



## Test Report

Product Name	ROS Video DMA
Model No	ROS-1000
FCC ID.	BJM-ROS1000

Applicant	TATUNG CO.
Address	22, Chungshan N. Rd., 3rd Sec. Taipei, Taiwan, 104, R.O.C.

Date of Receipt	Aug. 01, 2008
Issue Date	Aug. 13, 2008
Report No.	088064R-RFUSP05V01
Version	V1.0

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.

This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

# Test Report Certification

Issue Date: Aug. 13, 2008

Report No.: 088064R-RFUSP05V01



**Accredited by NIST (NVLAP)**  
NVLAP Lab Code: 200533-0

Product Name	ROS Video DMA
Applicant	TATUNG CO.
Address	22, Chungshan N. Rd., 3rd Sec. Taipei, Taiwan, 104, R.O.C.
Manufacturer	TATUNG CO.
Model No.	ROS-1000
Rated Voltage	AC 120V/60Hz
Working Voltage	AC 120V/60Hz
Trade Name	PRODEA
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2007 ANSI C63.4: 2003
Test Result	Complied



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Testing Laboratory

0914

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Attachment 2: EUT Detailed Photographs

## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	ROS Video DMA
Trade Name	PRODEA
FCC ID.	BJM-ROS1000
Model No.	ROS-1000
Frequency Range	2412-2472MHz, 5180-5240MHz and 5745-5825MHz
Number of Channels	802.11b/g/n-20MHz/n-40MHz: 11, 802.11a/n-20MHz: 9 802.11n-40MHz: 11
Data Speed	802.11b: 1-11Mbps, 802.11a/g: 6-54Mbps, 802.11n: 13.5-300Mbps
Channel separation	802.11b/g/n-20MHz: 5 MHz, 802.11a/n-20MHz: 20MHz 802.11n-40MHz: 40MHz
Type of Modulation	802.11b:DSSS DBPSK, DQPSK, CCK 802.11a/g/n: OFDM BPSK, QPSK, 16QAM, 64QAM
Antenna Type	PIFA
Antenna Gain	Refer to the table "Antenna List"
Channel Control	Auto
Power Adapter	MFR: UMEC, M/N: UP0251P-12PA Power Cord: Non-Shielded, 1.8m

#### Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	FAVORTRON	E773700186	2.84dBi in 2.4 GHz
		E773700180	1.15dBi in 5GHz
		E773700185	

## 802.11b/g/n-20MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

## 802.11a/n-20MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 1:	5745 MHz	Channel 2:	5765 MHz	Channel 3:	5785 MHz	Channel 4:	5805 MHz
Channel 5:	5825 MHz						

## 802.11n-40MHz (2.4G Band) Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 1:	2422 MHz	Channel 2:	2427 MHz	Channel 3:	2432 MHz	Channel 4:	2437 MHz
Channel 5:	2442 MHz	Channel 6:	2447 MHz	Channel 7:	2452 MHz		

## 802.11n-40MHz (5G Band) Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency
Channel 1:	5755 MHz	Channel 2:	5795 MHz

## Note:

1. The EUT is a ROS Video DMA with a built-in 2.4GHz and 5GHz WLAN card.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 1Mbps 、 802.11g is 6Mbps 、 802.11n(20BW) is 13.5Mbps and 、 802.11n(40BW) is 27Mbps)
4. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11a/b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.
5. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

## 1.2. Operational Description

The EUT is a ROS Video DMA with a built-in 2.4GHz and 5GHz WLAN card. This device provided four kinds of transmitting speed 1, 2, 5.5 and 11Mbps and the device of RF carrier is DBPSK, DQPSK and CCK (IEEE 802.11b). The device provided of eight kinds of transmitting speed 6, 9, 12, 18, 24, 36, 48 and 54Mbps the device of RF carrier is BPSK, QPSK, 16QAM and 64QAM (IEEE 802.11a/g).

The device provided of eight kinds of transmitting speed 13.5,26,39,52,78,104,117 and 130Mbps in 802.11n(20BW) mode and 27,54,81,108,162,216,243 and 270Mbps(40BW) the device of RF carrier is BPSK, QPSK, 16QAM and 64QAM (IEEE 802.11n).

The device adapts direct sequence spread spectrum modulation. The antenna provides diversity function to improve the receiving function.

This ROS Video DMA, compliant with IEEE 802.11b and IEEE 802.11a/g/n, is a high-efficiency Wireless LAN adapter. It allows your computer to connect to a wireless network and to share resources, such as files or printers without being bound to the network wires. Operation in 2.4GHz Direct Sequence Spread Spectrum (DSSS) radio transmission, the ROS Video DMA Wired Equivalent Protection (WEP) algorithm is used. In addition, its standard compliance ensures that it can communicate with any IEEE 802.11b and IEEE 802.11a/g/n network.

Test Mode:	Mode 1: Transmitter - 802.11b 1Mbps
	Mode 2: Transmitter - 802.11g 6Mbps
	Mode 3: Transmitter - 802.11a 6Mbps
	Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)
	Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)
	Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)
	Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)

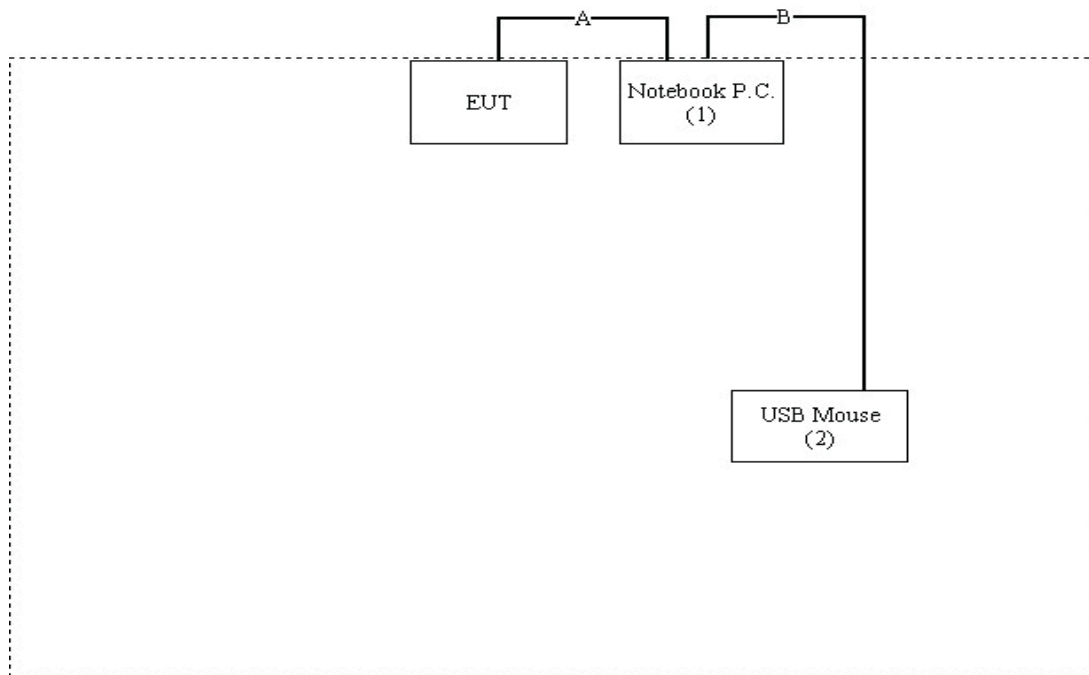
### 1.3. Tested System Details

The types for all equipment, 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 P.C.	TATUNG	TTAB-B12D	437TNF01T002	DoC	Non-Shielded, 1.8m
2.	USB Mouse	Logitech	M-BZ96C	HS72916	DoC	N/A

Signal Cable Type	Signal cable Description
A. LAN Cable	Non-Shielded, 1m
B. USB Mouse Cable	Non-Shielded, 1.8m

### 1.4. Configuration of Tested System



### 1.5. EUT Exercise Software

- (1) Setup the EUT as shown in Section 1.4
- (2) Execute "Dut Gut.exe" on the EUT.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Press "OK" to start the continuous receiver.
- (5) Verify that the EUT works properly.



**1.6. Test Facility**

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

Site Description: File on  
 Federal Communications Commission  
 FCC Engineering Laboratory  
 7435 Oakland Mills Road  
 Columbia, MD 21046  
 Registration Number: 92195



Accreditation on NVLAP  
 NVLAP Lab Code: 200533-0



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FCC Accreditation Number: TW1014



## 2. Conducted Emission

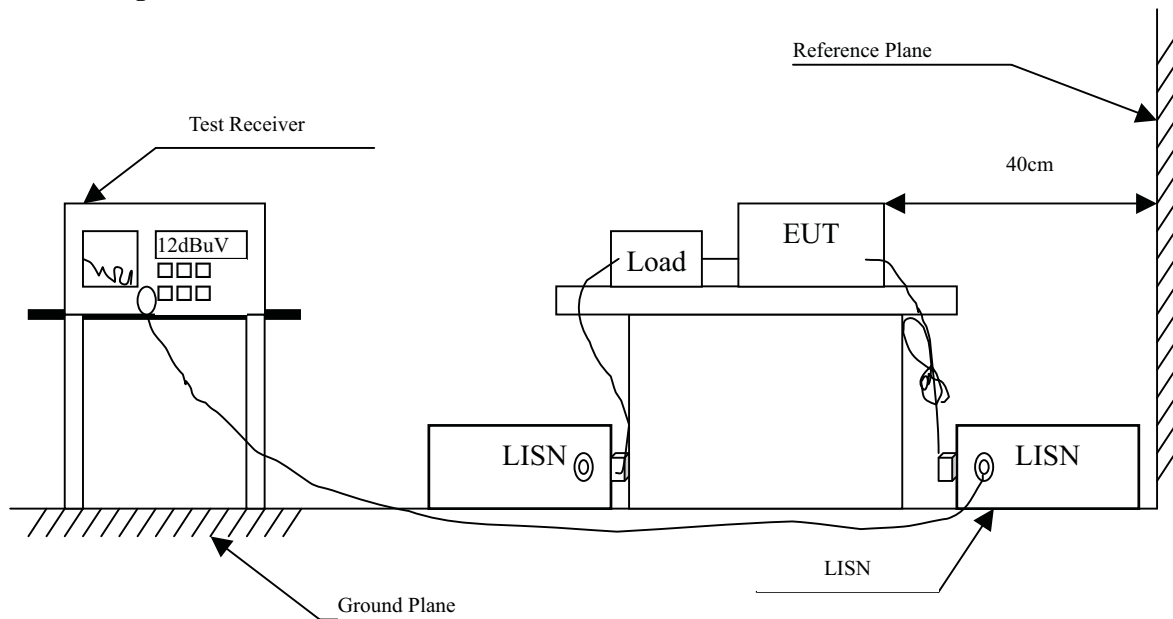
### 2.1. Test Equipment

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2008	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2008	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2008	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2008	
5	No.1 Shielded Room			N/A	

Note: All instruments are calibrated every one year.

### 2.2. Test Setup



**2.3. Limits**

<b>FCC Part 15 Subpart C Paragraph 15.207 (dBuV) Limit</b>		
Frequency MHz	Limits	
	QP	AVG
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

**2.4. Test Procedure**

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

**2.5. Uncertainty**

± 2.26 dB

## 2.6. Test Result of Conducted Emission

Product : ROS Video DMA  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>Line 1</b>					
<b>Quasi-Peak</b>					
0.166	9.812	40.050	49.862	-15.681	65.543
0.201	9.824	30.060	39.884	-24.659	64.543
0.240	9.830	20.400	30.230	-33.199	63.429
0.330	9.830	27.370	37.200	-23.657	60.857
0.412	9.820	29.770	39.590	-18.924	58.514
0.947	9.830	24.440	34.270	-21.730	56.000
<b>Average</b>					
0.166	9.812	30.890	40.702	-14.841	55.543
0.201	9.824	19.060	28.884	-25.659	54.543
0.240	9.830	5.780	15.610	-37.819	53.429
0.330	9.830	24.650	34.480	-16.377	50.857
0.412	9.820	28.150	37.970	-10.544	48.514
0.947	9.830	19.050	28.880	-17.120	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and data rate.
5. Only worst case is shown in the test mode.

Product : ROS Video DMA  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>Line 2</b>					
<b>Quasi-Peak</b>					
0.170	9.866	36.800	46.666	-18.763	65.429
0.205	9.860	34.110	43.970	-20.459	64.429
0.244	9.860	26.720	36.580	-26.734	63.314
0.334	9.850	25.230	35.080	-25.663	60.743
0.412	9.840	26.560	36.400	-22.114	58.514
1.529	9.840	21.220	31.060	-24.940	56.000
<b>Average</b>					
0.170	9.866	26.910	36.776	-18.653	55.429
0.205	9.860	25.880	35.740	-18.689	54.429
0.244	9.860	15.160	25.020	-28.294	53.314
0.334	9.850	20.040	29.890	-20.853	50.743
0.412	9.840	24.750	34.590	-13.924	48.514
1.529	9.840	12.880	22.720	-23.280	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and data rate.
5. Only worst case is shown in the test mode.

Product : ROS Video DMA  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band) (5755MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>Line 1</b>					
<b>Quasi-Peak</b>					
0.193	9.850	32.010	41.860	-22.911	64.771
0.233	9.850	27.590	37.440	-26.189	63.629
0.333	9.840	25.540	35.380	-25.391	60.771
0.373	9.840	22.670	32.510	-27.119	59.629
0.423	9.832	28.450	38.282	-19.918	58.200
1.279	9.830	26.470	36.300	-19.700	56.000
<b>Average</b>					
0.193	9.850	25.850	35.700	-19.071	54.771
0.233	9.850	17.840	27.690	-25.939	53.629
0.333	9.840	20.500	30.340	-20.431	50.771
0.373	9.840	16.600	26.440	-23.189	49.629
0.423	9.832	25.730	35.562	-12.638	48.200
1.279	9.830	21.510	31.340	-14.660	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and data rate.
5. Only worst case is shown in the test mode.

Product : ROS Video DMA  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band) (5755MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>Line 2</b>					
<b>Quasi-Peak</b>					
0.185	9.861	32.410	42.271	-22.729	65.000
0.235	9.860	29.680	39.540	-24.031	63.571
0.335	9.850	23.680	33.530	-27.184	60.714
0.385	9.840	22.400	32.240	-27.046	59.286
0.425	9.840	29.130	38.970	-19.173	58.143
0.705	9.840	24.070	33.910	-22.090	56.000
<b>Average</b>					
0.185	9.861	21.800	31.661	-23.339	55.000
0.235	9.860	20.740	30.600	-22.971	53.571
0.335	9.850	18.770	28.620	-22.094	50.714
0.385	9.840	16.360	26.200	-23.086	49.286
0.425	9.840	28.180	38.020	-10.123	48.143
0.705	9.840	19.110	28.950	-17.050	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and data rate.
5. Only worst case is shown in the test mode.

### 3. Peak Power Output

#### 3.1. Test Equipment

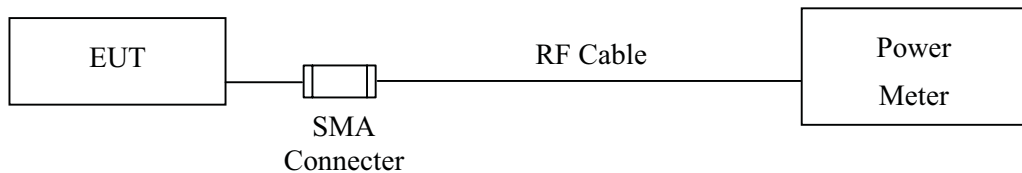
The following test equipments are used during the radiated emission tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X Power Meter	Anritsu	ML2495A/6K00003357	May, 2008
X Power Sensor	Anritsu	MA2491A/034457	May, 2008

Note: 1. All instruments are calibrated every one year.  
 2. The test instruments marked by “X” are used to measure the final test results.

#### 3.2. Test Setup

Conducted Measurement



#### 3.3. Limits

The maximum peak power shall be less 1 Watt.

#### 3.4. Test Procedure

The EUT was tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

#### 3.5. Uncertainty

± 1.27 dB



### 3.6. Test Result of Peak Power Output

Product : ROS Video DMA  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter - 802.11b 1Mbps

Cable loss=0.5dB		Peak Power Output (dBm)				Required Limit
Channel No.	Frequency (MHz)	Data Rate (Mbps)				
		1	2	5.5	11	
1	2412.00	18.78	--	--	--	1 Watt= 30 dBm
6	2437.00	19.1	19	18.95	18.88	1 Watt= 30 dBm
11	2462.00	19.76	--	--	--	1 Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

Product : ROS Video DMA  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter - 802.11g 6Mbps

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		6	9	12	18	24	36	48	54	
1	2412.00	19.15	--	--	--	--	--	--	--	1Watt= 30 dBm
6	2437.00	19.98	19.85	19.75	19.83	19.75	19.59	19.82	19.86	1Watt= 30 dBm
11	2462.00	20	--	--	--	--	--	--	--	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

Product : ROS Video DMA  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmitter - 802.11a 6Mbps

Cable loss=1dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		6	9	12	18	24	36	48	54	
1	5745.00	17.51	--	--	--	--	--	--	--	1Watt= 30 dBm
3	5785.00	16.58	16.56	16.41	16.52	16.4	16.38	16.39	16.51	1Watt= 30 dBm
5	5825.00	17.85	--	--	--	--	--	--	--	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

Product : ROS Video DMA  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13.5Mbps(2.4G Band)

**Antenna A**

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		13.5	26	39	52	78	104	117	130	
1	2412.00	17.91	--	--	--	--	--	--	--	1 Watt= 30 dBm
6	2437.00	17.92	17.9	17.85	17.88	17.9	17.86	17.72	17.8	1 Watt= 30 dBm
11	2462.00	18.02	--	--	--	--	--	--	--	1 Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

**Antenna B**

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		13.5	26	39	52	78	104	117	130	
1	2412.00	15.12	--	--	--	--	--	--	--	1 Watt= 30 dBm
6	2437.00	15.04	14.96	14.88	14.9	14.9	14.86	14.92	14.86	1 Watt= 30 dBm
11	2462.00	15.44	--	--	--	--	--	--	--	1 Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

**Antenna A+B**

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		13.5	26	39	52	78	104	117	130	
1	2412.00	19.75	--	--	--	--	--	--	--	1 Watt= 30 dBm
6	2437.00	19.72	19.68	19.62	19.65	19.66	19.62	19.55	19.58	1 Watt= 30 dBm
11	2462.00	19.93	--	--	--	--	--	--	--	1 Watt= 30 dBm

Note: Peak Power Output Value =Antenna A +Antenna B

Product : ROS Video DMA  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band)

**Antenna A**

Cable loss=0.5dB		Peak Power Output (dBm)								Required Limit (dBm)
Channel No.	Frequency (MHz)	Data Rate (Mbps)								
		27	54	81	108	162	216	243	270	
1	2422.00	18.01	--	--	--	--	--	--	--	1Watt= 30
4	2437.00	18.11	18.01	17.95	17.93	17.75	17.82	17.9	17.87	1Watt= 30
7	2452.00	18.23	--	--	--	--	--	--	--	1Watt= 30

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

**Antenna B**

Cable loss=0.5dB		Peak Power Output (dBm)								Required Limit (dBm)
Channel No.	Frequency (MHz)	Data Rate (Mbps)								
		27	54	81	108	162	216	243	270	
1	2422.00	13	--	--	--	--	--	--	--	1Watt= 30
4	2437.00	15.3	15.22	15.1	15.2	15.06	14.96	14.92	15.12	1Watt= 30
7	2452.00	13.04	--	--	--	--	--	--	--	1Watt= 30

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

**Antenna A + B**

Cable loss=0.5dB		Peak Power Output (dBm)								Required Limit (dBm)
Channel No.	Frequency (MHz)	Data Rate (Mbps)								
		27	54	81	108	162	216	243	270	
1	2422.00	19.20	--	--	--	--	--	--	--	1Watt= 30
4	2437.00	19.94	19.85	19.77	19.79	19.62	19.63	19.67	19.72	1Watt= 30
7	2452.00	19.38	--	--	--	--	--	--	--	1Watt= 30

Note: Peak Power Output Value =Antenna A +Antenna B

Product : ROS Video DMA  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13.5Mbps(5G Band)

**Antenna A**

Cable loss=0.5dB		Peak Power Output (dBm)								Required Limit (dBm)
Channel No.	Frequency (MHz)	Data Rate (Mbps)								
		13	26	39	52	78	104	117	130	
1	5745.00	14.05	--	--	--	--	--	--	--	1Watt= 30
4	5785.00	13.12	13.1	12.98	12.99	13.1	12.95	13	13	1Watt= 30
7	5825.00	11.42	--	--	--	--	--	--	--	1Watt= 30

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

**Antenna B**

Cable loss=0.5dB		Peak Power Output (dBm)								Required Limit (dBm)
Channel No.	Frequency (MHz)	Data Rate (Mbps)								
		13	26	39	52	78	104	117	130	
1	5745.00	12.12	--	--	--	--	--	--	--	1Watt= 30
4	5785.00	11.29	11.2	11.25	11.19	11.2	11.27	11.1	11.19	1Watt= 30
7	5825.00	16	--	--	--	--	--	--	--	1Watt= 30

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

**Antenna A + B**

Cable loss=0.5dB		Peak Power Output (dBm)								Required Limit (dBm)
Channel No.	Frequency (MHz)	Data Rate (Mbps)								
		13	26	39	52	78	104	117	130	
1	5745.00	16.20	--	--	--	--	--	--	--	1Watt= 30
4	5785.00	15.31	15.26	15.21	15.19	15.26	15.20	15.16	15.20	1Watt= 30
7	5825.00	17.30	--	--	--	--	--	--	--	1Watt= 30

