APPLICATION FOR CERTIFICATION

On Behalf of

Amtran Technology Co., Ltd.

Plasma Monitor, Plasma Display, Plasma TV

(Within Wireless Audio Module: WAT-18C-P-5E)

Model No.: VIZIO JV50Pxxxxxxxx
(x = A-Z, 0-9 or blank)

Test Model: VIZIO JV50P HDTV10A

Brand: VIZIO

FCC ID: MDZJV50P

Prepared for : Amtran Technology Co., Ltd.
17F, No.268, Lien Chen Rd., Chung Ho City,
Taipei County, Taiwan, 235 R.O.C.

Prepared by : Audix Technology Corporation
EMC Department
No. 53-11, Tin-Fu Tsun, Lin-Kou,
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File Number	:	EM960278B
Report Number	:	EM-F960103
Date of Test	:	Mar. 12, 2007
Date of Report	:	Mar. 14, 2007

TABLE OF CONTENTS

TEST REPORT CERTIFICATION

Applicant	:	Amtran Technology Co., Ltd.
Manufacturer	:	Amtran Technology Co., Ltd.
EUT Description	:	Plasma Monitor, Plasma Display, Plasma TV
		(Within Wireless Audio Module: WAT-18C-P-5E)
		(A) MODEL NO. : VIZIO JV50Pxxxxxxxx
		(x = A-Z, 0-9 or blank)
		(B) TEST MODEL : VIZIO JV50P HDTV10A
		(C) SERIAL NO. : N/A
		(D) BRAND : VIZIO
		(E) POWER SUPPLY : 100-240Vac or 110-240Vac, 50/60Hz
		(F) TEST VOLTAGE : AC 120V, 60Hz

Measurement Procedure Used:

FCC RULES AND REGULATIONS PART 15 SUBPART C, OCTOBER 2006
AND ANSI C63.4/2003

(FCC CFR 47 Part 15C, §15.205, §15.207, §15.209 and §15.247)

INDUSTRY CANADA RULES AND REGULATIONS RSS-210, NOV. 2001
(Canada RSS-210, §6.2.2 (o))

The device described above was tested by AUDIX TECHNOLOGY COPORATION to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart C limits.

The measurement results are contained in this test report and AUDIX TECHNOLOGY COPORATION is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY COPORATION.

Date of Test: Mar. 12, 2007

Prepared by: Nita Lee Mar. 20, 2007
(Nita Lee/Assistant Administrator)

Test Engineer: Ben Cheng Mar. 20, 2007
(Ben Cheng/Section Manager)

Approved & Authorized Signer : Leon Liu Mar. 20 2007
(Leon Liu/Vice President)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	:	Plasma Monitor, Plasma Display, Plasma TV (Within Wireless Audio Module: WAT-18C-P-5E) The Receiver function has been tested and the test data are documented in other report of EM-F960105.)
Model Number	:	VIZIO JV50Pxxxxxxxx (The "xxxxxxxx" are numeric 0~9 or alphabetical A~Z or blank for different market purpose.) The Model VIZIO JV50P HDTV10A is representative selected to test in this report.
FCC ID	:	MDZJV50P
Brand	:	VIZIO
Applicant	:	Amtran Technology Co., Ltd. 17F, No.268, Lien Chen Rd., Chung Ho City, Taipei County, Taiwan, 235 R.O.C.
Manufacturer	:	Amtran Technology Co., Ltd. 17F, No.268, Lien Chen Rd., Chung Ho City, Taipei County, Taiwan, 235 R.O.C.
Fundamental Range	:	5745MHz ~ 5805MHz
Channel Number	:	4 5745MHz, 5765MHz, 5785MHz, 5805MHz
Radio Technology	:	DSSS Modulation
Antenna Gain	:	4.5dBi
PC Max Resolution.	:	1366*768
HDMI Resolution	:	480i, 480p, 720p, 1080i
PDP Module	:	LG, M/N PDP50X4####, (PDP50X4T000)
Tuner	:	SAMSUNG, M/N DTVS205CH201A

Remote Controller	:	VIZIO
Wireless Audio Module	:	WAT-18C-P-5E
AC Power Cord	:	Non-Shielded, Detachable, 1.8m (3-Pin)
Date of Receipt of Sample	:	Mar. 01, 2007
Date of Test	:	Mar. 12, 2007

The EUT is a Plasma Monitor, Plasma Display, Plasma TV which input/output ports as follows:
(1) RF (DTV & ATV) Input
(2) AV 1 [Audio (L/R), Video] Inputs
(3) AV 2 [Audio (L/R), Video] Inputs
(4) Component 1 [Y, Pb/Cb, Pr/Cr, Audio (L/R)] Inputs
(5) Component 2 [Y, Pb/Cb, Pr/Cr, Audio (L/R)] Inputs
(6) RGB PC [RGB PC] Input
(7) RGB PC [Audio] Input
(8) HDMI [HDMI 1, HDMI 2, HDMI 3] Inputs
(9) HDMI [Audio (L/R)] Inputs
(10) Audio In [Optical] Input
(11) Service 1
(12) Audio Out [Optical] Output
(13) Audio Out [Analog (L/R)] Outputs
(14) AC In
(15) Earphone Jack

1.2. Tested Supporting System Details

1.2.1. DVD PLAYER (TO EUT)

Model Number	:	DV-S6D
Serial Number	:	TLKR003935TA
Manufacturer	:	Pioneer
A/V Cable	:	Non-Shielded, Detachable, 1.8m
Power Cord	:	Non-Shielded, Detachable, 2.0m

1.3.Description of Test Facility

Name of Firm : **Audix Technology Corporation**
EMC Department
No. 53-11, Tin-Fu Tsun, Lin-Kou,
Taipei County, Taiwan, R.O.C.

Test Location & Facility (C2/Semi-AC) : **No. 2 Shielded Room**
No. 53-11, Tin-Fu Tsun, Lin-Kou,
Taipei County, Taiwan, R.O.C.

Semi-Anechoic Chamber
Federal Communication Commission
Registration Number: 90993
Filing on May 16, 2006
No. 53-11, Tin-Fu Tsun, Lin-Kou,
Taipei County, Taiwan, R.O.C.

NVLAP Lab. Code : 200077-0
(NVLAP is a NATA accredited body under Mutual Recognition Agreement)

1.4.Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)
Conduction Test	150kHz~30MHz	±1.73dB
Radiation Test (Distance: 3m)	30MHz~300MHz	±2.91dB
	300MHz~1000MHz	±2.94dB
	Above 1GHz	± 5.02dB

Remark **:** Uncertainty = $ku_c(y)$

Test Item	Uncertainty
6dB Bandwidth	± 1kHz
Maximum peak Output power	± 0.52dBm
Emission Limitations	± 0.13dB
Band Edges	± 0.13dB
Power spectral Density	± 0.33dB

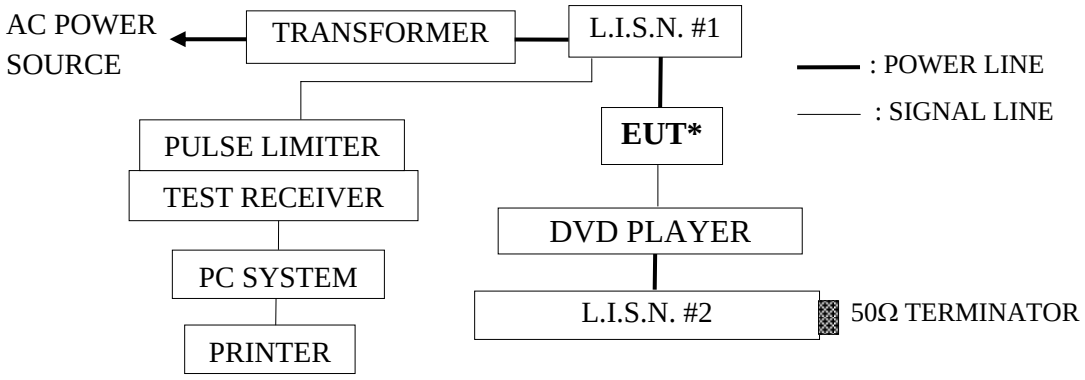
2. POWERLINE CONDUCTED EMISSION MEASUREMENT

2.1. Test Equipment

The following test equipment were used during the power line conducted measurement**:** (No. 2 Shielded Room)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	Rohde & Schwarz	ESCS 30	100265	Sep. 19, 06’	Sep. 18, 07’
2.	L.I.S.N. #1	Kyoritsu	KNW-407	8-855-9	Apr. 19, 06’	Apr. 18, 07’
3.	L.I.S.N. #2	Kyoritsu	KNW-407	8-855-10	Apr. 19, 06’	Apr. 18, 07’
4.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	001	Mar. 11, 06’	Mar. 10, 07’

2.2. Block Diagram of Test Setup



EUT*: Plasma Monitor, Plasma Display, Plasma TV

2.3.Conducted Emission Limits (§15.207)

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dBμV	56 ~ 46 dBμV
500kHz ~ 5MHz	56 dBμV	46 dBμV
5MHz ~ 30MHz	60 dBμV	50 dBμV

Remark1.: If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.

2.: The lower limit applies at the band edges.

2.4. Operating Condition of EUT

2.4.1. Setup the EUT and simulator as shown on 2.2.

2.4.2. Turn on the power of all equipment.

2.4.3. DVD player sent sound and image signal to the Plasma Monitor, Plasma Display, Plasma TV (EUT).

2.4.4. The Plasma Monitor, Plasma Display, Plasma TV (EUT) by way of wireless audio module: WAT-18C-P-5E sent audio signal to the speaker during all testing.

2.4.5. To adjust channel by the power button switching.

2.5. Test Procedure

The EUT was put on table which was above the ground by 80cm and its power cord was connected to the power mains through a line impedance stabilization network (L.I.S.N. #1) and the other peripheral devices power cord were connected to the power mains through a line impedance stabilization network (L.I.S.N. #2) This provided a 50 ohm coupling impedance for the measuring equipment. (Please refer to the block diagram of the test setup and photographs.) Both sides of A.C. line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions simulators of the interface cables should be manipulated according to FCC ANSI C63.4-2003 during conducted measurement.

The bandwidth of the R&S Test Receiver ESCS30 was set at 9kHz.

The frequency range from 150kHz to 30MHz was checked.

All the final readings from Test Receiver were measured with the Quasi-Peak detector and Average detector. (Remark: If the Average limit is met when using a Quasi-Peak detector, the Average detector is unnecessary)

2.6.Conducted Emission Measurement Results

PASSED. (All the emissions not reported below are too low against the prescribed limits.)

The EUT was measured during this section testing and all the test results are listed in next pages.

