FCC Test Report

Product Name ： Powerline AV 500 Wireless N Mini Extender
Model No. ： DHP-W310AV, DHP-W310AVB1
FCC ID. ： KA2HPW310AVB1

Applicant ： D-Link Corporation
Address ： No.289, Sinhu 3rd Rd., Neihu District, Taipei City 114, Taiwan, R.O.C.

Date of Receipt ： 2014/09/05
Issued Date ： 2014/10/07
Report No. ： 1490239R-RFUSP26V00
Report Version ： V1.0

Testing Laboratory
1313

Test Report Certification

Issued Date : 2014/10/07

Report No. : 1490239R-RFUSP26V00

QuieTek

Product Name	:	Powerline AV 500 Wireless N Mini Extender
Applicant	:	D-Link Corporation
Address	:	No.289, Sinhu 3rd Rd., Neihu District, Taipei City 114, Taiwan, R.O.C.
Model No.	:	DHP-W310AV, DHP-W310AVB1
FCC ID.	:	KA2HPW310AVB1
EUT Test Voltage	:	AC 100-240V, 50/60Hz
Trade Name	:	D-Link
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C Section 15.247: 2013 ANSI C63.10: 2013
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

(Carol Tsai / Engineering Adm. Assistant)

Reviewed By : JuBo Shen

(JuBo Shen / Engineer)

Approved By : Roy Wang

(Roy Wang / Director)

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** **NCC, Certificate No : NCC-RCB-07**
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:

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TABLE OF CONTENTS

1. General Information

1.1. EUT Description

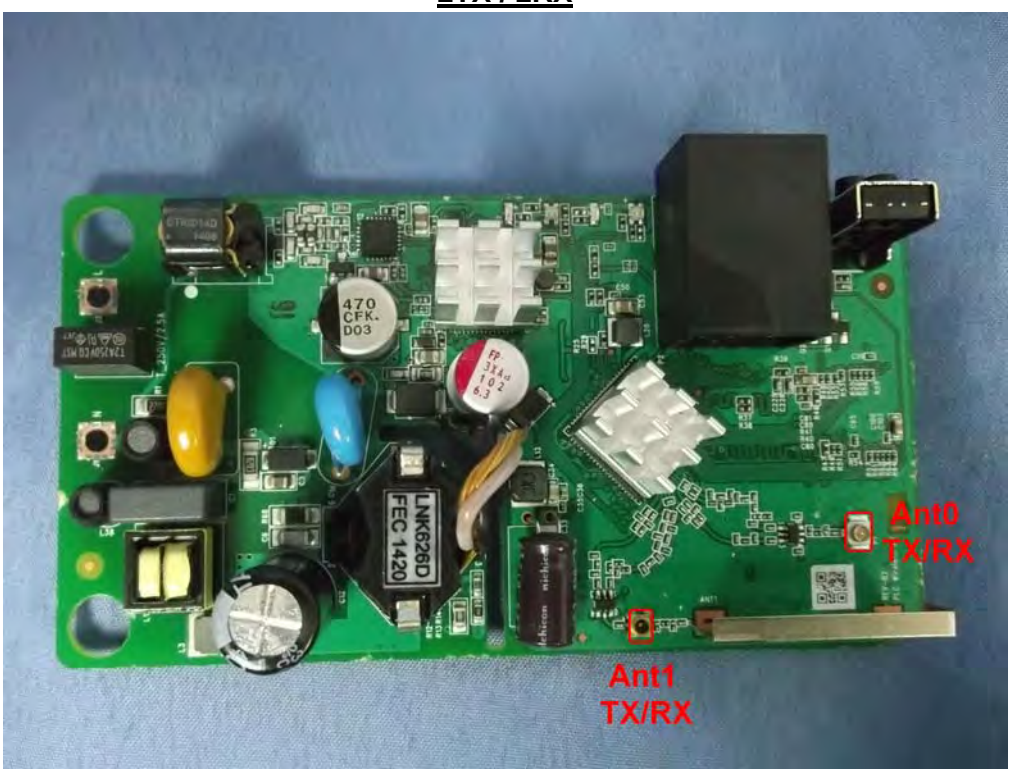
Product Name	Powerline AV 500 Wireless N Mini Extender
Trade Name	D-Link
Model No.	DHP-W310AV, DHP-W310AVB1
Frequency Range/Channel Number -IEEE 802.11b/g & IEEE 802.11n (20MHz)	2412~2462MHz / 11 Channels
Frequency Range/Channel Number IEEE 802.11n (40MHz)	2422~2452MHz / 7 Channels
Type of Modulation (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)	Support a subset of the combination of GI, MCS 0~MCS 15 and bandwidth defined in 802.11n
Antenna Gain	Ant0: 2.98dBi, Ant1: 1.85dBi (2TX, 2RX)
Antenna Type	Ant0: PCB Antenna, Ant1: PIFA Antenna

Component	
LAN Cable	Non-Shielded, 1m

ANT-TX / RX & Bandwidth

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

2TX / 2RX



IEEE 802.11n

MCS Index	Modulation	R	N_{BPSCS}	N_{CBPS}		N_{DBPS}		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI	
								20MHz	40MHz	20MHz	40MHz
0	BPSK	1/2	1	52	108	26	54	6.5	13.5	7.2	15.0
1	QPSK	1/2	2	104	216	52	108	13.0	27.0	14.4	30.0
2	QPSK	3/4	2	104	216	78	162	19.5	40.5	21.7	45.0
3	16-QAM	1/2	4	208	432	104	216	26.0	54.0	28.9	60.0
4	16-QAM	3/4	4	208	432	156	324	39.0	81.0	43.3	90.0
5	64-QAM	2/3	6	312	648	208	432	52.0	108.0	57.8	120.0
6	64-QAM	3/4	6	312	648	234	486	58.5	121.5	65.0	135.0
7	64-QAM	5/6	6	312	648	260	540	65.0	135.0	72.2	150.0
Note 1: Support of 400ns GI is optional on transmit and receive.											

Table 1 – MCS parameters for TX Antenna number = 1

MCS Index	Modulation	R	N_{BPSCS}	N_{CBPS}		N_{DBPS}		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI	
								20MHz	40MHz	20MHz	40MHz
8	BPSK	1/2	1	104	216	52	108	13.0	27.0	14.4	30.0
9	QPSK	1/2	2	208	432	104	216	26.0	54.0	28.9	60.0
10	QPSK	3/4	2	208	432	156	324	39.0	81.0	43.3	90.0
11	16-QAM	1/2	4	416	864	208	432	52.0	108.0	57.8	120.0
12	16-QAM	3/4	4	416	864	312	648	78.0	162.0	86.7	180.0
13	64-QAM	2/3	6	624	1296	416	864	104.0	216.0	115.6	240.0
14	64-QAM	3/4	6	624	1296	468	972	117.0	243.0	130.0	270.0
15	64-QAM	5/6	6	624	1296	520	1080	130.0	270.0	144.4	300.0
Note 1: Support of 400ns GI is optional on transmit and receive.											

Table 2 – MCS parameters for TX Antenna number = 2

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		

IEEE 802.11n (40MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
003	2422 MHz	004	2427 MHz	005	2432 MHz	006	2437 MHz
007	2442 MHz	008	2447 MHz	009	2452 MHz		

Note:

1. This device is the Powerline AV 500 Wireless N Mini Extender including 2.4GHz b/g/n (2X2) transmitting and receiving function.
2. The variation of model number is for different strategy of marketing.
3. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart C Paragraph 15.247.
4. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
5. This device is a wifi device in accordance with Part 15 regulations. The receiving function receiving was tested and its test report number is 1490239R-RFUSP01V00 .

1.2. 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(40MHz)	6	0+1	Complies
Peak Power Output	11b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0+1	Complies
	11n(40MHz)	3/ 6/ 9	0+1	Complies
Radiated Emission	11b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0+1	Complies
	11n(40MHz)	3/ 6/ 9	0+1	Complies
RF antenna conducted test	11b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0/1	Complies
	11n(40MHz)	3/ 6/ 9	0/1	Complies
Radiated Emission Band Edge	11b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0+1	Complies
	11n(40MHz)	3/ 6/ 9	0+1	Complies
Occupied Bandwidth	11b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0/1	Complies
	11n(40MHz)	3/ 6/ 9	0/1	Complies
Power Density	11b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0+1	Complies
	11n(40MHz)	3/ 6/ 9	0+1	Complies

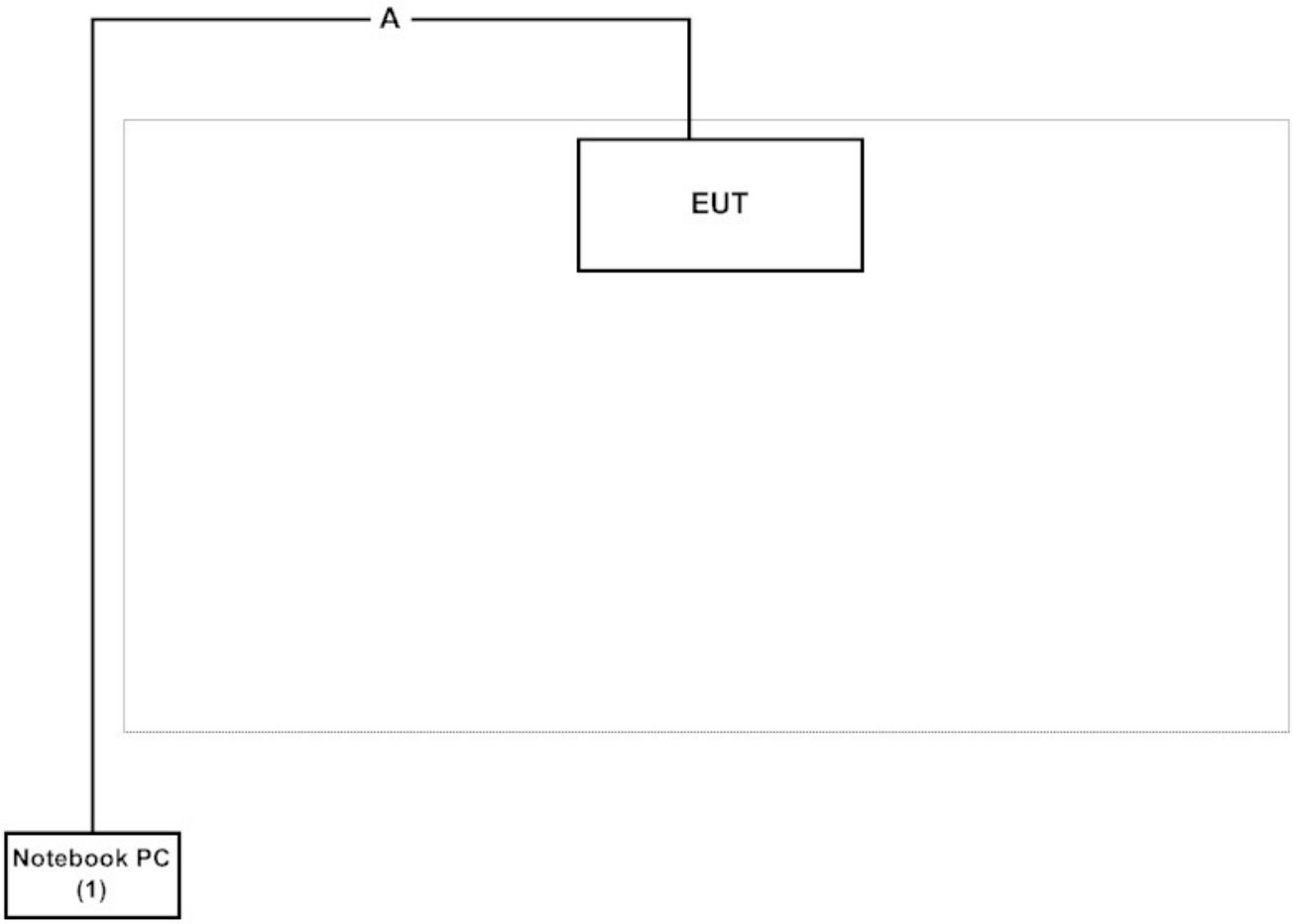
1.3. Tested System Details

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	Notebook PC	HP	HSTNN-146C	CNU8253S1X	DoC	Non-Shielded, 1.8m

1.4. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	LAN Cable	Non-Shielded, 3m

1.5. EUT Exercise Software

1	Test system is in accord with EUT user manual (refer to 1.4 configuration of tested system)
2	Execute the “art2_Ver4.9.514 FC” on the Notebook.
3	Configure the test mode, the test channel, and the data rate.
4	Make the EUT to start the continous transmitting.
5	Verify that the EUT works properly.

1.6. 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. Conducted Emission

2.1. Test Equipment

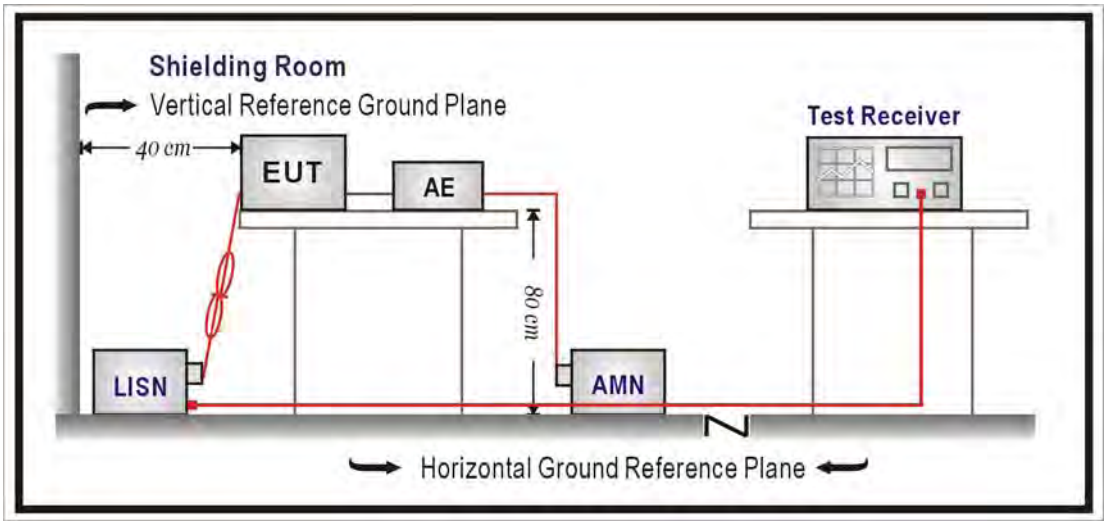
The following test equipments are used during the test:

Conducted Emission / SR2

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Artificial Mains Network	R&S	ENV4200	848411/010	2015/02/09
LISN	R&S	ENV216	100092	2015/08/24
Test Receiver	R&S	ESCS 30	825442/014	2015/07/13

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

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
0.15 - 0.50	66-56	56-46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)
Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

2.5. Test Specification

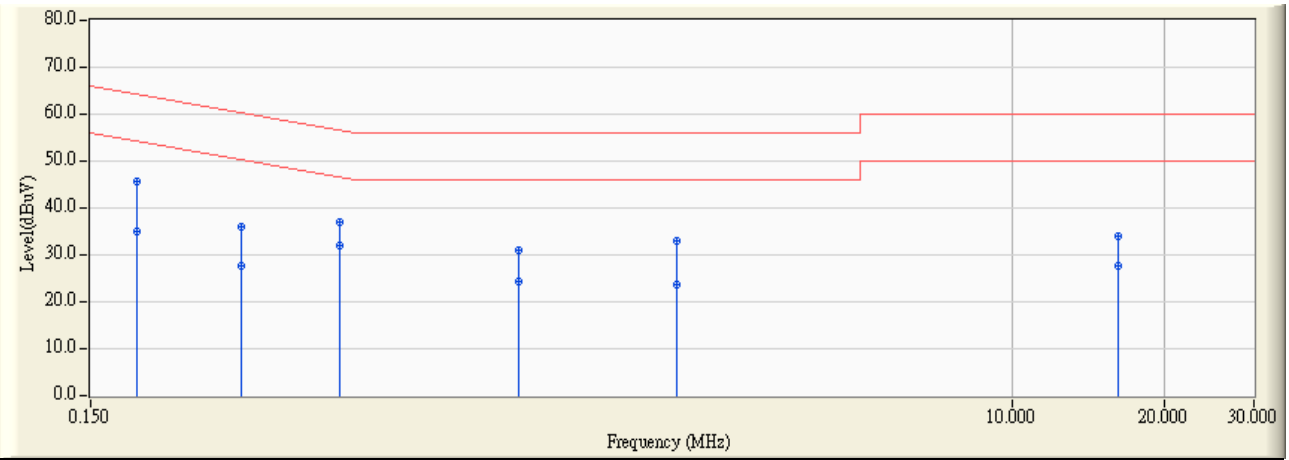
According to FCC Part 15 Subpart C Paragraph 15.207: 2013

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR2	**Time : 2014/10/05 - 19:39**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-5_0825 - Line1	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40M_CH06**

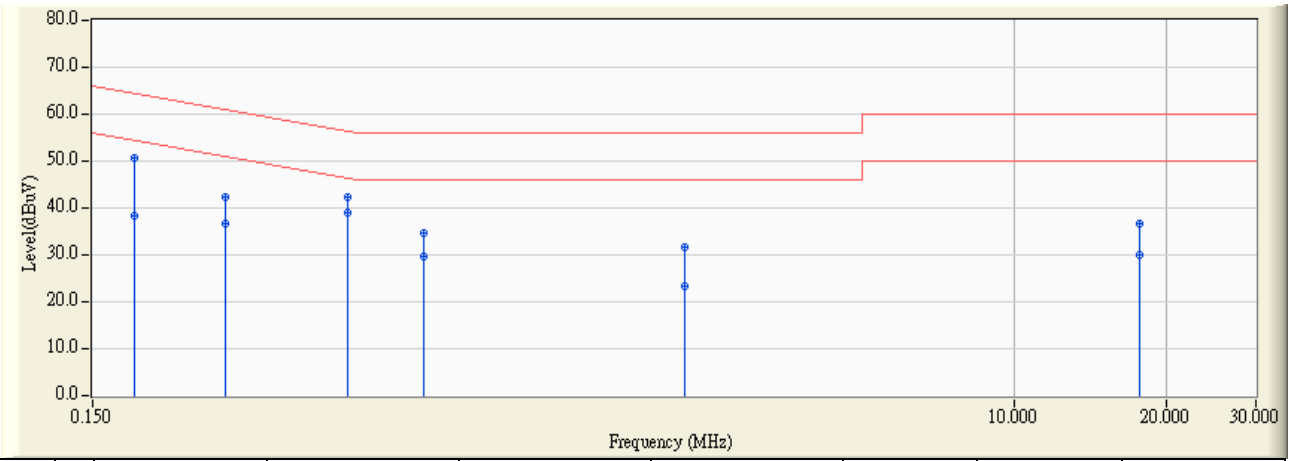


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.185	9.760	35.843	45.603	-19.390	64.993	QUASIPEAK
2		0.185	9.760	25.241	35.001	-19.992	54.993	AVERAGE
3		0.299	9.755	26.323	36.078	-25.680	61.758	QUASIPEAK
4		0.299	9.755	17.802	27.557	-24.201	51.758	AVERAGE
5		0.466	9.751	27.149	36.900	-20.067	56.967	QUASIPEAK
6	*	0.466	9.751	22.167	31.918	-15.049	46.967	AVERAGE
7		1.056	9.861	21.019	30.880	-25.120	56.000	QUASIPEAK
8		1.056	9.861	14.501	24.362	-21.638	46.000	AVERAGE
9		2.162	9.876	23.085	32.961	-23.039	56.000	QUASIPEAK
10		2.162	9.876	13.923	23.799	-22.201	46.000	AVERAGE
11		16.165	10.259	23.672	33.931	-26.069	60.000	QUASIPEAK
12		16.165	10.259	17.374	27.633	-22.367	50.000	AVERAGE

Note:

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

Site : SR2	**Time : 2014/10/05 - 19:50**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-5_0825 - Line2	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40M_CH06**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.181	9.810	40.772	50.582	-14.530	65.112	QUASIPEAK
2		0.181	9.810	28.451	38.261	-16.851	55.112	AVERAGE
3		0.275	9.814	32.631	42.445	-19.990	62.435	QUASIPEAK
4		0.275	9.814	26.821	36.635	-15.800	52.435	AVERAGE
5		0.478	9.820	32.650	42.470	-14.161	56.631	QUASIPEAK
6	*	0.478	9.820	29.196	39.016	-7.615	46.631	AVERAGE
7		0.677	9.855	24.736	34.591	-21.409	56.000	QUASIPEAK
8		0.677	9.855	19.820	29.675	-16.325	46.000	AVERAGE
9		2.220	9.939	21.774	31.713	-24.287	56.000	QUASIPEAK
10		2.220	9.939	13.552	23.491	-22.509	46.000	AVERAGE
11		17.693	10.459	26.223	36.682	-23.318	60.000	QUASIPEAK
12		17.693	10.459	19.591	30.050	-19.950	50.000	AVERAGE

Note:

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

3. Peak Power Output

3.1. Test Equipment

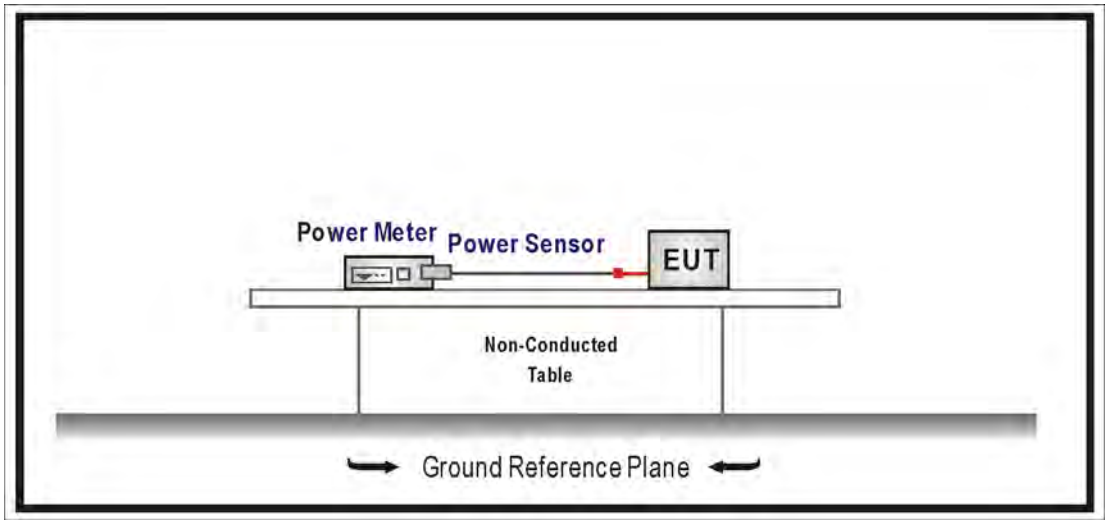
The following test equipments are used during the test:

Peak Power Output / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Power Meter	Agilent	N1911A	MY45101353	2014/11/19
Power Sensor	Agilent	N1921A	MY45241670	2014/11/19

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

3.2. Test Setup



3.3. Test procedures

The EUT was tested according to DTS test procedure section 9.1.2 of KDB558074 v03r02 measurement to FCC 47CFR 15.247 requirements.

3.4. Limits

The maximum peak power shall be less 1 Watt.

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2013

3.6. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB.

3.7. Test Result

Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/03	Test Site	SR7

IEEE 802.11b, ANT 0				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	**Result**
1	2412	17.05	≦30	Pass
6	2437	17.31	≦30	Pass
11	2462	17.43	≦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	17.05	--	--	--	1 Watt=30dBm
6	2437	17.31	17.21	16.97	16.86	1 Watt=30dBm
11	2462	17.43	--	--	--	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/03	Test Site	SR7

IEEE 802.11g, ANT 0				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	23.24	≦30	Pass
6	2437	24.83	≦30	Pass
11	2462	24.18	≦30	Pass

The worst emission of data rate is 6 Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
1	2412	23.24	--	--	--	--	--	--	1 Watt=30dBm
6	2437	24.83	24.63	24.52	24.26	24.14	24.03	23.79	1 Watt=30dBm
11	2462	24.18	--	--	--	--	--	--	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/03	Test Site	SR7

IEEE 802.11n (20MHz), ANT 0

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	21.17	≦30	Pass
6	2437	24.71	≦30	Pass
11	2462	22.70	≦30	Pass

The worst emission of data rate is 13 Mbps.

Peak Power Output (dBm)										
MCS Index		8	9	10	11	12	13	14	15	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13	26	39	52	78	104	117	130	
1	2412	21.17	--	--	--	--	--	--	--	1Watt=30dBm
6	2437	24.71	24.59	24.39	24.28	24.15	24.03	23.91	23.69	1Watt=30dBm
11	2462	22.70	--	--	--	--	--	--	--	1Watt=30dBm

Note: Measure Level =Reading value + cable loss

Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/03	Test Site	SR7

IEEE 802.11n (20MHz), ANT 1

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	21.35	≦30	Pass
6	2437	24.11	≦30	Pass
11	2462	22.39	≦30	Pass

The worst emission of data rate is 13 Mbps.

Peak Power Output (dBm)										
MCS Index		8	9	10	11	12	13	14	15	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13	26	39	52	78	104	117	130	
1	2412	21.35	--	--	--	--	--	--	--	1Watt=30dBm
6	2437	24.11	24.01	23.77	23.67	23.43	23.19	23.07	22.81	1Watt=30dBm
11	2462	22.39	--	--	--	--	--	--	--	1Watt=30dBm

Note: Measure Level =Reading value + cable loss

Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/03	Test Site	SR7

IEEE 802.11n (20MHz) (ANT 0+1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	24.27	≦30	Pass
6	2437	27.43	≦30	Pass
11	2462	25.56	≦30	Pass

The worst emission of data rate is 13 Mbps.

Peak Power Output (dBm)										
MCS Index		8	9	10	11	12	13	14	15	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13	26	39	52	78	104	117	130	
1	2412	24.27	--	--	--	--	--	--	--	1Watt=30dBm
6	2437	27.43	27.32	27.10	27.00	26.82	26.64	26.52	26.28	1Watt=30dBm
11	2462	25.56	--	--	--	--	--	--	--	1Watt=30dBm

Note: Measure Level =Reading value + cable loss

Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/03	Test Site	SR7

IEEE 802.11n (40MHz), ANT 0

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	18.37	≦30	Pass
6	2437	21.84	≦30	Pass
9	2452	19.47	≦30	Pass

The worst emission of data rate is 27 Mbps.

Peak Power Output (dBm)										
MCS Index		8	9	10	11	12	13	14	15	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		27	54	81	108	162	216	243	270	
3	2422	18.37	--	--	--	--	--	--	--	1Watt=30dBm
6	2437	21.84	21.74	21.63	21.43	21.33	21.09	20.83	20.59	1Watt=30dBm
9	2452	19.47	--	--	--	--	--	--	--	1Watt=30dBm

Note: Measure Level =Reading value + cable loss

Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/03	Test Site	SR7

IEEE 802.11n (40MHz), ANT 1

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	18.84	≦30	Pass
6	2437	21.57	≦30	Pass
9	2452	19.72	≦30	Pass

The worst emission of data rate is 27 Mbps.

Peak Power Output (dBm)										
MCS Index		8	9	10	11	12	13	14	15	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		27	54	81	108	162	216	243	270	
3	2422	18.84	--	--	--	--	--	--	--	1Watt=30dBm
6	2437	21.57	21.47	21.27	21.14	20.94	20.82	20.70	20.58	1Watt=30dBm
9	2452	19.72	--	--	--	--	--	--	--	1Watt=30dBm

Note: Measure Level =Reading value + cable loss

Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/03	Test Site	SR7

IEEE 802.11n (40MHz) (ANT 0+1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	21.62	≦30	Pass
6	2437	24.72	≦30	Pass
9	2452	22.61	≦30	Pass

Peak Power Output (dBm)										
MCS Index		8	9	10	11	12	13	14	15	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		27	54	81	108	162	216	243	270	
3	2422	21.62	--	--	--	--	--	--	--	1Watt=30dBm
6	2437	24.72	24.62	24.46	24.30	24.15	23.97	23.78	23.60	1Watt=30dBm
9	2452	22.61	--	--	--	--	--	--	--	1Watt=30dBm

4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the test:

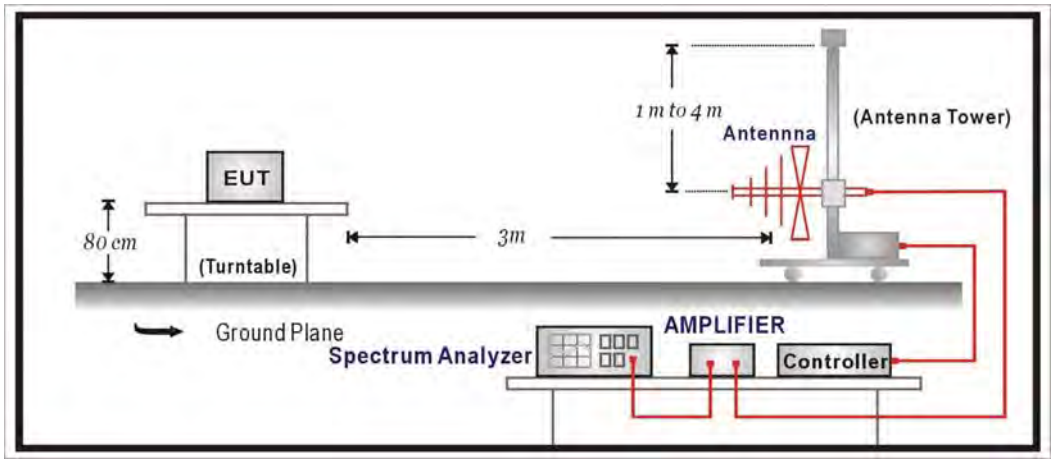
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895	2015/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2015/02/12
Pre-Amplifier	Quietek	AMF-4D.	888003	2015/06/02
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2015/02/06
Spectrum Analyzer	Agilent	E4440A	MY46187335	2015/01/12
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2015/02/10

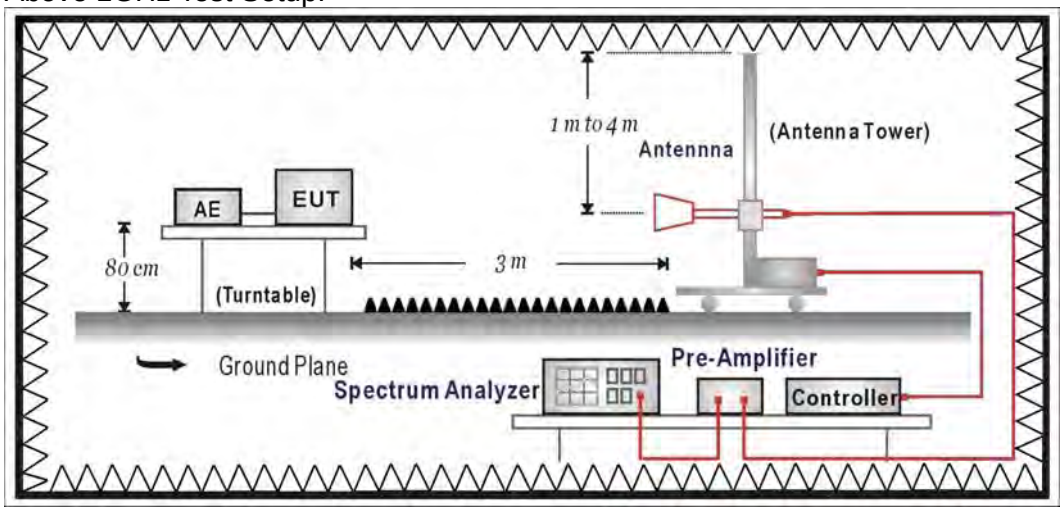
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. 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**	**dBuV/m**	dBuV/m
30-88	**100**	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

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

4.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 v03r02 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 C63.10: 2013 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.

4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2013

4.6. Uncertainty

The measurement uncertainty

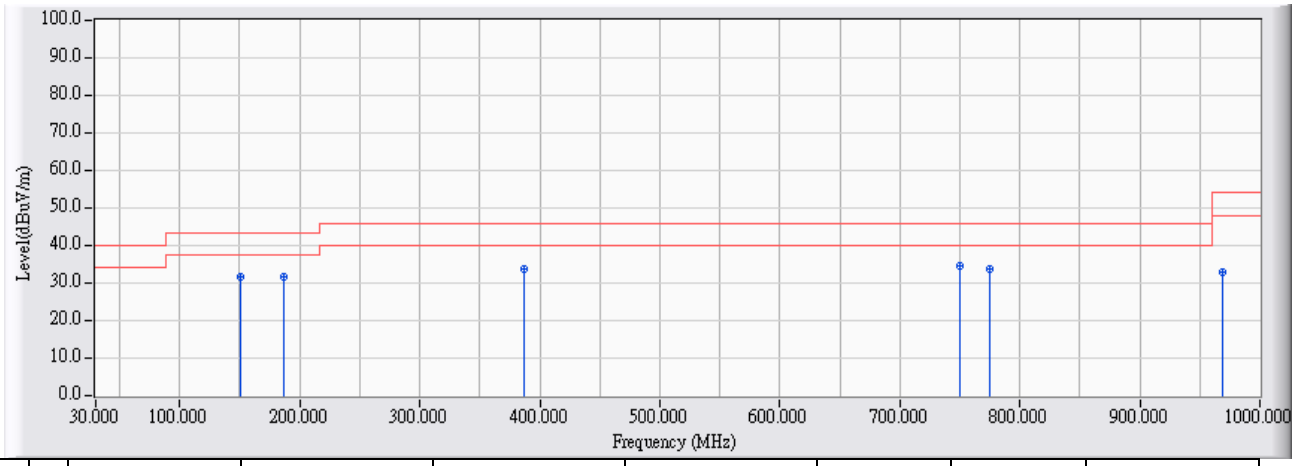
30MHz～1GHz as ±3.43dB

1GHz～26.5Ghz as ±3.65dB

4.7. Test Result

30MHz-1GHz Spurious

Site : CB1	**Time : 2014/10/02 - 17:40**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : _802.11b_CH06**

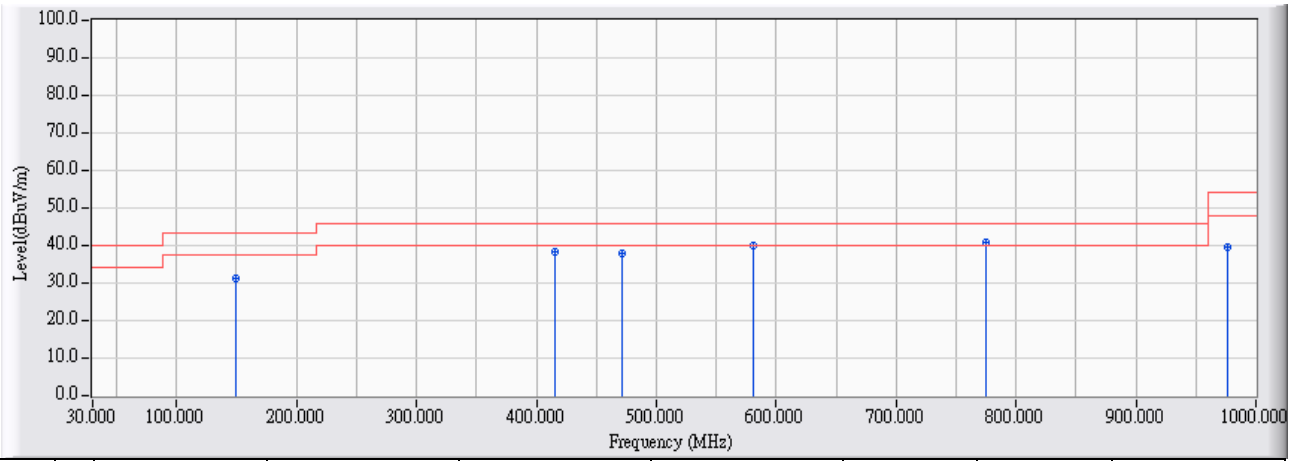


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		150.280	-23.440	55.312	31.871	-11.629	43.500	QUASIPEAK
2		186.170	-24.631	56.343	31.712	-11.788	43.500	QUASIPEAK
3		387.445	-17.673	51.308	33.635	-12.365	46.000	QUASIPEAK
4	*	750.225	-12.565	47.237	34.672	-11.328	46.000	QUASIPEAK
5		774.960	-12.082	45.881	33.799	-12.201	46.000	QUASIPEAK
6		968.960	-10.005	43.095	33.090	-20.910	54.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2014/10/02 - 17:40**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : _802.11b_CH06**

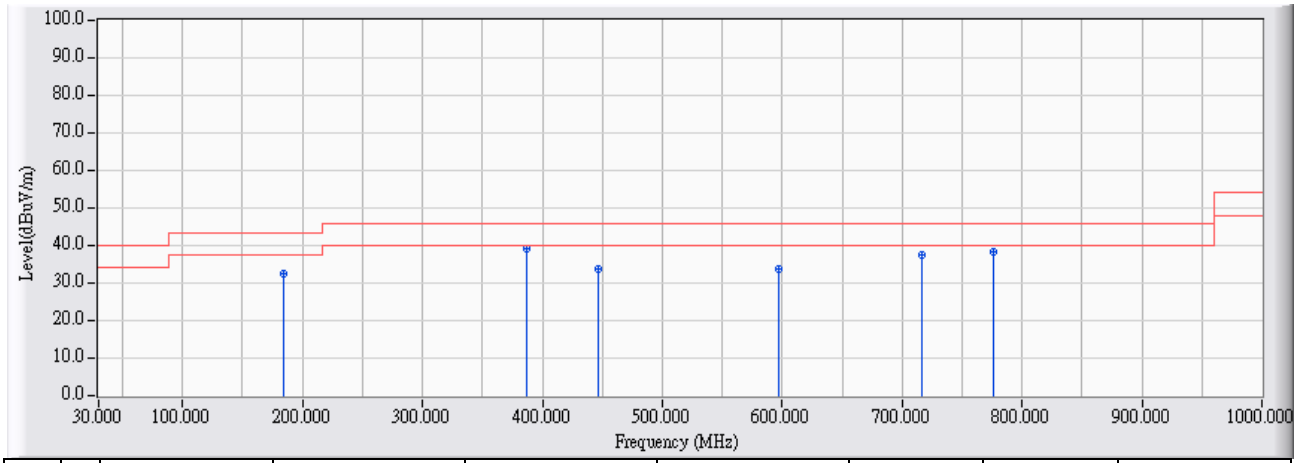


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		149.310	-23.395	54.492	31.097	-12.403	43.500	QUASIPEAK
2		416.060	-16.967	55.209	38.242	-7.758	46.000	QUASIPEAK
3		471.350	-15.764	53.858	38.093	-7.907	46.000	QUASIPEAK
4		581.445	-14.535	54.453	39.918	-6.082	46.000	QUASIPEAK
5	*	774.960	-12.082	53.081	40.999	-5.001	46.000	QUASIPEAK
6		976.720	-9.930	49.721	39.791	-14.209	54.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2014/10/02 - 17:41**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : _802.11g_CH06**

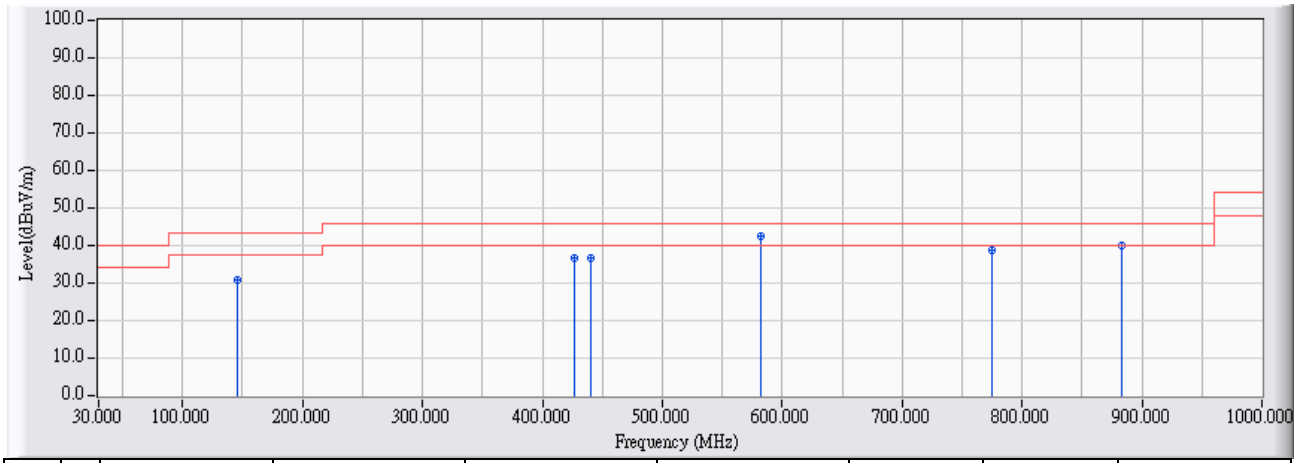


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		184.230	-24.633	57.174	32.542	-10.958	43.500	QUASIPEAK
2	*	387.445	-17.673	56.957	39.284	-6.716	46.000	QUASIPEAK
3		446.130	-16.285	50.179	33.894	-12.106	46.000	QUASIPEAK
4		596.965	-14.480	48.381	33.901	-12.099	46.000	QUASIPEAK
5		716.275	-12.360	49.949	37.589	-8.411	46.000	QUASIPEAK
6		775.930	-12.063	50.535	38.472	-7.528	46.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2014/10/02 - 17:41**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : _802.11g_CH06**

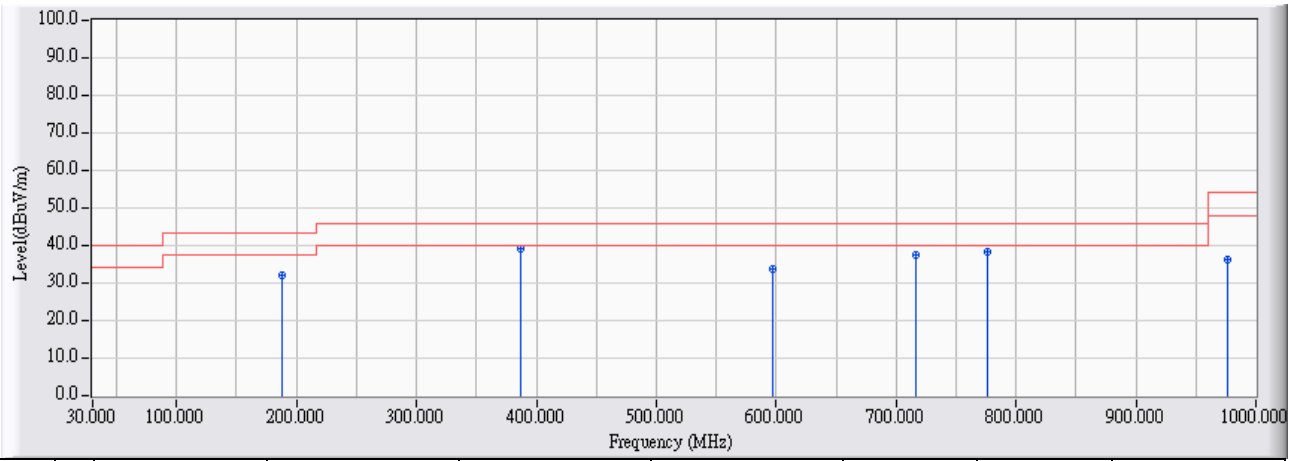


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		145.915	-23.225	54.026	30.801	-12.699	43.500	QUASIPEAK
2		426.730	-16.725	53.348	36.623	-9.377	46.000	QUASIPEAK
3		439.825	-16.427	53.216	36.788	-9.212	46.000	QUASIPEAK
4	*	581.930	-14.533	56.945	42.412	-3.588	46.000	QUASIPEAK
5		774.960	-12.082	50.924	38.842	-7.158	46.000	QUASIPEAK
6		882.630	-11.075	51.200	40.126	-5.874	46.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2014/10/02 - 17:41**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : _802.11n 20MHz_CH06**

