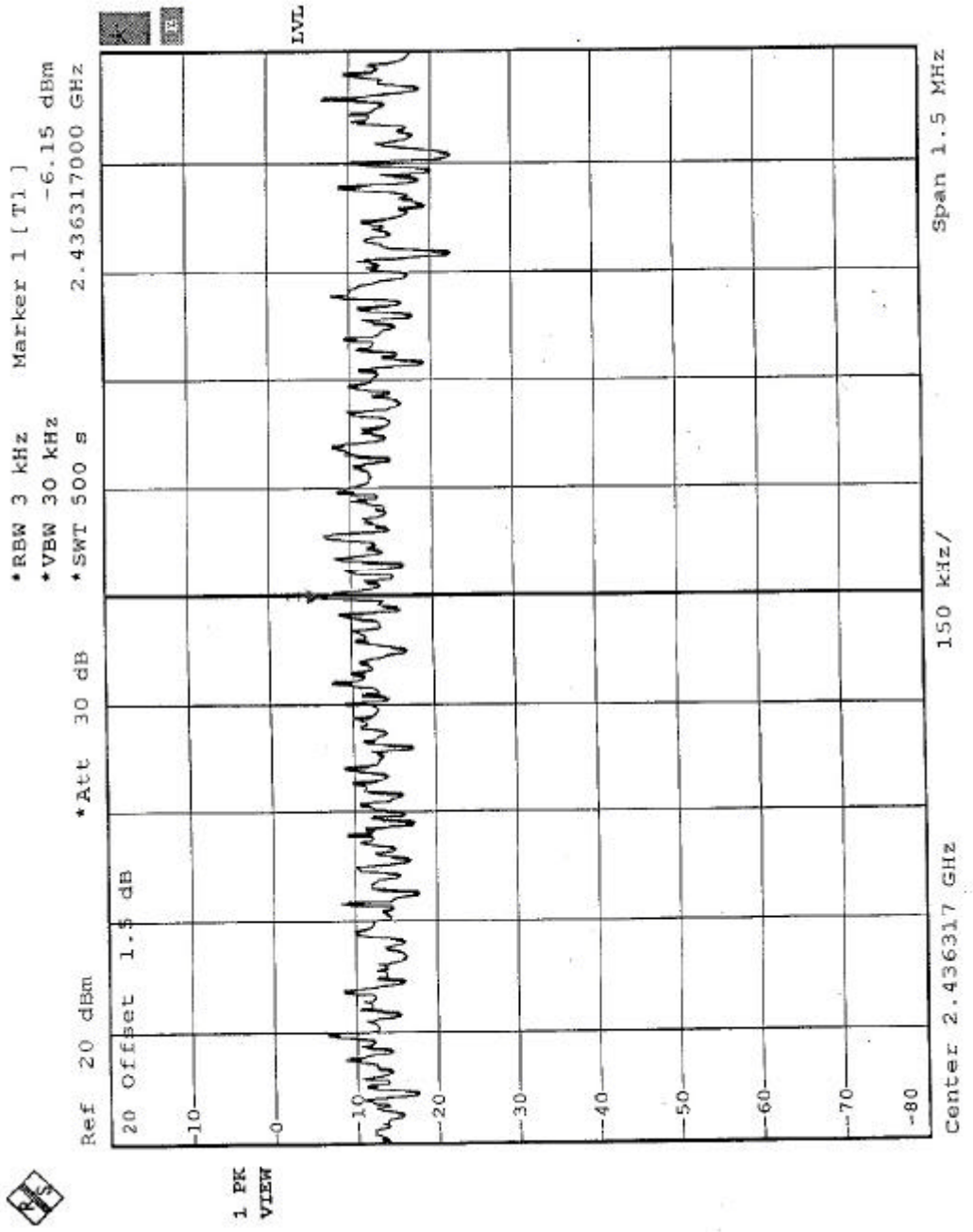
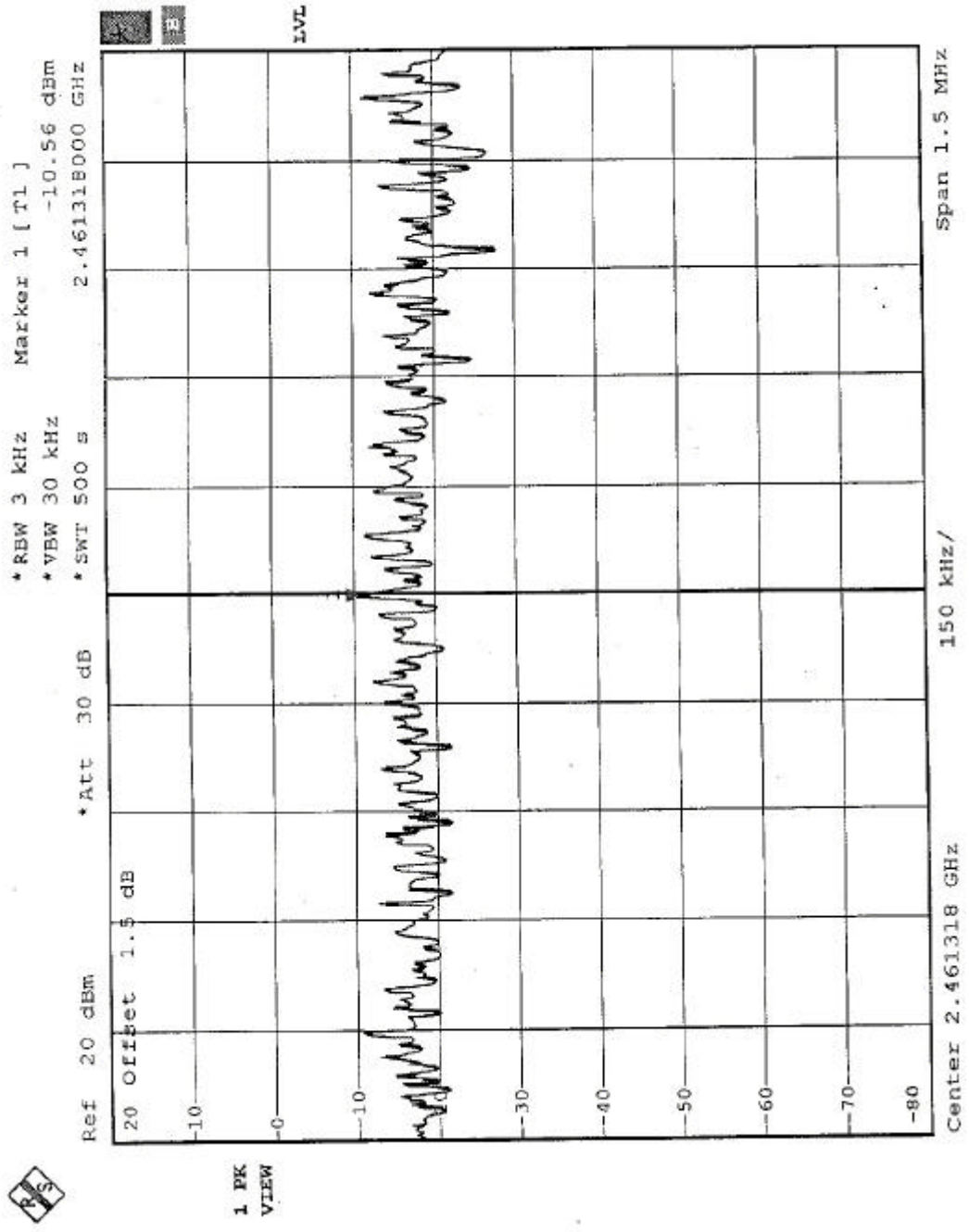
CH6


Ref 20 dBm
20 Offset 1.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-6.15 dBm
2.436317000 GHz
LVL
1 PK
VIEW
Center 2.436317 GHz
150 kHz/
Span 1.5 MHz

