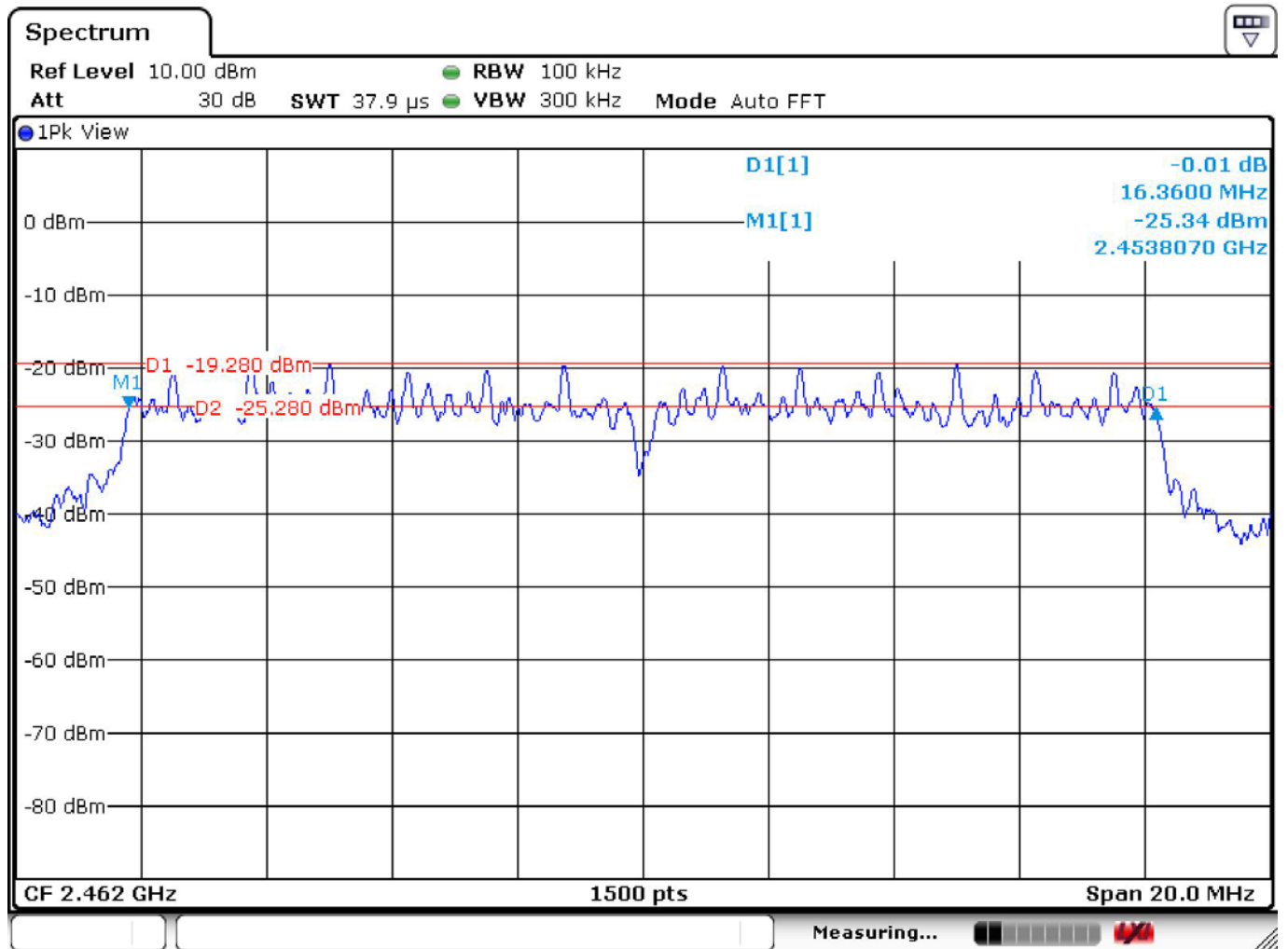


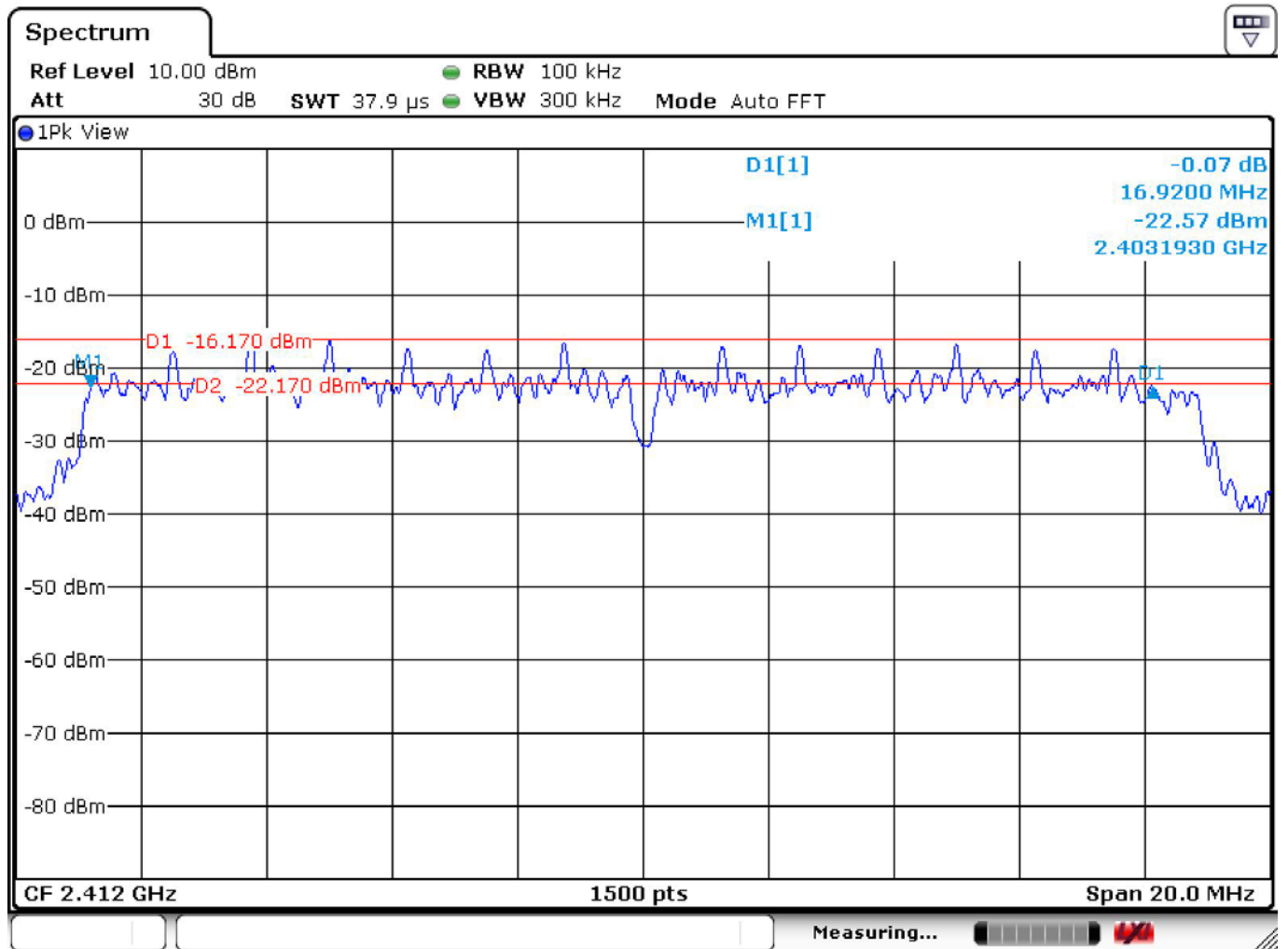


Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: 802.11g	Channel	: CH11 (2462MHz)



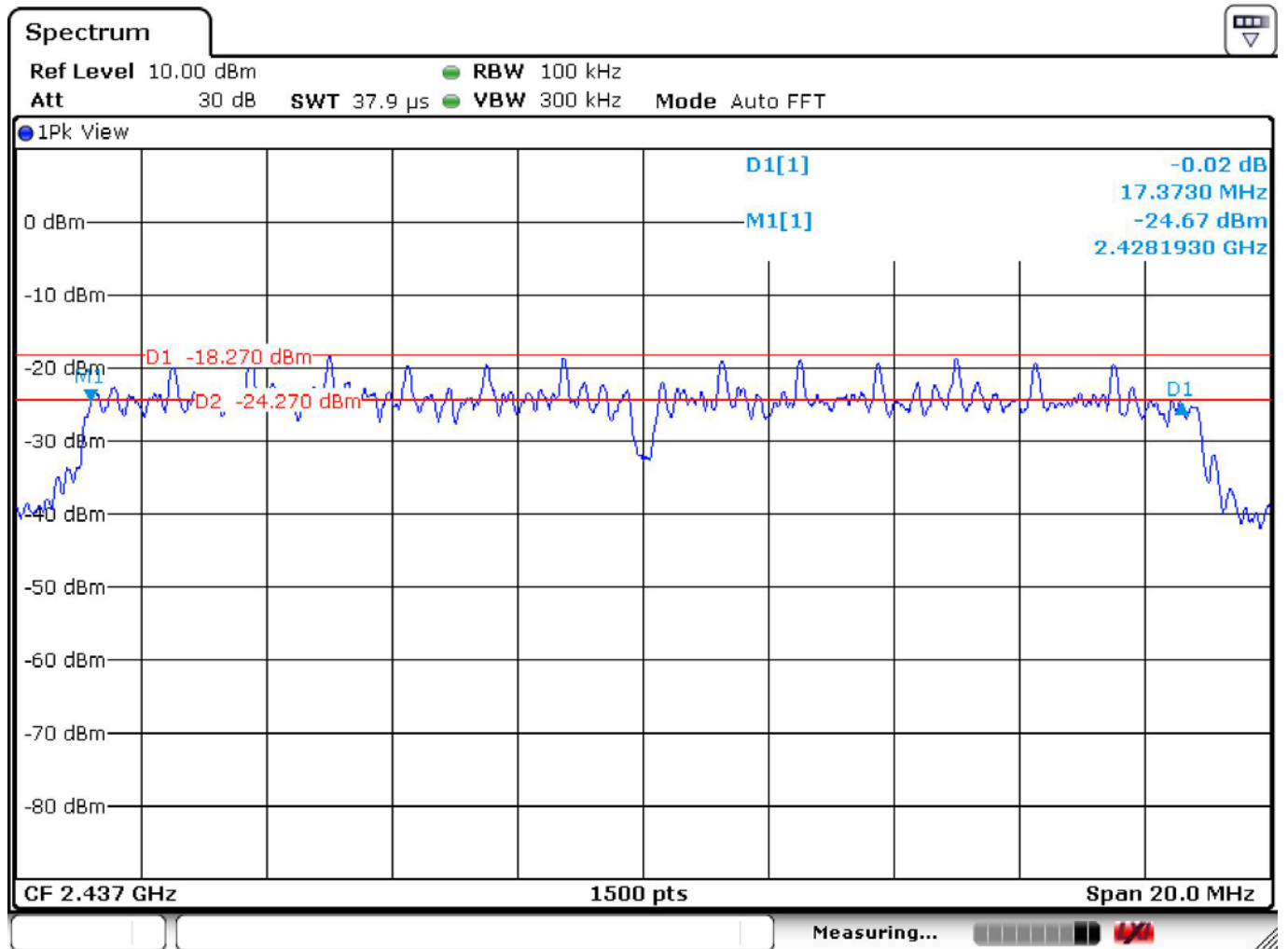


Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: 802.11n (20M)	Channel	: CH01 (2412MHz)



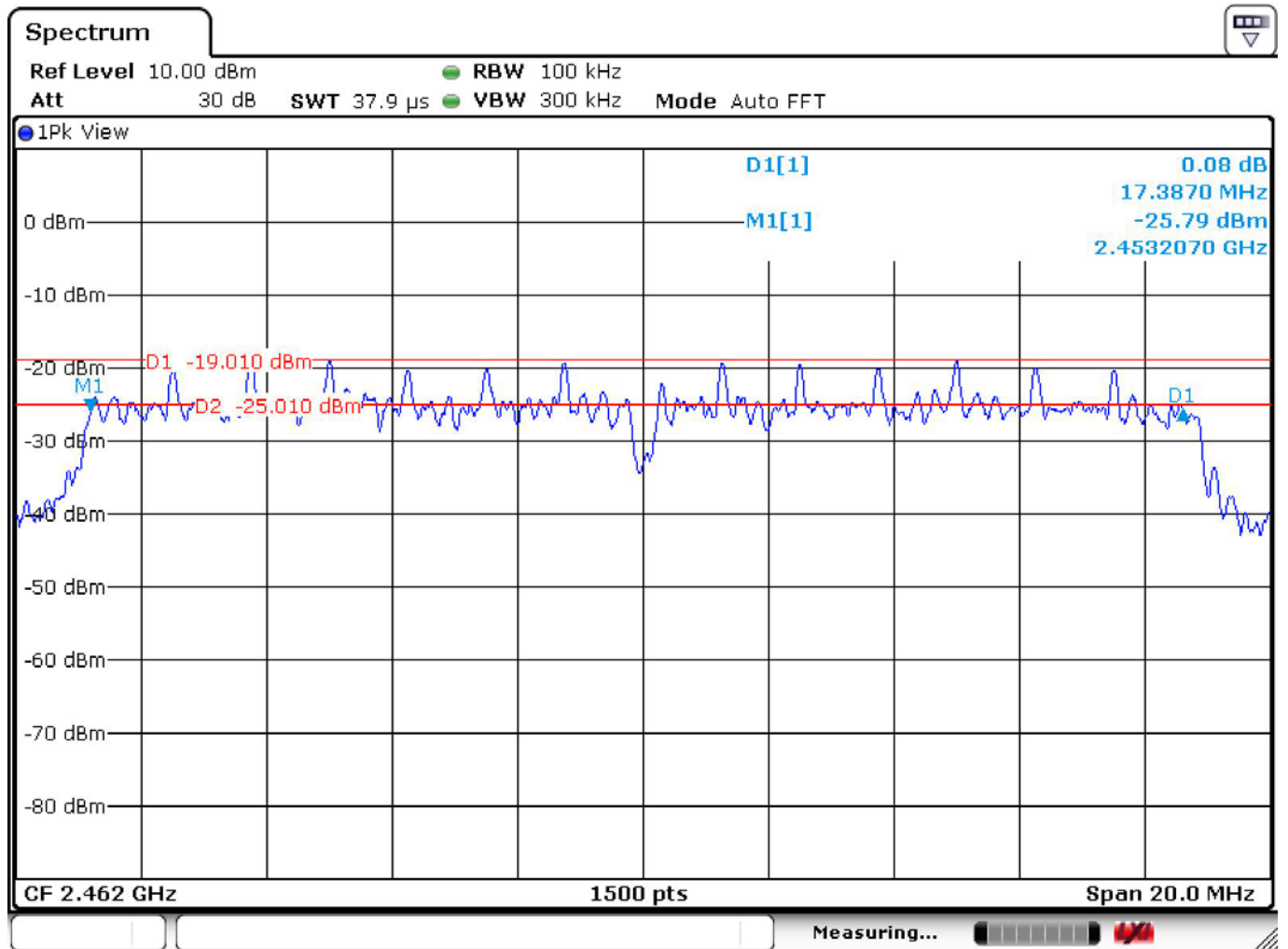


Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: 802.11n (20M)	Channel	: CH06 (2437MHz)