Note: Peak Power Output Value =Antenna A +Antenna B

Product : ROS Video DMA  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band)

**Antenna A**

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit (dBm)
		27	54	81	108	162	216	243	270	
1	5755.00	14.2	--	--	--	--	--	--	--	1Watt= 30
2	5795.00	13.6	13.59	13.49	13.55	13.55	13.52	13.54	13.5	1Watt= 30

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

**Antenna B**

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit (dBm)
		27	54	81	108	162	216	243	270	
1	5755.00	14.8	--	--	--	--	--	--	--	1Watt= 30
2	5795.00	15.2	15	15.16	15.17	15.16	15.09	15.04	15.18	1Watt= 30

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

**Antenna A + B**

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit (dBm)
		27	54	81	108	162	216	243	270	
1	5755.00	17.52	--	--	--	--	--	--	--	1Watt= 30
2	5795.00	17.48	17.36	17.42	17.45	17.44	17.39	17.36	17.43	1Watt= 30

Note: Peak Power Output Value =Antenna A +Antenna B

#### 4. Radiated Emission

##### 4.1. Test Equipment

The following test equipment are used during the radiated emission test:

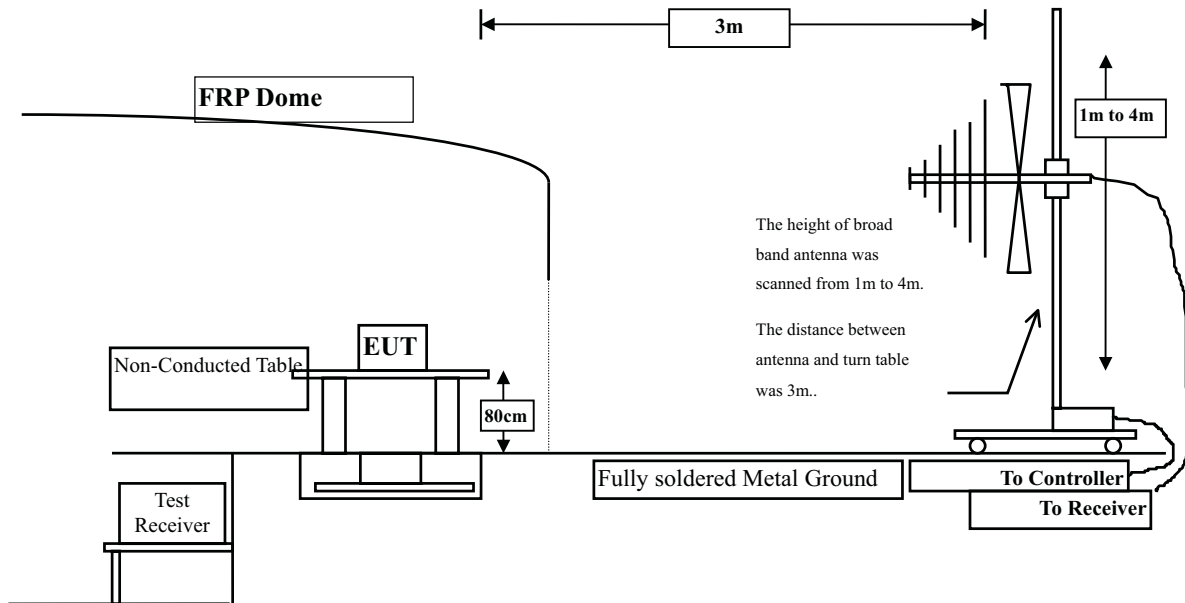
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ Site # 3	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2007
	X	Pre-Amplifier	AGILENT	8447D/2944A09549	Sep., 2007
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2007
	X	Spectrum Analyzer	Advantest	R3162/91700283	Oct., 2007
	X	Coaxial Cable	Quietek	QTK-CABLE/ CAB5	Feb., 2008
	X	Controller	Quietek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

- Note:
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
  2. The test instruments marked with "X" are used to measure the final test results.

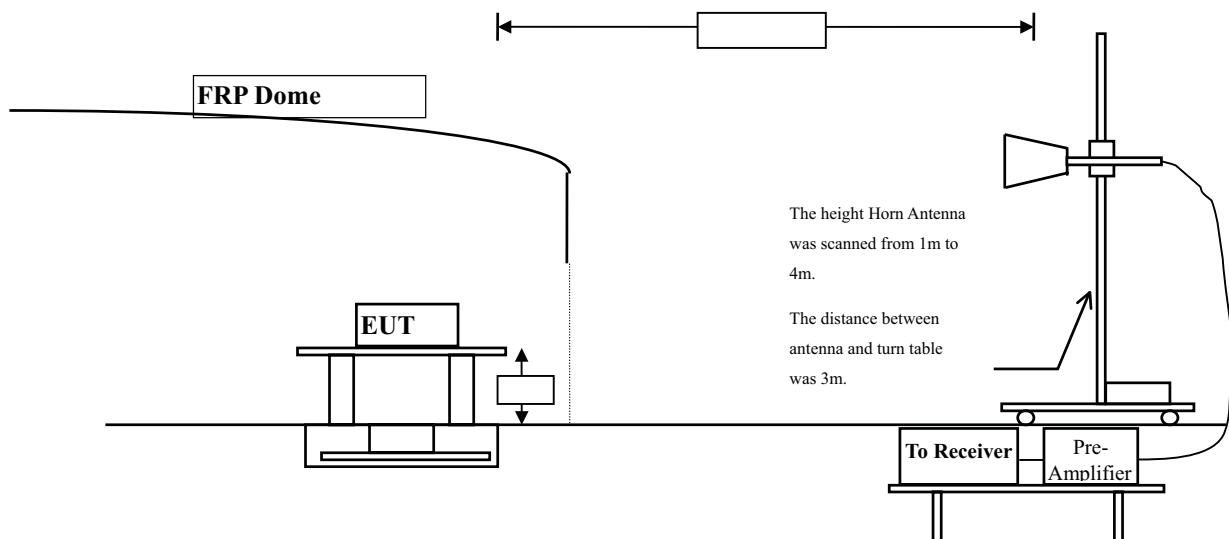


## 4.2. Test Setup

### Radiated Emission Below 1GHz



### Radiated Emission Above 1GHz



### 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.

<b>FCC Part 15 Subpart C Paragraph 15.209(a) Limits</b>		
Frequency MHz	uV/m @3m	dBuV/m@3m
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 C63.4, 2003 and tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

Radiated emission measurements below 1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB beamwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The frequency range from 30MHz to 10th harmonics is checked.

#### 4.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

#### 4.6. Test Result of Radiated Emission

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter - 802.11b 1Mbps (2412MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4824.000	3.723	45.300	49.023	-24.977	74.000
7236.000	9.439	36.200	45.639	-28.361	74.000
9648.000	11.829	37.120	48.949	-25.051	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4824.000	3.723	35.940	39.663	-34.337	74.000
7236.000	9.439	35.680	45.119	-28.881	74.000
9648.000	11.829	36.730	48.559	-25.441	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter - 802.11b 1Mbps (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4874.000	3.893	44.080	47.972	-26.028	74.000
7311.000	9.624	43.960	53.584	-20.416	74.000
9748.000	11.805	36.010	47.816	-26.184	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4874.000	3.893	44.860	48.752	-25.248	74.000
7311.000	9.624	35.430	45.054	-28.946	74.000
9748.000	11.805	36.100	47.906	-26.094	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter - 802.11b 1Mbps (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4924.000	4.075	42.530	46.605	-27.395	74.000
7386.000	9.812	35.820	45.632	-28.368	74.000
9848.000	11.819	36.550	48.369	-25.631	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4924.000	4.075	39.450	43.525	-30.475	74.000
7386.000	9.812	35.480	45.292	-28.708	74.000
9848.000	11.819	36.490	48.309	-25.691	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter - 802.11g 6Mbps (2412MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4824.000	3.723	39.000	42.723	-31.277	74.000
7236.000	9.439	35.960	45.399	-28.601	74.000
9648.000	11.829	36.330	48.159	-25.841	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4824.000	3.723	37.790	41.513	-32.487	74.000
7236.000	9.439	36.710	46.149	-27.851	74.000
9648.000	11.829	36.470	48.299	-25.701	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter - 802.11g 6Mbps (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4874.000	3.893	38.060	41.952	-32.048	74.000
7311.000	9.624	35.290	44.914	-29.086	74.000
9748.000	11.805	36.220	48.026	-25.974	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4874.000	3.893	37.460	41.352	-32.648	74.000
7311.000	9.624	34.670	44.294	-29.706	74.000
9748.000	11.805	36.030	47.836	-26.164	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.



Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter - 802.11g 6Mbps (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4924.000	4.075	37.150	41.225	-32.775	74.000
7386.000	9.812	35.620	45.432	-28.568	74.000
9848.000	11.819	36.090	47.909	-26.091	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4924.000	4.075	36.380	40.455	-33.545	74.000
7386.000	9.812	34.680	44.492	-29.508	74.000
9848.000	11.819	36.110	47.929	-26.071	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmitter - 802.11a 6Mbps (5745 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11490.000	15.526	46.560	62.086	-11.914	74.000
17235.000	14.291	37.020	51.312	-22.688	74.000
<b>Average Detector:</b>					
11490.000	15.526	32.560	48.086	-5.914	54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
11490.000	15.526	43.150	58.676	-15.324	74.000
17235.000	14.291	37.250	51.542	-22.458	74.000
<b>Average Detector:</b>					
11490.000	15.526	29.630	45.156	-8.844	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmitter - 802.11a 6Mbps (5785 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11570.000	14.910	47.080	61.990	-12.010	74.000
17355.000	14.144	37.460	51.605	-22.395	74.000
<b>Average Detector:</b>					
11570.000	14.910	33.040	47.950	-6.050	54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
11570.000	14.910	43.280	58.190	-15.810	74.000
17355.000	14.144	37.550	51.695	-22.305	74.000
<b>Average Detector:</b>					
11570.000	14.910	29.680	44.590	-9.410	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmitter - 802.11a 6Mbps (5825 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11650.000	14.691	46.780	61.471	-12.529	74.000
17475.000	13.864	37.290	51.154	-22.846	74.000
<b>Average Detector:</b>					
11650.000	14.691	33.110	47.801	-6.199	54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
11650.000	14.691	43.640	58.331	-15.669	74.000
17475.000	13.864	37.140	51.004	-22.996	74.000
<b>Average Detector:</b>					
11650.000	14.691	29.880	44.571	-9.429	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13.5Mbps(2.4G Band) (2412MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4824.000	3.723	40.330	44.053	-29.947	74.000
7236.000	9.439	35.790	45.229	-28.771	74.000
9648.000	11.829	36.540	48.369	-25.631	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4824.000	3.723	38.460	42.183	-31.817	74.000
7236.000	9.439	36.240	45.679	-28.321	74.000
9648.000	11.829	36.420	48.249	-25.751	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13.5Mbps(2.4G Band) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4874.000	3.893	36.670	40.562	-33.438	74.000
7311.000	9.624	35.440	45.064	-28.936	74.000
9748.000	11.805	37.070	48.876	-25.124	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4874.000	3.893	37.310	41.202	-32.798	74.000
7311.000	9.624	35.030	44.654	-29.346	74.000
9748.000	11.805	36.690	48.496	-25.504	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13.5Mbps(2.4G Band) (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4924.000	4.075	37.450	41.525	-32.475	74.000
7386.000	9.812	35.300	45.112	-28.888	74.000
9848.000	11.819	36.620	48.439	-25.561	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4924.000	4.075	37.230	41.305	-32.695	74.000
7386.000	9.812	35.370	45.182	-28.818	74.000
9848.000	11.819	36.460	48.279	-25.721	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) (2422MHz)

Frequency MHz	Correct Factor dB	Reading Level dBUV	Measurement Level dBUV/m	Margin dB	Limit dBUV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4844.000	3.788	36.350	40.138	-33.862	74.000
7266.000	9.517	36.530	46.047	-27.953	74.000
9688.000	11.818	36.750	48.568	-25.432	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4844.000	3.788	37.440	41.228	-32.772	74.000
7266.000	9.517	35.920	45.437	-28.563	74.000
9688.000	11.818	36.560	48.378	-25.622	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.



Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4874.000	4.002	36.210	40.212	-33.788	74.000
7311.000	9.747	36.950	46.697	-27.303	74.000
9748.000	11.795	36.720	48.515	-25.485	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4874.000	4.002	36.540	40.542	-33.458	74.000
7311.000	9.747	36.270	46.017	-27.983	74.000
9748.000	11.795	36.450	48.245	-25.755	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) (2452 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4904.000	4.002	37.430	41.432	-32.568	74.000
7356.000	9.747	35.490	45.237	-28.763	74.000
9808.000	11.795	36.630	48.425	-25.575	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4904.000	4.002	37.360	41.362	-32.638	74.000
7356.000	9.747	36.070	45.817	-28.183	74.000
9808.000	11.795	36.800	48.595	-25.405	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13.5Mbps(5G Band) (5745MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11490.000	15.526	45.380	60.906	-13.094	74.000
17235.000	14.291	37.640	51.932	-22.068	74.000
<b>Average Detector:</b>					
11490.000	15.526	31.870	47.396	-6.604	54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
11490.000	15.526	45.990	61.516	-12.484	74.000
17235.000	14.291	37.480	51.772	-22.228	74.000
<b>Average Detector:</b>					
11490.000	15.526	28.680	44.206	-9.794	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13.5Mbps(5G Band) (5785 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11570.000	14.910	46.280	61.190	-12.810	74.000
17355.000	14.144	37.180	51.325	-22.675	74.000
<b>Average Detector:</b>					
11570.000	14.910	32.160	47.070	-6.930	54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
11570.000	14.910	43.680	58.590	-15.410	74.000
17355.000	14.144	37.550	51.695	-22.305	74.000
<b>Average Detector:</b>					
11570.000	14.910	29.370	44.280	-9.720	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13.5Mbps(5G Band) (5825 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11650.000	14.691	45.980	60.671	-13.329	74.000
17475.000	13.864	37.590	51.454	-22.546	74.000
<b>Average Detector:</b>					
11650.000	14.691	32.090	46.781	-7.219	54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
11650.000	14.691	42.870	57.561	-16.439	74.000
17475.000	13.864	37.240	51.104	-22.896	74.000
<b>Average Detector:</b>					
11650.000	14.691	29.030	43.721	-10.279	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band) (5755MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
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**Horizontal**

**Peak Detector:**

11510.000	15.370	34.290	49.659	-24.341	74.000
17265.000	14.255	37.480	51.735	-22.265	74.000

**Average**

**Detector:**

--

**Vertical**

**Peak Detector:**

11510.000	15.370	34.380	49.749	-24.251	74.000
17265.000	14.255	37.460	51.715	-22.285	74.000

**Average**

**Detector:**

--

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band) (5795 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
11590.000	14.768	34.220	48.988	-25.012	74.000
17385.000	14.111	37.920	52.030	-21.970	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
11590.000	14.768	33.980	48.748	-25.252	74.000
17385.000	14.111	37.080	51.190	-22.810	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter - 802.11b 1Mbps (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
297.720	14.089	10.102	24.191	-21.809	46.000
499.480	18.228	17.666	35.894	-10.106	46.000
637.220	20.989	13.345	34.334	-11.666	46.000
747.800	21.019	18.008	39.027	-6.973	46.000
961.200	22.909	11.813	34.722	-19.278	54.000
966.120	23.345	22.406	45.751	-8.249	54.000
<b>Vertical</b>					
198.780	9.588	13.770	23.358	-20.142	43.500
497.540	18.301	10.284	28.585	-17.415	46.000
641.100	20.339	6.559	26.898	-19.102	46.000
749.740	23.178	15.343	38.521	-7.479	46.000
901.060	23.650	7.347	30.997	-15.003	46.000
996.120	22.660	22.089	44.749	-9.251	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.



Product : ROS Video DMA  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter - 802.11g 6Mbps (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
499.480	18.228	18.038	36.266	-9.734	46.000
637.220	20.989	11.916	32.905	-13.095	46.000
749.740	21.030	17.462	38.492	-7.508	46.000
800.180	21.764	11.023	32.787	-13.213	46.000
932.100	22.840	15.192	38.032	-7.968	46.000
996.120	23.460	22.539	45.999	-8.001	54.000
<b>Vertical</b>					
497.540	18.301	10.184	28.485	-17.515	46.000
641.100	20.339	6.049	26.388	-19.612	46.000
697.360	20.635	2.622	23.257	-22.743	46.000
749.740	23.178	14.569	37.747	-8.253	46.000
901.060	23.650	7.694	31.344	-14.656	46.000
996.120	22.660	21.552	44.212	-9.788	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmitter - 802.11a 6Mbps (5785MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
497.540	18.401	18.659	37.060	-8.940	46.000
637.220	20.989	13.671	34.660	-11.340	46.000
749.740	21.030	16.177	37.207	-8.793	46.000
792.420	22.104	9.648	31.752	-14.248	46.000
910.760	22.306	10.442	32.748	-13.252	46.000
996.120	23.460	20.770	44.230	-9.770	54.000
<b>Vertical</b>					
499.480	18.429	9.738	28.167	-17.833	46.000
641.100	20.339	6.925	27.264	-18.736	46.000
747.800	23.164	14.843	38.007	-7.993	46.000
901.060	23.650	6.405	30.055	-15.945	46.000
961.120	23.017	8.596	31.613	-22.387	54.000
996.120	22.660	22.950	45.610	-8.390	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13.5Mbps(2.4G Band) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
497.540	18.401	17.757	36.158	-9.842	46.000
637.220	20.989	11.759	32.748	-13.252	46.000
697.360	20.835	6.644	27.479	-18.521	46.000
749.740	21.030	17.083	38.113	-7.887	46.000
792.420	22.104	9.248	31.352	-14.648	46.000
996.120	23.460	22.302	45.762	-8.238	54.000
<b>Vertical</b>					
499.480	18.429	10.736	29.165	-16.835	46.000
641.100	20.339	7.089	27.428	-18.572	46.000
749.740	23.178	15.176	38.354	-7.646	46.000
800.180	21.815	7.506	29.321	-16.679	46.000
901.060	23.650	6.079	29.729	-16.271	46.000
996.120	22.660	21.229	43.889	-10.111	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
297.720	14.089	11.441	25.530	-20.470	46.000
499.480	18.228	17.962	36.190	-9.810	46.000
637.220	20.989	12.776	33.765	-12.235	46.000
749.740	21.030	16.686	37.716	-8.284	46.000
792.420	22.104	10.045	32.149	-13.851	46.000
996.120	23.460	21.798	45.258	-8.742	54.000
<b>Vertical</b>					
499.480	18.429	10.117	28.546	-17.454	46.000
637.220	20.613	3.806	24.419	-21.581	46.000
749.740	23.178	14.829	38.007	-7.993	46.000
800.180	21.815	7.164	28.979	-17.021	46.000
901.060	23.650	5.560	29.210	-16.790	46.000
996.120	22.660	21.903	44.563	-9.437	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13.5Mbps(5G Band) (5785 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
297.720	14.089	11.308	25.397	-20.603	46.000
499.480	18.228	19.266	37.494	-8.506	46.000
637.220	20.989	13.522	34.511	-11.489	46.000
747.800	21.019	17.466	38.485	-7.515	46.000
792.420	22.104	8.938	31.042	-14.958	46.000
996.120	23.460	22.211	45.671	-8.329	54.000
<b>Vertical</b>					
497.540	18.301	11.647	29.948	-16.052	46.000
604.240	21.805	0.430	22.235	-23.765	46.000
641.100	20.339	5.297	25.636	-20.364	46.000
749.740	23.178	17.230	40.408	-5.592	46.000
901.060	23.650	6.600	30.250	-15.750	46.000
996.120	22.660	22.141	44.801	-9.199	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

Product : ROS Video DMA  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band) (5755MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
297.720	14.089	10.638	24.727	-21.273	46.000
499.480	18.228	17.762	35.990	-10.010	46.000
637.220	20.989	12.674	33.663	-12.337	46.000
749.740	21.030	16.737	37.767	-8.233	46.000
800.180	21.764	11.073	32.837	-13.163	46.000
996.120	23.460	20.419	43.879	-10.121	54.000
<b>Vertical</b>					
480.080	18.459	8.888	27.347	-18.653	46.000
499.480	18.429	10.012	28.441	-17.559	46.000
637.220	20.613	4.049	24.662	-21.338	46.000
749.740	23.178	15.852	39.030	-6.970	46.000
897.170	23.420	6.531	29.951	-16.049	46.000
996.120	22.660	22.363	45.023	-8.977	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, 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.

**5. RF antenna conducted test**

**5.1. Test Equipment**

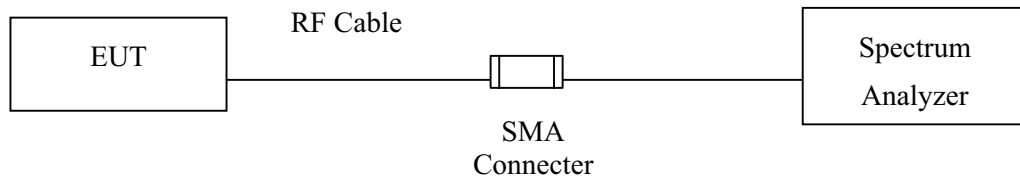
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2008
	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2008

- Note:
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
  2. The test instruments marked with “X” are used to measure the final test results.

