



Measurement of RF Emissions from a Video Doorbell System Model No. NOTIFI Transmitter

For HeathCo LLC
2445 Nashville Rd
Bowling Green, KY 42102

P.O. Number N/A
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Test Personnel 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

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REVISION HISTORY

Revision	Date	Description
—	19 Jan 2016	Initial release

Measurement of RF Emissions from a Video Doorbell System, Model No. NOTIFI Transmitter

1. INTRODUCTION

1.1. Scope of Tests

This report represents the results of the series of radio interference measurements performed on a HeathCo LLC Video Doorbell System, Model No. NOTIFI, Serial Nos. AA80, AA64, 9C84 and 9D80 transmitter (hereinafter referred to as the EUT). The EUT is a digital modulation transmitter. The transmitter was designed to transmit in the 2400-2483.5 MHz band using an integral antenna. 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 C63.4-2014.

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 24.2°C and the relative humidity was 16%.

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, June 9, 2015
- 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, Video Doorbell System, Model No. NOTIFI. A block diagram of the EUT setup is shown as Figure 1.

3.1.1. Power Input

The EUT obtained 115V 60Hz power via an E26 Edison Screw Base Light Receptacle. For the purposes of testing, the receptacle was connected to a 3 wire, 6 foot long, 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 4.1.2 of ANSI C63.4-2014.

3.1.2. Peripheral Equipment

No peripheral equipment was submitted with the EUT.

3.1.3. Signal Input/Output Leads

No interconnect cables were submitted with the EUT.

3.1.4. Grounding

The EUT was grounded only through the third wire of its input power cord.

3.2. Operational Mode

For all tests the EUT and all peripheral equipment were placed on a non-conductive stand per ANSI C63.10. ANSI C63.10 states for frequencies below 1GHz the non-conductive stand shall be 80cm and frequencies above 1GHz the non-conductive stand shall be 150cm.

Serial number 9C84 was modified with two external antenna ports for testing. All tests performed at the antenna ports were done using serial number 9C84.

Serial numbers AA64 or 9D80 was used for preliminary radiated emissions testing.

Serial number AA80 was used for all final radiated emissions testing.

The EUT was energized.

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

- 802.11 b at 2412MHz Data Rates: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- 802.11 b at 2437MHz Data Rates: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- 802.11 g at 2562MHz Data Rates: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
-
- 802.11 n at 2412MHz Data Rates: 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2 Mbps MIMO
- 802.11 n at 2437MHz Data Rates: 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2 Mbps MIMO
- 802.11 n at 2462MHz Data Rates: 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2 Mbps MIMO

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

- Video Streaming – in video streaming mode the EUT was operating in normal operation transmitting and receiving via WIFI to a remote server. The EUT could be controlled from a web browser at the remote location.

3.3. EUT Modifications

No modifications were required for compliance to the FCC 15.247 you tested to requirements.

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 measurements were performed with a spectrum analyzer. This receiver allows measurements with the bandwidths and detector functions specified by the FCC. The receiver bandwidth was 120kHz for the 30MHz to 1000MHz radiated emissions data and 1MHz for the 1000MHz to 5000MHz radiated emissions data.

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 video streaming 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 video streaming mode are shown on pages 21 through 24.

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

Photographs of the test configuration which yielded the highest or worst case, conducted emission levels are shown on Figure 2.

5.2. 6dB 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 42.4 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 plots on pages 25 through 43 show that the minimum 6 dB bandwidth was 10.06MHz which is greater than minimum allowable 6dB bandwidth requirement of 500kHz for systems using digital modulation techniques.

5.3. Maximum conducted (average) output power

5.3.1. 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).

5.3.2. Procedures

Method AVGSA-1

The output of the EUT was connected to the spectrum analyzer through 42.4 dB of attenuation.

- a) Set span to at least 1.5 times the OBW.
- b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
- c) Set VBW $\geq 3 \times$ RBW.
- d) Number of points in sweep $\geq 2 \times$ span / RBW. (This gives bin-to-bin spacing \leq RBW/2, so that narrowband signals are not lost between frequency bins.)
- e) Sweep time = auto.
- f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- g) If transmit duty cycle < 98 %, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle ≥ 98 %, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run".
- h) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
- i) 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.

5.3.3. Results

The results are presented on pages 59 through 66. The maximum average conducted output power from the transmitter was 0.128W (21.09 dBm) which is below the 1 Watt limit. The maximum EIRP from the transmitter was 0.138W (21.4 dBm) which is below the 4 Watt limit.

5.4. Occupied bandwidth (OBW) — power bandwidth (99%) measurement procedure

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.

The following procedure shall be used for measuring 99% power bandwidth

5.4.1. 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).

5.4.2. Results

OWB plots are shown on pages 44 through 58.

5.5. Antenna Conducted Spurious Emissions

5.5.1. Requirements

If the maximum peak conducted output power procedure was used to demonstrate compliance as described in 9.1, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).

If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, 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.

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

Measure and add $10 \log(N_{ANT})$ dB, 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.

5.5.2.Procedures

The output of the EUT was connected to the spectrum analyzer through 40 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.

For the 802.11 n protocol the limit was adjusted by $-3.0\text{dB per MIMO} = 10 \cdot \log(2) = 3.0$ formula.

5.5.3.Results

The results of the antenna conducted emissions levels were plotted. These plots are presented on pages 67 through 88. 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.

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

Measure and add $10 \log(N_{ANT})$ dB, 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 $1/N_{ANT}^{\text{th}}$ of the PSD limit specified in the rules.

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.

5.6.3.Results

Preliminary radiated emissions plots with the EUT transmitting at Low Frequency, Middle Frequency, and High Frequency are shown on pages 89 through 179. Final radiated emissions data are presented on data pages 180 through 203. 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 3 through 5.

5.7. Band Edge Compliance

5.7.1.Requirement

Per section 15.247(d), the emissions at the band-edges must be at least 20dB below the highest level measured within the band but attenuation below the general limits listed in 15.209(a) is not required.

Measure and add $10 \log(N_{\text{ANT}})$ dB, 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 $10 \log(N_{\text{ANT}})$ dB is added to each spectrum value before comparing to the emission limit. The addition of $10 \log(N_{\text{ANT}})$ dB serves to apportion the emission limit among the N_{ANT} outputs so that each output is permitted to contribute no more than $1/N_{\text{ANT}}^{\text{th}}$ of the PSD limit specified in the rules.

5.7.2.Procedures

5.4.2.1 Low Band Edge

- 1) The output of the EUT was connected to the spectrum analyzer through 42.4 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 = low band-edge frequency.
 - 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) $\geq 1\%$ of the span.
 - 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. A display line was placed 20dB down from the peak of the in-band emissions. All emissions which fall outside of the authorized band of operation must be below the 20dB down display line. (All emissions to the left of the center frequency (band-edge) must be below the display line.)
 - 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.
- 7) The highest measured average reading was recorded.

5.7.3.Results

Pages 204 through 223 show the band-edge compliance results. As can be seen from these plots, the conducted emissions at the low end band edge are within the 30 dB down limits. 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.

5.8.2.Procedures

Method AVGPS-1

- 1) The output of the EUT was connected to the spectrum analyzer through 42.4 dB of attenuation.
- 2) Set instrument center frequency to DTS channel center frequency.
- 3) 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: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
 - d) Set VBW $\geq 3 \times \text{RBW}$.
 - e) Detector = power averaging (RMS) or sample detector (when RMS not available).
 - f) Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span}/\text{RBW}$.
 - 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.

5.8.3.Results

Pages 224 and 247 show the power spectral density results. 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 Video Doorbell System, Model No. NOTIFI, digital modulation transmitter, Serial Nos. AA80, AA64, 9C84 and 9D80, 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.

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	2/17/2015	2/17/2016
APW11	PREAMPLIFIER	PMI	PE2-35-120-5R0-10-12-SFF	PL11685/1241	1GHZ-20GHZ	3/5/2015	3/5/2016
CDY0	WORKSTATION	ELITE	WORKSTATION		WINDOWS 7	N/A	
NHG1	STANDARD GAIN HORN ANTENNA	NARDA	638	---	18-26.5GHZ	NOTE 1	
NTA3	BILOG ANTENNA	TESEQ	6112D	32853	25-1000MHZ	3/27/2015	3/27/2016
NWQ2	DOUBLE RIDGED WAVEGUIDE ANTENNA	ETS LINDGREN	3117	66659	1GHZ-18GHZ	2/9/2014	2/9/2016
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
RAKI	RF SECTION	HEWLETT PACKARD	85462A	3411A00181	0.009-6500MHZ	3/12/2015	3/12/2016
RAKJ	RF FILTER SECTION	HEWLETT PACKARD	85460A	3330A00154	---	3/12/2015	3/12/2016
RBB0	EMI TEST RECEIVER 20HZ TO 40 GHZ.	ROHDE & SCHWARZ	ESIB40	100250	20 HZ TO 40GHZ	2/13/2015	2/13/2016
RBE0	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESU26	100095	20Hz-26GHZ	3/6/2015	3/6/2016
RBE2	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESU26	100160	20Hz-26GHZ	3/4/2015	3/4/2016
T2DH	20DB, 25W ATTENUATOR	WEINSCHTEL	46-20-34	BN1039	DC-18GHZ	8/7/2015	8/7/2016
T2S6	20DB 25W ATTENUATOR	WEINSCHTEL	46-20-34	BV3539	DC-18GHZ	10/13/2015	10/13/2016
XLT4	5W, 50 OHM TERMINATION	JFW INDUSTRIES	50T-052	---	DC-2GHZ	1/14/2016	1/14/2018
XLTD	5W, 50 OHM TERMINATION	JFW INDUSTRIES	50T-052	---	DC-2GHZ	2/3/2015	2/3/2016
XOB1	ADAPTER	HEWLETT PACKARD	K281C	10422	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.

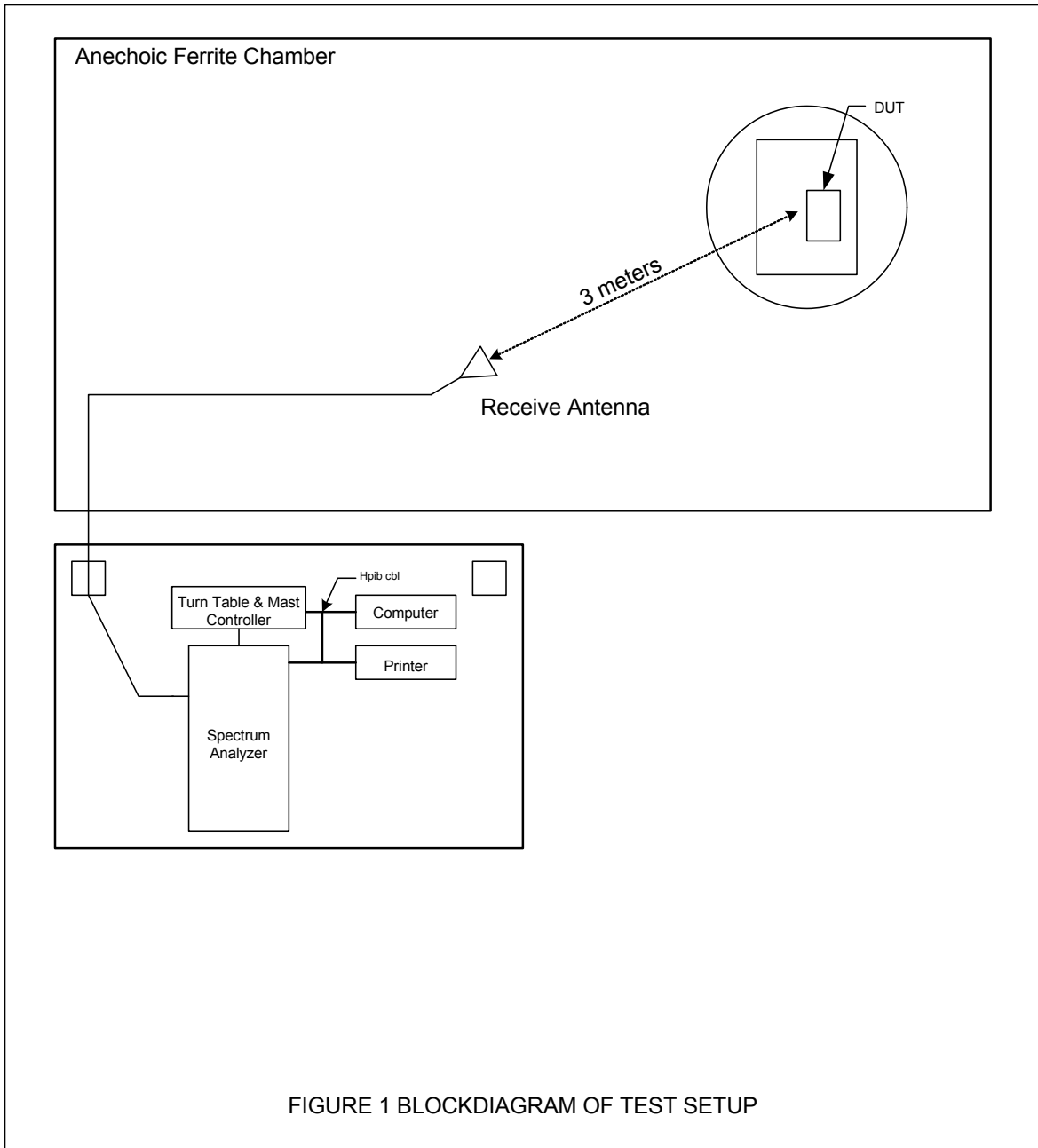


Figure 2

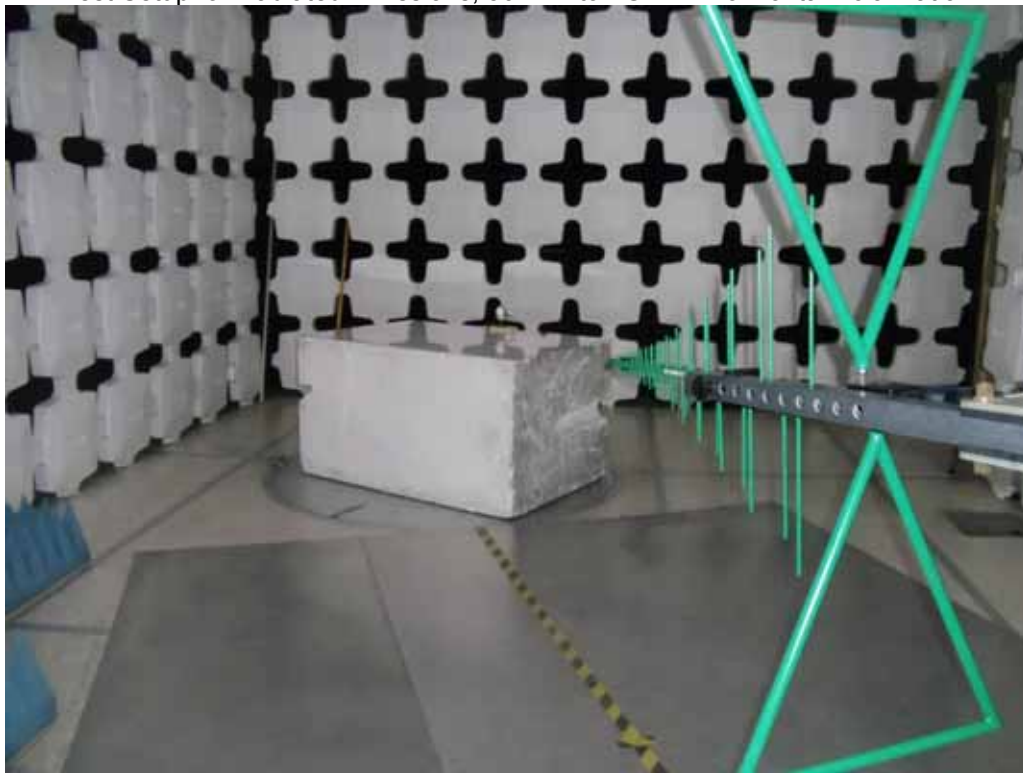


Test Setup for Conducted Emissions

Figure 3

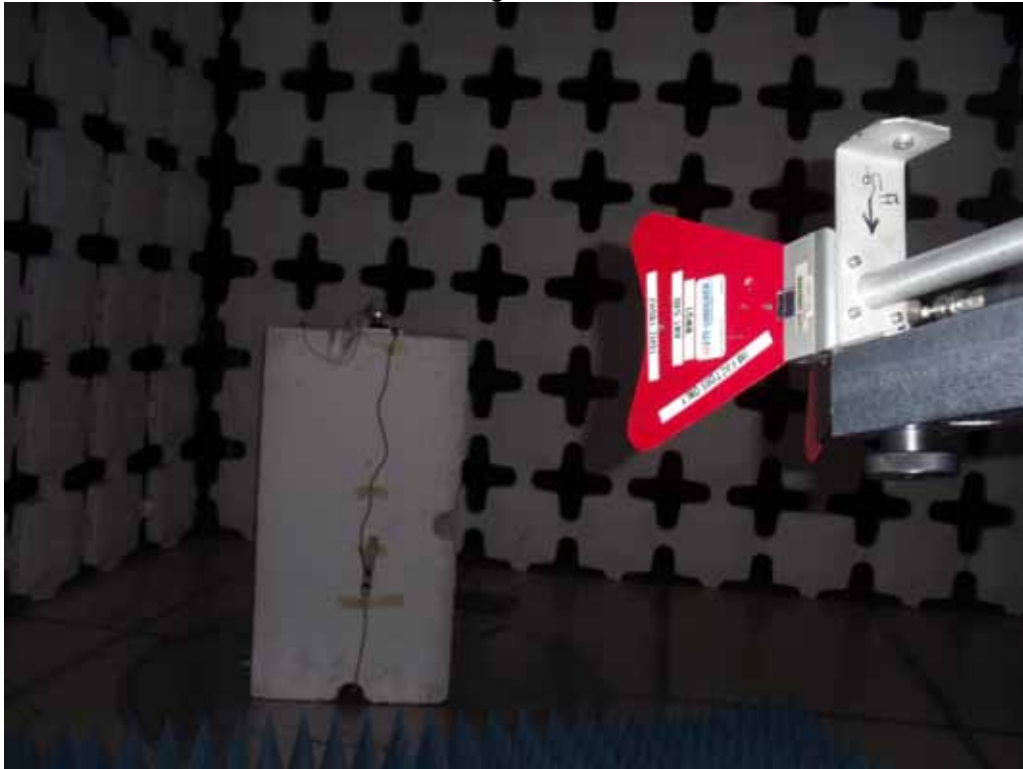


Test Setup for Radiated Emissions, 30MHz to 1GHz – Horizontal Polarization



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

Figure 4

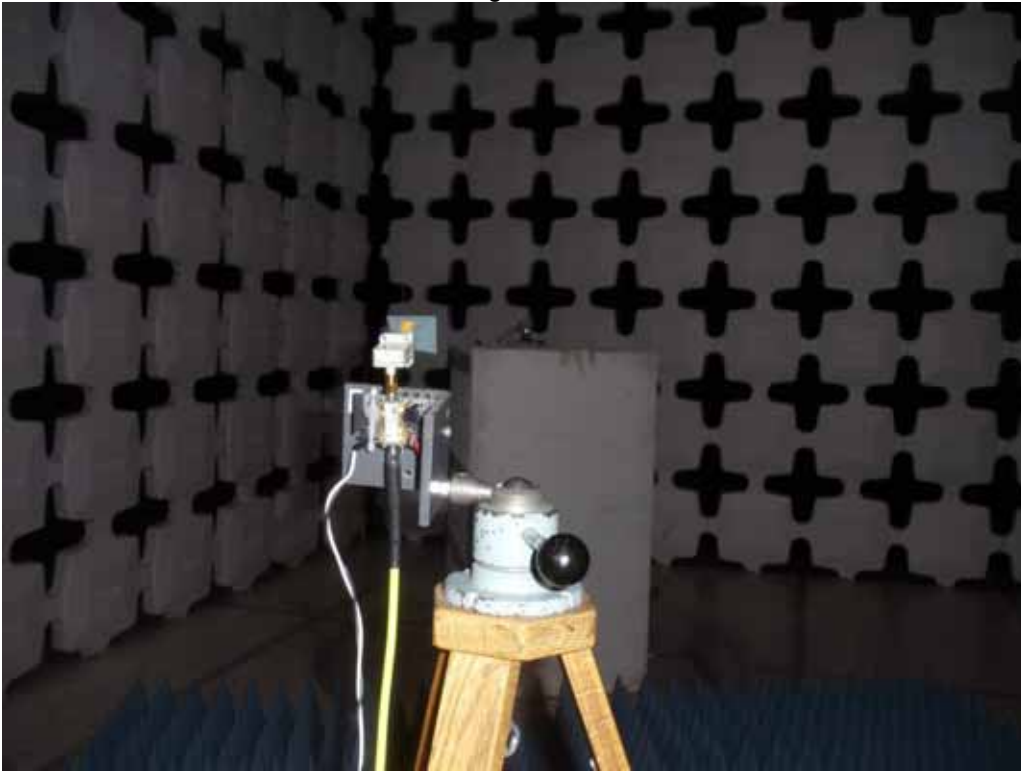


Test Setup for Radiated Emissions, above 1GHz – Horizontal Polarization

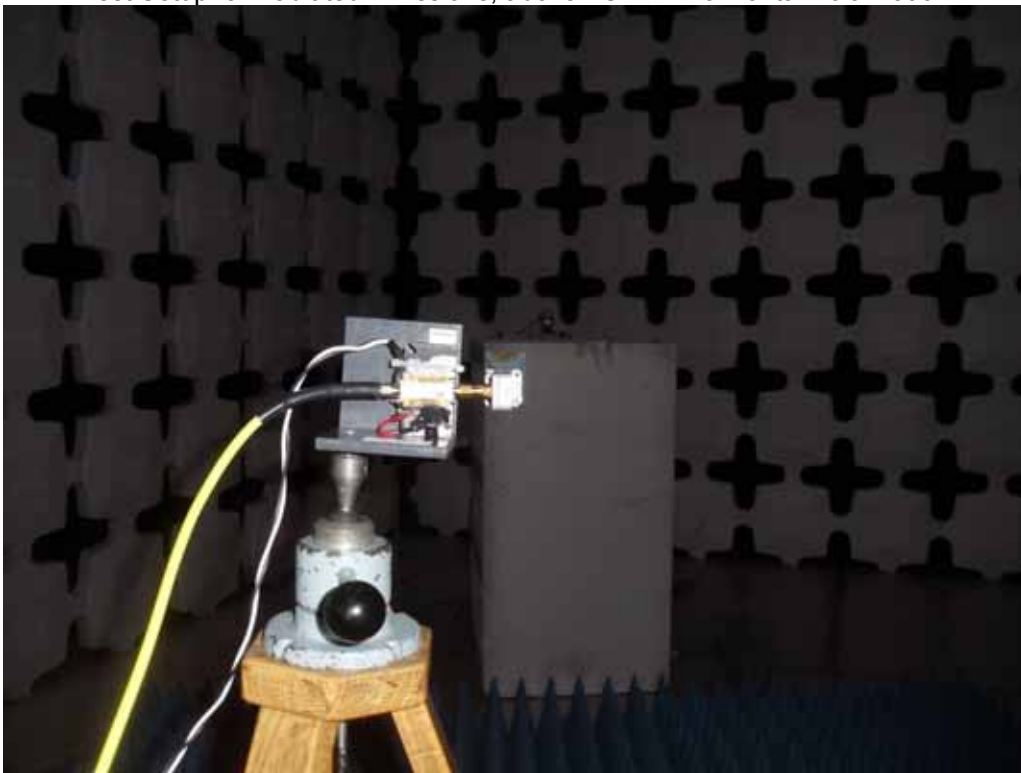


Test Setup for Radiated Emissions, above 1GHz – Vertical Polarization

Figure 5



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 03/04/2015

Manufacturer : HEATH CO LLC.
Model : NOTIFI
DUT Mode : VIDEO STREAMING
Line Tested : L1
Scan Step Time [ms] : 30
Meas. Threshold [dB] : -10
Notes : LIGHT ON
Test Engineer : R. King
Limit : Class B
Test Date : Nov 03, 2015 11:59:13 AM
Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

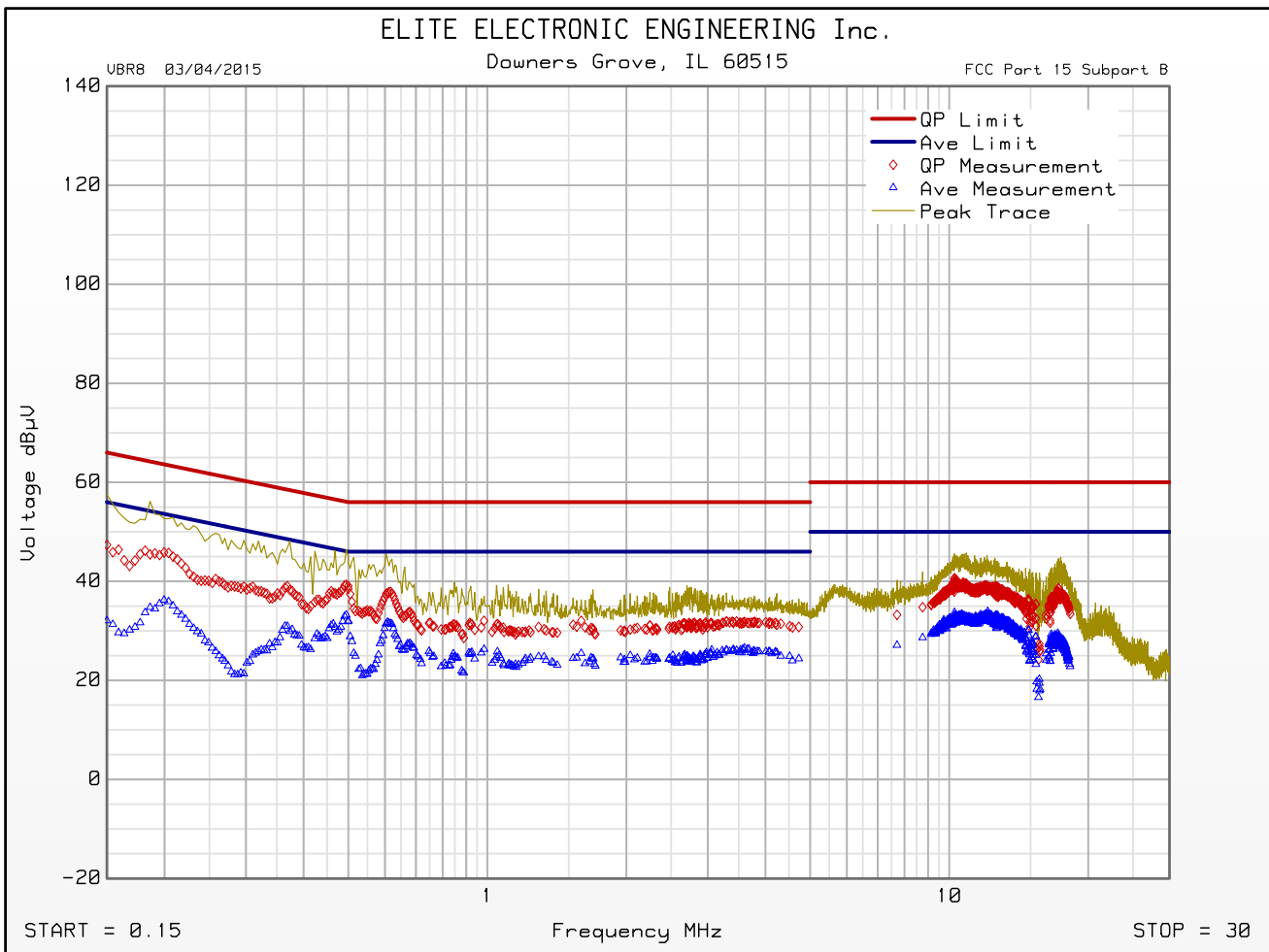
Freq MHz	Quasi-peak Level dB μ V	Quasi-peak Limit dB μ V	Excessive Quasi-peak Emissions	Average Level dB μ V	Average Limit dB μ V	Excessive Average Emissions
0.204	45.7	63.4		35.9	53.4	
0.495	39.3	56.1		33.2	46.1	
0.500	38.5	56.0		32.0	46.0	
0.984	32.1	56.0		26.3	46.0	
1.597	32.1	56.0		25.5	46.0	
2.975	31.8	56.0		25.3	46.0	
3.293	31.9	56.0		26.2	46.0	
8.758	34.8	60.0		28.7	50.0	
10.269	40.7	60.0		33.7	50.0	
17.240	38.6	60.0		28.3	50.0	



FCC Part 15 Subpart B Conducted Emissions Test Cumulative Data

VBR8 03/04/2015

Manufacturer : HEATH CO LLC.
Model : NOTIFI
DUT Mode : VIDEO STREAMING
Line Tested : L1
Scan Step Time [ms] : 30
Meas. Threshold [dB] : -10
Notes : LIGHT ON
Test Engineer : R. King
Limit : Class B
Test Date : Nov 03, 2015 11:59:13 AM



Emissions Meet QP Limit
Emissions Meet Ave Limit



FCC Part 15 Subpart B Conducted Emissions Test Significant Emissions Data

VBR8 03/04/2015

Manufacturer : HEATH CO LLC.
Model : NOTIFI
DUT Mode : VIDEO STREAMING
Line Tested : L2
Scan Step Time [ms] : 30
Meas. Threshold [dB] : -10
Notes : LIGHT ON
Test Engineer : R. King
Limit : Class B
Test Date : Nov 03, 2015 12:17:29 PM
Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

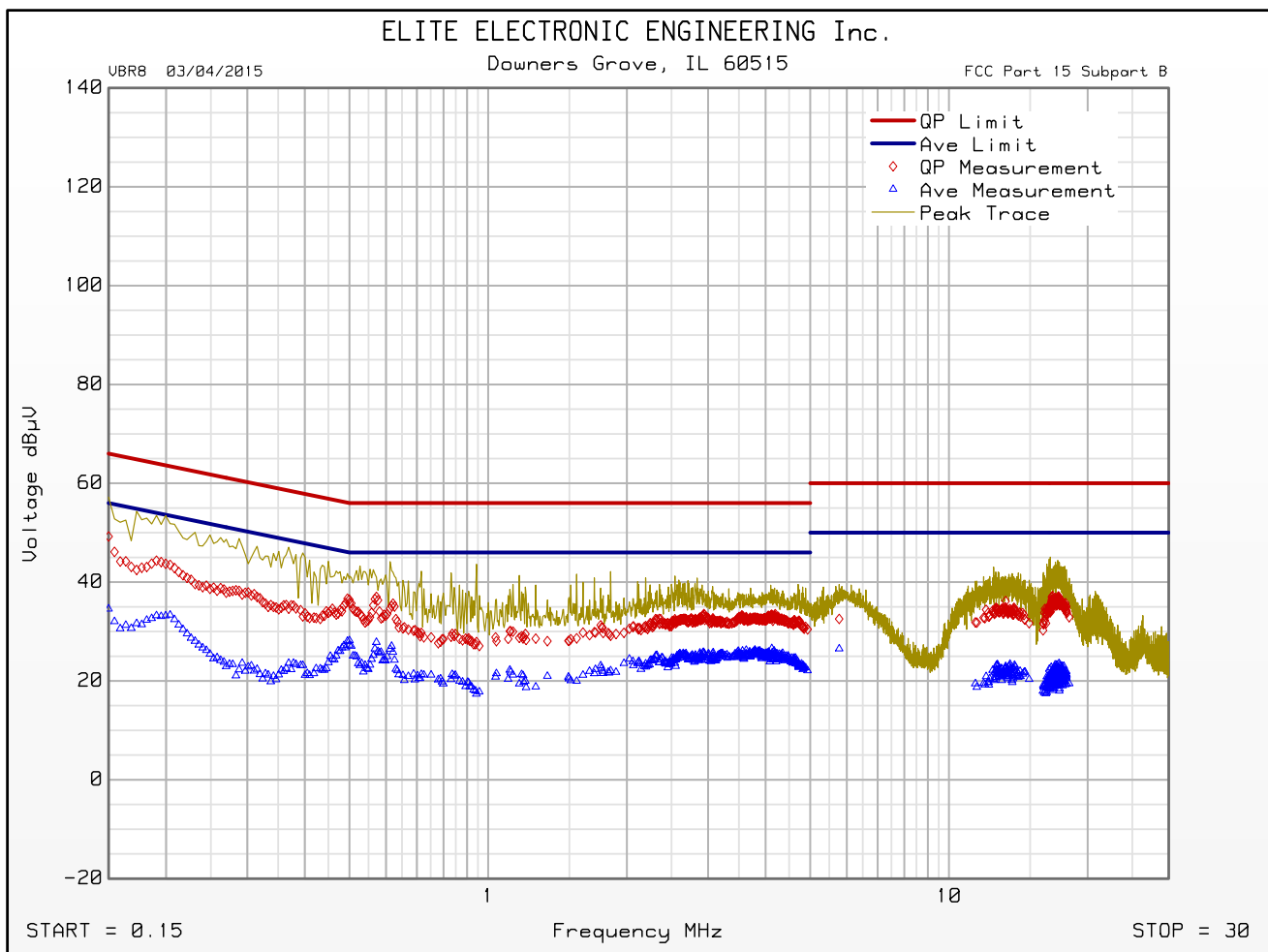
Freq MHz	Quasi-peak Level dB μ V	Quasi-peak Limit dB μ V	Excessive Quasi-peak Emissions	Average Level dB μ V	Average Limit dB μ V	Excessive Average Emissions
0.150	49.2	66.0		34.6	56.0	
0.495	36.7	56.1		28.0	46.1	
0.572	37.0	56.0		27.8	46.0	
1.114	30.1	56.0		22.2	46.0	
1.754	31.3	56.0		23.1	46.0	
2.939	33.6	56.0		25.4	46.0	
4.198	33.5	56.0		25.3	46.0	
5.779	32.6	60.0		26.5	50.0	
13.275	36.2	60.0		22.9	50.0	
16.772	37.2	60.0		21.9	50.0	



FCC Part 15 Subpart B Conducted Emissions Test Cumulative Data

VBR8 03/04/2015

Manufacturer : HEATH CO LLC.
Model : NOTIFI
DUT Mode : VIDEO STREAMING
Line Tested : L2
Scan Step Time [ms] : 30
Meas. Threshold [dB] : -10
Notes : LIGHT ON
Test Engineer : R. King
Limit : Class B
Test Date : Nov 03, 2015 12:17:29 PM

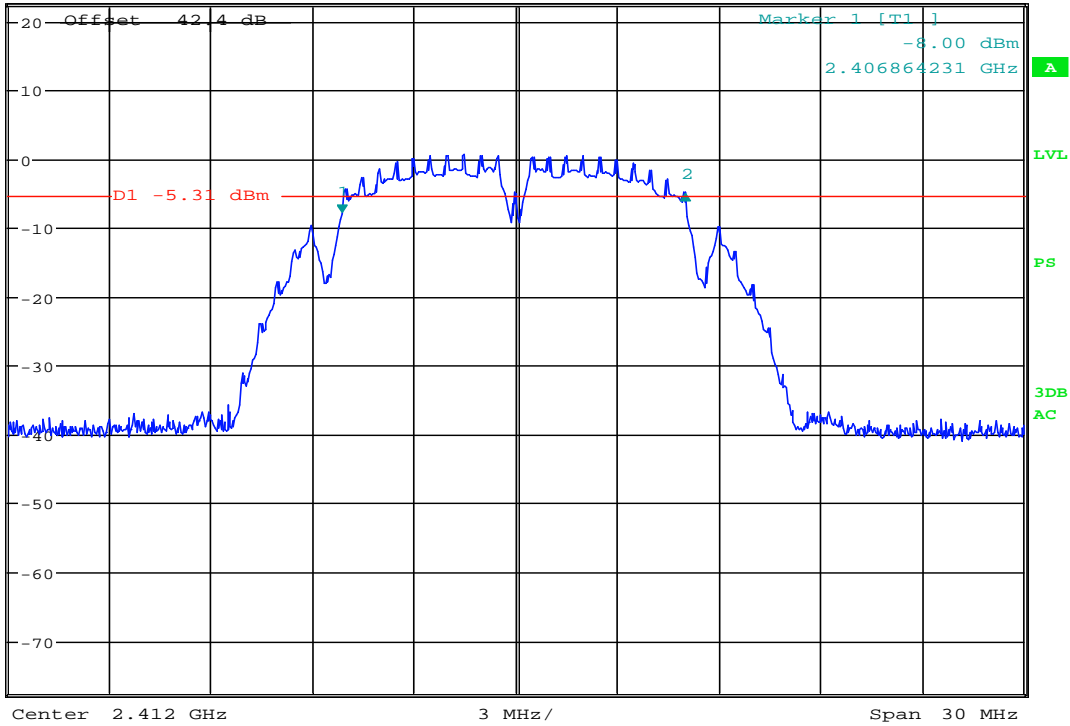


Emissions Meet QP Limit
Emissions Meet Ave Limit



*RBW 100 kHz Delta 2 [T1]
 *VBW 3 MHz 2.79 dB
 Ref 22.4 dBm *Att 10 dB SWT 15 ms 10.135769231 MHz

1 PK
MAXH



Date: 7.JAN.2016 15:55:20

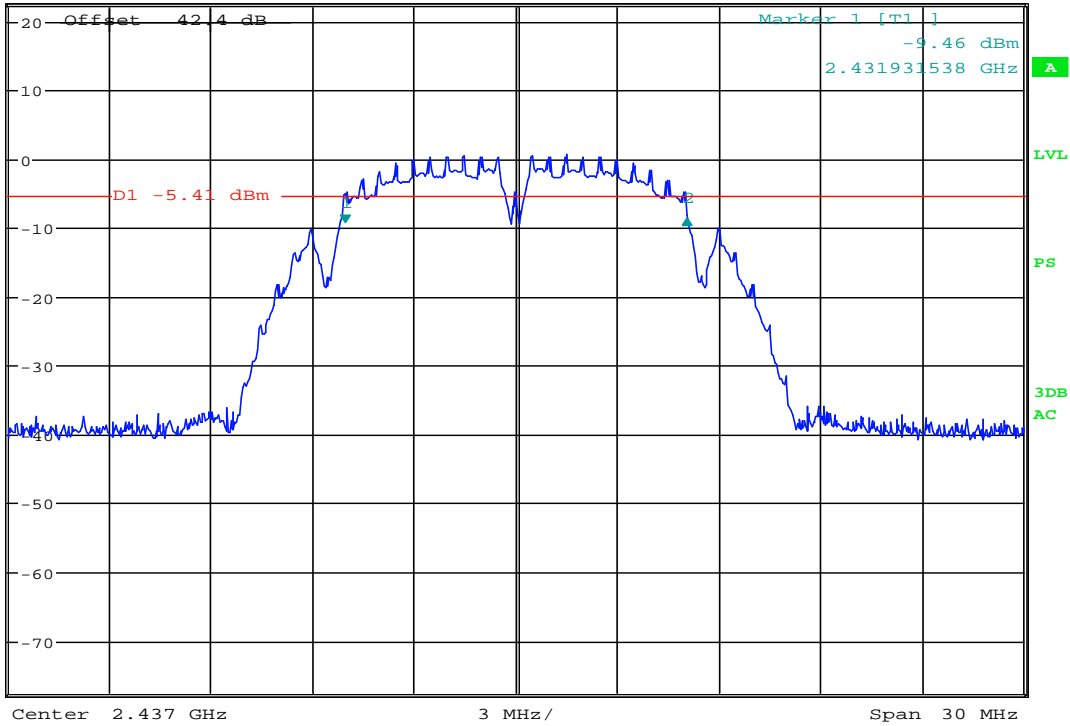
FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : PEAK detector
 NOTES : 802.11 b 20 MHz
 NOTES : 11 Mbps
 NOTES : ANT0



Ref 22.4 dBm * Att 10 dB * RBW 100 kHz Delta 2 [T1] 0.68 dB
 * VBW 3 MHz 10.116538462 MHz
 SWT 15 ms

1 PK
MAXH



Date: 7.JAN.2016 16:04:32

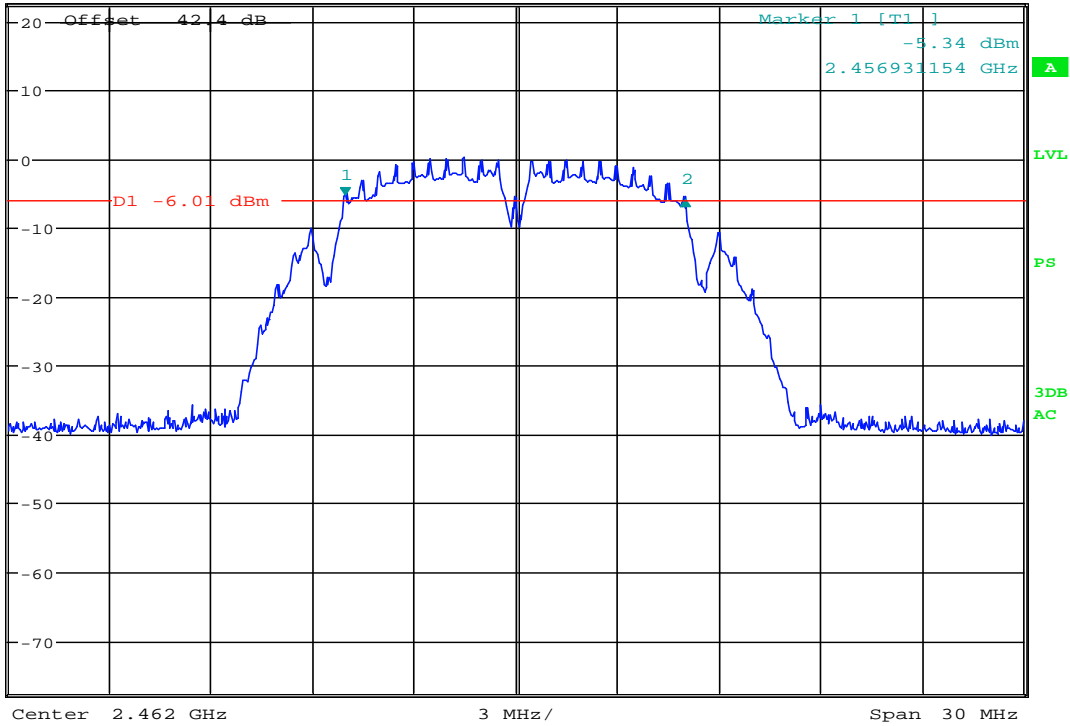
FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : PEAK detector
 NOTES : 802.11 b 20 MHz
 NOTES : 11 Mbps
 NOTES : ANT0



*RBW 100 kHz Delta 2 [T1]
 *VBW 3 MHz -0.64 dB
 Ref 22.4 dBm *Att 10 dB SWT 15 ms 10.068846154 MHz

1 PK
MAXH



Date: 7.JAN.2016 16:10:19

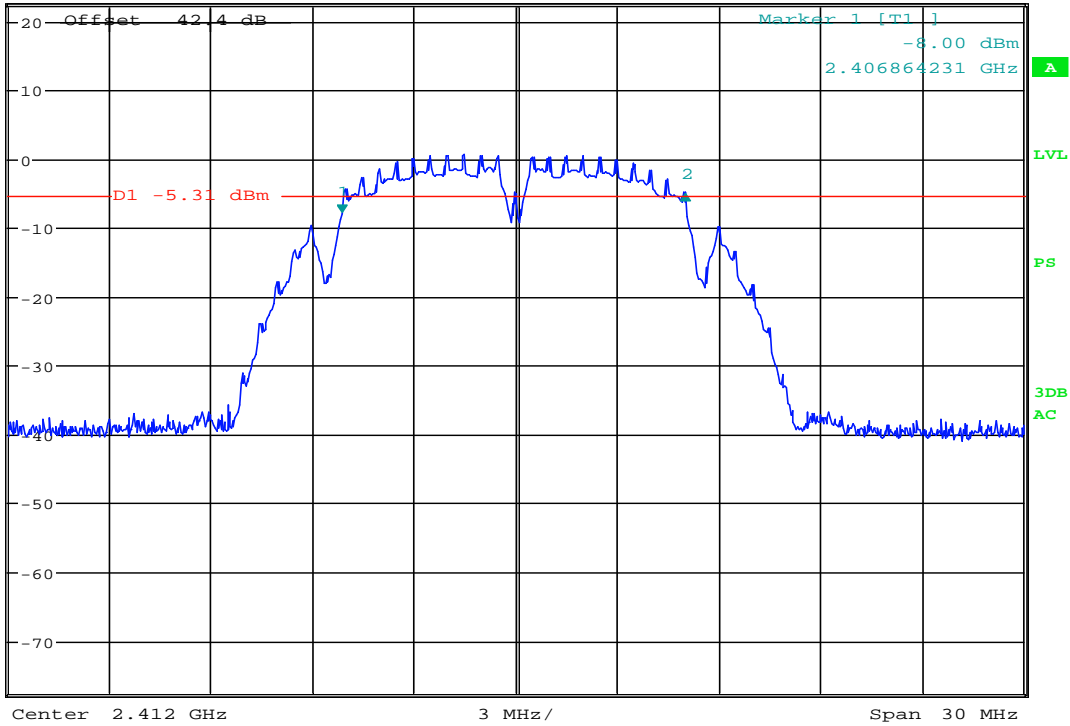
FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : PEAK detector
 NOTES : 802.11 b 20 MHz
 NOTES : 11 Mbps
 NOTES : ANT0



Ref 22.4 dBm *Att 10 dB *RBW 100 kHz Delta 2 [T1]
 *VBW 3 MHz 2.79 dB
 SWT 15 ms 10.135769231 MHz

1 PK
 MAXH



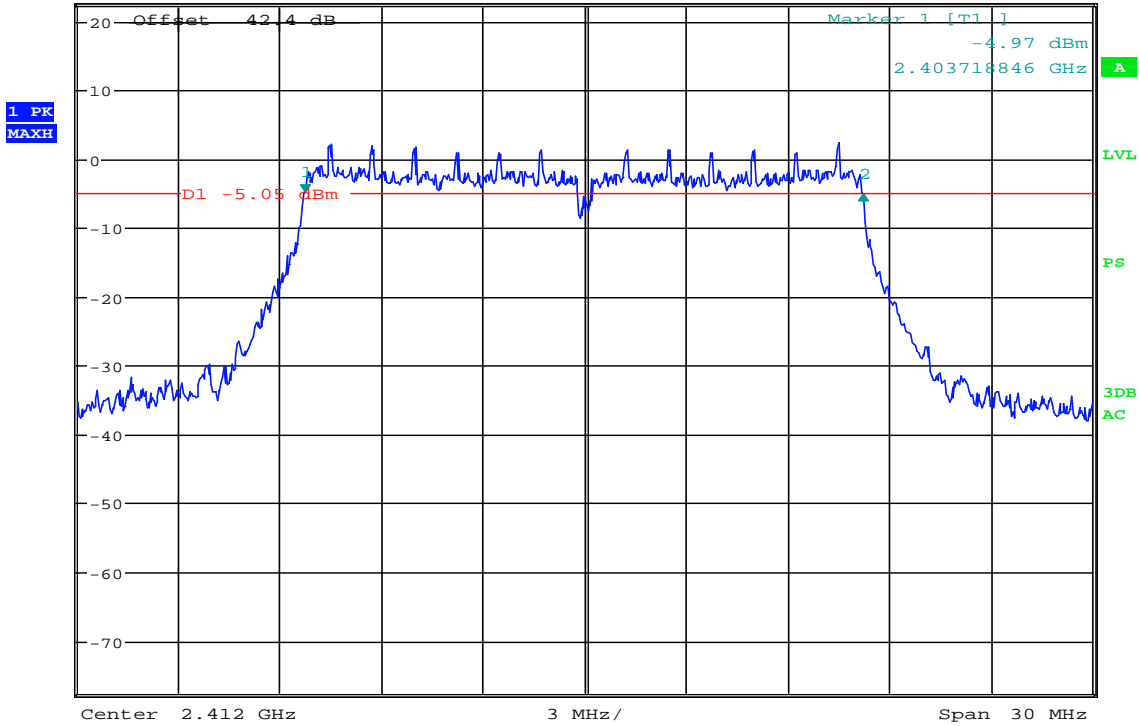
Date: 7.JAN.2016 15:55:20

FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ high CHANNEL
 : PEAK detector
 NOTES : 802.11 b 20 MHz
 NOTES : 1 Mbps
 NOTES : ANT0



Ref 22.4 dBm * Att 10 dB * RBW 100 kHz Delta 2 [T1]
 * VBW 3 MHz -0.27 dB
 SWT 15 ms 16.502307692 MHz



Date: 7.JAN.2016 15:28:31

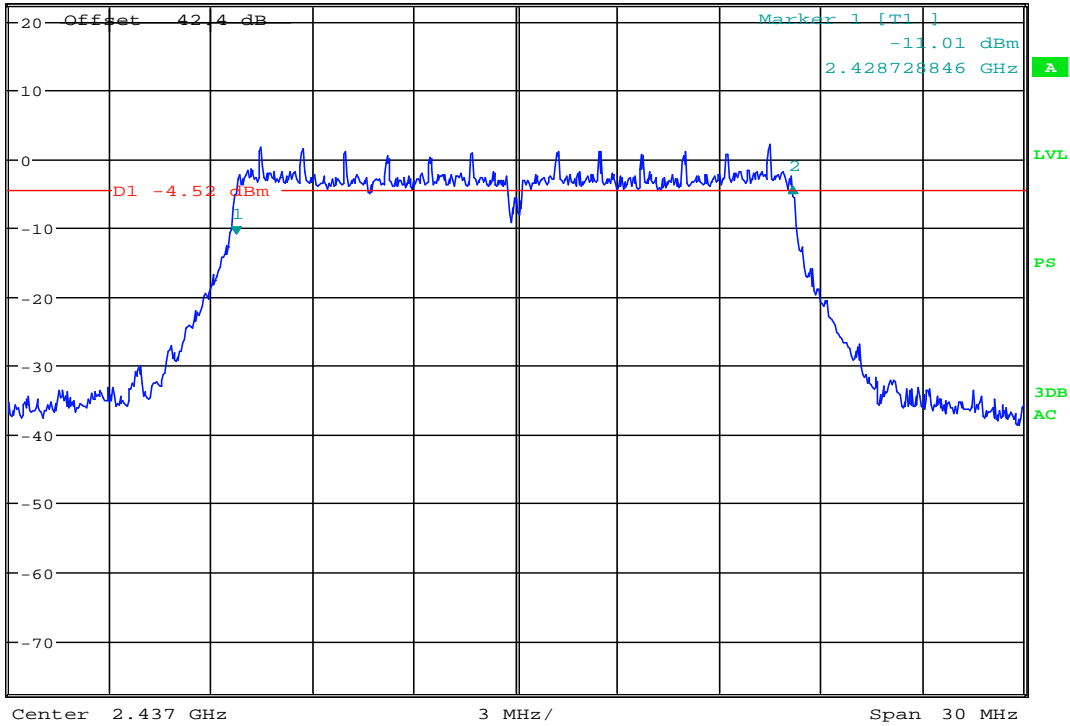
FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : PEAK detector
 NOTES : 802.11 G 20 MHz
 NOTES : 6 Mbps
 NOTES : ANT0



*RBW 100 kHz Delta 2 [T1]
 *VBW 3 MHz 6.89 dB
 Ref 22.4 dBm *Att 10 dB SWT 15 ms 16.444230769 MHz

1 PK
MAXH



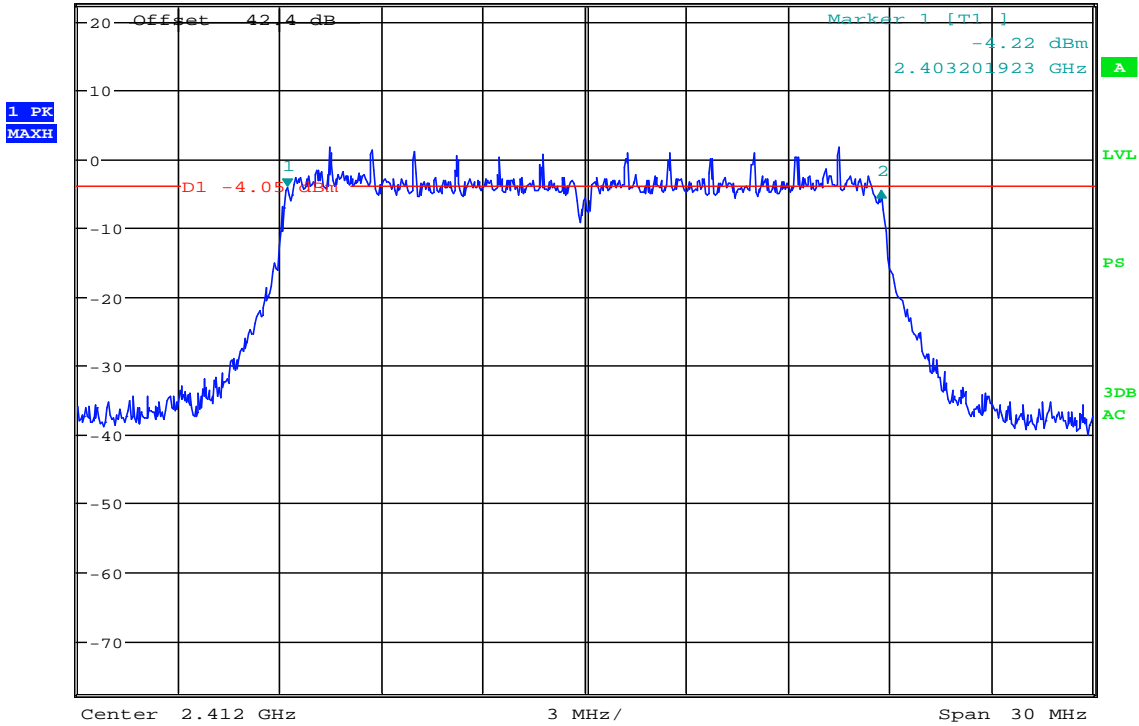
Date: 7.JAN.2016 15:45:35

FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : PEAK detector
 NOTES : 802.11 g 20 MHz
 NOTES : 6 Mbps
 NOTES : ANT0



Ref 22.4 dBm * Att 10 dB * RBW 100 kHz Delta 2 [T1] * VBW 3 MHz -0.54 dB SWT 15 ms 17.548076923 MHz



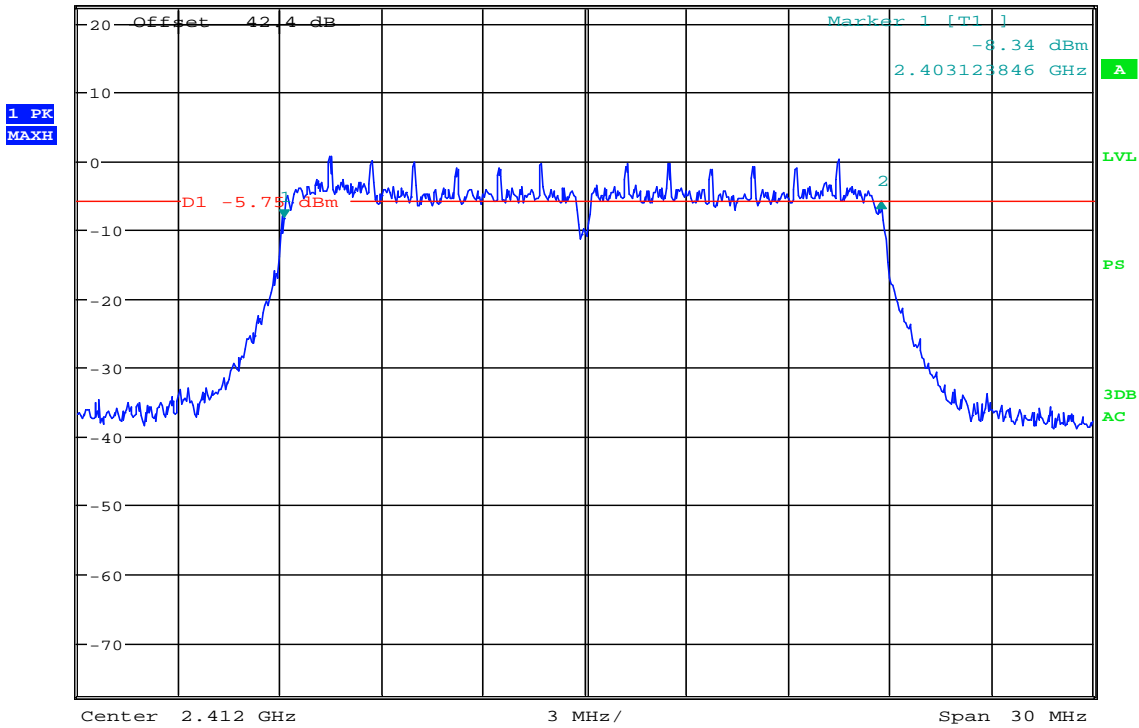
Date: 7.JAN.2016 14:45:06

FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : PEAK detector
 NOTES : 802.11 n 20 MHz
 NOTES : 15 Mbps
 NOTES : ANT0



Ref 22.4 dBm *Att 10 dB *RBW 100 kHz Delta 2 [T1]
 *VBW 3 MHz 2.35 dB
 SWT 15 ms 17.644230769 MHz



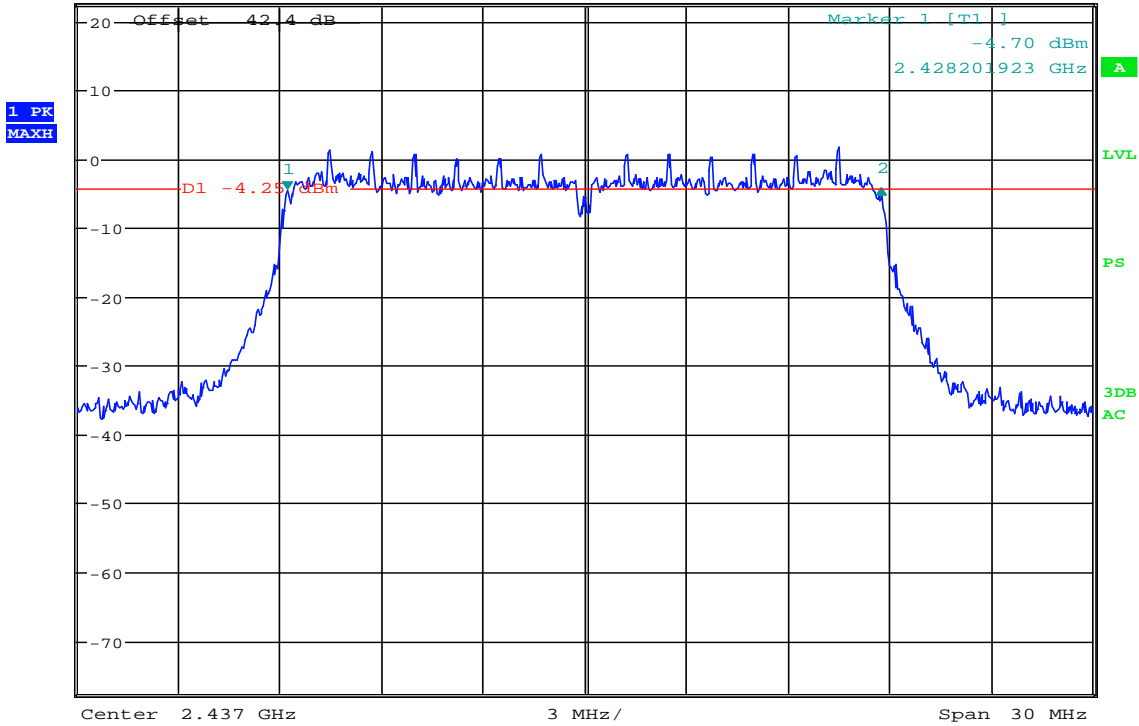
Date: 7.JAN.2016 15:02:48

FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : PEAK detector
 NOTES : 802.11 n 20 MHz
 NOTES : 15 Mbps
 NOTES : ANT1



Ref 22.4 dBm * Att 10 dB * RBW 100 kHz Delta 2 [T1]
 * VBW 3 MHz 0.24 dB
 SWT 15 ms 17.548076923 MHz



Date: 7.JAN.2016 14:51:04

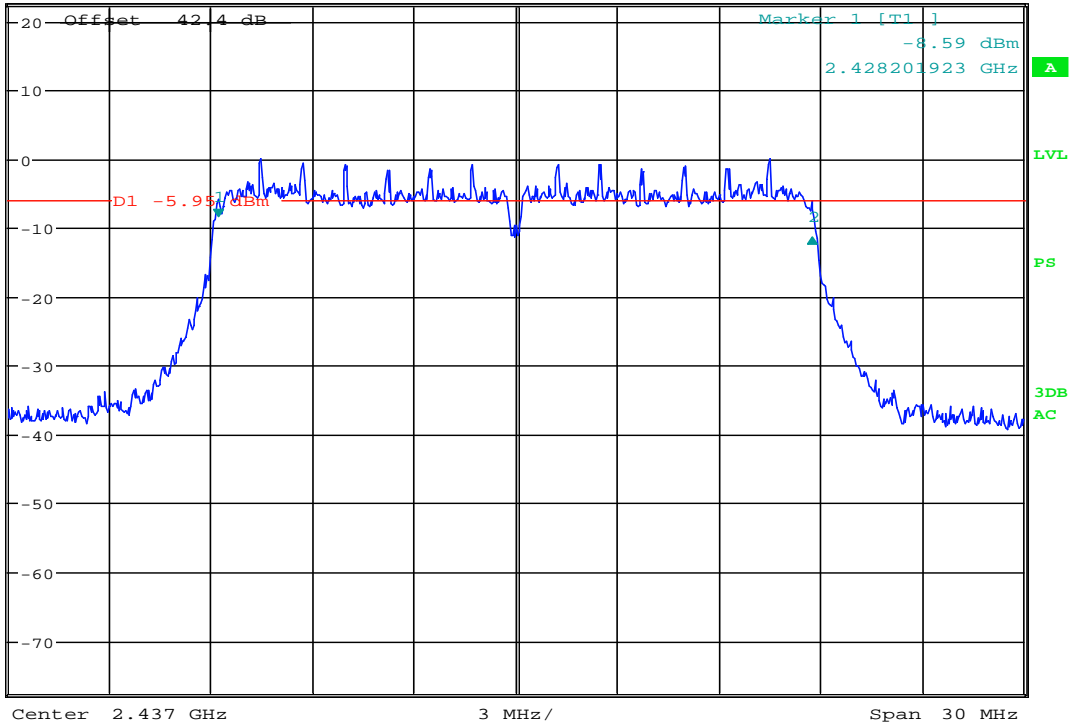
FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : PEAK detector
 NOTES : 802.11 n 20 MHz
 NOTES : 15 Mbps
 NOTES : ANT0



Ref 22.4 dBm * Att 10 dB * RBW 100 kHz Delta 2 [T1]
 * VBW 3 MHz -2.86 dB
 SWT 15 ms 17.548076923 MHz

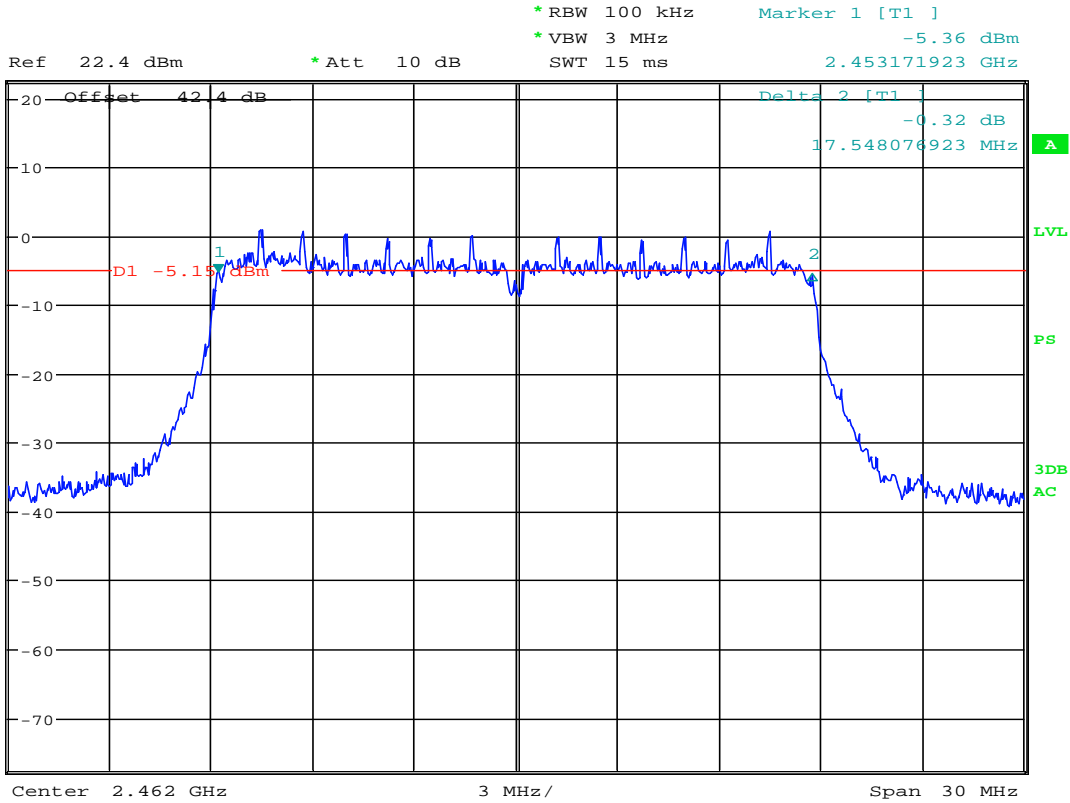
1 PK
 MAXH



Date: 7.JAN.2016 14:59:05

FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : PEAK detector
 NOTES : 802.11 n 20 MHz
 NOTES : 15 Mbps
 NOTES : ANT1



Date: 7.JAN.2016 14:55:51

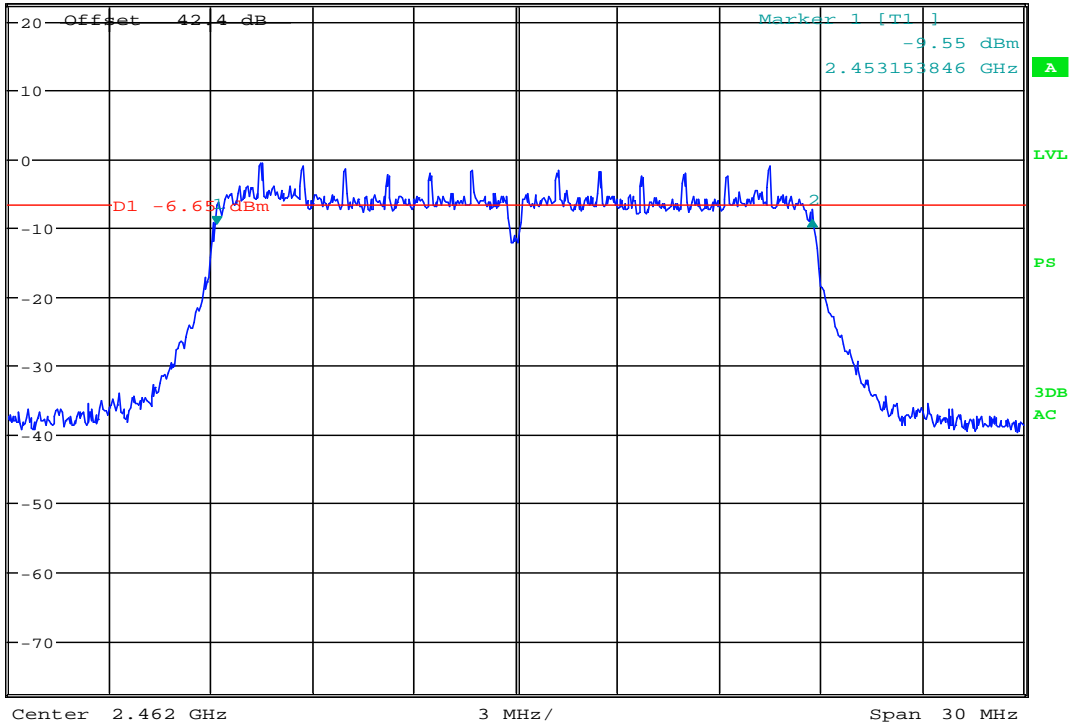
FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : PEAK detector
 NOTES : 802.11 n 20 MHz
 NOTES : 15 Mbps
 NOTES : ANT0



Ref 22.4 dBm *Att 10 dB *RBW 100 kHz Delta 2 [T1]
 *VBW 3 MHz 0.46 dB
 SWT 15 ms 17.596153846 MHz

1 PK
 MAXH



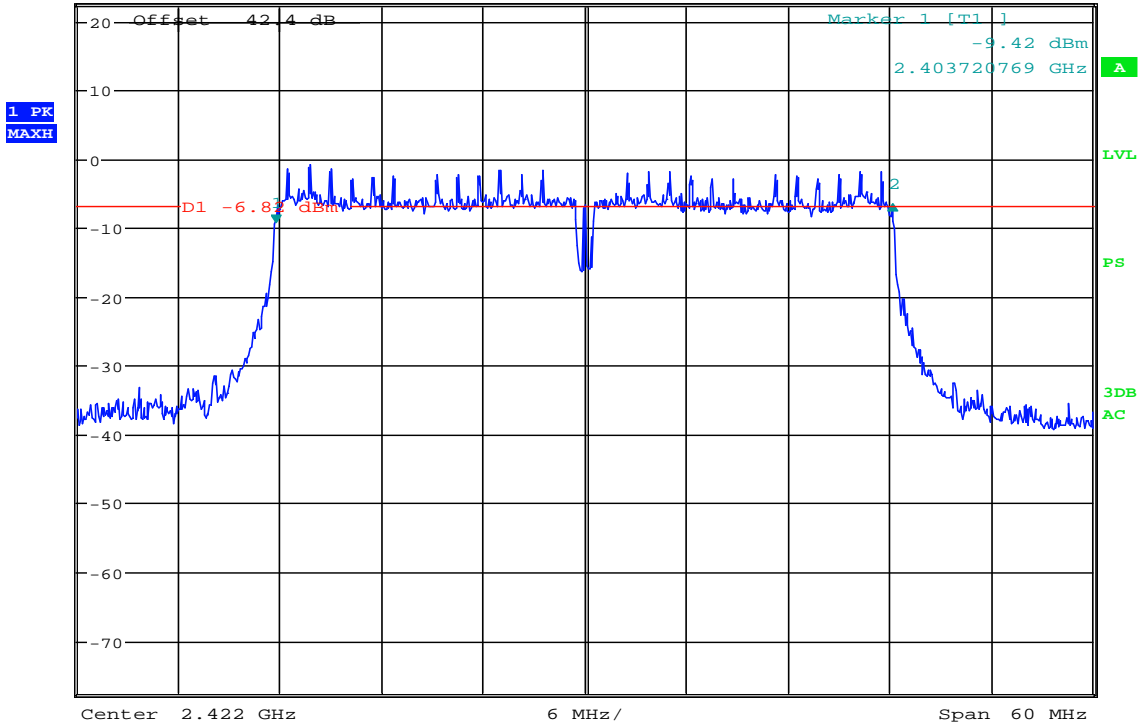
Date: 7.JAN.2016 15:07:15

FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : PEAK detector
 NOTES : 802.11 n 20 MHz
 NOTES : 15 Mbps
 NOTES : ANT1



Ref 22.4 dBm * Att 10 dB * RBW 100 kHz Delta 2 [T1]
 * VBW 3 MHz 2.73 dB
 SWT 10 ms 36.432307692 MHz



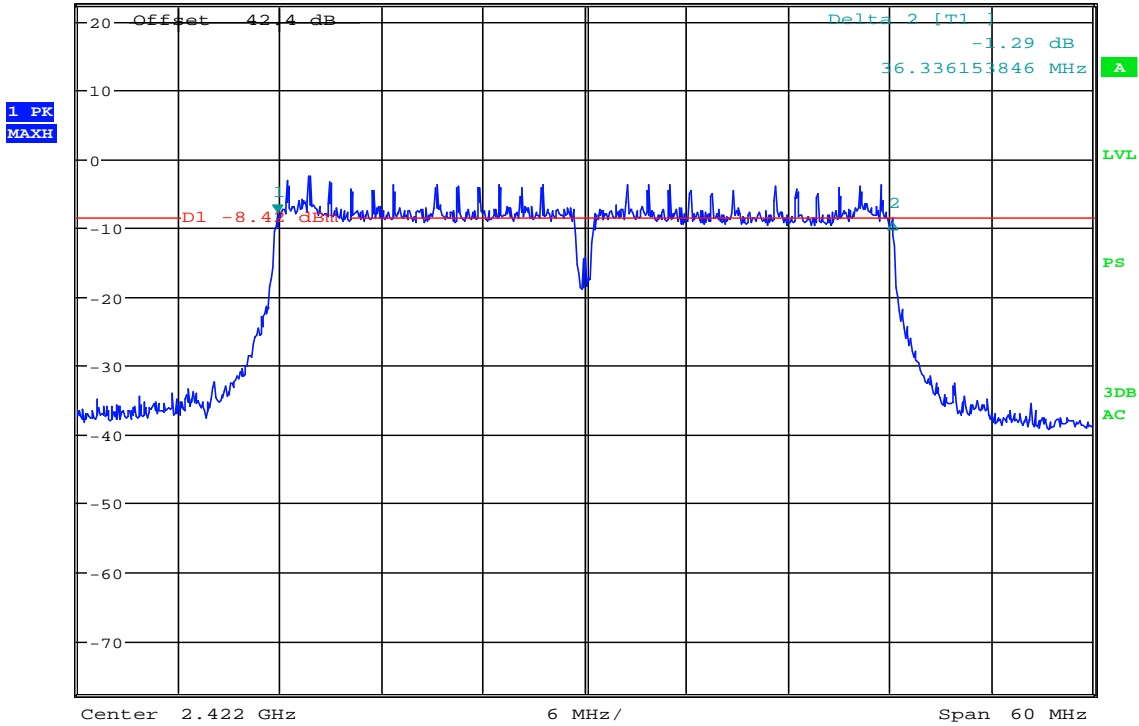
Date: 7.JAN.2016 13:12:09

FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : PEAK detector
 NOTES : 802.11 n 40 MHz
 NOTES : 15 Mbps
 NOTES : ANT0



*RBW 100 kHz Marker 1 [T1]
 *VBW 3 MHz -8.05 dBm
 Ref 22.4 dBm *Att 10 dB SWT 10 ms 2.403816923 GHz



Date: 7.JAN.2016 11:23:48

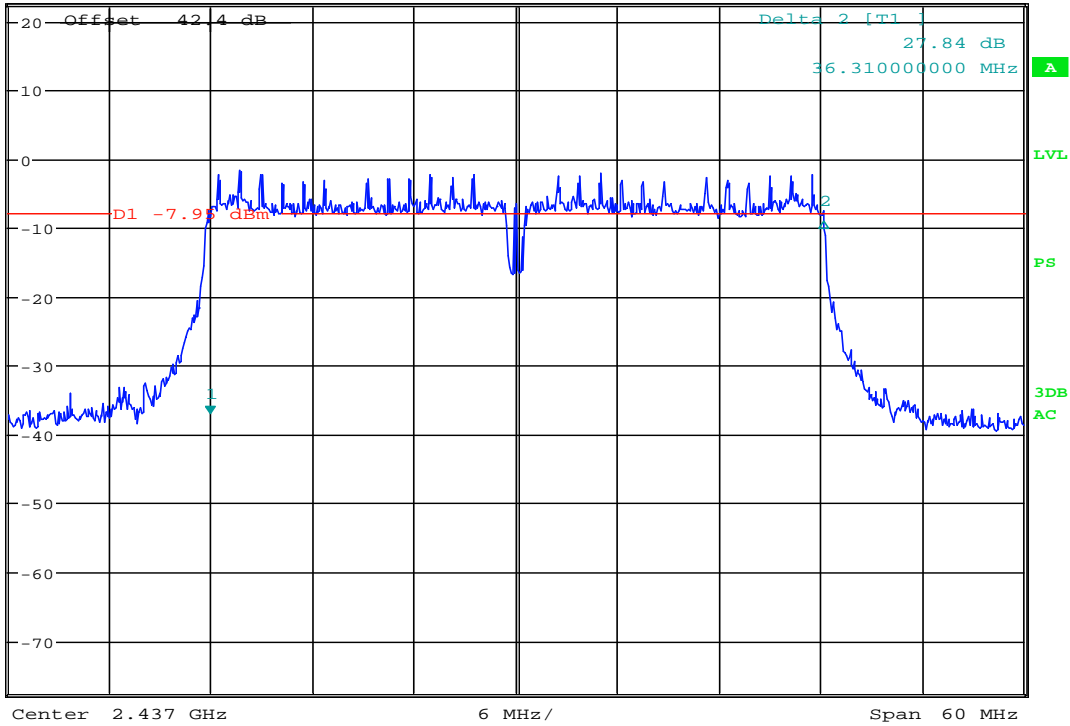
FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : PEAK detector
 NOTES : 802.11 n 40 MHz
 NOTES : 15 Mbps
 NOTES : ANT1



Ref 22.4 dBm *Att 10 dB *RBW 100 kHz Marker 1 [T1] -37.06 dBm
 *VBW 3 MHz 2.418853077 GHz
 SWT 10 ms

1 PK
 MAXH



Date: 7.JAN.2016 13:44:33

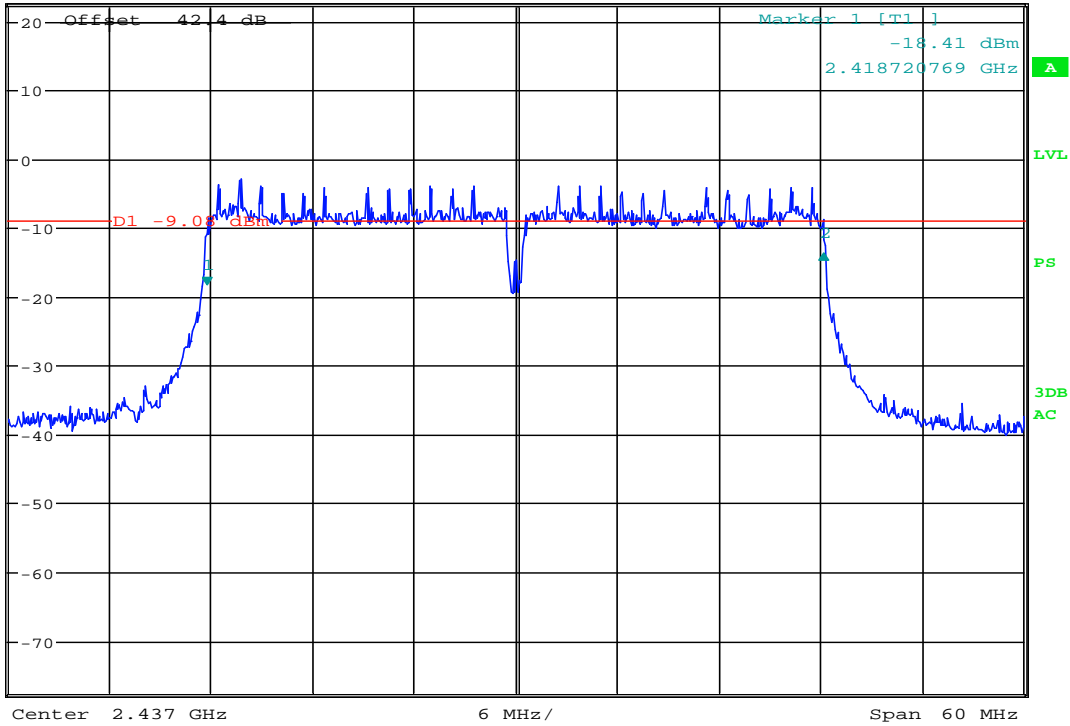
FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : PEAK detector
 NOTES : 802.11 n 40 MHz
 NOTES : 15 Mbps
 NOTES : ANT0



*RBW 100 kHz Delta 2 [T1]
 *VBW 3 MHz 4.52 dB
 Ref 22.4 dBm *Att 10 dB SWT 10 ms 36.452307692 MHz

1 PK
MAXH



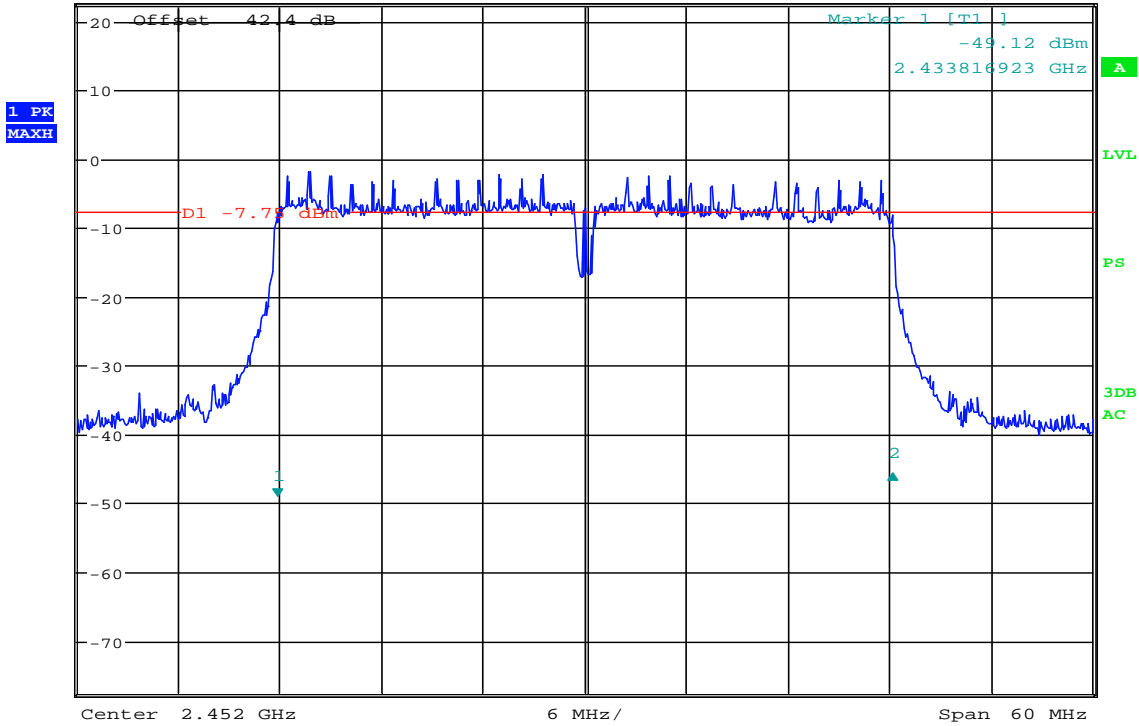
Date: 7.JAN.2016 11:01:04

FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : PEAK detector
 NOTES : 802.11 n 40 MHz
 NOTES : 15 Mbps
 NOTES : ANT1



Ref 22.4 dBm *Att 10 dB *RBW 100 kHz Delta 2 [T1]
 *VBW 3 MHz 3.30 dB
 SWT 10 ms 36.346153846 MHz



