Measurement of RF Emissions from an LED Motion Activated Security Light with Wireless Camera
Model No. 5892

For	HeathCo LLC 2445 Nashville Rd Bowling Green, KY 42102
P.O. Number	N/A
Date Tested	April 12, 2016 through May 10, 2016
Test Personnel	Mark E. Longinotti and Richard King
Test Specification	FCC "Code of Federal Regulations" Title 47, Part 15, Subpart C, Section 15.247 for Digital Modulation Intentional Radiators Operating within The 2400-2483.5MHz Band RSS-Gen RSS-247

Test Report By: MARK E. LONGINOTTI

Mark E. Longinotti
EMC Engineer

Requested By: Jeff Bessinger
HeathCo LLC

Approved By: Raymond J Klouda

Raymond J. Klouda
Registered Professional
Engineer of Illinois - 44894

Elite Electronic Engineering Inc.
1516 CENTRE CIRCLE
DOWNERS GROVE, IL 60515
TEL: 630 - 495 - 9770
FAX: 630 - 495 - 9785
www.elitetest.com

TABLE OF CONTENTS

PARAGRAPH	DESCRIPTION OF CONTENTS	PAGE NO.
1.	Introduction	5
1.1.	Scope of Tests	5
1.2.	Purpose	5
1.3.	Deviations, Additions and Exclusions	5
1.4.	EMC Laboratory Identification	5
1.5.	Laboratory Conditions	5
2.	Applicable Documents	5
3.	EUT Setup and Operation	6
3.1.	General Description	6
3.1.1.	Power Input	6
3.1.2.	Peripheral Equipment	6
3.1.3.	Signal Input/Output Leads	6
3.1.4.	Grounding	6
3.2.	Software	6
3.3.	Operational Mode	6
3.4.	EUT Modifications	7
4.	Test Facility and Test Instrumentation	7
4.1.	Shielded Enclosure	7
4.2.	Test Instrumentation	7
4.3.	Calibration Traceability	7
4.4.	Measurement Uncertainty	7
5.	Test Procedures	8
5.1.	Powerline Conducted Emissions	8
5.1.1.	Requirements	8
5.1.2.	Procedures	8
5.1.3.	Results	8
5.2.	6dB Bandwidth (DTS Bandwidth)	9
5.2.1.	Requirement	9
5.2.2.	Procedures	9
5.2.3.	Results	9
5.3.	Occupied bandwidth (OBW) (99% Bandwidth)	9
5.3.1.	Requirements	9
5.3.2.	Procedures	9
5.3.3.	Results	10
5.4.	Duty Cycle	10
5.4.1.	Requirements	10
5.4.2.	Procedures	10
5.4.3.	Results	10
5.5.	Maximum conducted (average) output power	10
5.5.1.	Requirements	10
5.5.2.	Procedures	10
5.5.3.	Results	11

THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF ELITE ELECTRONIC ENGINEERING INCORPORATED.

TABLE OF CONTENTS

PARAGRAPH	DESCRIPTION OF CONTENTS	PAGE NO.
5.6.	Antenna Conducted Spurious Emissions	11
5.6.1.	Requirements	11
5.6.2.	Procedures	11
5.6.3.	Results	11
5.7.	Radiated Spurious Emissions Measurements	11
5.7.1.	Requirements	11
5.7.2.	Procedures	12
5.7.3.	Results	13
5.8.	Band Edge Compliance	13
5.8.1.	Requirement	13
5.8.2.	Procedures	14
5.4.2.1	Low Band Edge	14
5.4.2.2	High Band Edge	14
5.8.3.	Results	14
5.9.	Power Spectral Density	14
5.9.1.	Requirements	14
5.9.2.	Procedures	15
5.9.3.	Results	15
6.	Other Test Conditions	15
6.1.	Test Personnel and Witnesses	15
6.2.	Disposition of the EUT	15
7.	Conclusions	15
8.	Certification	16
9.	Equipment List	17

THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF ELITE ELECTRONIC ENGINEERING INCORPORATED.

REVISION HISTORY

Revision	Date	Description
—	18 MAY 2016	Initial release
A	?????	Per HeathCo LLC personnel, the model number was changed from 5892 to 5892

Measurement of RF Emissions from a LED Motion Activated Security Light with Wireless Camera, Model No. 5892

1. INTRODUCTION

1.1. Scope of Tests

This report represents the results of the series of radio interference measurements performed on a HeathCo LLC LED Motion Activated Security Light with Wireless Camera, Model No. 5892 (hereinafter referred to as the EUT). Serial No. D412BB0E80FC was assigned to the EUT used for power line conducted emission tests and spurious radiated emission tests. Serial No. D412BB0E84E4 was assigned to the EUT used for all other tests. Serial No. D412BB0E84E4 was modified for testing purposes. It was equipped with coaxial connectors so that the antenna ports of the EUT could be connected directly to a spectrum analyzer. The EUT is a digital modulation transmitter. The transmitter was designed to transmit in the 2400-2483.5 MHz band using two integral, non-removable antennas. When transmitting using 802.11b or 802.11g protocol, the EUT used only antenna 1. When transmitting using 802.11n protocol, the EUT employed MIMO techniques and used both antenna 1 and antenna 2. The EUT was manufactured and submitted for testing by HeathCo LLC located in Bowling Green, KY.

1.2. Purpose

The test series was performed to determine if the EUT meets the conducted and radiated RF emission requirements of the FCC "Code of Federal Regulations" Title 47, Part 15, Subpart C, Sections 15.207 and 15.247 for Intentional Radiators. Testing was performed in accordance with ANSI C63.10-2013.

The test series was also performed to determine if the EUT meets the conducted RF emission requirements, radiated RF emissions requirements, and additional provisions of the Industry Canada Radio Standards Specification RSS-Gen Section 8.8 and Industry Canada Radio Standards Specification RSS-247 for Transmitters.

1.3. Deviations, Additions and Exclusions

There were no deviations, additions to, or exclusions from the test specification during this test series.

1.4. EMC Laboratory Identification

This series of tests was performed by Elite Electronic Engineering Incorporated of Downers Grove, Illinois. The laboratory is accredited by The American Association for Laboratory Accreditation (A2LA). A2LA Certificate Number: 1786.01.

1.5. Laboratory Conditions

The temperature at the time of the test was 22°C and the relative humidity was 49%.

2. APPLICABLE DOCUMENTS

The following documents of the exact issue designated form part of this document to the extent specified herein:

- Federal Communications Commission "Code of Federal Regulations", Title 47, Part 15, Subpart C, dated 1 October 2015
- ANSI C63.4-2014, "American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz"
- ANSI C63.10-2013, " American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices"

- Federal Communications Commission Office of Engineering and Technology Laboratory Division Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under Section 15.247, April 8, 2016

- Federal Communications Commission Office of Engineering and Technology Laboratory Division Emissions Testing of Transmitters with Multiple Outputs in the Same Band (*e.g.,* MIMO, Smart Antenna, etc.), October 31, 2013

3. EUT SETUP AND OPERATION

3.1. General Description

The EUT is a HeathCo LLC, LED Motion Activated Security Light with Wireless Camera, Model No. 5892. A block diagram of the EUT setup is shown as Figure 1 and Figure 2. A photograph of the EUT is shown as Figure 3.

3.1.1. Power Input

The EUT obtained 115V 60Hz power via a 2 wire, unshielded power cord. The high and low leads were connected through a line impedance stabilization network (LISN) which was located on the ground plane. The network complies with the requirements of Paragraph 4.3 of ANSI C63.4-2014.

3.1.2. Peripheral Equipment

The EUT was submitted for testing with an HP EliteBook 8570p laptop computer. The laptop computer was used to program the EUT to continuously transmit in each of the modes listed in paragraph 3.3.

3.1.3. Signal Input/Output Leads

The EUT was submitted for testing with a serial cable. The serial cable was used to connect the EUT to the USB port of the HP laptop computer via a USB to serial dongle.

3.1.4. Grounding

The EUT was not grounded during testing.

3.2. Software

For all tests, the EUT had WiFi Firmware version V0088_160414 loaded onto the device to provide correct load characteristics.

3.3. Operational Mode

For all radiated emissions tests, the EUT was placed on a non-conductive stand. Per ANSI C63.10, for radiated emissions tests below 1GHz, the non-conductive stand was 80cm high and for radiated emission tests above 1GHz, the non-conductive stand was 150cm high.

The EUT was energized and programmed to operate in one of the following modes:

- 802.11 b at 2412MHz Data Rates: 1, 2, 5.5, 11 Mbps, output power = 15
- 802.11 b at 2437MHz Data Rates: 1, 2, 5.5, 11 Mbps, output power = 15
- 802.11 b at 2462MHz Data Rates: 1, 2, 5.5, 11 Mbps, output power = 15

- 802.11 b at 2412MHz Data Rates: 6, 9, 12, 18, 24, 36, 48, 54 Mbps, power setting = 6
- 802.11 b at 2437MHz Data Rates: 6, 9, 12, 18, 24, 36, 48, 54 Mbps, power setting = 6
- 802.11 g at 2562MHz Data Rates: 6, 9, 12, 18, 24, 36, 48, 54 Mbps, power setting = 6

- 802.11 n at 2412MHz Data Rates: 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2 Mbps MIMO, power setting = 4

- 802.11 n at 2437MHz Data Rates: 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2 Mbps MIMO, power setting = 4
- 802.11 n at 2462MHz Data Rates: 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2 Mbps MIMO, power setting = 4

- 802.11 n at 2422MHz Data Rates: 15, 30, 45, 60, 90, 120, 135, 150 Mbps MIMO, power setting =4
- 802.11 n at 2437MHz Data Rates: 15, 30, 45, 60, 90, 120, 135, 150 Mbps MIMO, power setting =4
- 802.11 n at 2452MHz Data Rates: 15, 30, 45, 60, 90, 120, 135, 150 Mbps MIMO, power setting =4

3.4. EUT Modifications

In order to improve the spurious radiated emissions below 1GHz, the following modifications were made to the circuit board:

- A Wurth Electronic surface mount ferrite bead, P/N: 742792040, was placed on the 120V, 60Hz high line on the main circuit board
- A Wurth Electronic surface mount ferrite bead, P/N: 742792040, was placed on the 120V, 60Hz return line on the main circuit board

4. TEST FACILITY AND TEST INSTRUMENTATION

4.1. Shielded Enclosure

All tests were performed in a 32ft. x 20ft. x 18ft. hybrid ferrite-tile/anechoic absorber lined test chamber. With the exception of the floor, the reflective surfaces of the shielded chamber are lined with ferrite tiles on the walls and ceiling. Anechoic absorber material is installed over the ferrite tile. The floor of the chamber is used as the ground plane. The chamber complies with ANSI C63.4-2014 for site attenuation.

4.2. Test Instrumentation

The test instrumentation and auxiliary equipment used during the tests are listed in Table 9 1.

Conducted and radiated emission tests were performed with an EMI receiver utilizes the bandwidths and detectors specified by the FCC and IC.

4.3. Calibration Traceability

Test equipment is maintained and calibrated on a regular basis with calibration interval no greater than 2 years. All calibrations are traceable to the National Institute of Standards and Technology (NIST).

4.4. Measurement Uncertainty

All measurements are an estimate of their true value. The measurement uncertainty characterizes, with a specified confidence level, the spread of values which may be possible for a given measurement system.

The measurement uncertainty for these tests is presented below:

Conducted Emissions Measurements		
Combined Standard Uncertainty	1.07	-1.07
Expanded Uncertainty (95% confidence)	2.1	-2.1

Radiated Emissions Measurements		
Combined Standard Uncertainty	2.26	-2.18

Expanded Uncertainty (95% confidence)	4.5	-4.4

5. TEST PROCEDURES

5.1. Powerline Conducted Emissions

5.1.1. Requirements

Per the FCC "Code of Federal Regulations" Title 47, Part 15, Subpart C, Per 15.207(a), all radio frequency voltages on the power lines of a transmitter shall be below the values shown below when using a quasi-peak or average detector:

Frequency MHz	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 – 0.5	66 decreasing with logarithm of frequency to 56	56 decreasing with logarithm of frequency to 46
0.5 - 5	56	46
5 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.
Note 2: If the levels measured using the QP detector meet both the QP and the Average limits, the EUT is considered to have met both requirements and measurements do not need to be performed using the Average detector.

5.1.2. Procedures

The interference on each power lead of the EUT was measured by connecting the measuring equipment to the appropriate meter terminal of the Line Impedance Stabilization Network (LISN). The meter terminal of the LISN not under test was terminated with 50 ohms.

a) The EUT was operated in the Tx @ 2437MHz (Ch. 6) 802.11g 18MBPS mode.

b) Measurements were first made on the 120V 60Hz high line.

c) The frequency range from 150 kHz to 30 MHz was broken up into smaller frequency sub-bands.

d) Conducted emissions measurements were taken on the first frequency sub-band using a peak detector.

e) The data thus obtained was then searched by the computer for the highest levels. Any emissions levels that were within 10dB of the average limit were then measured again using both a quasi-peak detector and an average detector. (If no peak readings were within 10dB of the average limit, quasi-peak and average readings were taken on the highest emissions levels measured during the peak detector scan.)

f) Steps (d) and (e) were repeated for the remainder of the frequency sub-bands until the entire frequency range from 150kHz to 30MHz was investigated. The peak trace was automatically plotted. The plot also shows quasi-peak and average readings that were taken on discrete frequencies. A table showing the quasi-peak and average readings was also generated. This tabular data compares the quasi-peak and average conducted emissions to the applicable conducted emissions limits.

g) Steps (c) through (f) were repeated on the 120V 60Hz return line.

5.1.3. Results

The plots and tabular data of the peak, quasi-peak, and average conducted voltage levels acquired from each

input power line with the EUT operated in the Tx @ 2437MHz (Ch. 6) 802.11g 18MBPS mode are shown on pages 25 through 28.

All power line conducted emissions measured from the EUT were within the specification limits.

A photograph of the test configuration which yielded the highest or worst case, conducted emission levels are shown on Figure 4.

5.2. 6dB Bandwidth (DTS Bandwidth)

5.2.1.Requirement

Per 15.247(a)(2),the minimum 6dB bandwidth shall be at least 500kHz for all systems using digital modulation techniques.

5.2.2.Procedures

The output of the EUT was connected to the spectrum analyzer through 39.6 dB of attenuation.

The EUT was allowed to transmit continuously. The transmit channel was set separately to low, middle, and high channels. The resolution bandwidth (RBW) was set to 100kHz and the span was set to greater than the RBW.

The 'Max-Hold' function was engaged. The analyzer was allowed to scan until the envelope of the transmitter bandwidth was defined. The analyzer's display was plotted using a 'screen dump' utility.

5.2.3.Results

The tabular data on pages 29 through 32 show the measured 6dB bandwidth for each mode tested. Sample plots of the 6dB bandwidth measurements are show on pages 33 through 95. As can be seen from the tabular data, the minimum 6dB bandwidth was 9.8MHz which is greater than the minimum allowable 6dB bandwidth requirement of 500kHz for systems using digital modulation techniques.

Occupied bandwidth (OBW) (99% Bandwidth)

5.2.4.Requirements

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

5.2.5.Procedures

a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.

b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.

c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.

d) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.

e) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

f) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

5.2.6. Results

The tabular data on pages 96 through 99 show the measured 99% bandwidth (occupied bandwidth) for each mode tested. Sample plots of the 99% bandwidth (occupied bandwidth) are shown on pages 100 through 183

5.3. Duty Cycle

5.3.1. Requirements

Preferably, all measurements of maximum conducted (average) output power will be performed with the EUT transmitting continuously (i.e., with a duty cycle of greater than or equal to 98%). When continuous transmission cannot be achieved and sweep triggering/signal gating cannot be implemented, alternate procedures are provided that can be used to measure the average power; however, they will require an additional measurement of the transmitter duty cycle. Within this guidance document, the duty cycle refers to the fraction of time over which the transmitter is on and is transmitting at its maximum power control level. The duty cycle is considered to be constant if variations are less than ± 2 percent, otherwise the duty cycle is considered to be non-constant.

5.3.2. Procedures

The antenna port of the EUT was connected to the spectrum analyzer through 39.6 dB of attenuation.

a) Set center frequency to the transmit frequency of the EUT.
b) Set span to 0Hz
c) Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value.
d) Set detector = peak or average.
e) Measure the fraction of time over which the transmitter is on and is transmitting at its maximum power control level.

5.3.3. Results

The tabular data on pages 184 through187 show the fractional (linear) duty cycle factor for each data rate and each 802.11 protocol.

5.4. Maximum conducted (average) output power

5.4.1. Requirements

Per section 15.247(b)(3), for systems using digital modulation the maximum peak output conducted power shall not be greater than 1.0W (30dBm). Per section 15.247(b)(4), this limit is based on the use of antennas with directional gains that do not exceed 6dBi. Since the limit allows for a 6dBi antenna gain, the maximum EIRP can be increased by 6dB to 4 Watt (36dBm).

5.4.2. Procedures

Method AVGSA-2

The output of the EUT was connected to the spectrum analyzer through 39.6 dB of attenuation.

a) Measure the duty cycle, x, of the transmitter output signal. (See pages 184 through187 for duty cycle factors)
b) Set span to at least 1.5 times the OBW.
c) Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
d) Set VBW ≥ 3 x RBW.

e) Number of points in sweep ≥ 2 x span / RBW. (This gives bin-to-bin spacing ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
f) Sweep time = auto.
g) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
h) Do not use sweep triggering. Allow the sweep to “free run”.
i) Trace average at least 100 traces in power averaging (i.e., RMS) mode; however, the number of traces to be averaged shall be increased above 100 as needed such that the average accurately represents the true average over the on and off periods of the transmitter.
j) Compute power by integrating the spectrum across the OBW of the signal using the instrument’s band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum. The maximum meter reading was recorded.
k) Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission).
l) The EIRP was calculated was adding the nominal antenna gain of the EUT to the maximum average conducted output power.

5.4.3. Results

The results are presented on pages 188 through 209. The maximum average conducted output power from the transmitter was 0.123W (20.9 dBm) which is below the 1 Watt limit. The maximum EIRP from the transmitter was 0.151W (21.8 dBm) which is below the 4 Watt limit.

5.5. Antenna Conducted Spurious Emissions

5.5.1. Requirements

If maximum conducted (average) output power was used to demonstrate compliance, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).

In either case, attenuation to levels below the 15.209 general radiated emissions limits is not required.

5.5.2. Procedures

The output of the EUT was connected to the spectrum analyzer through 39.6 dB of attenuation. The resolution bandwidth (RBW) was set to 100kHz. The peak detector and 'Max-Hold' function were engaged. The emissions in the frequency range from 30MHz to 25GHz were observed and plotted separately with the EUT transmitting at low, middle and high channels.

5.5.3. Results

The results of the antenna conducted emissions levels were plotted. These plots are presented on pages 210 through 263. These plots show that the spurious emissions were at least 30 dB below the level of the fundamental.

5.6. Radiated Spurious Emissions Measurements

5.6.1. Requirements

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must comply with the radiated emission limits specified in §15.209(a).

Paragraph 15.209(a) has the following radiated emission limits:

Frequency MHz	Field Strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	3
30.0-88.0	100	3
88.0-216.0	150	3
216.0-960.0	200	3
Above 960	500	3

5.6.2. Procedures

All tests were performed in a 32ft. x 20ft. x 18ft. hybrid ferrite-tile/anechoic absorber lined test chamber. The walls and ceiling of the shielded chamber are lined with ferrite tiles. Anechoic absorber material is installed over the ferrite tile. The floor of the chamber is used as the ground plane. The chamber complies with ANSI C63.4-2014 for site attenuation.

The shielded enclosure prevents emissions from other sources, such as radio and TV stations from interfering with the measurements. All powerlines and signal lines entering the enclosure pass through filters on the enclosure wall. The powerline filters prevent extraneous signals from entering the enclosure on these leads.

Preliminary radiated emissions tests were performed to determine the emission characteristics of the EUT. For the preliminary test, a broadband measuring antenna was positioned at a 3 meter distance from the EUT. The entire frequency range from 30MHz to 25GHz was investigated using a peak detector function.

The final open field emission tests were then manually performed over the frequency range of 30MHz to 25GHz.

1) For all emissions in the restricted bands, the following procedure was used:
   a) The field strengths of all emissions below 1 GHz were measured using a bi-log antenna. The bi-log antenna was positioned at a 3 meter distance from the EUT. A peak detector with a resolution bandwidth of 100 kHz was used on the spectrum analyzer.
   b) The field strengths of all emissions above 1 GHz were measured using a double-ridged waveguide antenna. The waveguide antenna was positioned at a 3 meter distance from the EUT. A peak detector with a resolution bandwidth of 1 MHz was used on the spectrum analyzer.
   c) To ensure that maximum or worst case emission levels were measured, the following steps were taken when taking all measurements:
      i) The EUT was rotated so that all of its sides were exposed to the receiving antenna.
      ii) Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured.
      iii) The measuring antenna was raised and lowered for each antenna polarization to maximize the readings.
      iv) In instances where it was necessary to use a shortened cable between the measuring antenna and the spectrum analyzer, the measuring antenna was not raised or lowered to ensure maximized readings. Instead the EUT was rotated through all axes to ensure the maximum readings were recorded for the EUT.
   d) For all radiated emissions measurements below 1 GHz, if the peak reading is below the limits listed in 15.209(a), no further measurements are required. If however, the peak readings exceed the limits listed in 15.209(a), then the emissions are remeasured using a quasi-peak detector.
   e) For all radiated emissions measurements above 1 GHz, the peak readings must comply with the 15.35(b) limits. 15.35(b) states that when average radiated emissions measurements are specified, there also is a limit on the peak level of the radiated emissions. The limit on the peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test. Therefore, all peak readings above 1 GHz must be no greater than 20 dB above the limits specified in 15.209(a).

f) Next, for all radiated emissions measurements above 1GHz, the resolution bandwidth was set to 1MHz. The analyzer was set to linear mode with a 10Hz video bandwidth in order to simulate an average detector. An average reading was taken. A duty cycle correction factor of 20 log (1/x) where x is the duty cycle is added to the measurement results prior to comparing to the emissions limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle.

5.6.3. Results

Transmit at 2412MHz 20MHz bandwidth

Preliminary radiated emissions plots are shown on pages 264 through 287. Final radiated emissions data are presented on data pages 288 through 295. As can be seen from the data, all emissions measured from the EUT were within the specification limits. Photographs of the test configuration which yielded the highest, or worst case, radiated emission levels are shown on Figures 5 through 7.

Transmit at 2437MHz 20MHz bandwidth

Preliminary radiated emissions plots are shown on pages 296 through 319. Final radiated emissions data are presented on data pages 320 through 326. As can be seen from the data, all emissions measured from the EUT were within the specification limits. Photographs of the test configuration which yielded the highest, or worst case, radiated emission levels are shown on Figures 5 through 7.

Transmit at 2462MHz 20MHz bandwidth

Preliminary radiated emissions plots are shown on pages 327 through 350. Final radiated emissions data are presented on data pages 351 through 357. As can be seen from the data, all emissions measured from the EUT were within the specification limits. Photographs of the test configuration which yielded the highest, or worst case, radiated emission levels are shown on Figures 5 through 7.

802.11n 40MHz bandwidth

Preliminary radiated emissions plots are shown on pages 358 through 381. Final radiated emissions data are presented on data pages 382 through 388. As can be seen from the data, all emissions measured from the EUT were within the specification limits. Photographs of the test configuration which yielded the highest, or worst case, radiated emission levels are shown on Figures 5 through 7.

5.7. Band Edge Compliance

5.7.1. Requirement

Per section 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 (2483.5MHz), as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

5.7.2.Procedures

5.4.2.1 Low Band Edge

1) The output of the EUT was connected to the spectrum analyzer through 39.6 dB of attenuation.
2) The EUT was set to transmit continuously at the channel closest to the low band-edge.
3) To determine the band edge compliance, the following spectrum analyzer settings were used:
    a. Center frequency = transmit frequency of EUT.
    b. Span = Wide enough to capture the peak level of the emission operating on the channel closest to the band-edge, as well as any modulation products which fall outside of the authorized band of operation.
    c. Resolution bandwidth (RBW) = 100kHz.
    d. The 'Max-Hold' function was engaged. The analyzer was allowed to scan until the envelope of the transmitter bandwidth was defined.
    e. The marker was set on the peak of the in-band emissions. The “marker delta” function of the spectrum analyzer was employed to determine how far below the emissions outside of the frequency band of operation were from the peak of the in-band emissions.
    f. The analyzer's display was plotted using a 'screen dump' utility.

5.4.2.2 High Band Edge

1) The EUT was set to transmit continuously at the channel closest to the high band-edge.
2) A double ridged waveguide was placed 3 meters away from the EUT. The antenna was connected to the input of a spectrum analyzer.
3) The center frequency of the analyzer was set to the high band edge (2483.5MHz)
4) The resolution bandwidth was set to 1MHz.
5) To ensure that the maximum or worst case emission level was measured, the following steps were taken:
    a. The EUT was rotated so that all of its sides were exposed to the receiving antenna.
    b. Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured.
    c. The measuring antenna was raised and lowered from 1 to 4 meters for each antenna polarization to maximize the readings.
6) The highest measured peak reading was recorded.

g) The highest measured average reading was recorded. A duty cycle correction factor of 20 log (1/x) where x is the duty cycle is added to the measurement results prior to comparing to the emissions limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle.

5.7.3.Results

Pages 389 through 412 show the low band-edge compliance results. Pages 413 through 420 show the high band-edge compliance results. As can be seen from these plots, the conducted emissions at the low end band edge meet the 30 dB down requirements. The radiated emissions at the high end band edge are within the general limits.

5.8. Power Spectral Density

5.8.1.Requirements

Per section 15.247(d), the peak power spectral density from the intentional radiator shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

For the 802.11 n protocols, the EUT utilizes MIMO and the Measure and add technique was used.

<u>Measure and add 10 log(N_{ANT}) dB</u>, where N_{ANT} is the number of outputs. With this technique, spectrum

measurements are performed at each output of the device, but rather than summing the spectra or the spectral peaks across the outputs, the quantity 10 log(N_{ANT}) dB is added to each spectrum value before comparing to the emission limit. The addition of 10 log(N_{ANT}) dB serves to apportion the emission limit among the N_{ANT} outputs so that each output is permitted to contribute no more than $1/N_{ANT}^{th}$ of the PSD limit specified in the rules.

5.8.2. Procedures

Method AVGPSD-2

1) The output of the EUT was connected to the spectrum analyzer through 39.6 dB of attenuation.
2) Measure the duty cycle (x) of the transmitter output signal.
3) Set instrument center frequency to DTS channel center frequency.
4) To determine the power spectral density, the following spectrum analyzer settings were used:

    a) Set instrument center frequency to DTS channel center frequency.
    b) Set span to at least 1.5 times the OBW.
    c) Set RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
    d) Set VBW ≥ 3 x RBW.
    e) Detector = power averaging (RMS) or sample detector (when RMS not available).
    f) Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
    g) Sweep time = auto couple.
    h) Employ trace averaging (RMS) mode over a minimum of 100 traces.
    i) Use the peak marker function to determine the maximum amplitude level.
    j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span in order to meet the minimum measurement point requirement as the RBW is reduced).
    k) The analyzer's display was plotted using a 'screen dump' utility.
    l) Add 10 log(1/x), where x is the duty cycle, to the measured PSD to compute the average PSD during the actual transmission time.
    m) For 802.11n protocols, the EUT utilized MIMO mode. For MIMO modes, the “10 log(N_{ANT}) dB” was added to the PSD reading prior to comparing to the emission limit.

5.8.3. Results

Pages 421 through 426 show the power spectral density results. Sample power spectral density plots are shown on pages 427 through 445. As can be seen from the plots, the peak power density is less than 8dBm in a 3kHz band during any time interval of continuous transmission.

6. Other Test Conditions

6.1. Test Personnel and Witnesses

All tests were performed by qualified personnel from Elite Electronic Engineering Incorporated.

6.2. Disposition of the EUT

The EUT and all associated equipment were returned to HeathCo LLC upon completion of the tests.

7. Conclusions

It was determined that the HeathCo LLC LED Motion Activated Security Light with Wireless Camera, Model No. 5892, digital modulation transmitter, did fully meet the conducted and radiated emission requirements of the FCC "Code of Federal Regulations" Title 47, Part 15, Subpart C, Sections 15.207 and 15.247 for Intentional Radiators Operating within the 2400-2483.5 MHz band, when tested per ANSI C63.4-2014 and ANSI C63.10-2013.
It was also determined that the HeathCo LLC LED Motion Activated Security Light with Wireless Camera,

Model No. 5892, digital modulation transmitter, did fully meet the conducted and radiated emission requirements of the Industry Canada Radio Standards Specification, RSS-Gen, Section 8.8 and Radio Standards and Specification RSS-247 for transmitters, when tested per ANSI C63.4-2014 and ANSI C63.10-2013.

8. CERTIFICATION

Elite Electronic Engineering Incorporated certifies that the information contained in this report was obtained under conditions which meet or exceed those specified in the test specifications.

The data presented in this test report pertains to the EUT at the test date. Any electrical or mechanical modification made to the EUT subsequent to the specified test date will serve to invalidate the data and void this certification.

This report must not be used to claim product certification, approval, or endorsement by A2LA, NIST or any agency of the Federal Government.

9. EQUIPMENT LIST

Table 9-1 Equipment List

Eq ID	Equipment Description	Manufacturer	Model No.	Serial No.	Frequency Range	Cal Date	Due Date
APW0	PREAMPLIFIER	PLANAR ELECTRONICS	PE2-30-20G20R6G	PL2926/0646	20GHZ-26.5GHZ	3/2/2016	3/2/2017
APW11	PREAMPLIFIER	PMI	PE2-35-120-5R0-10-12-SFF	PL11685/1241	1GHZ-20GHZ	4/18/2016	4/18/2017
CDW9	COMPUTER	ELITE				N/A	
CDY0	WORKSTATION	ELITE	WORKSTATION		WINDOWS 7	N/A	
CDY3	LAB COMPUTER	ELITE	WORKSTATION		WINDOWS 7	N/A	
NHG0	STANDARD GAIN HORN ANTENNA	NARDA	638	---	18-26.5GHZ	NOTE 1	
NTA1	BILOG ANTENNA	CHASE EMC LTD.	BILOG CBL6112	2054	0.03-2GHZ	2/29/2016	2/28/2017
NWQ0	DOUBLE RIDGED WAVEGUIDE ANTENNA	ETS LINDGREN	3117	66657	1GHZ-18GHZ	3/11/2014	5/11/2016
PLF1	CISPR16 50UH LISN	ELITE	CISPR16/70A	001	.15-30MHz	5/20/2015	5/20/2016
PLF3	CISPR16 50UH LISN	ELITE	CISPER16/70A	003	.15-30MHz	5/20/2015	5/20/2016
RBA1	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESIB26	100146	20HZ-26.5GHZ	2/12/2016	2/12/2017
RBB0	EMI TEST RECEIVER 20HZ TO 40 GHZ.	ROHDE & SCHWARZ	ESIB40	100250	20 HZ TO 40GHZ	2/16/2016	2/16/2017
RBD1	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESU40	100009	20Hz-40GHz	2/10/2016	2/10/2017
RBE1	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESU26	100096	20Hz-26GHz	2/25/2016	2/25/2017
T1N2	10DB 20W ATTENUATOR	NARDA	766-10	---	DC-4GHZ	7/8/2015	7/8/2016
T1P0	10dB ATTENUATOR (40GHz)	WEINSCHEL	89-10-12	254	DC-40GHz	3/3/2016	3/3/2018
T2D8	20DB, 25W ATTENUATOR	WEINSCHEL	46-20-43	AY9247	DC-18GHZ	9/21/2015	9/21/2016
T2Q2	20DB/20W ATTENUATOR	AEROFLEX/WEINSCHEL	89-20-21	336	DC-40GHZ	8/20/2015	8/20/2017
T2SB	20DB 25W ATTENUATOR	WEINSCHEL	46-20-34	DC5014	DC-18GHZ	10/13/2015	10/13/2016
VBR8	CISPR EN FCC CE VOLTAGE.exe						
XOB2	ADAPTER	HEWLETT PACKARD	K281C,012	09407	18-26.5GHZ	NOTE 1	
XPR0	HIGH PASS FILTER	K&L MICROWAVE	11SH10-4800/X20000	001	4.8-20GHZ	9/22/2015	9/22/2016

I/O: Initial Only
N/A: Not Applicable
Note 1: For the purpose of this test, the equipment was calibrated over the specified frequency range, pulse rate, or modulation prior to the test or monitored by a calibrated instrument.

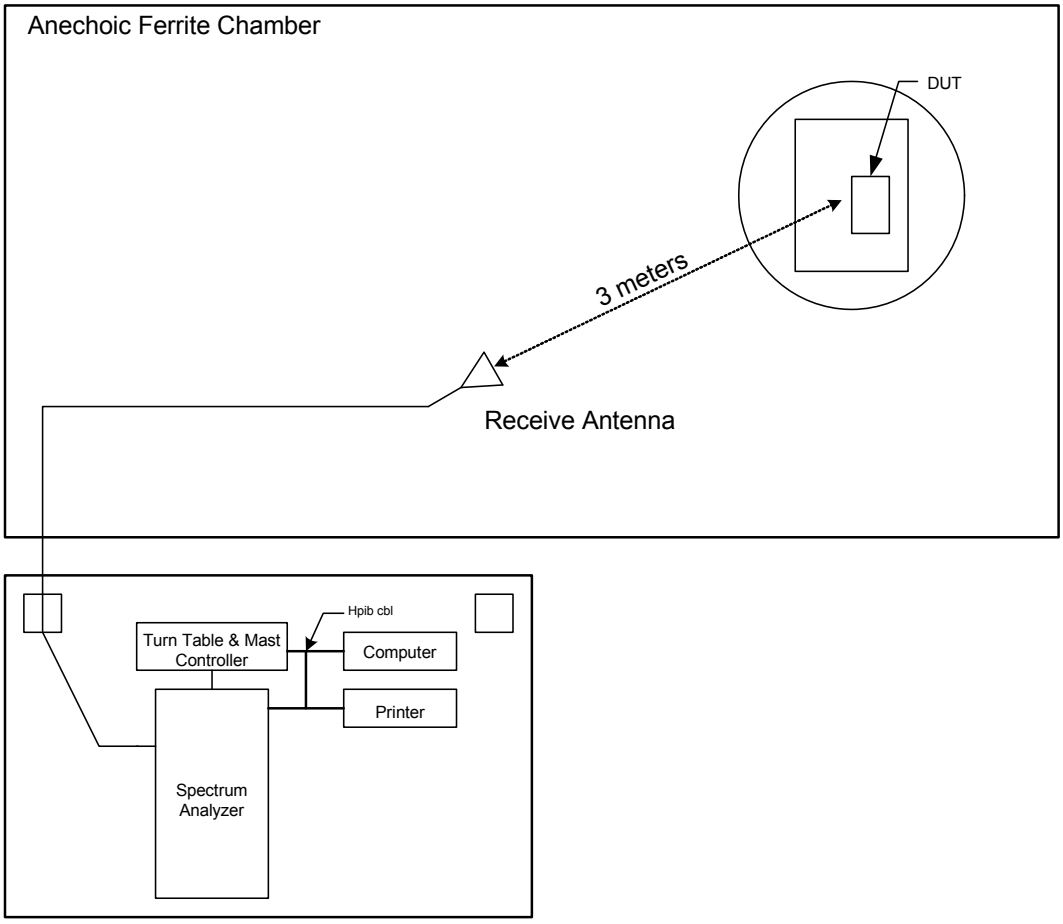


FIGURE 1 BLOCKDIAGRAM OF TEST SETUP

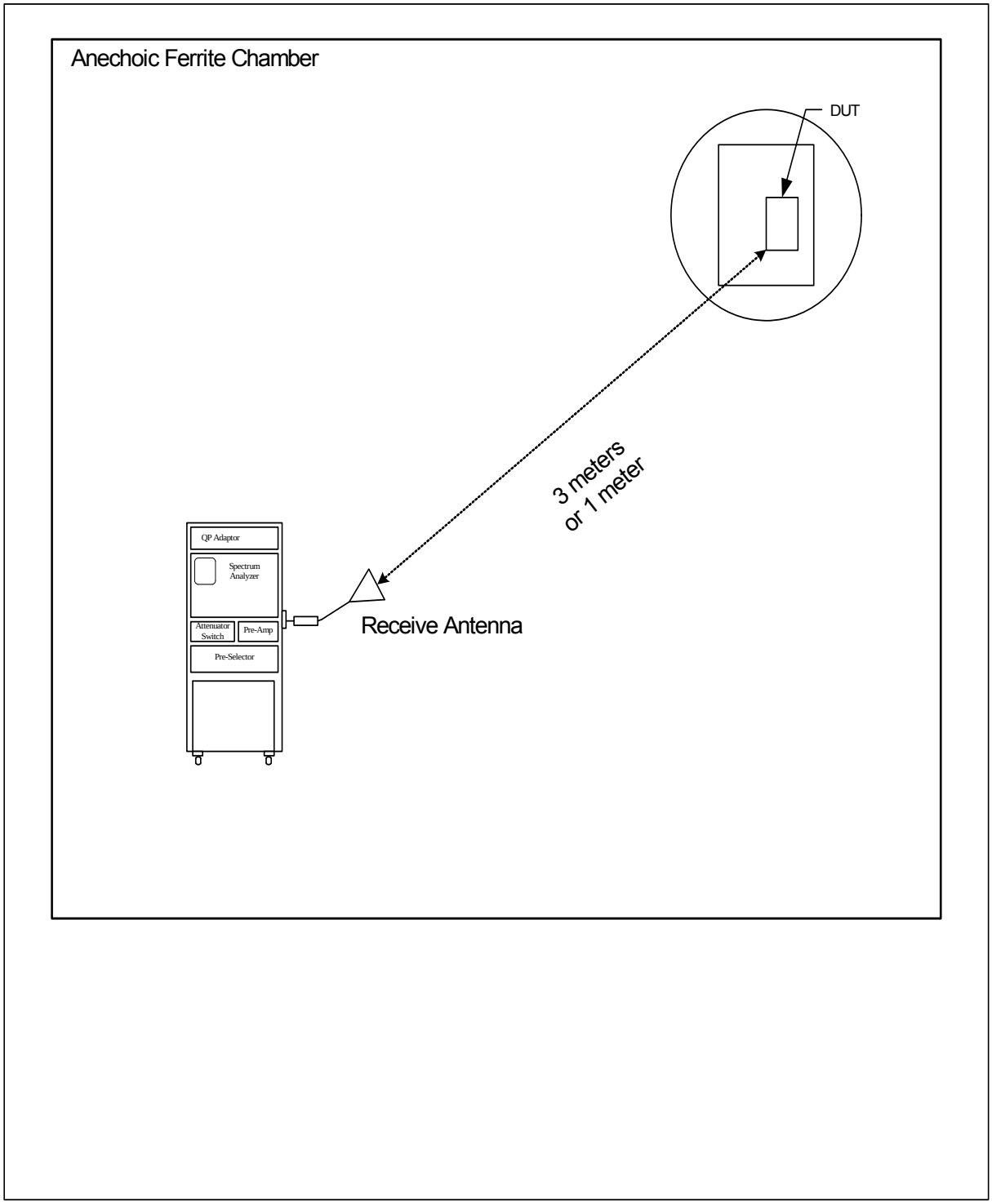
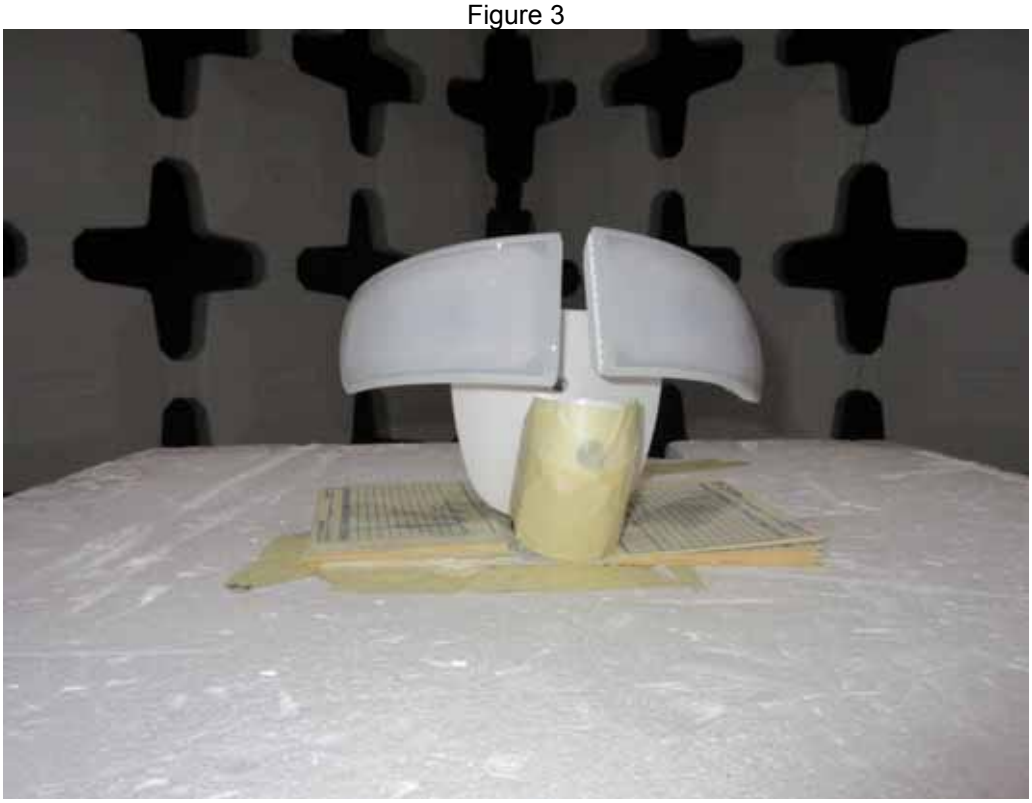


Figure 2: BLOCK DIAGRAM OF TEST SETUP FOR RADIATED EMISSIONS ABOVE 18GHZ

Figure 3

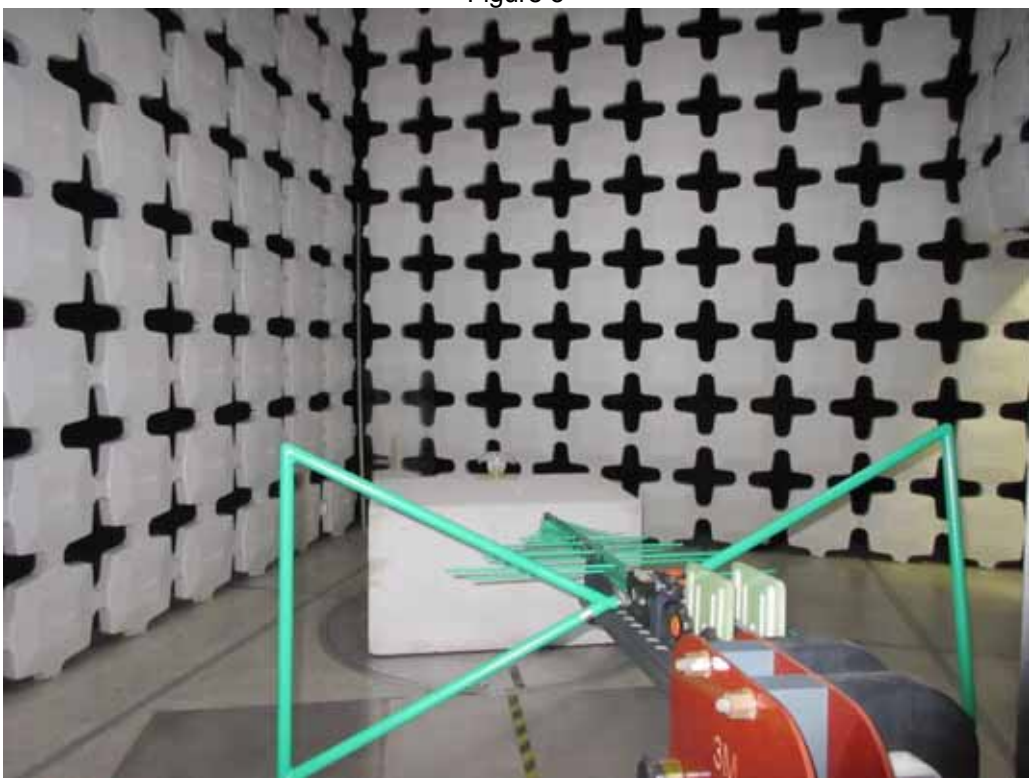


Photograph of the EUT

Figure 4

Test Setup for Conducted Emissions

Figure 5



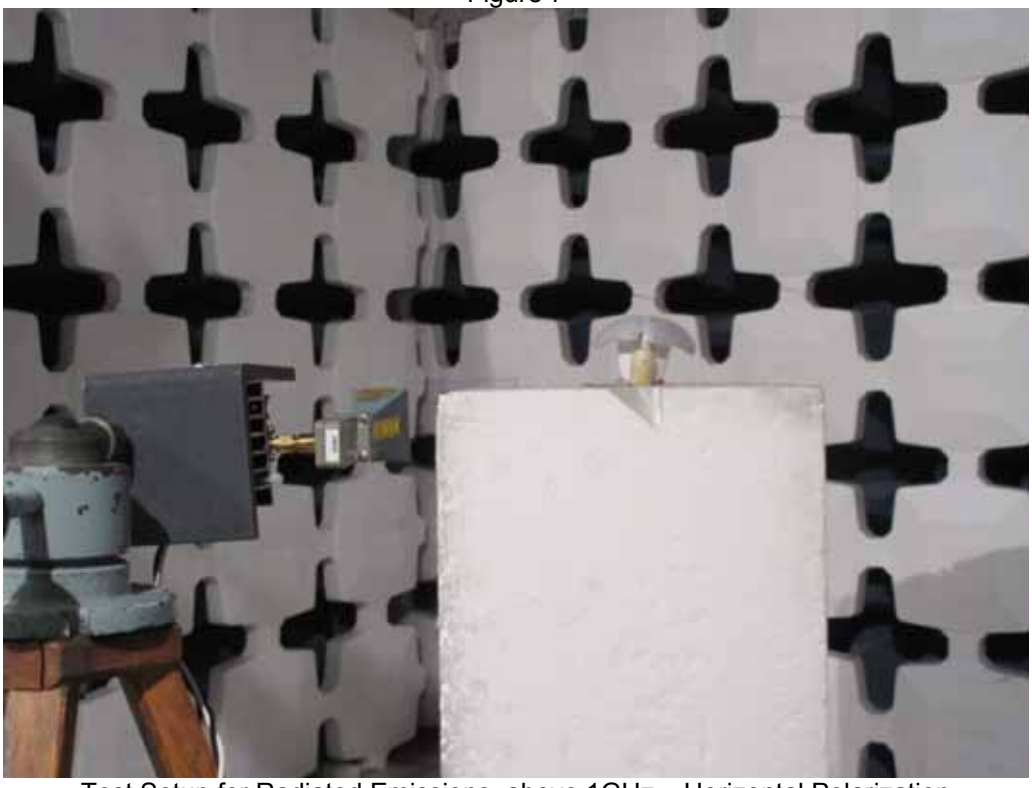
Test Setup for Radiated Emissions, 30MHz to 1GHz – Horizontal Polarization

Test Setup for Radiated Emissions, 30MHz to 1GHz – Vertical Polarization

Figure 6

Test Setup for Radiated Emissions, above 1GHz – Horizontal Polarization

Figure 7



Test Setup for Radiated Emissions, above 1GHz – Horizontal Polarization

Test Setup for Radiated Emissions, above 1GHz – Vertical Polarization

FCC Part 15 Subpart B Conducted Emissions Test

Significant Emissions Data

VBR8 04/23/2015

Manufacturer	:	HEATHCO LLC.
Model	:	5892
DUT Revision	:	
Serial Number	:	
DUT Mode	:	Tx @ 2437MHz (Ch. 6) 802.11g 18MBPS
Line Tested	:	115V, 60Hz, HIGH
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-6
Notes	:	POWER SETTING = 6
Test Engineer	:	M. Longinotti
Limit	:	Class B
Test Date	:	May 06, 2016 02:35:27 PM
Data Filter	:	Up to 80 maximum levels detected with 6 dB level excursion threshold over 6 dB margin below limit

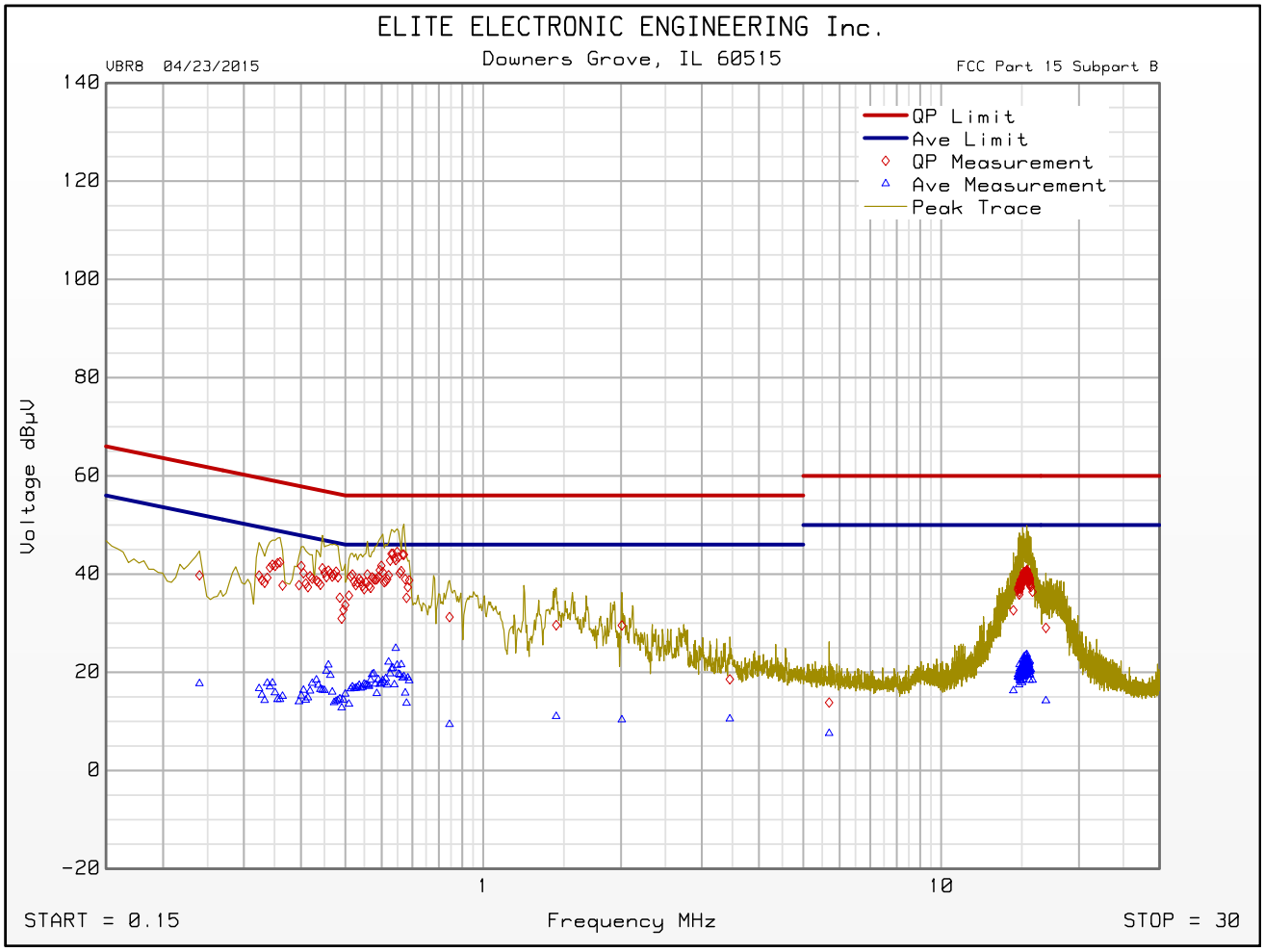
Freq MHz	Quasi-peak Level dBµV	Quasi-peak Limit dBµV	Excessive Quasi-peak Emissions	Average Level dBµV	Average Limit dBµV	Excessive Average Emissions
0.240	39.7	62.1		17.7	52.1	
0.446	41.2	57.0		16.4	47.0	
0.649	44.5	56.0		21.5	46.0	
0.844	31.2	56.0		9.4	46.0	
1.444	29.6	56.0		11.0	46.0	
2.007	29.6	56.0		10.4	46.0	
3.455	18.6	56.0		10.5	46.0	
5.693	13.8	60.0		7.6	50.0	
15.399	40.8	60.0		21.5	50.0	
16.939	29.1	60.0		14.2	50.0	

FCC Part 15 Subpart B Conducted Emissions Test

Cumulative Data

VBR8 04/23/2015

Manufacturer	:	HEATHCO LLC.
Model	:	5892
DUT Revision	:	
Serial Number	:	
DUT Mode	:	Tx @ 2437MHz (Ch. 6) 802.11g 18MBPS
Line Tested	:	115V, 60Hz, HIGH
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-6
Notes	:	POWER SETTING = 6
Test Engineer	:	M. Longinotti
Limit	:	Class B
Test Date	:	May 06, 2016 02:35:27 PM



Emissions Meet QP Limit
Emissions Meet Ave Limit

FCC Part 15 Subpart B Conducted Emissions Test

Significant Emissions Data

VBR8 04/23/2015

Manufacturer	:	HEATHCO LLC.
Model	:	5892
DUT Revision	:	
Serial Number	:	
DUT Mode	:	Tx @ 2437MHz (Ch. 6) 802.11g 18MBPS
Line Tested	:	115V, 60Hz, RETURN
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-6
Notes	:	POWER SETTING = 6
Test Engineer	:	M. Longinotti
Limit	:	Class B
Test Date	:	May 06, 2016 02:27:08 PM
Data Filter	:	Up to 80 maximum levels detected with 6 dB level excursion threshold over 6 dB margin below limit

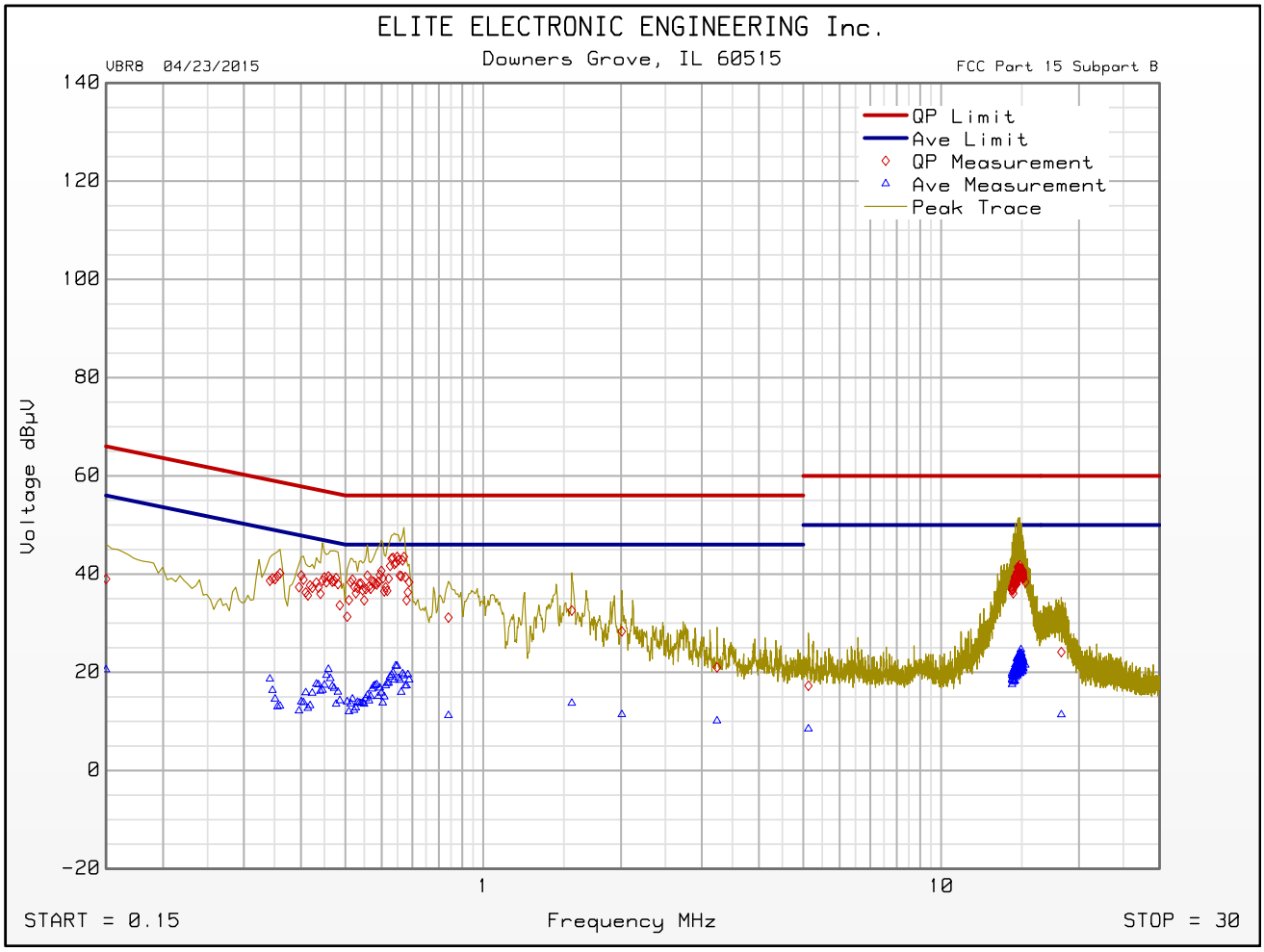
Freq MHz	Quasi-peak Level dBµV	Quasi-peak Limit dBµV	Excessive Quasi-peak Emissions	Average Level dBµV	Average Limit dBµV	Excessive Average Emissions
0.150	39.0	66.0		20.5	56.0	
0.459	39.6	56.7		20.6	46.7	
0.649	43.5	56.0		21.3	46.0	
0.840	31.2	56.0		11.2	46.0	
1.561	32.6	56.0		13.7	46.0	
2.007	28.3	56.0		11.4	46.0	
3.239	21.0	56.0		10.1	46.0	
5.131	17.3	60.0		8.5	50.0	
14.846	41.8	60.0		22.6	50.0	
18.302	24.1	60.0		11.4	50.0	

FCC Part 15 Subpart B Conducted Emissions Test

Cumulative Data

VBR8 04/23/2015

Manufacturer	:	HEATHCO LLC.
Model	:	5892
DUT Revision	:	
Serial Number	:	
DUT Mode	:	Tx @ 2437MHz (Ch. 6) 802.11g 18MBPS
Line Tested	:	115V, 60Hz, RETURN
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-6
Notes	:	POWER SETTING = 6
Test Engineer	:	M. Longinotti
Limit	:	Class B
Test Date	:	May 06, 2016 02:27:08 PM



Emissions Meet QP Limit
Emissions Meet Ave Limit

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : DTS Bandwidth (6dB bandwidth)
TEST DATE : May 2, 2016 through May 9, 2016
TEST MODE : See below
PROTOCOL : 802.11b
POWER SETTING : 15
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Lo/Mid/Hi	Channel	Frequency MHz	802.11 Protocol	Rate Mbps	6dB Bandwidth
Lo	1	2412	b	1	9.18MHz
Mid	6	2437	b	1	10.19MHz
Hi	11	2462	b	1	10.19MHz
Lo	1	2412	b	2	10.14MHz
Mid	6	2437	b	2	10.19MHz
Hi	11	2462	b	2	10.19MHz
Lo	1	2412	b	5.5	10.19MHz
Mid	6	2437	b	5.5	10.24MHz
Hi	11	2462	b	5.5	10.14MHz
Lo	1	2412	b	11	9.71MHz
Mid	6	2437	b	11	9.38MHz
Hi	11	2462	b	11	9.42MHz

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : DTS Bandwidth (6dB bandwidth)
TEST DATE : May 2, 2016 through May 9, 2016
TEST MODE : See below
PROTOCOL : 802.11g
POWER SETTING : 6
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Lo/Mid/Hi	Channel	Frequency MHz	802.11 Protocol	Rate Mbps	6dB Bandwidth
Lo	1	2412	g	6	16.44MHz
Mid	6	2437	g	6	16.44MHz
Hi	11	2462	g	6	16.49MHz
Lo	1	2412	g	9	16.44MHz
Mid	6	2437	g	9	16.44MHz
Hi	11	2462	g	9	16.49MHz
Lo	1	2412	g	12	16.59MHz
Mid	6	2437	g	12	16.54MHz
Hi	11	2462	g	12	16.54MHz
Lo	1	2412	g	18	16.54MHz
Mid	6	2437	g	18	16.54MHz
Hi	11	2462	g	18	16.54MHz
Lo	1	2412	g	24	16.59MHz
Mid	6	2437	g	24	16.59MHz
Hi	11	2462	g	24	16.59MHz
Lo	1	2412	g	36	16.59MHz
Mid	6	2437	g	36	16.59MHz
Hi	11	2462	g	36	16.59MHz
Lo	1	2412	g	48	16.59MHz
Mid	6	2437	g	48	16.63MHz
Hi	11	2462	g	48	16.63MHz
Lo	1	2412	g	54	16.59MHz
Mid	6	2437	g	54	16.59 MHz
Hi	11	2462	g	54	16.59MHz

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : DTS Bandwidth (6dB bandwidth)
TEST DATE : May 2, 2016 through May 9, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Lo/Mid/Hi	Channel	Frequency MHz	802.11 Protocol	Rate Mbps	6dB Bandwidth
Lo	1	2412	n	7.2	17.55MHz
Mid	6	2437	n	7.2	17.45MHz
Hi	11	2462	n	7.2	17.45MHz
Lo	1	2412	n	14.4	17.50MHz
Mid	6	2437	n	14.4	17.60MHz
Hi	11	2462	n	14.4	17.45MHz
Lo	1	2412	n	21.7	17.64MHz
Mid	6	2437	n	21.7	17.69MHz
Hi	11	2462	n	21.7	17.69MHz
Lo	1	2412	n	28.9	17.79MHz
Mid	6	2437	n	28.9	17.79MHz
Hi	11	2462	n	28.9	17.79MHz
Lo	1	2412	n	43.3	17.79MHz
Mid	6	2437	n	43.3	17.79MHz
Hi	11	2462	n	43.3	17.79MHz
Lo	1	2412	n	57.8	17.74MHz
Mid	6	2437	n	57.8	17.67MHz
Hi	11	2462	n	57.8	17.74MHz
Lo	1	2412	n	65	17.74MHz
Mid	6	2437	n	65	17.69MHz
Hi	11	2462	n	65	17.69MHz
Lo	1	2412	n	72.7	17.74MHz
Mid	6	2437	n	72.7	17.74MHz
Hi	11	2462	n	72.7	17.79MHz

Checked By: MARK E. LONGINOTTI

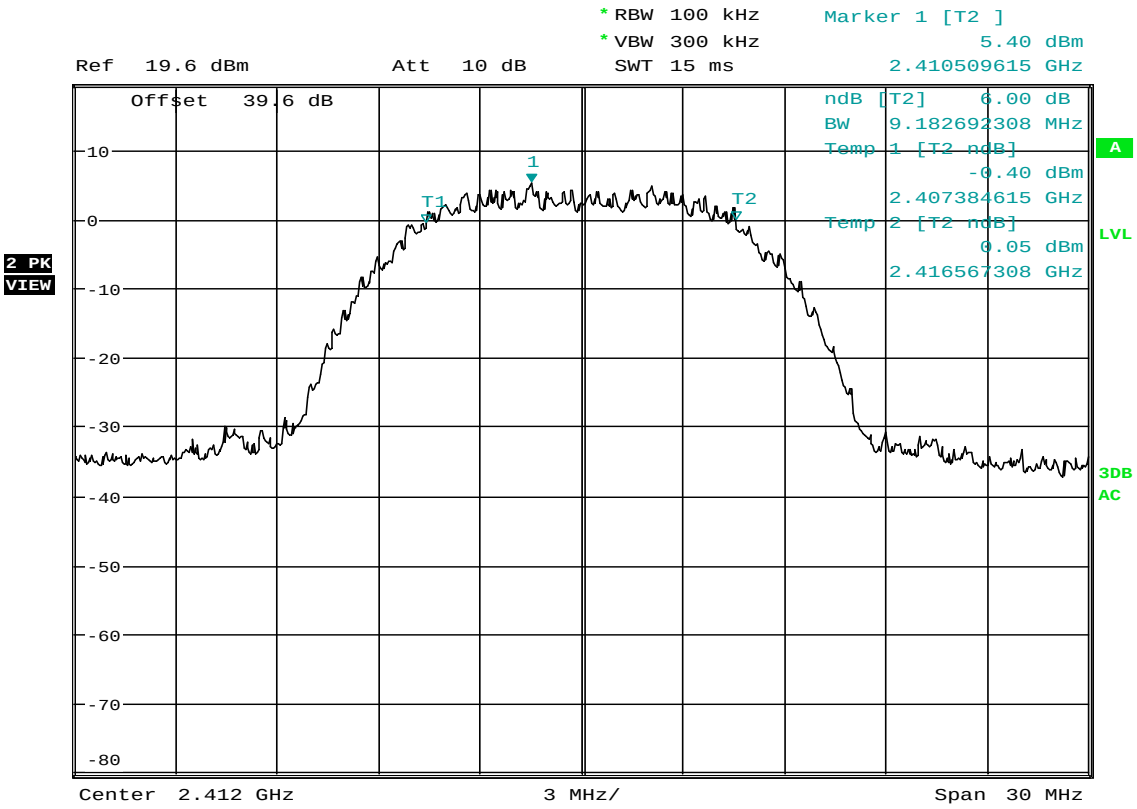
Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : DTS Bandwidth (6dB bandwidth)
TEST DATE : May 2, 2016 through May 9, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 40MHz bandwidth
: Antenna Port 1

Lo/Mid/Hi	Channel	Frequency MHz	802.11 Protocol	Rate Mbps	6dB Bandwidth
Lo	3	2422	n	15	36.53MHz
Mid	6	2437	n	15	36.44MHz
Hi	9	2452	n	15	36.44MHz
Lo	3	2422	n	30	36.53MHz
Mid	6	2437	n	30	36.44MHz
Hi	9	2452	n	30	36.53MHz
Lo	3	2422	n	45	36.44MHz
Mid	6	2437	n	45	36.53MHz
Hi	9	2452	n	45	36.53MHz
Lo	3	2422	n	60	36.44MHz
Mid	6	2437	n	60	36.53MHz
Hi	9	2452	n	60	36.44MHz
Lo	3	2422	n	90	36.44MHz
Mid	6	2437	n	90	36.53MHz
Hi	9	2452	n	90	36.44MHz
Lo	3	2422	n	120	36.44 MHz
Mid	6	2437	n	120	36.53 MHz
Hi	9	2452	n	120	36.44 MHz
Lo	3	2422	n	135	36.44 MHz
Mid	6	2437	n	135	36.53 MHz
Hi	9	2452	n	135	36.63 MHz
Lo	3	2422	n	150	36.53 MHz
Mid	6	2437	n	150	36.53 MHz
Hi	9	2452	n	150	36.53 MHz

Checked By: MARK E. LONGINOTTI

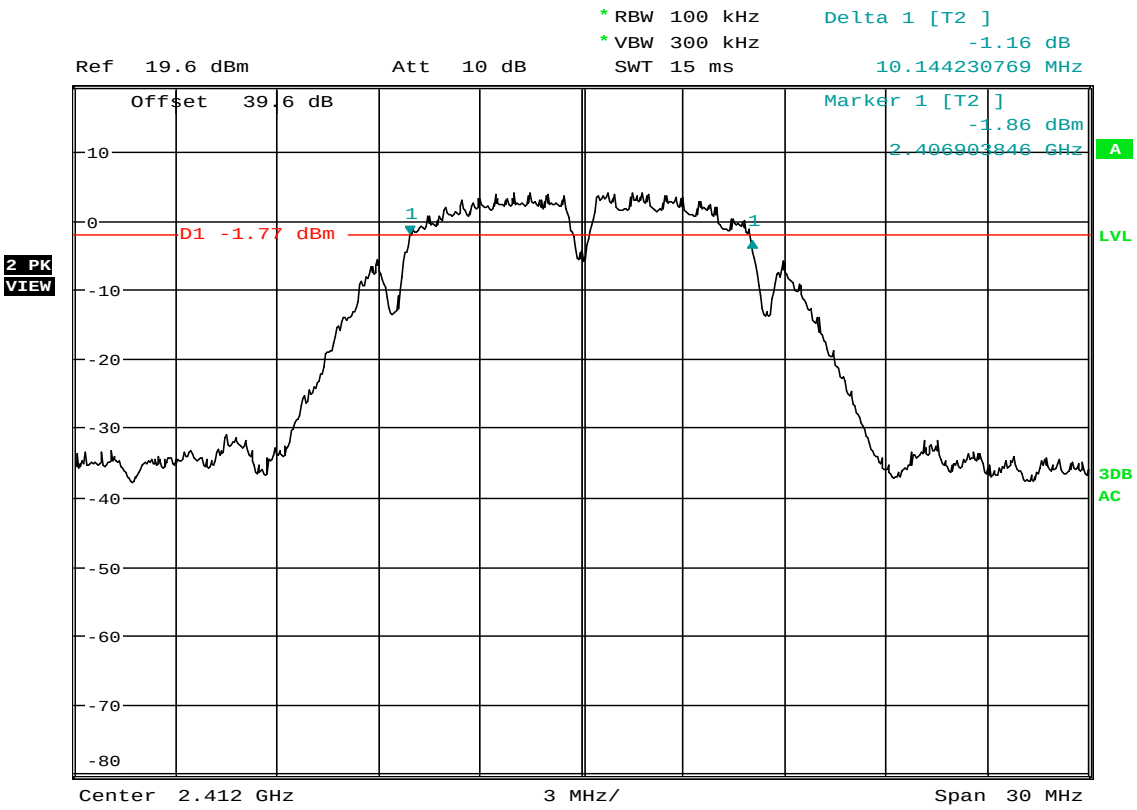
Mark E. Longinotti



Date: 8.JUL.2003 00:47:56

FCC 15C 15.247 DTS Bandwidth

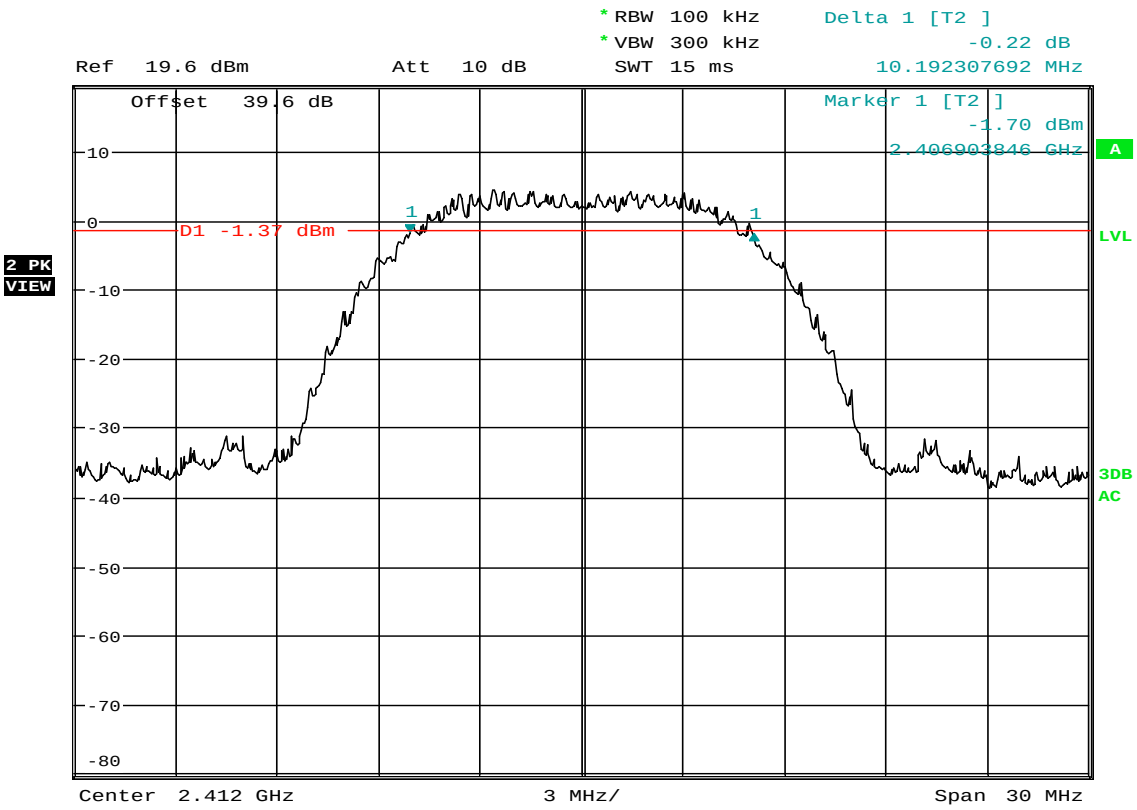
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	1 Mbps
NOTES	:	



Date: 8.JUL.2003 01:01:02

FCC 15C 15.247 DTS Bandwidth

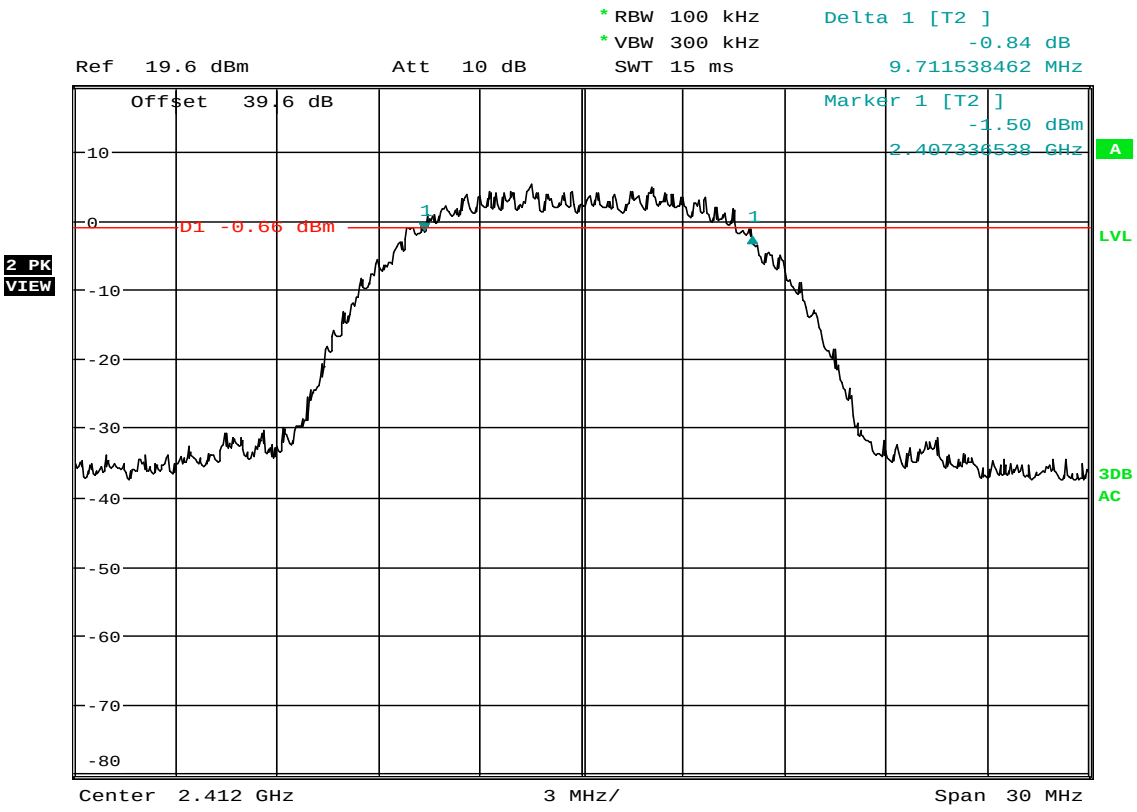
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	2 Mbps
NOTES	:	



Date: 8.JUL.2003 01:05:06

FCC 15C 15.247 DTS Bandwidth

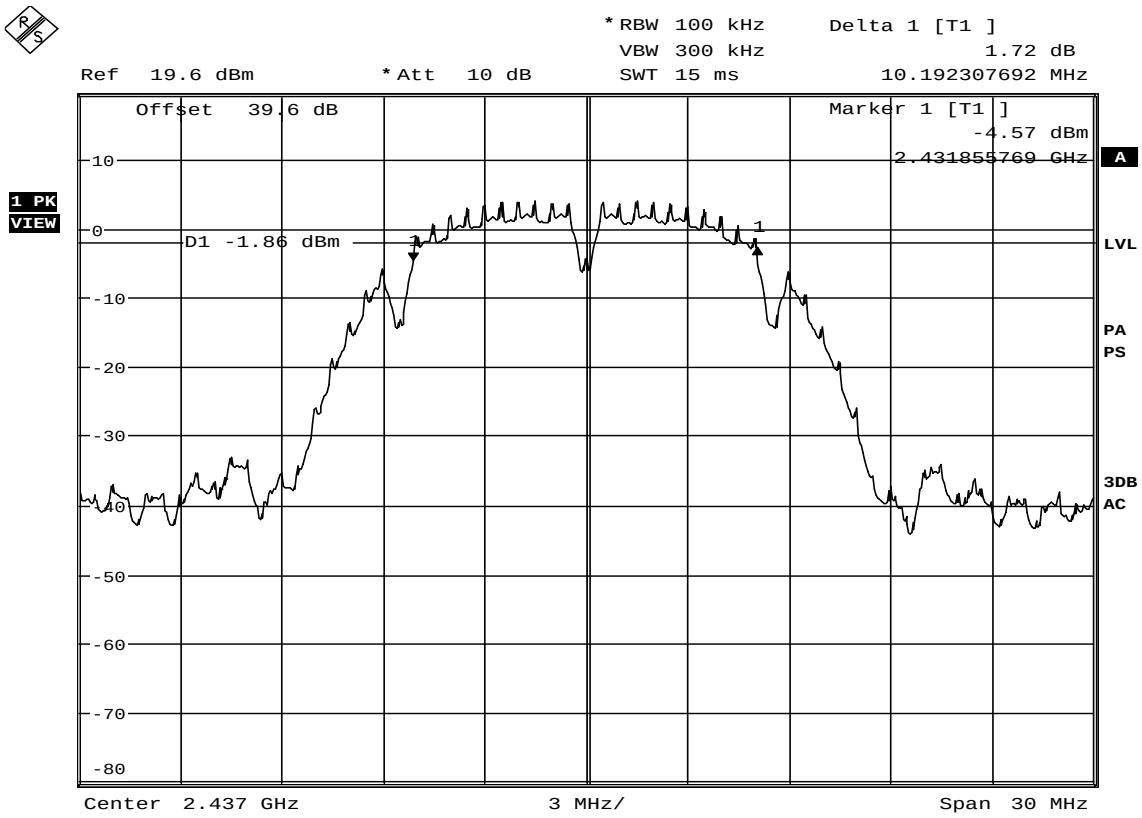
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	5.5 Mbps
NOTES	:	



Date: 8.JUL.2003 01:09:11

FCC 15C 15.247 DTS Bandwidth

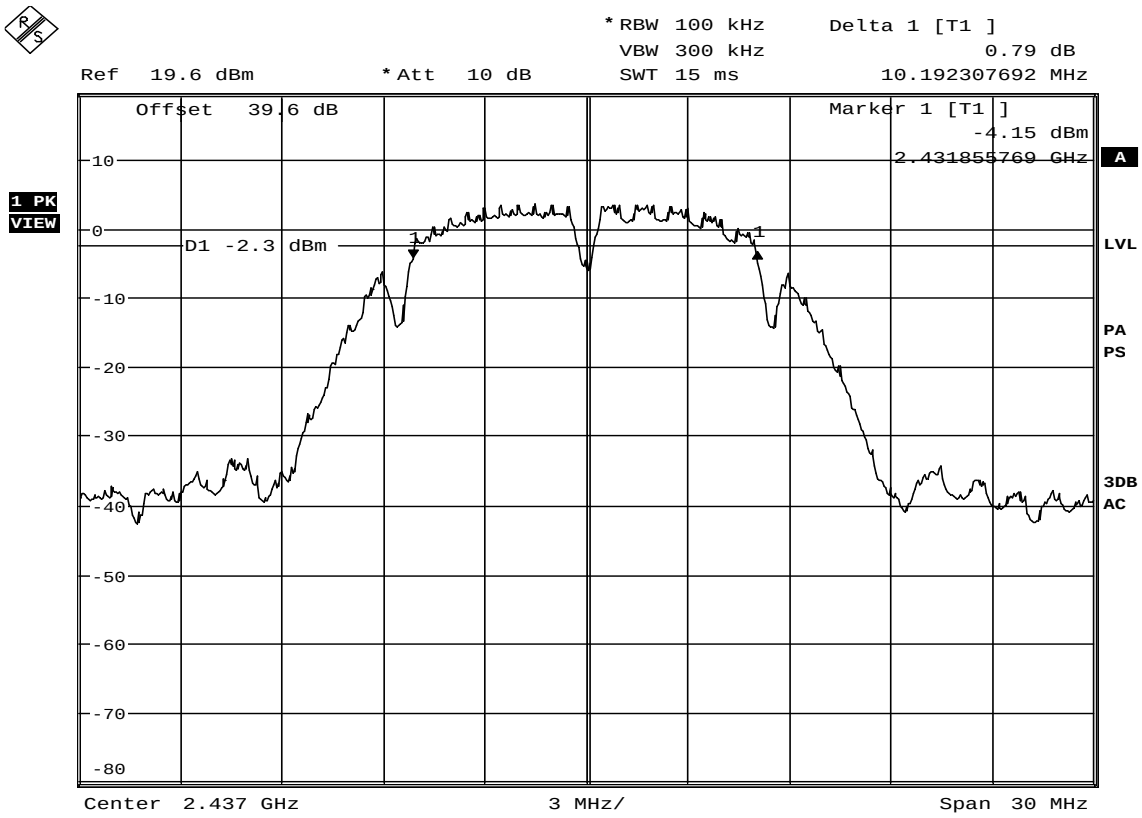
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	11 Mbps
NOTES	:	



Date: 3.MAY.2016 10:25:03

FCC 15C 15.247 DTS Bandwidth

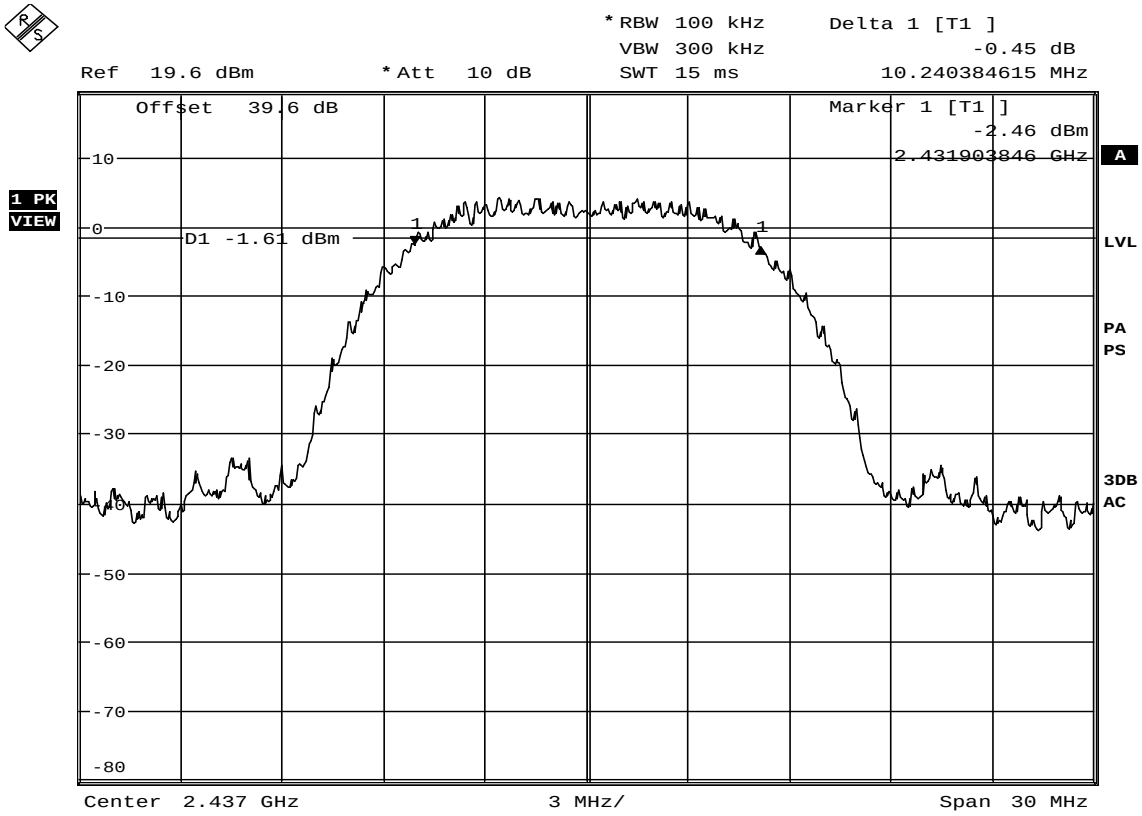
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	1 Mbps
NOTES	:	



Date: 3.MAY.2016 10:42:40

FCC 15C 15.247 DTS Bandwidth

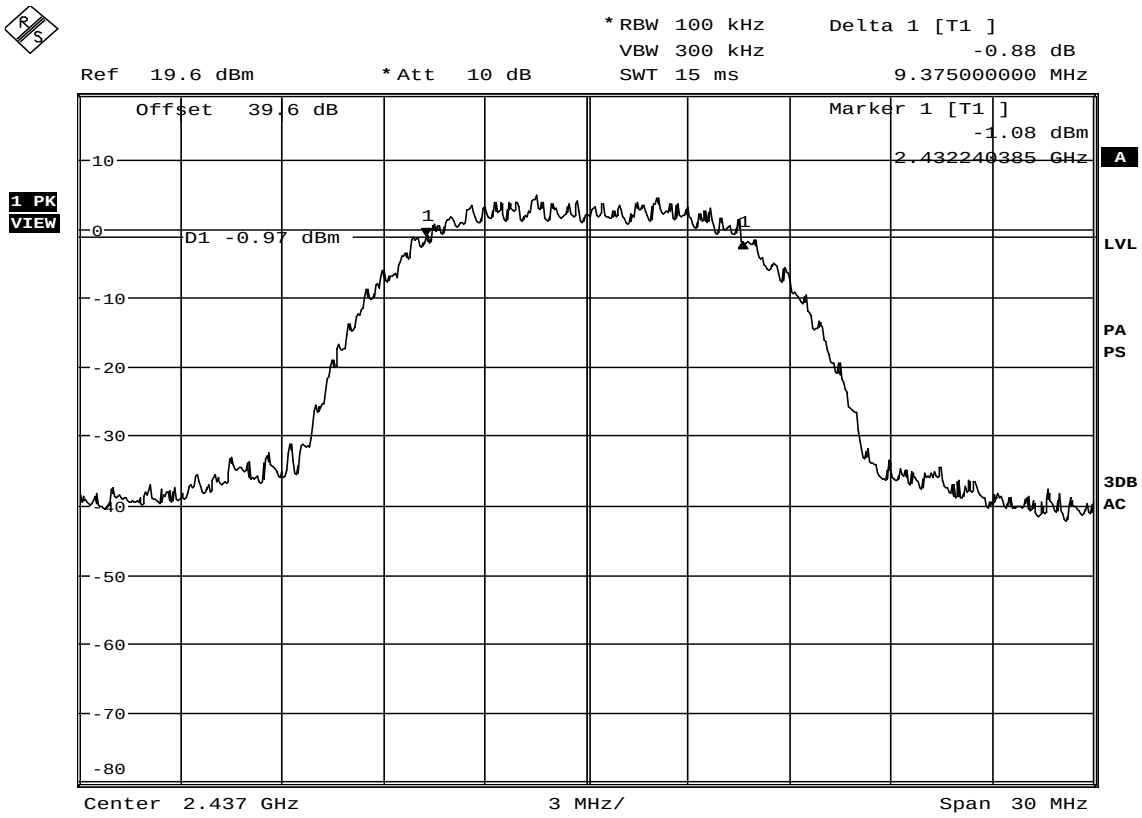
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	2 Mbps
NOTES	:	



Date: 3.MAY.2016 11:58:50

FCC 15C 15.247 DTS Bandwidth

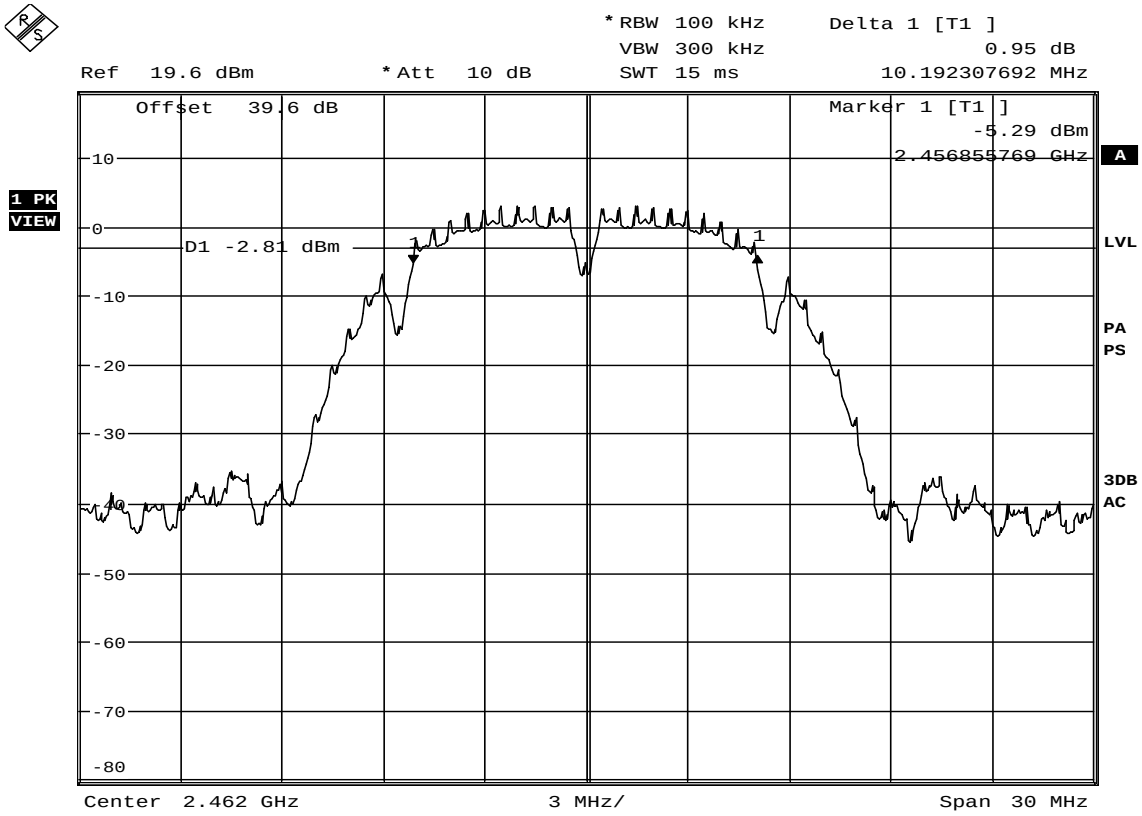
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	5.5 Mbps
NOTES	:	



Date: 3.MAY.2016 12:03:41

FCC 15C 15.247 DTS Bandwidth

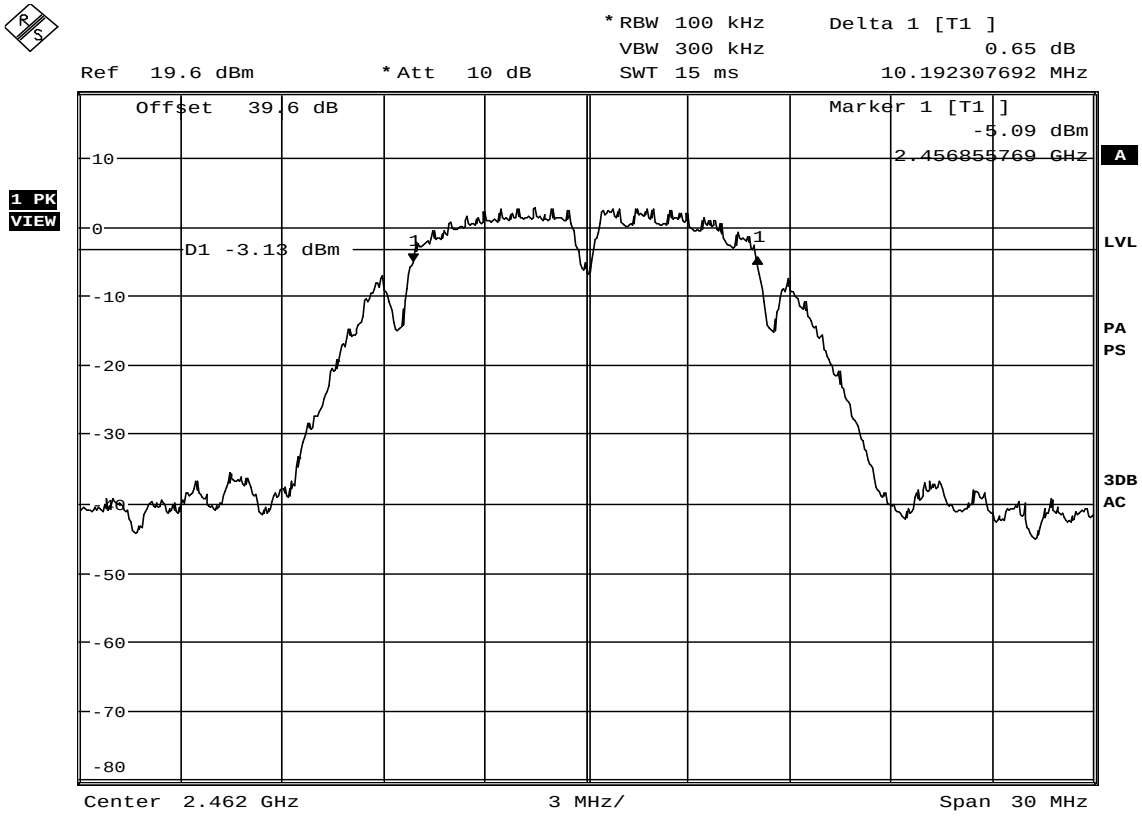
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	11 Mbps
NOTES	:	



Date: 3.MAY.2016 14:39:46

FCC 15C 15.247 DTS Bandwidth

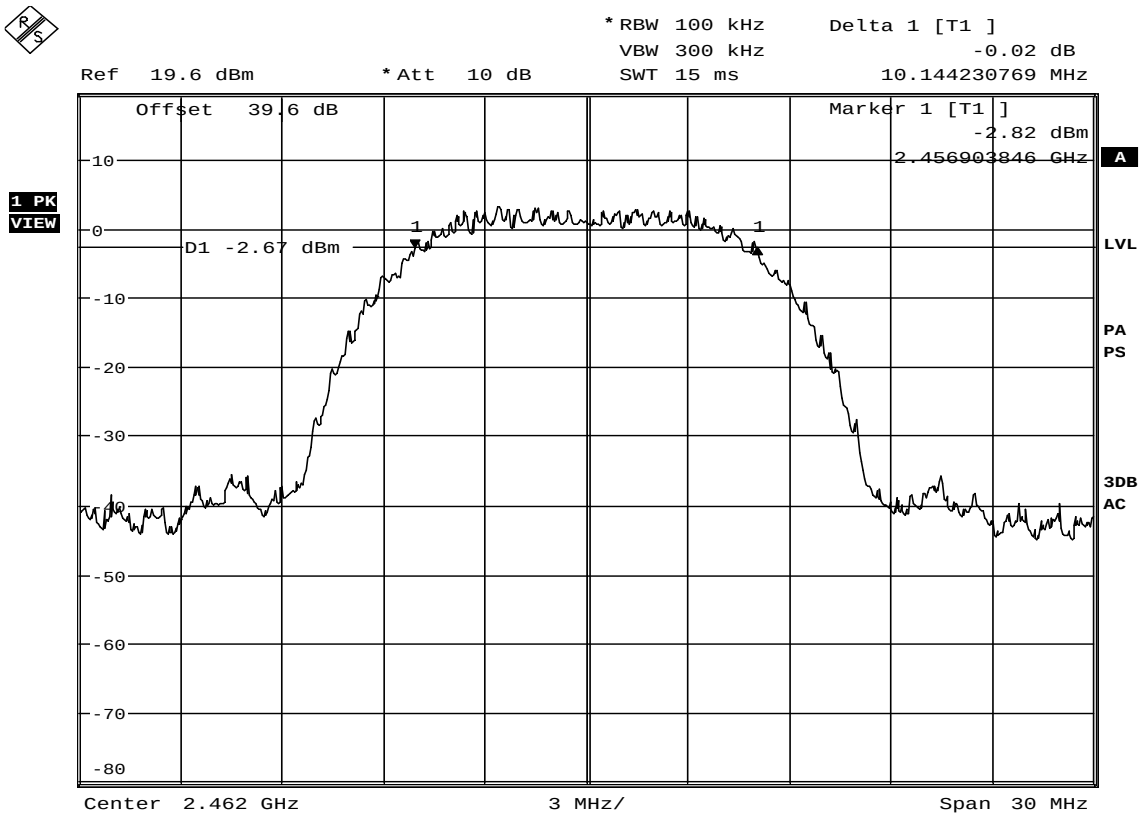
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	1 Mbps
NOTES	:	