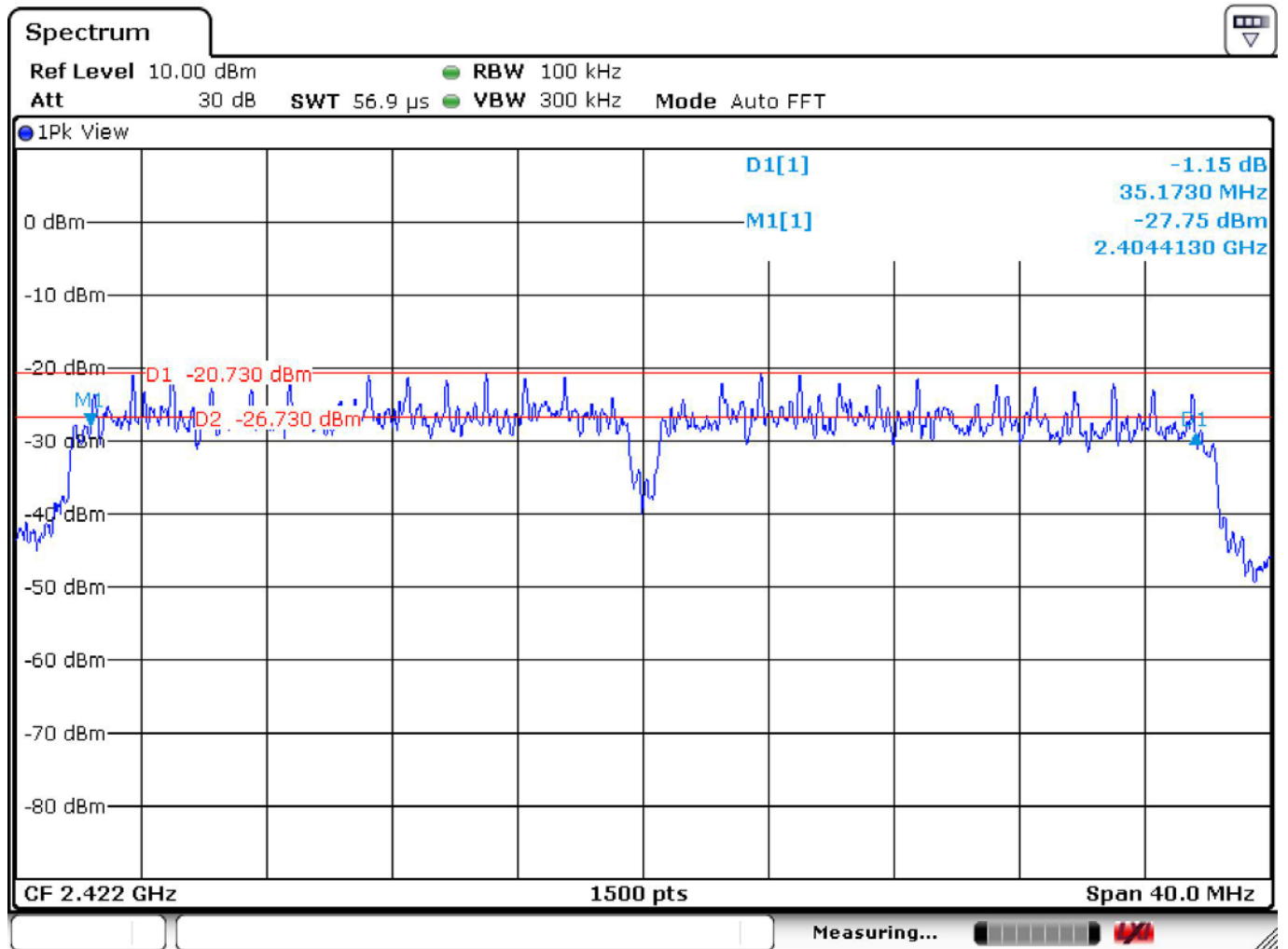


Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: 802.11n (20M)	Channel	: CH11 (2462MHz)



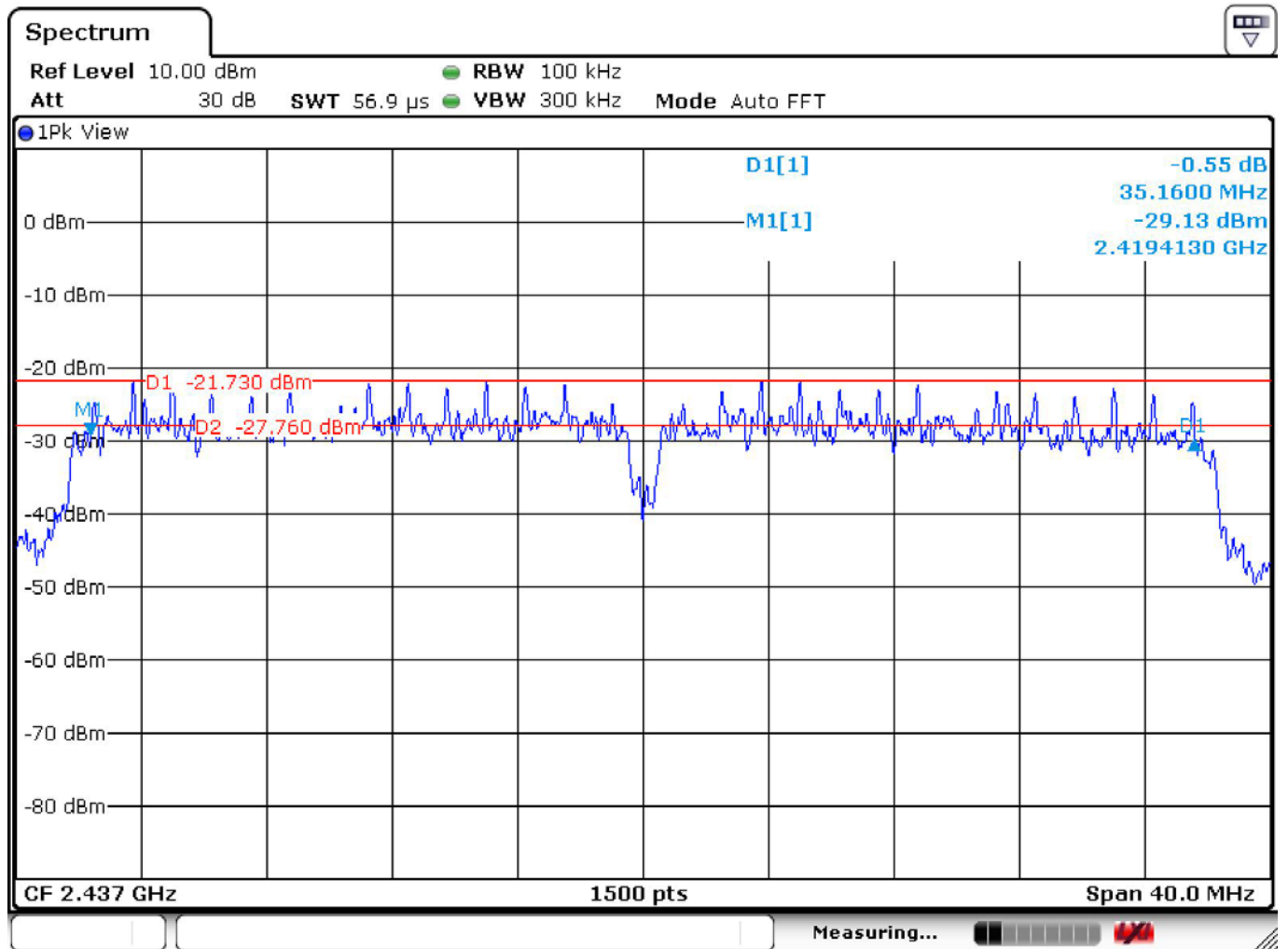


Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: 802.11n (40M)	Channel	: CH03 (2422MHz)



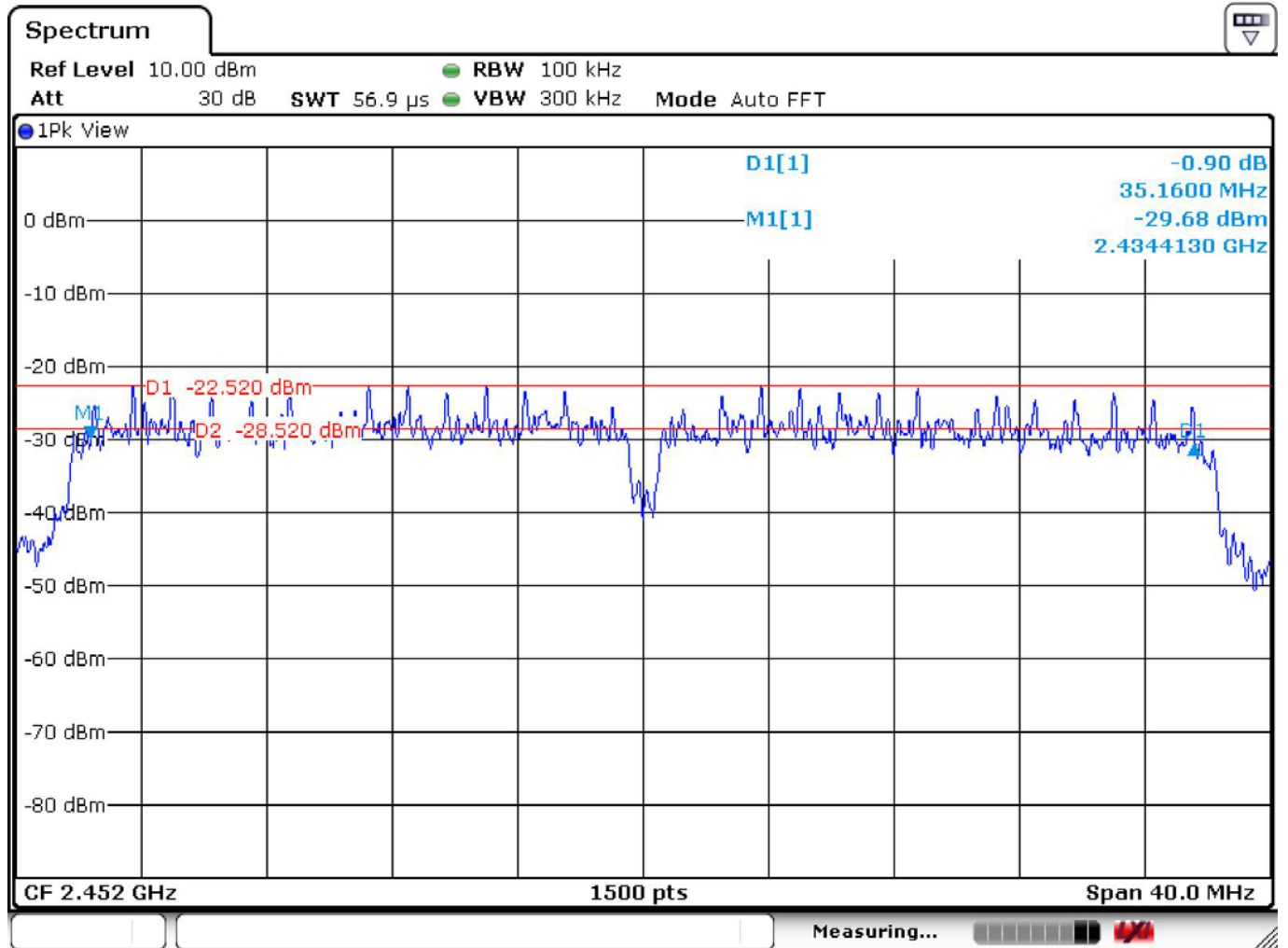


Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: 802.11n (40M)	Channel	: CH06 (2437MHz)





Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: 802.11n (40M)	Channel	: CH09 (2452MHz)



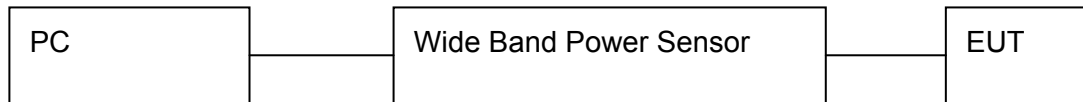


5 Maximum Conducted Output Power

5.1 Test Instruments

Refer to Sec. 1.2 Test Instruments.

5.2 Test Arrangement



5.3 Test Procedure

1. To perform the measurement of maximum conducted (average) output power, firstly, connect the EUT to Wide Band Power Sensor.
2. Then, configure the EUT to transmit continuously and to transmit at its maximum power level.
3. Finally, capture the Maximum reading from PC.

5.4 Limit (§ 15.247(b)(3))

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt.

5.5 Test Result

Compliance

The final test data are shown on the following page(s).



