



## FCC TEST REPORT (15.407)

**REPORT NO.:** RF940221L10  
**MODEL NO.:** WVM1104-Tx  
**RECEIVED:** Mar. 22, 2005  
**TESTED:** Feb. 22 ~ Mar. 11, 2005  
**ISSUED:** Mar. 17, 2005

**APPLICANT:** Gemtek Technology Co., Ltd.

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**ISSUED BY:** Advance Data Technology Corporation

**LAB ADDRESS:** No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang 244, Taipei Hsien, Taiwan, R.O.C.

**TEST LOCATION:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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0528  
ILAC MRA



No. 2177-01



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## 1. CERTIFICATION

**PRODUCT:** WVM1104-Tx (Wireless Video Module-Transmitter)  
**BRAND NAME:** Adimos  
**MODEL NO.:** WVM1104-Tx  
**APPLICANT:** Gemtek Technology Co., Ltd.  
**TEST SAMPLE:** Engineering Sample  
**TESTED:** Feb. 22 ~ Mar. 11, 2005  
**STANDARDS:** FCC Part 15, Subpart E (Section 15.407)  
ANSI C63.4-2003

The above equipment has been tested by **Advance Data Technology Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**PREPARED BY :** Windy Chou, **DATE:** Mar. 17, 2005  
( Windy Chou )

**TECHNICAL**  
**ACCEPTANCE :** Gary Chang, **DATE:** Mar. 17, 2005  
Responsible for  
RF  
( Gary Chang )

**APPROVED BY :** Cody Chang, **DATE:** Mar. 17, 2005  
( Cody Chang, Deputy Manager )



## 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

<b>APPLIED STANDARD: FCC Part 15, Subpart E (Section 15.407)</b>			
<b>Standard Section</b>	<b>Test Type</b>	<b>Result</b>	<b>Remark</b>
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -14.07dB at 0.205MHz
15.407(b/1/2/3) (b)(5)	Electric Field Strength Spurious Emissions, 30MHz ~ 40000MHz	PASS	Meet the requirement of limit. Minimum passing margin is -1.38dB at 799.78MHz
15.407(a/1/2/3)	Peak Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.



## 2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4:

Measurement	Frequency	Uncertainty
<b>Conducted emissions</b>	9kHz~30MHz	2.44 dB
<b>Radiated emissions</b>	30MHz ~ 200MHz	3.73 dB
	200MHz ~1000MHz	3.74 dB
	1GHz ~ 18GHz	2.20 dB
	18GHz ~ 40GHz	1.88 dB



### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)
<b>MODEL NO.</b>	WVM1104-Tx
<b>POWER SUPPLY</b>	3.4Vdc from host equipment
<b>MODULATION TYPE</b>	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
<b>MODULATION TECHNOLOGY</b>	DSSS, OFDM
<b>TRANSFER RATE</b>	802.11b: 11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11a: 54/48/36/24/18/12/9/6Mbps
<b>FREQUENCY RANGE</b>	802.11b & 802.11g: 2.412 ~ 2.462GHz 802.11a: 5.150 ~ 5.350GHz and 5.725 ~ 5.850GHz
<b>NUMBER OF CHANNEL</b>	802.11b & 802.11g: 11 802.11a: 13
<b>CHANNEL SPACING</b>	802.11b & 802.11g: 5MHz 802.11a: 20MHz
<b>OUTPUT POWER</b>	63.826mW for 802.11b 63.826mW for 802.11g 41.495mW for 5.150 ~ 5.350GHz 51.168mW for 5.725 ~ 5.850GHz
<b>ANTENNA TYPE</b>	Please refer to Note 3 below
<b>DATA CABLE</b>	1.7m non-shielded cable without core
<b>I/O PORTS</b>	AV I/O
<b>ASSOCIATED DEVICES</b>	NA

**NOTE:**

- The EUT operates in both the 5GHz and 2.4GHz Bands and compatibility with 802.11a and 802.11b, 802.11g technology.
- The EUT was powered by the following adapters:

<b>Brand</b>	MEAN WELL
<b>Model</b>	PSU30A-0
<b>Input</b>	100-240Vac, 50/60Hz, 0.8A
<b>Output</b>	3.4Vdc, 3.52A
<b>Power Line</b>	AC 1m non-shielded cable without core DC 1.2m non-shielded cable without core

- The EUT have four combinations of antenna type. Please refer to following table.

No.	Antenna Spec.	Antenna type	2.4G Gain (dBi)	5G Gain (dBi)
1	Philips antenna	PCB	-	5.20
2	Philips antenna	PCB	-	2.80
3	dual-band antenna	PCB	1.50	2.60
4	XWX0964A2	Patch	-	5.12

4. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

### 3.2 DESCRIPTION OF TEST MODES

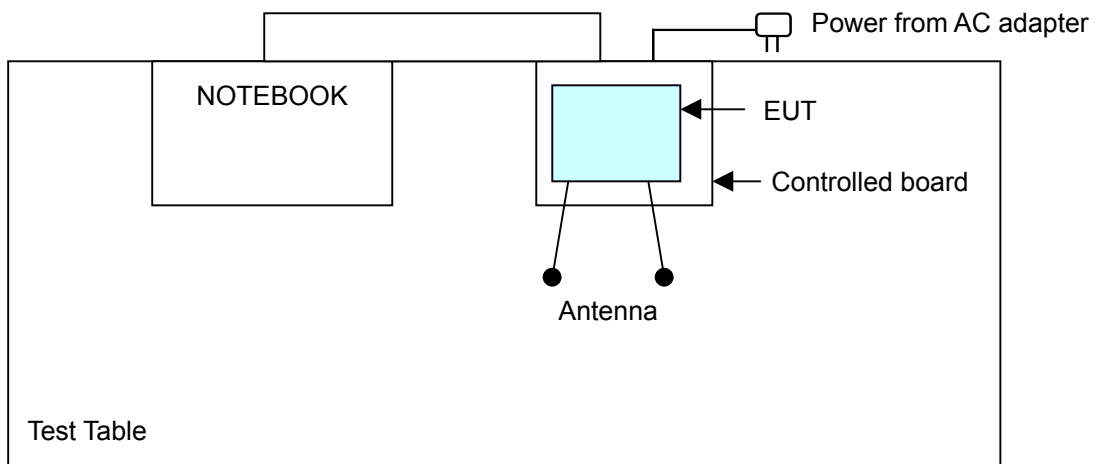
Operated in 5150 ~ 5250MHz, 5250MHz ~ 5350MHz bands:

Eight channels are provided to this EUT.

Channel	Frequency
1	5180 MHz
2	5200 MHz
3	5220 MHz
4	5240 MHz
5	5260 MHz
6	5280 MHz
7	5300 MHz
8	5320 MHz

#### 3.2.1 CONFIGURATION OF SYSTEM UNDER TEST

For Test mode 1, 2, 3 & 4







**3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:**

EUT configure mode	Applicable to				Description
	PLC	RE<1G	RE≥1G	APCM	
1	Note 1	X	X	Note 2	antenna combination 1 (refer to Note 3 of section 3.1)
2	Note 1	X	X	Note 2	antenna combination 2 (refer to Note 3 of section 3.1)
3	Note 1	X	X	Note 2	antenna combination 3 (refer to Note 3 of section 3.1)
4	Note 1	X	X	Note 2	antenna combination 3 (refer to Note 3 of section 3.1)

Where PLC: Power Line Conducted Emission RE<1G RE: Radiated Emission below 1GHz  
 RE≥1G: Radiated Emission above 1GHz APCM: Antenna Port Conducted Measurement  
 Note 1: No effect on Conducted Emission Test.  
 Note 2: Conducted FR measurement is independent of antenna.

**Power Line Conducted Emission Test:**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT configure mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
1	802.11a	1 to 8	5	OFDM	BPSK	6

**Radiated Emission Test (Below 1 GHz):**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT configure mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
1	802.11a	1 to 8	5	OFDM	BPSK	6
2	802.11a	1 to 8	5	OFDM	BPSK	6
3	802.11a	1 to 8	5	OFDM	BPSK	6
4	802.11a	1 to 8	5	OFDM	BPSK	6



### **Radiated Emission Test (Above 1 GHz):**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT configure mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
1	802.11a	1 to 8	1, 4, 5, 8	OFDM	BPSK	6
2	802.11a	1 to 8	1, 4, 5, 8	OFDM	BPSK	6
3	802.11a	1 to 8	1, 4, 5, 8	OFDM	BPSK	6
4	802.11a	1 to 8	1, 4, 5, 8	OFDM	BPSK	6

### **Bandedge Measurement:**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11a	1 to 8	1, 8	OFDM	BPSK	6

### **Antenna Port Conducted Measurement:**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11a	1 to 8	1, 4, 5, 8	OFDM	BPSK	6



### **3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS**

The EUT is a WVM1104-Tx (Wireless Video Module-Transmitter). According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

#### **FCC Part 15, Subpart E (15.407)**

#### **ANSI C63.4-2003**

All test items have been performed and recorded as per the above standards.

**NOTE:** The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.



### 3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP05L	25191592336	E2K24CLNS

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA

**NOTE:** All power cords of the above support units are non shielded (1.8m).



## 4. TEST TYPES AND RESULTS (5150 ~ 5350MHz Band)

### 4.1 CONDUCTED EMISSION MEASUREMENT

#### 4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
  2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
  3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### 4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Nov. 06, 2005
RF signal cable Woken	5D-FB	Cable-HyC02-01	Jan. 09, 2006
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Jan. 20, 2006
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jan. 20, 2006
Software ADT	ADT_Cond_V3	NA	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  2. The test was performed in HwaYa Shielded Room 3.
  3. The VCCI Site Registration No. is C-2047.



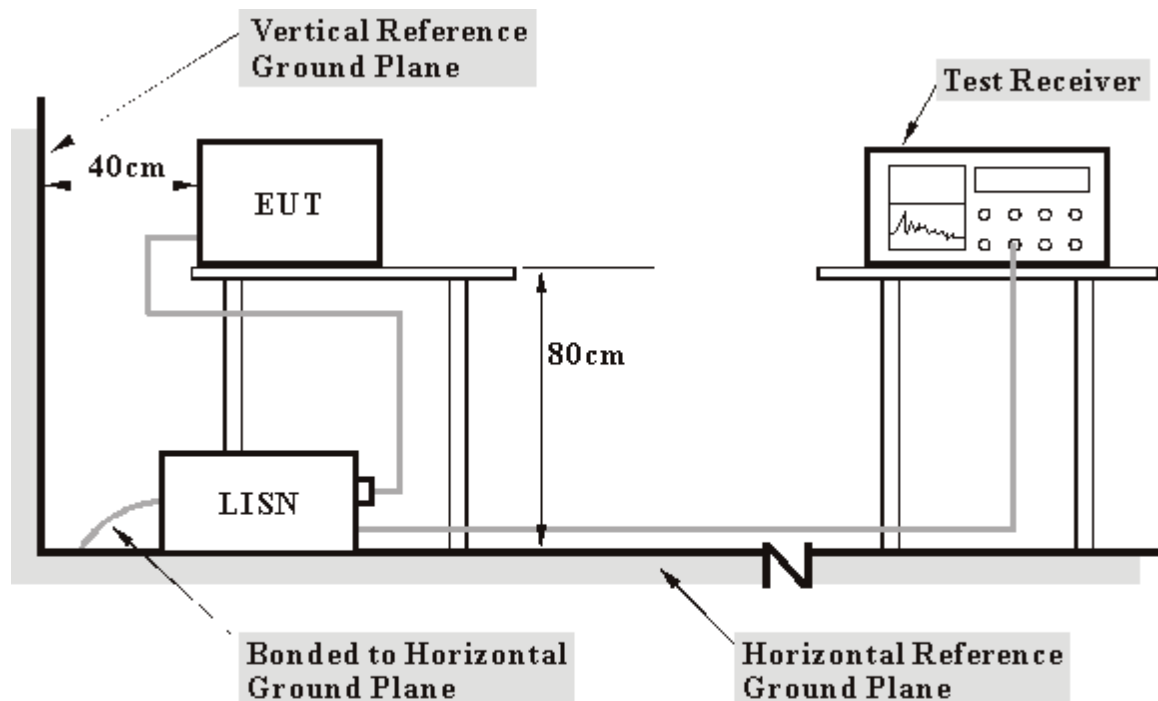
#### 4.1.3 TEST PROCEDURES

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

#### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.1.5 TEST SETUP



- Note:**
1. Support units were connected to second LISN.
  2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

#### 4.1.6 EUT OPERATING CONDITIONS

- a. Connected the EUT to a Notebook system via a controlled board and EUT placed on a testing table.
- b. The Notebook system ran a test program (provided by manufacturer) to enable EUT under transmission/receiving condition continuously at specific channel frequency.
- c. The Notebook system sent "H" messages to its screen.



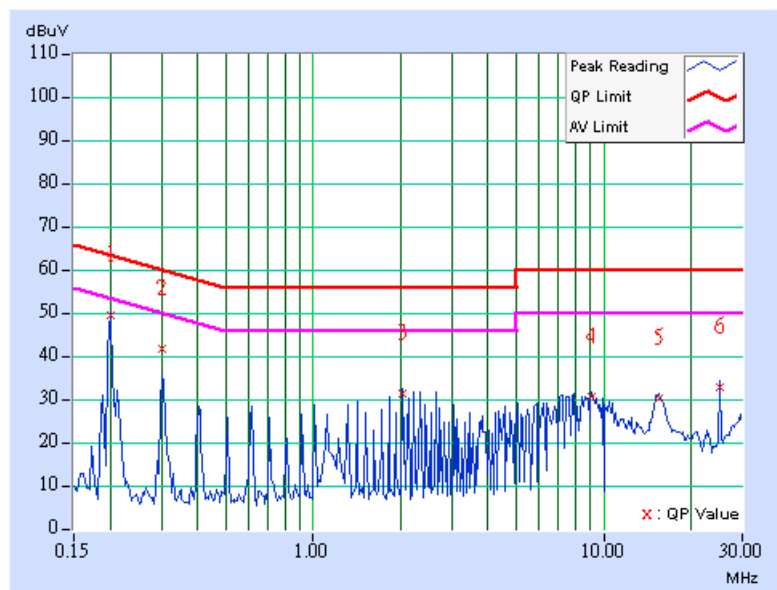
4.1.7 TEST RESULTS

**Conducted Worst-Case Data**

<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>6dB BANDWIDTH</b>	9 kHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	20deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.201	0.10	48.77	-	48.87	-	63.58
2	0.302	0.11	40.84	-	40.95	-	60.18	50.18	-19.23	-
3	2.023	0.16	30.45	-	30.61	-	56.00	46.00	-25.39	-
4	9.120	0.32	29.77	-	30.09	-	60.00	50.00	-29.91	-
5	15.504	0.52	29.56	-	30.08	-	60.00	50.00	-29.92	-
6	25.000	0.86	32.25	-	33.11	-	60.00	50.00	-26.89	-

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Emission level - Limit value
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.



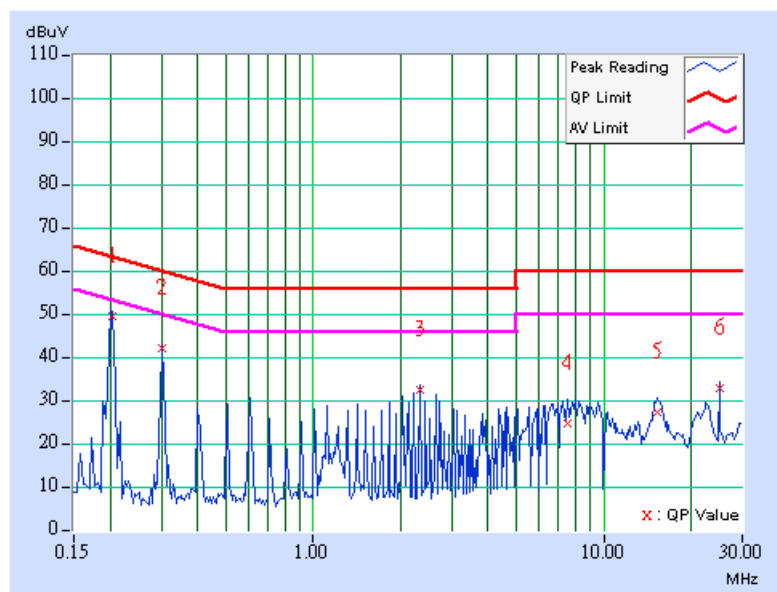




<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>6dB BANDWIDTH</b>	9 kHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Neutral (N)
<b>ENVIRONMENTAL CONDITIONS</b>	20deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.205	0.10	49.25	-	49.35	-	63.42
2	0.302	0.11	41.68	-	41.79	-	60.18	50.18	-18.39	-
3	2.328	0.16	32.26	-	32.42	-	56.00	46.00	-23.58	-
4	7.488	0.27	24.36	-	24.63	-	60.00	50.00	-35.37	-
5	15.387	0.37	26.88	-	27.25	-	60.00	50.00	-32.75	-
6	25.000	0.40	32.43	-	32.83	-	60.00	50.00	-27.17	-

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Emission level - Limit value
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.





## 4.2 RADIATED EMISSION MEASUREMENT

### 4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

**NOTE:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.



#### 4.2.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dB $\mu$ V/m) *note 3
5150~5250	-27	68.3
5250~5350	-27	68.3
5725~5825	-27 *note 1	68.3
	-17 *note 2	78.3

**NOTE:**

1. For frequencies 10MHz or greater above or below the band edge.
2. All emissions within the frequency range from the band edge to 10MHz above or below the band edge.
3. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts)}$$



## 4.2.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Dec. 19, 2005
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Nov. 21, 2005
BILOG Antenna SCHWARZBECK	VULB9168	9168-157	Jan. 22, 2006
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-407	Jan. 16, 2006
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA 9170241	Feb. 23, 2006
Preamplifier Agilent	8449B	3008A01961	Nov. 09, 2005
Preamplifier Agilent	8447D	2944A10629	Nov. 09, 2005
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218182/4	Feb. 17, 2006
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218194/4	Feb. 17, 2006
Software ADT.	ADT_Radiated_V5.14	NA	NA
Antenna Tower ADT.	AT100	AT93021702	NA
Turn Table ADT.	TT100.	TT93021702	NA
Controller ADT.	SC100.	SC93021702	NA

- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 1.
3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The IC Site Registration No. is IC4924-2.



#### 4.2.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

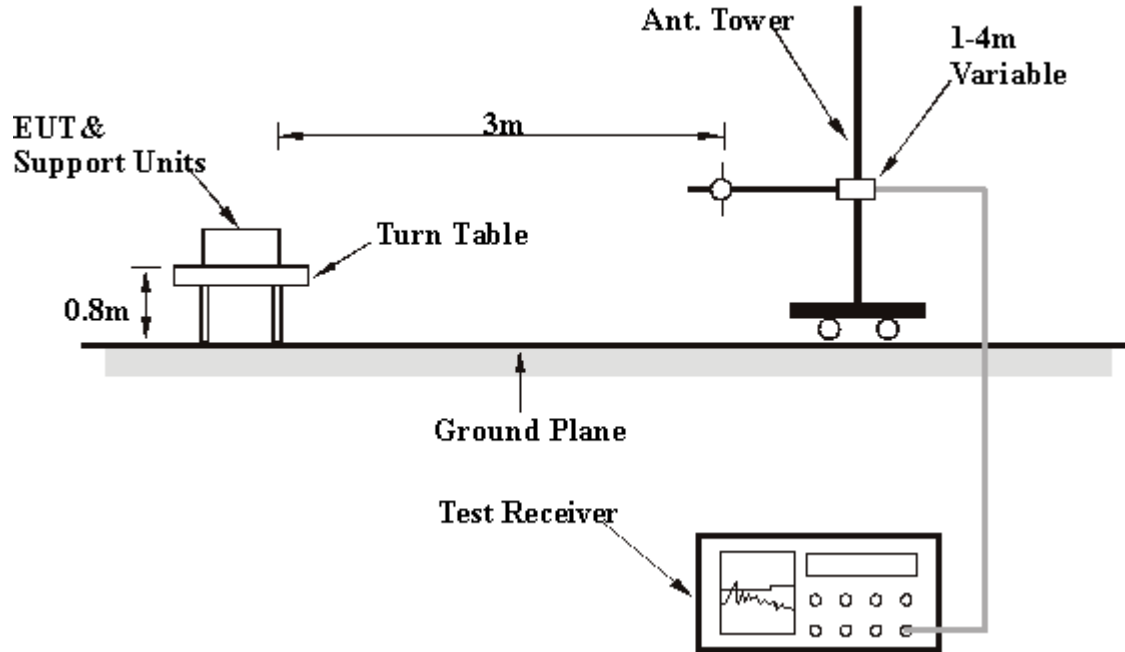
**NOTE:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.