CH11

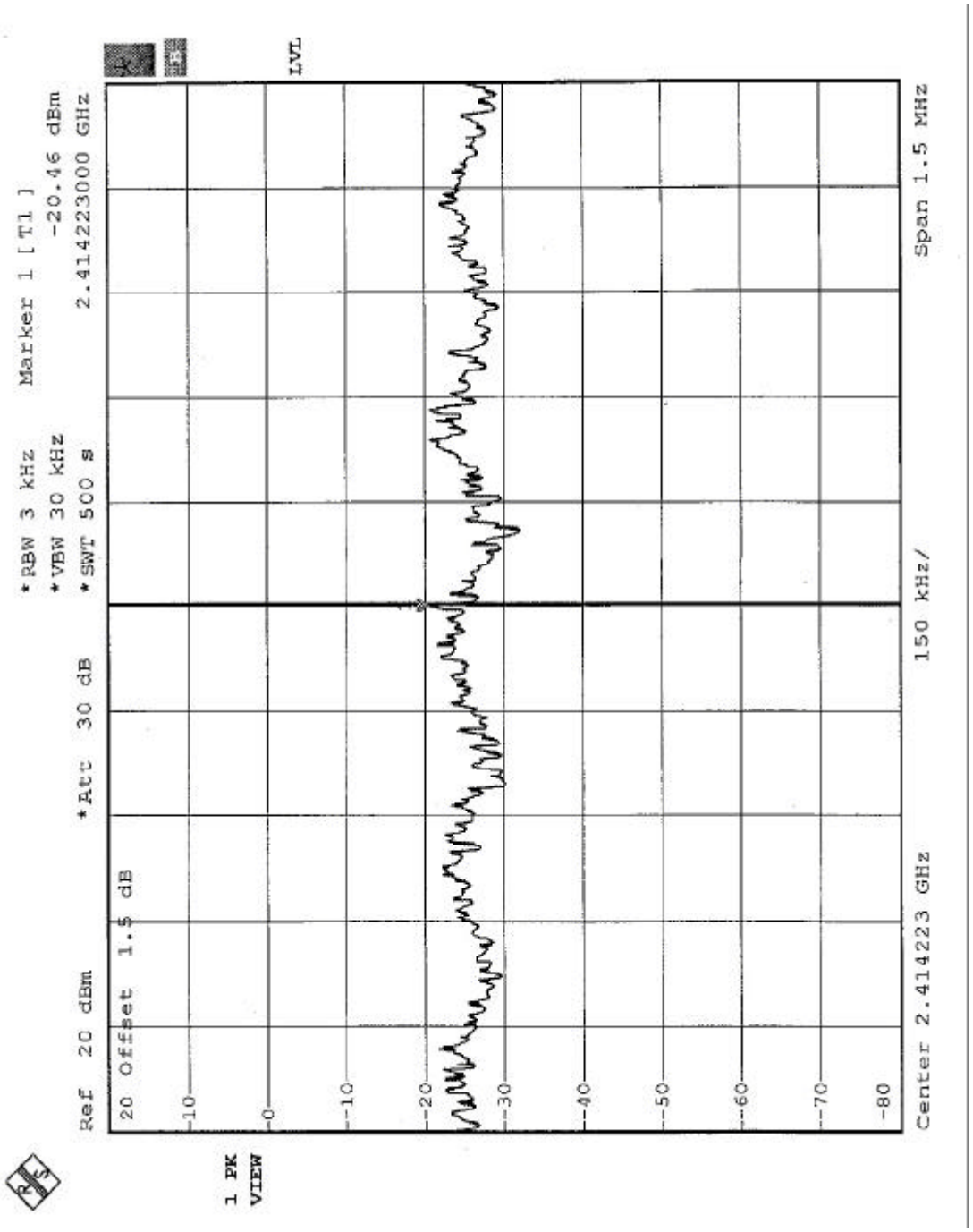

Ref 20 dBm
20 Offset 1.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-10.56 dBm
2.461318000 GHz
LVL
1 PK
VIEW
Center 2.461318 GHz
150 kHz/
Span 1.5 MHz

4.5.7 TEST RESULTS(A)-OFDM

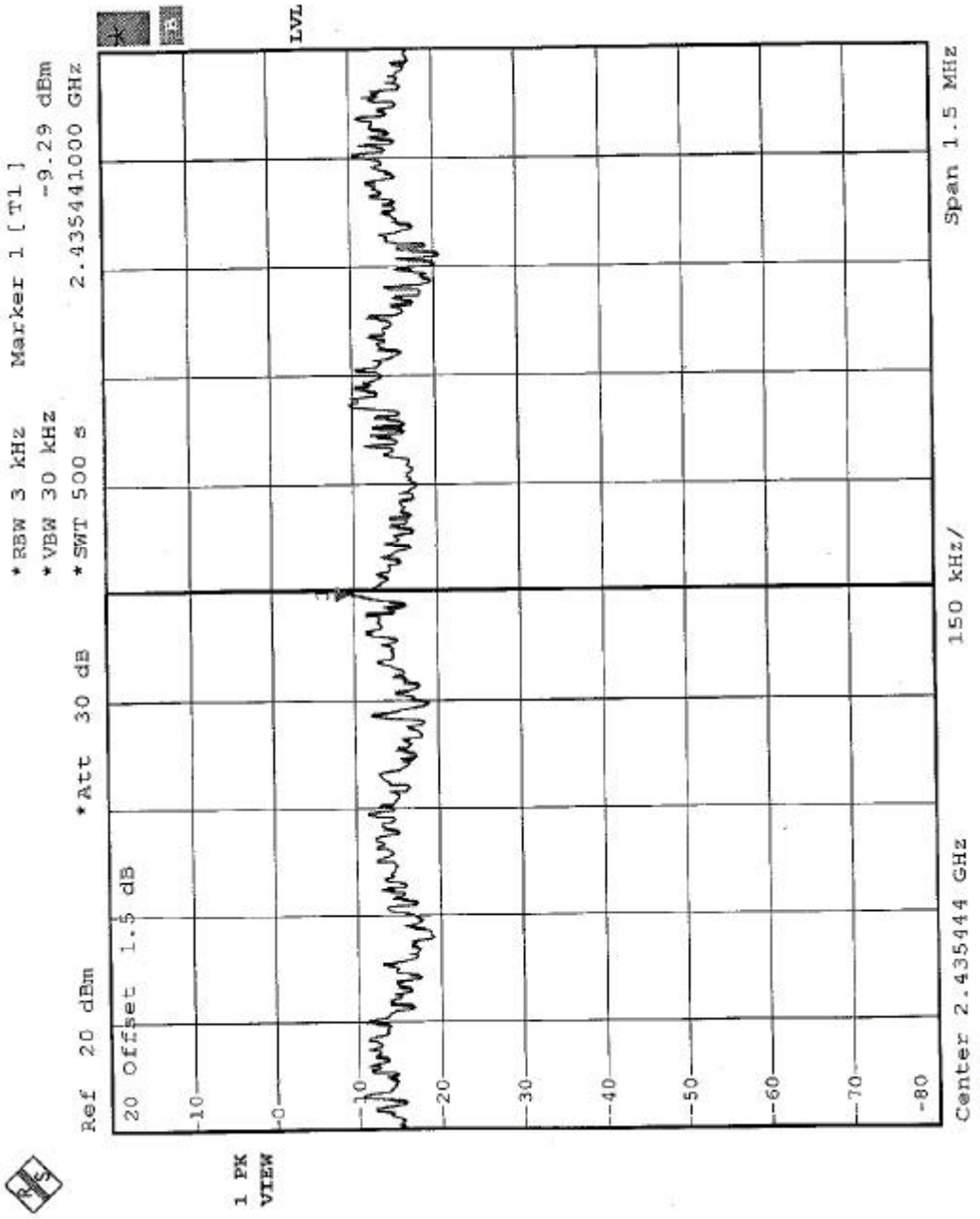
EUT	IEEE 802.11g miniPCI	**MODEL**	WN4401
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	20 deg. C, 60 %RH, 979 hPa
TEST MODE	Antenna 1	**TESTED BY**	Hank Chung

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-20.46	8	PASS
6	2437	-9.29	8	PASS
11	2462	-20.98	8	PASS

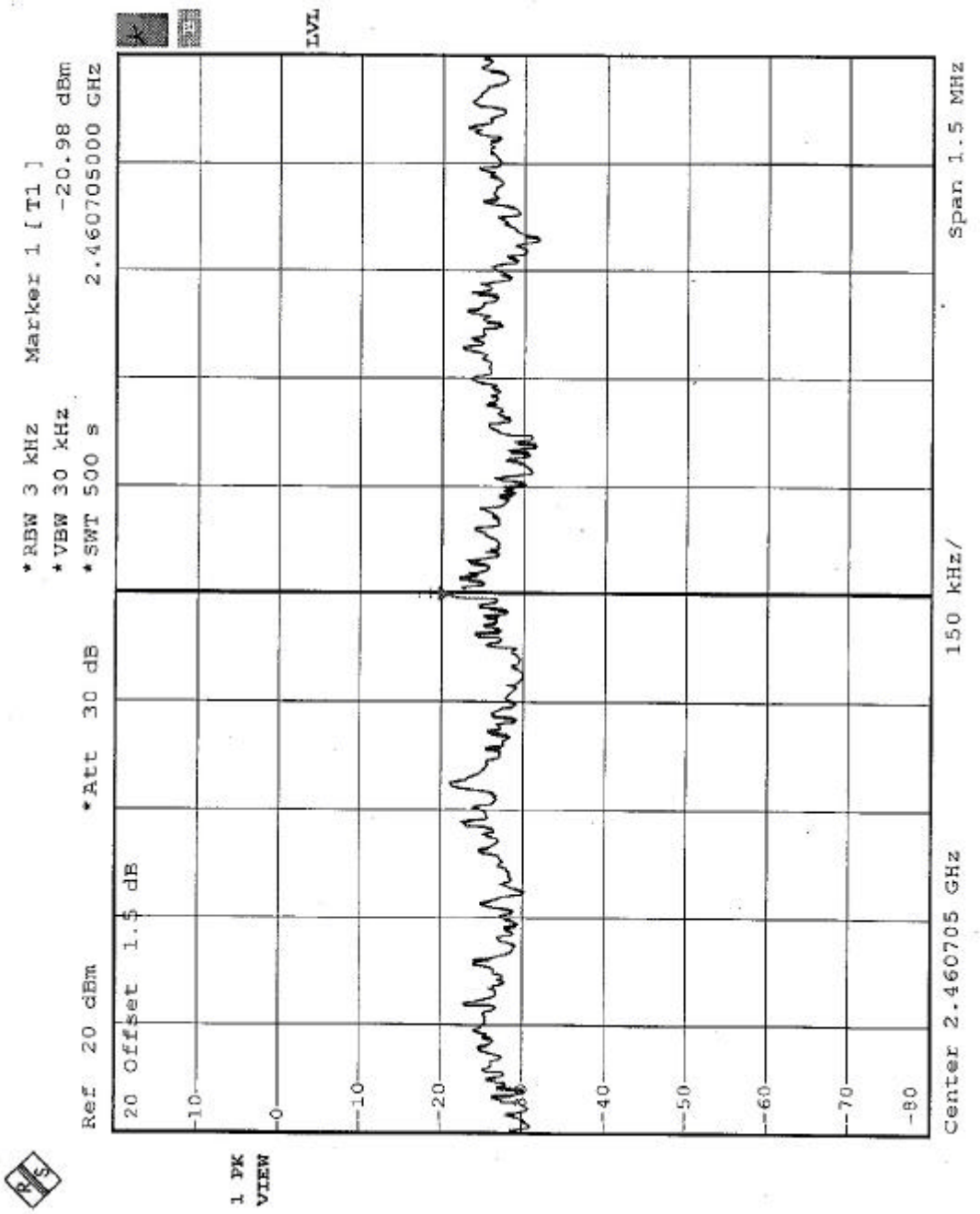
CH1


Marker 1 [T1]
-20.46 dBm
2.414223000 GHz
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
*Att 30 dB
Ref 20 dBm
20 Offset 1.5 dB
1 PK
VIEW
Center 2.414223 GHz
150 kHz/
Span 1.5 MHz