Temperature : 26.4°C

Humidity : 35%

Test Date : 08-Oct-2014

Tested by : Kidd Liao

Test Mode : 802.11 b

Test Channel	Frequency (MHz)	Test Result		Limit	
		(dBm)	(W)	(dBm)	(W)
01	2412	-0.89	0.000815	30	1
06	2437	-3.31	0.000467	30	1
11	2462	-1.26	0.000748	30	1

Test Mode : 802.11 g

Test Channel	Frequency (MHz)	Test Result		Limit	
		(dBm)	(W)	(dBm)	(W)
01	2412	-5.02	0.000315	30	1
06	2437	-6.53	0.000222	30	1
11	2462	-4.18	0.000382	30	1

Test Mode : 802.11 n (20M)

Test Channel	Frequency (MHz)	Test Result		Limit	
		(dBm)	(W)	(dBm)	(W)
01	2412	-4.46	0.000358	30	1
06	2437	-6.15	0.000243	30	1
11	2462	-3.96	0.000401	30	1

Test Mode : 802.11n (40M)

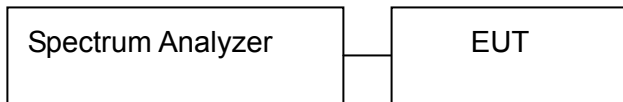
Test Channel	Frequency (MHz)	Test Result		Limit	
		(dBm)	(W)	(dBm)	(W)
03	2422	-7.99	0.000159	30	1
06	2437	-9.10	0.000123	30	1
09	2452	-7.46	0.000179	30	1

6 Out of Band Emission Test

6.1 Test Instruments

Refer to Sec. 1.2 Test Instruments.

6.2 Test Arrangement



6.3 Test Procedure

1. Connect the EUT to spectrum analyzer through appropriate attenuator.
2. Spectrum setting; RMB = 100 kHz; VBW = 100 kHz.
3. Set Span to view the entire emission bandwidth.
4. Detector = Peak.
5. Trace = Max Hold.

6.4 Limit (§ 15.247(d))

In any 100 kHz 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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

6.5 Test Result

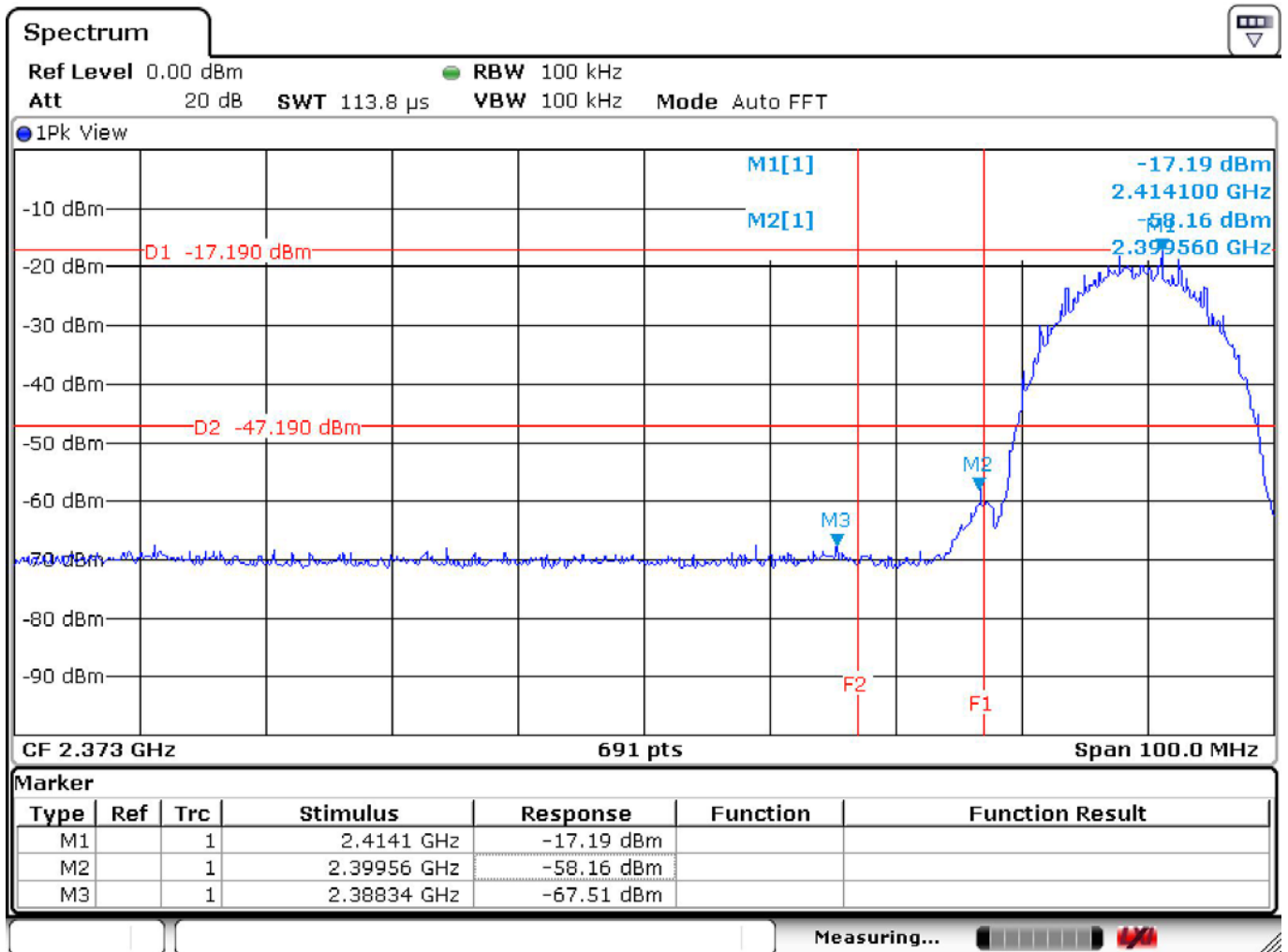
Compliance

The final test data are shown on the following page(s).



Band-Edge Test Data (Lower Edge)

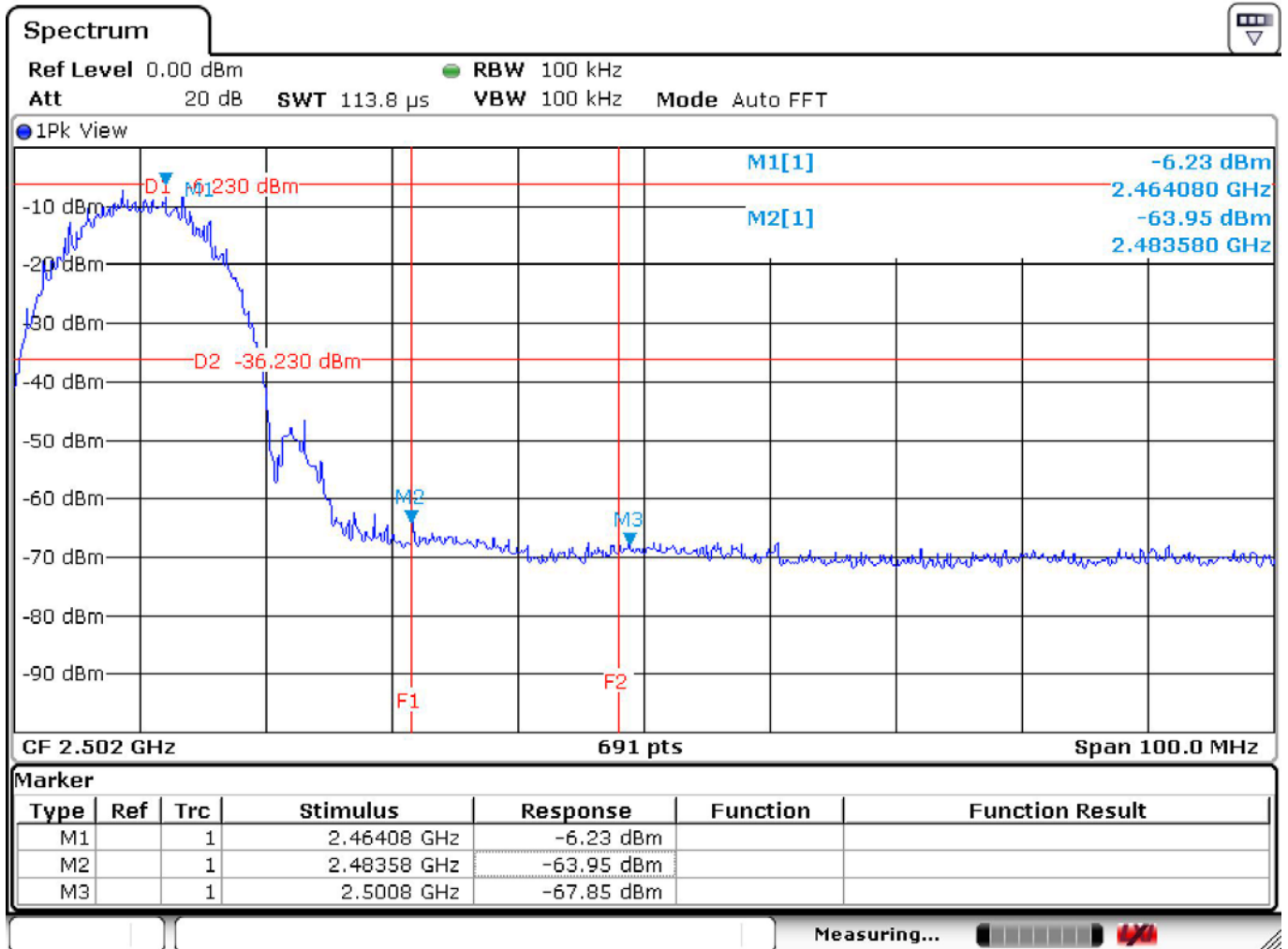
Temperature	: 20.7°C	Humidity	: 37%
Test Date	: 10-Dec-2014	Tested by	: Kidd Liao
Test Mode	: Mode 1 (802.11b)	Channel	: CH01 (2412 MHz)





Band-Edge Test Data (Upper Edge)

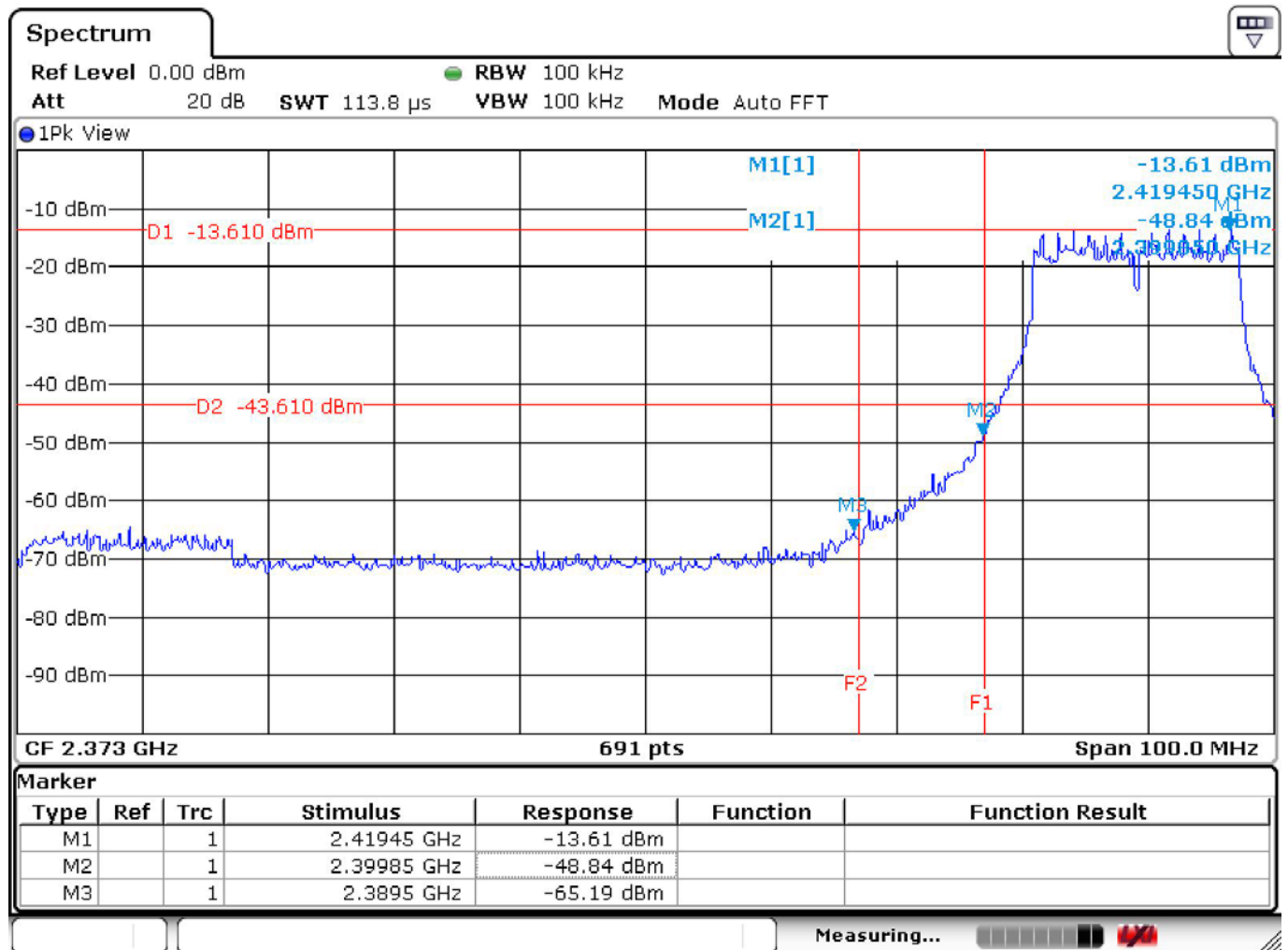
Temperature	: 20.7°C	Humidity	: 37%
Test Date	: 10-Dec-2014	Tested by	: Kidd Liao
Test Mode	: Mode 3 (802.11b)	Channel	: CH11 (2462 MHz)





Band-Edge Test Data (Lower Edge)