#### 4.2.5 DEVIATION FROM TEST STANDARD

No deviation

#### 4.2.6 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

#### 4.2.7 EUT OPERATING CONDITION

Same as 4.1.6



## 4.2.8 TEST RESULTS

**Below 1GHz Worst-Case Data (Antenna combination 1)**

<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	Below 1000MHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Quasi-Peak
<b>ENVIRONMENTAL CONDITIONS</b>	22deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	1 (Antenna combination 1)		

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	249.66	27.81 QP	46.00	-18.19	1.50 H	151	14.73	13.08
2	269.10	30.81 QP	46.00	-15.19	1.25 H	148	17.20	13.61
3	323.53	30.80 QP	46.00	-15.20	2.50 H	10	15.94	14.86
4	360.46	30.43 QP	46.00	-15.57	1.00 H	133	14.73	15.71
5	432.38	30.90 QP	46.00	-15.10	2.50 H	124	13.44	17.46
6	539.30	35.74 QP	46.00	-10.26	1.75 H	262	16.35	19.39
7	630.66	30.89 QP	46.00	-15.11	1.50 H	259	9.57	21.32
8	720.08	34.97 QP	46.00	-11.03	1.25 H	256	12.25	22.72
9	757.01	31.92 QP	46.00	-14.08	1.00 H	349	8.46	23.46
10	811.44	38.73 QP	46.00	-7.27	1.00 H	244	14.94	23.80
11	863.93	30.58 QP	46.00	-15.42	1.00 H	145	6.19	24.40
12	900.86	34.40 QP	46.00	-11.60	1.50 H	10	9.29	25.11
13	990.28	43.37 QP	54.00	-10.63	1.75 H	16	17.72	25.66

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	Below 1000MHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Quasi-Peak
<b>ENVIRONMENTAL CONDITIONS</b>	22deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	1 (Antenna combination 1)		

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	45.55	28.20 QP	40.00	-11.80	1.00 V	250	13.20	14.99
2	103.87	29.64 QP	43.50	-13.86	2.00 V	31	18.50	11.14
3	179.68	24.35 QP	43.50	-19.15	1.00 V	13	11.61	12.74
4	323.53	29.22 QP	46.00	-16.78	1.50 V	16	14.36	14.86
5	360.46	28.88 QP	46.00	-17.12	1.25 V	325	13.17	15.71
6	432.38	29.03 QP	46.00	-16.97	1.75 V	91	11.57	17.46
7	539.30	34.03 QP	46.00	-11.97	1.00 V	298	14.64	19.39
8	630.66	28.84 QP	46.00	-17.16	1.50 V	28	7.52	21.32
9	720.08	36.76 QP	46.00	-9.24	1.25 V	346	14.05	22.72
10	757.01	34.99 QP	46.00	-11.01	1.50 V	295	11.54	23.46
11	811.44	37.28 QP	46.00	-8.72	1.25 V	64	13.48	23.80
12	863.93	33.55 QP	46.00	-12.45	1.25 V	178	9.15	24.40
13	900.86	33.72 QP	46.00	-12.28	1.25 V	103	8.60	25.11
14	990.28	40.69 QP	54.00	-13.31	1.75 V	181	15.03	25.66

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value





### Below 1GHz Worst-Case Data (Antenna combination 2)

<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	Below 1000MHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Quasi-Peak
<b>ENVIRONMENTAL CONDITIONS</b>	22deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	2 (Antenna combination 2)		

### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	179.68	37.49 QP	43.50	-6.01	1.75 H	43	24.75	12.74
2	249.66	27.62 QP	46.00	-18.38	1.25 H	133	14.54	13.08
3	323.53	33.04 QP	46.00	-12.96	1.00 H	49	18.18	14.86
4	360.46	26.84 QP	46.00	-19.16	1.00 H	55	11.13	15.71
5	399.34	27.16 QP	46.00	-18.84	1.00 H	262	10.54	16.62
6	432.38	28.23 QP	46.00	-17.77	1.00 H	205	10.77	17.46
7	539.30	32.32 QP	46.00	-13.68	1.50 H	298	12.93	19.39
8	630.66	27.71 QP	46.00	-18.29	1.50 H	289	6.39	21.32
9	720.08	34.95 QP	46.00	-11.05	1.00 H	346	12.23	22.72
10	757.01	30.02 QP	46.00	-15.98	1.00 H	328	6.57	23.46
11	811.44	37.56 QP	46.00	-8.44	1.00 H	331	13.76	23.80
12	863.93	30.52 QP	46.00	-15.48	1.00 H	139	6.13	24.40
13	990.28	31.24 QP	54.00	-22.76	1.50 H	148	5.58	25.66

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	Below 1000MHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Quasi-Peak
<b>ENVIRONMENTAL CONDITIONS</b>	22deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	2 (Antenna combination 2)		

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.61	28.65 QP	40.00	-11.35	1.00 V	112	13.62	15.03
2	80.54	21.51 QP	40.00	-18.49	1.75 V	22	11.75	9.76
3	131.08	24.96 QP	43.50	-18.54	1.00 V	244	11.38	13.58
4	179.68	27.87 QP	43.50	-15.63	2.00 V	25	15.13	12.74
5	323.53	31.63 QP	46.00	-14.37	1.25 V	4	16.76	14.86
6	432.38	29.96 QP	46.00	-16.04	1.75 V	88	12.50	17.46
7	539.30	28.06 QP	46.00	-17.94	1.00 V	337	8.67	19.39
8	720.08	34.40 QP	46.00	-11.60	1.50 V	274	11.68	22.72
9	757.01	29.17 QP	46.00	-16.83	1.25 V	307	5.72	23.46
10	811.44	40.29 QP	46.00	-5.71	1.25 V	301	16.49	23.80
11	863.93	33.28 QP	46.00	-12.72	1.25 V	289	8.88	24.40
12	900.86	35.25 QP	46.00	-10.75	1.25 V	151	10.14	25.11
13	990.28	32.80 QP	54.00	-21.20	1.25 V	88	7.14	25.66

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value



### Below 1GHz Worst-Case Data (Antenna combination 3)

<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	Below 1000MHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Quasi-Peak
<b>ENVIRONMENTAL CONDITIONS</b>	22deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	3 (Antenna combination 3)		

### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	179.68	29.70 QP	43.50	-13.80	1.50 H	133	16.96	12.74
2	249.66	33.60 QP	46.00	-12.40	1.00 H	319	20.52	13.08
3	323.53	35.13 QP	46.00	-10.87	1.00 H	268	20.26	14.86
4	360.46	32.66 QP	46.00	-13.34	1.00 H	82	16.95	15.71
5	500.42	30.54 QP	46.00	-15.46	1.50 H	19	11.95	18.59
6	539.30	32.92 QP	46.00	-13.08	1.50 H	202	13.53	19.39
7	720.08	36.83 QP	46.00	-9.17	1.00 H	304	14.12	22.72
8	757.01	32.89 QP	46.00	-13.11	1.00 H	64	9.44	23.46
9	811.44	37.93 QP	46.00	-8.07	1.00 H	61	14.13	23.80
10	863.93	32.91 QP	46.00	-13.09	1.00 H	304	8.51	24.40
11	900.86	37.00 QP	46.00	-9.00	1.00 H	322	11.89	25.11

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	Below 1000MHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Quasi-Peak
<b>ENVIRONMENTAL CONDITIONS</b>	22deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	3 (Antenna combination 3)		

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.61	23.29 QP	40.00	-16.71	1.50 V	160	8.25	15.03
2	179.68	24.80 QP	43.50	-18.70	1.00 V	172	12.06	12.74
3	249.66	27.93 QP	46.00	-18.07	2.00 V	310	14.85	13.08
4	323.53	29.75 QP	46.00	-16.25	2.00 V	40	14.89	14.86
5	360.46	30.80 QP	46.00	-15.20	1.50 V	115	15.10	15.71
6	432.38	30.35 QP	46.00	-15.65	1.50 V	82	12.88	17.46
7	539.30	30.99 QP	46.00	-15.01	1.00 V	175	11.60	19.39
8	720.08	37.65 QP	46.00	-8.35	1.50 V	331	14.93	22.72
9	757.01	38.85 QP	46.00	-7.15	1.50 V	355	15.39	23.46
10	811.44	39.31 QP	46.00	-6.69	1.50 V	13	15.51	23.80
11	863.93	30.74 QP	46.00	-15.26	1.00 V	289	6.34	24.40
12	900.86	36.66 QP	46.00	-9.34	1.50 V	295	11.55	25.11

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value



### Below 1GHz Worst-Case Data (Antenna combination 4)

<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	Below 1000MHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Quasi-Peak
<b>ENVIRONMENTAL CONDITIONS</b>	22deg. C, 67%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	4 (Antenna combination 4)		

### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	115.53	29.79 QP	43.50	-13.71	1.50 H	82	17.45	12.34
2	199.12	36.43 QP	43.50	-7.07	1.50 H	58	25.22	11.20
3	249.66	39.88 QP	46.00	-6.12	1.00 H	61	26.80	13.08
4	323.53	33.96 QP	46.00	-12.04	1.00 H	100	19.10	14.86
5	360.46	33.13 QP	46.00	-12.87	1.00 H	61	17.42	15.71
6	467.37	31.10 QP	46.00	-14.90	1.50 H	43	12.95	18.15
7	500.42	33.58 QP	46.00	-12.42	1.50 H	31	14.99	18.59
8	539.30	31.79 QP	46.00	-14.21	1.50 H	193	12.40	19.39
9	599.56	34.22 QP	46.00	-11.78	1.50 H	133	13.33	20.88
10	720.08	35.25 QP	46.00	-10.75	1.00 H	313	12.53	22.72
11	757.01	32.80 QP	46.00	-13.20	1.00 H	1	9.34	23.46
12	811.44	35.84 QP	46.00	-10.16	1.00 H	322	12.04	23.80
13	863.93	32.37 QP	46.00	-13.63	1.00 H	298	7.97	24.40
14	900.86	36.84 QP	46.00	-9.16	1.50 H	214	11.73	25.11

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	Below 1000MHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Quasi-Peak
<b>ENVIRONMENTAL CONDITIONS</b>	22deg. C, 67%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	4 (Antenna combination 4)		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	35.83	28.09 QP	40.00	-11.91	1.00 V	88	13.77	14.32
2	68.88	25.03 QP	40.00	-14.97	1.00 V	43	12.57	12.46
3	105.81	33.03 QP	43.50	-10.47	1.00 V	64	21.68	11.34
4	142.75	33.38 QP	43.50	-10.12	1.00 V	349	19.11	14.27
5	199.12	29.62 QP	43.50	-13.88	1.50 V	28	18.42	11.20
6	249.66	36.15 QP	46.00	-9.85	1.00 V	334	23.07	13.08
7	432.38	31.79 QP	46.00	-14.21	1.00 V	355	14.32	17.46
8	465.43	31.95 QP	46.00	-14.05	1.00 V	28	13.83	18.12
9	599.56	33.62 QP	46.00	-12.38	1.50 V	10	12.73	20.88
10	720.08	38.49 QP	46.00	-7.51	1.50 V	319	15.77	22.72
11	757.01	38.08 QP	46.00	-7.92	1.50 V	1	14.62	23.46
12	811.44	38.52 QP	46.00	-7.48	1.50 V	16	14.72	23.80
13	900.86	37.55 QP	46.00	-8.45	1.50 V	292	12.43	25.11

**REMARKS:**

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



### 802.11a OFDM modulation (Antenna combination 1)

<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 1	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	1 (Antenna combination 1)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1080.00	42.29 PK	74.00	-31.71	1.06 H	357	14.48	27.81
2	3453.00	44.10 PK	68.30	-24.20	1.16 H	38	9.16	34.94
3	#5150.00	61.40 PK	74.00	-12.60	1.02 H	346	22.63	38.77
3	#5150.00	50.46 AV	54.00	-3.54	1.02 H	346	11.70	38.77
4	*5180.00	109.15 PK			1.02 H	346	70.34	38.81
5	*5180.00	98.21 AV			1.02 H	346	59.40	38.81
6	10360.00	60.87 PK	68.30	-7.43	1.12 H	334	11.18	49.69

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1080.00	45.89 PK	74.00	-28.11	1.13 V	324	18.08	27.81
2	3453.00	46.76 PK	68.30	-21.54	1.16 V	337	11.82	34.94
3	#5150.00	55.15 PK	74.00	-18.85	1.16 V	44	16.38	38.77
3	#5150.00	44.21 AV	54.00	-9.79	1.16 V	44	5.45	38.77
4	*5180.00	102.90 PK			1.16 V	44	64.09	38.81
5	*5180.00	91.96 AV			1.16 V	44	53.15	38.81
6	10360.00	61.29 PK	68.30	-7.01	1.07 V	315	11.60	49.69

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#" The radiated frequency falling in the restricted band.



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 4	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	1 (Antenna combination 1)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1080.00	43.48 PK	74.00	-30.52	1.13 H	25	15.67	27.81
2	3493.00	43.26 PK	68.30	-25.04	1.04 H	179	8.29	34.97
3	*5240.00	111.96 PK			1.00 H	0	73.04	38.92
3	*5240.00	101.68 AV			1.00 H	0	62.76	38.92
4	10480.00	62.60 PK	68.30	-5.70	1.14 H	136	12.78	49.82
5	#15720.00	62.26 PK	74.00	-11.74	1.54 H	303	12.07	50.19
5	#15720.00	49.17 AV	54.00	-4.83	1.54 H	303	-1.02	50.19

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1080.00	45.87 PK	74.00	-28.13	1.02 V	22	18.06	27.81
2	3493.00	46.50 PK	68.30	-21.80	1.14 V	228	11.53	34.97
3	*5240.00	105.59 PK			1.00 V	45	66.67	38.92
3	*5240.00	95.27 AV			1.00 V	45	56.35	38.92
4	10480.00	64.64 PK	68.30	-3.66	1.12 V	220	14.82	49.82
5	#15720.00	64.08 PK	74.00	-9.92	1.57 V	27	13.89	50.19
5	#15720.00	50.50 AV	54.00	-3.50	1.57 V	27	0.31	50.19

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. “\*” : Fundamental frequency
  6. “#”The radiated frequency falling in the restricted band.





<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	1 (Antenna combination 1)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1080.00	43.84 PK	74.00	-30.16	1.05 H	24	16.03	27.81
2	3506.00	44.24 PK	68.30	-24.06	1.13 H	247	9.25	34.99
3	*5260.00	112.65 PK			1.00 H	13	73.68	38.97
3	*5260.00	101.62 AV			1.00 H	13	62.65	38.97
4	10520.00	59.89 PK	68.30	-8.41	1.14 H	25	10.03	49.86
5	#15780.00	62.81 PK	74.00	-11.19	1.13 H	24	12.79	50.02
5	#15780.00	49.57 AV	54.00	-4.43	1.13 H	24	-0.45	50.02

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1080.00	46.37 PK	74.00	-27.63	1.14 V	24	18.56	27.81
2	3506.00	46.48 PK	68.30	-21.82	1.14 V	274	11.49	34.99
3	*5260.00	105.42 PK			1.04 V	42	66.45	38.97
3	*5260.00	94.73 AV			1.04 V	42	55.76	38.97
4	10520.00	61.62 PK	68.30	-6.68	1.24 V	312	11.76	49.86
5	#15780.00	64.22 PK	74.00	-9.78	1.55 V	35	14.20	50.02
5	#15780.00	50.74 AV	54.00	-3.26	1.55 V	35	0.72	50.02

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. “\*” : Fundamental frequency
  6. “#”The radiated frequency falling in the restricted band.



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 8	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	1 (Antenna combination 1)		

### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)
1	#1080.00	40.90 PK	74.00	-33.10	1.00 H	4	13.10	27.81
2	3546.00	44.91 PK	68.30	-23.39	1.00 H	24	9.81	35.10
3	*5320.00	112.24 PK			1.00 H	4	73.16	39.08
3	*5320.00	101.53 AV			1.00 H	4	62.45	39.08
4	#5350.00	60.13 PK	74.00	-13.87	1.00 H	4	21.01	39.12
4	#5350.00	49.42 AV	54.00	-4.58	1.00 H	4	10.30	39.12
5	#10640.00	60.09 PK	74.00	-13.91	1.14 H	11	10.16	49.93
5	#10640.00	48.35 AV	54.00	-5.65	1.14 H	11	-1.58	49.93
6	#15960.00	60.89 PK	74.00	-13.11	1.00 H	297	11.46	49.42
6	#15960.00	48.62 AV	54.00	-5.38	1.00 H	297	-0.81	49.42

### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)
1	#1080.00	45.44 PK	74.00	-28.56	1.26 V	176	17.64	27.81
2	3546.00	46.57 PK	68.30	-21.73	1.26 V	276	11.47	35.10
3	*5320.00	106.41 PK			1.02 V	43	67.33	39.08
3	*5320.00	95.25 AV			1.02 V	43	56.17	39.08
4	#5350.00	54.30 PK	74.00	-19.70	1.02 V	43	15.17	39.12
4	#5350.00	43.14 AV	54.00	-10.86	1.02 V	43	4.02	39.12
5	#10640.00	62.01 PK	74.00	-11.99	1.51 V	201	12.08	49.93
5	#10640.00	49.14 AV	54.00	-4.86	1.51 V	201	-0.79	49.93
6	#15960.00	63.10 PK	74.00	-10.90	1.23 V	38	13.67	49.42
6	#15960.00	49.27 AV	54.00	-4.73	1.23 V	38	-0.16	49.42

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#" The radiated frequency falling in the restricted band.



### 802.11a OFDM modulation (Antenna combination 2)

<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 1	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	2 (Antenna combination 2)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3453.00	44.11 PK	68.30	-24.19	1.11 H	151	10.35	33.75
2	#5150.00	48.71 PK	74.00	-25.29	1.00 H	342	10.45	38.26
2	#5150.00	38.73 AV	54.00	-15.27	1.00 H	342	0.47	38.26
3	*5180.00	97.95 PK			1.00 H	342	59.65	38.30
3	*5180.00	87.97 AV			1.00 H	342	49.67	38.30
4	10360.00	56.33 PK	68.30	-11.97	1.02 H	340	8.29	48.04

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3453.00	45.64 PK	68.30	-22.66	1.31 V	116	11.88	33.75
2	#5150.00	55.86 PK	74.00	-18.14	1.19 V	175	17.60	38.26
2	#5150.00	44.46 AV	54.00	-9.54	1.19 V	175	6.20	38.26
3	*5180.00	105.10 PK			1.19 V	175	66.80	38.30
3	*5180.00	93.70 AV			1.19 V	175	55.40	38.30
4	10360.00	58.14 PK	68.30	-10.16	1.35 V	244	10.10	48.04

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#" The radiated frequency falling in the restricted band.



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 4	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	2 (Antenna combination 2)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3493.00	43.68 PK	68.30	-24.62	1.22 H	30	9.87	33.81
2	*5240.00	103.90 PK			1.00 H	299	65.52	38.38
2	*5240.00	93.38 AV			1.00 H	299	55.00	38.38
3	10480.00	57.32 PK	68.30	-10.98	1.23 H	357	9.04	48.28
4	#15720.00	62.37 PK	74.00	-11.63	1.20 H	94	12.53	49.85
4	#15720.00	48.68 AV	54.00	-5.32	1.20 H	94	-1.16	49.85

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3493.00	44.27 PK	68.30	-24.03	1.30 V	116	10.46	33.81
2	*5240.00	108.30 PK			1.18 V	172	69.92	38.38
2	*5240.00	98.14 AV			1.18 V	172	59.76	38.38
3	10480.00	62.96 PK	68.30	-5.34	1.04 V	135	14.68	48.28
4	#15720.00	61.79 PK	74.00	-12.21	1.15 V	102	11.95	49.85
4	#15720.00	48.94 AV	54.00	-5.06	1.15 V	102	-0.90	49.85

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#" The radiated frequency falling in the restricted band.