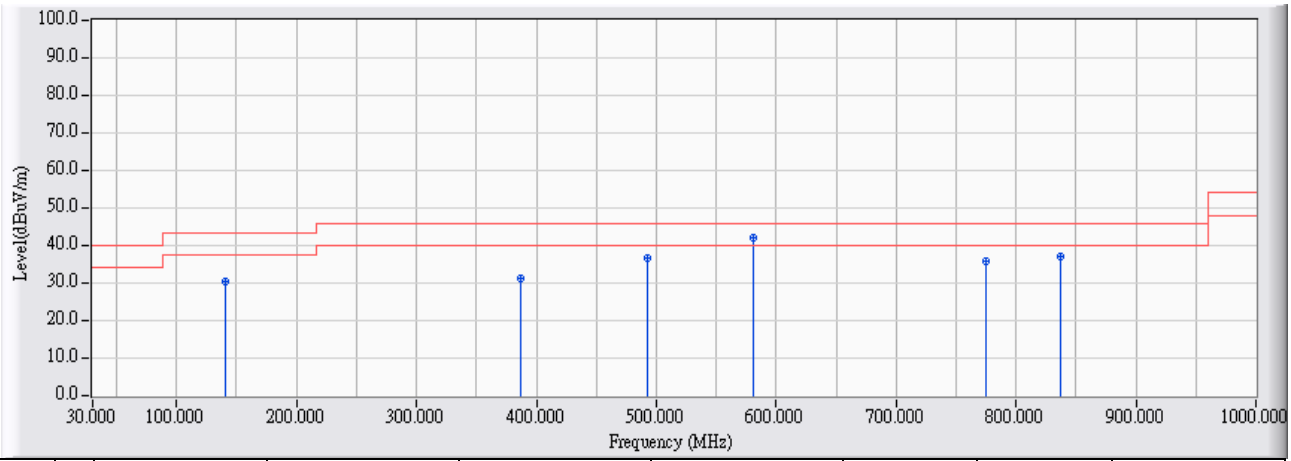


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		187.625	-24.630	56.896	32.266	-11.234	43.500	QUASIPEAK
2	*	387.445	-17.673	56.957	39.284	-6.716	46.000	QUASIPEAK
3		596.965	-14.480	48.381	33.901	-12.099	46.000	QUASIPEAK
4		716.275	-12.360	49.949	37.589	-8.411	46.000	QUASIPEAK
5		775.930	-12.063	50.535	38.472	-7.528	46.000	QUASIPEAK
6		976.720	-9.930	46.126	36.196	-17.804	54.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2014/10/02 - 17:42**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : _802.11n 20MHz_CH06**

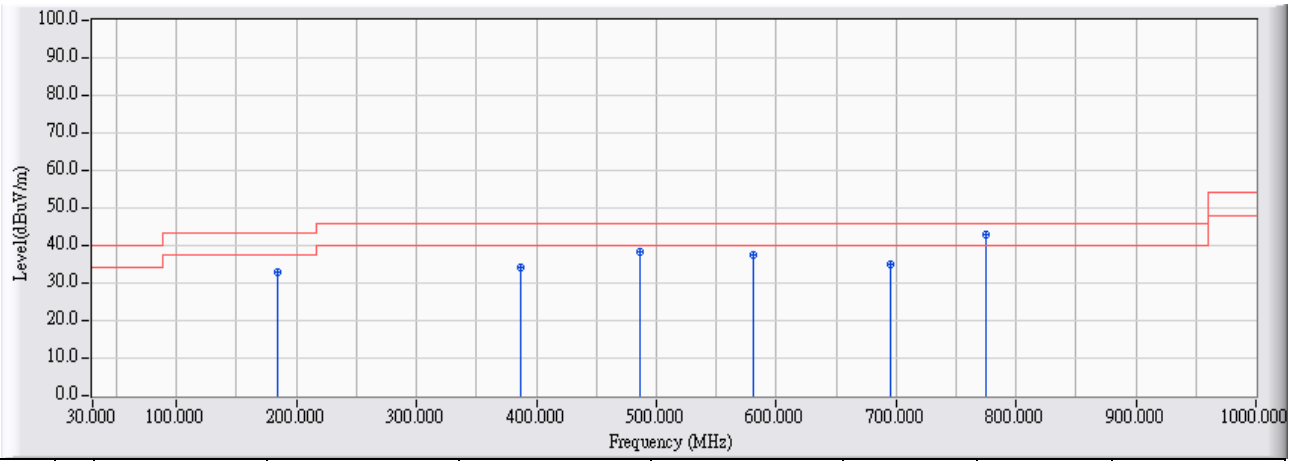


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		140.095	-22.937	53.382	30.445	-13.055	43.500	QUASIPEAK
2		387.445	-17.673	48.761	31.088	-14.912	46.000	QUASIPEAK
3		493.175	-15.322	52.061	36.738	-9.262	46.000	QUASIPEAK
4	*	581.445	-14.535	56.478	41.943	-4.057	46.000	QUASIPEAK
5		774.960	-12.082	48.048	35.966	-10.034	46.000	QUASIPEAK
6		837.040	-11.437	48.581	37.144	-8.856	46.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2014/10/02 - 17:42**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : _802.11n 40MHz_CH06**

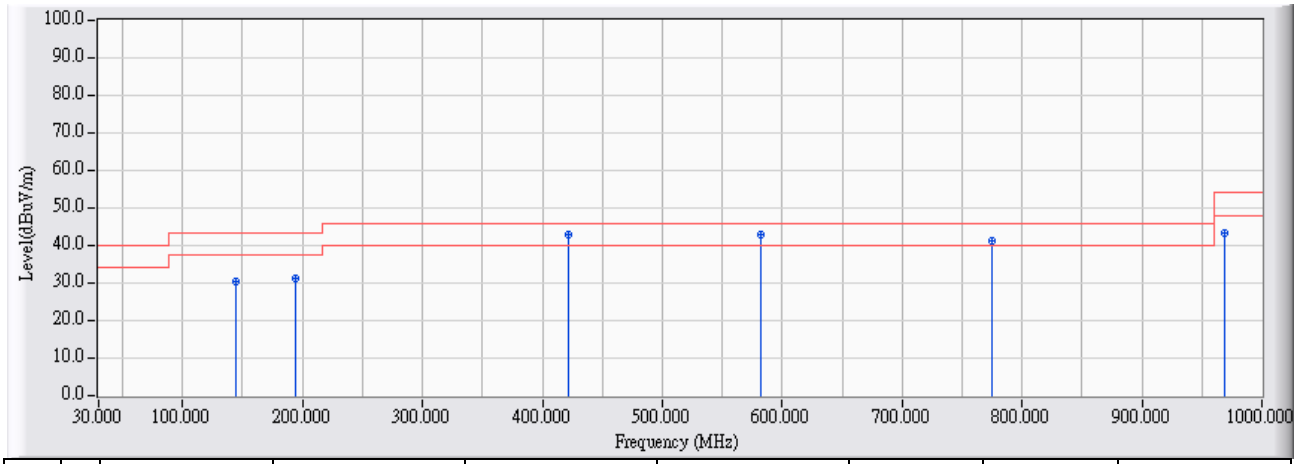


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		184.230	-24.633	57.518	32.886	-10.614	43.500	QUASIPEAK
2		387.445	-17.673	51.866	34.193	-11.807	46.000	QUASIPEAK
3		485.900	-15.470	53.725	38.255	-7.745	46.000	QUASIPEAK
4		580.960	-14.537	52.046	37.509	-8.491	46.000	QUASIPEAK
5		695.905	-12.400	47.457	35.057	-10.943	46.000	QUASIPEAK
6	*	775.445	-12.072	55.005	42.933	-3.067	46.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2014/10/02 - 17:43**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : _802.11n 40MHz_CH06**



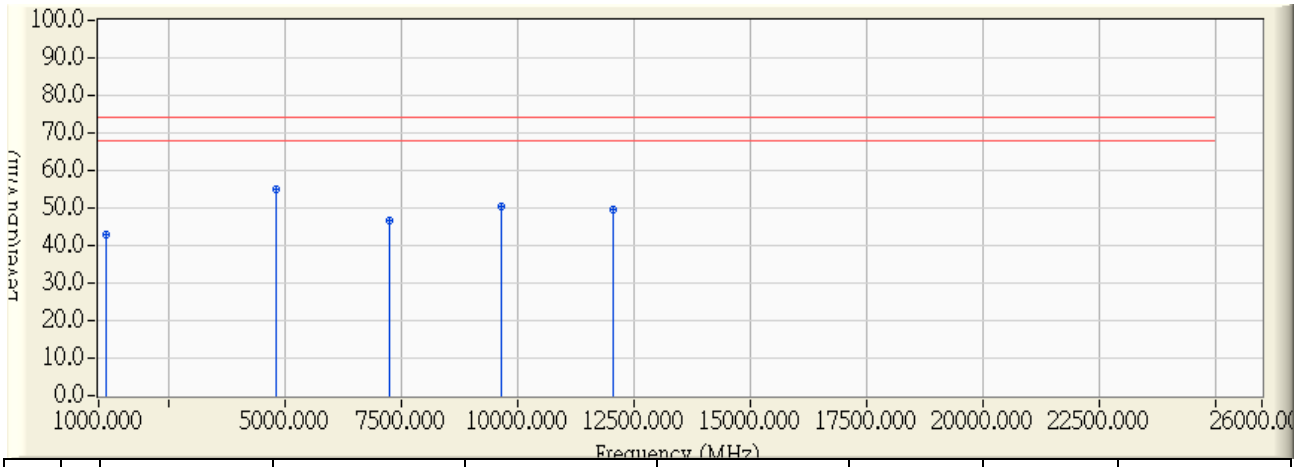
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		144.460	-23.152	53.525	30.373	-13.127	43.500	QUASIPEAK
2		193.930	-24.624	55.893	31.268	-12.232	43.500	QUASIPEAK
3		421.880	-16.835	59.656	42.821	-3.179	46.000	QUASIPEAK
4	*	582.415	-14.531	57.398	42.866	-3.134	46.000	QUASIPEAK
5		775.445	-12.072	53.332	41.260	-4.740	46.000	QUASIPEAK
6		969.445	-9.999	53.427	43.427	-10.573	54.000	QUASIPEAK

Note:

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

Above 1GHz Spurious

Site : CB1	**Time : 2014/10/02 - 10:44**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11b_CH01**

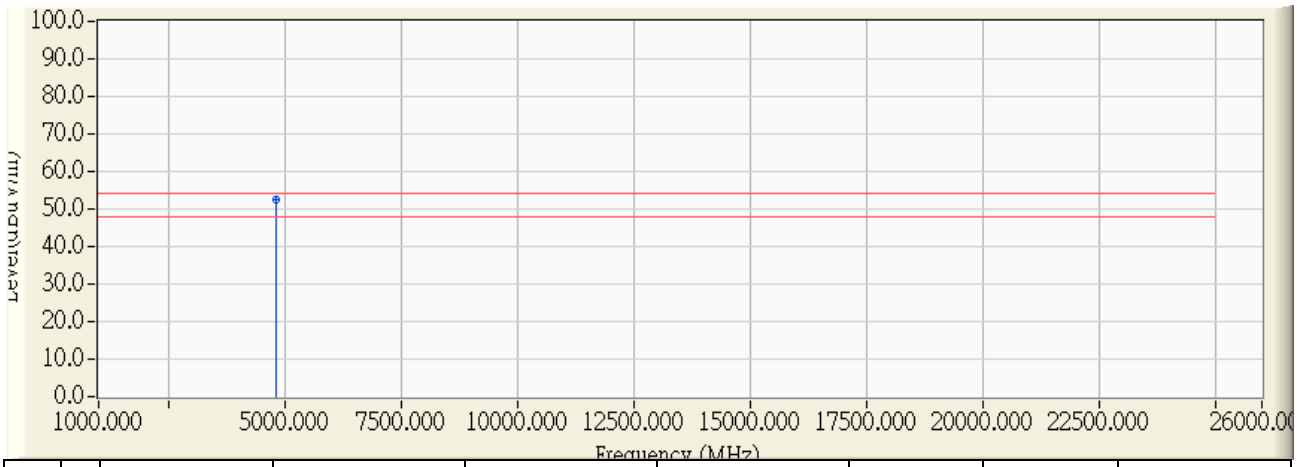


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1163.000	-10.688	53.620	42.931	-31.069	74.000	PEAK
2	*	4823.900	-0.534	55.370	54.836	-19.164	74.000	PEAK
3		7234.470	5.515	41.200	46.715	-27.285	74.000	PEAK
4		9648.130	9.447	41.120	50.567	-23.433	74.000	PEAK
5		12051.070	11.104	38.610	49.714	-24.286	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. Measurement 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 : 2014/10/02 - 10:45**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11b_CH01**

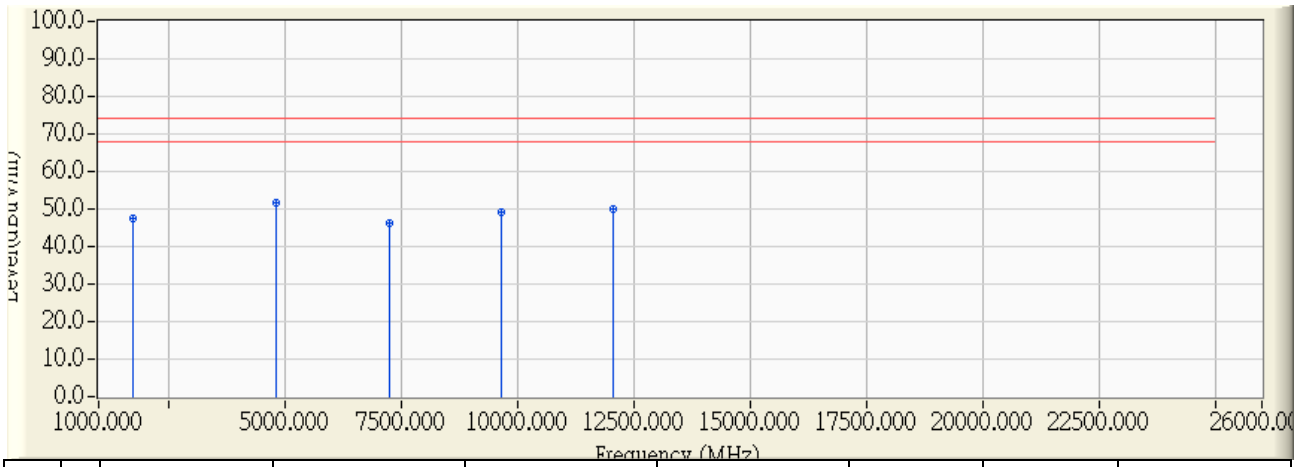


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4823.980	-0.534	53.010	52.476	-1.524	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 10:56**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11b_CH01**

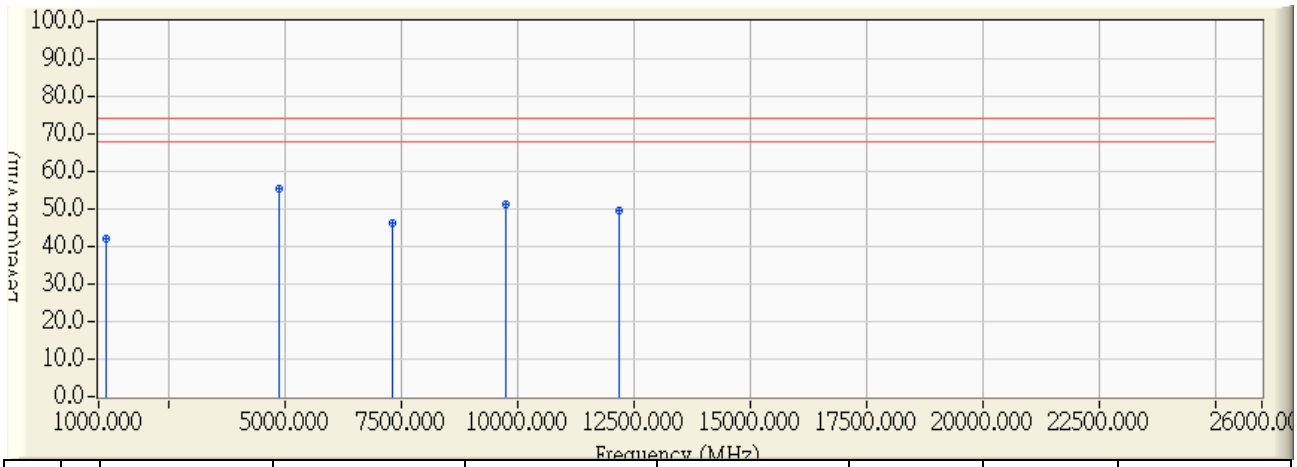


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1744.000	-8.257	55.870	47.613	-26.387	74.000	PEAK
2	*	4823.990	-0.534	52.140	51.606	-22.394	74.000	PEAK
3		7238.360	5.525	40.540	46.064	-27.936	74.000	PEAK
4		9647.750	9.444	39.760	49.204	-24.796	74.000	PEAK
5		12059.410	11.100	38.880	49.980	-24.020	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. Measurement 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 : 2014/10/02 - 11:06**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11b_CH06**

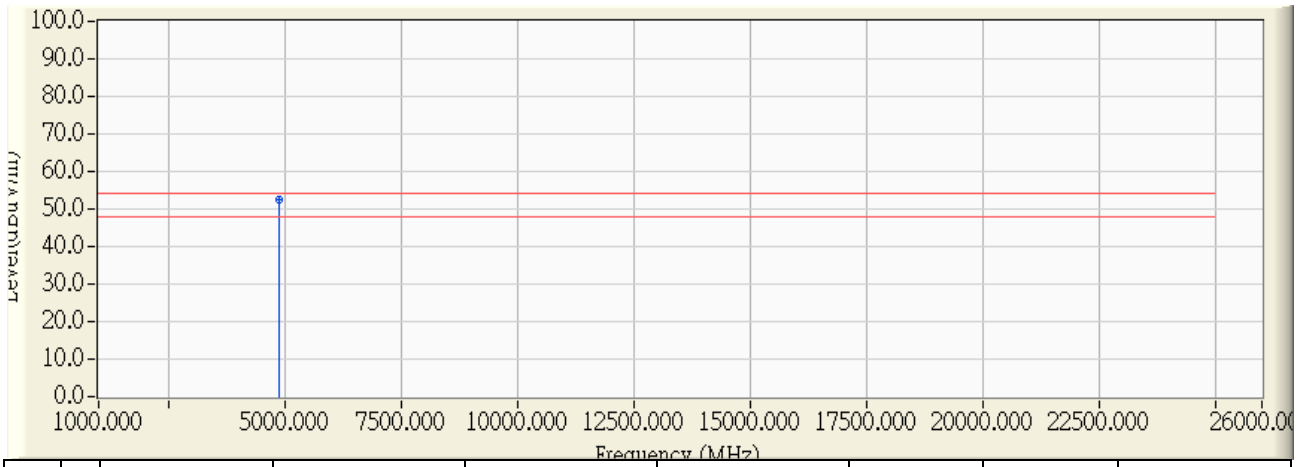


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1163.000	-10.688	52.670	41.981	-32.019	74.000	PEAK
2	*	4873.960	-0.412	55.730	55.318	-18.682	74.000	PEAK
3		7312.230	5.684	40.480	46.164	-27.836	74.000	PEAK
4		9747.860	10.093	41.220	51.312	-22.688	74.000	PEAK
5		12176.510	11.046	38.370	49.417	-24.583	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. Measurement 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 : 2014/10/02 - 11:06**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11b_CH06**

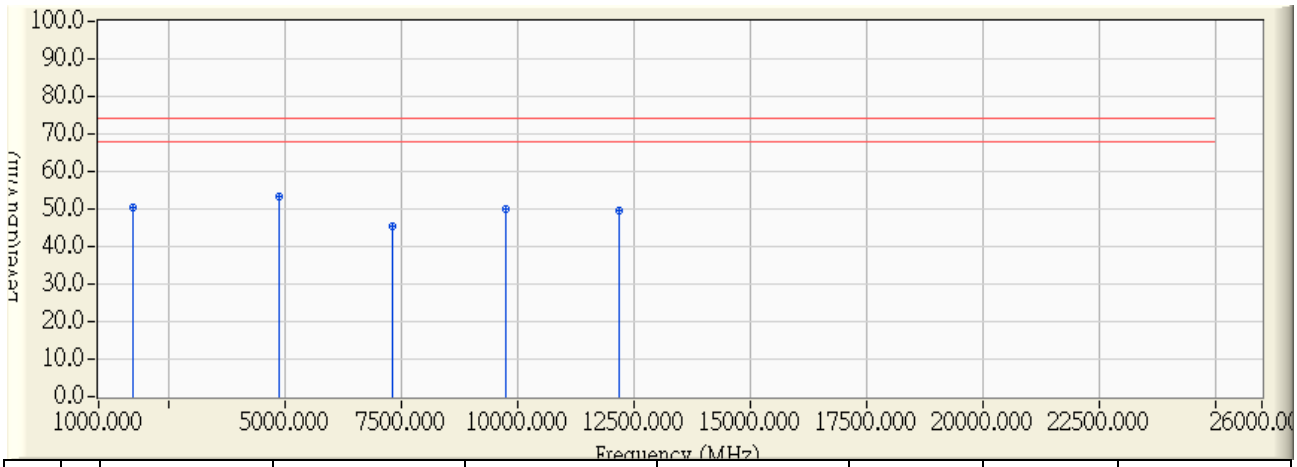


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4874.070	-0.411	53.090	52.678	-1.322	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 11:17**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11b_CH06**

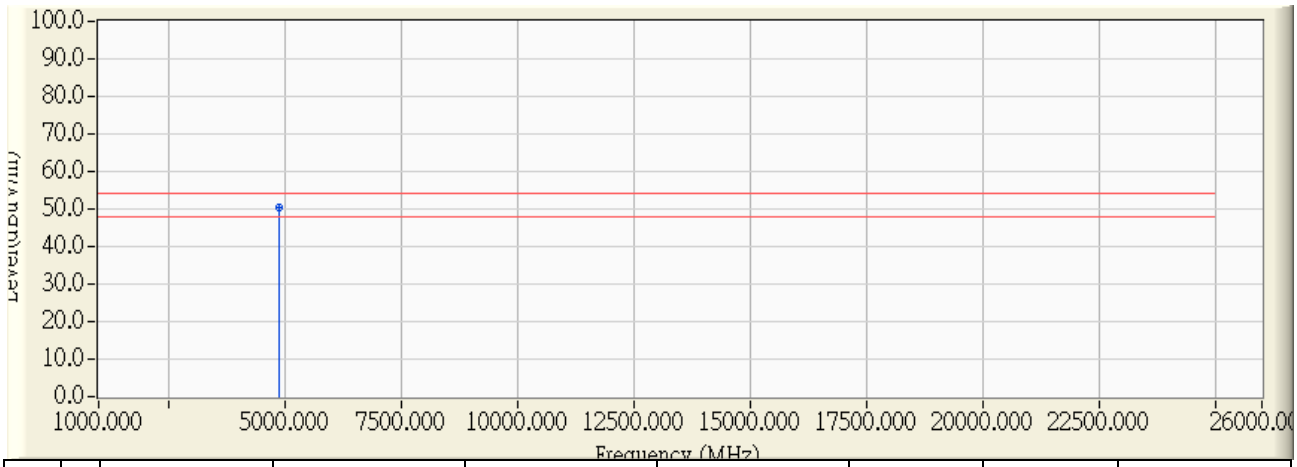


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1744.000	-8.257	58.810	50.553	-23.447	74.000	PEAK
2	*	4874.010	-0.412	53.810	53.398	-20.602	74.000	PEAK
3		7310.520	5.680	39.830	45.510	-28.490	74.000	PEAK
4		9747.795	10.093	39.700	49.792	-24.208	74.000	PEAK
5		12185.575	11.043	38.630	49.673	-24.327	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. Measurement 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 : 2014/10/02 - 11:17**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11b_CH06**

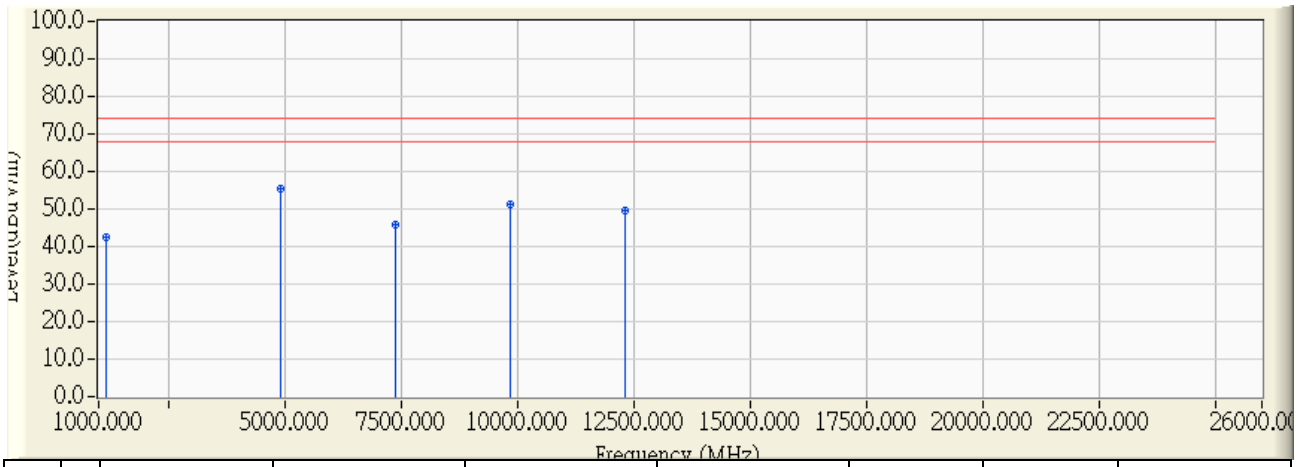


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4874.035	-0.412	50.940	50.528	-3.472	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 11:25**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11b_CH11**

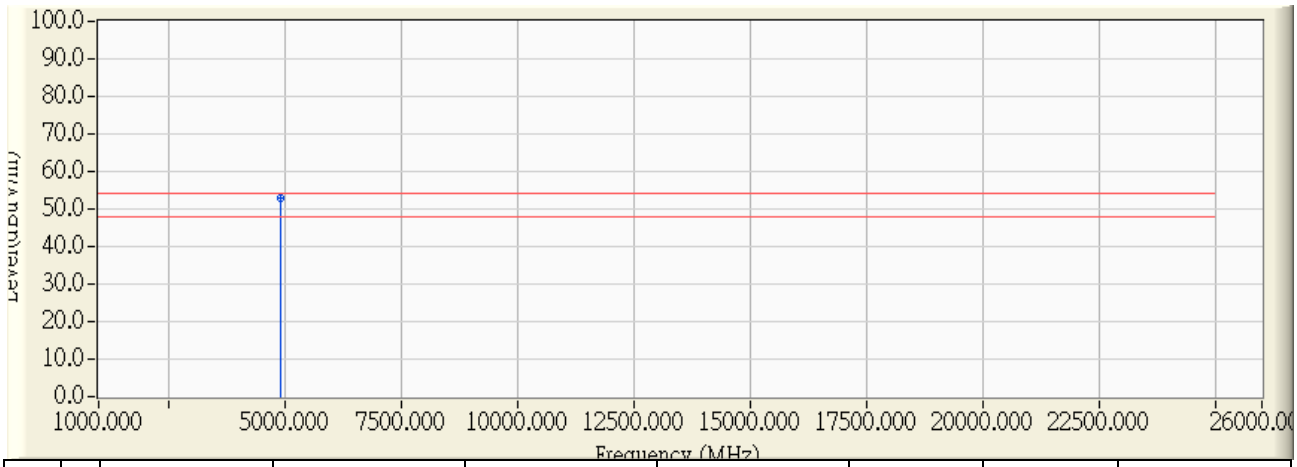


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1163.000	-10.688	53.310	42.621	-31.379	74.000	PEAK
2	*	4924.020	-0.290	55.880	55.590	-18.410	74.000	PEAK
3		7384.420	5.840	40.130	45.970	-28.030	74.000	PEAK
4		9847.790	10.740	40.680	51.420	-22.580	74.000	PEAK
5		12308.420	10.987	38.690	49.677	-24.323	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. Measurement 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 : 2014/10/02 - 11:26**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11b_CH11**

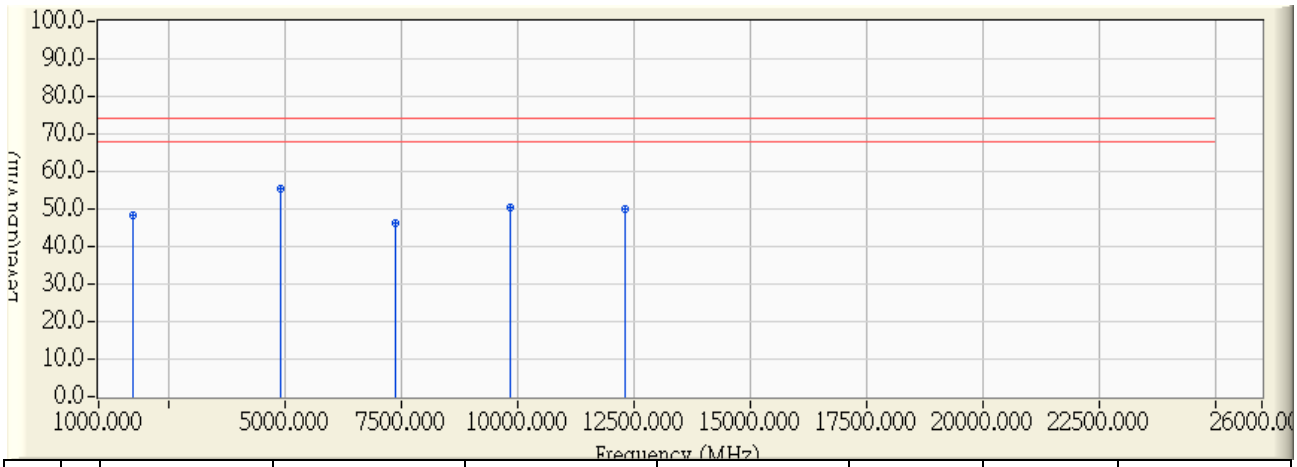


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4923.990	-0.290	53.090	52.800	-1.200	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 11:36**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11b_CH11**

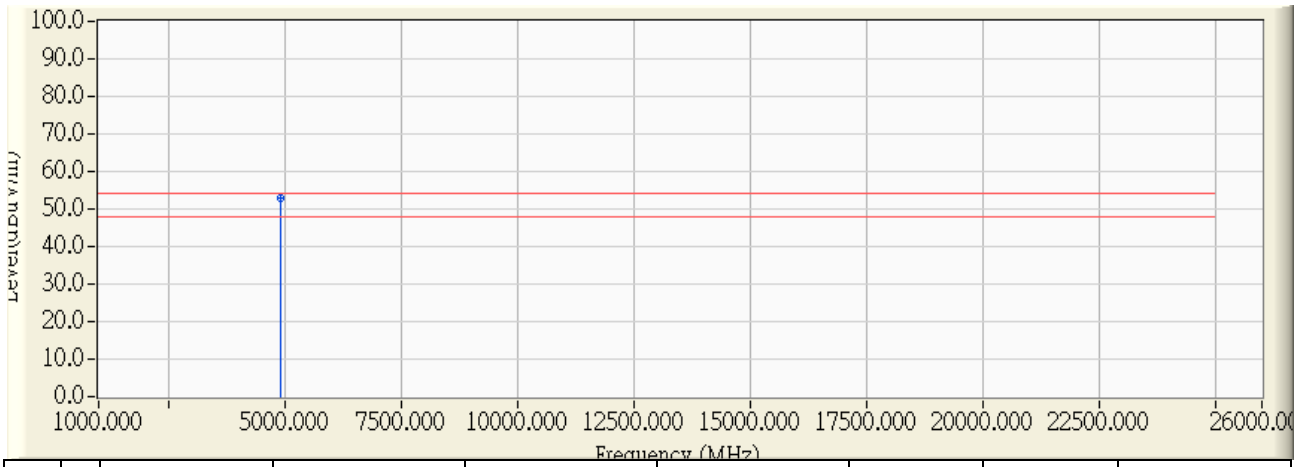


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1744.000	-8.257	56.550	48.293	-25.707	74.000	PEAK
2	*	4923.940	-0.290	55.650	55.360	-18.640	74.000	PEAK
3		7379.480	5.829	40.280	46.109	-27.891	74.000	PEAK
4		9846.211	10.729	39.500	50.229	-23.771	74.000	PEAK
5		12307.800	10.986	38.880	49.867	-24.133	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. Measurement 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 : 2014/10/02 - 11:38**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11b_CH11**

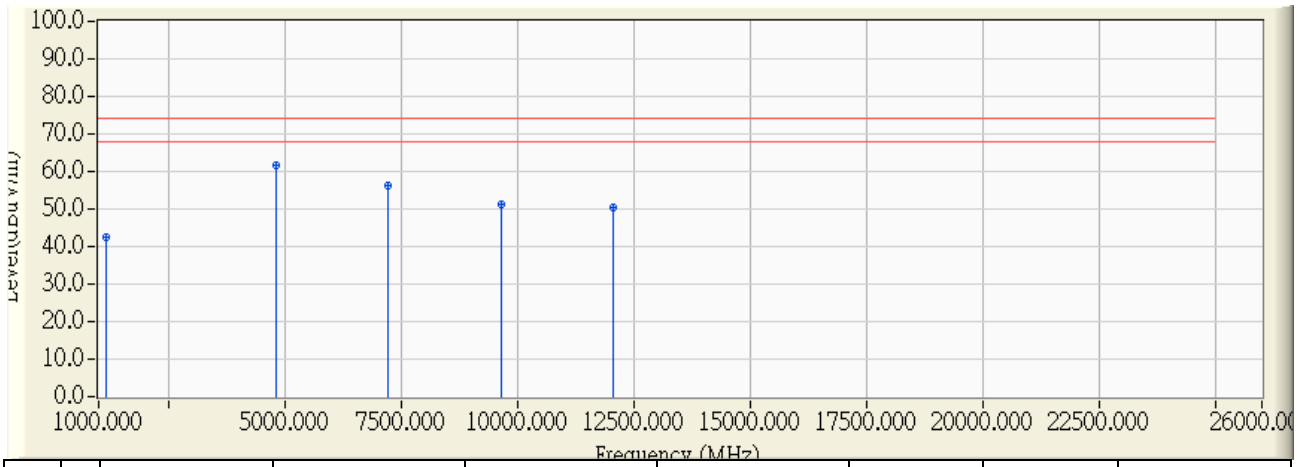


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4924.010	-0.290	53.020	52.730	-1.270	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 11:45**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11g_CH01**

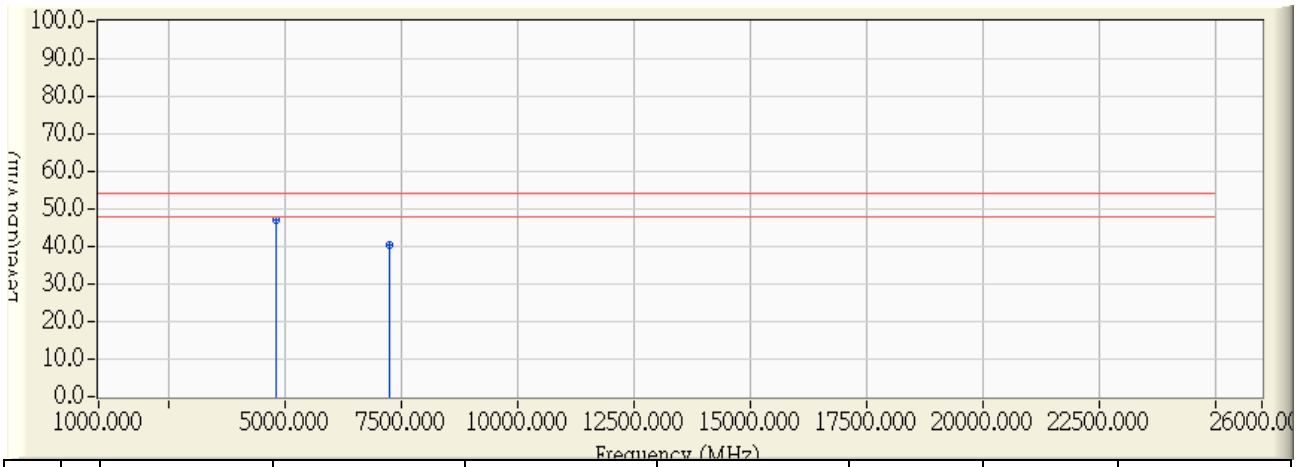


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1162.000	-10.693	53.210	42.516	-31.484	74.000	PEAK
2	*	4819.700	-0.544	62.340	61.796	-12.204	74.000	PEAK
3		7233.700	5.513	50.710	56.224	-17.776	74.000	PEAK
4		9649.750	9.456	41.860	51.317	-22.683	74.000	PEAK
5		12049.750	11.105	39.130	50.235	-23.765	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. Measurement 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 : 2014/10/02 - 11:45**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11g_CH01**

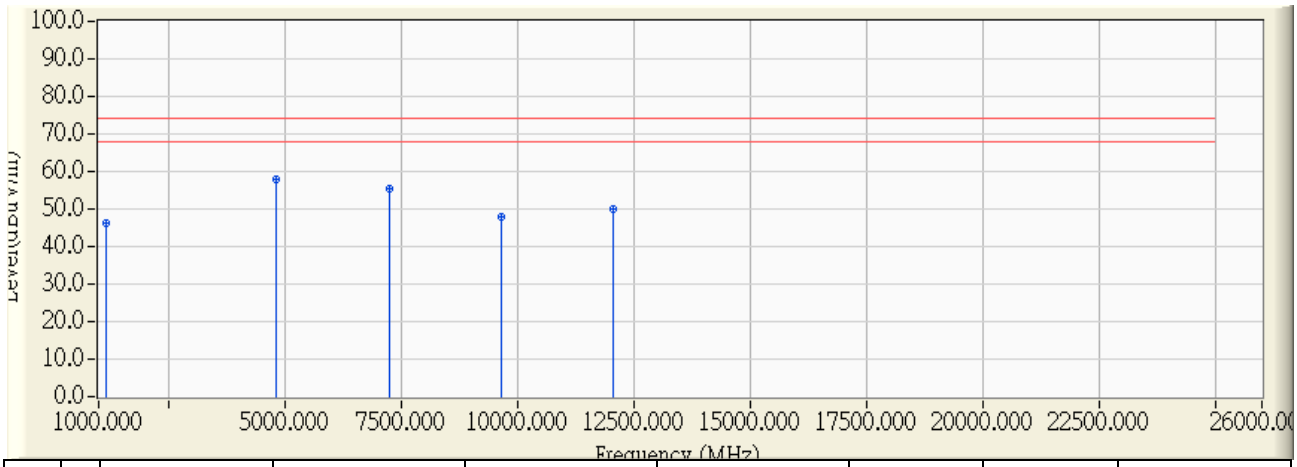


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4825.075	-0.531	47.410	46.879	-7.121	54.000	AVERAGE
2		7235.100	5.516	34.980	40.497	-13.503	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 12:01**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11g_CH01**

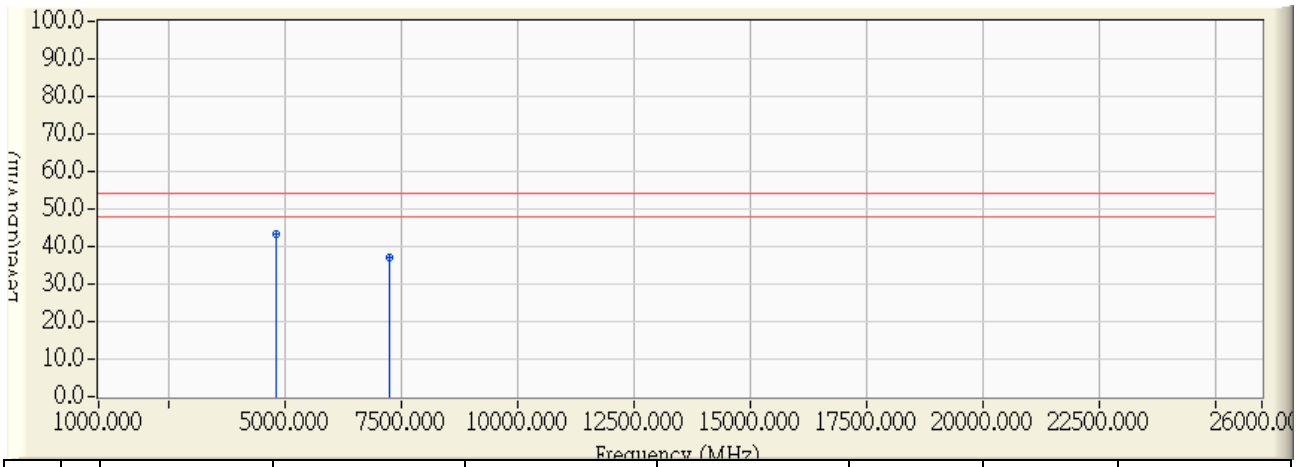


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1163.000	-10.688	56.960	46.271	-27.729	74.000	PEAK
2	*	4829.450	-0.520	58.590	58.070	-15.930	74.000	PEAK
3		7238.375	5.525	49.930	55.454	-18.546	74.000	PEAK
4		9647.700	9.444	38.450	47.894	-26.106	74.000	PEAK
5		12063.600	11.098	39.090	50.188	-23.812	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. Measurement 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 : 2014/10/02 - 12:02**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11g_CH01**

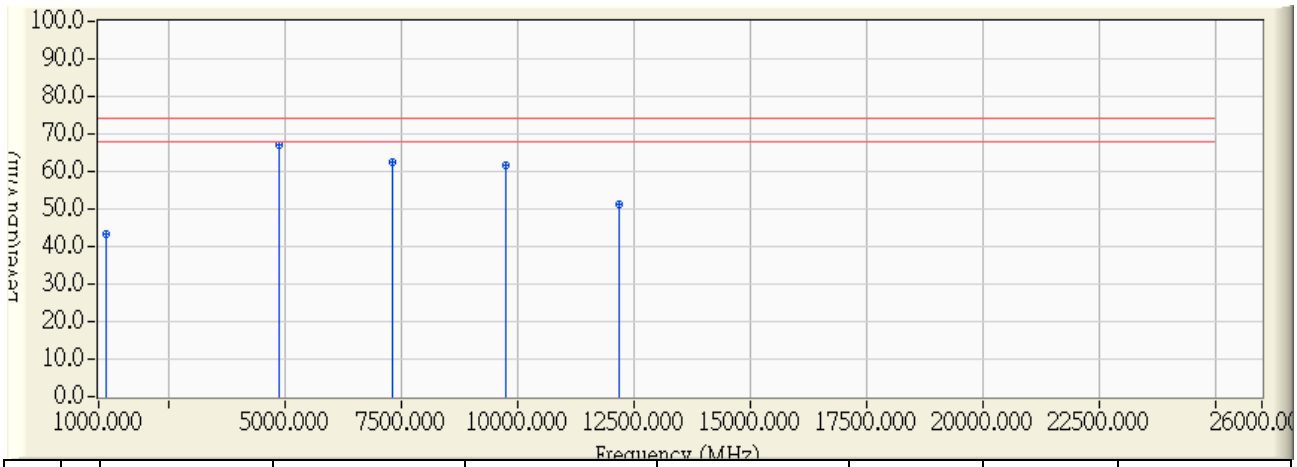


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4824.825	-0.531	43.930	43.398	-10.602	54.000	AVERAGE
2		7234.875	5.516	31.690	37.206	-16.794	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 13:16**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11g_CH06**