EUT：Plasma Monitor, Plasma Display, Plasma TV
M/N：VIZIO JV50P HDTV10A

Test Date：Mar. 12, 2007 Temperature：20℃ Humidity：57%

Reference Test Data No.	
Neutral	Line
# 2	# 1

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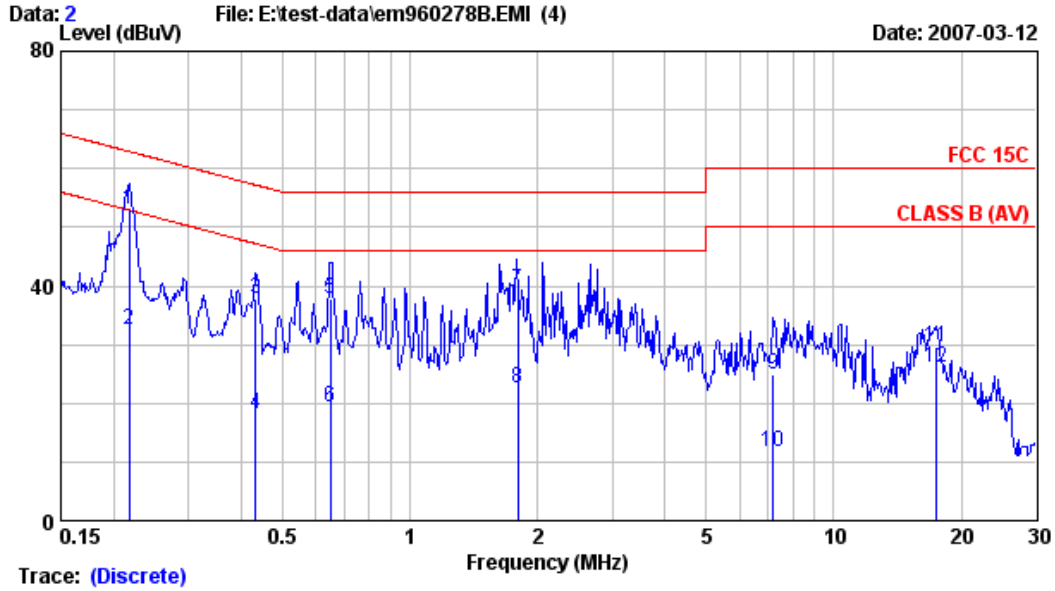

Site : No.2 Shielded room Data : 2
Condition : KNW-407 Phase : NEUTRAL
Limit : FCC 15C
Env. / Ins. : 20*C,57% / ESCS 30 Engineer: Ada Huang
EUT : Plasma TV M/N: VIZIO JV50P HDTV10A
Power Rating : 120Vac/60Hz
Test Mode : TX5765

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.217	0.19	0.27	52.63	53.08	62.93	9.85	QP
2	0.217	0.19	0.27	31.94	32.39	52.93	20.54	AVERAGE
3	0.433	0.10	0.33	37.35	37.78	57.20	19.43	QP
4	0.433	0.10	0.33	17.67	18.10	47.20	29.11	AVERAGE
5	0.648	0.10	0.36	37.32	37.78	56.00	18.22	QP
6	0.648	0.10	0.36	18.91	19.37	46.00	26.63	AVERAGE
7	1.799	0.10	0.40	38.70	39.20	56.00	16.80	QP
8	1.799	0.10	0.40	22.06	22.56	46.00	23.44	AVERAGE
9	7.206	0.10	0.59	24.11	24.80	60.00	35.20	QP
10	7.206	0.10	0.59	11.08	11.77	50.00	38.23	AVERAGE
11	17.381	0.25	0.70	28.59	29.54	60.00	30.46	QP
12	17.381	0.25	0.70	25.07	26.02	50.00	23.98	AVERAGE

Remarks: 1.Emission Level= LISN Factor + Cable Loss + Reading.
2.If the average limit is met when using a quasi-peak detector ,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

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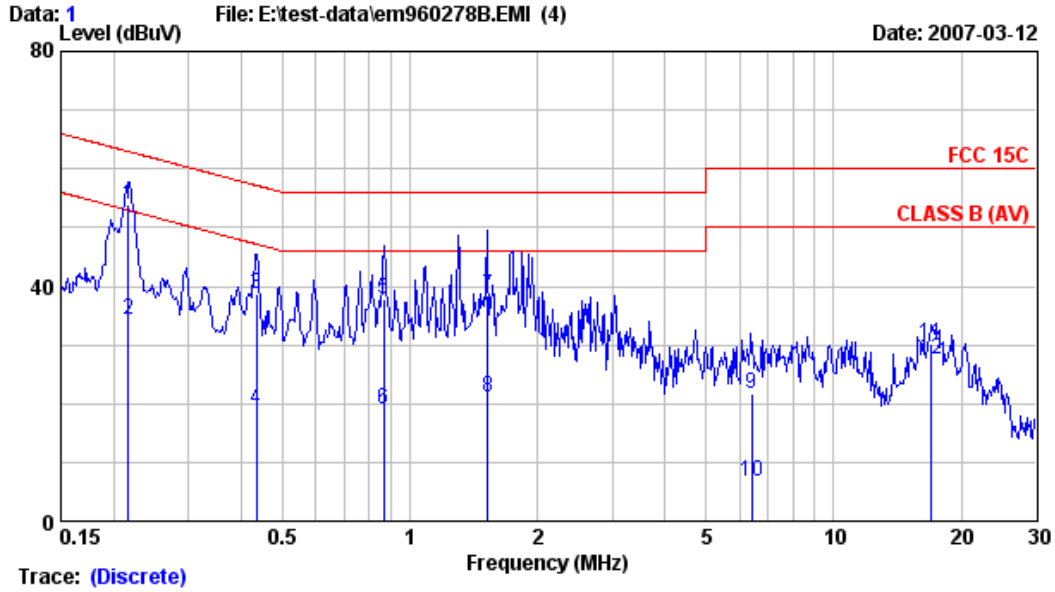


Site : No.2 Shielded room Data : 1
Condition : KNW-407 Phase : LINE
Limit : FCC 15C
Env. / Ins. : 20*C,57% / ESCS 30 Engineer: Ada Huang
EUT : Plasma TV M/N: VIZIO JV50P HDTV10A
Power Rating : 120Vac/60Hz
Test Mode : TX5765

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.216	0.19	0.27	53.44	53.90	62.97	9.08	QP
2	0.216	0.19	0.27	33.77	34.23	52.97	18.75	AVERAGE
3	0.435	0.10	0.33	38.24	38.67	57.15	18.49	QP
4	0.435	0.10	0.33	18.59	19.02	47.15	28.14	AVERAGE
5	0.866	0.10	0.39	37.42	37.91	56.00	18.09	QP
6	0.866	0.10	0.39	18.65	19.14	46.00	26.86	AVERAGE
7	1.523	0.10	0.40	37.86	38.36	56.00	17.64	QP
8	1.523	0.10	0.40	20.68	21.18	46.00	24.82	AVERAGE
9	6.395	0.15	0.55	21.03	21.73	60.00	38.27	QP
10	6.395	0.15	0.55	5.92	6.62	50.00	43.38	AVERAGE
11	17.040	0.24	0.70	29.18	30.12	60.00	29.88	QP
12	17.040	0.24	0.70	26.68	27.62	50.00	22.38	AVERAGE

Remarks: 1.Emission Level= LISN Factor + Cable Loss + Reading.
2.If the average limit is met when using a quasi-peak detector ,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

The following test equipment was used during the radiated emission measurement:

3.1.1. For Frequency Range 30MHz-1000MHz (Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Aug. 23, 06'	Aug. 22, 07'
2.	Test Receiver	R & S	ESCS30	100339	Mar. 21, 06'	Mar. 20, 07'
3.	Pre-Amplifier	HP	8447D	2944A06669	Jul. 26, 06'	Jul. 25, 07'
4.	Biconical Antenna	CHASE	VBA6106A	1264	Apr. 19, 06'	Apr. 18, 07'
5.	Log Periodic Antenna	Schwarzbeck	UHALP9108-A	0139	Apr. 19, 06'	Apr. 18, 07'
6.	Universal Radio Communication Tester	R&S	CMU200	102280	Dec. 26, 06'	Dec. 25, 07'

3.1.2. For Frequency Above 1GHz (Semi-Anechoic Chamber)

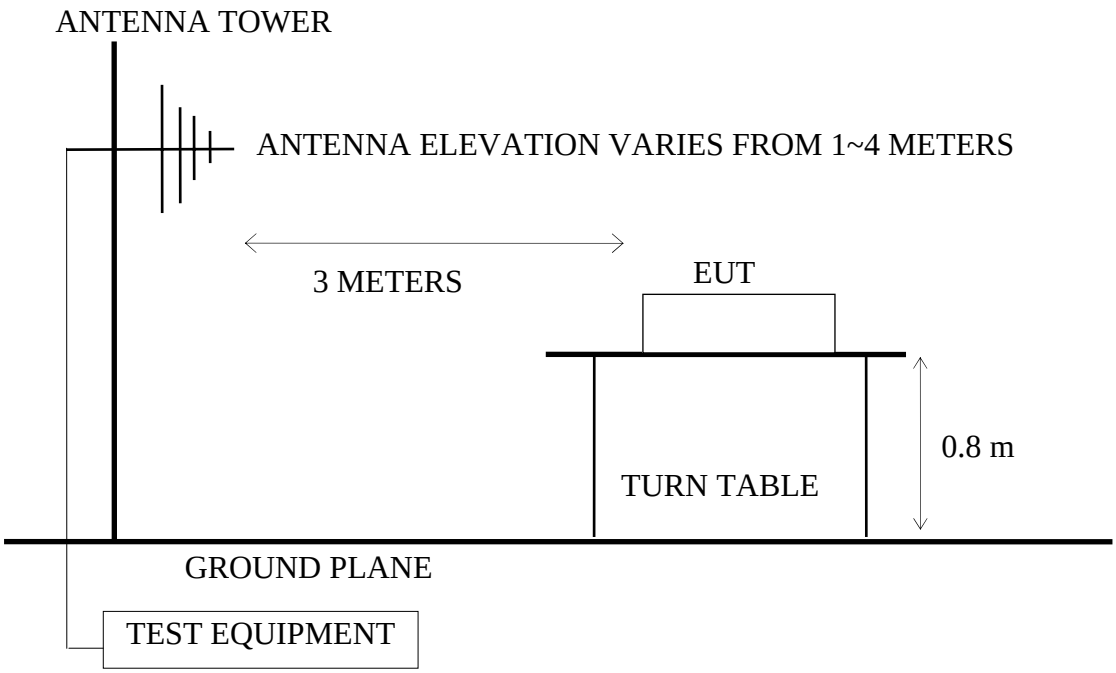
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Aug. 23, 06'	Aug. 22, 07'
2.	Pre-Amplifier	HP	8449B	3008A01284	Jun. 30, 06'	Jun. 29, 07'
3.	3.5G High Pass Filter	HP	84300-80038	005	Jan. 11, 07'	Jan. 10, 08'
4.	Horn Antenna	EMCO	3115	9112-3775	Jun. 01, 06'	May 31, 07'
5.	Horn Antenna	EMCO	3116	2653	Oct. 04, 04'	Oct. 03, 07'
6.	Universal Radio Communication Tester	R&S	CMU200	102280	Dec. 26, 06'	Dec. 25, 07'

