FCC Test Report

Product Name ： Driving Recorder

Model No. ： GoSafe WiFi

FCC ID. ： 2AA58GOSAFEWIFI

Applicant ： PAPAGO INC.

Address ： 4F., No.200, Gangcian Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

Date of Receipt ： 2013/08/23

Issued Date ： 2013/09/27

Report No. ： 138469R-RFUSP42V01

Report Version ： V1.0

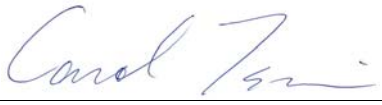
Test Report Certification

Issued Date : 2013/09/27
Report No. : 138469R-RFUSP42V01

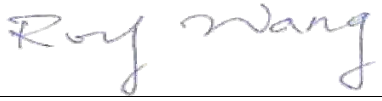
QuieTek

Product Name	:	Driving Recorder
Applicant	:	PAPAGO INC.
Address	:	4F., No.200, Gangcian Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)
Manufacturer	:	SanJet Technology Corp.
Model No.	:	GoSafe WiFi
FCC ID.	:	2AA58GOSAFEWIFI
EUT Test Voltage	:	DC 12V (Power by Battery)
Trade Name	:	PAPAGO!
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C Section 15.247: 2012 ANSI C63.4: 2009
Test Result	:	Complied

The test results relate only to the samples tested.
The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

Documented By : 
(Carol Tsai / Engineering Adm. Assistant)

Reviewed By : 
(JuBo Shen / Senior Engineer)

Approved By : 
(Roy Wang / Manager)

Laboratory Information

We, **QuieTek Corporation**, are an independent RF consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025 specified testing scopes:

Taiwan R.O.C.	**:**	**TAF, Accreditation Number: 1313**
USA	**:**	**FCC, Registration Number: 365520**
Canada	**:**	**IC, Submission No: 150981**

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site:http://www.quietek.com/tw/ctg/cts/accreditations.htm
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory:
No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

LinKou Testing Laboratory:
No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C.
TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

TABLE OF CONTENTS

1. General Information

1.1. EUT Description

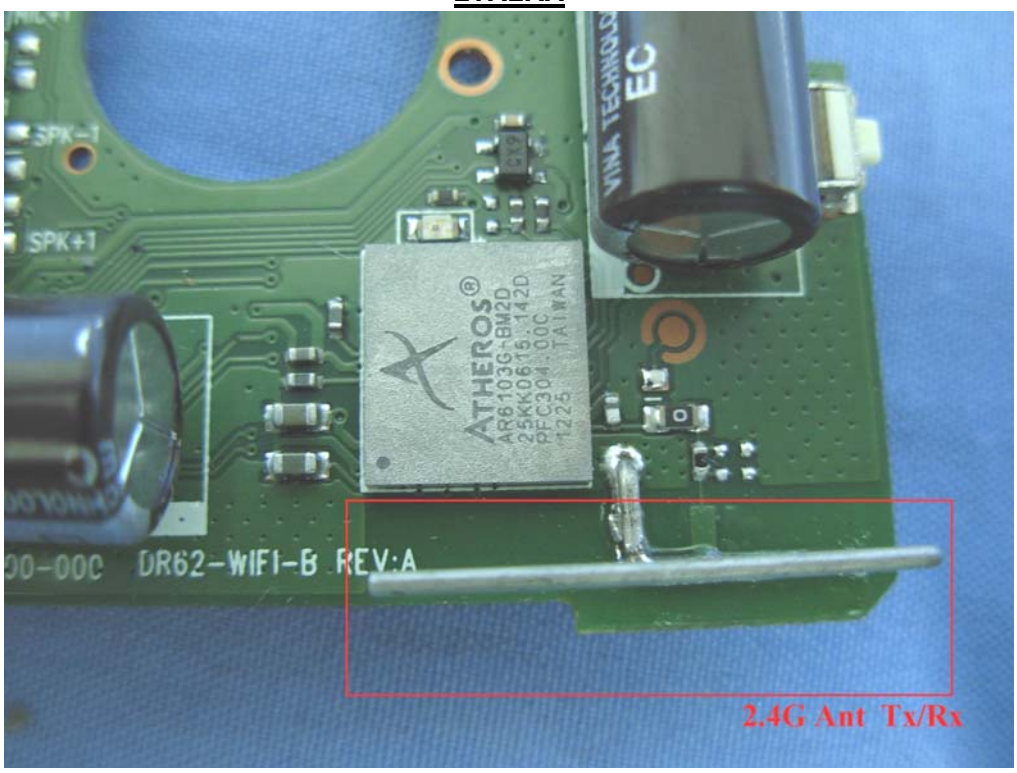
Product Name	Driving Recorder
Product Type	WLAN (1TX, 1RX)
Trade Name	PAPAGO!
Model No.	GoSafe WiFi
Frequency Range/Channel Number	2412~2462MHz / 11 Channels
Type of Modulation (IEEE 802.11b)	Direct Sequence Spread Spectrum (DSSS)
Type of Modulation (IEEE 802.11g/n)	Orthogonal Frequency Division Multiplexing (OFDM)
Data Speed (IEEE 802.11b)	1Mbps, 2Mbps, 5.5Mbps, 11Mbps
Data Speed (IEEE 802.11g)	6Mbps,9Mbps,12Mbps,18Mbps,24Mbps,36Mbps,48Mbps,54Mbps
Data Speed (IEEE 802.11n(20MHz))	Support a subset of the combination of GI, MCS 0~MCS 7 and bandwidth defined in 802.11n(20MHz)
Antenna Gain	4.17dBi
Antenna Type	PIFA Antenna

Component	
Car Hold	1 Set
Car Charger	DESIGN, BC-065L Cable Out: Non-Shielded, 4m

ANT-TX / RX & Bandwidth

ANT-TX / RX	TX		RX	
Mode/ Channel Bandwidth	20MHz	40MHz	20MHz	40MHz
IEEE802.11b	✓		✓	
IEEE802.11g	✓		✓	
IEEE802.11n(20MHz)	✓		✓	

1TX1RX



IEEE 802.11n(20MHz)

MCS Index	Modulation	R	N_{BPSCS}	N_{CBPS}	N_{DBPS}	Data Rate(Mb/s)	
				20MHz	20MHz	800ns GI	400ns GI
						20MHz	20MHz
0	BPSK	1/2	1	52	26	6.5	7.2
1	QPSK	1/2	2	104	52	13.0	14.4
2	QPSK	3/4	2	104	78	19.5	21.7
3	16-QAM	1/2	4	208	104	26.0	28.9
4	16-QAM	3/4	4	208	156	39.0	43.3
5	64-QAM	2/3	6	312	208	52.0	57.8
6	64-QAM	3/4	6	312	234	58.5	65.0
7	64-QAM	5/6	6	312	260	65.0	72.2
Note 1: Support of 400ns GI is optional on transmit and receive.							

Table 1 – MCS parameters for TX Antenna number = 1

Symbol	Explanation
R	Code rate
N_{BPSC}	Number of coded bits per single carrier
N_{CBPS}	Number of coded bits per symbol
N_{DBPS}	Number of data bits per symbol
GI	guard interval

IEEE 802.11b/g & IEEE 802.11n (20MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
001	2412 MHz	002	2417 MHz	003	2422 MHz	004	2427 MHz
005	2432 MHz	006	2437 MHz	007	2442 MHz	008	2447 MHz
009	2452 MHz	010	2457 MHz	011	2462 MHz		

Note:

1. This device is the Driving Recorder, including 2.4GHz b/g/n (1x1) transmitting and receiving function.
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart C Paragraph 15.247.
3. Regards to the frequency band operation; the lowest、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
4. This device is a composite device in accordance with Part 15 regulations. The receiving function receiving was tested and its test report number is 138469R-RFUSP37V02 under Declaration of Conformity.

1.3. Test Mode

QuieTek has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

TX	Mode 1: Transmit

Test Items	Modulation	Channel	Antenna	Result
Conducted Emission	11n(20MHz)	6	0	Complies
Peak Power Output	b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0	Complies
Radiated Emission	b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0	Complies
RF antenna conducted test	b/g	1/ 11	0	Complies
	11n(20MHz)	1/ 11	0	Complies
Radiated Emission Band Edge	b/g	1/ 11	0	Complies
	11n(20MHz)	1/ 11	0	Complies
Occupied Bandwidth	b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0	Complies
Power Density	b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0	Complies

Note: Conducted Emission: Owing to the DC operation of EUT, this test item is not performed.

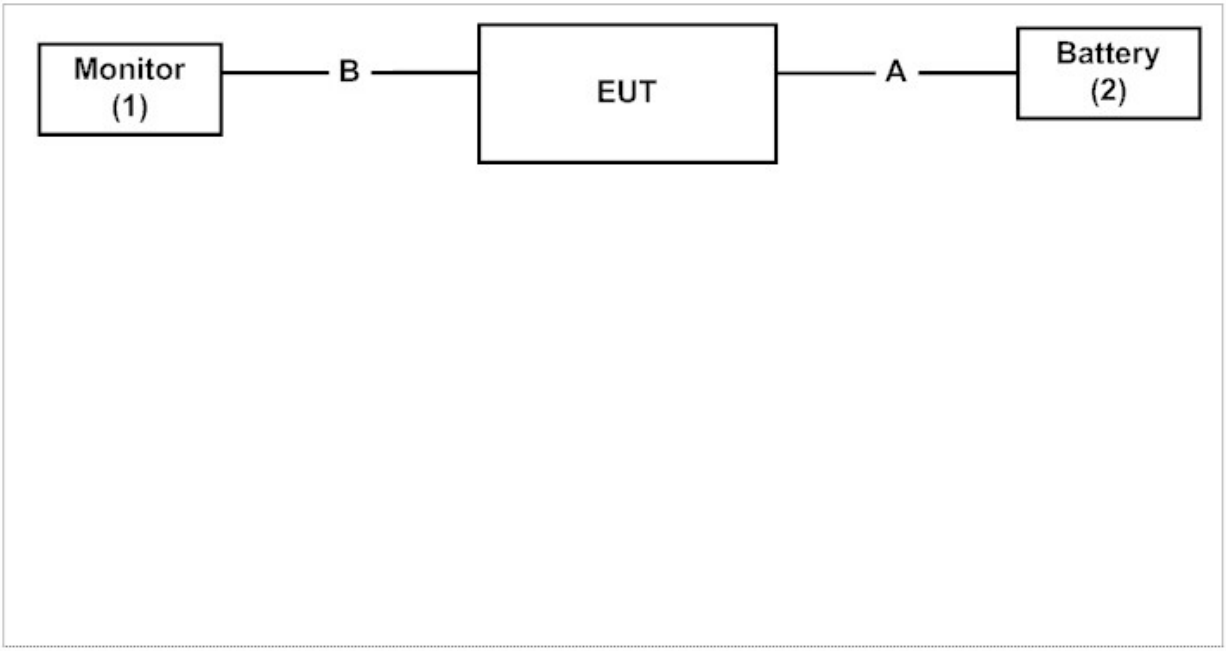
1.4. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Monitor	DELL	U2410f	082WXD-72872-16R-0V7L	DoC	Non-Shielded, 1.8m
2	Battery	Global & Yuasa	36B20R	N/A	DoC	--

1.5. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	USB Cable	Non-Shielded, 4m
B	HDMI Cable	Shielded, 1.8m

1.6. EUT Exercise Software

1	Setup the EUT as shown in Section 1.5.
2	Execute the “WiFi Test” to control the EUT.
3	Configure the test mode, the test channel, and the data rate.
4	Press “Start TX” to start the continuous transmitting.
5	Verify that the EUT works properly.

1.7. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.207 Conducted Emission	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Peak Power Output	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Radiated Emission	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 RF antenna conducted test	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Band Edge	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Power Density	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000

2. Peak Power Output

2.1. Test Equipment

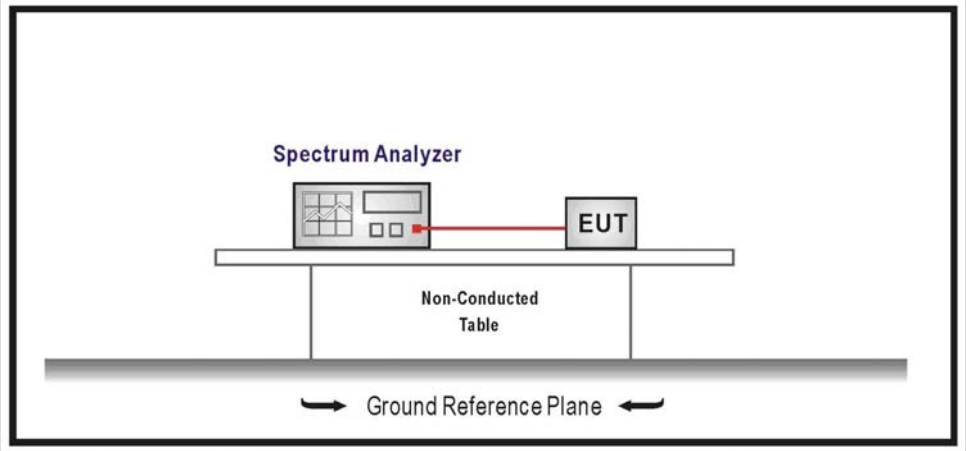
The following test equipments are used during the test:

Peak Power / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

2.2. Test Setup



2.3. Test procedures

The EUT was tested according to DTS test procedure of KDB558074, Section 5.2.1.2 Measurement Procedure PK2 for compliance to FCC 47CFR 15.247 requirements.

2.4. Limits

The maximum peak power shall be less 1 Watt.

2.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

2.6. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB.

2.7. Test Result

Product	Driving Recorder		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2013/09/24	Test Site	SR7

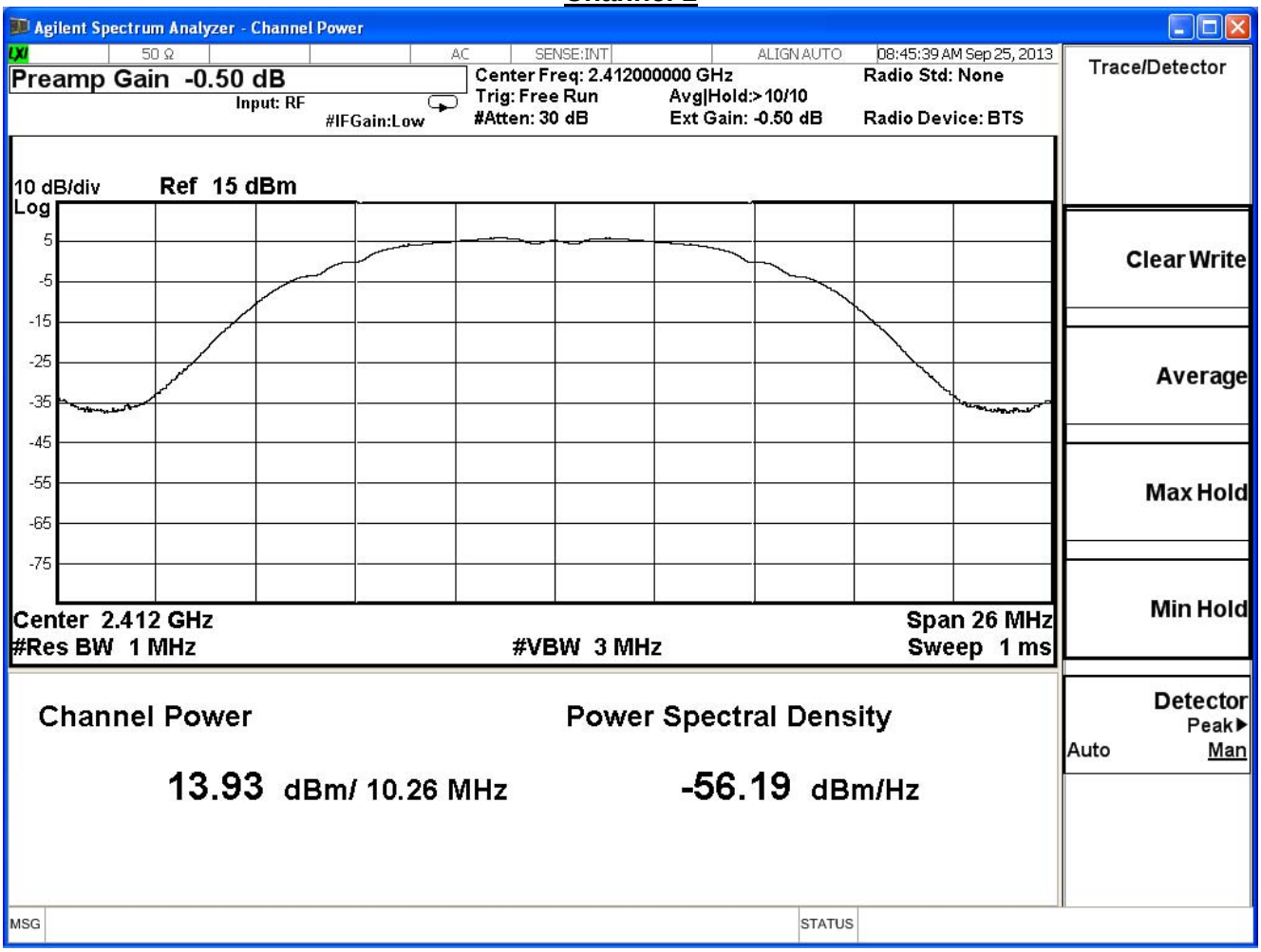
IEEE 802.11b, ANT 0				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	13.93	≦30	Pass
6	2437	13.86	≦30	Pass
11	2462	13.58	≦30	Pass

The worst emission of data rate is 1Mbps.

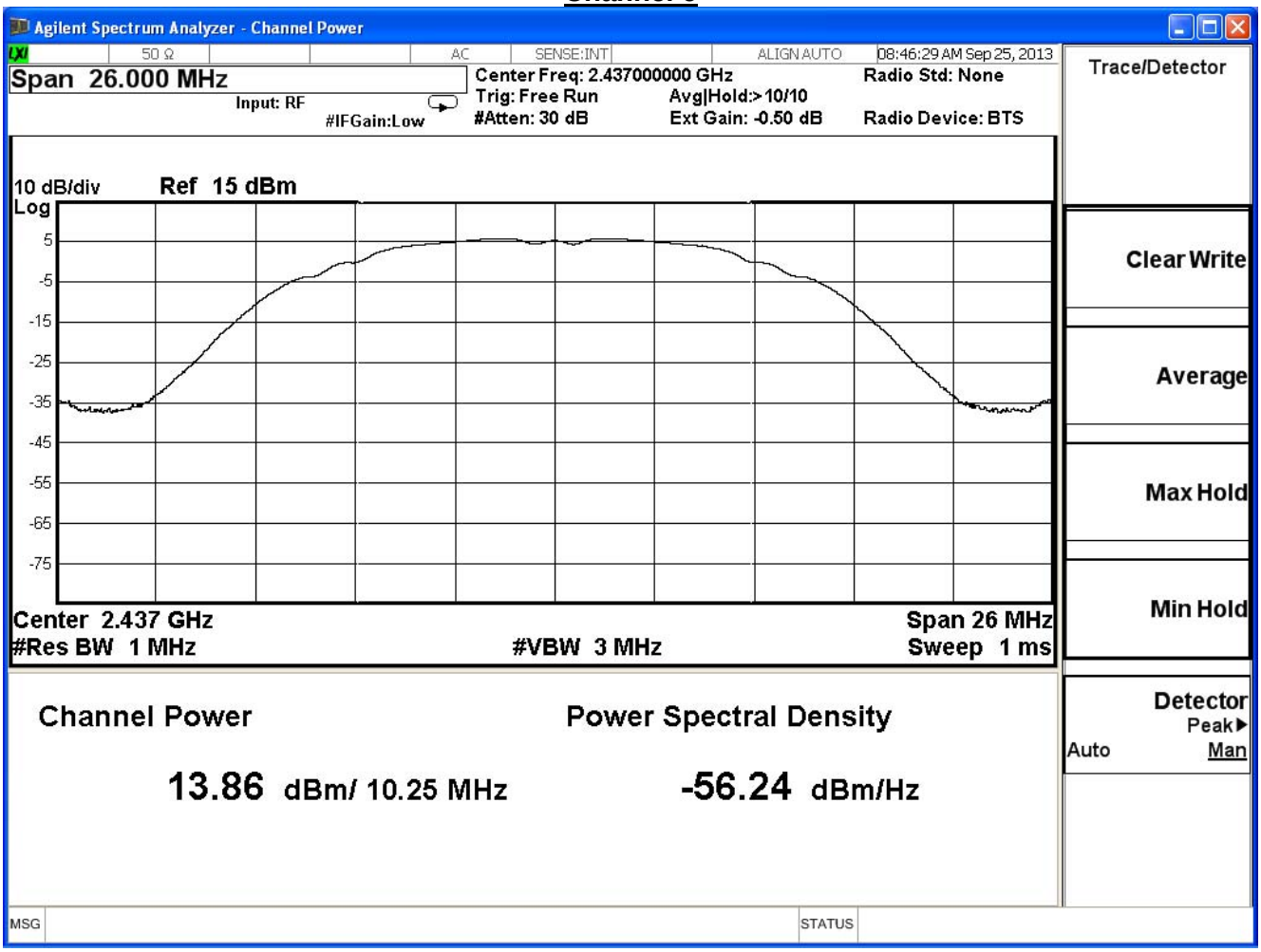
Peak Power Output (dBm)						
Channel No.	Frequency (MHz)	Data Rate (Mbps)				Required Limit
		1	2	5.5	11	
1	2412	13.93	--	--	--	1 Watt=30dBm
6	2437	13.86	13.76	13.52	13.30	1 Watt=30dBm
11	2462	13.58	--	--	--	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

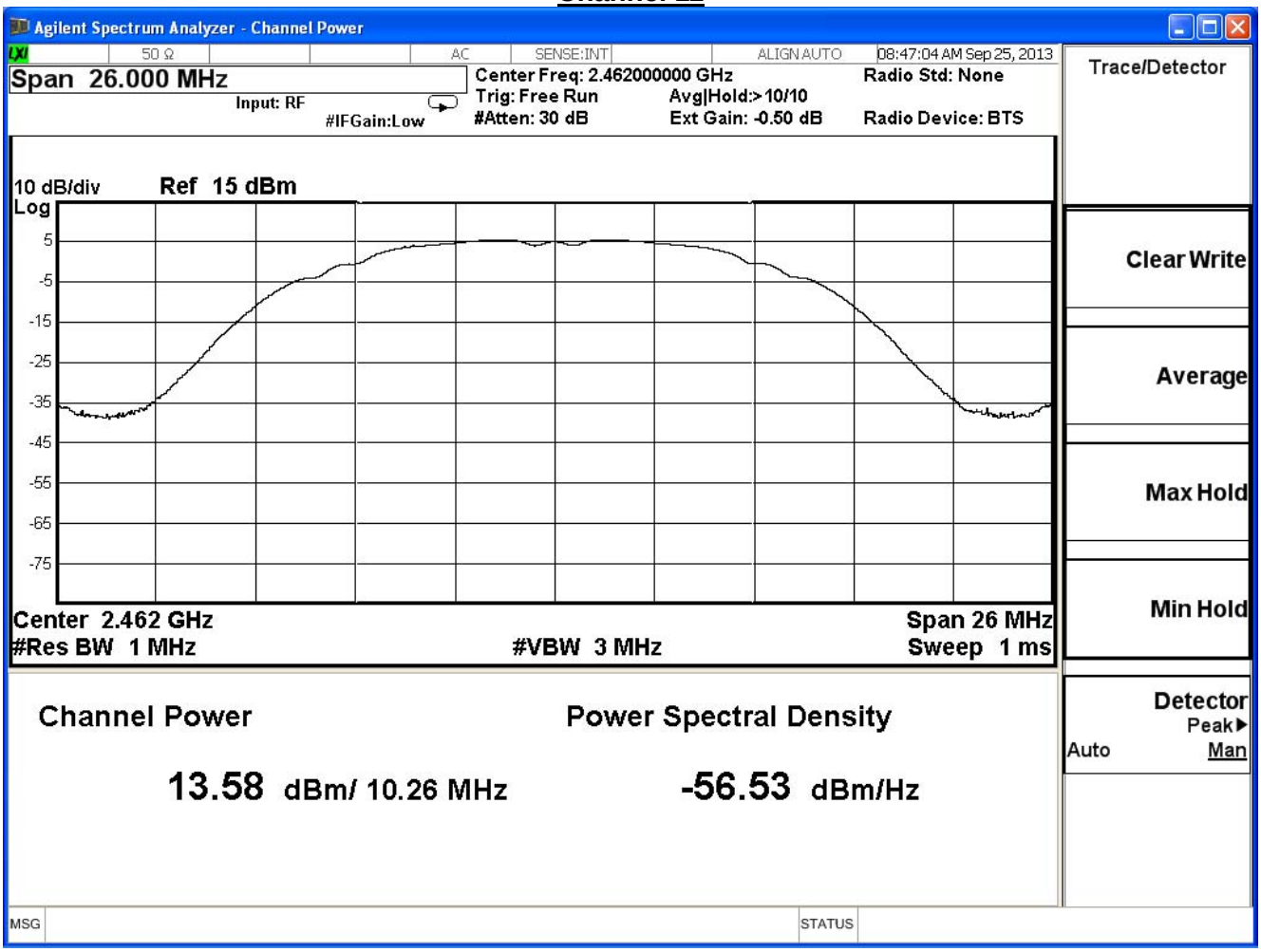
Channel 1


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:45:39 AM Sep 25, 2013
Preamp Gain -0.50 dB
Input: RF
#IFGain:Low
Center Freq: 2.412000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -0.50 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 15 dBm
5
-5
-15
-25
-35
-45
-55
-65
-75
Center 2.412 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Channel Power
13.93 dBm/ 10.26 MHz
Power Spectral Density
-56.19 dBm/Hz
Detector
Peak
Auto
Man
MSG
STATUS

Channel 6


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:46:29 AM Sep 25, 2013
Span 26.000 MHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -0.50 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 15 dBm
5
-5
-15
-25
-35
-45
-55
-65
-75
Center 2.437 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Detector
Peak
Auto
Man
Channel Power
13.86 dBm/ 10.25 MHz
Power Spectral Density
-56.24 dBm/Hz
MSG
STATUS

Channel 11


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:47:04 AM Sep 25, 2013
Span 26.000 MHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -0.50 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 15 dBm
5
-5
-15
-25
-35
-45
-55
-65
-75
Center 2.462 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Detector
Peak
Auto
Man
Channel Power
13.58 dBm/ 10.26 MHz
Power Spectral Density
-56.53 dBm/Hz
MSG
STATUS

Product	Driving Recorder		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2013/09/24	Test Site	SR7

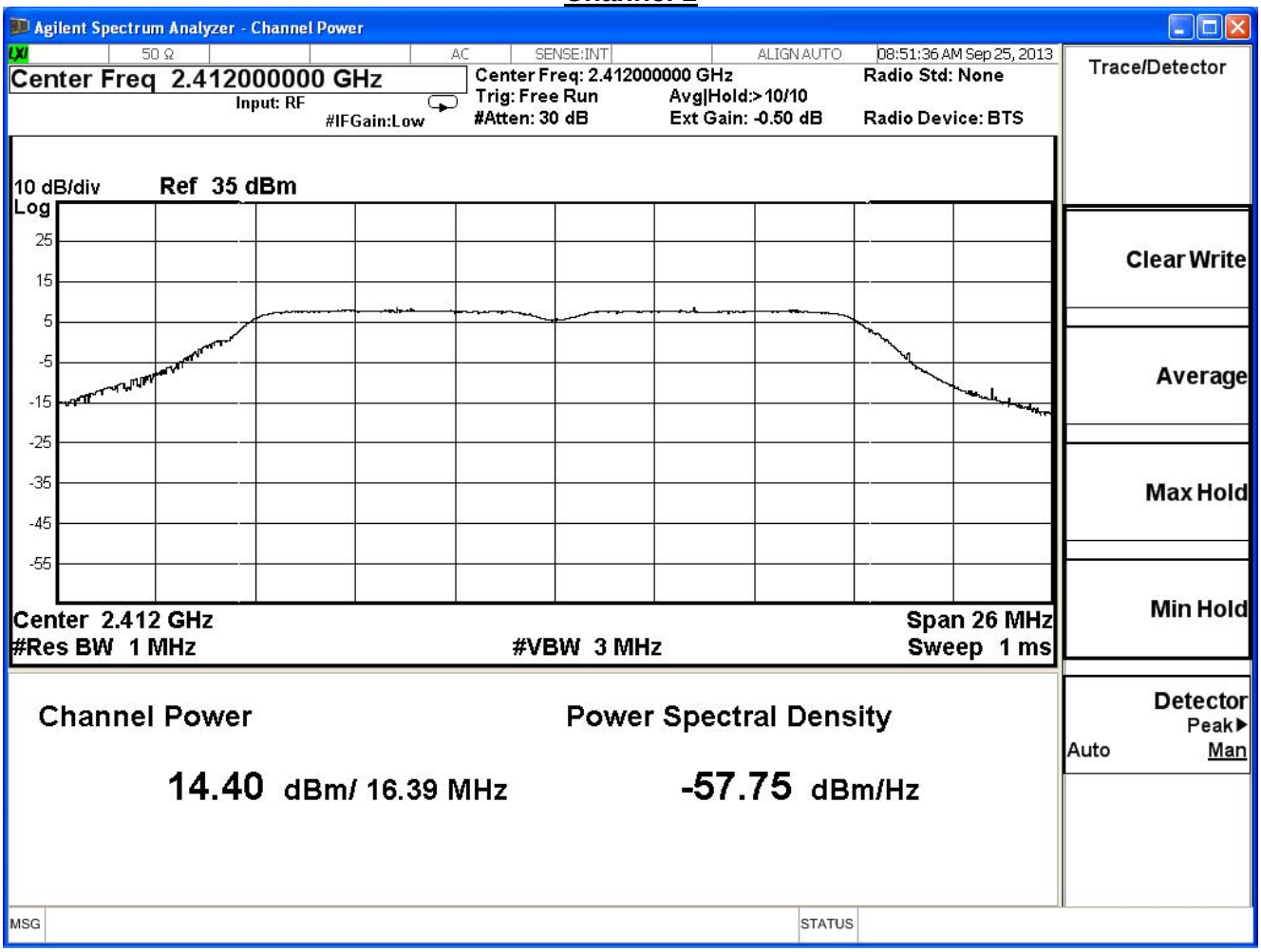
IEEE 802.11g, ANT 0				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	14.40	≦30	Pass
6	2437	14.32	≦30	Pass
11	2462	14.05	≦30	Pass

The worst emission of data rate is 6Mbps.

