

APPLICATION FOR CERTIFICATION
On Behalf of
SuZhou BesCon Electronics Co., Ltd.
RF4CE Remote Control

Model No. : BRC0550901
Serial No. : 681803061
Brand : Optelec
FCC ID : 2AB9RBRC0550901

Prepared for

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Building 2405, Qingjianhu Science & Technology Park, No.58 Weixin Road, Suzhou Industrial Park

Prepared by

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Report Number : ACWE-F1405003
Date of Test : Apr.18~23, 2014
Date of Report : May 15, 2014

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TEST REPORT CERTIFICATION

Applicant : SuZhou BesCon Electronics Co., Ltd.
 Manufacturer : Optelec Limited
 EUT Description : RF4CE Remote Control
 (A) Model No. : BRC0550901
 (B) Serial No. : 681803061
 (C) Brand : Optelec
 (D) Power Supply : DC 3.3V
 (E) Test Voltage : DC 3.3V

Applicable Standards:

FCC RULES AND REGULATIONS PART 15 SUBPART C, Oct. 2012
ANSI C63.4-2003
KDB 558074 D01 DTS Meas Guidance v03r01

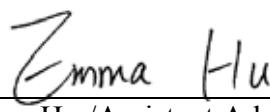
The device described above was tested by Audix Technology (Wujiang) Co., Ltd. EMC Dept. to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart C section 15.207, 15.205, 15.209&15.247 limits.

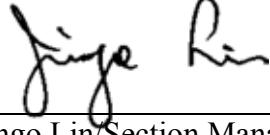
The measurement results are contained in this test report and Audix Technology (Wujiang) Co., Ltd. EMC Dept. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC limits.

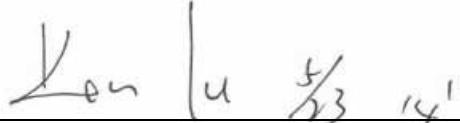
This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Wujiang) Co., Ltd. EMC Dept.

Date of Test: Apr.18~23, 2014

Date of Report: May 15, 2014

Prepared by : 
 (Emma Hu /Assistant Administrator)

Reviewer : 
 (Jingo Lin/Section Manager)

Approved & Authorized Signer : 
 (Ken Lu/ Assistant General Manager)

1. SUMMARY OF MEASUREMENTS AND RESULTS

The EUT has been tested according to the applicable standards and test results are referred as below.

Description of Test Item	Standard	Results	Remark
CONDUCTED EMISSION	FCC 47 CFR Part 15 Subpart C/ Section 15.207 And ANSI C63.4-2003 And KDB 558074 D01 DTS Meas Guidance v03r01	N/A	---
RADIATED EMISSION	FCC 47 CFR Part 15 Subpart C/ Section 15.209& Section 15.205 And ANSI C63.4-2003 And KDB 558074 D01 DTS Meas Guidance v03r01	PASS	Minimum passing margin is 5.15 dB at 12819.38 MHz
6 dB BANDWIDTH	FCC 47 CFR Part 15 Subpart C/ Section 15.247(a)(2) And ANSI C63.4-2003 And KDB 558074 D01 DTS Meas Guidance v03r01	PASS	Minimum passing margin is 1092 kHz at CH 25
MAXIMUM PEAK OUTPUT POWER	FCC 47 CFR Part 15 Subpart C/ Section 15.247(b)(3) And ANSI C63.4-2003 And KDB 558074 D01 DTS Meas Guidance v03r01	PASS	Minimum passing margin is 28.191 dB at CH 25
BAND EDGES	FCC 47 CFR Part 15 Subpart C/ Section 15.247(d) And ANSI C63.4-2003 And KDB 558074 D01 DTS Meas Guidance v03r01	PASS	---
POWER SPECTRAL DENSITY	FCC 47 CFR Part 15 Subpart C/ Section 15.247(e) And ANSI C63.4-2003 And KDB 558074 D01 DTS Meas Guidance v03r01	PASS	Minimum passing margin is 27.208 dB at CH 20
EMISSION LIMITATIONS	FCC 47 CFR Part 15 Subpart C/ Section 15.247(d) And ANSI C63.4-2003 And KDB 558074 D01 DTS Meas Guidance v03r01	PASS	---
Note:N/A is an abbreviation for not applicable.			

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Description	:	RF4CE Remote Control
Model No.	:	BR0550901
Serial No.	:	681803061
FCC ID	:	2AB9RBRC0550901
Brand	:	Optelec
Applicant	:	SuZhou BesCon Electronics Co., Ltd. Building 2405, Qingjianhu Science & Technology Park, No.58 Weixin Road, Suzhou Industrial Park
Manufacturer	:	Optelec Limited Breslau 4 2993 LT Barendrecht The Netherlands
Radio Technology	:	IEEE 802.15.4 (ZigBee®)
Antenna Gain	:	2.34dBi
Fundamental Range	:	2400 MHz -2480MHz
Output Power	:	1DBm
Tested Frequency	:	2425MHz (CH15);2450MHz (CH20);2475MHz (CH25)
Highest Working Frequency	:	2.4GHz
Modulation type	:	O-QPSK
Date of Receipt of Sample	:	Apr.18, 2014
Date of Test	:	Apr.18~23, 2014

Remark:

The product without using MIMO technology, so chose one of the biggest antenna power for all the testing project, refer to the following specific data.

Ant0

Channel	Frequency	Power(dBm)
15	2425	1.303
20	2450	1.092
25	2475	1.523

Ant1

Channel	Frequency	Power(dBm)
15	2425	1.465
20	2450	1.708
25	2475	1.809

2.2. Description of Test Facility

Name of Firm	:	Audix Technology (Wujiang) Co., Ltd. EMC Dept.
Site Location	:	No. 1289 Jiangxing East Road, the Eastern Part of Wujiang Economic Development Zone Jiangsu China 215200
Test Facilities	:	No.1 3m Semi-anechoic Chamber Date of Validity: May. 23, 2015 FCC Registration No.: 897661 IC Registration No.: 5183D-2
		RF Fully Chamber
NVLAP Lab Code	:	200786-0 (NVLAP is a NATA accredited body under Mutual Recognition Agreement) Valid until on Sep.30, 2014

2.3. Measurement Uncertainty

Test Item	Range Frequency	Uncertainty
Radiated Disturbance Measurement (At 3m Chamber)	Below 1GHz	± 3.42dB
Radiated Disturbance Measurement (At 3m Chamber)	Above 1GHz	± 4.49dB

Remark: Uncertainty = $ku_c(y)$

Test Item	Uncertainty
6 dB Bandwidth	± 3.1×10^{-6} MHz
Maximum Peak Output Power	± 0.30dB
Band Edges	± 0.302dB
Power Spectral Density	± 0.212dB
Emission Limitations	± 0.24dB

Remark: Uncertainty = $ku_c(y)$

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

The following test equipment was used during the radiated emission measurement:
At 3m Semi-Anechoic Chamber

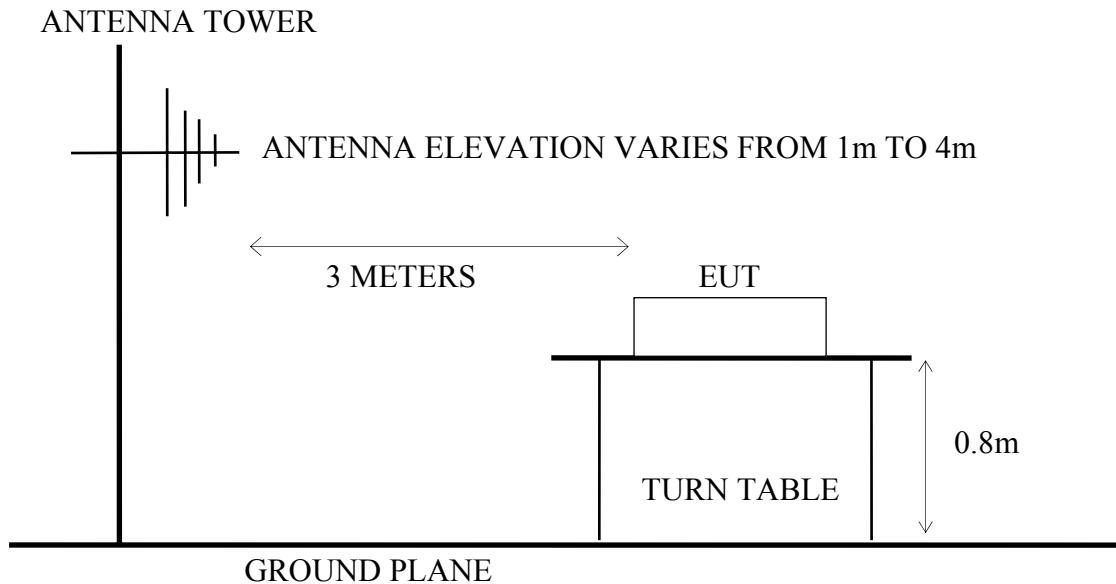
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Preamplifier	Agilent	8449B	2944A10921	2013-08-14	2014-08-13
2.	Preamplifier	Agilent	8447D	2944A10921	2013-08-14	2014-08-13
3.	PXA Signal Analyzer	Agilent	N9030A	MY53120367	2013-06-24	2014-06-23
4.	Test Receiver	R&S	ESCI	100361	2014-01-05	2015-01-04
5.	Bi-log Antenna	Schaffner	CBL6112D	22253	2013-05-04	2014-05-03
6.	Horn Antenna	EMCO	3115	00062960	2013-05-07	2014-05-06
7.	Horn Antenna	EMCO	3116	00062641	2013-06-08	2015-06-07
8.	Test Receiver	R&S	ESCI	100361	2014-01-05	2015-01-04
9.	RF Cable #1	Yuhang CSYH	cable-3m	001(0.5m)	2013-08-13	2014-08-12
10.	RF Cable #2	Yuhang CSYH	cable-3m	002(0.5m)	2013-08-13	2014-08-12
11.	RF Cable #3	Yuhang CSYH	cable-3m	003(3.0m)	2013-08-13	2014-08-12

3.2. Block Diagram of Test Setup

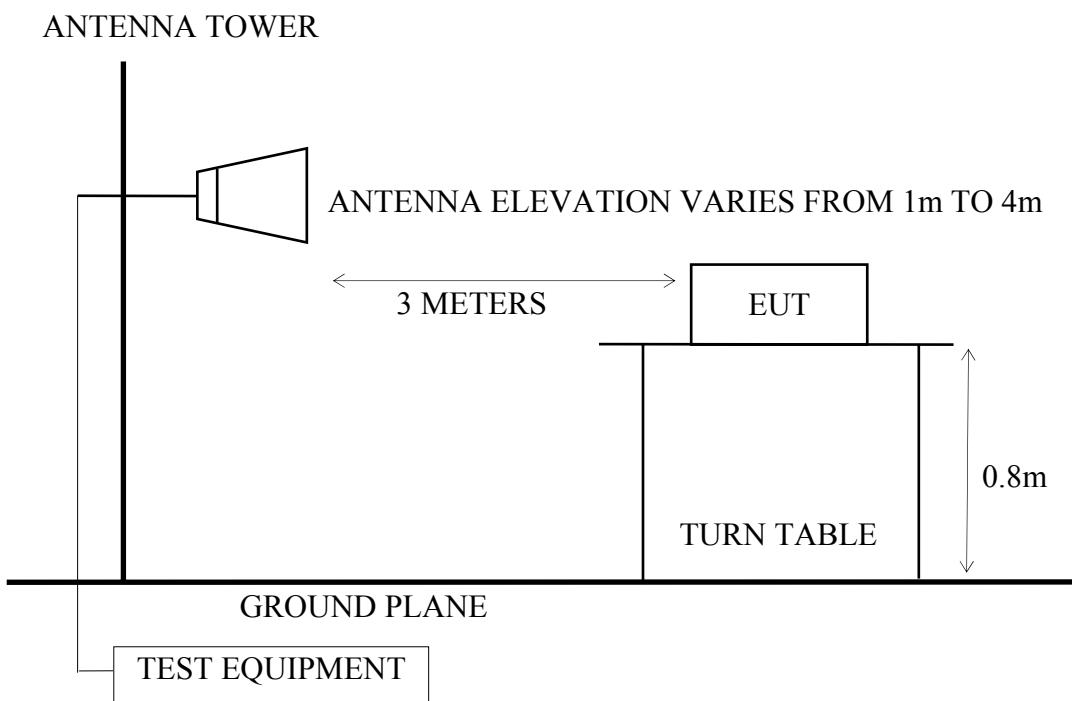
3.2.1. Block Diagram of Test Setup between EUT and simulators

RF4CE Remote Control (EUT)

3.2.2. No. 1 3m Semi-Anechoic Chamber Setup Diagram (Test distance:3m) for 30-1000MHz



3.2.3. No. 1 3m Semi-Anechoic Chamber Setup Diagram (Test distance: 3m) for above 1GHz



3.3. Radiated Emission Limits

Radiated Emission Limits (FCC Part15 C, section 15.209, CISPR22)

Frequency MHz	Distance Meters	Field Strengths Limits
		dB μ V/m
30 ~ 230	10	30.0
230 ~ 1000	10	37.0
Above 1000	3	74.0 dB μ V/m (Peak) 54.0 dB μ V/m (Average)

Remark : (1) Emission level (dB μ V/m) = 20 log Emission level (μ V/m)
 (2)The tighter limit applies at the edge between two frequency bands.