3.2. Block Diagram of Test Setup

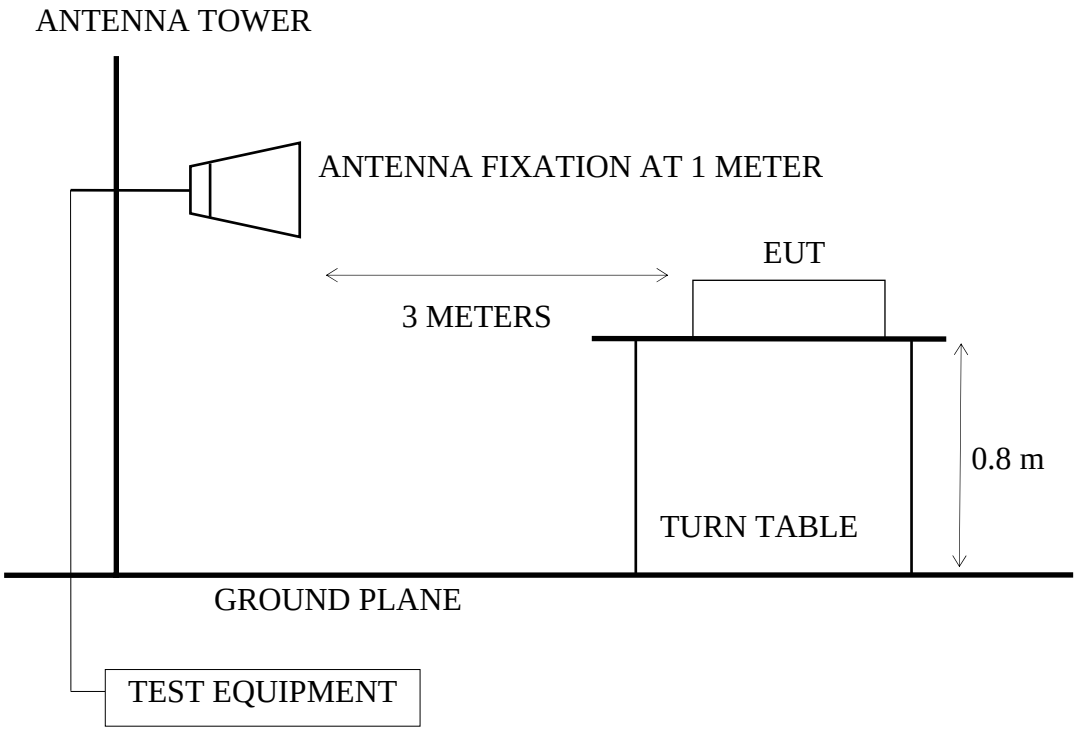
3.2.1. Block Diagram of connection between EUT and simulators

EUT*: Plasma Monitor, Plasma Display, Plasma TV

3.2.2. Semi-Anechoic Chamber (3m) Setup Diagram for 30-1000MHz



3.2.3. Semi-Anechoic Chamber (3m) Setup Diagram for above 1GHz



3.3.Radiated Emission Limits (§15.209)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMITS	
		μV/m	dBμV/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0
Above 1000	3	74.0 dBμV/m (Peak) 54.0 dBμV/m (Average)	

Remark：(1) Emission level (dBμV/m) = 20 log Emission level (μV/m)

(2) The tighter limit applies at the edge between two frequency bands.

(3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

(4) The limits in this table are based on CFR 47 Part 15.205(a)(b) and Part 15.209 (a).

(5) The over 1GHz limit, FCC limit is used based on CFR 47 Part 15.35 (b) and Part 15.205(b) & Part 15.209(e) and Part 15.207(c).

3.4.Operating Condition of EUT

Same as powerline conducted emission measurement which was listed in 2.4. except the test set up replaced by section 3.2.

3.5.Test Procedure

The EUT and its simulators were placed on a turn table which was 0.8 meter above the ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set to 3 meters away from the receiving antenna which was mounted on an antenna tower. The antenna moved up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna such as calibrated biconical and log-periodical antenna or horn antenna were used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to FCC ANSI C63.4-2003 regulation.

The bandwidth of the R&S Test Receiver ESCS30 was set at 120kHz. (For 30MHz to 1000MHz)

The resolution bandwidth and video bandwidth of test spectrum analyzer is 1MHz for peak detection (PK) at frequency above 1GHz.

The resolution bandwidth of test spectrum analyzer is 1MHz and the video bandwidth is 10Hz for average detection (AV) at frequency above 1GHz.

The frequency range from 30MHz to 40GHz (Up to 10^{th} harmonics from fundamental frequency) was checked.

3.6. Radiated Emission Measurement Results

PASSED. (All the emissions not reported below are too low against the official limits.)

EUT：Plasma Monitor, Plasma Display, Plasma TV
M/N：VIZIO JV50P HDTV10A

For Frequency Range 30MHz-1000MHz:

Test Date：Mar. 12, 2007 Temperature：20℃ Humidity：57%

The EUT with following test modes was measured during this section testing and all the test results are listed in section 3.6.1.

No.	Channel	Frequency	Reference Test Data No.	
			Horizontal	Vertical
1.	Low	5745MHz	#10	# 9
2.	Middle	5765MHz	# 9	# 10
3.	High	5805MHz	# 10	# 9

* Above all final readings were measured with Quasi-Peak detector.

For Frequency Range Above 1GHz:

Test Date：Mar. 12, 2007 Temperature：20℃ Humidity：57%

The EUT with following test modes was measured during this section testing and all the test results are listed in section 3.6.2.

No.	Channel	Frequency
1.	Low	5745MHz
2.	Middle	5765MHz
3.	High	5805MHz

* Above all final readings were measured with Peak detector and Average detector.

For Restricted Bands:

Test Date：Mar. 12, 2007 Temperature：20℃ Humidity：57%

The EUT with following test modes was measured during this section testing and all the test results are listed in section 3.6.3. (The restricted bands defined in part 15.205(a))

No.	Channel	Frequency
1.	Low	5745MHz

3.6.1. Frequency Range 30MHz-1000MHz Measurement Result

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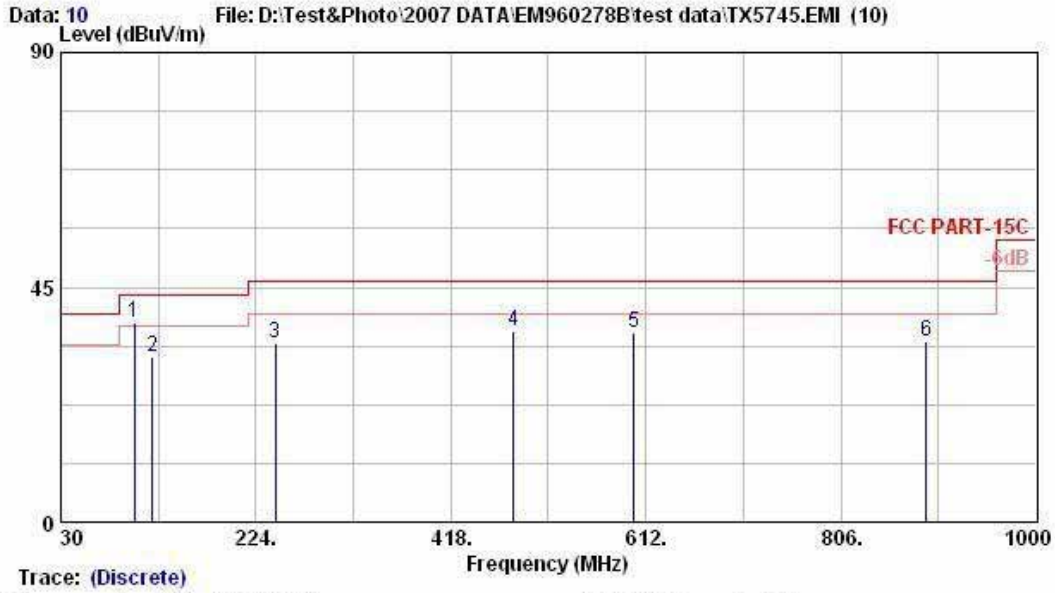

Site no. : A/C Chamber Data no. : 10
Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : HORIZONTAL
Limit : FCC PART-15C
Env. / Ins. : 8593EM 18*C/63% Engineer : Alvin_Yang
EUT : Plasma TV M/N:VIZIO JV50P
Power Rating : 120Vac/60Hz
Test Mode : TX5745

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Remark
1	102.750	17.40	2.10	18.90	38.40	43.50	5.10	
2	121.000	19.15	2.30	10.14	31.60	43.50	11.90	
3	243.000	23.29	3.40	7.50	34.19	46.00	11.81	
4	480.080	18.68	6.05	11.89	36.62	46.00	9.38	
5	600.360	21.31	6.30	8.79	36.40	46.00	9.60	
6	891.360	25.06	7.30	2.27	34.63	46.00	11.37	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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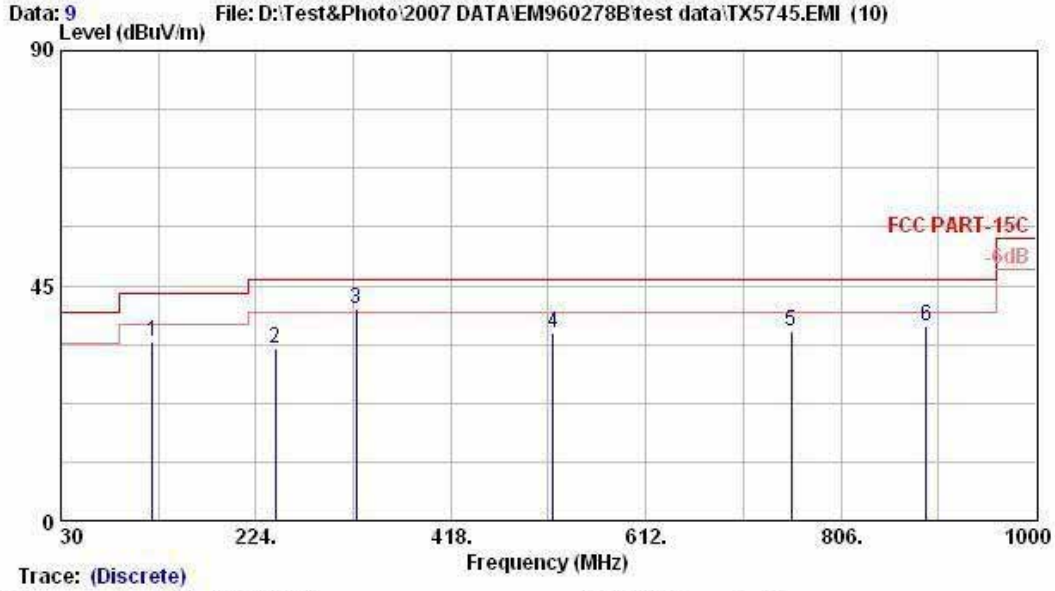

Site no. : A/C Chamber Data no. : 9
Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : VERTICAL
Limit : FCC PART-15C
Env. / Ins. : 8593EM 18*C/63% Engineer : Alvin_Yang
EUT : Plasma TV M/N:VIZIO JV50P
Power Rating : 120Vac/60Hz
Test Mode : TX5745