Date: 3.MAY.2016 14:43:05

FCC 15C 15.247 DTS Bandwidth

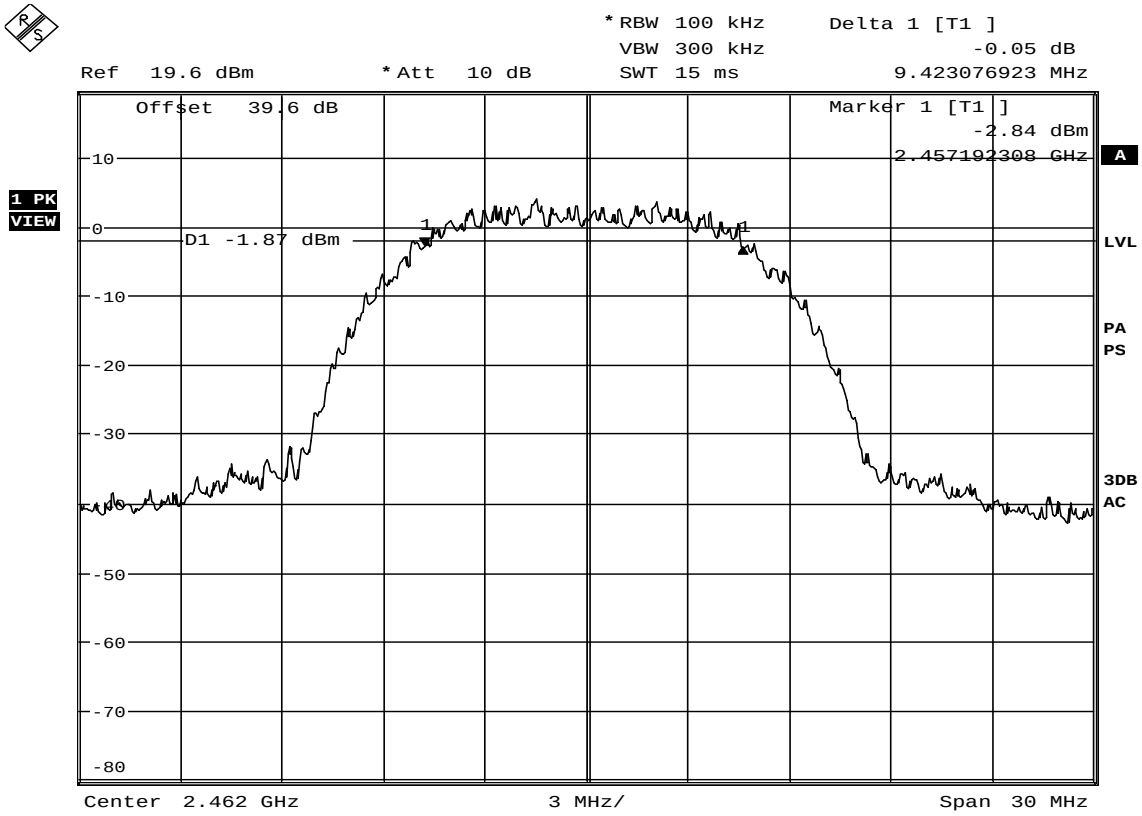
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	2 Mbps
NOTES	:	



Date: 3.MAY.2016 14:45:32

FCC 15C 15.247 DTS Bandwidth

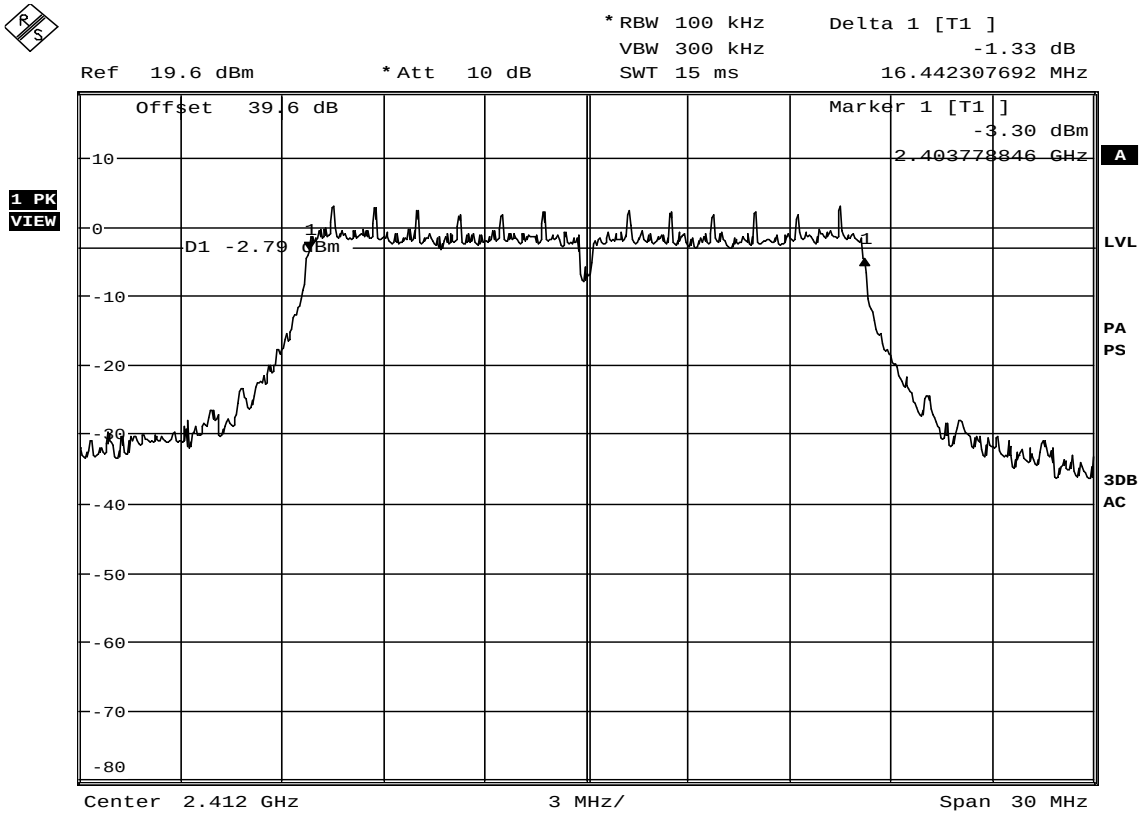
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	5.5 Mbps
NOTES	:	



Date: 3.MAY.2016 14:50:17

FCC 15C 15.247 DTS Bandwidth

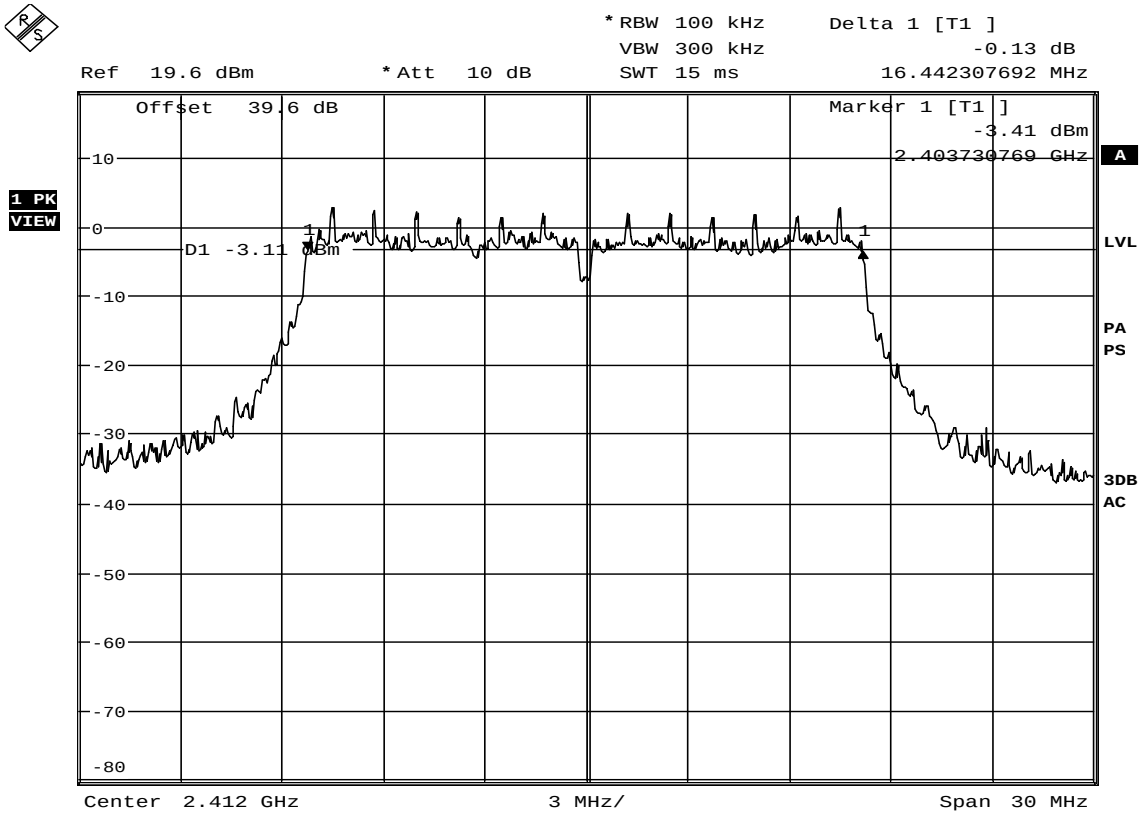
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	11 Mbps
NOTES	:	



Date: 3.MAY.2016 07:29:01

FCC 15C 15.247 DTS Bandwidth

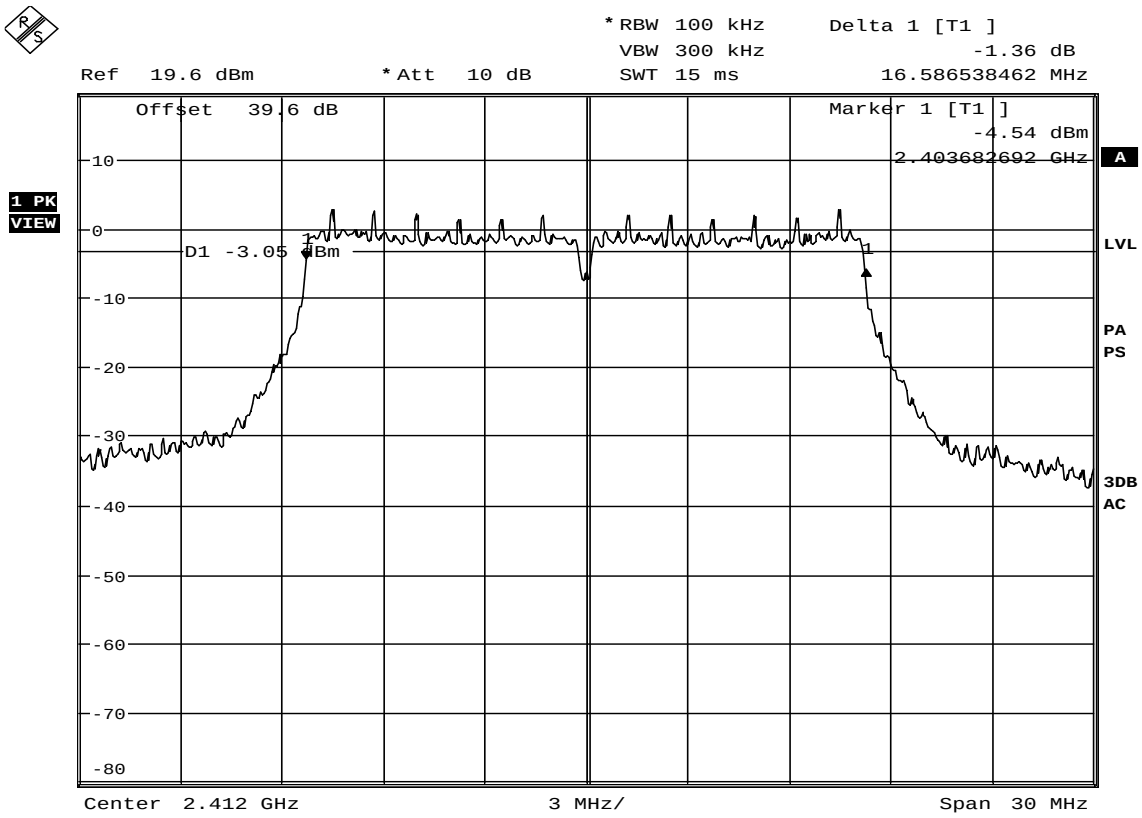
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	6 Mbps
NOTES	:	



Date: 3.MAY.2016 07:58:00

FCC 15C 15.247 DTS Bandwidth

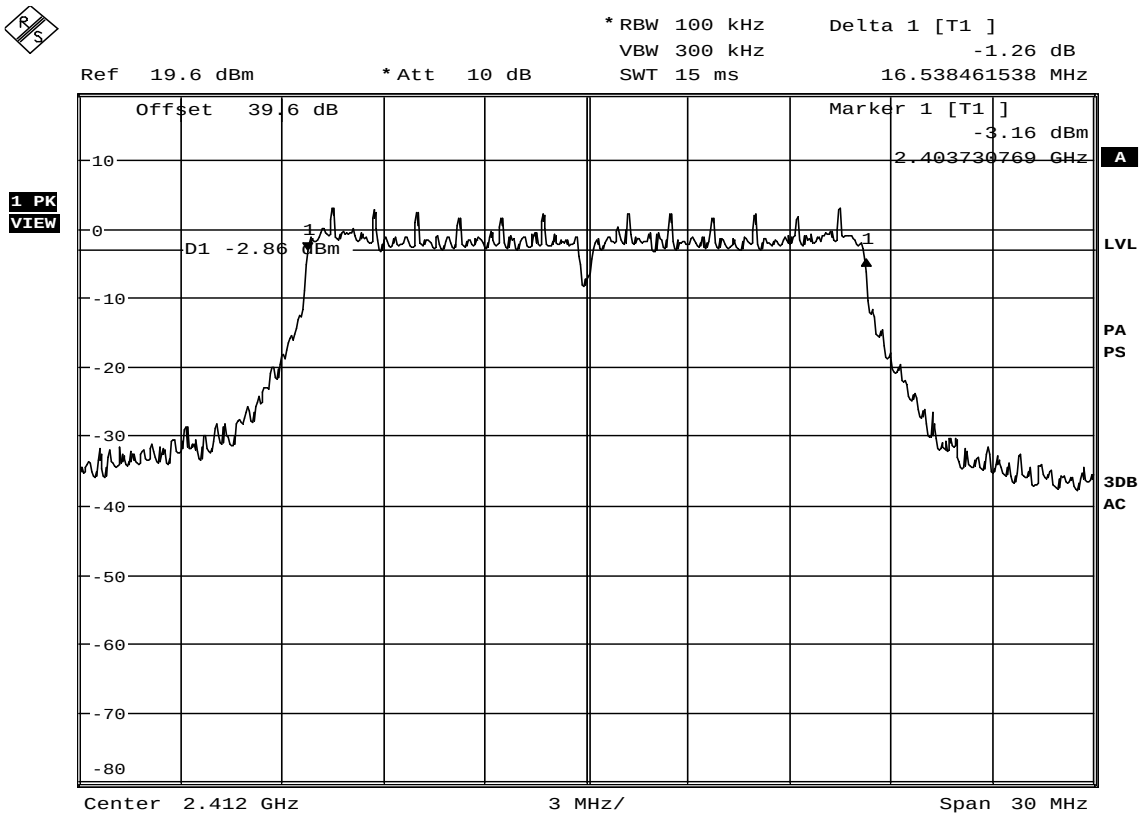
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	9 Mbps
NOTES	:	



Date: 3.MAY.2016 09:34:42

FCC 15C 15.247 DTS Bandwidth

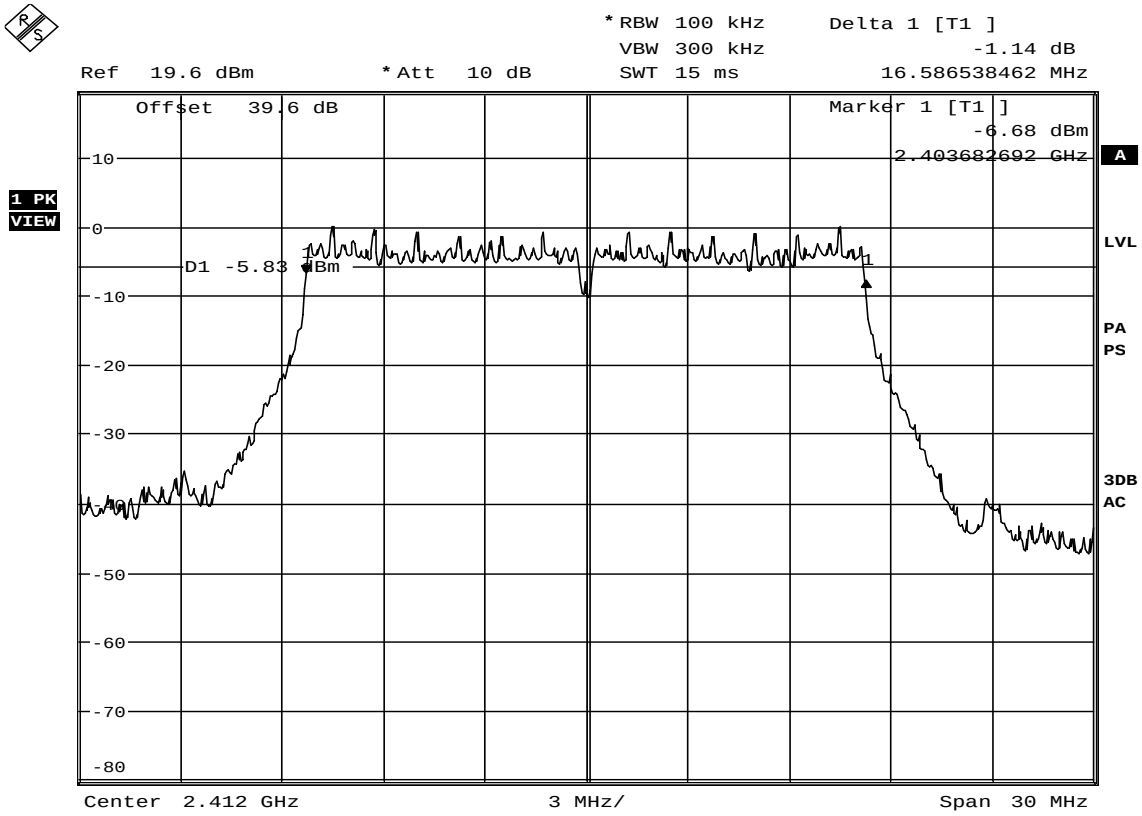
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	12 Mbps
NOTES	:	



Date: 3.MAY.2016 09:37:44

FCC 15C 15.247 DTS Bandwidth

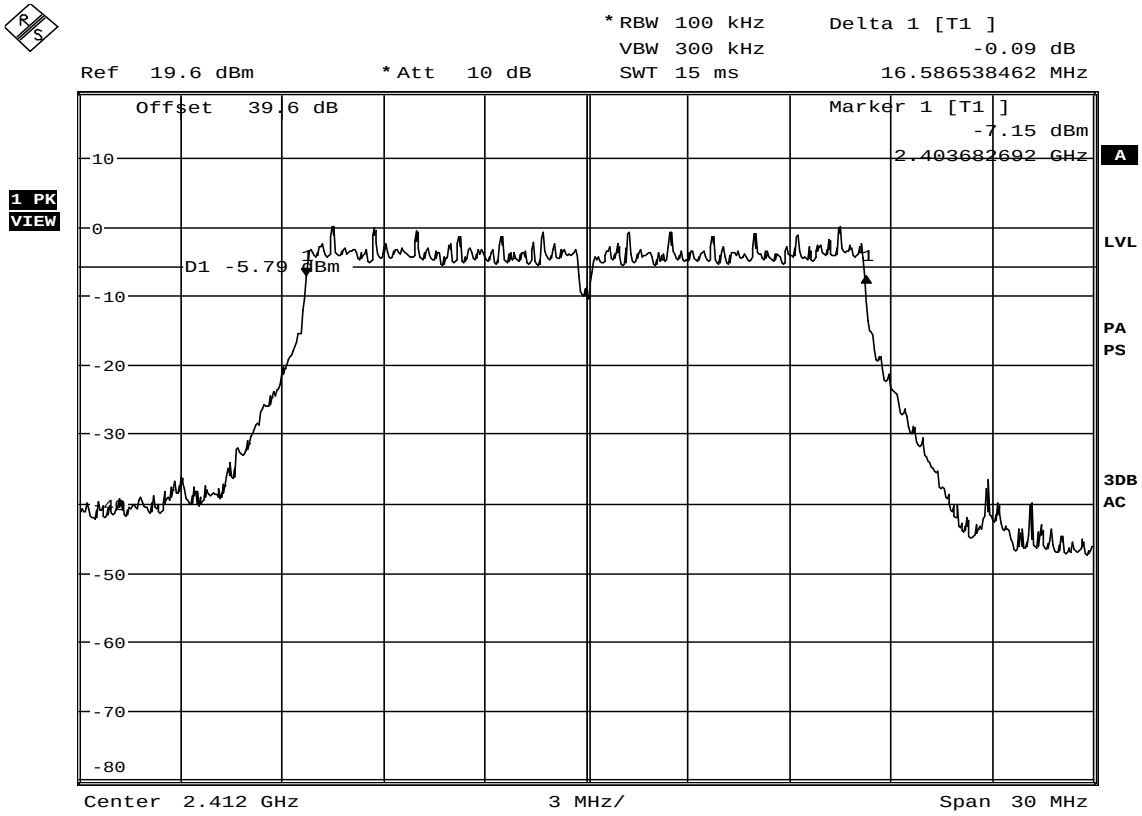
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	18 Mbps
NOTES	:	



Date: 3.MAY.2016 09:40:01

FCC 15C 15.247 DTS Bandwidth

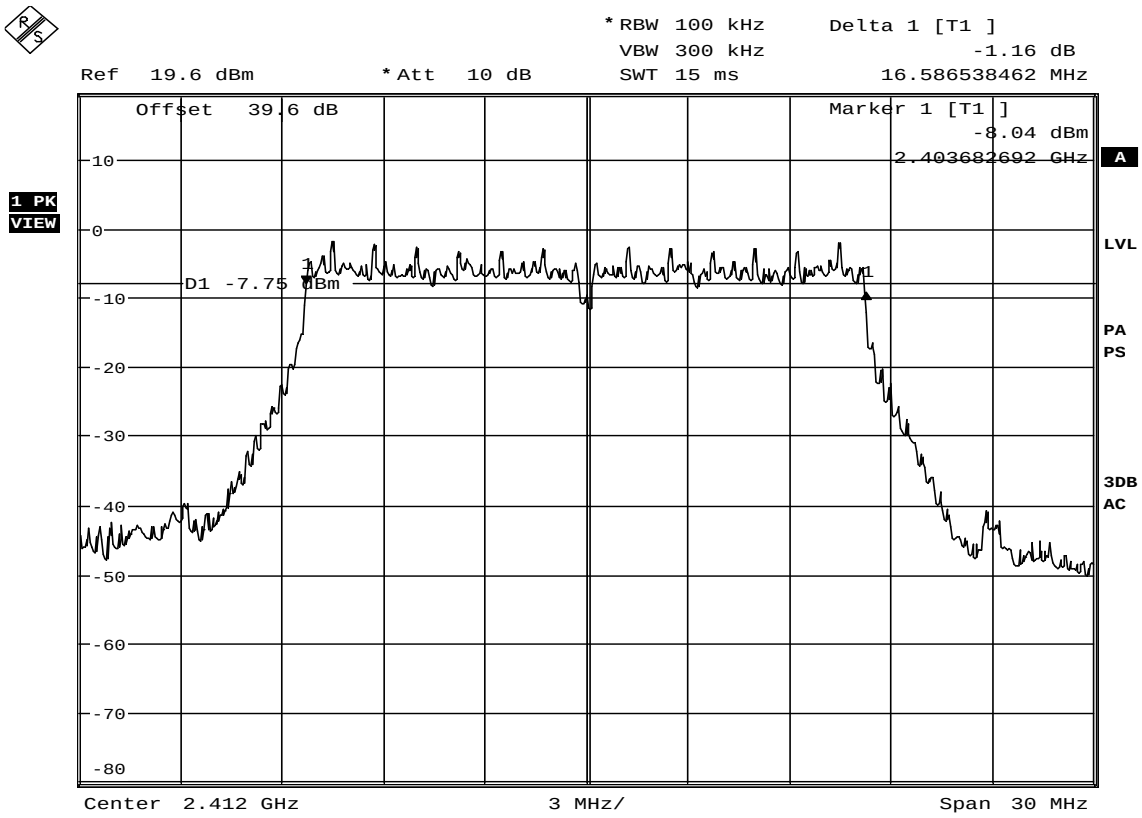
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	24 Mbps
NOTES	:	



Date: 3.MAY.2016 09:47:59

FCC 15C 15.247 DTS Bandwidth

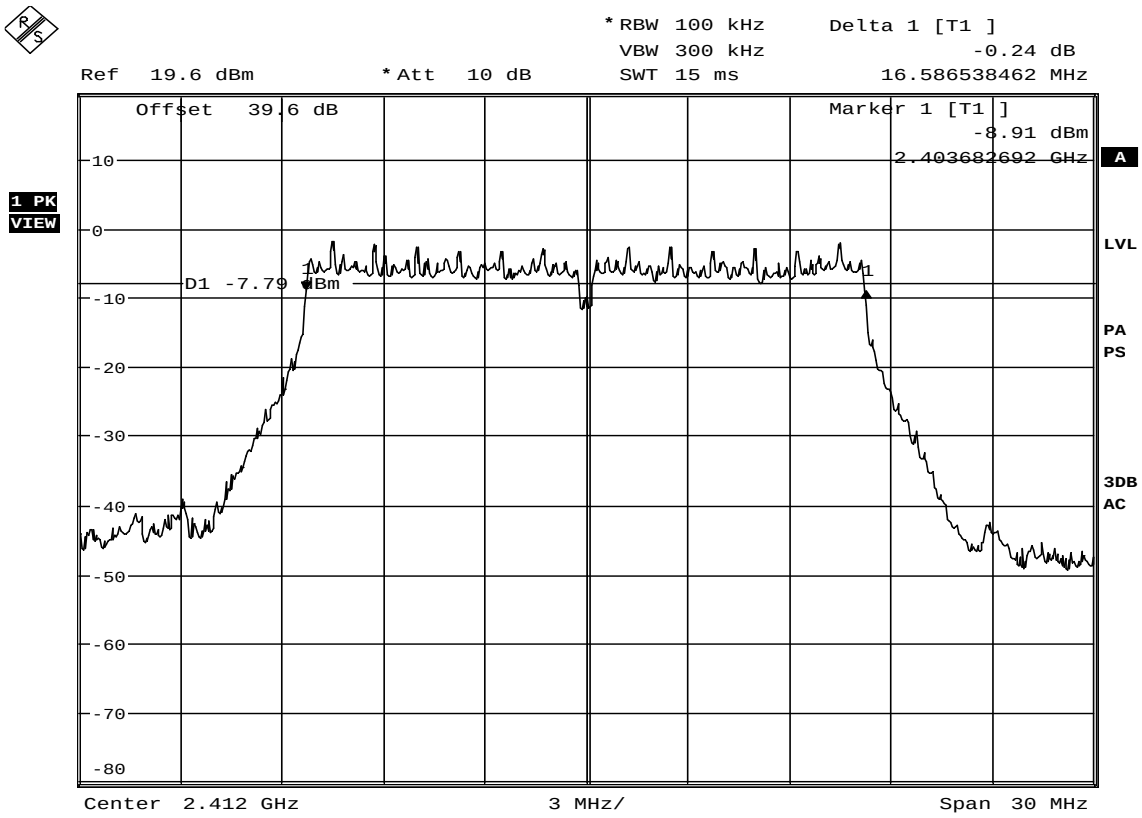
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	36 Mbps
NOTES	:	



Date: 3.MAY.2016 09:52:05

FCC 15C 15.247 DTS Bandwidth

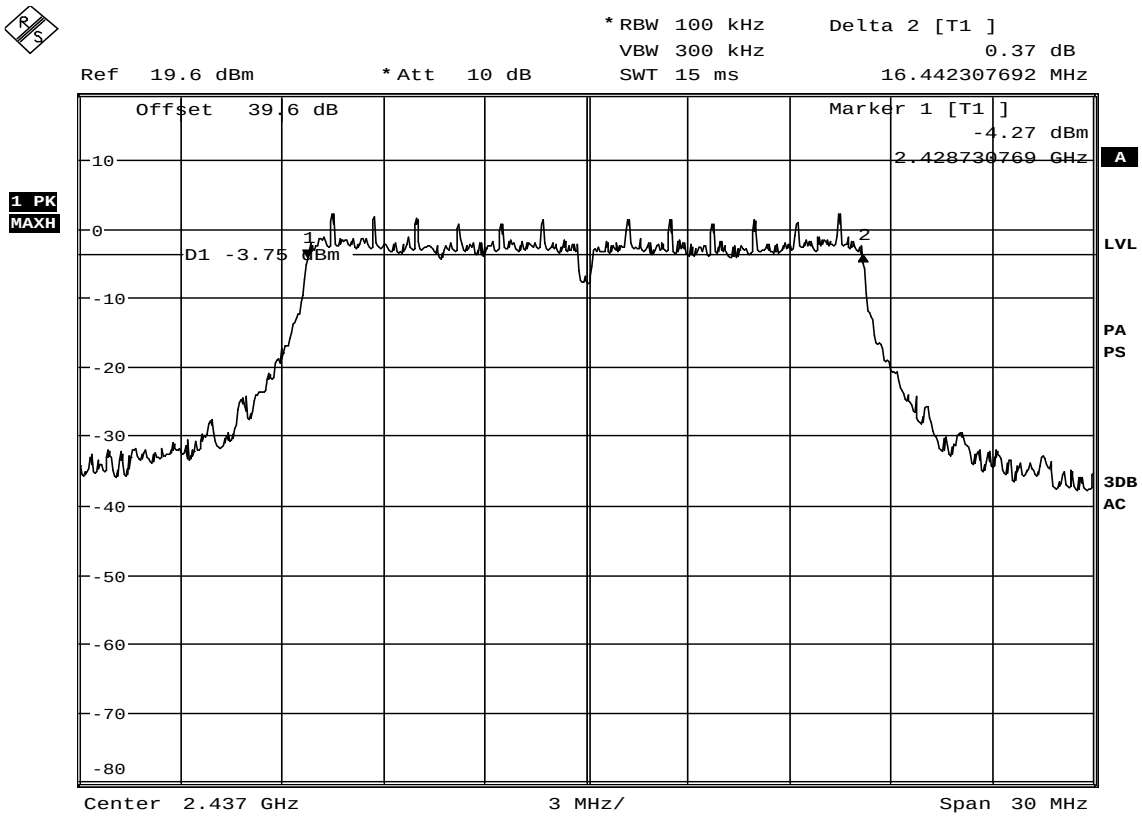
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	48 Mbps
NOTES	:	



Date: 3.MAY.2016 09:55:09

FCC 15C 15.247 DTS Bandwidth

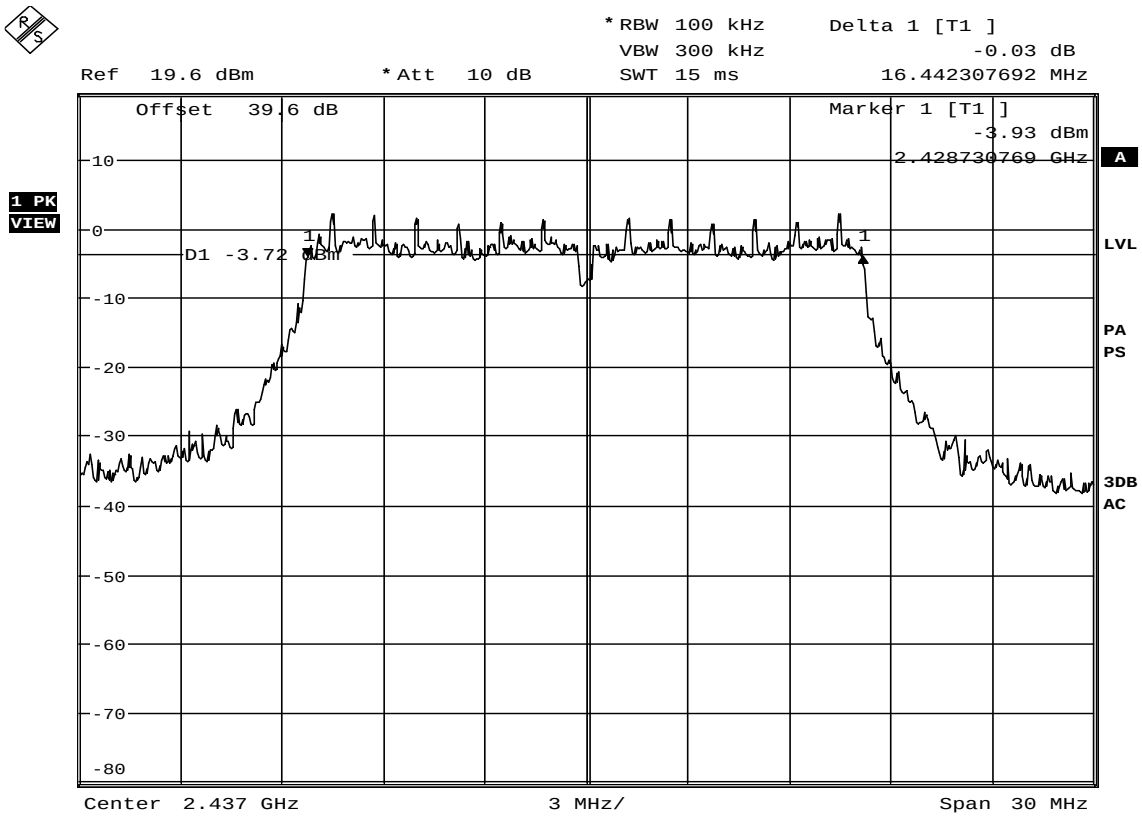
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	54 Mbps
NOTES	:	



Date: 3.MAY.2016 12:07:39

FCC 15C 15.247 DTS Bandwidth

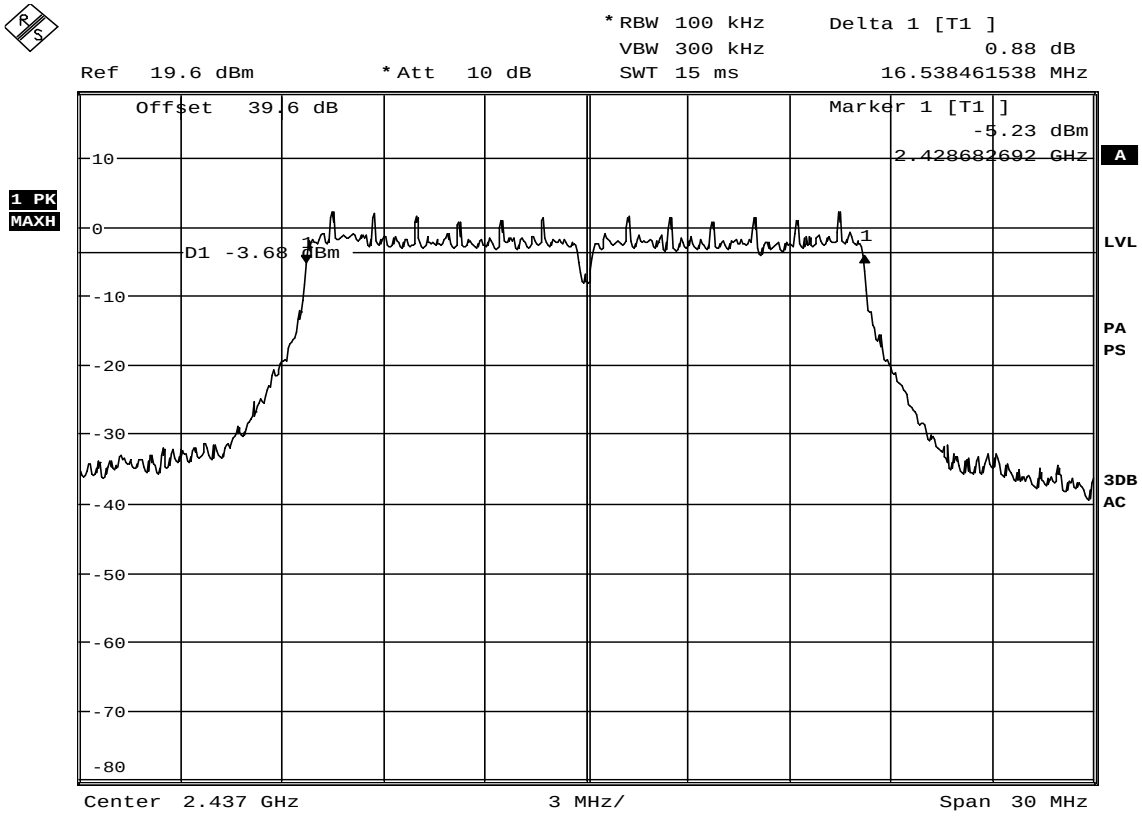
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	6 Mbps
NOTES	:	



Date: 3.MAY.2016 12:10:16

FCC 15C 15.247 DTS Bandwidth

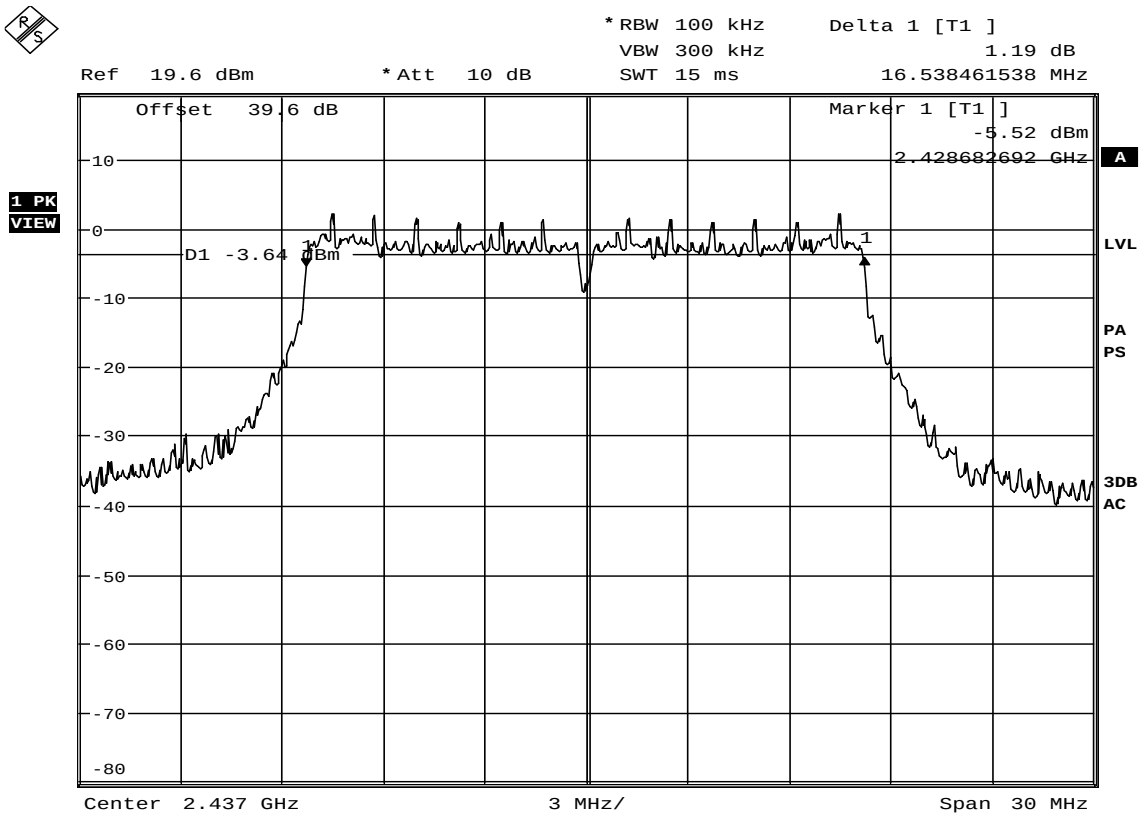
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	9 Mbps
NOTES	:	



Date: 3.MAY.2016 12:13:32

FCC 15C 15.247 DTS Bandwidth

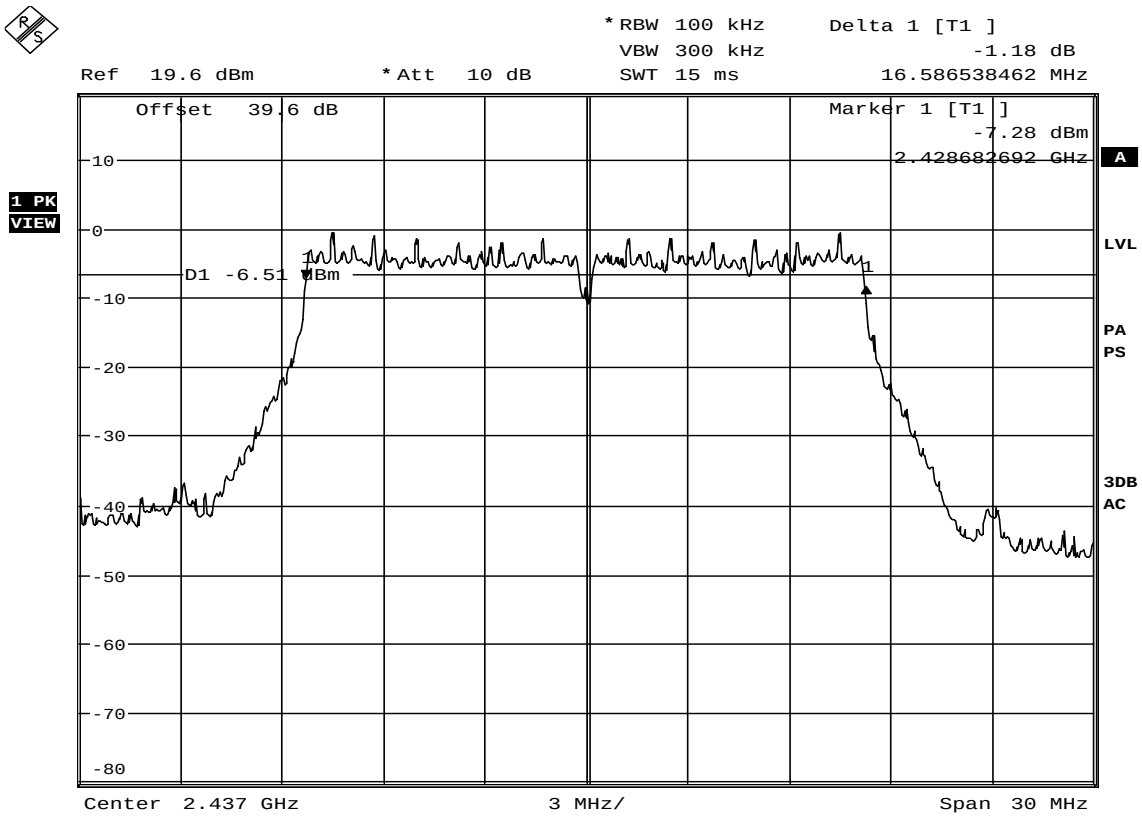
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	12 Mbps
NOTES	:	



Date: 3.MAY.2016 12:15:38

FCC 15C 15.247 DTS Bandwidth

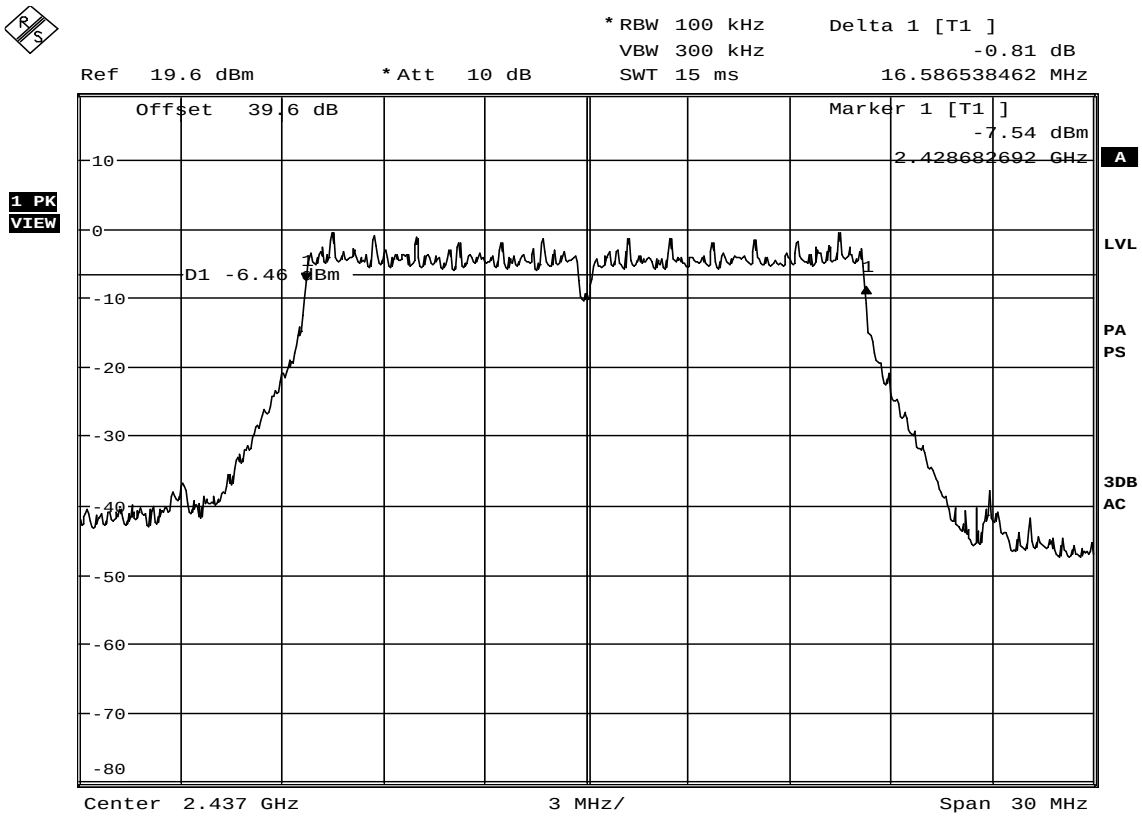
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	18 Mbps
NOTES	:	



Date: 3.MAY.2016 12:17:52

FCC 15C 15.247 DTS Bandwidth

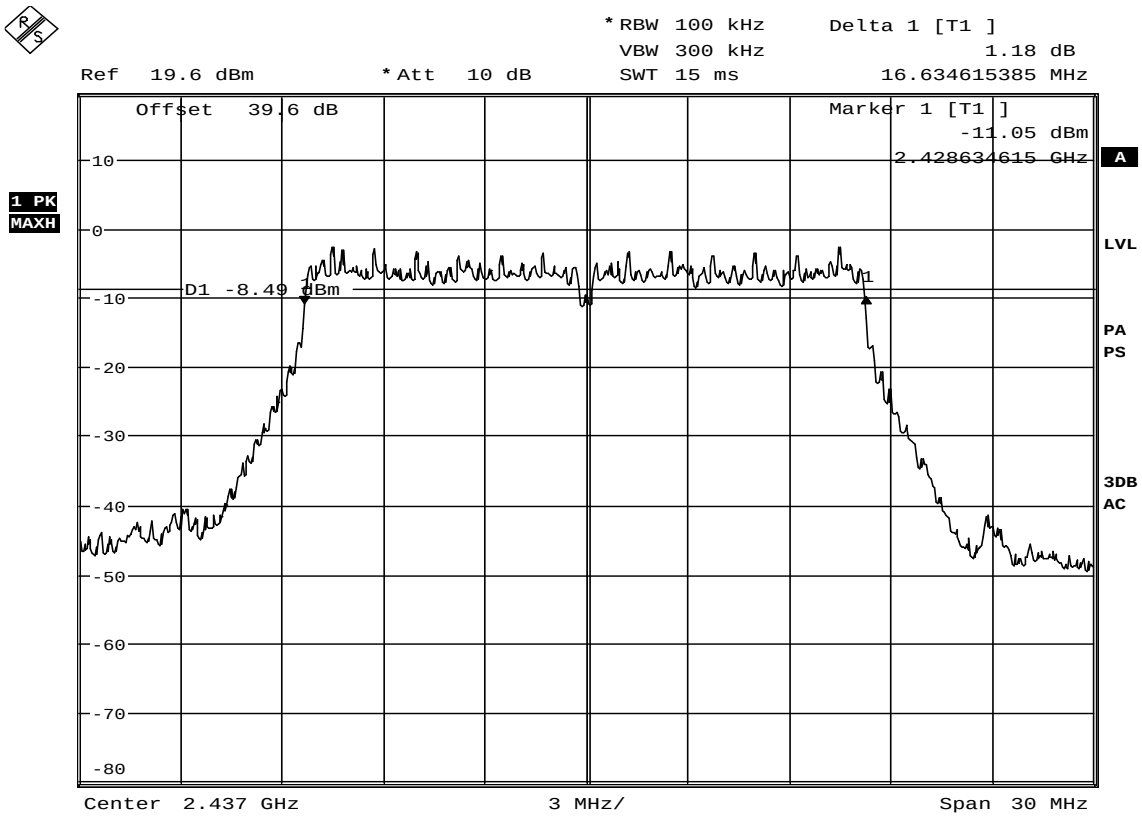
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	24 Mbps
NOTES	:	



Date: 3.MAY.2016 12:21:48

FCC 15C 15.247 DTS Bandwidth

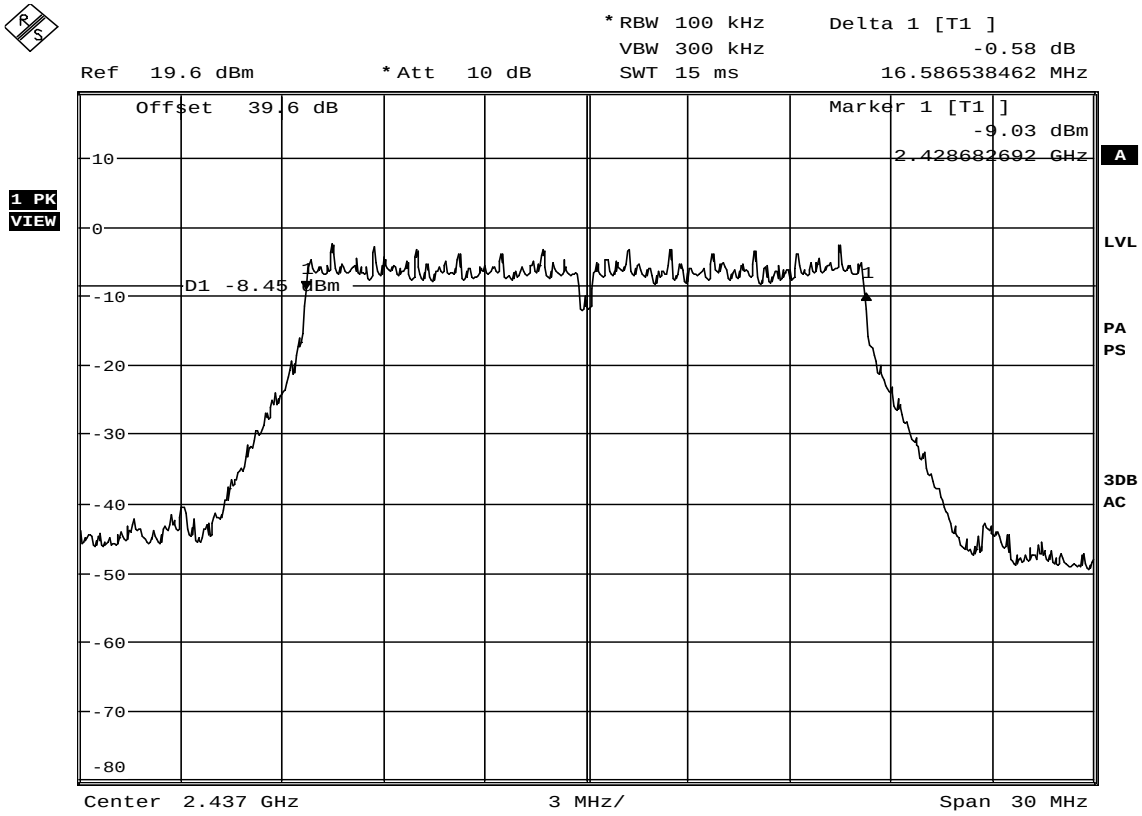
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	36 Mbps
NOTES	:	



Date: 3.MAY.2016 12:23:50

FCC 15C 15.247 DTS Bandwidth

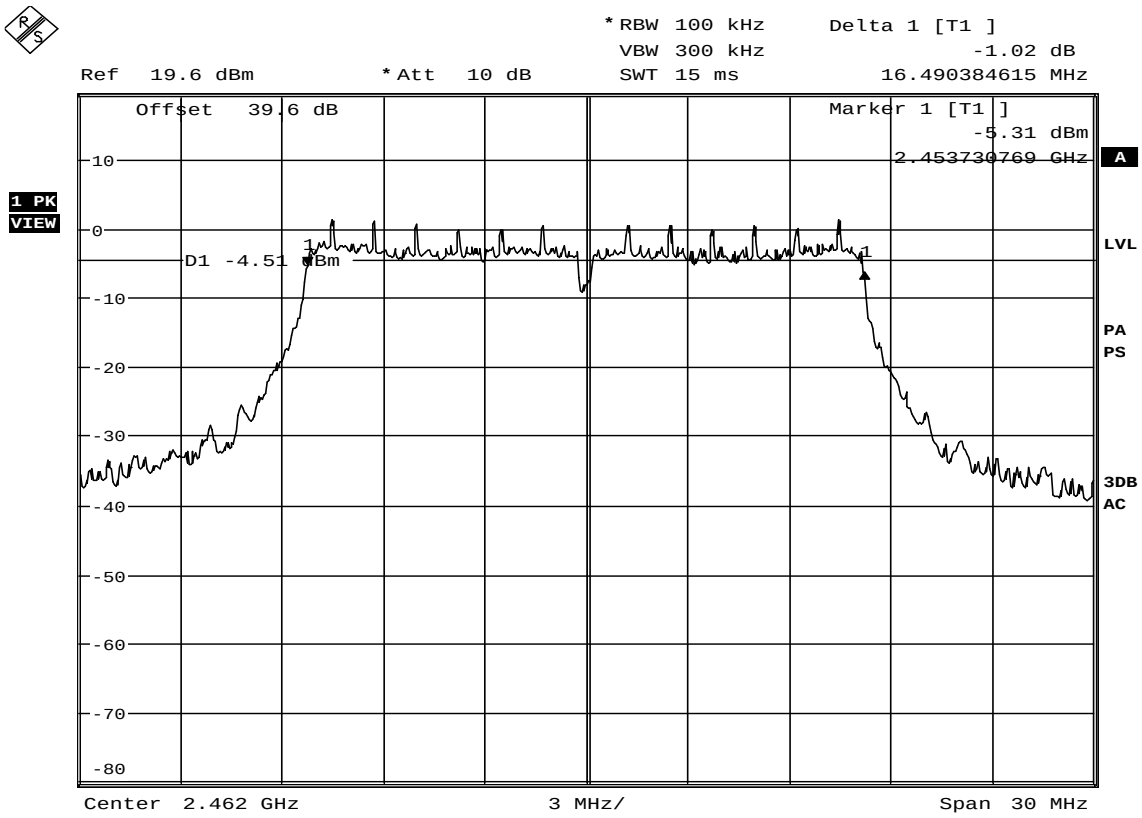
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	48 Mbps
NOTES	:	



Date: 3.MAY.2016 12:25:53

FCC 15C 15.247 DTS Bandwidth

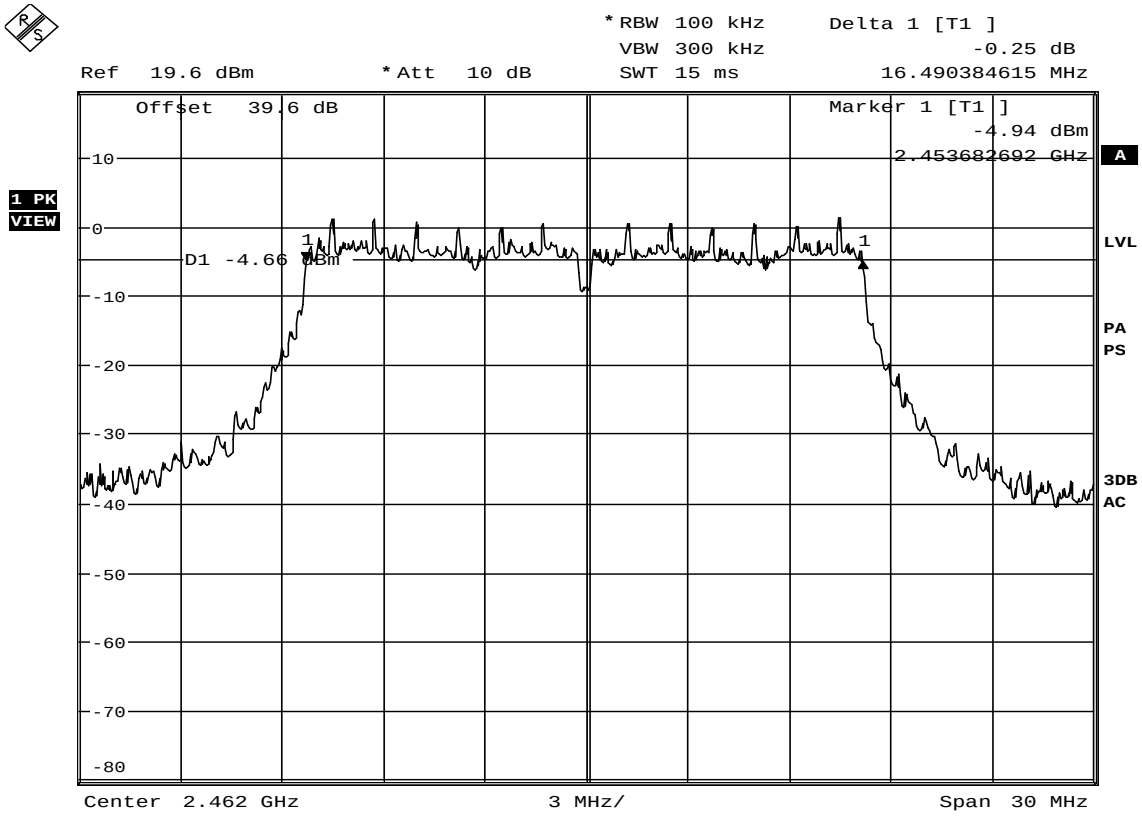
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	54 Mbps
NOTES	:	



Date: 3.MAY.2016 14:55:54

FCC 15C 15.247 DTS Bandwidth

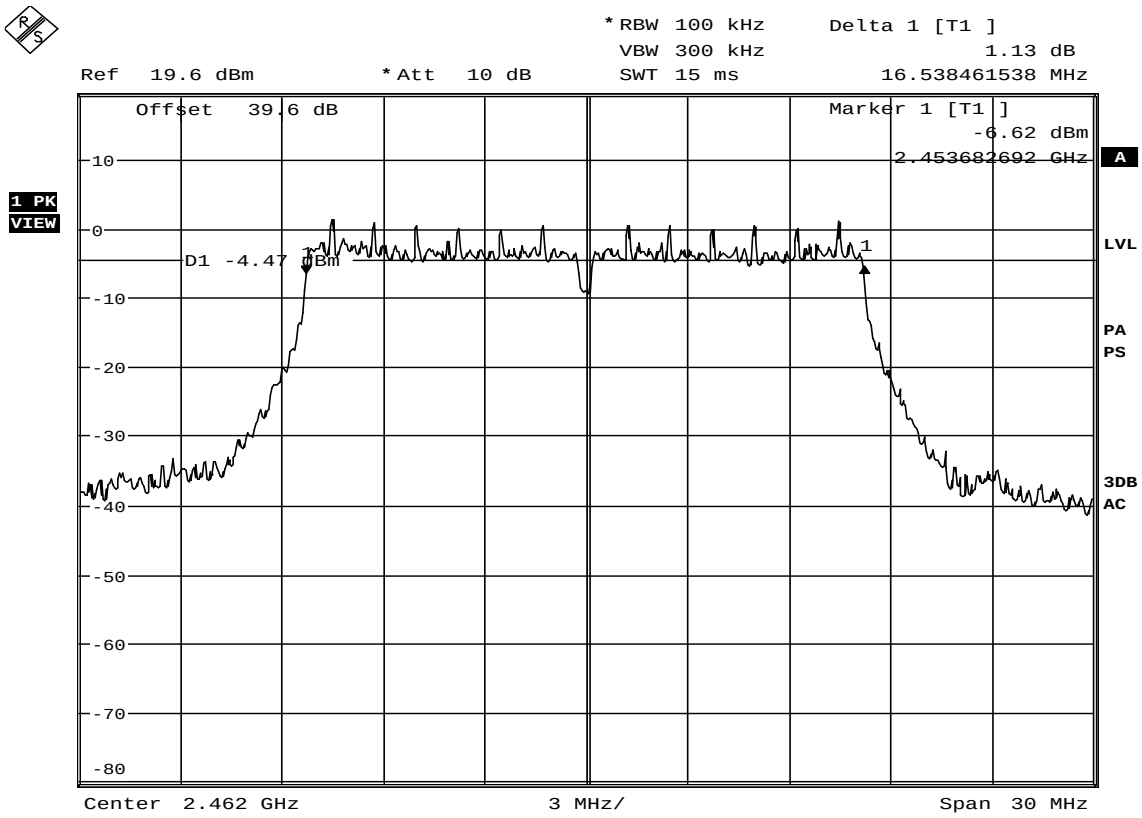
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	6 Mbps
NOTES	:	



Date: 3.MAY.2016 14:58:25

FCC 15C 15.247 DTS Bandwidth

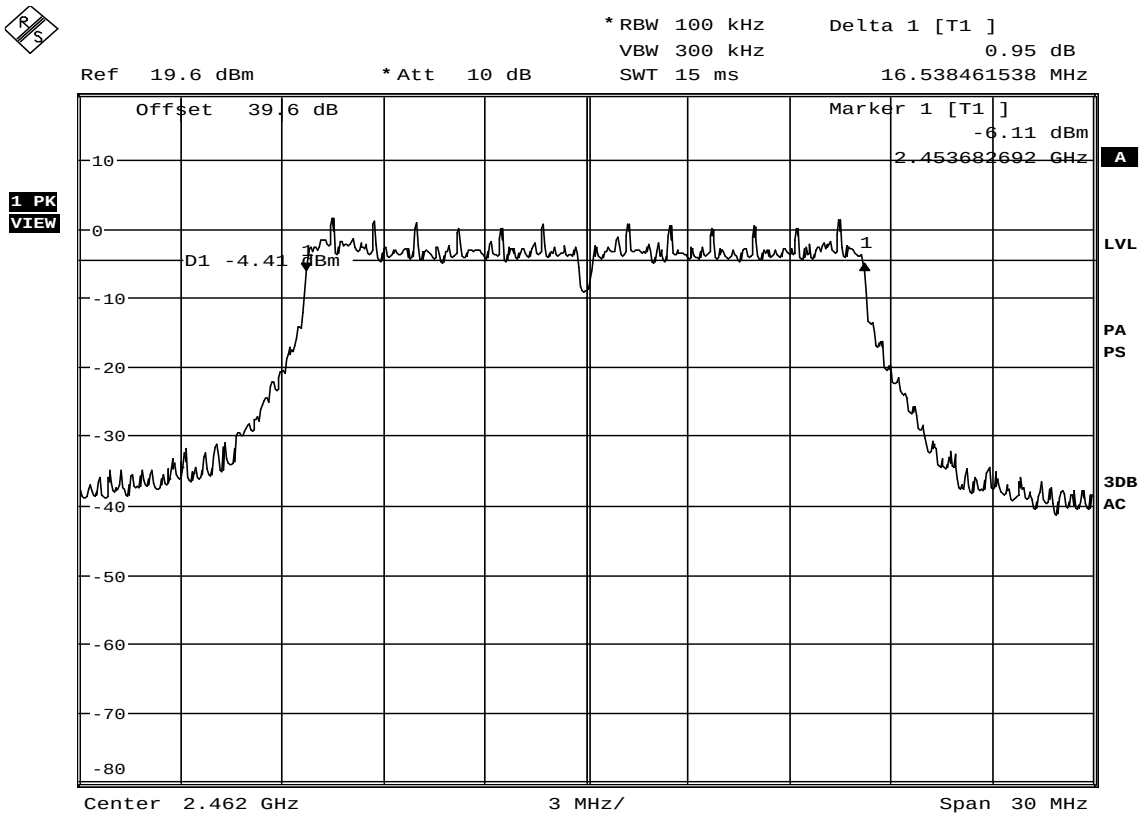
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	9 Mbps
NOTES	:	



Date: 3.MAY.2016 15:00:38

FCC 15C 15.247 DTS Bandwidth

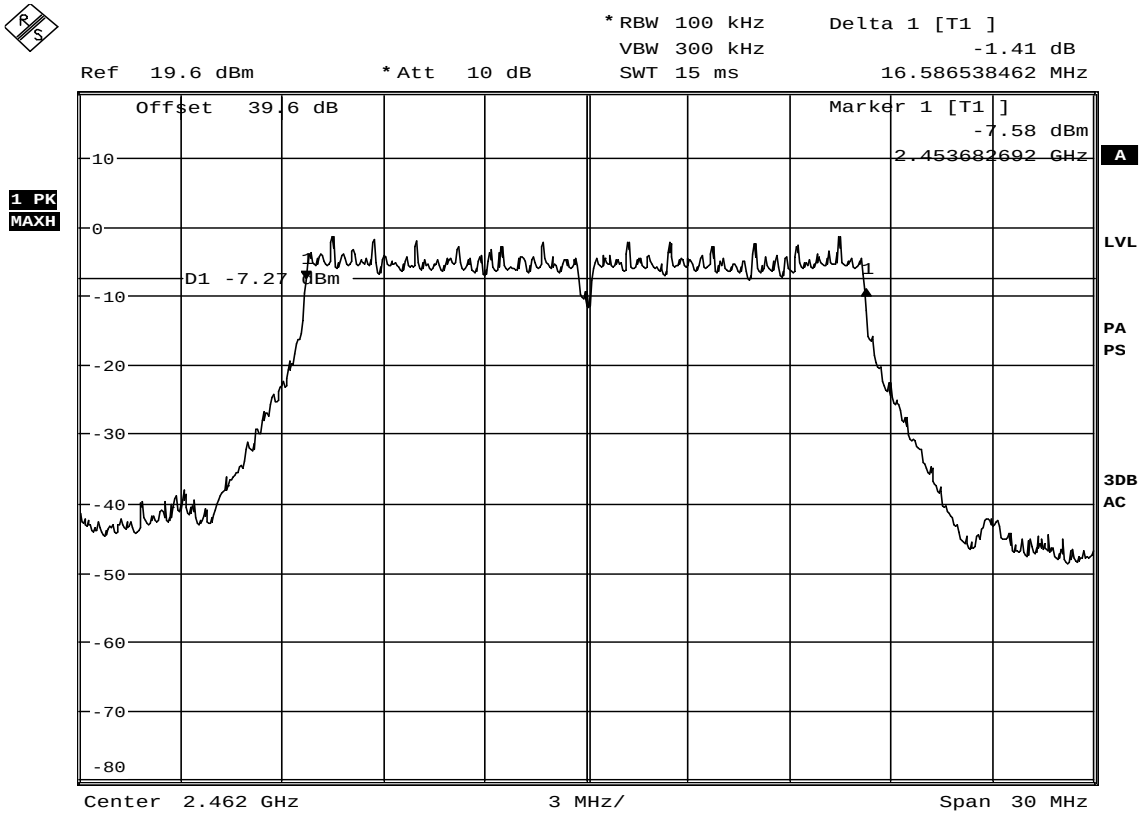
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	12 Mbps
NOTES	:	



Date: 3.MAY.2016 15:02:51

FCC 15C 15.247 DTS Bandwidth

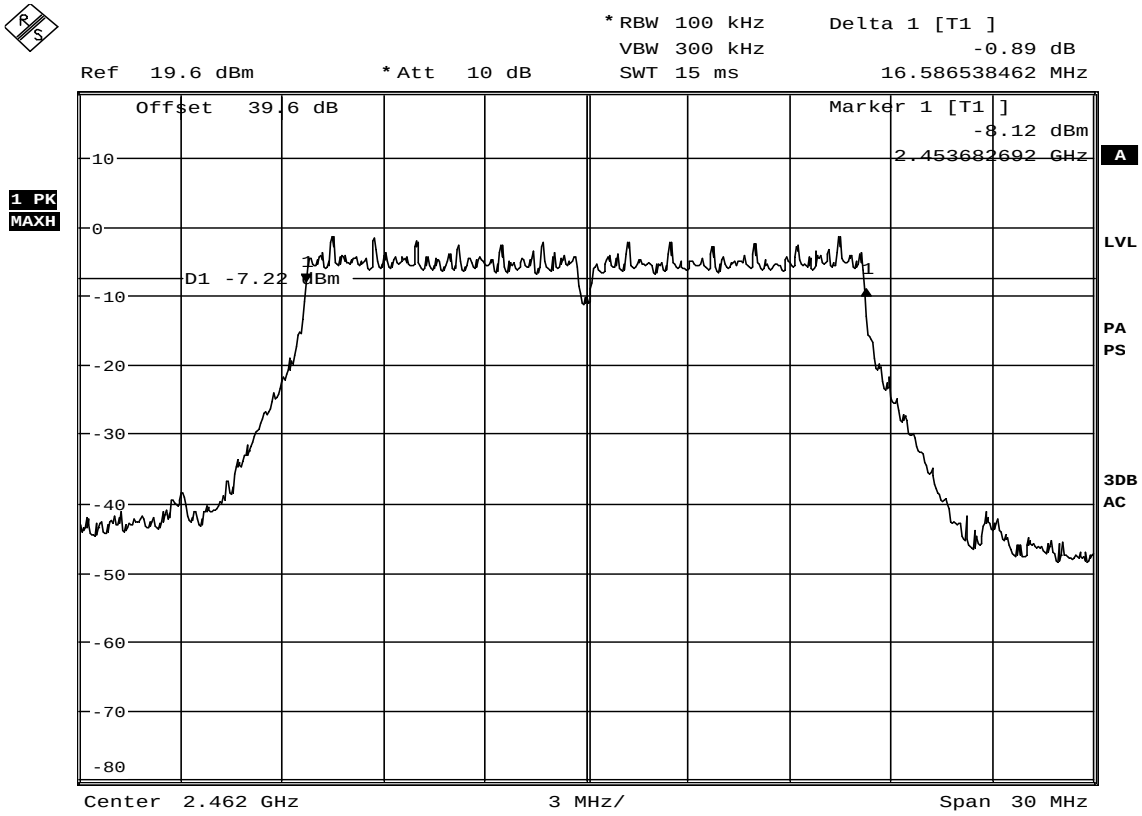
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	18 Mbps
NOTES	:	



Date: 3.MAY.2016 15:05:15

FCC 15C 15.247 DTS Bandwidth

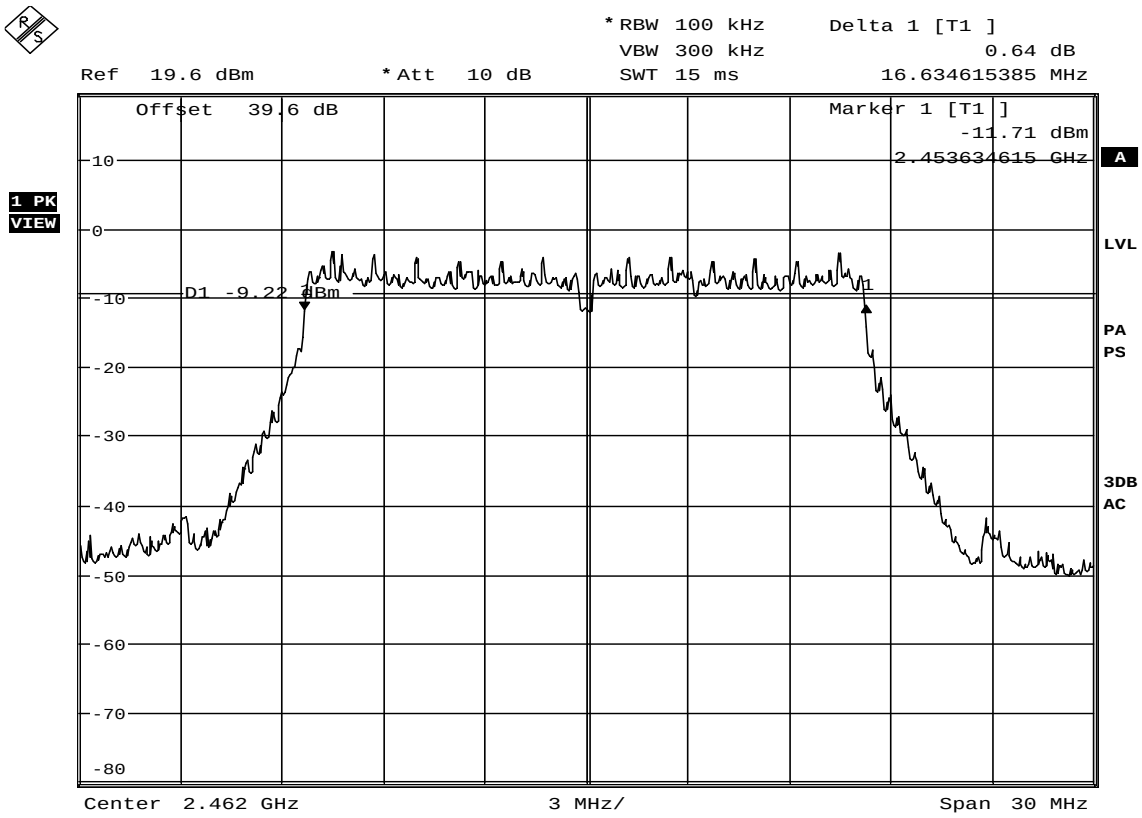
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	24 Mbps
NOTES	:	



Date: 3.MAY.2016 15:07:41

FCC 15C 15.247 DTS Bandwidth

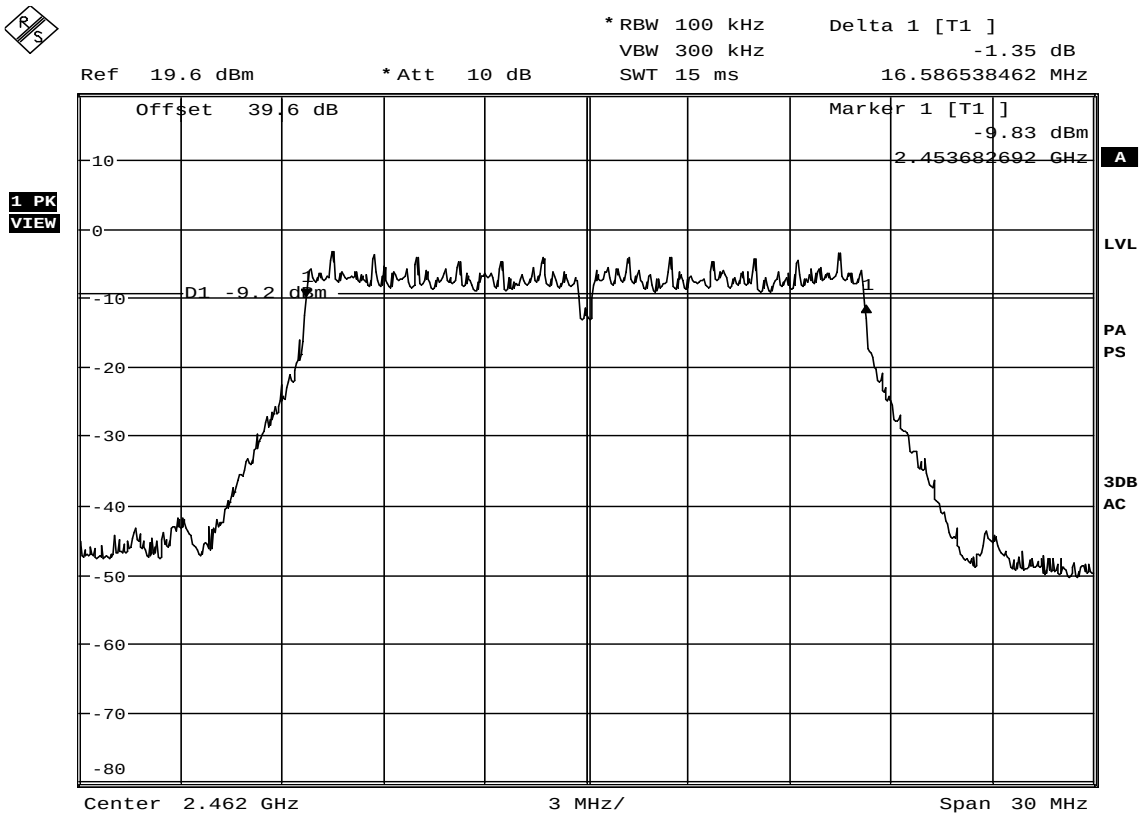
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	36 Mbps
NOTES	:	



Date: 3.MAY.2016 15:10:39

FCC 15C 15.247 DTS Bandwidth

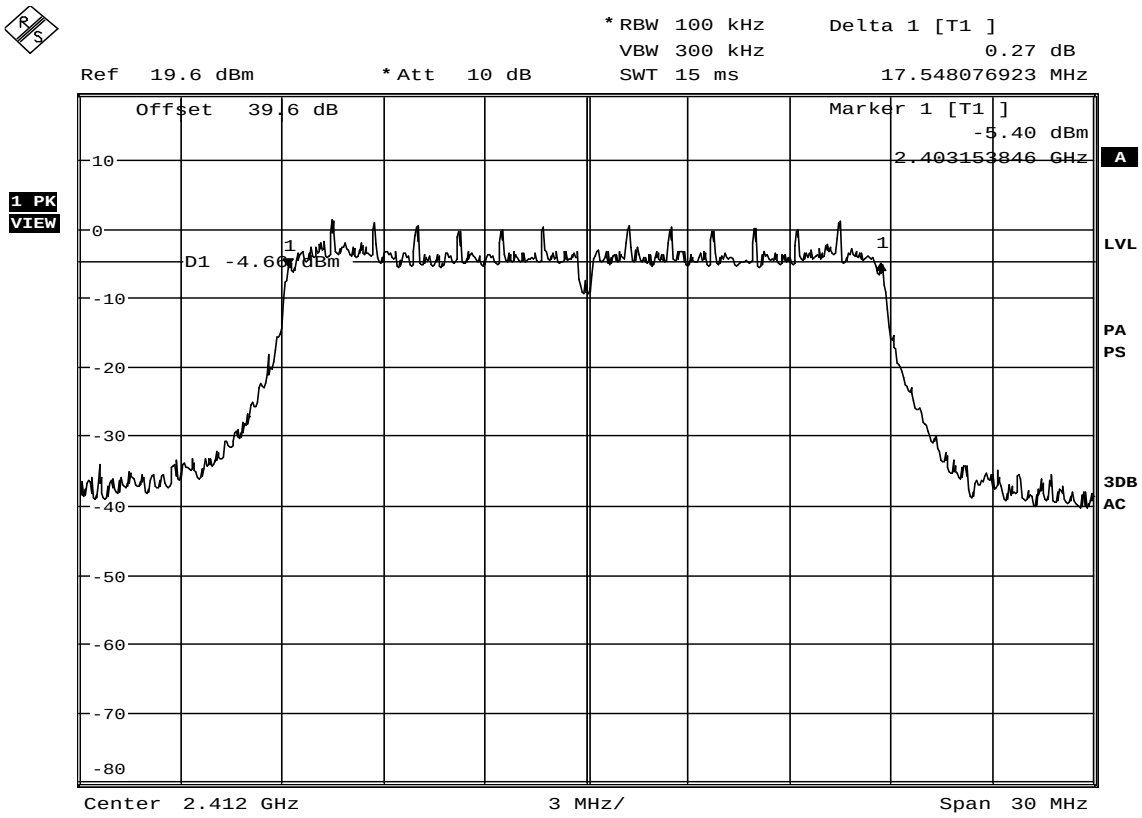
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	48 Mbps
NOTES	:	



Date: 3.MAY.2016 15:14:00

FCC 15C 15.247 DTS Bandwidth

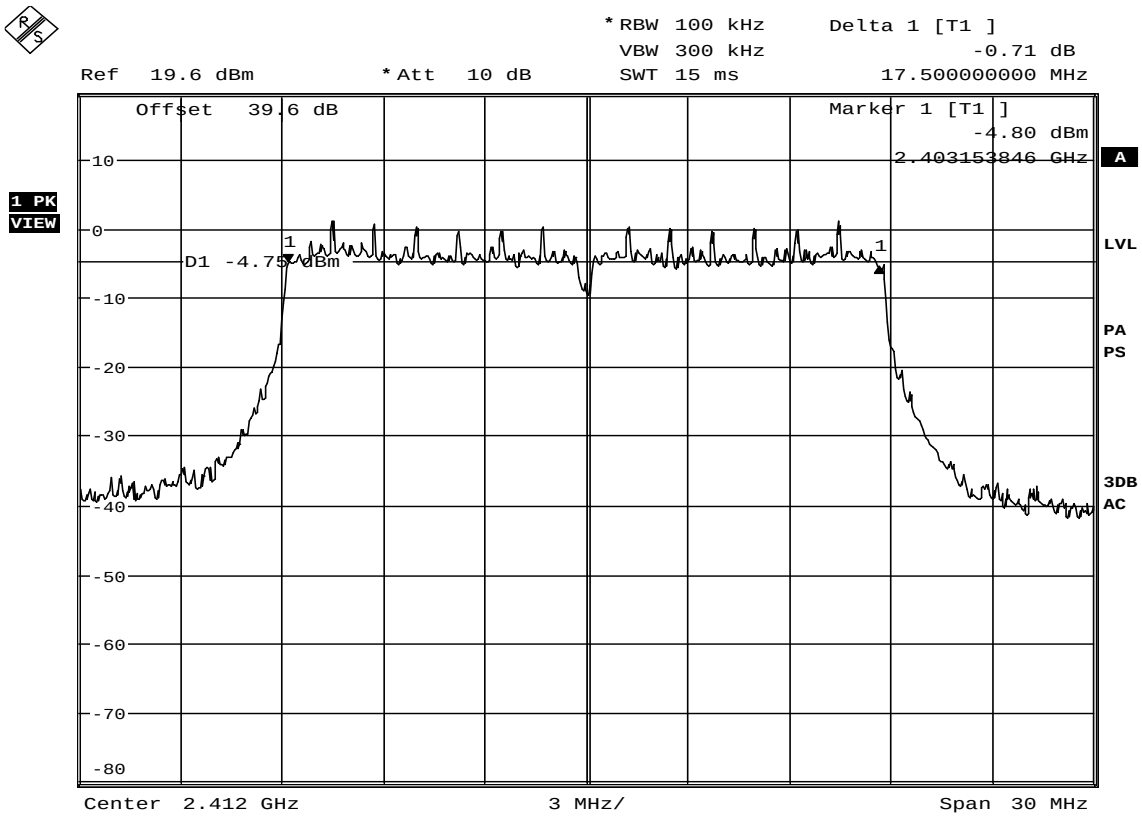
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	54 Mbps
NOTES	:	



Date: 3.MAY.2016 09:59:05

FCC 15C 15.247 DTS Bandwidth

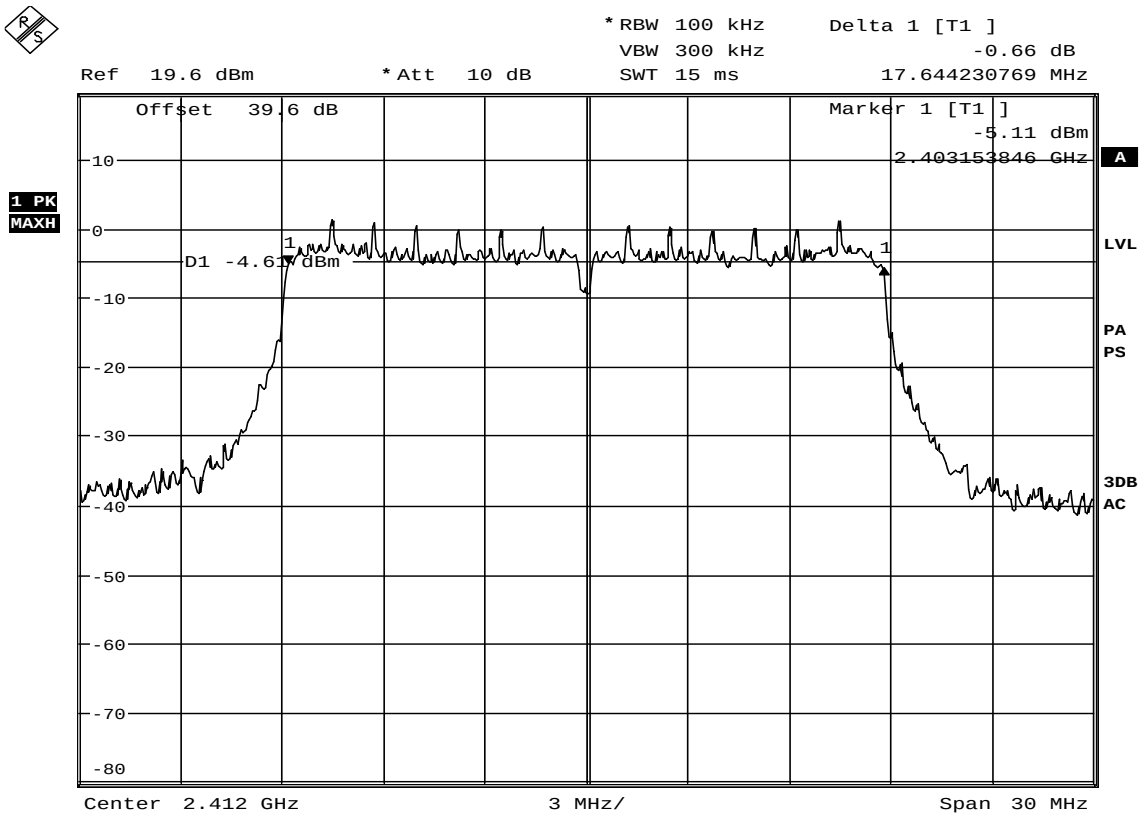
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	7.2 Mbps
NOTES	:	



Date: 3.MAY.2016 10:03:28

FCC 15C 15.247 DTS Bandwidth

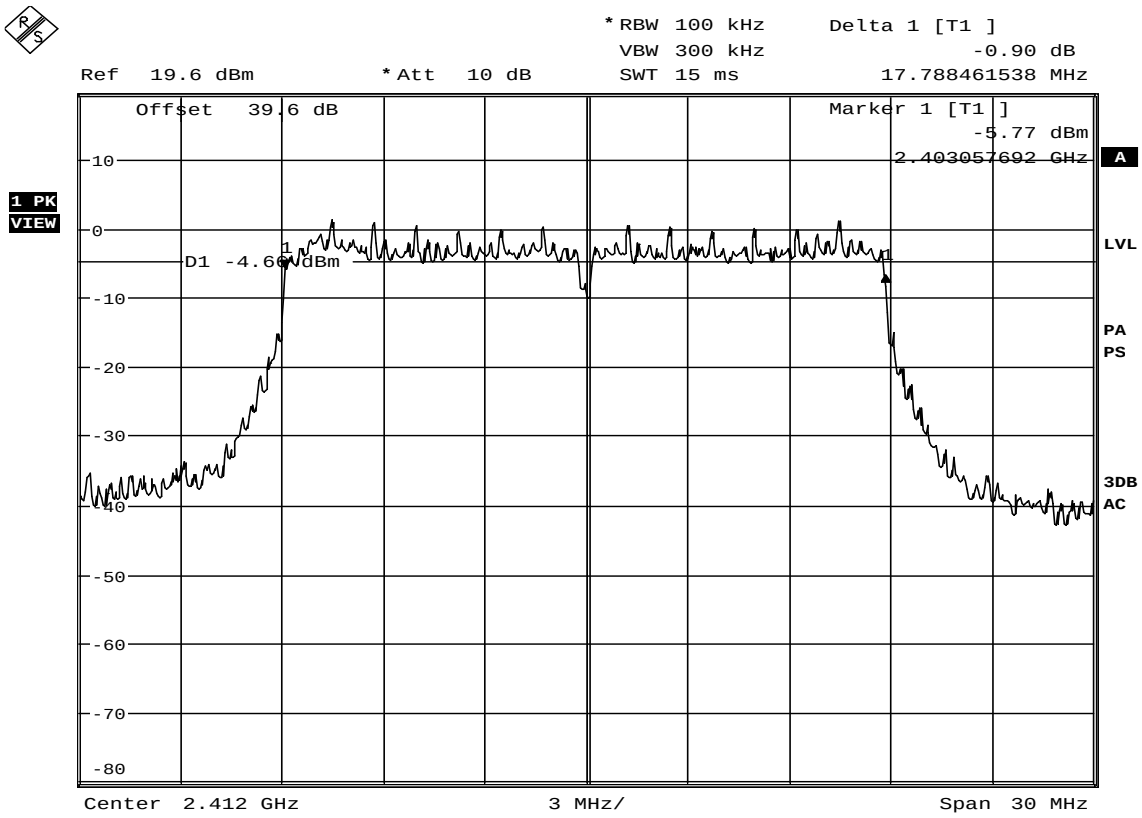
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	14.4 Mbps
NOTES	:	



Date: 3.MAY.2016 10:07:15

FCC 15C 15.247 DTS Bandwidth

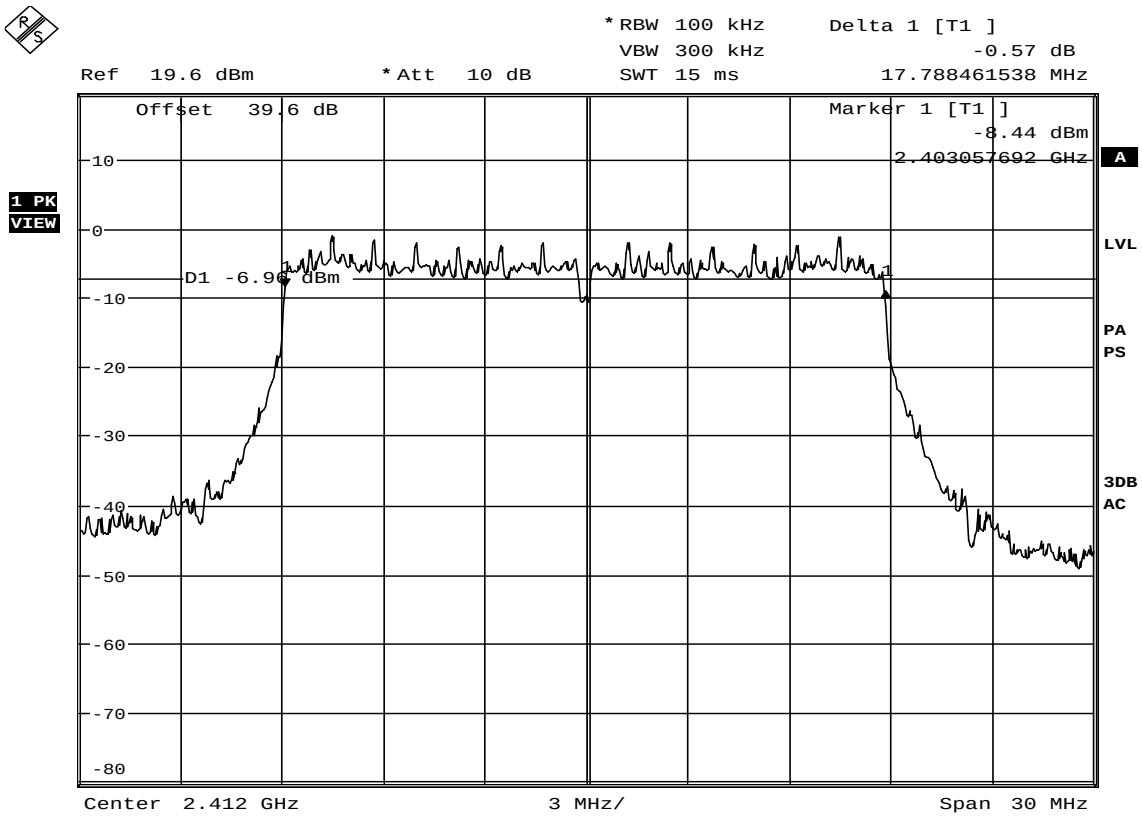
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	21.7 Mbps
NOTES	:	



Date: 3.MAY.2016 10:10:01

FCC 15C 15.247 DTS Bandwidth

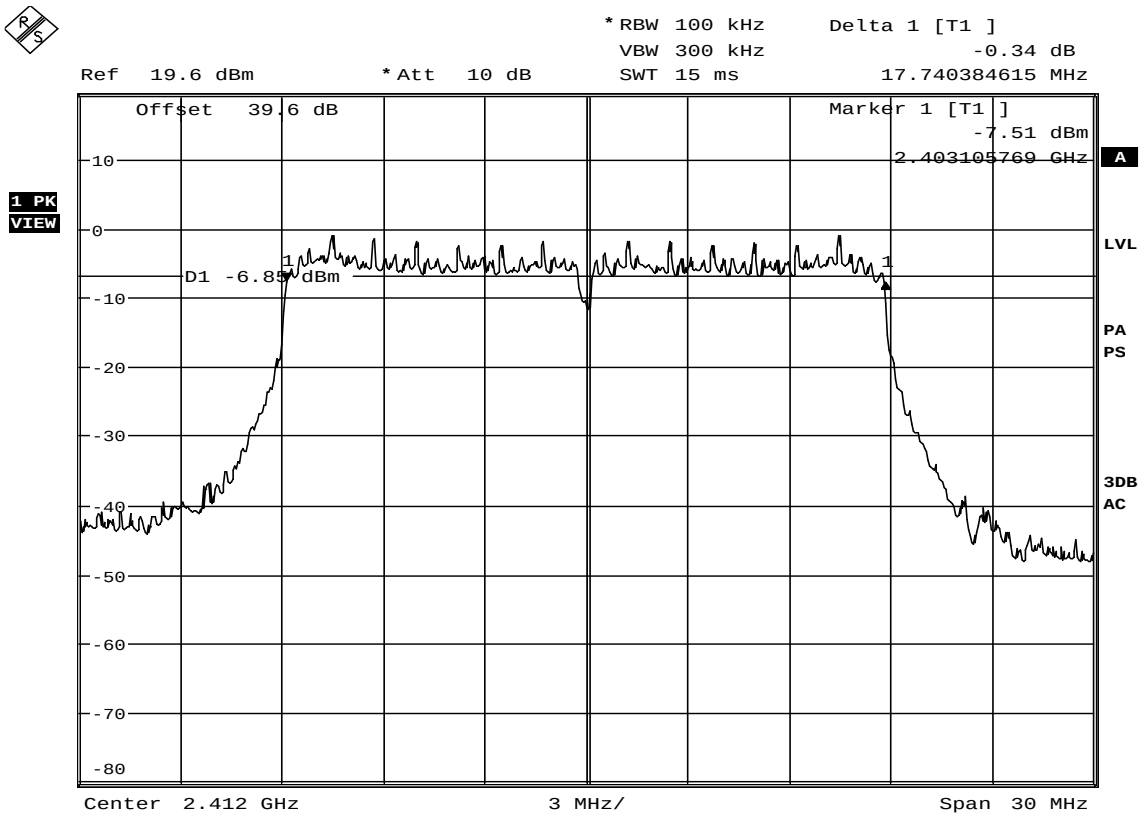
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	28.9 Mbps
NOTES	:	