3.4. Test Procedure

The measuring process is according to ANSI C63.4-2003 and laboratory internal procedure TKC-301-001. (For FCC Part15 Subpart C)

In the radiated disturbance measurement, the EUT and all simulators were set up on a non-metallic turn table which was 0.8 meters above the ground plane. Measurement distance between EUT and receiving antennas was set at 10 meters at 30MHz~1000MHz and 3 meters at above 1GHz. The specified distance is the distance between the antennas and the closest periphery of EUT. During the radiated measurement, the EUT was rotated 360° and receiving antennas were moved from 1 ~ 4 meters for finding maximum emission. Two receiving antennas were used for both horizontal and vertical polarization detection for 30MHz~1GHz, One receiving antennas was used for both horizontal and vertical polarization detection for above 1GHz (the absorbing material was added when testing of above 1GHz was done). All cables or wires placement were verified to find out the maximum emission.

The bandwidth of measuring receiver (or spectrum analyzer) was set to:

RBW (120 kHz), VBW (300 kHz) for QP detector below 1GHz

RBW (1 MHz), VBW (1MHz) for Peak detector above 1GHz

RBW (1 MHz), VBW (10 Hz) for AV detector above 1GHz

The required frequency band (30 MHz ~ 12000 MHz) was pre-scanned with peak detector; all final measurements were measured with quasi-peak detector below 1GHz, measured with average detector and peak detector above 1GHz.

The emission level is calculated automatically by the test system which uses the following equation :

1. For 30-1000MHz measurement:

Emission Level (dB μ V/m) = Meter-Reading (dB μ V)+Antenna Factor (dB/m)+Cable Loss (dB)

2. For Above 1GHz measurement:

Emission Level (dB μ V/m) = Meter-Reading (dB μ V)+Antenna Factor (dB/m)+Cable Loss(dB)
 -Pre-amplifier factor (dB)

3.5. Assessment In All Three Orthogonal Planes

After assessment in all three orthogonal planes, when choosing Channel15 test in the radiation, found that XY plan is the worst mode in Horizontal and YZ plan is the worst mode in Vertical, so in the test of radiation, all with XY plan(in Horizontal) & YZ plan(in Vertical) model test, refer to the following specific data.

Test Mode:XY Plan

Polarization	Frequency (MHz)	Reading dB (µV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (µV/m)	Limits dB (µV/m)	Margin (dB)	Remark
Horizontal	2425.53	101.43	28.19	6.47	35.06	101.03	74.00	-27.03	Peak
Vertical	2425.51	87.36	28.19	6.47	35.06	86.96	74.00	-12.96	Peak

Test Mode:XZ Plan

Polarization	Frequency (MHz)	Reading dB (µV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (µV/m)	Limits dB (µV/m)	Margin (dB)	Remark
Horizontal	2425.51	90.70	28.19	6.47	35.06	90.30	74.00	-16.30	Peak
Vertical	2425.52	89.98	28.19	6.47	35.06	89.58	74.00	-15.58	Peak

Test Mode:YZ Plan

Polarization	Frequency (MHz)	Reading dB (µV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (µV/m)	Limits dB (µV/m)	Margin (dB)	Remark
Horizontal	2425.53	88.94	28.19	6.47	35.06	88.54	74.00	-14.54	Peak
Vertical	2425.52	98.22	28.19	6.47	35.06	97.82	74.00	-23.82	Peak

3.6. Measurement Results

PASSED

(All the emissions not reported below are too low against the prescribed limits.)

3.6.1. For Restricted Bands:

The EUT was tested in restricted bands and all the test results are listed in section 4.6 & 4.7.
(The restricted bands defined in part 15.205(a))

For Frequency range : below 1GHz

No.	Test Mode and Frequency	Reference Test Data No.	
		Horizontal	Vertical
1.	Transmitting	2425MHz (Channel 15)	# 9
2.		2450MHz (Channel 20)	# 11
3.		2475MHz (Channel 25)	# 13
4.	Receiving	# 15	# 16

For Frequency range : above 1GHz

No.	Test Mode and Frequency	Reference Test Data No.	
		Horizontal	Vertical
1.	Transmitting	2425MHz (Channel 15)	# 17
2.		2450MHz (Channel 20)	# 19
3.		2475MHz (Channel 25)	# 21
4.	Receiving	# 23	# 24

3.6.2. For Band Edge Emission

The EUT was tested in restricted bands and all the test results are listed in section 4.8. The restricted bands defined in part 15.205(a))

No.	Test Mode and Frequency	Reference Test Data No.	
		Horizontal	Vertical
1.	Transmitting	2425MHz (Channel 15)	# 1, # 3
2.		2475MHz (Channel 25)	# 5, # 7

3.7. Restricted Bands Measurement Results (For Below 1GHz)



Audix Technology(Wujiang)Co.,Ltd.
 No.1289,Jiang Xing East Road,The Eastern Part of Wu Jiang
 Economic Development Zone,JiangSu,China
 Tel: (0512) 63403993 Fax: (0512) 63403993

Site NO. : 3m chamber Data NO. :9
 Dis. / Ant. : 3m 6112D(22253)-1305-3M Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 CLASS B
 Env. / Ins. : 26.8*C&49%/ESCI
 EUT : RF4CE Remote Control
 M/N : BRC0550901
 Power Rating : DC:3.3V
 Test Mode : TX CH15 2425MHz
 Memo : S/N:681803061

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission				Remark
				Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)		
1 32.91	18.70	0.24	25.29	16.73	40.00	23.27	QP	
2 128.94	12.90	0.75	26.18	12.90	43.50	30.60	QP	
3 304.51	14.07	1.30	26.26	15.21	46.00	30.79	QP	
4 369.50	15.70	1.42	27.50	17.84	46.00	28.16	QP	
5 536.34	18.50	1.78	27.30	19.96	46.00	26.04	QP	
6 668.26	19.70	2.04	27.68	21.95	46.00	24.05	QP	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit
 are not reported.



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 No.1289,Jiang Xing East Road,The Eastern Part of Wu Jiang
 Economic Development Zone,JiangSu,China
 Tel: (0512) 63403993 Fax: (0512) 63403993

Site NO. : 3m chamber Data NO. :10
 Dis. / Ant. : 3m 6112D(22253)-1305-3M Ant. pol. : VERTICAL
 Limit : FCC PART 15 CLASS B
 Env. / Ins. : 26.8*C&49%/ESCI
 EUT : RF4CE Remote Control
 M/N : BRC0550901
 Power Rating : DC:3.3V
 Test Mode : TX CH15 2425MHz
 Memo : S/N:681803061

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission				Remark
				Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)		
1 36.79	16.20	0.30	26.88	15.91	40.00	24.09	QP	
2 40.67	13.90	0.32	28.93	15.70	40.00	24.30	QP	
3 94.99	10.60	0.63	28.90	13.03	43.50	30.47	QP	
4 126.03	13.00	0.73	28.42	15.21	43.50	28.29	QP	
5 167.74	10.40	0.88	29.79	14.34	43.50	29.16	QP	
6 377.26	15.83	1.40	28.37	18.77	46.00	27.23	QP	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit
 are not reported.



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Economic Development Zone,JiangSu,China
Tel: (0512) 63403993 Fax: (0512) 63403993

Site NO. : 3m chamber Data NO. :11
Dis. / Ant. : 3m 6112D(22253)-1305-3M Ant. pol. : HORIZONTAL
Limit : FCC PART 15 CLASS B
Env. / Ins. : 26.8*C&49%/ESCI
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating : DC:3.3V
Test Mode : TX CH20 2450MHz
Memo : S/N:681803061
Engineer : boqiang_li

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission			
				Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 32.91	18.70	0.24	26.01	17.45	40.00	22.55	QP
2 122.15	13.00	0.80	26.08	12.92	43.50	30.58	QP
3 198.78	10.50	0.99	28.67	13.58	43.50	29.92	QP
4 245.34	12.60	1.07	26.25	13.48	46.00	32.52	QP
5 303.54	14.07	1.32	28.23	17.21	46.00	28.79	QP
6 641.10	19.70	2.03	27.41	21.59	46.00	24.41	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit
are not reported.



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No.1289,Jiang Xing East Road,The Eastern Part of Wu Jiang
Economic Development Zone,JiangSu,China
Tel: (0512) 63403993 Fax: (0512) 63403993

Site NO. : 3m chamber Data NO. :12
Dis. / Ant. : 3m 6112D(22253)-1305-3M Ant. pol. : VERTICAL
Limit : FCC PART 15 CLASS B
Env. / Ins. : 26.8*C&49%/ESCI
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating : DC:3.3V
Test Mode : TX CH20 2450MHz
Memo : S/N:681803061
Engineer : boqiang_li

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission			
				Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 94.99	10.60	0.63	32.96	17.09	43.50	26.41	QP
2 126.03	13.00	0.73	27.91	14.70	43.50	28.80	QP
3 300.63	14.00	1.32	25.39	14.31	46.00	31.69	QP
4 419.94	17.40	1.51	26.18	17.96	46.00	28.04	QP
5 551.86	19.00	1.79	26.44	19.60	46.00	26.40	QP
6 870.99	21.70	2.33	28.21	25.46	46.00	20.54	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit
are not reported.



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No.1289,Jiang Xing East Road,The Eastern Part of Wu Jiang
Economic Development Zone,JiangSu,China
Tel: (0512) 63403993 Fax: (0512) 63403993

Site NO. : 3m chamber Data NO. :13
Dis. / Ant. : 3m 6112D(22253)-1305-3M Ant. pol. : HORIZONTAL
Limit : FCC PART 15 CLASS B
Env. / Ins. : 26.8*C&49%/ESCI
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating : DC:3.3V
Test Mode : TX CH25 2475MHz
Memo : S/N:681803061
Engineer : boqiang_li

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission			
				Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 32.91	18.70	0.24	25.82	17.26	40.00	22.74	QP
2 133.79	12.50	0.75	26.72	13.07	43.50	30.43	QP
3 167.74	10.40	0.88	28.05	12.60	43.50	30.90	QP
4 198.78	10.50	0.99	27.94	12.85	43.50	30.65	QP
5 303.54	14.07	1.32	28.31	17.29	46.00	28.71	QP
6 544.10	19.00	1.80	26.56	19.73	46.00	26.27	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit
are not reported.



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No.1289,Jiang Xing East Road,The Eastern Part of Wu Jiang
Economic Development Zone,JiangSu,China
Tel: (0512) 63403993 Fax: (0512) 63403993

Site NO. : 3m chamber Data NO. :14
Dis. / Ant. : 3m 6112D(22253)-1305-3M Ant. pol. : VERTICAL
Limit : FCC PART 15 CLASS B
Env. / Ins. : 26.8*C&49%/ESCI
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating : DC:3.3V
Test Mode : TX CH25 2475MHz
Memo : S/N:681803061
Engineer : boqiang_li

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission			
				Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 48.43	9.80	0.44	31.80	14.64	40.00	25.36	QP
2 94.99	10.60	0.63	28.00	12.13	43.50	31.37	QP
3 122.15	13.00	0.80	29.00	15.84	43.50	27.66	QP
4 167.74	10.40	0.88	33.99	18.54	43.50	24.96	QP
5 211.39	10.40	1.01	32.67	17.54	43.50	25.96	QP
6 586.78	19.10	1.83	28.56	21.84	46.00	24.16	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit
are not reported.



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Economic Development Zone,JiangSu,China
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Site NO. : 3m chamber Data NO. :15
Dis. / Ant. : 3m 6112D(22253)-1305-3M Ant. pol. : HORIZONTAL
Limit : FCC PART 15 CLASS B
Env. / Ins. : 26.8*C&49%/ESCI
EUT : RF4CE Remote Control Engineer : boqiang_li
M/N : BRC0550901
Power Rating : DC:3.3V
Test Mode : RX
Memo : S/N:681803061

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				Remark
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	
1 41.64	12.70	0.33	27.46	13.05	40.00	26.95	QP
2 109.54	12.40	0.67	26.41	12.46	43.50	31.04	QP
3 127.97	12.90	0.76	29.14	15.87	43.50	27.63	QP
4 144.46	11.60	0.81	26.05	11.61	43.50	31.89	QP
5 303.54	14.07	1.32	28.31	17.29	46.00	28.71	QP
6 642.07	19.70	2.05	29.18	23.39	46.00	22.61	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit
are not reported.



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Tel:(0512) 63403993 Fax:(0512) 63403993

Site NO. : 3m chamber Data NO. :16
Dis. / Ant. : 3m 6112D(22253)-1305-3M Ant. pol. : VERTICAL
Limit : FCC PART 15 CLASS B
Env. / Ins. : 26.8*C&49%/ESCI
EUT : RF4CE Remote Control Engineer : boqiang_li
M/N : BRC0550901
Power Rating : DC:3.3V
Test Mode : RX
Memo : S/N:681803061

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				Remark
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	
1 35.82	16.20	0.30	26.72	15.74	40.00	24.26	QP
2 48.43	9.80	0.44	33.80	16.64	40.00	23.36	QP
3 54.25	7.80	0.48	34.14	15.06	40.00	24.94	QP
4 212.36	10.30	1.00	33.91	18.67	43.50	24.83	QP
5 467.47	17.55	1.72	28.87	20.75	46.00	25.25	QP
6 710.94	19.90	2.18	29.45	24.11	46.00	21.89	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit
are not reported.

