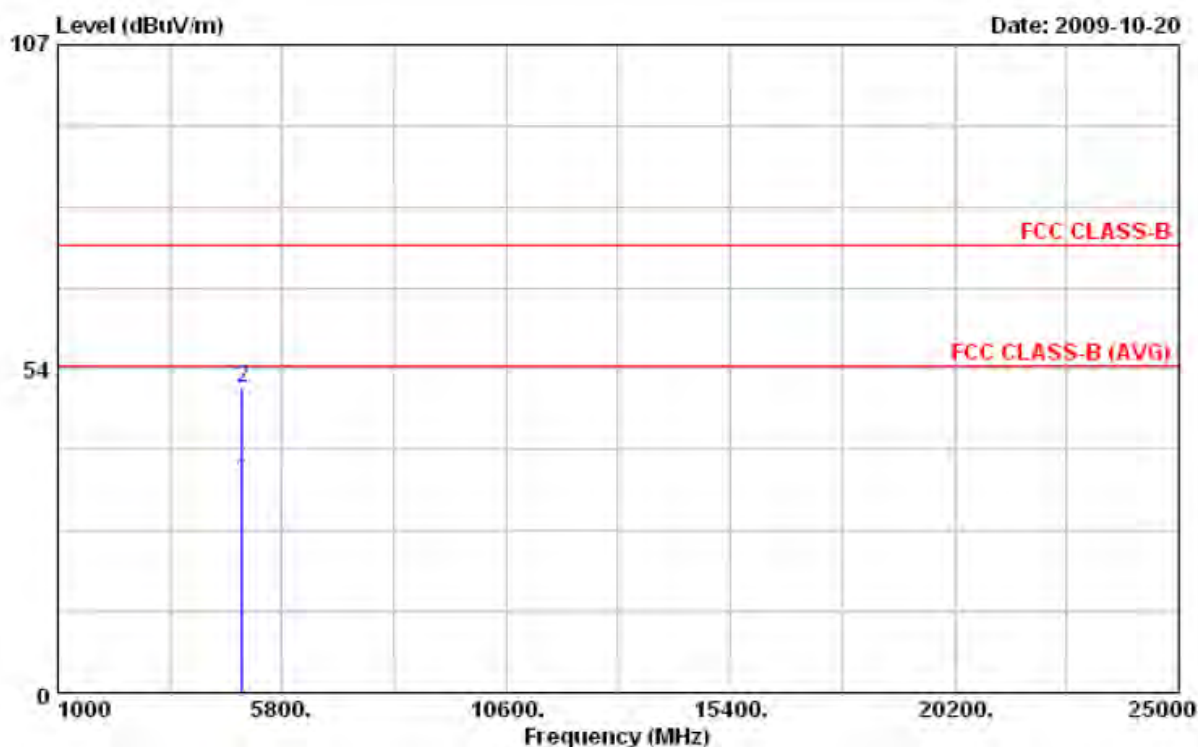
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4936.02	31.42	3.05	34.47	54.00	-19.53	Average	105	0
2	4936.02	47.55	3.05	50.60	74.00	-23.40	Peak	105	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.



Power	: DC 5V	Pol/Phase	: HORIZONTAL
Test Mode	: Transmit	Temperature	: 25 °C
Operation Channel	: 15	Humidity	: 64 %
Modulation Type	: FSK	Atmospheric Pressure	: 1011 hPa



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4941.25	32.20	3.06	35.26	54.00	-18.74	Average	105	360
2	4943.76	47.38	3.07	50.45	74.00	-23.55	Peak	105	360

Notes:

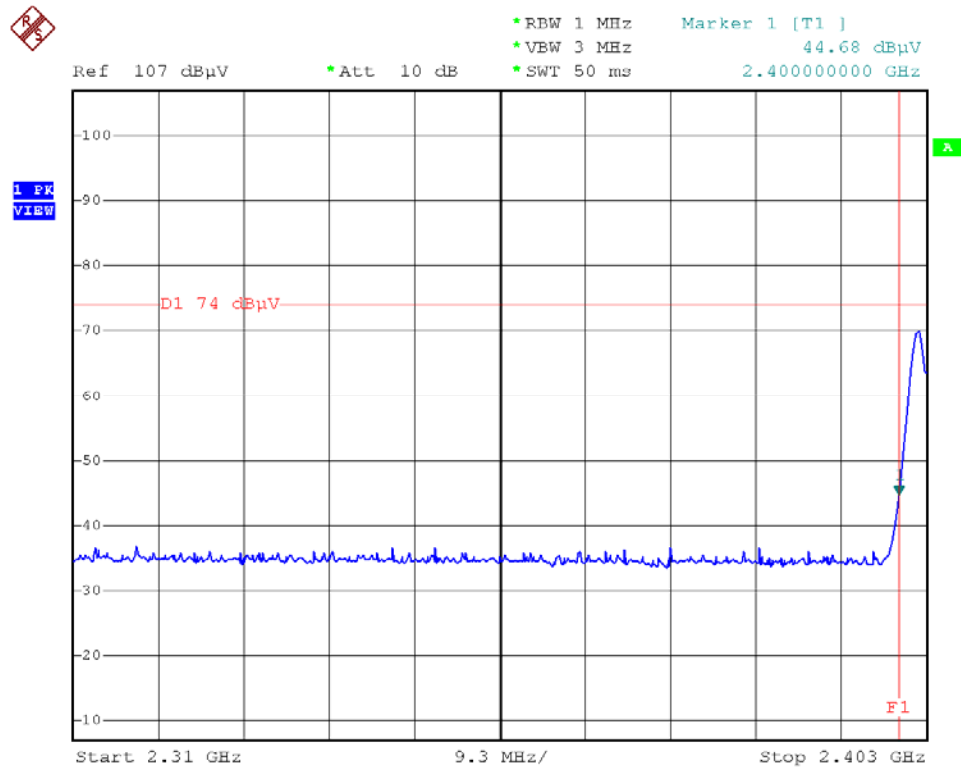
1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300KHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Test engineer: Ben