**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 either an RF conducted or a 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 tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

## 5.5. Uncertainty

The measurement uncertainty

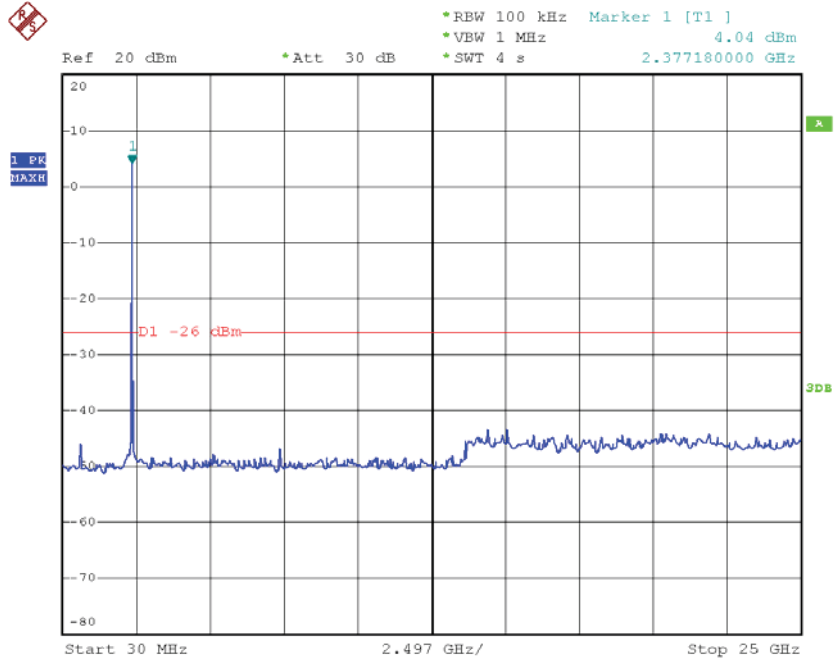
Conducted is defined as  $\pm 1.27\text{dB}$



### 5.6. Test Result of RF antenna conducted test

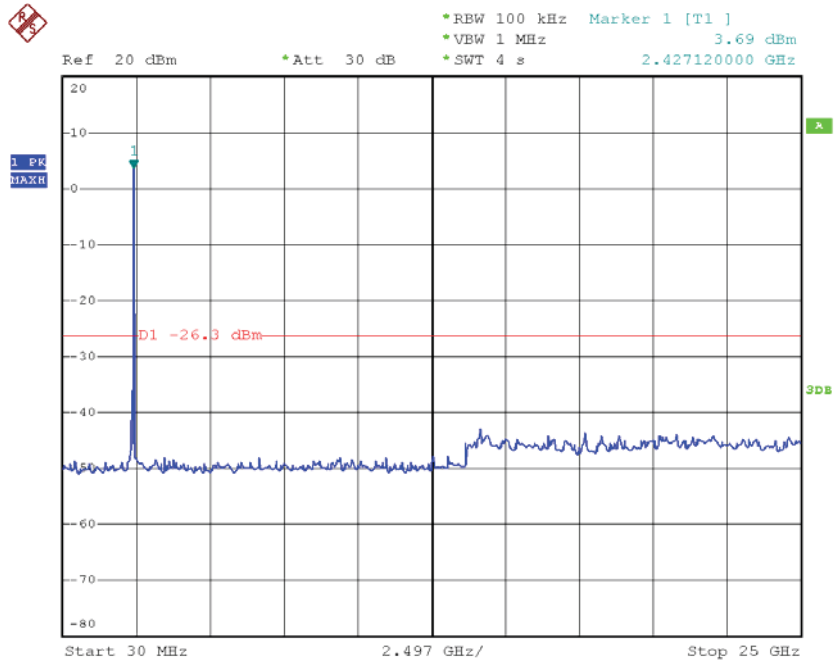
Product : ROS Video DMA  
Test Item : RF antenna conducted test  
Test Site : No.3 OATS  
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps

#### Channel 01 (2412MHz) 30-25GHz



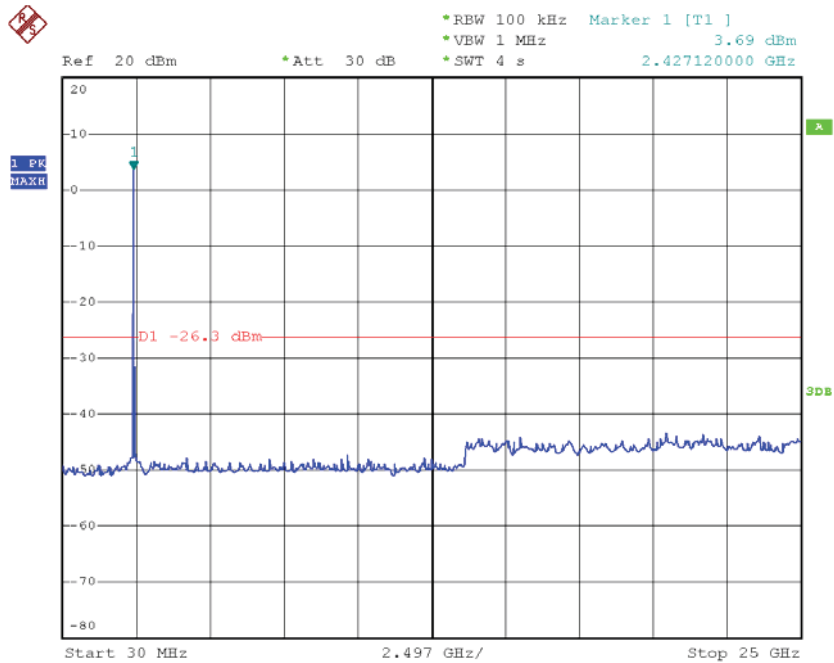
Date: 29.JUL.2008 23:00:34

### Channel 06 (2437MHz) 30-25GHz



Date: 29.JUL.2008 23:01:35

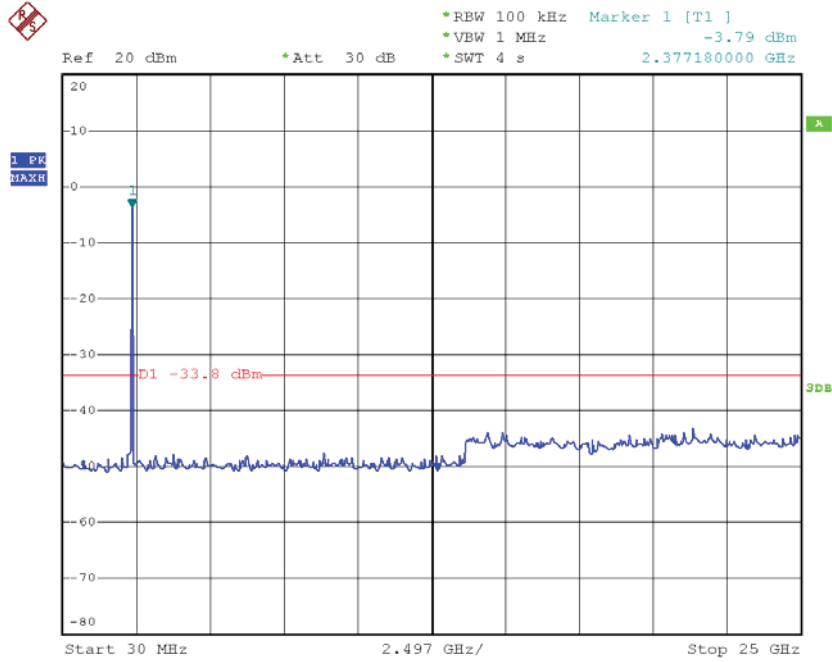
### Channel 11 (2462MHz) 30-25GHz



Date: 29.JUL.2008 23:02:43

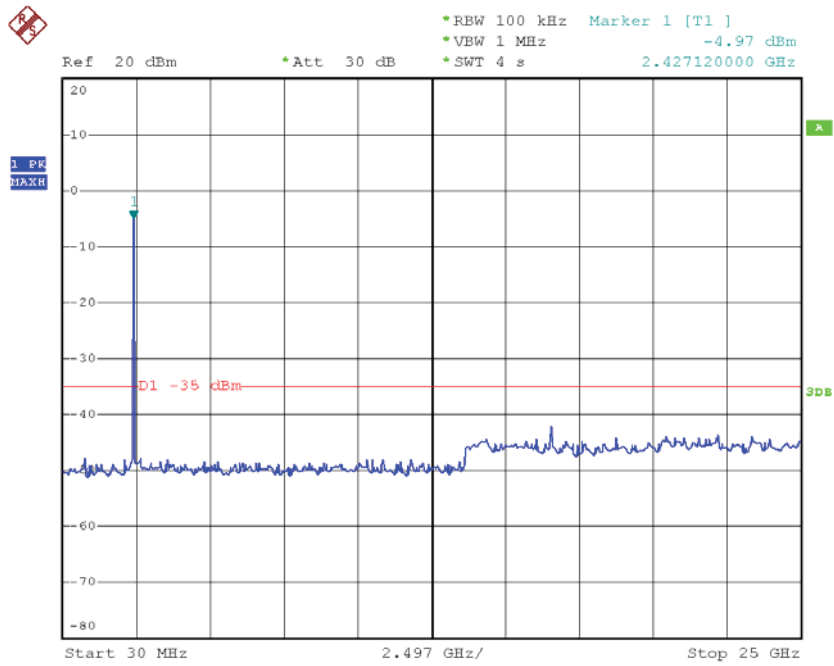
Product : ROS Video DMA  
Test Item : RF Antenna Conducted Spurious  
Test Site : No.3 OATS  
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps

**Channel 01 (2412MHz) 30-25GHz**



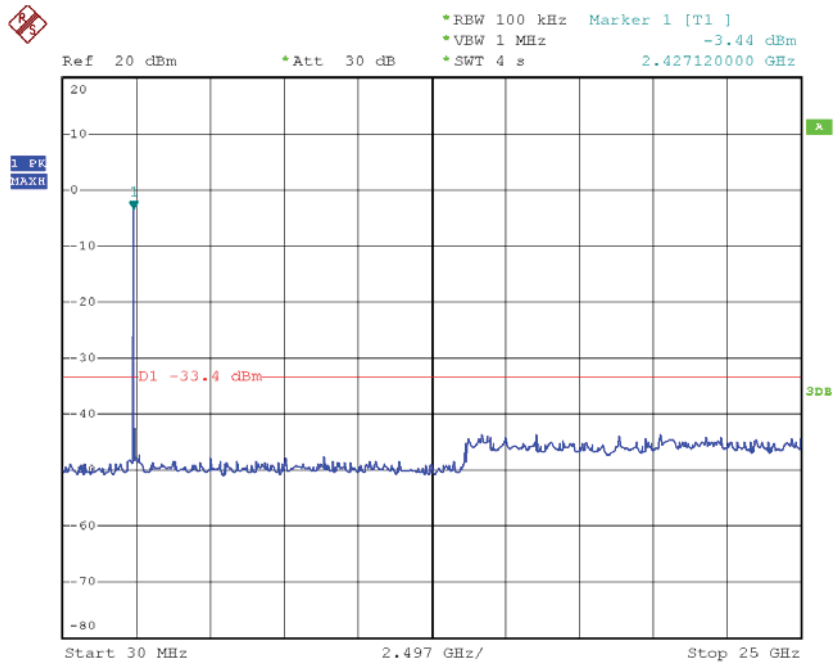
Date: 29.JUL.2008 23:04:00

### Channel 06 (2437MHz) 30-25GHz



Date: 29.JUL.2008 23:05:00

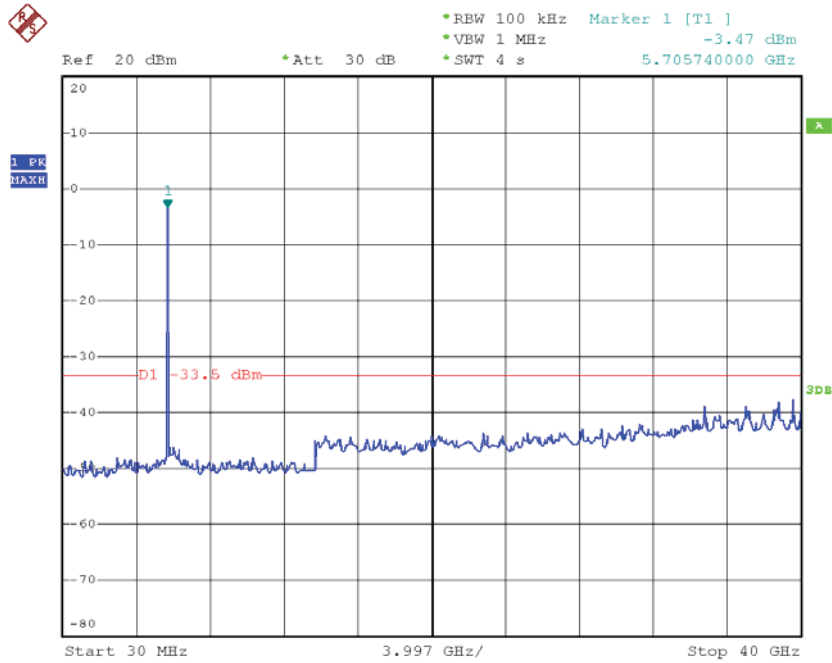
### Channel 11 (2462MHz) 30-25GHz



Date: 29.JUL.2008 23:05:59

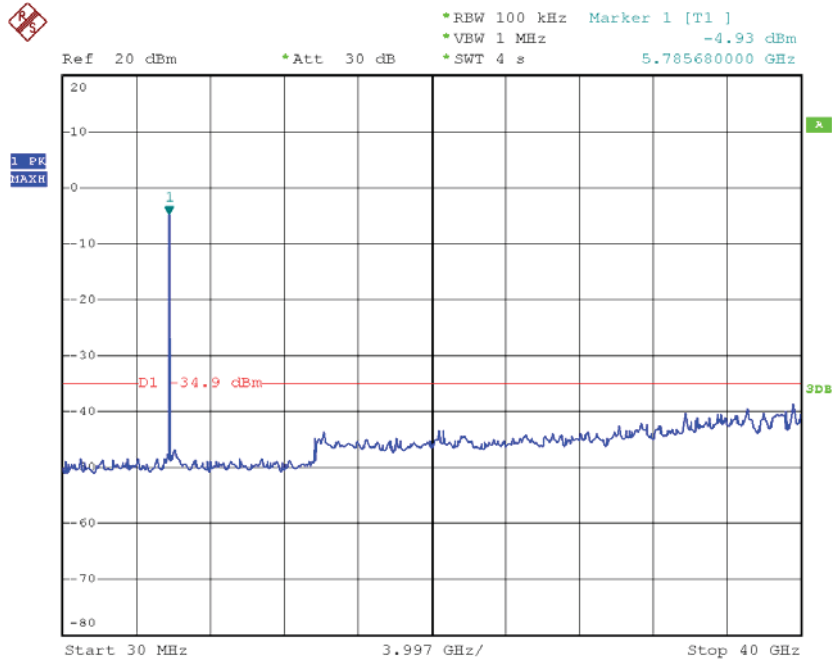
Product : ROS Video DMA  
Test Item : RF Antenna Conducted Spurious  
Test Site : No.3 OATS  
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps

Channel 01 (5745MHz) 30-25GHz



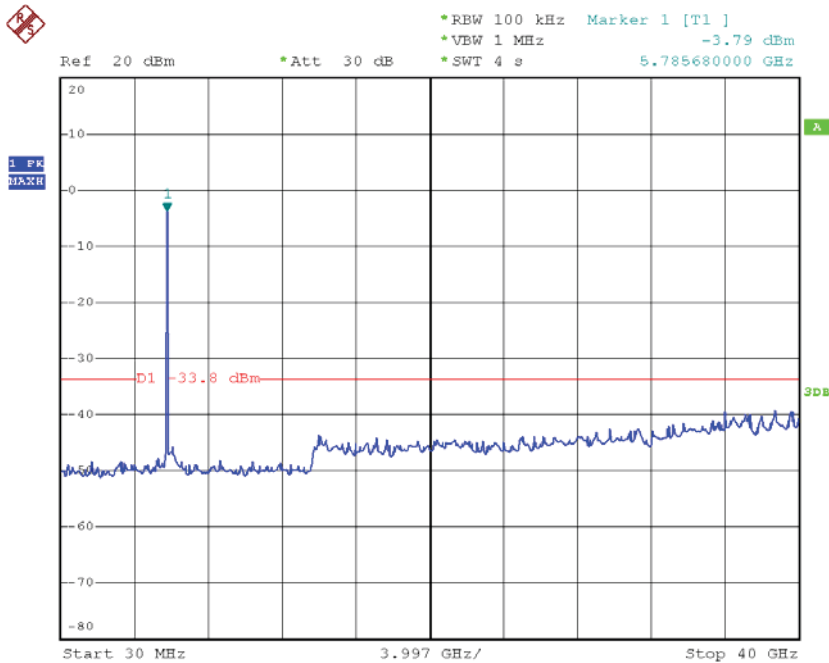
Date: 29.JUL.2008 23:20:58

### Channel 03 (5785MHz) 30-25GHz



Date: 29.JUL.2008 23:22:08

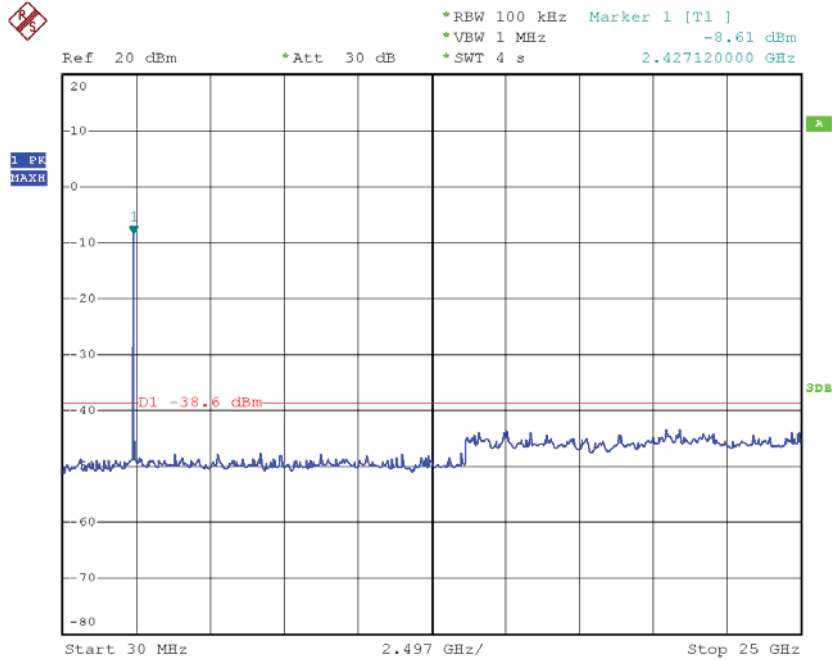
### Channel 05 (5825MHz) 30-25GHz



Date: 29.JUL.2008 23:23:29

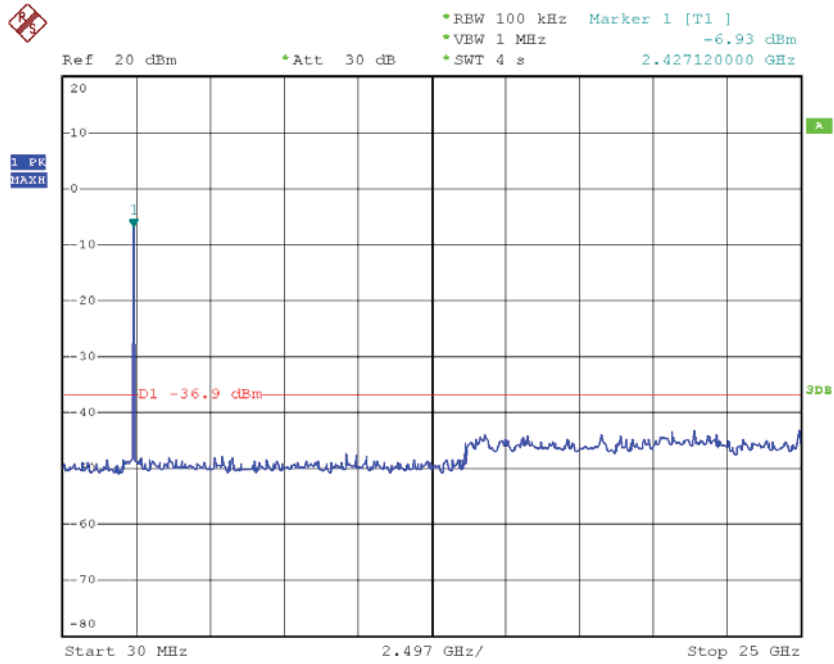
Product : ROS Video DMA  
Test Item : RF Antenna Conducted Spurious  
Test Site : No.3 OATS  
Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13.5Mbps(2.4G Band) –Antenna A

