



FCC TEST REPORT

REPORT NO.: RF910508R01

MODEL NO.: DWL-5000AP

WAP-A11j

AP-21

RECEIVED: May 8, 2002

TESTED: May 17 ~ June 18, 2002

APPLICANT: D-LINK CORPORATION

ADDRESS: No. 8, Li Hsing Rd VII, Science-Based
Industrial Park, Hsinchu, Taiwan, R.O.C.

ISSUED BY: Advance Data Technology Corporation

LAB LOCATION: 47 14th Lin, Chiapau Tsun, Linko, Taipei,
Taiwan, R.O.C.

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0528
ILAC MRA



Lab Code: 200102-0

Table of Contents

1	CERTIFICATION	4
2	SUMMARY OF TEST RESULTS.....	5
3	GENERAL INFORMATION	6
3.1	GENERAL DESCRIPTION OF EUT	6
3.2	DESCRIPTION OF TEST MODES	7
3.3	GENERAL DESCRIPTION OF APPLIED STANDARDS	7
3.4	DESCRIPTION OF SUPPORT UNITS.....	8
4	TEST TYPES AND RESULTS	9
4.1	CONDUCTED EMISSION MEASUREMENT	9
4.1.1	LIMITS OF CONDUCTED EMISSION MEASUREMENT	9
4.1.2	TEST INSTRUMENTS	9
4.1.3	TEST PROCEDURES.....	10
4.1.4	TEST SETUP	10
4.1.5	EUT OPERATING CONDITIONS.....	11
4.1.6	TEST RESULTS (TRANSMITTING).....	12
4.1.7	TEST RESULTS (RECEIVING).....	16
4.2	RADIATED EMISSION MEASUREMENT	20
4.2.1	LIMITS OF RADIATED EMISSION MEASUREMENT	20
4.2.2	TEST INSTRUMENTS	21
4.2.3	TEST PROCEDURES.....	22
4.2.4	TEST SETUP	23
4.2.5	EUT OPERATING CONDITIONS.....	23
4.2.6	TEST RESULTS (TRANSMITTING).....	24
4.2.7	TEST RESULTS(RECEIVING).....	36
4.3	PEAK TRANSMIT POWER MEASUREMENT	48
4.3.1	LIMITS OF PEAK TRANSMIT POWER MEASUREMENT	48
4.3.2	TEST INSTRUMENTS	48
4.3.3	TEST PROCEDURE	49
4.3.4	TEST SETUP	49
4.3.5	EUT OPERATING CONDITIONS.....	49
4.3.6	TEST RESULTS.....	50
4.4	PEAK POWER EXCURSION MEASUREMENT	63
4.4.1	LIMITS OF PEAK POWER EXCURSION MEASUREMENT.....	63
4.4.2	TEST INSTRUMENTS	63
4.4.3	TEST PROCEDURE	64



4.4.4	TEST SETUP.....	64
4.4.5	EUT OPERATING CONDITIONS.....	64
4.4.6	TEST RESULTS.....	65
4.5	PEAK POWER SPECTRAL DENSITY MEASUREMENT	78
4.5.1	LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT	78
4.5.2	TEST INSTRUMENTS	78
4.5.3	TEST PROCEDURES.....	79
4.5.4	TEST SETUP.....	79
4.5.5	EUT OPERATING CONDITIONS.....	79
4.5.6	TEST RESULTS.....	80
4.6	EFFECTIVE ISOTROPIC RADIATED POWER SPURIOUS EMISSIONS MEASUREMENT	93
4.6.1	LIMITS OF EFFECTIVE ISOTROPIC RADIATED POWER SPURIOUS EMISSIONS MEASUREMENT	93
4.6.2	TEST INSTRUMENTS	93
4.6.3	TEST PROCEDURE	94
4.6.4	TEST SETUP	95
4.6.5	EUT OPERATING CONDITION	95
4.6.6	TEST RESULTS.....	96
4.7	FREQUENCY STABILITY	106
4.6.1	LIMITS OF FREQUENCY STABILITY MEASUREMENT	106
4.6.2	TEST INSTRUMENTS	106
4.6.3	TEST PROCEDURE	106
4.6.4	TEST SETUP	107
4.6.5	EUT OPERATING CONDITION	107
4.6.6	TEST RESULTS.....	108
4.8	BAND EDGES MEASUREMENT	109
4.8.1	TEST INSTRUMENTS	109
4.8.2	TEST PROCEDURE	109
4.8.3	EUT OPERATING CONDITION	109
4.8.4	TEST RESULTS.....	109
4.9	ANTENNA REQUIREMENT.....	118
4.9.1	STANDARD APPLICABLE.....	118
4.9.2	ANTENNA CONNECTED CONSTRUCTION.....	118
5	PHOTOGRAPHS OF THE TEST CONFIGURATION	119
6	INFORMATION ON THE TESTING LABORATORIES.....	121



1 CERTIFICATION

PRODUCT : IEEE 802.11a WLAN Access Point
BRAND NAME : D-Link
MODEL NO. : DWL-5000AP
WAP-A11j
AP-21
APPLICANT : D-Link Corporation
STANDARDS : 47 CFR Part 15, Subpart E (Section 15.407),
ANSI C63.4-1992

We, **Advance Data Technology Corporation**, hereby certify that one sample of the designation has been tested in our facility from May 17, 2002 to June 18, 2002, The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions herein specified.

CHECKED BY : Emily Lu , DATE : June 25, 2002
Emily Lu

APPROVED BY : Alan Lane , DATE : June 25, 2002
Dr. Alan Lane, Manager

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: 47 CFR Part 15, Subpart E			
Standard Section	Test Type	Result	REMARK
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit Minimum passing margin is -2.28dBuV at 1.594MHz
15.407(b)(5)	Electric Field Strength Spurious Emissions, 30 MHz – 40000 MHz (Transmitting)	PASS	Meet the requirement of limit Minimum passing margin is -2.10dBuV at 10641.00MHz
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(b1/2/3)	Effective Isotropic Radiated Power Spurious Emissions, 1 GHz – 40 GHz	PASS	Meet the requirement of limit Minimum passing margin is -2.5dBm at 10357.92MHz
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	IEEE 802.11a WLAN Access Point
MODEL NO.	DWL-5000AP WAP-A11j AP-21
POWER SUPPLY	3.3VDC from power adapter
MODULATION TYPE	OFDM
TRANSFER RATE	6 to 54Mbps (Turbo mode: up to 108Mbps *see note 3)
FREQUENCY RANGE	5.15~5.85GHz
BAND WIDTH OF EACH CHANNEL	20MHz
NUMBER OF CHANNEL	12
OUTPUT POWER	19dBm
ANTENNA TYPE	Dipole Antenna
DATA CABLE	NA
I/O PORTS	RJ45 port
ASSOCIATED DEVICES	NA

NOTE:

1. The EUT was operated with power adapter as following:

BRAND :	LT.E
MODEL :	SWP01211033
INPUT POWER :	100-120V, 50-60Hz, 0.5A
OUTPUT POWER :	3.3V, 2.6A

2. Three models are identical except for their outer appearance and colors.
3. This EUT is capable of providing data rates of up to 108Mbps in Turbo Mode depending upon reception quality.
4. For more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

Twelve channels are provided to this EUT for Normal Mode.

Channel	Frequency	Channel	Frequency
1	5180 MHz	7	5300 MHz
2	5200 MHz	8	5320 MHz
3	5220 MHz	9	5745 MHz
4	5240 MHz	10	5765 MHz
5	5260 MHz	11	5785 MHz
6	5280 MHz	12	5805 MHz

Five channels are provided to this EUT for Turbo Mode.

Channel	Frequency	Channel	Frequency
1	5210 MHz	4	5760 MHz
2	5250 MHz	5	5800 MHz
3	5290 MHz		

NOTE:

1. The EUT was transmitting at full power on the specified channel with a duty cycle of 99% (maximum allowed). The EUT was tested in both normal mode (channel bandwidth of approximately 30MHz) and turbo mode (channel bandwidth of approximately 60MHz).
2. "Normal Mode" allows data rates of up to 54Mbps. The device was, therefore, tested in Normal mode at the data rate that produced the highest output power for normal mode (6Mbps).
3. "Turbo Mode" allows data rates of up to 108Mbps. At data rates higher than 12Mbps the PA gain is reduced to improve signal fidelity. The device was, therefore, tested in turbo mode at the data rate that produced the highest output power for turbo mode (12Mbps).
4. Channel 1, 4, 5, 8, 9, 12 were chosen for final test of Normal Mode.
5. Channel 1, 3, 4, 5 were chosen for final test of Turbo Mode.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is an IEEE 802.11a WLAN Access Point. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC CFR 47 Part 15, Subpart E. (15.407)

ANSI C63.4 : 1992

All tests 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	DELL	PP01L	TW-09C748-12800-19O-B220	FCC DOC APPROVED
2	FAST ETHERNET PC CARD	D-Link	DFE-680TXD	RE1A044413	MQ4FE2K5MX

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

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

4 TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class B (dBuV)	
	Quasi-peak	Average
0.45 – 30	48	-

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. All emanations from a class 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

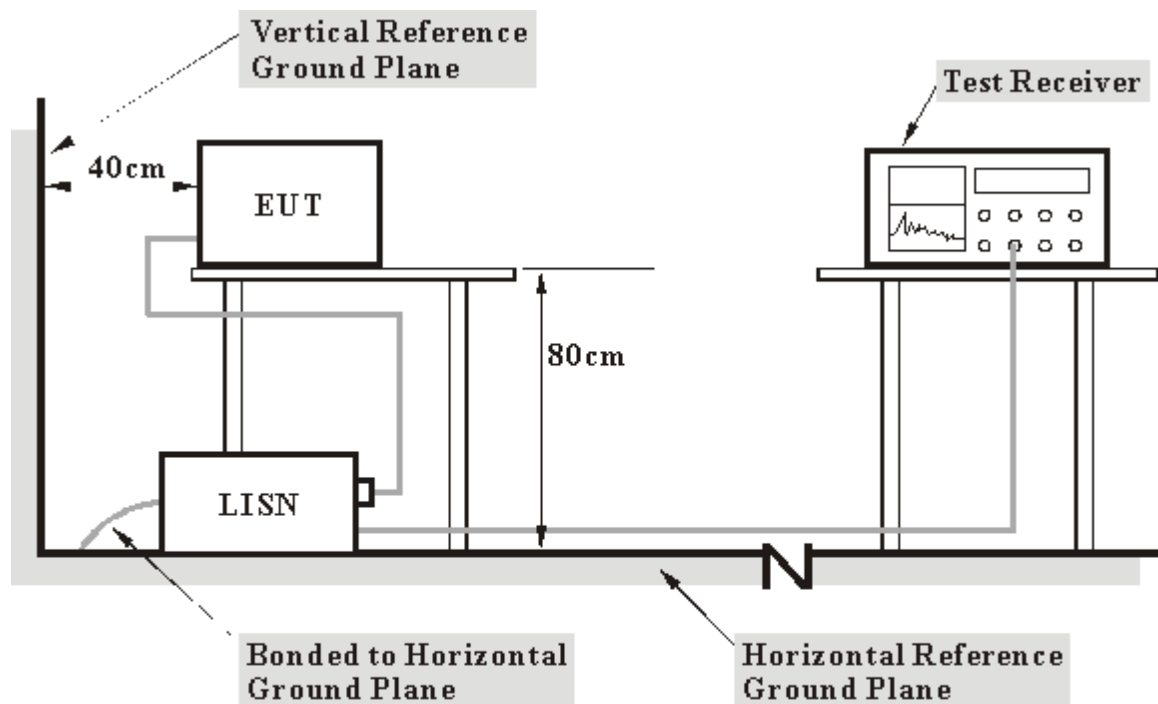
DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS30	845552/004	June 20, 2003
ROHDE & SCHWARZ Artificial Mains Network (for EUT)	ESH2-Z5	828075/003	July 19, 2002
ROHDE & SCHWARZ 200-A Four-line V-Network	ENV4200	830326/018	Oct. 25, 2002
* ROHDE & SCHWARZ 4-wire ISN	ENY41	838119/028	Dec. 2, 2002
* ROHDE & SCHWARZ 2-wire ISN	ENY22	837497/018	Dec. 2, 2002
EMCO-L.I.S.N. (for peripheral)	3825/2	90031627	July 19, 2002
Software	Cond-V2L	NA	NA
RF cable (JYEBAO)	5D-FB	Cable-C05.01	July 19, 2002
LYNICS Terminator (For EMCO LISN)	0900510	E1-01-305	Feb. 20, 2003
LYNICS Terminator (For EMCO LISN)	0900510	E1-01-306	Feb. 20, 2003
Shielded Room	Site 5	ADT-C05	NA
VCCI Site Registration No.	Site 5	C-1093	NA

- NOTE: 1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. “*”: These equipment are used for conducted telecom port test only (if tested).

4.1.3 TEST PROCEDURES

- 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.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 450 kHz to 30 MHz was searched. Emission levels over 10dB under the prescribed limits could not be reported

4.1.4 TEST SETUP



- Note:**
- Support units were connected to second LISN.
 - 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.



4.1.5 EUT OPERATING CONDITIONS

- a. Placed the EUT on the testing table..
- b. Prepared another computer system to act as a communication partner and placed it outside of testing area.
- c. The communication partner run a test program to enable EUT under transmission/receiving condition continuously at specific channel frequency via an RJ 45 cable.
- d. The communication partner sent data to EUT by command "PIN".

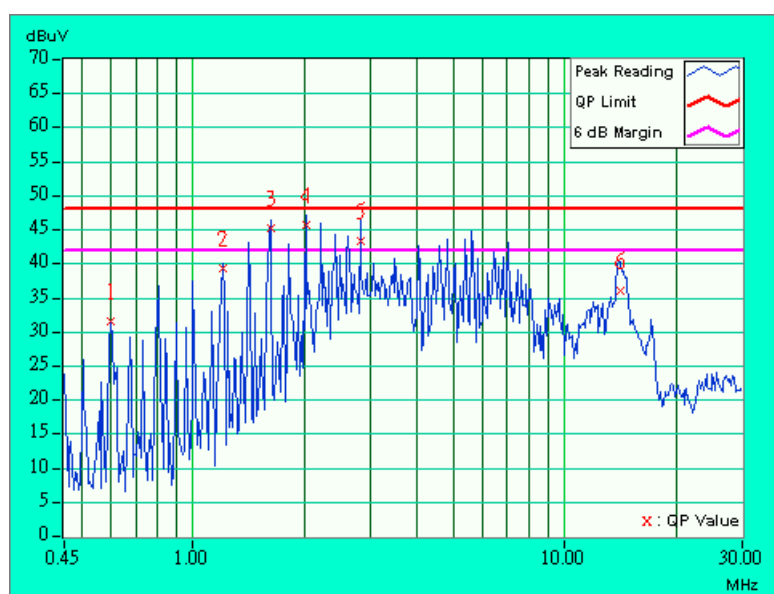
4.1.6 TEST RESULTS (TRANSMITTING)

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Bunny Yao	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.602	0.13	30.85	-	30.98	-	48.00	-	-17.02	-
2	1.203	0.20	38.60	-	38.80	-	48.00	-	-9.20	-
3	1.613	0.20	44.50	-	44.70	-	48.00	-	-3.30	-
4	2.008	0.20	45.06	-	45.26	-	48.00	-	-2.74	-
5	2.820	0.28	42.78	-	43.06	-	48.00	-	-4.94	-
6	14.043	0.68	35.33	-	36.01	-	48.00	-	-11.99	-

NOTE:

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.

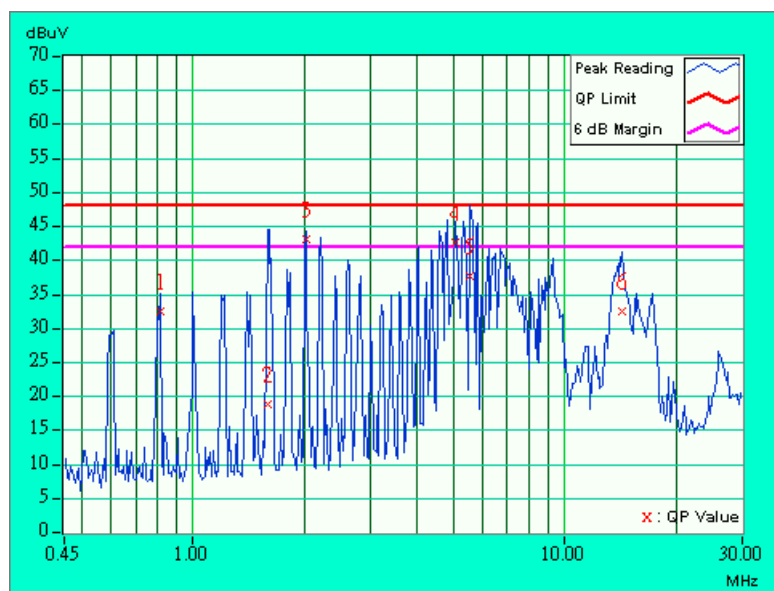


EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Bunny Yao	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.813	0.17	31.93	-	32.10	-	48.00	-	-15.90	-
2	1.582	0.20	18.31	-	18.51	-	48.00	-	-29.49	-
3	2.020	0.20	42.54	-	42.74	-	48.00	-	-5.26	-
4	5.059	0.32	42.13	-	42.45	-	48.00	-	-5.55	-
5	5.574	0.33	37.27	-	37.60	-	48.00	-	-10.40	-
6	14.285	0.49	32.15	-	32.64	-	48.00	-	-15.36	-

NOTE:

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.

