

# FCC / IC TEST REPORT

for

**47 CFR, Part 15, Subpart E and RSS-210**

**Equipment : 802.11a/b/g WLAN Radio Port-220**

**Trade Name : HP (Hewlett Packard) ProCurve**

**Model No. : RSVLC-0505**

**FCC ID : B94RSVLC-0505**

**IC ID : 466F-RSVLC505**

**Filing Type : Certification**

**Applicant : Hewlett-Packard ProCurve Networking**  
8000 Foothills Boulevard Roseville, CA 95747-5502  
USA

- The test result refers exclusively to the test presented test model / sample.
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- **Certificate or Test Report must not be used by the applicant to claim the product in this test report endorsement by NVLAP or any agency of U.S. government.**
- The data shown in this test report were carried out on Dec. 6, 2005 at **Sporton International Inc. LAB.**
- Report No.: FR5O2016E-B, Report Version: Rev. 01.

***SPORTON International Inc.***

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

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## CERTIFICATE OF COMPLIANCE

For

### 47 CFR, Part 15, Subpart E and RSS-210

**Equipment** : 802.11a/b/g WLAN Radio Port-220  
**Trade Name** : HP (Hewlett Packard) ProCurve  
**Model No.** : RSVLC-0505  
**FCC ID** : B94RSVLC-0505  
**IC ID** : 466F-RSVLC505  
**Filing Type** : Certification  
**Applicant** : **Hewlett-Packard ProCurve Networking**  
8000 Foothills Boulevard Roseville, CA 95747-5502  
USA

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 - 2003** and the equipment under test was **passed** all test items required in FCC Part 15 subpart E, and RSS-210 relative to the equipment under test. Testing was carried out on Nov. 18, 2005 at **SPORTON International Inc. LAB.**



Dr. Daniel Lee

SAR/EMC Director

**SPORTON International Inc.**

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**SPORTON International Inc.**

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FCC ID : B94RSVLC-0505

IC ID : 466F-RSVLC505

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Report Issued Date : Dec. 6, 2005

Report Version : Rev. 01

## 1. General Description of Equipment under Test

### 1.1. Applicant

Hewlett-Packard ProCurve Networking  
8000 Foothills Boulevard Roseville, CA 95747-5502 USA

### 1.2. Manufacturer

Universal Scientific Industrial Co., Ltd.  
140, Lane 351, Taiping Road, Sec. 1, Tsao, Tuen, Nan\_Tou, Taiwan

### 1.3 Basic Description of Equipment under Test

Equipment	: 802.11a/b/g WLAN Radio Port-220
Trade Name	: HP (Hewlett Packard) ProCurve
Model No.	: RSVLC-0505
FCC ID	: B94RSVLC-0505
IC ID	: 466F-RSVLC505
Power Supply Type	: PoE

**1.4 Feature of Equipment under Test**

Product Feature & Specification					
1.	Host/Radio Interface	802.11a/b/g WLAN Radio Port-220			
2.	Housing Type	Metallic housing for RSLVC-0505			
3.	Modulation Type/Data Rate	OFDM:54/48/36/24/18/12/9/6Mbps			
4.	Freq.Range/Carrier Freqs.	2400~2483.5MHz; 5150 ~ 5250MHz (Band I); 5250 ~ 5350MHz (Band II)			
5.	Number o f Channels	802.11a: 8Ch(5150~5350MHz)			
6.	Carrier Frequency of each channel	802.11a: 5000+n*5 MHz, n=36,40,44,48,52,56,60,64			
7.	Channel Spacing	802.11a: 20MHz			
8.	Maximum Output Power to Antenna (Normal condition)	Refer to power table 1.6			
9.	Type of Antenna Connector	Refer to Antenna list 1.5			
10.	Antenna Type				
11.	Antenna Gain				
12.	Function Type	Transmitter		Transceiver	V
13.	Power Rating (DC/AC , Voltage)	Power Over Ethernet (48V)			
14.	Duty Cycle	100%			

**1.5 Antenna List**

Antenna List	Antenna Type	Model Name	Net Gain (dBi)	Frequency Range (GHz)	Application	Housing Type	Connector Type
Antenna 2	Dipole	J8441A	4.4	2.4 ~ 2.5	11 b/g	Metallic	RP-SMA MALE
Antenna 3	Dipole	J8444A	7.4	2.4 ~ 2.5	11 b/g	Metallic	RP-SMA MALE
Antenna 4	Yagi	J8448A	13.8	2.4 ~ 2.5	11 b/g	Metallic	N Type Female
Antenna 5	Panel	J8997A	3 / 4	2.4 ~ 2.5/ 5.15 ~ 5.825	11b/g; 11 a band I/II/III	Metallic	RP-SMA MALE
Antenna 6	Dipole	J8998A	6.3	5.15 ~ 5.875	11 a band I/II/III	Metallic	RP-SMA MALE
Antenna 7	Panel	J8999A	6.9 / 7.7	2.4 ~ 2.5/ 5.15 ~ 5.825	11b/g; 11 a band I/II/III	Metallic	RP-SMA MALE
Antenna 8	Panel	J9000A	13.3	5.15 ~ 5.875	11 a band I/II/III	Metallic	RP-SMA MALE
Antenna 9	Dipole	ML-2452-APA2 -01	3 / 4	2.4 ~ 2.5/ 5.15 ~ 5.825	11b/g; 11 a band I/II/III	Metallic	RP-SMA MALE

Remark:

Antenna types J8441A and J8997A were not tested as they are the same type, with similar radiated pattern and less gain than the J8444A and J8999A antennas respectively; this is in accordance with FCC Rules 15.204'

**1.6 Power Table**

Antenna List	802.11b	802.11g	802.11a/band 1	802.11a/band 2	802.11a/band 3
Antenna 2	N A	N A	N A	N A	N A
Antenna 3	N A	N A	N A	N A	N A
Antenna 4	N A	N A	N A	N A	N A
Antenna 5	N A	N A	15.08 dBm	21.67 dBm	N A
Antenna 6	N A	N A	16.49 dBm	23.63 dBm	N A
Antenna 7	N A	N A	15.08 dBm	21.67 dBm	N A
Antenna 8	N A	N A	9.44 dBm	20.39 dBm	N A
Antenna 9	N A	N A	16.66 dBm	21.52 dBm	N A

## 2 Test Configuration of Equipment under Test

### 2.1 Test Manner

- a. The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
- b. The complete test system refers to section 2.2 and EUT for EMI test.
- c. The EUT can operate on 5150MHz to 5350MHz as listed in section 1.4.
- d. The following test modes were tested for conduction test:

Mode 1: Ping mode

- e. Radiation test refer to Test Matrix:

Mode Ref. No.	1	2	3	4	5
Mode Name Antenna	802.11a Tx Ch36	802.11a Tx Ch48	802.11a Tx Ch52	802.11a Tx Ch64	Co-location 802.11b Tx Ch6+802.11a Tx Ch52
Antenna 6	Y	Y	Y	Y	
Antenna 7	Y	Y	Y	Y	
Antenna 8	Y	Y	Y	Y	
Antenna 9	Y	Y	Y	Y	Y

- f. Conducted test refer to Test Matrix:

Mode Ref. No.	1	2	3	4
Mode Name Antenna	802.11a Tx Ch36	802.11a Tx Ch48	802.11a Tx Ch52	802.11a Tx Ch64
Antenna 6	Y	Y	Y	Y
Antenna 7	Y	Y	Y	Y
Antenna 8	Y	Y	Y	Y
Antenna 9	Y	Y	Y	Y

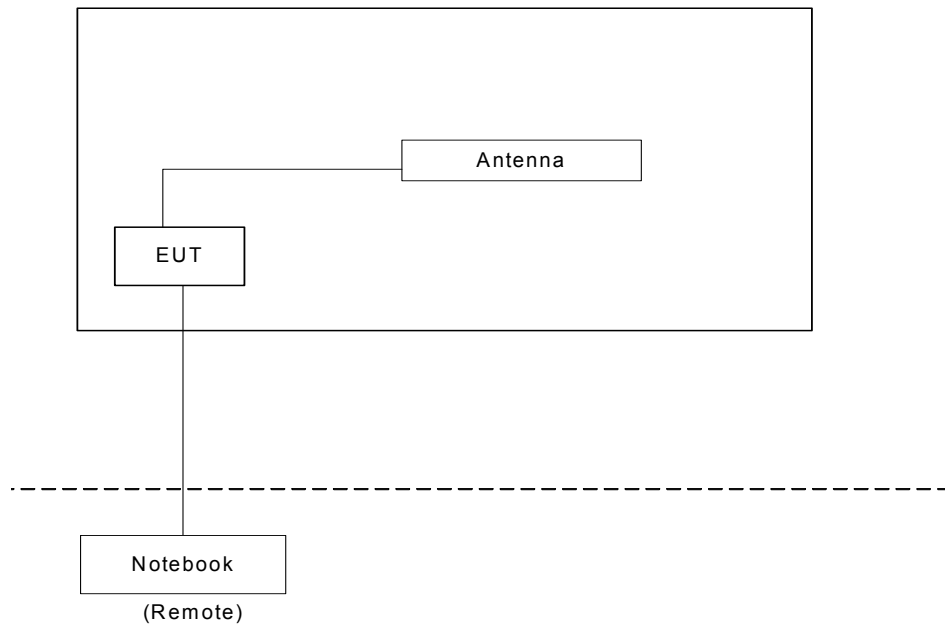
- g. Frequency range investigated: conduction 150 KHz to 30 MHz, radiation 30 MHz to 40000MHz.

### 2.2 Description of Test System

Item	Asset	Model Name	Power Cord
1.	Notebook (DELL)	D400	N/A
2.	UTP Cable	N/A	Non-shielded, 13m



### 2.3 Connection Diagram of Test System



### **3 Operation of Equipment under Test**

During the test, the following programs on WINXP were executed:  
one self test program "WinLEO Version 00.33" to keep transmitting signals.

## **4 General Information of Test**

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,  
Kwei-Shan Hsiag, Tao Yuan Hsien, Taiwan, R.O.C.  
TEL : 886-3-327-3456  
FAX : 886-3-318-0055  
Test Site No : CO01-HY, 03CH06-HY

### **4.1 Test Voltage**

110V/ 60Hz

### **4.2 Standard for Methods of Measurement**

ANSI C63.4-2003

### **4.3 Test in Compliance with**

FCC Part 15, Subpart E and RSS-210

### **4.4 Frequency Range Investigated**

- a. Conduction: from 150 kHz to 30 MHz
- b. Radiation: from 30 MHz to 40000MHz

### **4.5 Test Distance**

The test distance of radiated emission from antenna to EUT is 3 M.

## 5 Report of Measurements and Examinations

### 5.1 List of Measurements and Examinations

FCC Rule	IC Rule	Description of Test	Result
15.407(b)(5)	6.6	Conducted Emission	Pass
15.407(a)(1) (2)	6.2.2(q1) (i) (ii)	Peak Transmit Power	Pass
15.407(b)(1)(2)(5)	6.2.2(q1) (i) (ii)	Radiated Emission	Pass
15.407(a) (1) (2)	6.2.2(q1) (i) (ii)	Power Spectral Density	Pass
15.407(b)(1)(2)	6.2.2(q1) (i) (ii)	Band Edges Measurement	Pass
15.407(a)(1)(2)	6.2.2(q1) (i) (ii)	Antenna Requirement	Pass
15.407(a)(6)	6.2.2(q1) (iv)	Peak Excursion Ratio Measurement	Pass
15.407(c)	6.2.2(q1) (iv) (d)	Automatically Discontinue Transmission	Pass

**5.2 Emission Bandwidth**

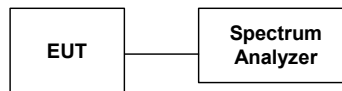
5.2.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.2.2 Test Procedure :

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to approximately 1% of the emission bandwidth. For these tests, the resolution bandwidth is 300 kHz, and peak detection is used. The 26 dB bandwidth is defined as the frequency range where the power is higher than the peak power minus 26 dB.

Test Setup Layout :



5.2.3 Test Result :

- Temperature : 24°C
- Relative Humidity :52%

◆ Test Antenna: Antenna 6

- Application: 802.11a

Channel	Frequency ( MHz )	26dB Emission bandwidth ( MHz )	Mode Ref. No.
36	5180	21.20	6-1
48	5240	21.30	6-2
52	5260	40.56	6-3
64	5320	40.70	6-4

◆ Test Antenna: Antenna 7

- Application: 802.11a

Channel	Frequency ( MHz )	26dB Emission bandwidth ( MHz )	Mode Ref. No.
36	5180	21.00	7-1
48	5240	21.36	7-2
52	5260	35.10	7-3
64	5320	33.10	7-4

◆ Test Antenna: Antenna 8

➤ Application: 802.11a

Channel	Frequency ( MHz )	26dB Emission bandwidth ( MHz )	Mode Ref. No.
36	5180	20.90	8-1
48	5240	20.90	8-2
52	5260	29.30	8-3
64	5320	26.28	8-4

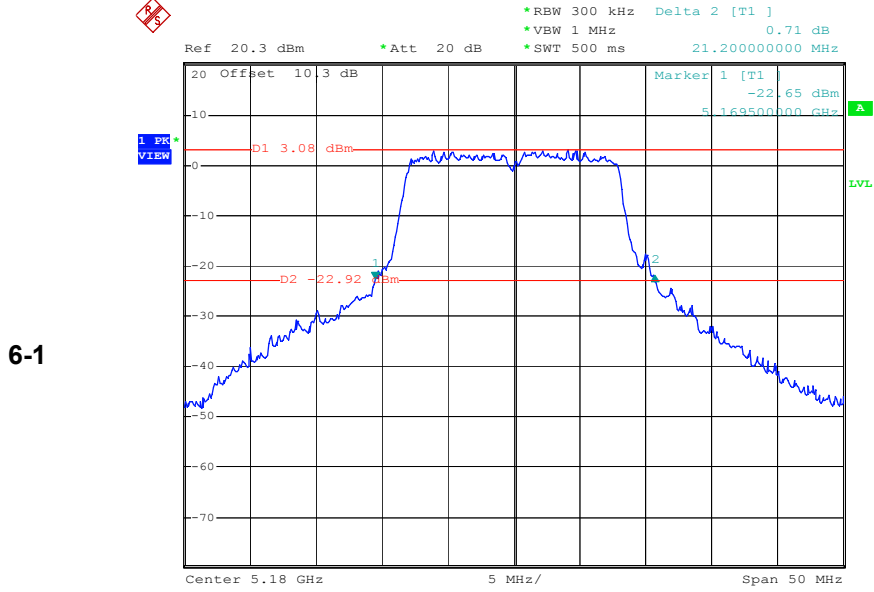
◆ Test Antenna: Antenna 9

➤ Application: 802.11a

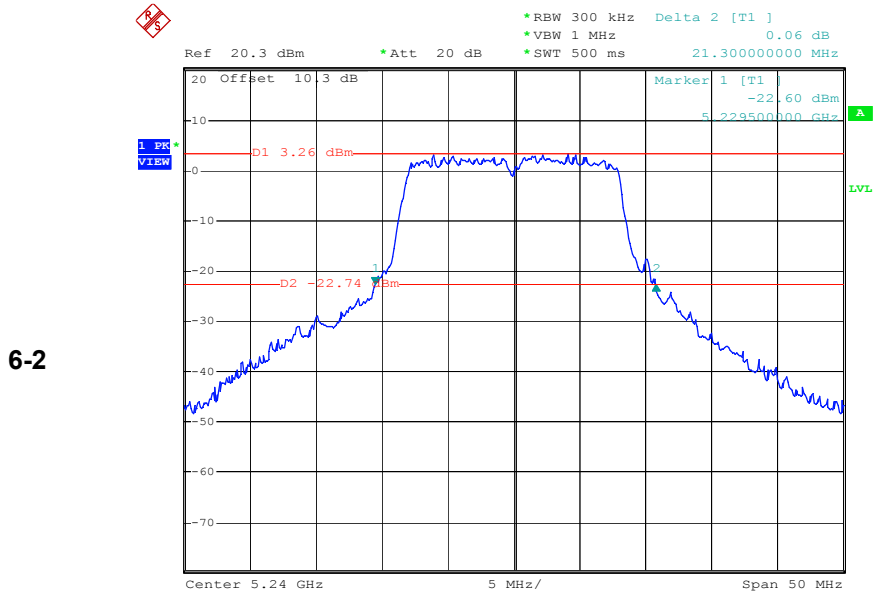
Channel	Frequency ( MHz )	26dB Emission bandwidth ( MHz )	Mode Ref. No.
36	5180	21.30	9-1
48	5240	21.30	9-2
52	5260	28.80	9-3
64	5320	23.80	9-4

5.2.4 Test Data

Mode Ref. No.