CH6


Ref 20 dBm
20 Offset 1.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-9.29 dBm
2.435441000 GHz
LVL
1 PK
VIEW
Center 2.435444 GHz
150 kHz/
Span 1.5 MHz

CH11

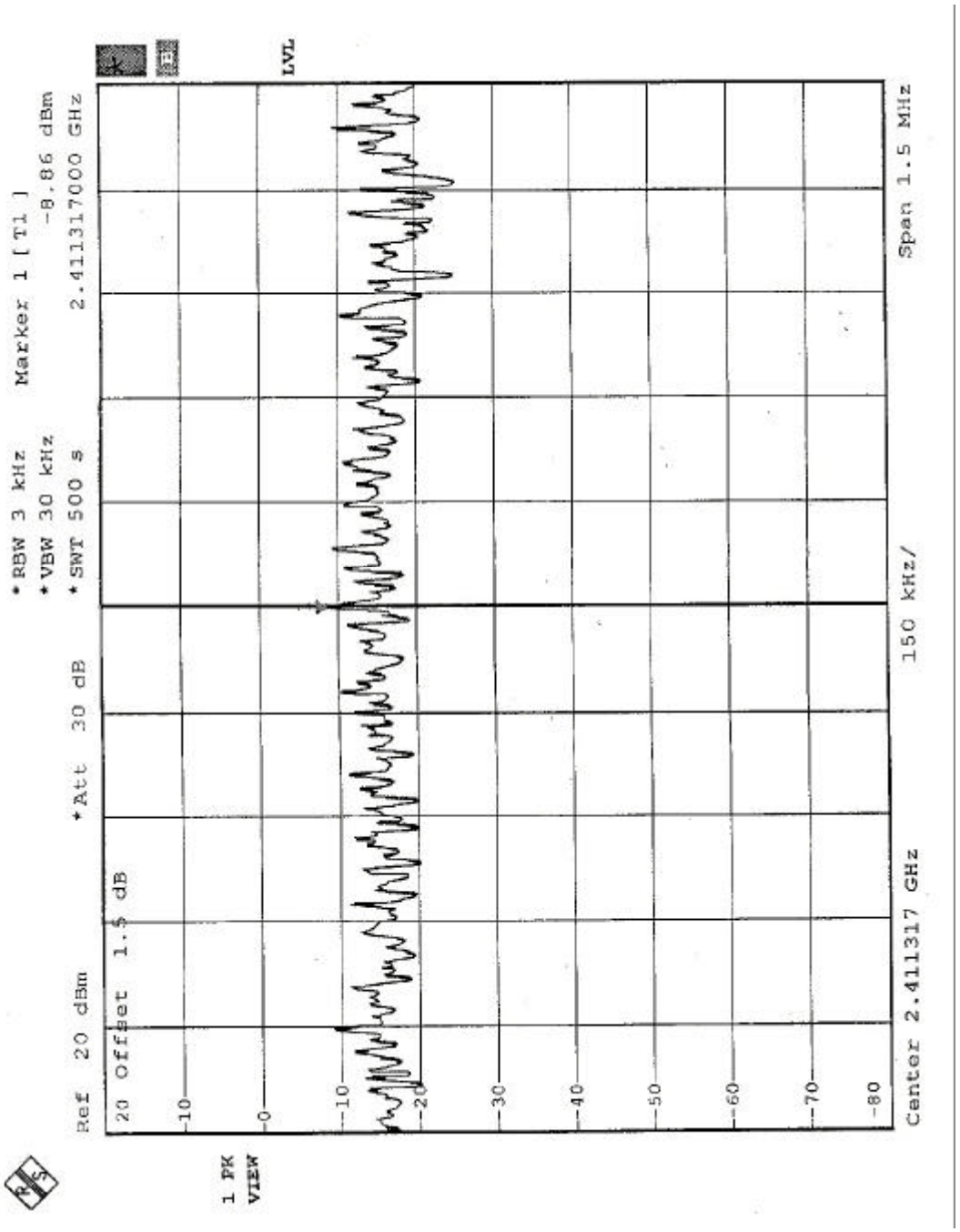

Ref 20 dBm
20 offset 1.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-20.98 dBm
2.460705000 GHz
LVL
1 PK
VIEW
Center 2.460705 GHz
150 kHz/
Span 1.5 MHz

4.5.8 TEST RESULTS(B)-DSSS

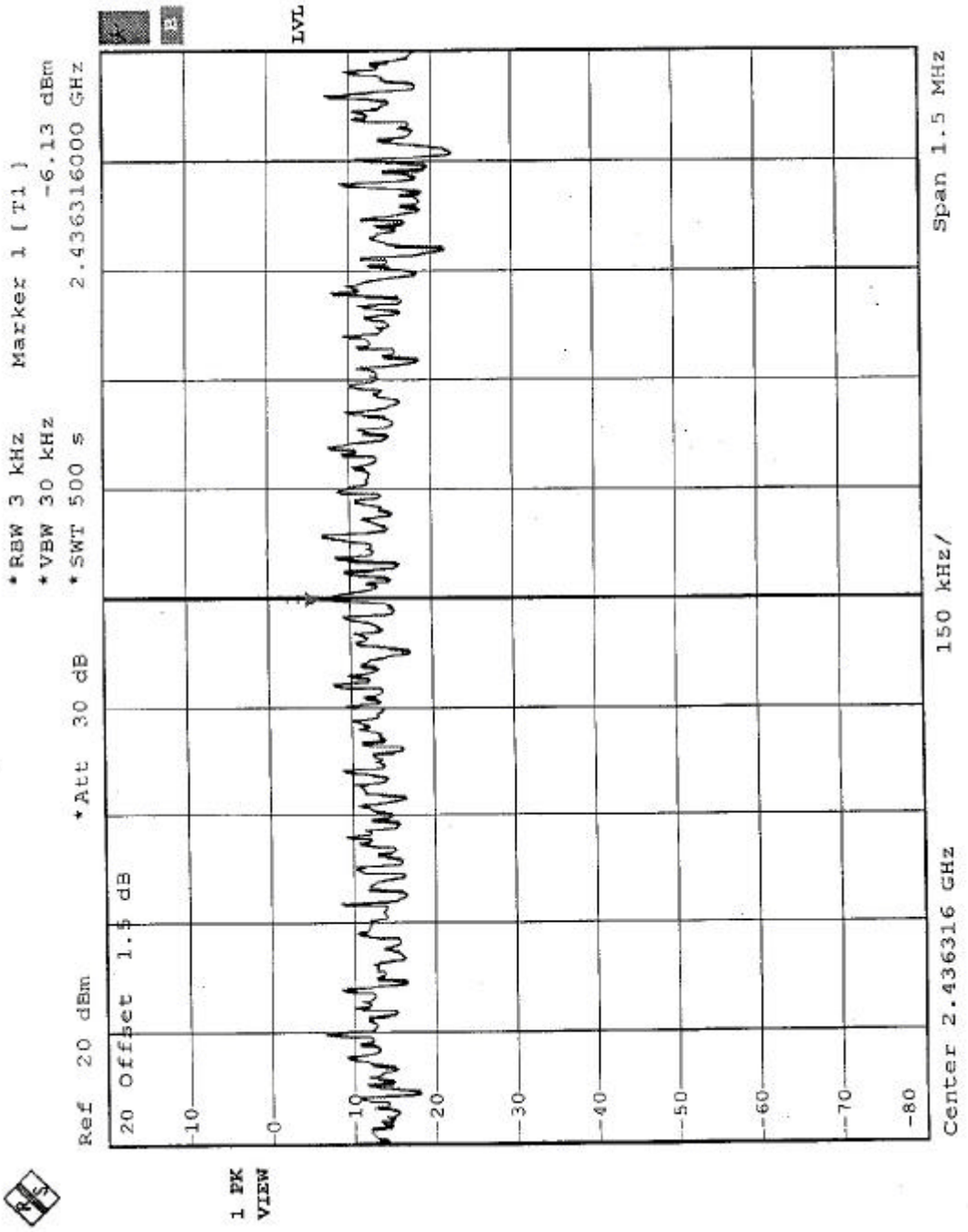
EUT	IEEE 802.11g miniPCI	**MODEL**	WN4401
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	20 deg. C, 60 %RH, 979 hPa
TEST MODE	Antenna 2	**TESTED BY**	Hank Chung

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-8.86	8	PASS
6	2437	-6.13	8	PASS
11	2462	-8.66	8	PASS