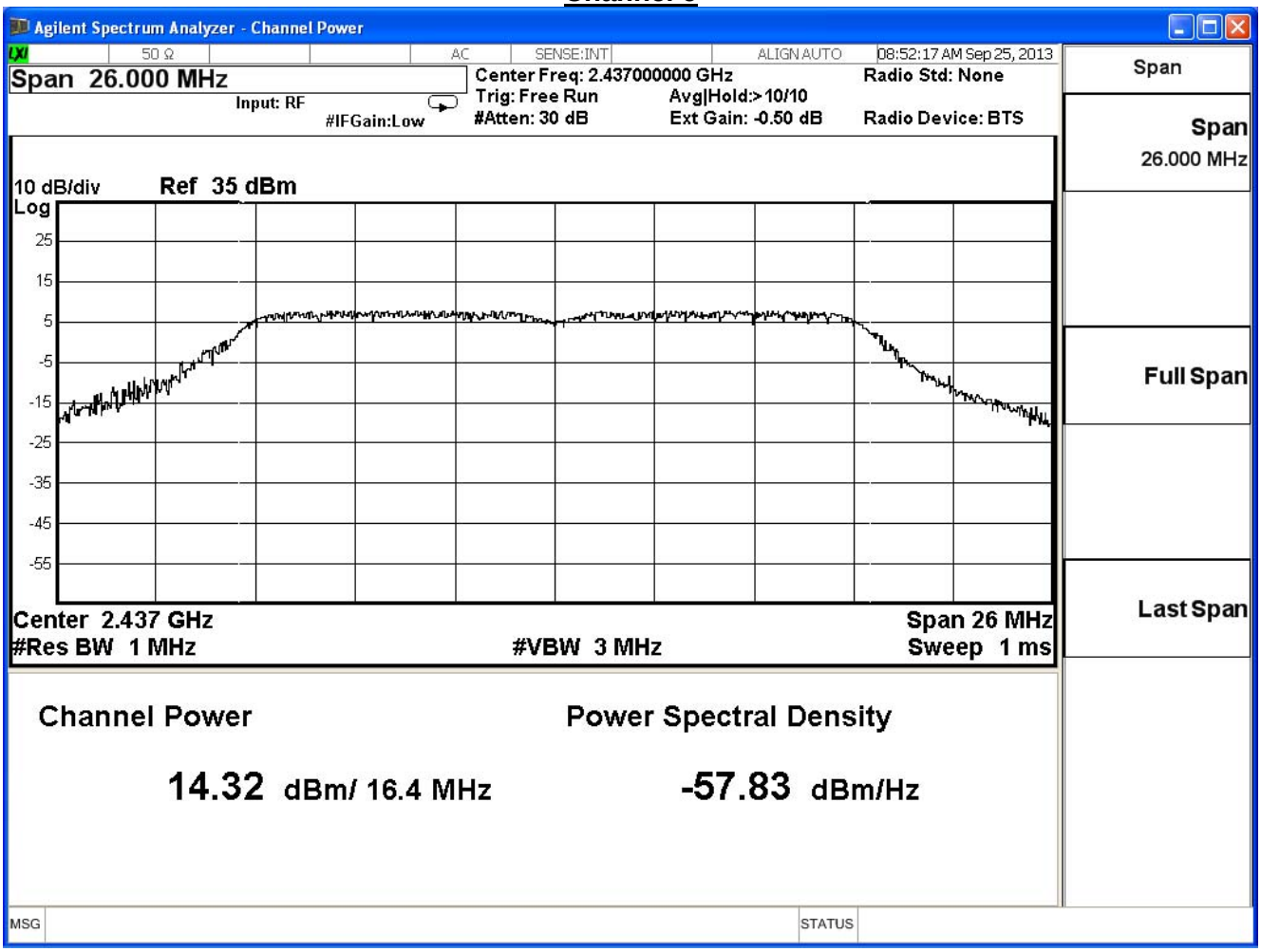
Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
1	2412	14.40	--	--	--	--	--	--	1 Watt=30dBm
6	2437	14.32	14.22	14.00	13.87	13.63	13.41	13.17	1 Watt=30dBm
11	2462	14.05	--	--	--	--	--	--	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

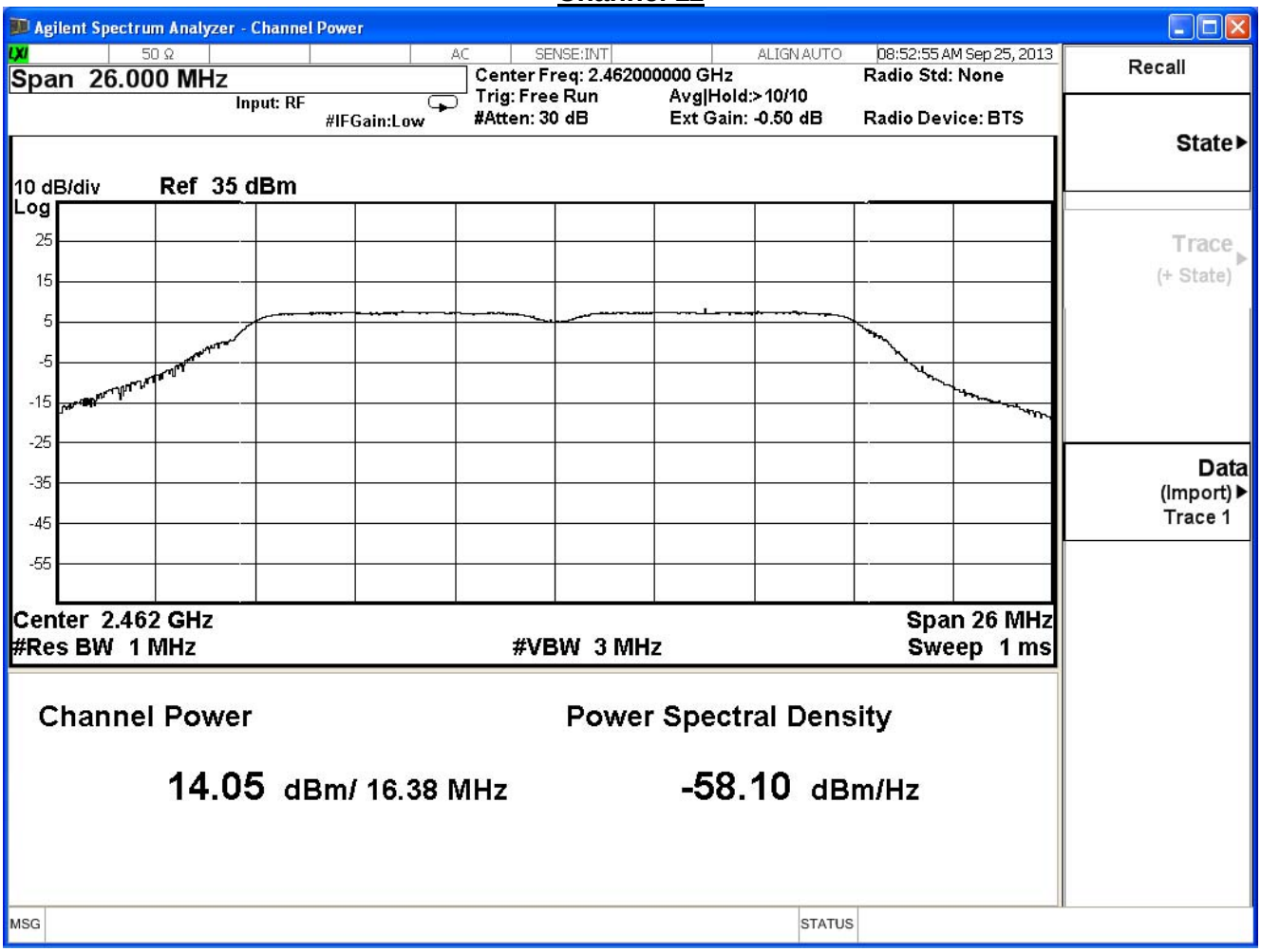
Channel 1


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:51:36 AM Sep 25, 2013
Center Freq 2.412000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.412000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Ext Gain: -0.50 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 35 dBm
25
15
5
-5
-15
-25
-35
-45
-55
Center 2.412 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Channel Power
14.40 dBm/ 16.39 MHz
Power Spectral Density
-57.75 dBm/Hz
Detector
Peak
Auto
Man
MSG
STATUS

Channel 6


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:52:17 AM Sep 25, 2013
Span 26.000 MHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -0.50 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 35 dBm
25
15
5
-5
-15
-25
-35
-45
-55
Center 2.437 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 26 MHz
Sweep 1 ms
Channel Power
14.32 dBm/ 16.4 MHz
Power Spectral Density
-57.83 dBm/Hz
MSG
STATUS
Span
Span
26.000 MHz
Full Span
Last Span

Channel 11


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:52:55 AM Sep 25, 2013
Span 26.000 MHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -0.50 dB
Radio Std: None
Radio Device: BTS
Recall
State
Trace
(+ State)
Data
(Import)
Trace 1
10 dB/div
Log
Ref 35 dBm
25
15
5
-5
-15
-25
-35
-45
-55
Center 2.462 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 26 MHz
Sweep 1 ms
Channel Power
14.05 dBm/ 16.38 MHz
Power Spectral Density
-58.10 dBm/Hz
MSG
STATUS

Product	Driving Recorder		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2013/09/24	Test Site	SR7

IEEE 802.11n(20MHz), ANT 0

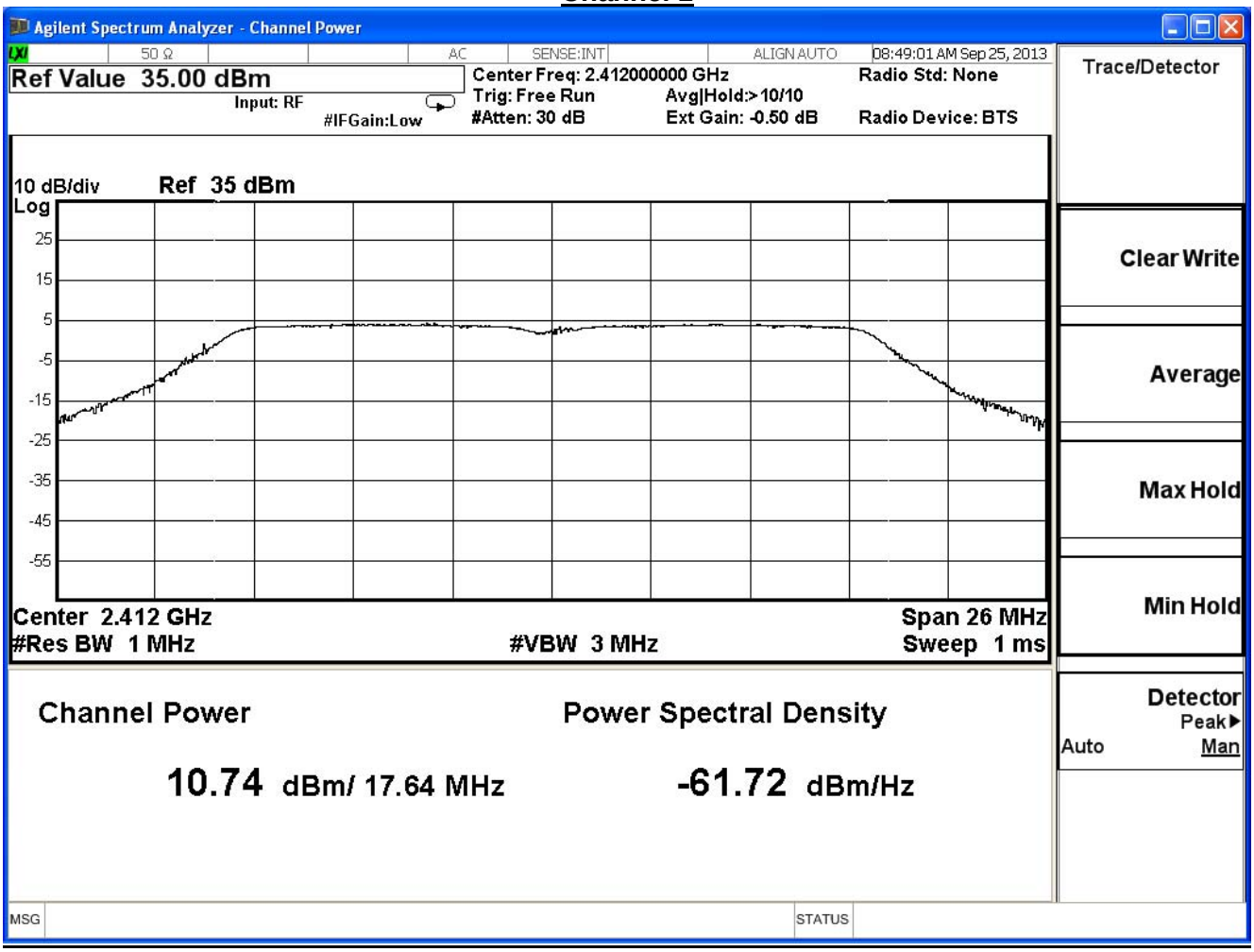
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	10.74	≦30	Pass
6	2437	13.05	≦30	Pass
11	2462	12.73	≦30	Pass

The worst emission of data rate is 6.5 Mbps.

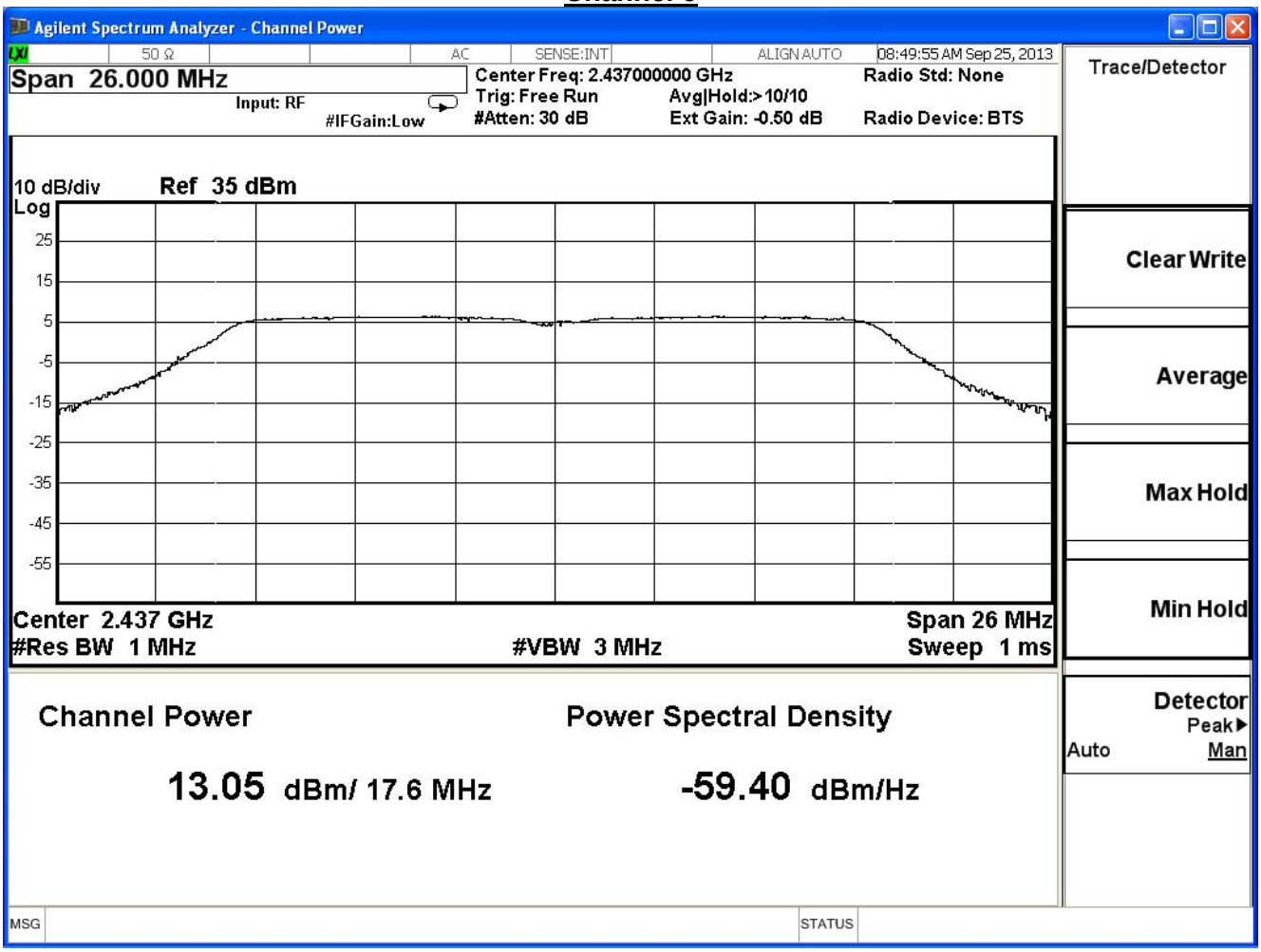
Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13.0	19.5	26.0	39.0	52.0	58.5	65.0	
1	2412	10.74	--	--	--	--	--	--	--	1Watt=30dBm
6	2437	13.05	12.93	12.73	12.62	12.49	12.37	12.25	12.14	1Watt=30dBm
11	2462	12.73	--	--	--	--	--	--	--	1Watt=30dBm

Note: Measure Level =Reading value + cable loss

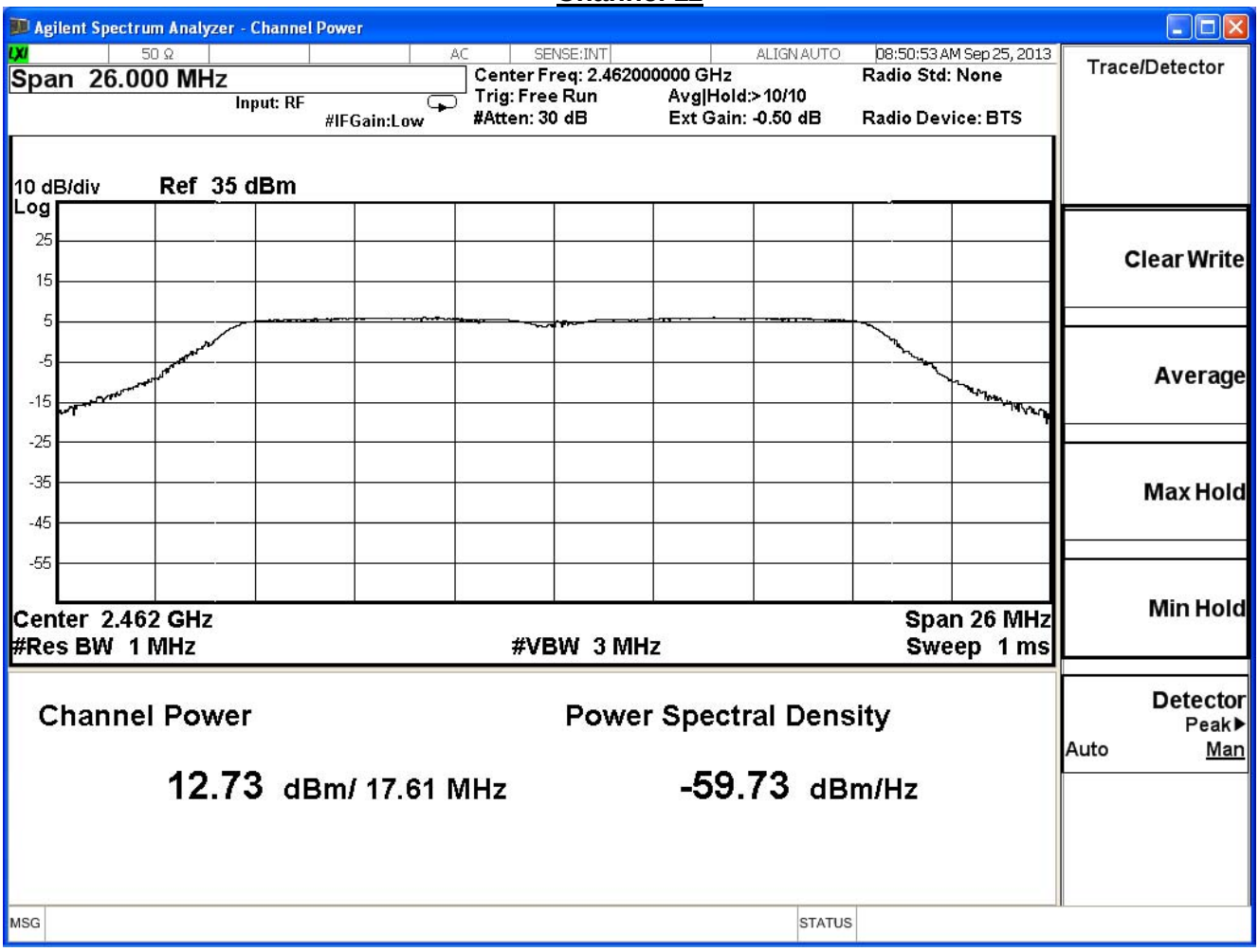
Channel 1


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:49:01 AM Sep 25, 2013
Ref Value 35.00 dBm
Input: RF
#IFGain:Low
Center Freq: 2.412000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Ext Gain: -0.50 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 35 dBm
25
15
5
-5
-15
-25
-35
-45
-55
Center 2.412 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Channel Power
10.74 dBm/ 17.64 MHz
Power Spectral Density
-61.72 dBm/Hz
Detector
Peak
Auto
Man
MSG
STATUS

Channel 6


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:49:55 AM Sep 25, 2013
Span 26.000 MHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -0.50 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 35 dBm
25
15
5
-5
-15
-25
-35
-45
-55
Center 2.437 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Detector
Peak
Auto
Man
Channel Power
13.05 dBm/ 17.6 MHz
Power Spectral Density
-59.40 dBm/Hz
MSG
STATUS

Channel 11


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:50:53 AM Sep 25, 2013
Span 26.000 MHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -0.50 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 35 dBm
25
15
5
-5
-15
-25
-35
-45
-55
Center 2.462 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Detector
Peak
Auto
Man
Channel Power
12.73 dBm/ 17.61 MHz
Power Spectral Density
-59.73 dBm/Hz
MSG
STATUS

3. Radiated Emission

3.1. Test Equipment

The following test equipments are used during the test:

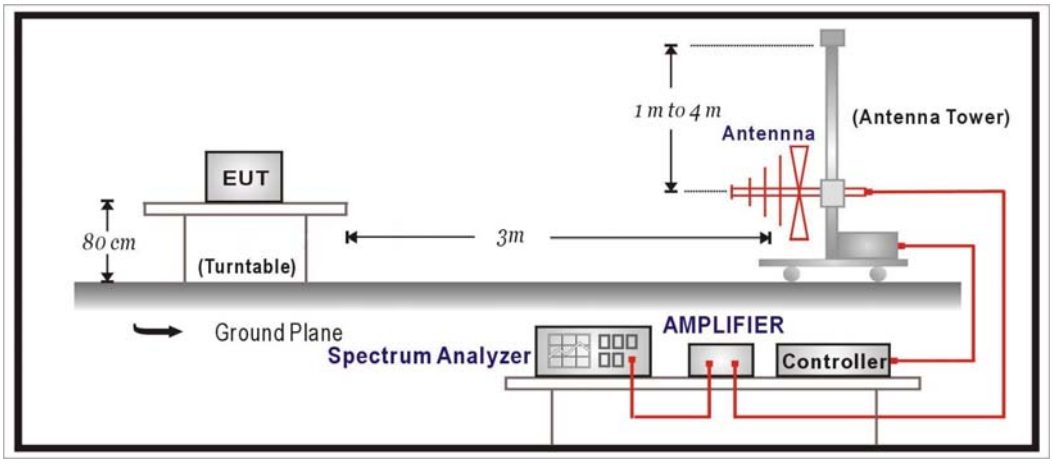
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895(CB1)	2014/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2014/02/17
Pre-Amplifier	MITEQ	AMF-4D-005180-24-10P	888003	2014/06/09
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2014/02/19
Spectrum Analyzer	Agilent	E4440A	MY46187335	2014/01/27
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2014/02/21

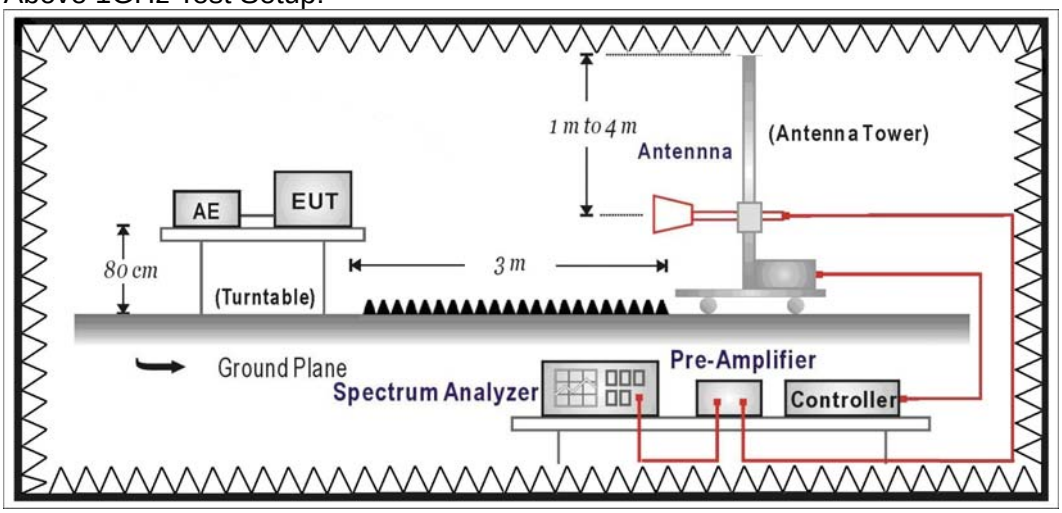
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

3.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



3.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits			
Frequency MHz	uV/m	dBuV/m	Measurement Distance(meter)
0.009-0.490	2400/F(KHz)	67.60	300
0.490-1.705	2400/F(KHz)	87.60	30
1.705-30.0	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Remarks: E field strength (dBuV/m) = 20 log E field strength (uV/m)

3.4. Test Procedure

The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated measurement.
On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

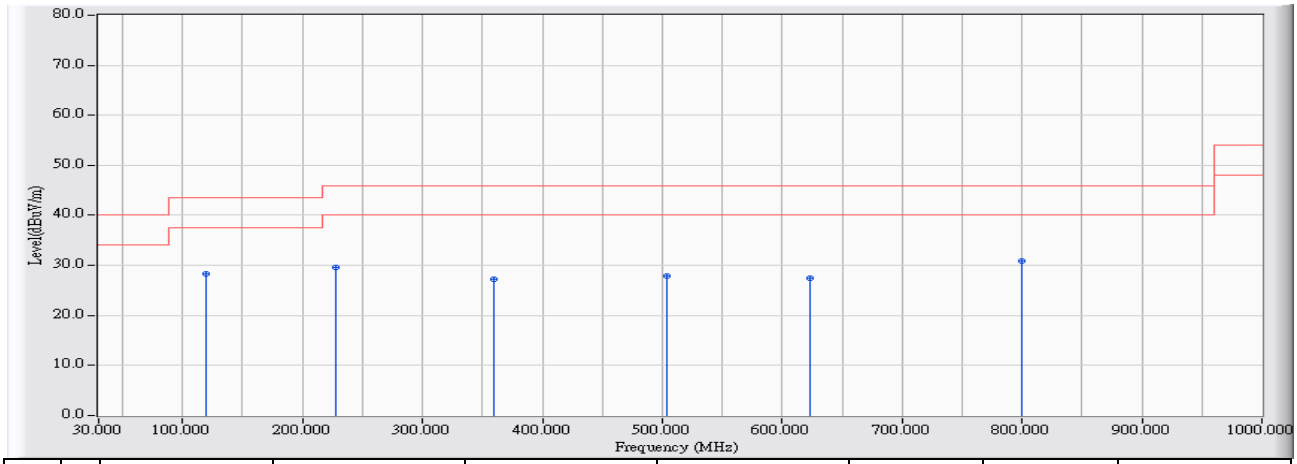
3.6. Uncertainty

The measurement uncertainty
30MHz～1GHz as ±3.43dB
1GHz～26.5Ghz as ±3.65dB

3.7. Test Result

30MHz-1GHz Spurious

Site : CB1	**Time : 2013/09/10 - 20:42**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2437MHz**

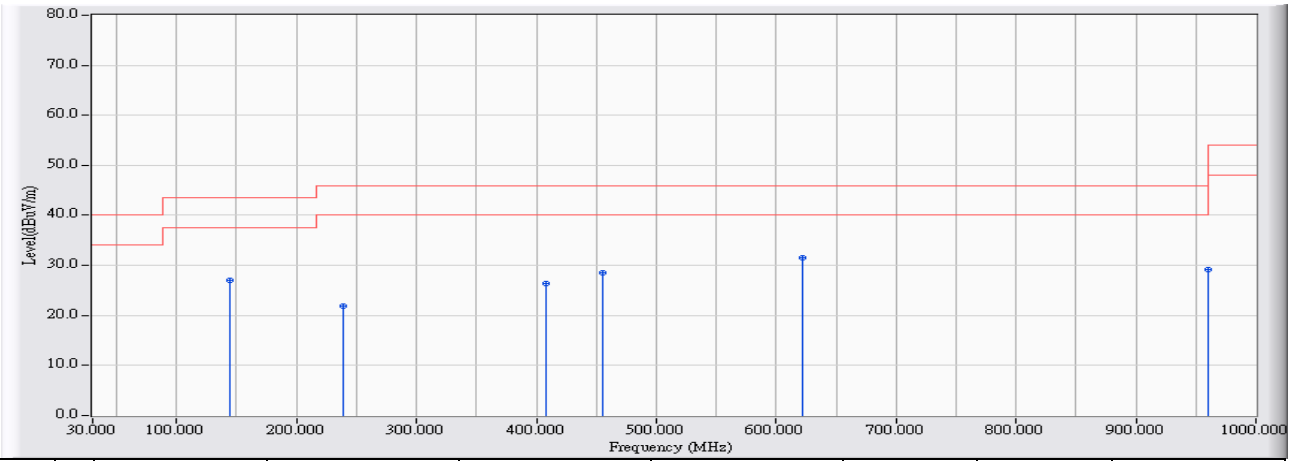


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		119.240	-22.219	50.548	28.330	-15.170	43.500	QUASIPEAK
2		227.880	-22.417	52.057	29.640	-16.360	46.000	QUASIPEAK
3		359.800	-18.430	45.699	27.269	-18.731	46.000	QUASIPEAK
4		504.330	-15.457	43.402	27.945	-18.055	46.000	QUASIPEAK
5		623.640	-15.167	42.708	27.541	-18.459	46.000	QUASIPEAK
6	*	799.210	-13.313	44.297	30.985	-15.015	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measure Level = Reading Level + Correct Factor。

Site : CB1	**Time : 2013/09/10 - 20:42**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2437MHz**

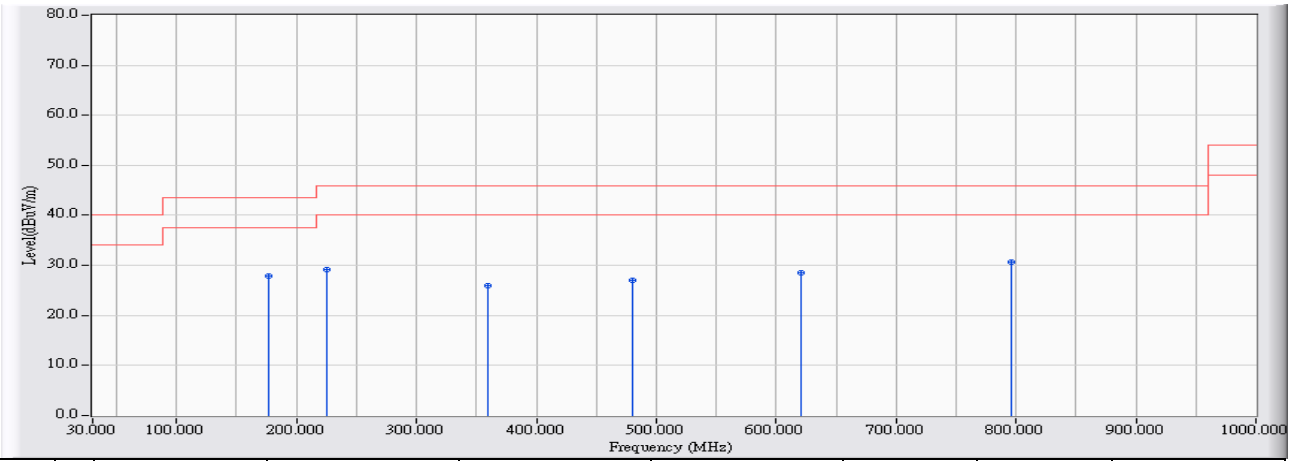


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		144.460	-23.061	50.164	27.103	-16.397	43.500	QUASIPEAK
2		239.520	-21.431	43.380	21.949	-24.051	46.000	QUASIPEAK
3		408.300	-17.249	43.678	26.428	-19.572	46.000	QUASIPEAK
4		455.830	-16.324	44.942	28.618	-17.382	46.000	QUASIPEAK
5	*	621.700	-15.179	46.689	31.510	-14.490	46.000	QUASIPEAK
6		960.230	-12.483	41.741	29.257	-24.743	54.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measure Level = Reading Level + Correct Factor。

Site : CB1	**Time : 2013/09/23 - 21:14**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2437MHz**

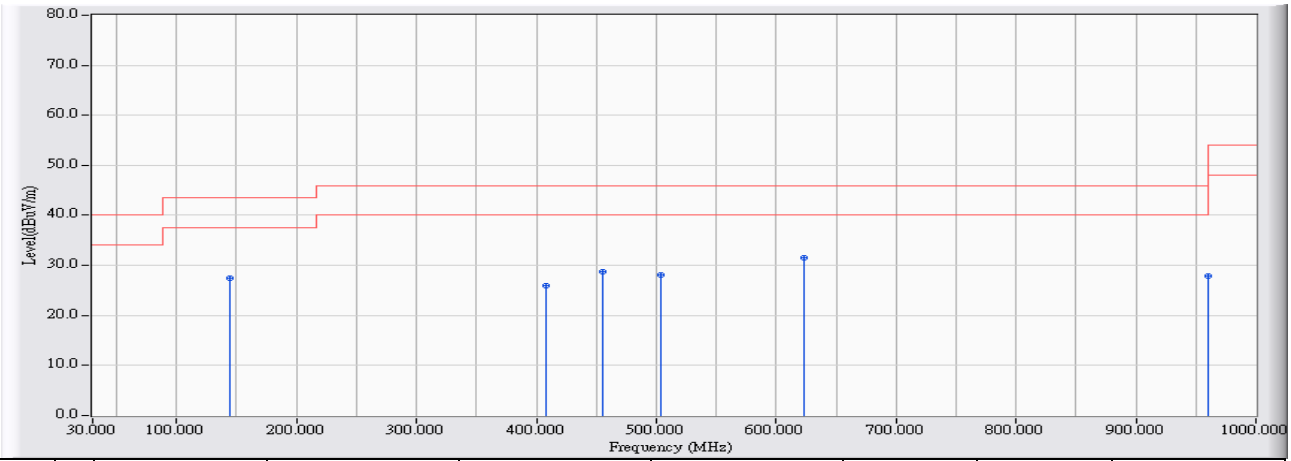


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		176.470	-24.529	52.384	27.855	-15.645	43.500	QUASIPEAK
2		224.970	-22.664	51.891	29.227	-16.773	46.000	QUASIPEAK
3		359.800	-18.430	44.377	25.947	-20.053	46.000	QUASIPEAK
4		480.080	-15.852	42.946	27.095	-18.905	46.000	QUASIPEAK
5		620.730	-15.186	43.747	28.561	-17.439	46.000	QUASIPEAK
6	*	796.300	-13.351	44.071	30.719	-15.281	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measure Level = Reading Level + Correct Factor。

Site : CB1	**Time : 2013/09/23 - 21:14**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2437MHz**

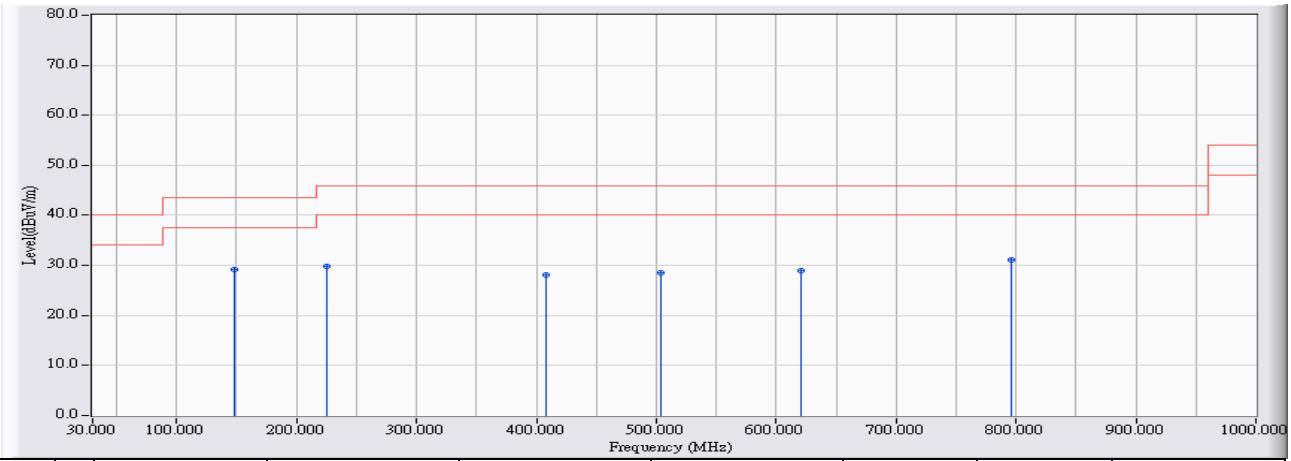


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		144.460	-23.061	50.517	27.456	-16.044	43.500	QUASIPEAK
2		408.300	-17.249	43.112	25.862	-20.138	46.000	QUASIPEAK
3		455.830	-16.324	45.049	28.725	-17.275	46.000	QUASIPEAK
4		504.330	-15.457	43.651	28.194	-17.806	46.000	QUASIPEAK
5	*	622.670	-15.173	46.694	31.521	-14.479	46.000	QUASIPEAK
6		960.230	-12.483	40.268	27.784	-26.216	54.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measure Level = Reading Level + Correct Factor。

Site : CB1	**Time : 2013/09/10 - 20:42**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2437MHz**