Date: 3.MAY.2016 10:13:11

FCC 15C 15.247 DTS Bandwidth

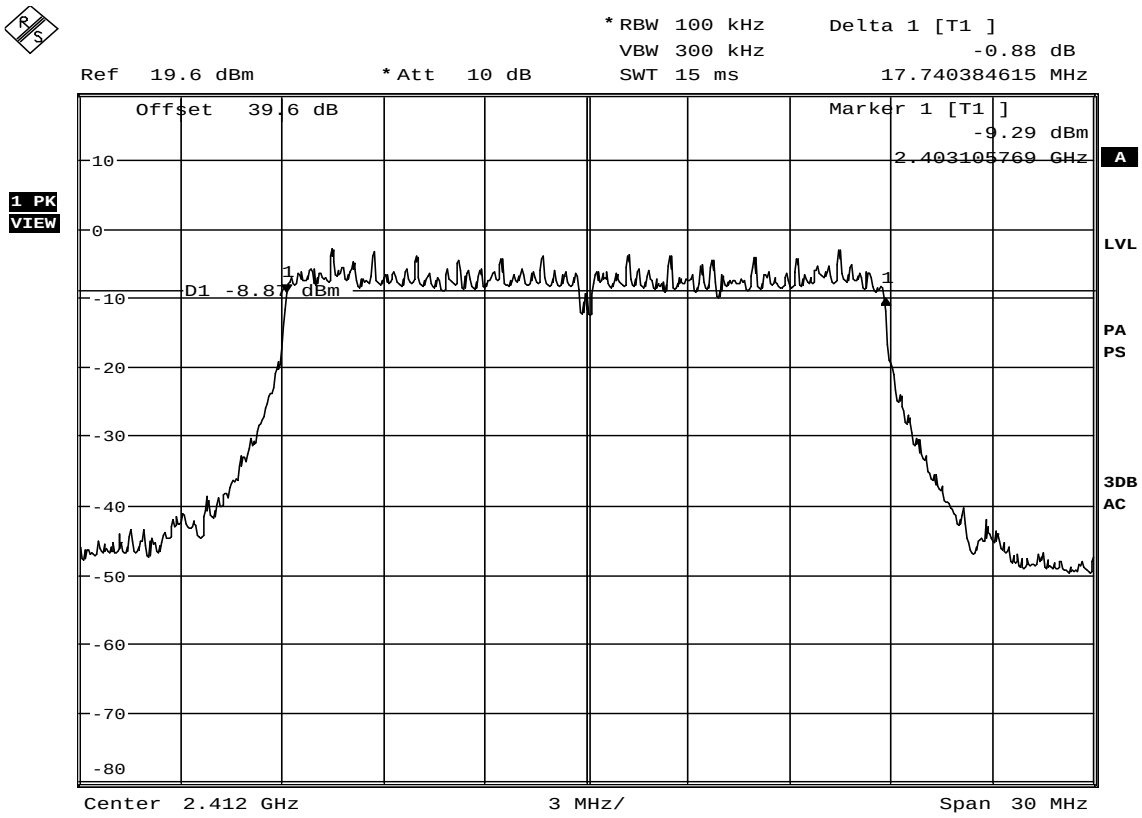
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	43.3 Mbps
NOTES	:	



Date: 3.MAY.2016 10:16:19

FCC 15C 15.247 DTS Bandwidth

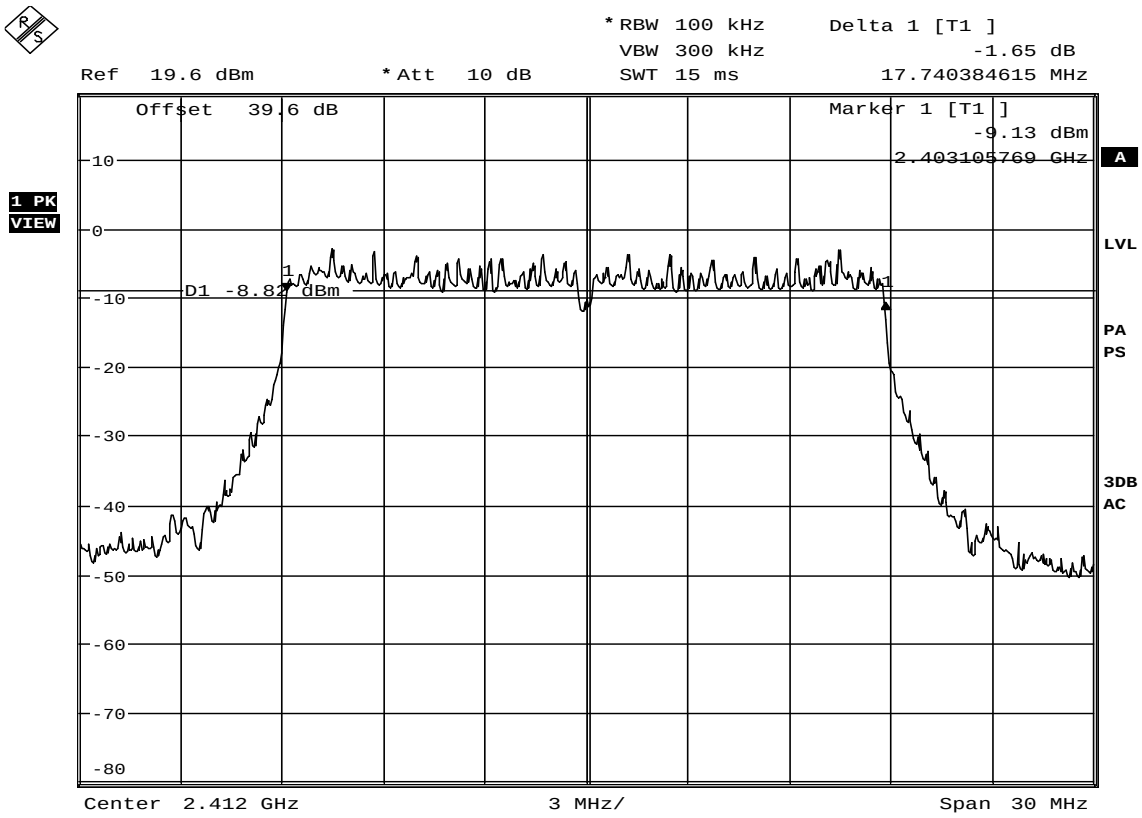
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	57.8 Mbps
NOTES	:	



Date: 3.MAY.2016 10:19:28

FCC 15C 15.247 DTS Bandwidth

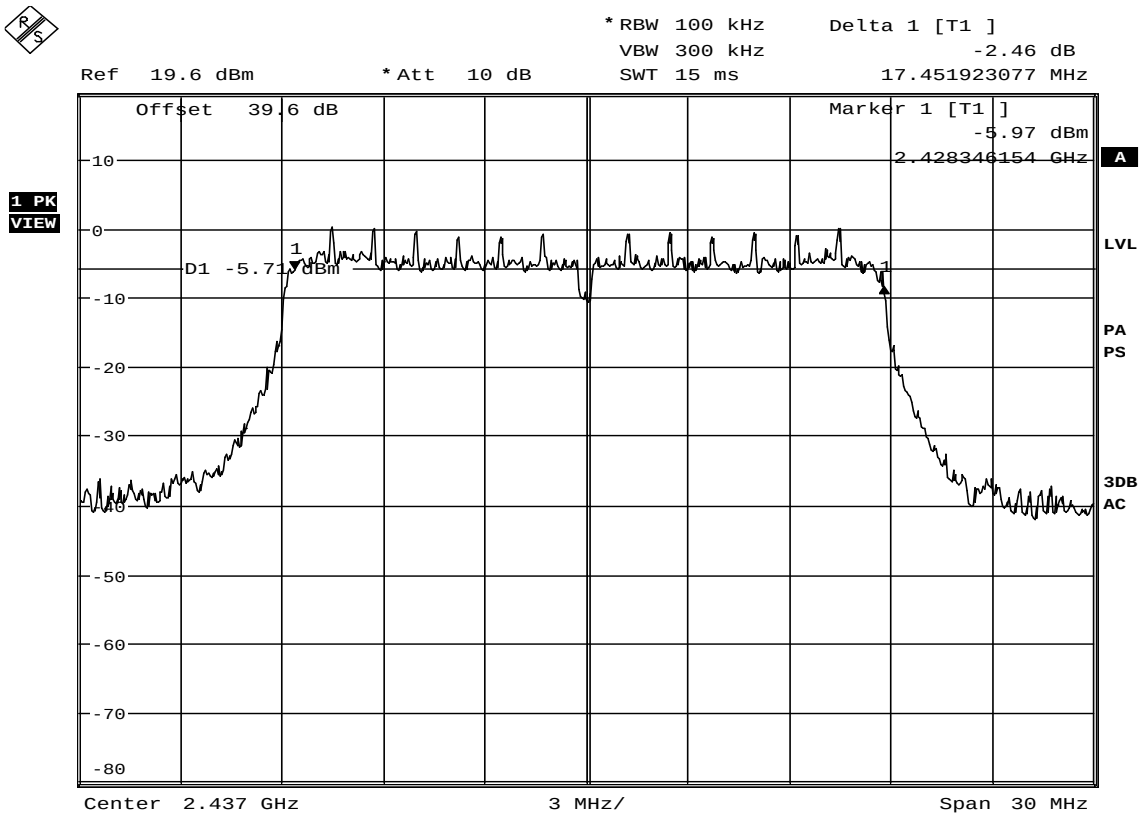
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	65 Mbps
NOTES	:	



Date: 3.MAY.2016 10:21:51

FCC 15C 15.247 DTS Bandwidth

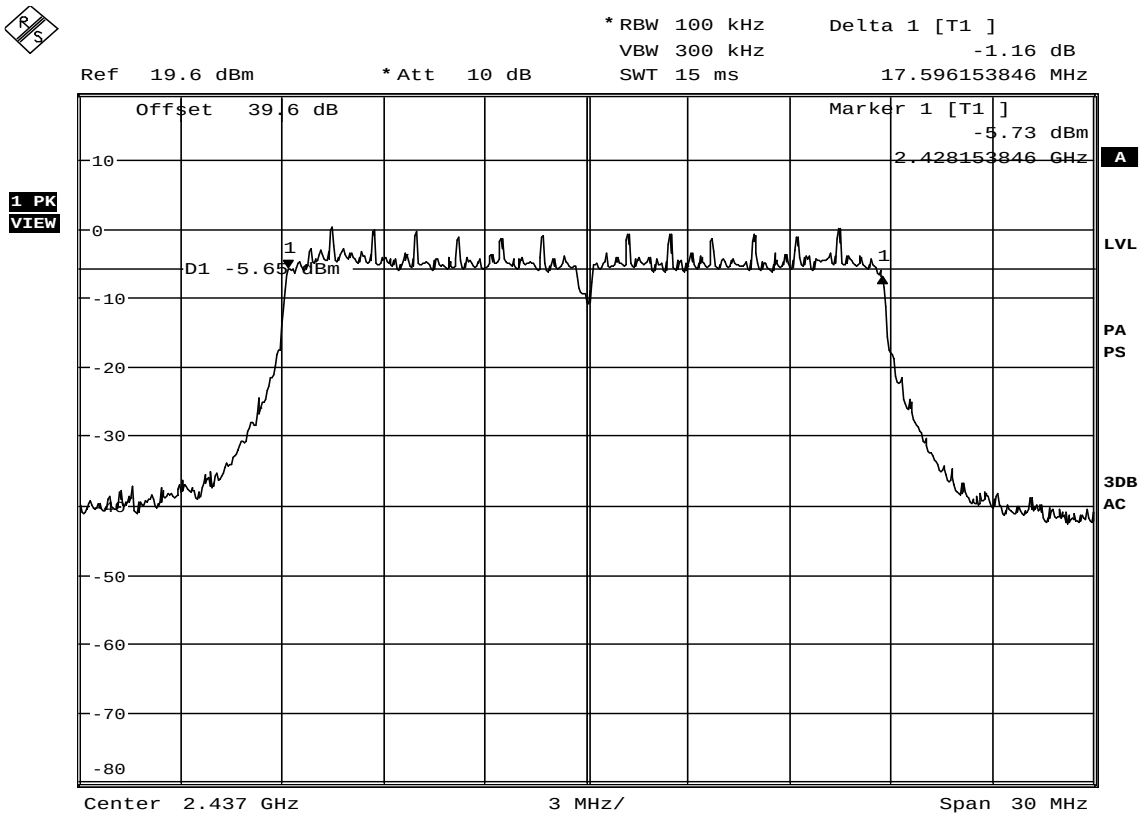
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Lo CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	72.7 Mbps
NOTES	:	



Date: 3.MAY.2016 13:11:48

FCC 15C 15.247 DTS Bandwidth

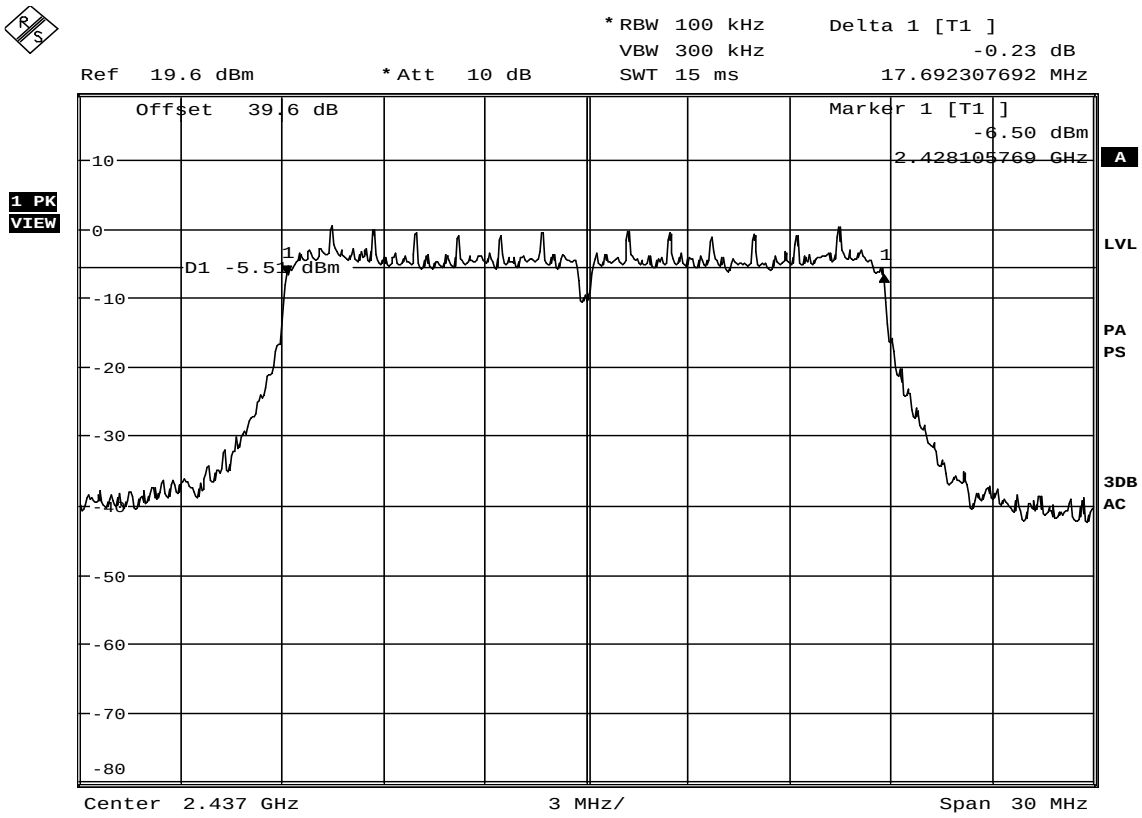
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	7.2 Mbps
NOTES	:	



Date: 3.MAY.2016 13:30:05

FCC 15C 15.247 DTS Bandwidth

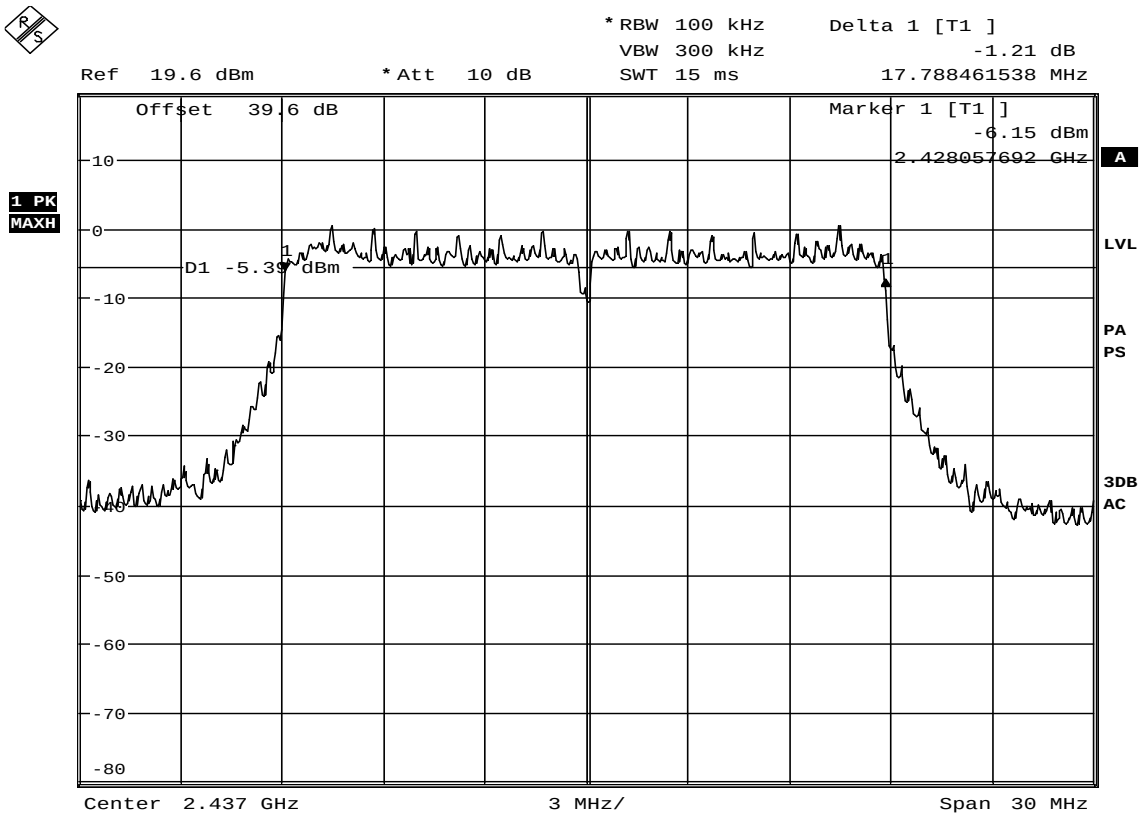
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	14.4 Mbps
NOTES	:	



Date: 3.MAY.2016 13:33:26

FCC 15C 15.247 DTS Bandwidth

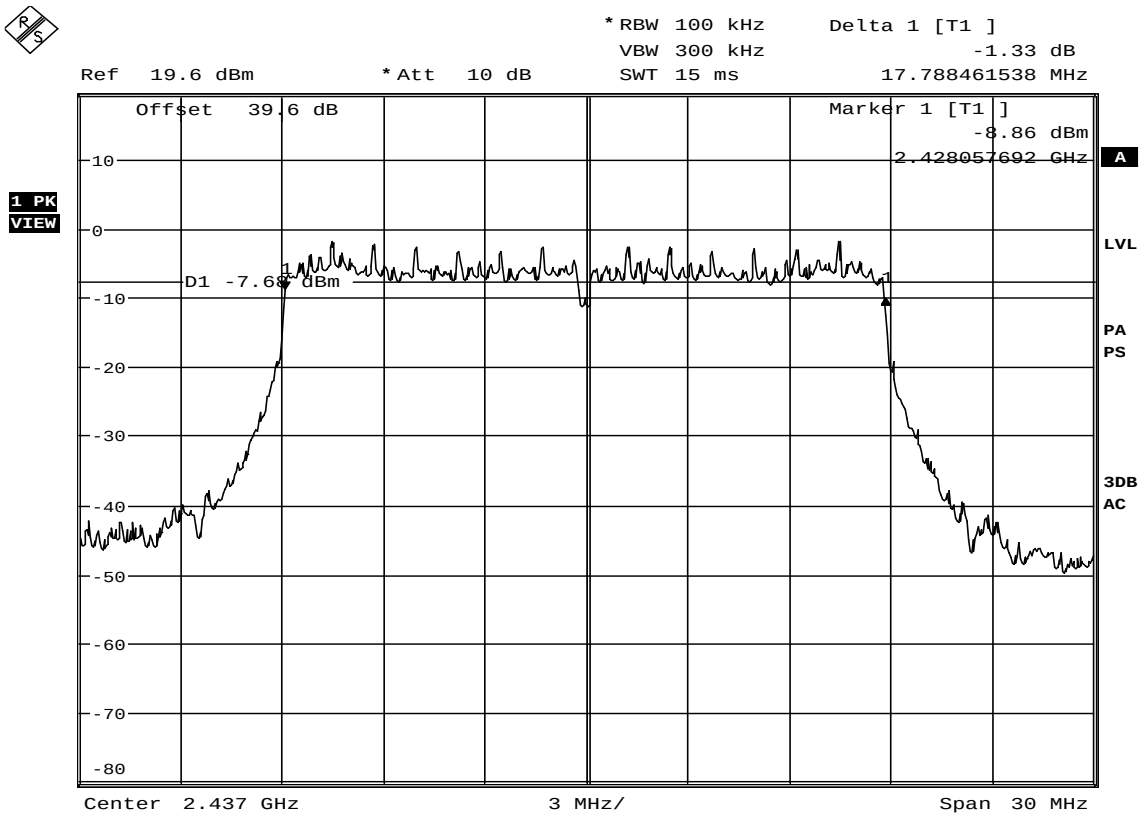
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	21.7 Mbps
NOTES	:	



Date: 3.MAY.2016 13:35:45

FCC 15C 15.247 DTS Bandwidth

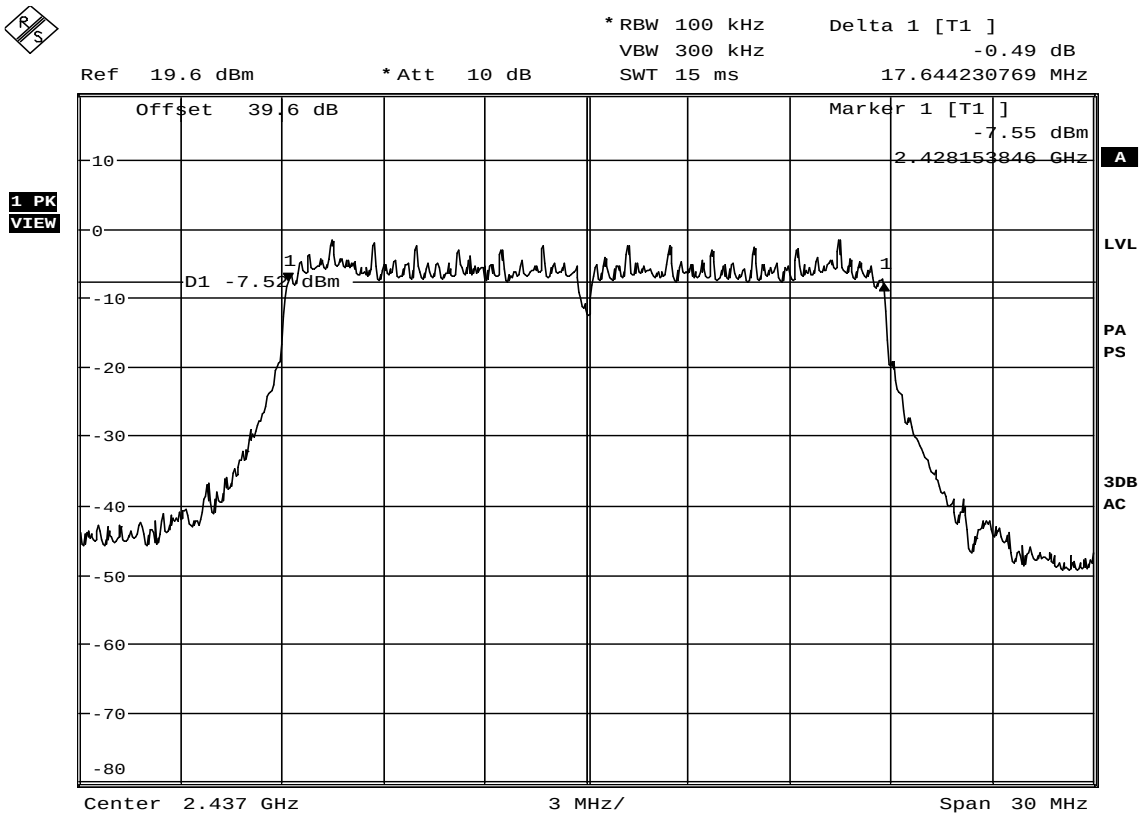
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	28.9 Mbps
NOTES	:	



Date: 3.MAY.2016 13:39:01

FCC 15C 15.247 DTS Bandwidth

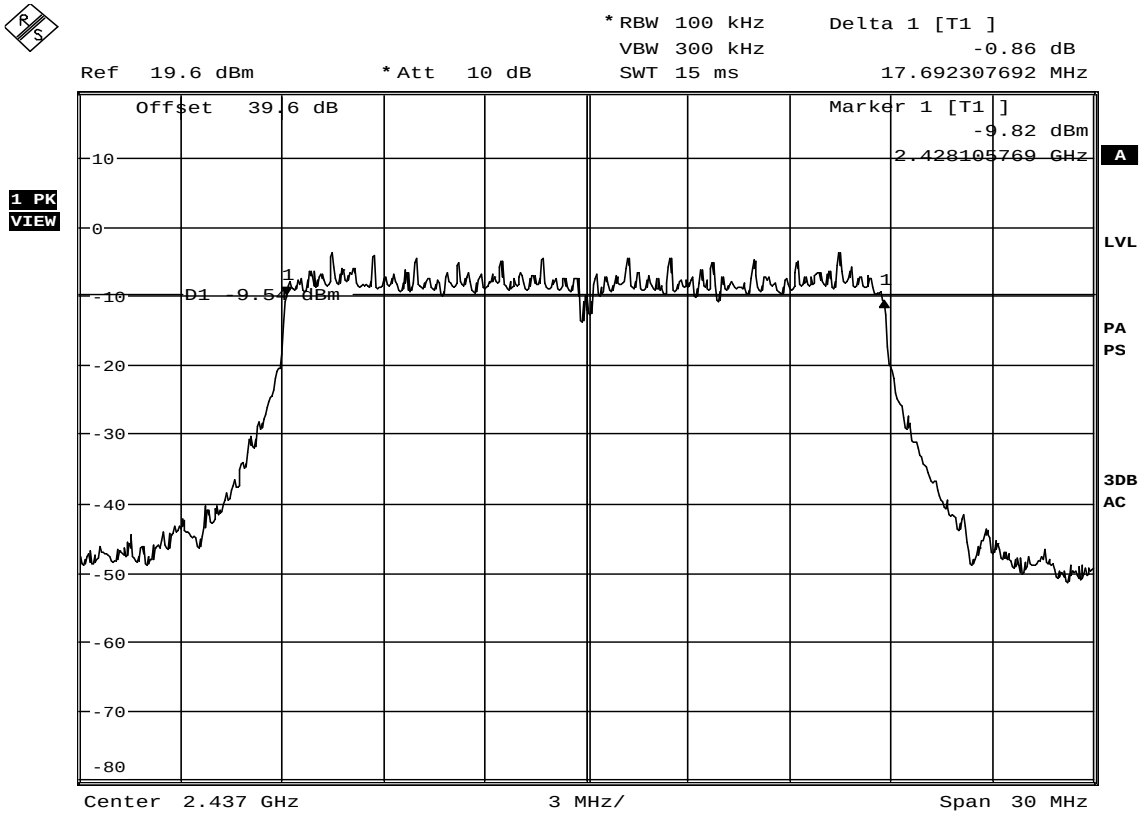
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	43.3 Mbps
NOTES	:	



Date: 3.MAY.2016 13:41:25

FCC 15C 15.247 DTS Bandwidth

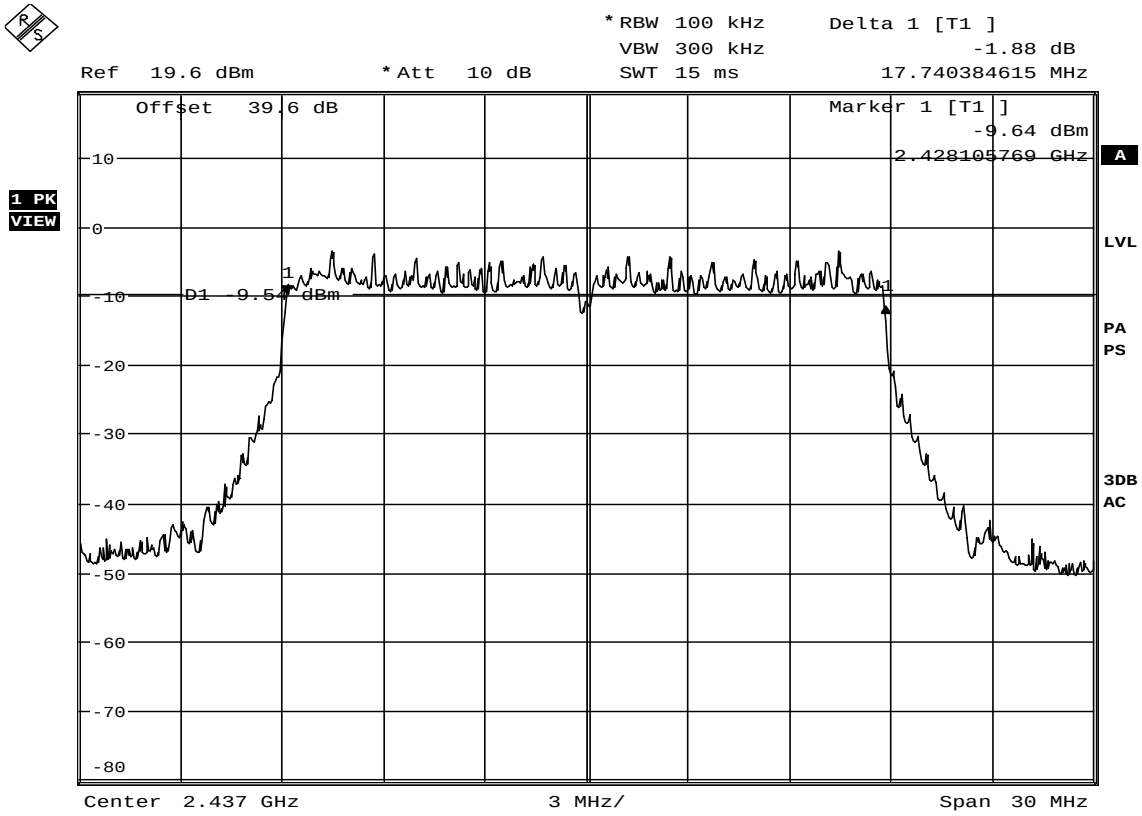
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	57.8 Mbps
NOTES	:	



Date: 3.MAY.2016 13:43:53

FCC 15C 15.247 DTS Bandwidth

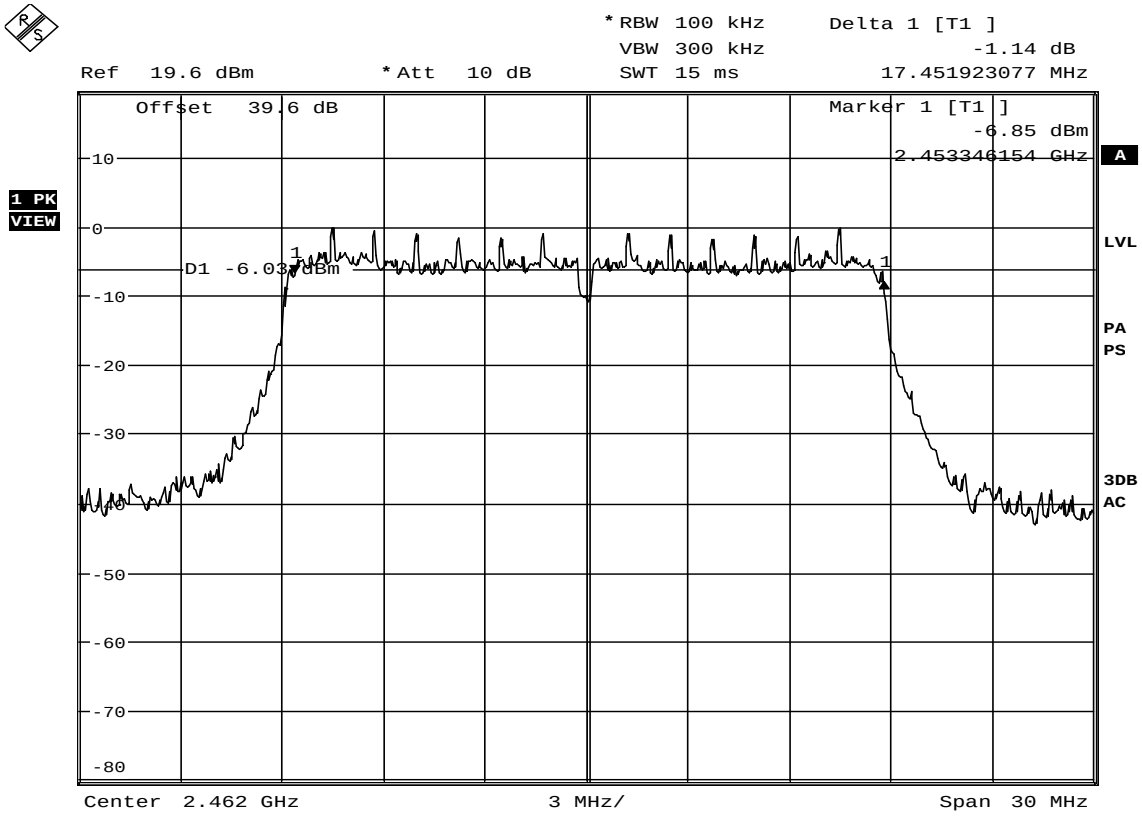
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	65 Mbps
NOTES	:	



Date: 3.MAY.2016 13:48:36

FCC 15C 15.247 DTS Bandwidth

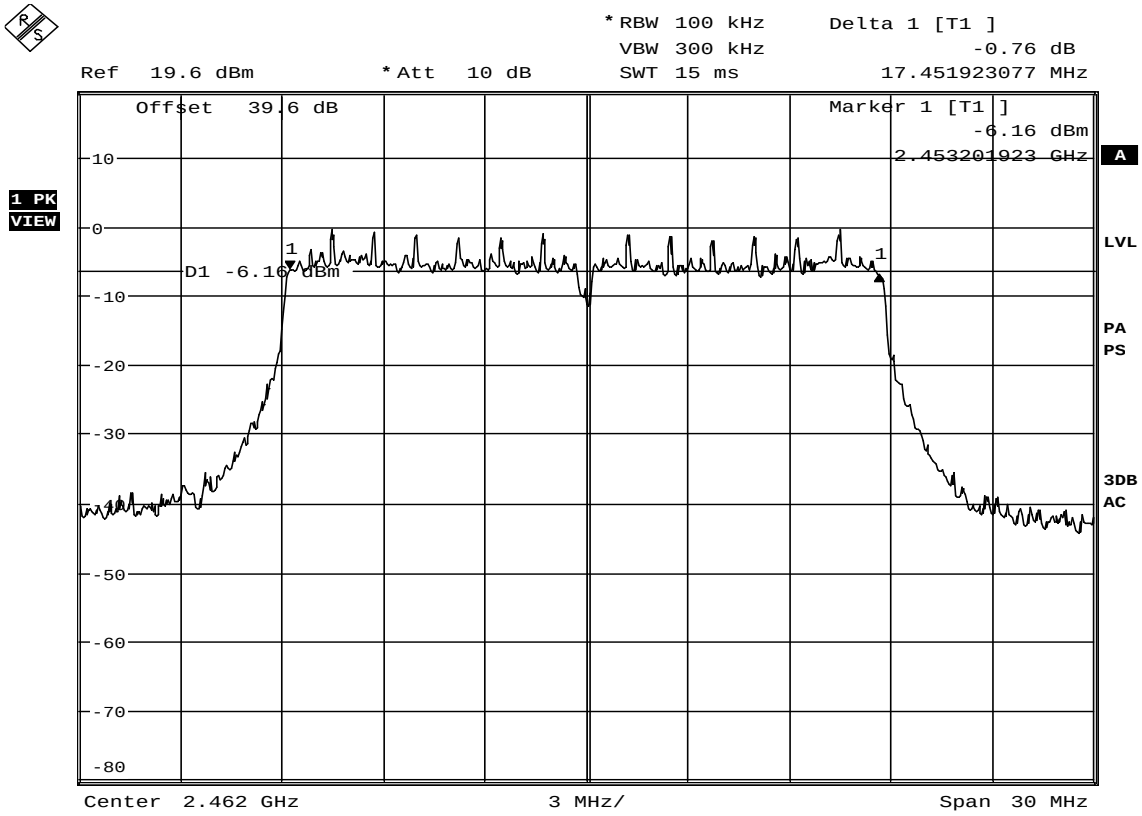
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Mid CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	72.2 Mbps
NOTES	:	



Date: 3.MAY.2016 15:16:50

FCC 15C 15.247 DTS Bandwidth

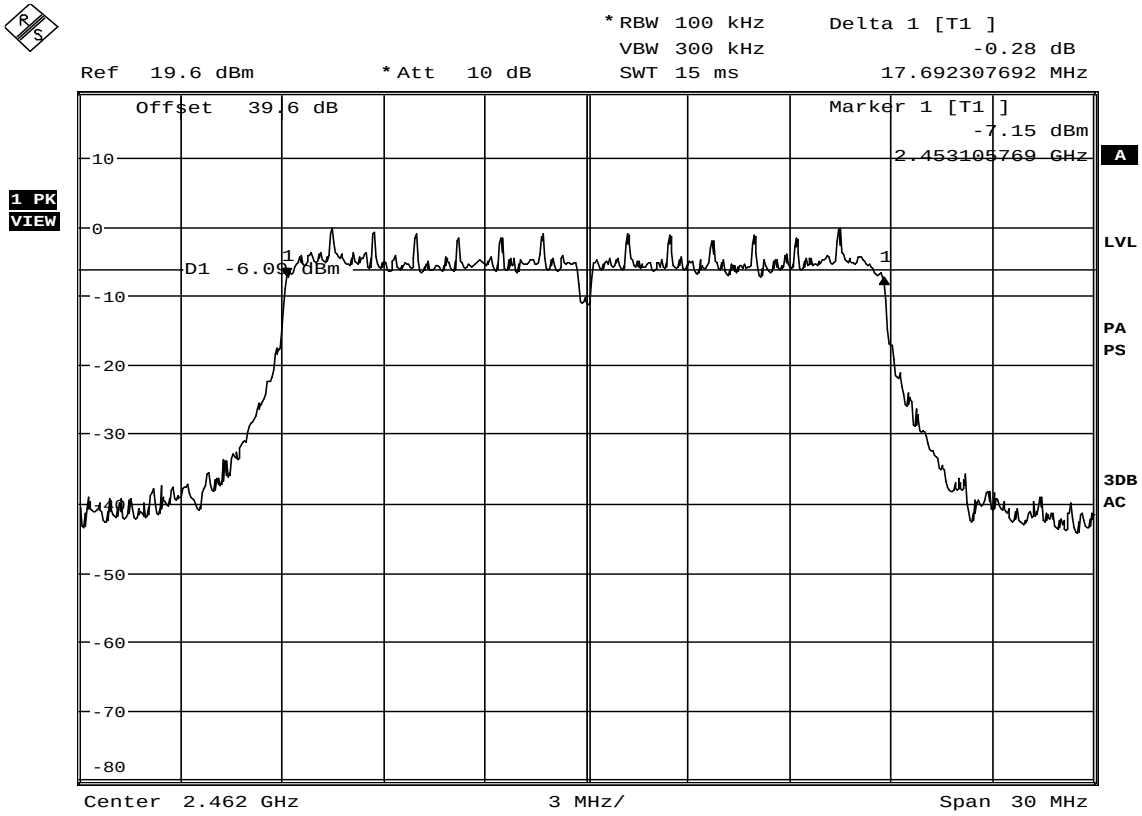
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	7.2 Mbps
NOTES	:	



Date: 3.MAY.2016 15:19:16

FCC 15C 15.247 DTS Bandwidth

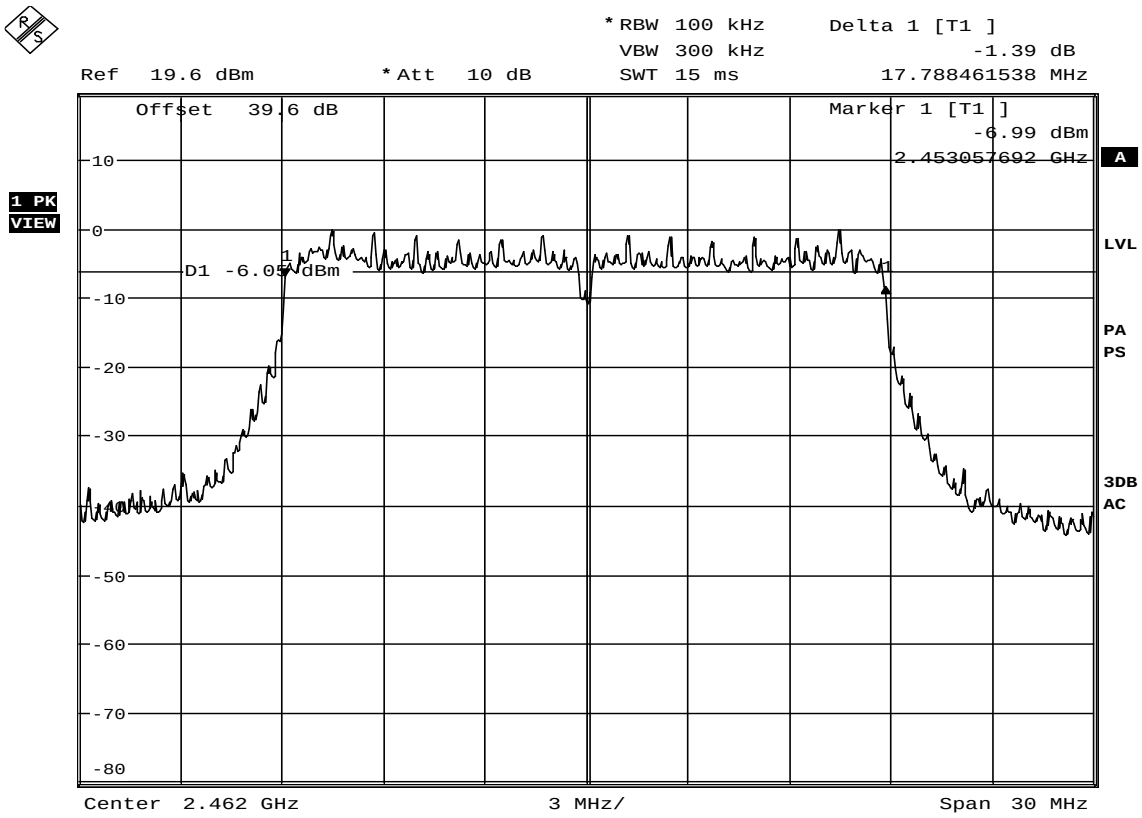
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	14.4 Mbps
NOTES	:	



Date: 3.MAY.2016 15:21:26

FCC 15C 15.247 DTS Bandwidth

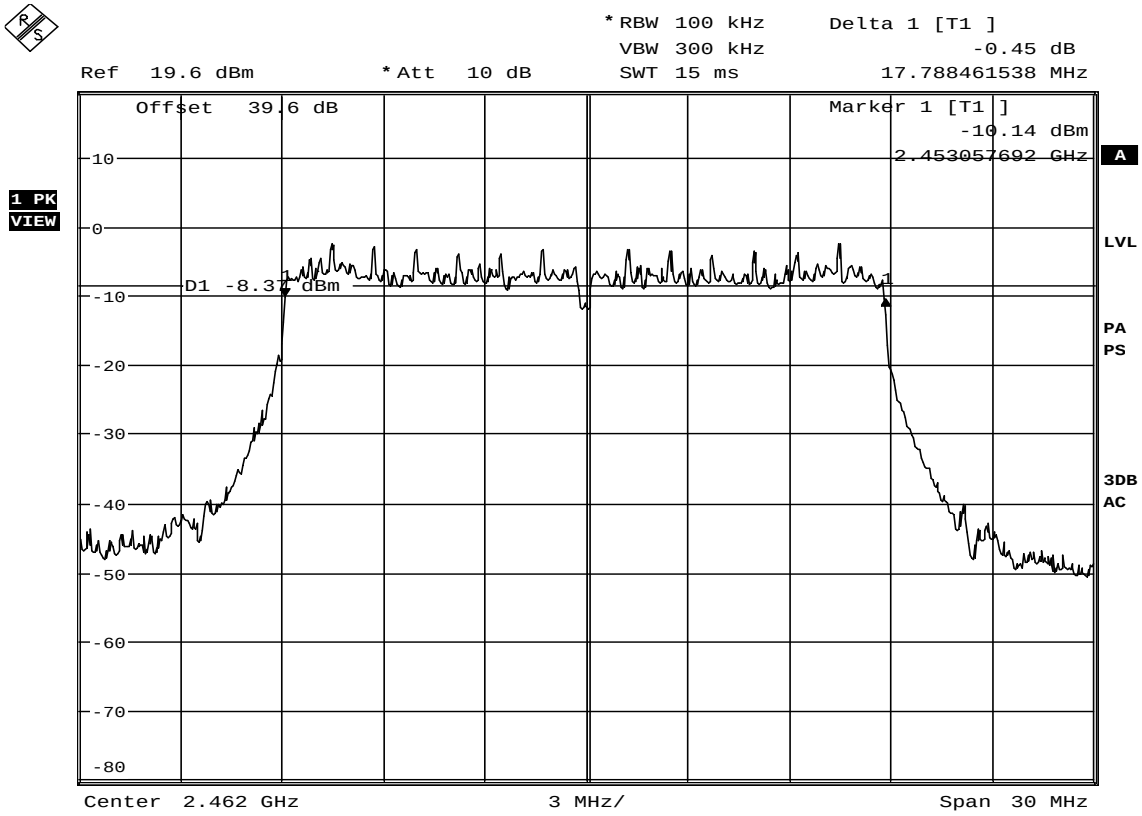
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	21.7 Mbps
NOTES	:	



Date: 3.MAY.2016 15:24:14

FCC 15C 15.247 DTS Bandwidth

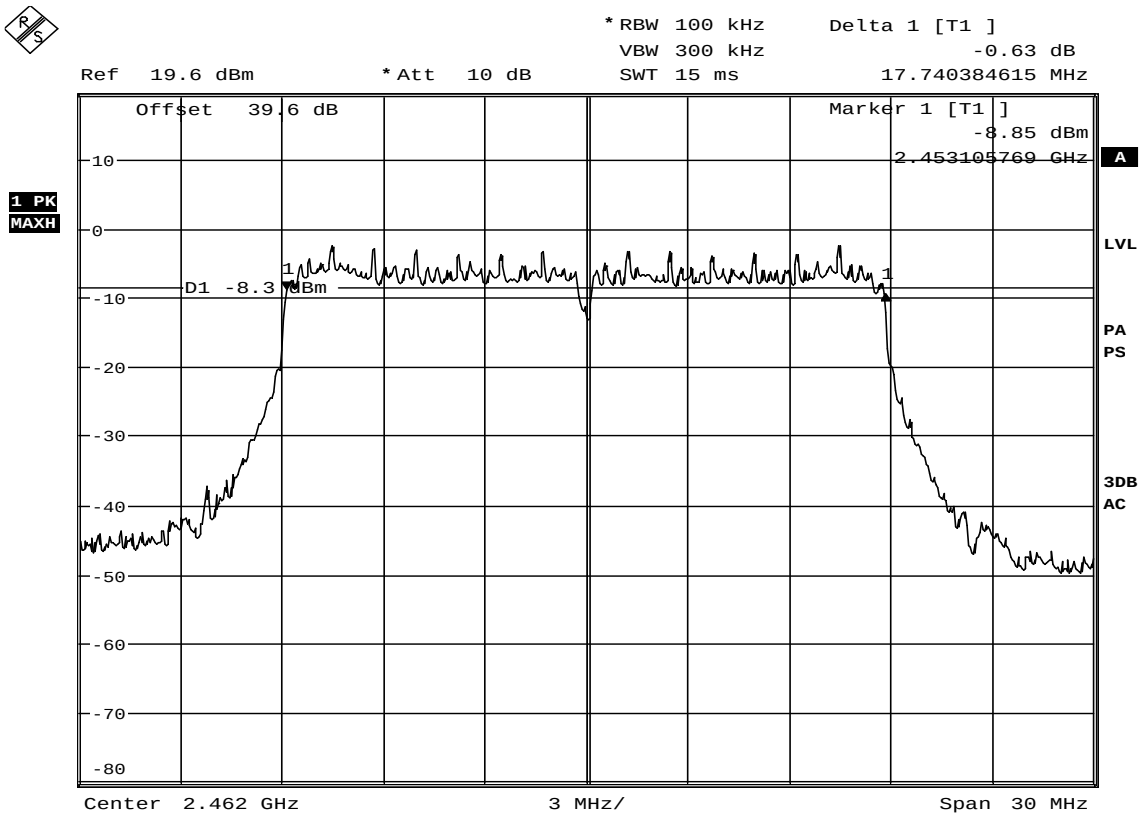
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	28.9 Mbps
NOTES	:	



Date: 3.MAY.2016 15:26:14

FCC 15C 15.247 DTS Bandwidth

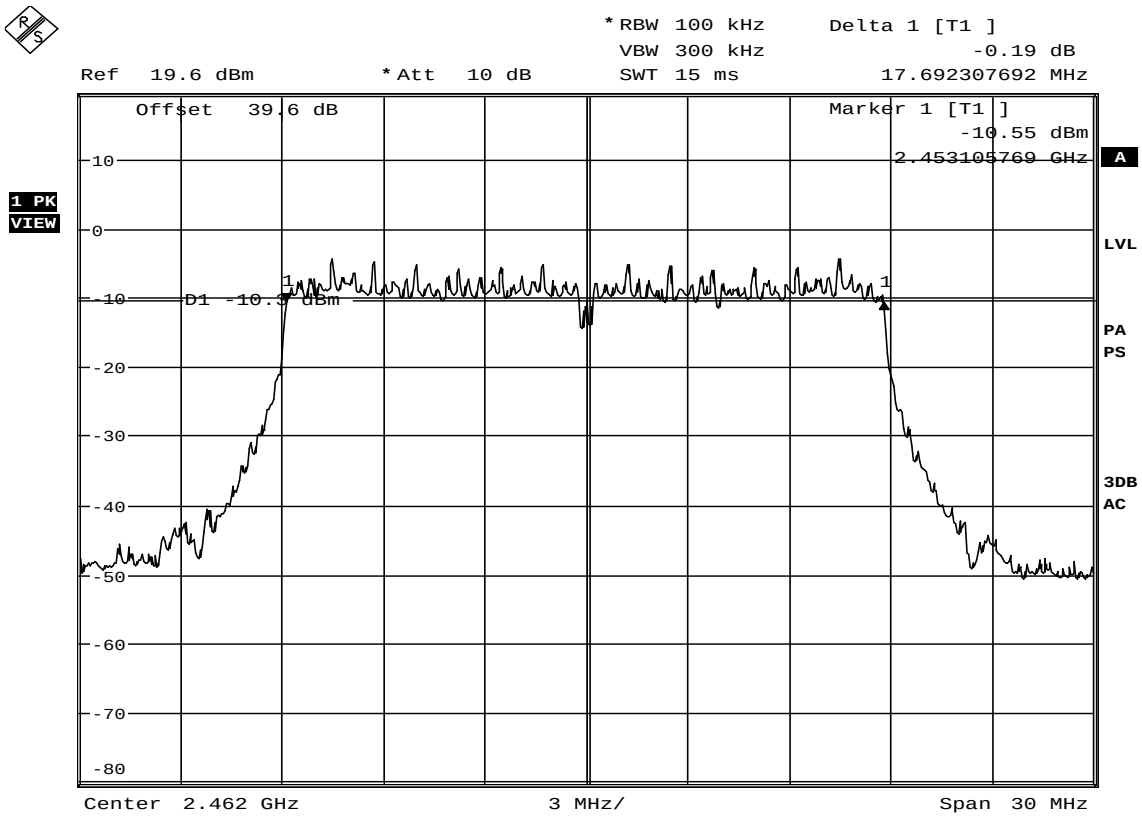
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	43.3 Mbps
NOTES	:	



Date: 3.MAY.2016 15:28:11

FCC 15C 15.247 DTS Bandwidth

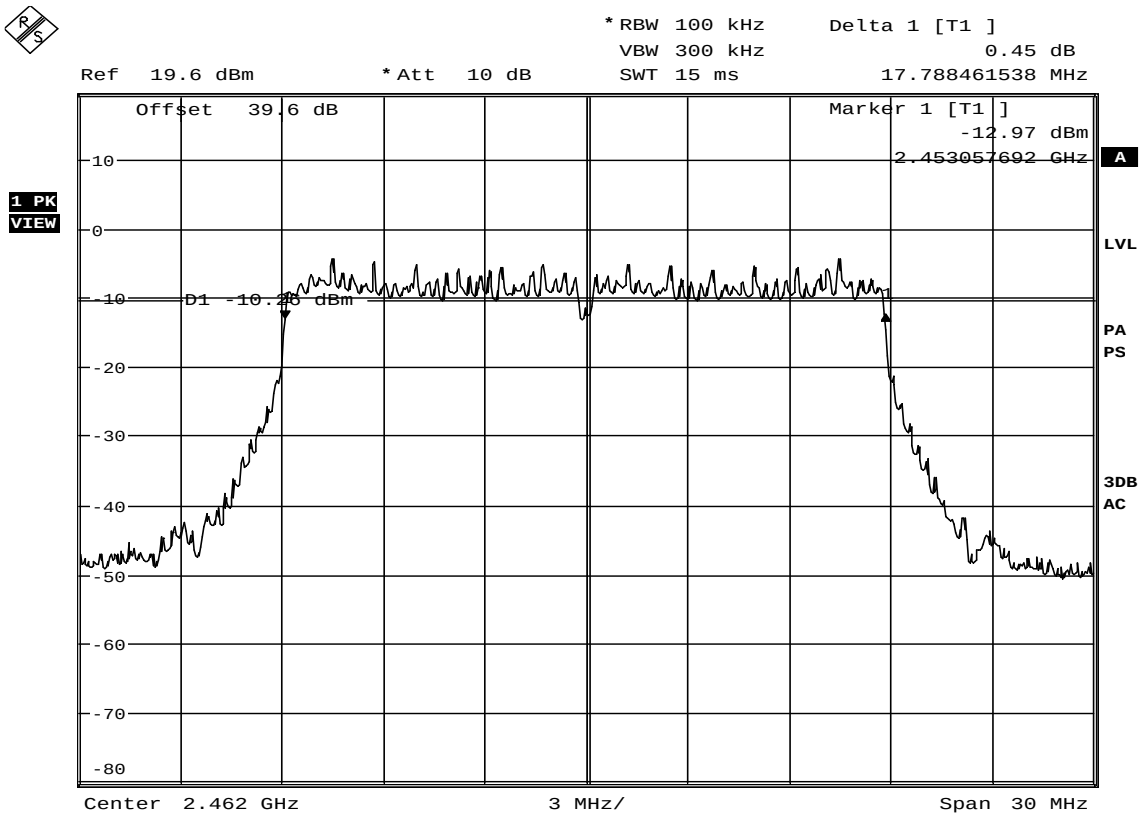
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	57.8 Mbps
NOTES	:	



Date: 3.MAY.2016 15:30:59

FCC 15C 15.247 DTS Bandwidth

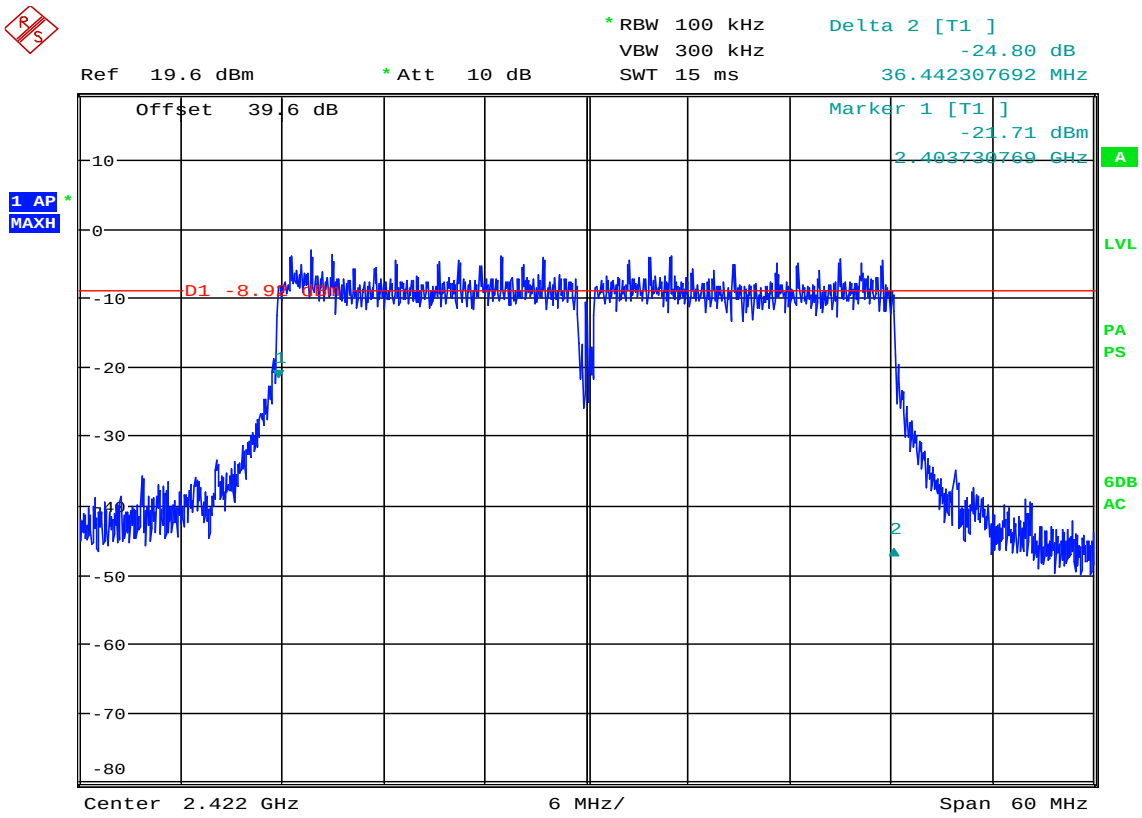
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	65 Mbps
NOTES	:	



Date: 3.MAY.2016 15:33:45

FCC 15C 15.247 DTS Bandwidth

MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ Hi CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	72.7 Mbps
NOTES	:	

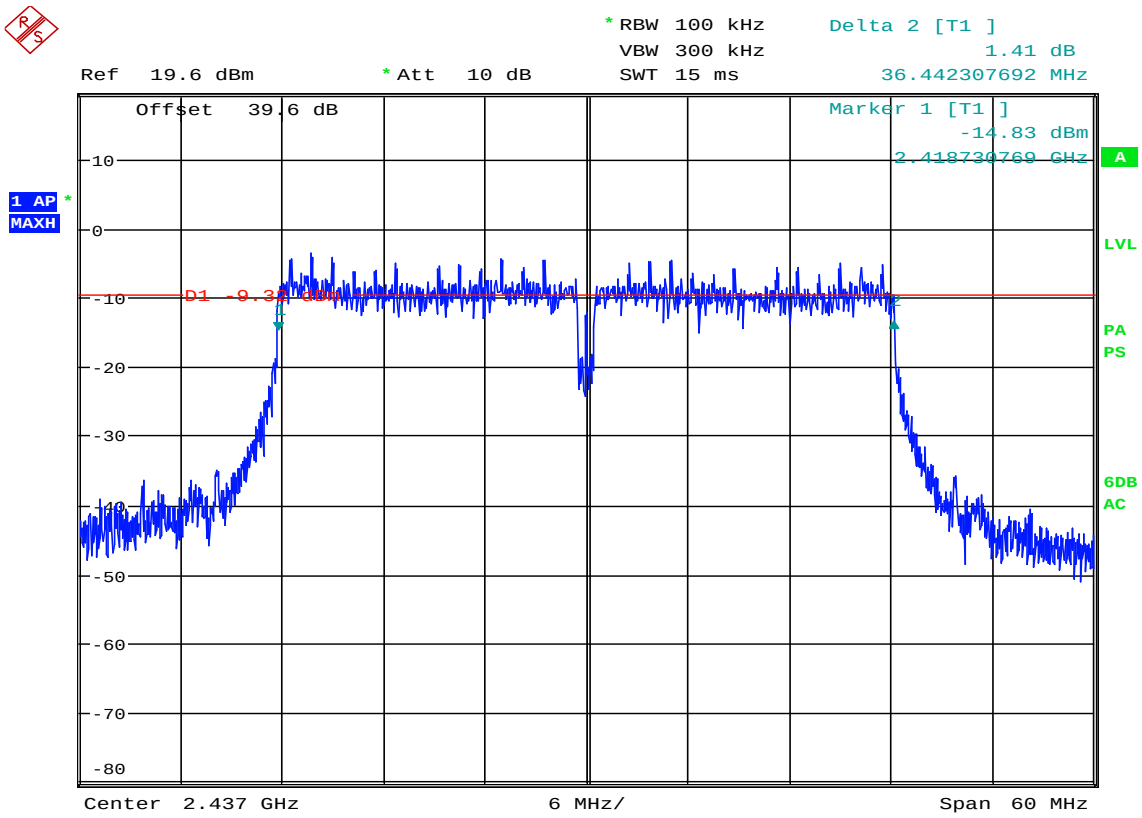


Date: 9.MAY.2016 15:29:40

FCC 15C 15.247 DTS Bandwidth

MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	45Mbps
NOTES	:	ANT_1

NOTES

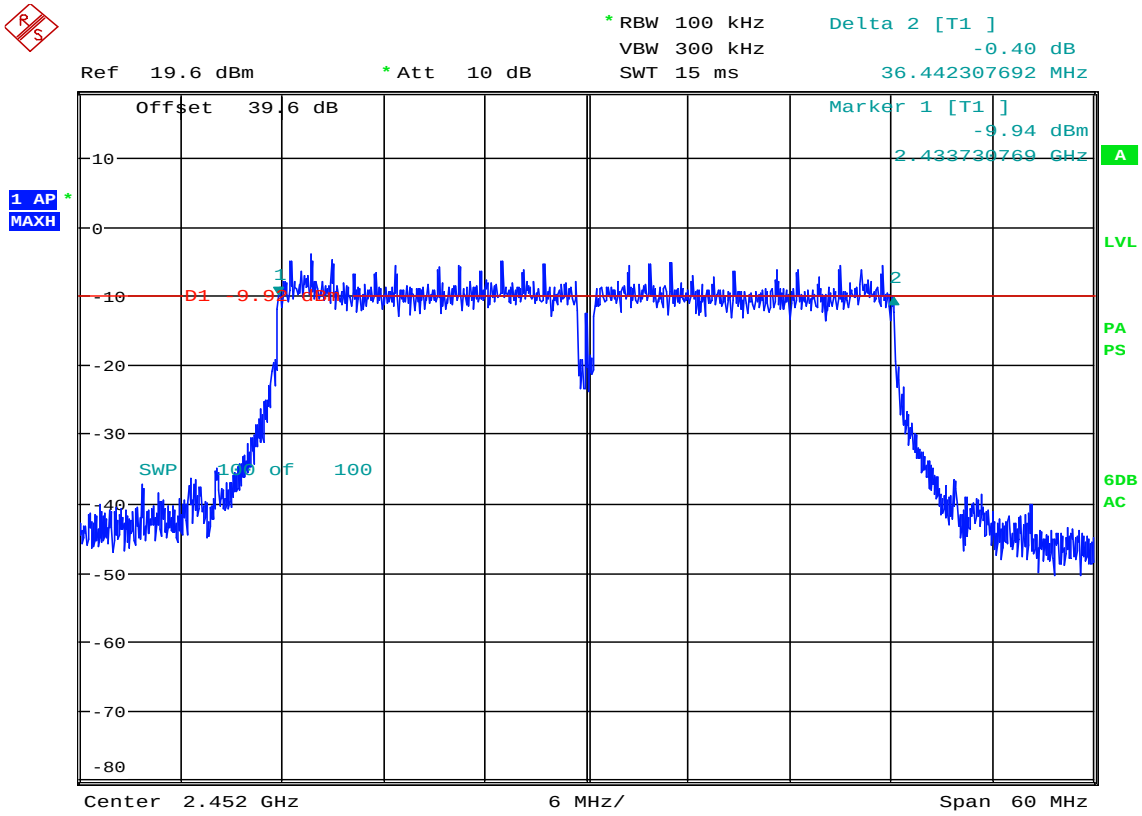


Date: 9.MAY.2016 15:38:39

FCC 15C 15.247 DTS Bandwidth

MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	15Mbps
NOTES	:	ANT_1

NOTES



Date: 9.MAY.2016 15:09:42

FCC 15C 15.247 DTS Bandwidth

MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HIGH CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	60Mbps
NOTES	:	ANT_1

NOTES

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : 99% Bandwidth (Occupied Bandwidth)
TEST DATE : April 12, 2016 and April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11b
POWER SETTING : 15
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Lo/Mid/Hi	Channel	Frequency MHz	802.11 Protocol	Rate Mbps	99% Bandwidth
Lo	1	2412	b	1	12.6MHz
Mid	6	2437	b	1	12.5MHz
Hi	11	2462	b	1	12.5MHz
Lo	1	2412	b	2	12.55MHz
Mid	6	2437	b	2	12.5MHz
Hi	11	2462	b	2	12.5MHz
Lo	1	2412	b	5.5	12.26MHz
Mid	6	2437	b	5.5	12.2MHz
Hi	11	2462	b	5.5	12.2MHz
Lo	1	2412	b	11	12.21MHz
Mid	6	2437	b	11	12.4MHz
Hi	11	2462	b	11	12.4MHz

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : 99% Bandwidth (Occupied Bandwidth)
TEST DATE : April 12, 2016 and April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11g
POWER SETTING : 6
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Lo/Mid/Hi	Channel	Frequency MHz	802.11 Protocol	Rate Mbps	99% Bandwidth
Lo	1	2412	g	6	17.1MHz
Mid	6	2437	g	6	17.1MHz
Hi	11	2462	g	6	17.1MHz
Lo	1	2412	g	9	17.1MHz
Mid	6	2437	g	9	17.1MHz
Hi	11	2462	g	9	17.0MHz
Lo	1	2412	g	12	16.8MHz
Mid	6	2437	g	12	16.8MHz
Hi	11	2462	g	12	16.8MHz
Lo	1	2412	g	18	16.9MHz
Mid	6	2437	g	18	16.9MHz
Hi	11	2462	g	18	16.9MHz
Lo	1	2412	g	24	16.8MHz
Mid	6	2437	g	24	16.8MHz
Hi	11	2462	g	24	16.8MHz
Lo	1	2412	g	36	16.8MHz
Mid	6	2437	g	36	16.8MHz
Hi	11	2462	g	36	16.8MHz
Lo	1	2412	g	48	16.9MHz
Mid	6	2437	g	48	16.9MHz
Hi	11	2462	g	48	16.9MHz
Lo	1	2412	g	54	16.9MHz
Mid	6	2437	g	54	16.9MHz
Hi	11	2462	g	54	16.8MHz

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : 99% Bandwidth (Occupied Bandwidth)
TEST DATE : April 12, 2016 and April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Lo/Mid/Hi	Channel	Frequency MHz	802.11 Protocol	Rate Mbps	99% Bandwidth
Lo	1	2412	n	7.2	17.7MHz
Mid	6	2437	n	7.2	17.8MHz
Hi	11	2462	n	7.2	17.8MHz
Lo	1	2412	n	14.4	17.8MHz
Mid	6	2437	n	14.4	17.7MHz
Hi	11	2462	n	14.4	17.7MHz
Lo	1	2412	n	21.7	17.8MHz
Mid	6	2437	n	21.7	17.8MHz
Hi	11	2462	n	21.7	17.8MHz
Lo	1	2412	n	28.9	17.8MHz
Mid	6	2437	n	28.9	17.8MHz
Hi	11	2462	n	28.9	17.8MHz
Lo	1	2412	n	43.3	17.7MHz
Mid	6	2437	n	43.3	17.7MHz
Hi	11	2462	n	43.3	17.7MHz
Lo	1	2412	n	57.8	17.7MHz
Mid	6	2437	n	57.8	17.7MHz
Hi	11	2462	n	57.8	17.7MHz
Lo	1	2412	n	65	17.8MHz
Mid	6	2437	n	65	17.8MHz
Hi	11	2462	n	65	17.7MHz
Lo	1	2412	n	72.7	17.7MHz
Mid	6	2437	n	72.7	17.7MHz
Hi	11	2462	n	72.7	17.7MHz

Checked By: MARK E. LONGINOTTI

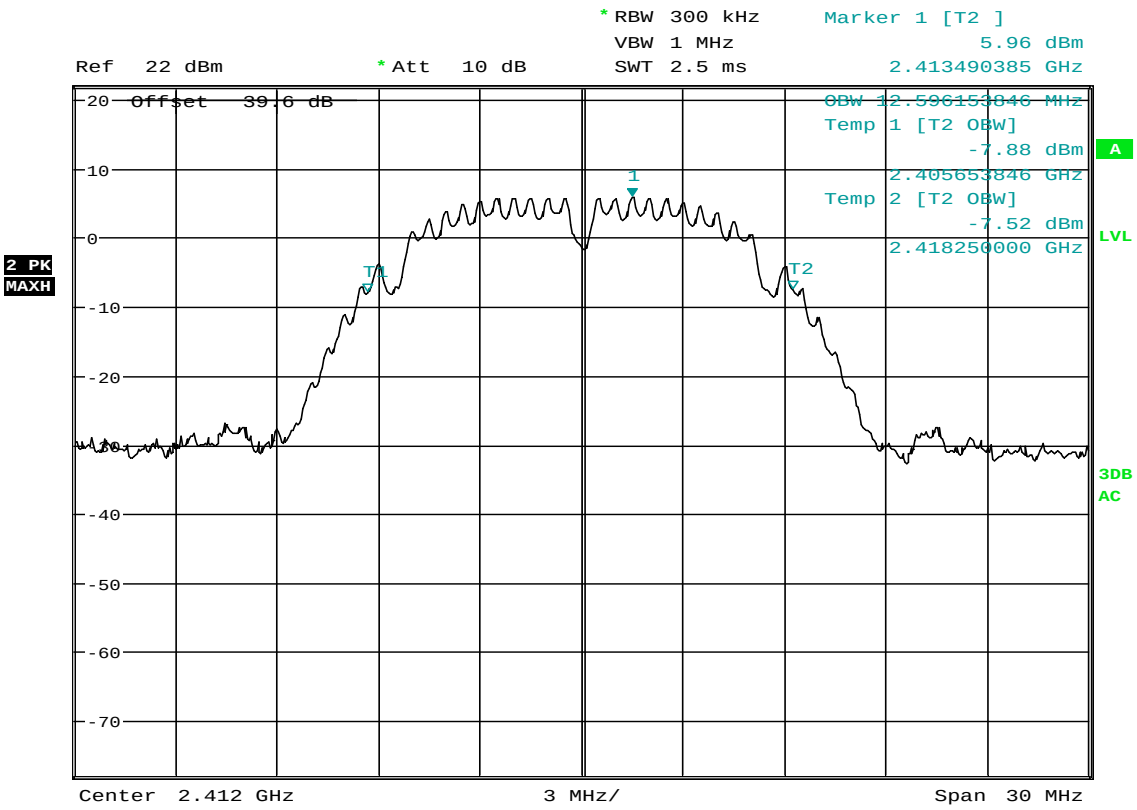
Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : 99% Bandwidth (Occupied Bandwidth)
TEST DATE : April 12, 2016 and April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 40MHz bandwidth
: Antenna Port 1

Lo/Mid/Hi	Channel	Frequency MHz	802.11 Protocol	Rate Mbps	99% Bandwidth
Lo	3	2422	n	15	37.0MHz
Mid	6	2437	n	15	37.1MHz
Hi	9	2452	n	15	37.1MHz
Lo	3	2422	n	30	37.4MHz
Mid	6	2437	n	30	37.4MHz
Hi	9	2452	n	30	37.2MHz
Lo	3	2422	n	45	37.3MHz
Mid	6	2437	n	45	37.3MHz
Hi	9	2452	n	45	37.2MHz
Lo	3	2422	n	60	37.4MHz
Mid	6	2437	n	60	37.2MHz
Hi	9	2452	n	60	37.1MHz
Lo	3	2422	n	90	37.1MHz
Mid	6	2437	n	90	37.1MHz
Hi	9	2452	n	90	37.1MHz
Lo	3	2422	n	120	37.1MHz
Mid	6	2437	n	120	37.1MHz
Hi	9	2452	n	120	37.2MHz
Lo	3	2422	n	135	37.2MHz
Mid	6	2437	n	135	37.2MHz
Hi	9	2452	n	135	37.1MHz
Lo	3	2422	n	150	37.1MHz
Mid	6	2437	n	150	37.1MHz
Hi	9	2452	n	150	37.2MHz

Checked By: MARK E. LONGINOTTI

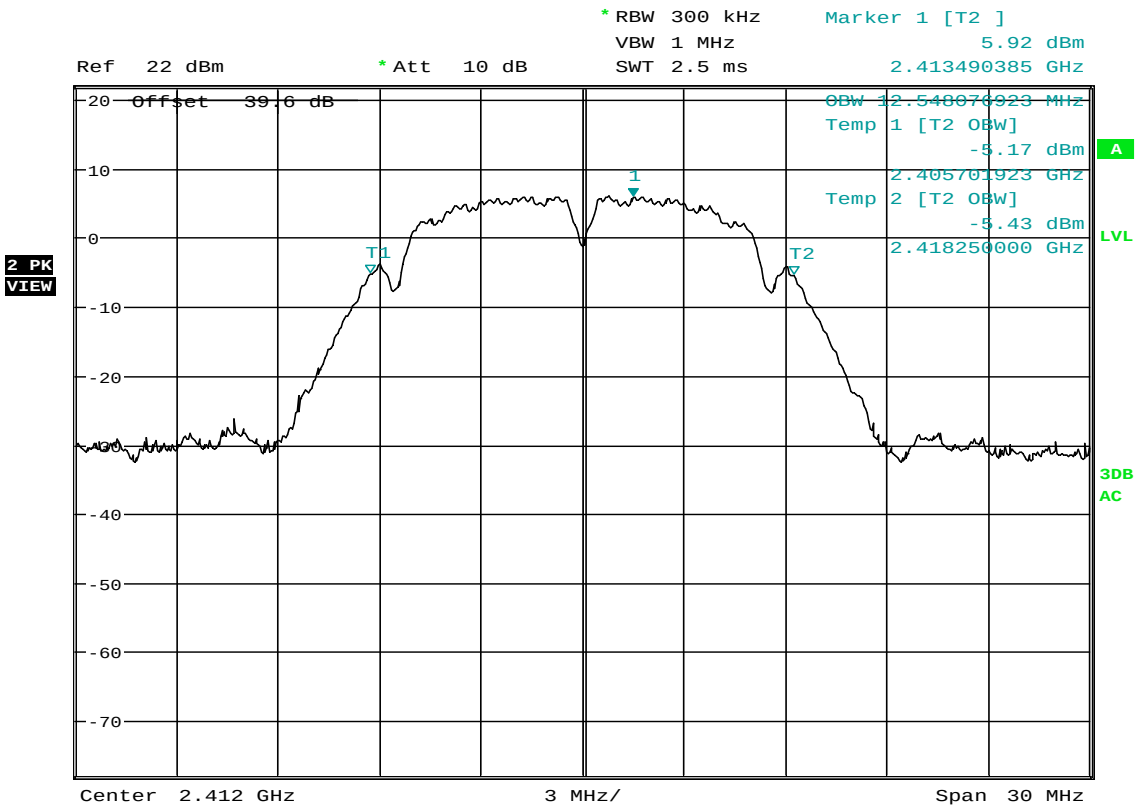
Mark E. Longinotti



Date: 7.JUL.2003 02:25:49

FCC 15C 15.247 / OBW

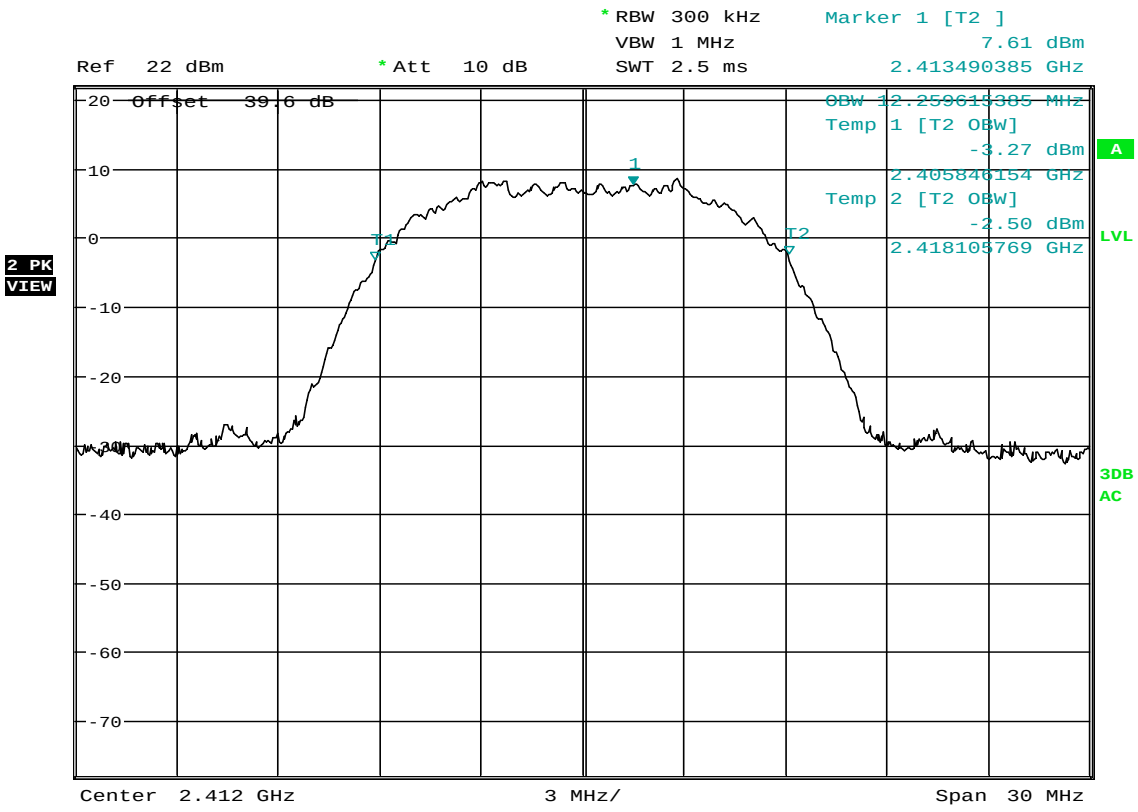
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	1Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 02:33:40

FCC 15C 15.247 / OBW

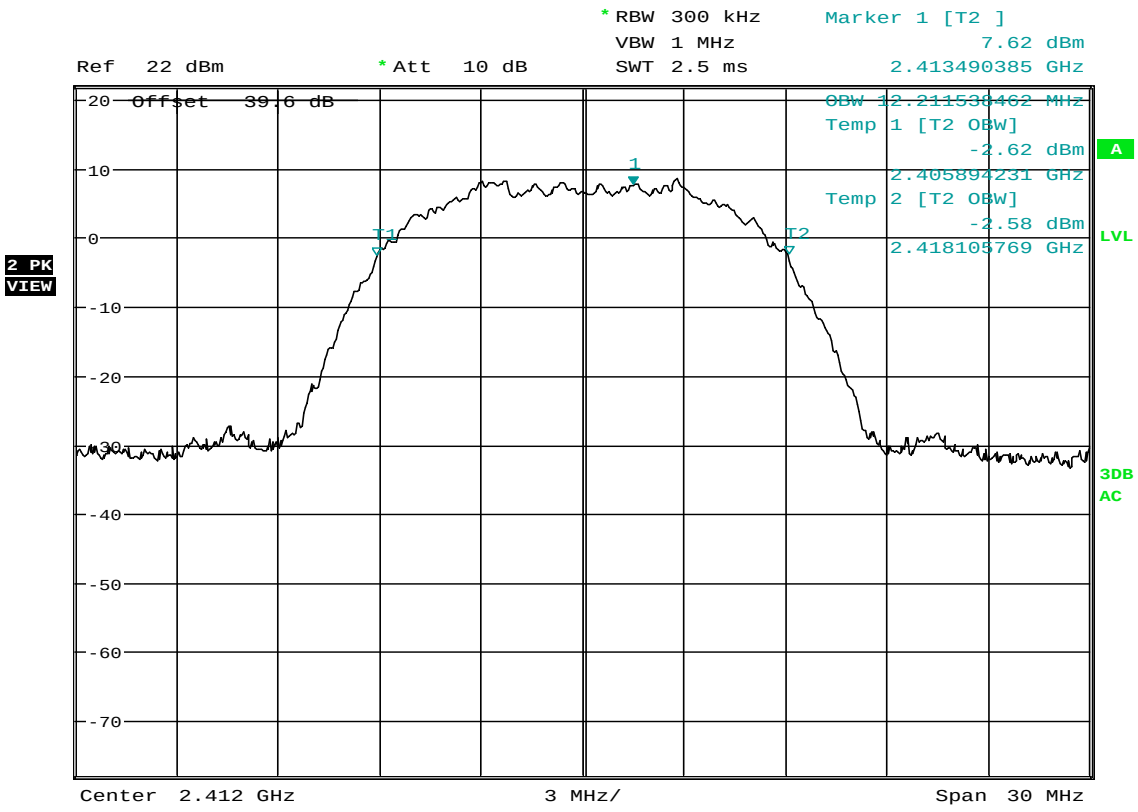
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	2Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 02:37:03

FCC 15C 15.247 / OBW

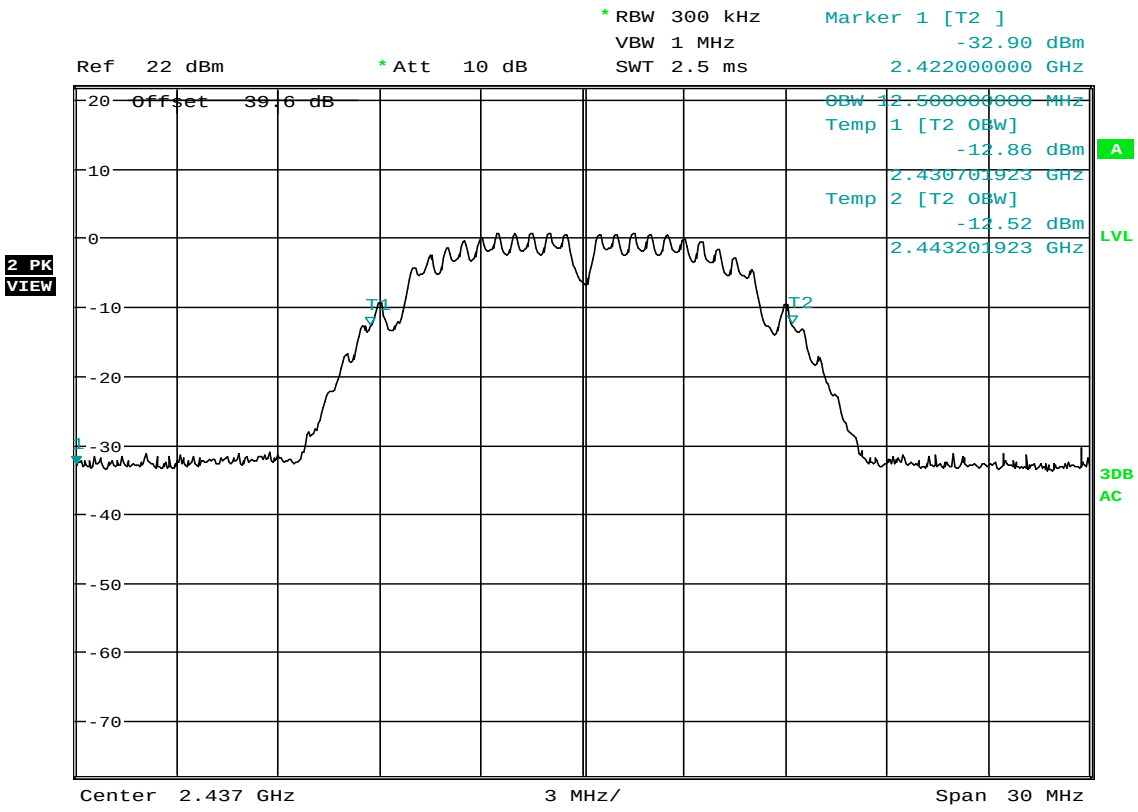
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	5.5Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 02:39:35

FCC 15C 15.247 / OBW

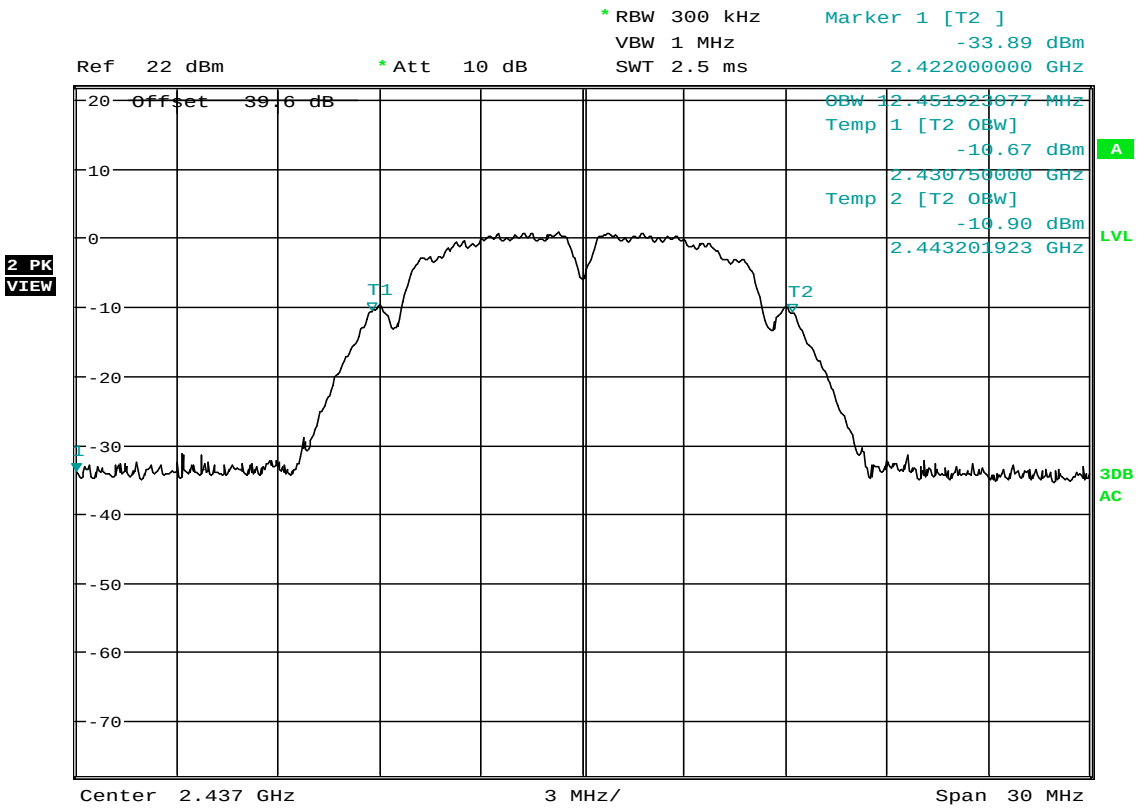
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	11Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:37:22

FCC 15C 15.247 / OBW

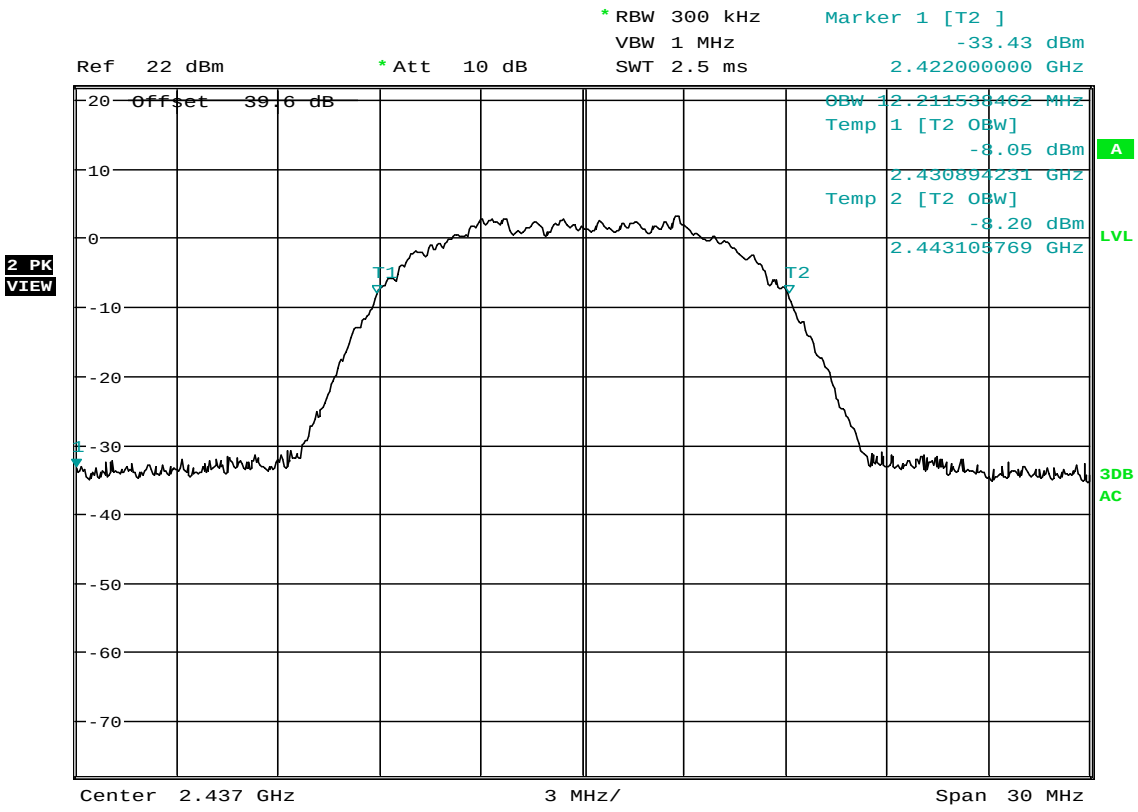
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	1 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:39:18

FCC 15C 15.247 / OBW

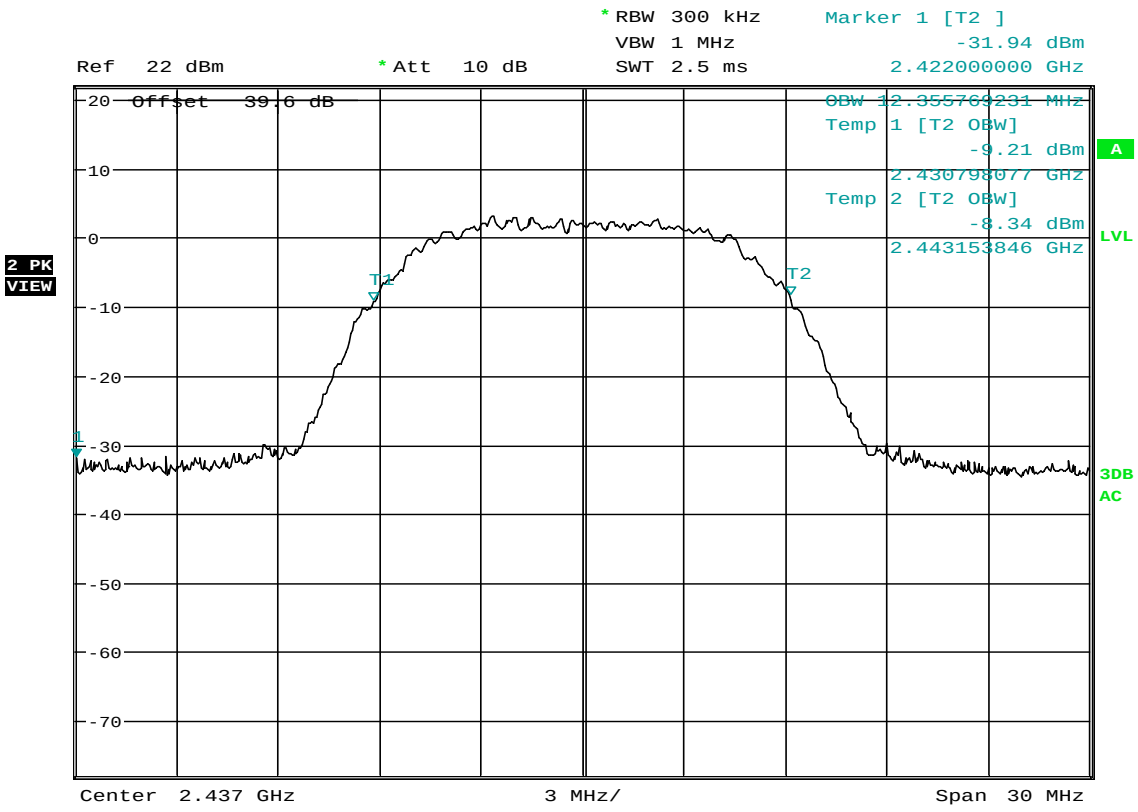
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	2 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:40:36