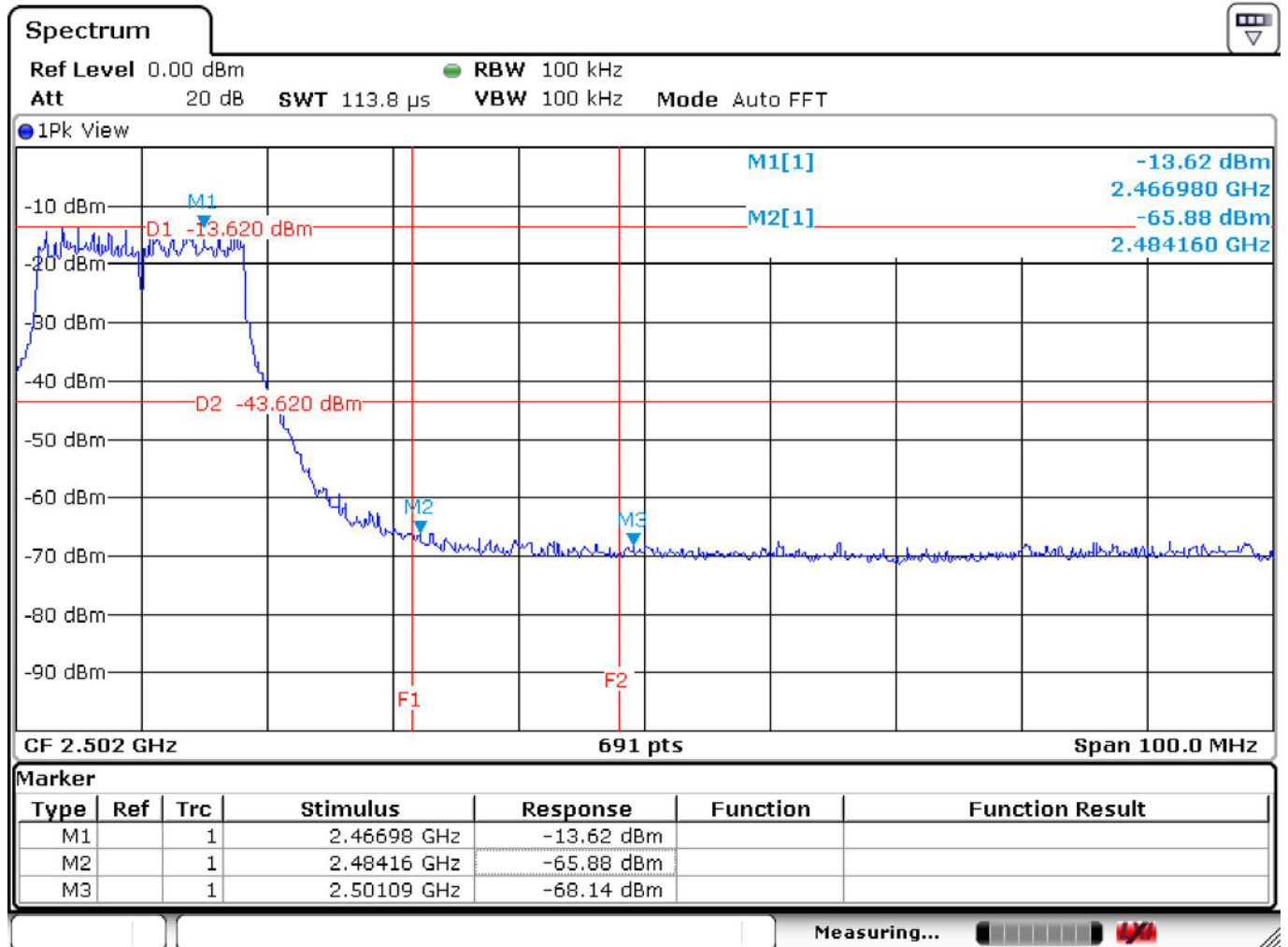
Temperature	: 20.7°C	Humidity	: 37%
Test Date	: 10-Dec-2014	Tested by	: Kidd Liao
Test Mode	: Mode 4 (802.11g)	Channel	: CH01 (2412 MHz)





Band-Edge Test Data (Upper Edge)

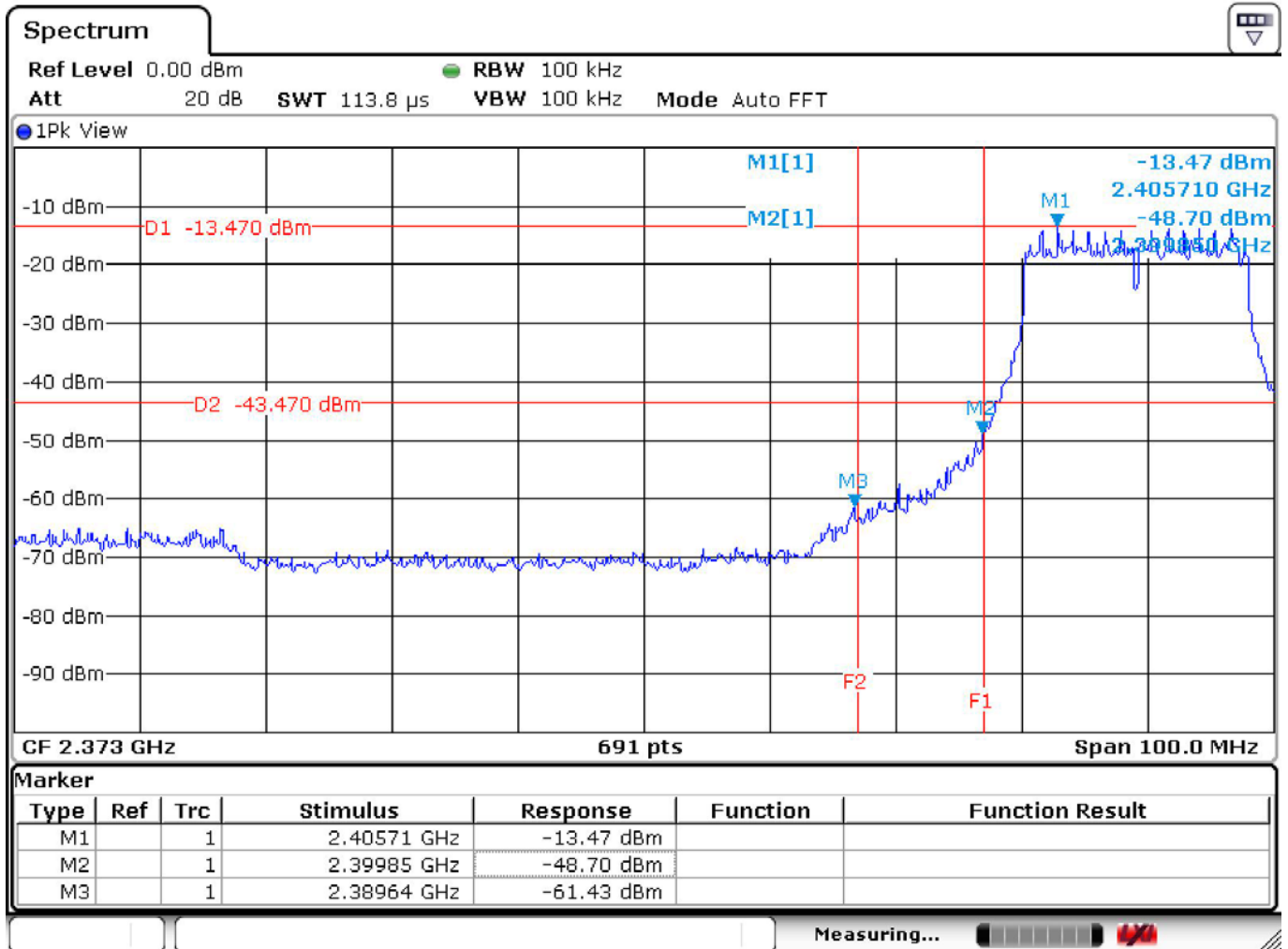
Temperature	: 20.7°C	Humidity	: 37%
Test Date	: 10-Dec-2014	Tested by	: Kidd Liao
Test Mode	: Mode 6 (802.11g)	Channel	: CH11 (2462 MHz)





Band-Edge Test Data (Lower Edge)

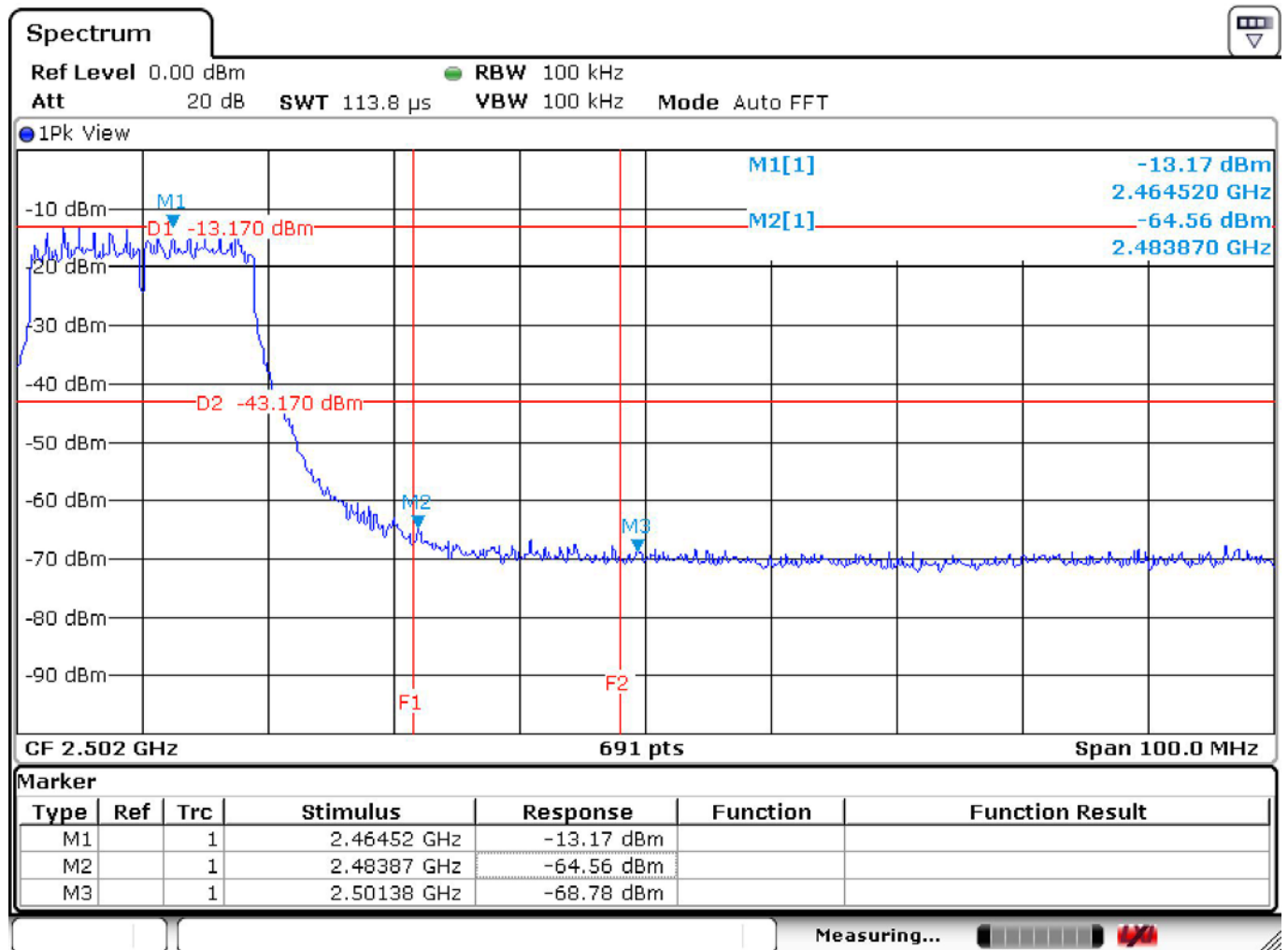
Temperature	: 20.7°C	Humidity	: 37%
Test Date	: 10-Dec-2014	Tested by	: Kidd Liao
Polarization	: Vertical	Channel	: CH01 (2412 MHz)
Test Mode	: Mode 7 (802.11n 20M)		





Band-Edge Test Data (Upper Edge)

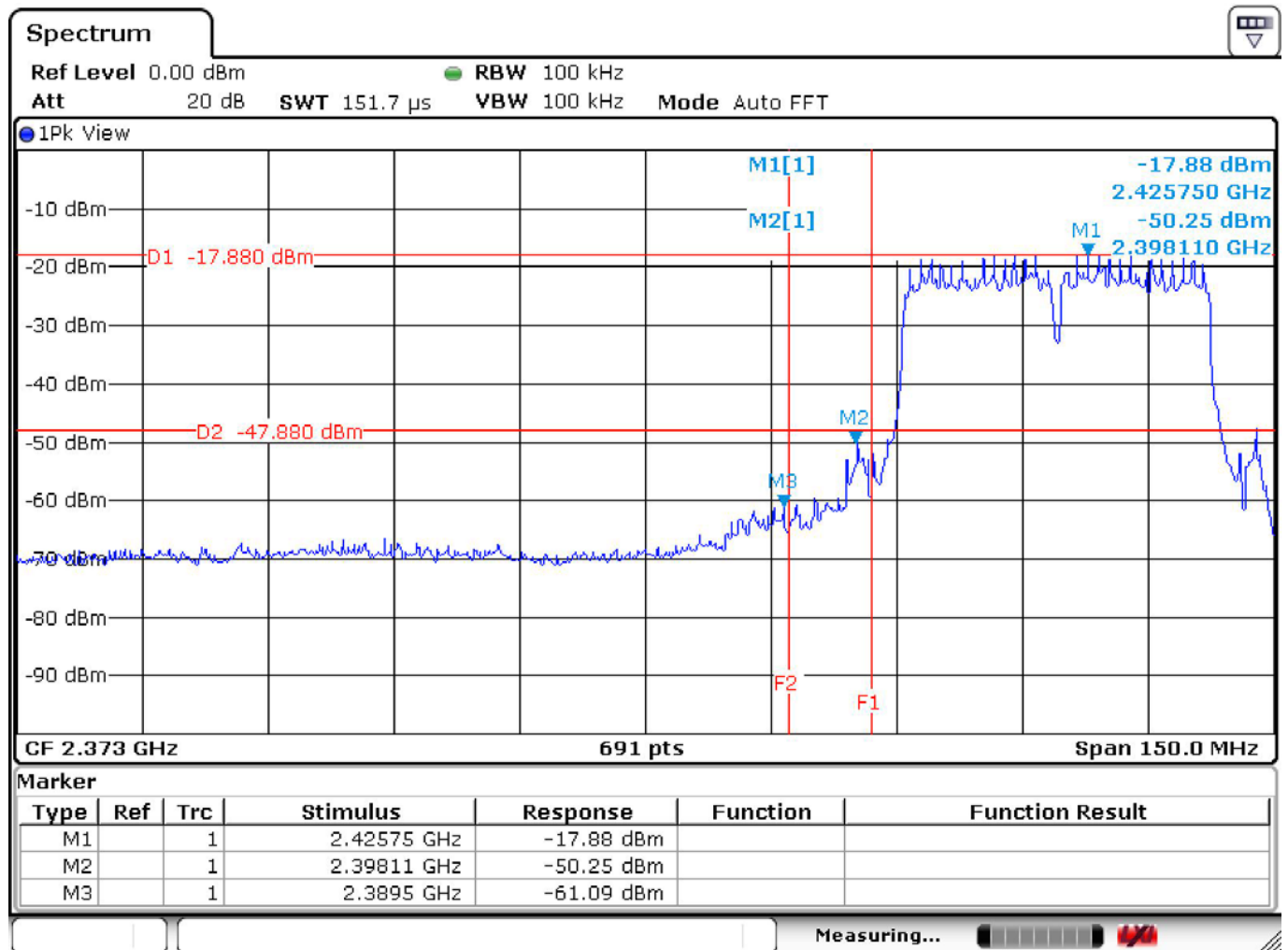
Temperature	: 20.7°C	Humidity	: 37%
Test Date	: 10-Dec-2014	Tested by	: Kidd Liao
Test Mode	: Mode 9 (802.11n 20M)	Channel	: CH11 (2462 MHz)