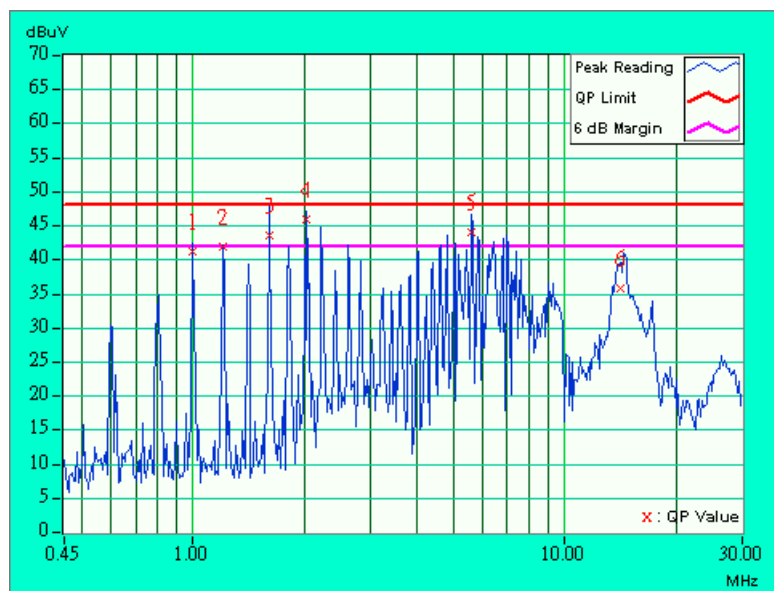


EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Bunny Yao	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	1.000	0.20	40.58	-	40.78	-	48.00	-	-7.22	-
2	1.203	0.20	41.23	-	41.43	-	48.00	-	-6.57	-
3	1.596	0.20	42.99	-	43.19	-	48.00	-	-4.81	-
4	2.008	0.20	45.34	-	45.54	-	48.00	-	-2.46	-
5	5.621	0.45	43.38	-	43.83	-	48.00	-	-4.17	-
6	14.086	0.68	35.10	-	35.78	-	48.00	-	-12.22	-

NOTE:

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.

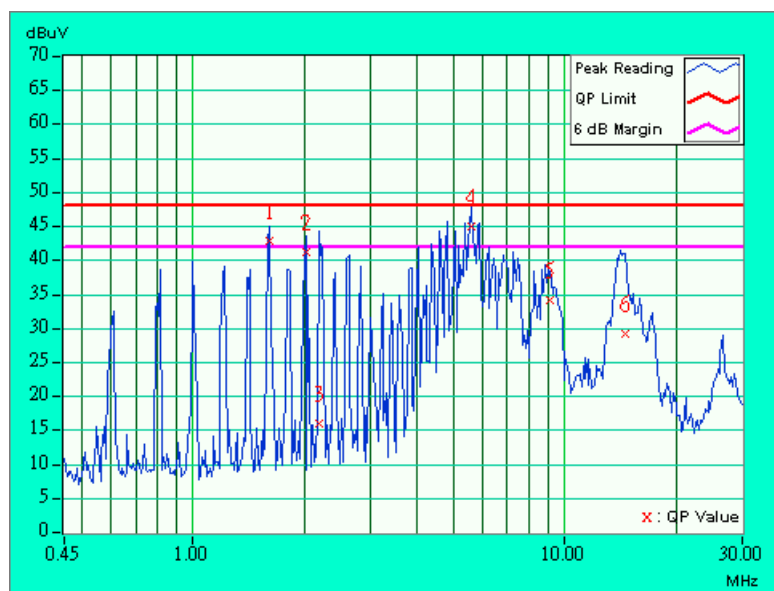


EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Bunny Yao	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	1.602	0.20	42.47	-	42.67	-	48.00	-	-5.33	-
2	2.012	0.20	40.72	-	40.92	-	48.00	-	-7.08	-
3	2.180	0.21	15.43	-	15.64	-	48.00	-	-32.36	-
4	5.586	0.33	44.49	-	44.82	-	48.00	-	-3.18	-
5	9.082	0.38	33.79	-	34.17	-	48.00	-	-13.83	-
6	14.465	0.49	28.62	-	29.11	-	48.00	-	-18.89	-

NOTE:

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.



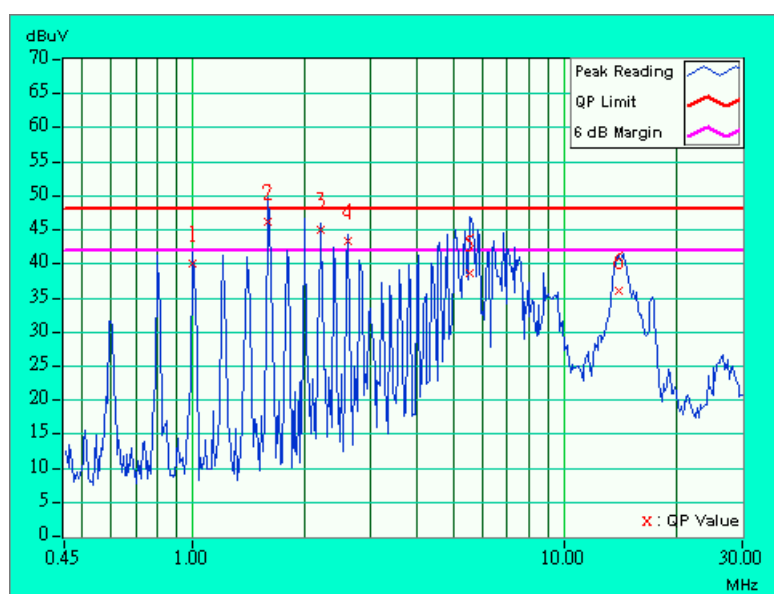
4.1.7 TEST RESULTS (RECEIVING)

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Bunny Yao	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.997	0.20	39.48	-	39.68	-	48.00	-	-8.32	-
2	1.594	0.20	45.52	-	45.72	-	48.00	-	-2.28	-
3	2.195	0.22	44.28	-	44.50	-	48.00	-	-3.50	-
4	2.609	0.26	42.78	-	43.04	-	48.00	-	-4.96	-
5	5.574	0.45	37.91	-	38.36	-	48.00	-	-9.64	-
6	14.004	0.68	35.27	-	35.95	-	48.00	-	-12.05	-

NOTE:

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.

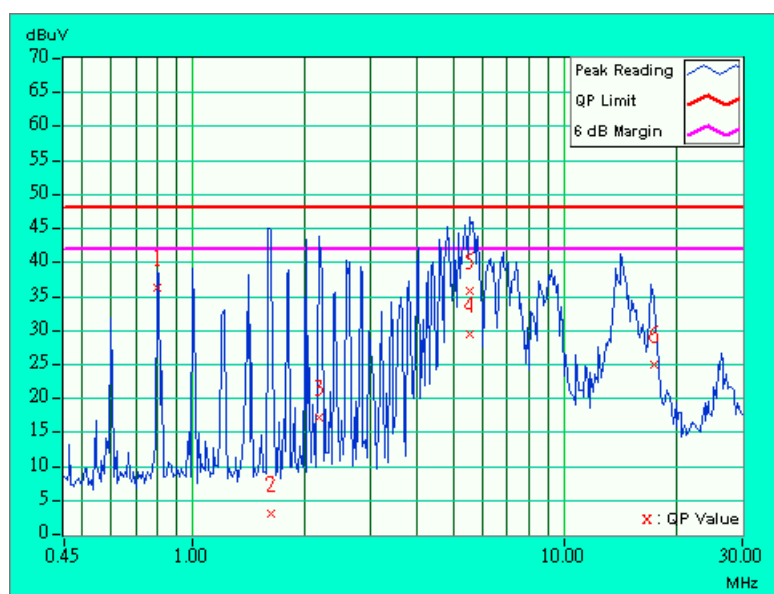


EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Bunny Yao	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.802	0.17	35.76	-	35.93	-	48.00	-	-12.07	-
2	1.617	0.20	2.49	-	2.69	-	48.00	-	-45.31	-
3	2.172	0.21	16.64	-	16.85	-	48.00	-	-31.15	-
4	5.563	0.33	28.91	-	29.24	-	48.00	-	-18.76	-
5	5.563	0.33	35.29	-	35.62	-	48.00	-	-12.38	-
6	17.348	0.64	24.32	-	24.96	-	48.00	-	-23.04	-

NOTE:

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.

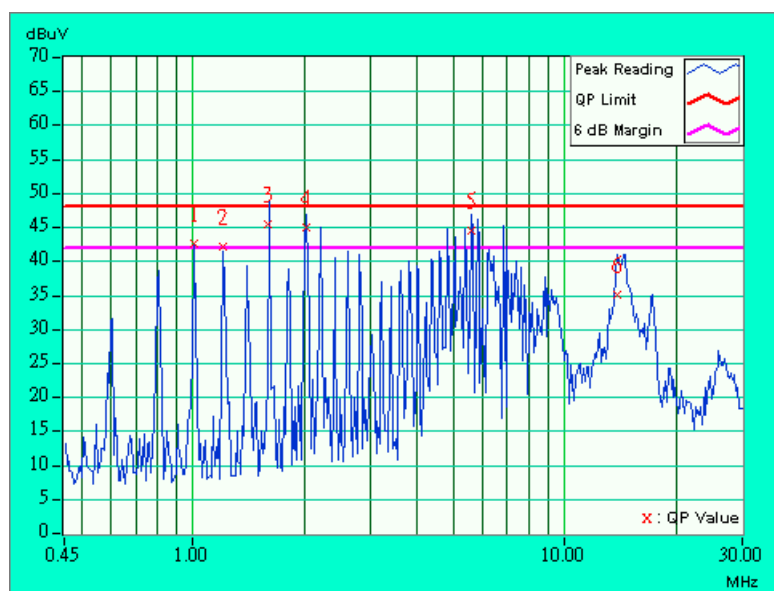


EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Bunny Yao	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	1.004	0.20	42.04	-	42.24	-	48.00	-	-5.76	-
2	1.207	0.20	41.45	-	41.65	-	48.00	-	-6.35	-
3	1.595	0.20	44.72	-	44.92	-	48.00	-	-3.08	-
4	2.012	0.20	44.25	-	44.45	-	48.00	-	-3.55	-
5	5.582	0.45	43.89	-	44.34	-	48.00	-	-3.66	-
6	13.777	0.68	34.34	-	35.02	-	48.00	-	-12.98	-

NOTE:

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.

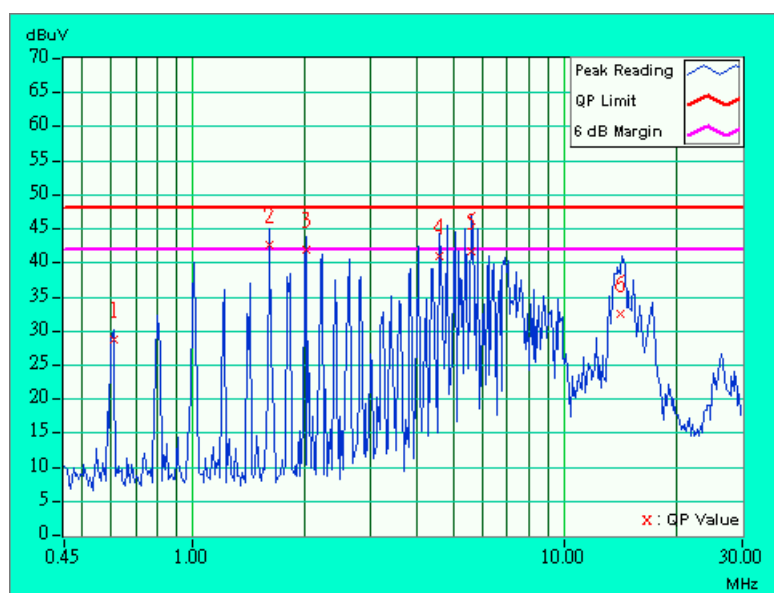


EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Bunny Yao	

No	Freq.	Corr. Factor	Reading Value [dB (Uv)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.610	0.14	28.25	-	28.39	-	48.00	-	-19.61	-
2	1.602	0.20	42.23	-	42.43	-	48.00	-	-5.57	-
3	2.016	0.20	41.36	-	41.56	-	48.00	-	-6.44	-
4	4.590	0.31	40.63	-	40.94	-	48.00	-	-7.06	-
5	5.578	0.33	41.18	-	41.51	-	48.00	-	-6.49	-
6	14.082	0.48	32.14	-	32.62	-	48.00	-	-15.38	-

NOTE:

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Field strength limits are at the distance of 3 meters, emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field Strength of Fundamental	
	uV/m	dBuV/m
30-88	100	40.0
88-216	150	43.5
216-960	200	46.0
Above 960	500	54.0

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 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
* HP Spectrum Analyzer	8590L	3544A01176	May 13, 2003
* HP Preamplifier	8447D	2944A08485	Oct. 30, 2002
* HP Preamplifier	8449B	3008A01201	Dec. 06, 2002
* HP Preamplifier	8449B	3008A01292	Aug. 21, 2002
* ROHDE & SCHWARZ TEST RECEIVER	ESMI	839013/007 839379/002	Jan. 27, 2003
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 23, 2002
* CHASE BILOG Antenna	CBL6112A	2221	Aug. 2, 2002
* SCHWARZBECK Horn Antenna	BBHA9120-D1	D130	July 6, 2002
* EMCO Horn Antenna	3115	9312-4192	April 9, 2003
* EMCO Turn Table	1060	1115	NA
* SHOSHIN Tower	AP-4701	A6Y005	NA
* Software	AS61D4	NA	NA
* ANRITSU RF Switches	MP59B	M35046	Aug. 2, 2002
* TIMES RF cable	LMR-600	CABLE-ST5-01	Aug. 2, 2002
Open Field Test Site	Site 5	ADT-R05	July 28, 2002
VCCI Site Registration No.	Site 5	R-1039	NA

NOTE: 1. The measurement uncertainty is less than +/- 3.0dB, which is calculated as per the NAMAS document NIS81.

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

3. "*" = These equipment are used for the final measurement.

4. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

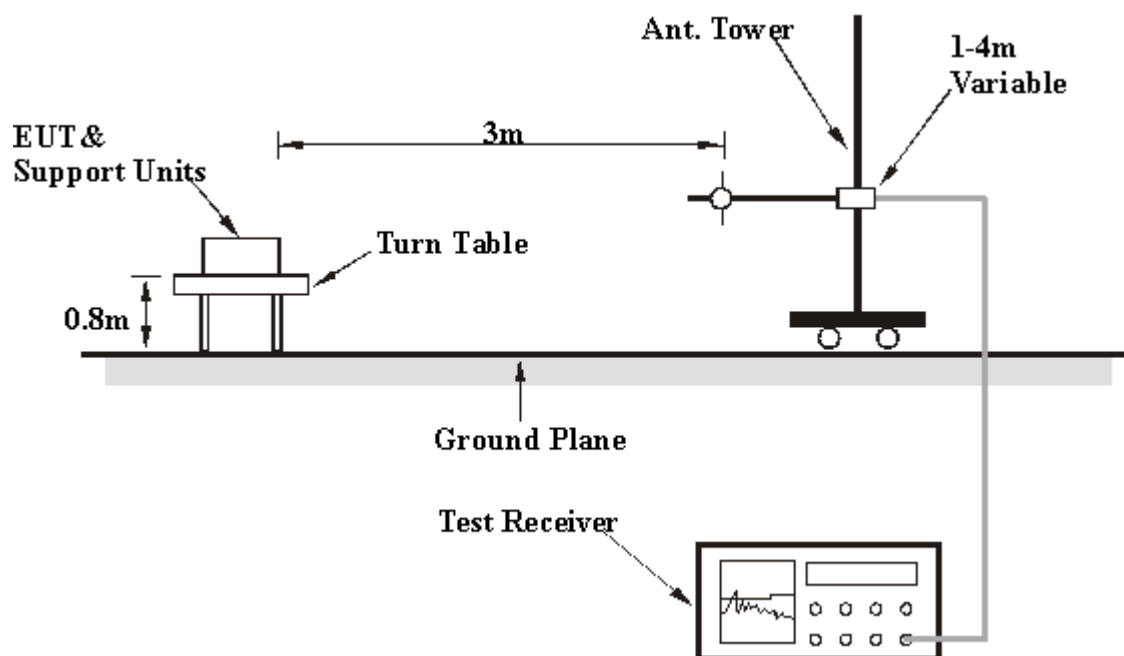
4.2.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. 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 10 dB 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 10 dB 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 300 Hz for Average detection (AV) at frequency above 1GHz.

4.2.4 TEST SETUP



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

4.2.5 EUT OPERATING CONDITIONS

Same as 4.1.5.