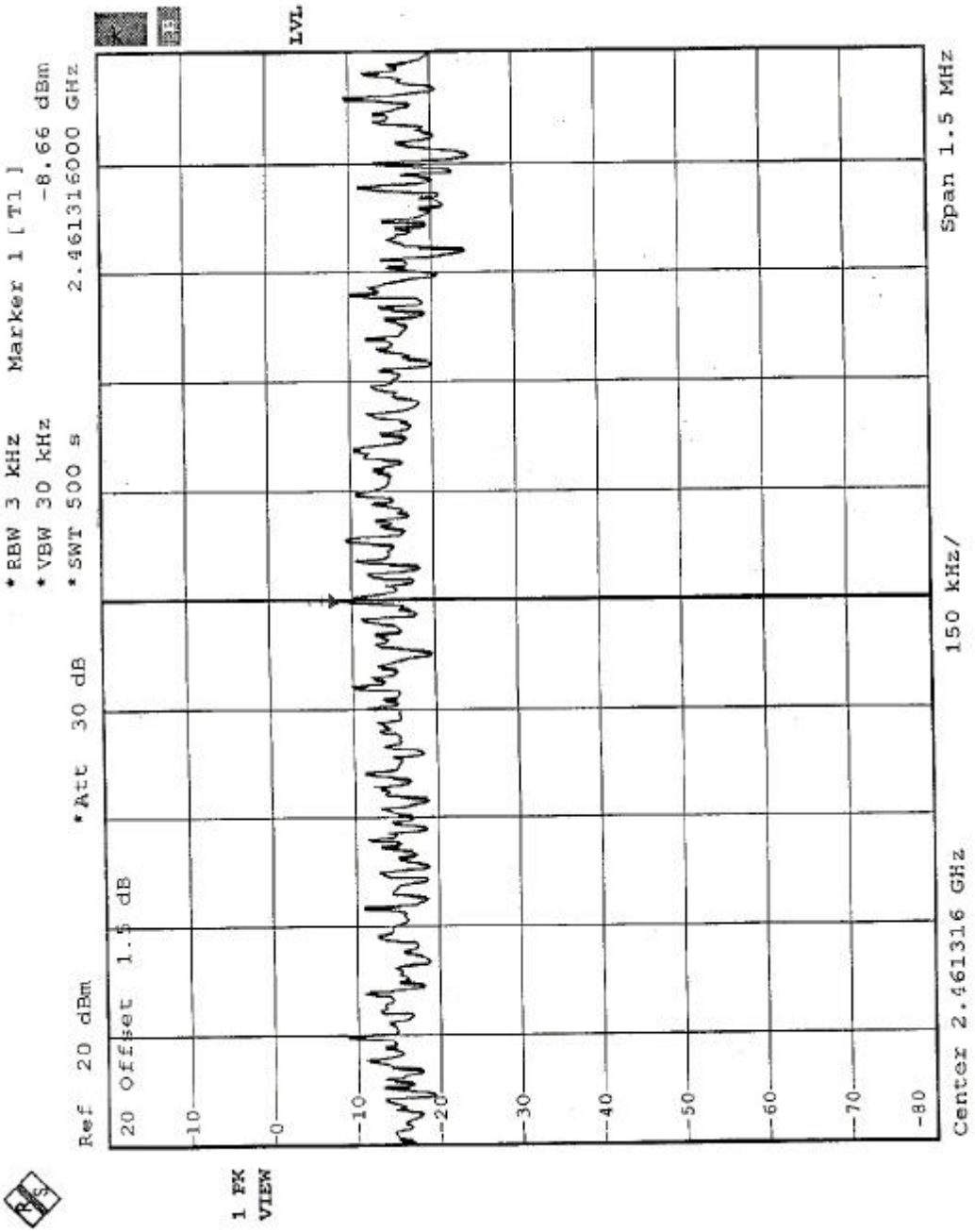
CH1


Ref 20 dBm
Offset 1.5 dB
Att 30 dB
RBW 3 kHz
VBW 30 kHz
SWT 500 s
Marker 1 [T1]
-8.86 dBm
2.411317000 GHz
1 PK
VIEW
Center 2.411317 GHz
150 kHz/
Span 1.5 MHz

CH6


Ref 20 dBm
Offset 1.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-6.13 dBm
2.436316000 GHz
Center 2.436316 GHz
150 kHz/
Span 1.5 MHz
1 PK
VIEW

CH11

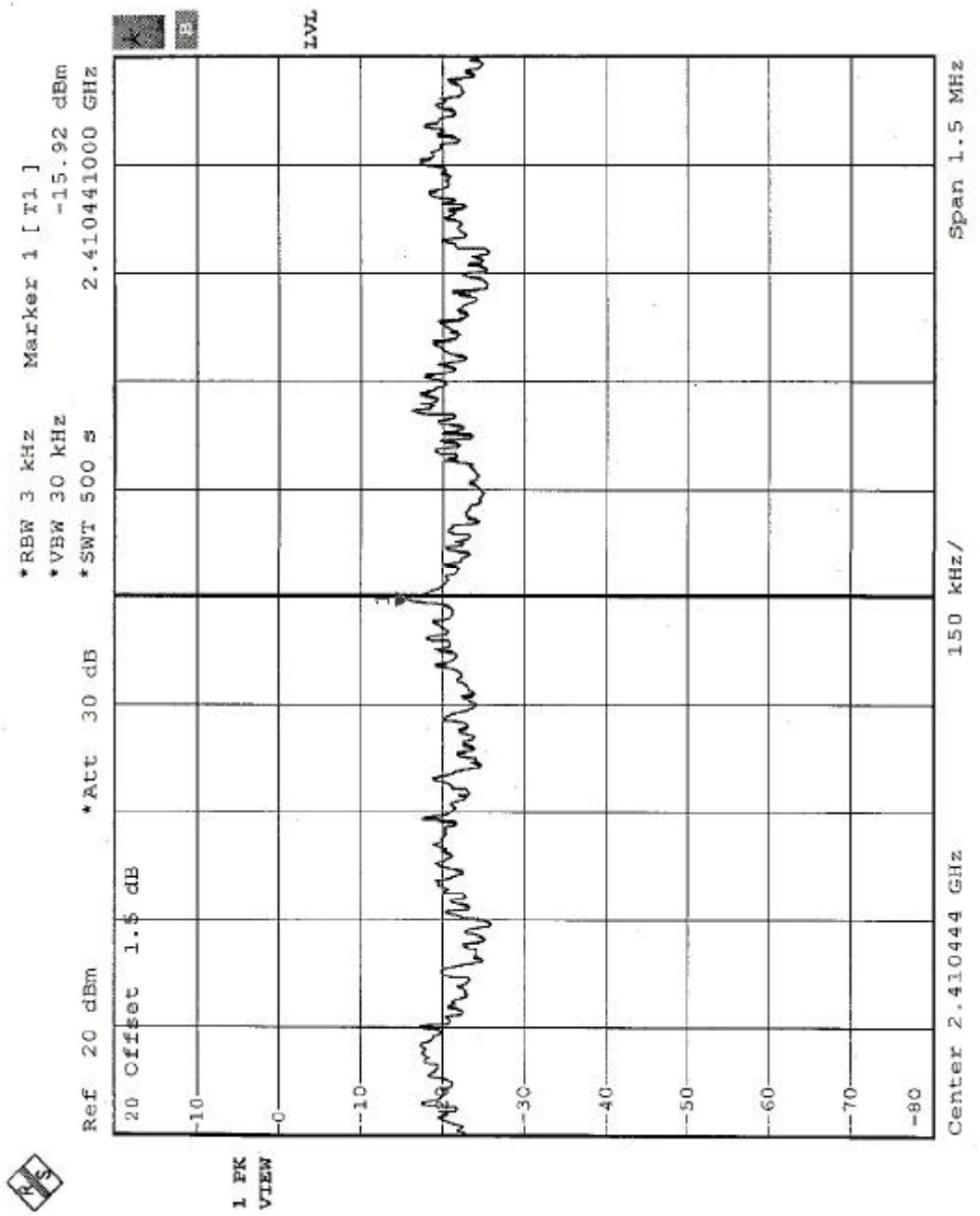

RBW 3 kHz
VBW 30 kHz
SWT 500 s
Marker 1 [T1]
-8.66 dBm
2.461316000 GHz
Att 30 dB
Ref 20 dBm
Offset 1.5 dB
LVL
1 PK
VIEW
Center 2.461316 GHz
150 kHz/
Span 1.5 MHz

4.5.9 TEST RESULTS(B)-OFDM

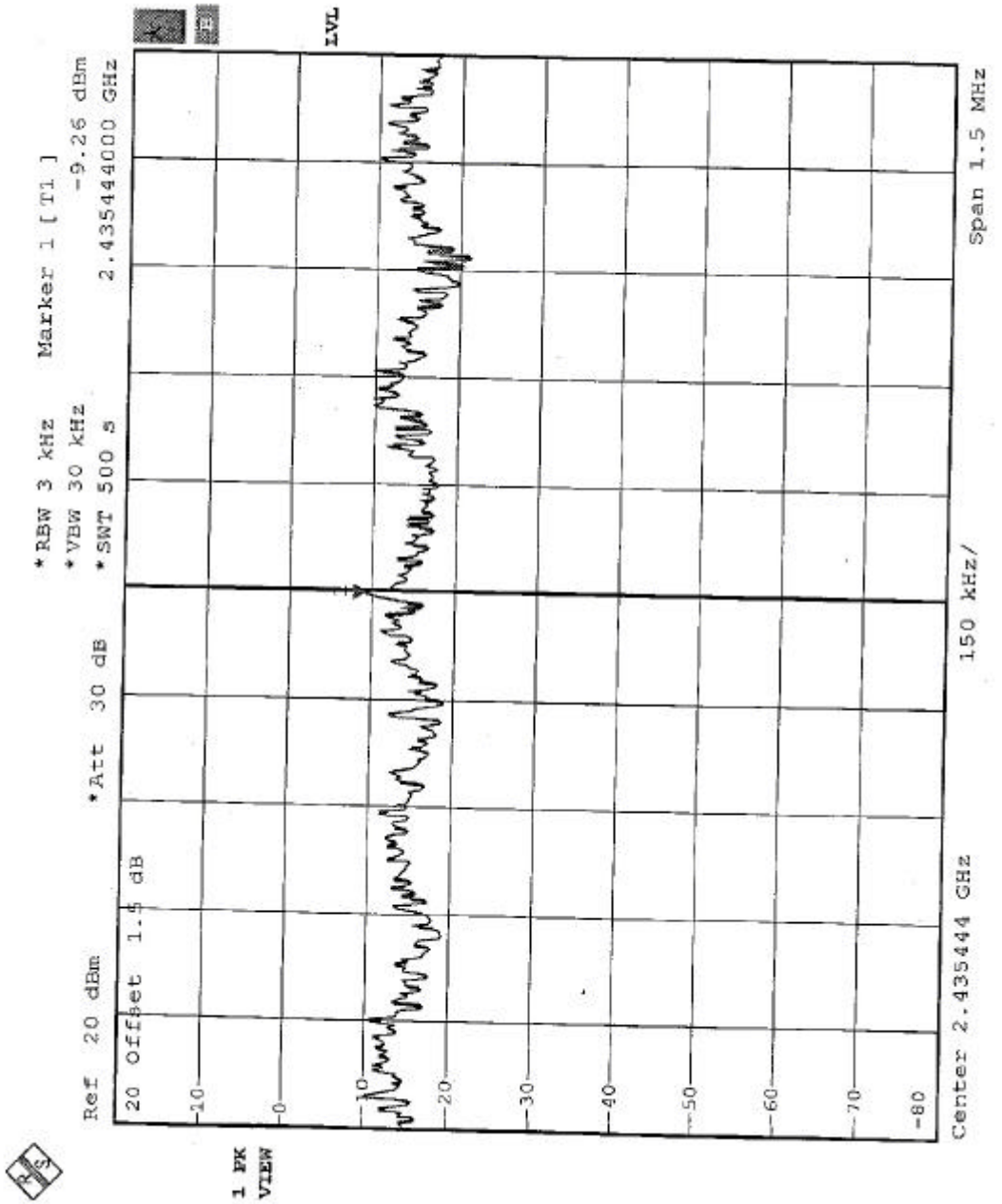
EUT	IEEE 802.11g miniPCI	**MODEL**	WN4401
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	20 deg. C, 60 %RH, 979 hPa
TEST MODE	Antenna 2	**TESTED BY**	Hank Chung

