Measurement of RF Emissions from a Katy RF Module Transmitter, Model No. Katy

For	Horizon Hobby 4015 Fieldstone Road Champaign, IL 61822
P.O. Number	20190719EH-01
Date Tested	August 16 - 23, 2019
Test Personnel	Javier Cardenas
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 Industry Canada RSS-247

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REVISION HISTORY

Revision	Date	Description
—	29 August 2019	Initial release

Measurement of RF Emissions from a Katy RF Module Transmitter, Model No. Katy

1. INTRODUCTION

1.1. Scope of Tests

This report represents the results of the series of radio interference measurements performed on a Horizon Hobby Katy RF Module transmitter, Model No. Katy, (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 external antenna. The EUT was manufactured and submitted for testing by Horizon Hobby located in Champaign, IL.

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, Section 15.247 for Intentional Radiators. The test series was also performed to determine if the EUT meets the radiated RF emission requirements of the Industry Canada Radio Standards Specification, RSS-247, Section 5 for transmitters. 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 22°C and the relative humidity was 65%.

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
- 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"
- KDB 558074 D01 15.247 Measure Guidance v05r02, “Guidance for Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid System Devices Operating Under Section 15.247 of the FCC Rules”
- 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, October 4, 2012
- Industry Canada Radio Standards Specification, RSS-247, “Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and License-Exempt Local Area Network (LE-LAN) Devices”, Issue 2, February 2017

3. EUT Setup and Operation

3.1. General Description

The EUT is a Horizon Hobby Katy RF Module, Model No. Katy. A block diagram of the EUT setup is shown as Figure 1.

3.1.1. Power Input

The EUT was powered by 6VDC from 4 AA batteries.

3.1.2. Grounding

The EUT was ungrounded during the tests.

3.2. Operational Mode

For all tests, the EUT was placed on an 80cm high non-conductive stand. The EUT was energized. The unit was programmed to operate in one of the following modes:

Mode	Description
DSM2	(Air protocol) The EUT is put in a fixed frequency mode, with the frequency sent either every 22ms or 11ms. It will transmit at one of the following frequencies: - 2402MHz - 2440MHz - 2478MHz (Surface protocol) The EUT is put in a fixed frequency mode, with the frequency sent every 16.5ms. It will transmit at one of the following frequencies: - 2402MHz - 2440MHz - 2478MHz
DSMX	(Air protocol) The EUT is put in a fixed frequency mode, with the frequency sent either every 22ms or 11ms. It will transmit at one of the following frequencies: - 2404MHz - 2440MHz - 2476MHz
DSMR	(Surface protocol) The EUT is put in a fixed frequency mode, with the frequency sent either every 11ms or 5.5ms. It will transmit at one of the following frequencies: - 2405MHz - 2440MHz - 2478MHz

3.3. EUT Modifications

No modifications were required for compliance.

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 in the requirements.

4.3. Calibration Traceability

Test equipment is maintained and calibrated on a regular basis with a calibration interval of not greater than two 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.

Values of Expanded Measurement Uncertainty (95% Confidence) are presented below:

Measurement Type	Expanded Measurement Uncertainty
Conducted disturbance (mains port) (150 kHz – 30 MHz)	2.7
Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz)	4.3
Radiated disturbance (electric field strength on an open area test site or alternative test site) (1 GHz – 6 GHz)	3.1
Radiated disturbance (electric field strength on an open area test site or alternative test site) (6 GHz – 18 GHz)	3.2

5. TEST PROCEDURES

5.1. Powerline Conducted Emissions

5.1.1. Requirements

Since the EUT was powered by internal batteries and had no connections to AC power, no conducted emissions tests are required.

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 the DUT 1 port of a Rohde & Schwarz OSP 120/OSP-B157 system via a coaxial cable and RF attenuator.

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 19 through 54 show that the minimum 6 dB bandwidth was 732.674kHz, which is greater than the minimum allowable 6dB bandwidth requirement of 500kHz for systems using digital modulation techniques. The 99% bandwidth was measured to be 1.040MHz.

5.3. Average Output Power

5.3.1. Requirements

Per section 15.247(b)(3), for systems using digital modulation the maximum average 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

For the antenna conducted emissions method, the output of the EUT was connected to the DUT 1 port of a Rohde & Schwarz OSP 120/OSP-B157 system via a coaxial cable and RF attenuator. The EUT was set to transmit separately at the low, middle, and high channels. The resolution bandwidth (RBW) was set to greater than the 6dB bandwidth. The 'Max-Hold' function was engaged. The maximum meter reading was recorded. The average power output was calculated for the low, middle and high channels.

5.3.3. Results

For the antenna conducted emissions method, the results are presented on pages 55 through 72. The maximum average conducted output power from the transmitter was 0.056W (17.5 dBm), which is below the 1 Watt limit. The antenna gain as declared by Horizon Hobby is 2dBi. The EIRP was calculated using this antenna gain. The Calculated EIRP is 19.5 dBm, which is below the 36dBm de facto limit.

5.4. Radiated Spurious Emissions Measurements

5.4.1. 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

5.4.2. Procedures

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

The shielded enclosure prevents emissions from other sources, such as radio and TV stations from interfering

with the measurements. All powerlines and signal lines entering the enclosure pass through filters on the enclosure wall. The powerline filters prevent extraneous signals from entering the enclosure on these leads.

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

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

In cases were the operational duty cycle is not ≥98% and protocol-limited, the average measurements were made following the procedures outlined in Section 11 FAQ #3 of the 558074 D01 15.247 Meas Guidance v05r02 KDB document.

1) For all harmonics not in the restricted bands, the following procedure was used:
   a) The field strength of the fundamental was measured using a double ridged waveguide antenna. The waveguide antenna was positioned at a 3 meter distance from the EUT. An average detector with a resolution bandwidth of 100 kHz was used on the spectrum analyzer.
   b) The field strengths of all of the harmonics not in the restricted band were then measured using a double-ridged waveguide antenna. The waveguide antenna was positioned at a 3 meter distance from the EUT. An average detector with a resolution bandwidth of 100 kHz was used on the spectrum analyzer.
   c) To ensure that maximum or worst case emission levels at the fundamental and harmonics were measured, the following steps were taken when measuring the fundamental emissions and the spurious emissions:
      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) All harmonics not in the restricted bands must be at least 30 dB below levels measured at the fundamental. However, attenuation below the general limits specified in §15.209(a) is not required.

2) 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.

5.4.3. Results

Preliminary radiated emissions plots are shown on pages 73 through 120. Final radiated emissions data are presented on data pages 121 through 138. 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 as Figures 2 through 4.

5.5. Band Edge Compliance

5.5.1. Requirement

Per section 15.247(d), the emissions at the band edges must be at least 30dB below the highest level measured within the band, but attenuation below the general limits listed in 15.209(a) is not required.

5.5.2. Procedures

1.1.1.1 Low Band Edge

1) The output of the EUT was connected to the spectrum analyzer through 40dB 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) ≥ 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 30dB down from the peak of the in-band emissions. All emissions which fall outside of the authorized band of operation must be below the 30dB 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.

1.1.1.2 High Band Edge

1) The EUT was set up inside the test chamber on a non-conductive stand.
2) A broadband measuring antenna was placed at a test distance of 3 meters from the EUT.
3) The EUT was maximized for worst case emissions at the measuring antenna. A peak reading was taken with a resolution bandwidth of 1MHz and a video bandwidth of 1MHz or greater. An average reading was then taken with receiver set to an average detector. The maximum peak and average meter readings were recorded.

5.5.3. Results

Pages 139 through 141 show the low end band edge compliance results for conducted measurements. Pages

141 and 142 show the high end band edge compliance results for radiated measurements. As can be seen from these plots, the conducted emissions at the low end band edge are within the 30dB down limits. The radiated emissions at the high end band edge are within the general limits.

5.6. Power Spectral Density

5.6.1. Requirements

Per section 15.247(d), the average 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.

5.6.2. Procedures

1) The output of the EUT was connected to the spectrum analyzer through the DUT 1 port of a Rohde & Schwarz OSP 120/OSP-B157 system via a coaxial cable and RF attenuator.
2) The EUT was set to transmit at a mid-channel.
3) To determine the power spectral density, the following spectrum analyzer settings were used:
    a) Center frequency = transmit frequency
    b) Resolution bandwidth (RBW) ≥ 20dB bandwidth.
    c) Sweep time = auto
    d) The average detector and 'Max-Hold' function was engaged. The analyzer was allowed to scan until the envelope of the transmitter bandwidth was defined.
    e) The analyzer's display was plotted using a 'screen dump' utility.
4) This reading corresponds to the average EIRP measured for the mid channel.
5) Turn on Display Line 1 and place it at the peak of the measured level. Turn on Display Line 2 and place it at the corresponding +8dBm level (e.g. if the average output power is +18dBm then the +8dBm level will be 10dB down from the radiated level and if the average output power is +6dBm then the +8dBm level will be 2dB above the radiated level.)
6) The EUT was then placed in the normal operation mode.
7) To determine the power spectral density, the following spectrum analyzer settings were used:
    a) Center frequency = transmit frequency
    b) Span = 1.5x the channel bandwidth
    c) Resolution bandwidth (RBW) ≥ 3kHz
    d) Video bandwidth (VBW) ≥ 3 x RBW
    e) Sweep time = auto couple
    f) The analyzer was allowed to scan until the envelope of the transmitter bandwidth was defined. The peak detector and 'Max-Hold' function was engaged.
    g) The analyzer's display was plotted using a 'screen dump' utility.
    h) If the measured value exceeds the +8dBm limit, reduce the RBW (no less than 3kHz) and repeat step (7).

5.6.3. Results

Pages 143 through 160 show the power spectral density results. As can be seen from the plots, the average 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 Horizon Hobby upon completion of the tests.

7. Conclusions

It was determined that the Horizon Hobby Katy RF Module, Model No. Katy, digital modulation transmitter did fully meet the conducted and radiated emission requirements of the FCC "Code of Federal Regulations" Title

47, Part 15, Subpart C, Section 15.247 for Intentional Radiators Operating within the 2400-2483.5 MHz band, when tested per ANSI C63.4-2014.

It was also determined that the Horizon Hobby Katy RF Module, Model No. Katy, digital modulation transmitter did fully meet the radiated RF emission requirements of the Industry Canada Radio Standards Specification, RSS-247 Section 5 for transmitters when tested per ANSI C63.4-2014.

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 NVLAP, 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
APW11	PREAMPLIFIER	PMI	PE2-35-120-5R0-10-12-SFF	PL11685/1241	1GHZ-20GHZ	4/8/2019	4/8/2020
CDX8	COMPUTER	ELITE	WORKSTATION			N/A	
GRE2	SIGNAL GENERATOR	AGILENT	E4438C	MY42081749	250KHZ-6GHZ	2/28/2019	2/28/2020
GSF0	VECTOR SIGNAL GENERATOR	ROHDE & SCHWARZ	SMBV100A	260452	9kHz to 6GHz	8/24/2018	8/24/2019
GSFB	OSP120 BASE UNIT	ROHDE & SCHWARZ	OSP120	101246	---	10/23/2018	10/23/2019
GSFE	OSP120	ROHDE & SCWARZ	OSP120	101288	.01-40GHZ	5/2/2019	5/2/2020
NTA4	BILOG ANTENNA	TESEQ	6112D	46660	20-2000GHZ	9/5/2018	9/5/2019
NWQ1	DOUBLE RIDGED WAVEGUIDE ANTENNA	ETS-LINDGREN	3117	66655	1GHZ-18GHZ	4/10/2018	4/10/2020
NWQ2	DOUBLE RIDGED WAVEGUIDE ANTENNA	ETS LINDGREN	3117	66659	1GHZ-18GHZ	3/22/2018	3/22/2020
RBG0	EMI ANALYZER	ROHDE & SCHWARZ	ESW44	101533	10HZ-44GHZ	12/5/2018	12/5/2019
RBG2	EMI ANALYZER	ROHDE & SCHWARZ	ESW44	101591	2HZ-44GHZ	2/21/2019	2/21/2020
SES0	24VDC POWER SUPPLY	P-TRANS	FS-32024-1M	001	18-27VDC	NOTE 1	
T2DS	20DB, 25W ATTENUATOR	WEINSCHEL	46-20-34	BS0916	DC-18GHZ	4/24/2018	4/24/2020
T2S8	20DB 25W ATTENUATOR	WEINSCHEL	46-20-34	BV3541	DC-18GHZ	5/14/2018	5/14/2020
TVF0	VARIABLE ATTENUATOR	HEWLETT PACKARD	8494B	3405	DC-18GHZ	1/16/2019	1/16/2021
TVH5	VARIABLE ATTENUATOR	HEWLETT PACKARD	8495B	3308A17362	0-70DB	1/16/2019	1/16/2021
VBV2	CISPR EN FCC ICES RE.EXE	ELITE	CISPR EN FCC ICES RE.EXE	---	---	N/A	
WKA1	SOFTWARE, UNIVERSAL RCV EMI	ELITE	UNIV_RCV_EMI	1	---	I/O	
XLQP	5W, 50 OHM TERMINATION	JFW INDUSTRIES	50T-052	---	DC-2GHZ	5/25/2018	5/25/2020
XPR0	HIGH PASS FILTER	K&L MICROWAVE	11SH10-4800/X20000	001	4.8-20GHZ	9/12/2017	9/12/2019
XYF0	POWER SPLITTER	HEWLETT PACKARD	HP11667A	23852	DC-18GHz	11/15/2017	11/15/2019

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

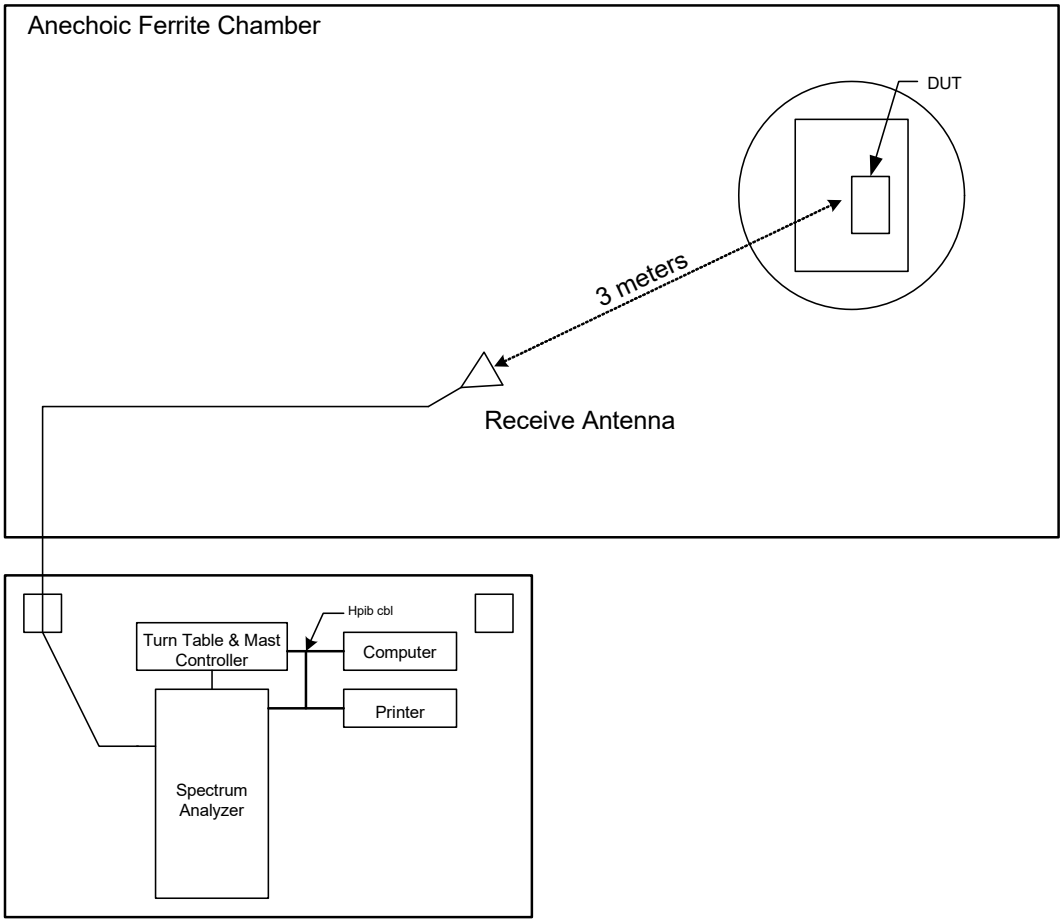
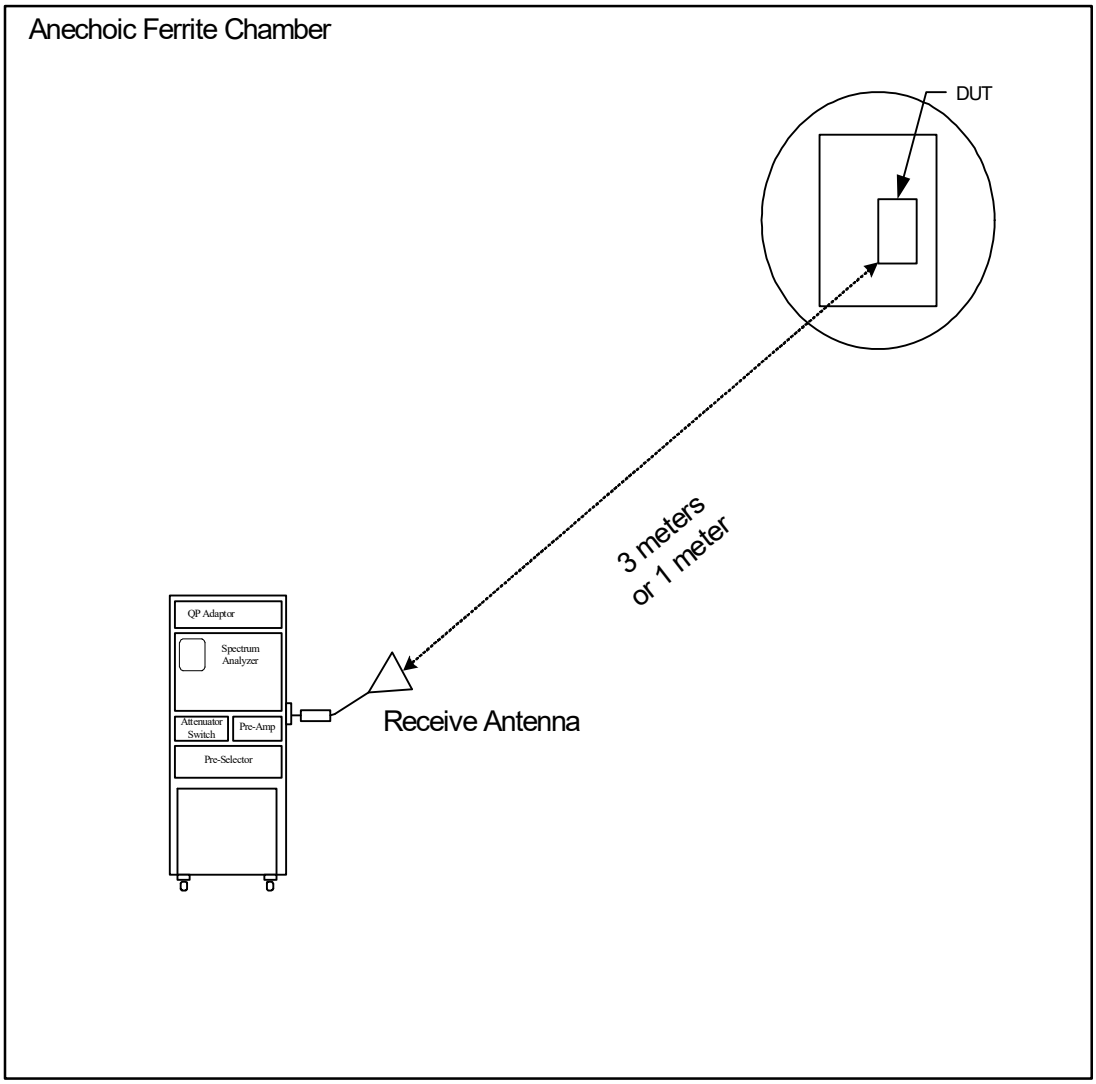


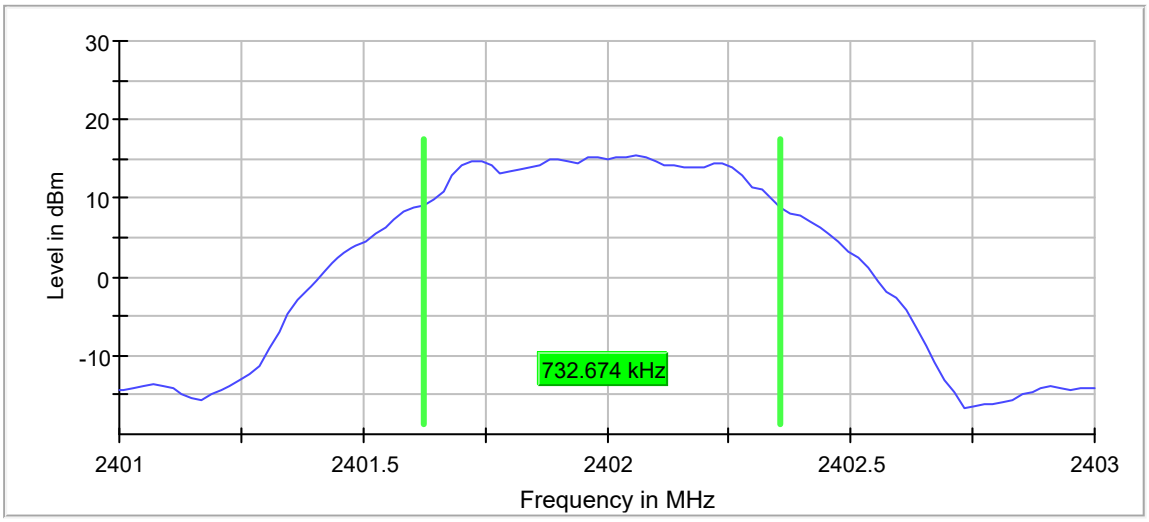
FIGURE 1 BLOCKDIAGRAM OF TEST SETUP


Anechoic Ferrite Chamber
DUT
3 meters
or 1 meter
QP Adaptor
Spectrum
Analyzer
Attenuator
Switch
Pre-Amp
Pre-Selector
Receive Antenna

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSM2 22ms – 2402MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

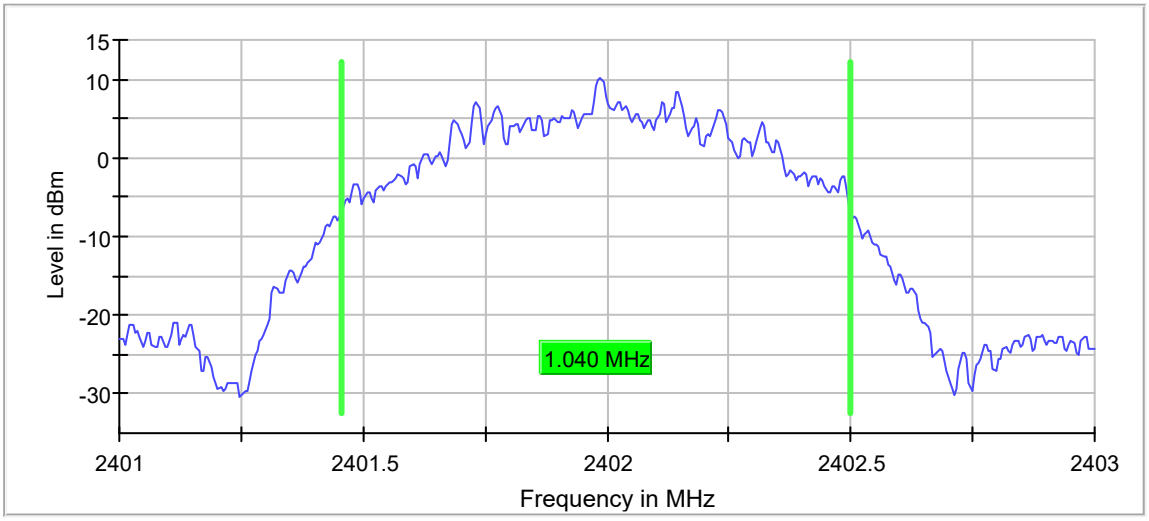
6dB BANDWIDTH

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2402.000000	0.732674	0.500000	---	2401.623762	2402.356436	Pass



99% BANDWIDTH

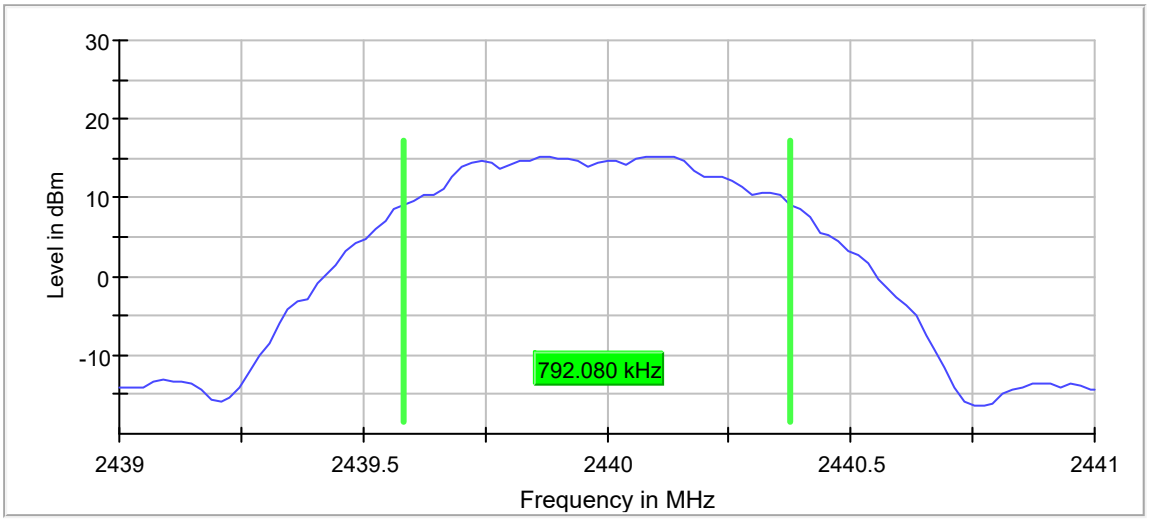
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2402.000000	1.040000	---	---	2401.457500	2402.497500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSM2 22ms – 2440MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

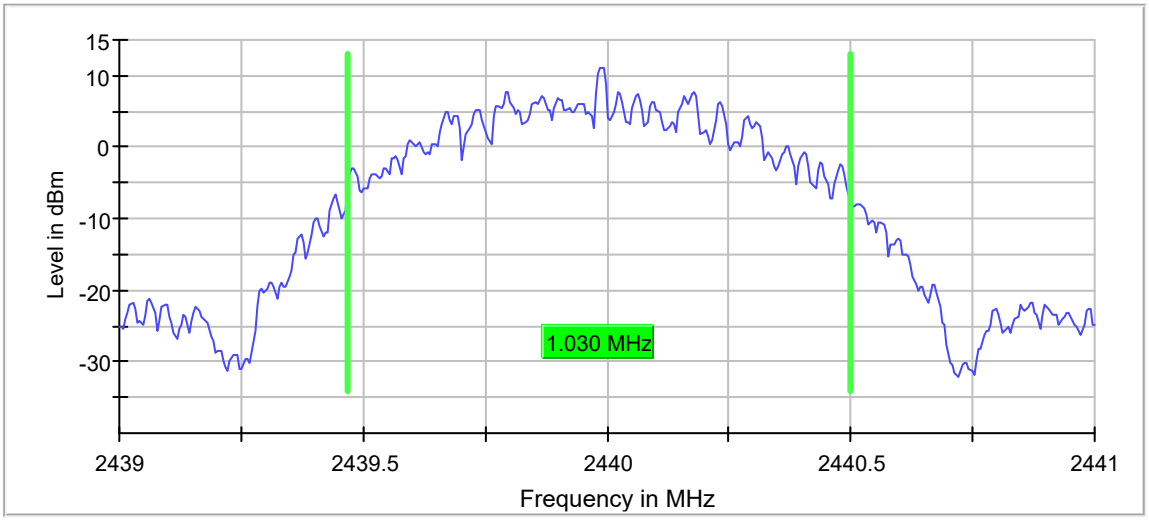
6dB BANDWIDTH

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	0.792080	0.500000	---	2439.584158	2440.376238	Pass



99% BANDWIDTH

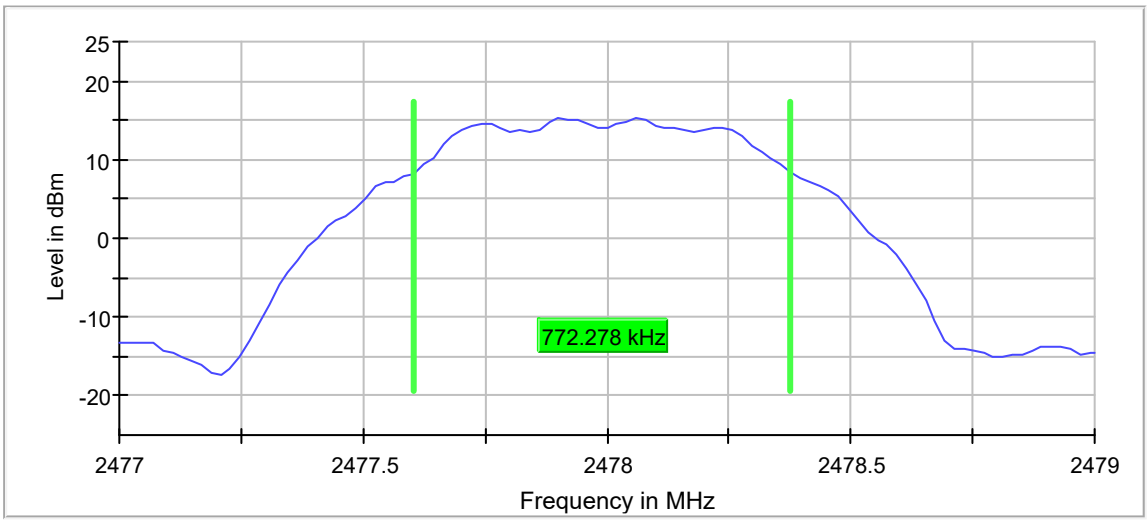
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	1.030000	---	---	2439.467500	2440.497500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSM2 22ms – 2478MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

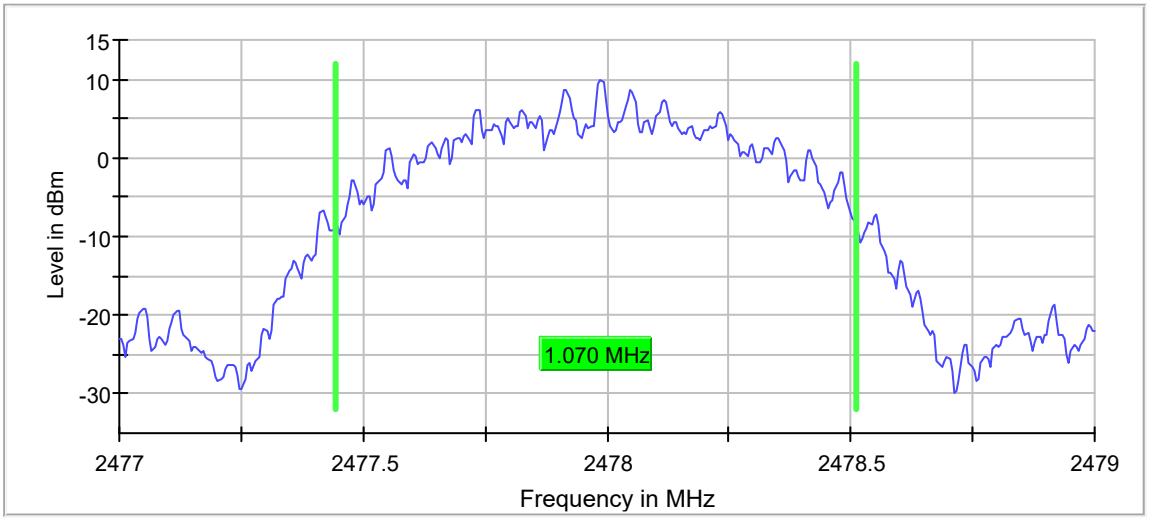
6dB BANDWIDTH

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	0.772278	0.500000	---	2477.603960	2478.376238	Pass



99% BANDWIDTH

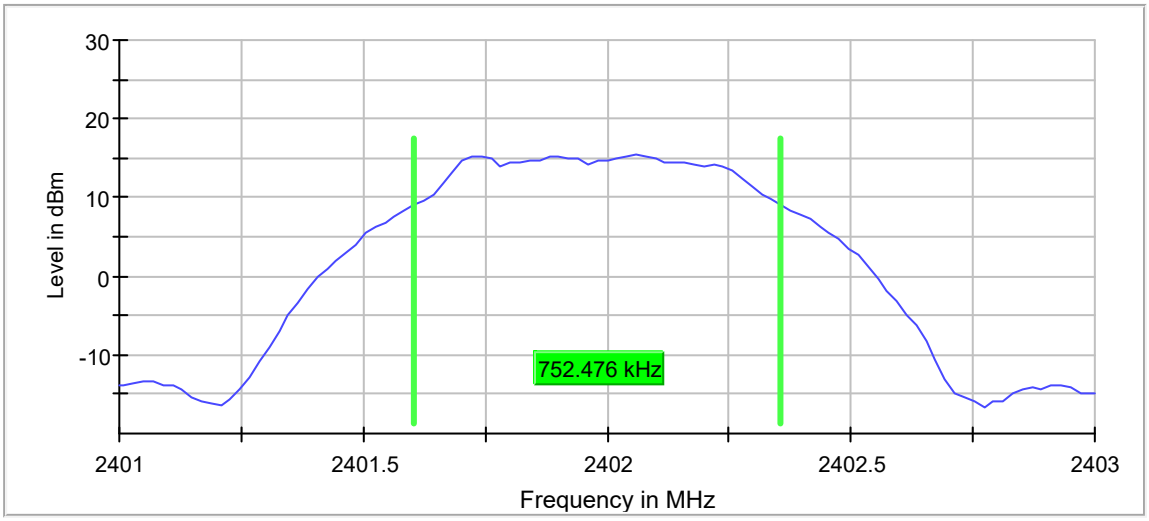
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2478.000000	1.070000	---	---	2477.442500	2478.512500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSM2 11ms – 2402MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

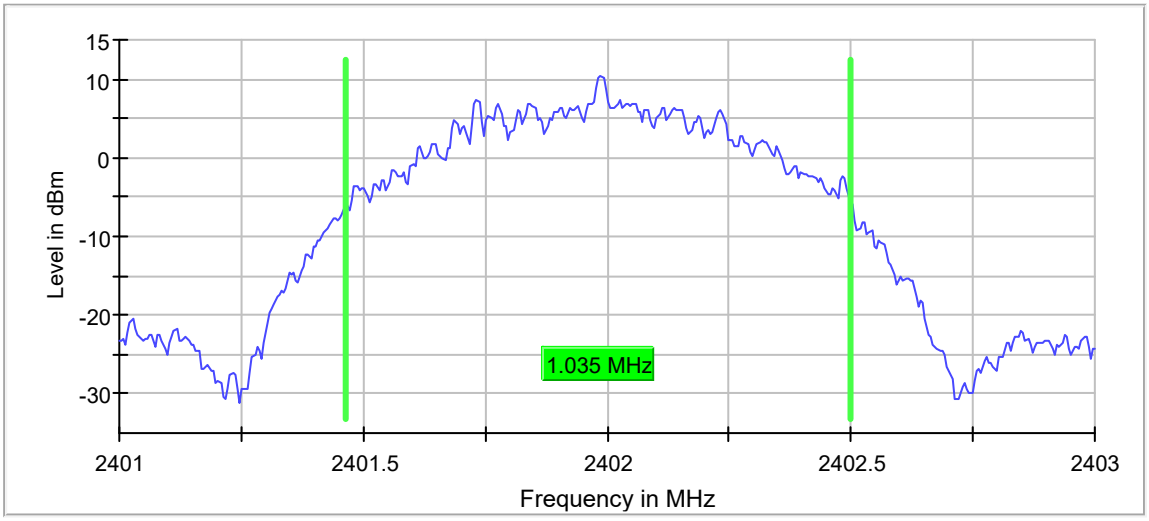
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2402.000000	0.752476	0.500000	---	2401.603960	2402.356436	Pass



99% BANDWIDTH

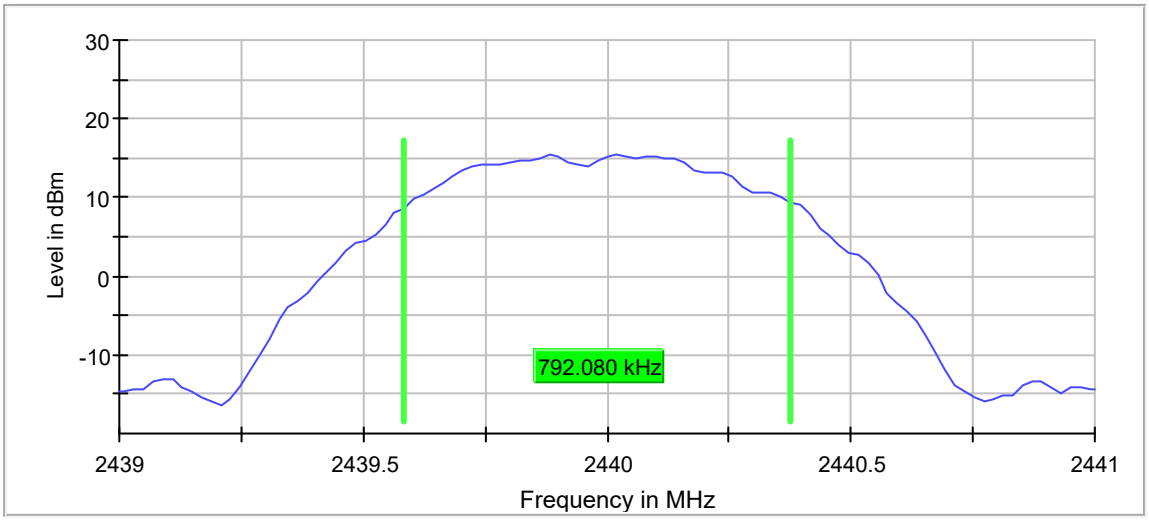
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2402.000000	1.035000	---	---	2401.462500	2402.497500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSM2 11ms – 2440MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

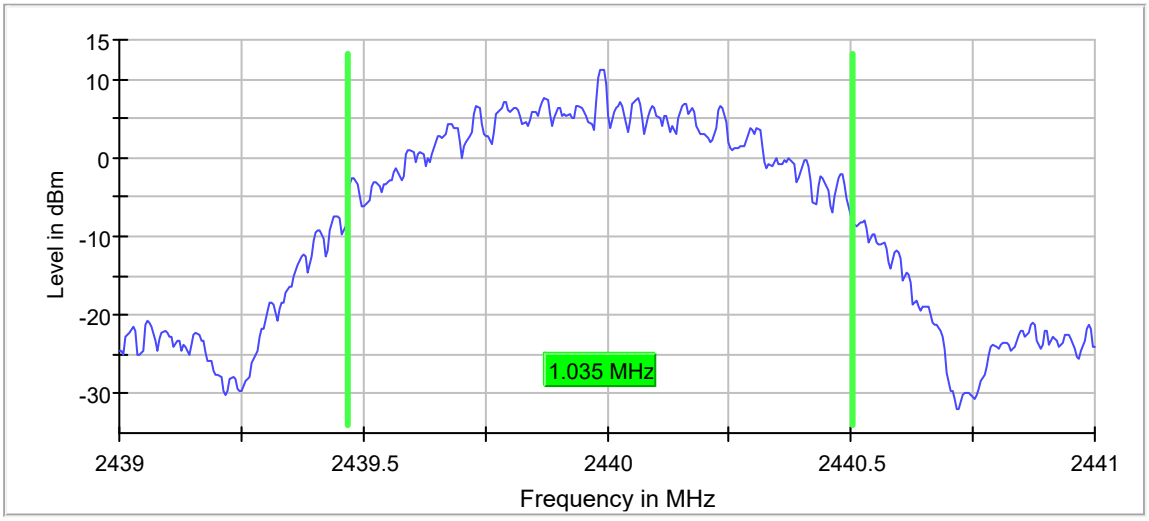
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	0.792080	0.500000	---	2439.584158	2440.376238	Pass



99% BANDWIDTH

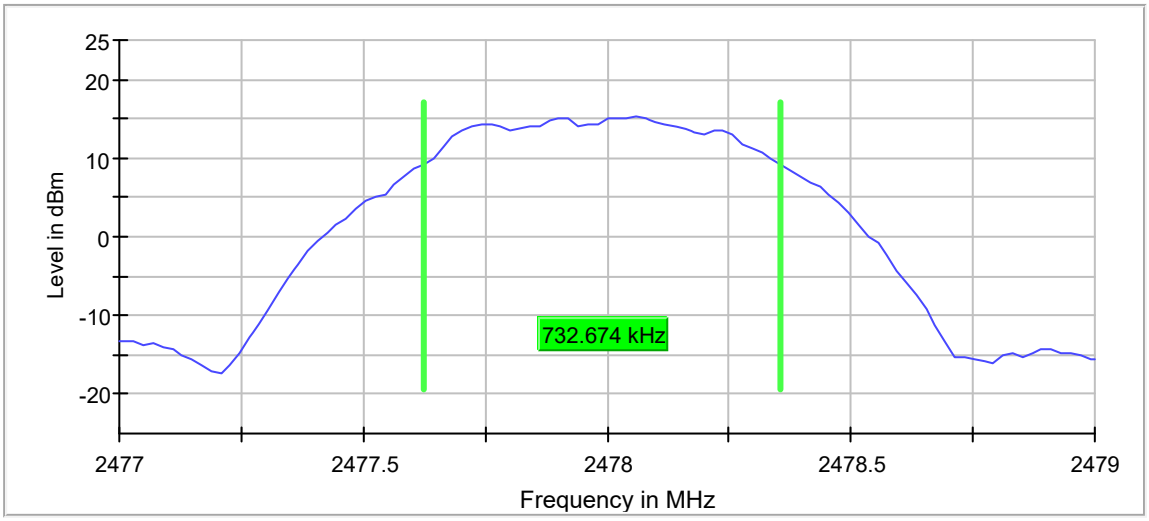
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	1.035000	---	---	2439.467500	2440.502500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSM2 11ms – 2478MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

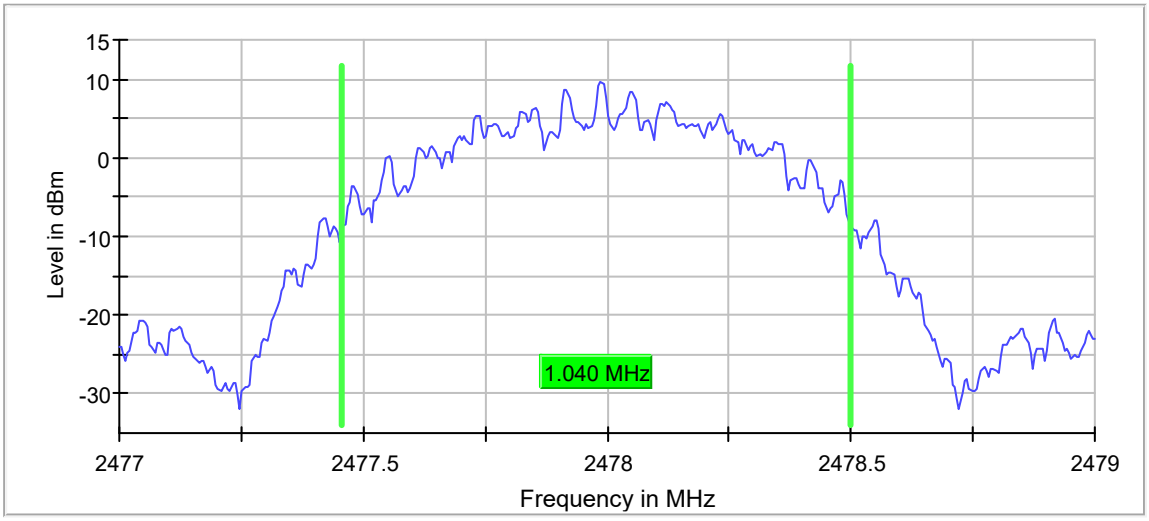
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2478.000000	0.732674	0.500000	---	2477.623762	2478.356436	Pass



99% BANDWIDTH

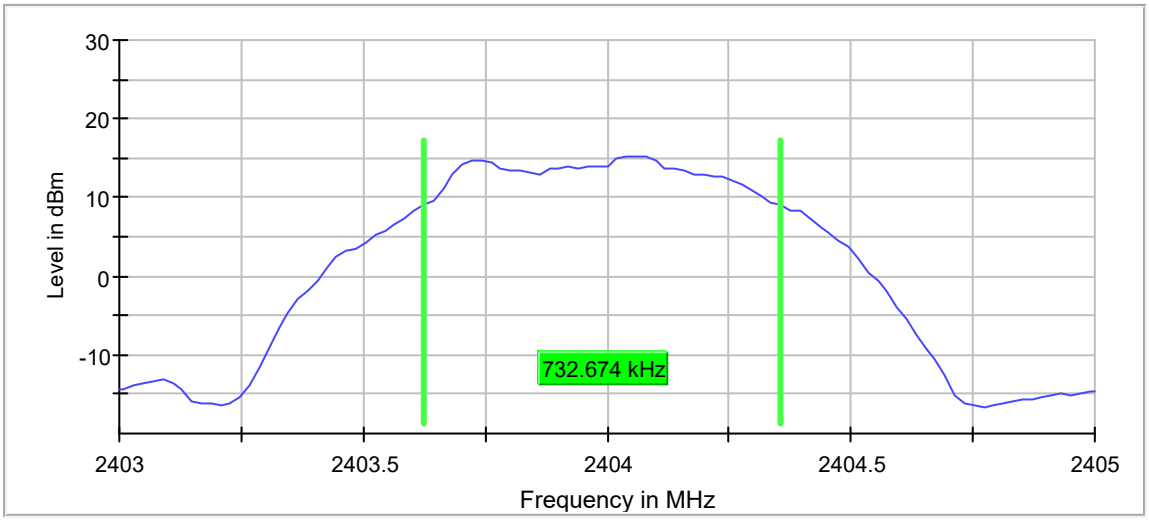
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2478.000000	1.040000	---	---	2477.457500	2478.497500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSMX 22ms – 2404MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

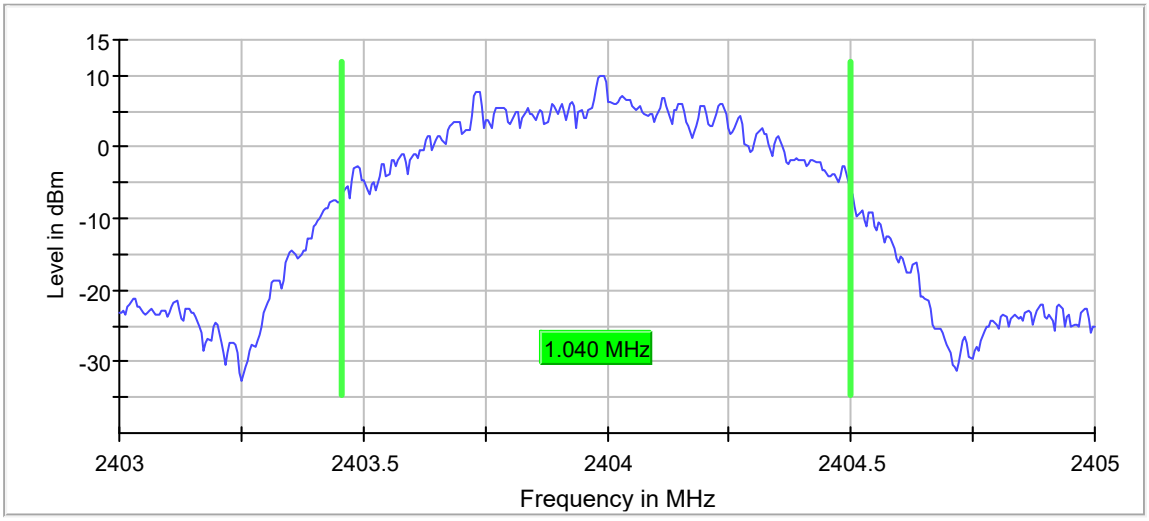
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2404.000000	0.732674	0.500000	---	2403.623762	2404.356436	Pass



99% BANDWIDTH

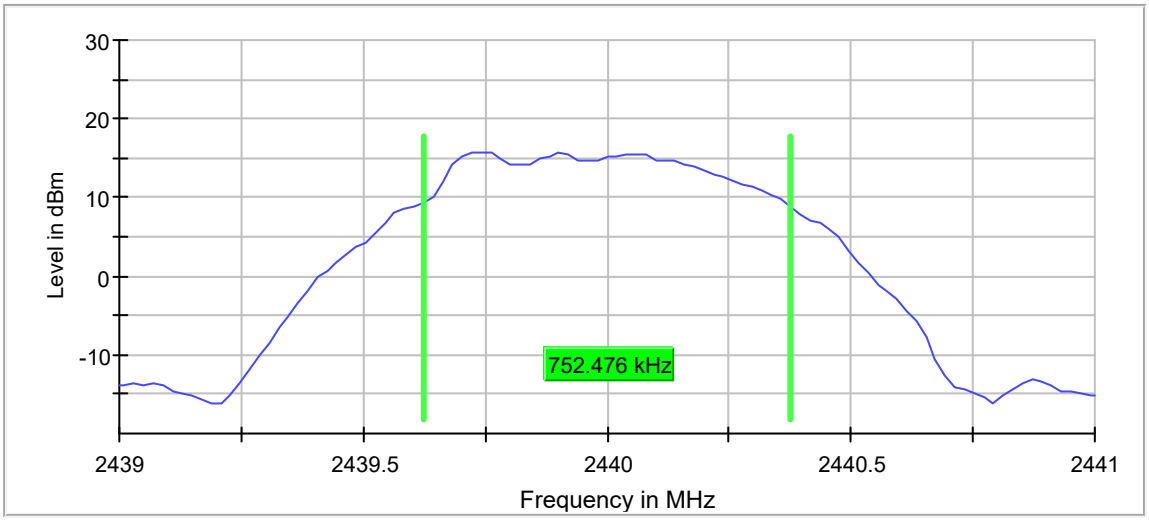
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2404.000000	1.040000	---	---	2403.457500	2404.497500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSMX 22ms – 2440MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