4.2.6 TEST RESULTS (TRANSMITTING)

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
FREQUENCY RANGE	30-1000 MHz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	125.00	22.1 QP	43.50	-21.40	2.42H	216	38.16	11.47	1.23	28.71	16.01
2	150.00	24.3 QP	43.50	-19.20	2.42H	19	41.40	10.30	1.31	28.71	17.10
3	200.00	30.4 QP	43.50	-13.10	1.48H	155	48.73	8.98	1.40	28.71	18.33
4	225.00	23.0 QP	46.00	-23.00	1.41H	340	39.75	10.41	1.56	28.71	16.75
5	250.00	27.3 QP	46.00	-18.70	1.12H	27	42.26	12.02	1.73	28.71	14.97
6	320.00	32.6 QP	46.00	-13.40	1.00H	182	45.71	13.62	1.98	28.71	13.10
7	325.00	22.8 QP	46.00	-23.20	1.00H	152	35.78	13.72	2.00	28.71	12.98
8	352.00	28.1 QP	46.00	-17.90	1.00H	19	40.38	14.31	2.12	28.71	12.29
9	375.00	22.3 QP	46.00	-23.70	1.61H	117	33.74	15.13	2.14	28.71	11.44
10	384.00	21.3 QP	46.00	-24.70	1.00H	5	32.36	15.50	2.15	28.71	11.06
11	500.00	28.4 QP	46.00	-17.60	1.58H	125	37.36	17.26	2.49	28.71	8.97
12	625.00	27.7 QP	46.00	-18.30	1.36H	276	34.56	18.91	2.94	28.71	6.87
13	750.00	24.3 QP	46.00	-21.70	1.24H	39	29.49	20.18	3.34	28.71	5.20
14	875.00	30.3 QP	46.00	-15.70	1.00H	123	34.74	20.63	3.63	28.71	4.45

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
FREQUENCY RANGE	30-1000 MHz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	125.00	35.0 QP	43.50	-8.50	1.00V	15	51.01	11.47	1.23	28.71	16.01
2	150.00	33.0 QP	43.50	-10.50	1.07V	6	50.10	10.30	1.31	28.71	17.10
3	200.00	28.8 QP	43.50	-14.70	2.03V	14	47.13	8.98	1.40	28.71	18.33
4	250.00	26.7 QP	46.00	-19.30	1.35V	5	41.66	12.02	1.73	28.71	14.96
5	300.00	21.0 QP	46.00	-25.00	1.34V	172	34.65	13.18	1.88	28.71	13.65
6	320.00	26.4 QP	46.00	-19.60	1.23V	5	39.50	13.62	1.98	28.71	13.10
7	352.00	24.8 QP	46.00	-21.20	1.53V	19	37.08	14.31	2.12	28.71	12.28
8	375.00	23.8 QP	46.00	-22.20	1.34V	316	35.24	15.13	2.14	28.71	11.44
9	500.00	27.9 QP	46.00	-18.10	1.27V	5	36.86	17.26	2.49	28.71	8.96
10	875.00	29.7 QP	46.00	-16.30	1.09V	16	34.18	20.63	3.63	28.71	4.45

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal Mode	CHANNEL	1
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5180.00	93.7 PK	-	-	1.46H	46	45.75	31.76	8.01	0.00	-39.78
*2	5180.00	85.5 AV	-	-	1.46H	46	53.95	31.76	8.01	0.00	-39.78
3	10360.00	50.9 AV	54.00	-3.10	1.21H	5	34.80	38.86	11.92	34.65	-16.12
4	10360.00	58.8 PK	74.00	-15.20	1.21H	5	42.70	38.86	11.92	34.65	-16.12

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5180.00	102.0 PK	-	-	0.99V	203	62.22	31.76	8.01	0.00	-39.78
*2	5180.00	93.2 AV	-	-	0.99V	203	53.42	31.76	8.01	0.00	-39.78
3	10360.00	51.4 AV	54.00	-2.60	1.00V	21	35.25	38.86	11.92	34.65	-16.12
4	10360.00	56.9 PK	74.00	-17.10	1.00V	356	40.80	38.86	11.92	34.65	-16.12

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. "*" : Fundamental frequency

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal Mode	CHANNEL	4
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5240.00	94.7 PK	-	-	1.28H	51	54.60	31.85	8.22	0.00	-40.06
*2	5240.00	86.8 PK	-	-	1.28H	51	46.70	31.85	8.22	0.00	-40.06
3	10480.00	51.0 AV	54.00	-3.00	1.26H	156	33.70	39.06	12.73	34.52	-17.27
4	10480.00	60.7 PK	74.00	-13.30	1.26H	56	43.40	39.06	12.73	34.52	-17.27

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5240.00	102.9 PK	-	-	1.27V	66	62.87	31.85	8.22	0.00	-40.06
*2	5240.00	94.9 PK	-	-	1.27V	66	54.82	31.85	8.22	0.00	-40.06
3	10480.00	51.5 AV	54.00	-2.50	1.14V	5	34.20	39.06	12.73	34.52	-17.27
4	10480.00	60.8 PK	74.00	-13.20	1.14V	5	43.50	39.06	12.73	34.52	-17.27

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. "*" : Fundamental frequency

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal Mode	CHANNEL	5
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5260.00	95.3 PK	-	-	1.36H	47	55.20	31.85	8.22	0.00	-40.06
*2	5260.00	87.3 AV	-	-	1.36H	47	47.20	31.85	8.22	0.00	-40.06
3	10520.00	51.3 AV	54.00	-2.70	1.24H	295	33.70	39.13	12.92	34.48	-17.56
4	10520.00	61.4 PK	74.00	-12.60	1.24H	340	43.80	39.13	12.92	34.48	-17.56

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5260.00	103.3 PK	-	-	1.21V	169	63.20	31.85	8.22	0.00	-40.06
*2	5260.00	94.7 AV	-	-	1.21V	169	54.60	31.85	8.22	0.00	-40.06
3	10520.00	51.6 AV	54.00	-2.40	1.27V	99	34.00	39.13	12.92	34.48	-17.56
4	10520.00	61.7 PK	74.00	-12.30	1.27V	189	44.10	39.13	12.92	34.48	-17.56

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. "*" : Fundamental frequency

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal Mode	CHANNEL	8
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5320.00	95.1 PK	-	-	1.49H	43	54.98	31.93	8.16	0.00	-40.10
*2	5320.00	86.7 PK	-	-	1.49H	43	46.56	31.93	8.16	0.00	-40.10
3	10641.00	51.8 AV	54.00	-2.20	1.34H	28	34.10	39.31	12.77	34.38	-17.69
4	10641.00	60.4 PK	74.00	-13.60	1.34H	28	42.70	39.31	12.77	34.38	-17.69

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)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5320.00	104.4 PK	-	-	1.17V	166	64.26	31.93	8.16	0.00	-40.10
*2	5320.00	95.4 PK	-	-	1.17V	166	55.29	31.93	8.16	0.00	-40.10
3	10641.00	51.9 AV	54.00	-2.10	1.37V	365	34.20	39.31	12.77	34.38	-17.69
4	10641.00	60.7 PK	74.00	-13.3	1.37V	365	43.00	39.31	12.77	34.38	-17.69

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. “*” : Fundamental frequency

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal Mode	CHANNEL	9
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5745.00	97.0 PK	-	-	1.72H	33	56.49	32.26	8.22	0.00	-40.48
*2	5745.00	88.3 AV	-	-	1.72H	33	47.80	32.26	8.22	0.00	-40.48
3	11490.00	60.7 PK	74.00	-13.30	1.23H	343	43.20	39.80	11.90	34.20	-17.50
4	11490.00	51.7 AV	54.00	-2.30	1.23H	343	34.20	39.80	11.90	34.20	-17.50

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5745.00	104.8 PK	-	-	1.48V	366	64.33	32.26	8.22	0.00	-40.48
*2	5745.00	97.3 AV	-	-	1.48V	349	56.80	32.26	8.22	0.00	-40.48
3	11490.00	51.8 AV	54.00	-2.20	1.39V	163	34.30	39.80	11.90	34.20	-17.50
4	11490.00	60.6 PK	74.00	-13.40	1.39V	289	43.10	39.80	11.90	34.20	-17.50

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. “*” : Fundamental frequency



EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal Mode	CHANNEL	12
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5805.00	96.5 PK	-	-	1.68H	95	55.84	32.28	8.35	0.00	-40.63
*2	5805.00	86.5 AV	-	-	1.68H	36	45.90	32.28	8.35	0.00	-40.63
3	11610.00	61.8 PK	74.00	-12.20	1.20H	81	44.40	39.62	12.02	34.30	-17.35
4	11610.00	51.0 AV	54.00	-3.00	1.20H	120	33.60	39.62	12.02	34.30	-17.35

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5805.00	102.9 PK	-	-	1.63V	287	62.30	32.28	8.35	0.00	-40.63
*2	5805.00	94.4 AV	-	-	1.63V	366	53.80	32.28	8.35	0.00	-40.63
3	11610.00	60.9 PK	74.00	-13.10	1.18V	36	43.50	39.62	12.02	34.30	-17.35
4	11610.00	51.4 AV	54.00	-2.60	1.18V	36	34.00	39.62	12.02	34.30	-17.35

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. “*” : Fundamental frequency

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo Mode	CHANNEL	1
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5210.00	93.40 PK	-	-	1.38H	16	53.40	31.81	8.15	0.00	-39.96
*2	5210.00	83.80 AV	-	-	1.38H	16	43.89	31.81	8.15	0.00	-39.96
3	10420.00	59.70 PK	74.00	-14.70	1.32H	104	42.93	39.00	12.34	34.56	-16.77
4	10420.00	51.30 AV	54.00	-2.70	1.32H	104	34.53	39.00	12.34	34.56	-16.77

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5210.00	101.10 PK	-	-	1.28V	192	61.10	31.81	8.15	0.00	-39.96
*2	5210.00	92.40 AV	-	-	1.28V	192	52.40	31.81	8.15	0.00	-39.96
3	10420.00	51.00 AV	54.00	-3.00	1.08V	56	34.23	39.00	12.34	34.56	-16.77
4	10420.00	59.30 PK	74.00	-14.70	1.08V	56	42.53	39.00	12.34	34.56	-16.77

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. “*” : Fundamental frequency

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo Mode	CHANNEL	3
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5290.00	92.90 PK	-	-	1.37H	36	52.77	31.89	8.28	0.00	-40.17
*2	5290.00	83.90 AV	-	-	1.37H	36	43.73	31.89	8.28	0.00	-40.17
3	10580.00	51.30 AV	54.00	-2.70	1.20H	96	33.70	39.19	12.86	34.45	-17.60
4	10580.00	61.00 PK	74.00	-13.00	1.20H	96	43.40	39.19	12.86	34.45	-17.60

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)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5290.00	100.70 PK	-	-	1.37V	36	60.50	31.89	8.28	0.00	-40.17
*2	5290.00	92.00 AV	-	-	1.37V	36	51.78	31.89	8.28	0.00	-40.17
3	10580.00	60.30 PK	74.00	-13.70	1.64V	182	42.70	39.19	12.86	34.45	-17.60
4	10580.00	51.60 AV	54.00	-2.40	1.64V	182	34.00	39.19	12.86	34.45	-17.60

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. “*” : Fundamental frequency

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo Mode	CHANNEL	4
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5760.00	88.60 PK	-	-	1.07H	2	48.12	32.26	8.22	0.00	-40.48
*2	5760.00	80.50 AV	-	-	1.07H	2	40.02	32.26	8.22	0.00	-40.48
3	11520.00	51.20 AV	54.00	-2.80	1.34H	194	33.75	39.74	11.94	34.23	-17.45
4	11520.00	60.00 PK	74.00	-14.00	1.34H	194	42.55	39.74	11.94	34.23	-17.45

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5760.00	99.60 PK	-	-	1.09V	161	59.12	32.26	8.22	0.00	-40.48
*2	5760.00	91.70 AV	-	-	1.09V	161	51.22	32.26	8.22	0.00	-40.48
3	11520.00	60.30 PK	74.00	-13.70	1.45V	69	42.85	39.74	11.94	34.23	-17.45
4	11520.00	51.70 AV	54.00	-2.30	1.45V	69	34.25	39.74	11.94	34.23	-17.45

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. “*” : Fundamental frequency

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo Mode	CHANNEL	5
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5800.00	88.40 PK	-	-	1.19H	353	47.77	32.28	8.35	0.00	-40.63
*2	5800.00	80.00 AV	-	-	1.19H	353	39.37	32.28	8.35	0.00	-40.63
3	11600.00	60.90 PK	74.0	-13.10	1.66H	269	43.51	39.68	11.97	34.27	-17.39
4	11600.00	51.10 AV	54.0	-2.90	1.66H	269	33.71	39.68	11.97	34.27	-17.39

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
*1	5800.00	95.70 PK	-	-	1.16V	42	55.07	32.28	8.35	0.00	-40.63
*2	5800.00	86.30 PK	-	-	1.16V	42	45.67	32.28	8.35	0.00	-40.63
3	11600.00	50.80 AV	54.0	-3.20	1.44V	176	33.41	39.68	11.97	34.27	-17.39
4	11600.00	59.90 PK	74.0	-14.10	1.44V	176	42.51	39.68	11.97	34.27	-17.39

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. “*” : Fundamental frequency

4.2.7 TEST RESULTS(RECEIVING)

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
FREQUENCY RANGE	30-1000 MHz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	125.00	24.7 QP	43.50	-18.80	1.75H	341	40.71	11.47	1.23	28.71	16.01
2	150.00	24.7 QP	43.50	-18.80	1.75H	167	41.80	10.30	1.31	28.71	17.10
3	200.00	32.9 QP	43.50	-10.60	1.60H	19	51.23	8.98	1.40	28.71	18.33
4	225.00	18.3 QP	46.00	-27.70	1.29H	135	35.05	10.41	1.56	28.71	16.75
5	250.00	29.7 QP	46.00	-16.30	1.57H	19	44.66	12.02	1.73	28.71	14.97
6	275.00	21.9 QP	46.00	-24.10	1.13H	139	36.23	12.59	1.79	28.71	14.33
7	300.00	23.2 QP	46.00	-22.80	1.22H	64	36.85	13.18	1.88	28.71	13.65
8	320.00	30.4 QP	46.00	-15.60	1.35H	230	43.50	13.62	1.98	28.71	13.10
9	325.00	23.0 QP	46.00	-23.00	1.00H	136	35.98	13.72	2.00	28.71	12.98
10	350.00	20.1 QP	46.00	-25.90	1.06H	19	32.48	14.21	2.12	28.71	12.39
11	352.00	28.8 QP	46.00	-17.20	1.31H	184	41.08	14.31	2.12	28.71	12.28
12	375.00	23.4 QP	46.00	-22.60	1.06H	239	34.81	15.13	2.14	28.71	11.44
13	384.00	19.7 QP	46.00	-26.30	1.07H	115	30.76	15.50	2.15	28.71	11.06
14	500.00	29.2 QP	46.00	-16.80	1.56H	5	38.16	17.26	2.49	28.71	8.97
15	625.00	27.4 QP	46.00	-18.60	1.53H	97	34.26	18.91	2.94	28.71	6.87
16	750.00	23.1 QP	46.00	-22.90	1.38H	251	28.29	20.18	3.34	28.71	5.20
17	800.00	25.4 QP	46.00	-20.60	1.10H	124	30.05	20.69	3.38	28.71	4.66
18	875.00	28.3 QP	46.00	-17.70	1.00H	20	32.74	20.63	3.63	28.71	4.45

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
FREQUENCY RANGE	30-1000 MHz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	125.00	21.8 QP	43.50	-21.70	1.38V	98	37.81	11.47	1.23	28.71	16.01
2	150.00	31.6 QP	43.50	-11.90	1.27V	19	48.70	10.30	1.31	28.71	17.10
3	200.00	29.3 QP	43.50	-14.20	1.38V	95	47.63	8.98	1.40	28.71	18.33
4	200.00	32.9 QP	43.50	-10.60	1.38V	181	51.20	8.98	1.40	28.71	18.33
5	225.00	20.3 QP	46.00	-25.70	1.12V	254	37.05	10.41	1.56	28.71	16.75
6	250.00	27.5 QP	46.00	-18.50	1.07V	86	42.46	12.02	1.73	28.71	14.97
7	275.00	20.0 QP	46.00	-26.00	1.17V	172	34.34	12.59	1.79	28.71	14.33
8	300.00	22.2 QP	46.00	-23.80	1.10V	80	35.85	13.18	1.88	28.71	13.65
9	320.00	23.0 QP	46.00	-23.00	1.33V	38	36.10	13.62	1.98	28.71	13.10
10	352.00	27.8 QP	46.00	-18.20	1.38V	296	40.08	14.31	2.12	28.71	12.28
11	375.00	21.9 QP	46.00	-24.10	1.03V	112	33.34	15.13	2.14	28.71	11.44
12	500.00	29.4 QP	46.00	-16.60	1.00V	20	38.36	17.26	2.49	28.71	8.96
13	625.00	29.1 QP	46.00	-16.90	1.05V	123	35.99	18.91	2.94	28.71	6.86
14	875.00	28.8 QP	46.00	-17.20	1.49V	48	33.24	20.63	3.63	28.71	4.45

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal Mode	CHANNEL	1
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4144.00	44.6 PK	74.00	-29.40	1.32H	286	42.10	30.32	6.70	34.56	-2.46
2	4144.00	33.7 AV	54.00	-20.30	1.32H	221	31.20	30.32	6.70	34.56	-2.46

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4144.00	33.0 AV	54.00	-21.00	1.22V	353	30.50	30.32	6.70	34.56	-2.46
2	4144.00	43.8 PK	74.00	-30.20	1.23V	366	41.30	30.32	6.70	34.56	-2.46

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal Mode	CHANNEL	4
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4192.00	34.9 AV	54.00	-19.10	1.40H	253	32.40	30.41	6.68	34.58	-2.51
2	4192.00	46.0 PK	74.00	-28.00	1.40H	198	43.50	30.41	6.68	34.58	-2.51

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4192.00	33.7 AV	54.00	-20.30	1.21V	125	31.20	30.41	6.68	34.58	-2.51
2	4192.00	44.8 PK	74.00	-29.20	1.21V	200	42.30	30.41	6.68	34.58	-2.51

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.



EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal Mode	CHANNEL	5
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4208.00	35.4 AV	54.00	-18.60	1.00H	366	32.90	30.41	6.68	34.58	-2.51
2	4208.00	45.0 PK	74.00	-29.00	1.00H	366	42.46	30.41	6.68	34.58	-2.51

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4208.00	46.3 PK	74.00	-27.70	1.05V	366	43.80	30.41	6.68	34.58	-2.51
2	4208.00	36.4 AV	54.00	-17.60	1.05V	366	33.90	30.41	6.68	34.58	-2.51

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.



EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal Mode	CHANNEL	8
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4256.00	36.5 AV	54.00	-17.50	1.27H	292	33.80	30.60	6.75	34.61	-2.74
2	4256.00	47.4 PK	74.00	-26.60	1.27H	242	44.70	30.60	6.75	34.61	-2.74

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4256.00	46.8 PK	74.00	-27.20	1.39V	324	44.10	30.60	6.75	34.61	-2.74
2	4256.00	35.5 AV	54.00	-18.50	1.39V	324	32.80	30.60	6.75	34.61	-2.74

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal Mode	CHANNEL	9
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4546.00	47.2 PK	74.00	-26.80	1.69H	132	43.20	31.13	7.54	34.69	-3.97
2	4546.00	38.4 AV	54.00	-15.60	1.69H	36	34.40	31.13	7.54	34.69	-3.97

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4546.00	36.9 AV	54.00	-17.10	1.18V	16.	32.90	31.13	7.54	34.69	-3.97
2	4546.00	47.8 PK	74.00	-26.20	1.18V	193	43.80	31.13	7.54	34.69	-3.97

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal Mode	CHANNEL	12
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4644.00	47.8 PK	74.00	-26.20	1.68H	147	43.70	31.26	7.54	34.67	-4.12
2	4644.00	38.0 AV	54.00	-16.00	1.68H	213	33.90	31.26	7.54	34.67	-4.12

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4644.00	37.2 AV	54.00	-16.80	1.14V	259	33.10	31.26	7.54	34.67	-4.12
2	4644.00	48.3 PK	74.00	-25.70	1.14V	197	44.20	31.26	7.54	34.67	-4.12

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.



EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo Mode	CHANNEL	1
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4168.00	38.9 AV	54.00	-15.10	1.67H	320	36.39	30.41	6.68	34.58	-2.51
2	4168.00	47.5 PK	74.00	-26.50	1.67H	320	44.99	30.41	6.68	34.58	-2.51

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4168.00	46.6 PK	74.00	-27.40	1.22V	170	44.09	30.41	6.68	34.58	-2.51
2	4168.00	37.5 AV	54.00	-16.50	1.22V	170	34.99	30.41	6.68	34.58	-2.51

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo Mode	CHANNEL	3
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4232.00	38.2 AV	54.00	-15.80	1.64H	312	35.58	30.51	6.70	34.59	-2.62
2	4232.00	47.9 PK	74.00	-6.10	1.64H	312	45.28	30.51	6.70	34.59	-2.62

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4232.00	39.8 AV	54.00	-14.20	1.12V	113	37.18	30.51	6.70	34.59	-2.62
2	4232.00	48.6 PK	74.00	-25.40	1.12V	113	45.98	30.51	6.70	34.59	-2.62

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo Mode	CHANNEL	4
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4608.00	46.5 PK	74.00	-27.50	1.74H	330	42.33	31.21	7.64	34.68	-4.17
2	4608.00	36.9 AV	54.00	-17.10	1.74H	330	32.73	31.21	7.64	34.68	-4.17

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4608.00	37.7 AV	54.00	-16.30	1.06V	217	33.53	31.21	7.64	34.68	-4.17
2	4608.00	48.5 PK	74.00	-25.50	1.06V	217	44.33	31.21	7.64	34.68	-4.17

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.



EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo Mode	CHANNEL	5
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1050 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Bunny Yao		

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4640.00	36.0 AV	54.00	-18.00	1.73H	141	31.88	31.26	7.54	34.67	-4.12
2	4640.00	46.2 PK	74.00	-7.80	1.73H	141	42.08	31.26	7.54	34.67	-4.12

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	4640.00	46.3 PK	74.00	-27.70	1.12V	33	42.18	31.26	7.54	34.67	-4.12
2	4640.00	35.7 AV	54.00	-18.30	1.12V	33	31.58	31.26	7.54	34.67	-4.12

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

4.3 PEAK TRANSMIT POWER MEASUREMENT

4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

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

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

4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
ROHDE&SCHWARZ SINGLE CHANNEL POWER METER	NRVS	100026	Mar. 21, 2003
ROHDE&SCHWARZ PEAK POWER METER CHANNEL POWER METER	NRV-Z32	100013	Mar. 21, 2003

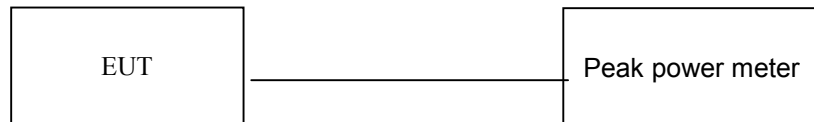
NOTE:

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
- 2.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

The transmitter output was connected to the peak power sensor.

4.3.4 TEST SETUP



4.3.5 EUT OPERATING CONDITIONS

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

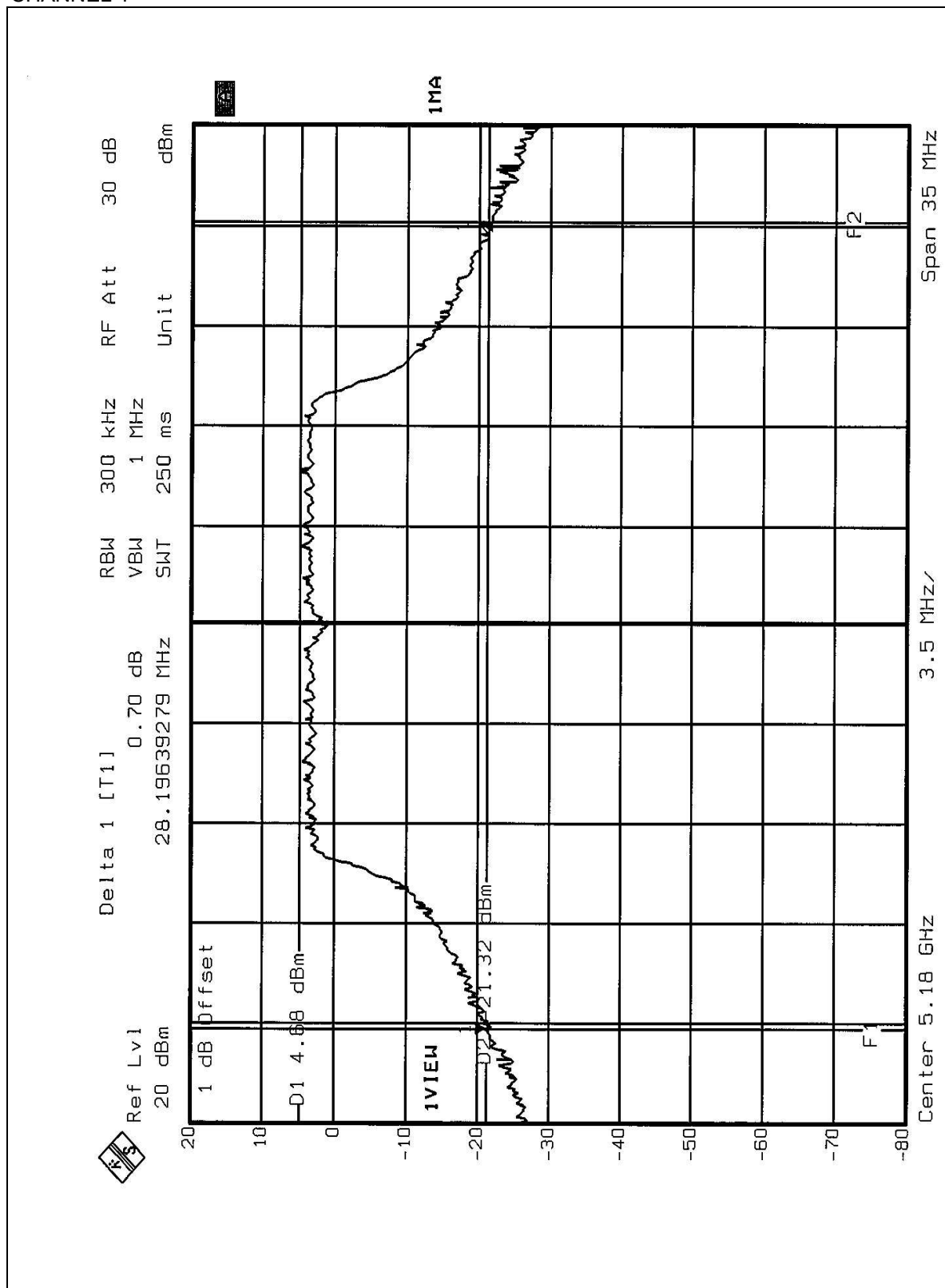
4.3.6 TEST RESULTS

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	26 deg. C, 52%RH, 1005 hPa	TESTED BY	Steven Lu

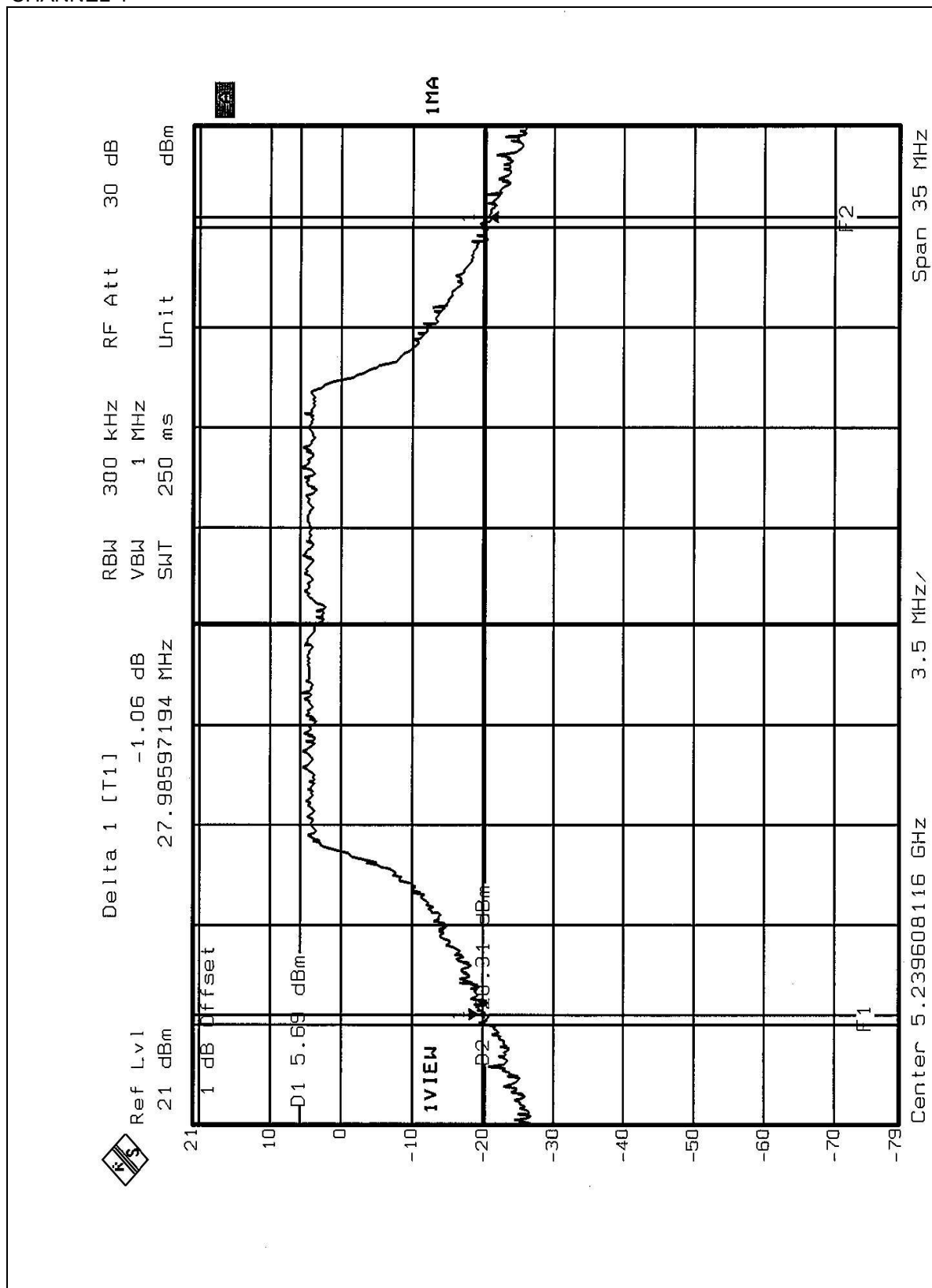
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/FAIL
1	5180	16.22	17.00	28.196	PASS
4	5240	16.24	17.00	27.985	PASS
5	5260	19.04	24.00	29.178	PASS
8	5320	16.46	24.00	28.757	PASS
9	5745	19.23	30.00	29.599	PASS
12	5805	19.11	30.00	31.583	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to next 6 pages.