**Channel 01 (2412MHz) 30-25GHz**



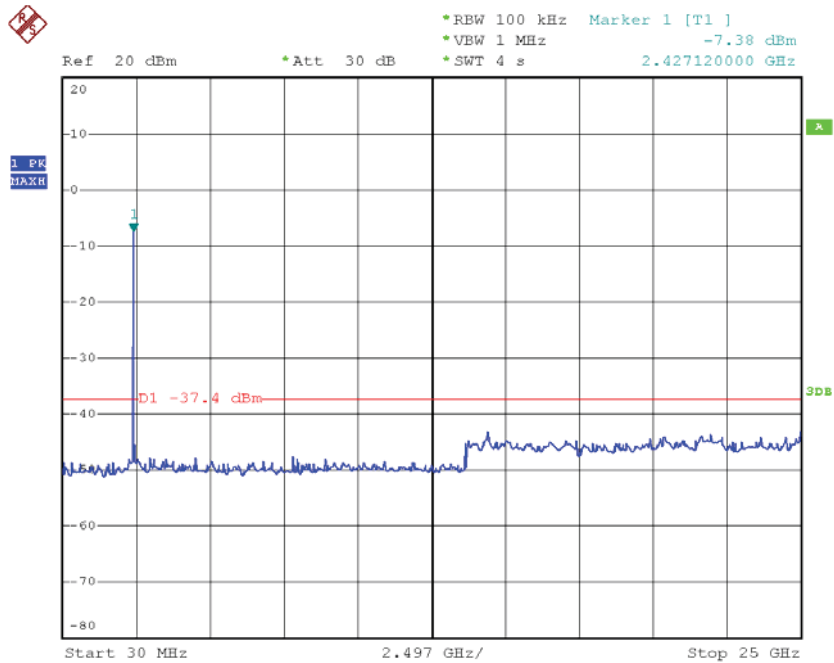
Date: 29.JUL.2008 23:08:37

### Channel 06 (2437MHz) 30-25GHz



Date: 29.JUL.2008 23:10:36

### Channel 11 (2462MHz) 30-25GHz

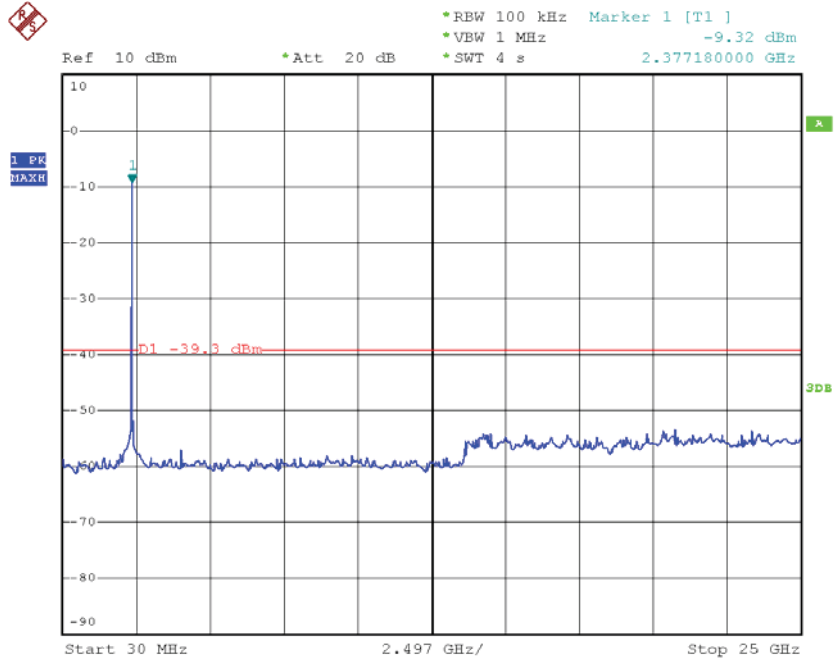


Date: 29.JUL.2008 23:11:31



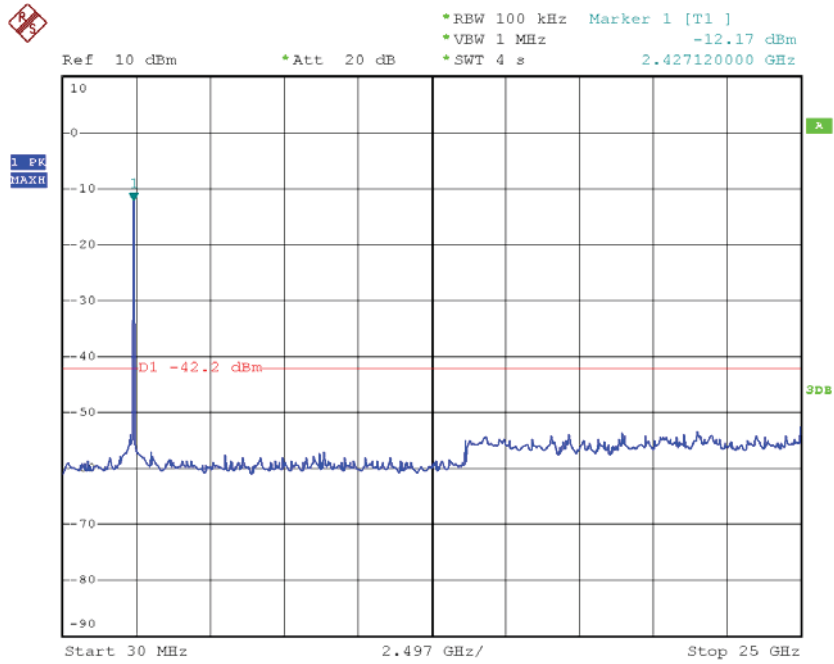
Product : ROS Video DMA  
Test Item : RF Antenna Conducted Spurious  
Test Site : No.3 OATS  
Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13.5Mbps(2.4G Band) –Antenna B

**Channel 01 (2412MHz) 30-25GHz**



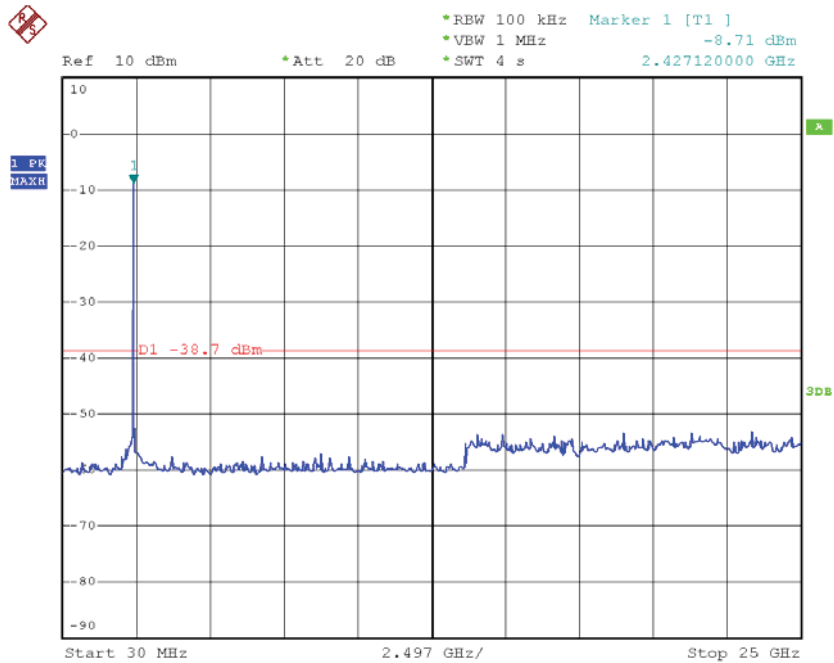
Date: 29.JUL.2008 23:53:41

### Channel 06 (2437MHz) 30-25GHz



Date: 29.JUL.2008 23:54:39

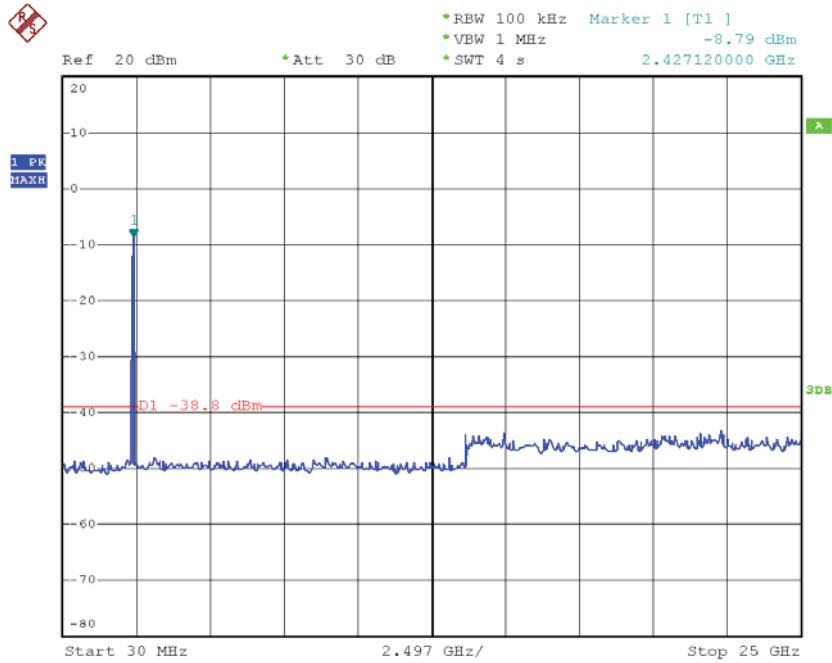
### Channel 11 (2462MHz) 30-25GHz



Date: 29.JUL.2008 23:55:37

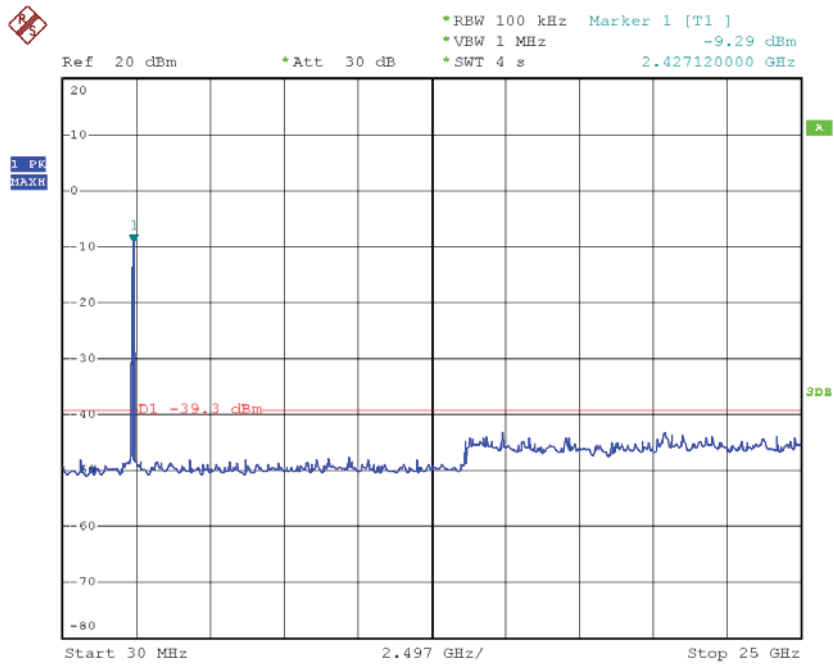
Product : ROS Video DMA  
Test Item : RF Antenna Conducted Spurious  
Test Site : No.3 OATS  
Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) –Antenna A

Channel 01 (2422MHz) 30-25GHz



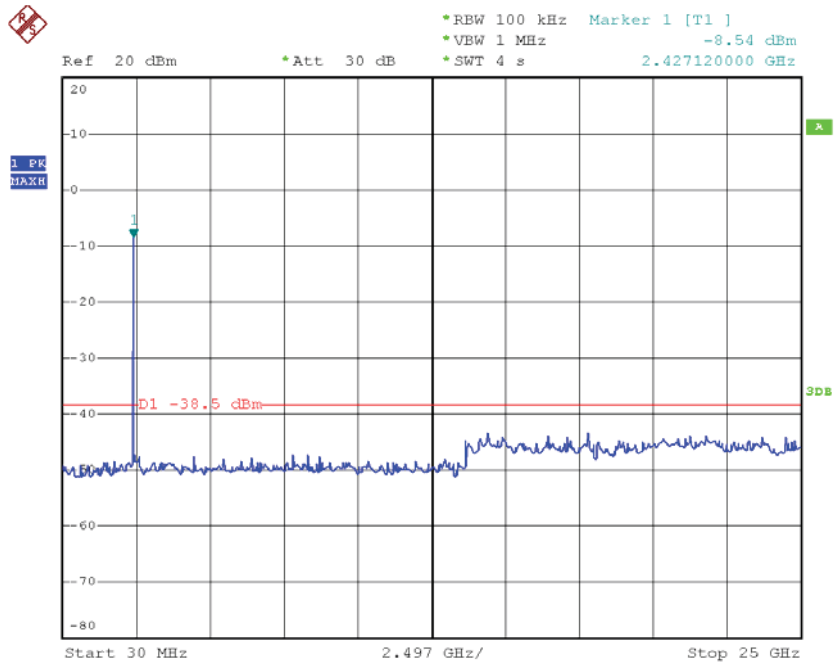
Date: 29.JUL.2008 23:15:04

### Channel 04 (2437MHz) 30-25GHz



Date: 29.JUL.2008 23:16:16

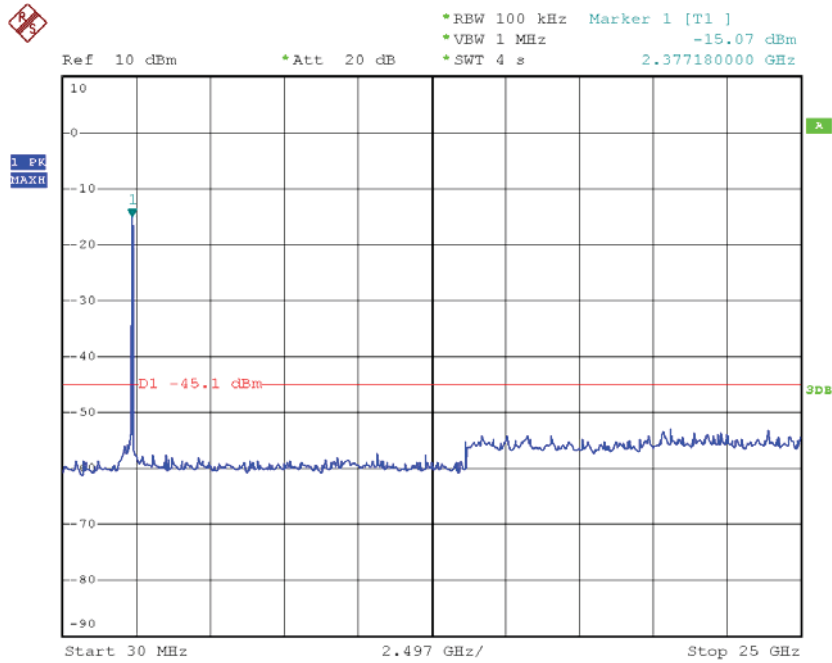
### Channel 07 (2452MHz) 30-25GHz



Date: 29.JUL.2008 23:17:33

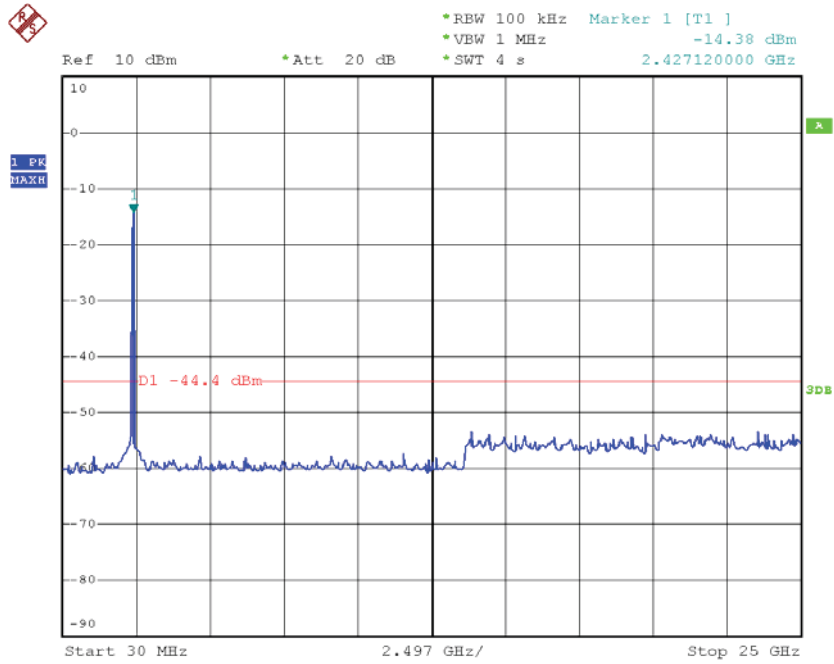
Product : ROS Video DMA  
Test Item : RF Antenna Conducted Spurious  
Test Site : No.3 OATS  
Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band) –Antenna B

Channel 01 (2422MHz) 30-25GHz



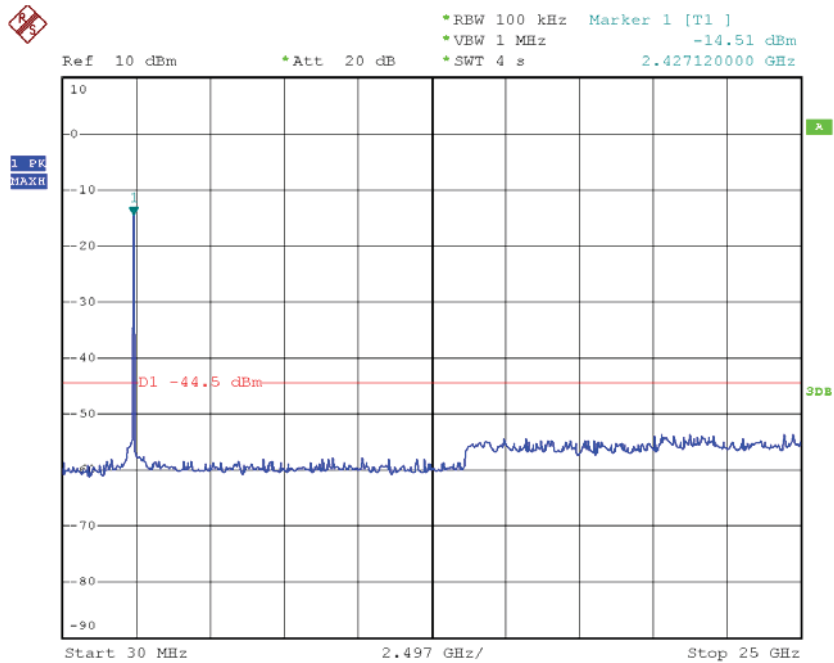
Date: 29.JUL.2008 23:56:37

### Channel 04 (2437MHz) 30-25GHz



Date: 29.JUL.2008 23:57:32

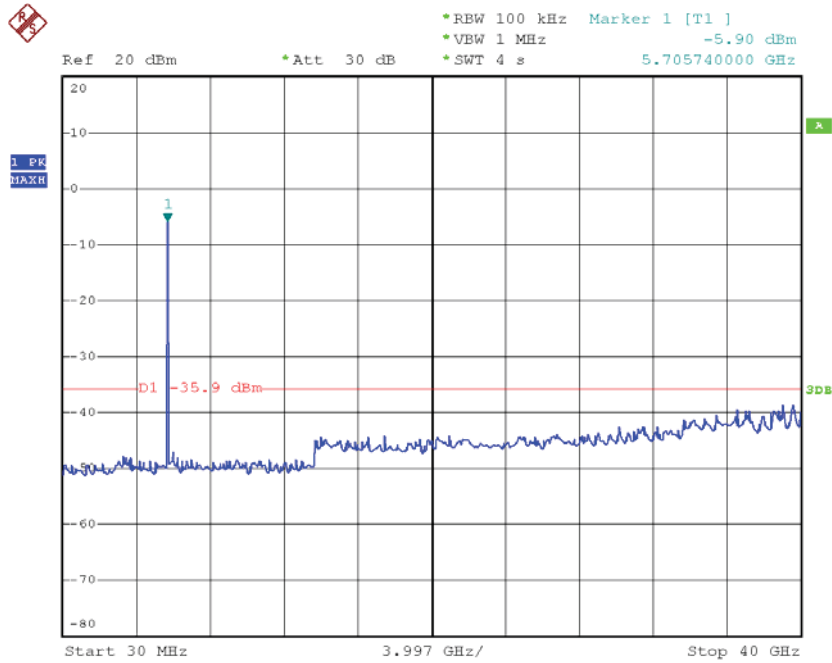
### Channel 07 (2452MHz) 30-25GHz



Date: 29.JUL.2008 23:58:34

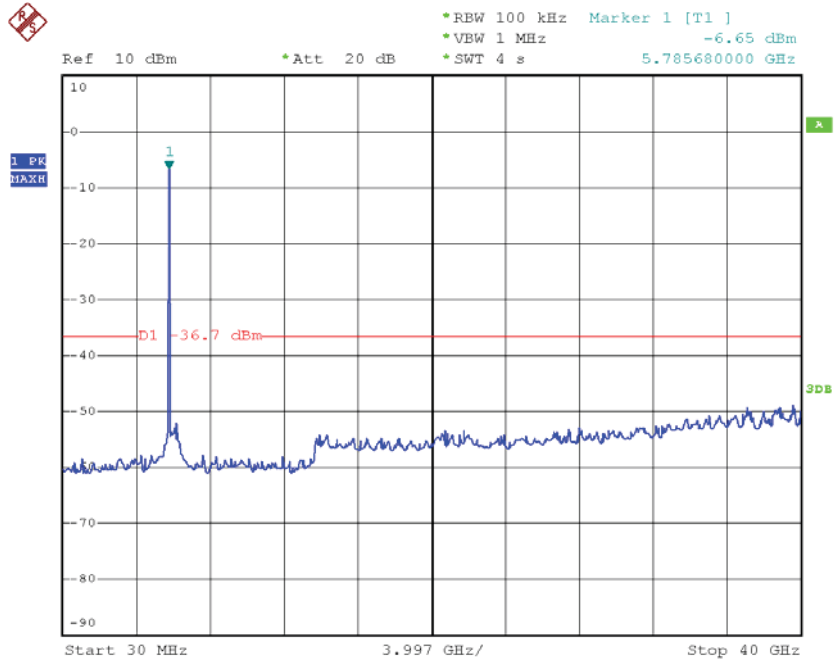
Product : ROS Video DMA  
Test Item : RF Antenna Conducted Spurious  
Test Site : No.3 OATS  
Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13.5Mbps(5G Band) –Antenna A