Band-Edge Test Data (Lower Edge)

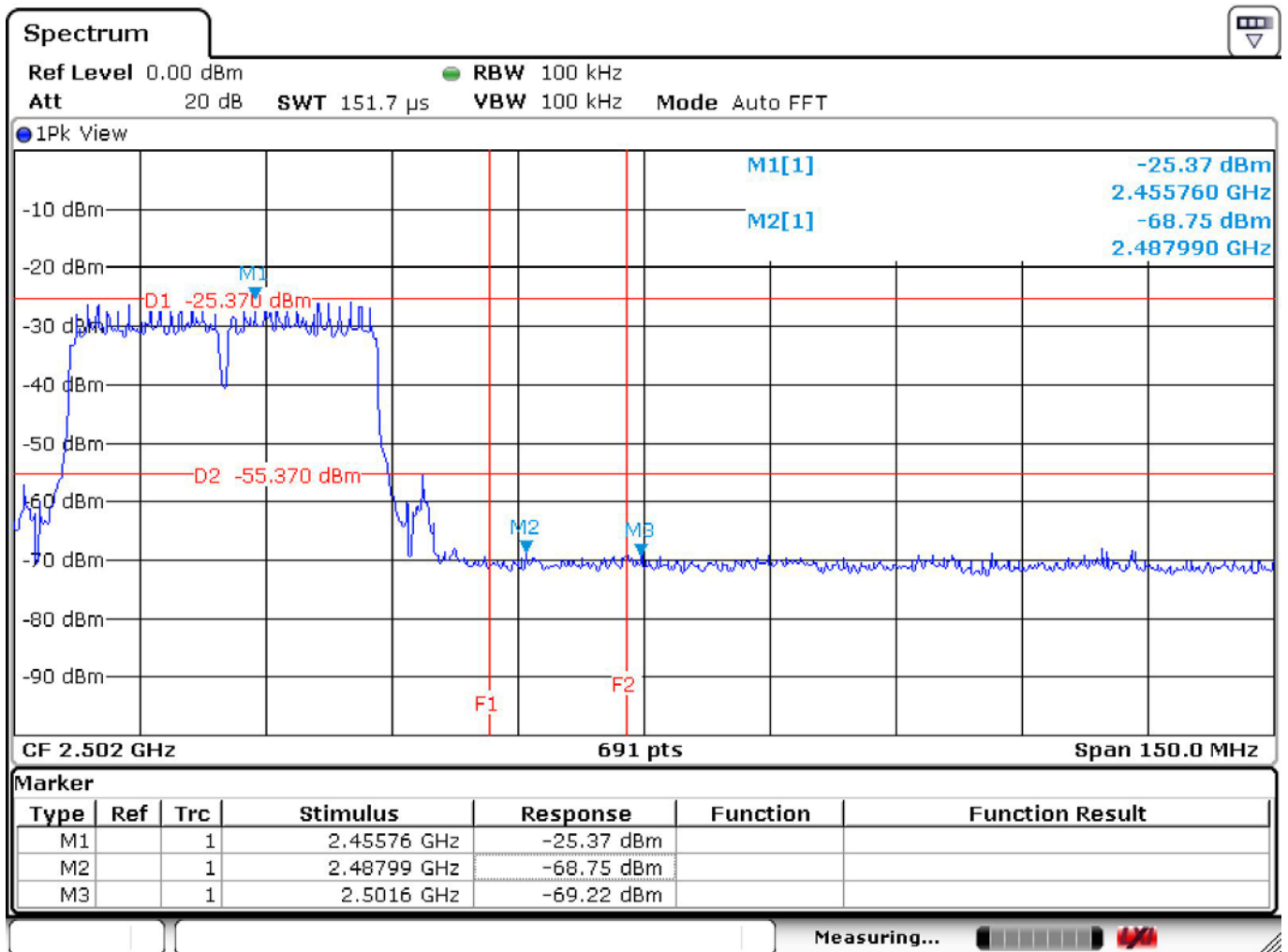
Temperature	: 20.7°C	Humidity	: 37%
Test Date	: 10-Dec-2014	Tested by	: Kidd Liao
Test Mode	: Mode 10 (802.11n 40M)	Channel	: CH03 (2422 MHz)





Band-Edge Test Data (Upper Edge)

Temperature	: 20.7°C	Humidity	: 37%
Test Date	: 10-Dec-2014	Tested by	: Kidd Liao
Test Mode	: Mode 12 (802.11n 40M)	Channel	: CH09 (2452 MHz)



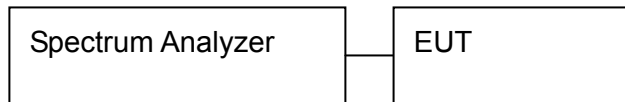


7 Power Spectral Density

7.1 Test Instruments

Refer to Sec. 1.2 Test Instruments.

7.2 Test Arrangement



7.3 Test Procedure

1. Connect the EUT to spectrum analyzer through appropriate attenuator.
2. Spectrum setting; RMB = 100 kHz; VBW = 300 kHz; Span = wide enough to observe the entire wave shape; Sweep Time = 500 sec.
3. Detector = Peak.
4. Trace = Max Hold.

7.4 Limit (§ 15.247(e))

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

7.5 Test Result

Compliance

The final test data are shown on the following page(s).

Temperature : 26.4°C

Humidity : 35%

Test Date : 08-Oct-2014

Tested by : Kidd Liao

Test Mode : 802.11b

Test Channel	Frequency (MHz)	Reading (dBm)	Result (dBm)	Limit (dBm)
1	2412	-12.84	-28.14	8
6	2437	-15.54	-30.84	8
11	2462	-17.31	-32.61	8

Transfer the data with following value: BWCF = $10 \log (3k/100kHz) = -15.30 \text{ dB}$.

Result = Reading + BWCF

發射模式 : 802.11g

Test Channel	Frequency (MHz)	Reading (dBm)	Result (dBm)	Limit (dBm)
1	2412	-16.18	-31.48	8
6	2437	-17.91	-33.21	8
11	2462	-18.97	-34.27	8

Transfer the data with following value: BWCF = $10 \log (3k/100kHz) = -15.30 \text{ dB}$.

Result = Reading + BWCF

發射模式 : 802.11n (20M)

Test Channel	Frequency (MHz)	Reading (dBm)	Result (dBm)	Limit (dBm)
1	2412	-16.69	-31.99	8
6	2437	-17.77	-33.07	8
11	2462	-19.19	-34.49	8

Transfer the data with following value: BWCF = $10 \log (3k/100kHz) = -15.30 \text{ dB}$.

Result = Reading + BWCF

發射模式 : 802.11n (40M)

Test Channel	Frequency (MHz)	Reading (dBm)	Result (dBm)	Limit (dBm)
3	2422	-20.97	-36.27	8
6	2437	-21.55	-36.85	8
9	2452	-22.48	-37.78	8

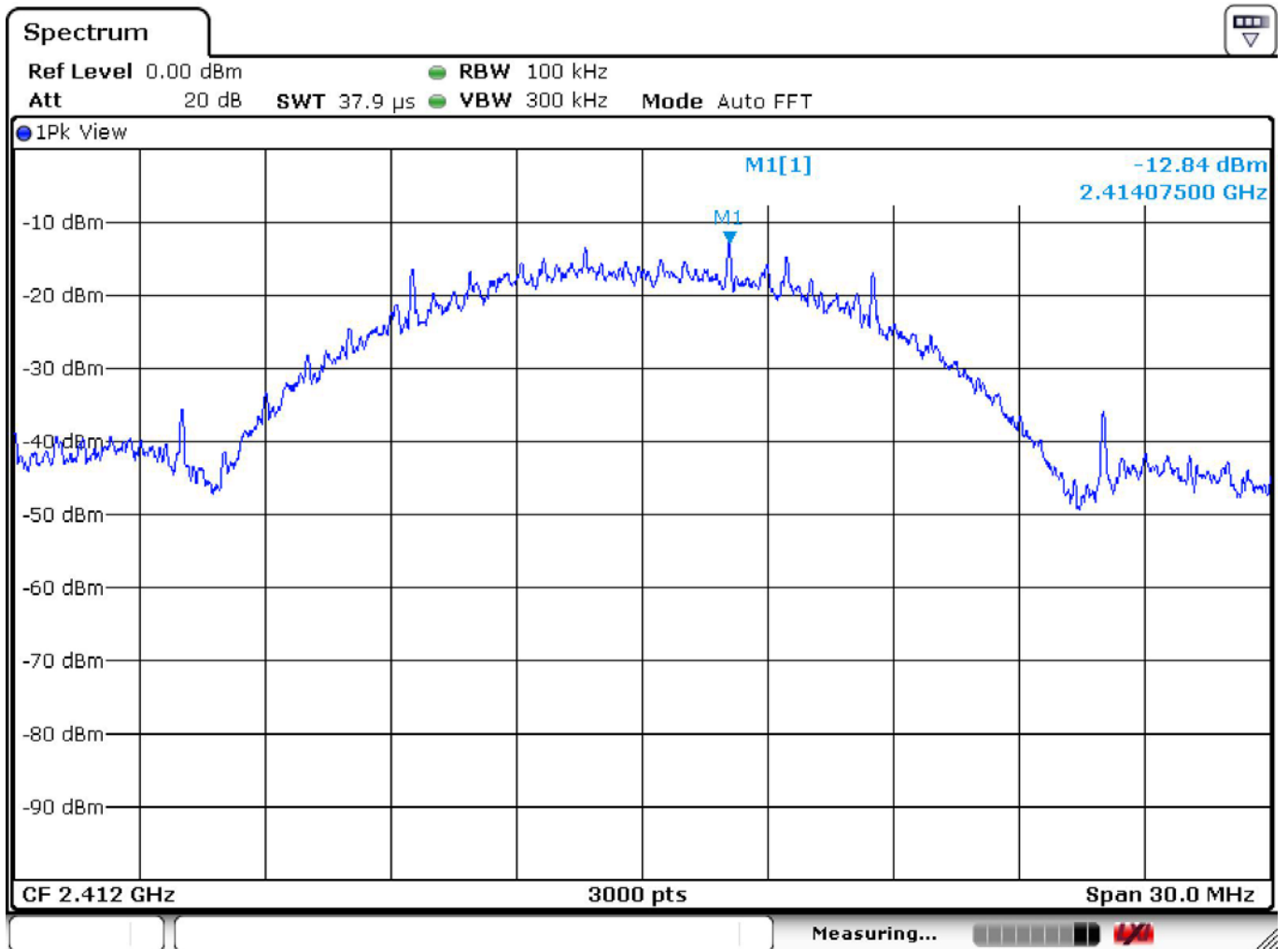
Transfer the data with following value: BWCF = $10 \log (3k/100kHz) = -15.30 \text{ dB}$.

Result = Reading + BWCF



Power Spectral Density Test Data

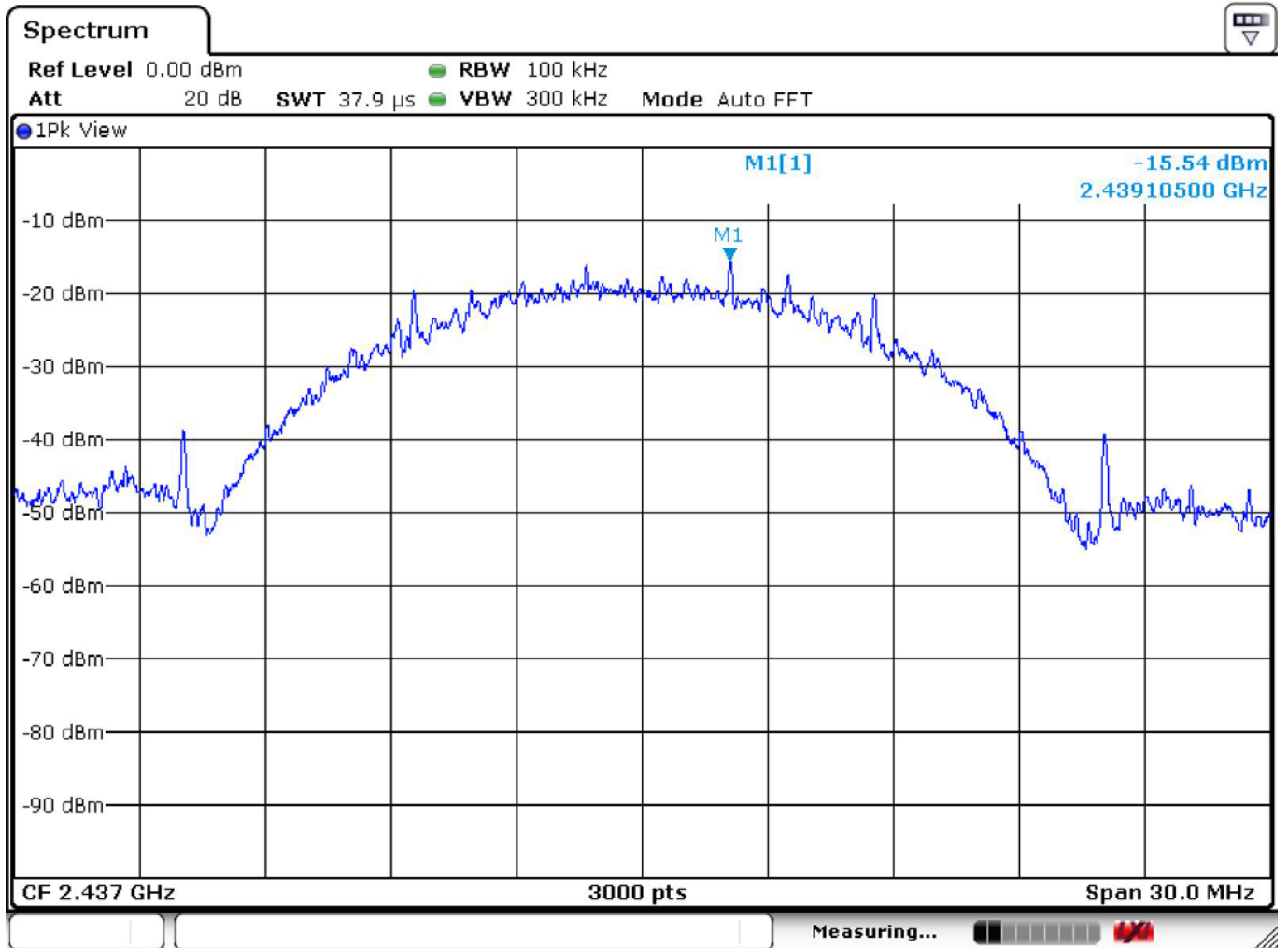
Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: Mode 1	Channel	: CH01 (2412 MHz)