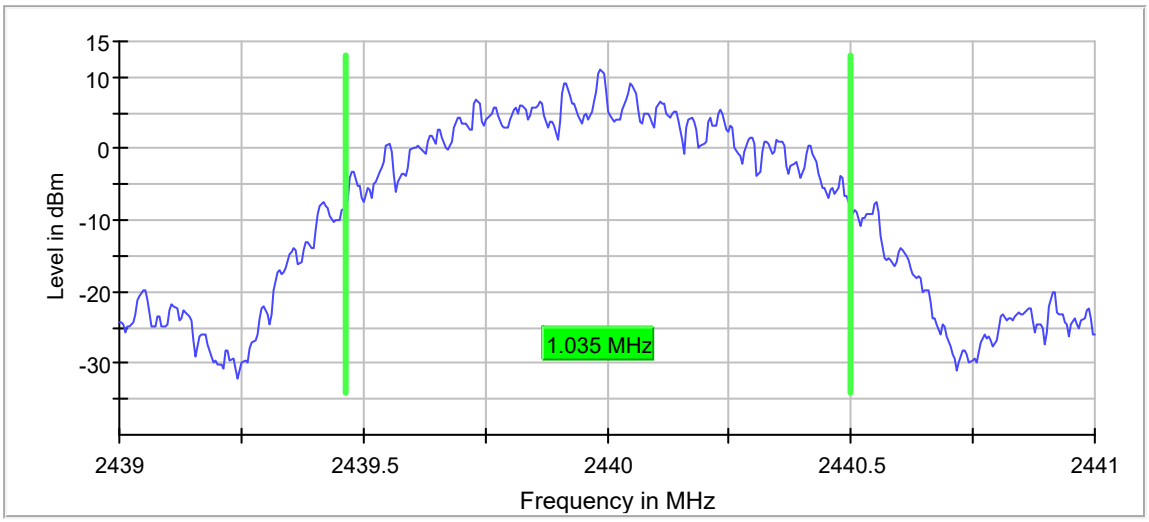
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	0.752476	0.500000	---	2439.623762	2440.376238	Pass



99% BANDWIDTH

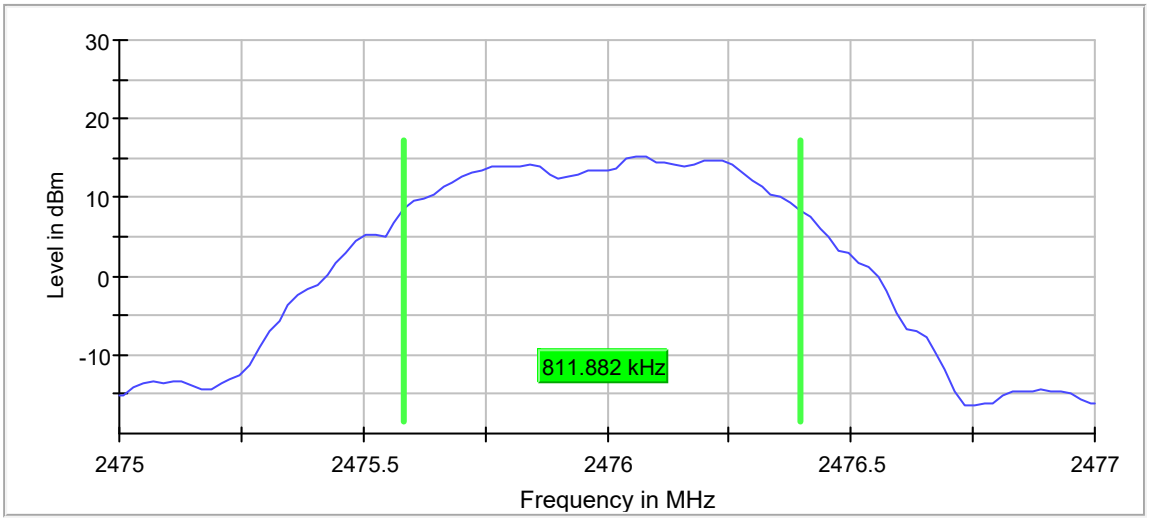
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	1.035000	---	---	2439.462500	2440.497500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSMX 22ms – 2476MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

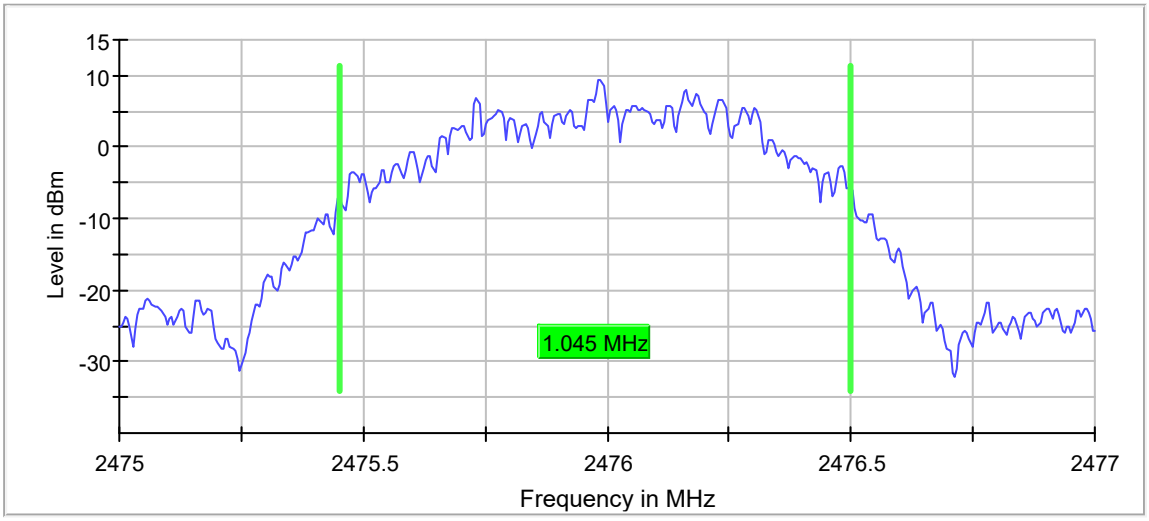
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2476.000000	0.811882	0.500000	---	2475.584158	2476.396040	Pass



99% BANDWIDTH

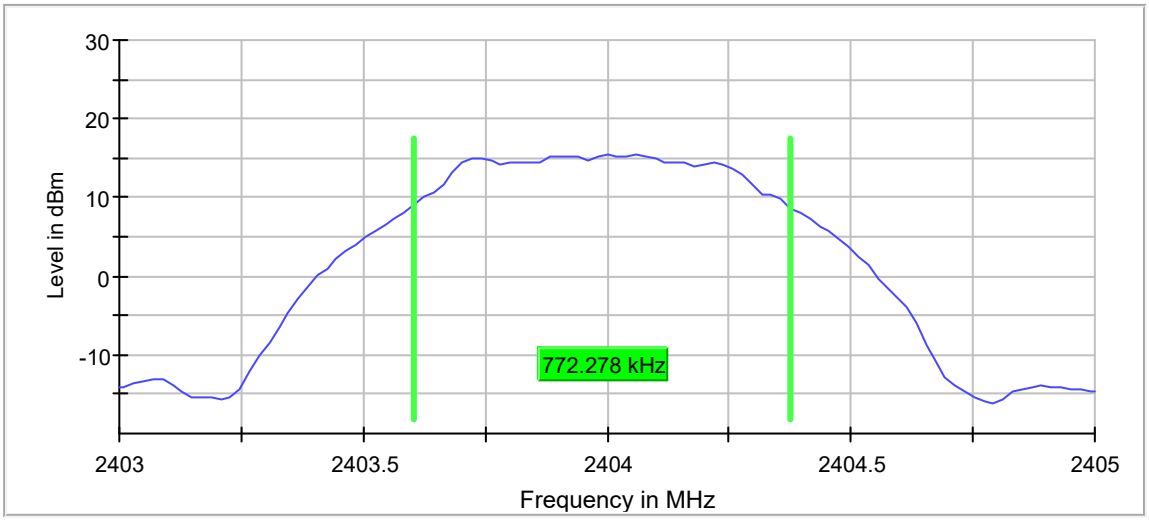
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2476.000000	1.045000	---	---	2475.452500	2476.497500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSMX 11ms – 2404MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

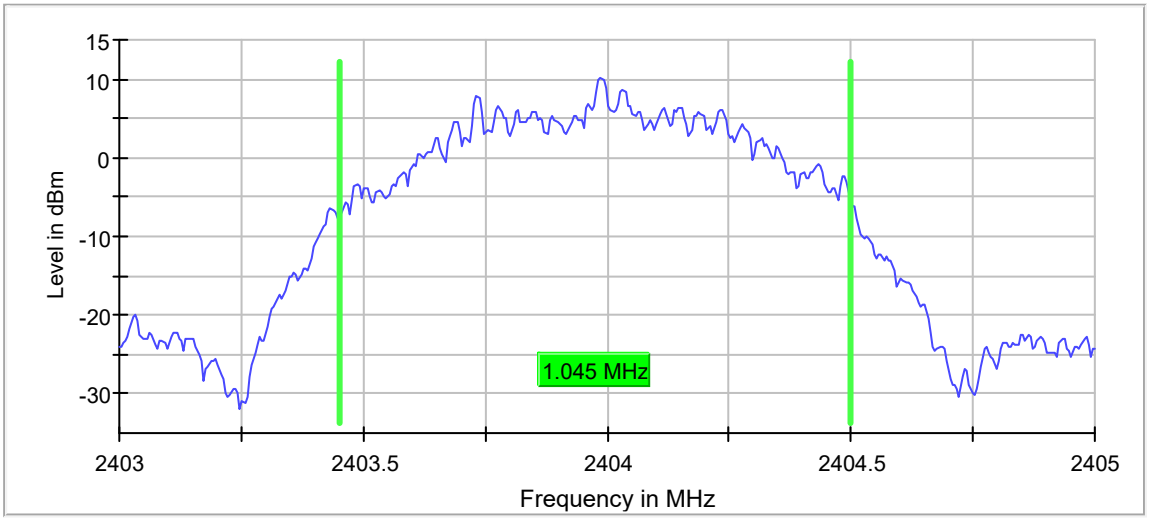
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2404.000000	0.772278	0.500000	---	2403.603960	2404.376238	Pass



99% BANDWIDTH

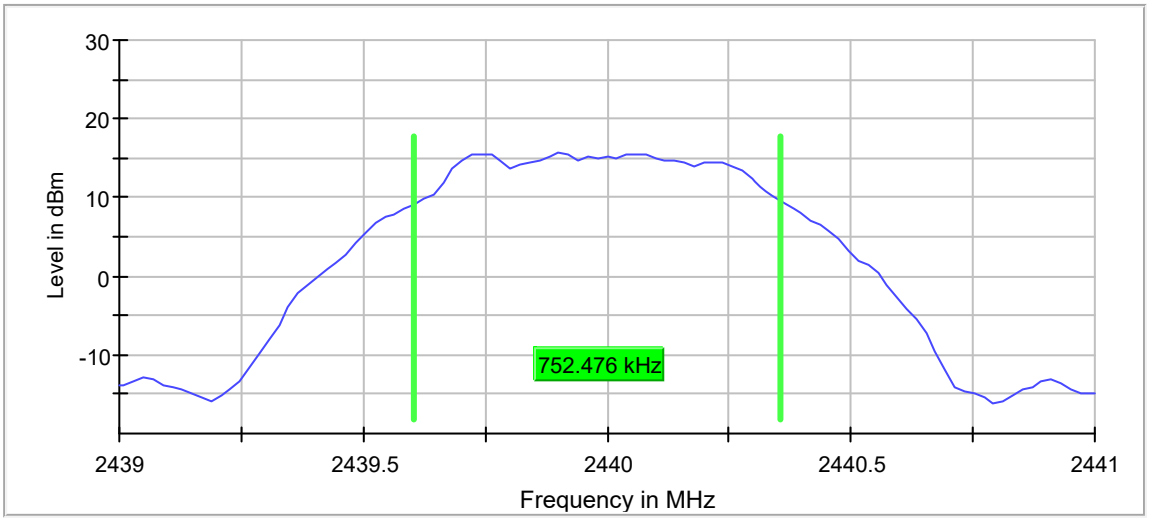
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2404.000000	1.045000	---	---	2403.452500	2404.497500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSMX 11ms – 2440MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

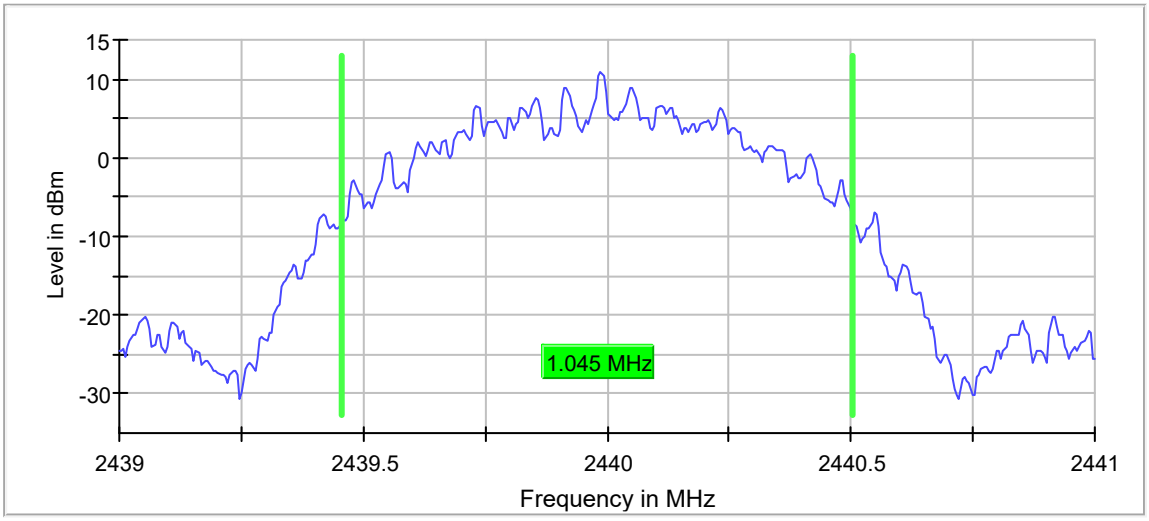
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	0.752476	0.500000	---	2439.603960	2440.356436	Pass



99% BANDWIDTH

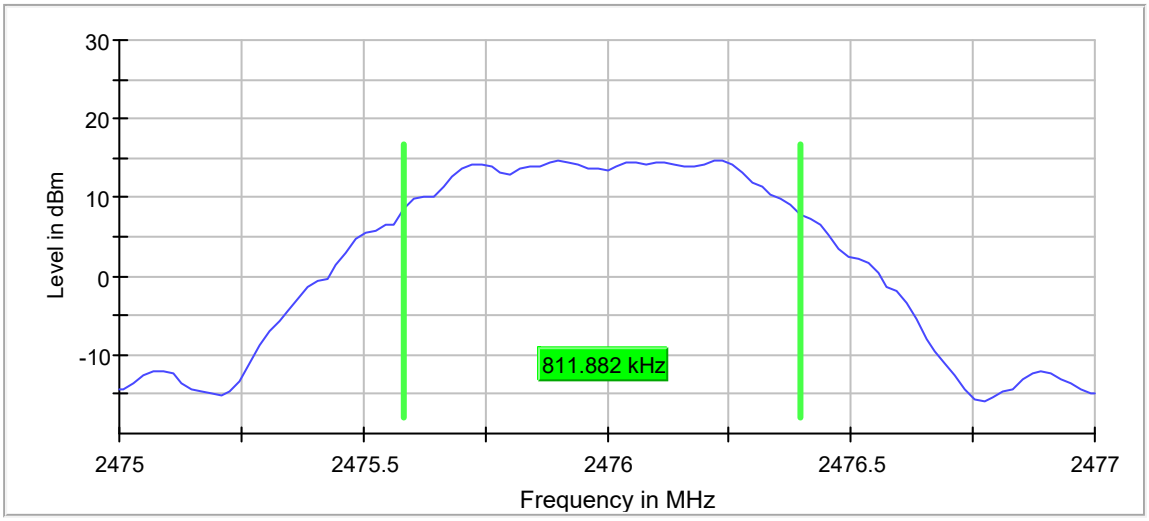
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	1.045000	---	---	2439.457500	2440.502500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSMX 11ms – 2476MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

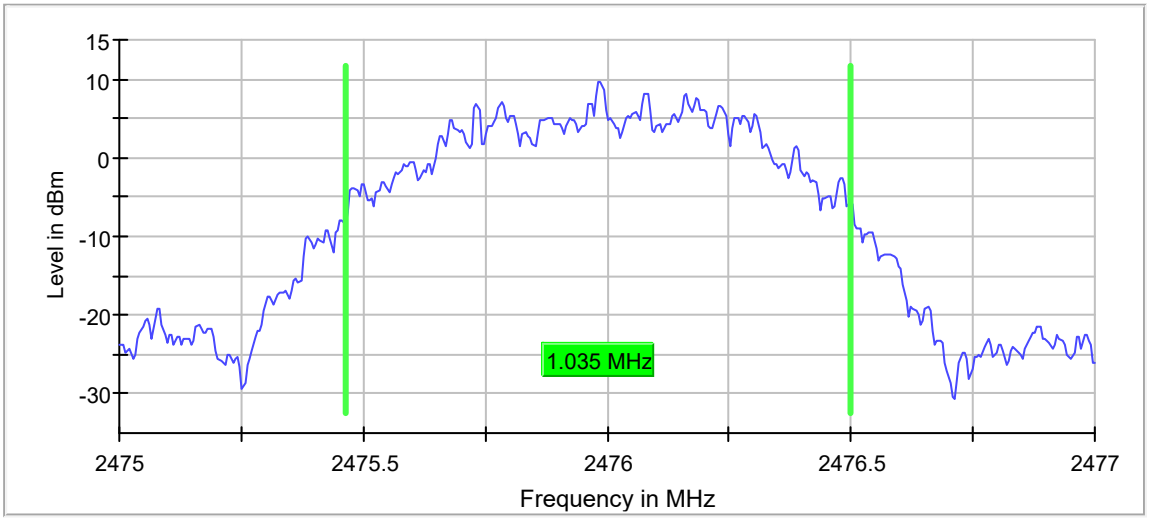
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2476.000000	0.811882	0.500000	---	2475.584158	2476.396040	Pass



99% BANDWIDTH

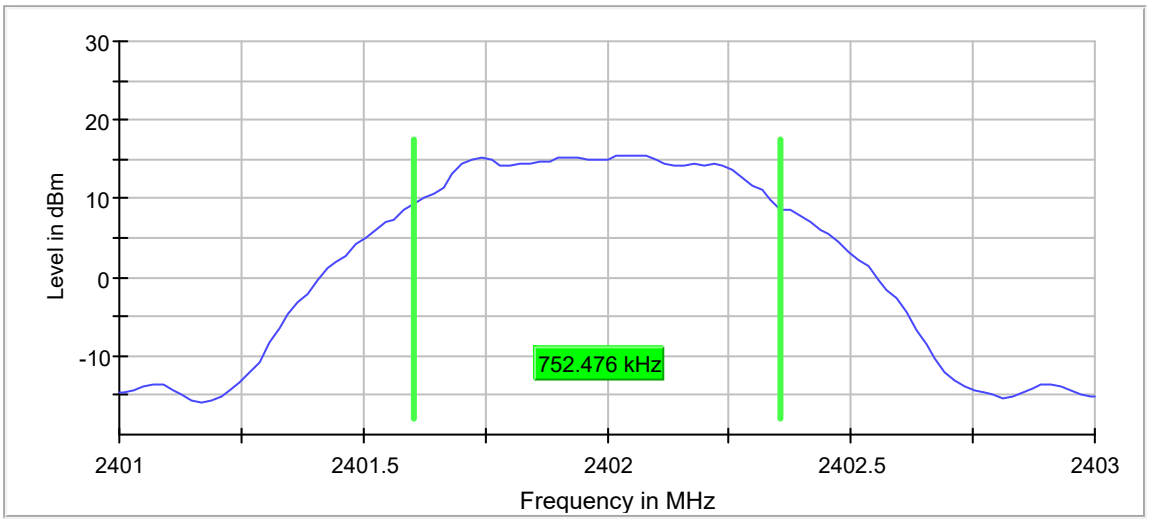
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2476.000000	1.035000	---	---	2475.462500	2476.497500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSM2 16.5ms – 2402MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

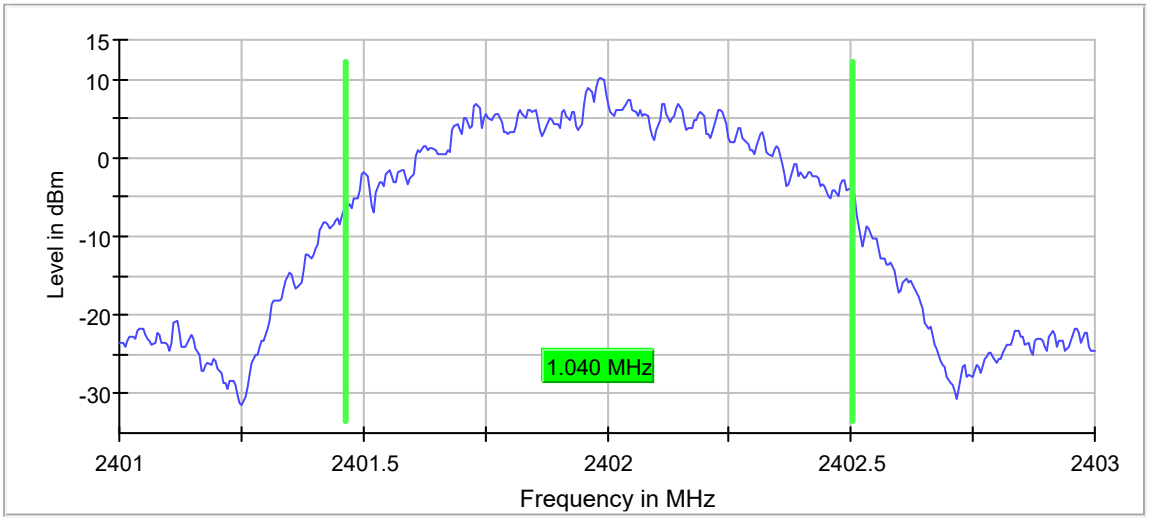
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2402.000000	0.752476	0.500000	---	2401.603960	2402.356436	Pass



99% BANDWIDTH

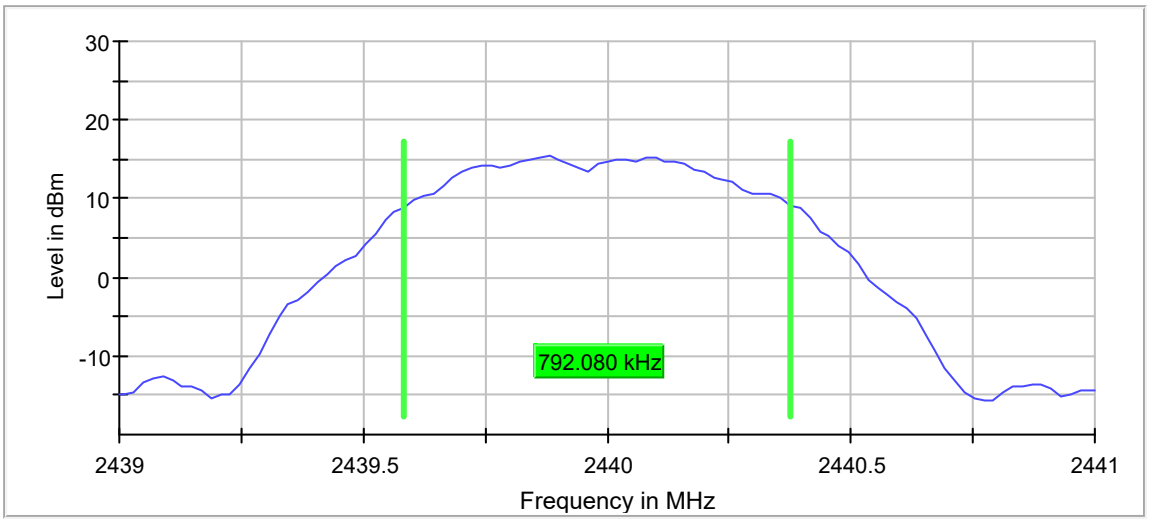
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2402.000000	1.040000	---	---	2401.462500	2402.502500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSM2 16.5ms – 2440MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

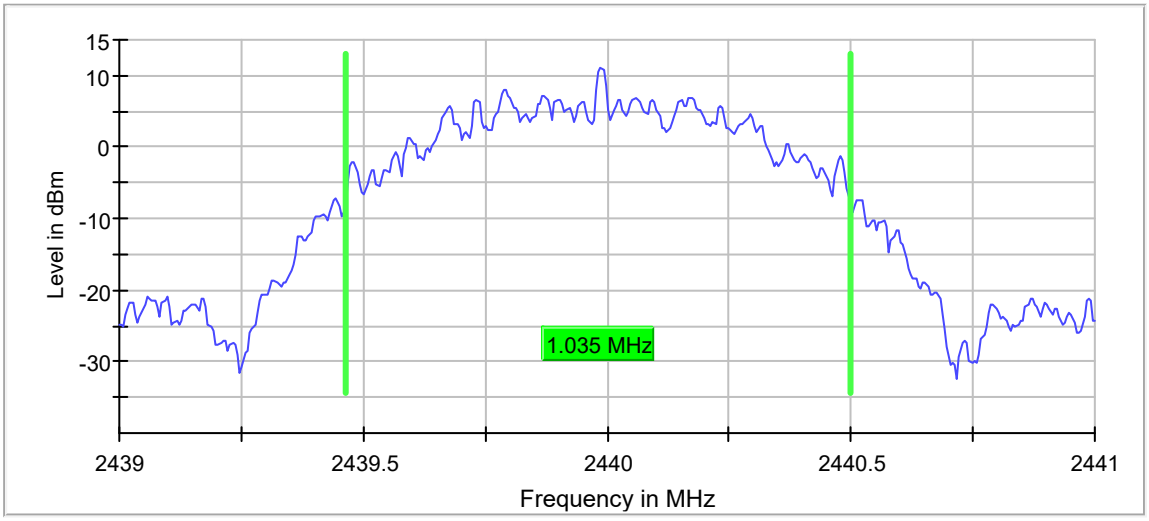
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	0.792080	0.500000	---	2439.584158	2440.376238	Pass



99% BANDWIDTH

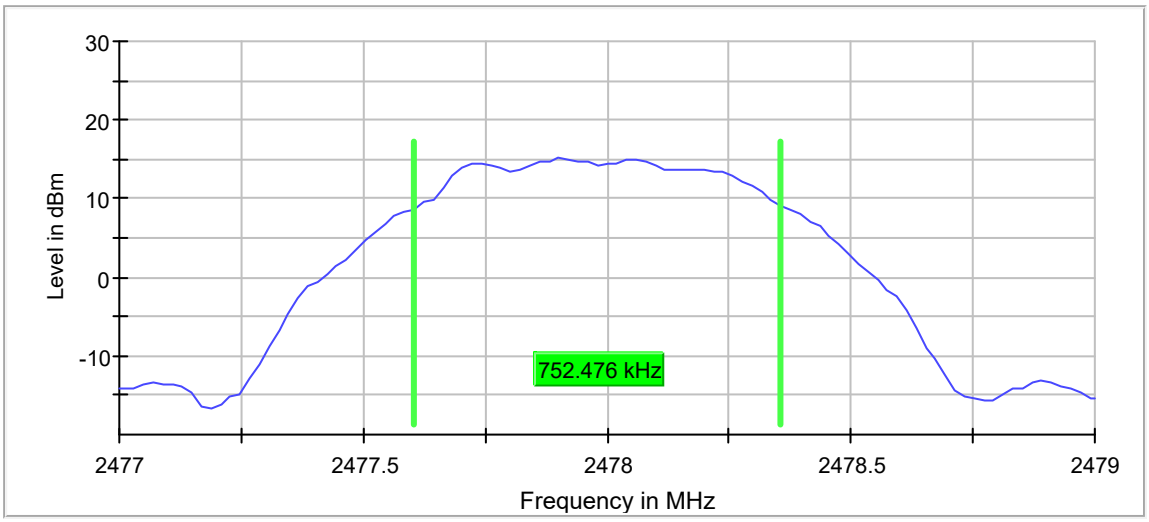
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	1.035000	---	---	2439.462500	2440.497500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSM2 16.5ms – 2478MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

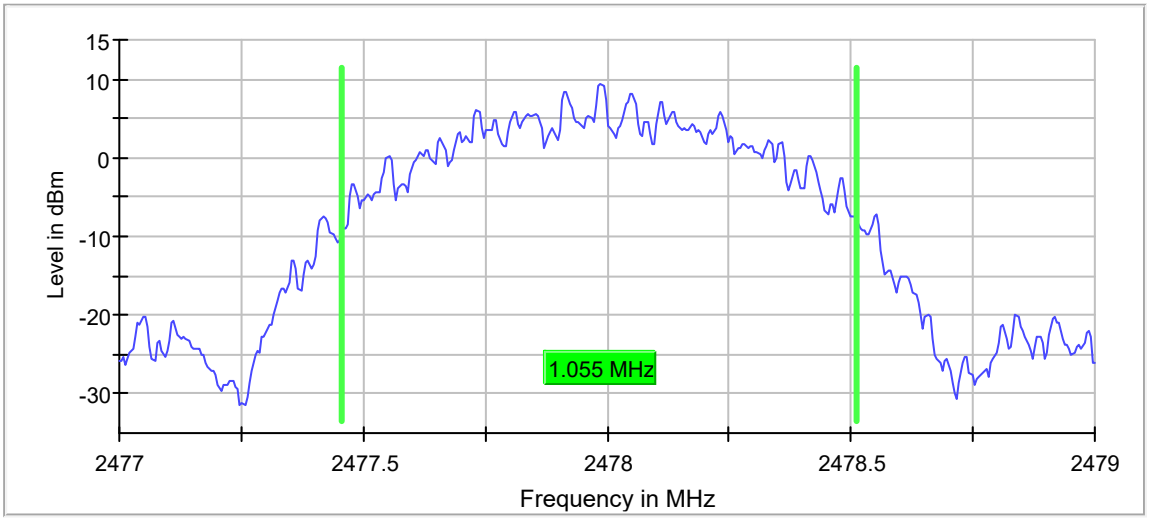
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2478.000000	0.752476	0.500000	---	2477.603960	2478.356436	Pass



99% BANDWIDTH

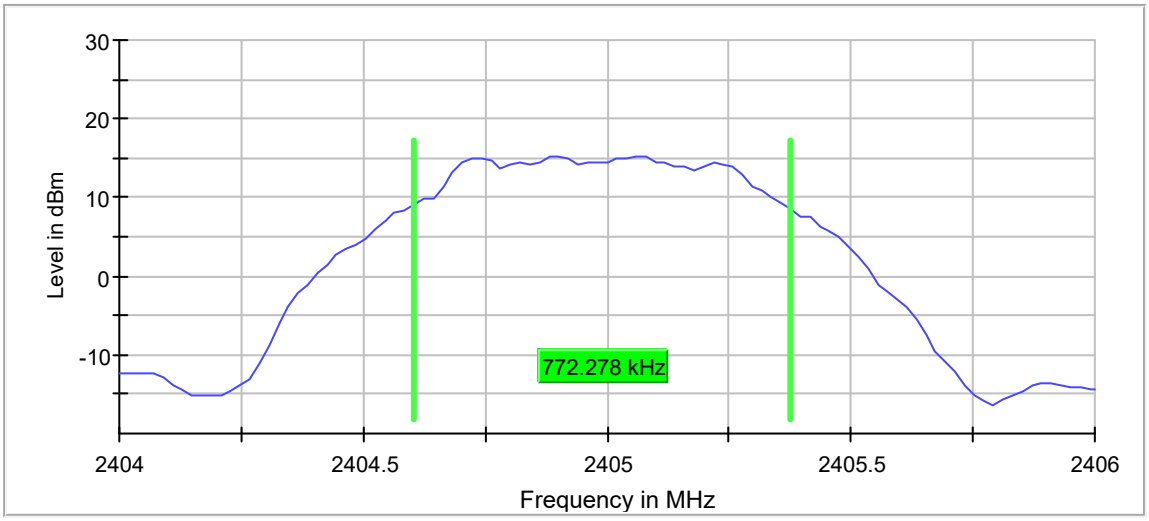
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2478.000000	1.055000	---	---	2477.457500	2478.512500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSMR 11ms – 2405MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

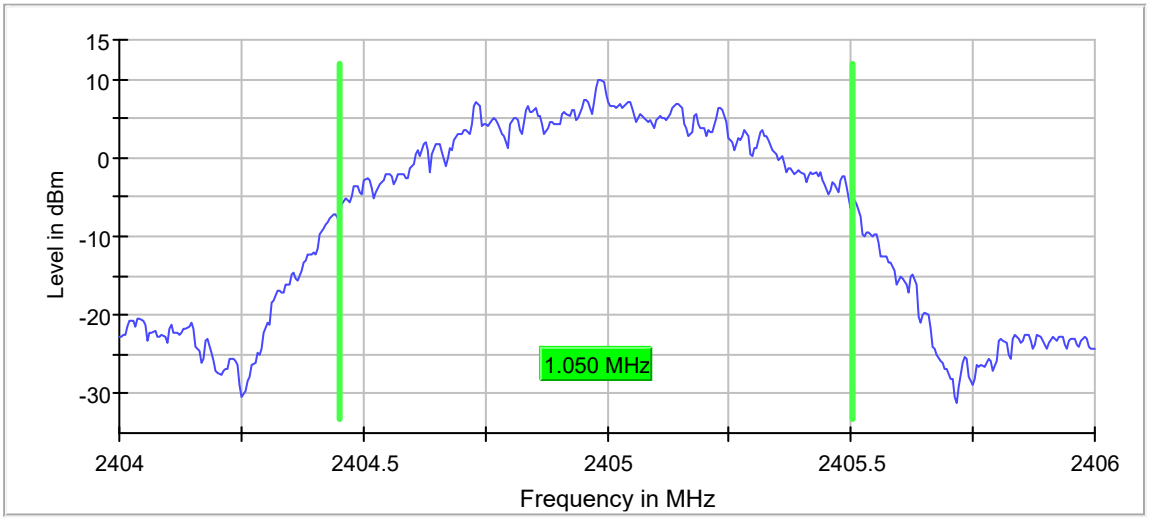
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2405.000000	0.772278	0.500000	---	2404.603960	2405.376238	Pass



99% BANDWIDTH

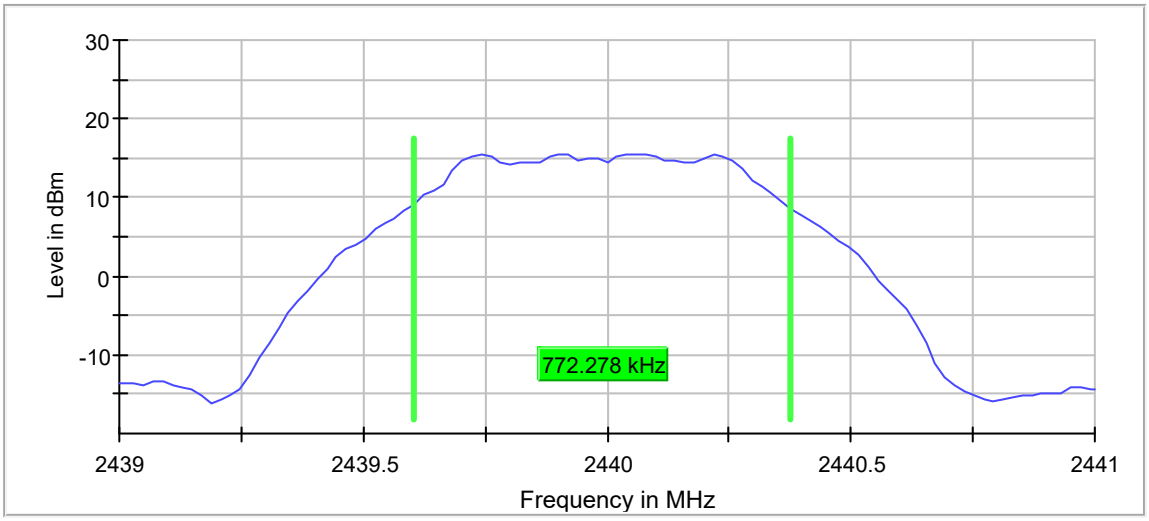
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2405.000000	1.050000	---	---	2404.452500	2405.502500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSMR 11ms – 2440MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

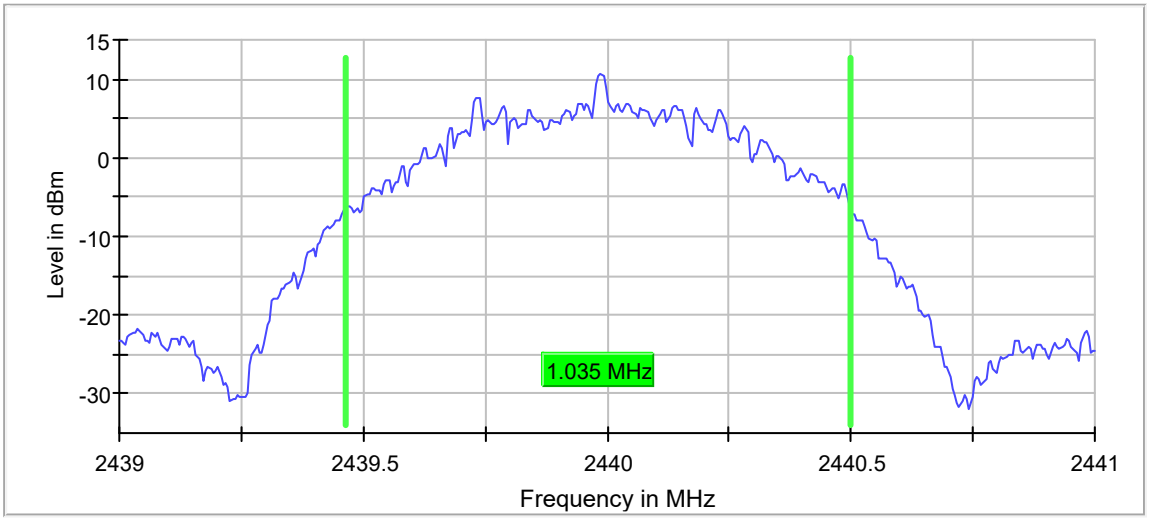
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	0.772278	0.500000	---	2439.603960	2440.376238	Pass



99% BANDWIDTH

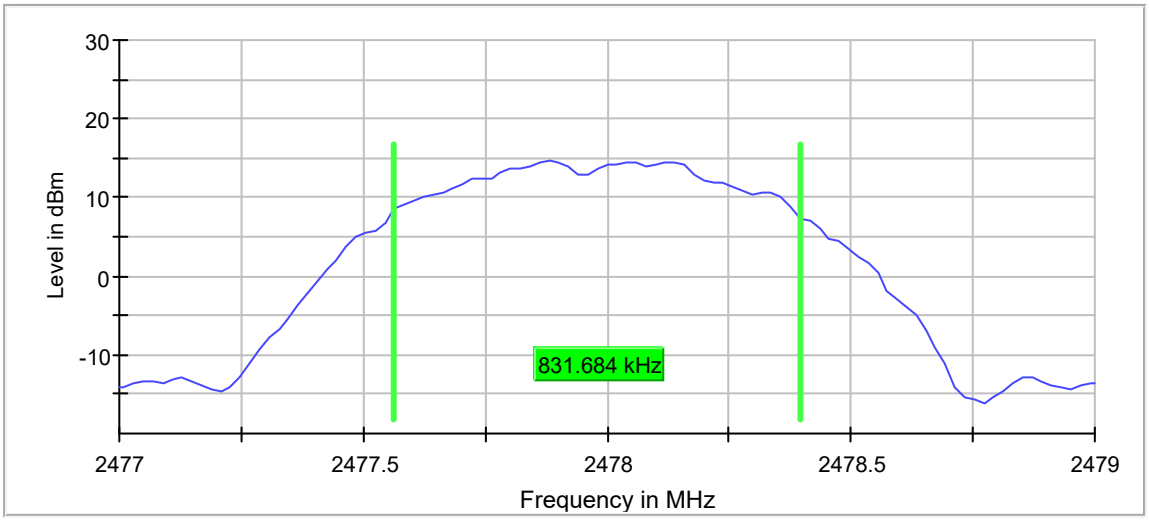
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	1.035000	---	---	2439.462500	2440.497500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Minimum Emission 6dB Bandwidth - Conducted
MODE	DSMR 22ms – 2478MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

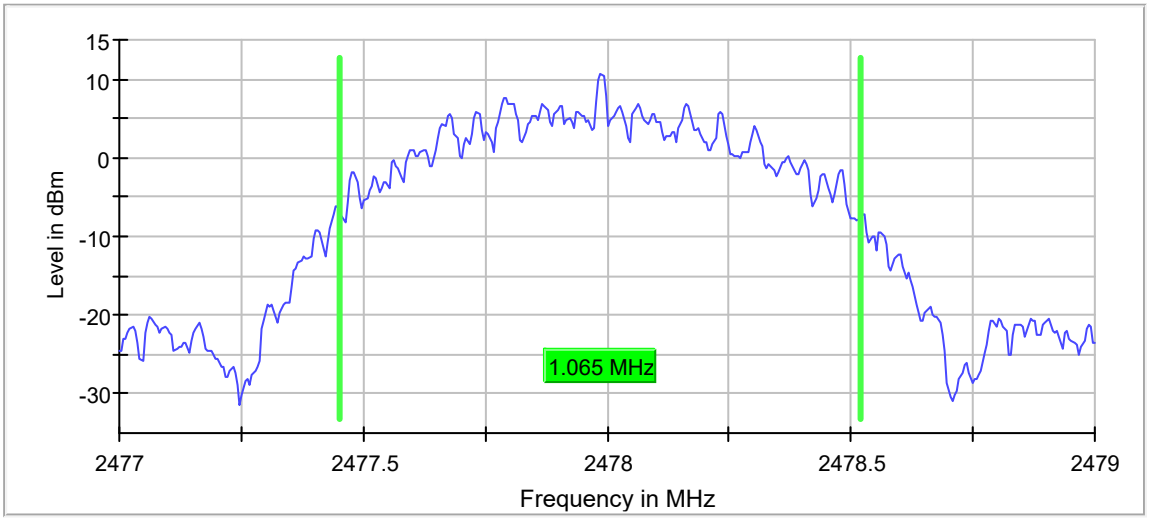
6dB BANDWIDTH

Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2478.000000	0.831684	0.500000	---	2477.564356	2478.396040	Pass



99% BANDWIDTH

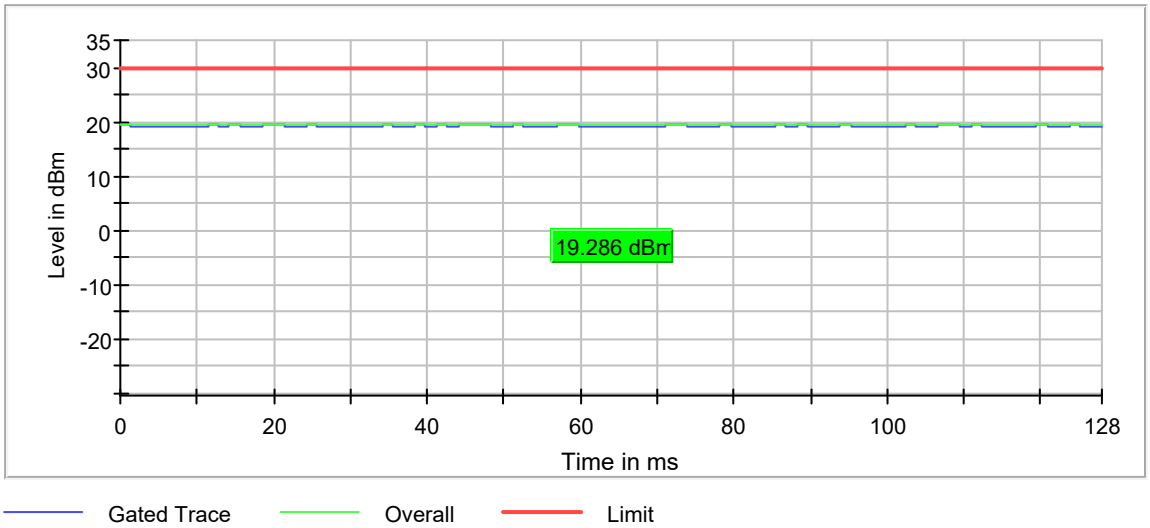
Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2478.000000	1.065000	---	---	2477.452500	2478.517500	Pass



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSM2 22ms – 2402MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

RF OUTPUT POWER

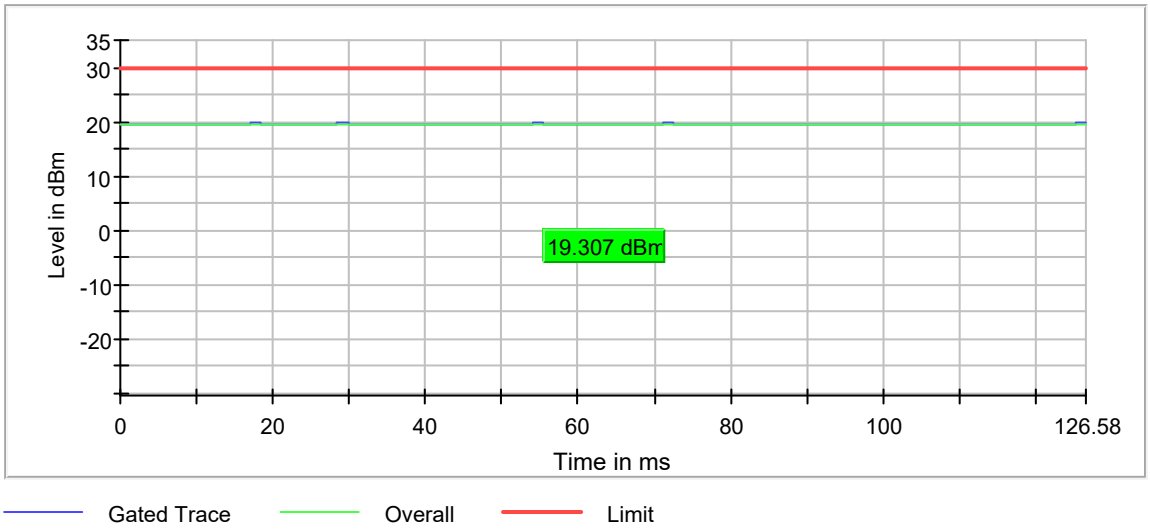
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2402.000000	17.3	30.0	19.3	12.920	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSM2 22ms – 2440MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

RF OUTPUT POWER

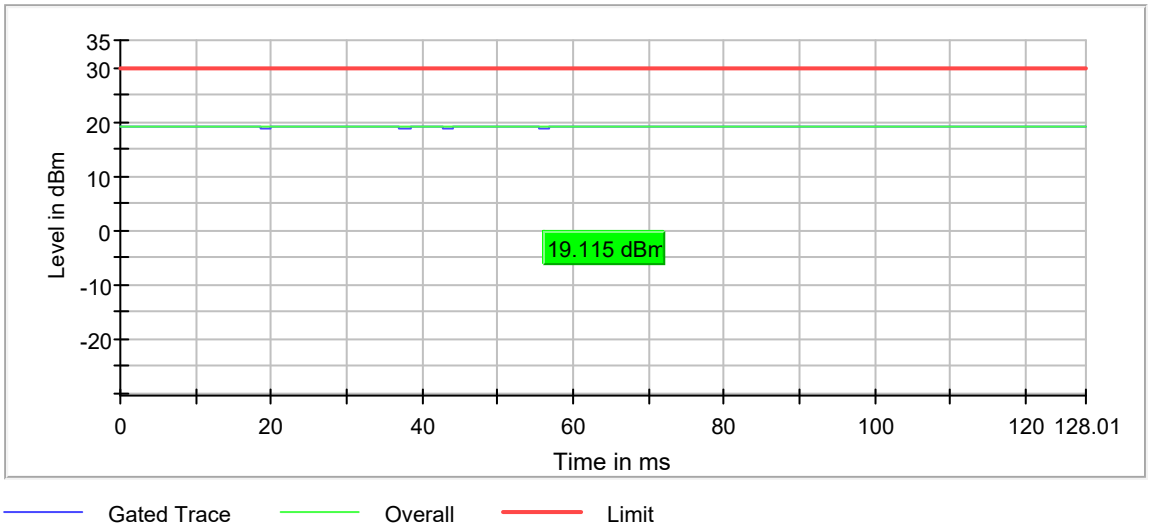
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2440.000000	17.3	30.0	19.3	13.013	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSM2 22ms – 2478MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

RF OUTPUT POWER

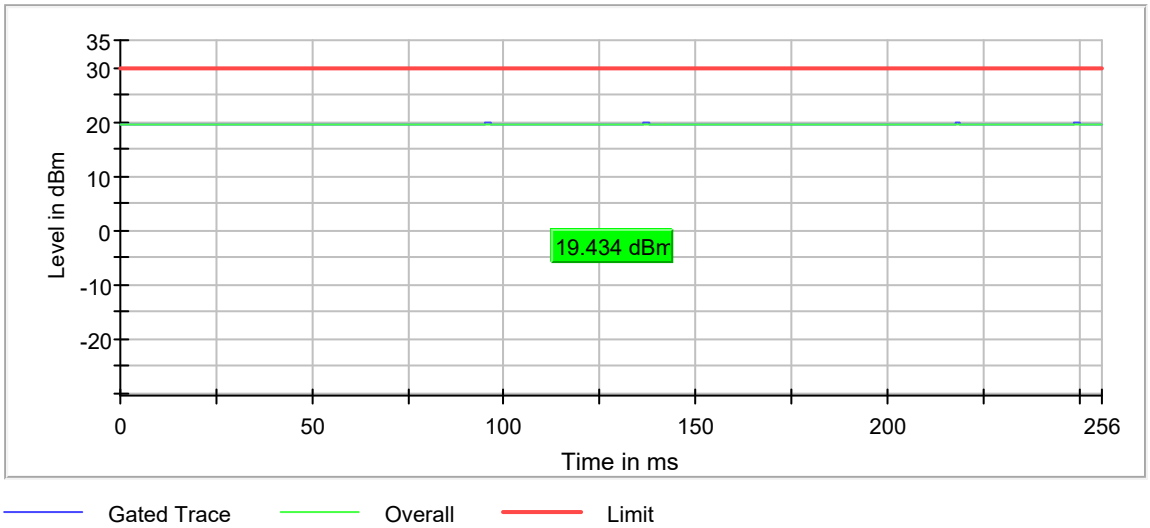
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2478.000000	17.1	30.0	19.1	12.922	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSM2 11ms – 2402MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