Date: 7.JAN.2016 14:21:28

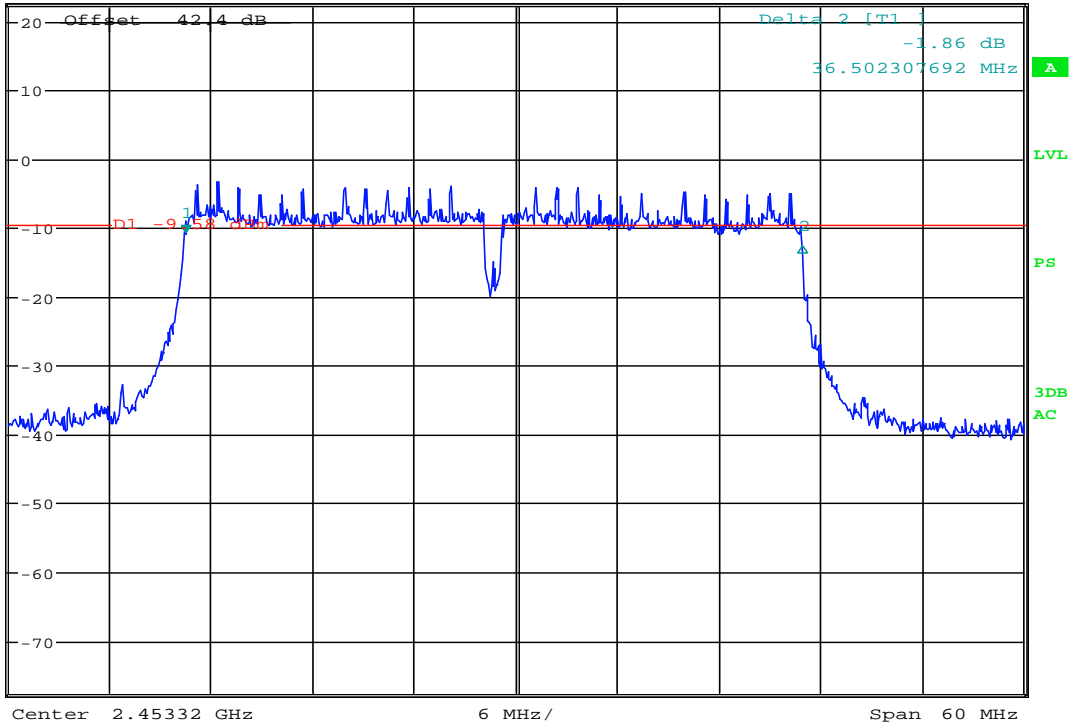
FCC 15C 15.247 DTS Bandwidth

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : PEAK detector
 NOTES : 802.11 n 40 MHz
 NOTES : 15Mbps
 NOTES : ANT0



*RBW 100 kHz Marker 1 [T1]
 *VBW 3 MHz -10.83 dBm
 Ref 22.4 dBm *Att 10 dB SWT 10 ms 2.433756923 GHz

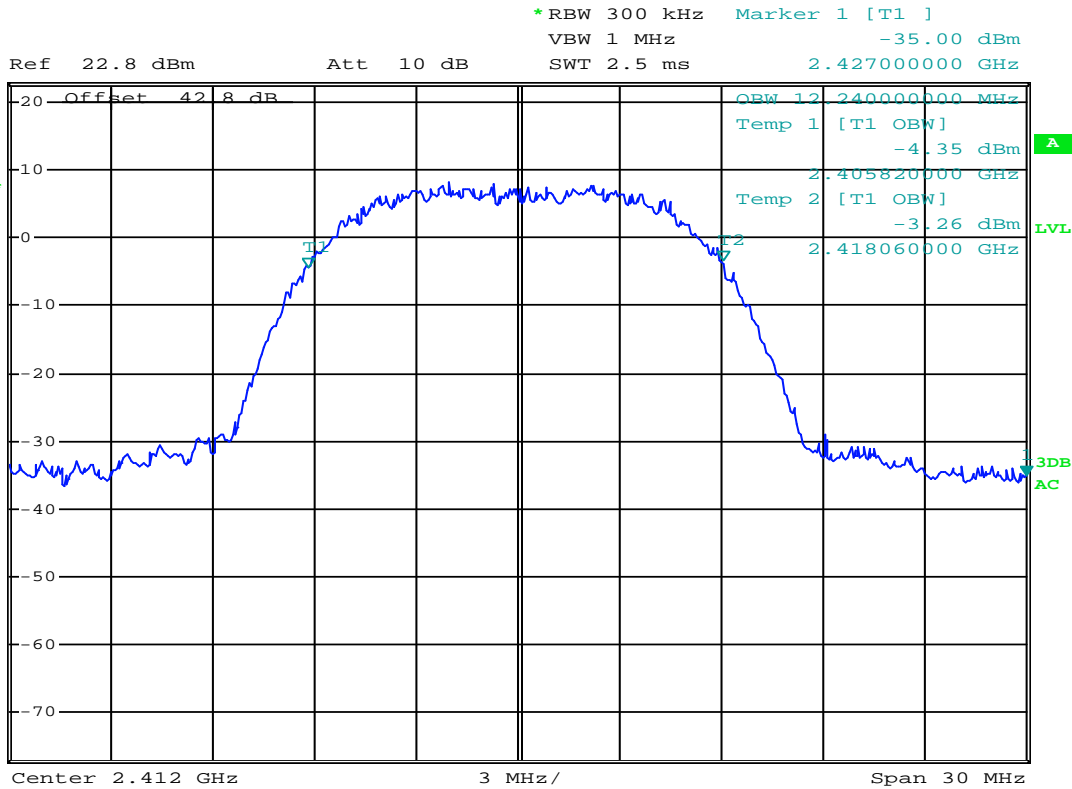
1 PK
MAXH



Date: 7.JAN.2016 10:58:14

FCC 15C 15.247 DTS Bandwidth

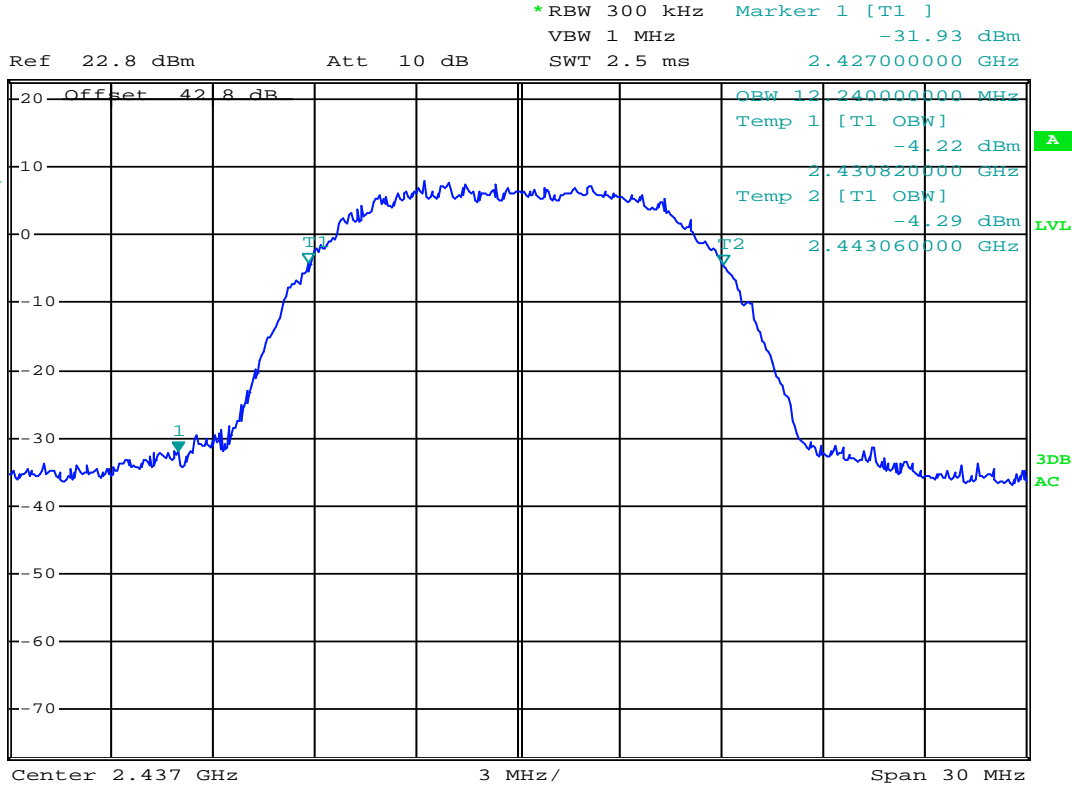
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : PEAK detector
 NOTES : 802.11 n 40 MHz
 NOTES : 15 Mbps
 NOTES : ANT1



Date: 13.JAN.2016 20:41:45

FCC 15C 15.247 / OBW

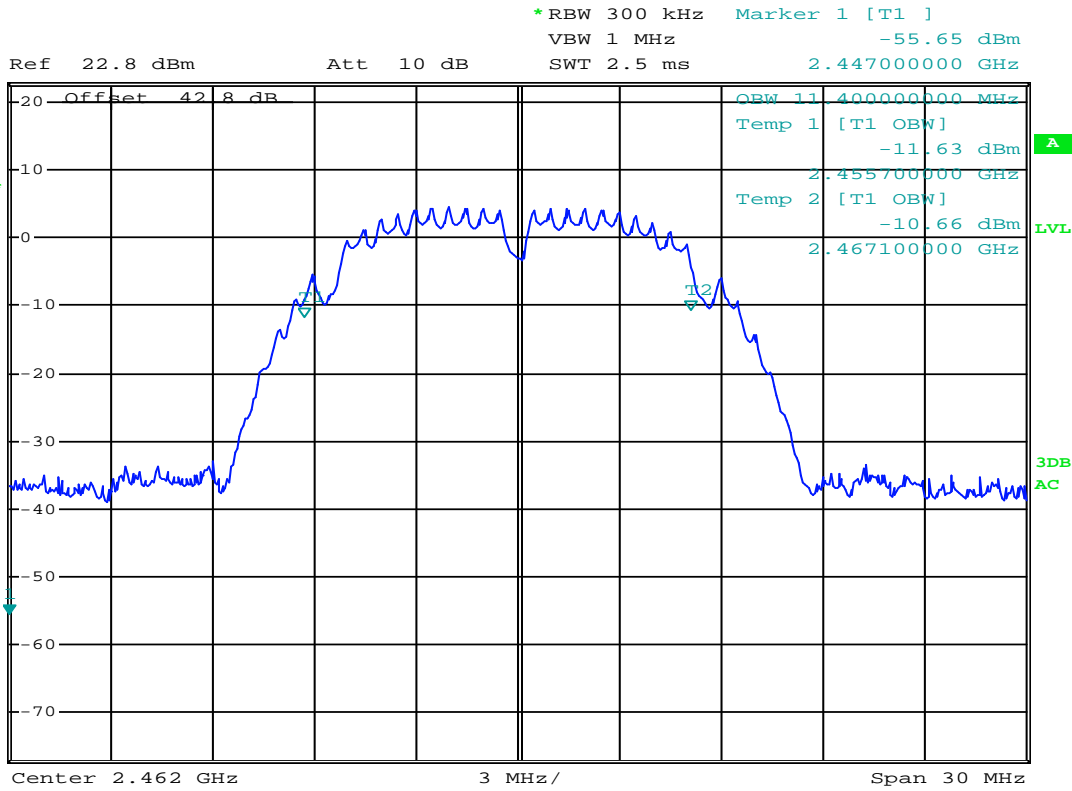
MANUFACTURER : HeathCo LLC.
MODEL NUMBER : NOTIFI
TEST MODE : Tx @ LOW CHANNEL
 : PEAK detector
NOTES : 802.11 b 20 MHz
NOTES : 11Mbps
NOTES : D1 is the 8dBm limit
NOTES :



Date: 13.JAN.2016 20:44:46

FCC 15C 15.247 / OBW

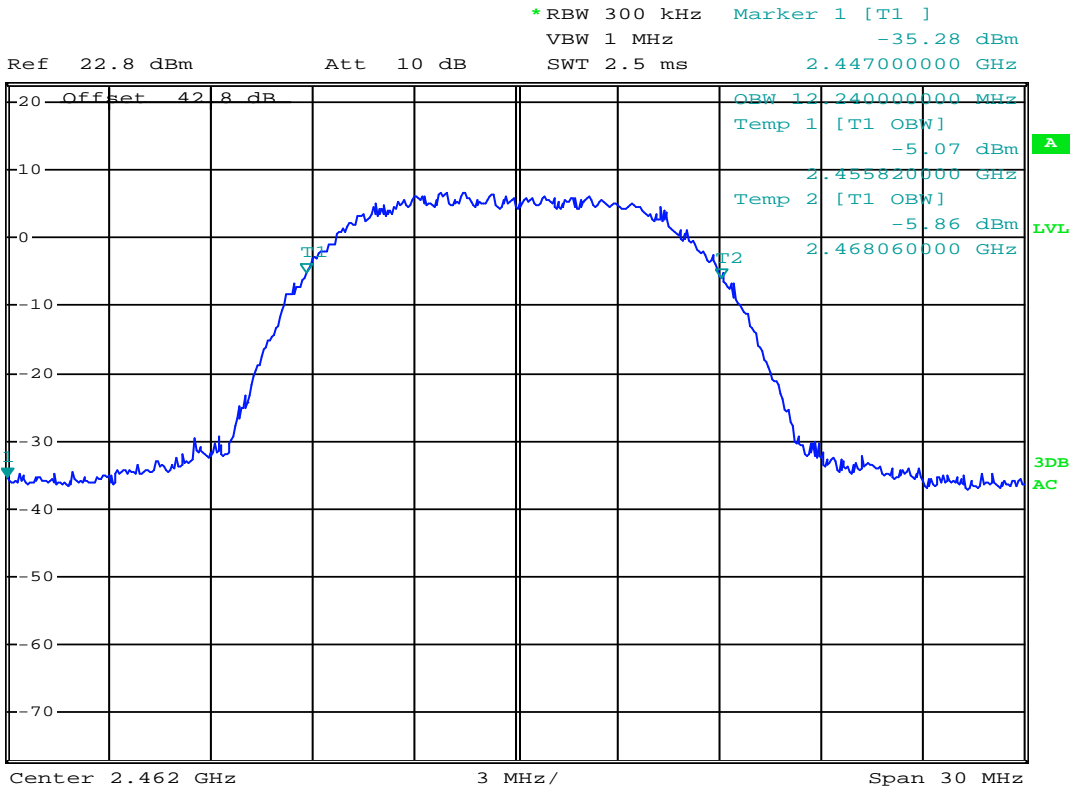
MANUFACTURER : HeathCo LLC.
MODEL NUMBER : NOTIFI
TEST MODE : Tx @ MID CHANNEL
 : PEAK detector
NOTES : 802.11 b 20 MHz
NOTES : 11Mbps
NOTES :
NOTES :



Date: 13.JAN.2016 20:46:10

FCC 15C 15.247 / OBW

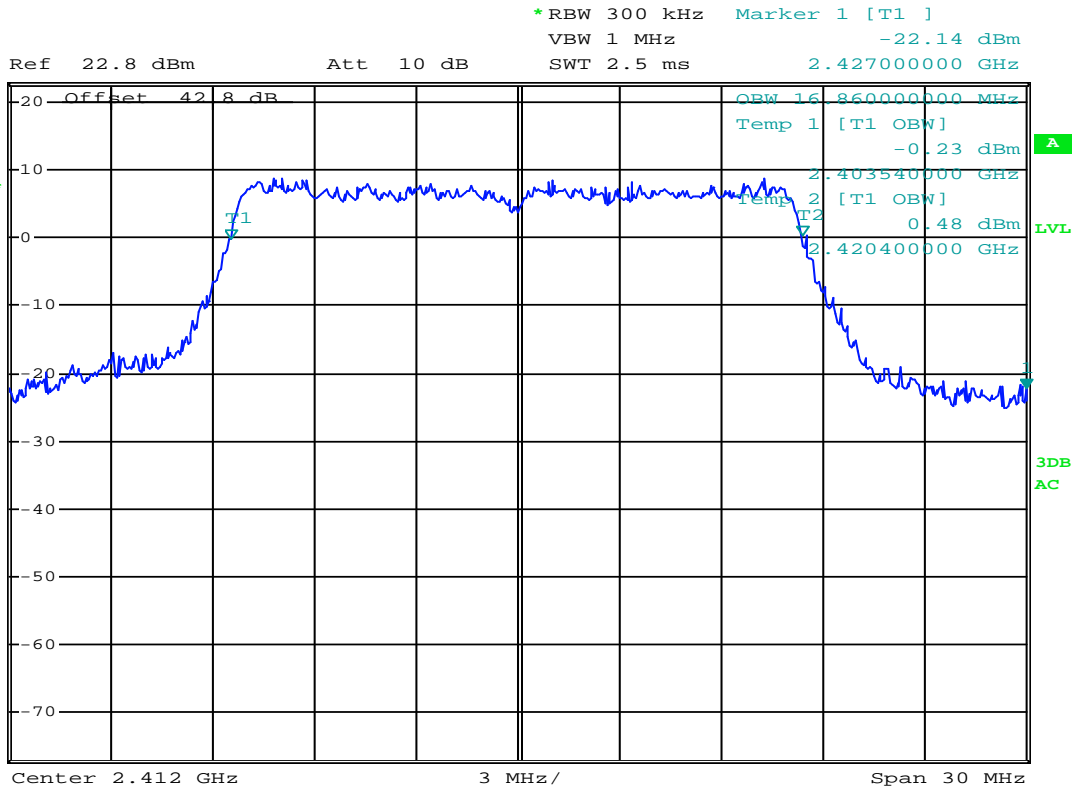
MANUFACTURER : HeathCo LLC.
MODEL NUMBER : NOTIFI
TEST MODE : Tx @ HIGH CHANNEL
 : PEAK detector
NOTES : 802.11 b 20 MHz
NOTES : 1Mbps
NOTES :
NOTES :



Date: 13.JAN.2016 20:48:12

FCC 15C 15.247 / OBW

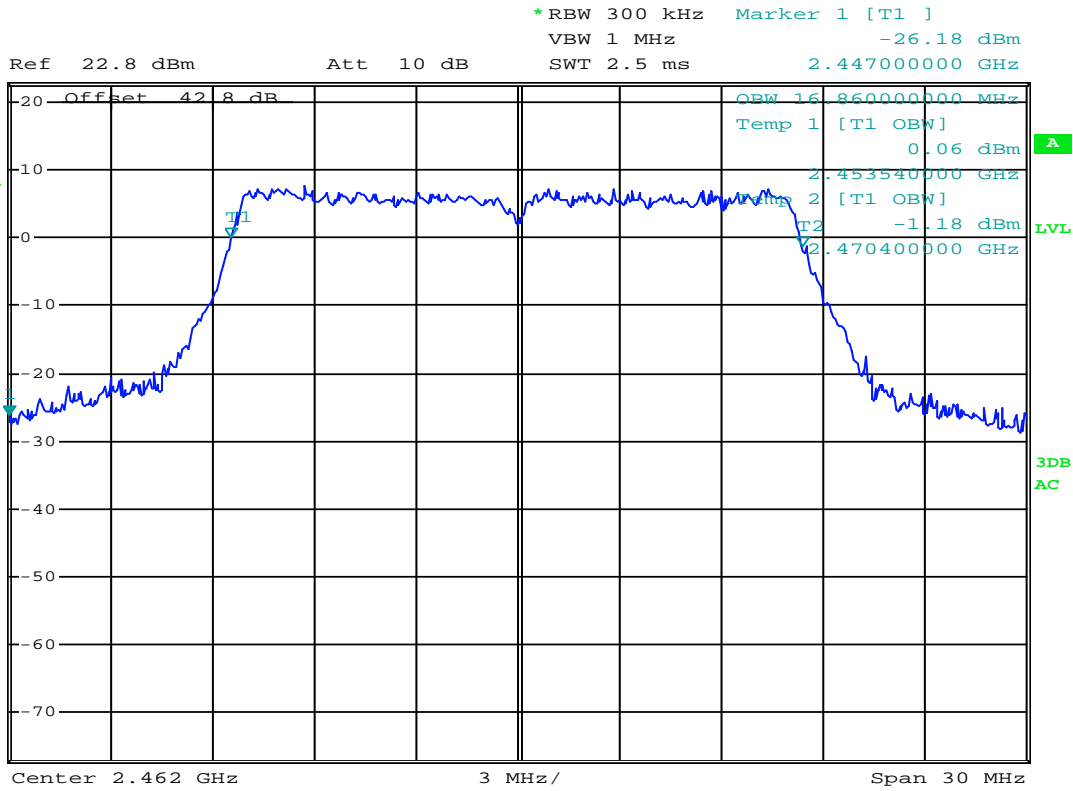
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : PEAK detector
 NOTES : 802.11 b 20 MHz
 NOTES : 11Mbps
 NOTES :
 NOTES :



Date: 13.JAN.2016 20:51:50

FCC 15C 15.247 / OBW

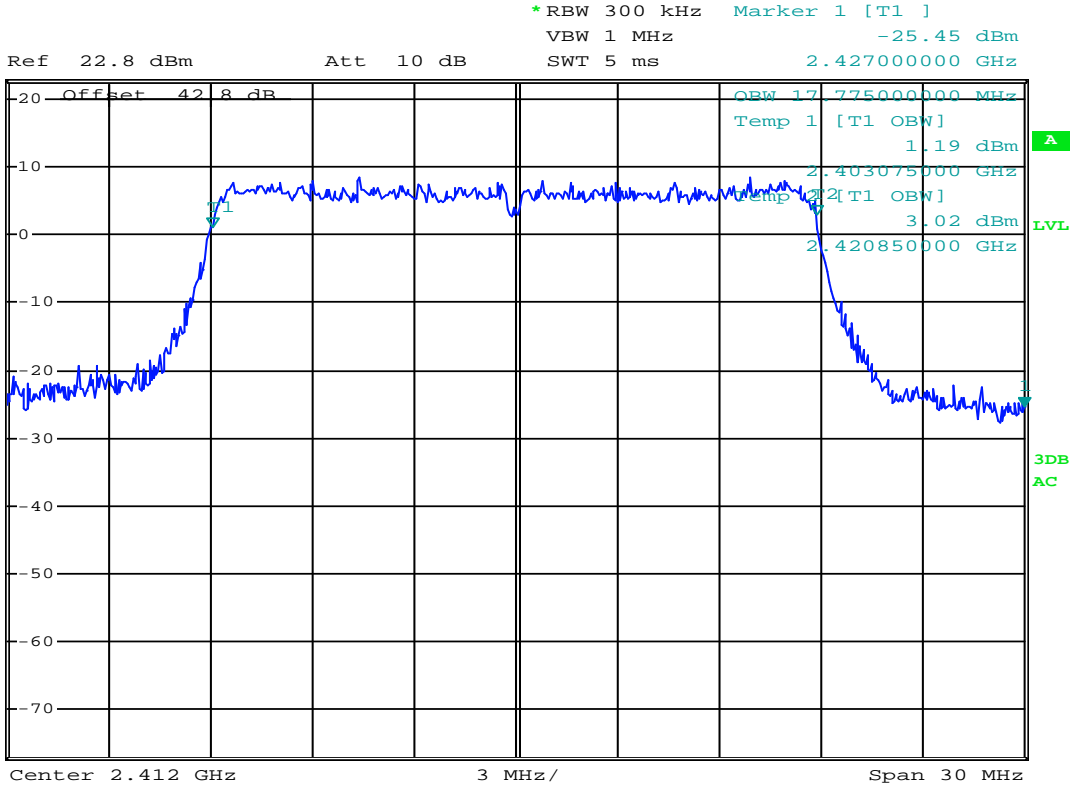
MANUFACTURER : HeathCo LLC.
MODEL NUMBER : NOTIFI
TEST MODE : Tx @ LOW CHANNEL
: PEAK detector
NOTES : 802.11 g 20 MHz
NOTES : 18Mbps
NOTES :
NOTES :



Date: 13.JAN.2016 20:57:32

FCC 15C 15.247 / OBW

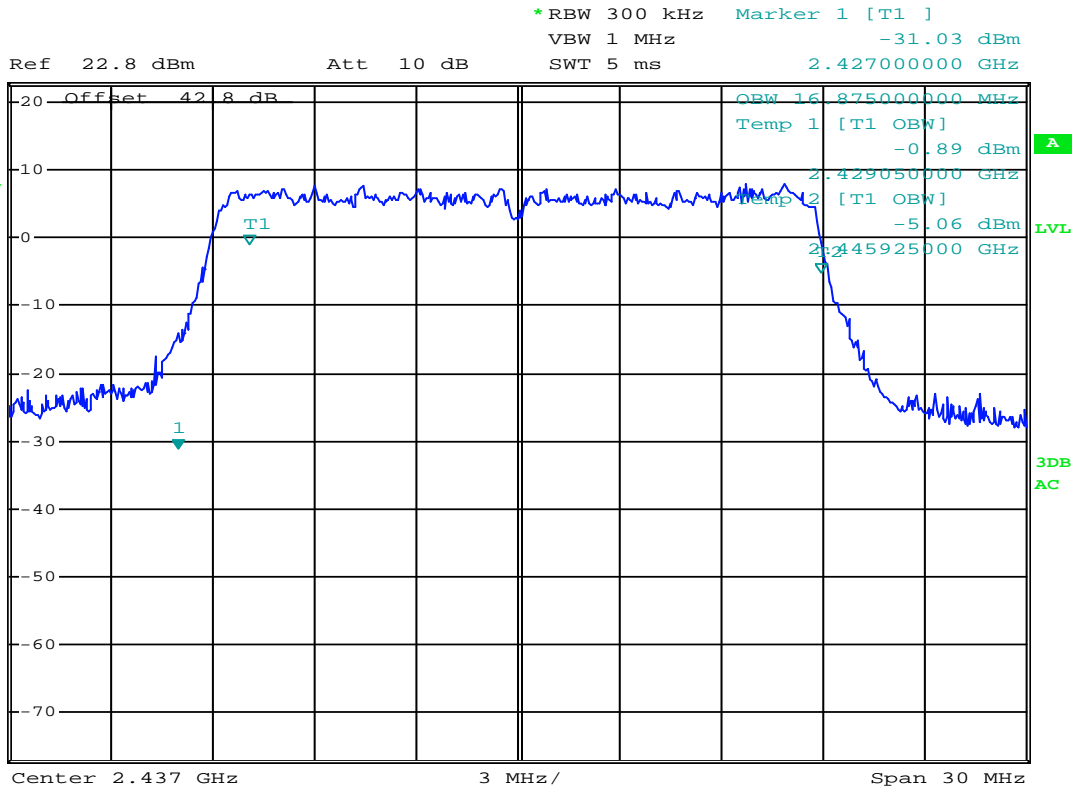
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : PEAK detector
 NOTES : 802.11 g 20 MHz
 NOTES : 18Mbps
 NOTES :
 NOTES :



Date: 13.JAN.2016 21:02:29

FCC 15C 15.247 / OBW

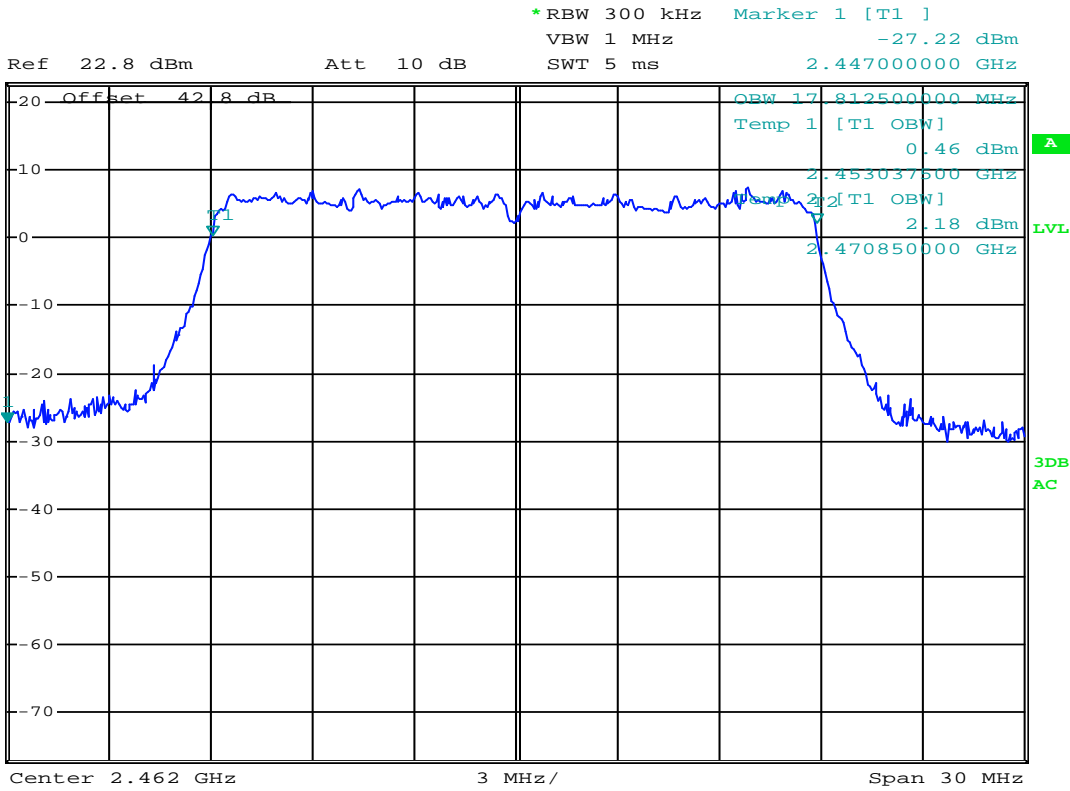
MANUFACTURER : HeathCo LLC.
MODEL NUMBER : NOTIFI
TEST MODE : Tx @ LOW CHANNEL
: PEAK detector
NOTES : 802.11 n 20 MHz
NOTES : 18Mbps
NOTES :
NOTES :



Date: 13.JAN.2016 21:05:28

FCC 15C 15.247 / OBW

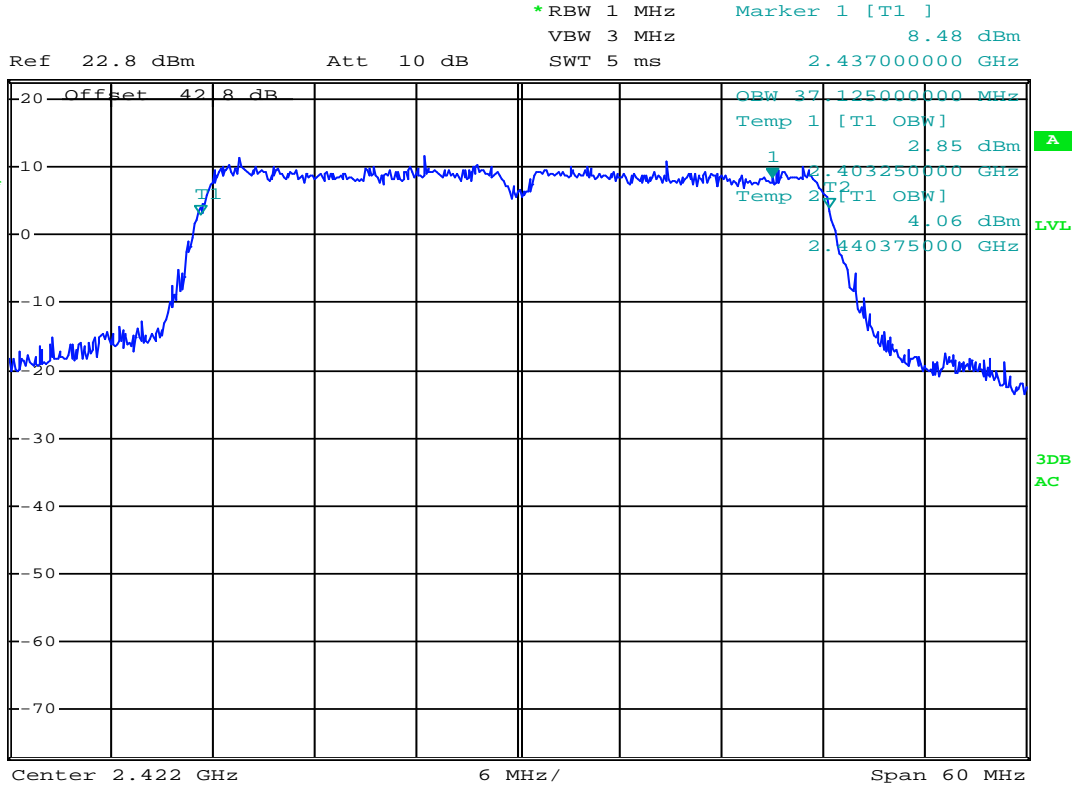
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : PEAK detector
 NOTES : 802.11 n 20 MHz
 NOTES : 18Mbps
 NOTES :
 NOTES :



Date: 13.JAN.2016 21:09:38

FCC 15C 15.247 / OBW

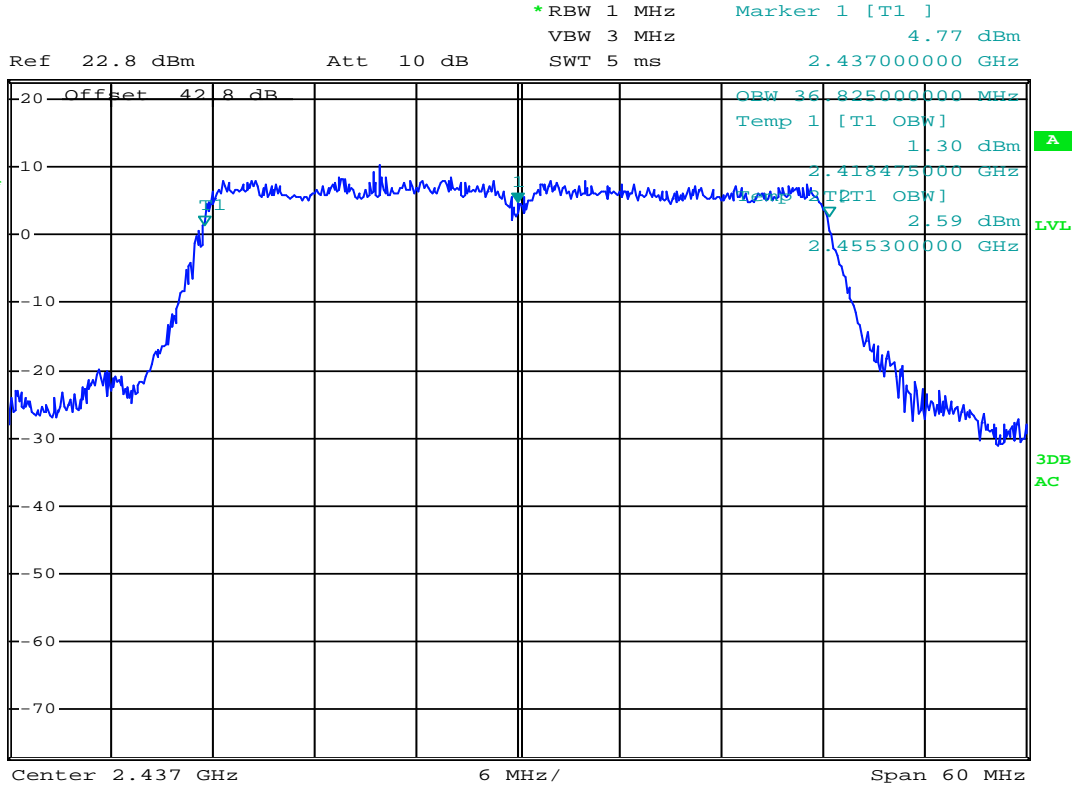
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : PEAK detector
 NOTES : 802.11 n 20 MHz
 NOTES : 28.9Mbps
 NOTES :
 NOTES :



Date: 13.JAN.2016 21:15:16

FCC 15C 15.247 / OBW

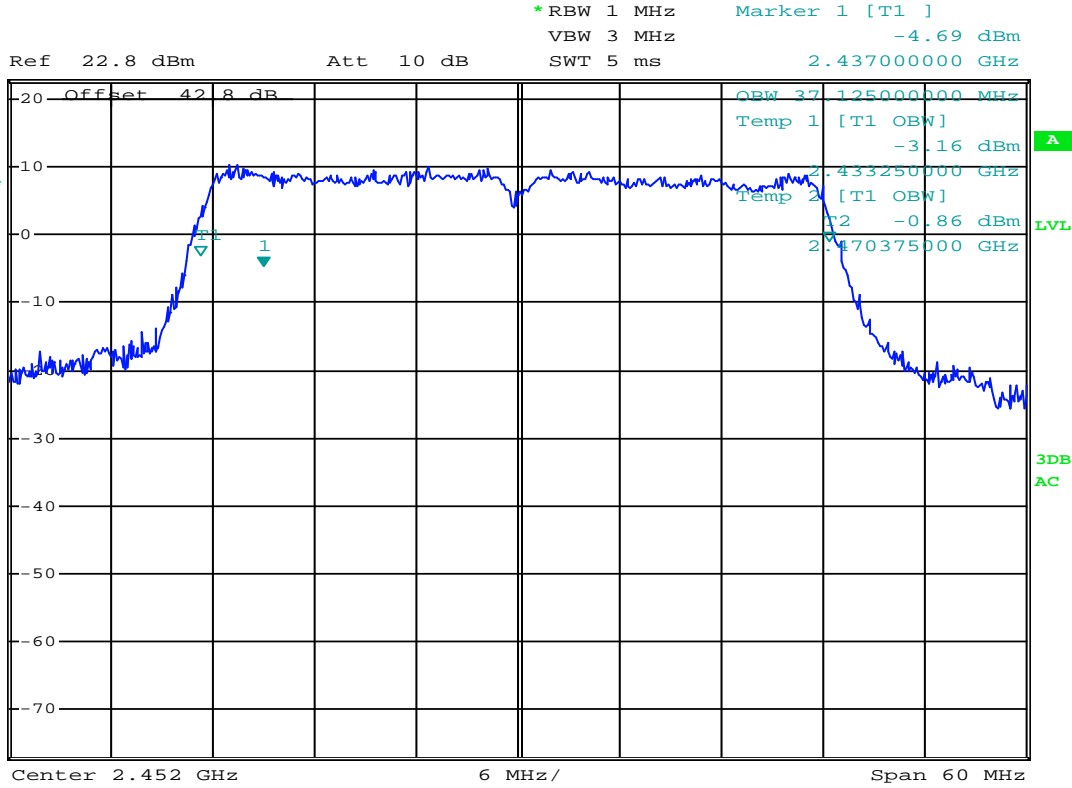
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : PEAK detector
 NOTES : 802.11 n 40 MHz
 NOTES : 60Mbps
 NOTES :
 NOTES :



Date: 13.JAN.2016 21:18:12

FCC 15C 15.247 / OBW

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



Date: 13.JAN.2016 21:21:08

FCC 15C 15.247 / OBW

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



MANUFACTURER : HeathCo LLC
MODEL NUMBER : NOTIFI
SERIAL NUMBER : 9C84
TEST PERFORMED : Maximum conducted (average) output power
TEST DATE : January 7, 2016
TEST MODE : See below
PROTOCOL : See below
DATA RATE : See below
NOTES :

Frequency MHz	802.11 Standard	Data Rate (Mb/sec)	Maximum Conducted (average) Output Power (dBm)	Maximum Conducted (average) Output Power Limit (dBm)
2412	b	1	19.49	30.00
		2	19.8	30.00
		5.5	20.8	30.00
		11	20.9	30.00
2437	b	1	18.07	30.00
		2	18.44	30.00
		5.5	19.51	30.00
		11	19.67	30.00
2462	b	1	17.49	30.00
		2	18.09	30.00
		5.5	19.05	30.00
		11	19.14	30.00

Checked BY RICHARD E. KING :

Richard E. King



MANUFACTURER : HeathCo LLC
MODEL NUMBER : NOTIFI
SERIAL NUMBER : 9C84
TEST PERFORMED : EIRP
TEST DATE : January 7, 2016
TEST MODE : See below
PROTOCOL : See below
DATA RATE : See below
NOTES :

Frequency MHz	802.11 Standard	Data Rate (Mb/sec)	Maximum Conducted (average) Output Power (dBm)	Antenna Gain (dB)	EIRP (dBm)	EIRP (Watts)	EIRP Limit (dBm)	EIRP Limit (Watts)
2412	b	1	19.49	-0.7	18.79	0.08	36	4
		2	19.8	-0.7	19.1	0.08	36	4
		5.5	20.8	-0.7	20.1	0.10	36	4
		11	20.9	-0.7	20.2	0.10	36	4
2437	b	1	18.07	0.3	18.37	0.07	36	4
		2	18.44	0.3	18.74	0.07	36	4
		5.5	19.51	0.3	19.81	0.10	36	4
		11	19.67	0.3	19.97	0.10	36	4
2462	b	1	17.49	0.6	18.09	0.06	36	4
		2	18.09	0.6	18.69	0.07	36	4
		5.5	19.05	0.6	19.65	0.09	36	4
		11	19.14	0.6	19.74	0.09	36	4

Checked BY Richard E. King :

Richard E. King



MANUFACTURER : HeathCo LLC
 MODEL NUMBER : NOTIFI
 SERIAL NUMBER : 9C84
 TEST PERFORMED : Maximum Peak Conducted Output Power
 TEST DATE : January 7, 2016
 TEST MODE : See below
 PROTOCOL : See below
 DATA RATE : See below
 NOTES :

Frequency MHz	802.11 Standard	Data Rate (Mb/sec)	Maximum Conducted (average) Output Power (dBm)	Maximum Conducted (average) Output Power Limit (dBm)
2412	g	6	17.3	30.00
		9	17.4	30.00
		12	17.82	30.00
		18	17.92	30.00
		24	15.43	30.00
		36	15.52	30.00
		48	13.64	30.00
		54	13.56	30.00
2437	g	6	20.45	30.00
		9	20.54	30.00
		12	20.55	30.00
		18	21.09	30.00
		24	18.89	30.00
		36	18.74	30.00
		48	16.64	30.00
		54	16.97	30.00
2462	g	6	20.05	30.00
		9	20.05	30.00
		12	20.07	30.00
		18	20.22	30.00
		24	18.05	30.00
		36	18.04	30.00
		48	16.22	30.00
		54	16.33	30.00

Checked BY *RICHARD E. KING* :

Richard E. King



MANUFACTURER : HeathCo LLC
 MODEL NUMBER : NOTIFI
 SERIAL NUMBER : 9C84
 TEST PERFORMED : EIRP
 TEST DATE : January 7, 2016
 TEST MODE : See below
 PROTOCOL : See below
 DATA RATE : See below
 NOTES :

Frequency MHz	802.11 Standard	Data Rate (Mb/sec)	Maximum Conducted (average) Output Power (dBm)	Antenna Gain (dB)	EIRP (dBm)	EIRP (Watts)	EIRP Limit (dBm)	EIRP Limit (Watts)
2412	g	6	17.30	-0.7	16.6	0.046	36	4
		9	17.40	-0.7	16.7	0.047	36	4
		12	17.82	-0.7	17.1	0.052	36	4
		18	17.92	-0.7	17.2	0.053	36	4
		24	15.43	-0.7	14.7	0.030	36	4
		36	15.52	-0.7	14.8	0.030	36	4
		48	13.64	-0.7	12.9	0.020	36	4
		54	13.56	-0.7	12.9	0.019	36	4
2437	g	6	20.45	0.3	20.8	0.119	36	4
		9	20.54	0.3	20.8	0.121	36	4
		12	20.55	0.3	20.9	0.122	36	4
		18	21.09	0.3	21.4	0.138	36	4
		24	18.89	0.3	19.2	0.083	36	4
		36	18.74	0.3	19.0	0.080	36	4
		48	16.64	0.3	16.9	0.049	36	4
		54	16.97	0.3	17.3	0.053	36	4
2462	g	6	20.05	0.6	20.7	0.116	36	4
		9	20.05	0.6	20.7	0.116	36	4
		12	20.05	0.6	20.7	0.116	36	4
		18	20.22	0.6	20.8	0.121	36	4
		24	18.05	0.6	18.7	0.073	36	4
		36	18.04	0.6	18.6	0.073	36	4
		48	16.22	0.6	16.8	0.048	36	4
		54	16.33	0.6	16.9	0.049	36	4

Checked BY RICHARD E. KING :

Richard E. King



MANUFACTURER : HeathCo LLC
 MODEL NUMBER : NOTIFI
 SERIAL NUMBER : 9C84
 TEST PERFORMED : Maximum Peak Conducted Output Power
 TEST DATE : January 7, 2016
 TEST MODE : See below
 PROTOCOL : See below
 DATA RATE : See below
 NOTES : 20MHz

Frequency MHz	802.11 Standard	Data Rate (Mb/sec)	Maximum Conducted (average) Output Power (dBm)		Maximum Conducted (average) Output Power Limit (dBm)
			ANT0	ANT1	
2412	n	7.2	17.34	16.38	30.00
		14.4	17.26	16.02	30.00
		21.7	17.29	16.21	30.00
		28.9	17.73	16.74	30.00
		43.3	15.46	14.21	30.00
		57.8	15.46	14.57	30.00
		65	13.88	12.8	30.00
		72.2	13.95	13.2	30.00
2437	n	7.2	16.42	14.92	30.00
		14.4	16.65	15.05	30.00
		21.7	16.83	15.1	30.00
		28.9	17.56	15.65	30.00
		43.3	15.01	13.77	30.00
		57.8	15.07	14.01	30.00
		65	13.47	12.19	30.00
		72.2	13.46	12.15	30.00
2462	n	7.2	16.05	14.03	30.00
		14.4	16.14	14.10	30.00
		21.7	16.16	14.45	30.00
		28.9	16.75	15.27	30.00
		43.3	14.32	13.77	30.00
		57.8	14.45	12.38	30.00
		65	12.71	10.86	30.00
		72.2	12.70	10.85	30.00

Checked BY RICHARD E. KING :

Richard E. King



MANUFACTURER : HeathCo LLC
 MODEL NUMBER : NOTIFI
 SERIAL NUMBER : 9C84
 TEST PERFORMED : EIRP
 TEST DATE : January 7, 2016
 TEST MODE : See below
 PROTOCOL : See below
 DATA RATE : See below
 NOTES : 20MHz

Frequency MHz	802.11 Standard	Data Rate (Mb/sec)	Maximum Conducted (average) Output Power (dBm)		Antenna Gain (dB)	EIRP (dBm)		EIRP (Watts)		EIRP Limit (dBm)	EIRP Limit (Watts)
			ANT0	ANT1		ANT0	ANT1	ANT0	ANT1		
2412	n	7.2	17.34	16.38	-0.7	16.64	15.68	0.046	0.037	36	4
		14.4	17.26	16.02	-0.7	16.56	15.32	0.045	0.034	36	4
		21.7	17.29	16.21	-0.7	16.59	15.51	0.046	0.036	36	4
		28.9	17.73	16.74	-0.7	17.03	16.04	0.050	0.040	36	4
		43.3	15.46	14.21	-0.7	14.76	13.51	0.030	0.022	36	4
		57.8	15.46	14.57	-0.7	14.76	13.87	0.030	0.024	36	4
		65	13.88	12.8	-0.7	13.18	12.1	0.021	0.016	36	4
		72.2	13.95	13.2	-0.7	13.25	12.5	0.021	0.018	36	4
2437	n	7.2	16.42	14.92	0.3	16.72	15.22	0.047	0.033	36	4
		14.4	16.65	15.05	0.3	16.95	15.35	0.050	0.034	36	4
		21.7	16.83	15.1	0.3	17.13	15.4	0.052	0.035	36	4
		28.9	17.56	15.65	0.3	17.86	15.95	0.061	0.039	36	4
		43.3	15.01	13.77	0.3	15.31	14.07	0.034	0.026	36	4
		57.8	15.07	14.01	0.3	15.37	14.31	0.034	0.027	36	4
		65	13.47	12.19	0.3	13.77	12.49	0.024	0.018	36	4
		72.2	13.46	12.15	0.3	13.76	12.45	0.024	0.018	36	4
2462	n	7.2	16.05	14.03	0.6	16.65	14.63	0.046	0.029	36	4
		14.4	16.14	14.1	0.6	16.74	14.7	0.047	0.030	36	4
		21.7	16.16	14.45	0.6	16.76	15.05	0.047	0.032	36	4
		28.9	16.75	15.27	0.6	17.35	15.87	0.054	0.039	36	4
		43.3	14.32	13.77	0.6	14.92	14.37	0.031	0.027	36	4
		57.8	14.45	12.38	0.6	15.05	12.98	0.032	0.020	36	4
		65	12.71	10.86	0.6	13.31	11.46	0.021	0.014	36	4
		72.2	12.7	10.85	0.6	13.3	11.45	0.021	0.014	36	4

Checked BY Richard E. King :

Richard E. King



MANUFACTURER : HeathCo LLC
 MODEL NUMBER : NOTIFI
 SERIAL NUMBER : 9C84
 TEST PERFORMED : Maximum Peak Conducted Output Power
 TEST DATE : January 7, 2016
 TEST MODE : See below
 PROTOCOL : See below
 DATA RATE : See below
 NOTES : 40MHz

Frequency MHz	802.11 Standard	Data Rate (Mb/sec)	Maximum Conducted (average) Output Power (dBm)		Maximum Conducted (average) Output Power Limit (dBm)
			ANT0	ANT1	
2422	n	15	15.65	14.6	30.00
		30	15.74	14.76	30.00
		45	15.94	14.99	30.00
		60	16.34	15.33	30.00
		90	14.21	13.05	30.00
		120	14.17	13.0	30.00
		135	12.39	11.2	30.00
2437	n	150	12.38	11.09	30.00
		15	16.09	14.5	30.00
		30	16.16	14.67	30.00
		45	16.28	14.85	30.00
		60	16.3	15.24	30.00
		90	16.72	15.27	30.00
		120	14.46	12.97	30.00
2452	n	135	14.36	12.89	30.00
		150	12.55	11.24	30.00
		15	15.72	14.06	30.00
		30	15.92	14.15	30.00
		45	15.96	14.26	30.00
		60	16.47	14.62	30.00
		90	14.10	12.42	30.00
		120	14.1 9	12.44	30.00
		135	12.33	10.61	30.00
		150	12.40	10.66	30.00

Checked BY *RICHARD E. KING* :

Richard E. King

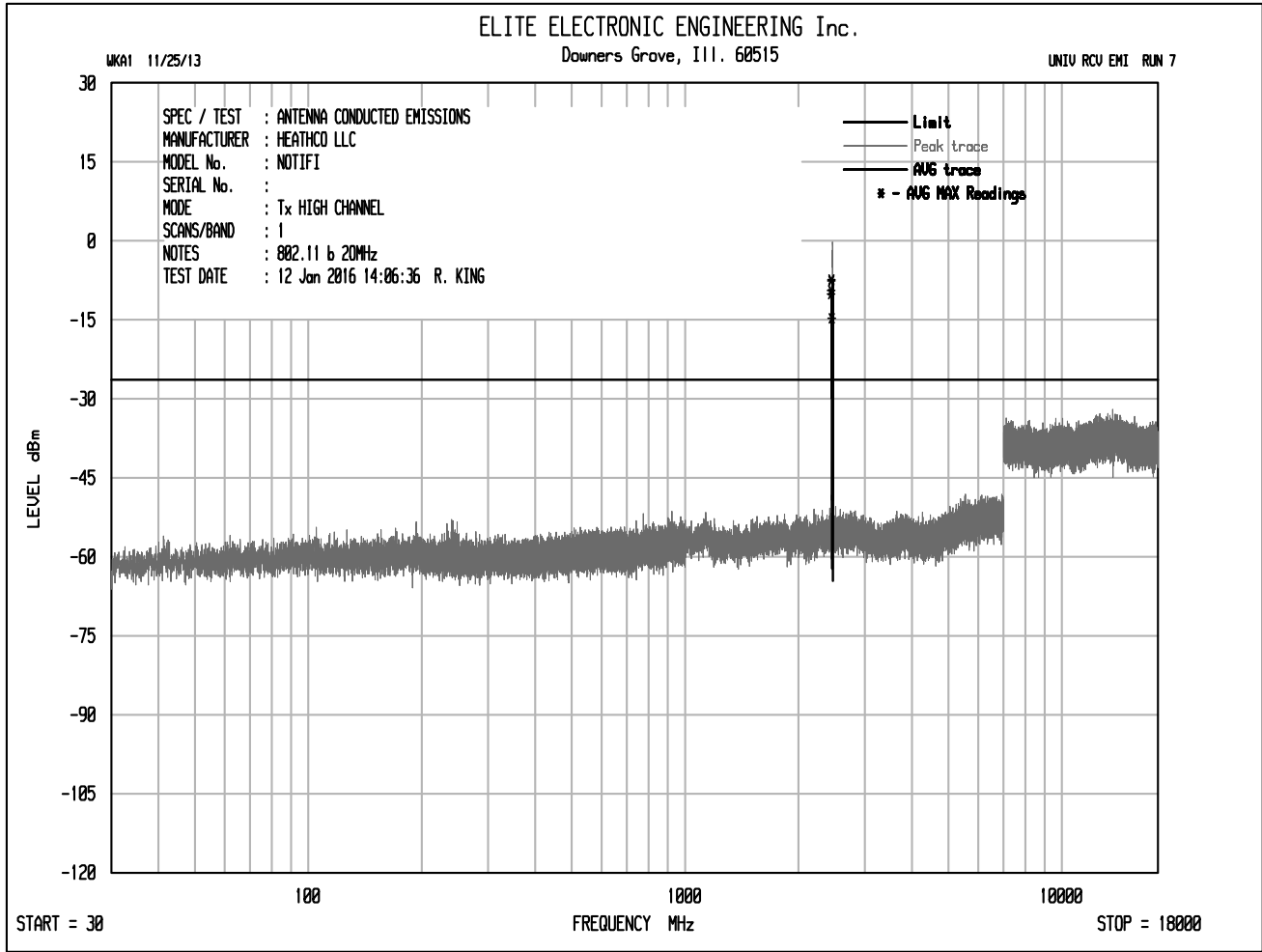


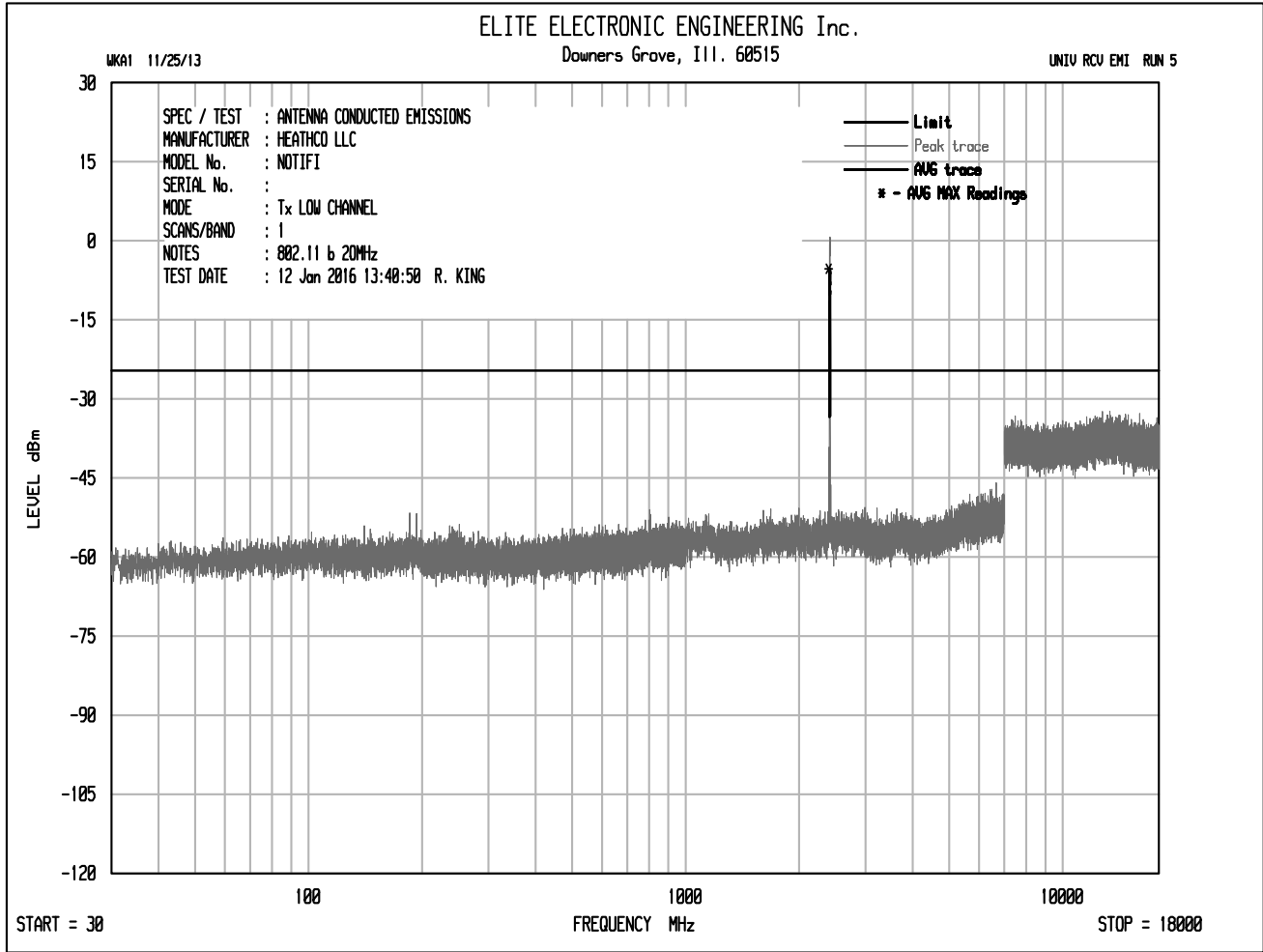
MANUFACTURER : HeathCo LLC
 MODEL NUMBER : NOTIFI
 SERIAL NUMBER : 9C84
 TEST PERFORMED : EIRP
 TEST DATE : January 7, 2016
 TEST MODE : See below
 PROTOCOL : See below
 DATA RATE : See below
 NOTES : 40MHz

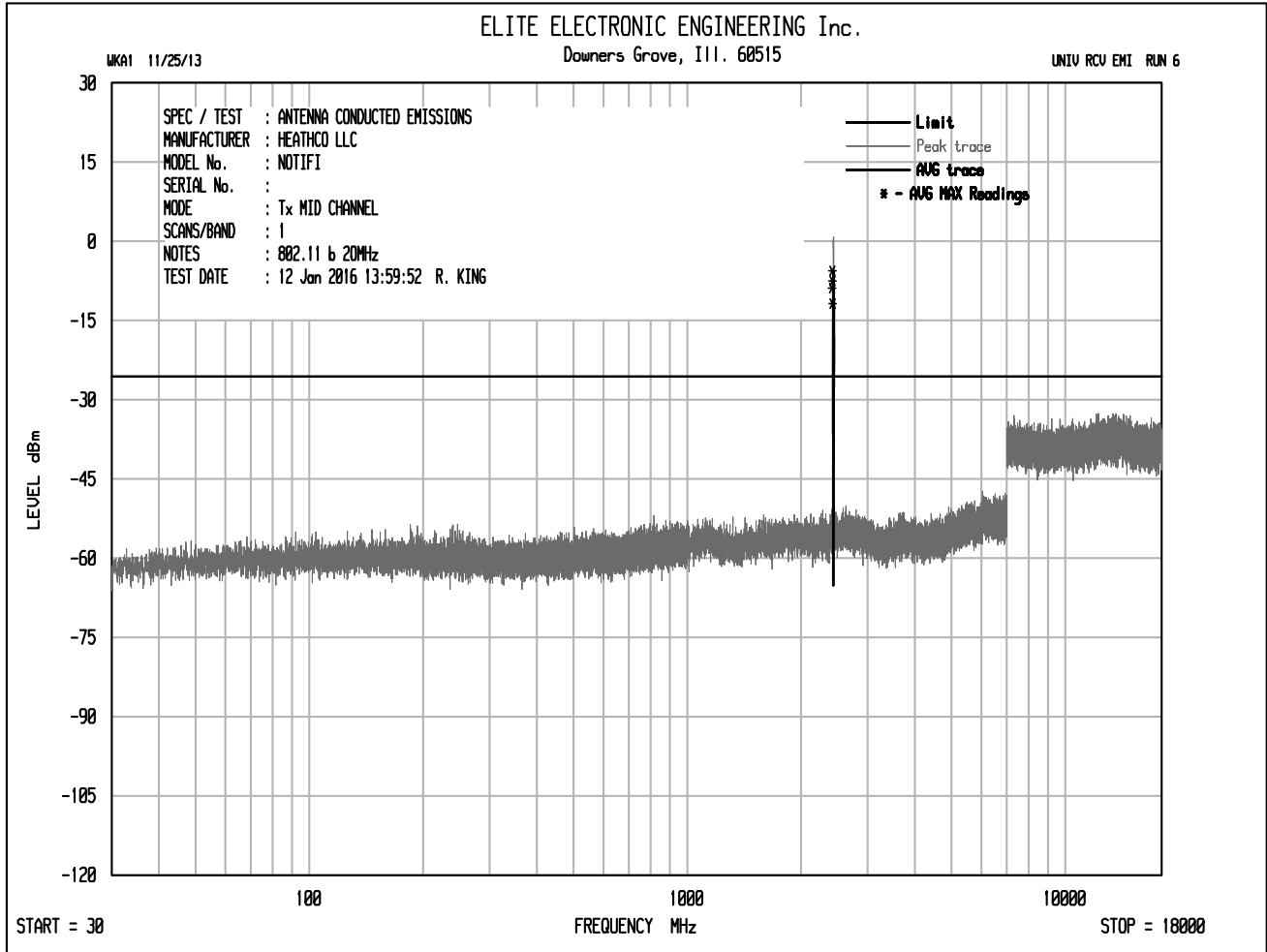
Frequency MHz	802.11 Standard	Data Rate (Mb/sec)	Maximum Conducted (average) Output Power (dBm)		Antenna Gain (dB)	EIRP (dBm)		EIRP (Watts)		EIRP Limit (dBm)	EIRP Limit (Watts)
			ANT0	ANT1		ANT0	ANT1	ANT0	ANT1		
2412	n	15	15.65	14.6	-0.7	14.95	13.9	0.031	0.025	36	4
		30	15.74	14.76	-0.7	15.04	14.06	0.032	0.025	36	4
		45	15.94	14.99	-0.7	15.24	14.29	0.033	0.027	36	4
		60	16.34	15.33	-0.7	15.64	14.63	0.037	0.029	36	4
		90	14.21	13.05	-0.7	13.51	12.35	0.022	0.017	36	4
		120	14.17	13	-0.7	13.47	12.3	0.022	0.017	36	4
		135	12.39	11.2	-0.7	11.69	10.5	0.015	0.011	36	4
2437	n	150	12.38	11.09	-0.7	11.68	10.39	0.015	0.011	36	4
		15	16.09	14.5	0.3	16.39	14.8	0.044	0.030	36	4
		30	16.16	14.67	0.3	16.46	14.97	0.044	0.031	36	4
		45	16.28	14.85	0.3	16.58	15.15	0.045	0.033	36	4
		60	16.3	15.24	0.3	16.6	15.54	0.046	0.036	36	4
		90	16.72	15.27	0.3	17.02	15.57	0.050	0.036	36	4
		120	14.46	12.97	0.3	14.76	13.27	0.030	0.021	36	4
2462	n	135	14.36	12.89	0.3	14.66	13.19	0.029	0.021	36	4
		150	12.55	11.24	0.3	12.85	11.54	0.019	0.014	36	4
		15	15.72	14.06	0.6	16.32	14.66	0.043	0.029	36	4
		30	15.92	14.15	0.6	16.52	14.75	0.045	0.030	36	4
		45	15.96	14.26	0.6	16.56	14.86	0.045	0.031	36	4
		60	16.47	14.62	0.6	17.07	15.22	0.051	0.033	36	4
		90	14.1	12.42	0.6	14.7	13.02	0.030	0.020	36	4
		120	14.19	12.44	0.6	14.79	13.04	0.030	0.020	36	4
		135	12.33	10.61	0.6	12.93	11.21	0.020	0.013	36	4
		150	12.4	10.66	0.6	13	11.26	0.020	0.013	36	4

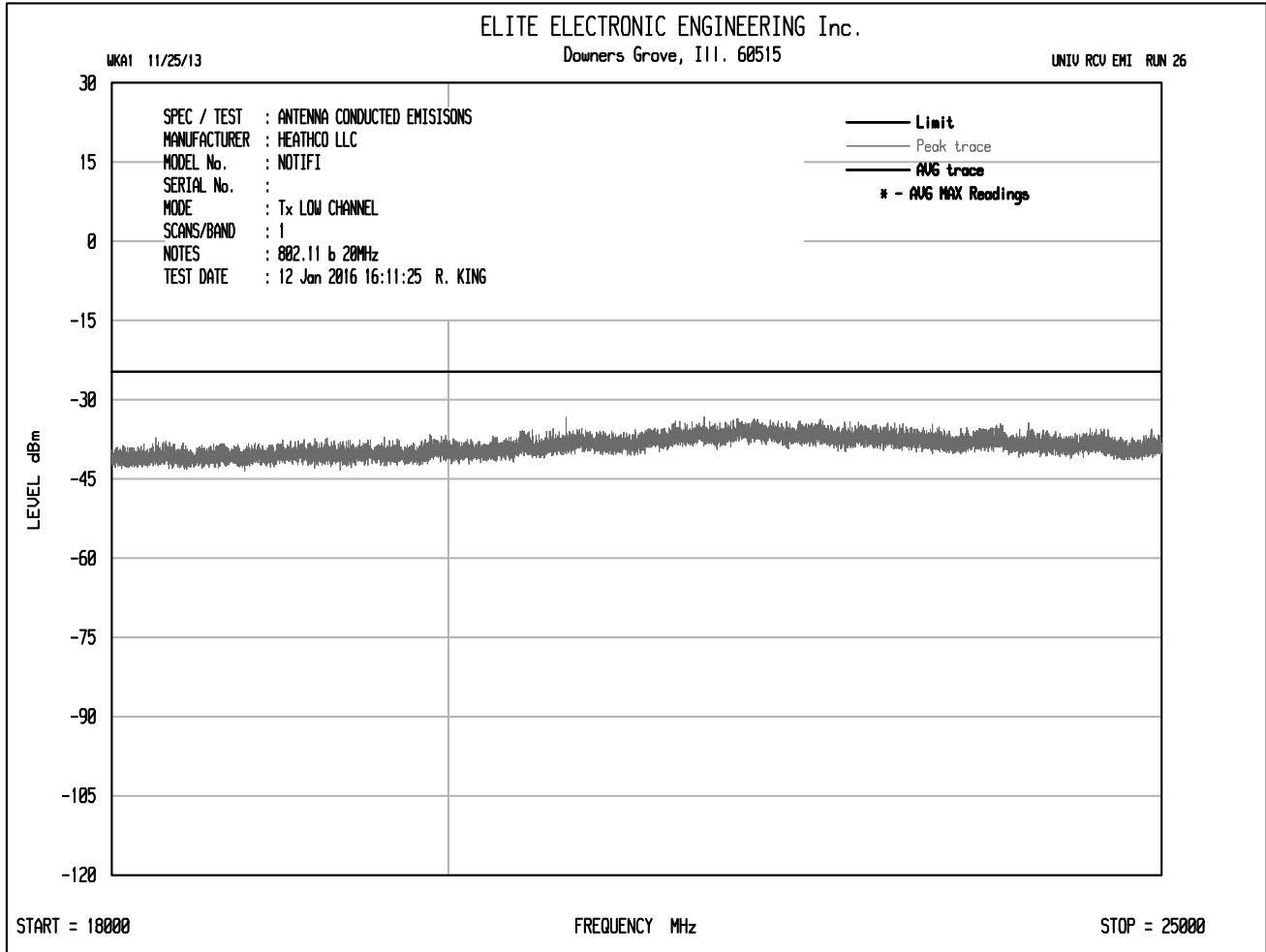
Checked BY *RICHARD E. KING* :