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Remark
1	121.500	19.15	2.30	12.73	34.18	43.50	9.32	
2	243.000	23.29	3.40	6.28	32.97	46.00	13.03	
3	323.910	15.10	4.14	21.32	40.56	46.00	5.44	
4	519.850	19.99	6.90	8.93	35.82	46.00	10.18	
5	756.530	23.59	6.73	6.02	36.34	46.00	9.66	
6	891.360	25.06	7.30	4.82	37.18	46.00	8.82	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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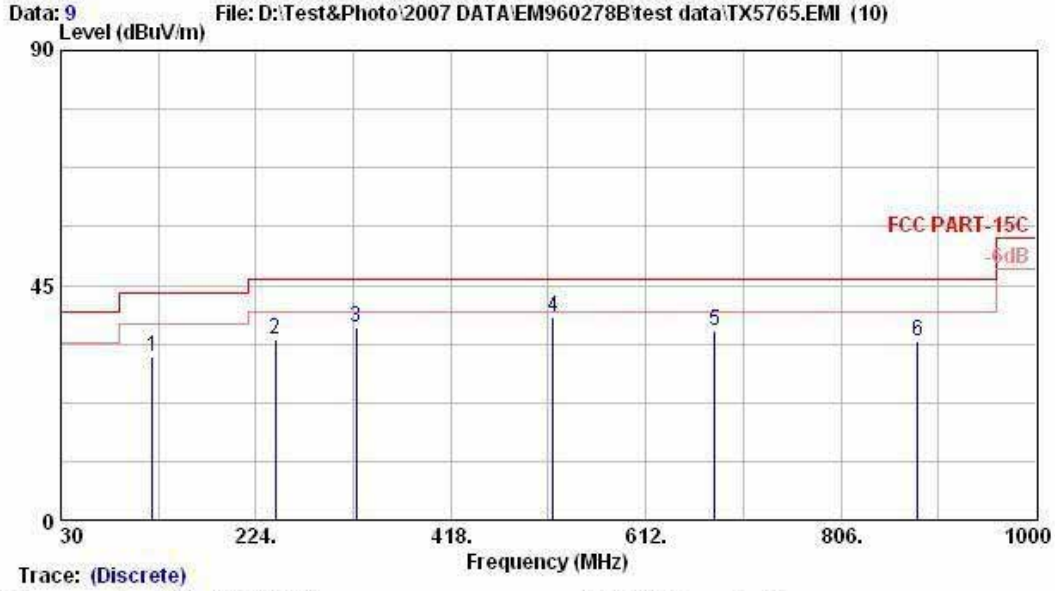

Site no. : A/C Chamber Data no. : 9
Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : HORIZONTAL
Limit : FCC PART-15C
Env. / Ins. : 8593EM 18*C/63% Engineer : Alvin_Yang
EUT : Plasma TV M/N:VIZIO JV50P
Power Rating : 120Vac/60Hz
Test Mode : TX5765

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Remark
1	121.500	19.15	2.30	9.94	31.39	43.50	12.11	
2	243.000	23.29	3.40	7.98	34.67	46.00	11.33	
3	323.910	15.10	4.14	17.67	36.91	46.00	9.09	
4	519.850	19.99	6.90	11.88	38.77	46.00	7.23	
5	680.870	22.99	6.47	6.69	36.14	46.00	9.86	
6	882.630	25.28	7.30	1.75	34.33	46.00	11.67	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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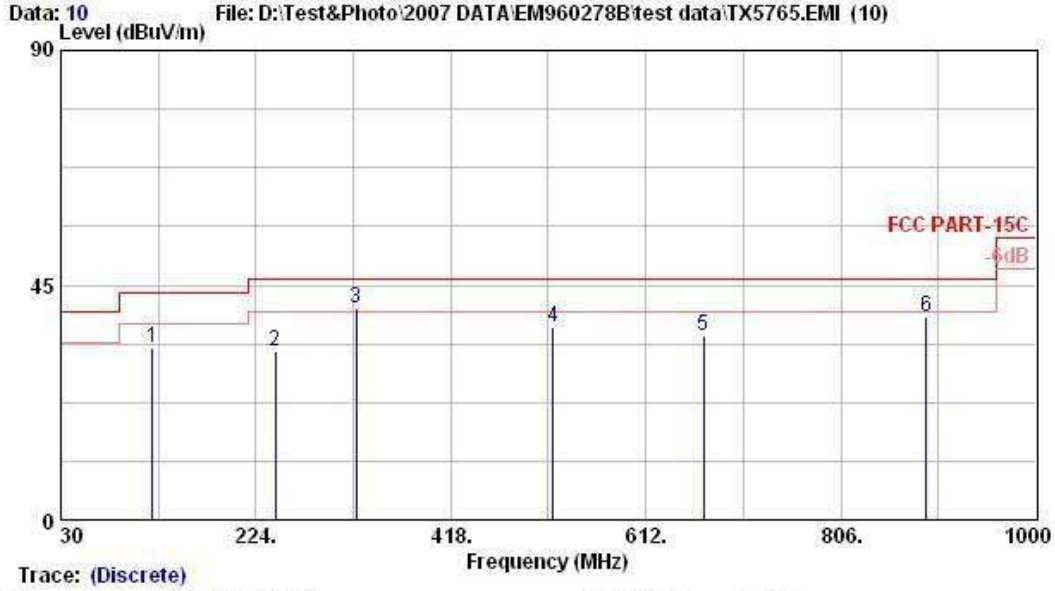
Email:ttemc@ttemc.com.tw



Site no. : A/C Chamber Data no. : 10
Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : VERTICAL
Limit : FCC PART-15C
Env. / Ins. : 8593EM 18*C/63% Engineer : Alvin_Yang
EUT : Plasma TV M/N:VIZIO JV50P
Power Rating : 120Vac/60Hz
Test Mode : TX5765

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Remark
1	121.500	19.15	2.30	11.43	32.88	43.50	10.62	
2	243.000	23.29	3.40	5.59	32.28	46.00	13.72	
3	323.910	15.10	4.14	21.17	40.41	46.00	5.59	
4	519.850	19.99	6.90	10.18	37.07	46.00	8.93	
5	669.230	22.82	6.40	5.99	35.21	46.00	10.79	
6	891.360	25.06	7.30	6.50	38.86	46.00	7.14	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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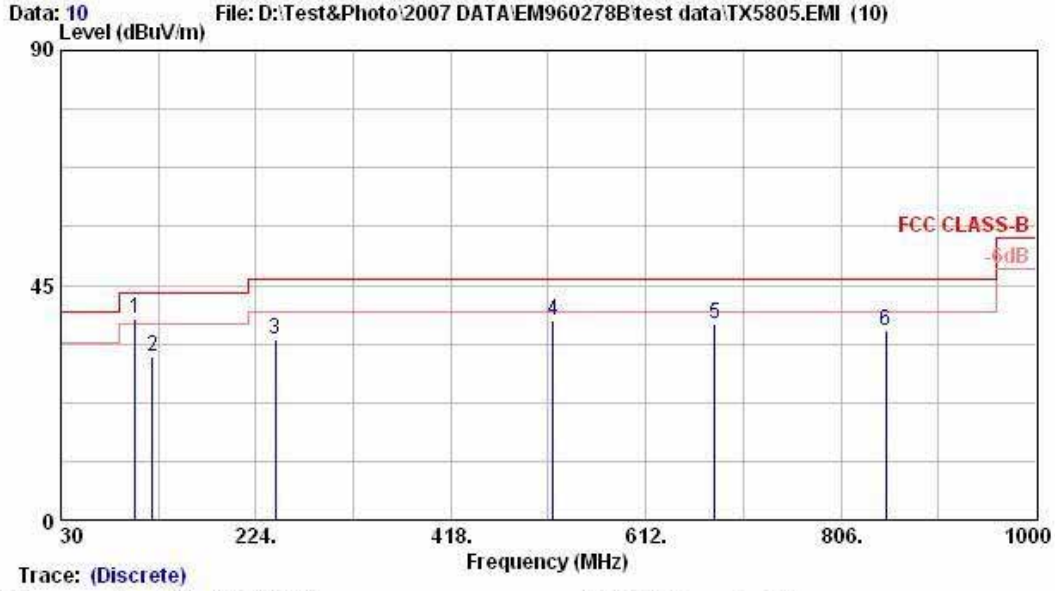


```
Site no.      : A/C Chamber                    Data no.   : 10
Dis. / Ant.   : 3m   VBA6106A/UHALP9108A       Ant. pol.  : HORIZONTAL
Limit         : FCC CLASS-B
Env. / Ins.   : 8593EM  18*C/63%               Engineer   : Alvin_Yang
EUT           : Plasma TV   M/N:VIZIO JV50P
Power Rating  : 120Vac/60Hz
Test Mode     : TX5805
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Remark
1	103.720	17.50	2.10	19.06	38.66	43.50	4.84	
2	121.500	19.15	2.30	9.73	31.18	43.50	12.32	
3	243.000	23.29	3.40	7.93	34.63	46.00	11.37	
4	519.850	19.99	6.90	11.28	38.17	46.00	7.83	
5	680.870	22.99	6.47	8.01	37.46	46.00	8.54	
6	850.620	25.63	7.10	3.54	36.27	46.00	9.73	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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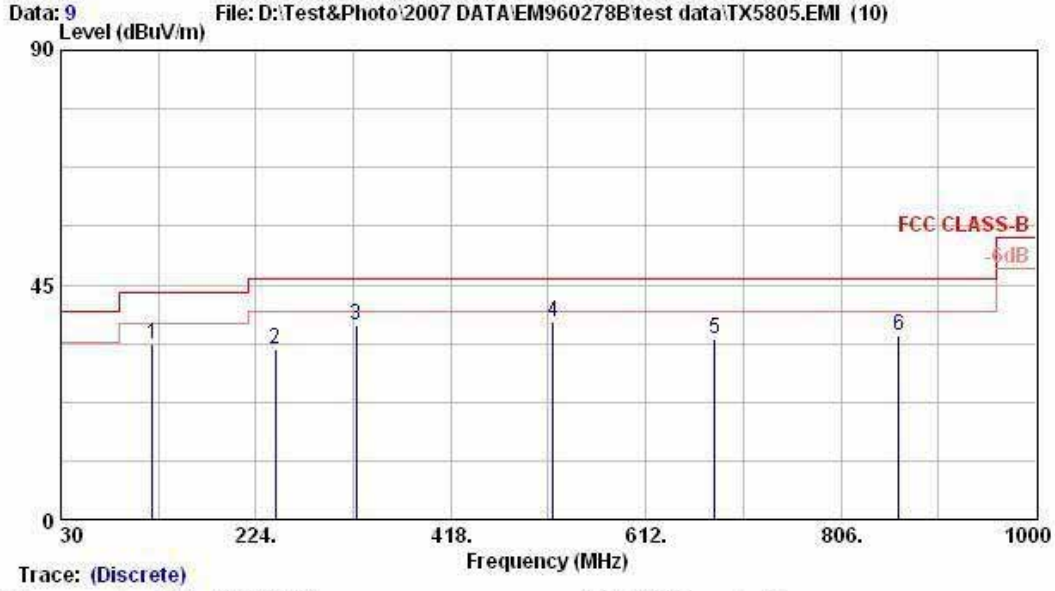



