

# **TEST REPORT**

**Report Number. : R15385837-E1**

**Applicant :** Car Key Express  
12101 Sycamore Station Pl Ste 140  
Louisville, KY, USA

**Model :** GMSSL-G200

**FCC ID :** X32-GMSSG200

**IC :** 8797A-GMSSG200

**EUT Description :** Remote-Control Transmitter

**Test Standard(s) :** FCC 47 CFR PART 15 SUBPART C: 2024  
RSS-210 Issue 11: 2024  
RSS-Gen Issue 5: 2018 + A1 + A2

**Date Of Issue:**  
2024-11-14

**Prepared by:**  
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REPORT REVISION HISTORY

| Rev. | Issue Date | Revisions                                                                                                                   | Revised By   |
|------|------------|-----------------------------------------------------------------------------------------------------------------------------|--------------|
| V1   | 2024-09-09 | Initial Issue                                                                                                               | Noah Bennett |
| V2   | 2024-10-21 | TCB Feedback:<br>-Updated RSS References<br>-Added additional RSS limit tables to section 9<br>-Enlarged Plots in section 8 | Noah Bennett |
| V3   | 2024-11-14 | TCB Feedback 2:<br>-Updated ANSI References<br>-Various typos corrected<br>-Updated test data in section 8.1                | Noah Bennett |

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME:

Car Key Express  
12101 Sycamore Station Pl Ste 140  
Louisville, KY, USA

EUT DESCRIPTION:

Remote-Control Transmitter

MODEL:

GMSSL-G200

SERIAL NUMBER:

Non-Serialized.

SAMPLE RECEIPT DATE:

2024-07-10

DATE TESTED:

2024-07-25 Thru 2024-11-14

| APPLICABLE STANDARDS            |                    |
|---------------------------------|--------------------|
| STANDARD                        | TEST RESULTS       |
| 47 CFR Part 15 Subpart C: 2024  | Refer to Section 2 |
| RSS-210 Issue 11: 2024          |                    |
| RSS-Gen Issue 5: 2018 + A1 + A2 |                    |

UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by a2La, NIST, or any agency of the U.S. government.

Approved & Released  
For UL LLC By:

Prepared By:



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Consumer Technology Division  
UL LLC



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Consumer Technology Division  
UL LLC

## 2. TEST RESULTS SUMMARY

This report contains data provided by the applicant which can impact the validity of results. UL LLC is only responsible for the validity of results after the integration of the data provided by the customer. The following is information provided by the client:

1. Antenna Gain and Type (section 6.3)
2. Channel Plan (see section 6.1)
3. Modulation Mode (section 6.5)

| FCC Clause                             | ISED Clause            | Requirement                        | Result         | Comment                                 |
|----------------------------------------|------------------------|------------------------------------|----------------|-----------------------------------------|
| 15.231 (c)                             | RSS-210 A.1.4          | 20dB and 99% OBW                   | Complies       | None.                                   |
| 15.35 (c)                              | -                      | Duty Cycle and Periodic Operations |                |                                         |
| 15.231 (a) (1)                         | RSS-210 A.1.2.a        | Transmission Time                  |                |                                         |
| 15.231 (a)(3)                          | RSS-210 A.1.2.c        | Supervisory Transmissions          | Not Performed  | EUT is not a security or safety device. |
| 15.231 (b), 15.205 (a), 15.209 (a) (b) | RSS-210 A.1.3, A.1.5   | Radiated Emissions                 | Complies       | None.                                   |
| 15.207 (a)                             | RSS-GEN, Section 7.2.2 | AC Mains Conducted Emissions       | Not Performed. | EUT is battery operated only.           |

## 3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with:

- FCC CFR 47 Part 2,
- FCC CFR 47 Part 15C,
- ANSI C63.10-2020,
- RSS-210 Issue 11
- RSS-Gen Issue 5.

## 4. FACILITIES AND ACCREDITATION

UL LLC is accredited by A2LA, certification # 0751.06, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

|                                     | Address                                                                      | ISED CABID | ISED Company Number | FCC Registration |
|-------------------------------------|------------------------------------------------------------------------------|------------|---------------------|------------------|
| <input type="checkbox"/>            | Building:<br>12 Laboratory Dr<br>RTP, NC 27709, U.S.A                        | US0067     | 2180C               | 825374           |
| <input checked="" type="checkbox"/> | Building:<br>2800 Perimeter Park Dr. Suite B<br>Morrisville, NC 27560, U.S.A |            | 27265               |                  |

## 5. DECISION RULES AND MEASUREMENT UNCERTAINTY

### 5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

### 5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

### 5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| PARAMETER                                | U <sub>Lab</sub>            |
|------------------------------------------|-----------------------------|
| Radio Frequency (Spectrum Analyzer)      | 141.2 Hz                    |
| Occupied Channel Bandwidth               | 1.22%                       |
| RF output power, conducted               | 1.3 dB (PK)<br>0.45 dB (AV) |
| Power Spectral Density, conducted        | 2.47 dB                     |
| Unwanted Emissions, conducted            | 1.94 dB                     |
| All emissions, radiated                  | 6.01 dB                     |
| Conducted Emissions (0.150-30MHz) - LISN | 3.40 dB                     |
| Temperature                              | 0.57°C                      |
| Humidity                                 | 3.39%                       |
| DC Supply voltages                       | 1.70%                       |

Uncertainty figures are valid to a confidence level of 95%.

### 5.4. SAMPLE CALCULATION

#### RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

## 6. EQUIPMENT UNDER TEST

### 6.1. EUT DESCRIPTION

The EUT is a remote-control transmitter that operates in the 314.9MHz or 433MHz range, depending on the modulation type. The EUT supports the following frequencies:

| Modulation | Frequency  | Baud Rate |
|------------|------------|-----------|
| ASK        | 314.9 MHz  | 4.2 Kbps  |
| FSK        |            |           |
| ASK        | 433.92 MHz |           |
| FSK        |            |           |

### 6.2. MAXIMUM OUTPUT POWER

The maximum radiated field strength is as follows:

| Frequency (MHz) | Measured Avg ERP (dBuV/m) @ 3m | Measured Avg ERP (mW) |
|-----------------|--------------------------------|-----------------------|
| 314.9           | 72.61                          | 0.00333454            |

### 6.3. DESCRIPTION OF AVAILABLE ANTENNAS

| Chain | Designation in Documentation | Type | Frequency Range (MHz) | Maximum Gain (dBi) |
|-------|------------------------------|------|-----------------------|--------------------|
| 0     | A1                           | Loop | 314.9MHz              | -15.8              |
| 0     | A1                           | Loop | 433MHz                | -11.7              |

### 6.4. SOFTWARE AND FIRMWARE

FW Version: 14055  
HW version: Rev. 2

### 6.5. WORST-CASE CONFIGURATION AND MODE

The fundamentals of the EUT was investigated in three orthogonal orientations X,Y,and Z on both 314.9MHz and 433.92MHz. It was determined that X orientation was the worst-case for 314.9MHz, and Z for 433.92MHz; therefore, all final radiated testing was performed with the EUT in these orientations.

The EUT is battery powered only.

## 6.6. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

None.

### I/O CABLES

None.

### TEST SETUP

The EUT was set to transmit at max power continuously, across all supported channels during testing.

### SETUP DIAGRAM

See R15385837-EP1 For Setup Diagrams and Setup Photos.

## 7. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

### Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 4)

| Equip. ID      | Description                                       | Manufacturer         | Model Number              | Last Cal.  | Next Cal.  |
|----------------|---------------------------------------------------|----------------------|---------------------------|------------|------------|
|                | <b>0.009-30MHz</b>                                |                      |                           |            |            |
| 135144         | Active Loop Antenna                               | ETS-Lindgren         | 6502                      | 2024-01-24 | 2025-01-24 |
|                | <b>30-1000 MHz</b>                                |                      |                           |            |            |
| 90628          | Hybrid Broadband Antenna                          | Sunol Sciences Corp. | JB3                       | 2024-01-02 | 2026-01-02 |
|                | <b>1-18 GHz</b>                                   |                      |                           |            |            |
| 89509          | Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz | ETS Lindgren         | 3117                      | 2023-05-23 | 2025-05-23 |
|                | <b>Gain-Loss Chains</b>                           |                      |                           |            |            |
| 207638         | Gain-loss string: 0.009-30MHz                     | Various              | Various                   | 2024-05-22 | 2025-05-22 |
| 207639         | Gain-loss string: 25-1000MHz                      | Various              | Various                   | 2024-05-22 | 2025-05-22 |
| 207640         | Gain-loss string: 1-18GHz                         | Various              | Various                   | 2024-05-22 | 2025-05-22 |
|                | <b>Receiver &amp; Software</b>                    |                      |                           |            |            |
| 197955         | Spectrum Analyzer                                 | Rohde & Schwarz      | ESW44                     | 2024-04-16 | 2025-04-16 |
| SOFTEMI        | EMI Software                                      | UL                   | Version 9.5 (18 Oct 2021) |            |            |
|                | <b>Additional Equipment used</b>                  |                      |                           |            |            |
| 241204         | Environmental Meter                               | Fisher Scientific    | 15-077-963                | 2023-09-05 | 2025-09-05 |
| 241848         | 10dB Pad, DC-18GHz, 5W                            | Mini-Circuits        | BW-N10W5+                 | 2023-11-09 | 2024-11-09 |
| 82635 (HPF009) | 1GHz high-pass filter, 2W, Fhigh =10GHz           | Micro-Tronics        | HPM17672                  | 2024-03-01 | 2025-03-01 |

**Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 1)**

| Equip. ID       | Description                               | Manufacturer         | Model Number              | Last Cal.  | Next Cal.  |
|-----------------|-------------------------------------------|----------------------|---------------------------|------------|------------|
|                 | <b>30-1000 MHz</b>                        |                      |                           |            |            |
| 90629           | Hybrid Broadband Antenna                  | Sunol Sciences Corp. | JB3                       | 2024-01-30 | 2026-01-30 |
|                 | <b>Gain-Loss Chains</b>                   |                      |                           |            |            |
| 91976           | Gain-loss string: 25-1000MHz              | Various              | Various                   | 2024-05-08 | 2025-05-08 |
|                 | <b>Receiver &amp; Software</b>            |                      |                           |            |            |
| 197954          | Spectrum Analyzer                         | Rohde & Schwarz      | ESW44                     | 2024-03-05 | 2025-03-05 |
| SOFTEMI         | EMI Software                              | UL                   | Version 9.5 (18 Oct 2021) |            |            |
|                 | <b>Additional Equipment used</b>          |                      |                           |            |            |
| 241205          | Environmental Meter                       | Fisher Scientific    | 15-077-963                | 2023-09-05 | 2025-09-05 |
| 170112          | 10dB Pad, DC-18GHz, 5W                    | Mini-Circuits        | BW-N10W5+                 | 2023-11-09 | 2024-11-09 |
| 196935 (HPF018) | 600MHz high-pass filter, 2W, Fhigh =10GHz | Micro-Tronics        | HPM19984                  | 2024-03-04 | 2025-03-04 |

**Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Conducted)**

|                 |                                |         |           |            |            |
|-----------------|--------------------------------|---------|-----------|------------|------------|
|                 | <b>Receiver &amp; Software</b> |         |           |            |            |
| 72823           | Spectrum Analyzer              | Agilent | E4446A    | 2024-07-31 | 2025-07-31 |
| Antenna Port 64 |                                | UL      | 2024.2.23 |            |            |

## 8. ANTENNA PORT TEST RESULTS

Note: Tests in section 8 were performed via radiated measurements.