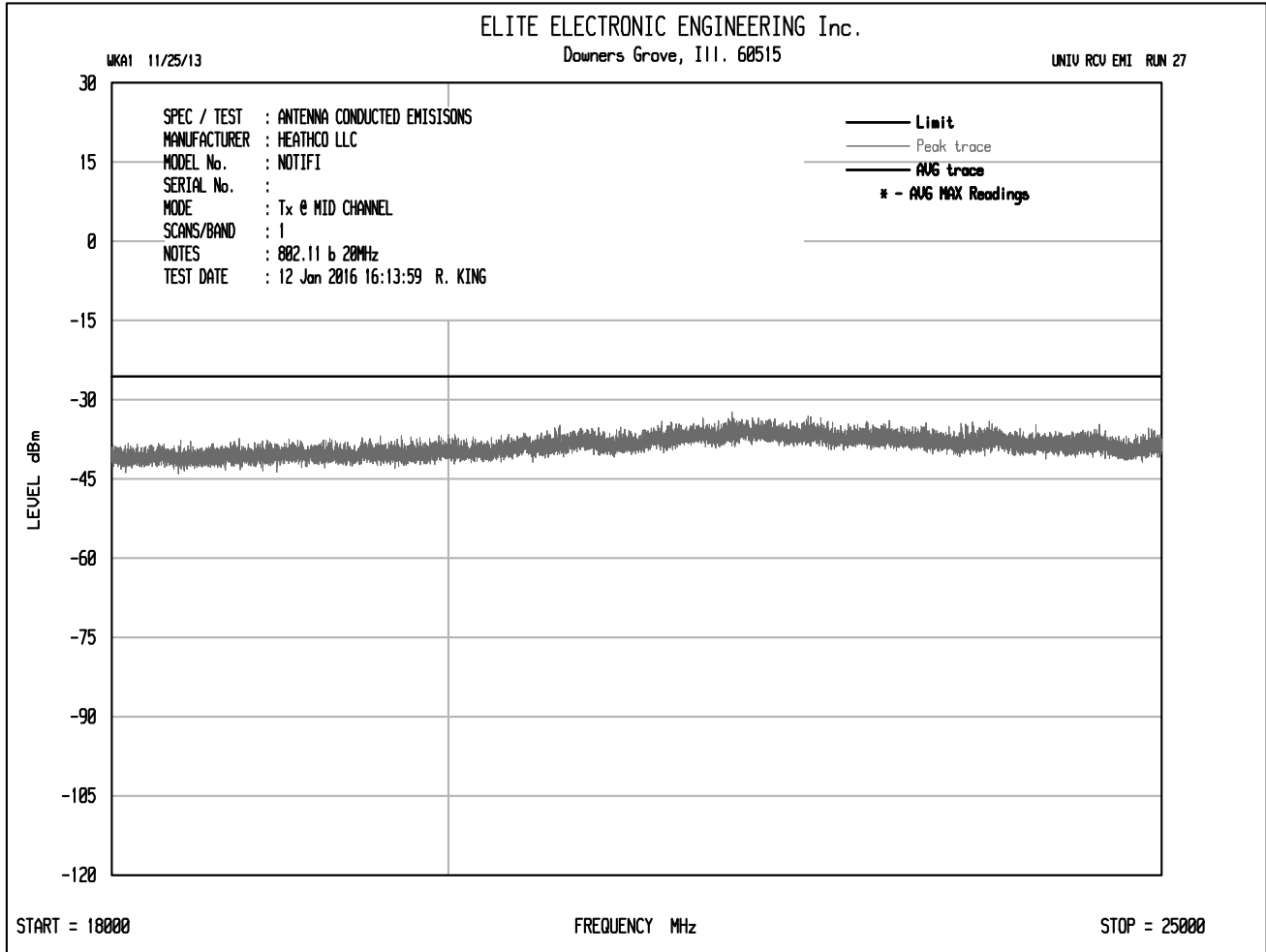
Richard E. King

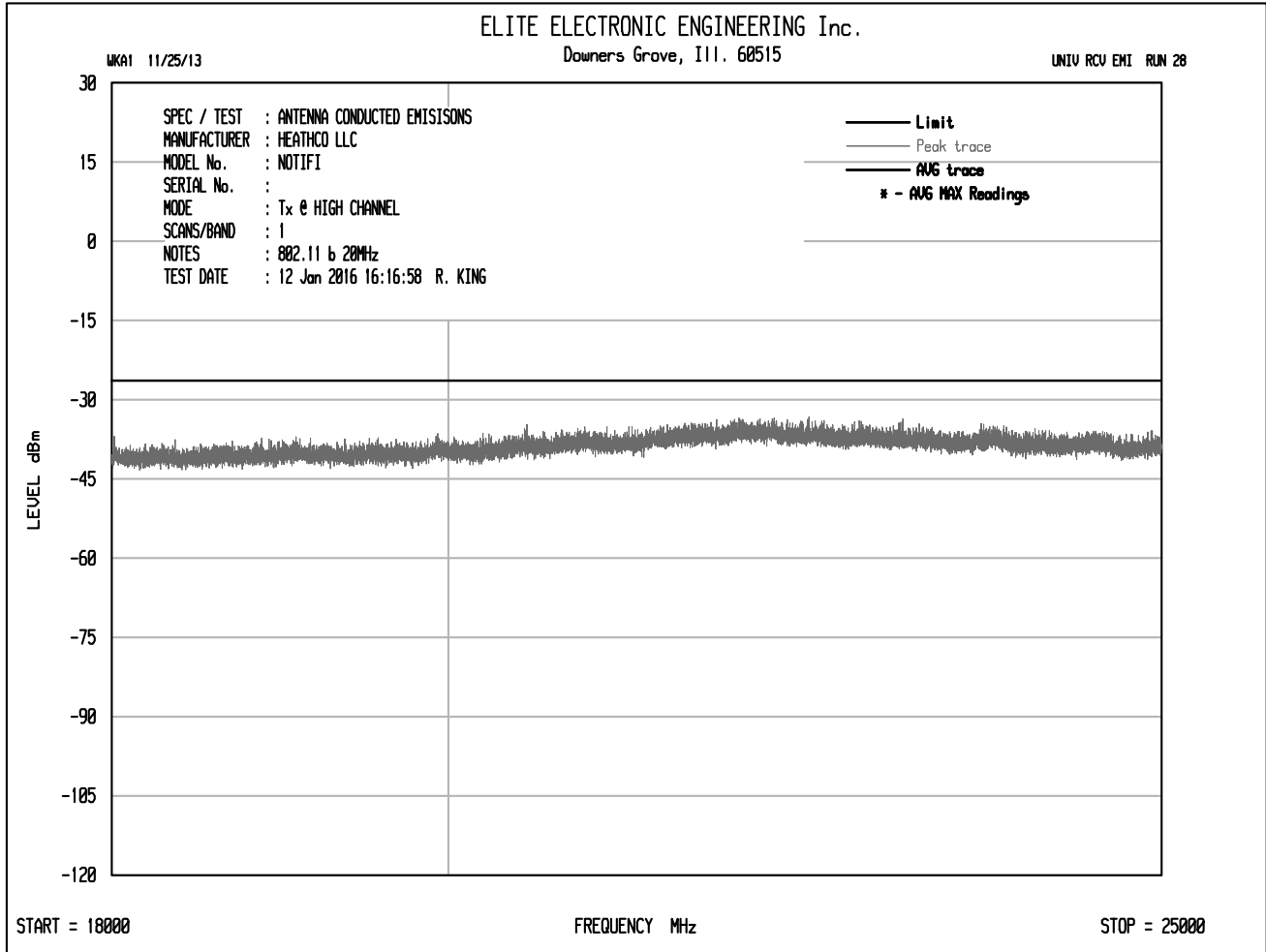


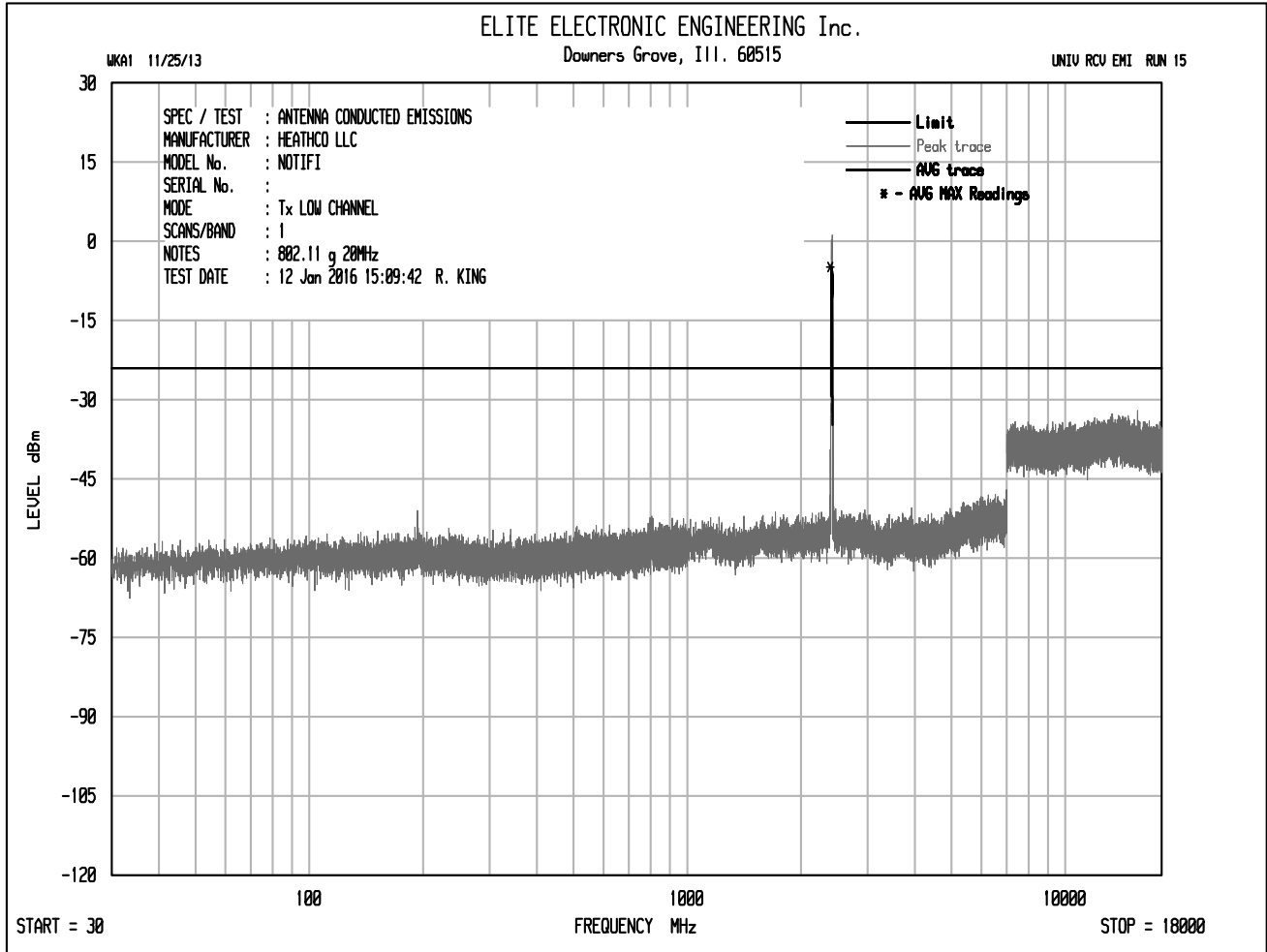


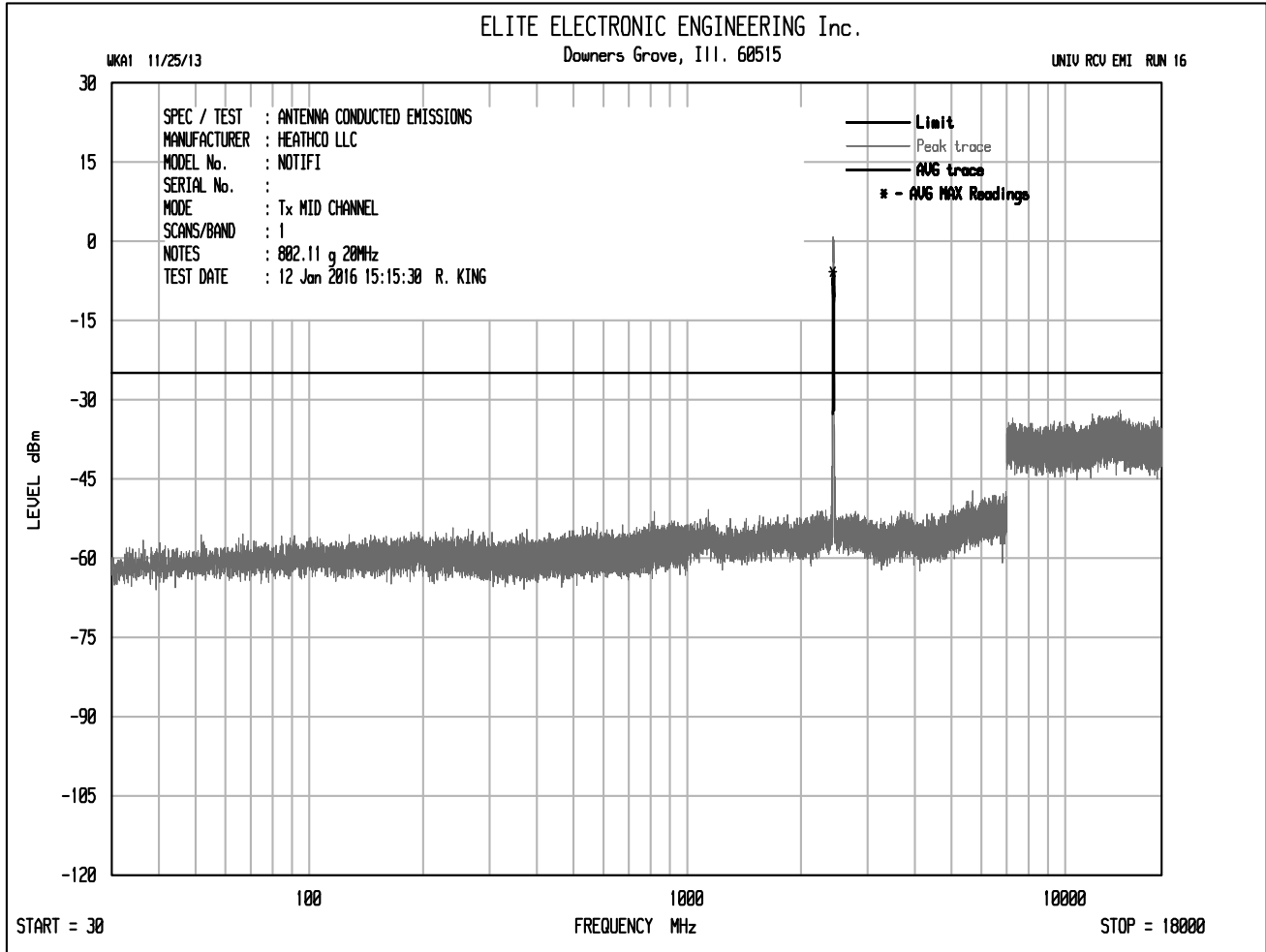


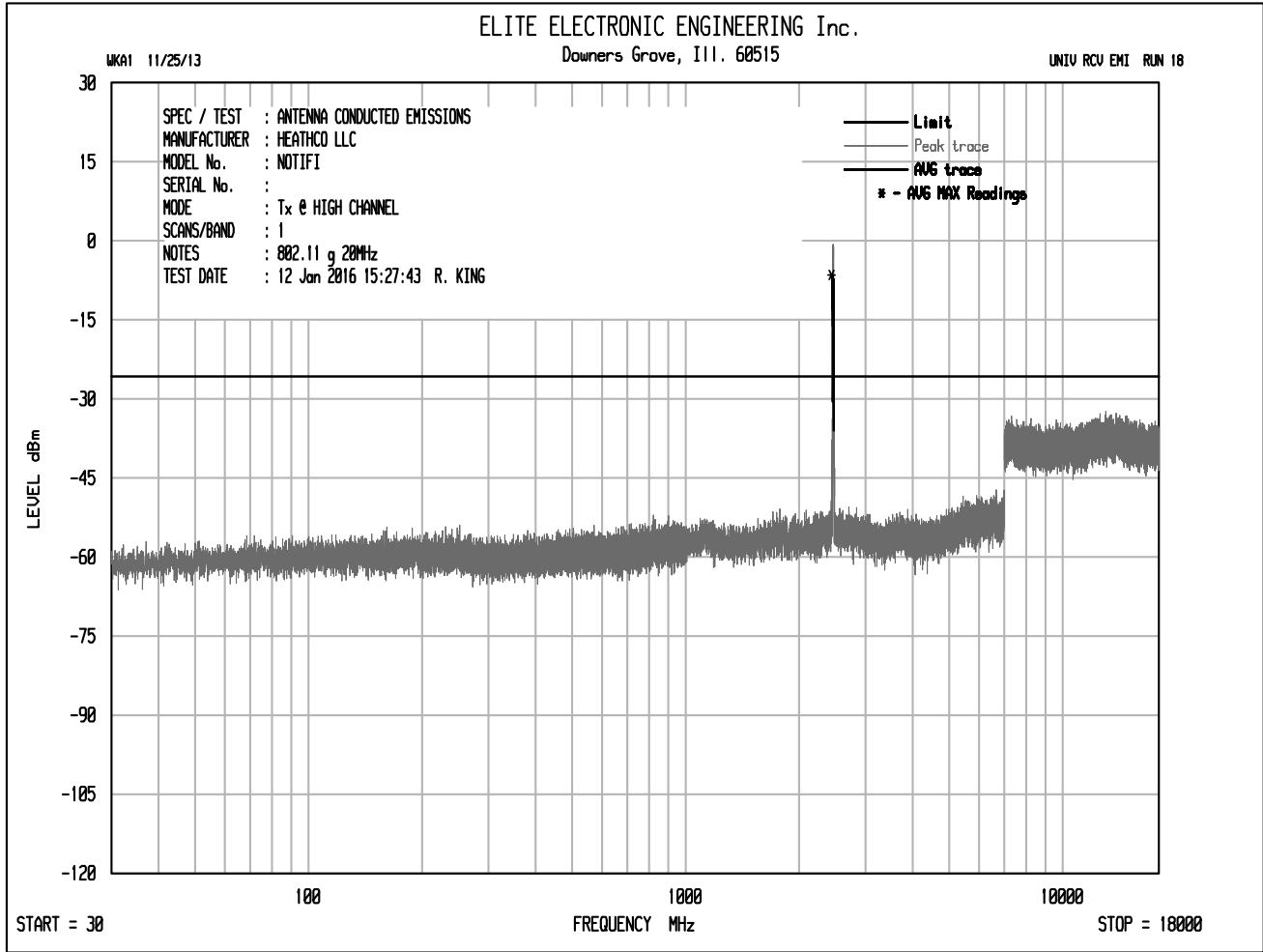


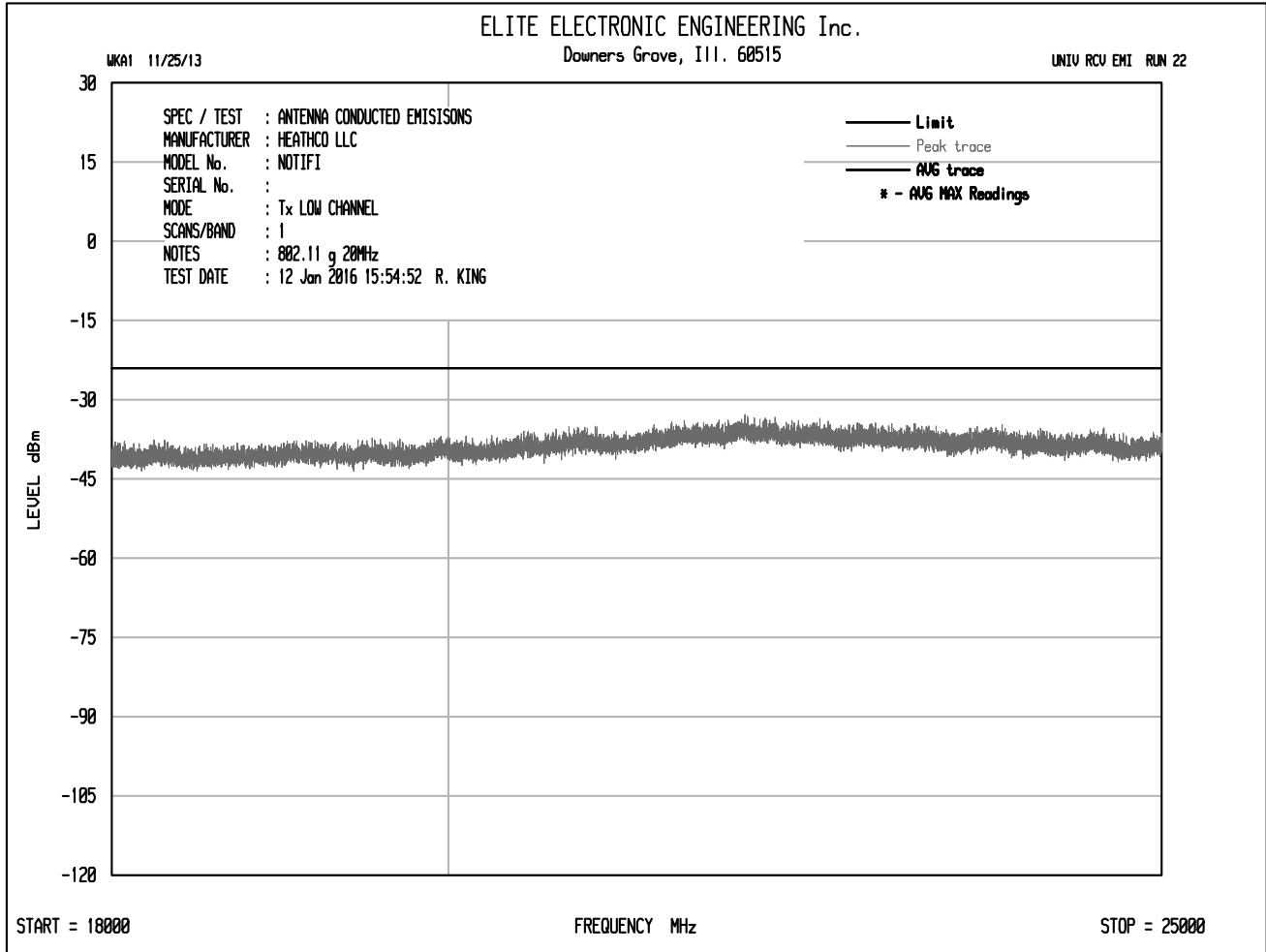


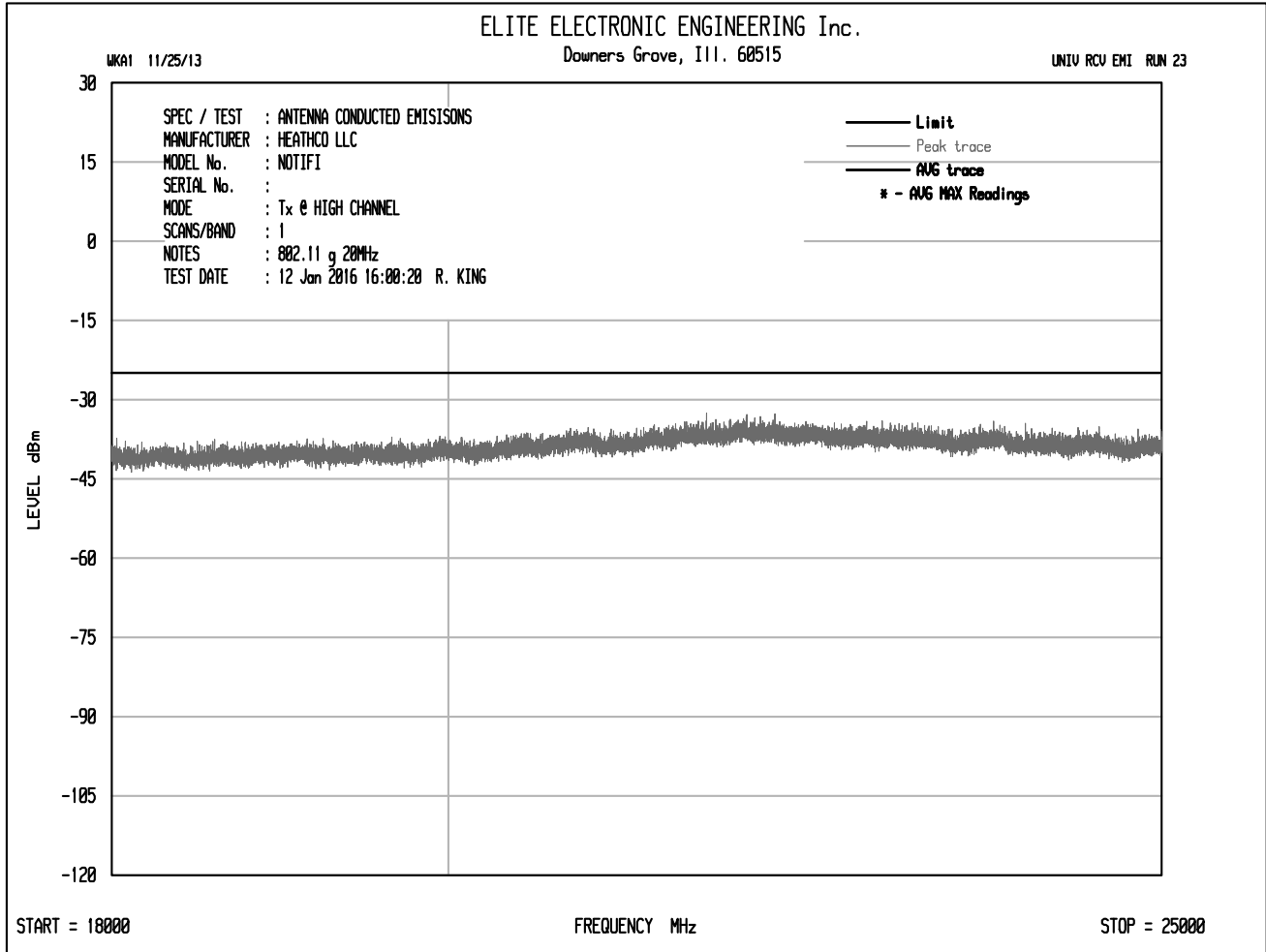


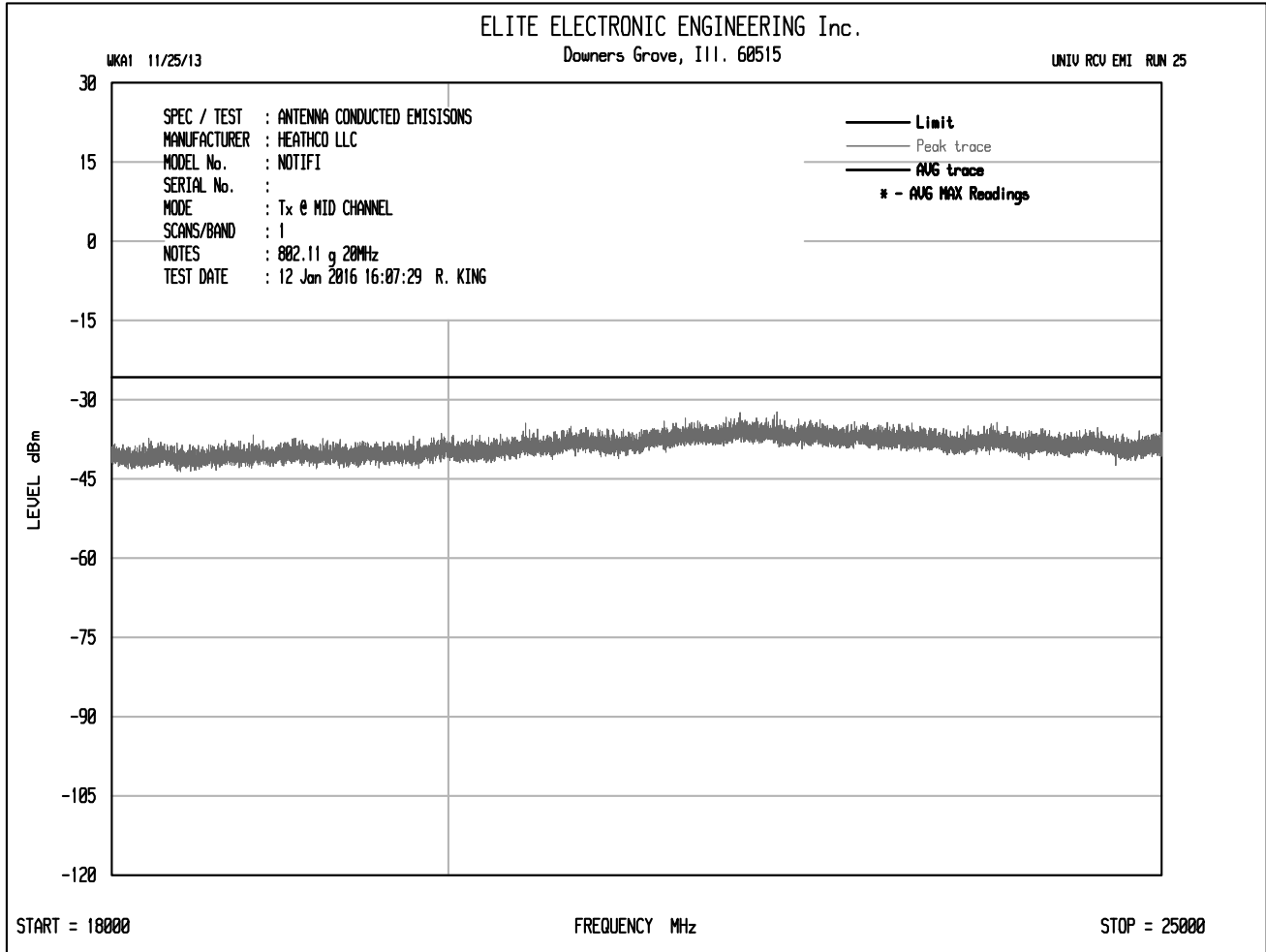


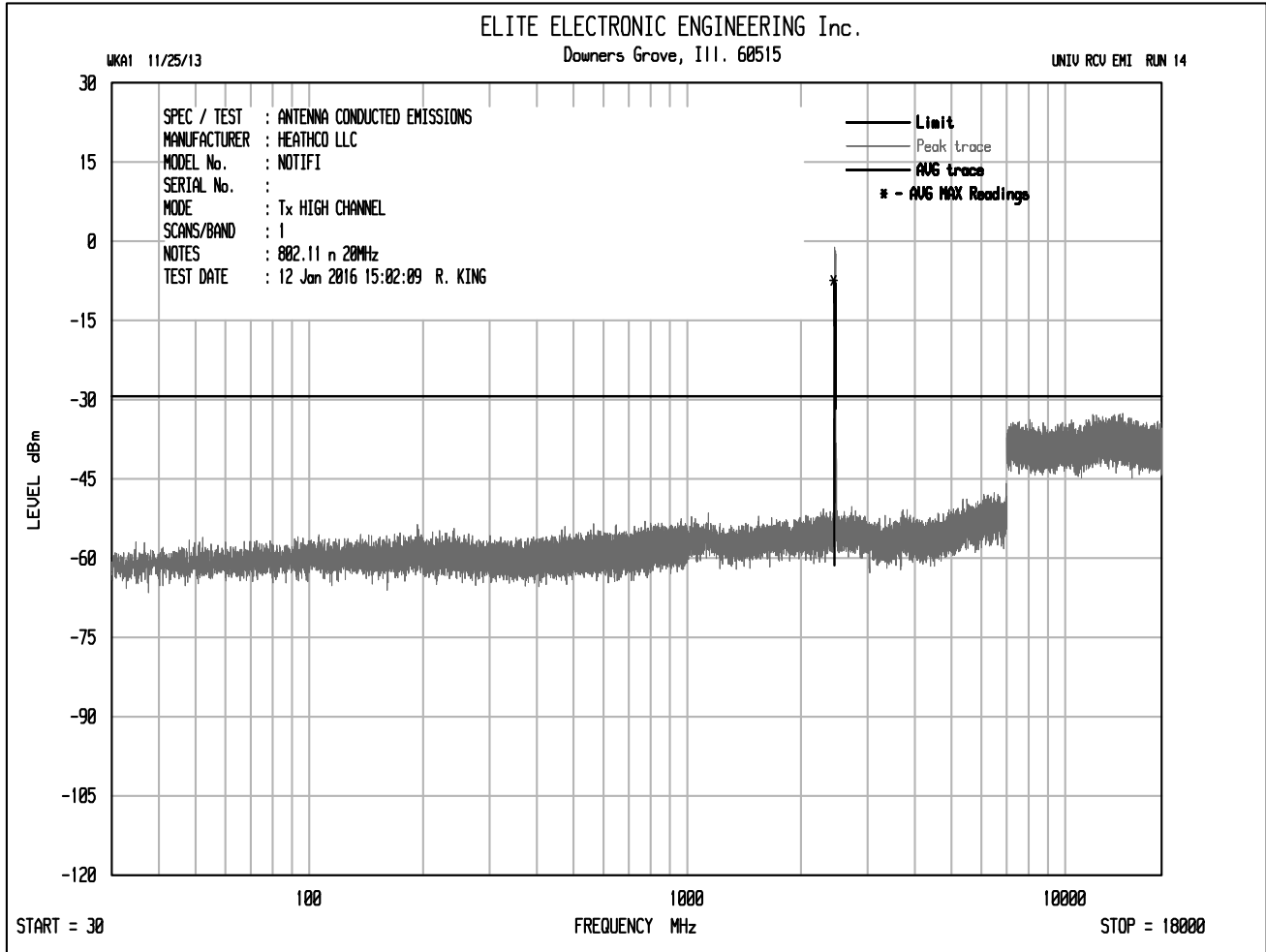


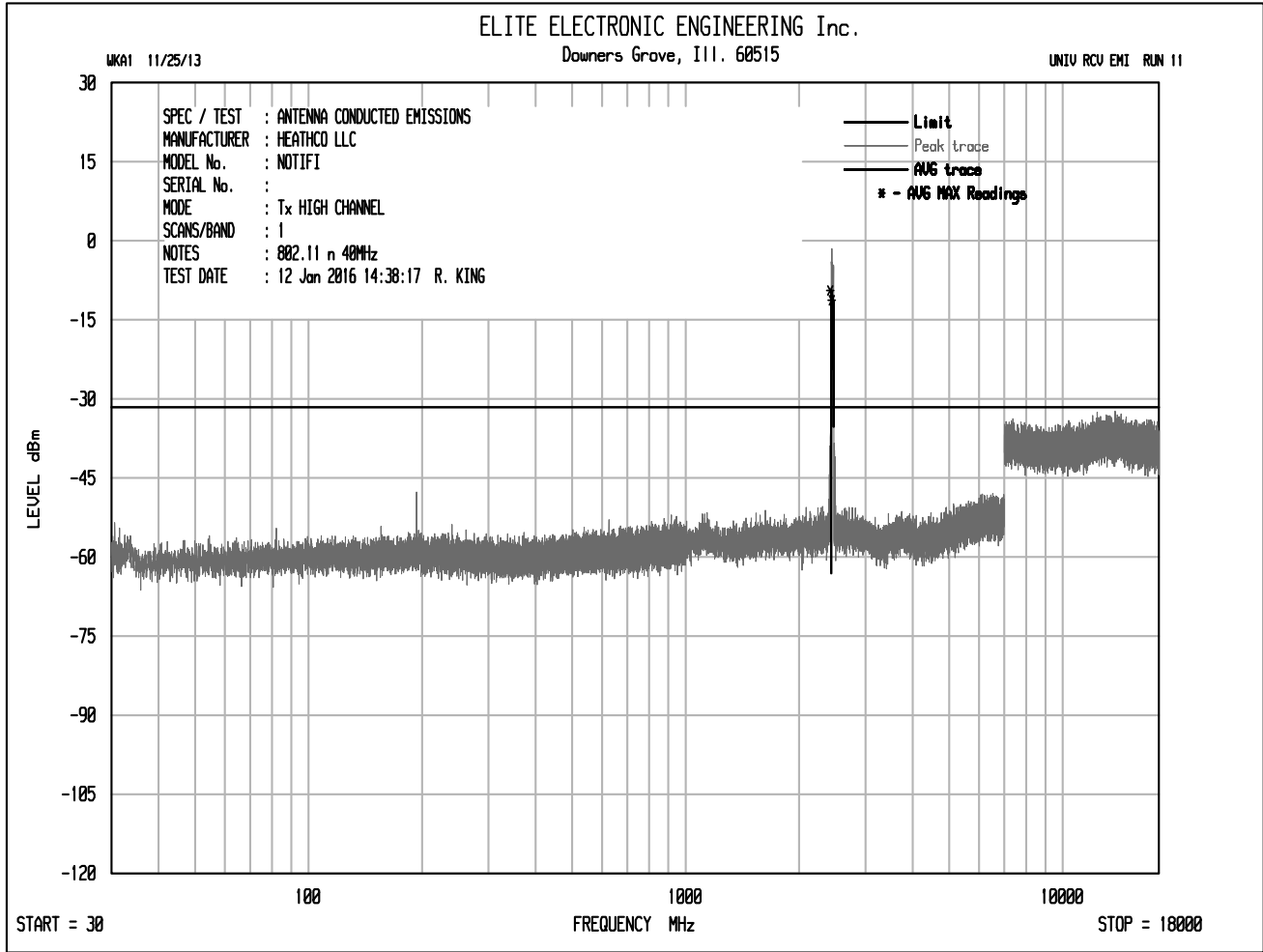


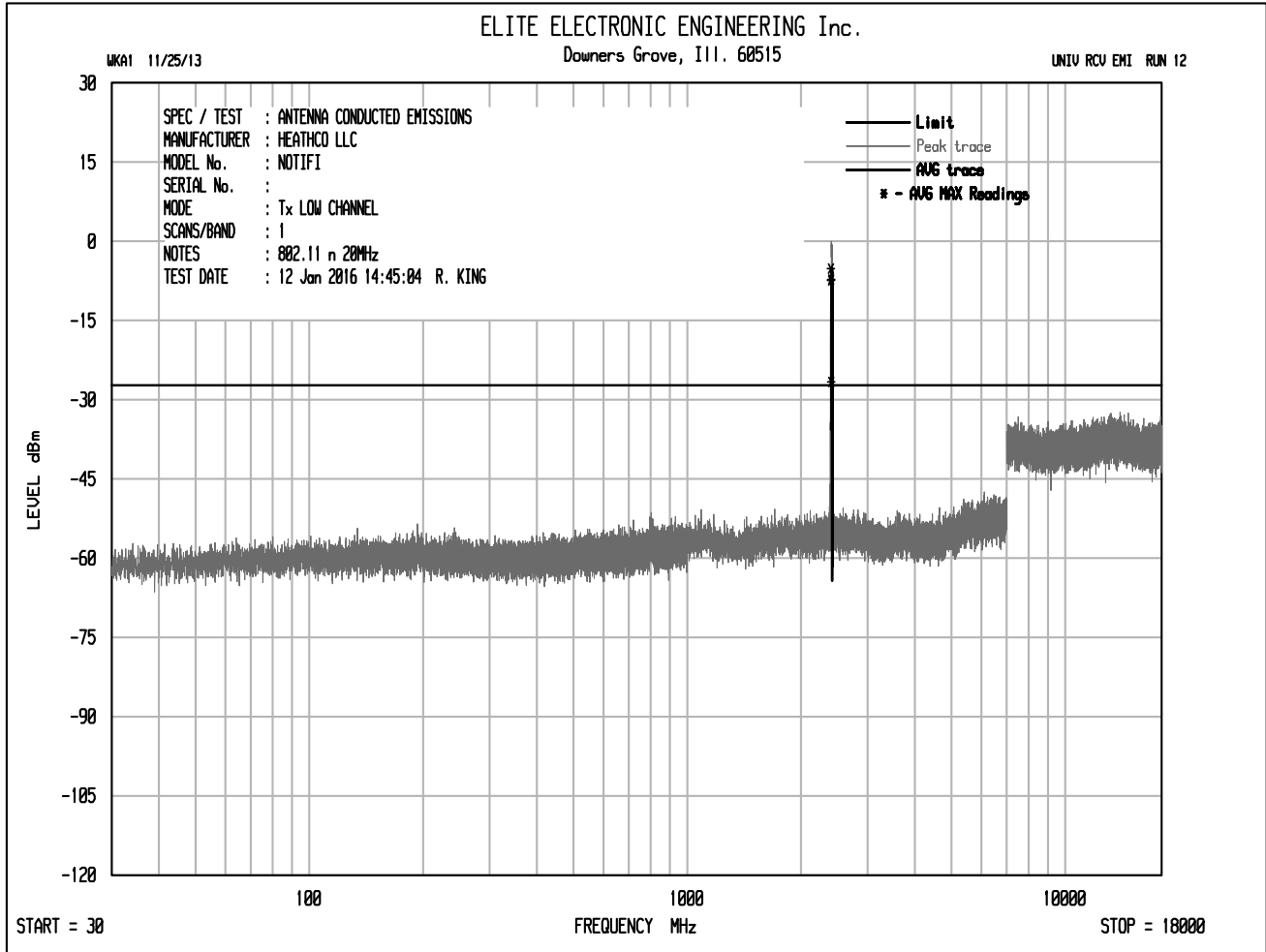


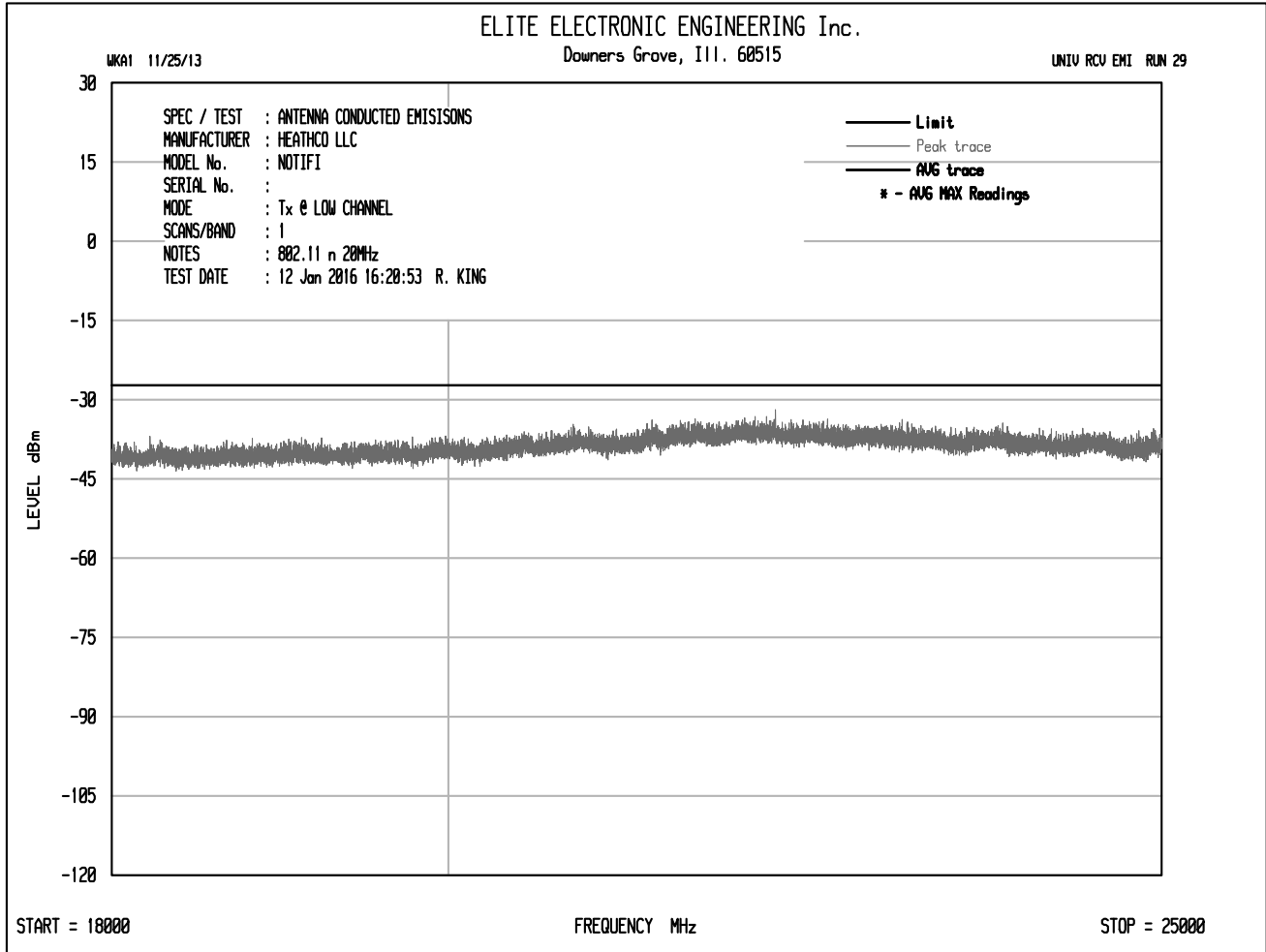


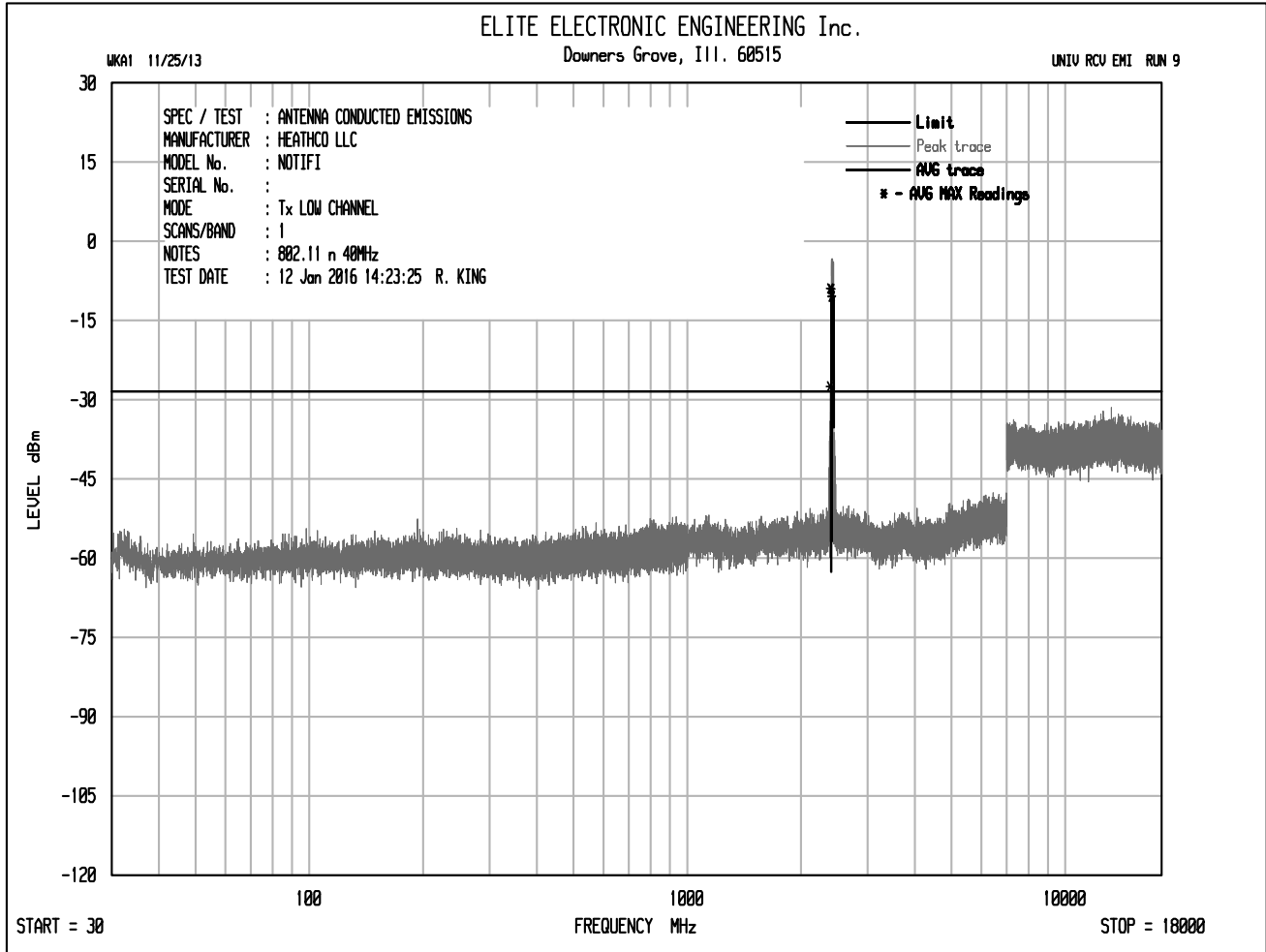


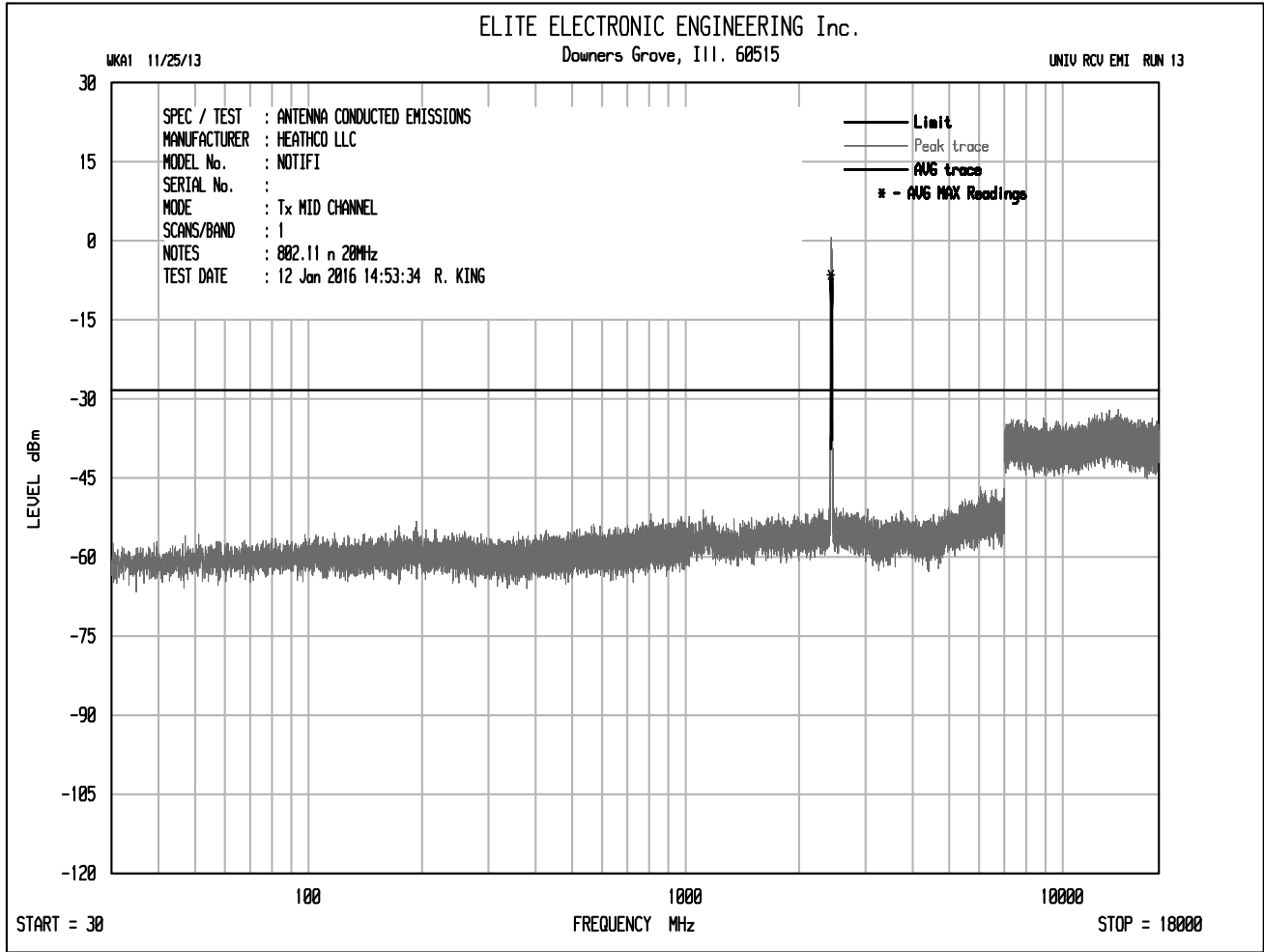


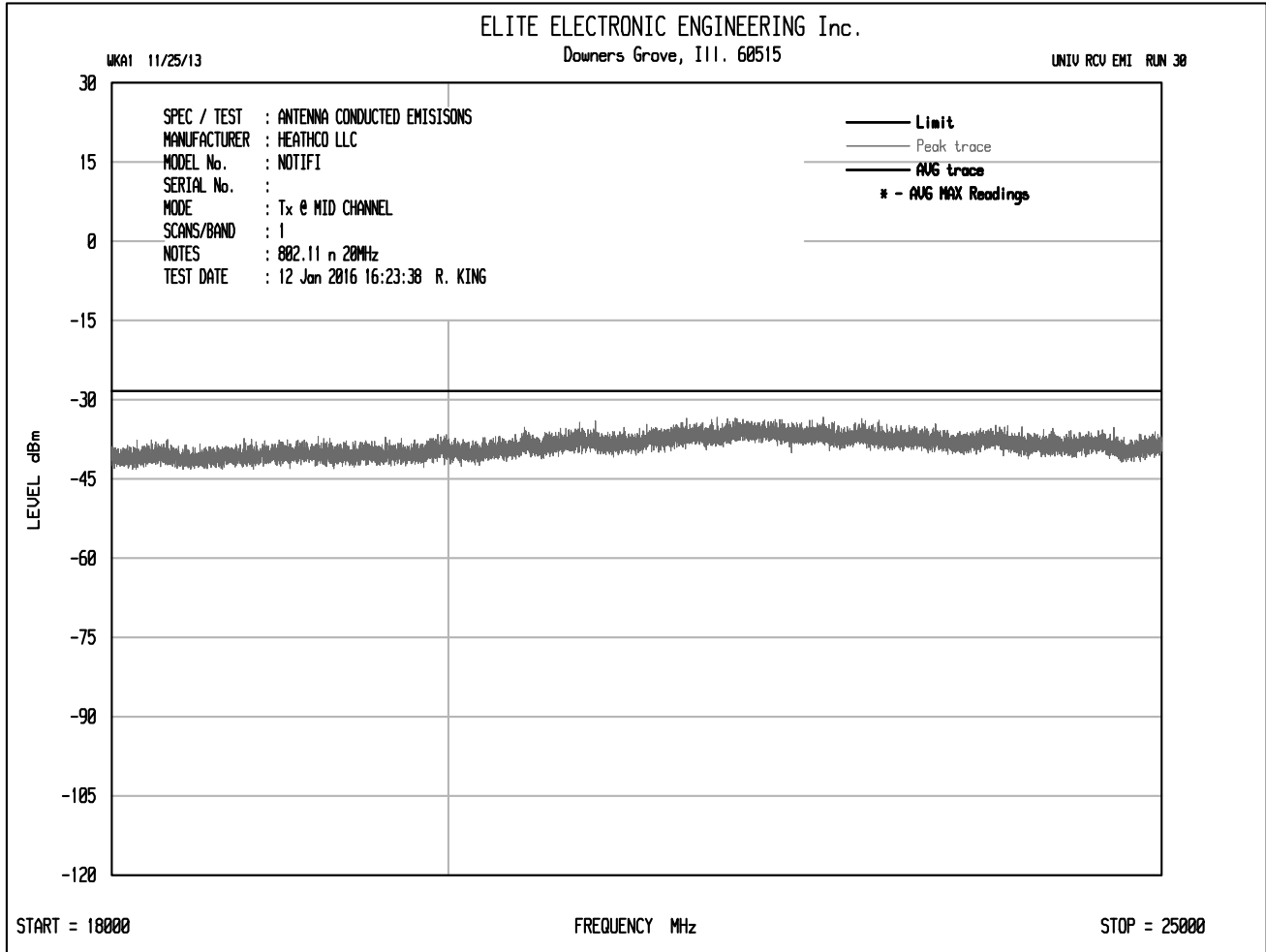


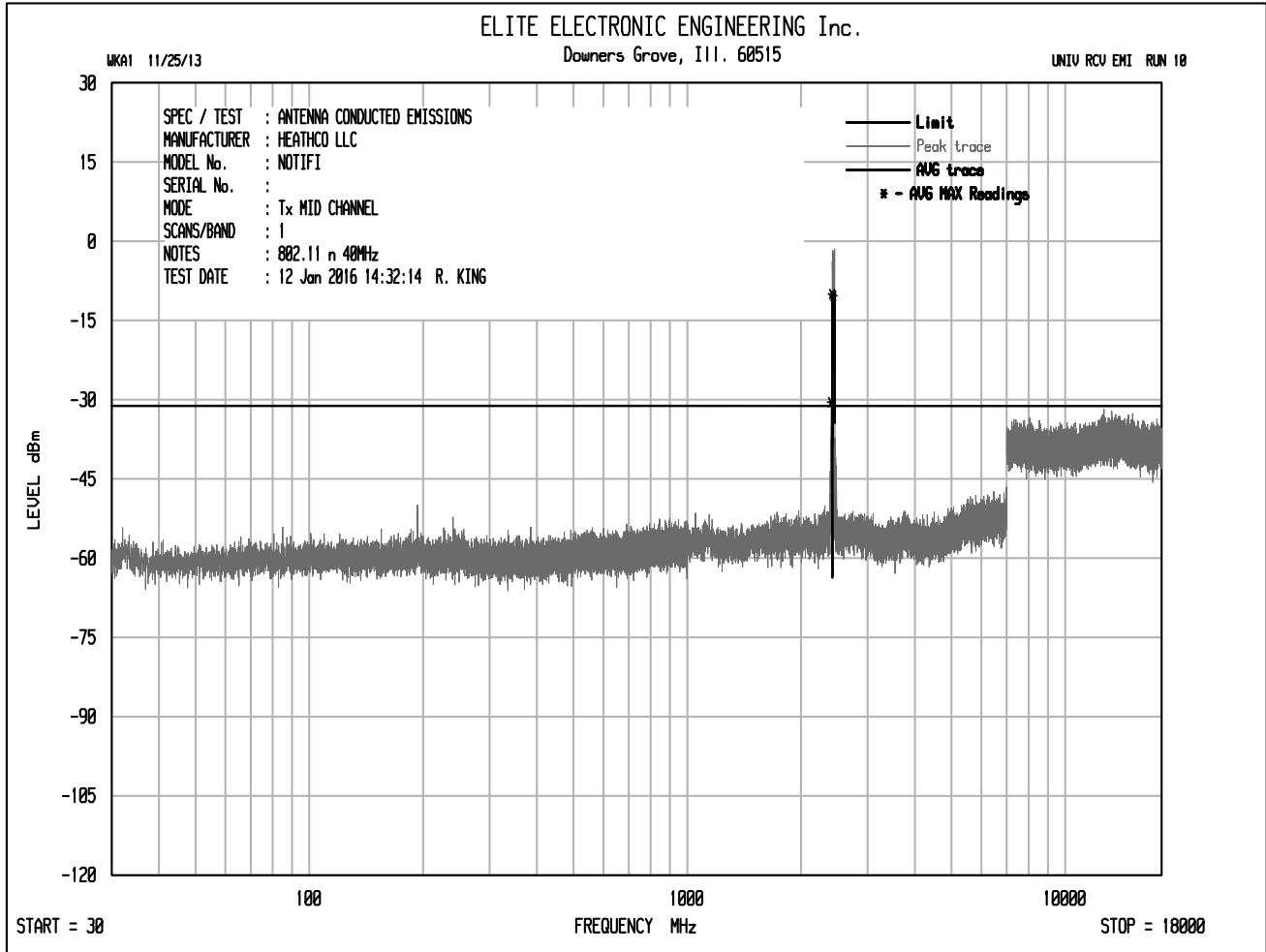


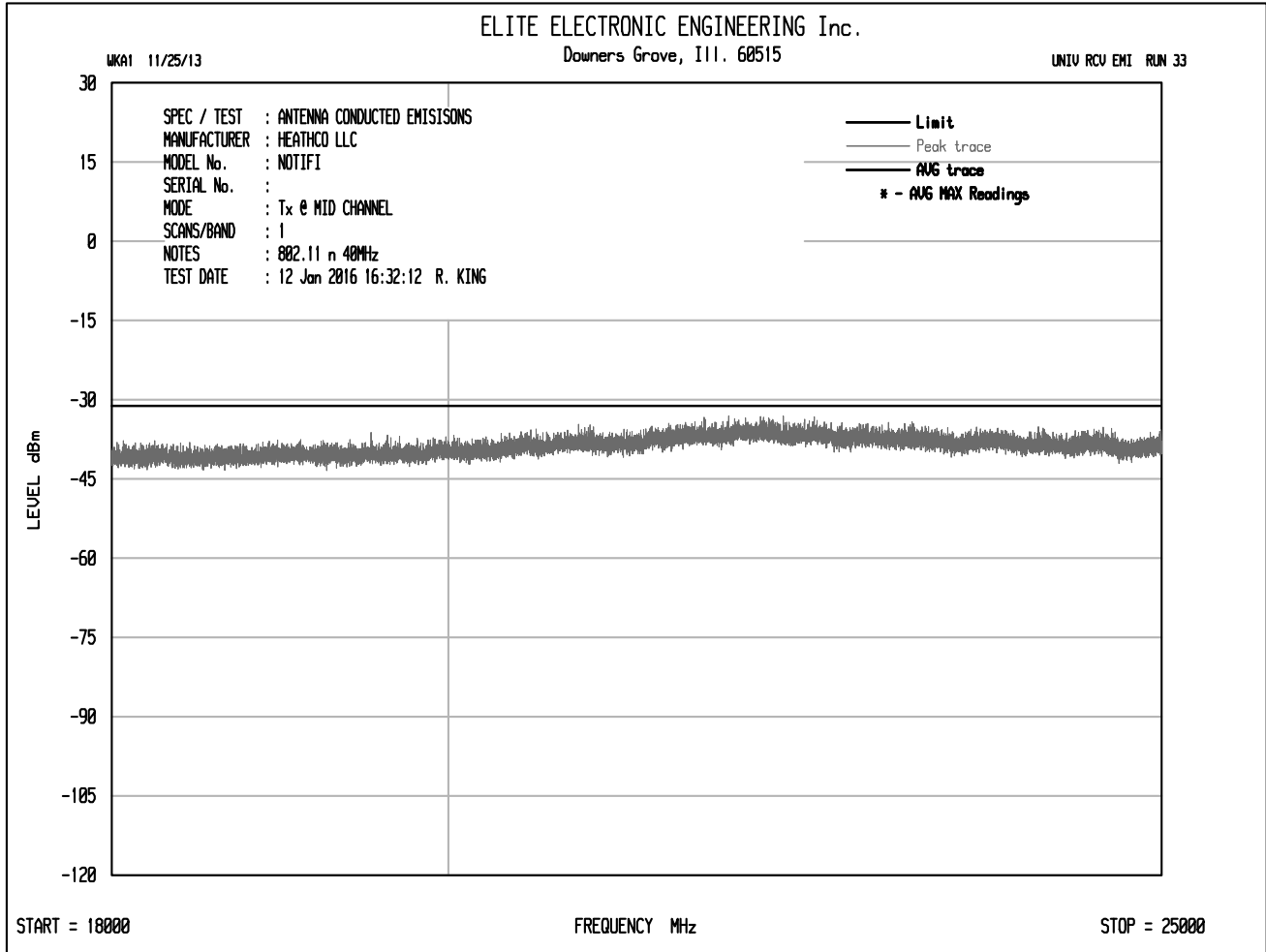


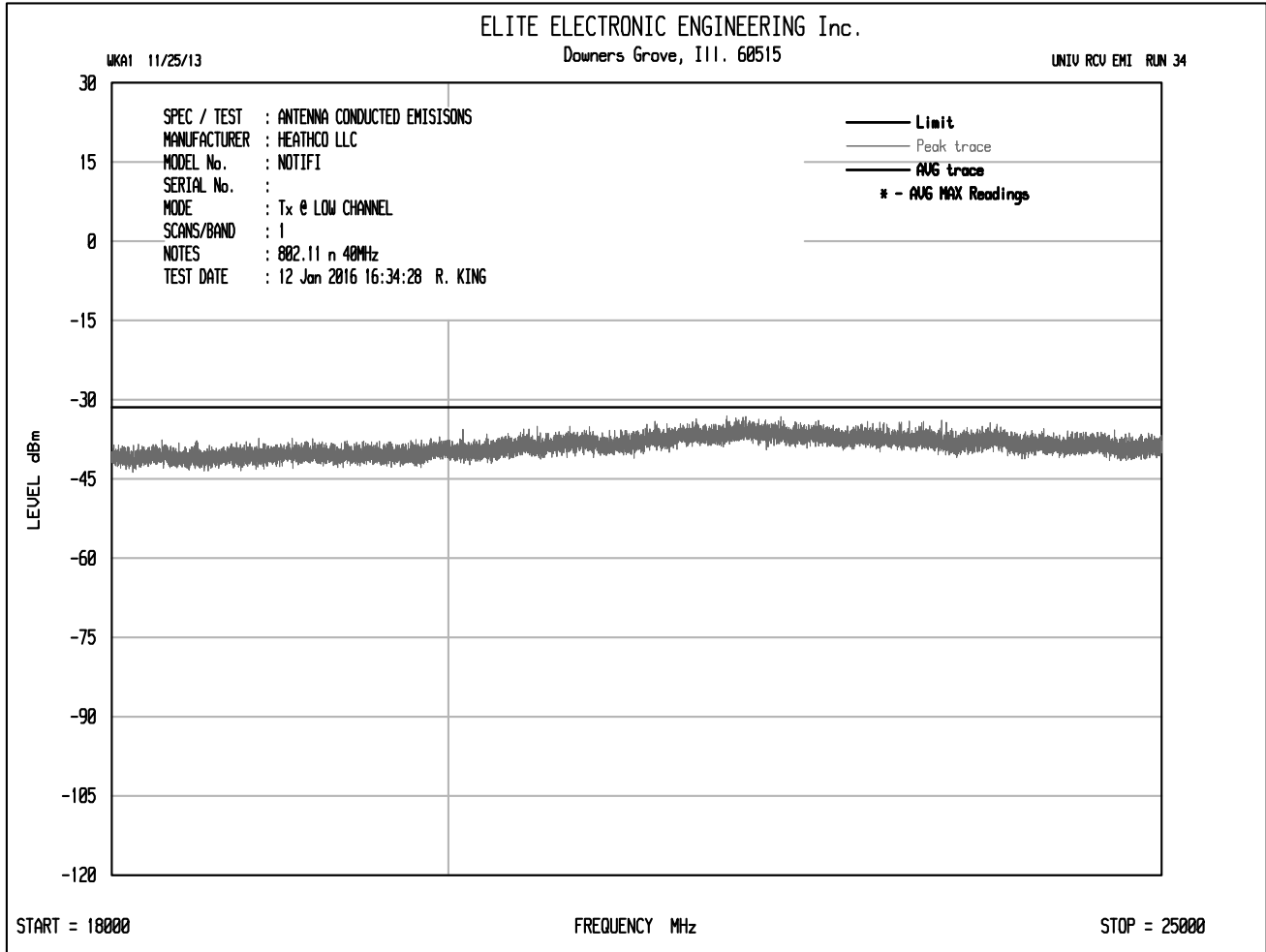


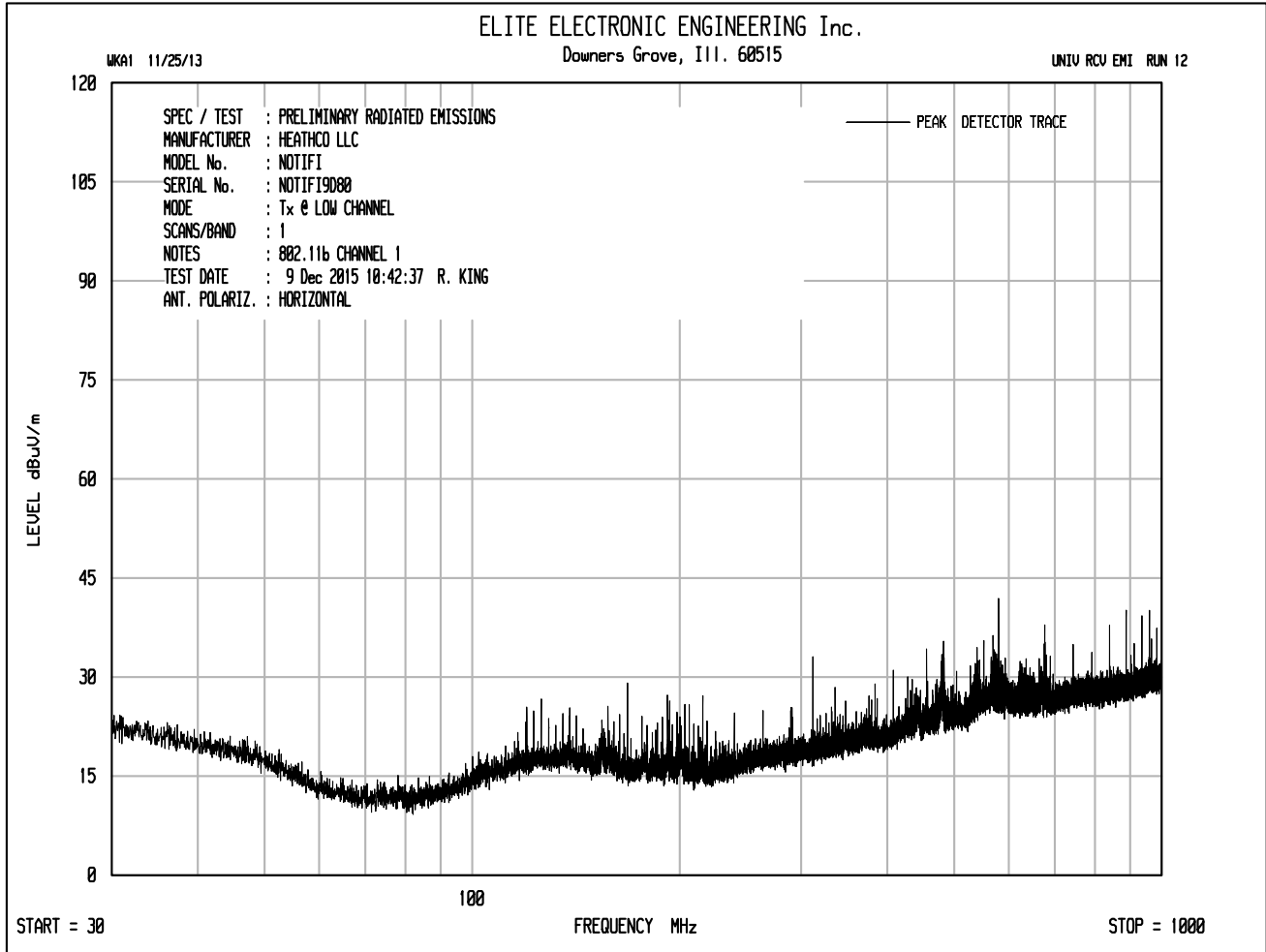


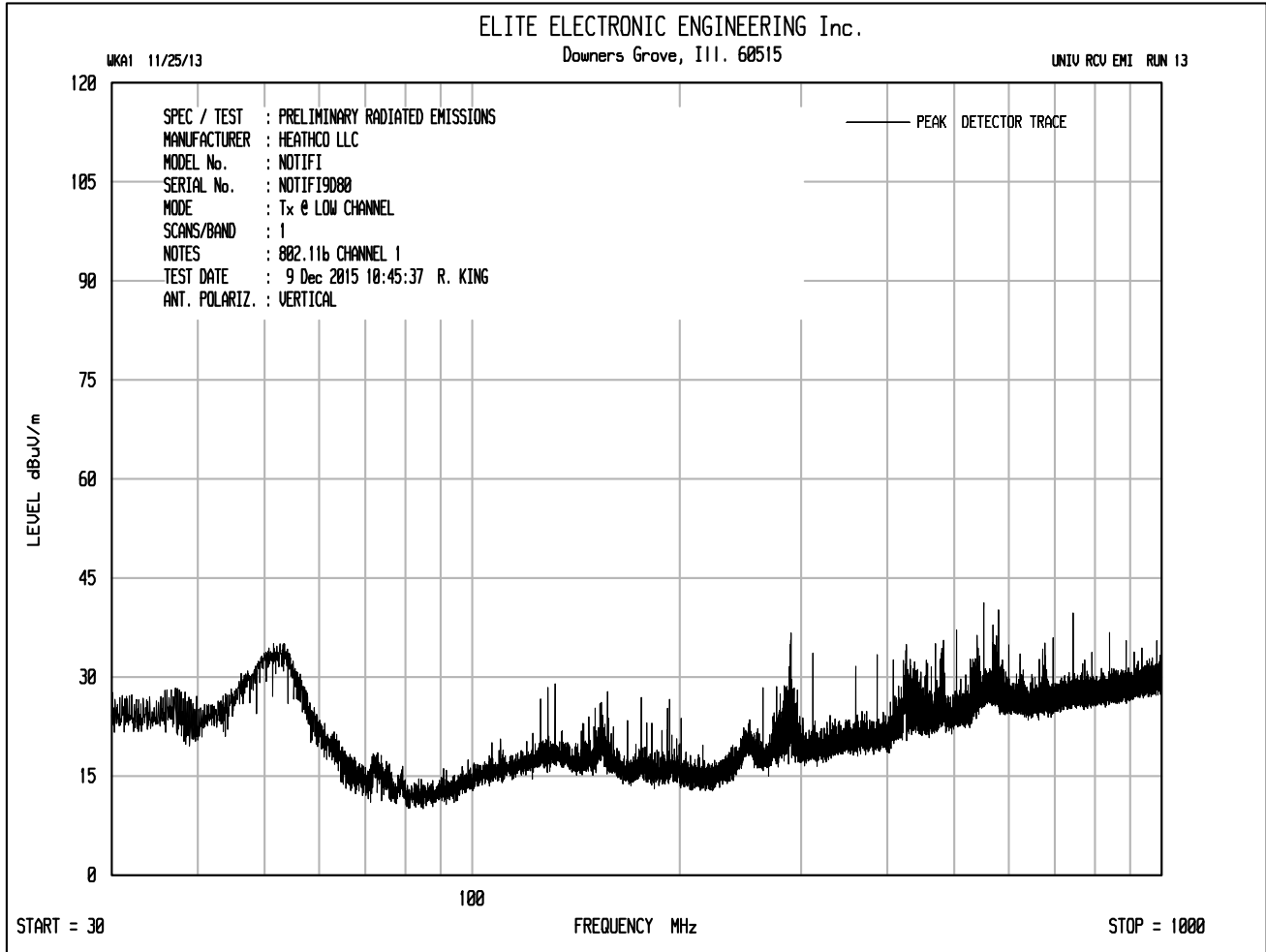


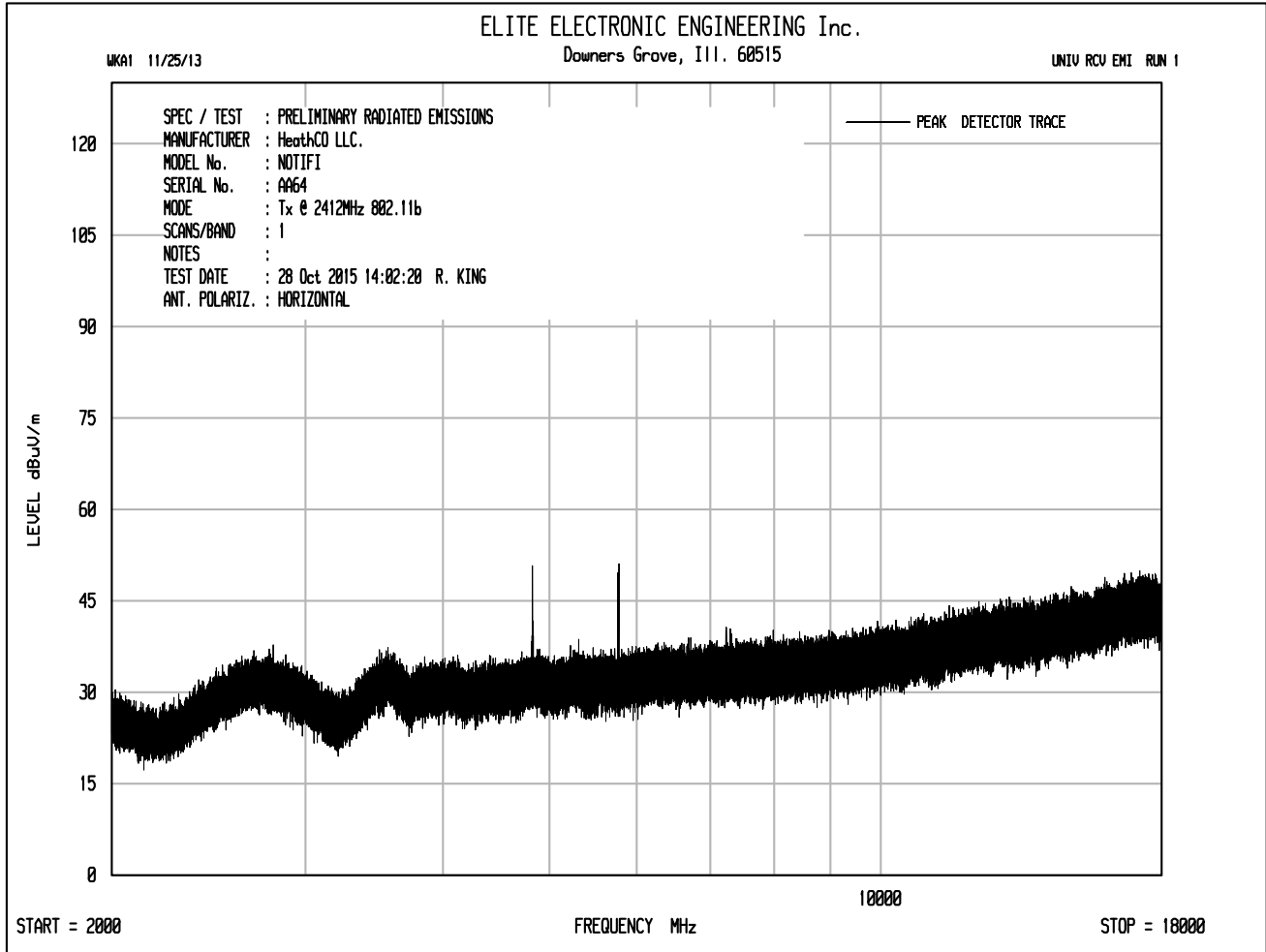


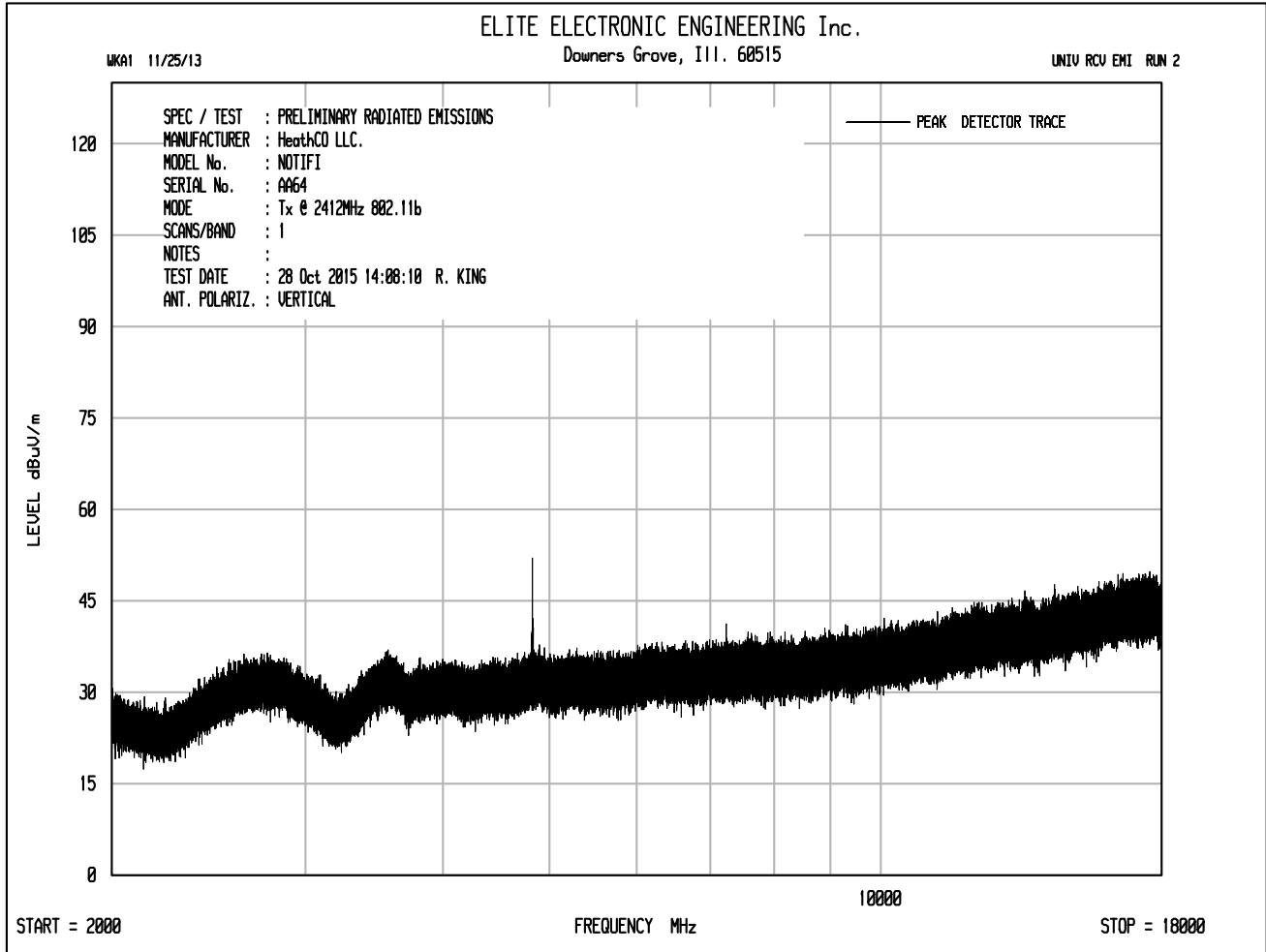










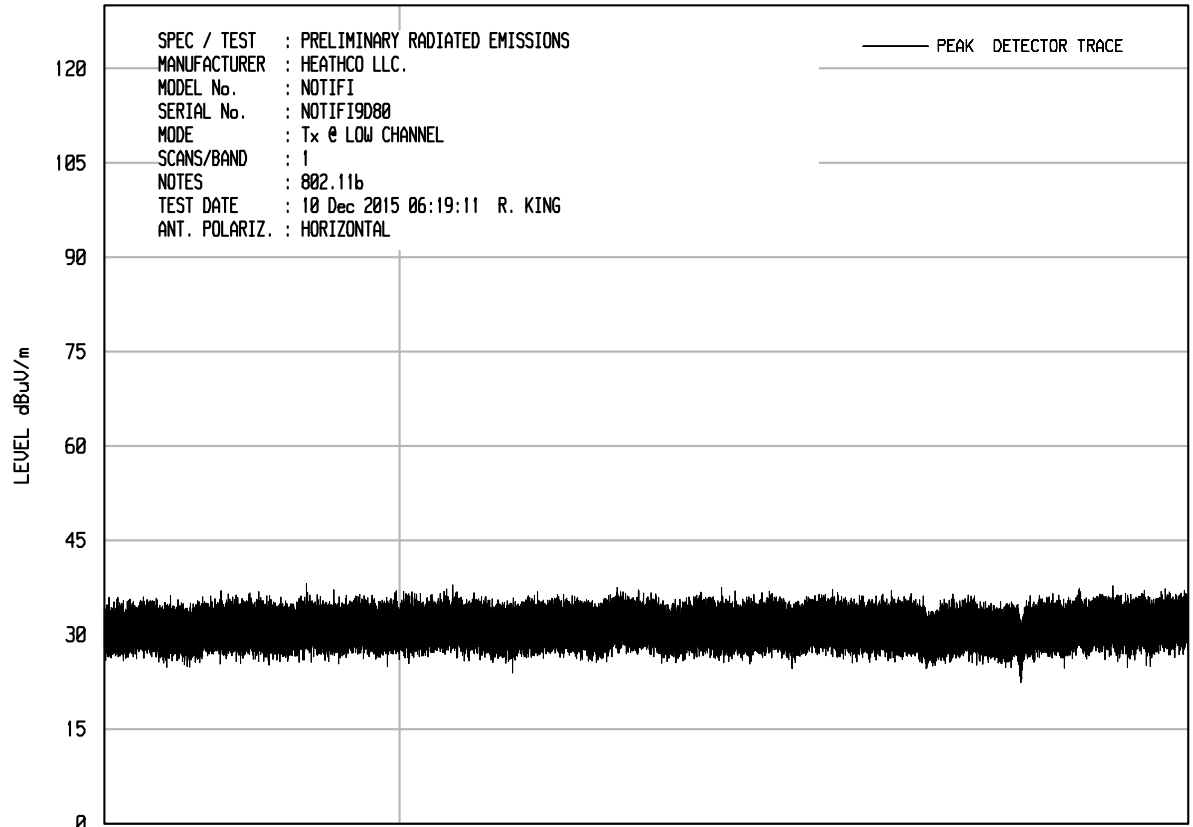




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UNIV RCU EMI RUN 1



START = 18000

FREQUENCY MHz

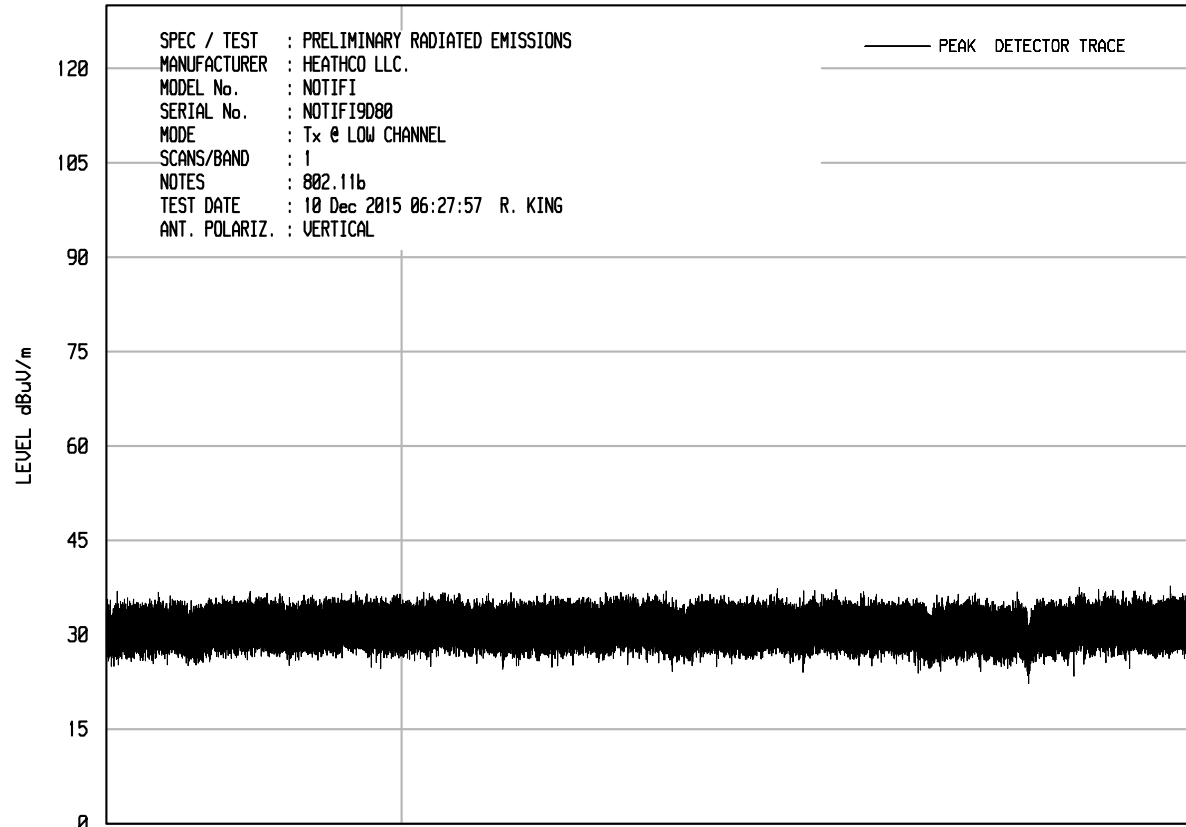
STOP = 26500



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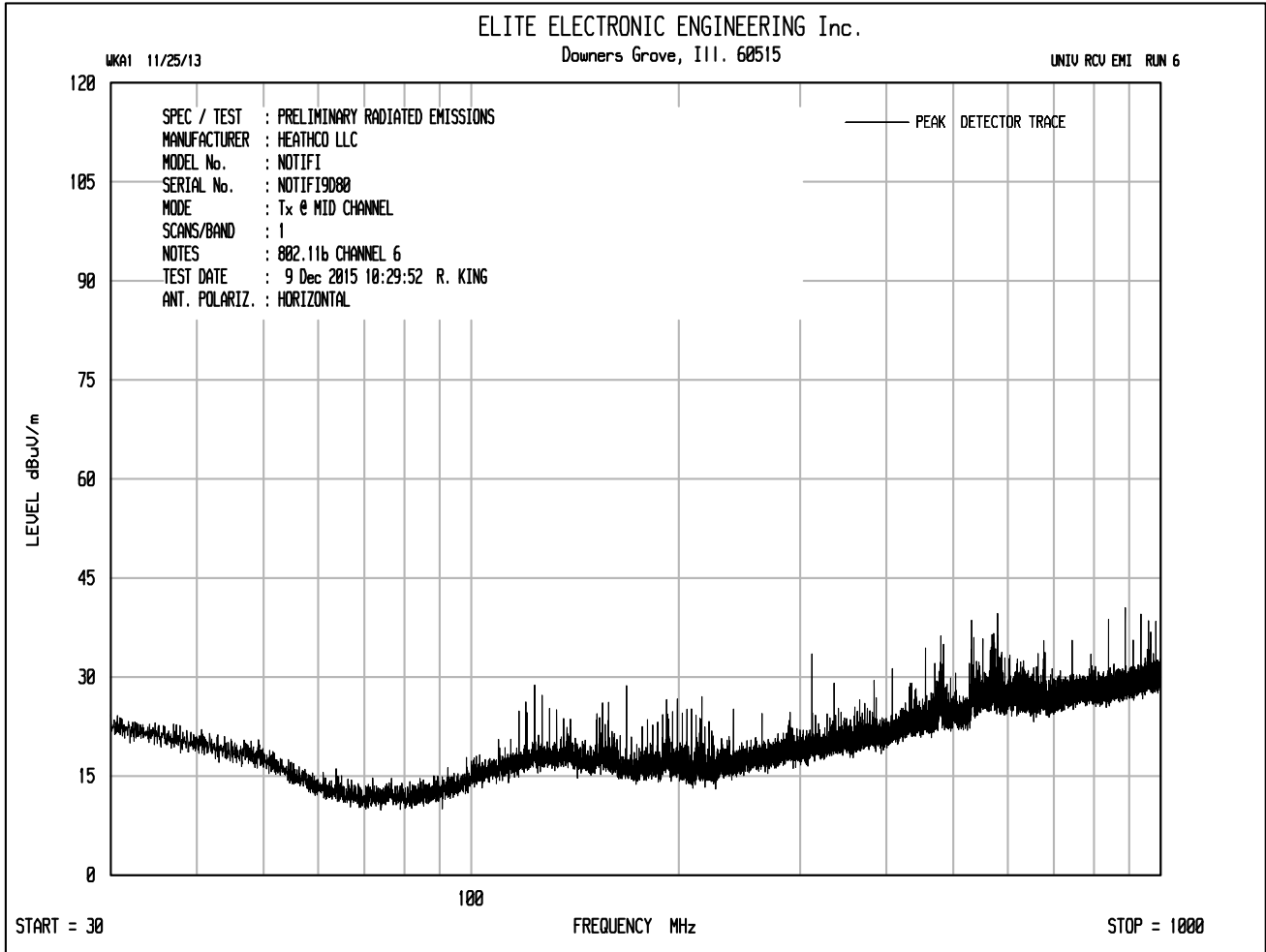
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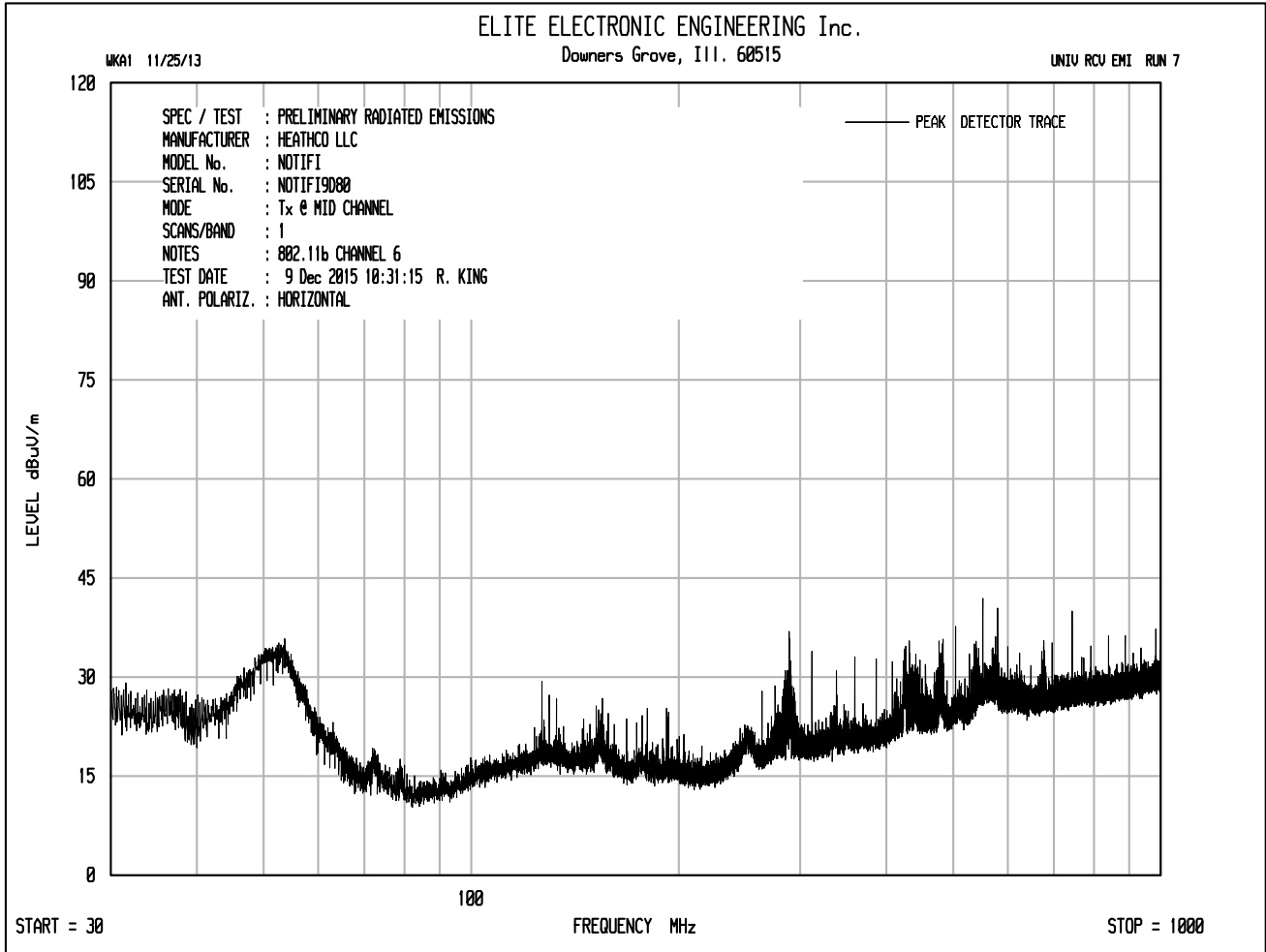