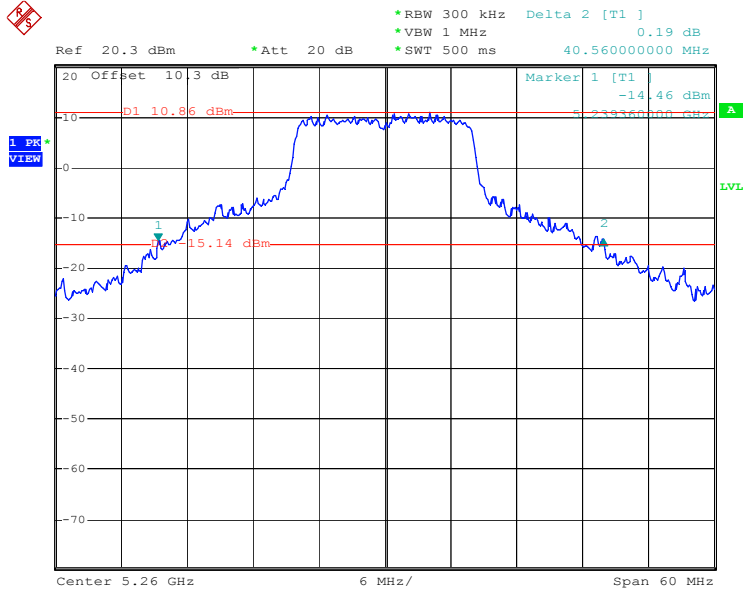


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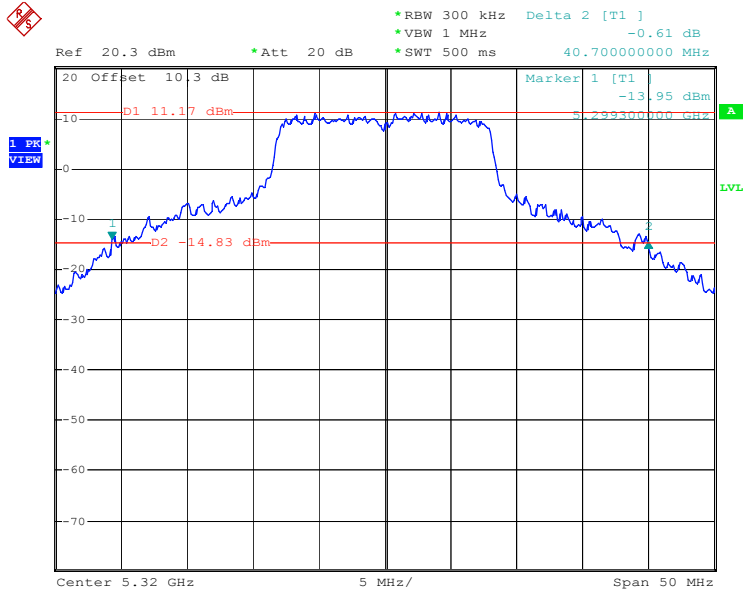
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6-3



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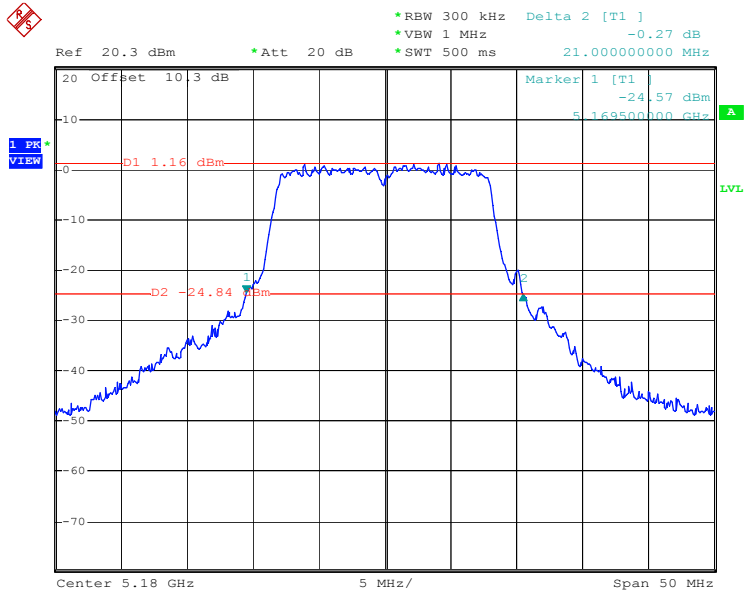
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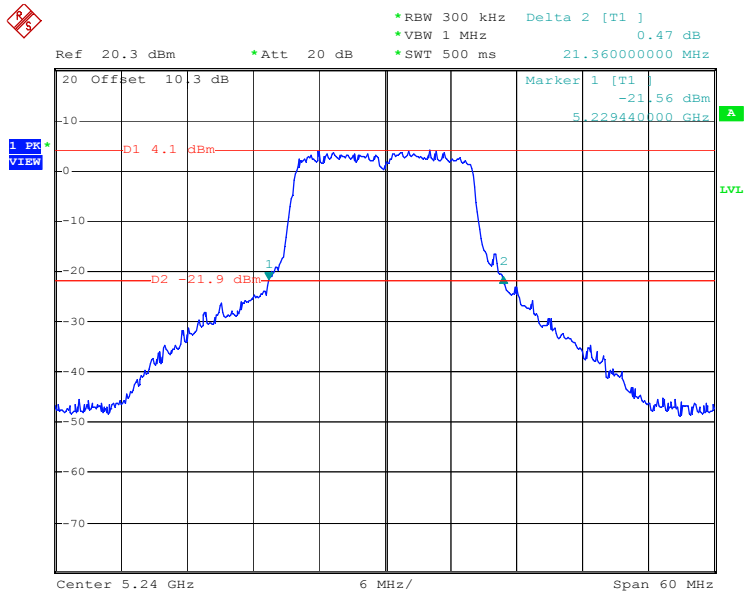


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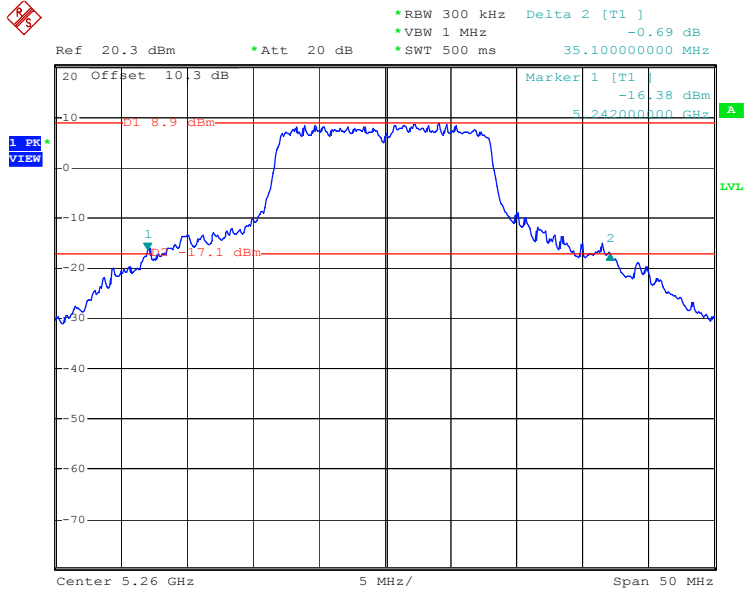
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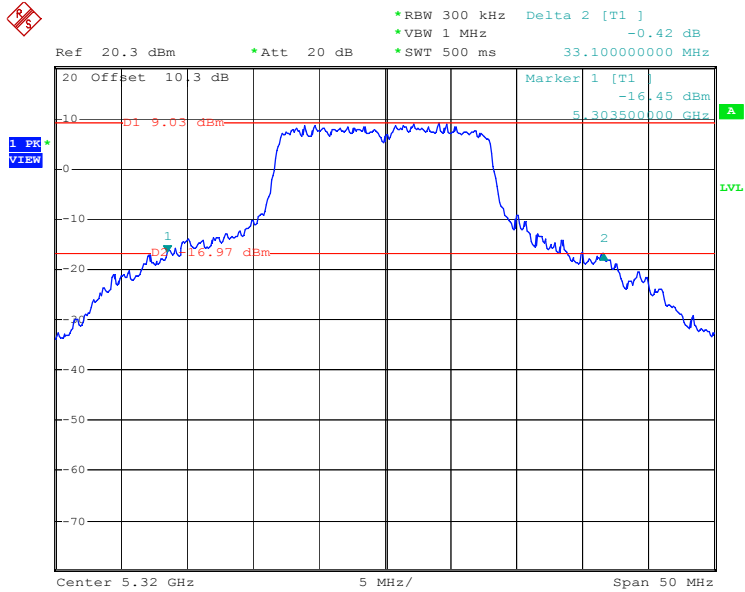
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7-3



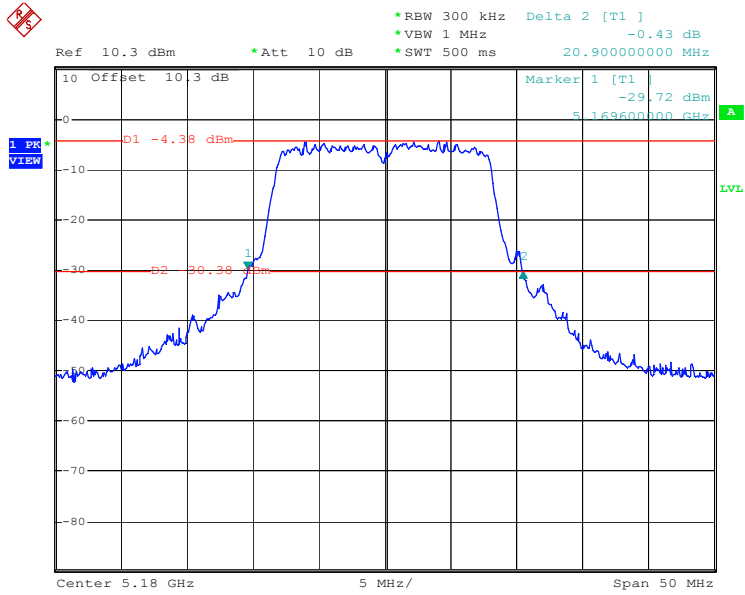
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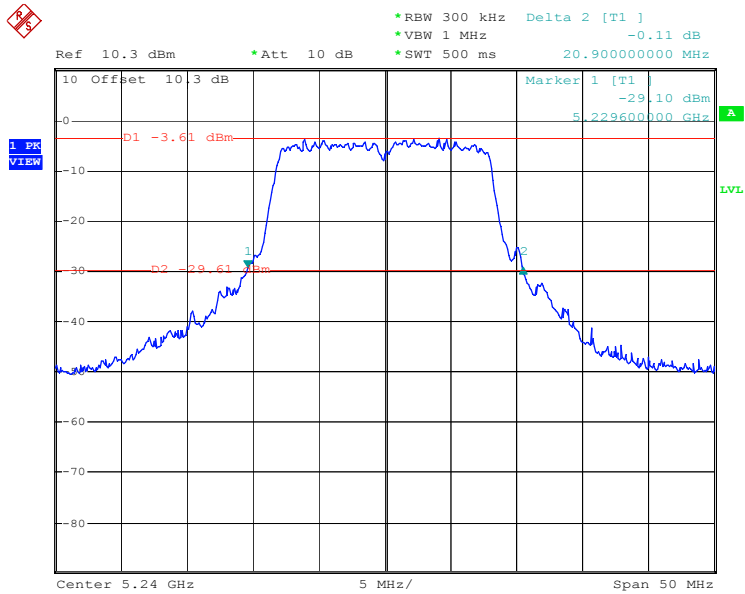
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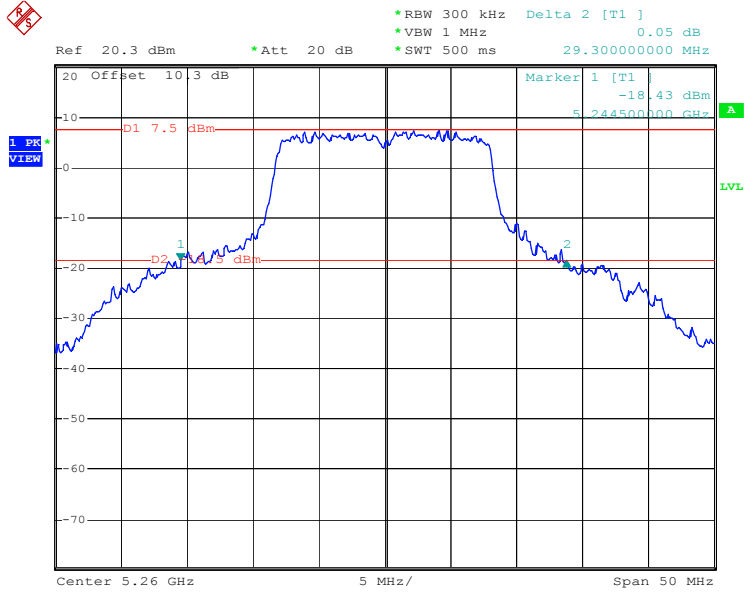
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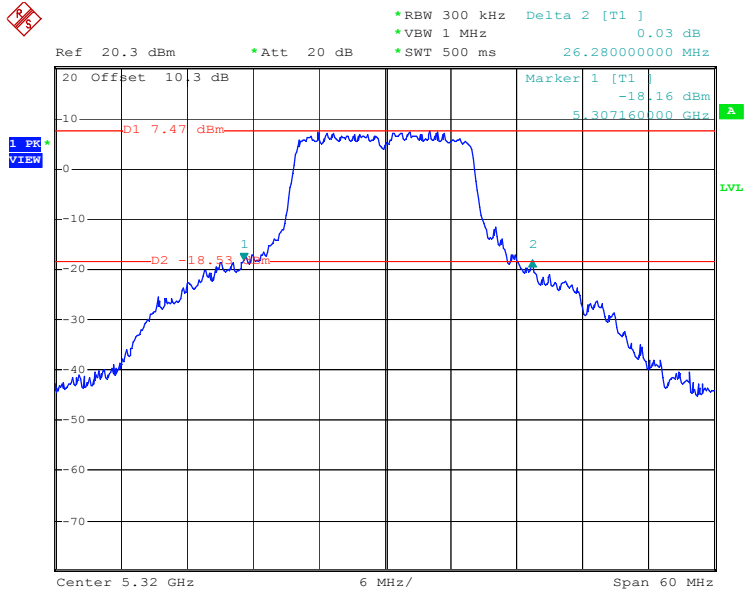
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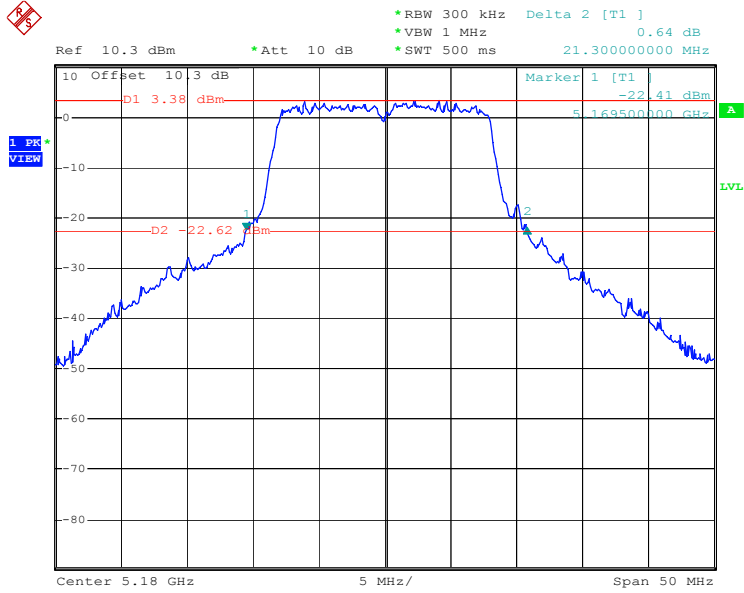
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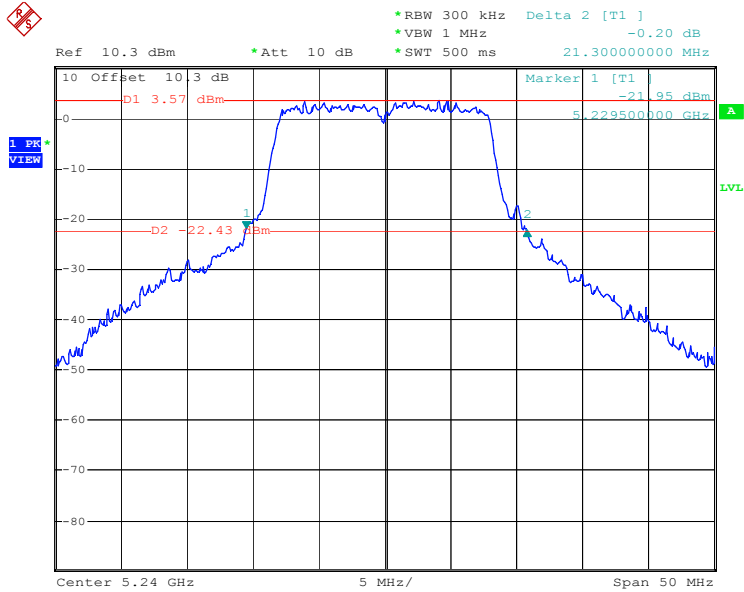
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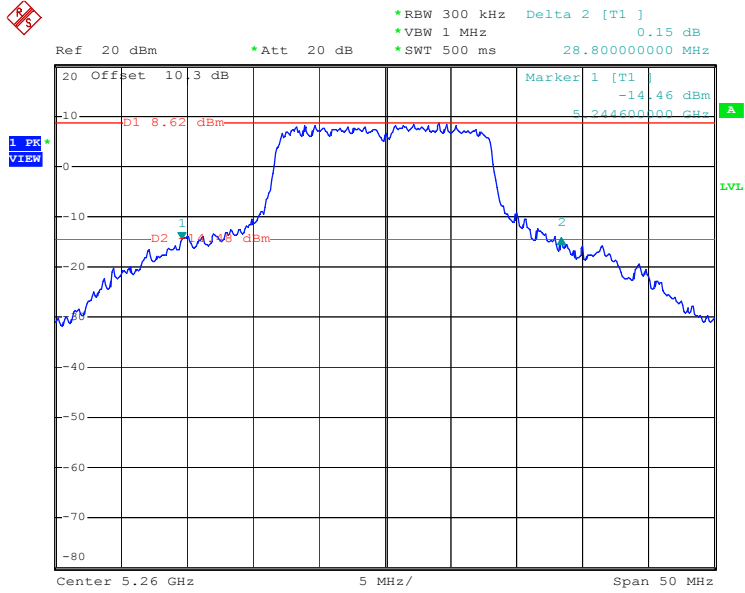
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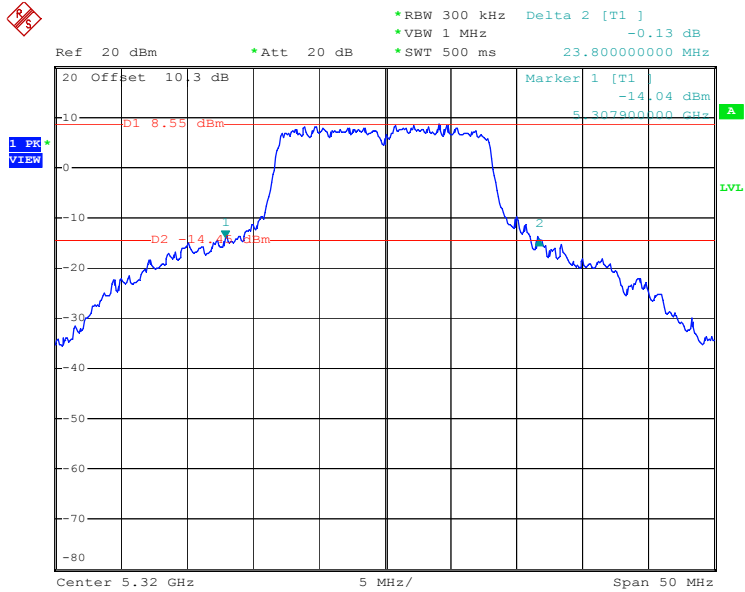
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9-3



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9-4



Date: 17.NOV.2005 21:31:54

**5.3 Peak Transmit Power**

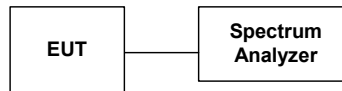
5.3.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.3.2 Test Procedure :

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz, and peak detection is used. The peak power is measured by channel power integration over the previously measured emissions bandwidth..