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-15.92	8	PASS
6	2437	-9.26	8	PASS
11	2462	-21.61	8	PASS

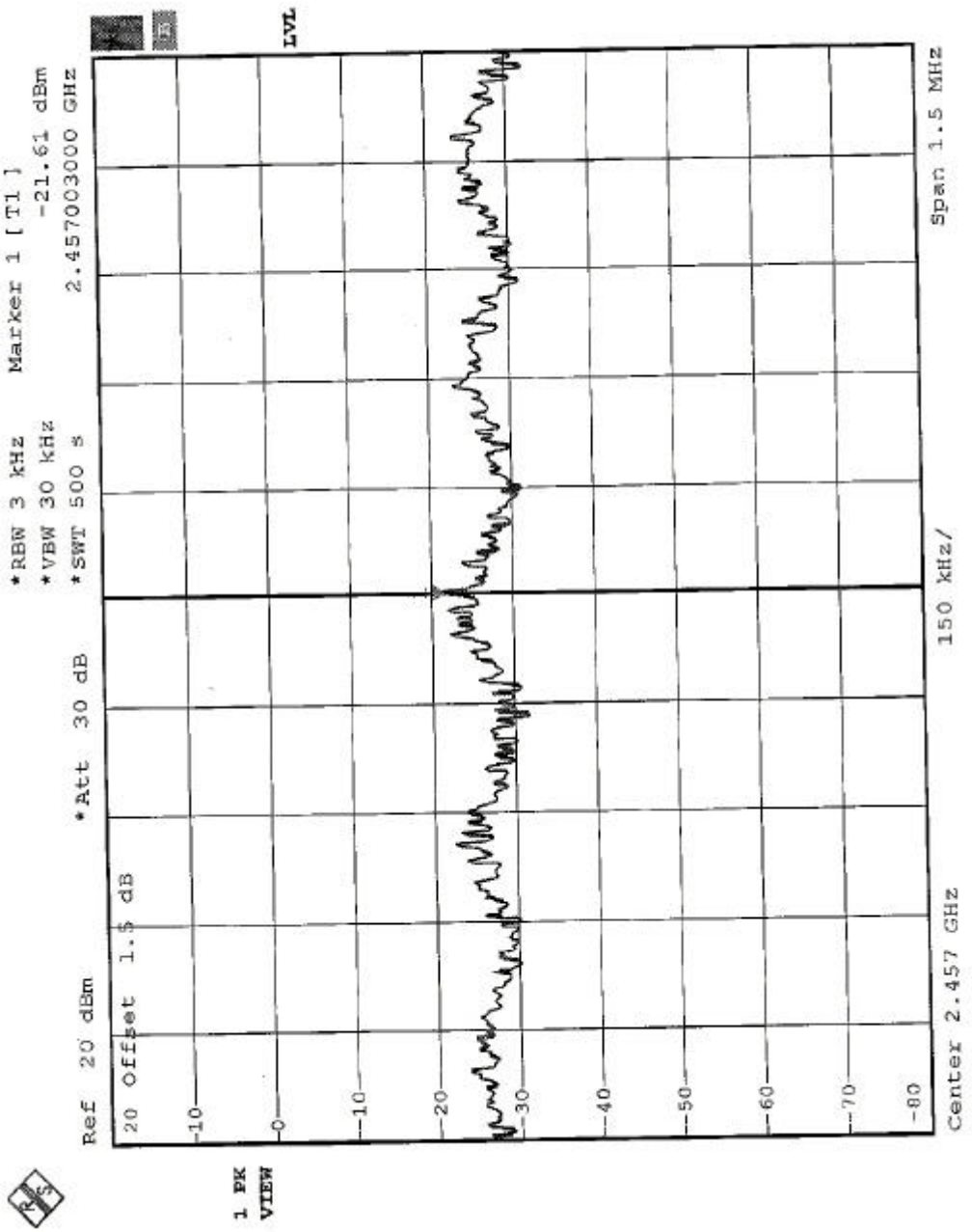
CH1


RBW 3 kHz
VBW 30 kHz
SWT 500 s
Marker 1 [T1]
-15.92 dBm
2.410441000 GHz
Ref 20 dBm
Offset 1.5 dB
Att 30 dB
1 PK
VIEW
Center 2.410444 GHz
150 kHz/
Span 1.5 MHz

CH6


Ref 20 dBm
20 Offset 1.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-9.26 dBm
2.435444000 GHz
LVL
Span 1.5 MHz
150 kHz/
Center 2.435444 GHz
1 PK
VIEW

CH11

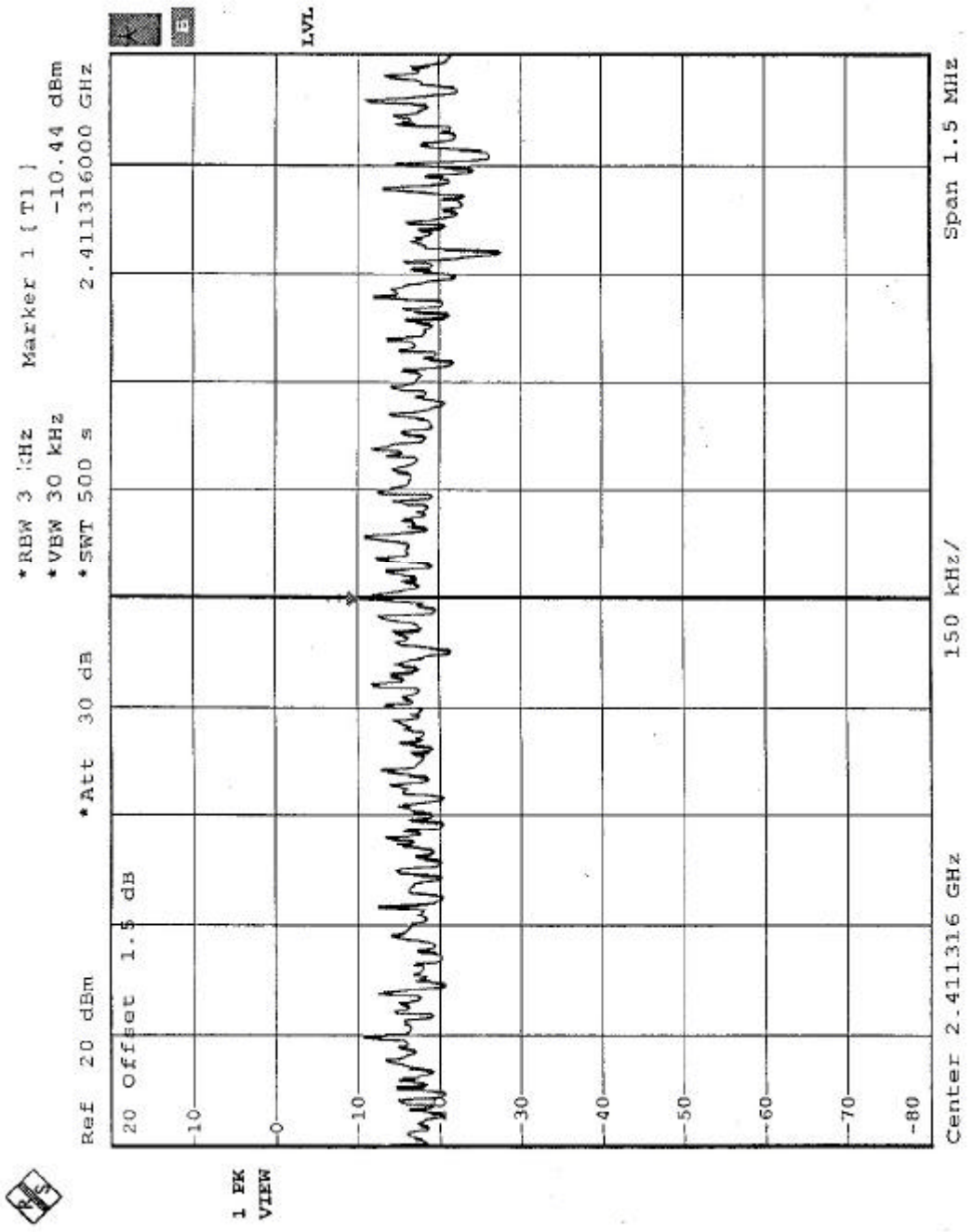

Ref 20 dBm
20 offset 1.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-21.61 dBm
2.457003000 GHz
LVL
1 PK
VIEW
Center 2.457 GHz
150 kHz/
Span 1.5 MHz