### 8.1. 20 dB AND 99% BW

#### LIMITS

FCC §15.231 (c)

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

RSS-210 A.1.4

The occupied bandwidth of momentarily operated devices shall be less than or equal to 0.25% of the centre frequency for devices operating between 70 MHz and 900 MHz. For devices operating above 900 MHz, the occupied bandwidth shall be less than or equal to 0.5% of the centre frequency.

#### TEST PROCEDURE

ANSI C63.10-2020: Subclause 6.9

The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

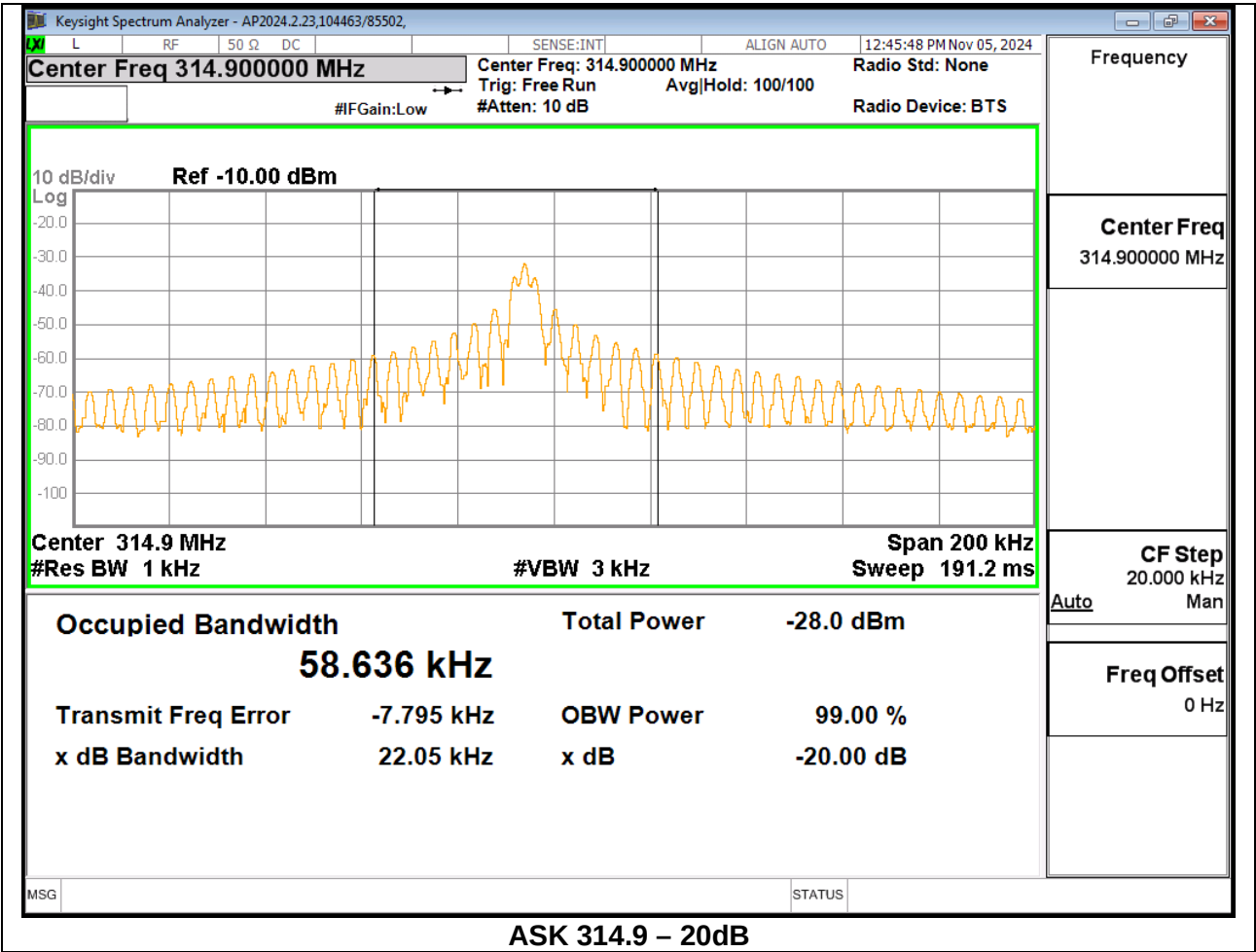
#### 8.1.1. RESULTS

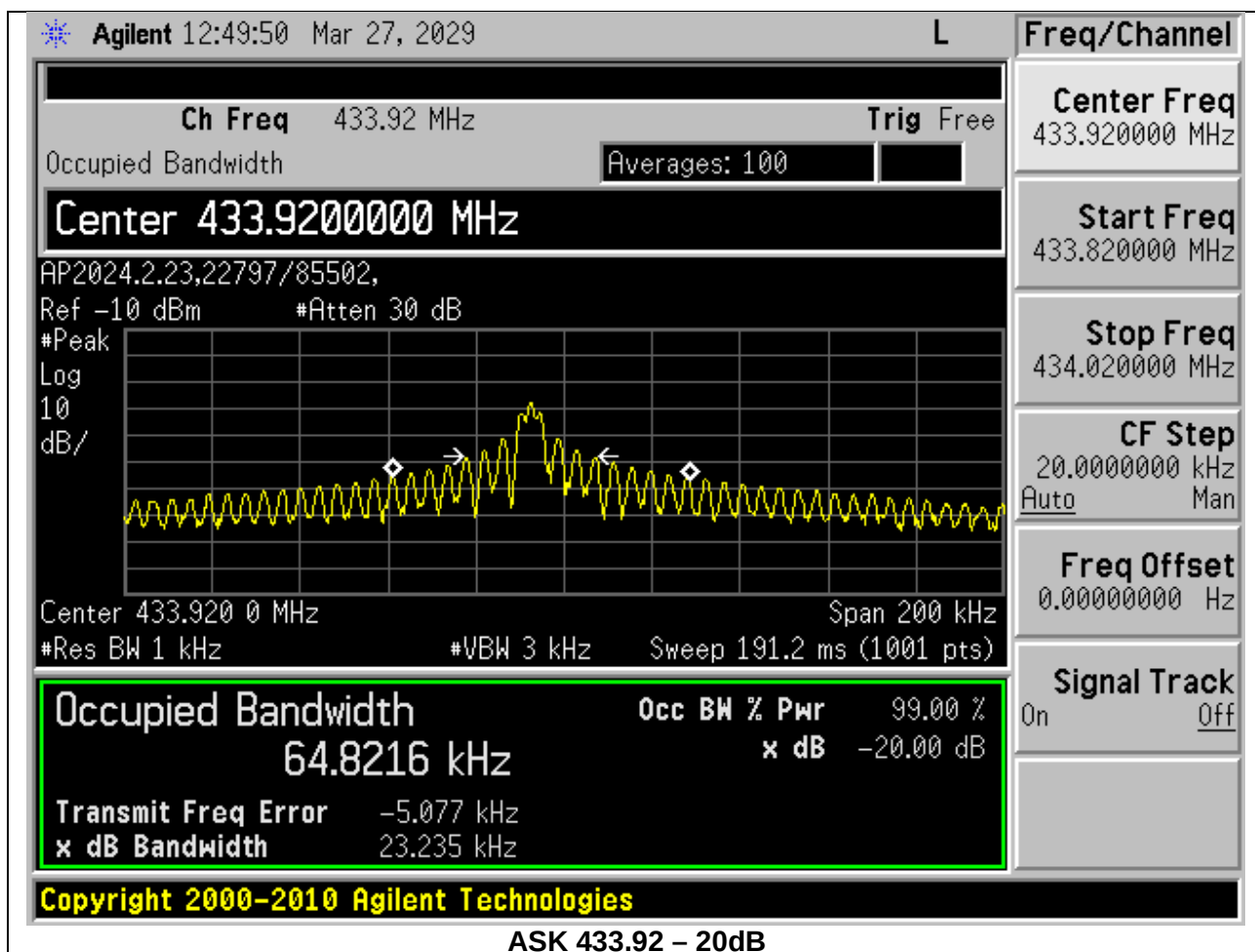
##### 20dB Bandwidth

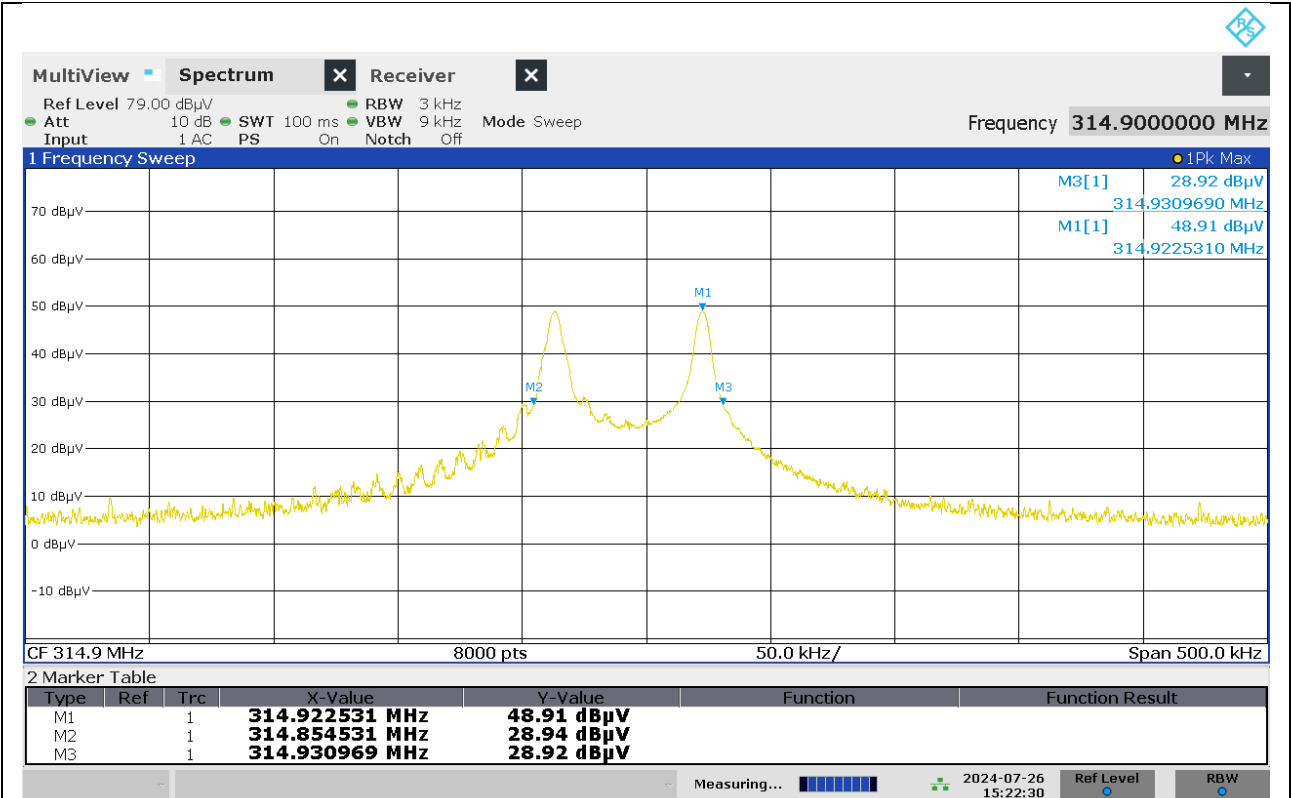
| Modulation | Frequency<br>(MHz) | 20dB<br>Bandwidth<br>(kHz) | Limit<br>(kHz) | Margin<br>(kHz) |
|------------|--------------------|----------------------------|----------------|-----------------|
| ASK        | 314.9              | 22.05                      | 787.25         | -765.2          |
| FSK        | 314.9              | 76.438                     | 787.25         | -710.812        |
| ASK        | 433.92             | 23.325                     | 1084.8         | -1061.475       |
| FSK        | 433.92             | 73.743                     | 1084.8         | -1011.057       |

##### 99% Bandwidth

| Modulation | Frequency<br>(MHz) | 99%<br>Bandwidth<br>(kHz) | Limit<br>(kHz) | Margin<br>(kHz) |
|------------|--------------------|---------------------------|----------------|-----------------|
| ASK        | 314.9              | 46.443                    | 787.25         | -740.807        |
| FSK        | 314.9              | 89.355                    | 787.25         | -697.895        |
| ASK        | 433.92             | 66.157                    | 1084.8         | -1018.64        |
| FSK        | 433.92             | 87.521                    | 1084.8         | -997.279        |