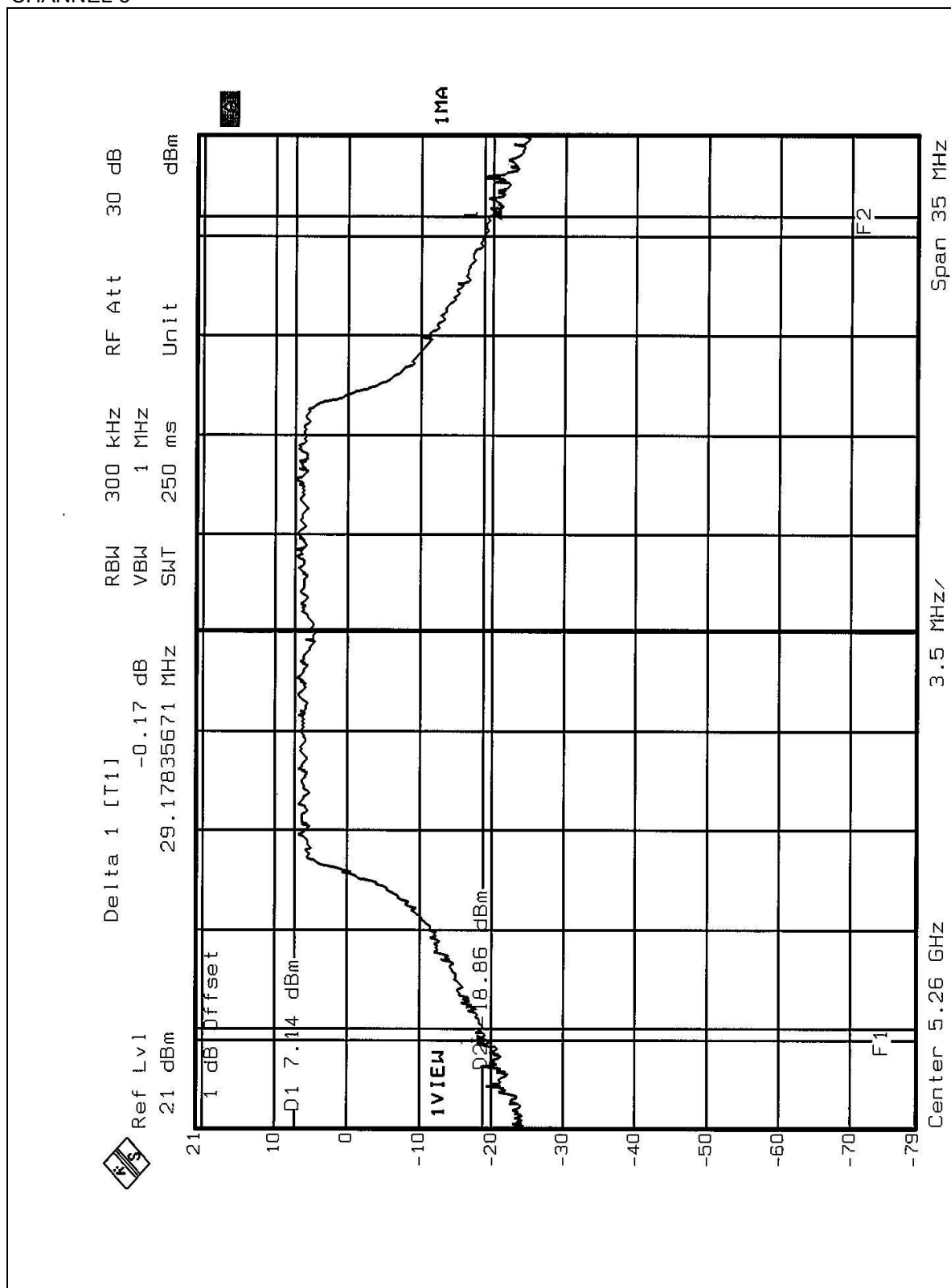
CHANNEL 1



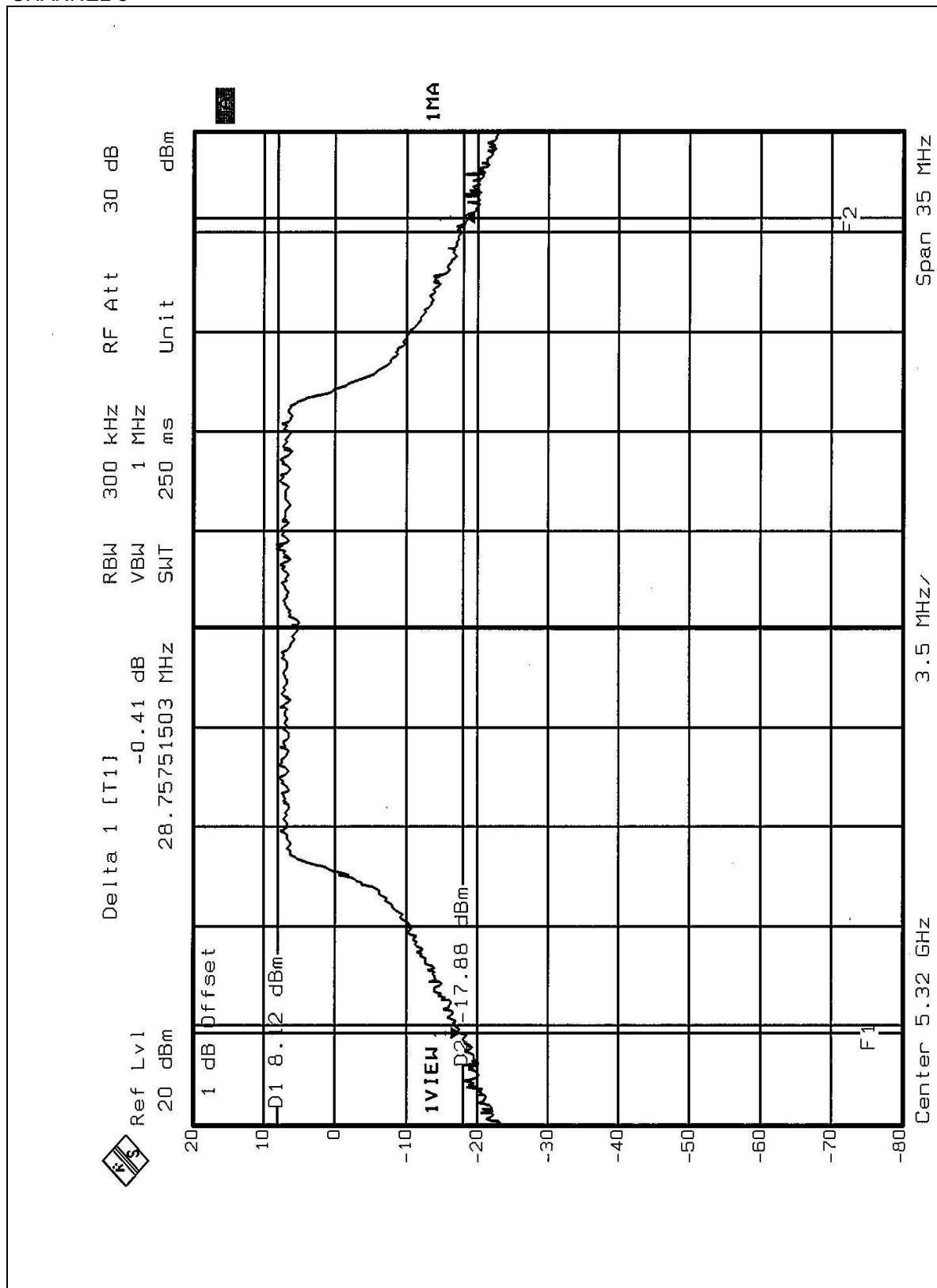
CHANNEL 4



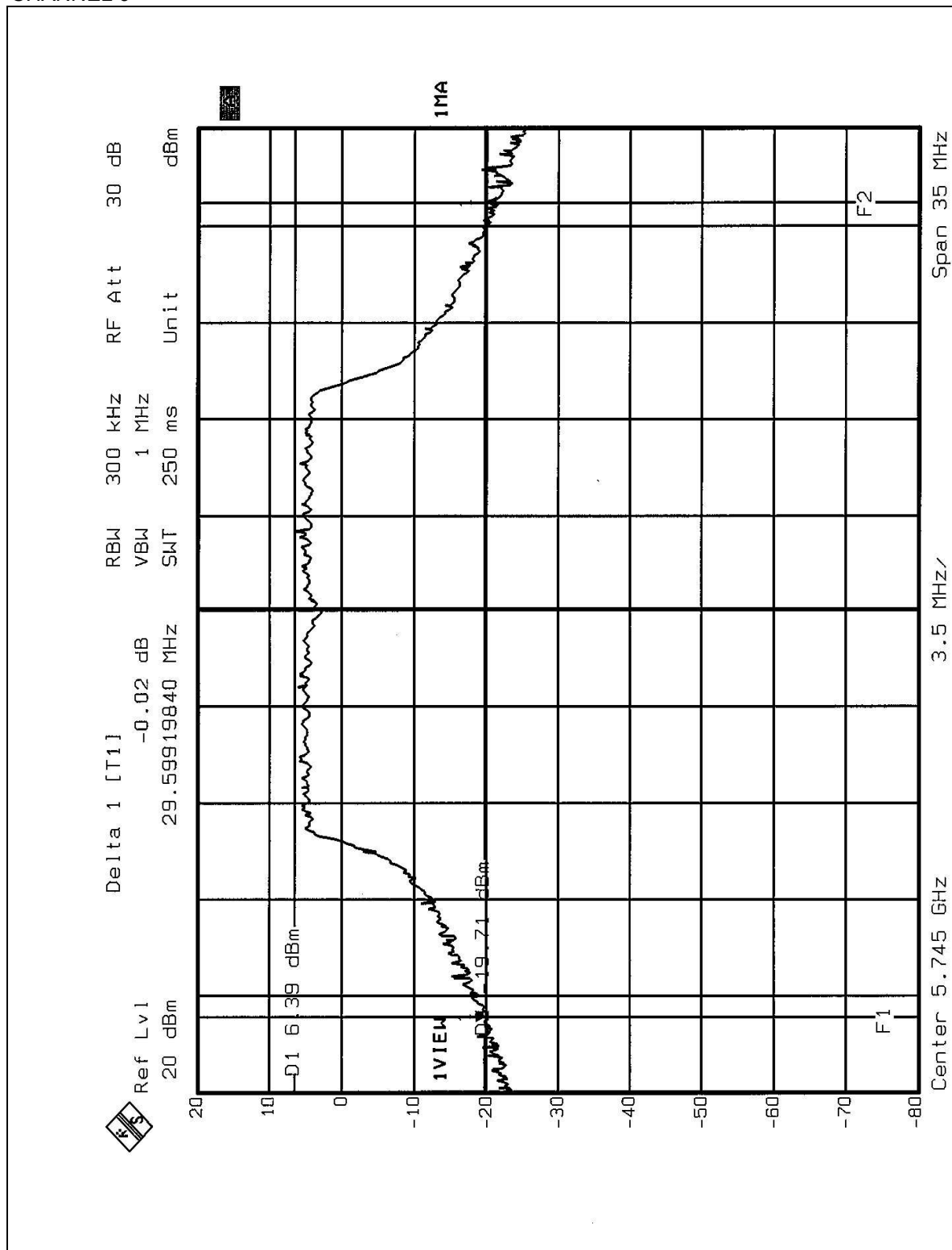
CHANNEL 5



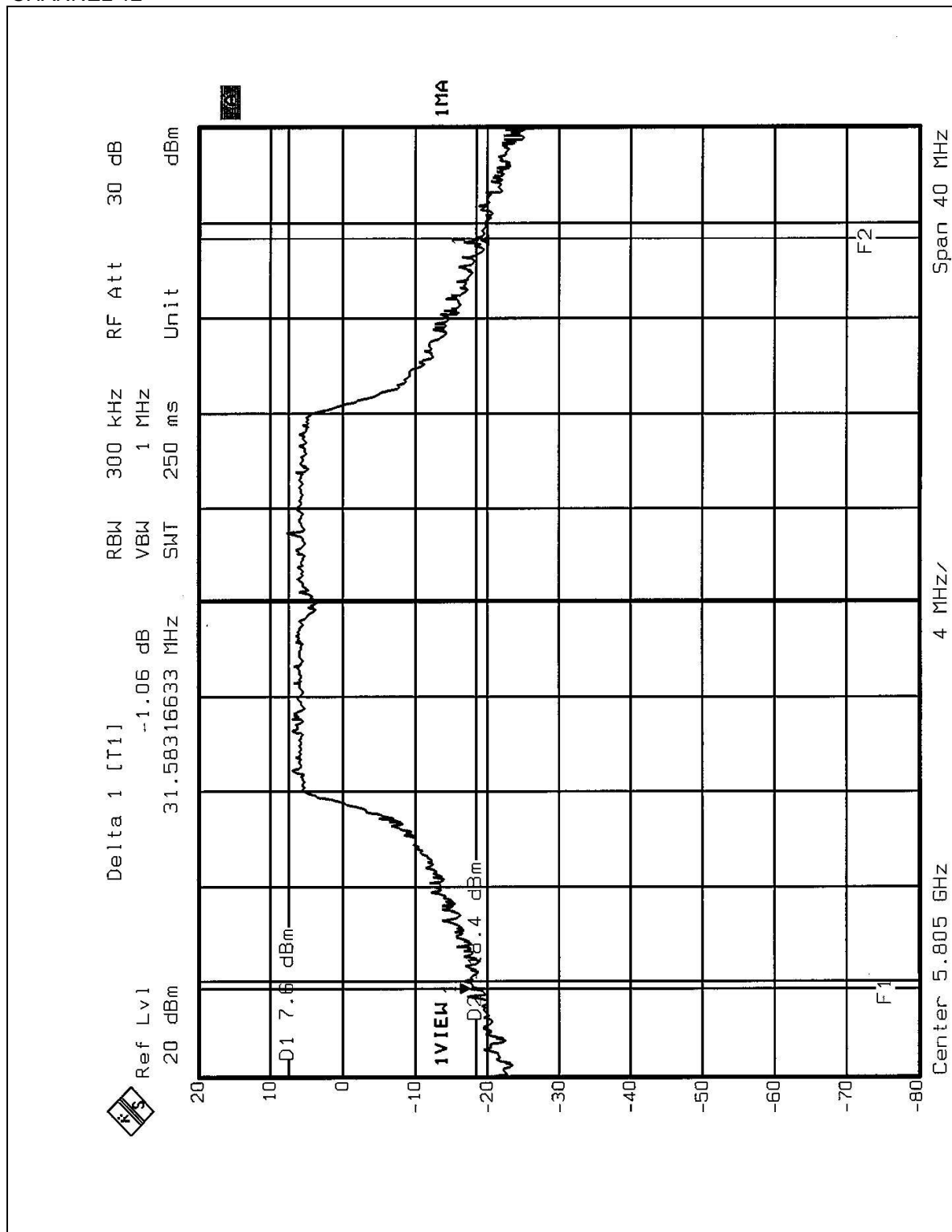
CHANNEL 8



CHANNEL 9



CHANNEL 12



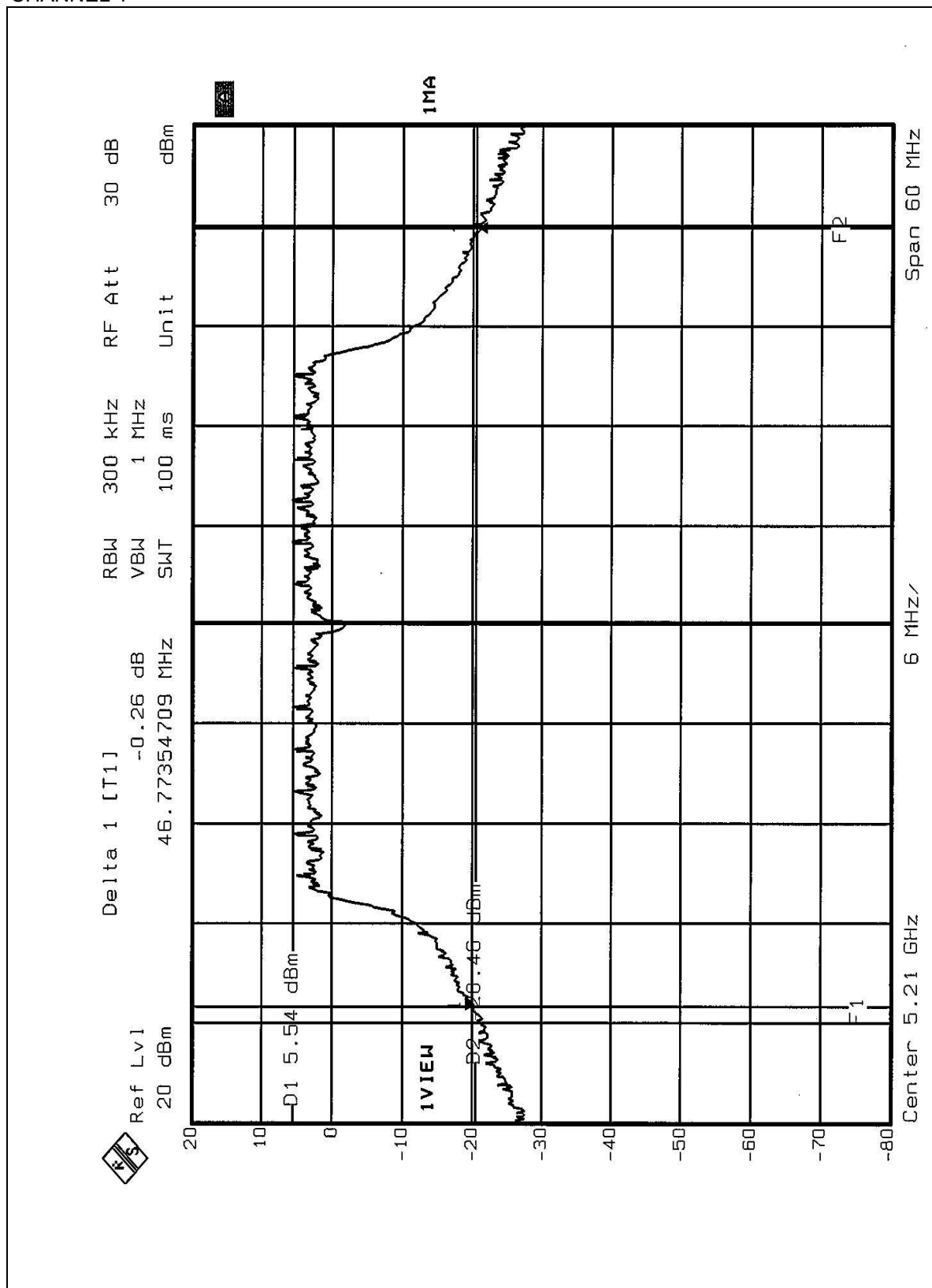


EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	26 deg. C, 52%RH, 1005 hPa	TESTED BY	Steven Lu

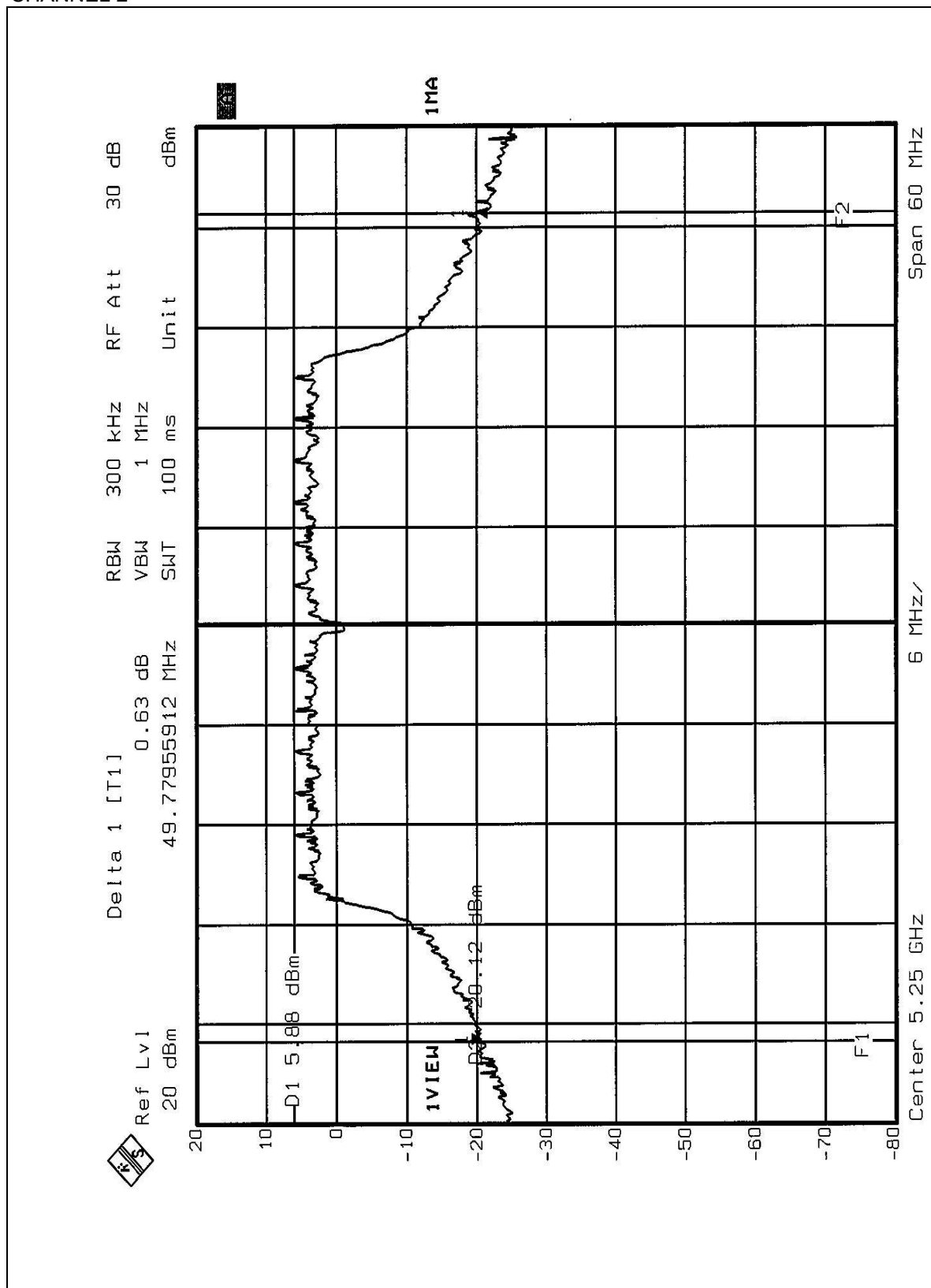
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/FAIL
1	5210	16.81	17.00	46.7735	PASS
2	5250	16.72	17.00	49.7796	PASS
3	5290	16.84	24.00	49.4188	PASS
4	5760	14.96	30.00	49.8998	PASS
5	5800	10.87	30.00	48.0962	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to next 5 pages.