RF OUTPUT POWER

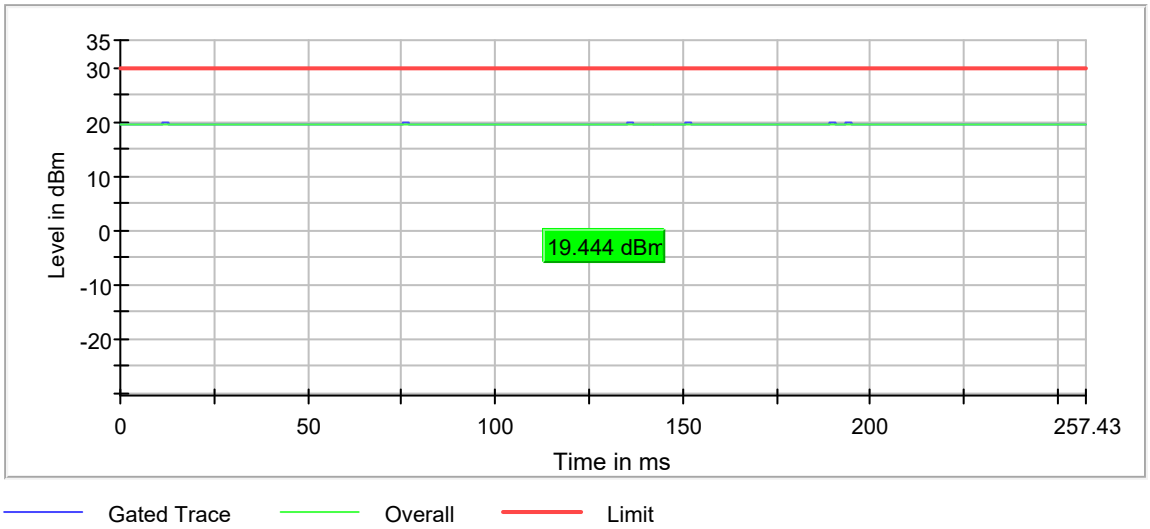
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2402.000000	17.4	30.0	19.4	25.841	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSM2 11ms – 2440MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

RF OUTPUT POWER

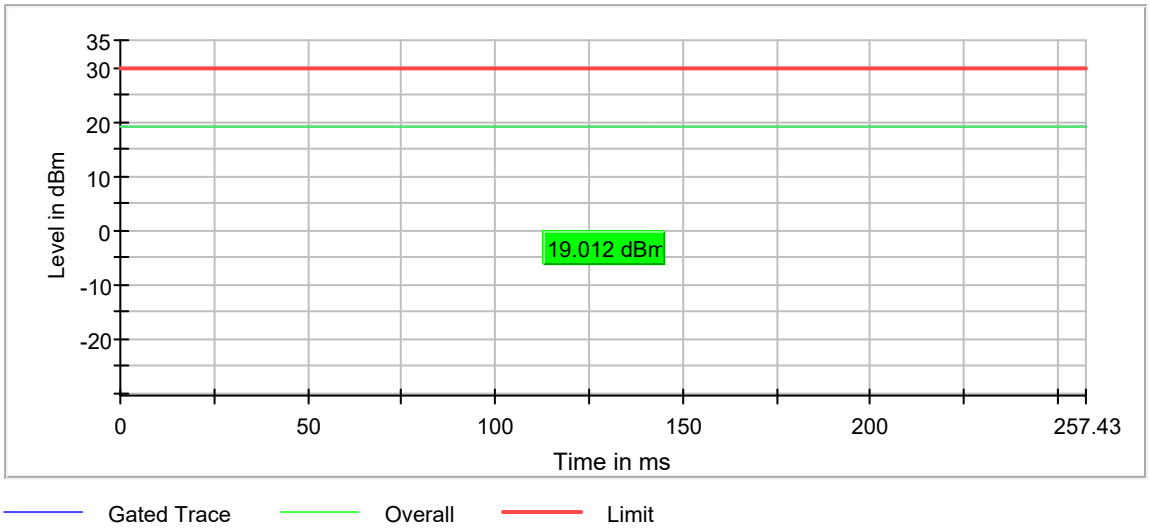
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2440.000000	17.4	30.0	19.4	25.877	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSM2 11ms – 2478MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

RF OUTPUT POWER

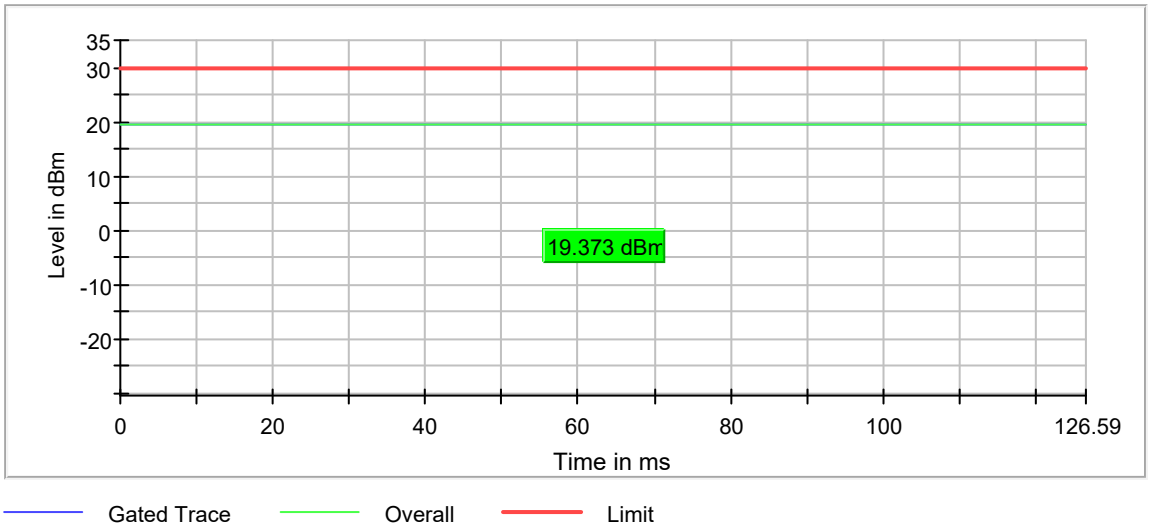
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2478.000000	17.0	30.0	19.0	25.879	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSMX 22ms – 2404MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

RF OUTPUT POWER

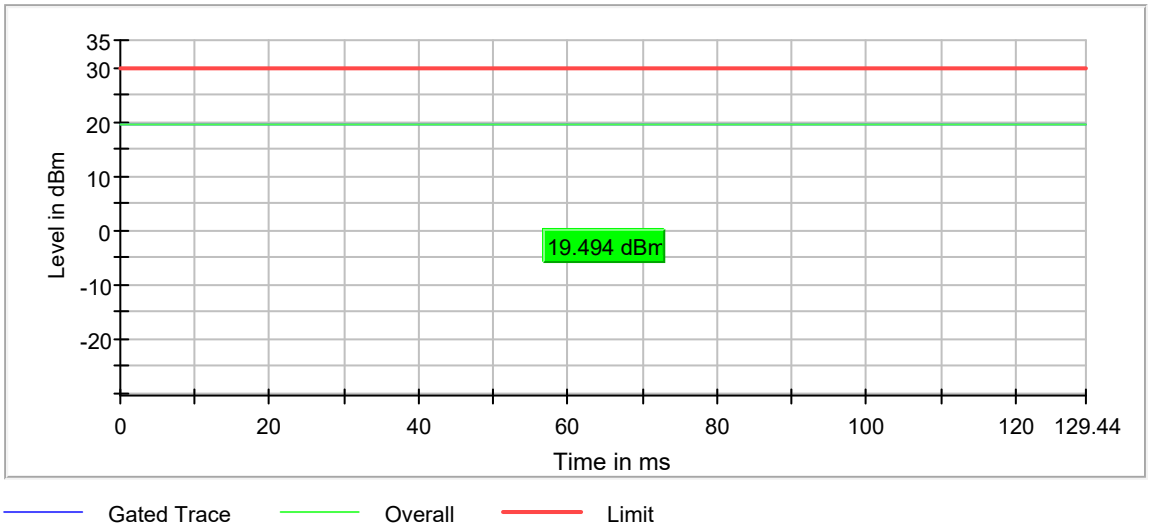
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2404.000000	17.4	30.0	19.4	13.014	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSMX 22ms – 2440MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

RF OUTPUT POWER

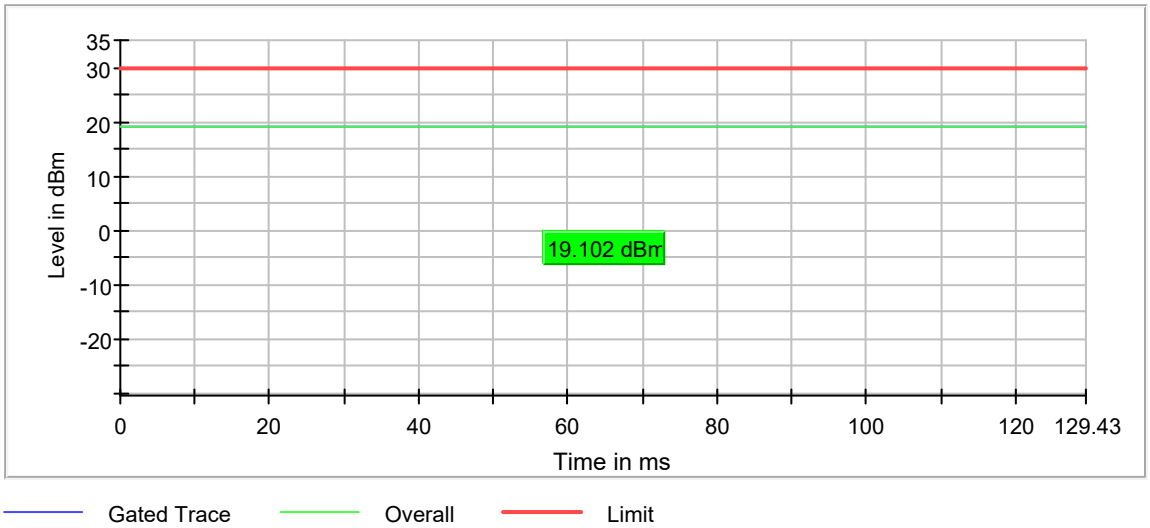
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2440.000000	17.5	30.0	19.5	13.012	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSMX 22ms – 2476MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

RF OUTPUT POWER

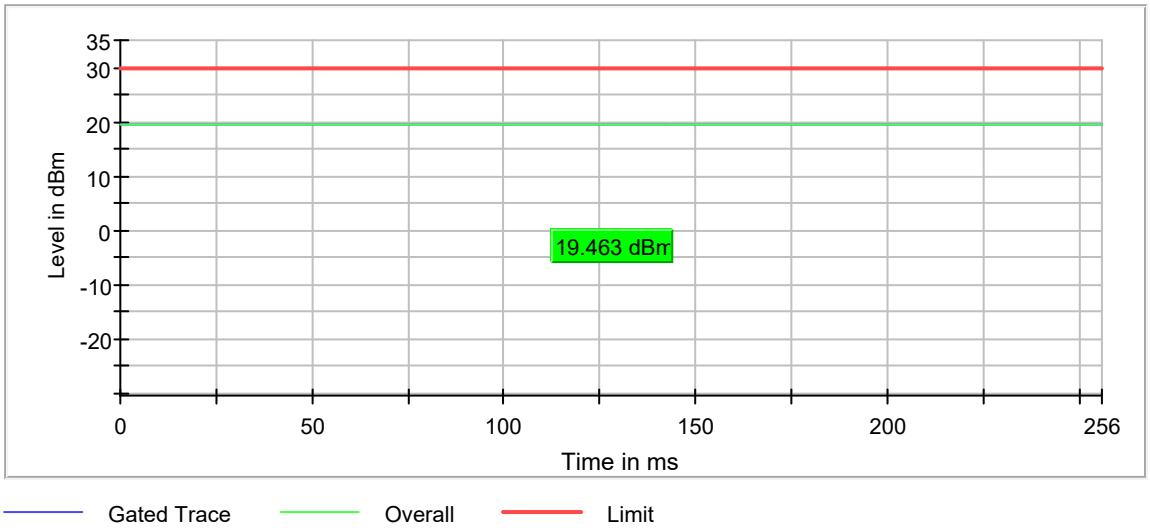
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2476.000000	17.1	30.0	19.1	13.012	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSMX 11ms – 2404MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

RF OUTPUT POWER

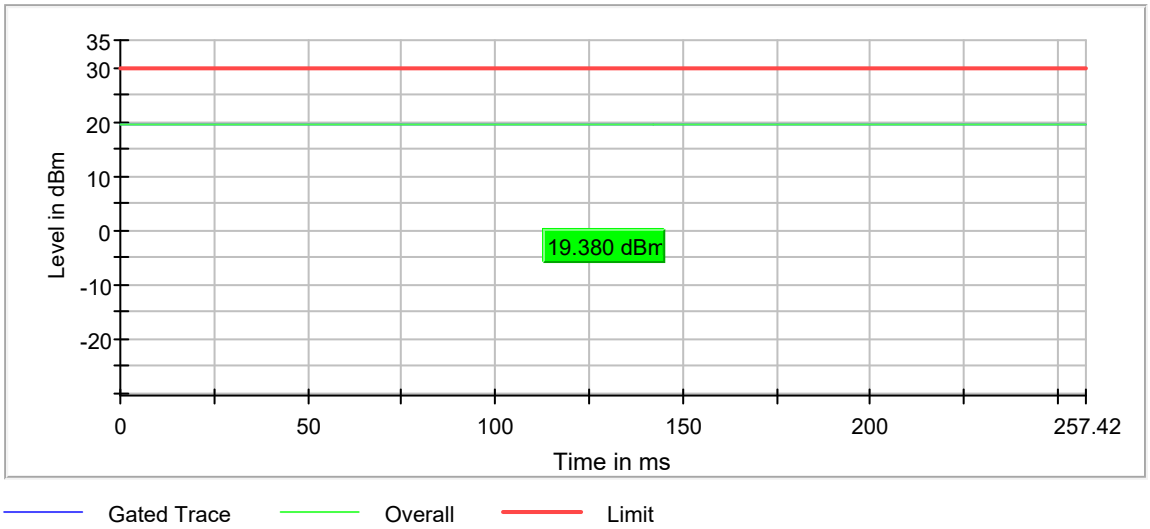
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2404.000000	17.5	30.0	19.5	25.841	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSMX 11ms – 2440MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

RF OUTPUT POWER

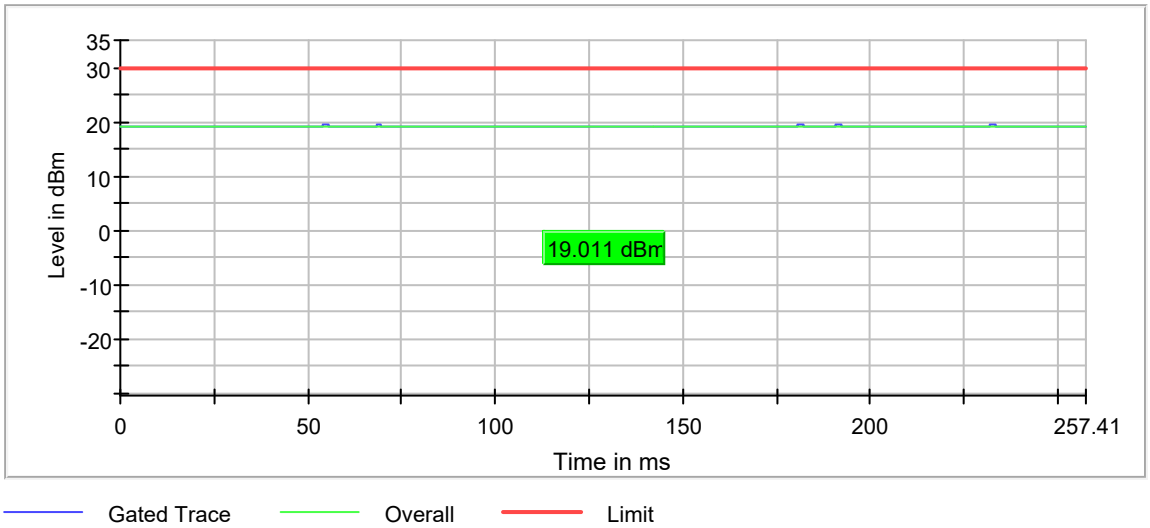
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2440.000000	17.4	30.0	19.4	25.878	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSMX 11ms – 2476MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

RF OUTPUT POWER

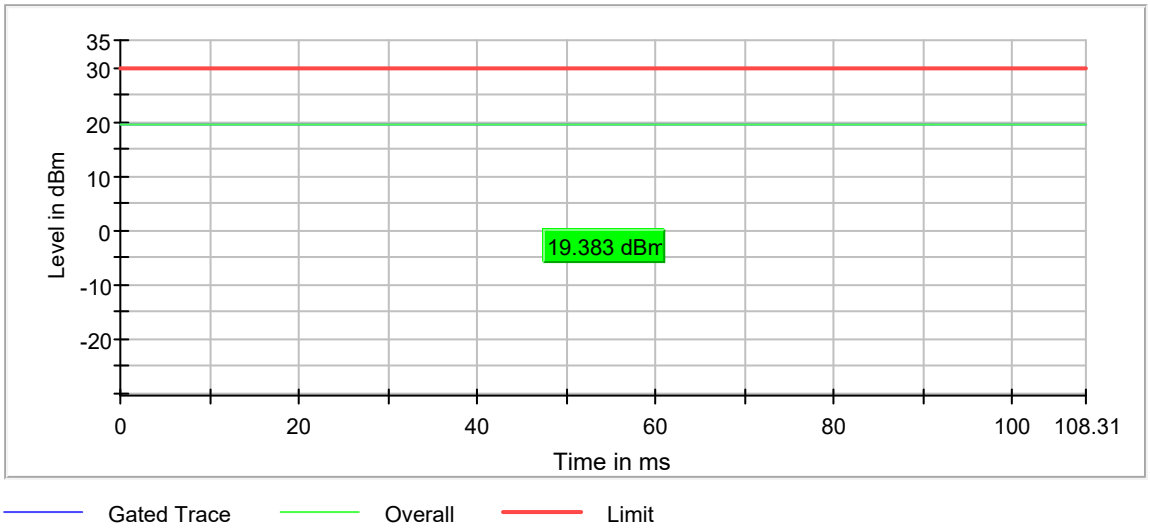
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2476.000000	17.0	30.0	19.0	25.878	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSM2 16.5ms – 2402MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

RF OUTPUT POWER

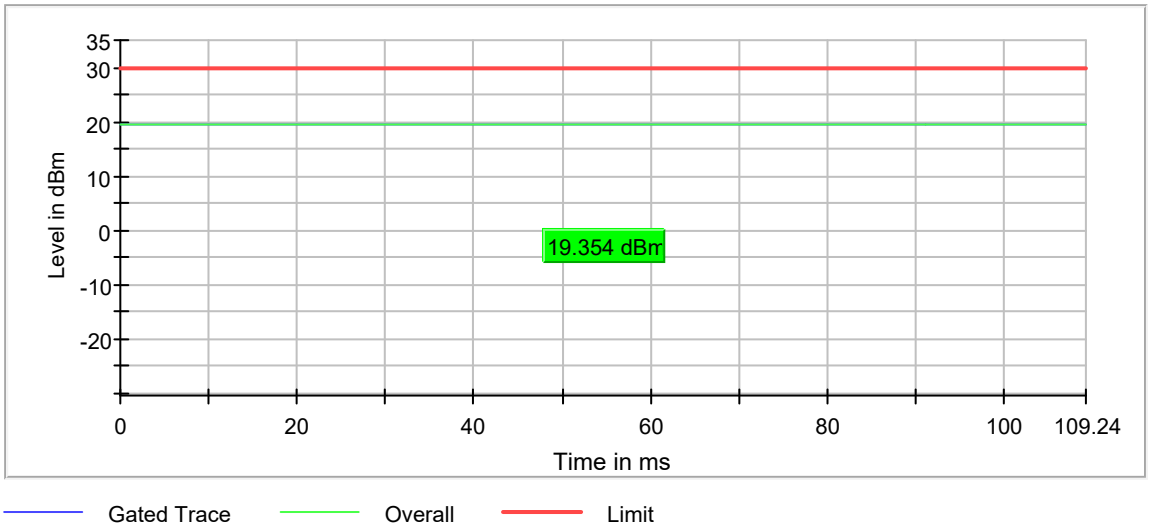
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2402.000000	17.4	30.0	19.4	11.068	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSM2 16.5ms – 2440MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

RF OUTPUT POWER

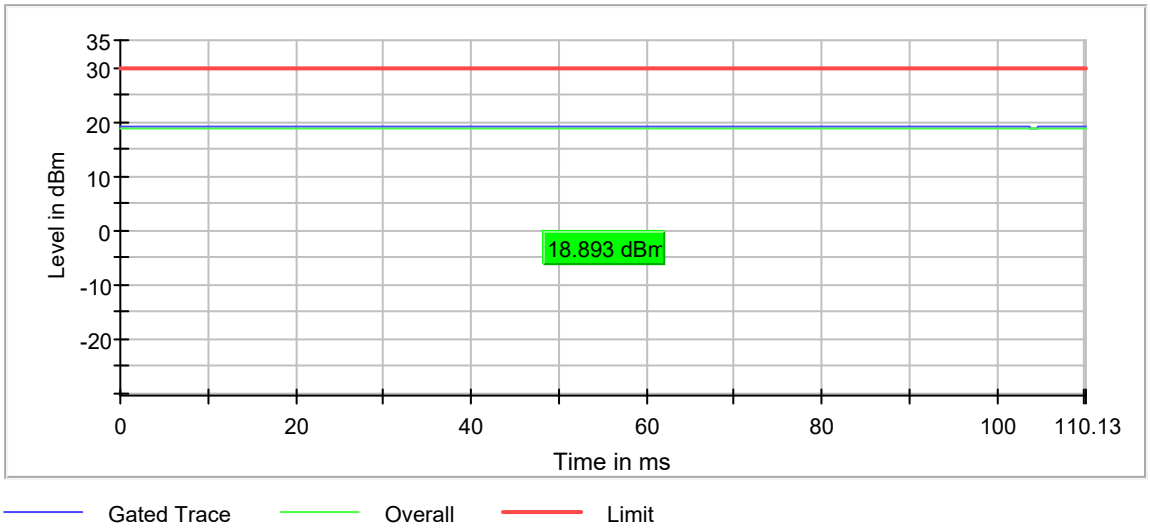
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2440.000000	17.4	30.0	19.4	11.022	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSM2 16.5ms – 2478MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

RF OUTPUT POWER

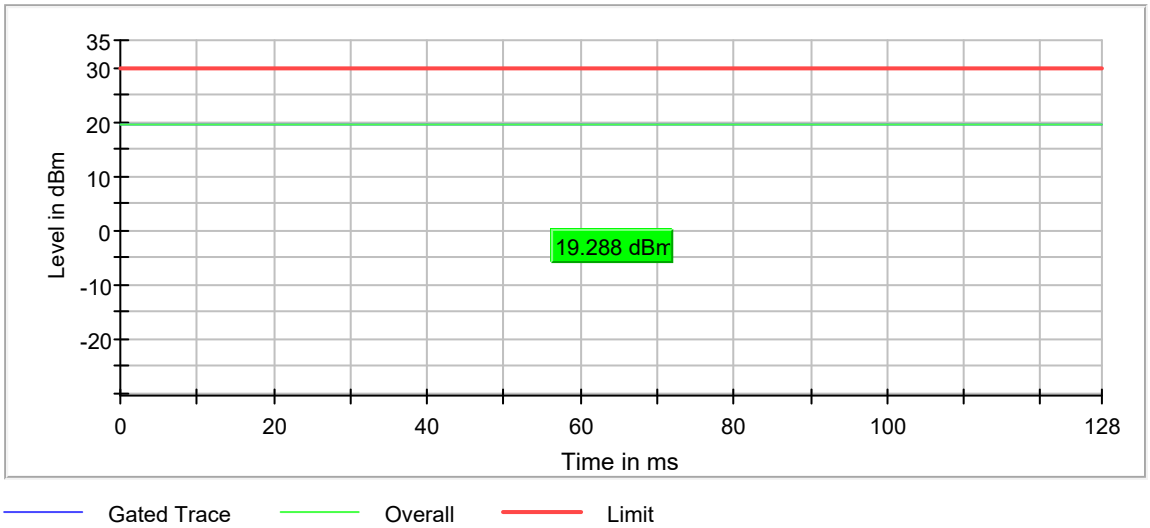
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2478.000000	16.9	30.0	18.9	11.067	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSMR 11ms – 2405MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

RF OUTPUT POWER

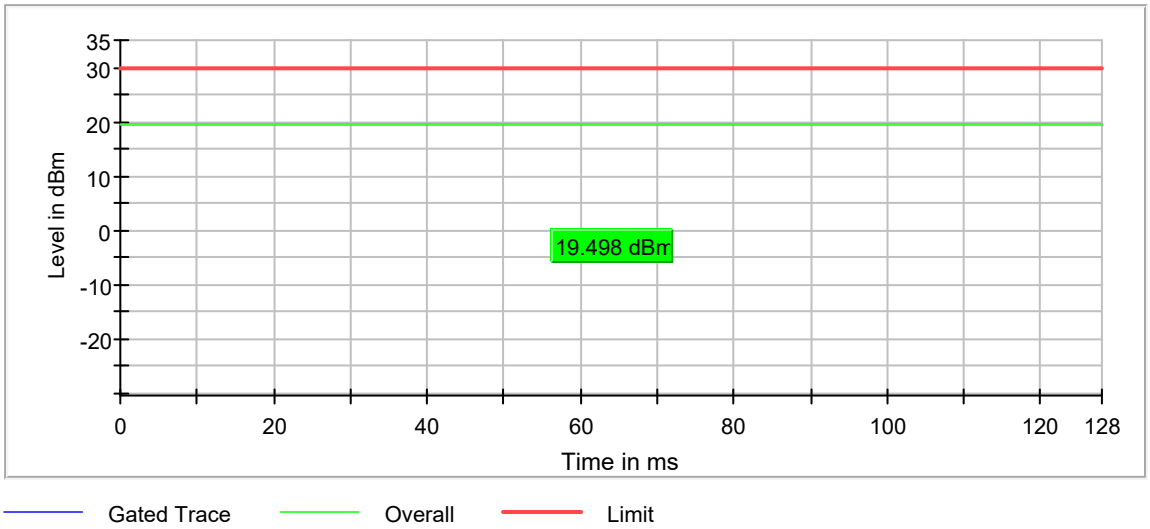
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2405.000000	17.3	30.0	19.3	12.920	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSMR 11ms – 2440MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

RF OUTPUT POWER

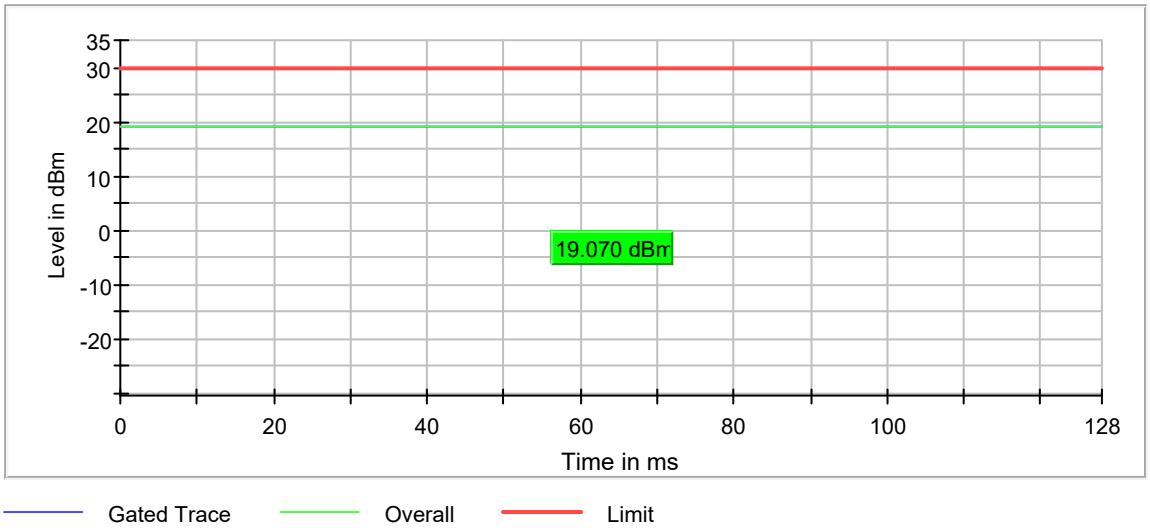
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2440.000000	17.5	30.0	19.5	12.921	PASS

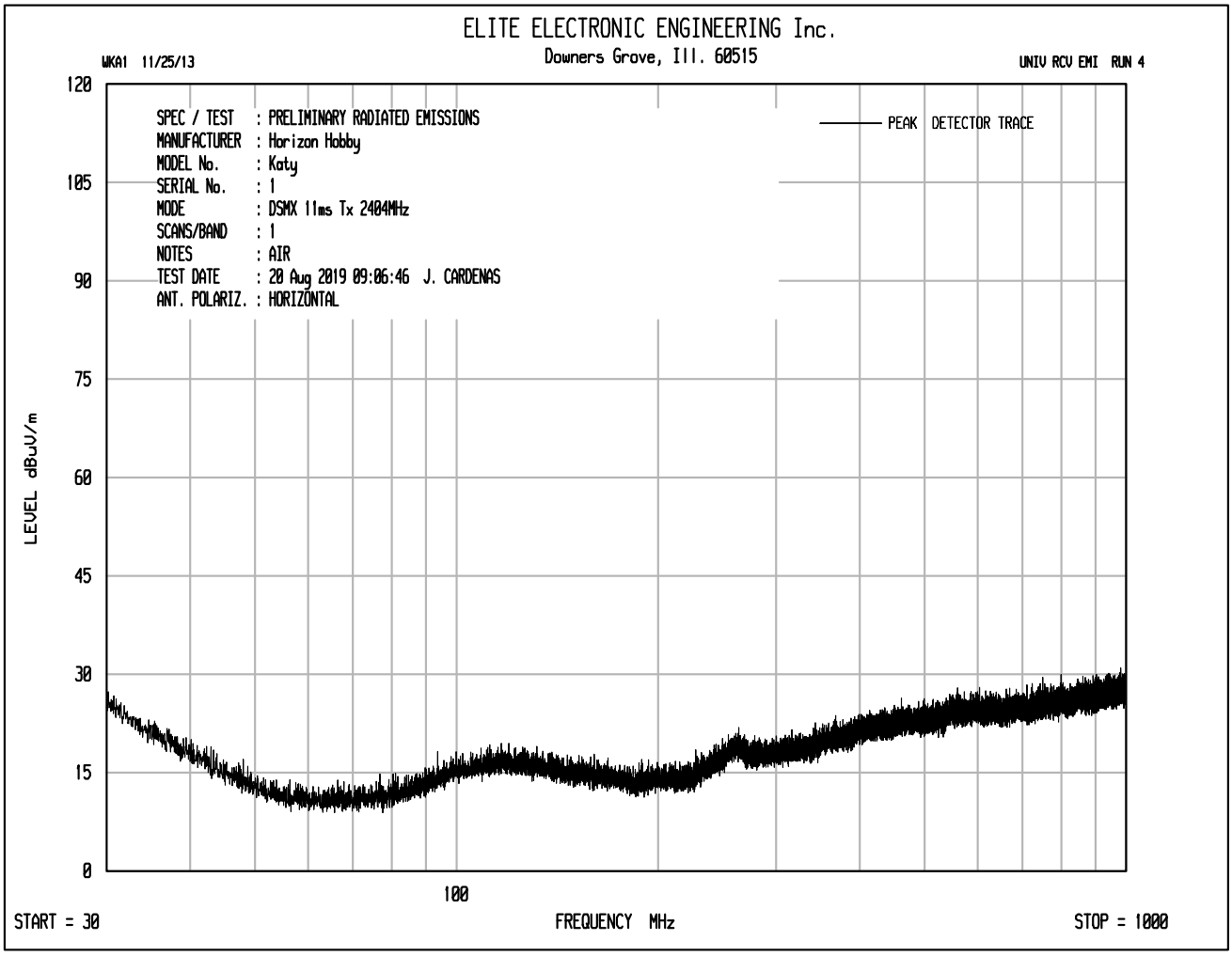


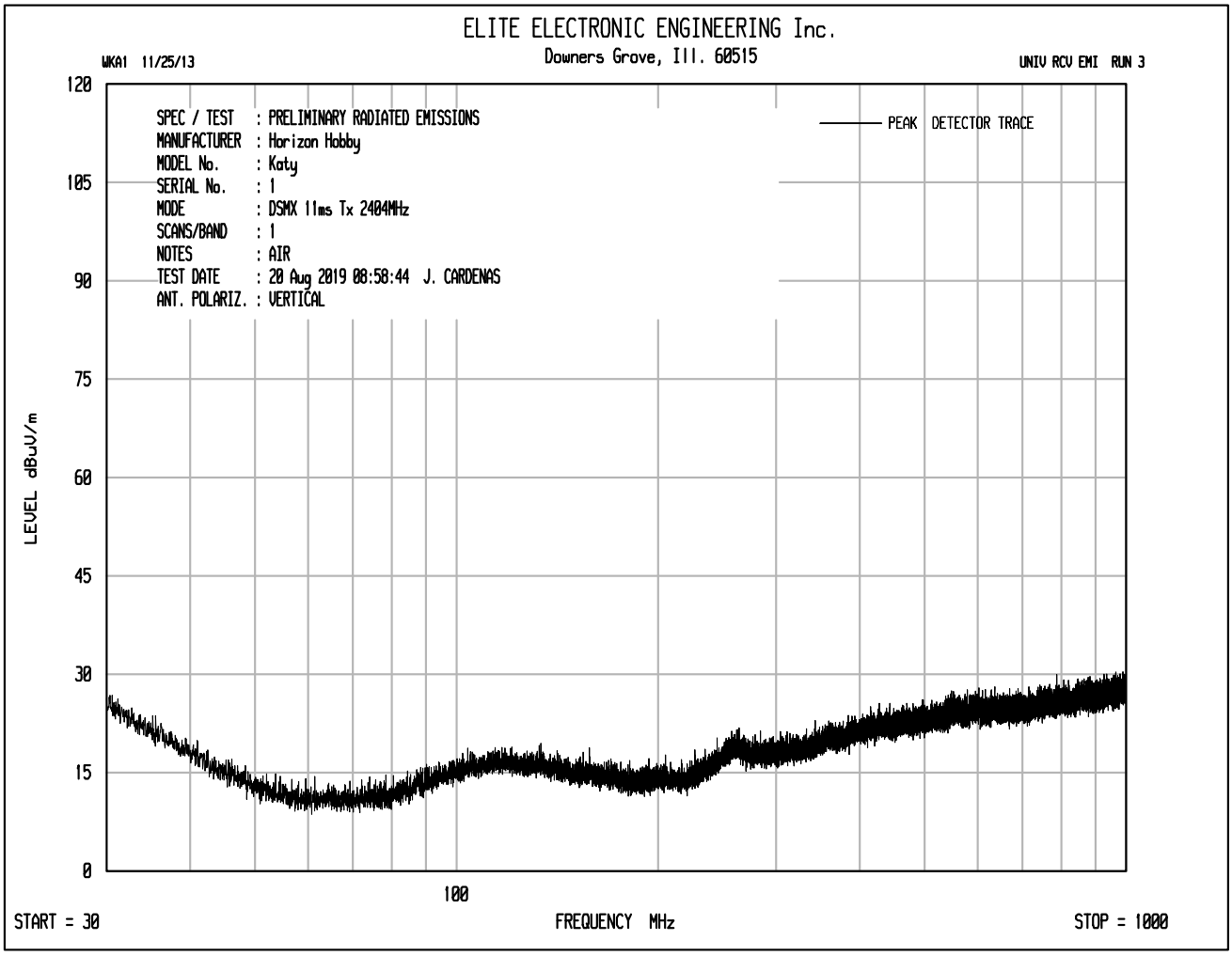
DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	RF Output Power - Conducted
MODE	DSMR 11ms – 2478MHz
DATE TESTED	August 19, 2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

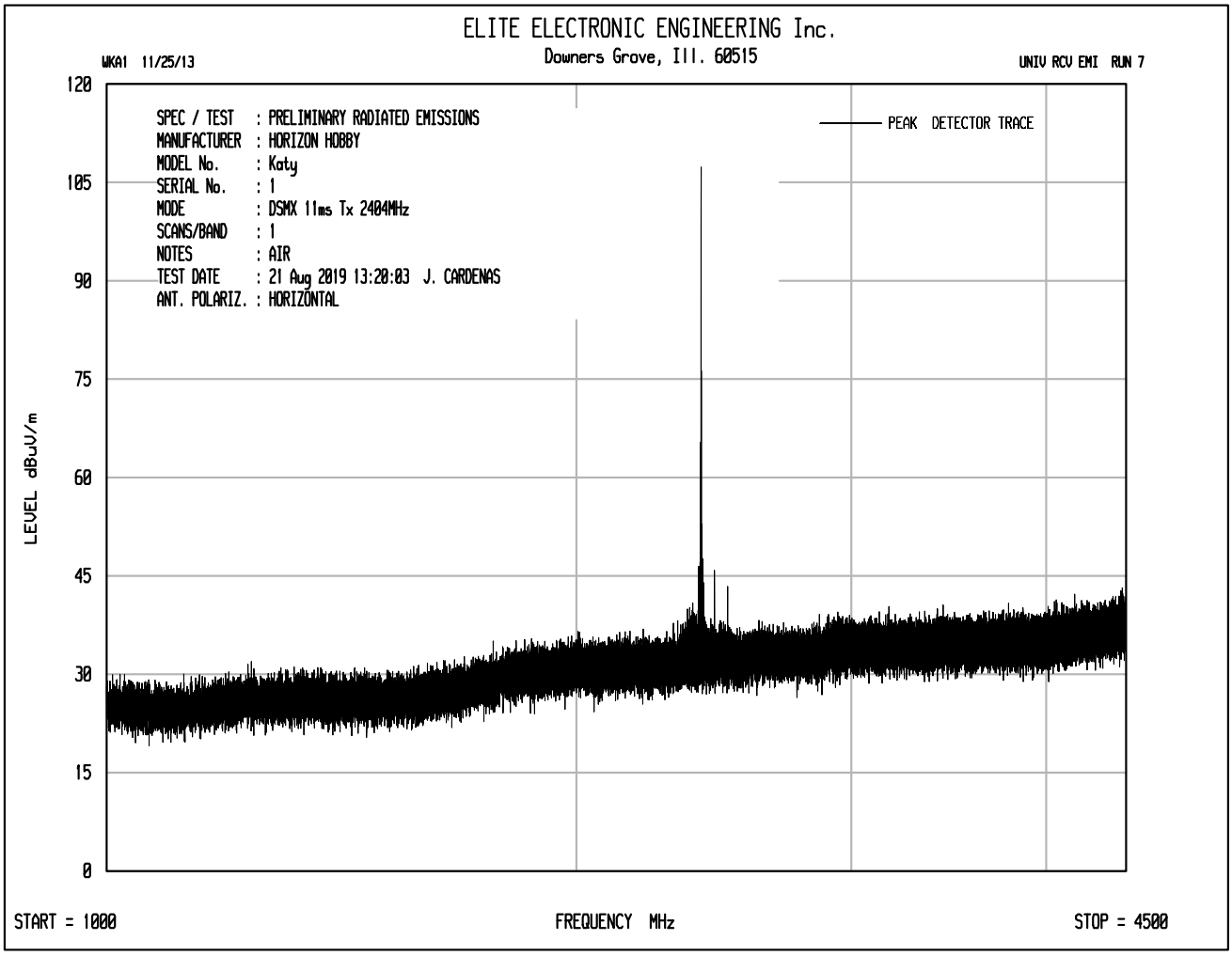
RF OUTPUT POWER

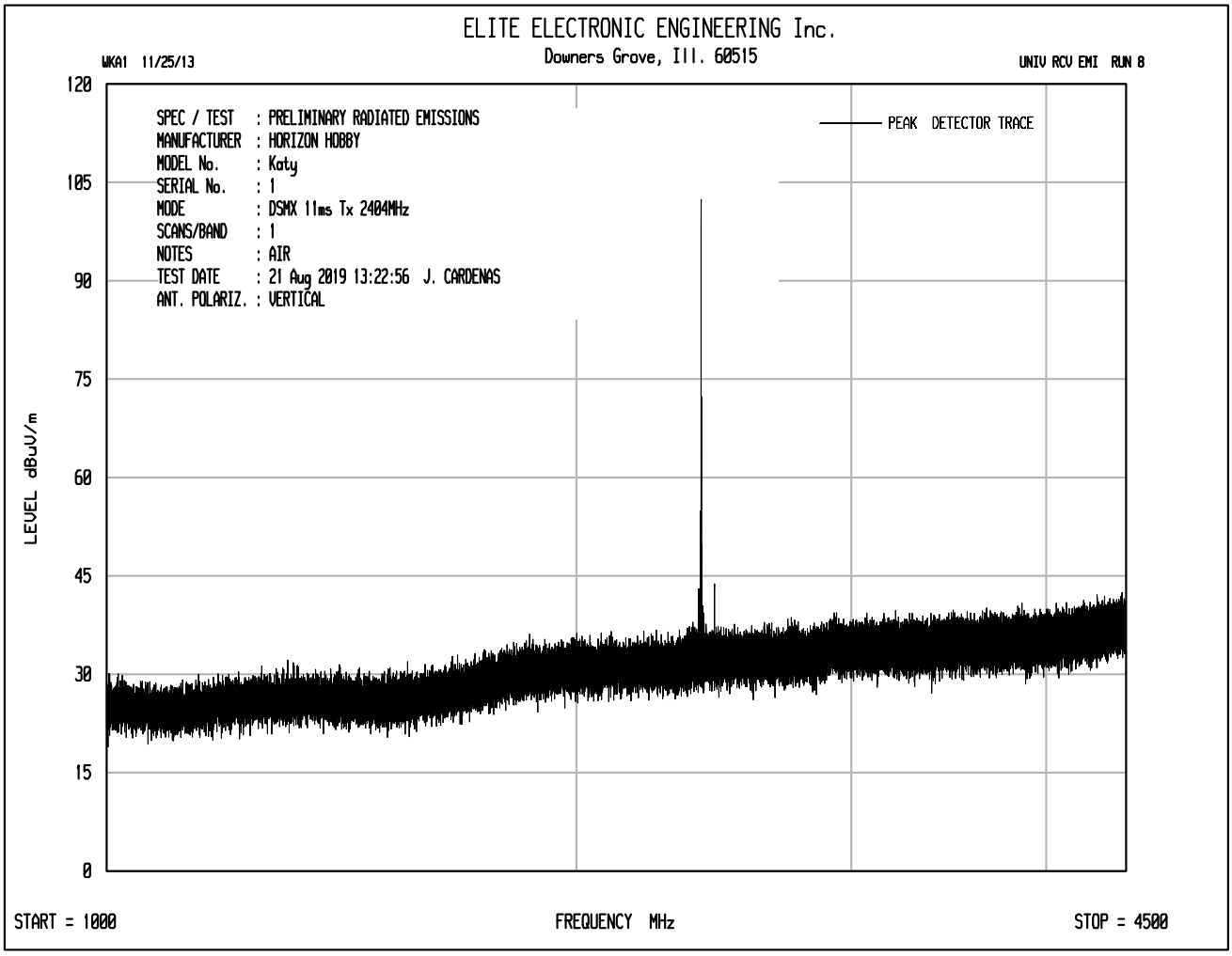
Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	Duty Cycle (%)	Result
2478.000000	17.1	30.0	19.1	12.921	PASS

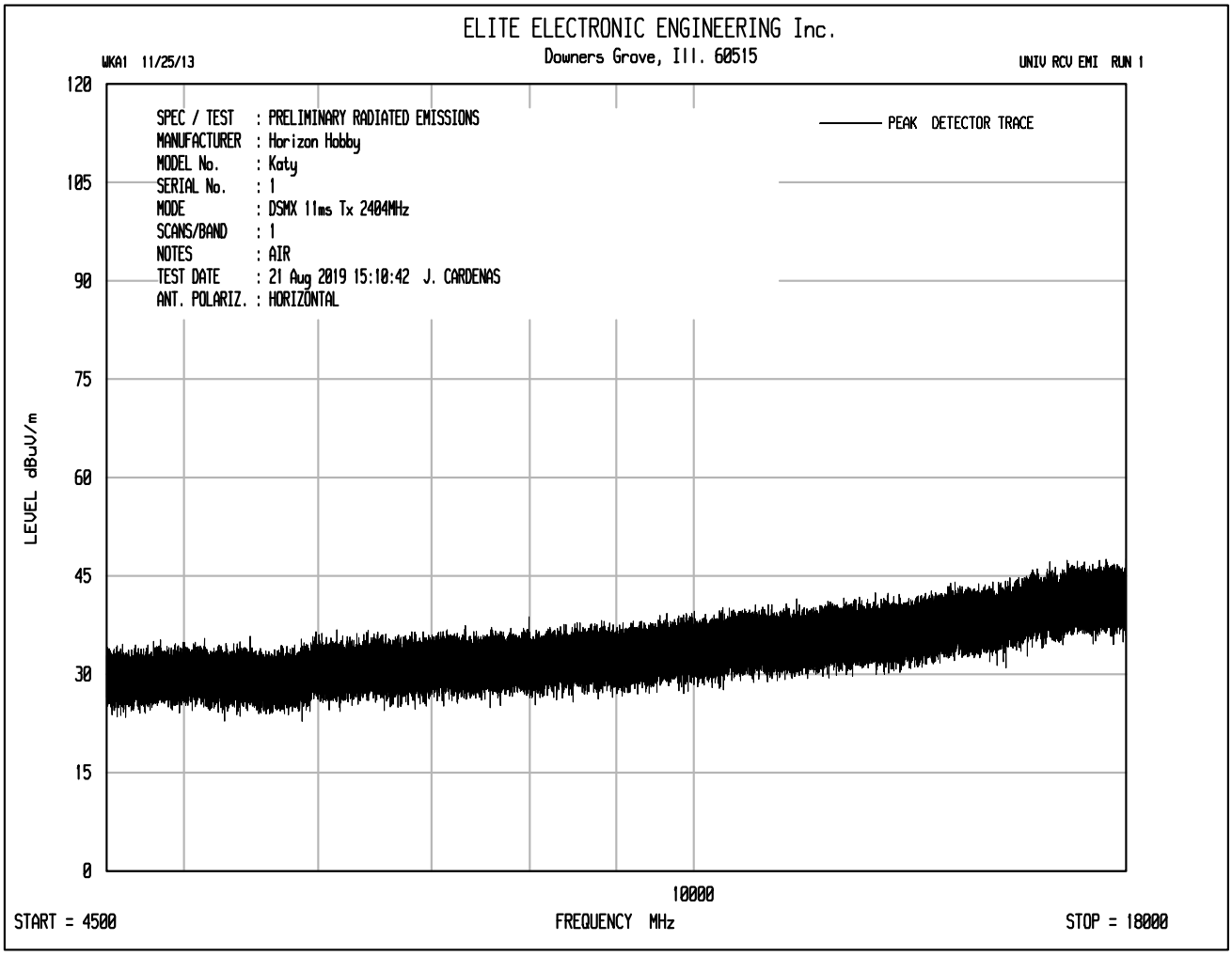


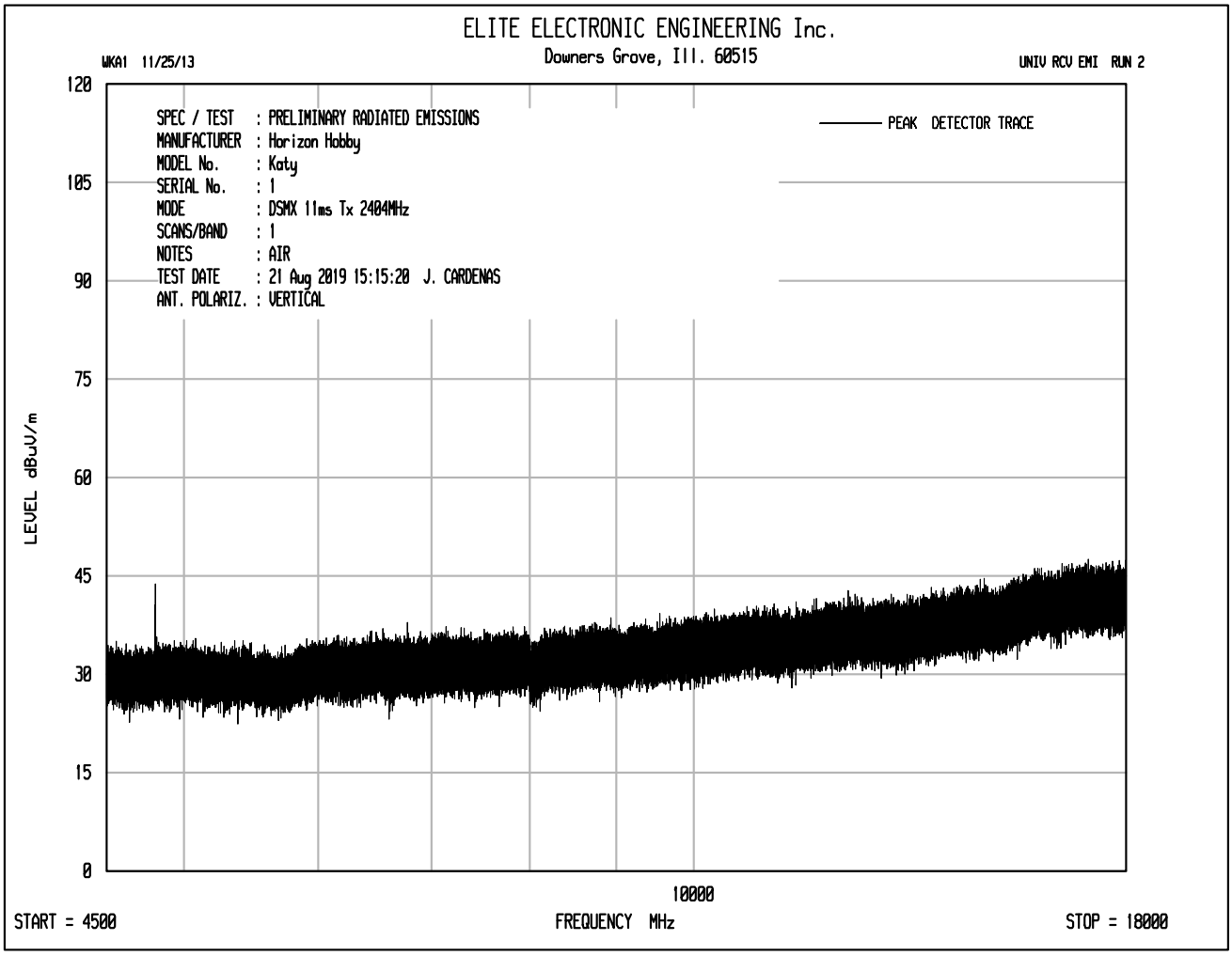

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 4
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2404MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 20 Aug 2019 09:06:46 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