5.3.3 Test Setup Layout :



5.3.4 Test Result :

- Temperature : 24°C
- Relative Humidity :52%

◆ Test Antenna: Antenna 6

➤ Application: 802.11a

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (dBm )	Mode Ref. No.
36	5180	16.49	16.7	6-1
48	5240	16.47	16.7	6-2
52	5260	23.11	23.7	6-3
64	5320	23.63	23.7	6-4

Comments : The peak transmit power shall not exceed the lesser of 17dBm or 4dBm+10logB in 5150~5250 band; 24dBm or 11dBm+10logB in5250~5350 band.

5180MHz 4dBm + 10log( 21.2 MHz) = 17.26 dBm

5240MHz 4dBm + 10log( 21.3 MHz) = 17.28 dBm

5260MHz 11dBm + 10log( 40.56 MHz) = 27.08 dBm

5320MHz 11Bm + 10log( 40.70 MHz) = 27.10 dBm

Band I Limit = 17 - (6.3-6) = 16.7 dBm

Band II Limit = 24 - (6.3-6) = 23.7 dBm

◆ Test Antenna: Antenna 7

➤ Application: 802.11a

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (dBm )	Mode Ref. No.
36	5180	15.02	15.3	7-1
48	5240	15.08	15.3	7-2
52	5260	21.15	22.3	7-3
64	5320	21.67	22.3	7-4

Comments : The peak transmit power shall not exceed the lesser of 17dBm or 4dBm+10logB in 5150~5250 band; 24dBm or 11dBm+10logB in5250~5350 band.

5180MHz 4dBm + 10log( 21.0 MHz) = 17.22 dBm

5240MHz 4dBm + 10log( 21.36 MHz) = 17.30 dBm

5260MHz 11dBm + 10log( 35.10 MHz) = 26.45 dBm

5320MHz 11Bm + 10log( 33.10 MHz) = 26.20 dBm

Band I Limit = 17 - (7.7-6) = 15.3 dBm

Band II Limit = 24 - (7.7-6) = 22.3 dBm

◆ Test Antenna: Antenna 8

➤ Application: 802.11a

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (dBm )	Mode Ref. No.
36	5180	9.44	9.7	8-1
48	5240	9.38	9.7	8-2
52	5260	16.62	16.7	8-3
64	5320	16.64	16.7	8-4

Comments : The peak transmit power shall not exceed the lesser of 17dBm or 4dBm+10logB in 5150~5250 band; 24dBm or 11dBm+10logB in5250~5350 band.

5180MHz 4dBm + 10log( 20.9 MHz) = 17.20 dBm

5240MHz 4dBm + 10log( 20.9 MHz) = 17.20 dBm

5260MHz 11dBm + 10log( 29.3 MHz) = 25.67 dBm

5320MHz 11Bm + 10log( 26.28 MHz) = 25.20 dBm

Band I Limit = 17 - (13.6-6) = 9.7 dBm

Band II Limit = 24 - (13.3-6) = 16.7 dBm



- ◆ Test Antenna: Antenna 9
- Application: 802.11a

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (dBm )	Mode Ref. No.
36	5180	16.66	17	9-1
48	5240	16.57	17	9-2
52	5260	21.34	24	9-3
64	5320	21.52	24	9-4

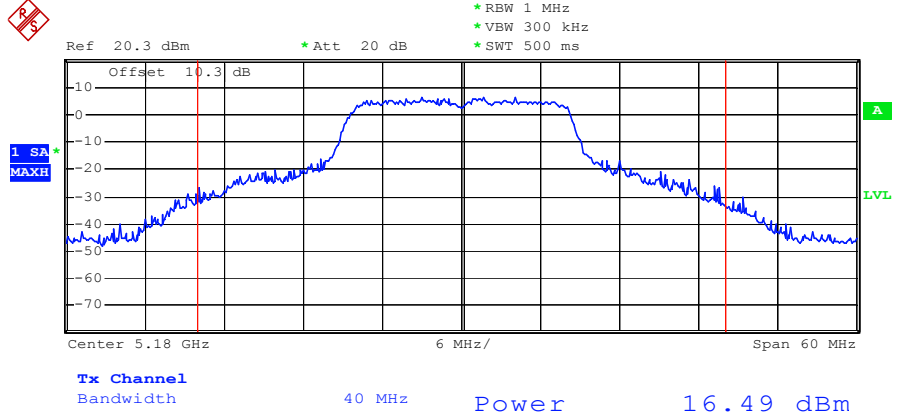
Comments : The peak transmit power shall not exceed the lesser of 17dBm or 4dBm+10logB in 5150~5250 band; 24dBm or 11dBm+10logB in5250~5350 band.

5180MHz 4dBm + 10log( 21.3 MHz) = 17.28 dBm  
 5240MHz 4dBm + 10log( 21.3 MHz) = 17.28 dBm  
 5260MHz 11dBm + 10log( 28.8 MHz) = 25.59 dBm  
 5320MHz 11Bm + 10log( 23.8 MHz) = 24.77 dBm  
 Band I Limit = 17 dBm  
 Band II Limit = 24 dBm

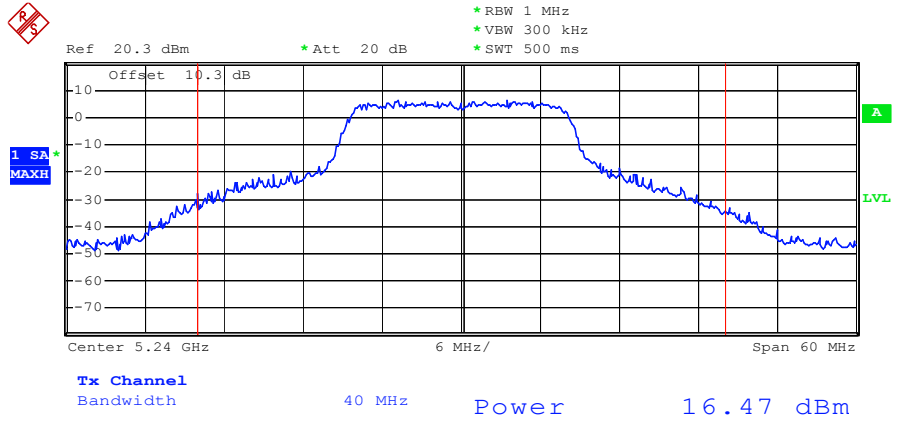
5.3.5 Test Data

Mode Ref. No.

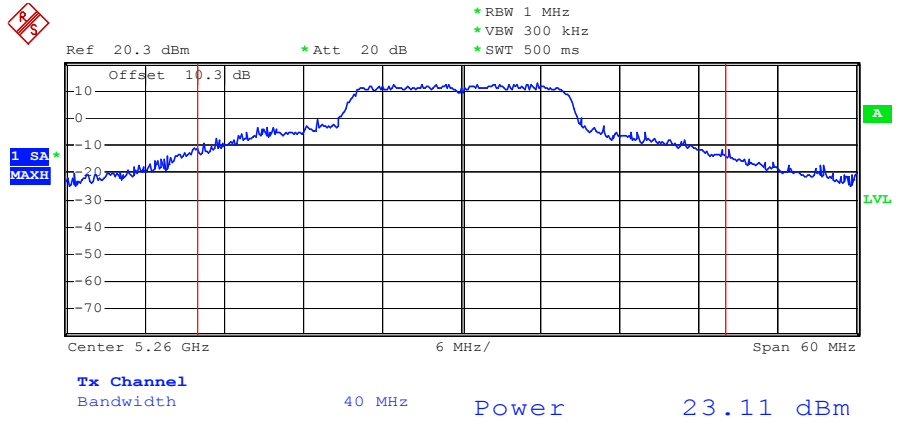
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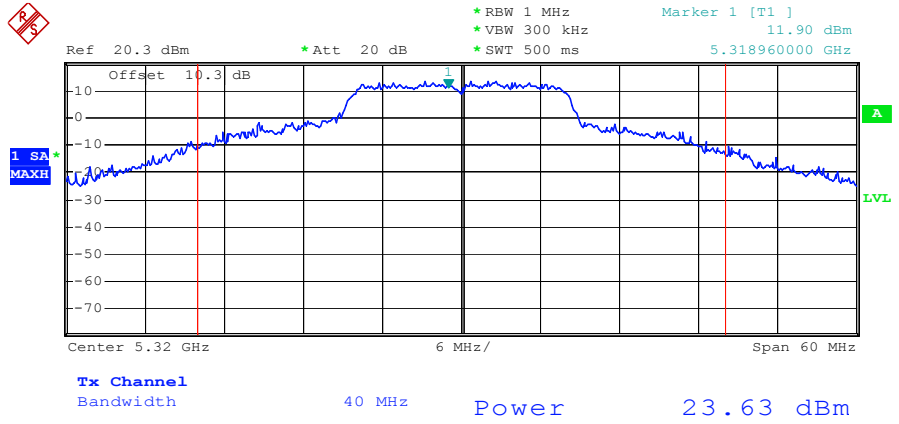
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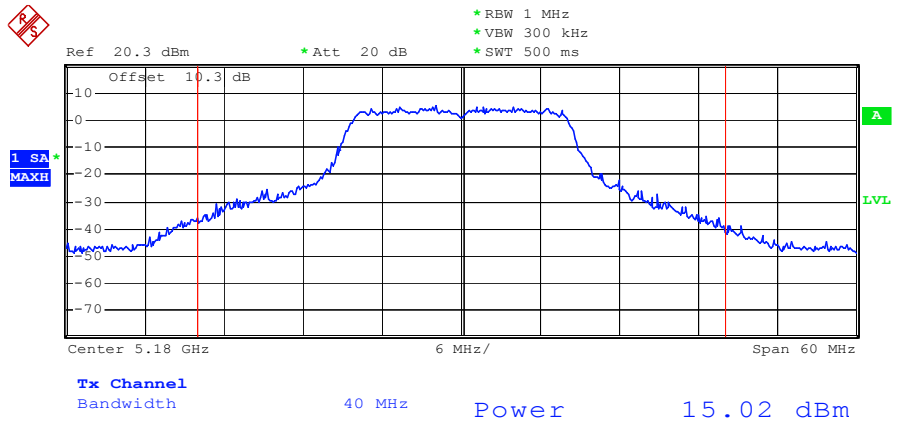
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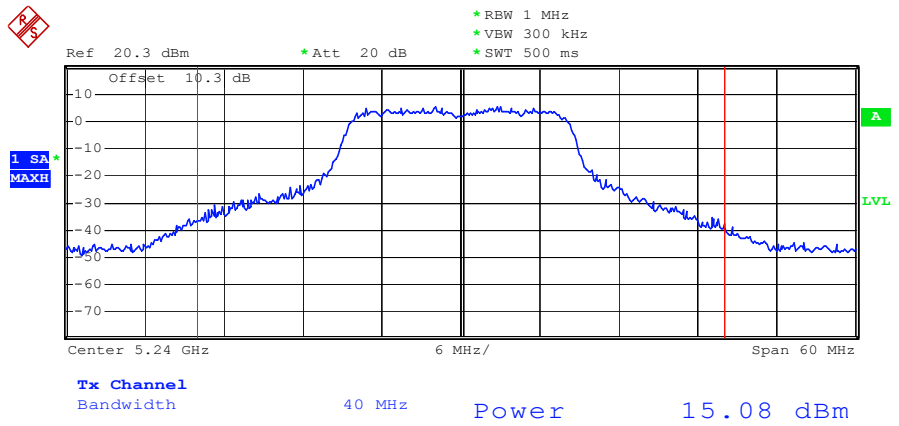
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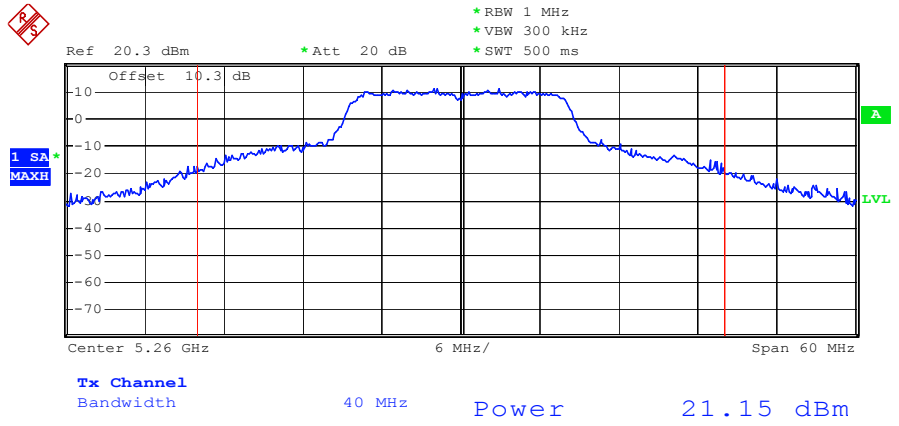
7-1