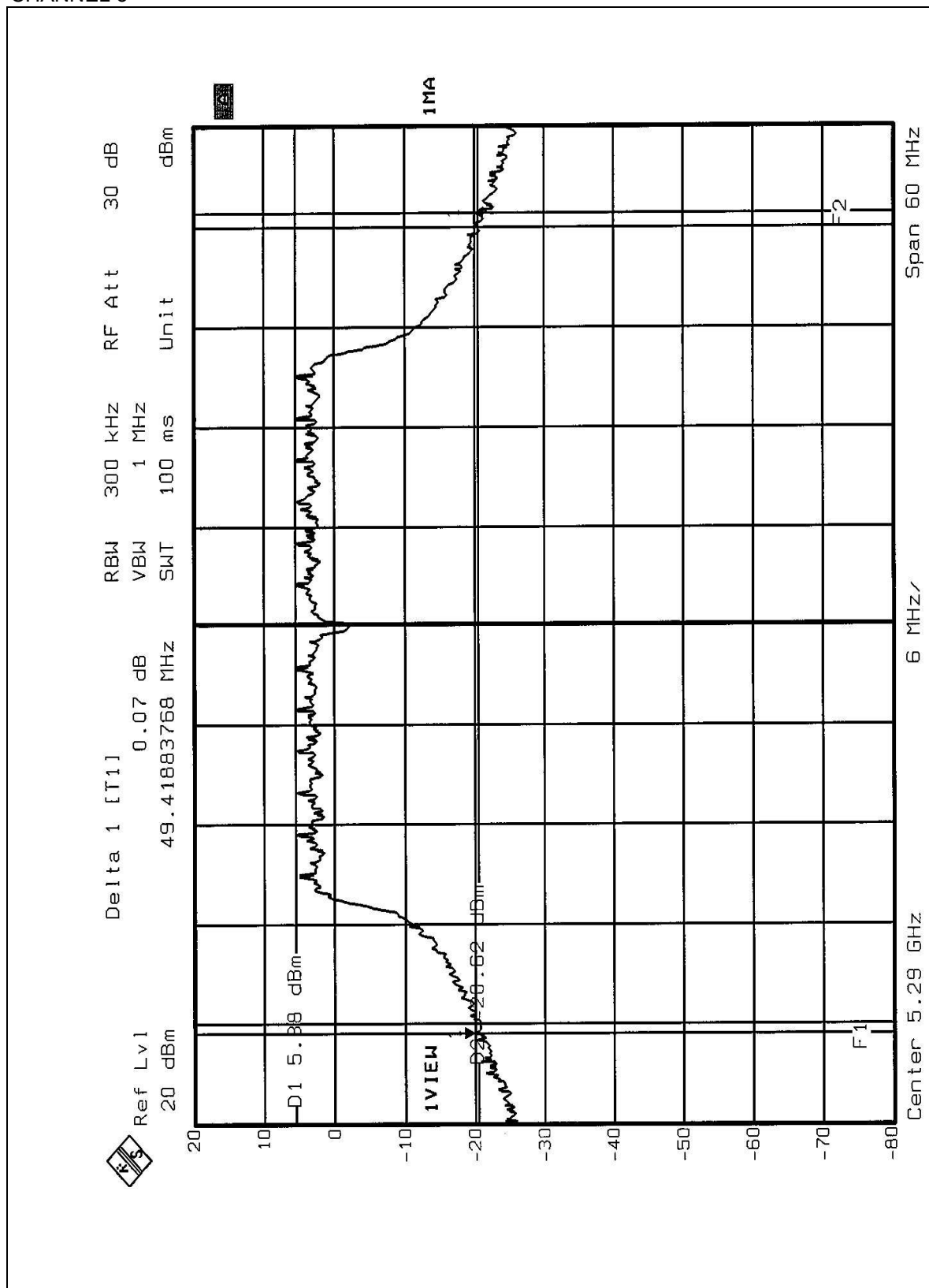
CHANNEL 1



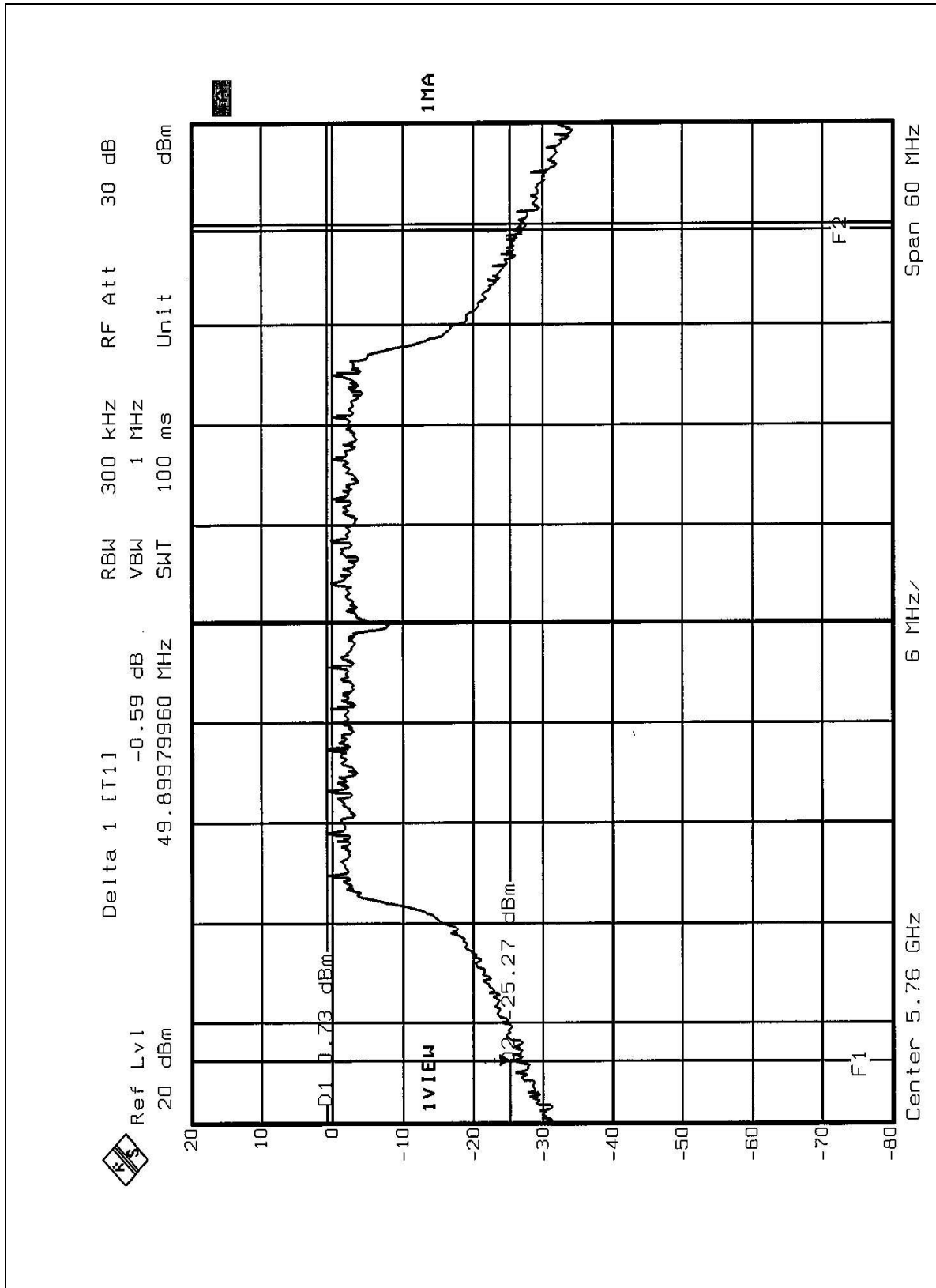
CHANNEL 2



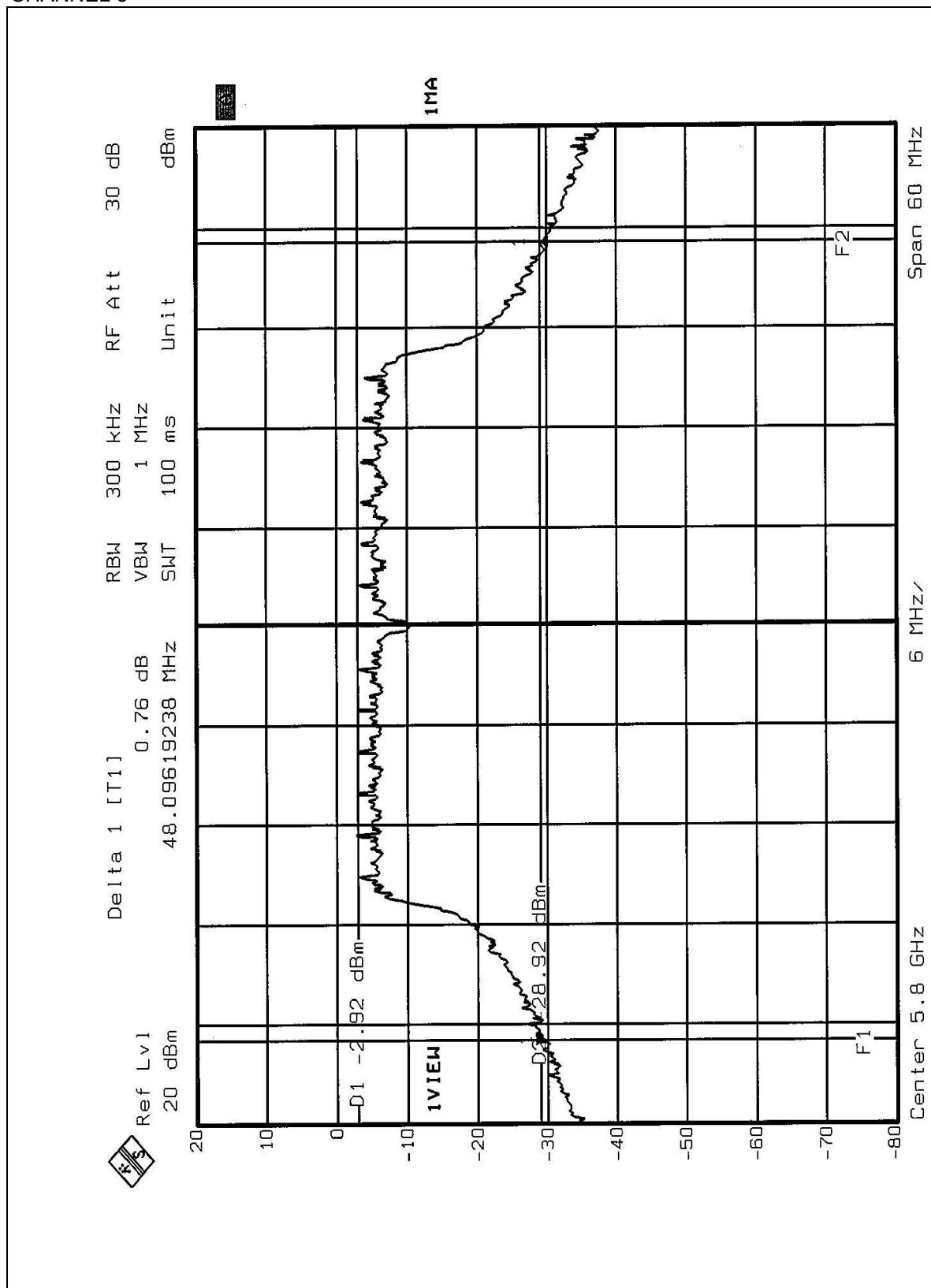
CHANNEL 3



CHANNEL 4



CHANNEL 5



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
ROHDE&SCHWARZ SPECTRUM ANALYZER	FSEK30	100049	July 17, 2002

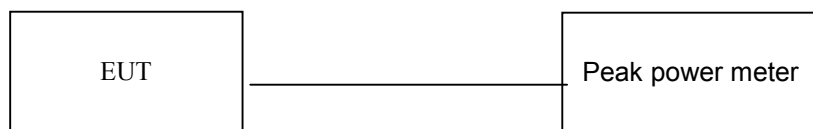
NOTE:

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
- 2.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 and 2 with proper resolution bandwidth setting.
4. The largest difference between Trace 1 and Trace 2 in any 1MHz band on any frequency was recorded.

4.4.4 TEST SETUP



4.4.5 EUT OPERATING CONDITIONS

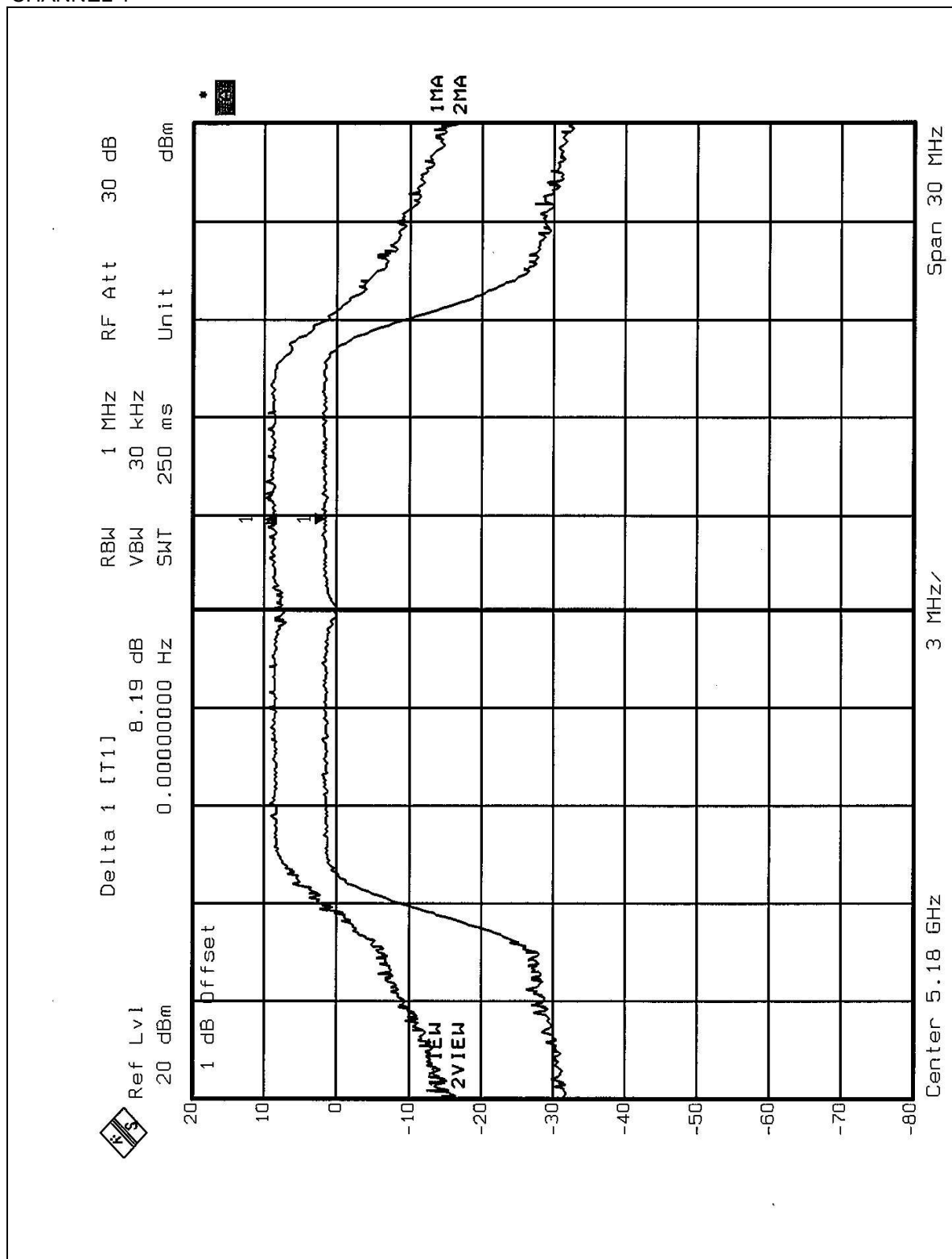
The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.4.6 TEST RESULTS