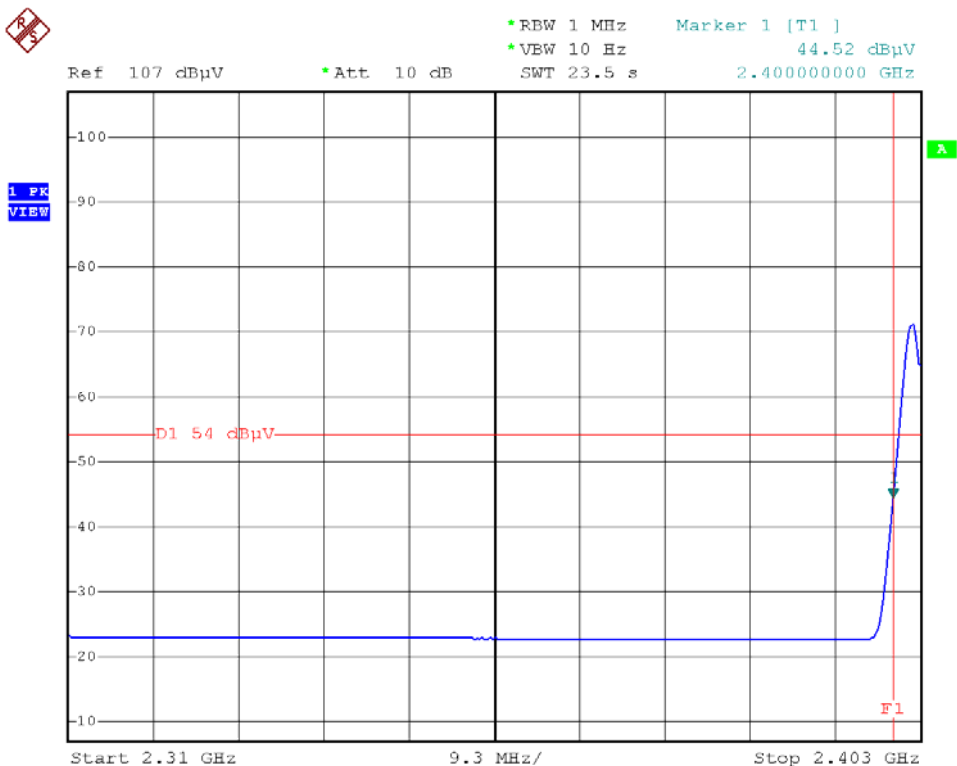


5.5.3. Test Result of Band Edges Measurement

Channel: 01, 2402MHz, Vertical, Peak

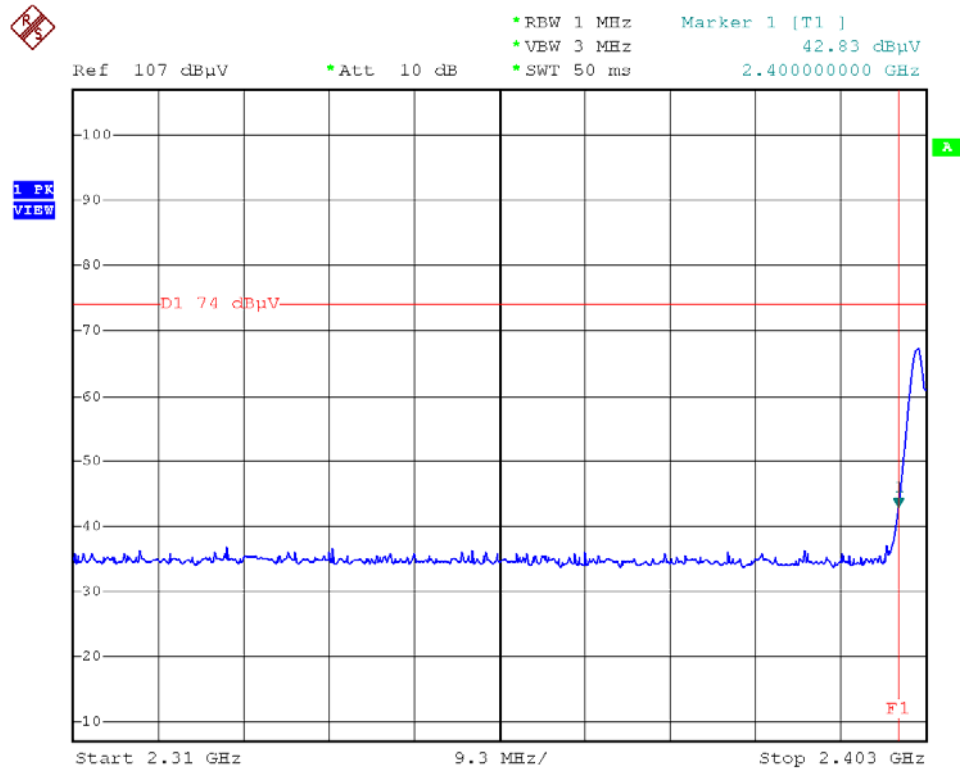


Channel: 01, 2402MHz, Vertical, Average