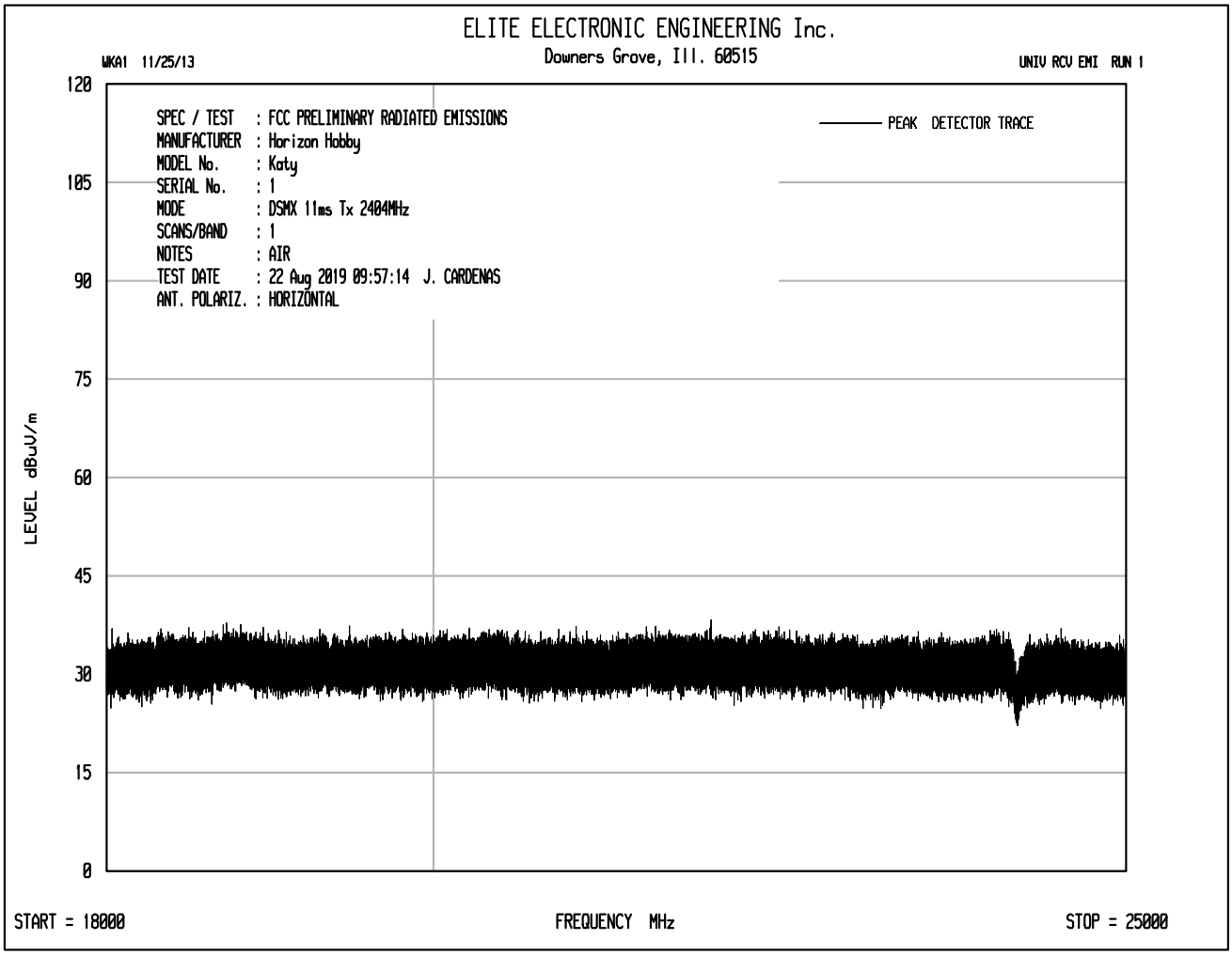

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 3
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2404MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 20 Aug 2019 08:58:44 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

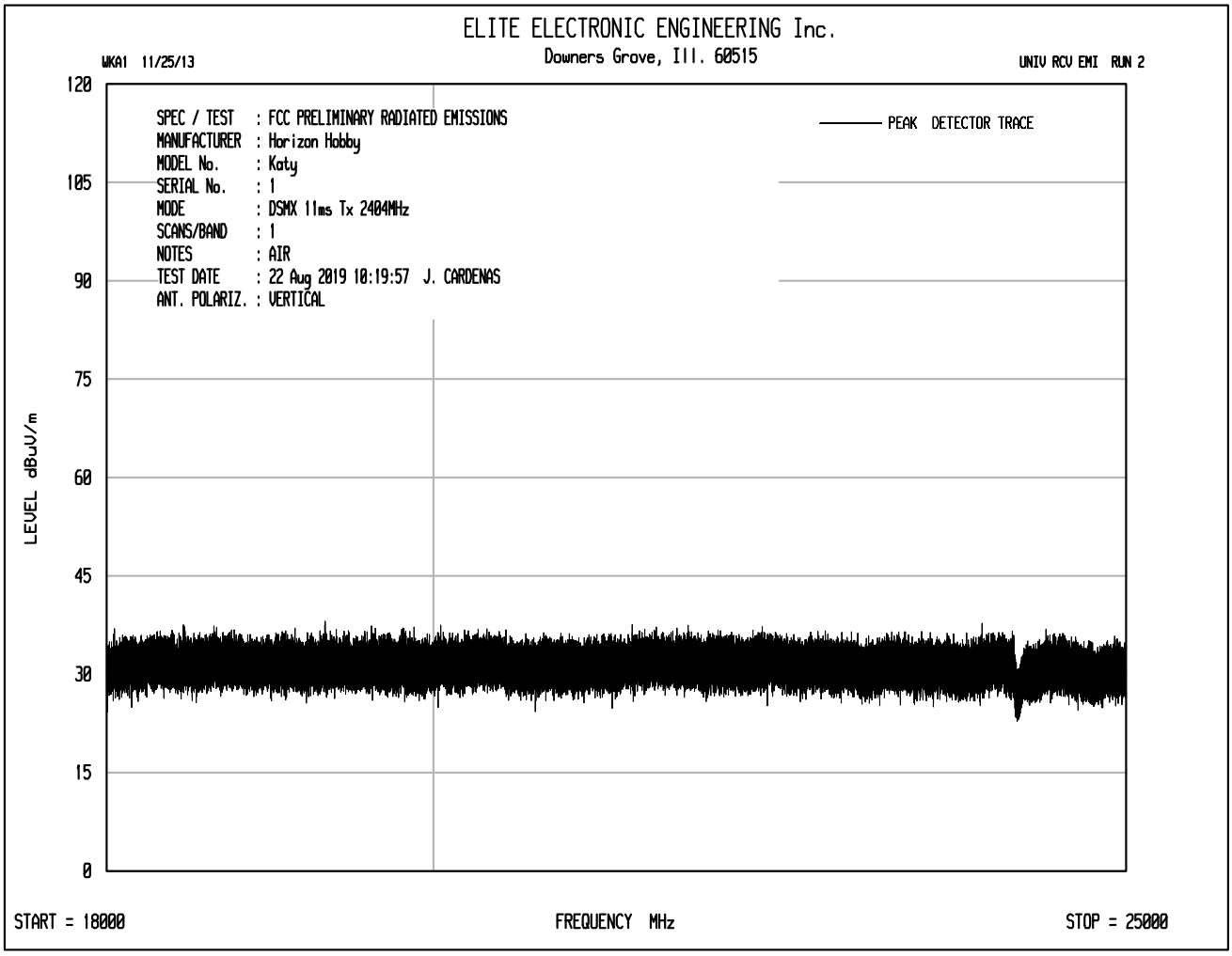

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 7
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HORIZON HOBBY
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2404MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 21 Aug 2019 13:20:03 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

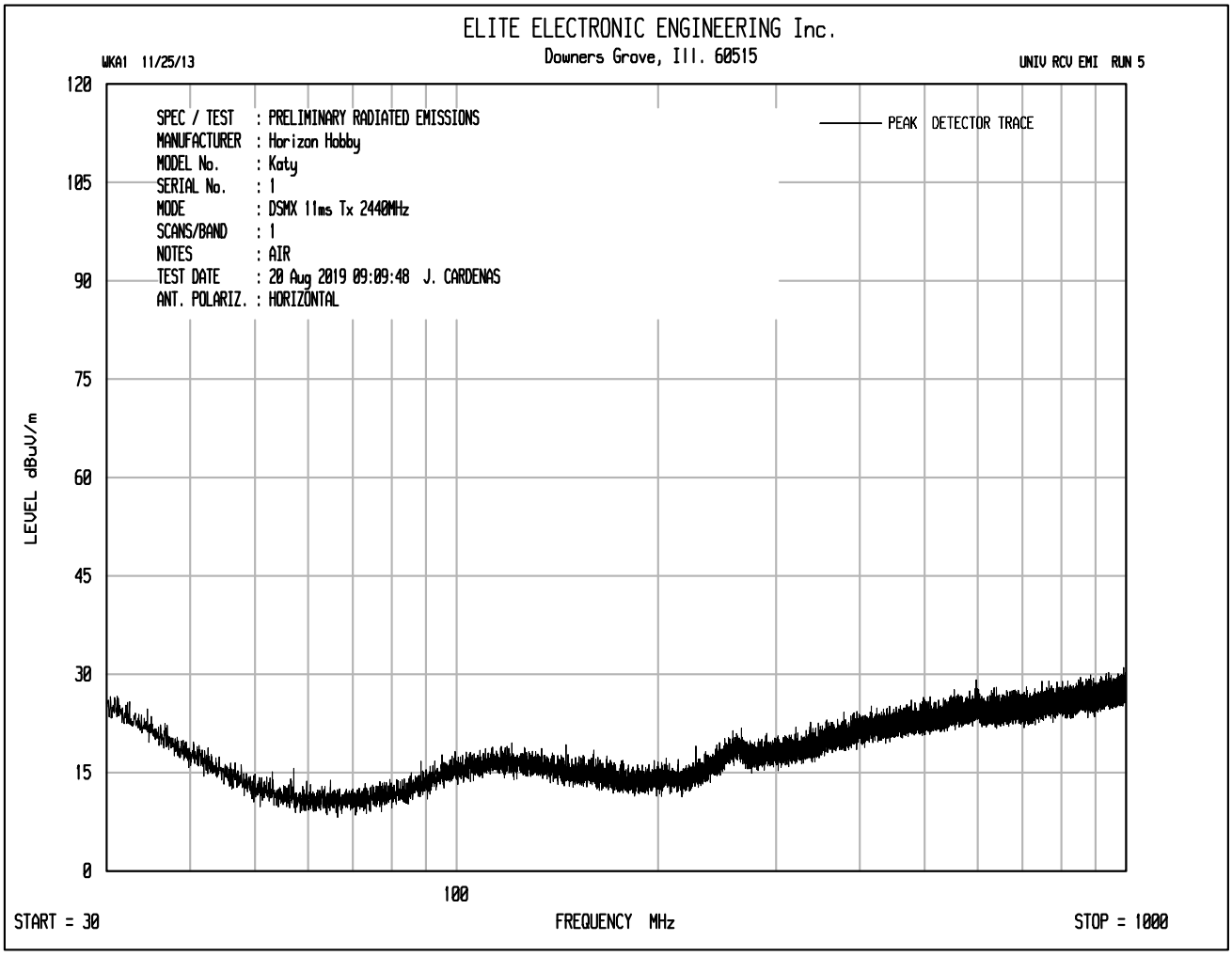

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 8
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HORIZON HOBBY
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2404MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 21 Aug 2019 13:22:56 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

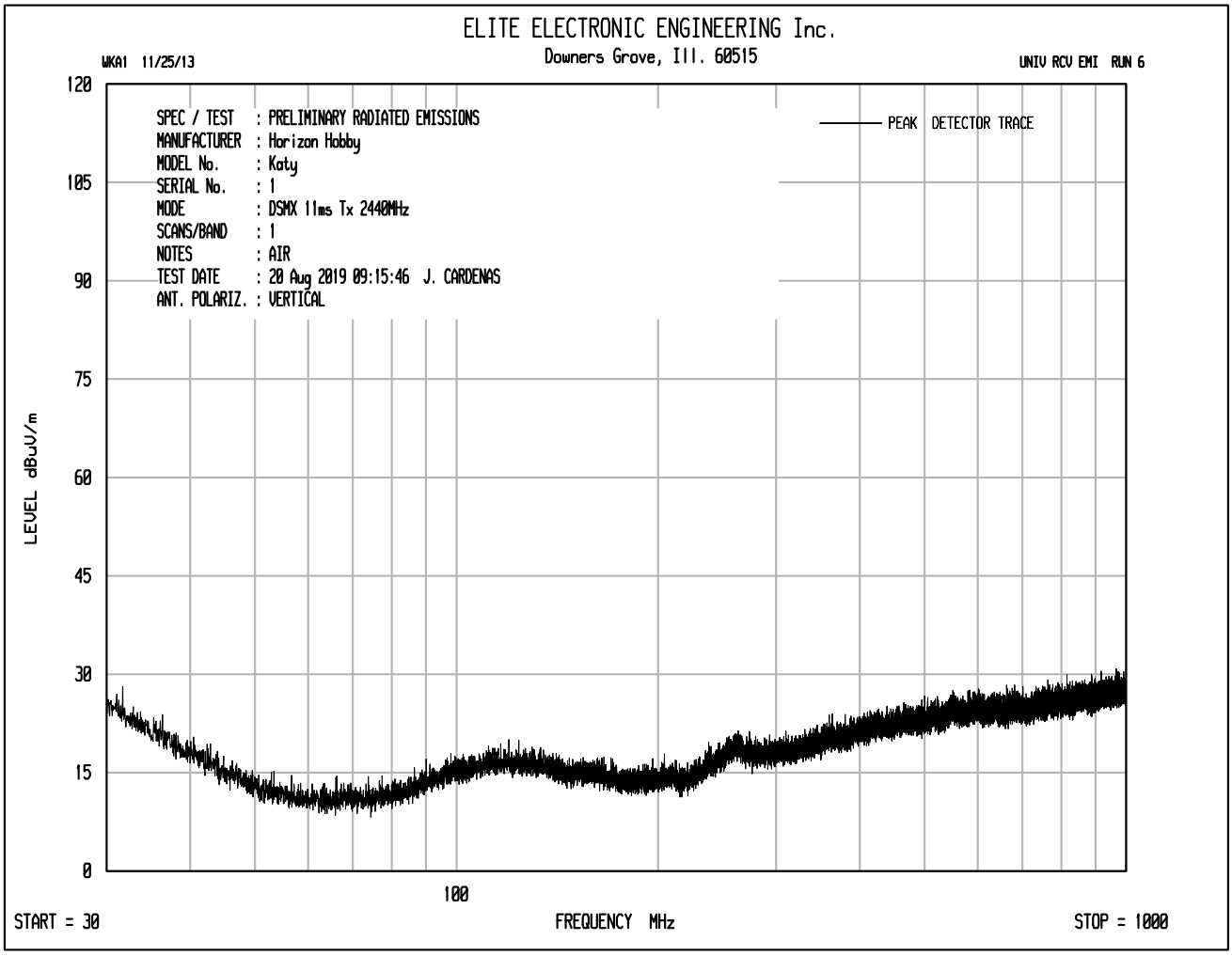

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 1
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2404MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 21 Aug 2019 15:10:42 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

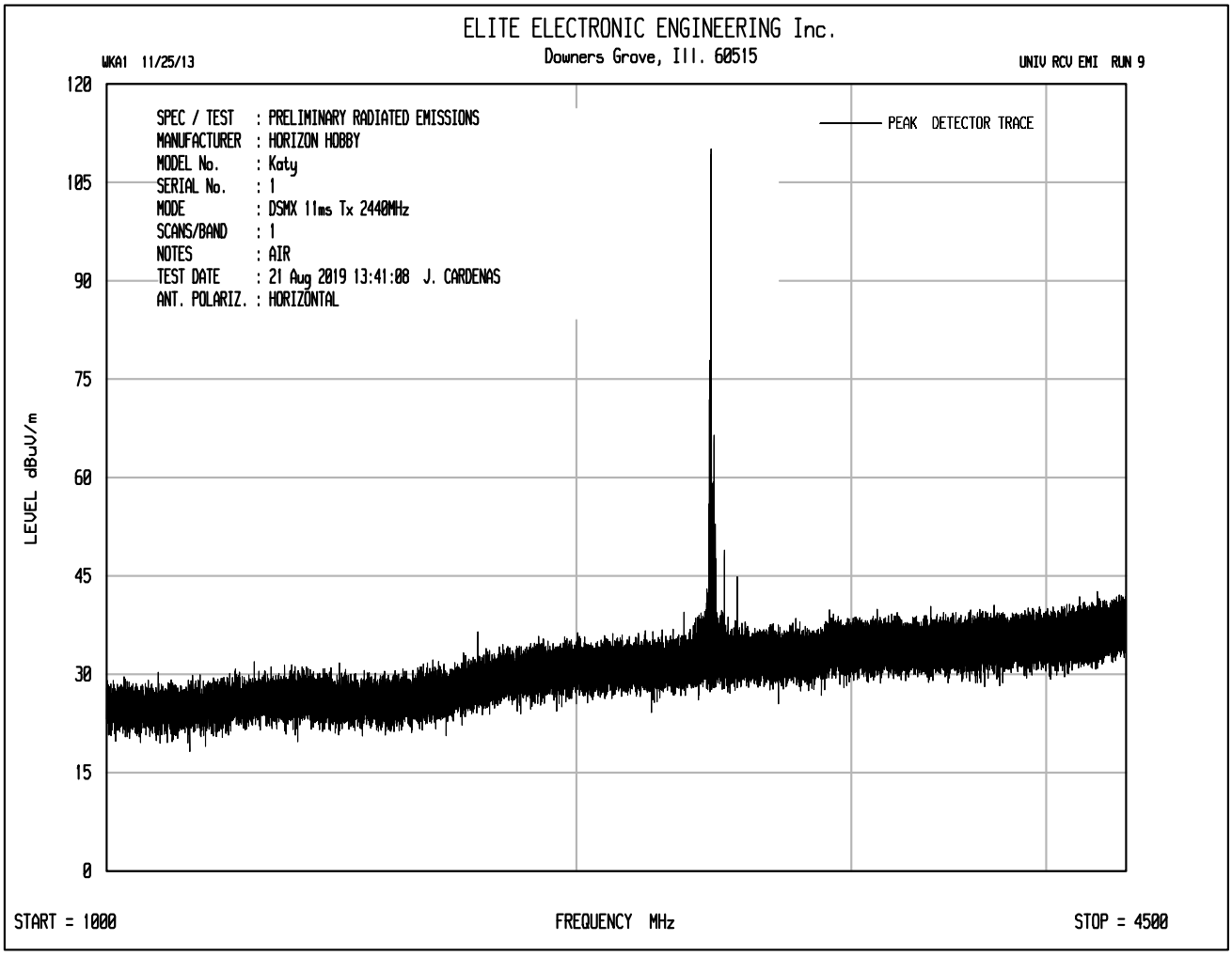

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 2
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2404MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 21 Aug 2019 15:15:20 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

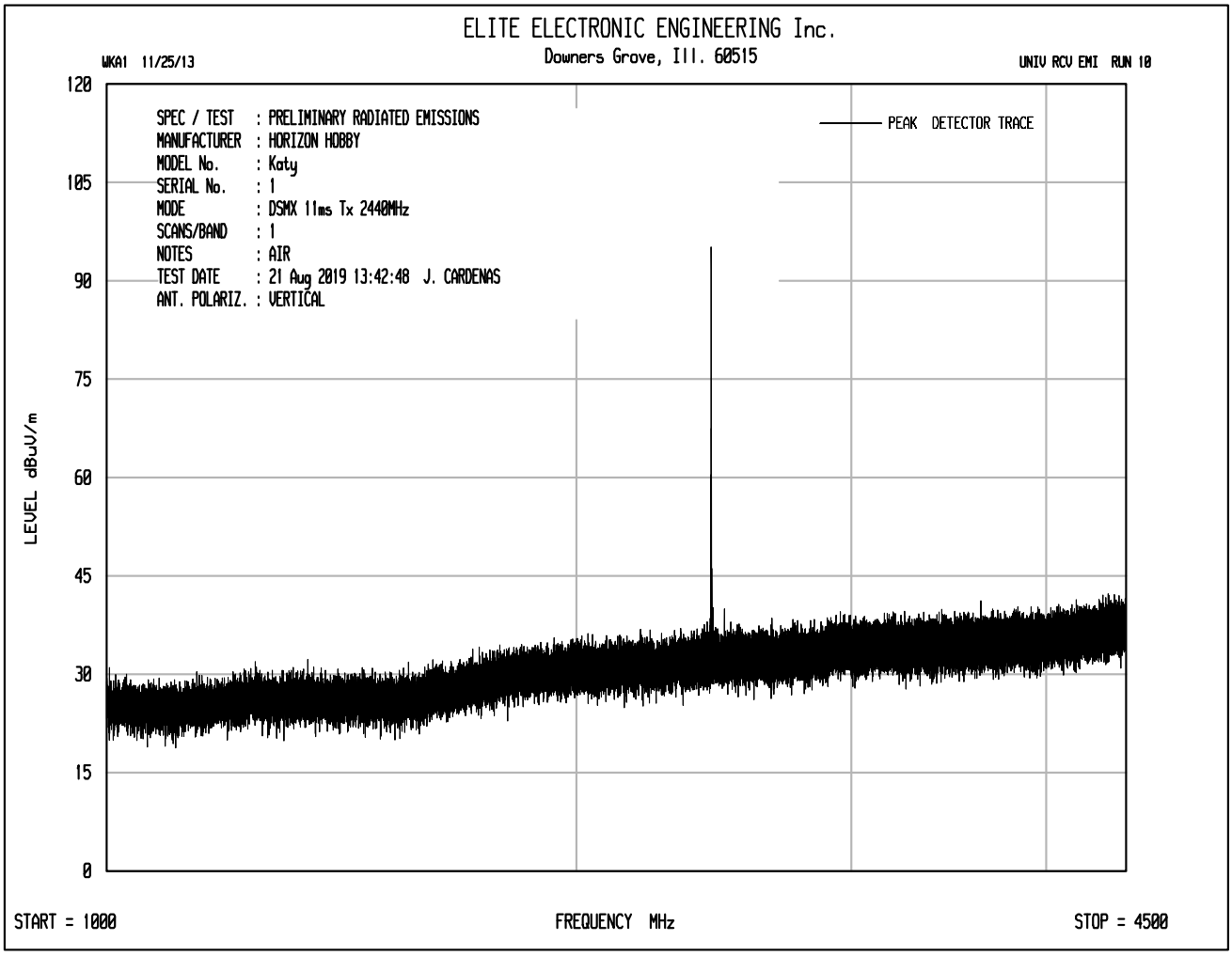

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 1
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2404MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 22 Aug 2019 09:57:14 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

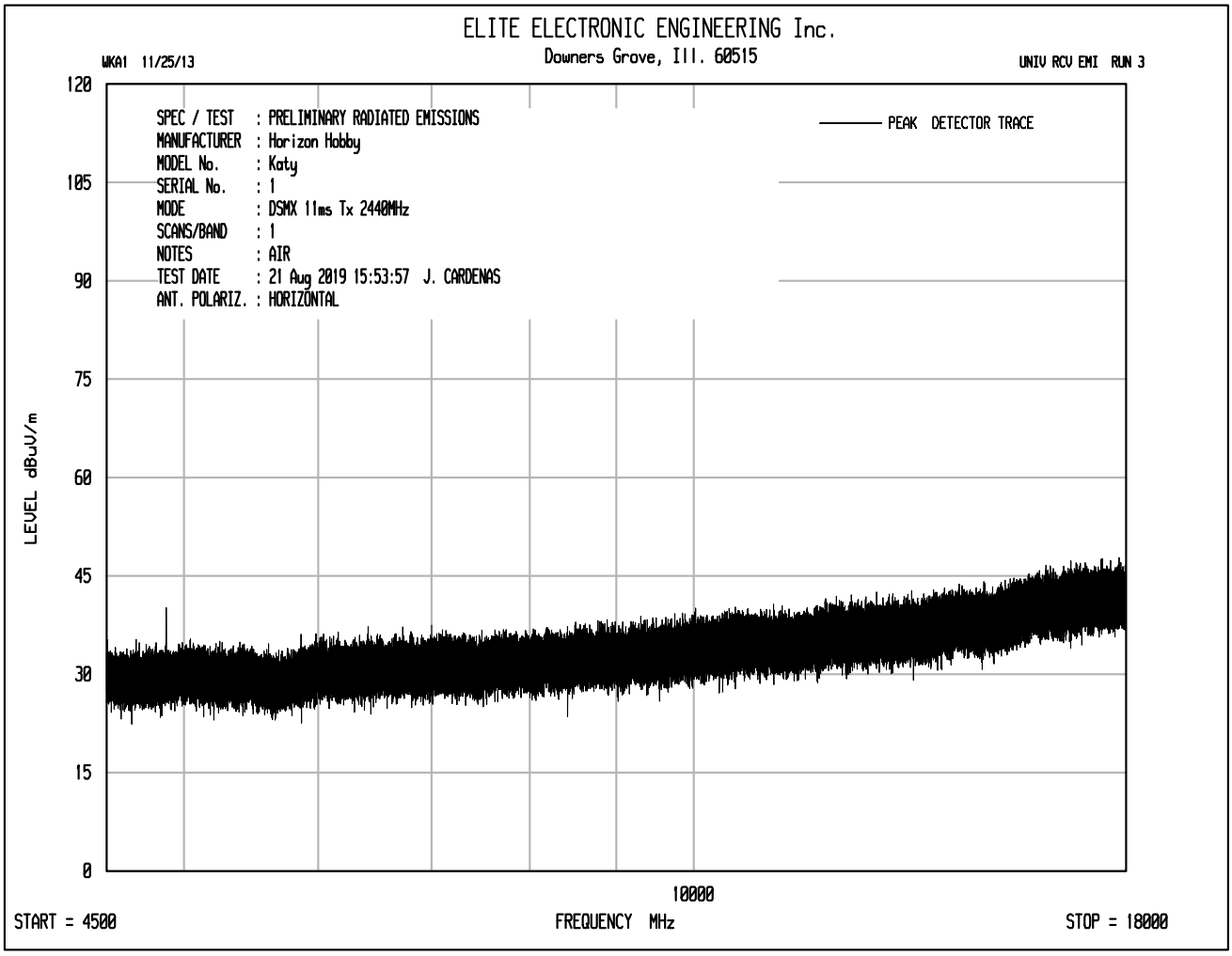

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 2
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2404MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 22 Aug 2019 10:19:57 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

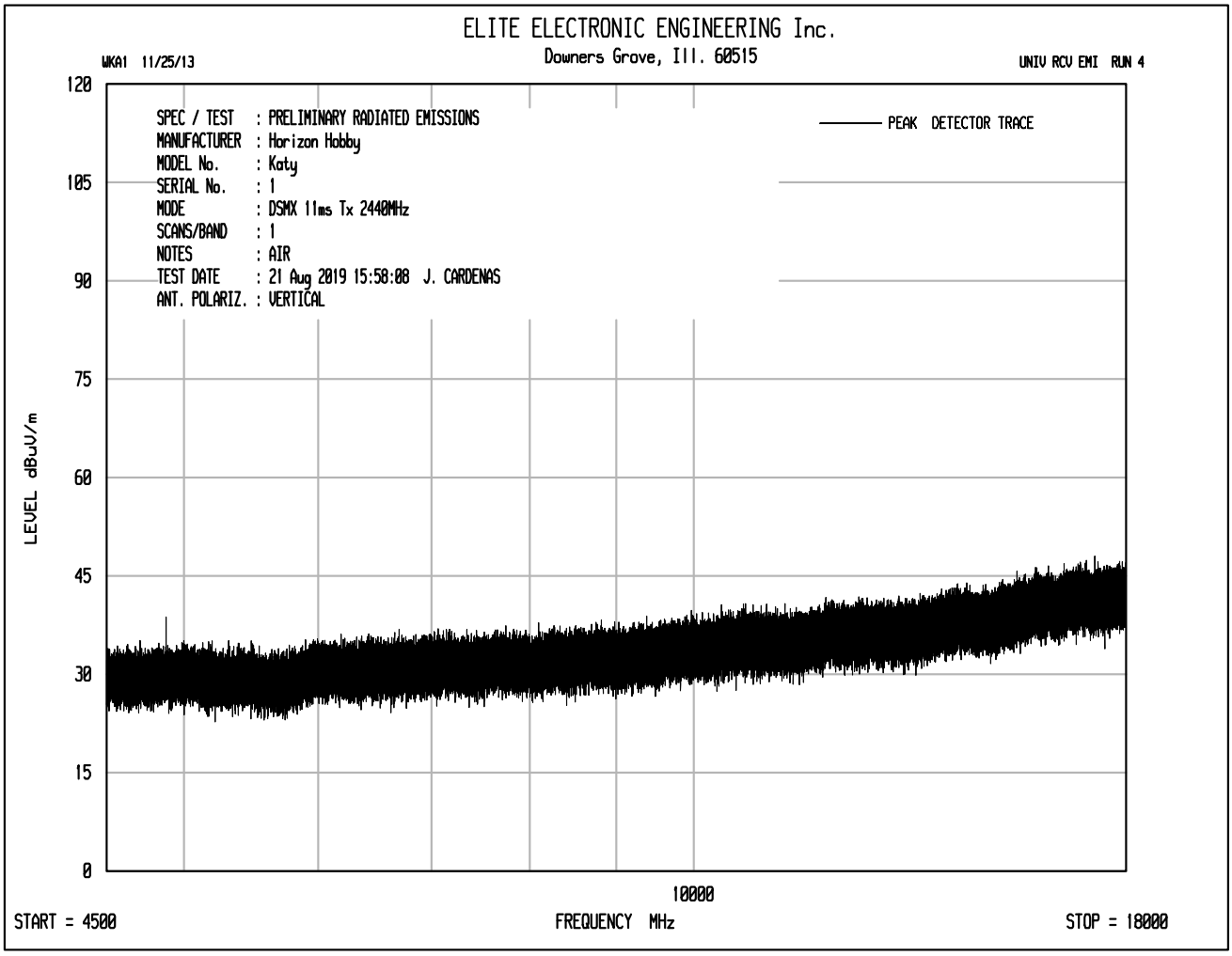

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 5
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 20 Aug 2019 09:09:48 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

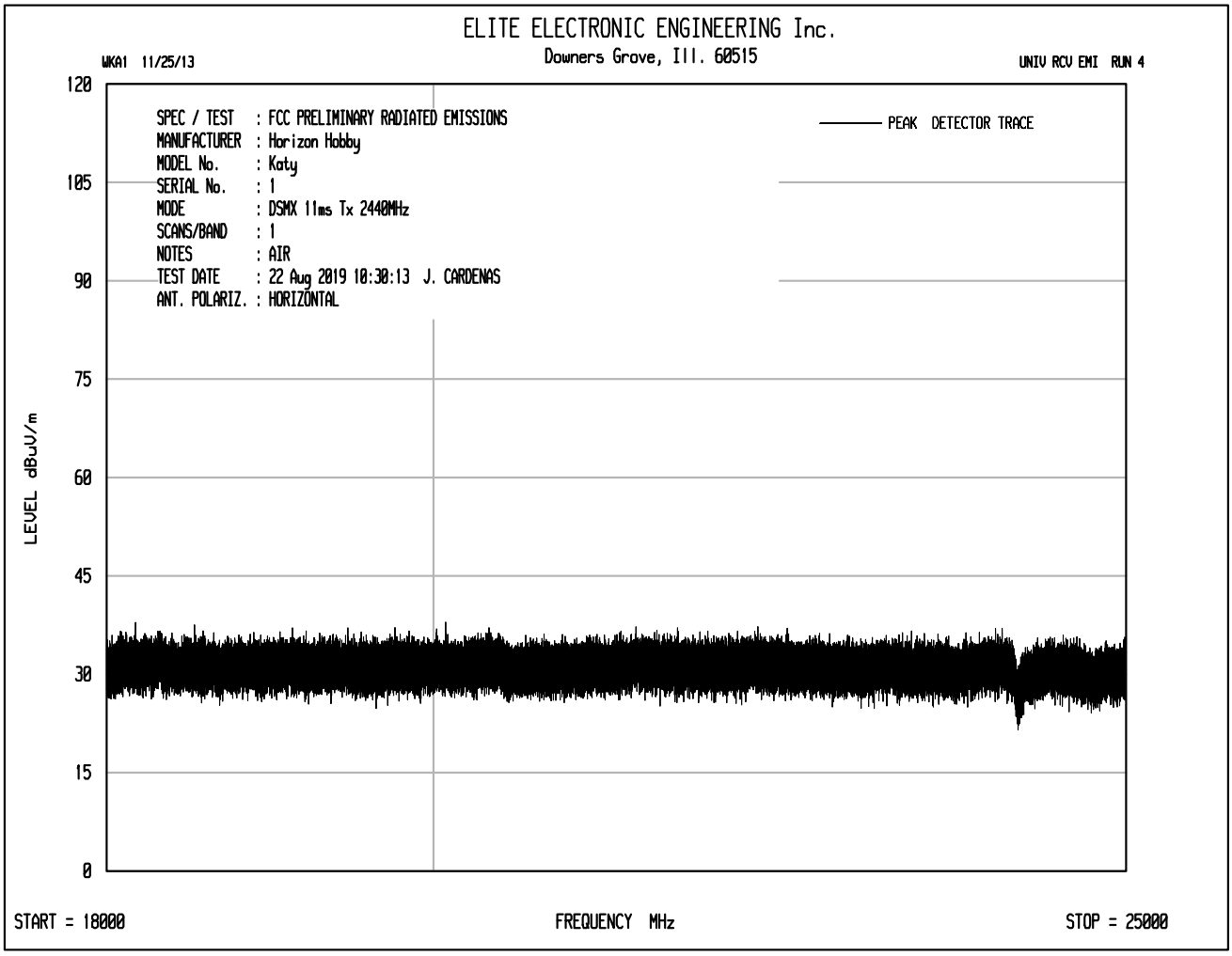

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 6
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 20 Aug 2019 09:15:46 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

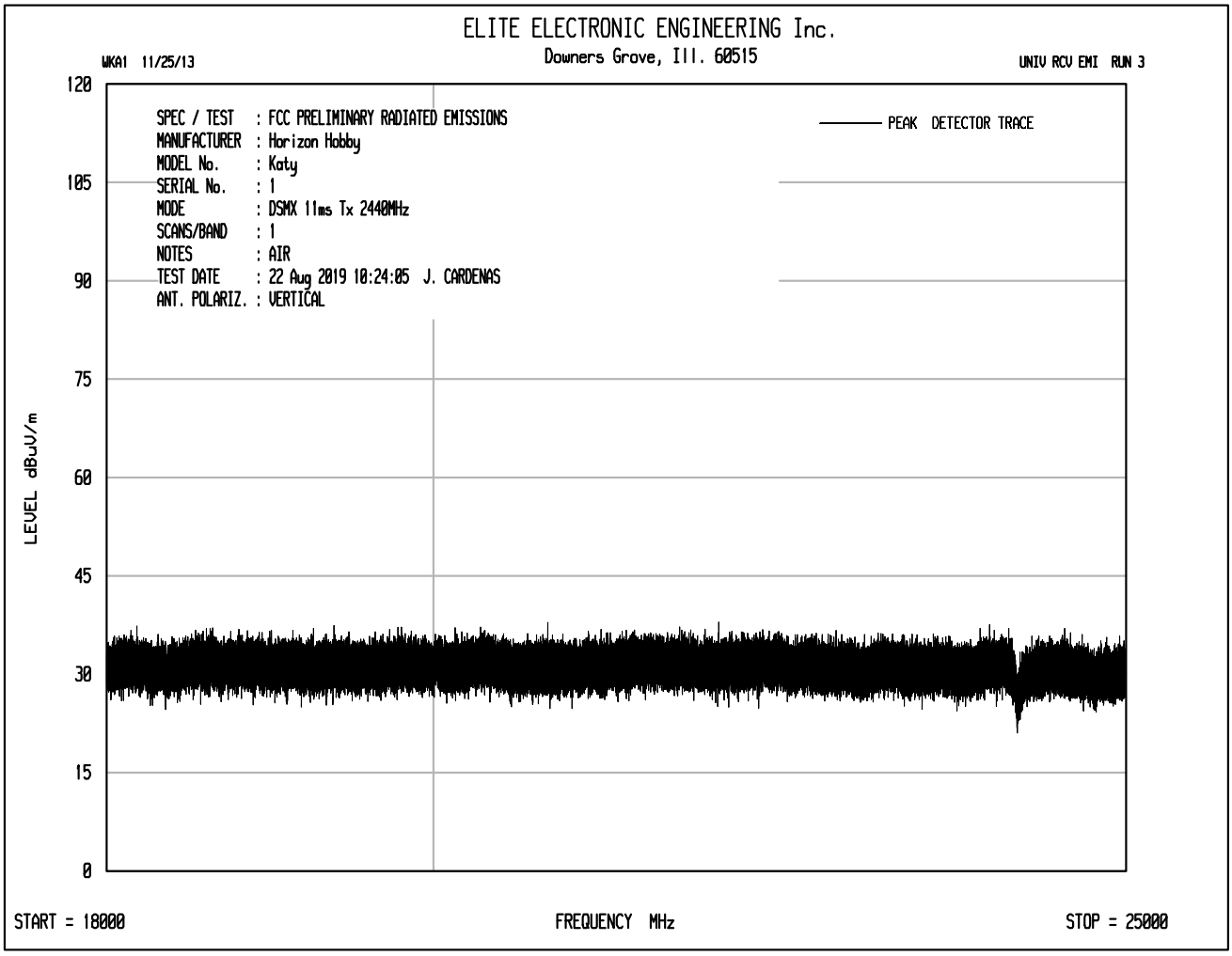

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 9
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HORIZON HOBBY
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 21 Aug 2019 13:41:08 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

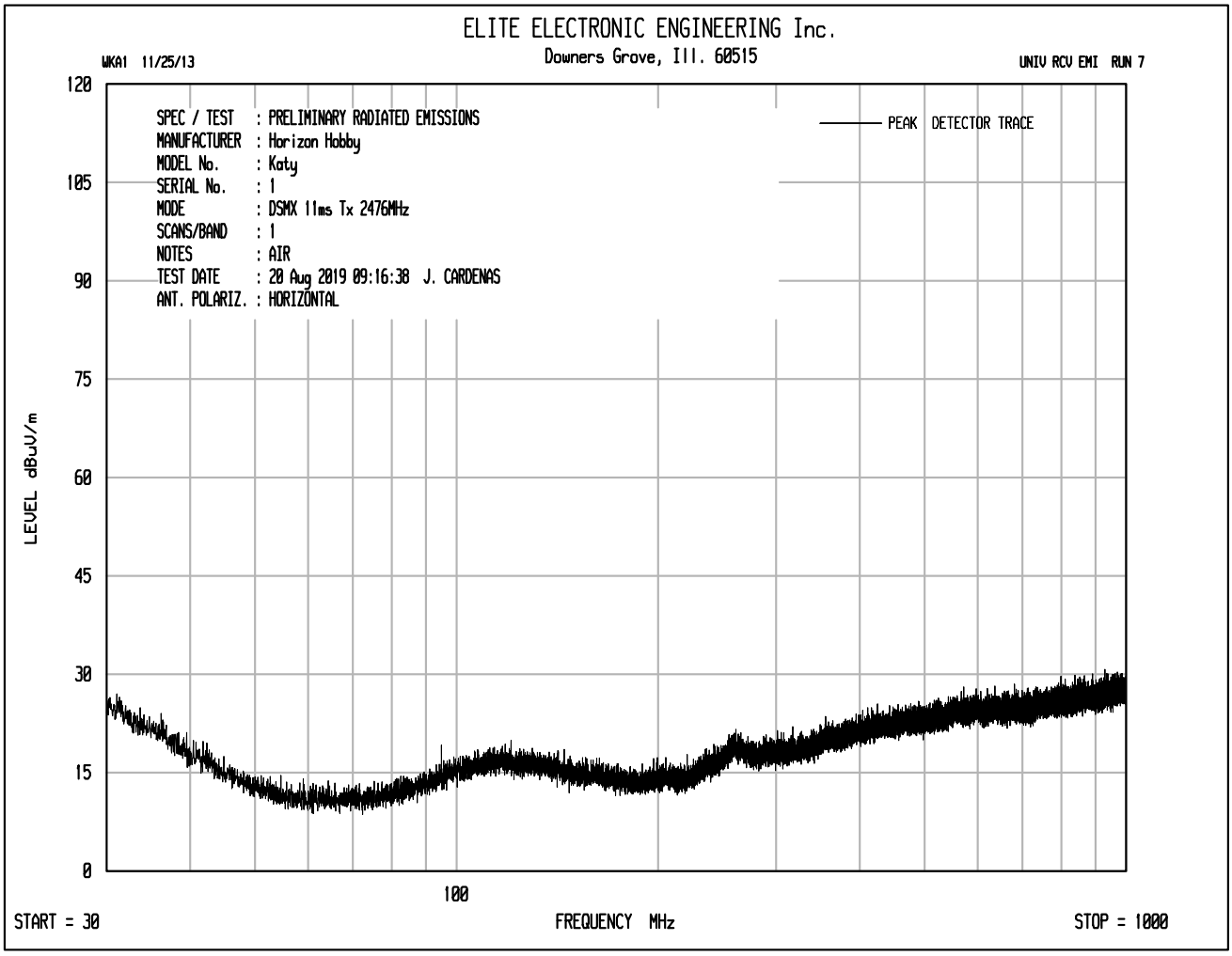

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 10
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HORIZON HOBBY
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 21 Aug 2019 13:42:48 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

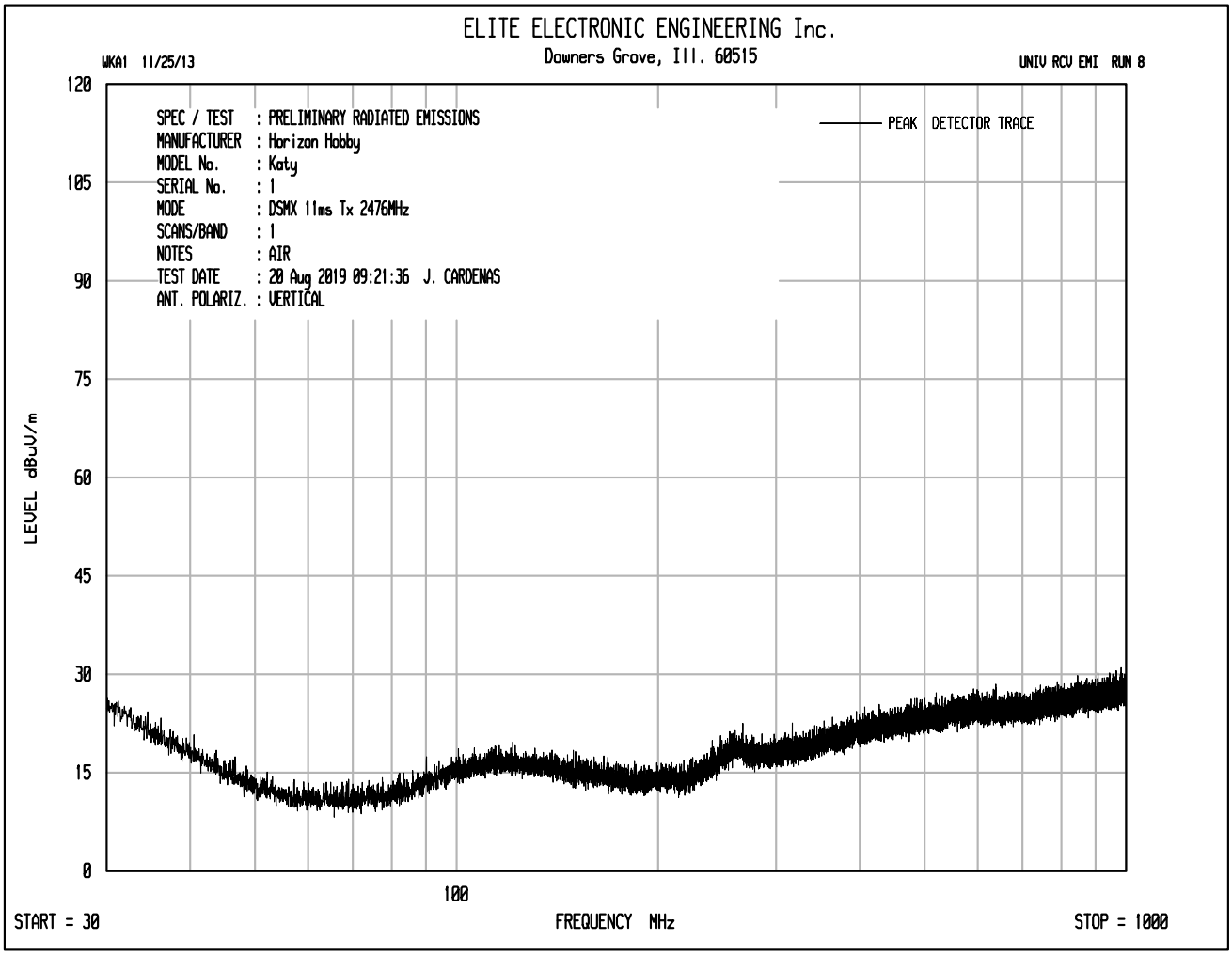

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 3
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 21 Aug 2019 15:53:57 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

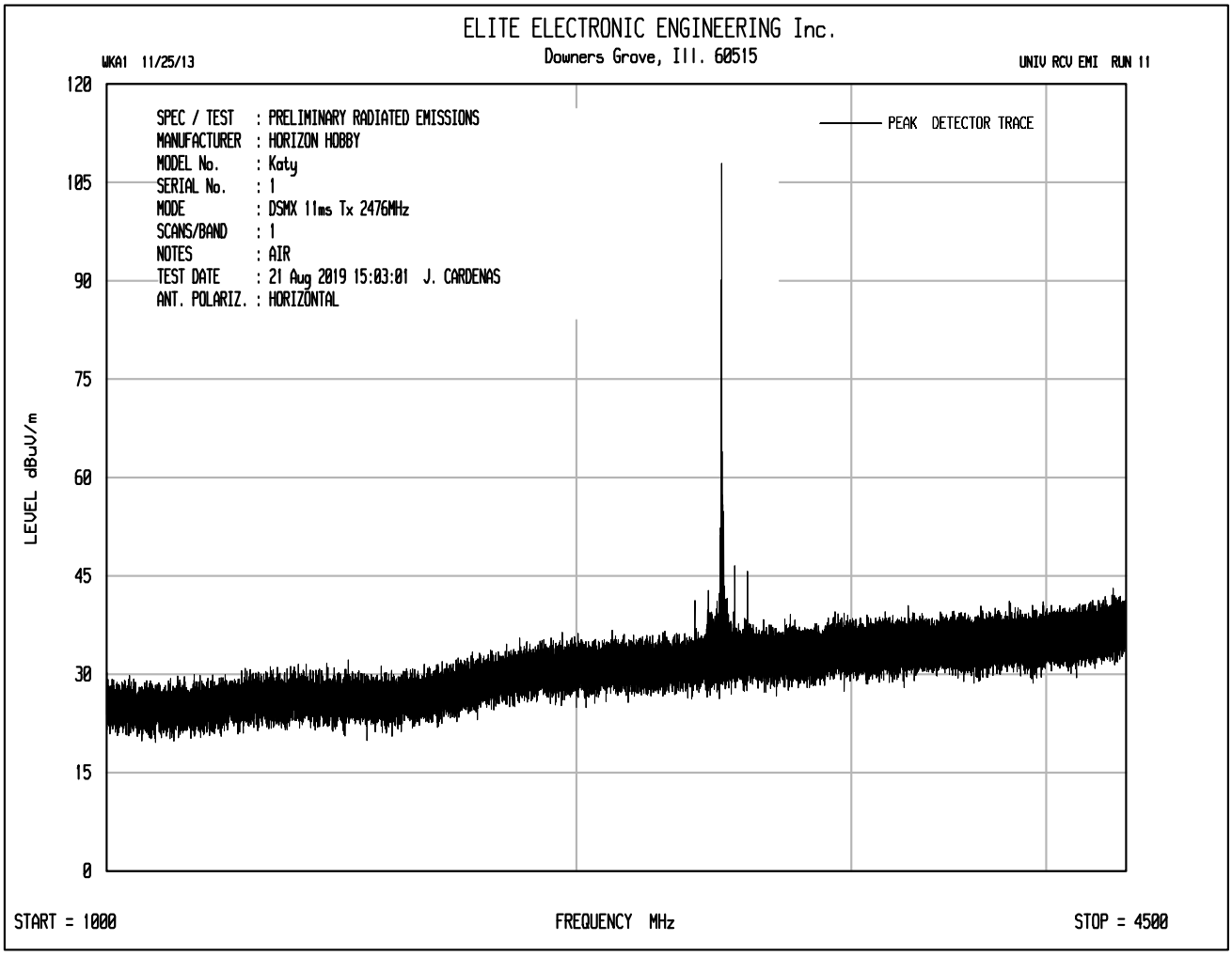

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 4
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 21 Aug 2019 15:58:08 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