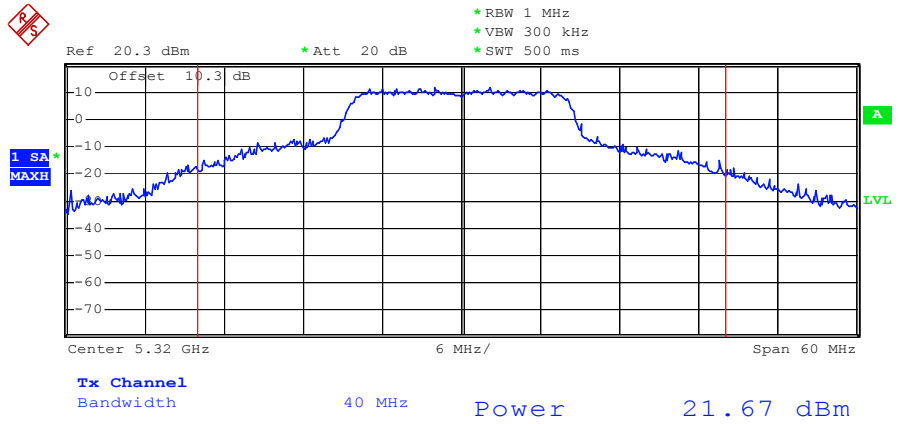
7-2



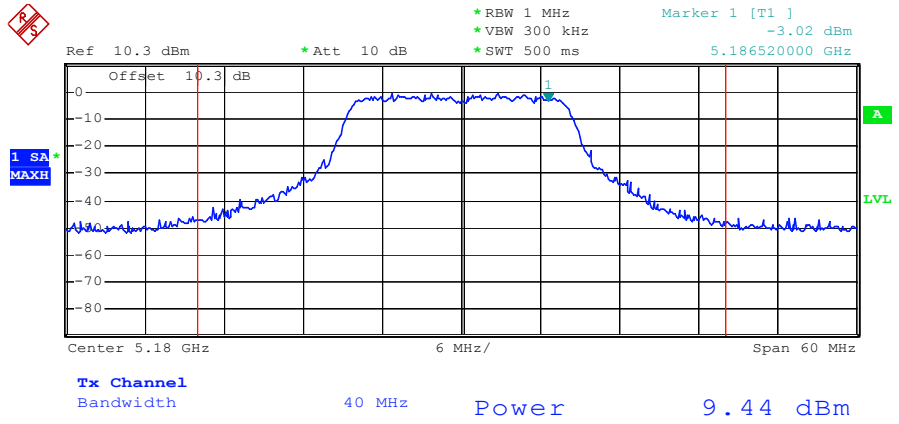
7-3



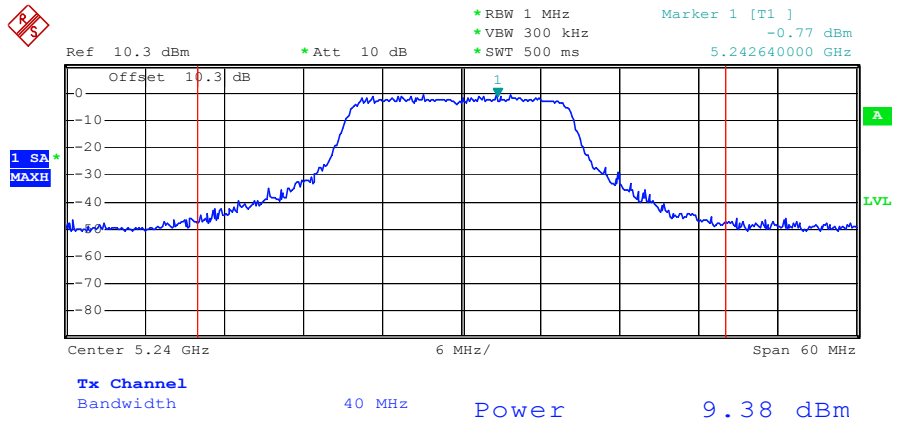
7-4



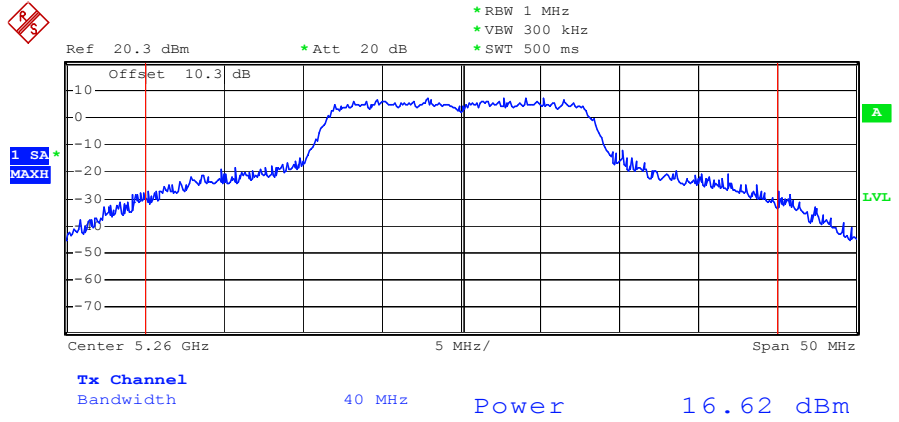
8-1



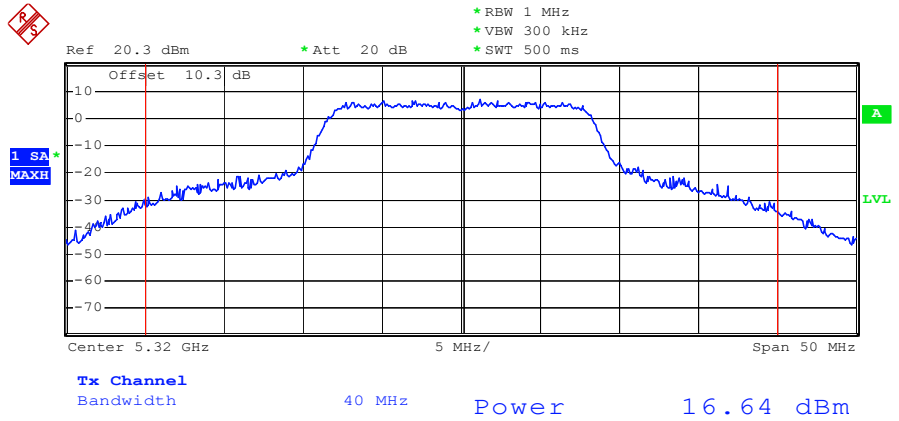
8-2



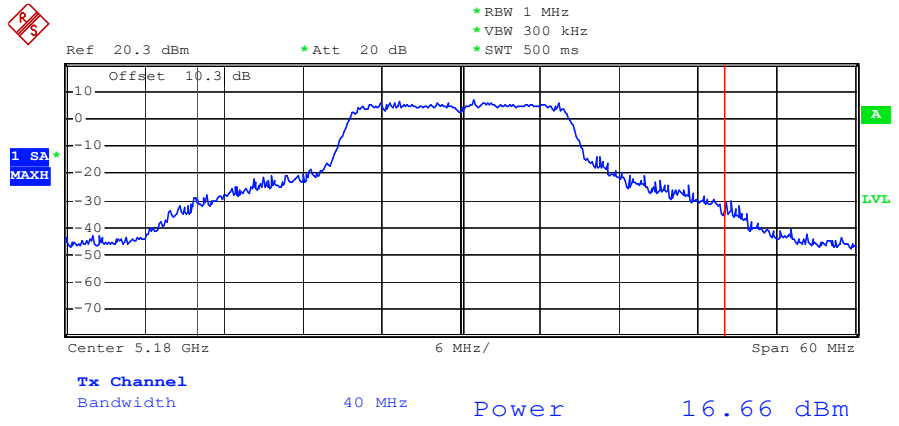
8-3



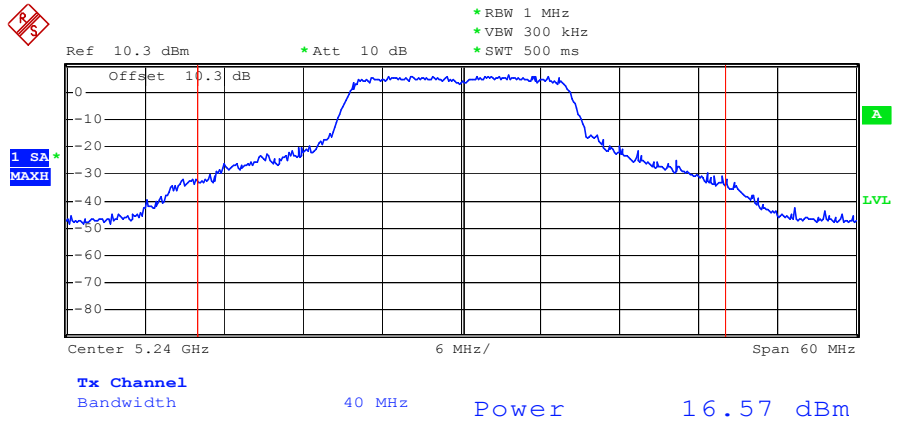
8-4



9-1

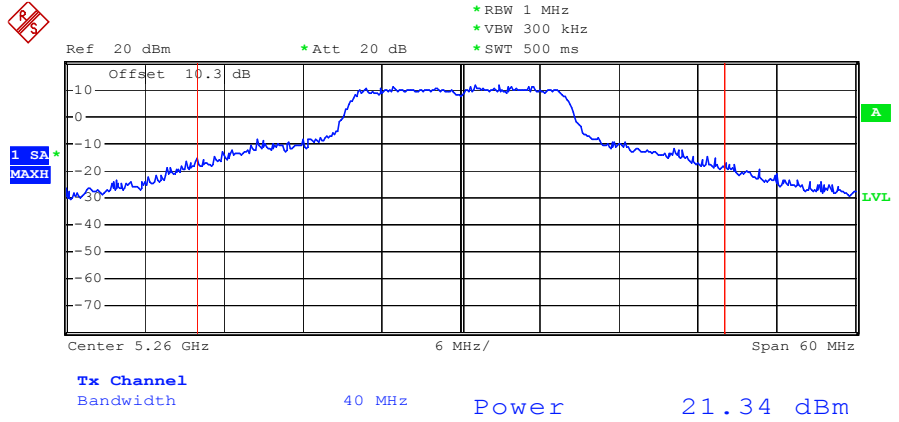


9-2

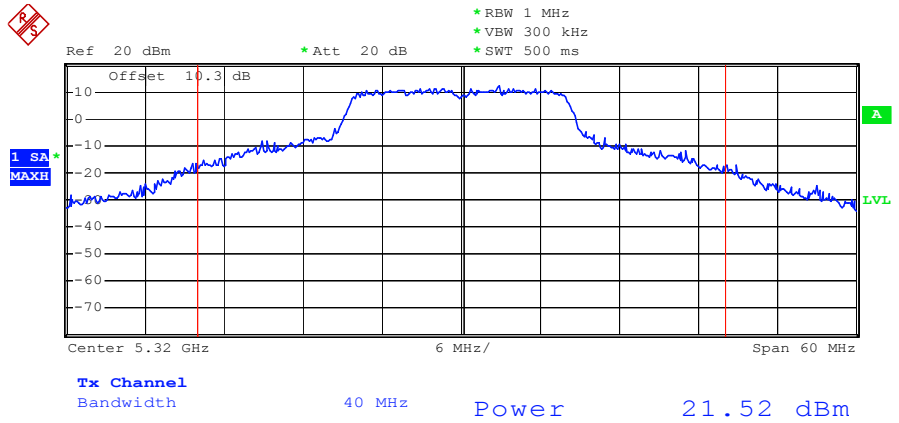




9-3



9-4



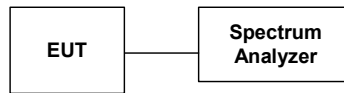
**5.4 Peak Power Spectral Density**

5.4.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.4.2 Test Procedure :

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz, sample detection is used, and the analyzer is set for video averaging.



5.4.3 Test Result :

- Temperature : 24°C
- Relative Humidity :52%
- ◆ Test Antenna: Antenna 6
- Application: 802.11a

Channel	Frequency (MHz)	Power Spectral	Limits (dBm)	Mode
		Density (dBm)		Ref. No.
36	5180	-1.10	3.7	6-1
48	5240	-0.44	3.7	6-2
52	5260	6.70	10.7	6-3
64	5320	6.93	10.7	6-4

Band I Limit = 4 - (6.3-6) = 3.7 dBm

Band II Limit = 11 - (6.3-6) = 10.7 dBm

◆ Test Antenna: Antenna 7

➤ Application: 802.11a

Channel	Frequency (MHz)	Power Spectral	Limits (dBm)	Mode
		Density (dBm)		Ref. No.
36	5180	-2.99	2.3	7-1
48	5240	0.10	2.3	7-2
52	5260	4.64	9.3	7-3
64	5320	4.63	9.3	7-4

Band I Limit = 4 - (7.7-6) = 2.3 dBm

Band II Limit = 11 - (7.7-6) = 9.3 dBm

◆ Test Antenna: Antenna 8

➤ Application: 802.11a

Channel	Frequency (MHz)	Power Spectral	Limits (dBm)	Mode
		Density (dBm)		Ref. No.
36	5180	-8.40	-3.3	8-1
48	5240	-7.62	-3.3	8-2
52	5260	-0.19	3.7	8-3
64	5320	1.11	3.7	8-4

Band I Limit = 4 - (13.3-6) = -3.3 dBm

Band II Limit = 11 - (13.3-6) = 3.7 dBm

◆ Test Antenna: Antenna 9

➤ Application: 802.11a

Channel	Frequency (MHz)	Power Spectral	Limits (dBm)	Mode
		Density (dBm)		Ref. No.
36	5180	-1.06	4	9-1
48	5240	-0.38	4	9-2
52	5260	4.68	11	9-3
64	5320	4.10	11	9-4

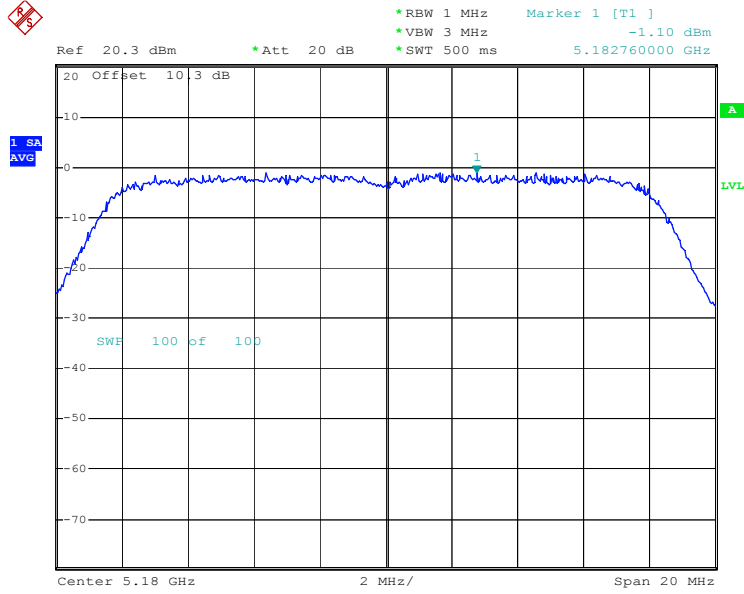
Band I Limit = 4 dBm

Band II Limit = 11 dBm

5.4.4 Test Data

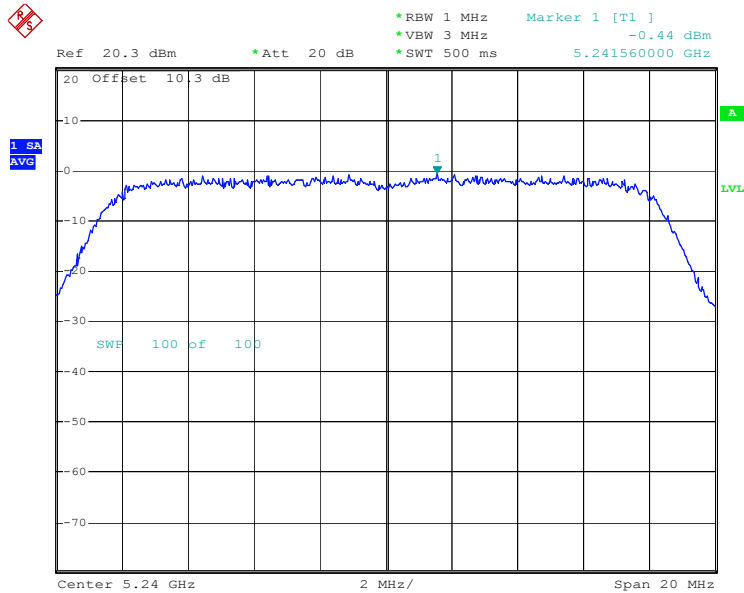
Mode Ref. No.