Power Spectral Density Test Data

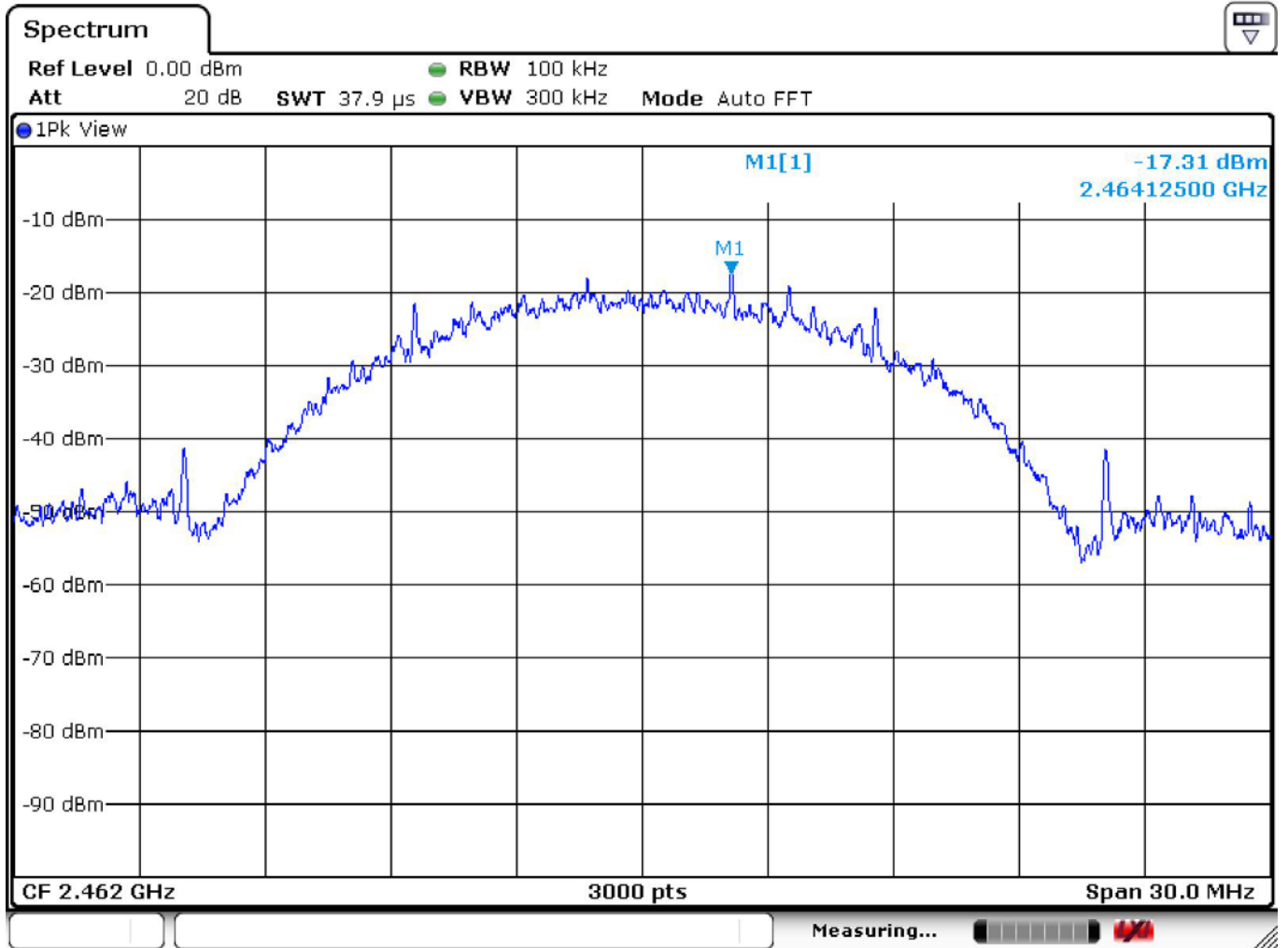
Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: Mode 2	Channel	: CH06 (2437 MHz)





Power Spectral Density Test Data

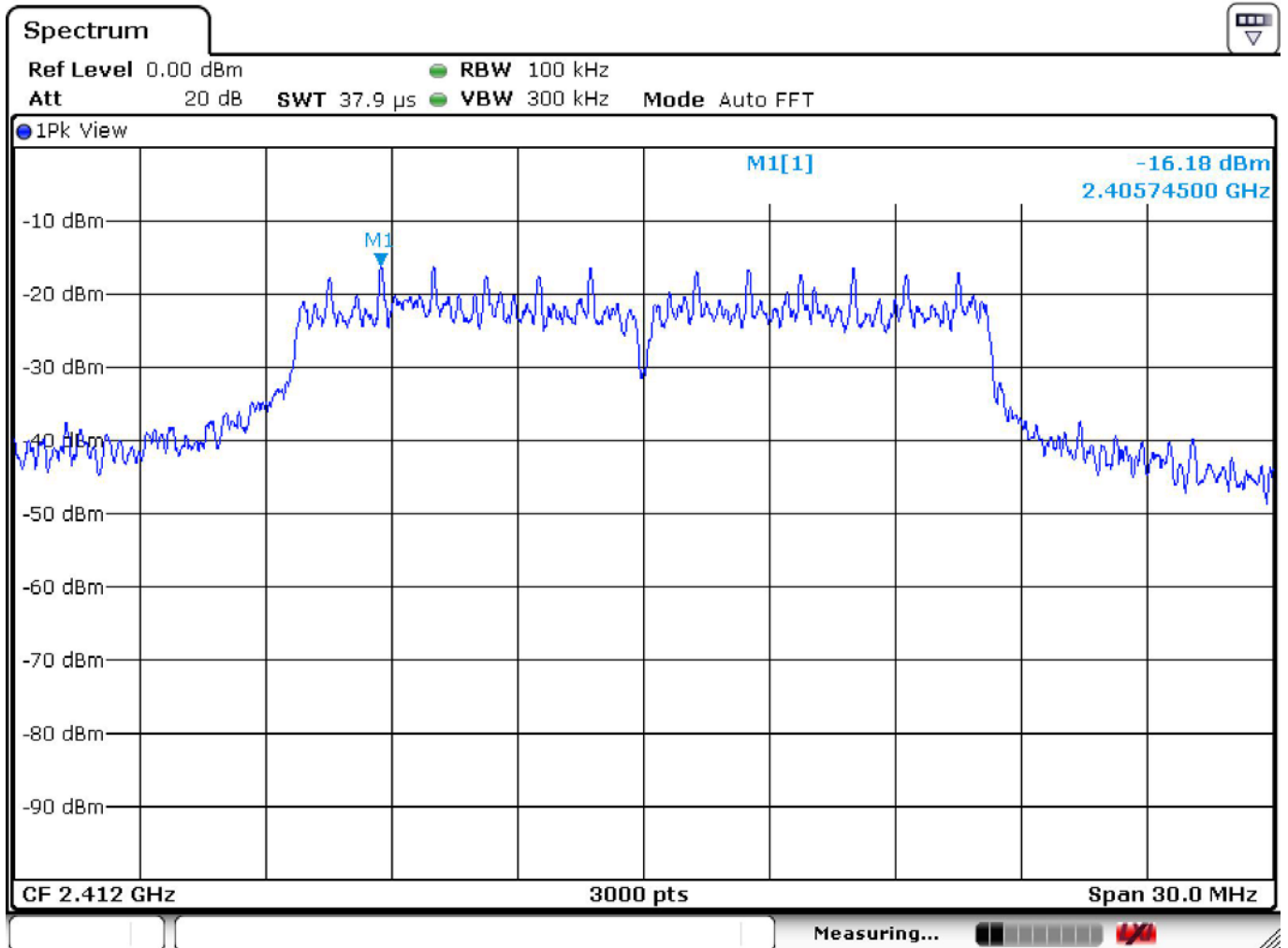
Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: Mode 3	Channel	: CH11 (2462 MHz)





Power Spectral Density Test Data

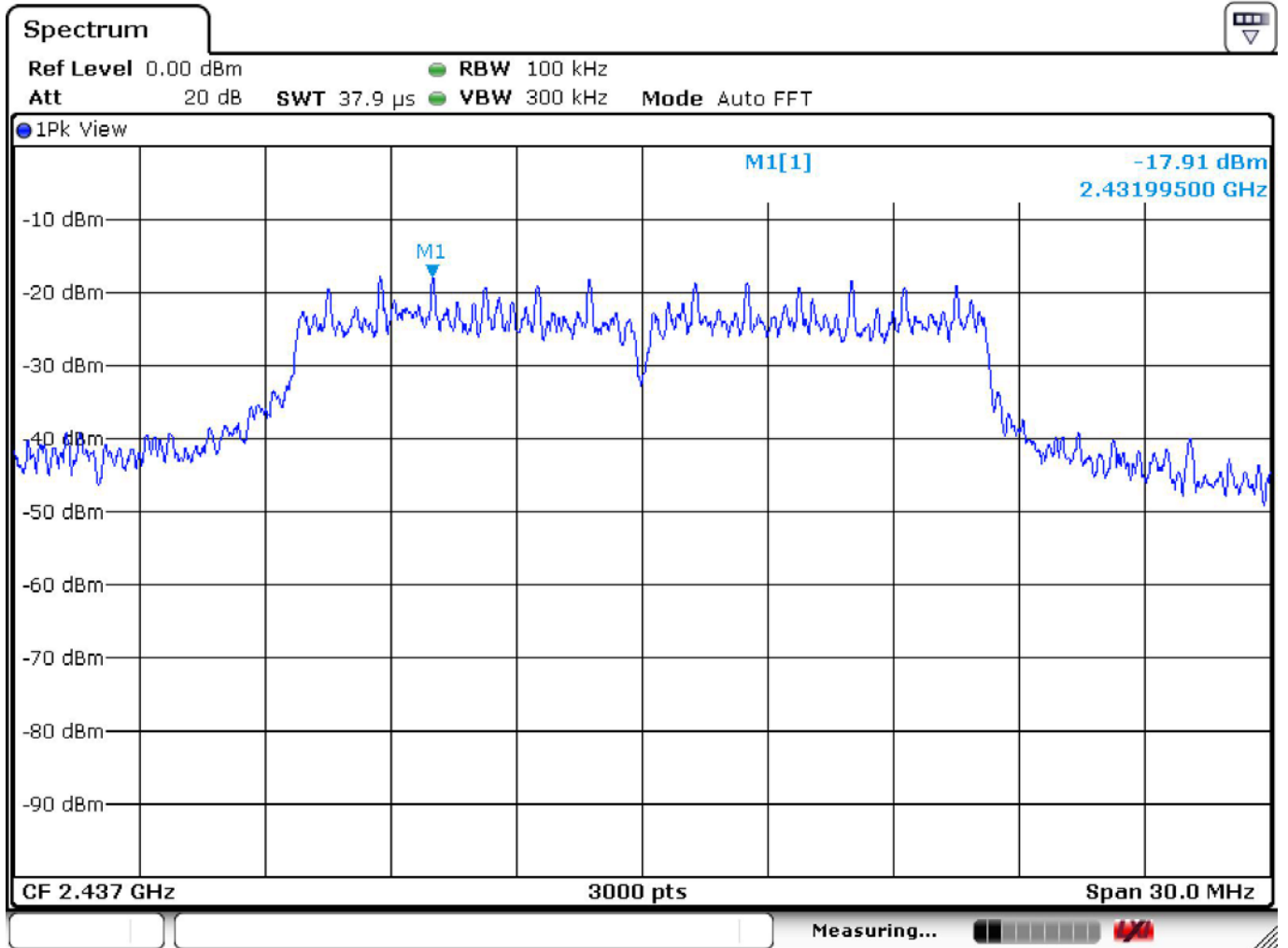
Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: Mode 4	Channel	: CH01 (2412 MHz)