3.8. Restricted Bands Measurement Results (For Above 1GHz)



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Site NO. : 3m Semi-Anechoic Chamber Data NO. : 17
Dis. / Ant. : 3m 3115-62960-130507 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C PK
Env. / Ins. : 26.8*C&49%ESCI
EUT : RF4CE Remote Control Engineer : boqiang_li
M/N : BRC0550901
Power Rating: DC:3.3W
Test Mode : TX CH15 2425MHz
Memo : S/N:681803061

	Freq. (MHz)	Ant. (dB)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4850.00	33.02	9.21	43.66	34.51	51.38	74.00	22.62	Peak
2	7273.12	36.12	11.37	33.97	34.63	46.83	54.00	7.17	Average
3	7275.00	36.12	11.37	47.59	34.63	60.45	74.00	13.55	Peak
4	9700.00	37.98	13.90	37.81	34.40	55.29	74.00	18.71	Peak
5	9701.16	37.98	13.90	27.16	34.40	44.64	54.00	9.36	Average
6	11079.45	38.38	14.33	27.76	34.25	46.22	54.00	7.78	Average
7	11080.00	38.38	14.33	40.42	34.25	58.88	74.00	15.12	Peak
8	12124.01	39.23	14.93	27.42	33.91	47.67	54.00	6.33	Average
9	12125.00	39.23	14.93	38.89	33.91	59.14	74.00	14.86	Peak
10	12939.36	39.87	15.46	24.73	32.51	47.55	54.00	6.45	Average
11	12942.00	39.87	15.46	38.74	32.51	61.56	74.00	12.44	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official limit are not reported.



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Site NO. : 3m Semi-Anechoic Chamber Data NO. : 18
Dis. / Ant. : 3m 3115-62960-130507 Ant. pol. : VERTICAL
Limit : FCC PART 15 C PK
Env. / Ins. : 26.8*C&49%ESCI
EUT : RF4CE Remote Control Engineer : boqiang_li
M/N : BRC0550901
Power Rating: DC:3.3W
Test Mode : TX CH15 2425MHz
Memo : S/N:681803061

	Freq. (MHz)	Ant. (dB)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4850.00	33.02	9.21	45.89	34.51	53.61	74.00	20.39	Peak
2	4851.03	33.05	9.21	37.89	34.51	45.64	54.00	8.36	Average
3	7270.90	36.12	11.37	34.60	34.63	47.46	54.00	6.54	Average
4	7272.00	36.12	11.37	47.61	34.63	60.47	74.00	13.53	Peak
5	9700.00	37.98	13.90	40.58	34.40	58.06	74.00	15.94	Peak
6	9701.23	37.98	13.90	29.58	34.40	47.06	54.00	6.94	Average
7	10810.71	38.22	13.64	30.69	34.27	48.28	54.00	5.72	Average
8	10814.00	38.22	13.64	39.69	34.27	57.28	74.00	16.72	Peak
9	12120.24	39.23	14.93	27.82	33.91	48.07	54.00	5.93	Average
10	12125.00	39.23	14.93	33.82	33.91	54.07	74.00	19.93	Peak
11	12911.66	39.83	15.44	25.67	32.56	48.38	54.00	5.62	Average
12	12914.00	39.83	15.44	36.62	32.56	59.33	74.00	14.67	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official limit are not reported.



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Site NO. : 3m Semi-Anechoic Chamber Data NO. : 19
Dis. / Ant. : 3m 3115-62960-130507 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C PK
Env. / Ins. : 26.8*C&49%ESCI Engineer : boqiang_li
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating: DC:3.3W
Test Mode : TX CH20 2450MHz
Memo : S/N:681803061

Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Emission			Margin (dB)	Remark
					Level (dBuV/m)	Limits (dBuV/m)			
1 4900.00	33.11	9.19	38.29	34.49	46.10	74.00	27.90	Peak	
2 7342.00	36.30	11.33	39.98	34.63	52.98	74.00	21.02	Peak	
3 9800.00	38.02	13.90	35.43	34.37	52.98	74.00	21.02	Peak	
4 11122.00	38.42	14.38	34.38	34.24	52.94	74.00	21.06	Peak	
5 12250.00	39.14	14.80	32.68	33.69	52.93	74.00	21.07	Peak	
6 12254.46	39.14	14.80	28.00	33.69	48.25	54.00	5.75	Average	
7 12816.00	39.63	15.37	33.46	32.73	55.73	74.00	18.27	Peak	
8 12819.38	39.63	15.45	26.46	32.69	48.85	54.00	5.15	Average	

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official limit are not reported.



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Site NO. : 3m Semi-Anechoic Chamber Data NO. : 20
Dis. / Ant. : 3m 3115-62960-130507 Ant. pol. : VERTICAL
Limit : FCC PART 15 C PK
Env. / Ins. : 26.8*C&49%ESCI Engineer : boqiang_li
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating: DC:3.3W
Test Mode : TX CH20 2450MHz
Memo : S/N:681803061

Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Emission			Margin (dB)	Remark
					Level (dBuV/m)	Limits (dBuV/m)			
1 4897.23	33.11	9.19	33.05	34.49	40.86	54.00	13.14	Average	
2 4900.00	33.11	9.19	42.00	34.49	49.81	74.00	24.19	Peak	
3 7351.00	36.34	11.33	29.52	34.63	42.56	54.00	11.44	Average	
4 7356.00	36.34	11.33	48.21	34.63	61.25	74.00	12.75	Peak	
5 9800.00	38.02	13.90	35.78	34.37	53.33	74.00	20.67	Peak	
6 9802.46	38.02	13.90	28.59	34.37	46.14	54.00	7.86	Average	
7 11762.38	39.06	14.57	28.56	34.16	48.03	54.00	5.97	Average	
8 11766.00	39.06	14.57	34.65	34.16	54.12	74.00	19.88	Peak	
9 12250.00	39.14	14.80	32.88	33.69	53.13	74.00	20.87	Peak	
10 12254.39	39.14	14.80	27.88	33.69	48.13	54.00	5.87	Average	
11 12786.22	39.57	15.36	26.49	32.77	48.65	54.00	5.35	Average	
12 12788.00	39.57	15.36	33.67	32.77	55.83	74.00	18.17	Peak	

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official limit are not reported.



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Site NO. : 3m Semi-Anechoic Chamber Data NO. : 21
Dis. / Ant. : 3m 3115-62960-130507 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C PK
Env. / Ins. : 26.8*C&49%ESCI Engineer : boqiang_li
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating: DC:3.3W
Test Mode : TX CH25 2475MHz
Memo : S/N:681803061

	Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4950.00	33.21	9.21	36.54	34.48	44.48	74.00	29.52	Peak
2	7426.00	36.52	11.38	34.55	34.63	47.82	74.00	26.18	Peak
3	9900.00	38.07	13.75	34.47	34.35	51.94	74.00	22.06	Peak
4	11371.56	38.67	14.27	27.64	34.21	46.37	54.00	7.63	Average
5	11374.00	38.67	14.27	34.71	34.21	53.44	74.00	20.56	Peak
6	12375.00	39.07	14.94	33.31	33.47	53.85	74.00	20.15	Peak
7	12377.66	39.07	14.94	26.98	33.47	47.52	54.00	6.48	Average
8	12924.56	39.83	15.46	25.78	32.51	48.56	54.00	5.44	Average
9	12928.00	39.87	15.46	34.44	32.51	57.26	74.00	16.74	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official limit are not reported.



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Site NO. : 3m Semi-Anechoic Chamber Data NO. : 22
Dis. / Ant. : 3m 3115-62960-130507 Ant. pol. : VERTICAL
Limit : FCC PART 15 C PK
Env. / Ins. : 26.8*C&49%ESCI Engineer : boqiang_li
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating: DC:3.3W
Test Mode : TX CH25 2475MHz
Memo : S/N:681803061

	Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4948.00	33.21	9.21	41.51	34.48	49.45	74.00	24.55	Peak
2	7425.00	36.52	11.38	29.68	34.63	42.95	54.00	11.05	Average
3	7426.00	36.52	11.38	40.91	34.63	54.18	74.00	19.82	Peak
4	9900.00	38.07	13.75	34.85	34.35	52.32	74.00	21.68	Peak
5	10394.00	38.10	13.67	35.80	34.30	53.27	74.00	20.73	Peak
6	10399.63	38.10	13.66	30.19	34.30	47.65	54.00	6.35	Average
7	12370.38	39.07	14.94	27.89	33.47	48.43	54.00	5.57	Average
8	12375.00	39.07	14.94	33.22	33.47	53.76	74.00	20.24	Peak
9	12900.00	39.80	15.44	33.98	32.56	56.66	74.00	17.34	Peak
10	12904.56	39.80	15.44	26.06	32.56	48.74	54.00	5.26	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official limit are not reported.



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Site NO. : 3m Semi-Anechoic Chamber Data NO. : 23
Dis. / Ant. : 3m 3115-62960-130507 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C PK Engineer : boqiang_li
Env. / Ins. : 26.8*C&49%ESCI
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating: DC:3.3V
Test Mode : RX
Memo : S/N:681803061

	Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5881.55	34.25	10.02	34.29	34.47	44.09	54.00	9.91	Average
2	5886.00	34.25	10.07	44.60	34.47	54.45	74.00	19.55	Peak
3	7832.00	36.90	11.97	41.58	34.64	55.81	74.00	18.19	Peak
4	7836.90	36.90	11.97	33.75	34.64	47.98	54.00	6.02	Average
5	9722.00	37.99	13.87	37.90	34.39	55.37	74.00	18.63	Peak
6	9725.85	37.99	13.87	30.07	34.39	47.54	54.00	6.46	Average
7	10352.00	38.10	13.59	38.41	34.30	55.80	74.00	18.20	Peak
8	10355.07	38.10	13.59	30.53	34.30	47.92	54.00	6.08	Average
9	11934.00	39.23	14.75	36.33	34.14	56.17	74.00	17.83	Peak
10	11937.26	39.23	14.75	27.54	34.14	47.38	54.00	6.62	Average
11	12942.00	39.87	15.46	36.74	32.51	59.56	74.00	14.44	Peak
12	12947.86	39.90	15.46	25.46	32.47	48.35	54.00	5.65	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official limit are not reported.



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Site NO. : 3m Semi-Anechoic Chamber Data NO. : 24
Dis. / Ant. : 3m 3115-62960-130507 Ant. pol. : VERTICAL
Limit : FCC PART 15 C PK Engineer : boqiang_li
Env. / Ins. : 26.8*C&49%ESCI
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating: DC:3.3V
Test Mode : RX
Memo : S/N:681803061

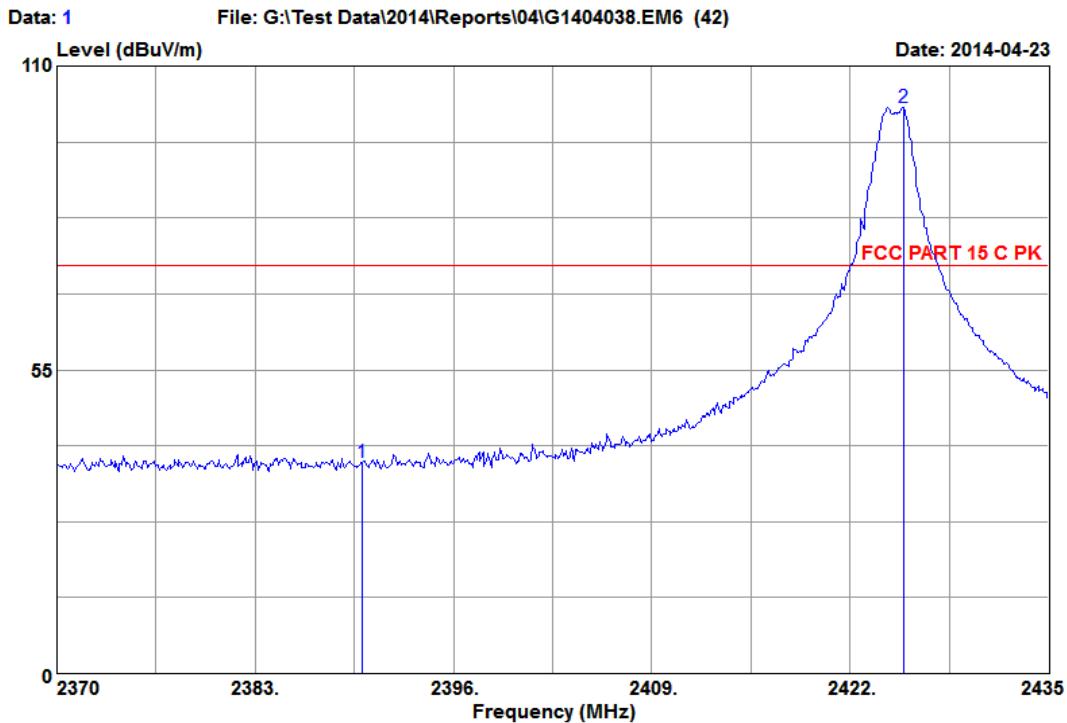
	Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5858.00	34.24	10.02	39.82	34.47	49.61	74.00	24.39	Peak
2	7902.00	36.94	12.04	36.46	34.65	50.79	74.00	23.21	Peak
3	8896.00	37.81	12.50	35.55	34.59	51.27	74.00	22.73	Peak
4	9876.00	38.05	14.03	34.76	34.35	52.49	74.00	21.51	Peak
5	11201.53	38.50	14.42	27.45	34.23	46.14	54.00	7.86	Average
6	11206.00	38.50	14.42	35.83	34.23	54.52	74.00	19.48	Peak
7	11738.00	39.04	14.51	33.23	34.16	52.62	74.00	21.38	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official limit are not reported.