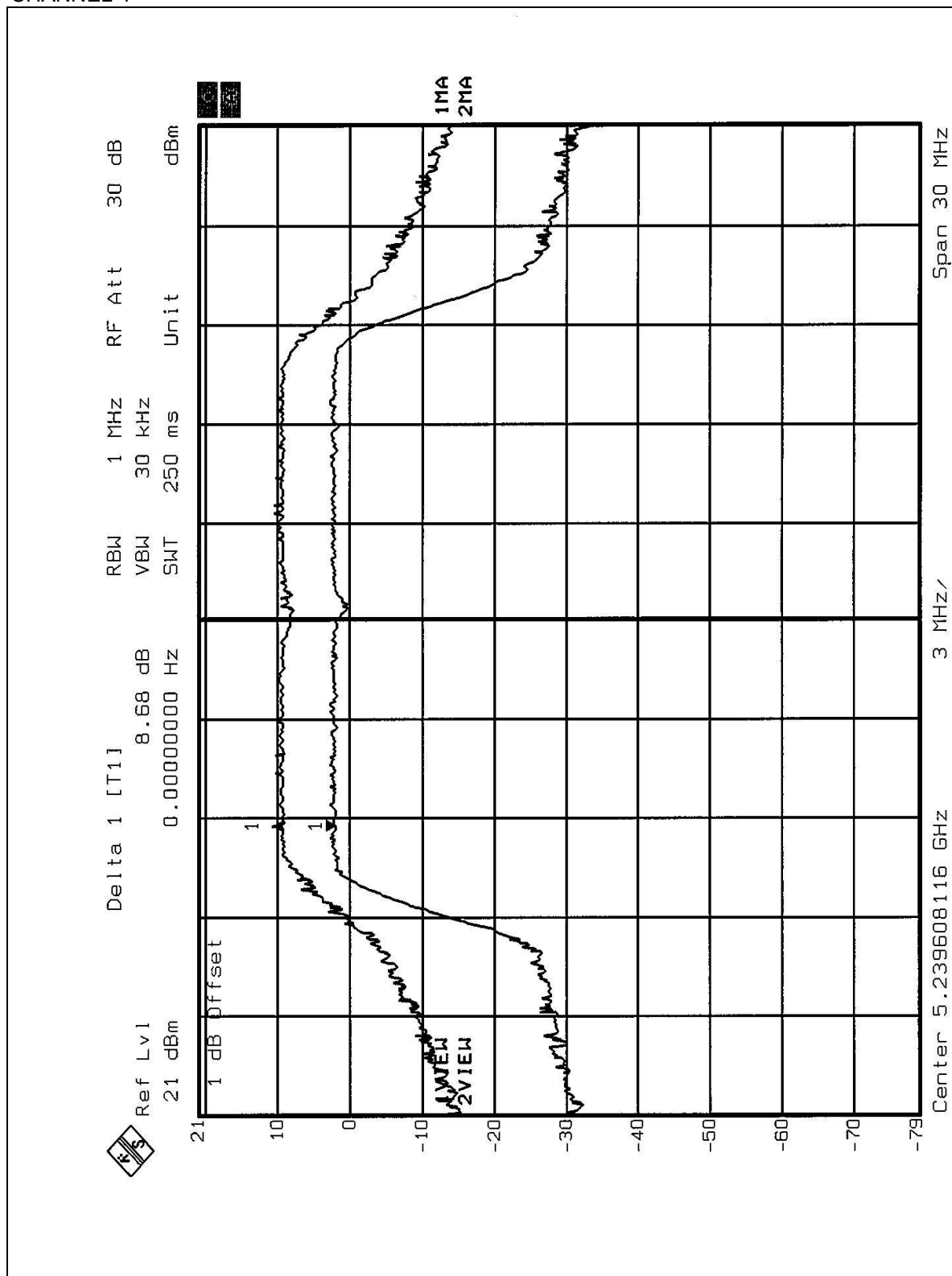
EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	27 deg. C, 52%RH, 1005 hPa	TESTED BY	Steven Lu

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
1	5180	8.19	13	PASS
4	5240	8.68	13	PASS
5	5260	8.36	13	PASS
8	5320	8.30	13	PASS
9	5745	8.68	13	PASS
12	5805	8.46	13	PASS