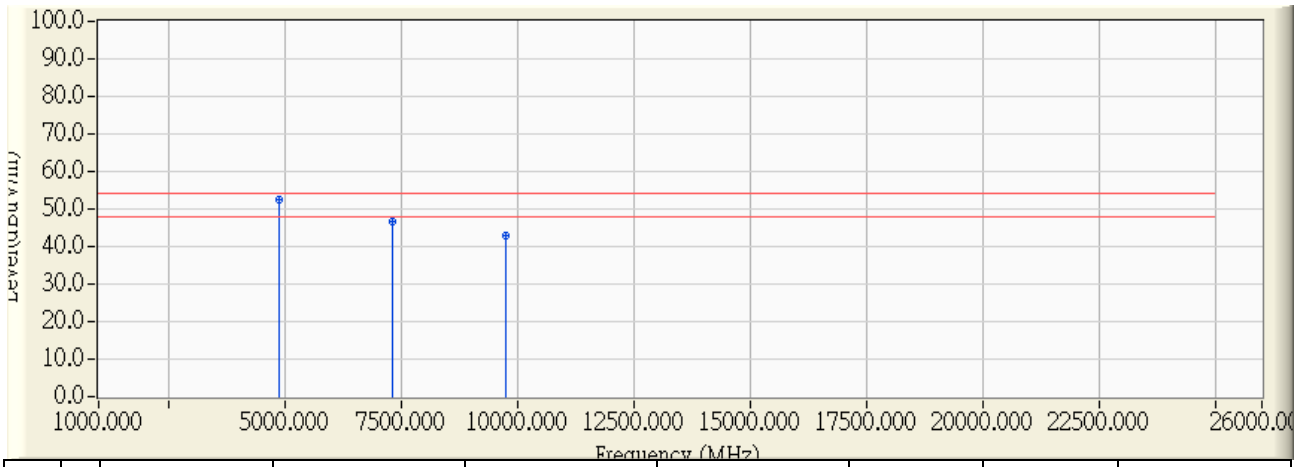


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1163.000	-10.688	53.940	43.251	-30.749	74.000	PEAK
2	*	4874.650	-0.409	67.550	67.140	-6.860	74.000	PEAK
3		7312.725	5.685	56.780	62.465	-11.535	74.000	PEAK
4		9749.375	10.102	51.440	61.542	-12.458	74.000	PEAK
5		12171.875	11.049	40.070	51.119	-22.881	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. Measurement 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 : 2014/10/02 - 13:17**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11g_CH06**

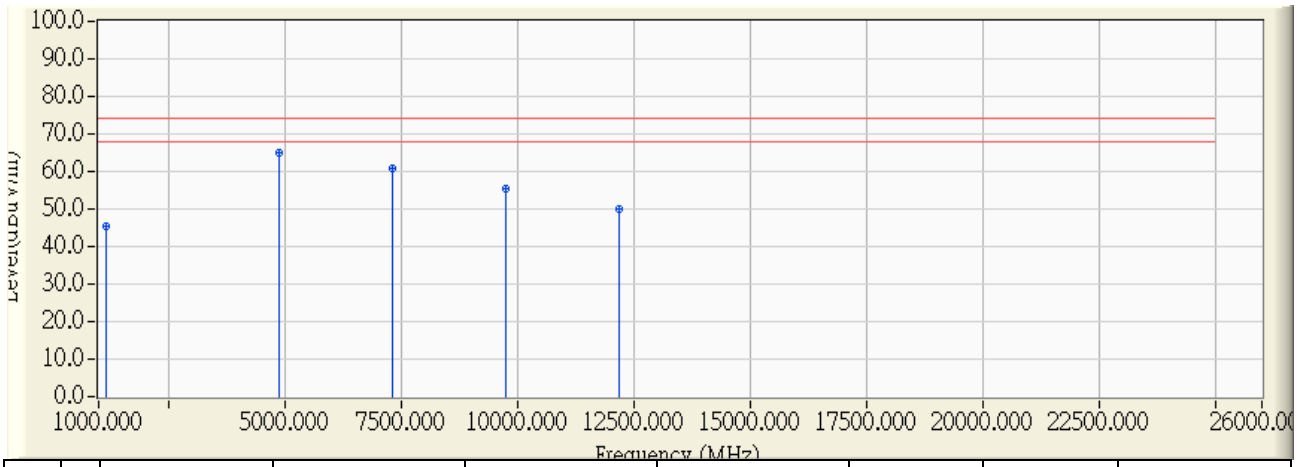


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4874.850	-0.409	52.730	52.320	-1.680	54.000	AVERAGE
2		7310.750	5.681	40.820	46.501	-7.499	54.000	AVERAGE
3		9748.050	10.094	32.690	42.784	-11.216	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 13:31**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11g_CH06**

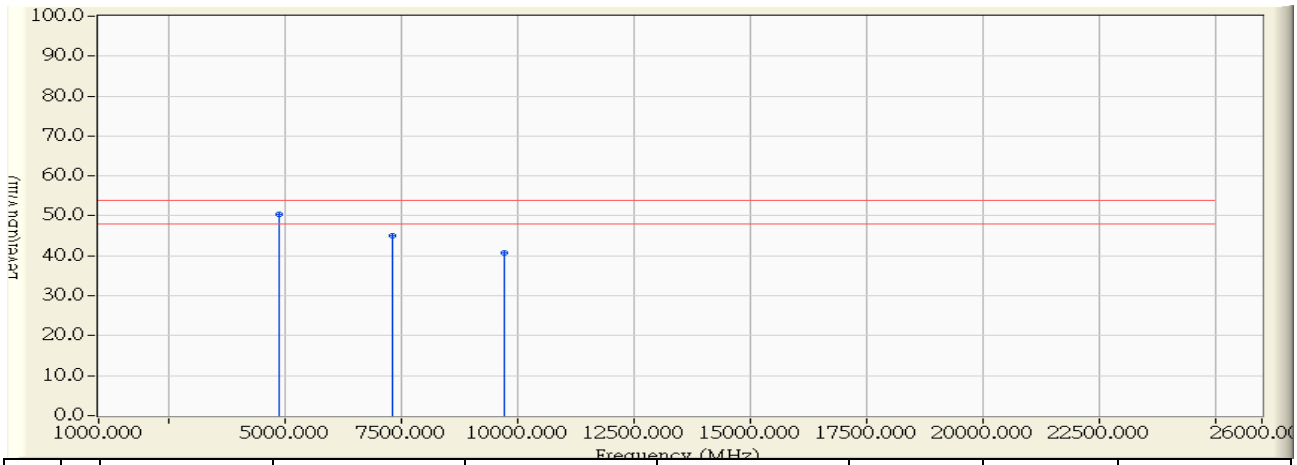


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1162.000	-10.693	56.180	45.486	-28.514	74.000	PEAK
2	*	4879.975	-0.397	65.360	64.963	-9.037	74.000	PEAK
3		7312.700	5.685	55.130	60.815	-13.185	74.000	PEAK
4		9751.975	10.119	45.190	55.309	-18.691	74.000	PEAK
5		12179.075	11.045	38.800	49.846	-24.154	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. Measurement 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 : 2014/10/02 - 13:32**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11g_CH06**

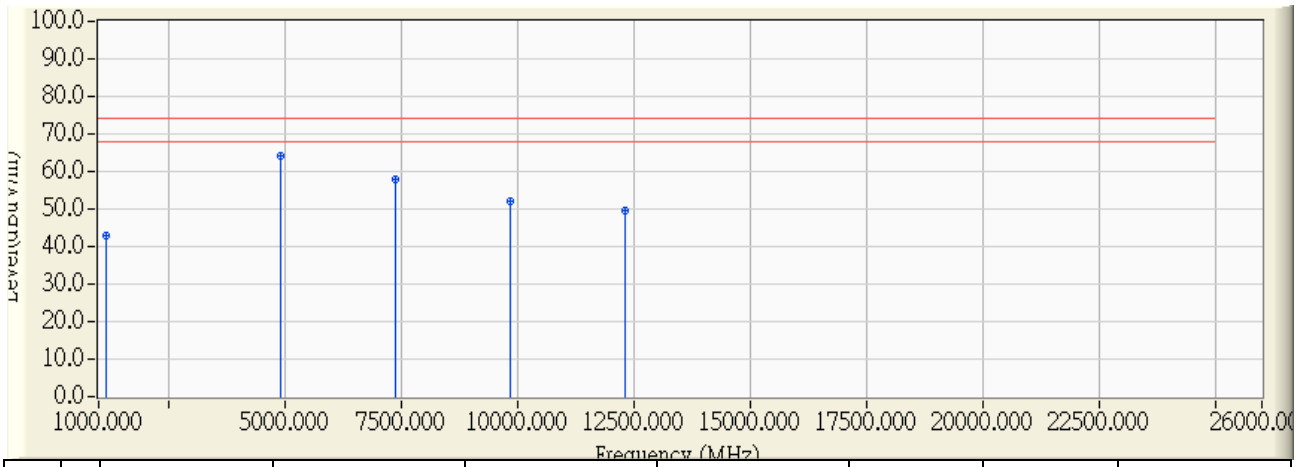


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4875.325	-0.408	50.700	50.292	-3.708	54.000	AVERAGE
2		7310.550	5.680	39.470	45.150	-8.850	54.000	AVERAGE
3		9723.140	9.933	30.694	40.626	-13.374	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 13:40**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11g_CH11**

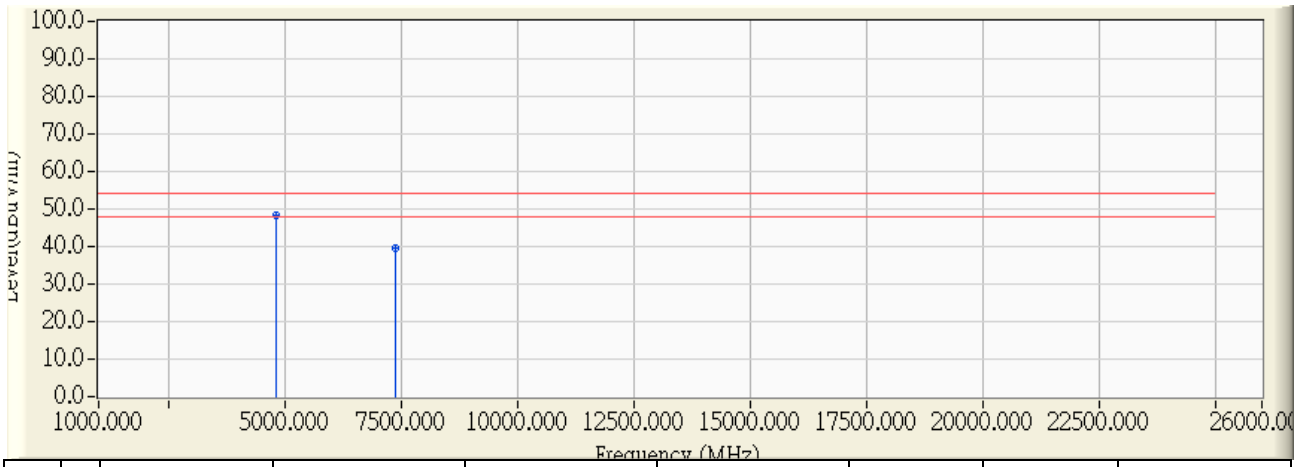


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1162.000	-10.693	53.610	42.916	-31.084	74.000	PEAK
2	*	4919.475	-0.301	64.310	64.009	-9.991	74.000	PEAK
3		7386.800	5.846	52.100	57.945	-16.055	74.000	PEAK
4		9851.675	10.764	41.200	51.965	-22.035	74.000	PEAK
5		12300.800	10.990	38.580	49.570	-24.430	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. Measurement 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 : 2014/10/02 - 13:41**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11g_CH11**

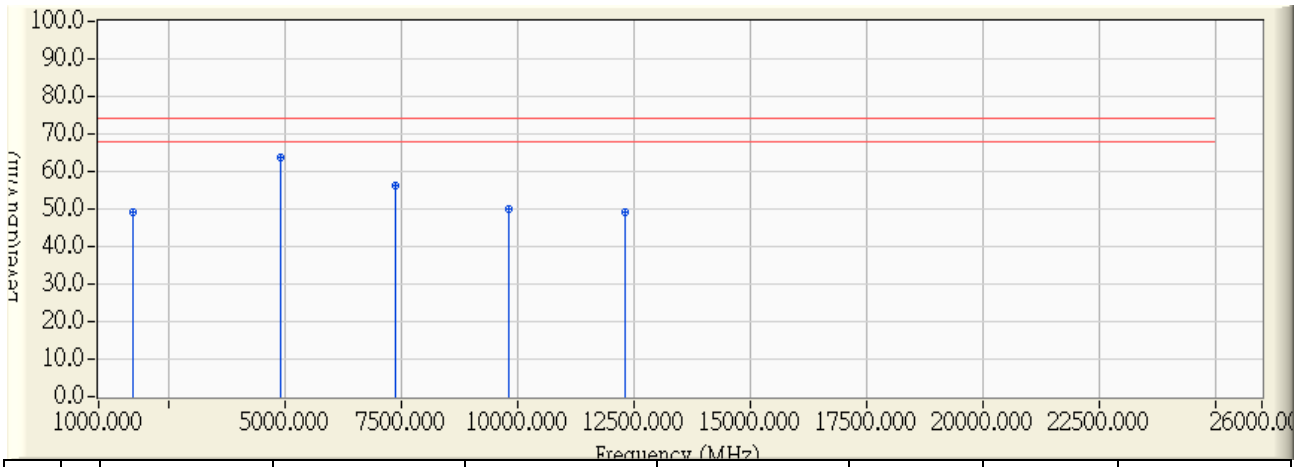


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4824.725	-0.531	48.700	48.168	-5.832	54.000	AVERAGE
2		7385.700	5.842	33.540	39.383	-14.617	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 13:49**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11g_CH11**

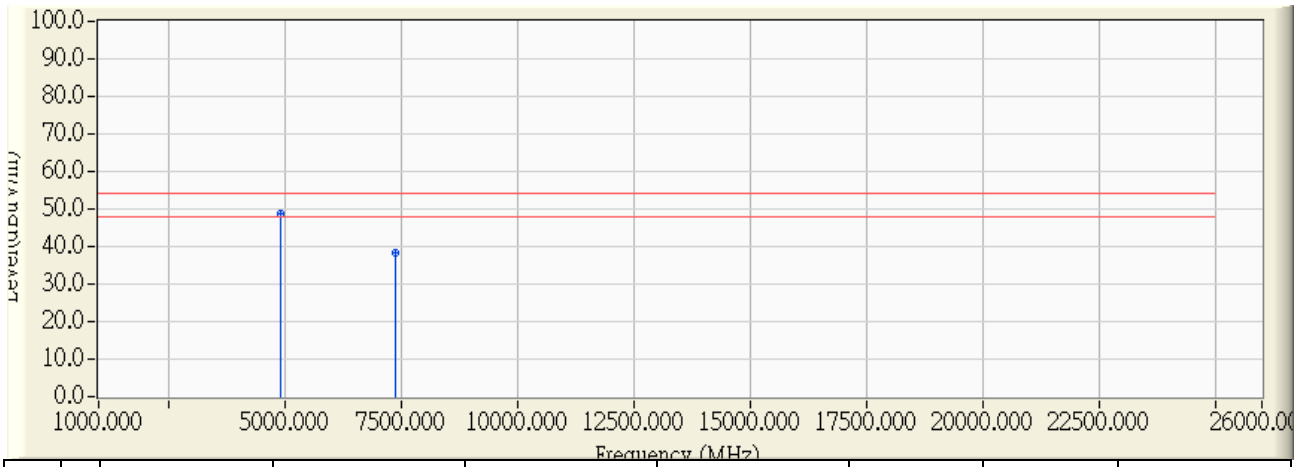


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1744.000	-8.257	57.330	49.073	-24.927	74.000	PEAK
2	*	4919.400	-0.301	64.170	63.869	-10.131	74.000	PEAK
3		7384.950	5.841	50.450	56.291	-17.709	74.000	PEAK
4		9828.425	10.615	39.240	49.854	-24.146	74.000	PEAK
5		12305.550	10.989	38.280	49.268	-24.732	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. Measurement 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 : 2014/10/02 - 13:50**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11g_CH11**

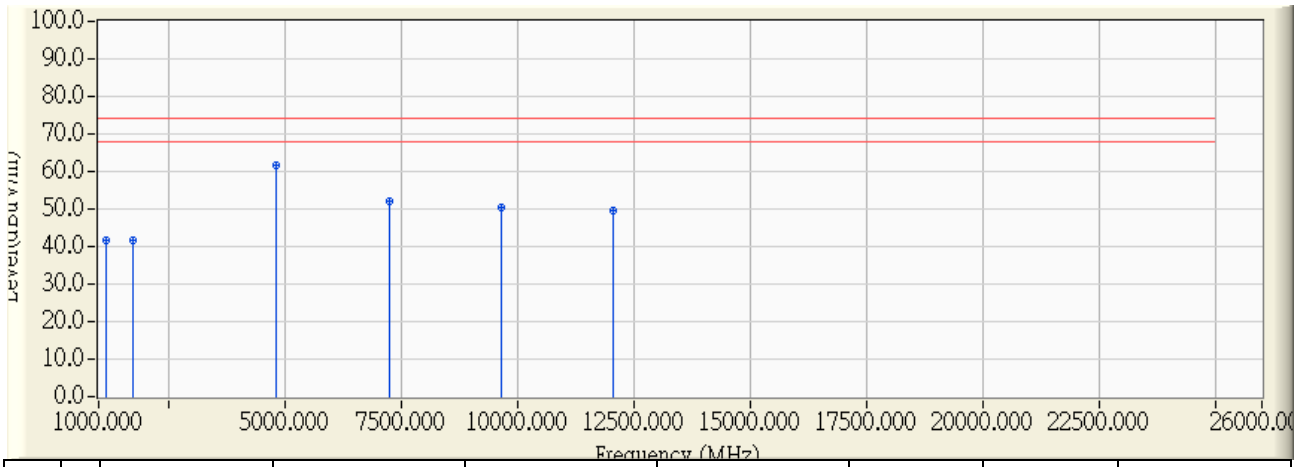


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4923.125	-0.292	49.220	48.928	-5.072	54.000	AVERAGE
2		7385.050	5.841	32.400	38.241	-15.759	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 14:01**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 20MHz_CH01**

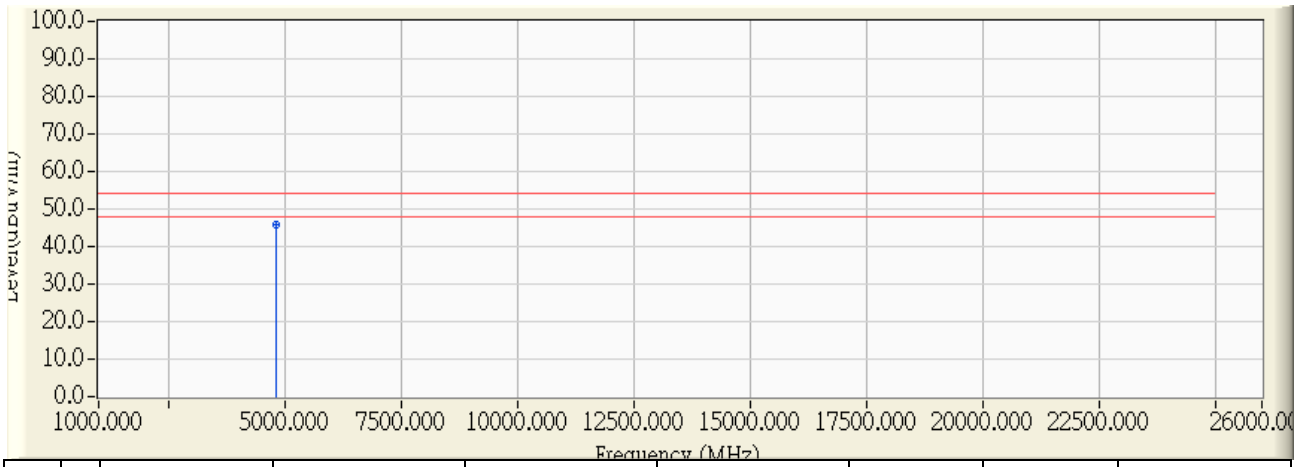


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1162.000	-10.693	52.500	41.806	-32.194	74.000	PEAK
2		1744.000	-8.257	49.890	41.633	-32.367	74.000	PEAK
3	*	4826.125	-0.529	62.200	61.672	-12.328	74.000	PEAK
4		7239.375	5.526	46.590	52.116	-21.884	74.000	PEAK
5		9647.875	9.445	41.050	50.495	-23.505	74.000	PEAK
6		12052.100	11.103	38.320	49.423	-24.577	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. Measurement 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 : 2014/10/02 - 14:01**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 20MHz_CH01**

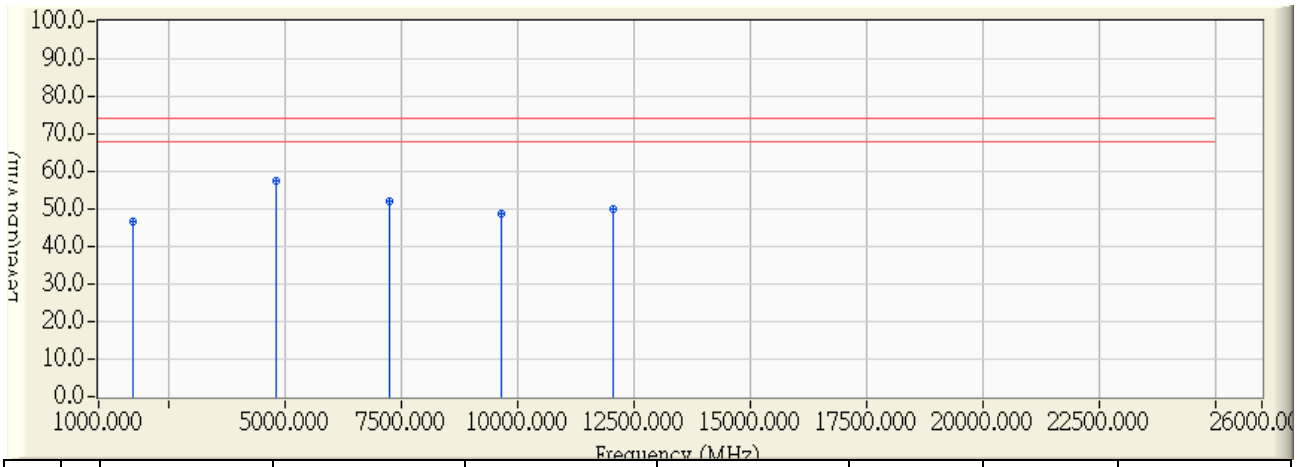


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4823.050	-0.536	46.420	45.884	-8.116	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 14:12**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 20MHz_CH01**

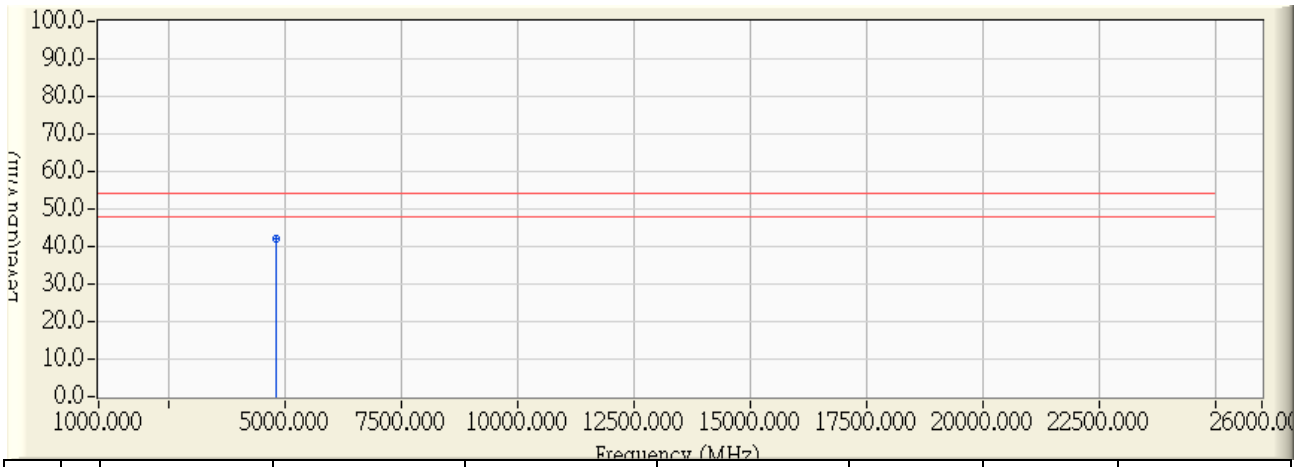


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1744.000	-8.257	55.070	46.813	-27.187	74.000	PEAK
2	*	4829.200	-0.520	58.040	57.520	-16.480	74.000	PEAK
3		7236.825	5.521	46.530	52.051	-21.949	74.000	PEAK
4		9653.675	9.483	39.140	48.623	-25.377	74.000	PEAK
5		12049.150	11.106	38.980	50.085	-23.915	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. Measurement 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 : 2014/10/02 - 14:15**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 20MHz_CH01**

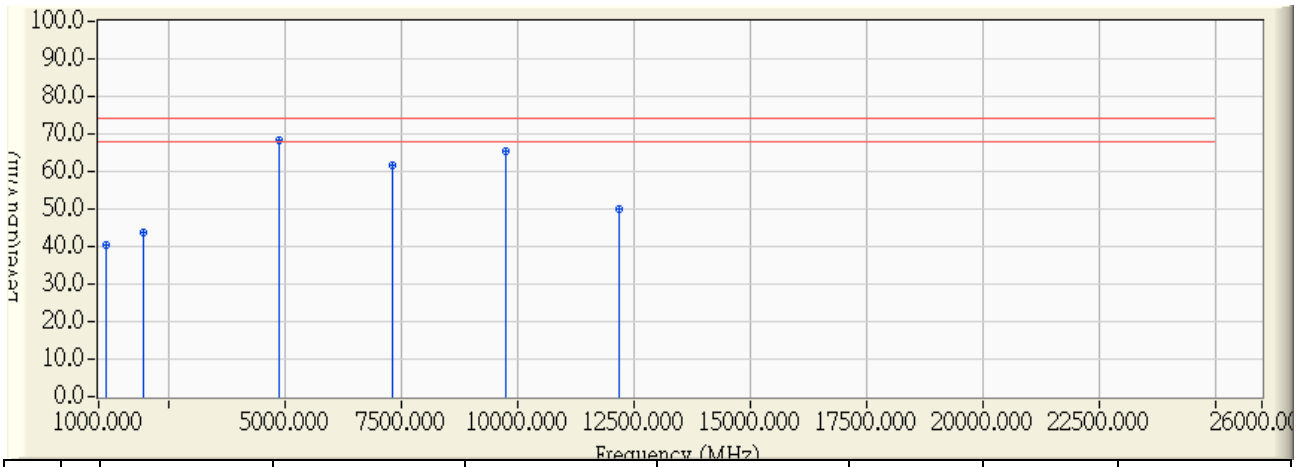


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4825.100	-0.531	42.500	41.969	-12.031	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 14:25**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 20MHz_CH06**

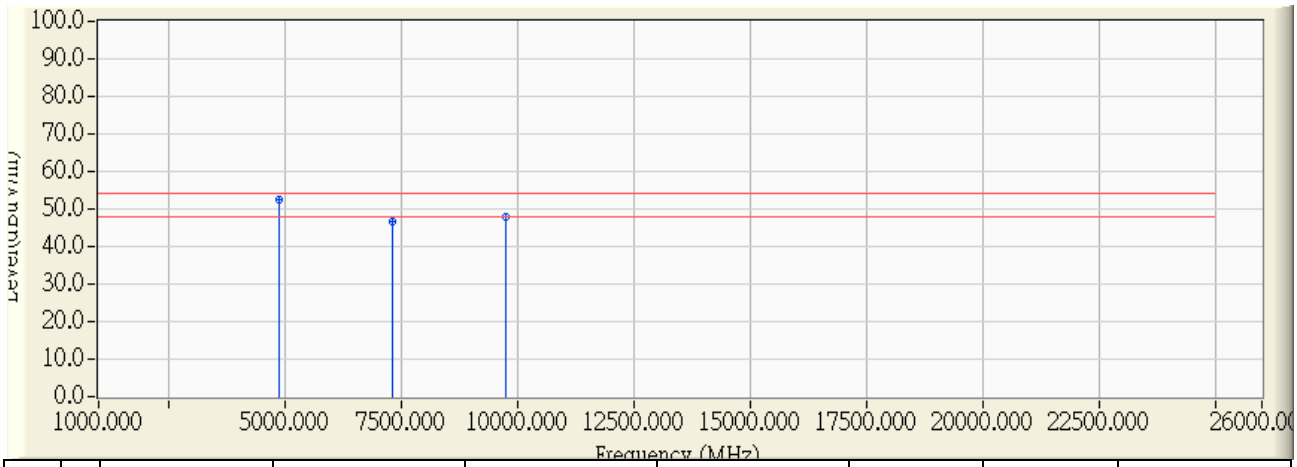


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1162.000	-10.693	51.140	40.446	-33.554	74.000	PEAK
2		1961.500	-7.558	51.410	43.851	-30.149	74.000	PEAK
3	*	4871.250	-0.419	68.600	68.182	-5.818	74.000	PEAK
4		7310.575	5.680	56.030	61.710	-12.290	74.000	PEAK
5		9743.375	10.063	55.380	65.443	-8.557	74.000	PEAK
6		12183.000	11.044	39.000	50.044	-23.956	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. Measurement 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 : 2014/10/02 - 14:25**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 20MHz_CH06**

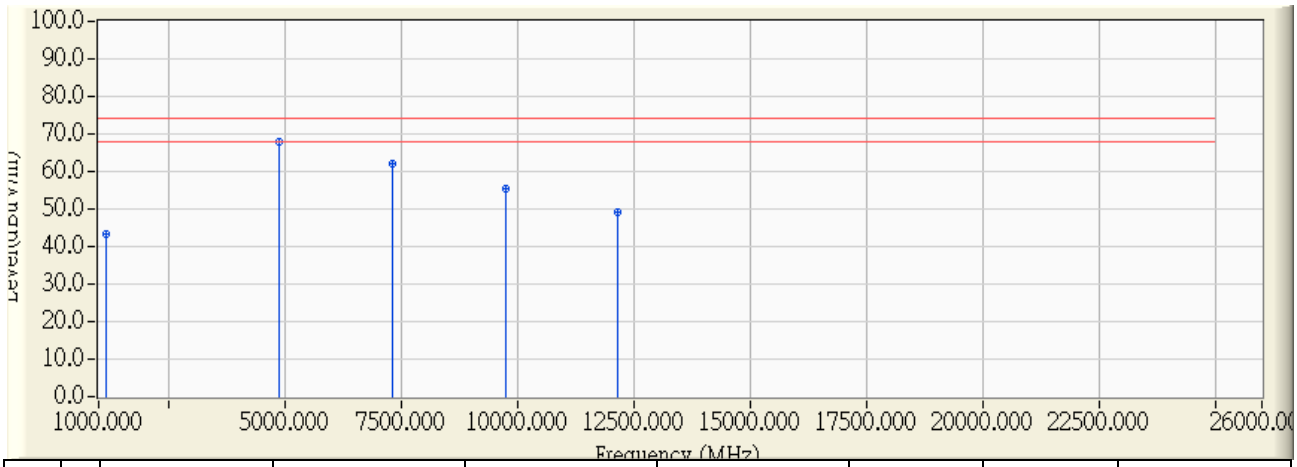


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4873.050	-0.414	53.020	52.606	-1.394	54.000	AVERAGE
2		7308.750	5.676	40.970	46.646	-7.354	54.000	AVERAGE
3		9748.525	10.097	37.630	47.727	-6.273	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 14:37**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 20MHz_CH06**

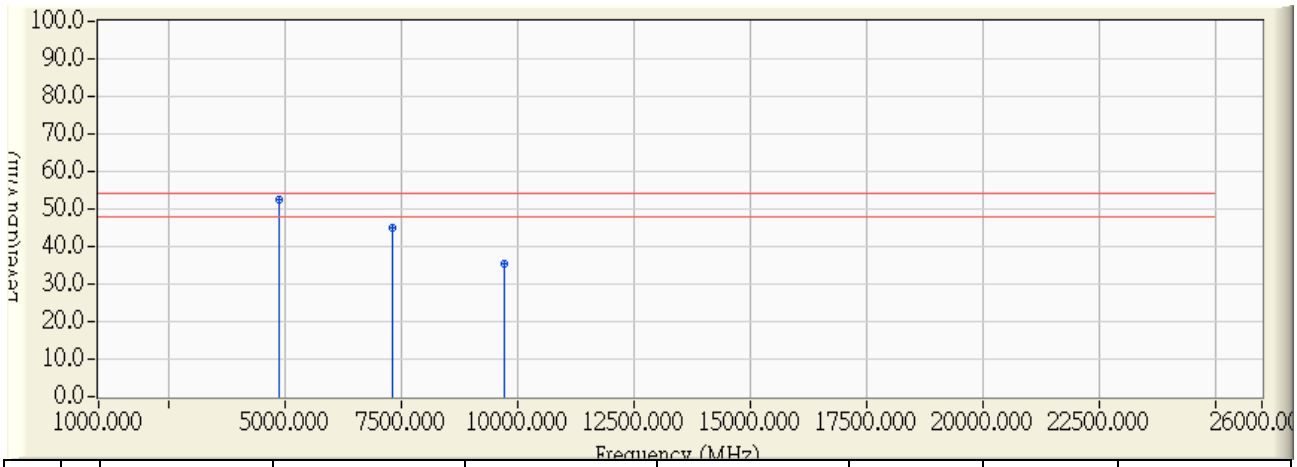


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1162.000	-10.693	53.930	43.236	-30.764	74.000	PEAK
2	*	4872.920	-0.415	68.500	68.086	-5.914	74.000	PEAK
3		7309.769	5.679	56.220	61.898	-12.102	74.000	PEAK
4		9755.462	10.142	45.280	55.422	-18.578	74.000	PEAK
5		12169.850	11.050	38.120	49.170	-24.830	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. Measurement 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 : 2014/10/02 - 14:37**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 20MHz_CH06**

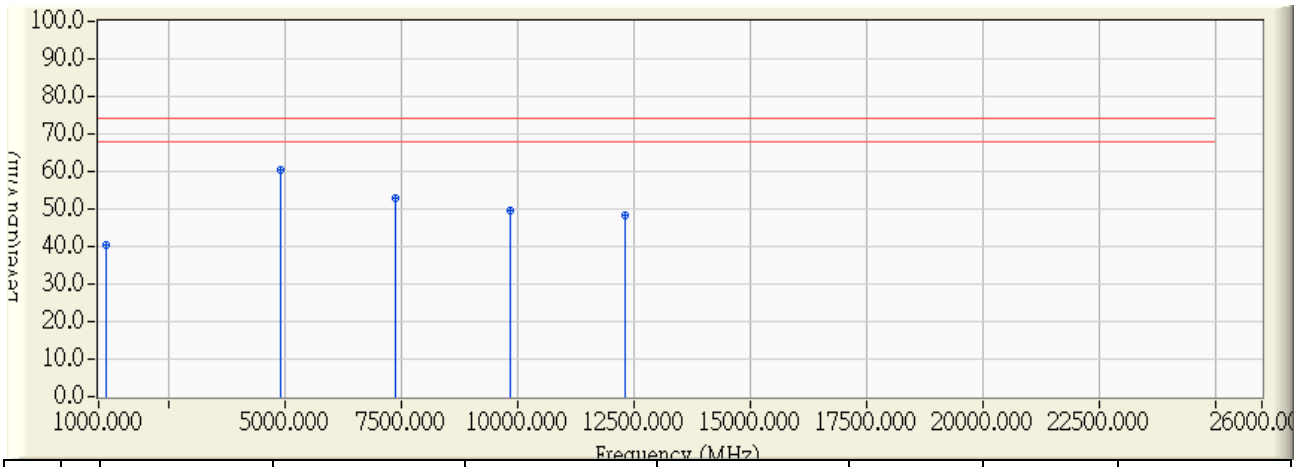


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4872.640	-0.415	52.870	52.455	-1.545	54.000	AVERAGE
2		7306.930	5.673	39.530	45.202	-8.798	54.000	AVERAGE
3		9726.041	9.951	25.450	35.401	-18.599	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 14:44**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 20MHz_CH11**

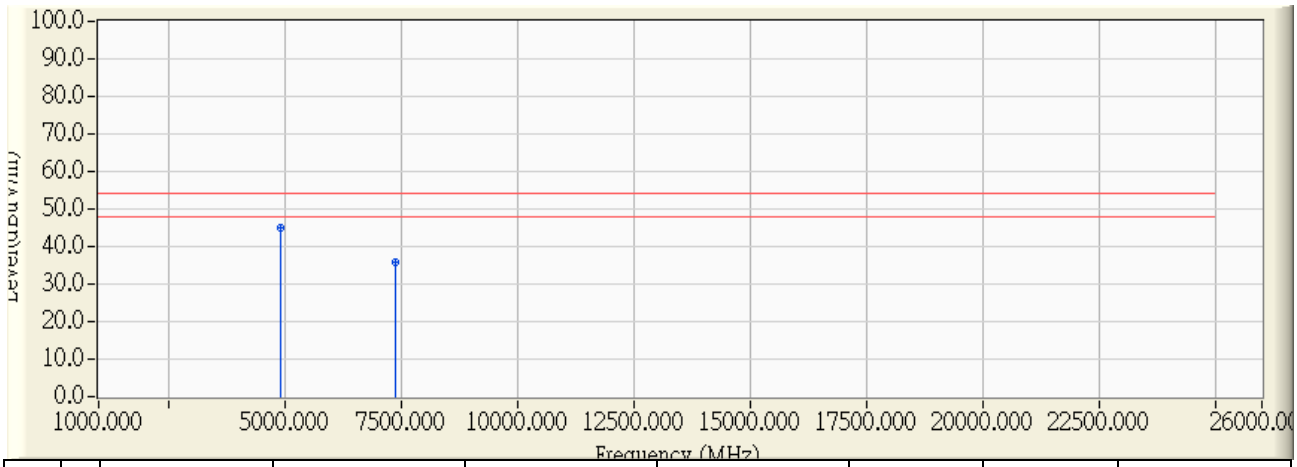


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1163.500	-10.687	51.240	40.554	-33.446	74.000	PEAK
2	*	4923.045	-0.292	60.620	60.328	-13.672	74.000	PEAK
3		7386.854	5.846	47.260	53.105	-20.895	74.000	PEAK
4		9847.950	10.741	38.870	49.611	-24.389	74.000	PEAK
5		12323.041	10.980	37.450	48.430	-25.570	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. Measurement 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 : 2014/10/02 - 14:45**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 20MHz_CH11**

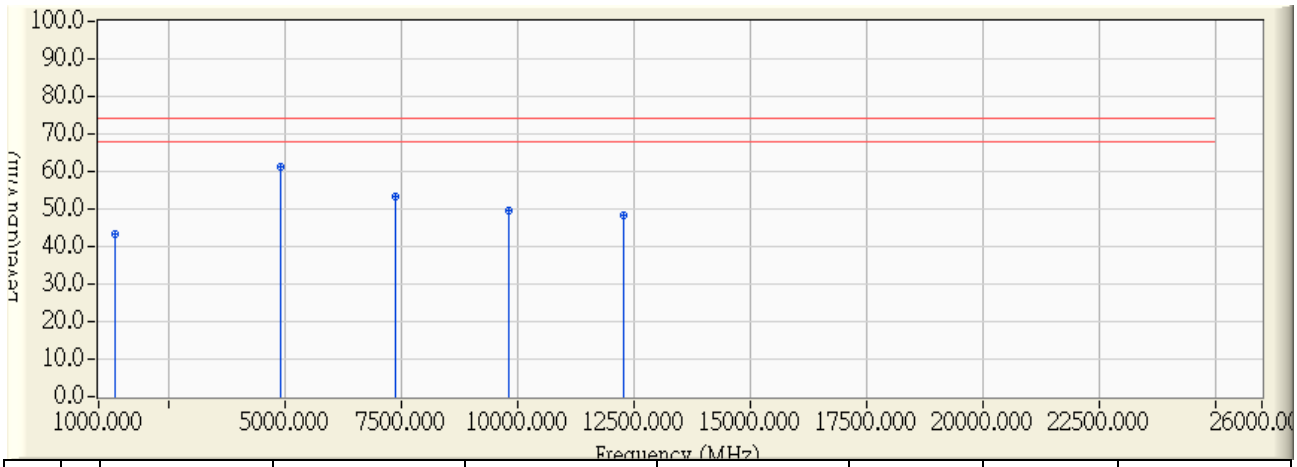


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4922.920	-0.293	45.149	44.857	-9.143	54.000	AVERAGE
2		7385.171	5.841	29.840	35.682	-18.318	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 14:50**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 20MHz_CH11**

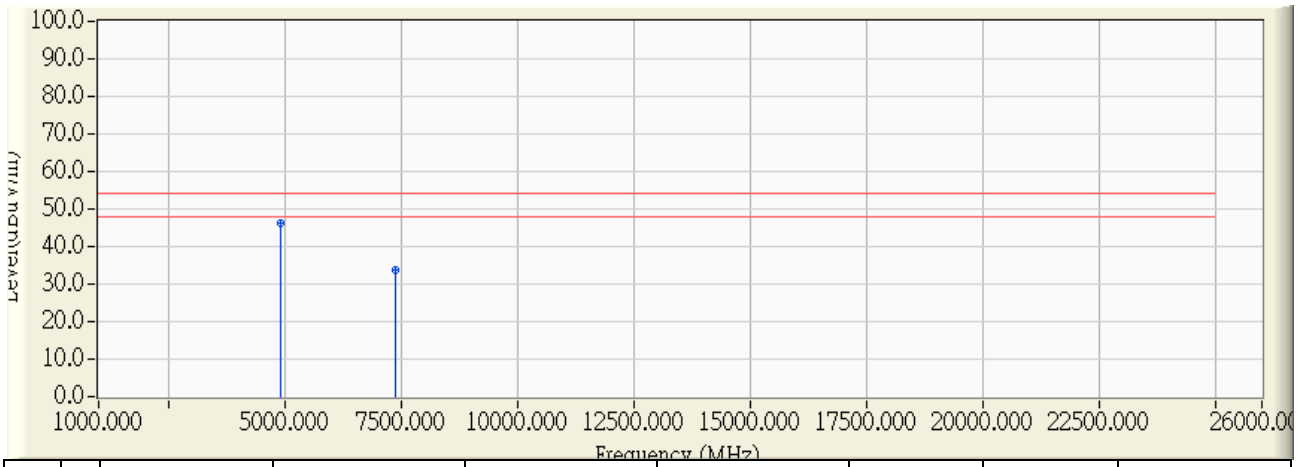


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1357.000	-9.695	53.170	43.475	-30.525	74.000	PEAK
2	*	4923.275	-0.292	61.550	61.258	-12.742	74.000	PEAK
3		7392.975	5.859	47.460	53.318	-20.682	74.000	PEAK
4		9823.750	10.584	39.180	49.764	-24.236	74.000	PEAK
5		12295.125	10.992	37.360	48.353	-25.647	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. Measurement 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 : 2014/10/02 - 14:50**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 20MHz_CH11**