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	2 (Antenna combination 2)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3506.00	43.79 PK	68.30	-24.51	1.04 H	217	9.95	33.84
2	*5260.00	102.16 PK			1.18 H	190	63.76	38.40
2	*5260.00	91.76 AV			1.18 H	190	53.36	38.40
3	10520.00	58.60 PK	68.30	-9.70	1.09 H	50	10.24	48.36

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3506.00	44.44 PK	68.30	-23.86	1.31 V	120	10.60	33.84
2	*5260.00	109.58 PK			1.18 V	166	71.18	38.40
2	*5260.00	99.23 AV			1.18 V	166	60.83	38.40
3	10520.00	63.23 PK	68.30	-5.07	1.11 V	129	14.87	48.36
4	#15780.00	61.03 PK	74.00	-12.97	1.02 V	100	11.37	49.65
4	#15780.00	48.11 AV	54.00	-5.89	1.02 V	100	-1.55	49.65

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#"The radiated frequency falling in the restricted band.



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 8	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	2 (Antenna combination 2)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)
1	3546.00	43.23 PK	68.30	-25.07	1.15 H	27	9.24	33.99
2	*5320.00	103.31 PK			1.14 H	299	64.83	38.48
2	*5320.00	92.90 AV			1.14 H	299	54.42	38.48
3	#5350.00	50.70 PK	74.00	-23.30	1.14 H	299	12.19	38.52
3	#5350.00	40.29 AV	54.00	-13.71	1.14 H	299	1.77	38.52
4	#10640.00	56.57 PK	74.00	-17.43	1.23 H	223	8.00	48.57
4	#10640.00	44.40 AV	54.00	-9.60	1.23 H	223	-4.17	48.57

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)
1	3546.00	44.22 PK	68.30	-24.08	1.29 V	119	10.23	33.99
2	*5320.00	109.29 PK			1.05 V	168	70.81	38.48
2	*5320.00	98.56 AV			1.05 V	168	60.08	38.48
3	#5350.00	56.68 PK	74.00	-17.32	1.05 V	168	18.16	38.52
3	#5350.00	44.95 AV	54.00	-9.05	1.05 V	168	6.44	38.52
4	#10640.00	60.14 PK	74.00	-13.86	1.36 V	122	11.57	48.57
4	#10640.00	46.54 AV	54.00	-7.46	1.36 V	122	-2.03	48.57
5	#15960.00	57.80 PK	74.00	-16.20	1.25 V	105	8.61	49.19
5	#15960.00	45.05 AV	54.00	-8.95	1.25 V	105	-4.14	49.19

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#":The radiated frequency falling in the restricted band.



### 802.11a OFDM modulation (Antenna combination 3)

<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 1	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	3 (Antenna combination 3)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1080.00	46.41 PK	74.00	-27.59	1.35 H	1	19.63	26.78
1	#1080.00	42.52 AV	54.00	-11.48	1.35 H	1	15.74	26.78
2	3453.00	43.80 PK	68.30	-24.50	1.13 H	345	10.92	32.88
3	#5150.00	46.75 PK	74.00	-27.25	1.05 H	90	9.70	37.05
3	#5150.00	37.24 AV	54.00	-16.76	1.05 H	90	0.19	37.05
4	*5180.00	97.75 PK			1.05 H	90	60.66	37.09
4	*5180.00	88.04 AV			1.05 H	90	50.95	37.09
5	10360.00	54.59 PK	68.30	-13.71	1.07 H	296	8.53	46.06

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1080.00	48.86 PK	74.00	-25.14	1.08 V	344	22.08	26.78
1	#1080.00	44.12 AV	54.00	-9.88	1.08 V	344	17.34	26.78
2	3453.00	44.39 PK	68.30	-23.91	1.04 V	83	11.51	32.88
3	#5150.00	54.56 PK	74.00	-19.44	1.16 V	27	17.51	37.05
3	#5150.00	44.57 AV	54.00	-9.43	1.16 V	27	7.52	37.05
4	*5180.00	105.36 PK			1.16 V	27	68.27	37.09
4	*5180.00	95.37 AV			1.16 V	27	58.28	37.09
5	10360.00	56.27 PK	68.30	-12.03	1.31 V	355	10.21	46.06

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#"The radiated frequency falling in the restricted band.



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 4	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	3 (Antenna combination 3)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1080.00	45.68 PK	74.00	-28.32	1.24 H	100	18.90	26.78
1	#1080.00	43.85 AV	54.00	-10.15	1.24 H	100	17.07	26.78
2	3493.00	50.20 PK	68.30	-18.10	1.07 H	350	17.29	32.91
3	*5240.00	103.20 PK			1.34 H	300	66.00	37.20
3	*5240.00	92.41 AV			1.34 H	300	55.21	37.20
4	10480.00	53.55 PK	68.30	-14.75	1.24 H	352	7.19	46.36

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1080.00	47.41 PK	74.00	-26.59	1.04 V	130	20.63	26.78
1	#1080.00	45.62 AV	54.00	-8.38	1.04 V	130	18.84	26.78
2	3493.00	50.01 PK	68.30	-18.29	1.21 V	270	17.10	32.91
3	*5240.00	109.18 PK			1.15 V	158	71.98	37.20
3	*5240.00	99.21 AV			1.15 V	158	62.01	37.20
4	10480.00	58.89 PK	68.30	-9.41	1.20 V	130	12.53	46.36

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#"The radiated frequency falling in the restricted band.





<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	3 (Antenna combination 3)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1080.00	44.70 PK	74.00	-29.30	1.41 H	1	17.92	26.78
1	#1080.00	42.01 AV	54.00	-11.99	1.41 H	1	15.23	26.78
2	3506.00	43.58 PK	68.30	-24.72	1.10 H	150	10.65	32.93
3	*5260.00	102.40 PK			1.41 H	310	65.15	37.25
3	*5260.00	92.30 AV			1.41 H	310	55.05	37.25
4	10520.00	55.12 PK	68.30	-13.18	1.05 H	300	8.64	46.48

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1080.00	47.05 PK	74.00	-26.95	1.03 V	151	20.27	26.78
1	#1080.00	44.14 AV	54.00	-9.86	1.03 V	151	17.36	26.78
2	3506.00	44.81 PK	68.30	-23.49	1.10 V	260	11.88	32.93
3	*5260.00	109.11 PK			1.25 V	351	71.86	37.25
3	*5260.00	98.41 AV			1.25 V	351	61.16	37.25
4	10520.00	57.12 PK	68.30	-11.18	1.40 V	360	10.64	46.48

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#"The radiated frequency falling in the restricted band.



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 8	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	3 (Antenna combination 3)		

### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)
1	#1080.00	49.34 PK	74.00	-24.66	1.30 H	88	22.56	26.78
1	#1080.00	43.12 AV	54.00	-10.88	1.30 H	88	16.34	26.78
2	3546.00	43.35 PK	68.30	-24.95	1.10 H	340	10.31	33.04
3	*5320.00	101.25 PK			1.43 H	96	63.89	37.36
3	*5320.00	91.79 AV			1.43 H	96	54.43	37.36
4	#5350.00	51.71 PK	74.00	-22.29	1.43 H	96	14.32	37.39
4	#5350.00	42.25 AV	54.00	-11.75	1.43 H	96	4.86	37.39
5	#10640.00	54.63 PK	74.00	-19.37	1.10 H	188	7.91	46.72
5	#10640.00	42.49 AV	54.00	-11.51	1.10 H	188	-4.23	46.72

### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)
1	#1080.00	49.13 PK	74.00	-24.87	1.10 V	360	22.35	26.78
1	#1080.00	43.61 AV	54.00	-10.39	1.10 V	360	16.83	26.78
2	3546.00	43.79 PK	68.30	-24.51	1.02 V	309	10.75	33.04
3	*5320.00	108.66 PK			1.16 V	303	71.30	37.36
3	*5320.00	98.38 AV			1.16 V	303	61.02	37.36
4	#5350.00	59.12 PK	74.00	-14.88	1.16 V	303	21.73	37.39
4	#5350.00	48.84 AV	54.00	-5.16	1.16 V	303	11.45	37.39
5	#10640.00	57.59 PK	74.00	-16.41	1.12 V	1	10.87	46.72
5	#10640.00	45.44 AV	54.00	-8.56	1.12 V	1	-1.28	46.72

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. “\*”: Fundamental frequency
  6. “#”The radiated frequency falling in the restricted band.



### 802.11a OFDM modulation (Antenna combination 4)

<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 1	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	22deg. C, 67%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	4 (Antenna combination 4)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1440.00	52.85 PK	74.00	-21.15	1.00 H	83	24.91	27.95
1	#1440.00	50.50 AV	54.00	-3.50	1.00 H	83	22.56	27.95
2	3453.00	42.67 PK	68.30	-25.63	1.17 H	353	9.79	32.88
3	#5150.00	45.90 PK	74.00	-28.10	1.28 H	127	8.84	37.05
3	#5150.00	36.35 AV	54.00	-17.65	1.28 H	127	-0.70	37.05
4	*5180.00	96.36 PK			1.28 H	127	59.27	37.09
4	*5180.00	86.81 AV			1.28 H	127	49.72	37.09

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1440.00	53.83 PK	74.00	-20.17	1.00 V	242	25.89	27.95
1	#1440.00	51.50 AV	54.00	-2.50	1.00 V	242	23.56	27.95
2	3453.00	43.24 PK	68.30	-25.06	1.09 V	132	10.36	32.88
3	#5150.00	60.99 PK	74.00	-13.01	1.03 V	151	23.94	37.05
3	#5150.00	50.98 AV	54.00	-3.02	1.03 V	151	13.92	37.05
4	*5180.00	109.56 PK			1.03 V	151	72.47	37.09
4	*5180.00	99.46 AV			1.03 V	151	62.37	37.09
5	10360.00	56.89 PK	68.30	-11.41	1.42 V	325	10.83	46.06

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#"The radiated frequency falling in the restricted band.



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 4	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	22deg. C, 67%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	4 (Antenna combination 4)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1440.00	51.39 PK	74.00	-22.61	1.00 H	41	23.45	27.95
1	#1440.00	49.03 AV	54.00	-4.97	1.00 H	41	21.09	27.95
2	*5240.00	104.58 PK			1.12 H	122	67.38	37.20
2	*5240.00	94.17 AV			1.12 H	122	56.97	37.20
3	10480.00	61.94 PK	68.30	-6.36	1.36 H	316	15.58	46.36
4	#15720.00	60.43 PK	74.00	-13.57	1.31 H	277	12.61	47.83
4	#15720.00	47.45 AV	54.00	-6.55	1.31 H	277	-0.37	47.83

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1440.00	54.38 PK	74.00	-19.62	1.07 V	246	26.44	27.95
1	#1440.00	52.40 AV	54.00	-1.60	1.07 V	246	24.46	27.95
2	3493.00	42.62 PK	68.30	-25.68	1.40 V	247	9.72	32.91
3	*5240.00	111.87 PK			1.00 V	185	74.67	37.20
3	*5240.00	101.62 AV			1.00 V	185	64.42	37.20
4	10480.00	61.60 PK	68.30	-6.70	1.43 V	157	15.24	46.36
5	#15720.00	60.95 PK	74.00	-13.05	1.28 V	147	13.13	47.83
5	#15720.00	48.15 AV	54.00	-5.85	1.28 V	147	0.33	47.83

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#"The radiated frequency falling in the restricted band.



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	22deg. C, 67%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	4 (Antenna combination 4)		

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1440.00	53.50 PK	74.00	-20.50	1.00 H	83	25.56	27.95
1	#1440.00	50.38 AV	54.00	-3.62	1.00 H	83	22.44	27.95
2	*5260.00	103.12 PK			1.04 H	124	65.87	37.25
2	*5260.00	92.64 AV			1.04 H	124	55.39	37.25
3	10520.00	59.63 PK	68.30	-8.67	1.13 H	276	13.16	46.48
4	#15780.00	61.21 PK	74.00	-12.79	1.42 H	278	13.60	47.60
4	#15780.00	48.09 AV	54.00	-5.91	1.42 H	278	0.48	47.60

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#1440.00	56.86 PK	74.00	-17.14	1.07 V	120	28.92	27.95
1	#1440.00	51.67 AV	54.00	-2.33	1.07 V	120	23.73	27.95
2	3506.00	43.10 PK	68.30	-25.20	1.06 V	358	10.17	32.93
3	*5260.00	112.54 PK			1.09 V	185	75.29	37.25
3	*5260.00	101.51 AV			1.09 V	185	64.26	37.25
4	10520.00	58.76 PK	68.30	-9.54	1.04 V	195	12.29	46.48
5	#15780.00	63.35 PK	74.00	-10.65	1.28 V	145	15.74	47.60
5	#15780.00	49.74 AV	54.00	-4.26	1.28 V	145	2.13	47.60

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#":The radiated frequency falling in the restricted band.



<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>CHANNEL</b>	Channel 8	<b>FREQUENCY RANGE</b>	1 ~ 40 GHz
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	22deg. C, 67%RH, 991hPa	<b>TESTED BY</b>	Match Tsui
<b>TEST MODE</b>	4 (Antenna combination 4)		

### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)
1	#1440.00	54.68 PK	74.00	-19.32	1.00 H	39	26.74	27.95
1	#1440.00	49.10 AV	54.00	-4.90	1.00 H	39	21.16	27.95
2	*5320.00	104.23 PK			1.11 H	125	66.87	37.36
2	*5320.00	94.37 AV			1.11 H	125	57.01	37.36
3	#5350.00	55.32 PK	74.00	-18.68	1.11 H	125	17.93	37.39
3	#5350.00	45.46 AV	54.00	-8.54	1.11 H	125	8.07	37.39
4	#10640.00	59.92 PK	74.00	-14.08	1.35 H	313	13.20	46.72
4	#10640.00	46.90 AV	54.00	-7.10	1.35 H	313	0.18	46.72
5	#15960.00	57.08 PK	74.00	-16.92	1.00 H	127	10.10	46.97
5	#15960.00	45.10 AV	54.00	-8.90	1.00 H	127	-1.88	46.97

### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)
1	#1440.00	54.55 PK	74.00	-19.45	1.04 V	45	26.61	27.95
1	#1440.00	49.97 AV	54.00	-4.03	1.04 V	45	22.03	27.95
2	3546.00	42.58 PK	68.30	-25.72	1.07 V	360	9.54	33.04
3	*5320.00	112.20 PK	68.30	43.90	1.08 V	186	74.84	37.36
3	*5320.00	101.43 AV	54.00	47.43	1.08 V	186	64.07	37.36
4	#5350.00	60.08 PK	68.30	-8.22	1.08 V	186	22.69	37.39
4	#5350.00	49.40 AV	54.00	-4.60	1.08 V	186	12.01	37.39
5	#10640.00	57.23 PK	74.00	-16.77	1.31 V	153	10.51	46.72
5	#10640.00	44.54 AV	54.00	-9.46	1.31 V	153	-2.18	46.72
6	#15960.00	59.42 PK	74.00	-14.58	1.06 V	306	12.44	46.97
6	#15960.00	46.15 AV	54.00	-7.85	1.06 V	306	-0.83	46.97

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value
  5. "\*" : Fundamental frequency
  6. "#"The radiated frequency falling in the restricted band.



### 4.3 PEAK TRANSMIT POWER MEASUREMENT

#### 4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

Frequency Band	Limit
5.15 – 5.25GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.25 – 5.35GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.725 – 5.825GHz	The lesser of 1W (30dBm) or 17dBm + 10logB

**NOTE:** Where B is the 26dB emission bandwidth in MHz.

#### 4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2005

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.



#### 4.3.3 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set span to encompass the entire emission bandwidth of the signal.
3. Set RBW to 1MHz, VBW to 3MHz.
4. Using the spectrum analyzer's channel power measurement function to measure the output power.

**NOTE:**

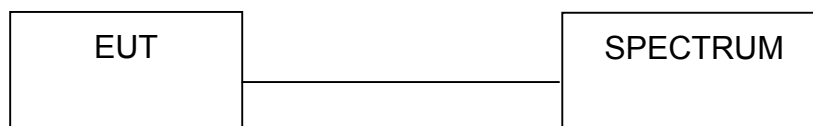
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

The transmitter output operates continuously therefore Method # 1 is used.

#### 4.3.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.3.5 TEST SETUP



#### 4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.





## 4.3.7 TEST RESULTS

**802.11a OFDM modulation**

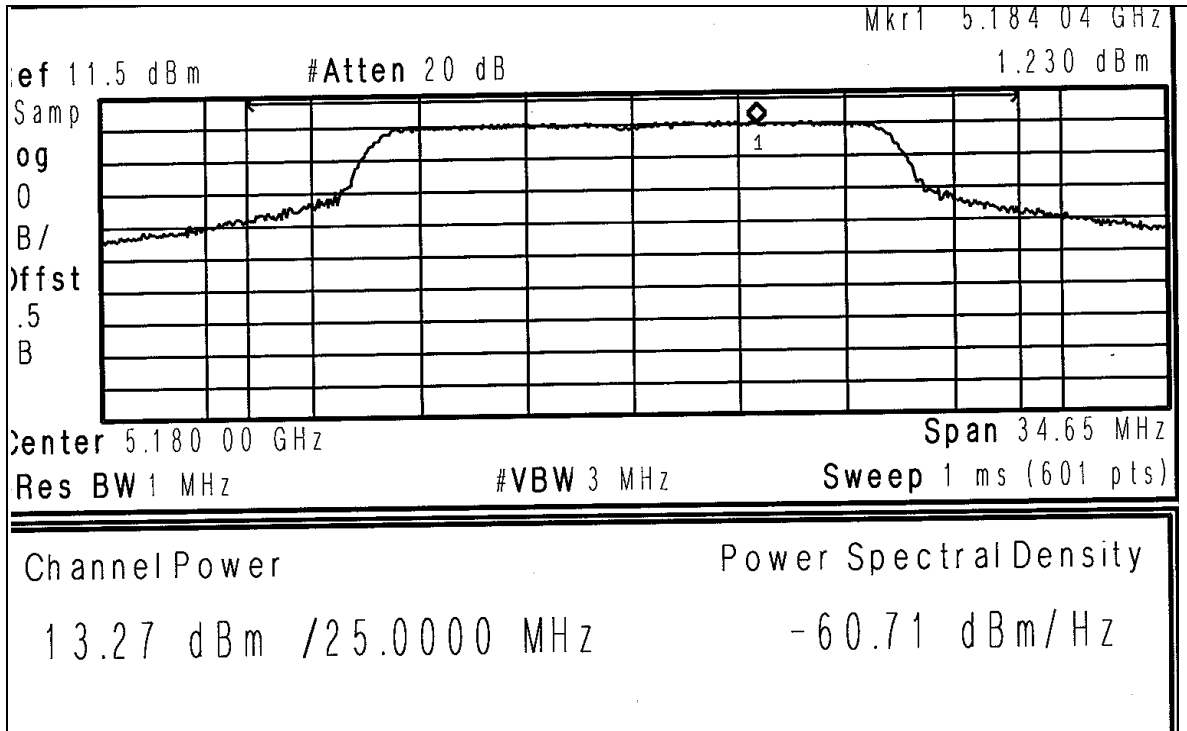
<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	25deg.C, 52%RH, 991hPa
<b>TESTED BY</b>	Gary Chang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/FAIL
1	5180	21.232	13.27	17.00	24.61	PASS
4	5240	41.495	16.18	17.00	26.77	PASS
5	5260	41.115	16.14	24.00	24.69	PASS
8	5320	38.637	15.87	24.00	26.13	PASS

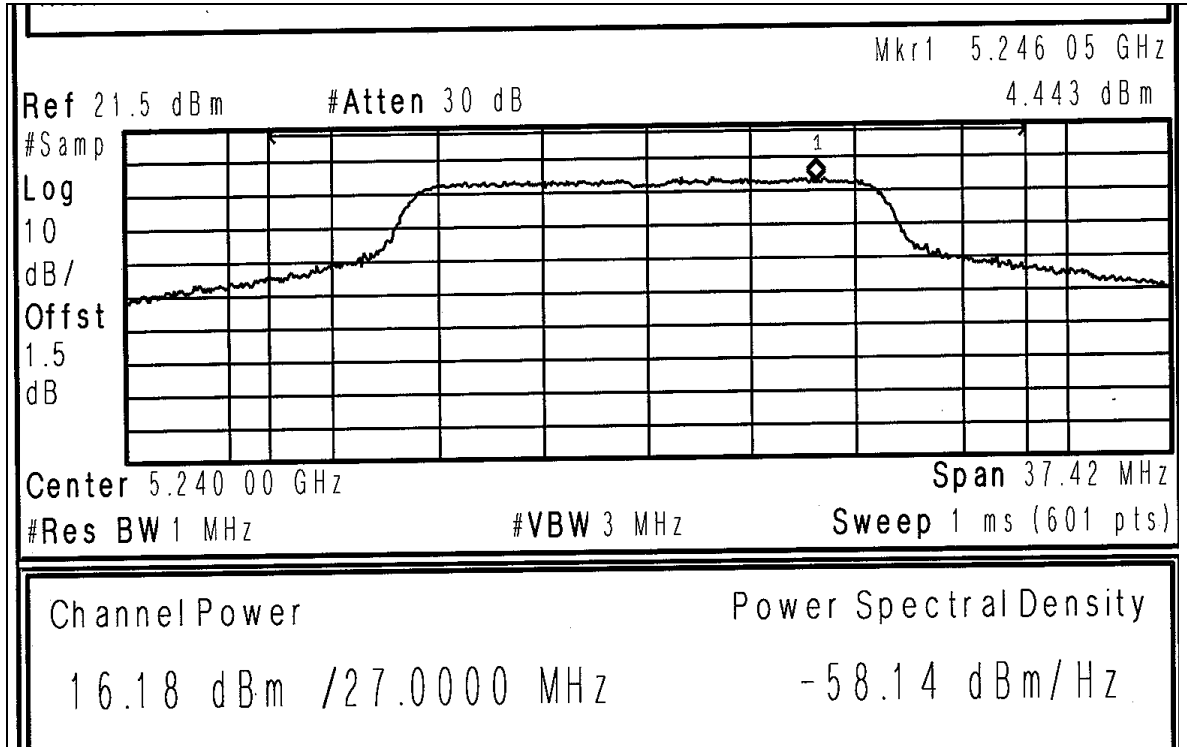
**NOTE:** The 26dBc Occupied Bandwidth plot, please refer to the following pages.