3.9. Spurious Emission Measurement Results in Band Edge Emission (FCC Part 15, 15.205)



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Site NO. : 3m Semi-Anechoic Chamber
Dis. / Ant. : 3m 3115-62960-130507
Limit : FCC PART 15 C PK
Env. / Ins. : 26.8*C&49%/ESCI
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating: DC:3.3W
Test Mode : TX CH15 2425MHz
Memo : S/N:681803061

Data NO. : 1
Ant. pol. : HORIZONTAL
Engineer : boqiang_li

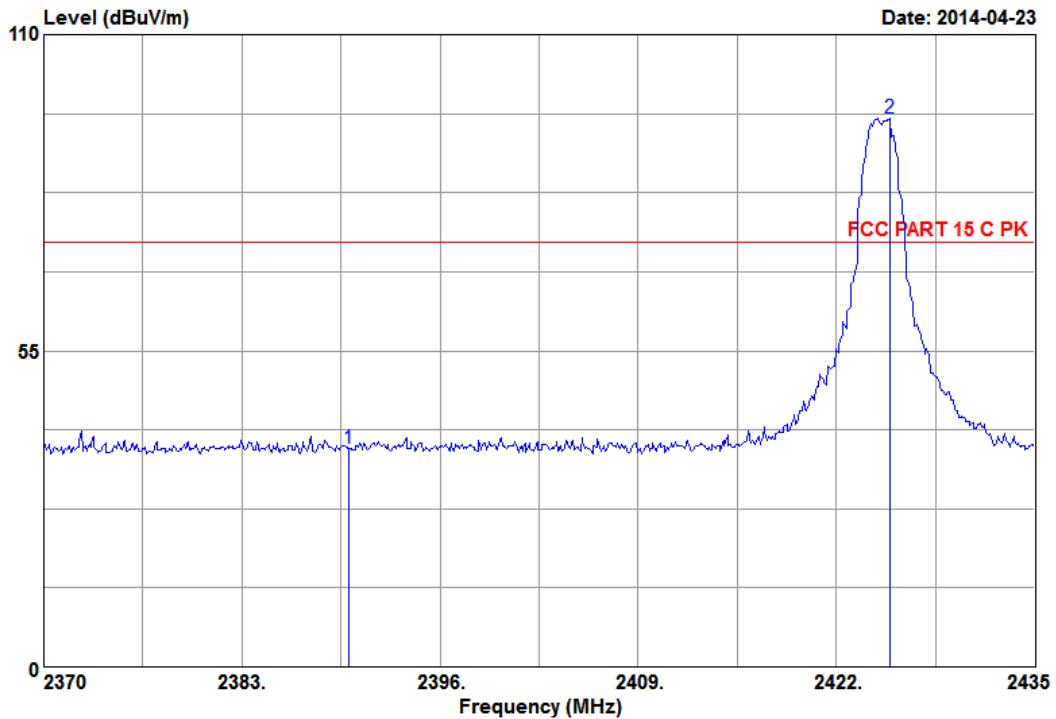
	Ant.	Cable	Preamp	Emission				
Freq.	Factor	Loss	Reading	Factor	Level	Limits	Margin	Remark
(MHz)	(dB)	(dB)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.00	28.07	6.40	38.86	35.07	38.26	74.00	35.74 Peak
2	2425.51	28.15	6.49	102.95	35.06	102.53	74.00	-28.53 Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 2 File: G:\Test Data\2014\Reports\04\G1404038.EM6 (42)



Site NO. : 3m Semi-Anechoic Chamber
Dis. / Ant. : 3m 3115-62960-130507
Limit : FCC PART 15 C PK
Env. / Ins. : 26.8*C&49%/ESCI
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating: DC: 3.3W
Test Mode : TX CH15 2425MHz
Memo : S/N:681803061

Data NO. : 2
Ant. pol. : VERTICAL
Engineer : boqiang_li

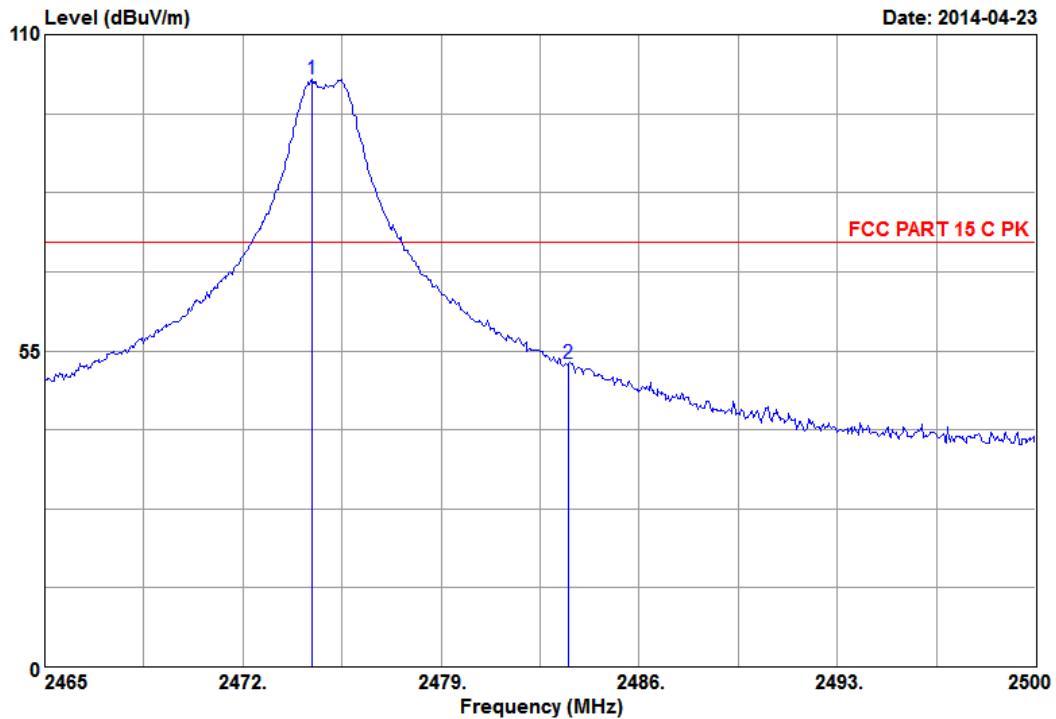
	Ant.	Cable	Preamp	Emission				
Freq.	Factor	Loss	Reading	Factor	Level	Limits	Margin	Remark
(MHz)	(dB)	(dB)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.00	28.07	6.40	38.68	35.07	38.08	74.00	35.92 Peak
2	2425.51	28.15	6.49	95.88	35.06	95.46	74.00	-21.46 Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 5 File: G:\Test Data\2014\Reports\04\G1404038.EM6 (42)



Site NO. : 3m Semi-Anechoic Chamber
Dis. / Ant. : 3m 3115-62960-130507
Limit : FCC PART 15 C PK
Env. / Ins. : 26.8*C&49%ESCI
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating: DC: 3.3W
Test Mode : TX CH25 2475MHz
Memo : S/N:681803061

Data NO. : 5
Ant. pol. : HORIZONTAL
Engineer : boqiang_li

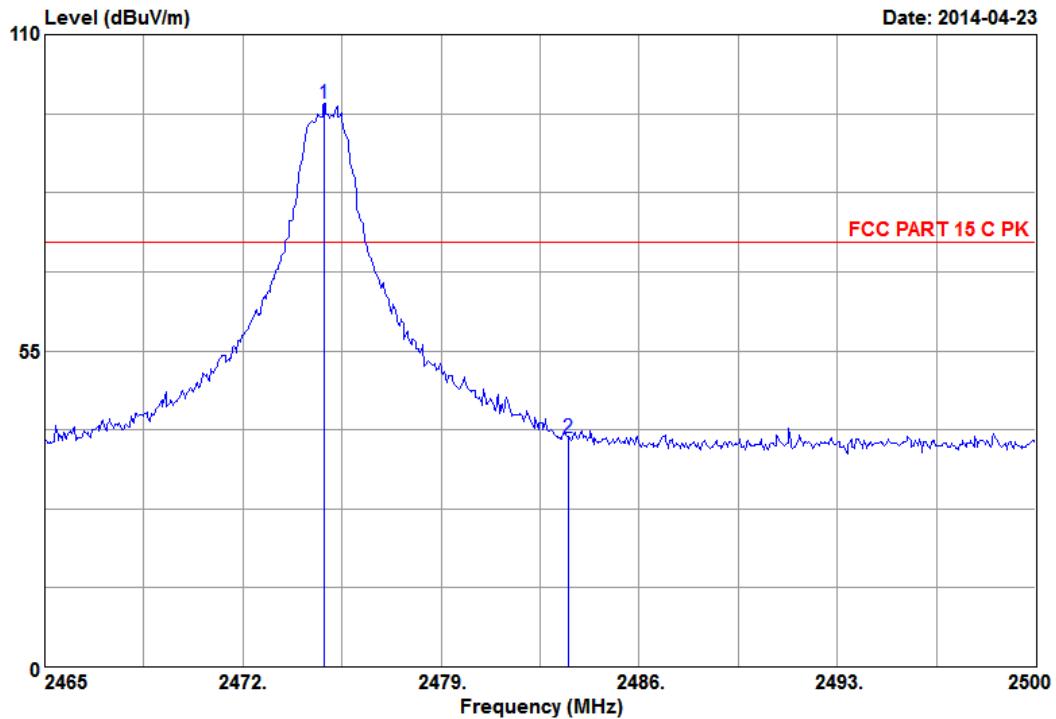
Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Emission		Margin (dB)	Remark
					Level (dBuV/m)	Limits (dBuV/m)		
1 2474.45	28.26	6.44	102.73	35.06	102.37	74.00	-28.37	Peak
2 2483.50	28.26	6.44	53.21	35.06	52.85	74.00	21.15	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official
limit are not reported.



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No.1289, Jiang Xing East Road, The Eastern Part of Wu Jiang
Economic Development Zone, JiangSu, China
Tel: (0512) 63403993 Fax: (0512) 63403993

Data: 6 File: G:\Test Data\2014\Reports\04\G1404038.EM6 (42)



Site NO. : 3m Semi-Anechoic Chamber
Dis. / Ant. : 3m 3115-62960-130507
Limit : FCC PART 15 C PK
Env. / Ins. : 26.8*C&49%ESCI
EUT : RF4CE Remote Control
M/N : BRC0550901
Power Rating: DC:3.3W
Test Mode : TX CH25 2475MHz
Memo : S/N:681803061

Data NO. : 6
Ant. pol. : VERTICAL
Engineer : boqiang_li

Freq. (MHz)	Ant. (dB)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2474.87	28.26	6.44	98.35	35.06	97.99	74.00	-23.99	Peak
2 2483.50	28.26	6.44	40.36	35.06	40.00	74.00	34.00	Peak

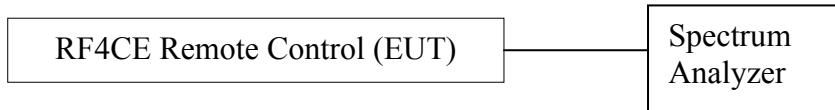
Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official
limit are not reported.

4. 6 dB BANDWIDTH MEASUREMENT

4.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	PXA Signal Analyzer	Agilent	N9030A	MY53120367	2013-06-24	2014-06-23

4.2. Block Diagram of Test Setup



4.3. Specification Limits (§15.247(a)(2))

Systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500kHz.

4.4. Test Procedure

The transmitter output was connected to the test receiver / spectrum analyzer. The bandwidth of the fundamental frequency was measured by spectrum analyzer. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB. The measurement guideline was according to KDB558074 v03r01:2013.

4.5. Test Results

PASSED. All the test results are attached in next pages.

Channel	Center Frequency(MHz)	6 DB Bandwidth(MHz)
15	2425	1.608
20	2450	1.616
25	2475	1.592

CH 15



CH 20



CH 25

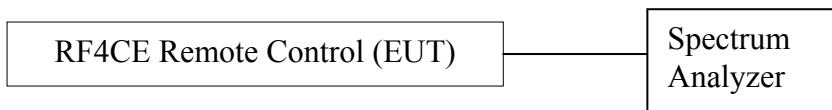


5. MAXIMUM PEAK OUTPUT POWER MEASUREMENT

5.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	PXA Signal Analyzer	Agilent	N9030A	MY53120367	2013-06-24	2014-06-23

5.2. Block Diagram of Test Setup



5.3. Specification Limits (§15.247(b)(3))

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

5.4. Test Procedure

The transmitter output was connected to the spectrum analyzer and record the reading. The measurement guideline was according to KDB558074 D01 v03r01.

5.5. Test Results

PASSED. All the test results are attached in next pages.

Channel	Frequency	Power(dBm)	Limit(dBm)
15	2425	1.465	30
20	2450	1.708	30
25	2475	1.809	30

6. BAND EDGES MEASUREMENT

6.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	PXA Signal Analyzer	Agilent	N9030A	MY53120367	2013-06-24	2014-06-23

6.2. Block Diagram of Test Setup

The same as section 5.2.

6.3. Specification Limits (§15.247(d))

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

6.4. Test Procedure

The transmitter output was connected to the test receiver / spectrum analyzer. Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz with suitable frequency span including 100kHz bandwidth from band edge.

6.5. Test Results

PASSED. The testing data was attached in the next pages.

CH15



CH25



7. POWER SPECTRAL DENSITY MEASUREMENT

7.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	PXA Signal Analyzer	Agilent	N9030A	MY53120367	2013-06-24	2014-06-23

7.2. Block Diagram of Test Setup

The same as section 5.2.

7.3. Specification Limits (§15.247(e))

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

7.4. Test Procedure

The transmitter output was connected to the test receiver / spectrum analyzer. The test receiver / spectrum analyzer was set as $RBW \geq 3\text{kHz}$, $VBW \geq 3 \times RBW$, span = 1.5 times the DTS channel bandwidth. The measurement guideline was according to KDB558074 v03r01:2013.

7.5. Test Results

PASSED. All the test results are attached in next page.