Power Spectral Density Test Data

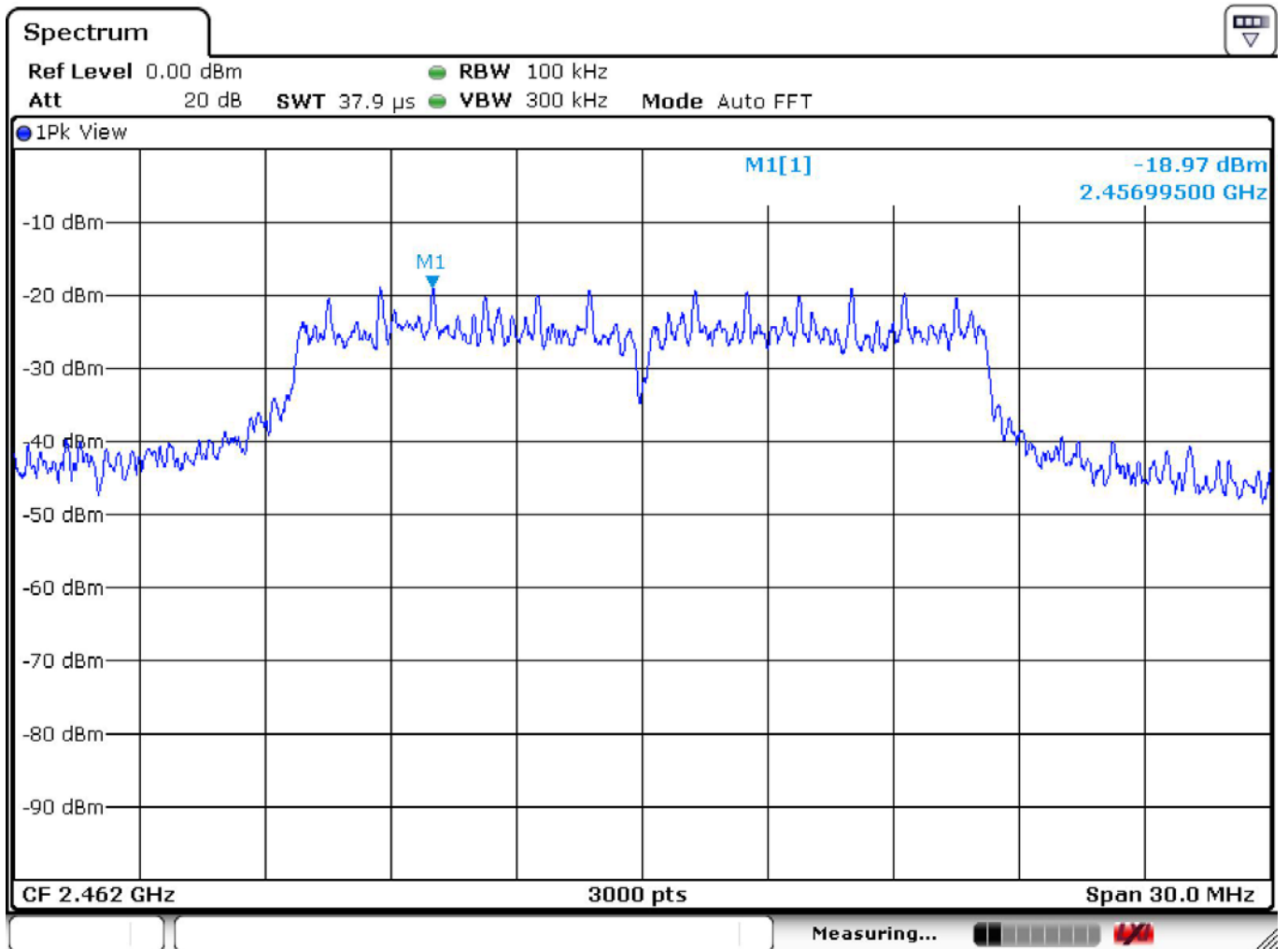
Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: Mode 5	Channel	: CH06 (2437 MHz)





Power Spectral Density Test Data

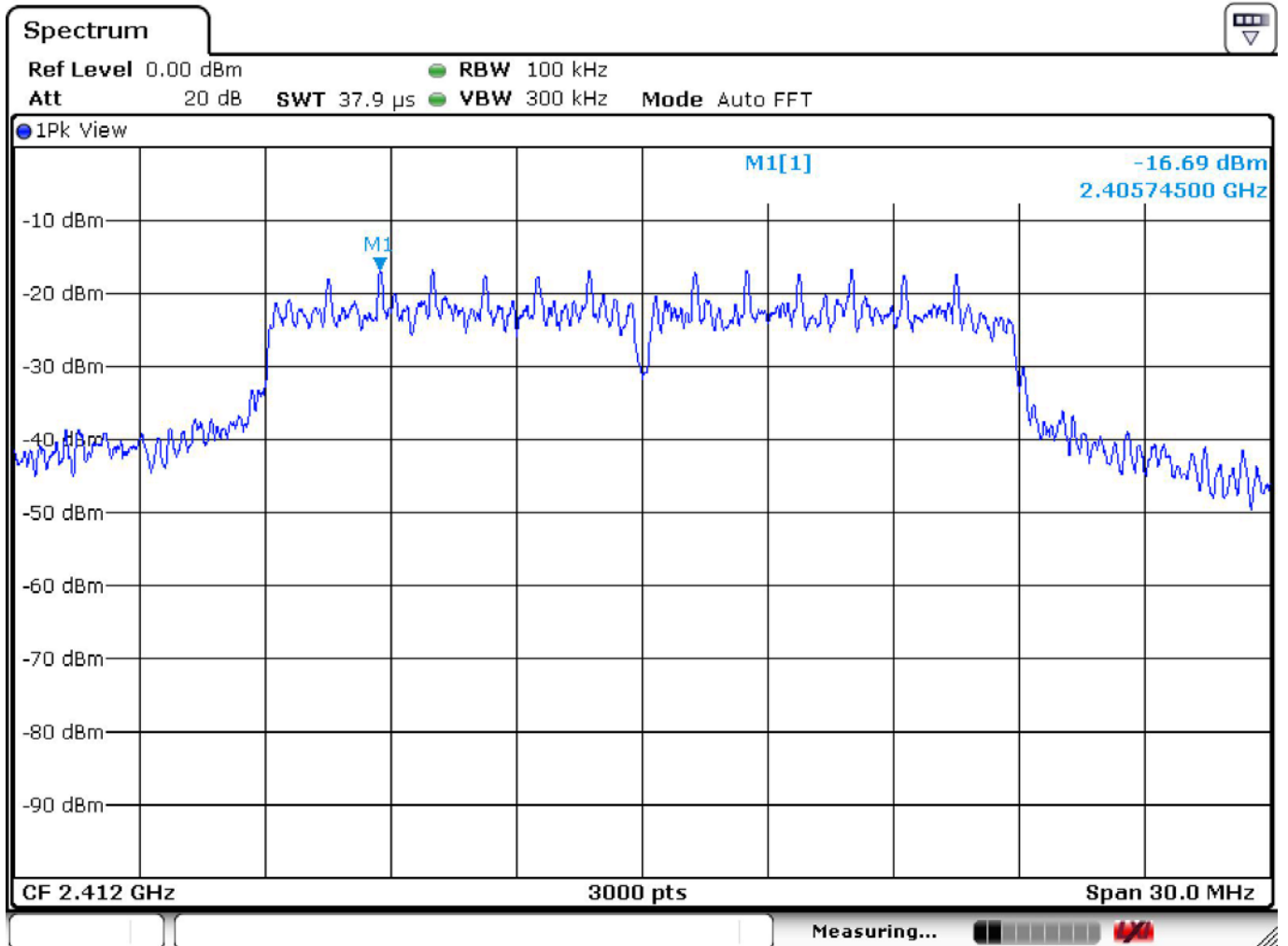
Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: Mode 6	Channel	: CH11 (2462 MHz)





Power Spectral Density Test Data

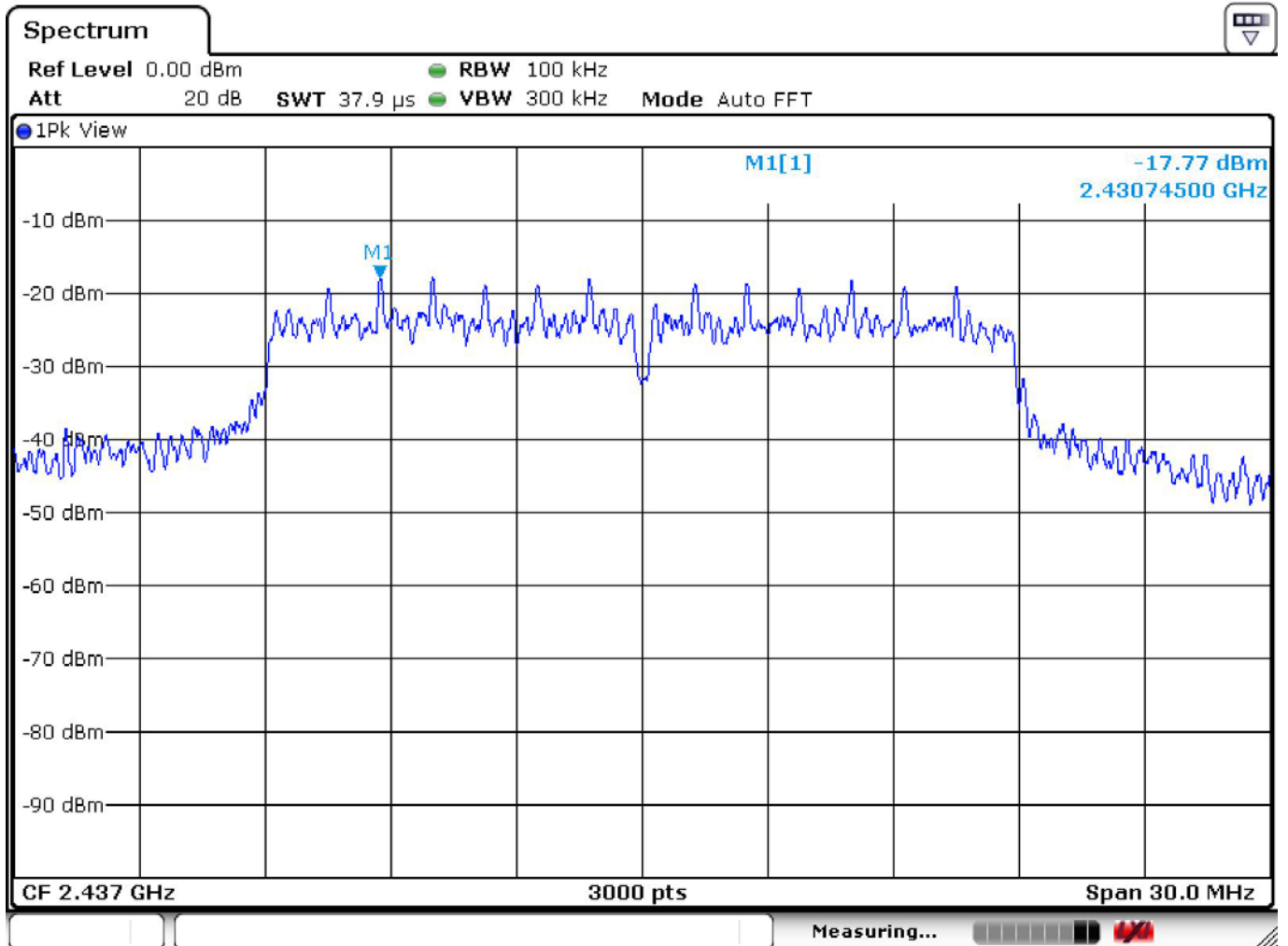
Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: Mode 7	Channel	: CH01 (2412 MHz)





Power Spectral Density Test Data

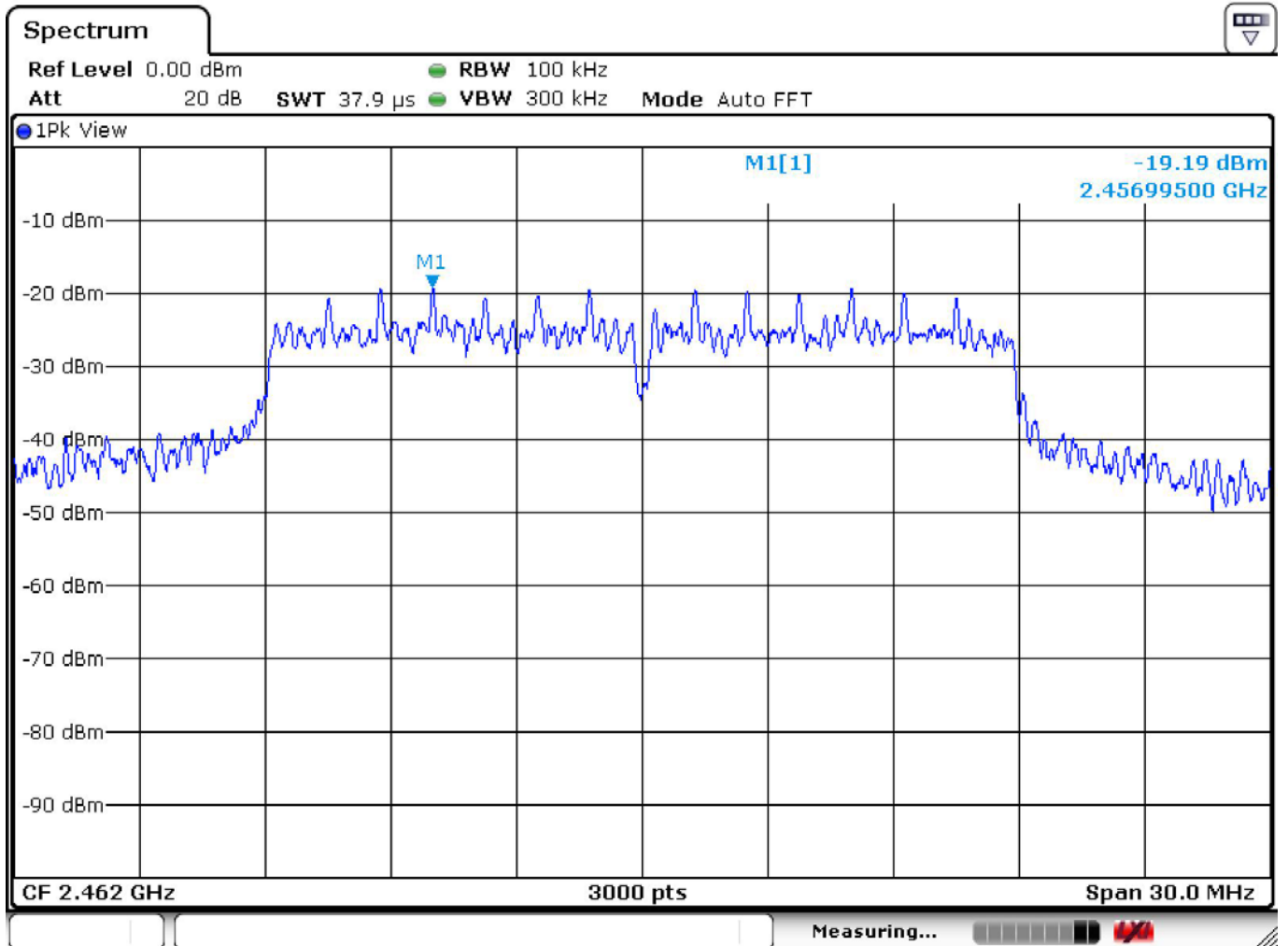
Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: Mode 8	Channel	: CH06 (2437 MHz)