Peak Power Output:  
CH 1

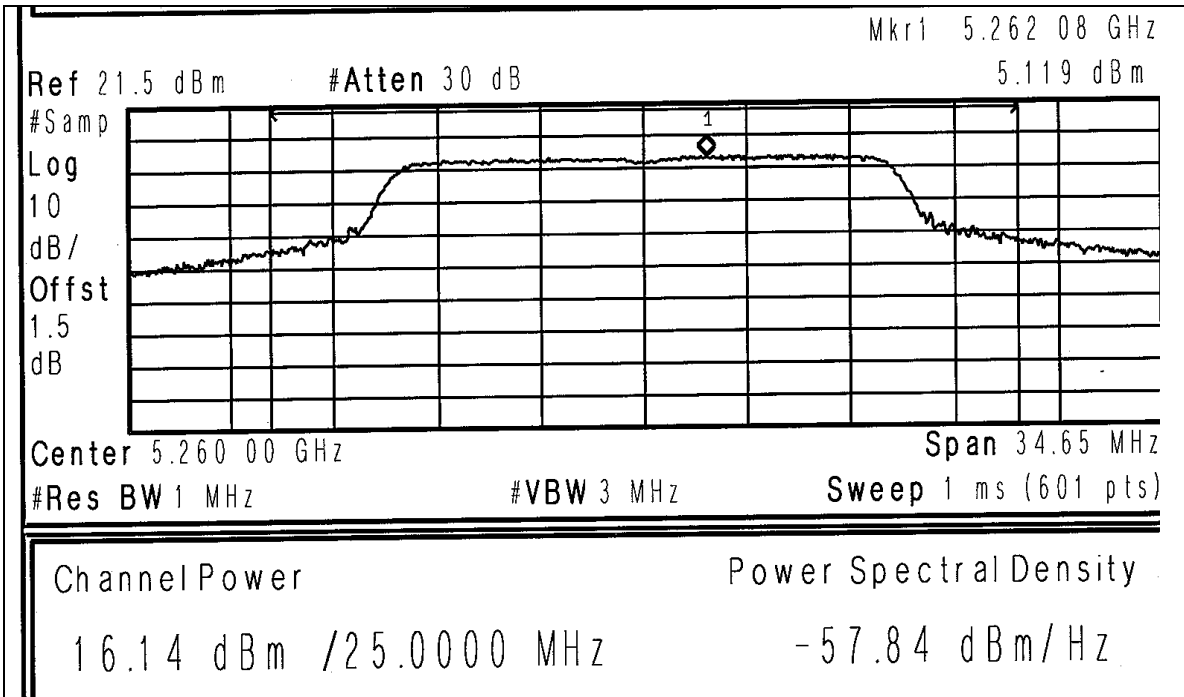


CH 4

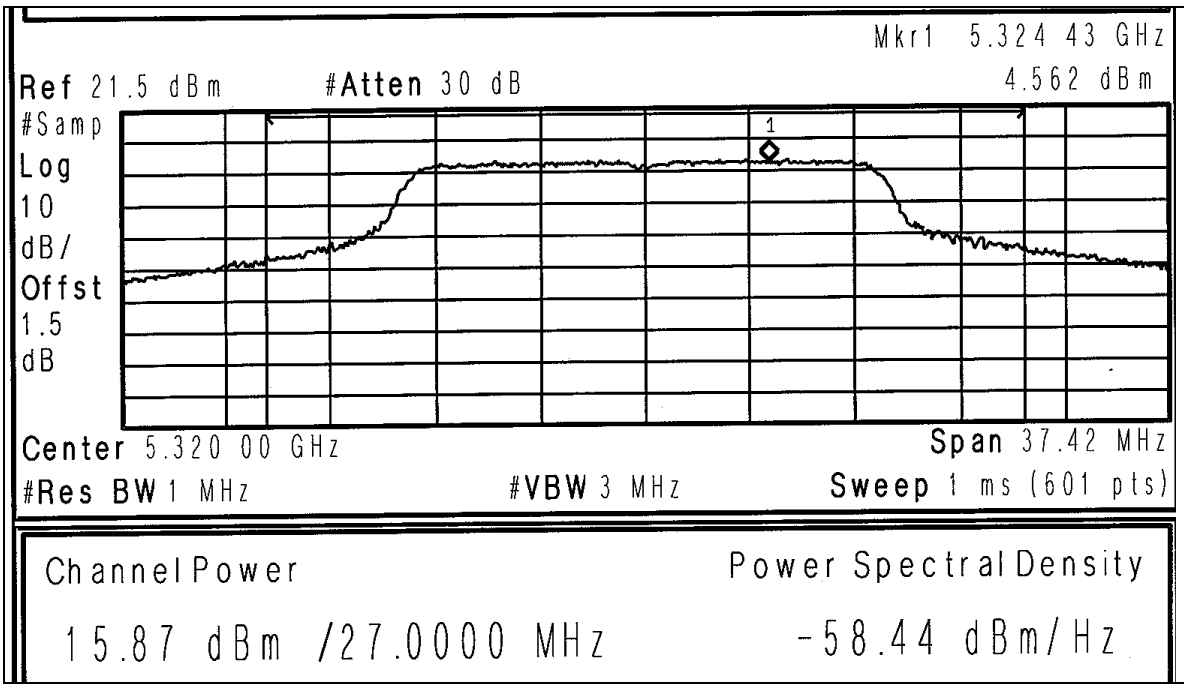




CH 5

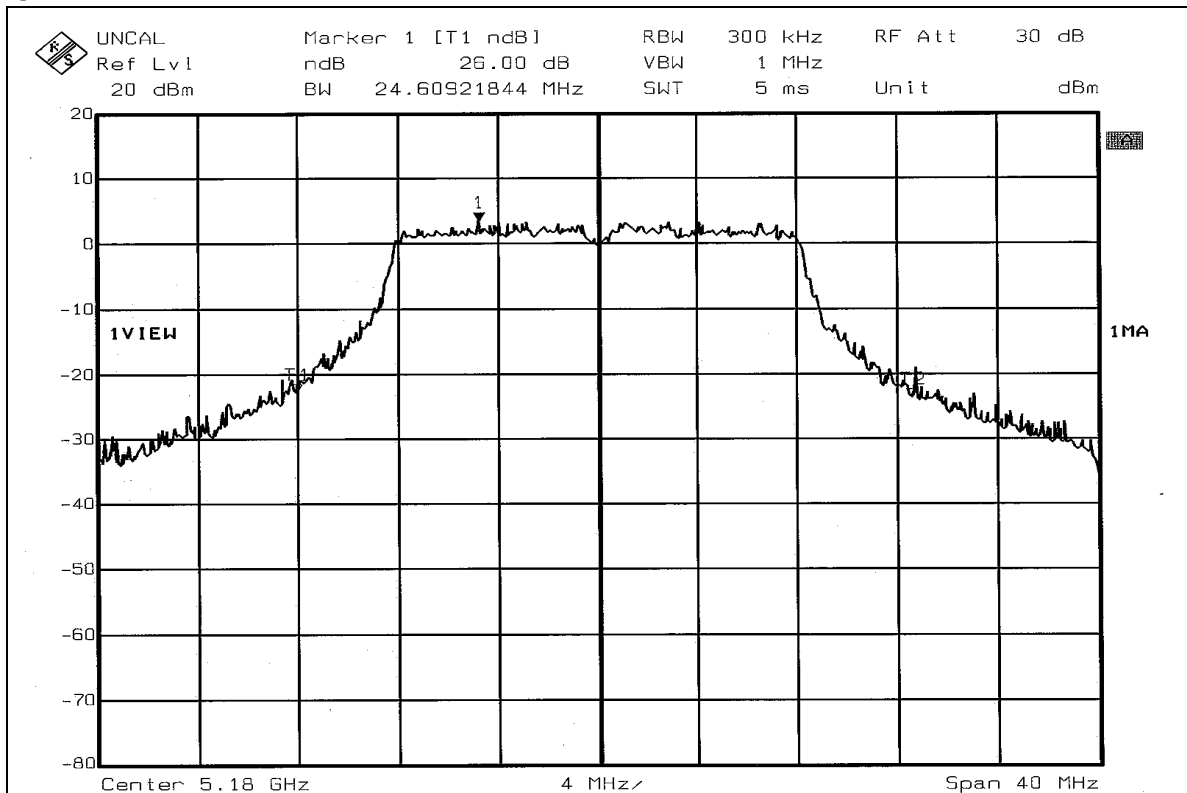


CH 8

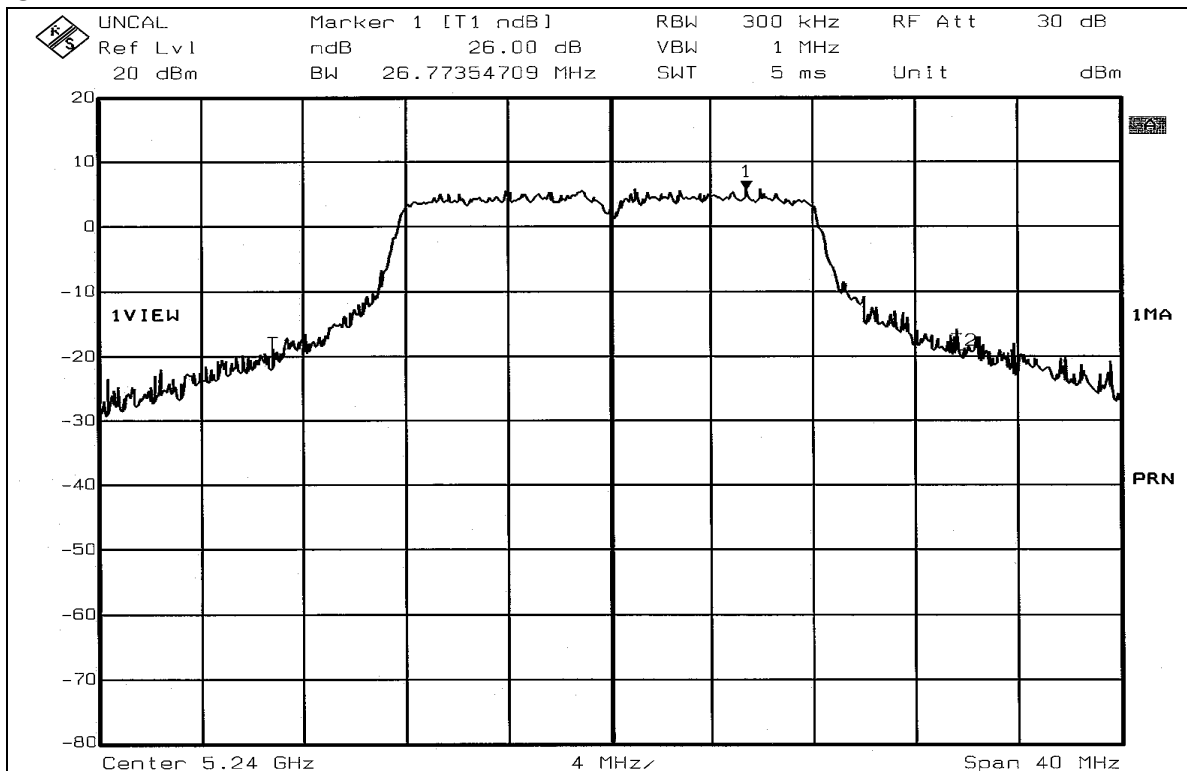




26dB Occupied Bandwidth:  
CH 1

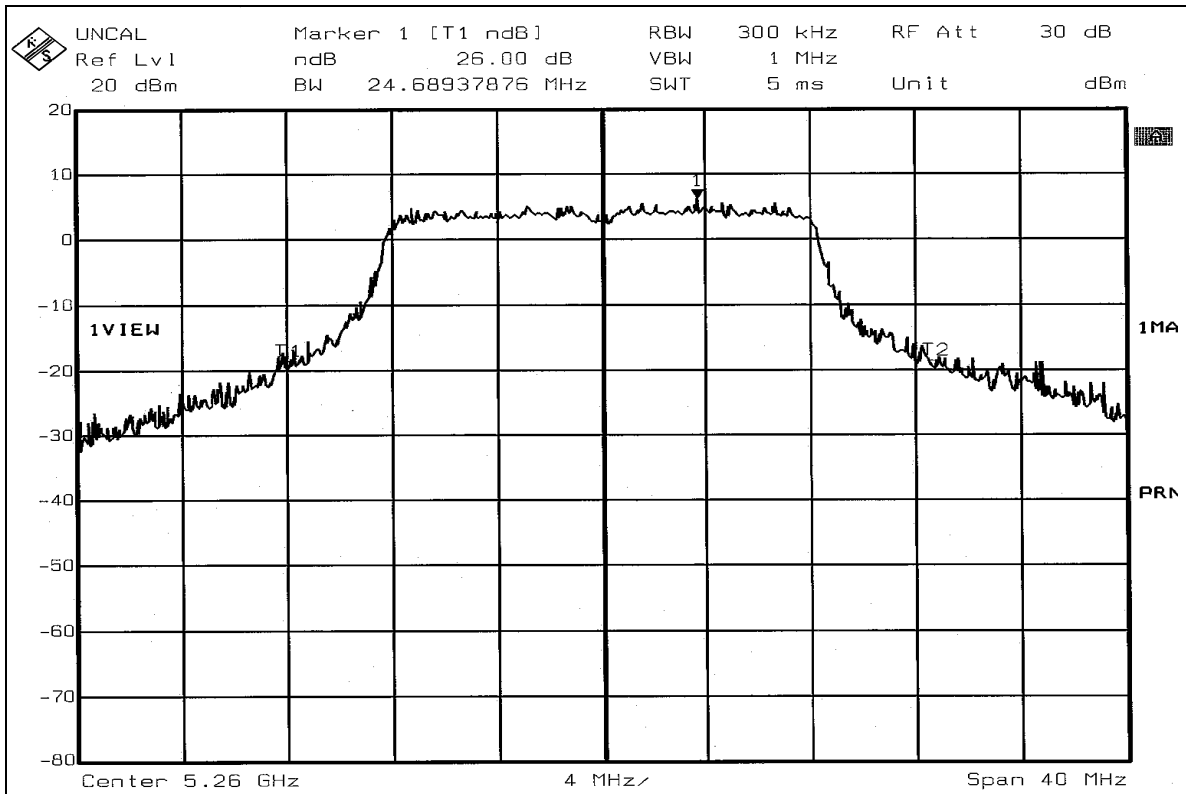


CH 4

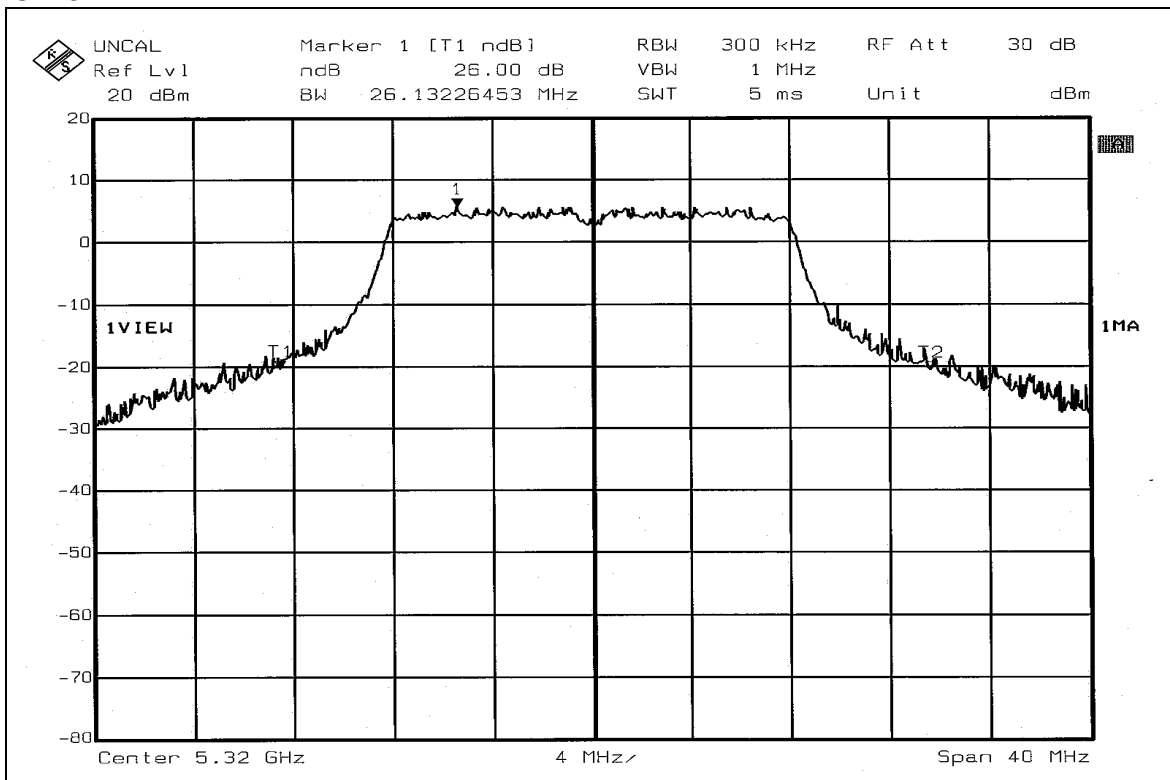




CH 5



CH 8





#### 4.4 PEAK POWER EXCURSION MEASUREMENT

##### 4.4.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Frequency Band	Limit
5.15 – 5.25 GHz	13dB
5.25 – 5.35 GHz	13dB
5.725 – 5.825 GHz	13dB

##### 4.4.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2005

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.