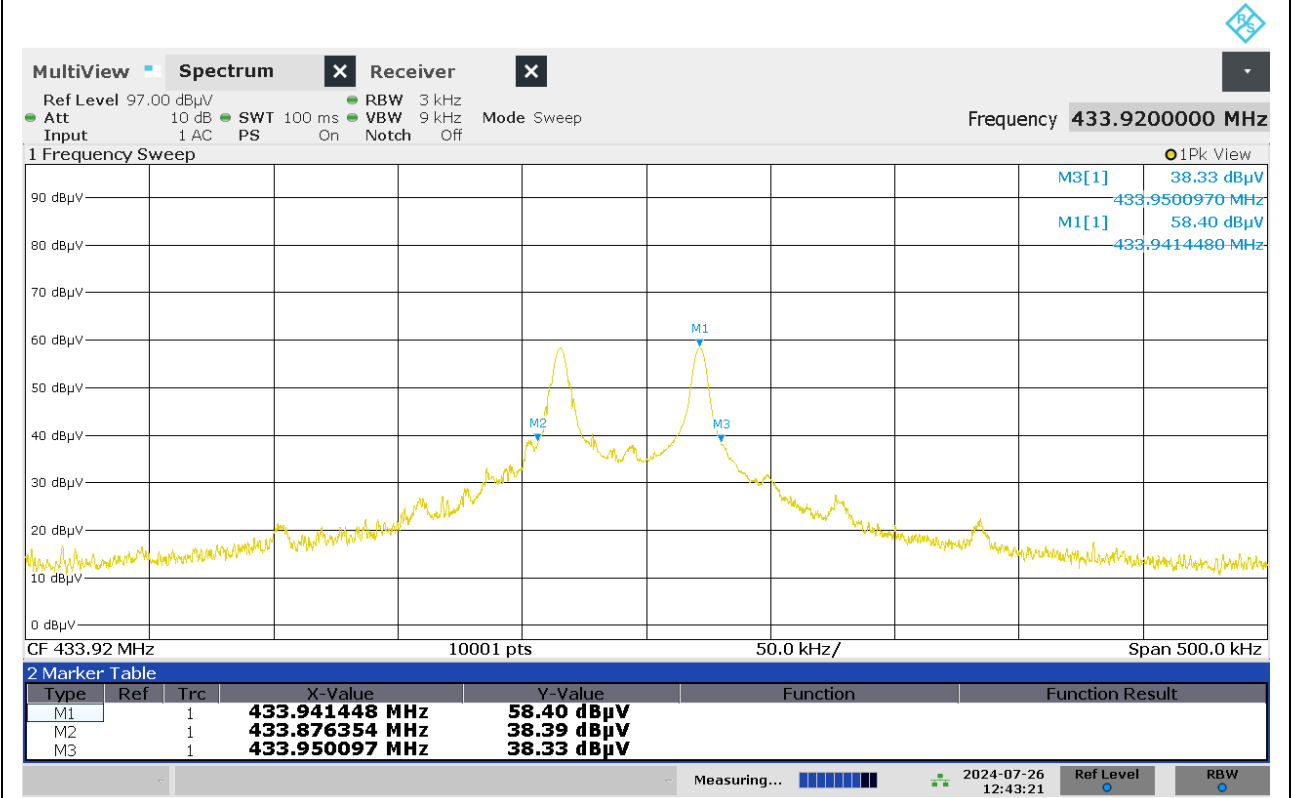






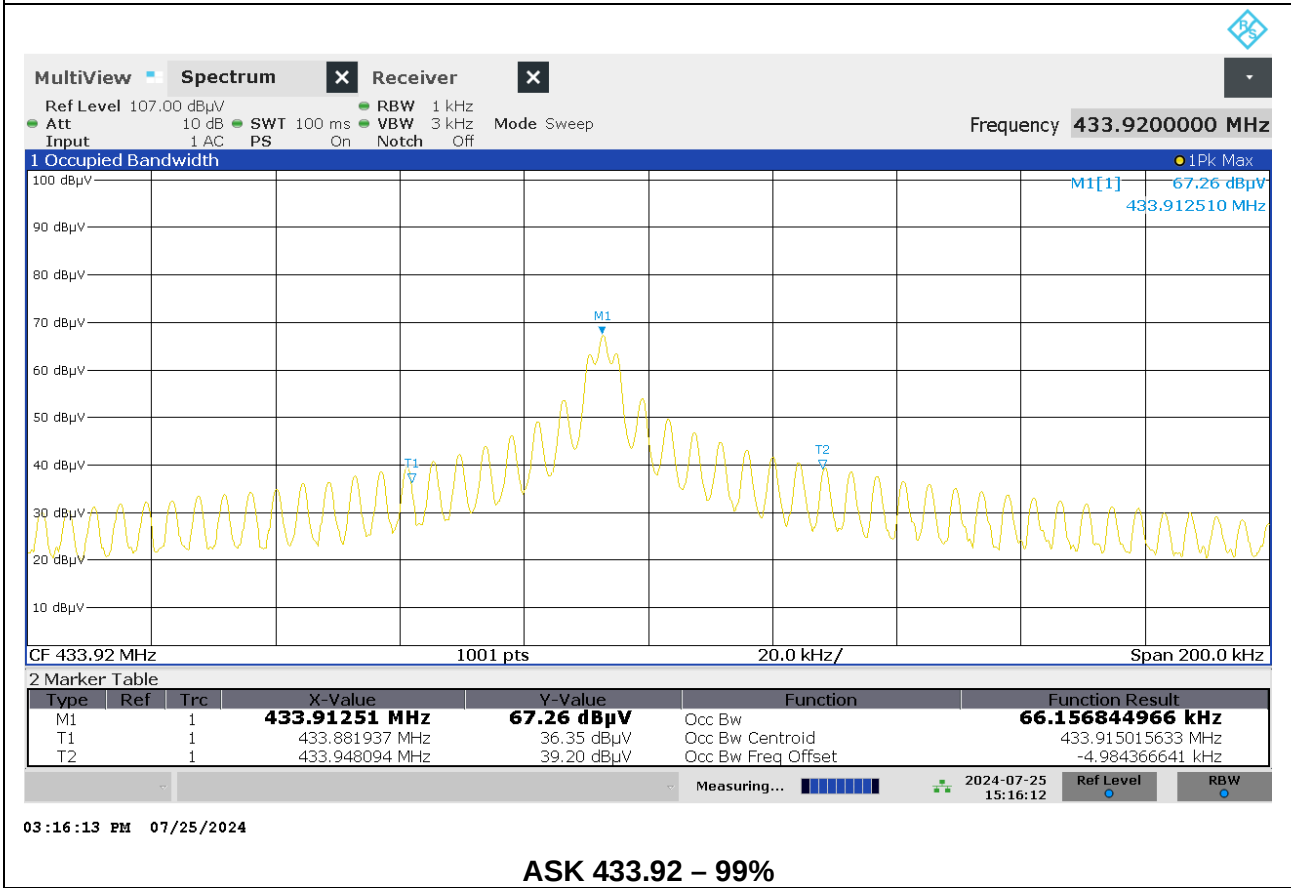
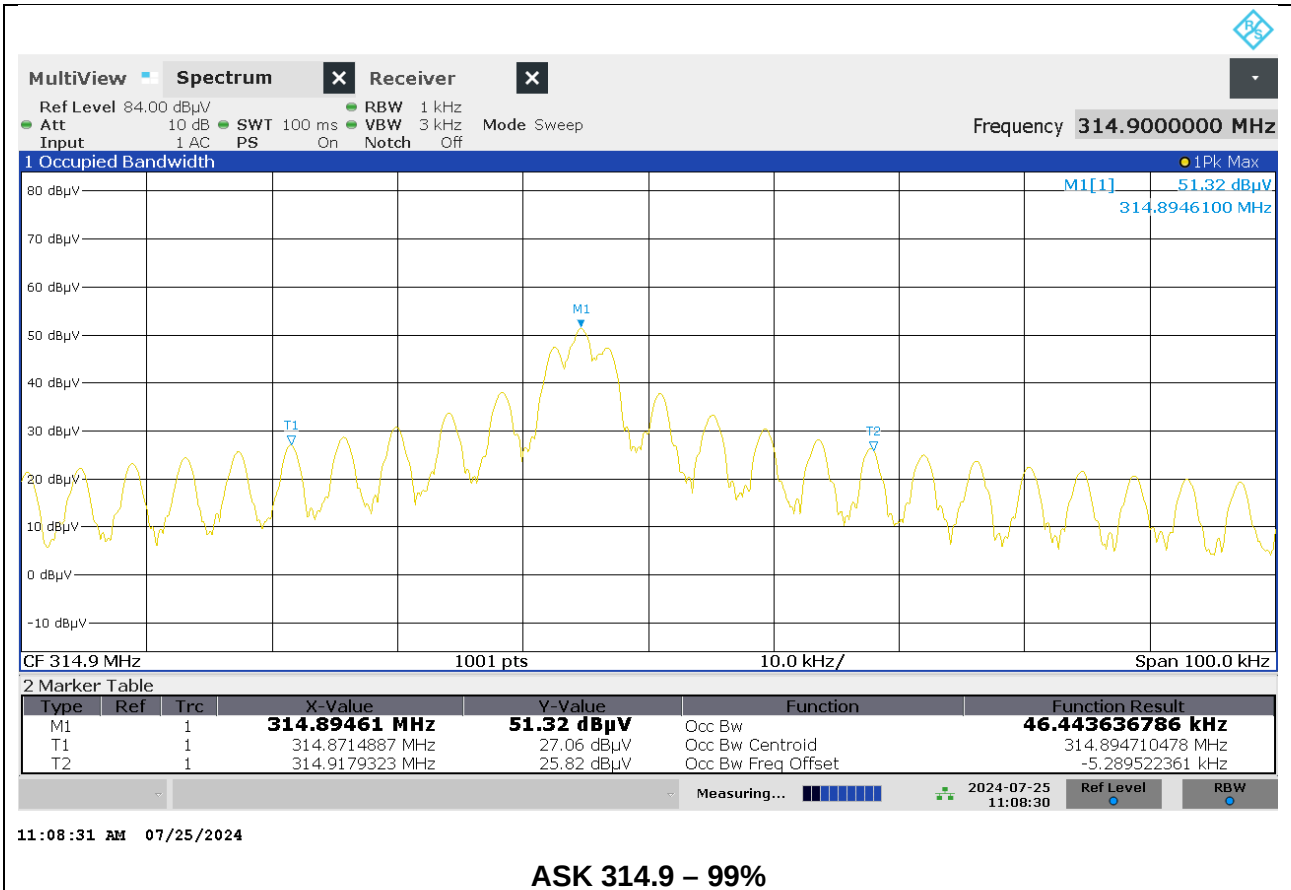
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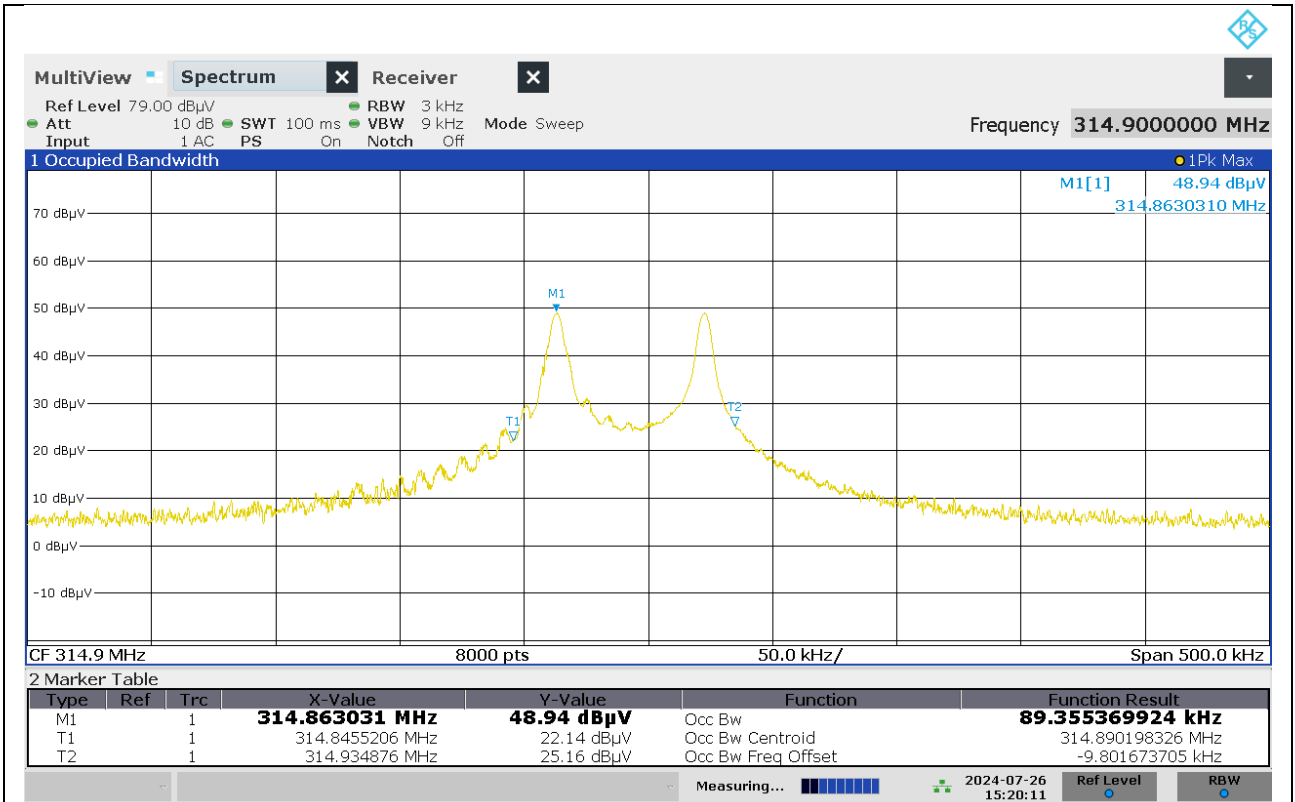
FSK 314.9 – 20dB



12:43:22 PM 07/26/2024

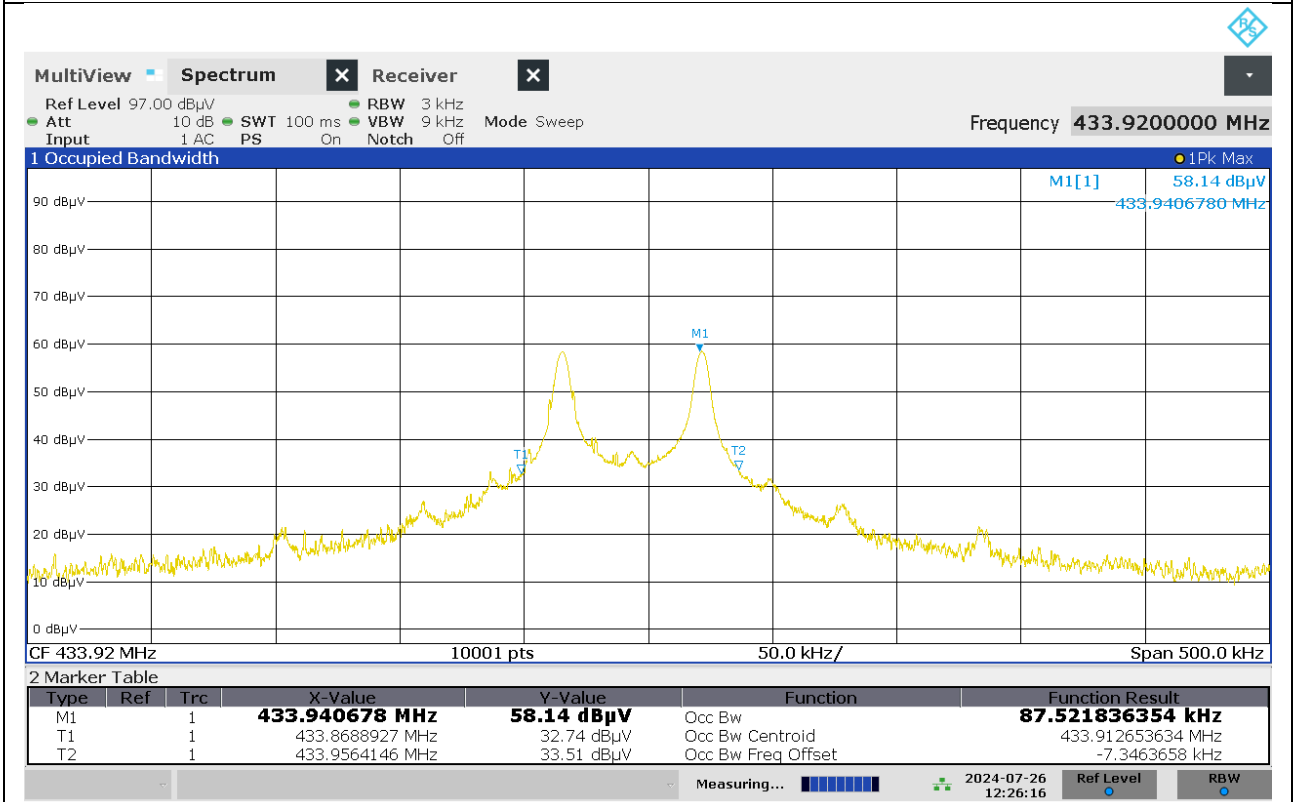
FSK 433.92 – 20dB





03:20:11 PM 07/26/2024

FSK 314.9 – 99%



12:26:17 PM 07/26/2024

FSK 433.92 – 99%

## 8.2. DUTY CYCLE AND PERIODIC OPERATIONS

### LIMITS

FCC §15.35 (c)

The measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value. The exact method of calculating the average field strength shall be submitted with any application for certification or shall be retained in the measurement data file for equipment subject to Supplier's Declaration of Conformity.

### TEST PROCEDURE

ANSI C63.10-2020: Section 7.4 & 7.5

The transmitter output is connected to a spectrum analyzer or radiated field strength.

For The RBW is set to 300 kHz and the VBW is set to 300 kHz. The sweep time is coupled and the span is set to 0 Hz. The number of pulses is measured and calculated in a 100 ms scan.

For Pulse Width measurements, the RBW and VBW were set to their highest values as supported by the test equipment, i.e RBW is 8MHz, and VBW is 50MHz. The Sweep time was set to 5ms, and the span is set to 0 Hz. The pulse width was then measured over 1 period.