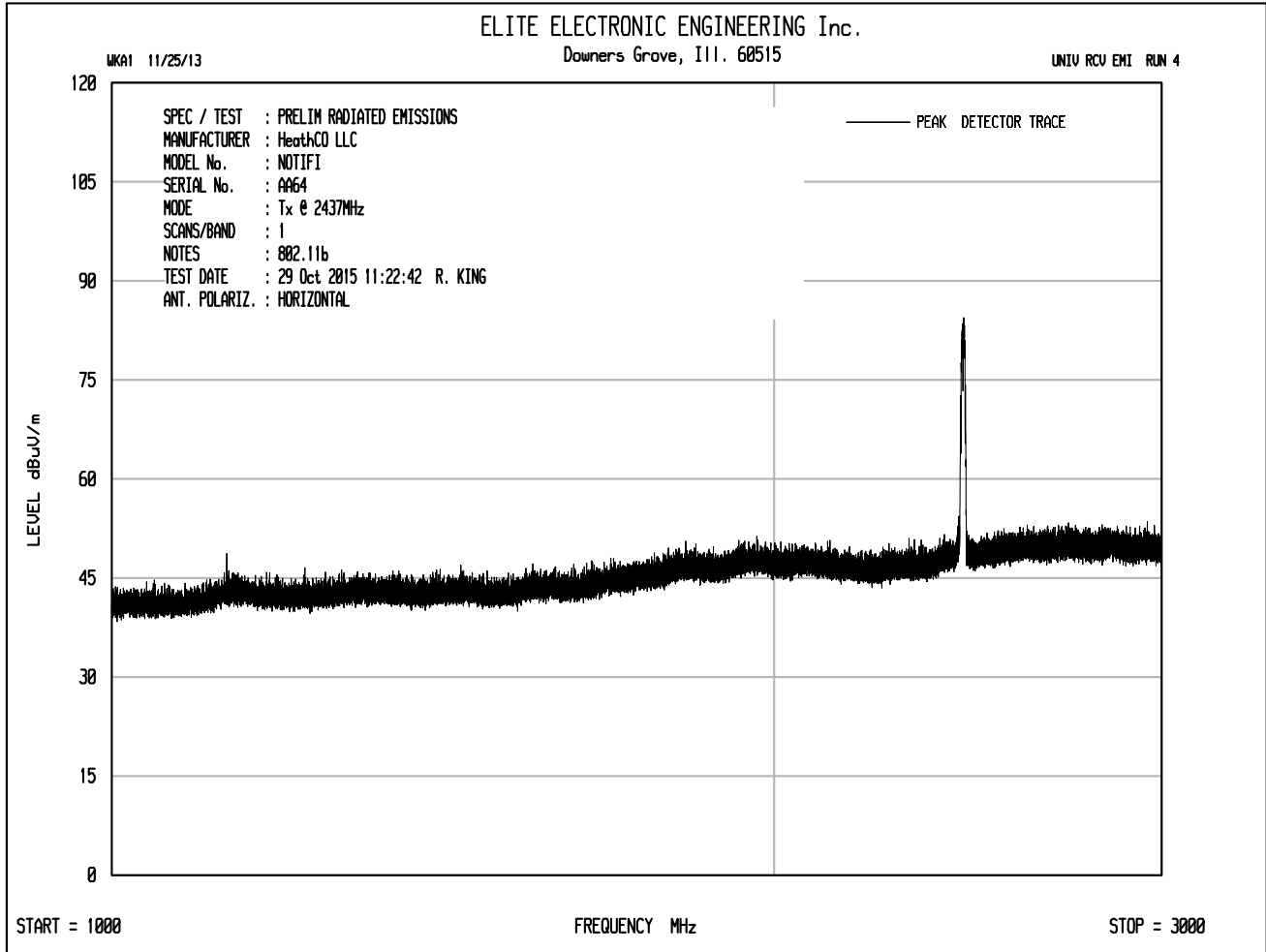
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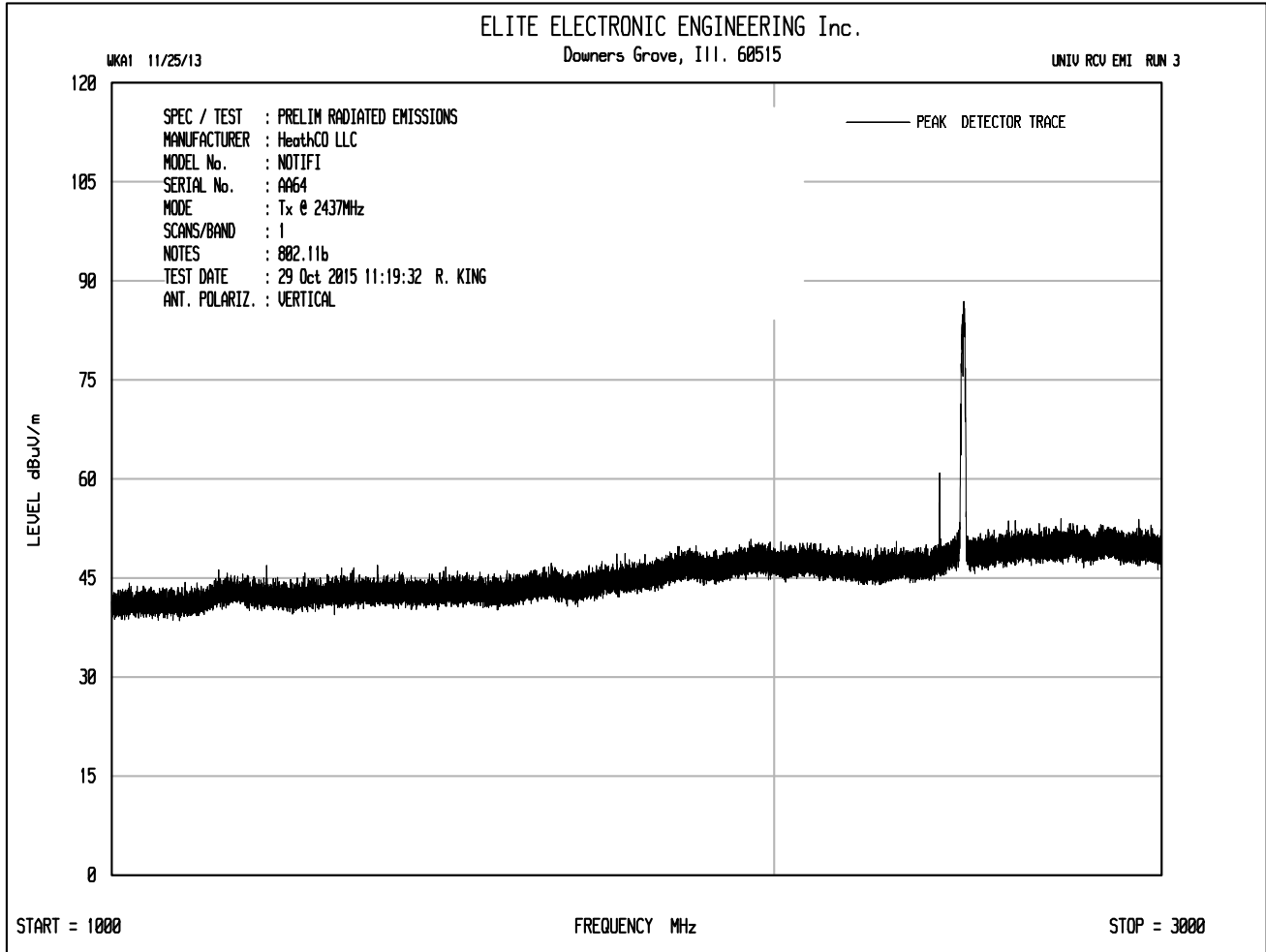
FREQUENCY MHz

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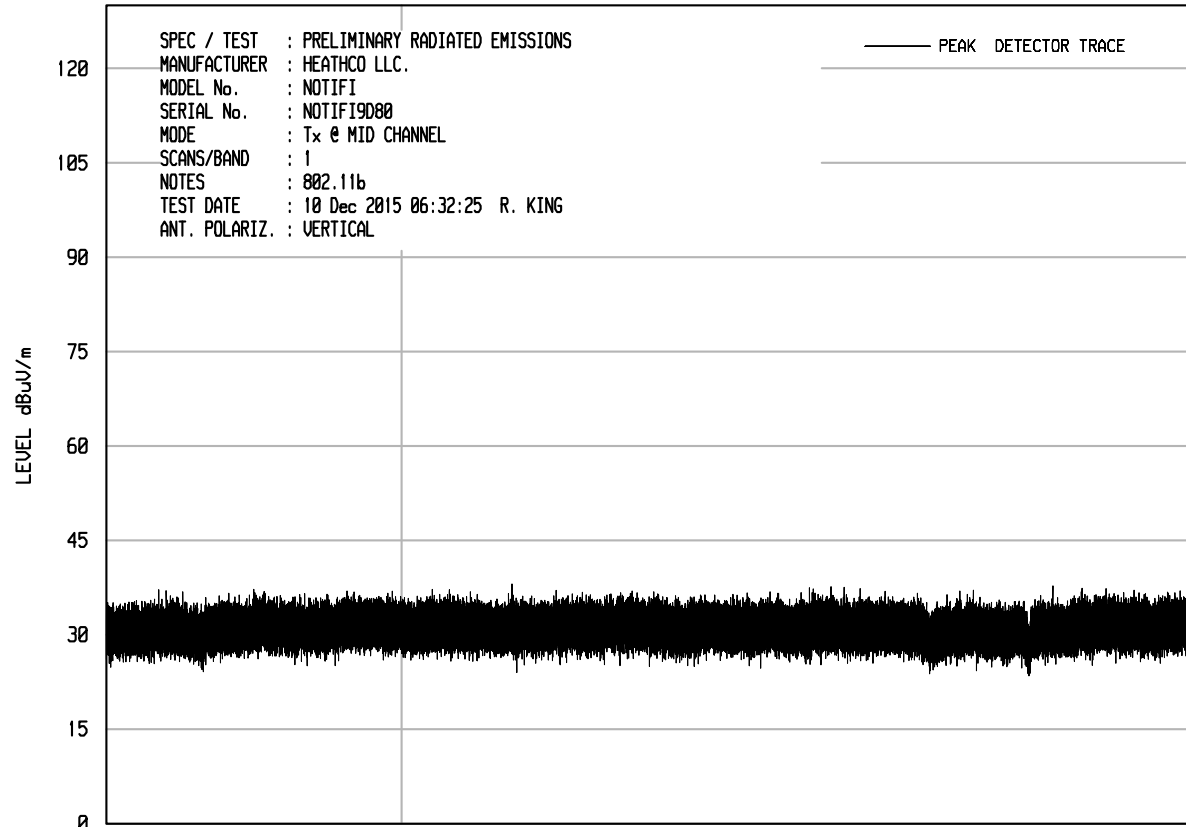




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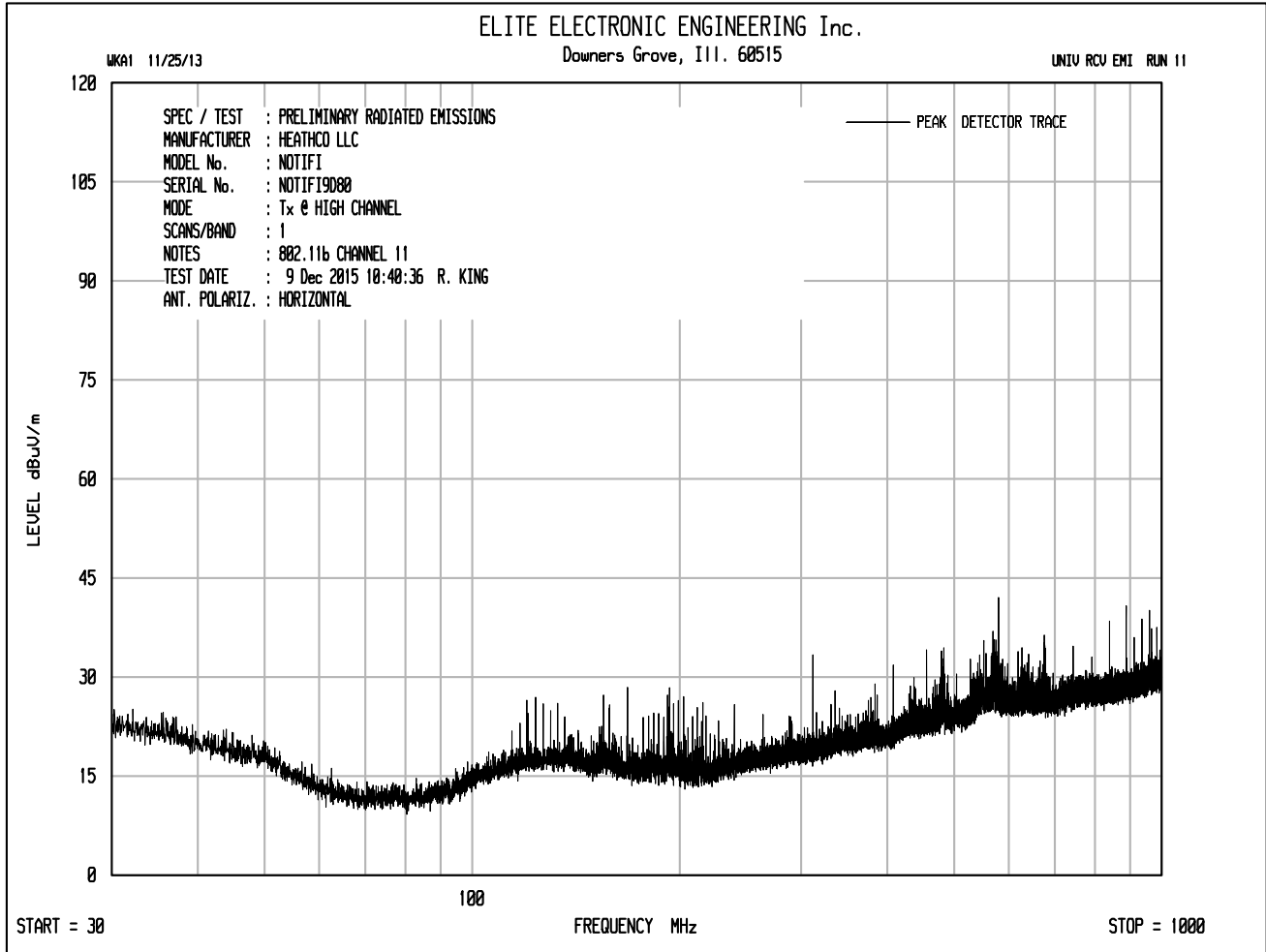
UNIV RCU EMI RUN 3

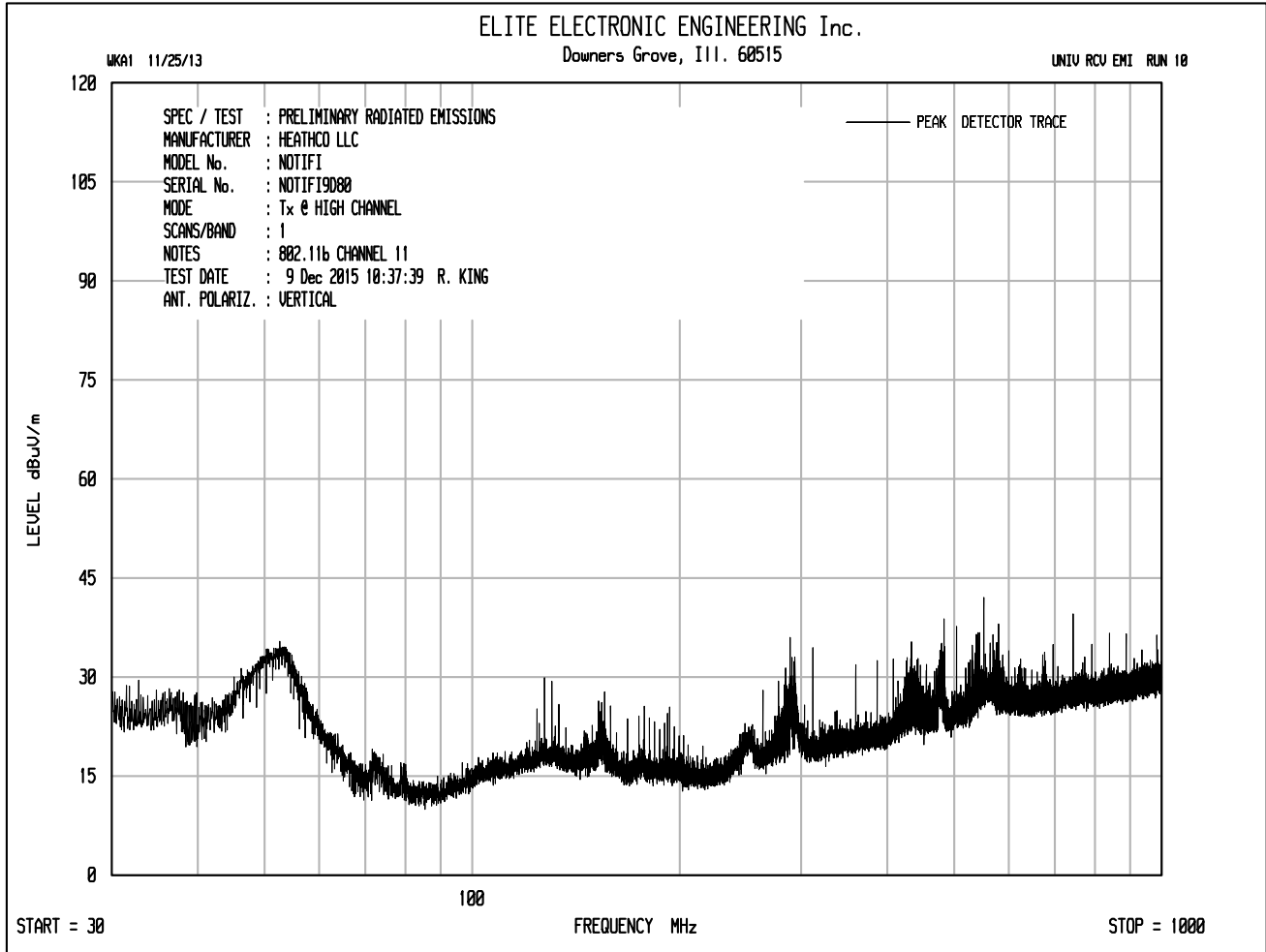


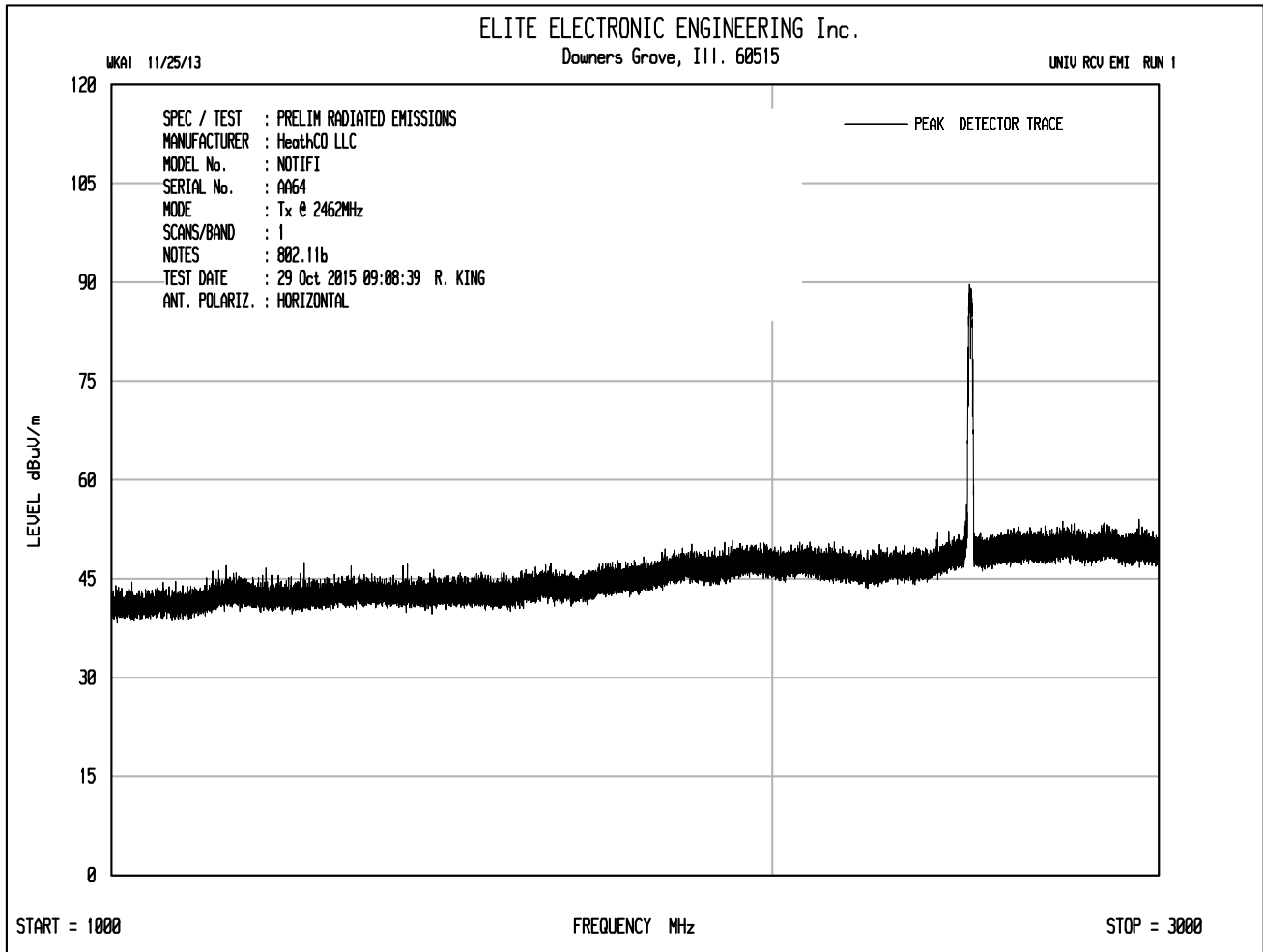
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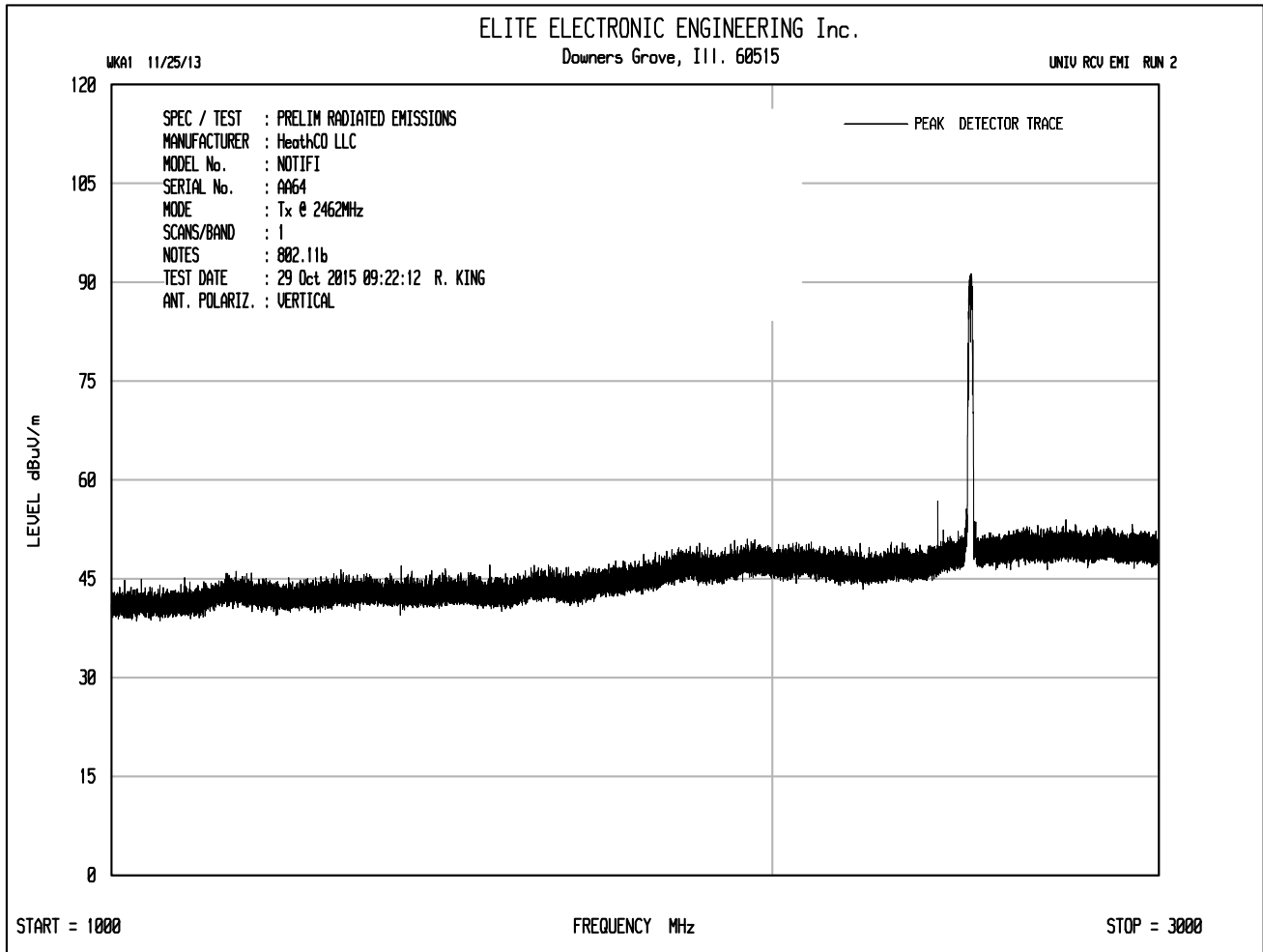
FREQUENCY MHz

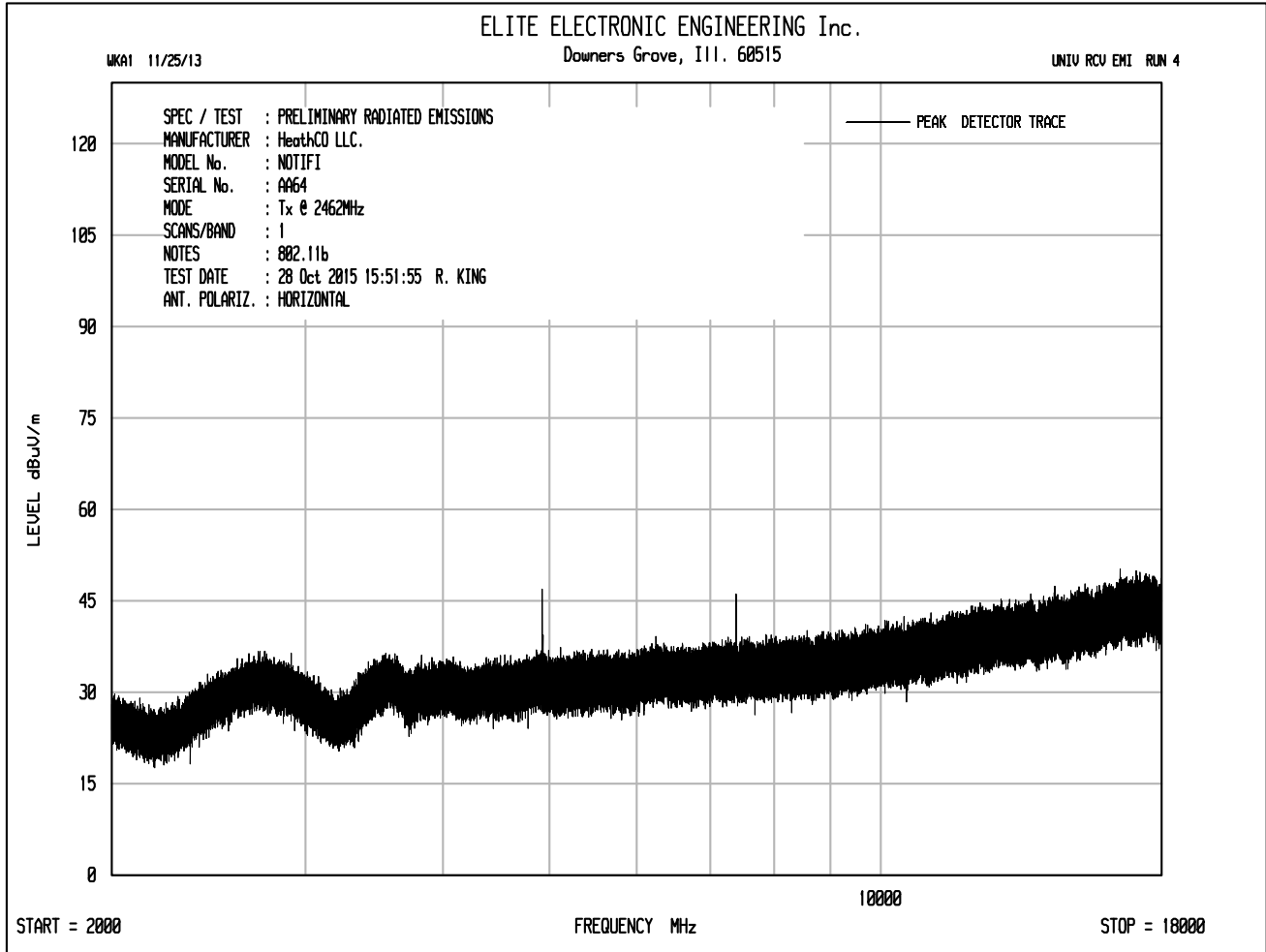
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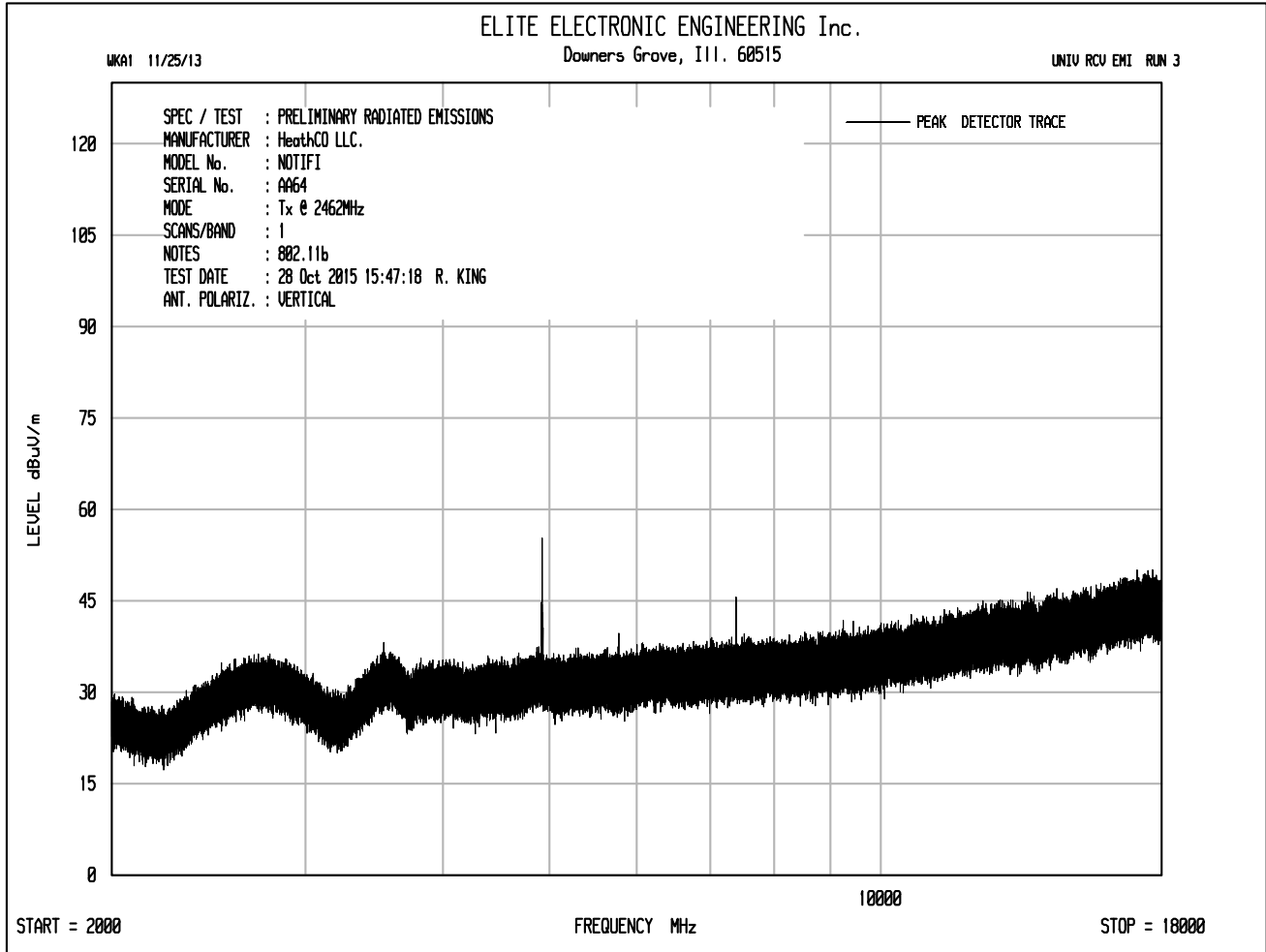










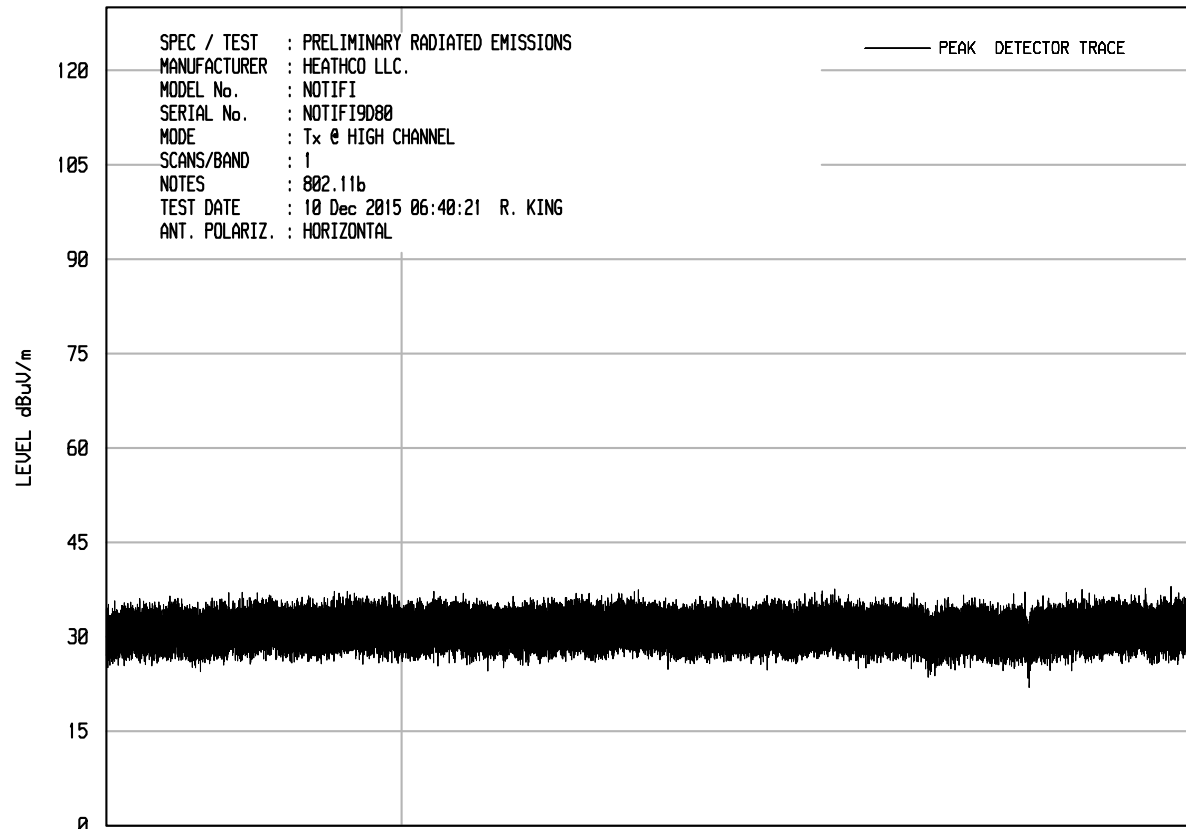




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UNIV RCU EMI RUN 5



START = 18000

FREQUENCY MHz

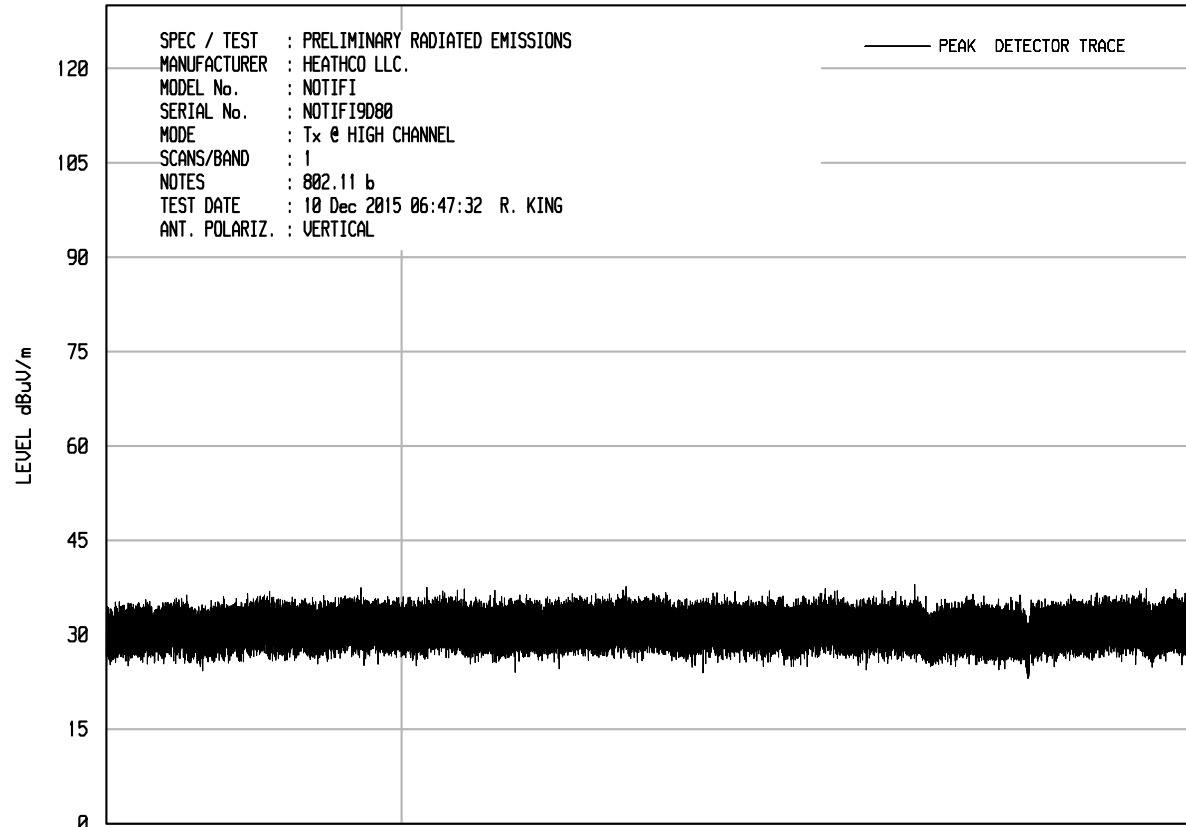
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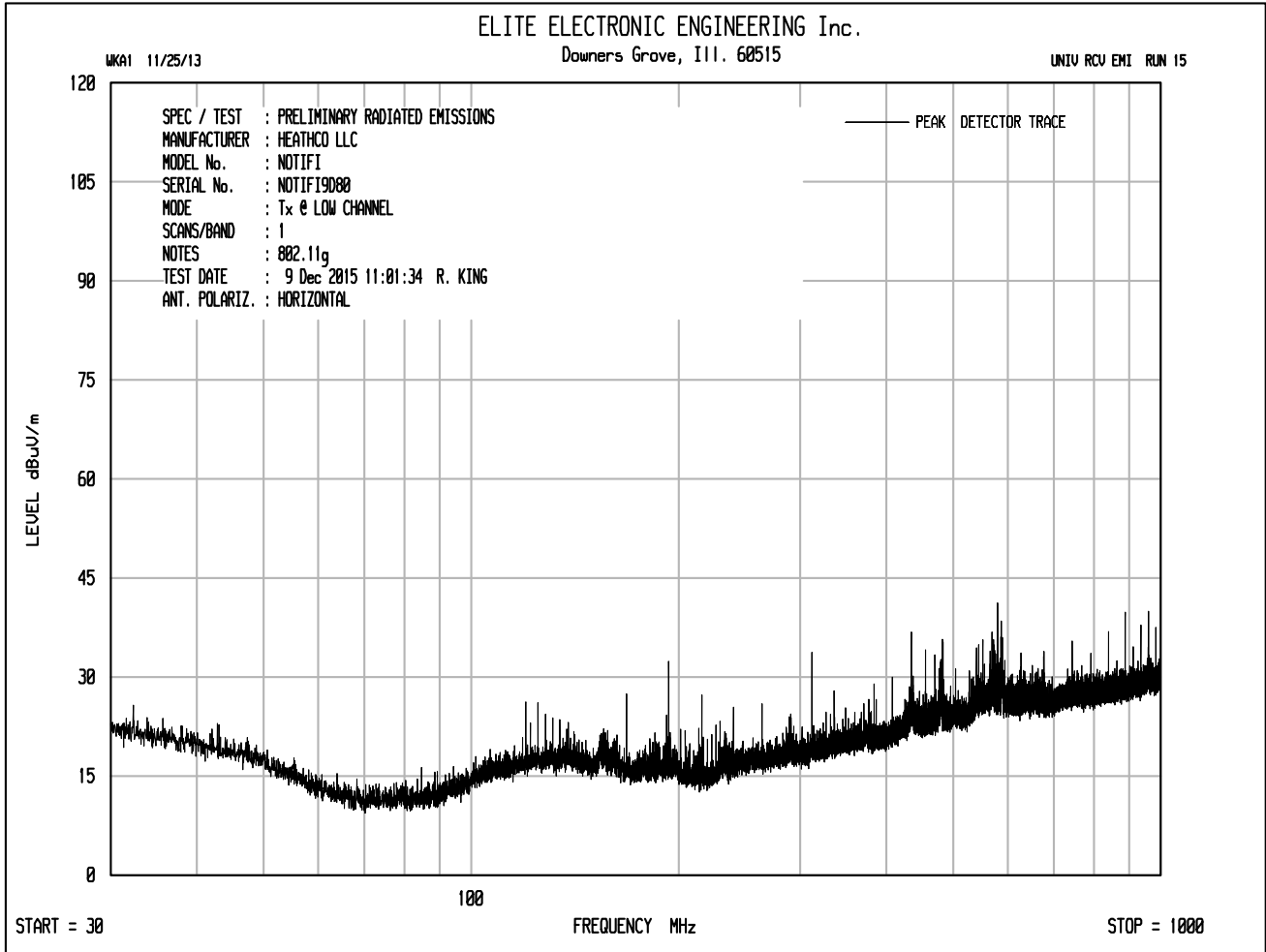
UNIV RCU EMI RUN 7

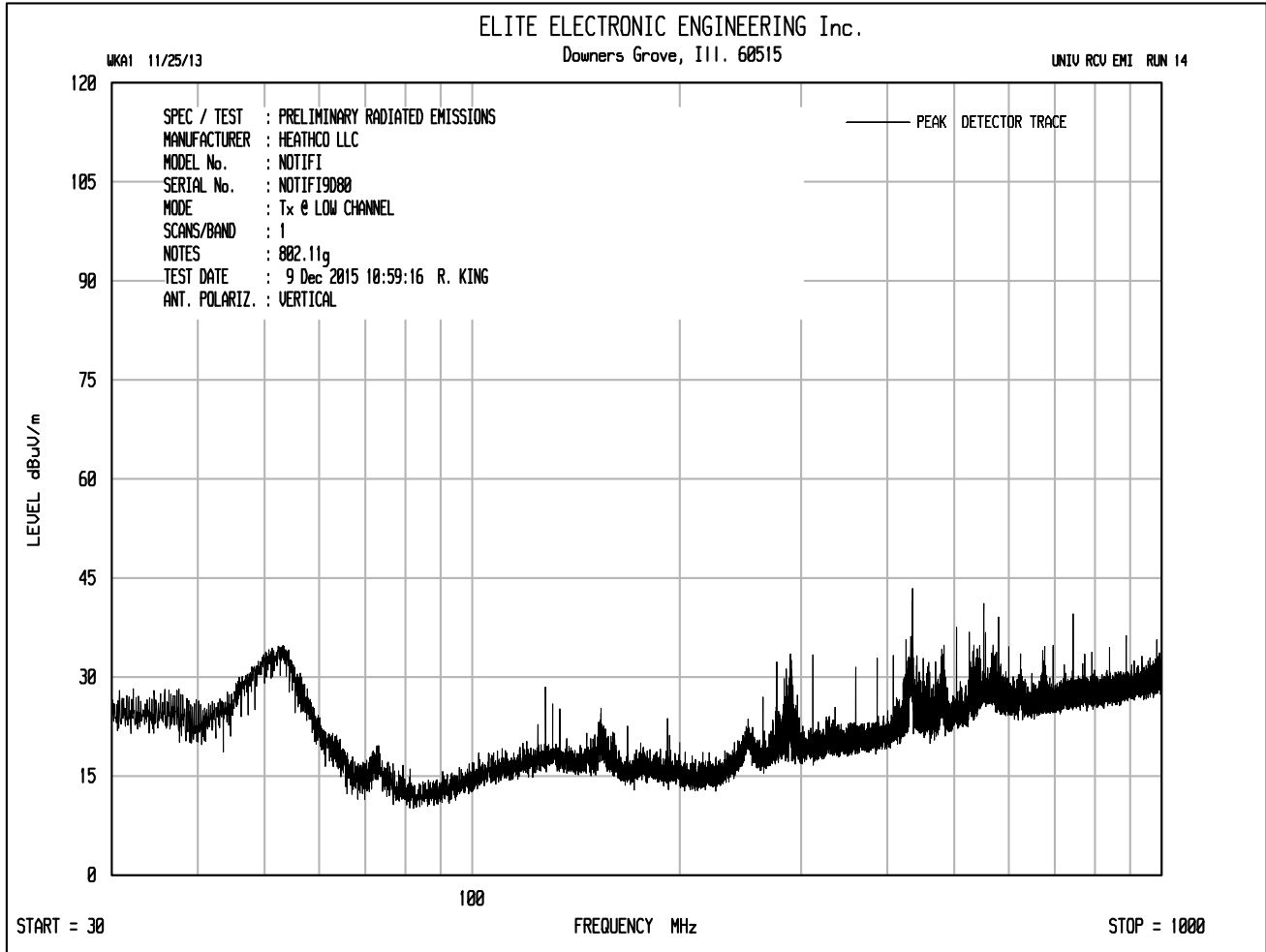


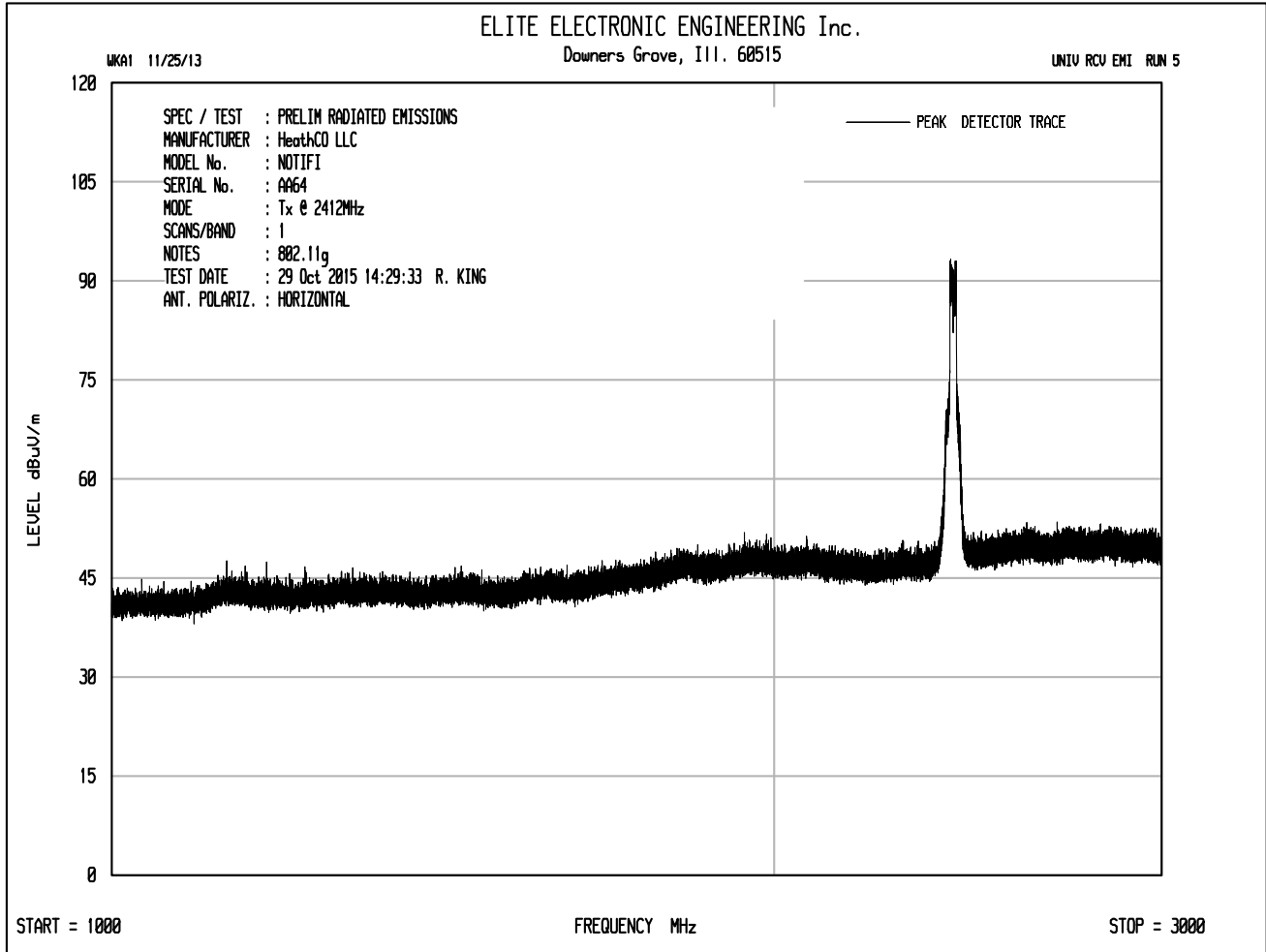
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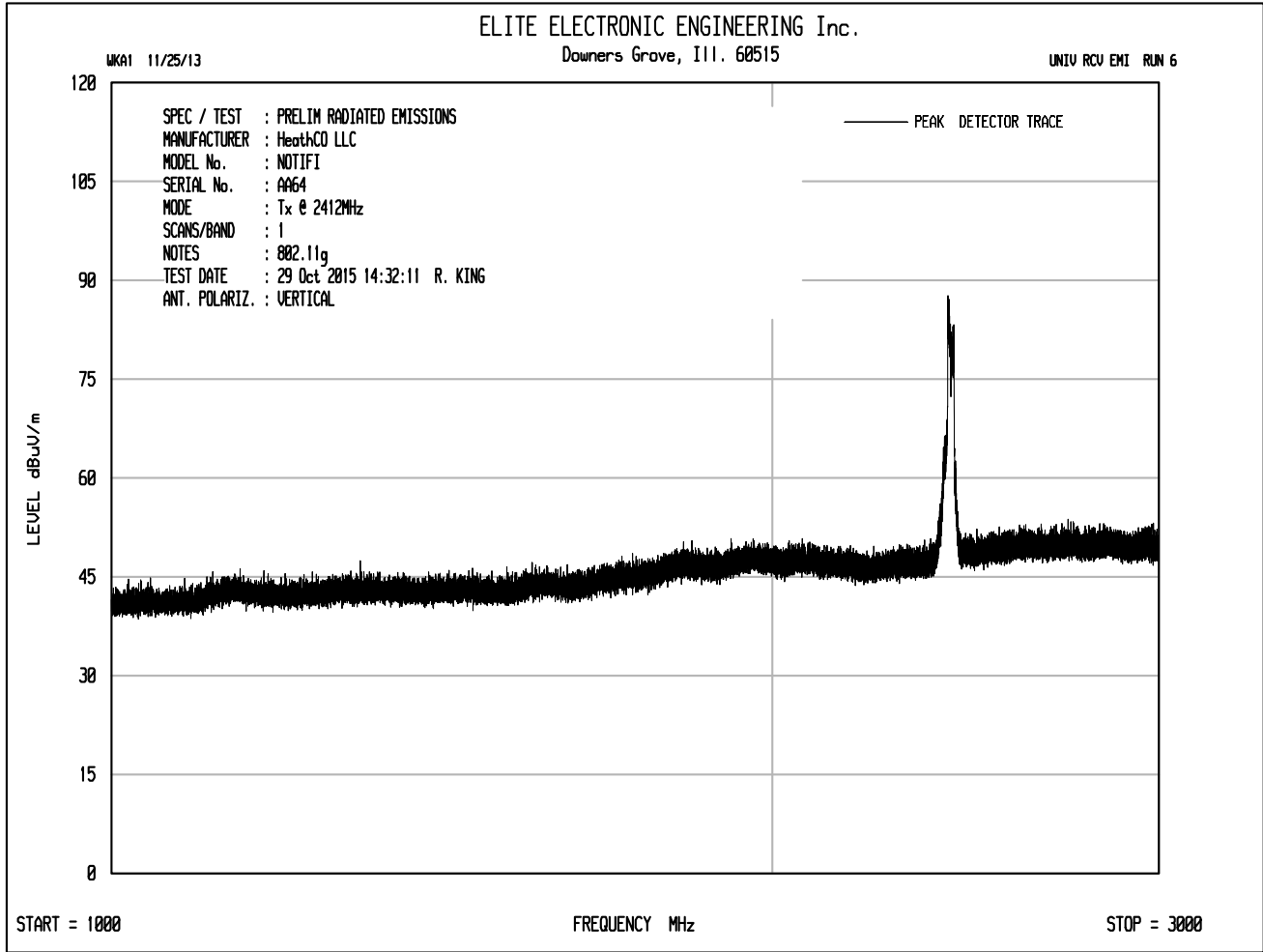
FREQUENCY MHz

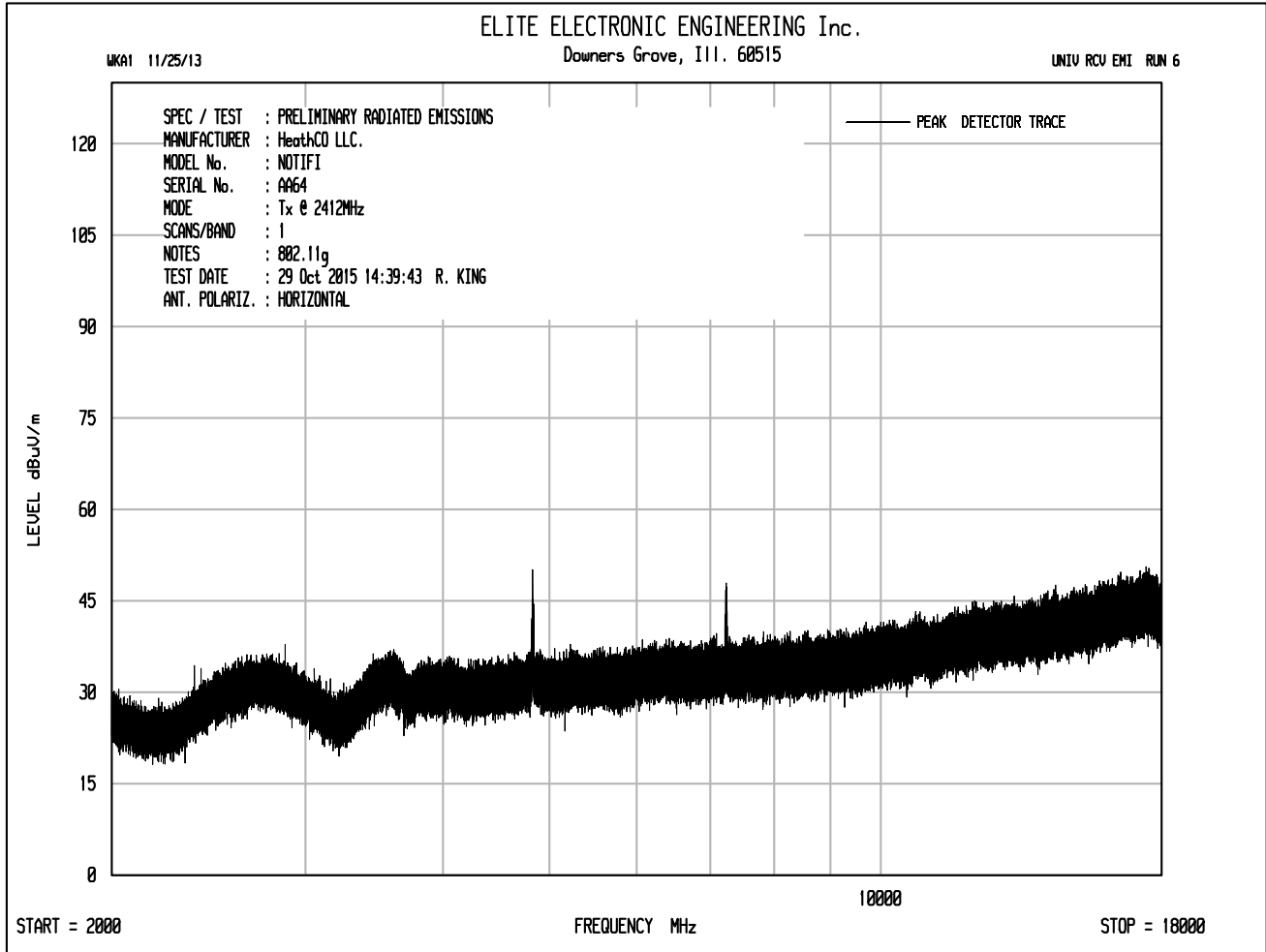
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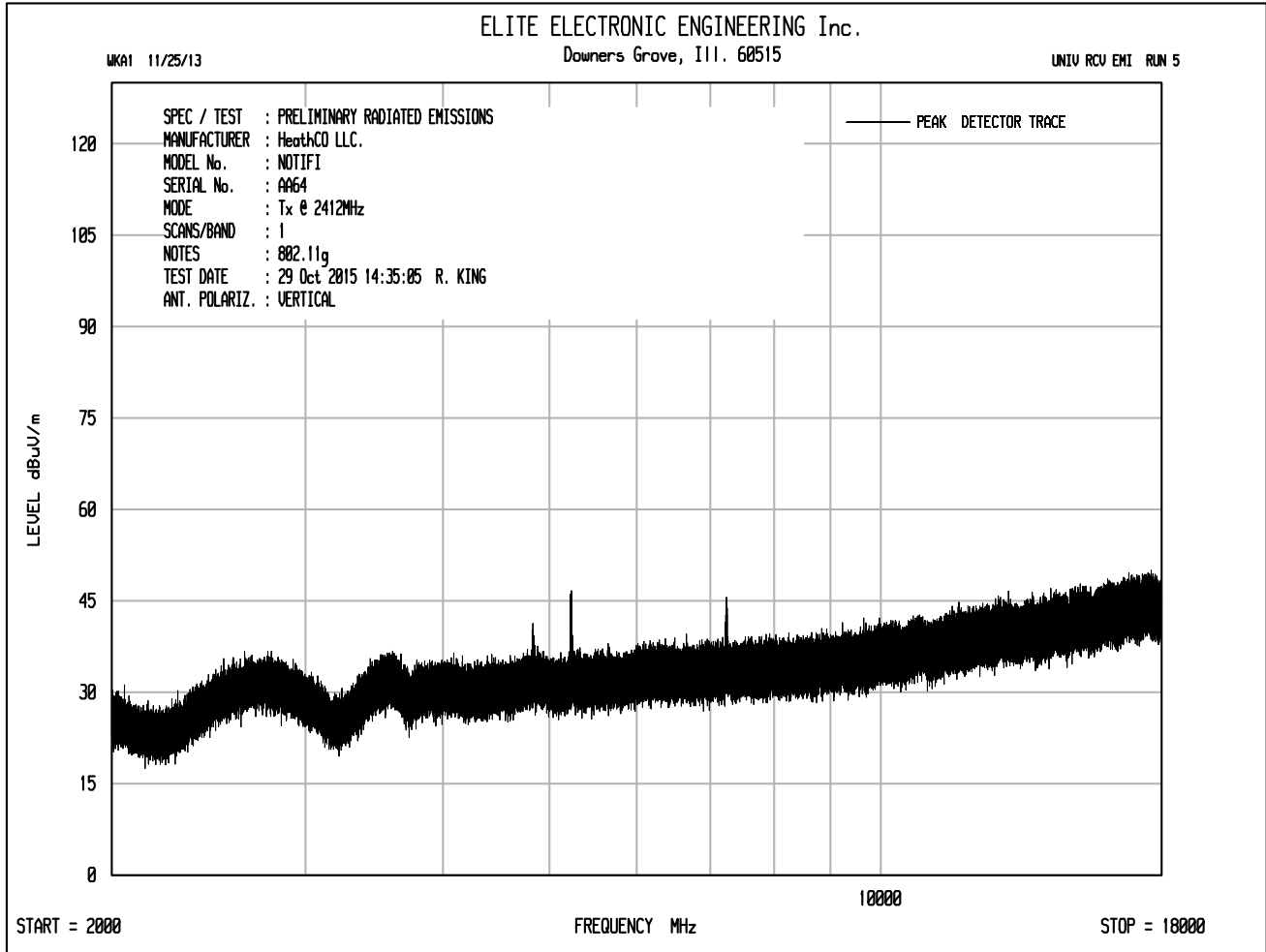










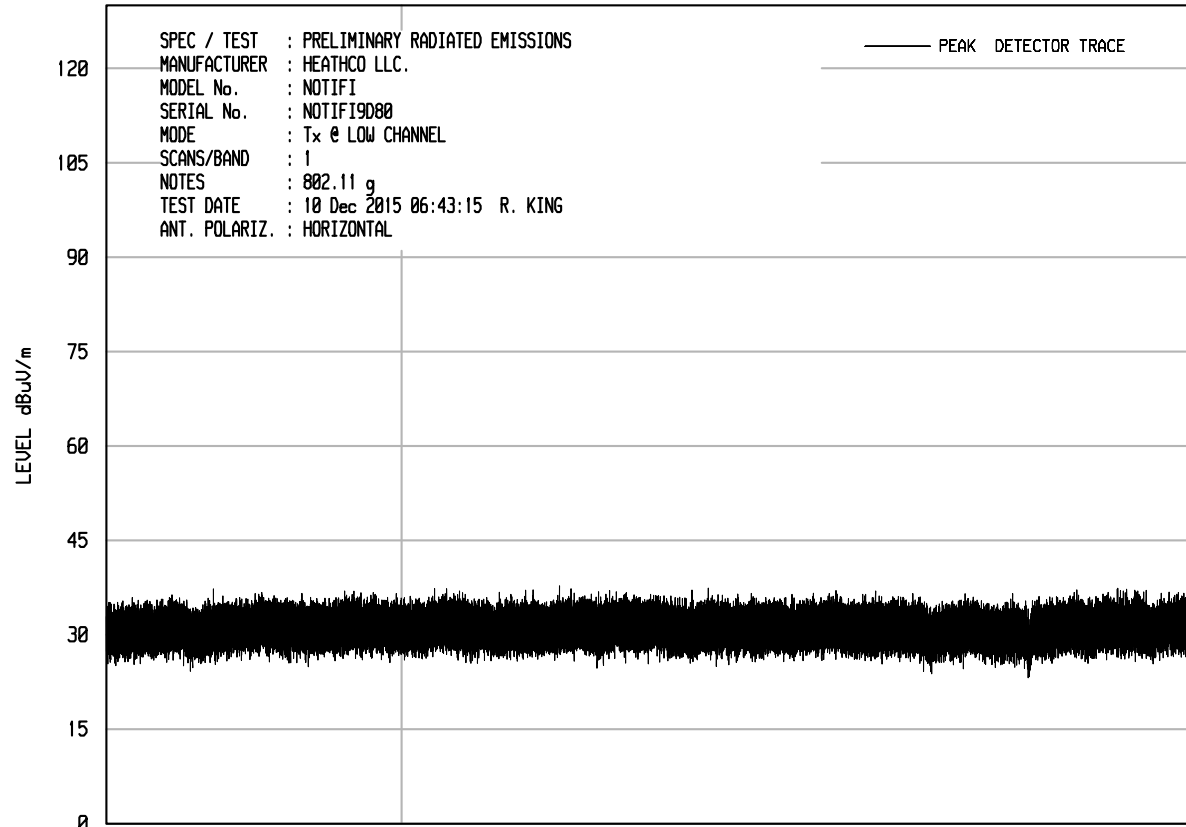




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UNIV RCU EMI RUN 6



START = 18000

FREQUENCY MHz

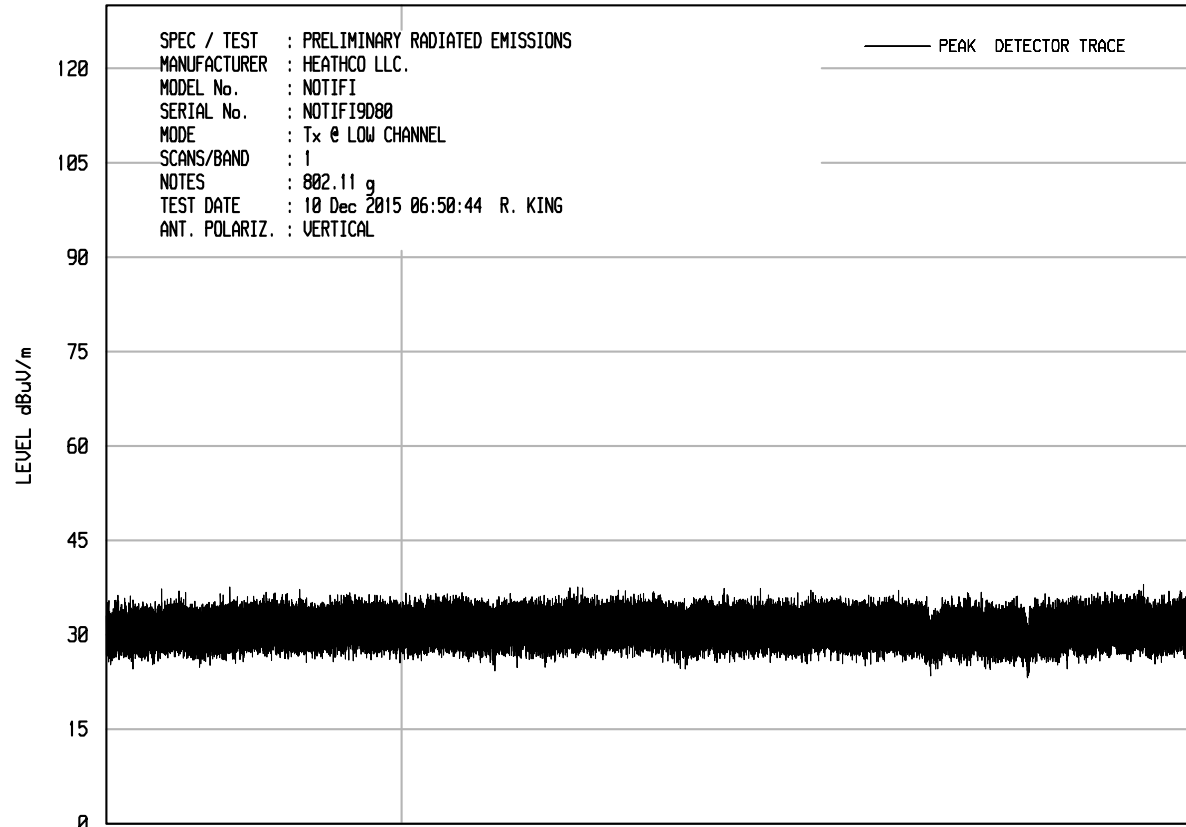
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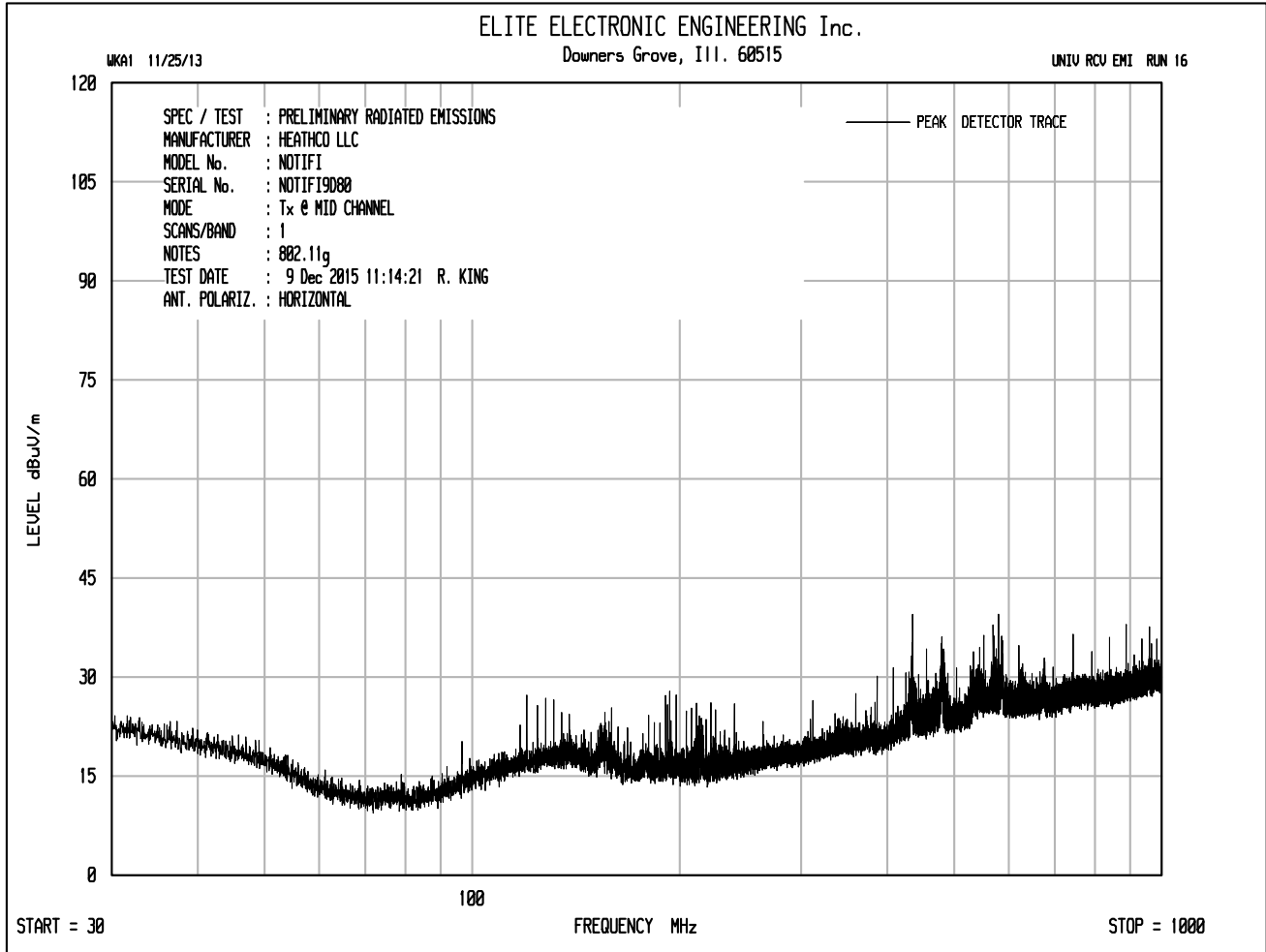
UNIV RCU EMI RUN 8

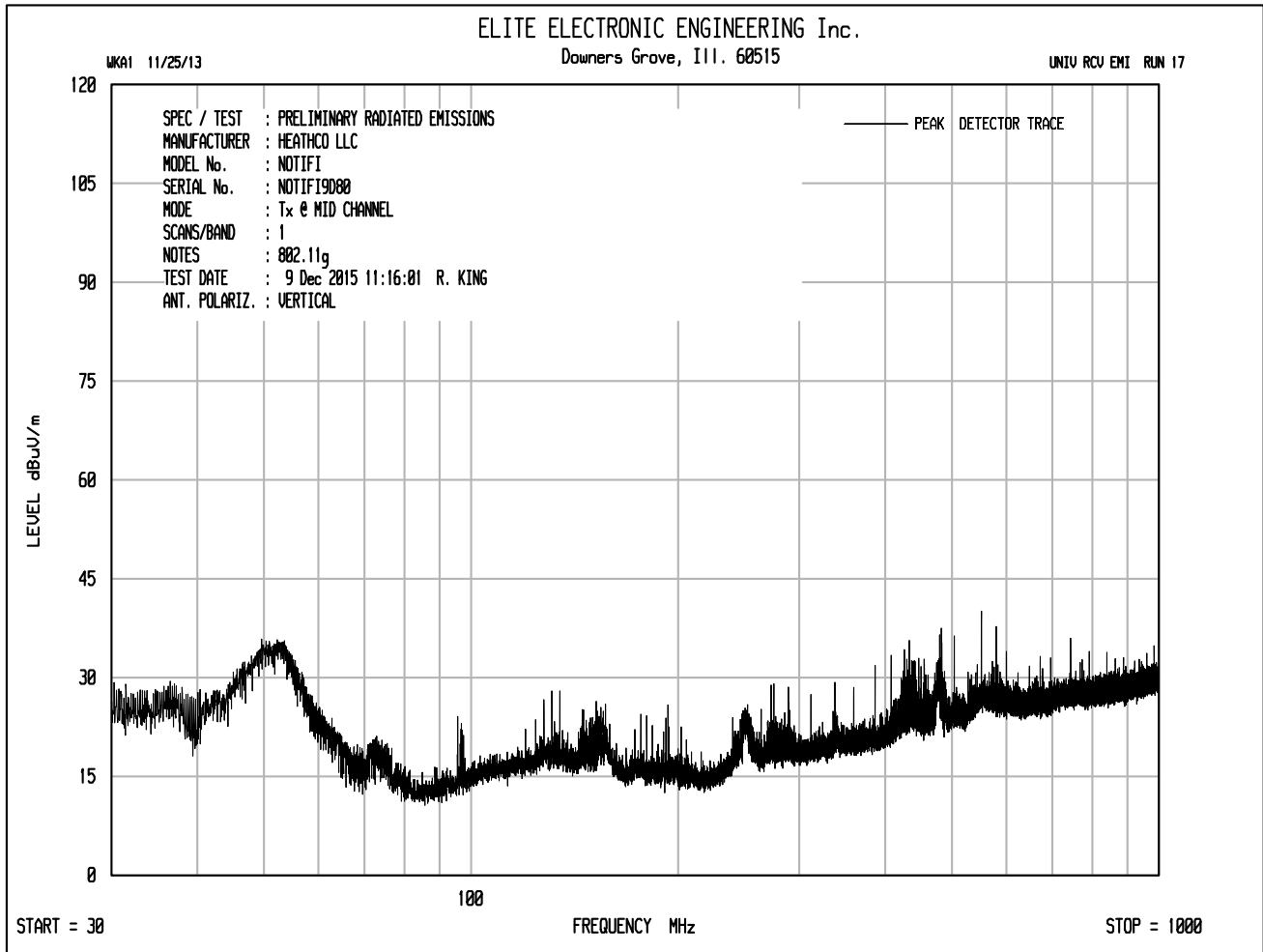


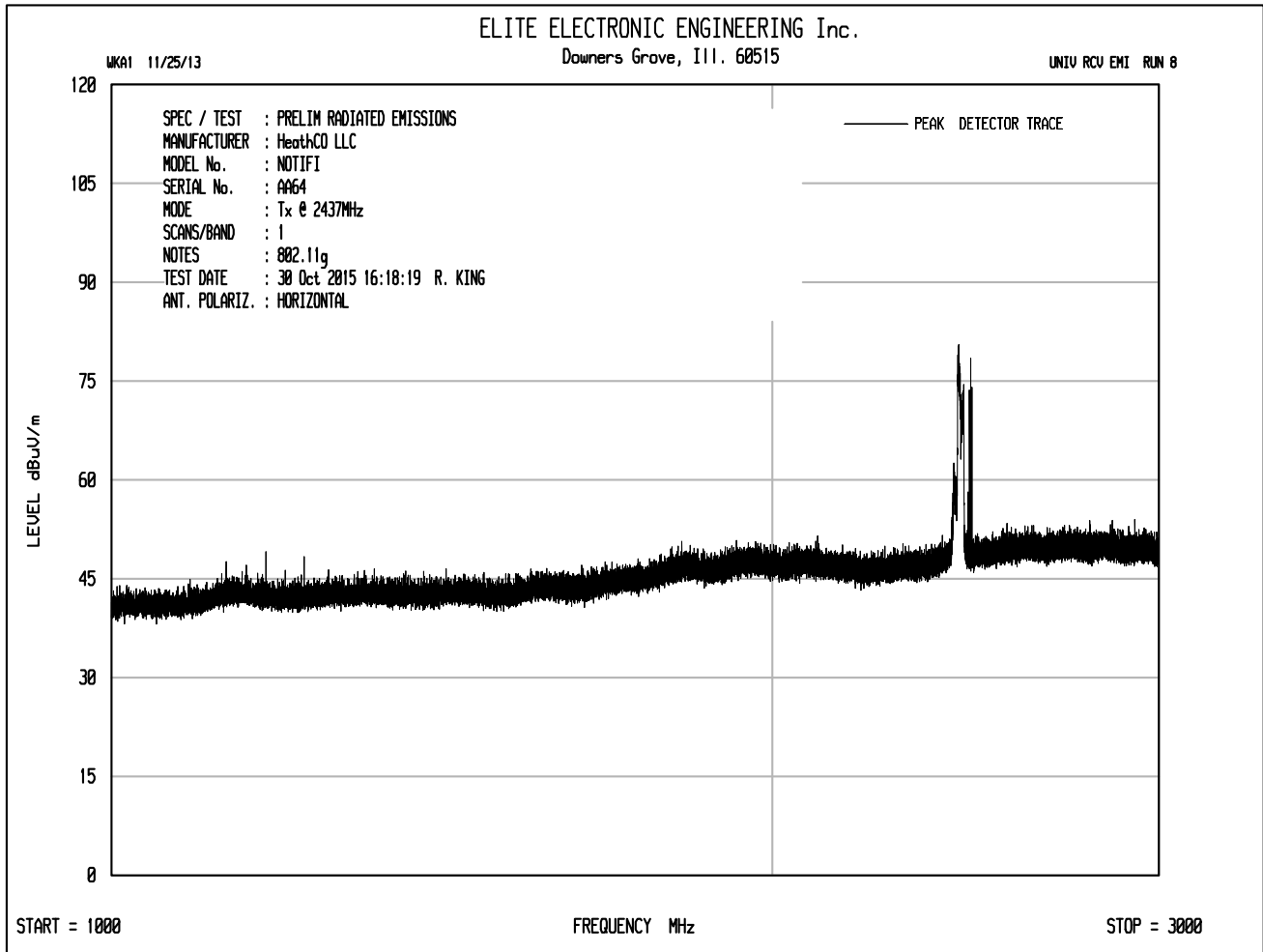
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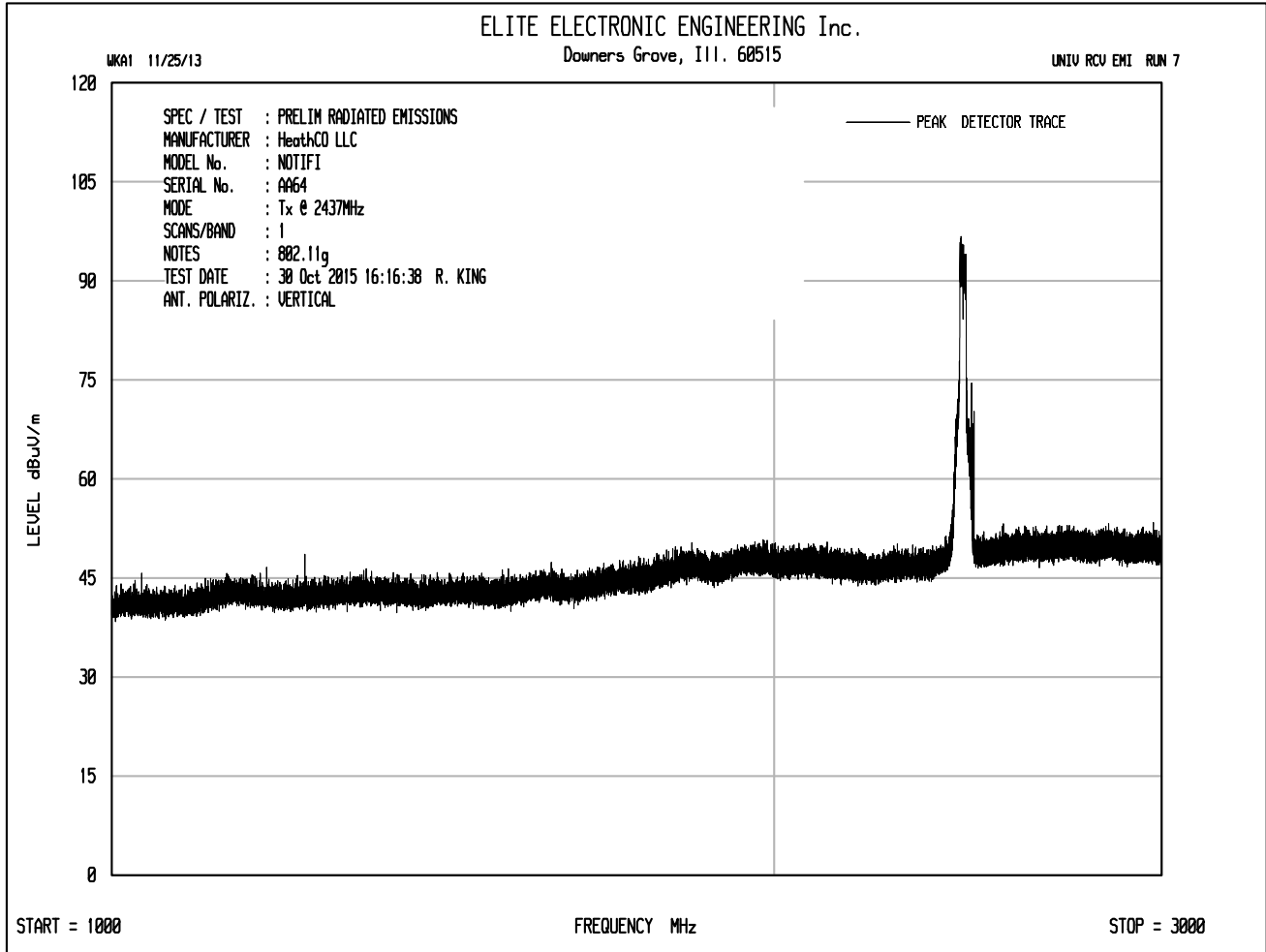
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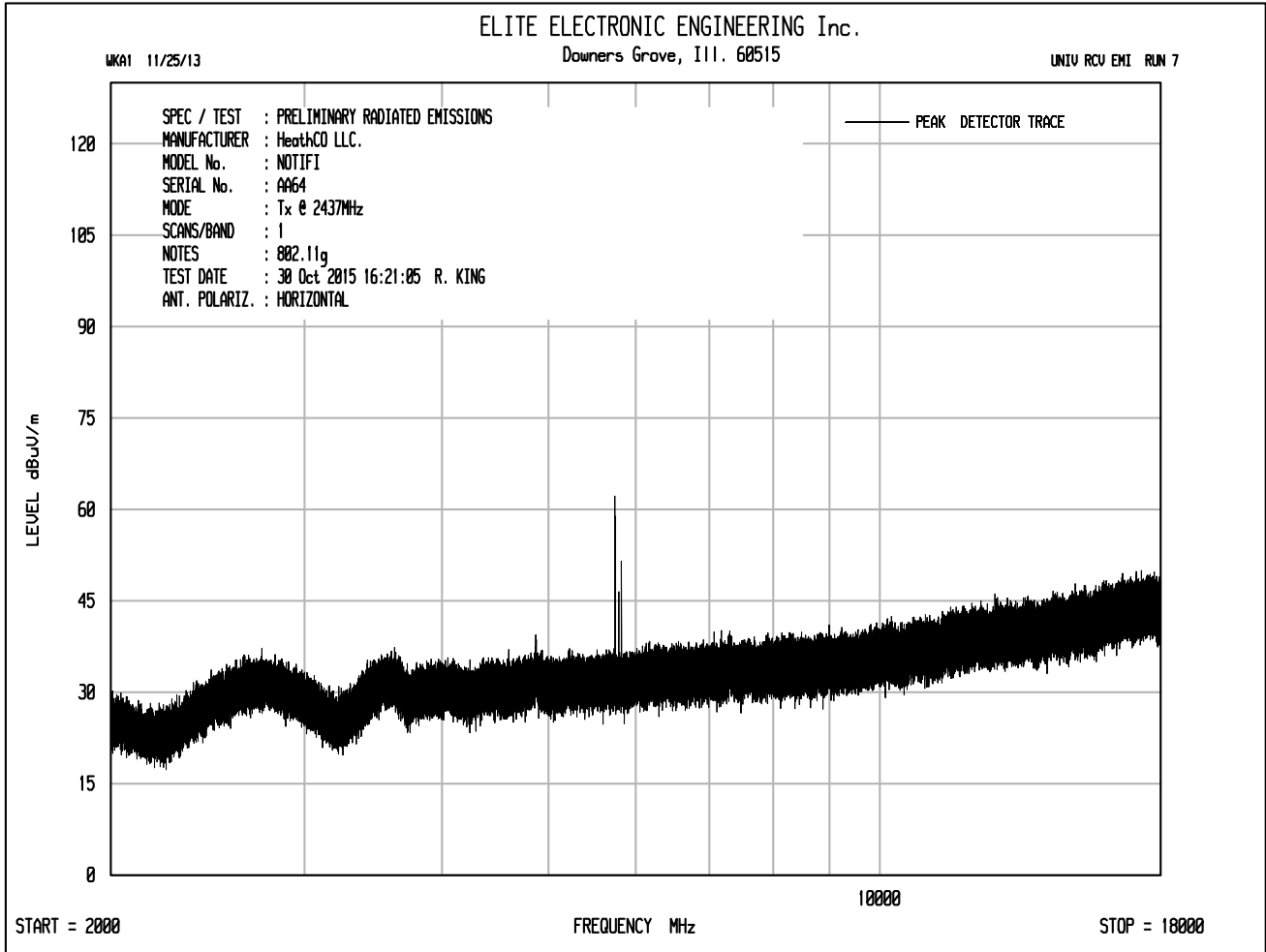
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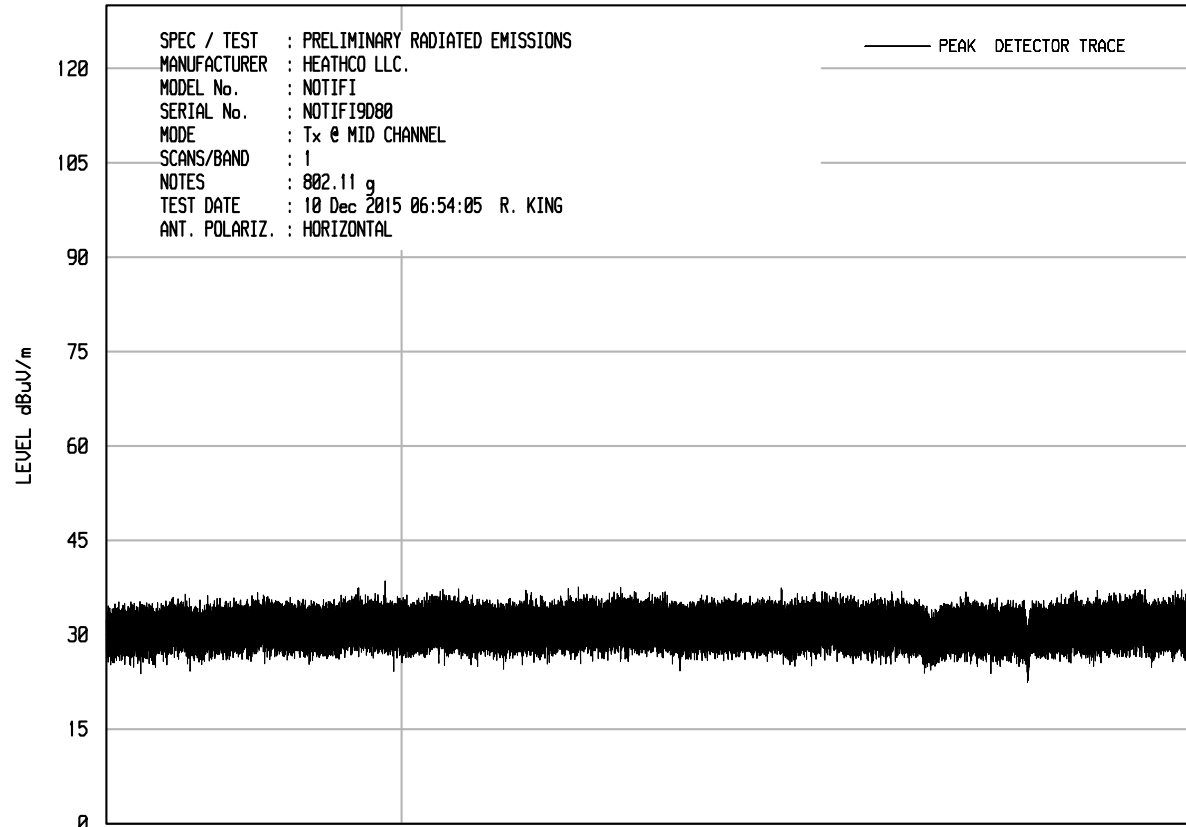