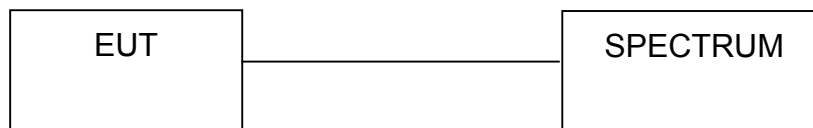
#### 4.4.3 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set the spectrum bandwidth span to view the entire spectrum.
3. Using peak detector and Max-hold function for Trace 1 (RB=1MHz, VB=3MHz) and 2 (RB=1MHz, VB=300KHz).
4. The largest difference between Trace 1 and Trace 2 in any 1MHz band on any frequency was recorded.

#### 4.4.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.4.5 TEST SETUP



#### 4.4.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.



## 4.4.7 TEST RESULTS

**802.11a OFDM modulation**

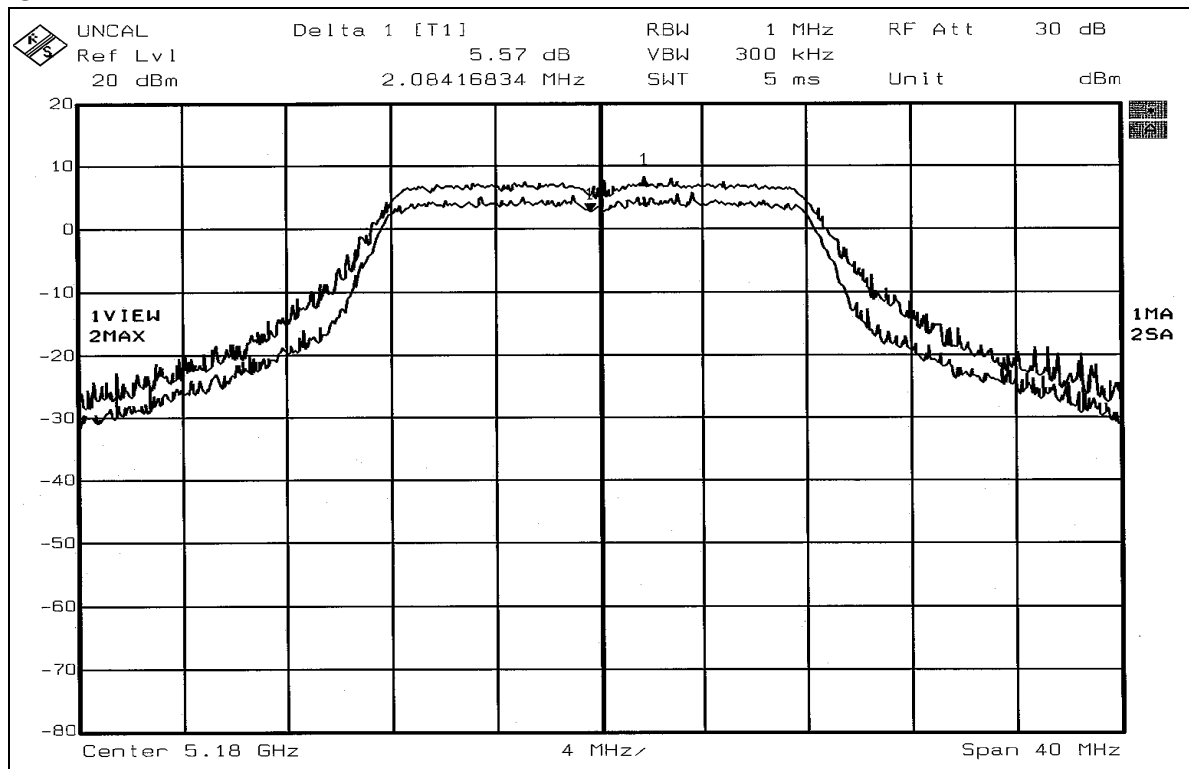
<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	25deg.C, 52%RH, 991hPa
<b>TESTED BY</b>	Gary Chang		

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>PEAK POWER EXCURSION (dB)</b>	<b>PEAK to AVERAGE EXCURSION LIMIT (dB)</b>	<b>PASS/FAIL</b>
1	5180	5.57	13	PASS
4	5240	5.44	13	PASS
5	5260	5.95	13	PASS
8	5320	5.79	13	PASS

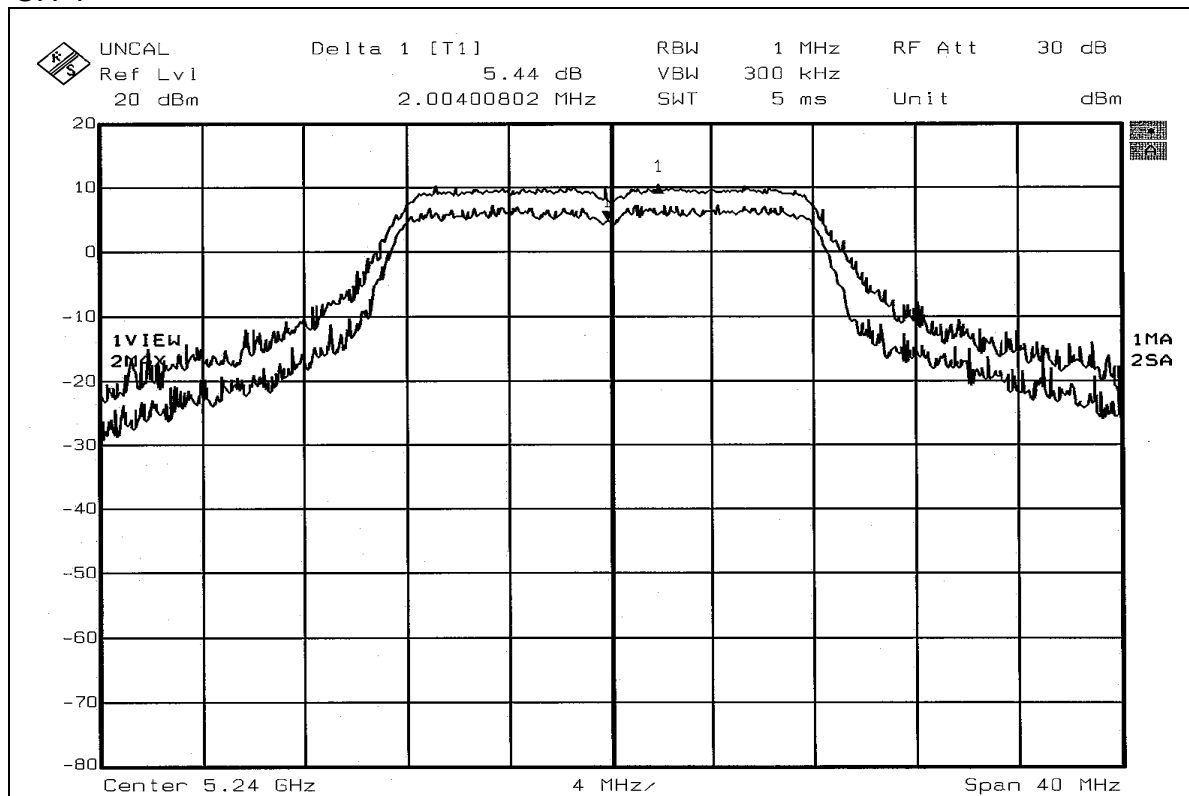




CH 1

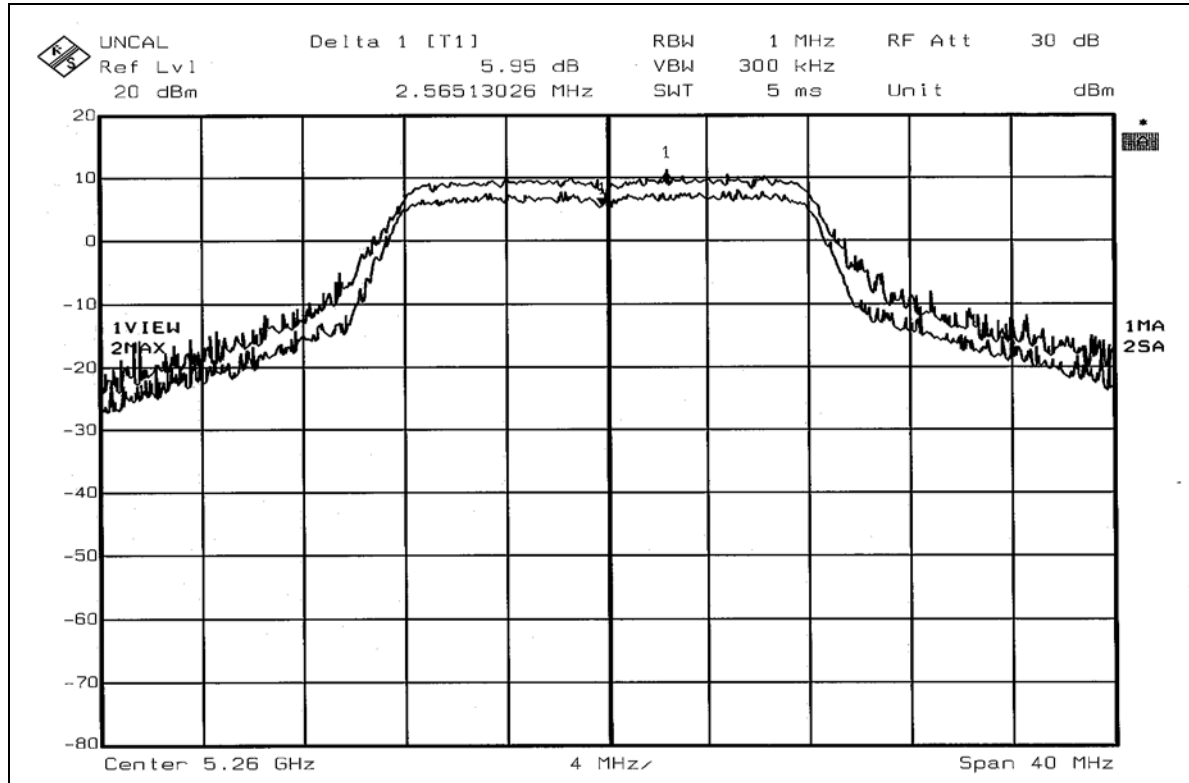


CH 4

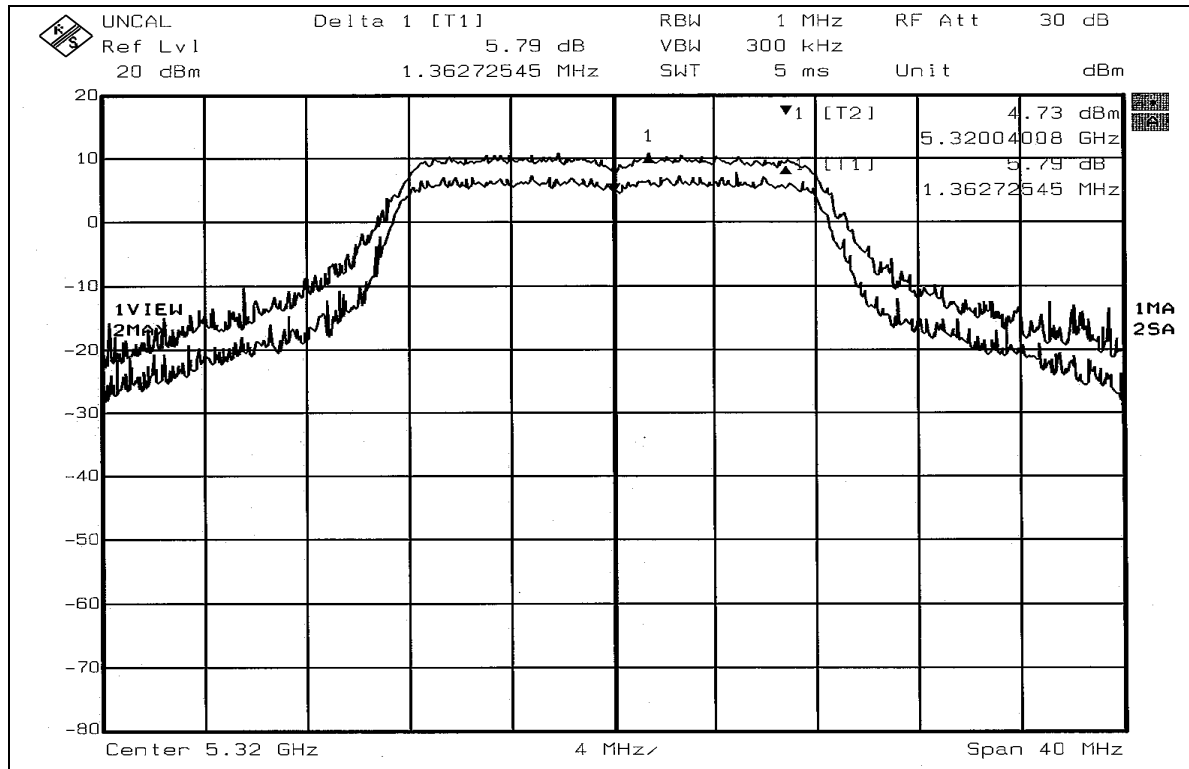




CH 5



CH 8





## 4.5 PEAK POWER SPECTRAL DENSITY MEASUREMENT

### 4.5.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Frequency Band	Limit
5.15 ~ 5.25GHz	4dBm
5.25 ~ 5.35GHz	11dBm
5.725 ~ 5.825GHz	17dBm

### 4.5.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2005

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

#### 4.5.3 TEST PROCEDURES

1. The transmitter output was connected to the spectrum analyzer.
2. Set RBW=1MHz, VBW=3MHz. The PPSD is the highest level found across the emission in any 1MHz band.

#### 4.5.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.5.5 TEST SETUP



#### 4.5.6 EUT OPERATING CONDITIONS

Same as 5.3.6



4.5.7 TEST RESULTS

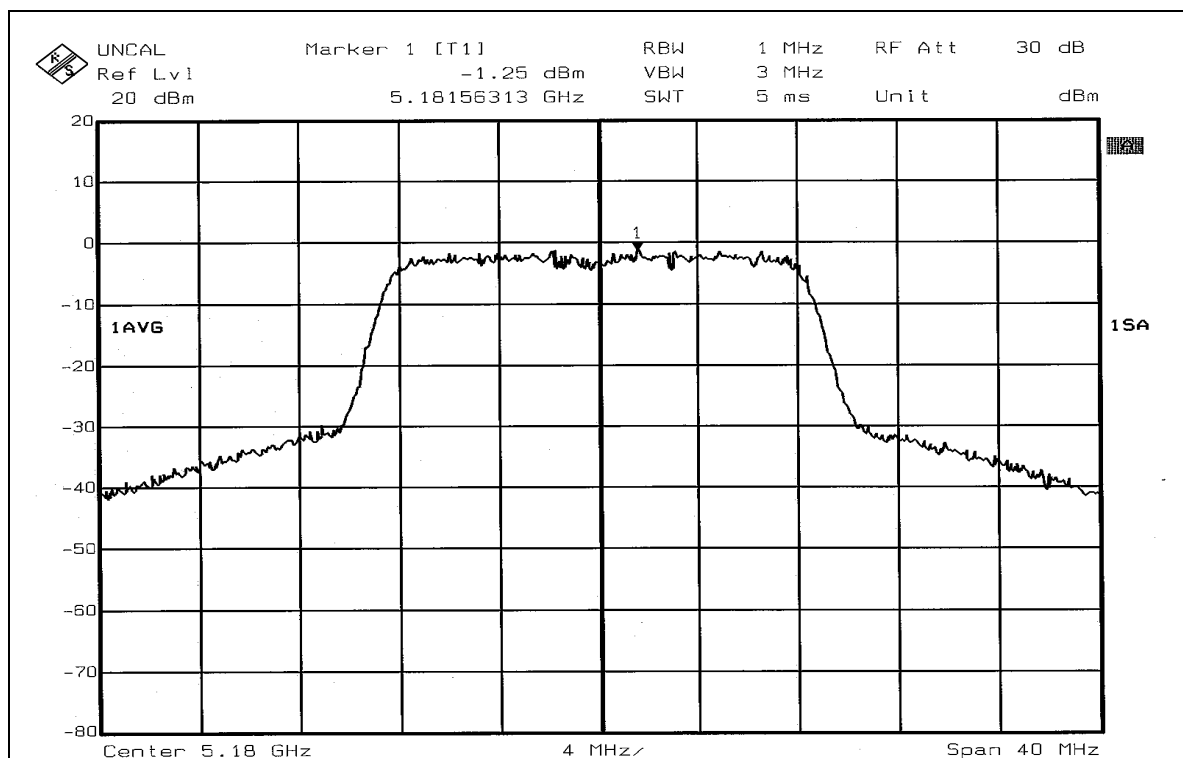
**802.11a OFDM modulation**

<b>EUT</b>	WVM1104-Tx (Wireless Video Module-Transmitter)	<b>MODEL</b>	WVM1104-Tx
<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	25deg.C, 52%RH, 991hPa
<b>TESTED BY</b>	Gary Chang		

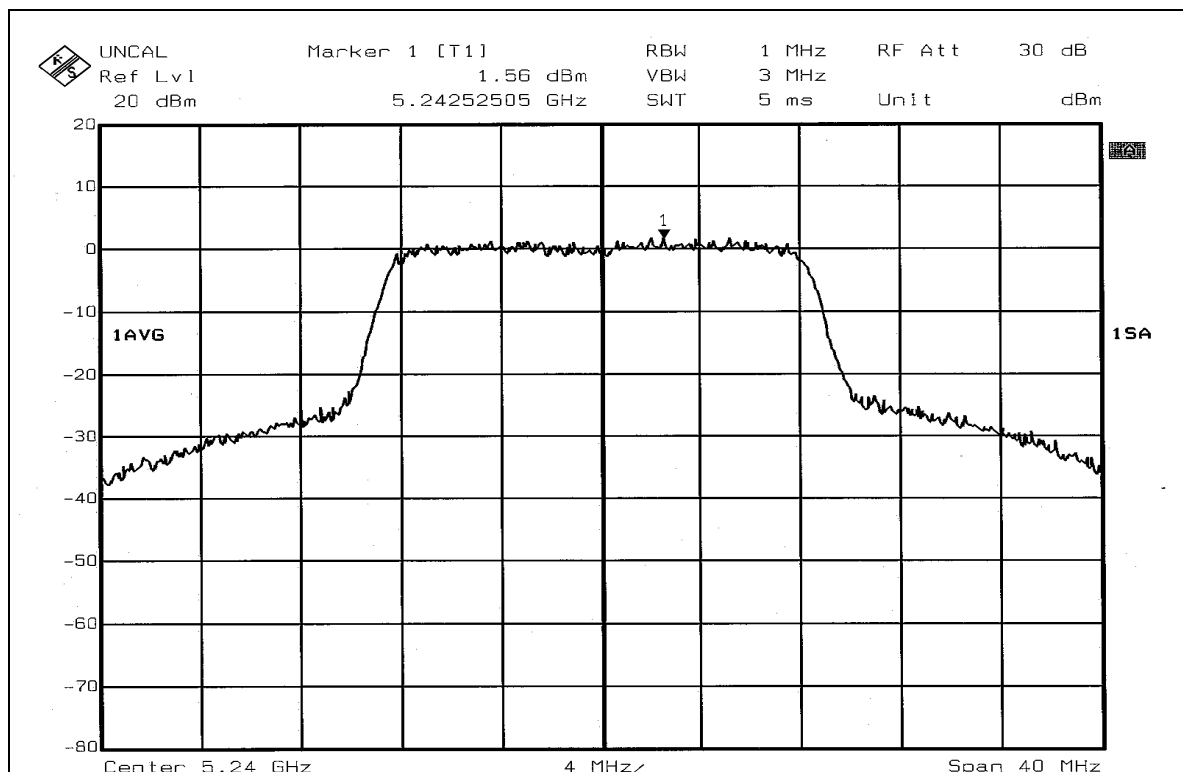
CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	5180	-1.25	4	PASS
4	5240	1.56	4	PASS
5	5260	0.56	11	PASS
8	5320	1.00	11	PASS