Channel	Frequency(GHz)	Value(dBm)
15	2.424736	-4.351
20	2.449728	-4.008
25	2.475224	-4.904

CH 15



CH 20



CH 25



8. EMISSION LIMITATIONS MEASUREMENT

8.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	PXA Signal Analyzer	Agilent	N9030A	MY53120367	2013-06-24	2014-06-23

8.2. Block Diagram of Test Setup

The same as section 5.2.

8.3. Specification Limits (§15.247(d))

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

8.4. Test Procedure

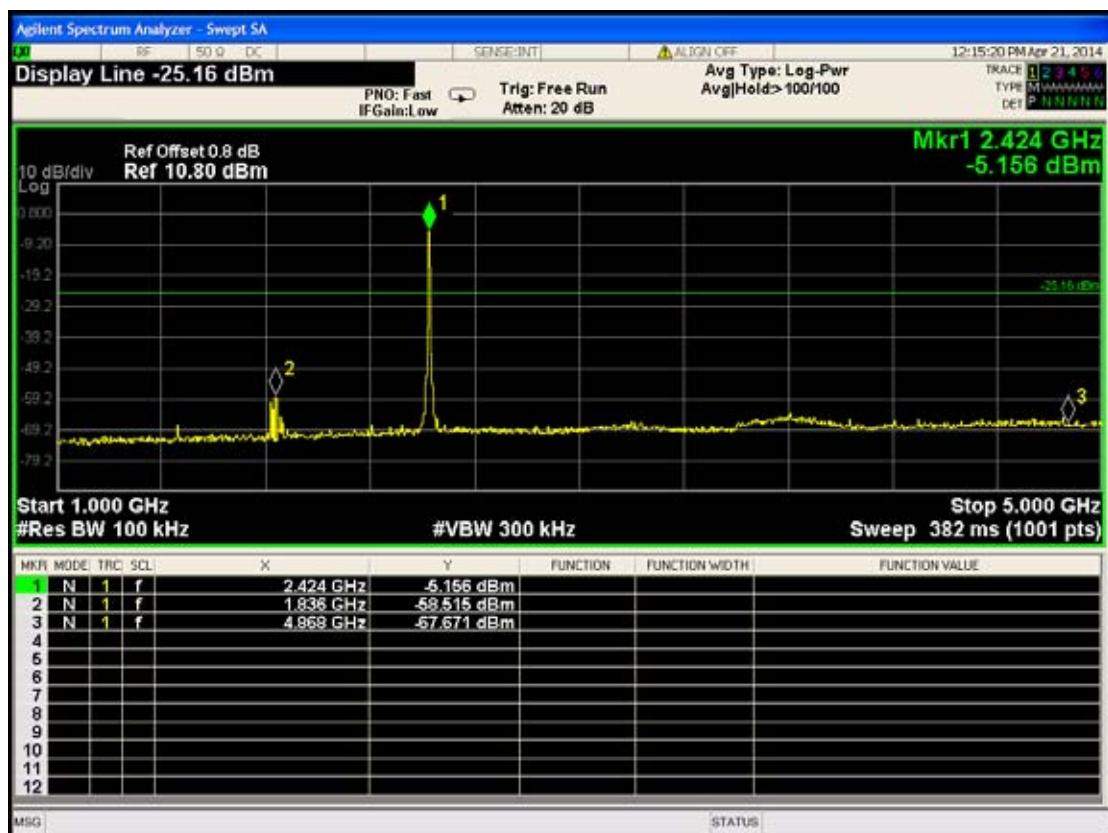
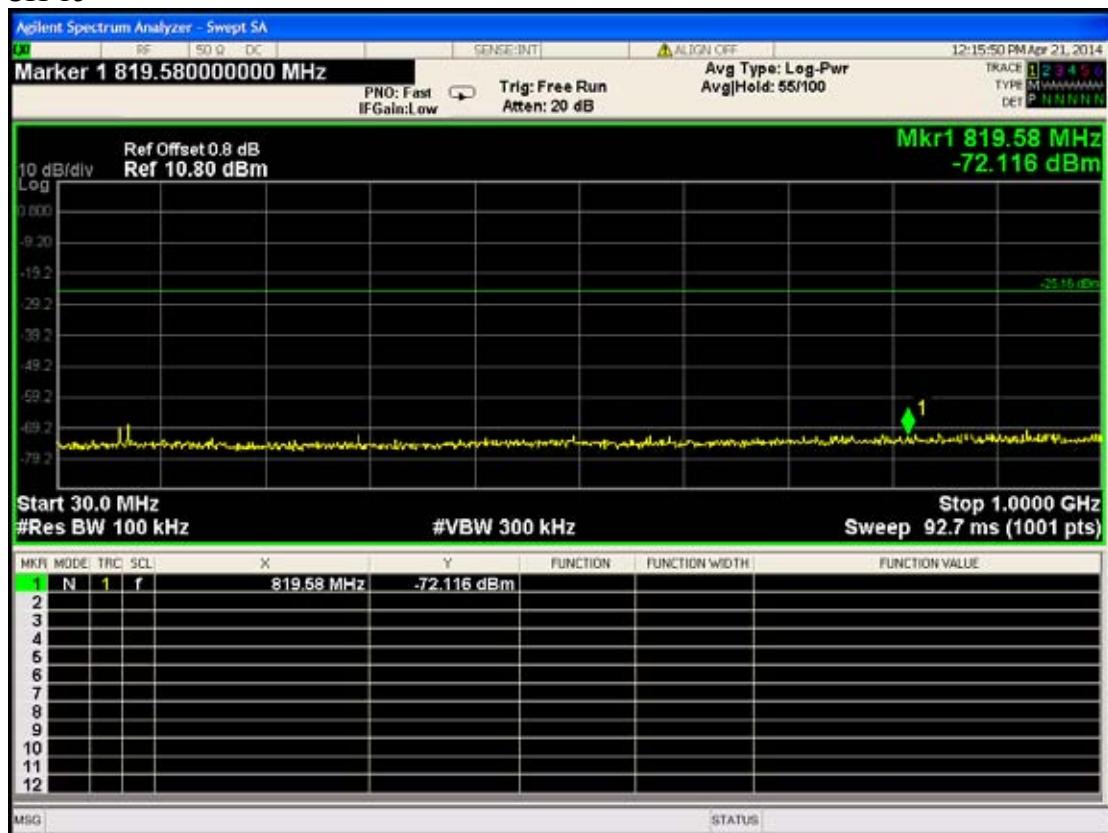
The transmitter output was connected to the spectrum analyzer. Set RBW = 100kHz, VBW \geq 300 kHz, scan up through 10th harmonic. All harmonics/spurs must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW. The measurement guideline was according to KDB558074 v03r01:2013.

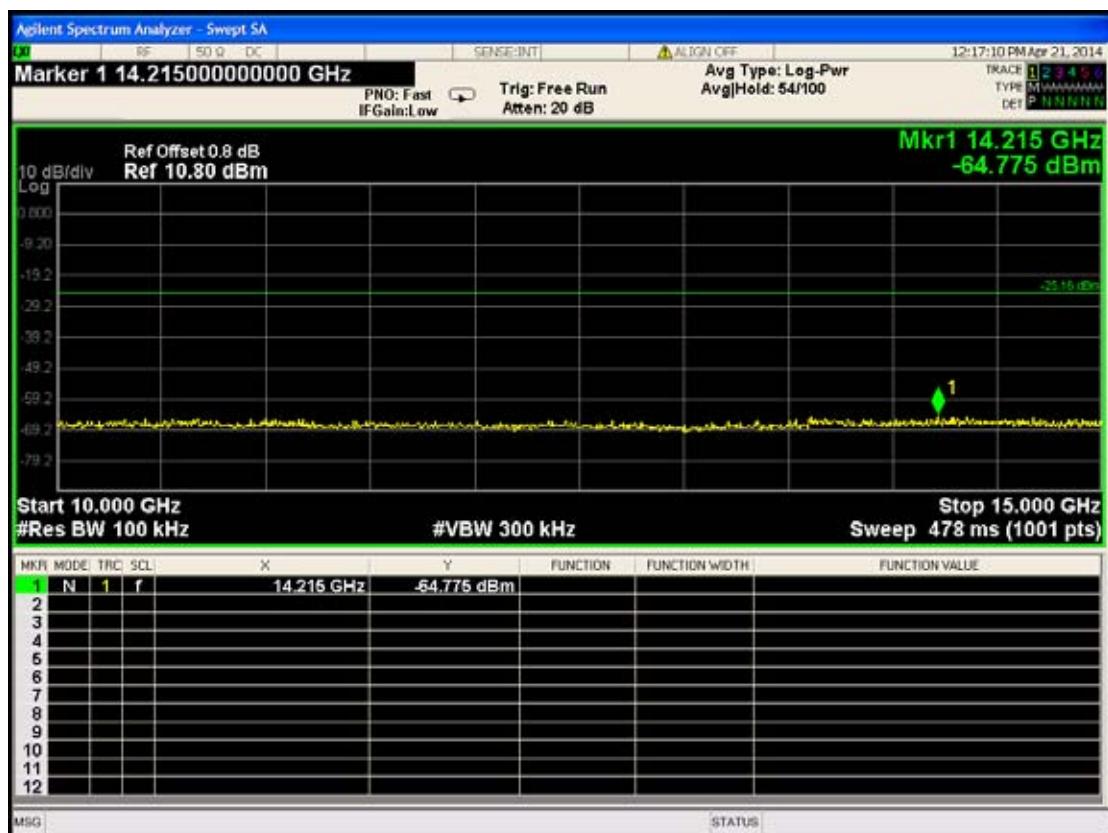
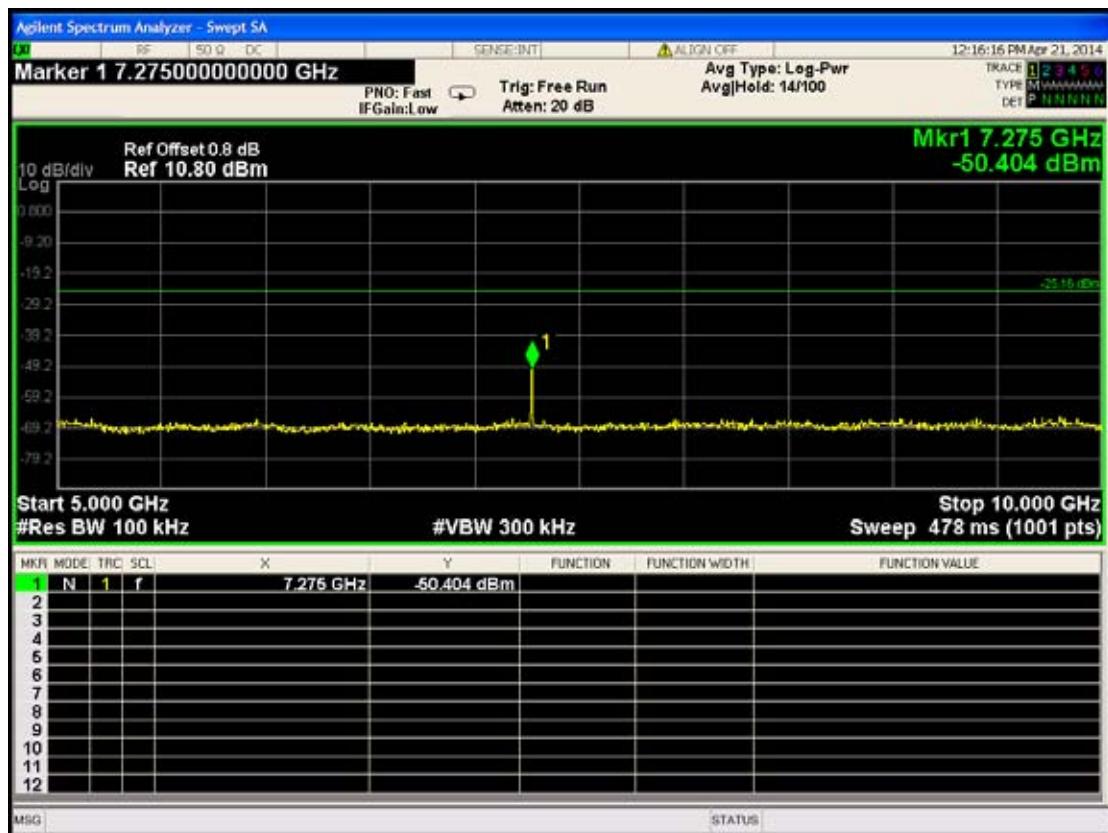
8.5. Test Results