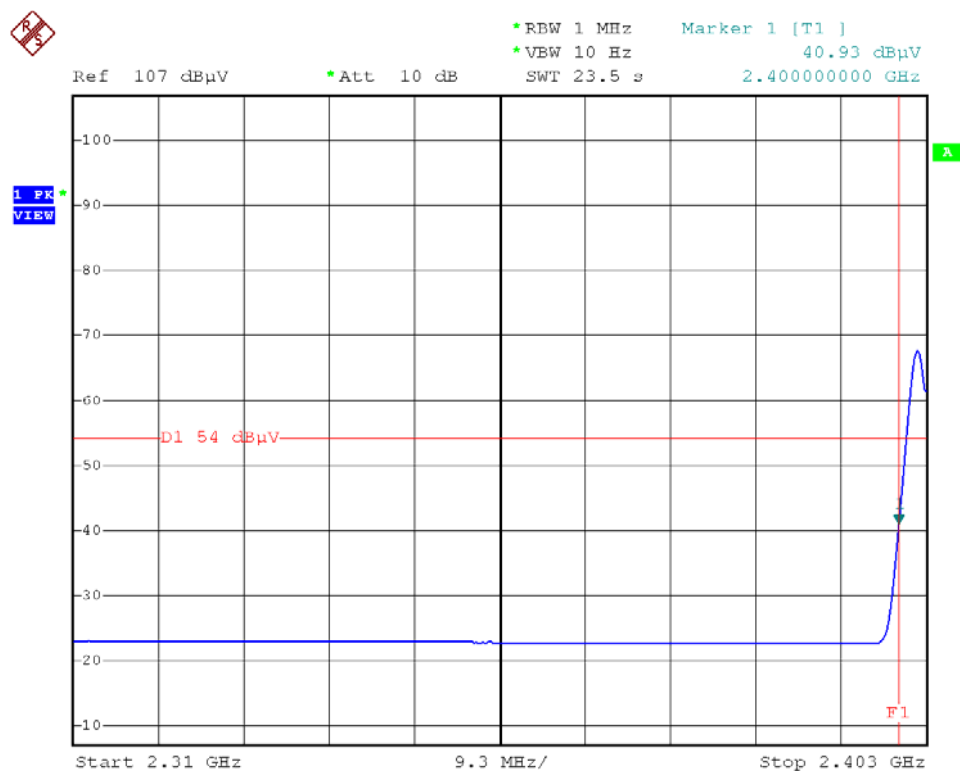




Channel: 01, 2402MHz, Horizontal, Peak

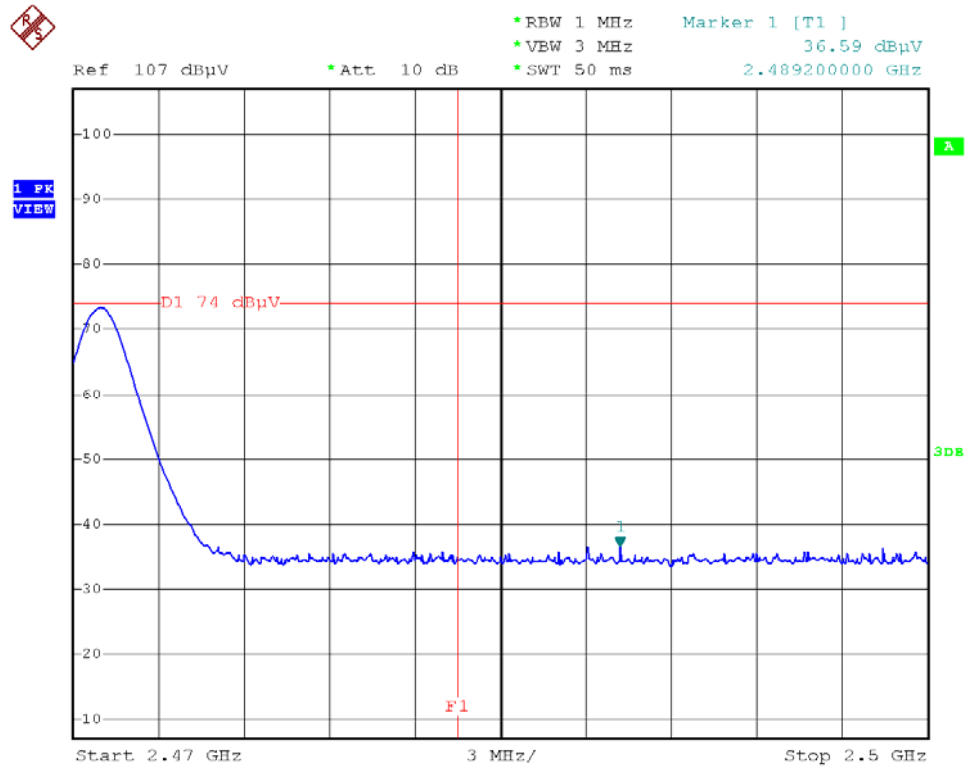


Channel: 01, 2402MHz, Horizontal, Average

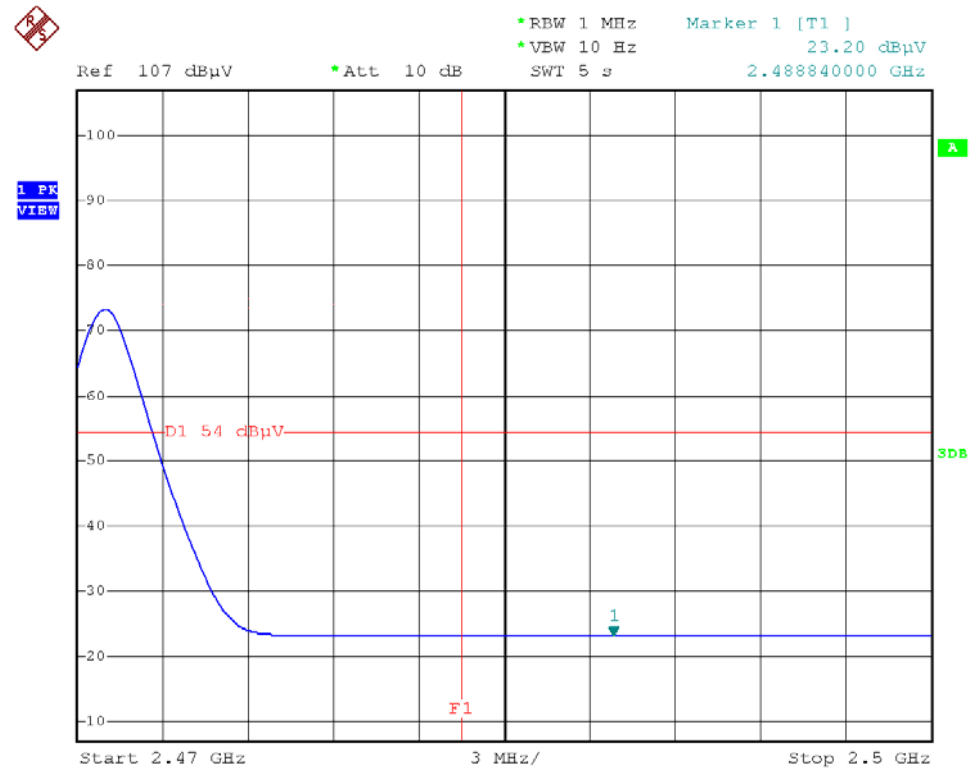