**Channel 01 (5745MHz) 30-25GHz**



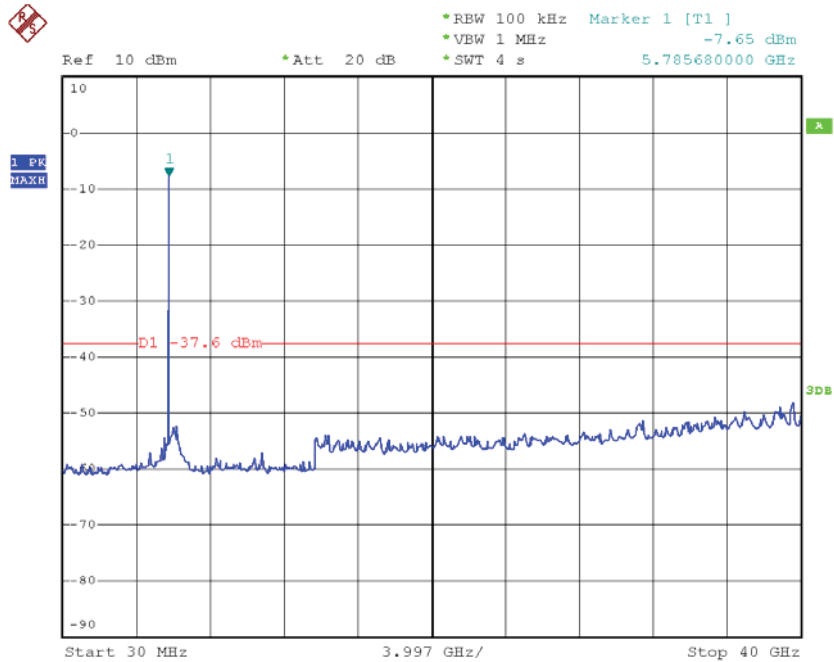
Date: 29.JUL.2008 23:24:55

### Channel 03 (5785MHz) 30-25GHz



Date: 29.JUL.2008 23:27:07

### Channel 05 (5825MHz) 30-25GHz

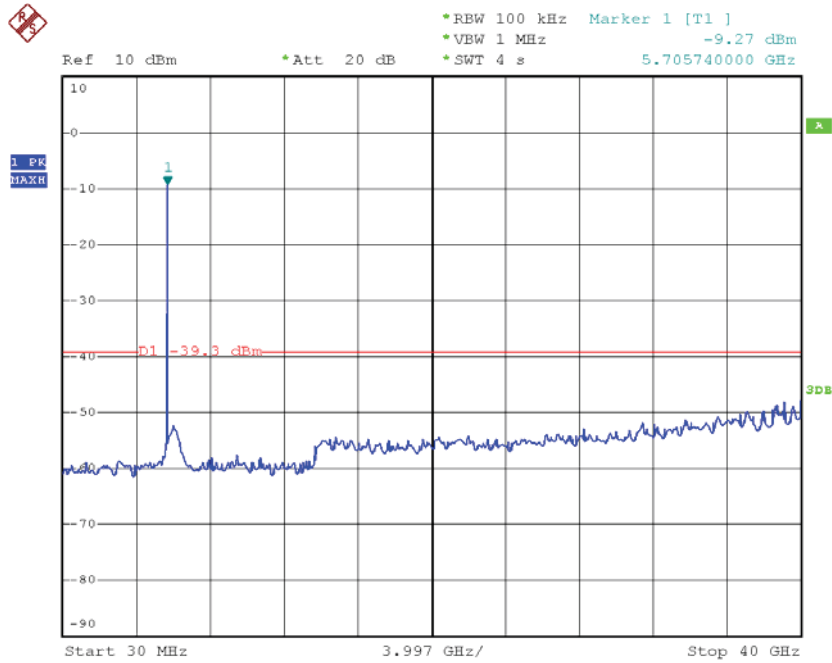


Date: 29.JUL.2008 23:28:25



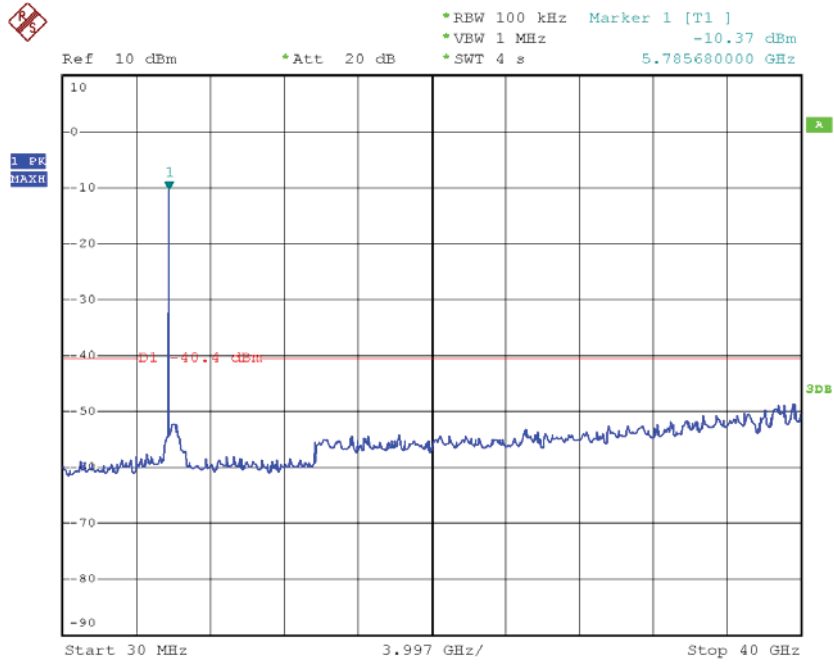
Product : ROS Video DMA  
Test Item : RF Antenna Conducted Spurious  
Test Site : No.3 OATS  
Test Mode : Mode 6: Transmitter - 802.11n-20BW\_13.5Mbps(5G Band) –Antenna B

**Channel 01 (5745MHz) 30-25GHz**



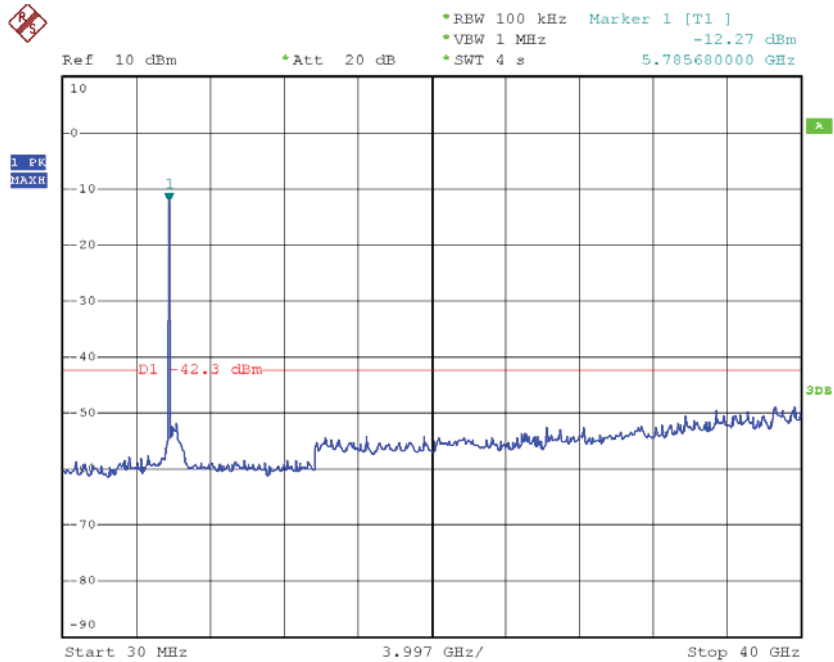
Date: 30.JUL.2008 00:00:08

### Channel 03 (5785MHz) 30-25GHz



Date: 30.JUL.2008 00:02:20

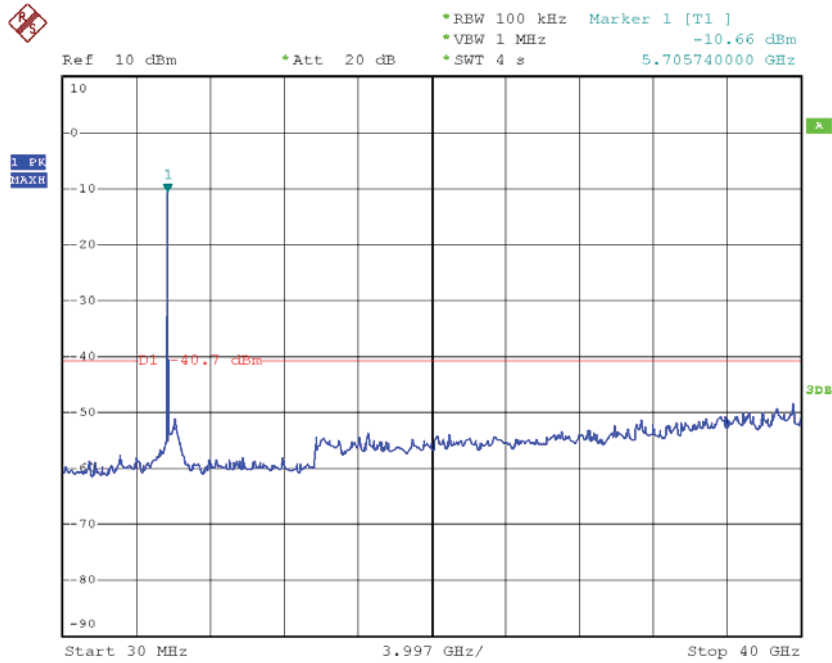
### Channel 05 (5825MHz) 30-25GHz



Date: 30.JUL.2008 00:01:05

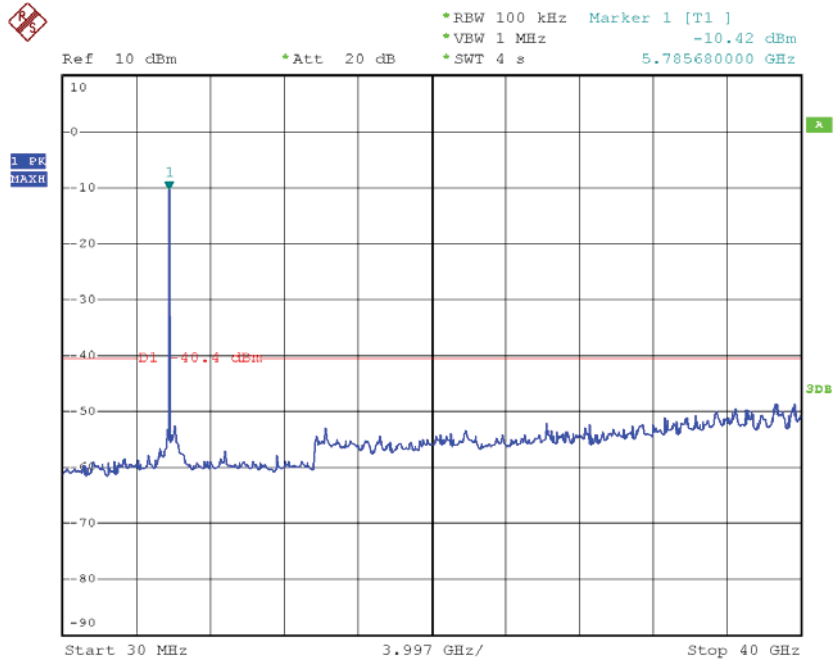
Product : ROS Video DMA  
Test Item : RF Antenna Conducted Spurious  
Test Site : No.3 OATS  
Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band) –Antenna A

**Channel 01 (5755MHz) 30-25GHz**



Date: 29.JUL.2008 23:30:19

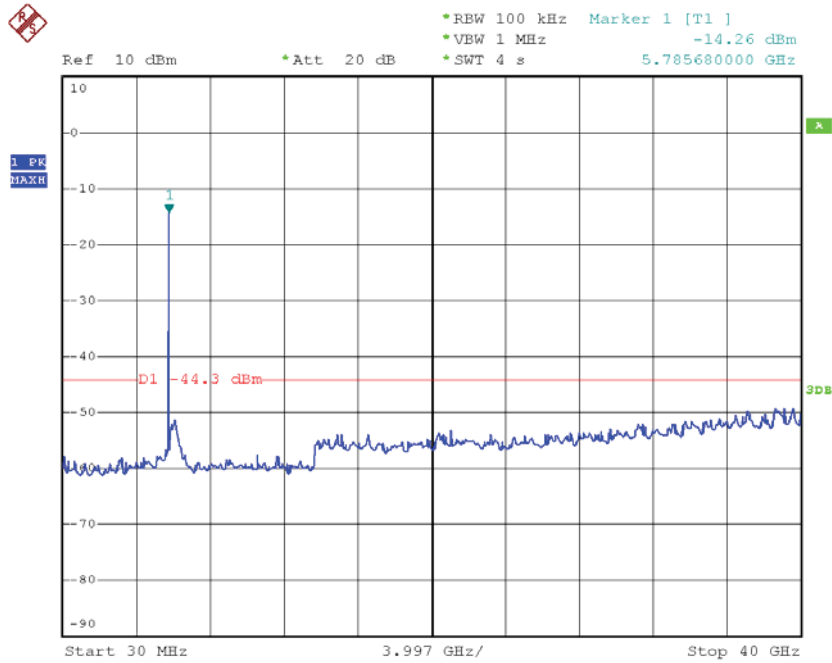
### Channel 02 (5795MHz) 30-25GHz



Date: 29.JUL.2008 23:31:30

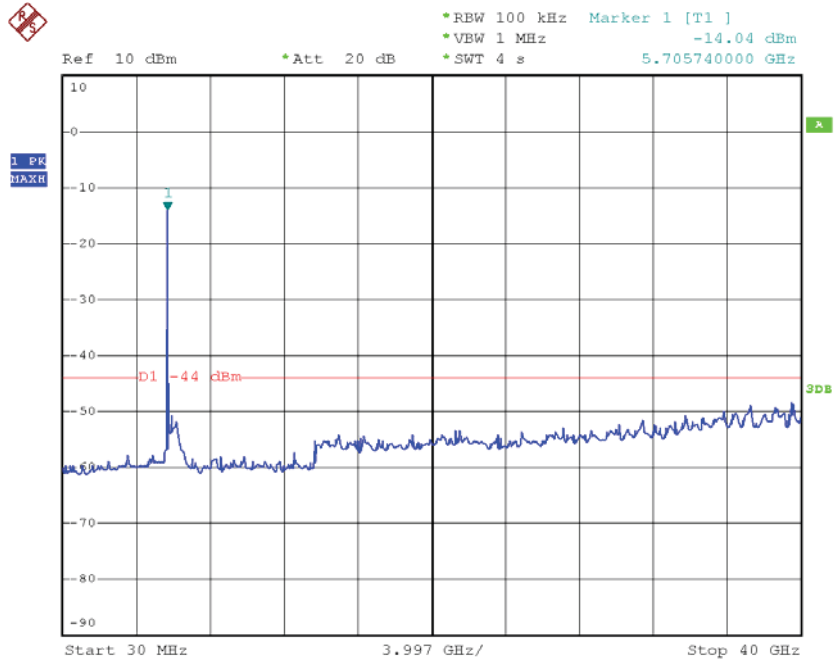
Product : ROS Video DMA  
Test Item : RF Antenna Conducted Spurious  
Test Site : No.3 OATS  
Test Mode : Mode 7: Transmitter - 802.11n-40BW\_27Mbps(5G Band) –Antenna B

**Channel 01 (5755MHz) 30-25GHz**



Date: 30.JUL.2008 00:04:53

### Channel 02 (5795MHz) 30-25GHz



Date: 30.JUL.2008 00:03:35

## 6. Band Edge

### 6.1. Test Equipment

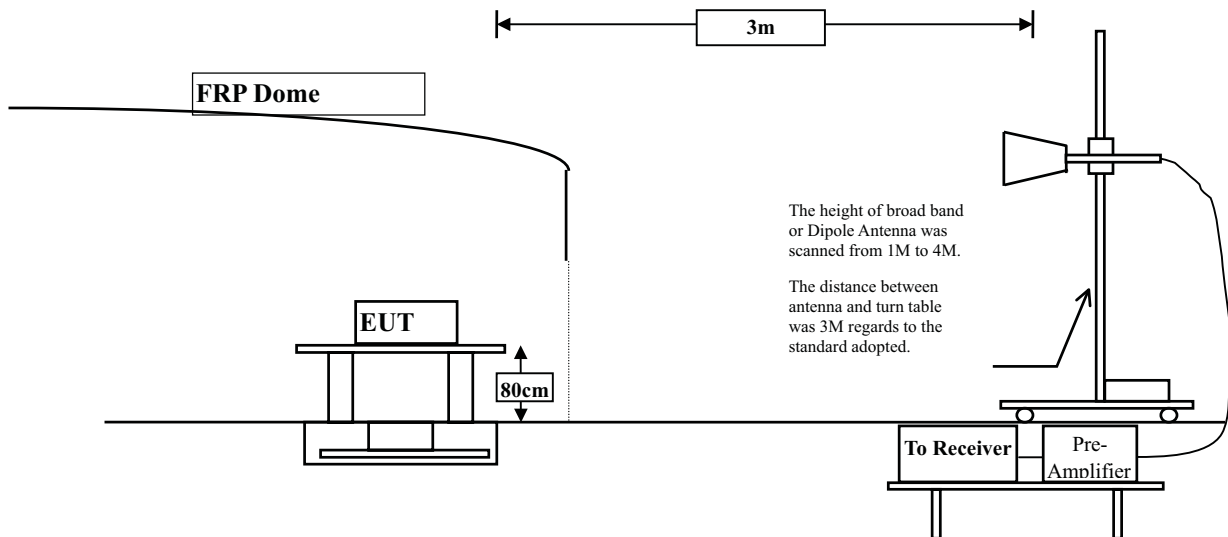
The following test equipments are used during the band edge tests:

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ Site # 3	X Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2007
	X Pre-Amplifier	AGILENT	8447D/2944A09549	Sep., 2007
	X Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2007
	X Spectrum Analyzer	Advantest	R3162/91700283	Oct., 2007
	X Coaxial Cable	Quietek	QTK-CABLE/ CAB5	Feb., 2008
	X Controller	Quietek	QTK-CONTROLLER/ CTRL3	N/A
	X Coaxial Switch	Anritsu	MP59B/6200265729	N/A

- Note:
1. All instruments are calibrated every one year.
  2. The test instruments marked by “X” are used to measure the final test results.