```
Site no.      : A/C Chamber                    Data no.   : 9
Dis. / Ant.   : 3m   VBA6106A/UHALP9108A       Ant. pol.  : VERTICAL
Limit         : FCC CLASS-B
Env. / Ins.   : 8593EM  18*C/63%               Engineer   : Alvin_Yang
EUT           : Plasma TV   M/N:VIZIO JV50P
Power Rating  : 120Vac/60Hz
Test Mode     : TX5805
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Remark
1	121.500	19.15	2.30	12.27	33.72	43.50	9.78	
2	243.000	23.29	3.40	5.98	32.67	46.00	13.33	
3	323.910	15.10	4.14	17.88	37.12	46.00	8.88	
4	519.850	19.99	6.90	10.90	37.79	46.00	8.21	
5	680.870	22.99	6.47	5.20	34.65	46.00	11.35	
6	863.230	26.09	7.20	2.01	35.30	46.00	10.70	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

3.6.2. Frequency Range Above 1GHz Measurement Results

Date of Test：	Mar. 12, 2007	Temperature：	20℃
EUT：	Plasma Monitor, Plasma Display, Plasma TV	Humidity：	57%
Test Mode：	TX 5745MHz	Test Voltage：	AC 120V, 60Hz

Horizontal

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1267.120	25.32	4.73	10.81	40.85	74.00	33.15	Peak
1818.160	27.01	6.80	7.27	41.08	74.00	32.92	Peak
2258.320	28.35	6.17	7.60	42.12	74.00	31.88	Peak
1267.120	25.32	4.73	2.81	32.85	54.00	21.15	Average
1818.160	27.01	6.80	-0.73	33.08	54.00	20.92	Average
2258.320	28.35	6.17	-0.40	34.12	54.00	19.88	Average

Vertical

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1183.120	25.28	4.55	10.41	40.24	74.00	33.76	Peak
1818.160	27.01	6.80	7.59	41.40	74.00	32.60	Peak
2406.160	28.63	6.36	8.70	43.69	74.00	30.31	Peak
1183.120	25.28	4.55	2.41	32.24	54.00	21.76	Average
1818.160	27.01	6.80	-0.41	33.40	54.00	20.60	Average
2406.160	28.63	6.36	0.70	35.69	54.00	18.31	Average

Remark ： 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
2. Measurement was up to 25GHz, but the emissions level were too low against the official limit and not report.

Date of Test：	Mar. 12, 2007	Temperature：	20℃
EUT：	Plasma Monitor, Plasma Display, Plasma TV	Humidity：	57%
Test Mode：	TX 5765MHz	Test Voltage：	AC 120V, 60Hz

Horizontal

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1183.120	25.28	4.55	9.39	39.22	74.00	34.78	Peak
1818.160	27.01	6.80	7.31	41.12	74.00	32.88	Peak
1183.120	25.28	4.55	1.39	31.22	54.00	22.78	Average
1818.160	27.01	6.80	-0.69	33.12	54.00	20.88	Average

Vertical

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1099.120	25.25	4.39	11.05	40.69	74.00	33.31	Peak
1809.760	26.96	6.85	7.88	41.69	74.00	32.31	Peak
2406.160	28.63	6.36	9.40	44.39	74.00	29.61	Peak
1099.120	25.25	4.39	3.05	32.69	54.00	21.31	Average
1809.760	26.96	6.85	-0.12	33.69	54.00	20.31	Average
2406.160	28.63	6.36	1.40	36.39	54.00	17.61	Average

Remark ： 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
2. Measurement was up to 25GHz, but the emissions level were too low against the official limit and not report.

Date of Test：	Mar. 12, 2007	Temperature：	20℃
EUT：	Plasma Monitor, Plasma Display, Plasma TV	Humidity：	57%
Test Mode：	TX 5805MHz	Test Voltage：	AC 120V, 60Hz

Horizontal

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1095.760	25.25	4.39	8.82	38.45	74.00	35.55	Peak
1818.160	27.01	6.80	6.41	40.22	74.00	33.78	Peak
1095.760	25.25	4.39	0.82	30.45	54.00	23.55	Average
1818.160	27.01	6.80	-1.59	32.22	54.00	21.78	Average

Vertical

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1120.960	25.26	4.43	10.57	40.26	74.00	33.74	Peak
1813.120	26.98	6.84	7.16	40.98	74.00	33.02	Peak
2406.160	28.63	6.36	9.59	44.58	74.00	29.42	Peak
1120.960	25.26	4.43	2.57	32.26	54.00	21.74	Average
1813.120	26.98	6.84	-0.84	32.98	54.00	21.02	Average
2406.160	28.63	6.36	1.59	36.58	54.00	17.42	Average

Remark ： 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
2. Measurement was up to 25GHz, but the emissions level were too low against the official limit and not report.

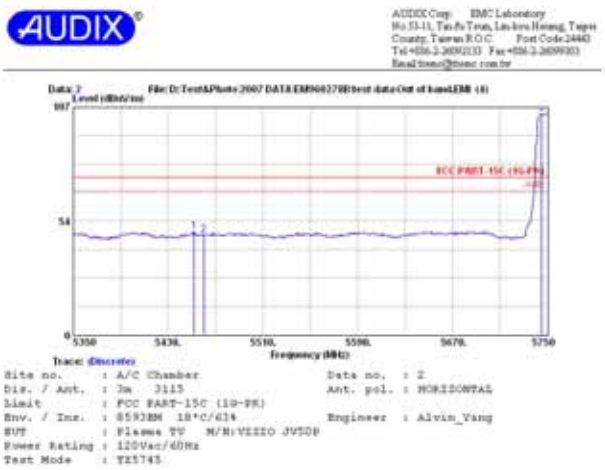
3.6.3. Restricted Bands Measurement Results

Date of Test：	Mar. 12, 2007	Temperature：	20℃
EUT：	Plasma Monitor, Plasma Display, Plasma TV	Humidity：	57%
Test Mode：	TX 5745MHz	Test Voltage：	AC 120V, 60Hz

Horizontal

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
5451.600	34.65	9.71	4.28	48.64	74.00	25.36	Peak
5460.000	34.65	9.72	2.58	46.94	74.00	27.06	Peak
5745.000	34.70	10.03	59.17	103.90	74.00	-29.90	Peak
5352.800	34.52	9.62	-8.65	35.49	54.00	18.51	Average
5460.000	34.65	9.72	-9.20	35.16	54.00	18.84	Average
5745.000	34.70	10.03	39.05	83.78	54.00	-29.78	Average

Remark ： 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
2. Low frequency section (spurious in the restricted band 5350-5750MHz).
3. '*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



Date of Test：	Mar. 12, 2007	Temperature：	20℃
EUT：	Plasma Monitor, Plasma Display, Plasma TV	Humidity：	57%
Test Mode：	TX 5745MHz	Test Voltage：	AC 120V, 60Hz

Vertical

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
5353.600	34.52	9.62	3.98	48.11	74.00	25.89	Peak
5460.000	34.65	9.72	3.43	47.80	74.00	26.20	Peak
5745.000	34.70	10.03	54.15	98.88	74.00	-24.88	Peak
5352.800	34.52	9.62	-8.56	35.58	54.00	18.42	Average
5460.000	34.65	9.72	-9.13	35.24	54.00	18.76	Average
5745.000	34.70	10.03	33.11	77.84	54.00	-23.84	Average

Remark ： 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
2. Low frequency section (spurious in the restricted band 5350-5750MHz).
3. '*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.

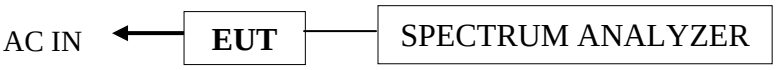
4. 6dB BANDWIDTH MEASUREMENT

4.1.Test Equipment

The following test equipment was used during the 6dB bandwidth measurement：

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Monitor	Agilent	E4446A	US44300366	Aug. 11, 06’	Aug. 10. 07’

4.2.Block Diagram of Test Setup



EUT: Plasma Monitor, Plasma Display, Plasma TV

4.3.Specification Limits (§15.247(a)(2))

The minimum 6dB bandwidth shall be at least 500kHz.

4.4.Operating Condition of EUT

Same as powerline conducted emission measurement which was listed in 2.4. except the test set up replaced by section 4.2.

4.5.Test Procedure

The RF output of EUT was connected to the spectrum analyzer. The bandwidth of the fundamental frequency was measure by spectrum analyzer with 100kHz RBW and 100kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

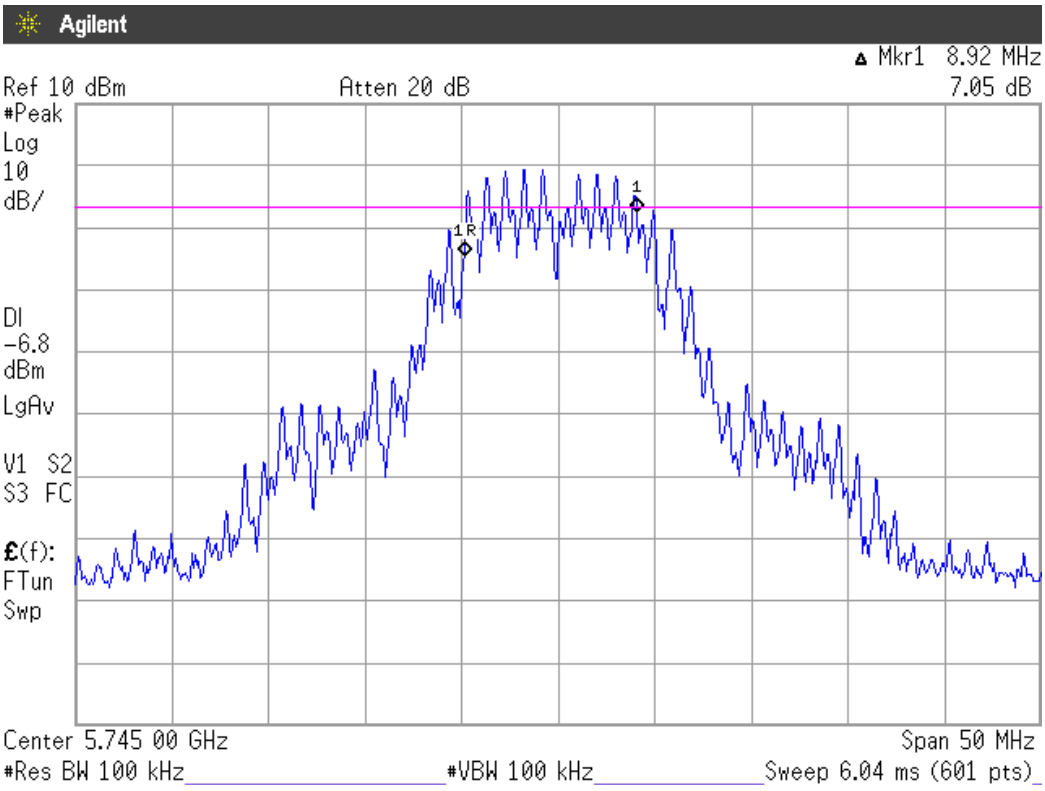
4.6.Test Results

PASSED. All the test results are listed in next pages.