Channel: 15, 2471MHz, Vertical, Peak

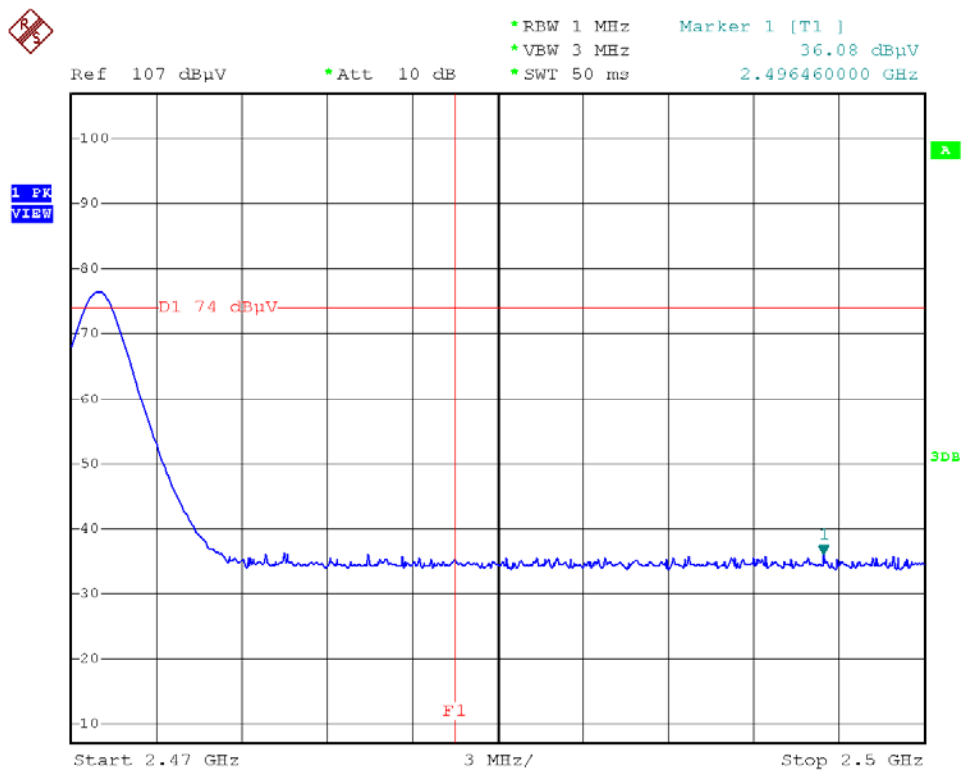


Channel: 15, 2471MHz, Vertical, Average





Channel: 15, 2471MHz, Horizontal, Peak



Channel: 15, 2471MHz, Horizontal, Average