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UNIV RCU EMI RUN 9



START = 18000

FREQUENCY MHz

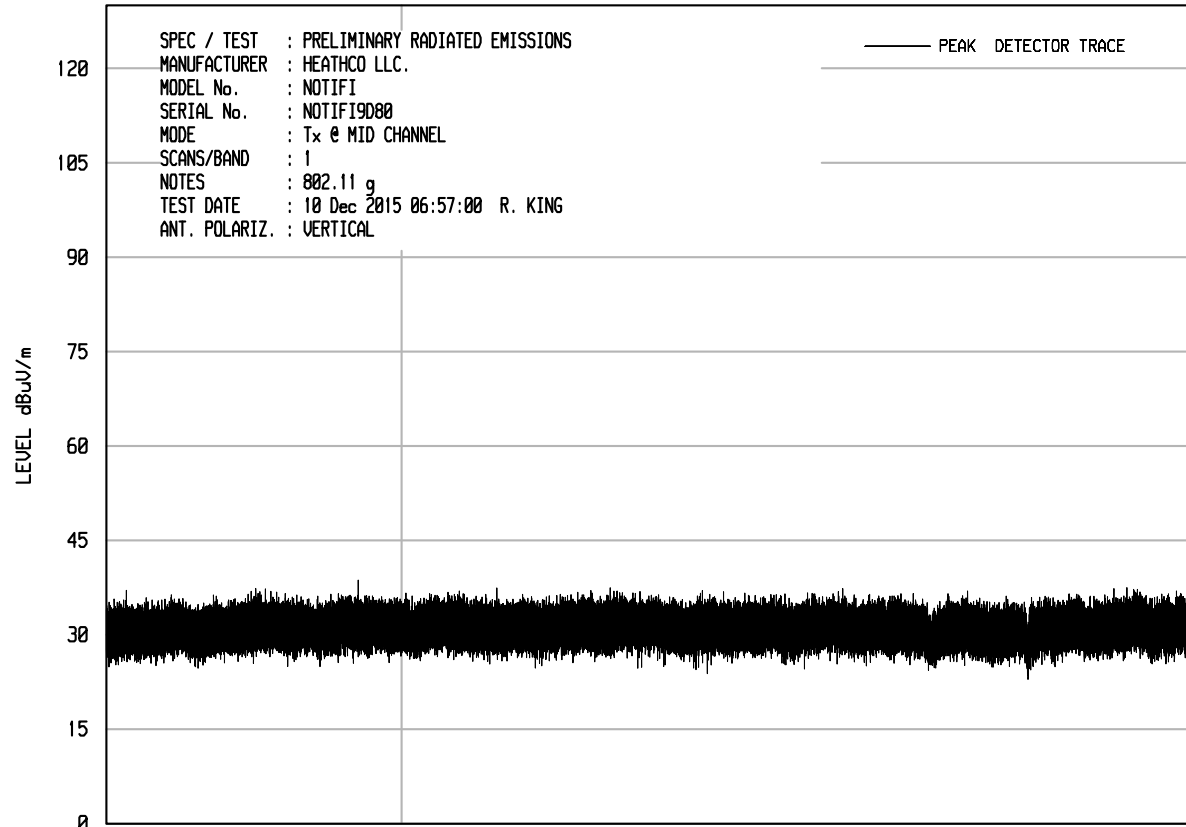
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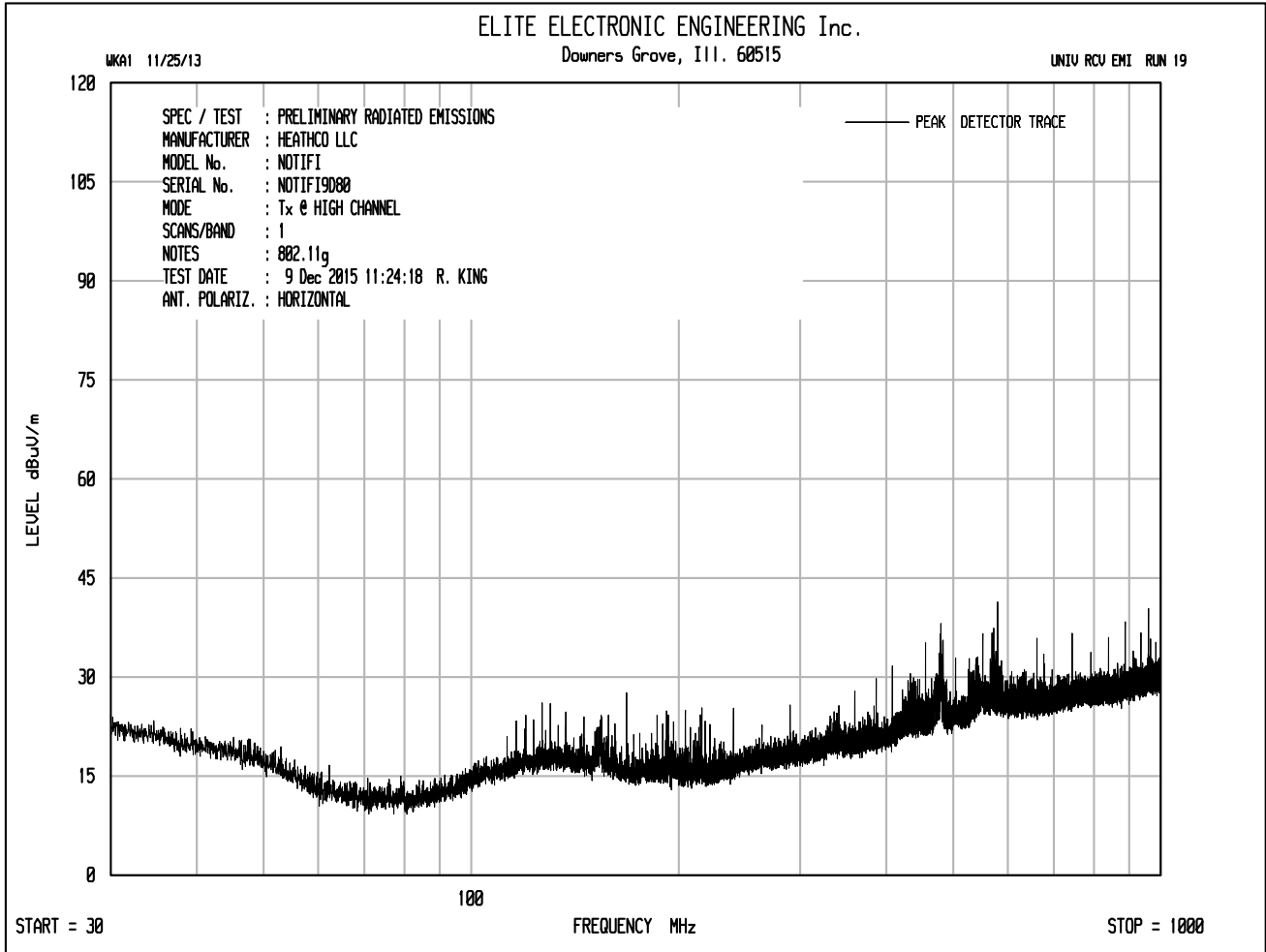
UNIV RCU EMI RUN 10

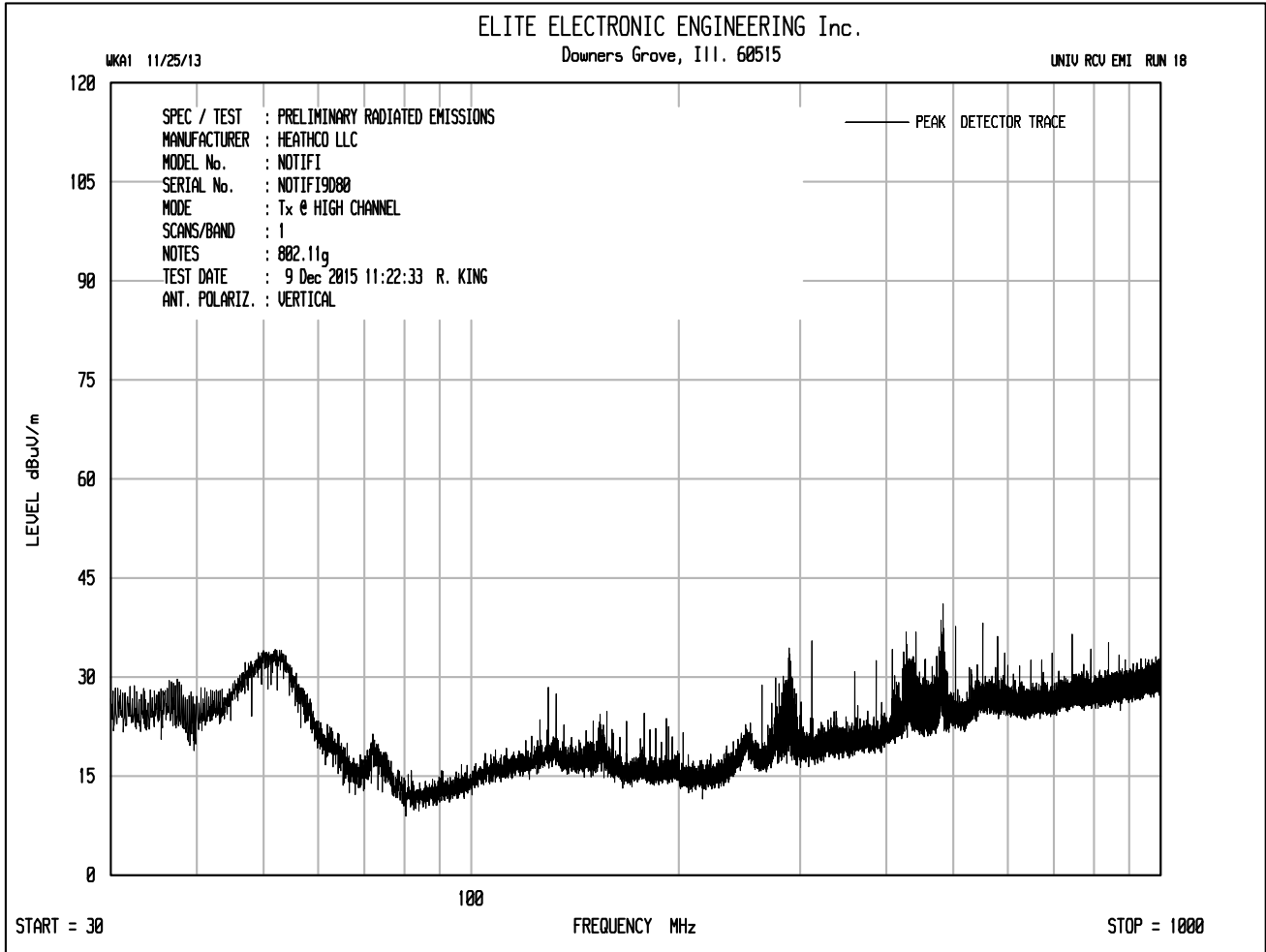


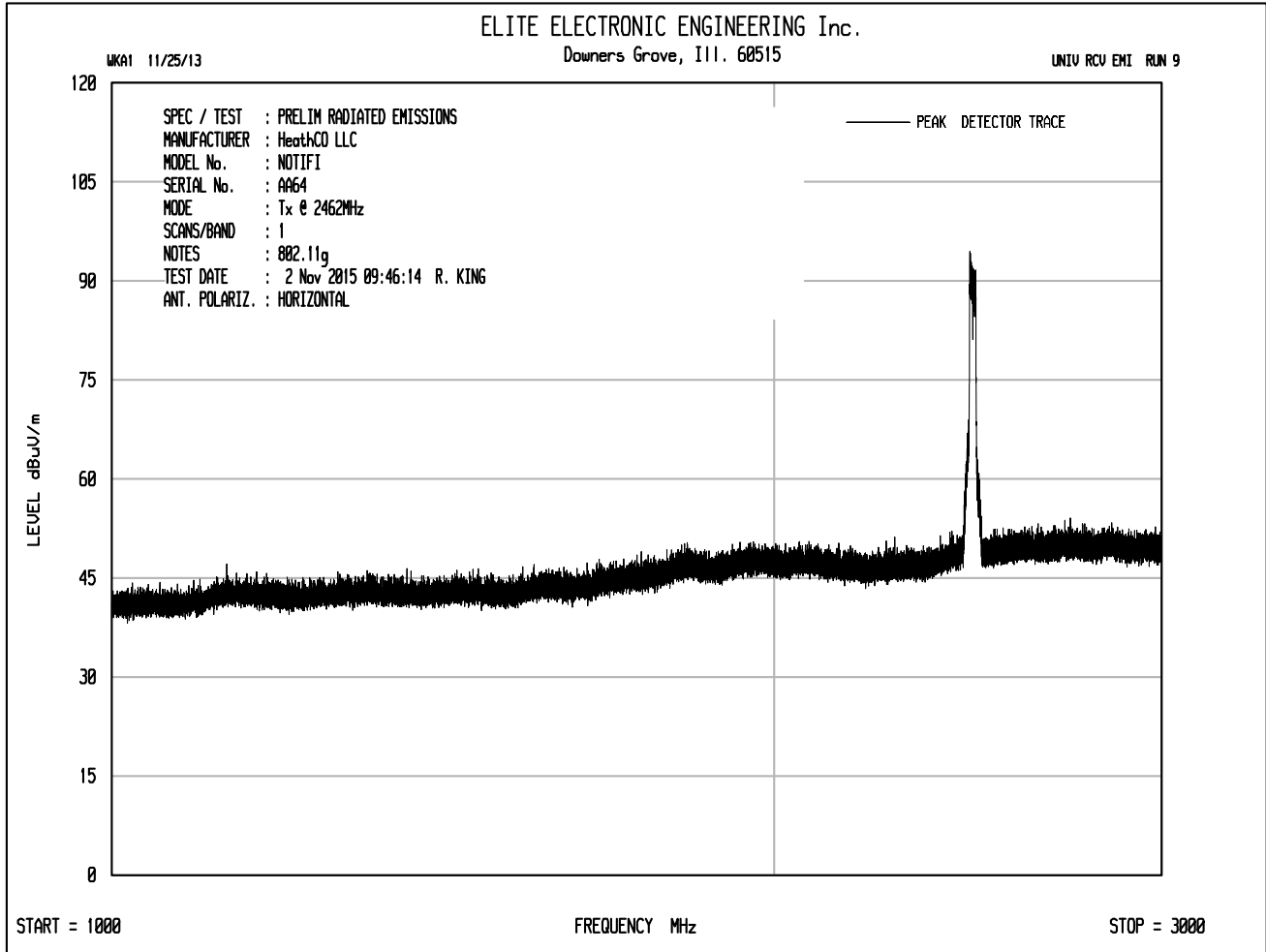
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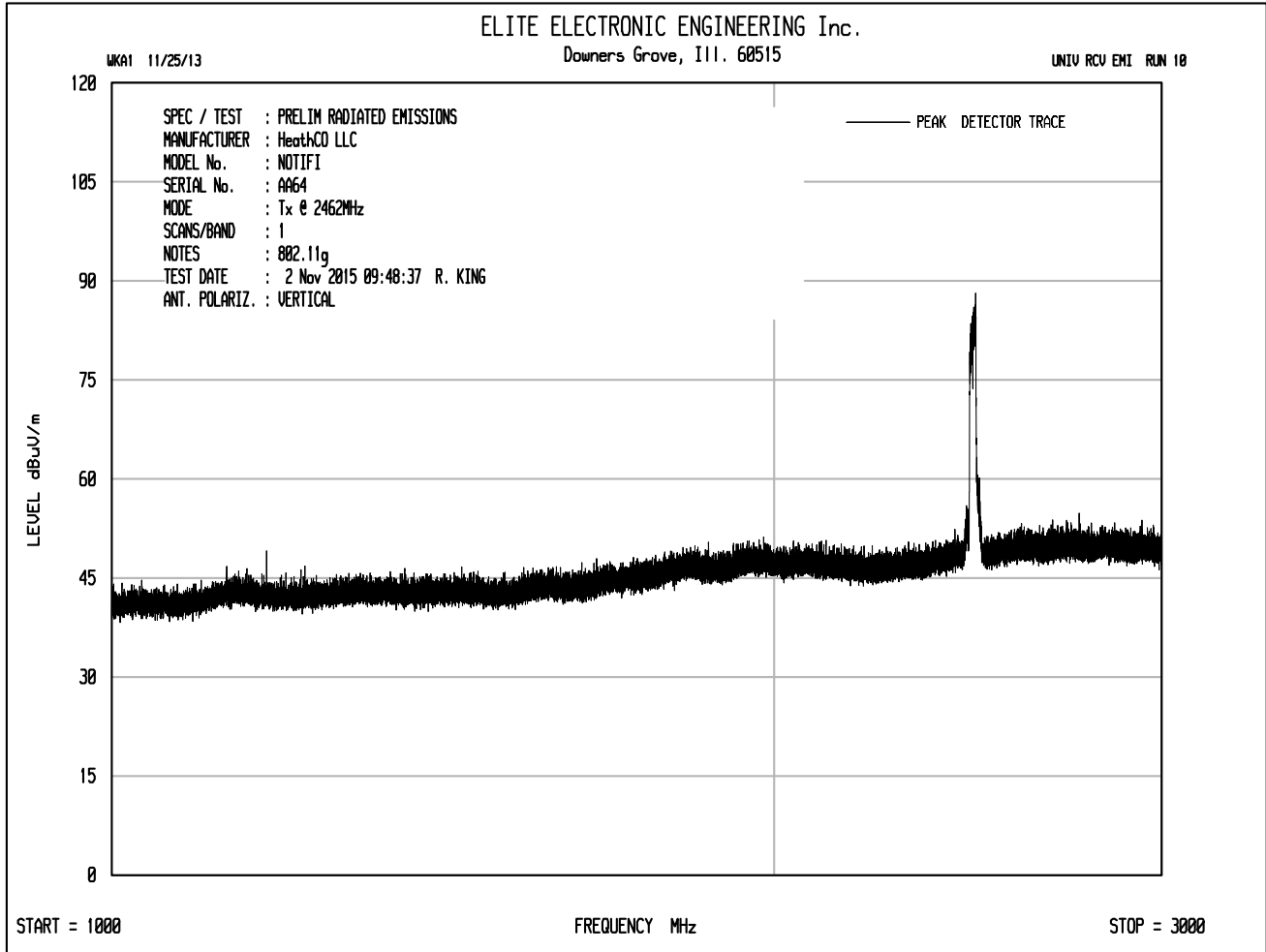
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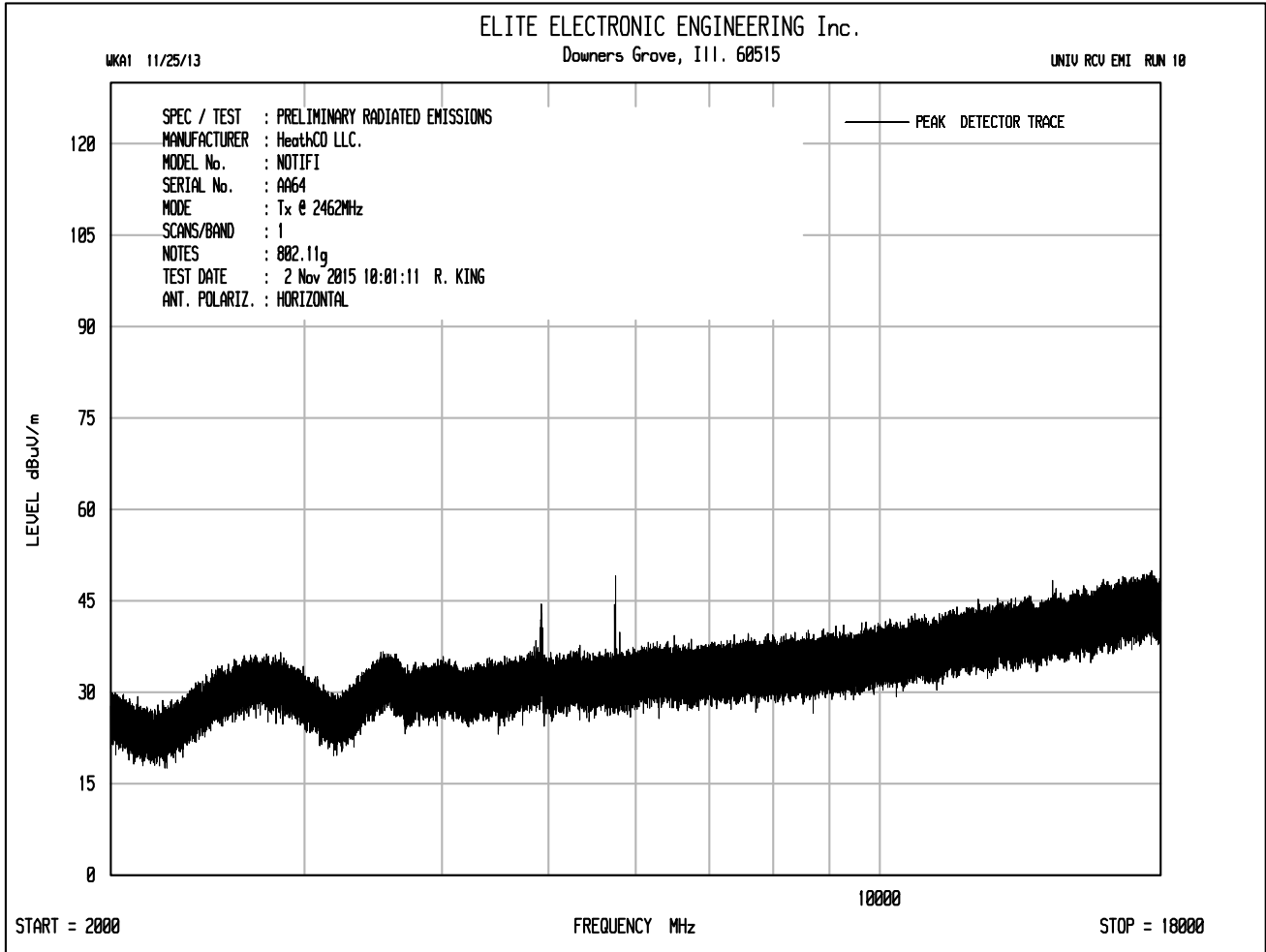
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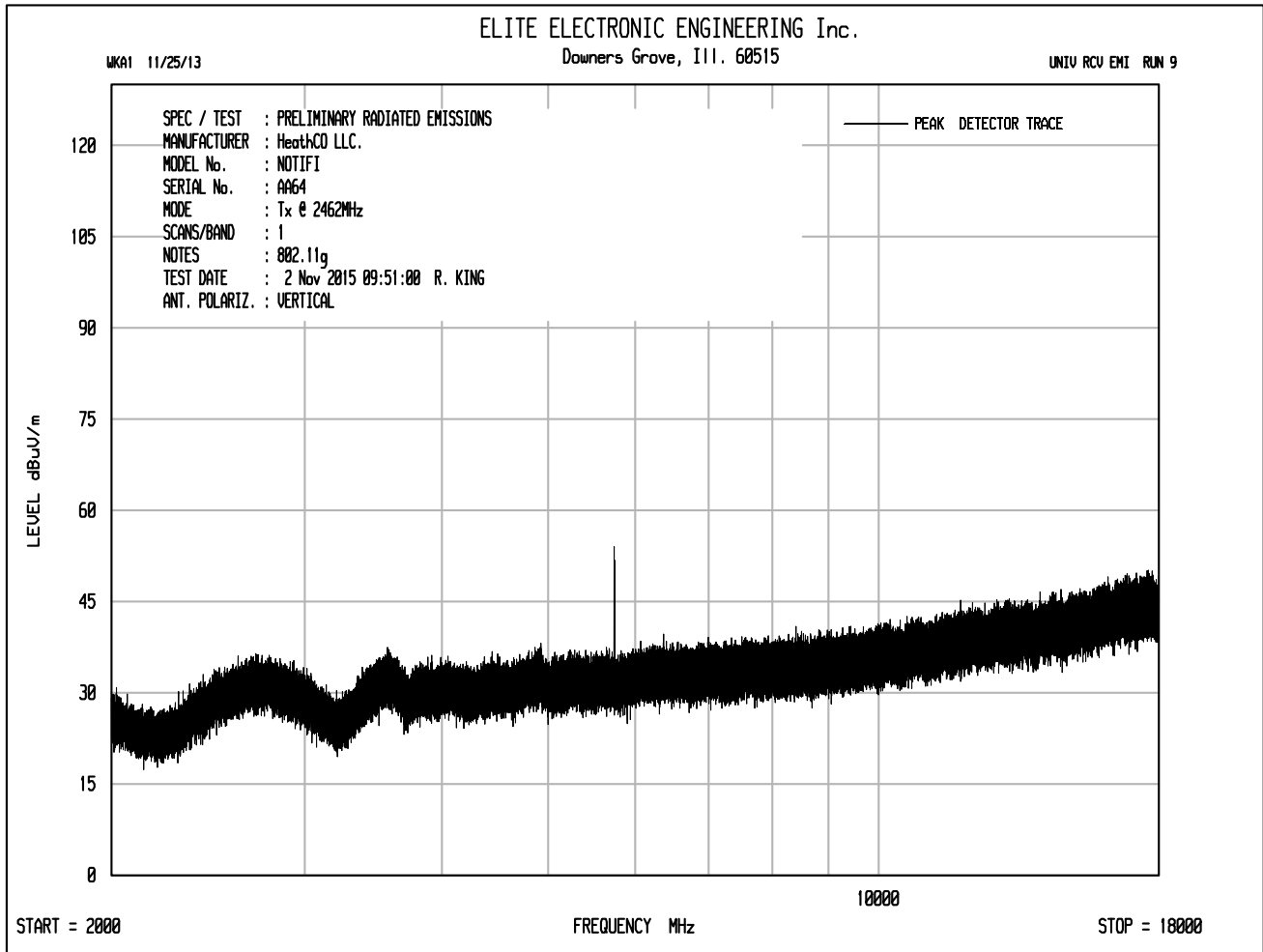










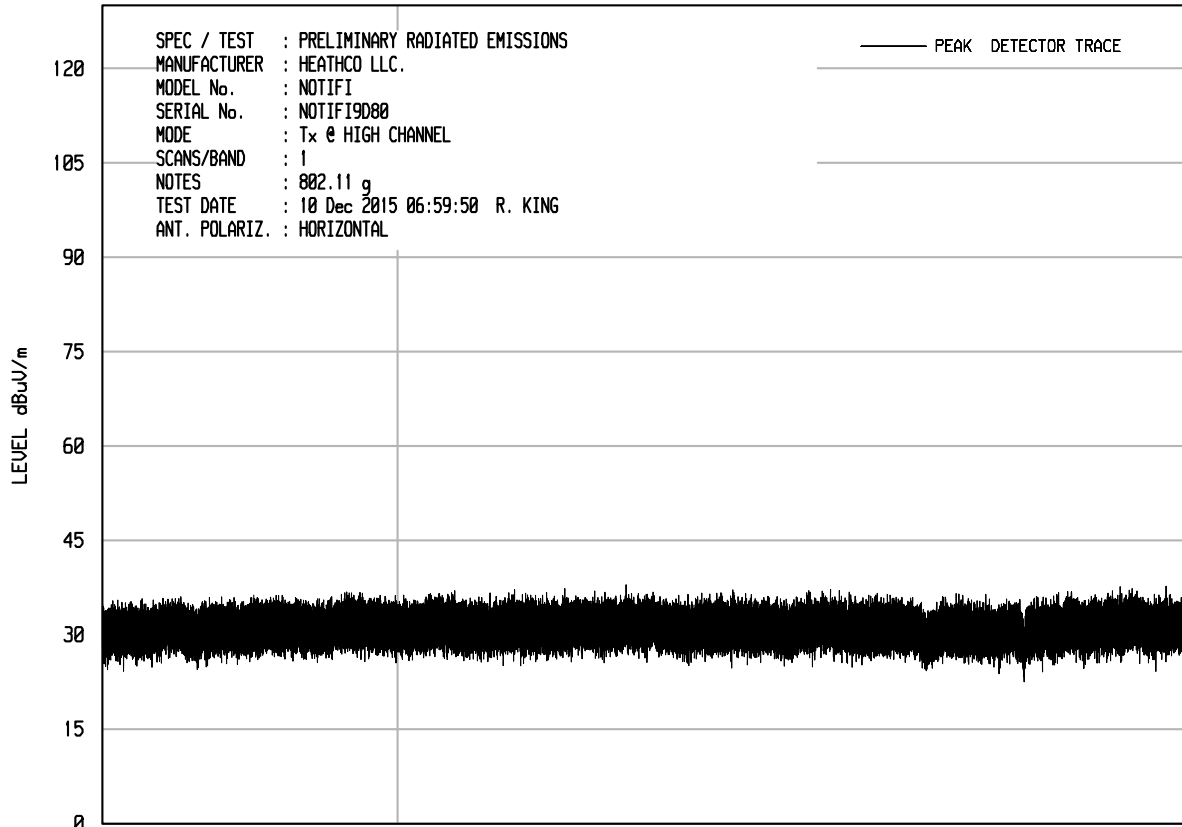




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UNIV RCU EMI RUN 11



START = 18000

FREQUENCY MHz

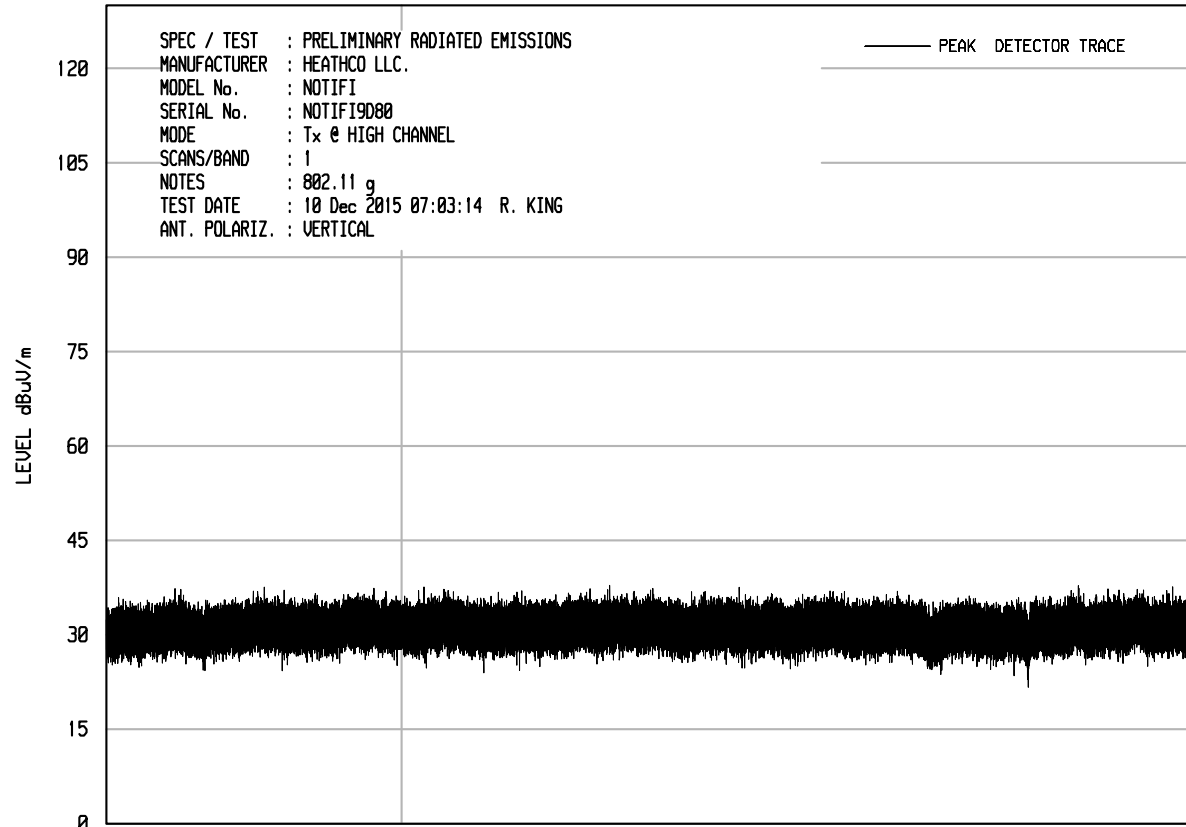
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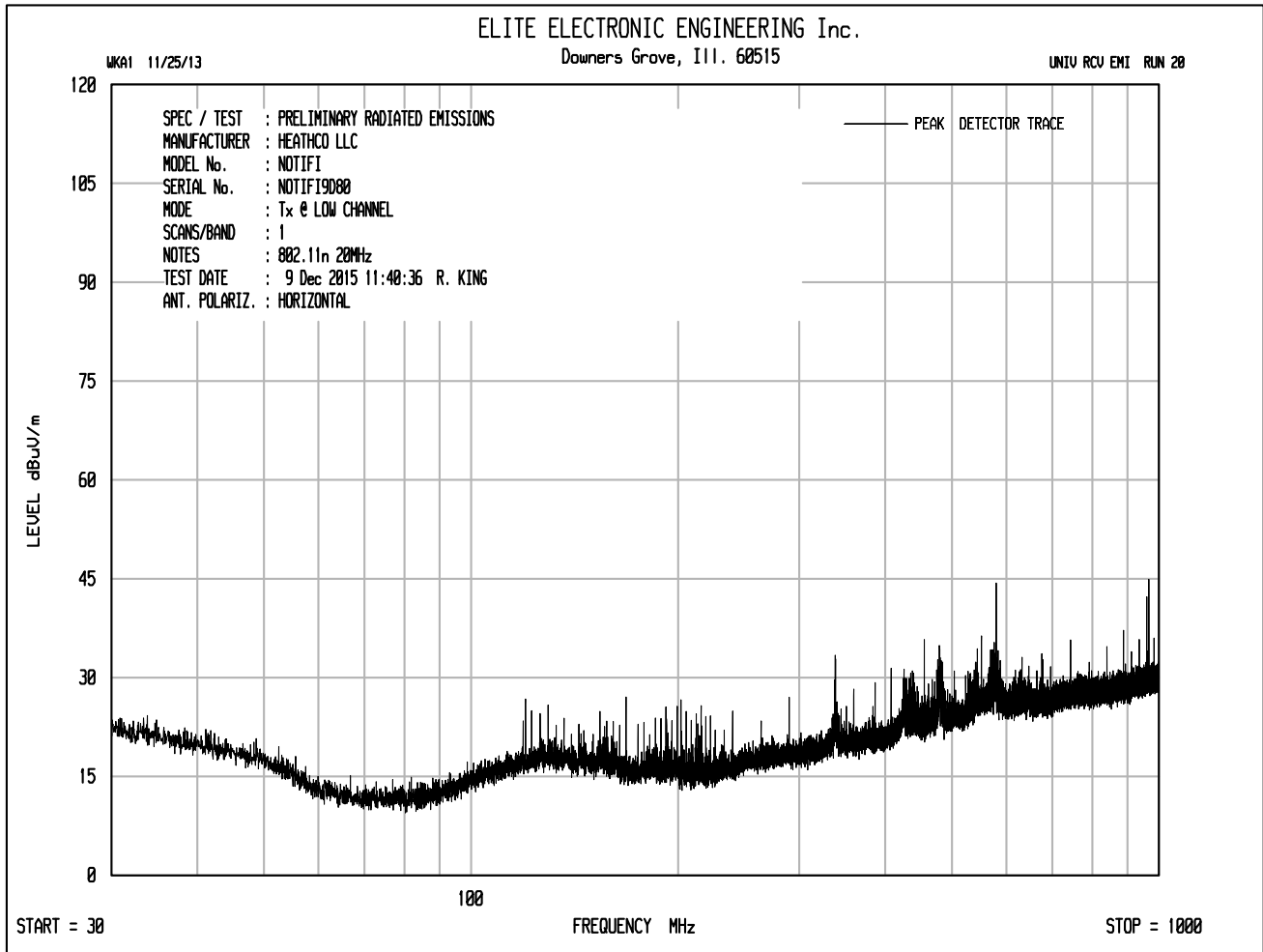
UNIV RCU EMI RUN 12

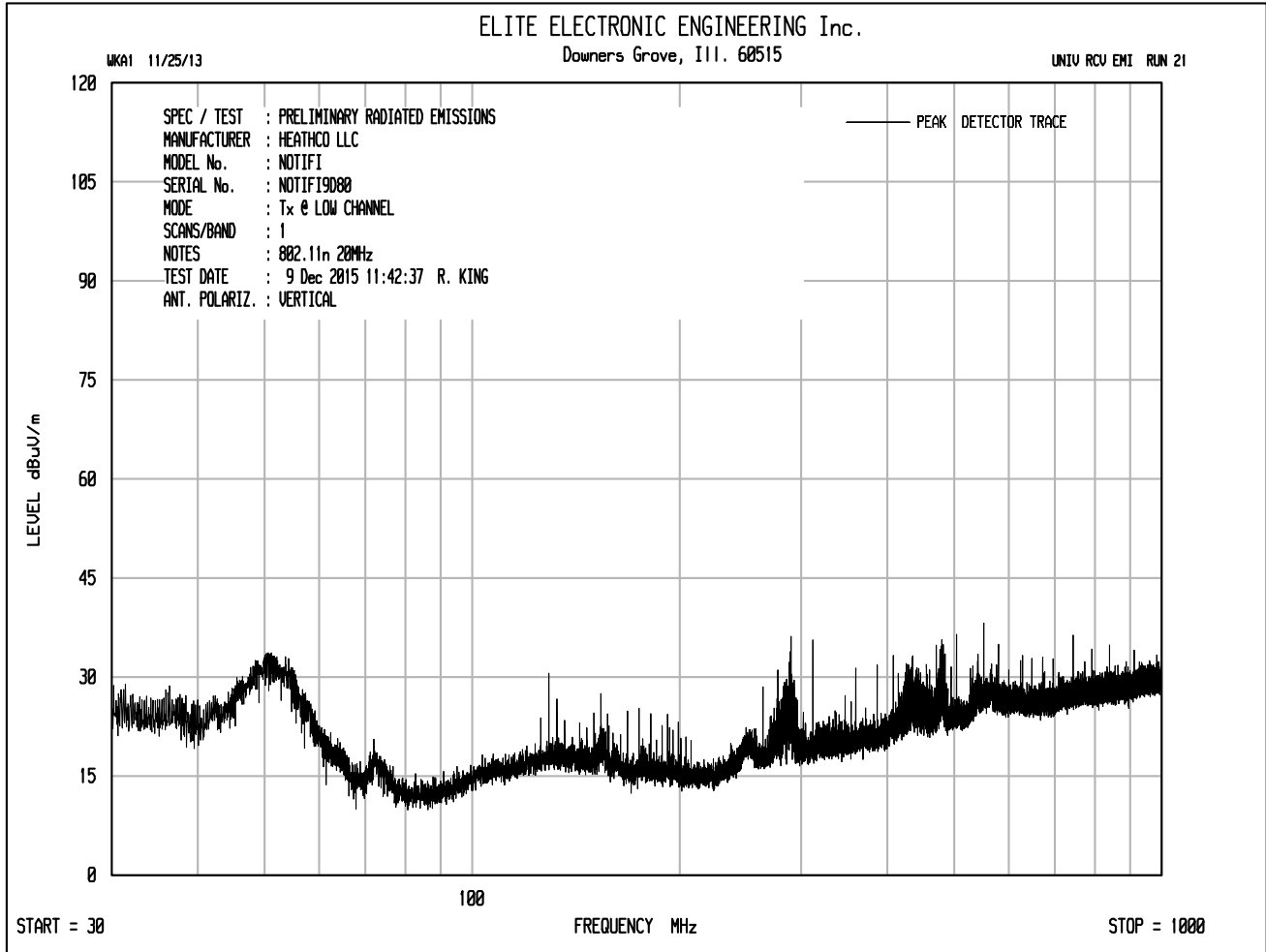


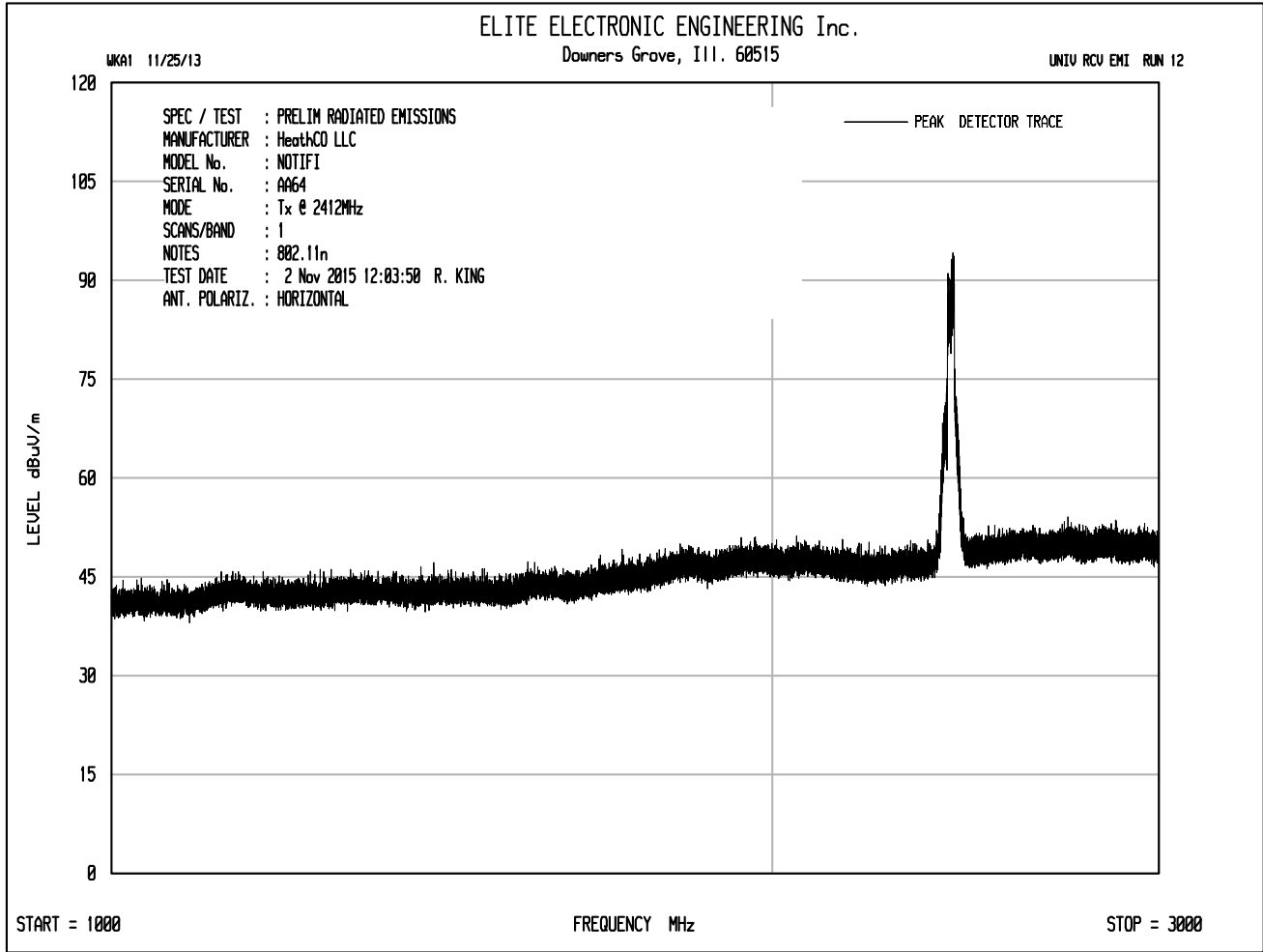
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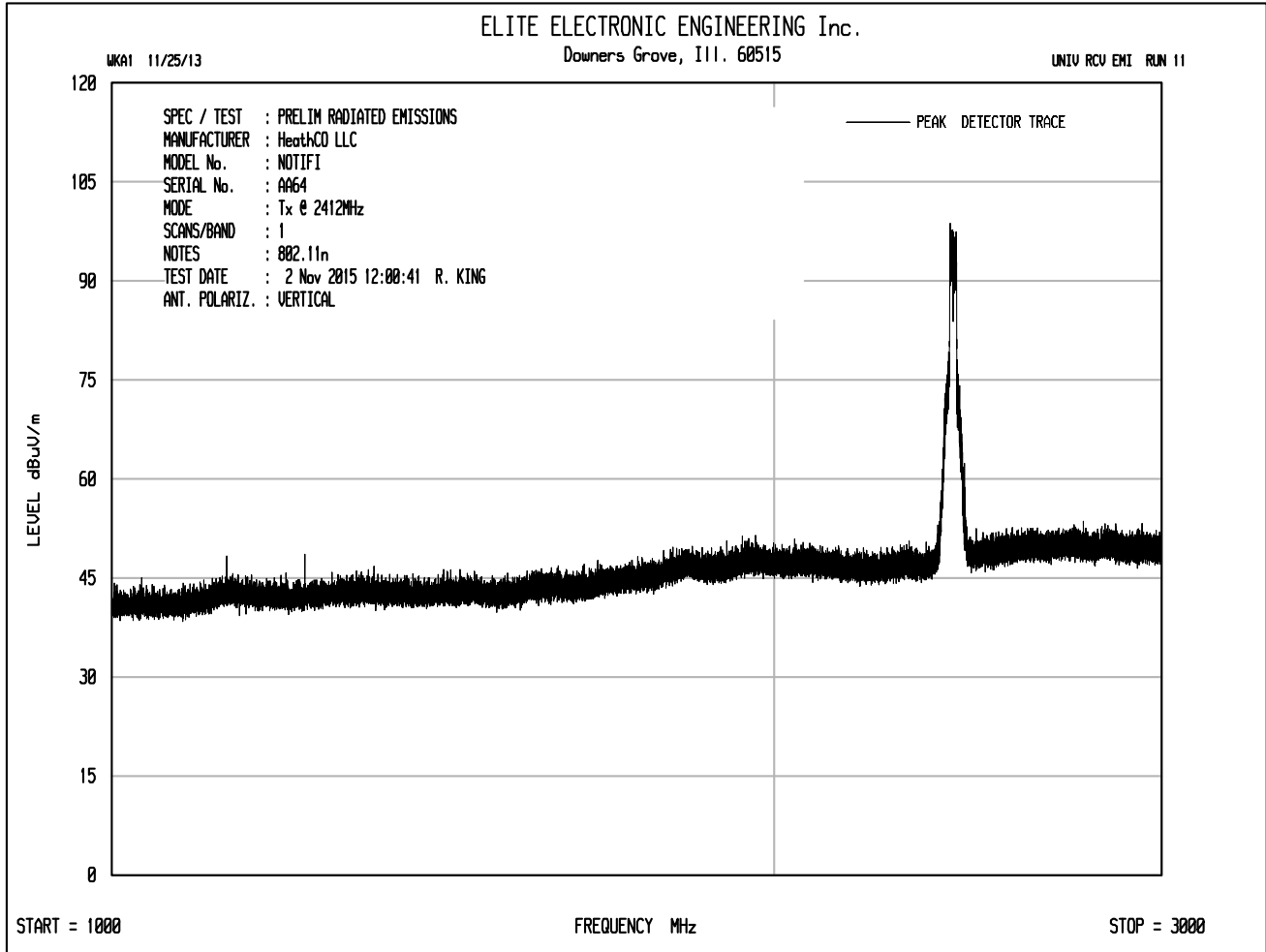
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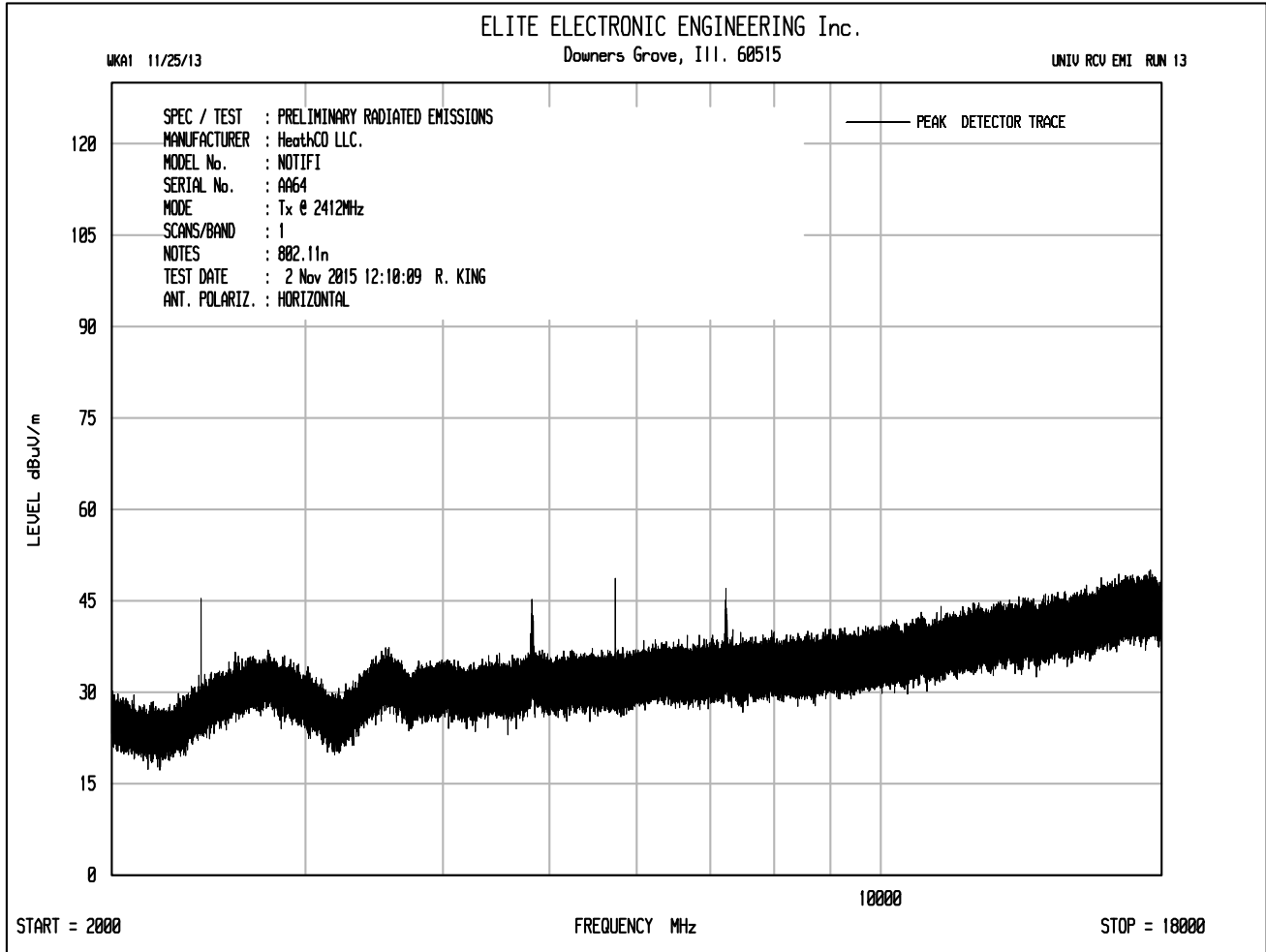
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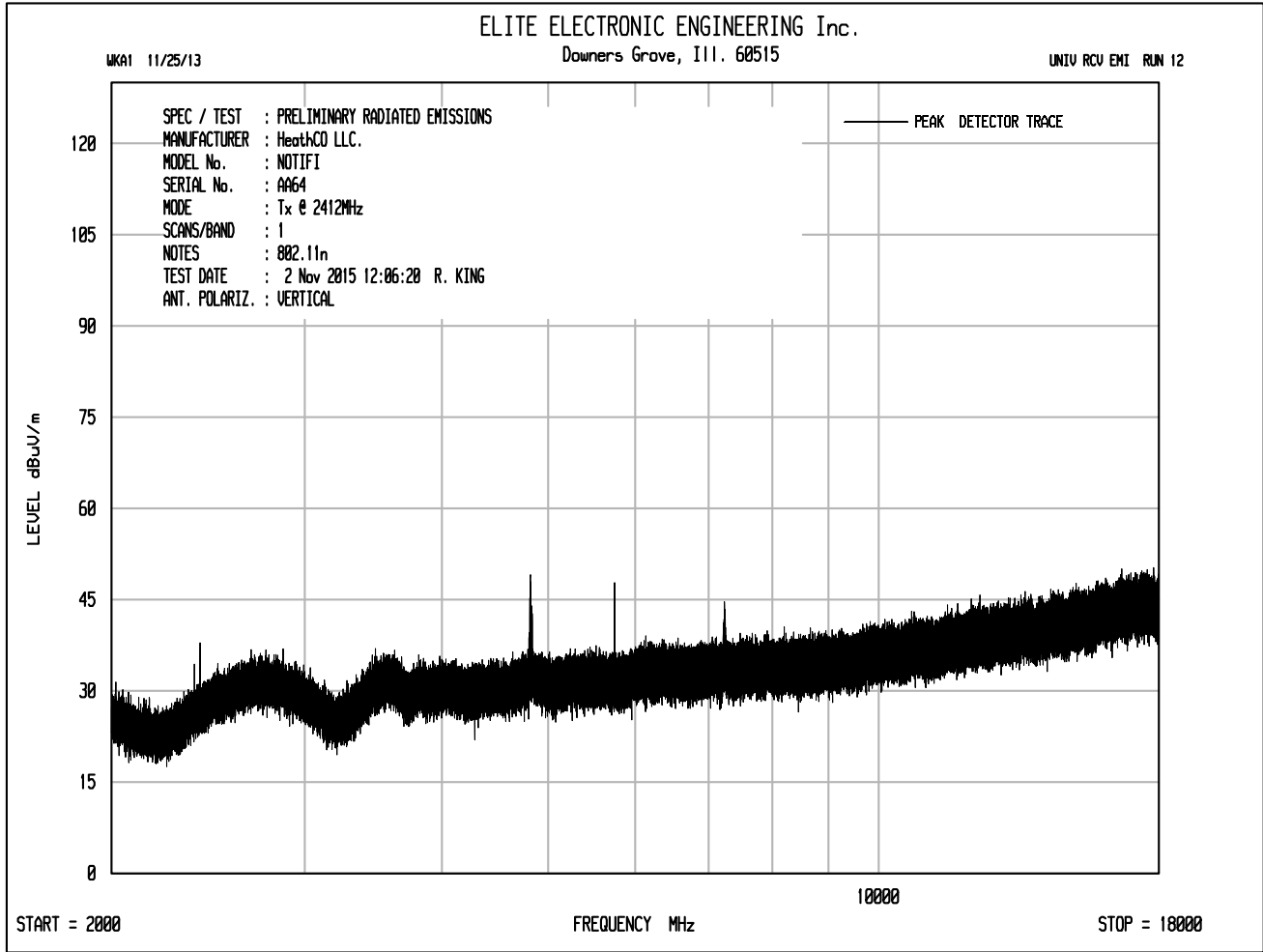










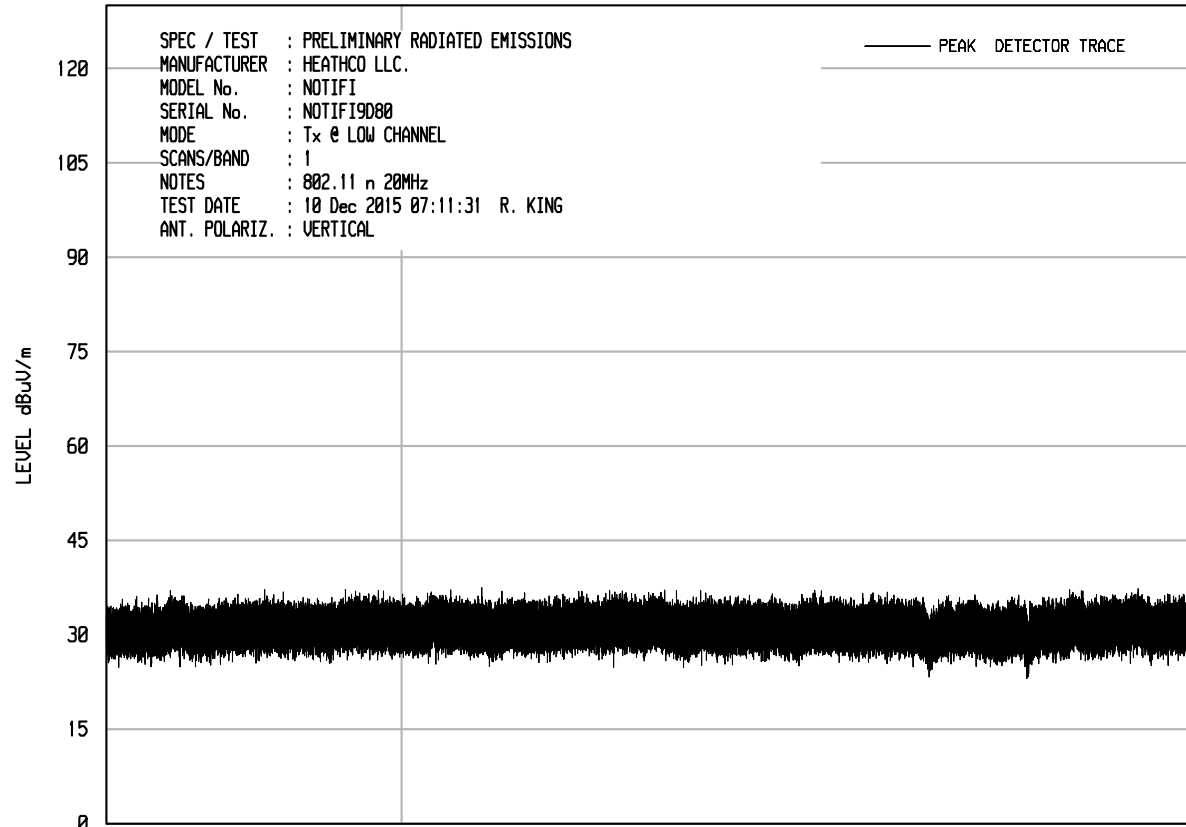




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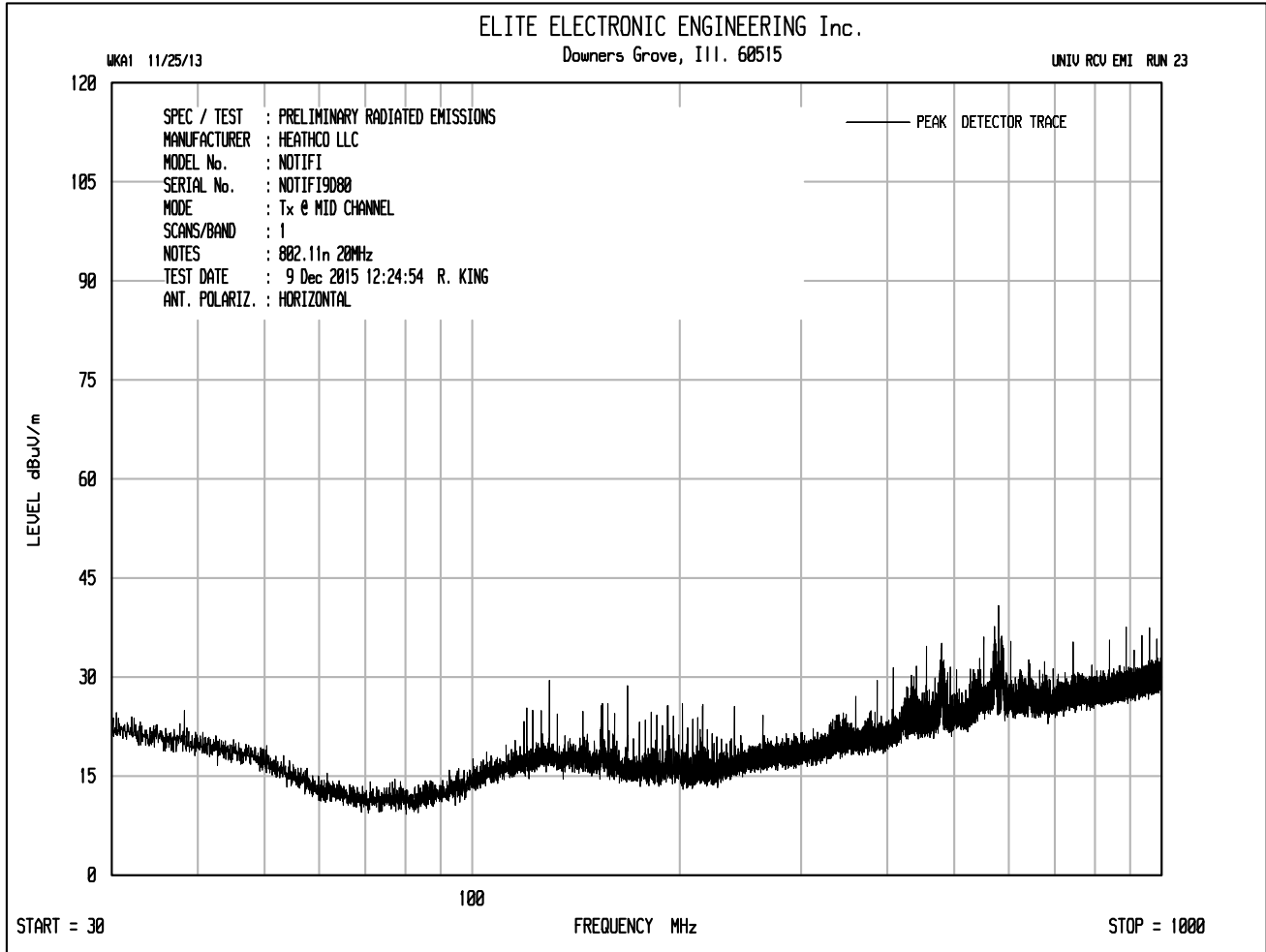
UNIV RCU EMI RUN 14

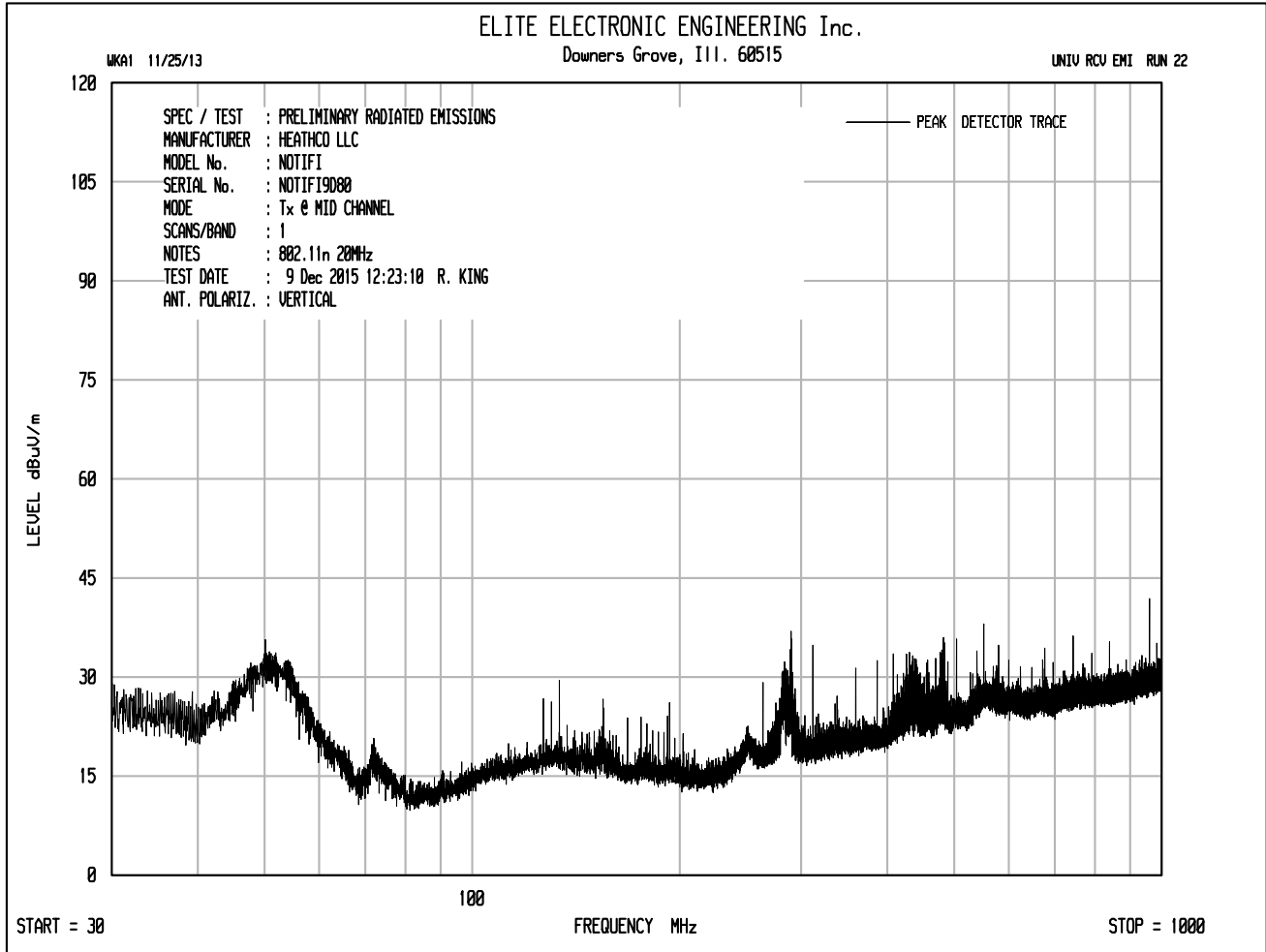


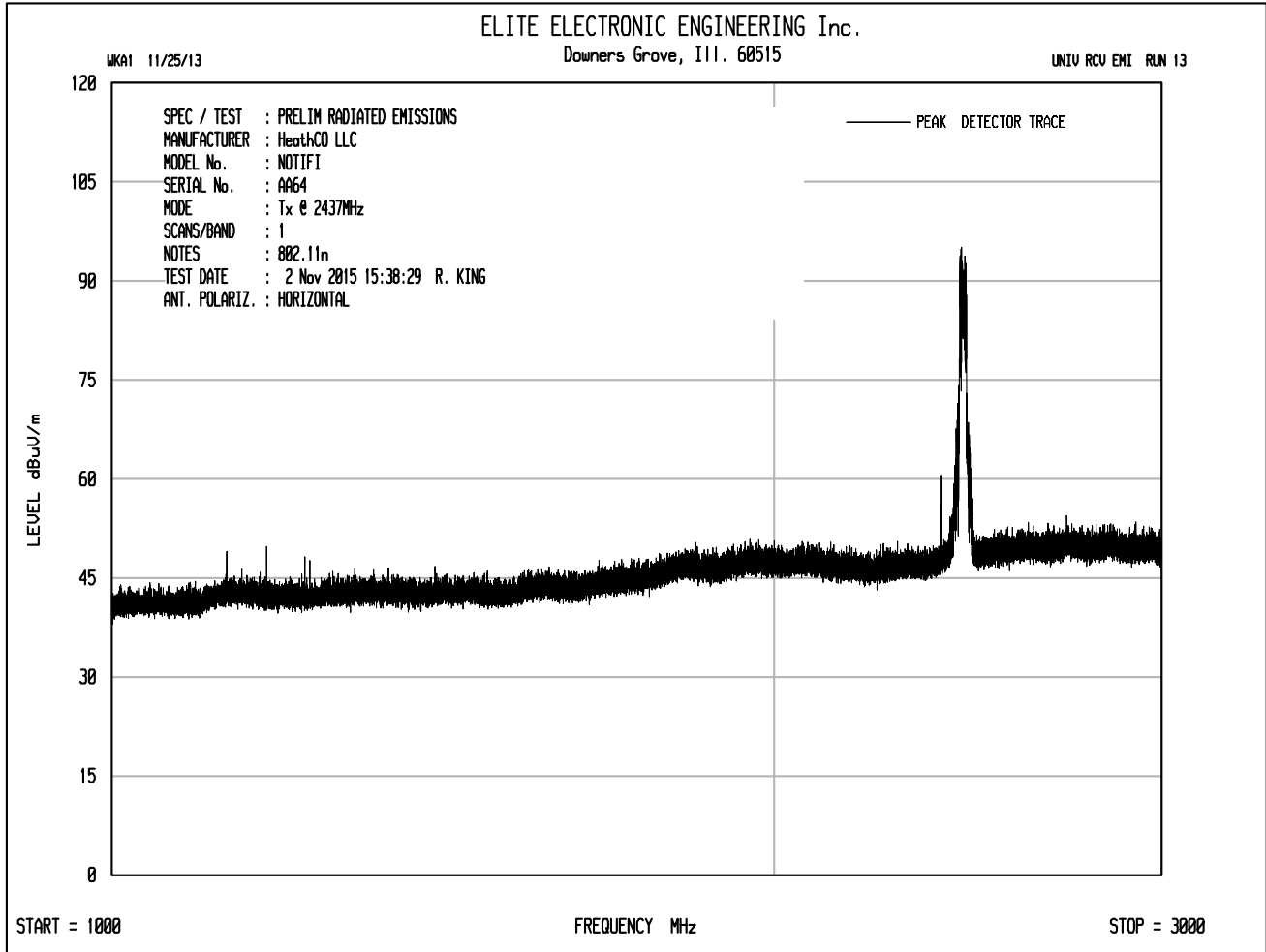
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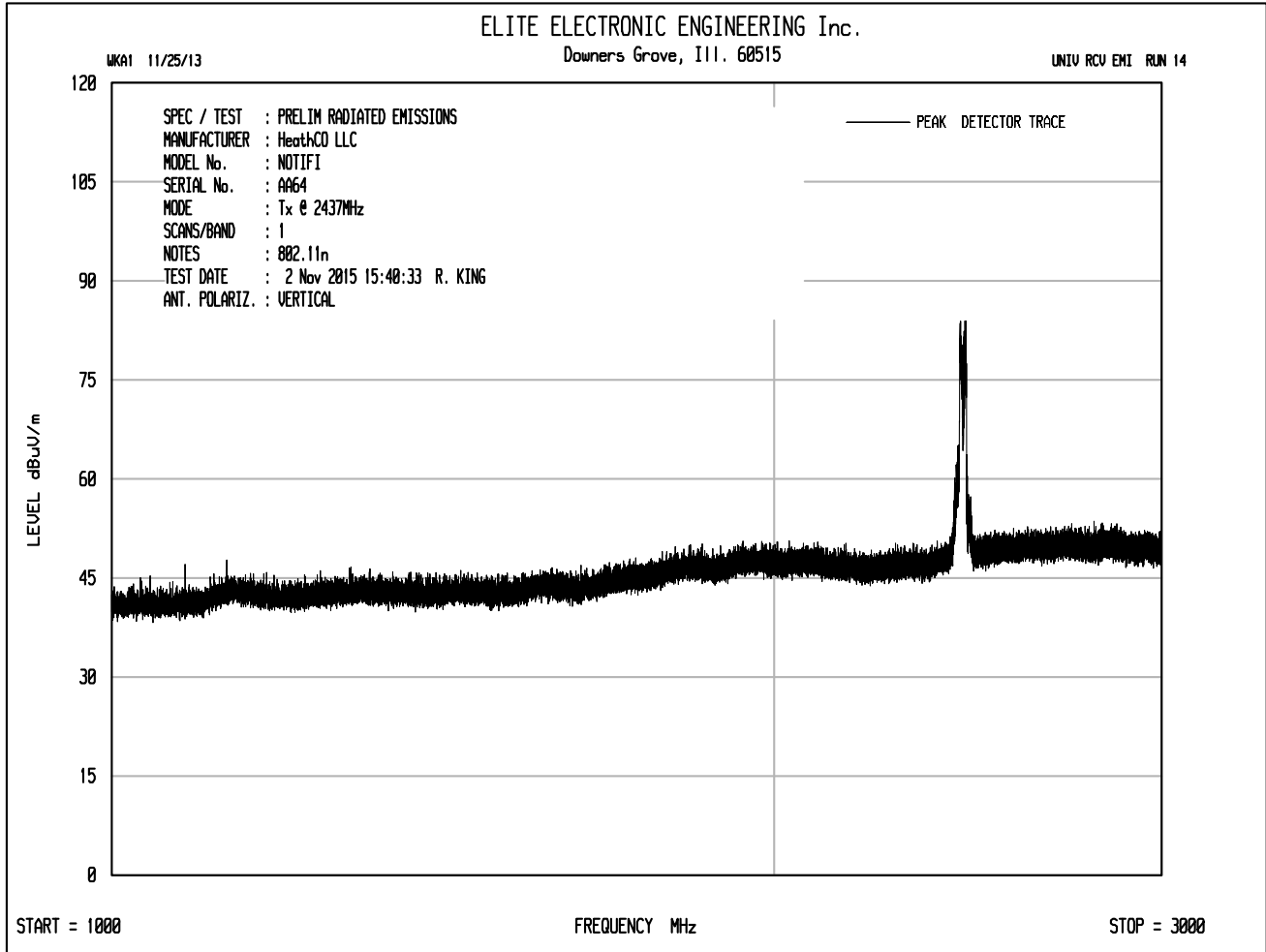
FREQUENCY MHz

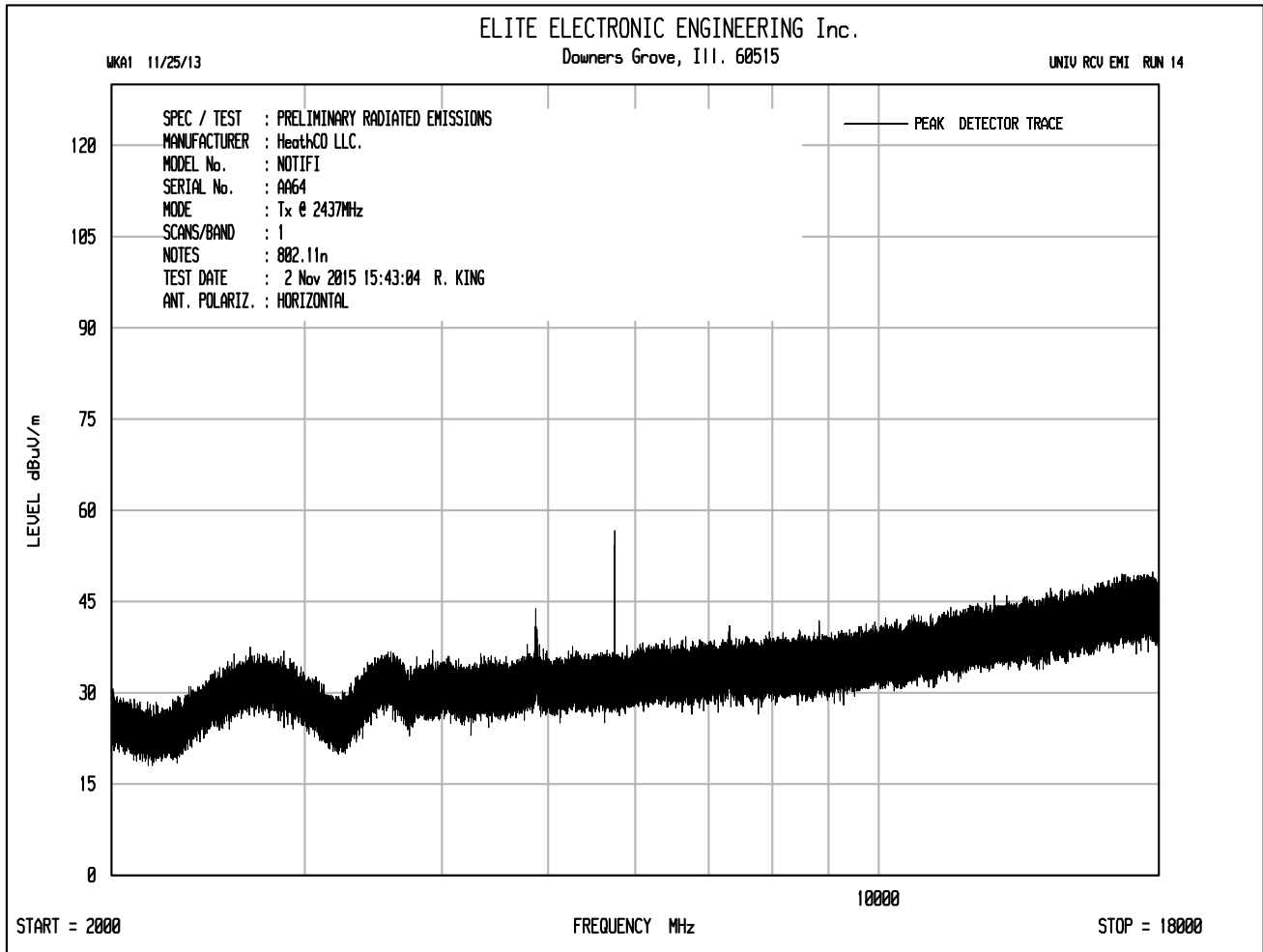
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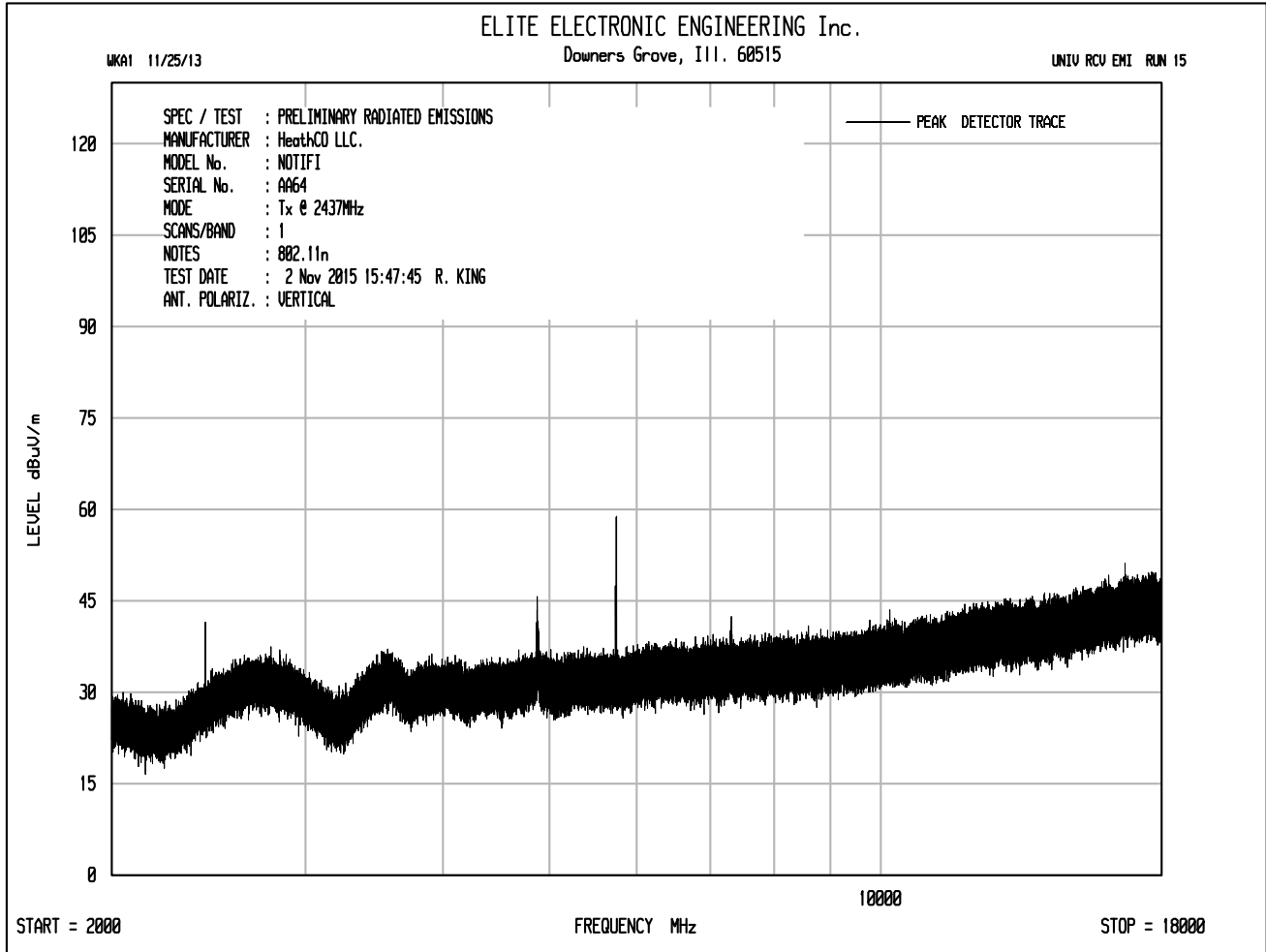