FCC 15C 15.247 / OBW

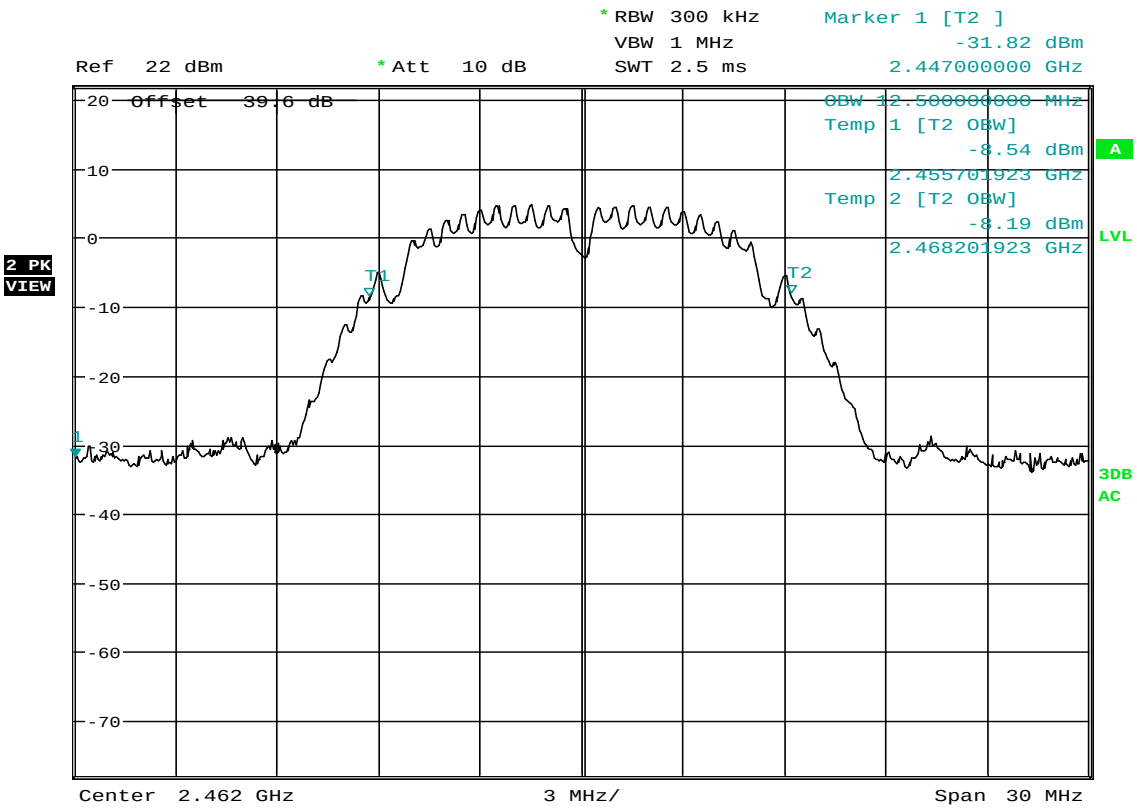
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	5.5 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:42:22

FCC 15C 15.247 / OBW

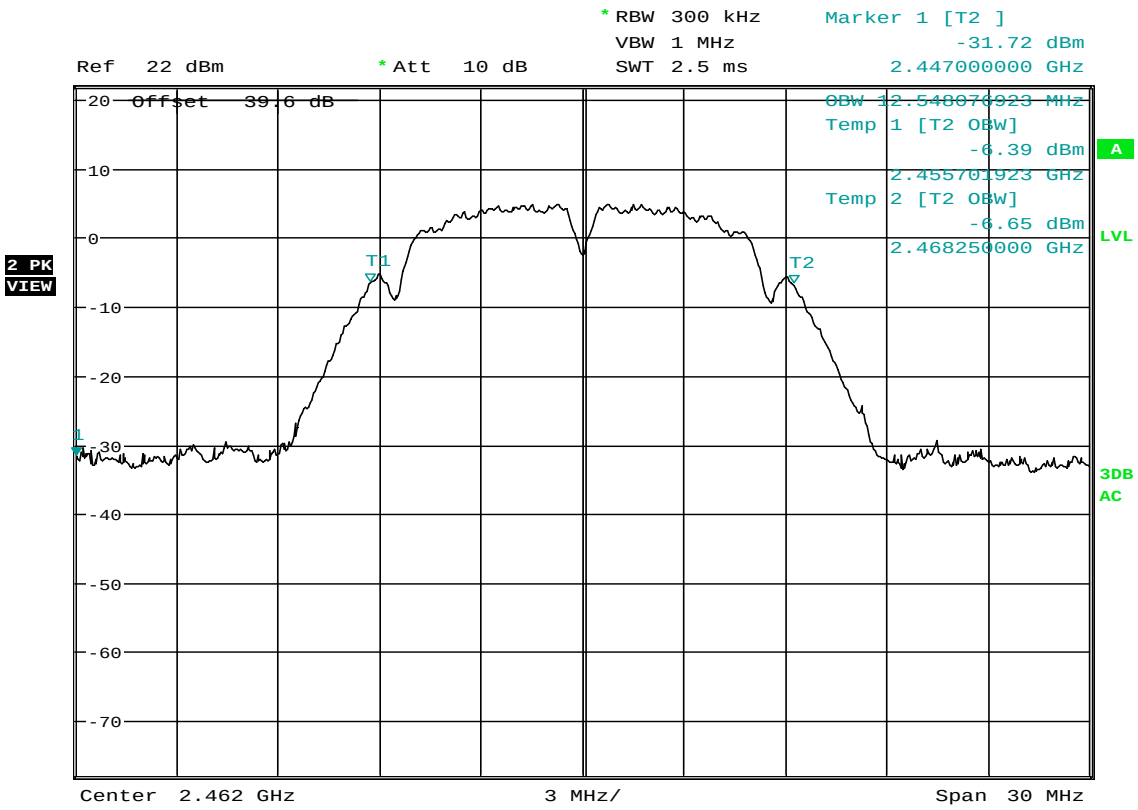
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	11 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:27:19

FCC 15C 15.247 / OBW

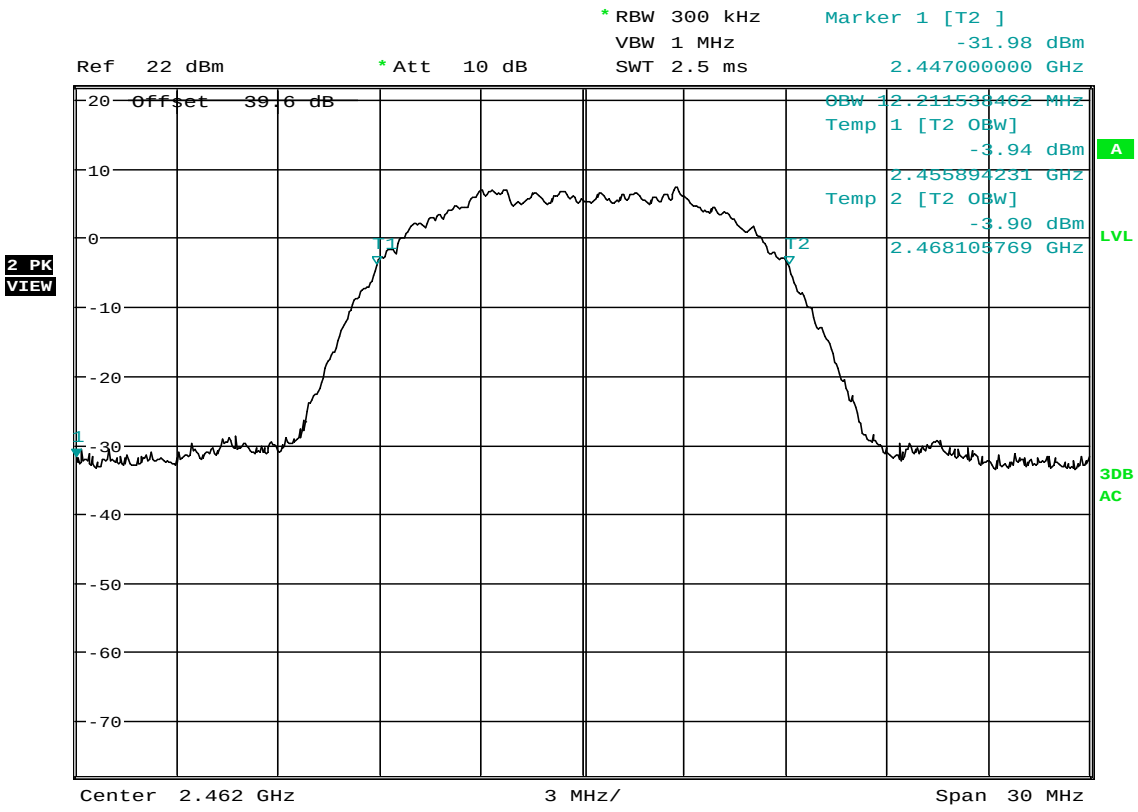
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	1 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:28:53

FCC 15C 15.247 / OBW

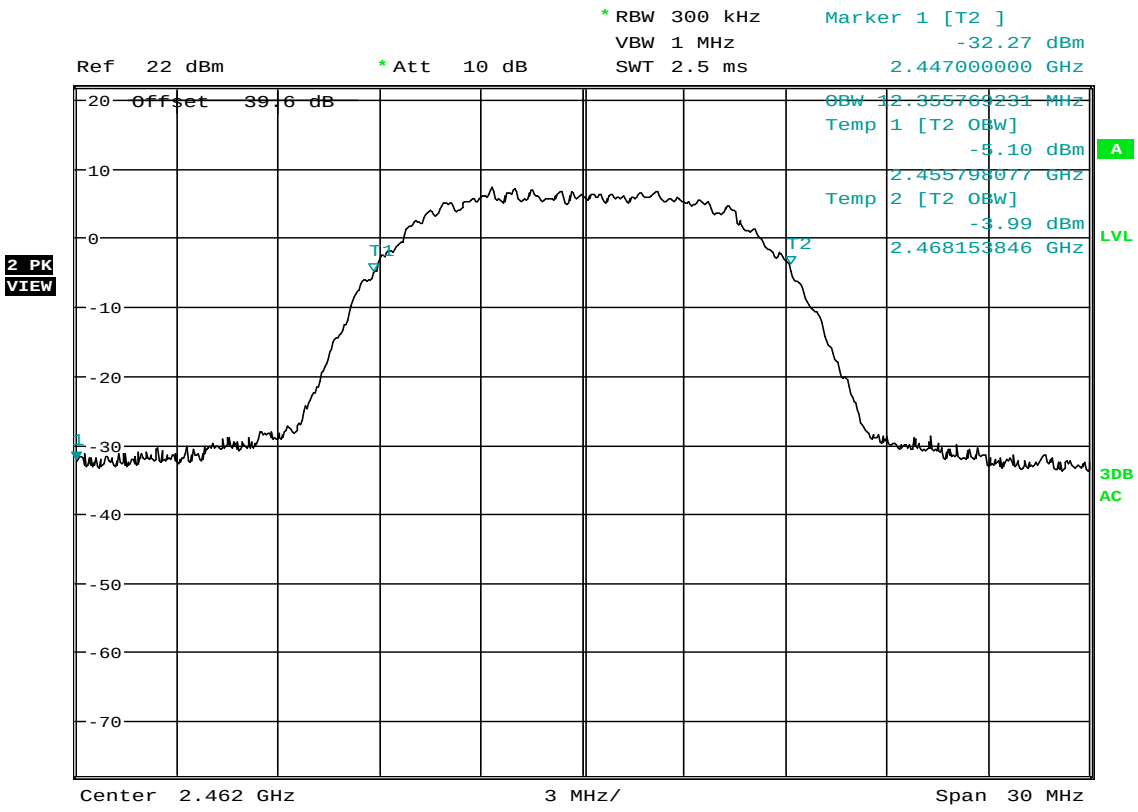
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	2 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:31:17

FCC 15C 15.247 / OBW

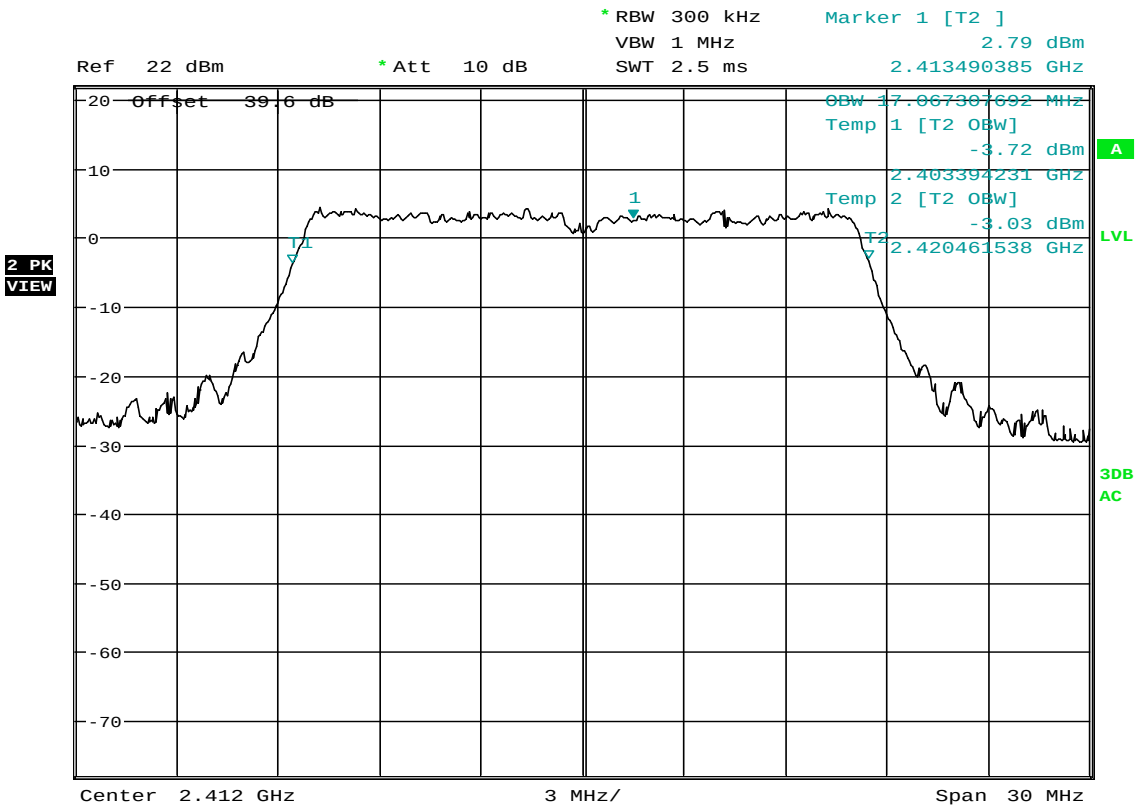
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	5.5 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:32:35

FCC 15C 15.247 / OBW

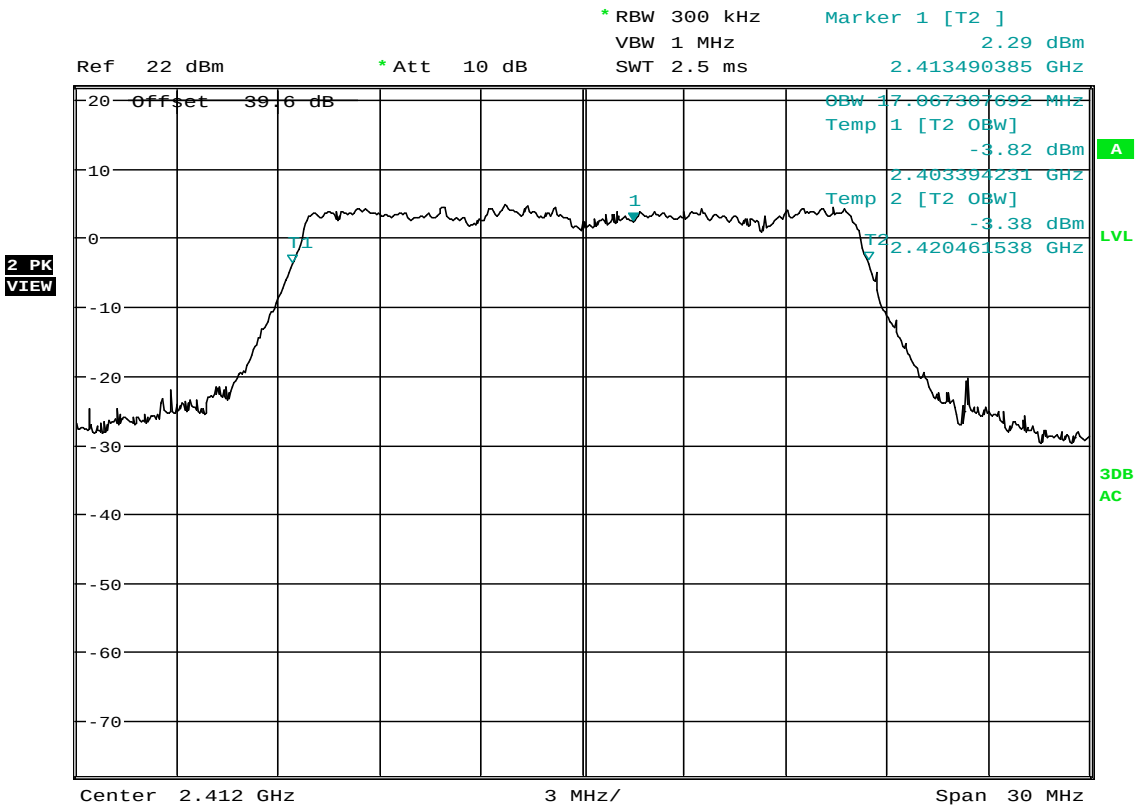
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 b 20 MHz
NOTES	:	11 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 02:42:36

FCC 15C 15.247 / OBW

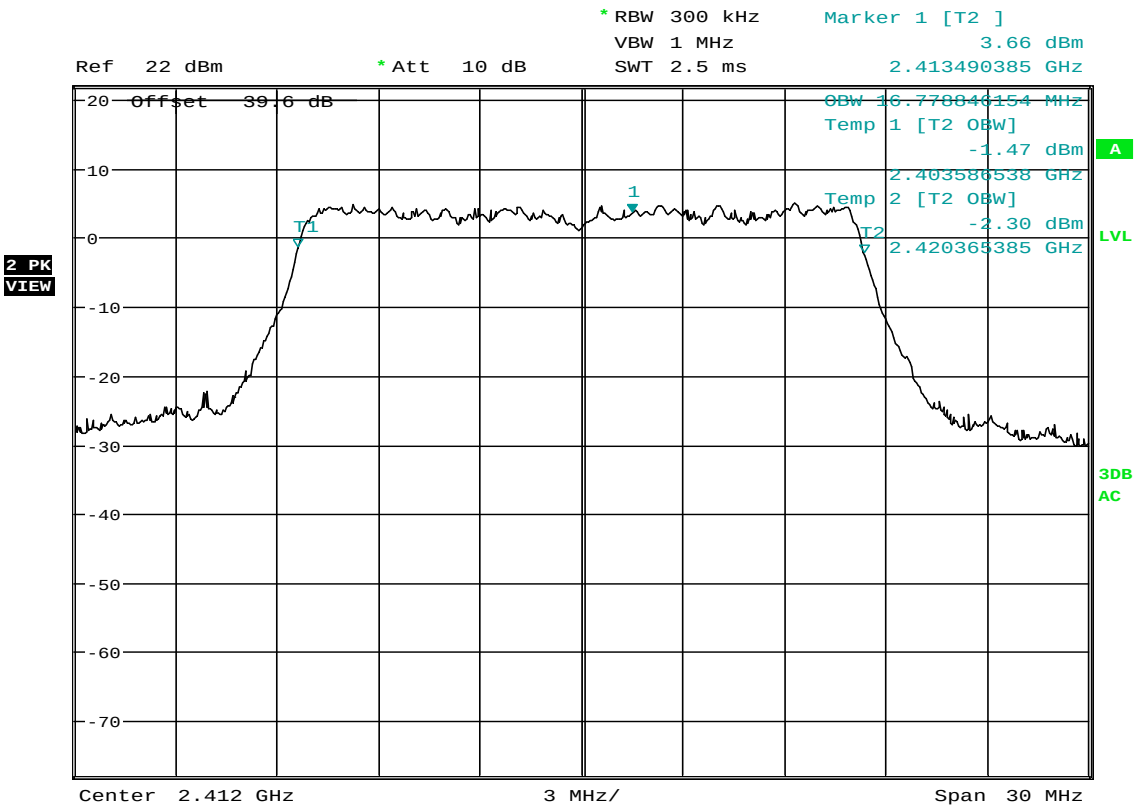
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	6Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 02:46:44

FCC 15C 15.247 / OBW

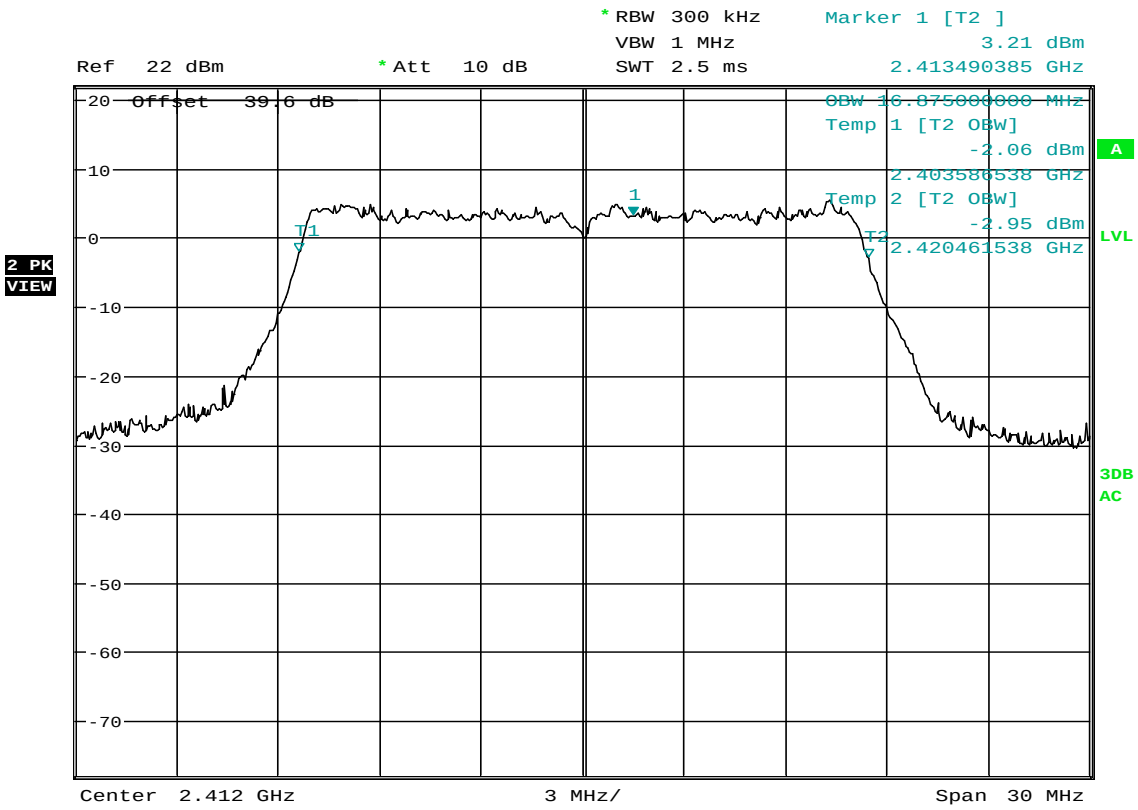
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	9Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 02:50:27

FCC 15C 15.247 / OBW

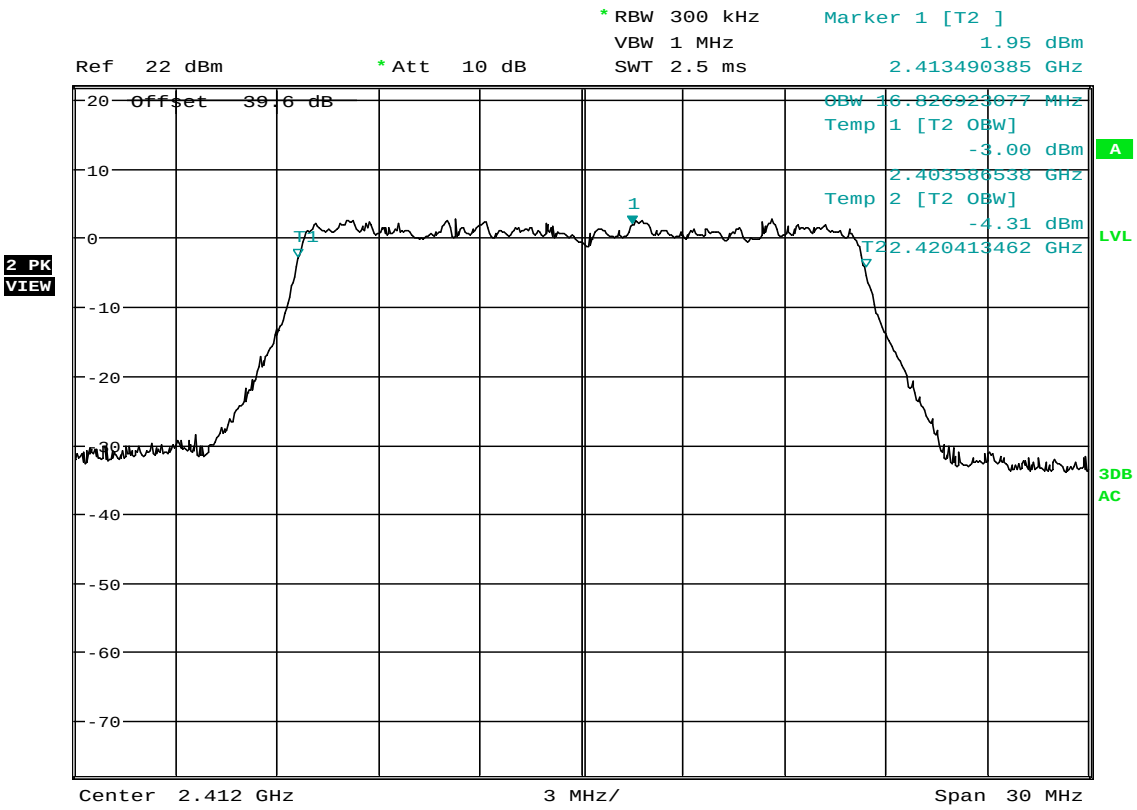
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	9Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 02:51:59

FCC 15C 15.247 / OBW

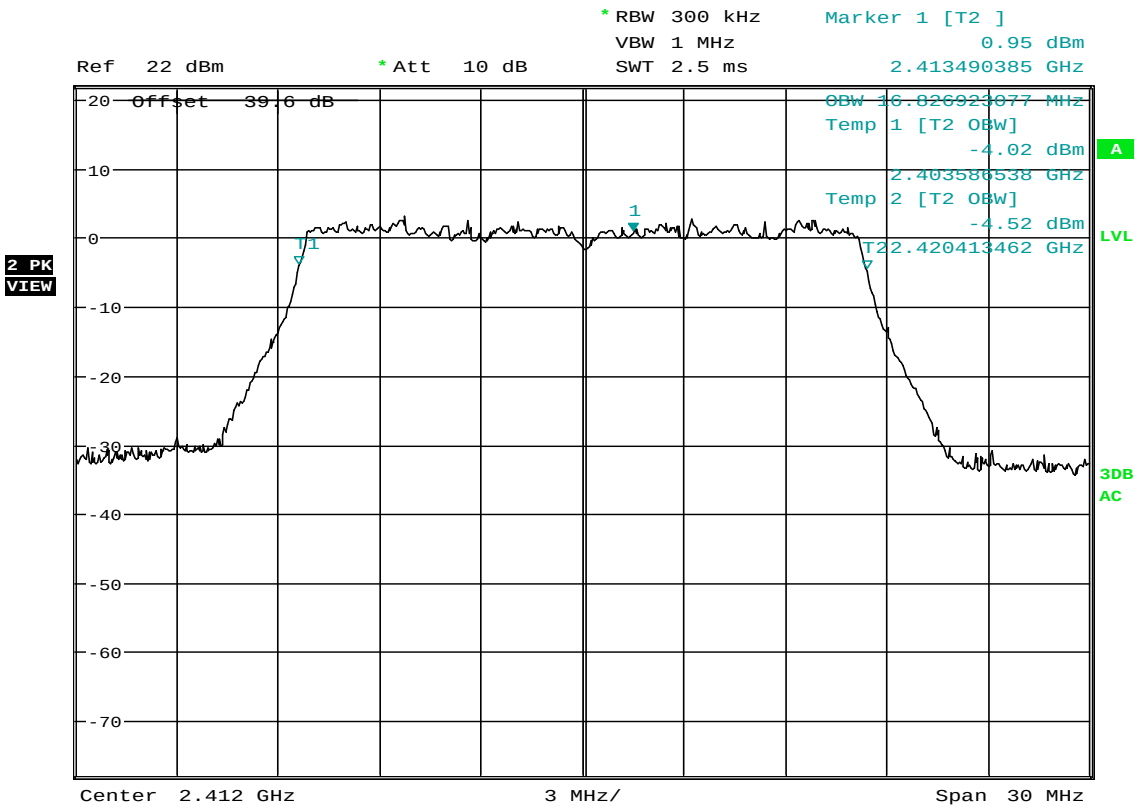
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	18Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 02:54:34

FCC 15C 15.247 / OBW

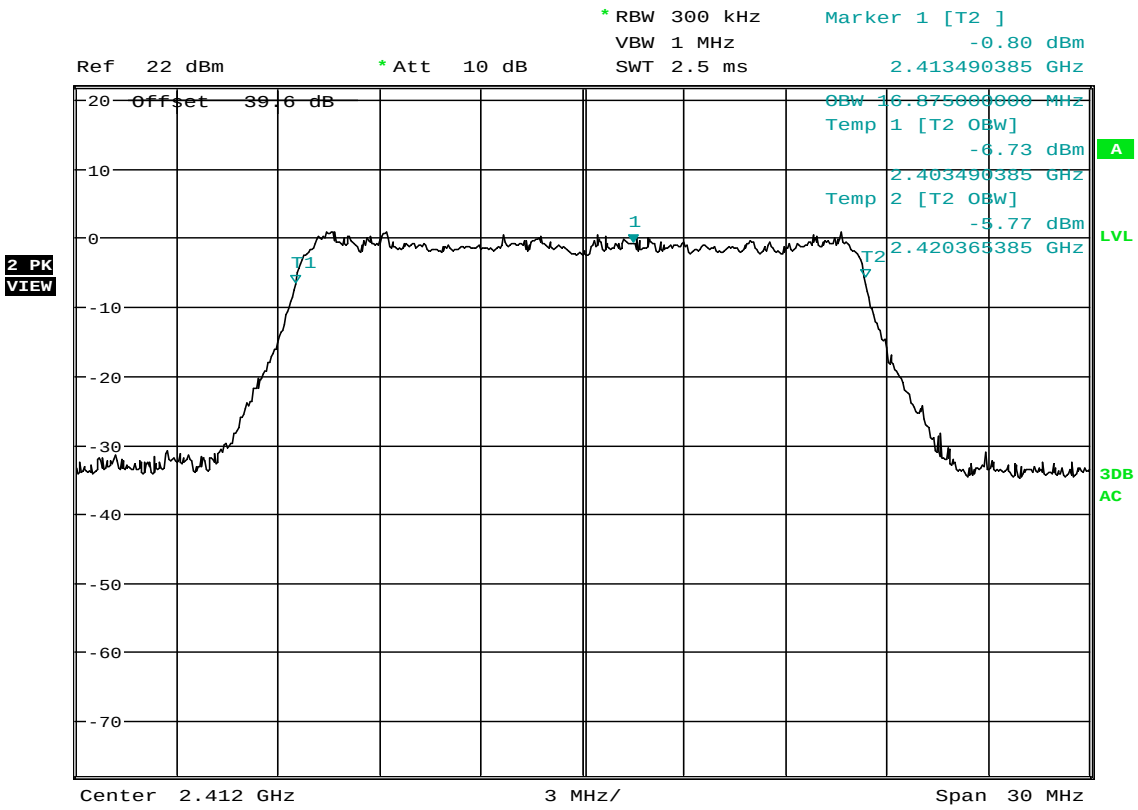
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	24Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 02:56:43

FCC 15C 15.247 / OBW

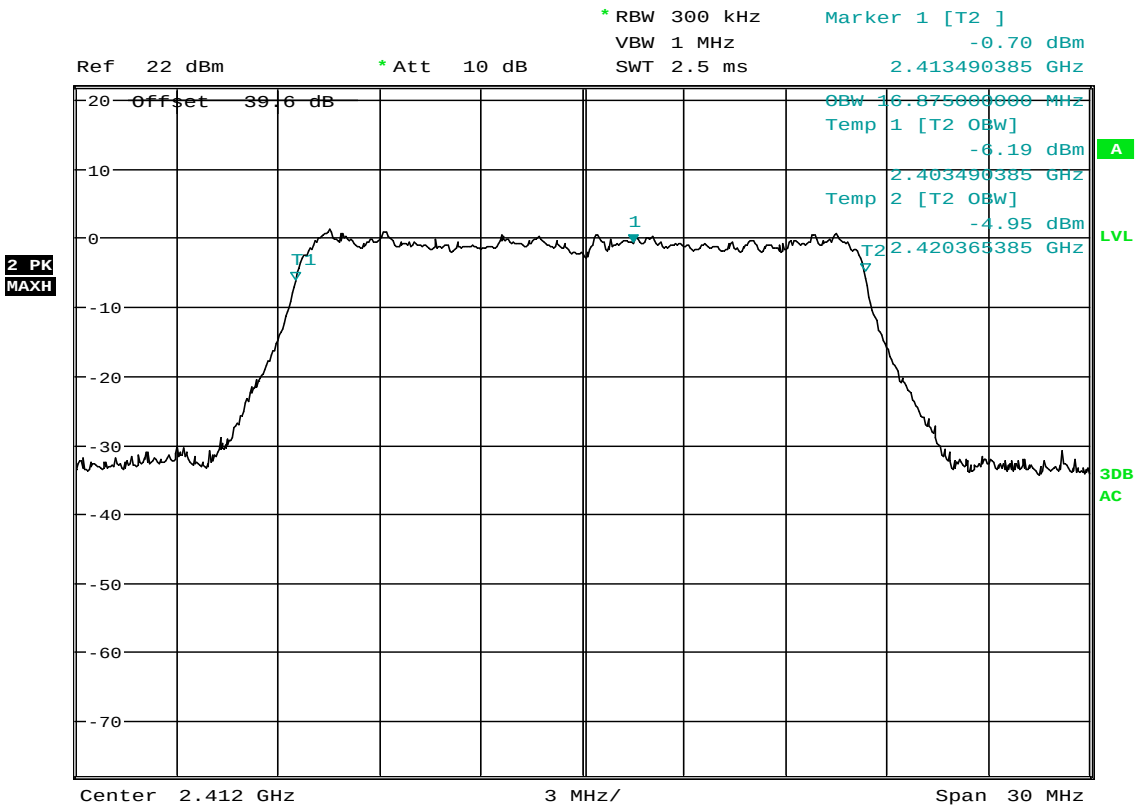
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	36Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 02:58:59

FCC 15C 15.247 / OBW

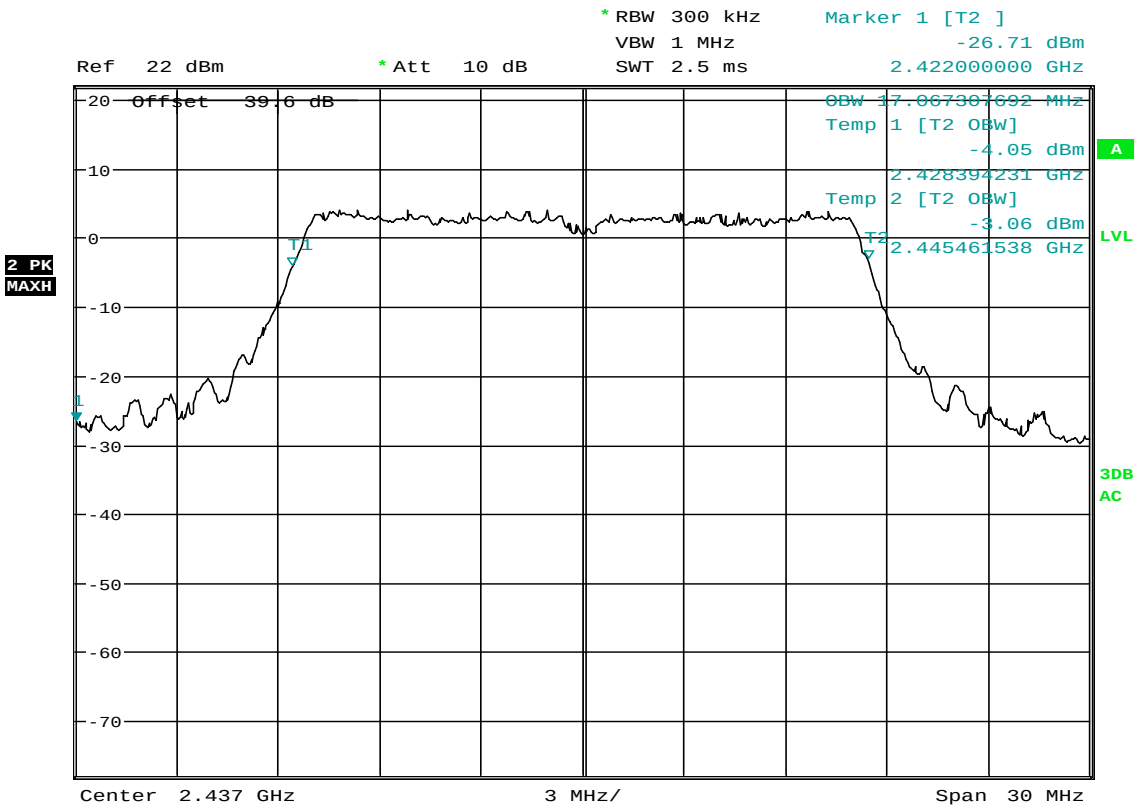
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	48Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:01:10

FCC 15C 15.247 / OBW

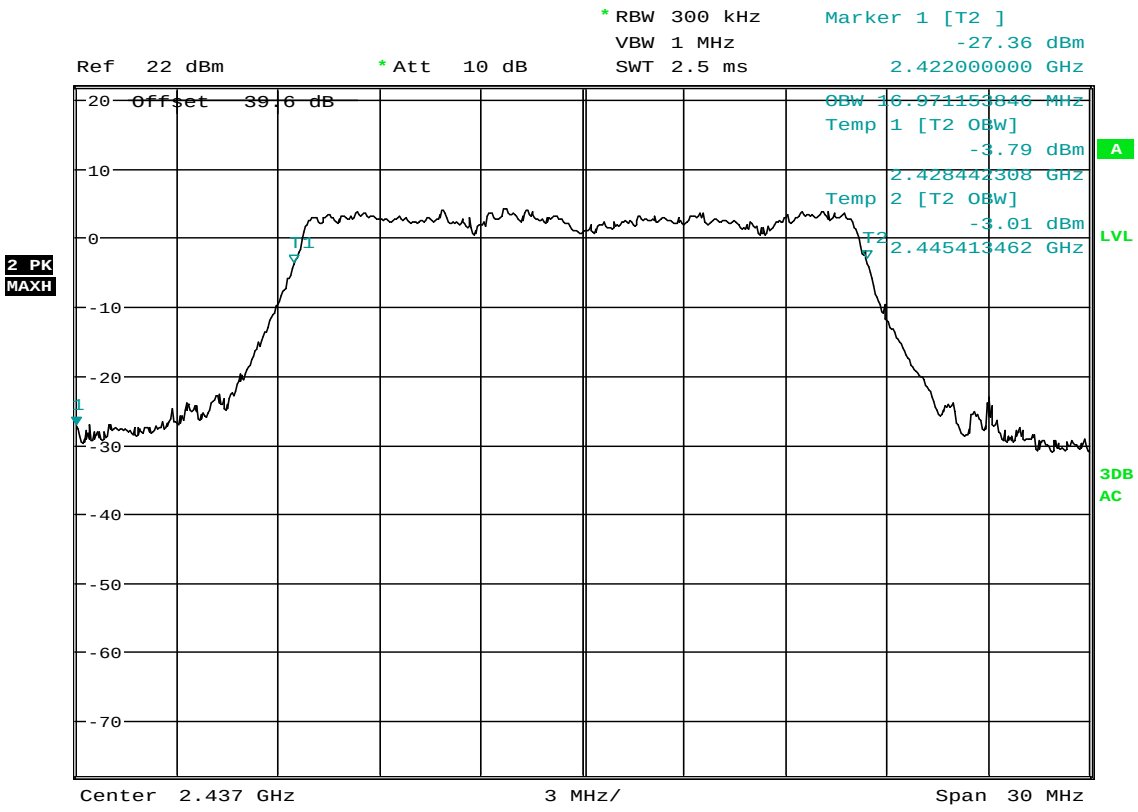
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	54Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:52:23

FCC 15C 15.247 / OBW

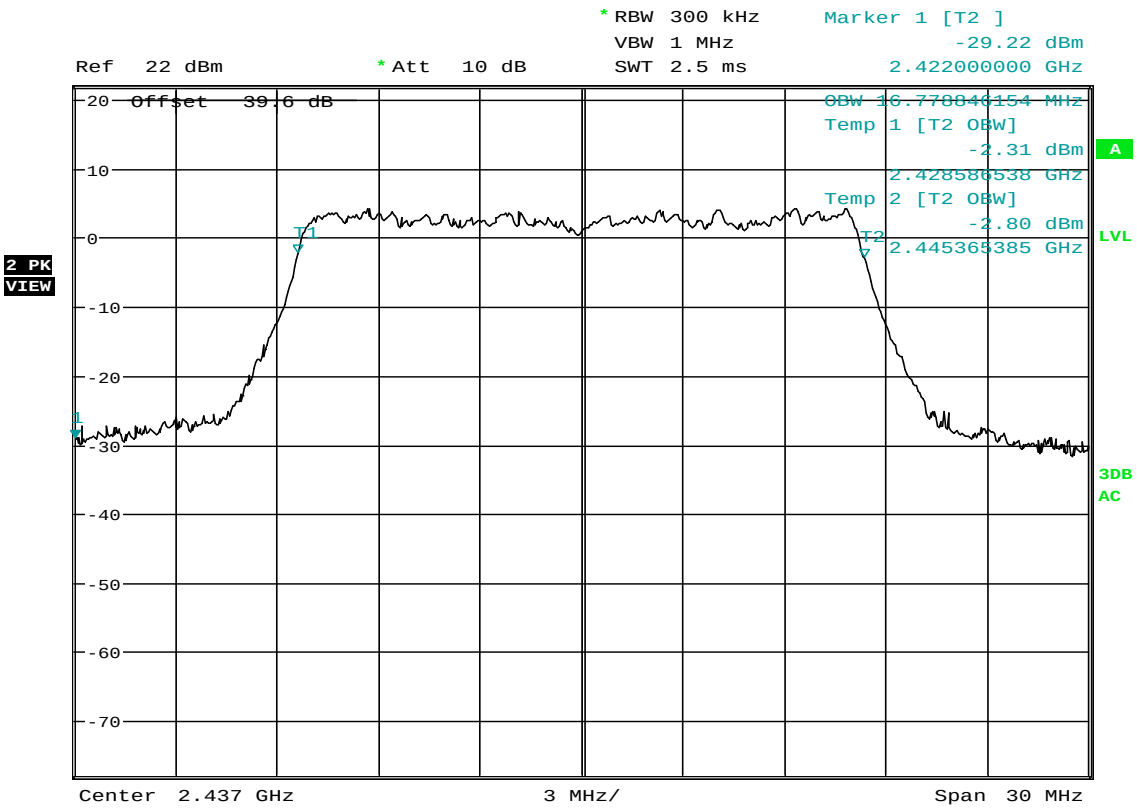
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	6 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:54:19

FCC 15C 15.247 / OBW

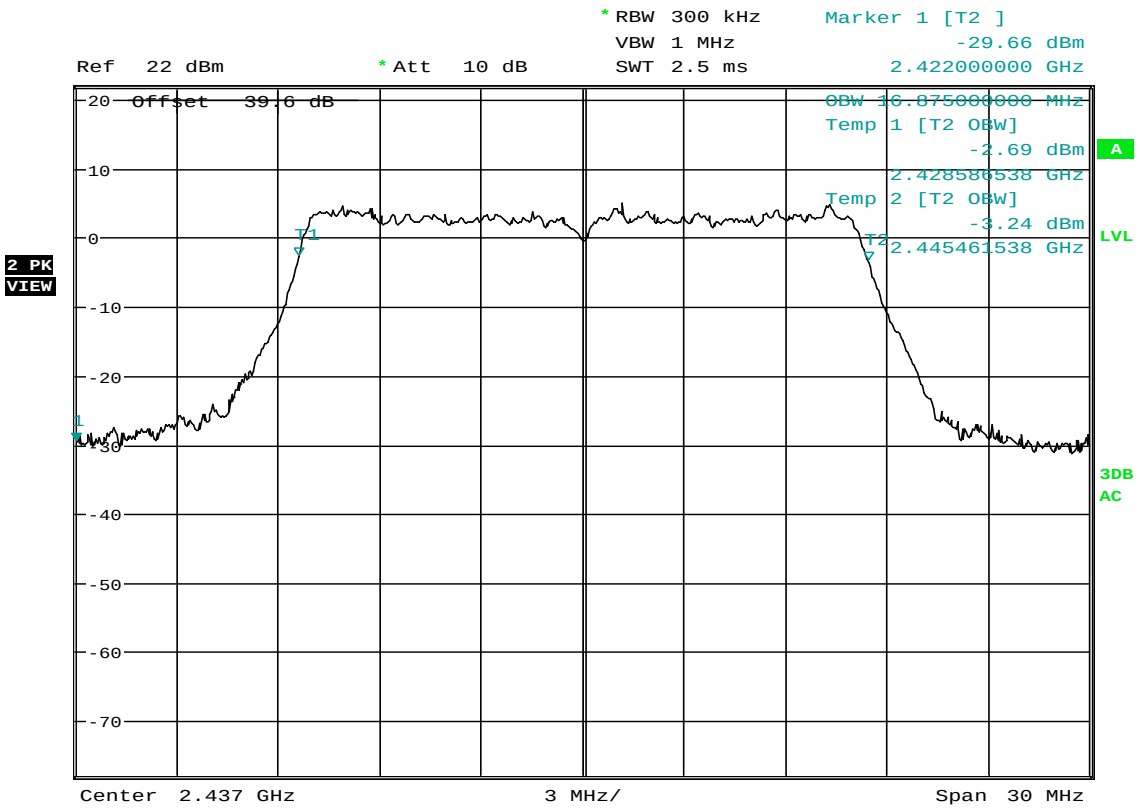
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	9 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:56:06

FCC 15C 15.247 / OBW

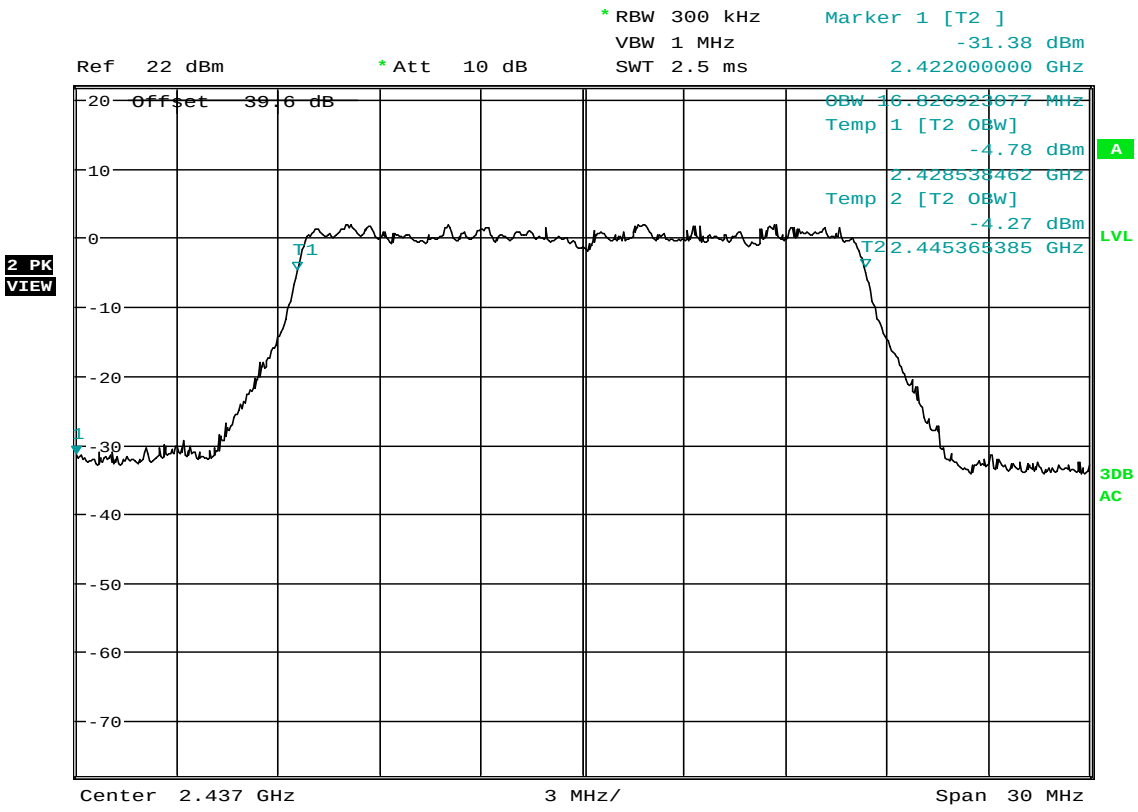
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	12 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:57:31

FCC 15C 15.247 / OBW

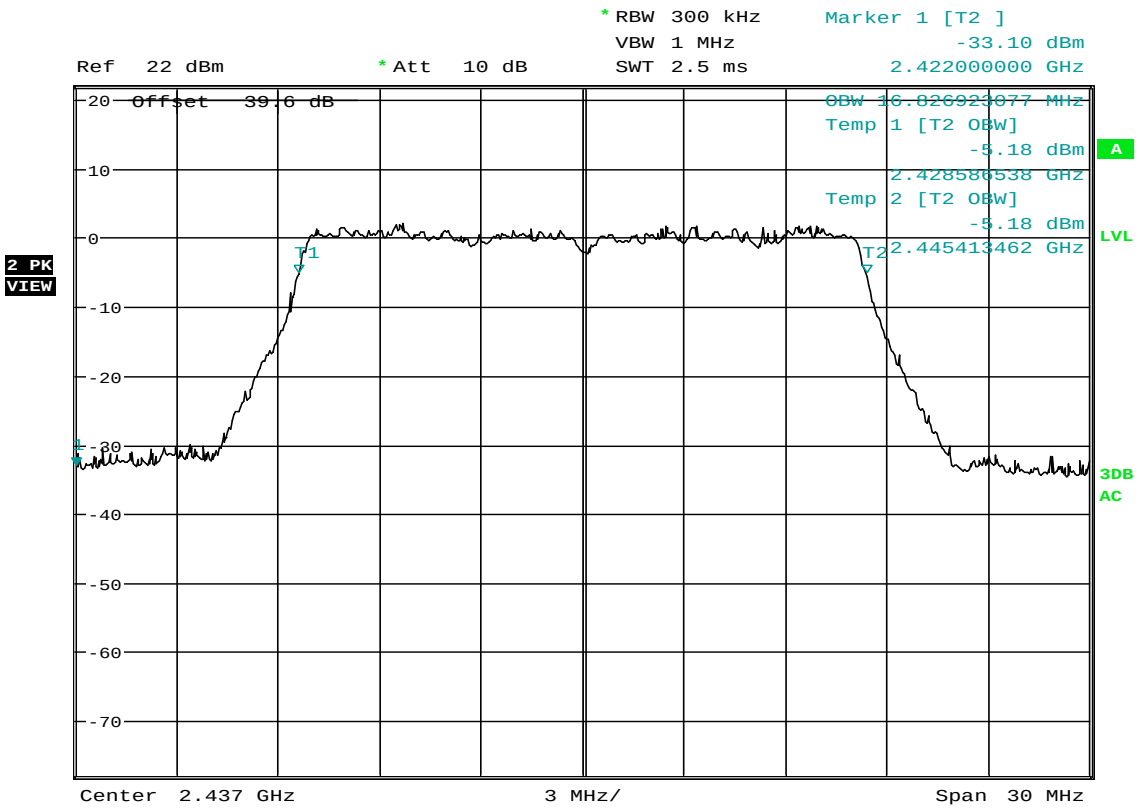
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	18 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:04:39

FCC 15C 15.247 / OBW

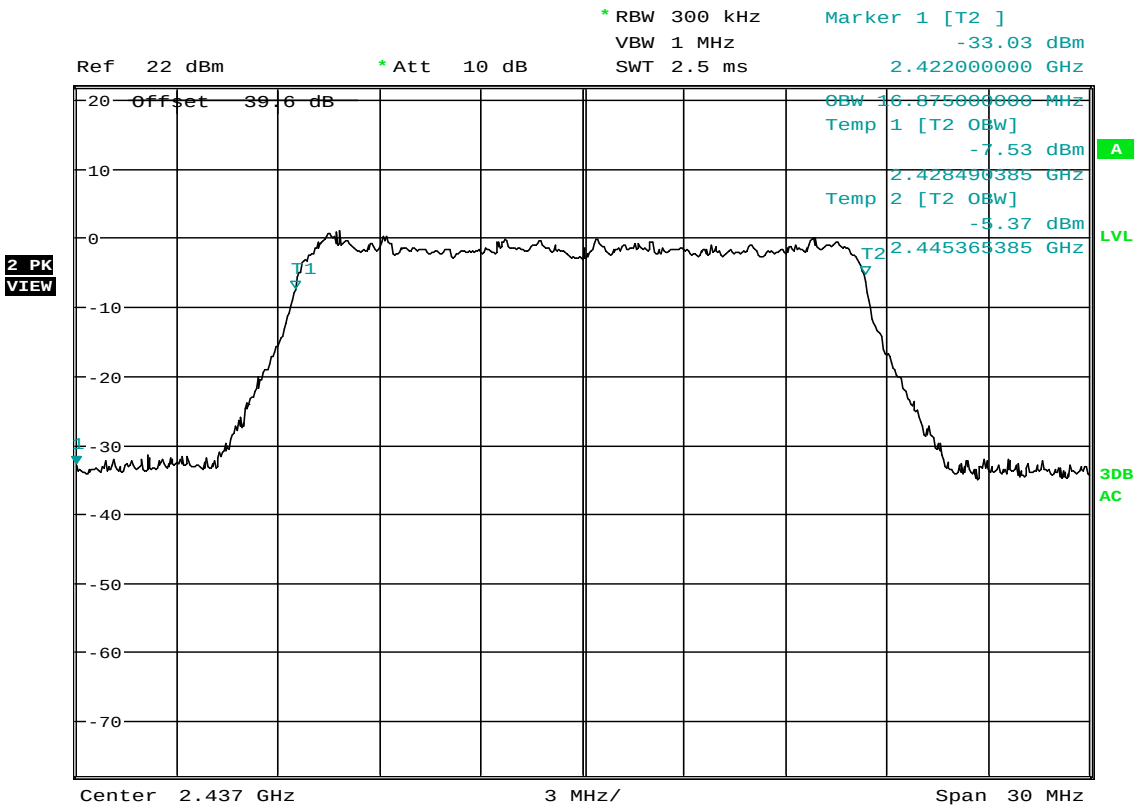
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	24 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:06:10

FCC 15C 15.247 / OBW

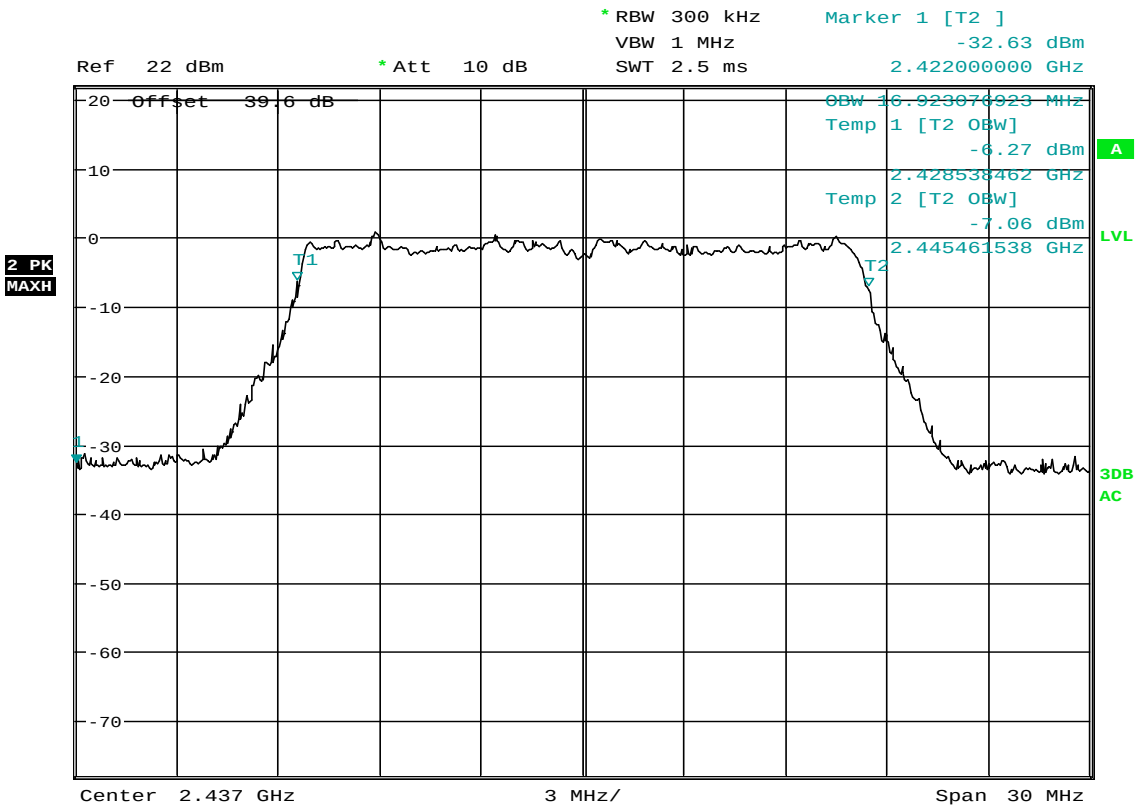
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	36 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:07:38

FCC 15C 15.247 / OBW

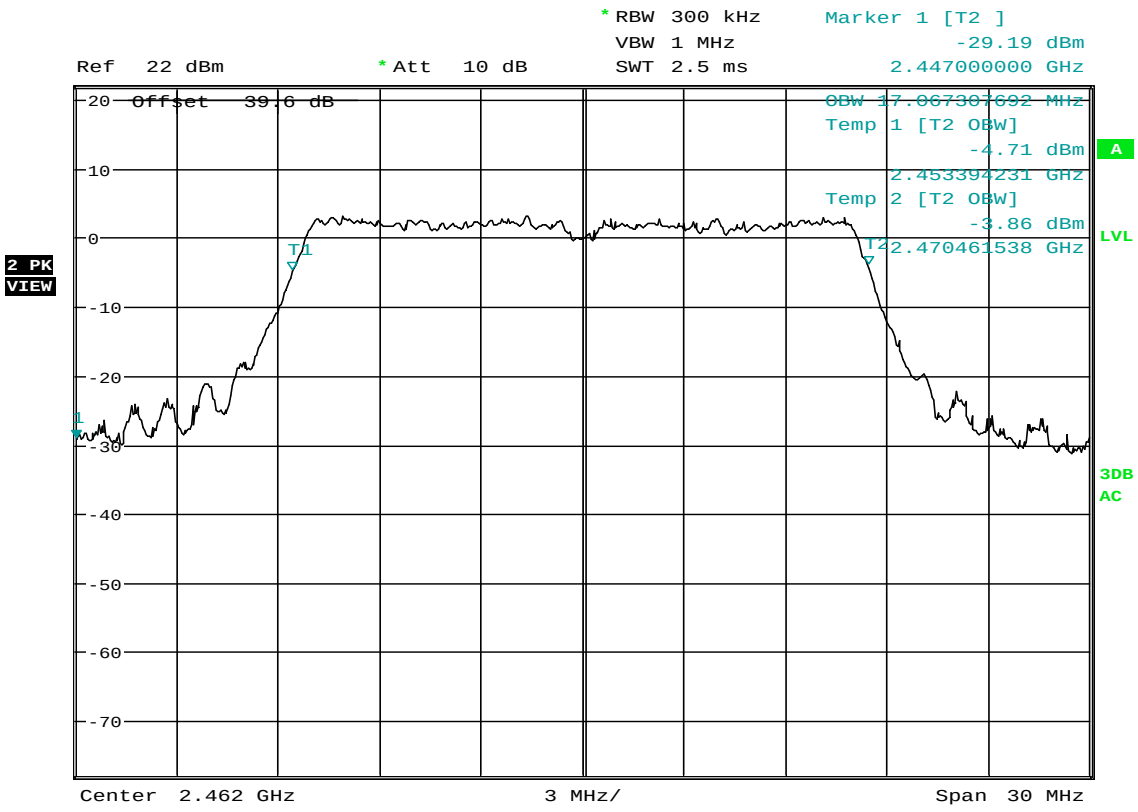
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	48 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:09:24

FCC 15C 15.247 / OBW

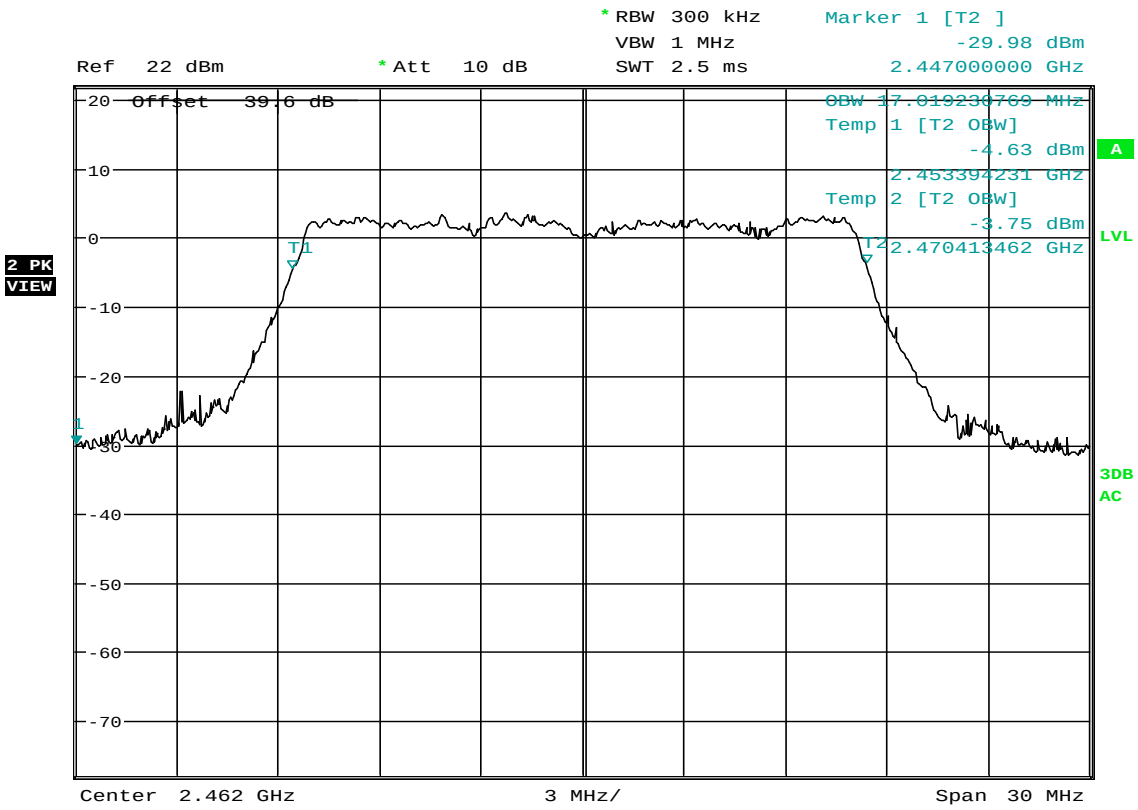
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	54 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:34:44

FCC 15C 15.247 / OBW

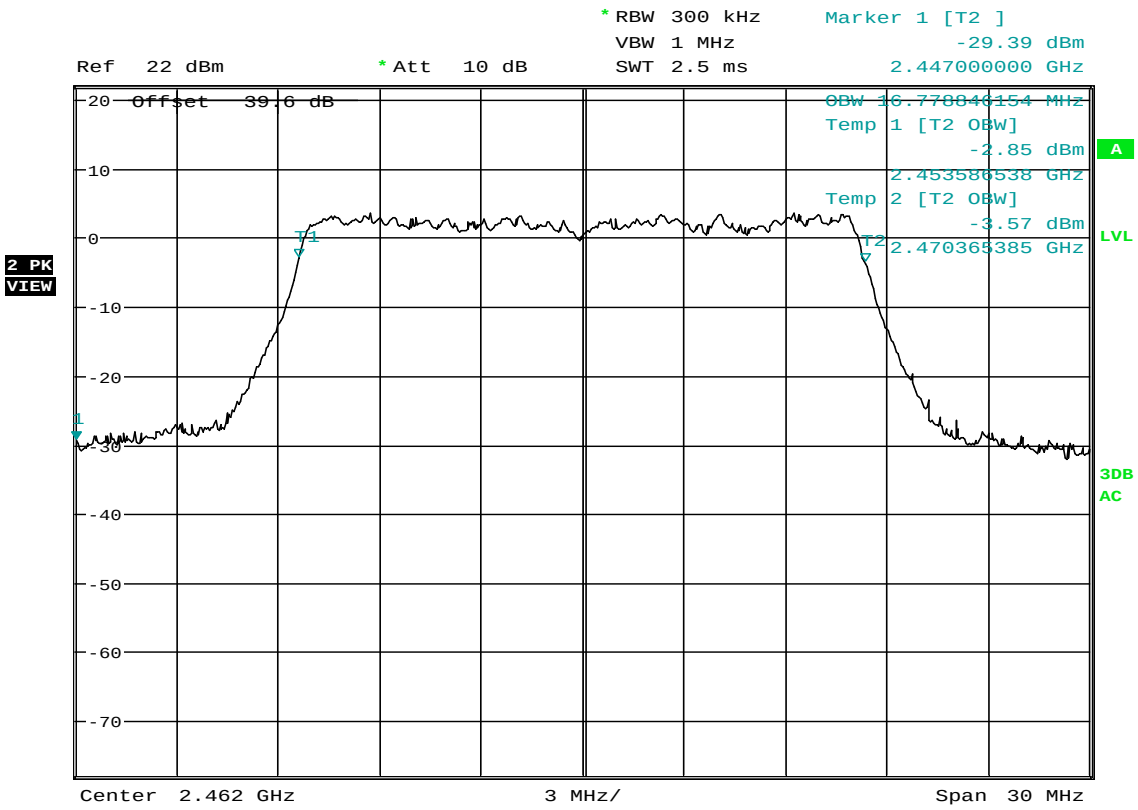
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	6 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:36:48

FCC 15C 15.247 / OBW

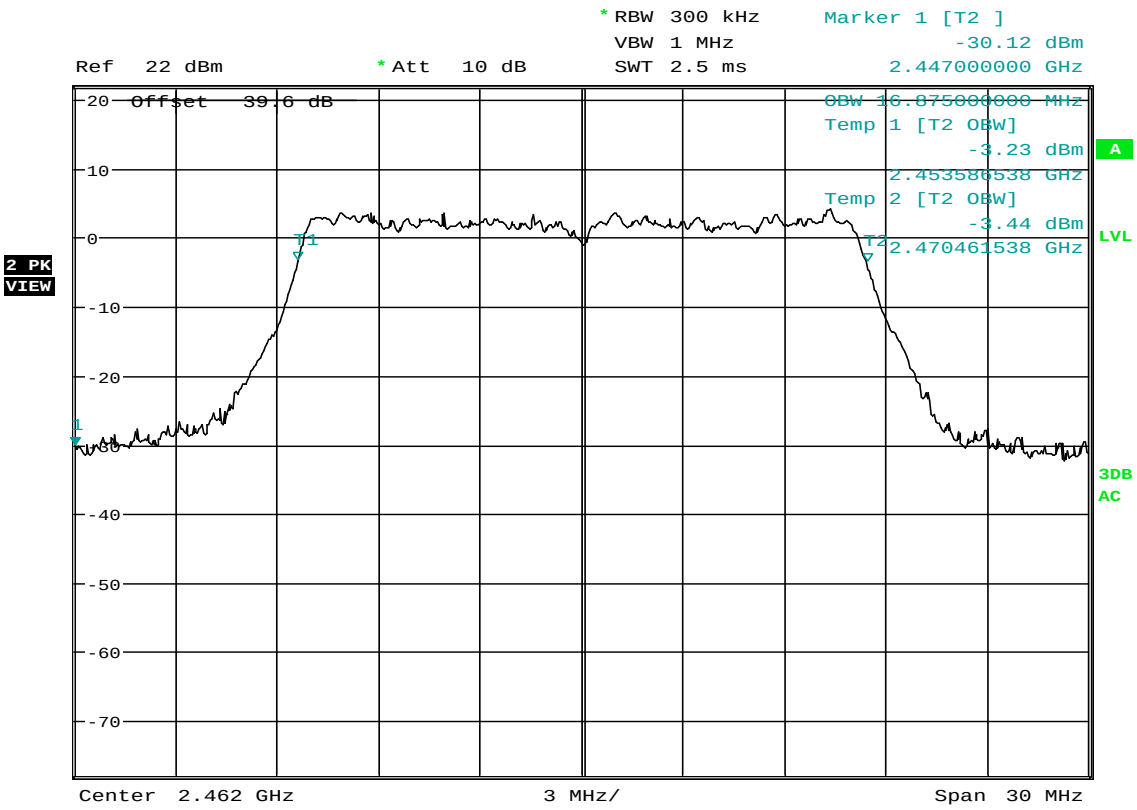
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	9 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:40:07

FCC 15C 15.247 / OBW

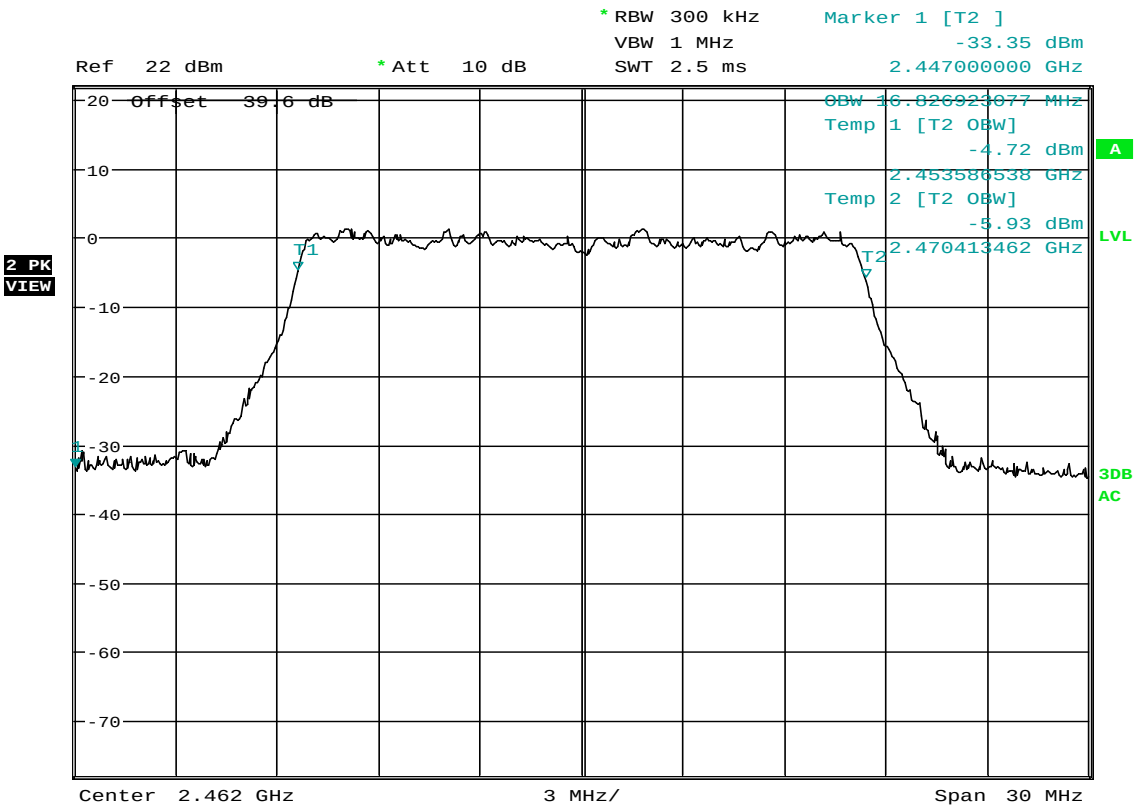
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	12 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:42:14

FCC 15C 15.247 / OBW

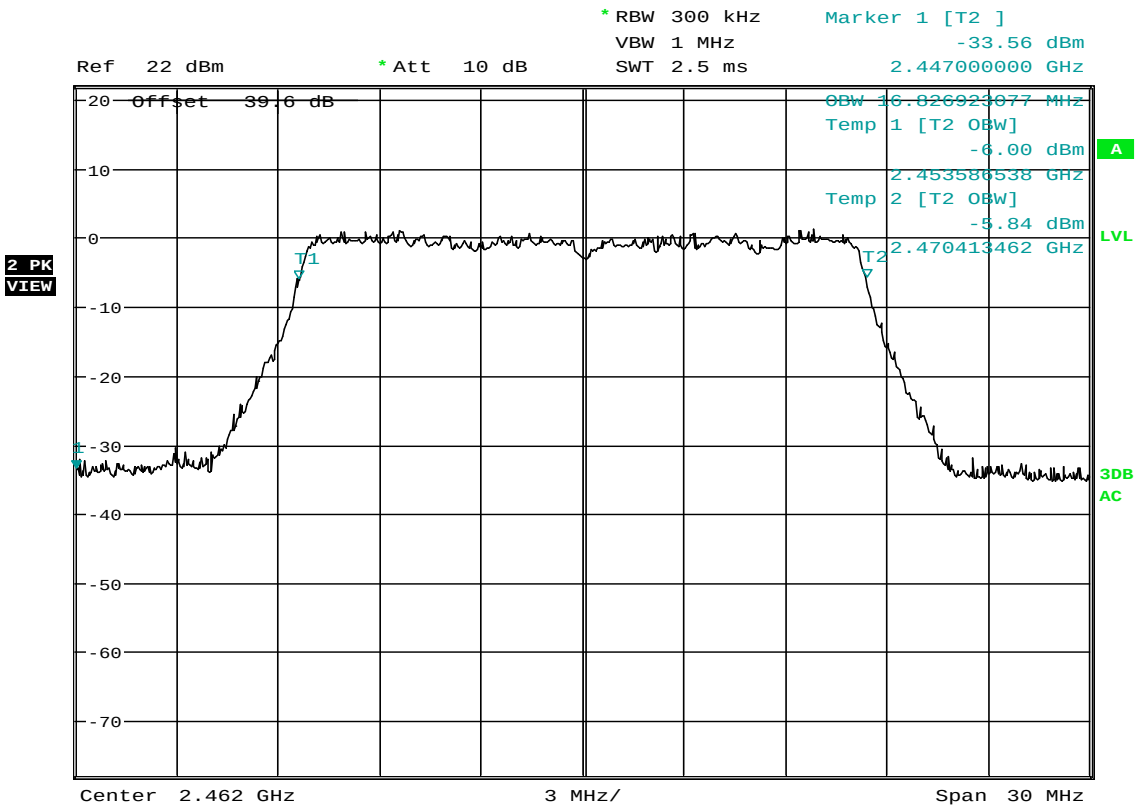
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	18 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:44:33

FCC 15C 15.247 / OBW

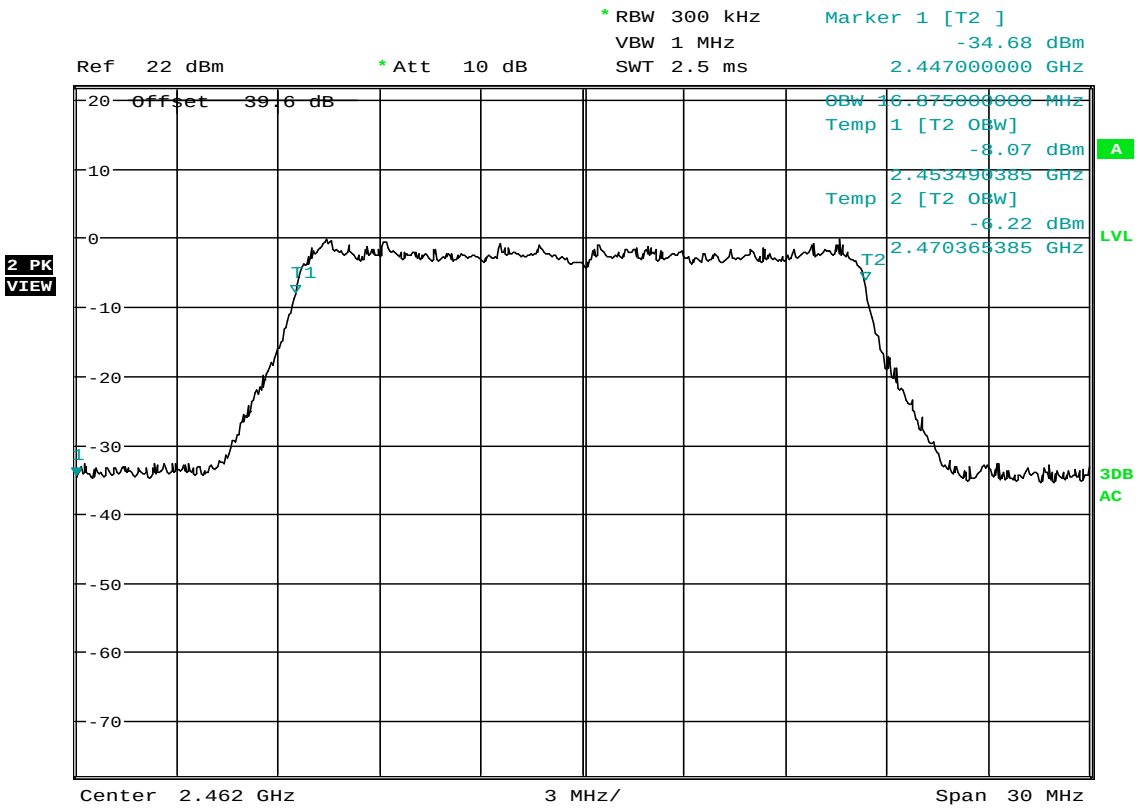
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	24 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:47:01

FCC 15C 15.247 / OBW

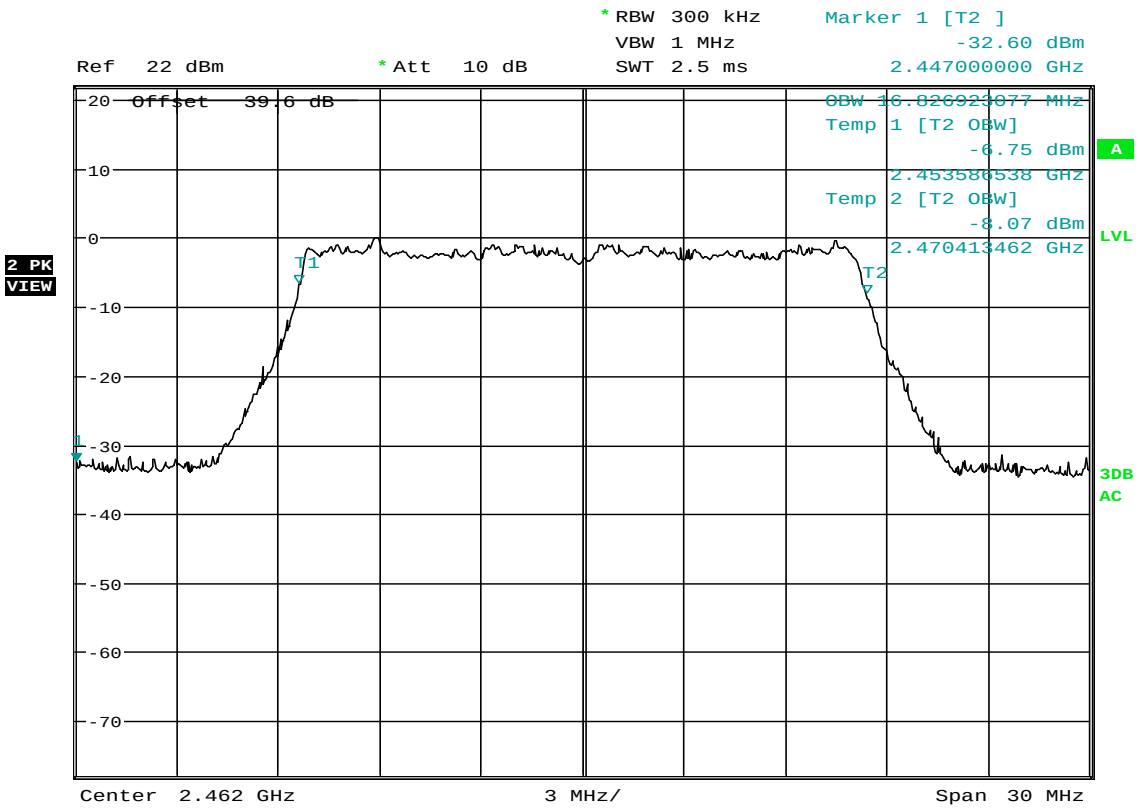
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	36 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:48:32

FCC 15C 15.247 / OBW

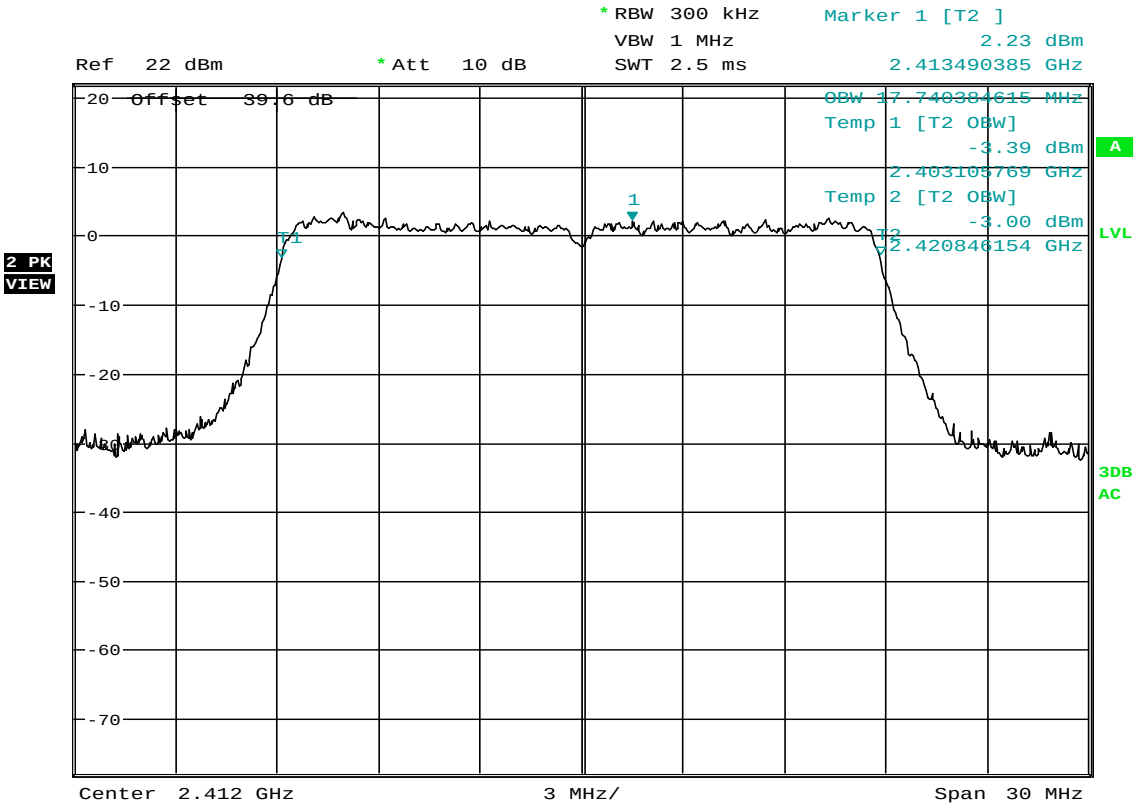
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	48 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:50:06

FCC 15C 15.247 / OBW

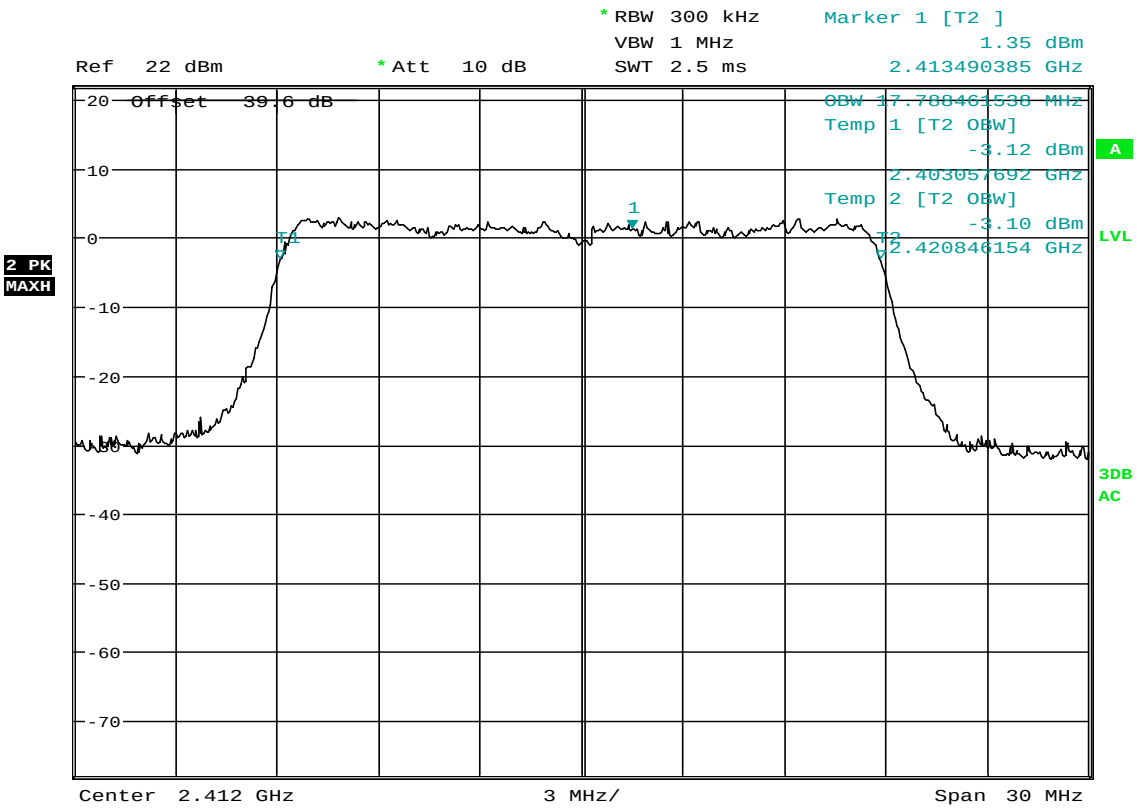
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 g 20 MHz
NOTES	:	54 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:19:33

FCC 15C 15.247 / OBW

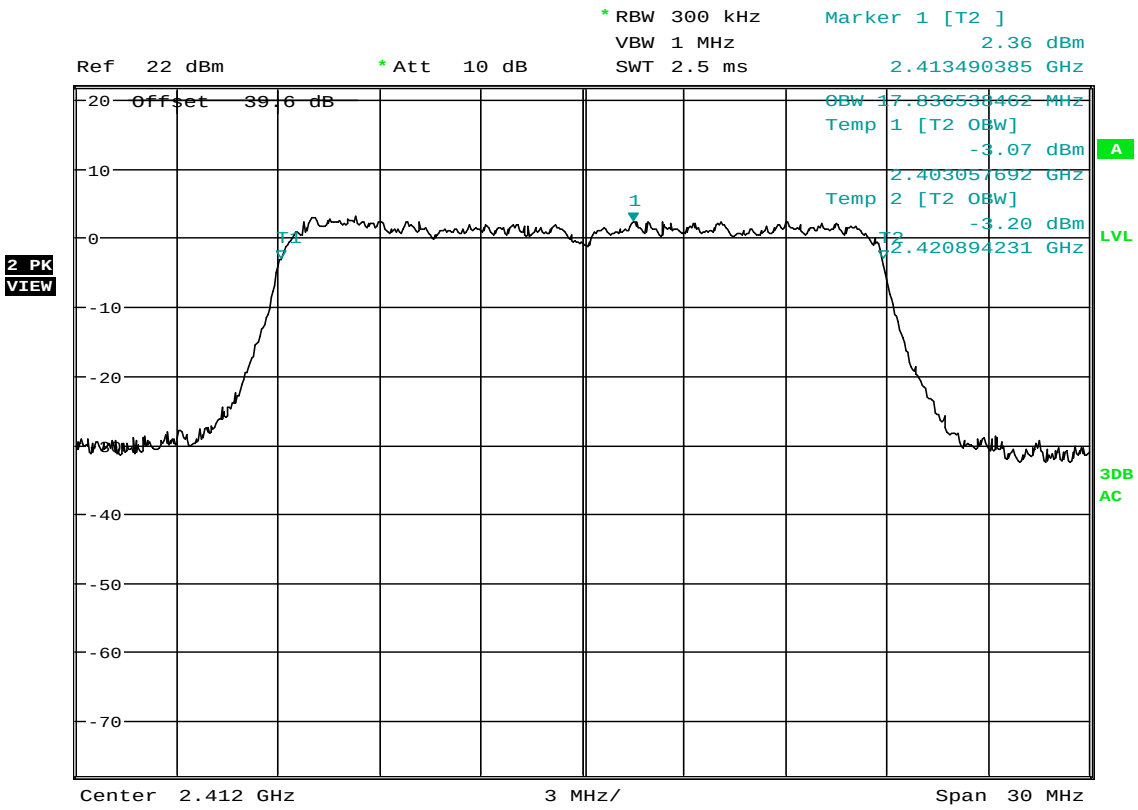
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	7.2Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:21:49

FCC 15C 15.247 / OBW

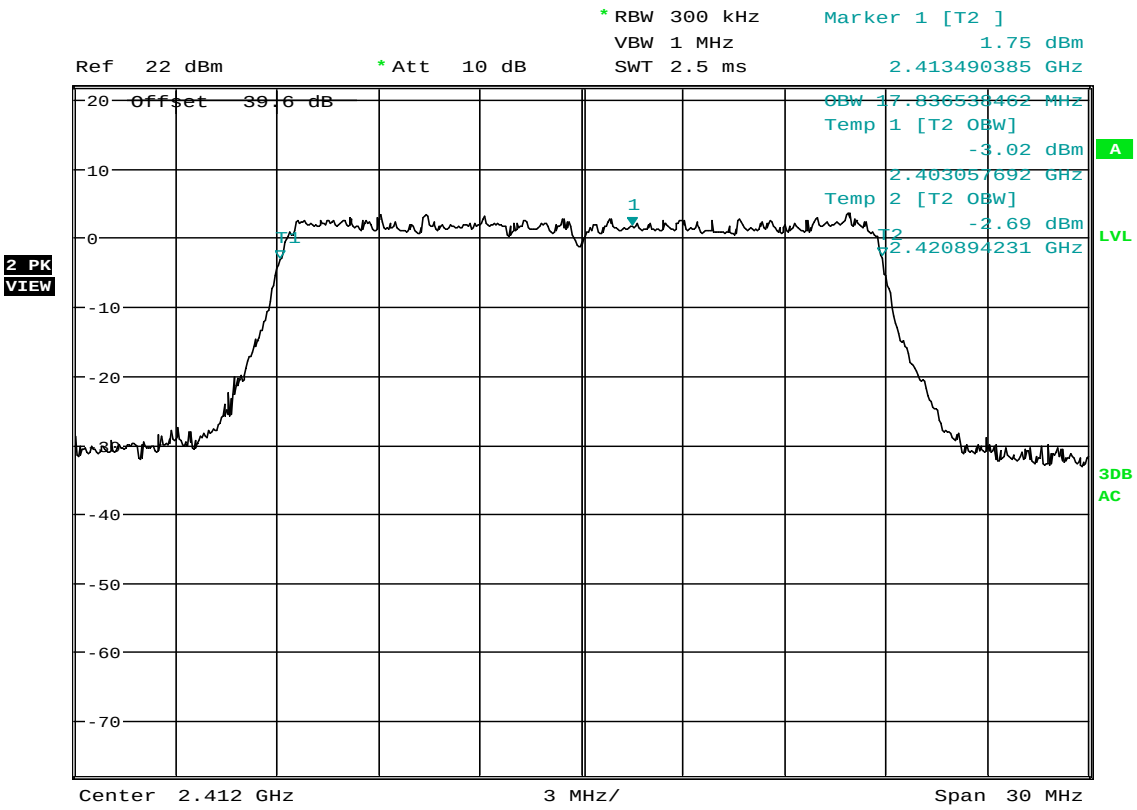
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	14.4Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:23:41

FCC 15C 15.247 / OBW

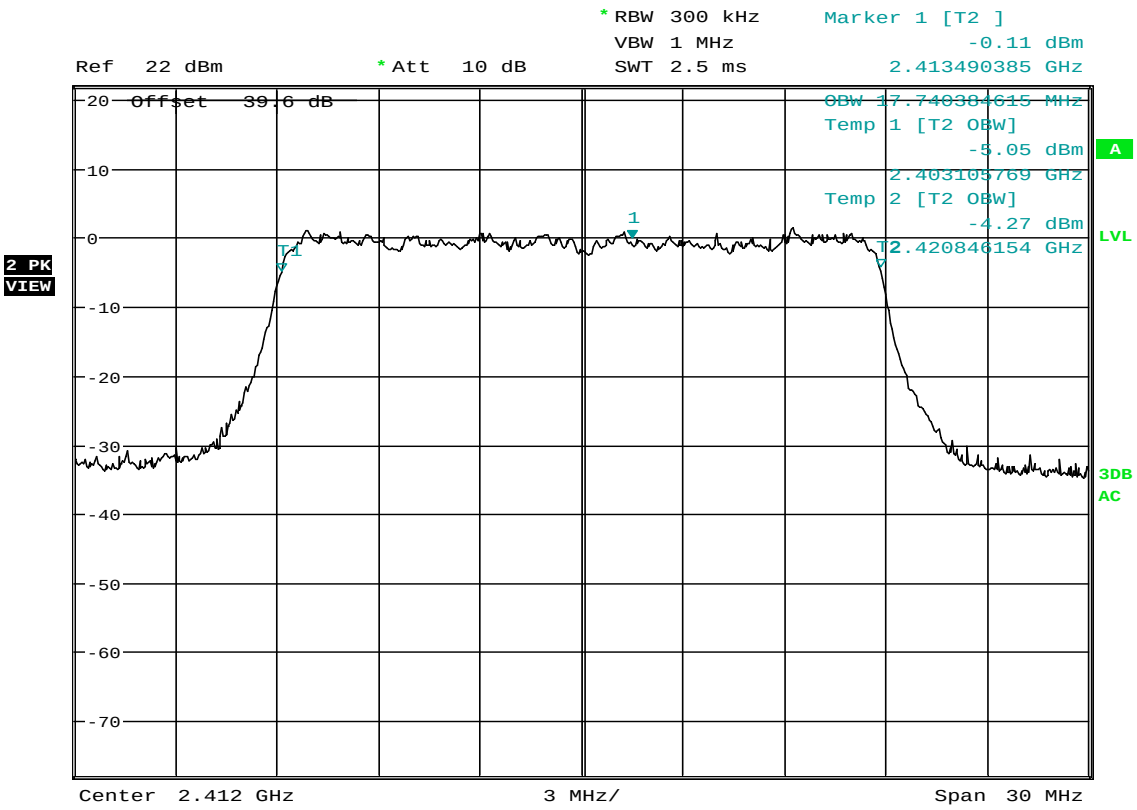
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	21.7Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:25:36