CH 1

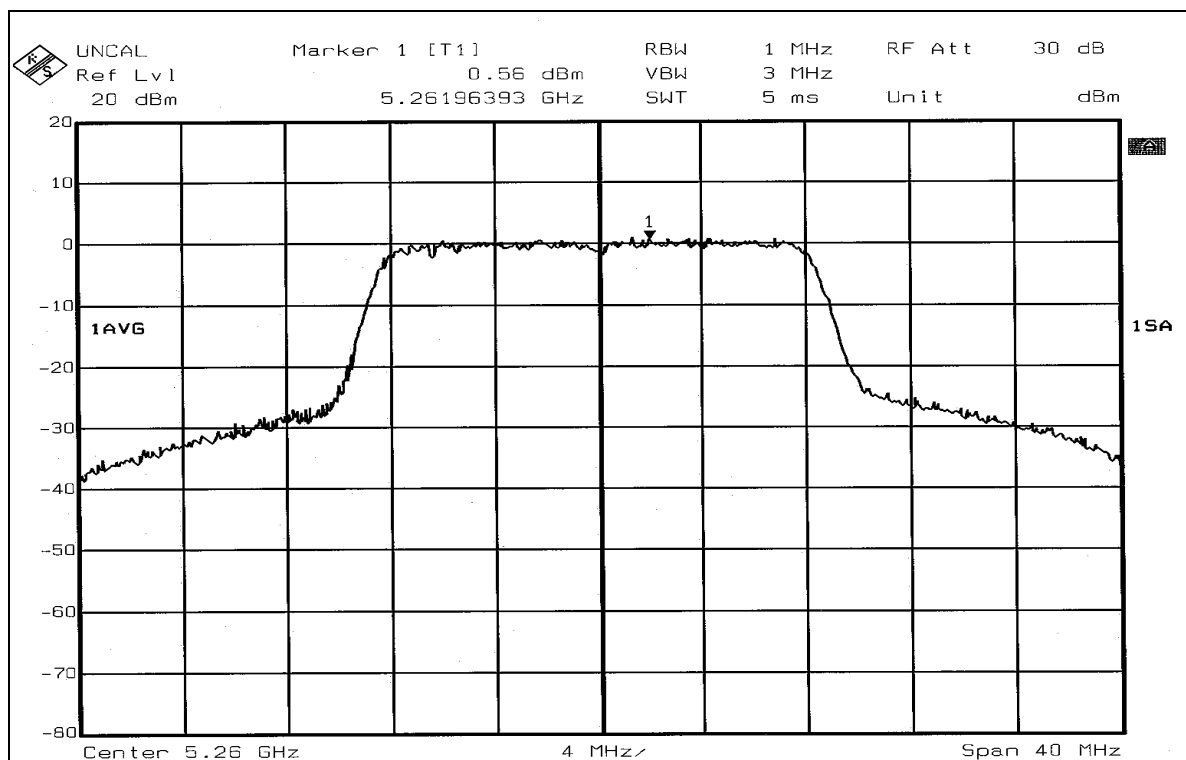


CH 4

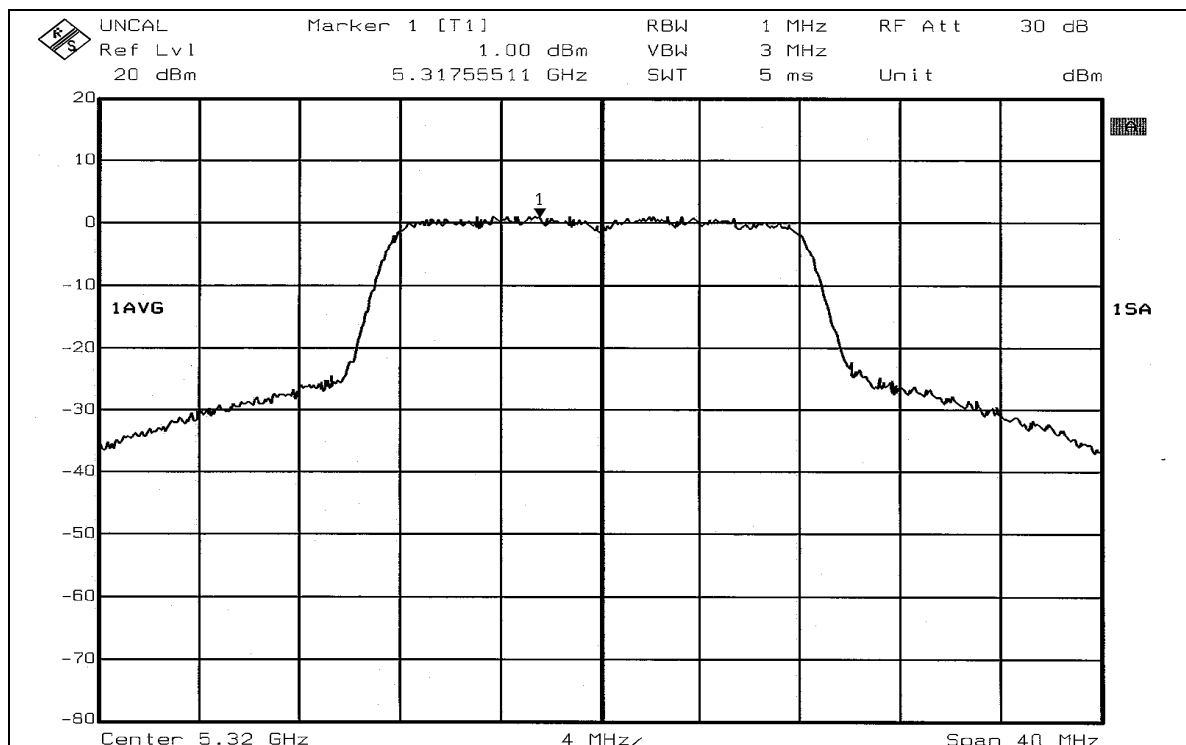




### CH 5



### CH 8





## 4.6 FREQUENCY STABILITY

### 4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency tolerance of the carrier signal shall be maintained within +/- 0.02% of the operating frequency over a temperature variation of -30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

### 4.6.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
ANRITSU SPECTRUM ANALYZER	MS2667C	M10281	Mar. 09, 2006
WIT STANDARD TEMPERATURE AND HUMIDITY CHAMBER	TH-4S-C	W981030	Jul. 18, 2005

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

### 4.6.3 TEST PROCEDURE

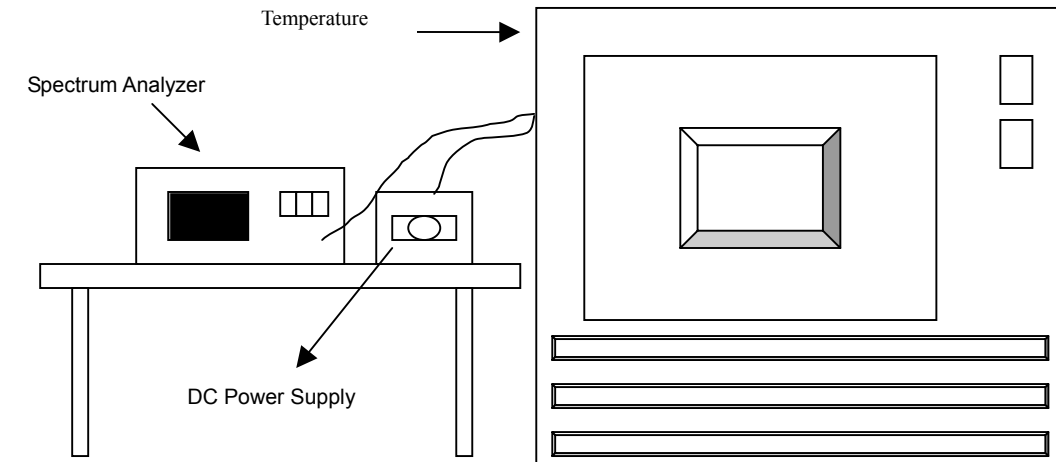
1. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

### 4.6.4 DEVIATION FROM TEST STANDARD

No deviation



#### 4.6.5 TEST SETUP



#### 4.6.6 EUT OPERATING CONDITION

Same as Item 4.1.6



4.6.7 TEST RESULTS

		Operating frequency: 5320MHz				Limit : ± 0.015%			
Temp. (°C)	Power supply (Vac)	0 minute		2 minute		5 minute		10 minute	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
50	138.0	5319.9718	-0.0005301	5319.9720	-0.0005263	5319.9724	-0.0005188	5319.9721	-0.0005244
	120.0	5139.9720	-0.0005263	5319.9723	-0.0005207	5319.9722	-0.0005226	5319.9718	-0.0005301
	102.0	5319.9723	-0.0005207	5319.9725	-0.0005169	5319.9720	-0.0005263	5319.9716	-0.0005338
40	138.0	5139.9745	-0.0004793	5319.9748	-0.0004737	5319.9739	-0.0004906	5319.9738	-0.0004925
	120.0	5319.9740	-0.0004887	5319.9743	-0.0004831	5319.9737	-0.0004944	5319.9742	-0.0004850
	102.0	5319.9737	-0.0004944	5319.9740	-0.0004887	5319.9735	-0.0004981	5319.9744	-0.0004812
30	138.0	5319.9765	-0.0004417	5319.9750	-0.0004699	5319.9756	-0.0004586	5319.9762	-0.0004474
	120.0	5319.9760	-0.0004511	5319.9758	-0.0004549	5319.9749	-0.0004718	5319.9760	-0.0004511
	102.0	5319.9762	-0.0004474	5319.9754	-0.0004624	5319.9752	-0.0004662	5319.9757	-0.0004568
20	138.0	5319.9821	-0.0003365	5319.9817	-0.0003440	5319.9812	-0.0003534	5319.9807	-0.0003628
	120.0	5319.9815	-0.0003477	5319.9813	-0.0003515	5319.9802	-0.0003722	5319.9810	-0.0003571
	102.0	5319.9812	-0.0003534	5319.9818	-0.0003421	5319.9805	-0.0003665	5319.9805	-0.0003665
10	138.0	5319.9748	-0.0004737	5319.9746	-0.0004774	5319.9742	-0.0004850	5319.9740	-0.0004887
	120.0	5319.9752	-0.0004662	5319.9749	-0.0004718	5319.9740	-0.0004887	5319.9737	-0.0004944
	102.0	5319.9756	-0.0004586	5319.9750	-0.0004699	5319.9747	-0.0004756	5319.9735	-0.0004981
0	138.0	5319.9834	-0.0003120	5319.9831	-0.0003177	5319.9830	-0.0003195	5319.9837	-0.0003064
	120.0	5319.9828	-0.0003233	5319.9837	-0.0003064	5319.9836	-0.0003083	5319.9841	-0.0002989
	102.0	5319.9826	-0.0003271	5319.9839	-0.0003026	5319.9840	-0.0003008	5319.9843	-0.0002951
-10	138.0	5319.9949	-0.0000959	5319.9950	-0.0000940	5319.9948	-0.0000977	5319.9947	-0.0000996
	120.0	5319.9941	-0.0001109	5319.9947	-0.0000996	5319.9951	-0.0000921	5319.9945	-0.0001034
	102.0	5319.9945	-0.0001034	5319.9945	-0.0001034	5319.9952	-0.0000902	5319.9943	-0.0001071
-20	138.0	5320.0036	0.0000677	5320.0042	0.0000789	5320.0044	0.0000827	5320.0047	0.0000883
	120.0	5320.0039	0.0000733	5320.0045	0.0000846	5320.0046	0.0000865	5320.0046	0.0000865
	102.0	5320.0043	0.0000808	5320.0047	0.0000883	5320.0050	0.0000940	5320.0043	0.0000808
-30	138.0	5320.0085	0.0001598	5320.0091	0.0001711	5320.0090	0.0001692	5320.0095	0.0001786
	120.0	5320.0087	0.0001635	5320.0093	0.0001748	5320.0094	0.0001767	5320.0094	0.0001767
	102.0	5320.0092	0.0001729	5320.0096	0.0001805	5320.0097	0.0001823	5320.0098	0.0001842



## 4.7 BAND EDGES MEASUREMENT

### 4.7.1 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2005

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

### 4.7.2 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low loss cable. Set both RBW and VBW of spectrum analyzer to 1MHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.

### 4.7.3 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

### 4.7.4 TEST RESULTS

For signals in the restricted bands above and below the 5.15 to 5.35GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was applied to the average and peak field strength of the intentional signal made on the OATS to calculate the field strength of the unintentional signals.

The spectrum plots (Peak RBW=VBW=1MHz; Average RBW=1MHz, VBW=10Hz) are attached on the following pages.

**802.11a OFDM modulation (Antenna combination 1)****Channel 1 (5180MHz)**

The band edge emission plot on page 72 shows 44.19dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 109.15dBuV/m (Peak), so the maximum field strength in restrict band is  $109.15 - 44.19 = 64.96$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on page 72 shows 48.63dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 98.21dBuV/m (Average), so the maximum field strength in restrict band is  $98.21 - 48.63 = 49.58$ dBuV/m which is under 54dBuV/m limit.

**Channel 8 (5320MHz)**

The band edge emission plot on page 74 shows 44.72dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 8 is 112.24dBuV/m (Peak), so the maximum field strength in restrict band is  $112.24 - 44.72 = 67.52$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on page 74 shows 50.51dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 8 is 101.53dBuV/m (Average), so the maximum field strength in restrict band is  $101.53 - 50.51 = 51.02$ dBuV/m which is under 54dBuV/m limit.

**802.11a OFDM modulation (Antenna combination 2)**

## Channel 1 (5180MHz)

The band edge emission plot on page 72 shows 44.19dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 105.10dBuV/m (Peak), so the maximum field strength in restrict band is  $105.10 - 44.19 = 60.91$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on page 72 shows 48.63dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 93.70dBuV/m (Average), so the maximum field strength in restrict band is  $93.70 - 48.63 = 45.07$ dBuV/m which is under 54dBuV/m limit.

## Channel 8 (5320MHz)

The band edge emission plot on page 74 shows 44.72dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 8 is 109.29dBuV/m (Peak), so the maximum field strength in restrict band is  $109.29 - 44.72 = 64.57$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on page 74 shows 50.51dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 8 is 98.56dBuV/m (Average), so the maximum field strength in restrict band is  $98.56 - 50.51 = 48.05$ dBuV/m which is under 54dBuV/m limit.

**802.11a OFDM modulation (Antenna combination 3)**

## Channel 1 (5180MHz)

The band edge emission plot on page 72 shows 44.19dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 105.36BuV/m (Peak), so the maximum field strength in restrict band is  $105.36-44.19=61.17$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on page 72 shows 48.63dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 95.37dBuV/m (Average), so the maximum field strength in restrict band is  $95.37-48.63=46.74$ dBuV/m which is under 54dBuV/m limit.

## Channel 8 (5320MHz)

The band edge emission plot on page 74 shows 44.72dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 8 is 108.66dBuV/m (Peak), so the maximum field strength in restrict band is  $108.66-44.72=63.94$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on page 74 shows 50.51dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 8 is 98.38dBuV/m (Average), so the maximum field strength in restrict band is  $98.38-50.51=47.87$ dBuV/m which is under 54dBuV/m limit.

**802.11a OFDM modulation (Antenna combination 4)**

## Channel 1 (5180MHz)

The band edge emission plot on page 72 shows 44.19dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 109.56dBuV/m (Peak), so the maximum field strength in restrict band is  $109.56-44.19=65.37$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on page 72 shows 48.63dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 99.46dBuV/m (Average), so the maximum field strength in restrict band is  $99.46-48.63=50.83$ dBuV/m which is under 54dBuV/m limit.

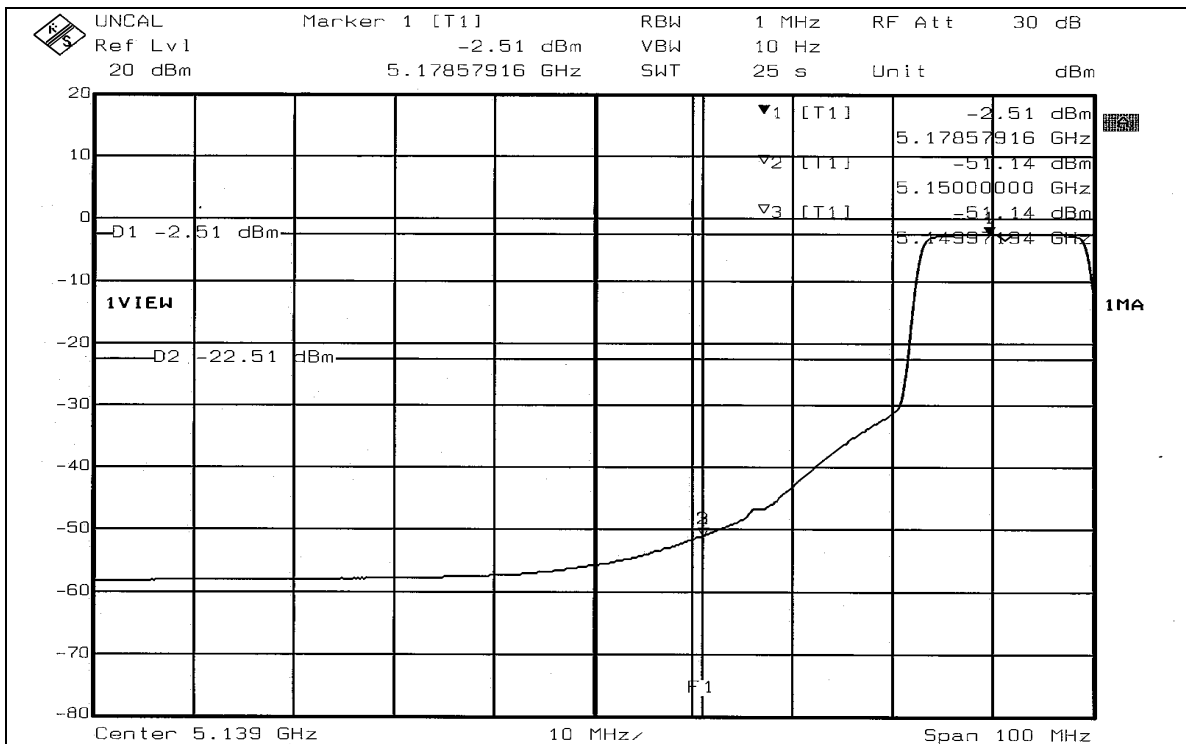
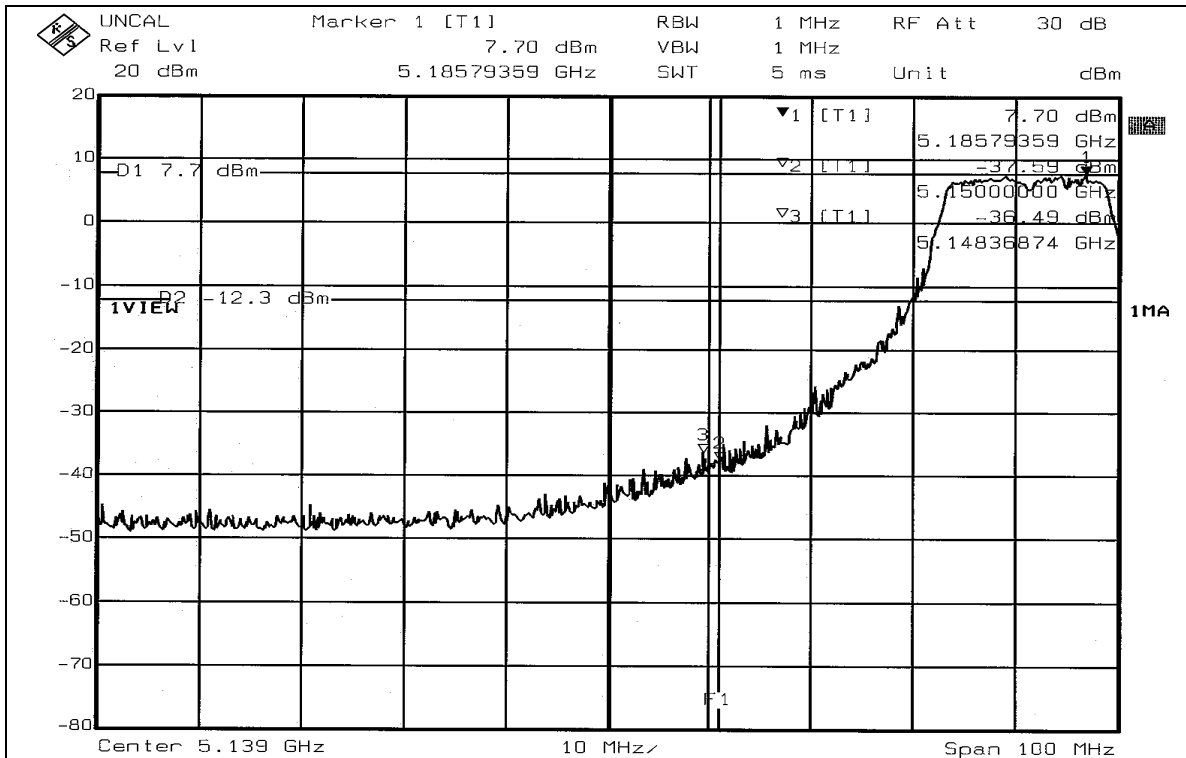
## Channel 8 (5320MHz)

The band edge emission plot on page 74 shows 44.72dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 8 is 112.20dBuV/m (Peak), so the maximum field strength in restrict band is  $112.20-44.72=67.48$ dBuV/m which is under 74dBuV/m limit.