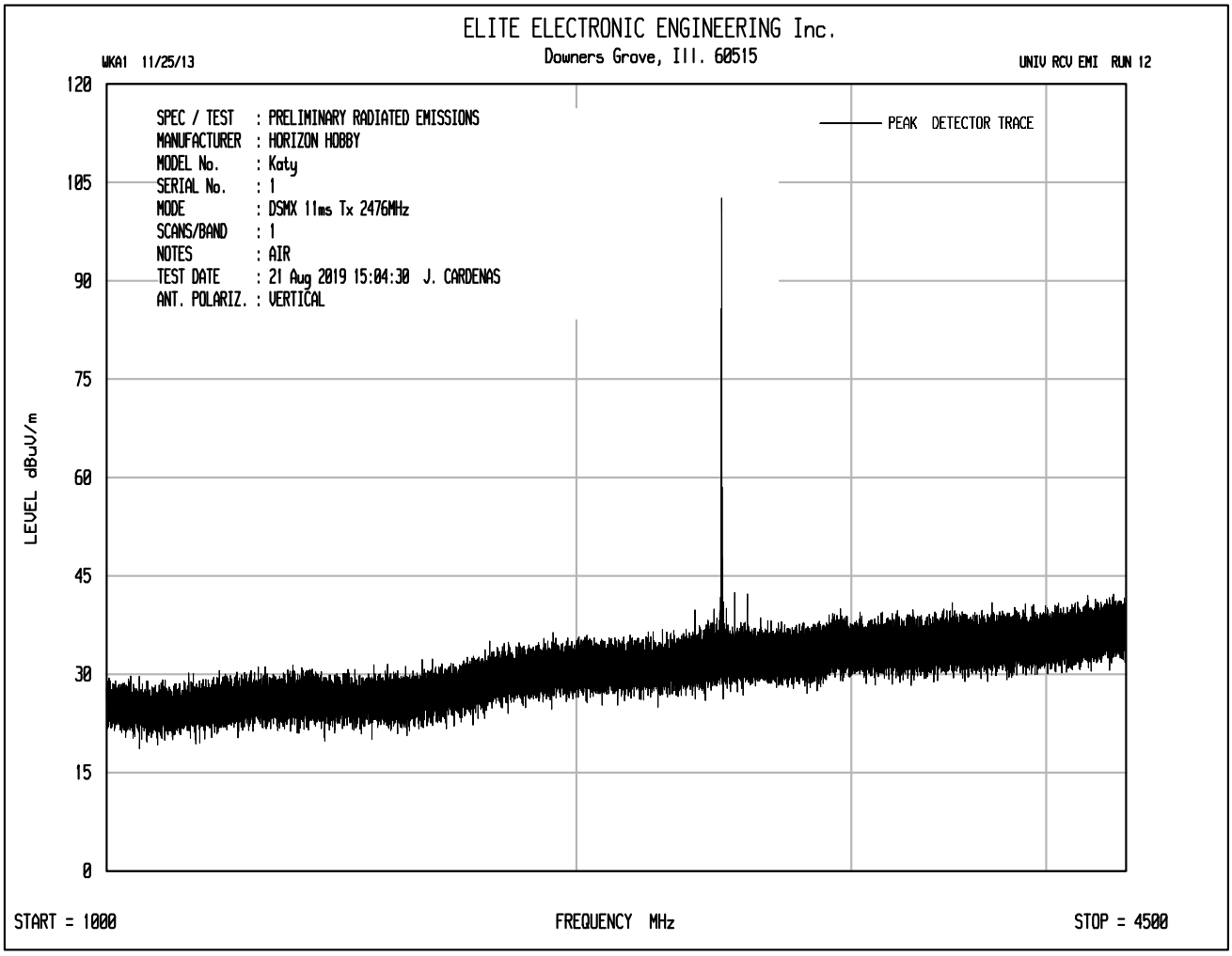

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 4
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 22 Aug 2019 10:30:13 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

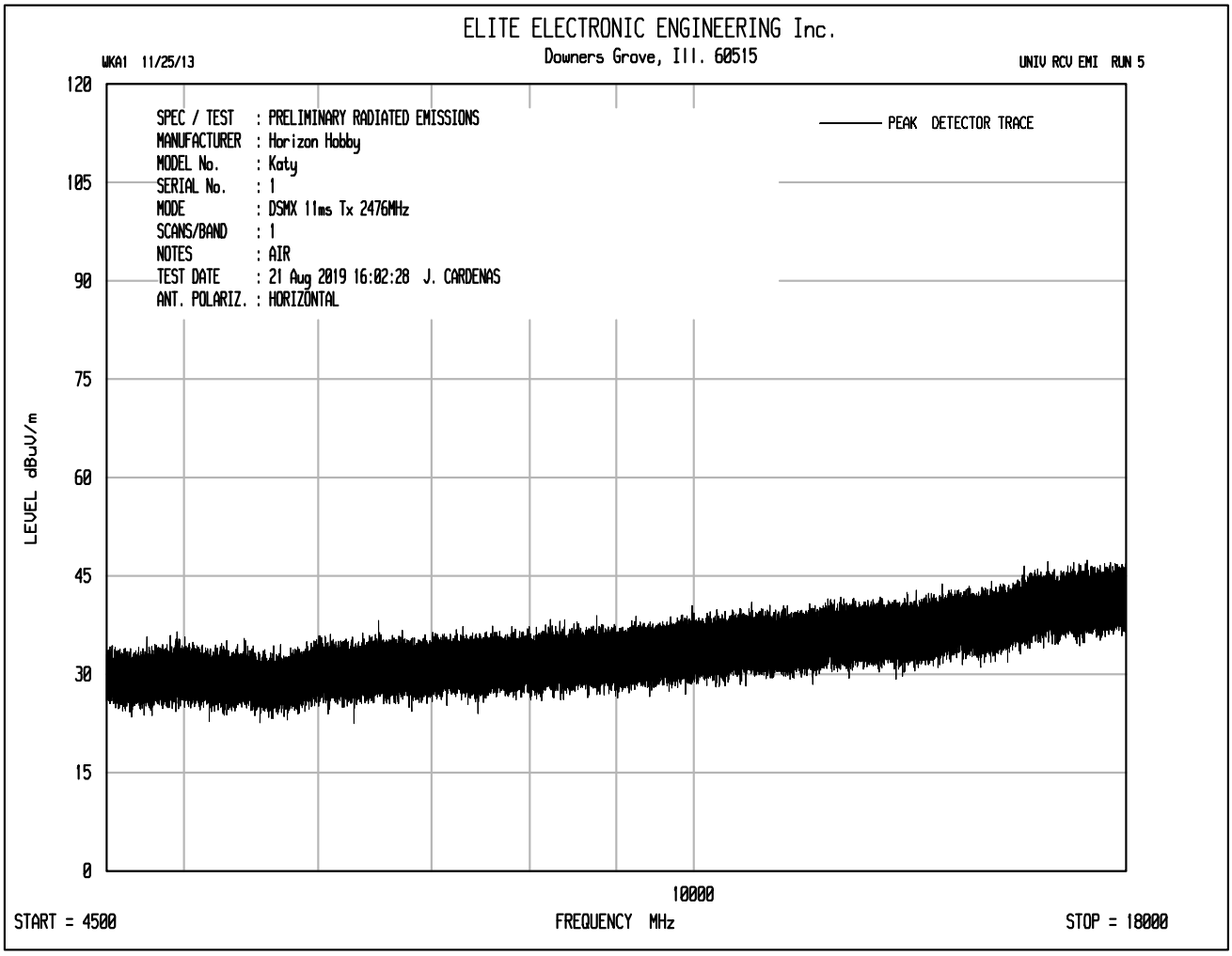

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 3
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 22 Aug 2019 10:24:05 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

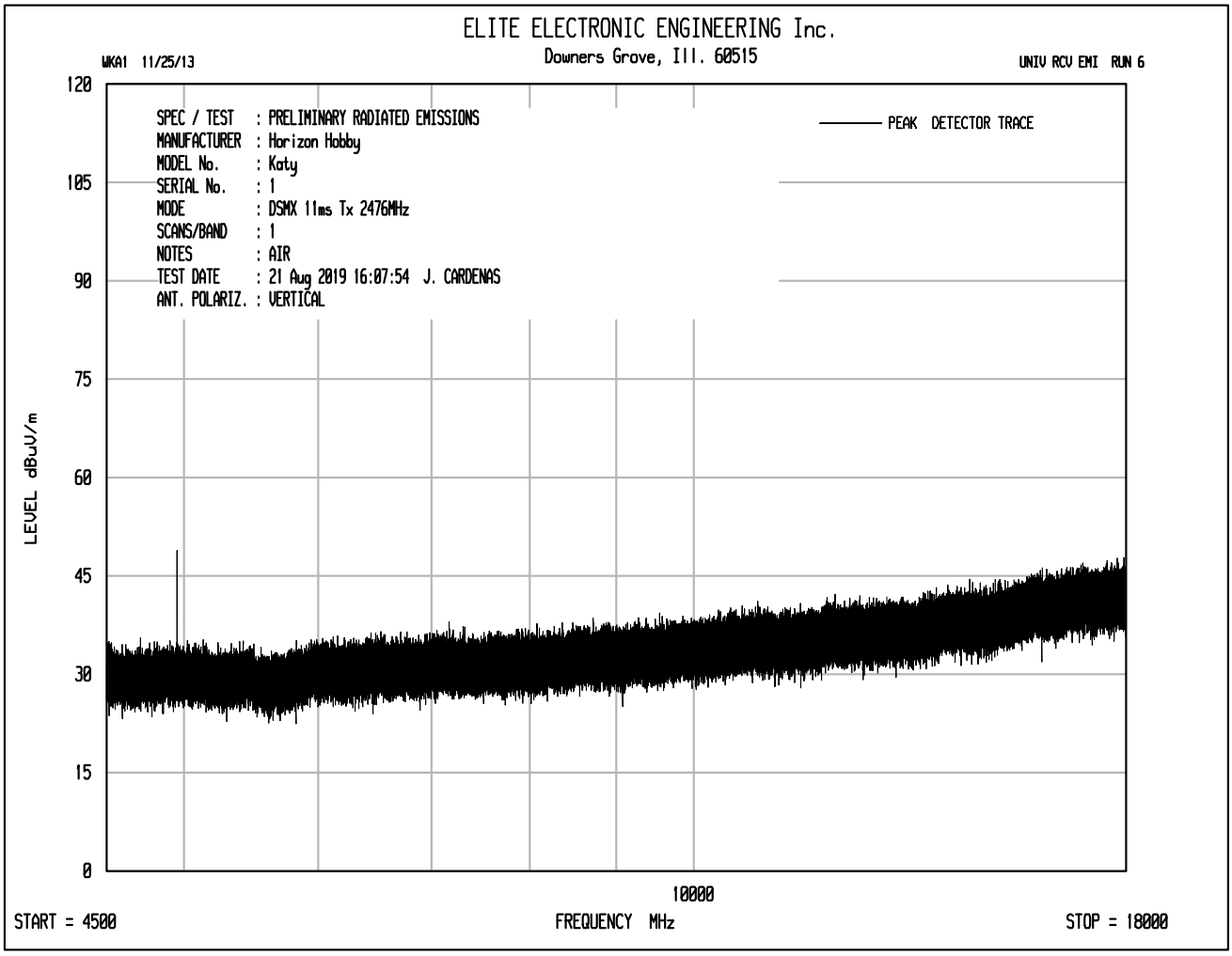

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 7
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2476MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 20 Aug 2019 09:16:38 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

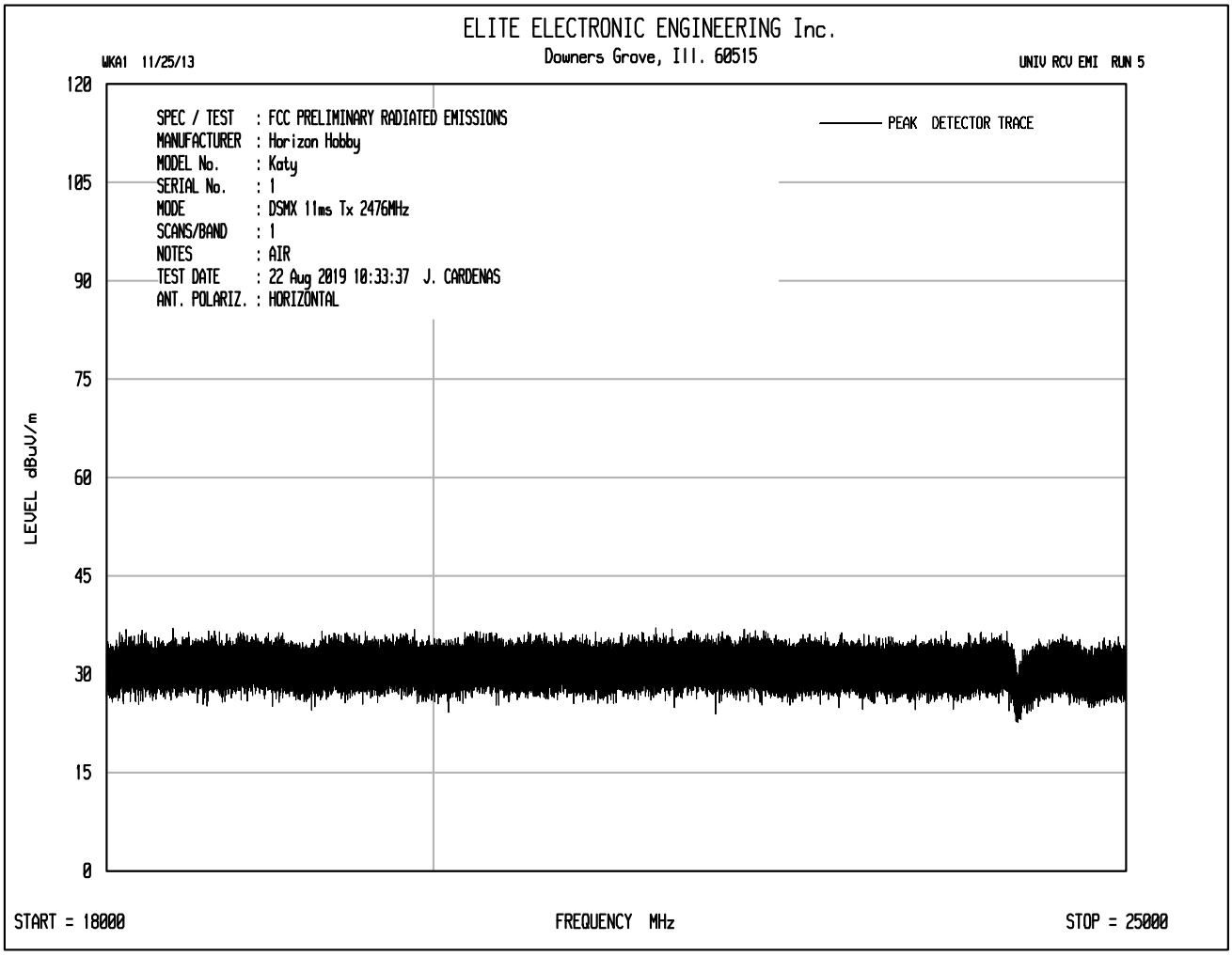

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 8
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2476MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 20 Aug 2019 09:21:36 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

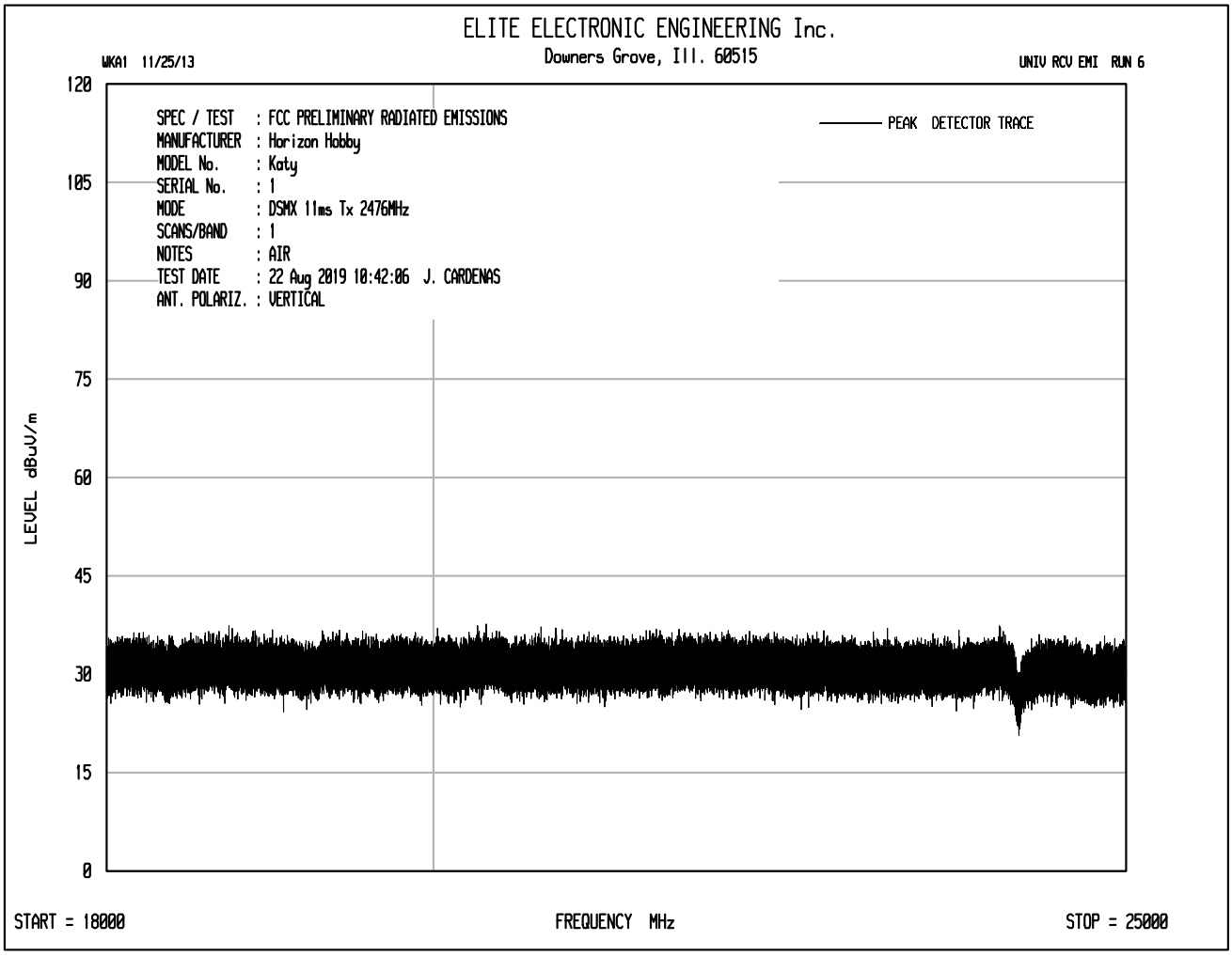

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 11
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HORIZON HOBBY
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2476MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 21 Aug 2019 15:03:01 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

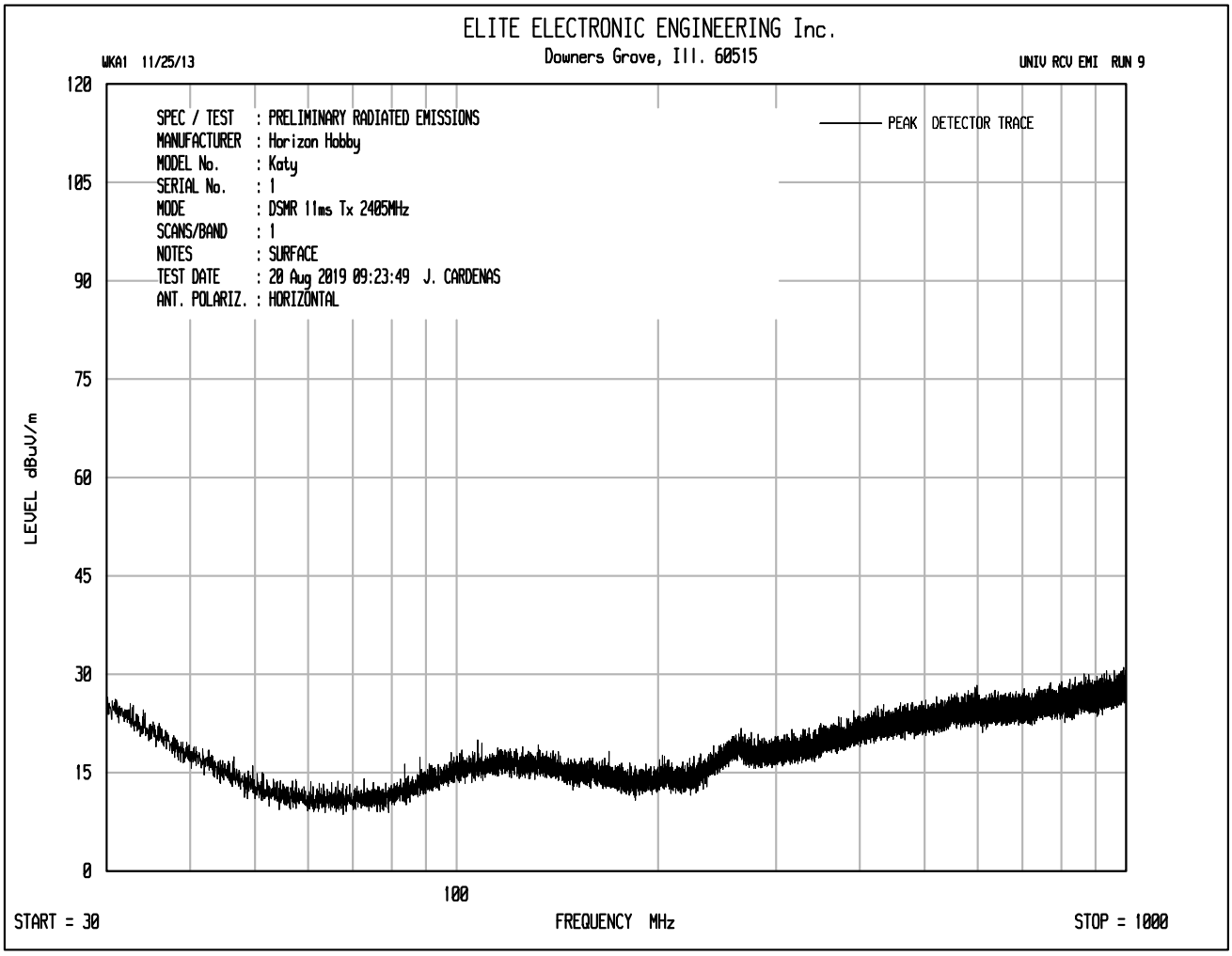

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 12
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HORIZON HOBBY
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2476MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 21 Aug 2019 15:04:30 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

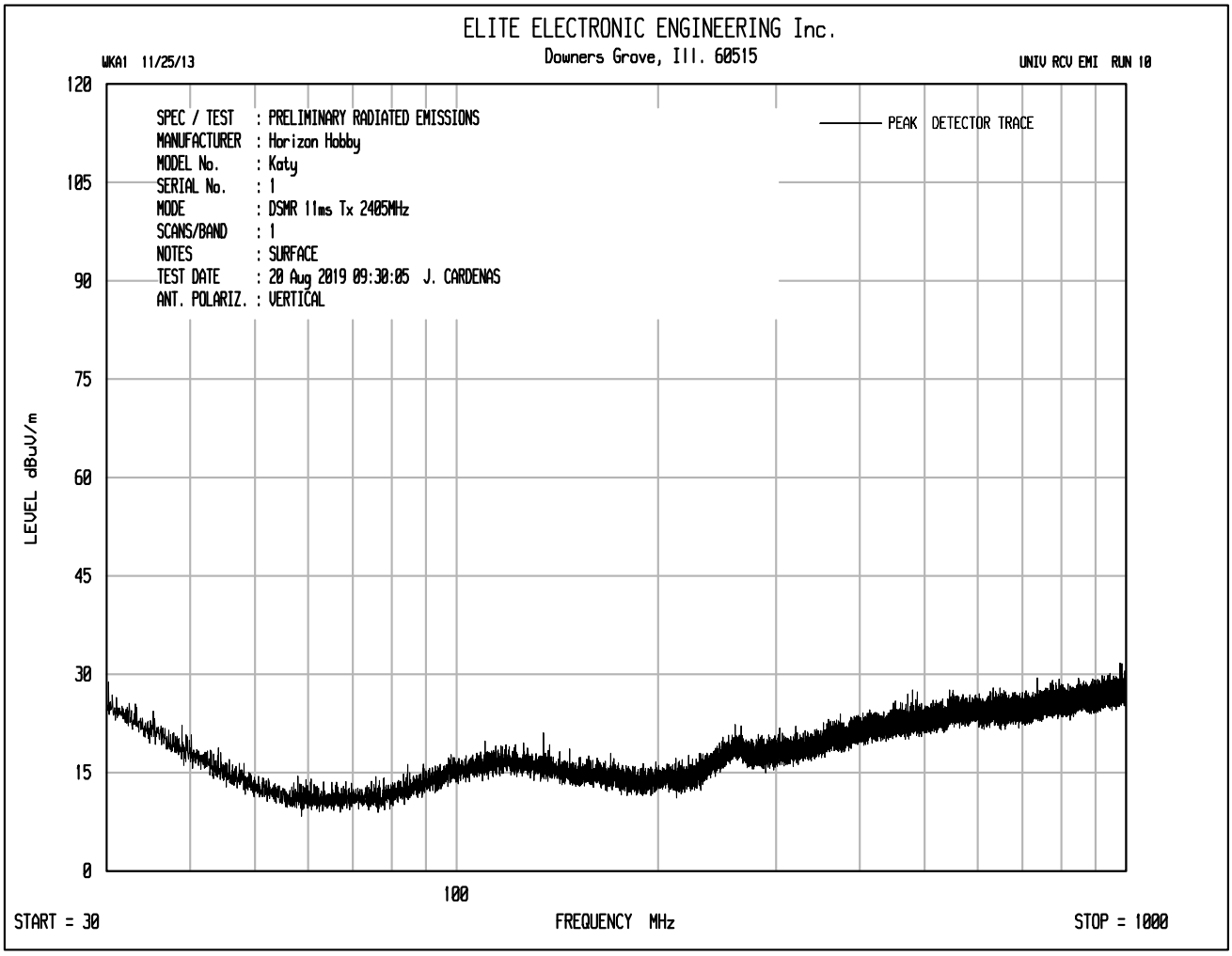

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 5
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2476MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 21 Aug 2019 16:02:28 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

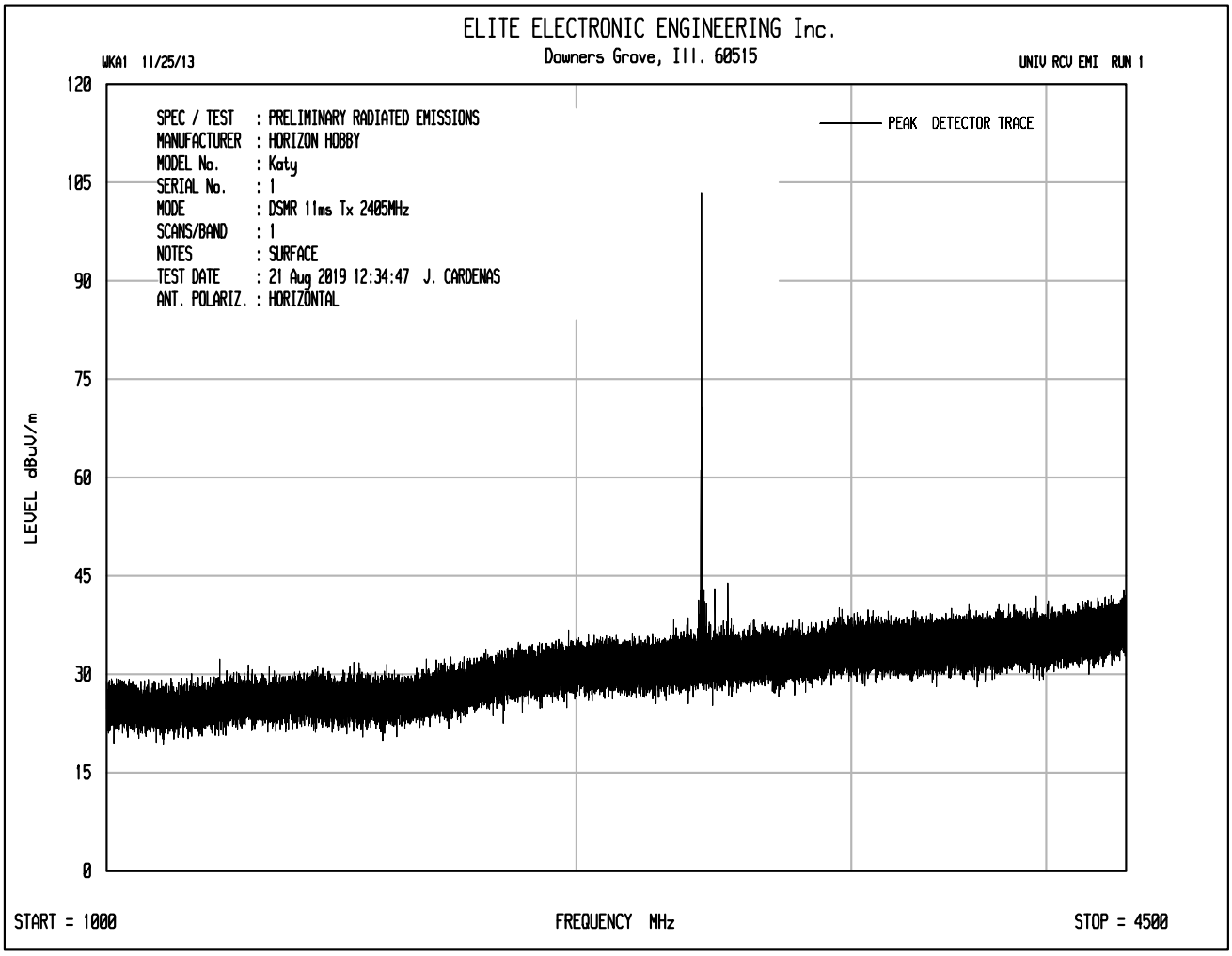

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 6
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2476MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 21 Aug 2019 16:07:54 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

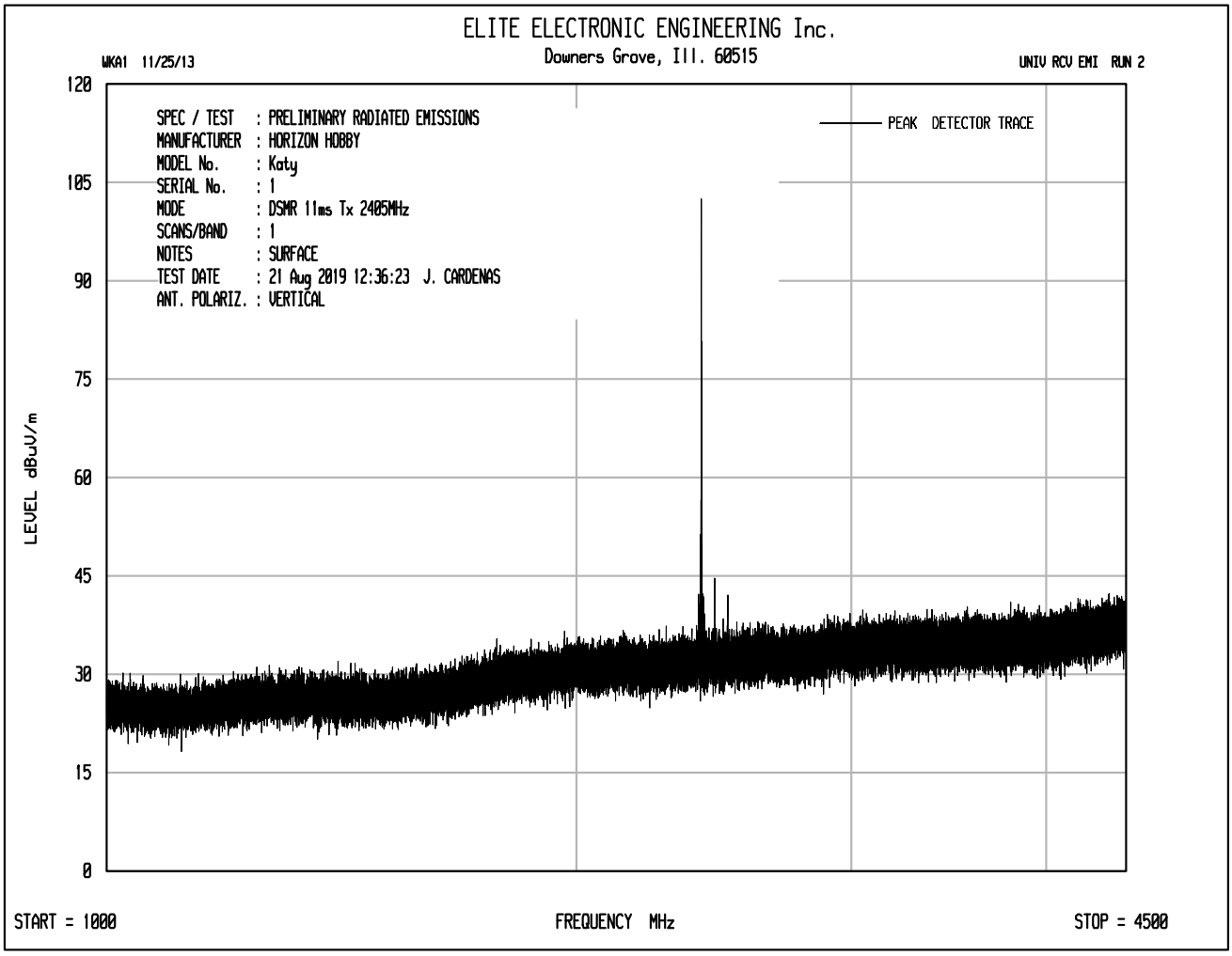

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 5
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2476MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 22 Aug 2019 10:33:37 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

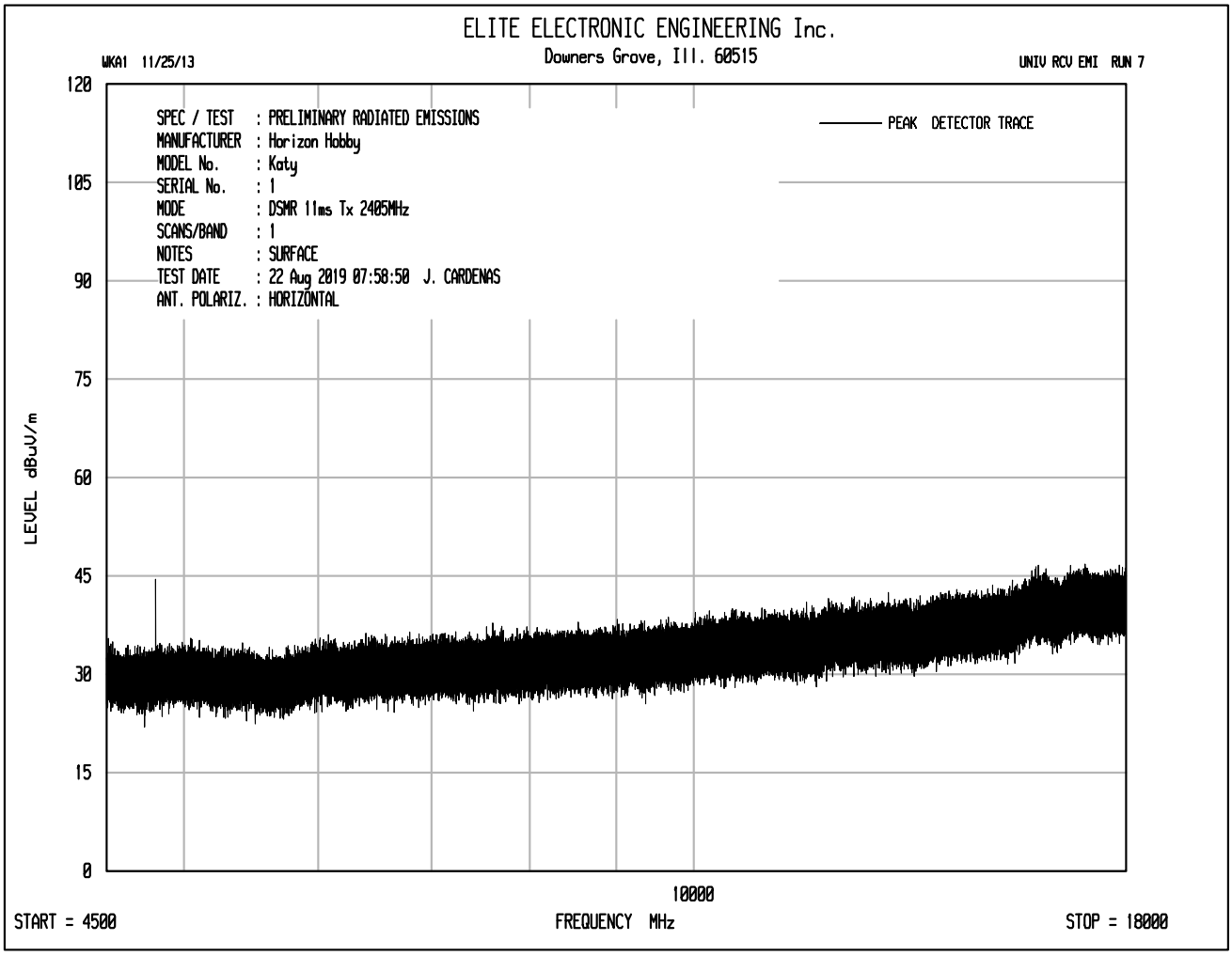

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 6
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMX 11ms Tx 2476MHz
SCANS/BAND : 1
NOTES : AIR
TEST DATE : 22 Aug 2019 10:42:06 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

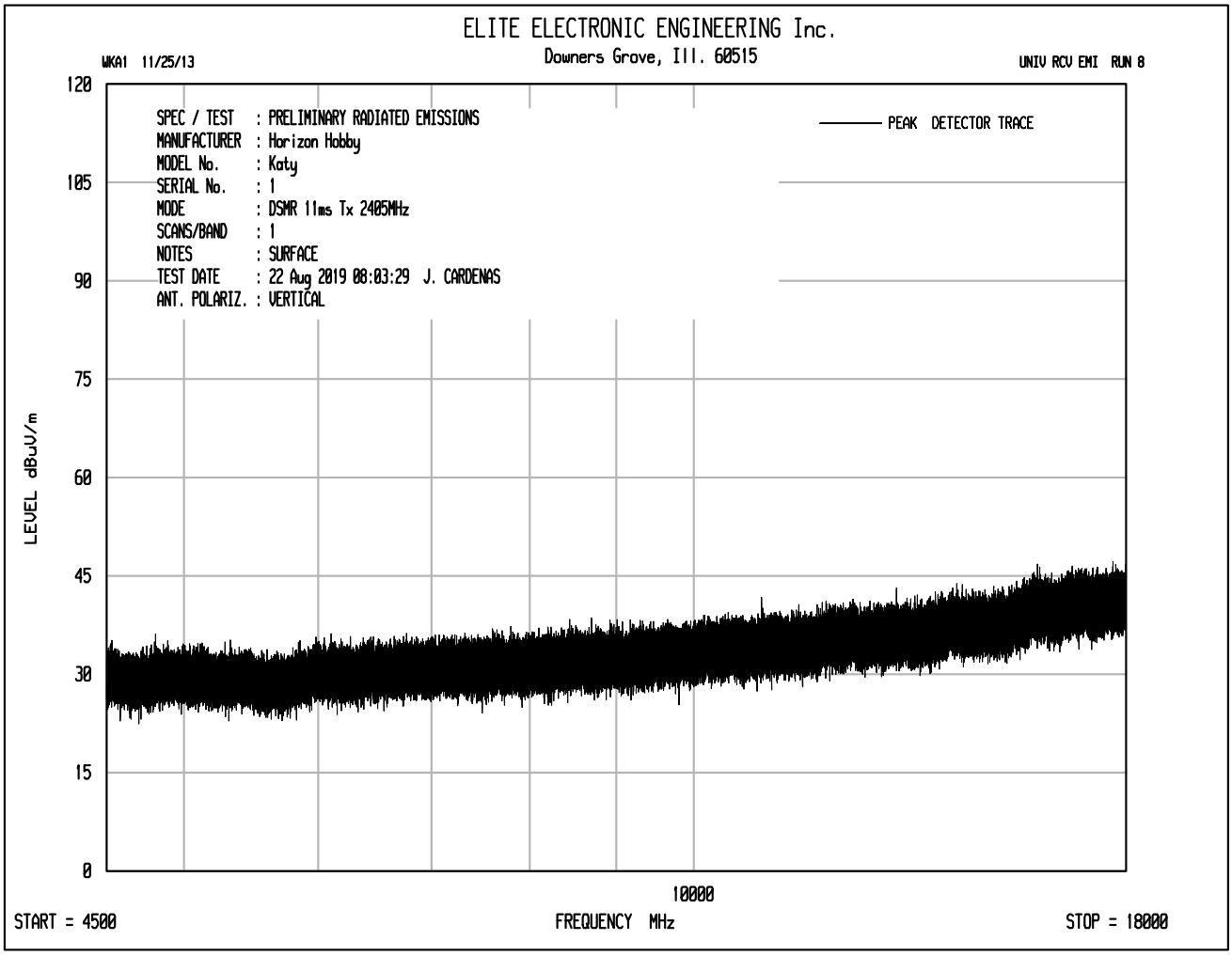

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 9
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2405MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 20 Aug 2019 09:23:49 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

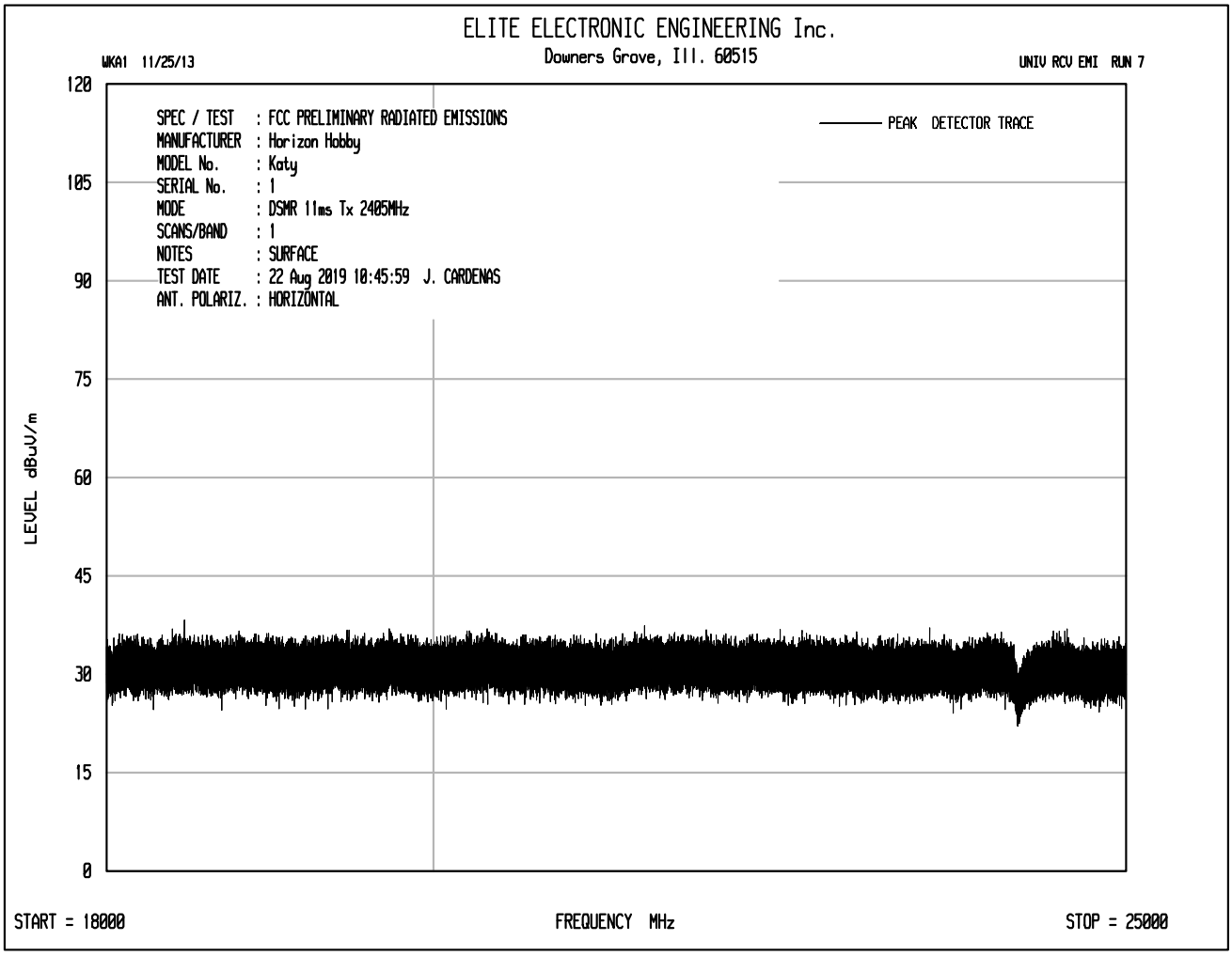

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 10
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2405MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 20 Aug 2019 09:30:05 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

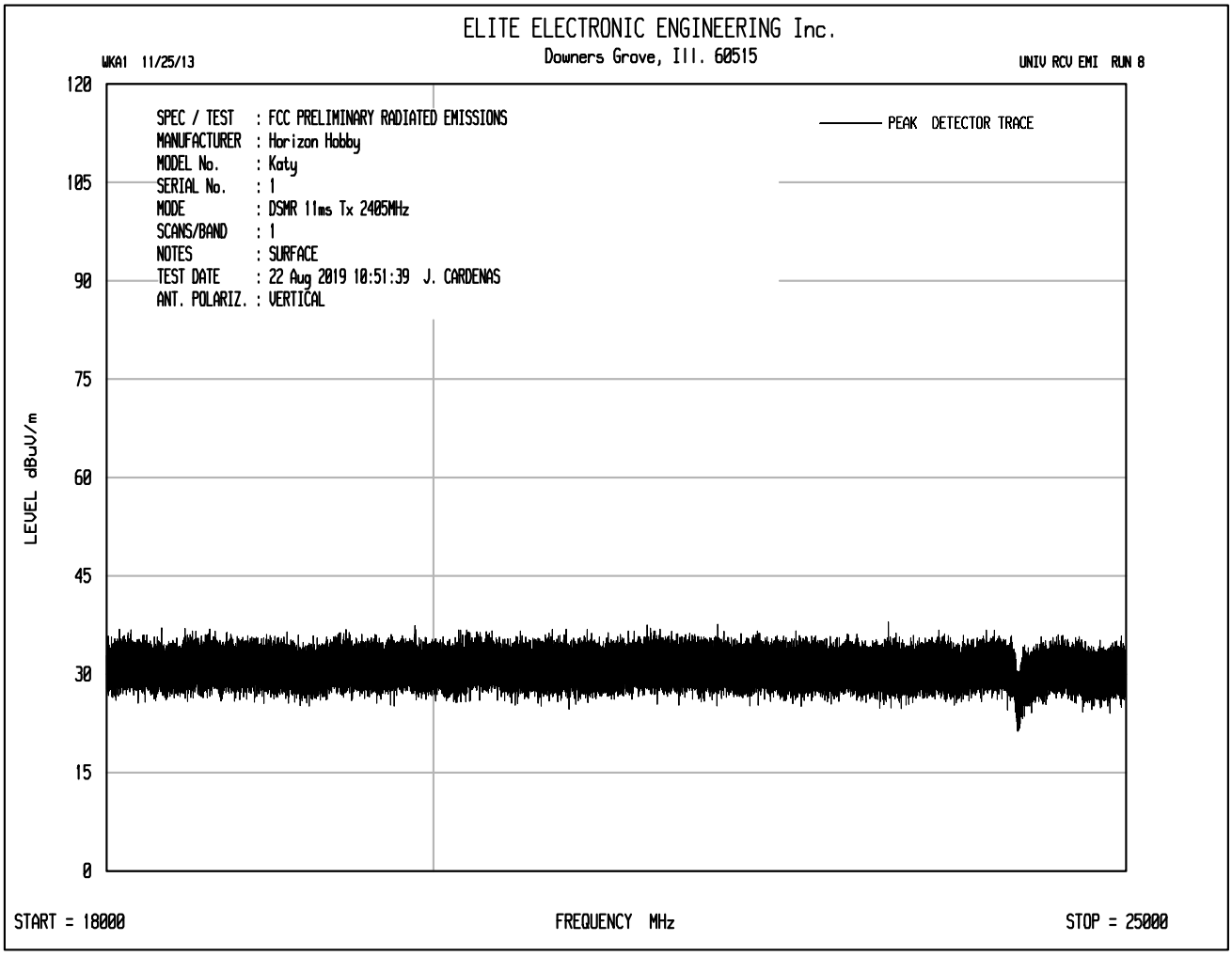

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 1
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HORIZON HOBBY
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2405MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 21 Aug 2019 12:34:47 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