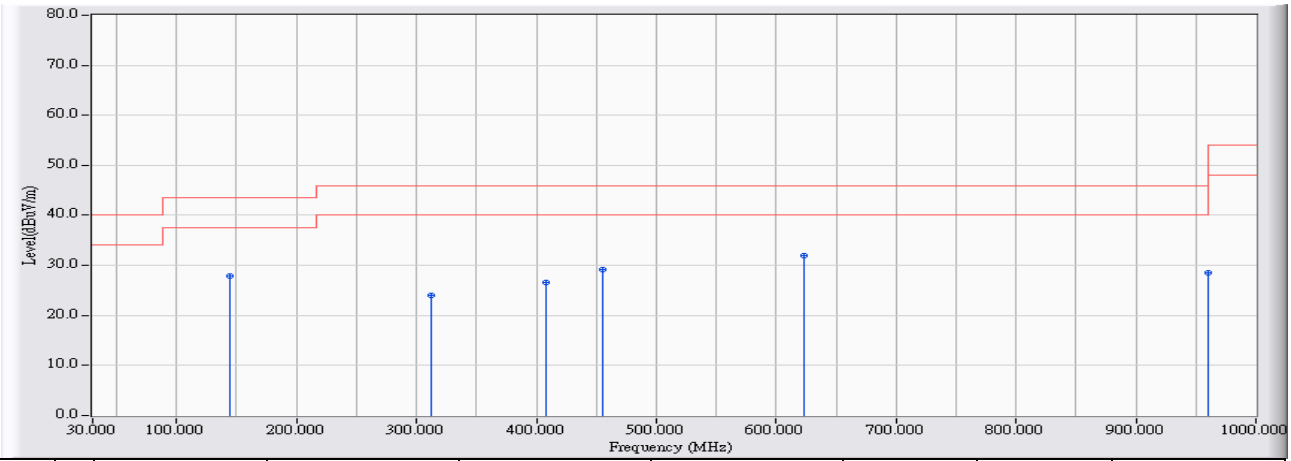


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	148.340	-23.251	52.421	29.171	-14.329	43.500	QUASIPEAK
2		224.970	-22.664	52.431	29.767	-16.233	46.000	QUASIPEAK
3		408.300	-17.249	45.361	28.111	-17.889	46.000	QUASIPEAK
4		504.330	-15.457	43.889	28.432	-17.568	46.000	QUASIPEAK
5		620.730	-15.186	44.044	28.858	-17.142	46.000	QUASIPEAK
6		796.300	-13.351	44.394	31.042	-14.958	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measure Level = Reading Level + Correct Factor。

Site : CB1	**Time : 2013/09/10 - 20:43**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2437MHz**



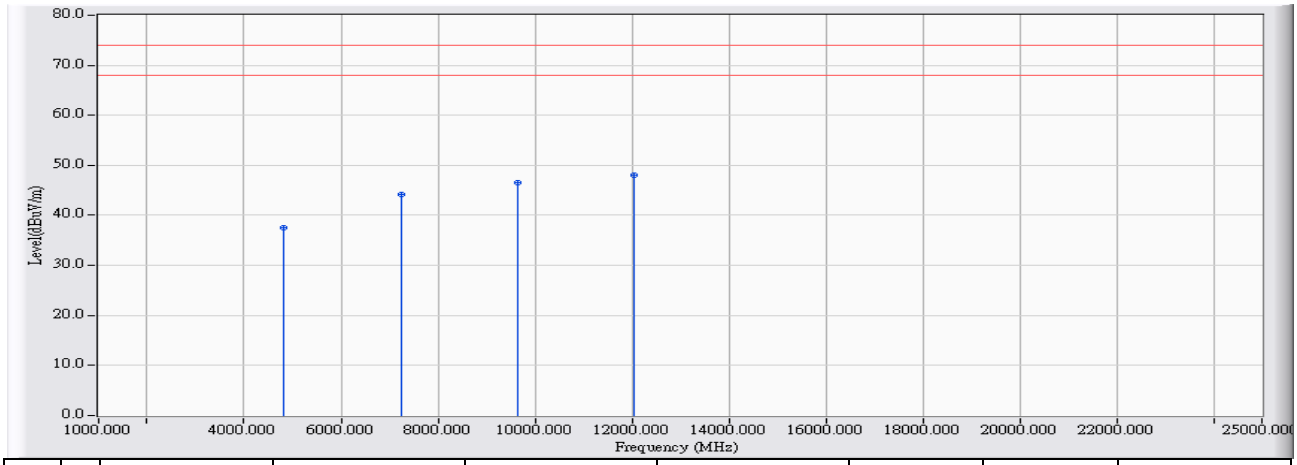
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		144.460	-23.061	50.954	27.893	-15.607	43.500	QUASIPEAK
2		312.270	-19.634	43.666	24.032	-21.968	46.000	QUASIPEAK
3		408.300	-17.249	43.750	26.500	-19.500	46.000	QUASIPEAK
4		455.830	-16.324	45.594	29.270	-16.730	46.000	QUASIPEAK
5	*	622.670	-15.173	47.220	32.047	-13.953	46.000	QUASIPEAK
6		960.230	-12.483	40.923	28.439	-25.561	54.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measure Level = Reading Level + Correct Factor。

Above 1GHz Spurious

Site : CB1	**Time : 2013/09/10 - 17:12**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2412MHz**

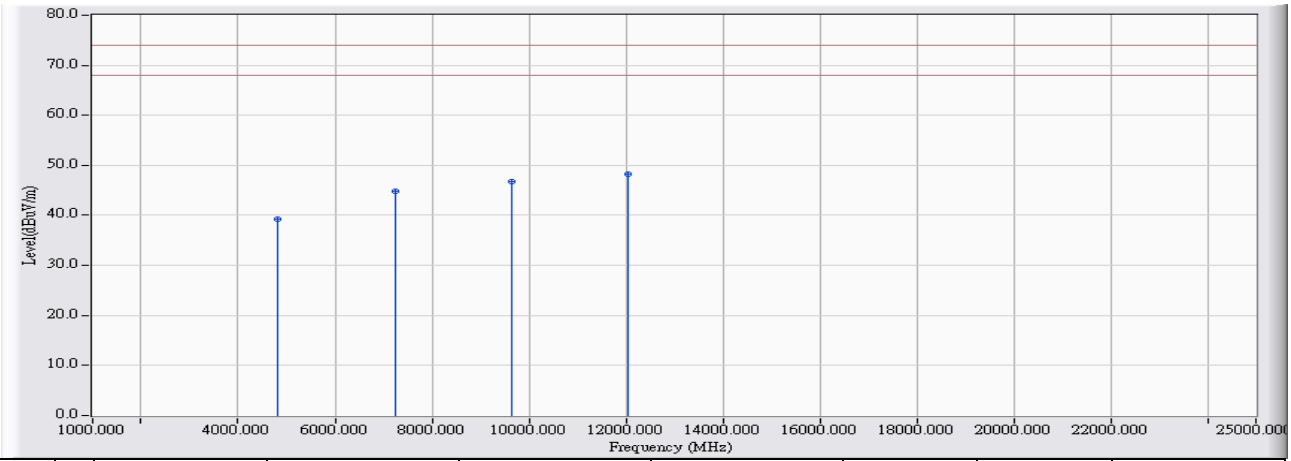


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4817.320	0.189	37.362	37.551	-36.449	74.000	PEAK
2		7235.420	7.169	36.921	44.090	-29.910	74.000	PEAK
3		9655.520	11.100	35.470	46.570	-27.430	74.000	PEAK
4	*	12058.420	13.206	34.755	47.961	-26.039	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/10 - 19:10**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2412MHz**

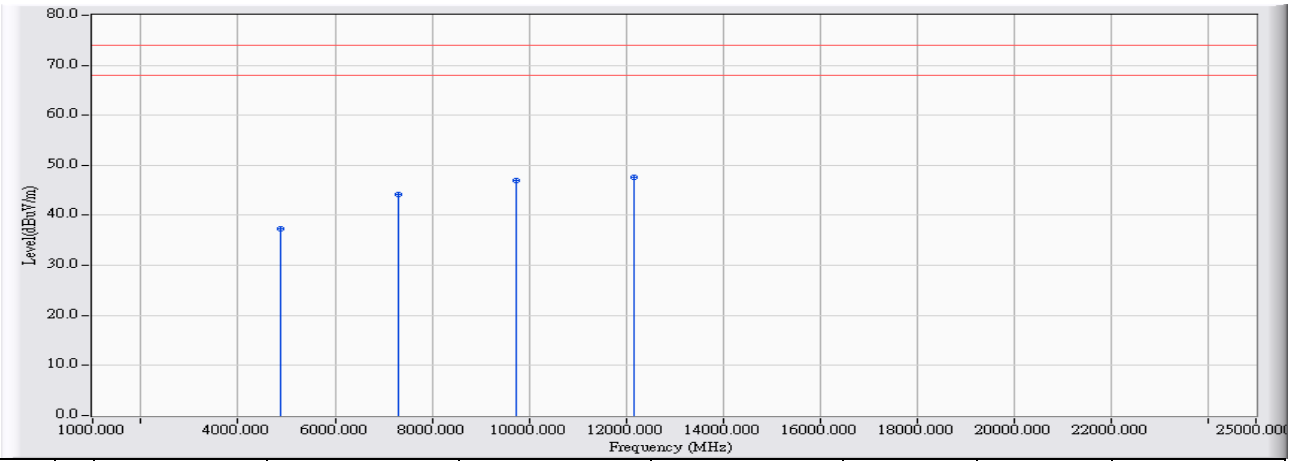


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4824.200	0.211	38.986	39.196	-34.804	74.000	PEAK
2		7235.130	7.168	37.687	44.855	-29.145	74.000	PEAK
3		9647.515	11.071	35.781	46.852	-27.148	74.000	PEAK
4	*	12060.385	13.209	35.016	48.225	-25.775	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/10 - 19:15**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2437MHz**

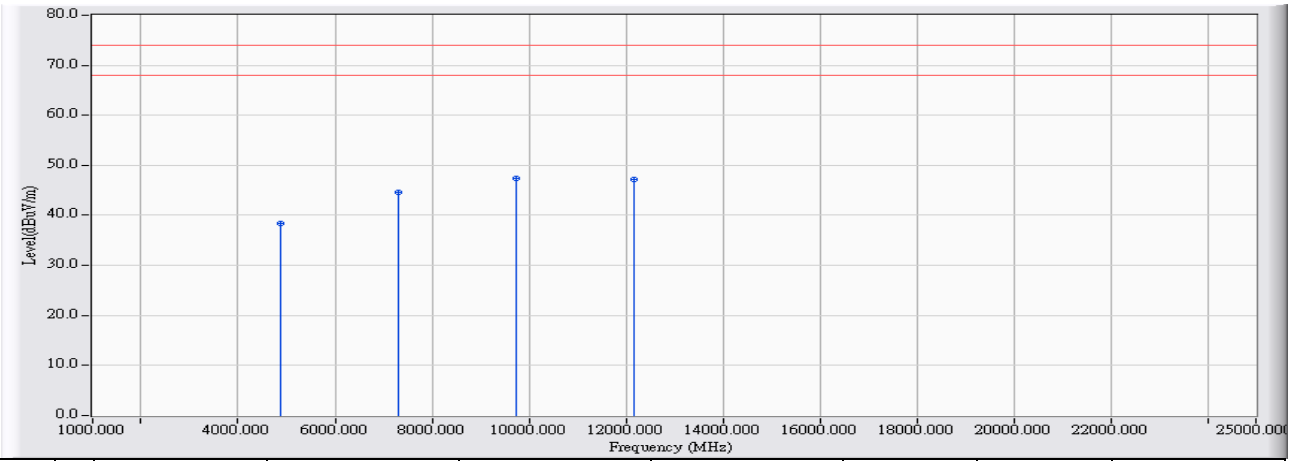


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4874.260	0.363	36.990	37.352	-36.648	74.000	PEAK
2		7309.740	7.349	36.858	44.208	-29.792	74.000	PEAK
3		9747.680	11.430	35.462	46.893	-27.107	74.000	PEAK
4	*	12177.660	13.349	34.357	47.707	-26.293	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/10 - 19:21**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2437MHz**

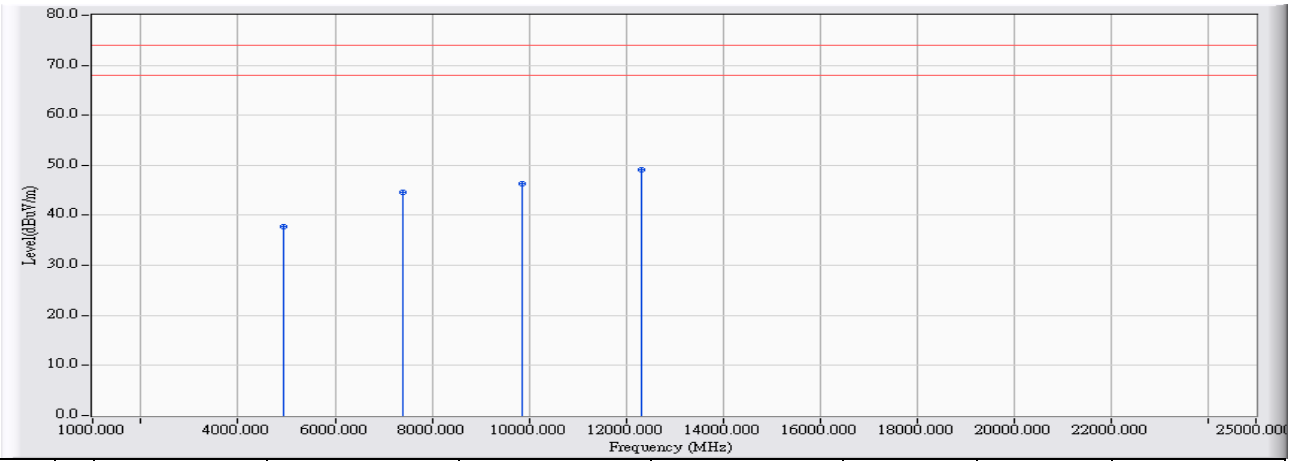


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4873.860	0.361	38.127	38.488	-35.512	74.000	PEAK
2		7316.920	7.367	37.183	44.550	-29.450	74.000	PEAK
3	*	9746.945	11.428	36.054	47.482	-26.518	74.000	PEAK
4		12182.220	13.354	33.885	47.240	-26.760	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/10 - 19:26**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2462MHz**

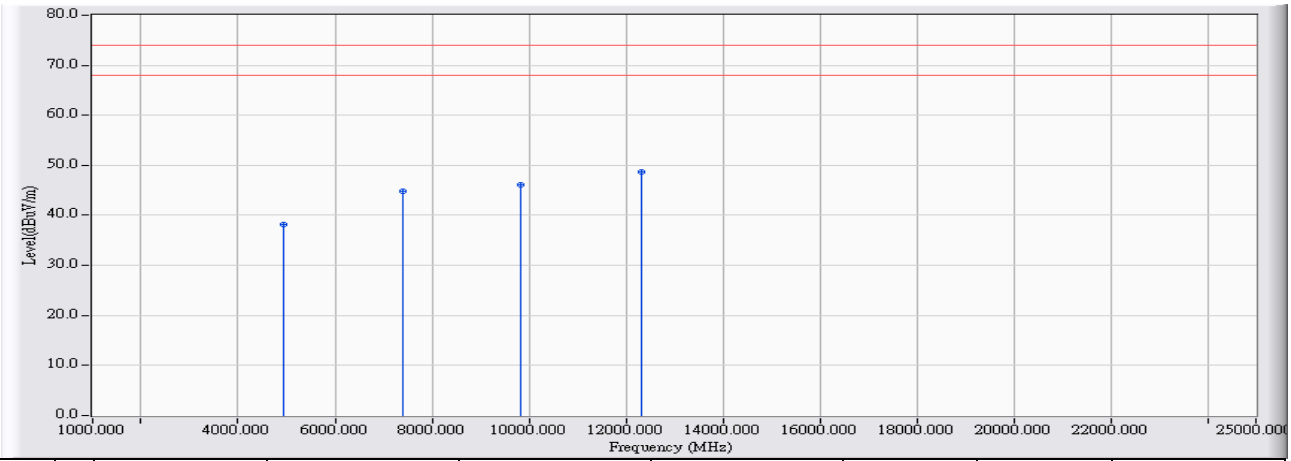


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4923.140	0.511	37.149	37.659	-36.341	74.000	PEAK
2		7384.880	7.533	37.156	44.689	-29.311	74.000	PEAK
3		9848.100	11.791	34.637	46.428	-27.572	74.000	PEAK
4	*	12310.665	13.509	35.701	49.210	-24.790	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/10 - 19:31**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2462MHz**

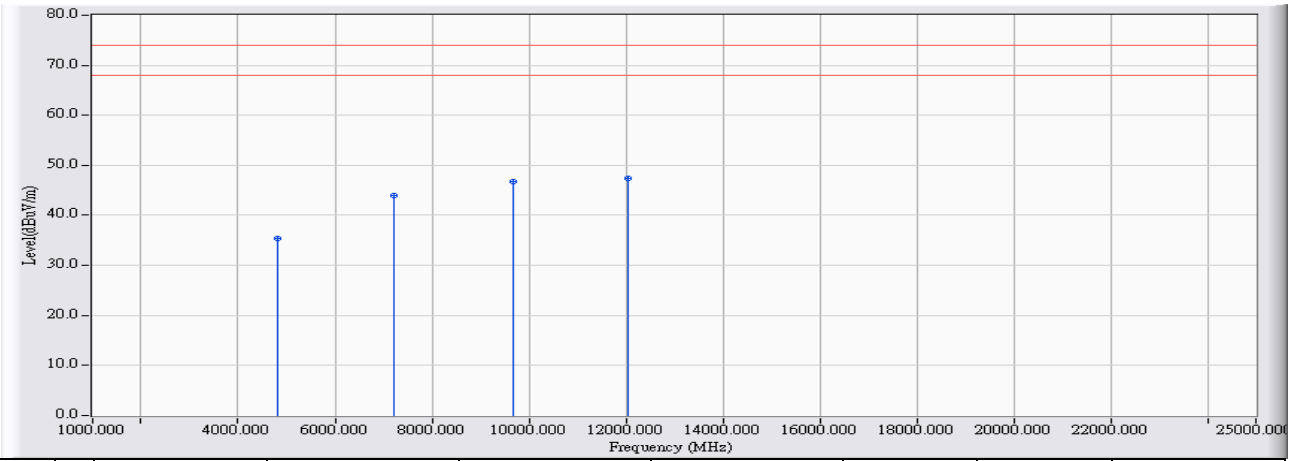


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4923.705	0.512	37.589	38.101	-35.899	74.000	PEAK
2		7388.075	7.541	37.212	44.753	-29.247	74.000	PEAK
3		9846.040	11.783	34.223	46.007	-27.993	74.000	PEAK
4	*	12309.990	13.509	35.164	48.673	-25.327	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/23 - 20:19**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2412MHz**

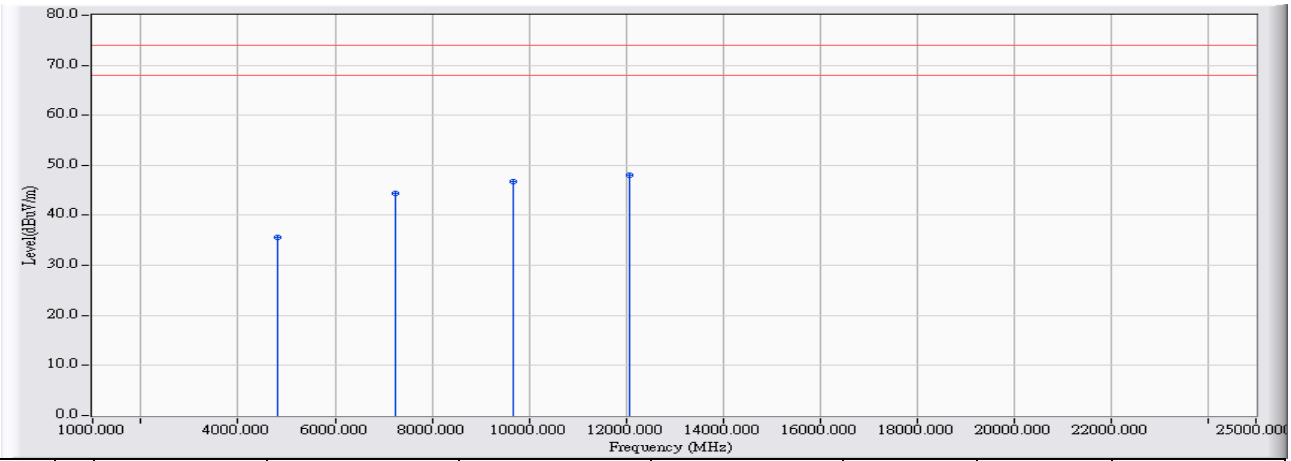


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4811.900	0.172	35.144	35.317	-38.683	74.000	PEAK
2		7230.100	7.156	36.767	43.923	-30.077	74.000	PEAK
3		9665.200	11.134	35.600	46.735	-27.265	74.000	PEAK
4	*	12037.800	13.182	34.287	47.468	-26.532	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/23 - 20:34**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_CH1**

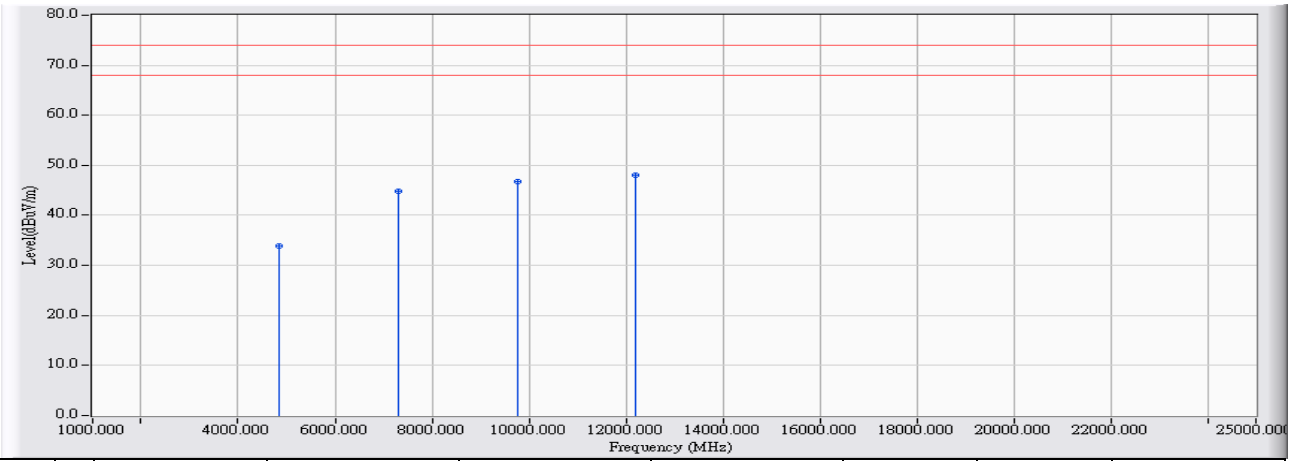


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4816.050	0.186	35.481	35.666	-38.334	74.000	PEAK
2		7255.350	7.218	37.268	44.485	-29.515	74.000	PEAK
3		9672.000	11.159	35.656	46.815	-27.185	74.000	PEAK
4	*	12068.250	13.218	34.895	48.113	-25.887	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/23 - 20:38**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2437MHz**

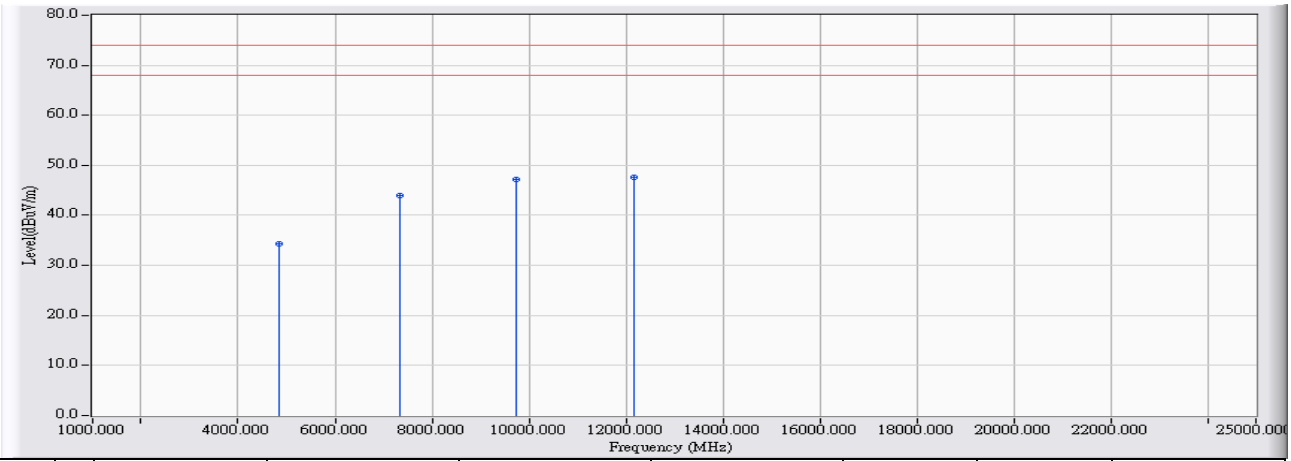


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4850.000	0.288	33.618	33.906	-40.094	74.000	PEAK
2		7315.050	7.363	37.486	44.849	-29.151	74.000	PEAK
3		9758.000	11.468	35.230	46.698	-27.302	74.000	PEAK
4	*	12187.250	13.360	34.730	48.091	-25.909	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/23 - 20:43**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2437MHz**

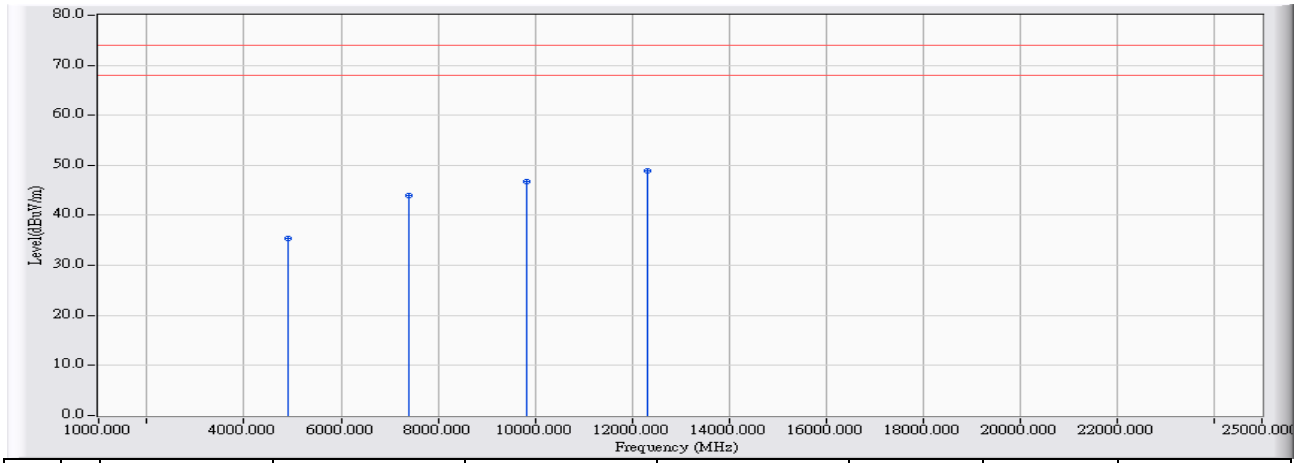


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4852.300	0.295	34.104	34.399	-39.601	74.000	PEAK
2		7332.000	7.403	36.488	43.892	-30.108	74.000	PEAK
3		9751.850	11.446	35.667	47.113	-26.887	74.000	PEAK
4	*	12164.100	13.333	34.368	47.701	-26.299	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/23 - 21:06**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2462MHz**

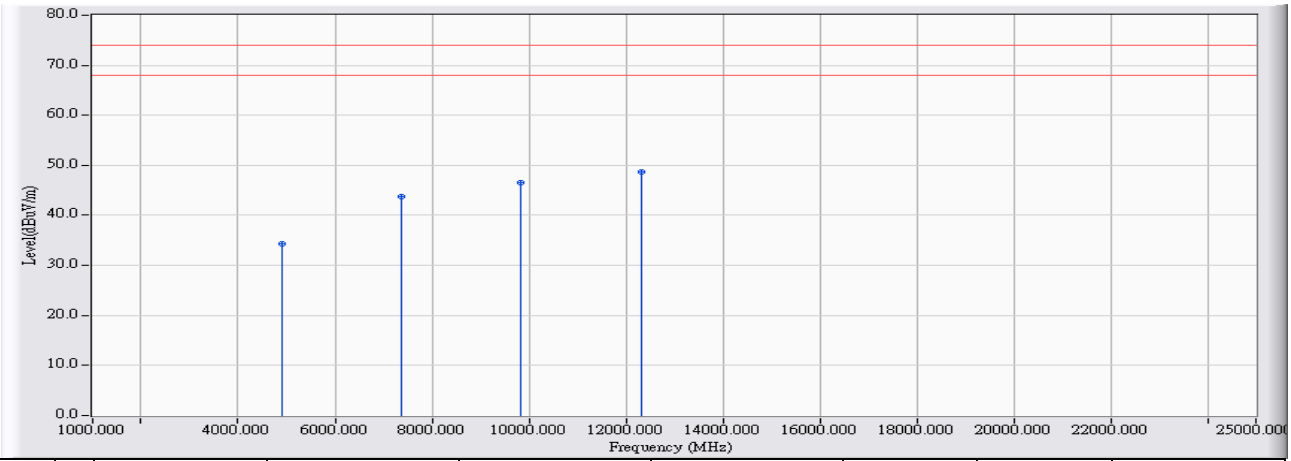


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4917.300	0.492	34.947	35.440	-38.560	74.000	PEAK
2		7403.500	7.579	36.456	44.034	-29.966	74.000	PEAK
3		9831.200	11.730	34.950	46.681	-27.319	74.000	PEAK
4	*	12323.800	13.526	35.315	48.840	-25.160	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/23 - 21:09**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2462MHz**

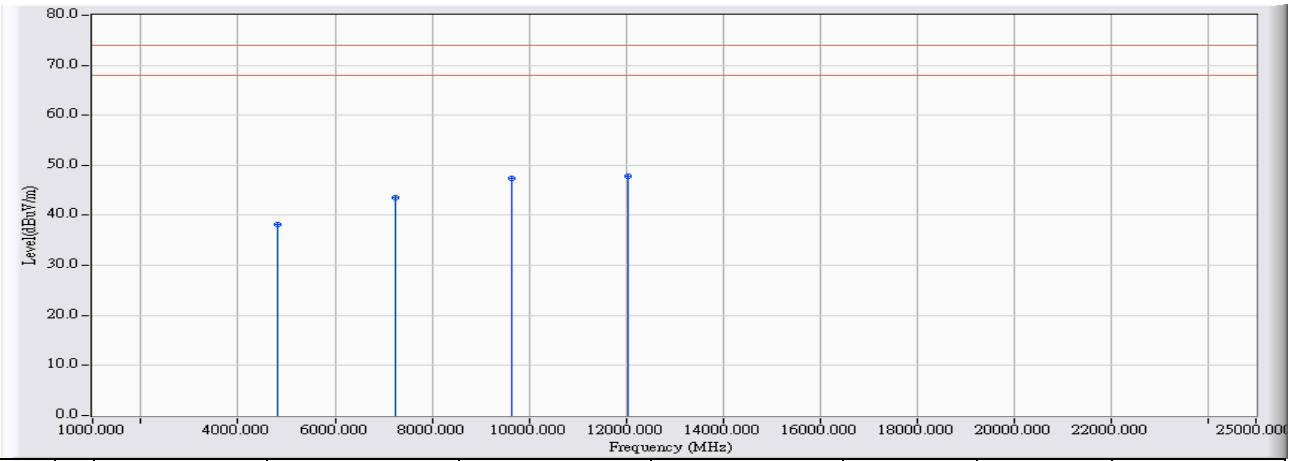


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4921.350	0.505	33.824	34.329	-39.671	74.000	PEAK
2		7376.950	7.513	36.172	43.685	-30.315	74.000	PEAK
3		9835.400	11.746	34.837	46.583	-27.417	74.000	PEAK
4	*	12314.900	13.515	35.201	48.715	-25.285	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/10 - 19:34**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2412MHz**

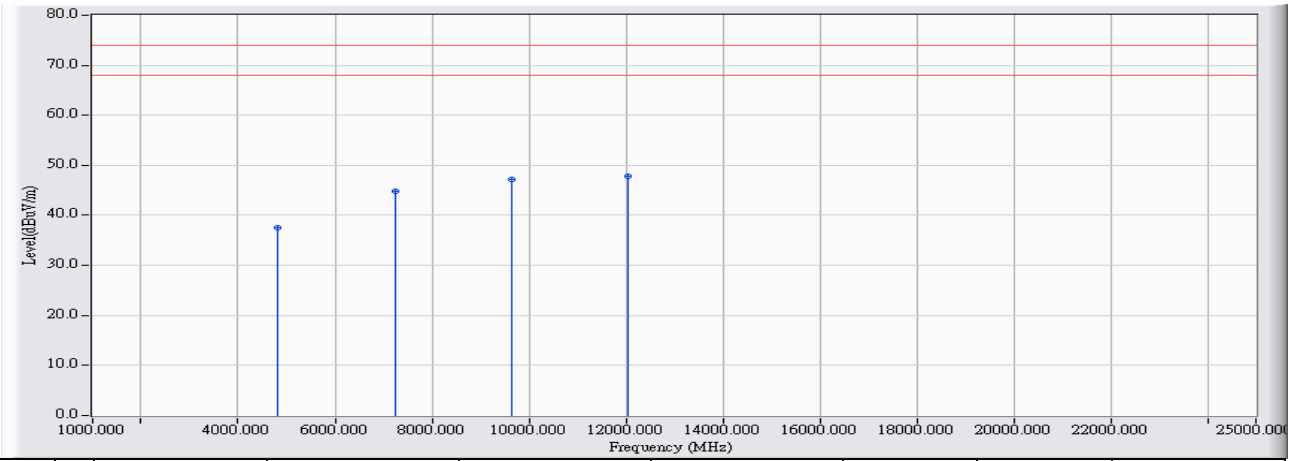


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4820.000	0.197	38.015	38.212	-35.788	74.000	PEAK
2		7236.640	7.172	36.313	43.485	-30.515	74.000	PEAK
3		9653.220	11.091	36.271	47.363	-26.637	74.000	PEAK
4	*	12059.900	13.208	34.615	47.823	-26.177	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/10 - 19:48**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2412MHz**