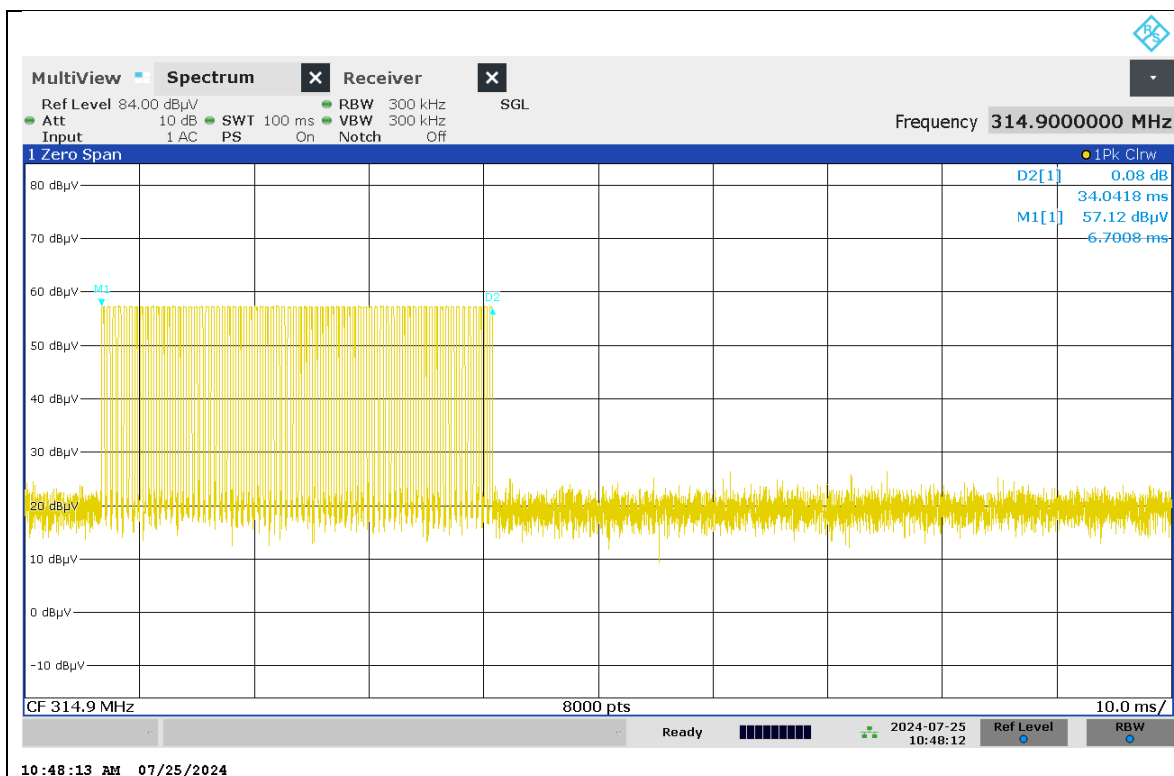
### CALCULATION

Average Reading = Peak Reading (dBuV/m) + 20log (Duty Cycle), Where Duty Cycle is (# of long pulses \* long pulse width) / 100 or T

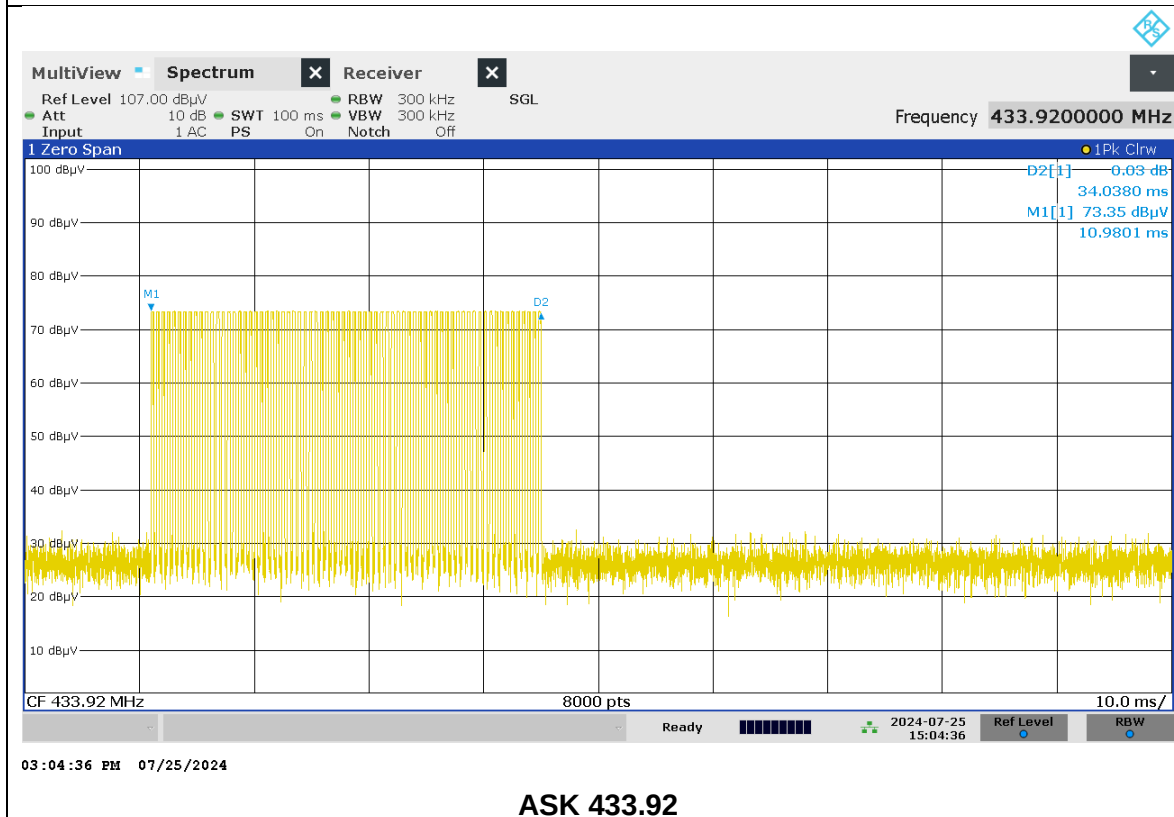
### RESULTS

| Frequency (MHz) | Modulation | One Period (ms) | Long Pulse Width (ms) | # of Long Pulses | Duty Cycle | 20*Log Duty Cycle (dB) |
|-----------------|------------|-----------------|-----------------------|------------------|------------|------------------------|
| 314.9           | ASK        | 100             | 0.234                 | 72               | 16.83%     | -15.48                 |
|                 | FSK        | 100             | 34.123                | 1                | 34.12%     | -9.34                  |
| 433.92          | ASK        | 100             | 0.232                 | 72               | 16.68%     | -15.55                 |
|                 | FSK        | 100             | 34.242                | 1                | 34.24%     | -9.31                  |

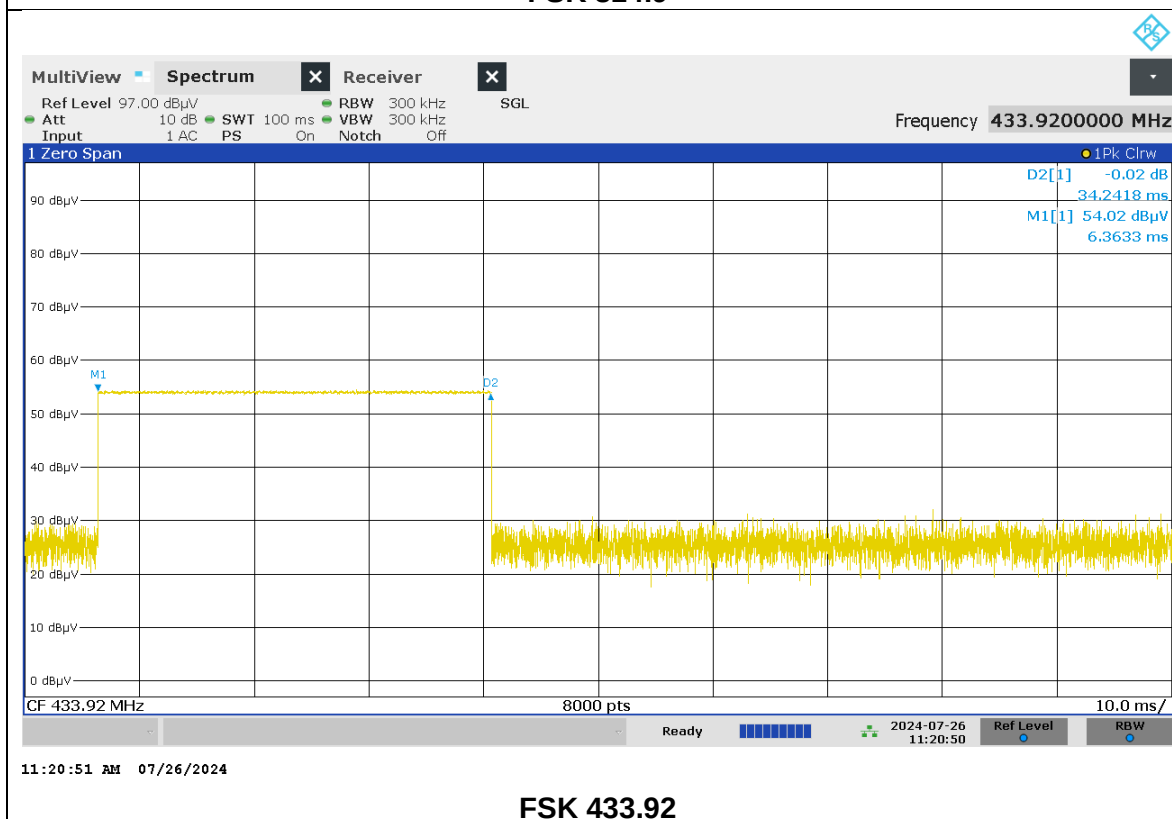
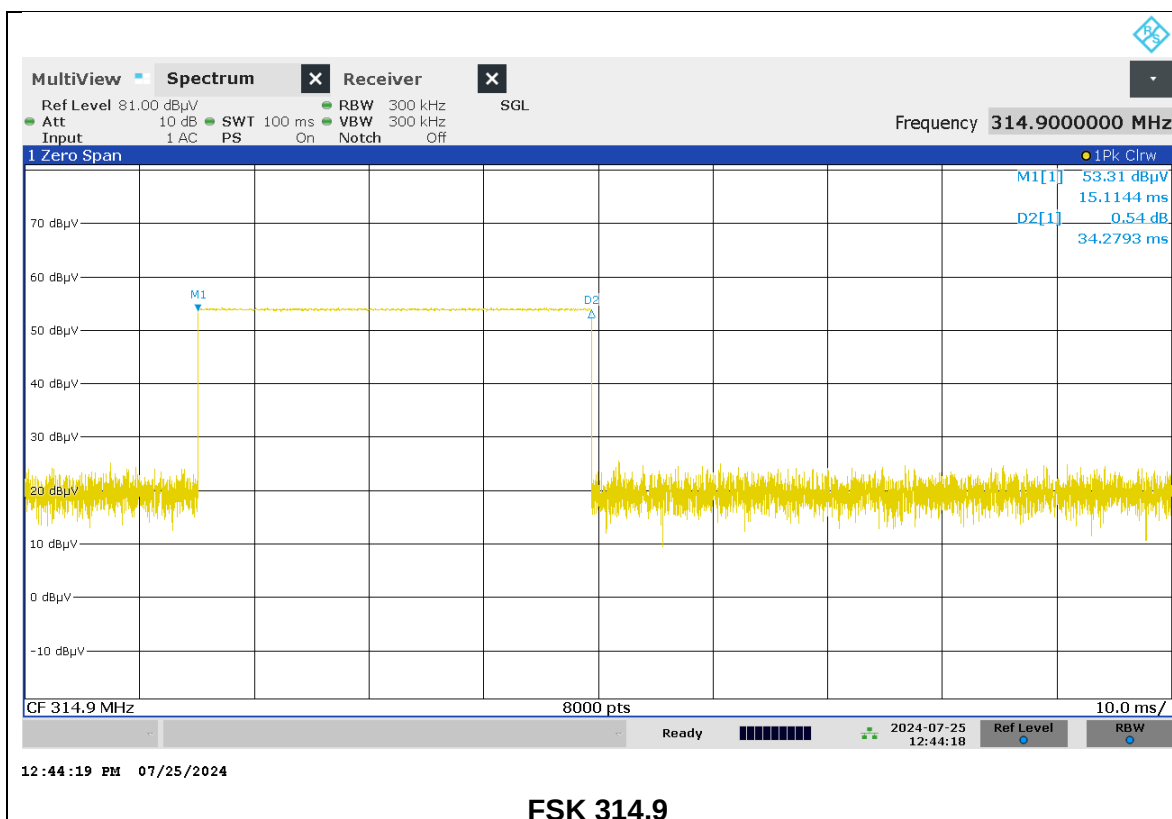
## 8.2.1. TRANSMISSION IN A 100ms WINDOW