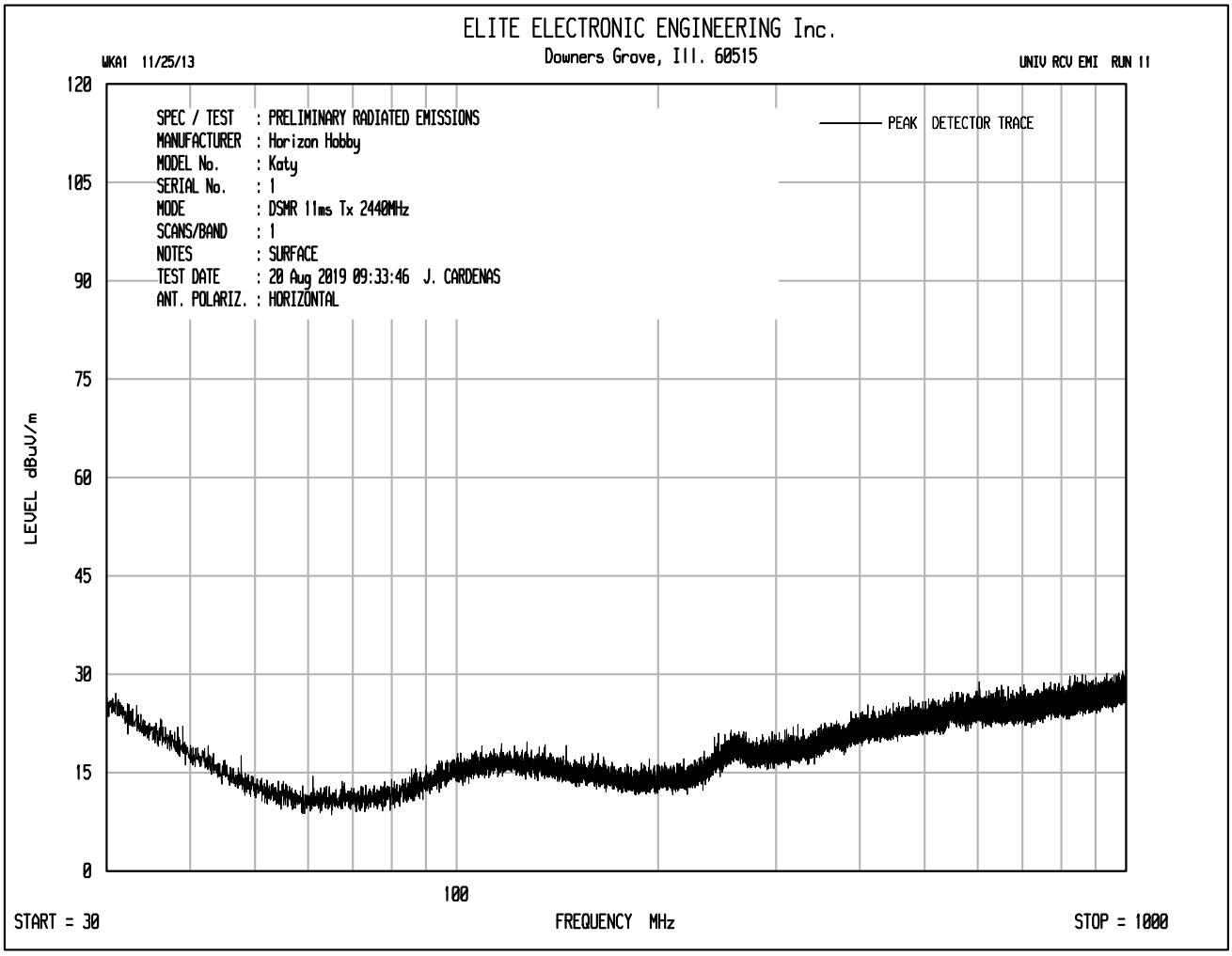

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 2
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HORIZON HOBBY
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2405MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 21 Aug 2019 12:36:23 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

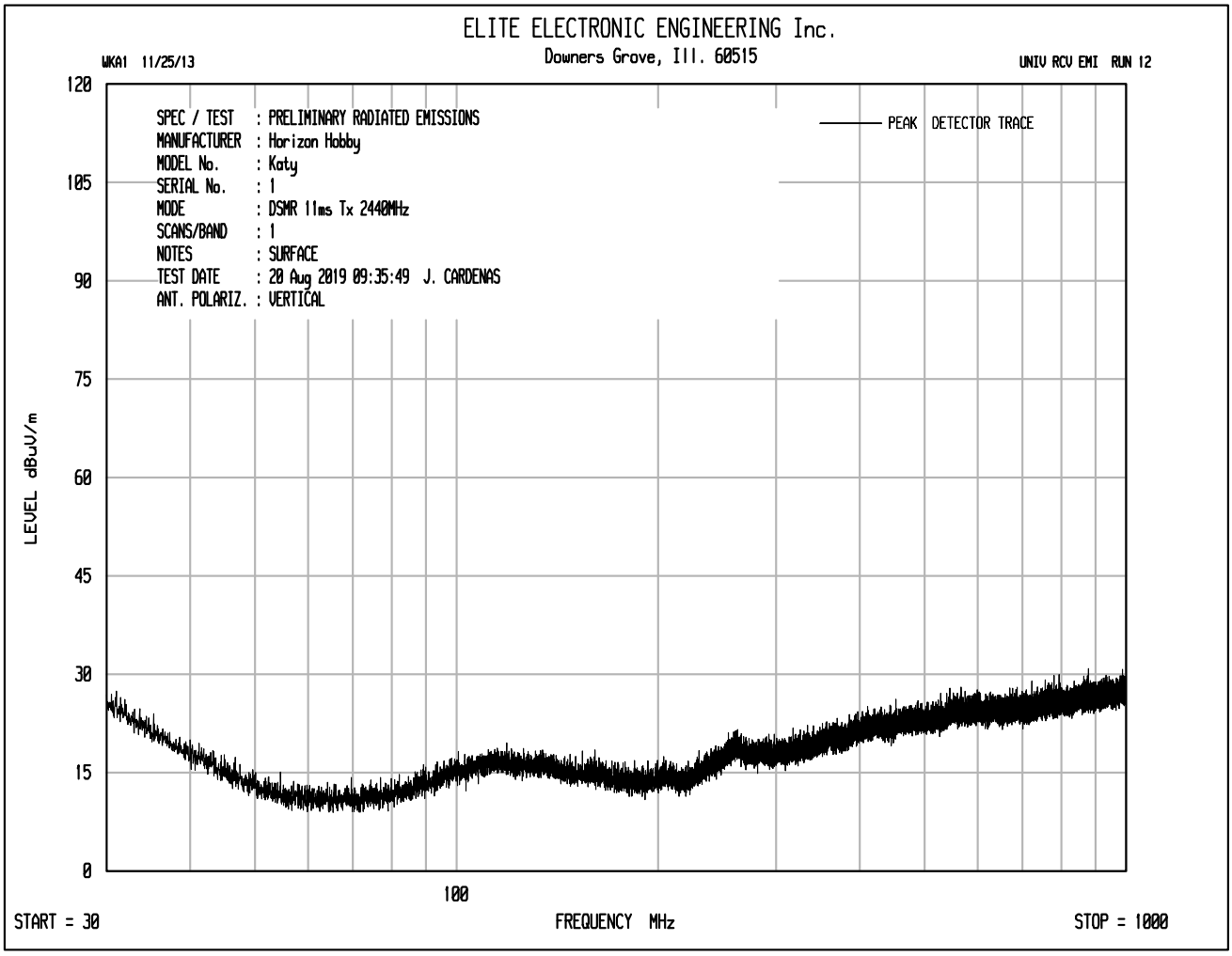

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 7
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2405MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 22 Aug 2019 07:58:50 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

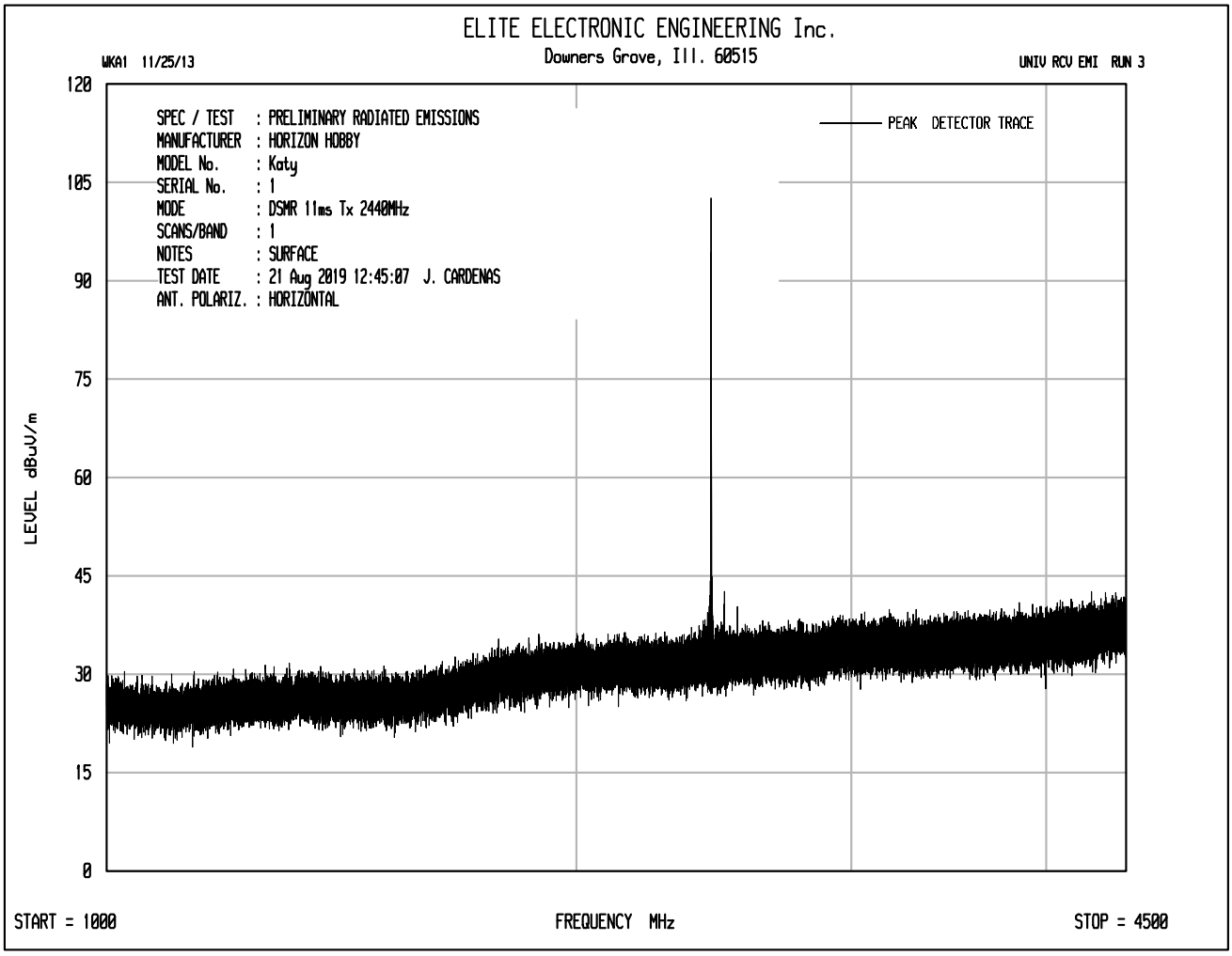

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 8
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2405MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 22 Aug 2019 08:03:29 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

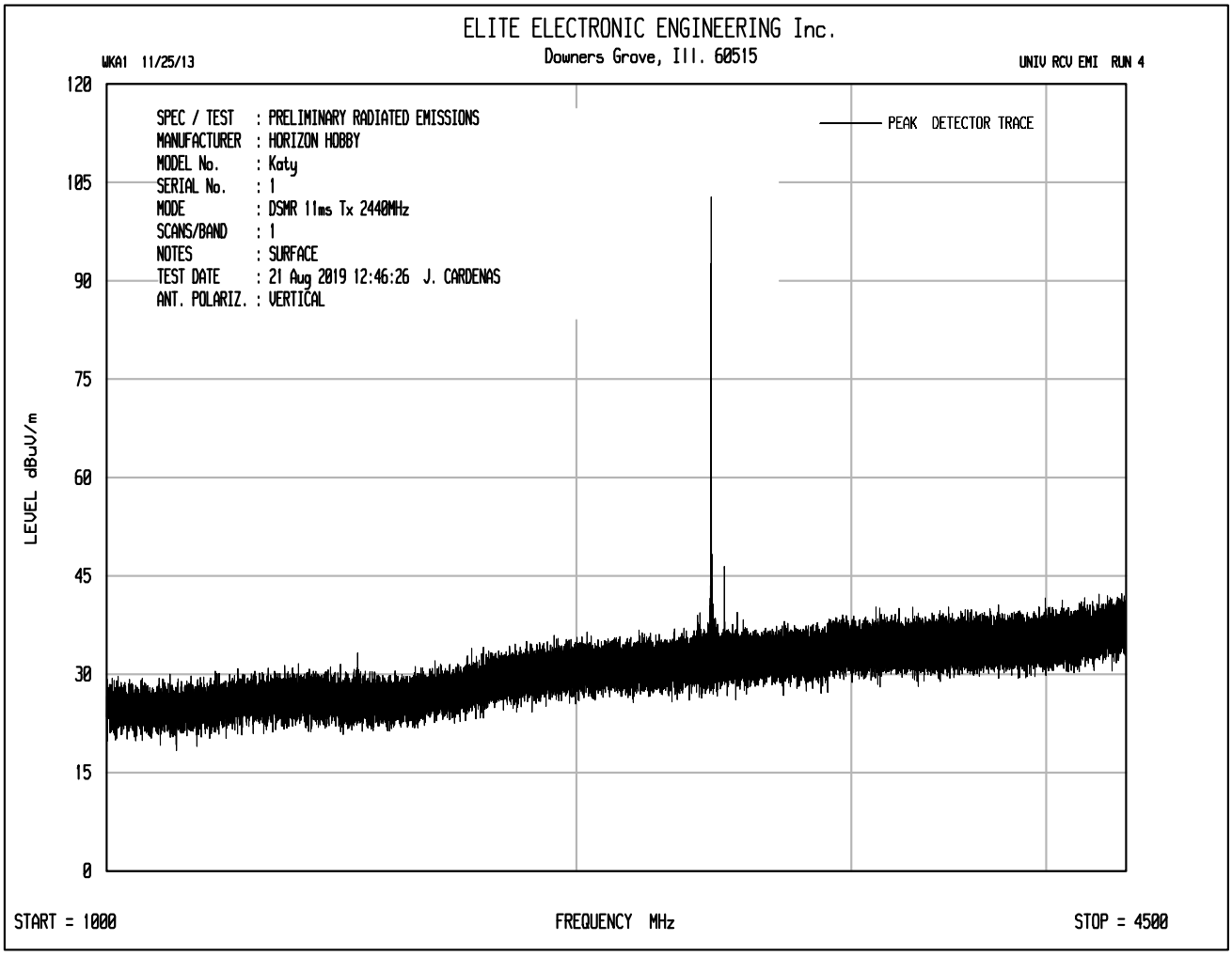

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 7
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2405MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 22 Aug 2019 10:45:59 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

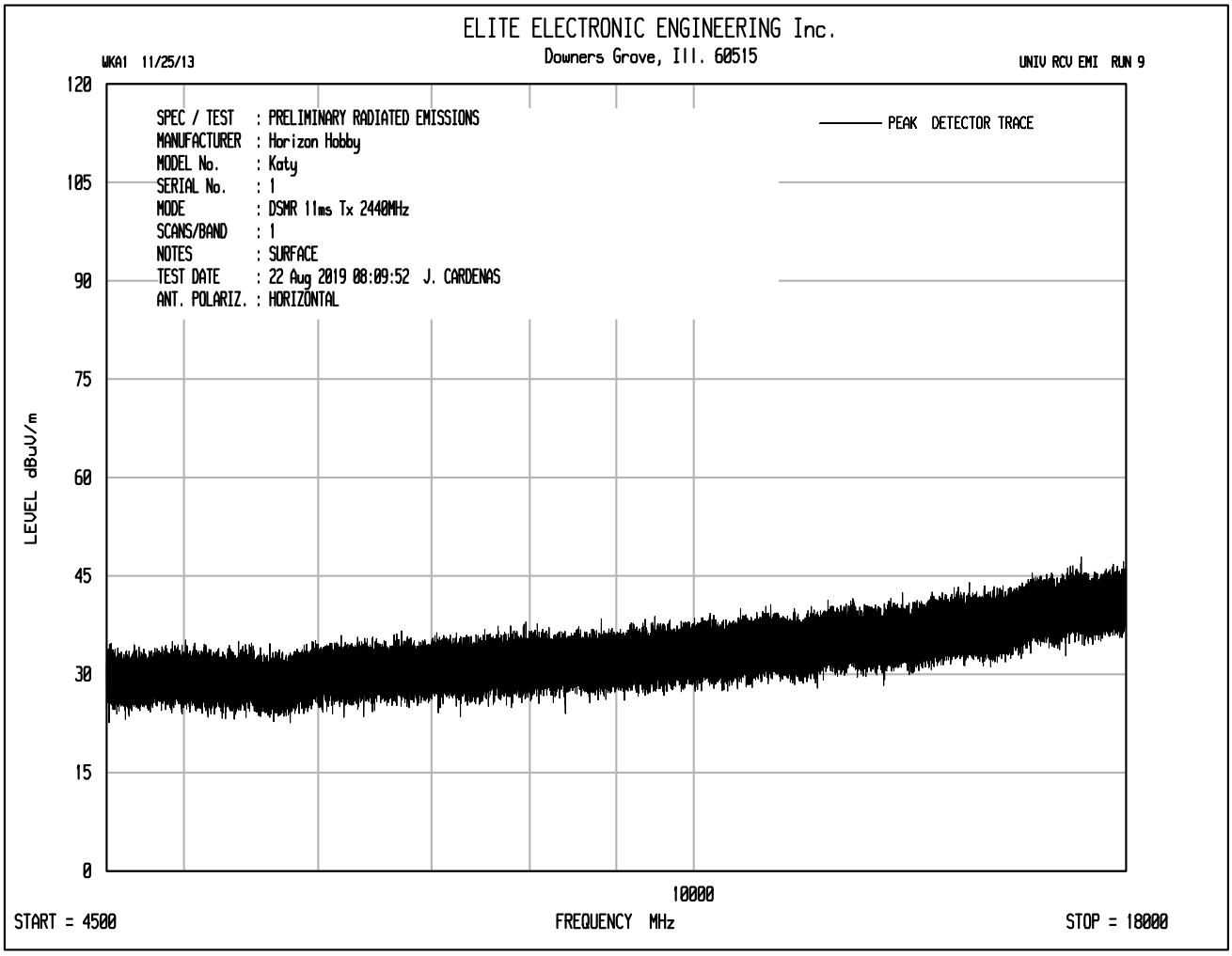

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 8
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2405MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 22 Aug 2019 10:51:39 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

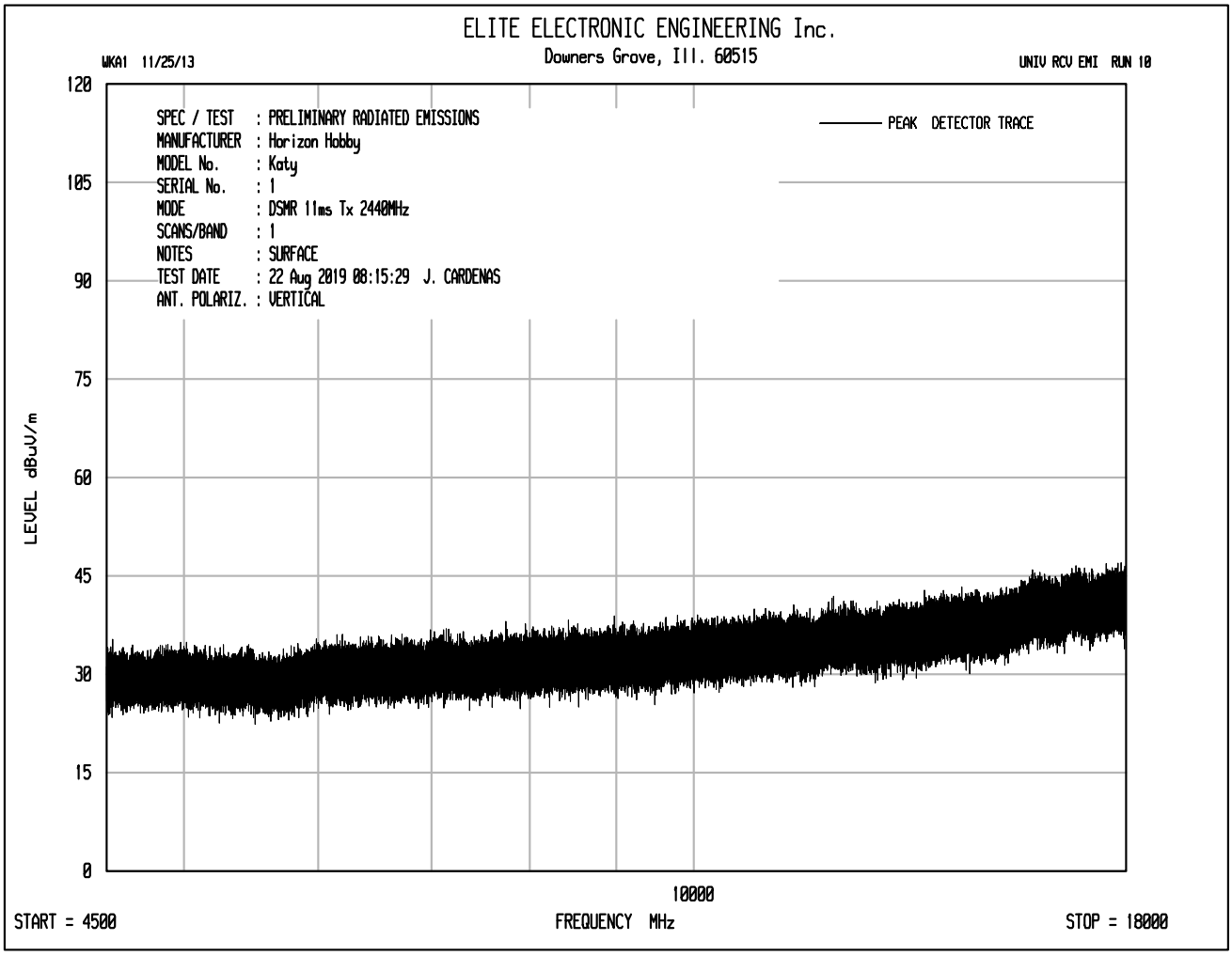

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 11
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 20 Aug 2019 09:33:46 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

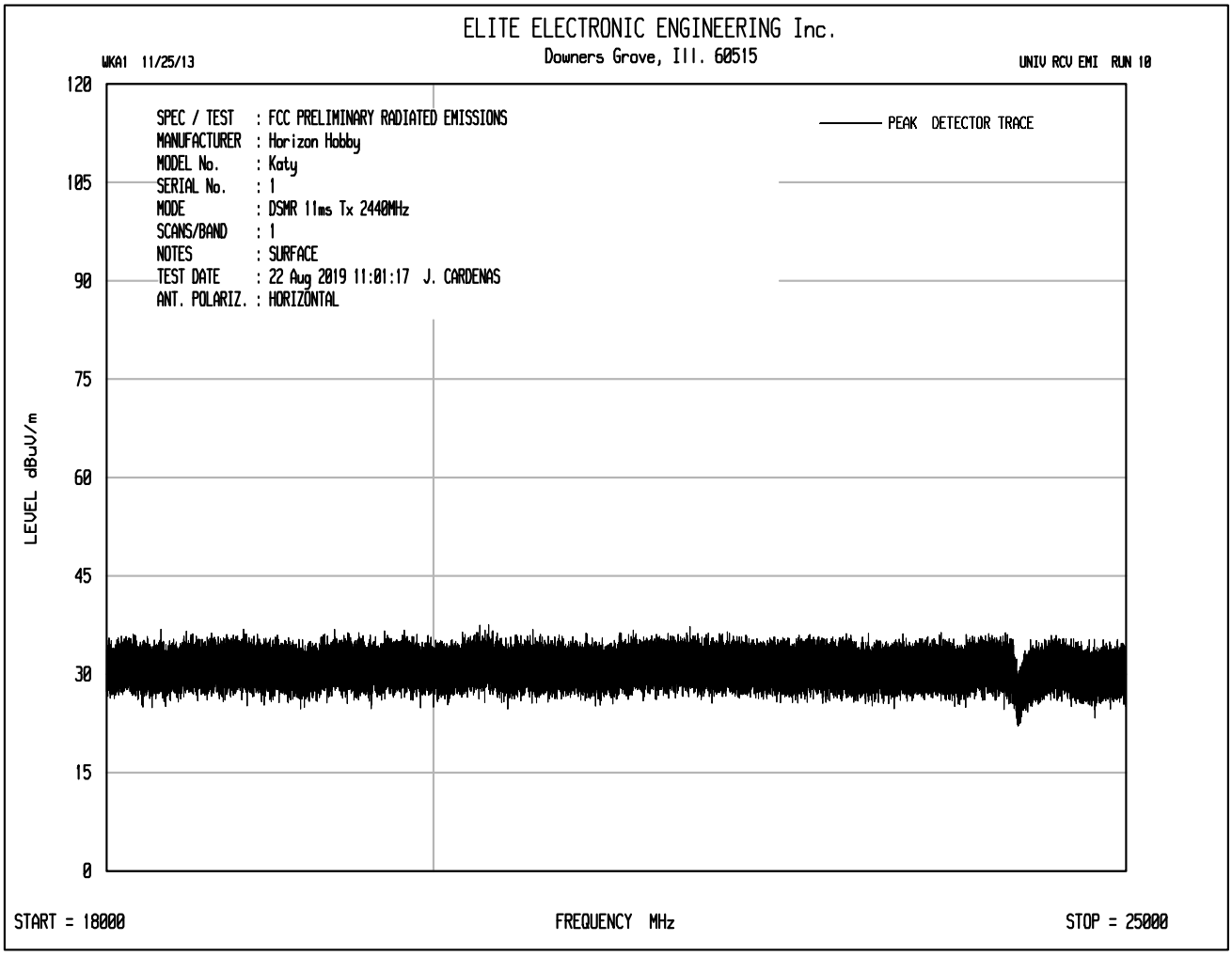

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 12
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 20 Aug 2019 09:35:49 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

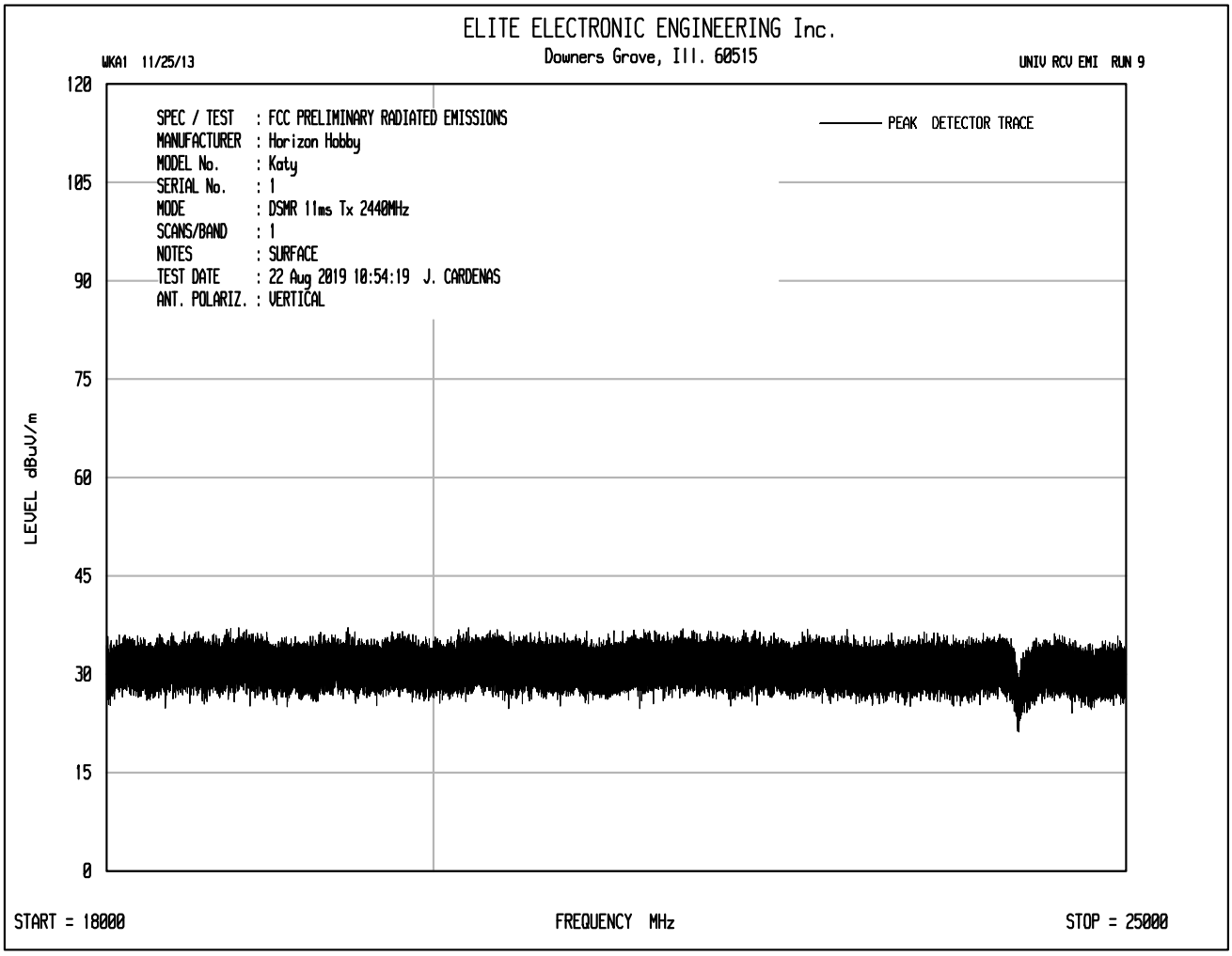

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 3
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HORIZON HOBBY
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 21 Aug 2019 12:45:07 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

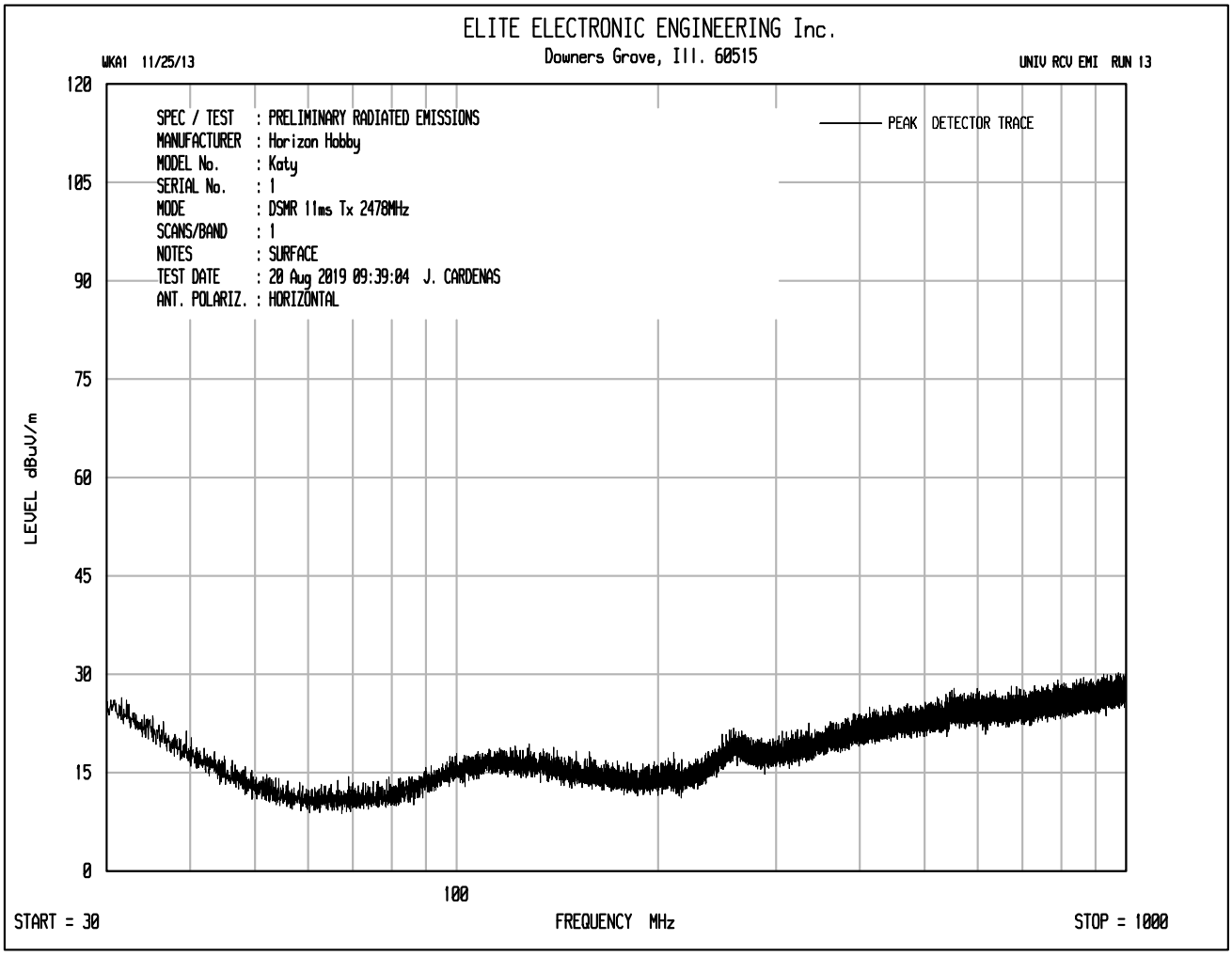

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 4
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HORIZON HOBBY
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 21 Aug 2019 12:46:26 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

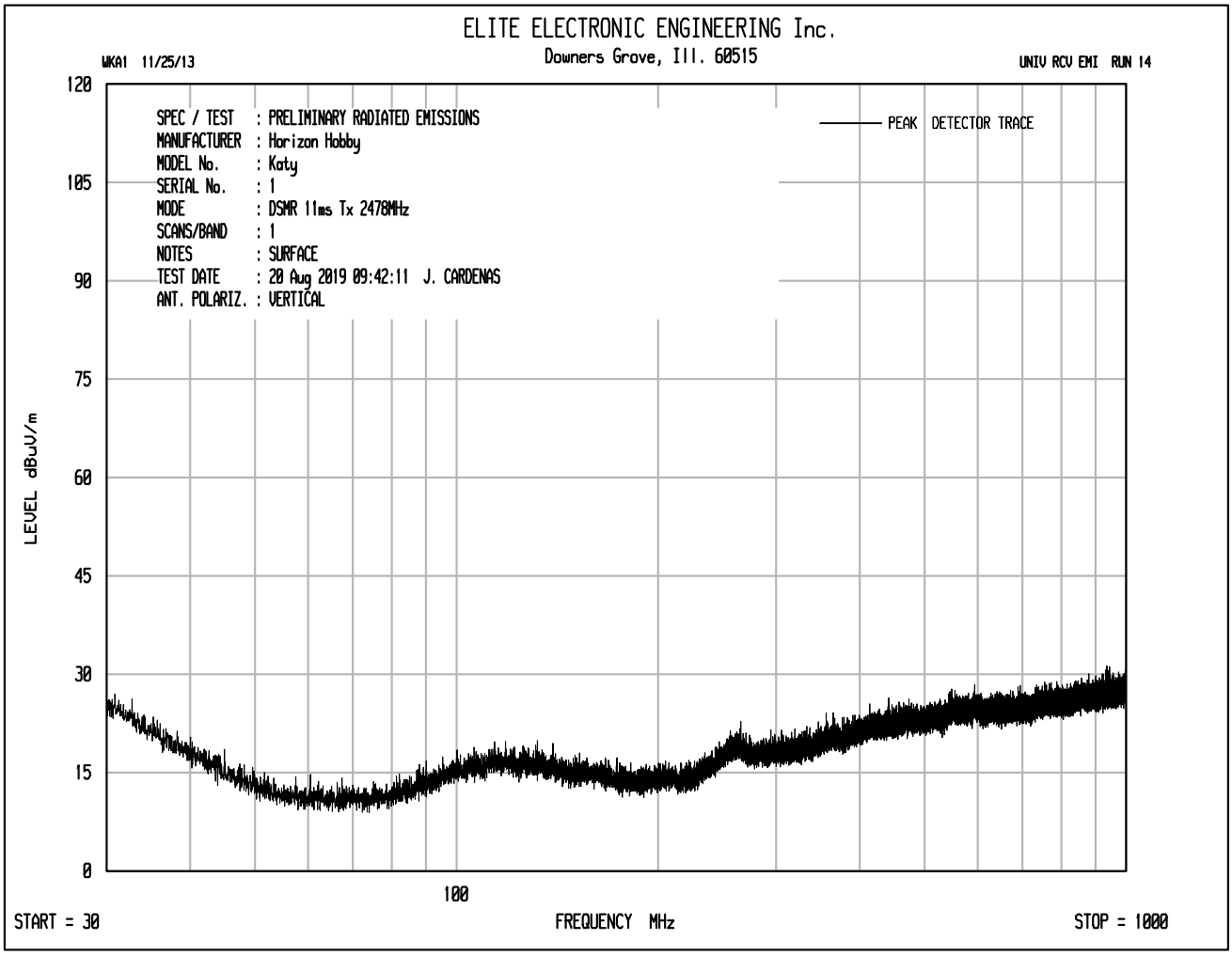

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 9
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 22 Aug 2019 08:09:52 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

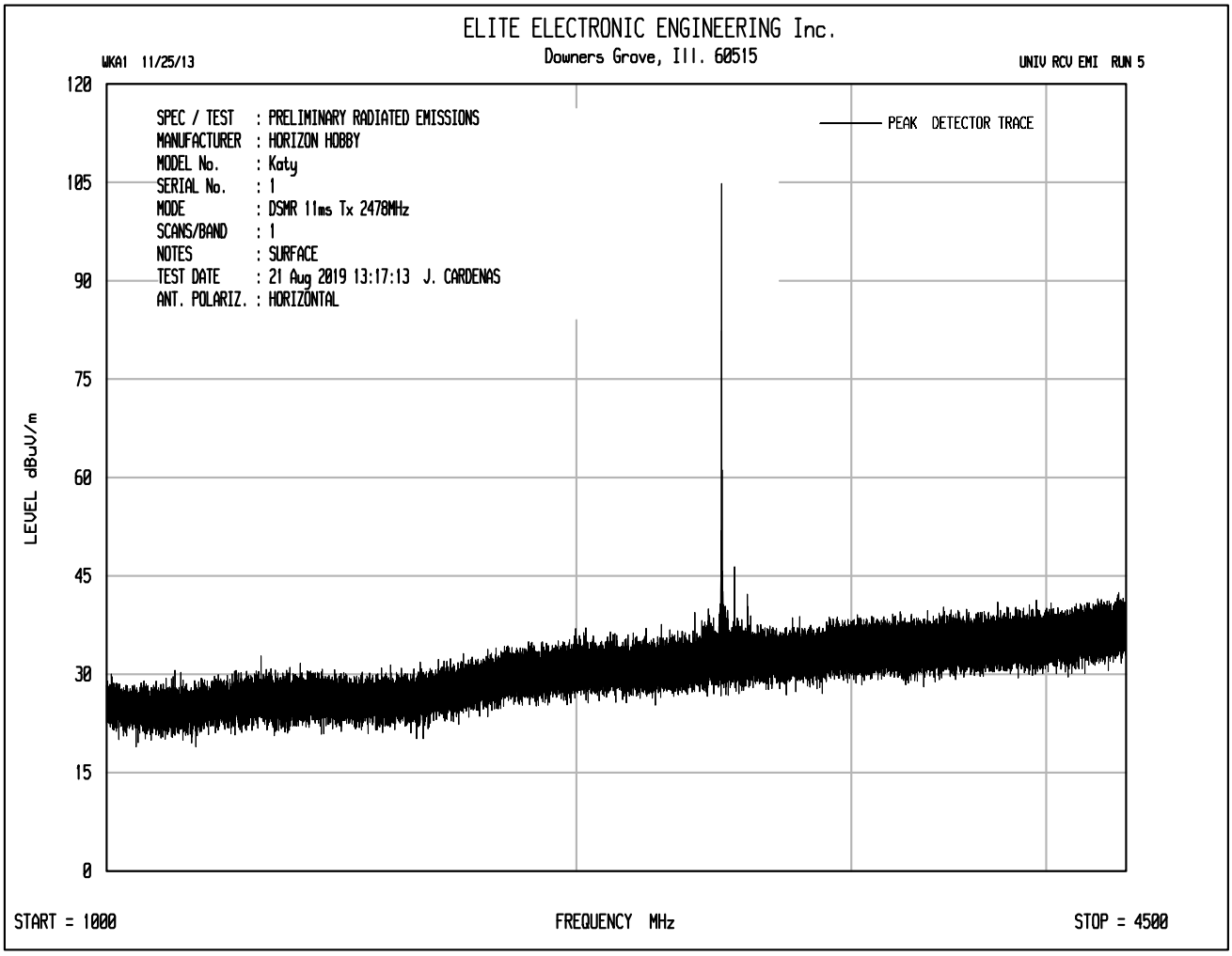

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 10
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 22 Aug 2019 08:15:29 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

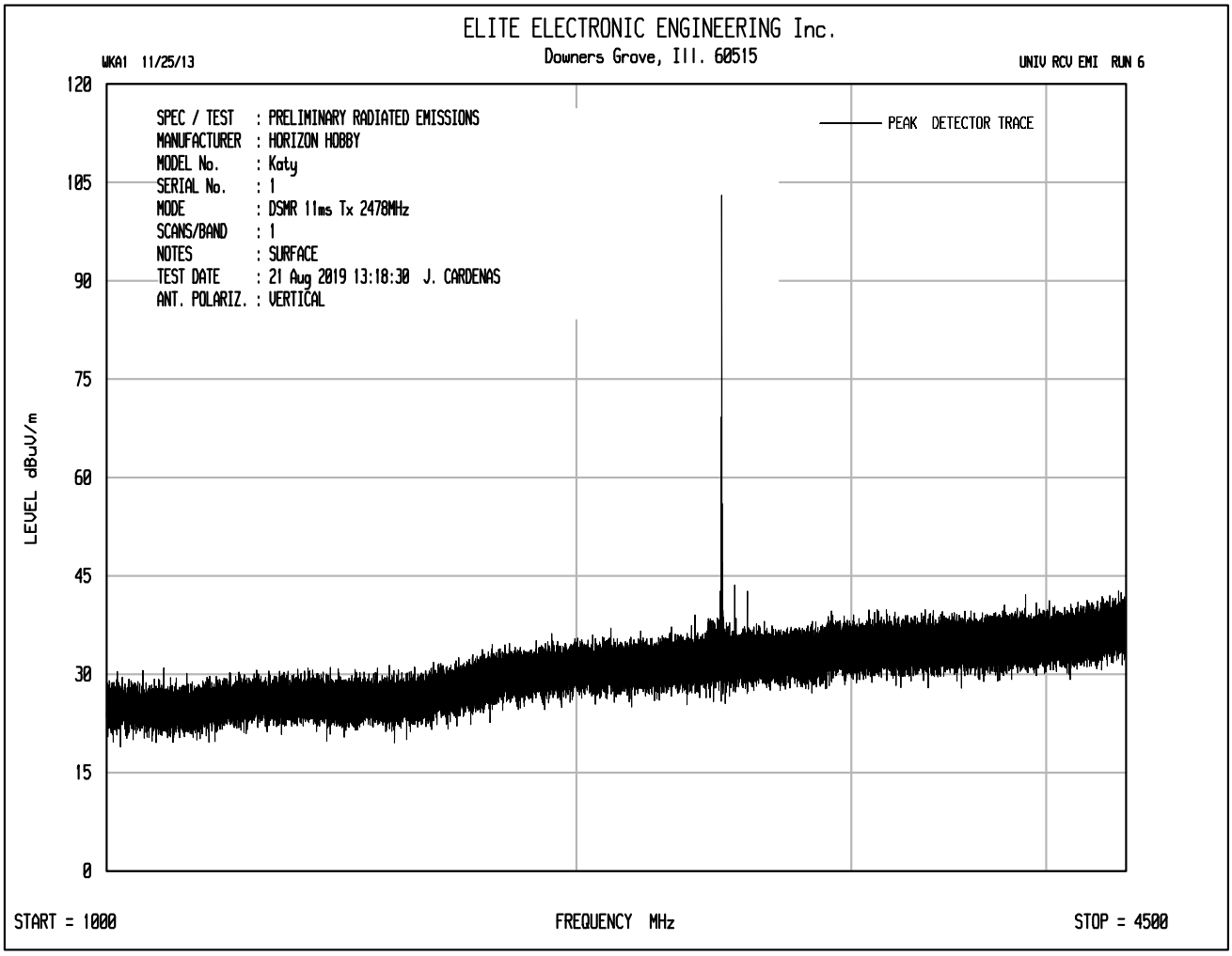

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 10
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 22 Aug 2019 11:01:17 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

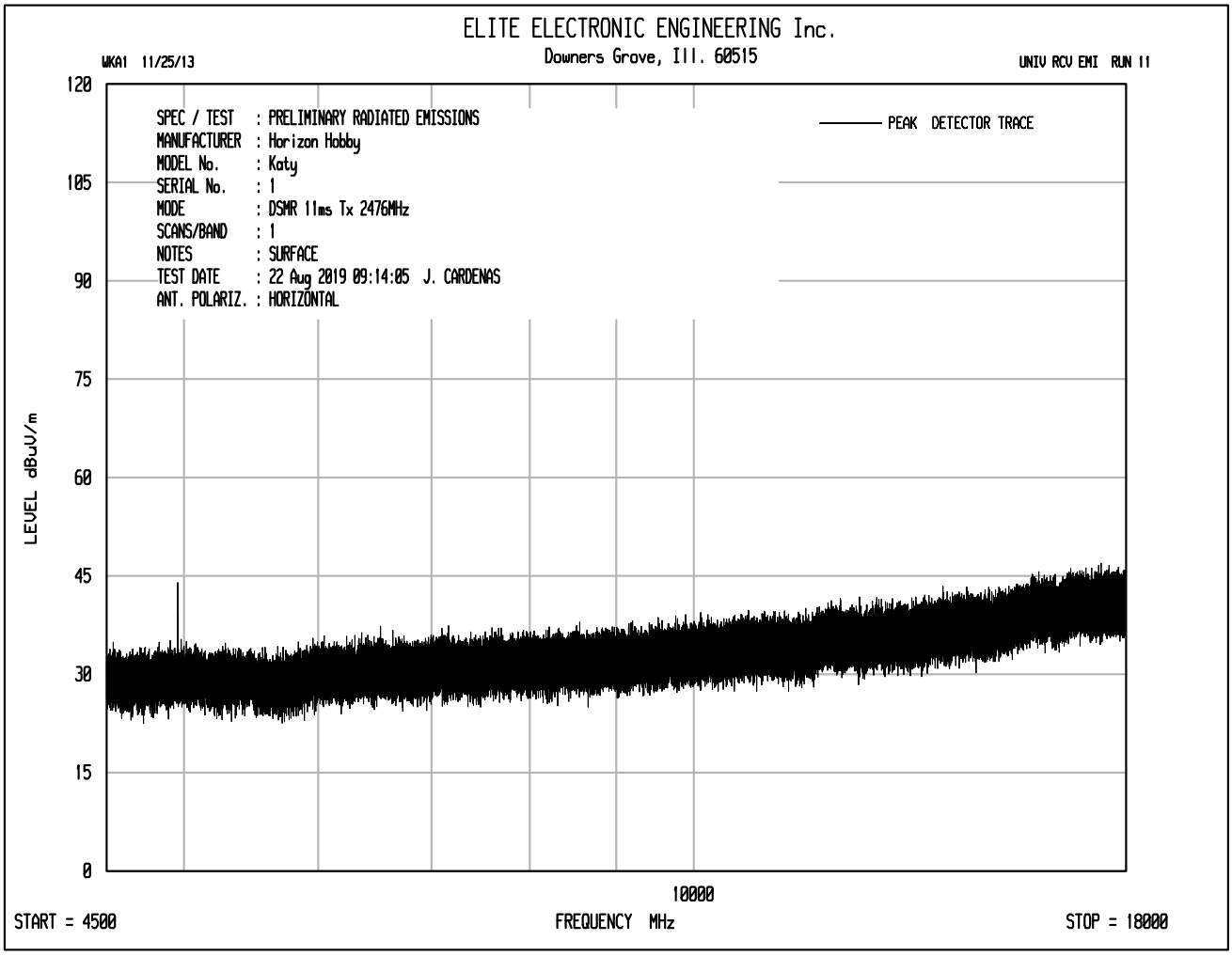

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 9
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2440MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 22 Aug 2019 10:54:19 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

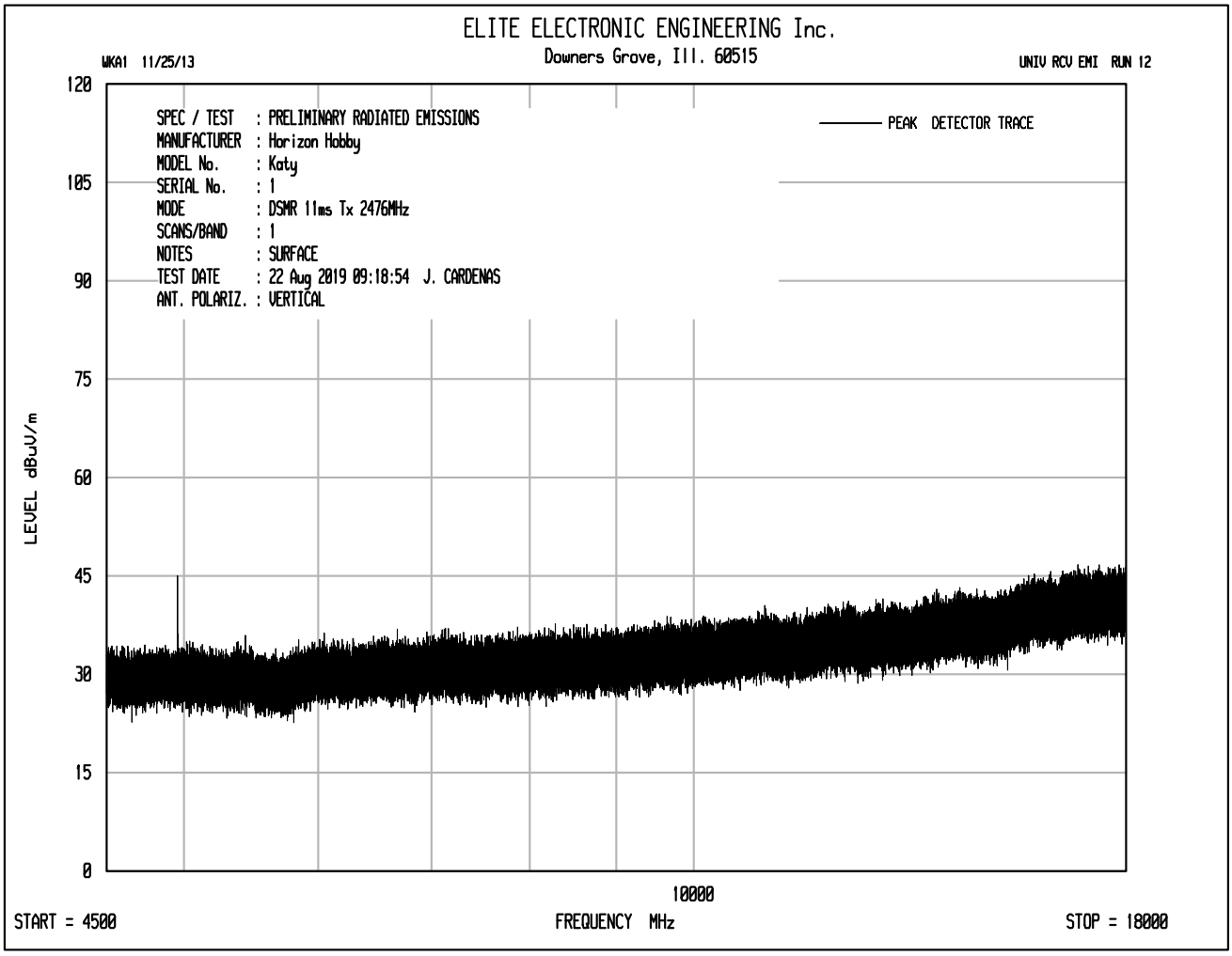

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 13
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2478MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 20 Aug 2019 09:39:04 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