6-1



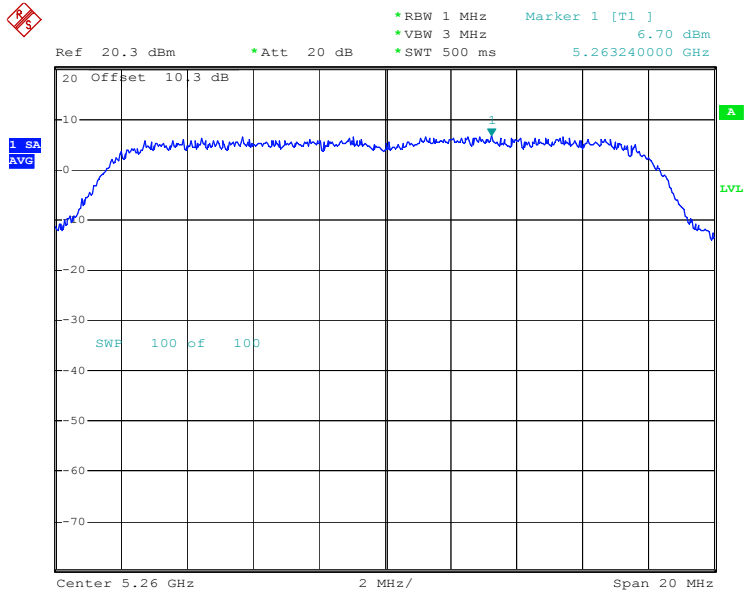
Date: 17.NOV.2005 23:04:37

6-2



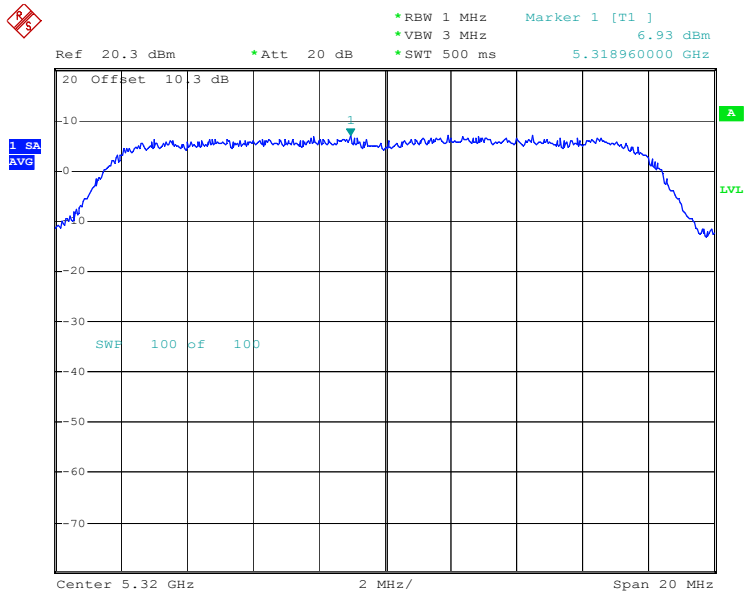
Date: 17.NOV.2005 23:09:41

6-3



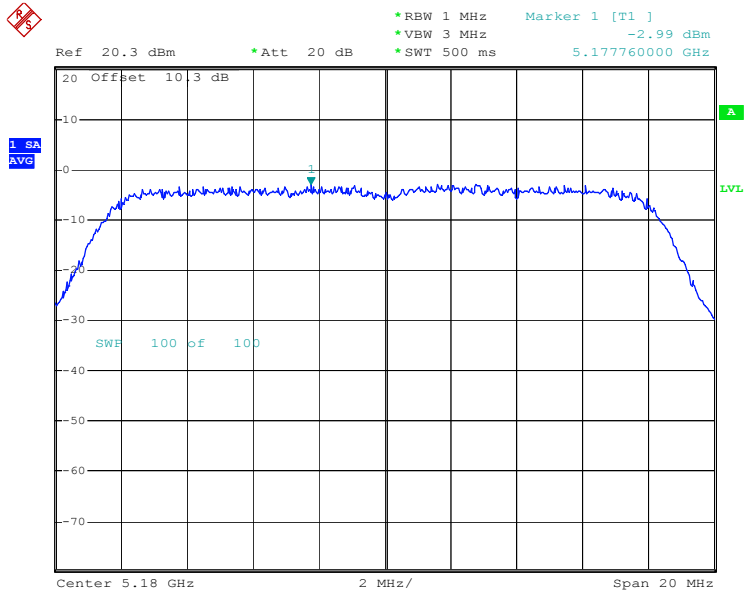
Date: 17.NOV.2005 23:15:26

6-4



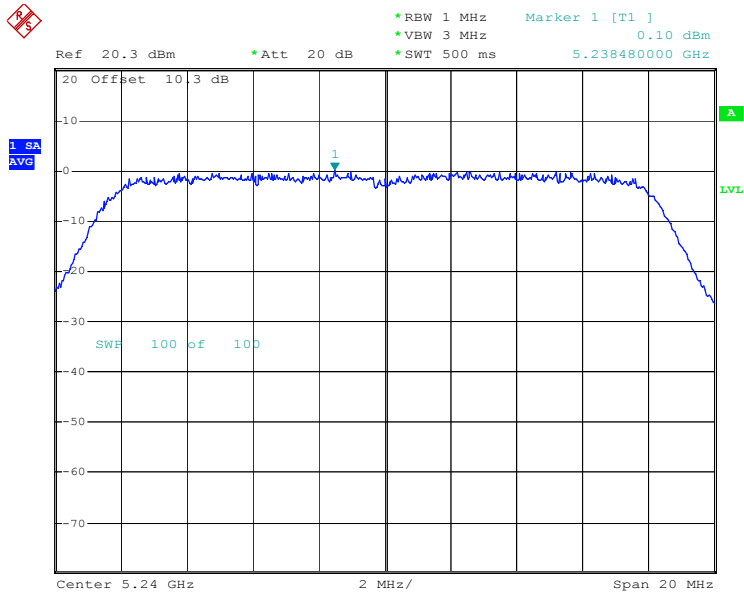
Date: 17.NOV.2005 23:46:47

7-1



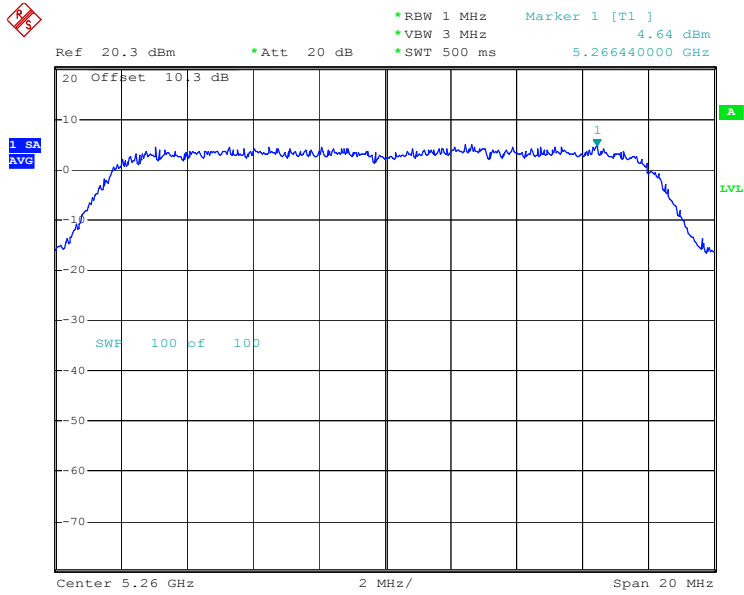
Date: 17.NOV.2005 22:58:07

7-2



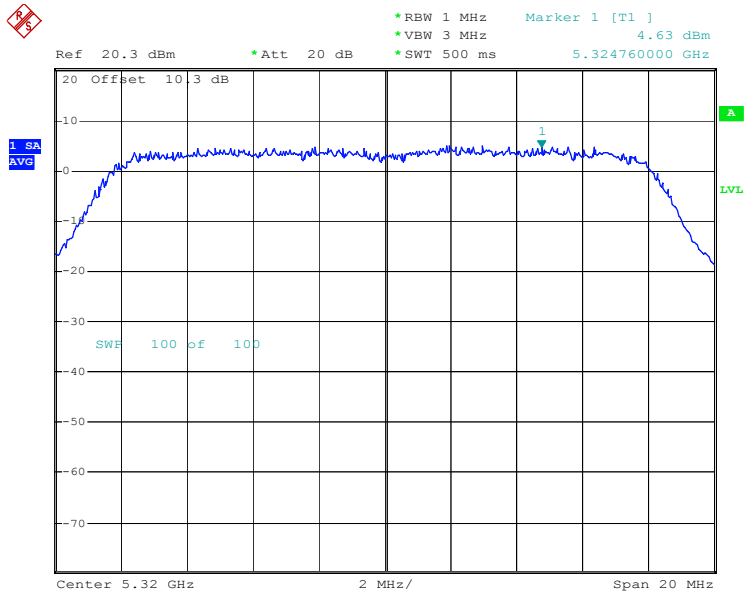
Date: 17.NOV.2005 22:53:50

7-3



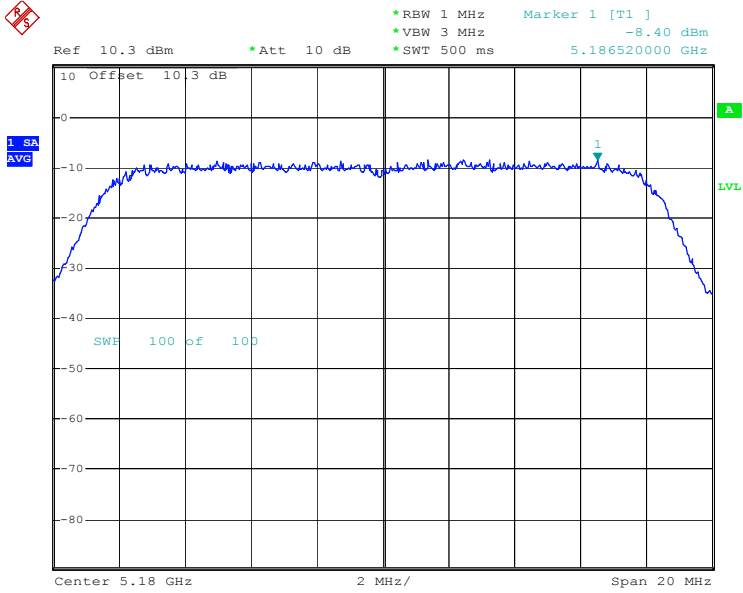
Date: 17.NOV.2005 22:48:01

7-4



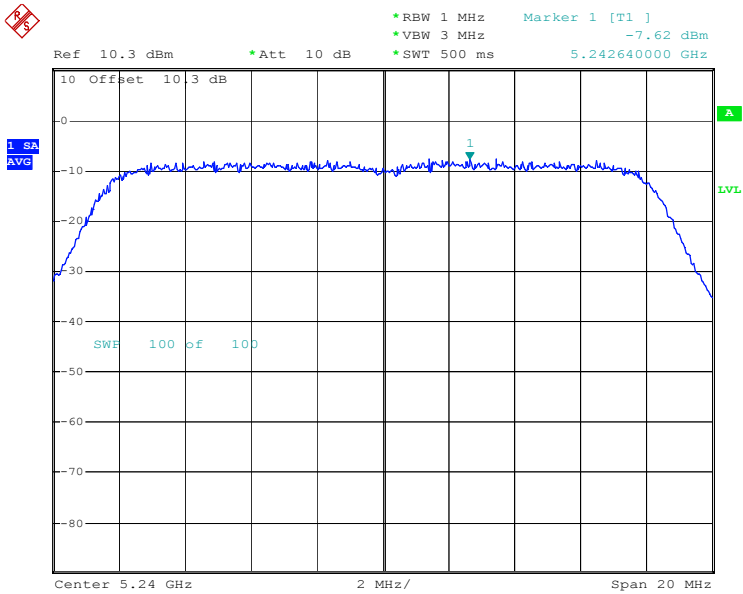
Date: 17.NOV.2005 22:41:39

8-1



Date: 17.NOV.2005 22:01:17

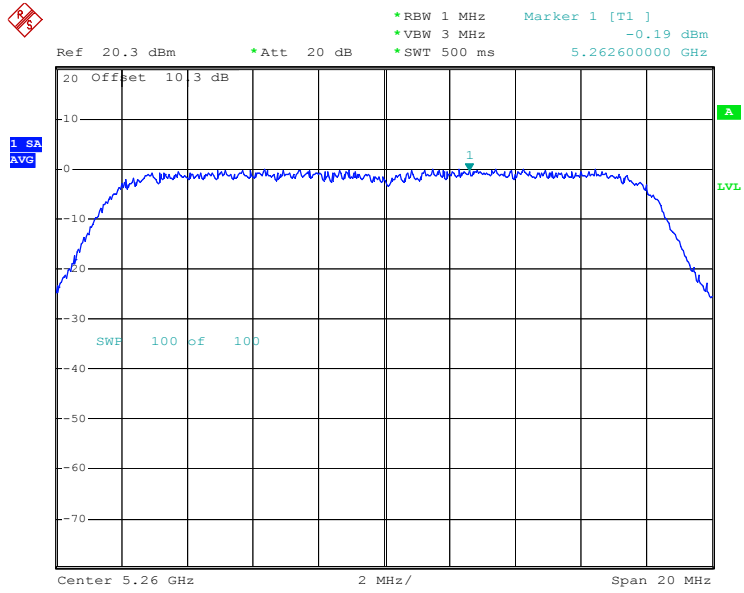
8-2



Date: 17.NOV.2005 22:09:14

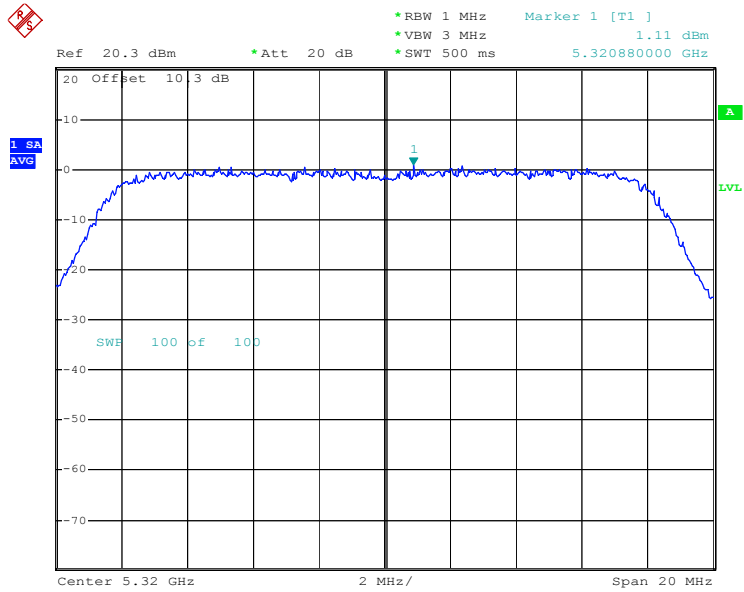


8-3



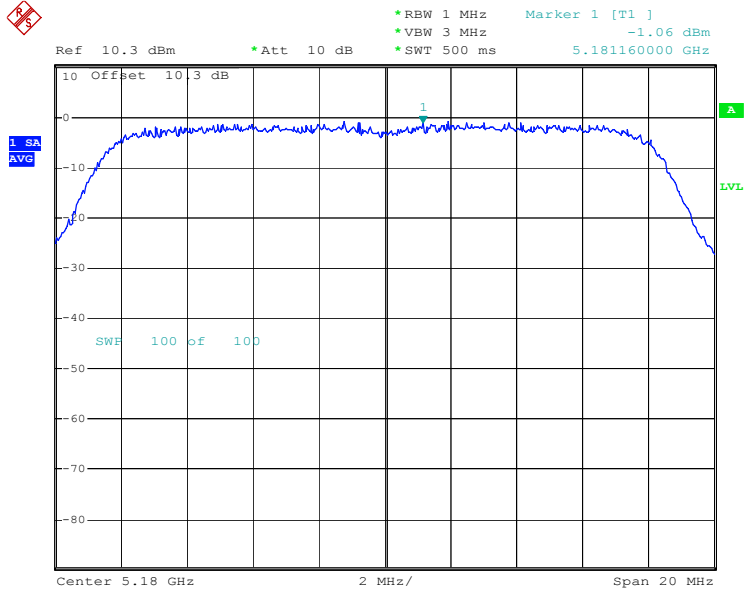
Date: 6.DEC.2005 15:11:20

8-4



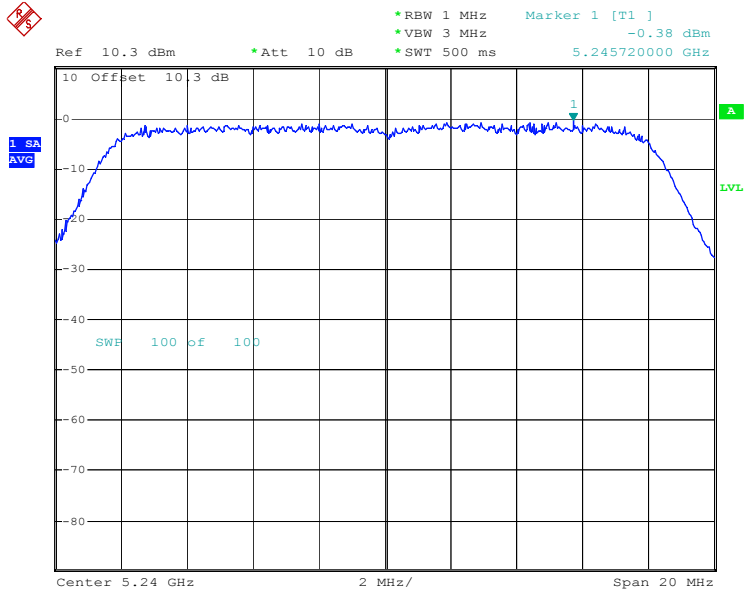
Date: 6.DEC.2005 15:10:05

9-1



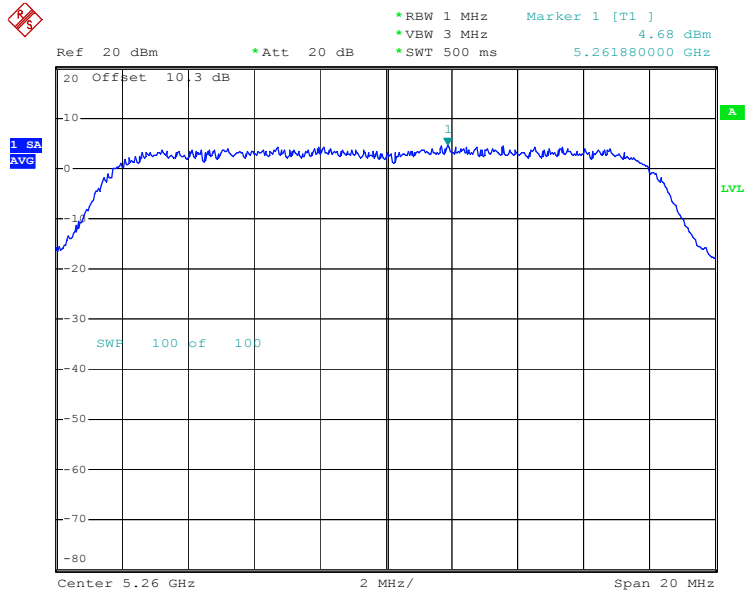
Date: 17.NOV.2005 21:03:52

9-2



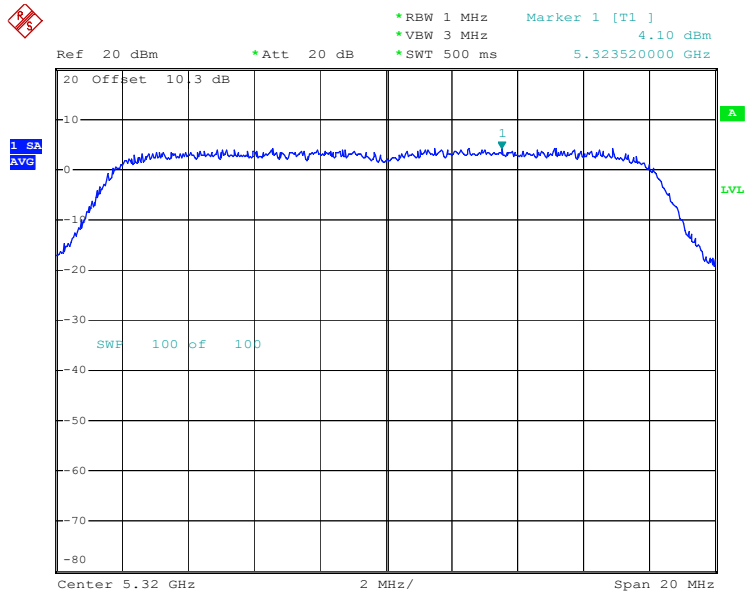
Date: 17.NOV.2005 21:13:50

9-3



Date: 17.NOV.2005 21:25:34

9-4



Date: 17.NOV.2005 21:33:20

## 5.5 Test of Conducted Emission

As described in chapter 6 of this test report.