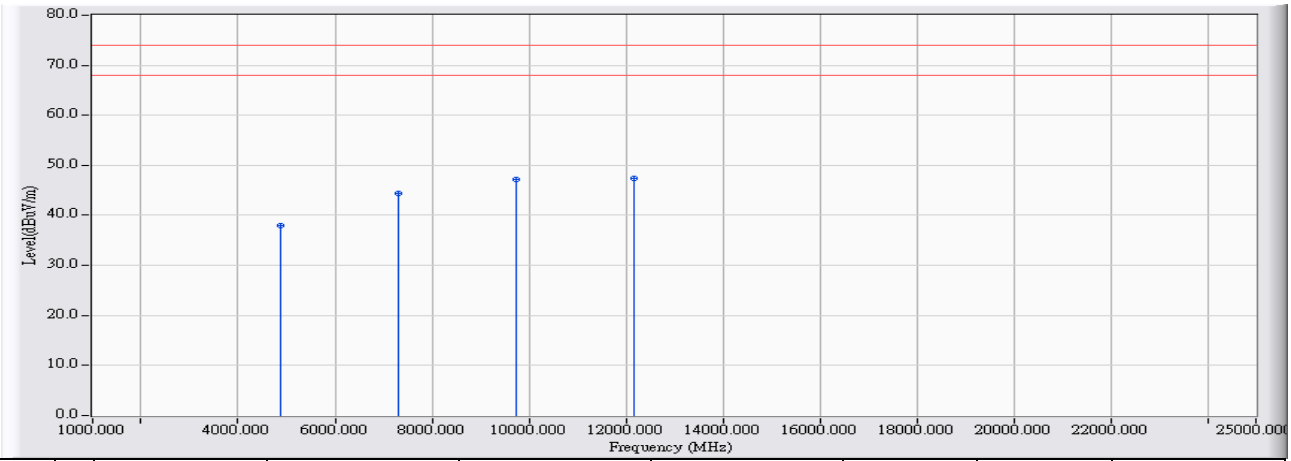


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4829.380	0.226	37.211	37.437	-36.563	74.000	PEAK
2		7241.700	7.184	37.552	44.736	-29.264	74.000	PEAK
3		9646.400	11.068	36.090	47.157	-26.843	74.000	PEAK
4	*	12050.280	13.197	34.717	47.913	-26.087	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/10 - 20:00**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2437MHz**

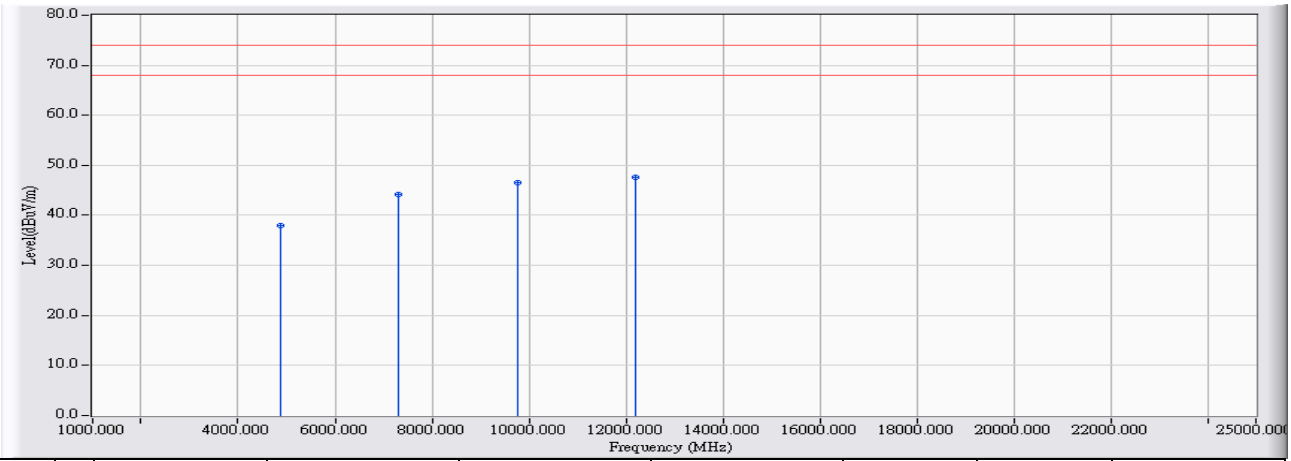


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4877.180	0.371	37.596	37.967	-36.033	74.000	PEAK
2		7312.000	7.355	36.990	44.345	-29.655	74.000	PEAK
3		9739.600	11.402	35.740	47.142	-26.858	74.000	PEAK
4	*	12175.340	13.347	34.021	47.368	-26.632	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/10 - 20:04**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2437MHz**

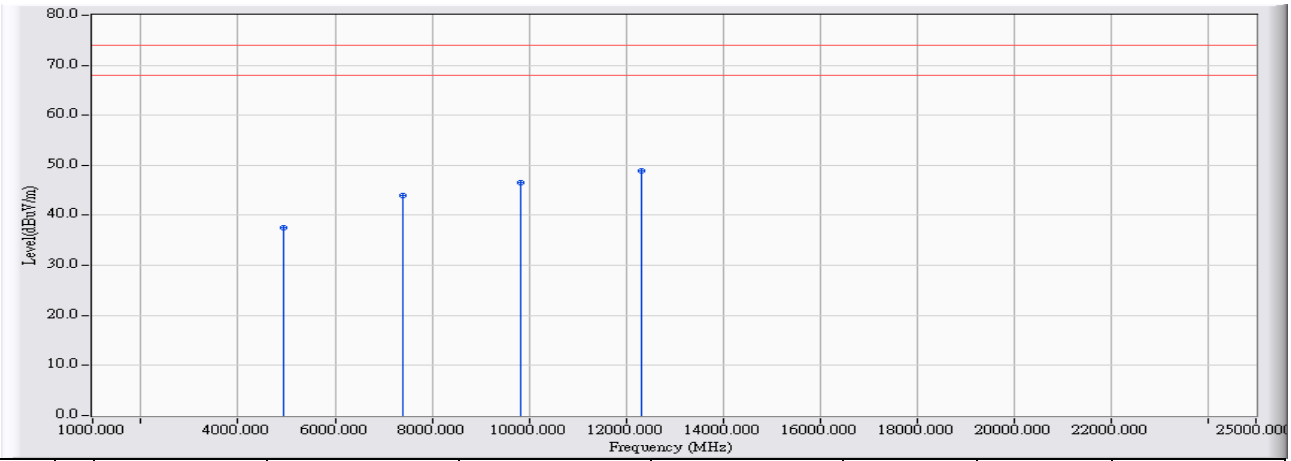


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4868.020	0.343	37.525	37.868	-36.132	74.000	PEAK
2		7313.300	7.359	36.734	44.093	-29.907	74.000	PEAK
3		9754.400	11.455	35.177	46.632	-27.368	74.000	PEAK
4	*	12186.580	13.360	34.254	47.614	-26.386	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/10 - 20:10**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2462MHz**

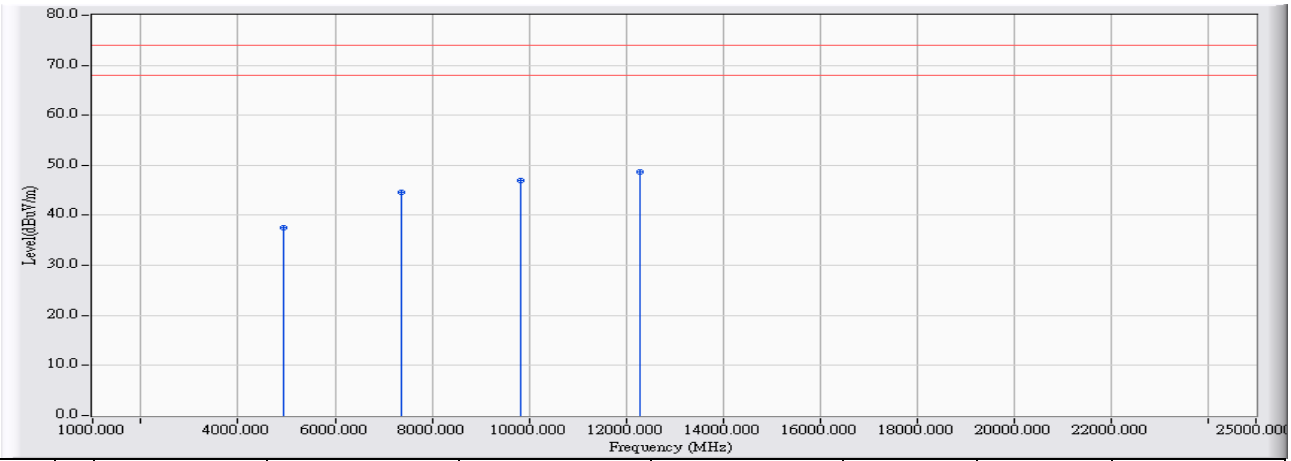


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4923.960	0.512	37.073	37.586	-36.414	74.000	PEAK
2		7386.100	7.535	36.416	43.952	-30.048	74.000	PEAK
3		9838.460	11.756	34.765	46.522	-27.478	74.000	PEAK
4	*	12310.020	13.509	35.357	48.866	-25.134	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2013/09/10 - 20:15**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2462MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4923.800	0.512	36.946	37.459	-36.541	74.000	PEAK
2		7383.000	7.529	37.156	44.684	-29.316	74.000	PEAK
3		9839.640	11.761	35.298	47.059	-26.941	74.000	PEAK
4	*	12306.740	13.505	35.229	48.734	-25.266	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

4. RF antenna conducted test

4.1. Test Equipment

The following test equipments are used during the test:

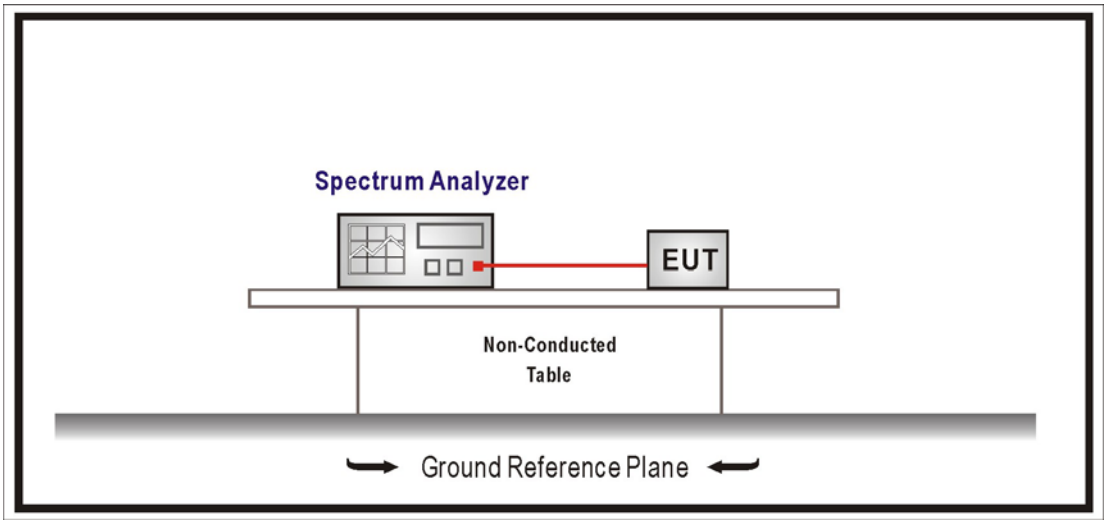
RF antenna conducted test / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

4.2. Test Setup

RF Antenna Conducted Measurement:



4.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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 an RF conducted or radiated measurement. 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)).

4.4. Test Procedure

The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements
Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

4.6. Uncertainty

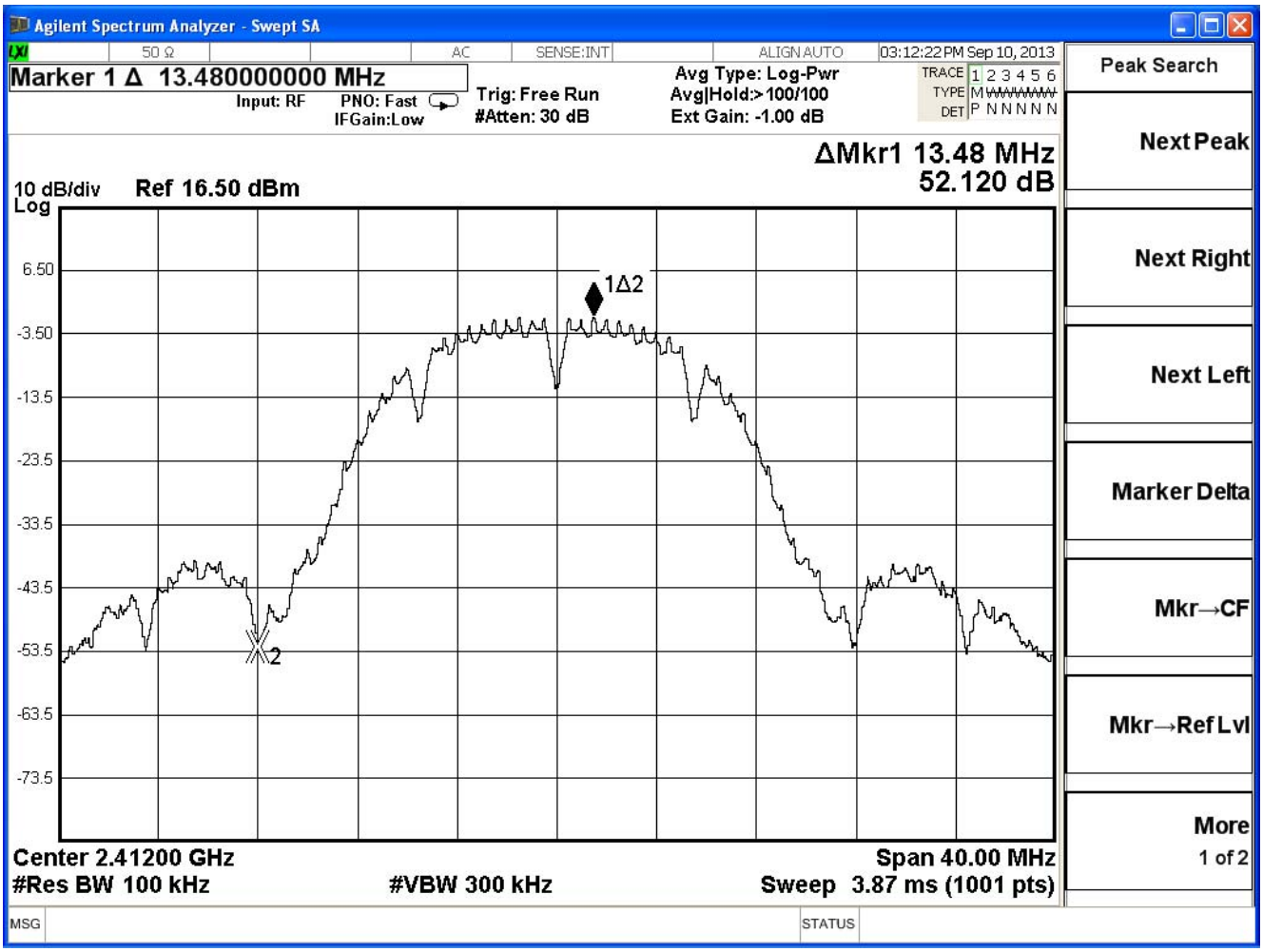
Conducted is defined as ± 1.27dB

4.7. Test Result

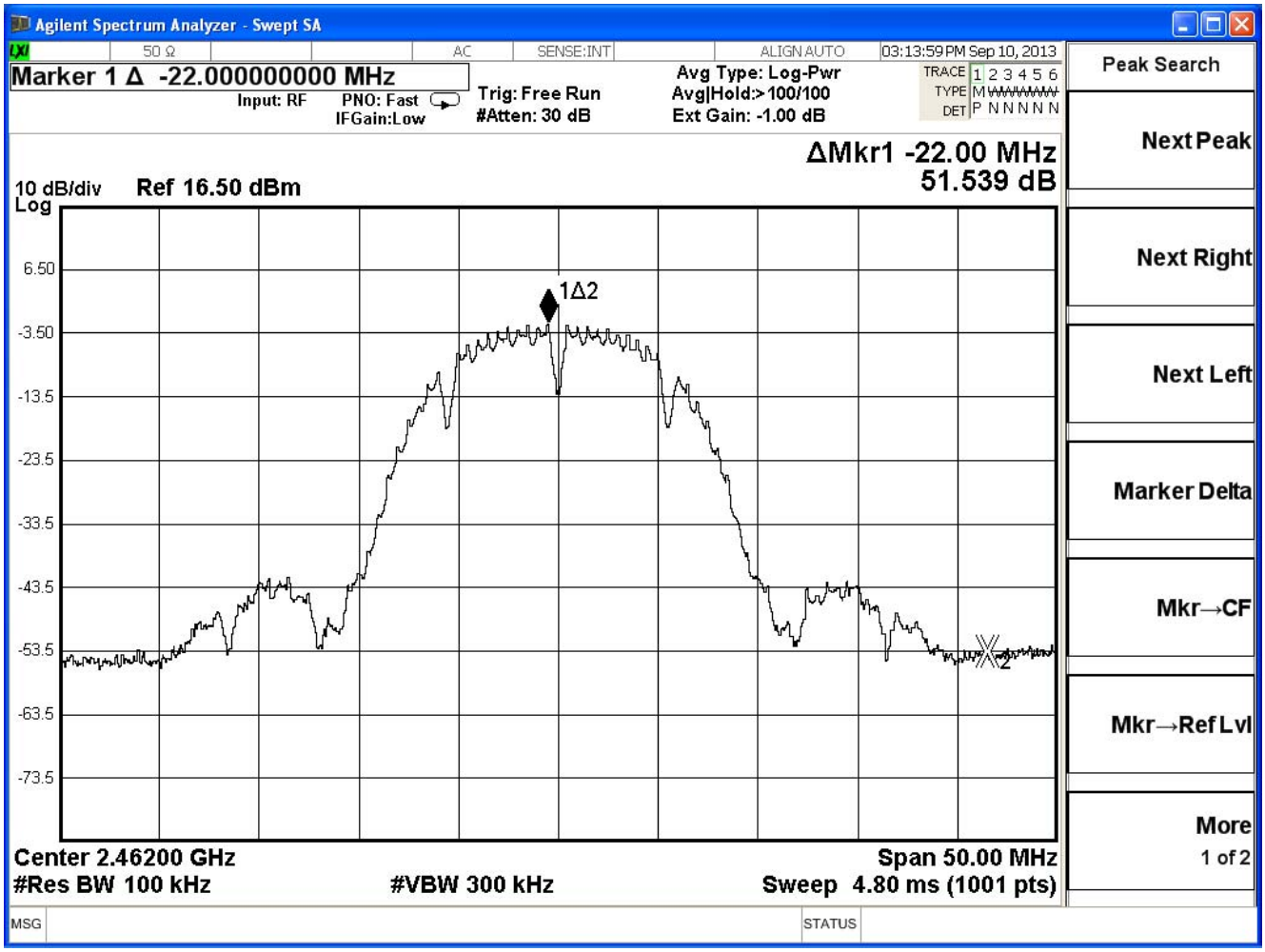
Product	Driving Recorder		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2013/09/24	Test Site	SR7

IEEE 802.11b, ANT 0, Duty Cycle: 1				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	52.12	≧20	Pass
11	2462	51.53	≧20	Pass

Channel 1 (2412MHz)



Channel 11 (2462MHz)

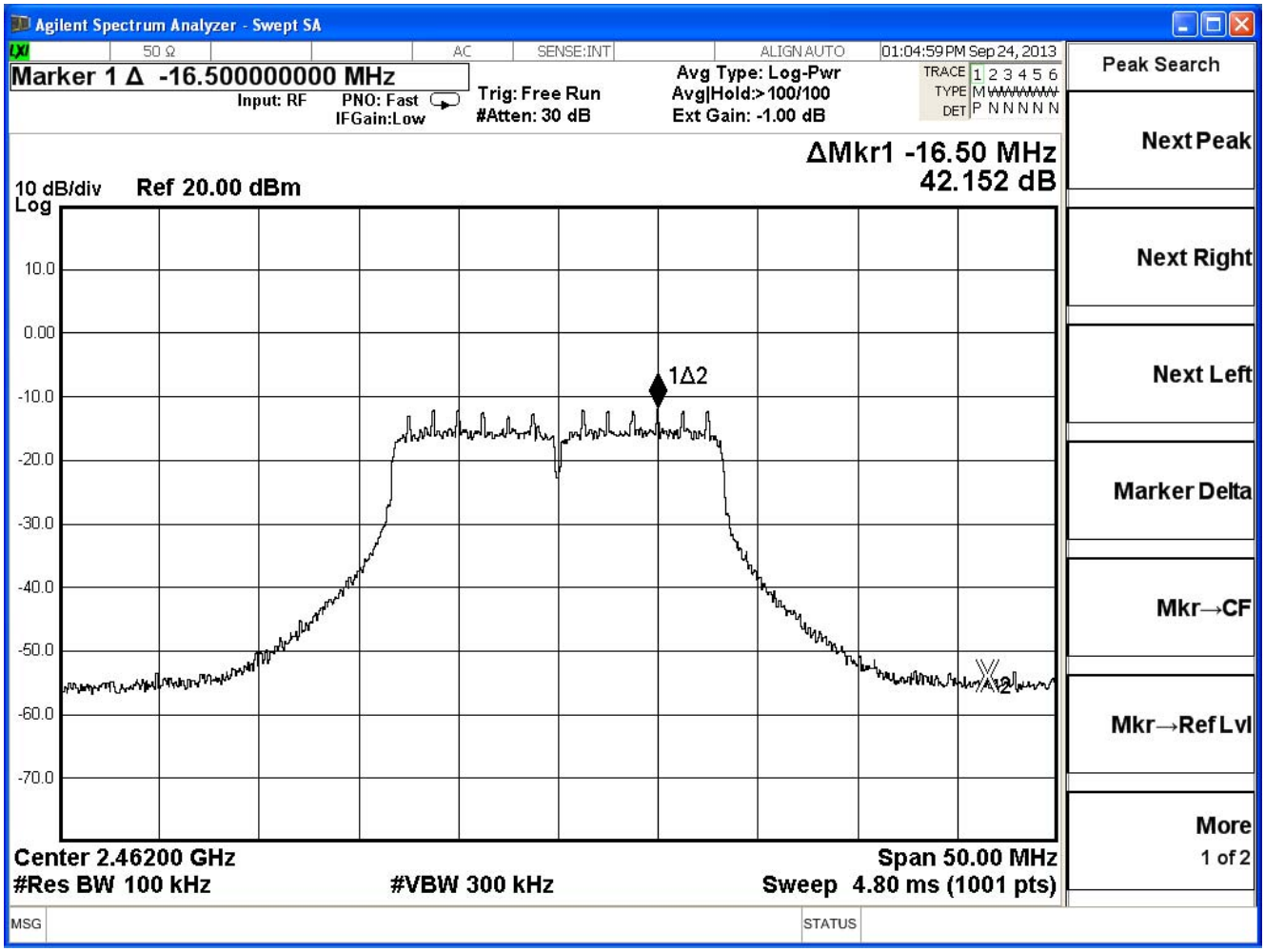


Product	Driving Recorder		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2013/09/24	Test Site	SR7

IEEE 802.11g, ANT 0, Duty Cycle: 1				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	32.56	≧20	Pass
11	2462	42.15	≧20	Pass

Channel 1 (2412MHz)

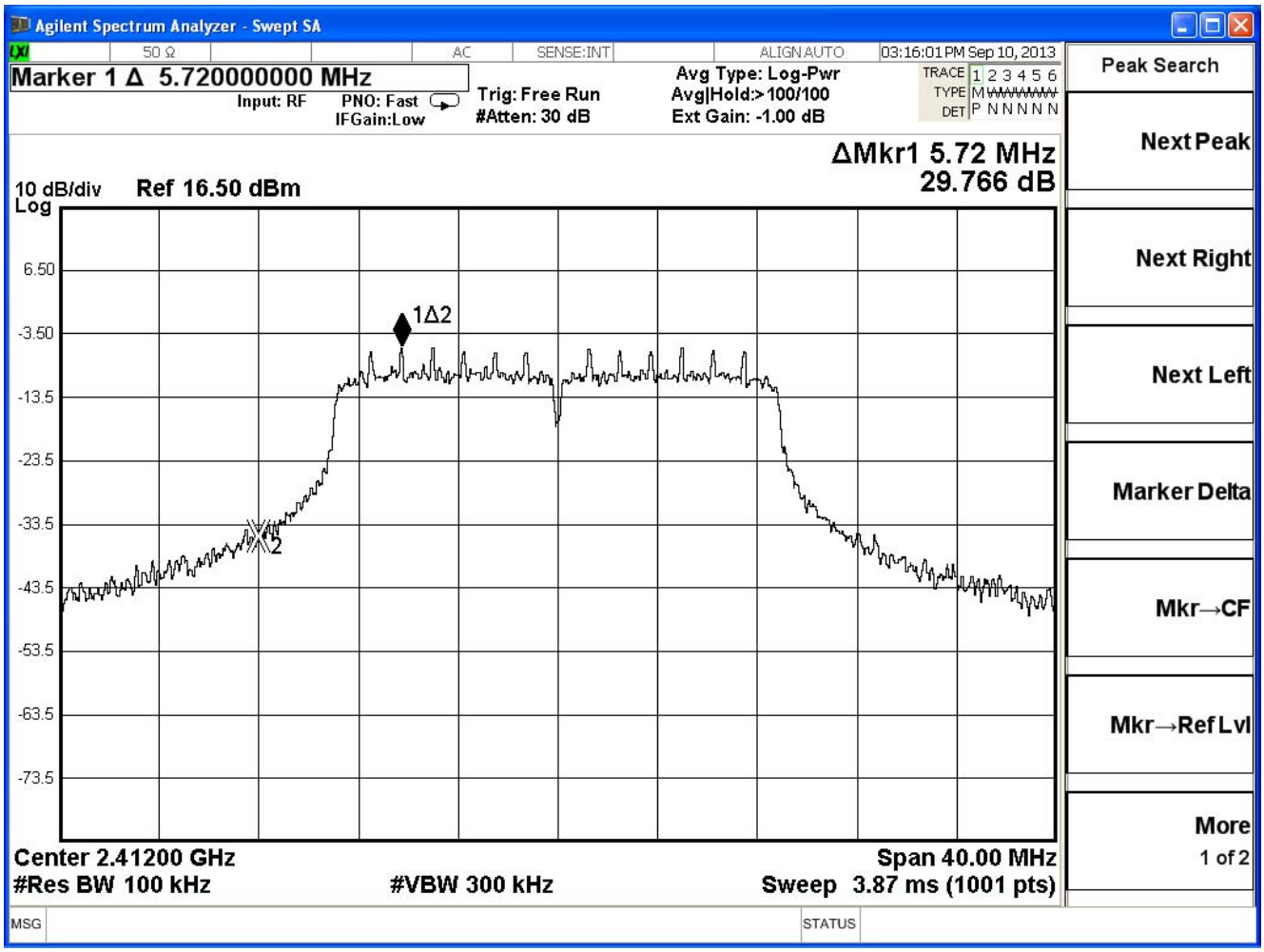
Channel 11 (2462MHz)



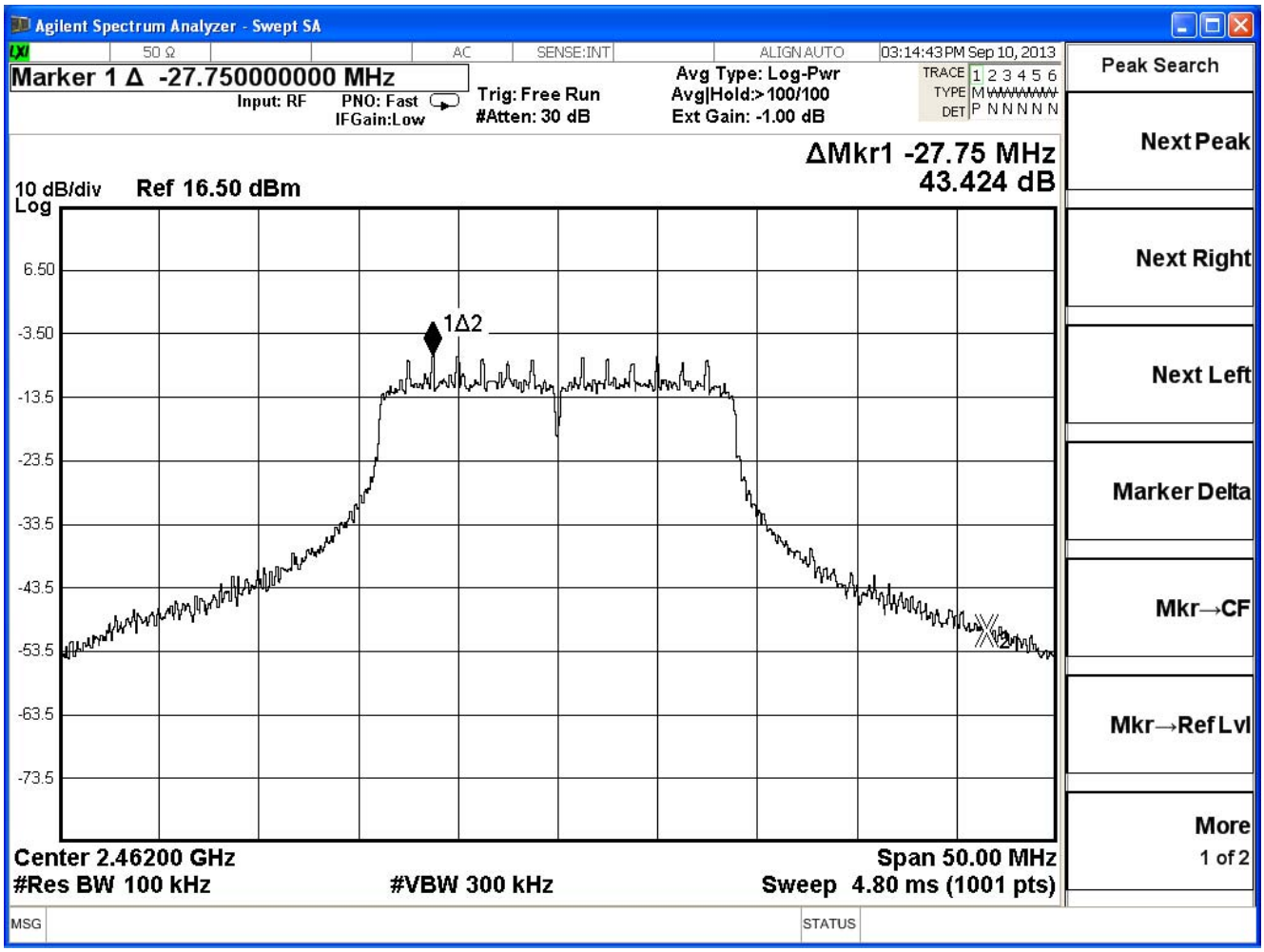
Product	Driving Recorder		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2013/09/24	Test Site	SR7

IEEE 802.11n (20MHz), ANT 0, Duty Cycle: 1				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	29.76	≧20	Pass
11	2462	43.42	≧20	Pass

Channel 1 (2412MHz)

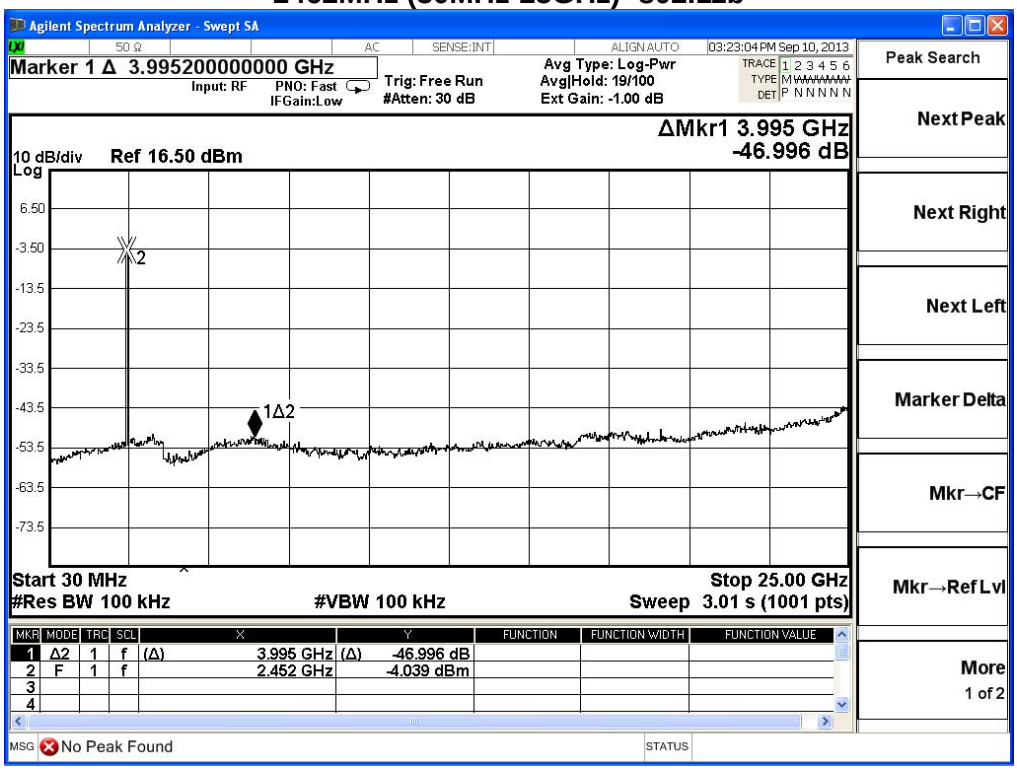


Channel 11 (2462MHz)