FCC 15C 15.247 / OBW

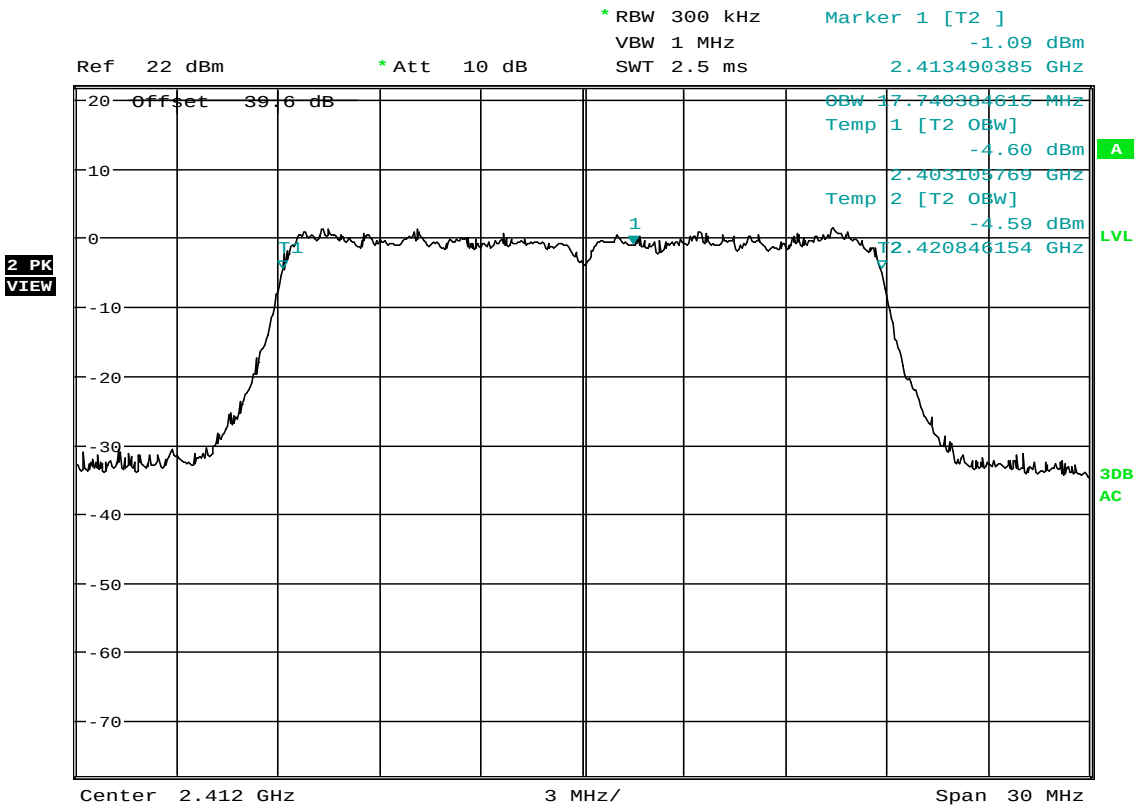
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	28.9Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:27:16

FCC 15C 15.247 / OBW

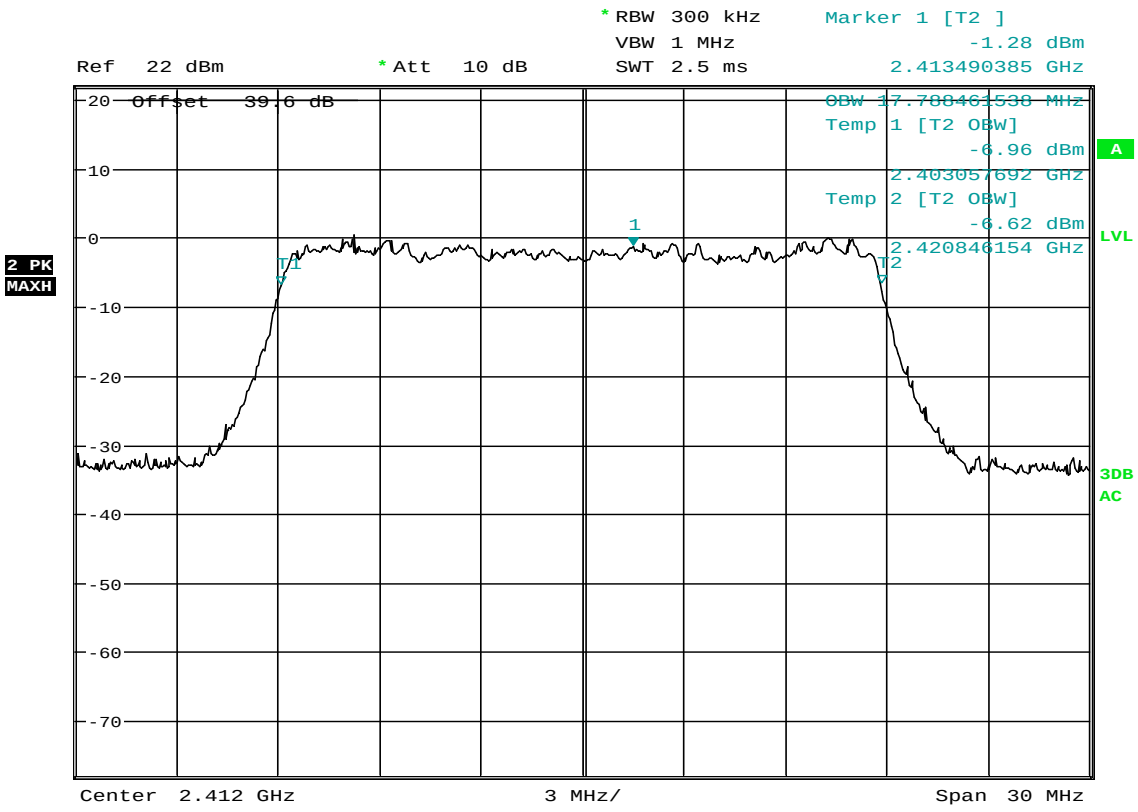
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	43.3Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:28:48

FCC 15C 15.247 / OBW

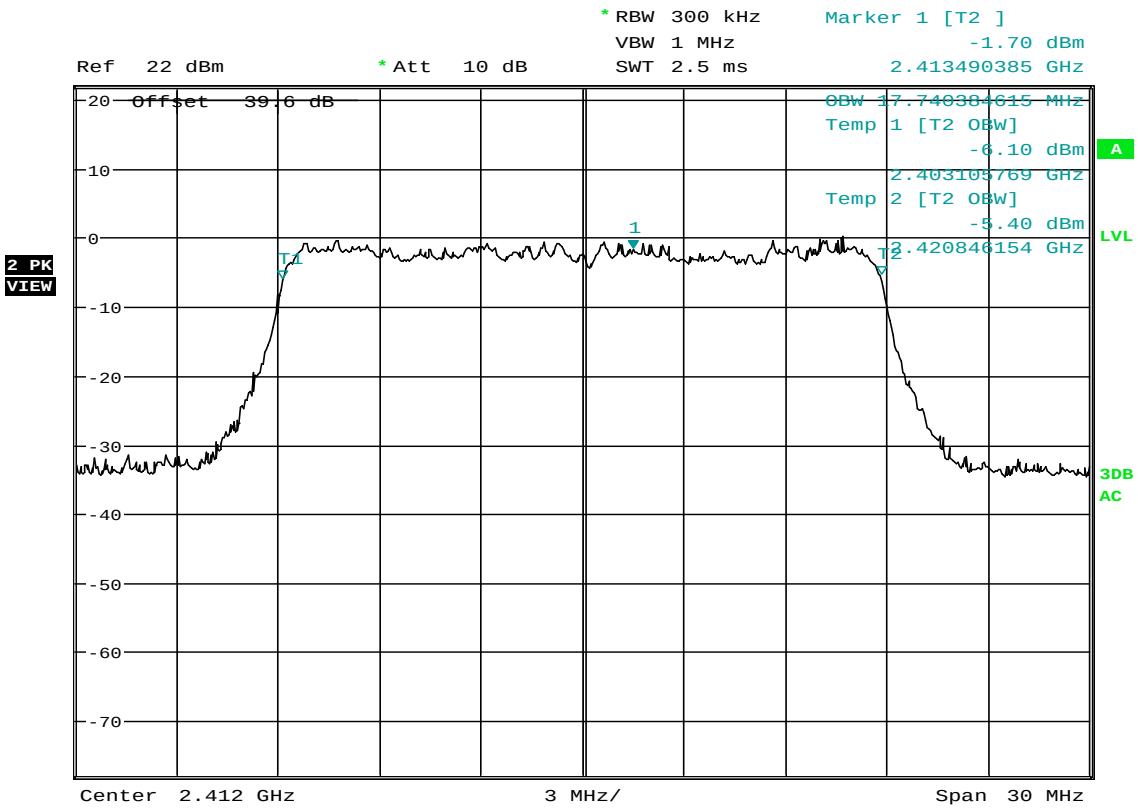
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	57.8Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:30:50

FCC 15C 15.247 / OBW

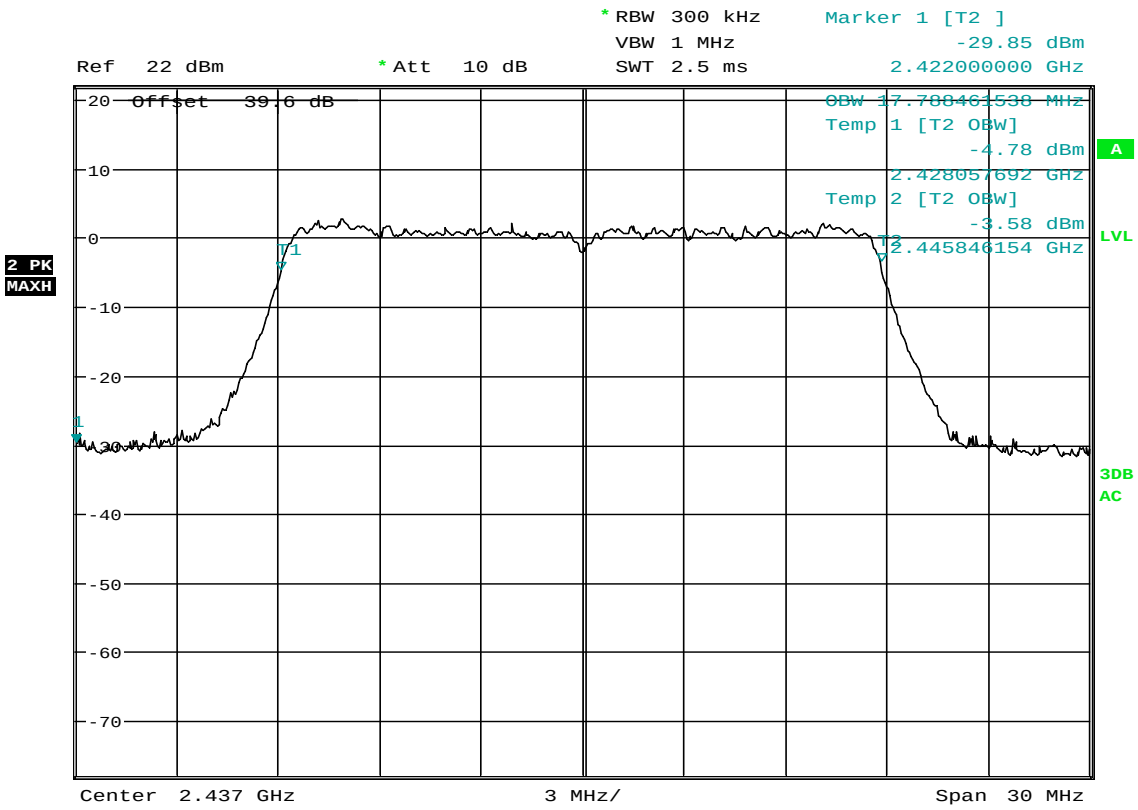
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	65Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 03:32:28

FCC 15C 15.247 / OBW

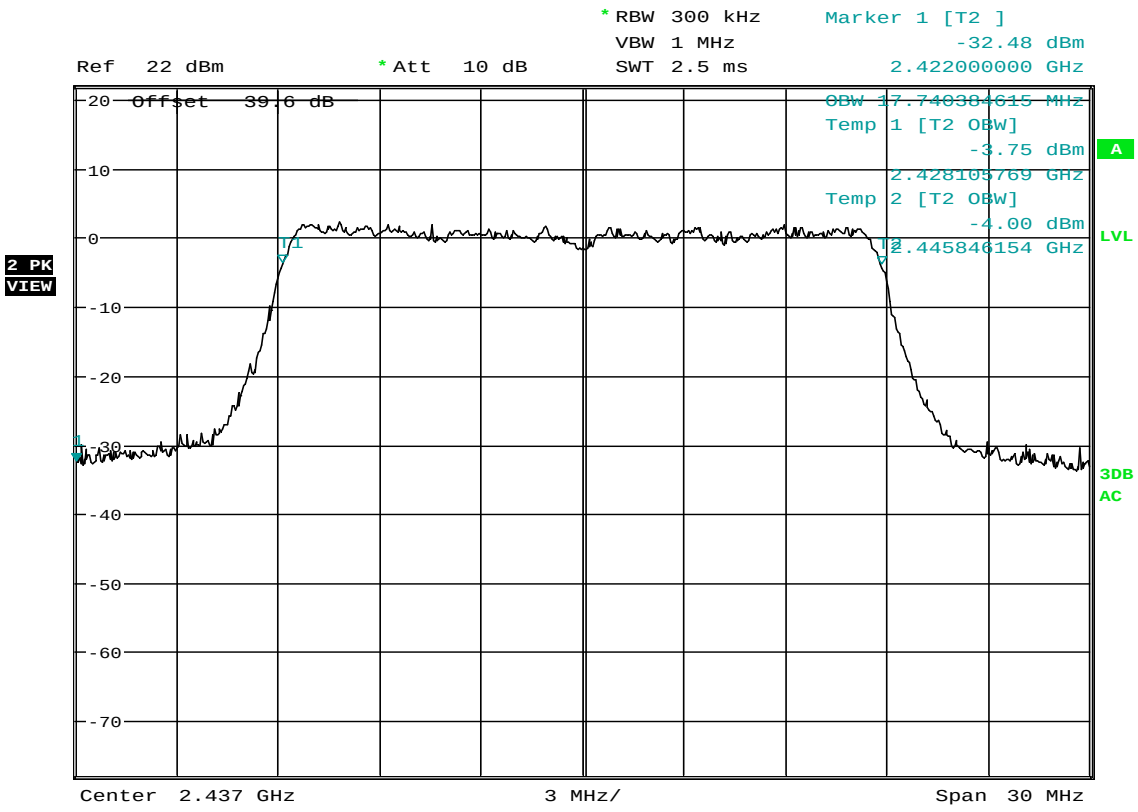
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LOW CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	72.7Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:12:09

FCC 15C 15.247 / OBW

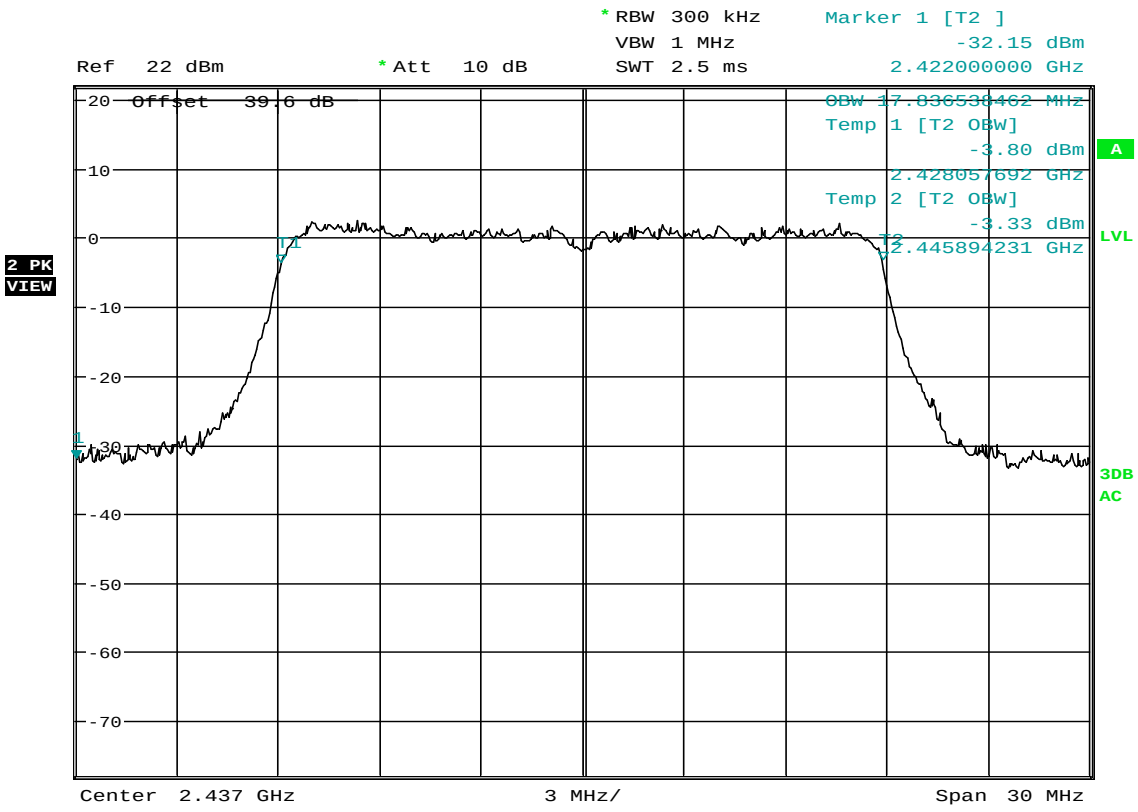
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	7.2 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:13:44

FCC 15C 15.247 / OBW

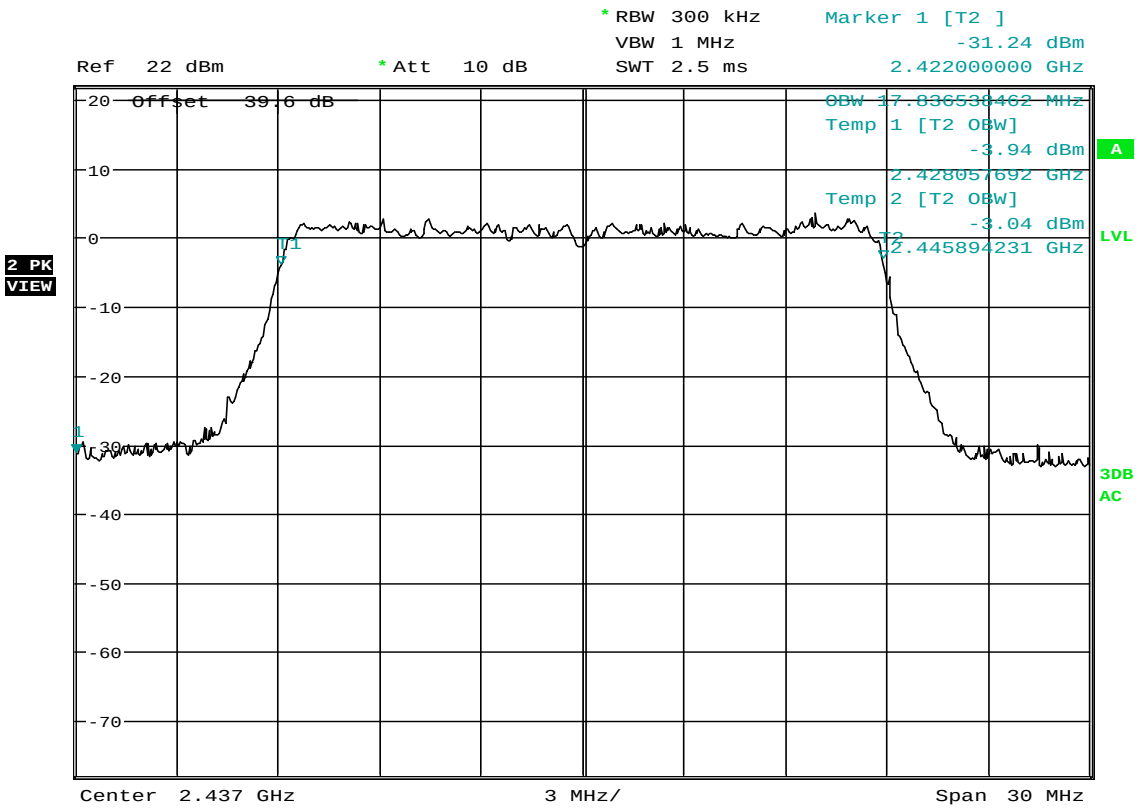
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	14.4 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:15:21

FCC 15C 15.247 / OBW

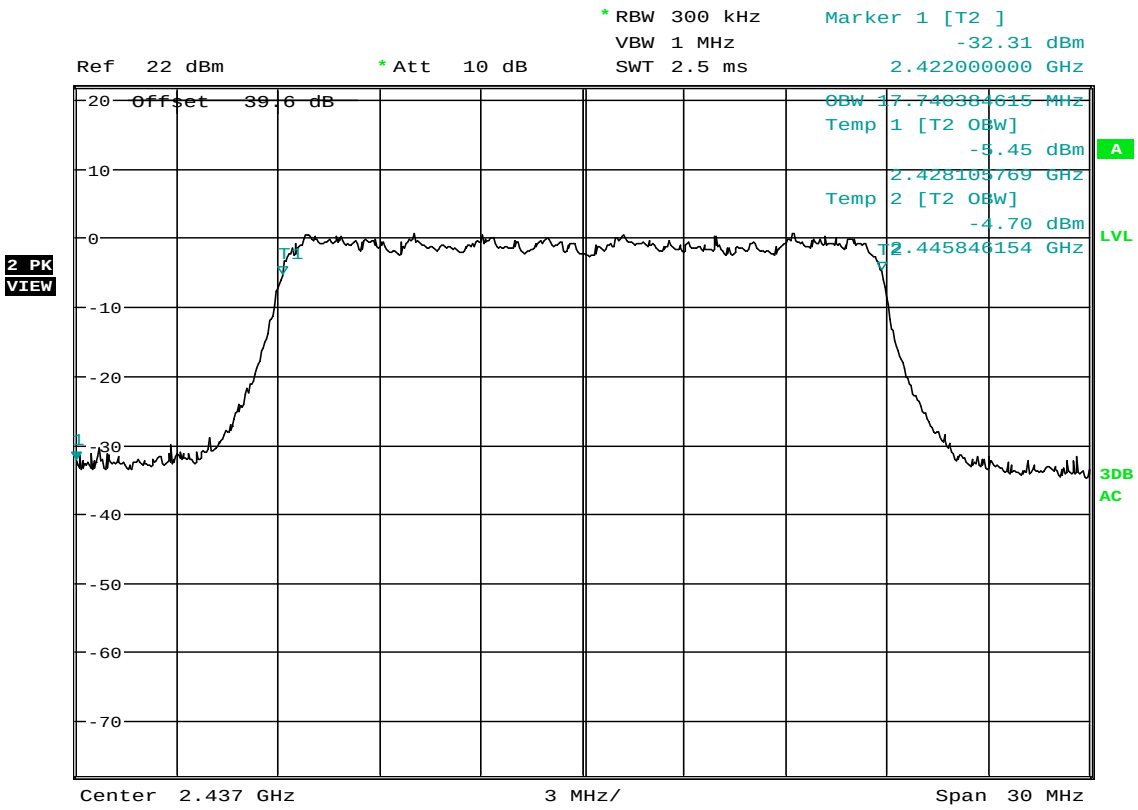
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	21.7 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:17:42

FCC 15C 15.247 / OBW

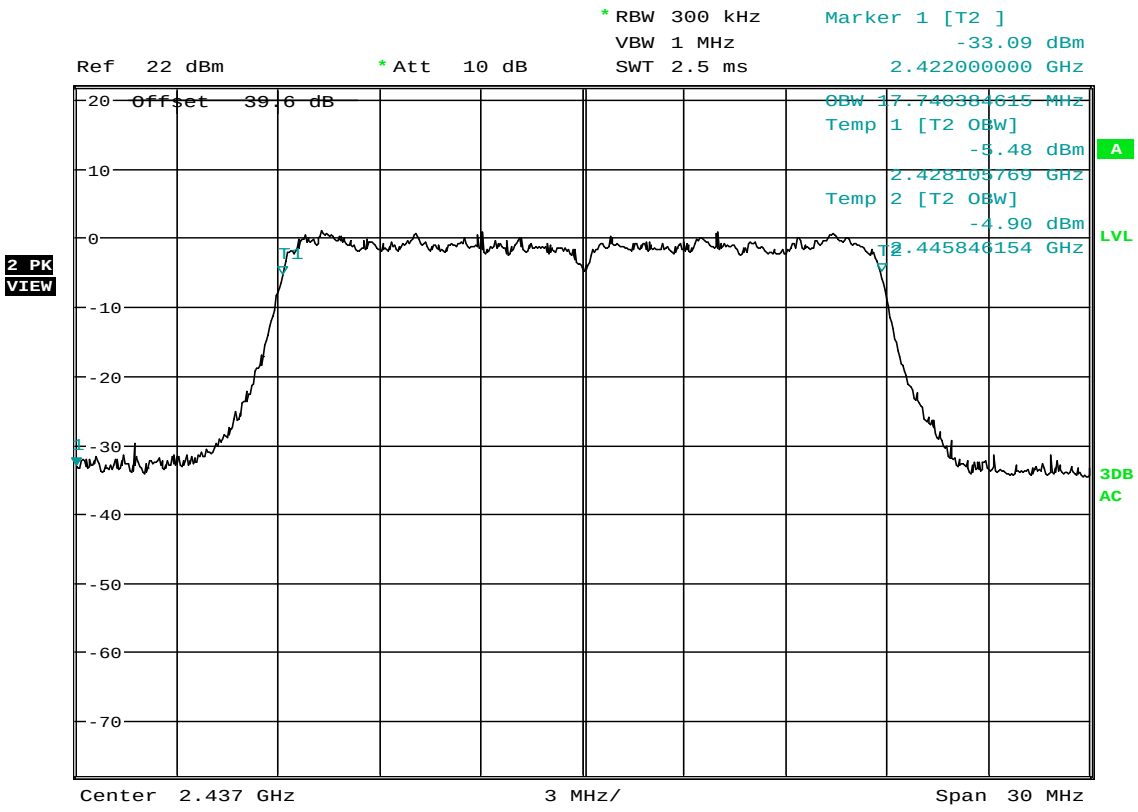
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	28.9 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:20:29

FCC 15C 15.247 / OBW

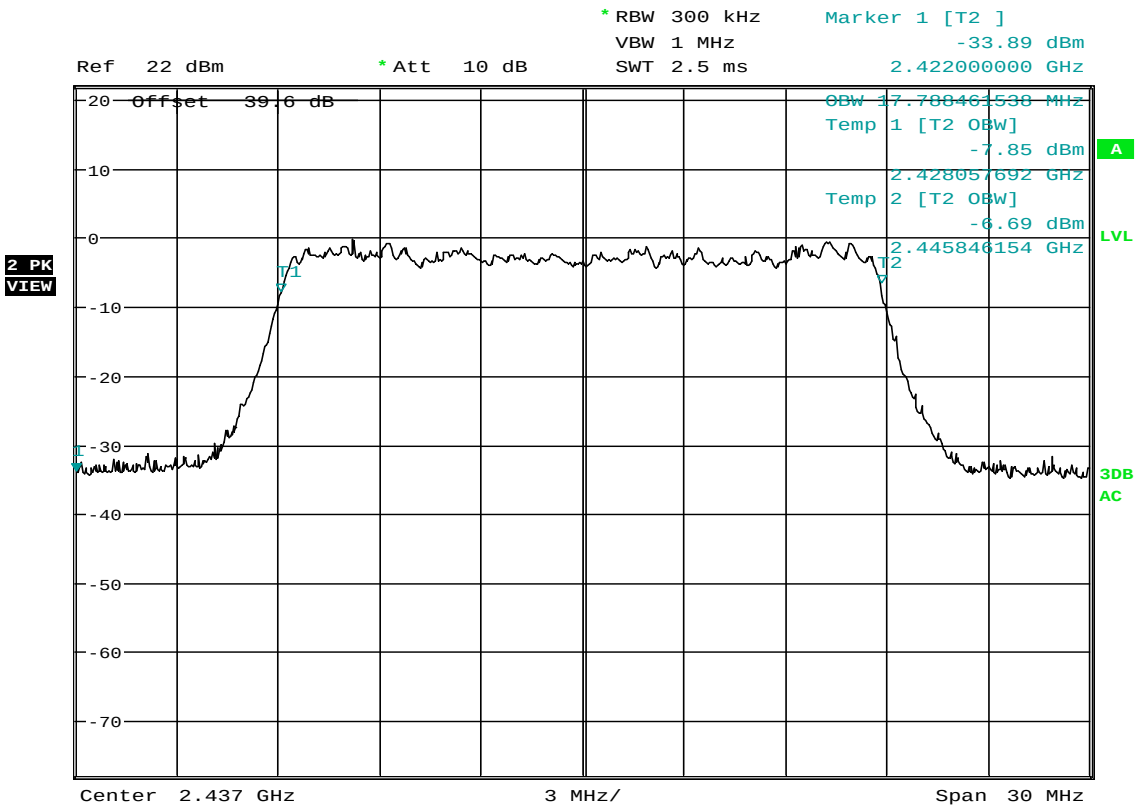
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	43.3 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:21:54

FCC 15C 15.247 / OBW

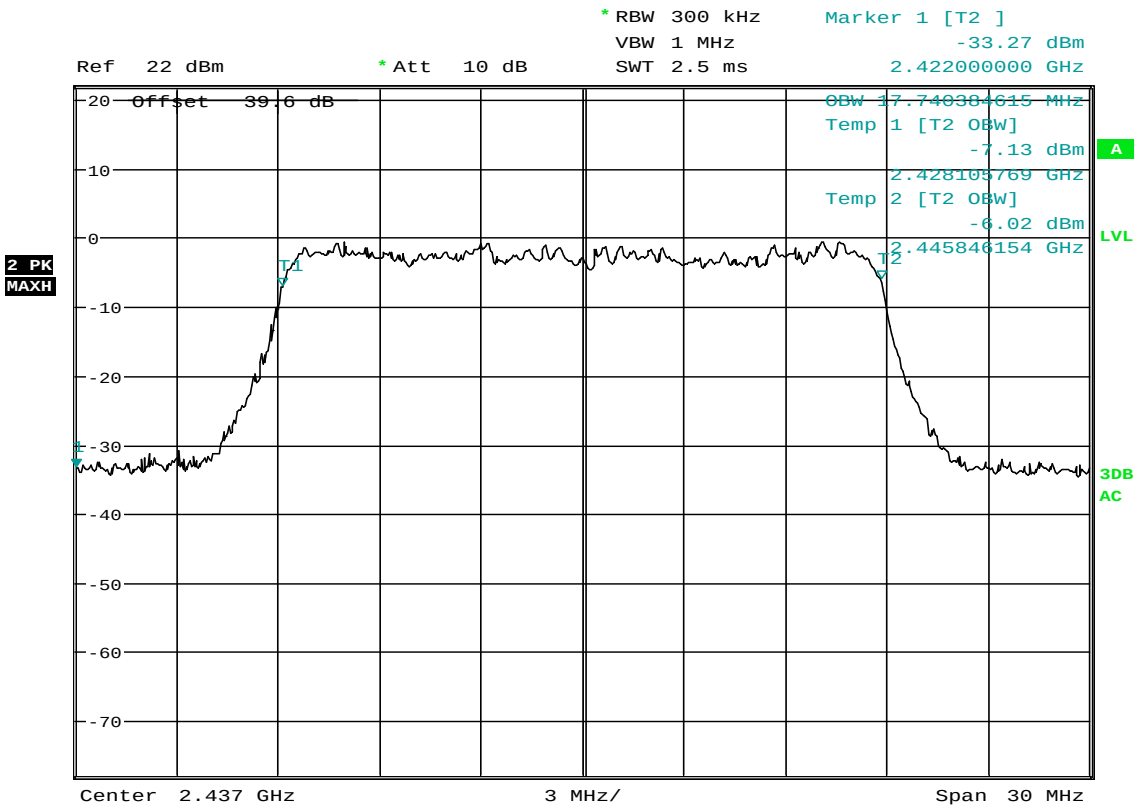
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	57.8 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:23:36

FCC 15C 15.247 / OBW

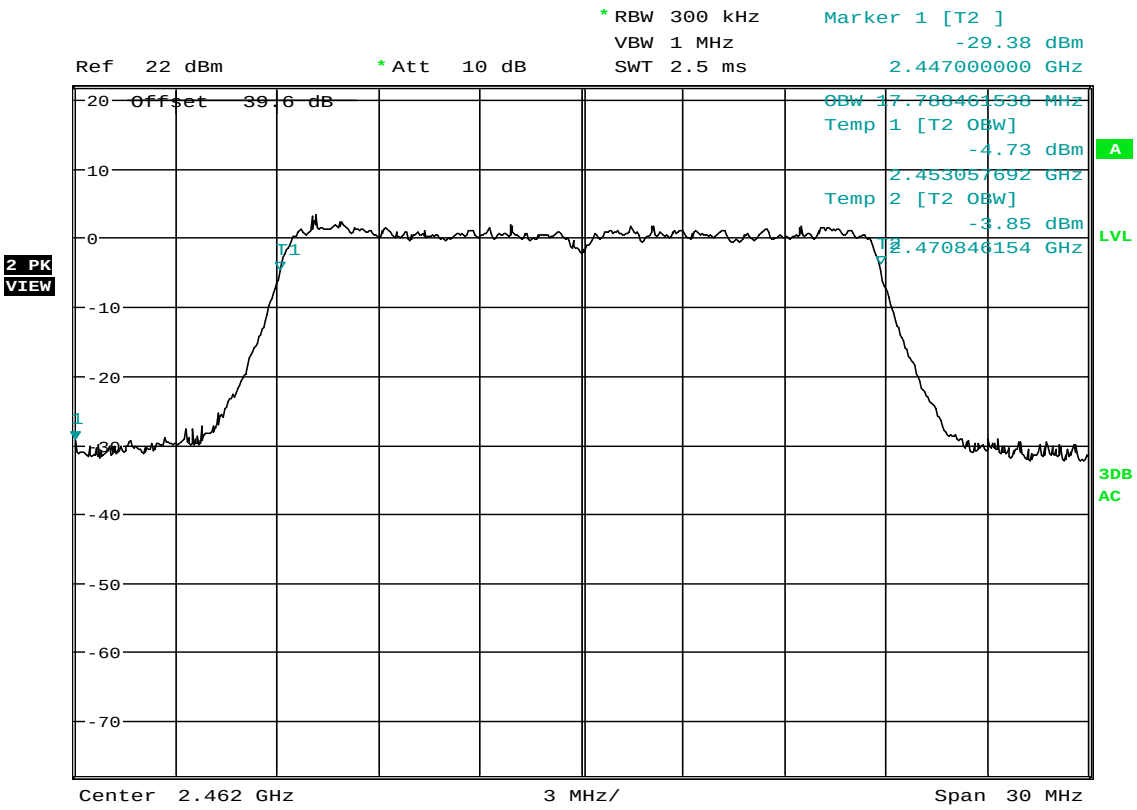
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	65 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:25:07

FCC 15C 15.247 / OBW

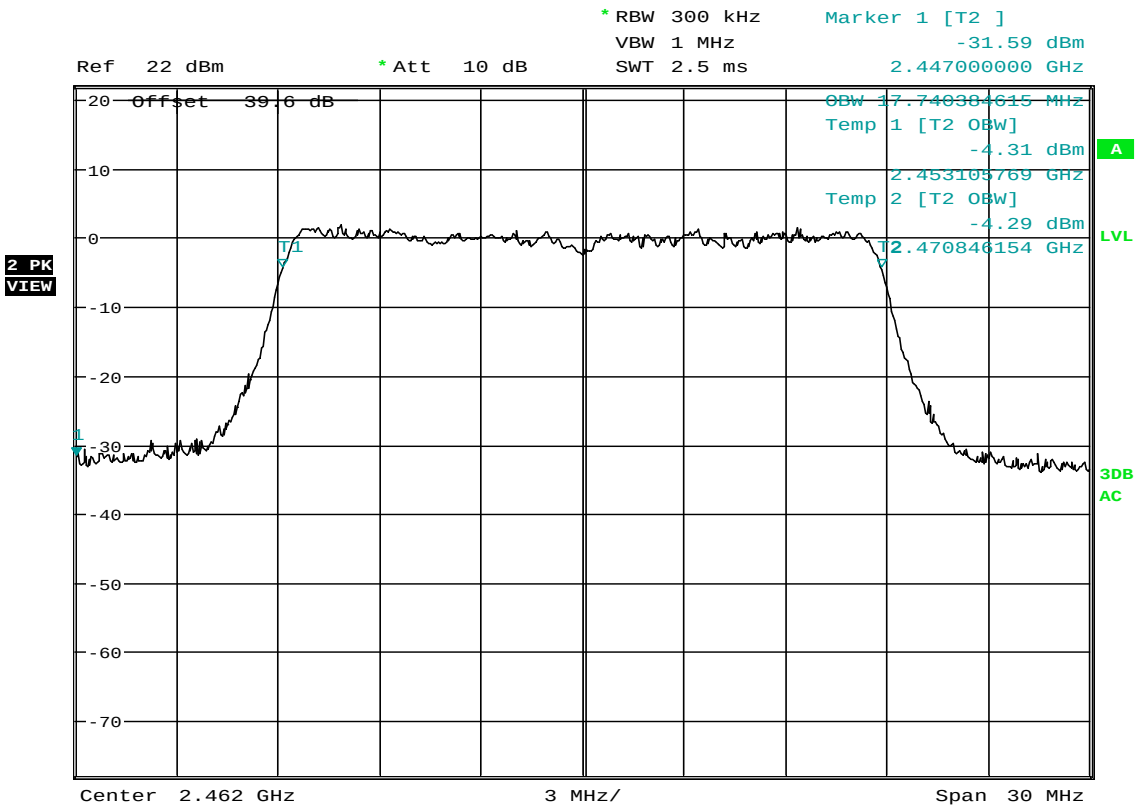
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	72.7 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:52:28

FCC 15C 15.247 / OBW

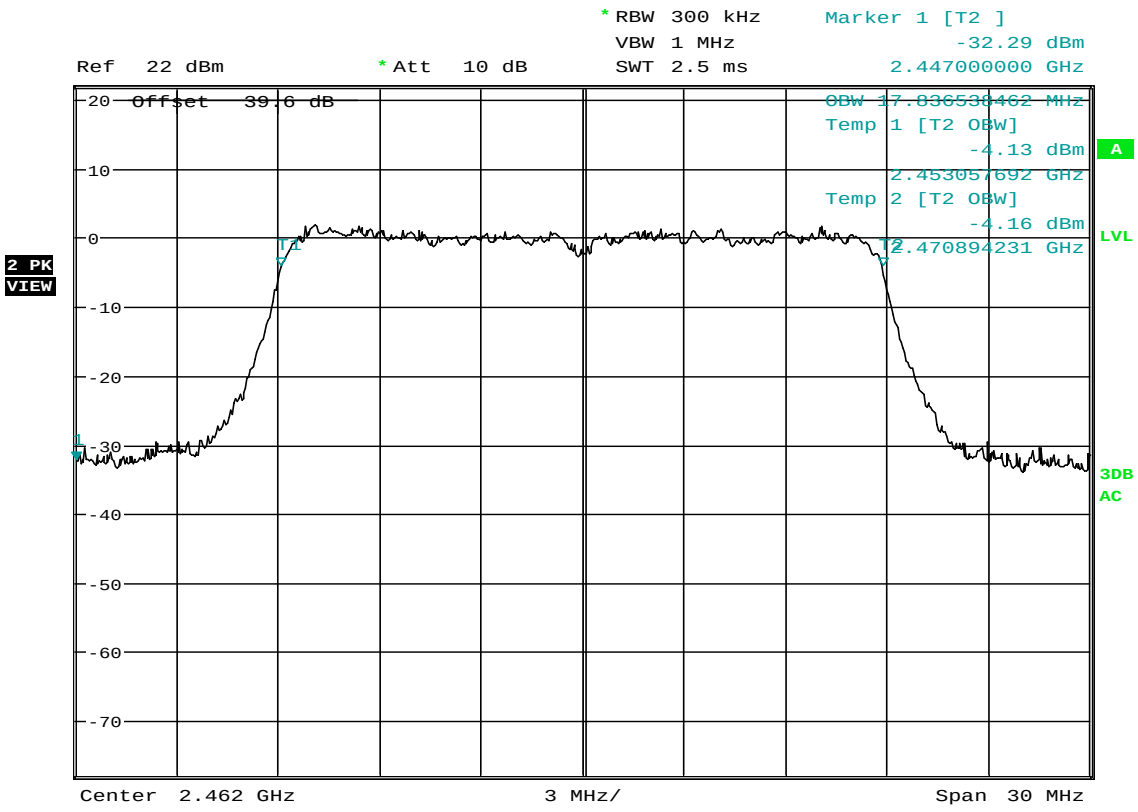
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	7.2 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:56:25

FCC 15C 15.247 / OBW

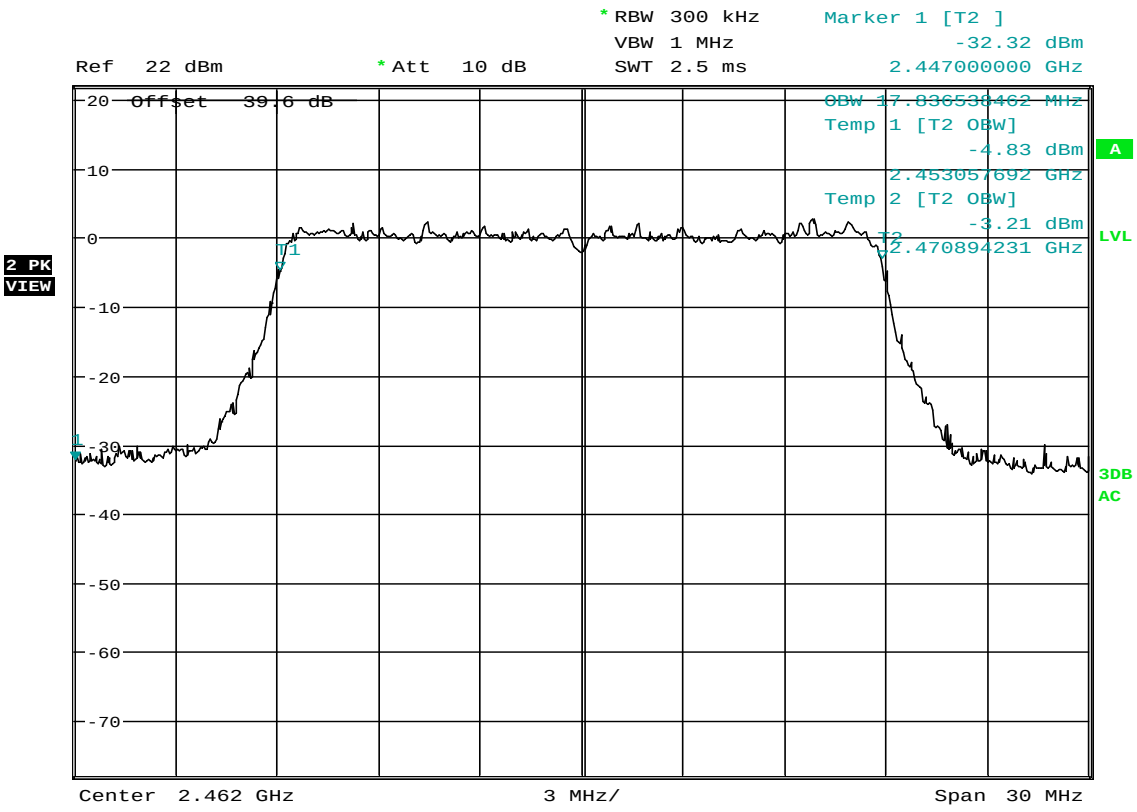
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	14.4 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:57:51

FCC 15C 15.247 / OBW

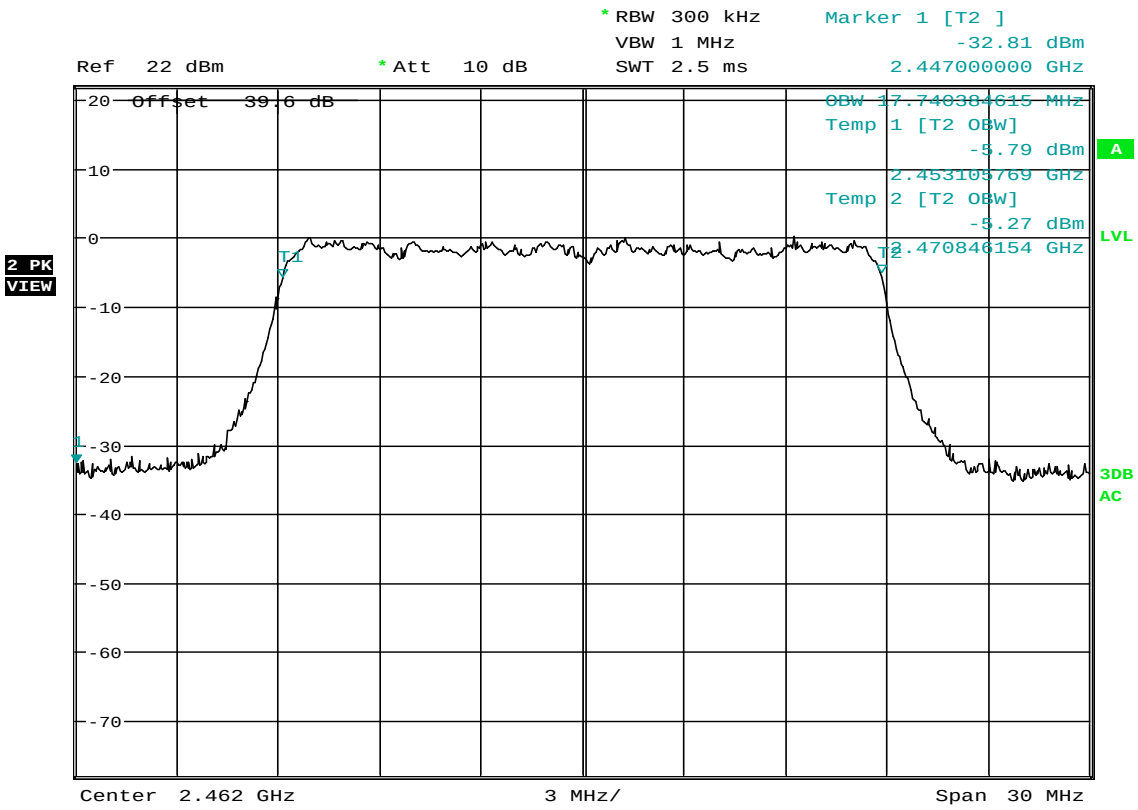
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	21.7 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 04:59:12

FCC 15C 15.247 / OBW

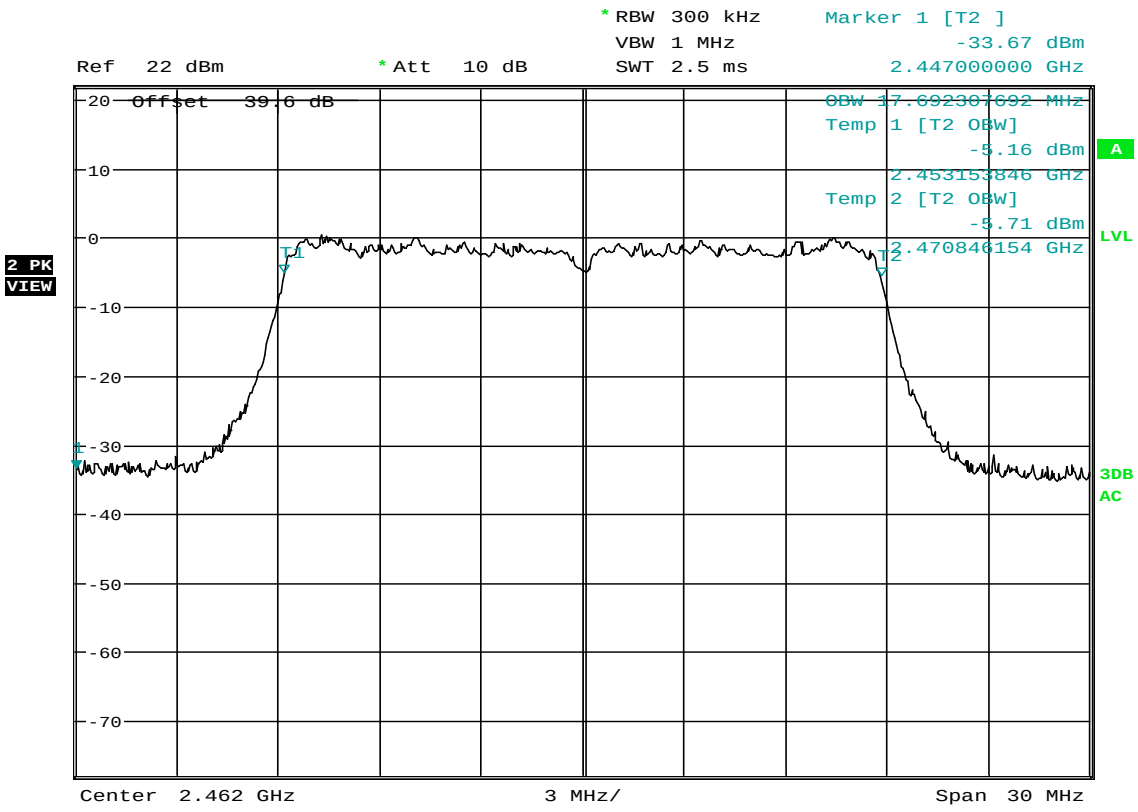
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	28.9 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 05:05:03

FCC 15C 15.247 / OBW

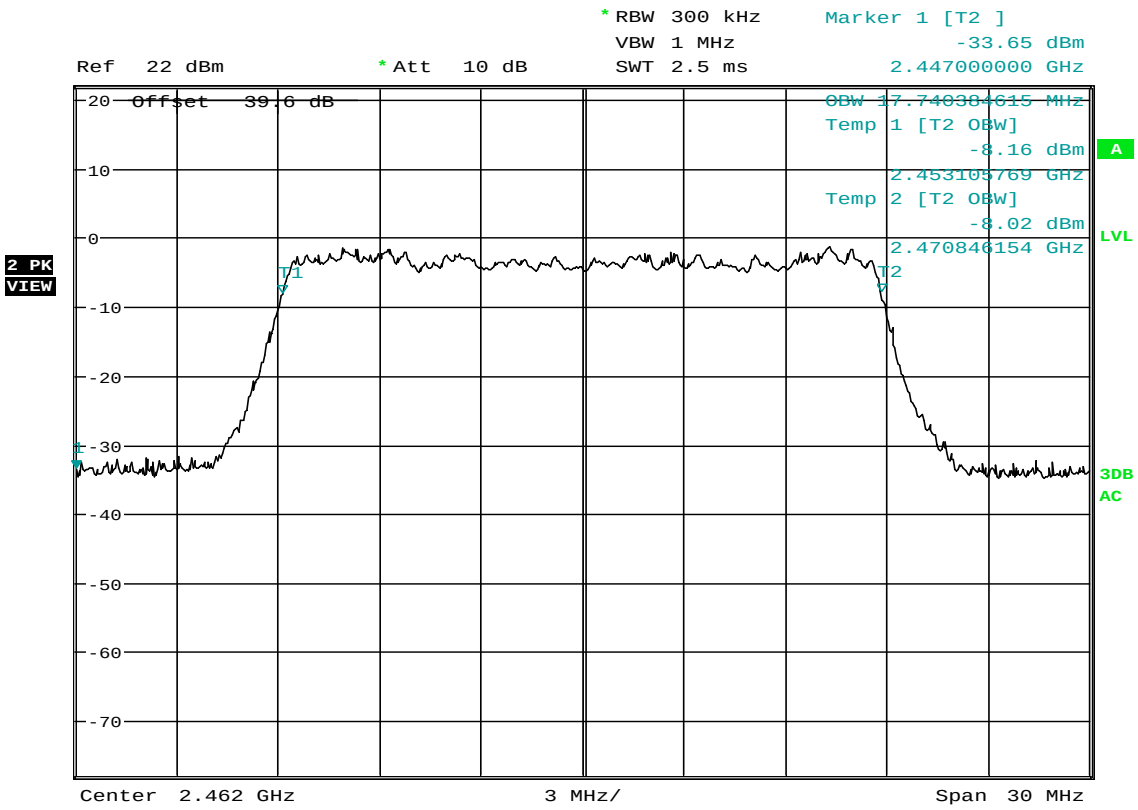
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	43.3 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 05:06:36

FCC 15C 15.247 / OBW

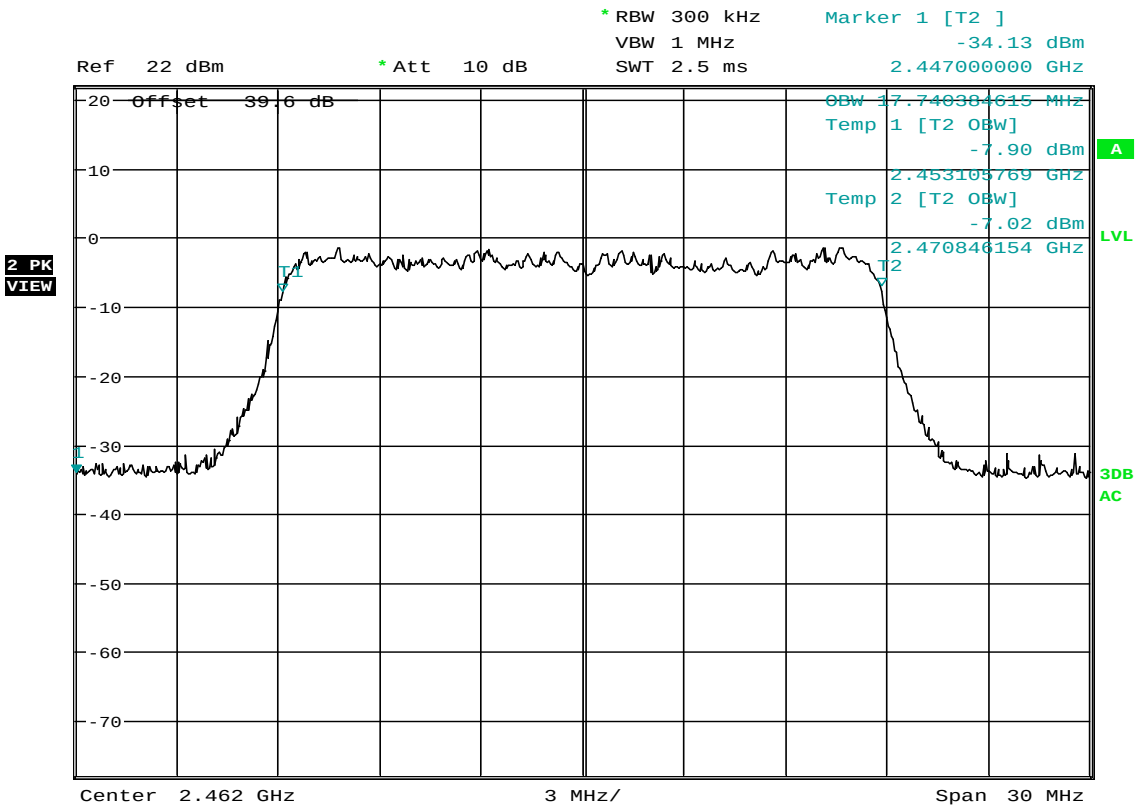
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	57.8 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 05:08:07

FCC 15C 15.247 / OBW

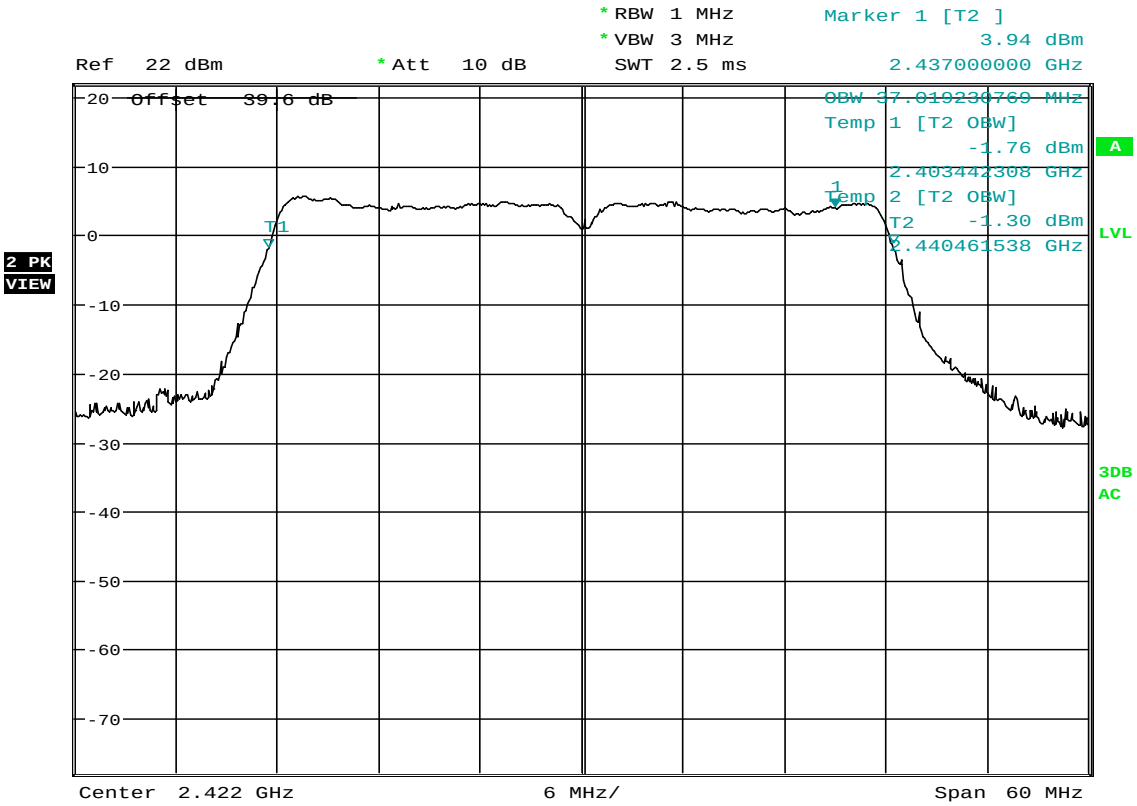
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	65 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 05:09:28

FCC 15C 15.247 / OBW

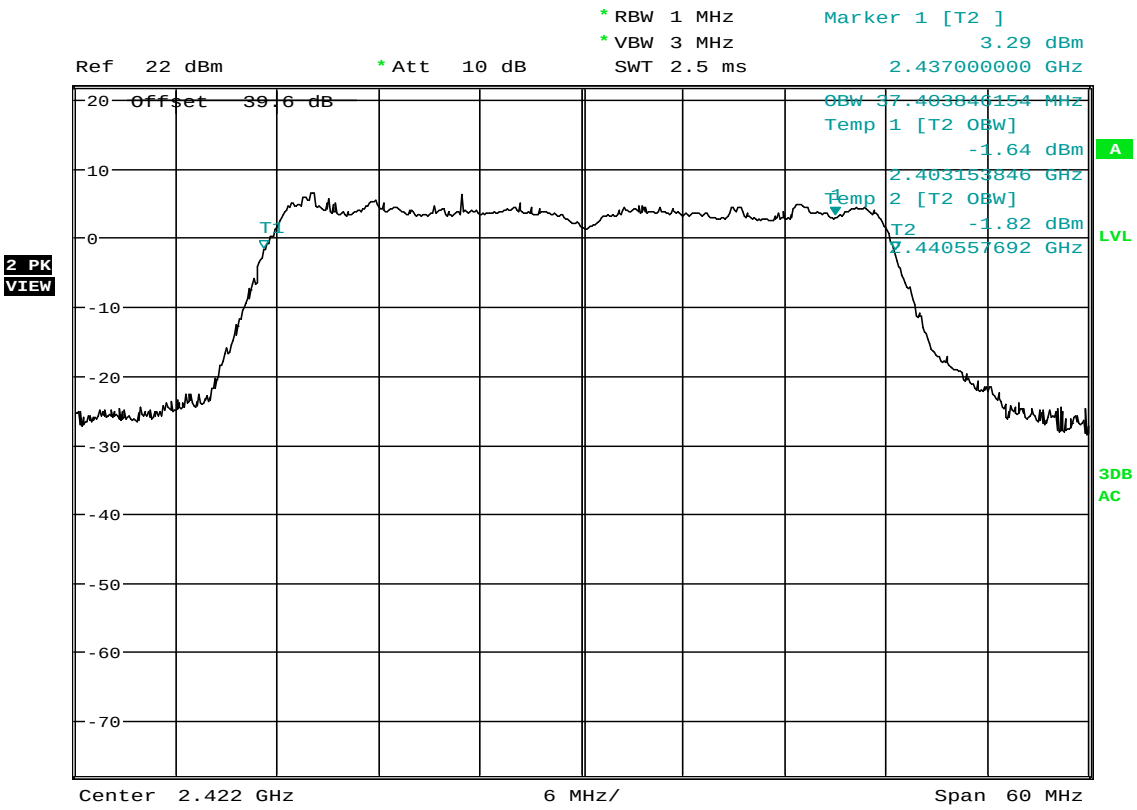
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 20 MHz
NOTES	:	72.7 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 05:12:02

FCC 15C 15.247 / OBW

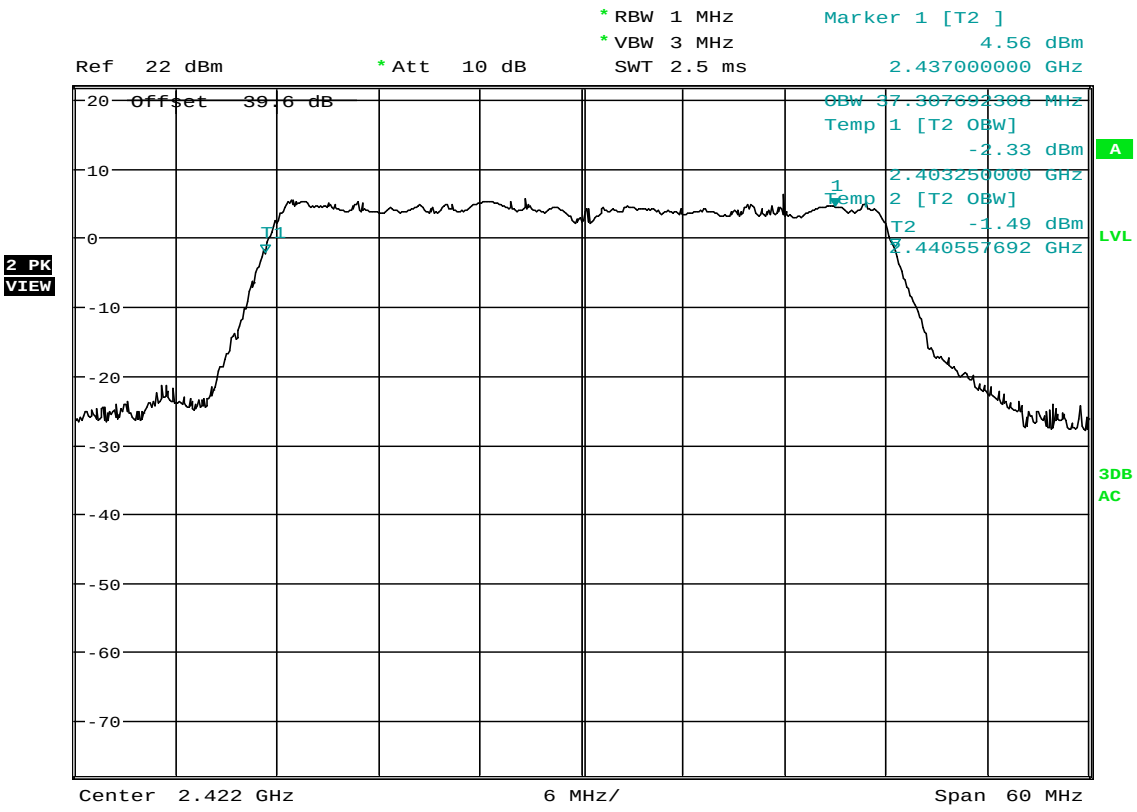
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LO CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	15 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 05:14:05

FCC 15C 15.247 / OBW

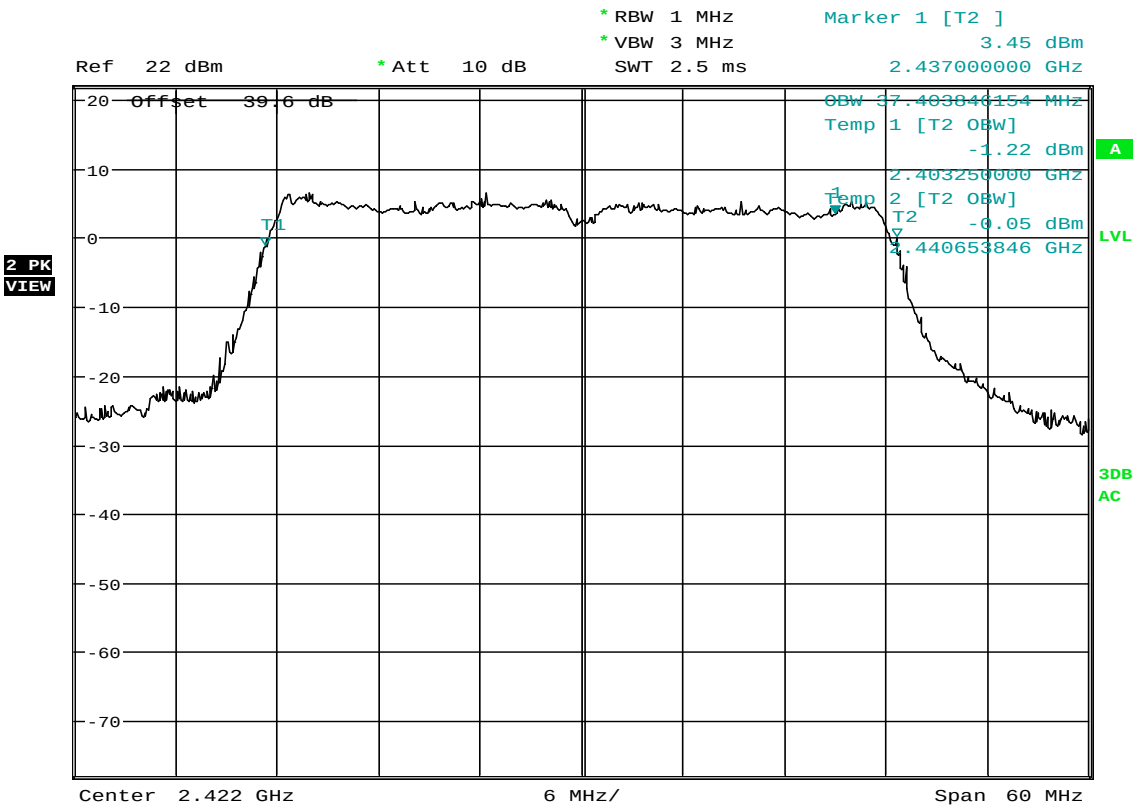
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LO CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	30 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 05:15:21

FCC 15C 15.247 / OBW

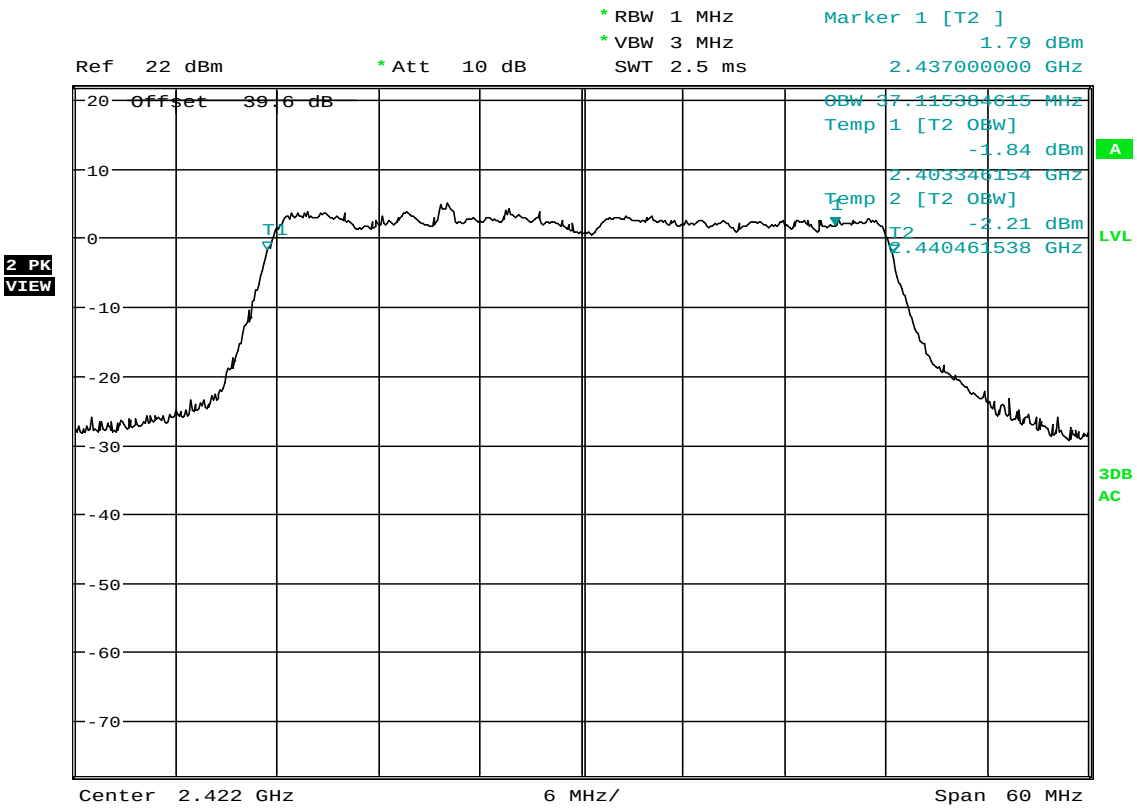
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LO CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	45 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 05:16:27

FCC 15C 15.247 / OBW

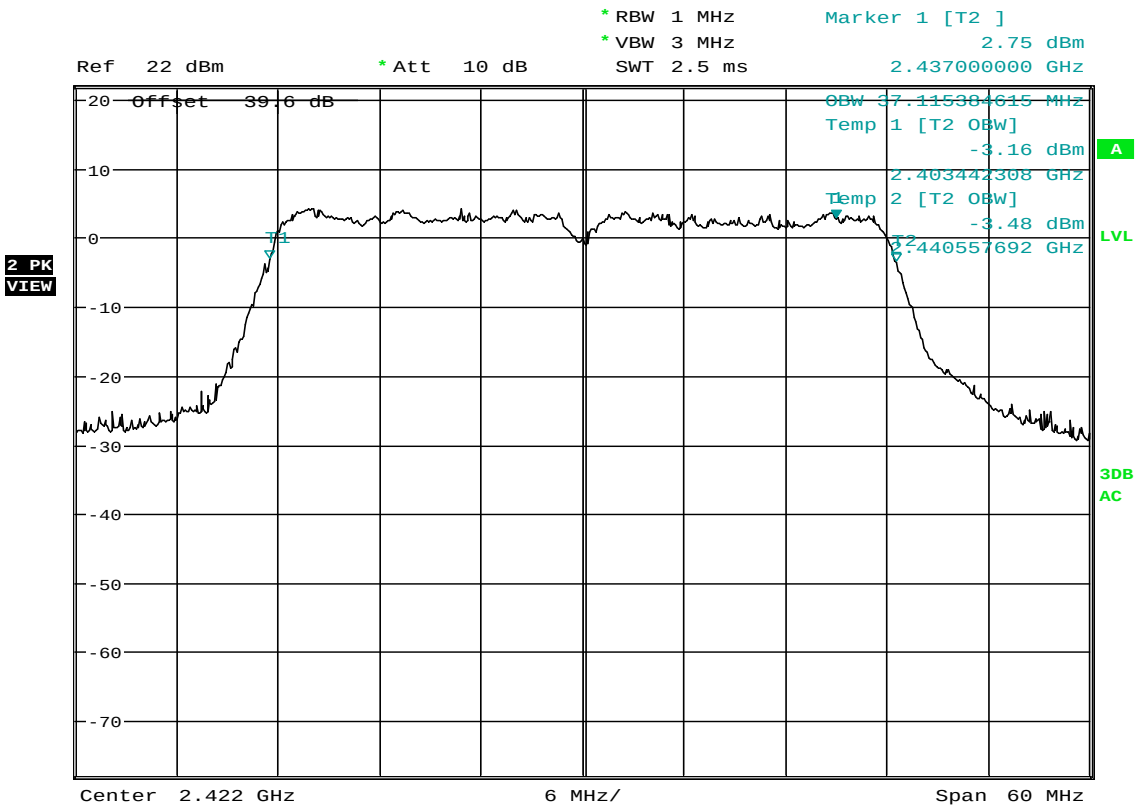
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LO CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	60 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 05:17:50

FCC 15C 15.247 / OBW

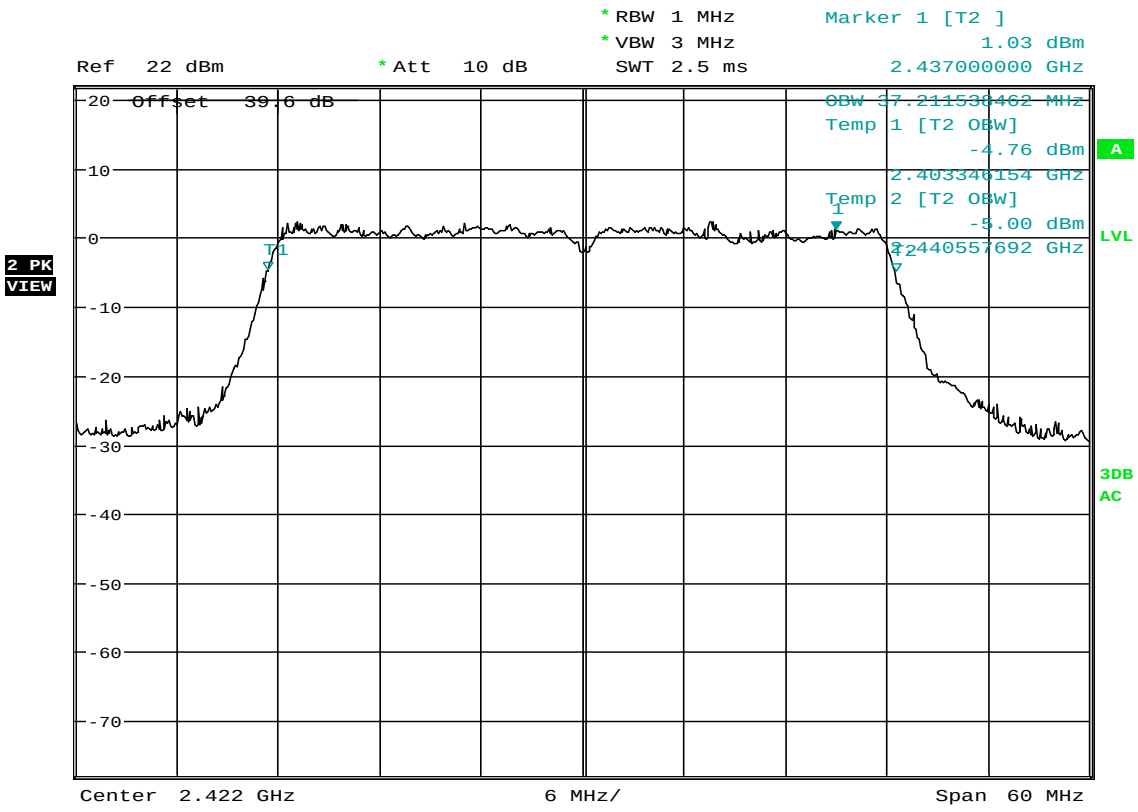
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LO CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	90 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 05:19:14

FCC 15C 15.247 / OBW

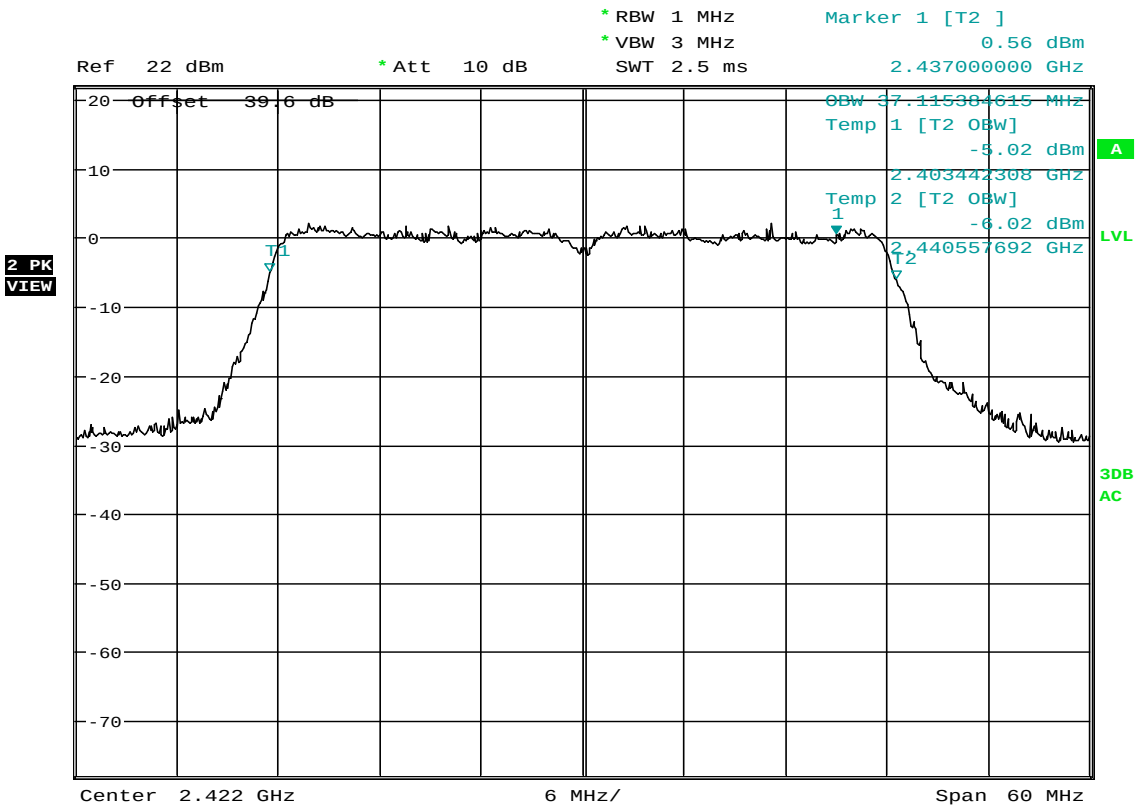
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LO CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	120 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 05:20:53

FCC 15C 15.247 / OBW

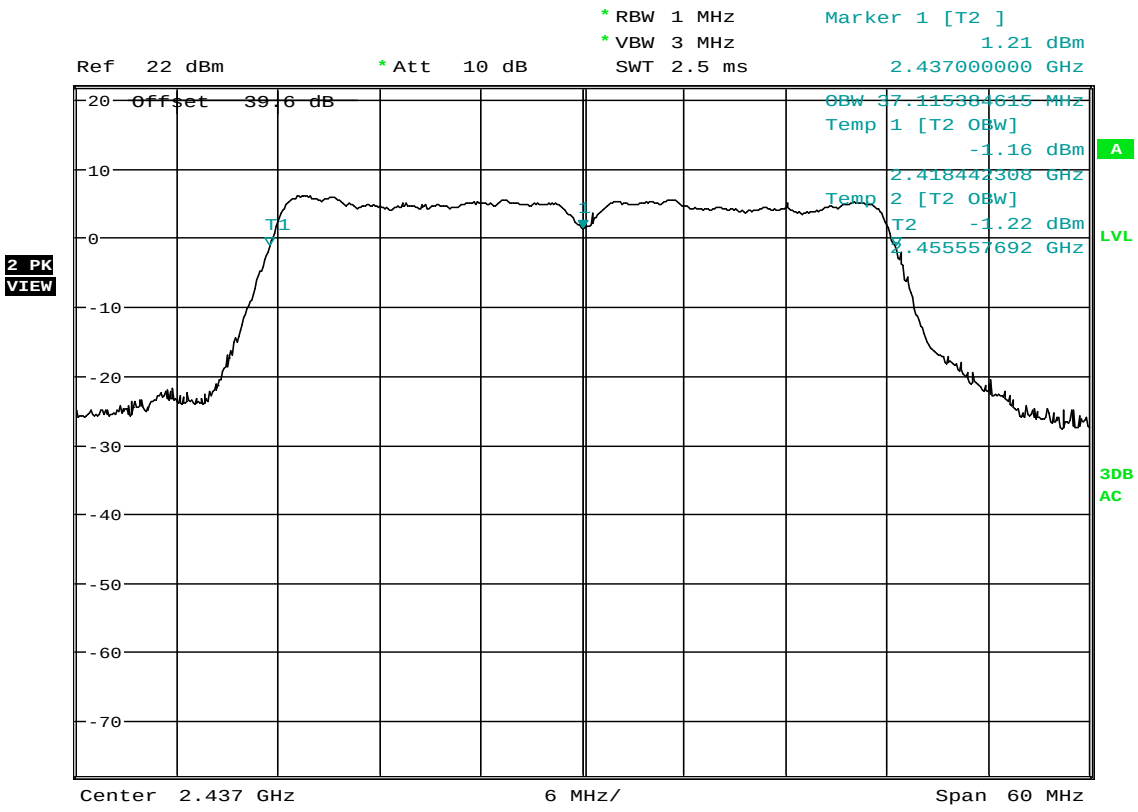
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LO CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	135 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 05:22:29

FCC 15C 15.247 / OBW

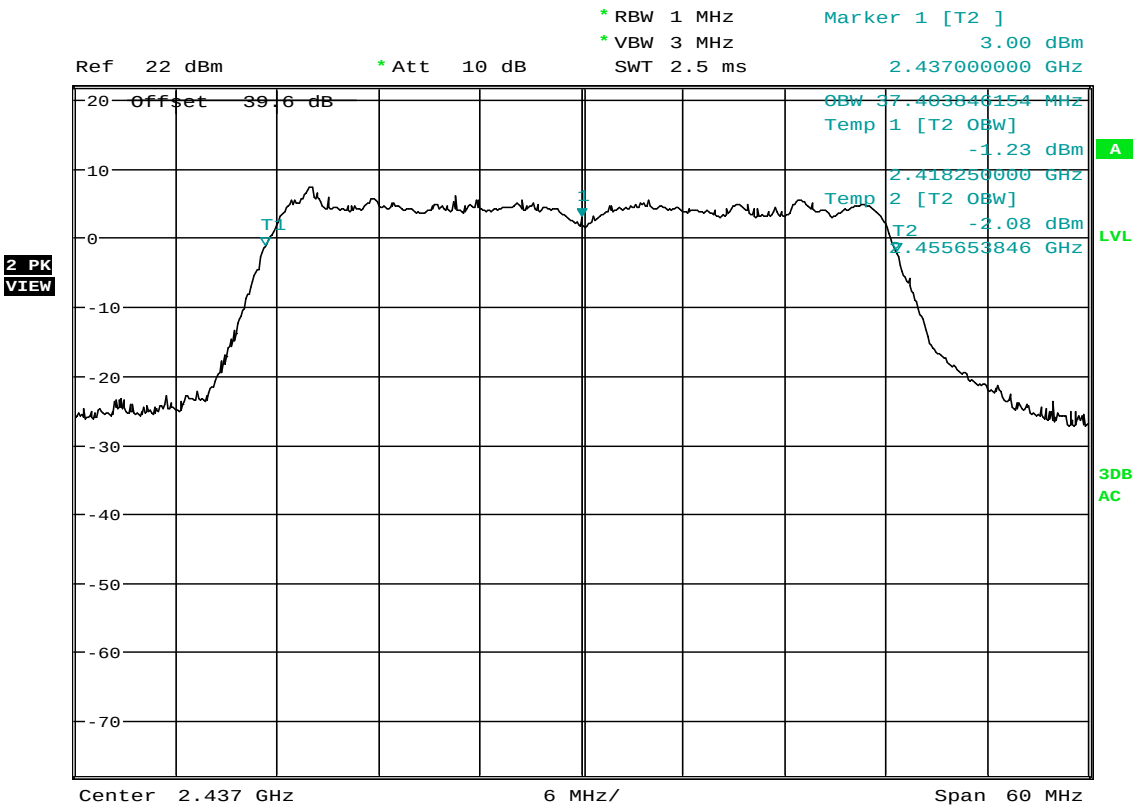
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ LO CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	135 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:31:02

FCC 15C 15.247 / OBW

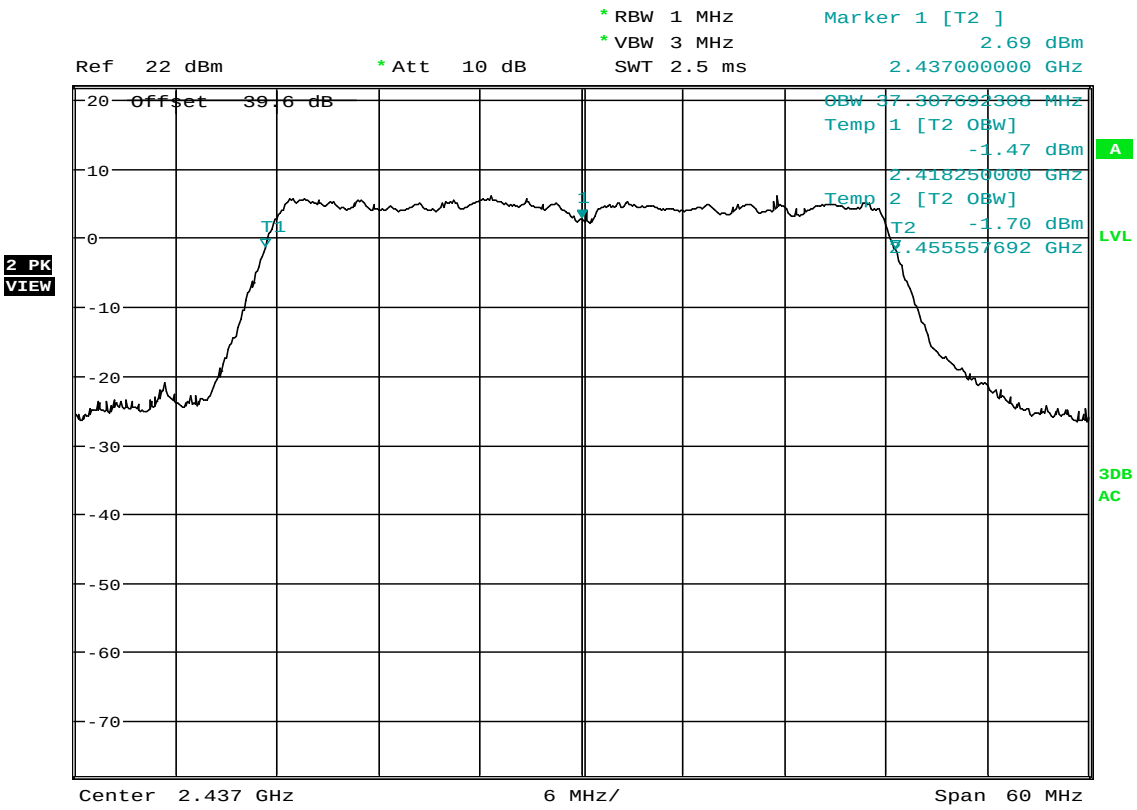
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	15 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:33:51

FCC 15C 15.247 / OBW

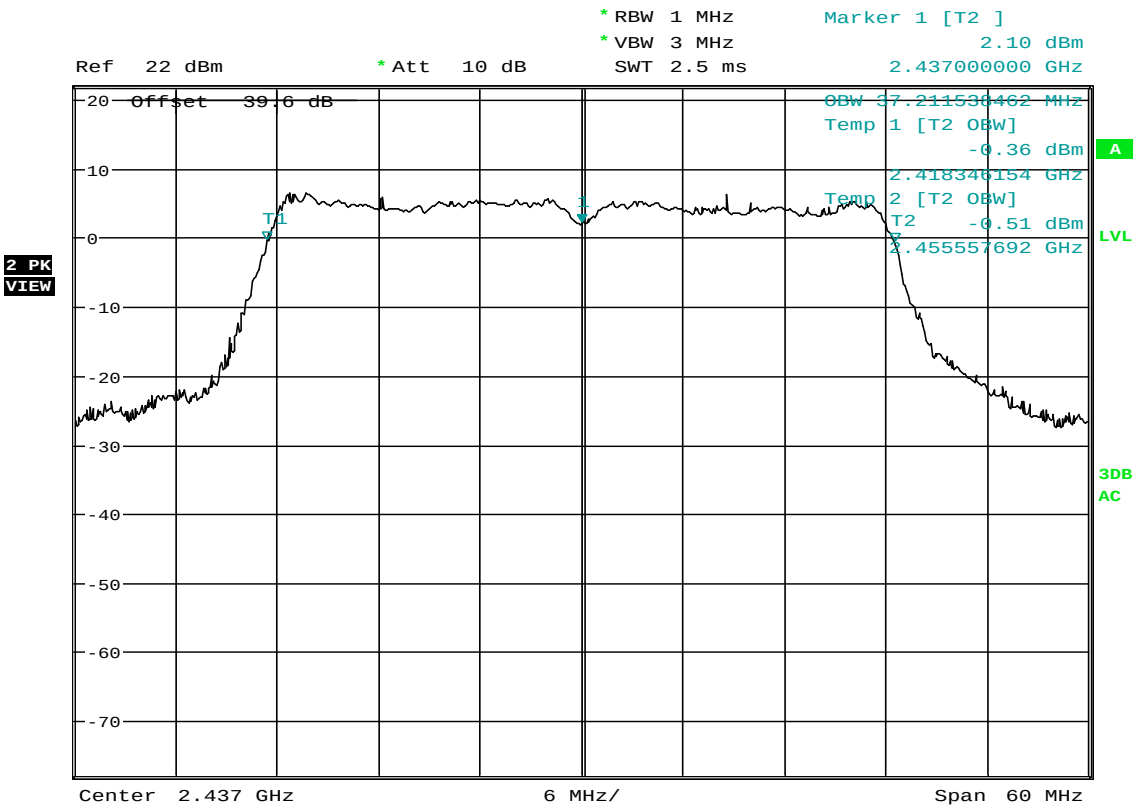
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	30 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:36:07

FCC 15C 15.247 / OBW

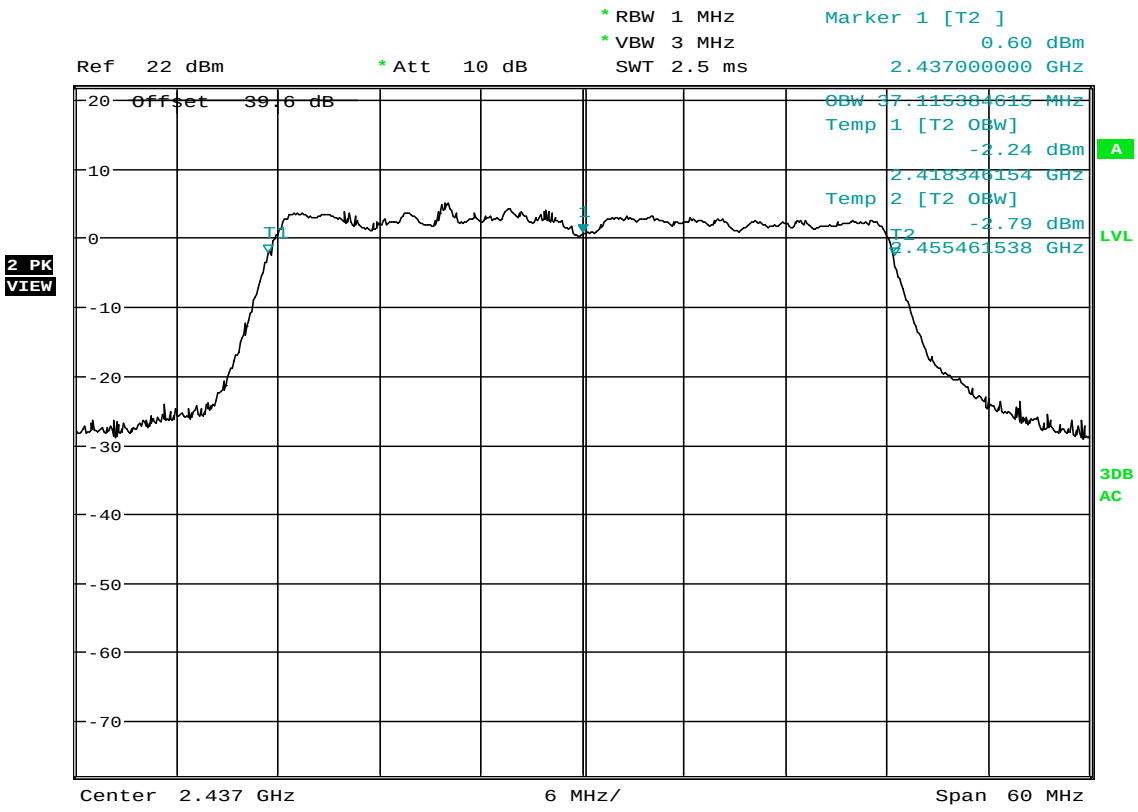
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	45 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:37:41

FCC 15C 15.247 / OBW

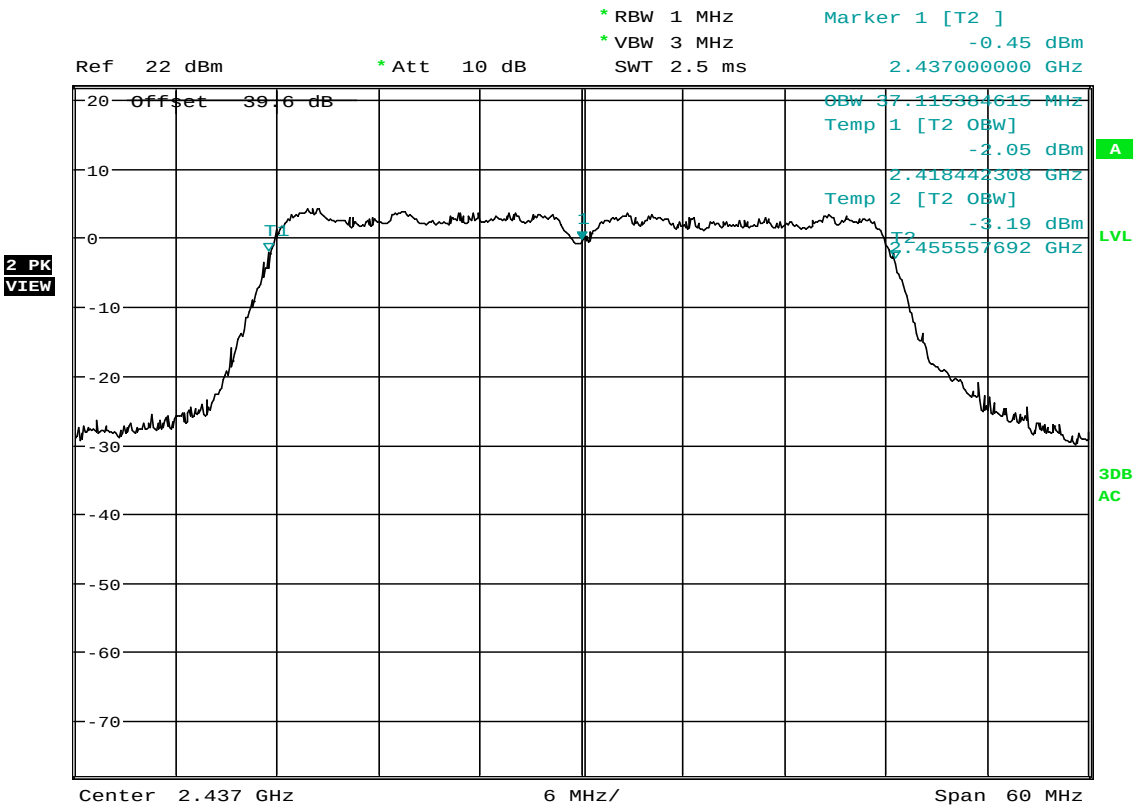
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	60 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:39:59