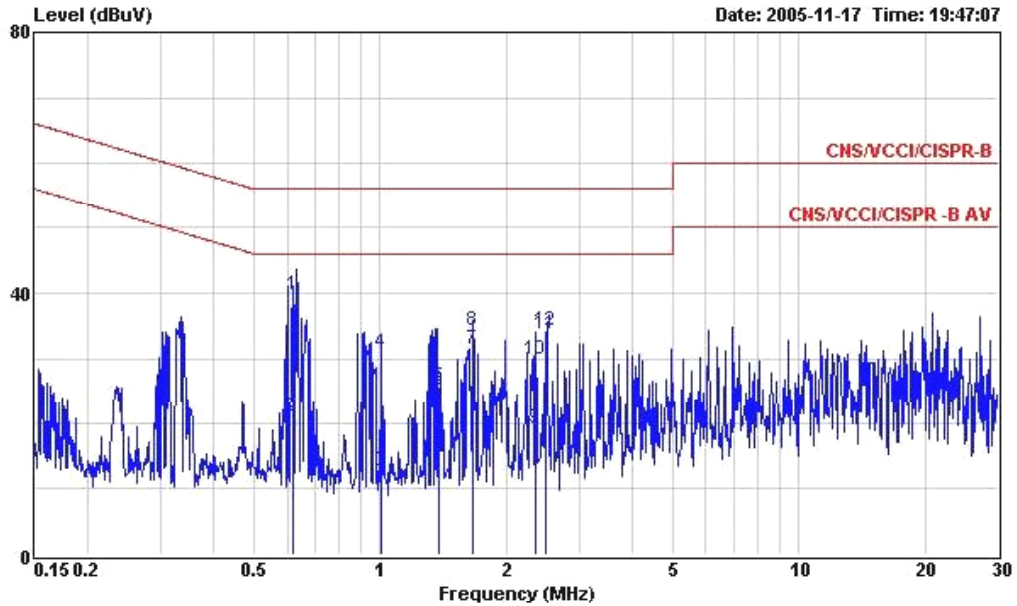
### 5.5.1 Test Procedures :

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power port of a line impedance stabilization network (LISN).
3. All the support units are connected to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

5.5.2 Test Data

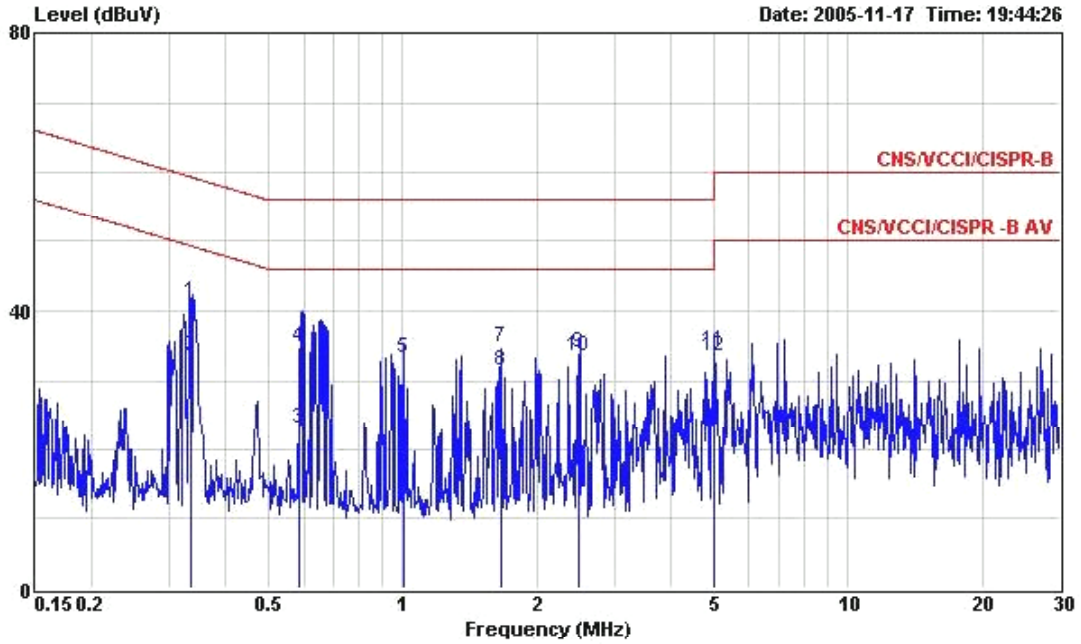
- Frequency Range of Test : 150kHz to 30 MHz
- Test Mode : Mode 1
- Temperature : 24°C
- Relative Humidity : 52%
- Test Engineer : Jay

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200505 LINE  
 EUT : 802.11a/b/g WLAN Radio Port -220  
 Power : 120V/60Hz  
 Model : FD5O2016  
 Memo : PING MODE  
 Memo : RSVLC-0505  
 Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.617	39.84	-16.16	56.00	39.71	0.08	0.05	QP
2	0.617	21.02	-24.98	46.00	20.89	0.08	0.05	Average
3	1.010	12.64	-33.36	46.00	12.47	0.11	0.06	Average
4	1.010	30.90	-25.10	56.00	30.73	0.11	0.06	QP
5	1.386	25.64	-20.36	46.00	25.46	0.11	0.07	Average
6	1.386	25.32	-30.68	56.00	25.14	0.11	0.07	QP
7	1.661	31.33	-14.67	46.00	31.15	0.11	0.07	Average
8	1.661	34.30	-21.70	56.00	34.12	0.11	0.07	QP
9	2.350	19.28	-26.72	46.00	19.05	0.13	0.10	Average
10	2.350	29.97	-26.03	56.00	29.74	0.13	0.10	QP
11	2.494	33.75	-22.25	56.00	33.50	0.14	0.11	QP
12	2.494	34.39	-11.61	46.00	34.14	0.14	0.11	Average



Site : CO01-HY  
 Condition : CNS/VCCI/CISPR-B 2001/004 200505 NEUTRAL  
 EUT : 802.11a/b/g WLAN Radio Port-220  
 Power : 120V/60Hz  
 Model : FD5O2016  
 Memo : PING MODE  
 Memo : RSVLC-0505  
 Memo :

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.333	41.35	-18.02	59.37	41.20	0.11	0.04	QP
2	0.333	33.38	-15.99	49.37	33.23	0.11	0.04	Average
3	0.587	23.09	-22.91	46.00	22.88	0.16	0.05	Average
4	0.587	34.86	-21.14	56.00	34.65	0.16	0.05	QP
5	1.009	33.18	-22.82	56.00	32.89	0.23	0.06	QP
6	1.009	15.54	-30.46	46.00	15.25	0.23	0.06	Average
7	1.662	34.72	-21.28	56.00	34.42	0.23	0.07	QP
8	1.662	31.45	-14.55	46.00	31.15	0.23	0.07	Average
9	2.496	34.03	-11.97	46.00	33.69	0.23	0.11	Average
10	2.496	33.60	-22.40	56.00	33.26	0.23	0.11	QP
11	4.990	34.38	-21.62	56.00	33.95	0.25	0.18	QP
12	4.990	33.48	-12.52	46.00	33.05	0.25	0.18	Average

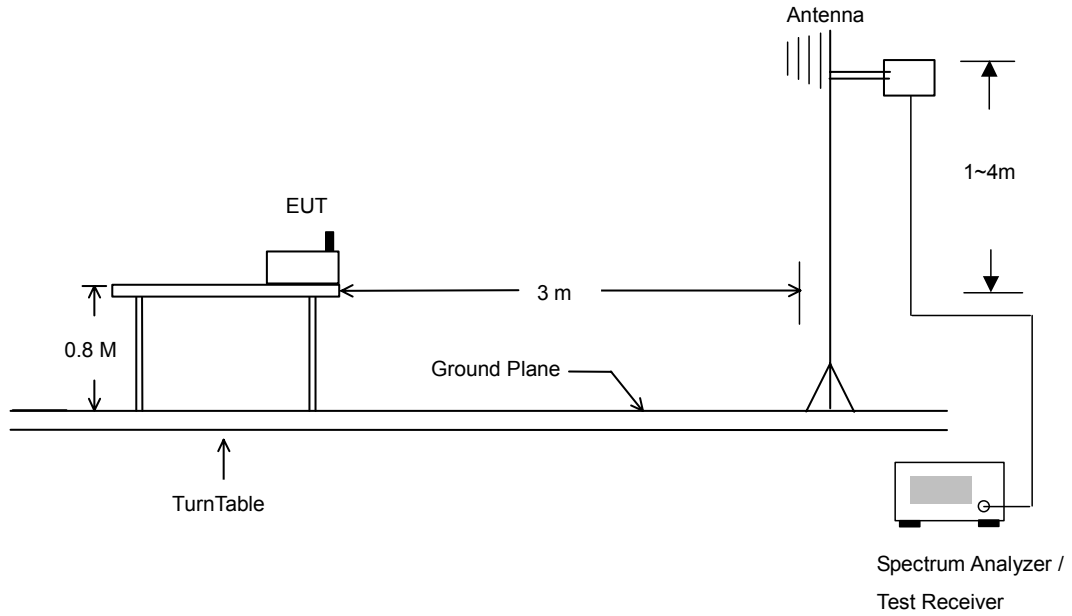
## 5.6 Test of Radiated Emission

As described in chapter 6 of this test report.

### 5.6.1 Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- e. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. For testing below 1GHz, If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

5.6.2 Typical Test Setup Layout of Radiated Emission





5.6.3 Test Data

➤ Test Mode : Antenna 6\_Mode 1

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	56.37	-17.63	74.00	52.23	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	46.44	-7.56	54.00	42.30	33.83	6.50	36.19	114	180	Average
3 @	5180.00	104.60			100.44	33.84	6.51	36.18	200	0	Peak
4 @	5180.00	96.45			92.28	33.84	6.51	36.18	114	180	Average
5 @	5350.00	53.46	-20.54	74.00	49.11	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	44.00	-10.00	54.00	39.65	33.87	6.56	36.08	114	180	Average

Remark: #3 and #4 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	53.15	-20.85	74.00	49.02	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	43.92	-10.08	54.00	39.78	33.83	6.50	36.19	205	234	Average
3 @	5180.00	97.10			92.93	33.84	6.51	36.18	100	0	Peak
4 @	5180.00	88.45			84.28	33.84	6.51	36.18	205	234	Average
5 @	5350.00	52.25	-21.75	74.00	47.90	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	43.38	-10.62	54.00	39.03	33.87	6.56	36.08	205	234	Average

Remark: #3 and #4 Fundamental Signal

➤ Test Mode : Antenna 6\_Mode 2

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

**■ The test that passed at minimum margin was marked by the frame in the following table.**

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	143.13	29.88	-13.62	43.50	48.22	10.24	2.92	31.50	400	0	Peak
2 @	175.53	28.42	-15.08	43.50	47.22	9.29	3.28	31.37	400	0	Peak
3 @	199.83	34.74	-8.76	43.50	52.64	9.93	3.51	31.34	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	722.80	34.78	-11.22	46.00	38.61	19.68	7.00	30.51	100	0	Peak
2 @	771.80	33.31	-12.69	46.00	35.20	21.09	7.37	30.35	100	0	Peak
3 @	1000.00	33.73	-20.27	54.00	32.97	22.97	8.42	30.63	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	54.63	-19.37	74.00	50.50	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	45.19	-8.81	54.00	41.05	33.83	6.50	36.19	113	179	Average
3 @	5240.00	103.52			99.30	33.85	6.52	36.15	100	0	Peak
4 @	5240.00	95.07			90.85	33.85	6.52	36.15	113	179	Average
5 @	5350.00	53.82	-20.18	74.00	49.47	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	44.20	-9.80	54.00	39.85	33.87	6.56	36.08	113	179	Average

Remark: #3 and #4 Fundamental Signal

• Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	76.98	25.44	-14.56	40.00	48.16	6.78	2.12	31.61	400	0	Peak
2 @	167.43	29.55	-13.95	43.50	47.95	9.82	3.19	31.40	400	0	Peak
3 @	175.53	27.16	-16.34	43.50	45.95	9.29	3.28	31.37	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	644.40	30.09	-15.91	46.00	35.62	18.42	6.61	30.56	100	0	Peak
2 @	731.90	32.25	-13.75	46.00	35.77	19.96	7.06	30.55	100	0	Peak
3 @	903.40	33.36	-12.64	46.00	35.90	20.03	7.99	30.56	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	52.49	-21.51	74.00	48.35	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	43.58	-10.42	54.00	39.44	33.83	6.50	36.19	102	175	Average
3 @	5240.00	94.56			90.34	33.85	6.52	36.15	200	0	Peak
4 @	5240.00	85.97			81.75	33.85	6.52	36.15	102	175	Average
5 @	5350.00	52.95	-21.05	74.00	48.60	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	43.48	-10.52	54.00	39.13	33.87	6.56	36.08	102	175	Average

Remark: #3 and #4 Fundamental Signal

➤ Test Mode : Antenna 6\_Mode 3

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	56.09	-17.91	74.00	51.95	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	45.50	-8.50	54.00	41.36	33.83	6.50	36.19	111	180	Average
3 @	5260.00	110.35			106.10	33.85	6.53	36.14	200	0	Peak
4 @	5260.00	102.10			97.85	33.85	6.53	36.14	111	180	Average
5 @	5350.00	55.85	-18.15	74.00	51.49	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	44.82	-9.18	54.00	40.47	33.87	6.56	36.08	111	180	Average

Remark: #3 and #4 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	52.50	-21.50	74.00	48.36	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	43.63	-10.37	54.00	39.49	33.83	6.50	36.19	100	245	Average
3 @	5260.00	102.97			98.73	33.85	6.53	36.14	100	0	Peak
4 @	5260.00	94.88			90.63	33.85	6.53	36.14	100	245	Average
5 @	5350.00	52.06	-21.94	74.00	47.71	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	43.50	-10.50	54.00	39.15	33.87	6.56	36.08	100	245	Average

Remark: #3 and #4 Fundamental Signal

➤ Test Mode : Antenna 6\_Mode 4

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	145.29	26.75	-16.75	43.50	45.44	9.85	2.94	31.49	400	0	Peak
2 @	199.83	31.76	-11.74	43.50	49.66	9.93	3.51	31.34	400	0	Peak
3 @	239.79	28.74	-17.26	46.00	45.16	10.94	3.84	31.20	400	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	722.80	33.04	-12.96	46.00	36.87	19.68	7.00	30.51	100	0	Peak
2 @	771.80	32.14	-13.86	46.00	34.03	21.09	7.37	30.35	100	0	Peak
3 @	903.40	32.25	-13.75	46.00	34.78	20.03	7.99	30.56	100	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	53.12	-20.88	74.00	48.99	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	44.25	-9.75	54.00	40.11	33.83	6.50	36.19	110	189	Average
3 @	5320.00	103.92			99.62	33.86	6.54	36.11	200	0	Peak
4 @	5320.00	94.66			90.36	33.86	6.54	36.11	110	189	Average
5 @	5350.00	45.90	-8.10	54.00	41.55	33.87	6.56	36.08	110	189	Average
6 @	5350.00	58.15	-15.85	74.00	53.80	33.87	6.56	36.08	200	0	Peak

Remark: #3 and #4 Fundamental Signal

• Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	76.98	25.81	-14.19	40.00	48.53	6.78	2.12	31.61	400	0	Peak
2 @	143.13	27.91	-15.59	43.50	46.26	10.24	2.92	31.50	400	0	Peak
3 @	166.08	29.31	-14.19	43.50	47.64	9.95	3.18	31.47	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	479.90	31.66	-14.34	46.00	39.89	16.93	5.61	30.78	100	0	Peak
2 @	722.80	34.10	-11.90	46.00	37.92	19.68	7.00	30.51	100	0	Peak
3 @	775.30	32.73	-13.27	46.00	34.42	21.18	7.39	30.26	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	52.84	-21.16	74.00	48.70	33.83	6.50	36.19	100	360	Peak
2 @	5150.00	44.13	-9.87	54.00	39.99	33.83	6.50	36.19	102	283	Average
3 @	5320.00	105.04			100.72	33.86	6.55	36.09	100	360	Peak
4 @	5320.00	96.63			92.33	33.86	6.54	36.11	102	283	Average
5 @	5350.00	52.98	-1.02	54.00	48.63	33.87	6.56	36.08	102	283	Average
6 @	5350.00	67.02	-6.98	74.00	62.67	33.87	6.56	36.08	100	360	Peak