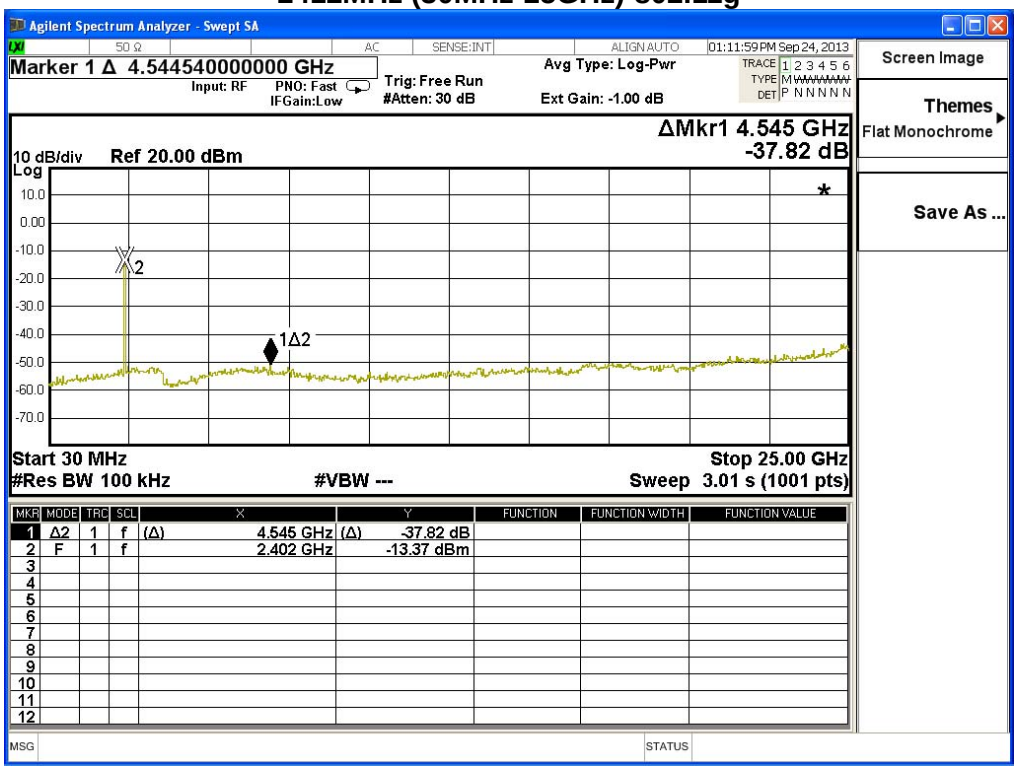


2412MHz (30MHz-25GHz)-802.11b

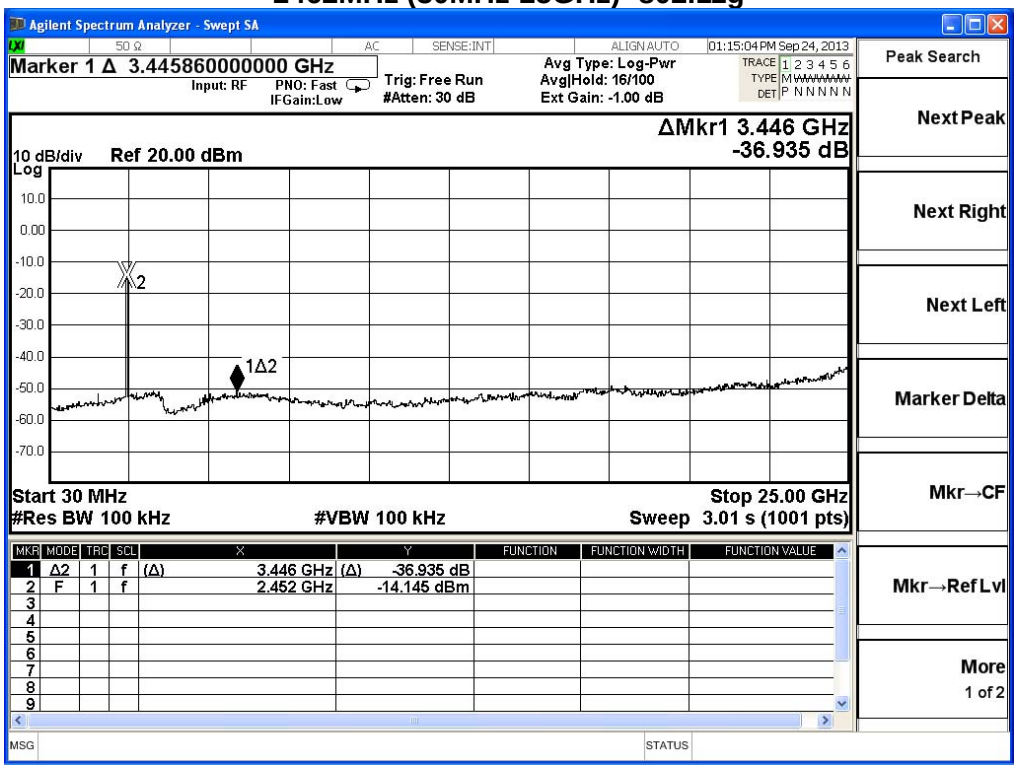
2462MHz (30MHz-25GHz) -802.11b



2412MHz (30MHz-25GHz)-802.11g

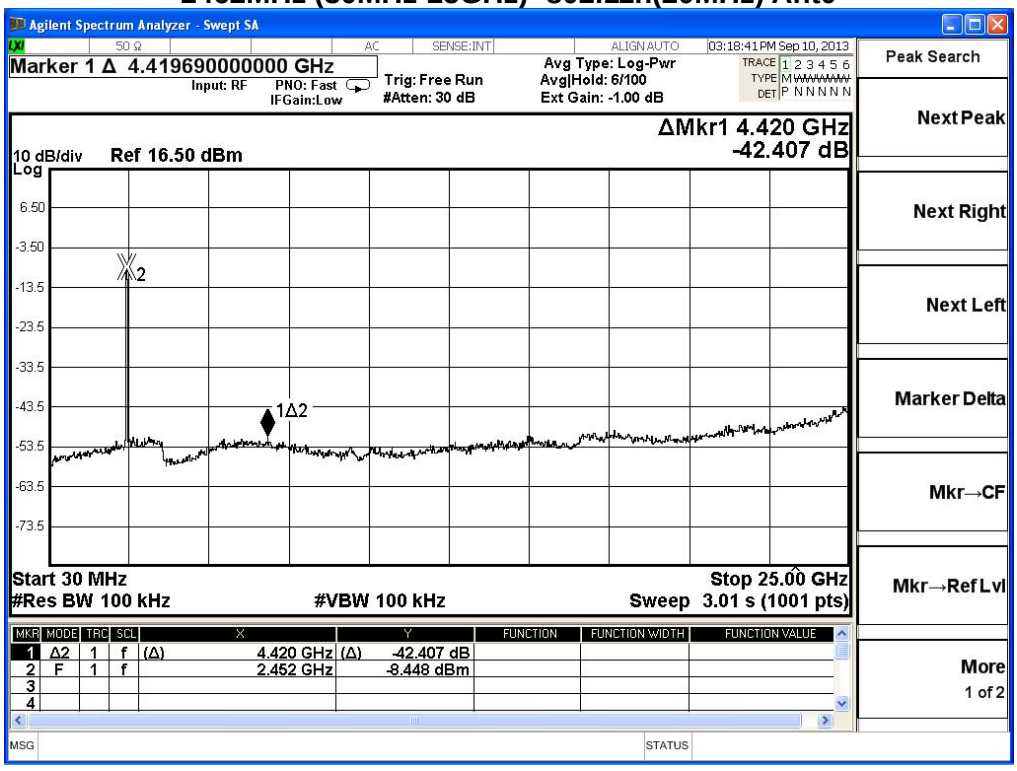


2462MHz (30MHz-25GHz) -802.11g



2412MHz (30MHz-25GHz)- 802.11n(20MHz) Ant0

2462MHz (30MHz-25GHz) -802.11n(20MHz) Ant0



5. Radiated Emission Band Edge

5.1. Test Equipment

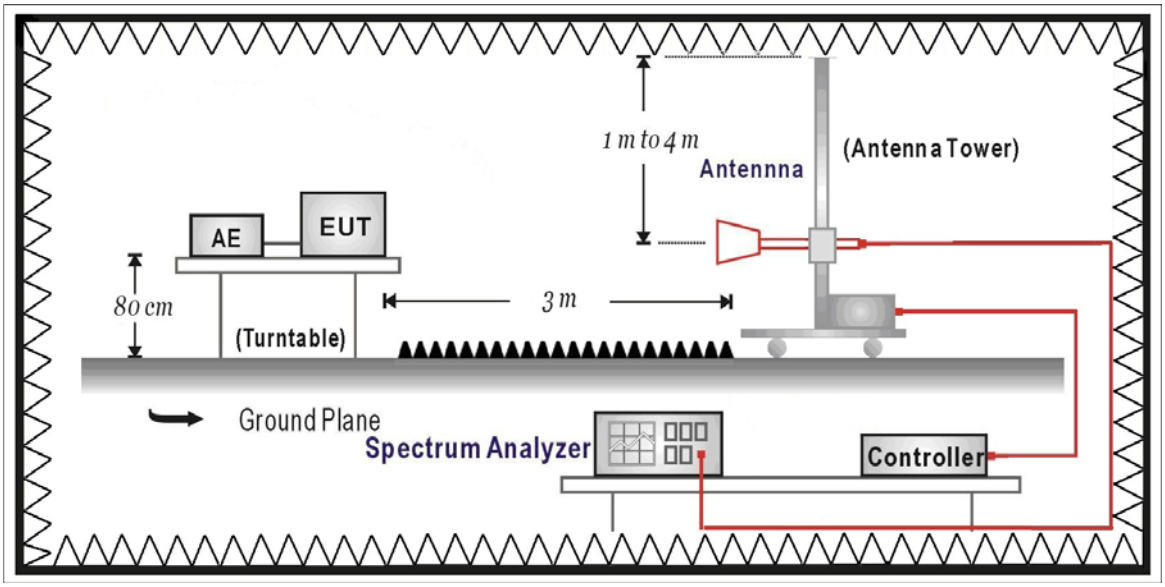
The following test equipments are used during the test:

Radiated Emission Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2014/02/17
Spectrum Analyzer	Agilent	E4440A	MY46187335	2014/01/27
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2014/02/21

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

5.2. Test Setup



5.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

5.4. Test Procedure

The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground.

The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated measurement.

5.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

5.6. Uncertainty

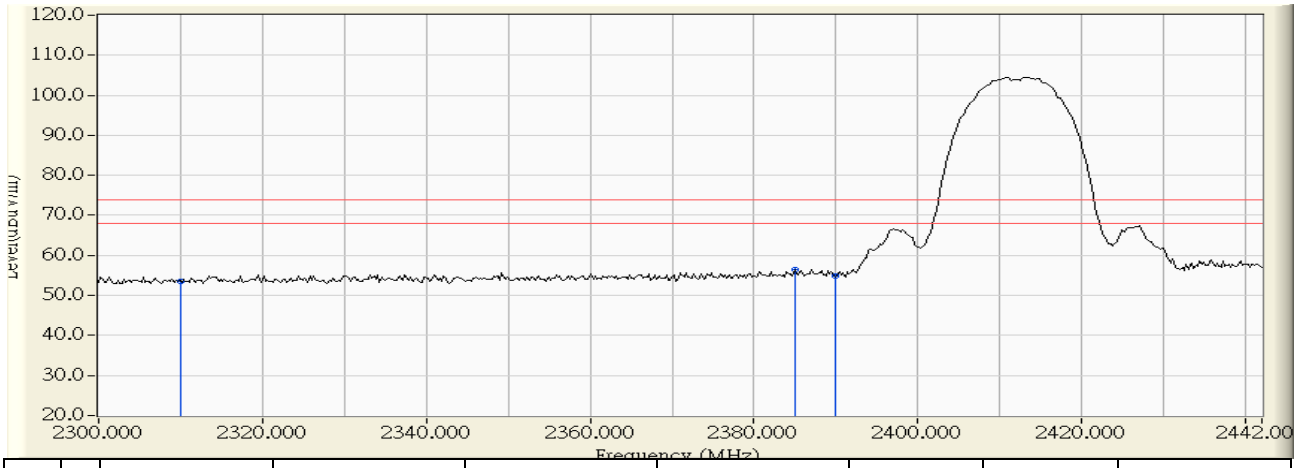
The measurement uncertainty

± 3.9 dB above 1GHz

5.7. Test Result

Radiated is defined as

Site : CB1	**Time : 2013/09/09 - 16:15**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2412MHz**

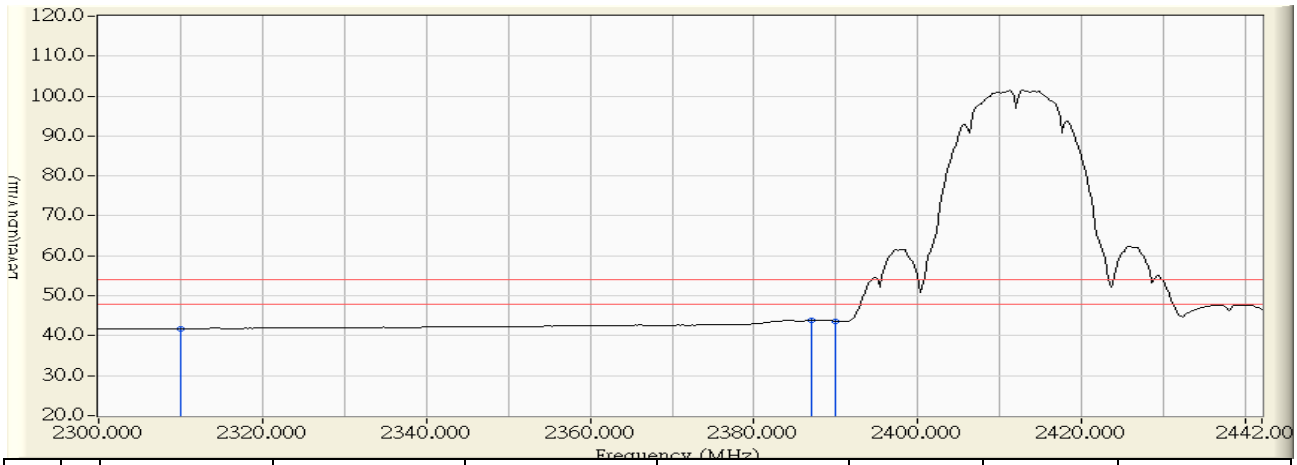


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	23.551	53.610	-20.390	74.000	PEAK
2	*	2384.963	30.836	25.531	56.367	-17.633	74.000	PEAK
3		2390.000	30.888	23.876	54.764	-19.236	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:16**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2412MHz**

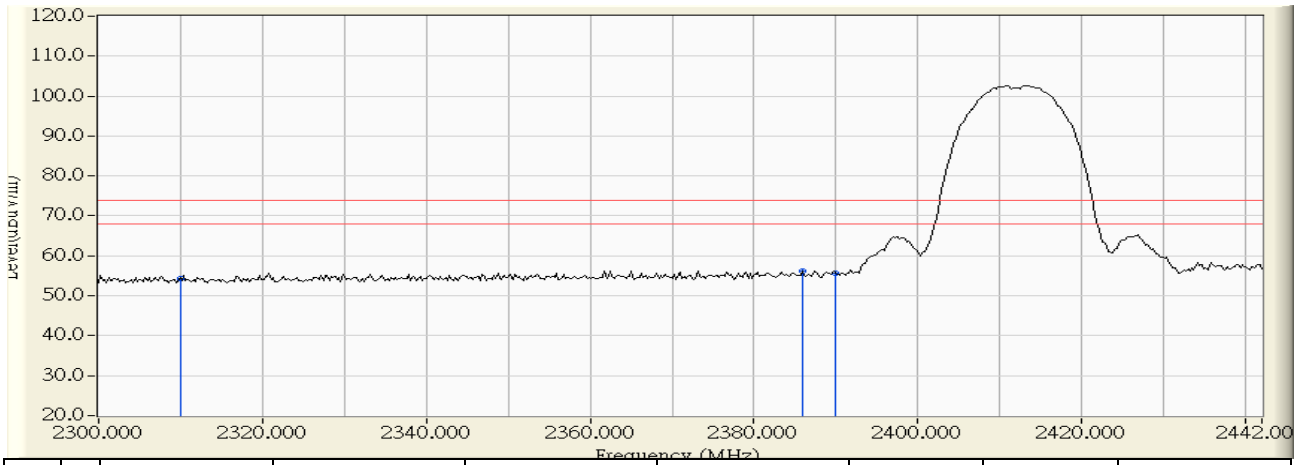


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	11.686	41.745	-12.255	54.000	AVERAGE
2	*	2387.093	30.858	13.107	43.965	-10.035	54.000	AVERAGE
3		2390.000	30.888	12.767	43.655	-10.345	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:22**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2412MHz**

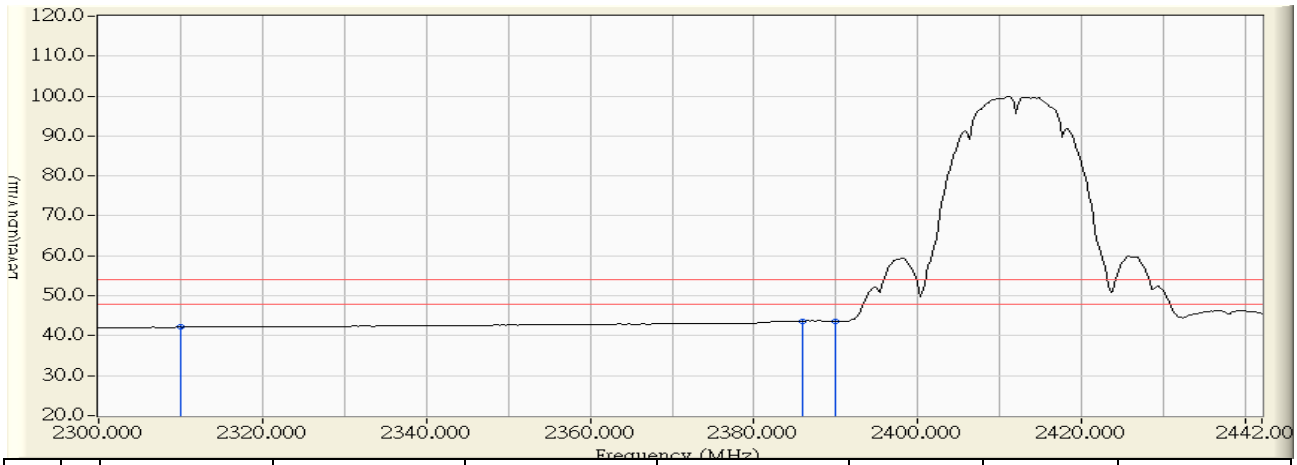


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	24.235	54.294	-19.706	74.000	PEAK
2	*	2385.910	30.846	25.402	56.248	-17.752	74.000	PEAK
3		2390.000	30.888	24.843	55.731	-18.269	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:23**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2412MHz**

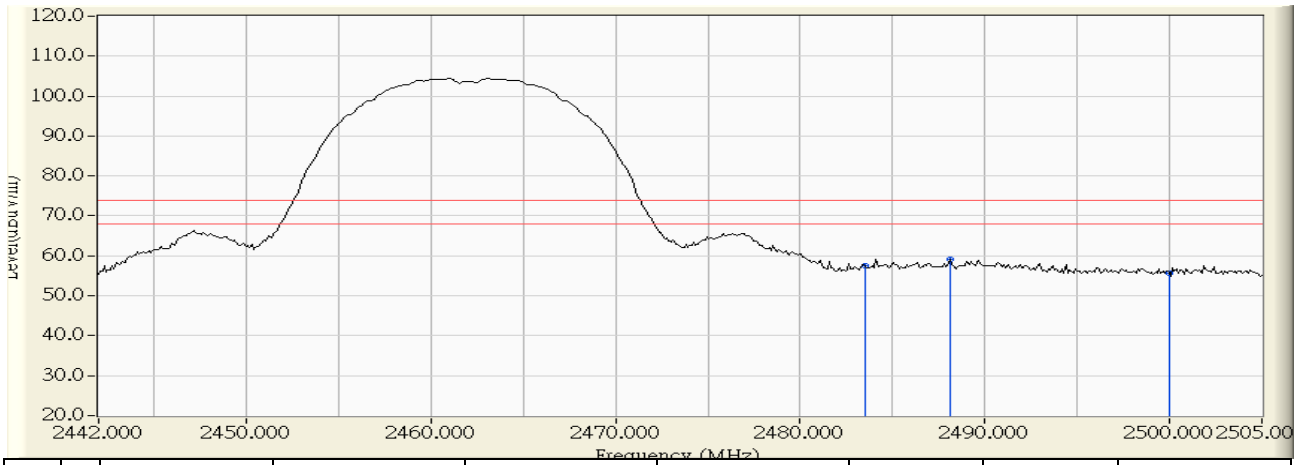


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	12.066	42.125	-11.875	54.000	AVERAGE
2		2385.910	30.846	12.701	43.547	-10.453	54.000	AVERAGE
3	*	2390.000	30.888	12.736	43.624	-10.376	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:56**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2462MHz**

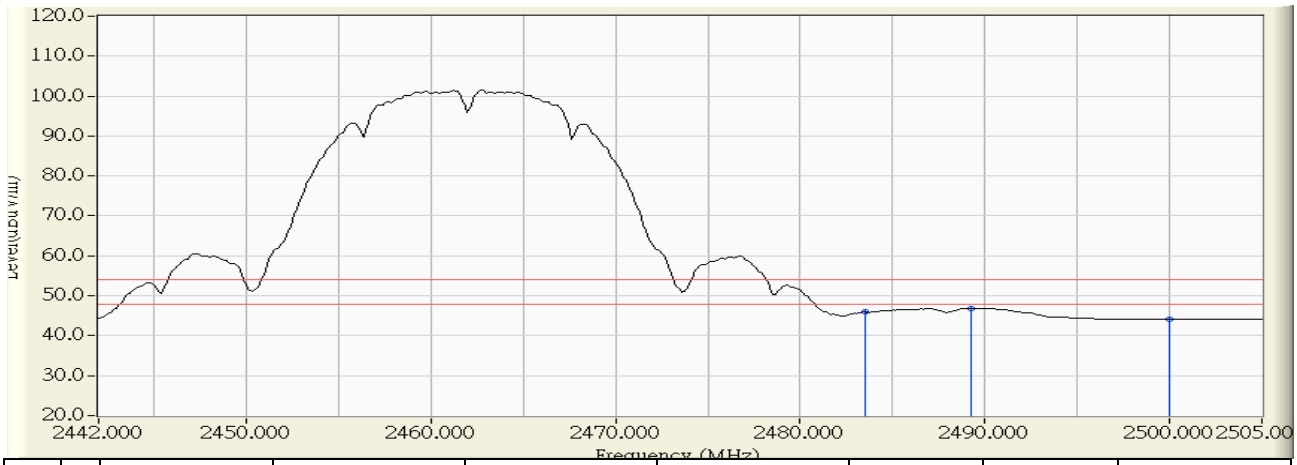


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.858	25.639	57.497	-16.503	74.000	PEAK
2	*	2488.095	31.905	27.309	59.215	-14.785	74.000	PEAK
3		2500.000	31.988	23.560	55.549	-18.451	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:56**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2462MHz**

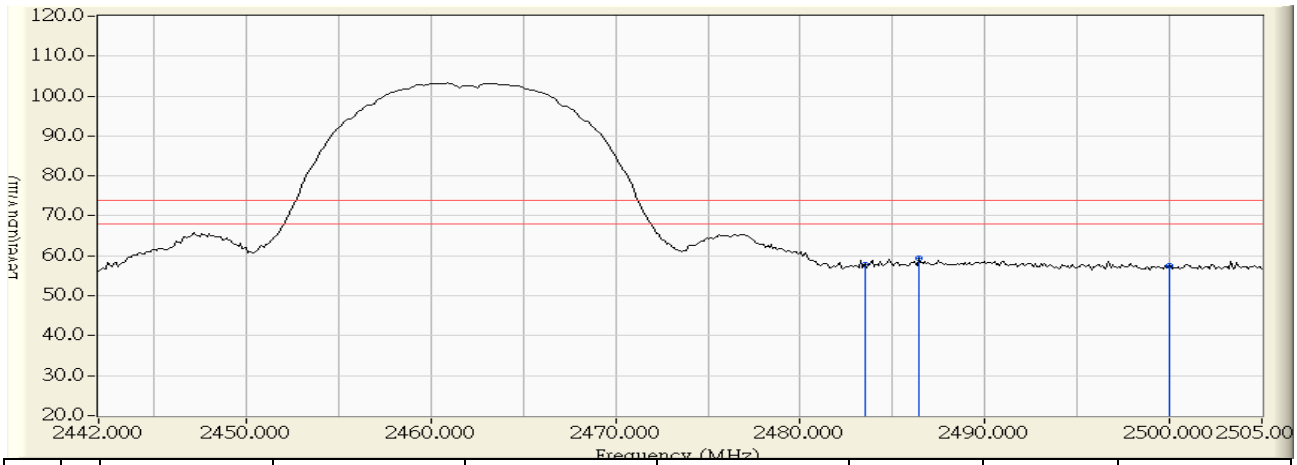


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.858	14.055	45.913	-8.087	54.000	AVERAGE
2	*	2489.250	31.917	14.999	46.917	-7.083	54.000	AVERAGE
3		2500.000	31.988	12.099	44.088	-9.912	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 17:00**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2462MHz**

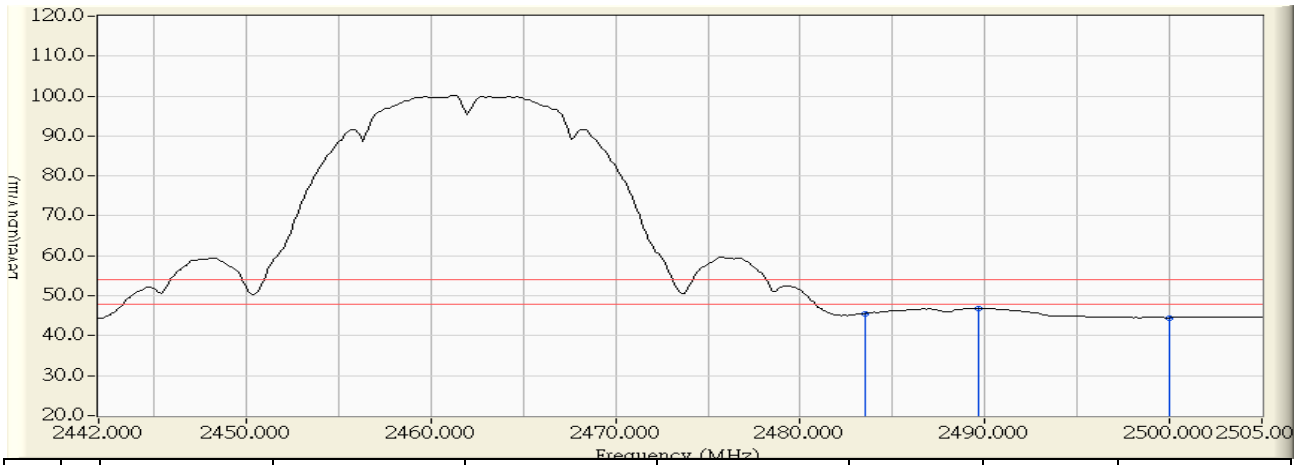


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.858	25.998	57.856	-16.144	74.000	PEAK
2	*	2486.415	31.888	27.643	59.531	-14.469	74.000	PEAK
3		2500.000	31.988	25.589	57.578	-16.422	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 17:00**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11b_2462MHz**

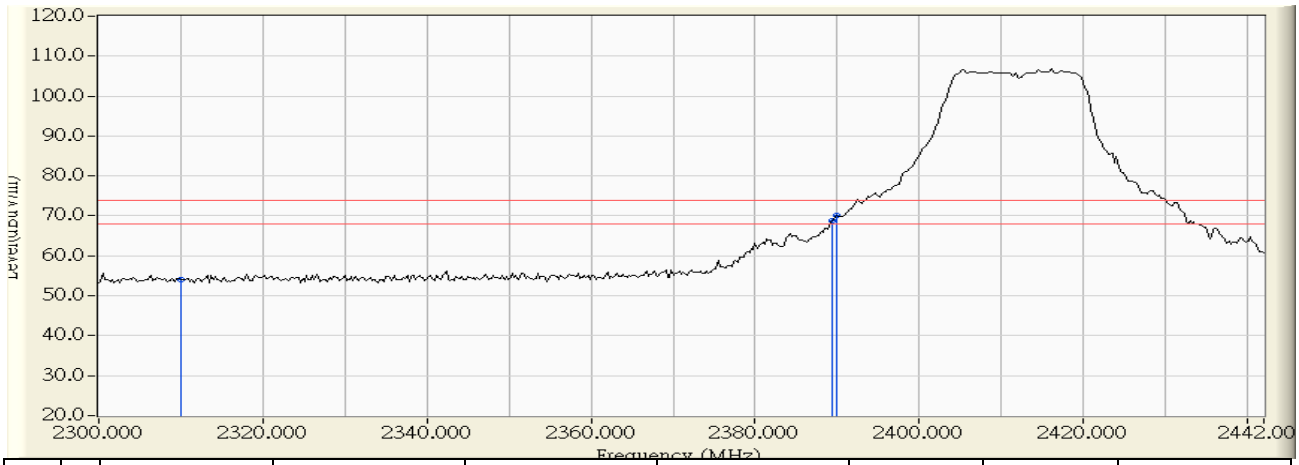


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.858	13.741	45.599	-8.401	54.000	AVERAGE
2	*	2489.670	31.922	14.960	46.882	-7.118	54.000	AVERAGE
3		2500.000	31.988	12.530	44.519	-9.481	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/23 - 14:19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2412MHz**

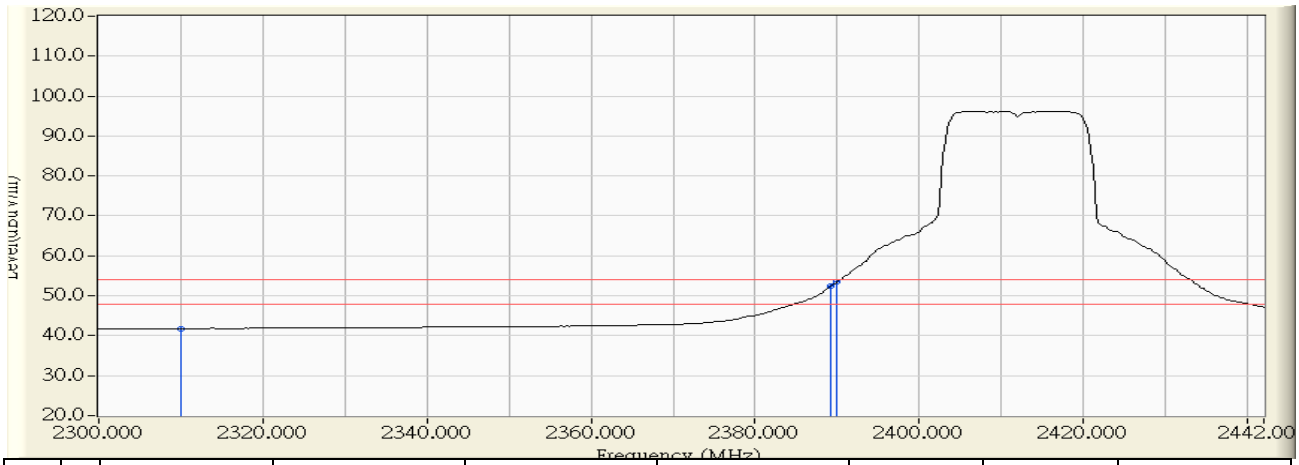


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	23.905	53.964	-20.036	74.000	PEAK
2		2389.460	30.883	37.961	68.844	-5.156	74.000	PEAK
3	*	2390.000	30.888	39.116	70.004	-3.996	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/23 - 14:21**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2412MHz**

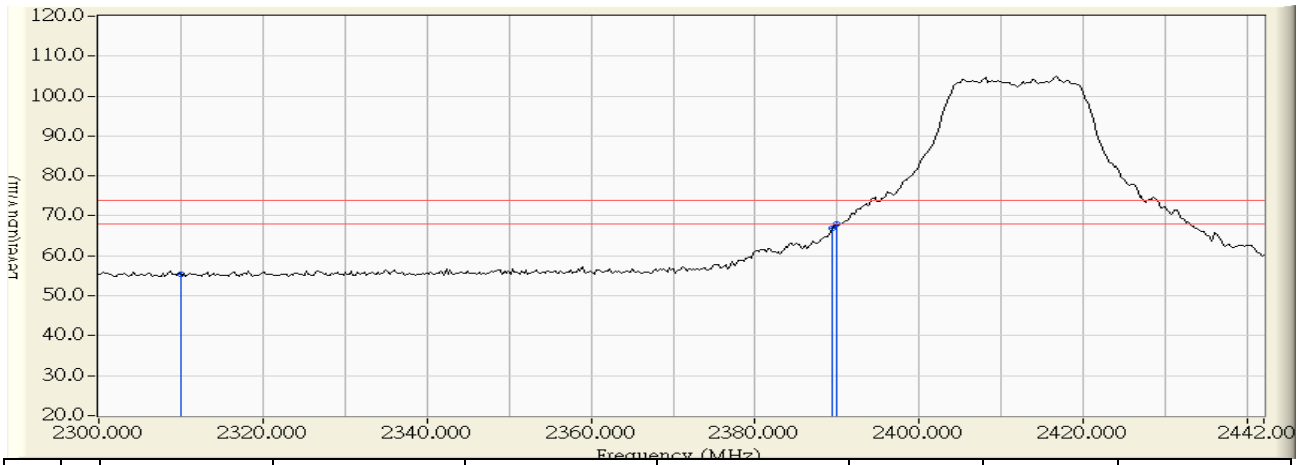


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	11.682	41.741	-12.259	54.000	AVERAGE
2		2389.223	30.880	21.530	52.410	-1.590	54.000	AVERAGE
3	*	2390.000	30.888	22.493	53.381	-0.619	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/23 - 14:35**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2412MHz**