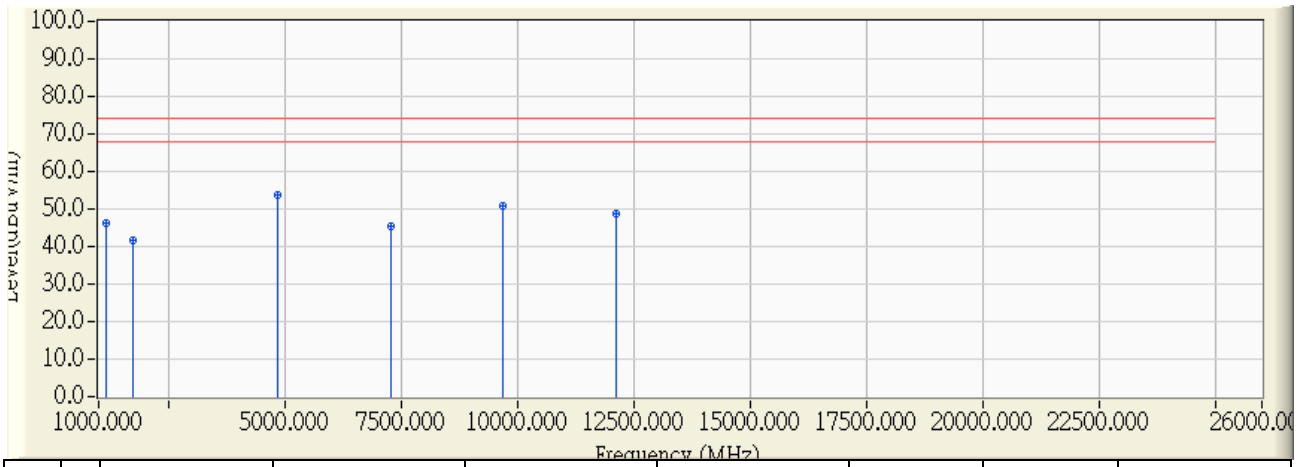


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4925.000	-0.287	46.420	46.133	-7.867	54.000	AVERAGE
2		7386.250	5.843	27.710	33.554	-20.446	54.000	AVERAGE

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. Measurement 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 : 2014/10/03 - 17:04**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40MHz_CH03**

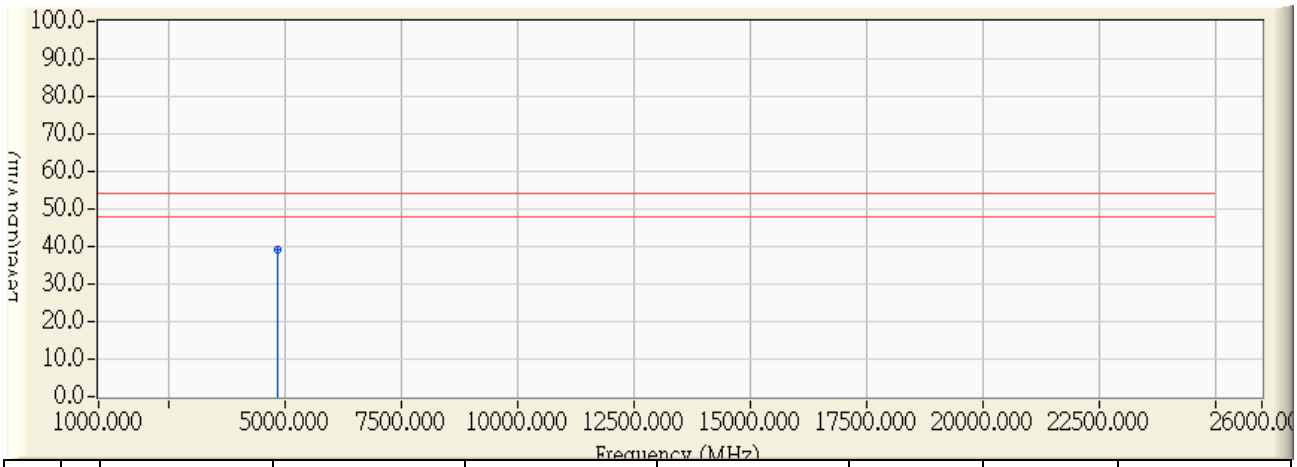


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1162.000	-10.693	56.870	46.176	-27.824	74.000	PEAK
2		1744.000	-8.257	49.790	41.533	-32.467	74.000	PEAK
3	*	4849.800	-0.470	54.360	53.889	-20.111	74.000	PEAK
4		7274.700	5.602	39.910	45.512	-28.488	74.000	PEAK
5		9687.950	9.705	40.940	50.645	-23.355	74.000	PEAK
6		12110.085	11.076	37.630	48.707	-25.293	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. Measurement 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 : 2014/10/03 - 17:05**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40MHz_CH03**

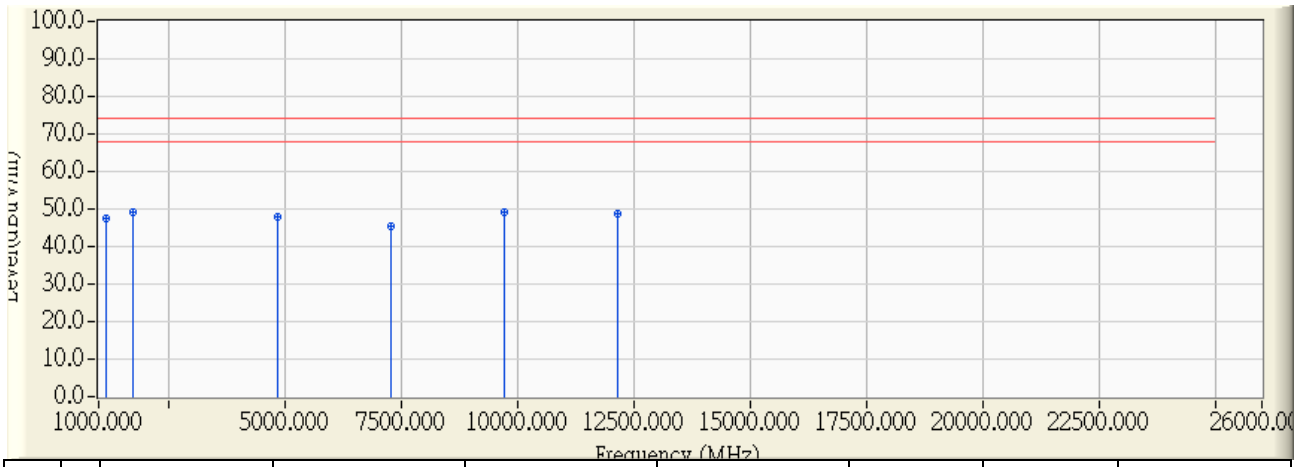


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4843.400	-0.487	39.450	38.964	-15.036	54.000	AVERAGE

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. Measurement 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 : 2014/10/03 - 17:17**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40MHz_CH03**

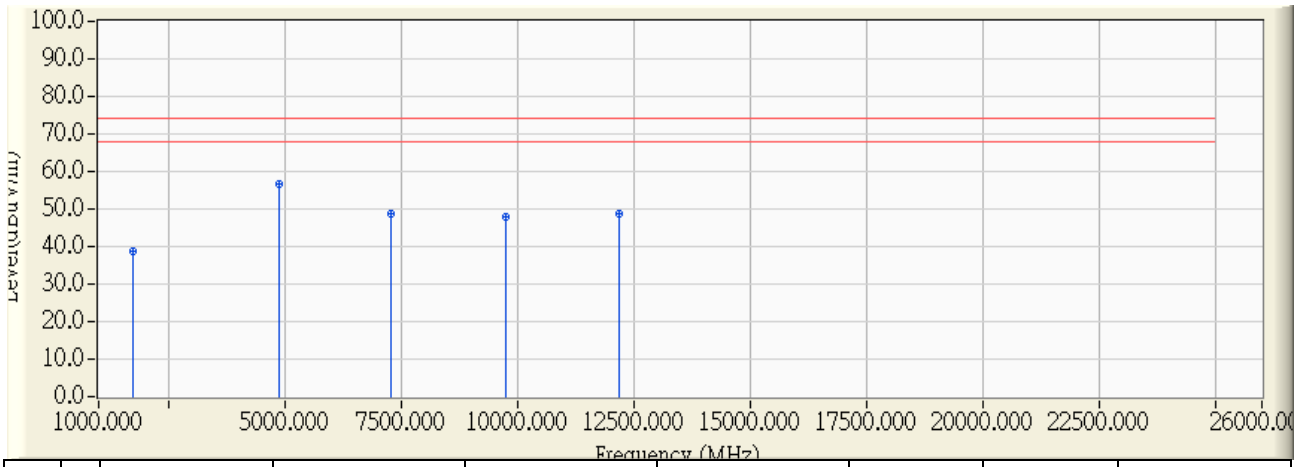


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1163.500	-10.687	58.060	47.374	-26.626	74.000	PEAK
2		1744.000	-8.257	57.530	49.273	-24.727	74.000	PEAK
3		4833.900	-0.509	48.480	47.971	-26.029	74.000	PEAK
4		7277.100	5.608	39.840	45.448	-28.552	74.000	PEAK
5	*	9707.750	9.834	39.460	49.293	-24.707	74.000	PEAK
6		12137.850	11.064	37.780	48.844	-25.156	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. Measurement 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 : 2014/10/02 - 14:56**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40MHz_CH06**

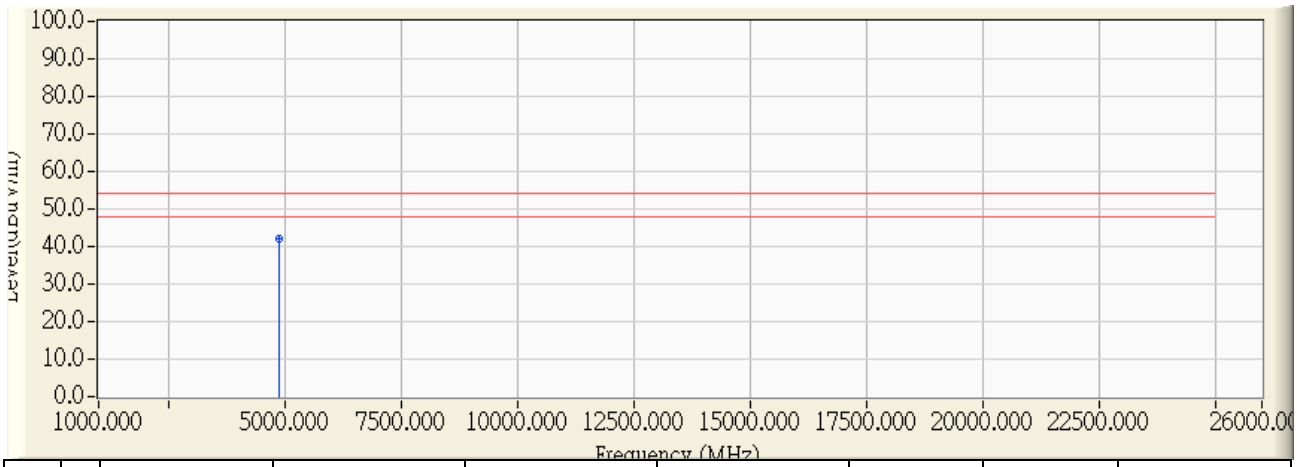


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1744.000	-8.257	47.040	38.783	-35.217	74.000	PEAK
2	*	4874.300	-0.411	57.000	56.589	-17.411	74.000	PEAK
3		7289.950	5.635	43.240	48.875	-25.125	74.000	PEAK
4		9752.900	10.125	37.880	48.005	-25.995	74.000	PEAK
5		12186.700	11.042	37.660	48.702	-25.298	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. Measurement 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 : 2014/10/02 - 14:57**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40MHz_CH06**

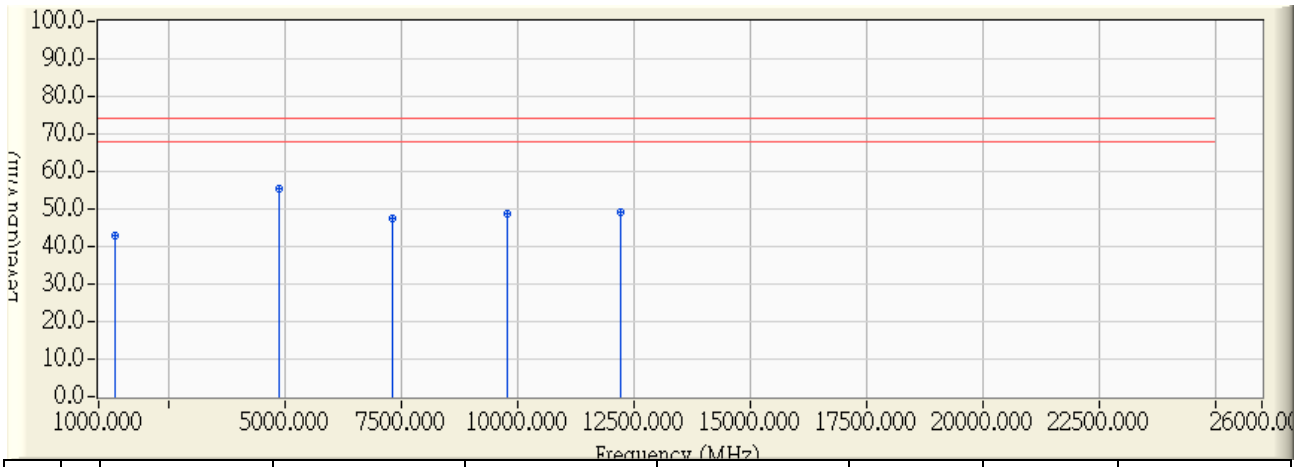


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4873.100	-0.414	42.360	41.946	-12.054	54.000	AVERAGE

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. Measurement 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 : 2014/10/02 - 14:59**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40MHz_CH06**

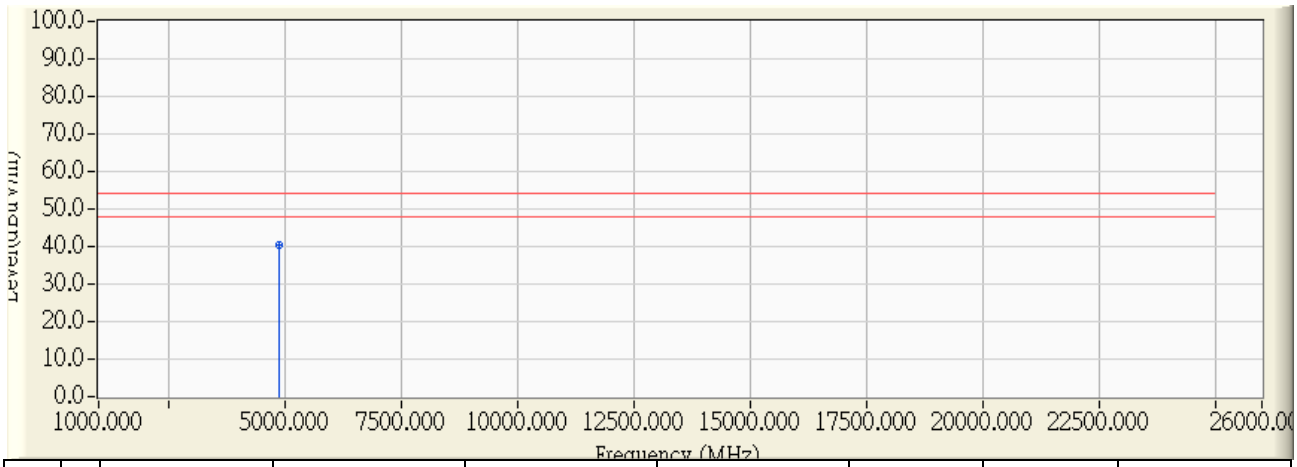


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1355.500	-9.703	52.500	42.797	-31.203	74.000	PEAK
2	*	4878.500	-0.401	55.900	55.499	-18.501	74.000	PEAK
3		7304.200	5.666	41.870	47.536	-26.464	74.000	PEAK
4		9766.550	10.213	38.650	48.864	-25.136	74.000	PEAK
5		12230.300	11.022	38.080	49.102	-24.898	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. Measurement 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 : 2014/10/02 - 15:00**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40MHz_CH06**

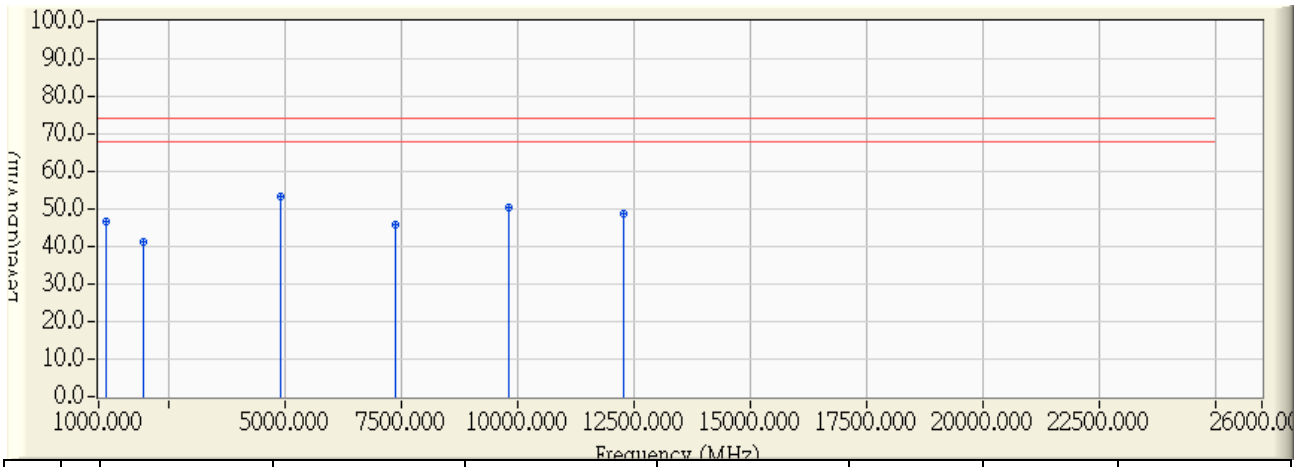


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4873.950	-0.412	40.630	40.218	-13.782	54.000	AVERAGE

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. Measurement 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 : 2014/10/03 - 17:20**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40MHz_CH09**

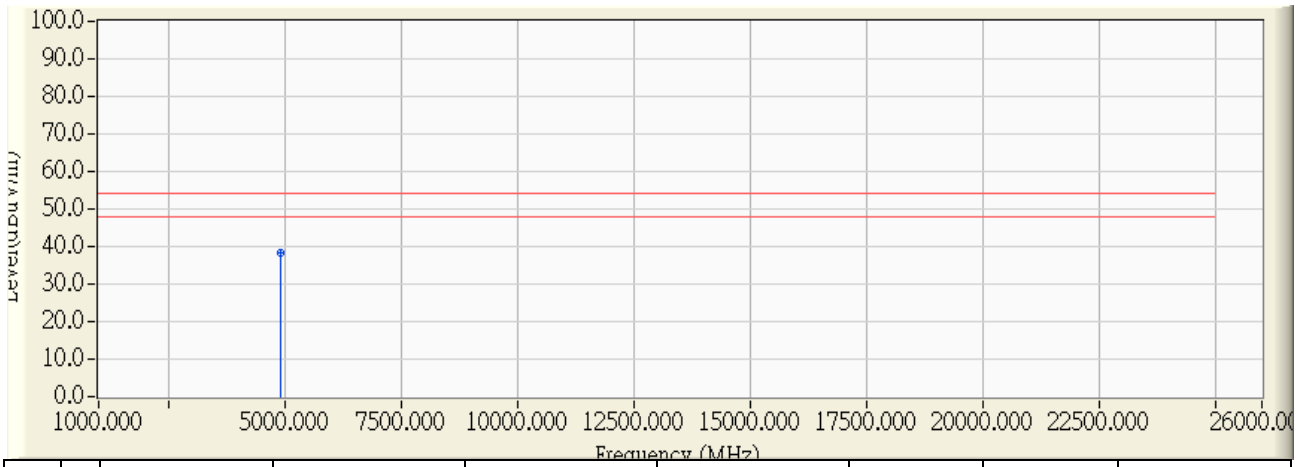


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1163.000	-10.688	57.330	46.641	-27.359	74.000	PEAK
2		1963.000	-7.552	48.850	41.298	-32.702	74.000	PEAK
3	*	4902.000	-0.343	53.710	53.367	-20.633	74.000	PEAK
4		7365.500	5.799	40.000	45.799	-28.201	74.000	PEAK
5		9807.750	10.480	39.830	50.310	-23.690	74.000	PEAK
6		12287.350	10.996	37.720	48.716	-25.284	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. Measurement 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 : 2014/10/03 - 17:22**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40MHz_CH09**

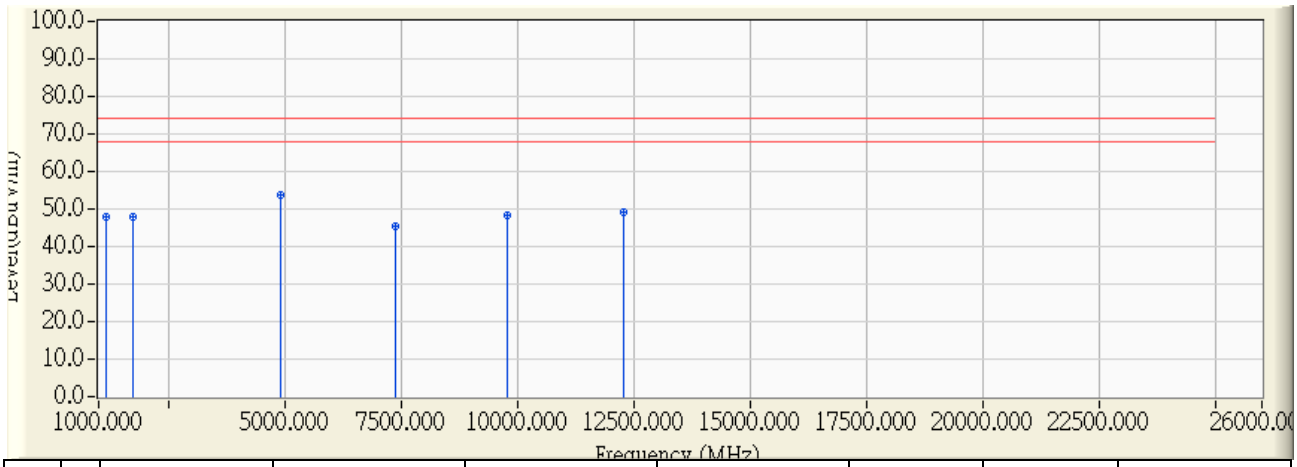


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4903.150	-0.341	38.690	38.349	-15.651	54.000	AVERAGE

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. Measurement 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 : 2014/10/03 - 17:30**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40MHz_CH09**

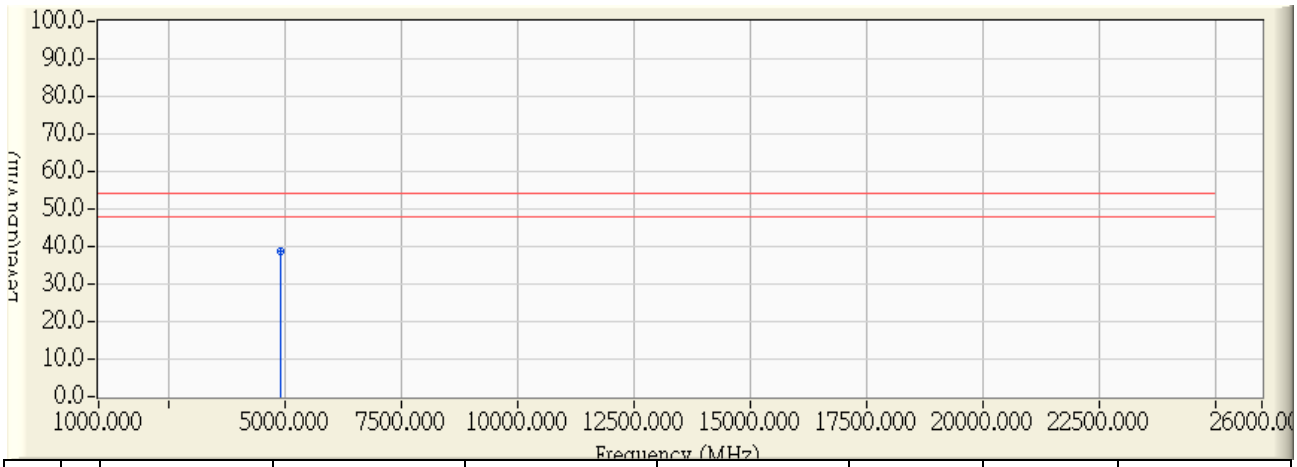


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1162.000	-10.693	58.590	47.896	-26.104	74.000	PEAK
2		1744.000	-8.257	56.280	48.023	-25.977	74.000	PEAK
3	*	4902.850	-0.342	53.930	53.589	-20.411	74.000	PEAK
4		7376.300	5.823	39.730	45.552	-28.448	74.000	PEAK
5		9775.850	10.274	38.060	48.334	-25.666	74.000	PEAK
6		12279.100	11.000	38.070	49.070	-24.930	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. Measurement 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 : 2014/10/03 - 17:31**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Powerline AV 500 Wireless N Mini Extender	**Note : 802.11n 40MHz_CH09**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4903.750	-0.339	38.930	38.591	-15.409	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. Measurement 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.

5. RF antenna conducted test

5.1. Test Equipment

The following test equipments are used during the test:

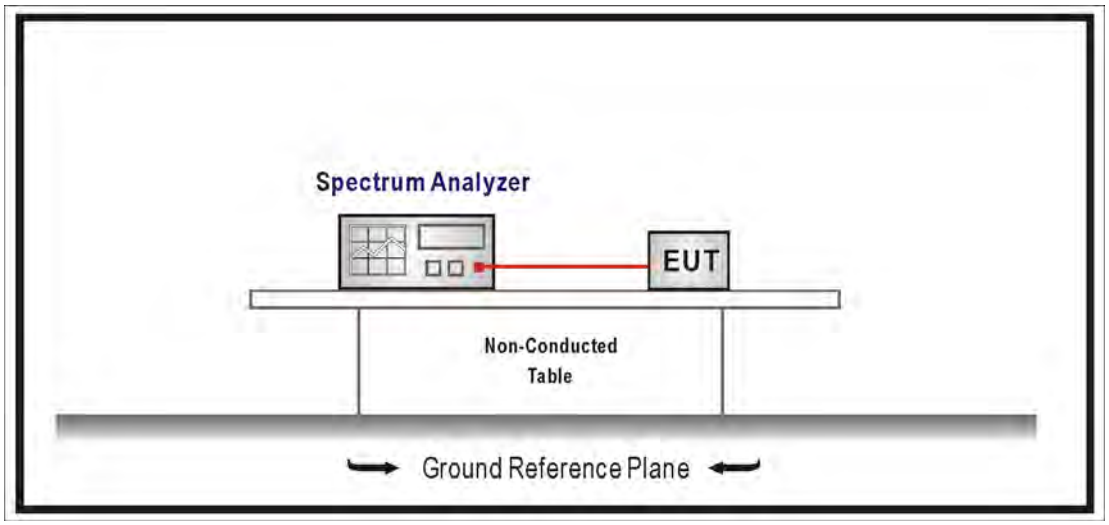
RF antenna conducted test / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2015/07/14

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

5.2. Test Setup

RF Antenna Conducted Measurement:



5.3. 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)).

5.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure section 11.2 of KDB558074 v03r02 for compliance to FCC 47CFR 15.247 requirements. Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

5.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2013

5.6. Uncertainty

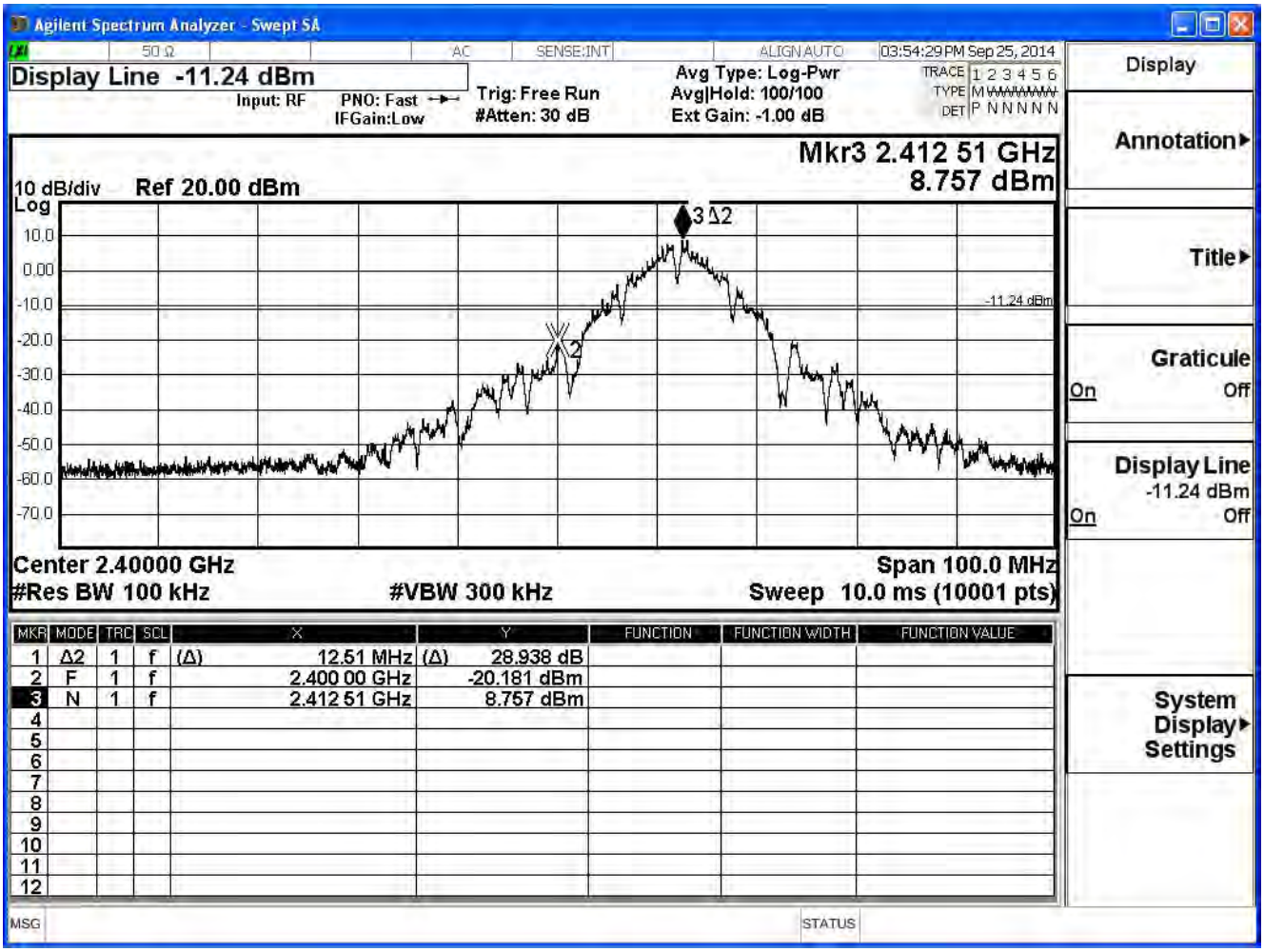
Conducted is defined as ± 1.27dB

5.7. Test Result

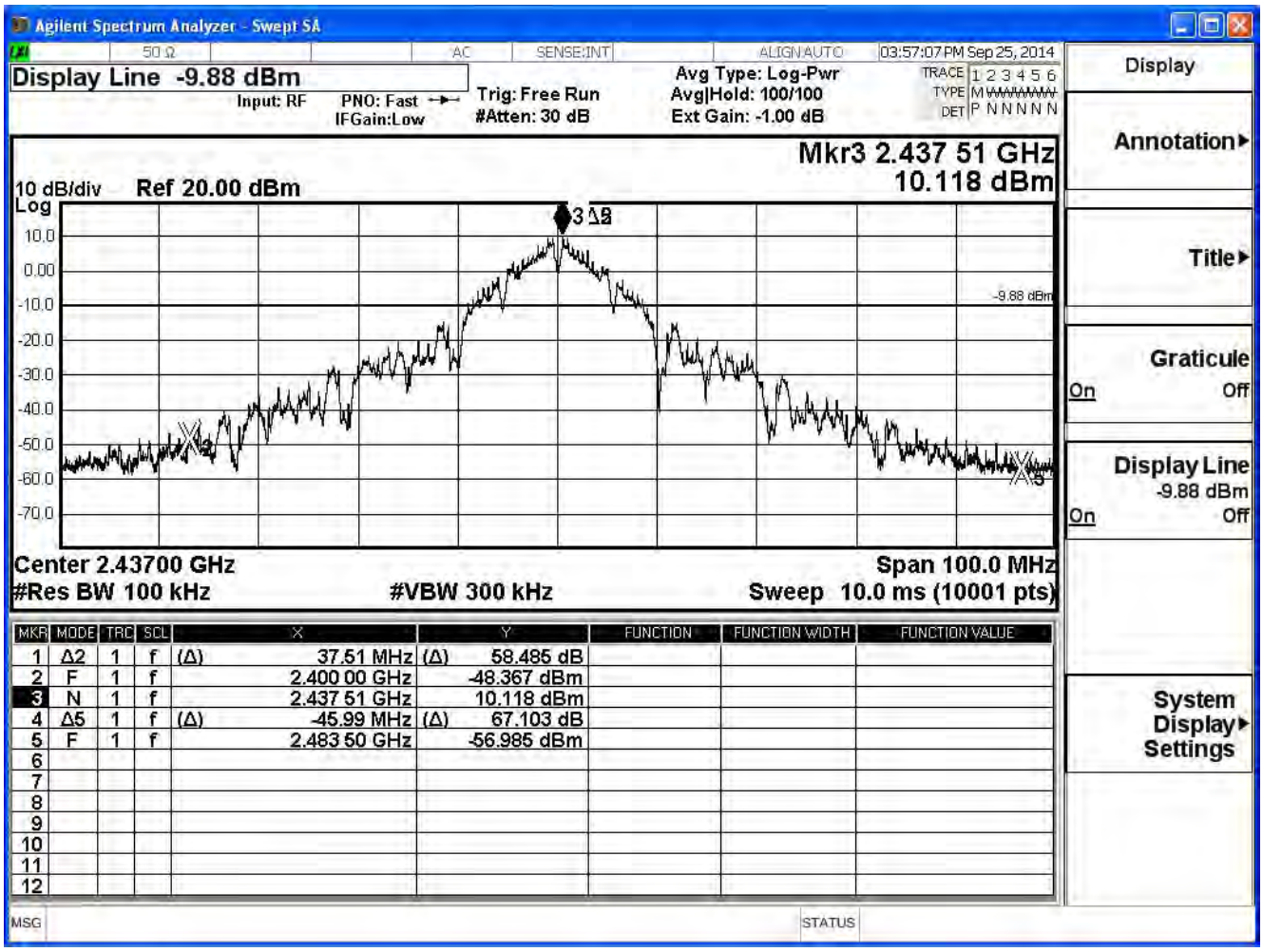
Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/05	Test Site	SR7

IEEE 802.11b, ANT 0				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	28.938	≧20	Pass
6	2437	58.485	≧20	Pass
11	2462	64.320	≧20	Pass

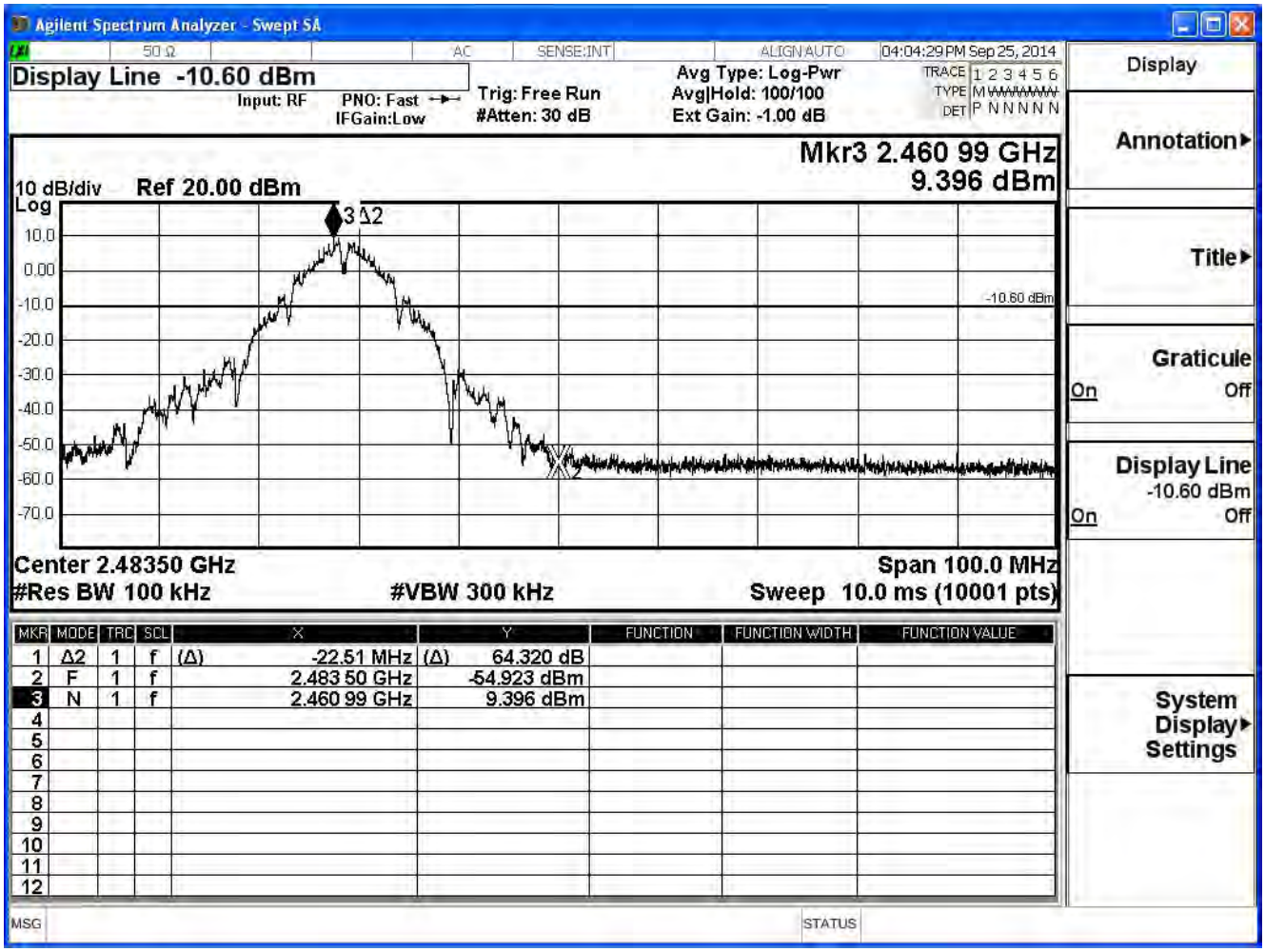
Channel 1 (2412MHz)



Channel 6 (2437MHz)



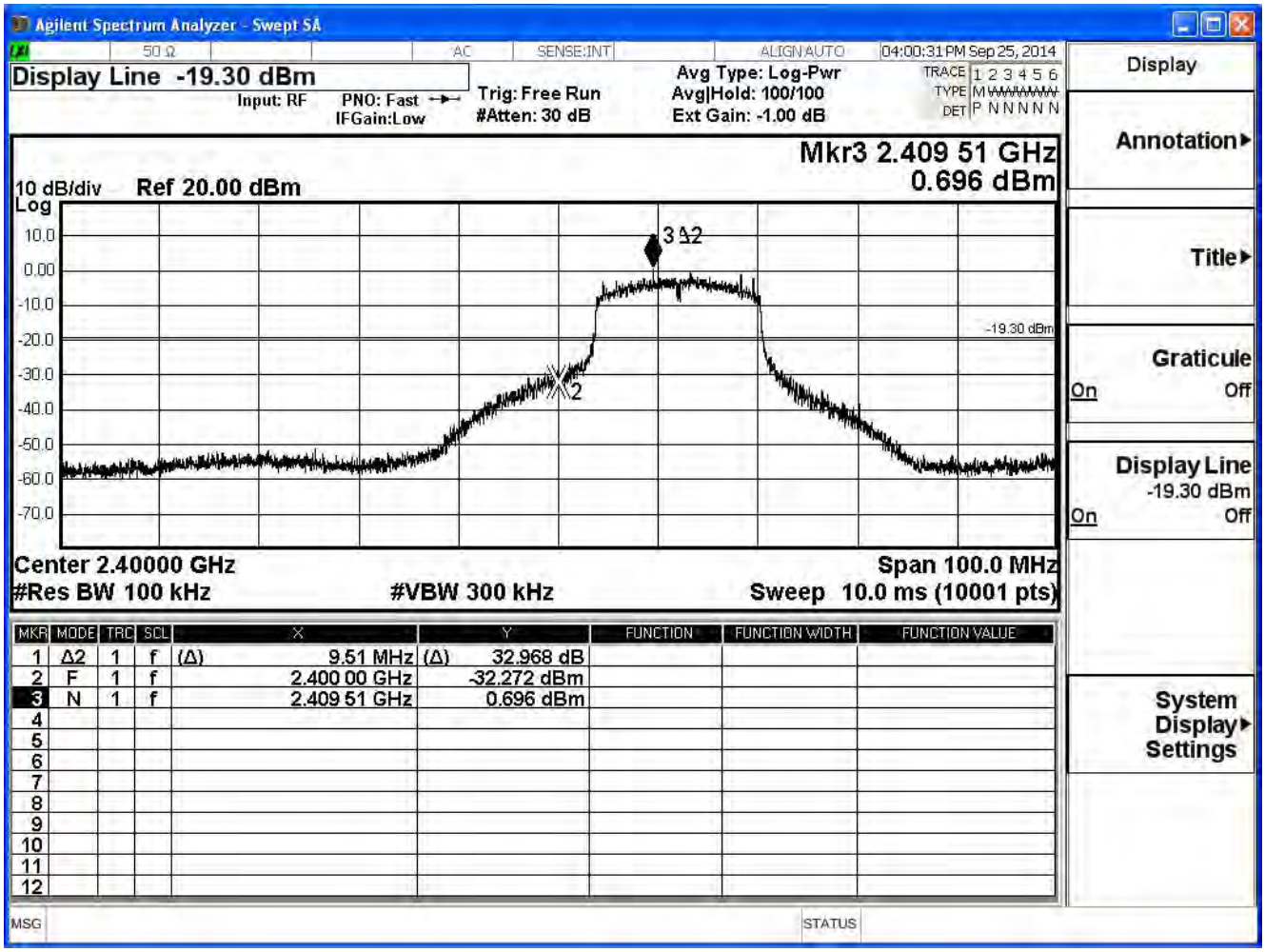
Channel 11 (2462MHz)