Remark: #3 and #4 Fundamental Signal

➤ Test Mode : Antenna 7\_Mode 1

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	60.20	-13.80	74.00	56.06	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	49.09	-4.91	54.00	44.95	33.83	6.50	36.19	148	360	Average
3 @	5180.00	108.34			104.17	33.84	6.51	36.18	100	0	Peak
4 @	5180.00	99.84			95.67	33.84	6.51	36.18	148	360	Average
5 @	5350.00	57.34	-16.66	74.00	52.99	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	46.81	-7.19	54.00	42.46	33.87	6.56	36.08	148	360	Average

Remark: #3 and #4 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	53.15	-20.85	74.00	49.01	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	43.98	-10.02	54.00	39.84	33.83	6.50	36.19	100	40	Average
3 @	5180.00	96.59			92.43	33.84	6.51	36.18	200	0	Peak
4 @	5180.00	88.06			83.89	33.84	6.51	36.18	100	40	Average
5 @	5350.00	52.29	-21.71	74.00	47.94	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	43.34	-10.66	54.00	38.99	33.87	6.56	36.08	100	40	Average

Remark: #3 and #4 Fundamental Signal



➤ Test Mode : Antenna 7\_Mode 2

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

**■ The test that passed at minimum margin was marked by the frame in the following table.**

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	106.68	28.38	-15.12	43.50	45.65	11.25	2.50	31.03	400	0	Peak
2 @	143.13	28.65	-14.85	43.50	47.00	10.24	2.92	31.50	400	0	Peak
3 @	199.83	32.56	-10.94	43.50	50.46	9.93	3.51	31.34	400	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	708.80	30.10	-15.90	46.00	34.36	19.29	6.96	30.51	100	0	Peak
2 @	862.80	31.29	-14.71	46.00	32.92	20.66	7.78	30.08	100	0	Peak
3 @	988.80	32.15	-21.85	54.00	31.45	22.62	8.38	30.30	100	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	58.29	-15.71	74.00	54.15	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	47.88	-6.12	54.00	43.74	33.83	6.50	36.19	142	350	Average
3 @	5240.00	108.05			103.83	33.85	6.52	36.15	200	0	Peak
4 @	5240.00	99.54			95.32	33.85	6.52	36.15	142	350	Average
5 @	5350.00	58.07	-15.93	74.00	53.72	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	47.65	-6.35	54.00	43.30	33.87	6.56	36.08	142	350	Average

Remark: #3 and #4 Fundamental Signal



• Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	106.68	28.04	-15.46	43.50	45.31	11.25	2.50	31.03	400	0	Peak
2 @	145.29	27.21	-16.29	43.50	45.90	9.85	2.94	31.49	400	0	Peak
3 @	200.64	26.90	-16.60	43.50	44.82	9.91	3.51	31.34	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	479.90	30.61	-15.39	46.00	38.84	16.93	5.61	30.78	100	0	Peak
2 @	729.80	33.87	-12.13	46.00	37.49	19.87	7.05	30.54	100	0	Peak
3 @	789.30	32.17	-13.83	46.00	33.31	21.59	7.42	30.16	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	52.44	-21.56	74.00	48.31	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	43.57	-10.43	54.00	39.43	33.83	6.50	36.19	109	40	Average
3 @	5240.00	95.91			91.69	33.85	6.52	36.15	100	0	Peak
4 @	5240.00	87.26			83.04	33.85	6.52	36.15	109	40	Average
5 @	5350.00	52.36	-21.64	74.00	48.01	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	43.51	-10.49	54.00	39.16	33.87	6.56	36.08	109	40	Average

Remark: #3 and #4 Fundamental Signal

➤ Test Mode : Antenna 7\_Mode 3

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

**■ The test that passed at minimum margin was marked by the frame in the following table.**

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	58.68	-15.32	74.00	54.54	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	48.49	-5.51	54.00	44.35	33.83	6.50	36.19	143	351	Average
3 @	5260.00	113.84			109.59	33.85	6.53	36.14	100	0	Peak
4 @	5260.00	105.45			101.20	33.85	6.53	36.14	143	351	Average
5 @	5350.00	58.57	-15.43	74.00	54.22	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	48.22	-5.78	54.00	43.87	33.87	6.56	36.08	143	351	Average

Remark: #3 and #4 Fundamental Signal

- Polarization : Vertical

**■ The test that passed at minimum margin was marked by the frame in the following table.**

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	53.66	-20.34	74.00	49.52	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	44.06	-9.94	54.00	39.92	33.83	6.50	36.19	100	45	Average
3 @	5260.00	101.77			97.52	33.85	6.53	36.14	200	0	Peak
4 @	5260.00	93.02			88.77	33.85	6.53	36.14	100	45	Average
5 @	5350.00	52.03	-21.97	74.00	47.68	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	43.39	-10.61	54.00	39.04	33.87	6.56	36.08	100	45	Average

Remark: #3 and #4 Fundamental Signal

➤ Test Mode : Antenna 7\_Mode 4

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	106.68	28.52	-14.98	43.50	45.79	11.25	2.50	31.03	400	0	Peak
2 @	143.13	28.97	-14.53	43.50	47.31	10.24	2.92	31.50	400	0	Peak
3 @	200.64	31.98	-11.52	43.50	49.90	9.91	3.51	31.34	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	644.40	28.73	-17.27	46.00	34.25	18.42	6.61	30.56	100	0	Peak
2 @	708.80	29.64	-16.36	46.00	33.90	19.29	6.96	30.51	100	0	Peak
3 @	803.30	31.41	-14.59	46.00	32.36	21.84	7.47	30.26	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	59.72	-14.28	74.00	55.58	33.83	6.50	36.19	164	0	Peak
2 @	5150.00	48.92	-5.08	54.00	44.78	33.83	6.50	36.19	164	1	Average
3 @	5320.00	113.36			109.06	33.86	6.54	36.11	164	0	Peak
4 @	5320.00	105.00			100.70	33.86	6.54	36.11	164	1	Average
5 @	5350.00	66.26	-7.74	74.00	61.91	33.87	6.56	36.08	164	0	Peak
6 @	5350.00	52.22	-1.78	54.00	47.87	33.87	6.56	36.08	164	1	Average

Remark: #3 and #4 Fundamental Signal

• Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	467.30	30.53	-15.47	46.00	39.17	16.71	5.50	30.85	100	0	Peak
2 @	726.30	33.13	-12.87	46.00	36.84	19.79	7.03	30.53	100	0	Peak
3 @	983.90	33.36	-20.64	54.00	32.77	22.47	8.36	30.25	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	37.29	25.28	-14.72	40.00	39.80	15.73	1.49	31.73	400	0	Peak
2 @	106.68	27.36	-16.14	43.50	44.64	11.25	2.50	31.03	400	0	Peak
3 @	145.29	27.10	-16.40	43.50	45.79	9.85	2.94	31.49	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	53.20	-20.80	74.00	49.06	33.83	6.50	36.19	100	350	Peak
2 @	5150.00	43.79	-10.21	54.00	39.65	33.83	6.50	36.19	100	6	Average
3 @	5320.00	91.88			87.58	33.86	6.54	36.11	100	6	Average
4 @	5320.00	98.59			94.29	33.86	6.54	36.11	100	350	Peak
5 @	5350.00	54.19	-19.81	74.00	49.84	33.87	6.56	36.08	100	350	Peak
6 @	5350.00	44.86	-9.14	54.00	40.51	33.87	6.56	36.08	100	6	Average

Remark: #3 and #4 Fundamental Signal

➤ Test Mode : Antenna 8\_Mode 1

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	60.75	-13.25	74.00	56.61	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	50.53	-3.47	54.00	46.39	33.83	6.50	36.19	159	0	Average
3 @	5180.00	106.37			102.20	33.84	6.51	36.18	200	0	Peak
4 @	5180.00	97.69			93.52	33.84	6.51	36.18	159	0	Average
5 @	5350.00	60.55	-13.45	74.00	56.20	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	49.29	-4.71	54.00	44.94	33.87	6.56	36.08	159	0	Average

Remark: #3 and #4 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	54.06	-19.94	74.00	49.93	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	44.52	-9.48	54.00	40.38	33.83	6.50	36.19	100	9	Average
3 @	5180.00	93.83			89.67	33.84	6.51	36.18	100	0	Peak
4 @	5180.00	85.23			81.06	33.84	6.51	36.18	100	9	Average
5 @	5350.00	52.51	-21.49	74.00	48.16	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	43.72	-10.28	54.00	39.37	33.87	6.56	36.08	100	9	Average

Remark: #3 and #4 Fundamental Signal

➤ Test Mode : Antenna 8\_Mode 2

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

**■ The test that passed at minimum margin was marked by the frame in the following table.**

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	200.64	32.20	-11.30	43.50	50.13	9.91	3.51	31.34	400	0	Peak
2 @	214.14	27.19	-16.31	43.50	45.26	9.62	3.62	31.31	400	0	Peak
3 @	257.88	28.61	-17.39	46.00	42.95	12.67	4.01	31.02	400	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	722.80	32.17	-13.83	46.00	35.99	19.68	7.00	30.51	100	0	Peak
2 @	799.80	31.91	-14.09	46.00	32.68	21.90	7.45	30.12	100	0	Peak
3 @	978.30	32.61	-21.39	54.00	32.18	22.32	8.34	30.23	100	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	60.45	-13.55	74.00	56.31	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	50.47	-3.53	54.00	46.33	33.83	6.50	36.19	155	358	Average
3 @	5240.00	106.03			101.81	33.85	6.52	36.15	100	0	Peak
4 @	5240.00	97.61			93.39	33.85	6.52	36.15	155	358	Average
5 @	5350.00	59.46	-14.54	74.00	55.11	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	49.70	-4.30	54.00	45.35	33.87	6.56	36.08	155	358	Average

Remark: #3 and #4 Fundamental Signal

• Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	104.79	25.00	-18.50	43.50	42.60	11.02	2.49	31.11	400	0	Peak
2 @	143.13	25.58	-17.92	43.50	43.92	10.24	2.92	31.50	400	0	Peak
3 @	200.64	30.26	-13.24	43.50	48.18	9.91	3.51	31.34	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	467.30	32.50	-13.50	46.00	41.14	16.71	5.50	30.85	100	0	Peak
2 @	708.80	32.80	-13.20	46.00	37.06	19.29	6.96	30.51	100	0	Peak
3 @	934.90	32.36	-13.64	46.00	33.28	21.00	8.22	30.14	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	52.67	-21.33	74.00	48.54	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	44.09	-9.91	54.00	39.95	33.83	6.50	36.19	100	8	Average
3 @	5240.00	92.46			88.24	33.85	6.52	36.15	200	0	Peak
4 @	5240.00	84.06			79.84	33.85	6.52	36.15	100	8	Average
5 @	5350.00	52.76	-21.24	74.00	48.41	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	43.72	-10.28	54.00	39.37	33.87	6.56	36.08	100	8	Average

Remark: #3 and #4 Fundamental Signal



➤ Test Mode : Antenna 8\_Mode 3

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

**■ The test that passed at minimum margin was marked by the frame in the following table.**

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	61.24	-12.76	74.00	57.10	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	50.66	-3.34	54.00	46.52	33.83	6.50	36.19	151	0	Average
3 @	5260.00	115.53			111.29	33.85	6.53	36.14	200	0	Peak
4 @	5260.00	107.15			102.90	33.85	6.53	36.14	151	0	Average
5 @	5350.00	60.13	-13.87	74.00	55.78	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	50.08	-3.92	54.00	45.73	33.87	6.56	36.08	151	0	Average

Remark: #3 and #4 Fundamental Signal

- Polarization : Vertical

**■ The test that passed at minimum margin was marked by the frame in the following table.**

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	52.44	-21.56	74.00	48.30	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	44.01	-9.99	54.00	39.87	33.83	6.50	36.19	100	7	Average
3 @	5260.00	103.13			98.89	33.85	6.53	36.14	100	0	Peak
4 @	5260.00	94.45			90.20	33.85	6.53	36.14	100	7	Average
5 @	5350.00	52.66	-21.34	74.00	48.31	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	43.89	-10.11	54.00	39.54	33.87	6.56	36.08	100	7	Average

Remark: #3 and #4 Fundamental Signal



➤ Test Mode : Antenna 8\_Mode 4

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	175.53	25.04	-18.46	43.50	43.83	9.29	3.28	31.37	400	0	Peak
2 @	199.83	30.86	-12.64	43.50	48.76	9.93	3.51	31.34	400	0	Peak
3 @	257.88	28.75	-17.25	46.00	43.09	12.67	4.01	31.02	400	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	733.30	31.11	-14.89	46.00	34.59	19.98	7.08	30.55	100	0	Peak
2 @	901.30	30.84	-15.16	46.00	33.47	19.97	7.98	30.58	100	0	Peak
3 @	974.80	32.67	-21.33	54.00	32.45	22.21	8.33	30.32	100	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	61.17	-12.83	74.00	57.03	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	50.80	-3.20	54.00	46.66	33.83	6.50	36.19	147	0	Average
3 @	5320.00	116.01			111.71	33.86	6.54	36.11	200	0	Peak
4 @	5320.00	106.60			102.30	33.86	6.54	36.11	147	0	Average
5 @	5350.00	52.51	-1.49	54.00	48.16	33.87	6.56	36.08	147	0	Average
6 @	5350.00	67.11	-6.89	74.00	62.76	33.87	6.56	36.08	200	0	Peak

Remark: #3 and #4 Fundamental Signal

• Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	35.94	26.76	-13.24	40.00	40.34	16.62	1.46	31.67	400	0	Peak
2 @	155.28	27.87	-15.63	43.50	46.73	9.64	3.06	31.56	400	0	Peak
3 @	199.83	27.77	-15.73	43.50	45.67	9.93	3.51	31.34	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	479.90	29.91	-16.09	46.00	38.15	16.93	5.61	30.78	100	0	Peak
2 @	731.90	33.87	-12.13	46.00	37.39	19.96	7.06	30.55	100	0	Peak
3 @	792.80	31.75	-14.25	46.00	32.80	21.68	7.43	30.16	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	52.77	-21.23	74.00	48.63	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	44.30	-9.70	54.00	40.16	33.83	6.50	36.19	111	16	Average
3 @	5320.00	101.77			97.47	33.86	6.54	36.11	200	0	Peak
4 @	5320.00	93.32			89.02	33.86	6.54	36.11	111	16	Average
5 @	5350.00	45.46	-8.54	54.00	41.11	33.87	6.56	36.08	111	16	Average
6 @	5350.00	55.86	-18.14	74.00	51.51	33.87	6.56	36.08	200	0	Peak

Remark: #3 and #4 Fundamental Signal

➤ Test Mode : Antenna 9\_Mode 1

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	52.58	-21.42	74.00	48.44	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	43.58	-10.42	54.00	39.44	33.83	6.50	36.19	111	328	Average
3 @	5180.00	90.37			86.20	33.84	6.51	36.18	100	0	Peak
4 @	5180.00	81.90			77.73	33.84	6.51	36.18	111	328	Average
5 @	5350.00	52.38	-21.62	74.00	48.03	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	43.50	-10.50	54.00	39.15	33.87	6.56	36.08	111	328	Average

Remark: #3 and #4 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	59.58	-14.42	74.00	55.45	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	48.73	-5.27	54.00	44.59	33.83	6.50	36.19	110	160	Average
3 @	5180.00	109.24			105.07	33.84	6.51	36.18	200	0	Peak
4 @	5180.00	100.89			96.72	33.84	6.51	36.18	110	160	Average
5 @	5350.00	56.72	-17.28	74.00	52.37	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	46.35	-7.65	54.00	42.00	33.87	6.56	36.08	110	160	Average

Remark: #3 and #4 Fundamental Signal

➤ Test Mode : Antenna 9\_Mode 2

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	143.13	28.25	-15.25	43.50	46.60	10.24	2.92	31.50	400	0	Peak
2 @	172.83	29.11	-14.39	43.50	47.74	9.47	3.25	31.35	400	0	Peak
3 @	199.83	31.83	-11.67	43.50	49.73	9.93	3.51	31.34	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	733.30	30.96	-15.04	46.00	34.44	19.98	7.08	30.55	100	0	Peak
2 @	792.80	32.40	-13.60	46.00	33.46	21.68	7.43	30.16	100	0	Peak
3 @	988.80	32.56	-21.44	54.00	31.86	22.62	8.38	30.30	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	52.92	-21.08	74.00	48.79	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	43.57	-10.43	54.00	39.43	33.83	6.50	36.19	106	77	Average
3 @	5240.00	90.70			86.48	33.85	6.52	36.15	200	0	Peak
4 @	5240.00	82.24			78.02	33.85	6.52	36.15	106	77	Average
5 @	5350.00	52.33	-21.67	74.00	47.98	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	43.45	-10.55	54.00	39.10	33.87	6.56	36.08	106	77	Average

Remark: #3 and #4 Fundamental Signal

• Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	64.83	27.96	-12.04	40.00	51.10	6.42	1.94	31.50	400	0	Peak
2 @	76.98	28.86	-11.14	40.00	51.57	6.78	2.12	31.61	400	0	Peak
3 @	143.13	27.60	-15.90	43.50	45.94	10.24	2.92	31.50	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	731.90	32.35	-13.65	46.00	35.87	19.96	7.06	30.55	100	0	Peak
2 @	773.90	31.45	-14.55	46.00	33.20	21.15	7.38	30.29	100	0	Peak
3 @	932.80	31.94	-14.06	46.00	32.92	20.94	8.21	30.14	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	56.53	-17.47	74.00	52.39	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	47.40	-6.60	54.00	43.26	33.83	6.50	36.19	109	181	Average
3 @	5240.00	108.61			104.39	33.85	6.52	36.15	100	0	Peak
4 @	5240.00	100.12			95.90	33.85	6.52	36.15	109	181	Average
5 @	5350.00	55.98	-18.02	74.00	51.63	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	46.42	-7.58	54.00	42.07	33.87	6.56	36.08	109	181	Average