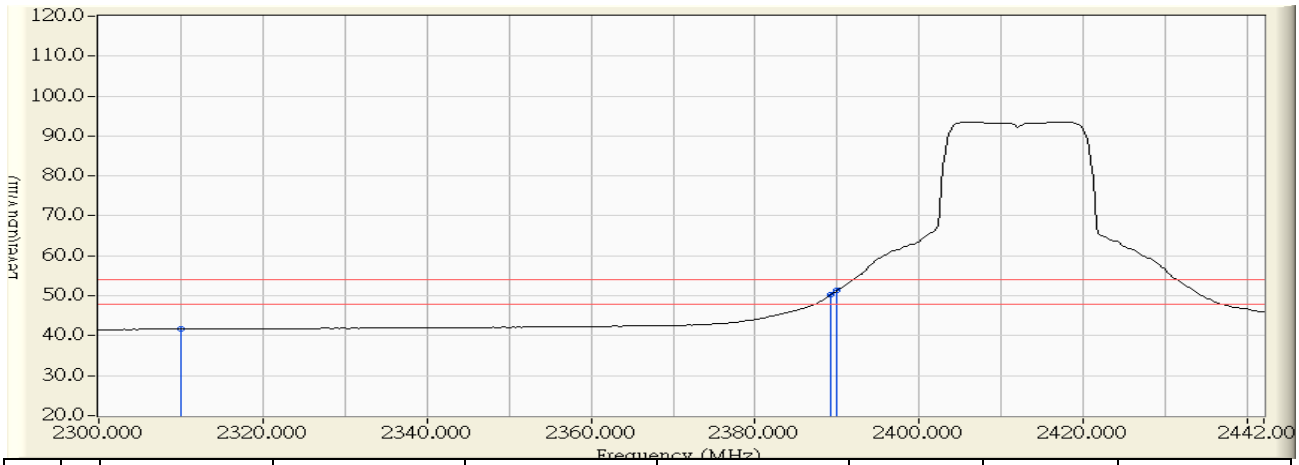


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	25.361	55.420	-18.580	74.000	PEAK
2		2389.460	30.883	36.134	67.017	-6.983	74.000	PEAK
3	*	2390.000	30.888	36.979	67.867	-6.133	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/23 - 14:36**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2412MHz**

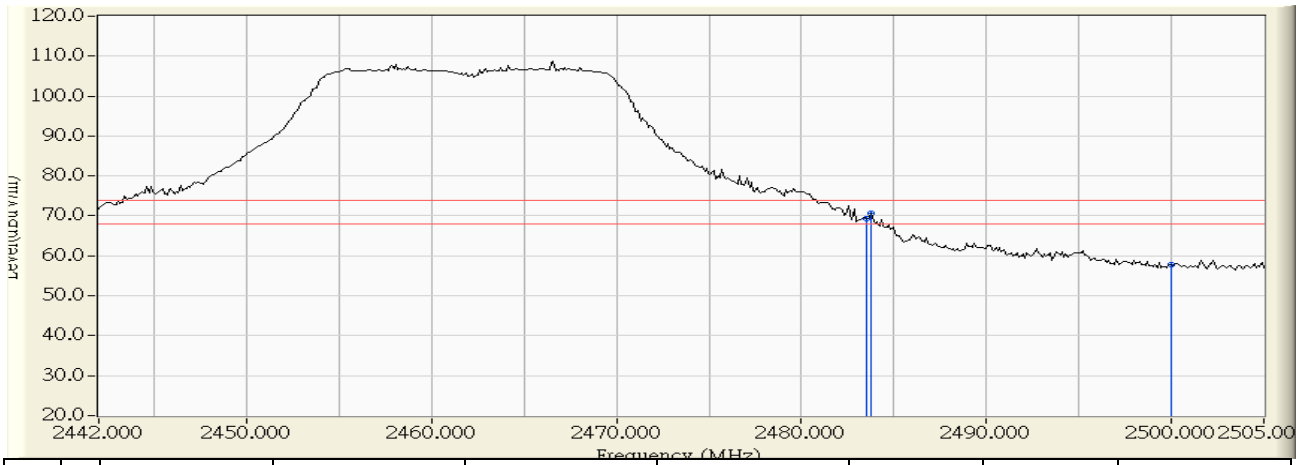


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	11.571	41.630	-12.370	54.000	AVERAGE
2		2389.223	30.880	19.429	50.309	-3.691	54.000	AVERAGE
3	*	2390.000	30.888	20.367	51.255	-2.745	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/23 - 14:40**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2462MHz**

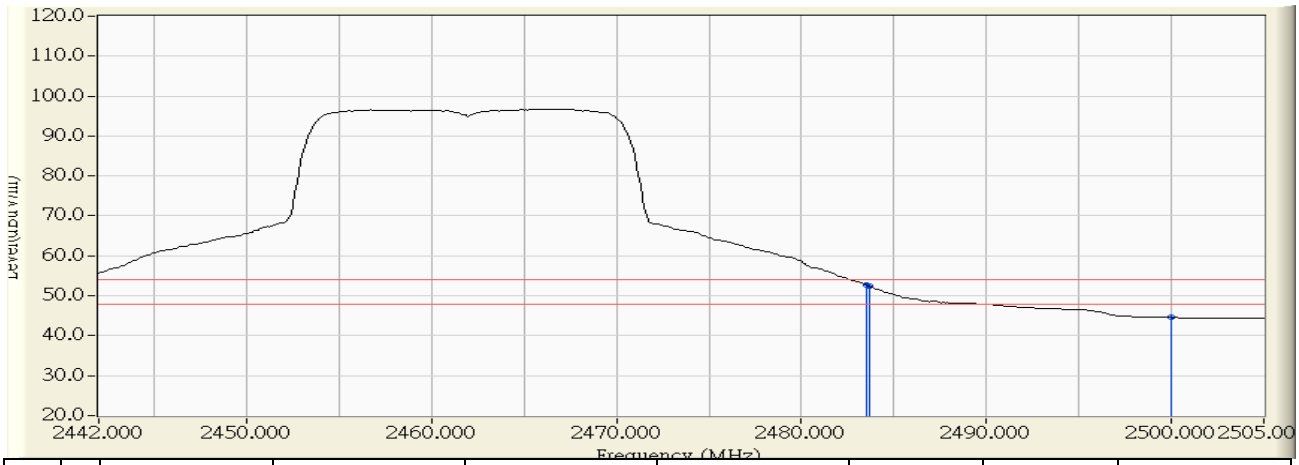


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.858	37.538	69.396	-4.604	74.000	PEAK
2	*	2483.790	31.861	38.904	70.765	-3.235	74.000	PEAK
3		2500.000	31.988	25.793	57.782	-16.218	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/23 - 14:41**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2462MHz**

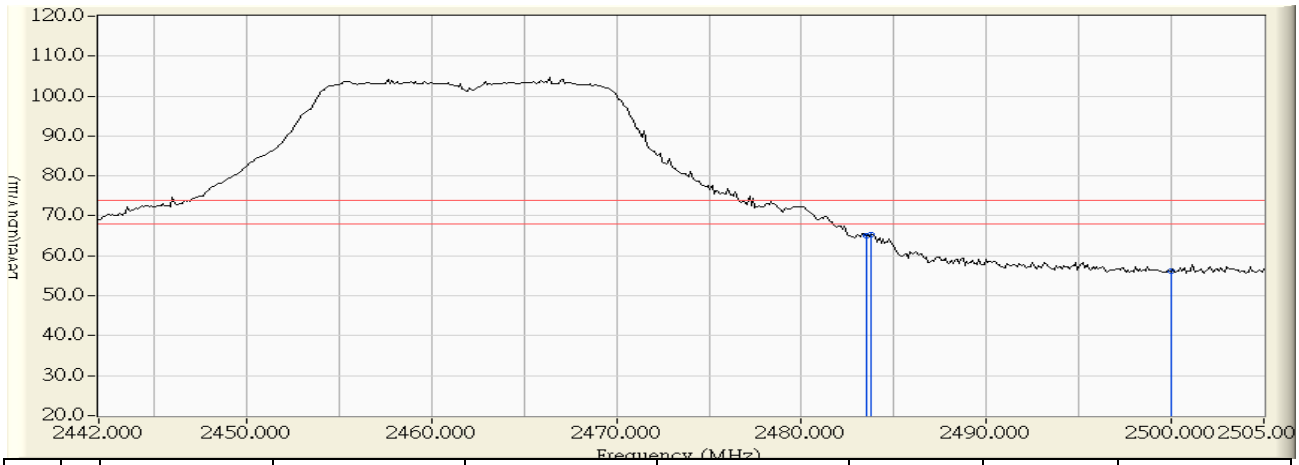


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	20.824	52.682	-1.318	54.000	AVERAGE
2		2483.685	31.860	20.465	52.325	-1.675	54.000	AVERAGE
3		2500.000	31.988	12.556	44.545	-9.455	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/23 - 14:45**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2462MHz**

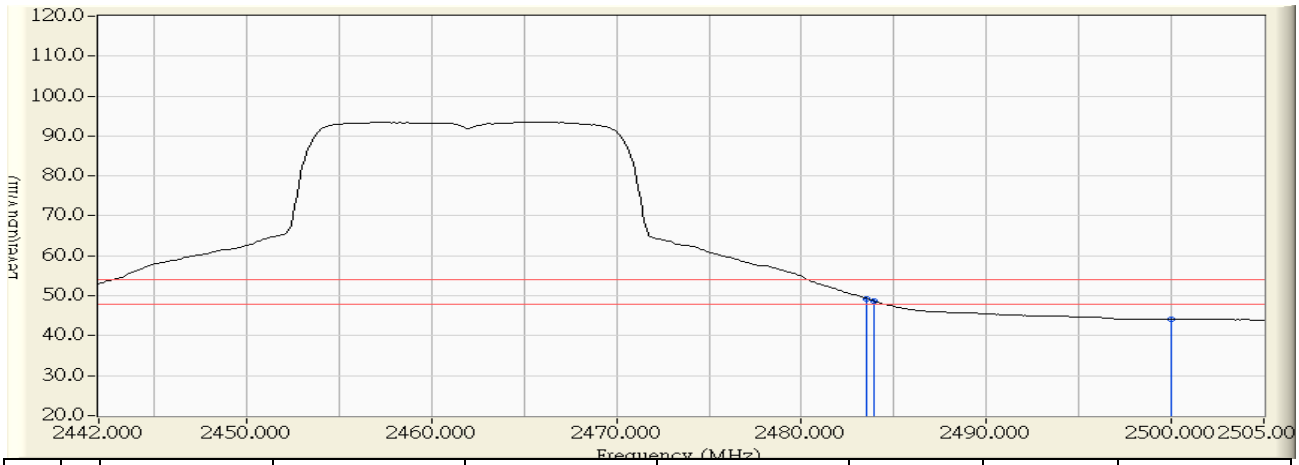


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.858	33.214	65.072	-8.928	74.000	PEAK
2	*	2483.790	31.861	33.356	65.217	-8.783	74.000	PEAK
3		2500.000	31.988	24.290	56.279	-17.721	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/23 - 14:46**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11g_2462MHz**

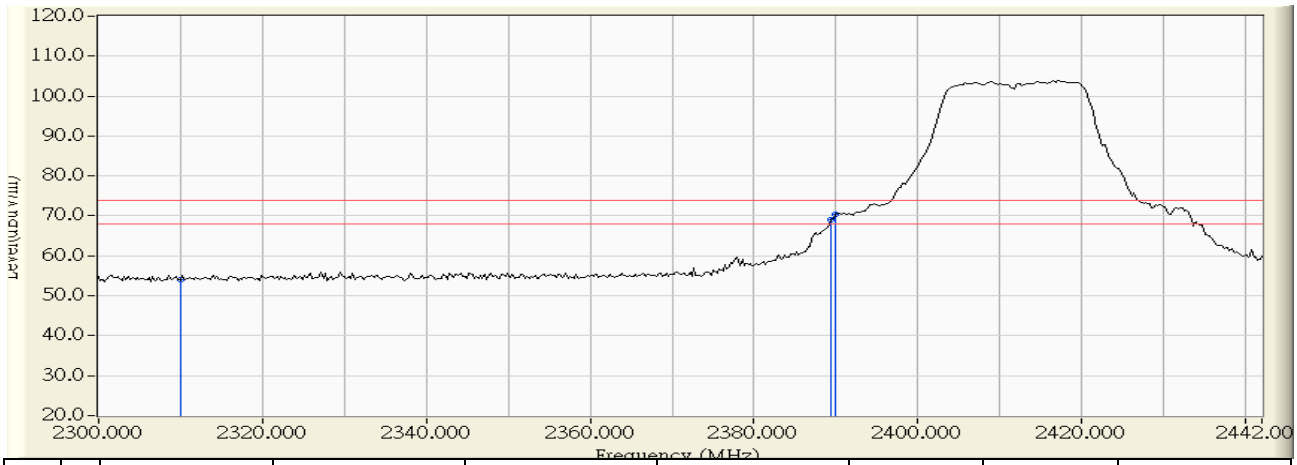


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	17.494	49.352	-4.648	54.000	AVERAGE
2		2483.895	31.862	16.825	48.687	-5.313	54.000	AVERAGE
3		2500.000	31.988	12.069	44.058	-9.942	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:36**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2412MHz**

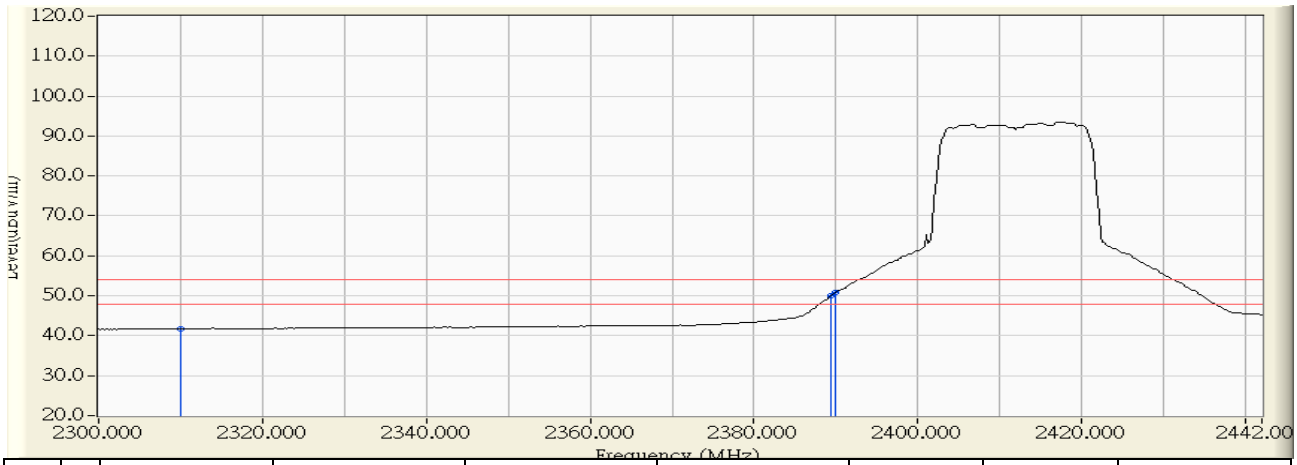


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	24.076	54.135	-19.865	74.000	PEAK
2		2389.460	30.883	38.085	68.968	-5.032	74.000	PEAK
3	*	2390.000	30.888	39.412	70.300	-3.700	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:37**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2412MHz**

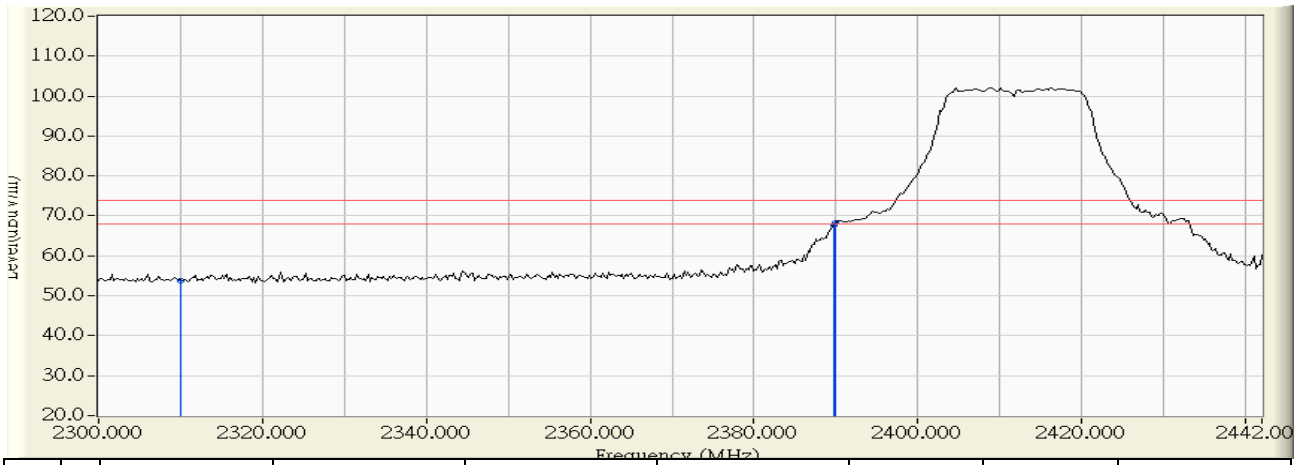


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	11.638	41.697	-12.303	54.000	AVERAGE
2		2389.460	30.883	19.192	50.075	-3.925	54.000	AVERAGE
3	*	2390.000	30.888	20.030	50.918	-3.082	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:40**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2412MHz**

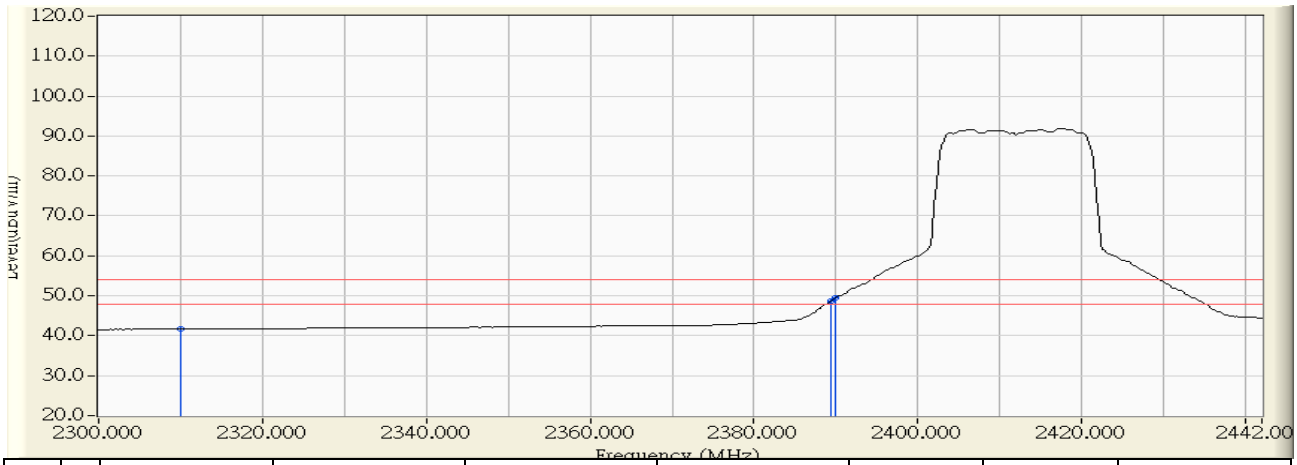


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	23.850	53.909	-20.091	74.000	PEAK
2		2389.697	30.885	36.851	67.736	-6.264	74.000	PEAK
3	*	2390.000	30.888	37.261	68.149	-5.851	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:41**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2412MHz**

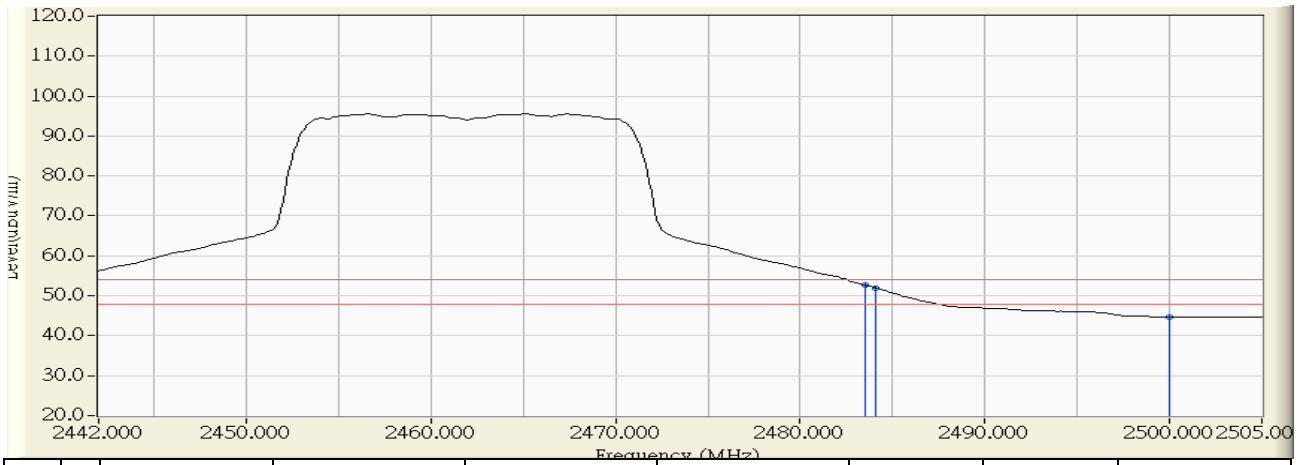


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	11.602	41.661	-12.339	54.000	AVERAGE
2		2389.460	30.883	17.848	48.731	-5.269	54.000	AVERAGE
3	*	2390.000	30.888	18.674	49.562	-4.438	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:48**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2462MHz**

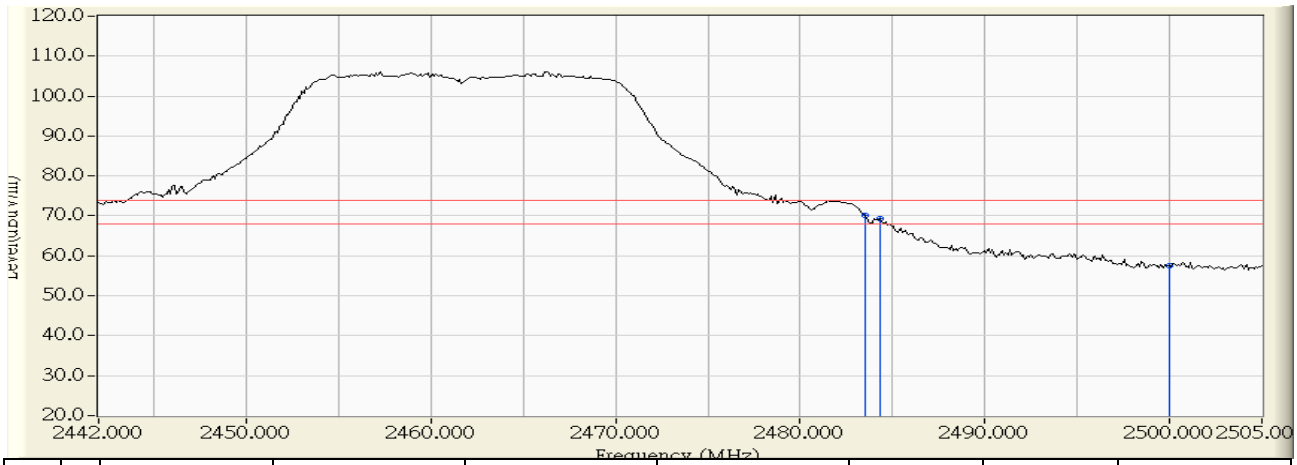


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	20.803	52.661	-1.339	54.000	AVERAGE
2		2484.105	31.864	20.111	51.975	-2.025	54.000	AVERAGE
3		2500.000	31.988	12.755	44.744	-9.256	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:49**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2462MHz**

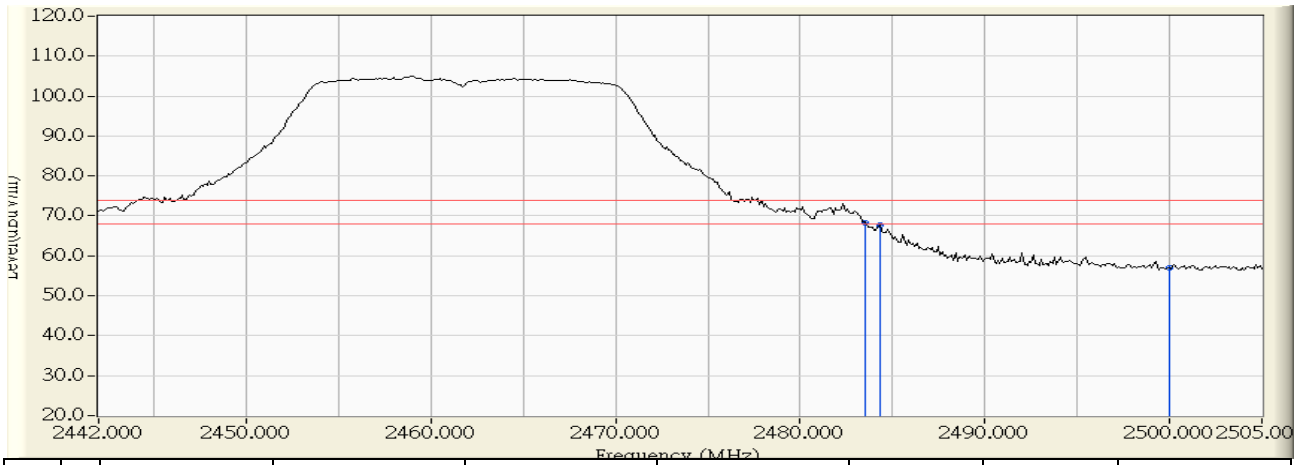


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	38.159	70.017	-3.983	74.000	PEAK
2		2484.315	31.867	37.375	69.241	-4.759	74.000	PEAK
3		2500.000	31.988	25.445	57.434	-16.566	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:51**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2462MHz**

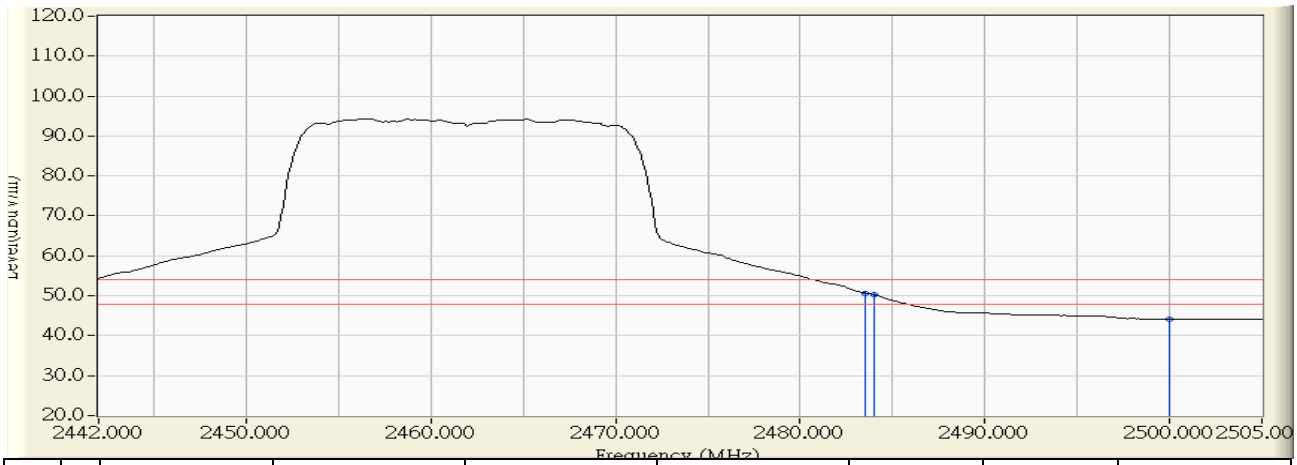


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	36.446	68.304	-5.696	74.000	PEAK
2		2484.315	31.867	35.765	67.631	-6.369	74.000	PEAK
3		2500.000	31.988	24.909	56.898	-17.102	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2013/09/09 - 16:52**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 12V (Power by Battery)**
EUT : Driving Recorder	**Note : 802.11n 20MHz_2462MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	18.833	50.691	-3.309	54.000	AVERAGE
2		2484.000	31.863	18.346	50.209	-3.791	54.000	AVERAGE
3		2500.000	31.988	12.178	44.167	-9.833	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measure Level = Reading Level + Correct Factor。
6. The average measurement was not performed when the peak measured data under the limit of average detection.

6. Occupied Bandwidth

6.1. Test Equipment

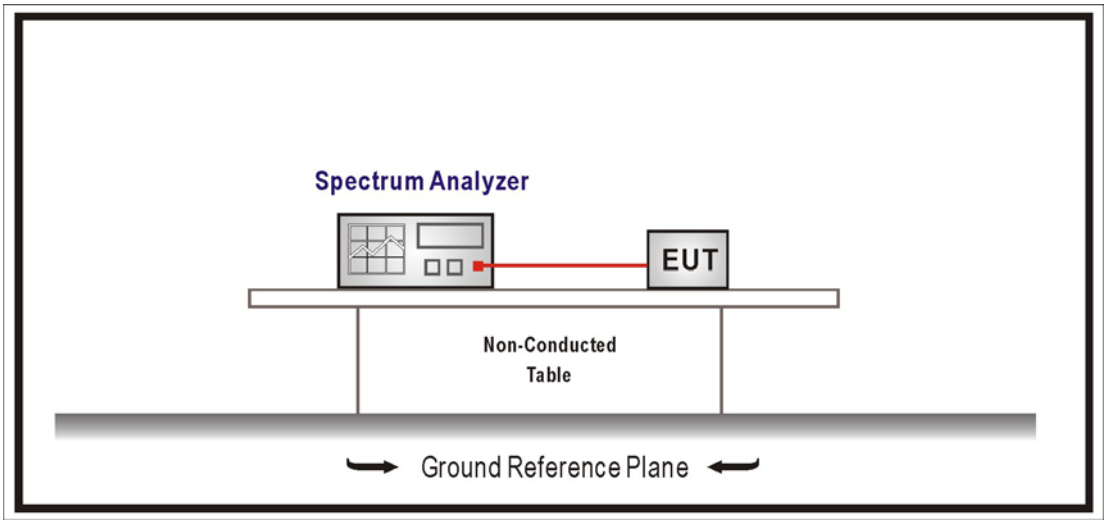
The following test equipments are used during the test:

Occupied Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

6.2. Test Setup



6.3. Test Procedures

The EUT was setup according to ANSI C63.4: 2009; tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 1% of EBW, Span greater than RBW.

6.4. Limits

The 6 dB bandwidth must be greater than 500 kHz.