ASK 314.9

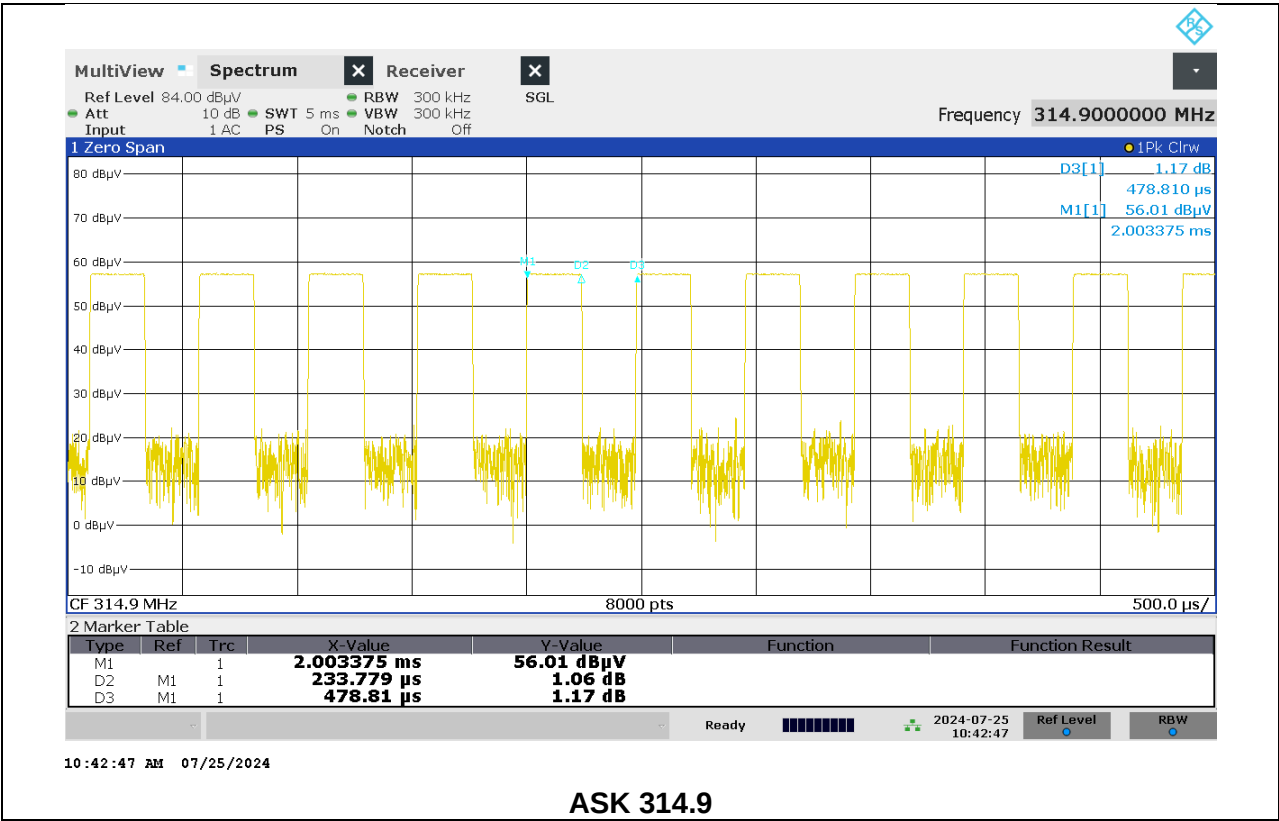


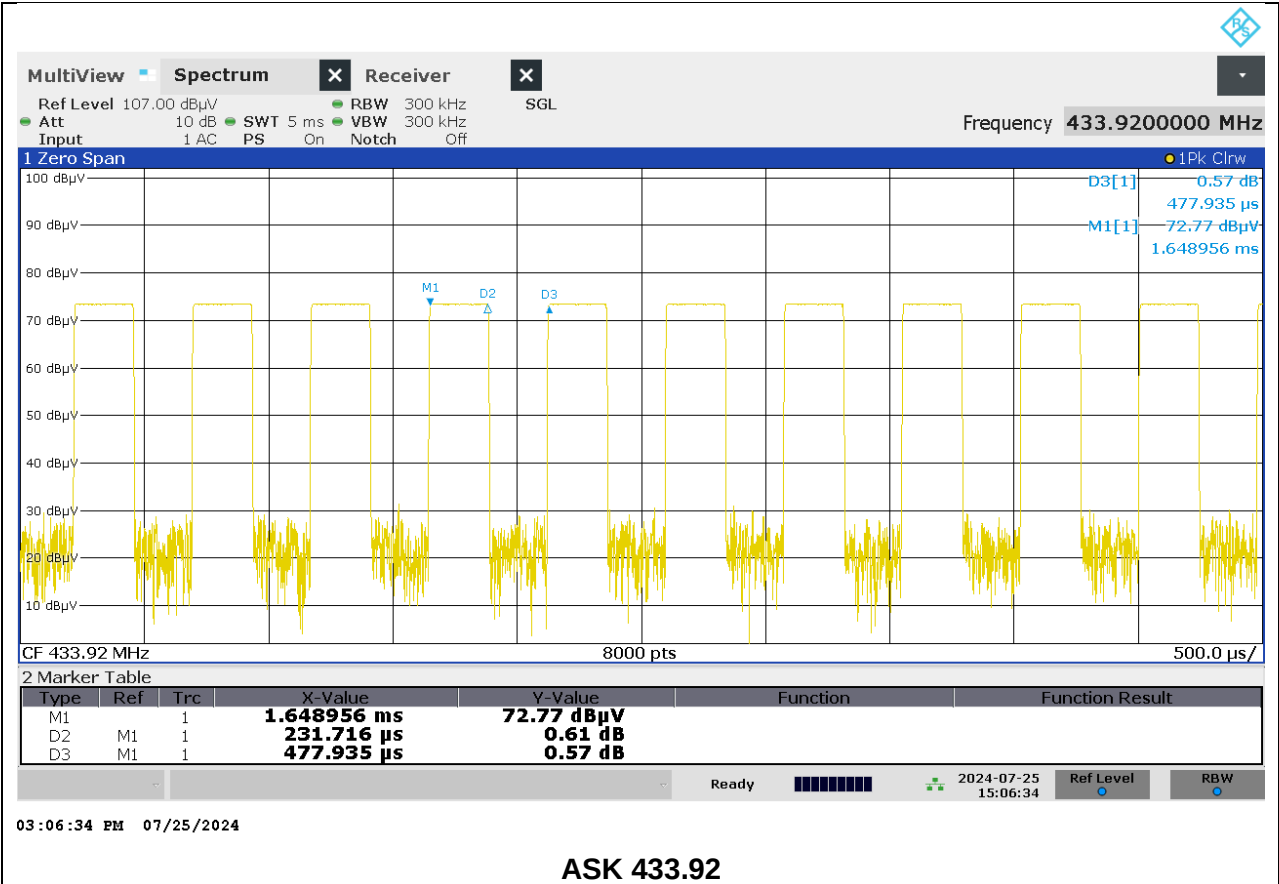
ASK 433.92



8.2.2. PULSE WIDTH

| Frequency (MHz) | Modulation | Pulse Width (ms) |
|-----------------|------------|------------------|
| 314.9           | ASK        | 0.233779         |
|                 | FSK        | 34.123           |
| 433.92          | ASK        | 0.231716         |
|                 | FSK        | 34.2418          |