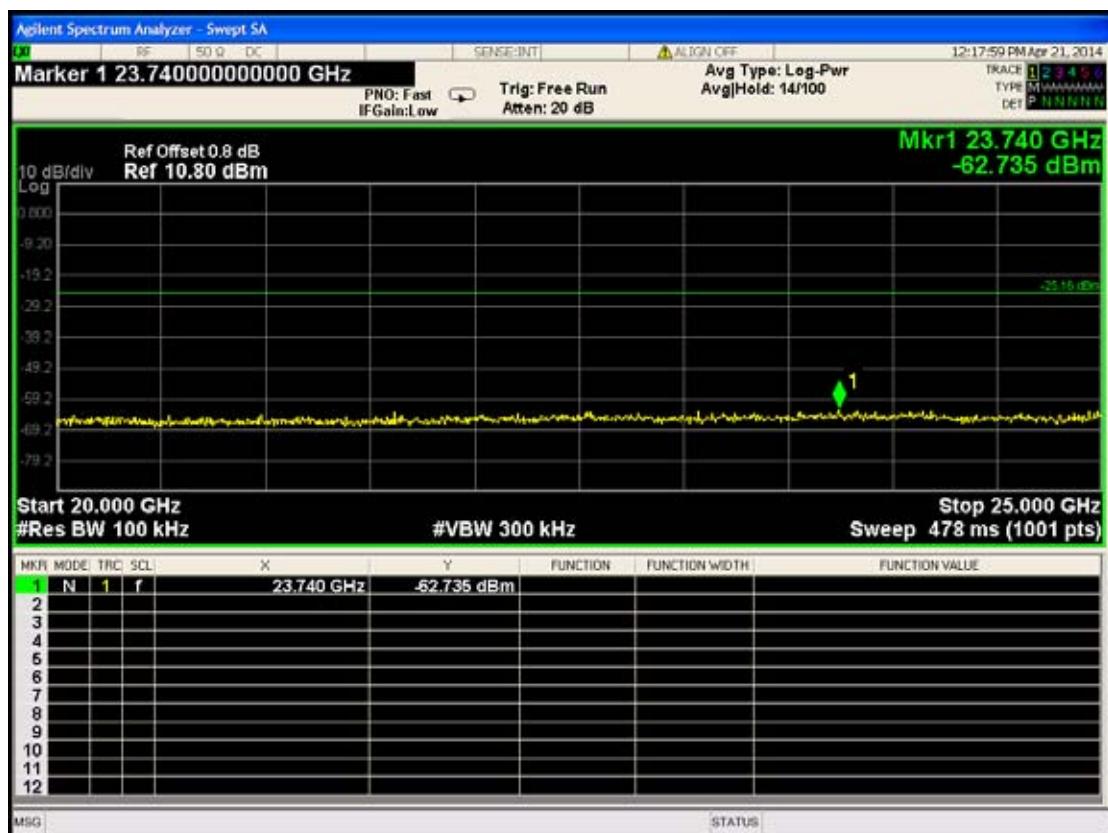
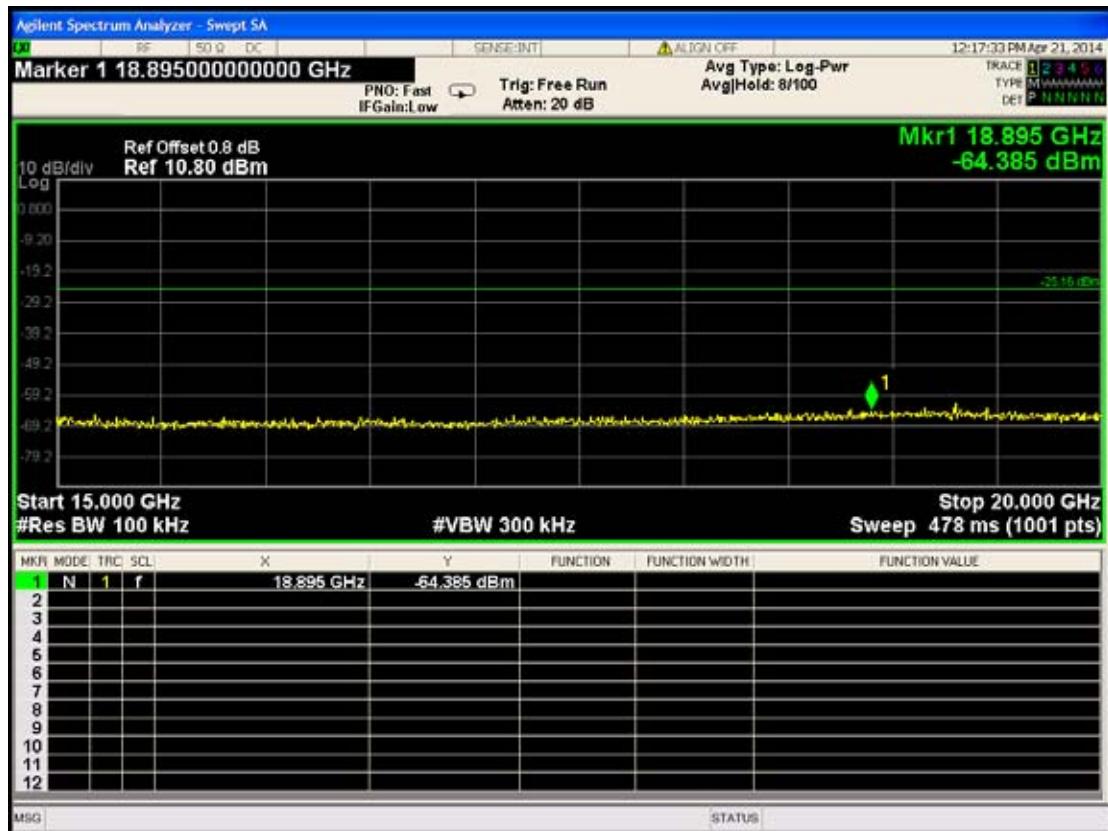
PASSED. All the test results are attached in next pages.

Channel	Frequency(MHz)	Amplitude(dBm)
15	819.58	-72.116
	2424	-5.156
	1836	-58.515
	4868	-67.671
	7275	-50.404
	14215	-64.775
	18895	-64.385
	23740	-62.735
20	806.97	-72.631
	2448	-4.086
	1836	-58.177
	4860	-68.193
	7350	-49.283
	14715	-66.142
	18705	-63.618
	24555	-62.673
25	777.87	-72.911
	2476	-4.088
	1836	-58.175
	4908	-66.859
	7425	-51.717
	14020	-65.532
	18470	-63.451
	23995	-61.990

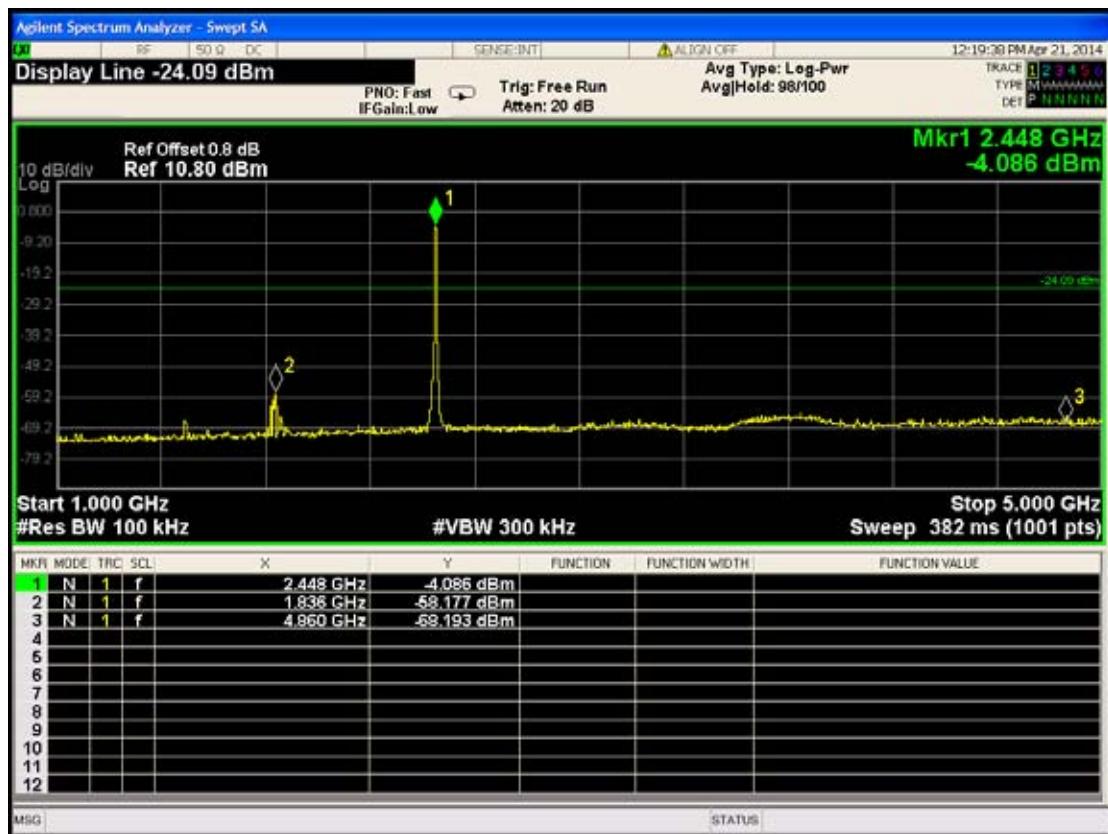
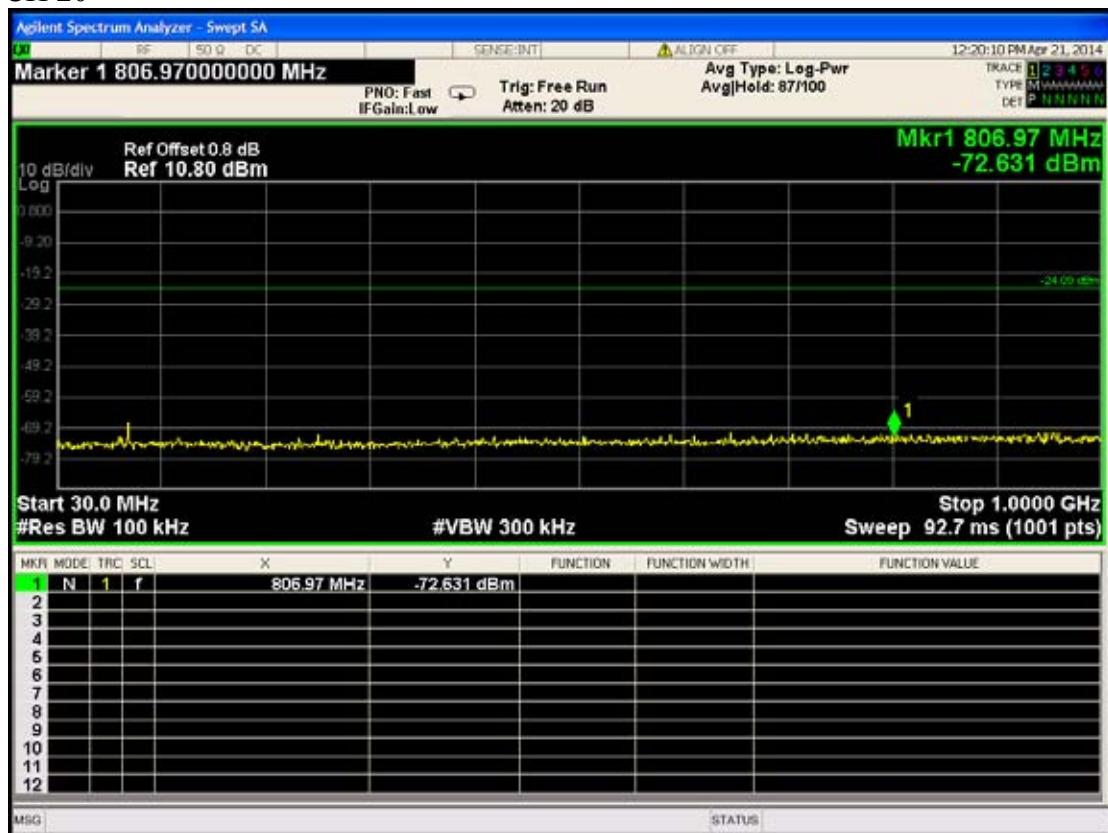
CH 15