Remark: #3 and #4 Fundamental Signal

➤ Test Mode : Antenna 9\_Mode 3

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	52.69	-21.31	74.00	48.55	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	43.70	-10.30	54.00	39.56	33.83	6.50	36.19	152	128	Average
3 @	5260.00	94.19			89.95	33.85	6.53	36.14	100	0	Peak
4 @	5260.00	85.94			81.69	33.85	6.53	36.14	152	128	Average
5 @	5350.00	52.14	-21.86	74.00	47.79	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	43.60	-10.40	54.00	39.25	33.87	6.56	36.08	152	128	Average

Remark: #3 and #4 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	57.13	-16.87	74.00	52.99	33.83	6.50	36.19	200	0	Peak
2 @	5150.00	47.28	-6.72	54.00	43.14	33.83	6.50	36.19	108	181	Average
3 @	5260.00	113.61			109.36	33.85	6.53	36.14	200	0	Peak
4 @	5260.00	105.45			101.20	33.85	6.53	36.14	108	181	Average
5 @	5350.00	57.38	-16.62	74.00	53.03	33.87	6.56	36.08	200	0	Peak
6 @	5350.00	47.09	-6.91	54.00	42.74	33.87	6.56	36.08	108	181	Average

Remark: #3 and #4 Fundamental Signal



➤ Test Mode : Antenna 9\_Mode 4

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	172.83	28.34	-15.16	43.50	46.97	9.47	3.25	31.35	400	0	Peak
2 @	199.83	31.26	-12.24	43.50	49.16	9.93	3.51	31.34	400	0	Peak
3 @	211.44	28.41	-15.09	43.50	46.48	9.68	3.60	31.35	400	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	731.90	31.05	-14.95	46.00	34.58	19.96	7.06	30.55	100	0	Peak
2 @	799.80	32.11	-13.89	46.00	32.89	21.90	7.45	30.12	100	0	Peak
3 @	934.90	32.00	-14.00	46.00	32.92	21.00	8.22	30.14	100	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	43.81	-10.19	54.00	39.67	33.83	6.50	36.19	100	260	Average
2 @	5150.00	53.54	-20.46	74.00	49.40	33.83	6.50	36.19	100	0	Peak
3 @	5320.00	93.54			89.24	33.86	6.54	36.11	100	0	Peak
4 @	5320.00	85.48			81.18	33.86	6.54	36.11	100	260	Average
5 @	5350.00	53.44	-20.56	74.00	49.09	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	43.94	-10.06	54.00	39.59	33.87	6.56	36.08	100	260	Average

Remark: #3 and #4 Fundamental Signal

• Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	66.18	28.07	-11.93	40.00	51.25	6.38	1.95	31.52	400	0	Peak
2 @	76.98	29.05	-10.95	40.00	51.77	6.78	2.12	31.61	400	0	Peak
3 @	87.24	26.65	-13.35	40.00	47.49	8.45	2.27	31.56	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	708.80	30.01	-15.99	46.00	34.27	19.29	6.96	30.51	100	0	Peak
2 @	731.90	32.07	-13.93	46.00	35.60	19.96	7.06	30.55	100	0	Peak
3 @	976.90	31.90	-22.10	54.00	31.57	22.26	8.34	30.27	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	57.37	-16.63	74.00	53.23	33.83	6.50	36.19	100	360	Peak
2 @	5150.00	47.95	-6.05	54.00	43.81	33.83	6.50	36.19	110	81	Average
3 @	5320.00	110.98			106.68	33.86	6.54	36.11	100	360	Peak
4 @	5320.00	103.93			99.63	33.86	6.54	36.11	110	81	Average
5 @	5350.00	62.60	-11.40	74.00	58.25	33.87	6.56	36.08	100	360	Peak
6 @	5350.00	50.65	-3.35	54.00	46.30	33.87	6.56	36.08	110	81	Average

Remark: #3 and #4 Fundamental Signal



5.6.4 Test Mode : Antenna 9\_Mode 5

- Temperature : 26°C
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

**The test that passed at minimum margin was marked by the frame in the following table.**

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	151.23	27.19	-16.31	43.50	46.60	9.05	3.02	31.48	400	0	Peak
2 @	172.83	29.59	-13.91	43.50	48.23	9.47	3.25	31.35	400	0	Peak
3 @	199.83	31.75	-11.75	43.50	49.65	9.93	3.51	31.34	400	0	Peak
1 @	479.90	28.19	-17.81	46.00	36.43	16.93	5.61	30.78	100	0	Peak
2 @	780.90	32.96	-13.04	46.00	34.28	21.34	7.40	30.07	100	0	Peak
3 @	934.90	33.36	-12.64	46.00	34.28	21.00	8.22	30.14	100	0	Peak
1 @	2384.00	50.53	-23.47	74.00	51.24	30.50	4.23	35.44	100	0	Peak
2 @	2384.00	40.30	-13.70	54.00	41.01	30.50	4.23	35.44	100	81	Average
3 @	2438.00	105.77			106.51	30.44	4.29	35.47	100	0	Peak
4 @	2438.00	98.95			99.69	30.44	4.29	35.47	100	81	Average
5 @	2500.00	50.31	-23.69	74.00	51.05	30.40	4.39	35.53	100	0	Peak
6 @	2500.00	39.84	-14.16	54.00	40.58	30.40	4.39	35.53	100	81	Average

Remark: #3 and #4 Fundamental Signal

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	52.08			47.95	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	42.79			38.65	33.83	6.50	36.19	100	358	Average
3 @	5258.00	94.31	20.31	74.00	90.07	33.85	6.53	36.14	100	0	Peak
4 @	5258.00	85.50	31.50	54.00	81.26	33.85	6.53	36.14	100	358	Average
5 @	5350.00	52.40	-21.60	74.00	48.05	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	42.59	-11.41	54.00	38.24	33.87	6.56	36.08	100	358	Average

Remark: #3 and #4 Fundamental Signal

• Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	35.94	25.73	-14.27	40.00	39.32	16.62	1.46	31.67	400	0	Peak
2 @	151.23	24.51	-18.99	43.50	43.92	9.05	3.02	31.48	400	0	Peak
3 @	199.83	25.19	-18.31	43.50	43.09	9.93	3.51	31.34	400	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	722.80	32.48	-13.52	46.00	36.31	19.68	7.00	30.51	100	0	Peak
2 @	771.80	32.24	-13.76	46.00	34.13	21.09	7.37	30.35	100	0	Peak
3 @	934.90	32.10	-13.90	46.00	33.02	21.00	8.22	30.14	100	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2310.00	52.21	-21.79	74.00	52.91	30.55	4.14	35.39	100	0	Peak
2 @	2310.00	45.18	-8.82	54.00	45.88	30.55	4.14	35.39	100	265	Average
3 @	2438.00	113.32			114.06	30.44	4.29	35.47	100	0	Peak
4 @	2438.00	105.26			106.00	30.44	4.29	35.47	100	265	Average
5 @	2483.50	55.86	-18.14	74.00	56.60	30.41	4.36	35.51	100	0	Peak
6 @	2483.50	44.69	-9.31	54.00	45.43	30.41	4.36	35.51	100	265	Average

Remark: #3 and #4 Fundamental Signal

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.00	57.70	-16.30	74.00	53.56	33.83	6.50	36.19	100	0	Peak
2 @	5150.00	46.66	-7.34	54.00	42.52	33.83	6.50	36.19	100	45	Average
3 @	5264.00	103.92			99.67	33.85	6.53	36.14	117	45	Average
4 @	5264.00	111.34			107.09	33.85	6.53	36.14	100	0	Peak
5 @	5350.00	56.25	-17.75	74.00	51.90	33.87	6.56	36.08	100	0	Peak
6 @	5350.00	45.88	-8.12	54.00	41.53	33.87	6.56	36.08	100	45	Average

Remark: #3 and #4 Fundamental Signal

Remark: All the emissions except listed above are 20 dB below FCC limit.

**5.7 Band Edges Measurement**

5.7.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.7.2 Test Procedure :

1. Set both RBW and VBW of spectrum analyzer to 1MHz with convenient frequency span including 1MHz bandwidth from band edge.
2. The band edges was measured and recorded.

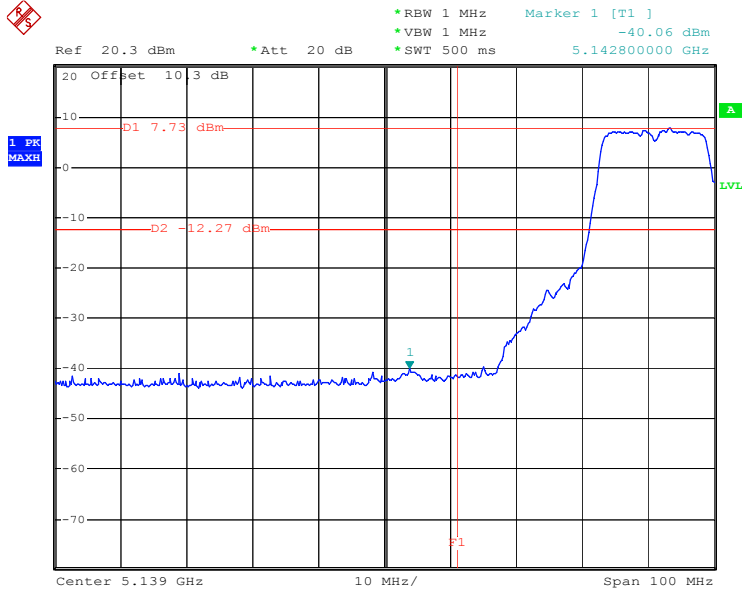
5.7.3 Test Result :

- Temperature : 24°C
- Relative Humidity :52%

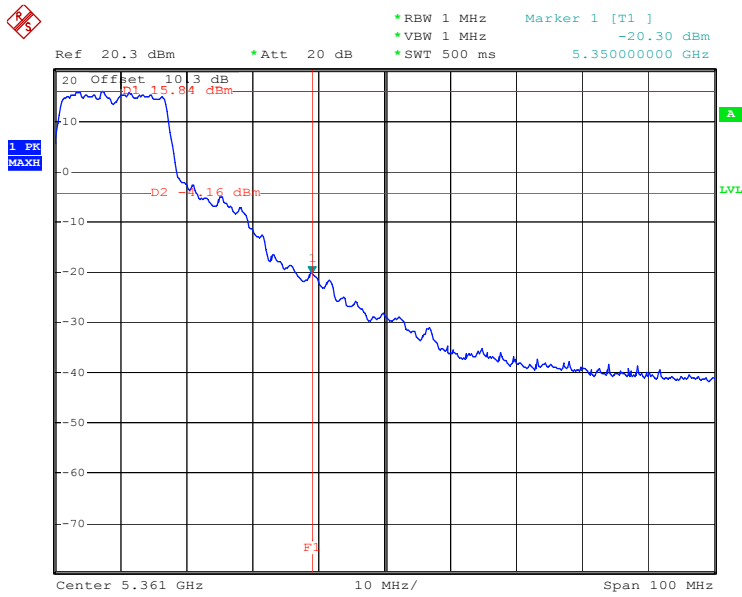
	Test Result Mode	Verdict
Test Result for 802.11a band I	:	PASS
Test Result for 802.11a band II	:	PASS

5.7.4 Test Data

Ant 6

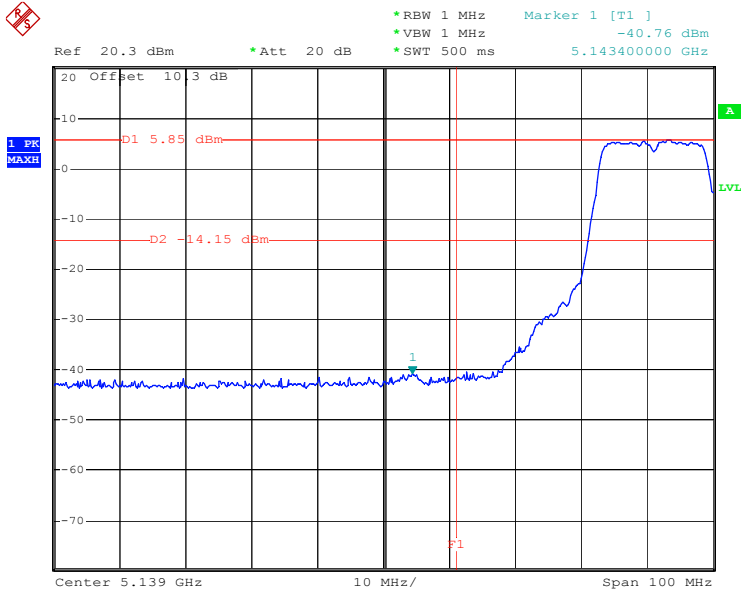


802.11a CH36

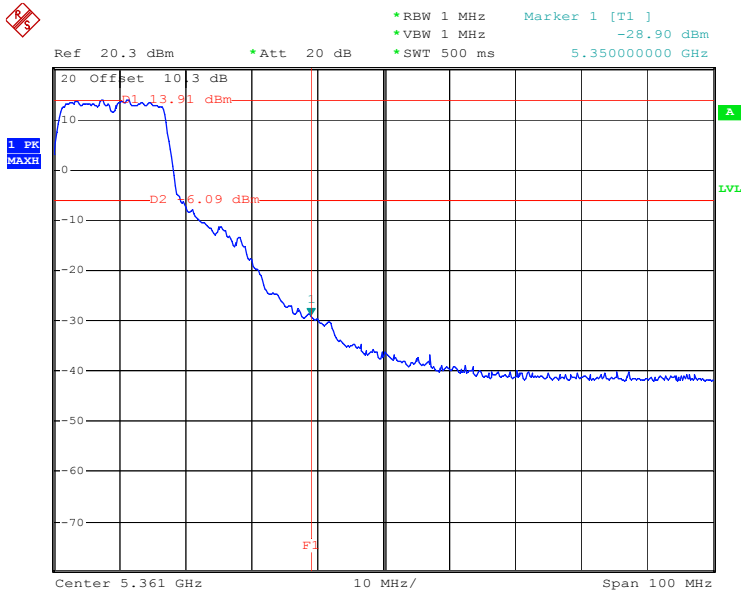


802.11a CH64

Ant 7

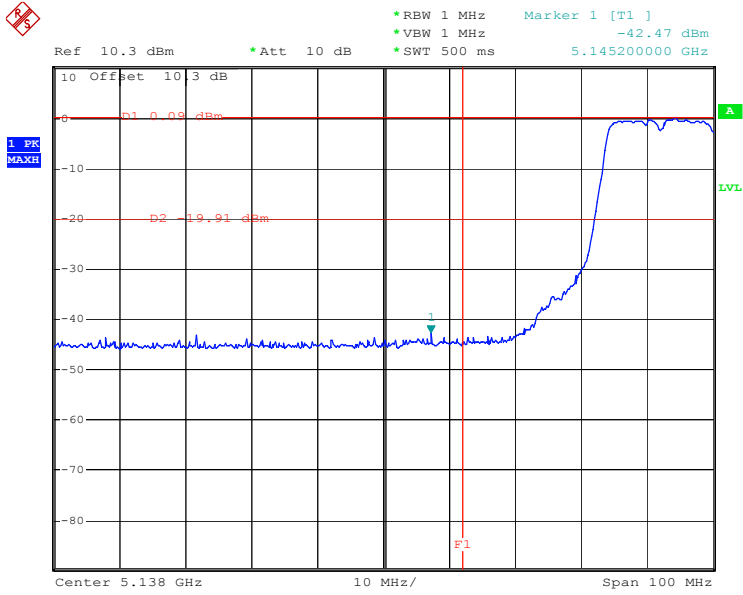


802.11a CH36

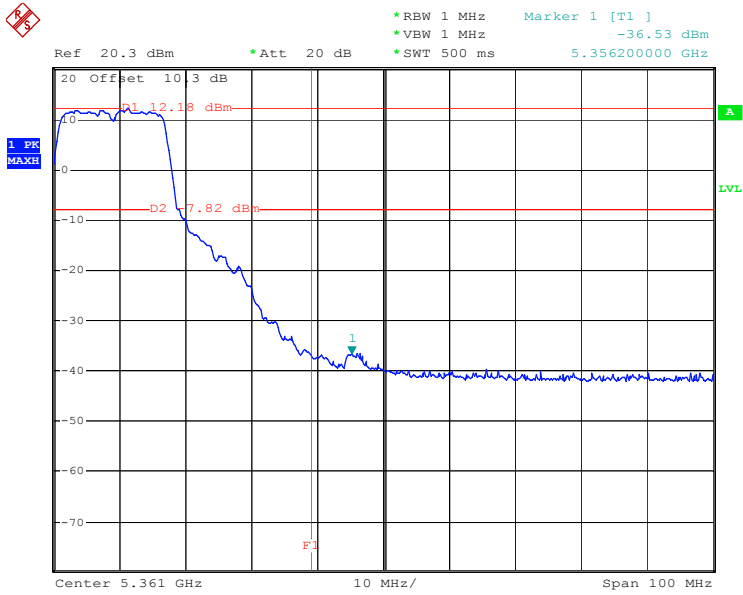


802.11a CH64

Ant 8



802.11a CH36



802.11a CH64