FCC 15C 15.247 / OBW

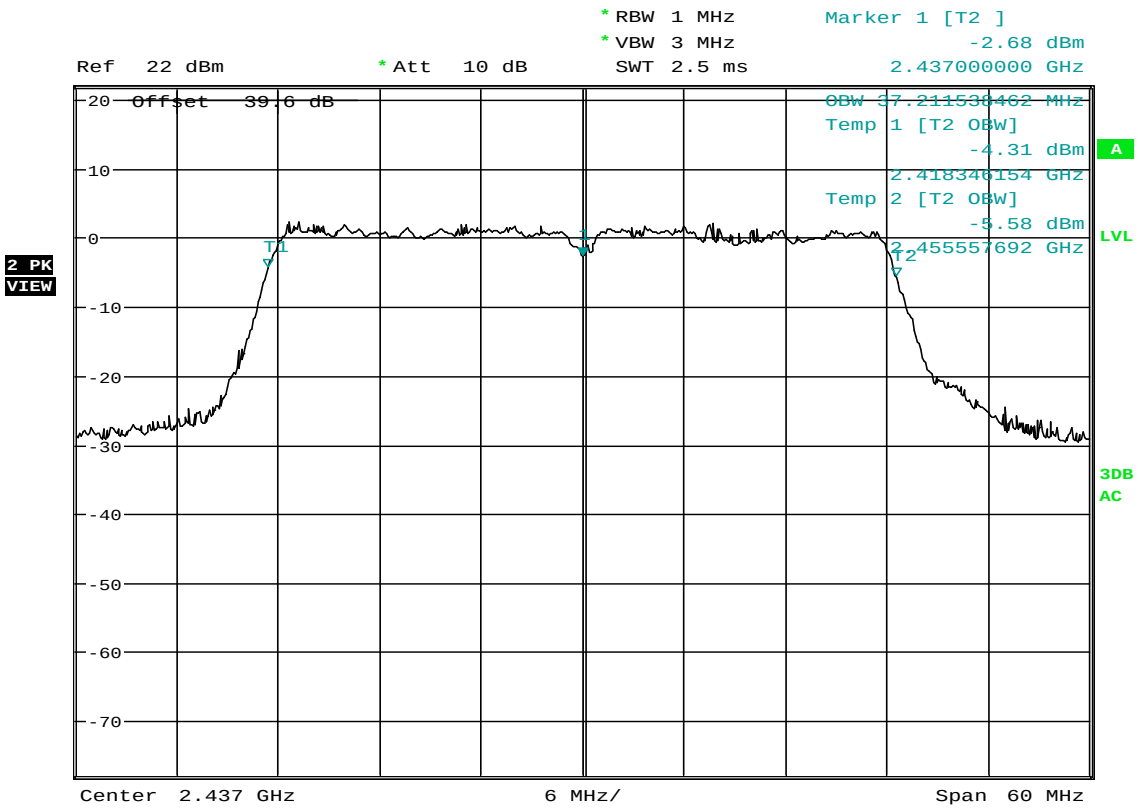
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	90 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:41:23

FCC 15C 15.247 / OBW

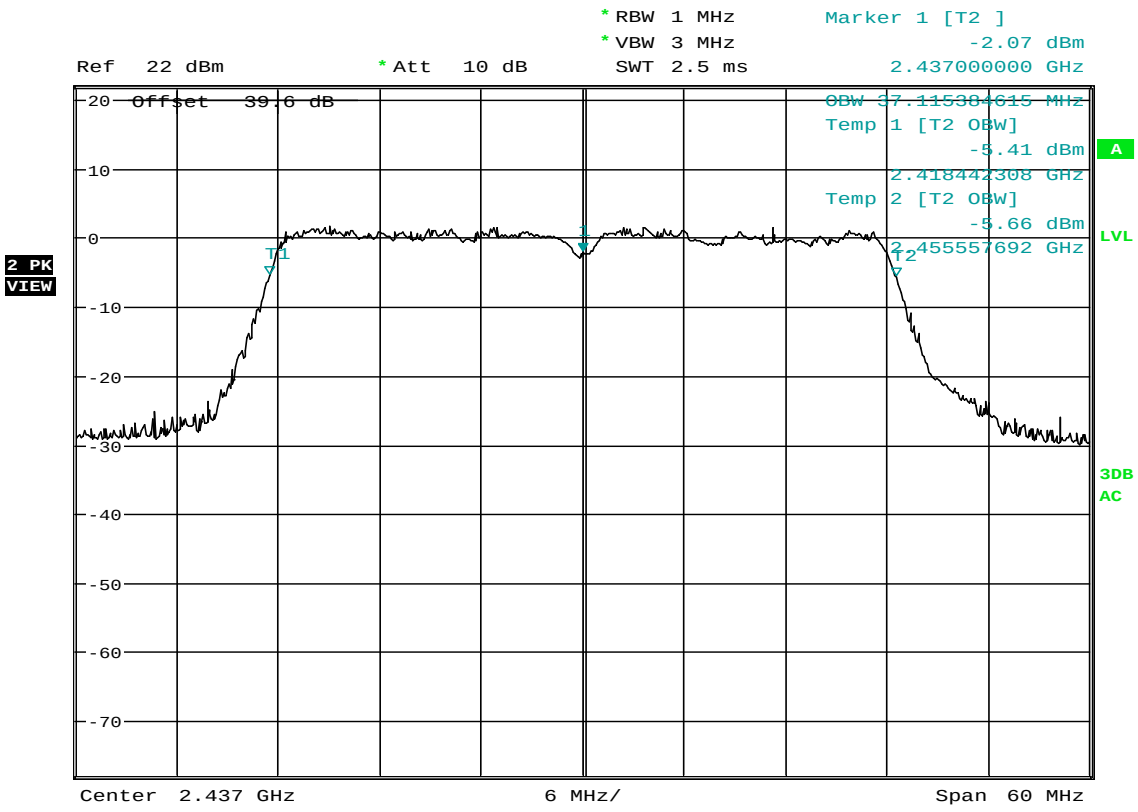
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	120 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:42:58

FCC 15C 15.247 / OBW

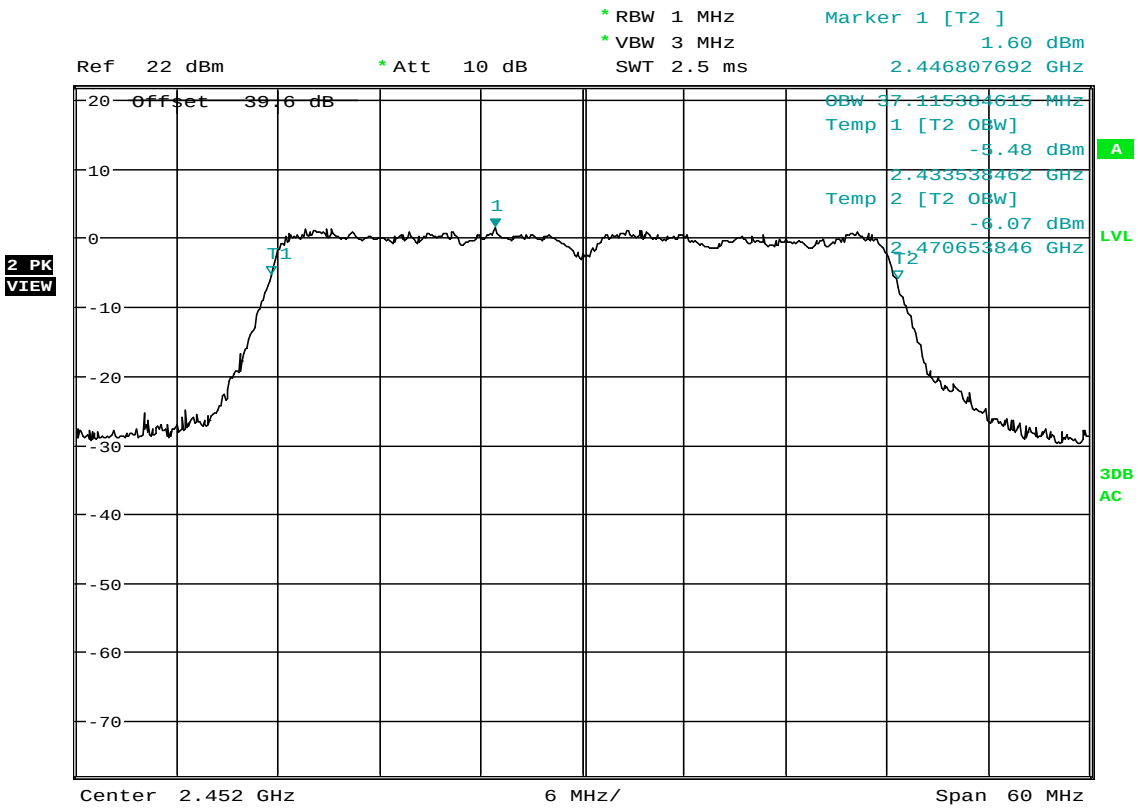
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	135 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:44:51

FCC 15C 15.247 / OBW

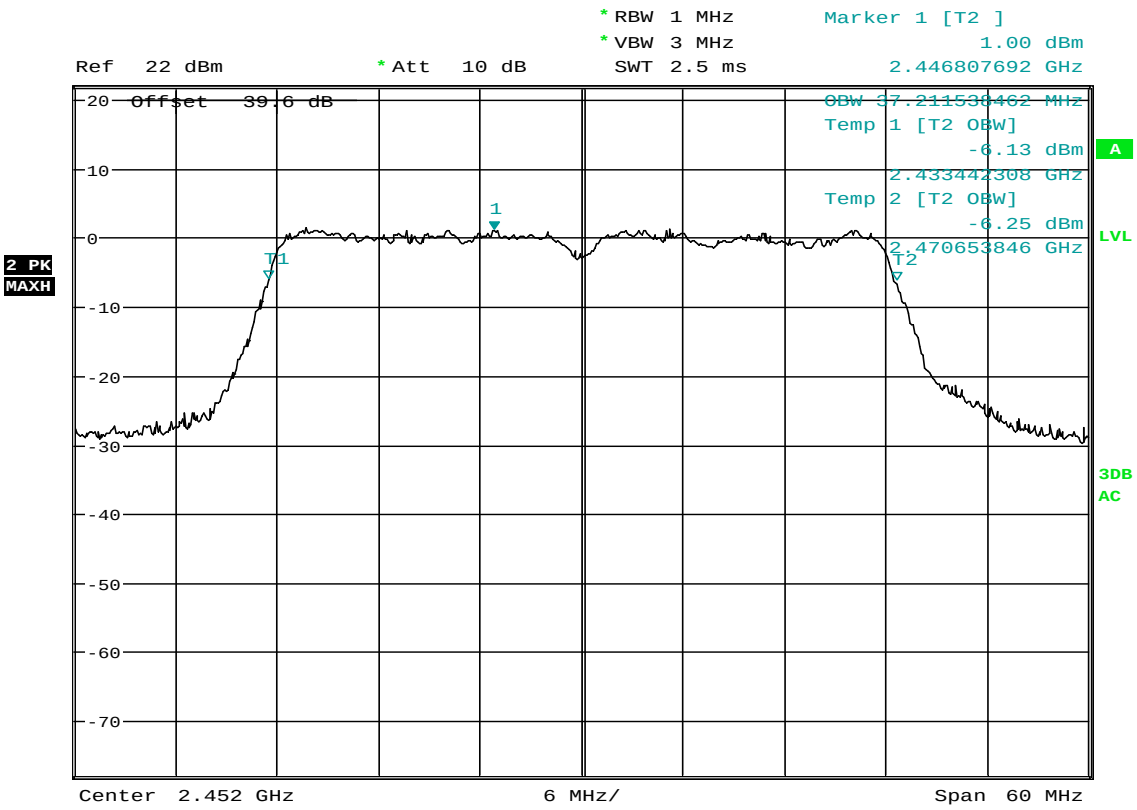
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ MID CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	150 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:47:13

FCC 15C 15.247 / OBW

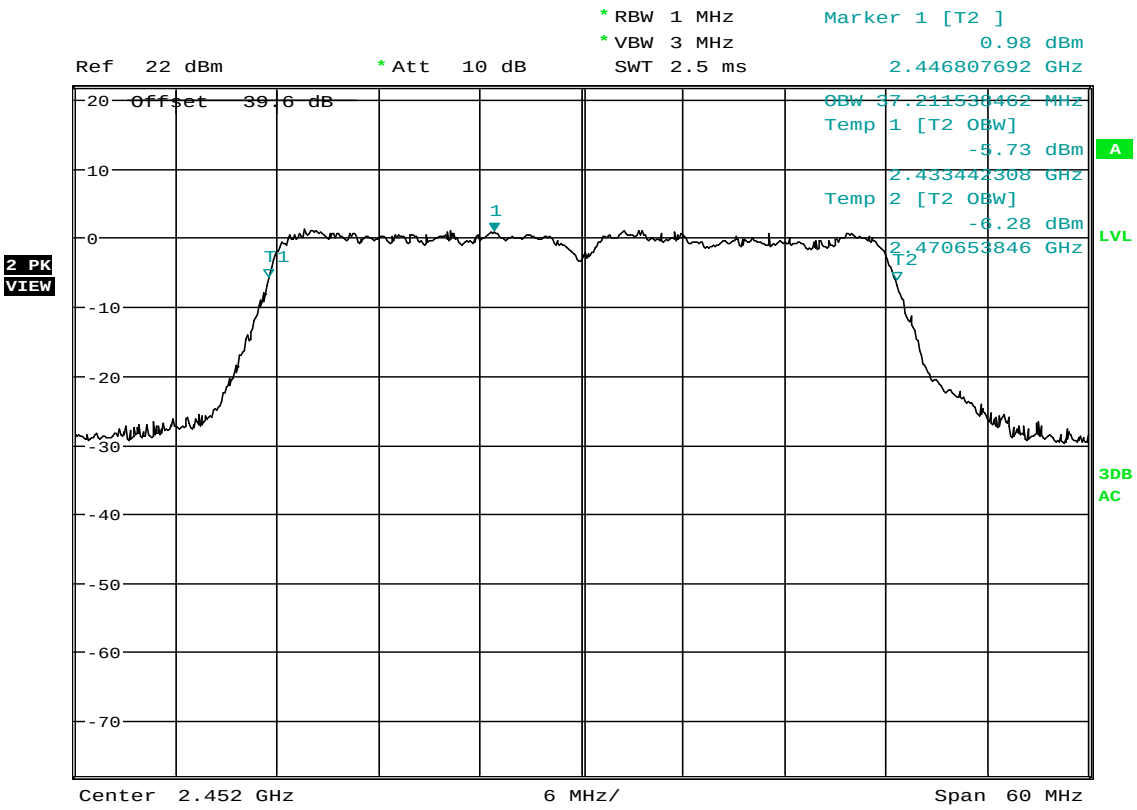
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	15 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:49:33

FCC 15C 15.247 / OBW

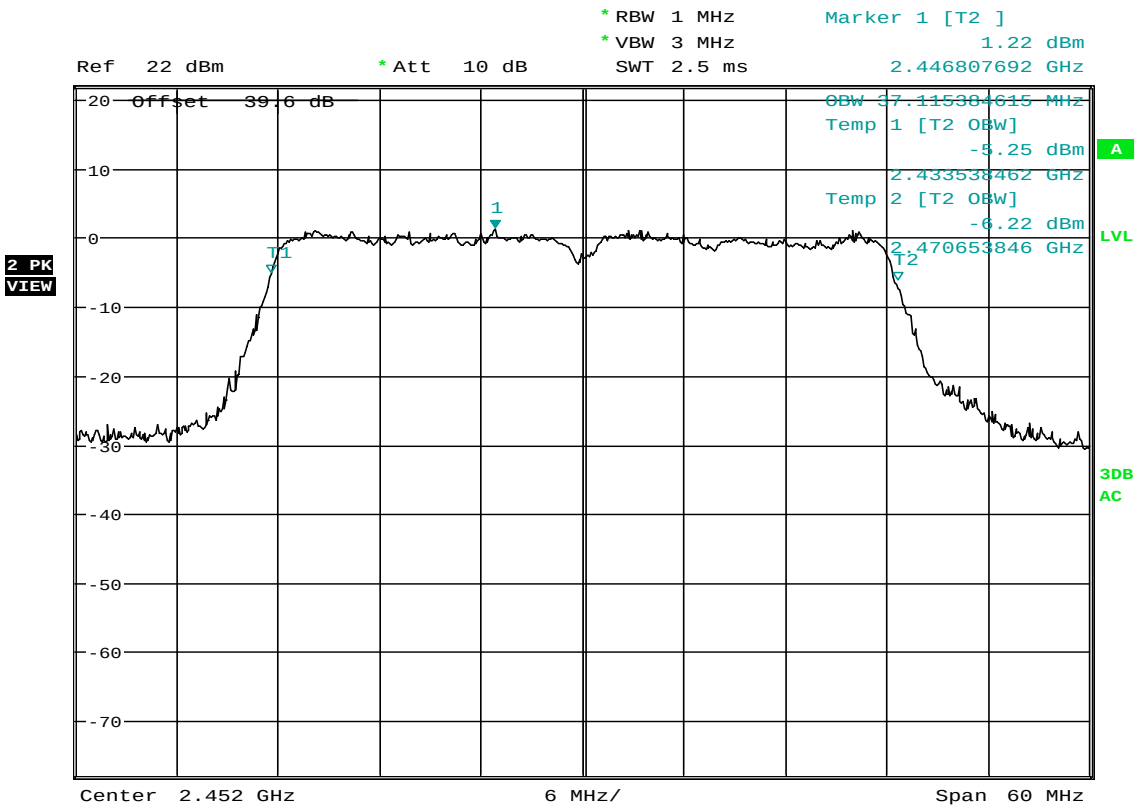
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	30 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:51:21

FCC 15C 15.247 / OBW

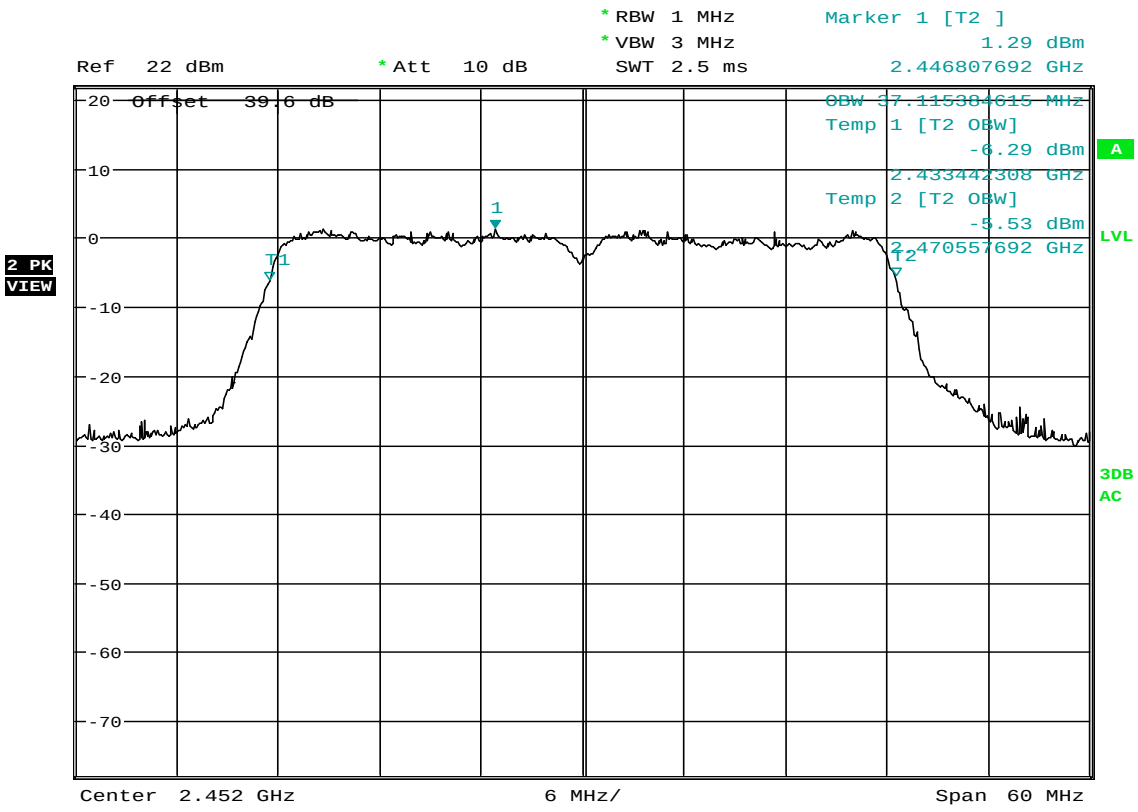
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	45 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:52:54

FCC 15C 15.247 / OBW

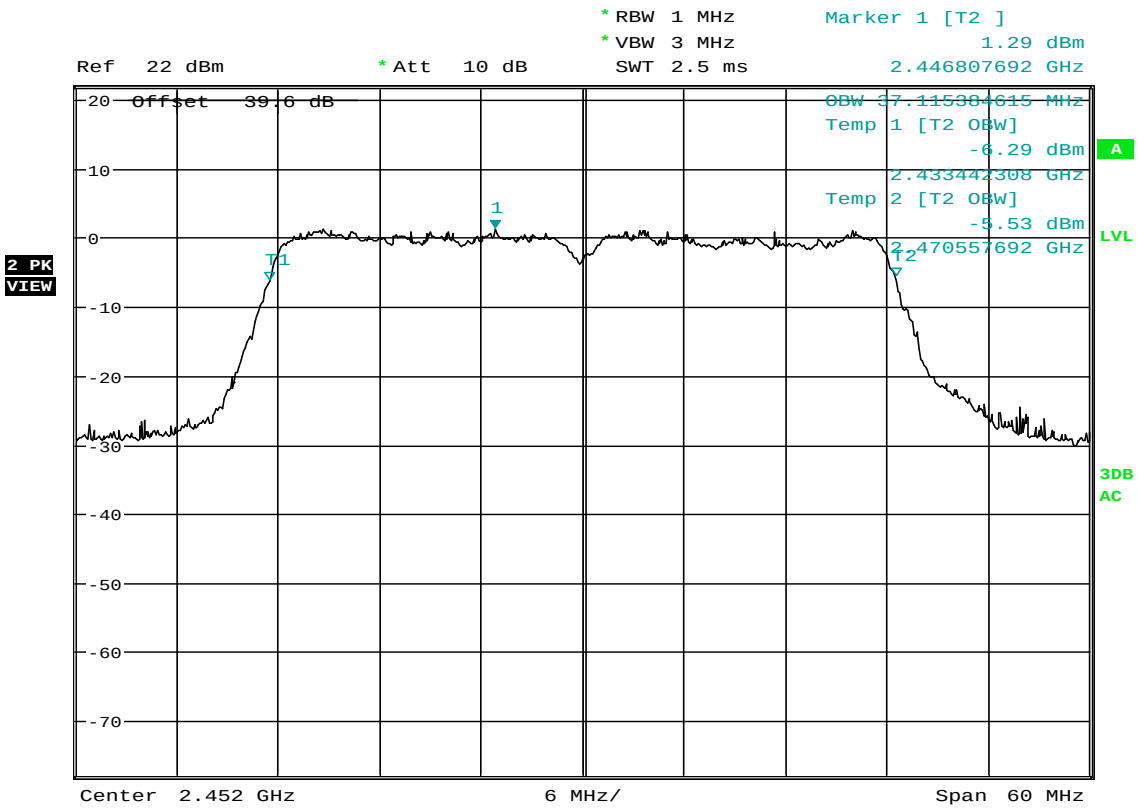
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	60 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:54:34

FCC 15C 15.247 / OBW

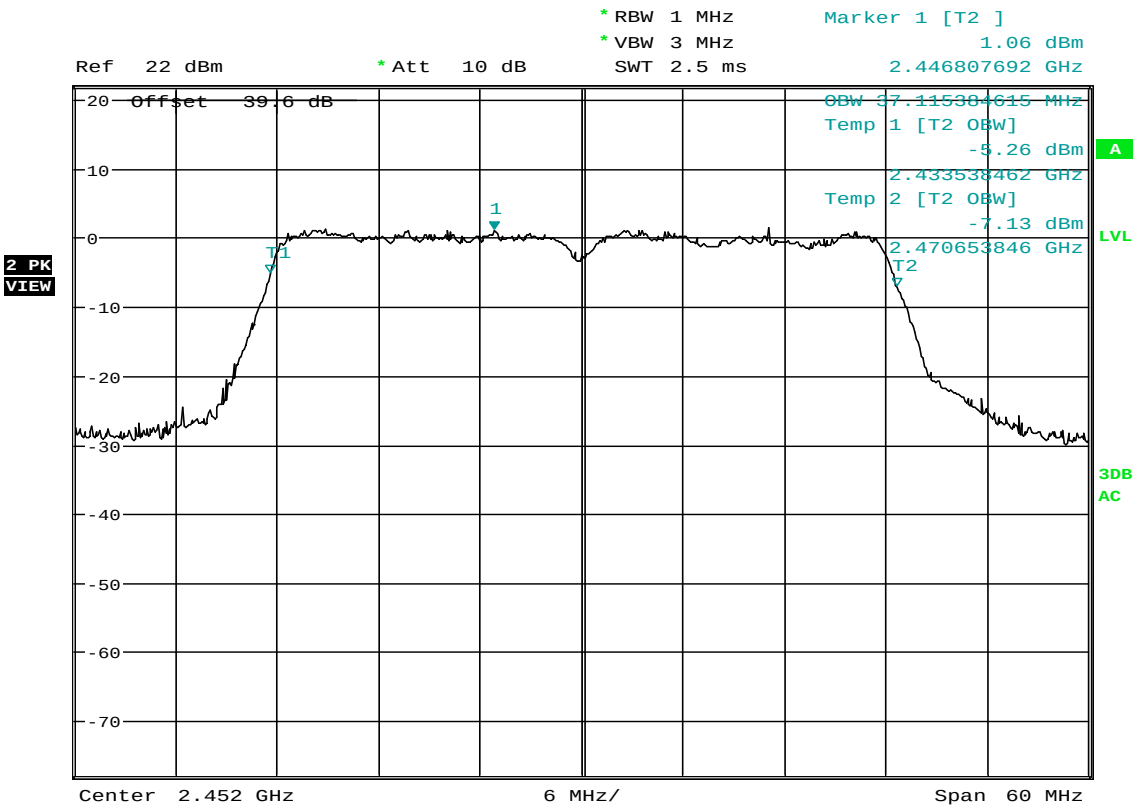
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	90 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:54:34

FCC 15C 15.247 / OBW

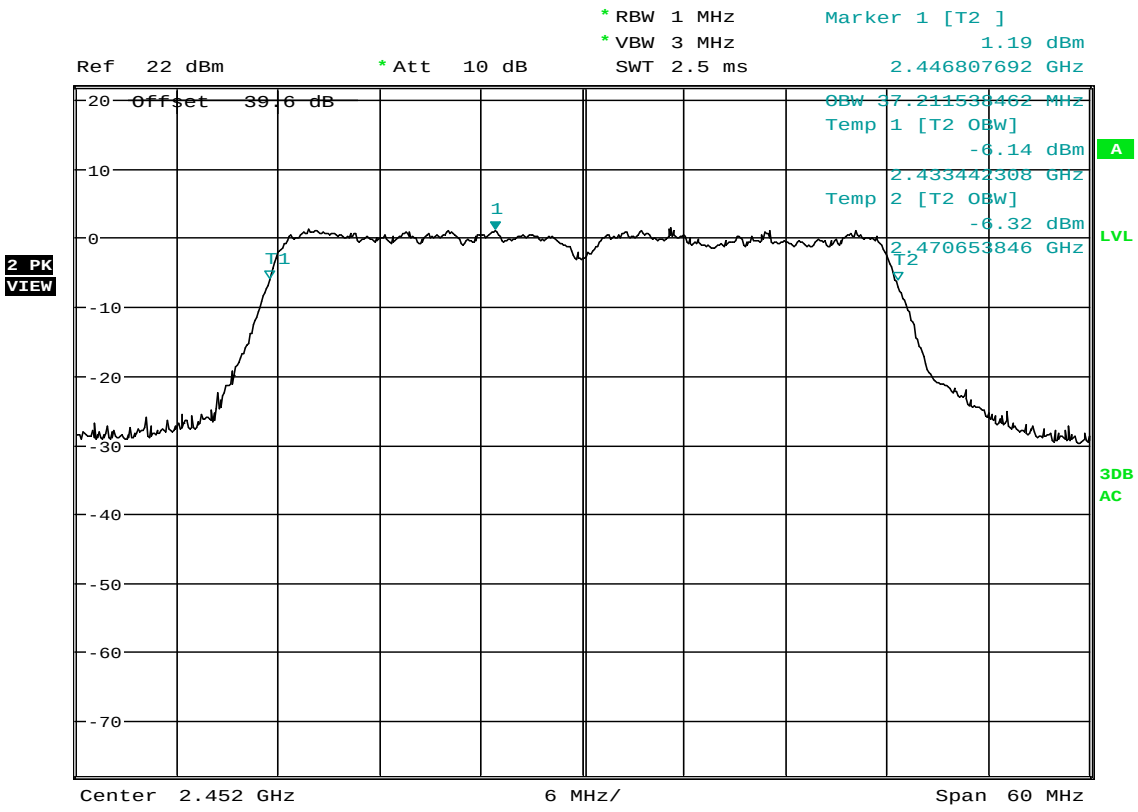
MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	120 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 18:58:44

FCC 15C 15.247 / OBW

MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	135 Mbps
NOTES	:	
NOTES	:	



Date: 7.JUL.2003 19:00:39

FCC 15C 15.247 / OBW

MANUFACTURER	:	HeathCo LLC.
MODEL NUMBER	:	5892
TEST MODE	:	Tx @ HI CHANNEL
	:	PEAK detector
NOTES	:	802.11 n 40 MHz
NOTES	:	135 Mbps
NOTES	:	
NOTES	:	

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Duty Cycle
TEST DATE : May 2, 2016 through May 10, 2016
TEST MODE : See below
PROTOCOL : 802.11b
POWER SETTING : 15
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

802.11 Protocol	Data Rate Mbps	On Time msec	Period msec	Duty Cycle
b	1	8.65	8.91	0.97
b	2	4.43	4.66	0.95
b	5.5	1.74	1.95	0.89
b	11	0.962	1.17	0.82

Duty Cycle = (On Time)/(Period)

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER	:	HeathCo LLC
MODEL NUMBER	:	5892
SERIAL NUMBER	:	D412BB0E84E4
TEST PERFORMED	:	Duty Cycle
TEST DATE	:	May 2, 2016 through May 10, 2016
TEST MODE	:	See below
PROTOCOL	:	802.11g
POWER SETTING	:	6
DATA RATE	:	See below
NOTES	:	20MHz bandwidth
	:	Antenna Port 1

802.11 Protocol	Data Rate Mbps	On Time msec	Period msec	Duty Cycle
g	6	1.45	1.65	0.88
g	9	0.968	1.18	0.82
g	12	0.73	0.942	0.77
g	18	0.49	0.699	0.70
g	24	0.378	0.583	0.65
g	36	0.26	0.465	0.56
g	48	0.20	0.405	0.49
g	54	0.187	0.404	0.46

Duty Cycle = (On Time)/(Period)

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER	:	HeathCo LLC
MODEL NUMBER	:	5892
SERIAL NUMBER	:	D412BB0E84E4
TEST PERFORMED	:	Duty Cycle
TEST DATE	:	May 2, 2016 through May 10, 2016
TEST MODE	:	See below
PROTOCOL	:	802.11n
POWER SETTING	:	4
DATA RATE	:	See below
NOTES	:	20MHz bandwidth
	:	Antenna Port 1

802.11 Protocol	Data Rate Mbps	On Time msec	Period msec	Duty Cycle
n	7.2	1.35	1.56	0.87
n	14.4	0.692	0.90	0.77
n	21.7	0.478	0.682	0.70
n	28.9	0.365	0.569	0.64
n	43.3	0.190	0.344	0.55
n	57.8	0.200	0.403	0.50
n	65.0	0.183	0.386	0.47
n	72.7	0.165	0.371	0.44

Duty Cycle = (On Time)/(Period)

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Duty Cycle
TEST DATE : May 2, 2016 through May 10, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 40MHz bandwidth
: Antenna Port 1

802.11 Protocol	Data Rate Mbps	On Time msec	Period msec	Duty Cycle
n	15	0.668	0.87	0.77
n	30	0.351	0.553	0.63
n	45	0.247	0.45	0.55
n	60	0.193	0.4	0.48
n	90	0.142	0.346	0.41
n	120	0.114	0.317	0.36
n	135	0.11	0.318	0.35
n	150	0.0974	0.301	0.32

Duty Cycle = (On Time)/(Period)

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11b
POWER SETTING : 15
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Conducted Output Power dBm	Duty Cycle Factor dB	Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
1	2412	b	1	17.76	0.13	17.89	30.00
6	2437	b	1	17.22	0.13	17.35	30.00
11	2462	b	1	16.55	0.13	16.68	30.00
1	2412	b	2	18.35	0.22	18.57	30.00
6	2437	b	2	17.73	0.22	17.95	30.00
11	2462	b	2	17.07	0.22	17.29	30.00
1	2412	b	5.5	19.5	0.49	19.99	30.00
6	2437	b	5.5	18.89	0.49	19.38	30.00
11	2462	b	5.5	18.13	0.49	18.62	30.00
1	2412	b	11	19.52	0.85	20.37	30.00
6	2437	b	11	18.94	0.85	19.79	30.00
11	2462	b	11	18.16	0.85	19.01	30.00

Maximum Conducted (Average) Output Power (dBm)= Conducted Output Power (dBm) + Duty Cycle Factor (dB)

Duty Cycle Factor (dB) = 10 log(1/x) where x is the duty cycle

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : EIRP
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11b
POWER SETTING : 15
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Maximum Conducted (Average) Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (Watts)	EIRP Limit (dBm)	EIRP Limit (Watts)
1	2412	b	1	17.89	0.9	18.79	0.076	36.0	4
6	2437	b	1	17.35	0.9	18.25	0.067	36.0	4
11	2462	b	1	16.68	0.9	17.58	0.057	36.0	4
1	2412	b	2	18.57	0.9	19.47	0.089	36.0	4
6	2437	b	2	17.95	0.9	18.85	0.077	36.0	4
11	2462	b	2	17.29	0.9	18.19	0.066	36.0	4
1	2412	b	5.5	19.99	0.9	20.89	0.123	36.0	4
6	2437	b	5.5	19.38	0.9	20.28	0.107	36.0	4
11	2462	b	5.5	18.62	0.9	19.52	0.090	36.0	4
1	2412	b	11	20.37	0.9	21.27	0.134	36.0	4
6	2437	b	11	19.79	0.9	20.69	0.117	36.0	4
11	2462	b	11	19.01	0.9	19.91	0.098	36.0	4

EIRP(dBm) = Maximum Conducted (Average) Output Power (dBm) + Antenna Gain (dBi)

EIRP(Watts) = (10^(EIRP(dBm)/10))/1000

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11g
POWER SETTING : 6
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Conducted Output Power dBm	Duty Cycle Factor dB	Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
1	2412	g	6	17.12	0.56	17.68	30.00
6	2437	g	6	16.29	0.56	16.85	30.00
11	2462	g	6	15.6	0.56	16.16	30.00
1	2412	g	9	17.35	0.86	18.21	30.00
6	2437	g	9	16.44	0.86	17.30	30.00
11	2462	g	9	15.82	0.86	16.68	30.00
1	2412	g	12	17.36	1.11	18.47	30.00
6	2437	g	12	16.56	1.11	17.67	30.00
11	2462	g	12	15.87	1.11	16.98	30.00
1	2412	g	18	17.37	1.54	18.91	30.00
6	2437	g	18	16.83	1.54	18.37	30.00
11	2462	g	18	15.99	1.54	17.53	30.00

Maximum Conducted (Average) Output Power (dBm)= Conducted Output Power (dBm) + Duty Cycle Factor (dB)

Duty Cycle Factor (dB) = 10 log(1/x) where x is the duty cycle

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11g
POWER SETTING : 6
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Conducted Output Power dBm	Duty Cycle Factor dB	Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
1	2412	g	24	14.86	1.88	16.74	30.00
6	2437	g	24	14.37	1.88	16.25	30.00
11	2462	g	24	13.58	1.88	15.46	30.00
1	2412	g	36	14.95	2.52	17.47	30.00
6	2437	g	36	14.45	2.52	16.97	30.00
11	2462	g	36	13.55	2.52	16.07	30.00
1	2412	g	48	12.93	3.06	15.99	30.00
6	2437	g	48	12.36	3.06	15.42	30.00
11	2462	g	48	11.73	3.06	14.79	30.00
1	2412	g	54	13.1	3.35	16.45	30.00
6	2437	g	54	12.38	3.35	15.73	30.00
11	2462	g	54	11.74	3.35	15.09	30.00

Maximum Conducted (Average) Output Power (dBm)= Conducted Output Power (dBm) + Duty Cycle Factor (dB)

Duty Cycle Factor (dB) = 10 log(1/x) where x is the duty cycle

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : EIRP
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11g
POWER SETTING : 6
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Maximum Conducted (Average) Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (Watts)	EIRP Limit (dBm)	EIRP Limit (Watts)
1	2412	g	6	17.68	0.90	18.58	0.072	36.0	4
6	2437	g	6	16.85	0.90	17.75	0.060	36.0	4
11	2462	g	6	16.16	0.90	17.06	0.051	36.0	4
1	2412	g	9	18.21	0.90	19.11	0.081	36.0	4
6	2437	g	9	17.30	0.90	18.20	0.066	36.0	4
11	2462	g	9	16.68	0.90	17.58	0.057	36.0	4
1	2412	g	12	18.47	0.90	19.37	0.086	36.0	4
6	2437	g	12	17.67	0.90	18.57	0.072	36.0	4
11	2462	g	12	16.98	0.90	17.88	0.061	36.0	4
1	2412	g	18	18.91	0.90	19.81	0.096	36.0	4
6	2437	g	18	18.37	0.90	19.27	0.085	36.0	4
11	2462	g	18	17.53	0.90	18.43	0.070	36.0	4

EIRP(dBm) = Maximum Conducted (Average) Output Power (dBm) + Antenna Gain (dBi)

EIRP(Watts) = (10^(EIRP(dBm)/10))/1000

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : EIRP
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11g
POWER SETTING : 6
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Maximum Conducted (Average) Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (Watts)	EIRP Limit (dBm)	EIRP Limit (Watts)
1	2412	g	24	16.74	0.90	17.64	0.058	36.0	4
6	2437	g	24	16.25	0.90	17.15	0.052	36.0	4
11	2462	g	24	15.46	0.90	16.36	0.043	36.0	4
1	2412	g	36	17.47	0.90	18.37	0.069	36.0	4
6	2437	g	36	16.97	0.90	17.87	0.061	36.0	4
11	2462	g	36	16.07	0.90	16.97	0.050	36.0	4
1	2412	g	48	15.99	0.90	16.89	0.049	36.0	4
6	2437	g	48	15.42	0.90	16.32	0.043	36.0	4
11	2462	g	48	14.79	0.90	15.69	0.037	36.0	4
1	2412	g	54	16.45	0.90	17.35	0.054	36.0	4
6	2437	g	54	15.73	0.90	16.63	0.046	36.0	4
11	2462	g	54	15.09	0.90	15.99	0.040	36.0	4

EIRP(dBm) = Maximum Conducted (Average) Output Power (dBm) + Antenna Gain (dBi)

EIRP(Watts) = (10^(EIRP(dBm)/10))/1000

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Conducted Output Power dBm	Duty Cycle Factor dB	Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
1	2412	n	7.2	15.2	0.63	15.83	30.00
6	2437	n	7.2	15.64	0.63	16.27	30.00
11	2462	n	7.2	15.12	0.63	15.75	30.00
1	2412	n	14.4	15.56	1.14	16.70	30.00
6	2437	n	14.4	16.01	1.14	17.15	30.00
11	2462	n	14.4	15.15	1.14	16.29	30.00
1	2412	n	21.7	15.49	1.54	17.03	30.00
6	2437	n	21.7	15.94	1.54	17.48	30.00
11	2462	n	21.7	15.29	1.54	16.83	30.00
1	2412	n	28.9	16.07	1.93	18.00	30.00
6	2437	n	28.9	16.48	1.93	18.41	30.00
11	2462	n	28.9	15.79	1.93	17.72	30.00

Maximum Conducted (Average) Output Power (dBm)= Conducted Output Power (dBm) + Duty Cycle Factor (dB)

Duty Cycle Factor (dB) = 10 log(1/x) where x is the duty cycle

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 1

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Conducted Output Power dBm	Duty Cycle Factor dB	Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
1	2412	n	43.3	13.67	2.58	16.25	30.00
6	2437	n	43.3	14.06	2.58	16.64	30.00
11	2462	n	43.3	13.44	2.58	16.02	30.00
1	2412	n	57.8	13.78	3.04	16.82	30.00
6	2437	n	57.8	14.08	3.04	17.12	30.00
11	2462	n	57.8	13.45	3.04	16.49	30.00
1	2412	n	65	11.89	3.24	15.13	30.00
6	2437	n	65	12.43	3.24	15.67	30.00
11	2462	n	65	11.76	3.24	15.00	30.00
1	2412	n	72.7	11.98	3.52	15.50	30.00
6	2437	n	72.7	12.45	3.52	15.97	30.00
11	2462	n	72.7	11.75	3.52	15.27	30.00

Maximum Conducted (Average) Output Power (dBm)= Conducted Output Power (dBm) + Duty Cycle Factor (dB)

Duty Cycle Factor (dB) = 10 log(1/x) where x is the duty cycle

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 2

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Conducted Output Power dBm	Duty Cycle Factor dB	Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
1	2412	n	7.2	14.73	0.63	15.36	30.00
6	2437	n	7.2	14.56	0.63	15.19	30.00
11	2462	n	7.2	13.99	0.63	14.62	30.00
1	2412	n	14.4	15.14	1.14	16.28	30.00
6	2437	n	14.4	14.75	1.14	15.89	30.00
11	2462	n	14.4	14.1	1.14	15.24	30.00
1	2412	n	21.7	15.02	1.54	16.56	30.00
6	2437	n	21.7	14.66	1.54	16.20	30.00
11	2462	n	21.7	14.2	1.54	15.74	30.00
1	2412	n	28.9	15.48	1.93	17.41	30.00
6	2437	n	28.9	15.38	1.93	17.31	30.00
11	2462	n	28.9	14.65	1.93	16.58	30.00

Maximum Conducted (Average) Output Power (dBm)= Conducted Output Power (dBm) + Duty Cycle Factor (dB)

Duty Cycle Factor (dB) = 10 log(1/x) where x is the duty cycle

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 20MHz bandwidth
: Antenna Port 2

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Conducted Output Power dBm	Duty Cycle Factor dB	Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
1	2412	n	43.3	13.33	2.58	15.91	30.00
6	2437	n	43.3	12.83	2.58	15.41	30.00
11	2462	n	43.3	12.17	2.58	14.75	30.00
1	2412	n	57.8	13.38	3.04	16.42	30.00
6	2437	n	57.8	12.92	3.04	15.96	30.00
11	2462	n	57.8	12.35	3.04	15.39	30.00
1	2412	n	65	11.45	3.24	14.69	30.00
6	2437	n	65	11.18	3.24	14.42	30.00
11	2462	n	65	10.61	3.24	13.85	30.00
1	2412	n	72.7	11.66	3.52	15.18	30.00
6	2437	n	72.7	11.1	3.52	14.62	30.00
11	2462	n	72.7	10.52	3.52	14.04	30.00

Maximum Conducted (Average) Output Power (dBm)= Conducted Output Power (dBm) + Duty Cycle Factor (dB)

Duty Cycle Factor (dB) = 10 log(1/x) where x is the duty cycle

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 20MHz bandwidth
: MIMO Power (Antenna Port 1 + Antenna Port 2)

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Antenna 1 Maximum Conducted (Average) Output Power dBm	Antenna 2 Maximum Conducted (Average) Output Power dBm	Ant 1 + Ant 2 Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
1	2412	n	7.2	15.83	15.36	18.61	30.00
6	2437	n	7.2	16.27	15.19	18.77	30.00
11	2462	n	7.2	15.75	14.62	18.23	30.00
1	2412	n	14.4	16.70	16.28	19.51	30.00
6	2437	n	14.4	17.15	15.89	19.58	30.00
11	2462	n	14.4	16.29	15.24	18.81	30.00
1	2412	n	21.7	17.03	16.56	19.82	30.00
6	2437	n	21.7	17.48	16.20	19.90	30.00
11	2462	n	21.7	16.83	15.74	19.33	30.00
1	2412	n	28.9	18.00	17.41	20.72	30.00
6	2437	n	28.9	18.41	17.31	20.90	30.00
11	2462	n	28.9	17.72	16.58	20.20	30.00

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 20MHz bandwidth
: MIMO Power (Antenna Port 1 + Antenna Port 2)

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Antenna 1 Maximum Conducted (Average) Output Power dBm	Antenna 2 Maximum Conducted (Average) Output Power dBm	Ant 1 + Ant 2 Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
1	2412	n	43.3	16.25	15.91	19.09	30.00
6	2437	n	43.3	16.64	15.41	19.08	30.00
11	2462	n	43.3	16.02	14.75	18.44	30.00
1	2412	n	57.8	16.82	16.42	19.64	30.00
6	2437	n	57.8	17.12	15.96	19.59	30.00
11	2462	n	57.8	16.49	15.39	18.99	30.00
1	2412	n	65	15.13	14.69	17.93	30.00
6	2437	n	65	15.67	14.42	18.10	30.00
11	2462	n	65	15.00	13.85	17.47	30.00
1	2412	n	72.7	15.50	15.18	18.35	30.00
6	2437	n	72.7	15.97	14.62	18.36	30.00
11	2462	n	72.7	15.27	14.04	17.71	30.00

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : EIRP
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 20MHz bandwidth

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Maximum Conducted (Average) Output Power Ant 1 + Ant 2 (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (Watts)	EIRP Limit (dBm)	EIRP Limit (Watts)
1	2412	n	7.2	18.61	0.90	19.51	0.089	36.0	4
6	2437	n	7.2	18.77	0.90	19.67	0.093	36.0	4
11	2462	n	7.2	18.23	0.90	19.13	0.082	36.0	4
1	2412	n	14.4	19.51	0.90	20.41	0.110	36.0	4
6	2437	n	14.4	19.58	0.90	20.48	0.112	36.0	4
11	2462	n	14.4	18.81	0.90	19.71	0.094	36.0	4
1	2412	n	21.7	19.82	0.90	20.72	0.118	36.0	4
6	2437	n	21.7	19.90	0.90	20.80	0.120	36.0	4
11	2462	n	21.7	19.33	0.90	20.23	0.106	36.0	4
1	2412	n	28.9	20.72	0.90	21.62	0.145	36.0	4
6	2437	n	28.9	20.90	0.90	21.80	0.151	36.0	4
11	2462	n	28.9	20.20	0.90	21.10	0.129	36.0	4

EIRP(dBm) = Maximum Conducted (Average) Output Power (dBm) + Antenna Gain (dBi)

EIRP(Watts) = (10^(EIRP(dBm)/10))/1000

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : EIRP
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 20MHz bandwidth

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Maximum Conducted (Average) Output Power Ant 1 + Ant 2 (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (Watts)	EIRP Limit (dBm)	EIRP Limit (Watts)
1	2412	n	43.3	19.09	0.90	19.99	0.100	36.0	4
6	2437	n	43.3	19.08	0.90	19.98	0.099	36.0	4
11	2462	n	43.3	18.44	0.90	19.34	0.086	36.0	4
1	2412	n	57.8	19.64	0.90	20.54	0.113	36.0	4
6	2437	n	57.8	19.59	0.90	20.49	0.112	36.0	4
11	2462	n	57.8	18.99	0.90	19.89	0.097	36.0	4
1	2412	n	65	17.93	0.90	18.83	0.076	36.0	4
6	2437	n	65	18.10	0.90	19.00	0.079	36.0	4
11	2462	n	65	17.47	0.90	18.37	0.069	36.0	4
1	2412	n	72.7	18.35	0.90	19.25	0.084	36.0	4
6	2437	n	72.7	18.36	0.90	19.26	0.084	36.0	4
11	2462	n	72.7	17.71	0.90	18.61	0.073	36.0	4

EIRP(dBm) = Maximum Conducted (Average) Output Power (dBm) + Antenna Gain (dBi)

EIRP(Watts) = (10^(EIRP(dBm)/10))/1000

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 40MHz bandwidth
: Antenna Port 1

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Conducted Output Power dBm	Duty Cycle Factor dB	Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
3	2422	n	15	12.83	1.15	13.98	30.00
6	2437	n	15	12.66	1.15	13.81	30.00
9	2452	n	15	12.46	1.15	13.61	30.00
3	2422	n	30	13.21	1.97	15.18	30.00
6	2437	n	30	12.22	1.97	14.19	30.00
9	2452	n	30	12.71	1.97	14.68	30.00
3	2422	n	45	13.37	2.61	15.98	30.00
6	2437	n	45	13.2	2.61	15.81	30.00
9	2452	n	45	12.88	2.61	15.49	30.00
3	2422	n	60	13.7	3.17	16.87	30.00
6	2437	n	60	13.22	3.17	16.39	30.00
9	2452	n	60	13.02	3.17	16.19	30.00

Maximum Conducted (Average) Output Power (dBm)= Conducted Output Power (dBm) + Duty Cycle Factor (dB)

Duty Cycle Factor (dB) = 10 log(1/x) where x is the duty cycle

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 40MHz bandwidth
: Antenna Port 1

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Conducted Output Power dBm	Duty Cycle Factor dB	Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
3	2422	n	90	11.37	3.87	15.24	30.00
6	2437	n	90	10.63	3.87	14.50	30.00
9	2452	n	90	10.61	3.87	14.48	30.00
3	2422	n	120	11.44	4.44	15.88	30.00
6	2437	n	120	10.89	4.44	15.33	30.00
9	2452	n	120	10.86	4.44	15.30	30.00
3	2422	n	135	9.66	4.61	14.27	30.00
6	2437	n	135	9.1	4.61	13.71	30.00
9	2452	n	135	8.79	4.61	13.40	30.00
3	2422	n	150	9.48	4.90	14.38	30.00
6	2437	n	150	9.1	4.90	14.00	30.00
9	2452	n	150	8.85	4.90	13.75	30.00

Maximum Conducted (Average) Output Power (dBm)= Conducted Output Power (dBm) + Duty Cycle Factor (dB)

Duty Cycle Factor (dB) = 10 log(1/x) where x is the duty cycle

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 40MHz bandwidth
: Antenna Port 2

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Conducted Output Power dBm	Duty Cycle Factor dB	Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
3	2422	n	15	12.46	1.15	13.61	30.00
6	2437	n	15	12.40	1.15	13.55	30.00
9	2452	n	15	12.16	1.15	13.31	30.00
3	2422	n	30	12.77	1.97	14.74	30.00
6	2437	n	30	12.54	1.97	14.51	30.00
9	2452	n	30	12.28	1.97	14.25	30.00
3	2422	n	45	12.92	2.61	15.53	30.00
6	2437	n	45	12.75	2.61	15.36	30.00
9	2452	n	45	12.37	2.61	14.98	30.00
3	2422	n	60	13.18	3.17	16.35	30.00
6	2437	n	60	12.87	3.17	16.04	30.00
9	2452	n	60	12.88	3.17	16.05	30.00

Maximum Conducted (Average) Output Power (dBm)= Conducted Output Power (dBm) + Duty Cycle Factor (dB)

Duty Cycle Factor (dB) = 10 log(1/x) where x is the duty cycle

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 40MHz bandwidth
: Antenna Port 2

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Conducted Output Power dBm	Duty Cycle Factor dB	Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
3	2422	n	90	10.90	3.87	14.77	30.00
6	2437	n	90	10.69	3.87	14.56	30.00
9	2452	n	90	10.41	3.87	14.28	30.00
3	2422	n	120	11.03	4.44	15.47	30.00
6	2437	n	120	10.74	4.44	15.18	30.00
9	2452	n	120	10.71	4.44	15.15	30.00
3	2422	n	135	9.07	4.61	13.68	30.00
6	2437	n	135	8.80	4.61	13.41	30.00
9	2452	n	135	8.54	4.61	13.15	30.00
3	2422	n	150	9.08	4.90	13.98	30.00
6	2437	n	150	8.79	4.90	13.69	30.00
9	2452	n	150	8.46	4.90	13.36	30.00

Maximum Conducted (Average) Output Power (dBm)= Conducted Output Power (dBm) + Duty Cycle Factor (dB)

Duty Cycle Factor (dB) = 10 log(1/x) where x is the duty cycle

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 40MHz bandwidth
: MIMO Power (Antenna Port 1 + Antenna Port 2)

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Antenna 1 Maximum Conducted (Average) Output Power dBm	Antenna 2 Maximum Conducted (Average) Output Power dBm	Ant 1 + Ant 2 Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
3	2422	n	15	13.98	13.61	16.81	30.00
6	2437	n	15	13.81	13.55	16.69	30.00
9	2452	n	15	13.61	13.31	16.47	30.00
3	2422	n	30	15.18	14.74	17.98	30.00
6	2437	n	30	14.19	14.51	17.37	30.00
9	2452	n	30	14.68	14.25	17.48	30.00
3	2422	n	45	15.98	15.53	18.77	30.00
6	2437	n	45	15.81	15.36	18.60	30.00
9	2452	n	45	15.49	14.98	18.25	30.00
3	2422	n	60	16.87	16.35	19.62	30.00
6	2437	n	60	16.39	16.04	19.22	30.00
9	2452	n	60	16.19	16.05	19.13	30.00

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 40MHz bandwidth
: MIMO Power (Antenna Port 1 + Antenna Port 2)

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Antenna 1 Maximum Conducted (Average) Output Power dBm	Antenna 2 Maximum Conducted (Average) Output Power dBm	Ant 1 + Ant 2 Maximum Conducted (Average) Output Power dBm	Maximum Conducted (Average) Output Power Limit dBm
3	2422	n	90	15.24	14.77	18.02	30.00
6	2437	n	90	14.50	14.56	17.54	30.00
9	2452	n	90	14.48	14.28	17.39	30.00
3	2422	n	120	15.88	15.47	18.69	30.00
6	2437	n	120	15.33	15.18	18.27	30.00
9	2452	n	120	15.30	15.15	18.24	30.00
3	2422	n	135	14.27	13.68	17.00	30.00
6	2437	n	135	13.71	13.41	16.57	30.00
9	2452	n	135	13.40	13.15	16.29	30.00
3	2422	n	150	14.38	13.98	17.19	30.00
6	2437	n	150	14.00	13.69	16.86	30.00
9	2452	n	150	13.75	13.36	16.57	30.00

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : EIRP
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 40MHz bandwidth

Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Maximum Conducted (Average) Output Power Ant 1 + Ant 2 (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (Watts)	EIRP Limit (dBm)	EIRP Limit (Watts)
3	2422	n	15	16.81	0.90	17.71	0.059	36.0	4
6	2437	n	15	16.69	0.90	17.59	0.057	36.0	4
9	2452	n	15	16.47	0.90	17.37	0.055	36.0	4
3	2422	n	30	17.98	0.90	18.88	0.077	36.0	4
6	2437	n	30	17.37	0.90	18.27	0.067	36.0	4
9	2452	n	30	17.48	0.90	18.38	0.069	36.0	4
3	2422	n	45	18.77	0.90	19.67	0.093	36.0	4
6	2437	n	45	18.60	0.90	19.50	0.089	36.0	4
9	2452	n	45	18.25	0.90	19.15	0.082	36.0	4
3	2422	n	60	19.62	0.90	20.52	0.113	36.0	4
6	2437	n	60	19.22	0.90	20.12	0.103	36.0	4
9	2452	n	60	19.13	0.90	20.03	0.101	36.0	4

EIRP(dBm) = Maximum Conducted (Average) Output Power (dBm) + Antenna Gain (dBi)

EIRP(Watts) = (10^(EIRP(dBm)/10))/1000

Checked By: MARK E. LONGINOTTI

Mark E. Longinotti

MANUFACTURER : HeathCo LLC
MODEL NUMBER : 5892
SERIAL NUMBER : D412BB0E84E4
TEST PERFORMED : EIRP
TEST DATE : April 13, 2016
TEST MODE : See below
PROTOCOL : 802.11n
POWER SETTING : 4
DATA RATE : See below
NOTES : 40MHz bandwidth

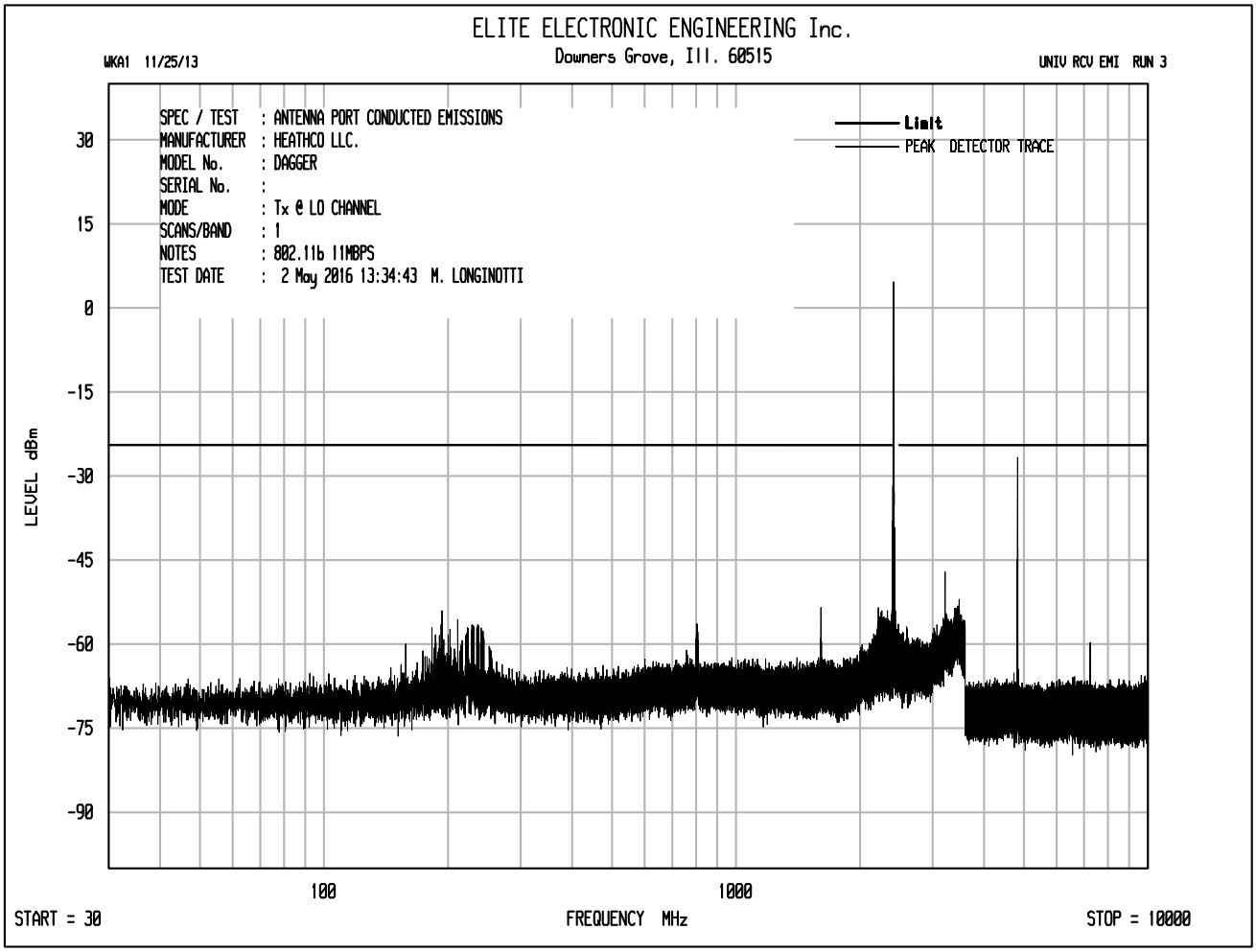
Channel	Frequency MHz	802.11 Protocol	Rate Mbps	Maximum Conducted (Average) Output Power Ant 1 + Ant 2 (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (Watts)	EIRP Limit (dBm)	EIRP Limit (Watts)
3	2422	n	90	18.02	0.90	18.92	0.078	36.0	4
6	2437	n	90	17.54	0.90	18.44	0.070	36.0	4
9	2452	n	90	17.39	0.90	18.29	0.067	36.0	4
3	2422	n	120	18.69	0.90	19.59	0.091	36.0	4
6	2437	n	120	18.27	0.90	19.17	0.083	36.0	4
9	2452	n	120	18.24	0.90	19.14	0.082	36.0	4
3	2422	n	135	17.00	0.90	17.90	0.062	36.0	4
6	2437	n	135	16.57	0.90	17.47	0.056	36.0	4
9	2452	n	135	16.29	0.90	17.19	0.052	36.0	4
3	2422	n	150	17.19	0.90	18.09	0.064	36.0	4
6	2437	n	150	16.86	0.90	17.76	0.060	36.0	4
9	2452	n	150	16.57	0.90	17.47	0.056	36.0	4

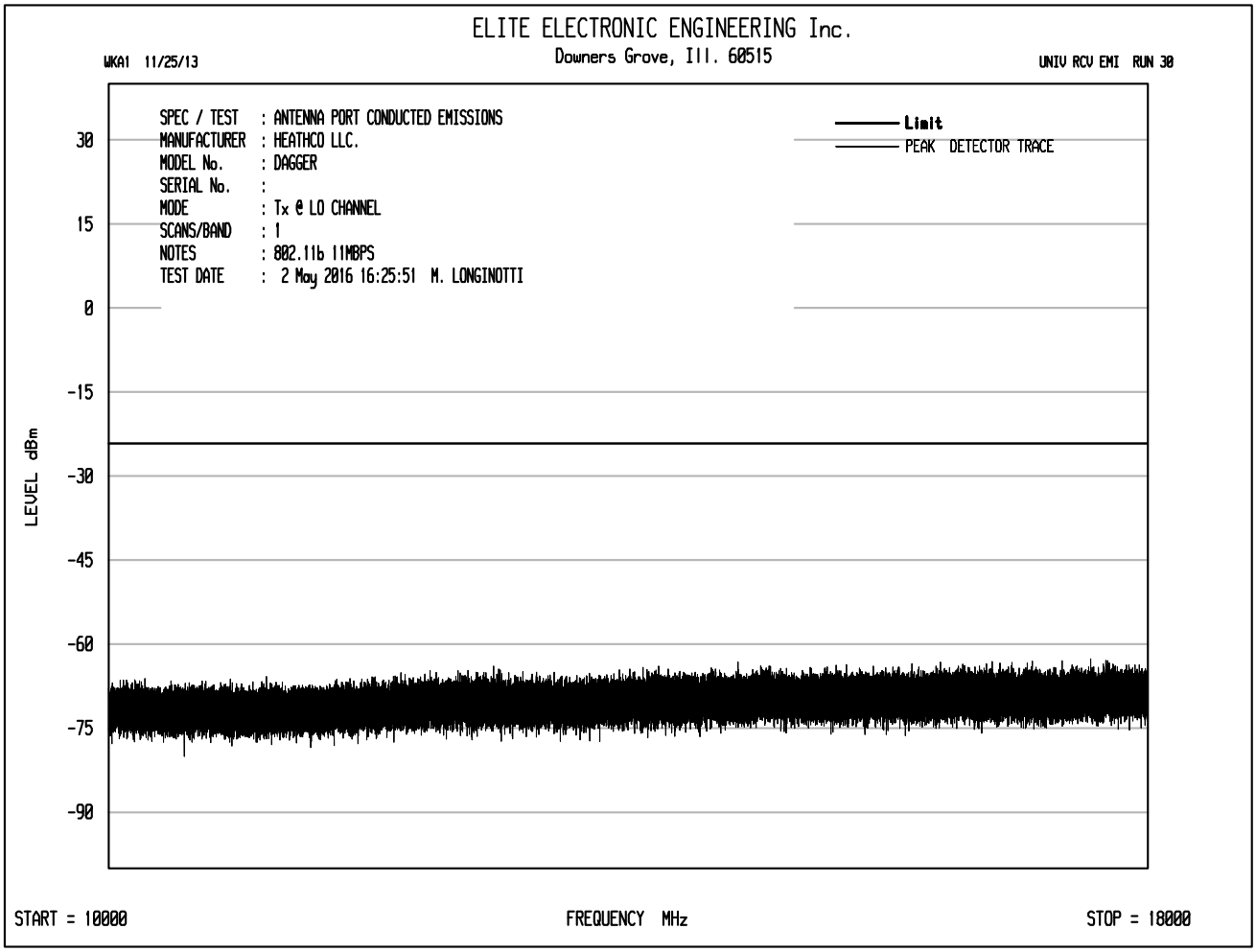
EIRP(dBm) = Maximum Conducted (Average) Output Power (dBm) + Antenna Gain (dBi)

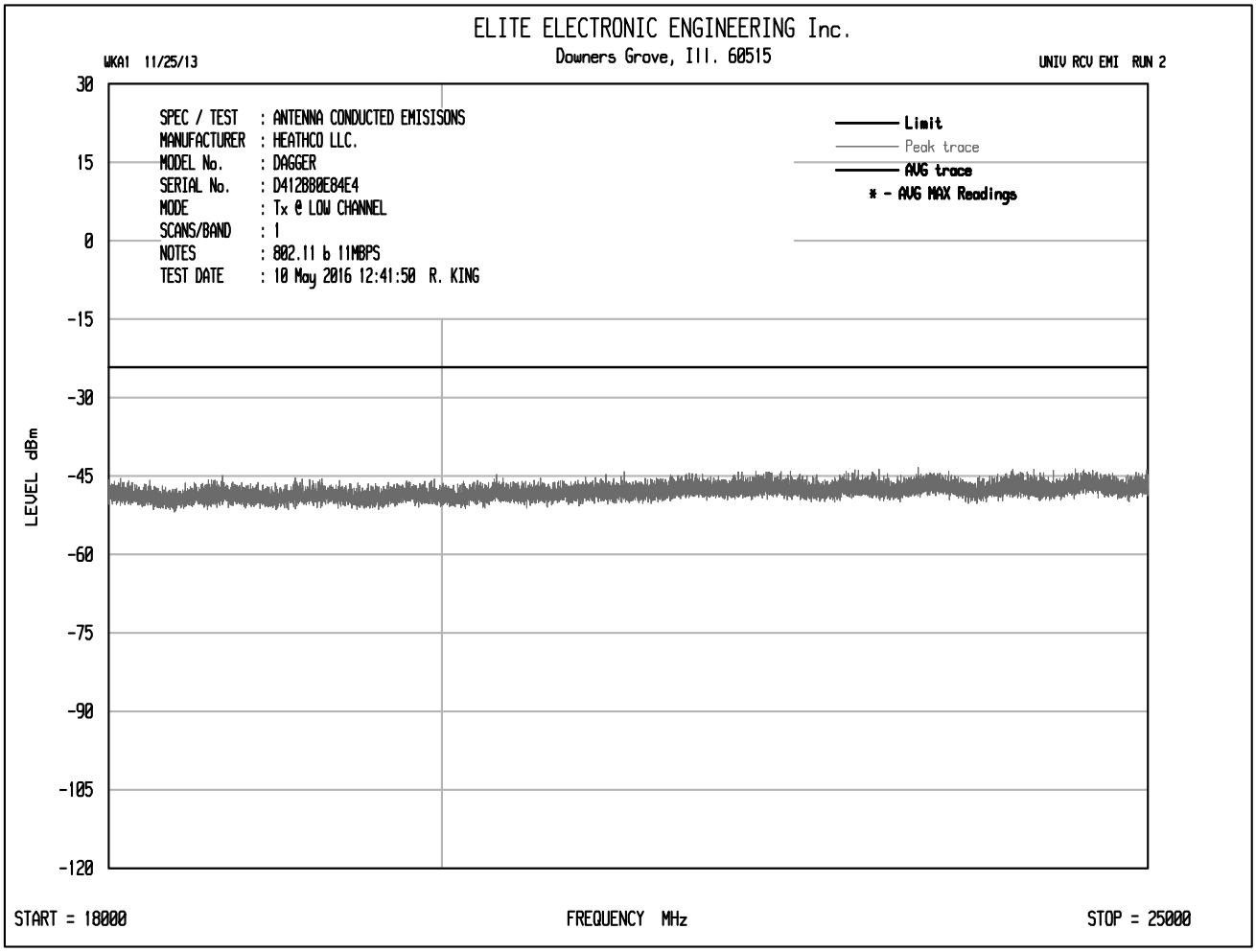
EIRP(Watts) = (10^(EIRP(dBm)/10))/1000

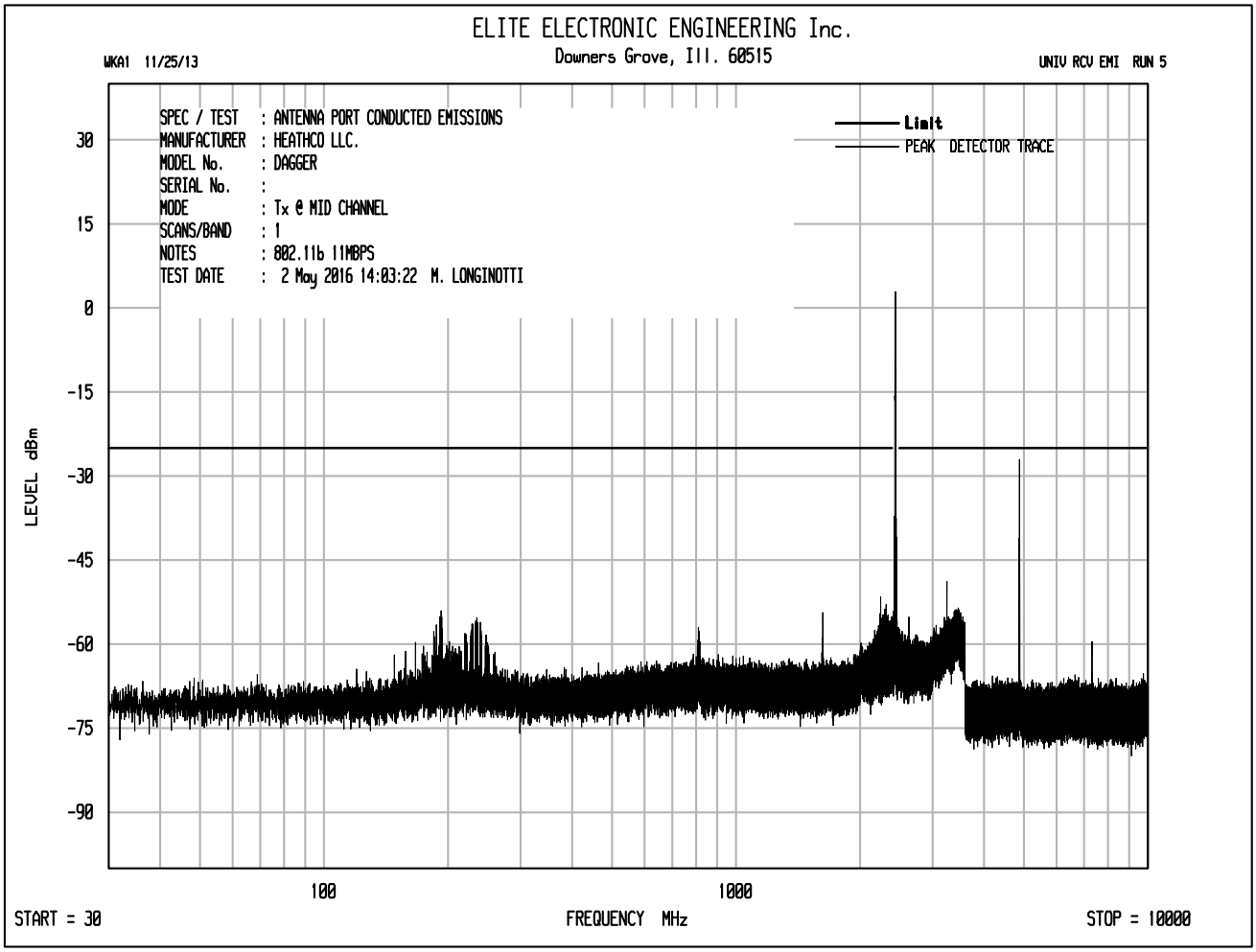
Checked By: MARK E. LONGINOTTI

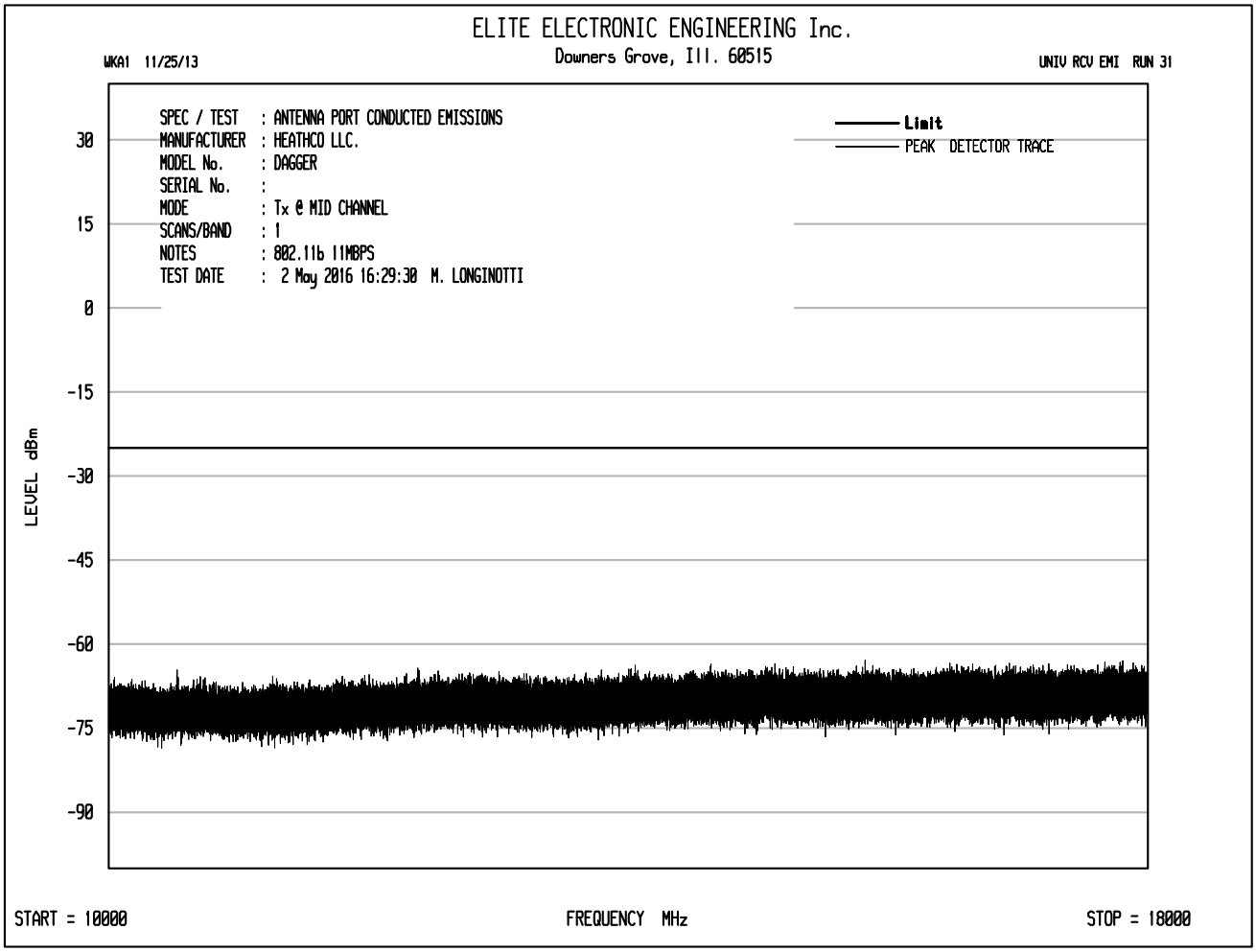
Mark E. Longinotti

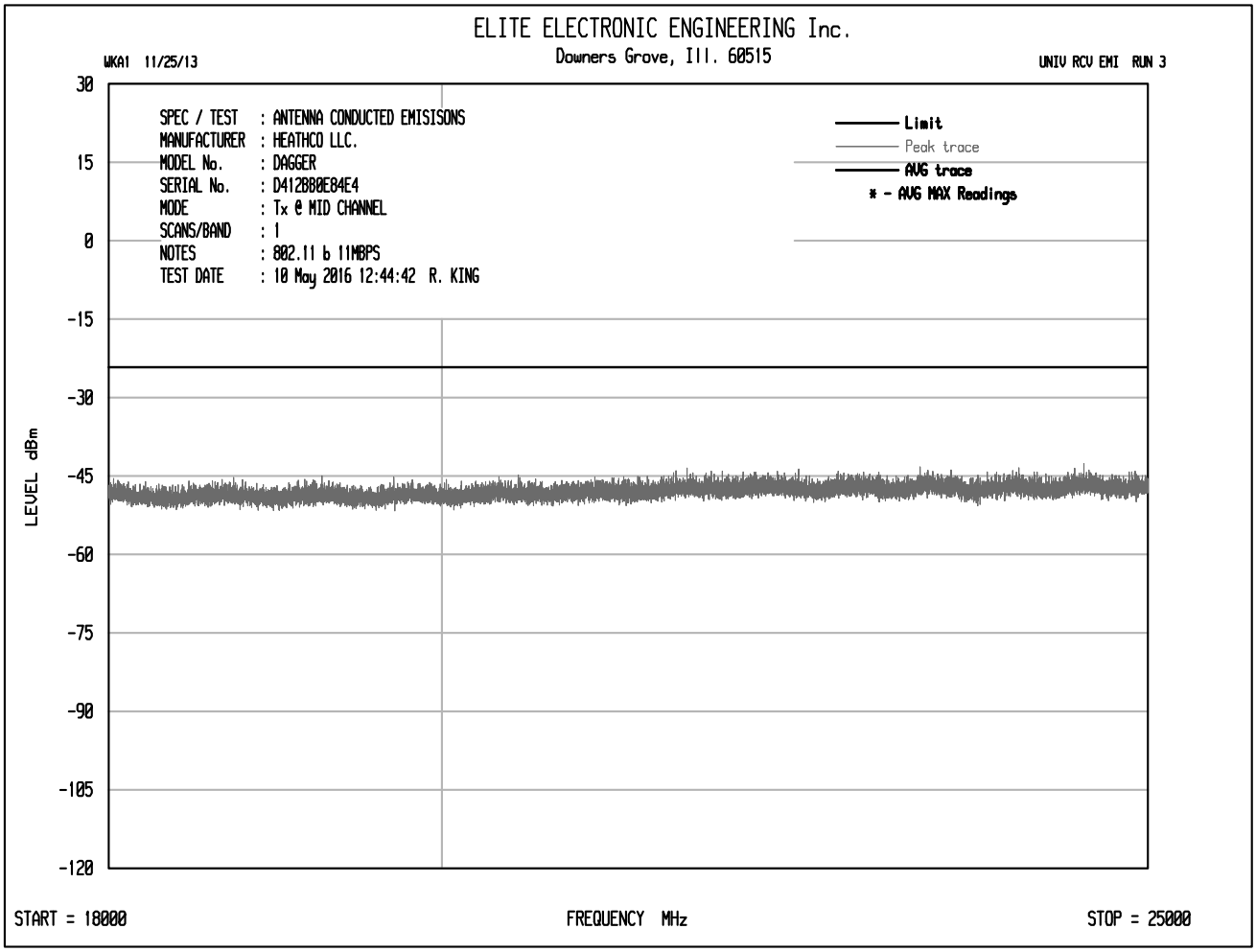

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 3
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ LO CHANNEL
SCANS/BAND : 1
NOTES : 802.11b 11MBPS
TEST DATE : 2 May 2016 13:34:43 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

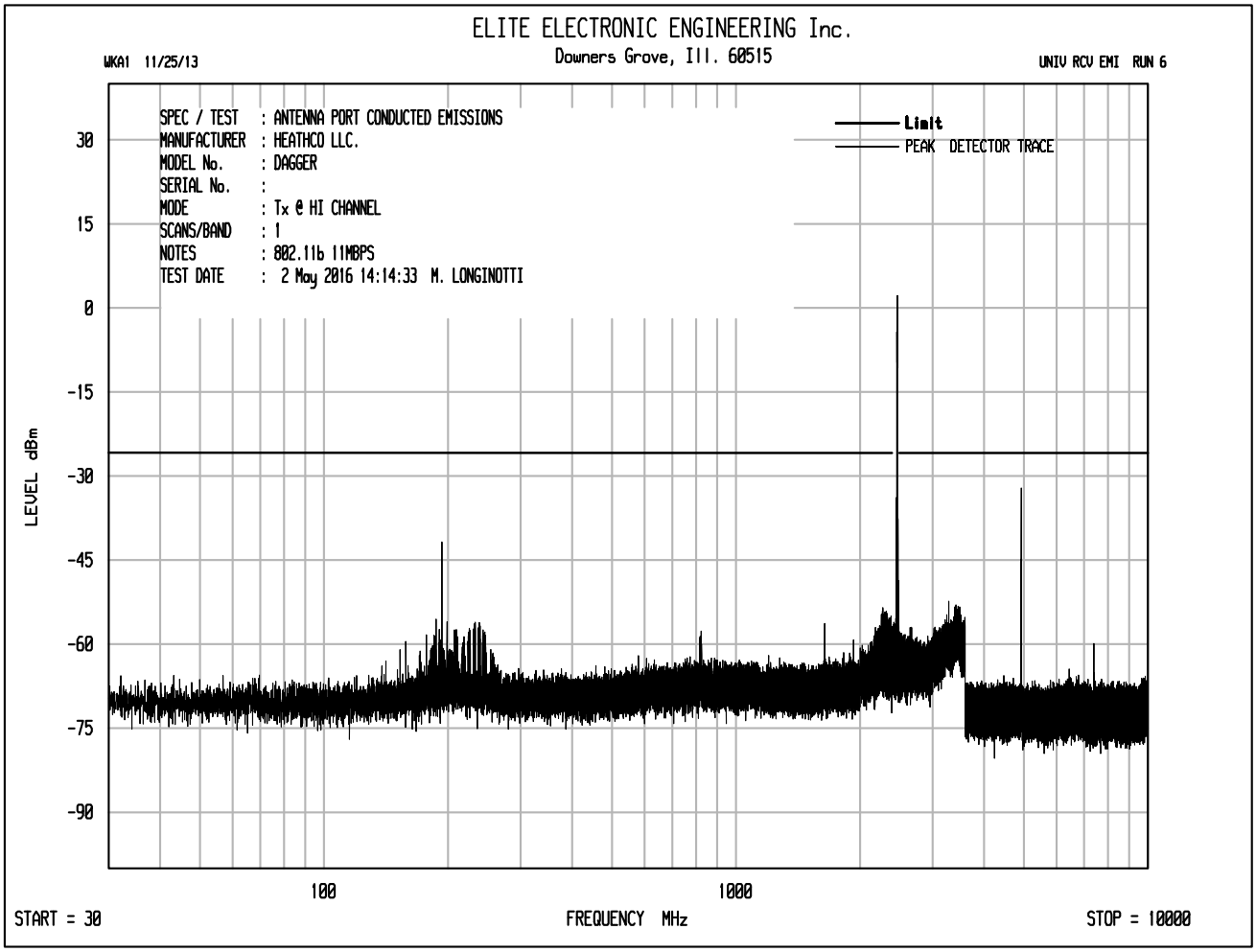

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 30
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ LO CHANNEL
SCANS/BAND : 1
NOTES : 802.11b 11MBPS
TEST DATE : 2 May 2016 16:25:51 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

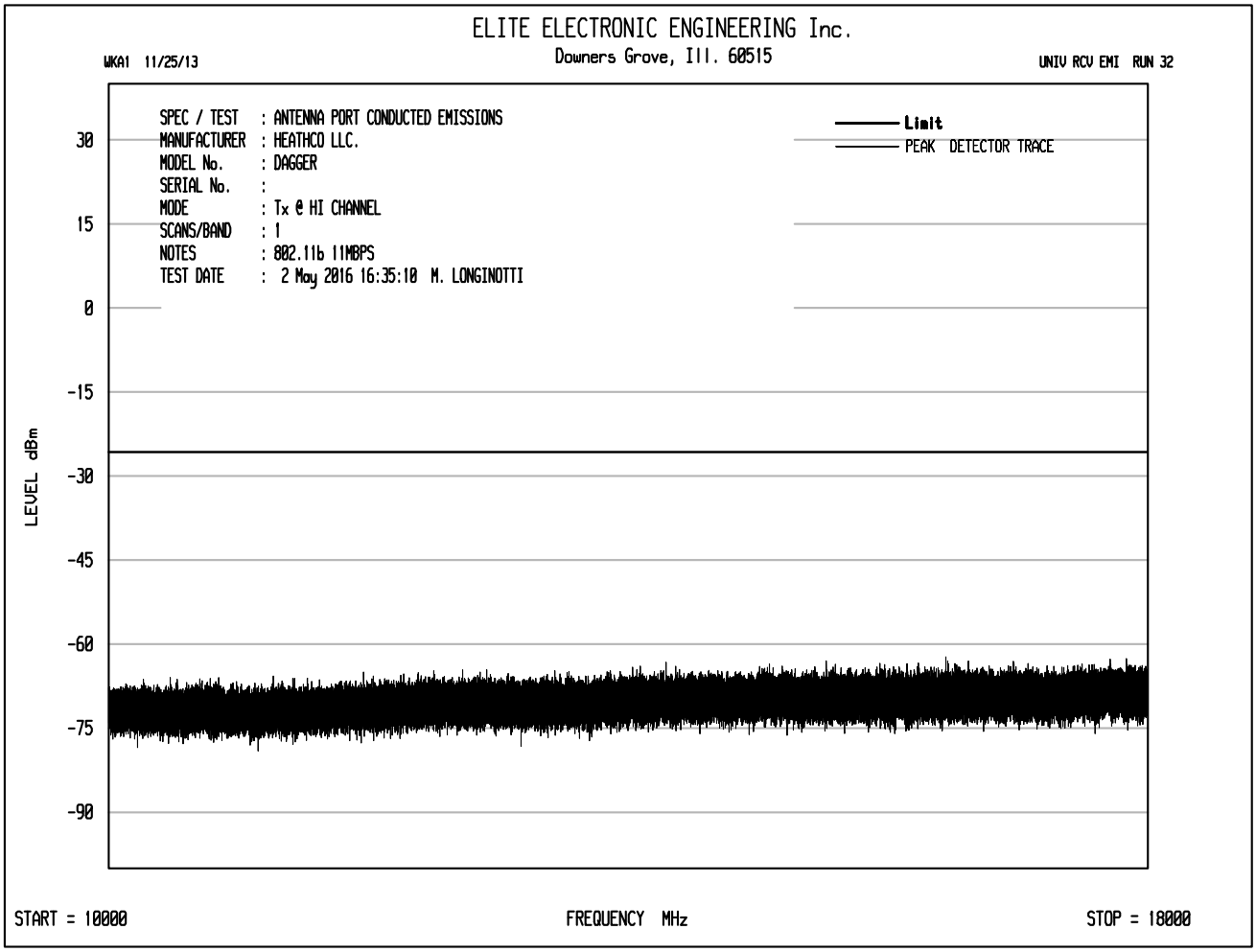

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 2
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ LOW CHANNEL
SCANS/BAND : 1
NOTES : 802.11 b 11MBPS
TEST DATE : 10 May 2016 12:41:50 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
LEVEL dBm
START = 18000
FREQUENCY MHz
STOP = 25000

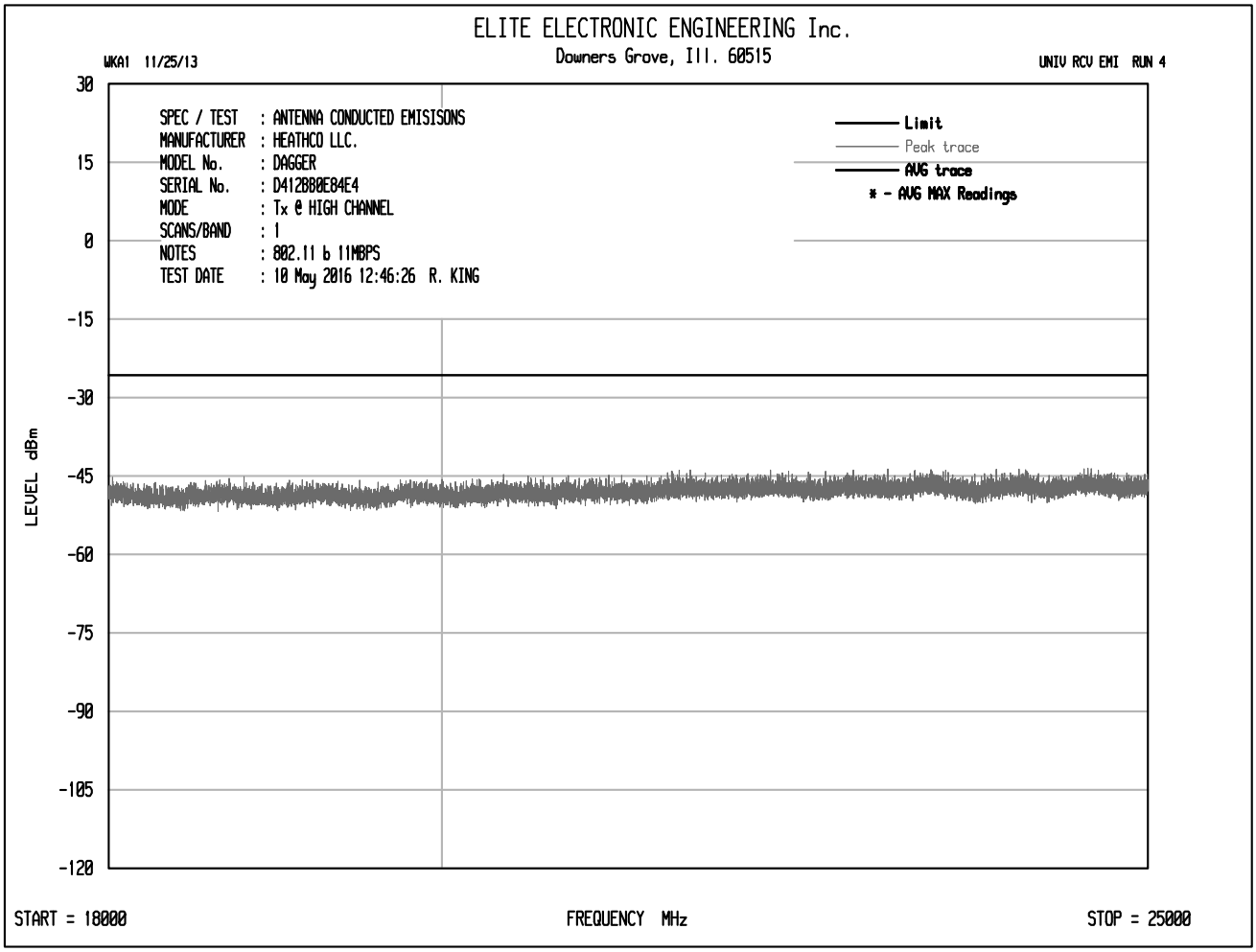

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 5
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11b 11MBPS
TEST DATE : 2 May 2016 14:03:22 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

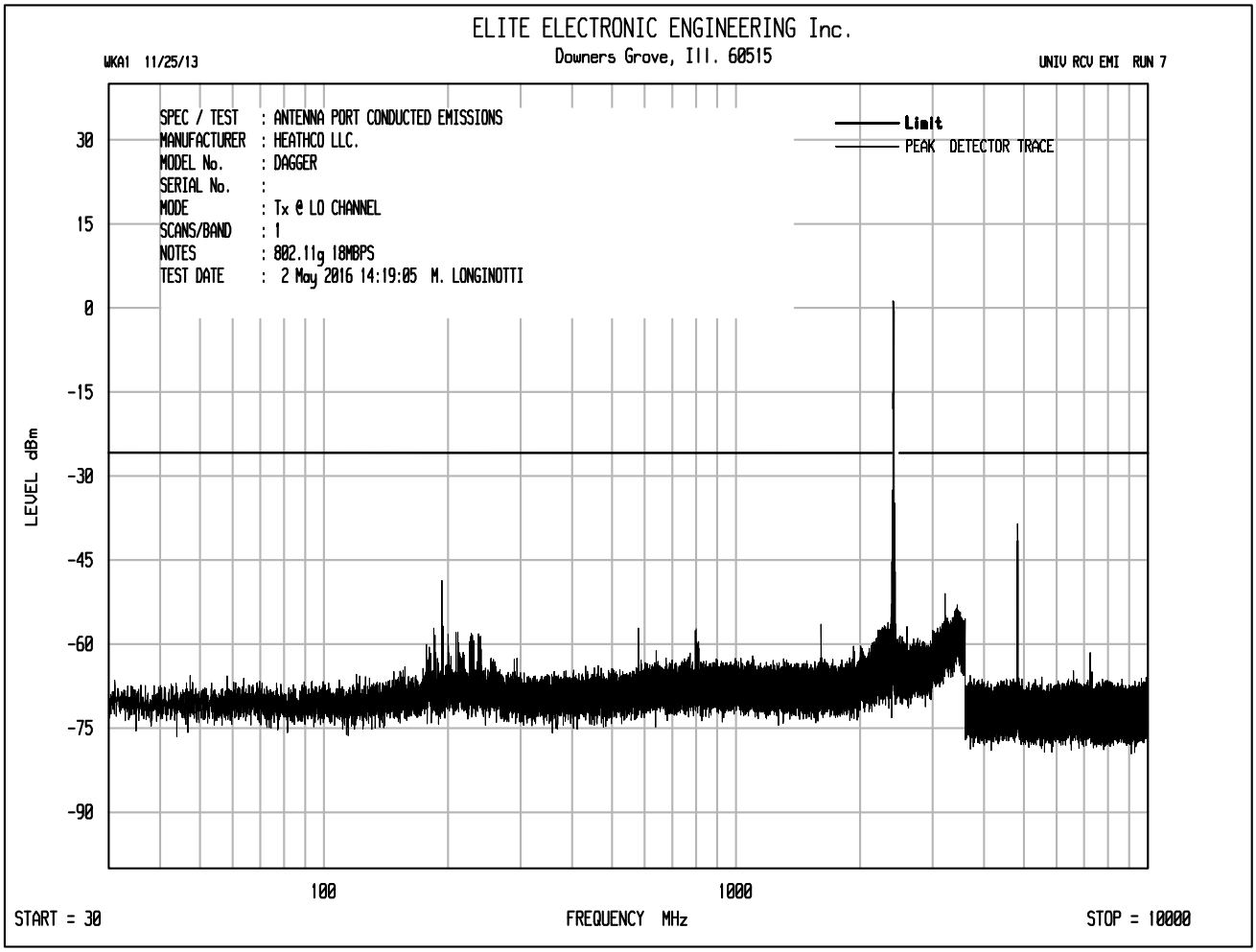

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 31
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11b 11MBPS
TEST DATE : 2 May 2016 16:29:30 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