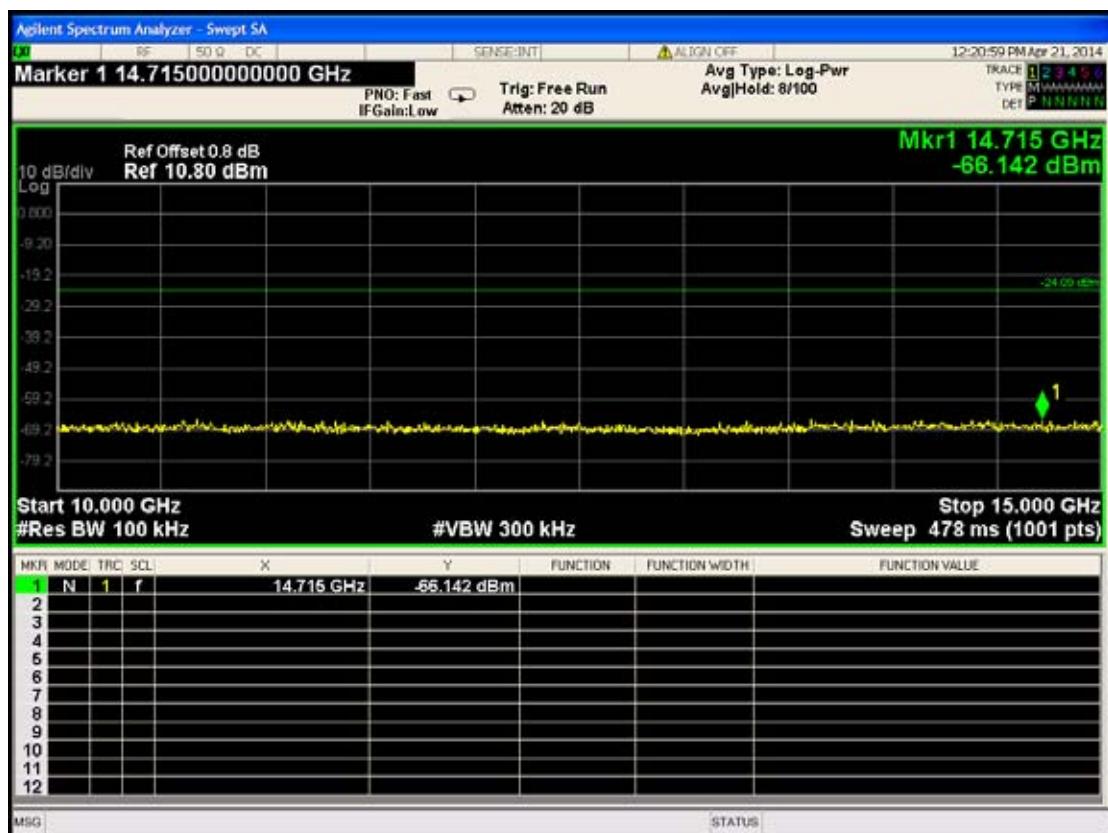
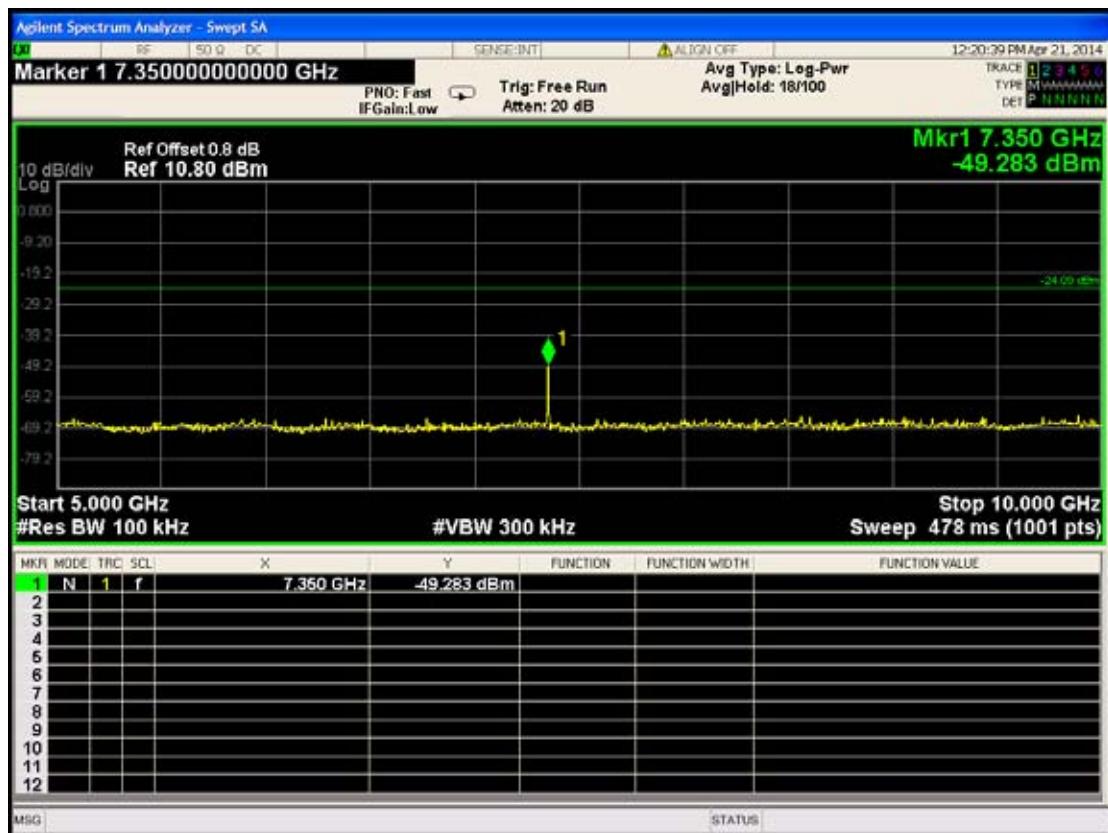


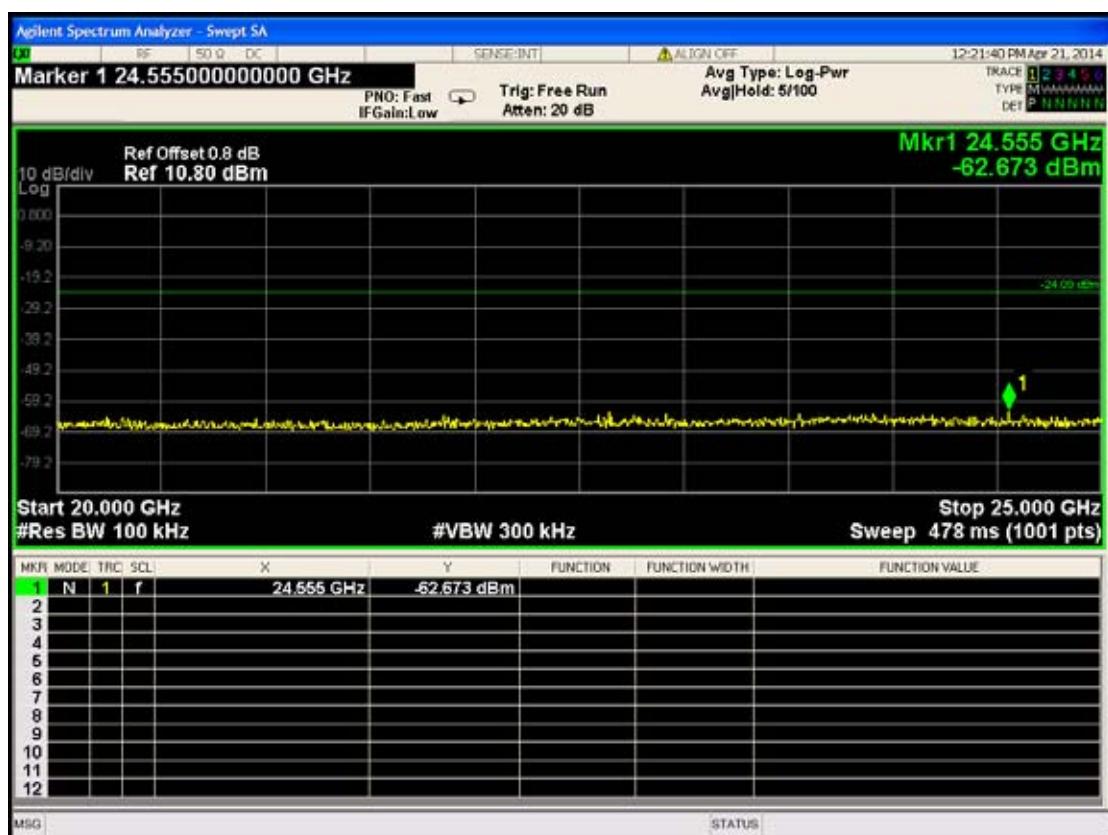
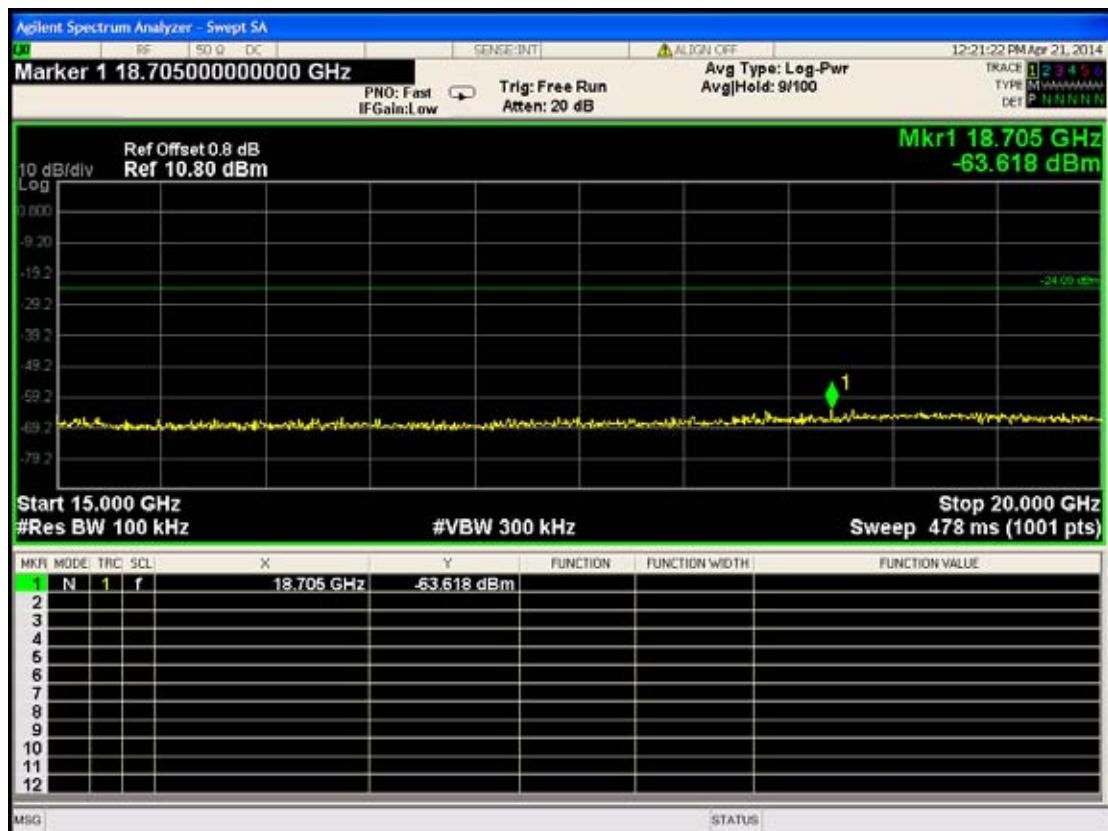




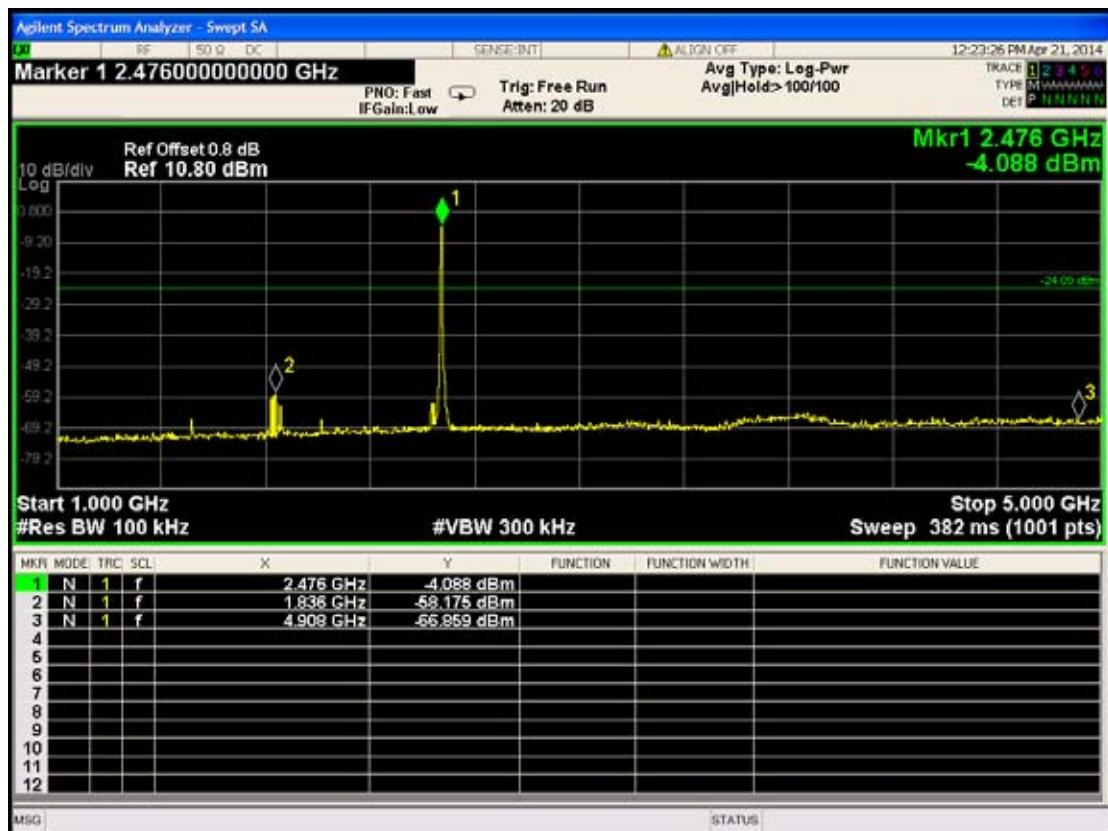
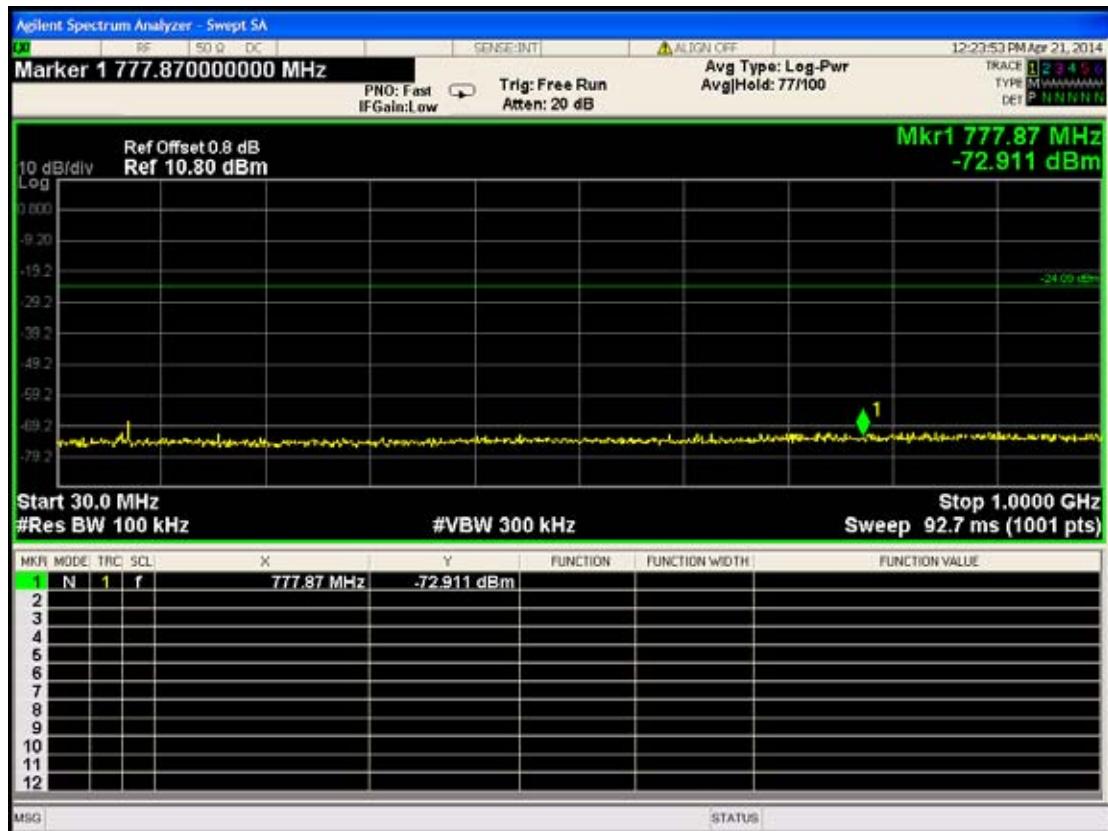
CH 20