4.5.10 TEST RESULTS(C)-DSSS

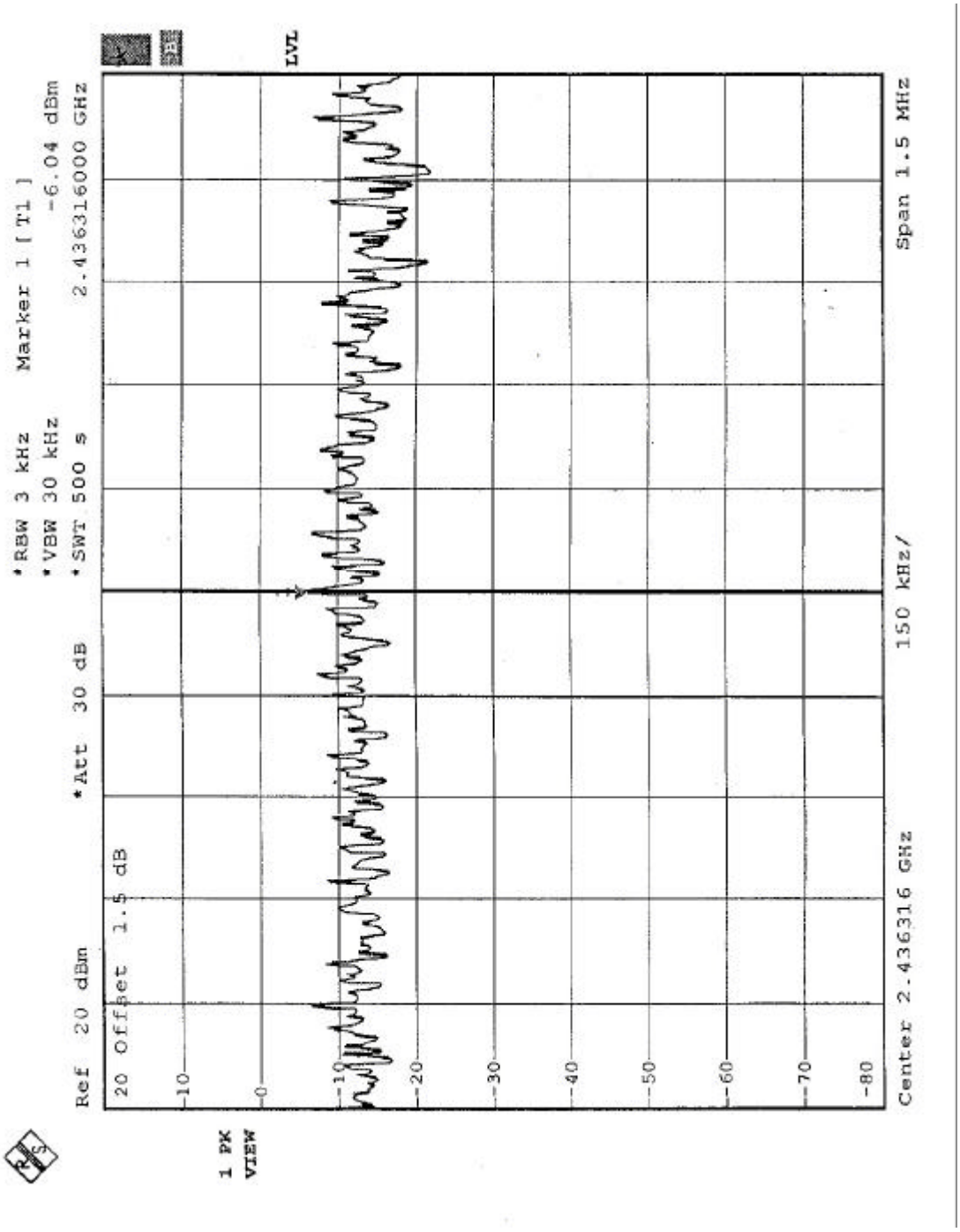
EUT	IEEE 802.11g miniPCI	**MODEL**	WN4401
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	20 deg. C, 60 %RH, 979 hPa
TEST MODE	Antenna 3	**TESTED BY**	Hank Chung

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-10.44	8	PASS
6	2437	-6.04	8	PASS
11	2462	-9.65	8	PASS

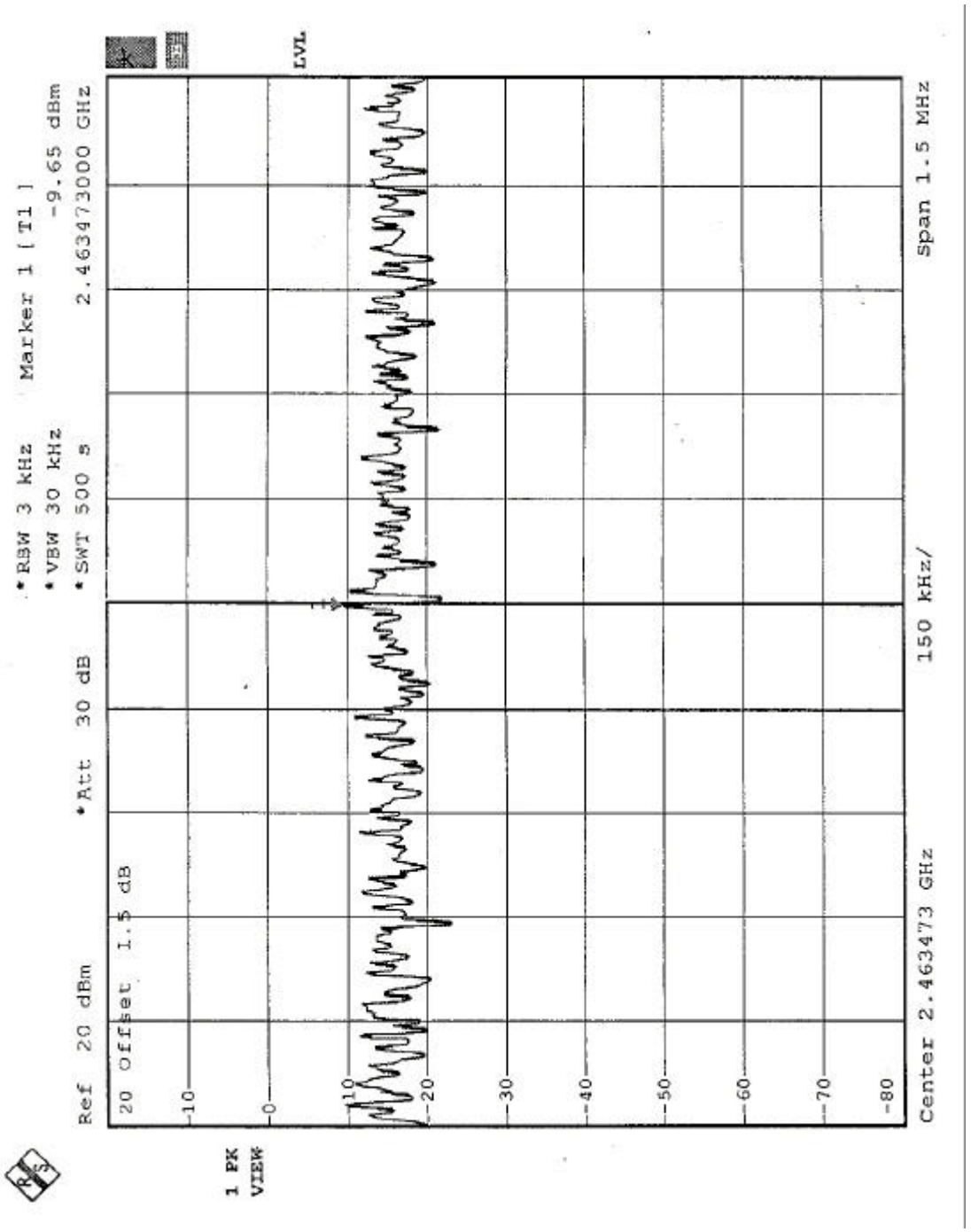
CH1


Ref 20 dBm
20 Offset 1.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-10.44 dBm
2.411316000 GHz
LVL
1 PK
VIEW
Center 2.411316 GHz
150 kHz/
Span 1.5 MHz

CH6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
Marker 1 [T1]
-6.04 dBm
2.436316000 GHz
Ref 20 dBm
Offset 1.5 dB
Att 30 dB
LVL
1 PK
VIEW
Center 2.436316 GHz
150 kHz/
Span 1.5 MHz