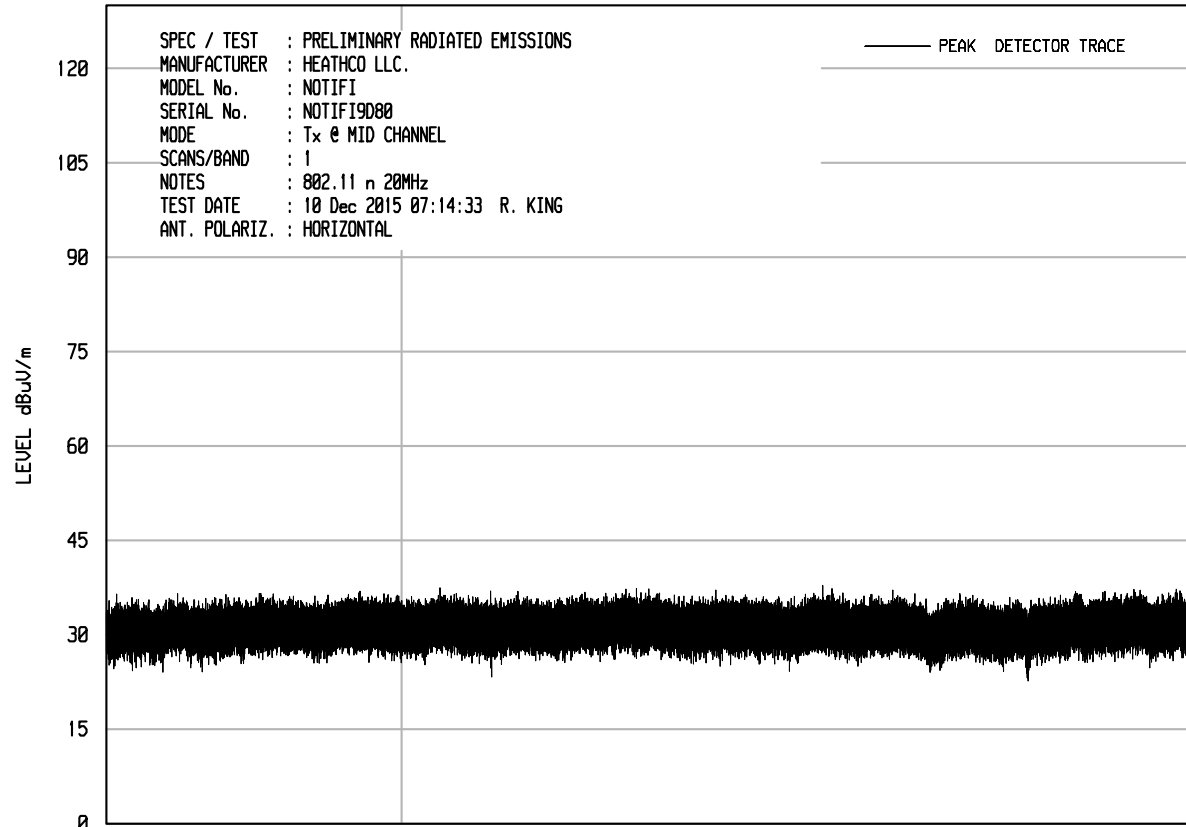




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UNIV RCU EMI RUN 15



START = 18000

FREQUENCY MHz

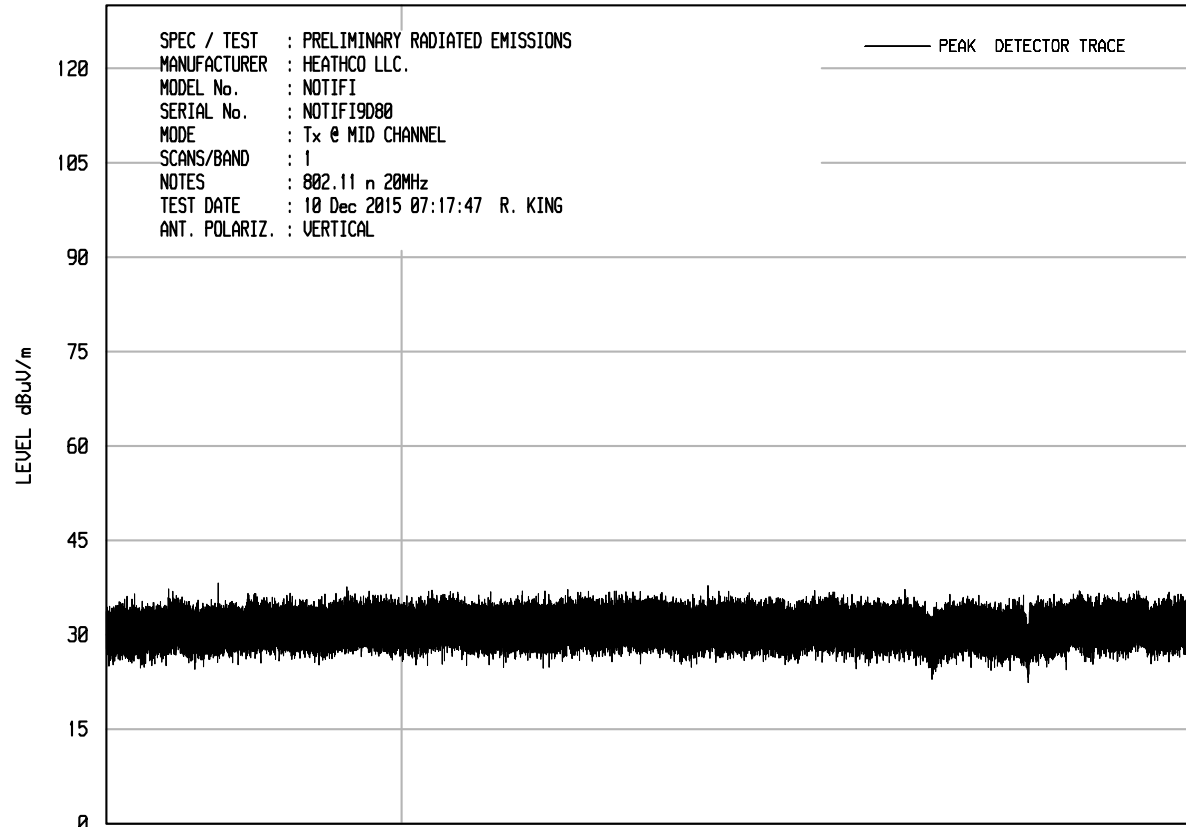
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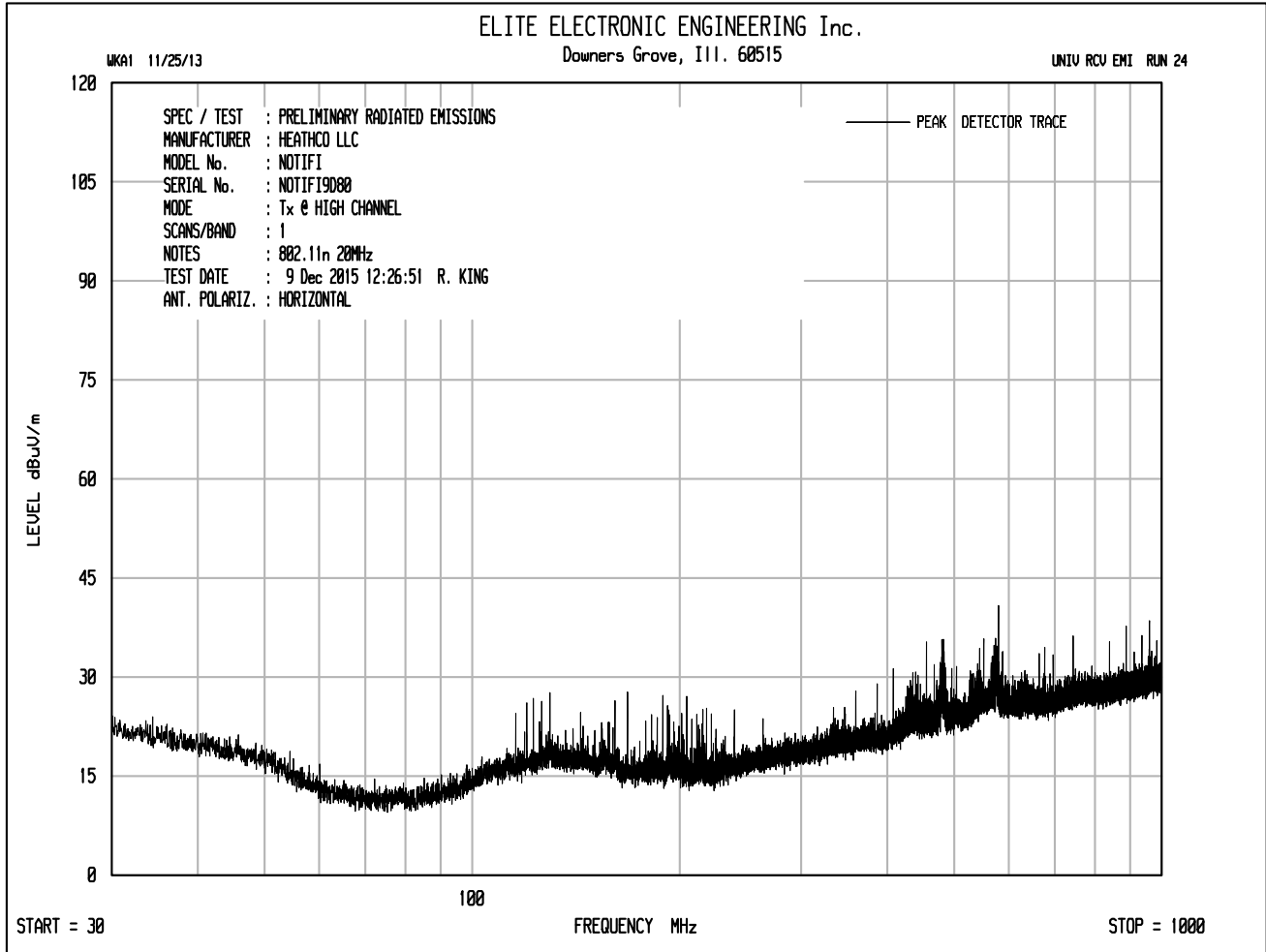
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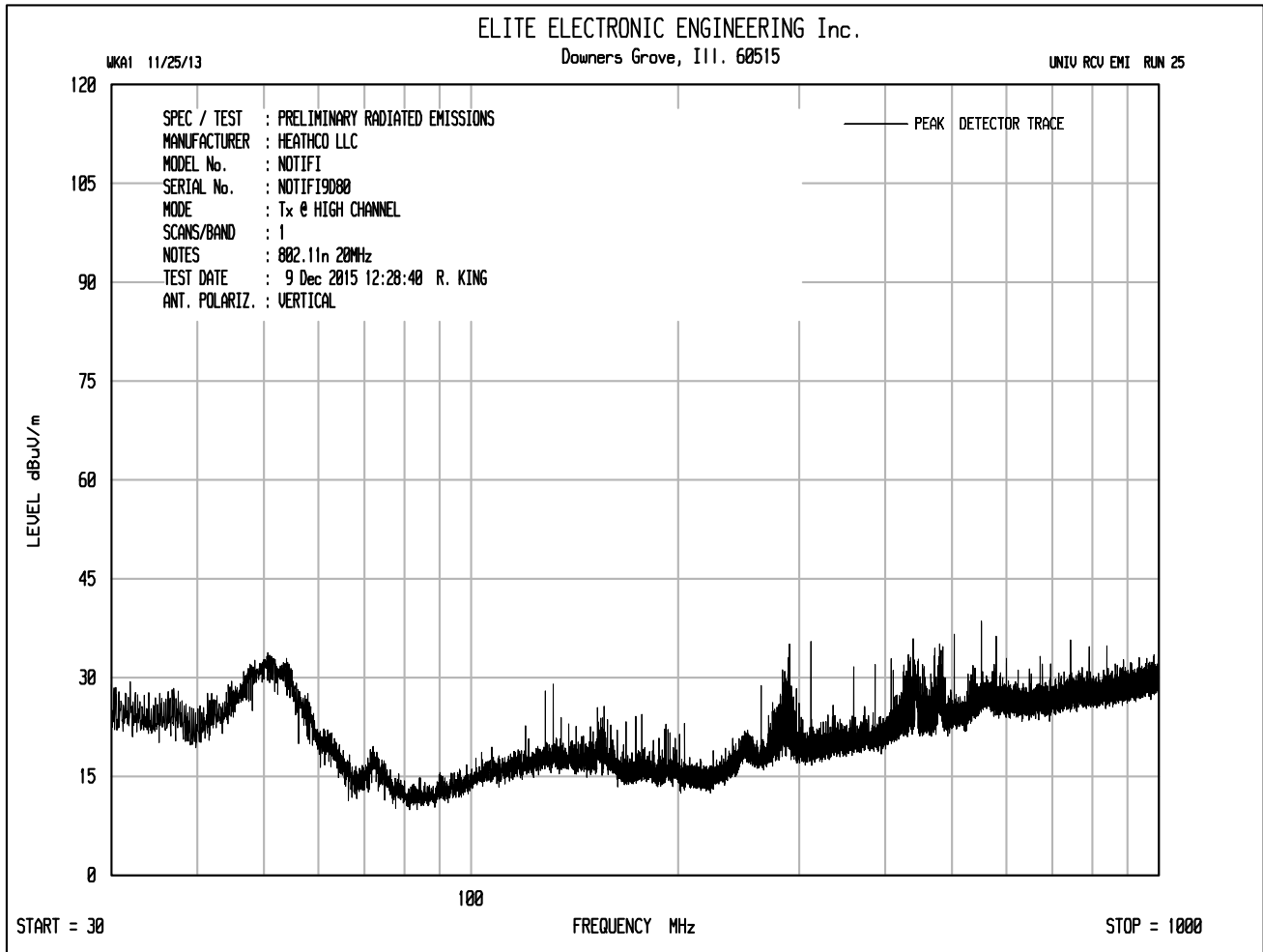


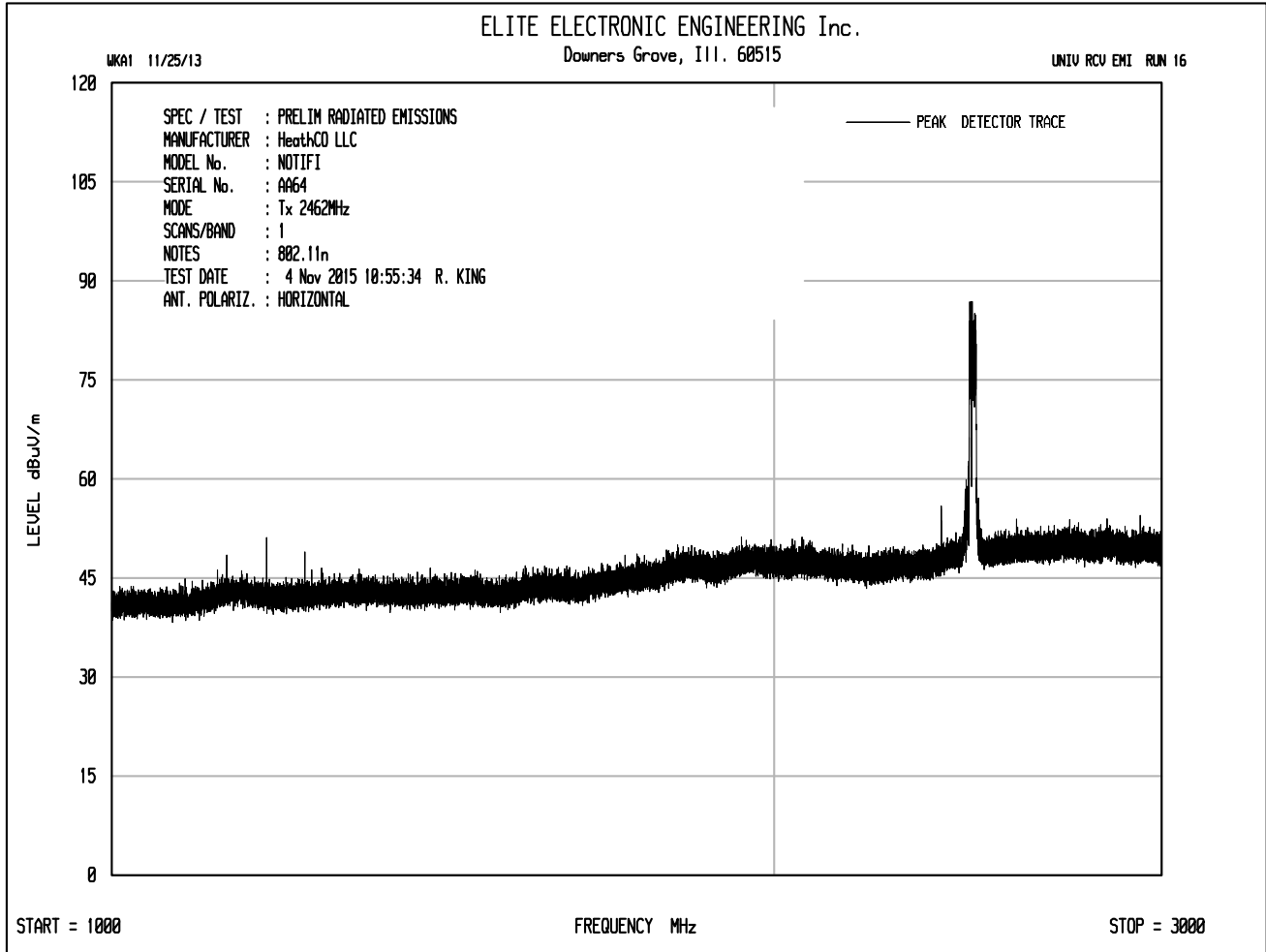
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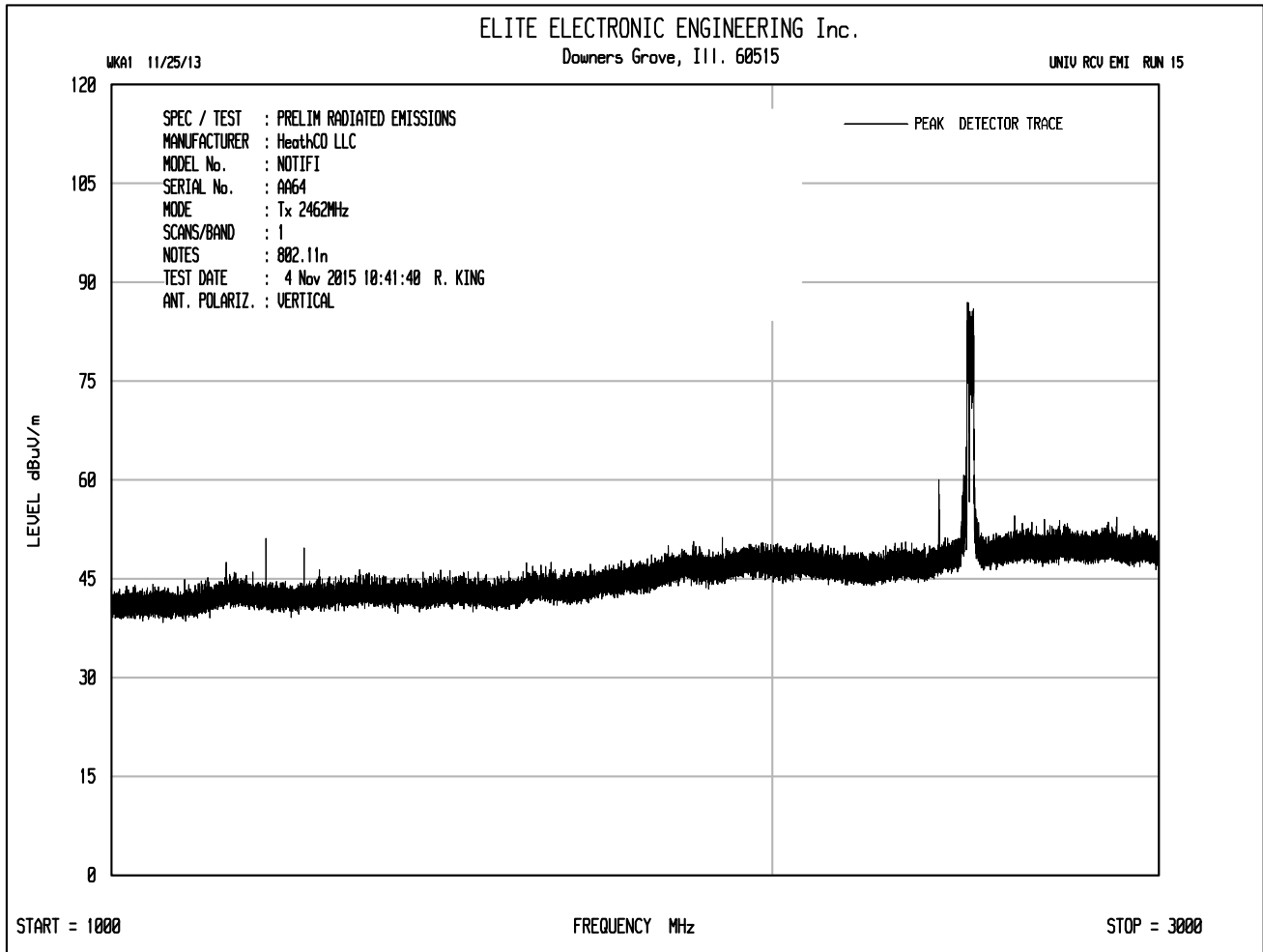
FREQUENCY MHz

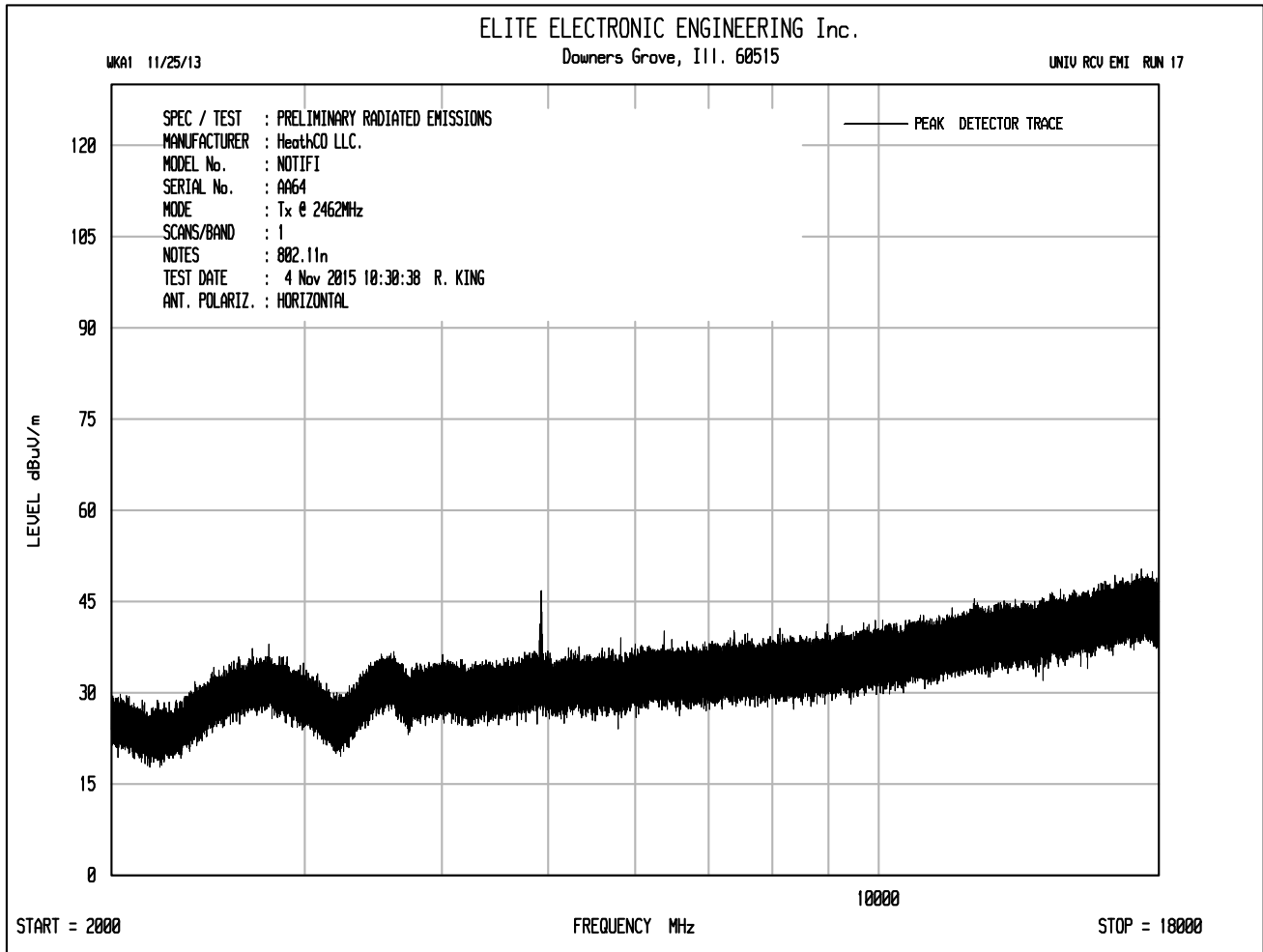
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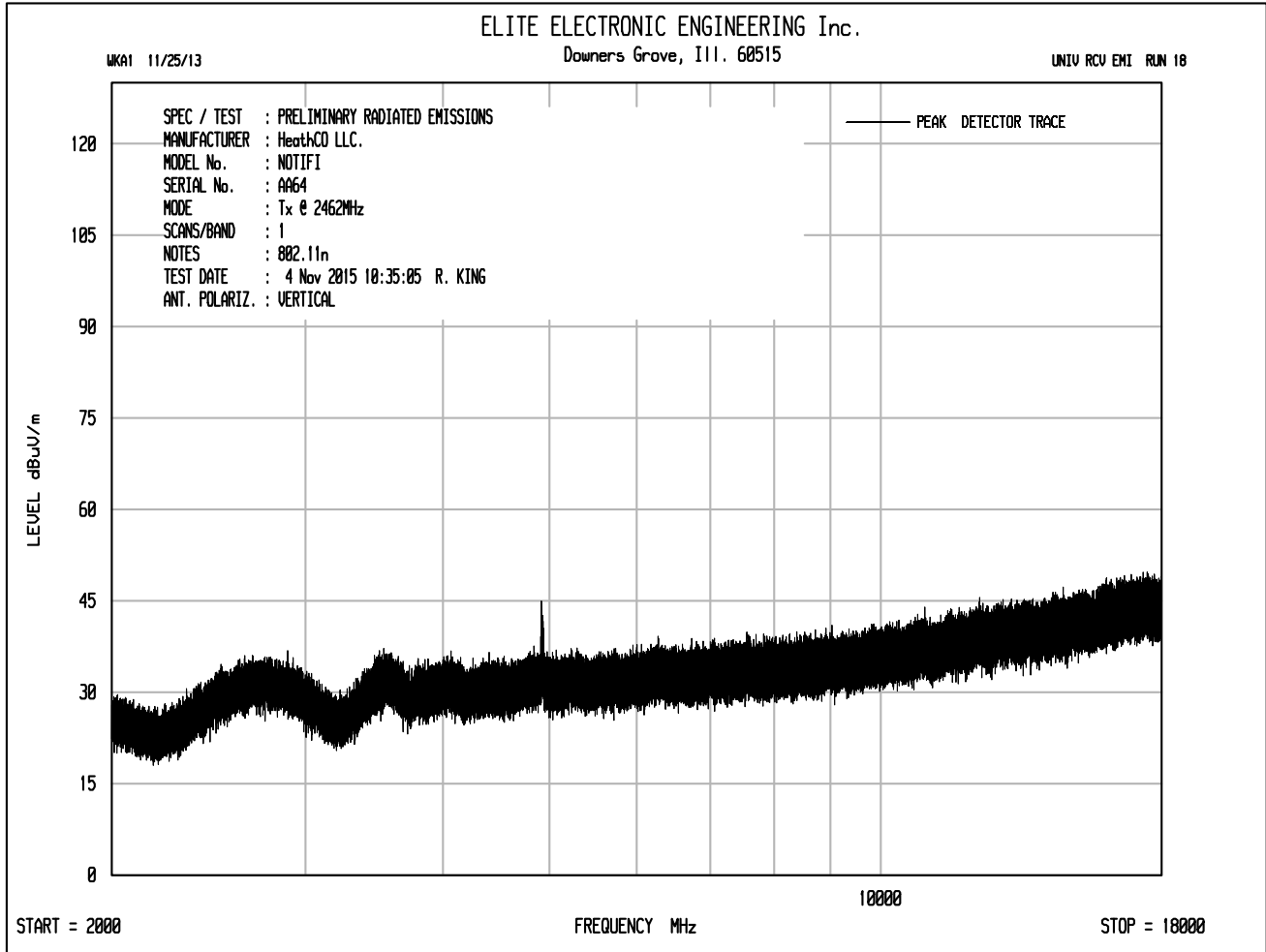










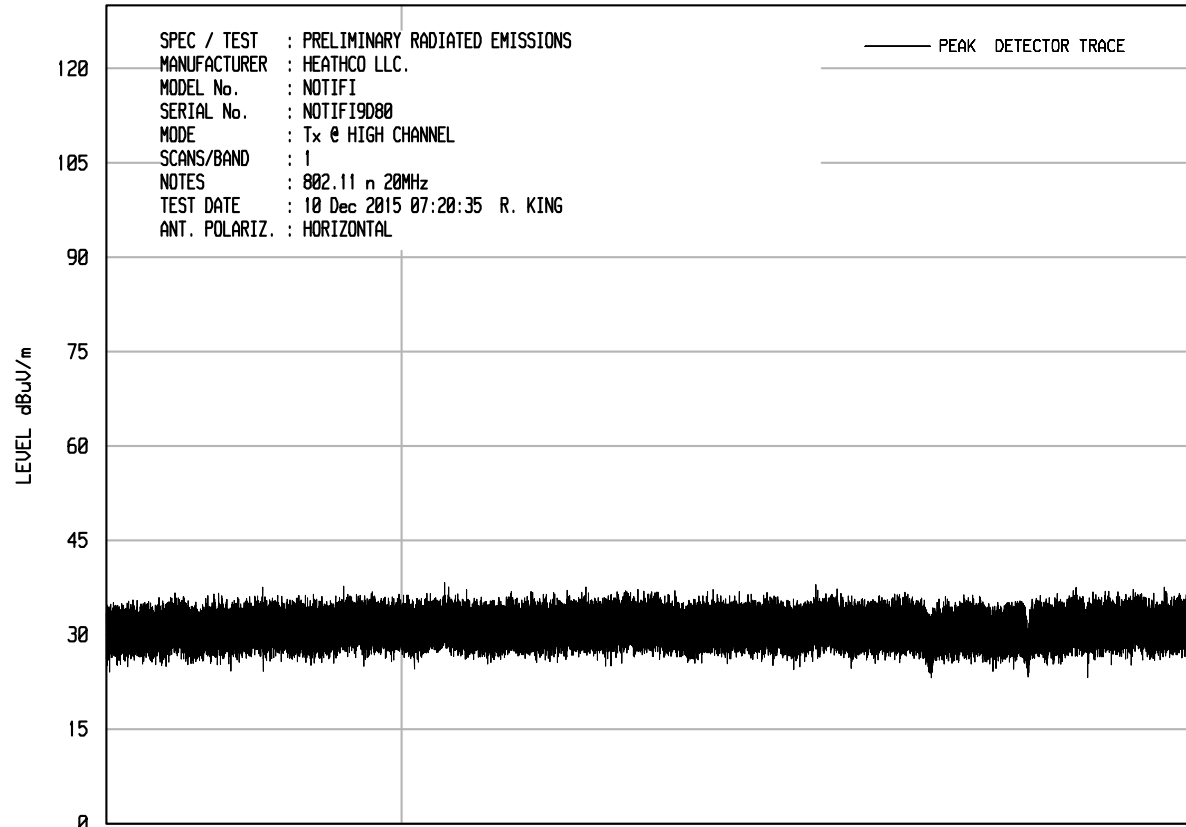




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UNIV RCU EMI RUN 17



START = 18000

FREQUENCY MHz

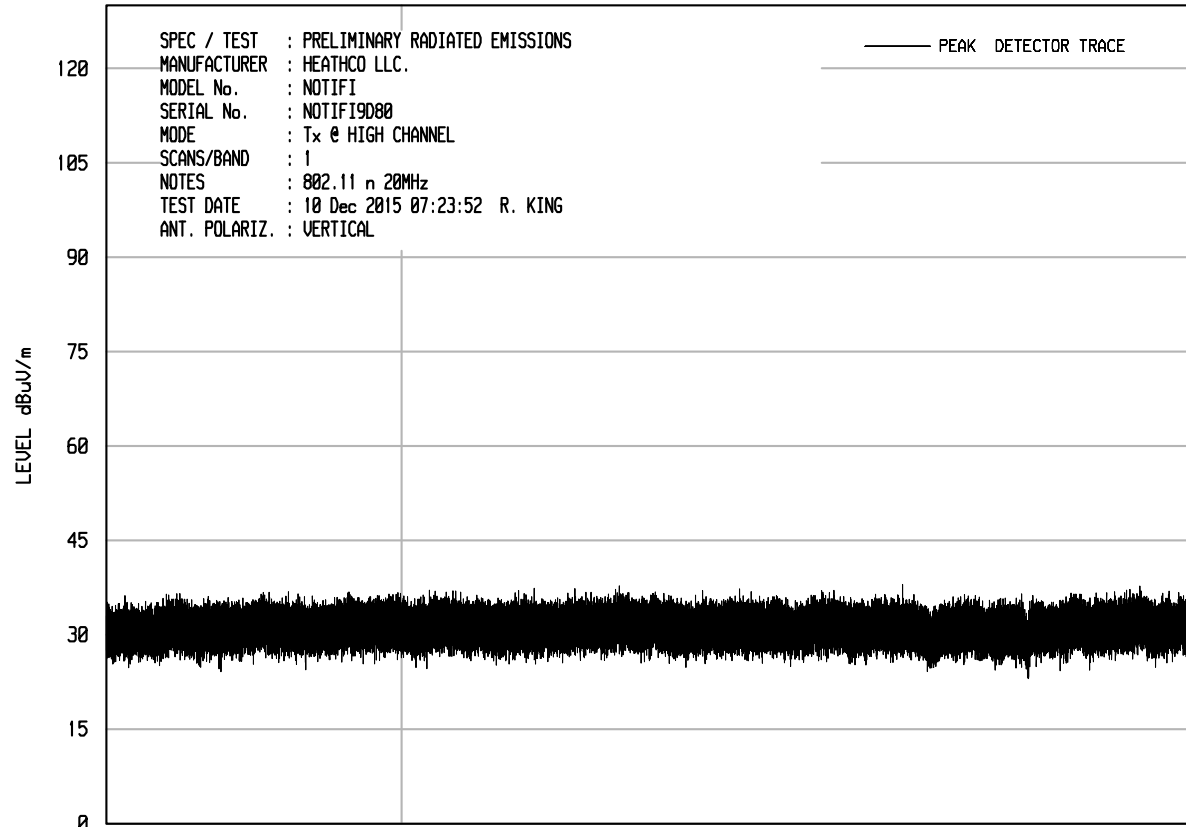
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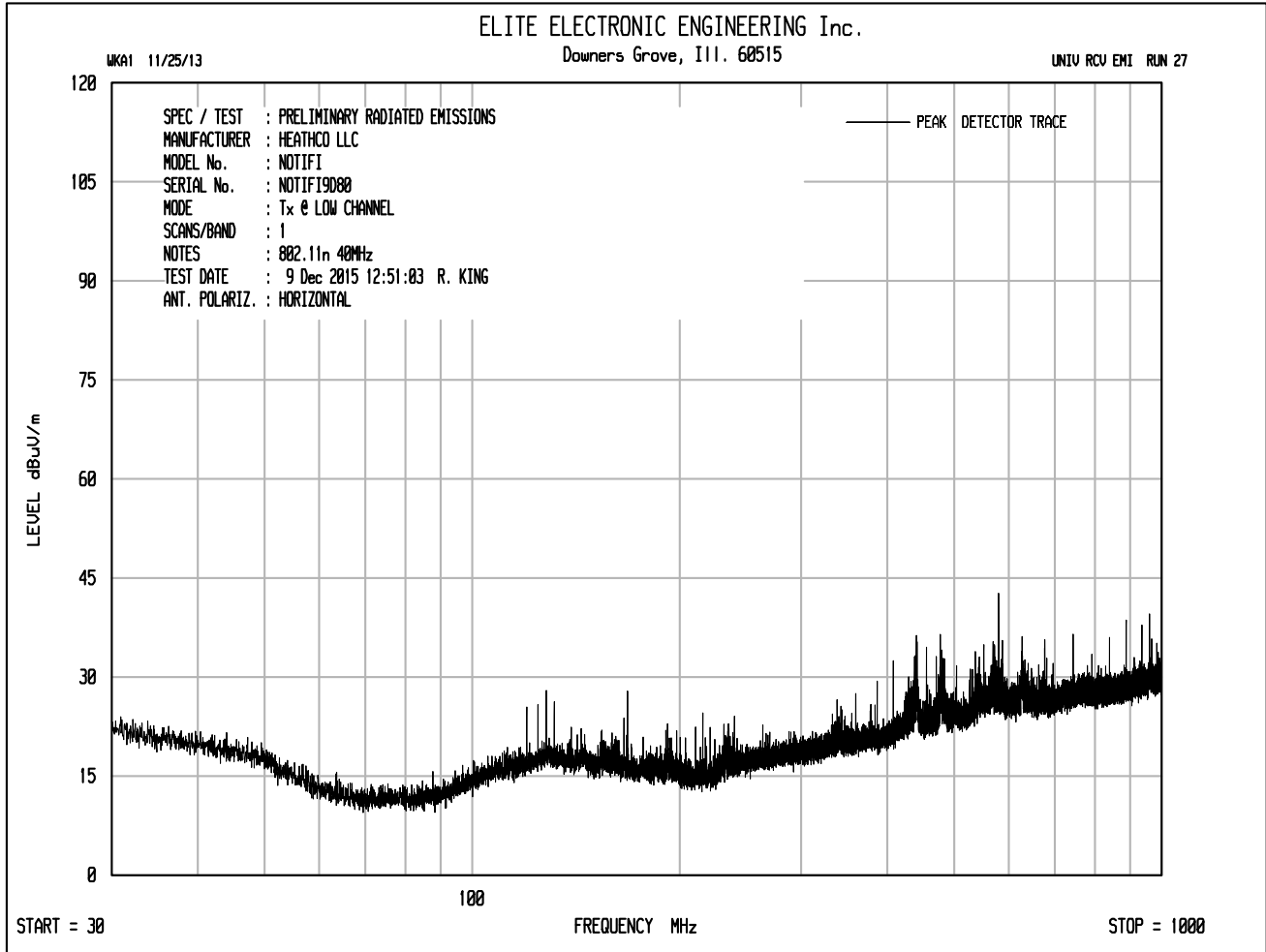
UNIV RCU EMI RUN 18

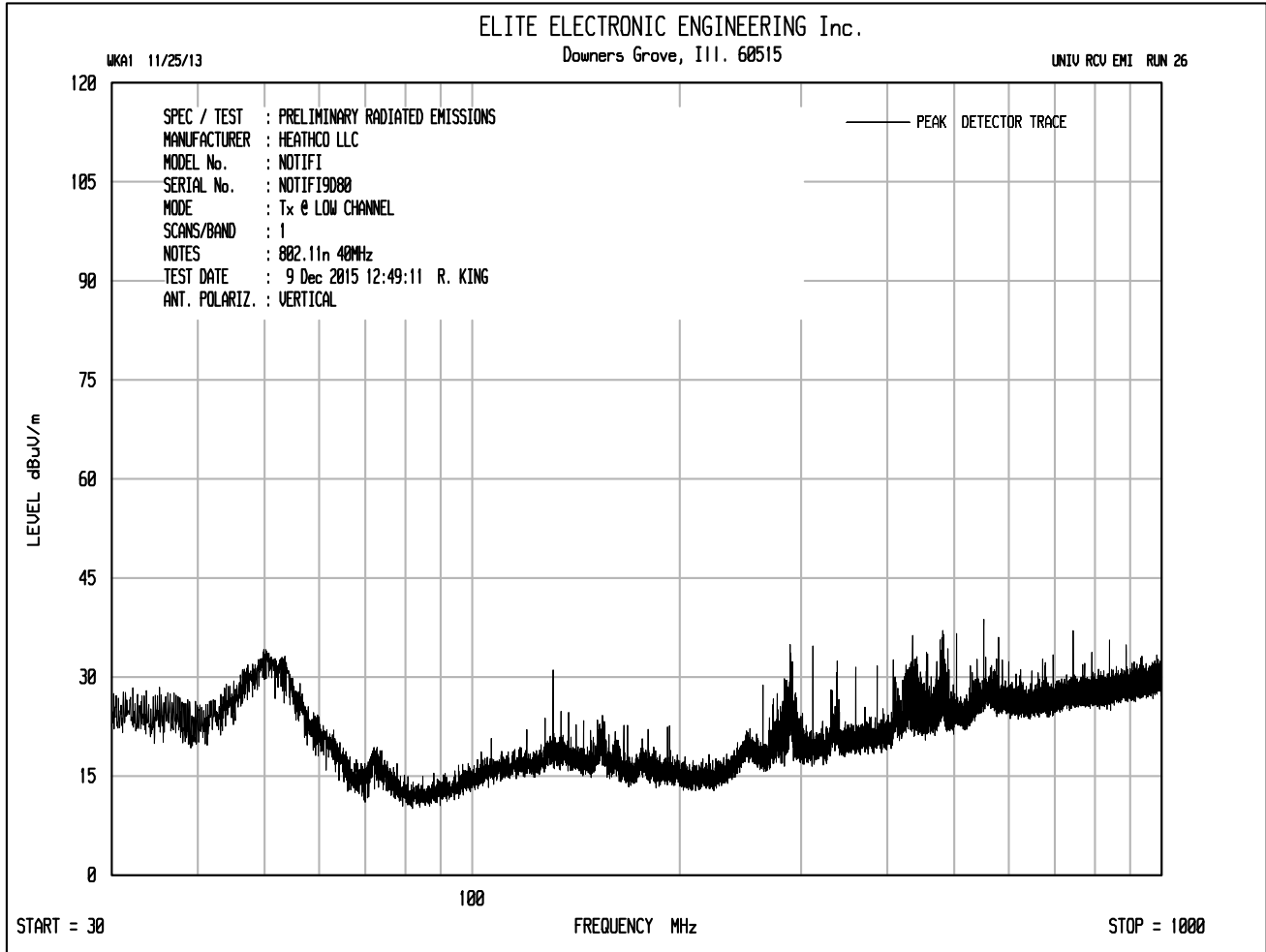


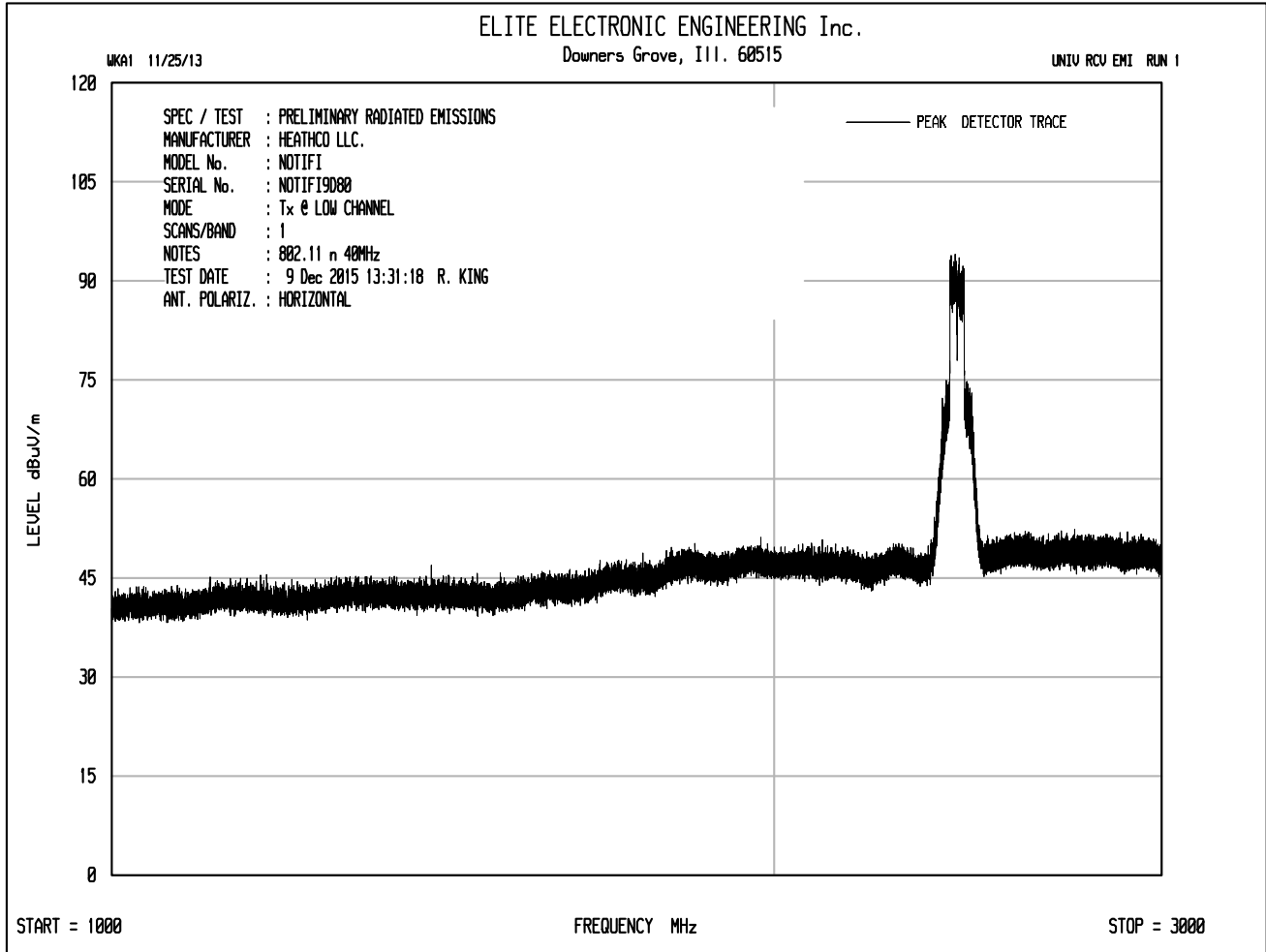
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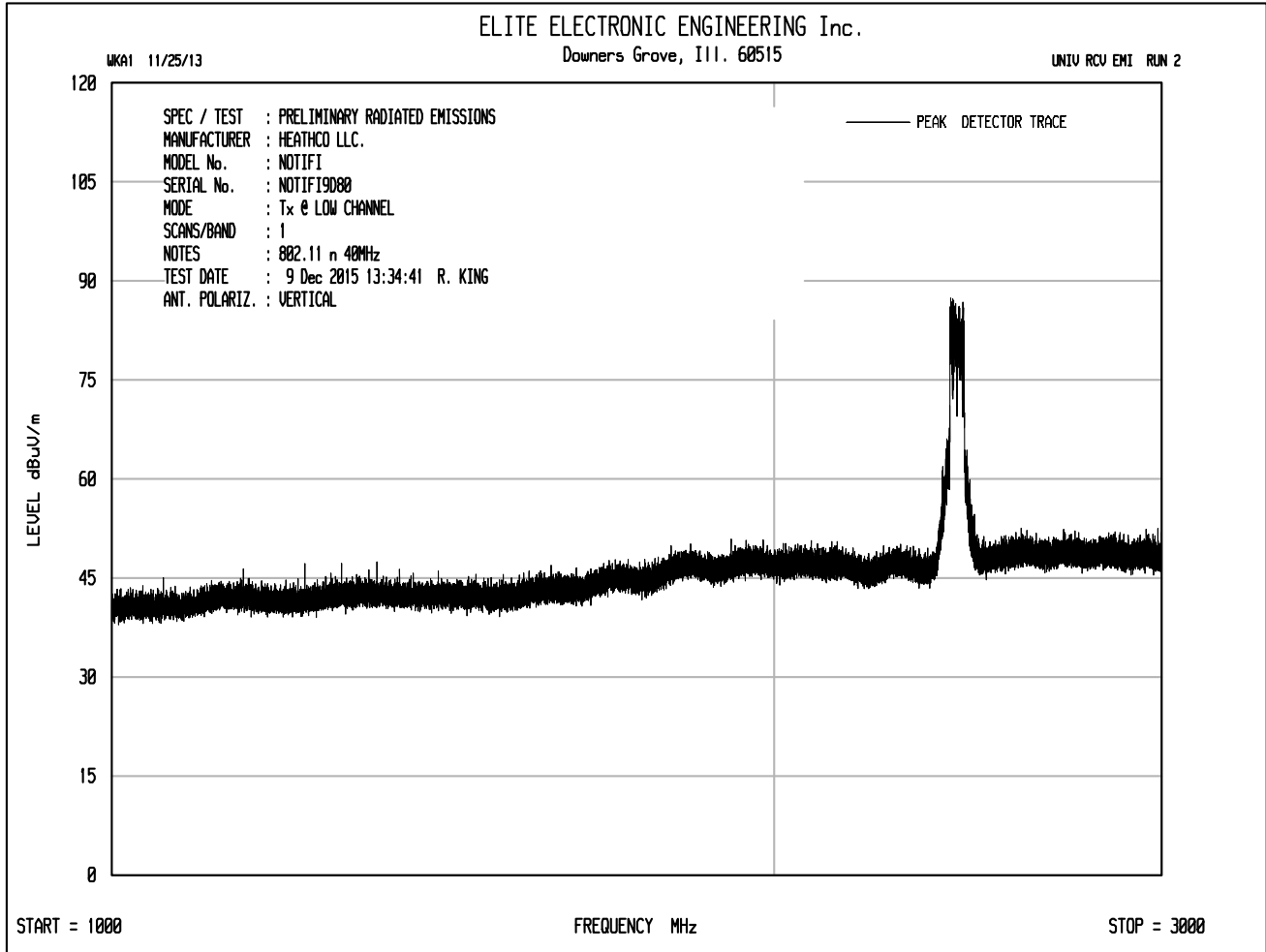
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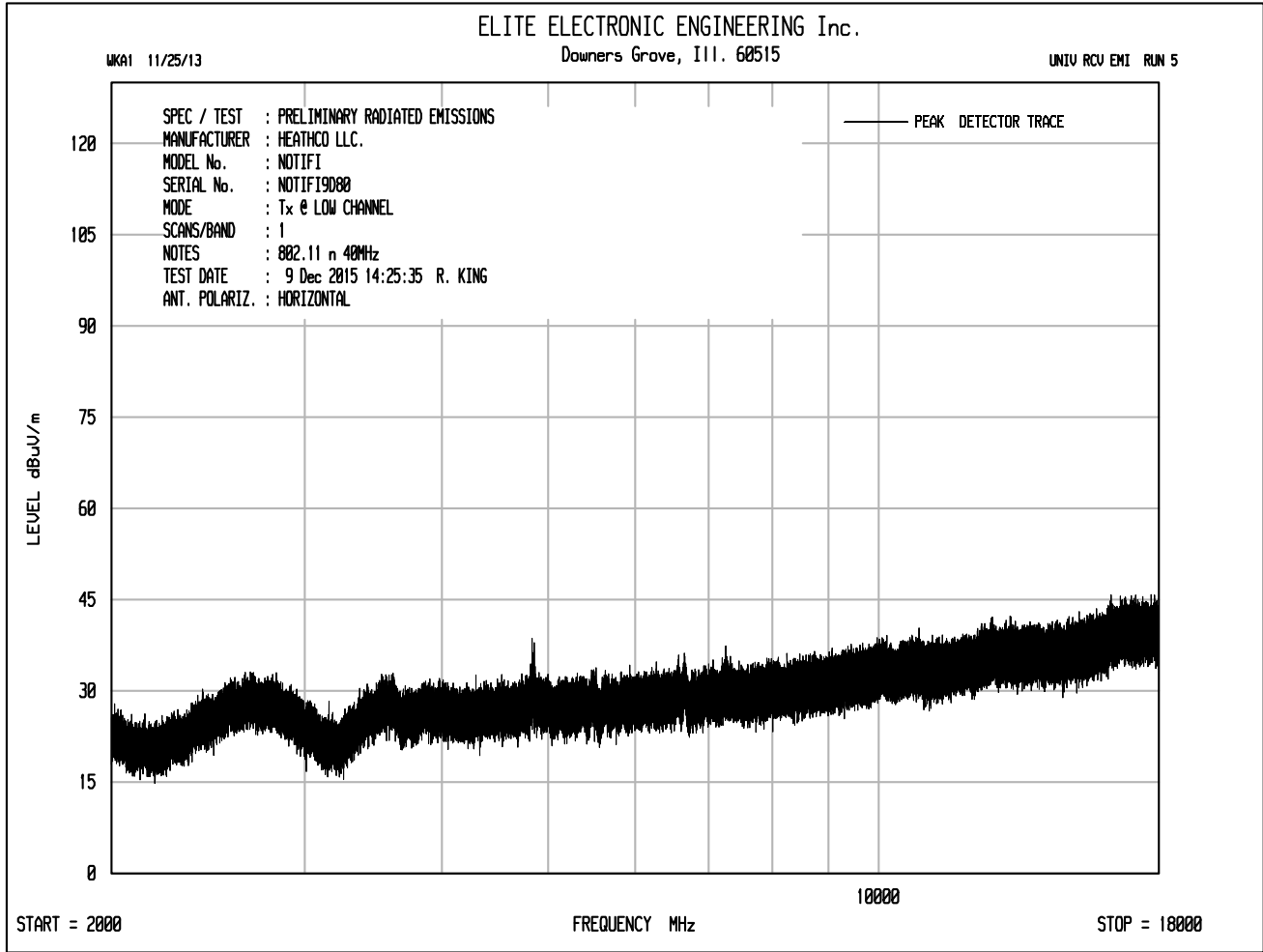
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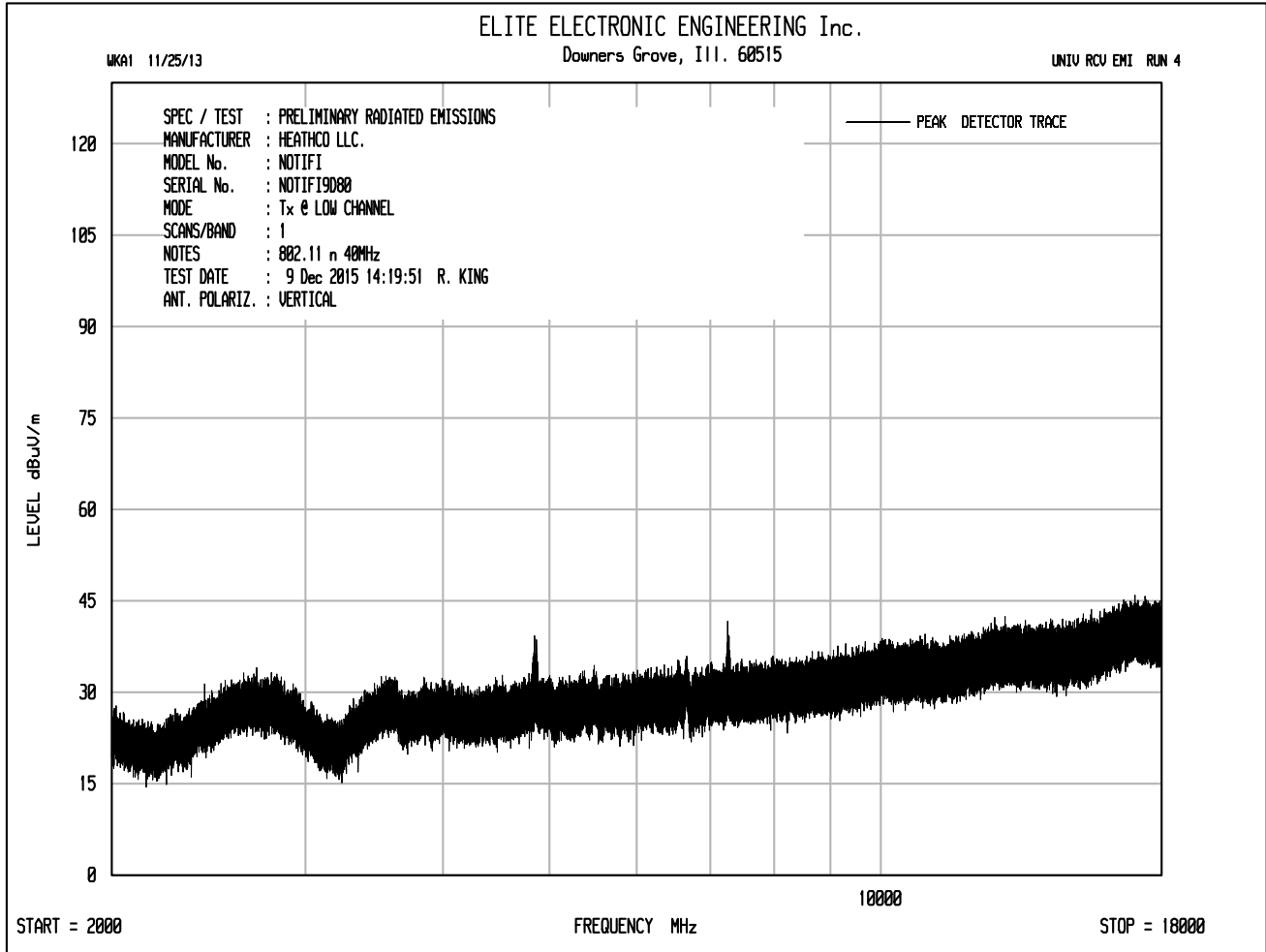










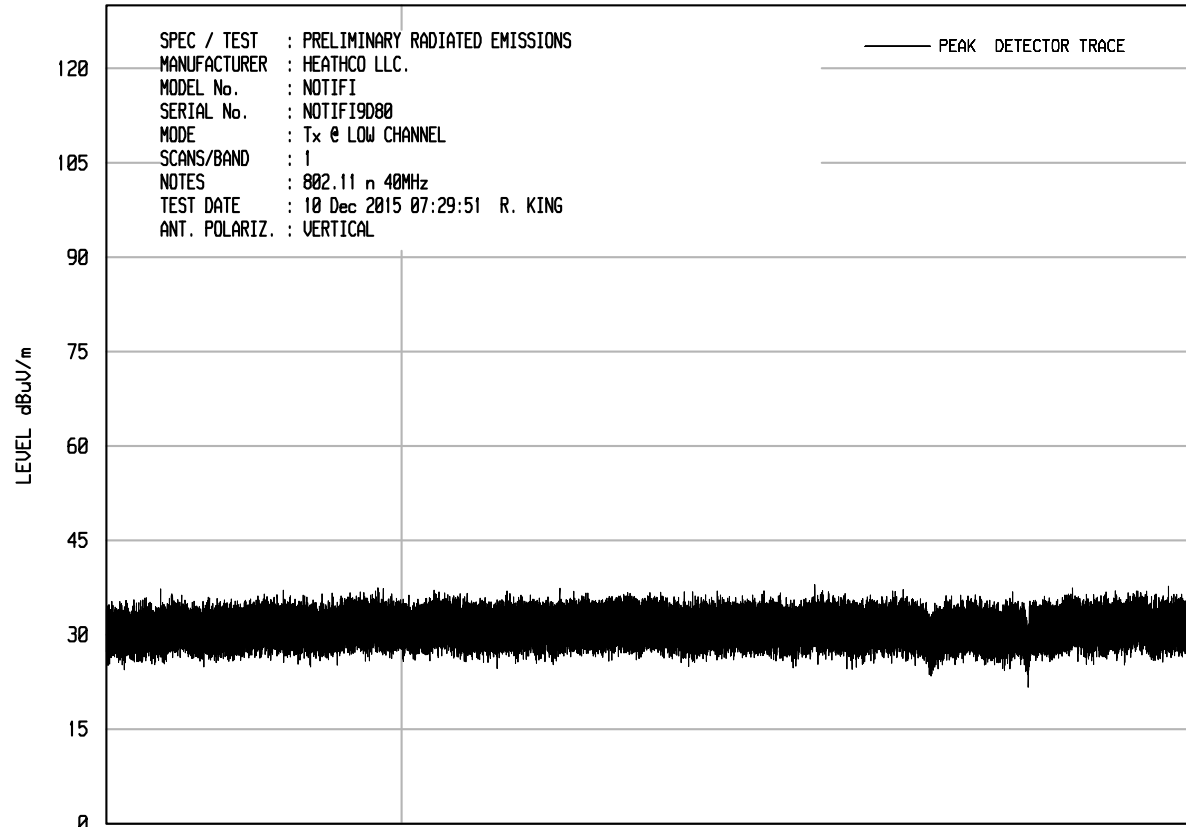




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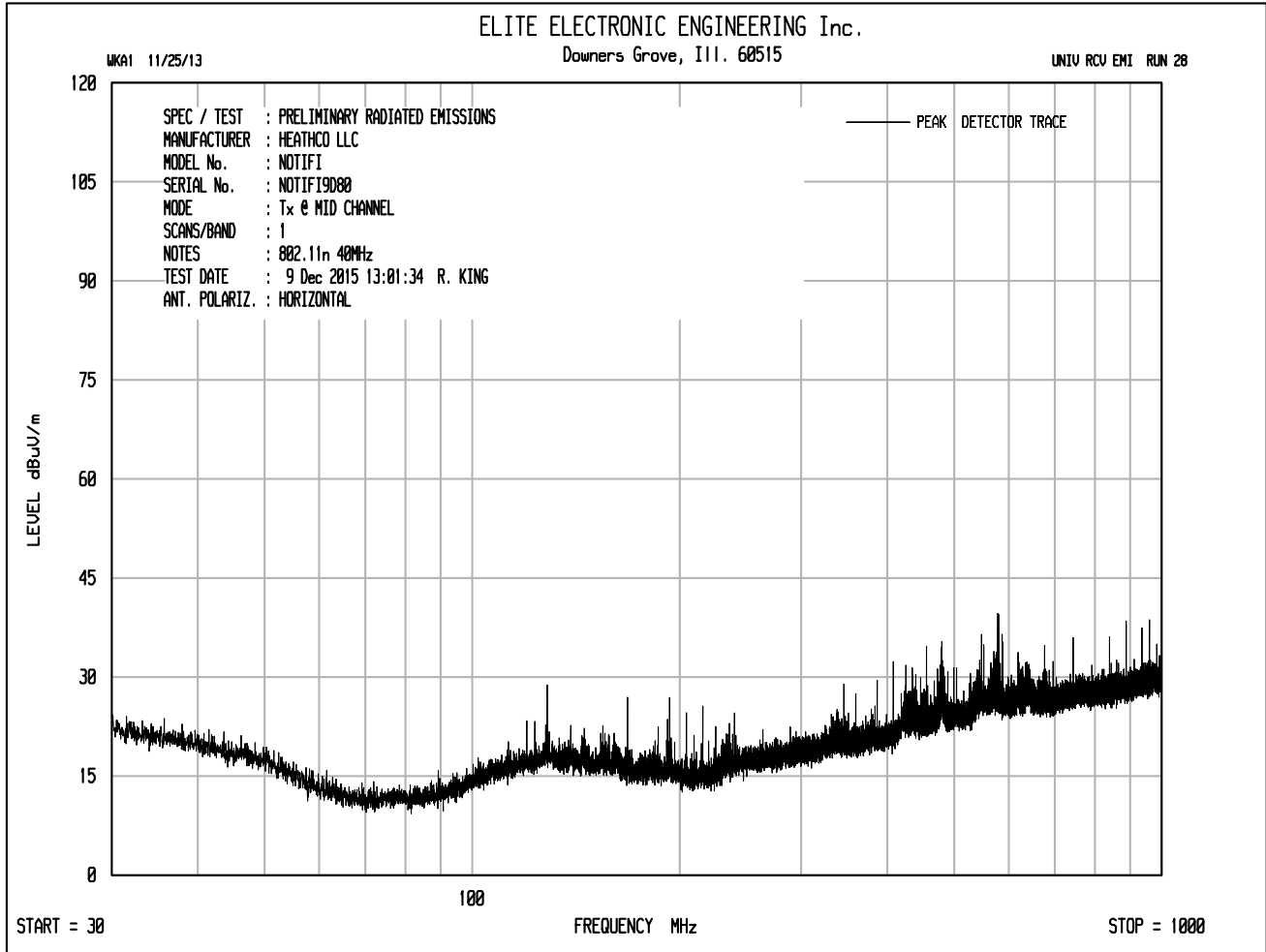
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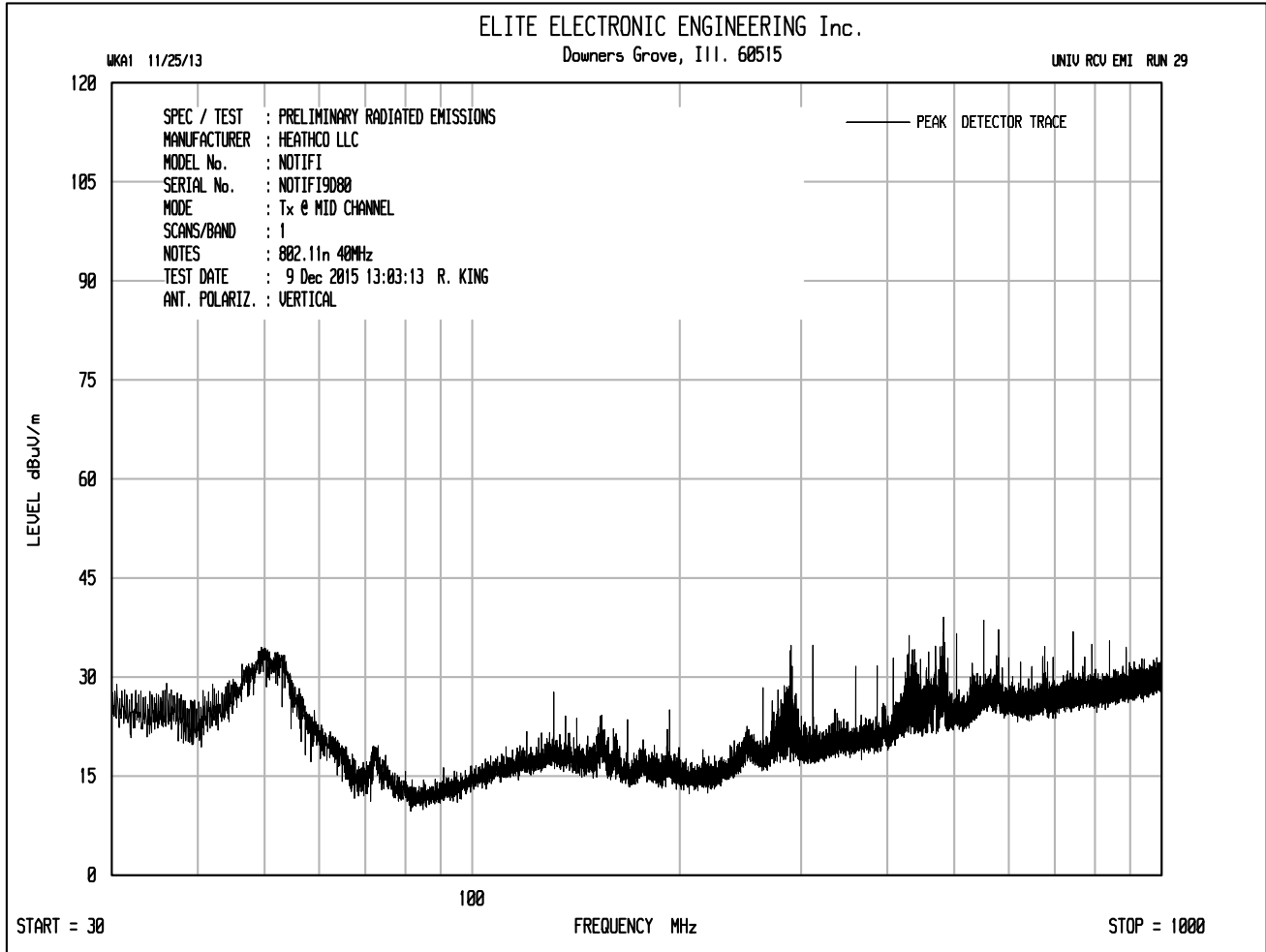


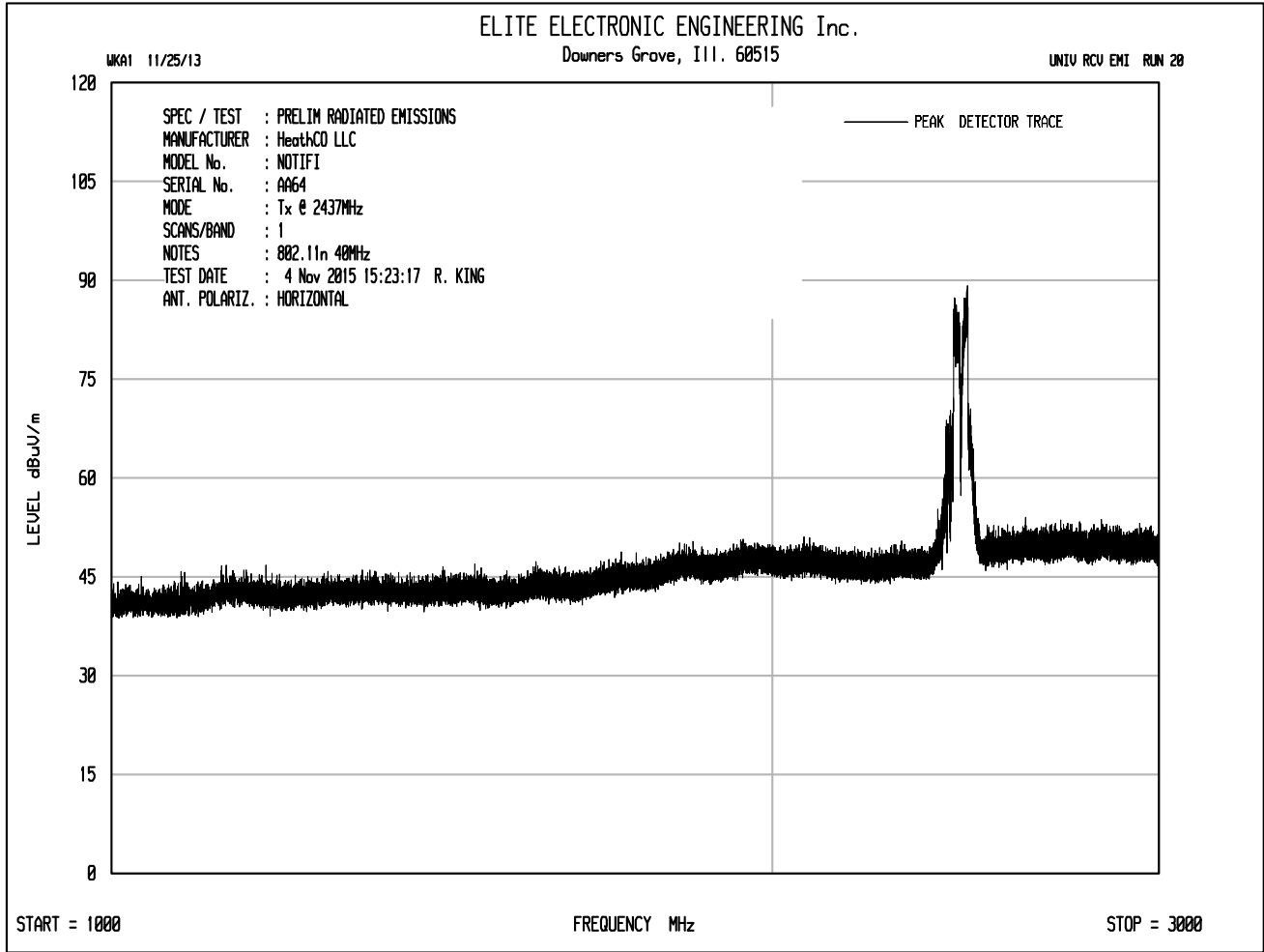
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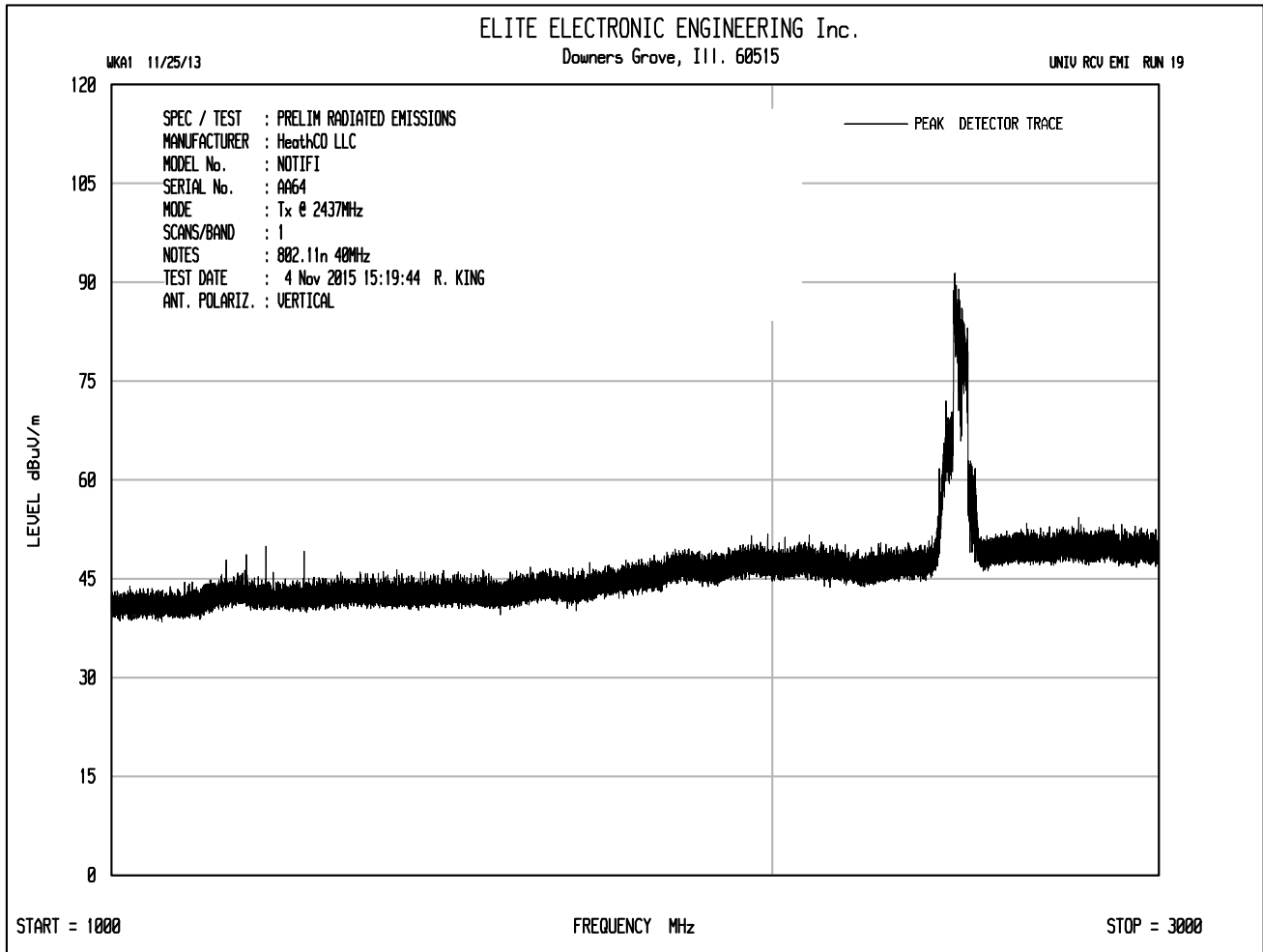
FREQUENCY MHz