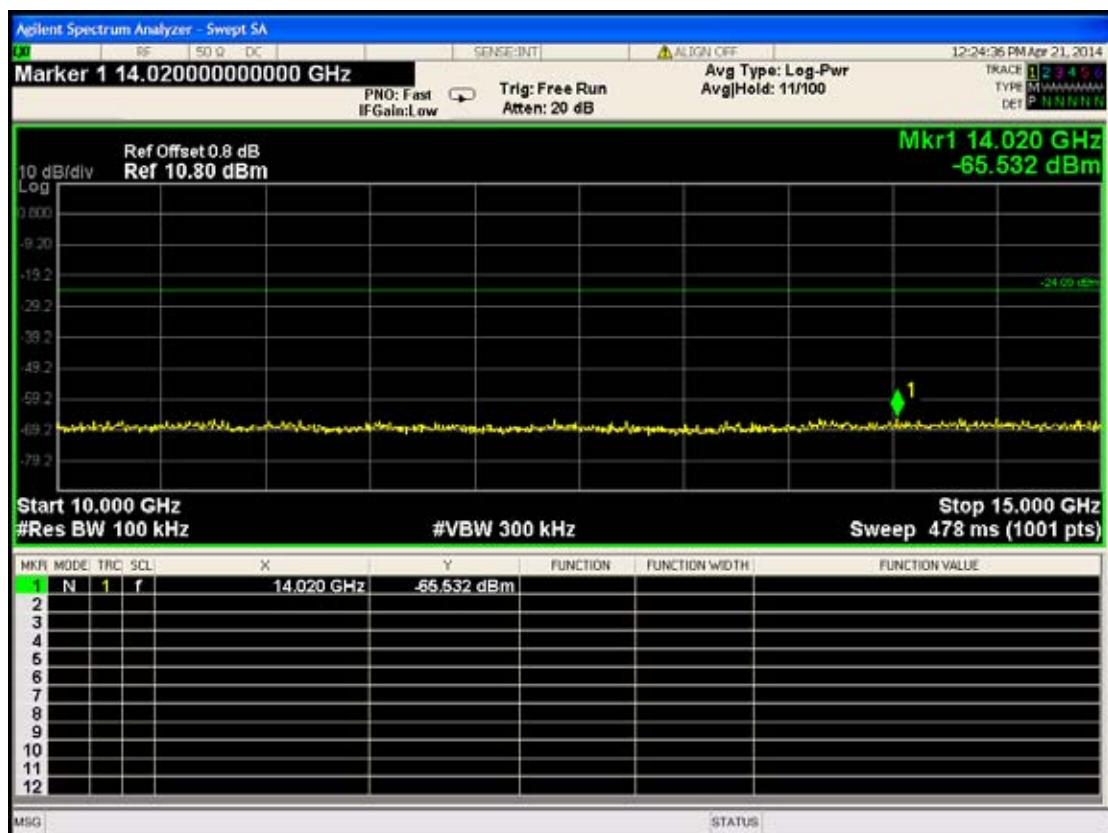
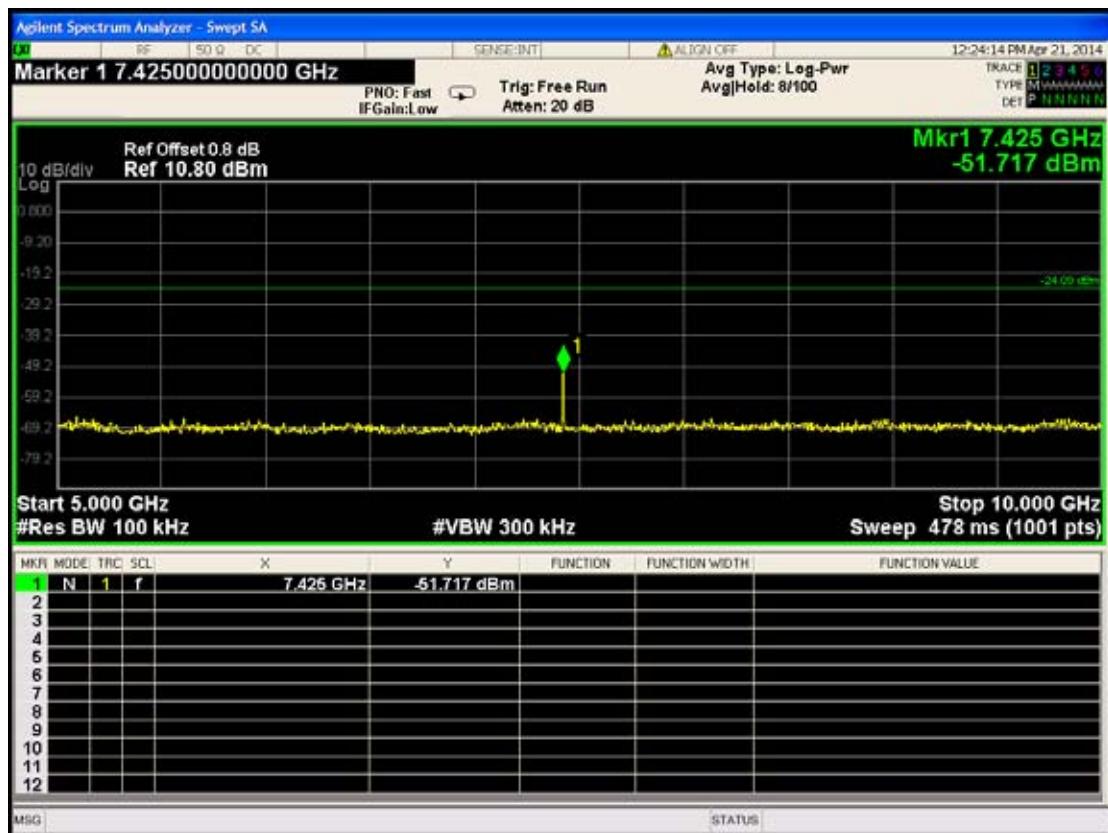


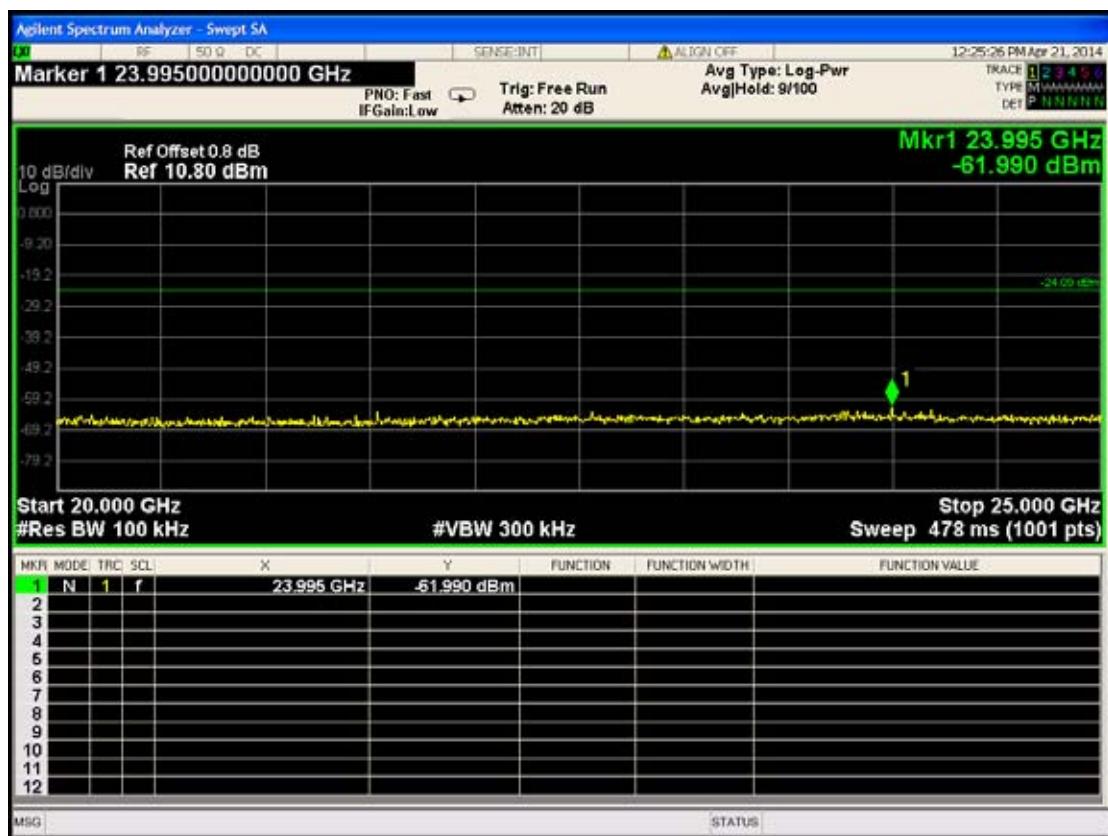
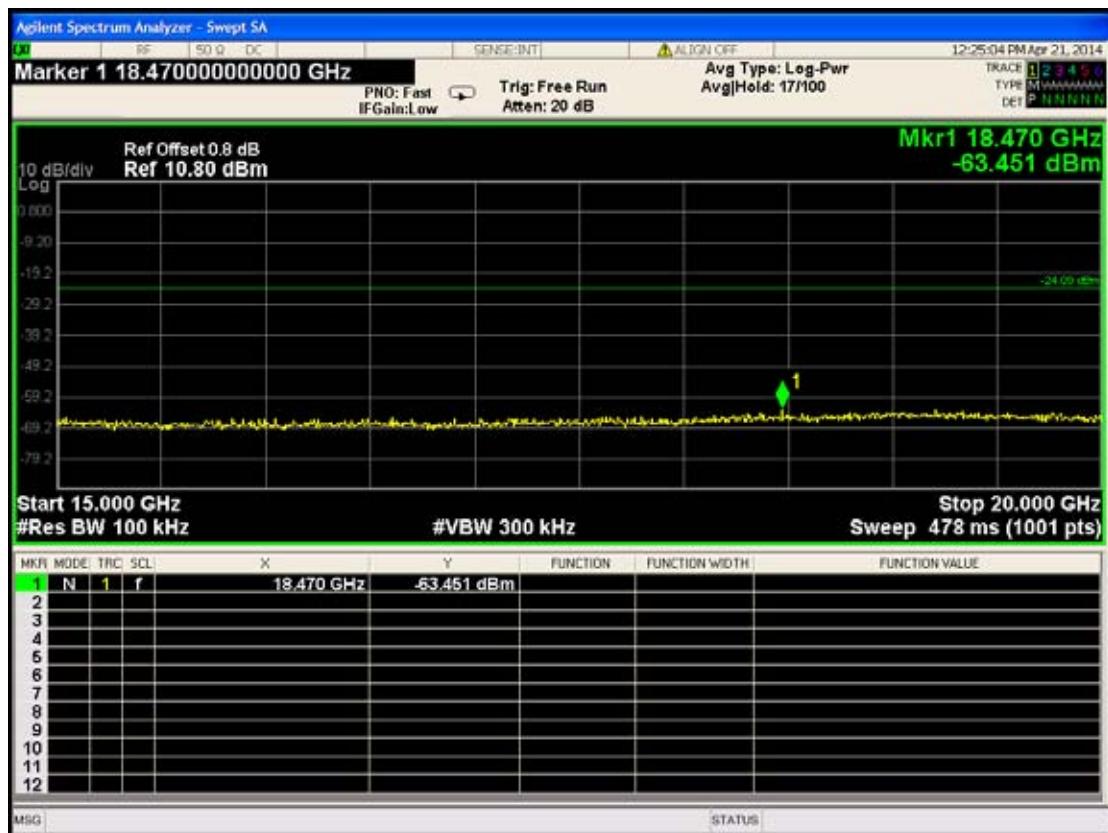




CH 25







9. DEVIATION TO TEST SPECIFICATIONS

【NONE】