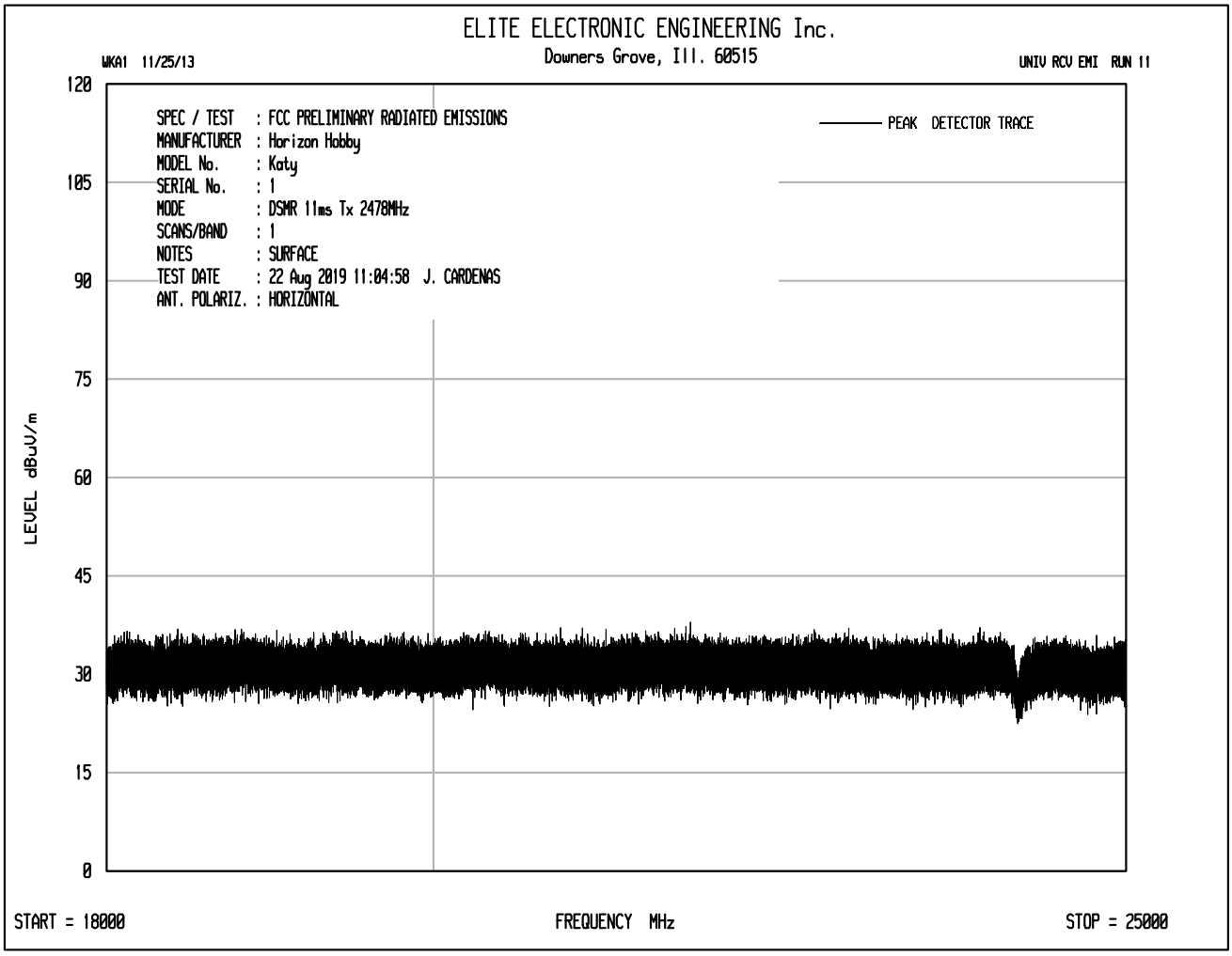

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 14
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2478MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 20 Aug 2019 09:42:11 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

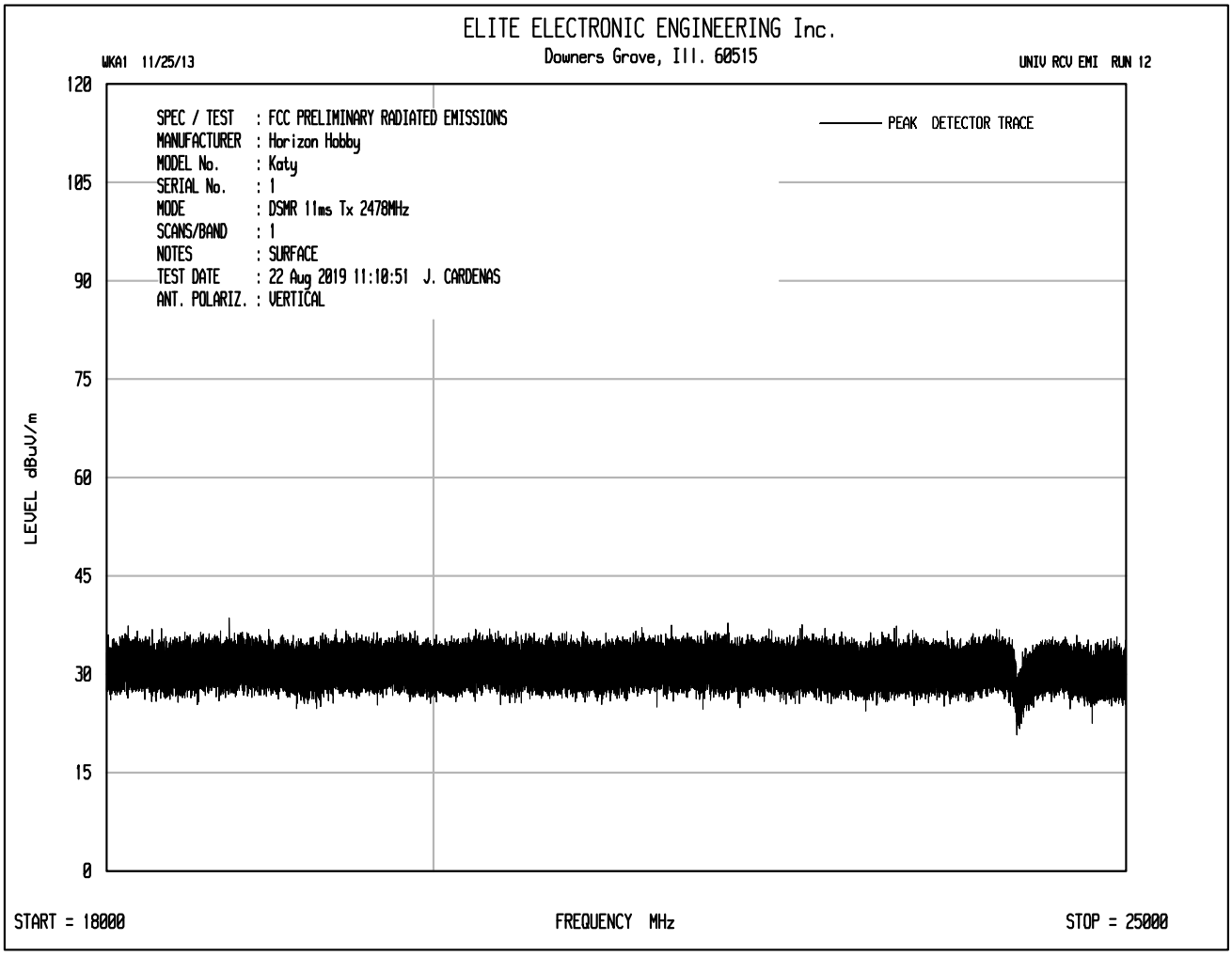

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 5
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HORIZON HOBBY
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2478MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 21 Aug 2019 13:17:13 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 6
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : HORIZON HOBBY
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2478MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 21 Aug 2019 13:18:30 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 11
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2476MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 22 Aug 2019 09:14:05 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 12
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2476MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 22 Aug 2019 09:18:54 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 11
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2478MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 22 Aug 2019 11:04:58 J. CARDENAS
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 12
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : Horizon Hobby
MODEL No. : Katy
SERIAL No. : 1
MODE : DSMR 11ms Tx 2478MHz
SCANS/BAND : 1
NOTES : SURFACE
TEST DATE : 22 Aug 2019 11:10:51 J. CARDENAS
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Harmonics in Non-Restricted Bands
MODE	DSMX 11ms – 2404MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
2404.00	H	75.2		2.6	32.2	0.0	109.9	314396.6		
2404.00	V	73.1		2.6	32.2	0.0	107.9	247444.6		
7212.00	H	38.7	*	4.6	35.9	-39.4	39.9	98.5	9942.1	-40.1
7212.00	V	38.6	*	4.6	35.9	-39.4	39.7	96.8	9942.1	-40.2
9616.00	H	38.4	*	5.2	36.8	-39.3	41.1	114.0	9942.1	-38.8
9616.00	V	38.0	*	5.2	36.8	-39.3	40.7	108.8	9942.1	-39.2
14424.00	H	38.3	*	6.6	39.6	-38.3	46.2	203.1	9942.1	-33.8
14424.00	V	38.6	*	6.6	39.6	-38.3	46.5	212.2	9942.1	-33.4
16828.00	H	37.6	*	7.2	42.0	-37.5	49.3	290.7	9942.1	-30.7
16828.00	V	37.4	*	7.2	42.0	-37.5	49.0	282.8	9942.1	-30.9
21636.00	H	25.7	*	2.2	40.6	-28.6	40.0	99.9	9942.1	-40.0
21636.00	V	25.7	*	2.2	40.6	-28.6	40.0	99.8	9942.1	-40.0
24040.00	H	27.3	*	2.2	40.6	-28.9	41.3	116.4	9942.1	-38.6
24040.00	V	27.0	*	2.2	40.6	-28.9	41.0	111.9	9942.1	-39.0

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Harmonics in Restricted Bands
MODE	DSMX 11ms – 2404MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
4808.00	H	55.1		3.7	34.2	-39.3	53.6	480.1	5000.0	-20.4
4808.00	V	53.7		3.7	34.2	-39.3	52.2	408.2	5000.0	-21.8
12020.00	H	48.4	*	6.1	38.7	-39.2	54.0	498.9	5000.0	-20.0
12020.00	V	48.5	*	6.1	38.7	-39.2	54.1	507.6	5000.0	-19.9
14424.00	H	38.3	*	6.6	39.6	-38.3	46.2	203.1	9942.1	-33.8
14424.00	V	38.6	*	6.6	39.6	-38.3	46.5	212.2	9942.1	-33.4

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Restricted Band Averages
MODE	DSMX 11ms – 2404MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Duty Cycle (dB)	Average Total dBµV/m at 3m	Average Total µV/m at 3 m	Average Limit µV/m at 3 m	Margin (dB)
4808.00	H	36.5		3.7	34.2	-39.3	0.0	35.1	56.8	500.0	-18.9
4808.00	V	37.5		3.7	34.2	-39.3	0.0	36.0	63.1	500.0	-18.0
12020.00	H	33.9	*	6.1	38.7	-39.2	0.0	39.5	94.1	500.0	-14.5
12020.00	V	33.9	*	6.1	38.7	-39.2	0.0	39.5	94.2	500.0	-14.5
19232.00	H	21.0	*	2.2	40.4	-28.2	0.0	35.4	59.0	500.0	-18.6
19232.00	V	21.0	*	2.2	40.4	-28.2	0.0	14.4	5.3	500.0	-39.6

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Harmonics in Non-Restricted Bands
MODE	DSMX 11ms – 2440MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
2440.00	H	76.5		2.6	32.3	0.0	111.4	369951.6		
2440.00	V	71.9		2.6	32.3	0.0	106.7	217342.6		
9760.00	H	38.4	*	5.2	37.0	-39.3	41.4	117.2	11698.9	-40.0
9760.00	V	37.8	*	5.2	37.0	-39.3	40.7	109.0	11698.9	-40.6
14640.00	H	37.4	*	6.7	39.7	-38.2	45.6	190.5	11698.9	-35.8
14640.00	V	37.5	*	6.7	39.7	-38.2	45.7	192.0	11698.9	-35.7
17080.00	H	36.7	*	7.3	41.8	-37.6	48.2	256.6	11698.9	-33.2
17080.00	V	36.9	*	7.3	41.8	-37.6	48.4	263.8	11698.9	-32.9
21960.00	H	26.6	*	2.2	40.6	-28.9	40.5	106.1	11698.9	-40.8
21960.00	V	25.8	*	2.2	40.6	-28.9	39.7	97.1	11698.9	-41.6
24400.00	H	27.0	*	2.2	40.6	-29.1	40.8	109.1	11698.9	-40.6
24400.00	V	26.6	*	2.2	40.6	-29.1	40.4	104.3	11698.9	-41.0

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Harmonics in Restricted Bands
MODE	DSMX 11ms – 2440MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
4880.00	H	58.2		3.7	34.1	-39.3	56.7	686.2	5000.0	-17.3
4880.00	V	56.6		3.7	34.1	-39.3	55.1	570.1	5000.0	-18.9
7320.00	H	48.7	*	4.7	35.9	-39.4	49.8	309.4	5000.0	-24.2
7320.00	V	48.3	*	4.7	35.9	-39.4	49.5	297.6	5000.0	-24.5
12200.00	H	48.8	*	6.1	38.7	-39.1	54.5	530.3	5000.0	-19.5
12200.00	V	47.4	*	6.1	38.7	-39.1	53.1	450.8	5000.0	-20.9
19520.00	H	36.1	*	2.2	40.4	-28.2	50.5	336.6	5000.0	-23.4
19520.00	V	35.6	*	2.2	40.4	-28.2	50.0	316.7	5000.0	-24.0

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Restricted Band Averages
MODE	DSMX 11ms – 2440MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Duty Cycle (dB)	Average Total dBµV/m at 3m	Average Total µV/m at 3 m	Average Limit µV/m at 3 m	Margin (dB)
4880.00	H	43.6		3.7	34.1	-39.3	0.0	42.1	127.6	500.0	-11.9
4880.00	V	41.8		3.7	34.1	-39.3	0.0	40.3	103.0	500.0	-13.7
7320.00	H	33.7	*	4.7	35.9	-39.4	0.0	34.9	55.5	500.0	-19.1
7320.00	V	33.7	*	4.7	35.9	-39.4	0.0	34.8	55.2	500.0	-19.1
12200.00	H	33.2	*	6.1	38.7	-39.1	0.0	38.9	88.1	500.0	-15.1
12200.00	V	33.1	*	6.1	38.7	-39.1	0.0	38.8	87.0	500.0	-15.2
19520.00	H	20.8	*	2.2	40.4	-28.2	0.0	14.4	5.3	500.0	-39.5
19520.00	V	20.7	*	2.2	40.4	-28.2	0.0	35.1	56.9	500.0	-18.9

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Harmonics in Non-Restricted Bands
MODE	DSMX 11ms – 2476MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
2476.00	H	75.3		2.7	32.3	0.0	110.3	326466.6		
2476.00	V	71.1		2.7	32.3	0.0	106.1	201066.0		
9904.00	H	38.1	*	5.3	37.1	-39.2	41.3	115.7	10323.8	-39.0
9904.00	V	38.0	*	5.3	37.1	-39.2	41.1	113.7	10323.8	-39.2
14856.00	H	36.7	*	6.8	39.8	-38.2	45.1	178.9	10323.8	-35.2
14856.00	V	37.4	*	6.8	39.8	-38.2	45.8	193.9	10323.8	-34.5
17332.00	H	38.0	*	7.3	41.7	-37.7	49.4	293.7	10323.8	-30.9
17332.00	V	37.4	*	7.3	41.7	-37.7	48.7	272.2	10323.8	-31.6
24760.00	H	26.5	*	2.2	40.6	-29.0	40.3	103.8	10323.8	-40.0
24760.00	V	26.6	*	2.2	40.6	-29.0	40.4	105.1	10323.8	-39.8

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Harmonics in Restricted Bands
MODE	DSMX 11ms – 2476MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
4952.00	H	58.2		3.7	34.1	-39.3	56.7	683.7	5000.0	-17.3
4952.00	V	59.2		3.7	34.1	-39.3	57.7	765.3	5000.0	-16.3
7428.00	H	48.4	*	4.7	35.8	-39.4	49.5	298.4	5000.0	-24.5
7428.00	V	48.1	*	4.7	35.8	-39.4	49.2	288.9	5000.0	-24.8
12380.00	H	47.5	*	6.1	38.6	-39.0	53.2	456.4	5000.0	-20.8
12380.00	V	49.4	*	6.1	38.6	-39.0	55.1	570.6	5000.0	-18.9
19808.00	H	35.7	*	2.2	40.4	-28.3	50.0	315.3	5000.0	-24.0
19808.00	V	35.2	*	2.2	40.4	-28.3	49.5	298.0	5000.0	-24.5
22284.00	H	37.1	*	2.2	40.6	-29.0	50.8	348.5	5000.0	-23.1
22284.00	V	36.2	*	2.2	40.6	-29.0	50.0	314.6	5000.0	-24.0
2483.50	H	25.8	*	2.7	32.3	0.0	60.8	1094.4	5000.0	-13.2
2483.50	V	24.1	*	2.7	32.3	0.0	59.1	897.8	5000.0	-14.9

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Restricted Band Averages
MODE	DSMX 11ms – 2476MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Duty Cycle (dB)	Average Total dBµV/m at 3m	Average Total µV/m at 3 m	Average Limit µV/m at 3 m	Margin (dB)
4952.00	H	42.8		3.7	34.1	-39.3	0.0	41.3	116.1	500.0	-12.7
4952.00	V	44.2		3.7	34.1	-39.3	0.0	42.7	136.1	500.0	-11.3
7428.00	H	33.55	*	4.7	35.8	-39.4	0.0	34.7	54.0	500.0	-19.3
7428.00	V	33.5	*	4.7	35.8	-39.4	0.0	34.6	53.6	500.0	-19.4
12380.00	H	33.2	*	6.1	38.6	-39.0	0.0	38.9	88.1	500.0	-15.1
12380.00	V	33.3	*	6.1	38.6	-39.0	0.0	39.0	89.2	500.0	-15.0
19808.00	H	20.7	*	2.2	40.4	-28.3	0.0	35.0	56.1	500.0	-19.0
19808.00	V	20.6	*	2.2	40.4	-28.3	0.0	34.9	55.5	500.0	-19.1
22284.00	H	21.5	*	2.2	40.6	-29.0	0.0	35.2	57.8	500.0	-18.7
22284.00	V	21.4	*	2.2	40.6	-29.0	0.0	35.2	57.2	500.0	-18.8
2483.50	H	7.4	*	2.7	32.3	0.0	0.0	42.4	131.9	500.0	-11.6
2483.50	V	7.1	*	2.7	32.3	0.0	0.0	42.1	127.4	500.0	-11.9

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Harmonics in Non-Restricted Bands
MODE	DSMR 11ms – 2405MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
2405.00	H	73.8		2.6	32.2	0.0	108.6	270152.2		
2405.00	V	70.2		2.6	32.2	0.0	105.0	177055.1		
7215.00	H	40.0		4.6	35.9	-39.4	41.1	113.5	8543.0	-37.5
7215.00	V	39.8		4.6	35.9	-39.4	40.9	111.2	8543.0	-37.7
9620.00	H	39.4	*	5.2	36.9	-39.3	42.2	128.5	8543.0	-36.5
9620.00	V	39.1	*	5.2	36.9	-39.3	41.9	124.1	8543.0	-36.8
14430.00	H	38.2	*	6.6	39.6	-38.3	46.1	201.7	8543.0	-32.5
14430.00	V	37.6	*	6.6	39.6	-38.3	45.6	189.5	8543.0	-33.1
16835.00	H	37.3	*	7.2	42.0	-37.5	49.0	281.0	8543.0	-29.7
16835.00	V	37.0	*	7.2	42.0	-37.5	48.6	270.2	8543.0	-30.0
21645.00	H	26.6	*	2.2	40.6	-28.5	40.8	110.3	8543.0	-37.8
21645.00	V	25.9	*	2.2	40.6	-28.5	40.2	101.9	8543.0	-38.5
24050.00	H	26.7	*	2.2	40.6	-28.9	40.7	108.1	8543.0	-38.0
24050.00	V	26.6	*	2.2	40.6	-28.9	40.5	106.0	8543.0	-38.1

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Harmonics in Restricted Bands
MODE	DSMR 11ms – 2405MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
4810.00	H	55.5		3.7	34.2	-39.3	54.1	506.1	5000.0	-19.9
4810.00	V	55.3		3.7	34.2	-39.3	53.9	494.6	5000.0	-20.1
12025.00	H	50.1	*	6.1	38.7	-39.2	55.7	610.5	5000.0	-18.3
12025.00	V	49.6	*	6.1	38.7	-39.2	55.2	578.3	5000.0	-18.7
19240.00	H	36.6	*	2.2	40.4	-28.1	51.0	356.9	5000.0	-22.9
19240.00	V	36.6	*	2.2	40.4	-28.1	51.0	356.4	5000.0	-22.9

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Restricted Band Averages
MODE	DSMR 11ms – 2405MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Duty Cycle (dB)	Average Total dBµV/m at 3m	Average Total µV/m at 3 m	Average Limit µV/m at 3 m	Margin (dB)
4810.00	H	38.1		3.7	34.2	-39.3	0.0	36.6	67.7	500.0	-17.4
4810.00	V	37.6		3.7	34.2	-39.3	0.0	36.1	64.2	500.0	-17.8
12025.00	H	34.2	*	6.1	38.7	-39.2	0.0	39.8	97.6	500.0	-14.2
12025.00	V	34.1	*	6.1	38.7	-39.2	0.0	39.7	96.9	500.0	-14.3
19240.00	H	20.6	*	2.2	40.4	-28.1	0.0	35.1	56.8	500.0	-18.9
19240.00	V	20.5	*	2.2	40.4	-28.1	0.0	35.0	56.0	500.0	-19.0

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Harmonics in Non-Restricted Bands
MODE	DSMR 11ms – 2440MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
2440.00	H	74.0		2.6	32.3	0.0	108.9	277105.3		
2440.00	V	71.9		2.6	32.3	0.0	106.8	219101.3		
9760.00	H	38.1	*	5.2	37.0	-39.3	41.1	113.4	8762.8	-37.8
9760.00	V	37.8	*	5.2	37.0	-39.3	40.7	109.0	8762.8	-38.1
14640.00	H	38.3	*	6.7	39.7	-38.2	46.5	211.5	8762.8	-32.3
14640.00	V	37.4	*	6.7	39.7	-38.2	45.6	190.7	8762.8	-33.2
17080.00	H	37.6	*	7.3	41.8	-37.6	49.1	285.9	8762.8	-29.7
17080.00	V	37.4	*	7.3	41.8	-37.6	48.9	279.4	8762.8	-29.9
21960.00	H	25.6	*	2.2	40.6	-28.9	39.5	94.6	8762.8	-39.3
21960.00	V	25.5	*	2.2	40.6	-28.9	39.4	93.4	8762.8	-39.4
24400.00	H	26.2	*	2.2	40.6	-29.1	39.9	98.8	8762.8	-39.0
24400.00	V	26.3	*	2.2	40.6	-29.1	40.0	100.4	8762.8	-38.8

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Harmonics in Restricted Bands
MODE	DSMR 11ms – 2440MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
4880.00	H	58.4		3.7	34.1	-39.3	56.9	700.5	5000.0	-17.1
4880.00	V	57.9		3.7	34.1	-39.3	56.4	662.1	5000.0	-17.6
7320.00	H	48.8	*	4.7	35.9	-39.4	50.0	314.5	5000.0	-24.0
7320.00	V	47.9	*	4.7	35.9	-39.4	49.1	284.8	5000.0	-24.9
12200.00	H	48.5	*	6.1	38.7	-39.1	54.1	508.8	5000.0	-19.8
12200.00	V	48.2	*	6.1	38.7	-39.1	53.9	496.6	5000.0	-20.1
19520.00	H	35.6	*	2.2	40.4	-28.2	50.0	317.0	5000.0	-24.0
19520.00	V	35.7	*	2.2	40.4	-28.2	50.2	322.2	5000.0	-23.8

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Restricted Band Averages
MODE	DSMR 11ms – 2440MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Duty Cycle (dB)	Average Total dBµV/m at 3m	Average Total µV/m at 3 m	Average Limit µV/m at 3 m	Margin (dB)
4880.00	H	39.9		3.7	34.1	-39.3	0.0	38.4	83.5	500.0	-15.5
4880.00	V	39.8		3.7	34.1	-39.3	0.0	38.3	81.8	500.0	-15.7
7320.00	H	33.30	*	4.7	35.9	-39.4	0.0	34.5	52.8	500.0	-19.5
7320.00	V	33.0	*	4.7	35.9	-39.4	0.0	34.2	51.2	500.0	-19.8
12200.00	H	33.6	*	6.1	38.7	-39.1	0.0	39.3	91.9	500.0	-14.7
12200.00	V	33.5	*	6.1	38.7	-39.1	0.0	39.2	91.0	500.0	-14.8
19520.00	H	20.3	*	2.2	40.4	-28.2	0.0	34.7	54.3	500.0	-19.3
19520.00	V	20.5	*	2.2	40.4	-28.2	0.0	34.9	55.8	500.0	-19.0

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Harmonics in Non-Restricted Bands
MODE	DSMR 11ms – 2478MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
2478.00	H	74.3		2.7	32.3	0.0	109.2	289775.2		
2478.00	V	70.6		2.7	32.3	0.0	105.6	190134.6		
9912.00	H	38.9	*	5.3	37.1	-39.2	42.1	126.9	9163.5	-37.2
9912.00	V	38.2	*	5.3	37.1	-39.2	41.3	116.7	9163.5	-37.9
14868.00	H	37.5	*	6.8	39.8	-38.2	45.9	196.2	9163.5	-33.4
14868.00	V	37.9	*	6.8	39.8	-38.2	46.2	205.2	9163.5	-33.0
17346.00	H	37.5	*	7.4	41.7	-37.7	48.8	276.8	9163.5	-30.4
17346.00	V	37.3	*	7.4	41.7	-37.7	48.6	268.7	9163.5	-30.7
24780.00	H	26.7	*	2.2	40.6	-29.1	40.5	105.8	9163.5	-38.8
24780.00	V	27.1	*	2.2	40.6	-29.1	40.8	110.1	9163.5	-38.4

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Harmonics in Restricted Bands
MODE	DSMR 11ms – 2478MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
4956.00	H	57.7		3.7	34.1	-39.3	56.2	642.6	5000.0	-17.8
4956.00	V	59.3		3.7	34.1	-39.3	57.8	777.0	5000.0	-16.2
7434.00	H	48.2	*	4.7	35.8	-39.4	49.3	293.2	5000.0	-24.6
7434.00	V	48.2	*	4.7	35.8	-39.4	49.3	290.5	5000.0	-24.7
12390.00	H	48.7	*	6.1	38.6	-39.0	54.4	522.3	5000.0	-19.6
12390.00	V	48.1	*	6.1	38.6	-39.0	53.8	489.1	5000.0	-20.2
19824.00	H	36.4	*	2.2	40.4	-28.4	50.7	341.9	5000.0	-23.3
19824.00	V	36.1	*	2.2	40.4	-28.4	50.3	328.4	5000.0	-23.7
22302.00	H	36.2	*	2.2	40.6	-29.1	50.0	316.1	5000.0	-24.0
22302.00	V	36.3	*	2.2	40.6	-29.1	50.1	319.4	5000.0	-23.9
2483.50	H	26.6	*	2.7	32.3	0.0	61.6	1201.4	5000.0	-12.4
2483.50	V	26.2	*	2.7	32.3	0.0	61.2	1152.6	5000.0	-12.7

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	FCC-15.247, RSS-247 Radiated Spurious Emissions – Restricted Band Averages
MODE	DSMR 11ms – 2478MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Duty Cycle (dB)	Average Total dBµV/m at 3m	Average Total µV/m at 3 m	Average Limit µV/m at 3 m	Margin (dB)
4956.00	H	38.7		3.7	34.1	-39.3	0.0	37.2	72.7	500.0	-16.8
4956.00	V	40.7		3.7	34.1	-39.3	0.0	39.2	91.1	500.0	-14.8
7434.00	H	33.25	*	4.7	35.8	-39.4	0.0	34.4	52.2	500.0	-19.6
7434.00	V	33.2	*	4.7	35.8	-39.4	0.0	34.3	51.6	500.0	-19.7
12390.00	H	33.1	*	6.1	38.6	-39.0	0.0	38.8	87.2	500.0	-15.2
12390.00	V	33.2	*	6.1	38.6	-39.0	0.0	38.9	87.7	500.0	-15.1
19824.00	H	20.7	*	2.2	40.4	-28.4	0.0	35.0	56.2	500.0	-19.0
19824.00	V	20.6	*	2.2	40.4	-28.4	0.0	34.9	55.4	500.0	-19.1
22302.00	H	21.3	*	2.2	40.6	-29.1	0.0	35.1	56.7	500.0	-18.9
22302.00	V	21.2	*	2.2	40.6	-29.1	0.0	35.0	56.2	500.0	-19.0
2483.50	H	7.9	*	2.7	32.3	0.0	0.0	42.9	139.9	500.0	-11.1
2483.50	V	7.3	*	2.7	32.3	0.0	0.0	42.3	130.2	500.0	-11.7

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Band Edge Compliance - Conducted
MODE	DSMX 11ms – 2404MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

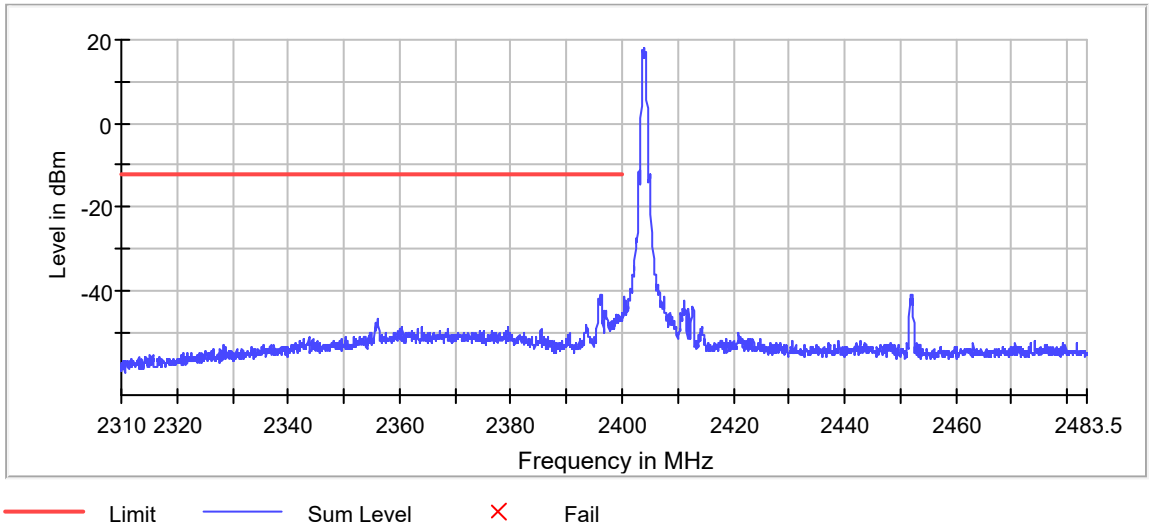
BAND EDGE COMPLIANCE - LOW

In-Band Peak

Frequency (MHz)	Level (dBm)
2403.975000	18.0

Measurements

Frequency (MHz)	Level (dBm)	Margin (dBm)	Limit (dBm)	Result
2396.225000	-40.9	28.9	-12.0	PASS
2396.175000	-41.1	29.1	-12.0	PASS
2395.975000	-41.7	29.7	-12.0	PASS
2395.875000	-41.8	29.8	-12.0	PASS
2395.925000	-42.0	30.0	-12.0	PASS
2395.825000	-42.2	30.1	-12.0	PASS
2396.025000	-42.6	30.5	-12.0	PASS
2396.125000	-43.0	31.0	-12.0	PASS
2395.775000	-43.0	31.0	-12.0	PASS
2396.275000	-43.2	31.2	-12.0	PASS
2396.075000	-43.3	31.3	-12.0	PASS
2395.725000	-43.7	31.6	-12.0	PASS
2395.675000	-44.1	32.1	-12.0	PASS
2397.225000	-44.7	32.6	-12.0	PASS
2397.175000	-44.7	32.7	-12.0	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Band Edge Compliance - Conducted
MODE	DSMR 11ms – 2405MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	

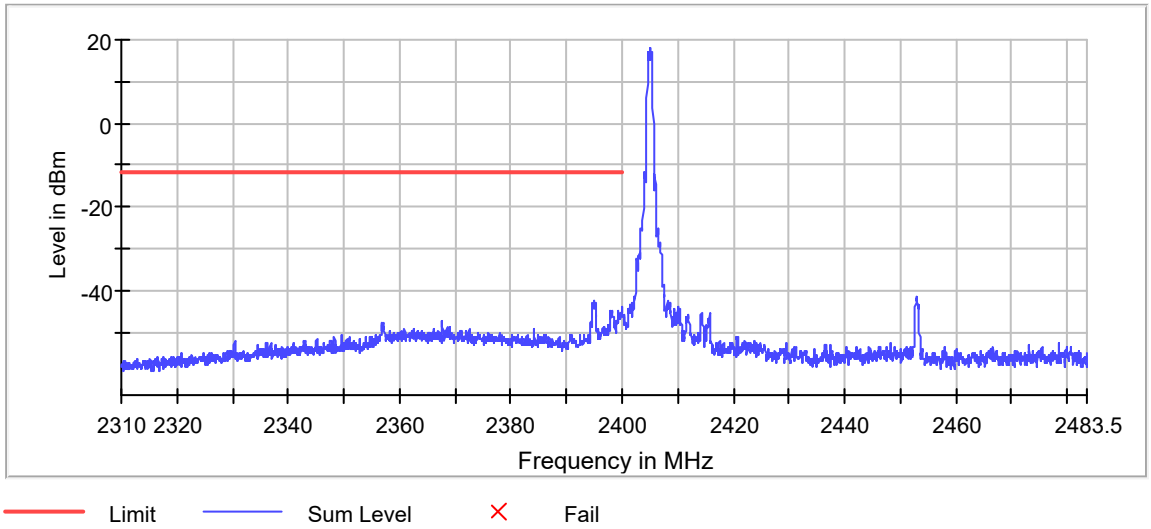
BAND EDGE COMPLIANCE - LOW

In-Band Peak

Frequency (MHz)	Level (dBm)
2404.975000	18.1

Measurements

Frequency (MHz)	Level (dBm)	Margin (dBm)	Limit (dBm)	Result
2394.825000	-42.6	30.8	-11.9	PASS
2394.875000	-42.7	30.8	-11.9	PASS
2395.225000	-43.0	31.2	-11.9	PASS
2394.725000	-43.1	31.2	-11.9	PASS
2395.175000	-43.1	31.3	-11.9	PASS
2394.925000	-43.4	31.6	-11.9	PASS
2394.975000	-43.6	31.7	-11.9	PASS
2394.775000	-43.6	31.8	-11.9	PASS
2394.675000	-43.6	31.8	-11.9	PASS
2399.975000	-43.8	32.0	-11.9	PASS
2399.925000	-43.9	32.1	-11.9	PASS
2395.025000	-44.0	32.2	-11.9	PASS
2395.075000	-44.3	32.4	-11.9	PASS
2395.275000	-44.3	32.5	-11.9	PASS
2395.125000	-44.5	32.7	-11.9	PASS



DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Band Edge Compliance - Radiated
MODE	DSMX 11ms – 2476MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	

BAND EDGE COMPLIANCE – RADIATED

PEAK

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
2483.50	H	25.8	*	2.7	32.3	0.0	60.8	1094.4	5000.0	-13.2
2483.50	V	24.1	*	2.7	32.3	0.0	59.1	897.8	5000.0	-14.9

RESTRICTED BAND AVERAGE

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Duty Cycle (dB)	Average Total dBµV/m at 3m	Average Total µV/m at 3 m	Average Limit µV/m at 3 m	Margin (dB)
2483.50	H	7.4	*	2.7	32.3	0.0	0.0	42.4	131.9	500.0	-11.6
2483.50	V	7.1	*	2.7	32.3	0.0	0.0	42.1	127.4	500.0	-11.9

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Band Edge Compliance - Radiated
MODE	DSMR 11ms – 2478MHz
DATE TESTED	August 22,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	

BAND EDGE COMPLIANCE – RADIATED

PEAK

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Peak Total dBµV/m at 3m	Peak Total µV/m at 3 m	Peak Limit µV/m at 3 m	Margin (dB)
2483.50	H	26.6	*	2.7	32.3	0.0	61.6	1201.4	5000.0	-12.4
2483.50	V	26.2	*	2.7	32.3	0.0	61.2	1152.6	5000.0	-12.7

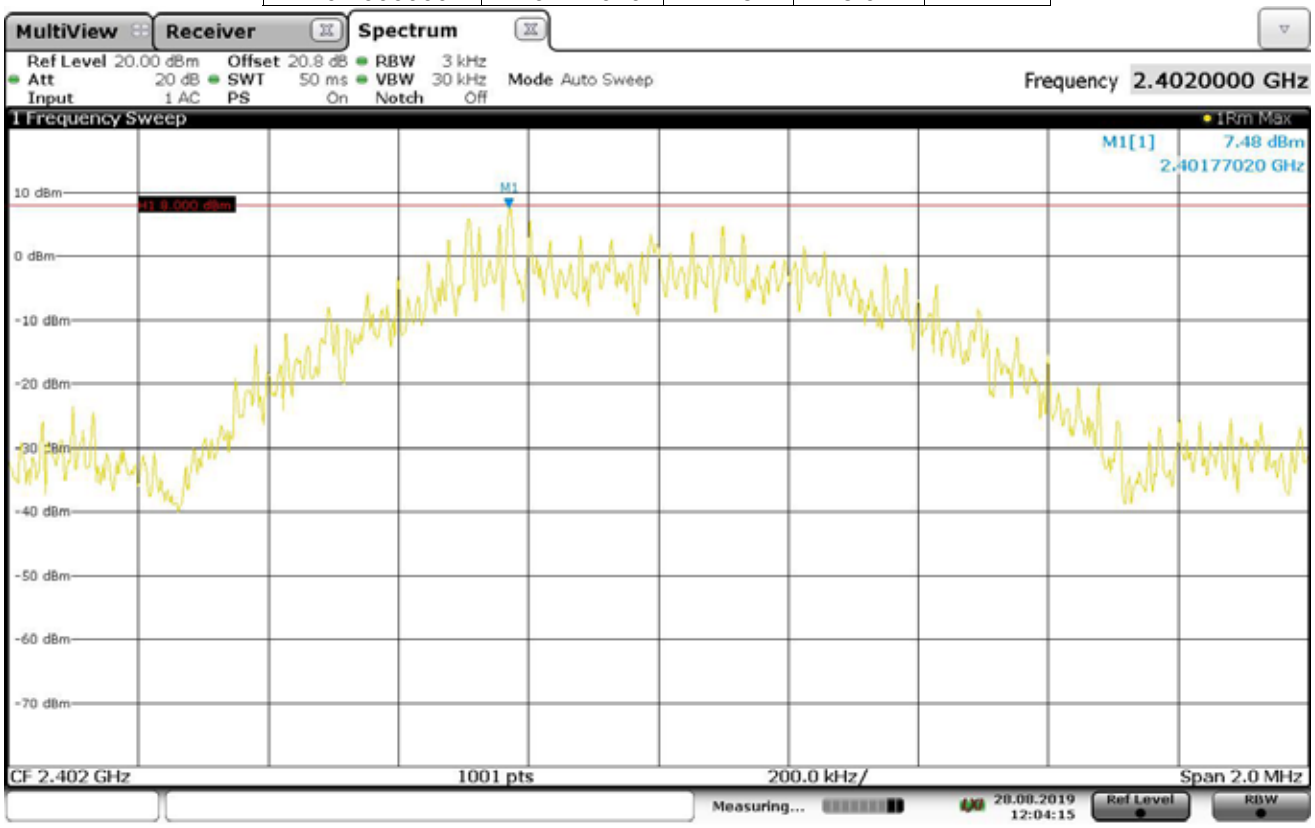
RESTRICTED BAND AVERAGE

Freq. MHz	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB)	Pre Amp (dB)	Duty Cycle (dB)	Average Total dBµV/m at 3m	Average Total µV/m at 3 m	Average Limit µV/m at 3 m	Margin (dB)
2483.50	H	7.9	*	2.7	32.3	0.0	0.0	42.9	139.9	500.0	-11.1
2483.50	V	7.3	*	2.7	32.3	0.0	0.0	42.3	130.2	500.0	-11.7

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSM2 22ms – 2402MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2402.000000	2401.77020	7.48	8.0	PASS

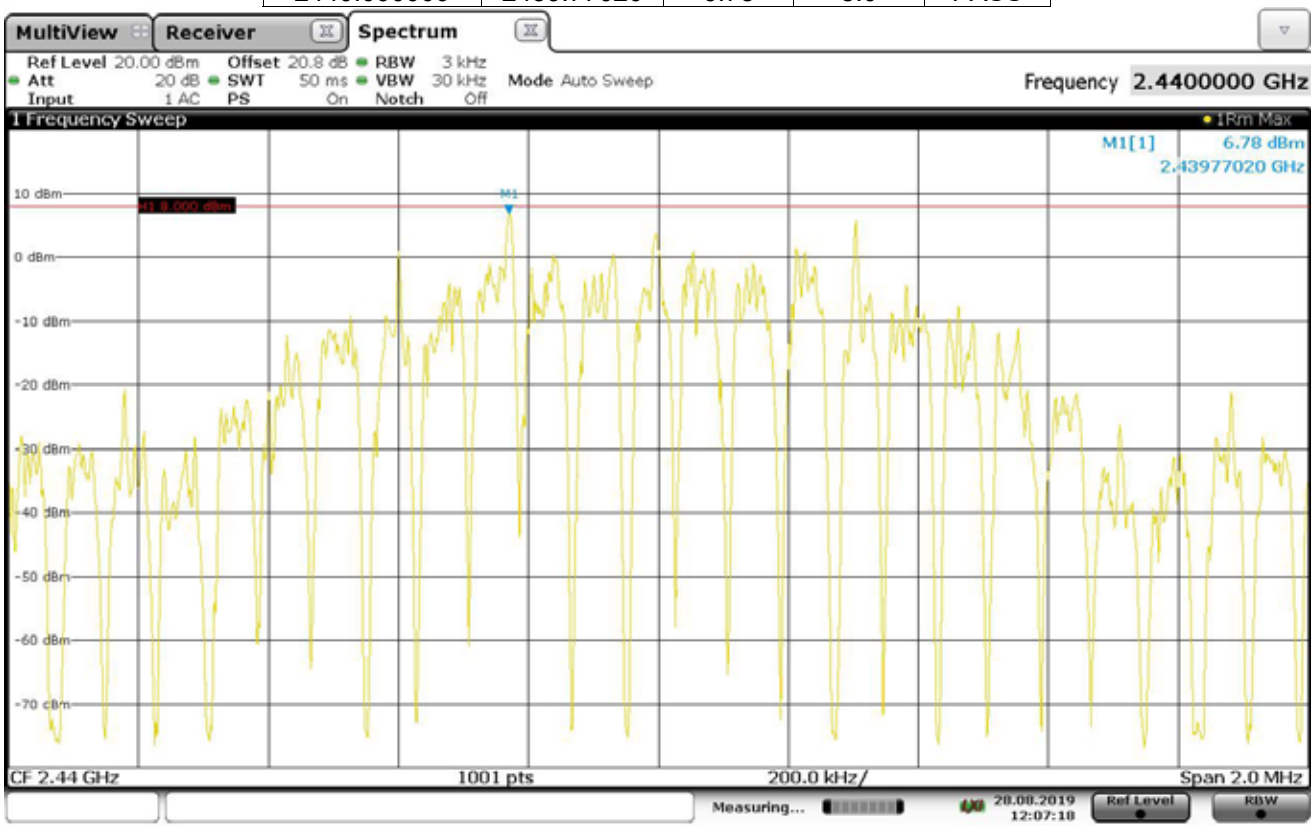


12:04:16 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSM2 22ms – 2440MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2439.77020	6.78	8.0	PASS

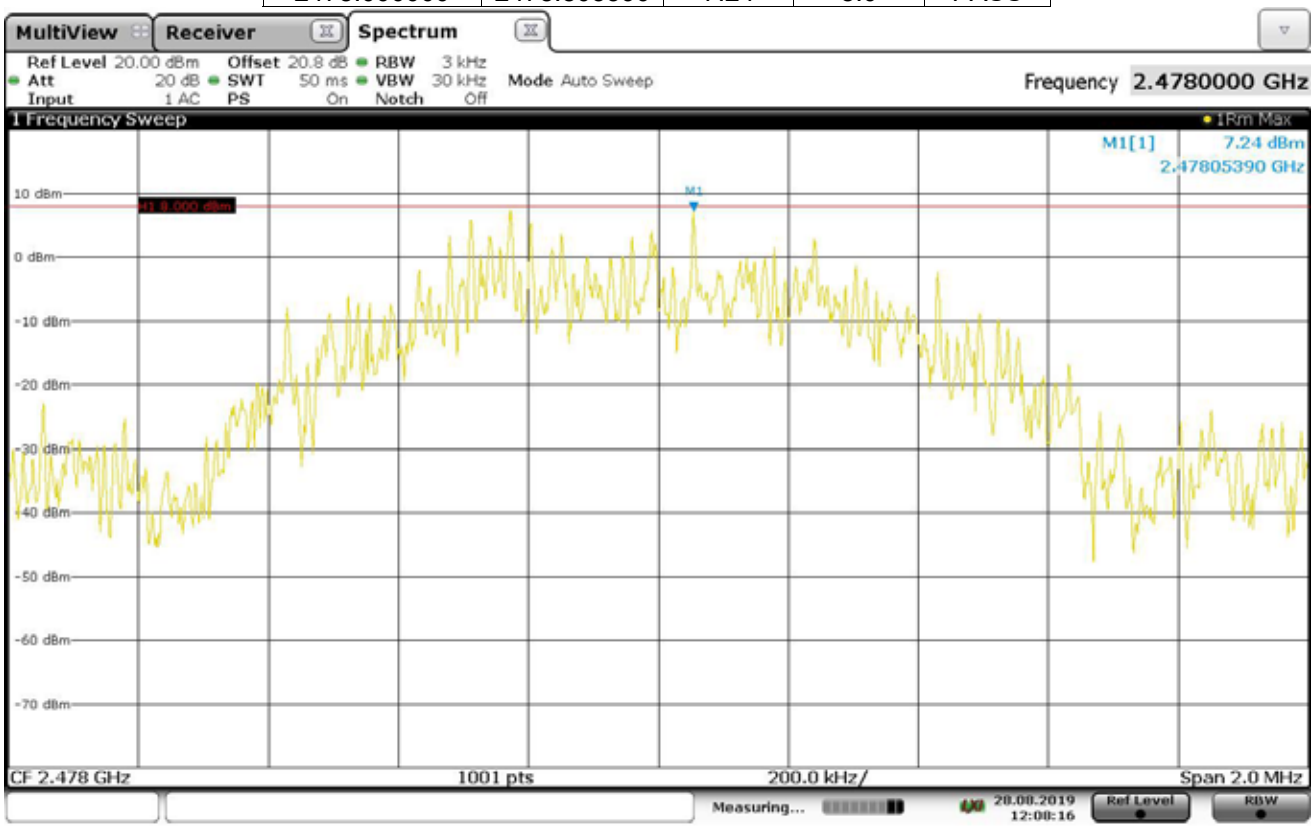


12:07:19 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSM2 22ms – 2478MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2478.000000	2478.805390	7.24	8.0	PASS

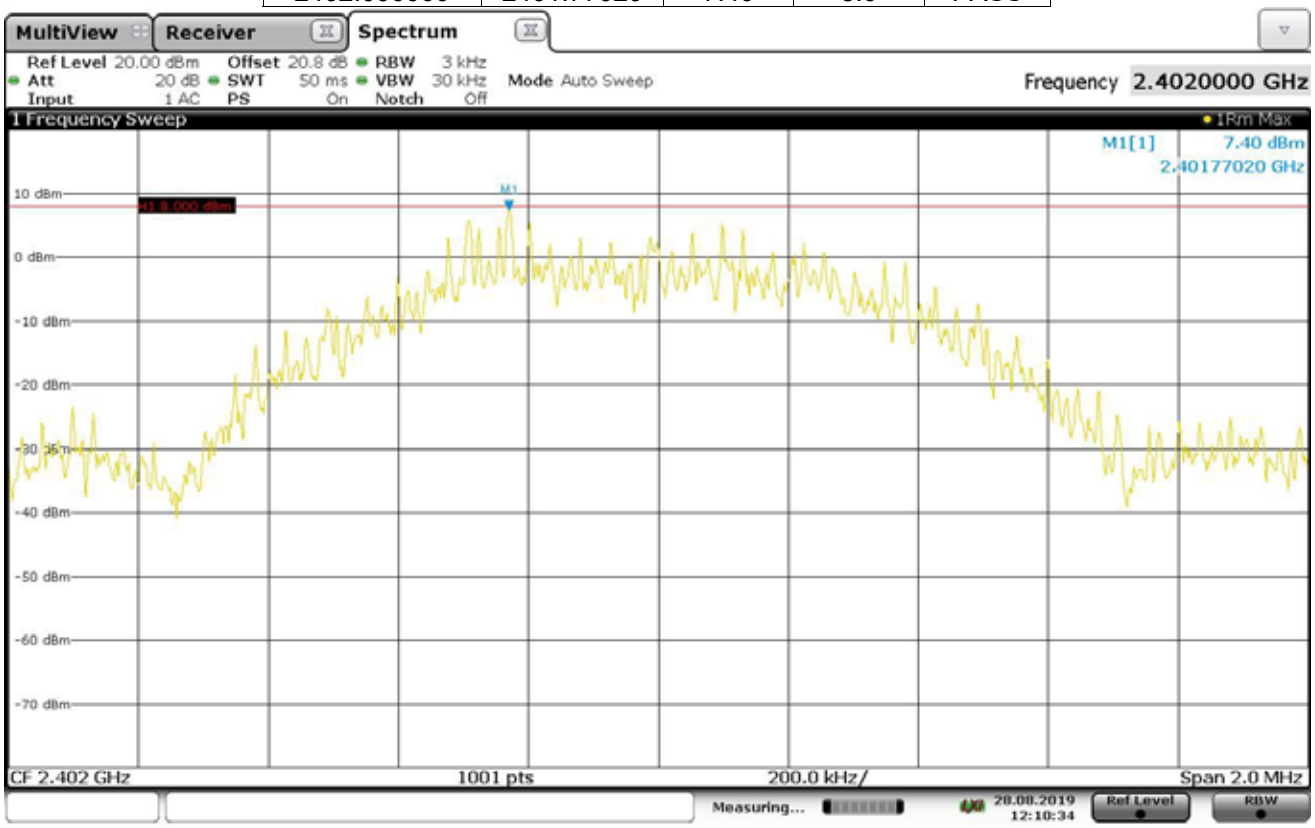


12:08:16 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSM2 11ms – 2402MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2402.000000	2401.77020	7.40	8.0	PASS