Power Spectral Density Test Data

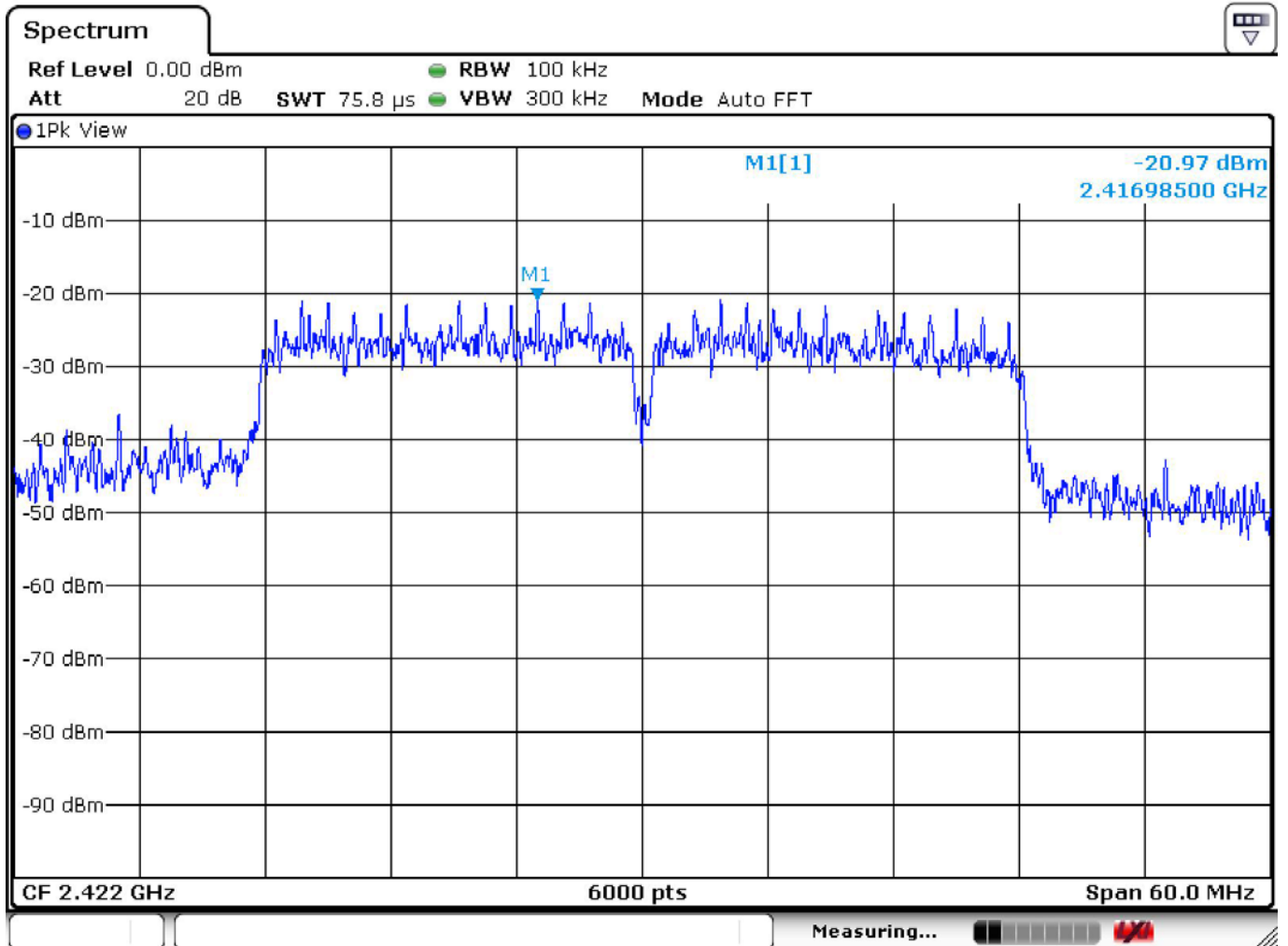
Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: Mode 9	Channel	: CH11 (2462 MHz)





Power Spectral Density Test Data

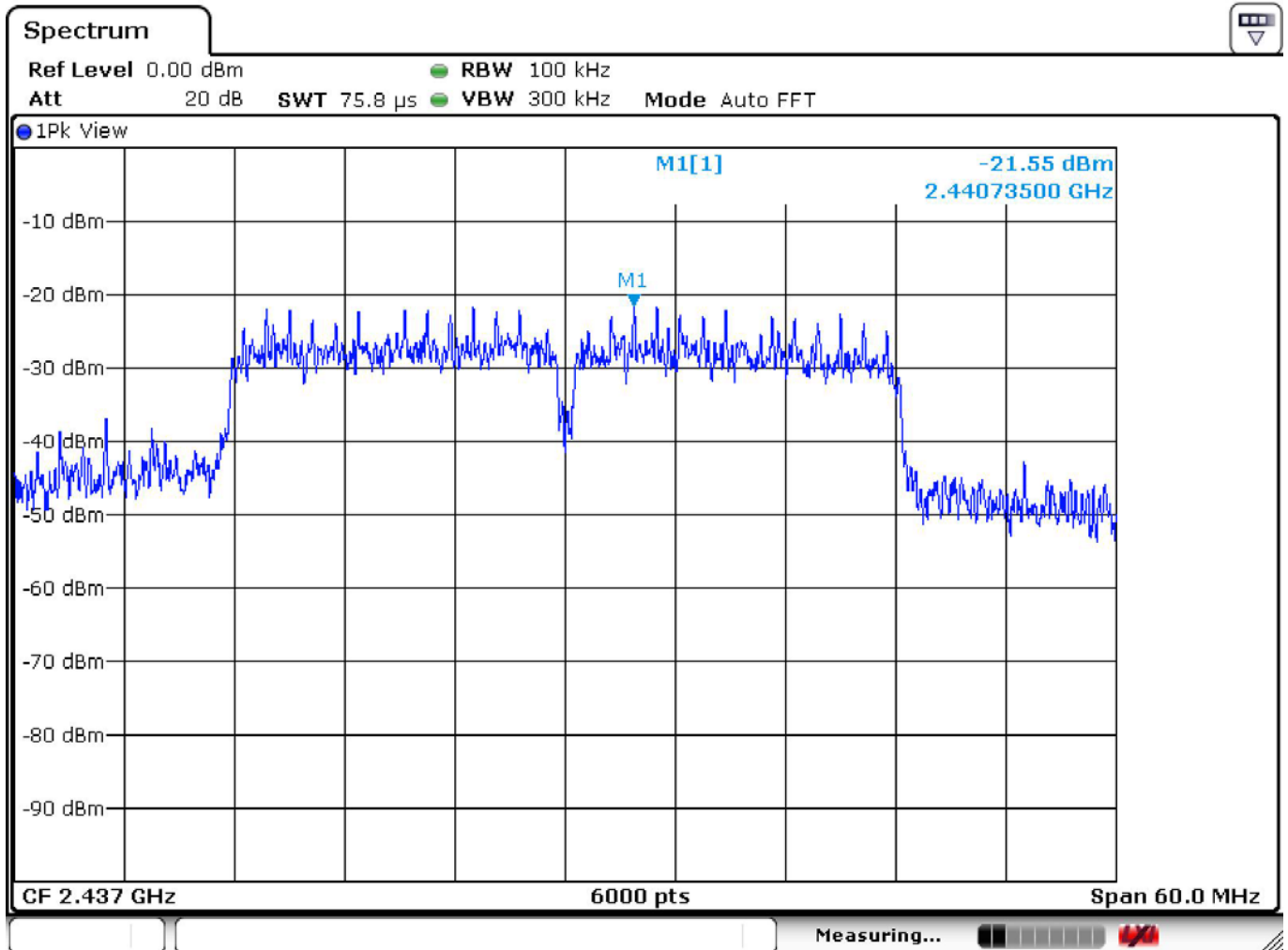
Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: Mode 10	Channel	: CH03 (2422 MHz)





Power Spectral Density Test Data

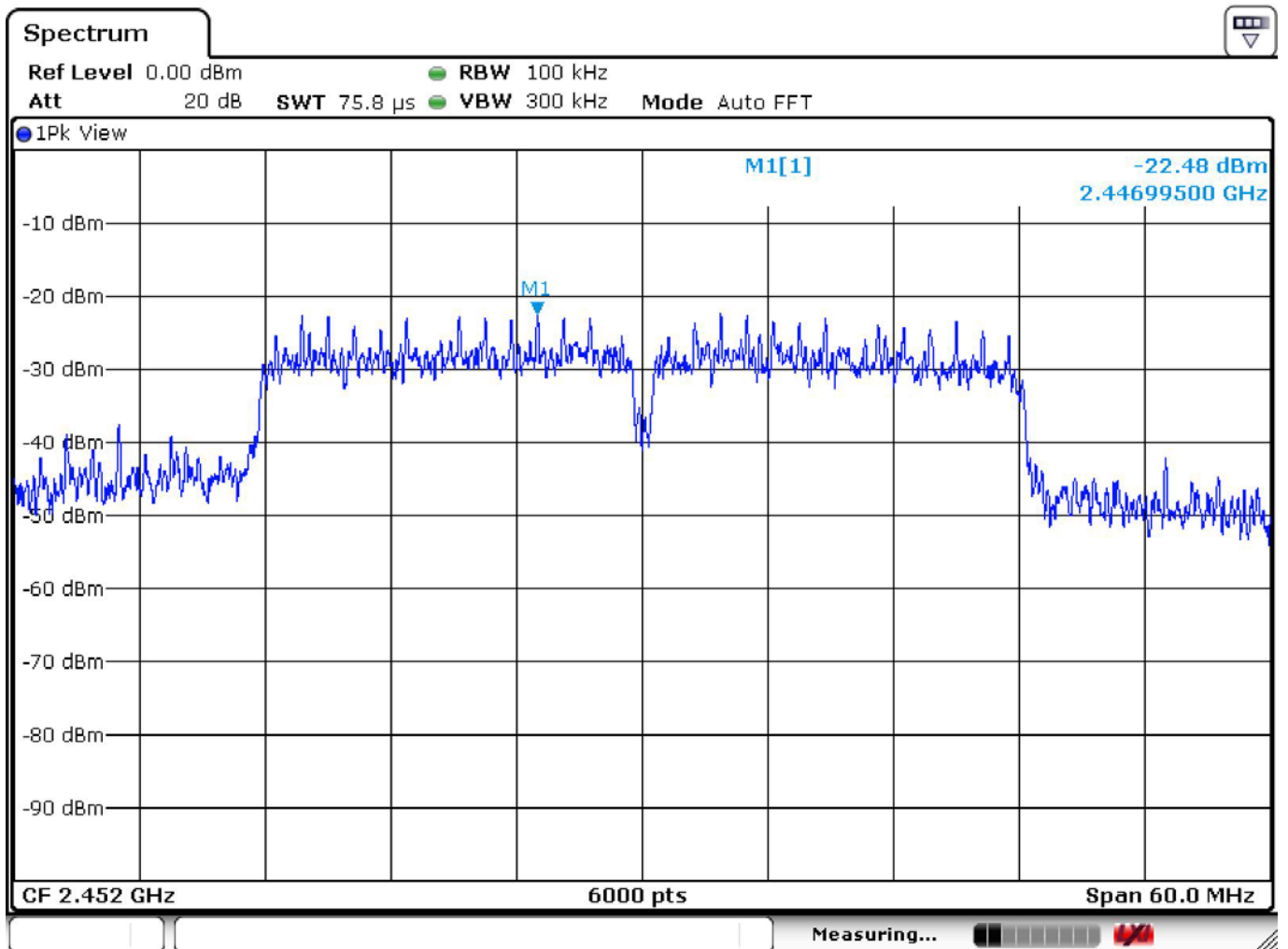
Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: Mode 11	Channel	: CH06 (2437 MHz)





Power Spectral Density Test Data

Temperature	: 26.4°C	Humidity	: 35%
Test Date	: 08-Oct-2014	Tested by	: Kidd Liao
Test Mode	: Mode 12	Channel	: CH09 (2452 MHz)



8 Antenna requirement

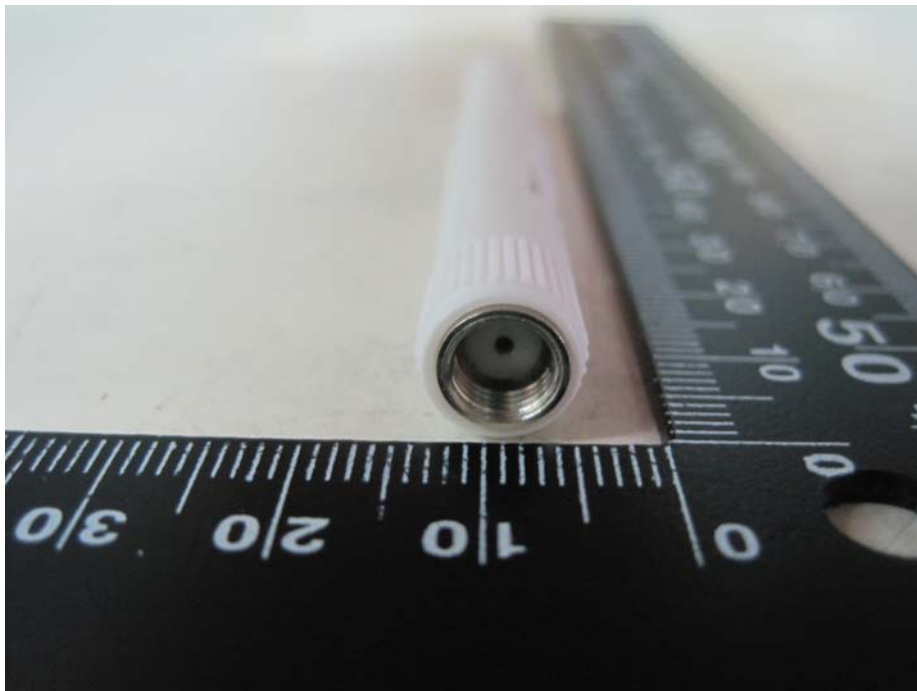
8.1 Limit (§ 15.203)

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

8.2 Test Result

Compliance.

The EUT applies a WIFI antenna with an unique SMA connector.



View of connector