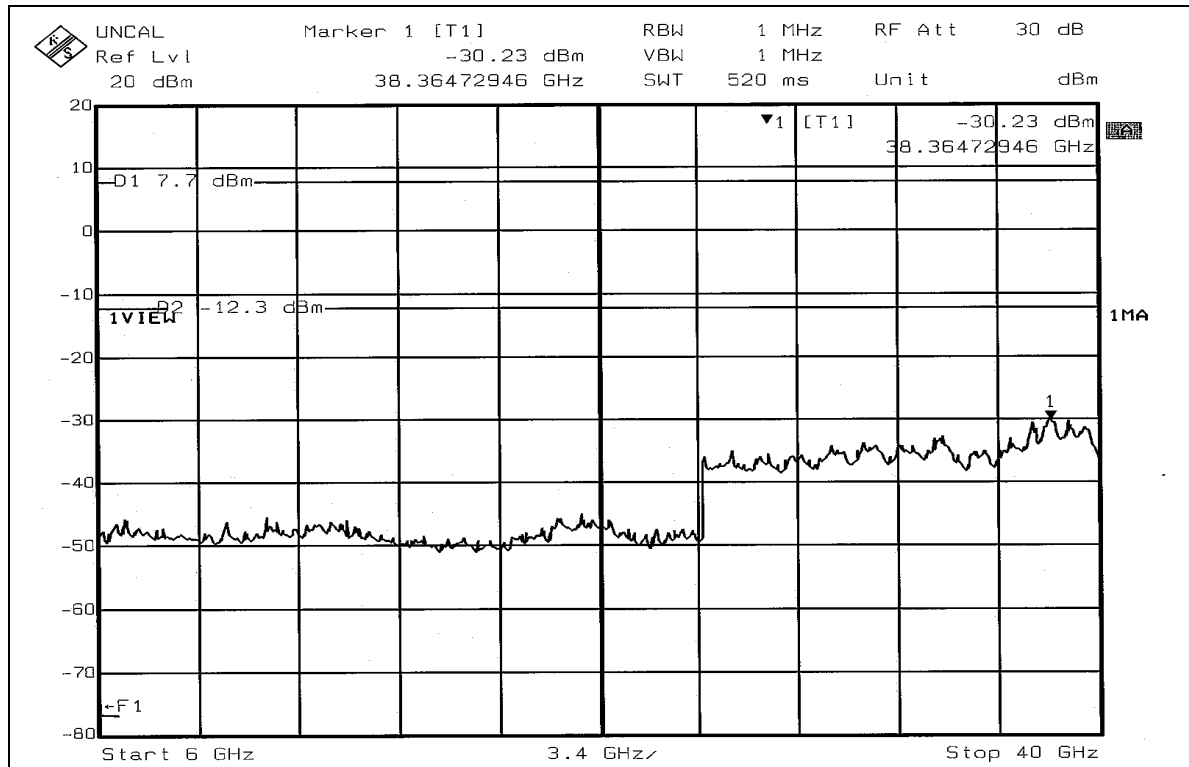
The band edge emission plot on page 74 shows 50.51dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 8 is 101.43dBuV/m (Average), so the maximum field strength in restrict band is  $101.43-50.51=51.92$ dBuV/m which is under 54dBuV/m limit.

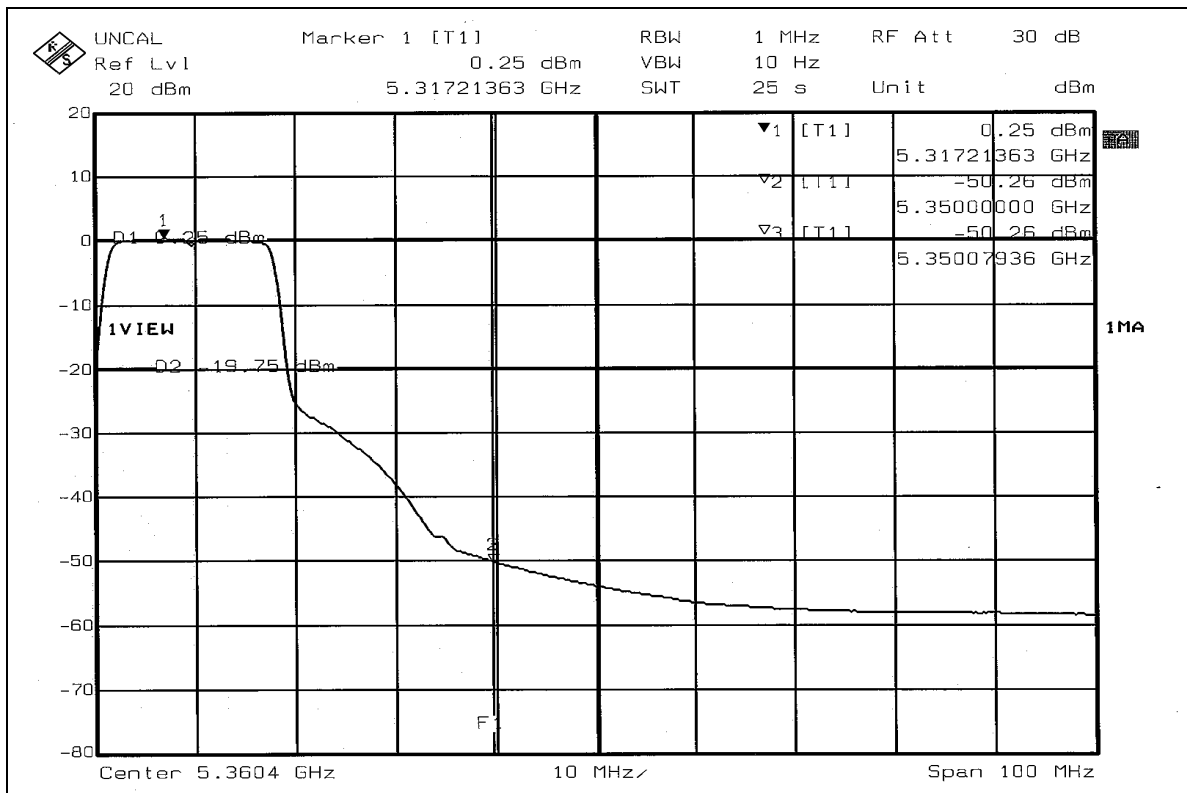
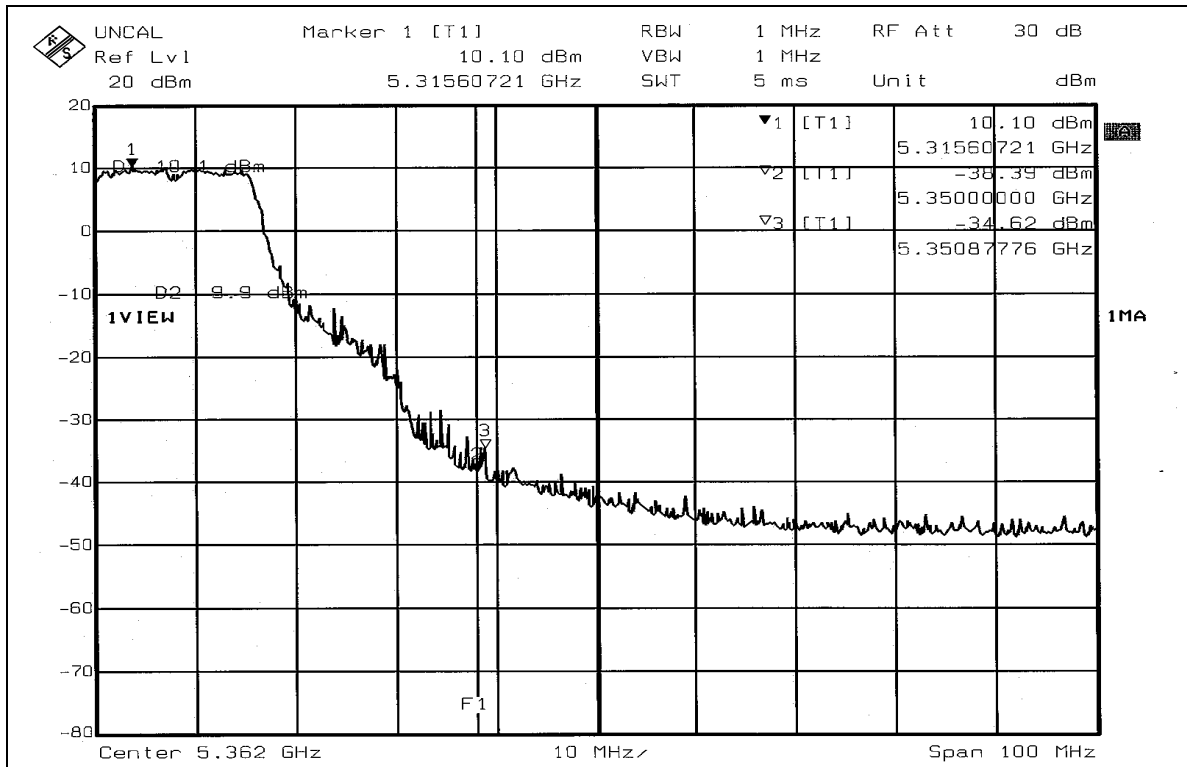


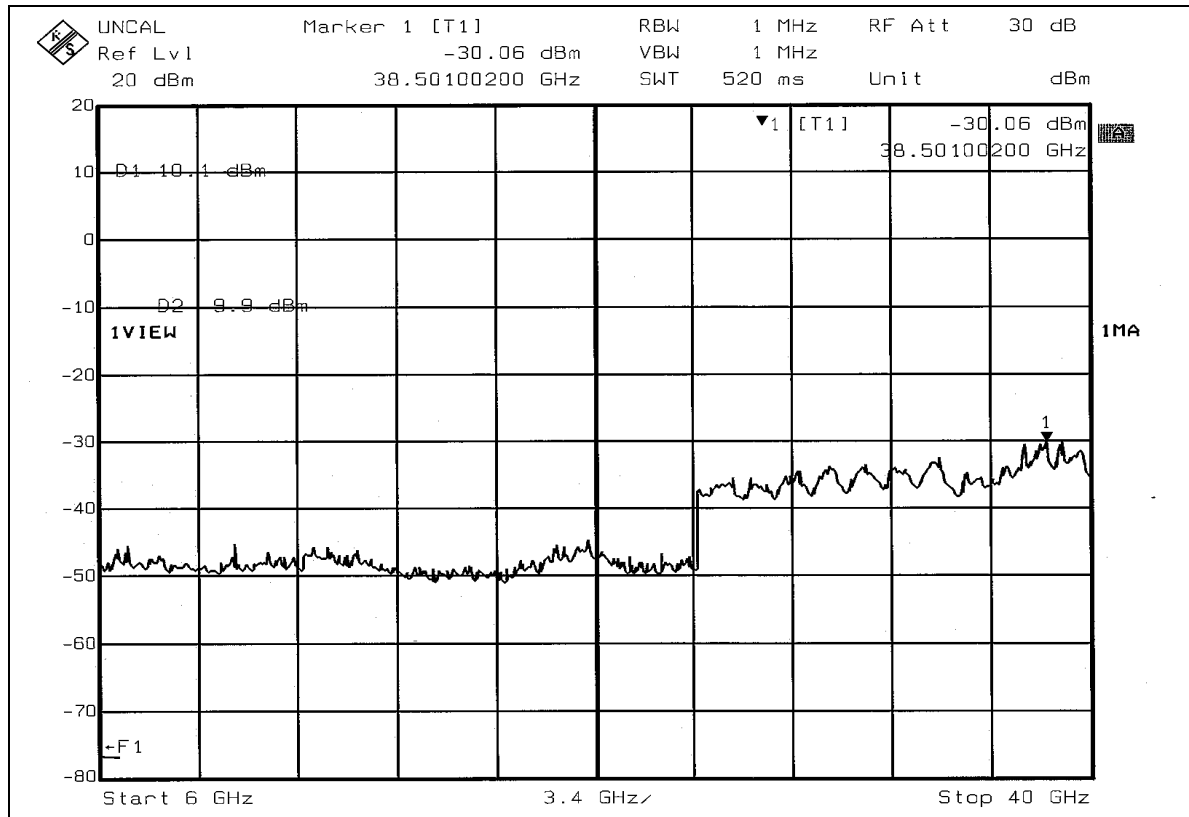
802.11a OFDM modulation













## **4.8 ANTENNA REQUIREMENT**

### **4.8.1 STANDARD APPLICABLE**

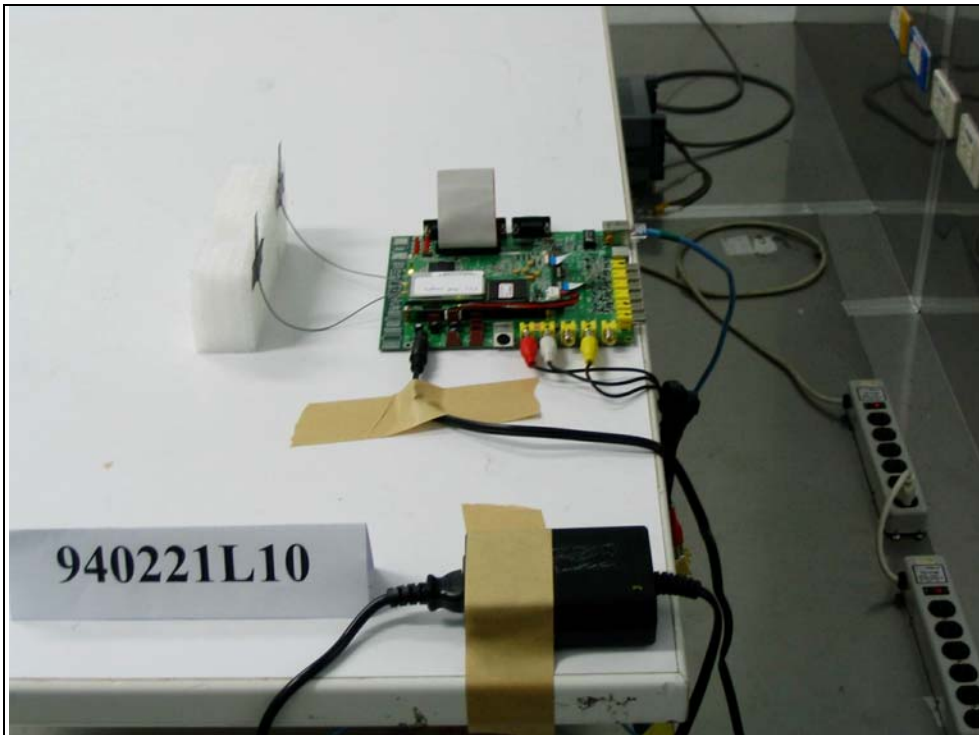
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

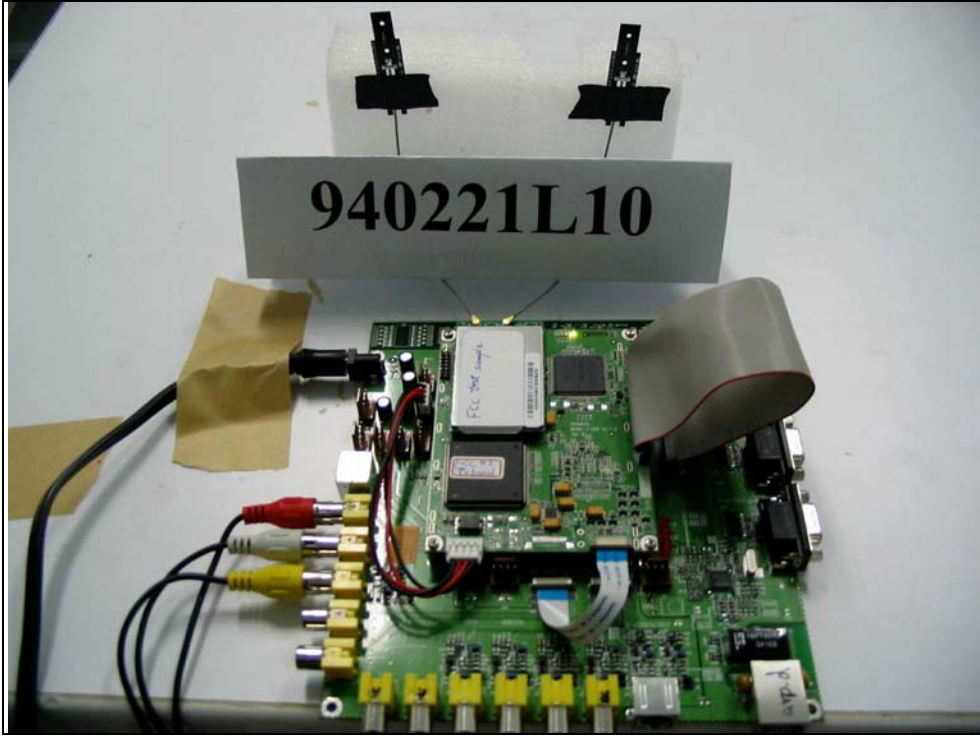
And according to FCC 47 CFR Section 15.407(a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### **4.8.2 ANTENNA CONNECTED CONSTRUCTION**

The antennas used in this product are PCB and Patch antenna with UFL connector. The maximum Gain of the antenna is 5.2dBi.