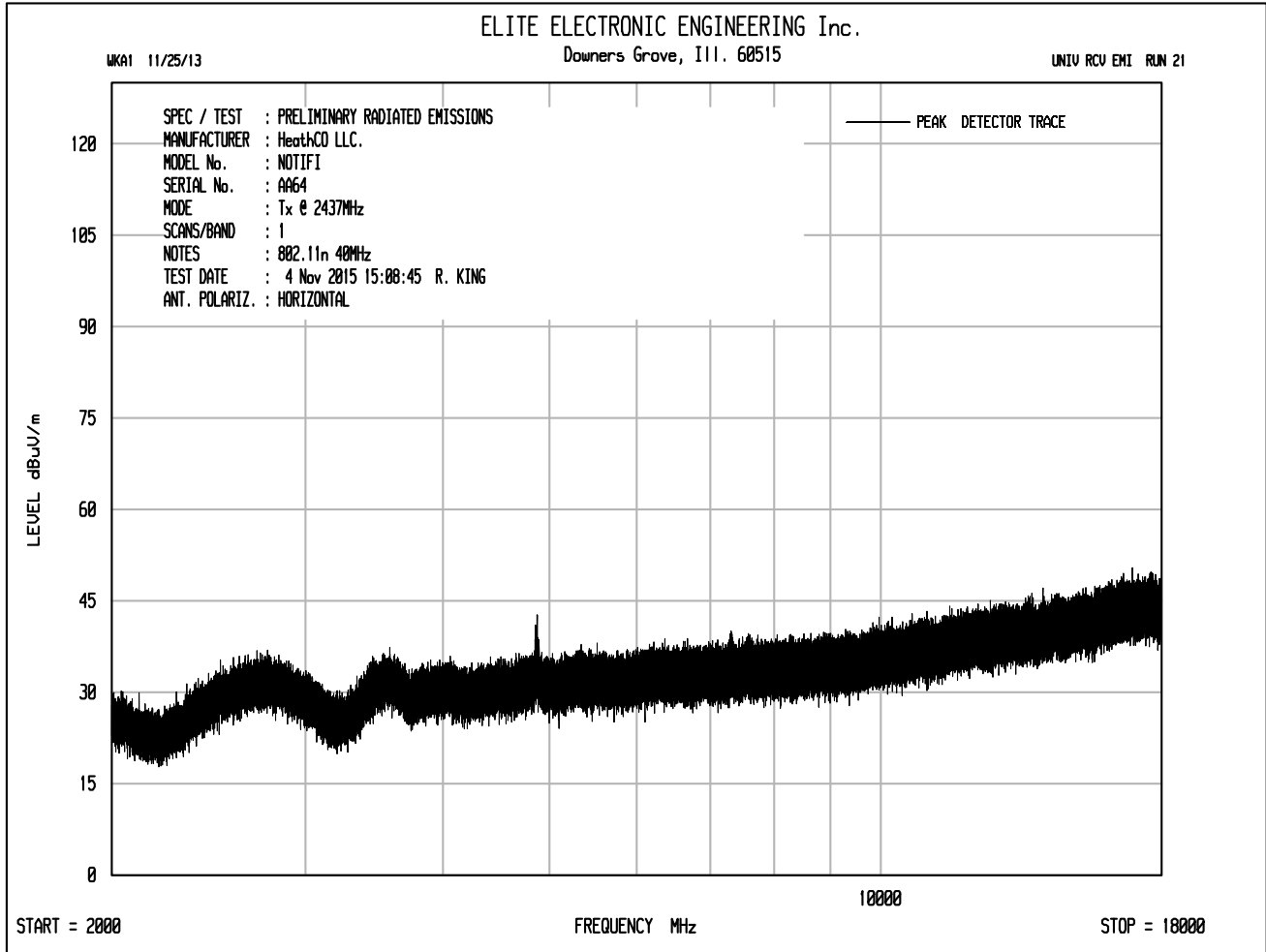
STOP = 26500

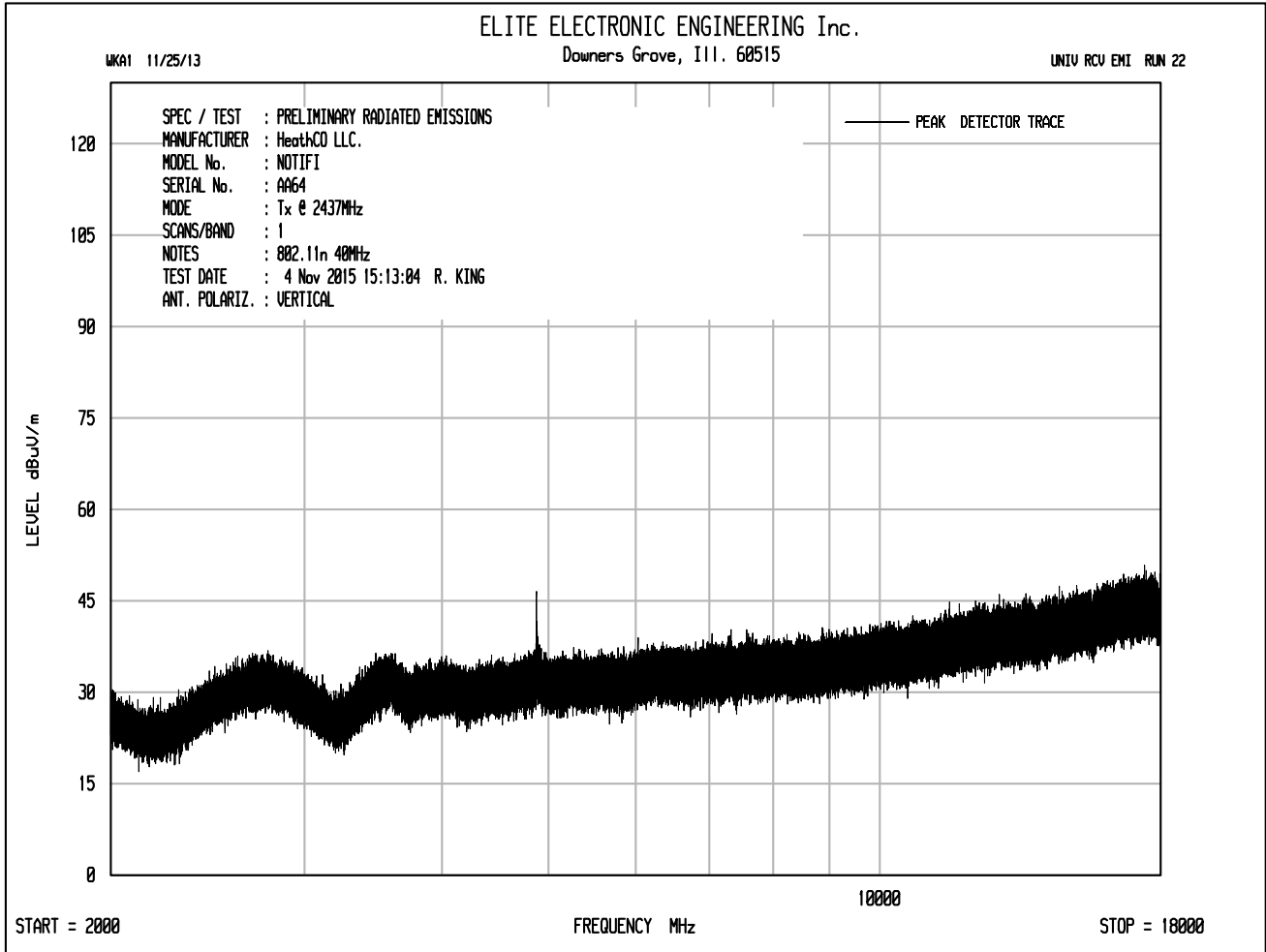


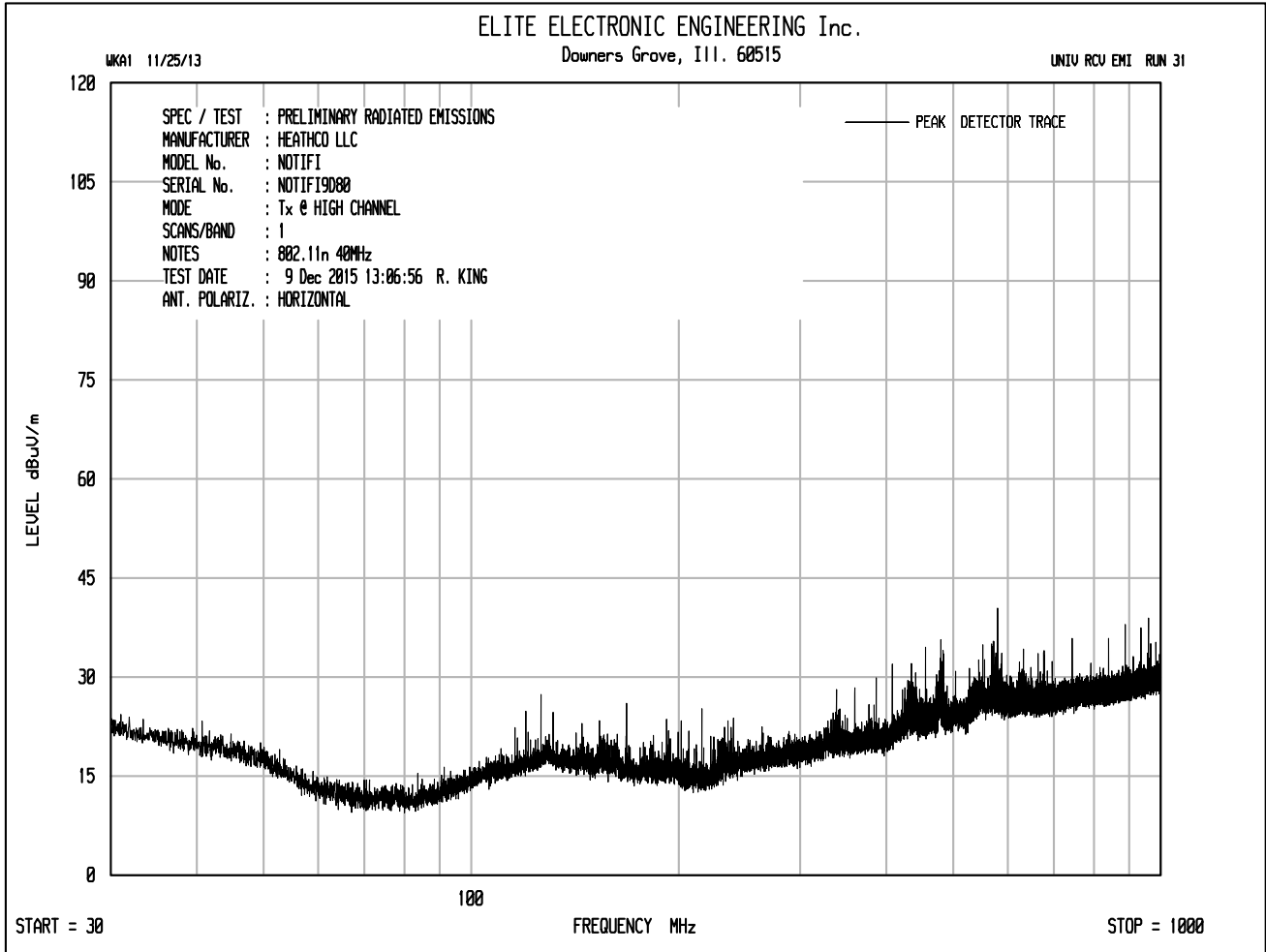


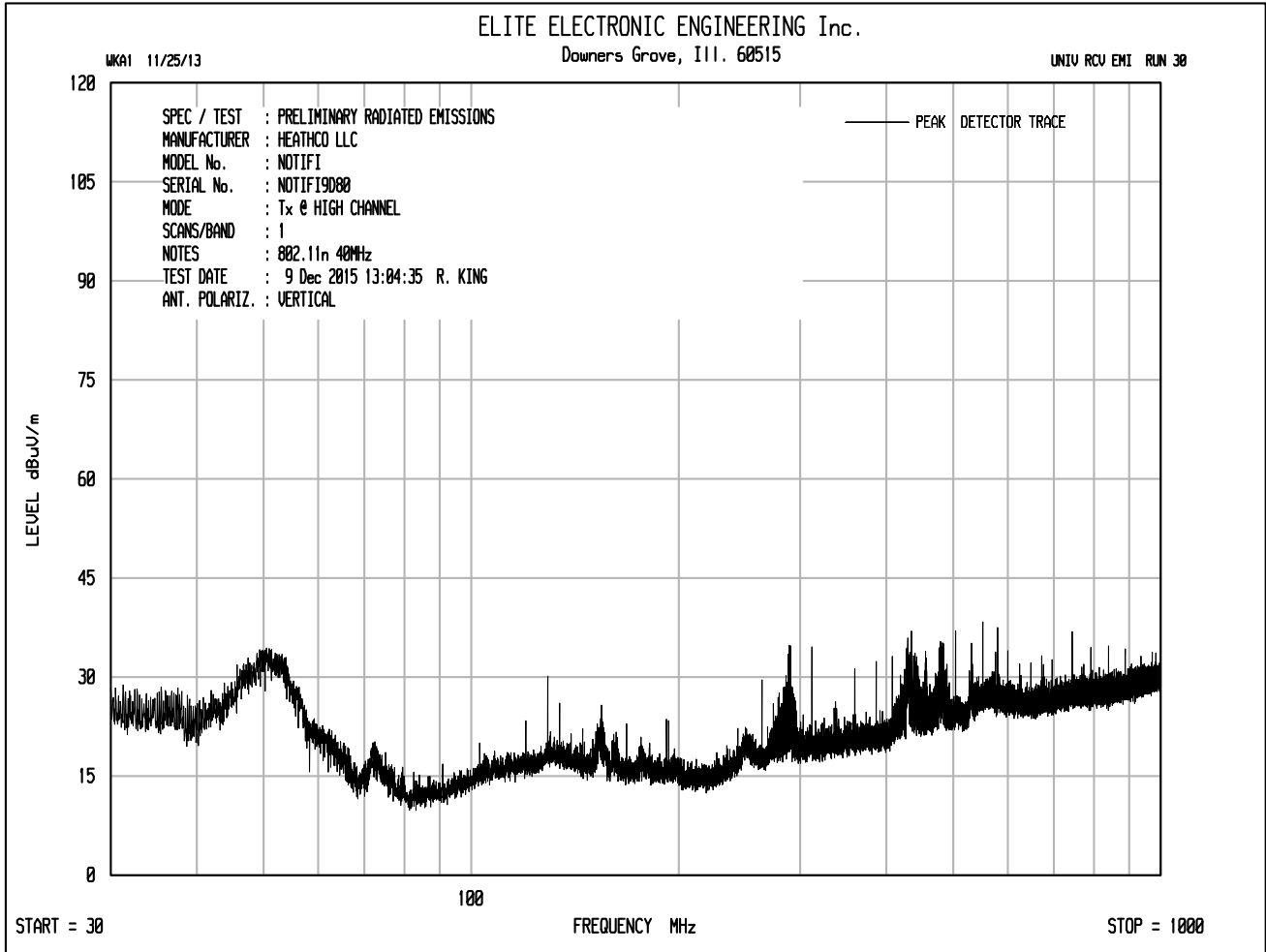


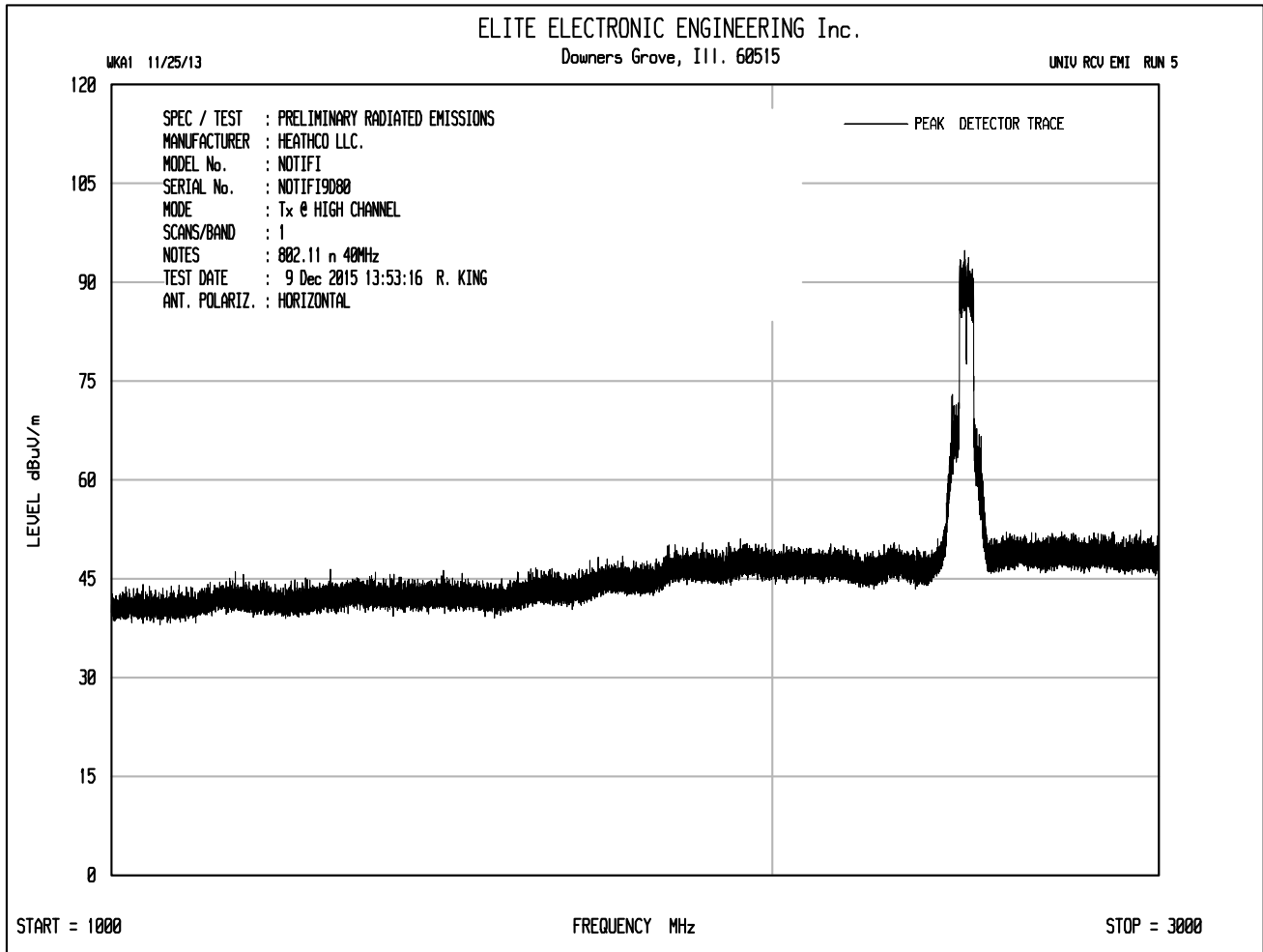


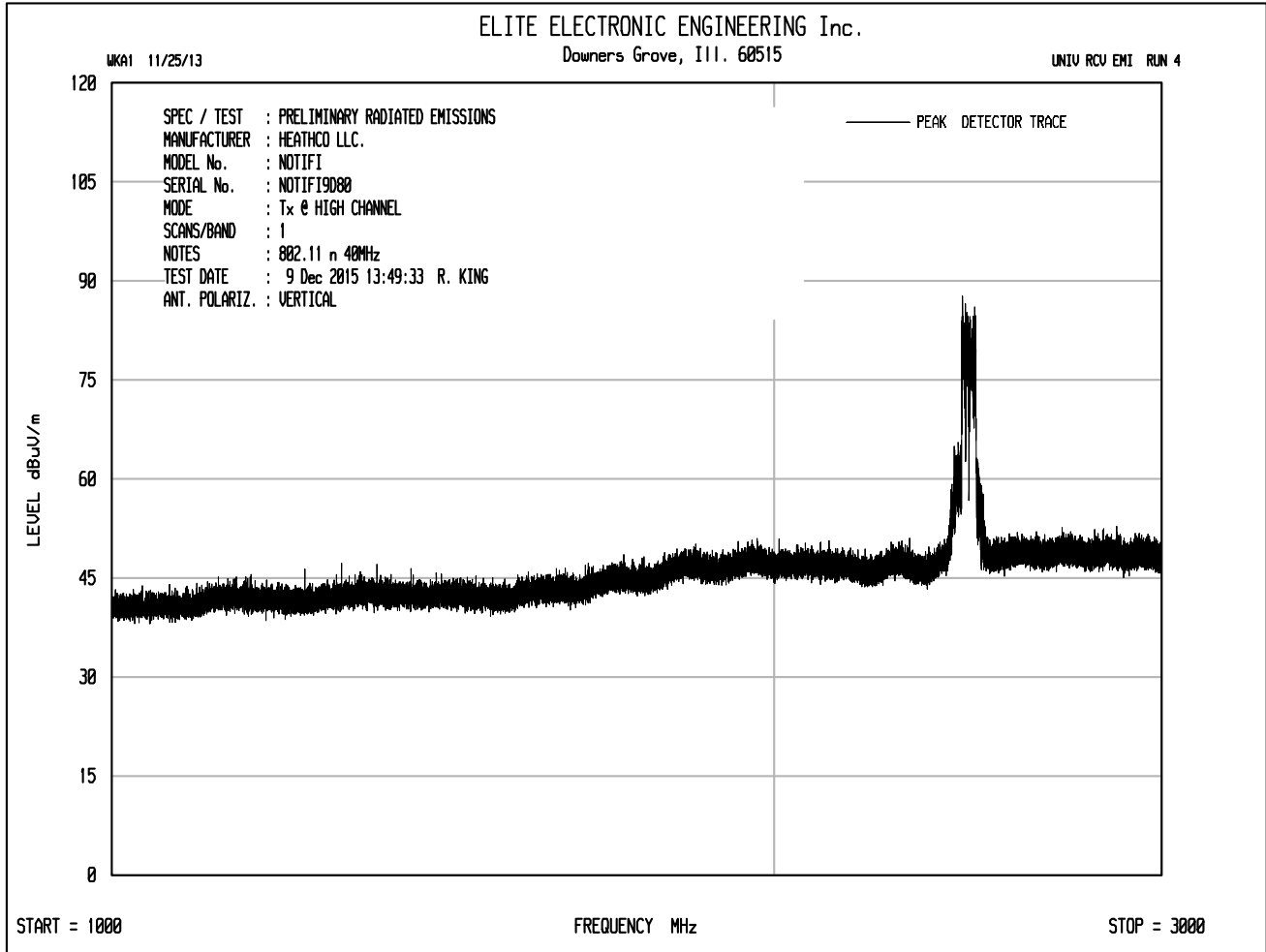


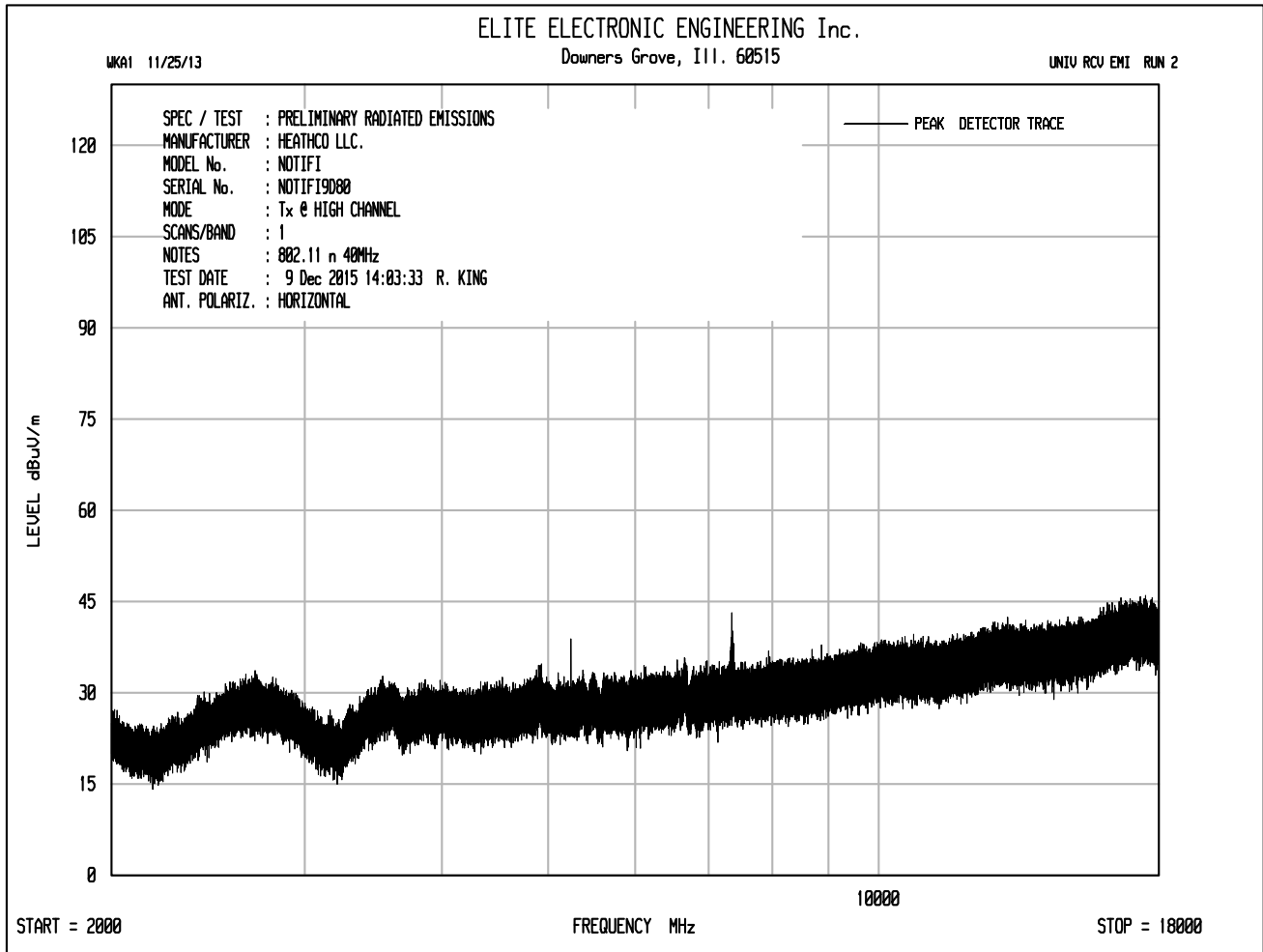


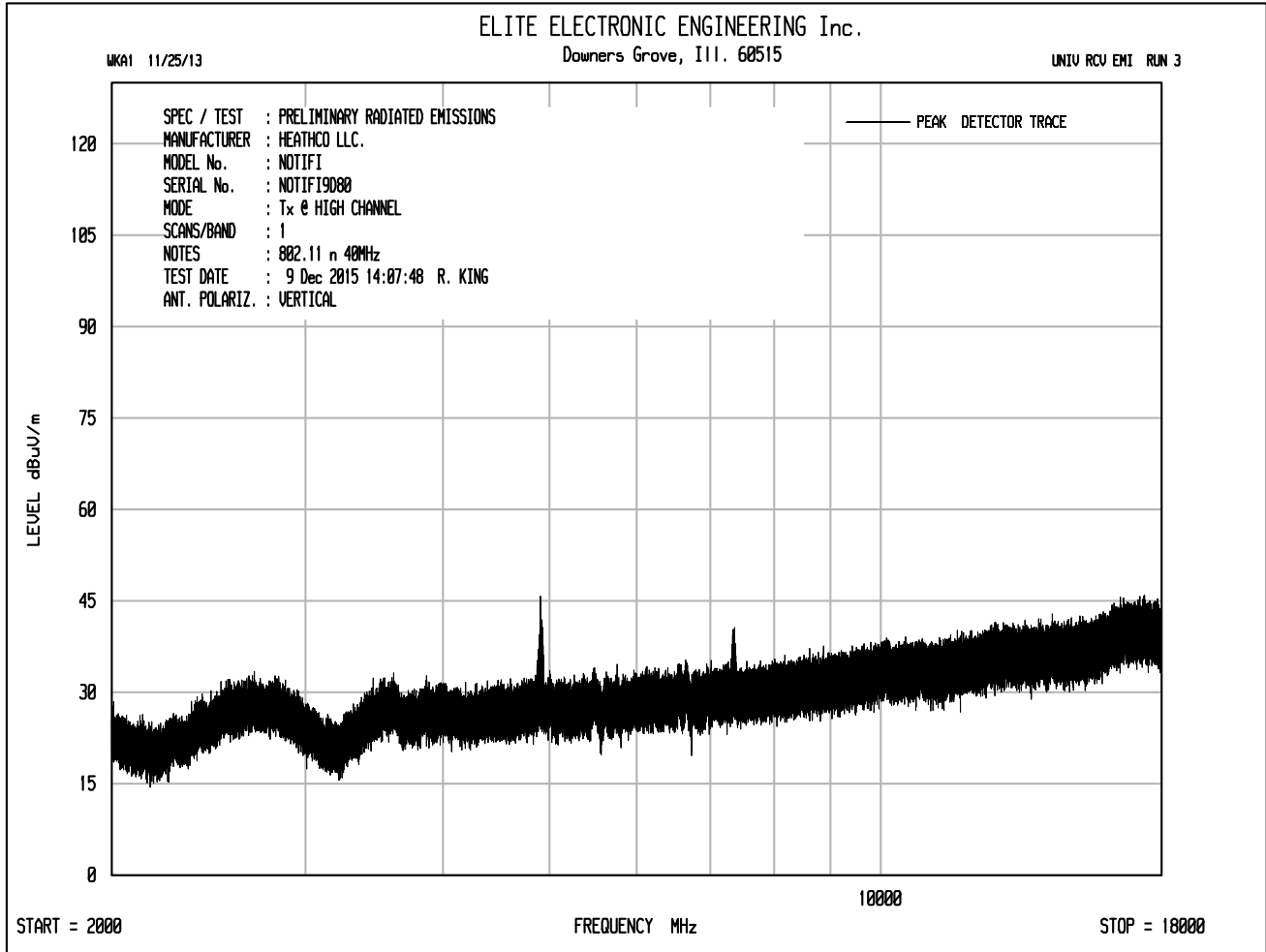










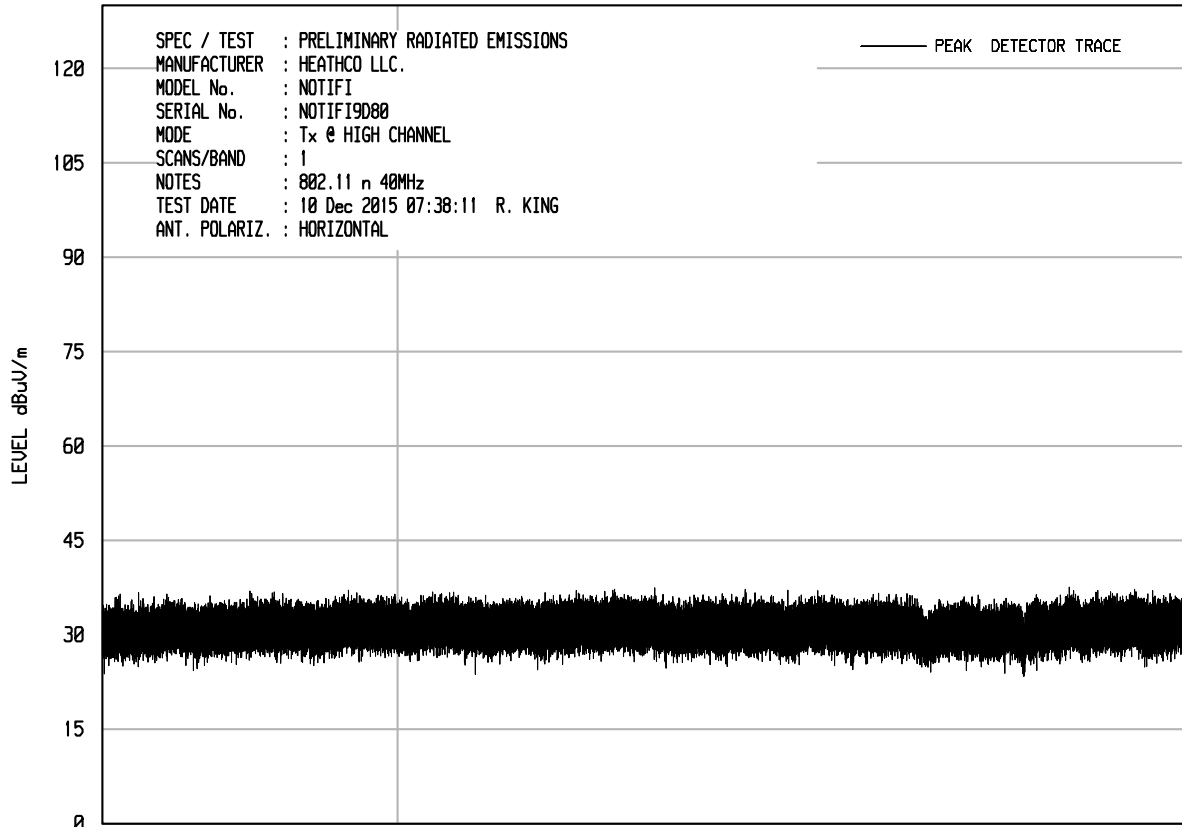




ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515

WKA1 11/25/13

UNIV RCU EMI RUN 23



START = 18000

FREQUENCY MHz

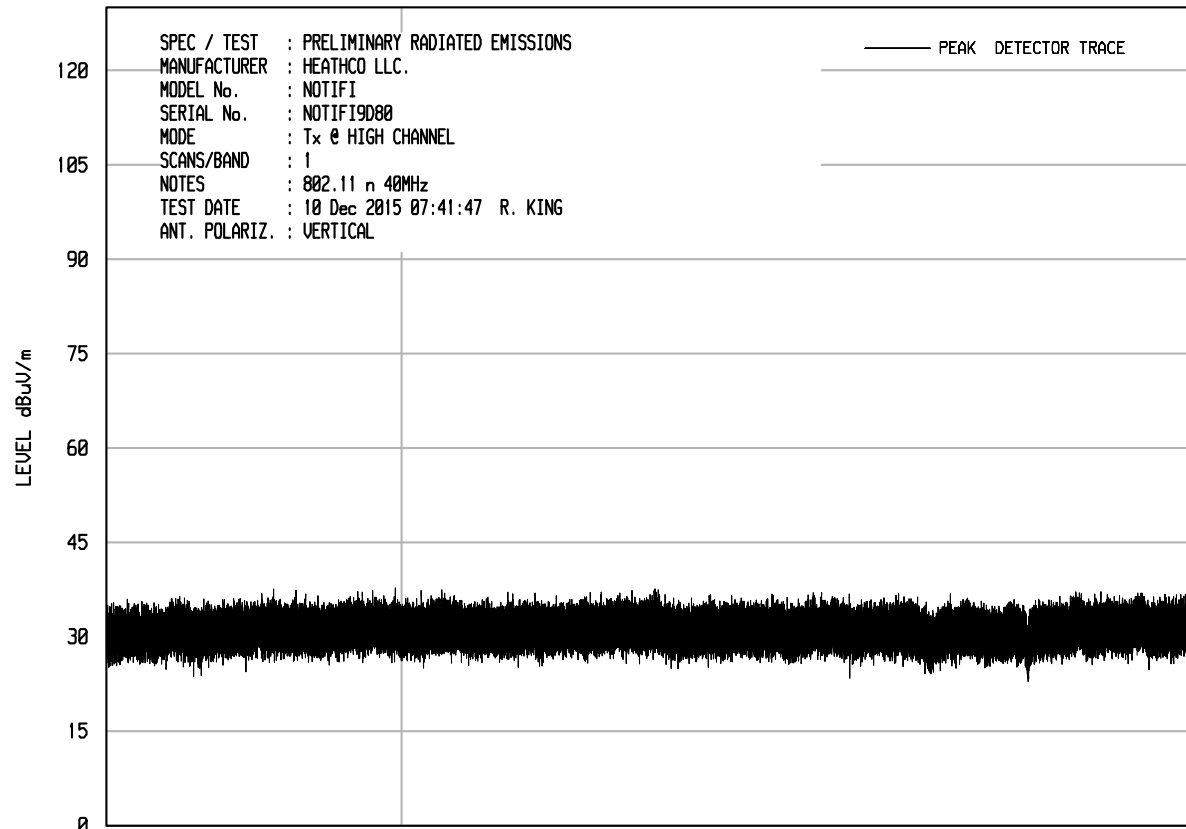
STOP = 26500



ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515

WKA1 11/25/13

UNIV RCU EMI RUN 24



START = 18000

FREQUENCY MHz

STOP = 26500



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2412MHz, 802.11b
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBUV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
4824.00	H	52.2		4.8	34.8	-39.3	52.6	425.1	5000.0	-21.4
4824.00	V	52.2		4.8	34.8	-39.3	52.6	425.1	5000.0	-21.4
12060.00	H	46.4	*	8.0	38.9	-39.1	54.1	509.5	5000.0	-19.8
12060.00	V	46.7	*	8.0	38.9	-39.1	54.4	524.9	5000.0	-19.6
14472.00	H	47.1	*	8.7	39.8	-38.3	57.4	740.4	5000.0	-16.6
14472.00	V	47.0	*	8.7	39.8	-38.3	57.3	732.0	5000.0	-16.7
19296.00	H	28.8	*	2.2	40.4	-28.3	43.1	142.3	5000.0	-30.9
19296.00	V	28.8	*	2.2	40.4	-28.3	43.1	142.7	5000.0	-30.9

Peak Total (dBUV/m) = Meter Reading (dBUV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^((Peak Total (dBUV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2412MHz, 802.11b
 Notes :
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
4824.00	H	37.5		4.8	34.8	-39.3	37.8	77.4	500.0	-16.2
4824.00	V	37.5		4.8	34.8	-39.3	37.8	77.4	500.0	-16.2
12060.00	H	34.8	*	8.0	38.9	-39.1	42.5	133.1	500.0	-11.5
12060.00	V	34.2	*	8.0	38.9	-39.1	41.9	124.9	500.0	-12.0
14472.00	H	34.0	*	8.7	39.8	-38.3	44.2	162.9	500.0	-9.7
14472.00	V	34.0	*	8.7	39.8	-38.3	44.2	162.9	500.0	-9.7
19296.00	H	16.0	*	2.2	40.4	-28.3	30.2	32.5	500.0	-23.7
19296.00	V	16.0	*	2.2	40.4	-28.3	30.2	32.5	500.0	-23.7

Average Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB) + Duty Cycle Correction Factor (dB)

Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2437MHz, 802.11b
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBUV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
4874.00	H	53.6		4.9	34.8	-39.3	53.9	495.5	5000.0	-20.1
4874.00	V	53.0		4.9	34.8	-39.3	53.3	464.1	5000.0	-20.6
7311.00	H	46.4	*	6.2	35.6	-39.4	48.7	273.0	5000.0	-25.3
7311.00	V	46.7	*	6.2	35.6	-39.4	49.0	281.3	5000.0	-25.0
12185.00	H	46.7	*	8.0	39.0	-39.1	54.6	534.3	5000.0	-19.4
12185.00	V	47.6	*	8.0	39.0	-39.1	55.5	594.0	5000.0	-18.5
19496.00	H	28.8	*	2.2	40.4	-28.6	42.4	138.5	5000.0	-31.1
19496.00	V	28.8	*	2.2	40.4	-28.6	42.4	138.5	5000.0	-31.1

Peak Total (dBUV/m) = Meter Reading (dBUV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^((Peak Total (dBUV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2437MHz, 802.11b
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
4874.00	H	49.6		4.9	34.8	-39.3	50.0	314.5	500.0	-4.0
4874.00	V	48.2		4.9	34.8	-39.3	48.5	265.2	500.0	-5.5
7311.00	H	34.8		6.2	35.6	-39.4	37.1	71.3	500.0	-16.9
7311.00	V	34.2	*	6.2	35.6	-39.4	36.5	66.9	500.0	-17.5
12185.00	H	34.0	*	8.0	39.0	-39.1	41.8	123.5	500.0	-12.1
12185.00	V	33.9	*	8.0	39.0	-39.1	41.8	122.8	500.0	-12.2
19496.00	H	16.0	*	2.2	40.4	-28.6	30.0	31.7	500.0	-23.9
19496.00	V	16.0	*	2.2	40.4	-28.6	30.0	31.7	500.0	-23.9

Average Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB) + Duty Cycle Correction Factor (dB)

Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY RICHARD E. KING :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2462MHz, 802.11b
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBUV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
4924.00	H	52.1		4.9	34.8	-39.3	52.4	417.1	5000.0	-21.6
4924.00	V	53.6		4.9	34.8	-39.3	53.9	495.8	5000.0	-20.1
7386.00	H	47.7	*	6.2	35.6	-39.4	50.0	316.6	5000.0	-24.0
7386.00	V	48.0		6.2	35.6	-39.4	50.3	328.9	5000.0	-23.6
12310.00	H	47.3	*	8.0	39.0	-39.0	55.3	583.1	5000.0	-18.7
12310.00	V	45.6	*	8.0	39.0	-39.0	53.6	478.9	5000.0	-20.4
19696.00	H	28.8	*	2.2	40.4	-28.3	43.2	144.1	5000.0	-30.8
19696.00	V	28.8	*	2.2	40.4	-28.3	43.2	144.1	5000.0	-30.8
22158.00	H	31.1	*	2.2	40.6	-29.1	44.8	174.4	5000.0	-29.1
22158.00	V	31.1	*	2.2	40.6	-29.1	44.8	174.4	5000.0	-29.1

Peak Total (dBUV/m) = Meter Reading (dBUV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^((Peak Total (dBUV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2462MHz, 802.11b
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
4924.00	H	47.9		4.9	34.8	-39.3	48.2	256.9	500.0	-5.8
4924.00	V	48.4		4.9	34.8	-39.3	48.7	272.1	500.0	-5.3
7386.00	H	34.0	*	6.2	35.6	-39.4	36.3	65.4	500.0	-17.7
7386.00	V	38.0		6.2	35.6	-39.4	40.4	104.6	500.0	-13.6
12310.00	H	33.7	*	8.0	39.0	-39.0	41.7	121.5	500.0	-12.3
12310.00	V	33.7	*	8.0	39.0	-39.0	41.7	121.3	500.0	-12.3
19696.00	H	16.0	*	2.2	40.4	-28.3	30.4	33.0	500.0	-23.6
19696.00	V	16.0	*	2.2	40.4	-28.3	30.4	33.0	500.0	-23.6
22158.00	H	19.9	*	2.2	40.6	-29.1	33.6	48.0	500.0	-20.3
22158.00	V	19.9	*	2.2	40.6	-29.1	33.6	48.0	500.0	-20.3

Average Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB) + Duty Cycle Correction Factor (dB)

Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2412MHz, 802.11g
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBUV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
4824.00	H	53.7		4.8	34.8	-39.3	54.1	504.7	5000.0	-19.9
4824.00	V	51.6		4.8	34.8	-39.3	51.9	394.5	5000.0	-22.1
12060.00	H	46.4	*	8.0	38.9	-39.1	54.1	509.5	5000.0	-19.8
12060.00	V	46.7	*	8.0	38.9	-39.1	54.4	524.9	5000.0	-19.6
14472.00	H	47.1	*	8.7	39.8	-38.3	57.4	740.4	5000.0	-16.6
14472.00	V	47.0	*	8.7	39.8	-38.3	57.3	732.0	5000.0	-16.7
19296.00	H	28.8	*	2.2	40.4	-28.3	43.1	142.3	5000.0	-30.9
19296.00	V	28.8	*	2.2	40.4	-28.3	43.1	142.7	5000.0	-30.9

Peak Total (dBUV/m) = Meter Reading (dBUV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^((Peak Total (dBUV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2412MHz, 802.11g
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
4824.00	H	40.4		4.8	34.8	-39.3	40.7	108.3	500.0	-13.3
4824.00	V	37.7		4.8	34.8	-39.3	38.1	79.9	500.0	-15.9
12060.00	H	33.4	*	8.0	38.9	-39.1	41.2	114.3	500.0	-12.8
12060.00	V	33.6	*	8.0	38.9	-39.1	41.3	116.2	500.0	-12.7
14472.00	H	33.4	*	8.7	39.8	-38.3	43.7	153.5	500.0	-10.3
14472.00	V	33.6	*	8.7	39.8	-38.3	43.9	156.0	500.0	-10.1
19296.00	H	16.0	*	2.2	40.4	-28.3	30.3	32.7	500.0	-23.7
19296.00	V	16.0	*	2.2	40.4	-28.3	30.3	32.7	500.0	-23.7

Average Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB) + Duty Cycle Correction Factor (dB)

Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2437MHz, 802.11g
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBUV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
4874.00	H	53.5		4.9	34.8	-39.3	53.8	487.6	5000.0	-20.2
4874.00	V	51.5		4.9	34.8	-39.3	51.8	389.1	5000.0	-22.2
7311.00	H	48.0	*	6.2	35.6	-39.4	50.3	327.0	5000.0	-23.7
7311.00	V	48.1		6.2	35.6	-39.4	50.4	332.0	5000.0	-23.6
12185.00	H	46.8	*	8.0	39.0	-39.1	54.7	542.4	5000.0	-19.3
12185.00	V	46.8	*	8.0	39.0	-39.1	54.7	542.4	5000.0	-19.3
19496.00	H	28.8	*	2.2	40.4	-28.6	42.4	138.5	5000.0	-31.1
19496.00	V	28.8	*	2.2	40.4	-28.6	42.4	138.5	5000.0	-31.1

Peak Total (dBUV/m) = Meter Reading (dBUV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^((Peak Total (dBUV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2437MHz, 802.11g
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
4874.00	H	39.5		4.9	34.8	-39.3	39.8	97.4	500.0	-14.2
4874.00	V	36.9		4.9	34.8	-39.3	37.2	72.8	500.0	-16.7
7311.00	H	34.3	*	6.2	35.6	-39.4	36.7	68.0	500.0	-17.3
7311.00	V	35.8		6.2	35.6	-39.4	38.1	80.7	500.0	-15.8
12185.00	H	33.9	*	8.0	39.0	-39.1	41.8	122.8	500.0	-12.2
12185.00	V	33.9	*	8.0	39.0	-39.1	41.8	123.4	500.0	-12.2
19496.00	H	16.0	*	2.2	40.4	-28.6	30.0	31.7	500.0	-23.9
19496.00	V	16.0	*	2.2	40.4	-28.6	30.0	31.7	500.0	-23.9

Average Total (dBuV/m) = Meter Reading (dBUV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB) + Duty Cycle Correction Factor (dB)

Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY RICHARD E. KING :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2462MHz, 802.11g
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBUV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
4924.00	H	52.9		4.9	34.8	-39.3	53.2	457.4	5000.0	-20.8
4924.00	V	50.5		4.9	34.8	-39.3	50.8	345.4	5000.0	-23.2
7386.00	H	48.8		6.2	35.6	-39.4	51.1	360.2	5000.0	-22.8
7386.00	V	49.8		6.2	35.6	-39.4	52.2	406.0	5000.0	-21.8
12310.00	H	46.0	*	8.0	39.0	-39.0	54.0	502.0	5000.0	-20.0
12310.00	V	46.5	*	8.0	39.0	-39.0	54.5	533.0	5000.0	-19.4
19696.00	H	28.8	*	2.2	40.4	-28.3	43.2	144.1	5000.0	-30.8
19696.00	V	28.8	*	2.2	40.4	-28.3	43.2	144.1	5000.0	-30.8
22158.00	H	31.1	*	2.2	40.6	-29.1	44.8	174.4	5000.0	-29.1
22158.00	V	31.1	*	2.2	40.6	-29.1	44.8	174.4	5000.0	-29.1

Peak Total (dBUV/m) = Meter Reading (dBUV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^((Peak Total (dBUV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2462MHz, 802.11g
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
4924.00	H	39.3		4.9	34.8	-39.3	39.6	95.2	500.0	-14.4
4924.00	V	36.4		4.9	34.8	-39.3	36.7	68.3	500.0	-17.3
7386.00	H	35.6		6.2	35.6	-39.4	38.0	79.3	500.0	-16.0
7386.00	V	35.3		6.2	35.6	-39.4	37.7	76.4	500.0	-16.3
12310.00	H	33.7	*	8.0	39.0	-39.0	41.7	121.5	500.0	-12.3
12310.00	V	33.6	*	8.0	39.0	-39.0	41.6	119.6	500.0	-12.4
19696.00	H	16.0	*	2.2	40.4	-28.3	30.4	33.0	500.0	-23.6
19696.00	V	16.0	*	2.2	40.4	-28.3	30.4	33.0	500.0	-23.6
22158.00	H	19.9	*	2.2	40.6	-29.1	33.6	48.0	500.0	-20.3
22158.00	V	19.9	*	2.2	40.6	-29.1	33.6	48.0	500.0	-20.3

Average Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB) + Duty Cycle Correction Factor (dB)

Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY RICHARD E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2412MHz, 802.11n
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth
 Notes : MIMO

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBuV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
4824.00	H	54.6		4.8	34.8	-39.3	54.9	557.8	5000.0	-19.0
4824.00	V	54.0		4.8	34.8	-39.3	54.3	520.6	5000.0	-19.6
12060.00	H	51.2	*	8.0	38.9	-39.1	58.9	884.3	5000.0	-15.0
12060.00	V	50.2	*	8.0	38.9	-39.1	57.9	788.1	5000.0	-16.0
14472.00	H	49.4	*	8.7	39.8	-38.3	59.7	964.9	5000.0	-14.3
14472.00	V	49.8	*	8.7	39.8	-38.3	60.1	1010.4	5000.0	-13.9
19296.00	H	31.8	*	2.2	40.4	-28.3	46.1	201.5	5000.0	-27.9
19296.00	V	31.8	*	2.2	40.4	-28.3	46.1	201.5	5000.0	-27.9

Peak Total (dBuV/m) = Meter Reading (dBUV) including MIMO + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^((Peak Total (dBuV/m))/20)

Checked BY RICHARD E. KING :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2412MHz, 802.11n
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
4824.00	H	40.7		4.8	34.8	-39.3	41.0	112.6	500.0	-12.9
4824.00	V	40.2		4.8	34.8	-39.3	40.5	106.3	500.0	-13.4
12060.00	H	36.5	*	8.0	38.9	-39.1	44.2	162.8	500.0	-9.7
12060.00	V	36.5	*	8.0	38.9	-39.1	44.2	162.8	500.0	-9.7
14472.00	H	36.5	*	8.7	39.8	-38.3	46.8	218.5	500.0	-7.2
14472.00	V	36.5	*	8.7	39.8	-38.3	46.8	218.5	500.0	-7.2
19296.00	H	19.0	*	2.2	40.4	-28.3	33.3	46.2	500.0	-20.7
19296.00	V	19.0	*	2.2	40.4	-28.3	33.3	46.2	500.0	-20.7

Average Total (dBuV/m) = Meter Reading (dBuV) including MIMO + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB) + Duty Cycle Correction Factor (dB)

Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2437MHz, 802.11n
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBUV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
4824.00	H	54.6		4.8	34.8	-39.3	54.9	557.8	5000.0	-19.0
4824.00	V	54.0		4.8	34.8	-39.3	54.3	520.6	5000.0	-19.6
12060.00	H	51.2	*	8.0	38.9	-39.1	58.9	884.3	5000.0	-15.0
12060.00	V	50.2	*	8.0	38.9	-39.1	57.9	788.1	5000.0	-16.0
14472.00	H	49.4	*	8.7	39.8	-38.3	59.7	964.9	5000.0	-14.3
14472.00	V	49.8	*	8.7	39.8	-38.3	60.1	1010.4	5000.0	-13.9
19296.00	H	31.8	*	2.2	40.4	-28.3	46.1	201.5	5000.0	-27.9
19296.00	V	31.8	*	2.2	40.4	-28.3	46.1	201.5	5000.0	-27.9

Peak Total (dBUV/m) = Meter Reading (dBUV) including MIMO + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^((Peak Total (dBUV/m))/20)

Checked BY *RICHARD E. KING* :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2437MHz, 802.11n
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
4874.00	H	41.1		4.9	34.8	-39.3	41.4	117.6	500.0	-12.6
4874.00	V	38.8		4.9	34.8	-39.3	39.1	90.3	500.0	-14.9
7311.00	H	37.2	*	6.2	35.6	-39.4	39.5	94.5	500.0	-14.5
7311.00	V	37.1	*	6.2	35.6	-39.4	39.4	93.5	500.0	-14.6
12185.00	H	36.8	*	8.0	39.0	-39.1	44.7	171.5	500.0	-9.3
12185.00	V	36.8	*	8.0	39.0	-39.1	44.7	171.5	500.0	-9.3
19496.00	H	19.0	*	2.2	40.4	-28.6	33.0	44.8	500.0	-20.9
19496.00	V	19.0	*	2.2	40.4	-28.6	33.0	44.8	500.0	-20.9

Average Total (dBuV/m) = Meter Reading (dBuV) including MIMO + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB) + Duty Cycle Correction Factor (dB)

Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY RICHARD E. KING :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2462MHz, 802.11n
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBUV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
4924.00	H	54.8		4.9	34.8	-39.3	55.1	569.9	5000.0	-18.9
4924.00	V	52.9	*	4.9	34.8	-39.3	53.2	457.9	5000.0	-20.8
7386.00	H	50.3	*	6.2	35.6	-39.4	52.7	429.6	5000.0	-21.3
7386.00	V	50.8	*	6.2	35.6	-39.4	53.2	455.0	5000.0	-20.8
12310.00	H	49.6	*	8.0	39.0	-39.0	57.6	758.1	5000.0	-16.4
12310.00	V	49.6	*	8.0	39.0	-39.0	57.6	758.1	5000.0	-16.4
19696.00	H	31.8	*	2.2	40.4	-28.3	46.2	203.6	5000.0	-27.8
19696.00	V	31.8	*	2.2	40.4	-28.3	46.2	203.6	5000.0	-27.8
22158.00	H	34.1	*	2.2	40.6	-29.1	47.8	246.3	5000.0	-26.1
22158.00	V	34.1	*	2.2	40.6	-29.1	47.8	246.3	5000.0	-26.1

Peak Total (dBUV/m) = Meter Reading (dBUV) including MIMO + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^((Peak Total (dBUV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2462MHz, 802.11n
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
4924.00	H	40.1		4.9	34.8	-39.3	40.4	104.9	500.0	-13.6
4924.00	V	37.3		4.9	34.8	-39.3	37.6	76.0	500.0	-16.4
7386.00	H	36.3	*	6.2	35.6	-39.4	38.7	85.7	500.0	-15.3
7386.00	V	36.5	*	6.2	35.6	-39.4	38.9	87.7	500.0	-15.1
12310.00	H	36.7	*	8.0	39.0	-39.0	44.7	171.7	500.0	-9.3
12310.00	V	36.7	*	8.0	39.0	-39.0	44.7	171.7	500.0	-9.3
19696.00	H	19.0	*	2.2	40.4	-28.3	33.4	46.6	500.0	-20.6
19696.00	V	19.0	*	2.2	40.4	-28.3	33.4	46.6	500.0	-20.6
22158.00	H	22.9	*	2.2	40.6	-29.1	36.6	67.8	500.0	-17.3
22158.00	V	22.9	*	2.2	40.6	-29.1	36.6	67.8	500.0	-17.3

Average Total (dBuV/m) = Meter Reading (dBuV) including MIMO + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB) + Duty Cycle Correction Factor (dB)

Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY RICHARD E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2422MHz, 802.11n
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBUV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
4844.00	H	52.6		4.9	34.8	-39.3	52.9	441.7	5000.0	-21.1
4844.00	V	51.7		4.9	34.8	-39.3	52.0	398.2	5000.0	-22.0
7266.00	H	49.6	*	6.1	35.6	-39.4	51.9	393.8	5000.0	-22.1
7266.00	V	49.6	*	6.1	35.6	-39.4	51.9	393.8	5000.0	-22.1
12110.00	H	50.0	*	8.0	38.9	-39.1	57.8	777.2	5000.0	-16.2
12110.00	V	50.1	*	8.0	38.9	-39.1	57.9	786.2	5000.0	-16.1
19376.00	H	31.8	*	2.2	40.4	-28.4	46.0	198.8	5000.0	-28.0
19376.00	V	31.8	*	2.2	40.4	-28.4	46.0	198.8	5000.0	-28.0

Peak Total (dBUV/m) = Meter Reading (dBUV) including MIMO + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^((Peak Total (dBUV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2422MHz, 802.11n
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
4844.00	H	40.7		4.9	34.8	-39.3	41.0	112.2	500.0	-13.0
4844.00	V	37.2		4.9	34.8	-39.3	37.5	75.0	500.0	-16.5
7266.00	H	37.4	*	6.1	35.6	-39.4	39.7	96.7	500.0	-14.3
7266.00	V	37.2	*	6.1	35.6	-39.4	39.5	94.5	500.0	-14.5
12110.00	H	36.6	*	8.0	38.9	-39.1	44.4	166.2	500.0	-9.6
12110.00	V	36.6	*	8.0	38.9	-39.1	44.4	166.2	500.0	-9.6
19376.00	H	19.0	*	2.2	40.4	-28.4	33.2	45.5	500.0	-20.8
19376.00	V	19.0	*	2.2	40.4	-28.4	33.2	45.5	500.0	-20.8

Average Total (dBuV/m) = Meter Reading (dBuV) including MIMO + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB) + Duty Cycle Correction Factor (dB)

Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2437MHz, 802.11n
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBUV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
4874.00	H	53.5		4.9	34.8	-39.3	53.8	490.4	5000.0	-20.2
4874.00	V	51.5	*	4.9	34.8	-39.3	51.8	389.6	5000.0	-22.2
7311.00	H	49.5	*	6.2	35.6	-39.4	51.8	389.6	5000.0	-22.2
7311.00	V	49.6	*	6.2	35.6	-39.4	51.9	394.1	5000.0	-22.1
12185.00	H	50.9	*	8.0	39.0	-39.1	58.8	869.6	5000.0	-15.2
12185.00	V	49.6	*	8.0	39.0	-39.1	57.5	748.7	5000.0	-16.5
19496.00	H	31.8	*	2.2	40.4	-28.6	45.8	195.7	5000.0	-28.1
19496.00	V	31.8	*	2.2	40.4	-28.6	45.8	195.7	5000.0	-28.1

Peak Total (dBUV/m) = Meter Reading (dBUV) including MIMO + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^((Peak Total (dBUV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2437MHz, 802.11n
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
4874.00	H	39.7		4.9	34.8	-39.3	40.0	100.1	500.0	-14.0
4874.00	V	37.3	*	4.9	34.8	-39.3	37.6	76.0	500.0	-16.4
7311.00	H	37.1	*	6.2	35.6	-39.4	39.4	93.5	500.0	-14.6
7311.00	V	37.4	*	6.2	35.6	-39.4	39.7	96.7	500.0	-14.3
12185.00	H	37.0	*	8.0	39.0	-39.1	44.9	175.5	500.0	-9.1
12185.00	V	36.9	*	8.0	39.0	-39.1	44.8	173.5	500.0	-9.2
19496.00	H	19.0	*	2.2	40.4	-28.6	33.0	44.8	500.0	-20.9
19496.00	V	19.0	*	2.2	40.4	-28.6	33.0	44.8	500.0	-20.9

Average Total (dBuV/m) = Meter Reading (dBuV) including MIMO + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB) + Duty Cycle Correction Factor (dB)

Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY RICHARD E. KING :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2452MHz, 802.11n
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBUV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBUV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
4904.00	H	51.0		4.9	34.8	-39.3	51.3	368.5	5000.0	-22.7
4904.00	V	50.0	*	4.9	34.8	-39.3	50.3	328.4	5000.0	-23.7
7356.00	H	49.5	*	6.2	35.6	-39.4	51.9	391.5	5000.0	-22.1
7356.00	V	49.7	*	6.2	35.6	-39.4	52.1	400.6	5000.0	-21.9
12260.00	H	49.7	*	8.0	39.0	-39.1	57.7	765.3	5000.0	-16.3
12260.00	V	49.6	*	8.0	39.0	-39.1	57.6	756.6	5000.0	-16.4
19616.00	H	31.8	*	2.2	40.4	-28.2	46.2	204.0	5000.0	-27.8
19616.00	V	31.8	*	2.2	40.4	-28.2	46.2	204.0	5000.0	-27.8
22068.00	H	34.1	*	2.2	40.6	-29.1	47.8	244.5	5000.0	-26.2
22068.00	V	34.1	*	2.2	40.6	-29.1	47.8	244.5	5000.0	-26.2

Peak Total (dBUV/m) = Meter Reading (dBUV) including MIMO + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^((Peak Total (dBUV/m))/20)

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Spurious Radiated Emissions in Restricted Bands
 Date : 1/11-12/2016
 Mode : Tx @ 2452MHz, 802.11n
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
4904.00	H	37.2		4.9	34.8	-39.3	37.5	75.2	500.0	-16.5
4904.00	V	37.2	*	4.9	34.8	-39.3	37.5	75.2	500.0	-16.5
7356.00	H	36.6	*	6.2	35.6	-39.4	39.0	88.7	500.0	-15.0
7356.00	V	36.6	*	6.2	35.6	-39.4	39.0	88.7	500.0	-15.0
12260.00	H	36.7	*	8.0	39.0	-39.1	44.7	171.3	500.0	-9.3
12260.00	V	36.7	*	8.0	39.0	-39.1	44.7	171.3	500.0	-9.3
19616.00	H	19.0	*	2.2	40.4	-28.2	33.4	46.7	500.0	-20.6
19616.00	V	19.0	*	2.2	40.4	-28.2	33.4	46.7	500.0	-20.6
22068.00	H	31.9	*	2.2	40.6	-29.1	45.6	189.8	500.0	-8.4
22068.00	V	31.9	*	2.2	40.6	-29.1	45.6	189.8	500.0	-8.4

Average Total (dBuV/m) = Meter Reading (dBuV) including MIMO + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB) + Duty Cycle Correction Factor (dB)

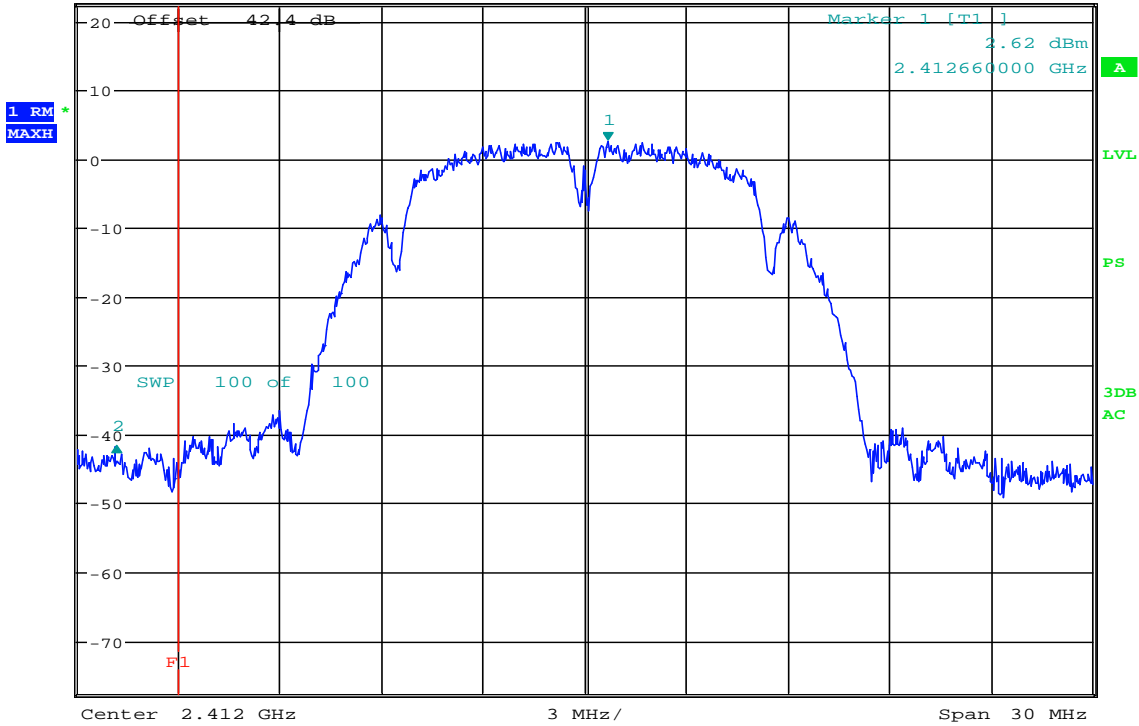
Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY RICHARD E. King :

Richard E. King



Ref 22.4 dBm * Att 0 dB *RBW 100 kHz Delta 2 [T1]
 VBW 1 MHz -44.48 dB
 SWT 15 ms -14.508846154 MHz



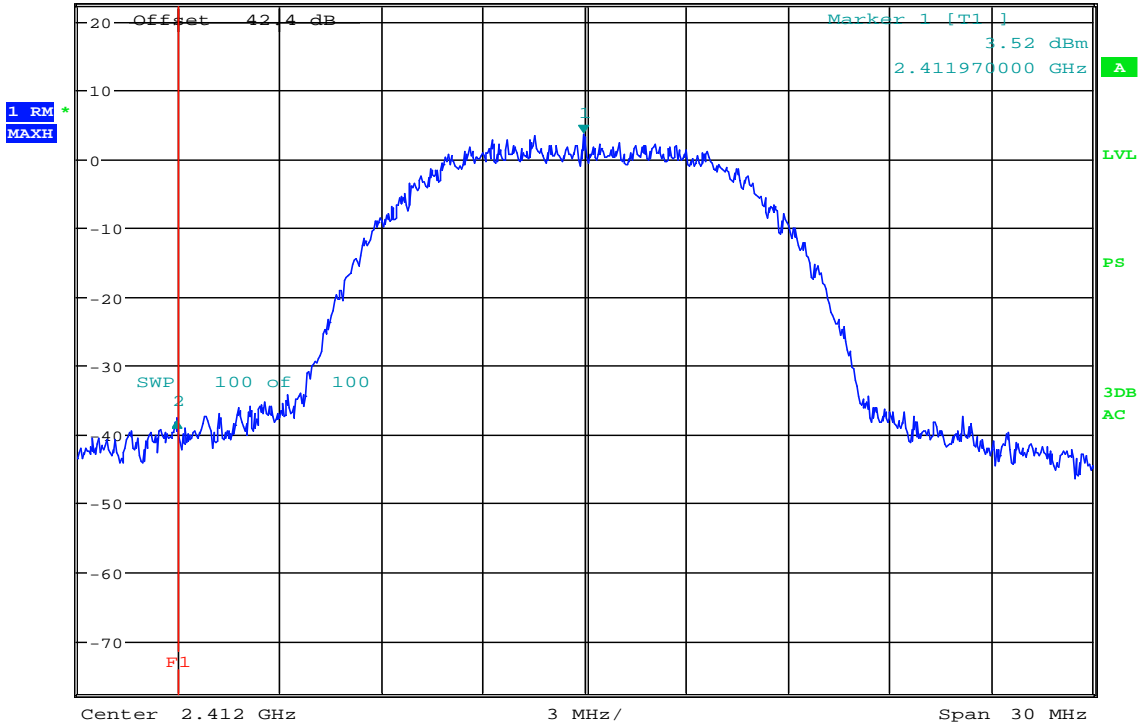
Date: 9.JAN.2016 10:01:51

FCC 15C 15.247 / Bandedge

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 b 20 MHz
 NOTES : 1Mbps
 NOTES : F1 is the bandedge at 2.4 GMHz
 NOTES : -44.48 dBc



Ref 22.4 dBm * Att 0 dB *RBW 100 kHz Delta 2 [T1]
 VBW 1 MHz -41.78 dB
 SWT 15 ms -12.060000000 MHz



Date: 9.JAN.2016 09:57:14

FCC 15C 15.247 / Bandedge

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 b 20 MHz
 NOTES : 11Mbps
 NOTES : F1 is the bandedge at 2.4 GHz
 NOTES : -41.78 dBc



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Bandedge compliance (radiated)
 Date : 1/11-12/2015
 Mode : Tx @ 2462MHz, 802.11b
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBuV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
2483.50	H	15.1	*	3.5	32.6	0.0	51.2	362.3	5000.0	-22.8
2483.50	V	19.4	*	3.5	32.6	0.0	55.5	595.8	5000.0	-18.5

Peak Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^{((Peak Total (dBuV/m))/20)}

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Bandedge compliance (radiated)
 Date : 1/11-12/2015
 Mode : Tx @ 2462MHz, 802.11b
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
2483.50	H	1.4	*	3.5	32.6	0.0	37.5	75.1	500.0	-16.5
2483.50	V	2.8	*	3.5	32.6	0.0	38.9	88.2	500.0	-15.1

Average Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

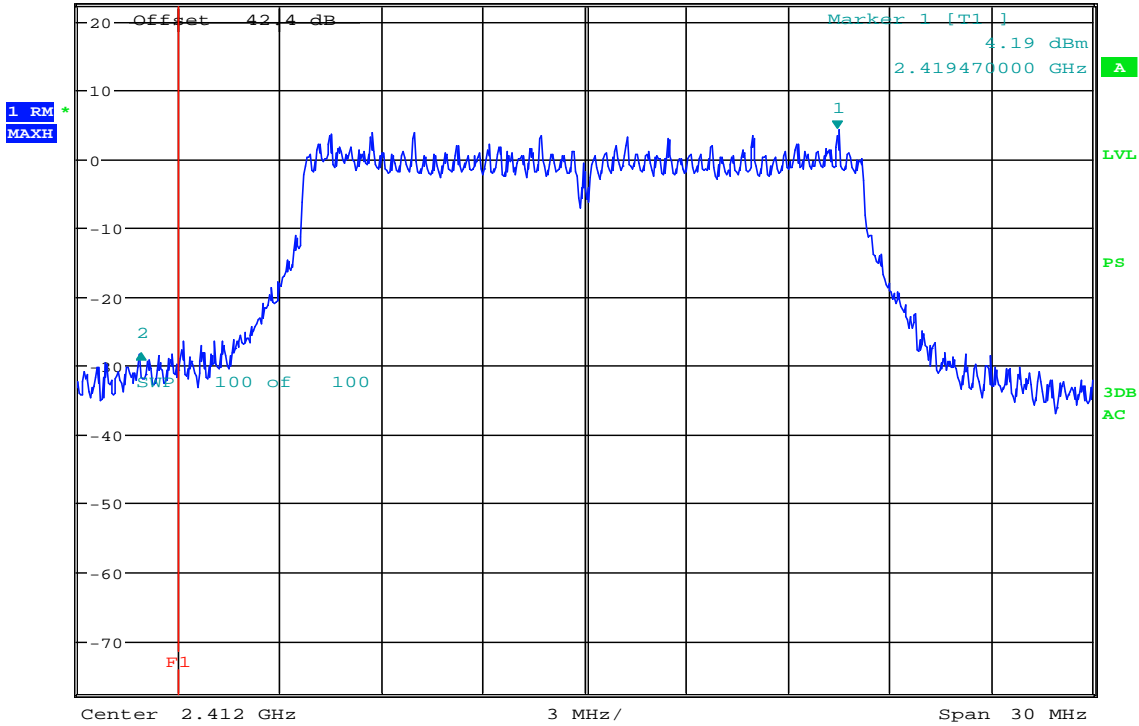
Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY Richard E. King :

Richard E. King



Ref 22.4 dBm *Att 0 dB *RBW 100 kHz Delta 2 [T1]
 VBW 1 MHz -32.49 dB
 SWT 15 ms -20.597692308 MHz



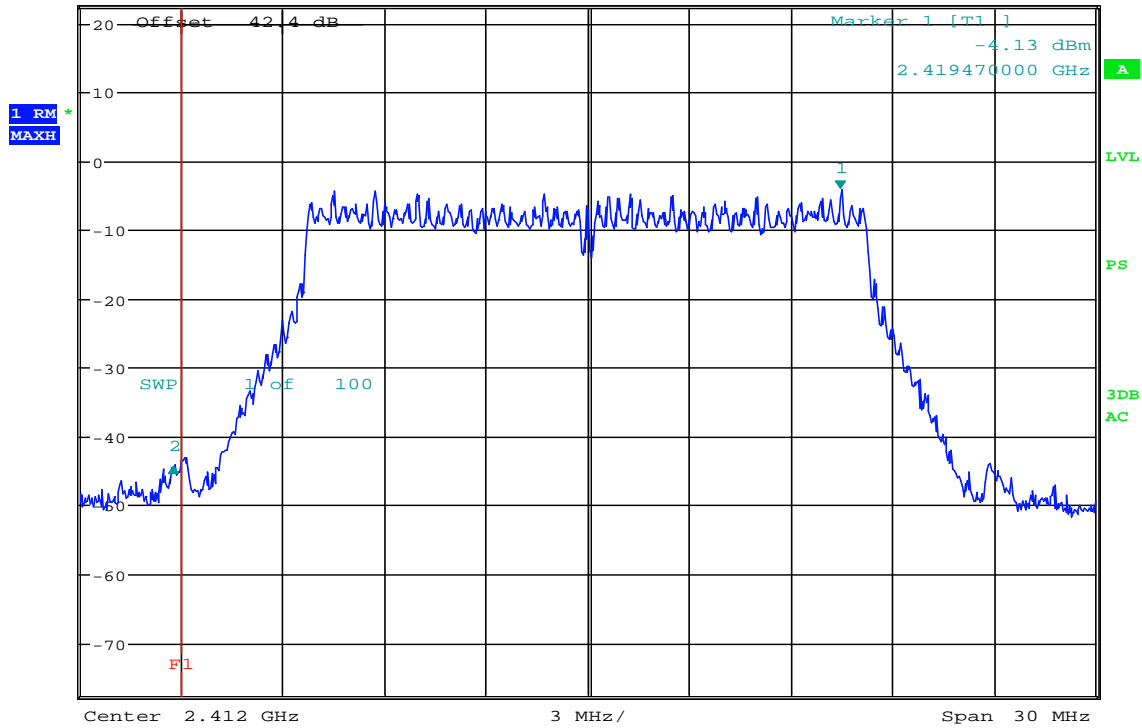
Date: 9.JAN.2016 10:15:07

FCC 15C 15.247 / Bandedge

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 g 20 MHz
 NOTES : 18 Mbps
 NOTES : F1 is the bandedge at 2.4 GHz
 NOTES :



Ref 22.4 dBm *Att 0 dB *RBW 100 kHz Delta 2 [T1]
 VBW 1 MHz -40.47 dB
 SWT 15 ms -19.701538462 MHz



Date: 8.JAN.2016 16:24:11

FCC 15C 15.247 / Bandedge

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 g 20 MHz
 NOTES : 54Mbps
 NOTES : F1 is the bandedge at 2.4 GMHz
 NOTES : ANT1 long cable



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Bandedge compliance (radiated)
 Date : 1/11-12/2015
 Mode : Tx @ 2462MHz, 802.11g
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBuV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
2483.50	H	25.3		3.5	32.4	0.0	61.2	1142.4	5000.0	-12.8
2483.50	V	30.5		3.5	32.4	0.0	66.4	2090.8	5000.0	-7.6

Peak Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = 10^{((Peak Total (dBuV/m))/20)}

Checked BY *RICHARD E. KING* :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Bandedge compliance (radiated)
 Date : 1/11-12/2015
 Mode : Tx @ 2462MHz, 802.11g
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
2483.50	H	12.0		3.5	32.4	0.0	47.8	246.8	500.0	-6.1
2483.50	V	12.1		3.5	32.4	0.0	47.9	249.1	500.0	-6.1

Average Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

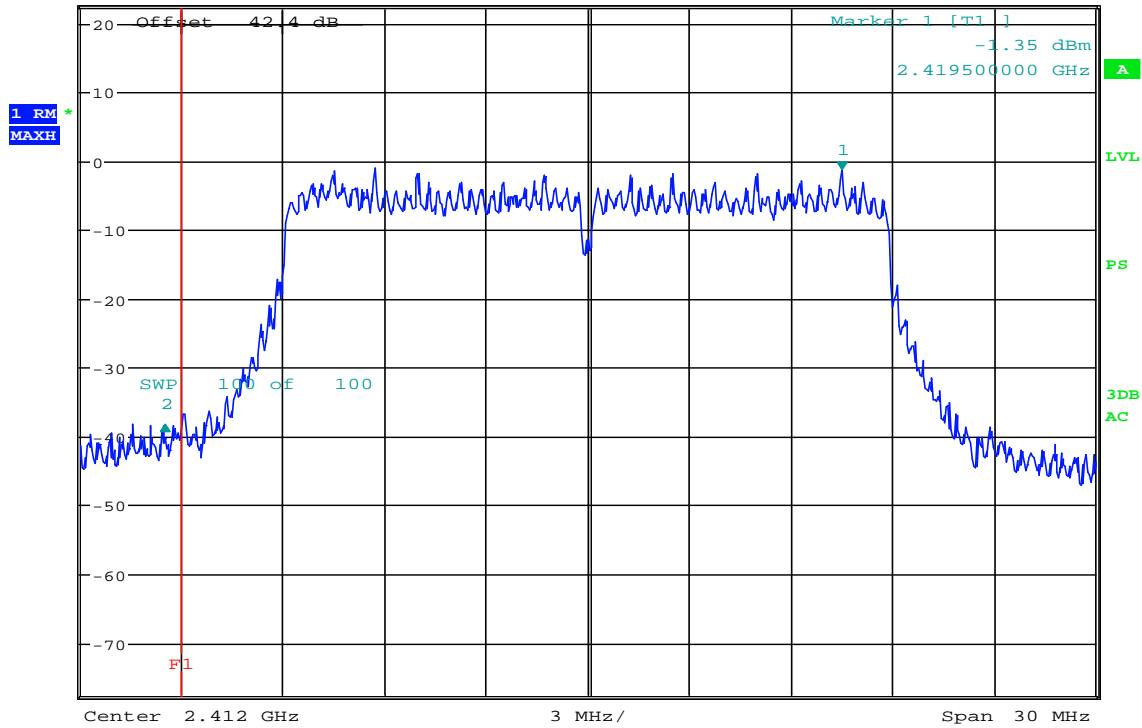
Average Total uV/m = 10^((Average Total (dBuV/m))/20)

Checked BY Richard E. King :

Richard E. King



Ref 22.4 dBm * Att 0 dB *RBW 100 kHz Delta 2 [T1]
 VBW 1 MHz -37.10 dB
 SWT 15 ms -20.00000000 MHz



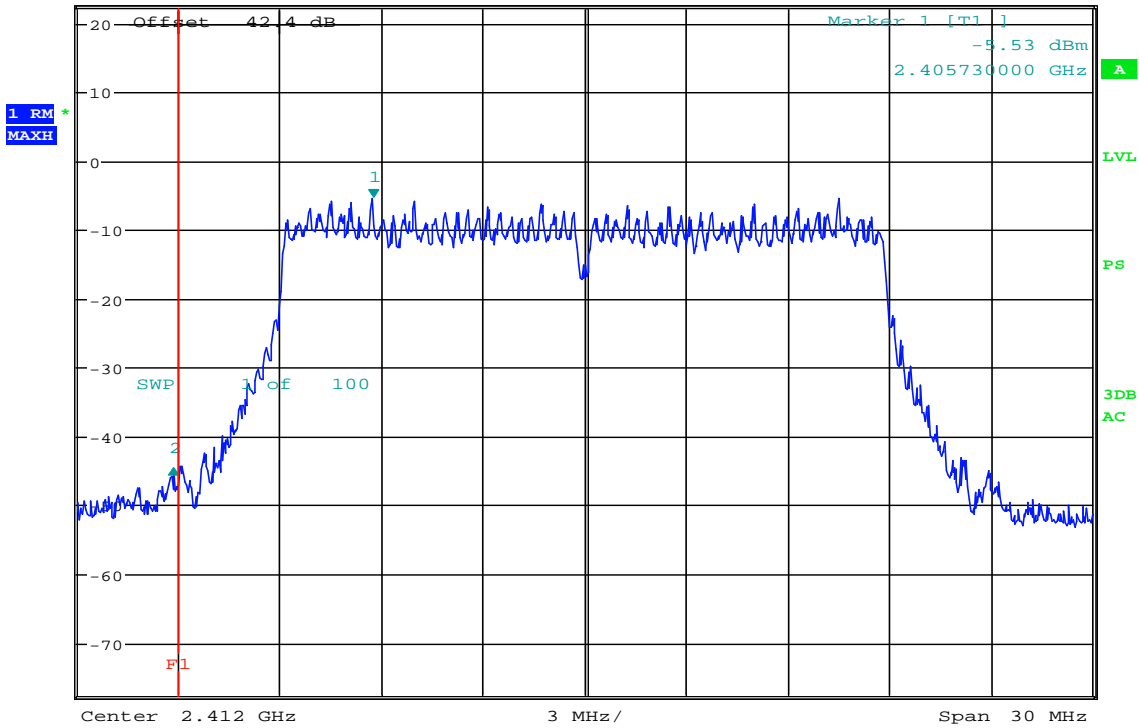
Date: 8.JAN.2016 16:04:37

FCC 15C 15.247 / RSS 247 Bandedge Compliance

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 n 20MHz
 NOTES : 28.9 Mbps
 NOTES : MIMO = 10 * log (2) = 3dB
 NOTES : -37.01 +3 (MIMO) = -34.01dBc



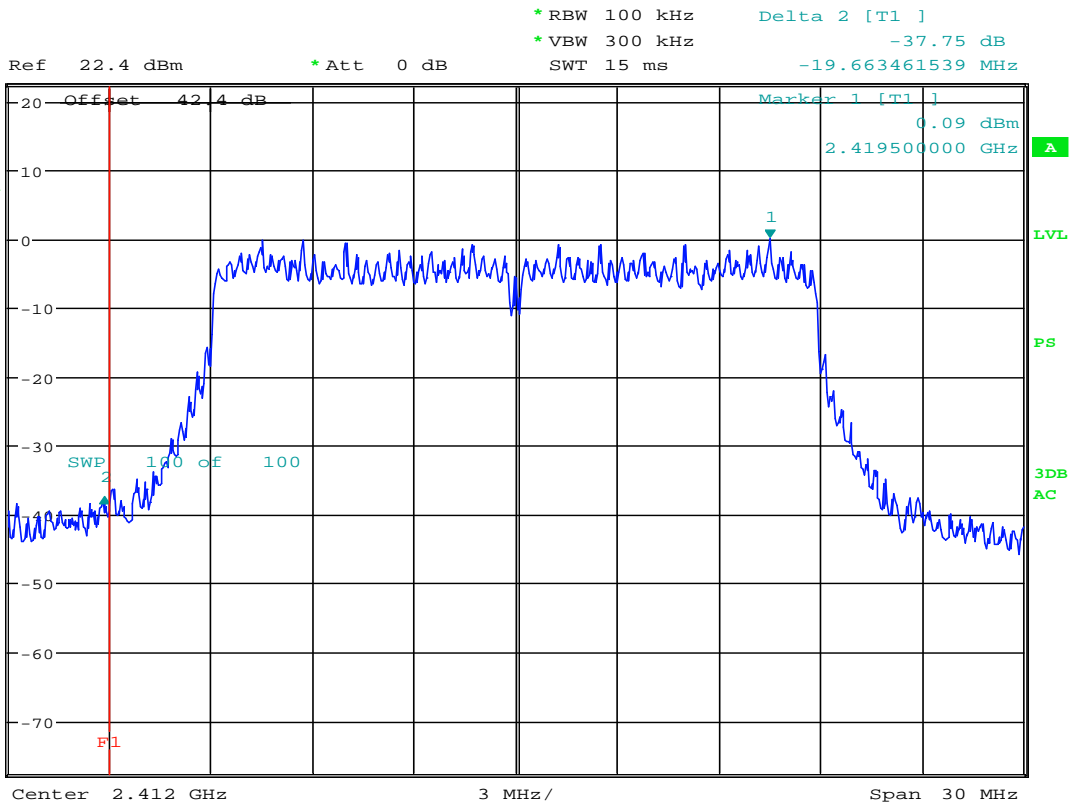
Ref 22.4 dBm * Att 0 dB *RBW 100 kHz Delta 2 [T1]
 VBW 1 MHz -39.25 dB
 SWT 15 ms -5.875384615 MHz



Date: 8.JAN.2016 16:01:54

FCC 15C 15.247 / RSS 247 Bandedge Compliance

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 n 20MHz
 NOTES : 65 Mbps
 NOTES : MIMO = 10 * log (2) = 3dB
 NOTES : -39.25 +3 (MIMO) = -36.25dBc



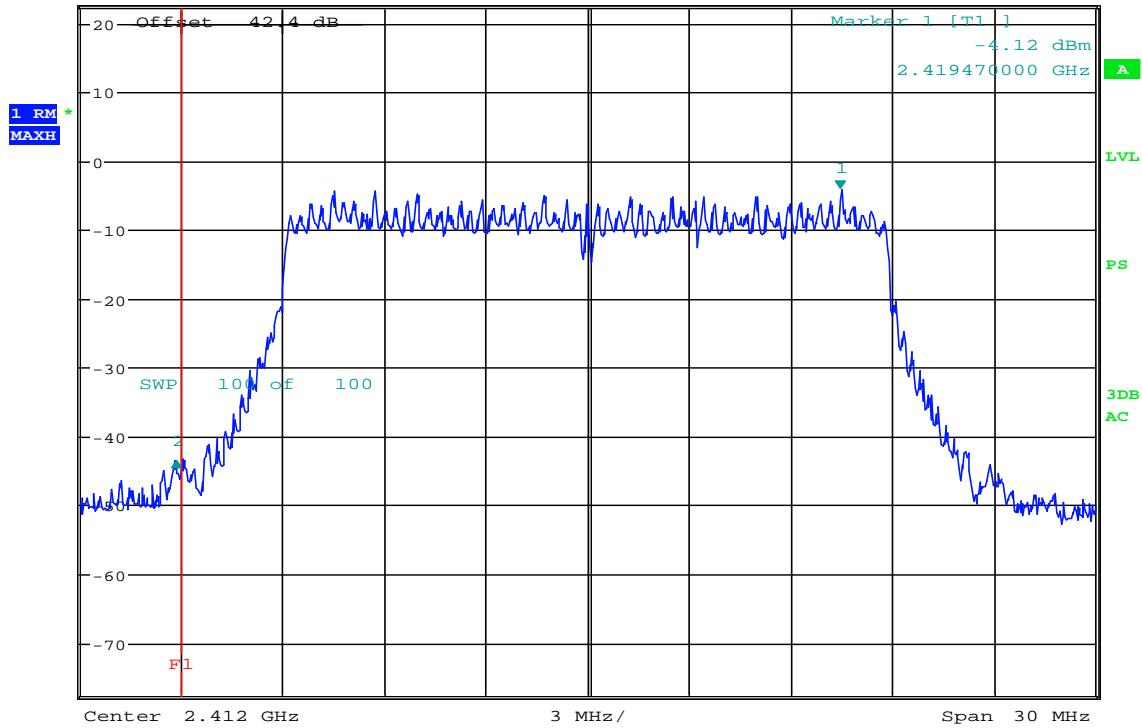
Date: 8.JAN.2016 15:29:40

FCC 15C 15.247 / RSS 247 Bandedge Compliance

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 n 20MHz
 NOTES : 28.9 Mbps
 NOTES : ANT1
 NOTES : MIMO = 10 * log (2) = 3dB
 NOTES : -37.75 +3 (MIMO) = -34.75dBc



Ref 22.4 dBm * Att 0 dB * RBW 100 kHz Delta 2 [T1]
 * VBW 300 kHz -39.60 dB
 SWT 15 ms -19.605384615 MHz



Date: 8.JAN.2016 15:22:48

FCC 15C 15.247 / RSS 247 Bandedge Compliance

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 n 20MHz
 NOTES : 65 Mbps
 NOTES : MIMO = 10 * log (2) = 3dB
 NOTES : -39.6 +3 (MIMO) = -36.6dBc



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Bandedge compliance (radiated)
 Date : 1/11-12/2015
 Mode : Tx @ 2462MHz, 802.11n (20MHz)
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading* (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBuV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
2483.50	H	28.0		3.5	32.4	0.0	63.9	1562.4	5000.0	-10.1
2483.50	V	30.7		3.5	32.4	0.0	66.6	2132.1	5000.0	-7.4

Peak Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = $10^{((\text{Peak Total (dBuV/m)})/20)}$

*The MIMO ($10 \cdot \log(2) = 3 \text{ dB}$) factor was added to the Meter Reading.

Checked BY RICHARD E. KING :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Bandedge compliance (radiated)
 Date : 1/11-12/2015
 Mode : Tx @ 2462MHz, 802.11n (20MHz)
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading* (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
2483.50	H	13.3		3.5	32.4	0.0	49.2	287.6	500.0	-4.8
2483.50	V	12.7		3.5	32.4	0.0	48.5	266.9	500.0	-5.5

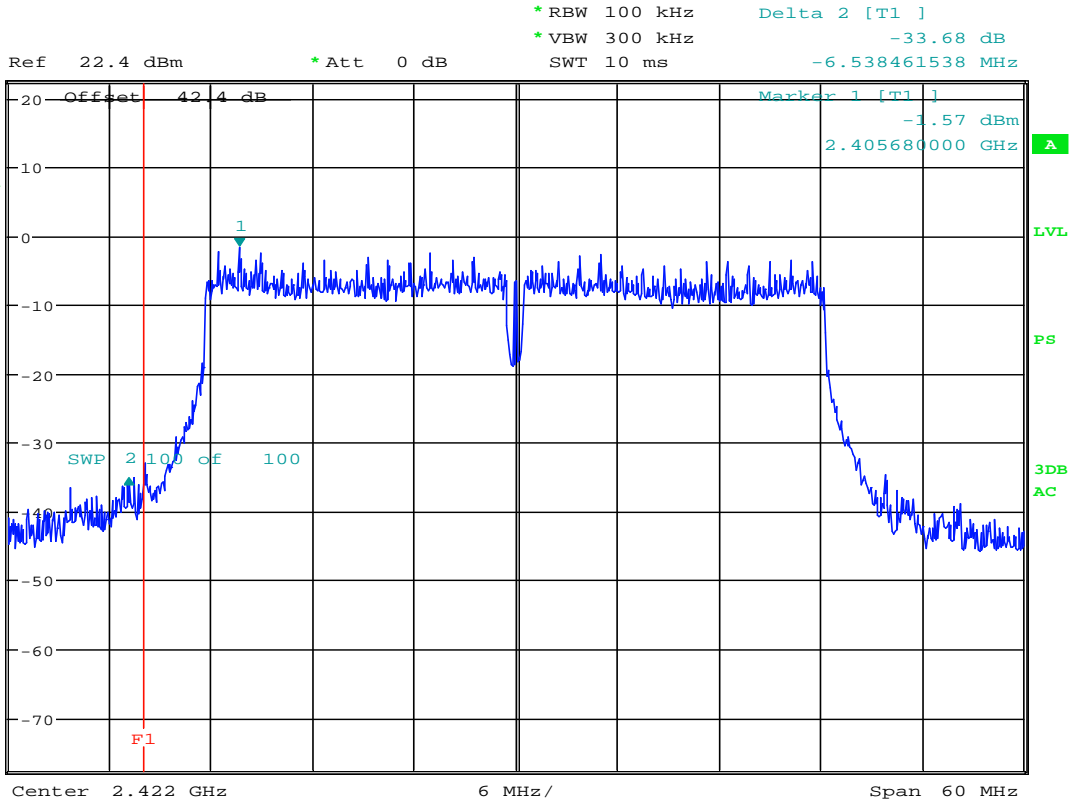
Average Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Average Total uV/m = 10^((Average Total (dBuV/m))/20)

*The MIMO (10*log(2) = 3 dB) factor was added to the Meter Reading.