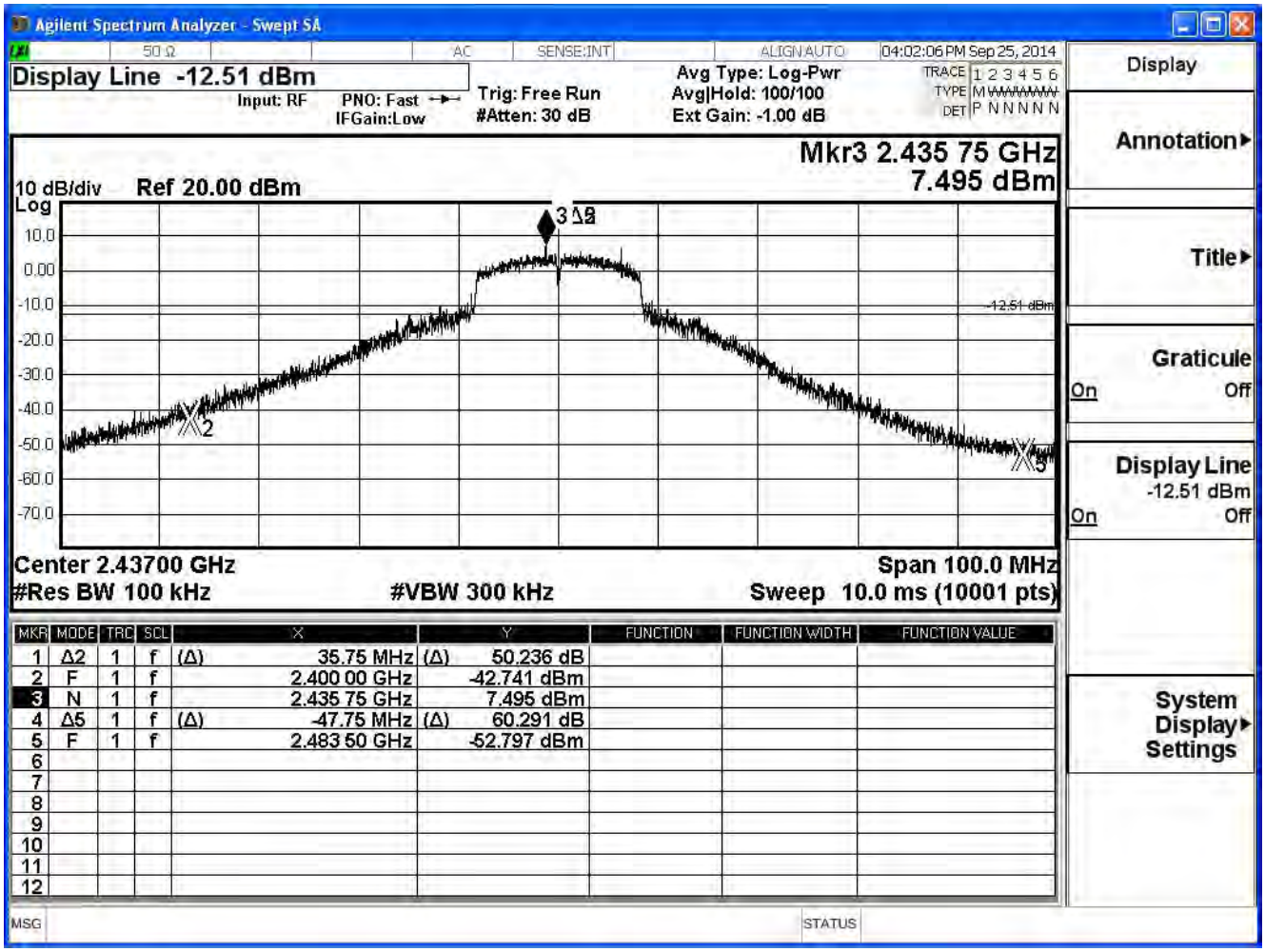
Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/05	Test Site	SR7

IEEE 802.11g, ANT 0				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	32.968	≧20	Pass
6	2437	50.236	≧20	Pass
11	2462	48.592	≧20	Pass

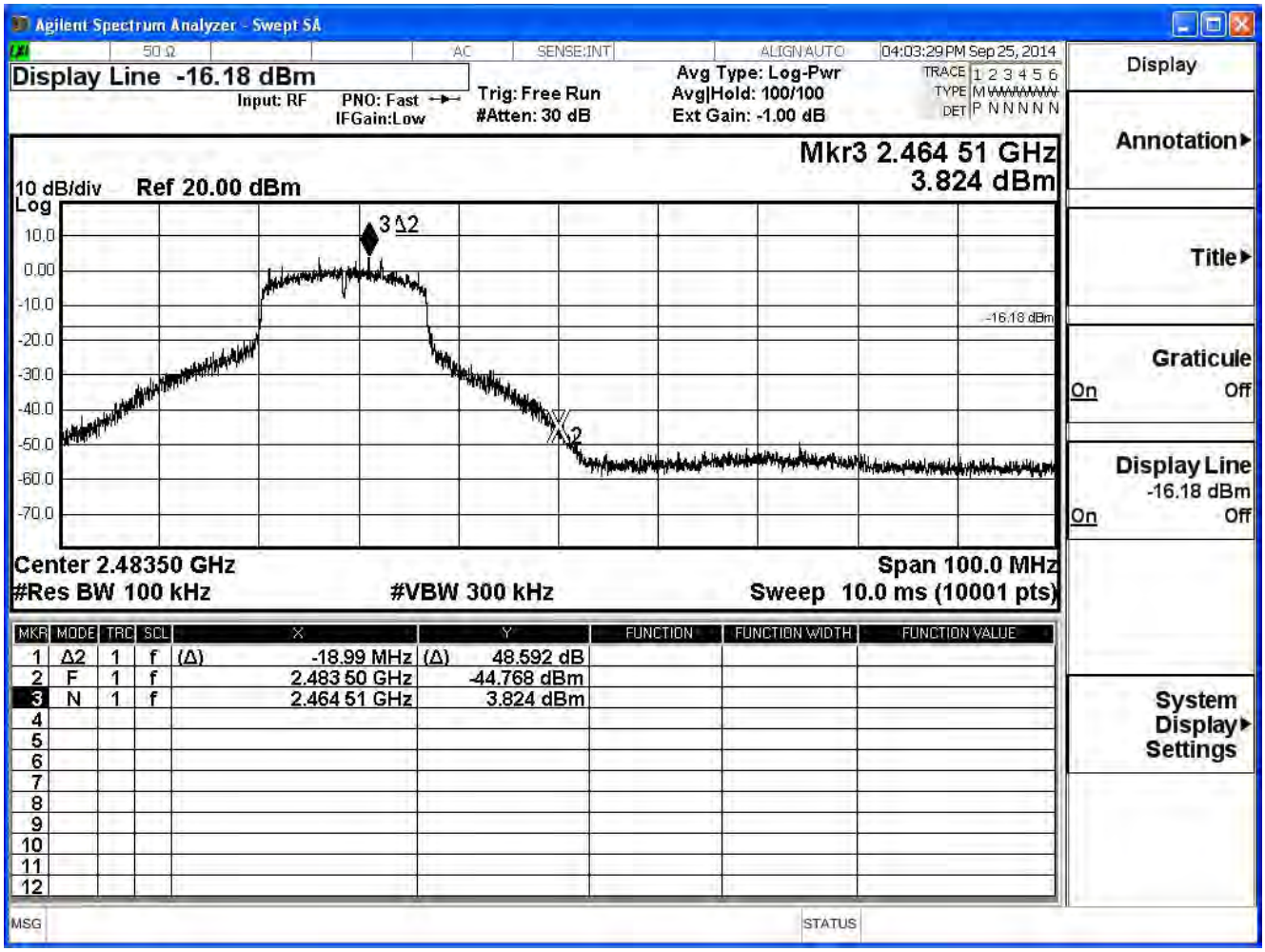
Channel 1 (2412MHz)



Channel 6 (2437MHz)



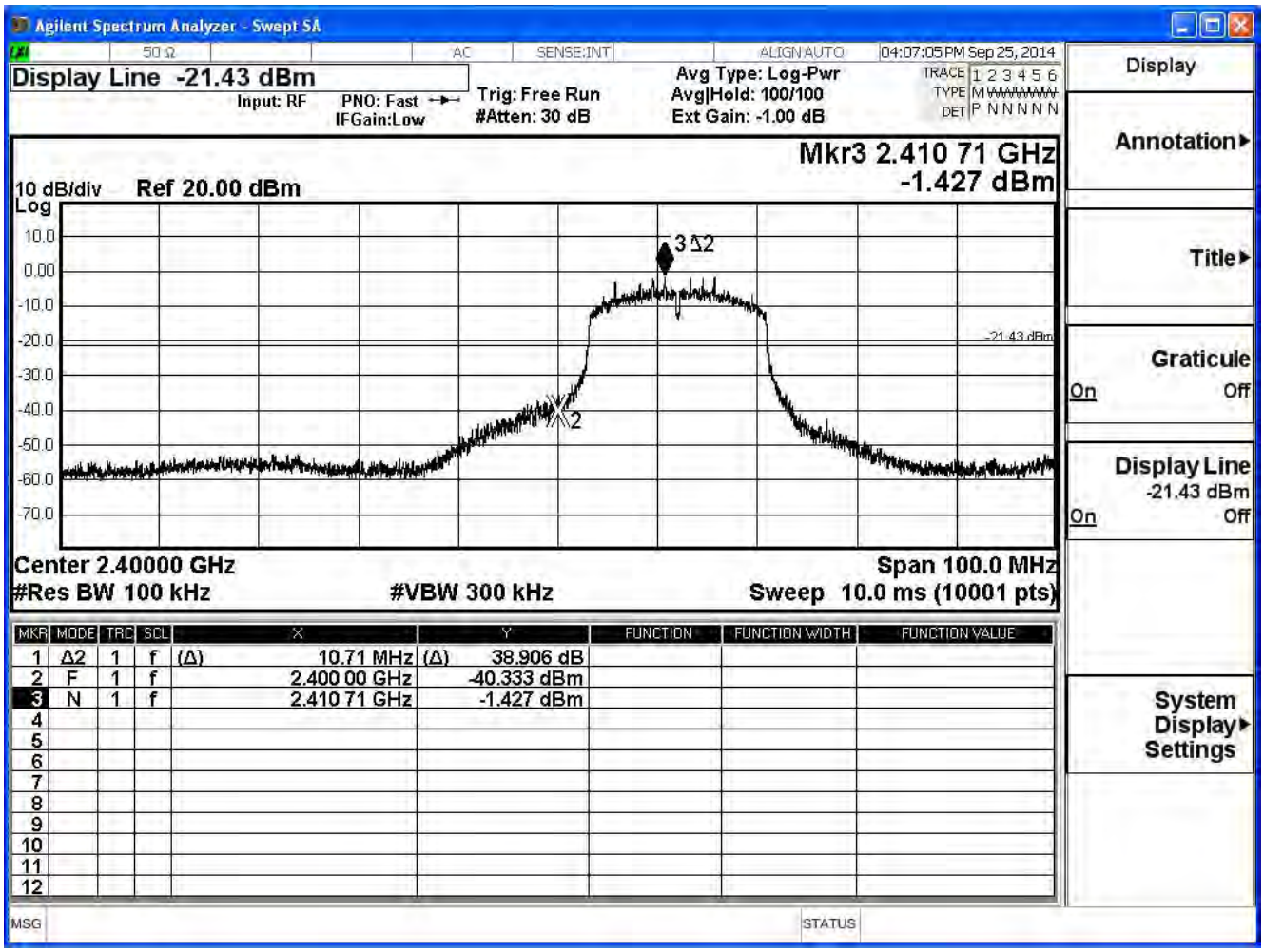
Channel 11 (2462MHz)



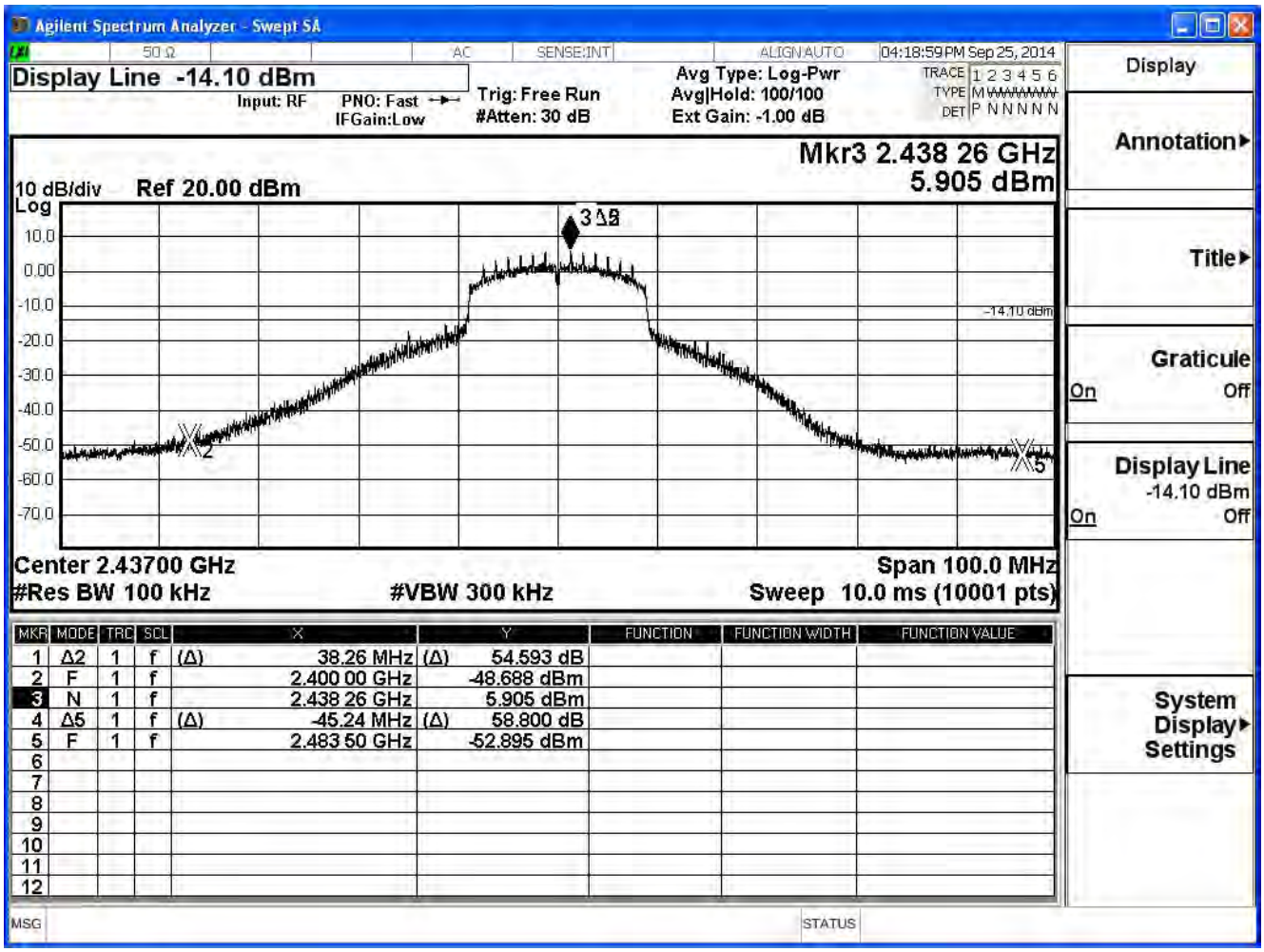
Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/05	Test Site	SR7

IEEE 802.11n (20MHz), ANT 0				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	38.906	≧20	Pass
6	2437	54.593	≧20	Pass
11	2462	50.307	≧20	Pass

Channel 1 (2412MHz)

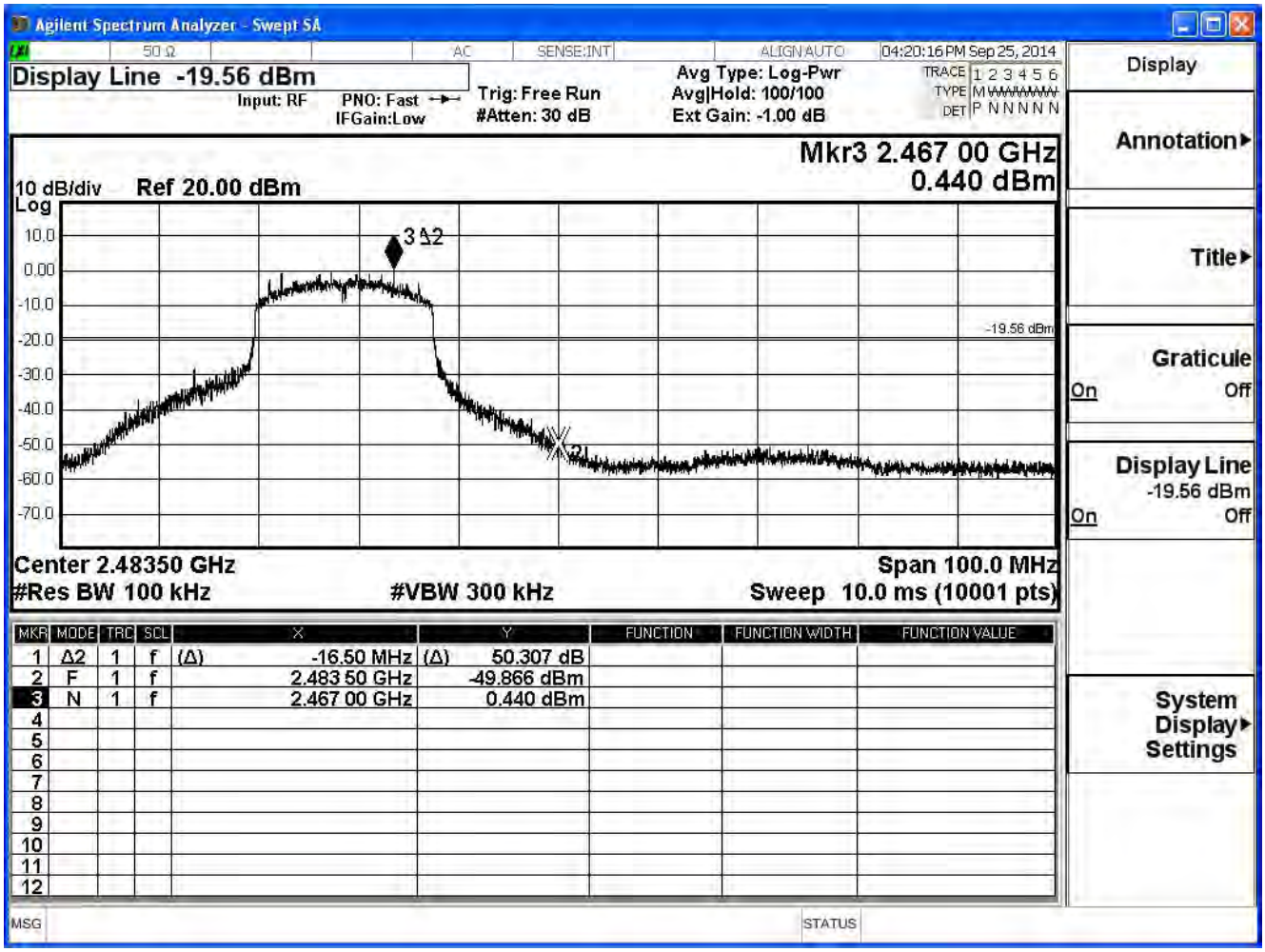


Channel 6 (2437MHz)



MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	Δ2	1	f	(Δ) 38.26 MHz	(Δ) 54.593 dB			
2	F	1	f	2.400 00 GHz	-48.688 dBm			
3	N	1	f	2.438 26 GHz	5.905 dBm			
4	Δ5	1	f	(Δ) -45.24 MHz	(Δ) 58.800 dB			
5	F	1	f	2.483 50 GHz	-52.895 dBm			
6								
7								
8								
9								
10								
11								
12								

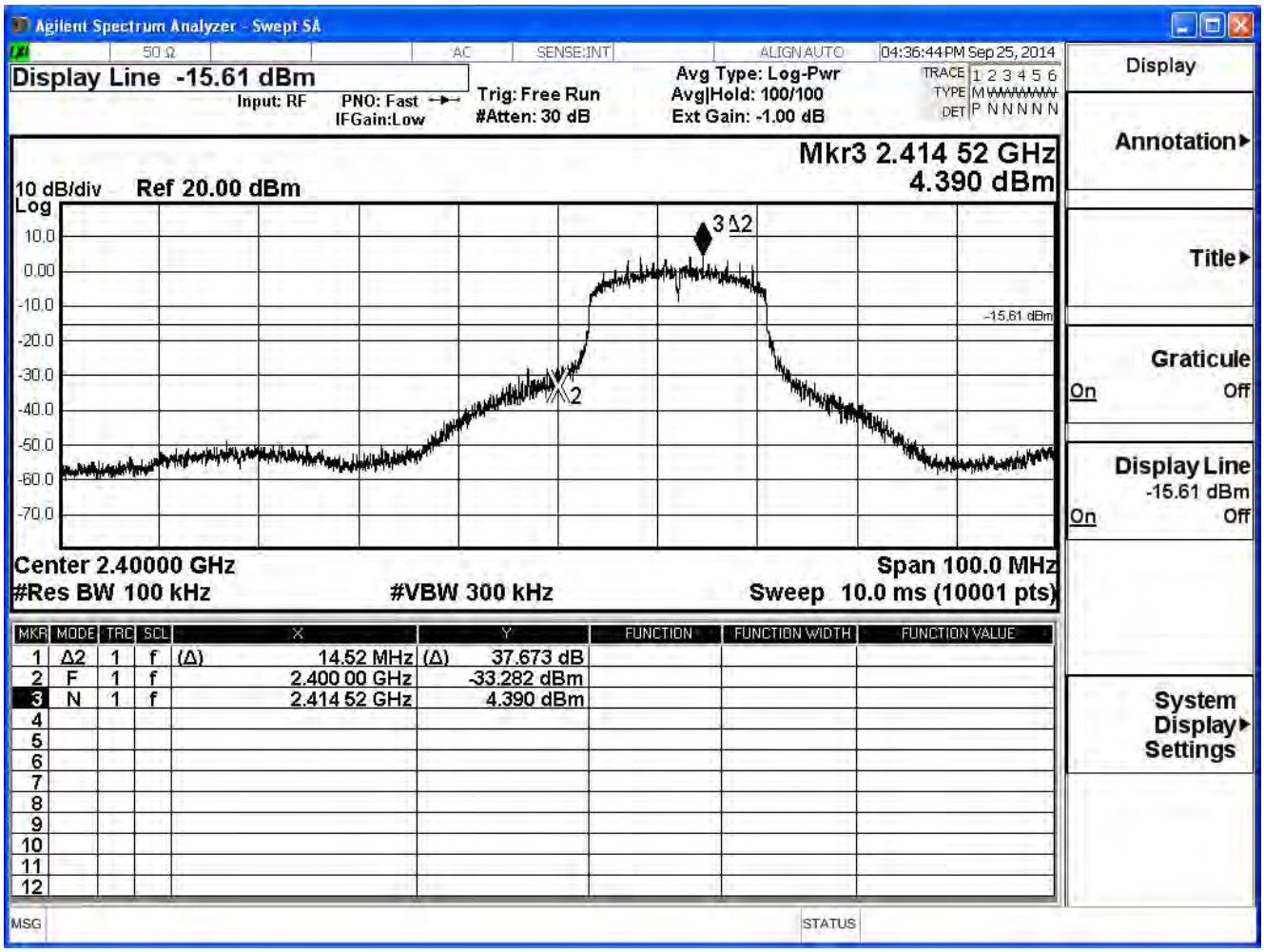
Channel 11 (2462MHz)



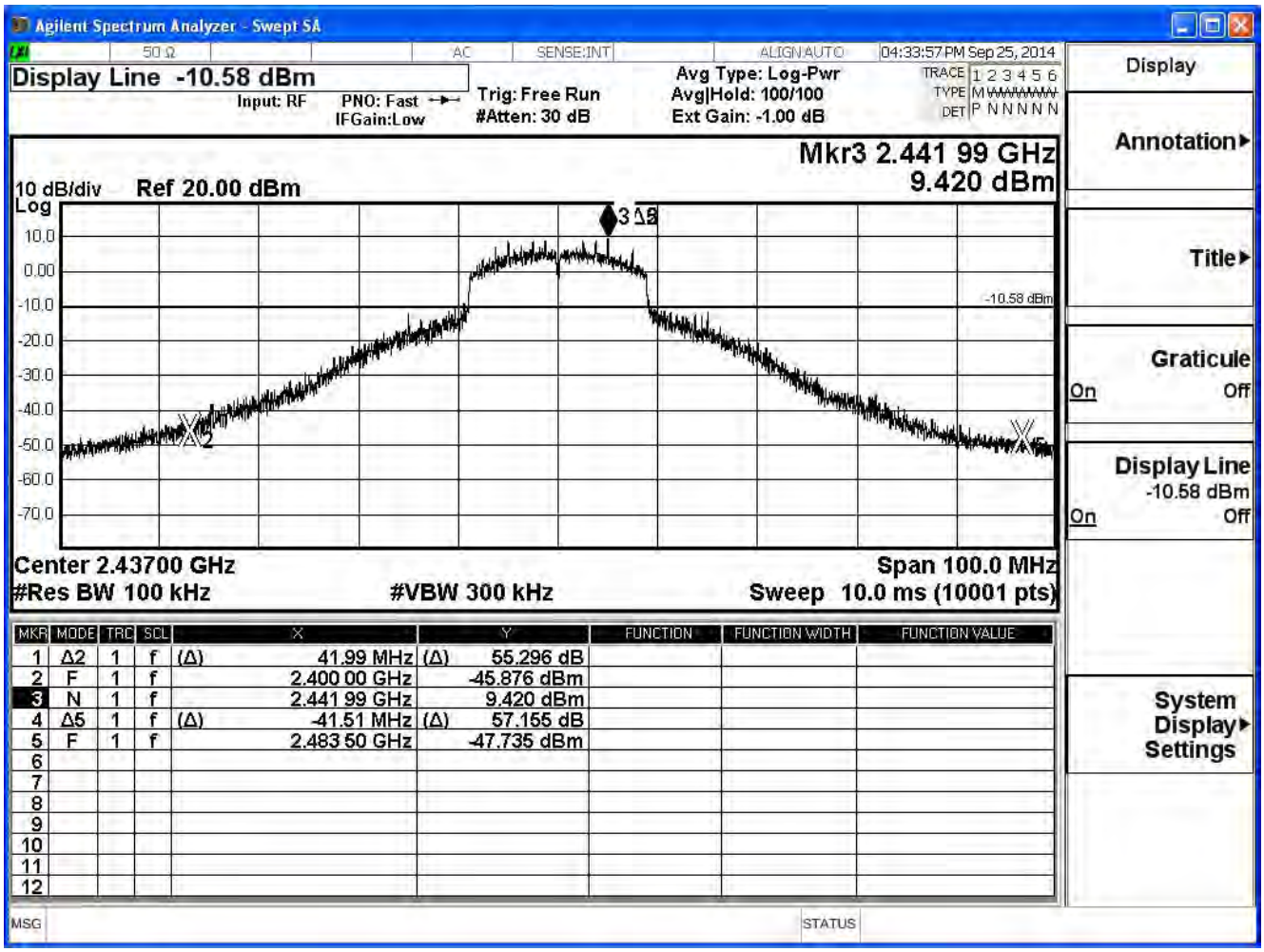
Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/05	Test Site	SR7

IEEE 802.11n (20MHz), ANT 1				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	37.673	≧20	Pass
6	2437	55.296	≧20	Pass
11	2462	45.695	≧20	Pass

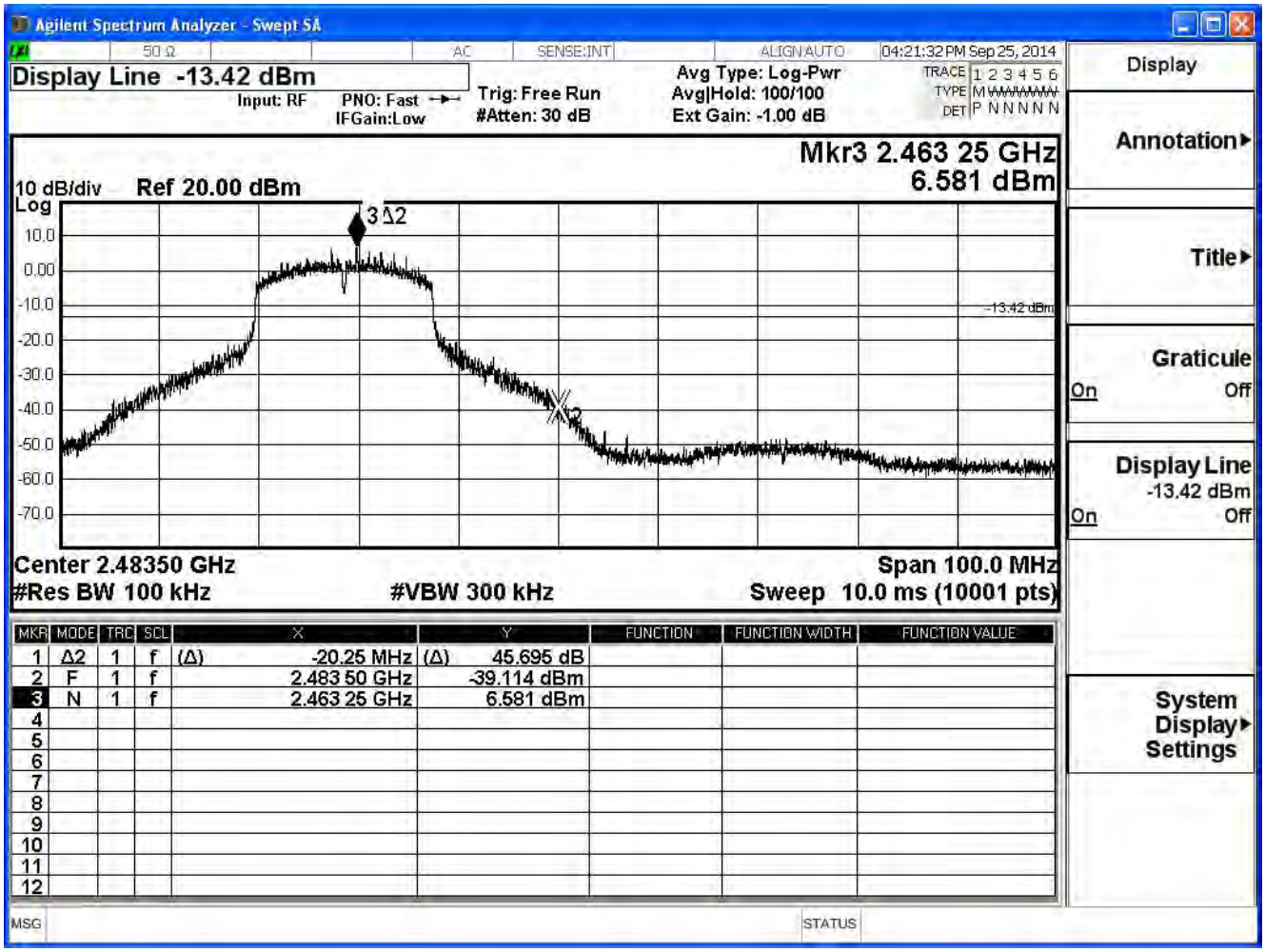
Channel 1 (2412MHz)



Channel 6 (2437MHz)



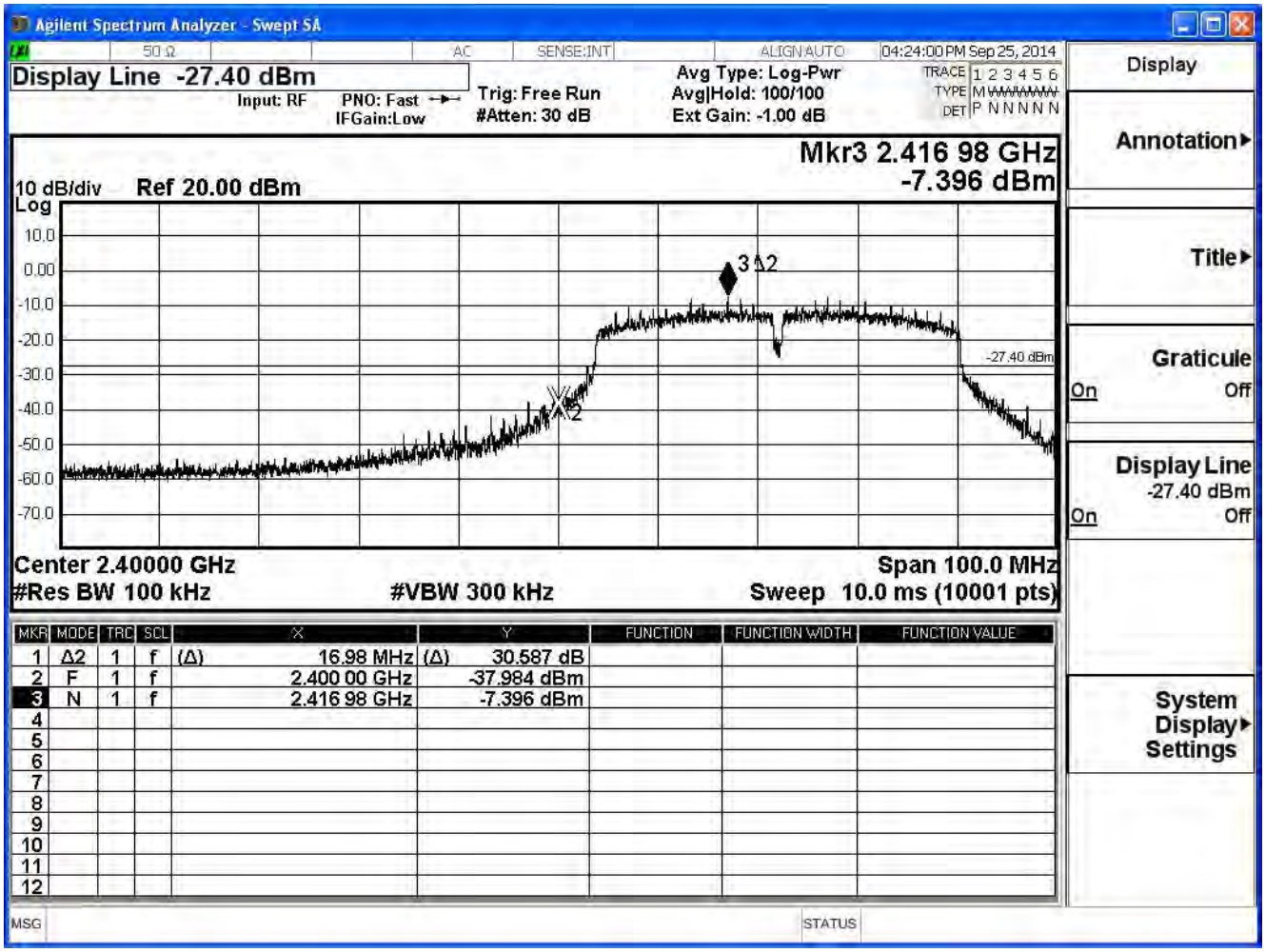
Channel 11 (2462MHz)



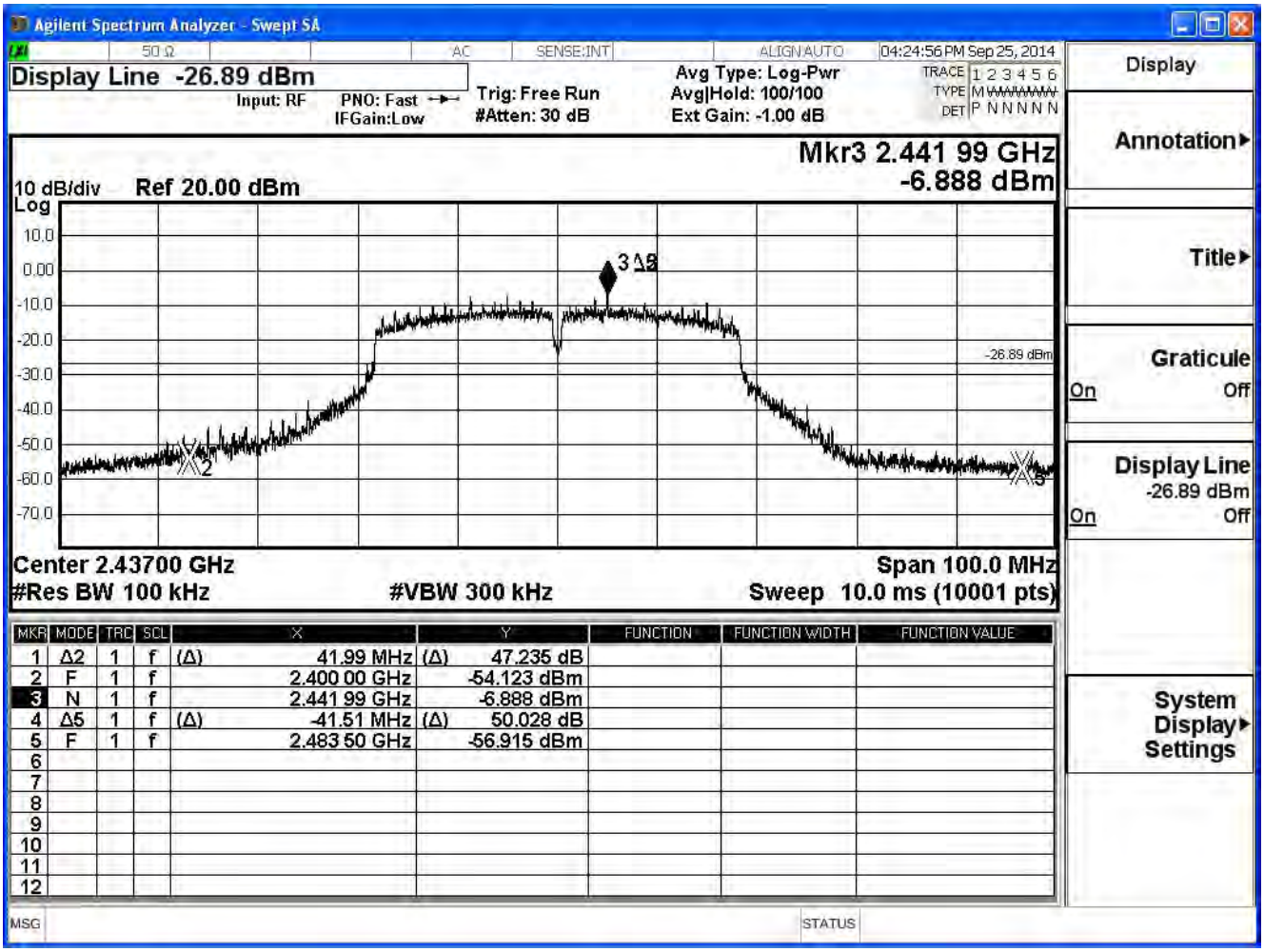
Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/05	Test Site	SR7

IEEE 802.11n (40MHz), ANT 0				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
3	2422	30.587	≧20	Pass
6	2437	47.235	≧20	Pass
9	2452	46.517	≧20	Pass

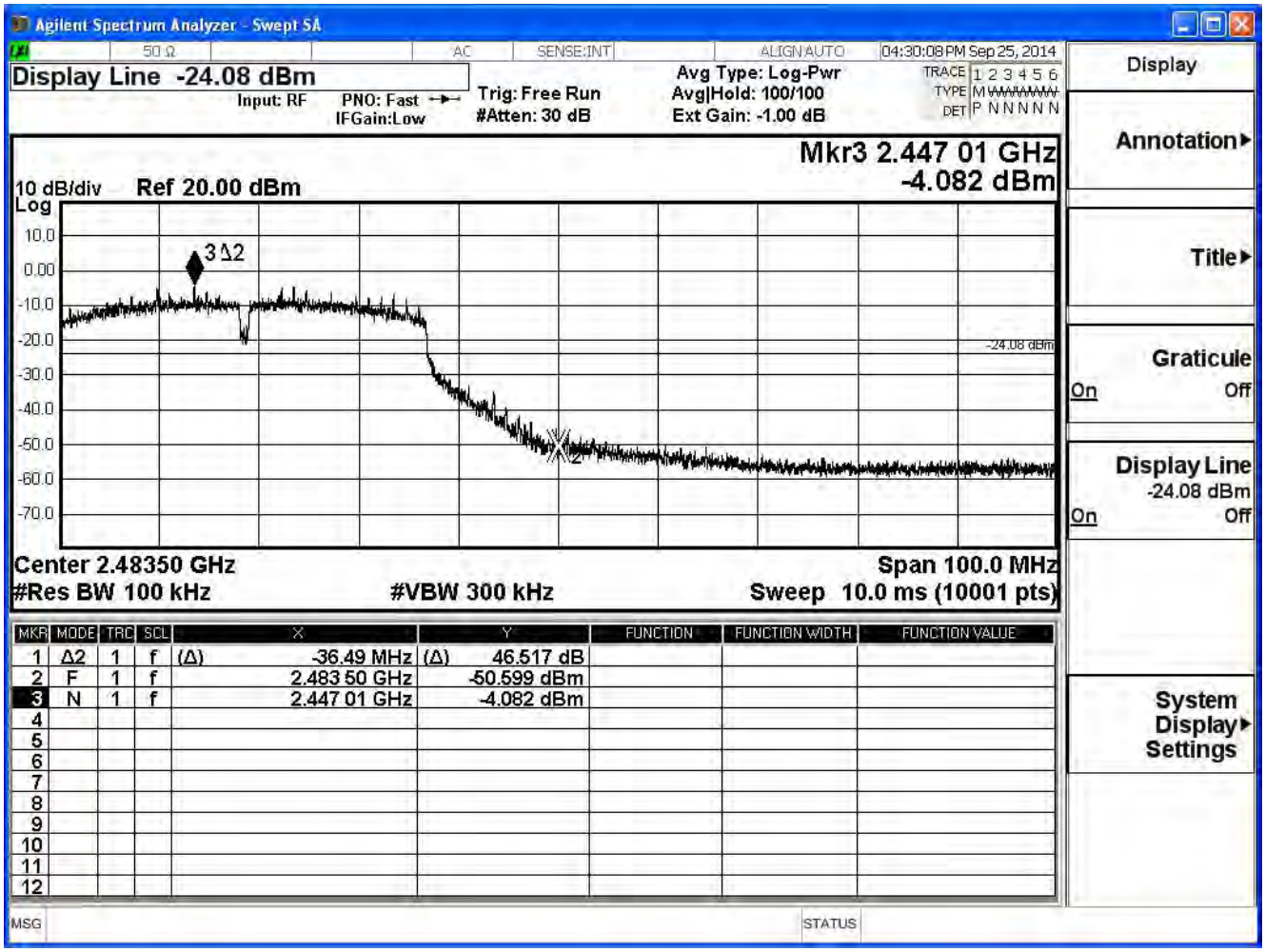
Channel 3 (2422MHz)



Channel 6 (2437MHz)