6.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

6.6. Uncertainty

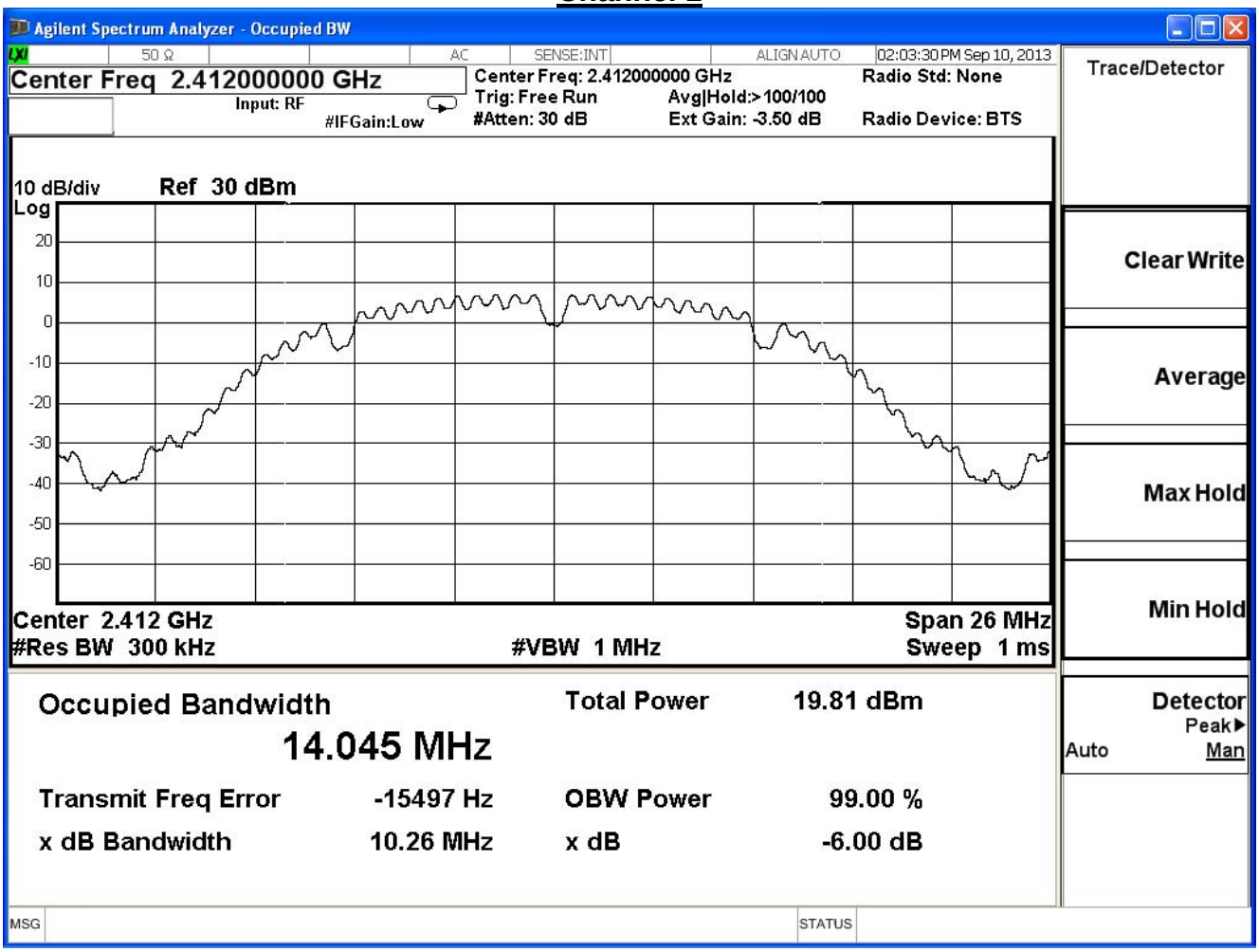
The measurement uncertainty is defined as ±150Hz

6.7. Test Result

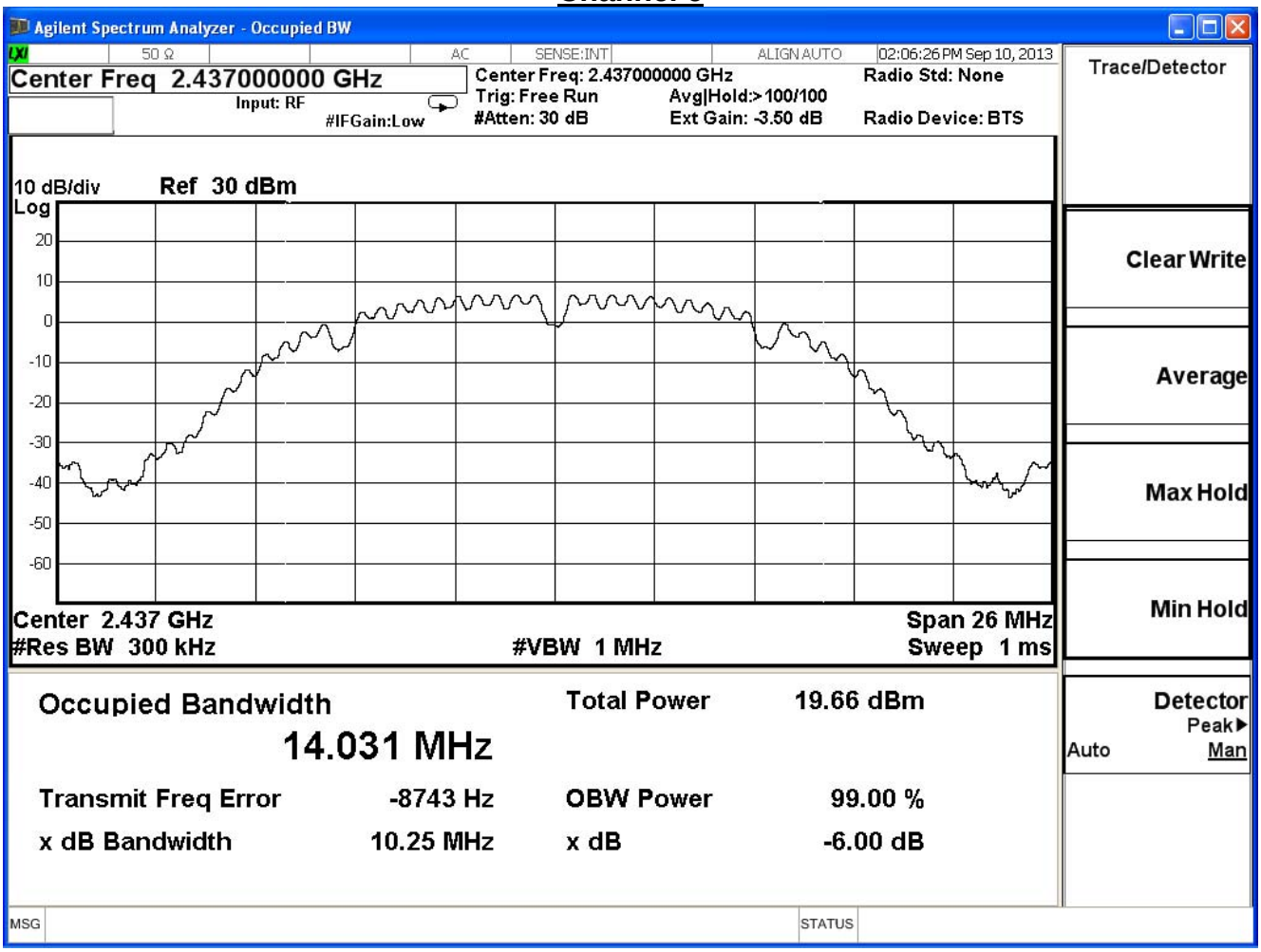
Product	Driving Recorder		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/09/24	Test Site	SR7

802.11 b, ANT 0				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Required Limit (MHz)	Result
1	2412	10.26	≧0.5	Pass
6	2437	10.25	≧0.5	Pass
11	2462	10.26	≧0.5	Pass

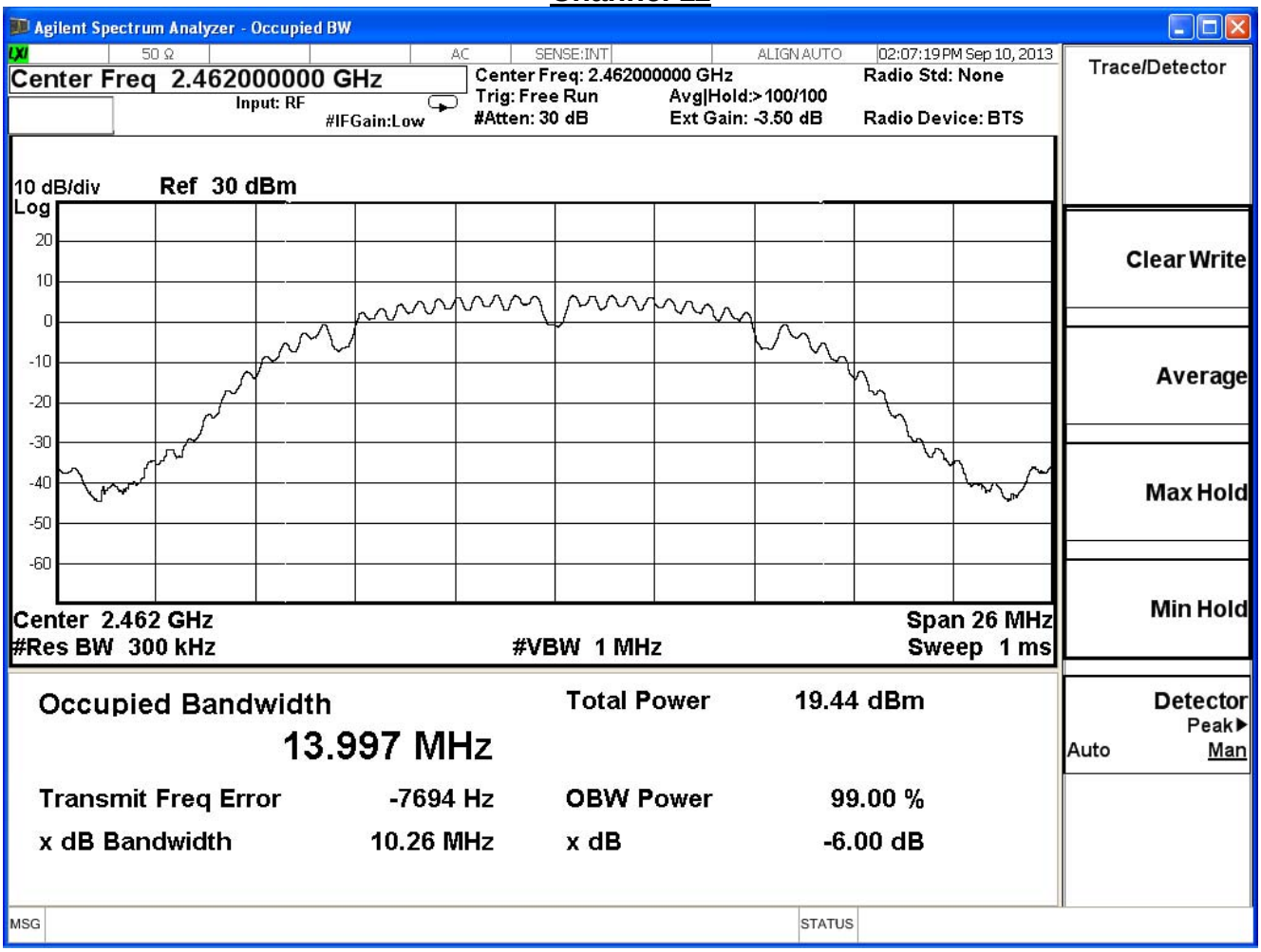
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:06:26 PM Sep 10, 2013
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -3.50 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center 2.437 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Occupied Bandwidth
14.031 MHz
Total Power 19.66 dBm
Transmit Freq Error -8743 Hz
OBW Power 99.00 %
x dB Bandwidth 10.25 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

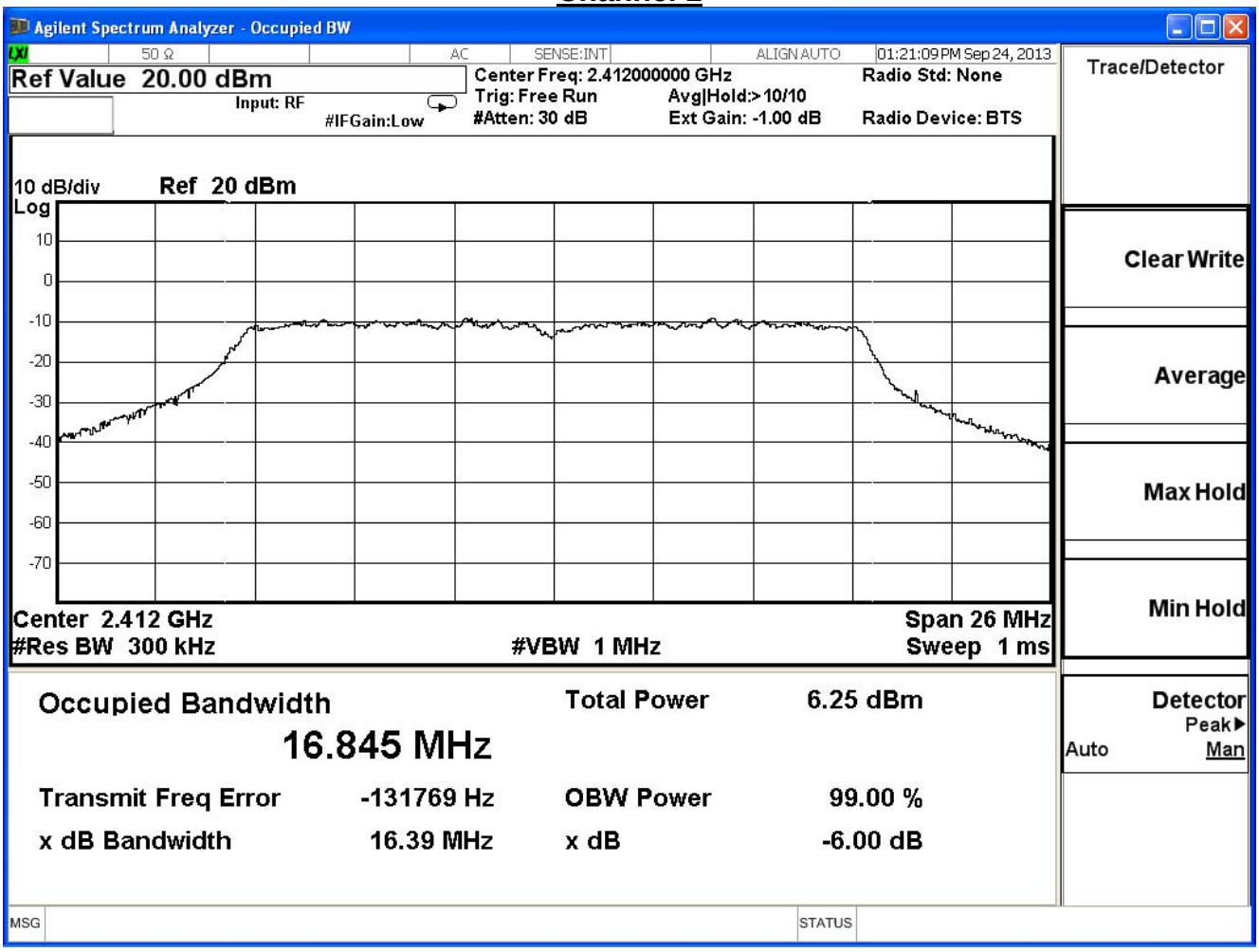
Channel 11


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:07:19 PM Sep 10, 2013
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -3.50 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center 2.462 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Occupied Bandwidth
13.997 MHz
Total Power 19.44 dBm
Transmit Freq Error -7694 Hz
OBW Power 99.00 %
x dB Bandwidth 10.26 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

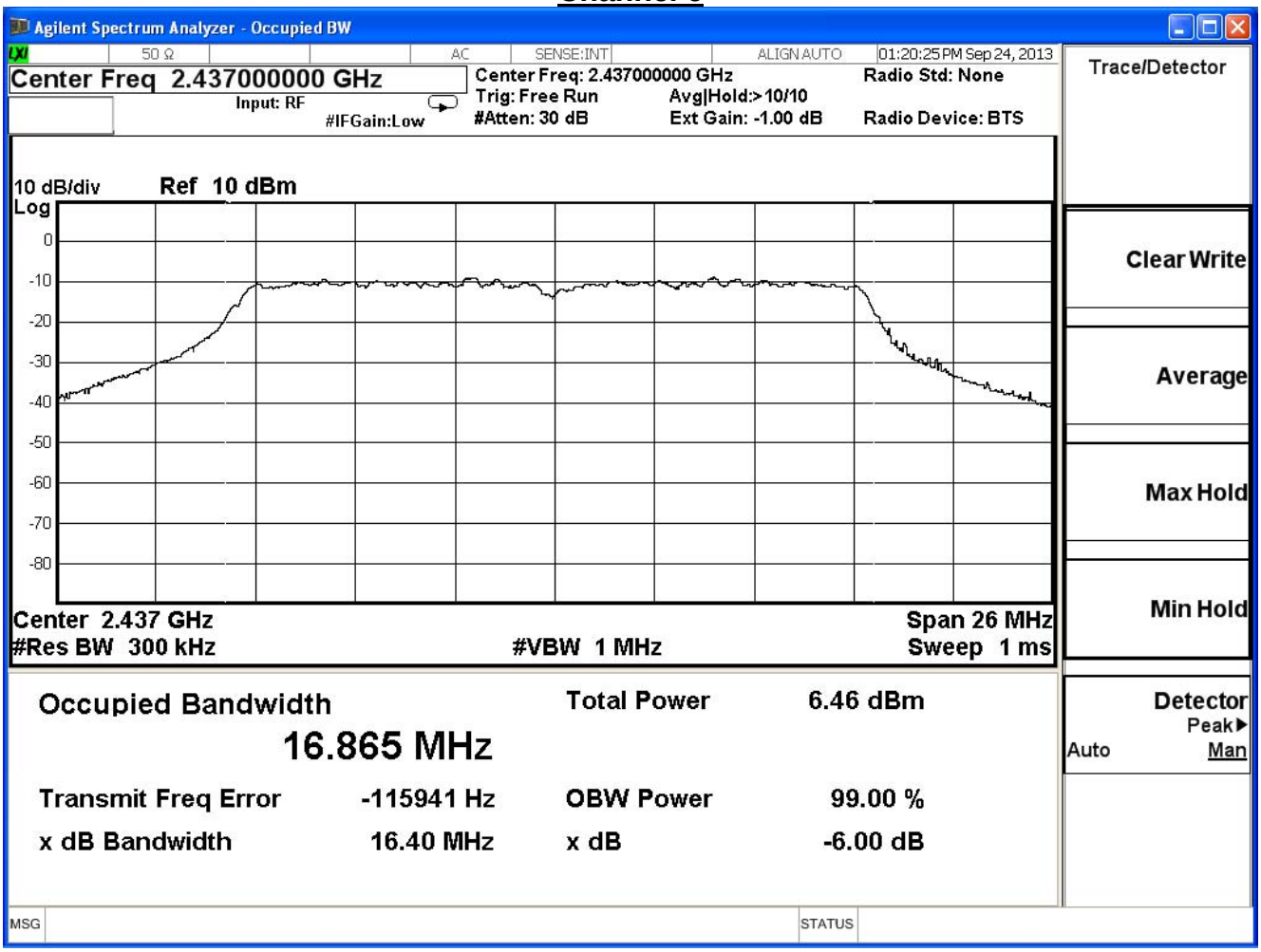
Product	Driving Recorder		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/09/24	Test Site	SR7

IEEE 802.11g, ANT 0				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Required Limit (MHz)	Result
1	2412	16.39	≧0.5	Pass
6	2437	16.40	≧0.5	Pass
11	2462	16.38	≧0.5	Pass

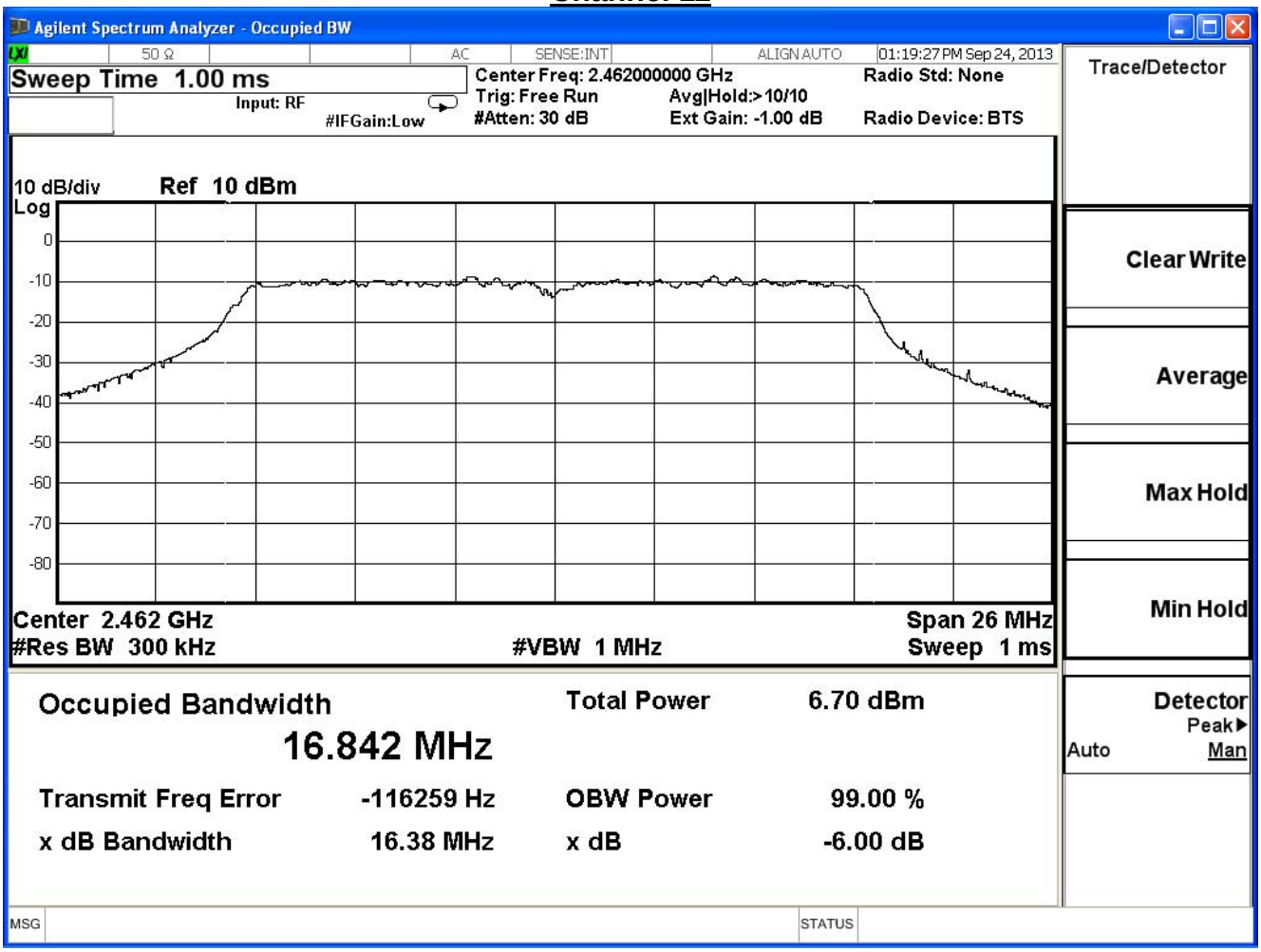
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:20:25 PM Sep 24, 2013
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 10 dBm
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.437 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Occupied Bandwidth
16.865 MHz
Total Power 6.46 dBm
Transmit Freq Error -115941 Hz
OBW Power 99.00 %
x dB Bandwidth 16.40 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

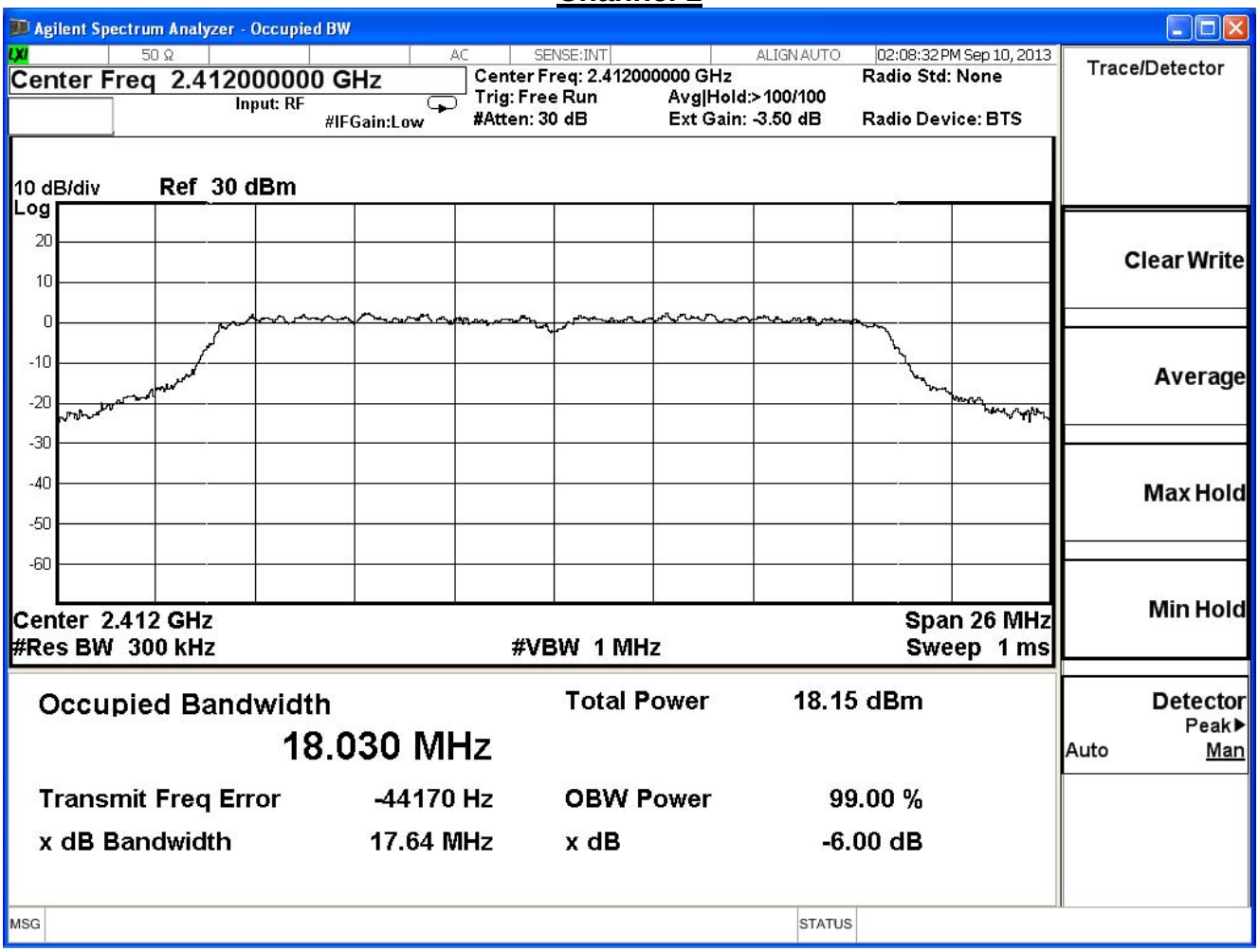
Channel 11


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:19:27 PM Sep 24, 2013
Sweep Time 1.00 ms
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 10 dBm
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.462 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Occupied Bandwidth
16.842 MHz
Total Power 6.70 dBm
Transmit Freq Error -116259 Hz
OBW Power 99.00 %
x dB Bandwidth 16.38 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

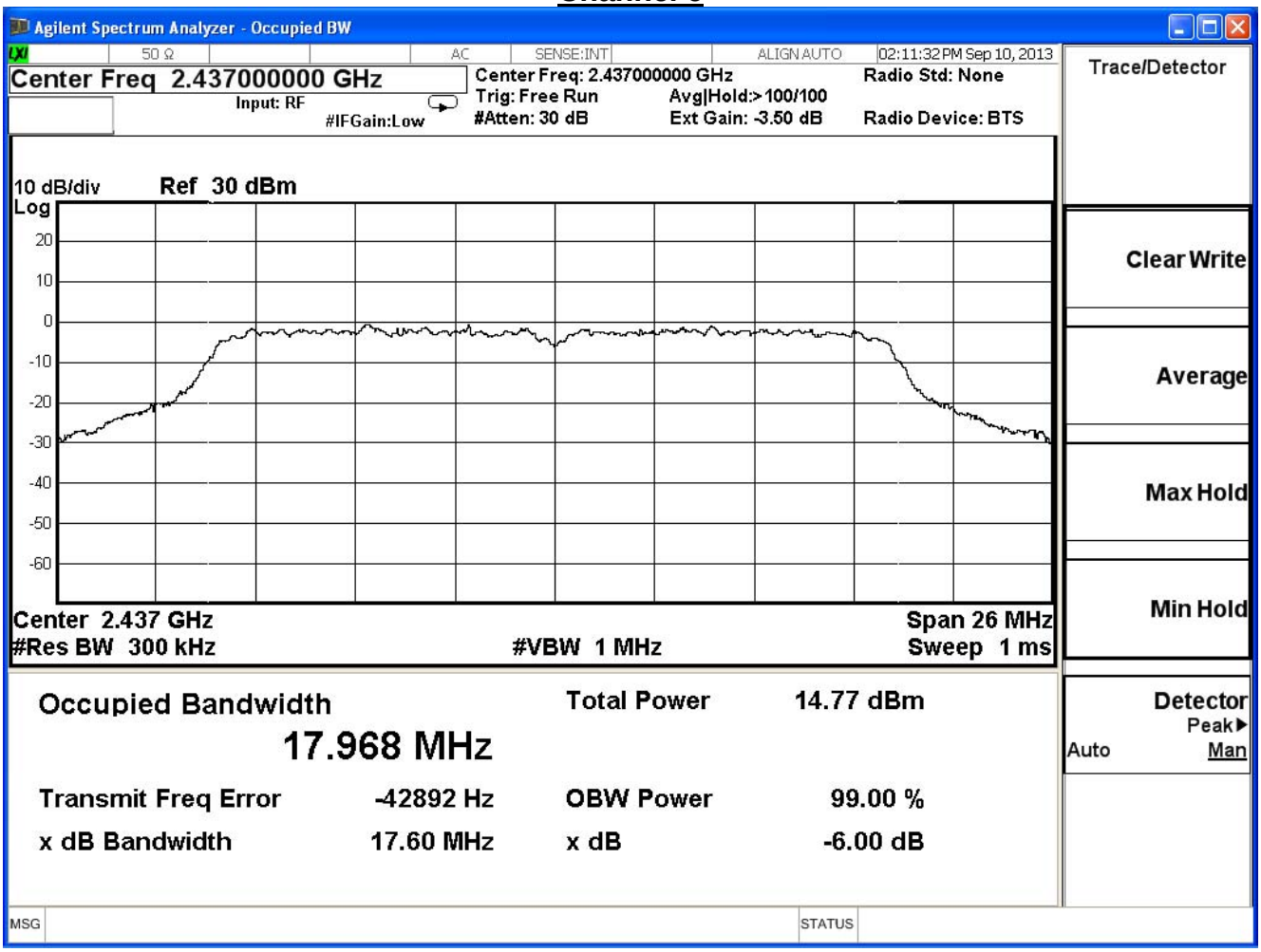
Product	Driving Recorder		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/09/24	Test Site	SR7

IEEE 802.11n (20MHz), ANT 0				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Required Limit (MHz)	Result
1	2412	17.64	≧0.5	Pass
6	2437	17.60	≧0.5	Pass
11	2462	17.61	≧0.5	Pass

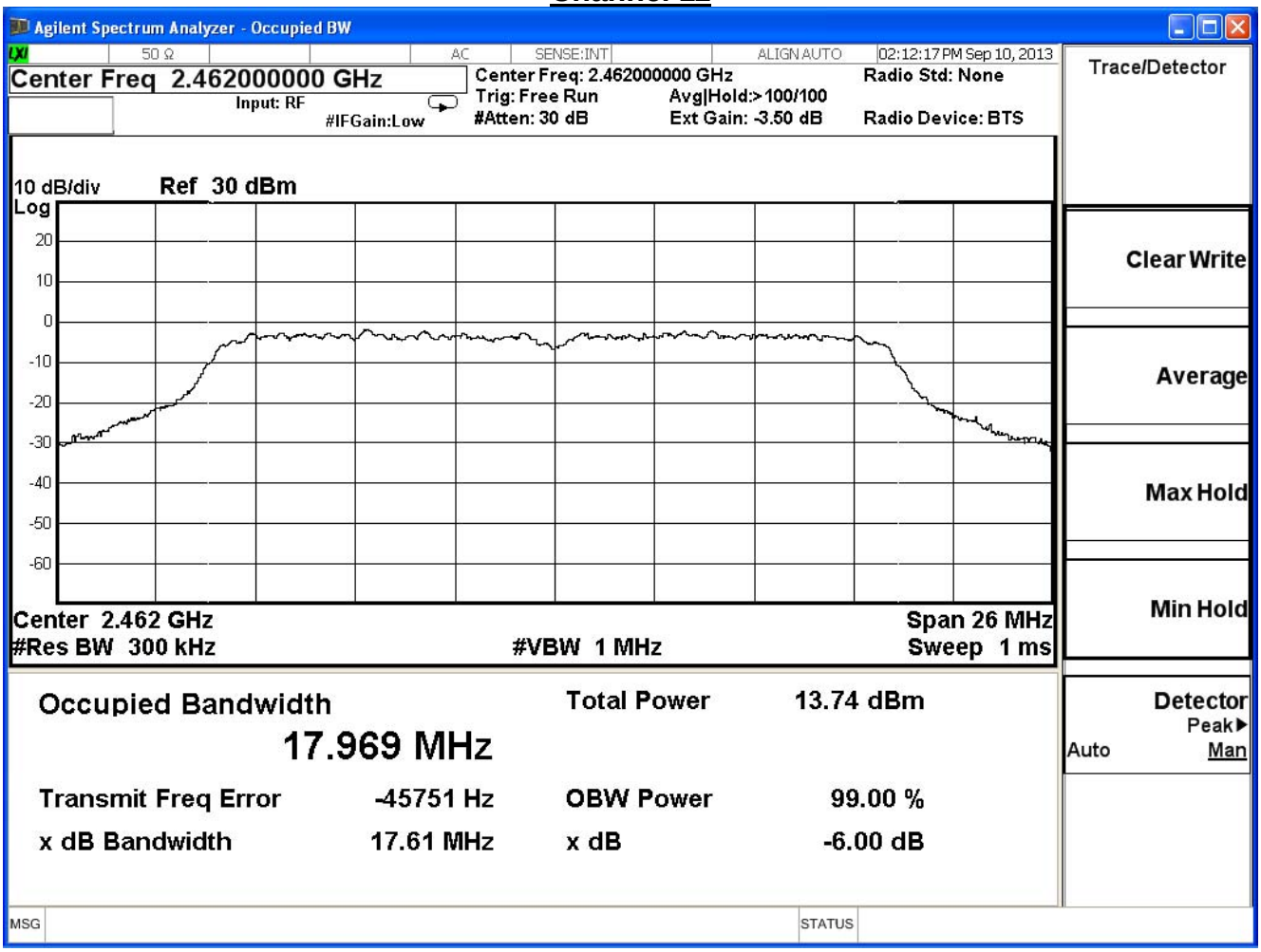
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:11:32 PM Sep 10, 2013
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -3.50 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center 2.437 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Occupied Bandwidth
17.968 MHz
Total Power 14.77 dBm
Transmit Freq Error -42892 Hz
OBW Power 99.00 %
x dB Bandwidth 17.60 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

Channel 11


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:12:17 PM Sep 10, 2013
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -3.50 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center 2.462 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Clear Write
Average
Max Hold
Min Hold
Occupied Bandwidth
17.969 MHz
Total Power 13.74 dBm
Transmit Freq Error -45751 Hz
OBW Power 99.00 %
x dB Bandwidth 17.61 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

7. Power Density

7.1. Test Equipment

The following test equipment is used during the test:

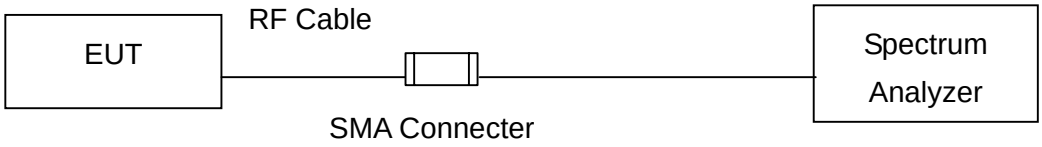
Power Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

7.2. Test Setup

IEEE 802.11 b / g / a / n (20M) MODE



7.3. Limits

The peak power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8dBm in any 3kHz band during any time interval of continuous transmission.

7.4. Test Procedures

The EUT was setup according to ANSI C63.4: 2009; tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW= 100 kHz, Set VBW= 300 kHz, Sweep time=Auto, Set detector=Peak detector

7.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

7.6. Uncertainty

The measurement uncertainty is defined as ±1.27dB.