### 6.2. Test Setup

#### RF Radiated Measurement:



### 6.3. 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.

#### **6.4. Test Procedure**

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

#### **6.5. Uncertainty**

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz



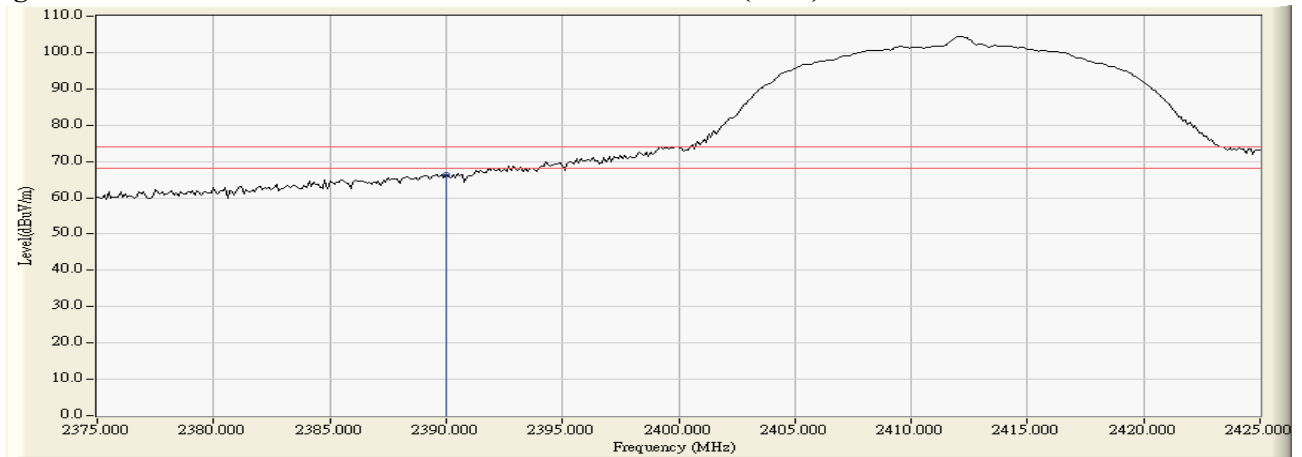
### 6.6. Test Result of Band Edge

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter - 802.11b 1Mbps

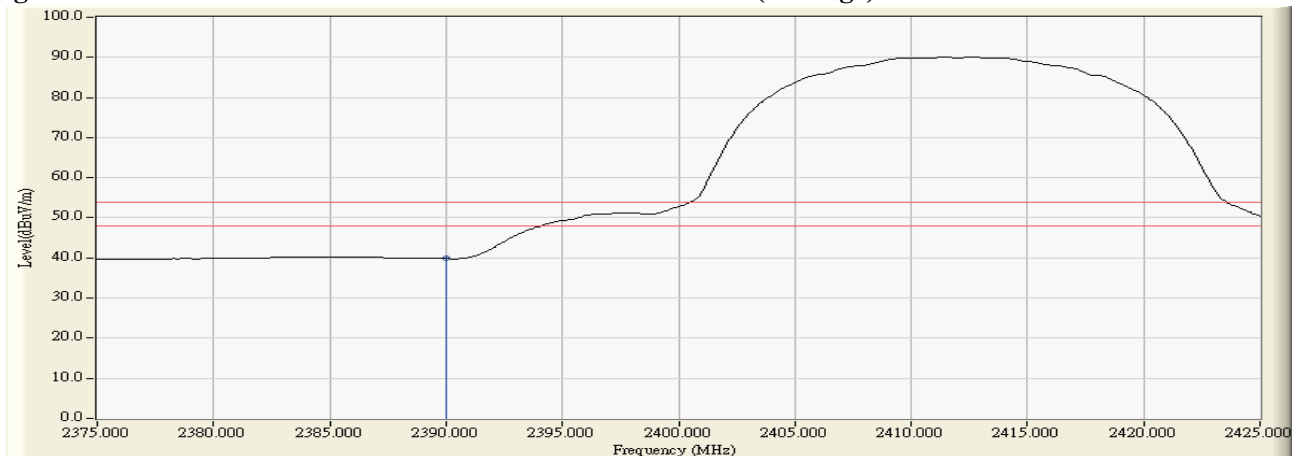
#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	-2.378	68.699	66.322	74.00	54.00	Pass
01 (Average)	2390.000	-2.378	42.193	39.816	74.00	54.00	Pass

**Figure Channel 01: Horizontal (Peak)**



**Figure Channel 01: Horizontal (Average)**



Note:

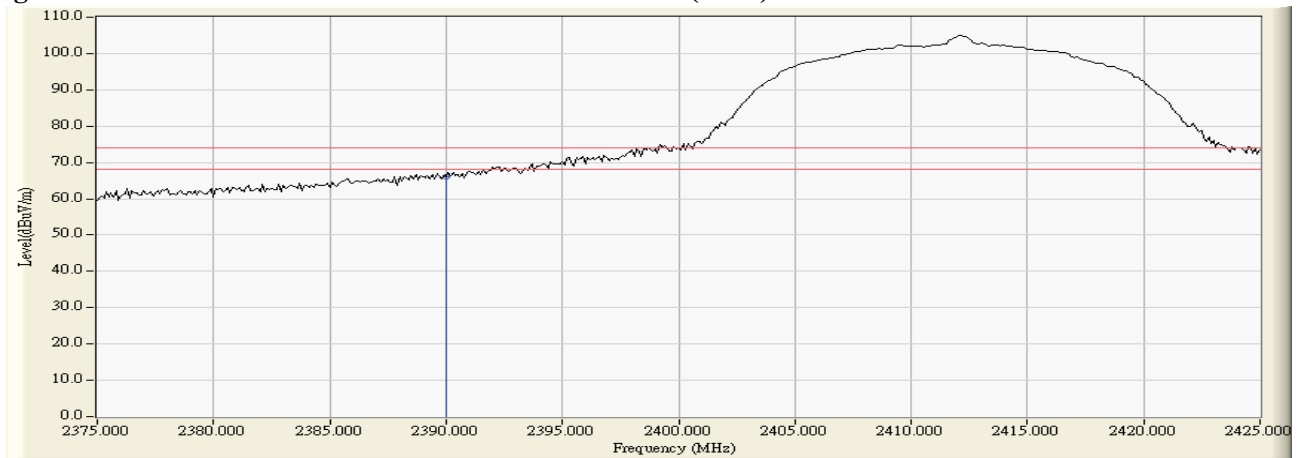
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter - 802.11b 1Mbps

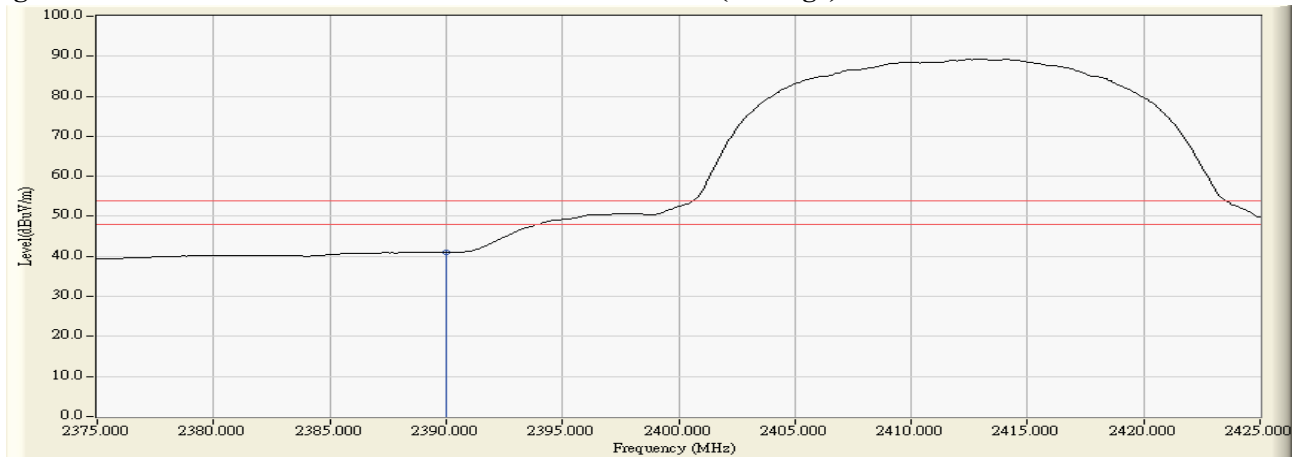
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	-2.378	68.331	65.954	74.00	54.00	Pass
01 (Average)	2390.000	-2.378	43.418	41.041	74.00	54.00	Pass

**Figure Channel 01: Vertical (Peak)**



**Figure Channel 01: Vertical (Average)**



**Note:**

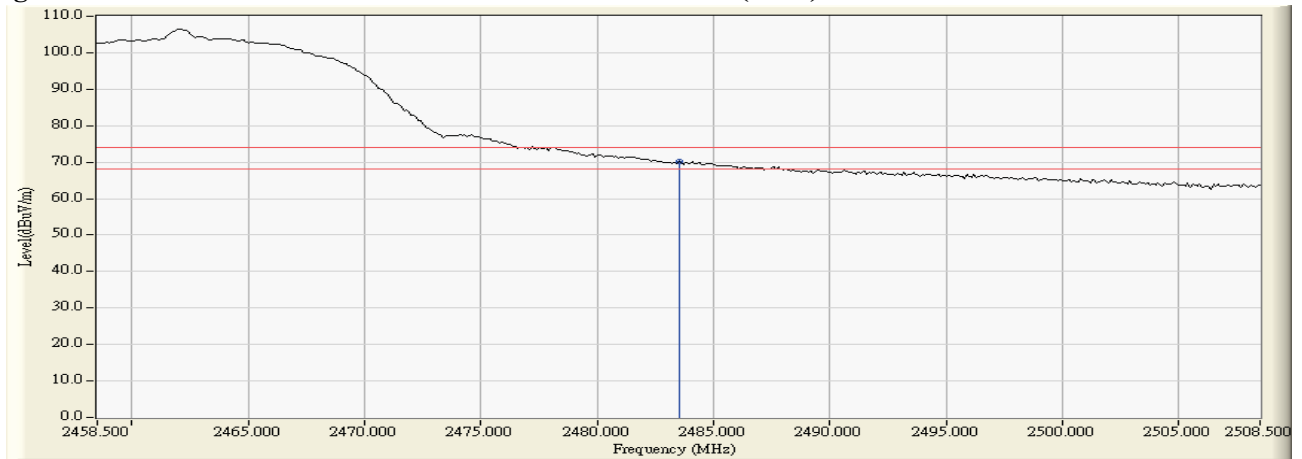
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter - 802.11b 1Mbps

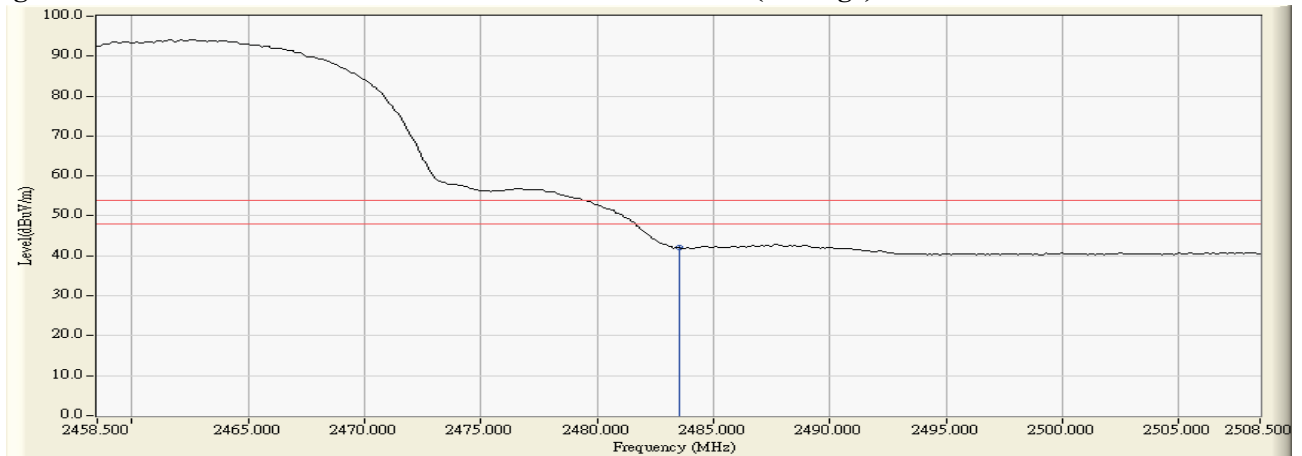
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2483.500	-1.937	72.083	70.146	74.00	54.00	Pass
11(Average)	2483.500	-1.937	43.985	42.048	74.00	54.00	Pass

**Figure Channel 11: Horizontal (Peak)**



**Figure Channel 11: Horizontal (Average)**



**Note:**

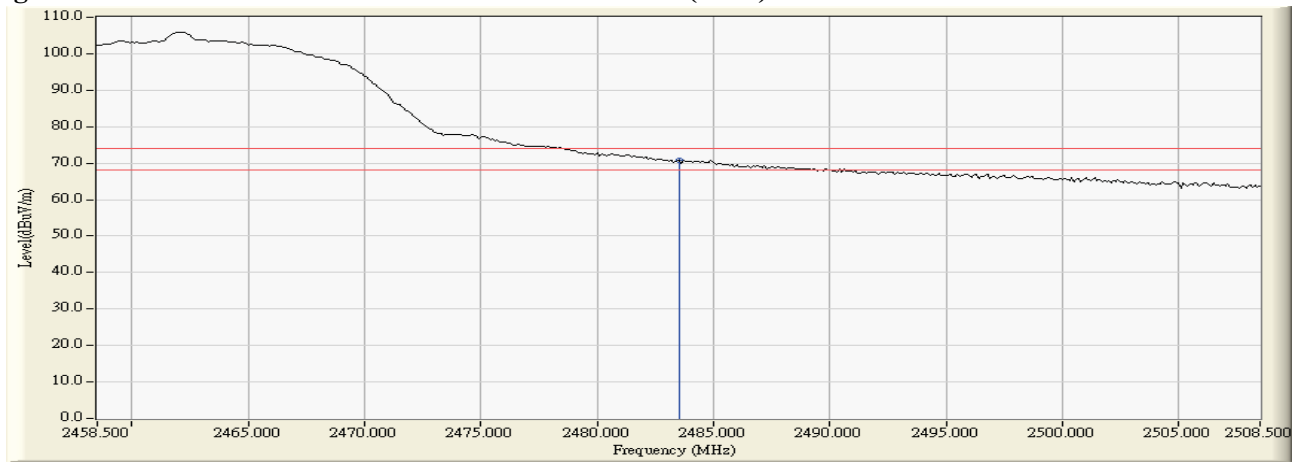
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter - 802.11b 1Mbps

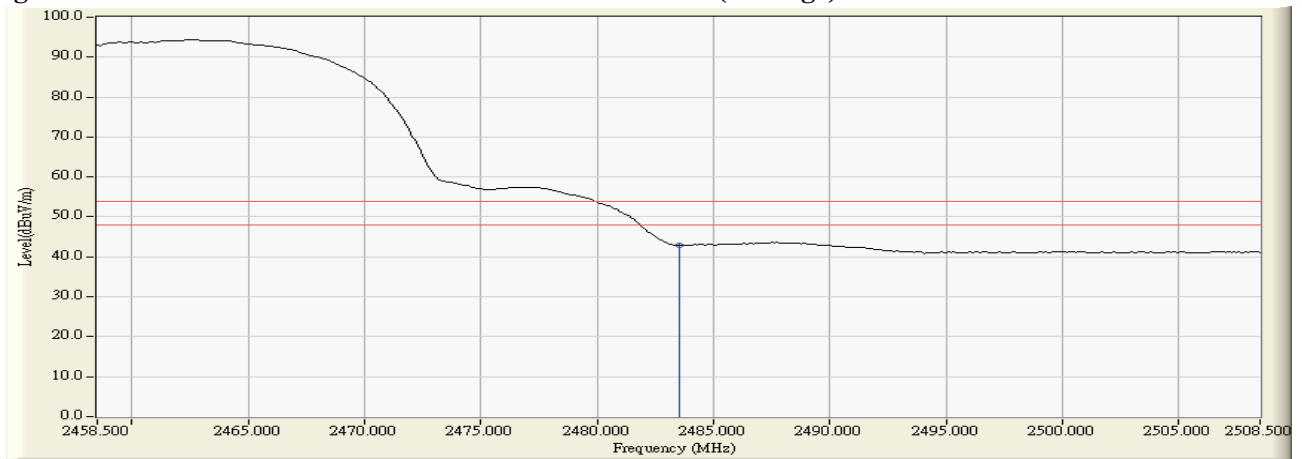
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2483.500	-1.937	72.645	70.708	74.00	54.00	Pass
11(Average)	2483.500	-1.937	44.788	42.851	74.00	54.00	Pass

**Figure Channel 11: Vertical (Peak)**



**Figure Channel 11: Vertical (Average)**



**Note:**

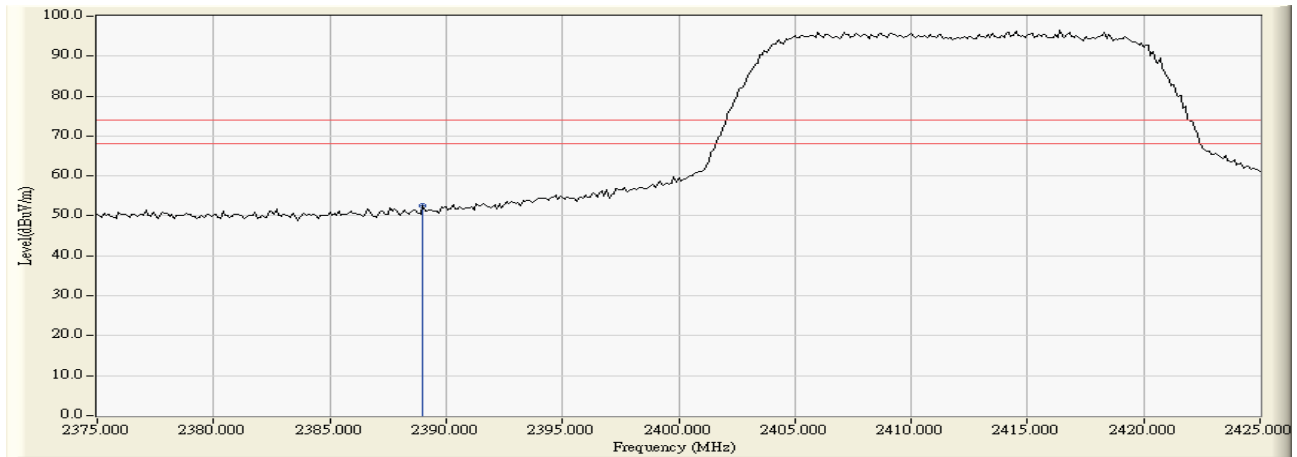
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter - 802.11g 6Mbps

**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2389.000	-2.382	54.823	52.441	74.00	54.00	Pass
01 (Average)	--	--	--	--	74.00	54.00	Pass

**Figure Channel 01: Horizontal (Peak)**



**Note:**

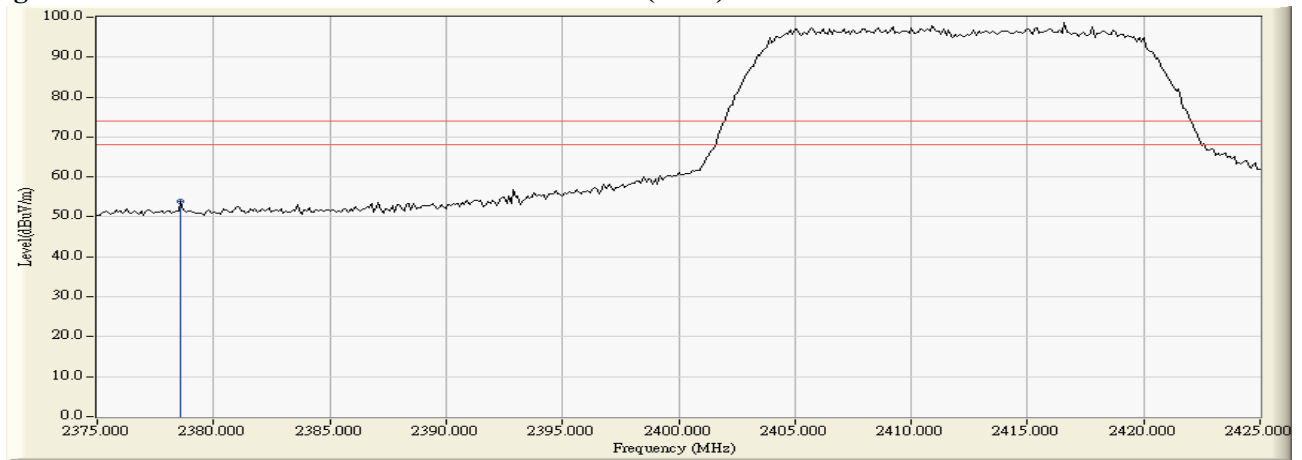
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter - 802.11g 6Mbps

**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2378.600	-2.431	56.235	53.804	74.00	54.00	Pass
01 (Average)	--	--	--	--	74.00	54.00	Pass

**Figure Channel 01: Vertical (Peak)**



**Note:**

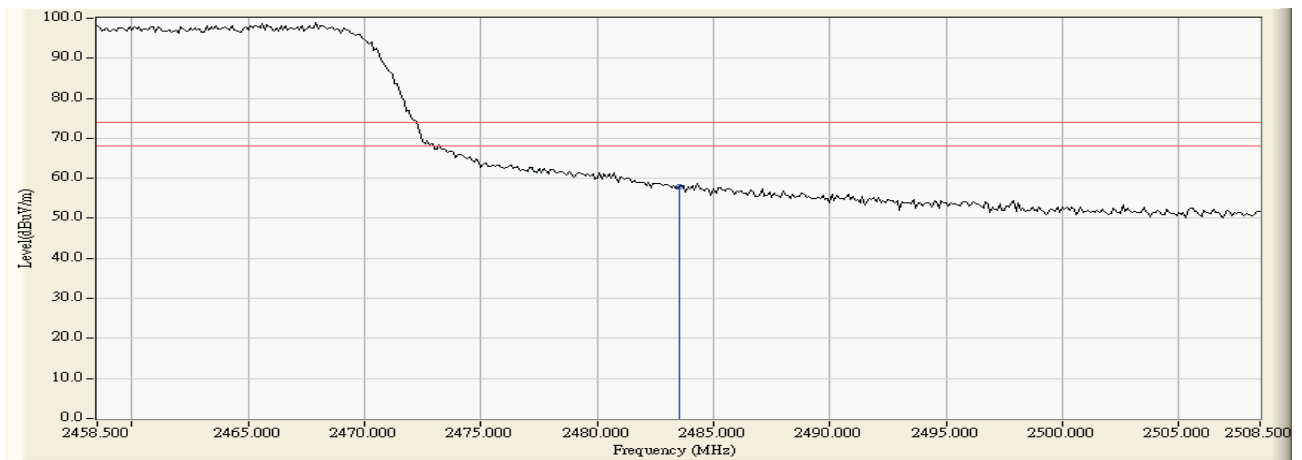
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter - 802.11g 6Mbps