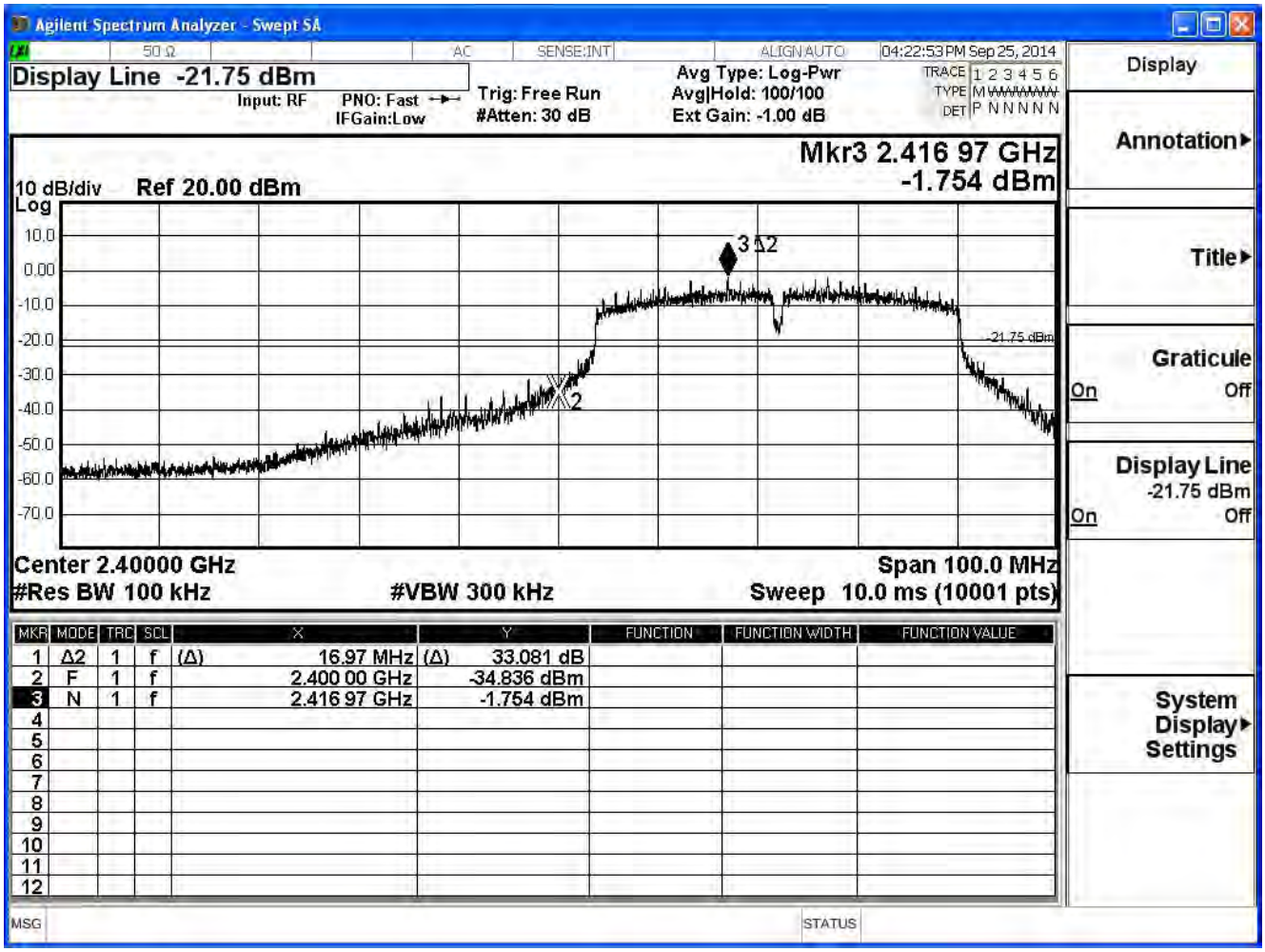
Channel 9 (2452MHz)



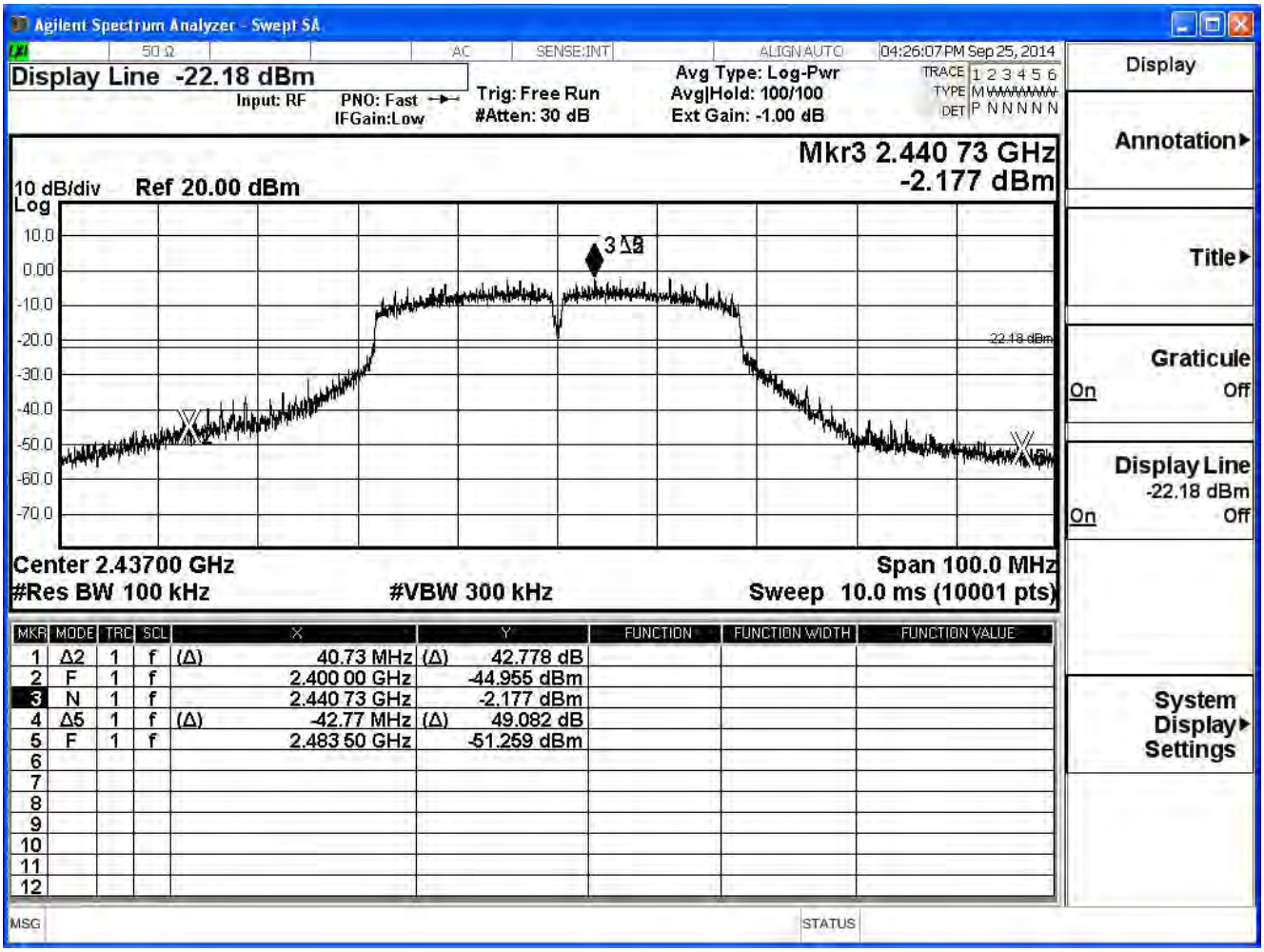
Product	Powerline AV 500 Wireless N Mini Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2014/10/05	Test Site	SR7

IEEE 802.11n (40MHz), ANT 1				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
3	2422	33.081	≧20	Pass
6	2437	42.778	≧20	Pass
9	2452	41.891	≧20	Pass

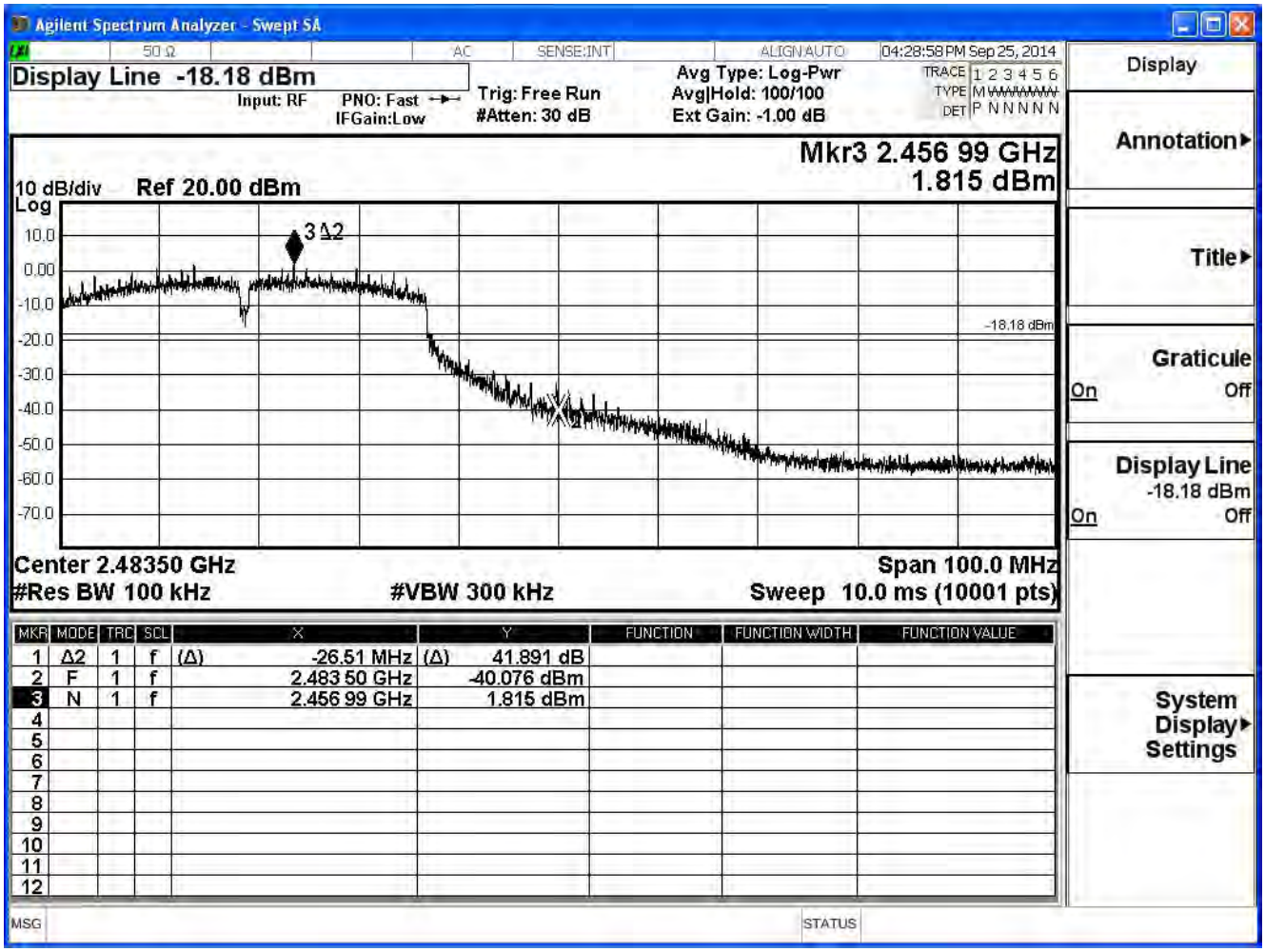
Channel 3 (2422MHz)



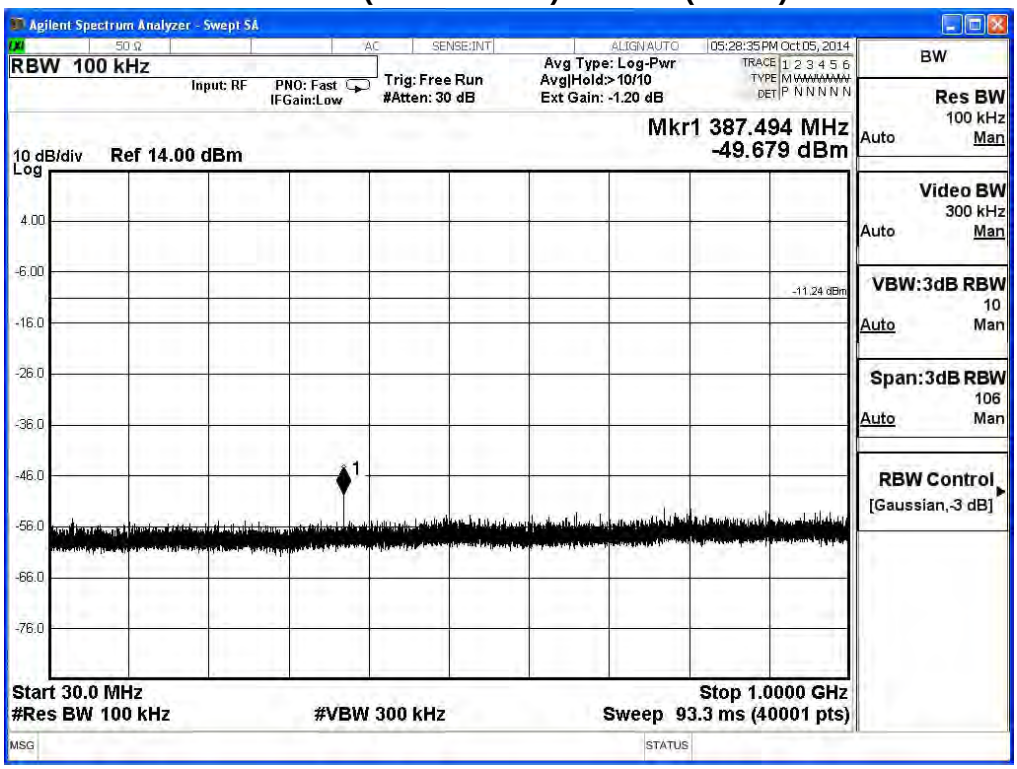
Channel 6 (2437MHz)



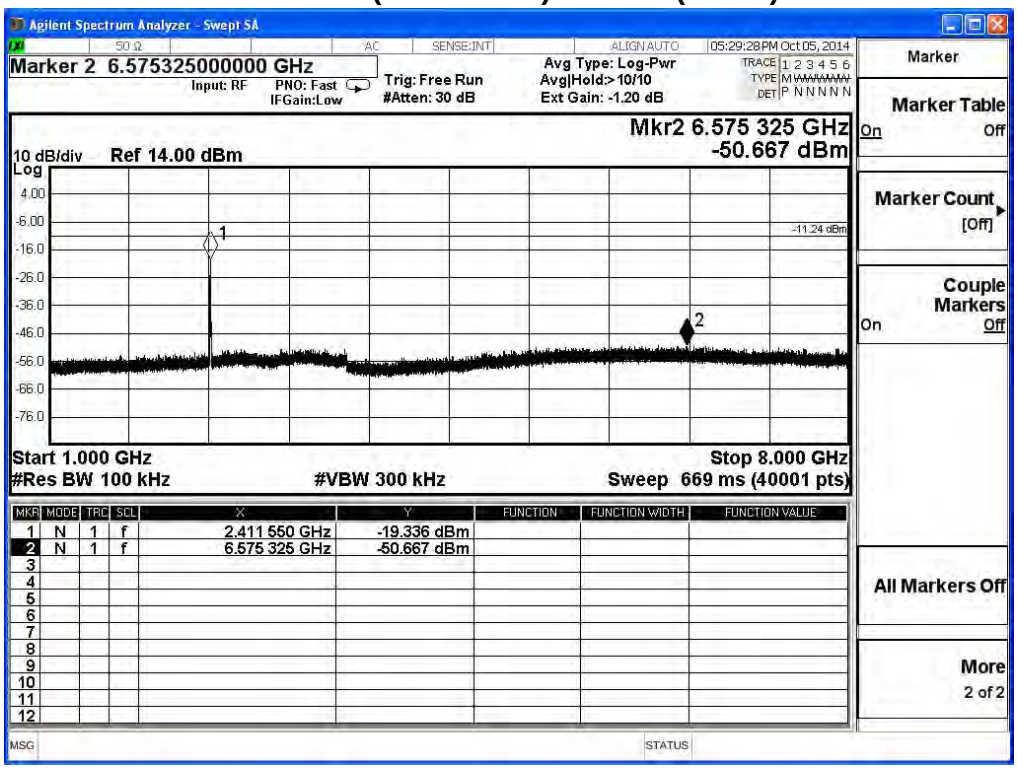
Channel 9 (2452MHz)



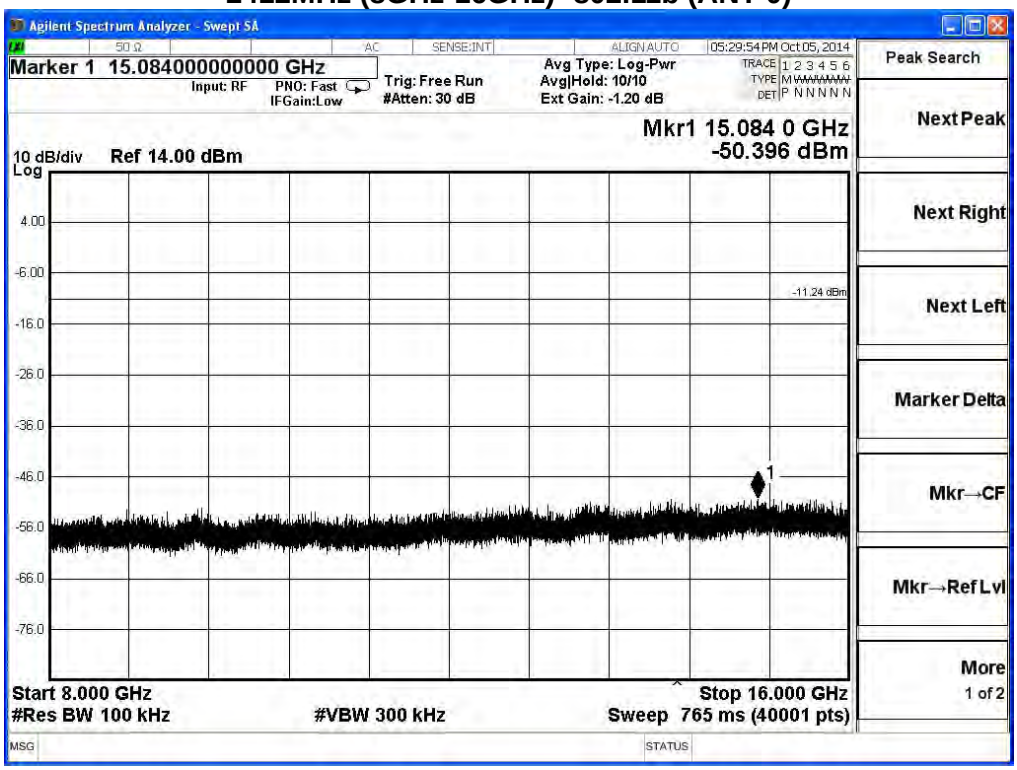
2412MHz (30MHz-1GHz)-802.11b (ANT 0)



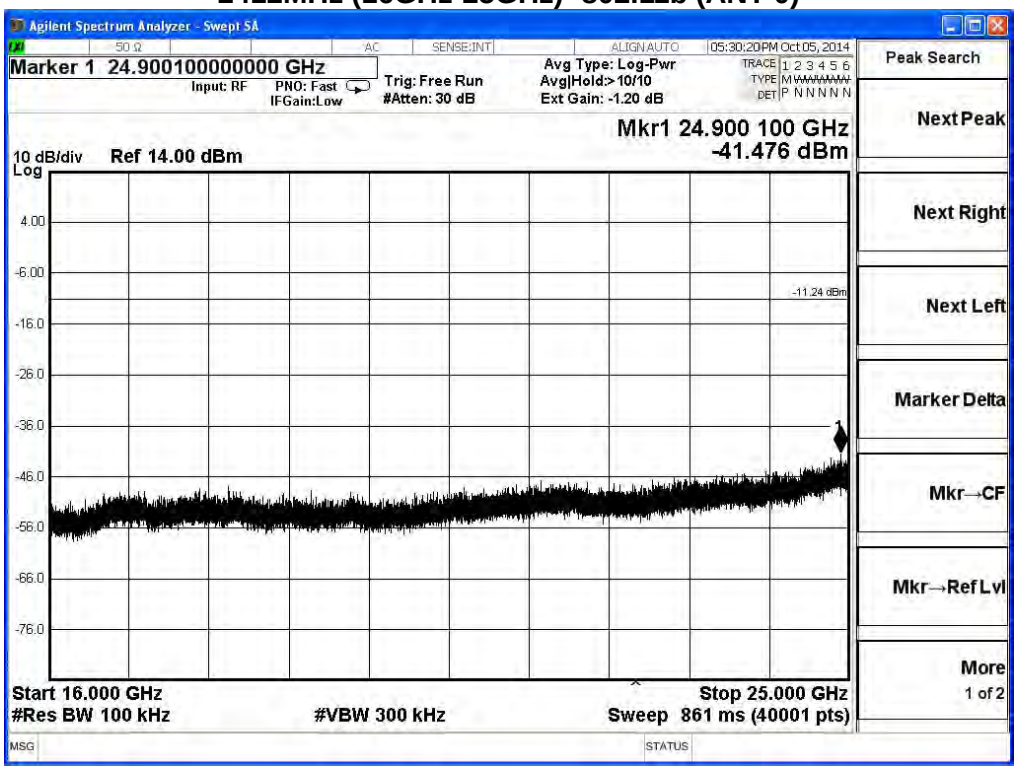
2412MHz (1GHz-8GHz)-802.11b (ANT 0)



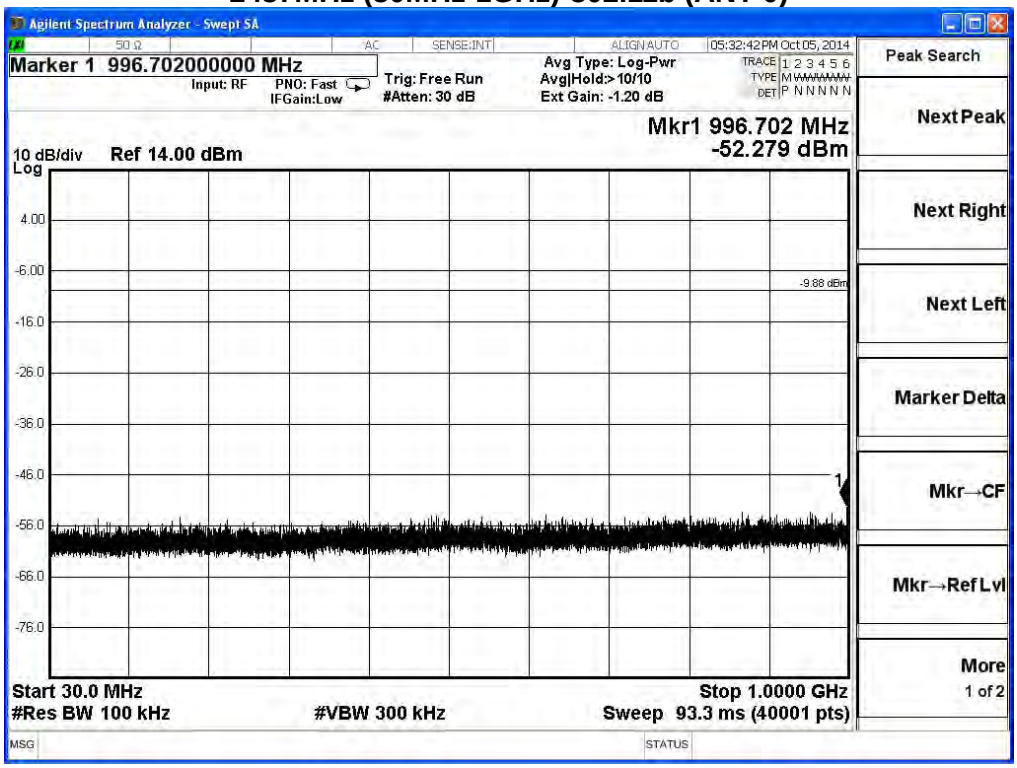
2412MHz (8GHz-16GHz) -802.11b (ANT 0)



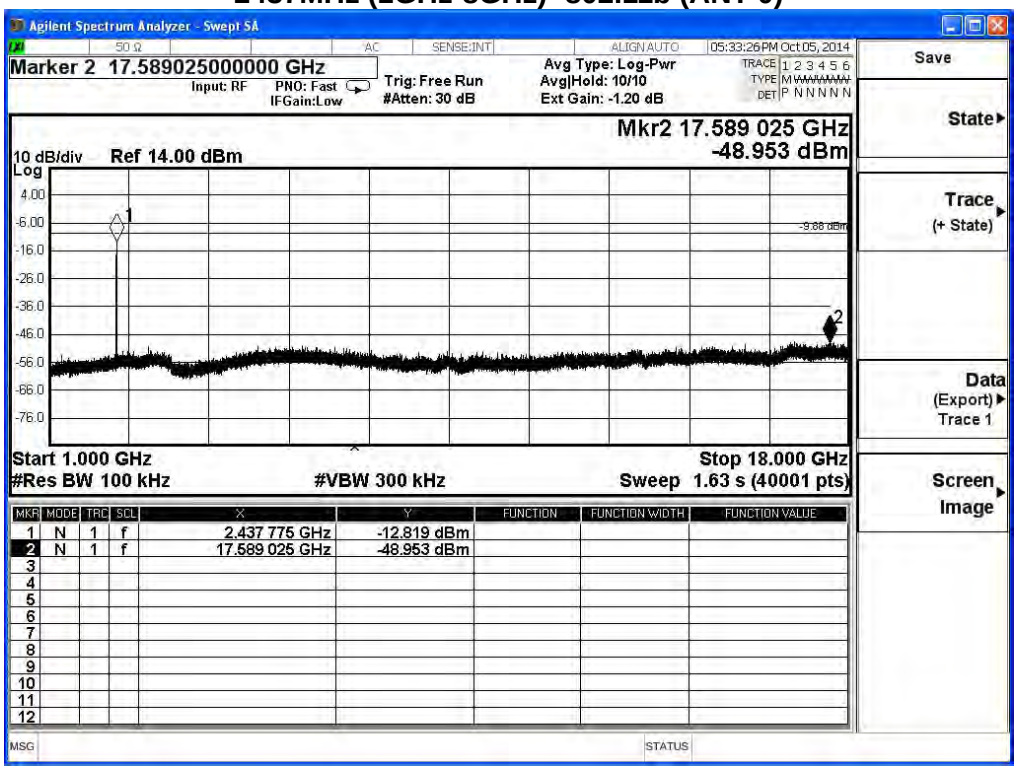
2412MHz (16GHz-25GHz) -802.11b (ANT 0)



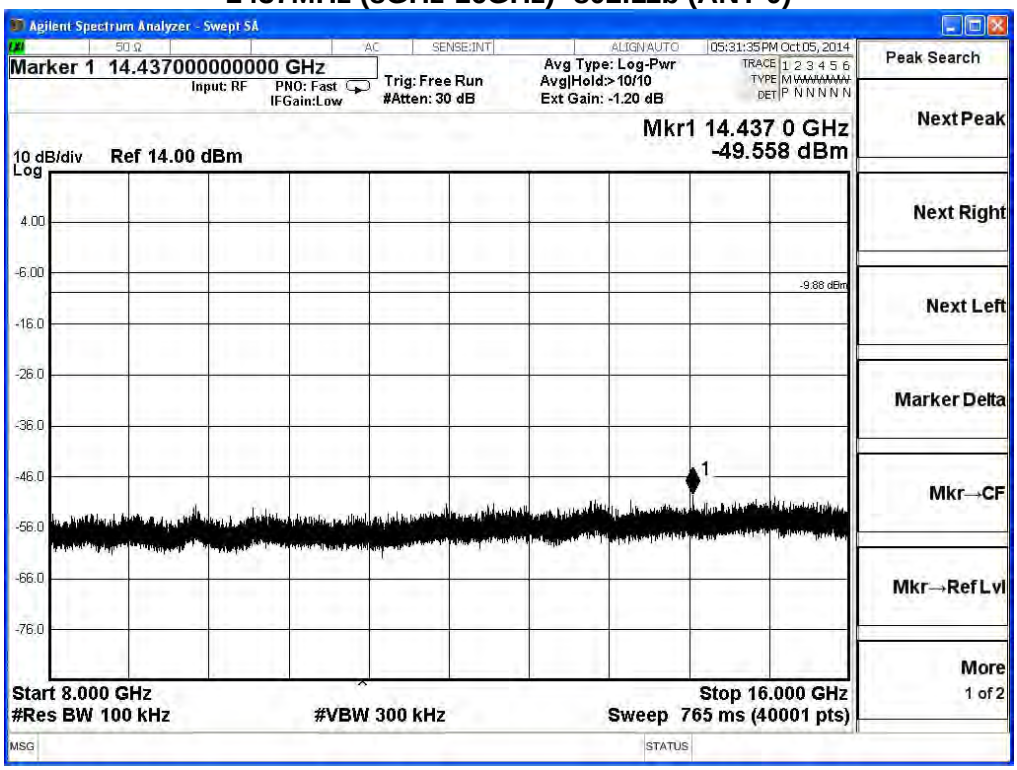
2437MHz (30MHz-1GHz)-802.11b (ANT 0)



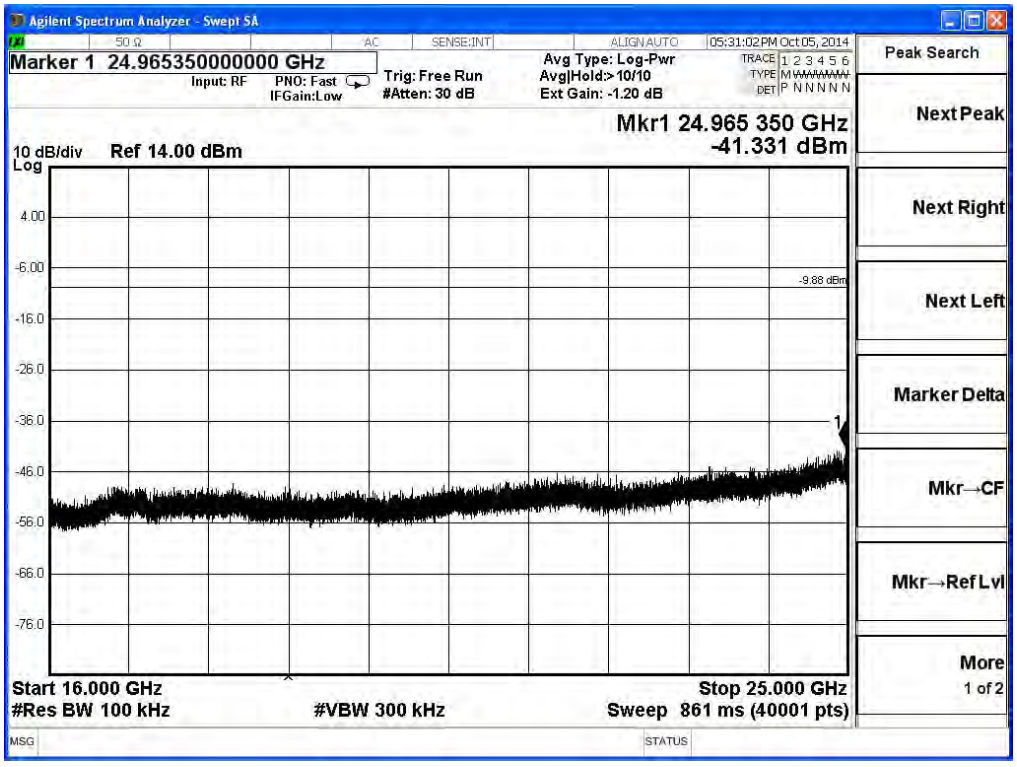
2437MHz (1GHz-8GHz) -802.11b (ANT 0)



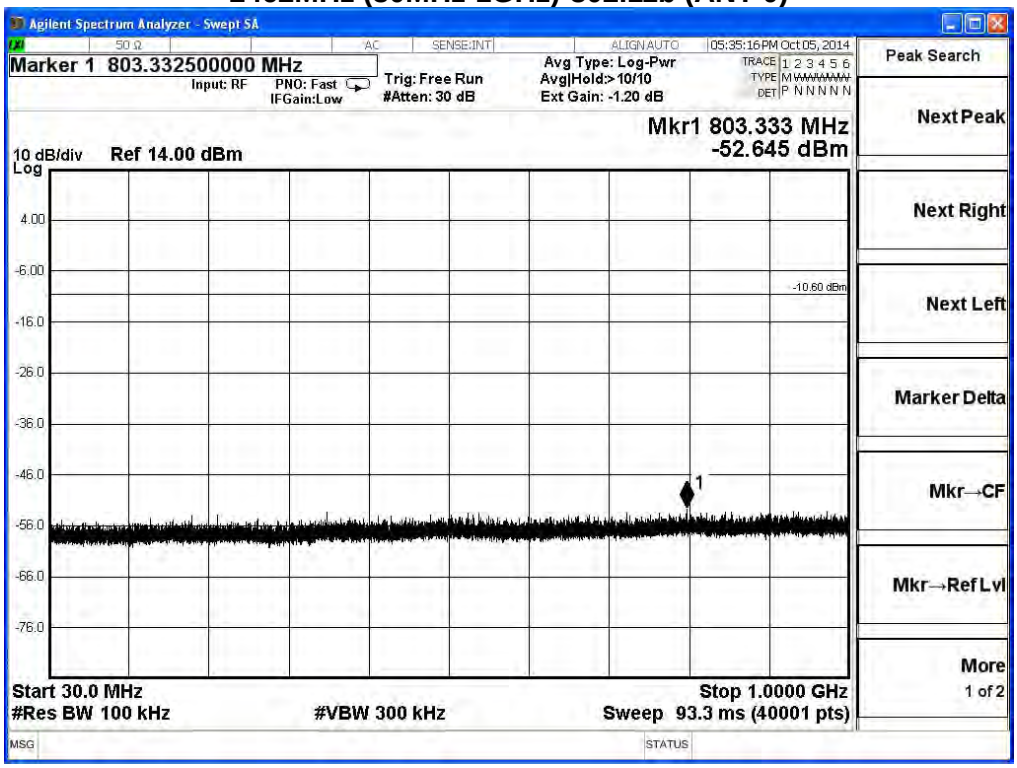
2437MHz (8GHz-16GHz) -802.11b (ANT 0)



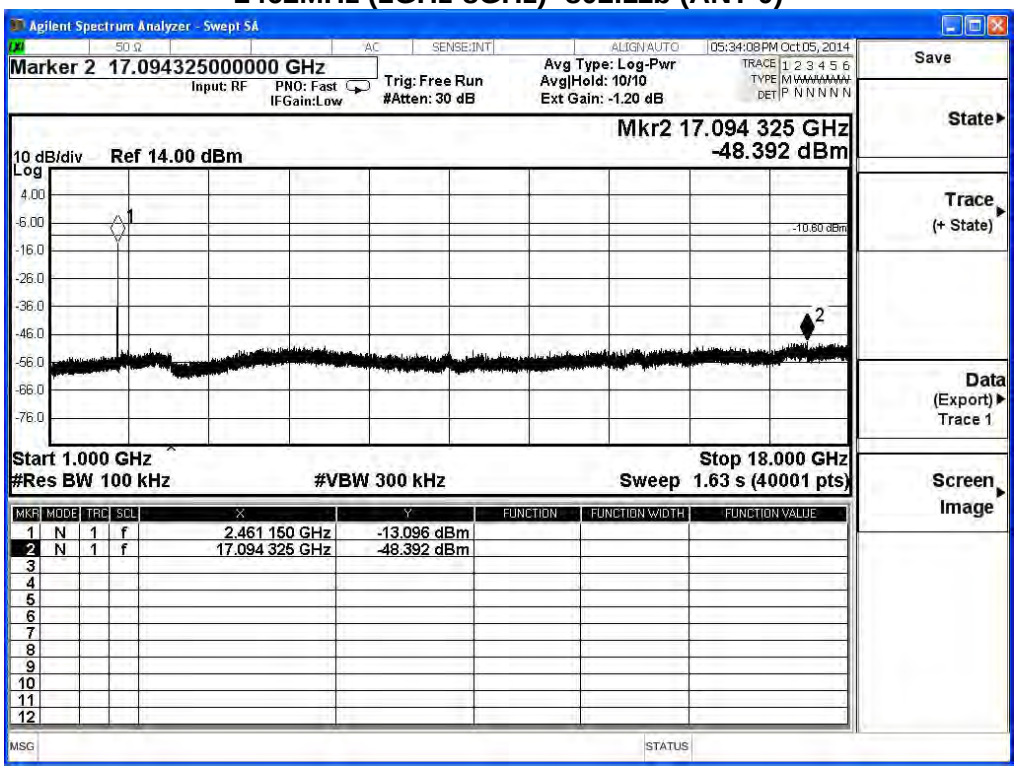
2437MHz (16GHz-25GHz) -802.11b (ANT 0)



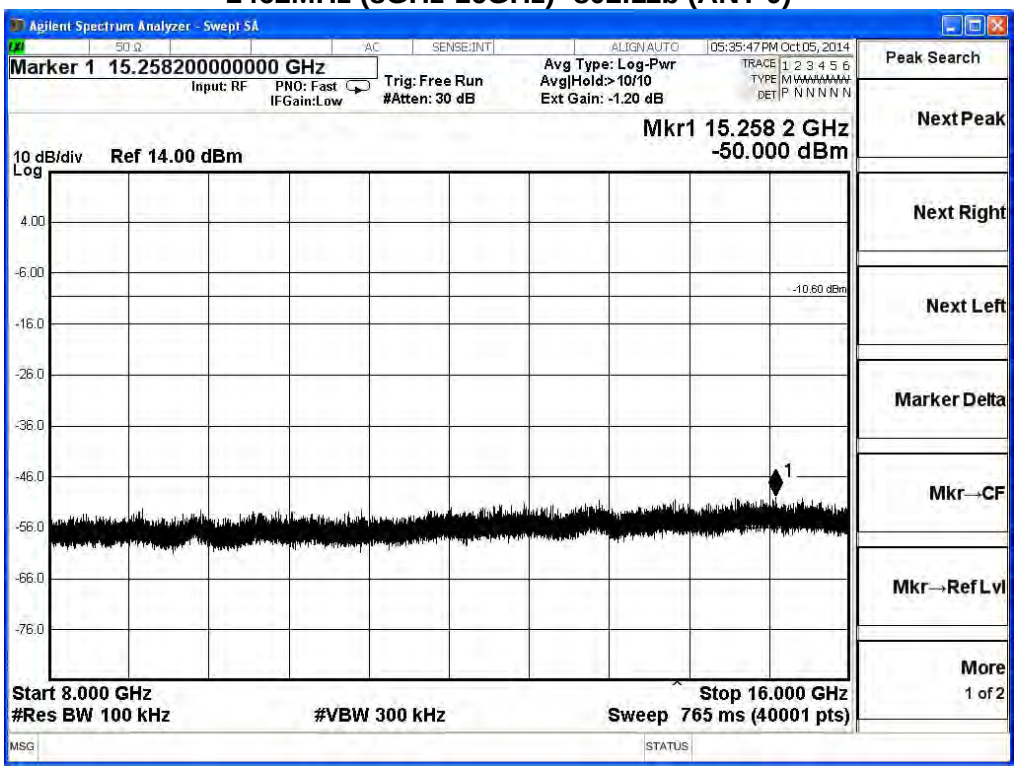
2462MHz (30MHz-1GHz)-802.11b (ANT 0)



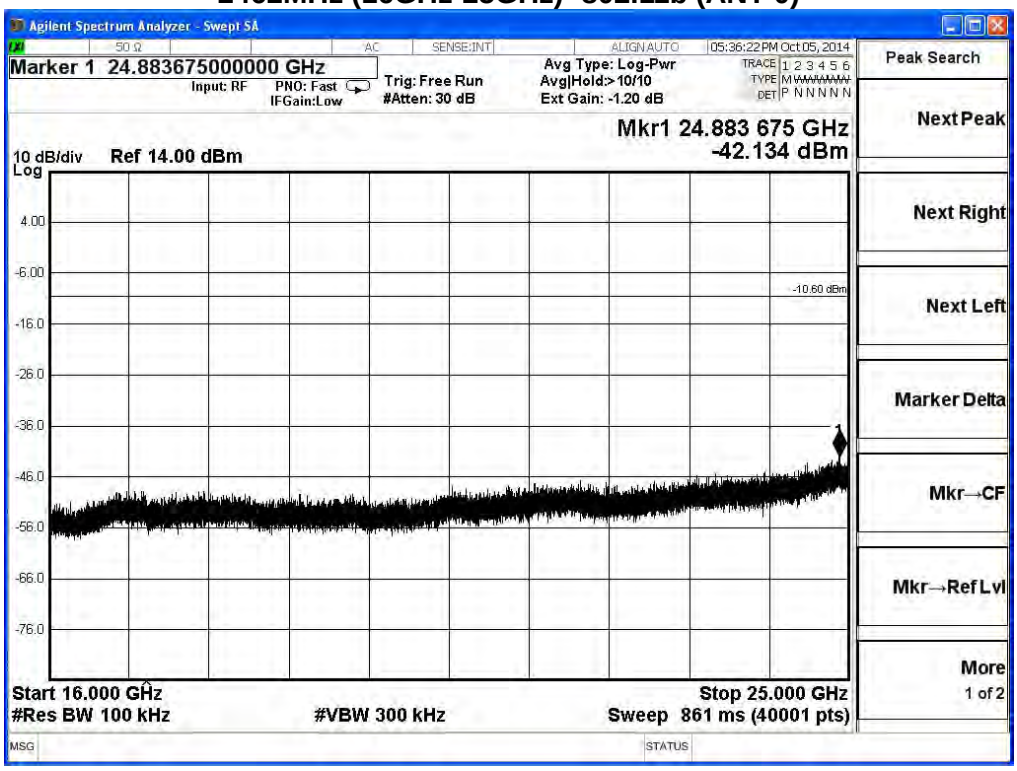
2462MHz (1GHz-8GHz) -802.11b (ANT 0)



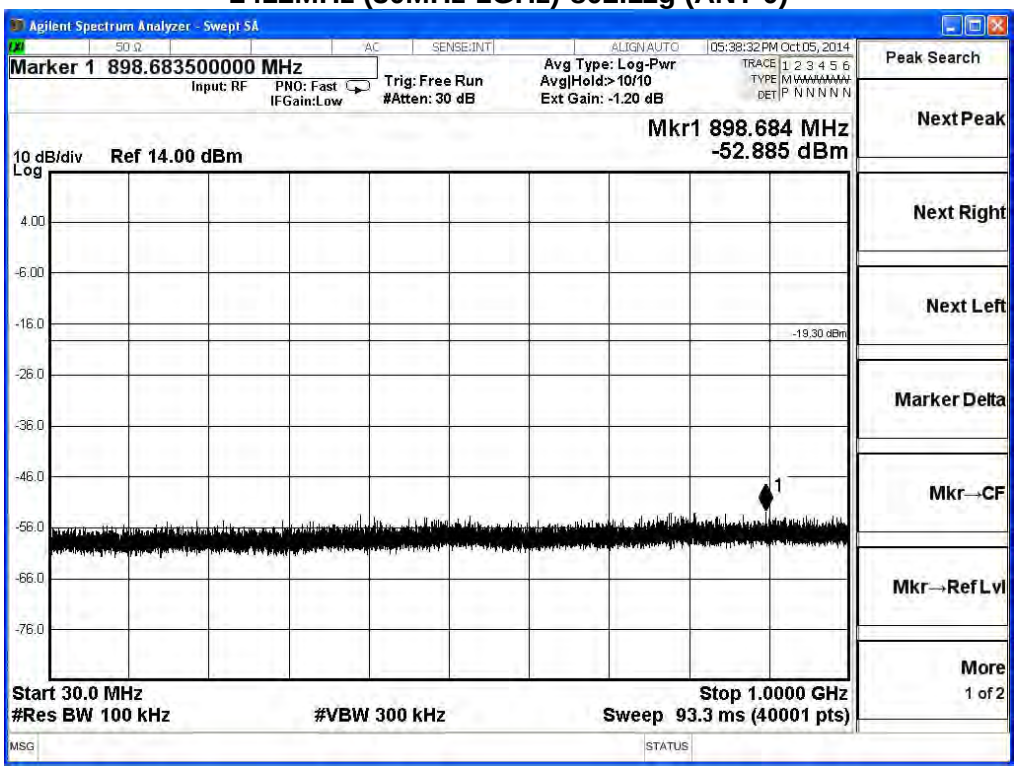
2462MHz (8GHz-16GHz) -802.11b (ANT 0)