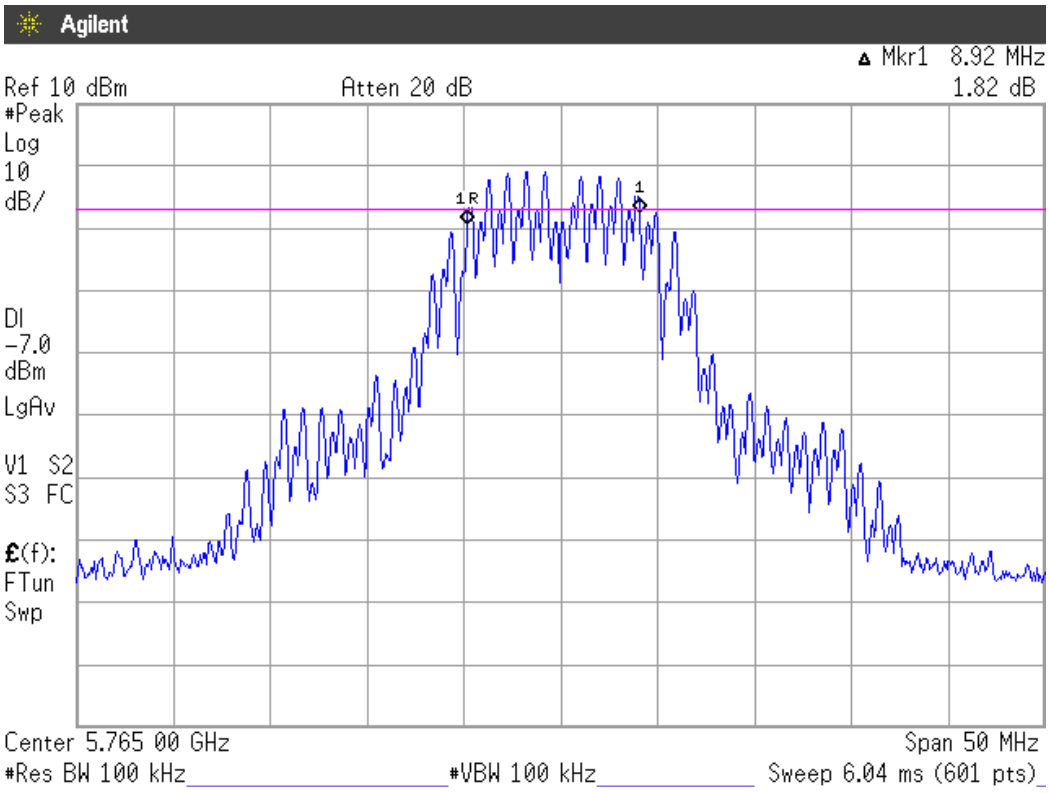
Test Date: Mar. 12, 2007 Temperature : 18 ℃ Humidity : 63 %

No.	Channel	Frequency	**6dB Bandwidth**
1.	Low	5745MHz	**8.92MHz**
2.	Middle	5765MHz	**8.92MHz**
3.	High	5805MHz	**8.92MHz**

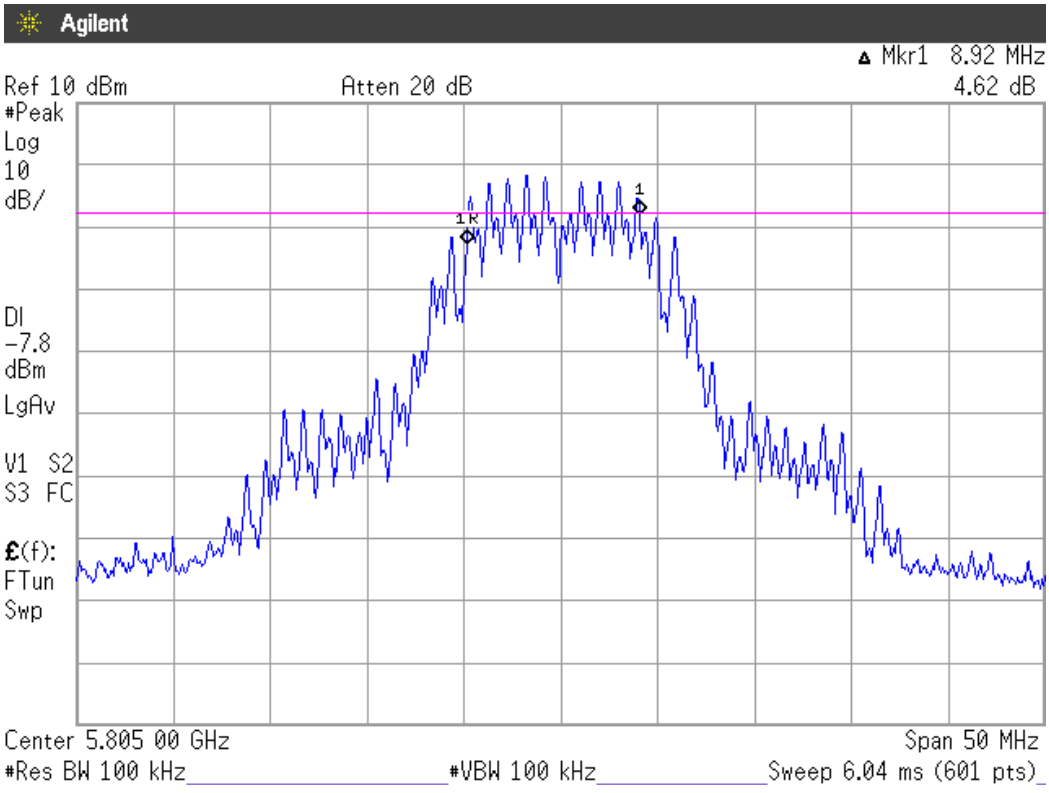
4.6.1.Channel Low, Frequency: 5745MHz



4.6.2.Channel Middle, Frequency: 5765MHz



4.6.3.Channel High, Frequency: 5805MHz



5. MAXIMUM PEAK OUTPUT POWER MEASUREMENT

5.1. Test Equipment

The following test equipment was used during the maximum peak output power measurement：

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Monitor	Agilent	E4446A	US44300366	Aug. 11, 06’	Aug. 10. 07’

5.2. Block Diagram of Test Setup

The same as section.4.2.

5.3. Specification Limits (§15.247(b)(3))

The Limits of maximum Peak Output Power for digital modulation in 5725-5850MHz is 1Watt. (30dBm)

5.4. Operating Condition of EUT

Same as 6dB bandwidth measurement which was listed in 4.4. except the test set up replaced by section 5.2.

5.5. Test Procedure

The RF output of EUT was connected to the power meter and sensor with 20MHz bandwidth that was designed to detect peak value automatically.

5.6. Test Results

PASSED. All the test results are listed in following page.

Test Date: Mar. 12, 2007 Temperature : 18 ℃ Humidity : 63 %

No.	Channel	Frequency	**Peak Output Power**	Limit
1.	Low	5745MHz	**12.12dBm**	30dBm
2.	Middle	5765MHz	**12.22dBm**	30dBm
3.	High	5805MHz	**11.64dBm**	30dBm

6. EMISSION LIMITATIONS MEASUREMENT

6.1.Test Equipment

The following test equipment was used during the emission limitations test：

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Monitor	Agilent	E4446A	US44300366	Aug. 11, 06’	Aug. 10. 07’

6.2.Block Diagram of Test Setup

The same as section.4.2

6.3.Specification Limits (§15.247(c))

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (See Section 15.205(c)).(※ This test result attaching to §3.6.3)

6.4.Operating Condition of EUT

Same as 6dB bandwidth measurement which was listed in 4.4. except the test set up replaced by section 6.2.

6.5.Test Procedure

The RF output of EUT was connected to the spectrum analyzer. The bandwidth of the fundamental frequency was measure by spectrum analyzer with 100kHz RBW and 100kHz VBW.

6.6.Test Results

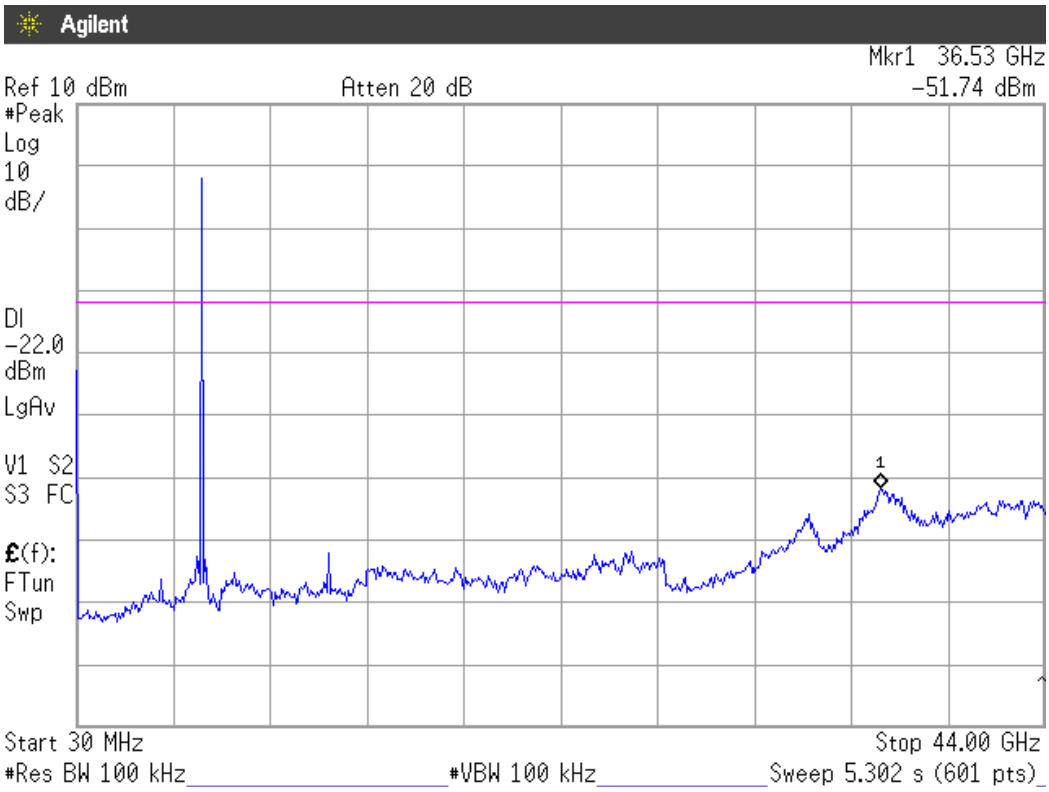
PASSED. All the test results are listed in next pages.