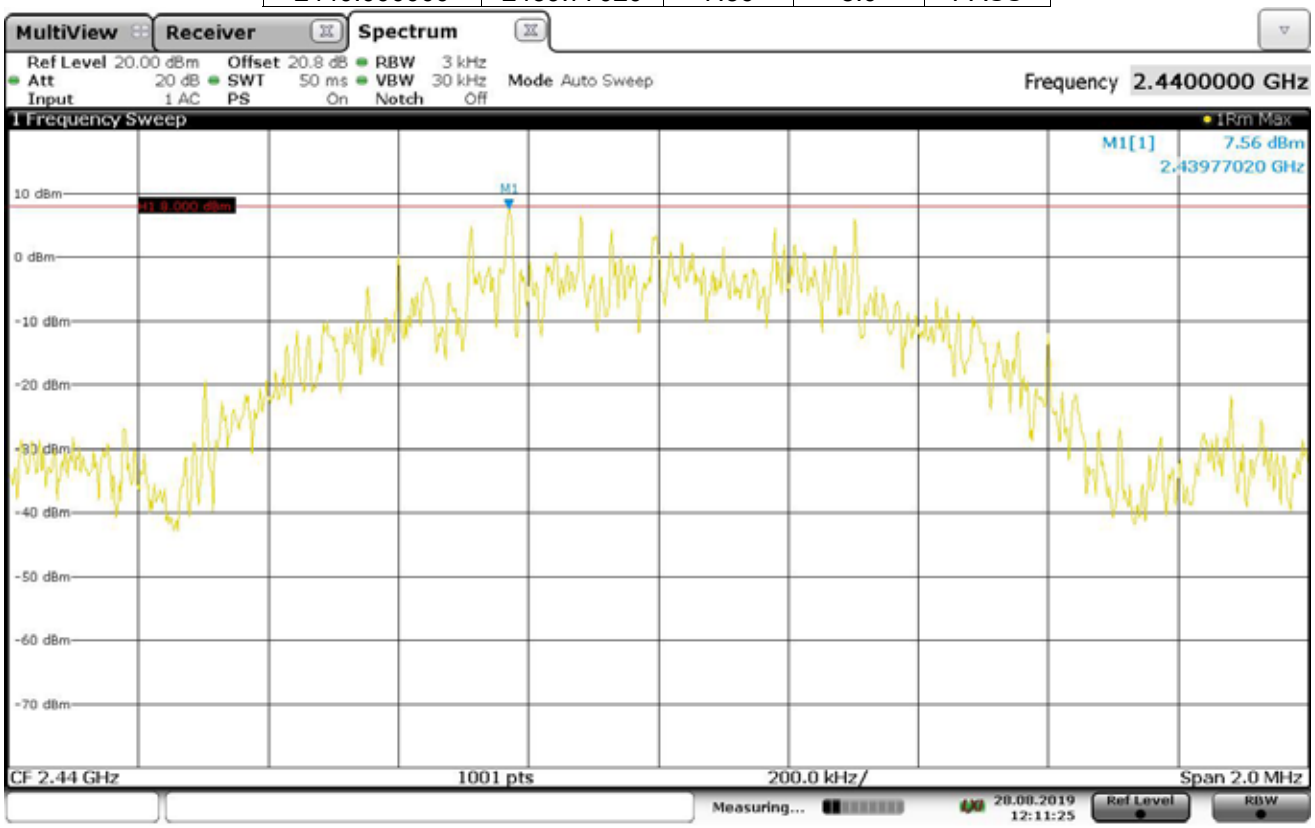


12:10:35 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSM2 11ms – 2440MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2439.77020	7.56	8.0	PASS

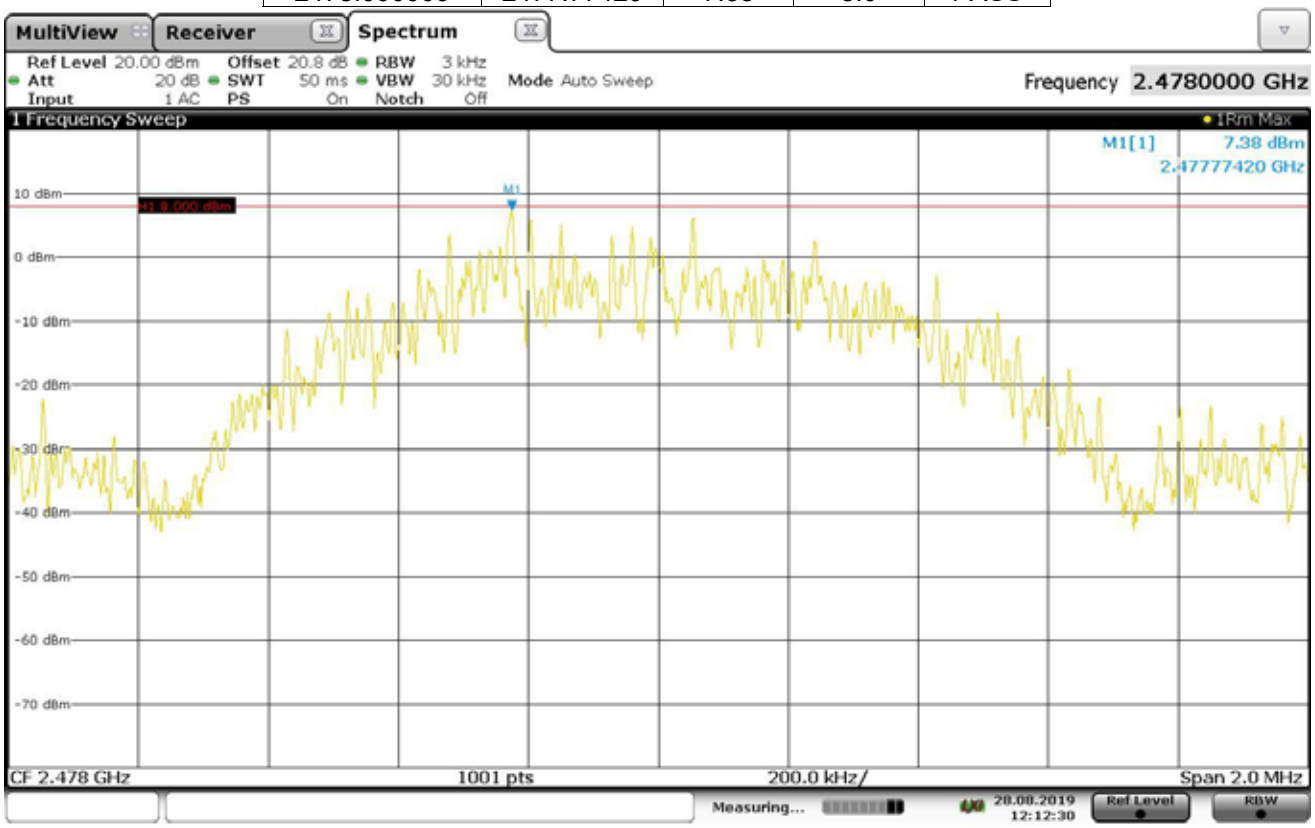


12:11:26 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSM2 11ms – 2478MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2478.000000	2477.77420	7.38	8.0	PASS

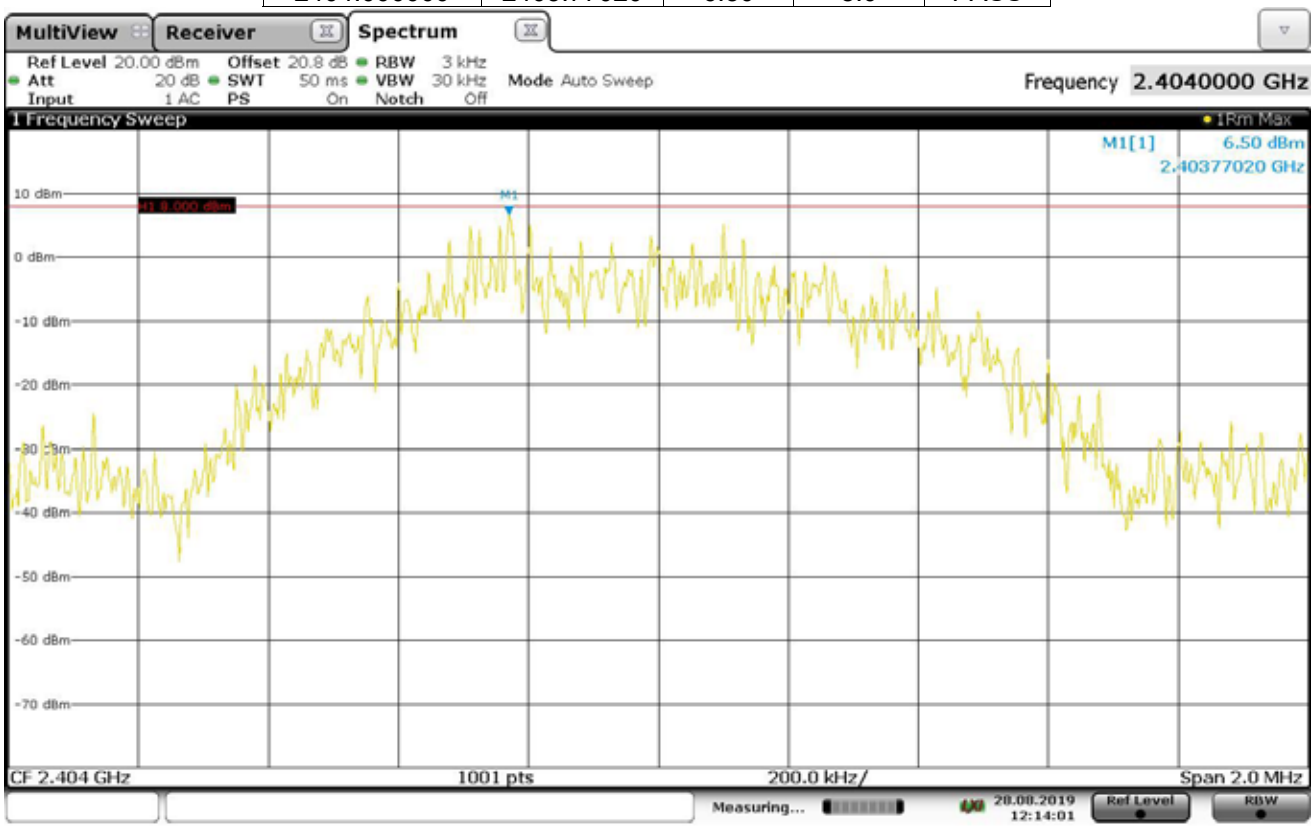


12:12:30 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSMX 22ms – 2404MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2404.000000	2403.77020	6.50	8.0	PASS

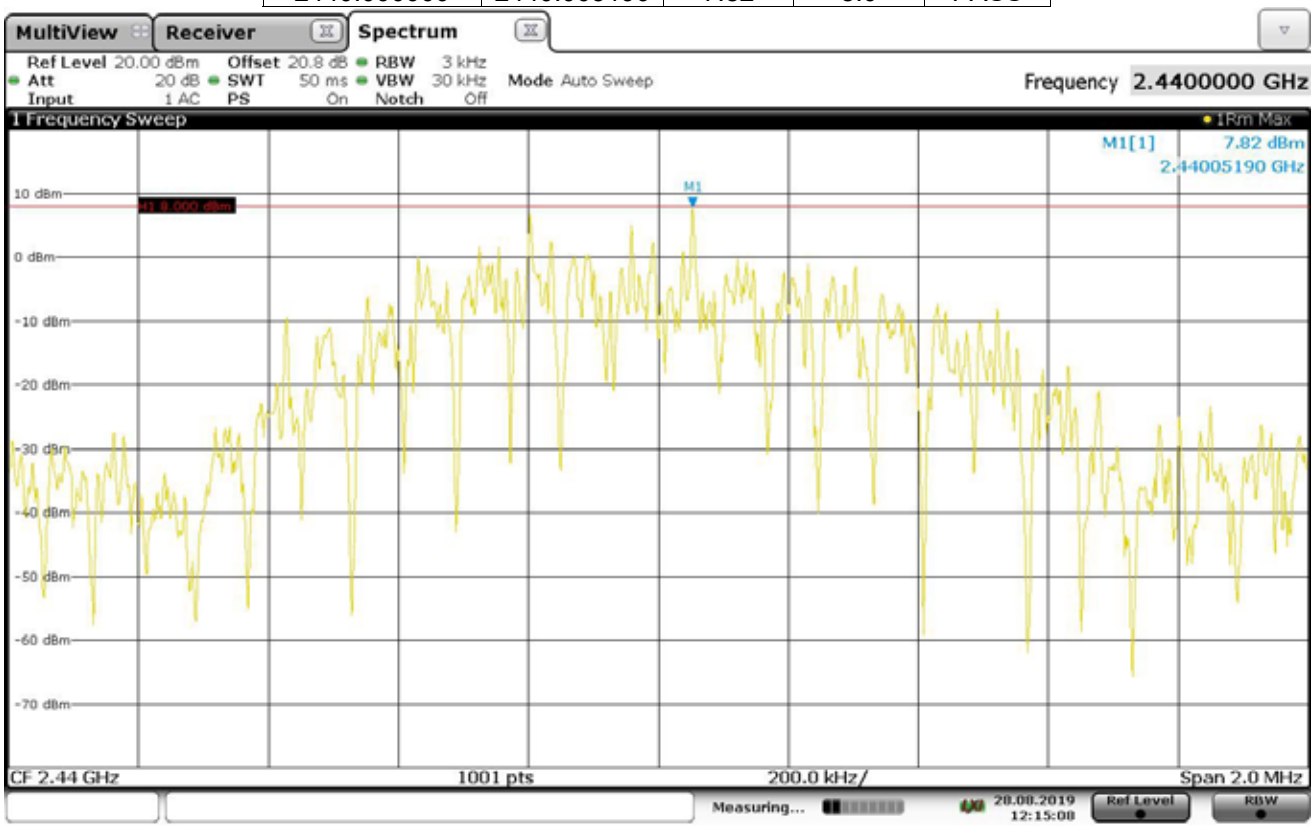


12:14:02 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSMX 22ms – 2440MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2440.005190	7.82	8.0	PASS

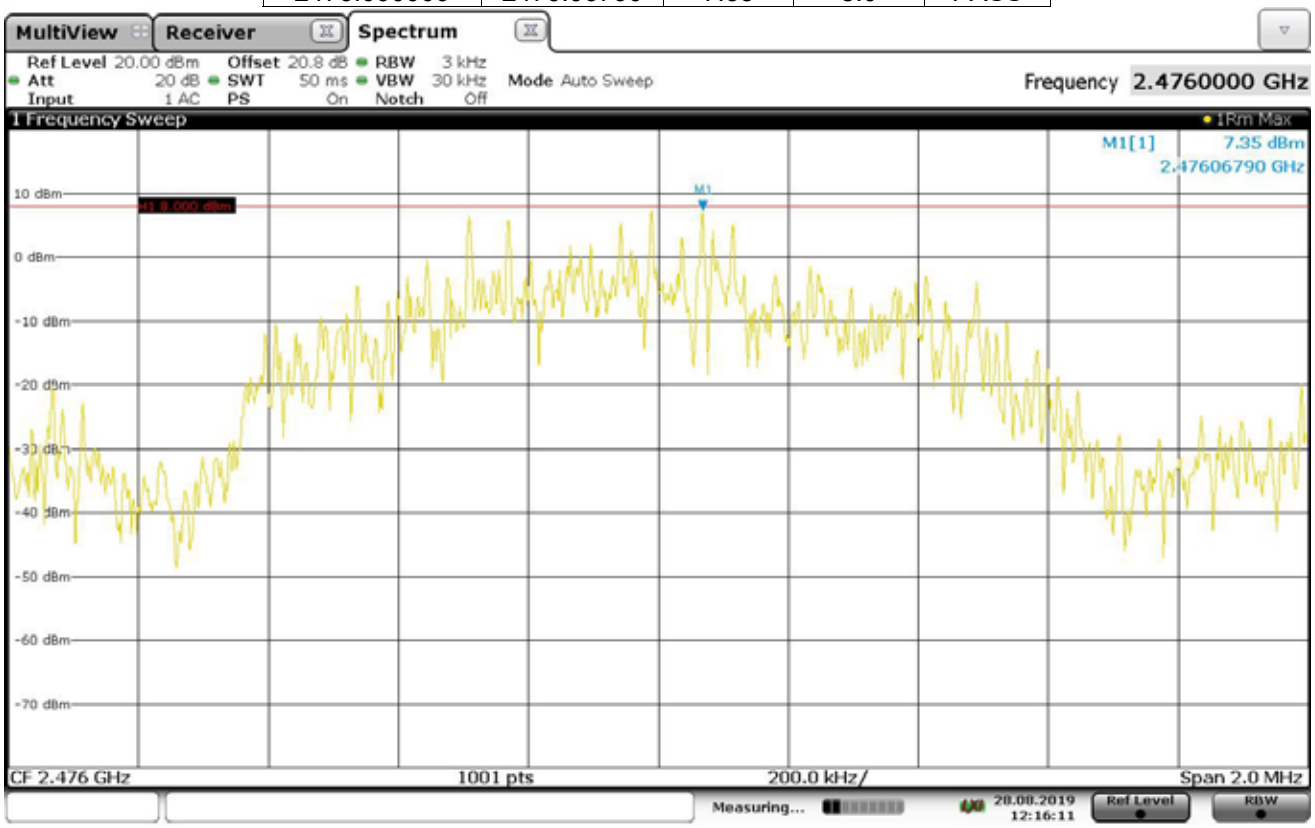


12:15:09 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSMX 22ms – 2476MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2476.000000	2476.06790	7.35	8.0	PASS

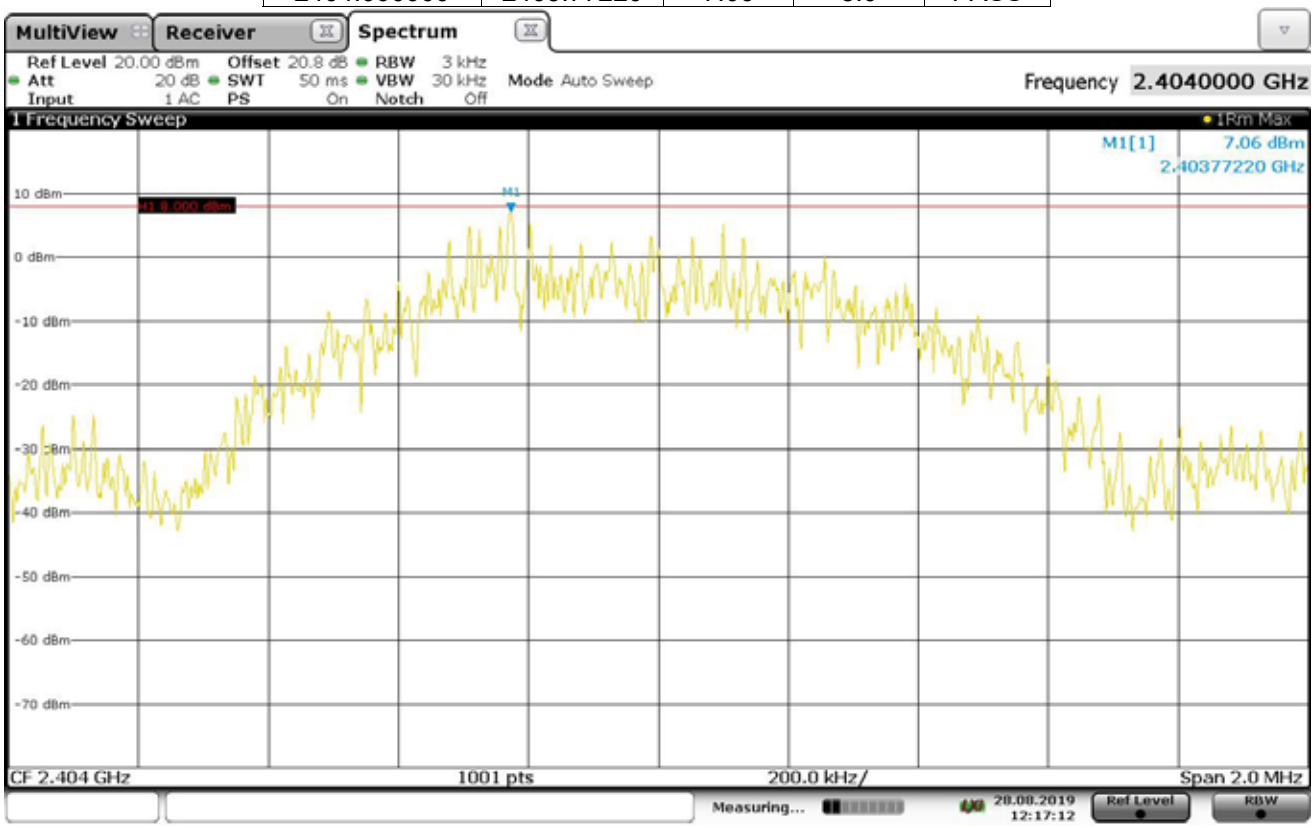


12:16:12 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSMX 11ms – 2404MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2404.000000	2403.77220	7.06	8.0	PASS

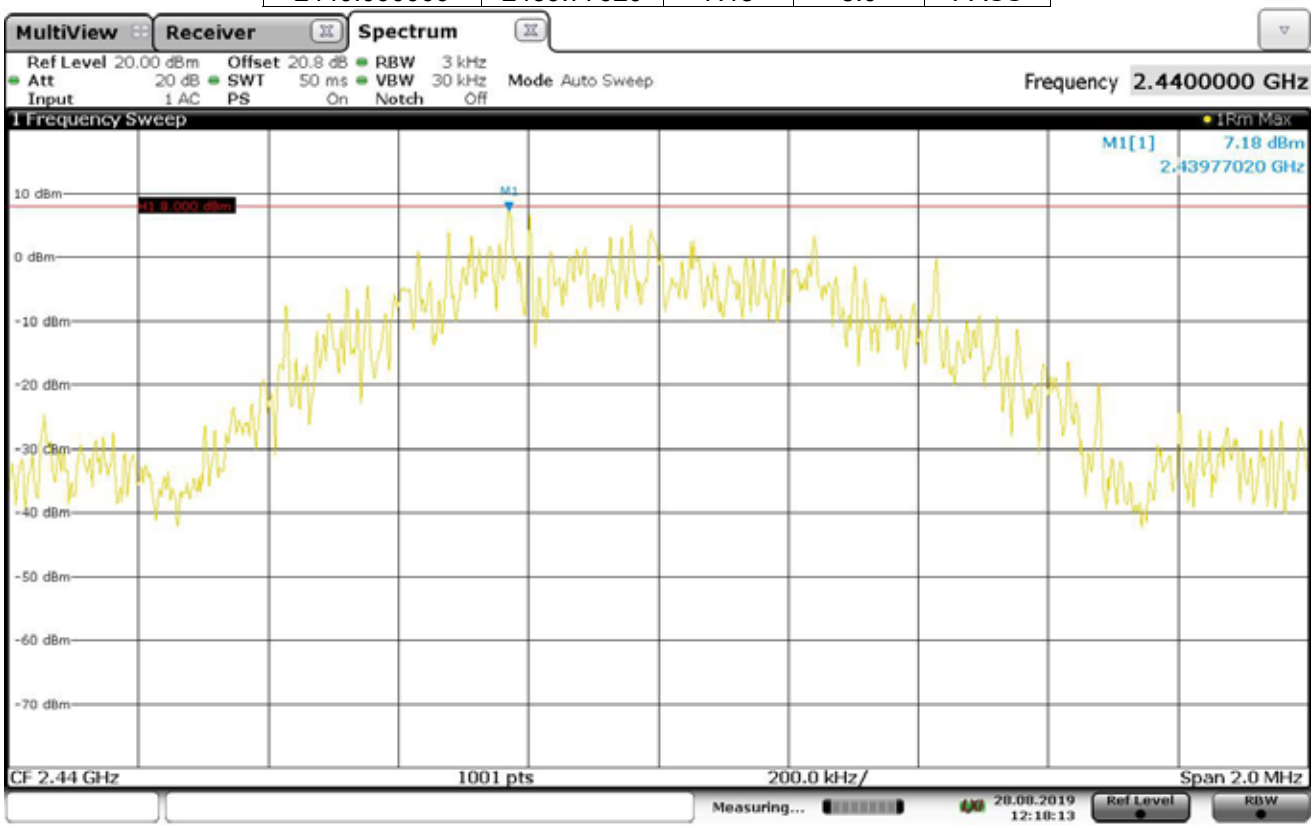


12:17:12 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSMX 11ms – 2440MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2439.77020	7.18	8.0	PASS

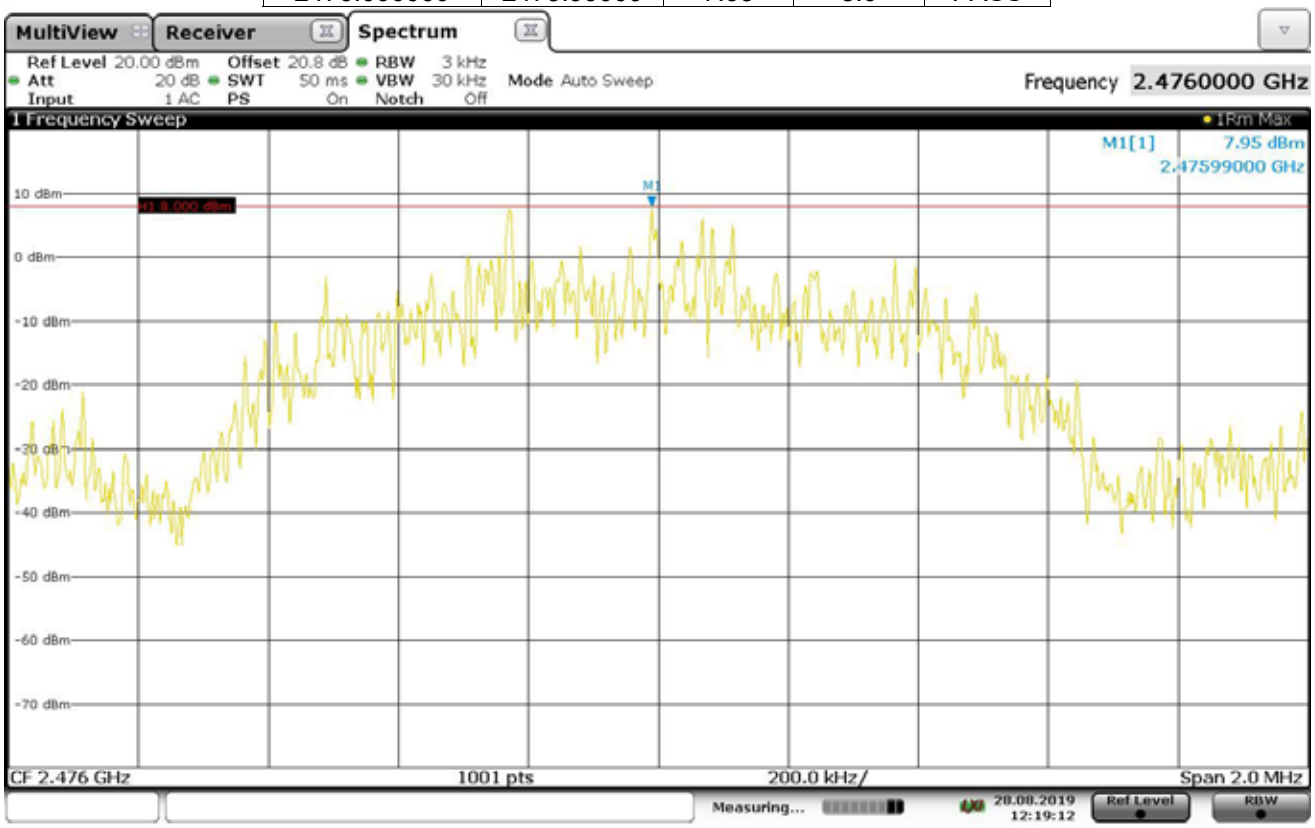


12:18:14 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSMX 11ms – 2476MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	AIR

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2476.000000	2475.99000	7.95	8.0	PASS

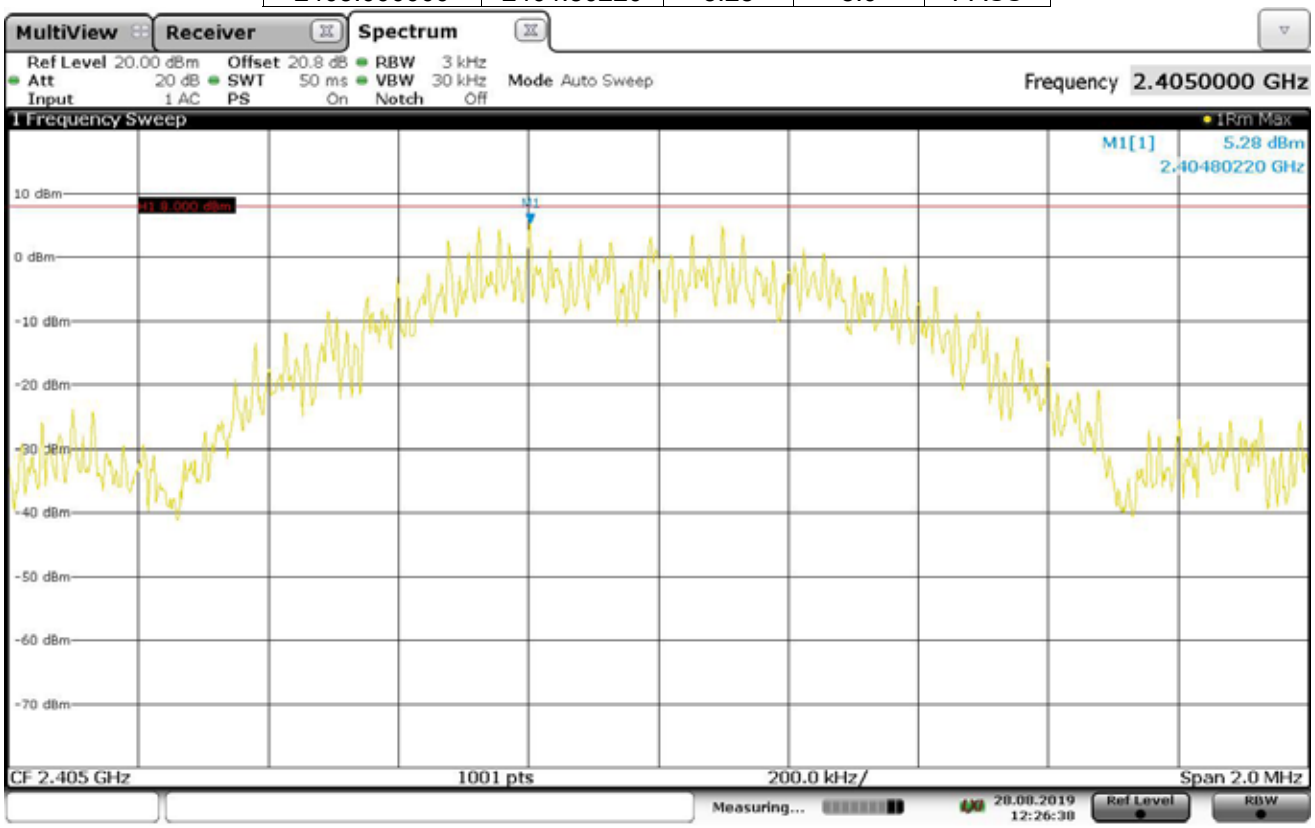


12:19:12 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSMR 11ms – 2405MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2405.000000	2404.80220	5.28	8.0	PASS

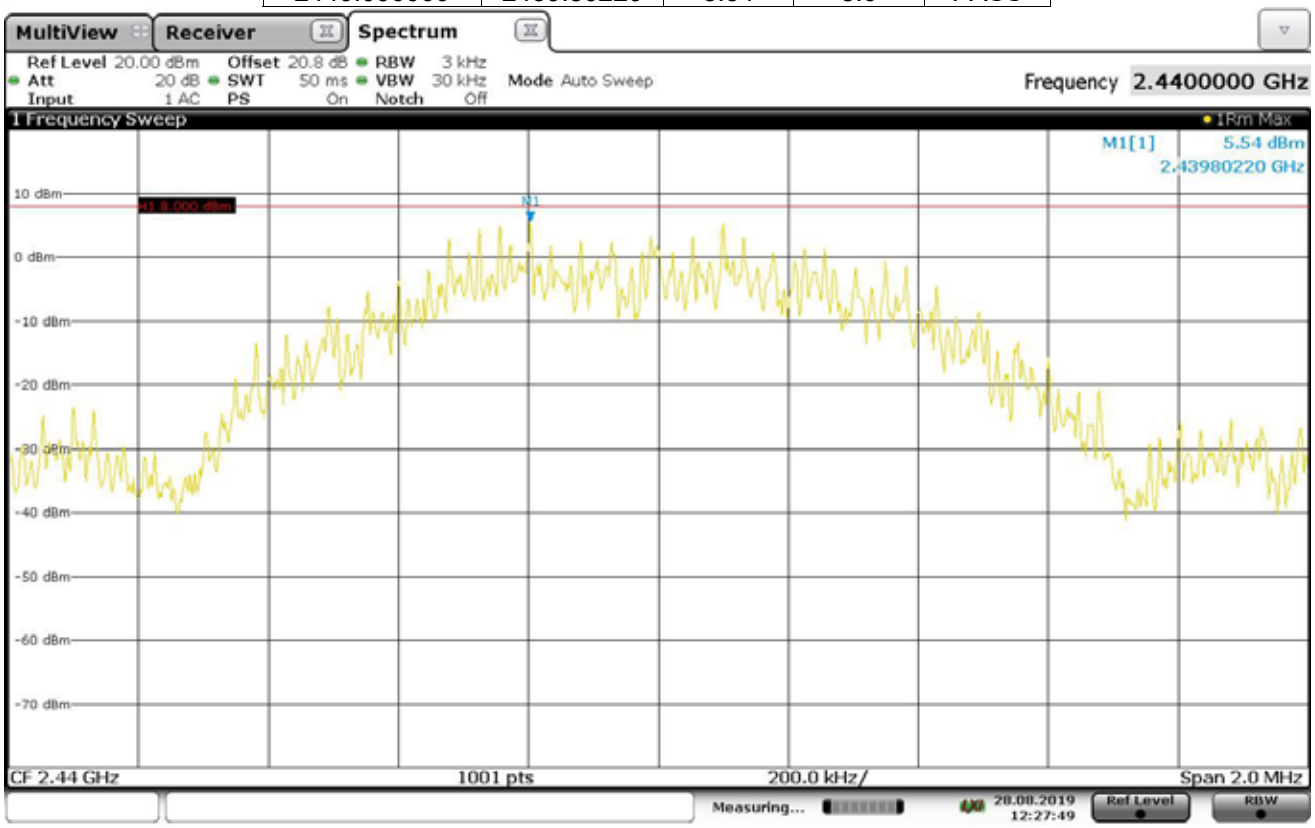


12:26:38 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSMR 11ms – 2440MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2439.80220	5.54	8.0	PASS

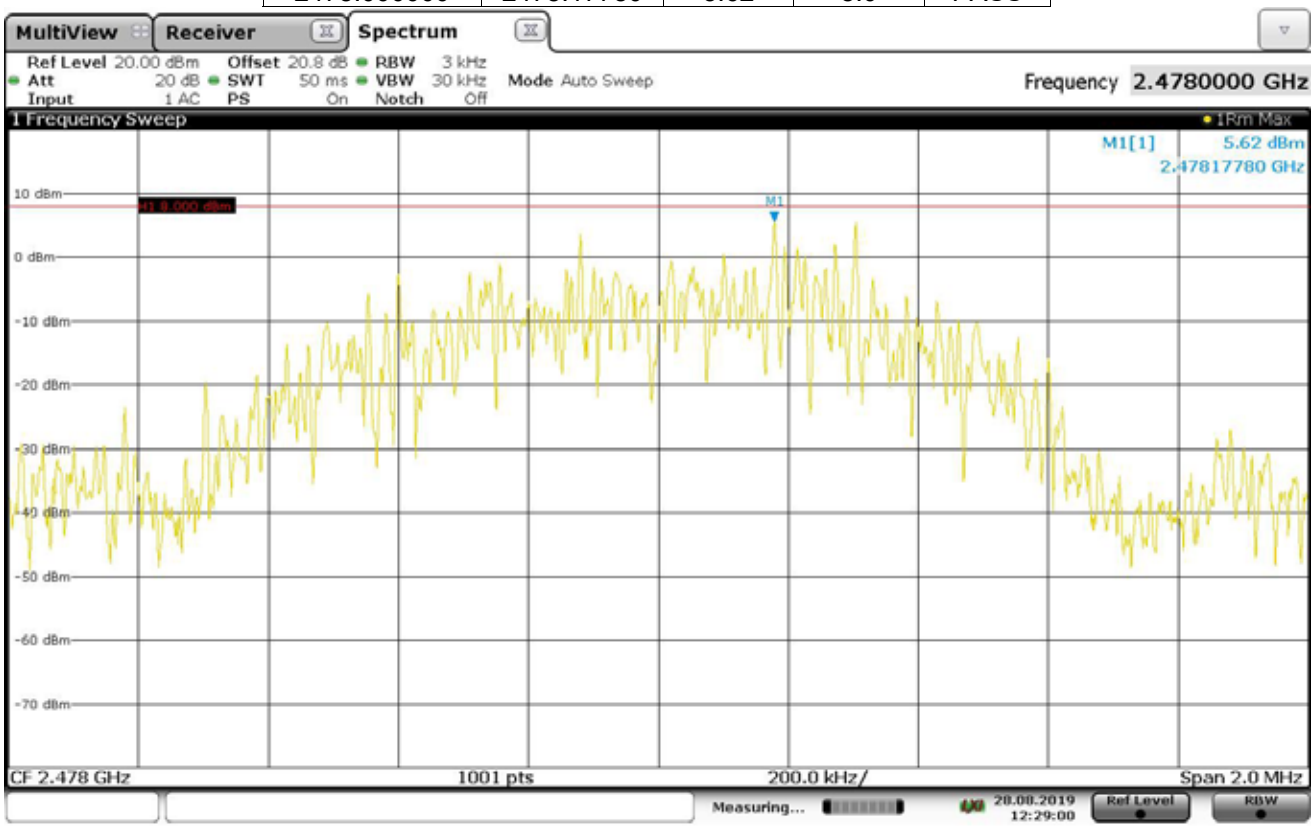


12:27:49 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSMR 11ms – 2478MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2478.000000	2478.17780	5.62	8.0	PASS

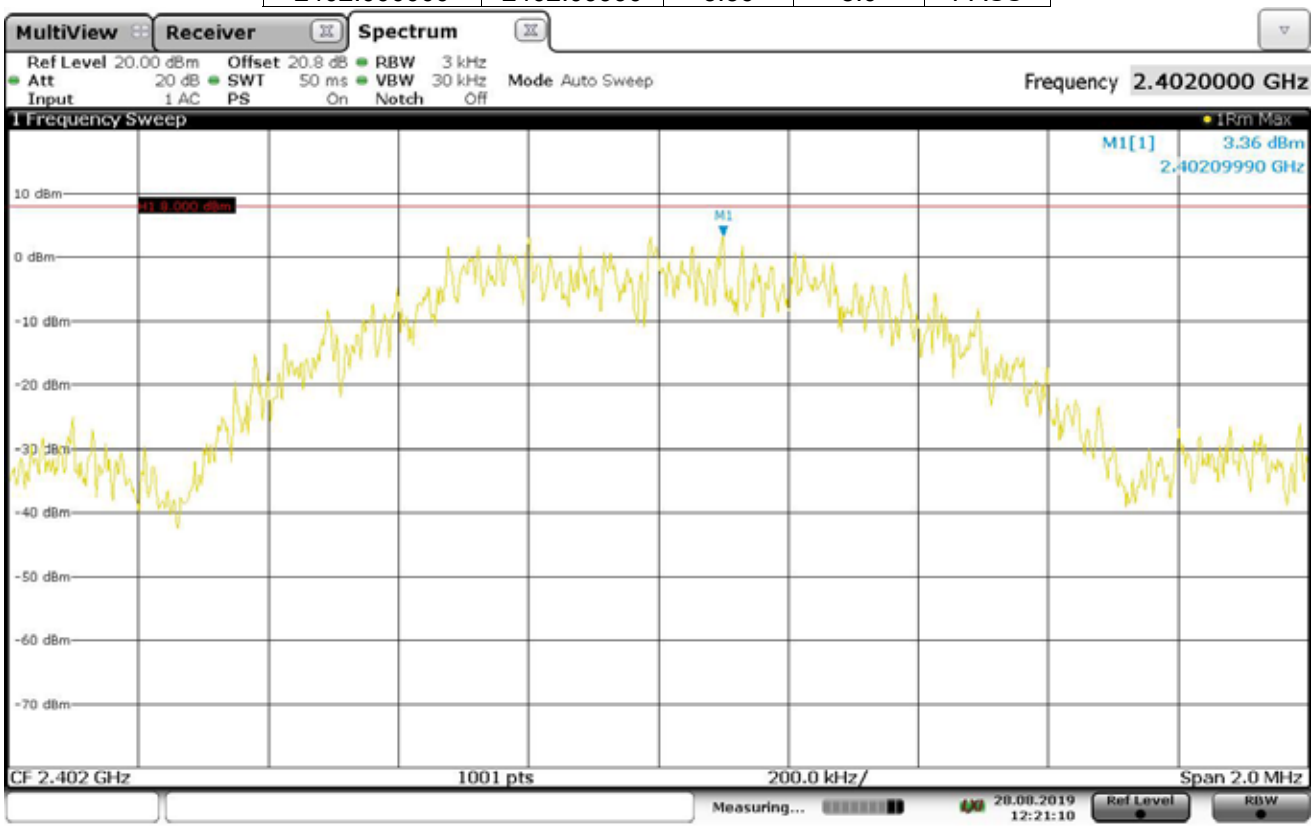


12:29:01 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSM2 16.5ms – 2402MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2402.000000	2402.09990	3.36	8.0	PASS

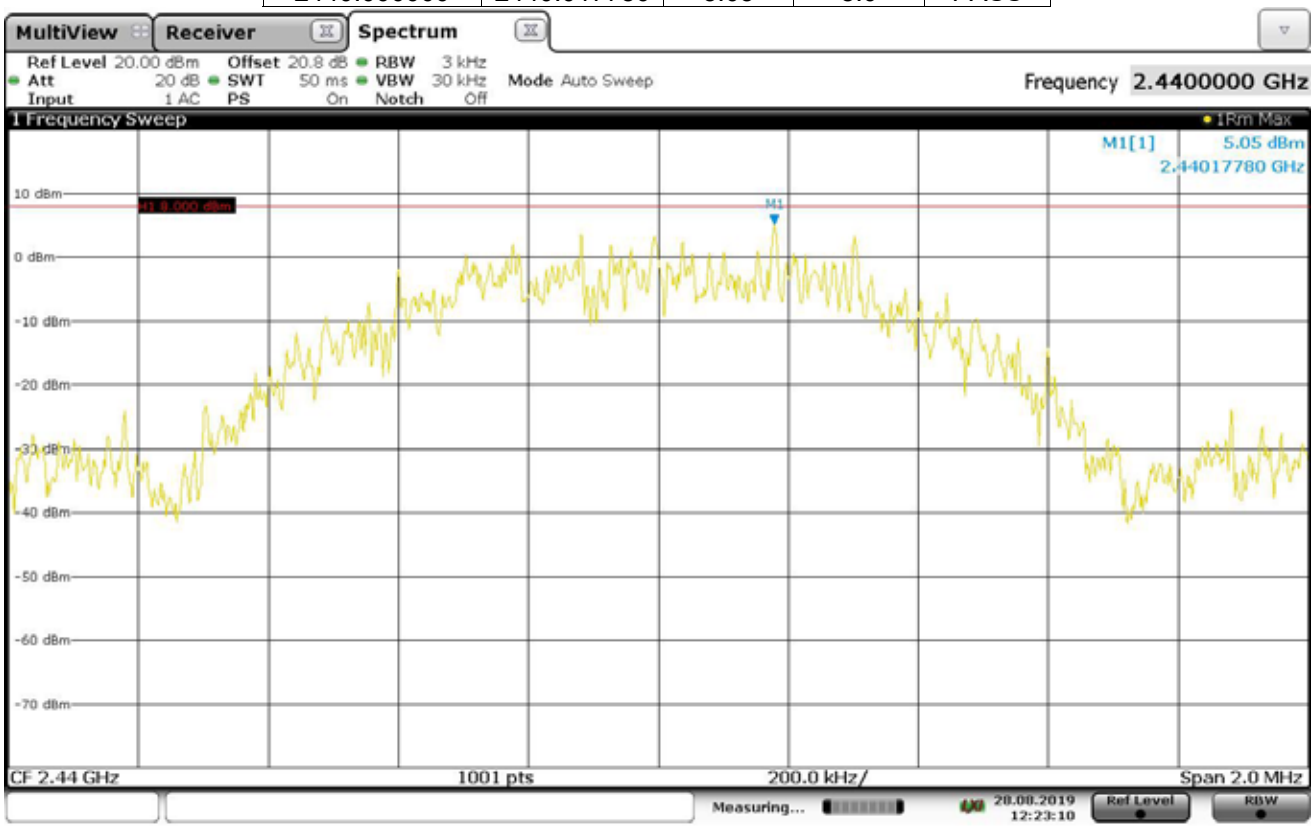


12:21:11 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSM2 16.5ms – 2440MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2440.017780	5.05	8.0	PASS

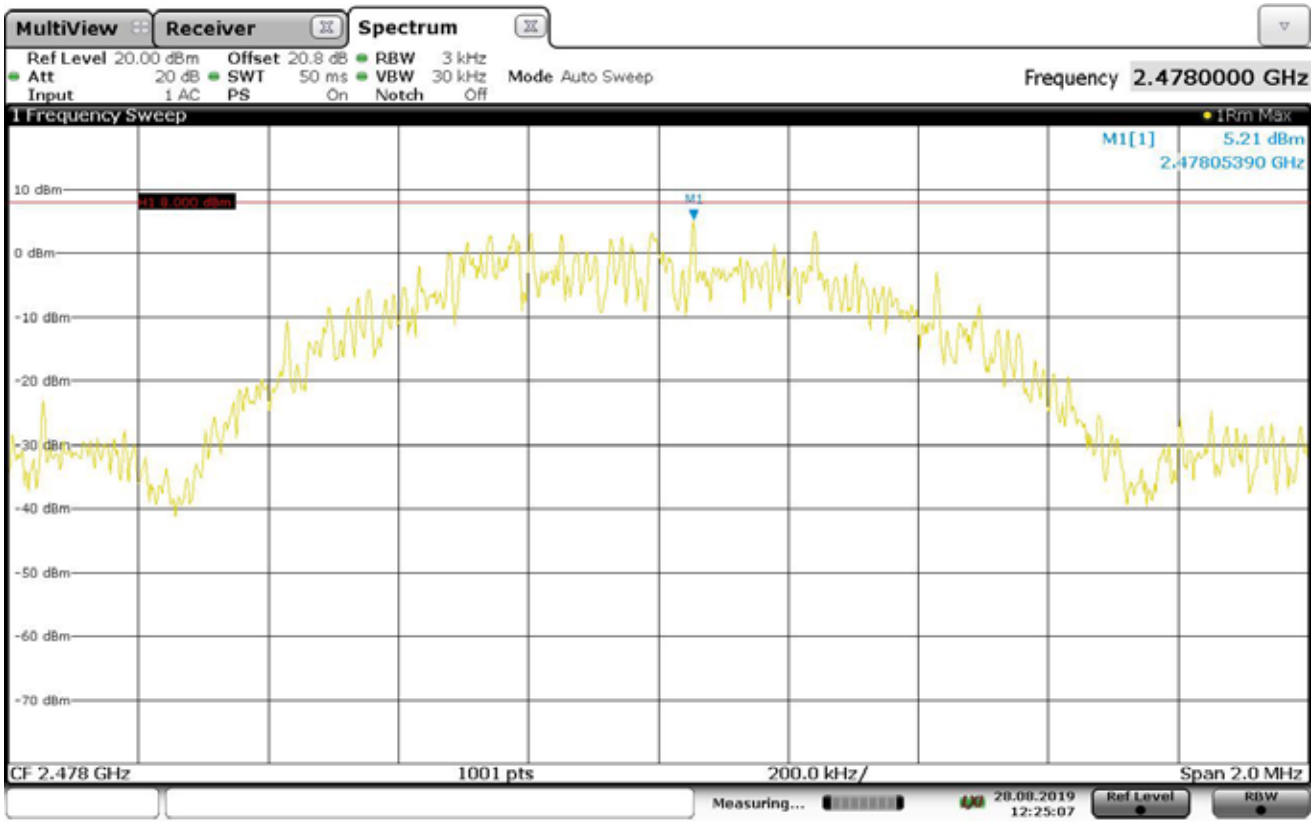


12:23:10 28.08.2019

DATA PAGE	
MANUFACTURER	Horizon Hobby
EUT	Katy RF Module
MODEL NO.	Katy
TEST	Power Spectral Density
MODE	DSM2 16.5ms – 2478MHz
DATE TESTED	August 19,2019
TEST PERFORMED BY	Javier Cardenas
NOTES	SURFACE

POWER SPECTRAL DENSITY

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2478.000000	2478.05390	5.21	8.0	PASS



12:25:08 28.08.2019