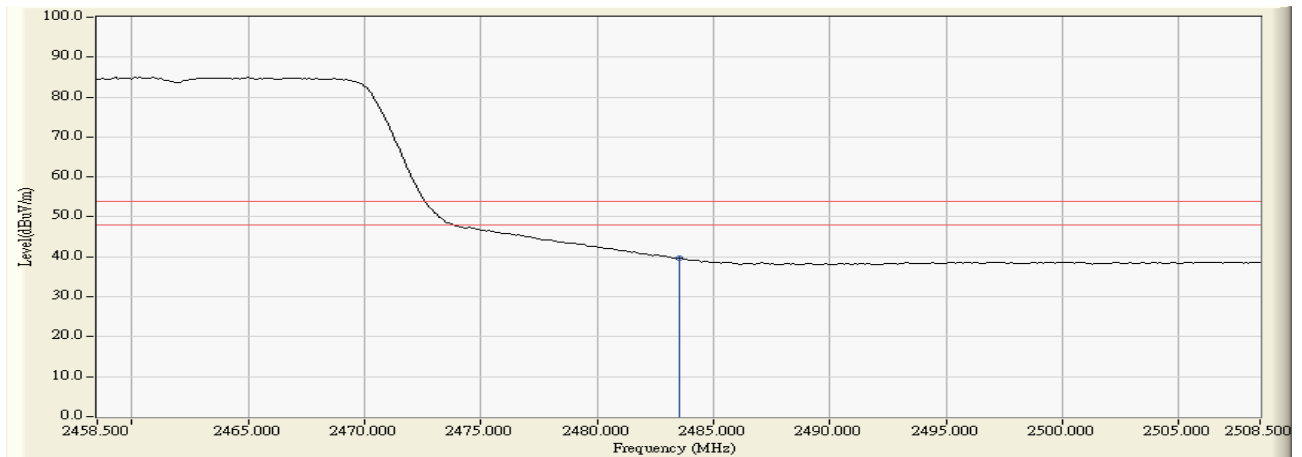
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2483.500	-1.937	59.813	57.876	74.00	54.00	Pass
11 (Average)	2483.500	-1.937	41.613	39.676	74.00	54.00	Pass

**Figure Channel 11: Horizontal (Peak)**



**Figure Channel 11: Horizontal (Average)**



**Note:**

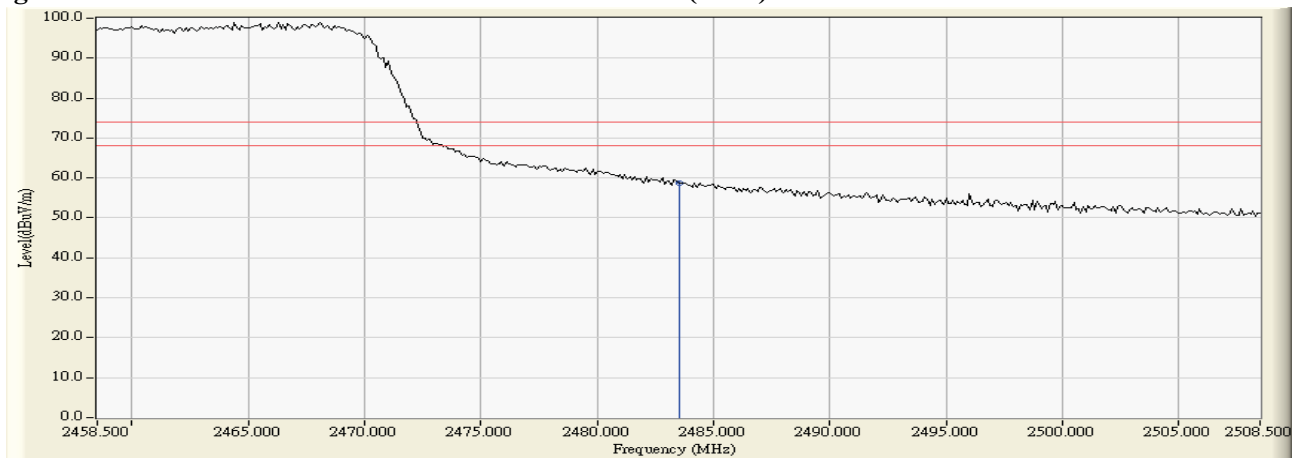
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter - 802.11g 6Mbps

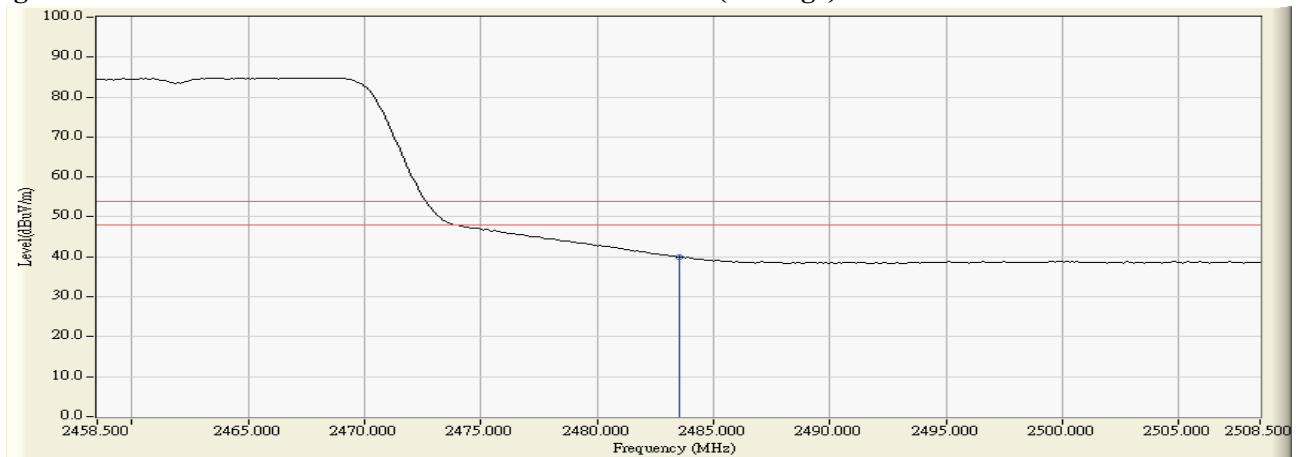
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2483.500	-1.937	60.581	58.644	74.00	54.00	Pass
11(Average)	2483.500	-1.937	41.982	40.045	74.00	54.00	Pass

**Figure Channel 11: Vertical (Peak)**



**Figure Channel 11: Vertical (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.

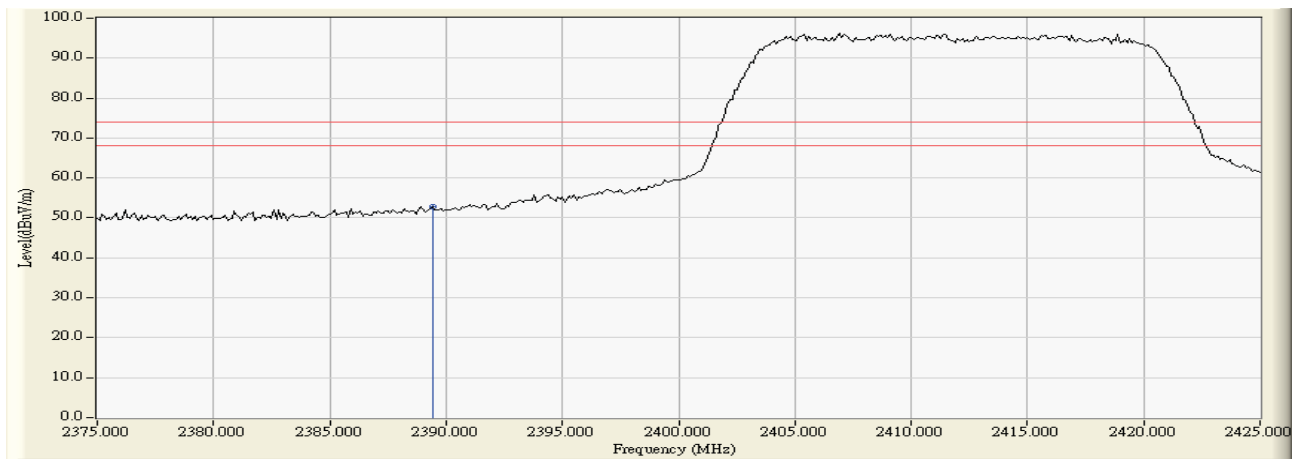


Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13.5Mbps(2.4G Band)

**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2389.400	-2.381	55.225	52.845	74.00	54.00	Pass
01 (Average)	--	--	--	--	74.00	54.00	Pass

**Figure Channel 01: Horizontal (Peak)**



Note:

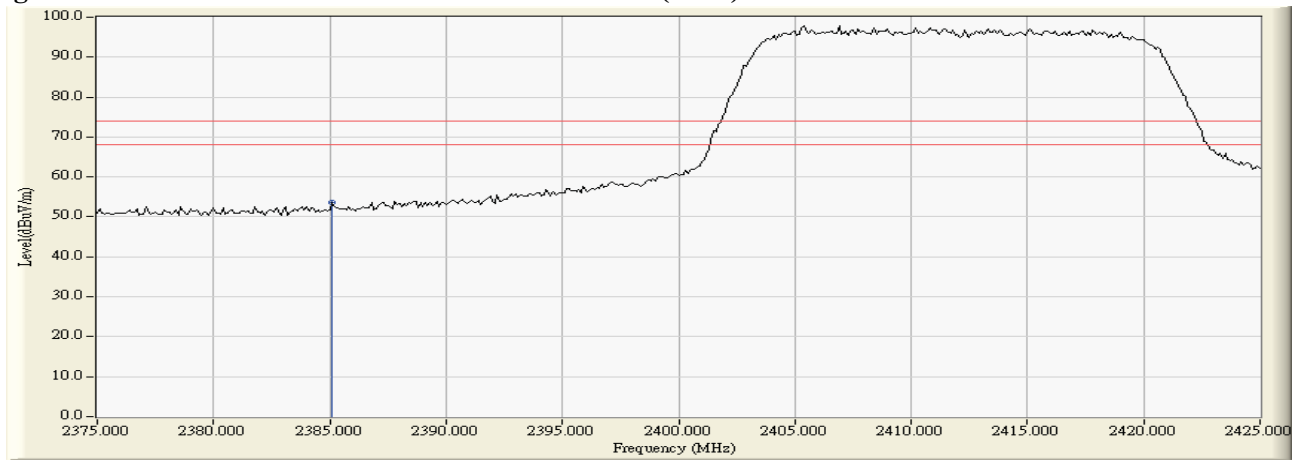
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13.5Mbps(2.4G Band)

**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2385.100	-2.402	56.138	53.737	74.00	54.00	Pass
01 (Average)	--	--	--	--	74.00	54.00	Pass

**Figure Channel 01: Vertical (Peak)**



Note:

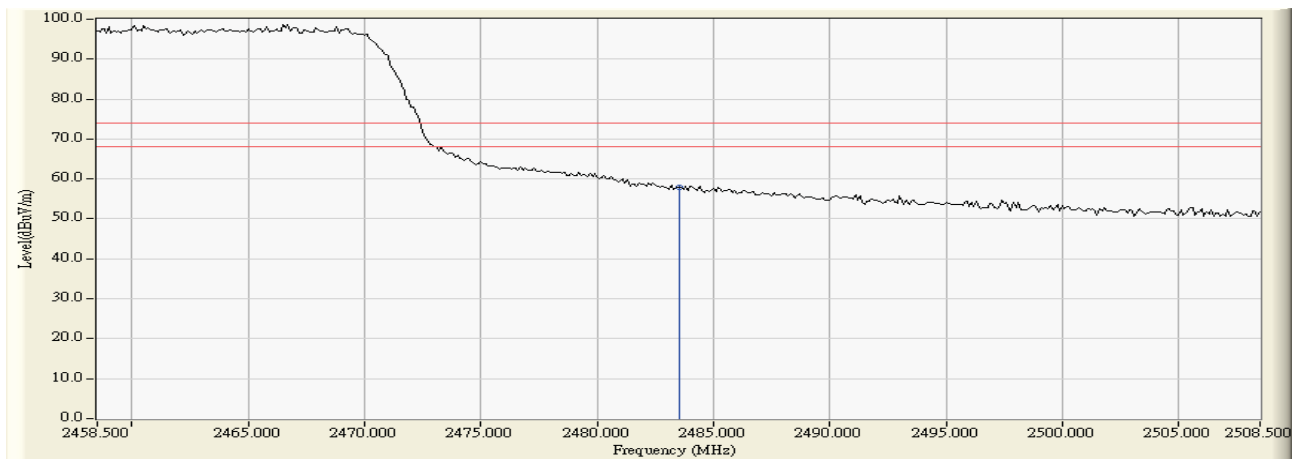
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13.5Mbps(2.4G Band)

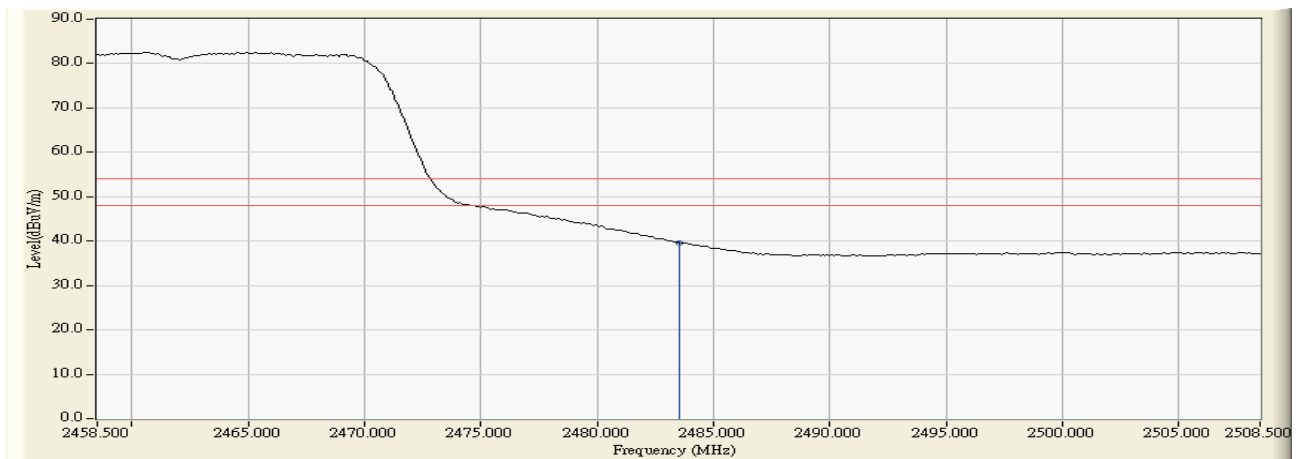
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2483.500	-1.937	59.877	57.940	74.00	54.00	Pass
11 (Average)	2483.500	-1.937	41.610	39.673	74.00	54.00	Pass

**Figure Channel 11: Horizontal (Peak)**



**Figure Channel 11: Horizontal (Average)**



Note:

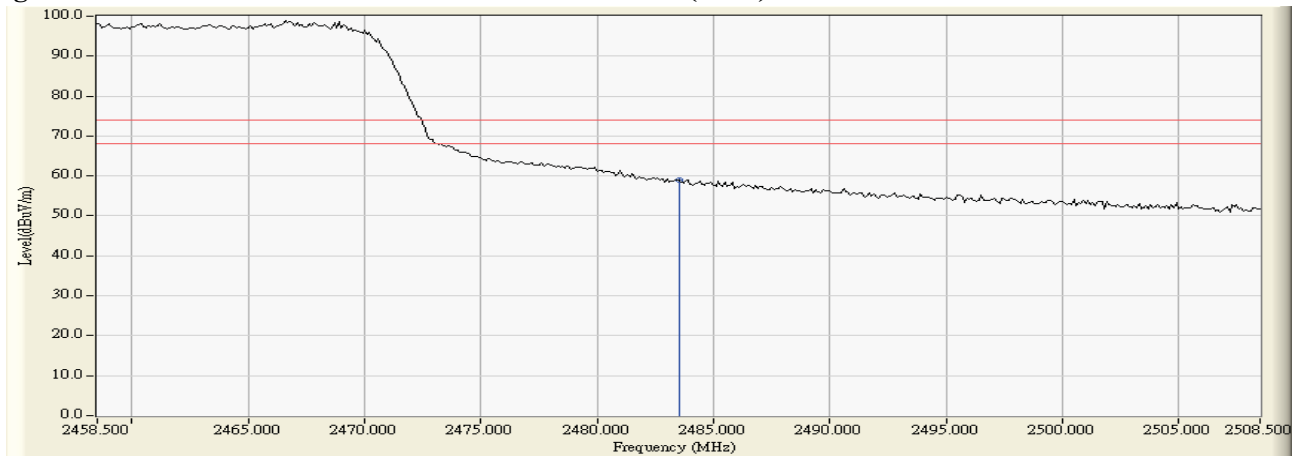
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmitter - 802.11n-20BW\_13.5Mbps(2.4G Band)

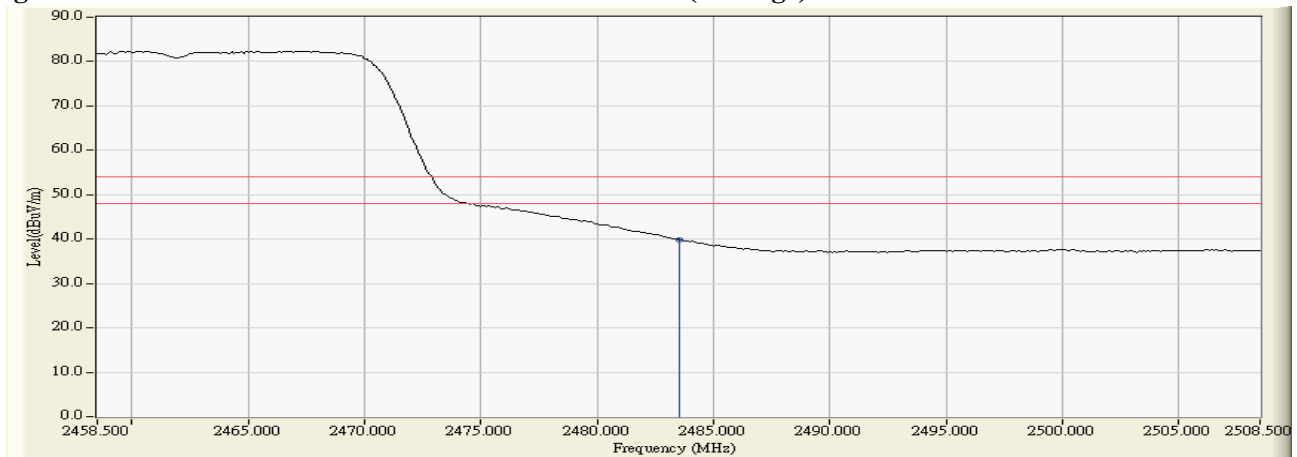
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2483.500	-1.937	60.936	58.999	74.00	54.00	Pass
11 (Average)	2483.500	-1.937	41.835	39.898	74.00	54.00	Pass

**Figure Channel 11: Vertical (Peak)**



**Figure Channel 11: Vertical (Average)**



**Note:**

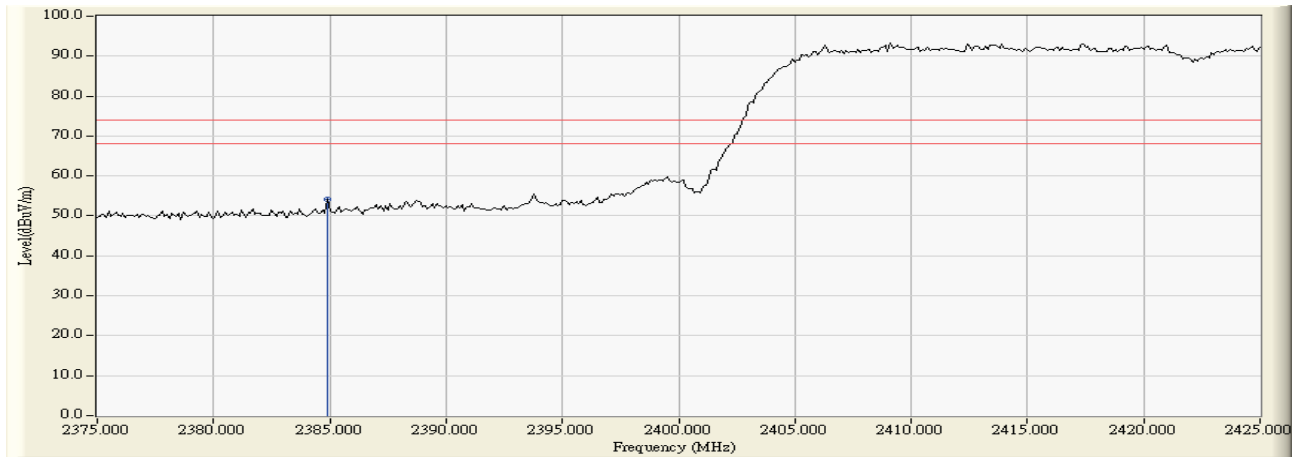
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band)