Checked BY RICHARD E. KING :

Richard E. King



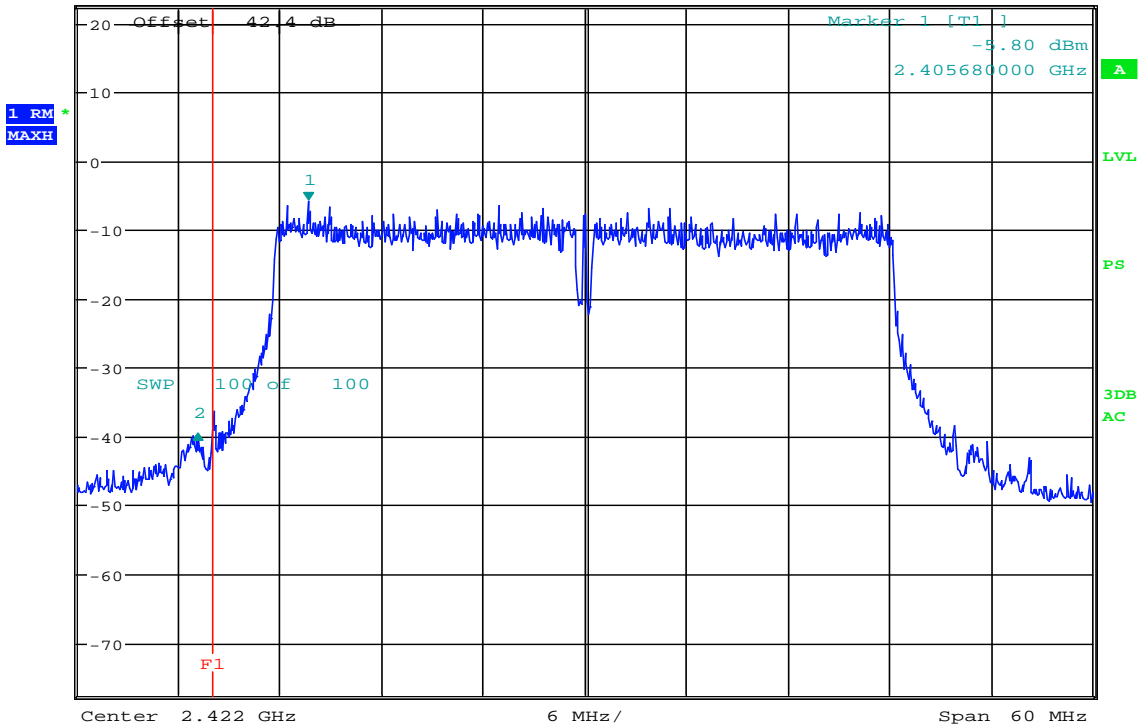
Date: 8.JAN.2016 14:30:16

FCC 15C 15.247 / RSS 247 Bandedge Compliance

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 n 40MHz
 NOTES : 60 Mbps
 NOTES : ANT0
 NOTES : MIMO = $10 * \log(2) = 3\text{dB}$
 NOTES : $-33.68 + 3 \text{ (MIMO)} = -30.68\text{dBc}$



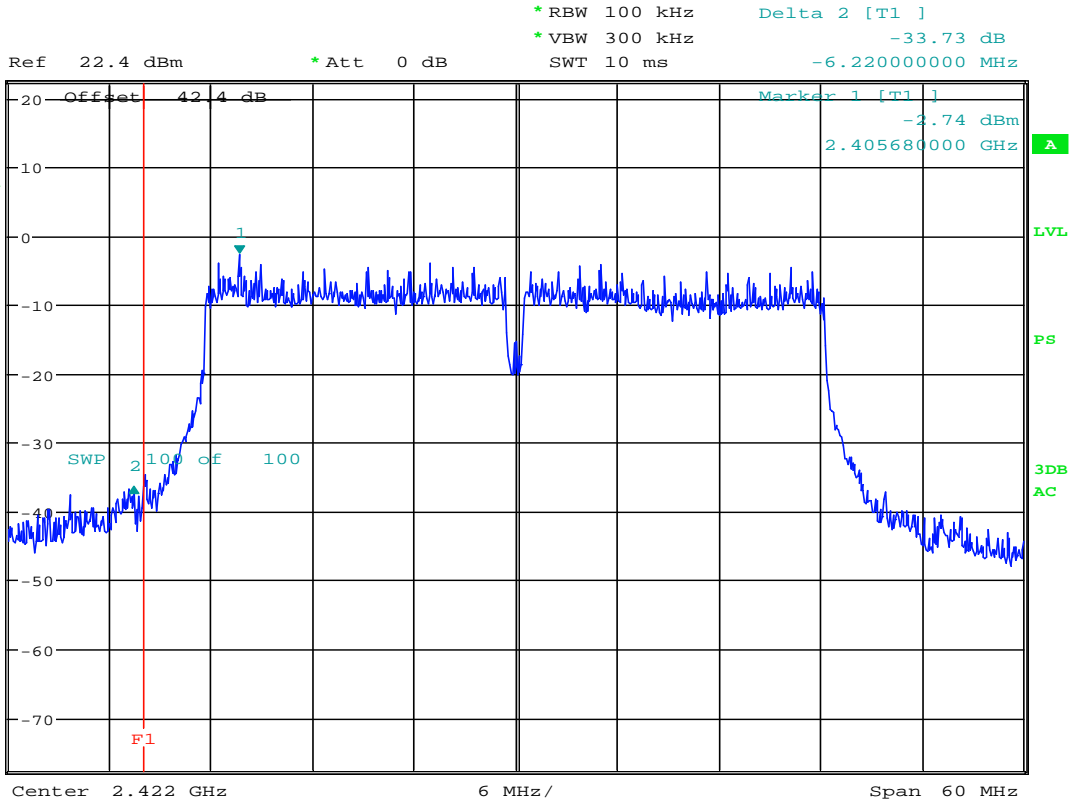
Ref 22.4 dBm * Att 0 dB * RBW 100 kHz Delta 2 [T1] * VBW 300 kHz -33.90 dB SWT 10 ms -6.538461538 MHz



Date: 8.JAN.2016 14:27:06

FCC 15C 15.247 / RSS 247 Bandedge Compliance

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 n 40MHz
 NOTES : 150 Mbps
 NOTES : MIMO = 10 * log (2) = 3dB
 NOTES : -33.9 + 3 (MIMO) = -30.9dBc



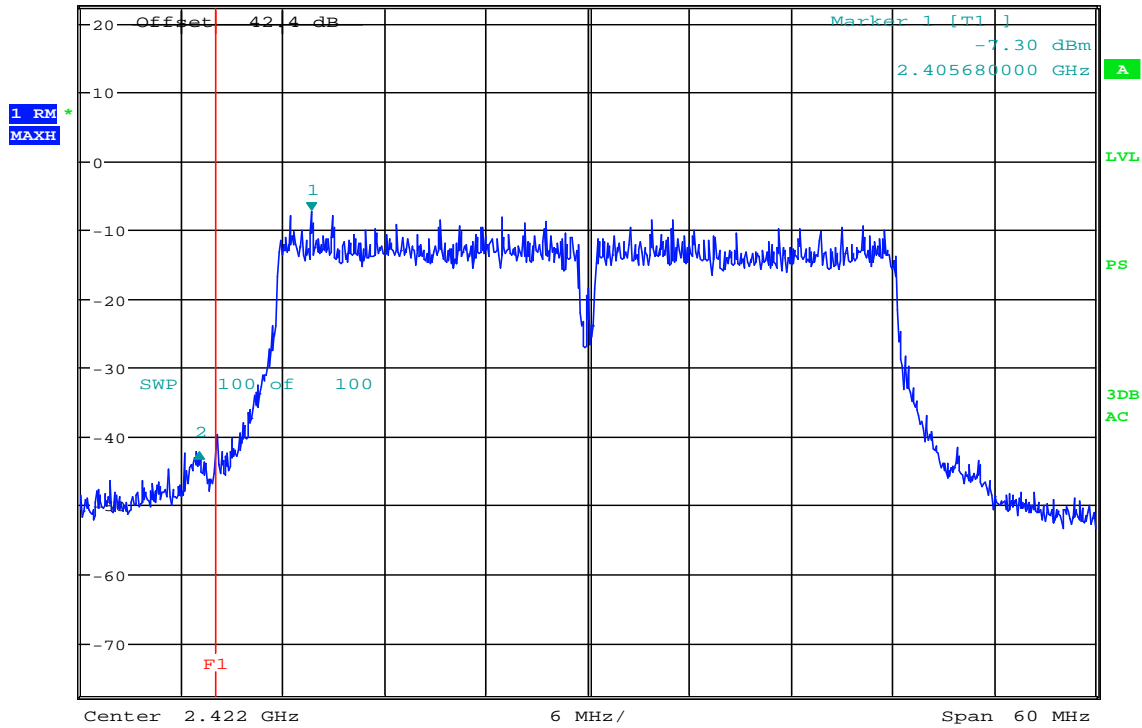
Date: 8.JAN.2016 14:34:16

FCC 15C 15.247 / RSS 247 Bandedge Compliance

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 n 40MHz
 NOTES : 60 Mbps
 NOTES : ANT1
 NOTES : MIMO = 10 * log (2) = 3dB
 NOTES : -33.73 + 3 (MIMO) = -30.73dBc



Ref 22.4 dBm * Att 0 dB * RBW 100 kHz Delta 2 [T1]
 * VBW 300 kHz -35.13 dB
 SWT 10 ms -6.634615385 MHz



Date: 8.JAN.2016 14:36:38

FCC 15C 15.247 / RSS 247 Bandedge Compliance

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 n 40MHz
 NOTES : 150 Mbps
 NOTES : ANT1
 NOTES : MIMO = $10 * \log(2) = 3\text{dB}$
 NOTES : $-35.13 + 3 \text{ (MIMO)} = -32.13\text{dBc}$



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Bandedge compliance (radiated)
 Date : 1/11-12/2015
 Mode : Tx @ 2462MHz, 802.11n (40MHz)
 Notes : Test Distance is 3 meters
 Notes : Maximized Peak Readings in a 1MHz bandwidth

Freq. MHz	Ant Pol	Meter Reading* (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBuV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
2483.50	H	29.9		3.5	32.4	0.0	65.8	1951.2	5000.0	-8.2
2483.50	V	29.4		3.5	32.4	0.0	65.3	1837.8	5000.0	-8.7

Peak Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Peak Total uV/m = $10^{((\text{Peak Total (dBuV/m)})/20)}$

*The MIMO ($10 \cdot \log(2) = 3$ dB) factor was added to the Meter Reading.

Checked BY Richard E. King :

Richard E. King



Manufacturer : HeathCo LLC
 Model No. : NOTIFI
 Specification : FCC-15.247 Bandedge compliance (radiated)
 Date : 1/11-12/2015
 Mode : Tx @ 2462MHz, 802.11n (40MHz)
 Notes : Test Distance is 3 meters
 Notes : Maximized Average Readings

Freq. MHz	Ant Pol	Meter Reading* (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
2483.50	H	13.7		3.5	32.4	0.0	49.6	300.5	500.0	-4.4
2483.50	V	12.9		3.5	32.4	0.0	48.8	274.0	500.0	-5.2

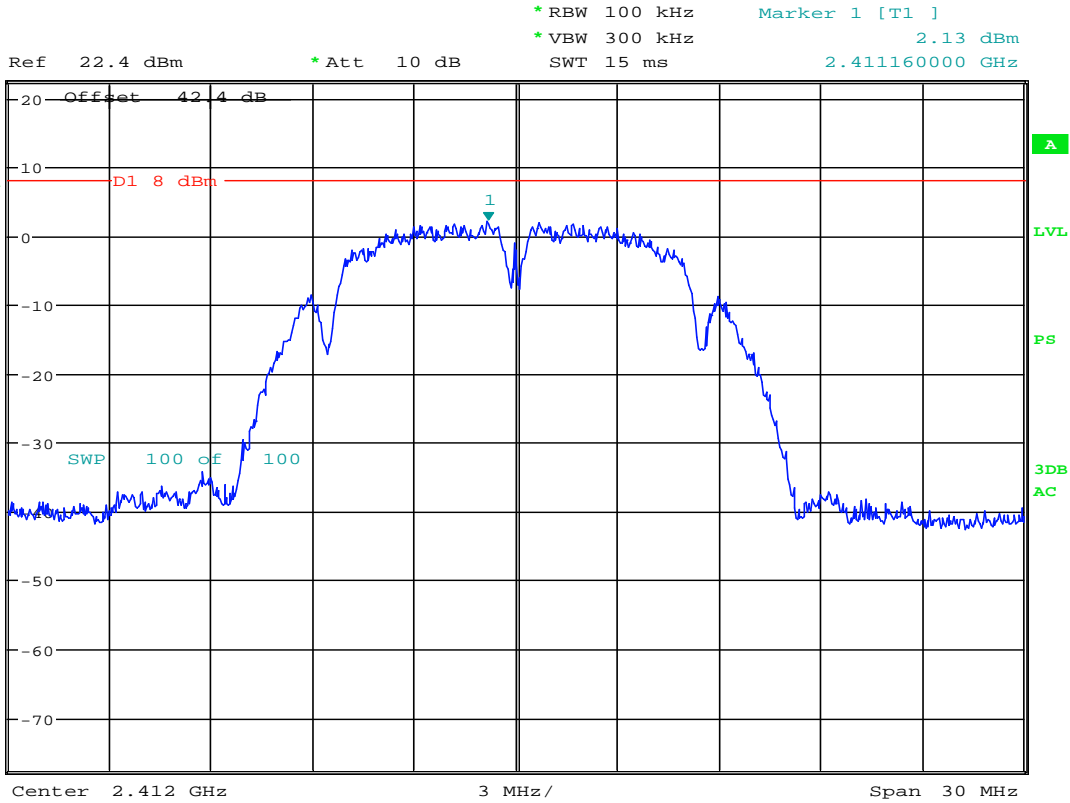
Average Total (dBuV/m) = Meter Reading (dBuV) + Cable Factor (dB) + Antenna Factor (dB) + Pre Amp Gain (dB)

Average Total uV/m = $10^{((\text{Average Total (dBuV/m)})/20)}$

*The MIMO ($10 \cdot \log(2) = 3 \text{ dB}$) factor was added to the Meter Reading.

Checked BY RICHARD E. KING :

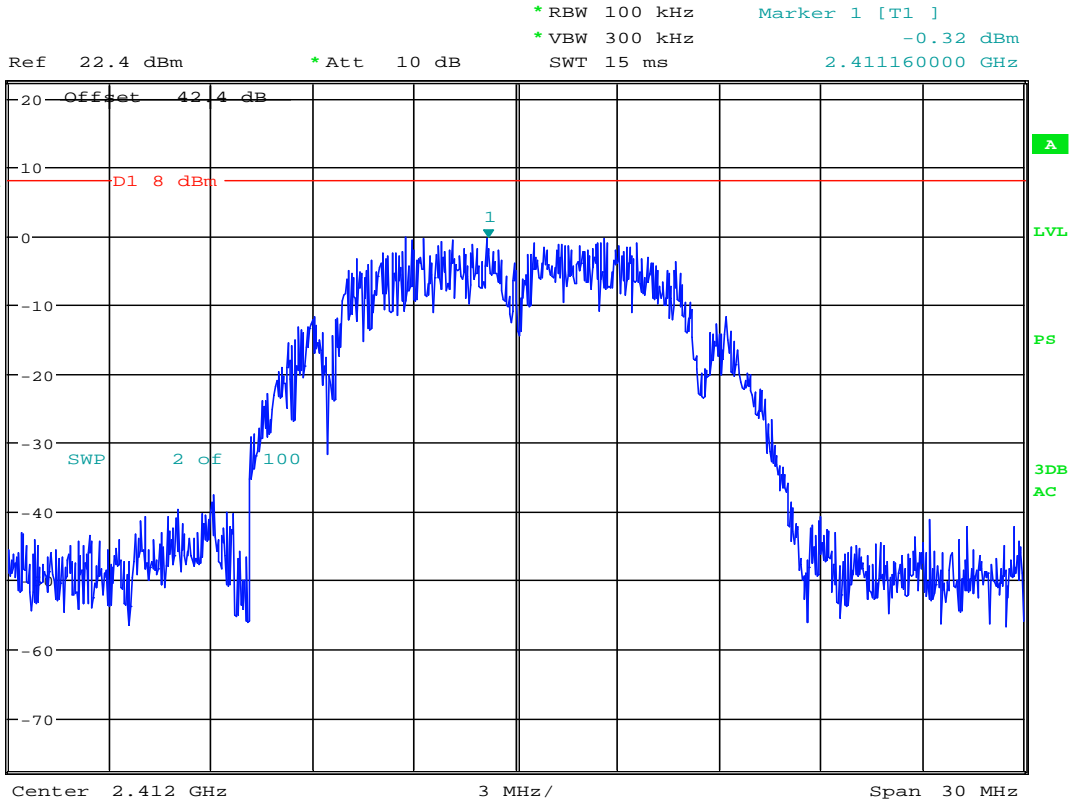
Richard E. King



Date: 8.JAN.2016 09:43:35

FCC 15C 15.247 Maximum power spectral density

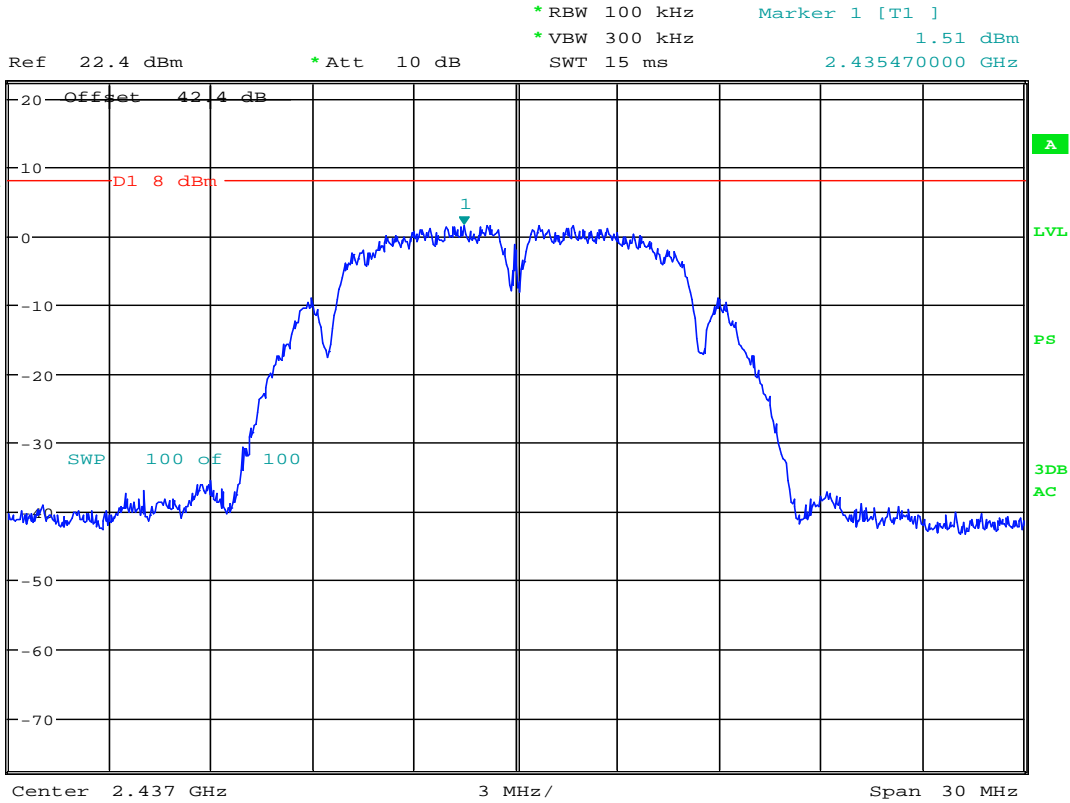
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 b 20 MHz
 NOTES : 1 Mbps
 NOTES : ANT0



Date: 8.JAN.2016 09:31:12

FCC 15C 15.247 Maximum power spectral density

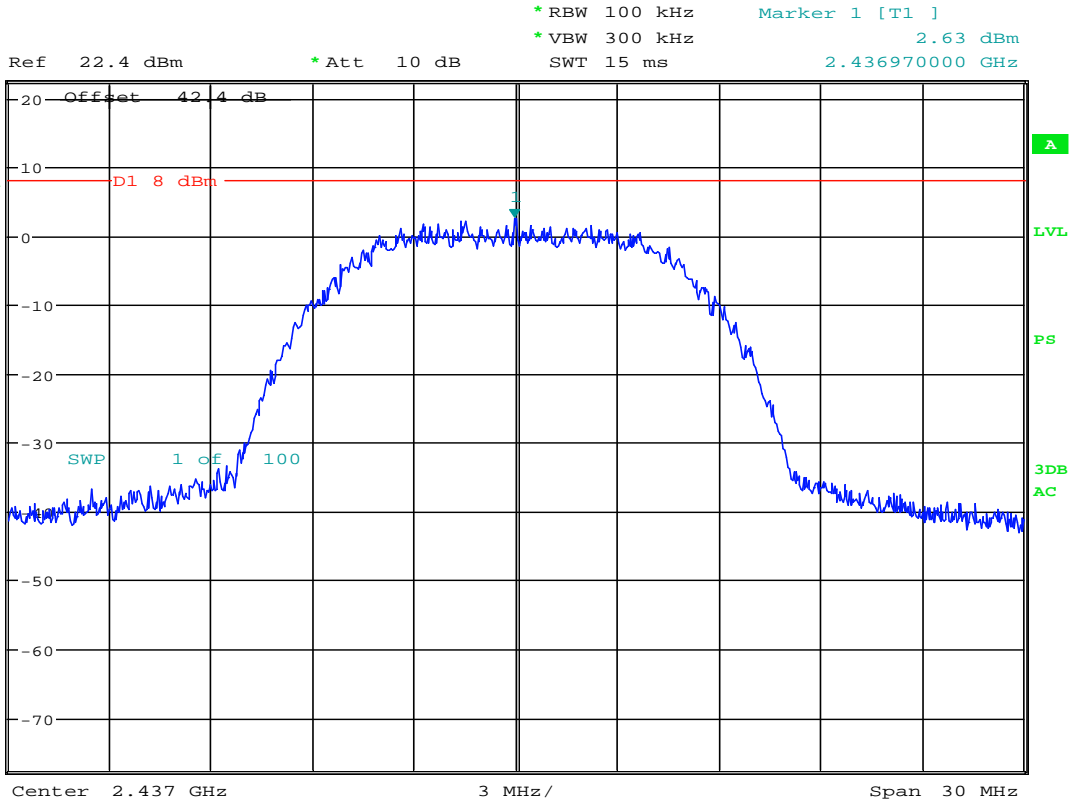
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 b 20 MHz
 NOTES : 11 Mbps
 NOTES : ANT0



Date: 8.JAN.2016 09:49:31

FCC 15C 15.247 Maximum power spectral density

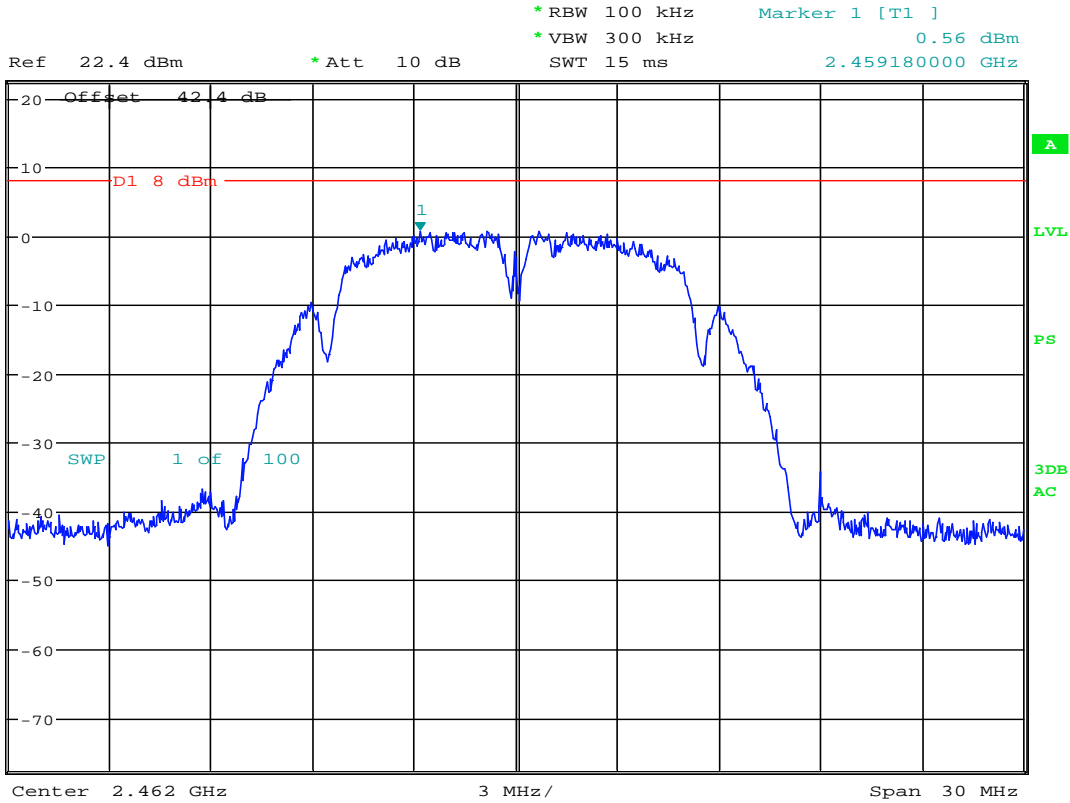
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 b 20 MHz
 NOTES : 1 Mbps
 NOTES : ANT0



Date: 8.JAN.2016 09:46:07

FCC 15C 15.247 Maximum power spectral density

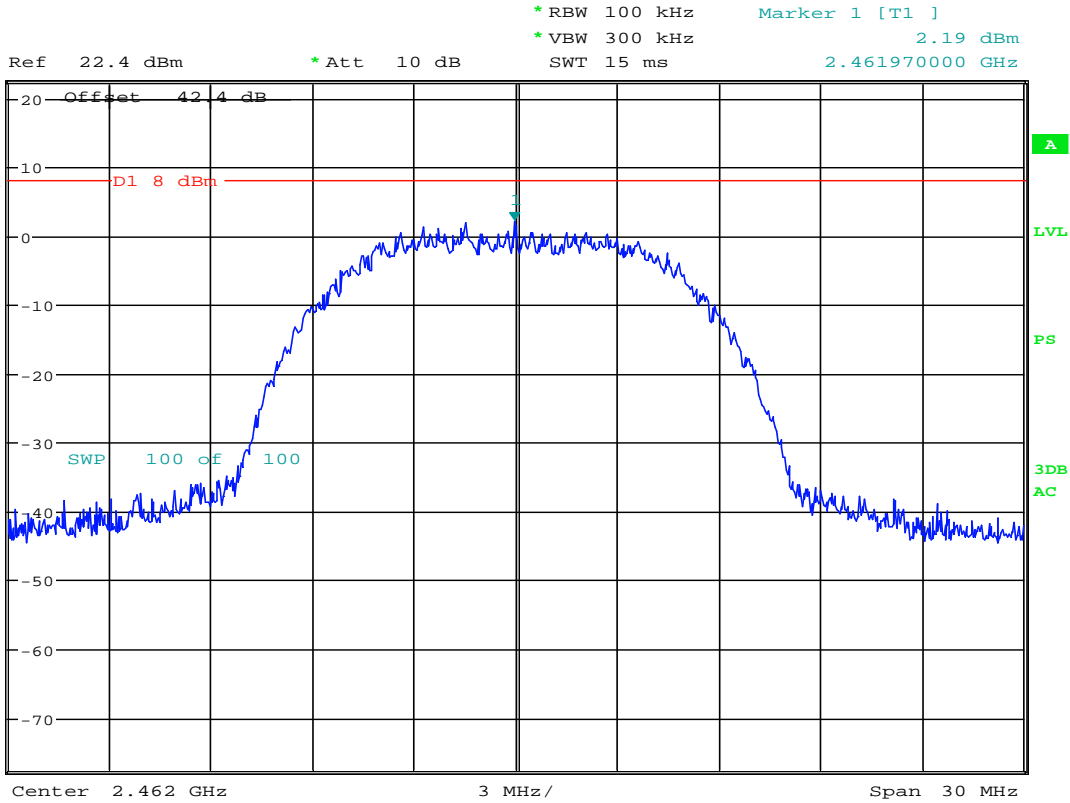
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 b 20 MHz
 NOTES : 11 Mbps
 NOTES : ANT0



Date: 8.JAN.2016 09:51:21

FCC 15C 15.247 Maximum power spectral density

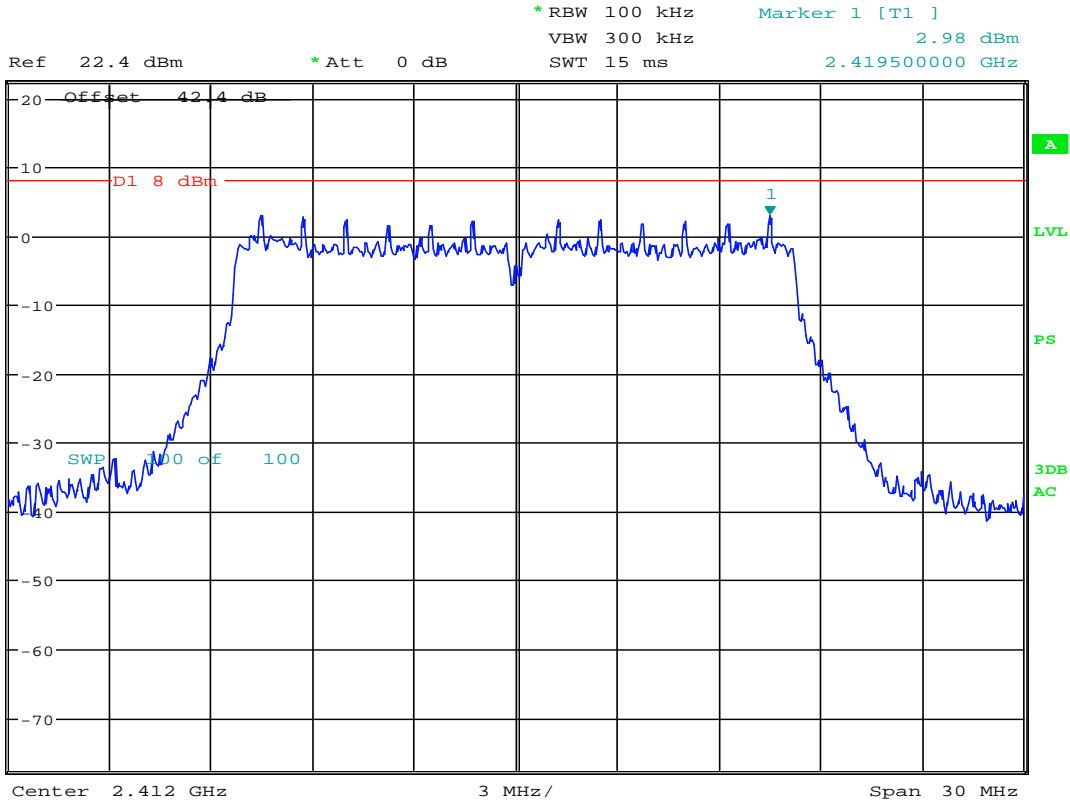
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 b 20 MHz
 NOTES : 1 Mbps
 NOTES : ANT0



Date: 8.JAN.2016 09:52:39

FCC 15C 15.247 Maximum power spectral density

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 b 20 MHz
 NOTES : 11 Mbps
 NOTES : ANT0



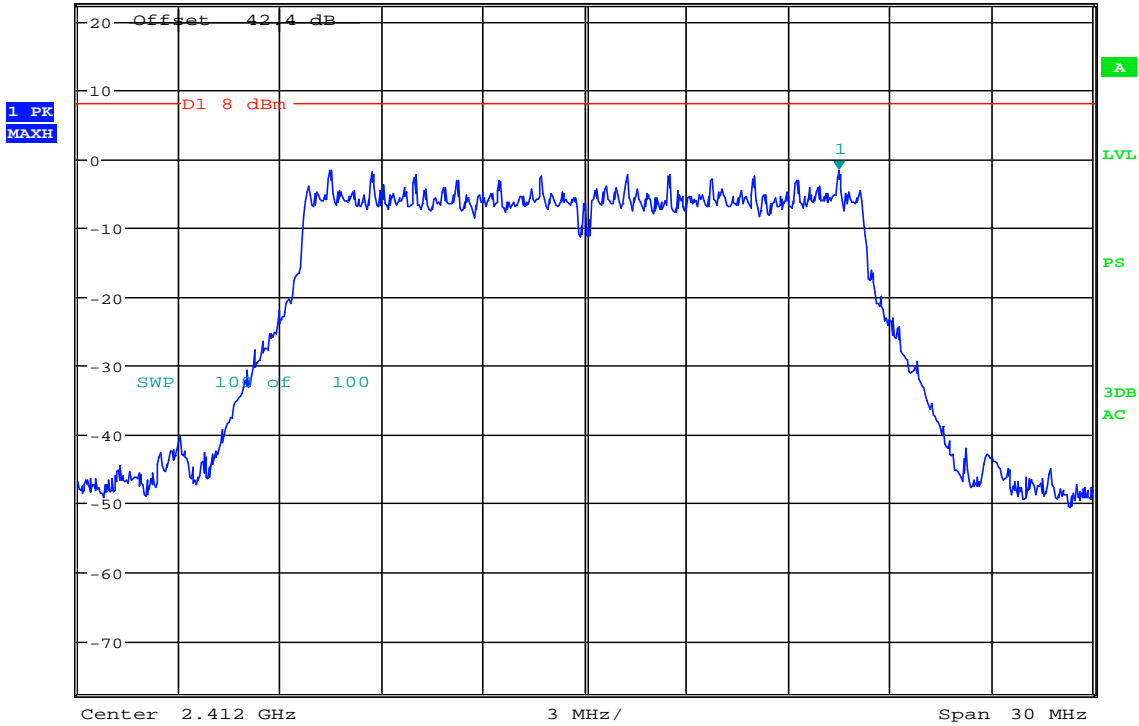
Date: 11.JAN.2016 07:44:47

FCC 15C 15.247 / Power Spectral Density

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 g 20 MHz
 NOTES : 18Mbps
 NOTES : D1 is the 8dBm limit
 NOTES :



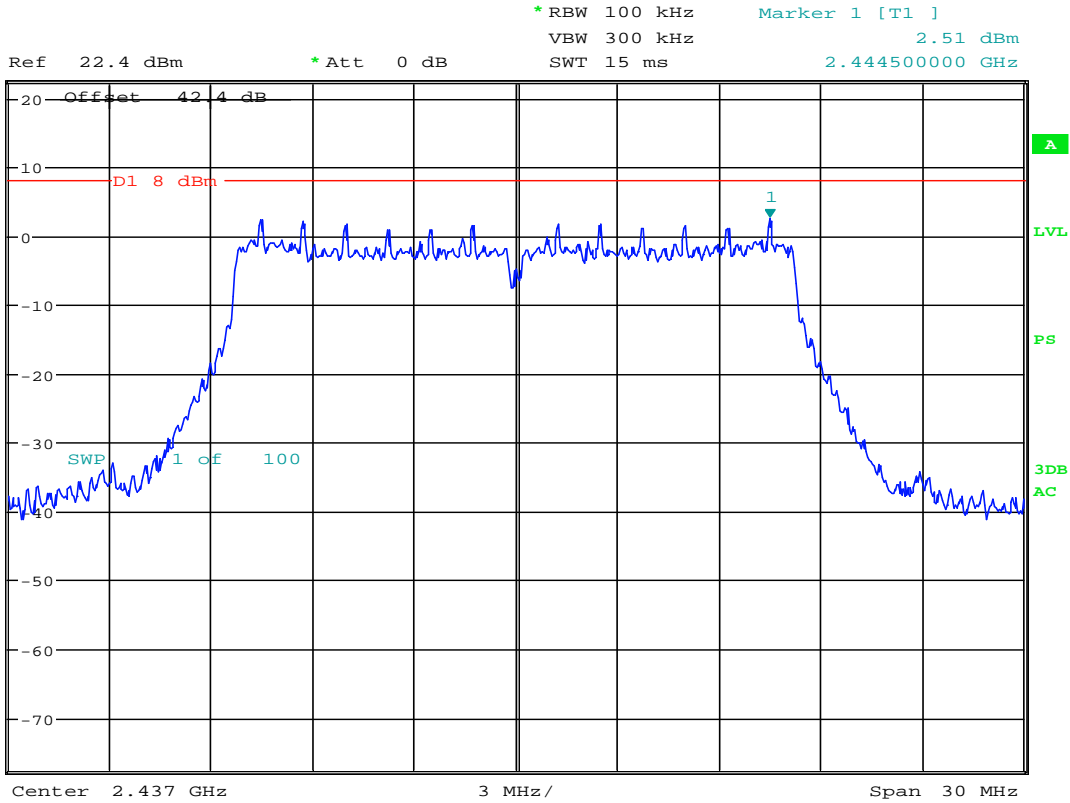
*RBW 100 kHz Marker 1 [T1]
 VBW 300 kHz -1.67 dBm
 SWT 15 ms 2.419500000 GHz
 Ref 22.4 dBm *Att 0 dB



Date: 11.JAN.2016 07:47:52

FCC 15C 15.247 / Power Spectral Density

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 NOTES : 802.11 g 20 MHz
 NOTES : 54Mbps
 NOTES : D1 is the 8dBm limit
 NOTES :



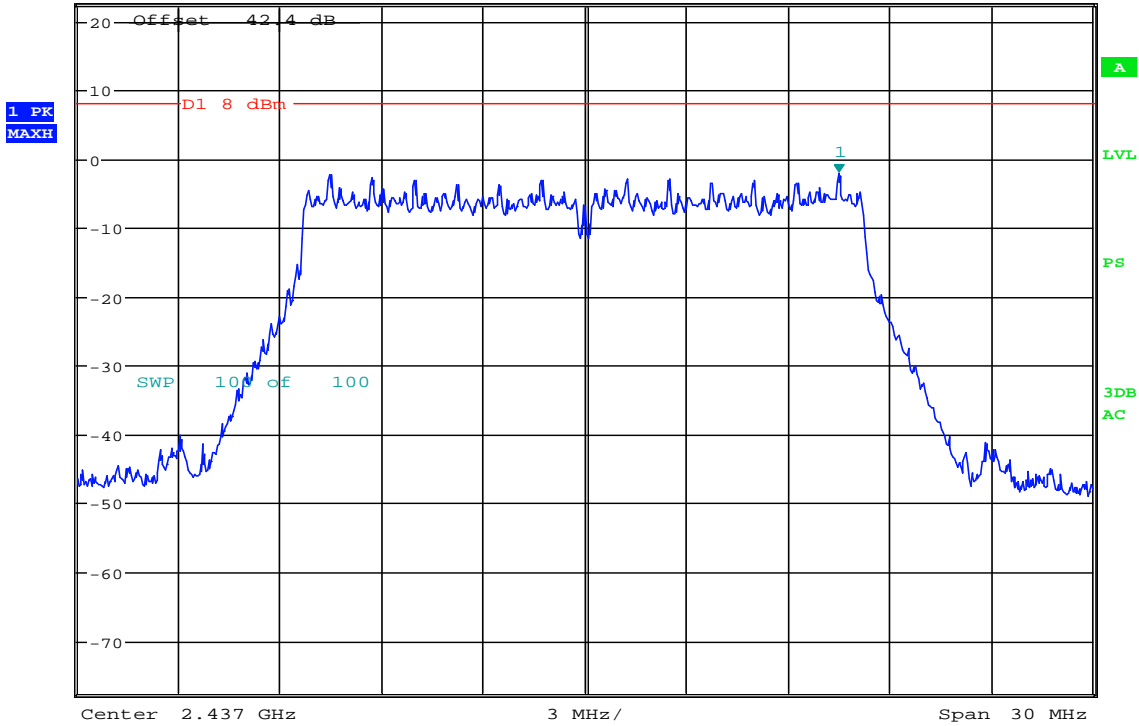
Date: 11.JAN.2016 07:52:50

FCC 15C 15.247 / Power Spectral Density

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : RMS detector
 NOTES : 802.11 g 20 MHz
 NOTES : 18Mbps
 NOTES : D1 is the 8dBm limit
 NOTES :



Ref 22.4 dBm *Att 0 dB *RBW 100 kHz Marker 1 [T1]
 VBW 300 kHz -2.14 dBm
 SWT 15 ms 2.444500000 GHz



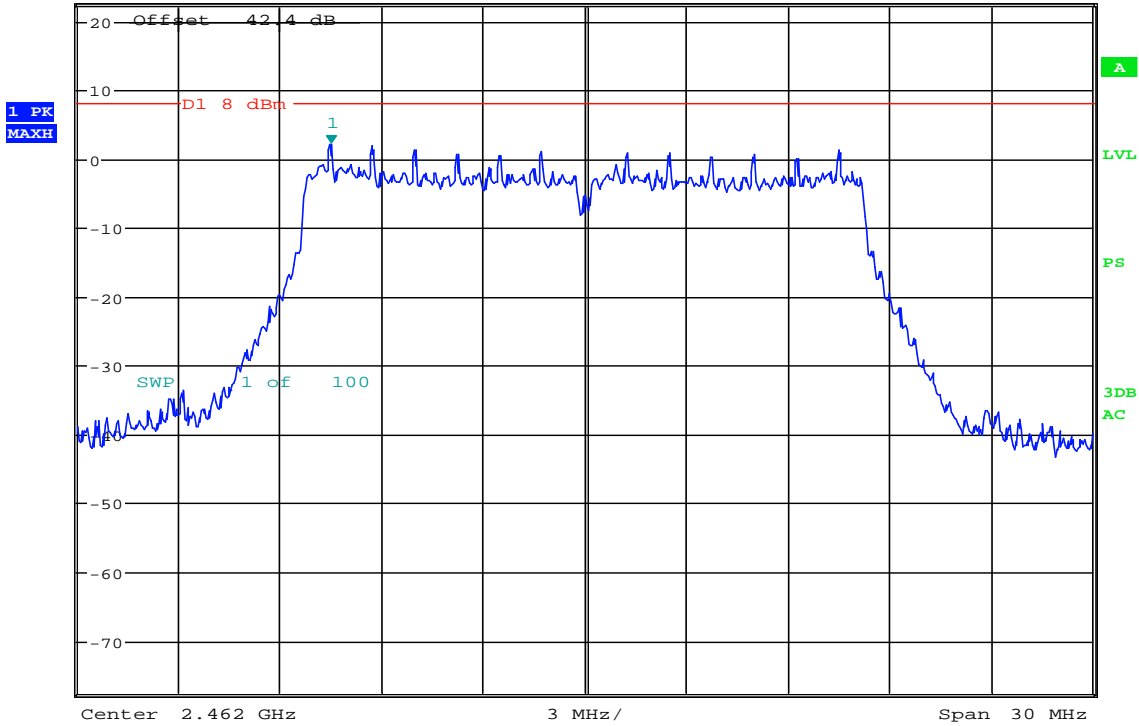
Date: 11.JAN.2016 07:55:16

FCC 15C 15.247 / Power Spectral Density

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : RMS detector
 NOTES : 802.11 g 20 MHz
 NOTES : 54Mbps
 NOTES : D1 is the 8dBm limit
 NOTES :



Ref 22.4 dBm * Att 0 dB * RBW 100 kHz Marker 1 [T1]
 VBW 300 kHz 2.10 dBm
 SWT 15 ms 2.454500000 GHz



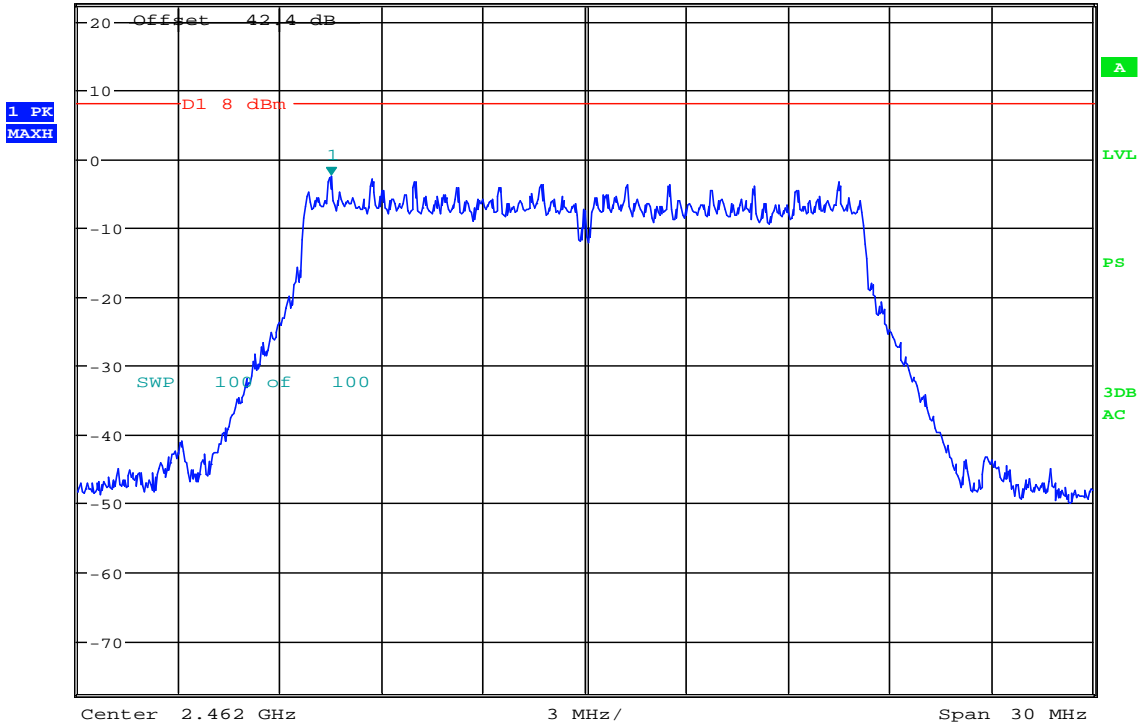
Date: 11.JAN.2016 07:57:52

FCC 15C 15.247 / Power Spectral Density

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : RMS detector
 NOTES : 802.11 g 20 MHz
 NOTES : 18Mbps
 NOTES : D1 is the 8dBm limit
 NOTES :



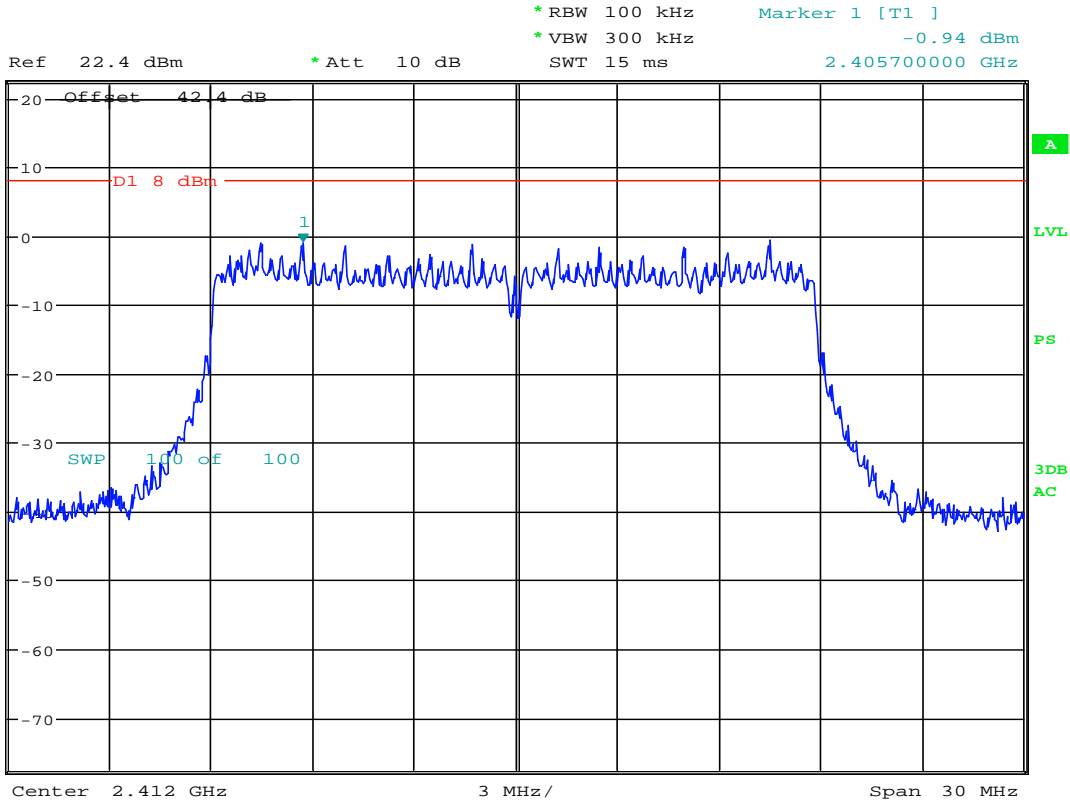
Ref 22.4 dBm *Att 0 dB *RBW 100 kHz Marker 1 [T1]
 VBW 300 kHz -2.60 dBm
 SWT 15 ms 2.454500000 GHz



Date: 11.JAN.2016 08:00:11

FCC 15C 15.247 / Power Spectral Density

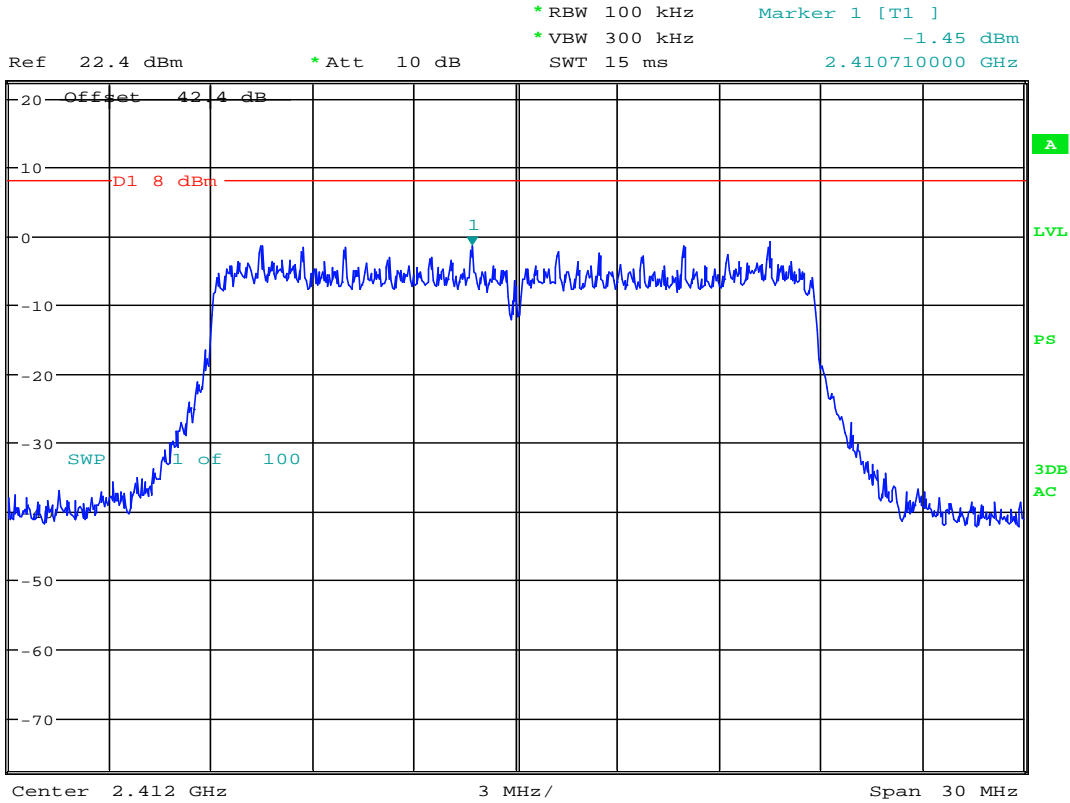
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : RMS detector
 NOTES : 802.11 g 20 MHz
 NOTES : 54Mbps
 NOTES : D1 is the 8dBm limit
 NOTES :



Date: 8.JAN.2016 10:28:25

FCC 15C 15.247 Maximum power spectral density

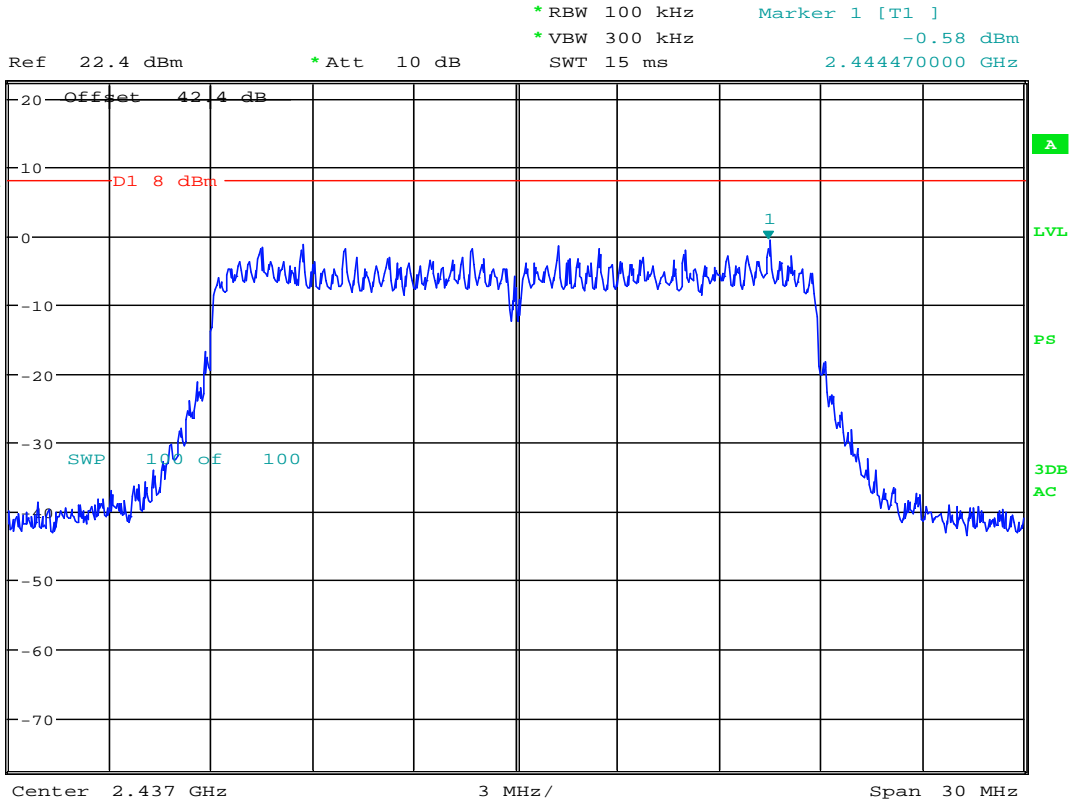
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 n 20 MHz
 NOTES : 28.9 Mbps
 NOTES : PSD = -0.94 dBm + 3 dB MIMO = 2.06dBm



Date: 8.JAN.2016 10:26:05

FCC 15C 15.247 Maximum power spectral density

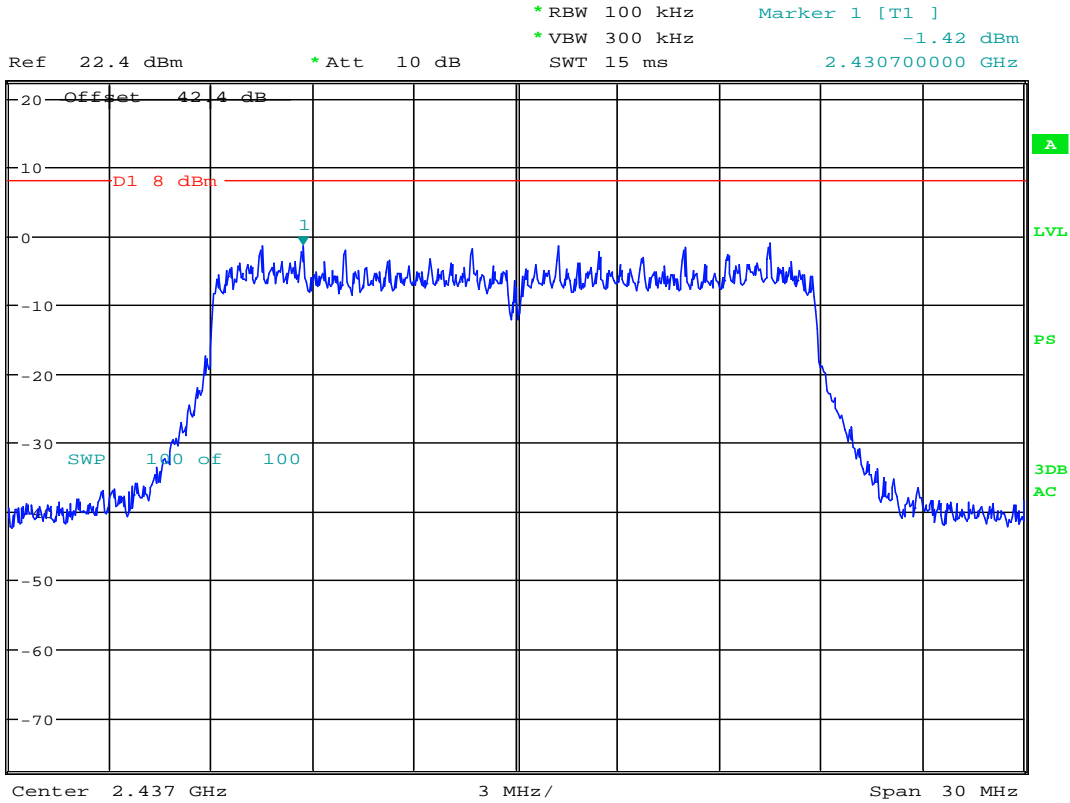
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 n 20 MHz
 NOTES : 72.2 Mbps
 NOTES : PSD = -1.45 dBm + 3 dB MIMO = 1.55dBm



Date: 8.JAN.2016 10:33:43

FCC 15C 15.247 Maximum power spectral density

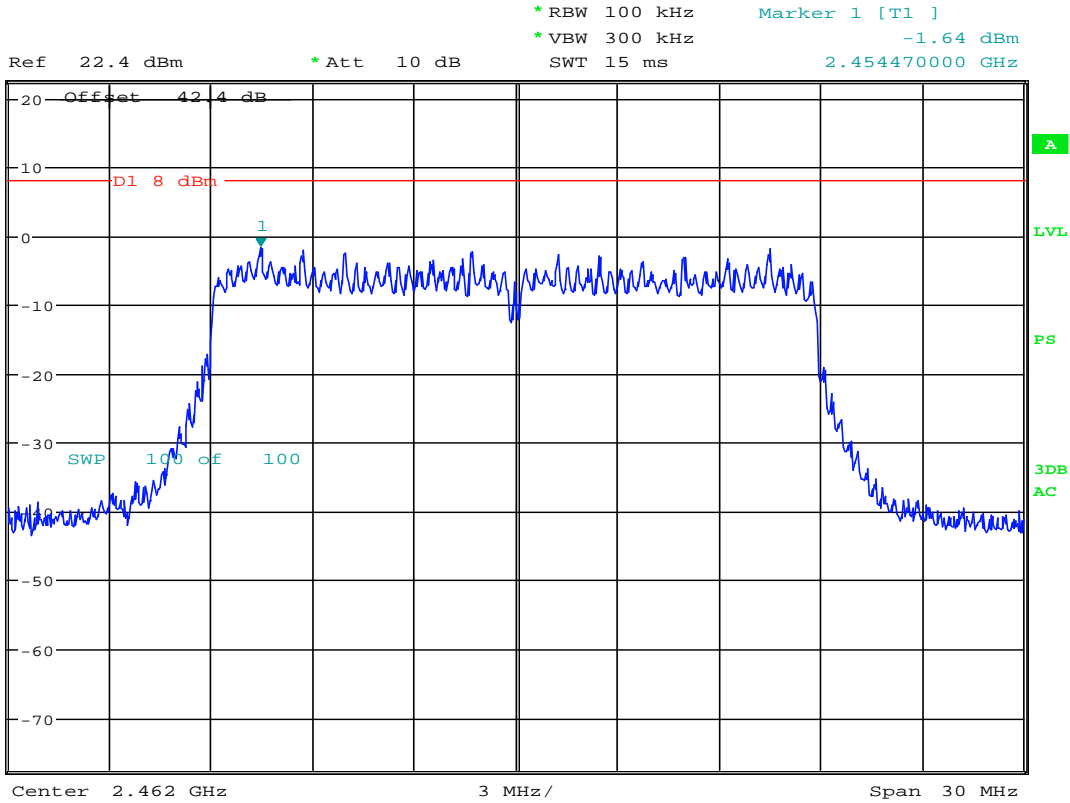
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 n 20 MHz
 NOTES : 28.9 Mbps
 NOTES : PSD = -0.58 dBm + 3 dB MIMO = 2.42dBm



Date: 8.JAN.2016 10:30:32

FCC 15C 15.247 Maximum power spectral density

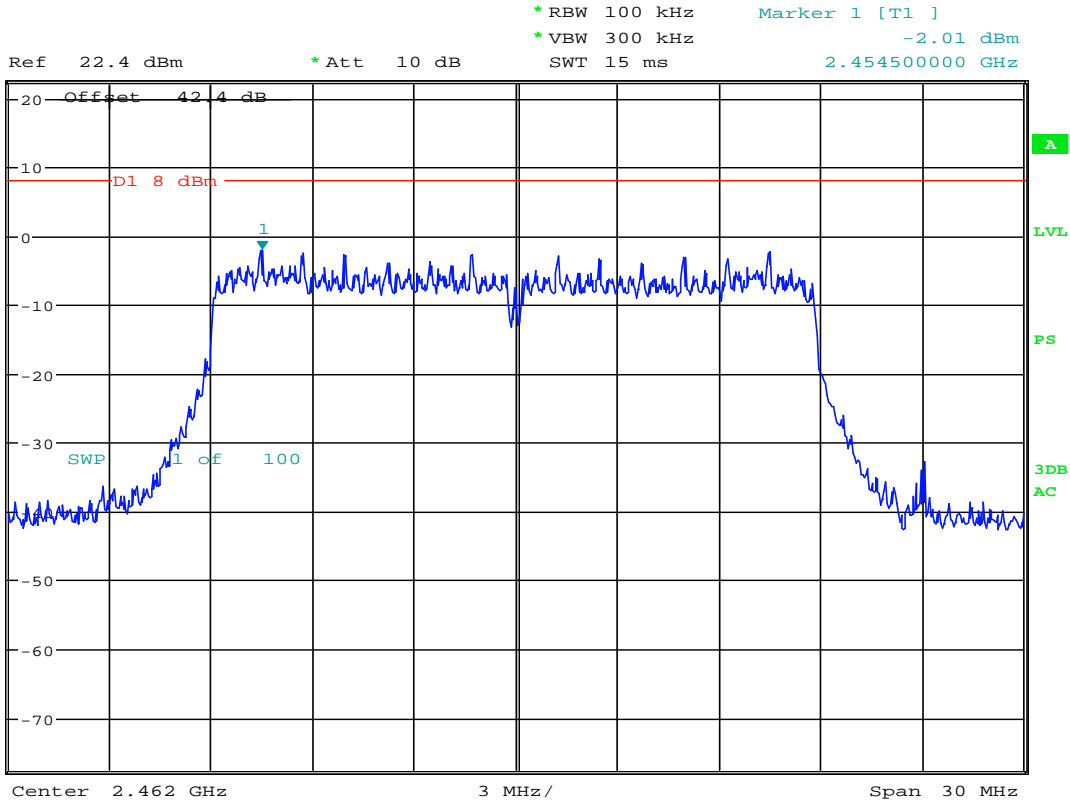
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 n 20 MHz
 NOTES : 72.2 Mbps
 NOTES : PSD = -1.42 dBm + 3 dB MIMO = 1.58dBm



Date: 8.JAN.2016 10:37:33

FCC 15C 15.247 Maximum power spectral density

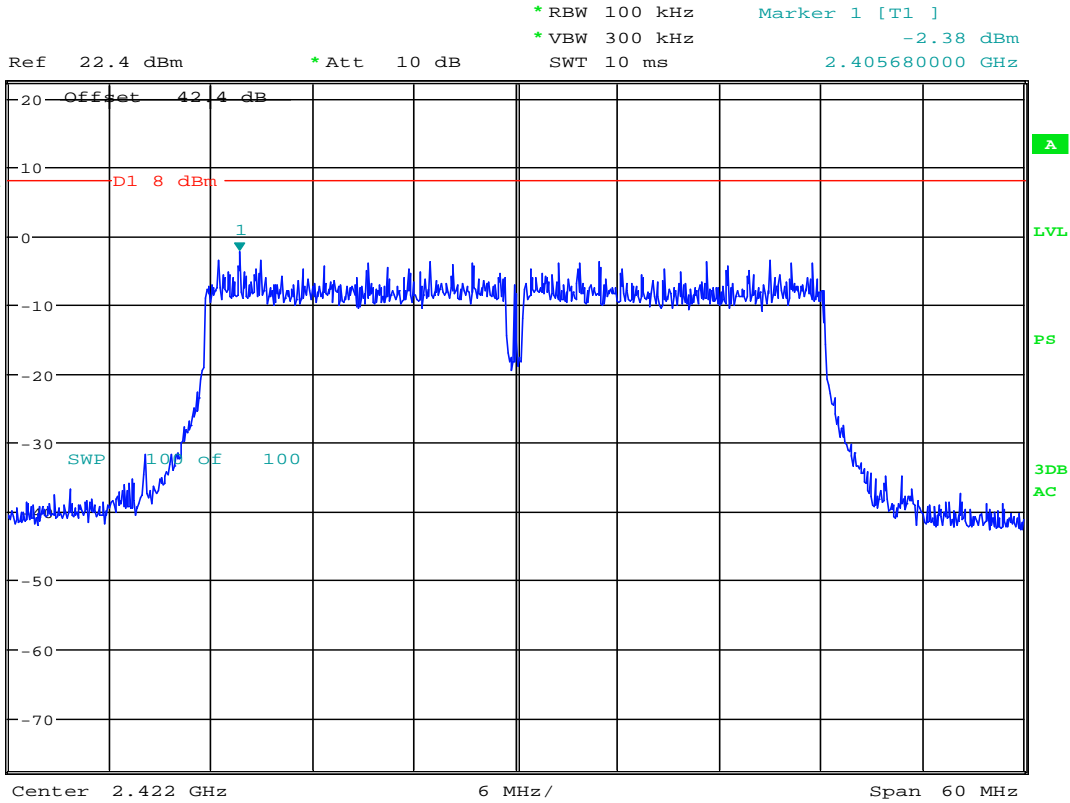
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 n 20 MHz
 NOTES : 28.9 Mbps
 NOTES : PSD = -1.64 dBm + 3 dB MIMO = 1.36dBm



Date: 8.JAN.2016 10:35:44

FCC 15C 15.247 Maximum power spectral density

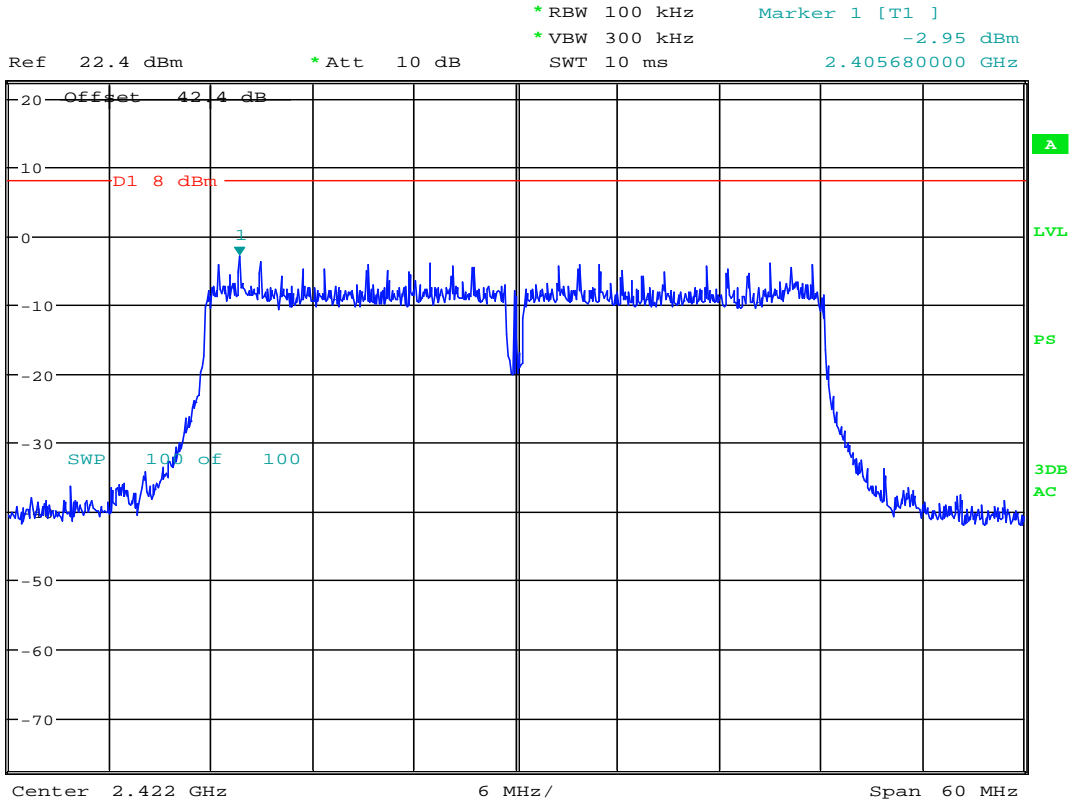
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : RMS detector
 : AVGPS-1
 NOTES : 802.11 n 20 MHz
 NOTES : 72.2 Mbps
 NOTES : PSD = -2.01 dBm + 3 dB MIMO = .99dBm



Date: 8.JAN.2016 10:48:19

FCC 15C 15.247 Maximum power spectral density

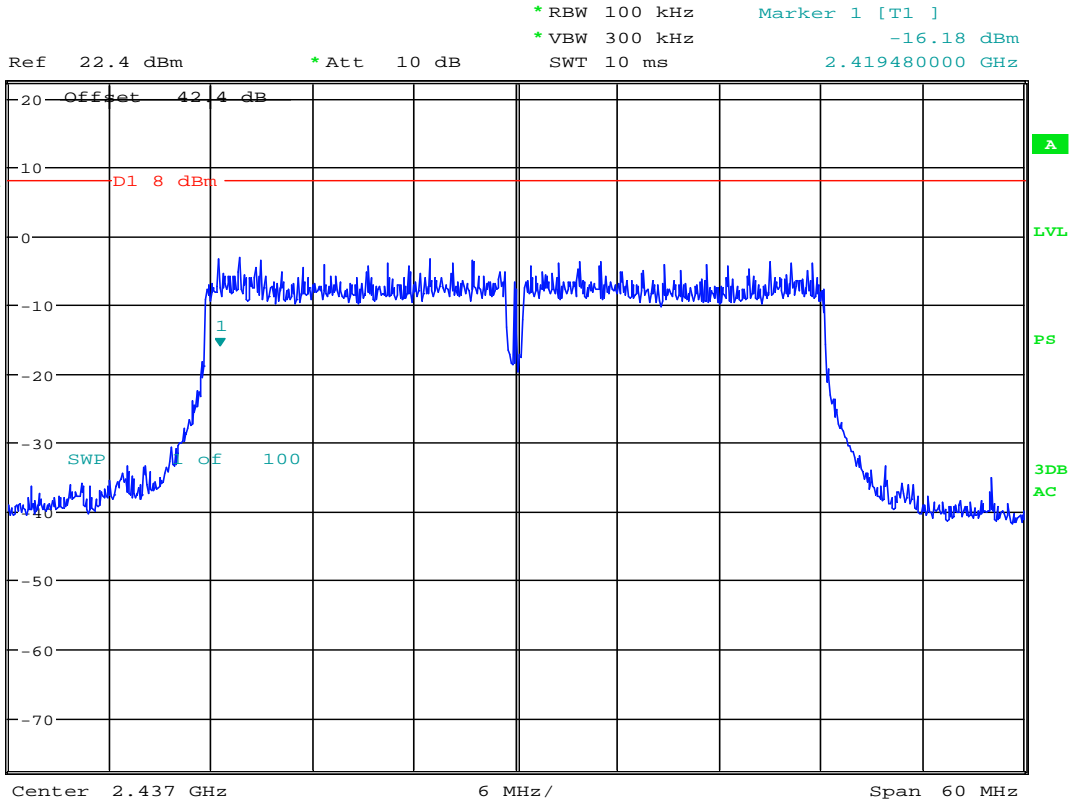
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 n 40 MHz
 NOTES : 60 Mbps
 NOTES : PSD = -2.38 dBm + 3 dB MIMO = .62 dBm



Date: 8.JAN.2016 10:46:10

FCC 15C 15.247 Maximum power spectral density

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ LOW CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 n 40 MHz
 NOTES : 150 Mbps
 NOTES : PSD = -2.95 dBm + 3 dB MIMO = .05dBm

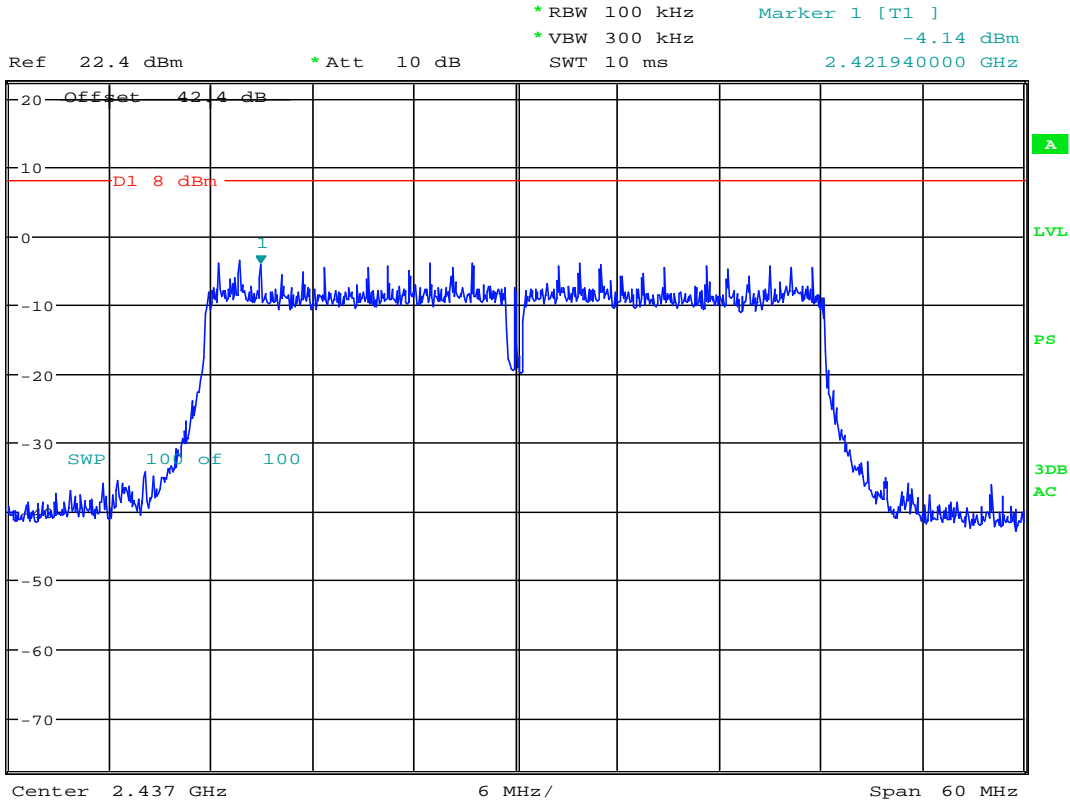


Date: 8.JAN.2016 10:51:36

FCC 15C 15.247 Maximum power spectral density

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL

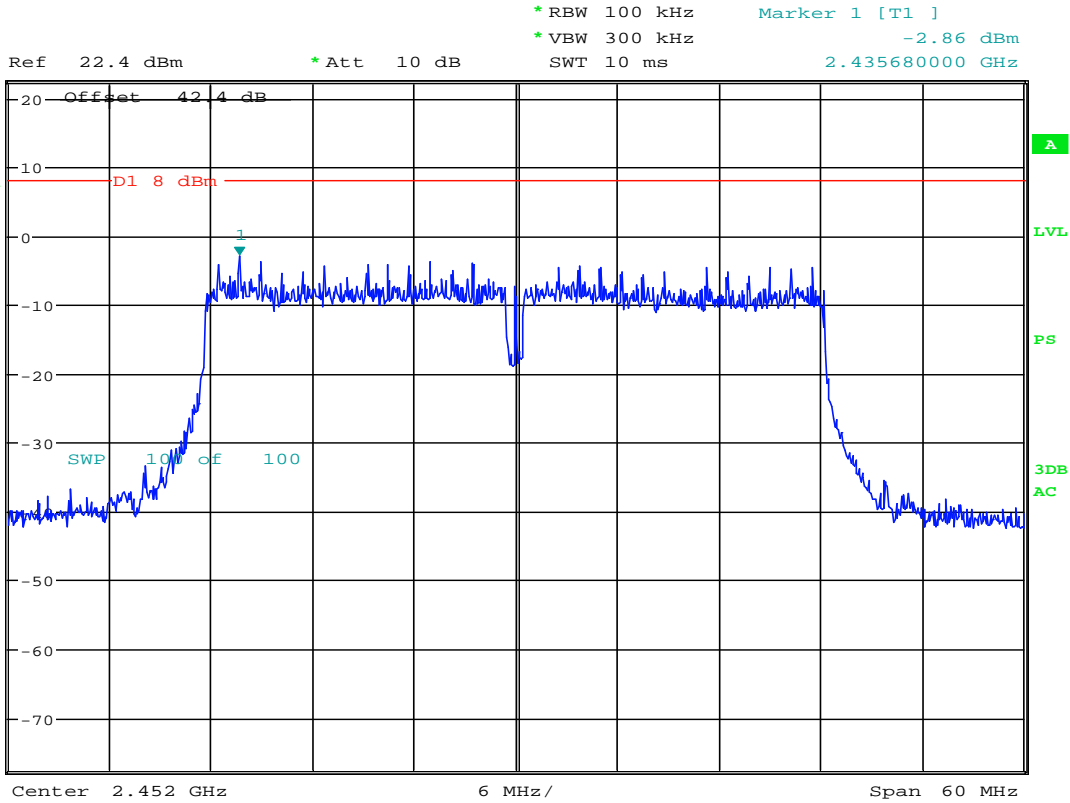
: RMS detector
 : AVGPSD-1
 NOTES : 802.11 n 40 MHz
 NOTES : 90 Mbps
 NOTES : PSD = -3.89 dBm + 3 dB MIMO = .11dBm



Date: 8.JAN.2016 10:53:24

FCC 15C 15.247 Maximum power spectral density

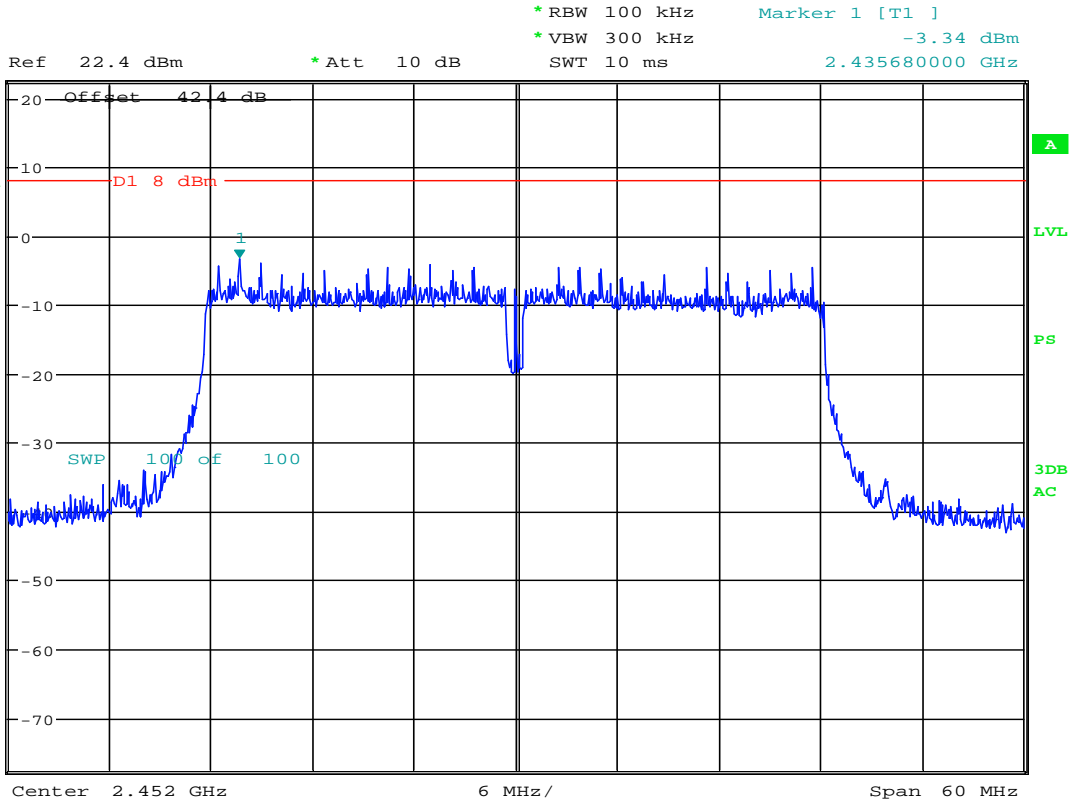
MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ MID CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 n 40 MHz
 NOTES : 150 Mbps
 NOTES : PSD = -4.14 dBm + 3 dB MIMO = -1.14dBm



Date: 8.JAN.2016 11:01:48

FCC 15C 15.247 Maximum power spectral density

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 n 40 MHz
 NOTES : 60 Mbps
 NOTES : PSD = -2.86 dBm + 3 dB MIMO = .14dBm



Date: 8.JAN.2016 11:03:21

FCC 15C 15.247 Maximum power spectral density

MANUFACTURER : HeathCo LLC.
 MODEL NUMBER : NOTIFI
 TEST MODE : Tx @ HIGH CHANNEL
 : RMS detector
 : AVGPSD-1
 NOTES : 802.11 n 40 MHz
 NOTES : 150 Mbps
 NOTES : PSD = -3.34 dBm + 3 dB MIMO = -.34dBm