CH11

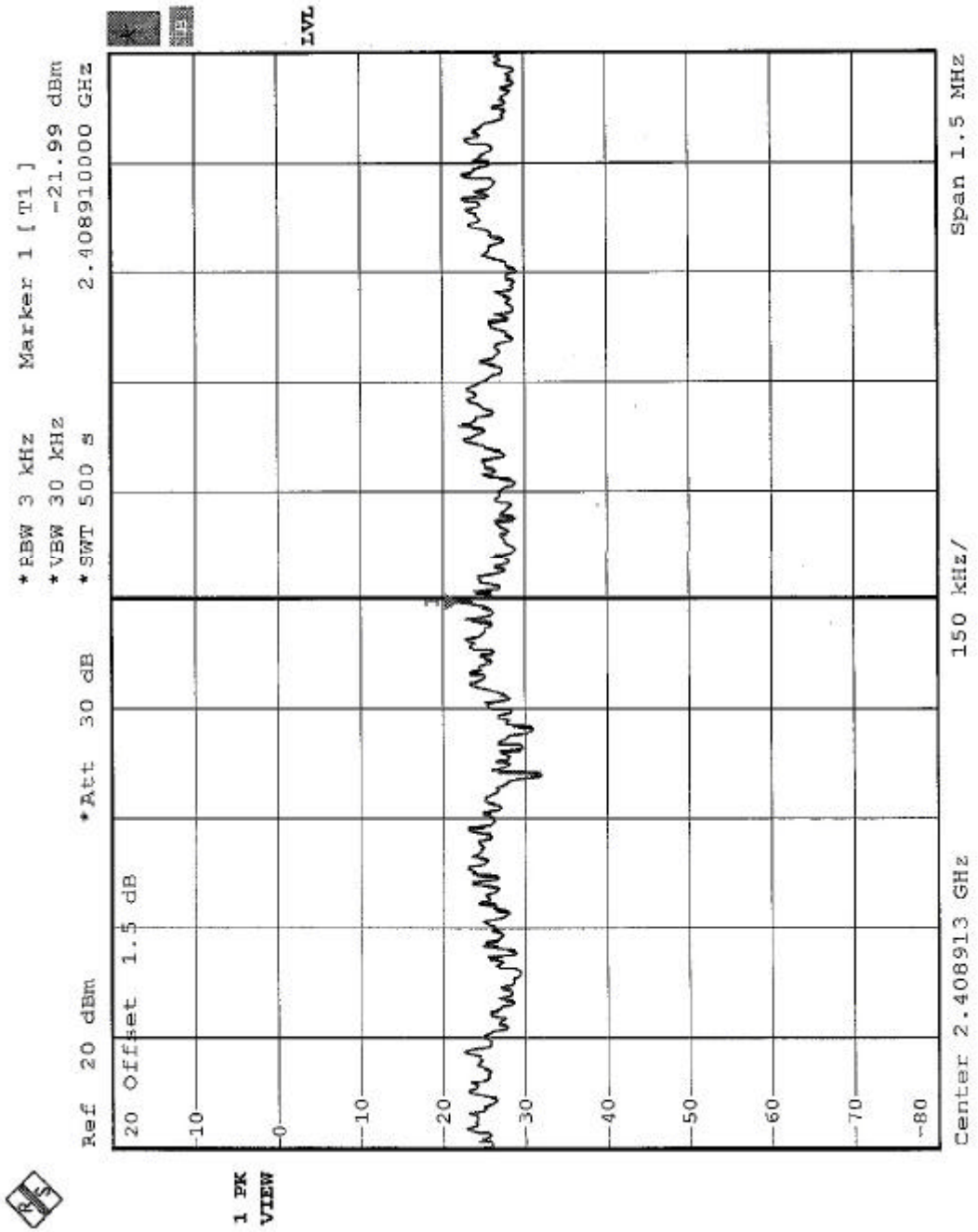

RBW 3 kHz
VBW 30 kHz
SWT 500 s
Marker 1 [T1]
-9.65 dBm
2.463473000 GHz
Ref 20 dBm
Offset 1.5 dB
Att 30 dB
LVL
1 PK
VIEW
Center 2.463473 GHz
150 kHz/
Span 1.5 MHz

4.5.11 TEST RESULTS(C)-OFDM

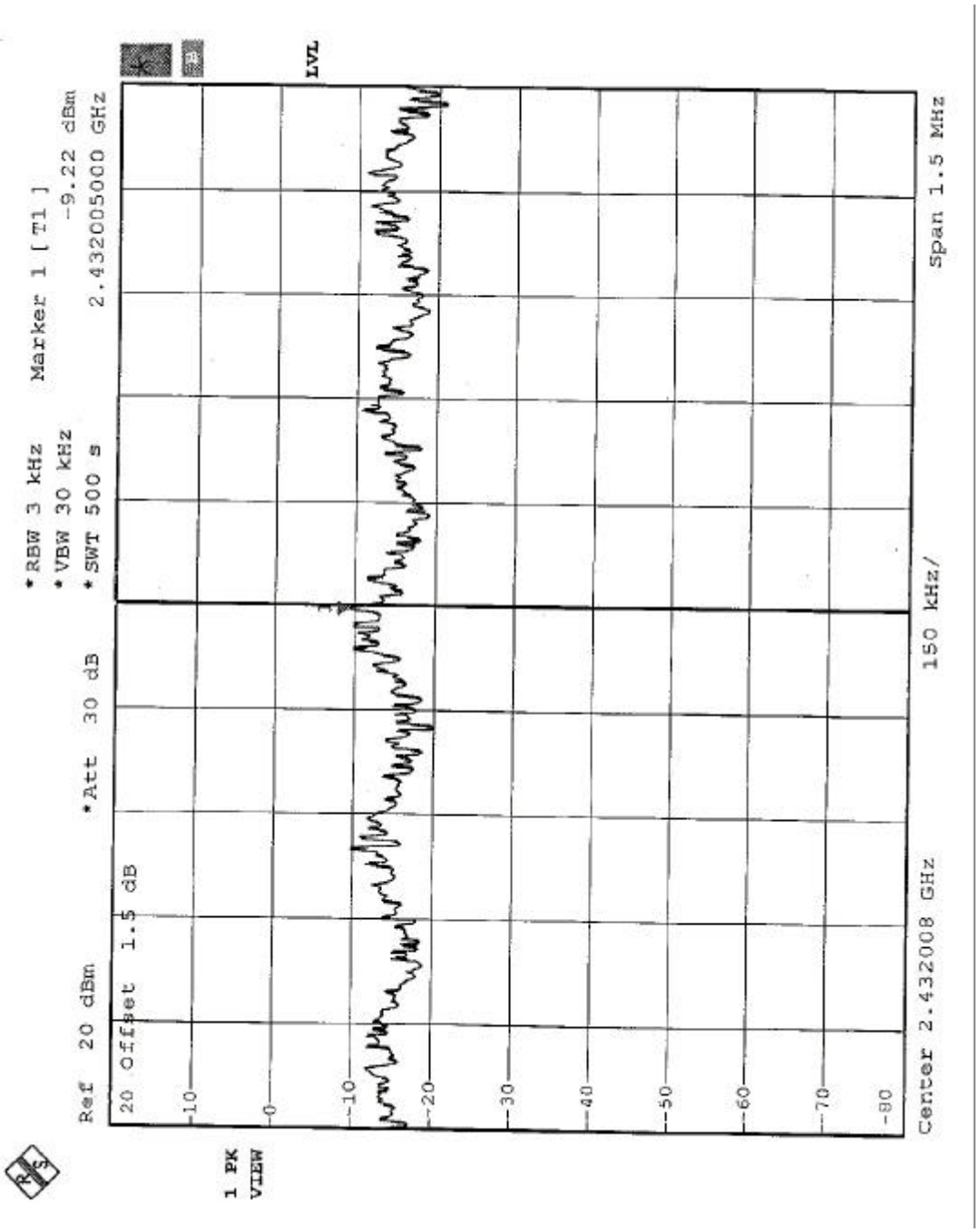
EUT	IEEE 802.11g miniPCI	**MODEL**	WN4401
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	20 deg. C, 60 %RH, 979 hPa
TEST MODE	Antenna 3	**TESTED BY**	Hank Chung

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-21.99	8	PASS
6	2437	-9.22	8	PASS
11	2462	-22.99	8	PASS

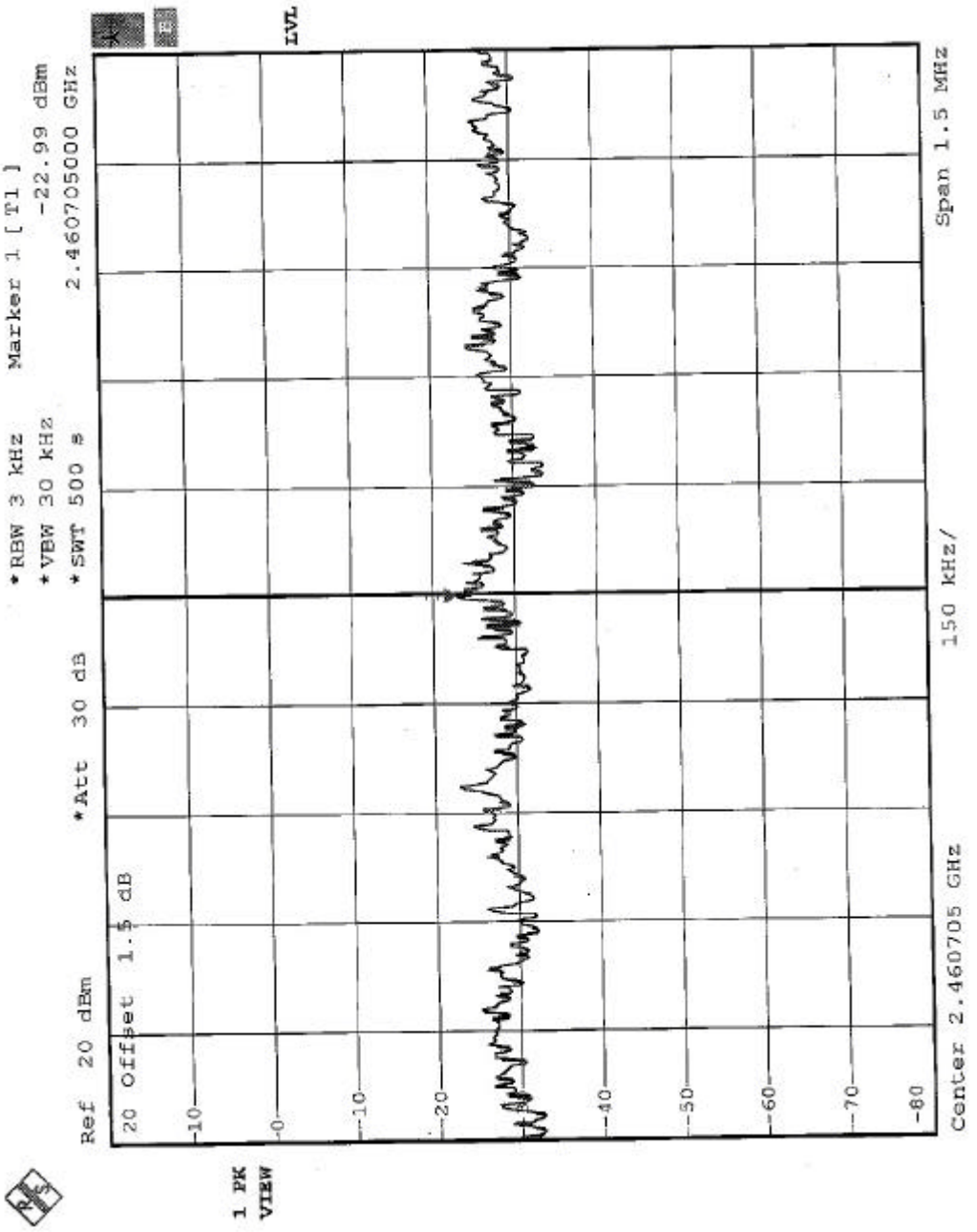
CH1


Ref 20 dBm
20 Offset 1.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-21.99 dBm
2.408910000 GHz
1 PK
VIEW
Center 2.408913 GHz
150 kHz/
Span 1.5 MHz

CH6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
Marker 1 [T1]
-9.22 dBm
2.432005000 GHz
Ref 20 dBm
Offset 1.5 dB
Att 30 dB
LVL
1 PK
VIEW
Center 2.432008 GHz
150 kHz/
Span 1.5 MHz

CH11


Ref 20 dBm
20 Offset 1.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-22.99 dBm
2.460705000 GHz
Center 2.460705 GHz
150 kHz/
Span 1.5 MHz
1 PK
VIEW
-10
0
-10
-20
-40
-50
-60
-70
-80

4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100KHz Resolution Bandwidth).