## 5. PHOTOGRAPHS OF THE TEST CONFIGURATION CONDUCTED EMISSION TEST

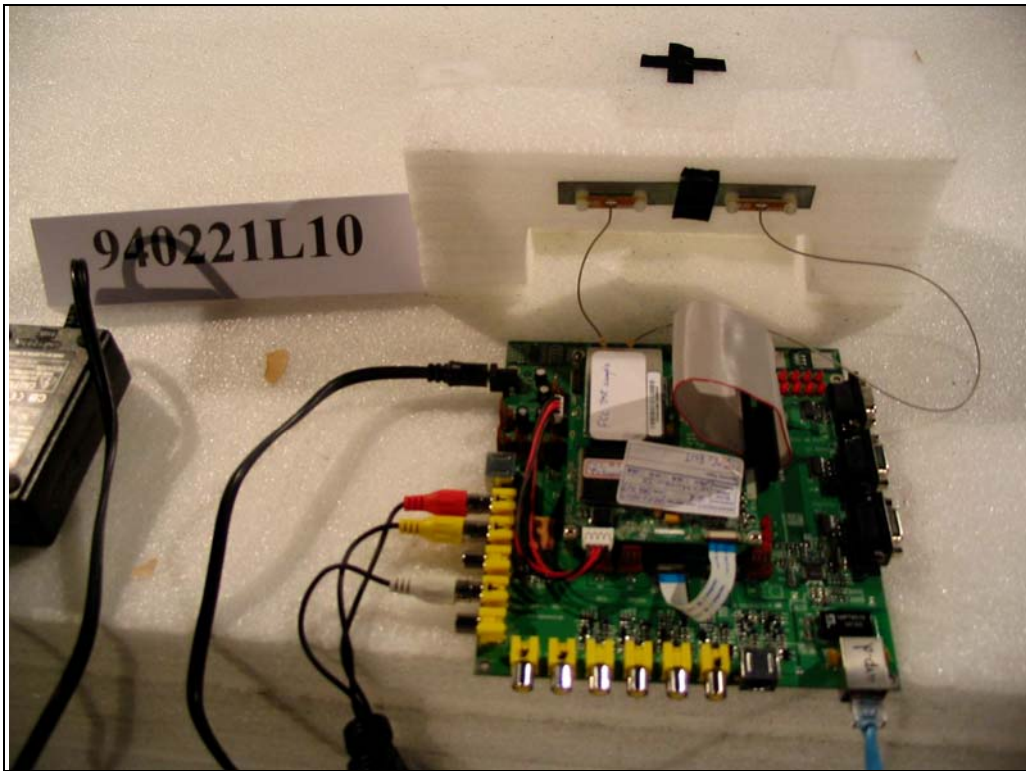




**RADIATED EMISSION TEST**  
**Test Mode 1**

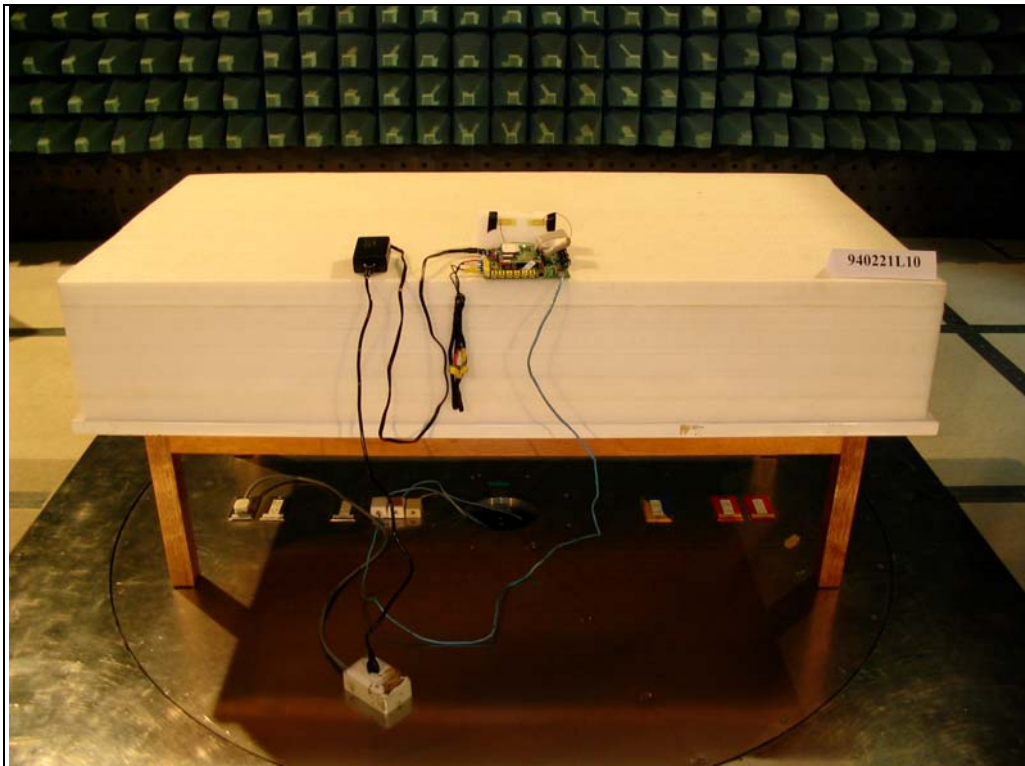


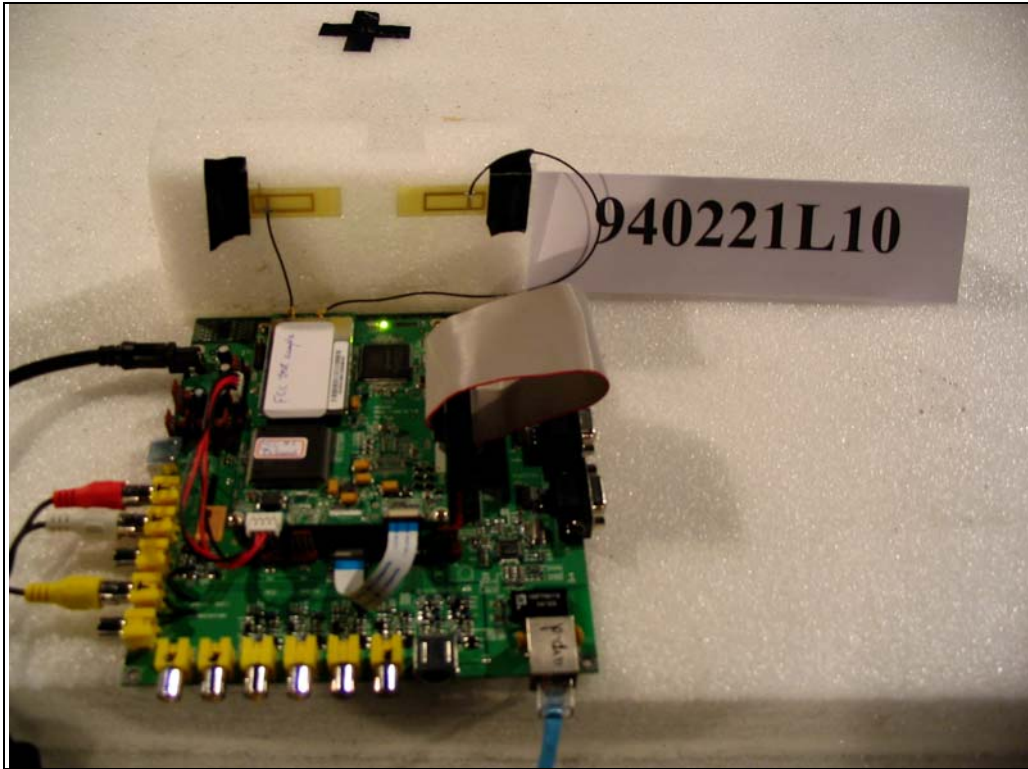




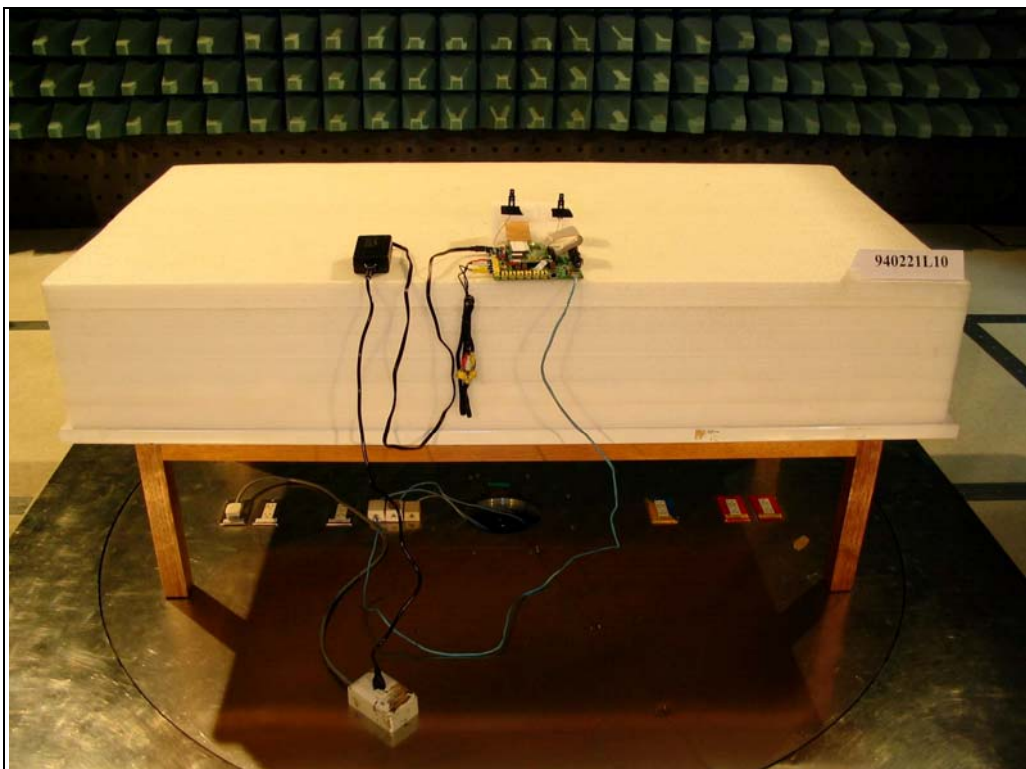


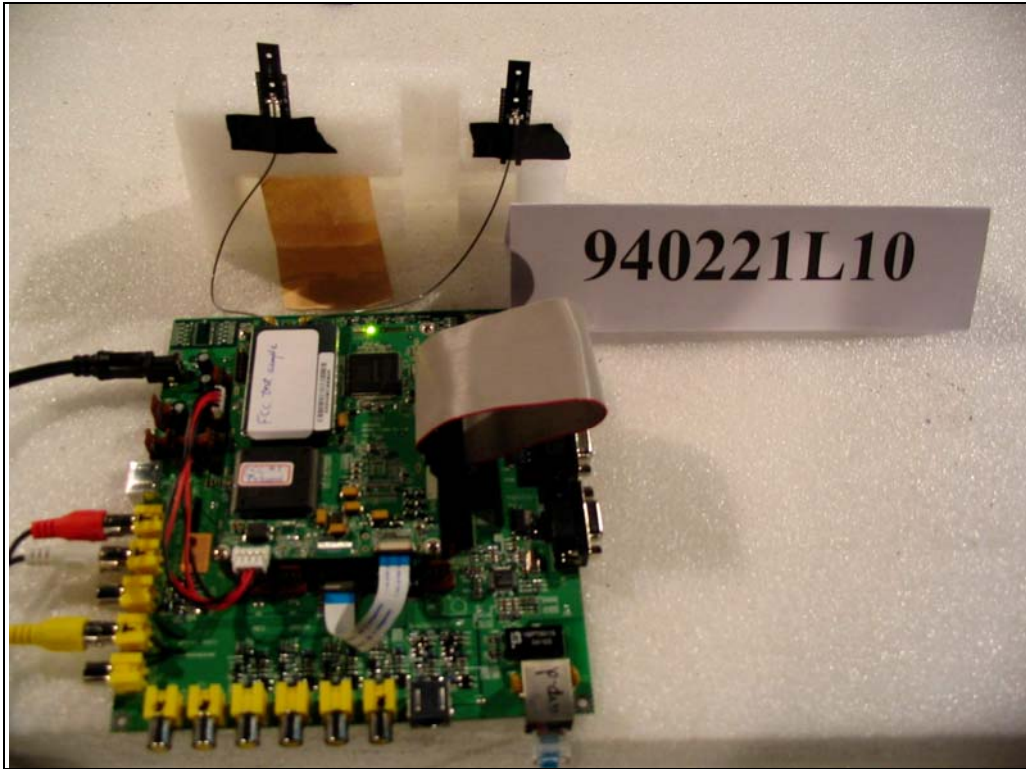
### Test Mode 2





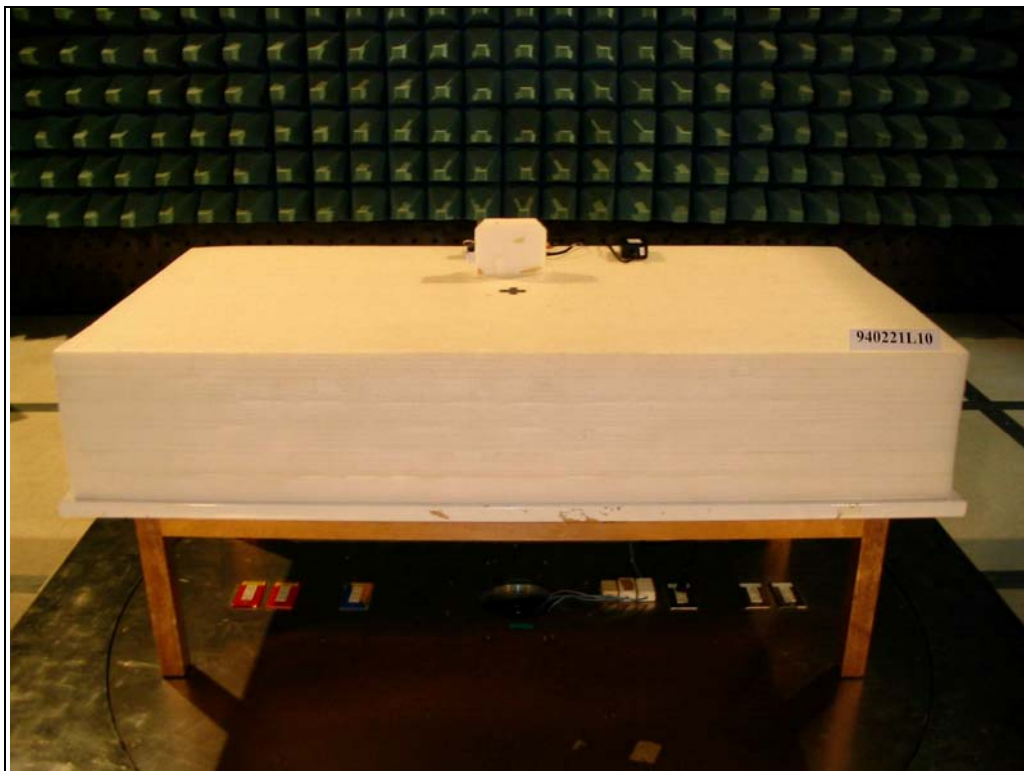
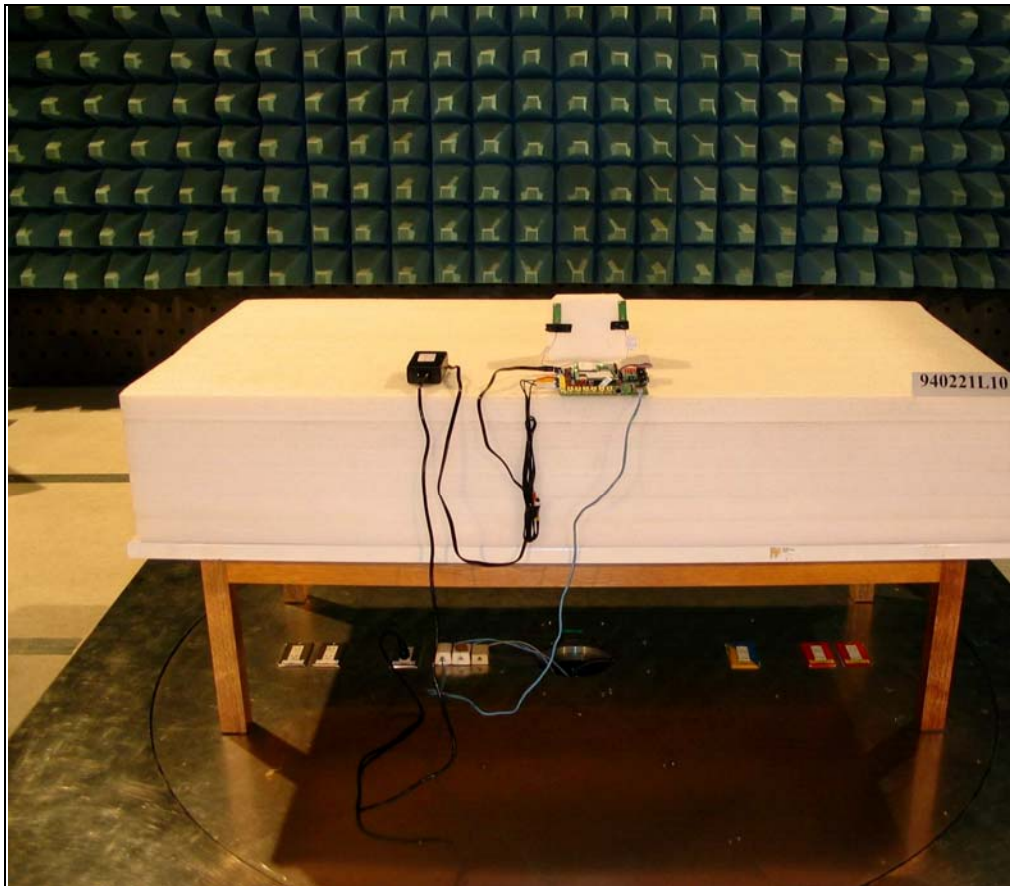
### Test Mode 3

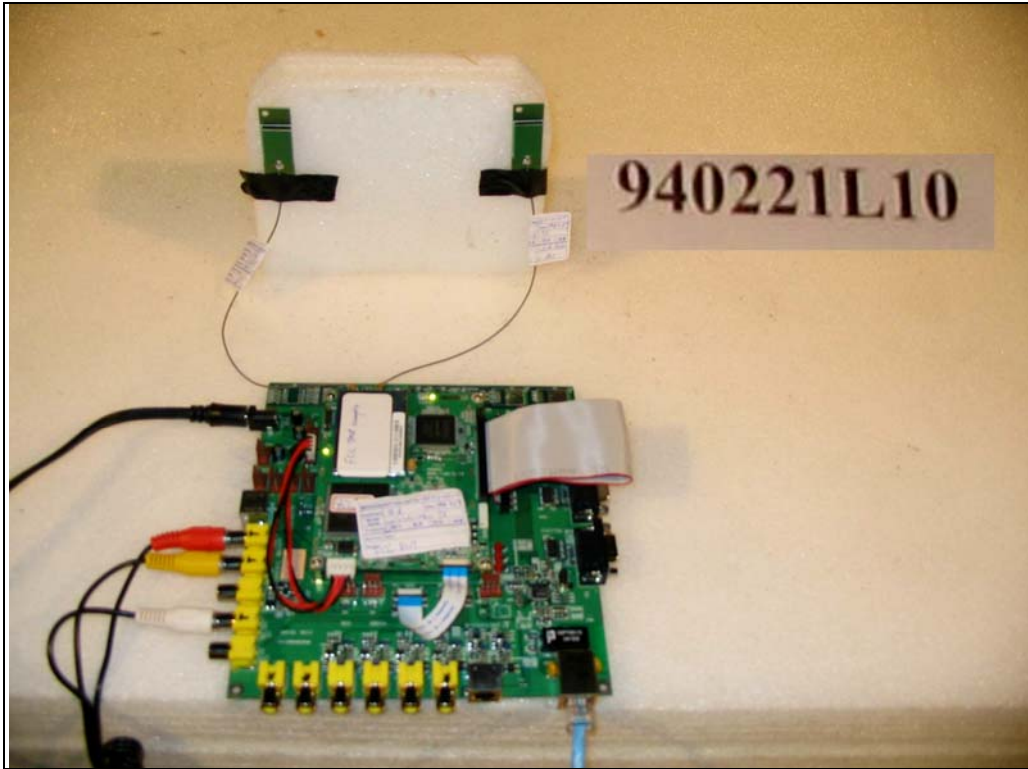






### Test Mode 4







## 6. INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025:

<b>USA</b>	FCC, NVLAP, UL, A2LA
<b>Germany</b>	TUV Rheinland
<b>Japan</b>	VCCI
<b>Norway</b>	NEMKO
<b>Canada</b>	INDUSTRY CANADA , CSA
<b>R.O.C.</b>	CNLA, BSMI, DGT
<b>Netherlands</b>	Telefication
<b>Singapore</b>	PSB , GOST-ASIA(MOU)
<b>Russia</b>	CERTIS(MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site:

[www.adt.com.tw/index.5/phtml](http://www.adt.com.tw/index.5/phtml). If you have any comments, please feel free to contact us at the following:

**Linko EMC/RF Lab:**

Tel: 886-2-26052180  
Fax: 886-2-26052943

**Hsin Chu EMC/RF Lab:**

Tel: 886-3-5935343  
Fax: 886-3-5935342

**Hwa Ya EMC/RF/Safety Telecom Lab:**

Tel: 886-3-3183232  
Fax: 886-3-3185050

**Linko RF Lab.**

Tel: 886-3-3270910  
Fax: 886-3-3270892

**Web Site:** [www.adt.com.tw](http://www.adt.com.tw)

The address and road map of all our labs can be found in our web site also