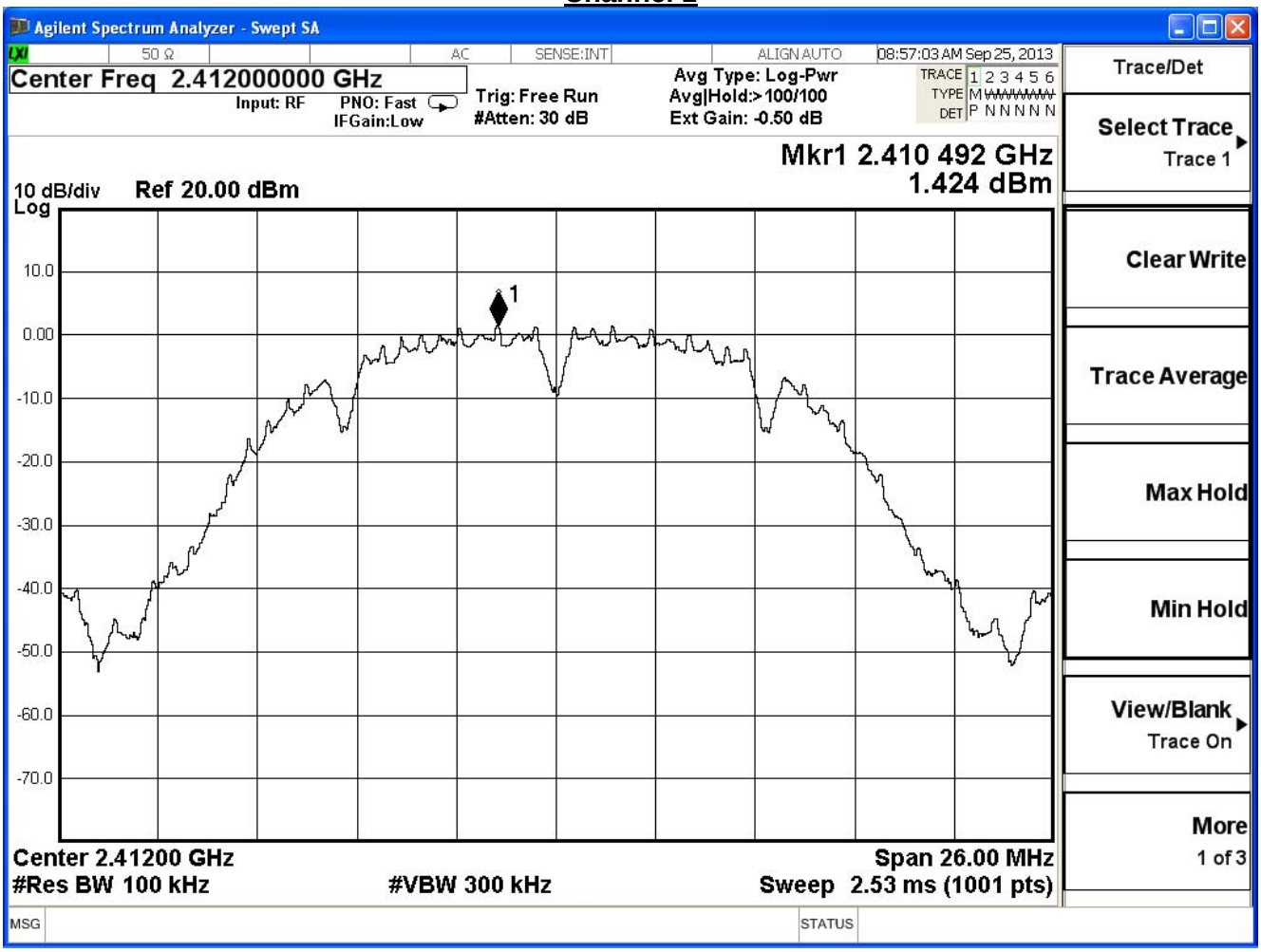
7.7. Test Result

Product	Driving Recorder		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/09/24	Test Site	SR7

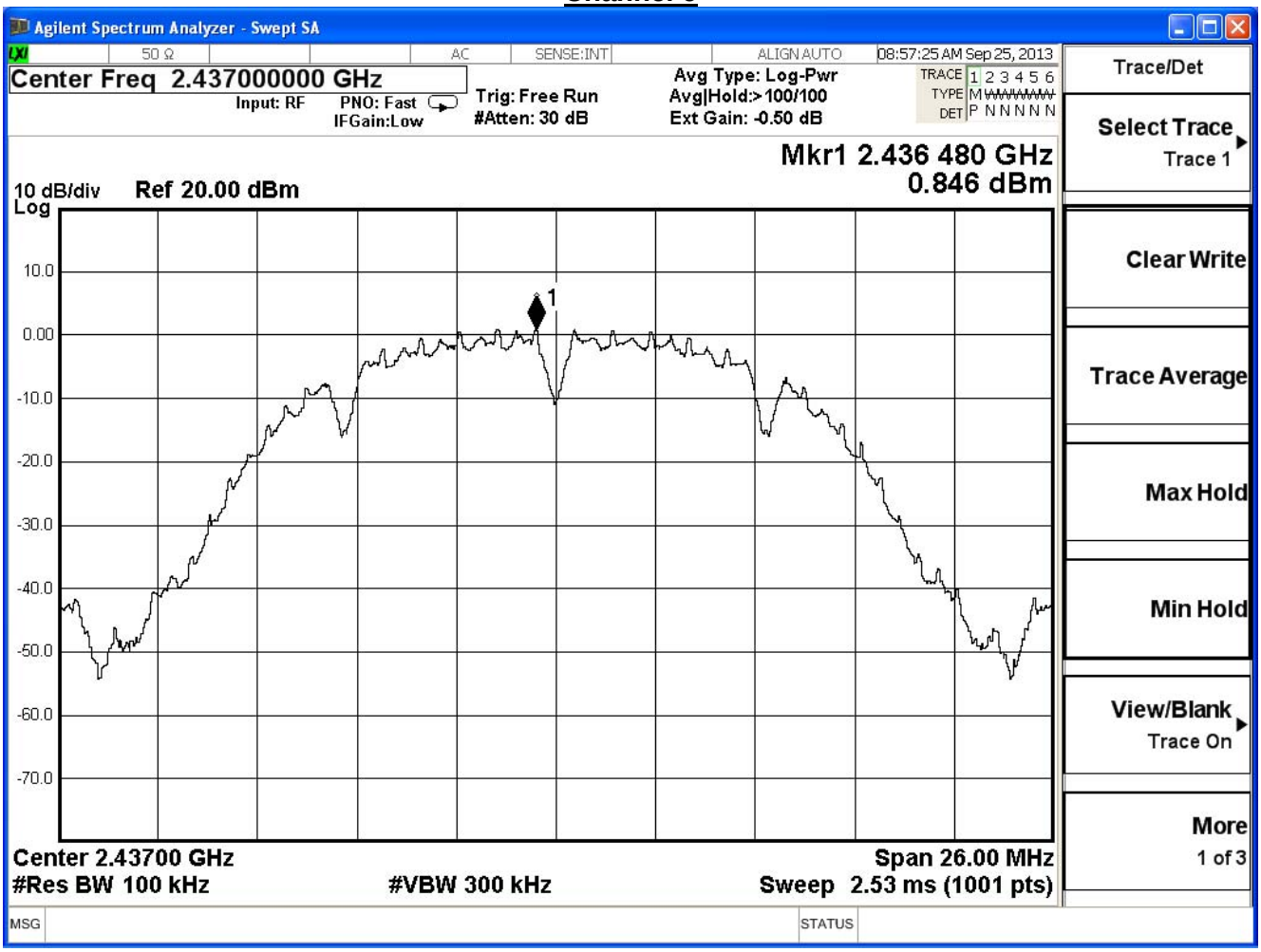
IEEE 802.11b, ANT 0					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	1.42	-13.78	≦8	Pass
6	2437	0.85	-14.35	≦8	Pass
11	2462	1.30	-13.91	≦8	Pass

Note: Measure Level = Reading level + BWCF = Reading level -15.2 dB
Bandwidth correction factor (BWCF) = 10log (3 kHz/100kHz)

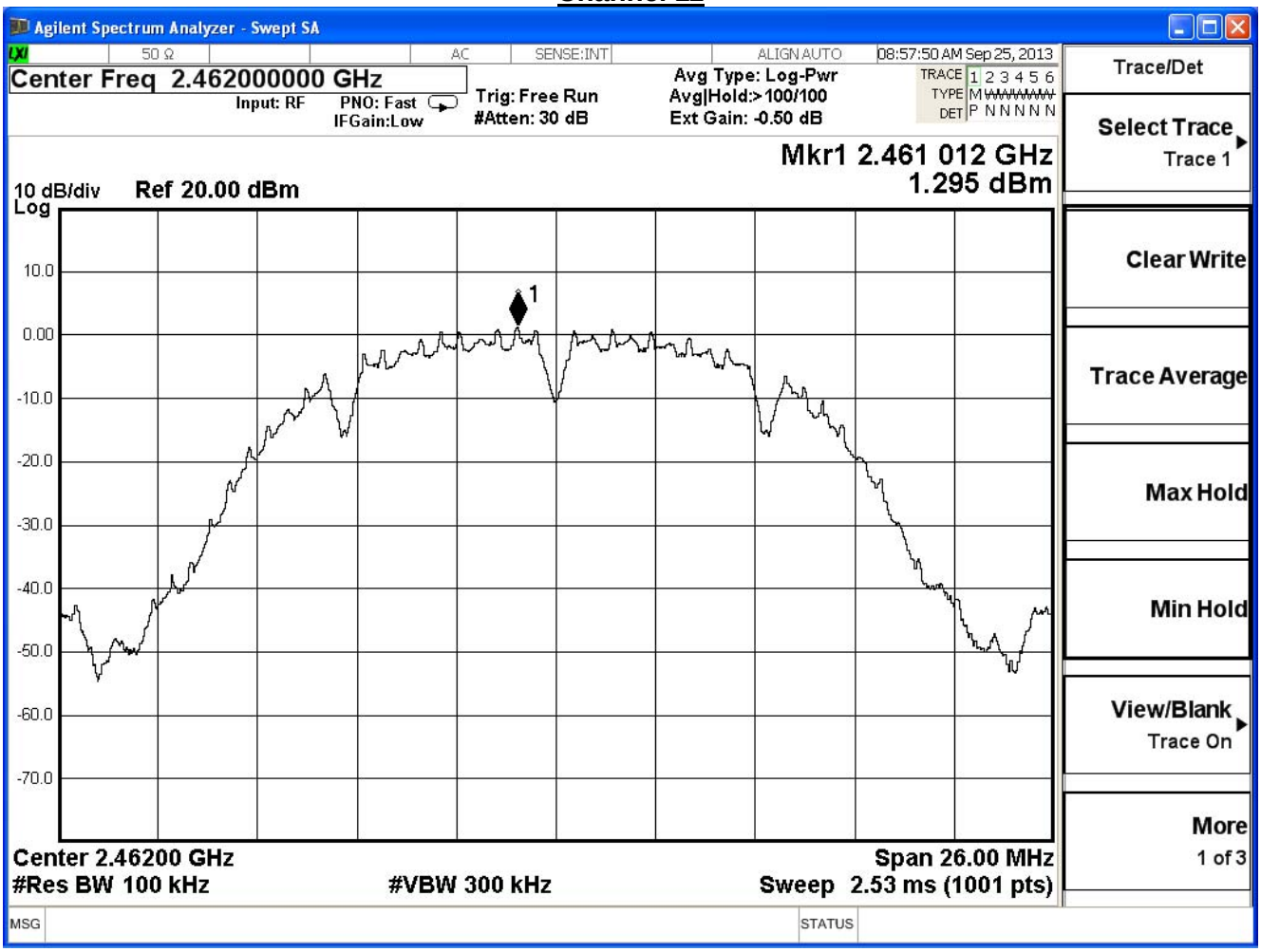
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:57:25 AM Sep 25, 2013
Center Freq 2.437000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -0.50 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.436 480 GHz
0.846 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.43700 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 26.00 MHz
Sweep 2.53 ms (1001 pts)
MSG
STATUS
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3

Channel 11

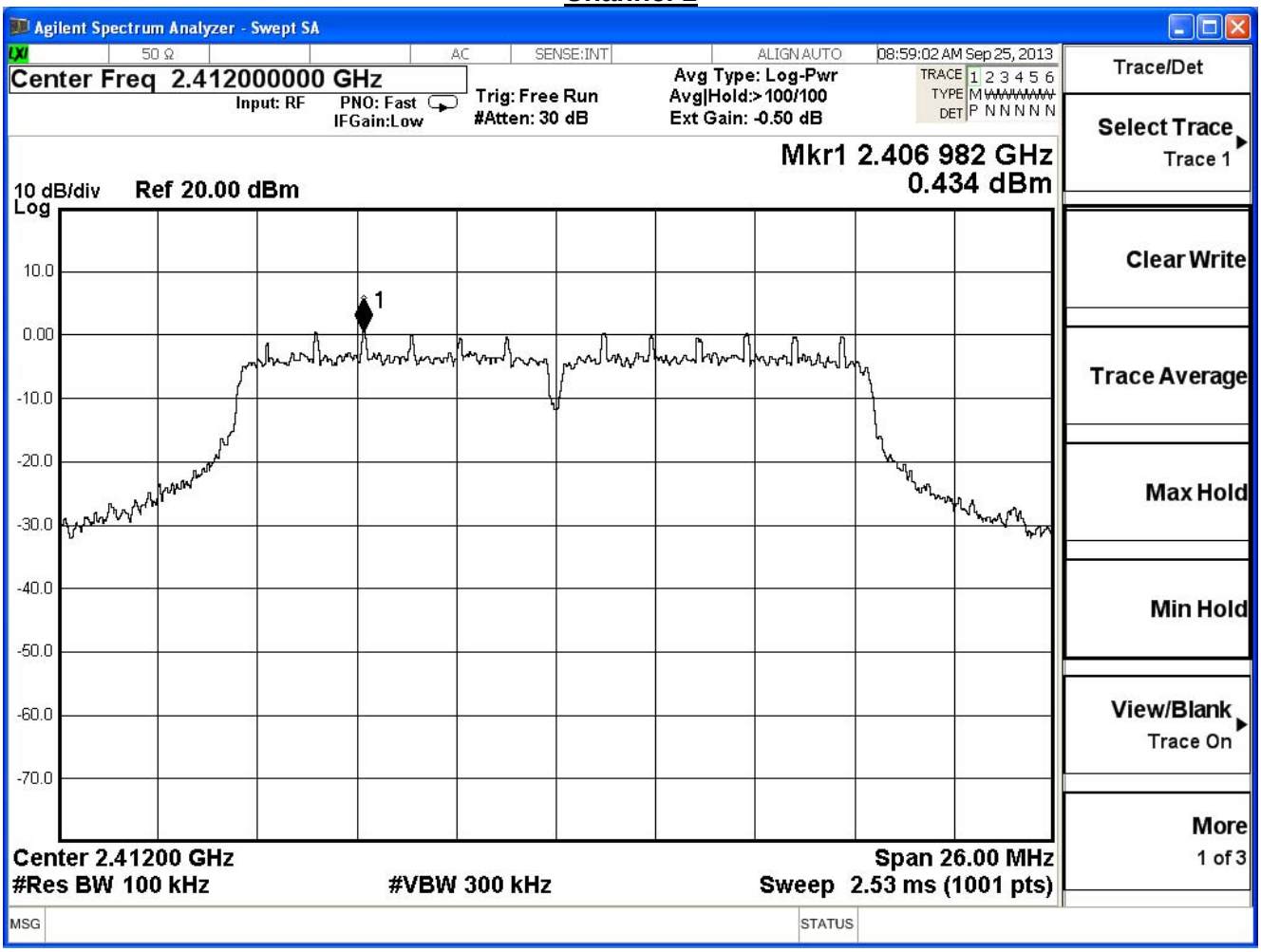

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:57:50 AM Sep 25, 2013
Center Freq 2.462000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -0.50 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.461 012 GHz
1.295 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.46200 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 26.00 MHz
Sweep 2.53 ms (1001 pts)
MSG
STATUS
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3

Product	Driving Recorder		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/09/24	Test Site	SR7

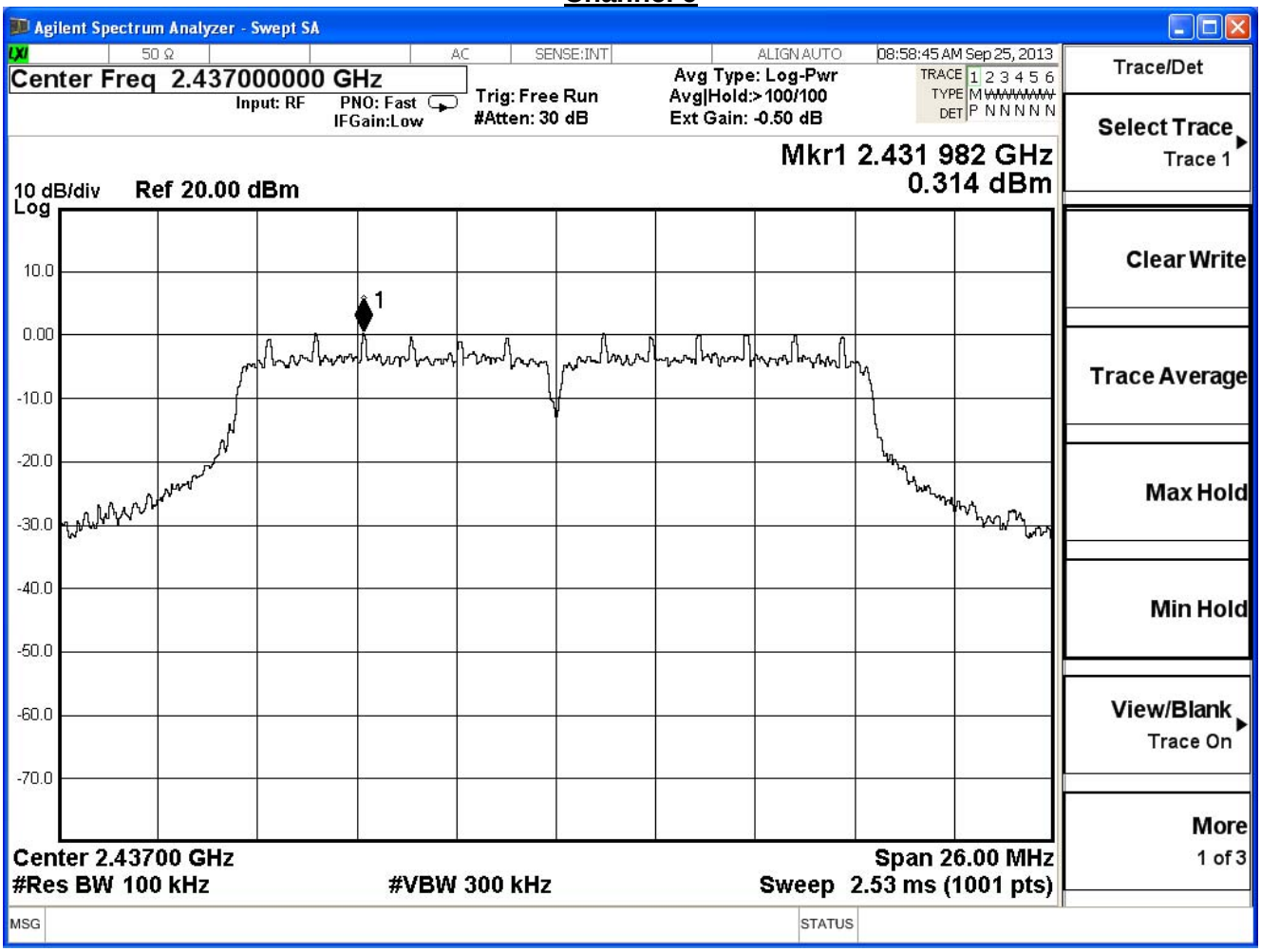
IEEE 802.11g, ANT 0					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	0.43	-14.77	≦8	Pass
6	2437	0.31	-14.89	≦8	Pass
11	2462	0.03	-15.17	≦8	Pass

Note: Measure Level = Reading level + BWCF = Reading level -15.2 dB
Bandwidth correction factor (BWCF) = 10log (3 kHz/100kHz)

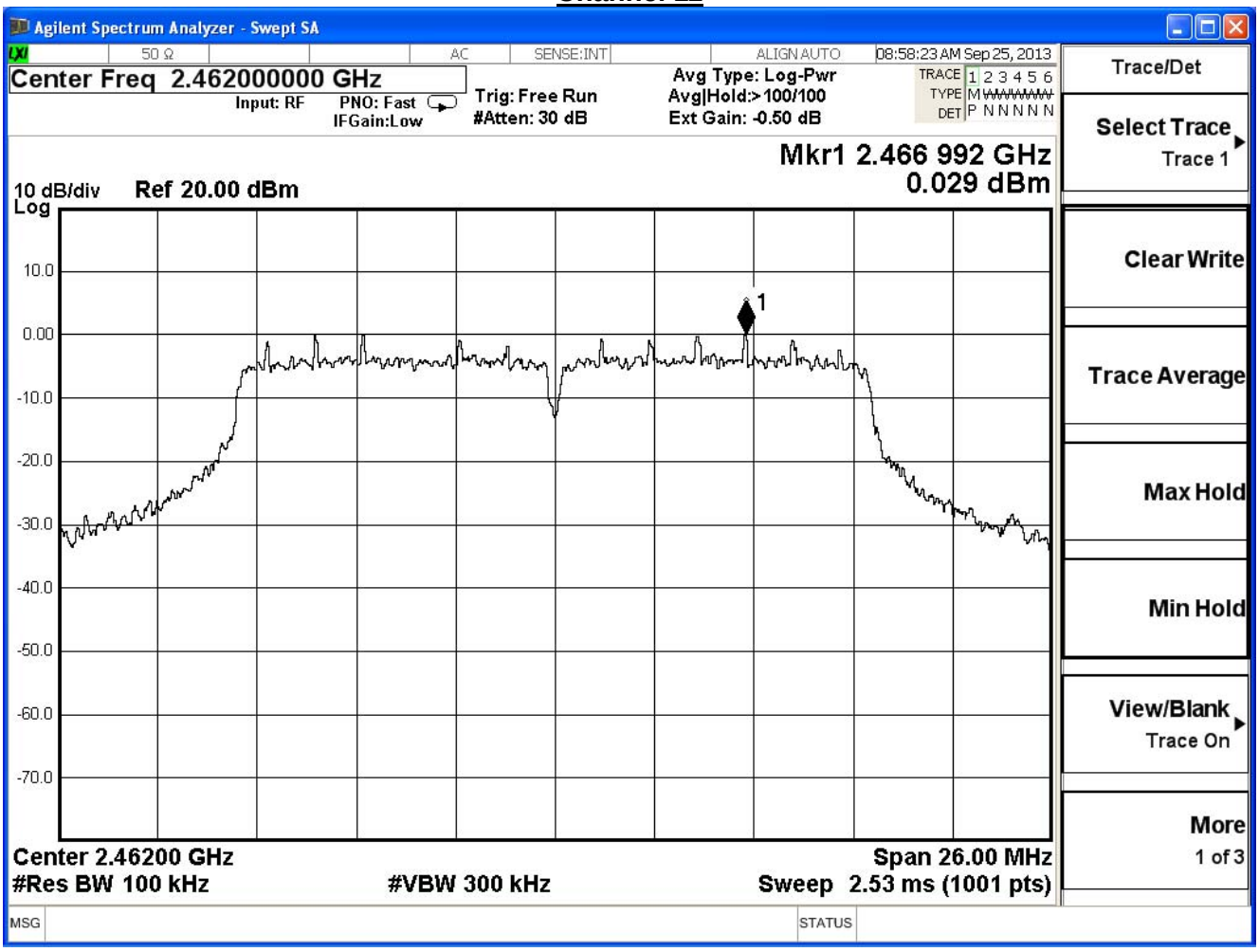
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:58:45 AM Sep 25, 2013
Center Freq 2.437000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -0.50 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.431 982 GHz
0.314 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.43700 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 26.00 MHz
Sweep 2.53 ms (1001 pts)
MSG
STATUS
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3

Channel 11

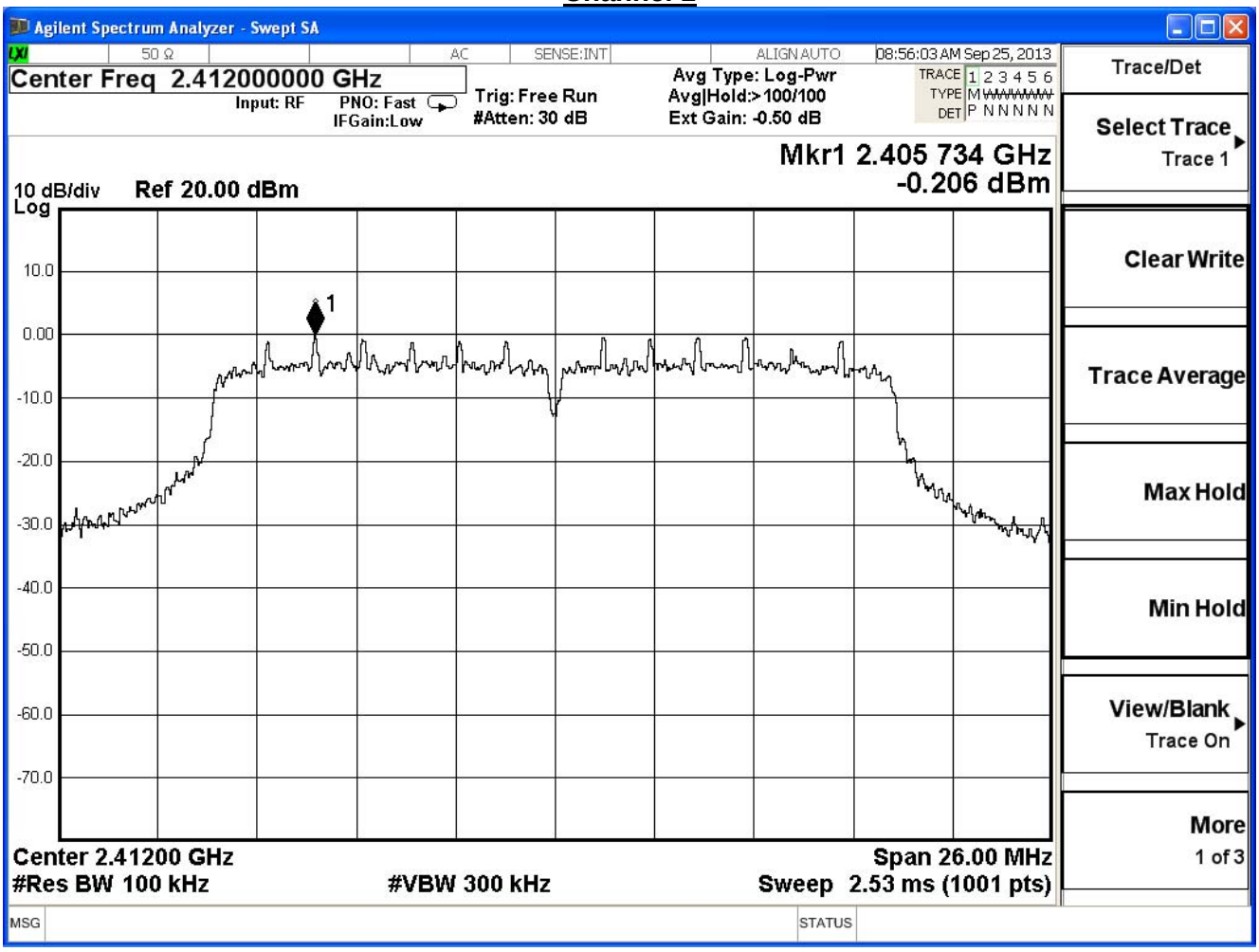

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:58:23 AM Sep 25, 2013
Center Freq 2.462000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -0.50 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.466 992 GHz
0.029 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 2.46200 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 26.00 MHz
Sweep 2.53 ms (1001 pts)
MSG
STATUS
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3

Product	Driving Recorder		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/09/24	Test Site	SR7

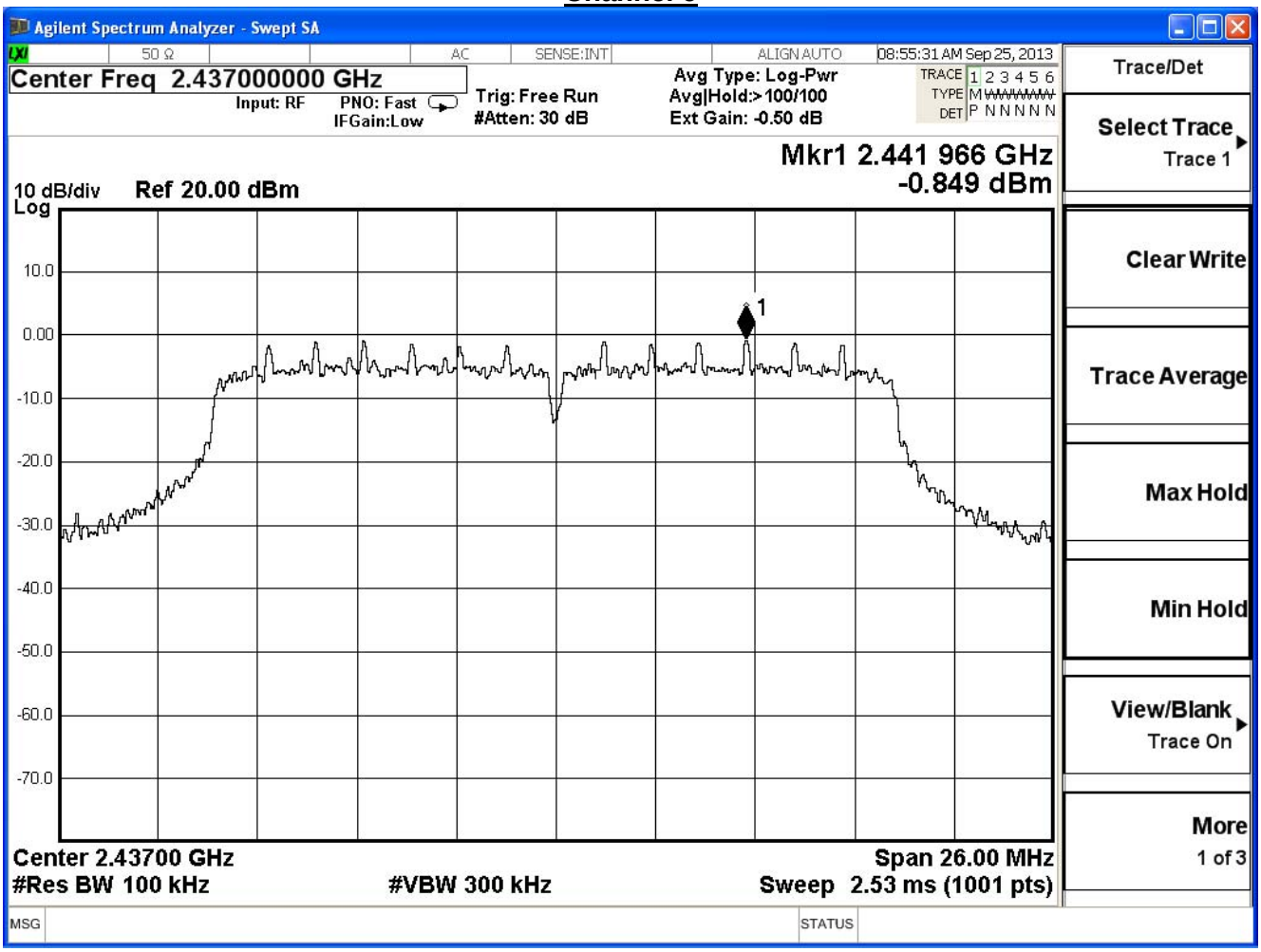
IEEE802.11n_20MHz, ANT 0					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-0.21	-15.41	≦8	Pass
6	2437	-0.85	-16.05	≦8	Pass
11	2462	0.03	-15.17	≦8	Pass

Note: Measure Level = Reading level + BWCF = Reading level -15.2 dB
Bandwidth correction factor (BWCF) = 10log (3 kHz/100kHz)

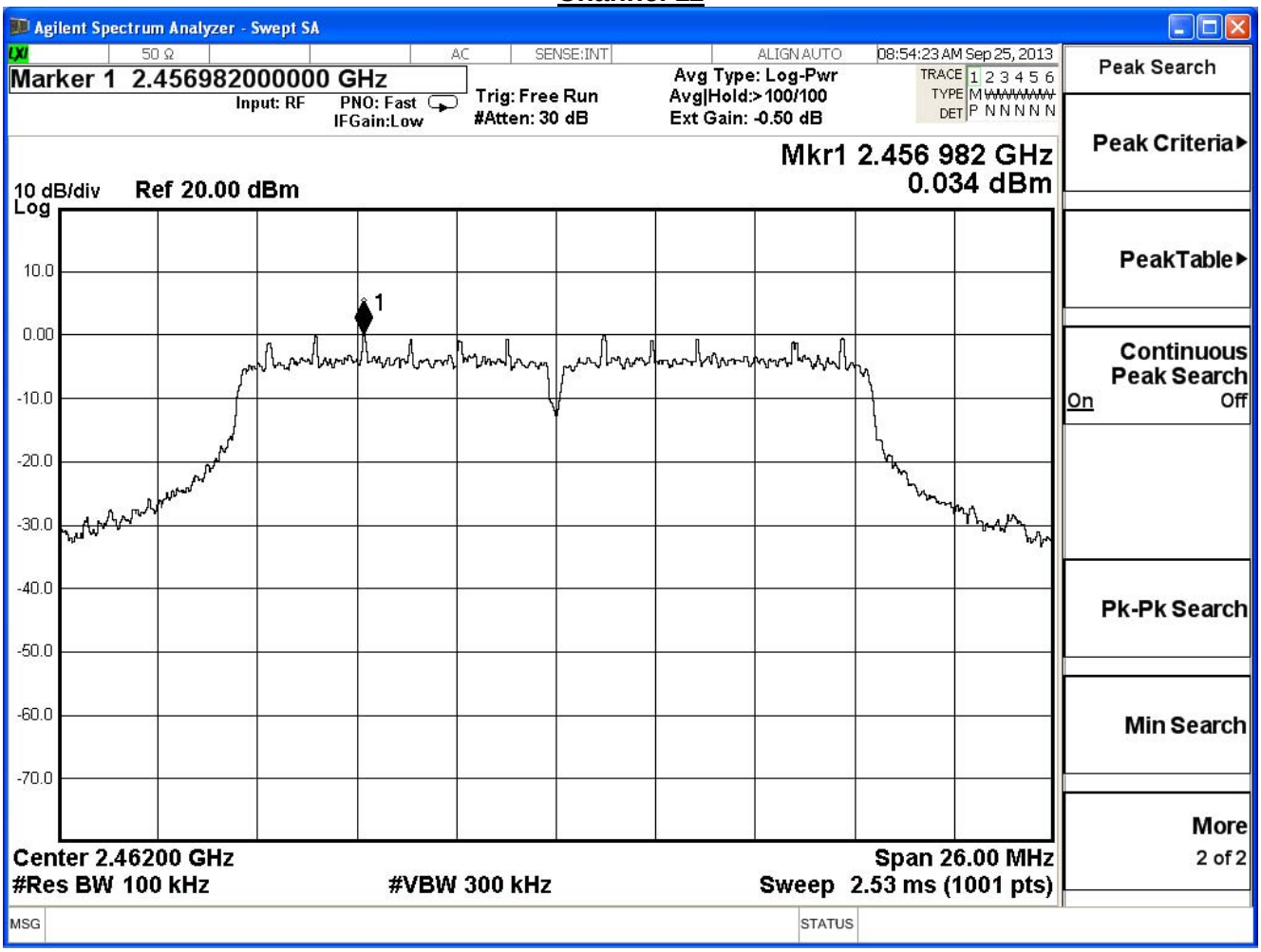
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:55:31 AM Sep 25, 2013
Center Freq 2.437000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -0.50 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.441 966 GHz
-0.849 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.43700 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 26.00 MHz
Sweep 2.53 ms (1001 pts)
MSG
STATUS
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3

Channel 11


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:54:23 AM Sep 25, 2013
Marker 1 2.456982000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -0.50 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.456 982 GHz
0.034 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.46200 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 26.00 MHz
Sweep 2.53 ms (1001 pts)
Peak Search
Peak Criteria
PeakTable
Continuous Peak Search
On
Off
Pk-Pk Search
Min Search
More
2 of 2
MSG
STATUS