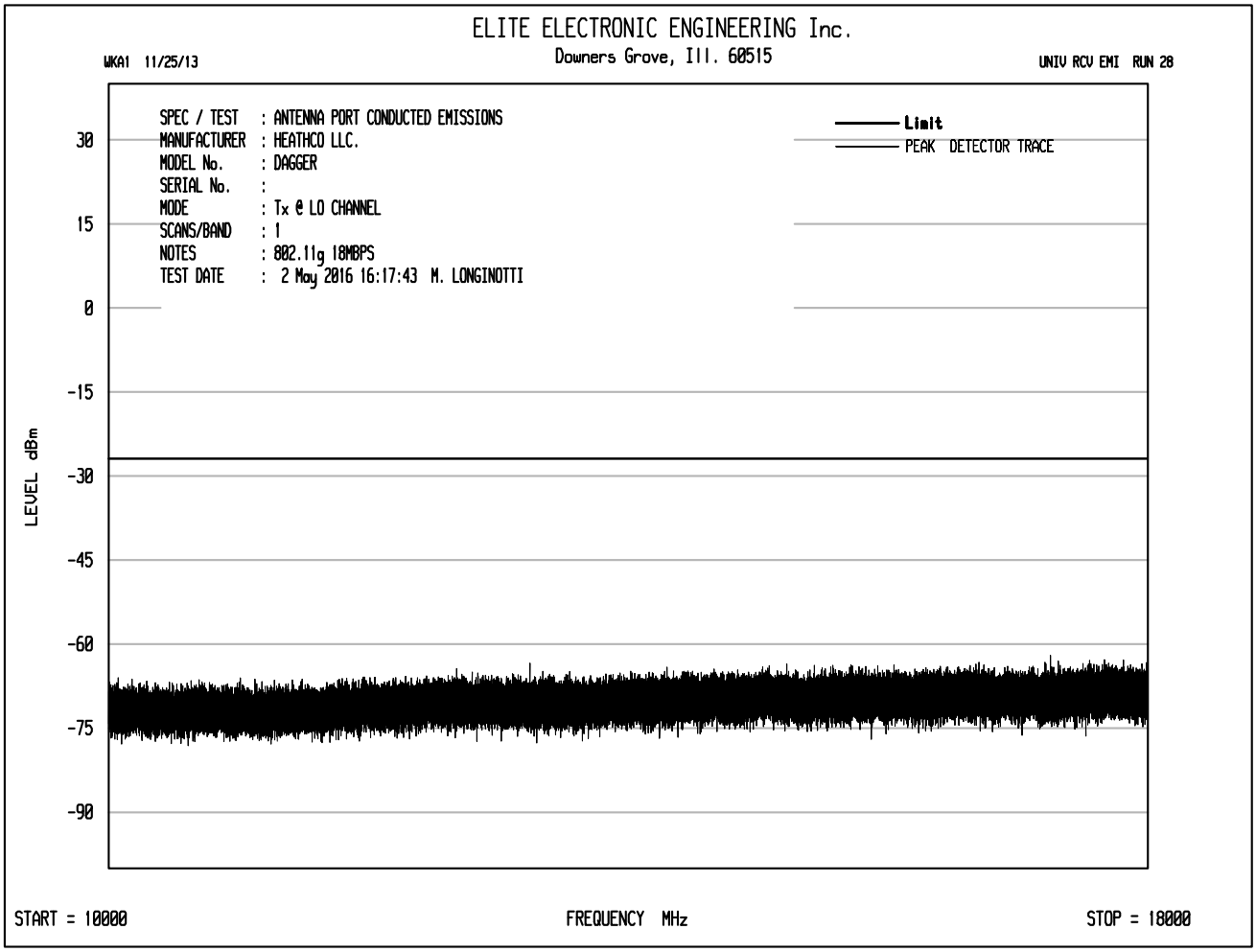

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 3
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11 b 11MBPS
TEST DATE : 10 May 2016 12:44:42 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
LEVEL dBm
START = 18000
FREQUENCY MHz
STOP = 25000

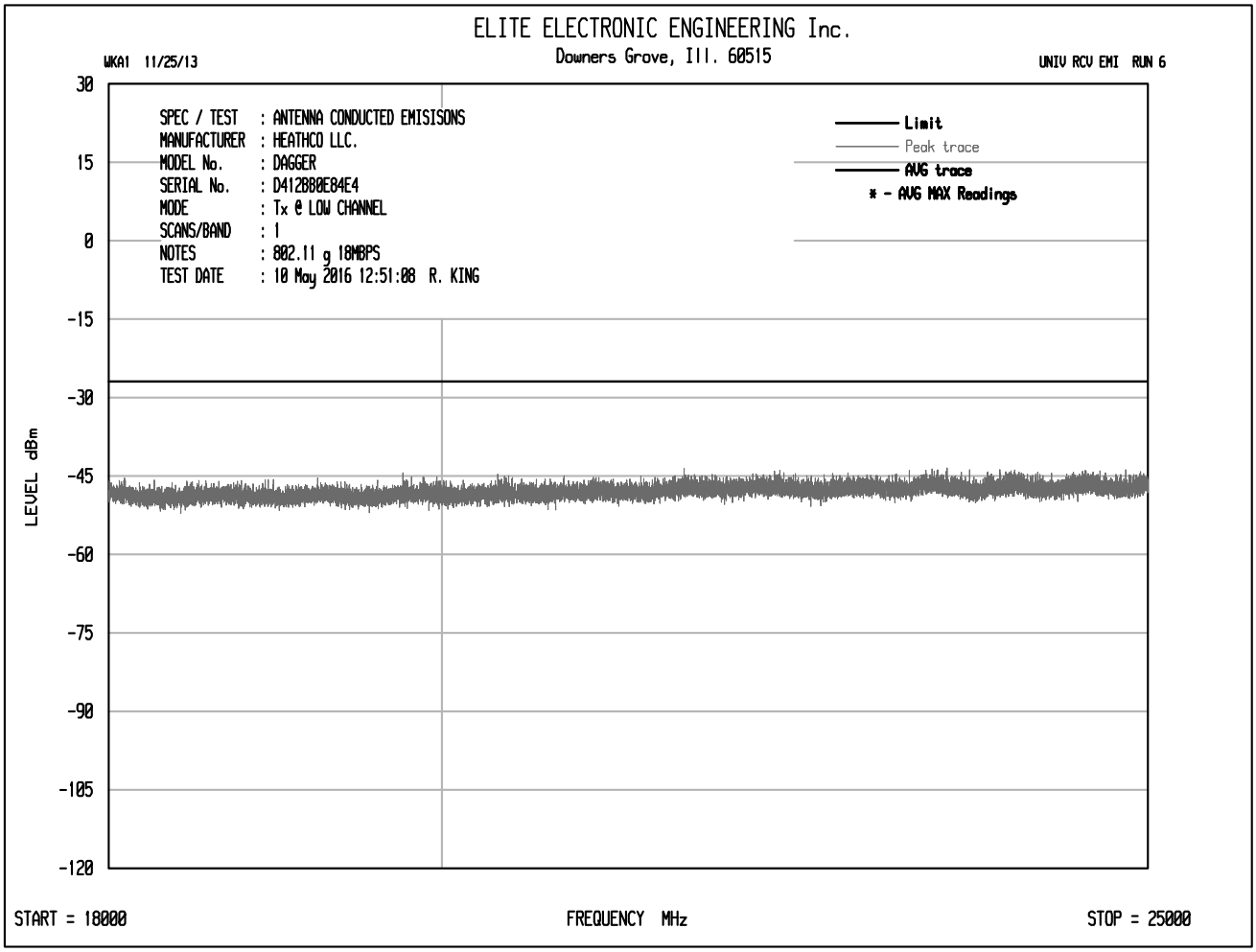

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 6
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ HI CHANNEL
SCANS/BAND : 1
NOTES : 802.11b 11MBPS
TEST DATE : 2 May 2016 14:14:33 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

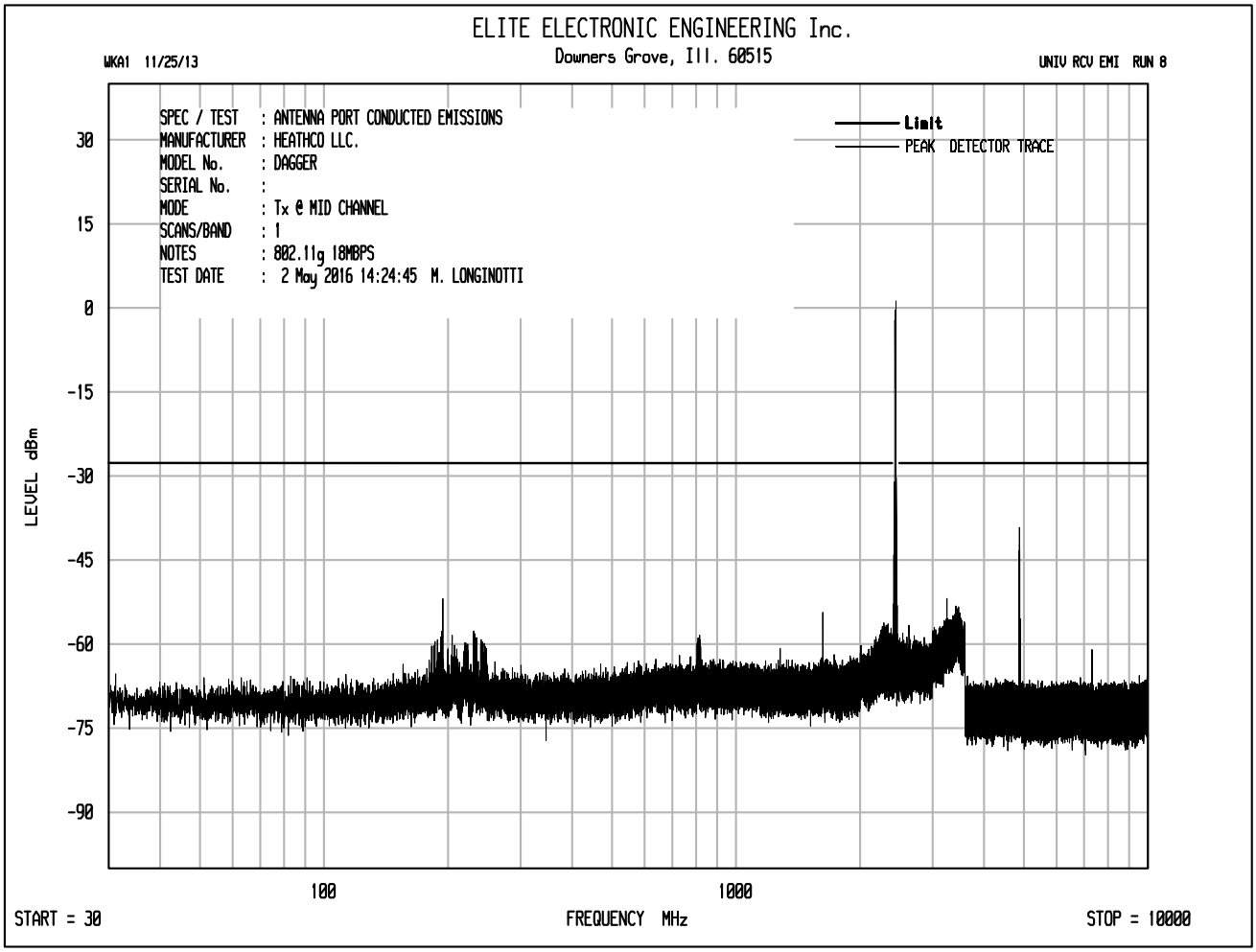

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 32
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ HI CHANNEL
SCANS/BAND : 1
NOTES : 802.11b 11MBPS
TEST DATE : 2 May 2016 16:35:10 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

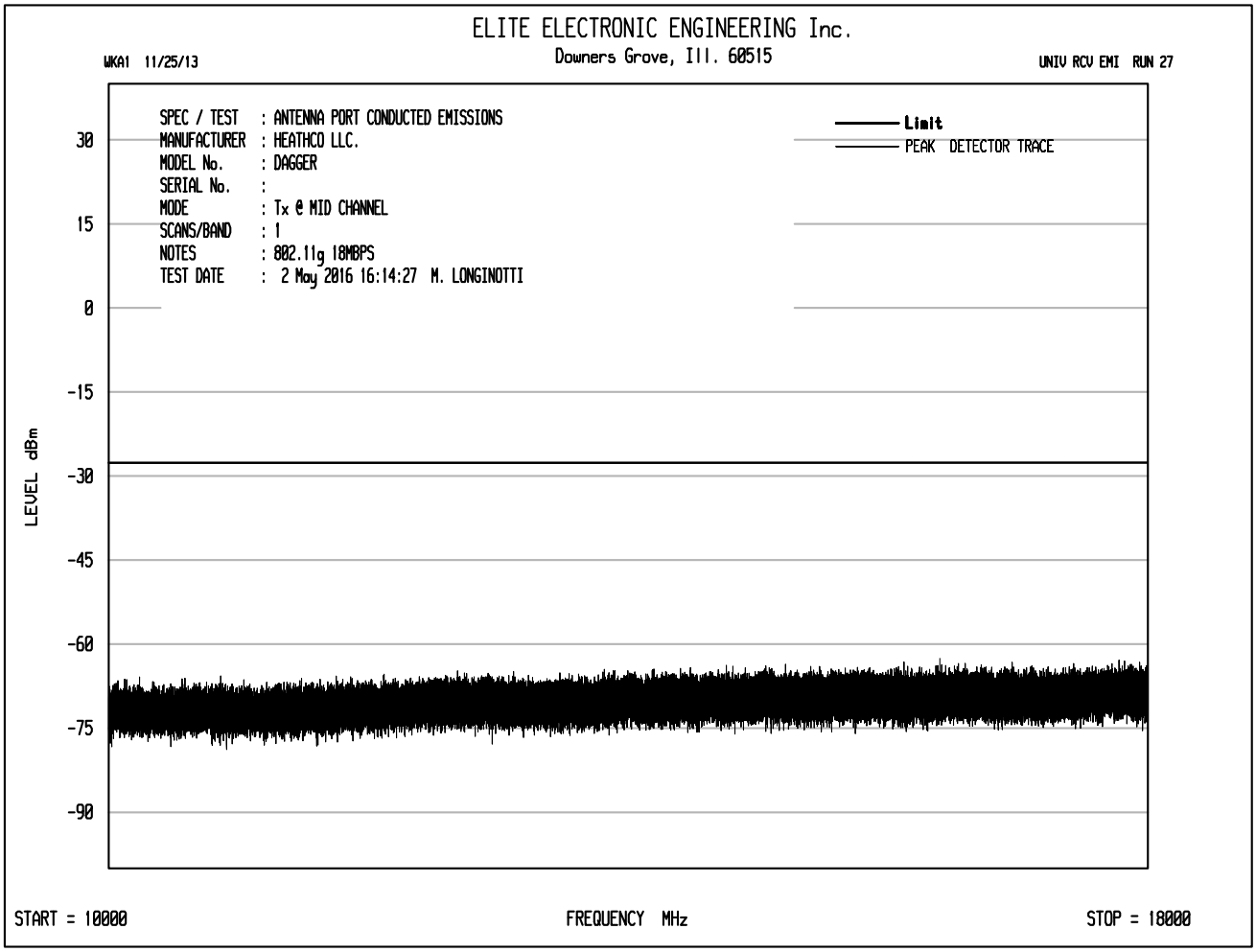

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 4
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ HIGH CHANNEL
SCANS/BAND : 1
NOTES : 802.11 b 11MBPS
TEST DATE : 10 May 2016 12:46:26 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
START = 18000
FREQUENCY MHz
STOP = 25000

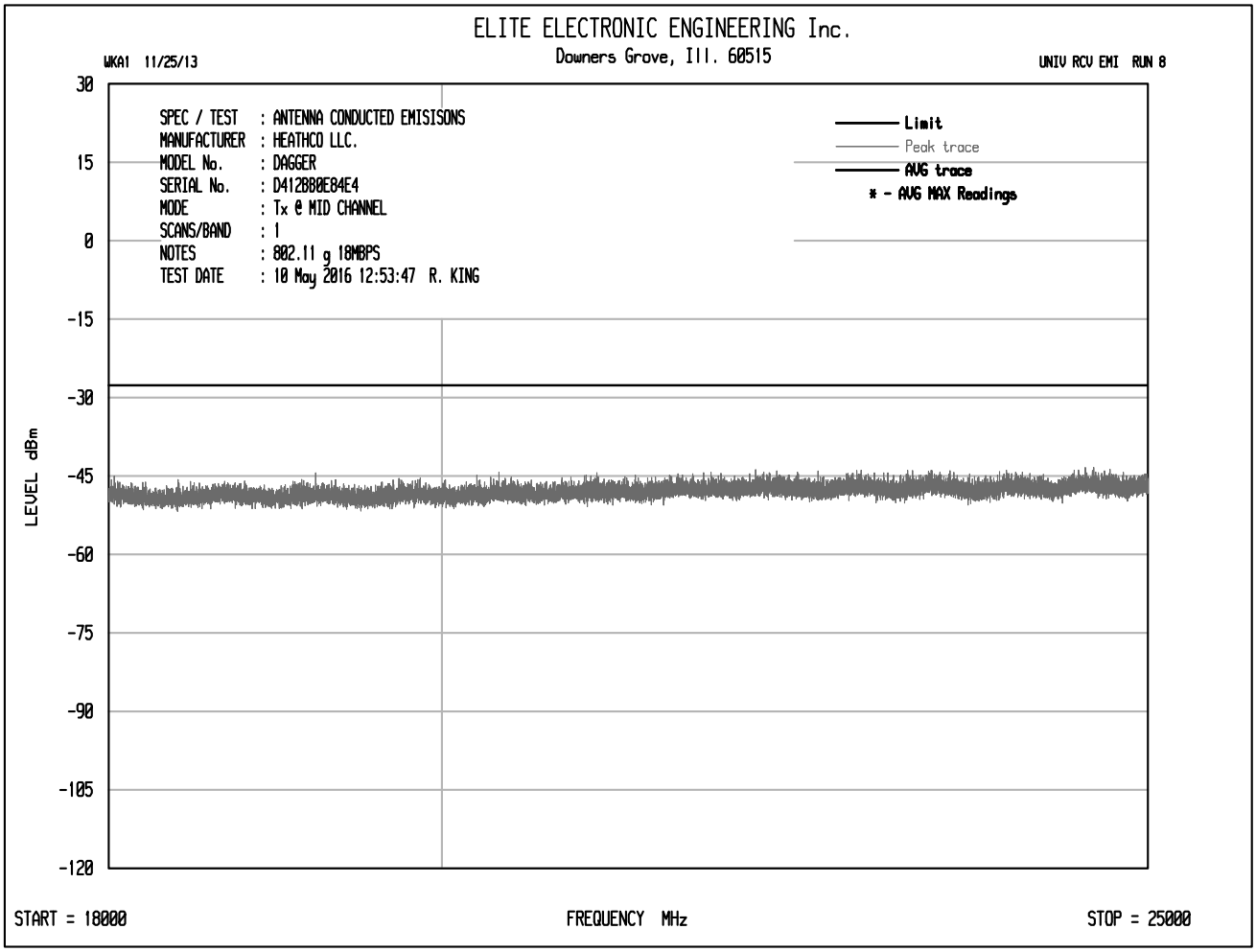

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 7
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ LO CHANNEL
SCANS/BAND : 1
NOTES : 802.11g 18MBPS
TEST DATE : 2 May 2016 14:19:05 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

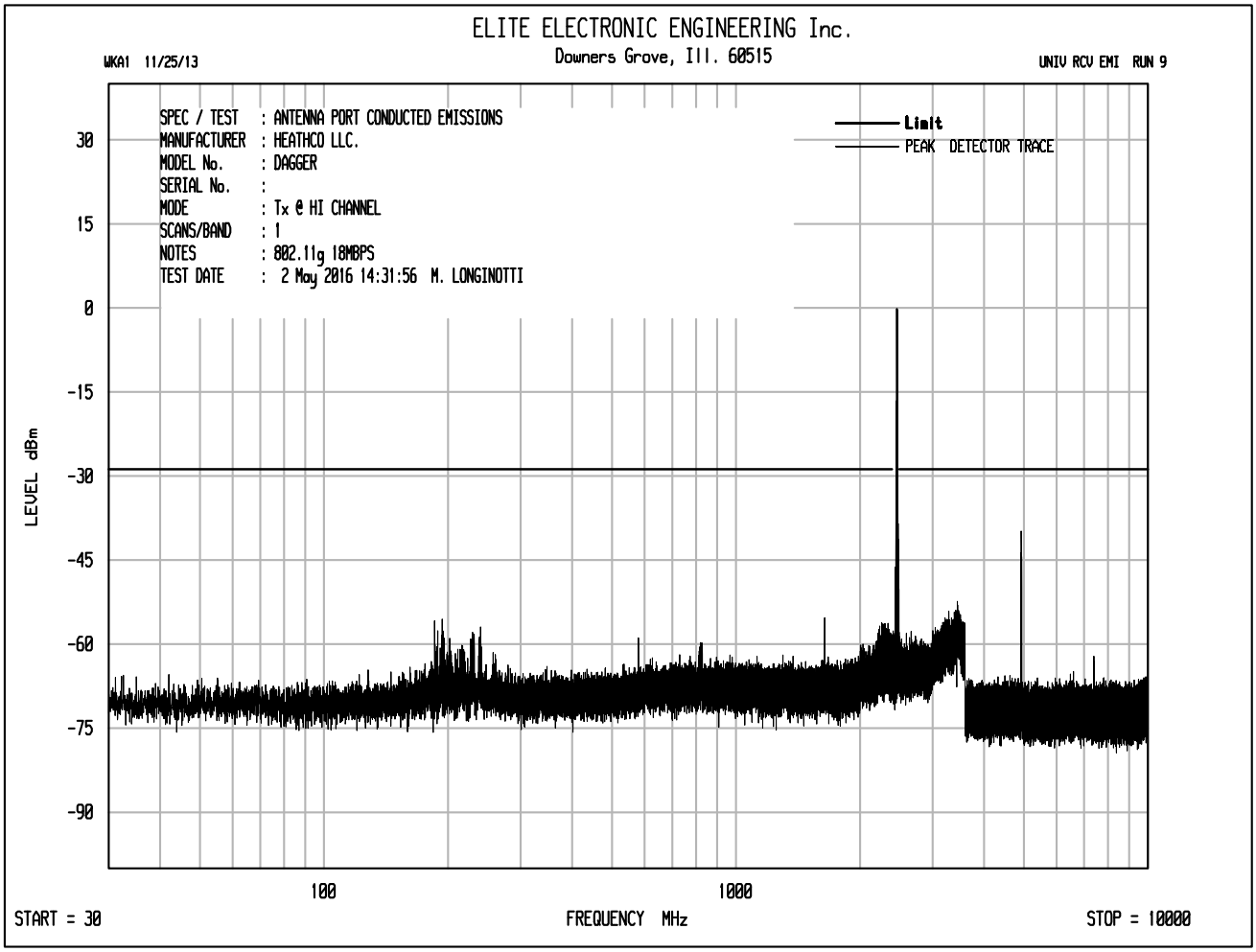

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 28
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ LO CHANNEL
SCANS/BAND : 1
NOTES : 802.11g 18MBPS
TEST DATE : 2 May 2016 16:17:43 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

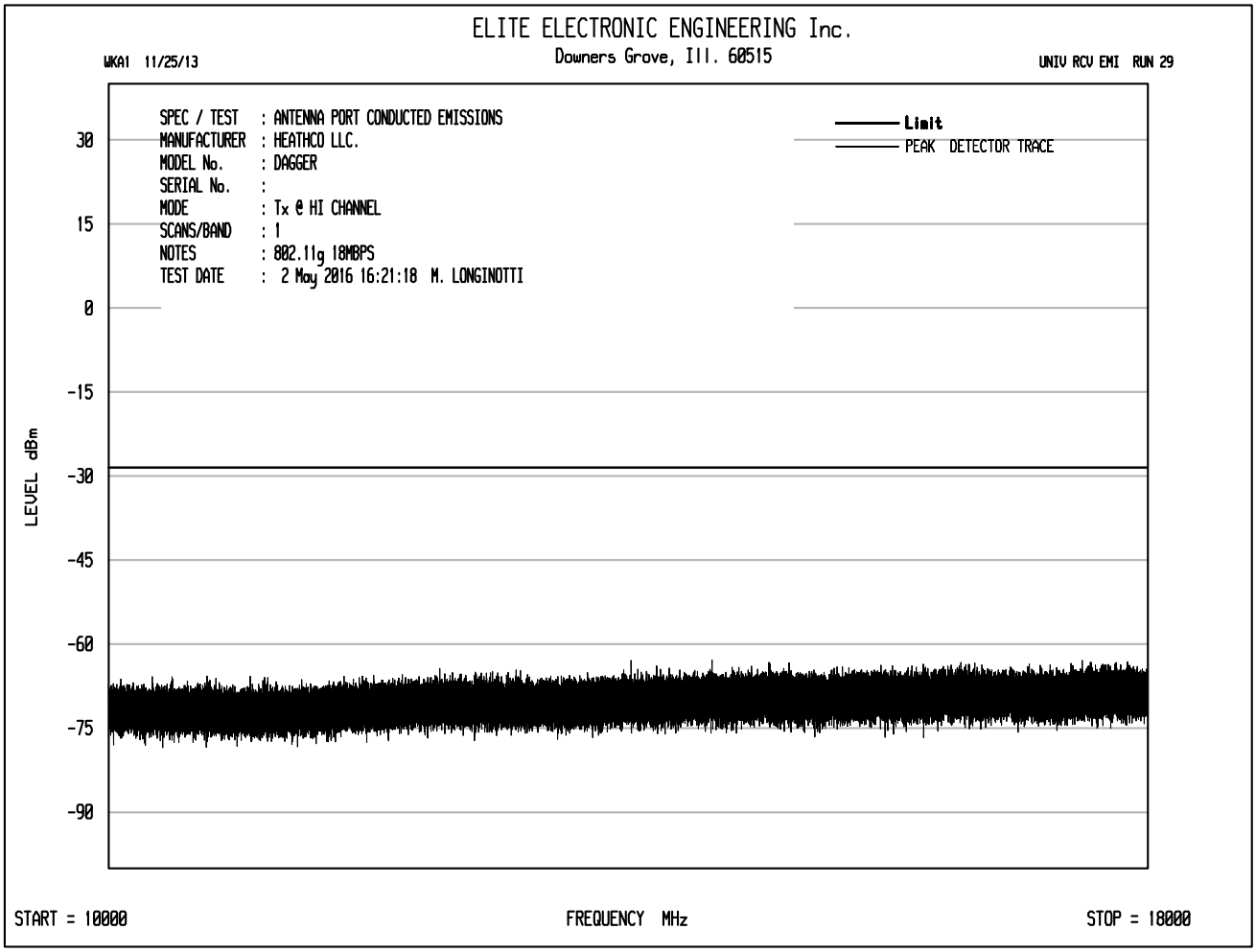

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 6
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ LOW CHANNEL
SCANS/BAND : 1
NOTES : 802.11 g 18MBPS
TEST DATE : 10 May 2016 12:51:08 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
START = 18000
FREQUENCY MHz
STOP = 25000

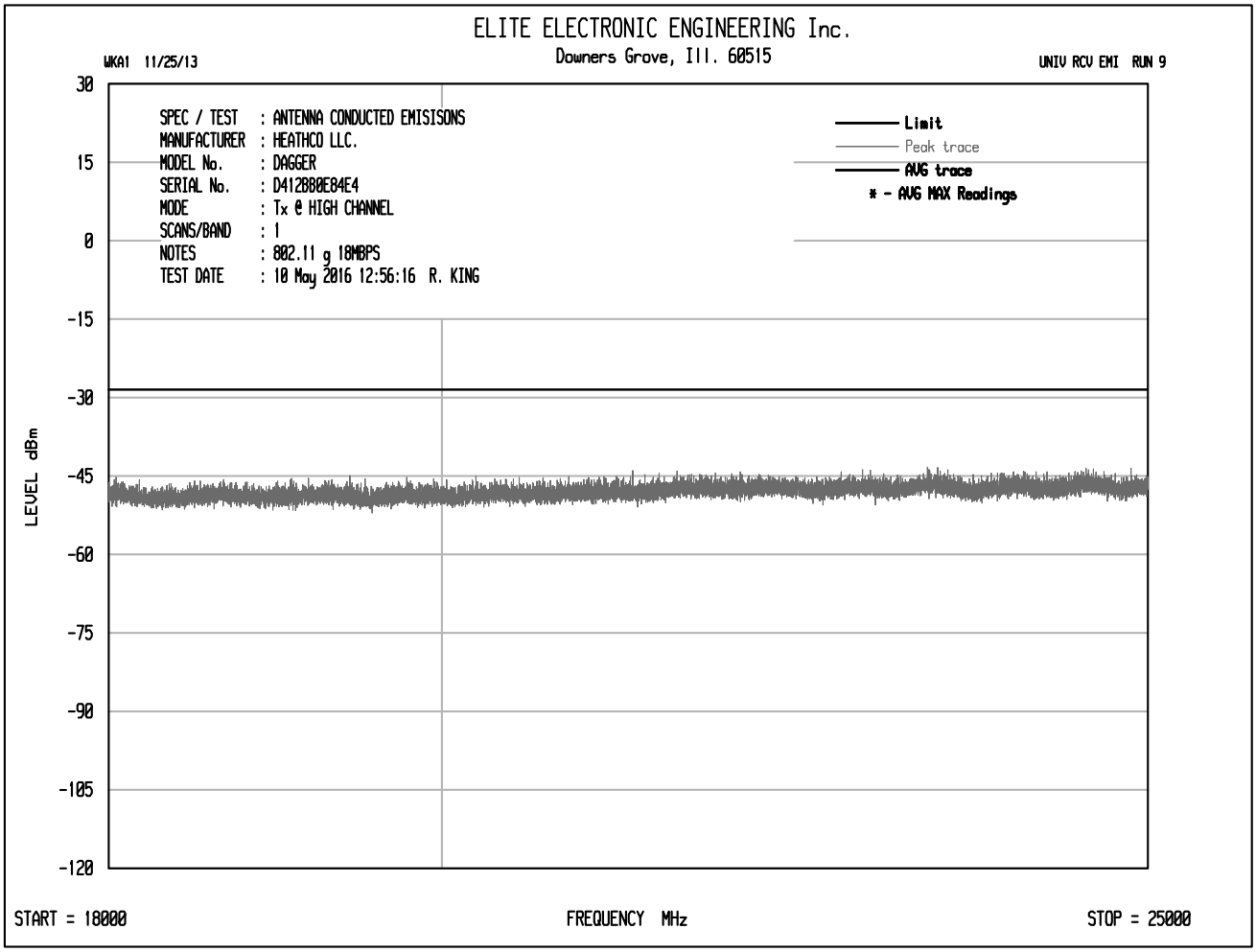

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 8
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11g 18MBPS
TEST DATE : 2 May 2016 14:24:45 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

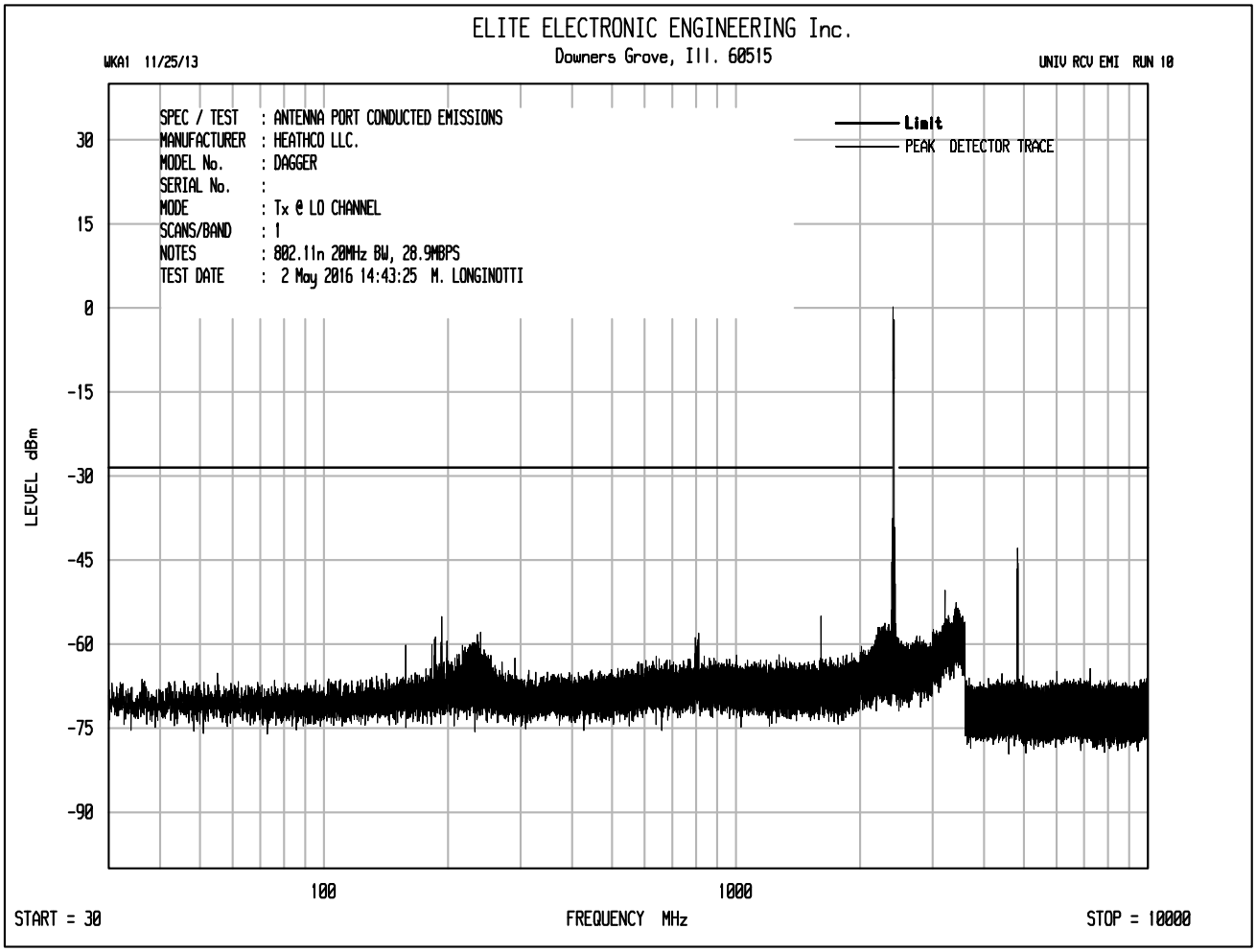

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 27
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11g 18MBPS
TEST DATE : 2 May 2016 16:14:27 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

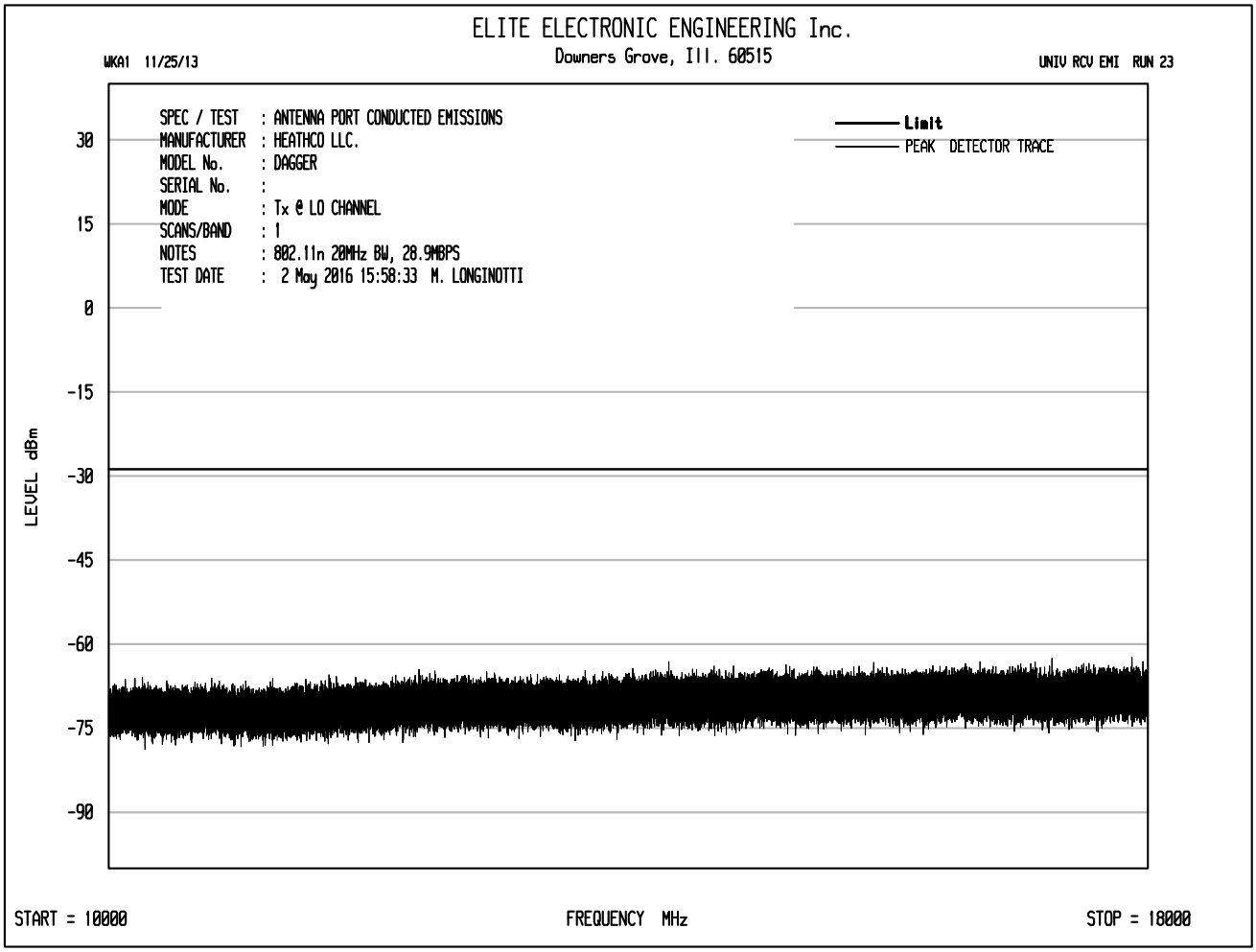

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 8
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11 g 18MBPS
TEST DATE : 10 May 2016 12:53:47 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
LEVEL dBm
START = 18000
FREQUENCY MHz
STOP = 25000

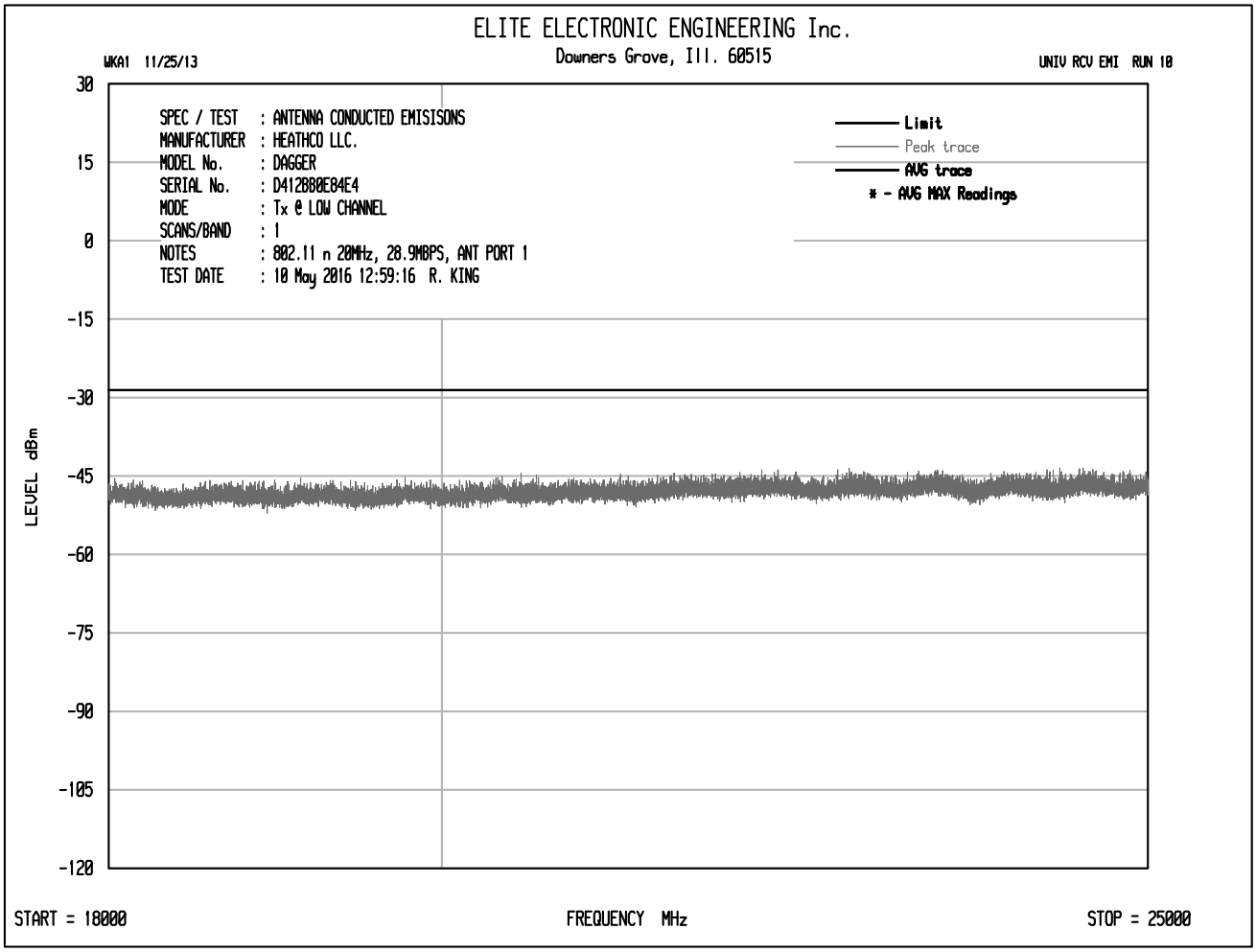

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 9
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ HI CHANNEL
SCANS/BAND : 1
NOTES : 802.11g 18MBPS
TEST DATE : 2 May 2016 14:31:56 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

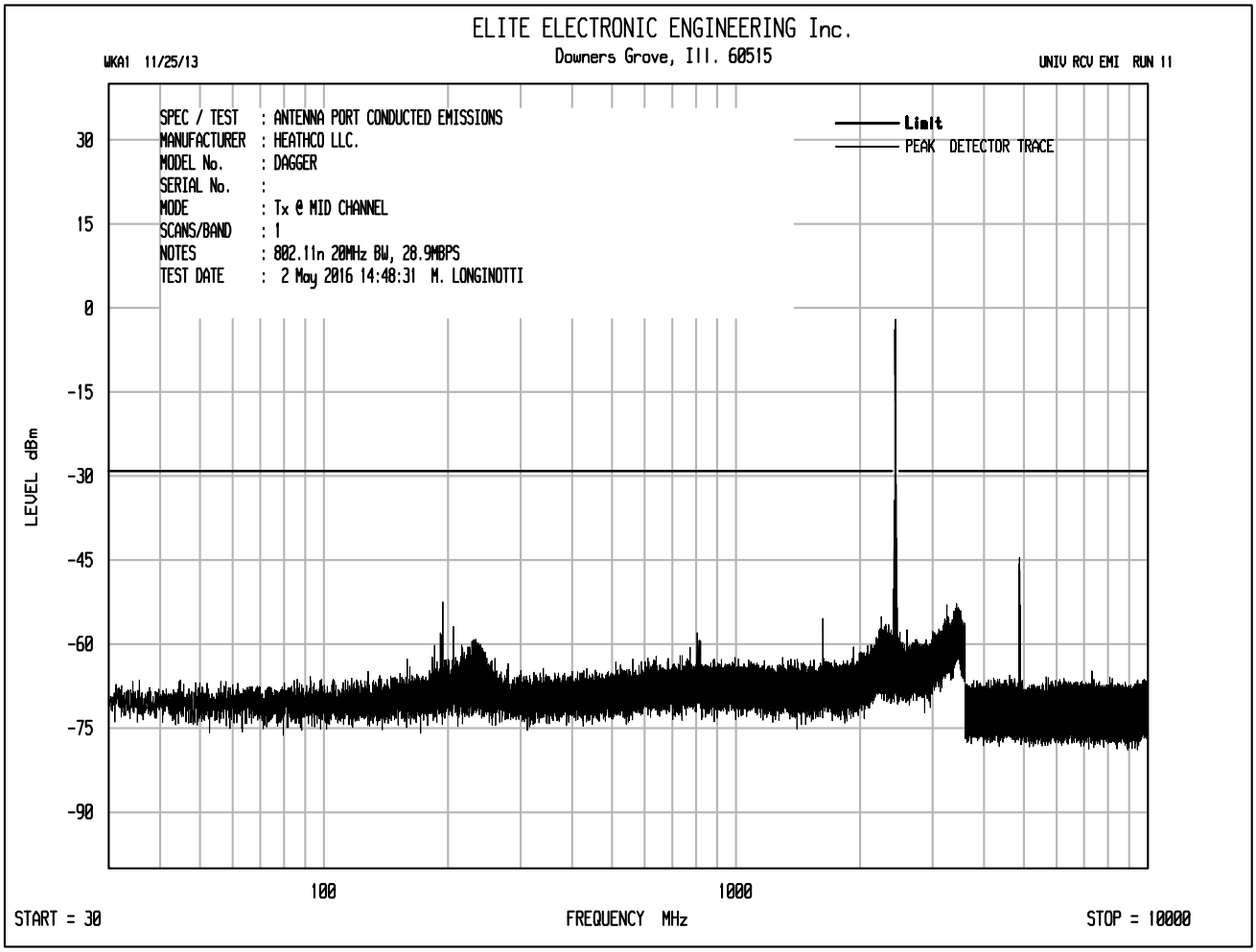

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 29
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ HI CHANNEL
SCANS/BAND : 1
NOTES : 802.11g 18MBPS
TEST DATE : 2 May 2016 16:21:18 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

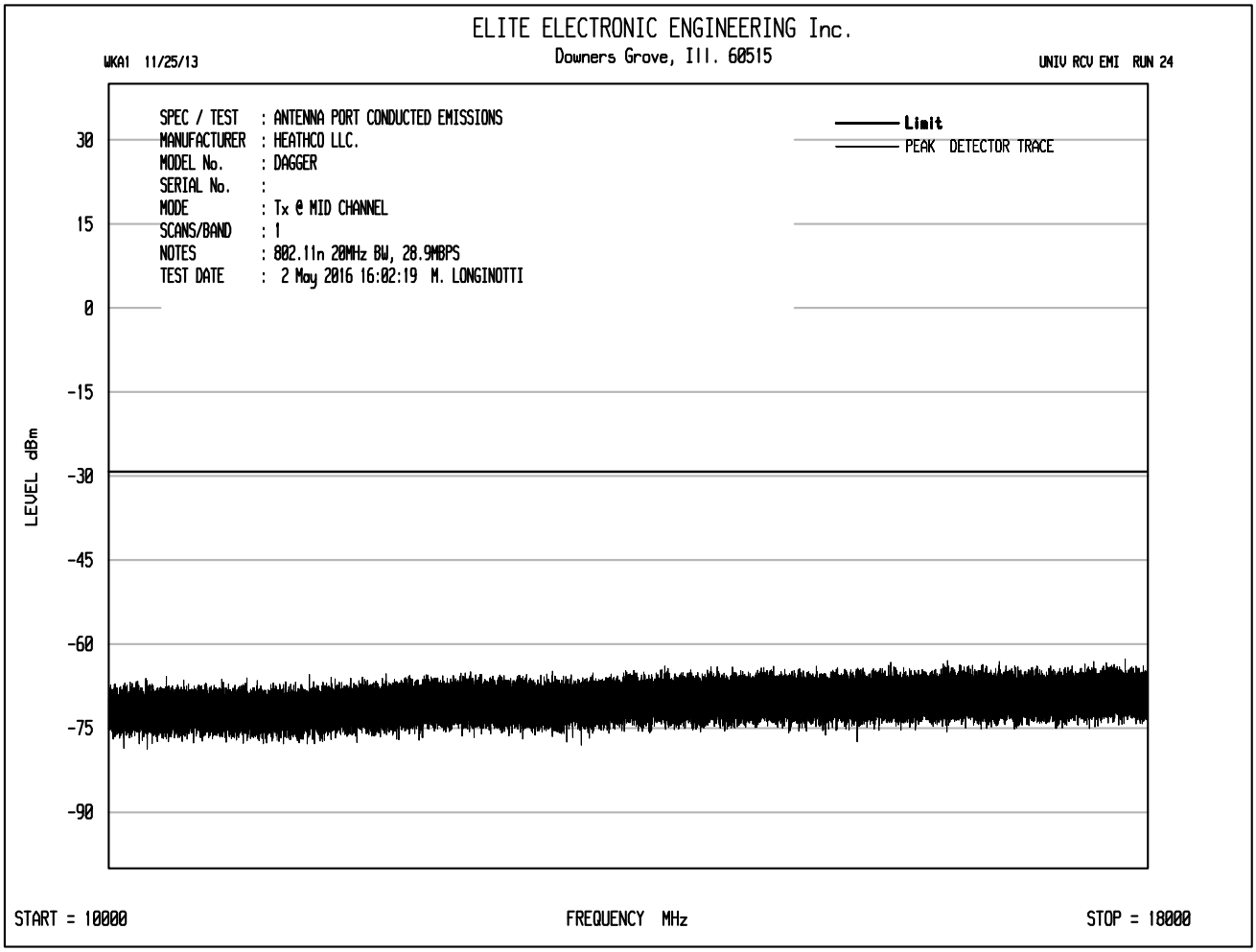

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 9
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ HIGH CHANNEL
SCANS/BAND : 1
NOTES : 802.11 g 18MBPS
TEST DATE : 10 May 2016 12:56:16 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
START = 18000
FREQUENCY MHz
STOP = 25000

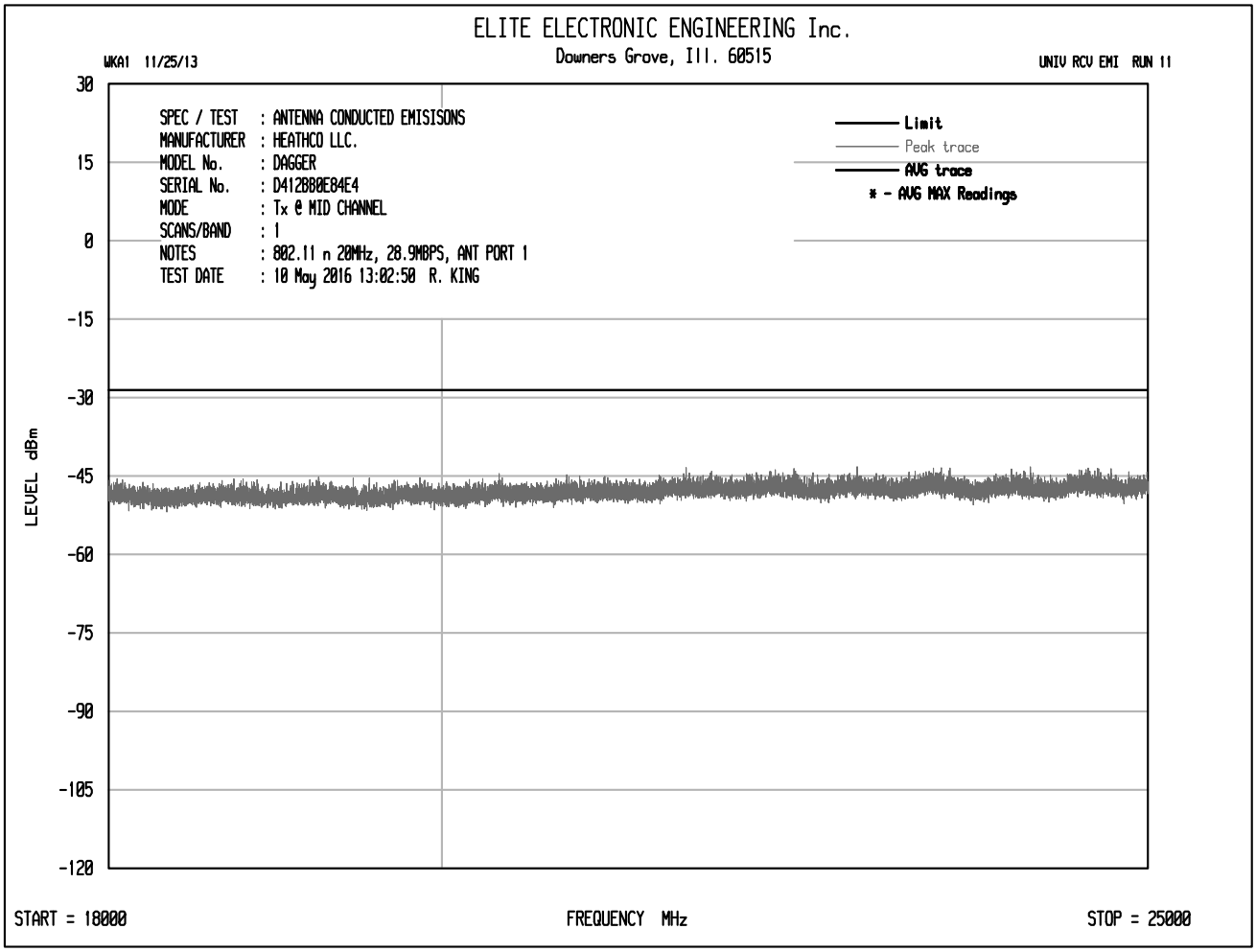

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 10
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ LO CHANNEL
SCANS/BAND : 1
NOTES : 802.11n 20MHz BW, 28.9MBPS
TEST DATE : 2 May 2016 14:43:25 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

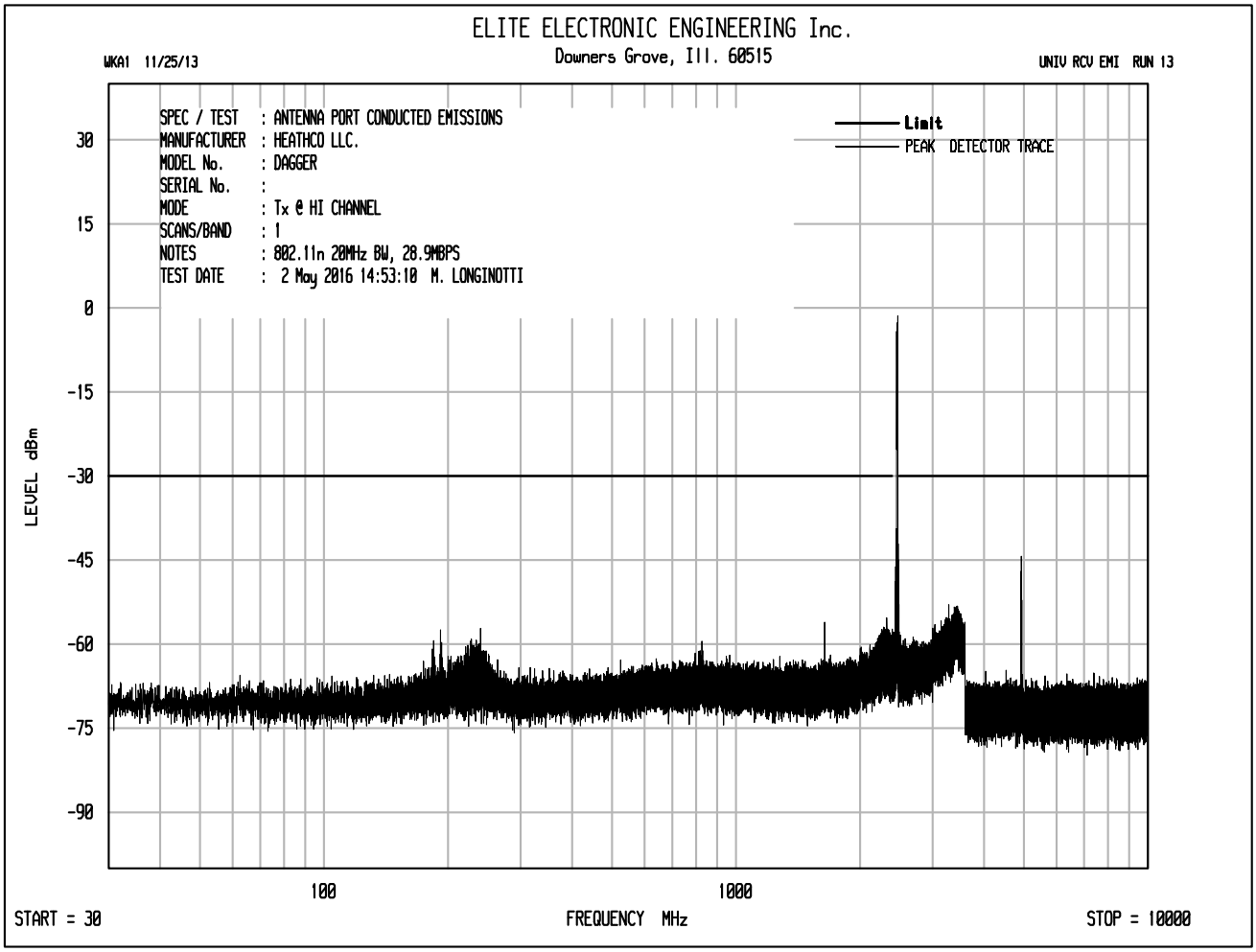

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 23
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ LO CHANNEL
SCANS/BAND : 1
NOTES : 802.11n 20MHz BW, 28.9MBPS
TEST DATE : 2 May 2016 15:58:33 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

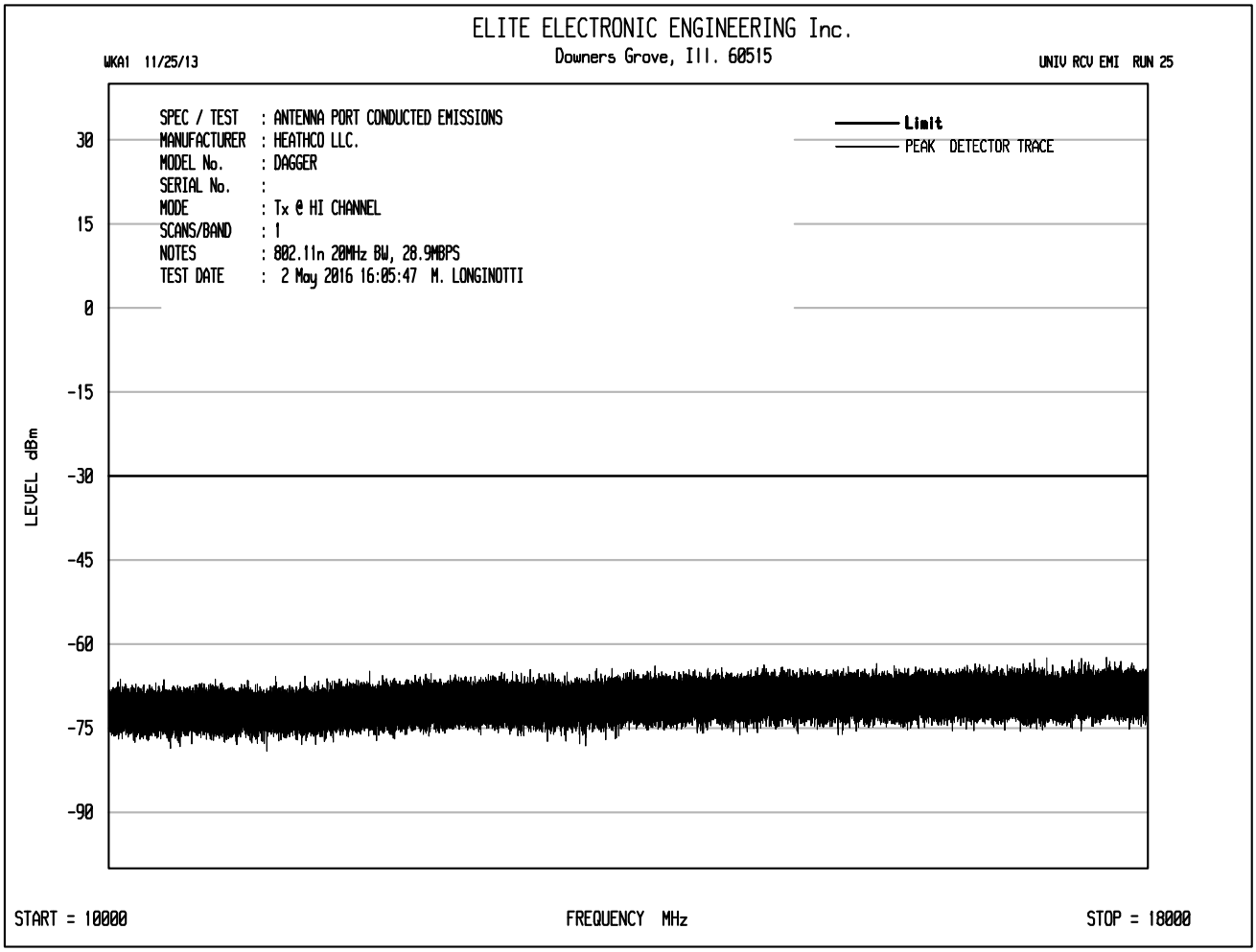

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 10
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ LOW CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 20MHz, 28.9MBPS, ANT PORT 1
TEST DATE : 10 May 2016 12:59:16 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
START = 18000
FREQUENCY MHz
STOP = 25000

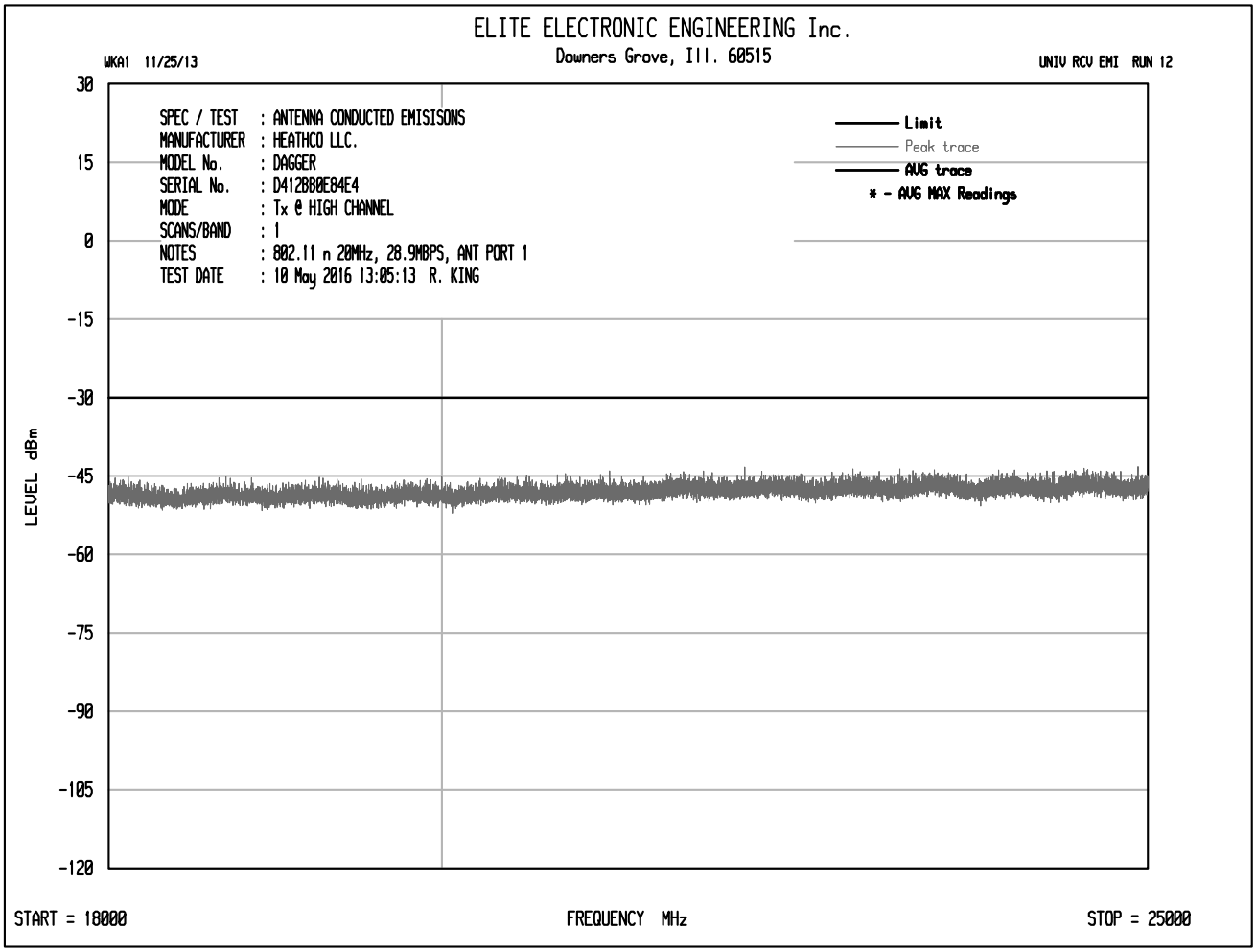

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 11
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11n 20MHz BW, 28.9MBPS
TEST DATE : 2 May 2016 14:48:31 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

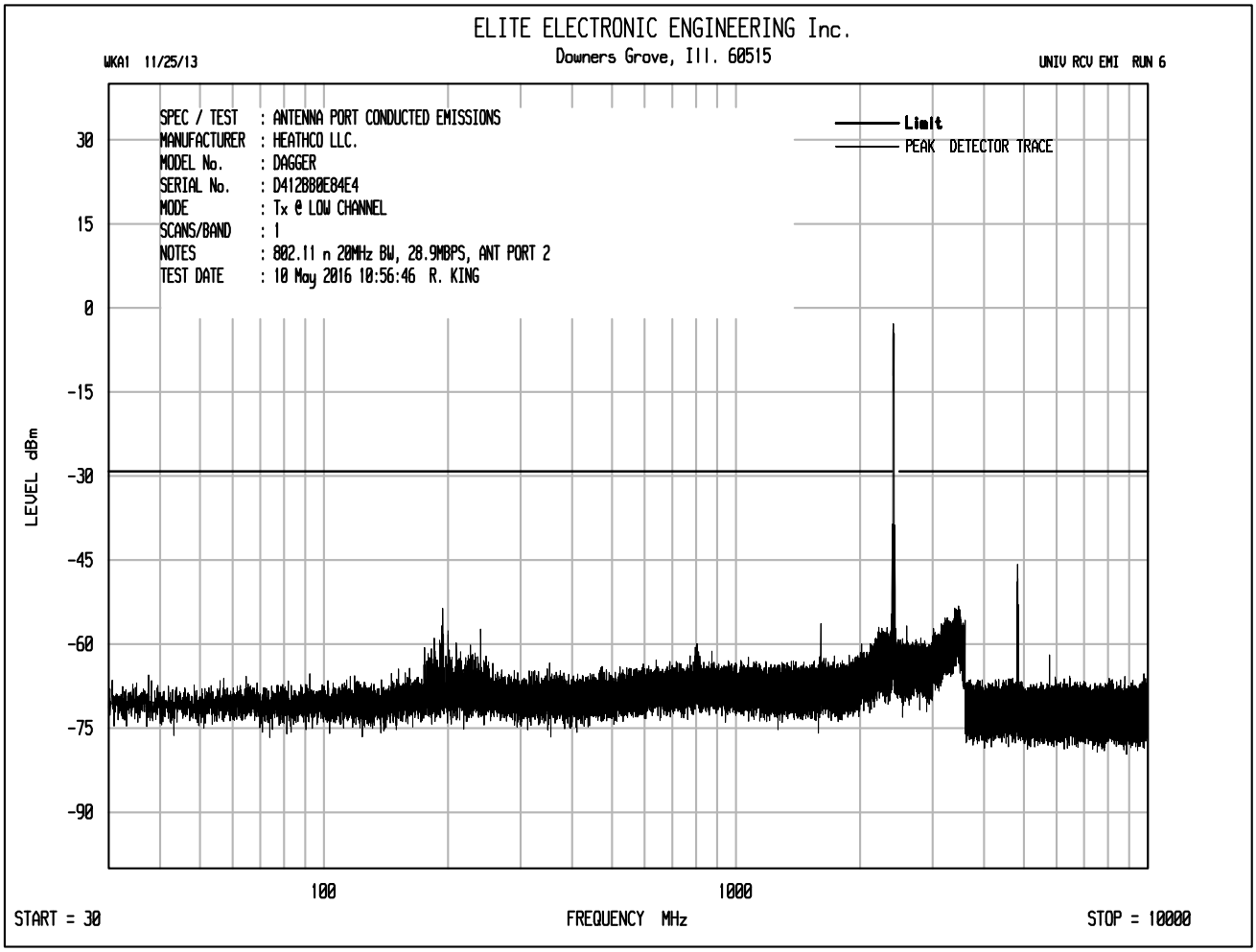

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 24
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11n 20MHz BW, 28.9MBPS
TEST DATE : 2 May 2016 16:02:19 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

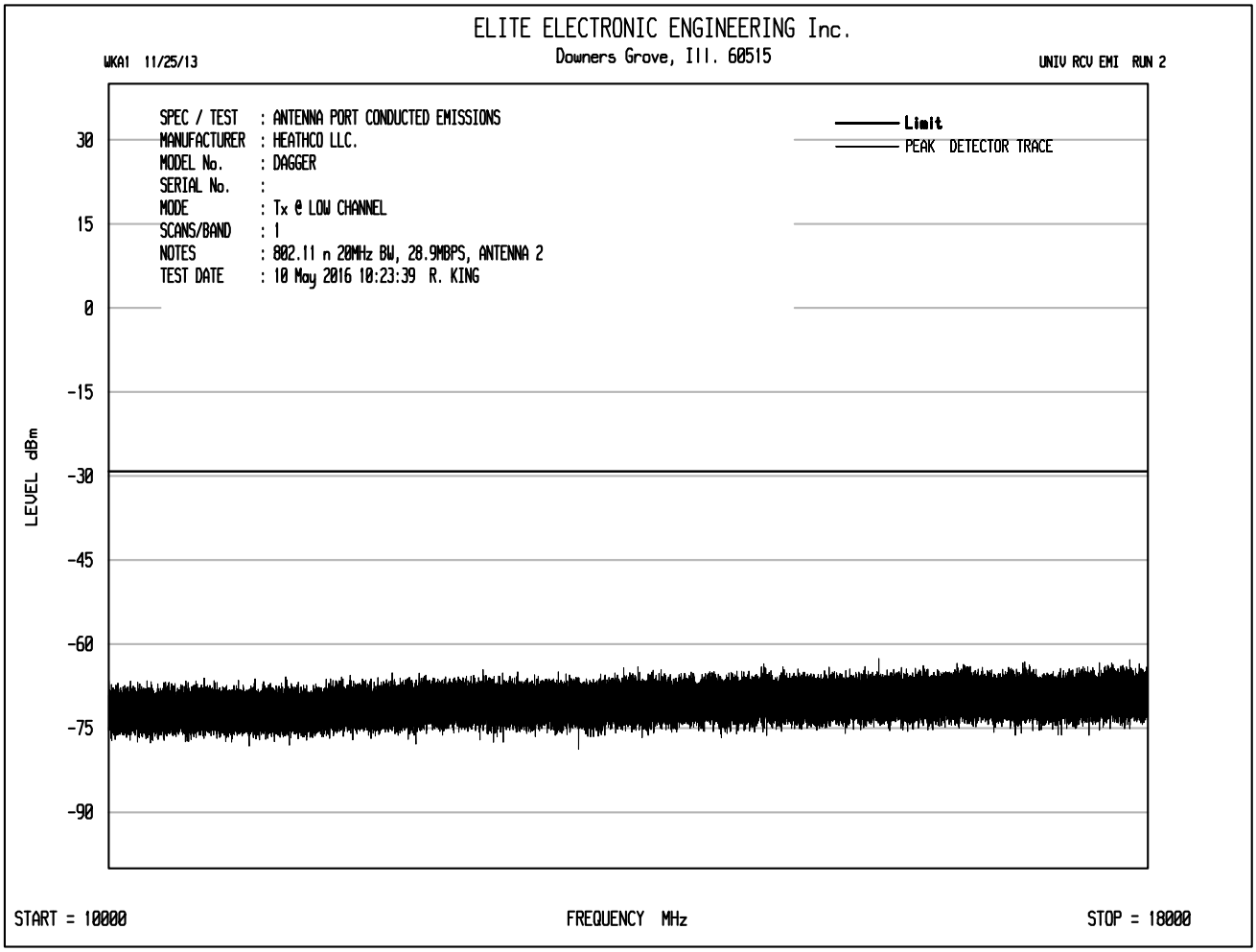

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 11
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 20MHz, 28.9MBPS, ANT PORT 1
TEST DATE : 10 May 2016 13:02:50 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
START = 18000
FREQUENCY MHz
STOP = 25000

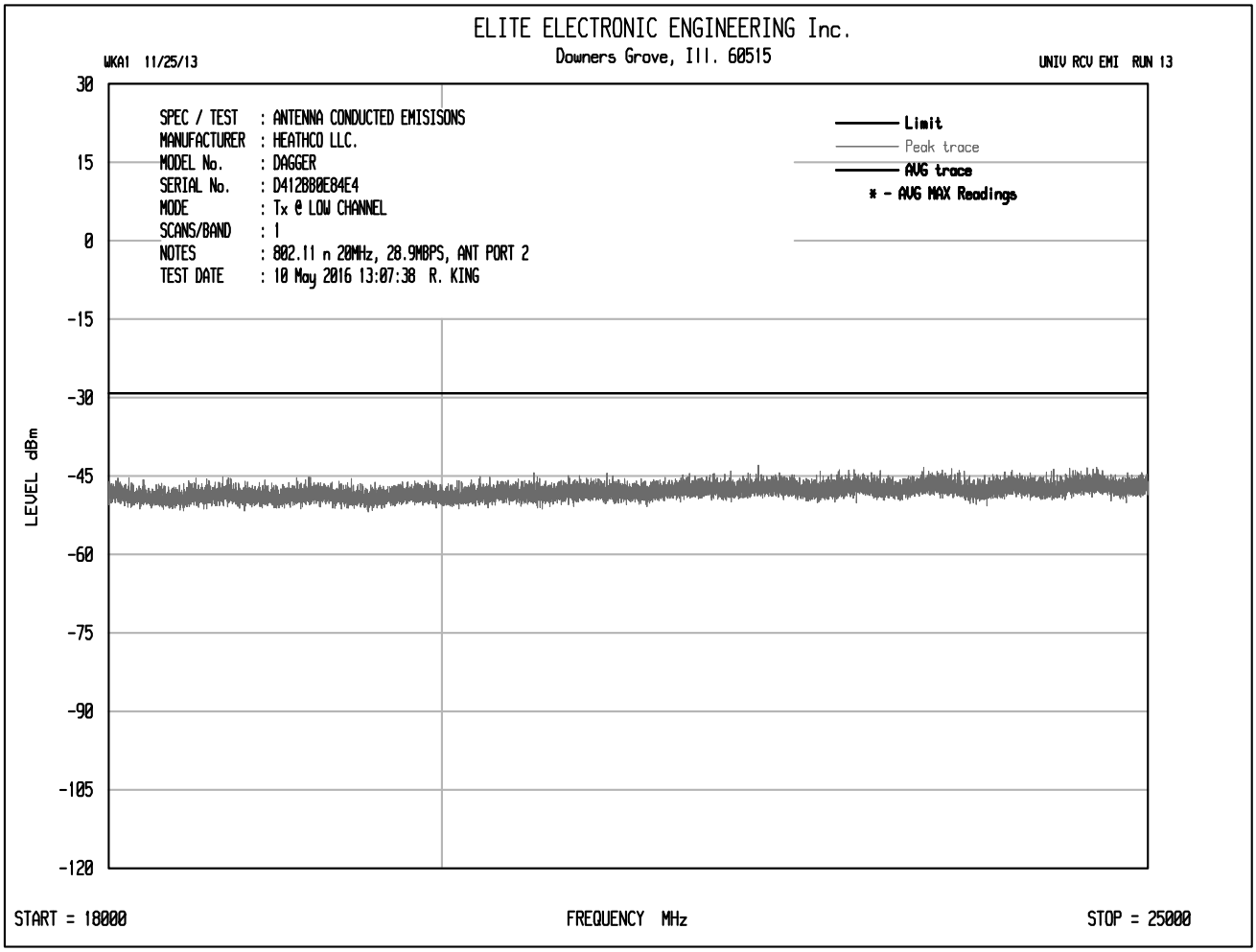

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 13
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ HI CHANNEL
SCANS/BAND : 1
NOTES : 802.11n 20MHz BW, 28.9MBPS
TEST DATE : 2 May 2016 14:53:10 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

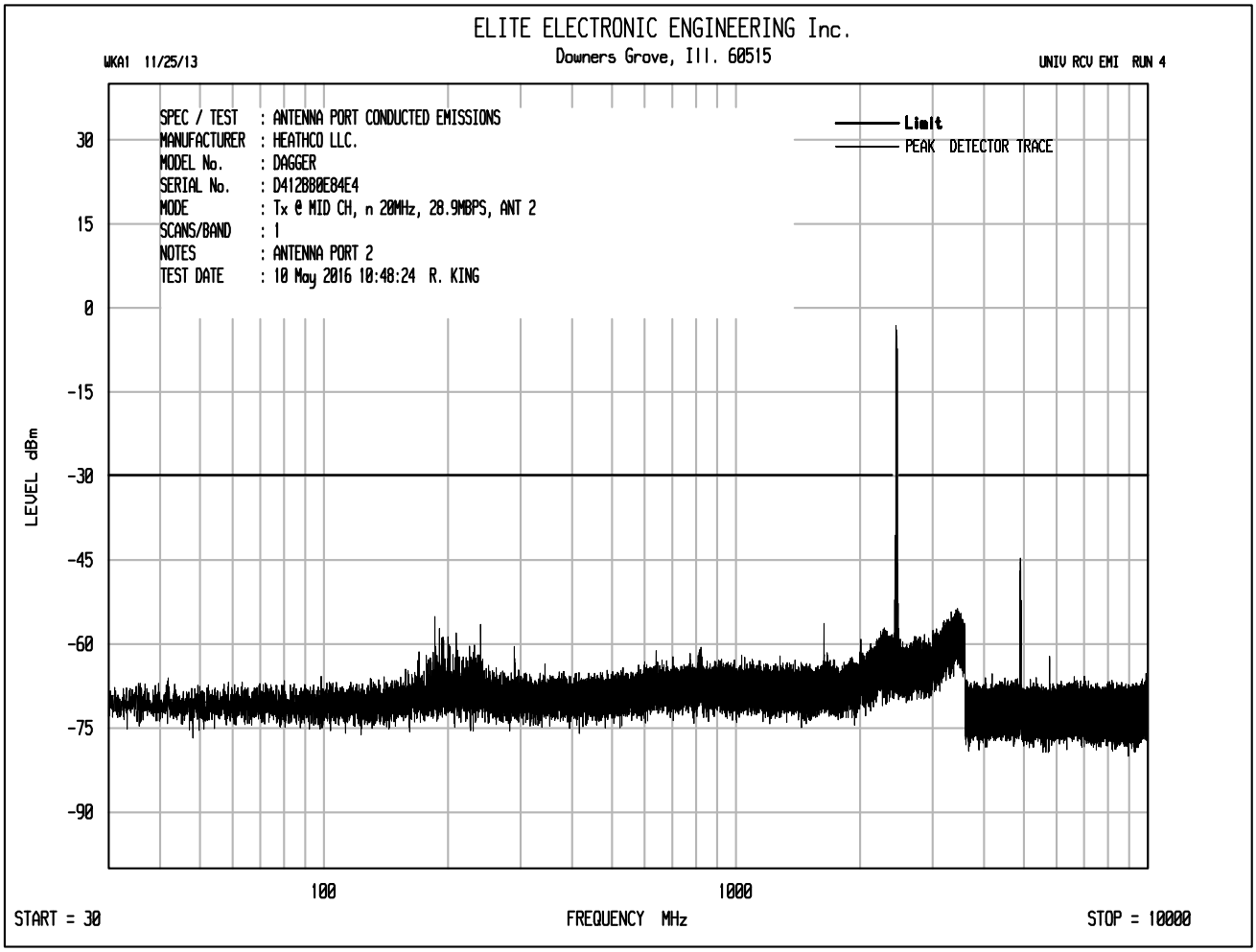

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 25
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ HI CHANNEL
SCANS/BAND : 1
NOTES : 802.11n 20MHz BW, 28.9MBPS
TEST DATE : 2 May 2016 16:05:47 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

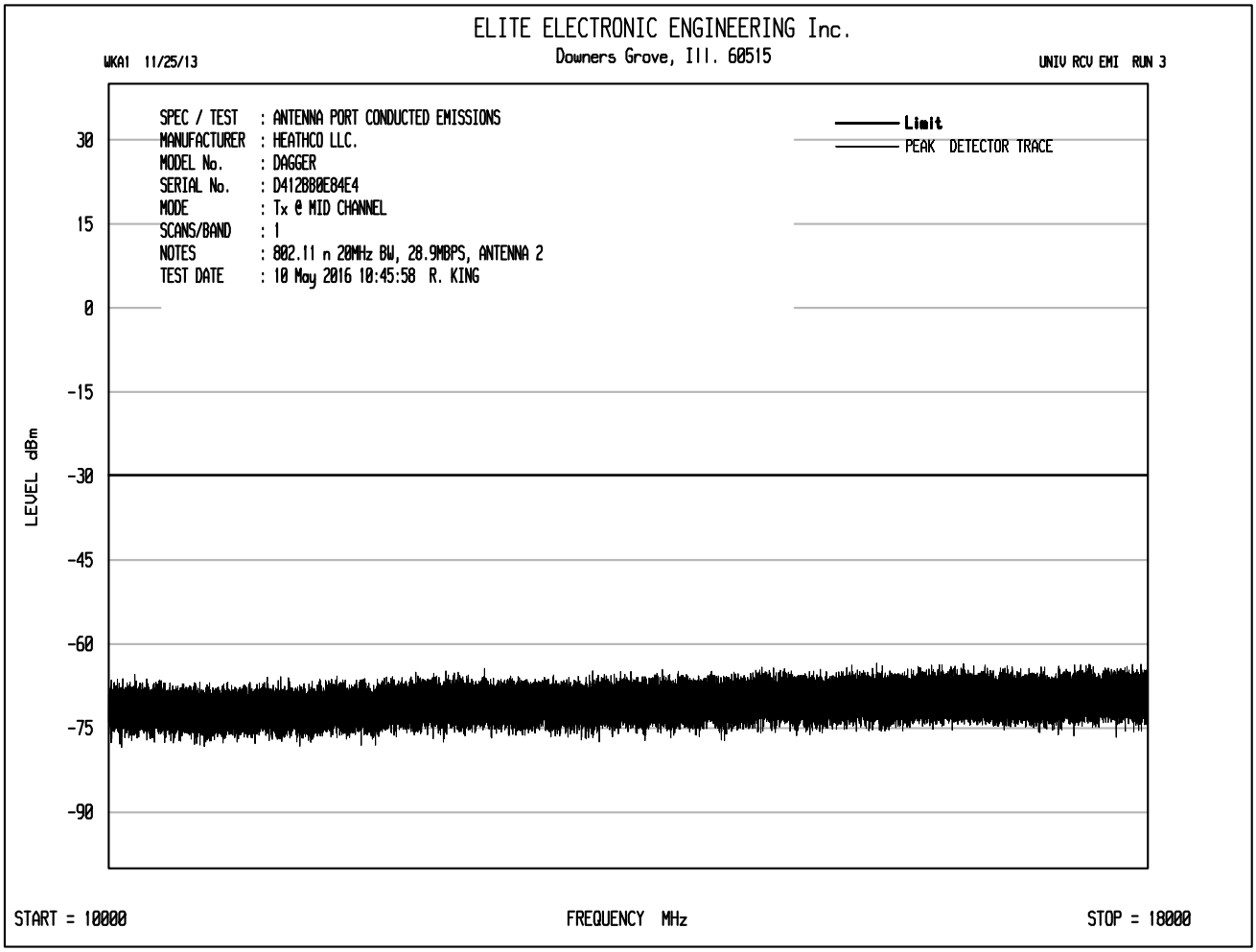

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 12
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ HIGH CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 20MHz, 28.9MBPS, ANT PORT 1
TEST DATE : 10 May 2016 13:05:13 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
LEVEL dBm
START = 18000
FREQUENCY MHz
STOP = 25000

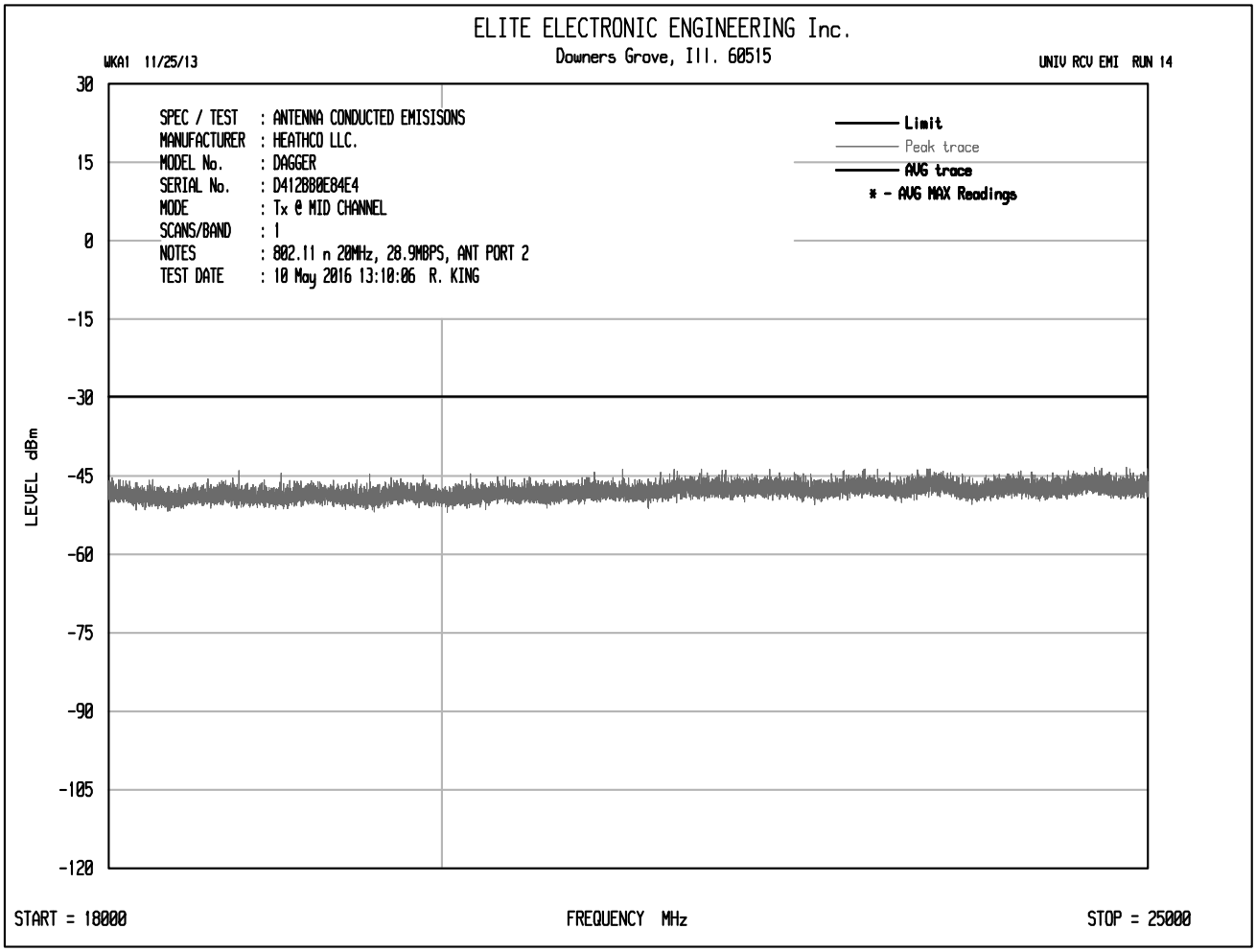

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 6
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412B80E84E4
MODE : Tx @ LOW CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 20MHz BW, 28.9MBPS, ANT PORT 2
TEST DATE : 10 May 2016 10:56:46 R. KING
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

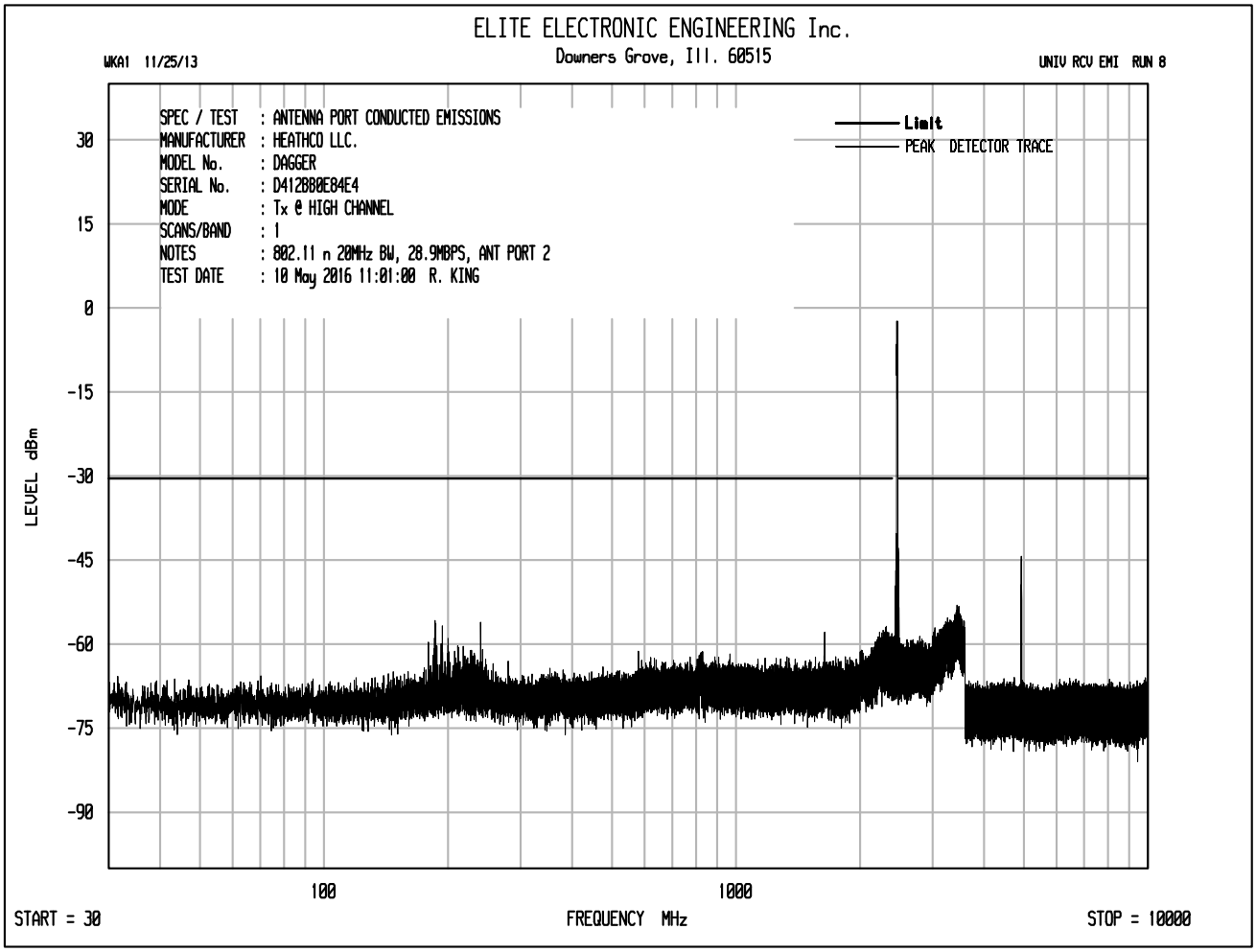

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 2
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ LOW CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 20MHz BW, 28.9MBPS, ANTENNA 2
TEST DATE : 10 May 2016 10:23:39 R. KING
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

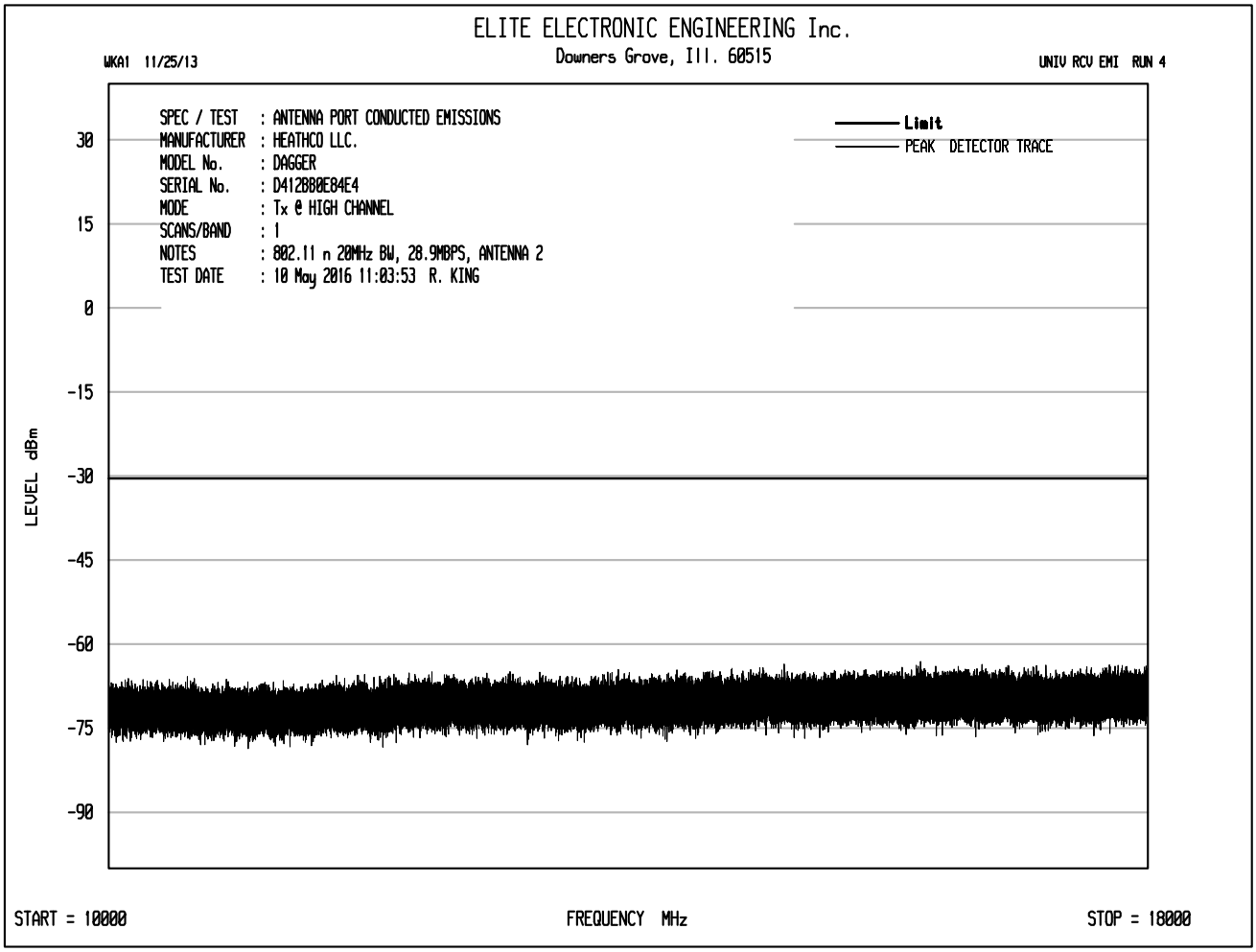

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 13
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ LOW CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 20MHz, 28.9MBPS, ANT PORT 2
TEST DATE : 10 May 2016 13:07:38 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
LEVEL dBm
START = 18000
FREQUENCY MHz
STOP = 25000