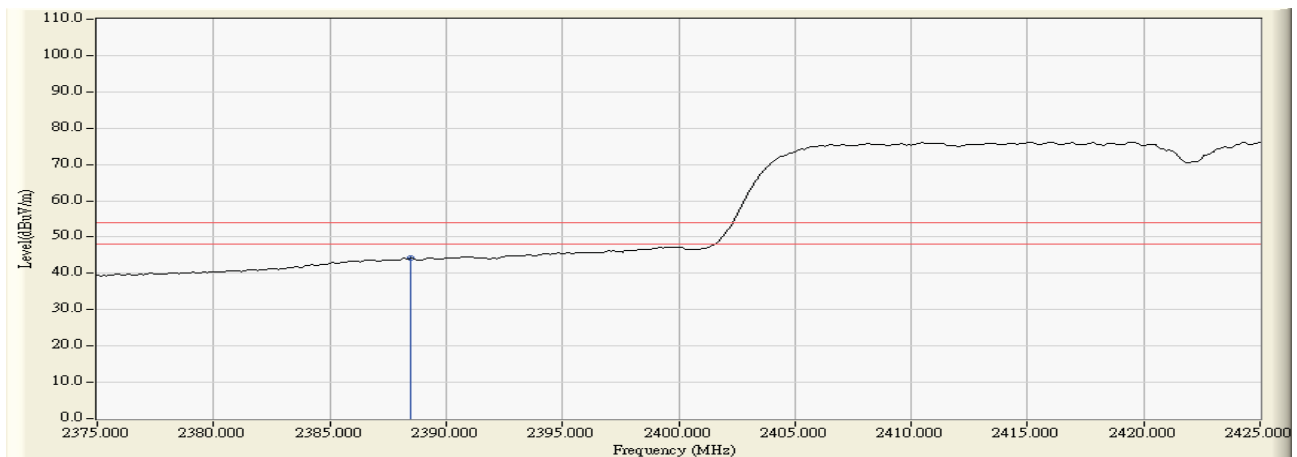
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2384.900	-2.403	56.497	54.095	74.00	54.00	Pass
01 (Average)	2388.500	-2.385	46.480	44.095	74.00	54.00	Pass

**Figure Channel 01: Horizontal (Peak)**



**Figure Channel 01: Horizontal (Average)**



**Note:**

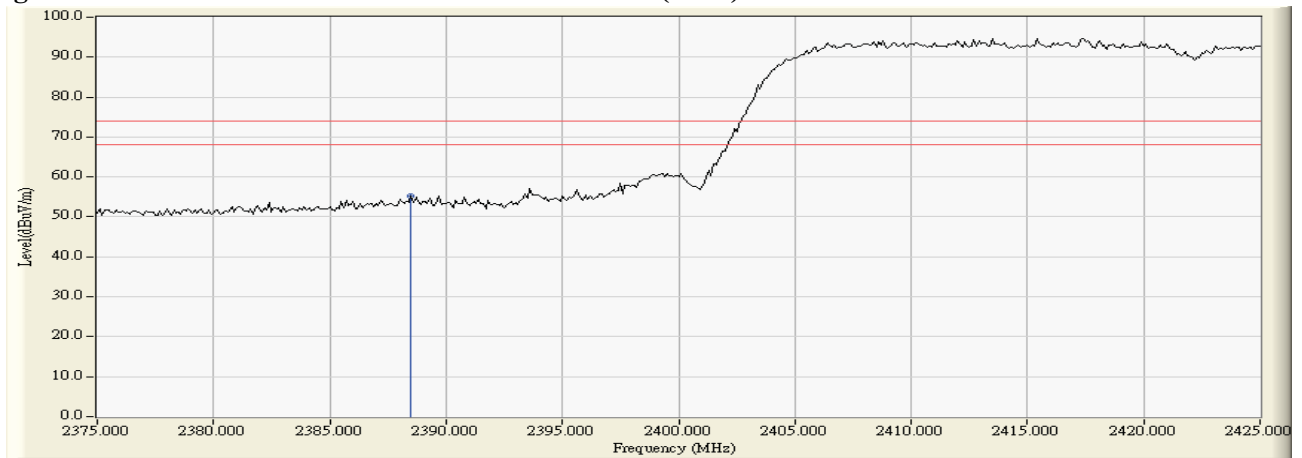
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band)

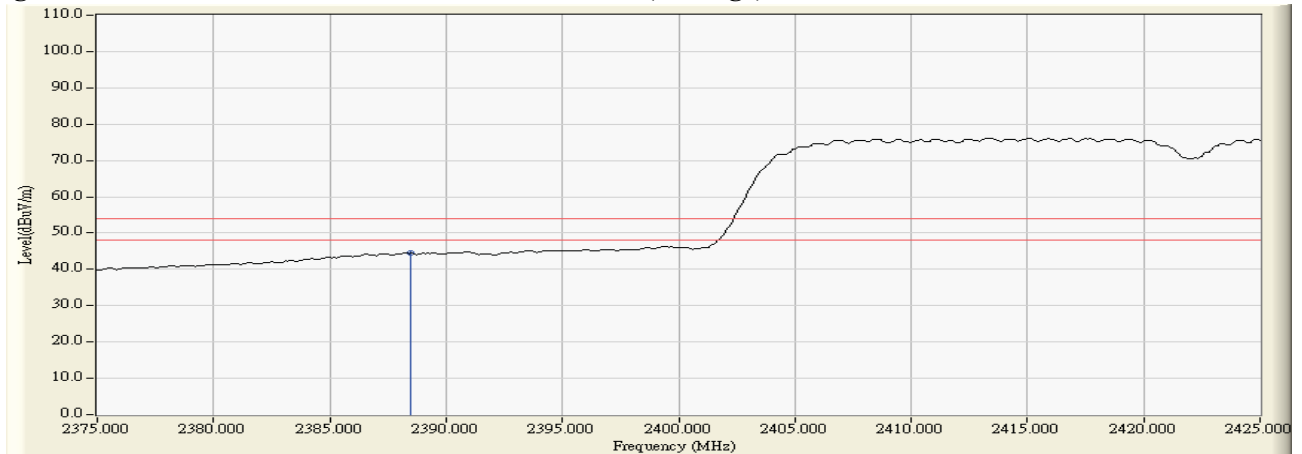
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2388.500	-2.385	57.595	55.210	74.00	54.00	Pass
01 (Average)	2388.500	-2.385	46.771	44.386	74.00	54.00	Pass

**Figure Channel 01: Vertical (Peak)**



**Figure Channel 01: Vertical (Average)**



**Note:**

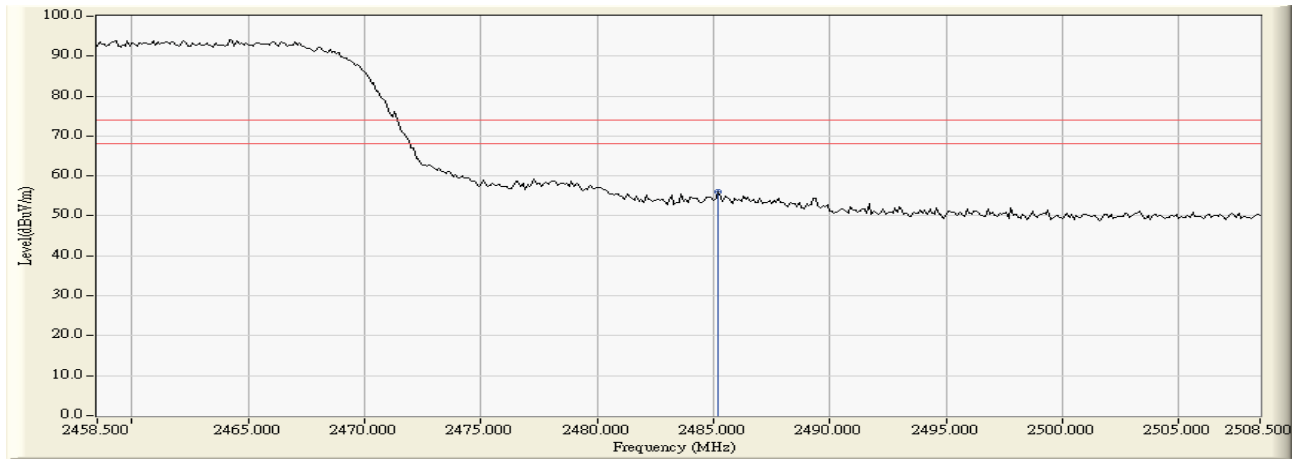
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band)

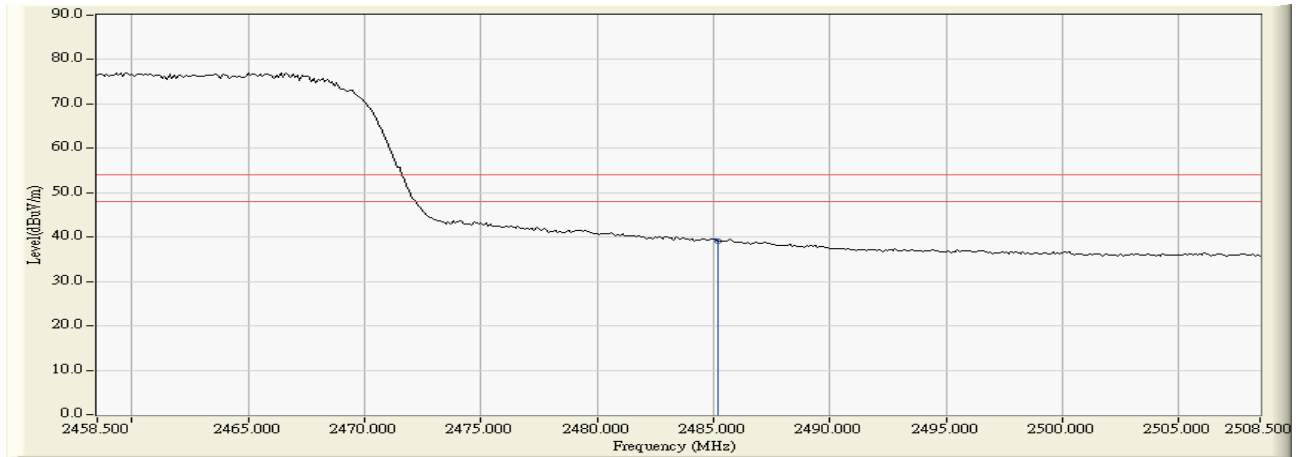
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
07 (Peak)	2485.200	-1.933	57.935	56.003	74.00	54.00	Pass
07 (Average)	2485.200	-1.933	40.961	39.029	74.00	54.00	Pass

**Figure Channel 07: Horizontal (Peak)**



**Figure Channel 07: Horizontal (Average)**



**Note:**

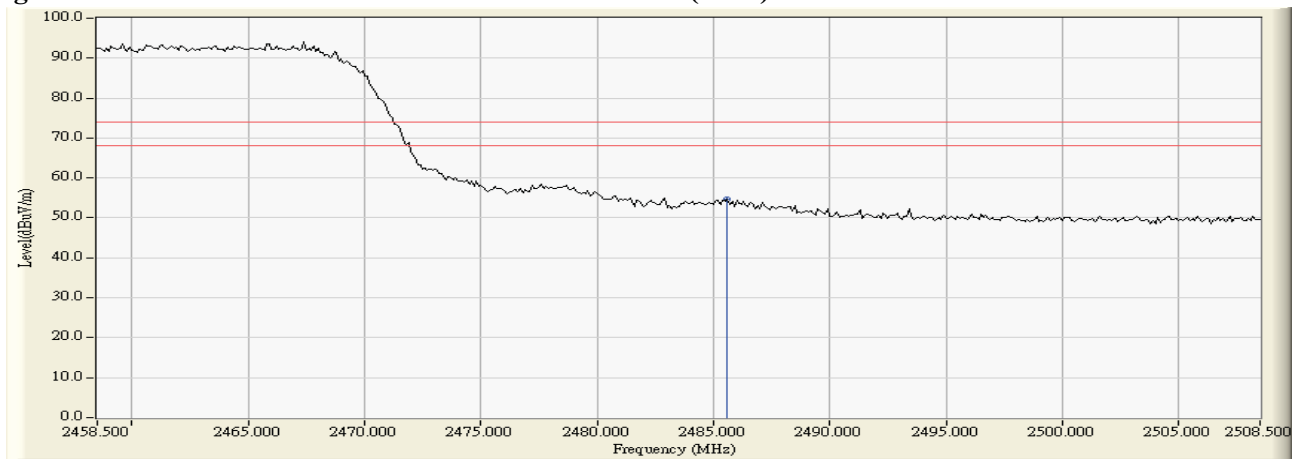
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : ROS Video DMA  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmitter - 802.11n-40BW\_27Mbps(2.4G Band)

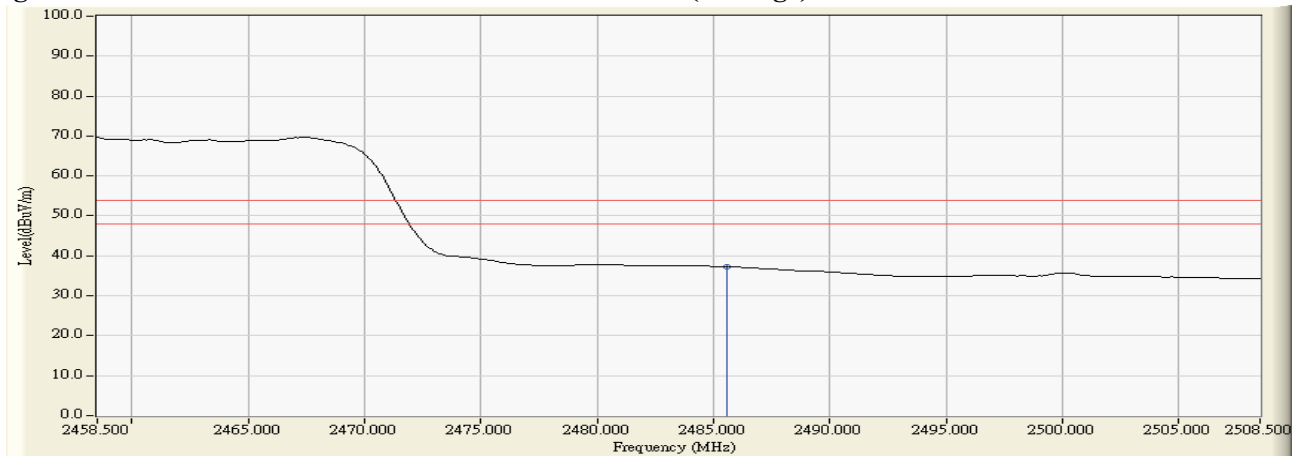
**RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
07 (Peak)	2485.600	-1.930	56.492	54.562	74.00	54.00	Pass
07 (Average)	2485.600	-1.930	39.241	37.311	74.00	54.00	Pass

**Figure Channel 07: Vertical (Peak)**



**Figure Channel 07: Vertical (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. Occupied Bandwidth

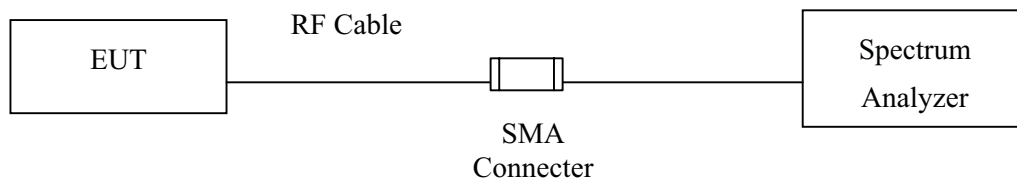
### 7.1. Test Equipment

The following test equipments are used during the radiated emission tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2008
X Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2008

Note: 1. All instruments are calibrated every one year.  
 2. The test instruments marked by “X” are used to measure the final test results.

### 7.2. Test Setup



### 7.3. Limits

The minimum bandwidth shall be at least 500 kHz.

### 7.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Span greater than RBW.

### 7.5. Uncertainty

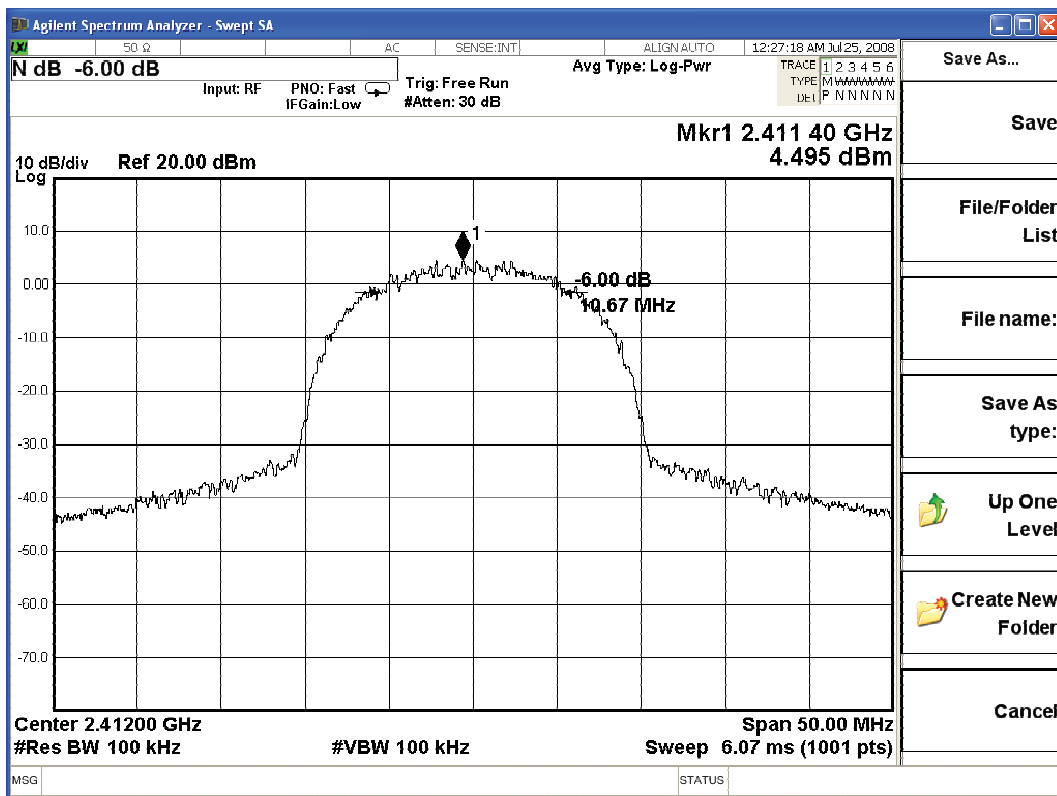
± 150Hz

### 7.6. Test Result of Occupied Bandwidth

Product : ROS Video DMA  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter - 802.11b 1Mbps (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (1Mbps)	2412.00	10670	>500	Pass

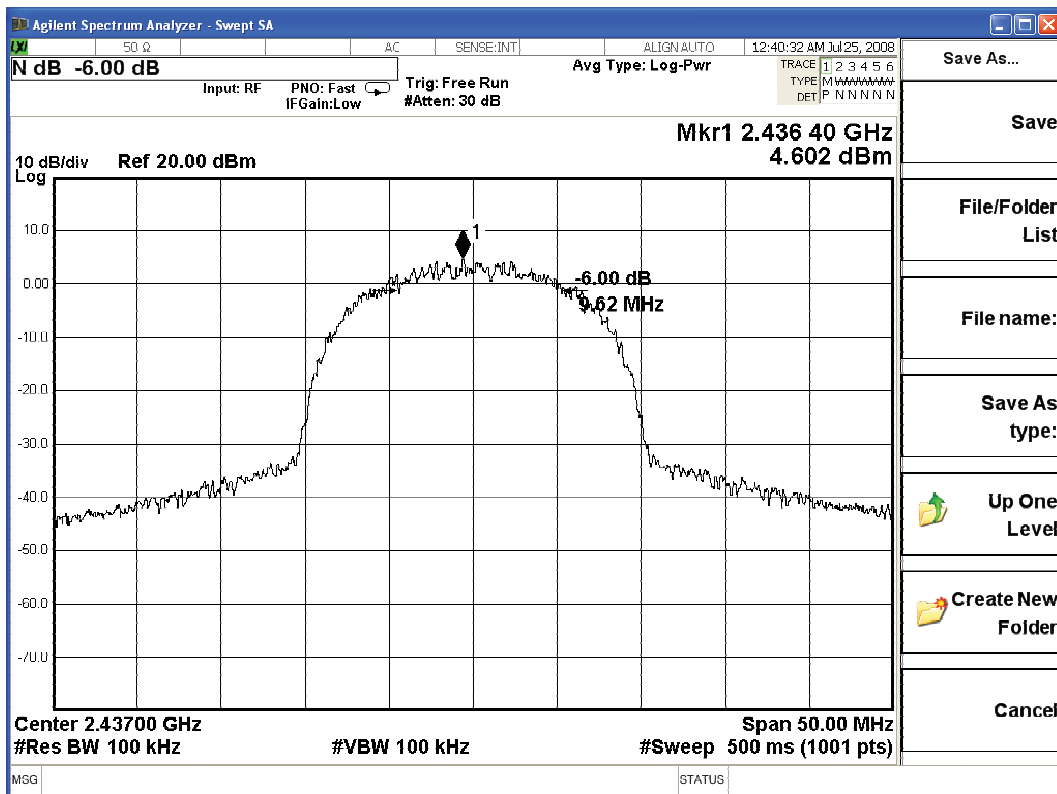
Figure Channel 1:



Product : ROS Video DMA  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter - 802.11b 1Mbps (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6 (1Mbps)	2437.00	9620	>500	Pass

**Figure Channel 6:**



Product : ROS Video DMA  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter - 802.11b 1Mbps (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11 (1Mbps)	2462.00	9610	>500	Pass

**Figure Channel 11:**