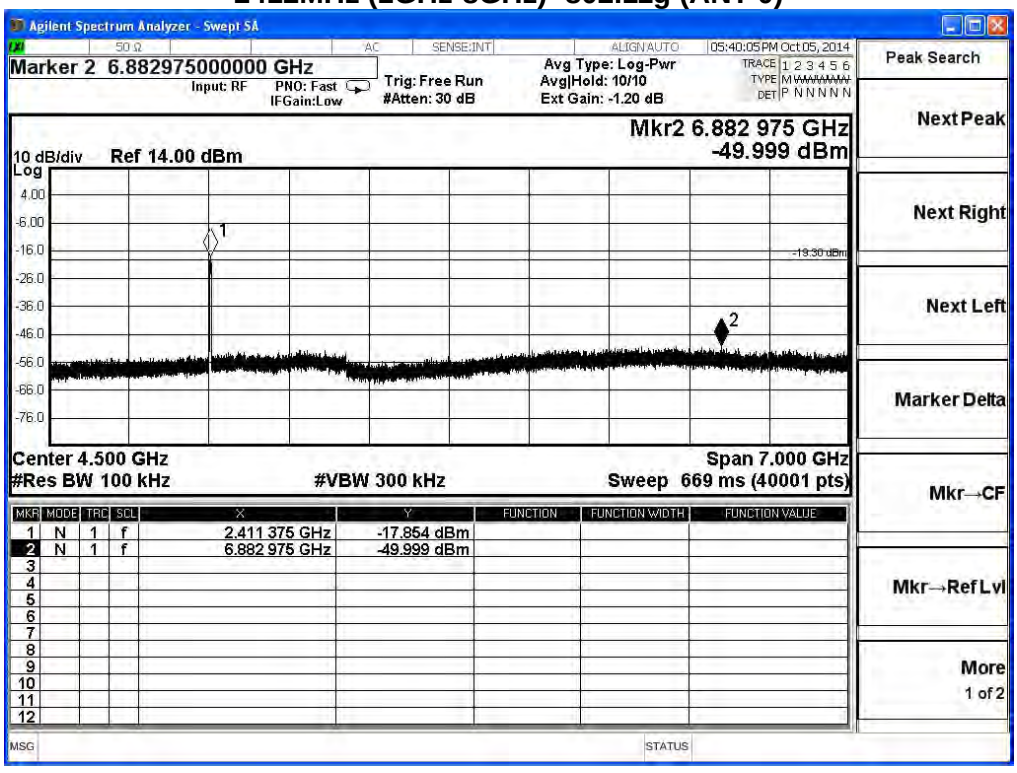
2462MHz (16GHz-25GHz) -802.11b (ANT 0)



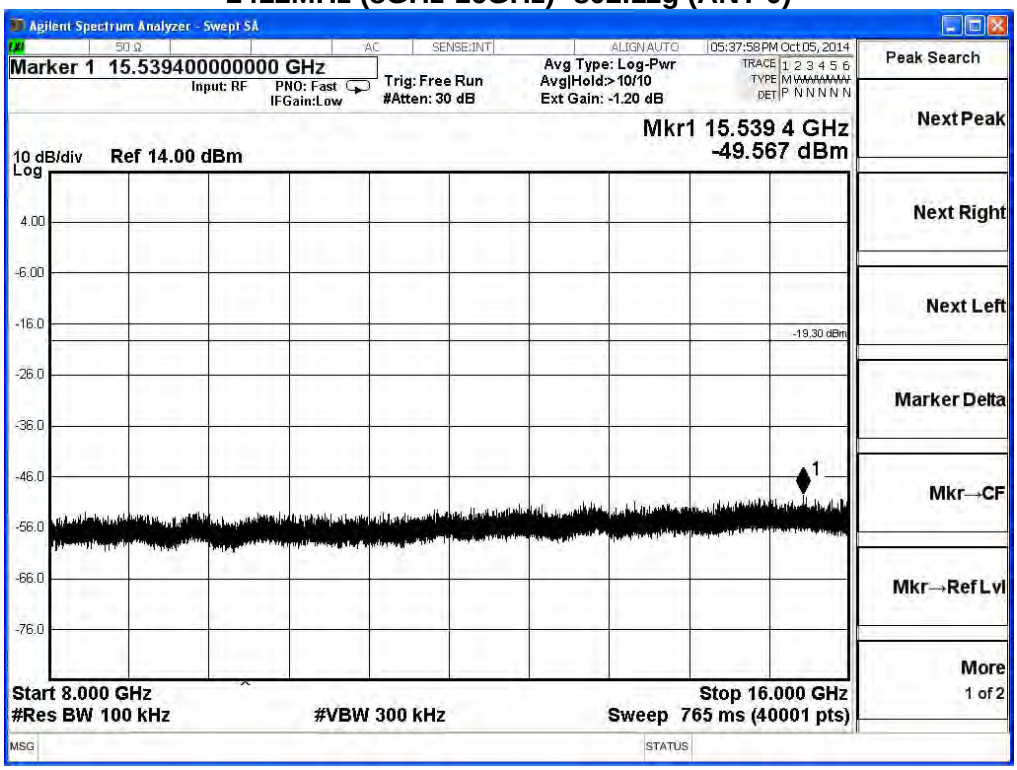
2412MHz (30MHz-1GHz)-802.11g (ANT 0)



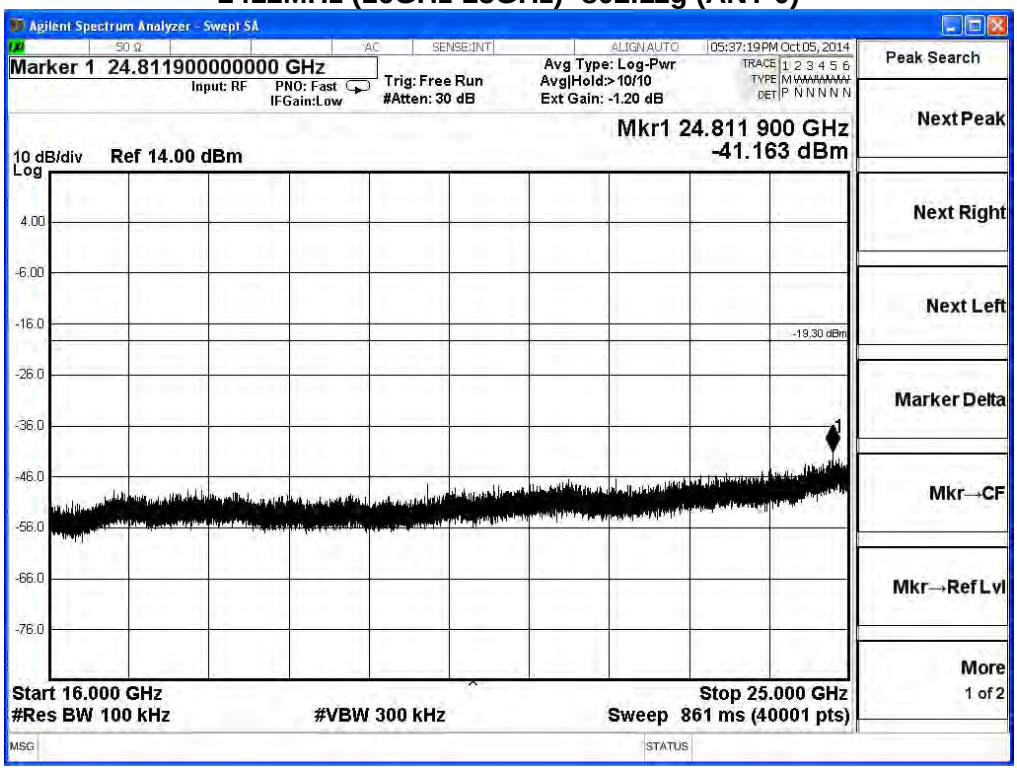
2412MHz (1GHz-8GHz) -802.11g (ANT 0)



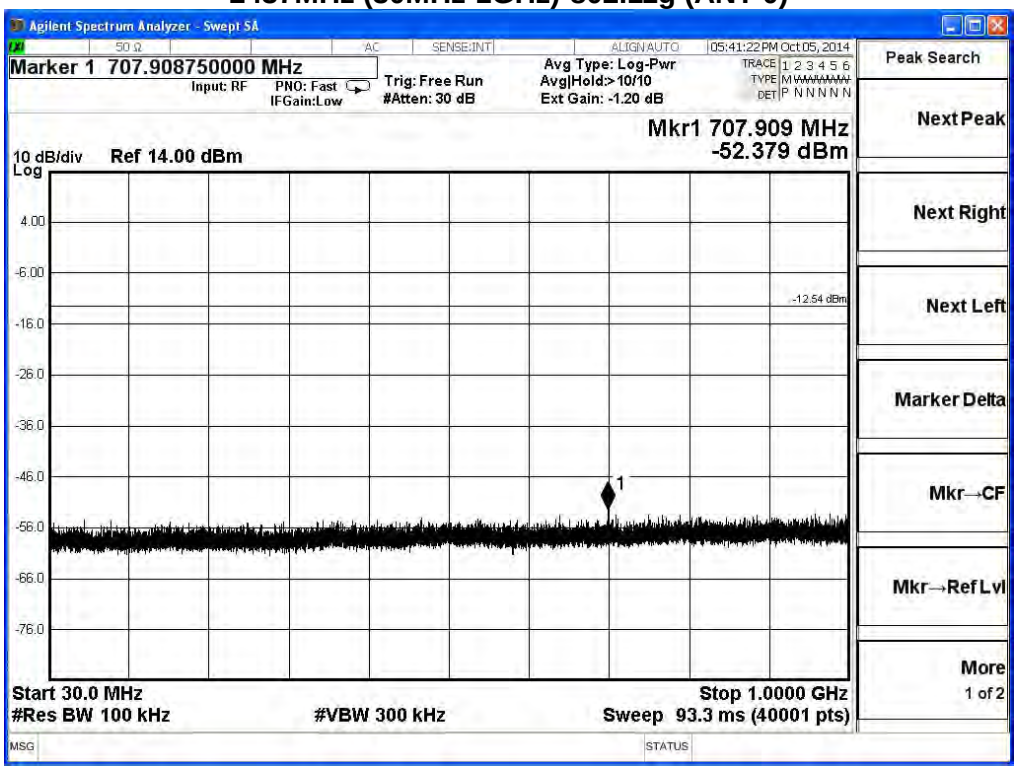
2412MHz (8GHz-16GHz) -802.11g (ANT 0)



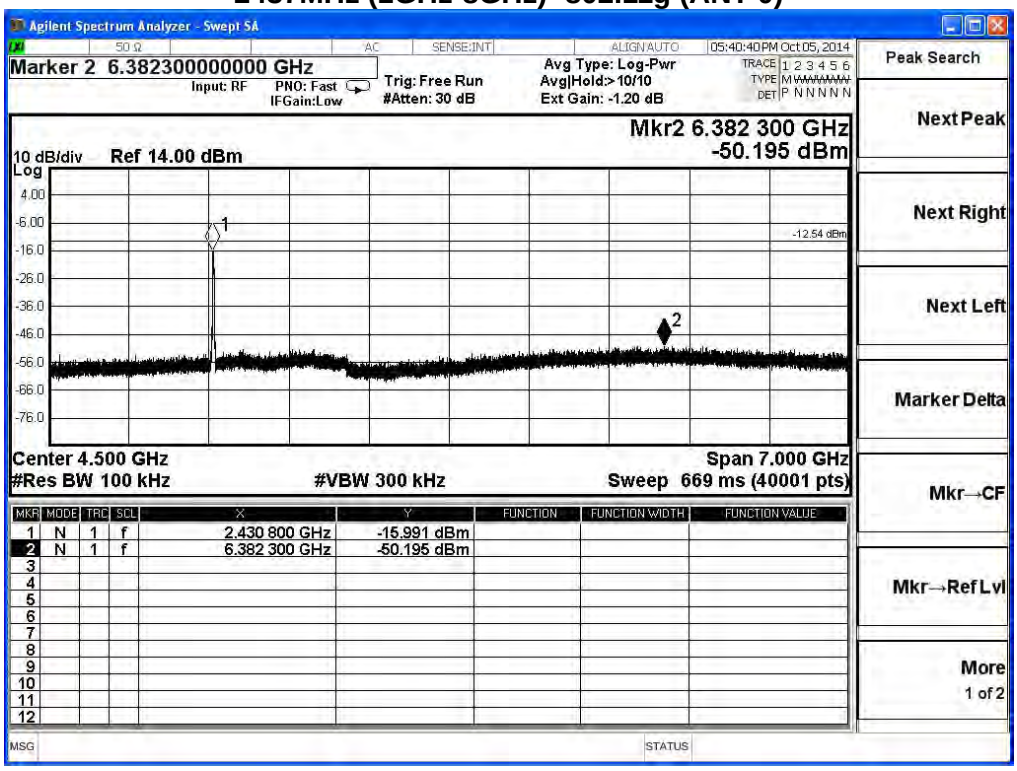
2412MHz (16GHz-25GHz) -802.11g (ANT 0)



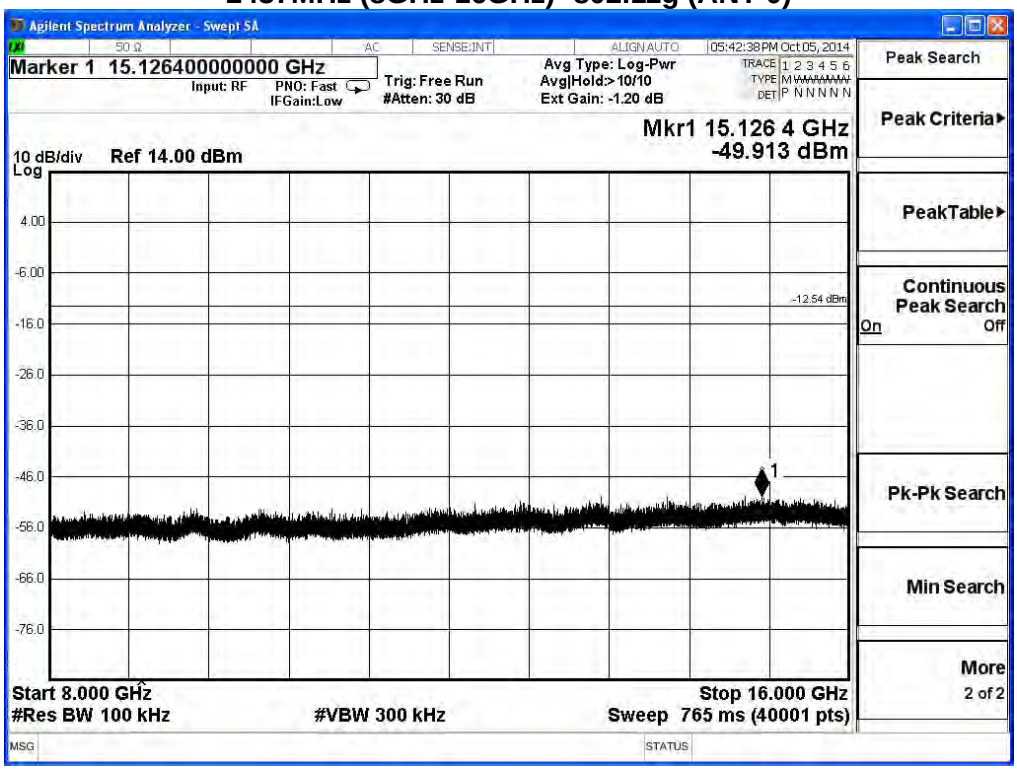
2437MHz (30MHz-1GHz)-802.11g (ANT 0)



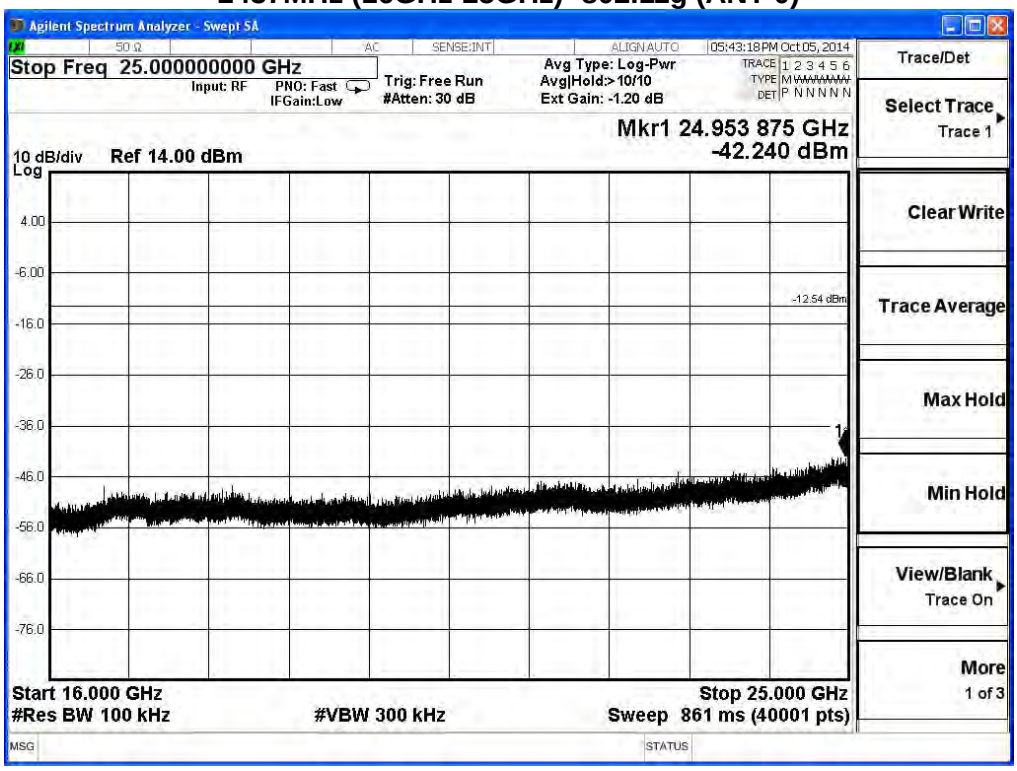
2437MHz (1GHz-8GHz) -802.11g (ANT 0)



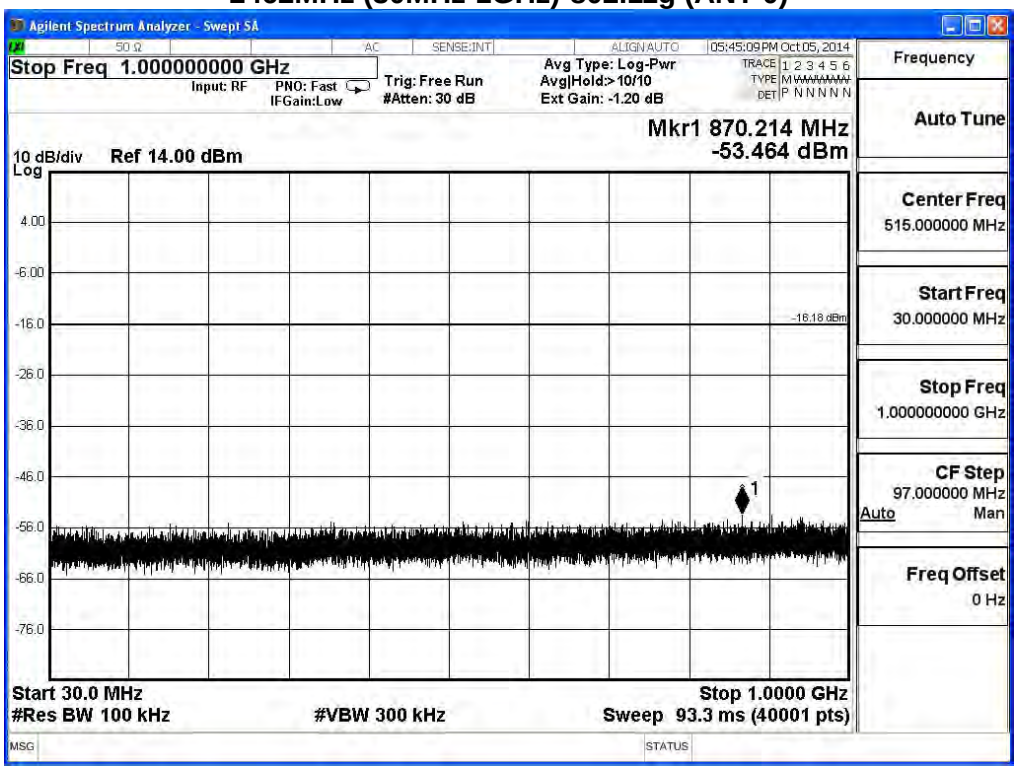
2437MHz (8GHz-16GHz) -802.11g (ANT 0)



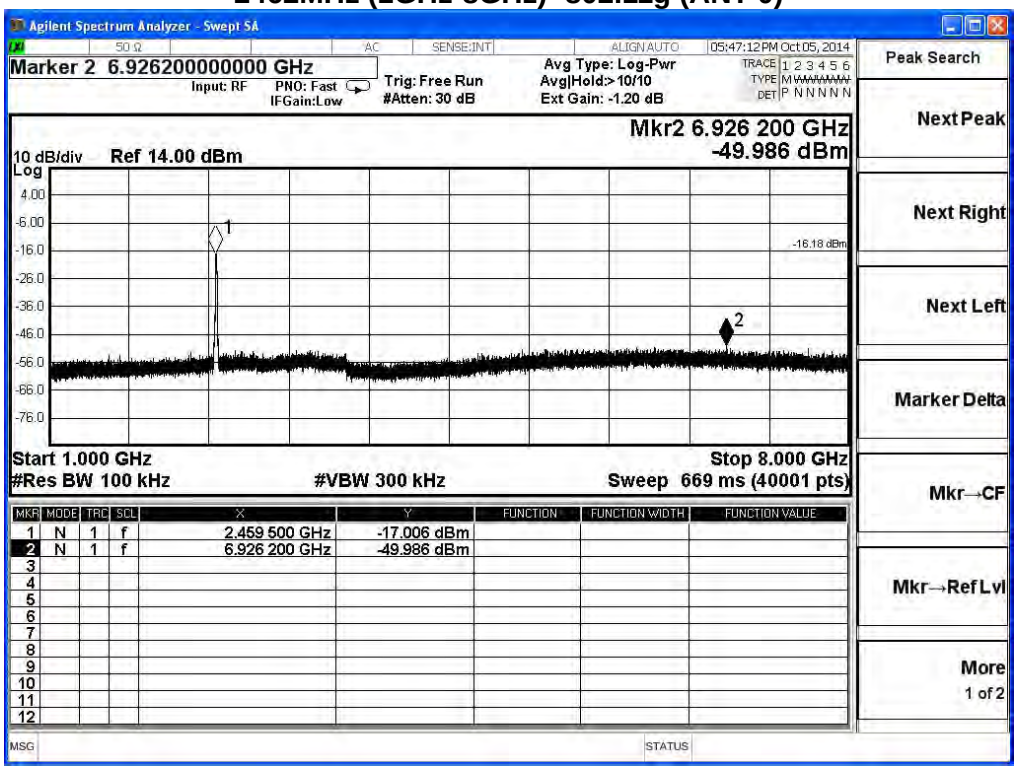
2437MHz (16GHz-25GHz) -802.11g (ANT 0)



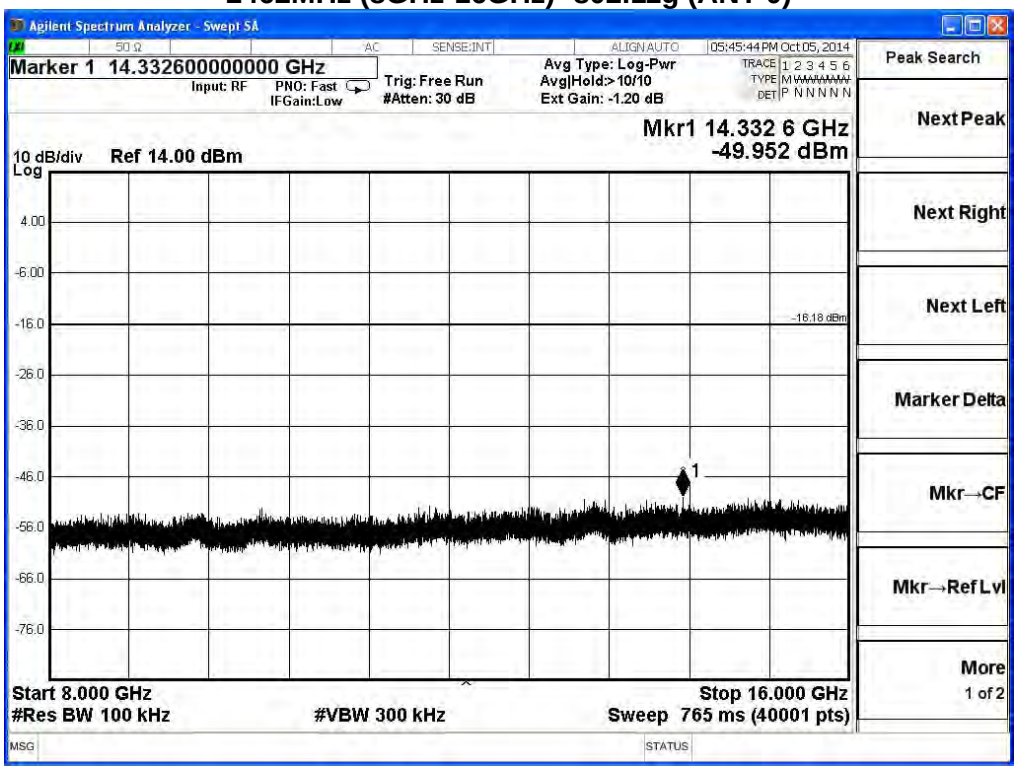
2462MHz (30MHz-1GHz)-802.11g (ANT 0)



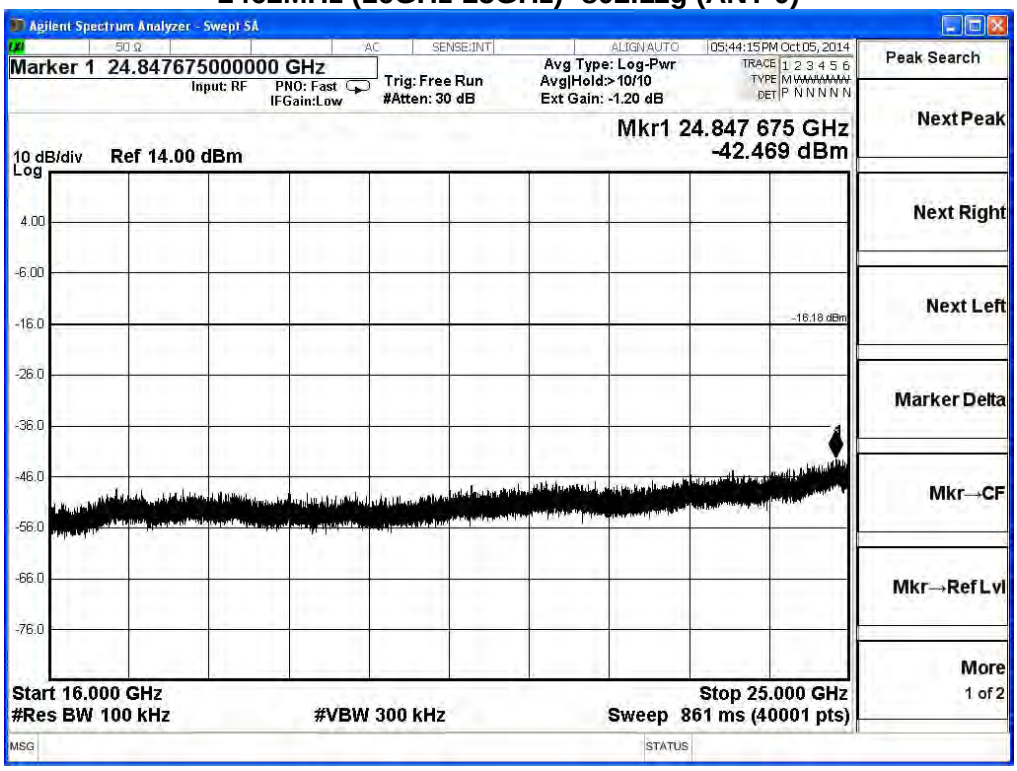
2462MHz (1GHz-8GHz) -802.11g (ANT 0)



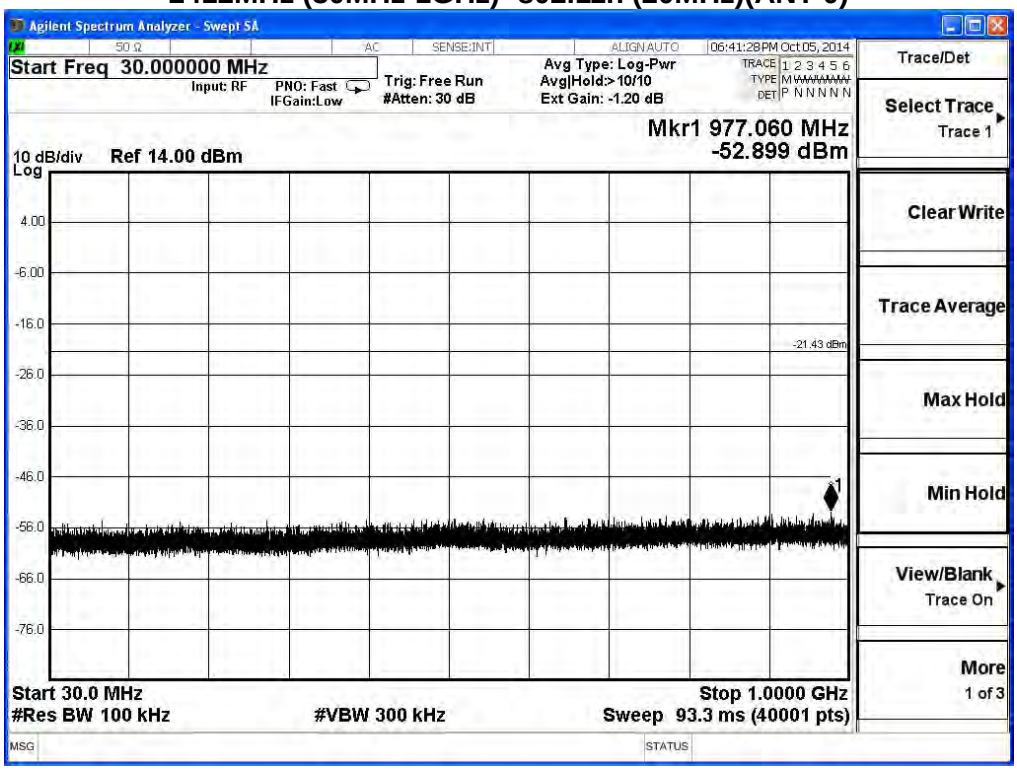
2462MHz (8GHz-16GHz) -802.11g (ANT 0)



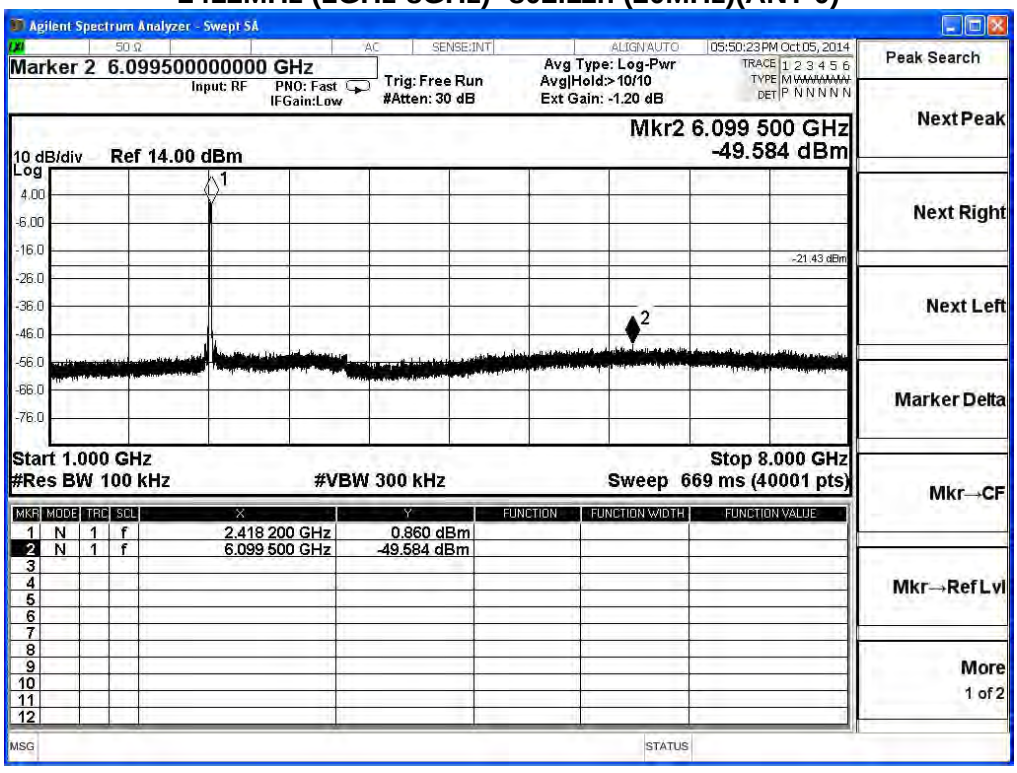
2462MHz (16GHz-25GHz) -802.11g (ANT 0)



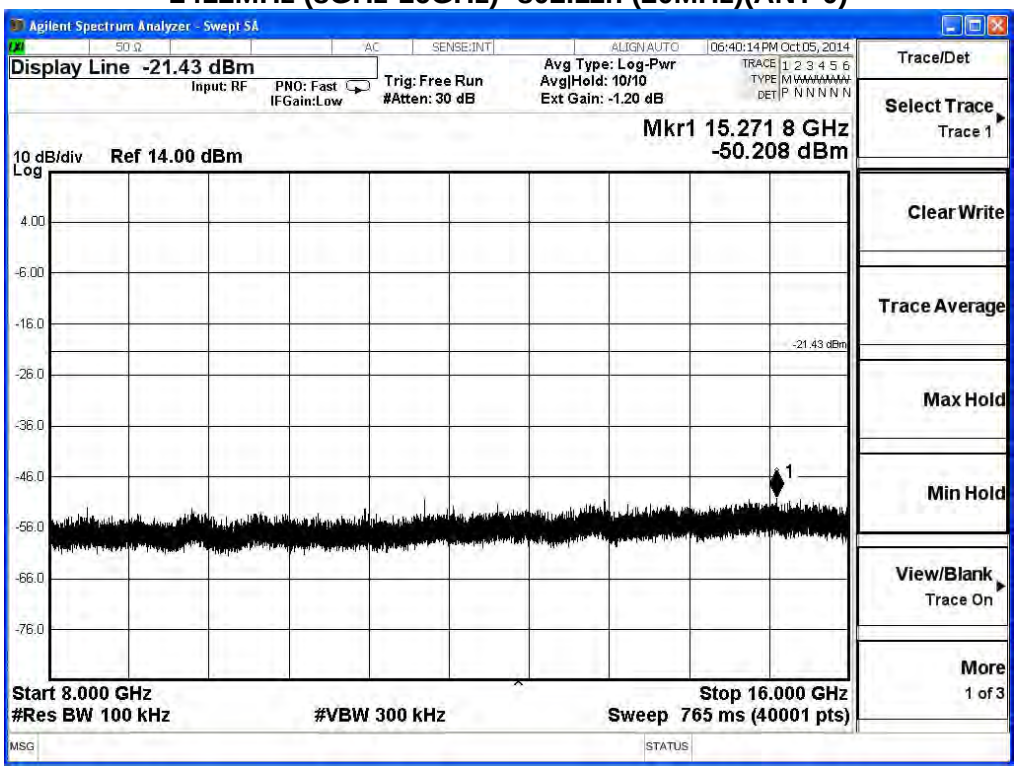
2412MHz (30MHz-1GHz)- 802.11n (20MHz)(ANT 0)



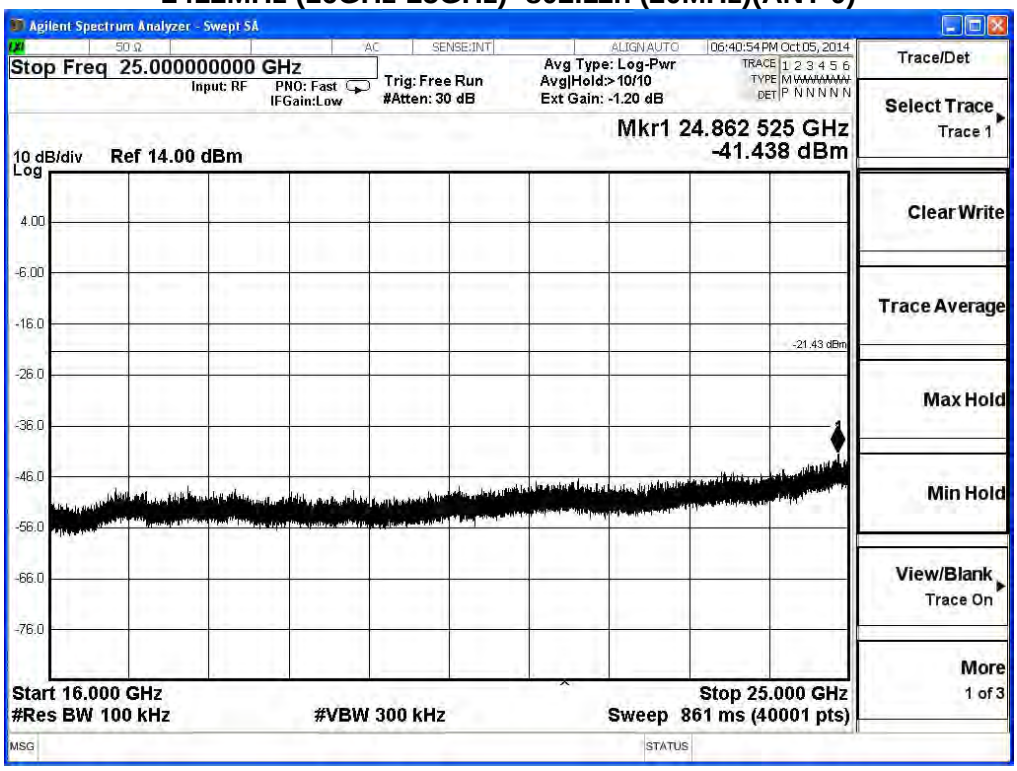
2412MHz (1GHz-8GHz) -802.11n (20MHz)(ANT 0)



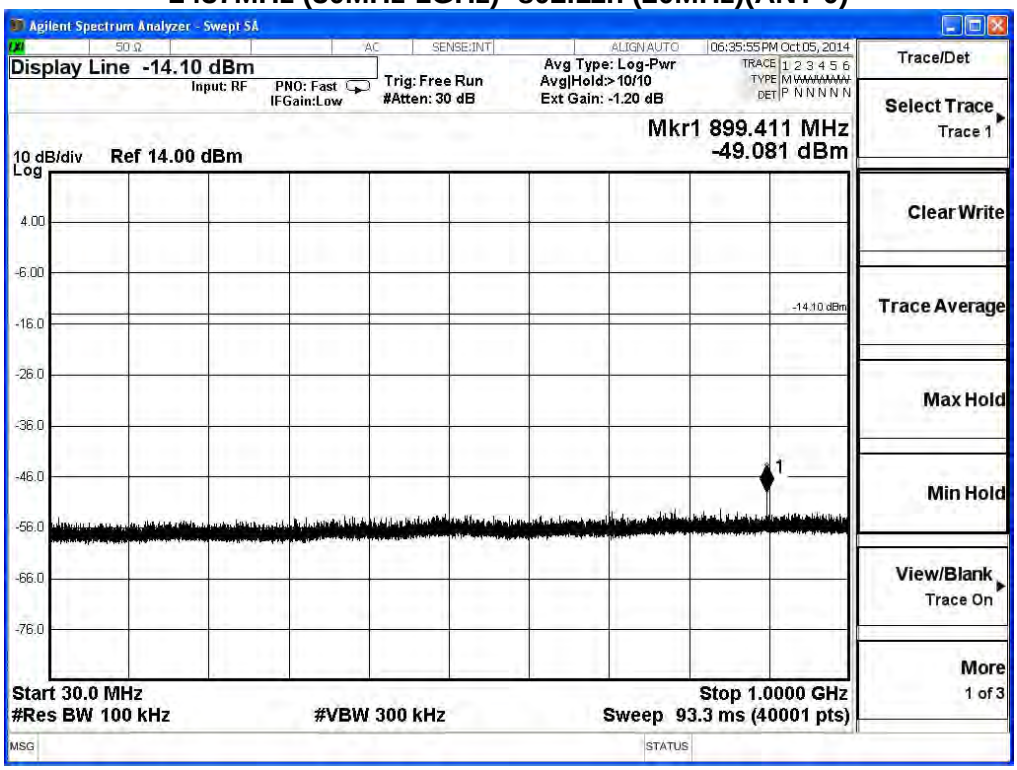
2412MHz (8GHz-16GHz) -802.11n (20MHz)(ANT 0)



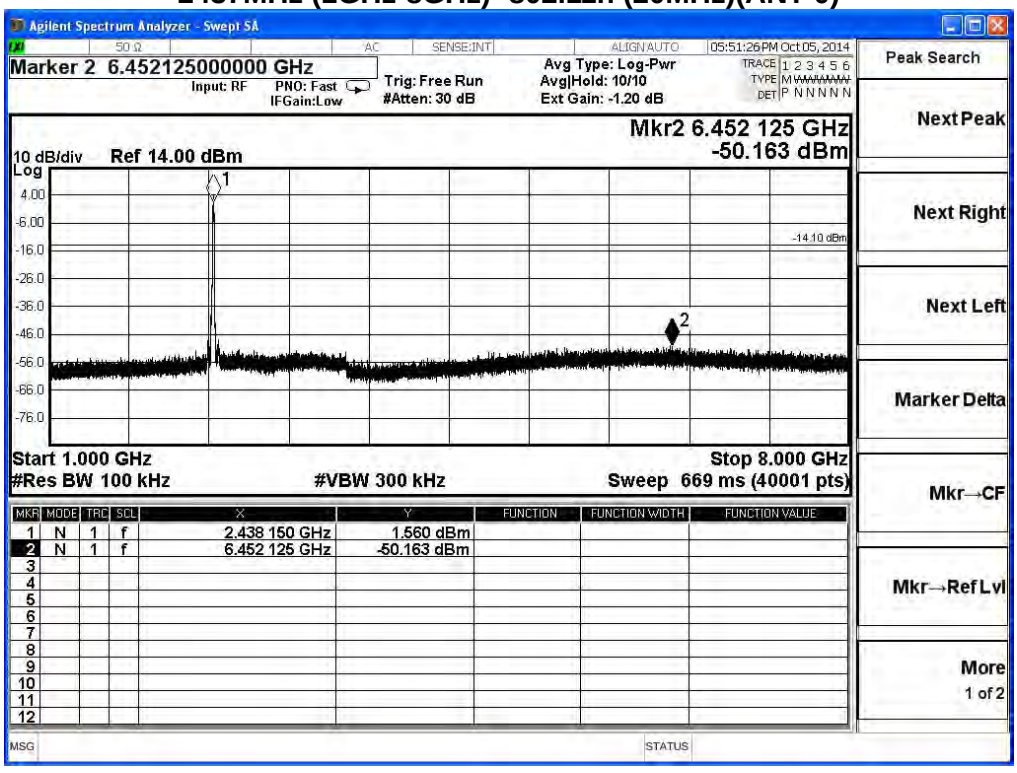
2412MHz (16GHz-25GHz) -802.11n (20MHz)(ANT 0)