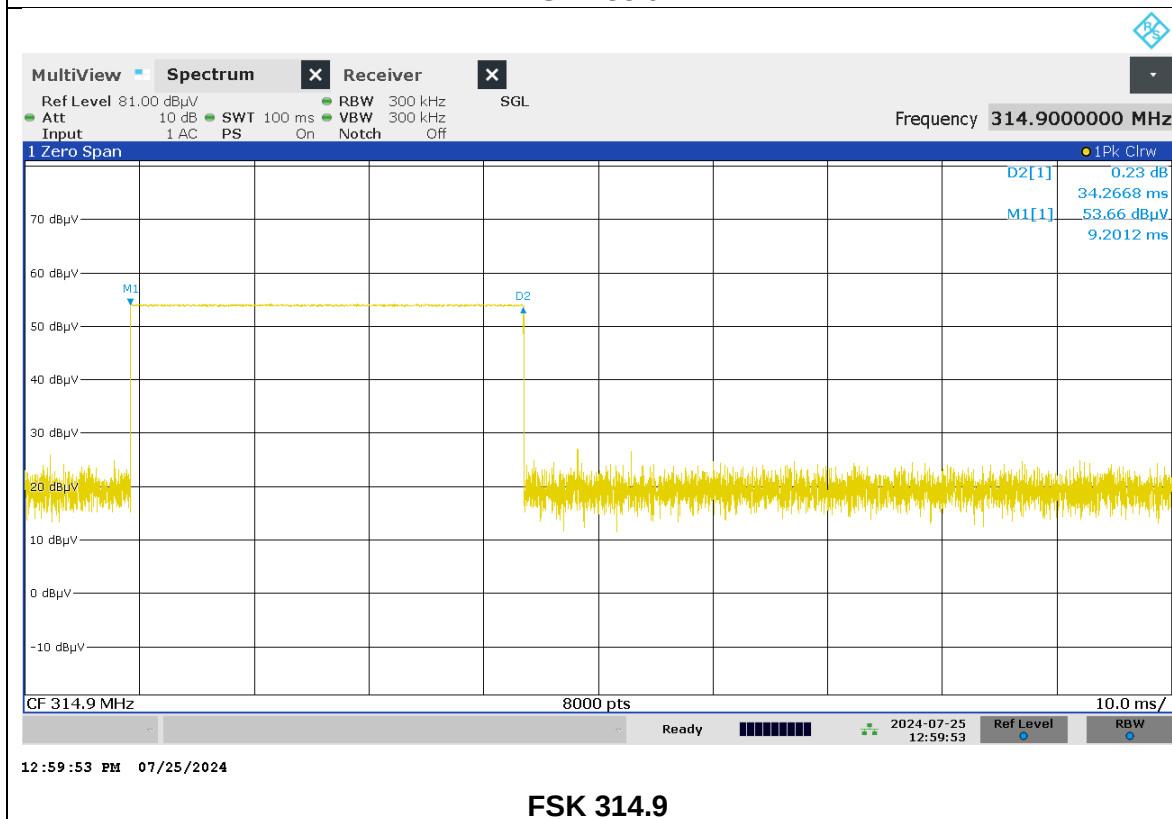
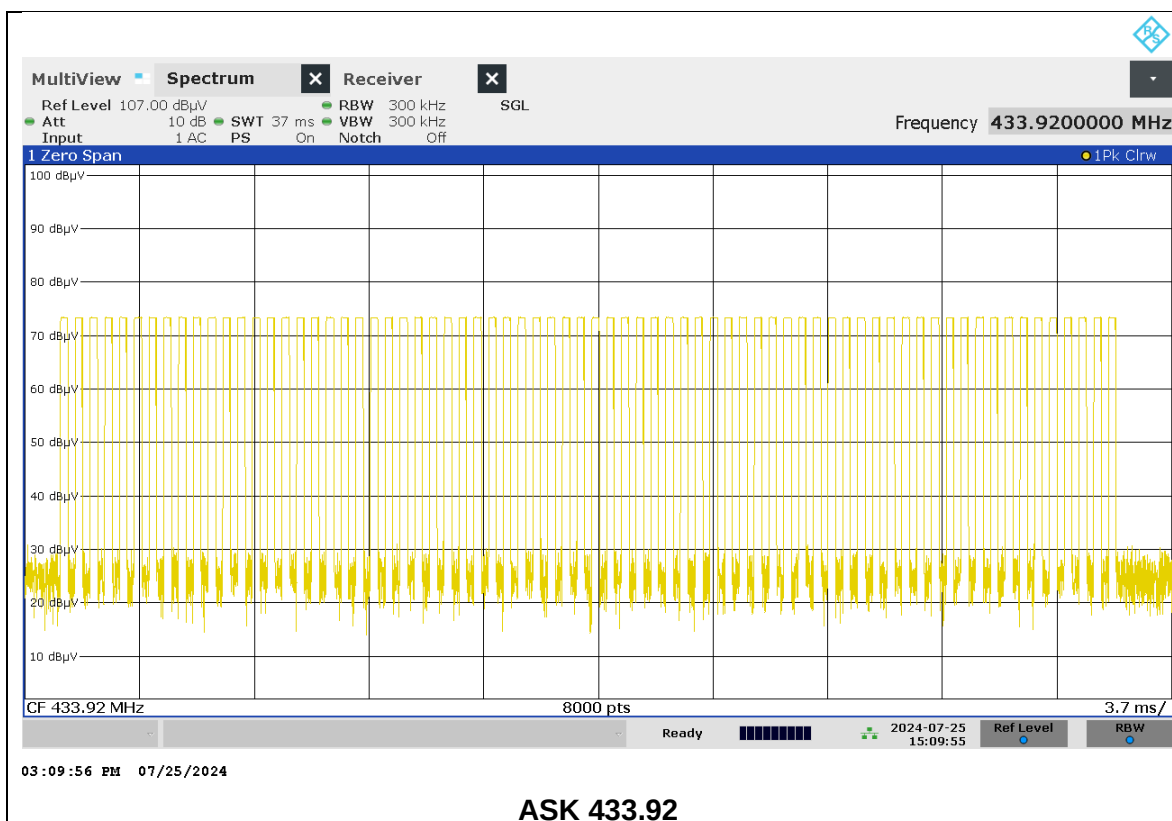


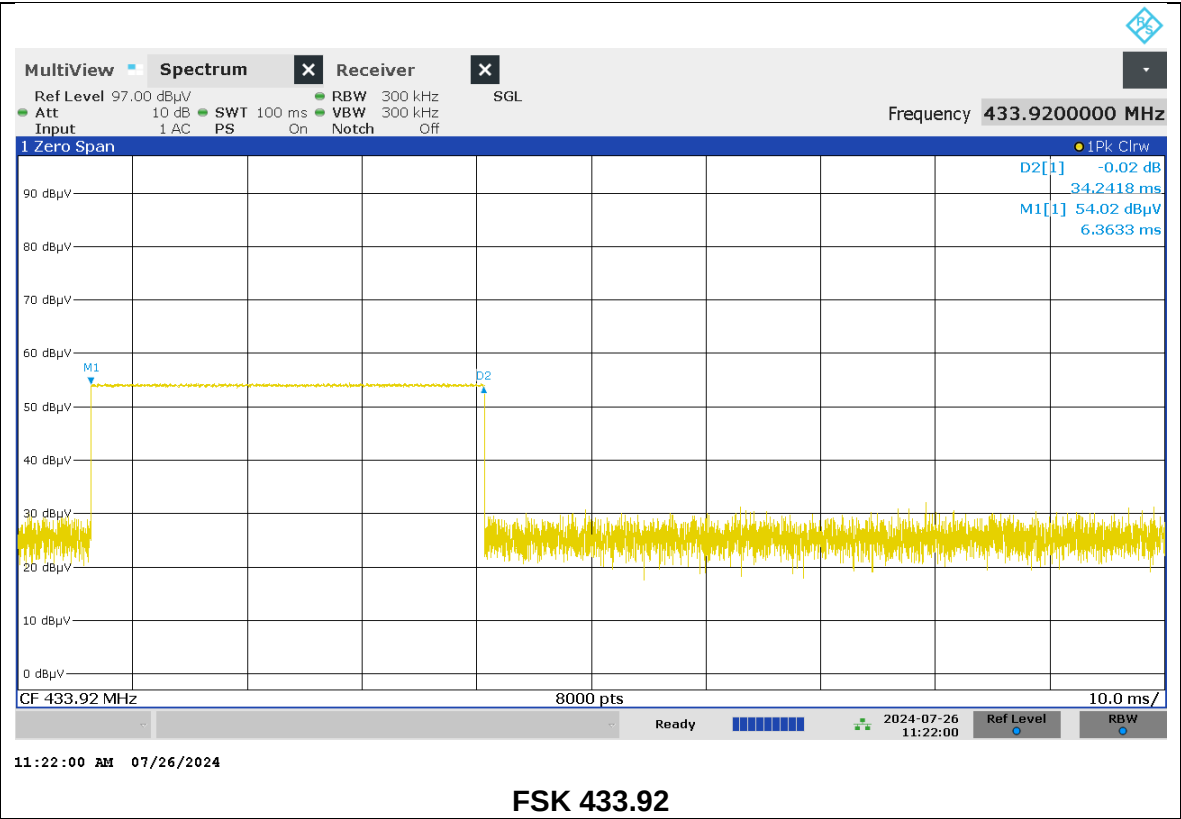


8.2.3. NUMBER OF PULSES

| Number of Pulses over 100ms (FSK) | Number of Pulses over 100ms (ASK) |
|-----------------------------------|-----------------------------------|
| 1                                 | 72                                |







### 8.3. TRANSMISSION TIME

#### LIMITS

FCC §15.231 (a) (1)

RSS-210 A1.1 (a)

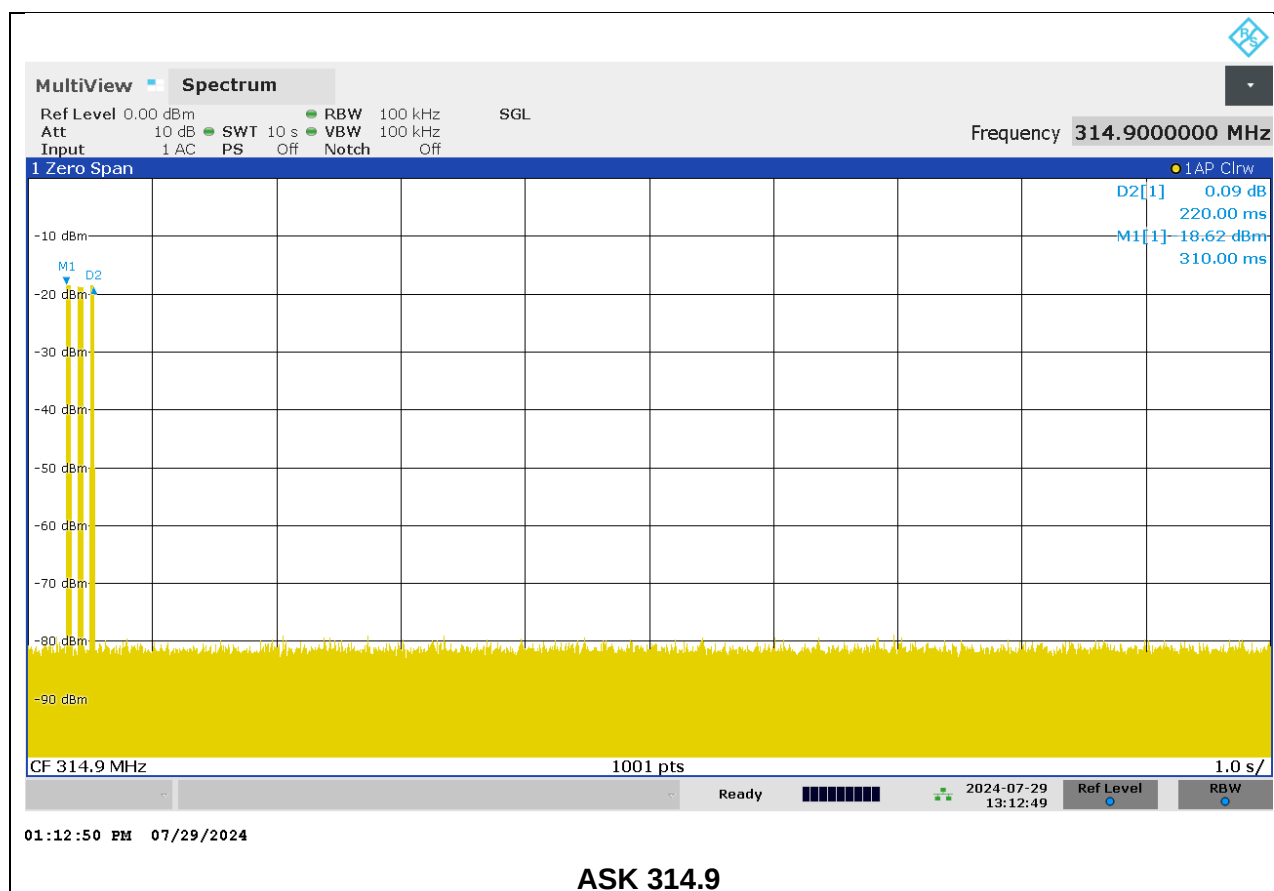
A transmitter activated automatically shall cease transmission within 5 seconds after activation.