Test Date: Mar. 12, 2007 Temperature : 18 ℃ Humidity : 63 %

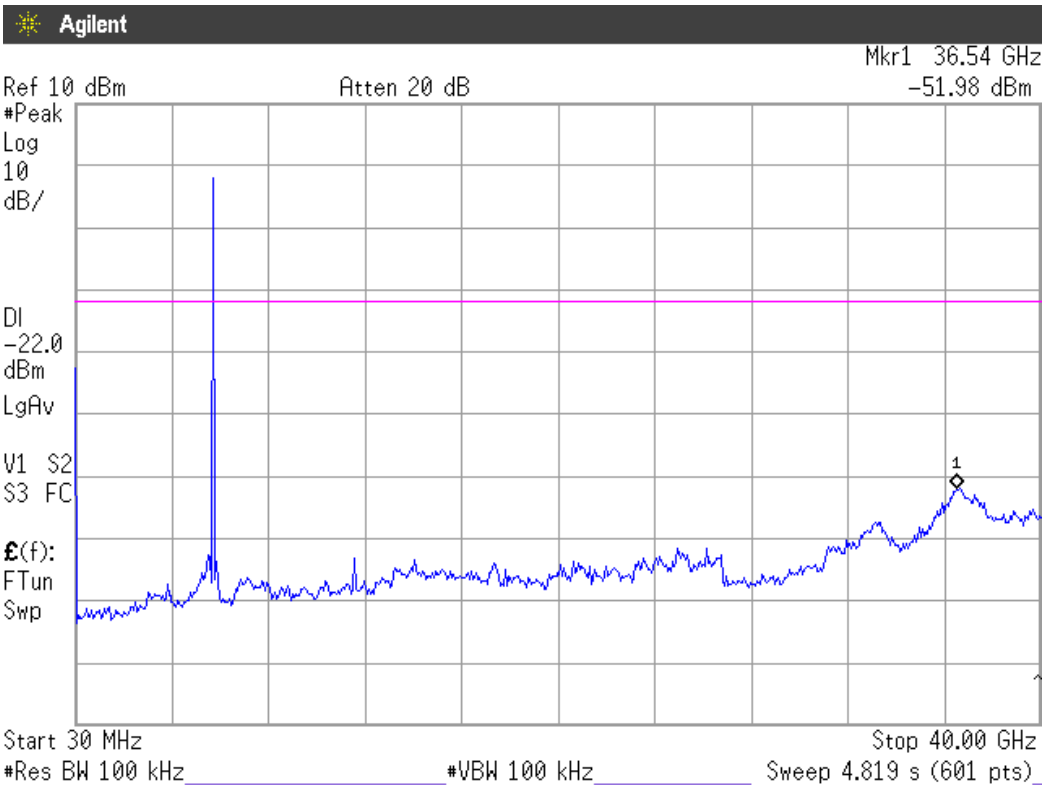
1. 5475MHz: During 30MHz~40GHz bandwidth. In the 5GHz, the -51.74dBm is max value that is lower than 20dB of primary channel.
2. 5765MHz: During 30MHz~40GHz bandwidth. In the 5GHz, the -51.98dBm is max value that is lower than 20dB of primary channel.
3. 5805MHz: During 30MHz~40GHz bandwidth. In the 5GHz, the -51.77dBm is max value that is lower than 20dB of primary channel.

Note: The peak above the limit line is the carrier frequency.

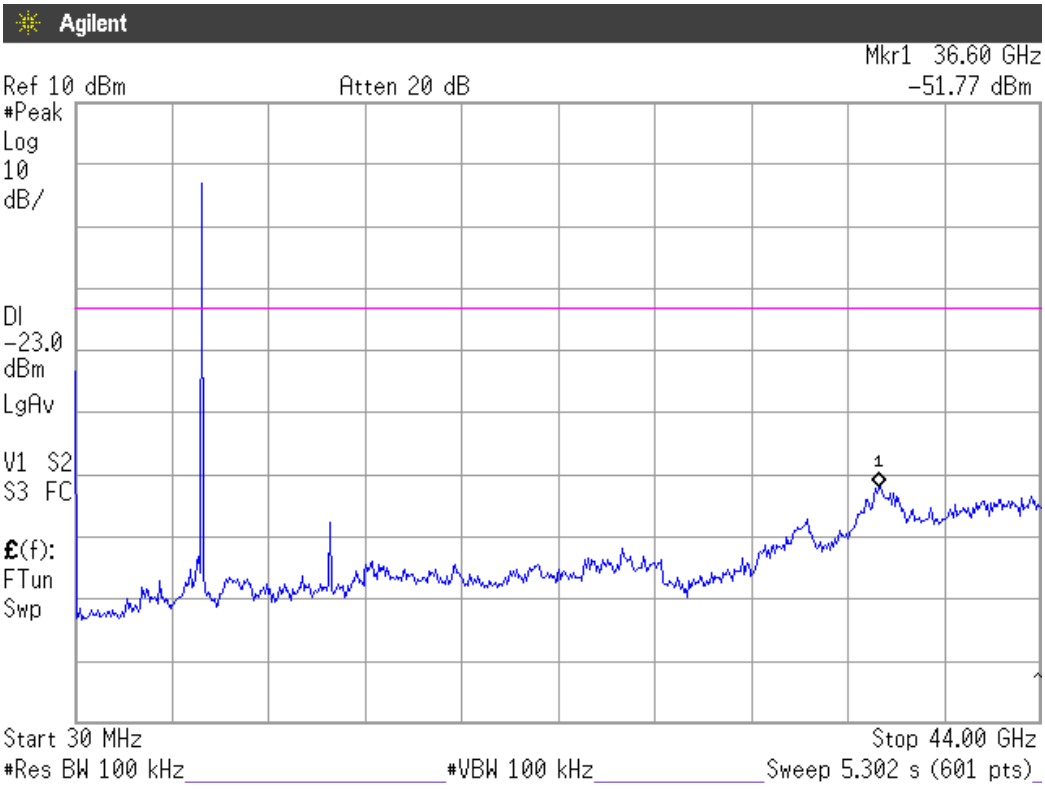
6.6.1.Channel Low, Frequency: 5745MHz



6.6.2.Channel Middle, Frequency: 5765MHz



6.6.3.Channel High, Frequency: 5805MHz



7. BAND EDGES MEASUREMENT

7.1.Test Equipment

The following test equipment was used during the band edges measurement：

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Monitor	Agilent	E4446A	US44300366	Aug. 11, 06’	Aug. 10. 07’

7.2.Block Diagram of Test Setup

The same as section.4.2.

7.3.Specification Limits (§15.247(c))

The highest level should be at least 20 dB below that in the 100kHz bandwidth.

7.4.Operating Condition of EUT

Same as 6dB bandwidth measurement which was listed in 4.4. except the test set up replaced by section 7.2.

7.5.Test Procedure

The RF output of EUT was connected to the spectrum analyzer. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100kHz bandwidth from band edge.

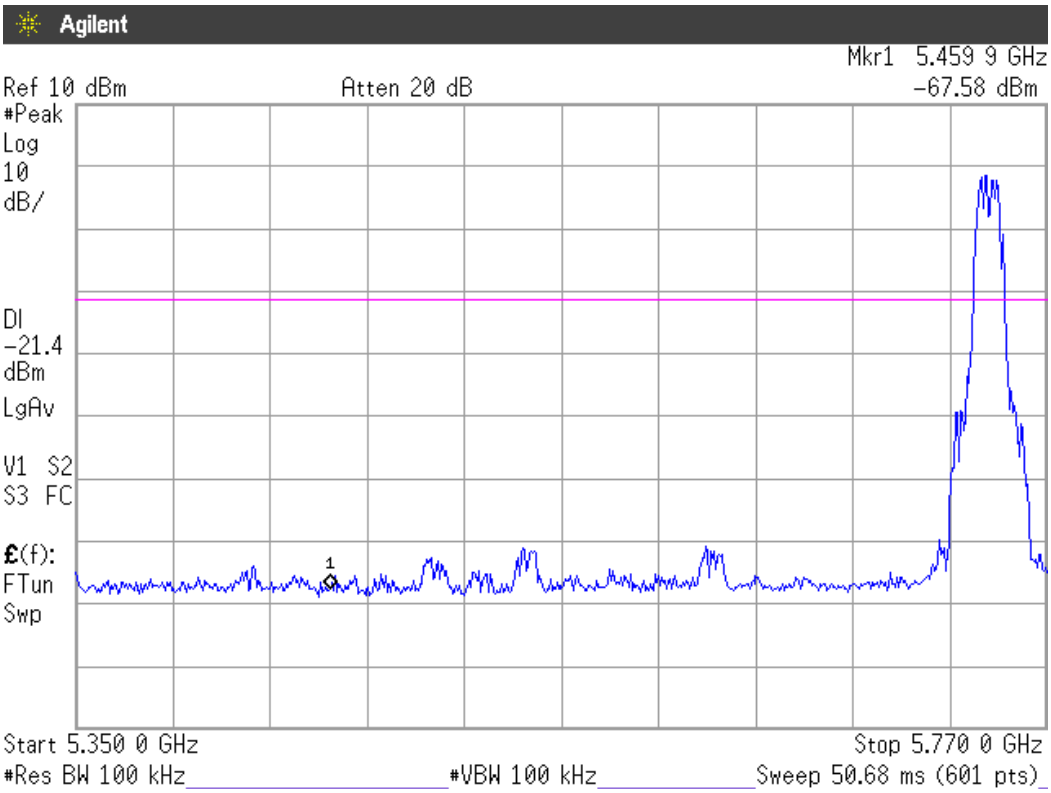
7.6.Test Results

PASSED. All the test results are listed in next page.