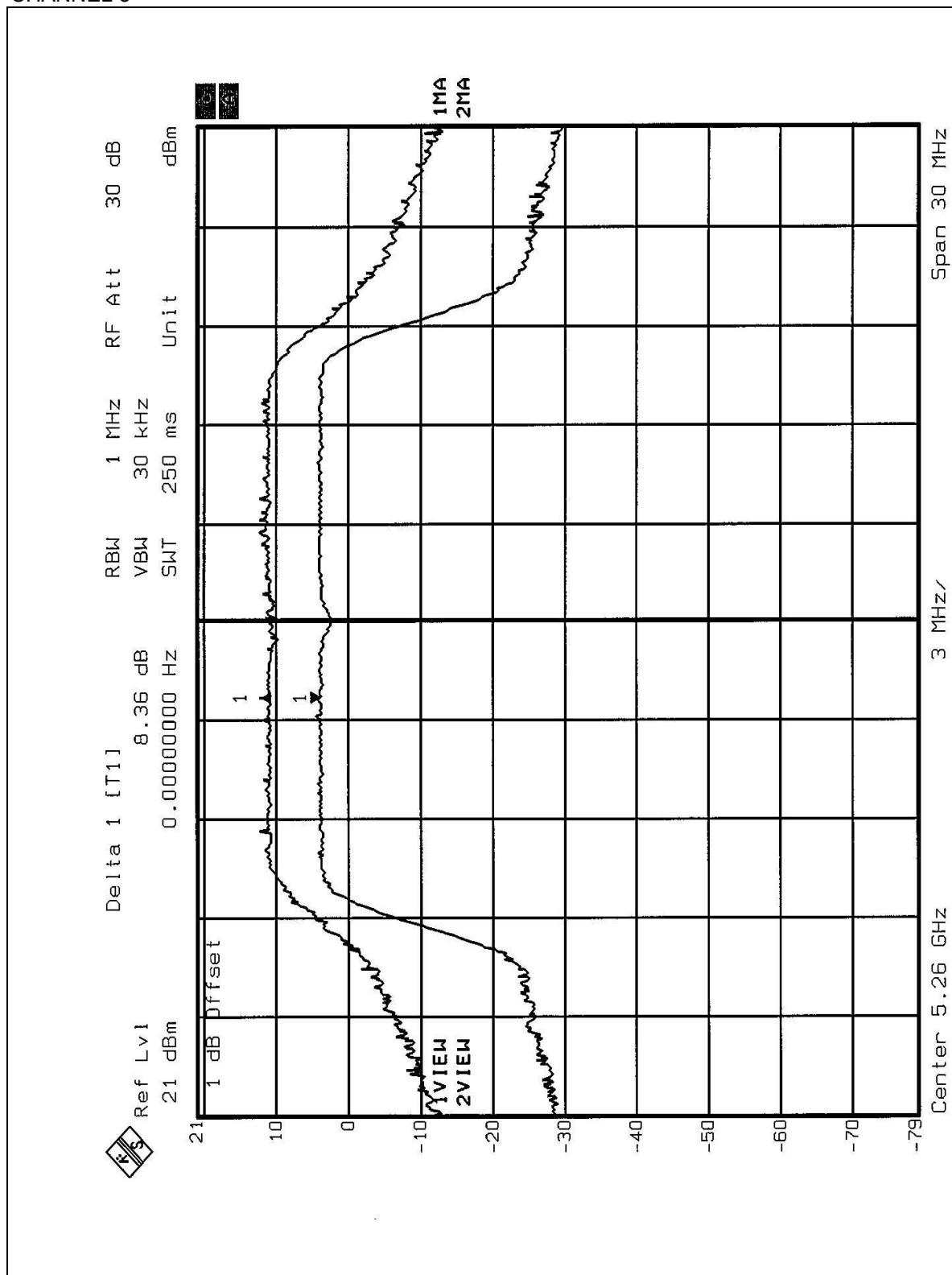
CHANNEL 1



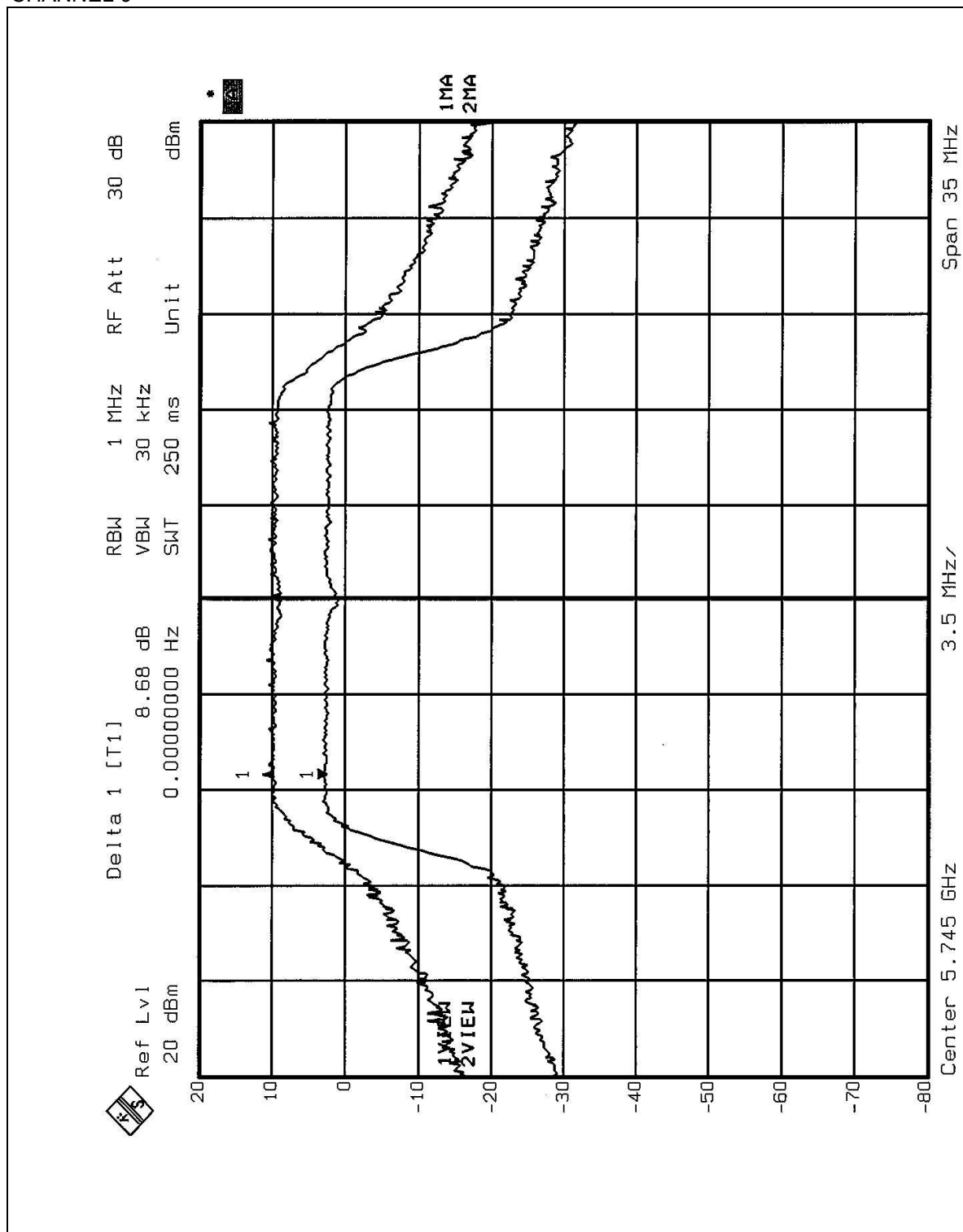
CHANNEL 4



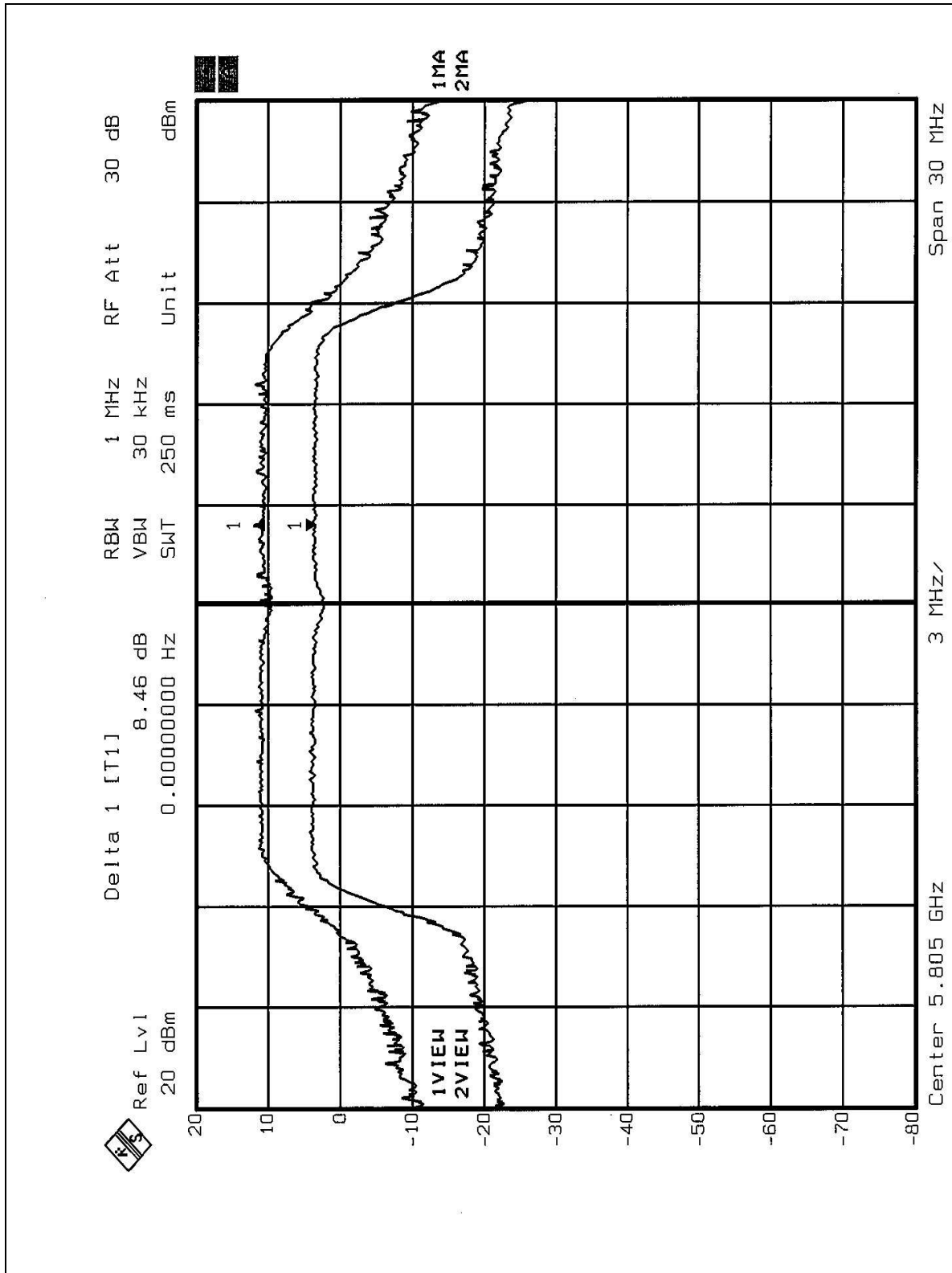
CHANNEL 5



CHANNEL 9



CHANNEL 12

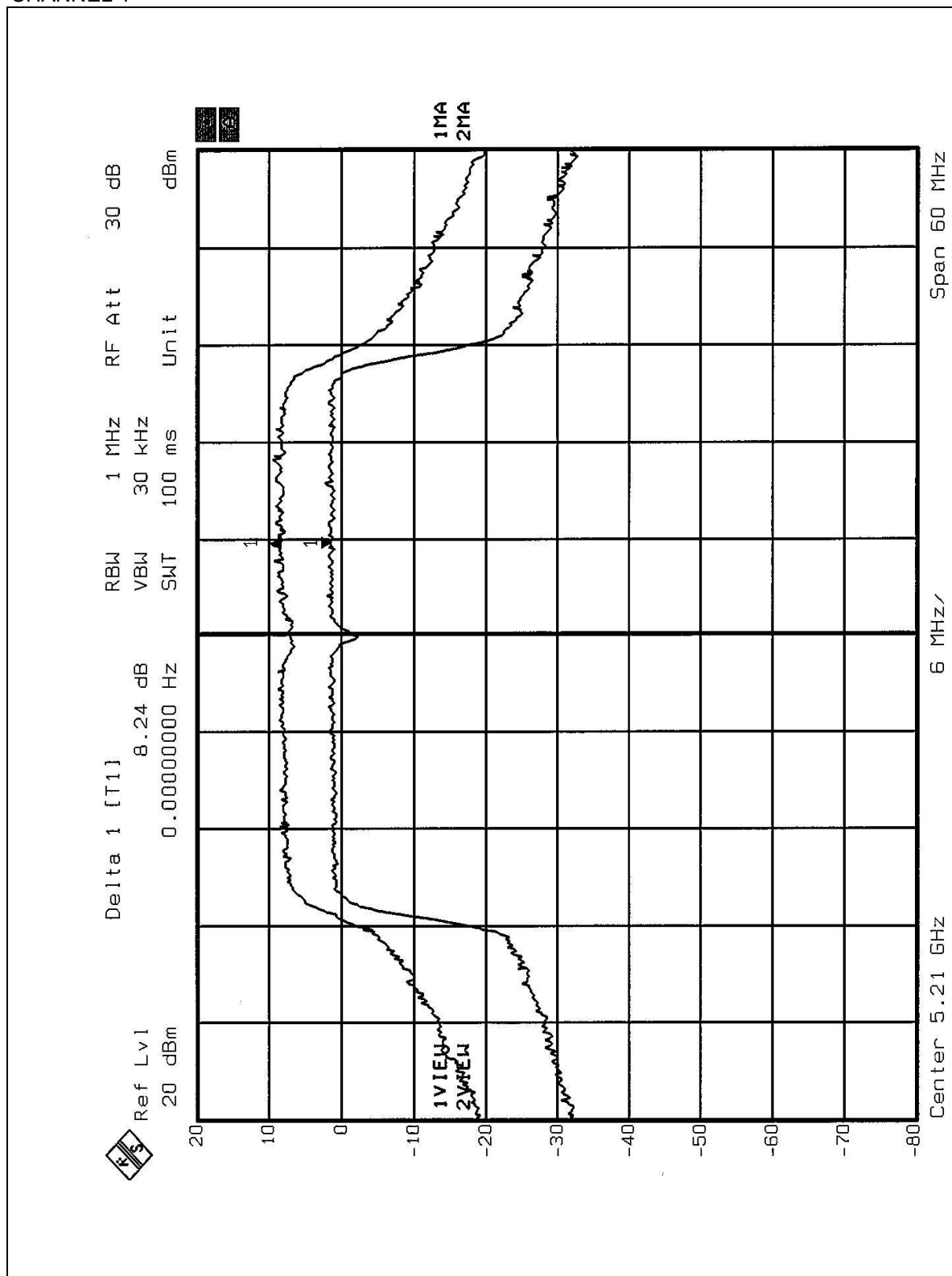




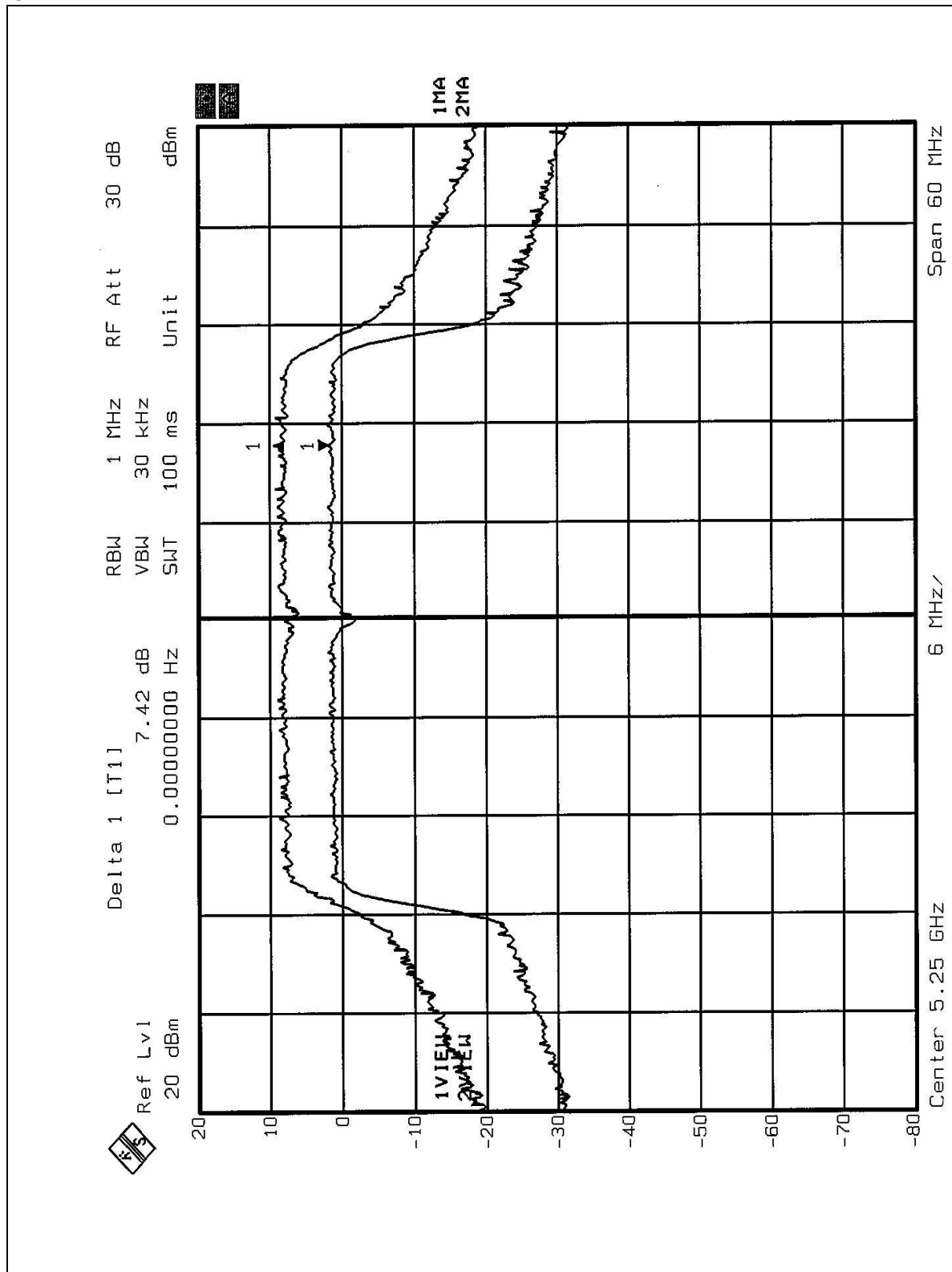
EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Turbo	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	26 deg. C, 52%RH, 1005 hPa	TESTED BY	Steven Lu

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dBm)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
1	5210	8.24	13	PASS
2	5250	7.42	13	PASS
3	5290	8.26	13	PASS
4	5760	8.17	13	PASS
5	5800	7.93	13	PASS

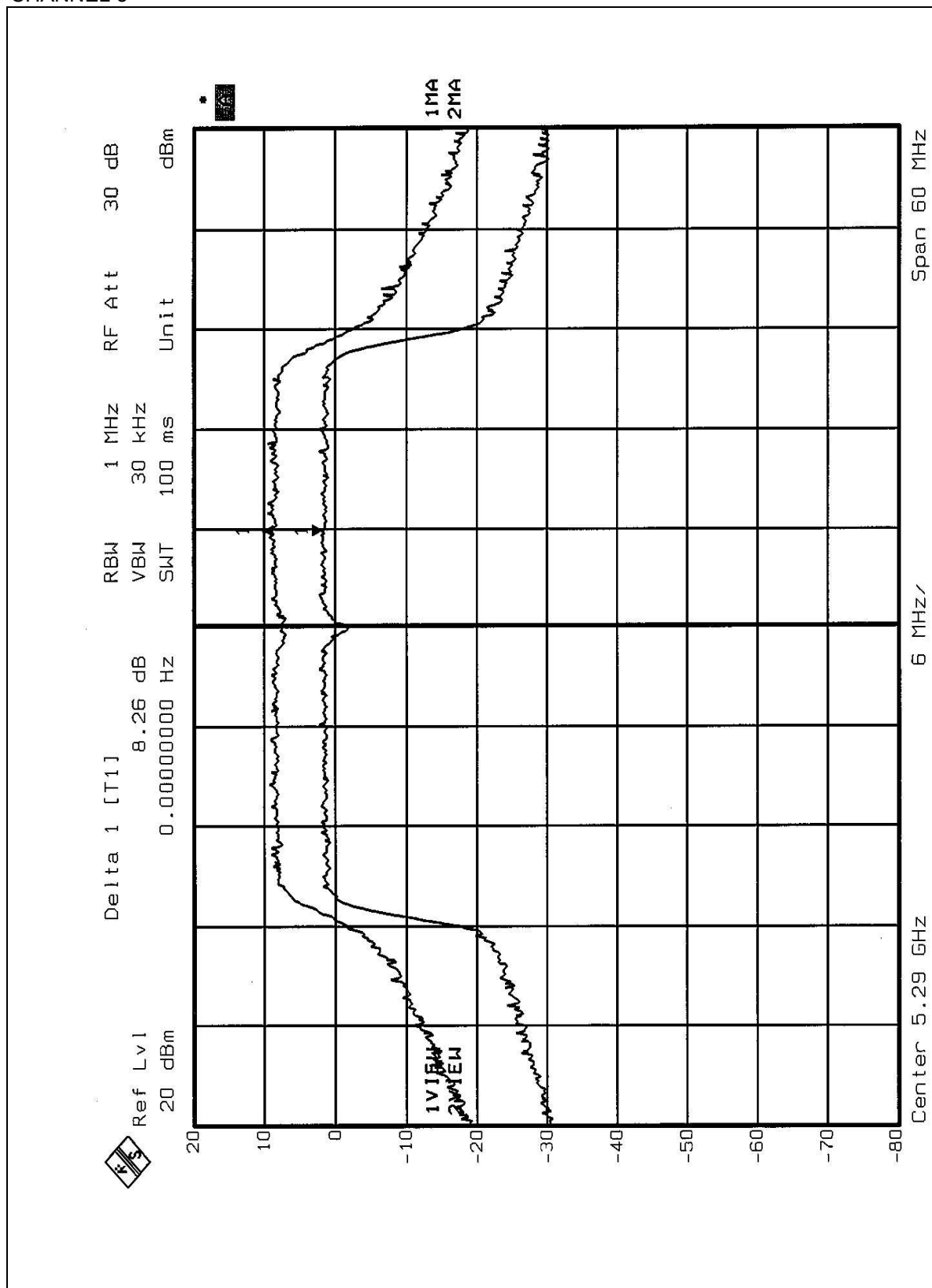
CHANNEL 1



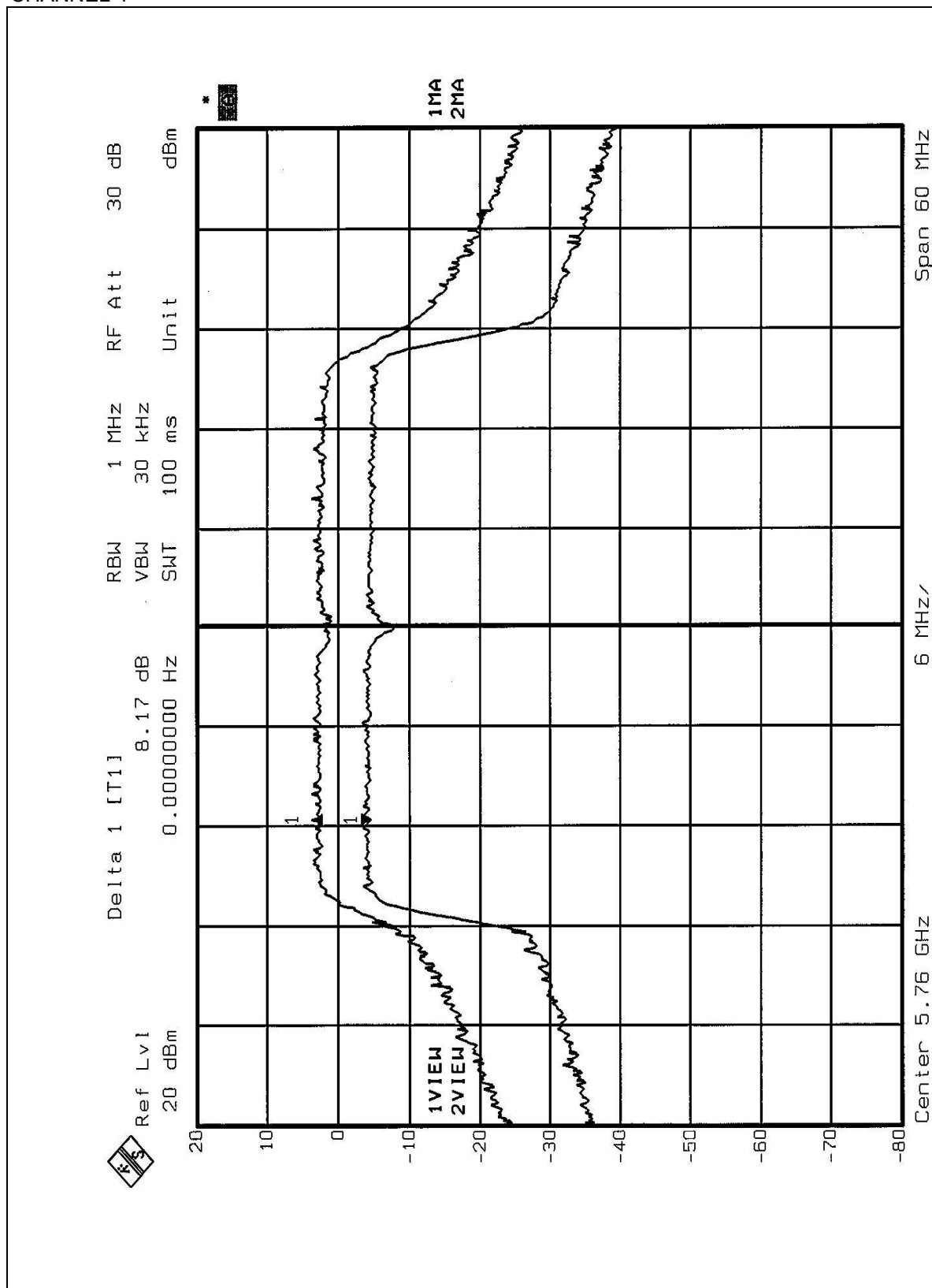
CHANNEL 2



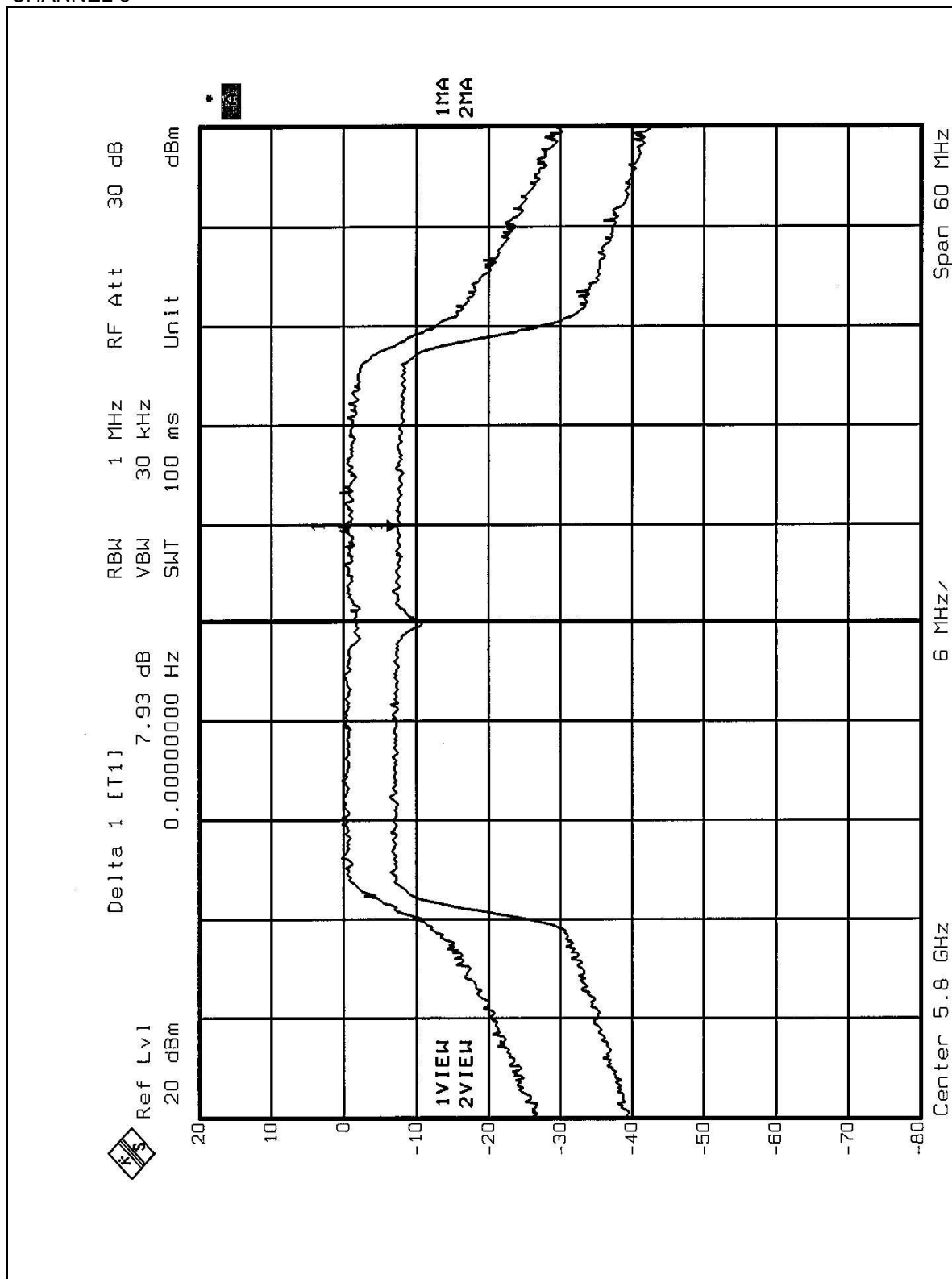
CHANNEL 3



CHANNEL 4



CHANNEL 5



4.5 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

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

4.5.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
ROHDE&SCHWARZ SPECTRUM ANALYZER	FSEK30	100049	July 17, 2002

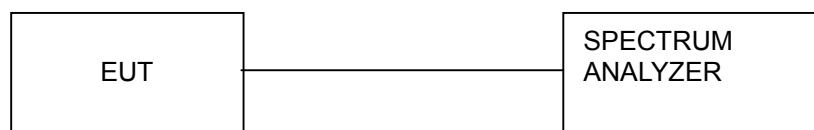
NOTE:

1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
2. 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 can be found.

4.5.4 TEST SETUP



4.5.5 EUT OPERATING CONDITIONS

Same as 4.3.5

4.5.6 TEST RESULTS

EUT	IEEE 802.11a WLAN Access Point	MODEL	DWL-5000AP
MODE	Normal	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	26 deg. C, 52%RH, 1005 hPa	TESTED BY	Steven Lu

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1 MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	5180	-1.94	4	PASS
4	5240	-1.31	4	PASS
5	5260	2.31	11	PASS
8	5320	0.01	11	PASS
9	5745	1.47	17	PASS
12	5805	3.39	17	PASS