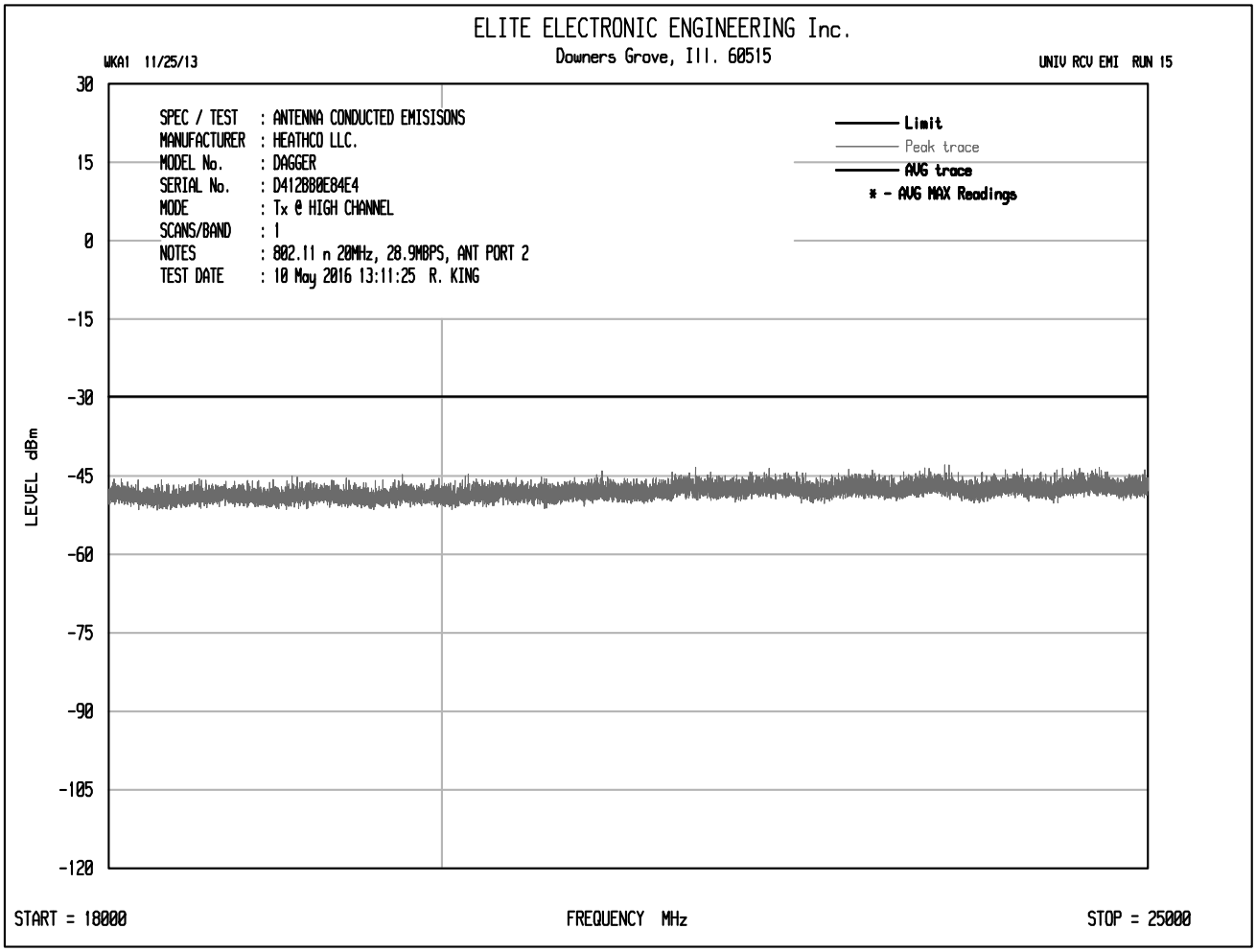

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 4
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ MID CH, n 20MHz, 28.9MBPS, ANT 2
SCANS/BAND : 1
NOTES : ANTENNA PORT 2
TEST DATE : 10 May 2016 10:48:24 R. KING
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

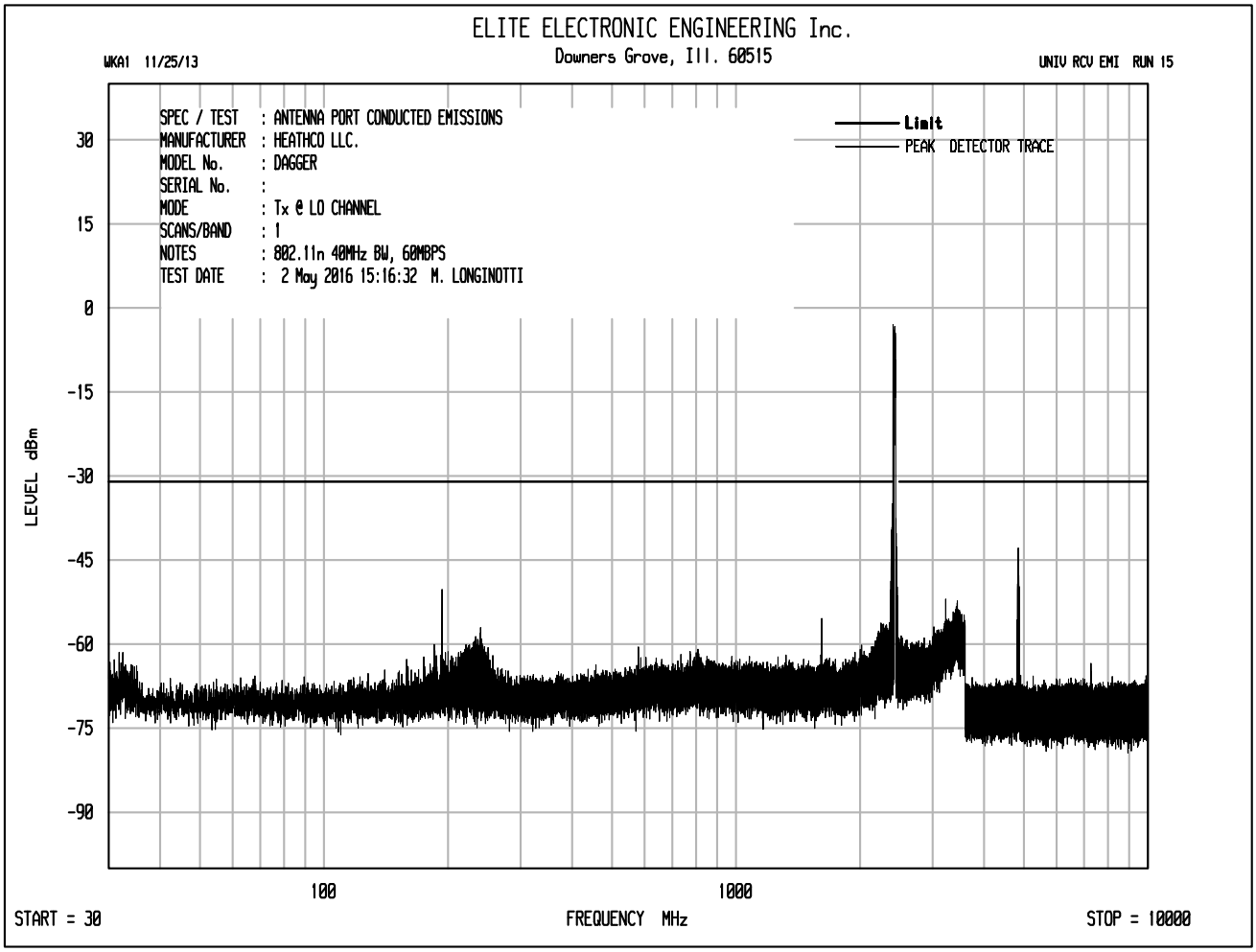

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 3
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 20MHz BW, 28.9MBPS, ANTENNA 2
TEST DATE : 10 May 2016 10:45:58 R. KING
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

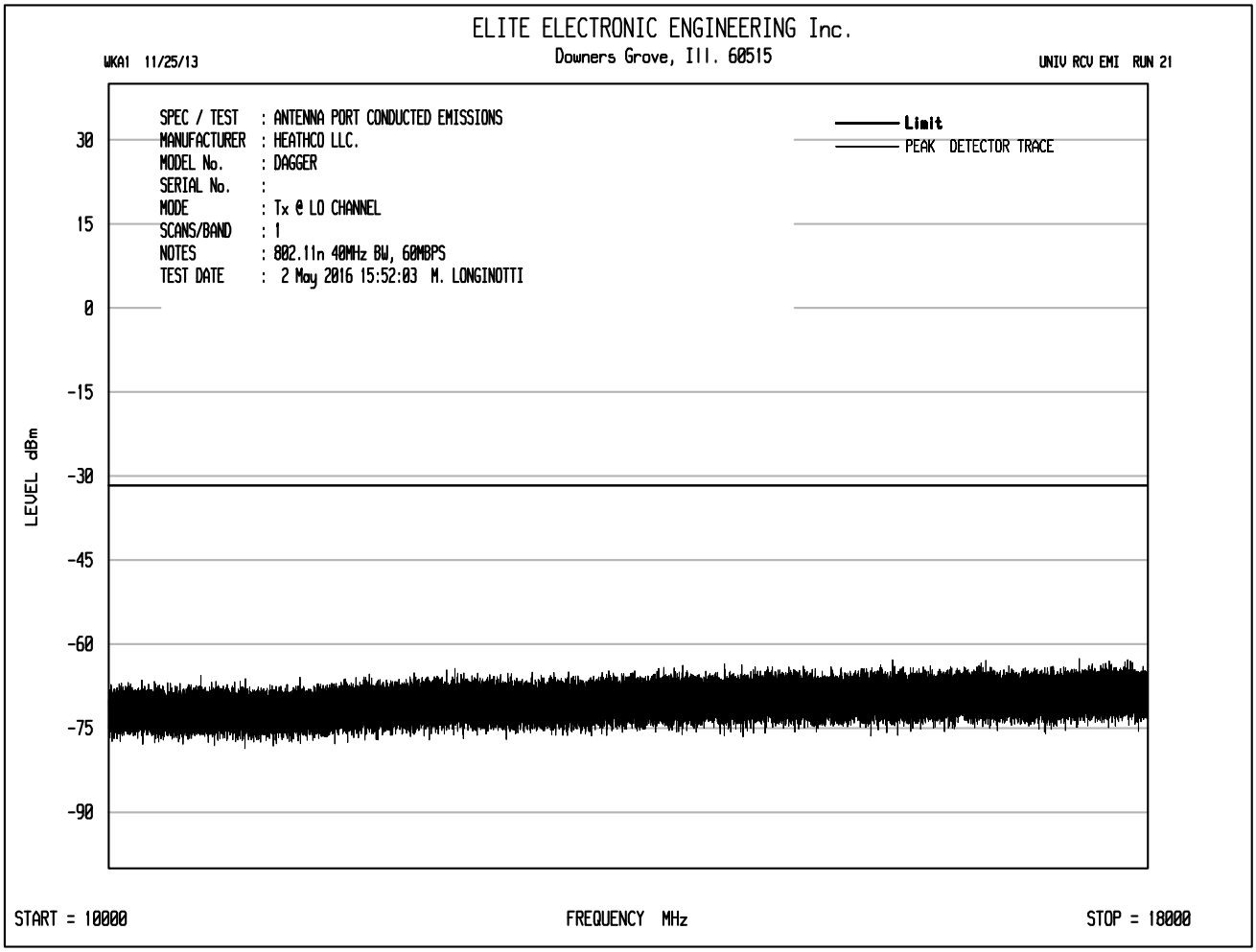

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 14
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 20MHz, 28.9MBPS, ANT PORT 2
TEST DATE : 10 May 2016 13:10:06 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
START = 18000
FREQUENCY MHz
STOP = 25000

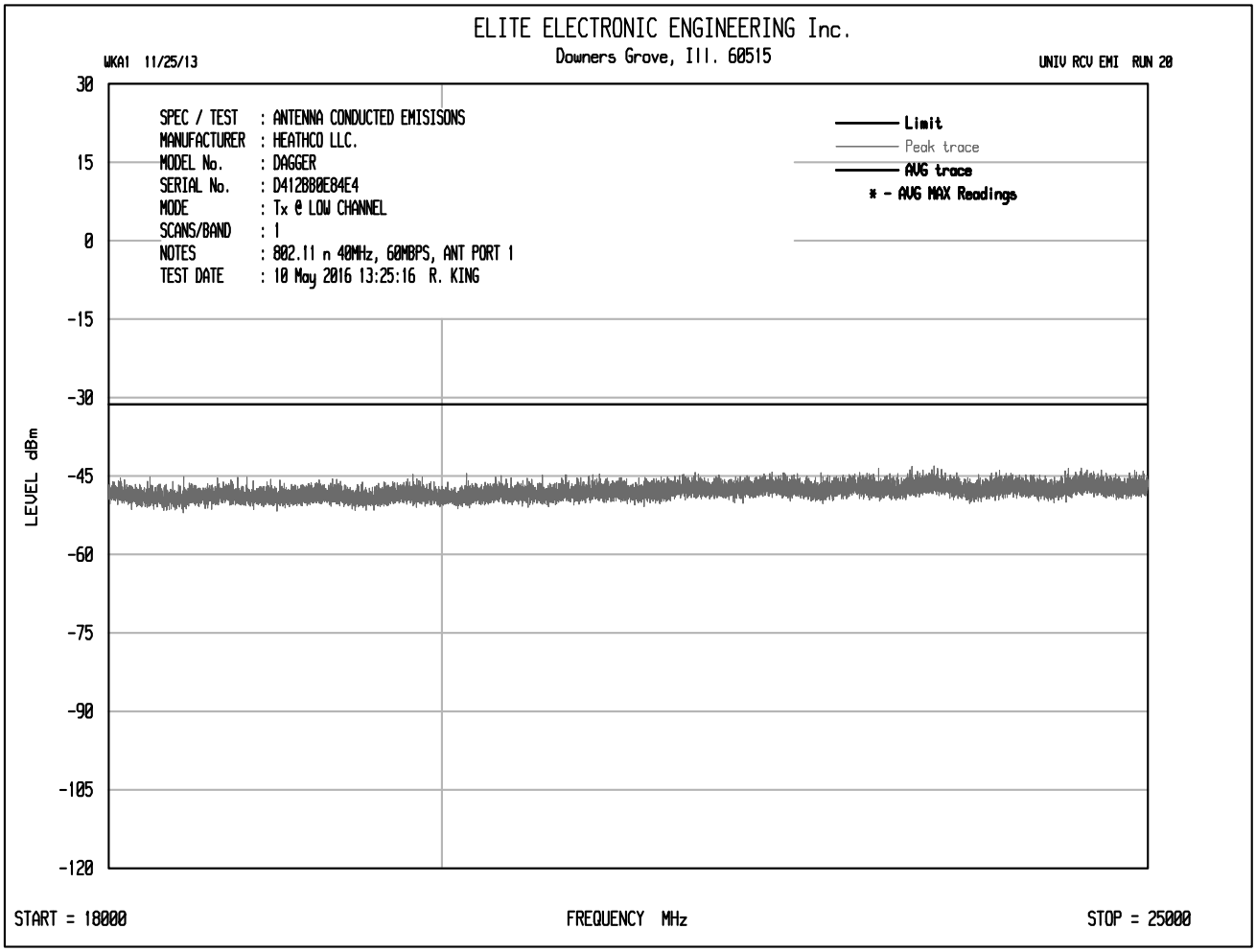

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 8
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412B80E84E4
MODE : Tx @ HIGH CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 20MHz BW, 28.9MBPS, ANT PORT 2
TEST DATE : 10 May 2016 11:01:00 R. KING
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

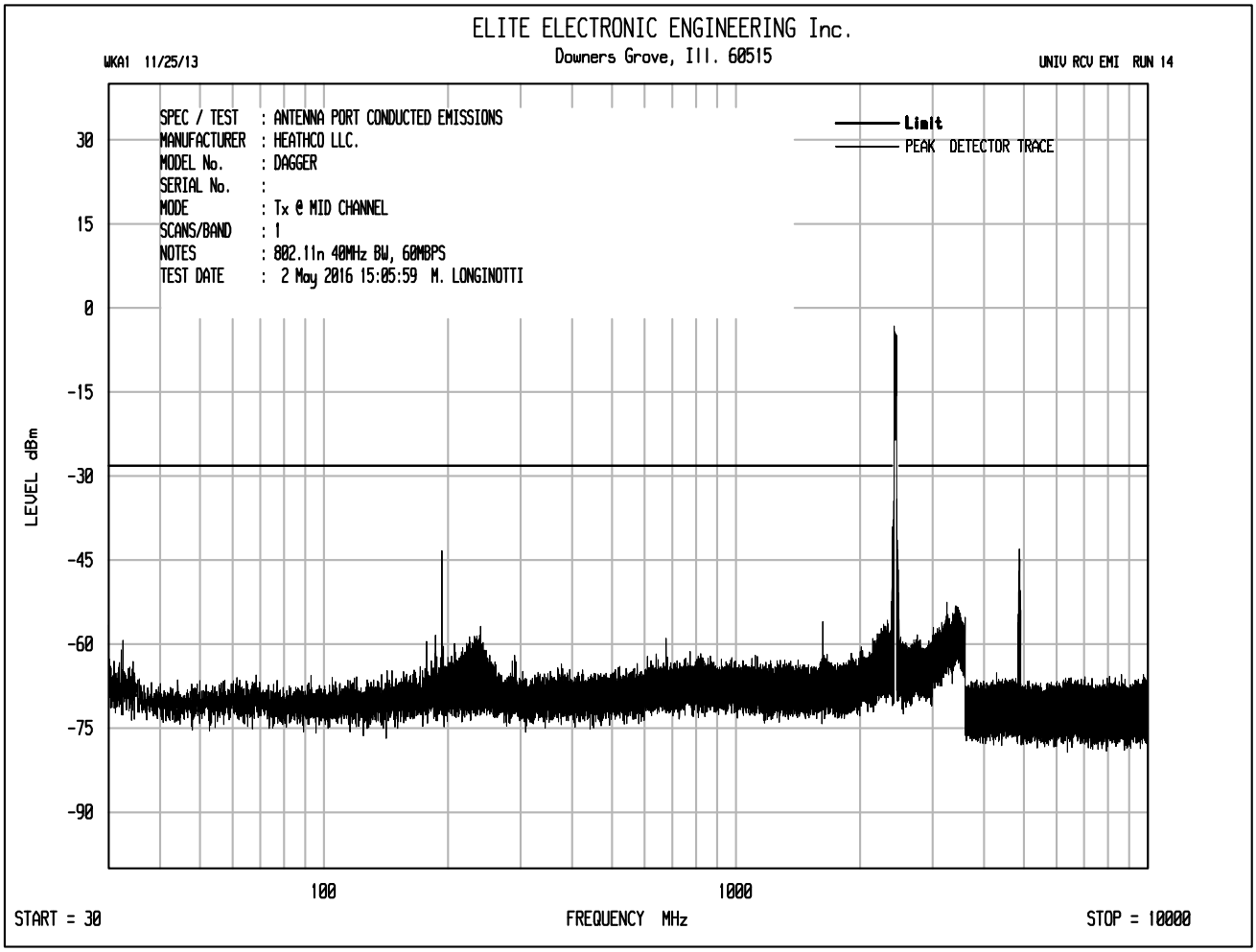

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 4
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ HIGH CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 20MHz BW, 28.9MBPS, ANTENNA 2
TEST DATE : 10 May 2016 11:03:53 R. KING
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

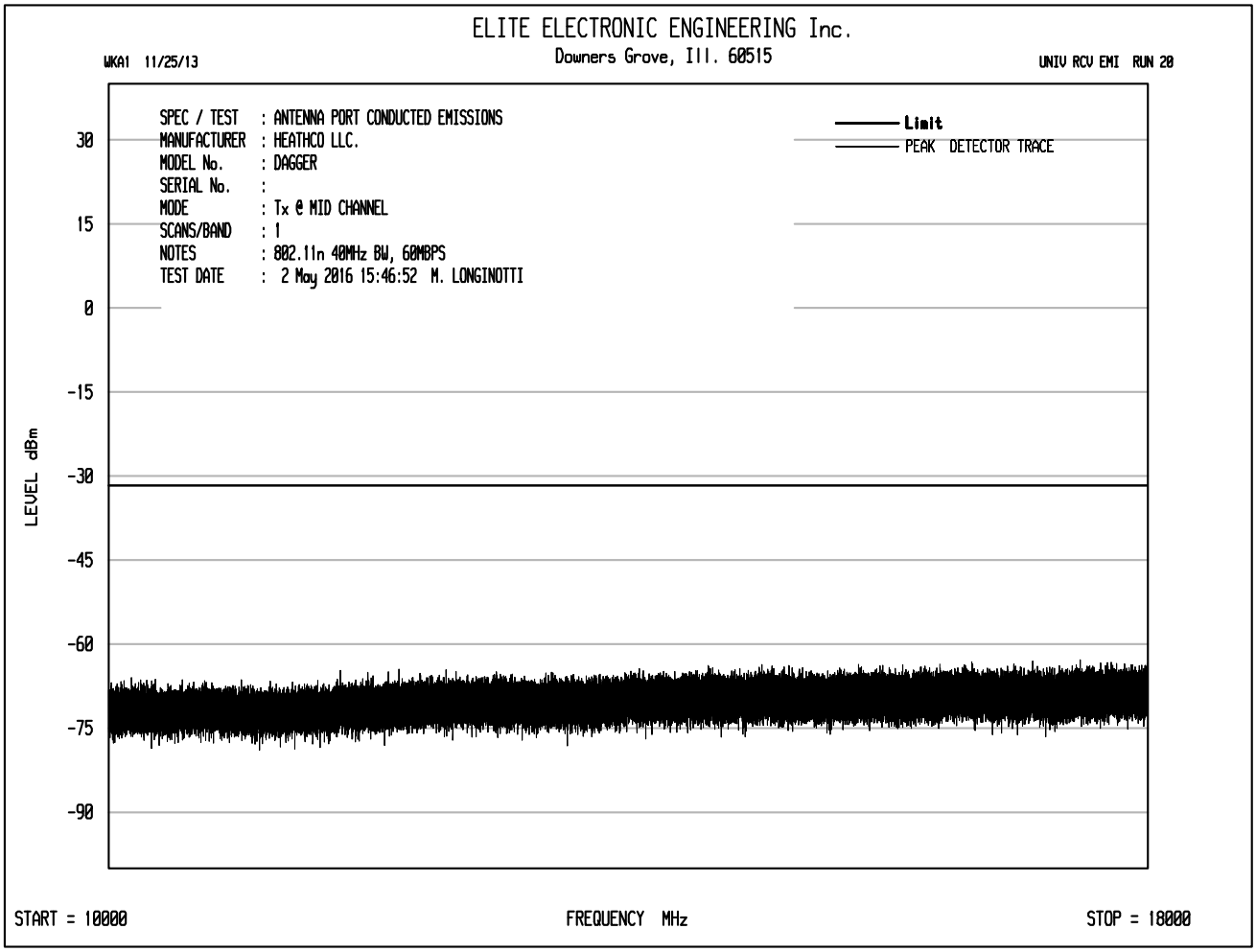

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 15
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ HIGH CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 20MHz, 28.9MBPS, ANT PORT 2
TEST DATE : 10 May 2016 13:11:25 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
START = 18000
FREQUENCY MHz
STOP = 25000

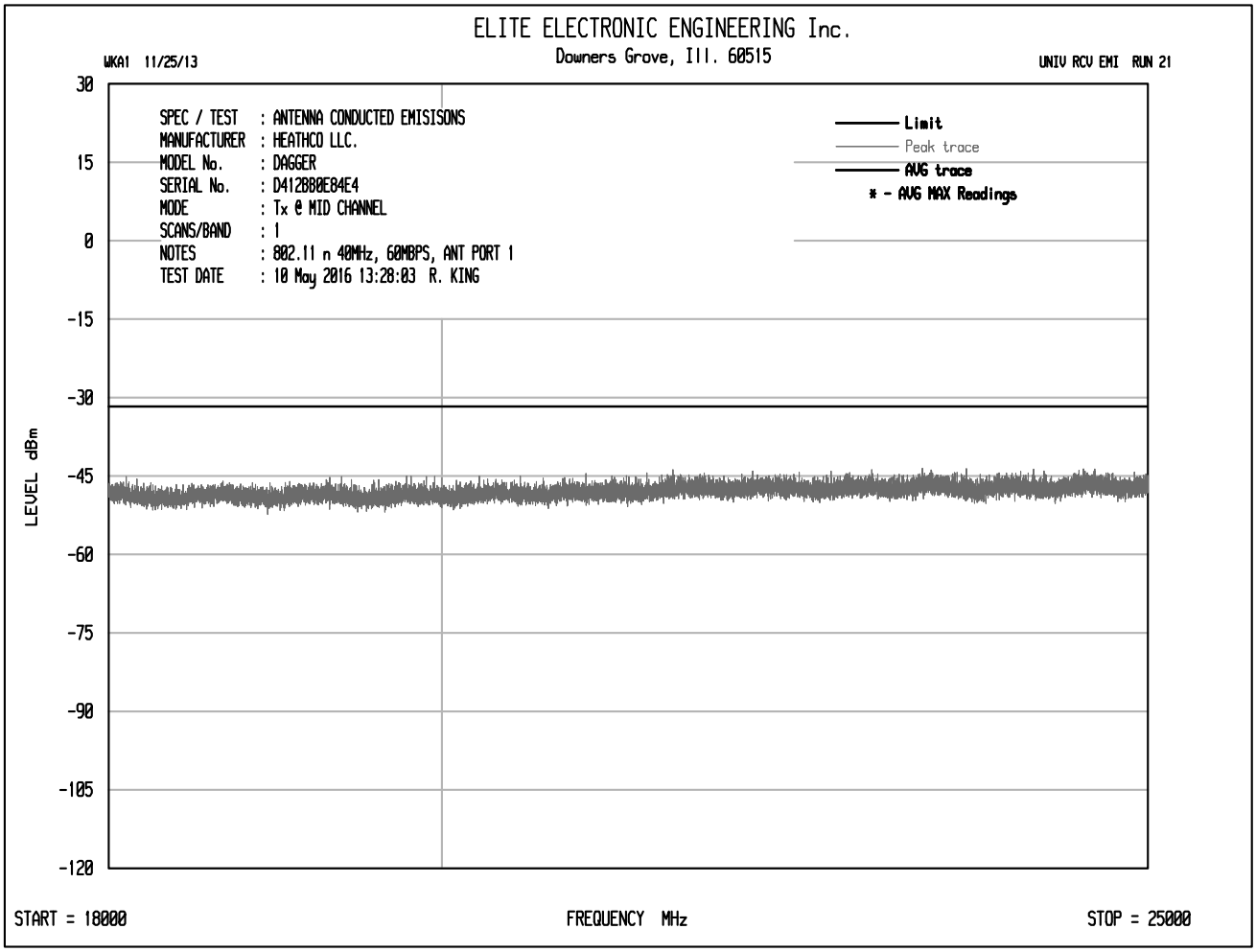

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 15
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ LO CHANNEL
SCANS/BAND : 1
NOTES : 802.11n 40MHz BW, 60MBPS
TEST DATE : 2 May 2016 15:16:32 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

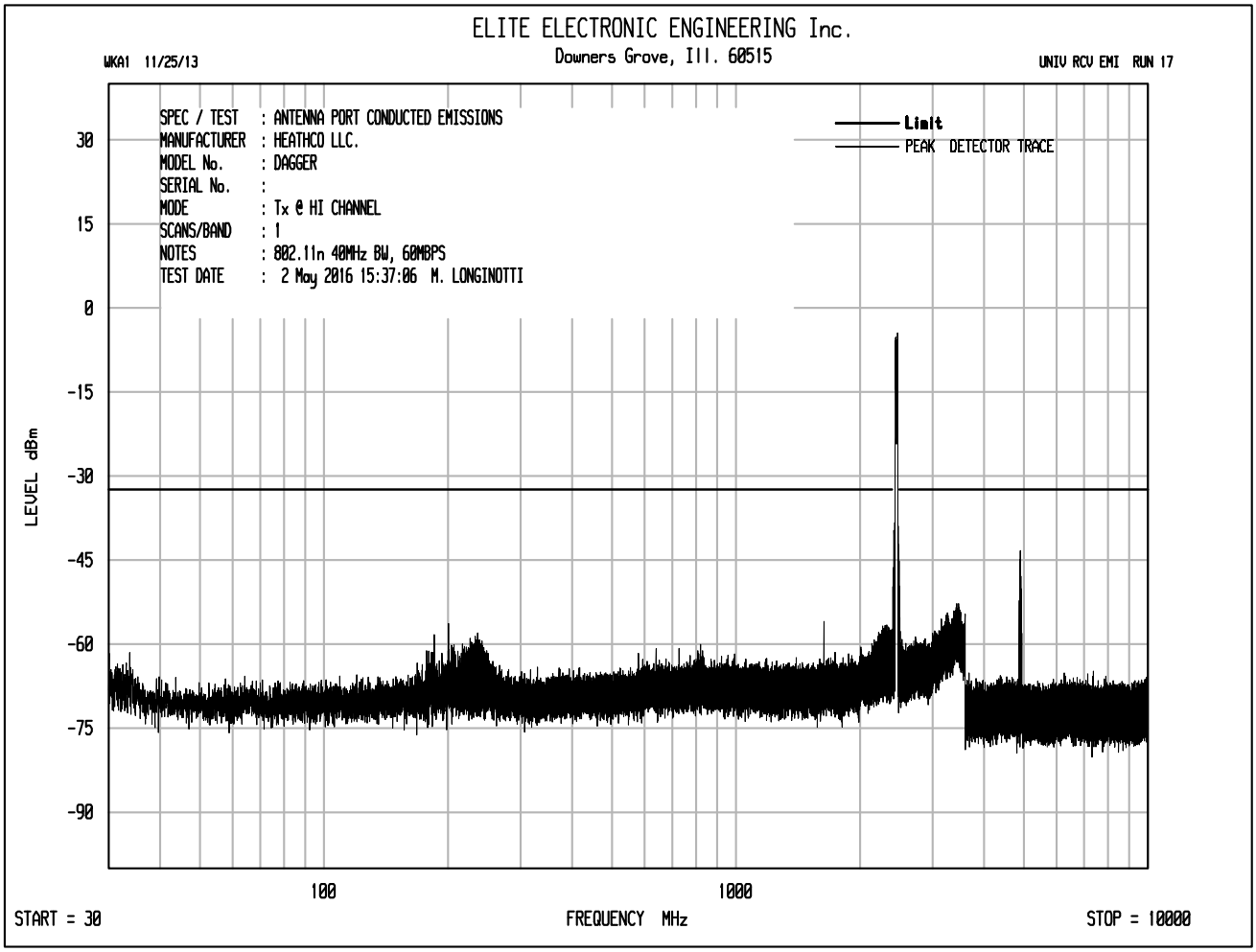

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 21
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ LO CHANNEL
SCANS/BAND : 1
NOTES : 802.11n 40MHz BW, 60MBPS
TEST DATE : 2 May 2016 15:52:03 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

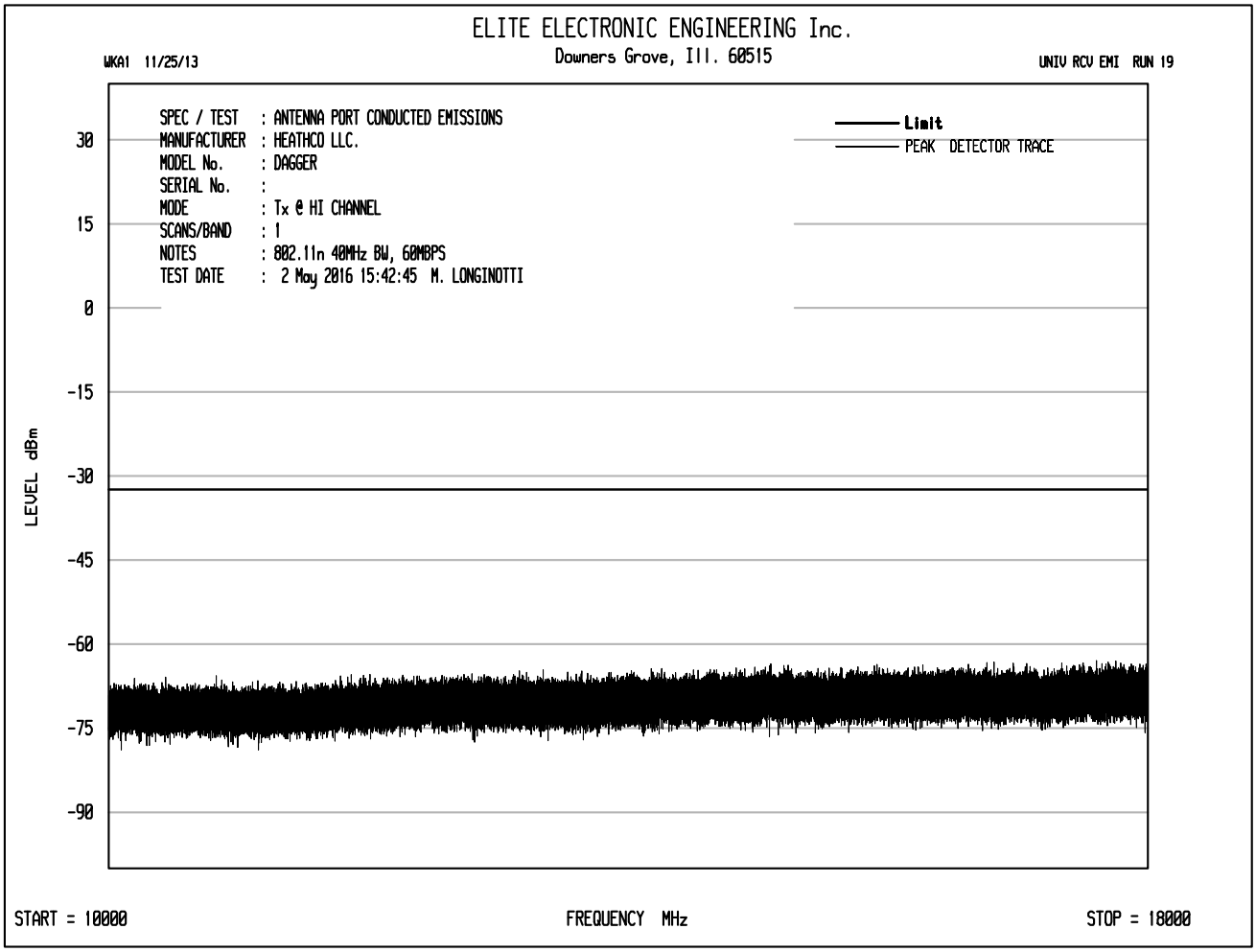

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 20
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ LOW CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 40MHz, 60MBPS, ANT PORT 1
TEST DATE : 10 May 2016 13:25:16 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
START = 18000
FREQUENCY MHz
STOP = 25000

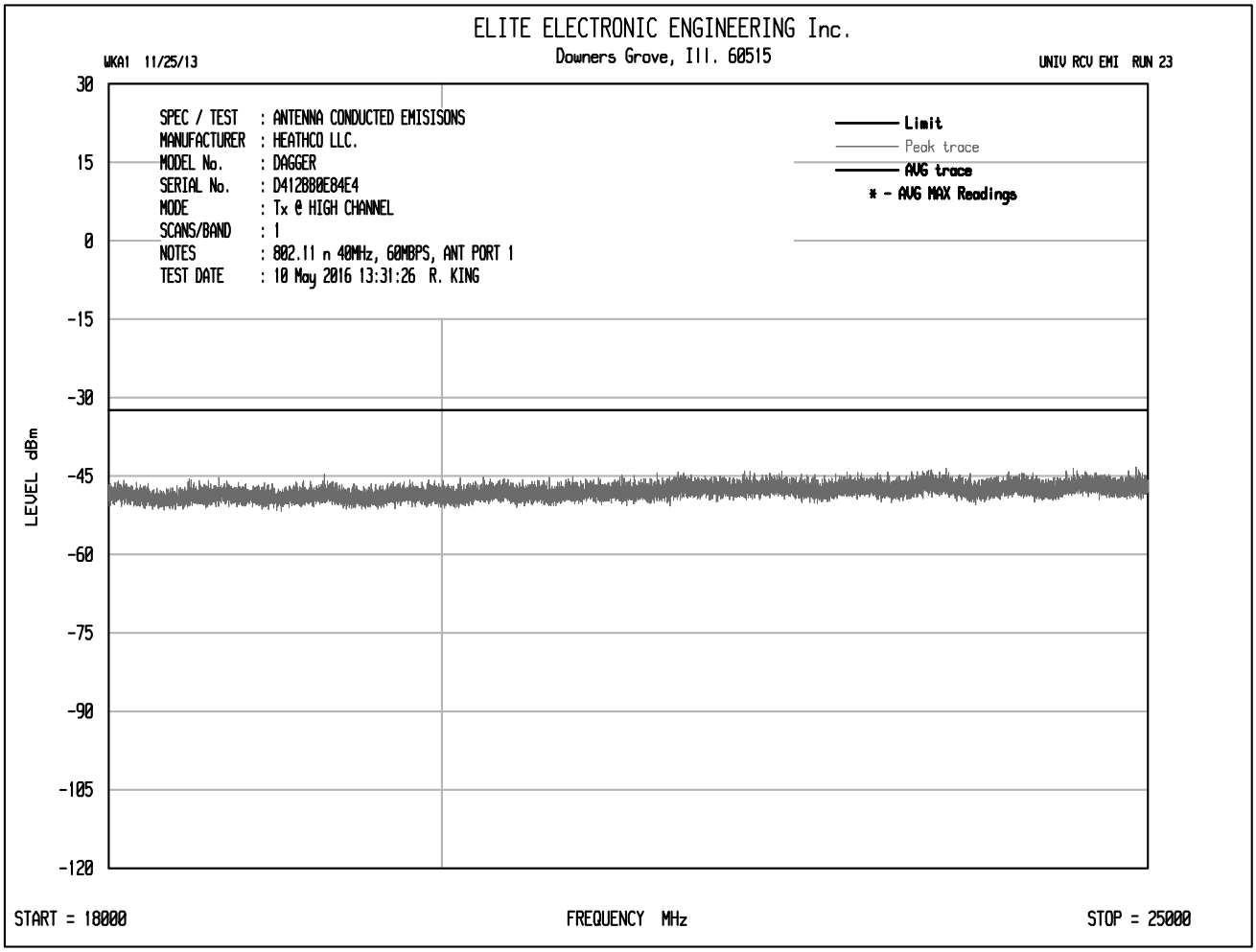

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 14
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11n 40MHz BW, 60MBPS
TEST DATE : 2 May 2016 15:05:59 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

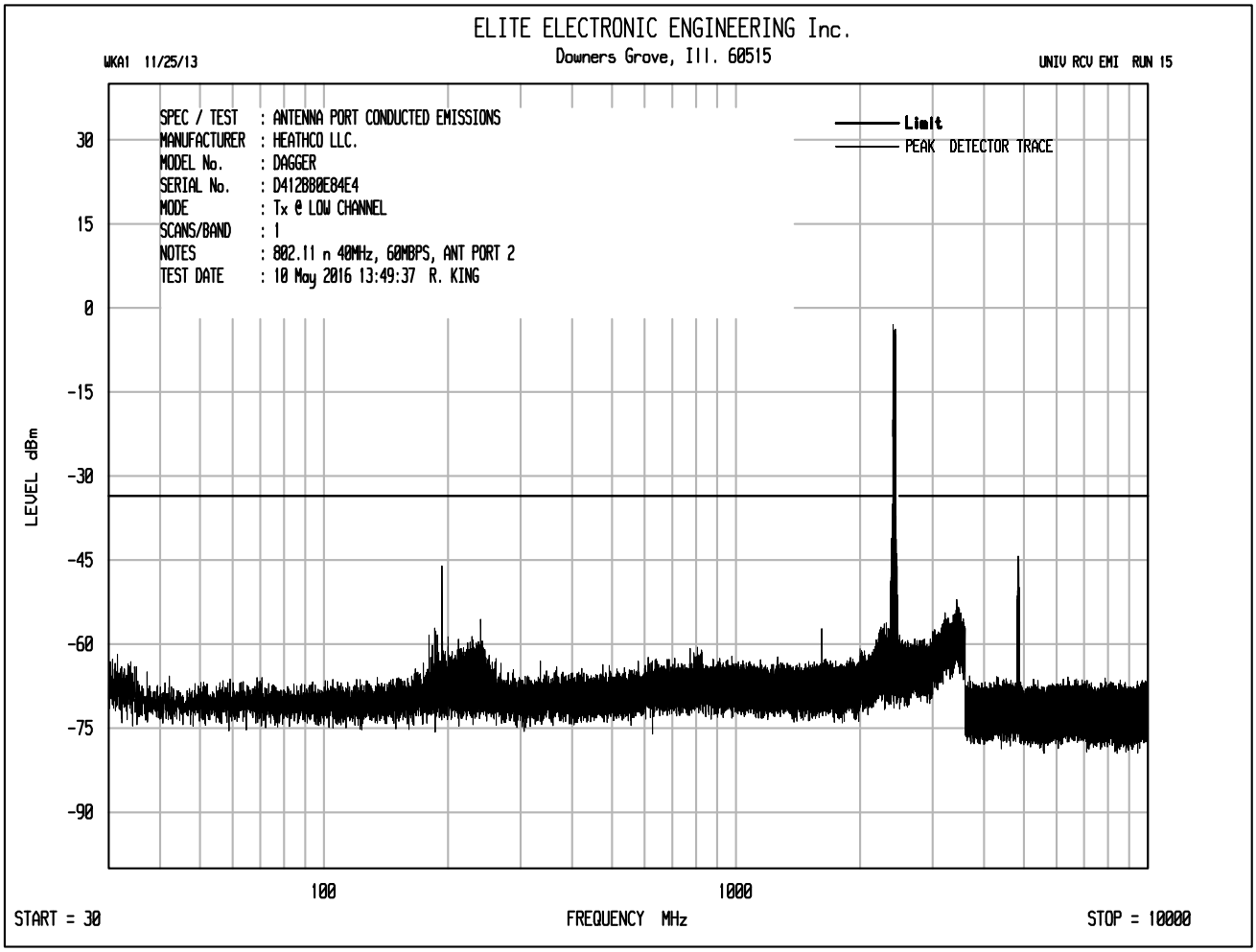

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 20
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11n 40MHz BW, 60MBPS
TEST DATE : 2 May 2016 15:46:52 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

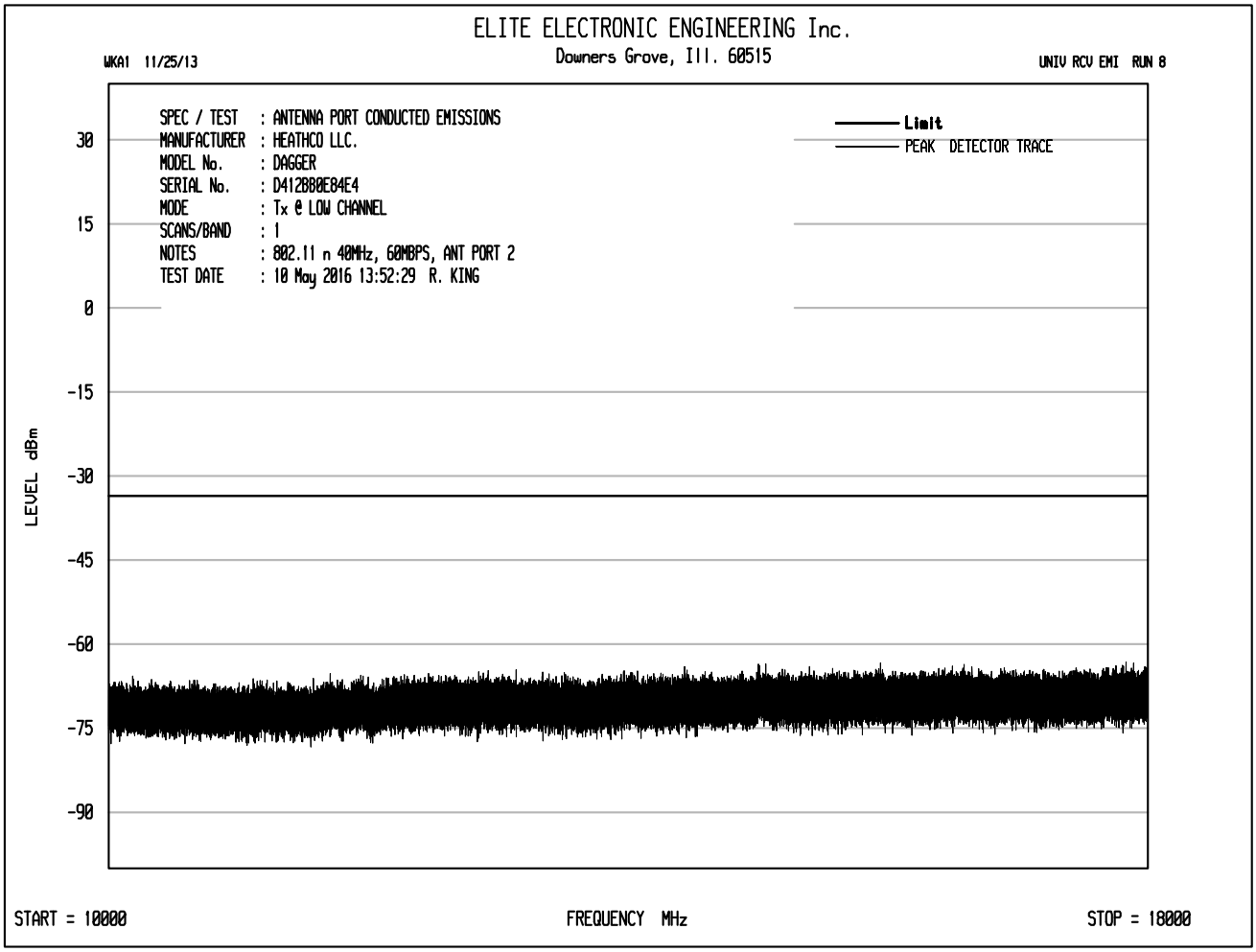

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 21
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 40MHz, 60MBPS, ANT PORT 1
TEST DATE : 10 May 2016 13:28:03 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
START = 18000
FREQUENCY MHz
STOP = 25000

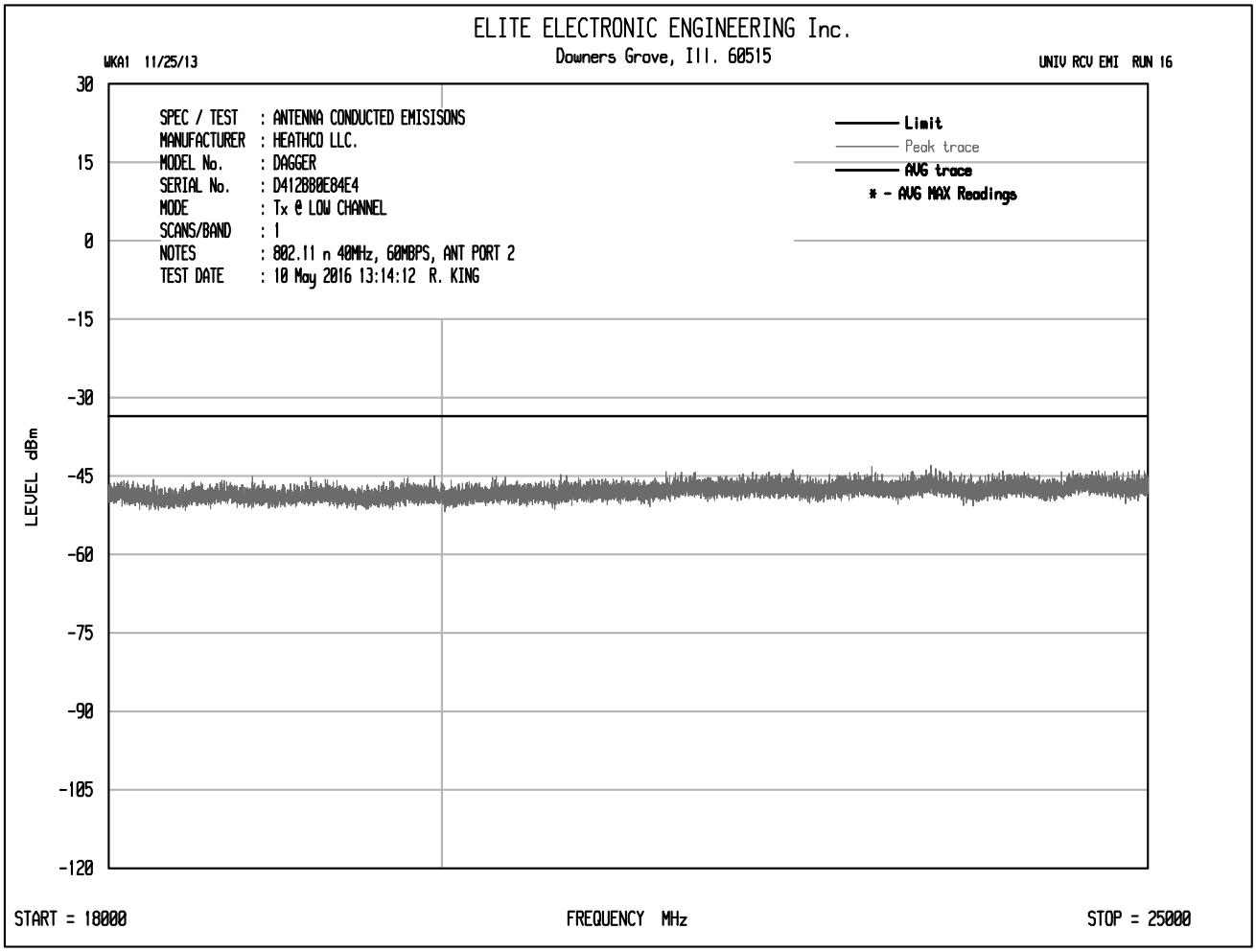

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 17
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ HI CHANNEL
SCANS/BAND : 1
NOTES : 802.11n 40MHz BW, 60MBPS
TEST DATE : 2 May 2016 15:37:06 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

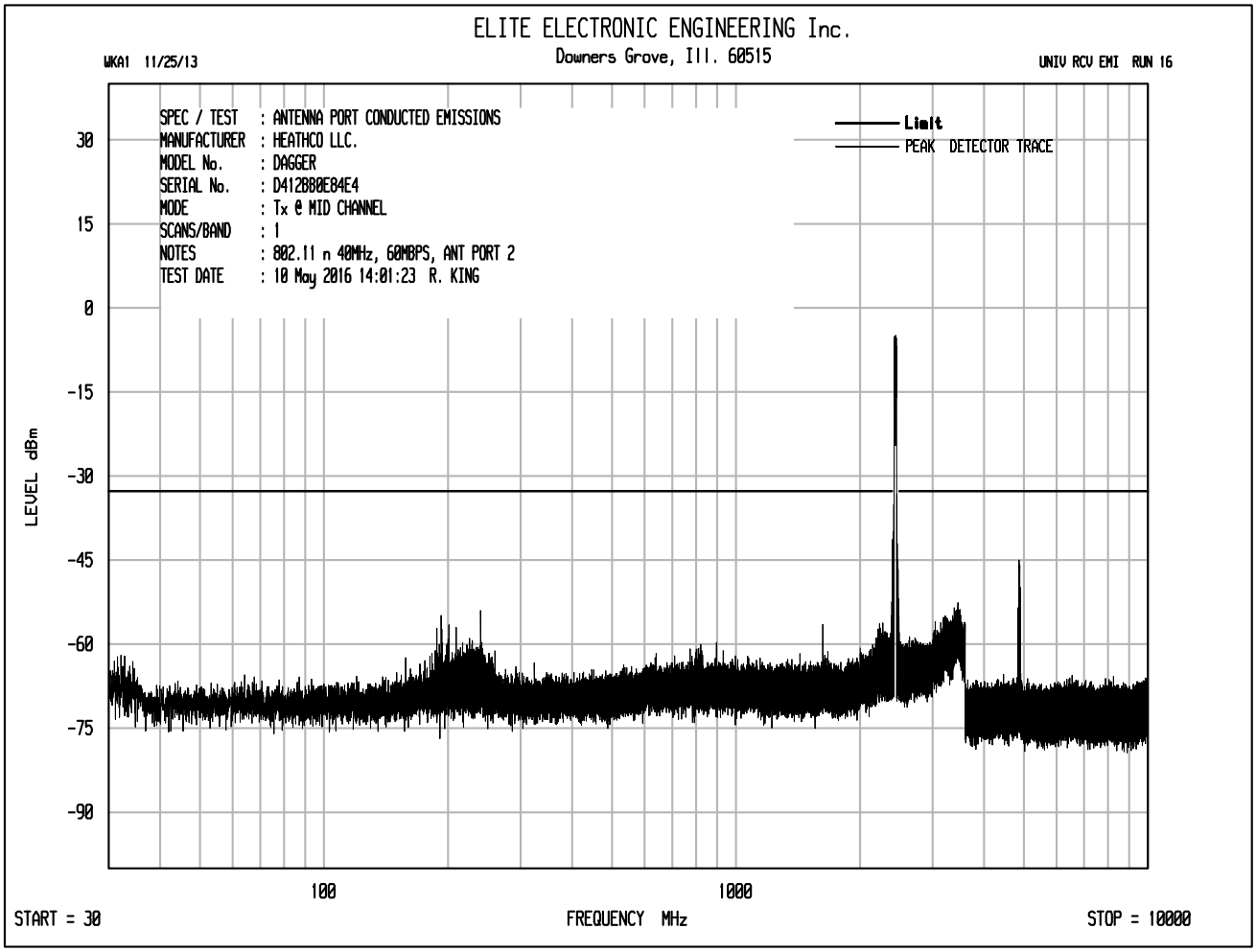

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 19
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ HI CHANNEL
SCANS/BAND : 1
NOTES : 802.11n 40MHz BW, 60MBPS
TEST DATE : 2 May 2016 15:42:45 M. LONGINOTTI
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

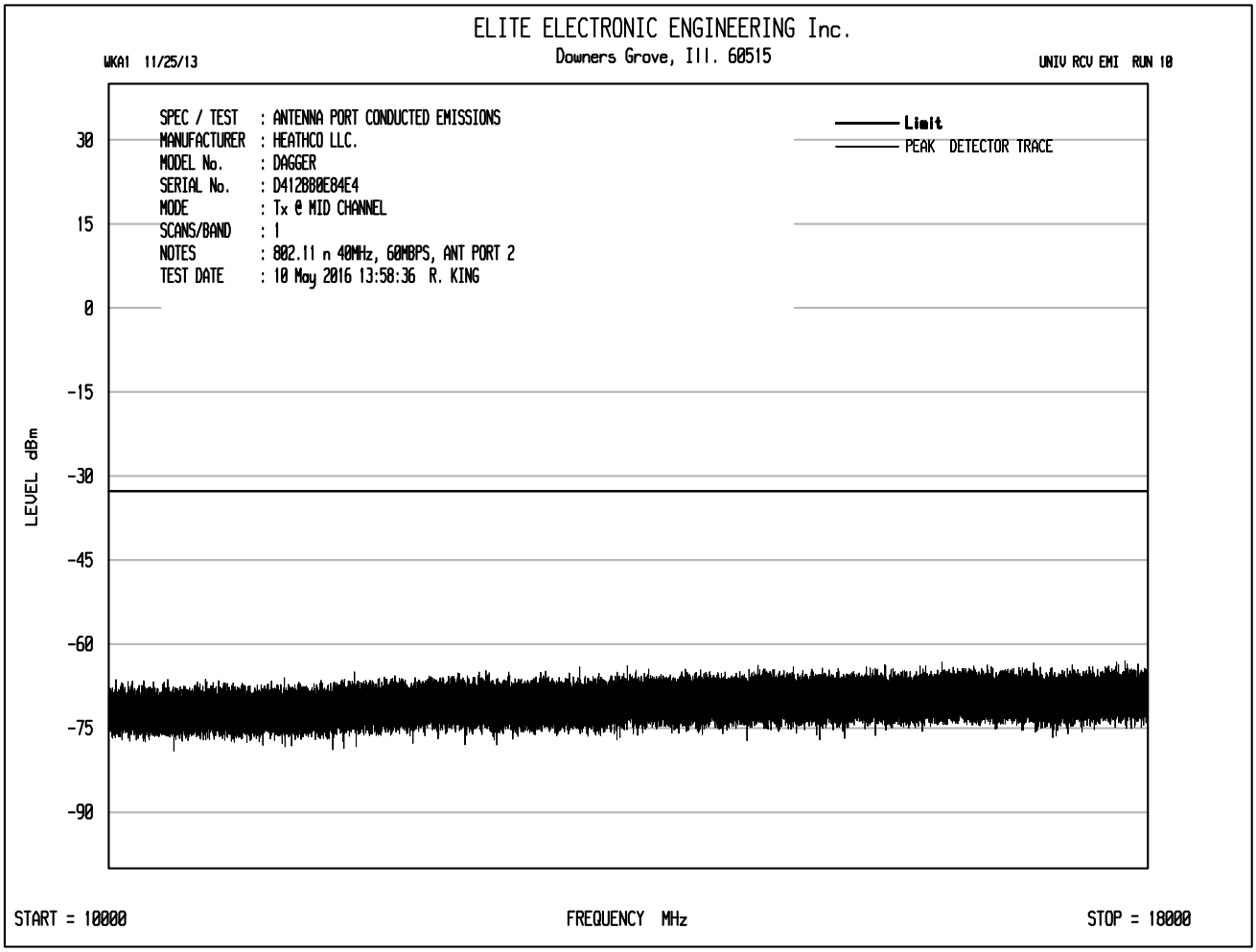

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 23
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ HIGH CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 40MHz, 60MBPS, ANT PORT 1
TEST DATE : 10 May 2016 13:31:26 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
START = 18000
FREQUENCY MHz
STOP = 25000

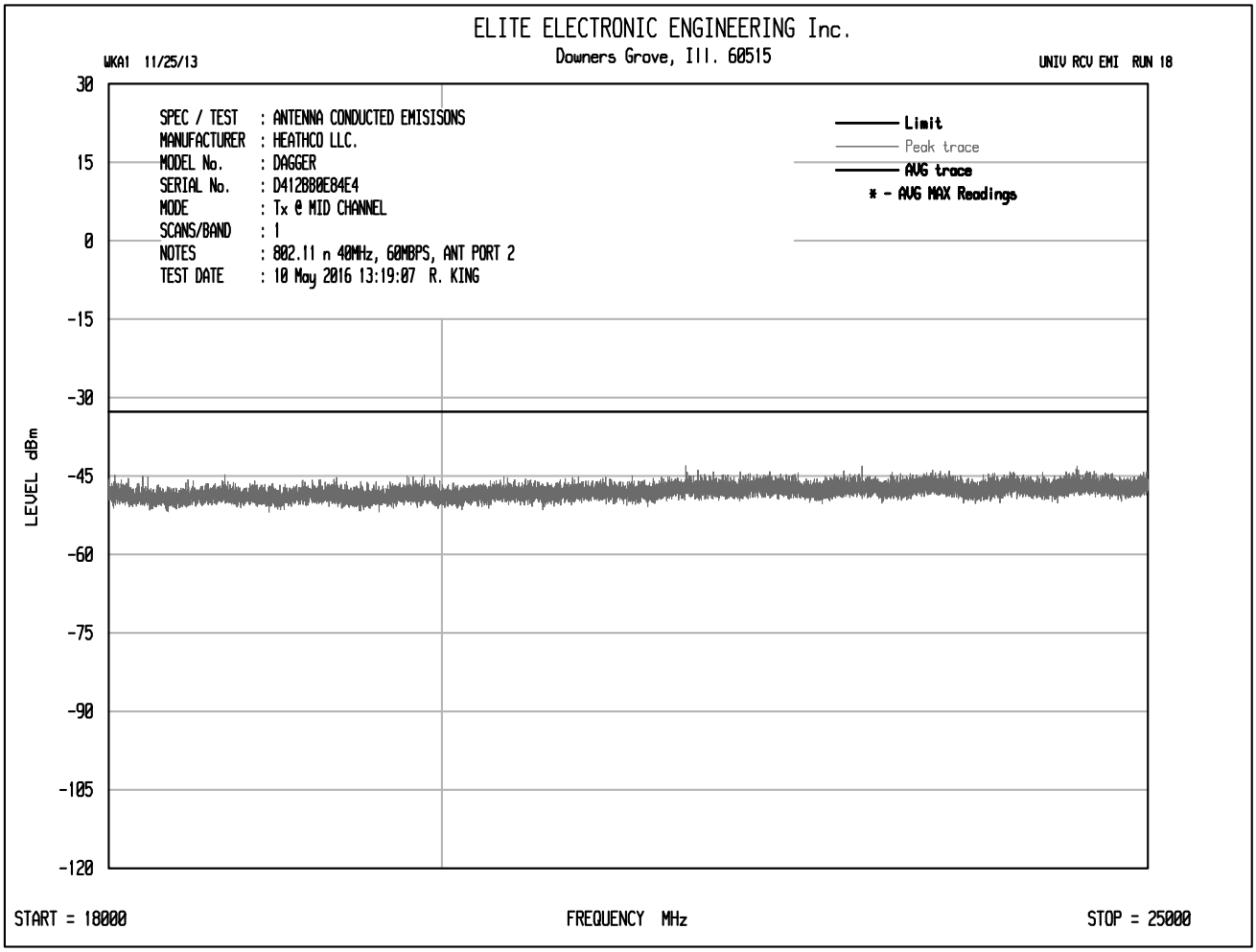

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 15
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ LOW CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 40MHz, 60MBPS, ANT PORT 2
TEST DATE : 10 May 2016 13:49:37 R. KING
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

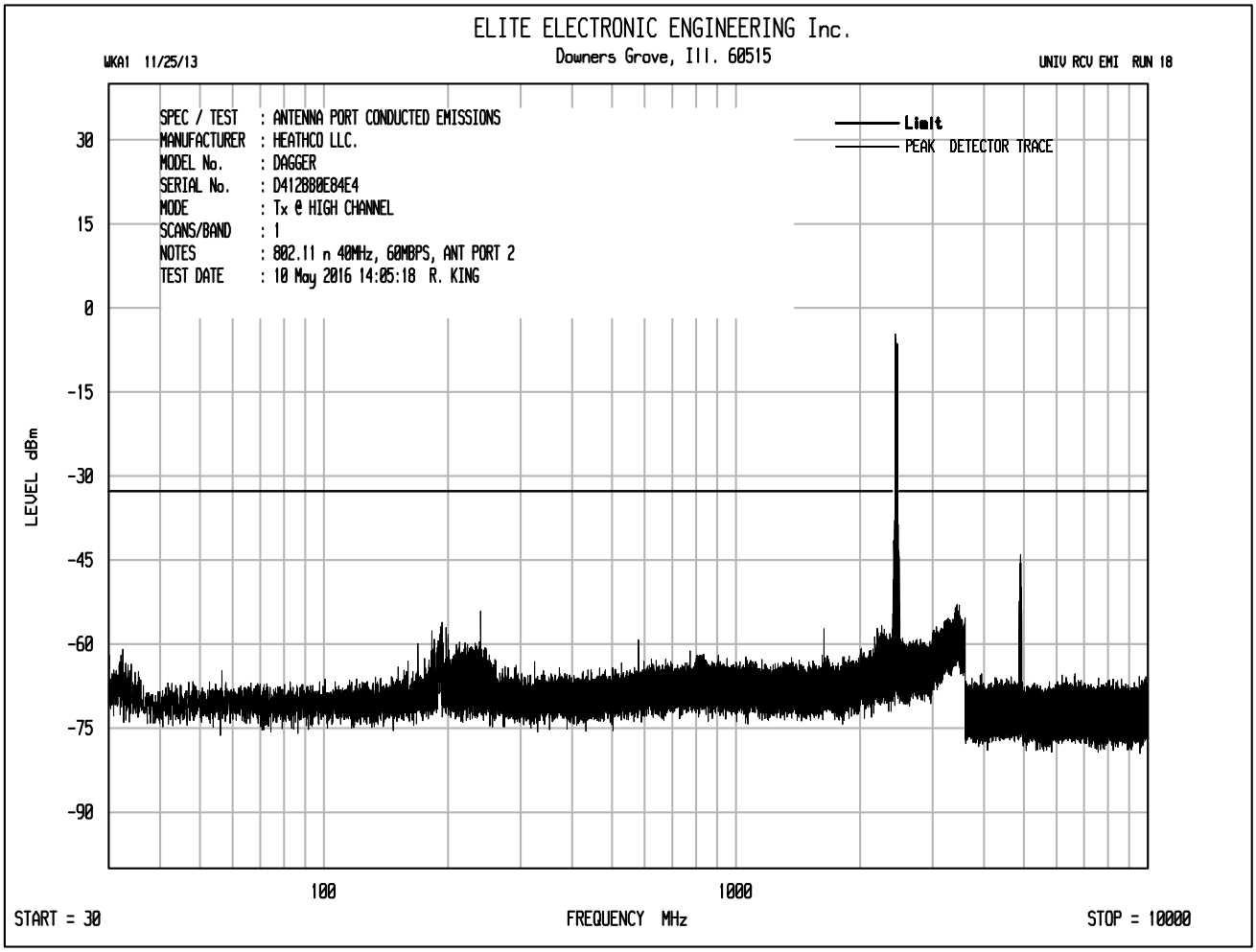

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 8
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ LOW CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 40MHz, 60MBPS, ANT PORT 2
TEST DATE : 10 May 2016 13:52:29 R. KING
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

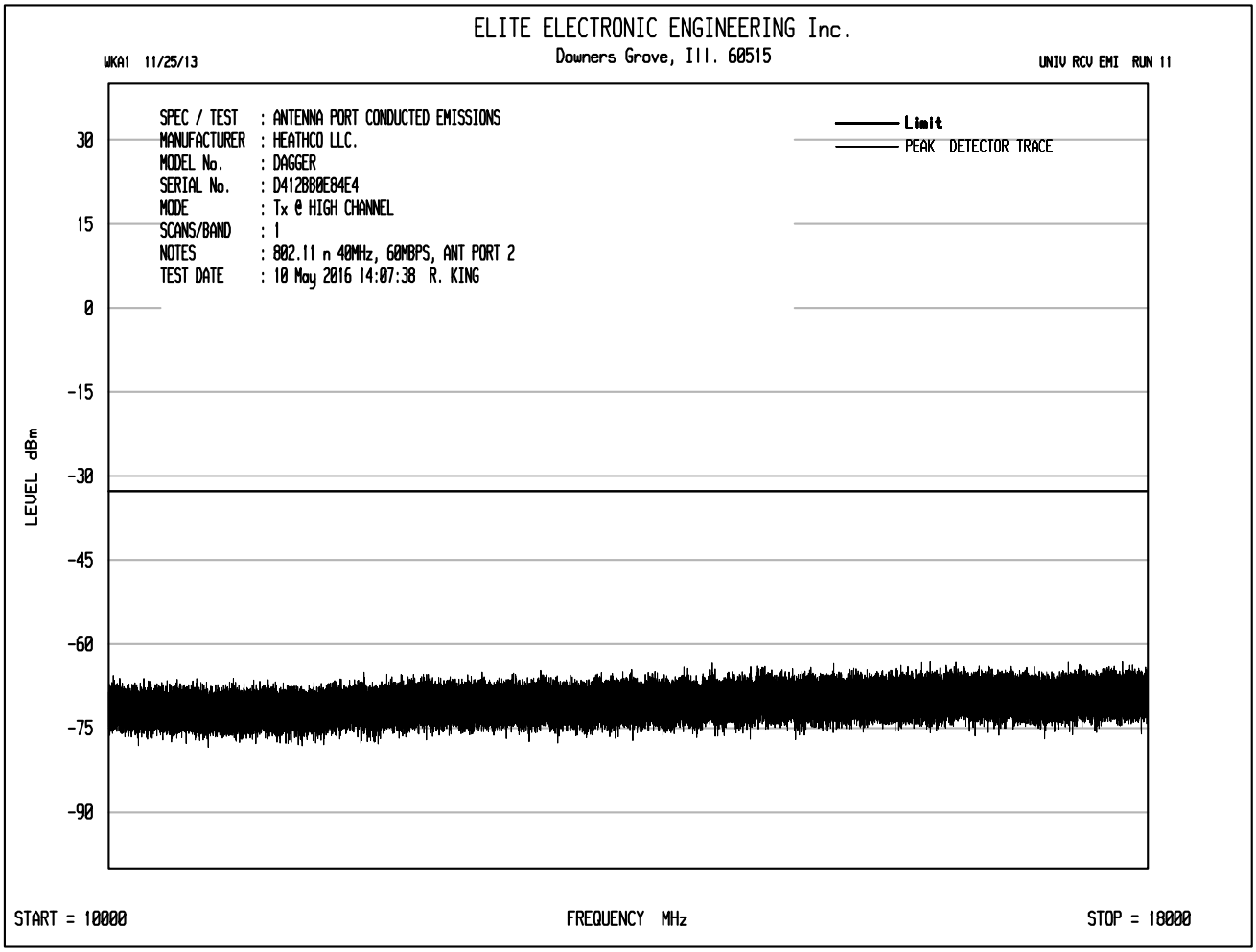

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 16
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ LOW CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 40MHz, 60MBPS, ANT PORT 2
TEST DATE : 10 May 2016 13:14:12 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
START = 18000
FREQUENCY MHz
STOP = 25000

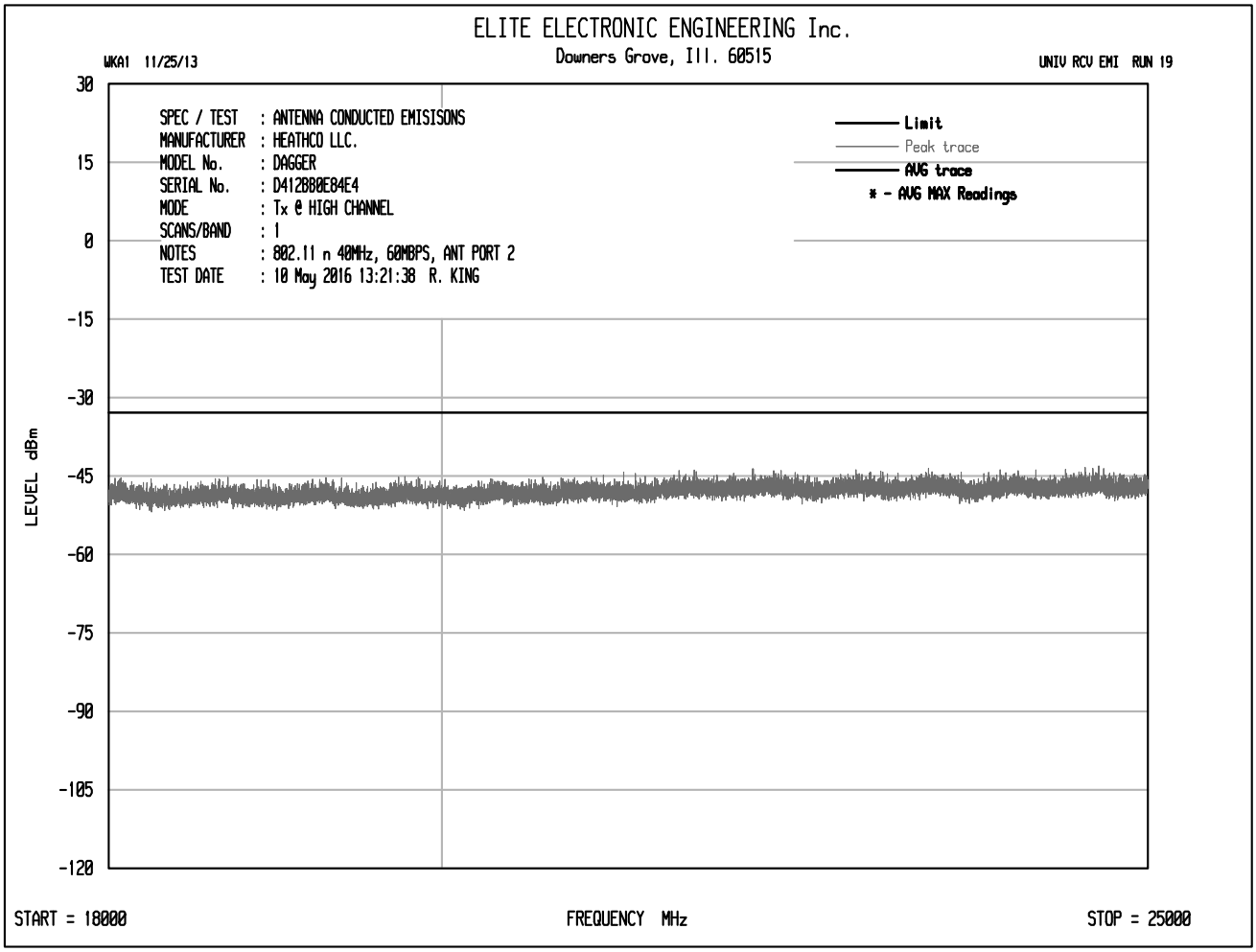

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 16
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 40MHz, 60MBPS, ANT PORT 2
TEST DATE : 10 May 2016 14:01:23 R. KING
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

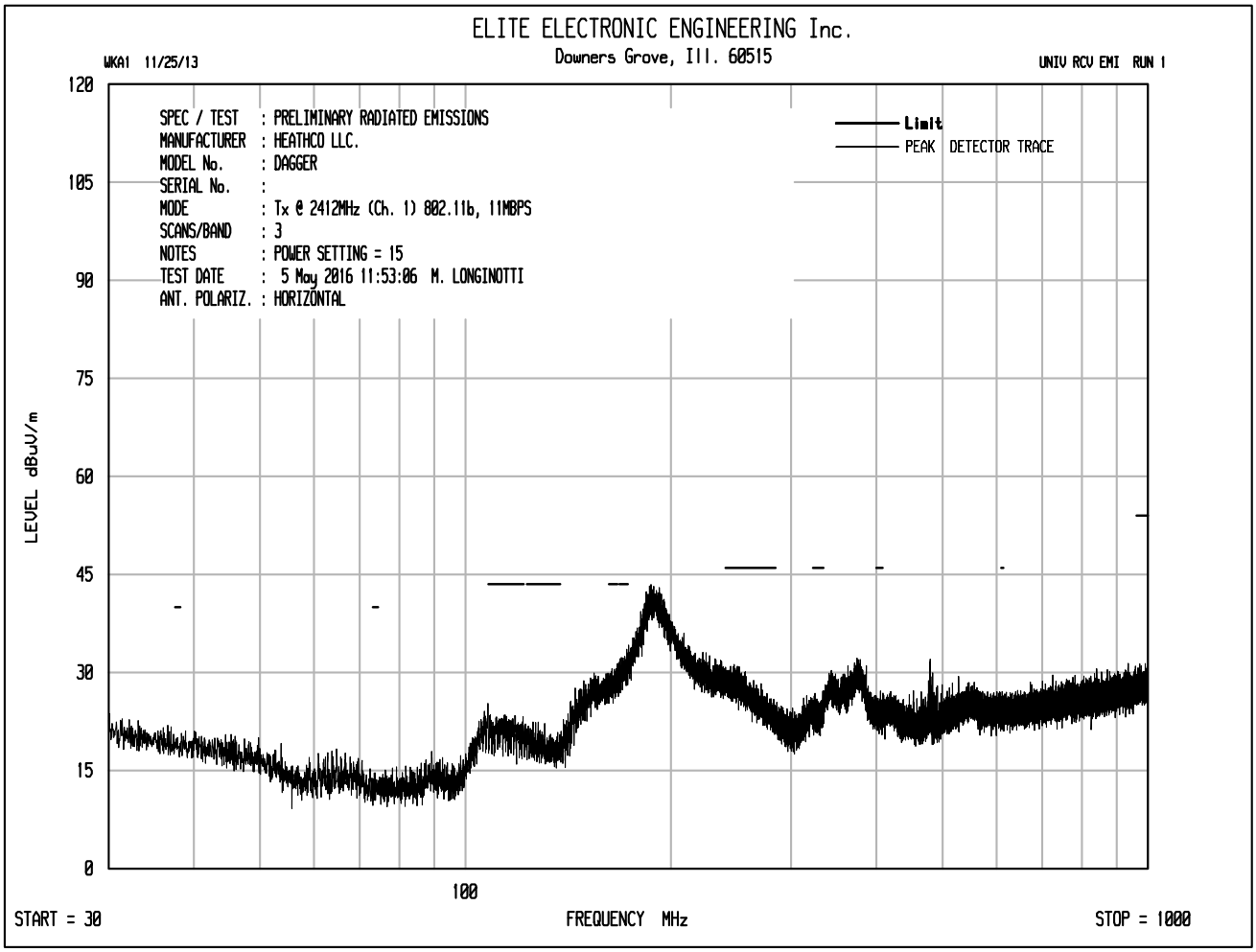

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 10
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 40MHz, 60MBPS, ANT PORT 2
TEST DATE : 10 May 2016 13:58:36 R. KING
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

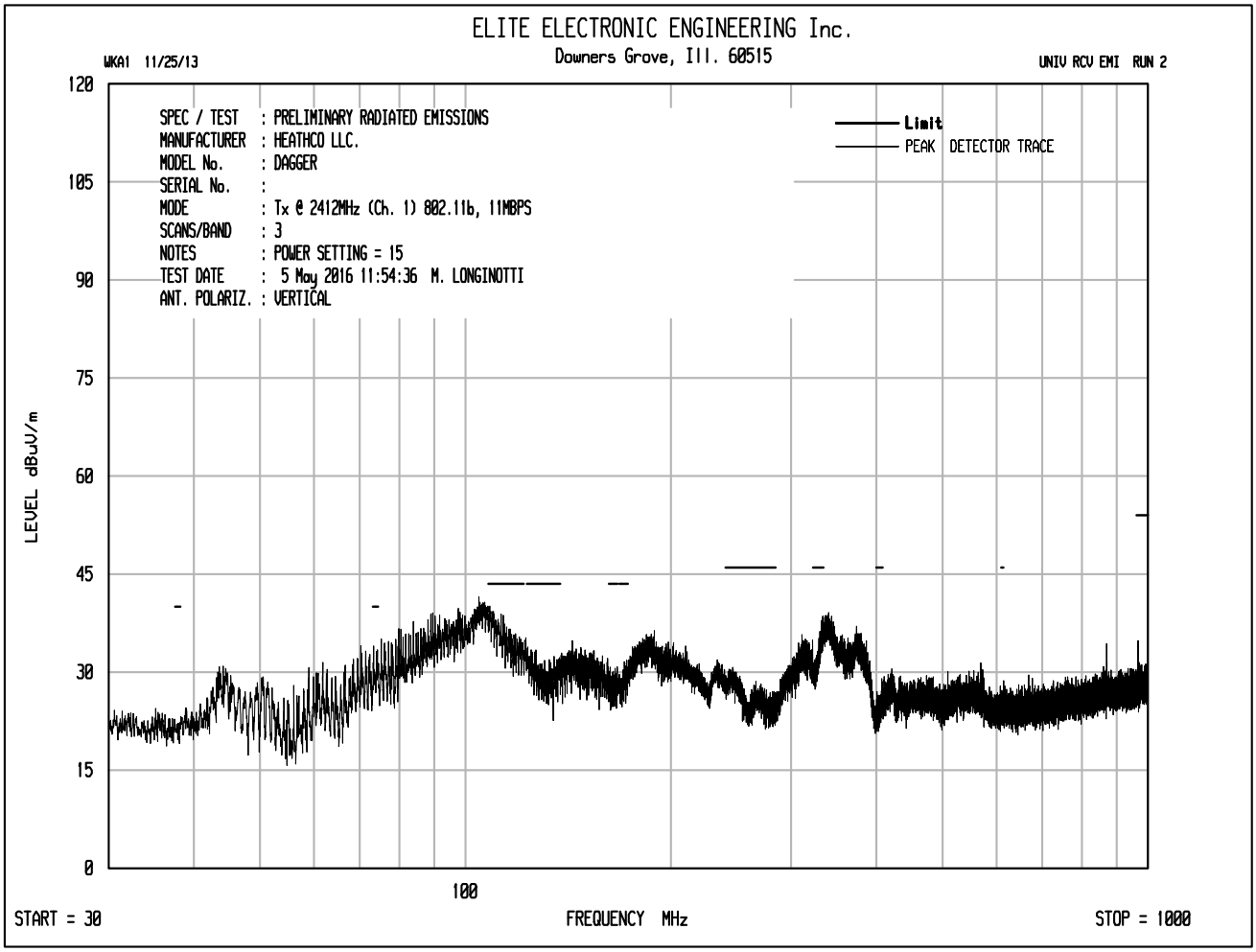

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 18
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ MID CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 40MHz, 60MBPS, ANT PORT 2
TEST DATE : 10 May 2016 13:19:07 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
START = 18000
FREQUENCY MHz
STOP = 25000

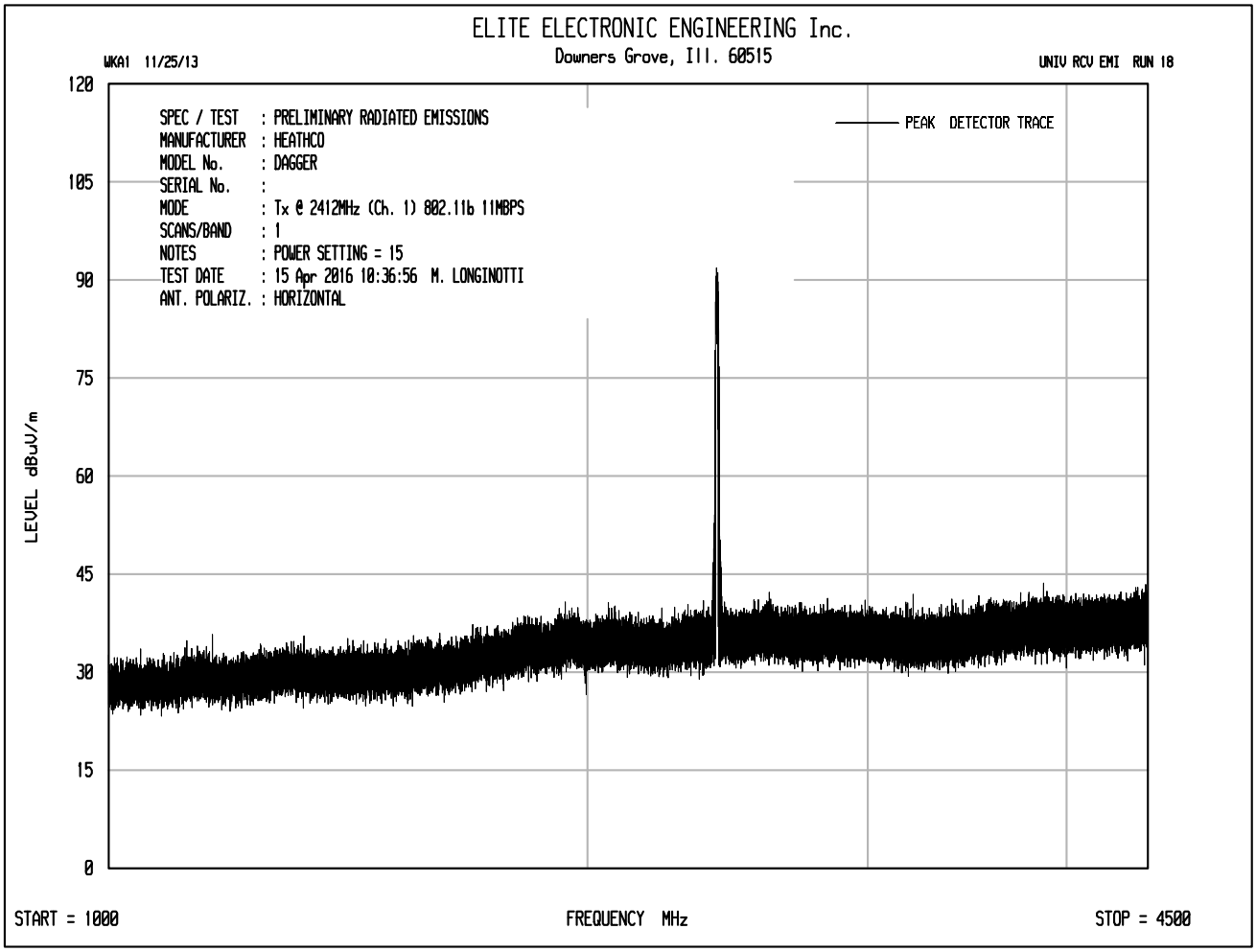

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 18
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ HIGH CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 40MHz, 60MBPS, ANT PORT 2
TEST DATE : 10 May 2016 14:05:18 R. KING
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
100
1000
START = 30
FREQUENCY MHz
STOP = 10000

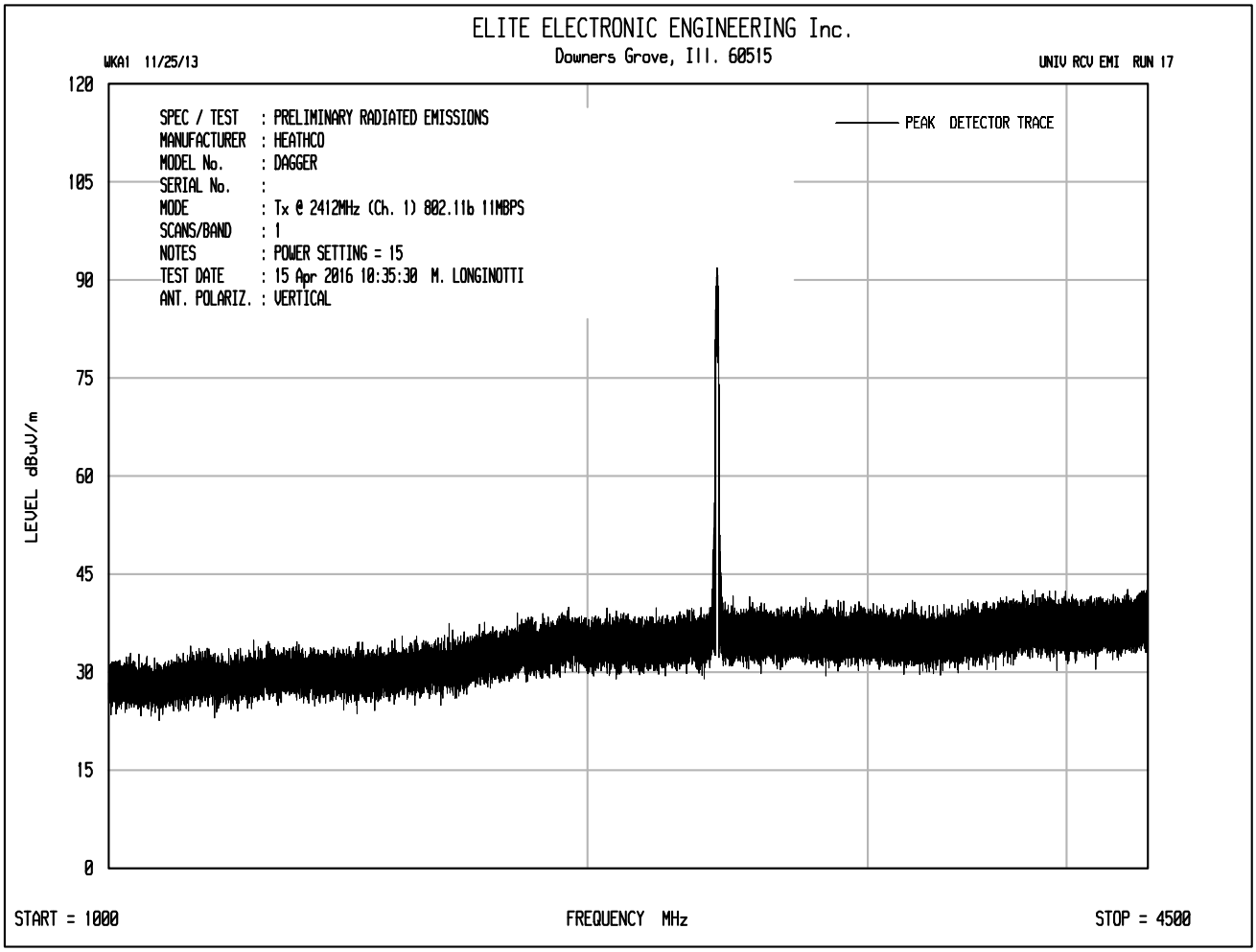

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 11
SPEC / TEST : ANTENNA PORT CONDUCTED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ HIGH CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 40MHz, 60MBPS, ANT PORT 2
TEST DATE : 10 May 2016 14:07:38 R. KING
Limit
PEAK DETECTOR TRACE
LEVEL dBm
30
15
0
-15
-30
-45
-60
-75
-90
START = 10000
FREQUENCY MHz
STOP = 18000

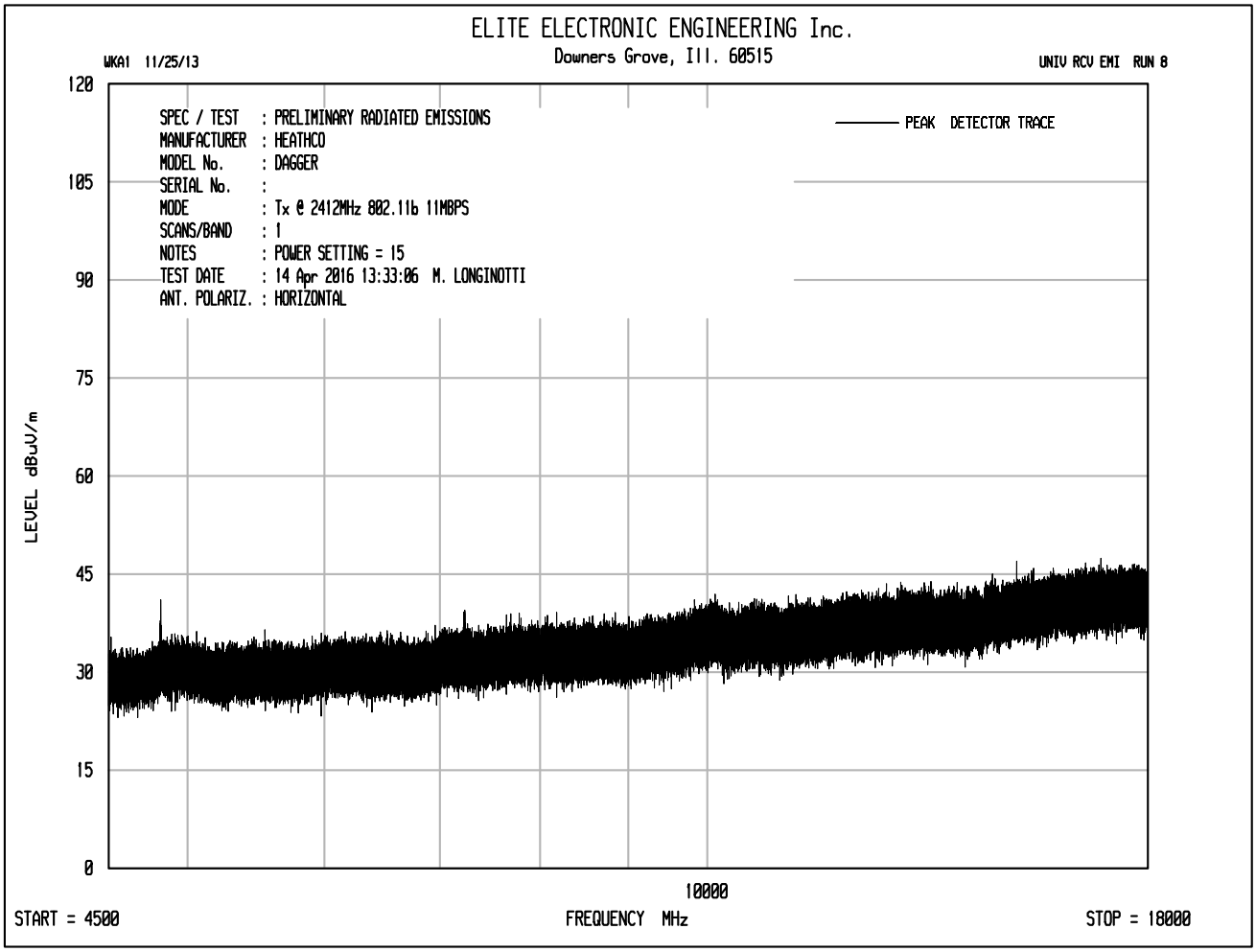

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 19
SPEC / TEST : ANTENNA CONDUCTED EMISISONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. : D412BB0E84E4
MODE : Tx @ HIGH CHANNEL
SCANS/BAND : 1
NOTES : 802.11 n 40MHz, 60MBPS, ANT PORT 2
TEST DATE : 10 May 2016 13:21:38 R. KING
Limit
Peak trace
AVG trace
* - AVG MAX Readings
30
15
0
-15
-30
-45
-60
-75
-90
-105
-120
LEVEL dBm
START = 18000
FREQUENCY MHz
STOP = 25000

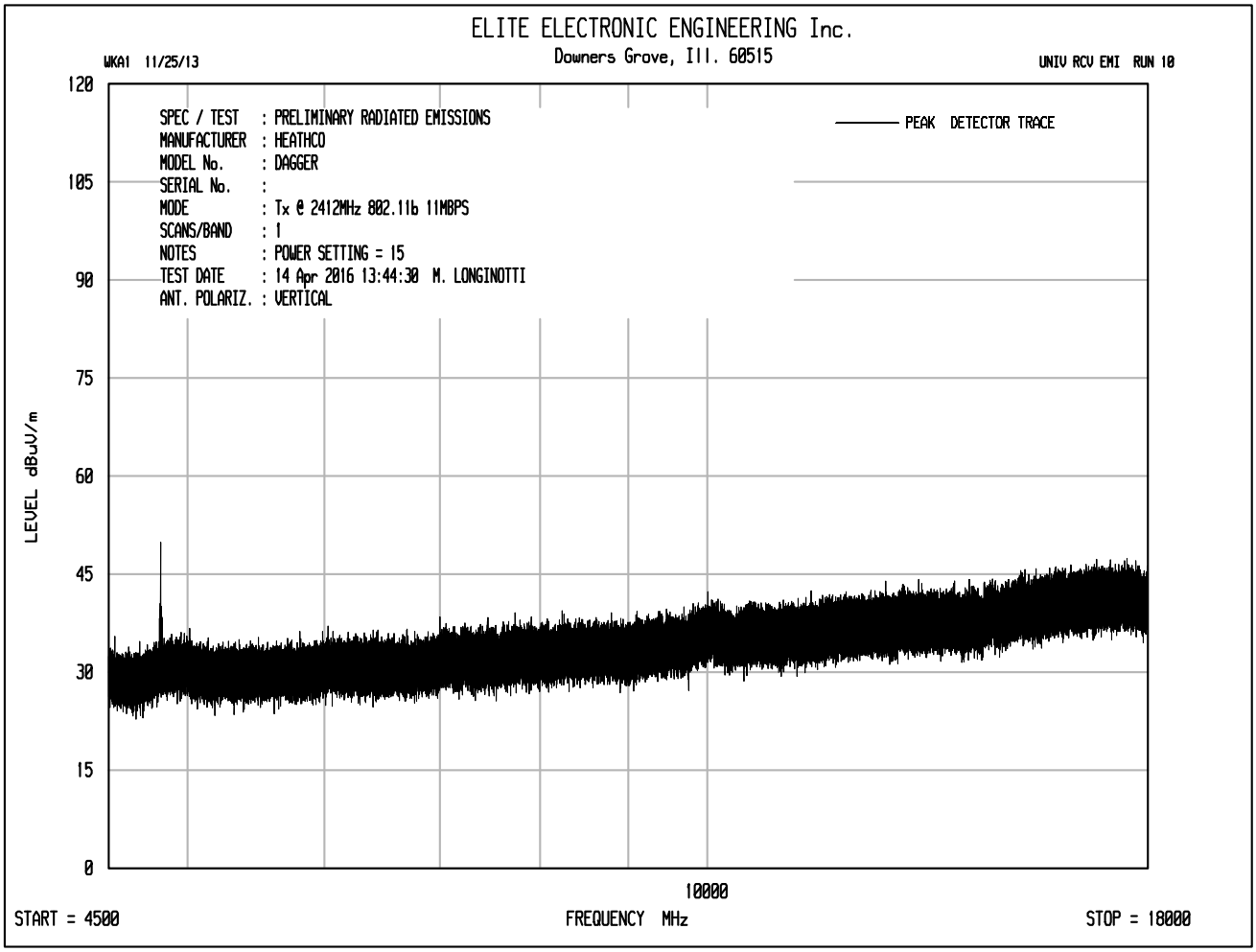

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 1
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ 2412MHz (Ch. 1) 802.11b, 11MBPS
SCANS/BAND : 3
NOTES : POWER SETTING = 15
TEST DATE : 5 May 2016 11:53:06 M. LONGINOTTI
ANT. POLARIZ. : HORIZONTAL
Limit
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 2
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HEATHCO LLC.
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ 2412MHz (Ch. 1) 802.11b, 11MBPS
SCANS/BAND : 3
NOTES : POWER SETTING = 15
TEST DATE : 5 May 2016 11:54:36 M. LONGINOTTI
ANT. POLARIZ. : VERTICAL
Limit
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 18
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HEATHCO
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ 2412MHz (Ch. 1) 802.11b 11MBPS
SCANS/BAND : 1
NOTES : POWER SETTING = 15
TEST DATE : 15 Apr 2016 10:36:56 M. LONGINOTTI
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 17
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HEATHCO
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ 2412MHz (Ch. 1) 802.11b 11MBPS
SCANS/BAND : 1
NOTES : POWER SETTING = 15
TEST DATE : 15 Apr 2016 10:35:30 M. LONGINOTTI
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 8
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HEATHCO
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ 2412MHz 802.11b 11MBPS
SCANS/BAND : 1
NOTES : POWER SETTING = 15
TEST DATE : 14 Apr 2016 13:33:06 M. LONGINOTTI
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 10
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HEATHCO
MODEL No. : DAGGER
SERIAL No. :
MODE : Tx @ 2412MHz 802.11b 11MBPS
SCANS/BAND : 1
NOTES : POWER SETTING = 15
TEST DATE : 14 Apr 2016 13:44:30 M. LONGINOTTI
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000