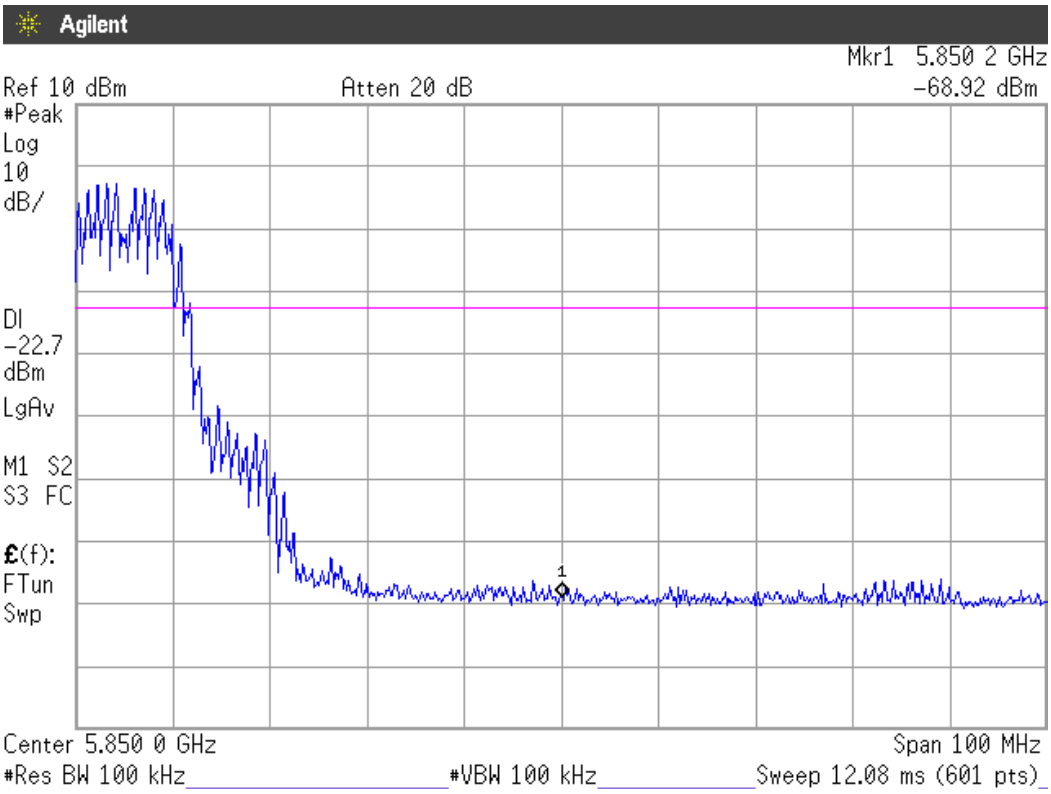
Test Date: Mar. 12, 2007 Temperature : 18 ℃ Humidity : 63 %

1. Upper Band edge: The highest emission level is -67.58dBm on 5.4599GHz。
2. Below Band edge : The highest emission level is -68.92dBm on 5.8502GHz。

7.6.1. Below Band edge



7.6.2. Upper Band edge



8. POWER SPECTRAL DENSITY MEASUREMENT

8.1. Test Equipment

The following test equipment was used during the power spectral density measurement：

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Monitor	Agilent	E4446A	US44300366	Aug. 11, 06’	Aug. 10. 07’

8.2. Block Diagram of Test Setup

The same as section.4.2.

8.3. Specification Limits (§15.247(d))

The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band.

8.4. Operating Condition of EUT

Same as 6dB bandwidth measurement which was listed in 4.4. except the test set up replaced by section 8.2.

8.5. Test Procedure

The RF output of EUT was connected to the spectrum analyzer. The bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, span 300kHz set sweep time = span/3kHz.

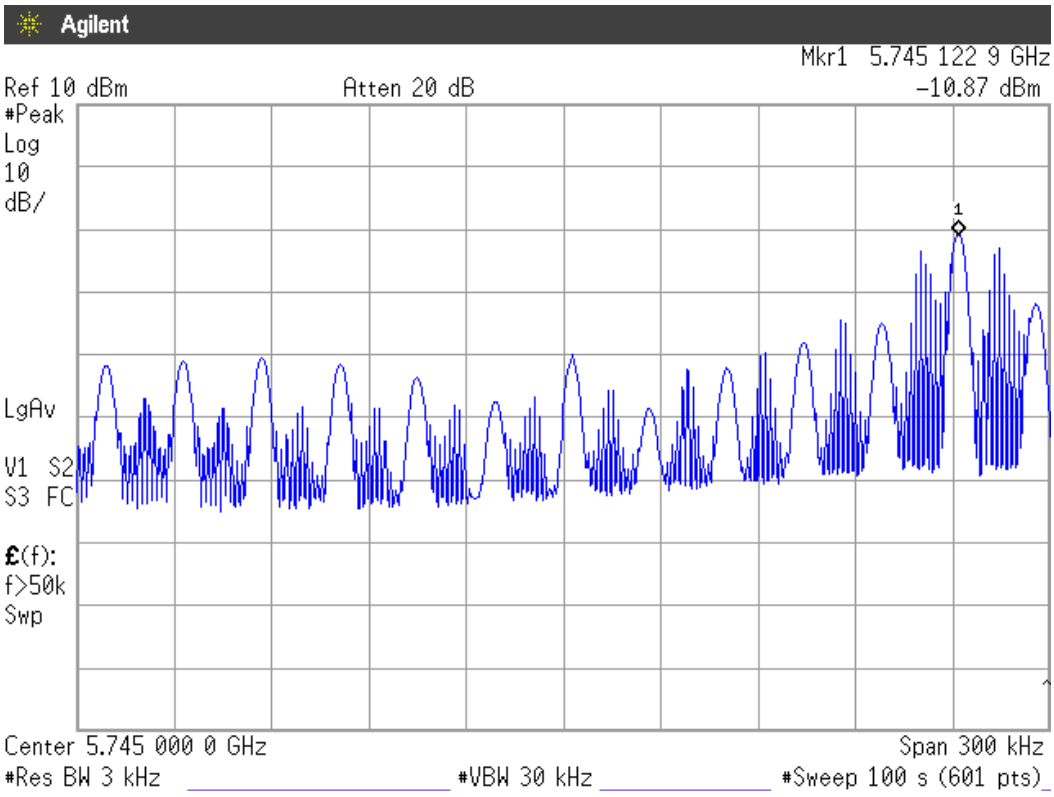
8.6. Test Results

PASSED. All the test results are listed in next pages.

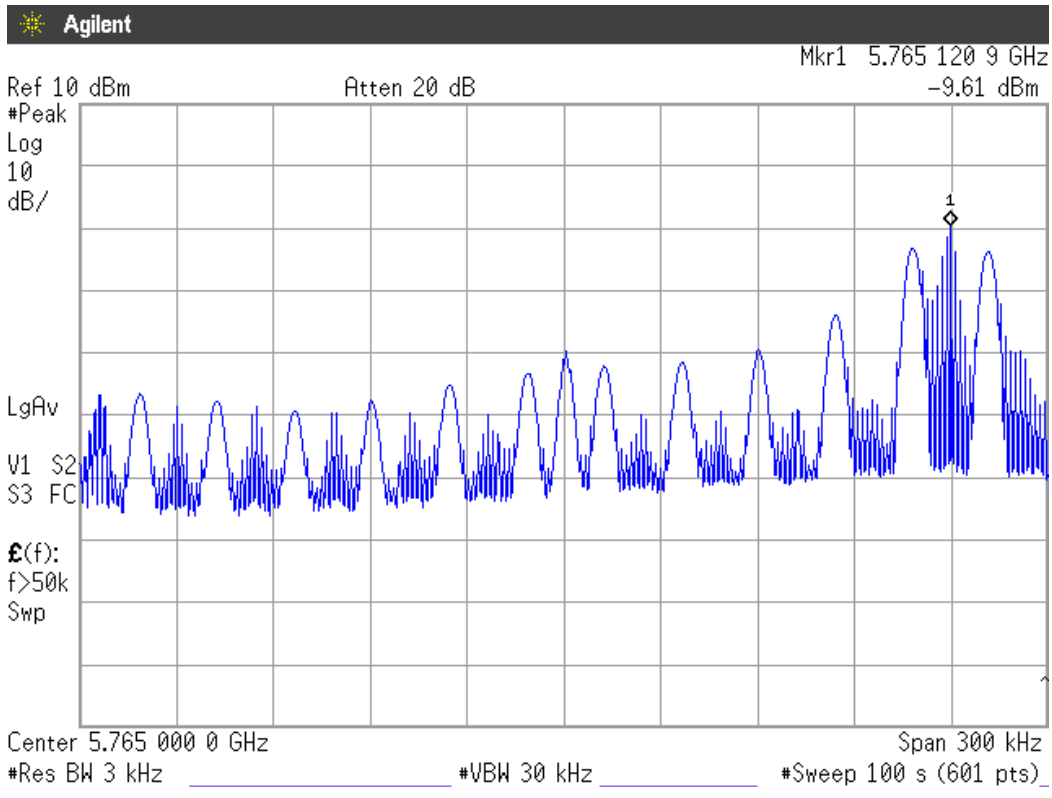
Test Date: Mar. 12, 2007 Temperature : 18 ℃ Humidity : 63 %

No.	Channel	Frequency	**Power Spectral Density**	Limit
1.	Low	5745MHz	**-10.87dBm**	8dBm
2.	Middle	5765MHz	**-9.61dBm**	8dBm
3.	High	5805MHz	**-11.78dBm**	8dBm

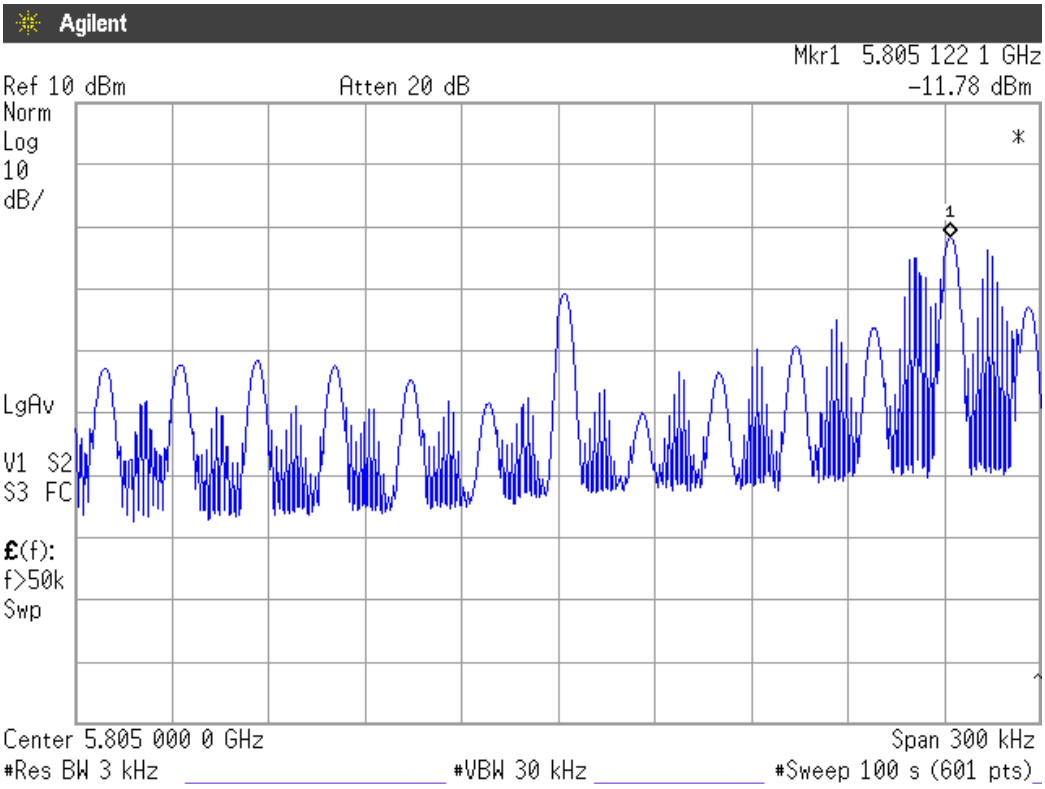
8.6.1.Channel Low, Frequency: 5745MHz



8.6.2.Channel Middle, Frequency: 5765MHz



8.6.3.Channel High, Frequency: 5805MHz



9. DEVIATION TO TEST SPECIFICATIONS

【NONE】