4.6.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP	1093.4495.30	Dec. 19, 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.

4.6.3 TEST PROCEDURE

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

4.6.4 EUT OPERATING CONDITION

Same as Item 4.3.5

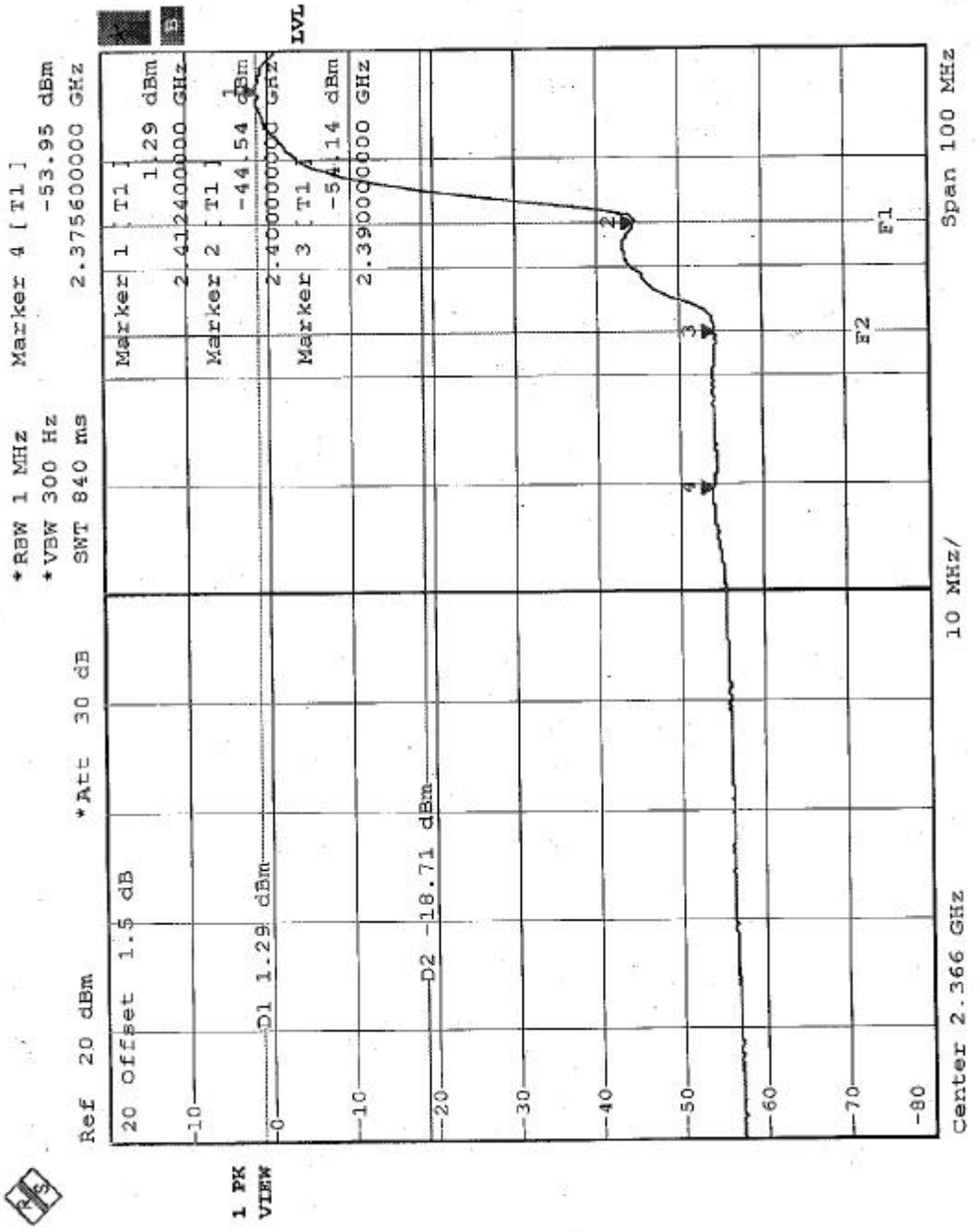
4.6.5 TEST RESULTS (A)-DSSS

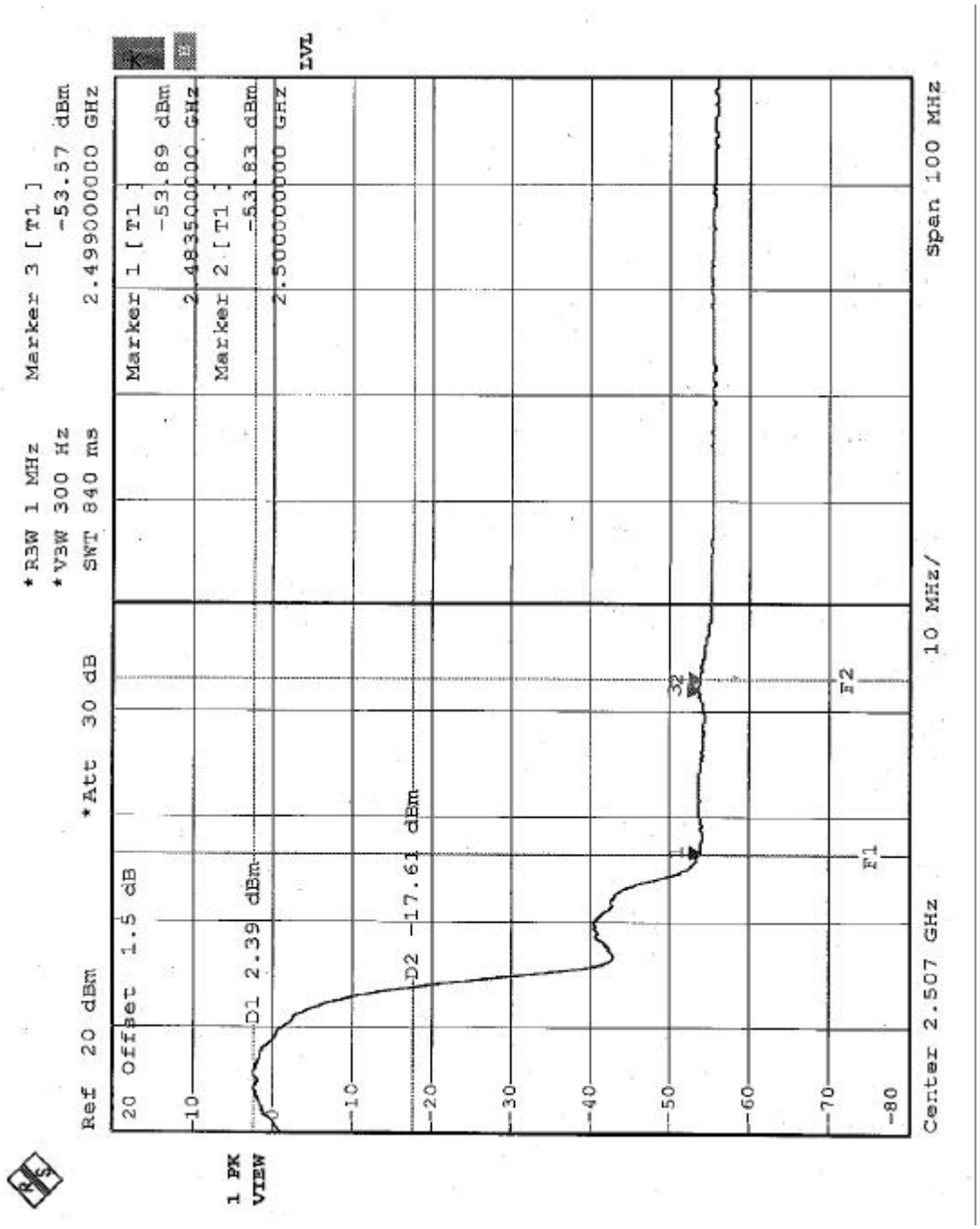
◆ TEST MODE: Antenna 1

The spectrum plots are attached on the following 2 pages. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(C).

NOTE (1): The band edge emission plot on the following first page shows 55.24dB delta between carrier maximum power and local maximum emission in restrict band (2.3756GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 102.00dBuV/m, so the maximum field strength in restrict band is 102.00-55.24=46.76dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 55.96dB delta between carrier maximum power and local maximum emission in restrict band (2.499GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 103.0dBuV/m, so the maximum field strength in restrict band is 103.0-55.96=47.04dBuV/m which is under 54 dBuV/m limit.


Ref 20 dBm
20 Offset 1.5 dB
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
-53.95 dBm
2.375600000 GHz
Marker 1 [T1]
1.29 dBm
2.412400000 GHz
Marker 2 [T1]
-44.54 dBm
2.400000000 GHz
Marker 3 [T1]
-54.14 dBm
2.390000000 GHz
D1 1.29 dBm
D2 -18.71 dBm
1 PK
VIEW
LVL
Center 2.366 GHz
10 MHz/
Span 100 MHz
F1
F2


Ref 20 dBm
20 Offset 1.5 dB
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 3 [T1]
-53.57 dBm
2.49900000 GHz
Marker 1 [T1]
-53.89 dBm
2.48350000 GHz
Marker 2 [T1]
-53.83 dBm
2.50000000 GHz
D1 2.39 dBm
D2 -17.61 dBm
1 PK
VIEW
Center 2.507 GHz
10 MHz/
Span 100 MHz