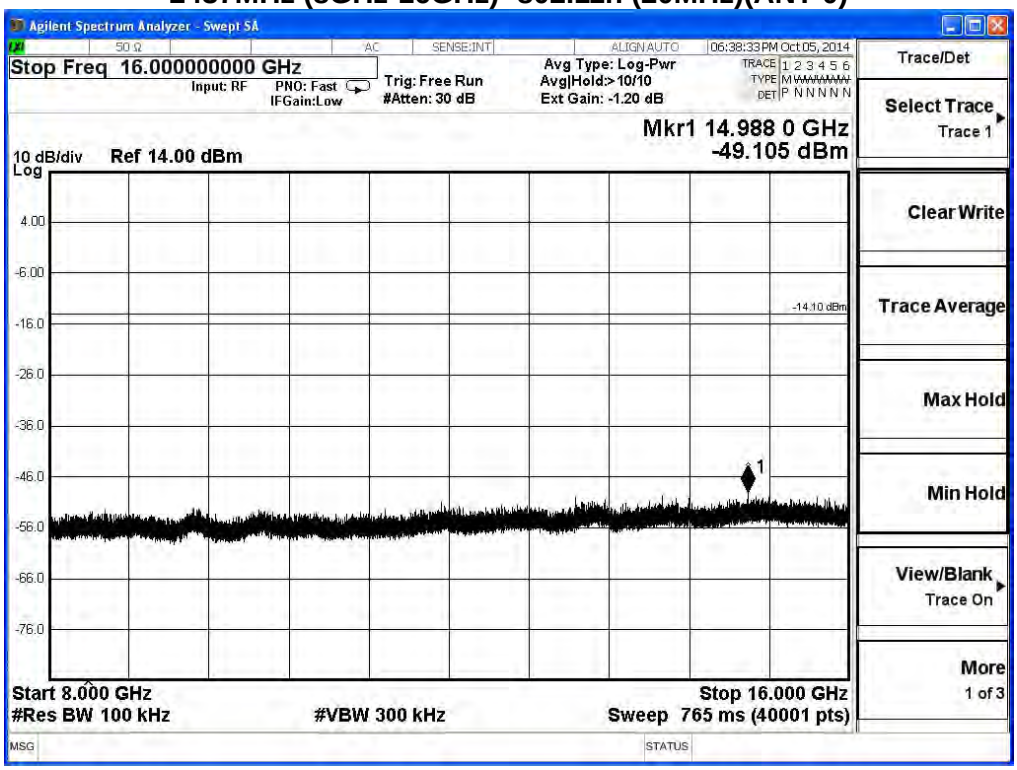
2437MHz (30MHz-1GHz)- 802.11n (20MHz)(ANT 0)



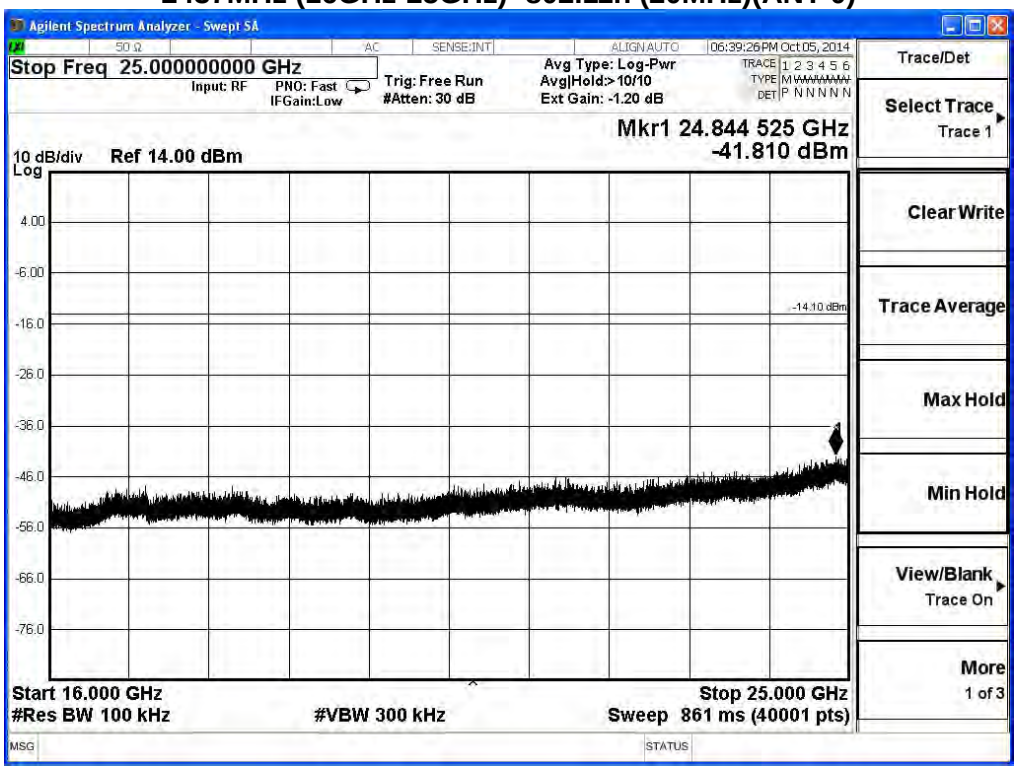
2437MHz (1GHz-8GHz) -802.11n (20MHz)(ANT 0)



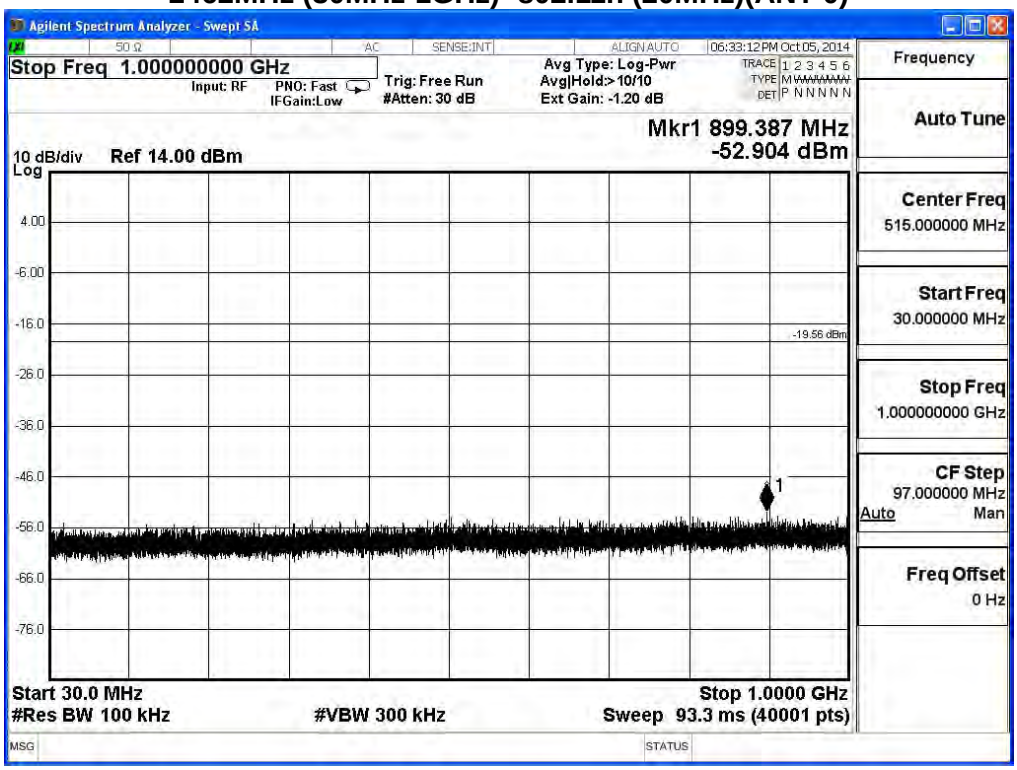
2437MHz (8GHz-16GHz) -802.11n (20MHz)(ANT 0)



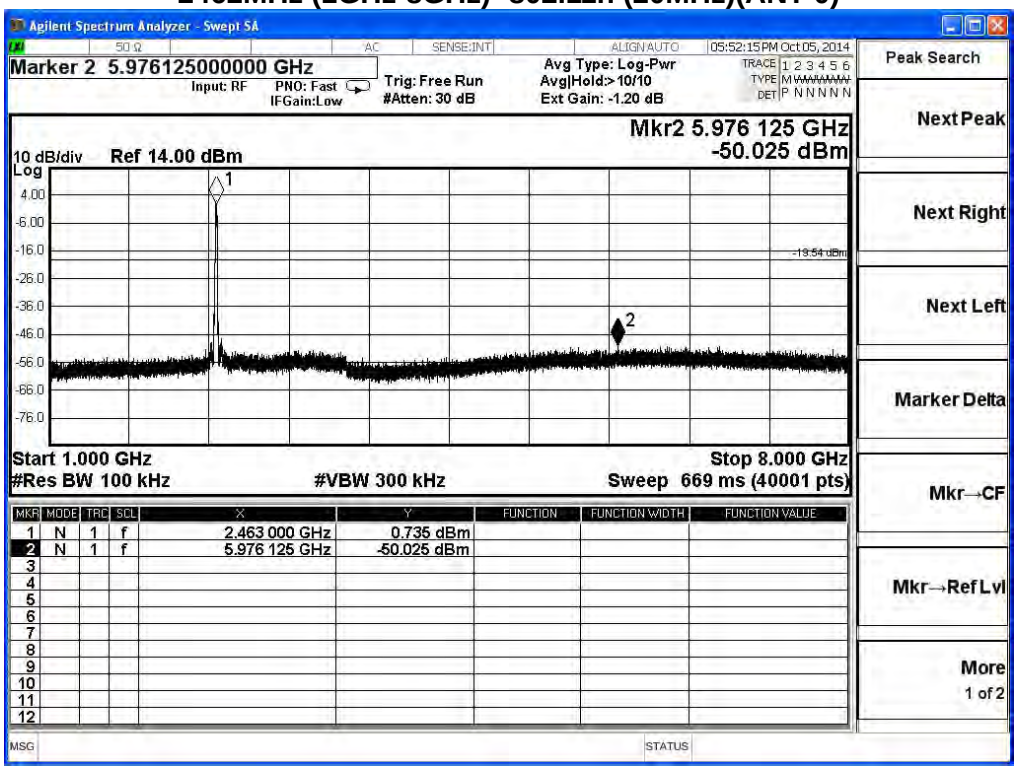
2437MHz (16GHz-25GHz) -802.11n (20MHz)(ANT 0)



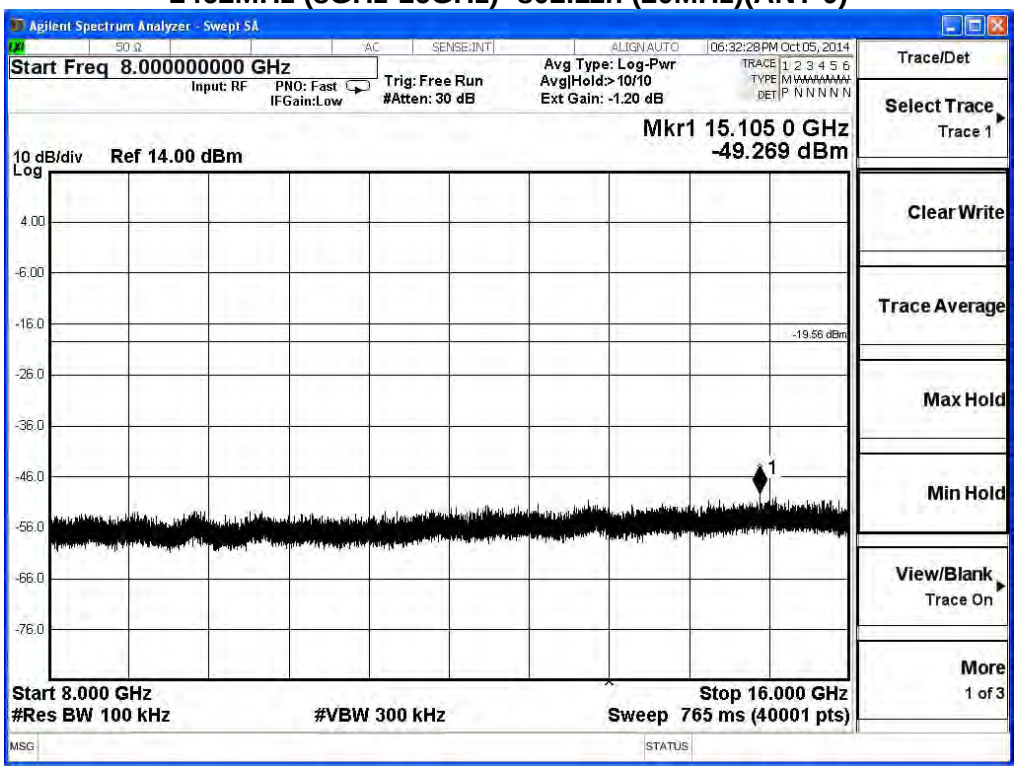
2462MHz (30MHz-1GHz)- 802.11n (20MHz)(ANT 0)



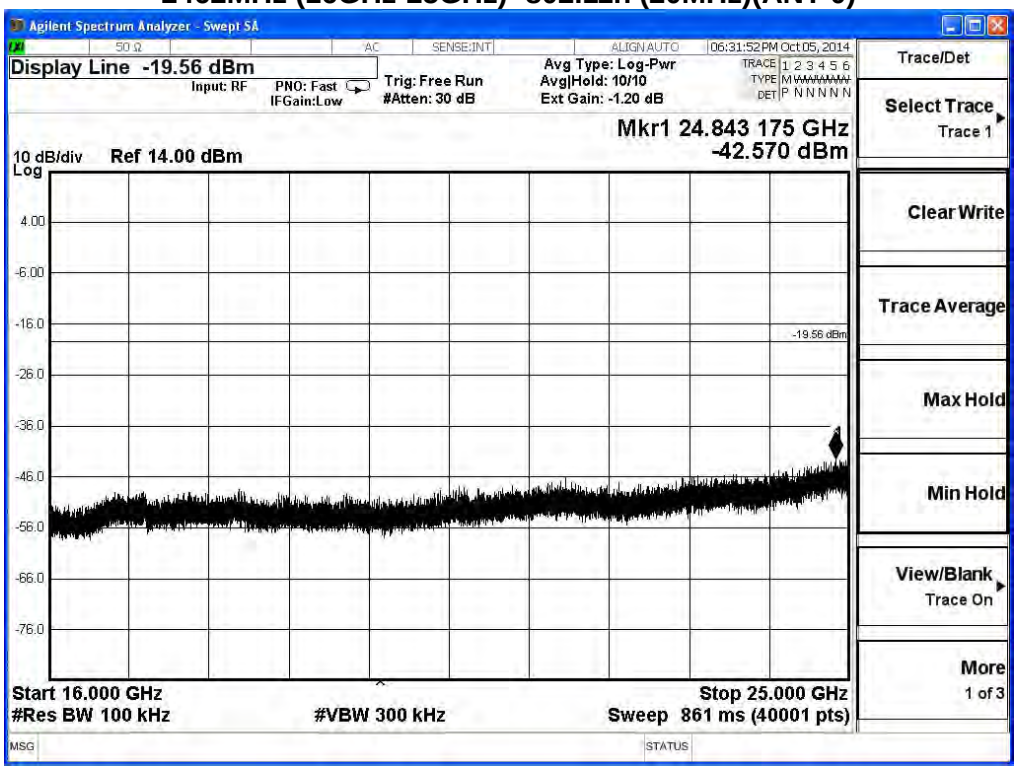
2462MHz (1GHz-8GHz) -802.11n (20MHz)(ANT 0)



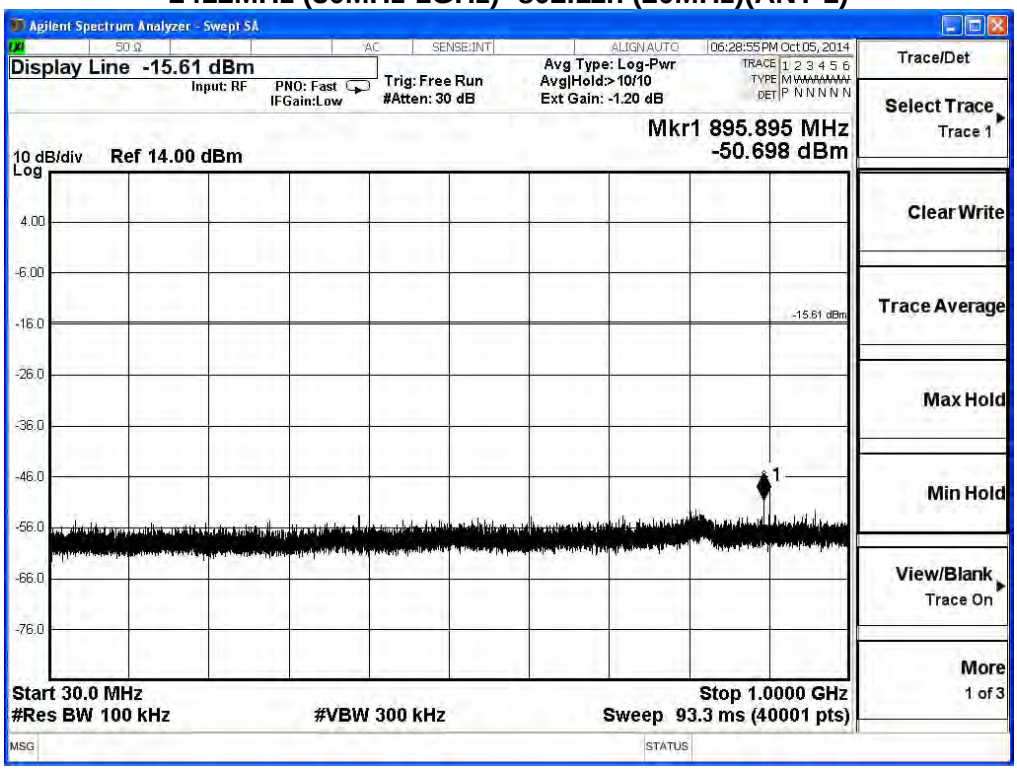
2462MHz (8GHz-16GHz) -802.11n (20MHz)(ANT 0)



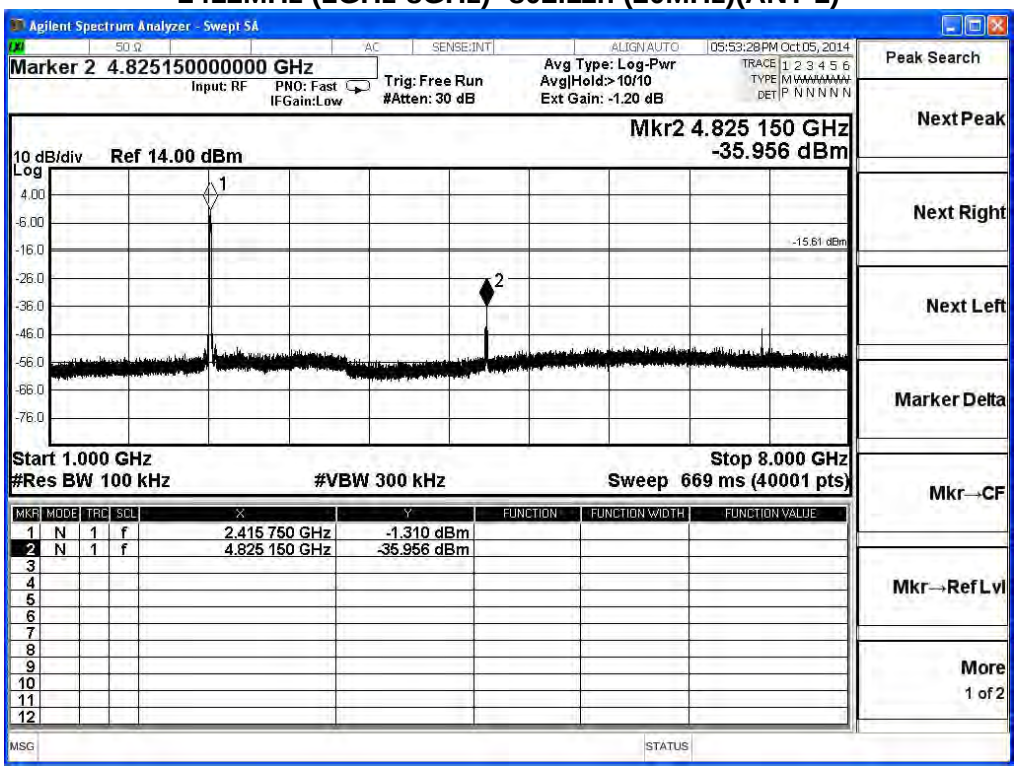
2462MHz (16GHz-25GHz) -802.11n (20MHz)(ANT 0)



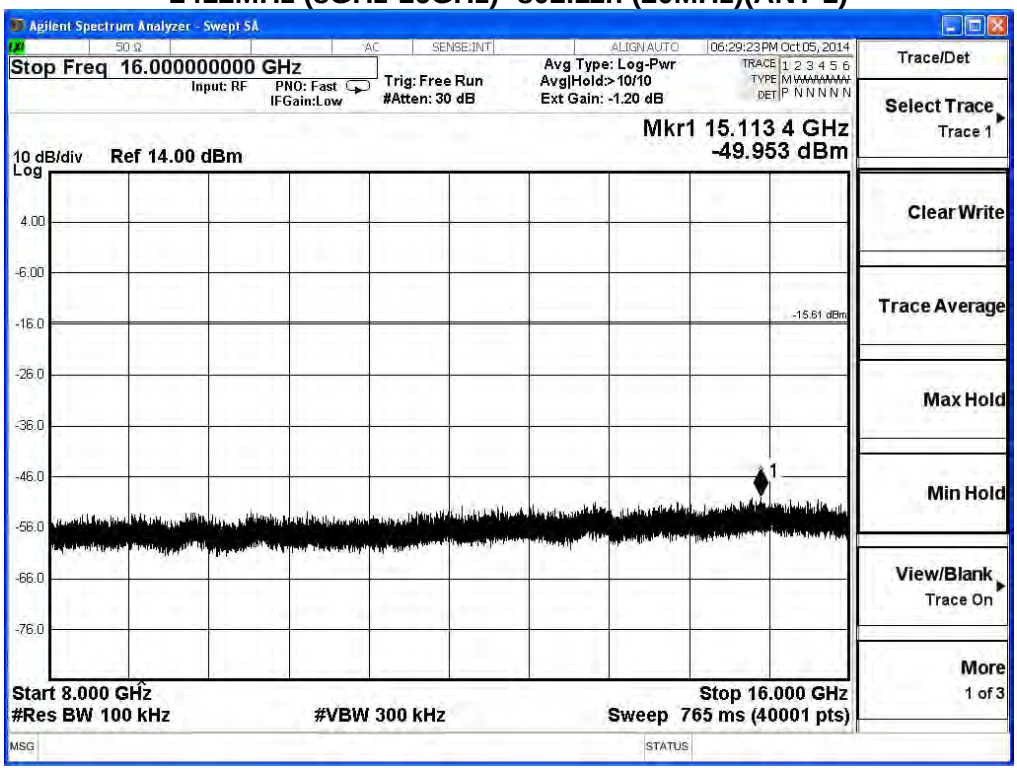
2412MHz (30MHz-1GHz)- 802.11n (20MHz)(ANT 1)



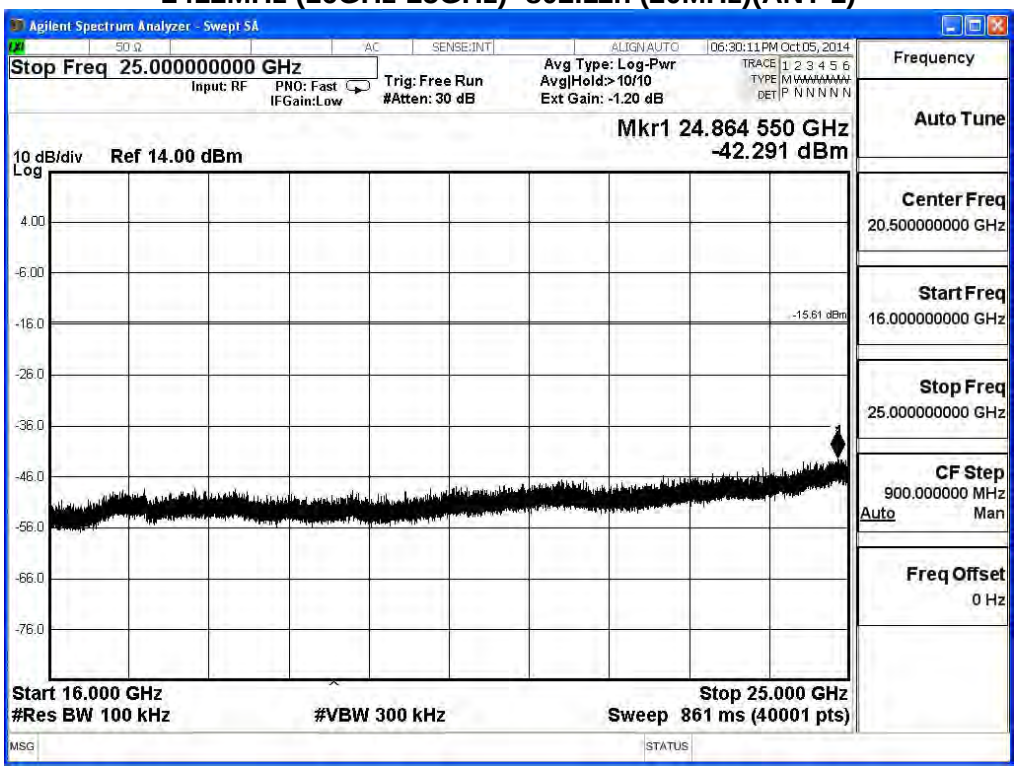
2412MHz (1GHz-8GHz) -802.11n (20MHz)(ANT 1)



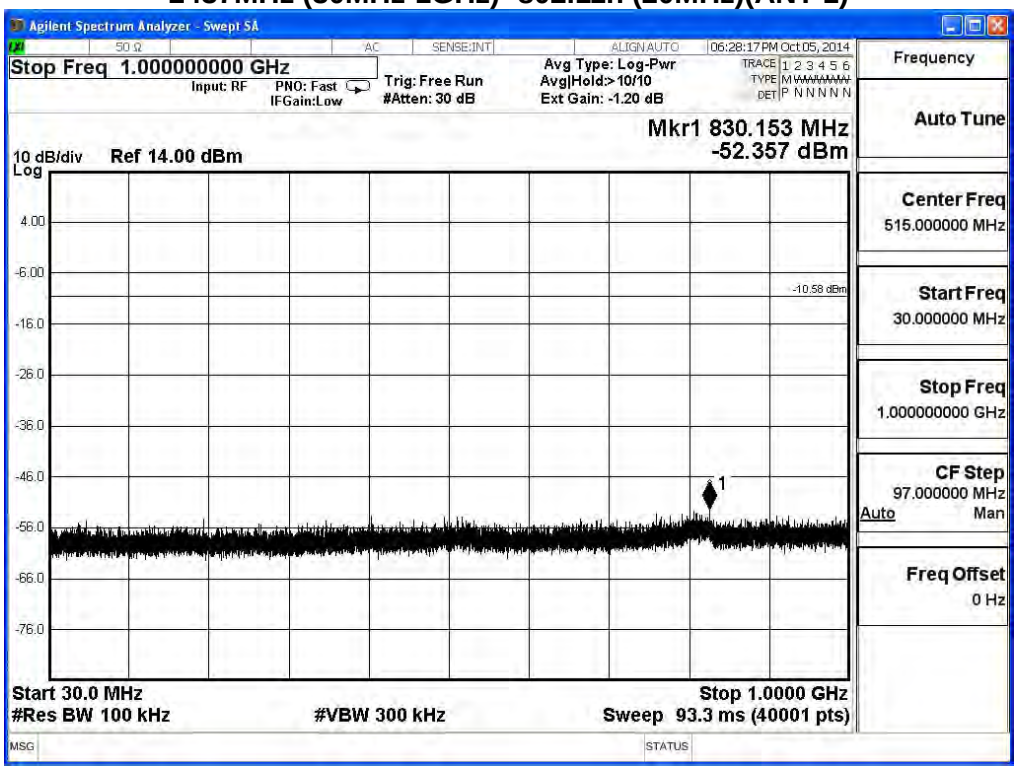
2412MHz (8GHz-16GHz) -802.11n (20MHz)(ANT 1)



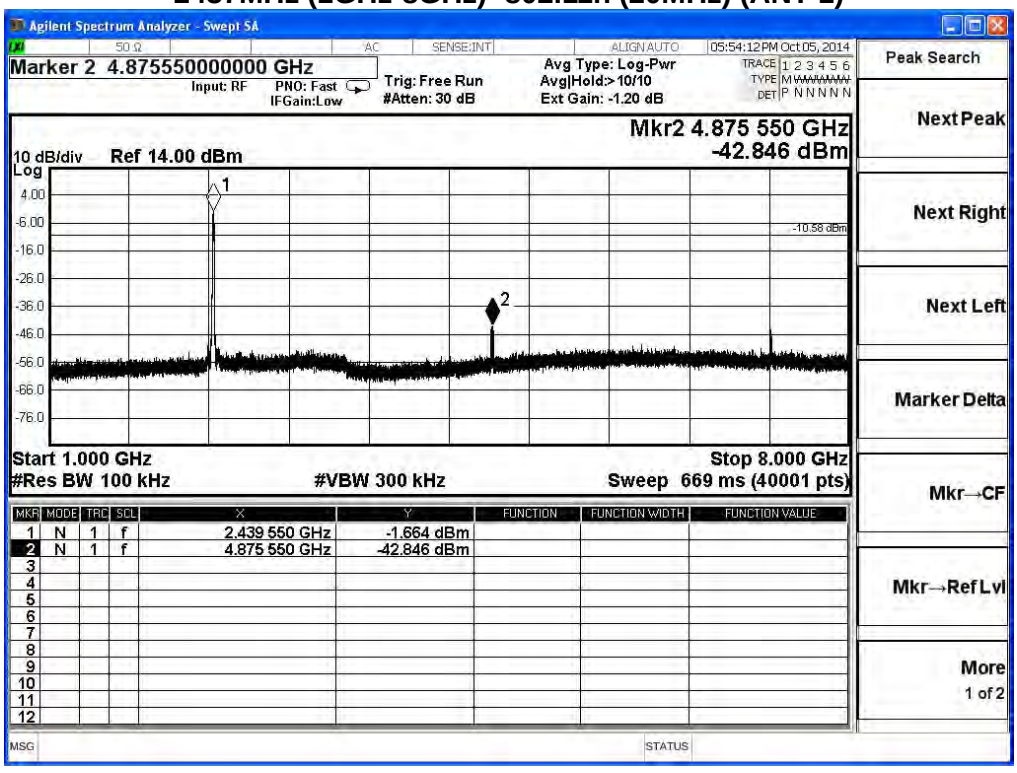
2412MHz (16GHz-25GHz) -802.11n (20MHz)(ANT 1)



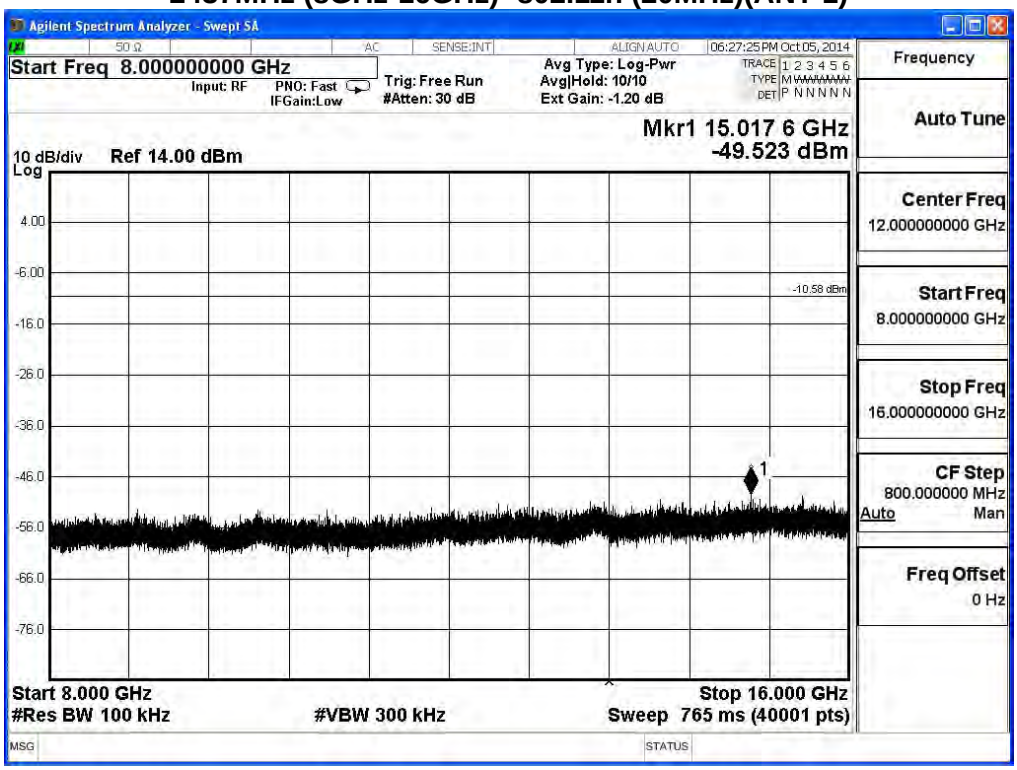
2437MHz (30MHz-1GHz)- 802.11n (20MHz)(ANT 1)



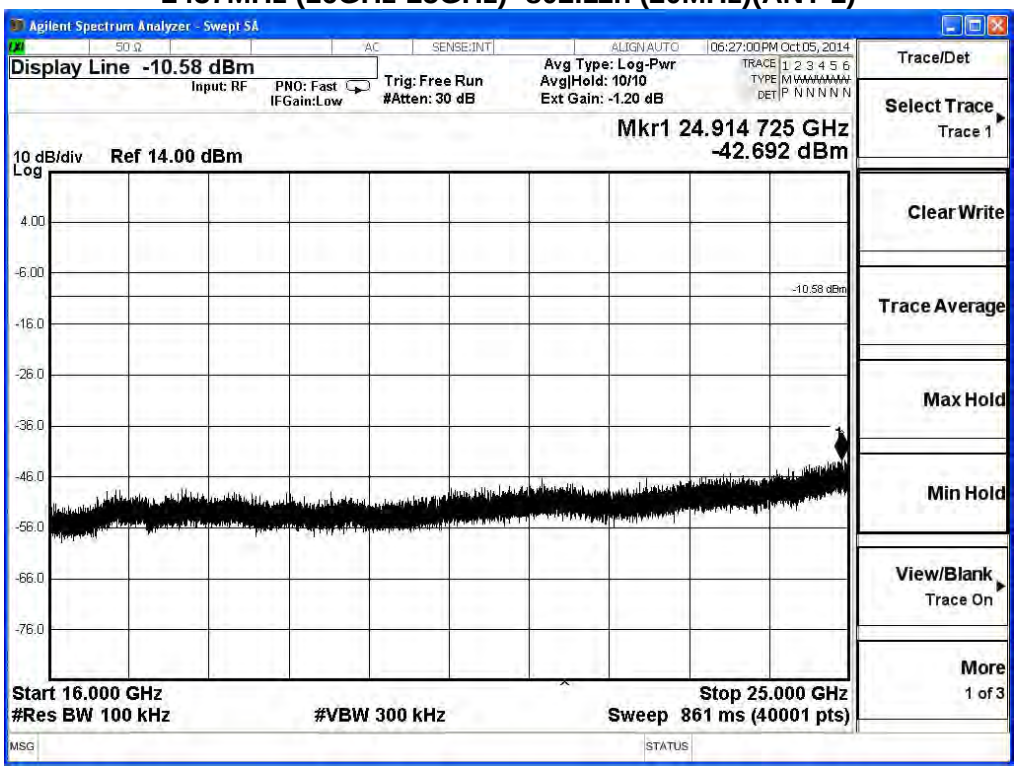
2437MHz (1GHz-8GHz) -802.11n (20MHz) (ANT 1)



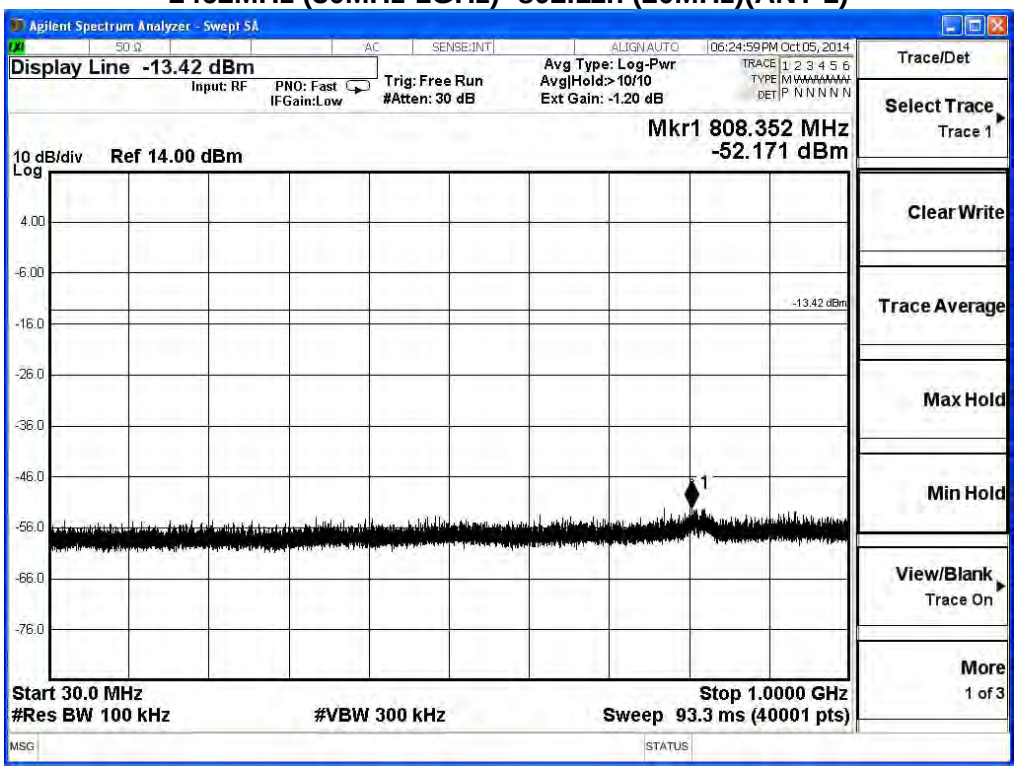
2437MHz (8GHz-16GHz) -802.11n (20MHz)(ANT 1)



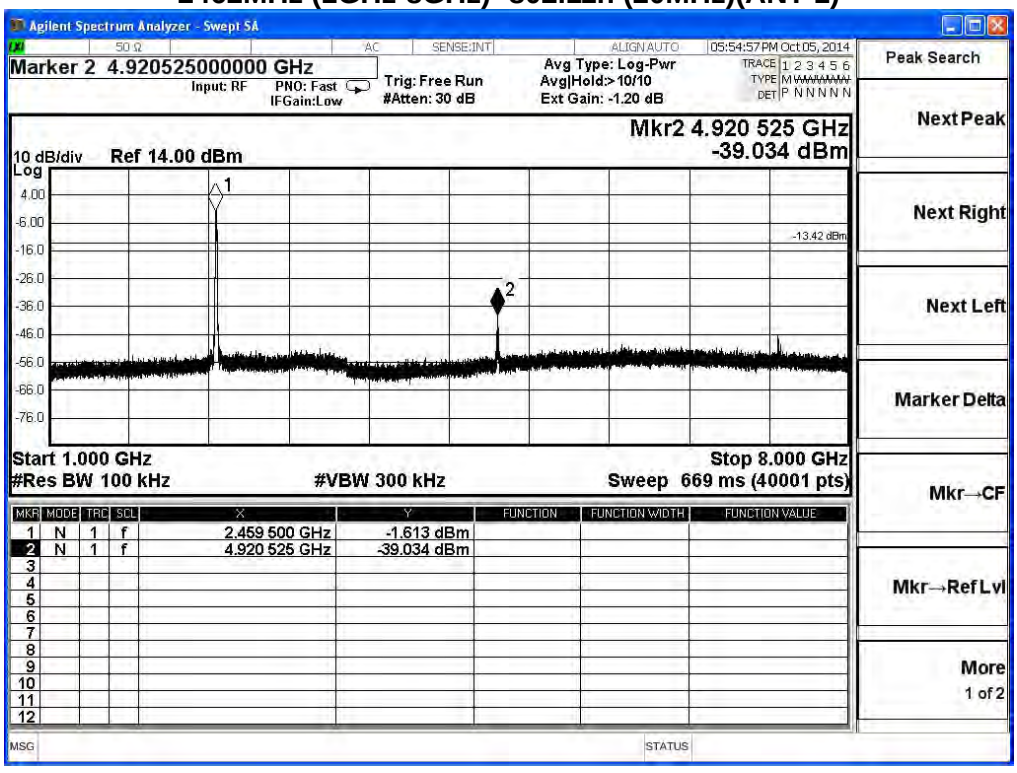
2437MHz (16GHz-25GHz) -802.11n (20MHz)(ANT 1)



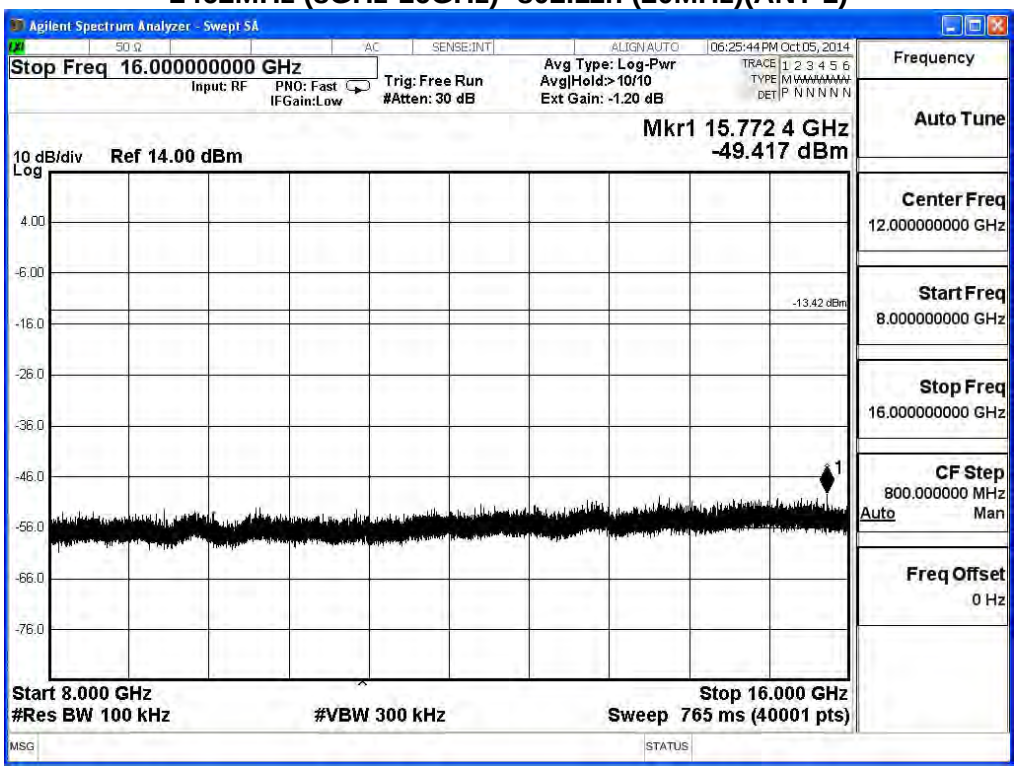
2462MHz (30MHz-1GHz)- 802.11n (20MHz)(ANT 1)



2462MHz (1GHz-8GHz) -802.11n (20MHz)(ANT 1)



2462MHz (8GHz-16GHz) -802.11n (20MHz)(ANT 1)



2462MHz (16GHz-25GHz) -802.11n (20MHz)(ANT 1)