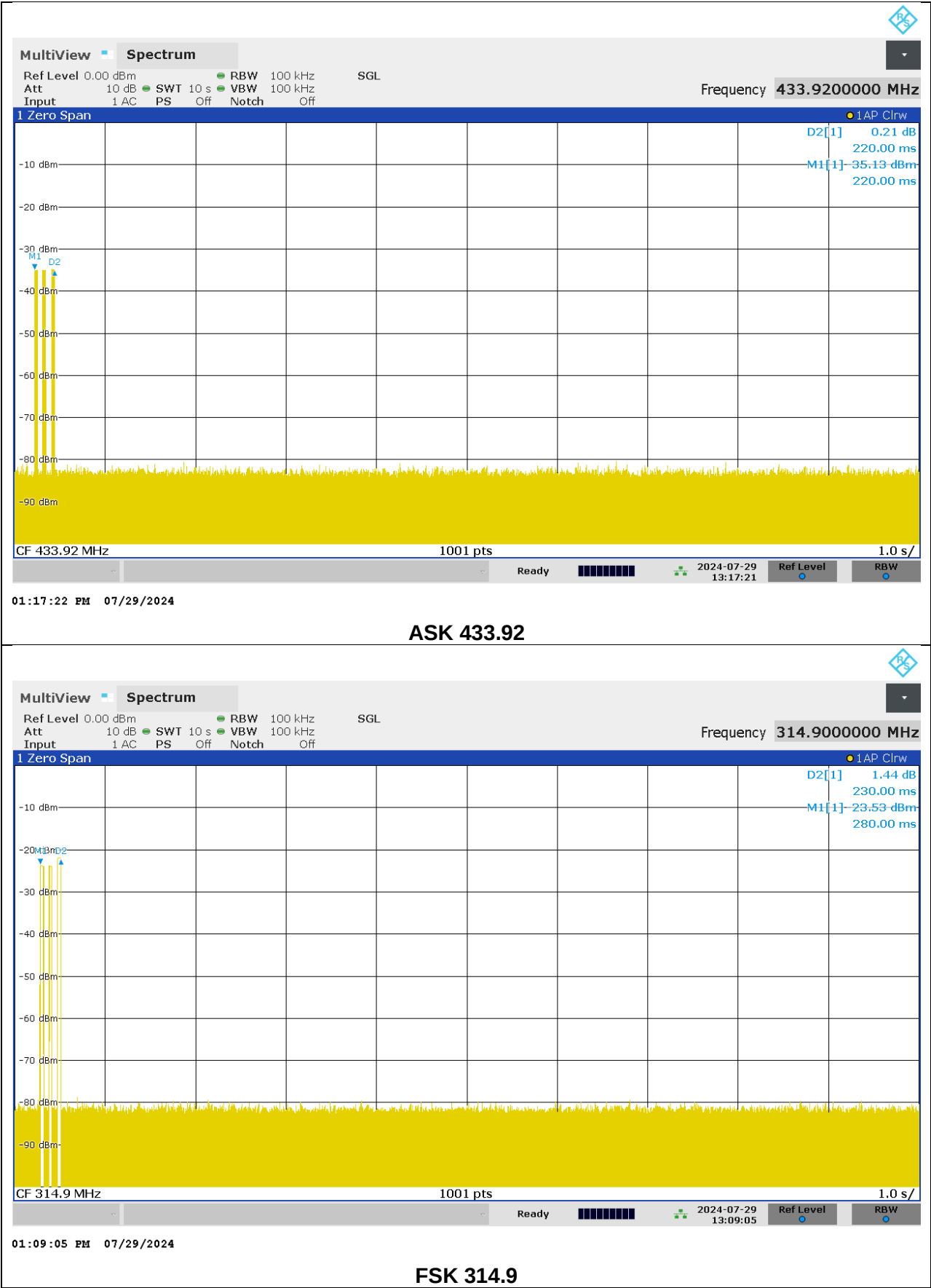
#### TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer or radiated field strength. The RBW is set to 100 kHz and the VBW is set to 100 kHz. The sweep time is set to 10 seconds and the span is set to 0 Hz.

#### RESULTS

No non-compliance noted:





MultiView

Spectrum

Ref Level 0.00 dBm

Att 10 dB

Input 1 AC

SWT 10 s

PS Off

Notch Off

RBW 100 kHz

VBW 100 kHz

SGL

Frequency 314.900000 MHz

1 Zero Span

1AP Clrw

D2[1] 1.44 dB

230.00 ms

M1[1] -23.53 dBm

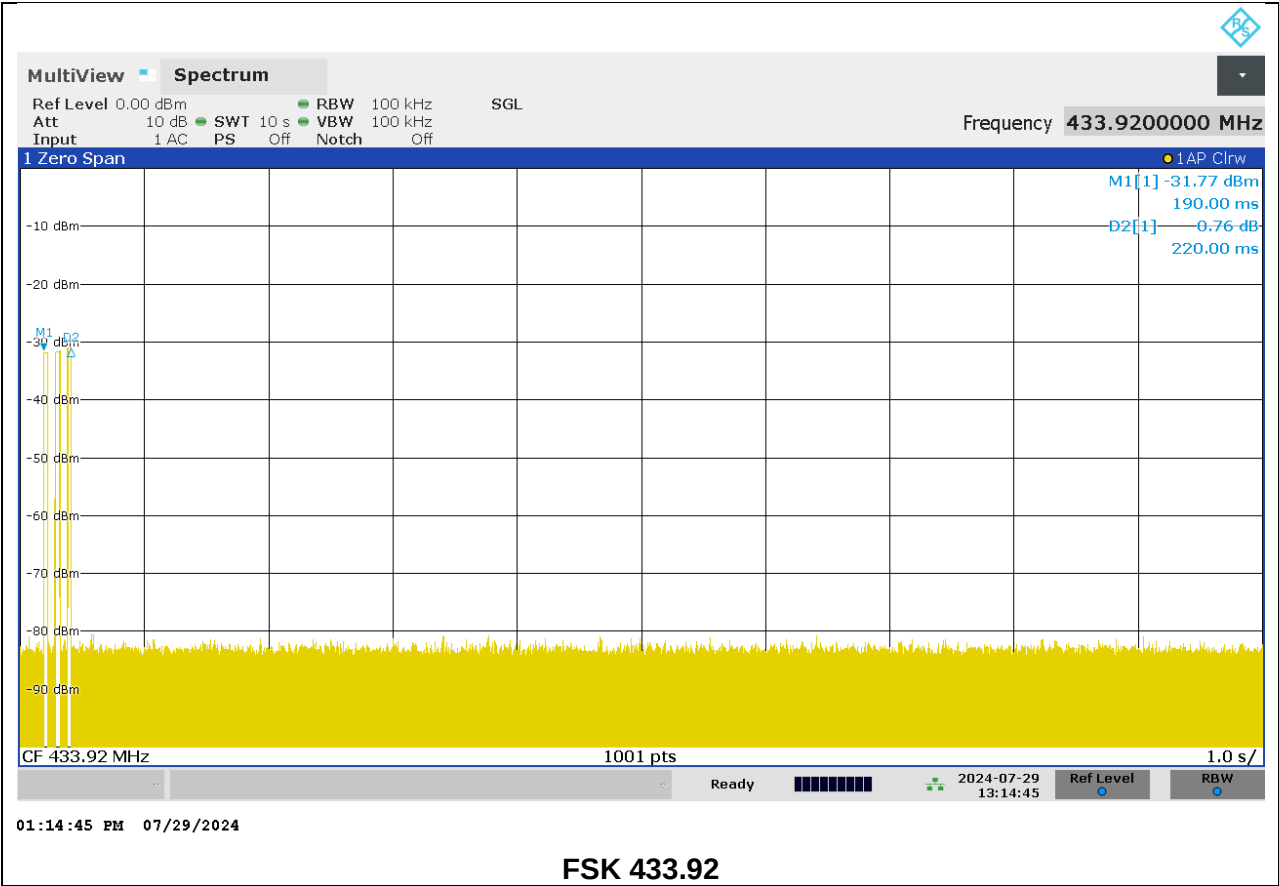
280.00 ms

CF 314.9 MHz1001 pts1.0 s/

Ready2024-07-29 13:09:05Ref LevelRBW

01:09:05 PM 07/29/2024

FSK 314.9



## 9. RADIATED EMISSION TEST RESULTS

### 9.1. TX RADIATED SPURIOUS EMISSION

#### LIMITS

FCC §15.231 (b)

RSS-210 A.1.3

In addition to the provisions of § 15.205, the field strength of emissions from Intentional radiators operated under this section shall not exceed the following:

| Fundamental frequency (MHz) | Field strength of fundamental (microvolts/meter) | Field strength of spurious emissions (microvolts/meter) |
|-----------------------------|--------------------------------------------------|---------------------------------------------------------|
| 40.66-40.70                 | 2,250                                            | 225                                                     |
| 70-130                      | 1,250                                            | 125                                                     |
| 130-174                     | <sup>1</sup> 1,250 to 3,750                      | <sup>1</sup> 125 to 375                                 |
| 174-260                     | 3,750                                            | 375                                                     |
| 260-470                     | <sup>1</sup> 3,750 to 12,500                     | <sup>1</sup> 375 to 1,250                               |
| Above 470                   | 12,500                                           | 1,250                                                   |

<sup>1</sup>Linear interpolation.

- for 130-174 MHz: field strength (μV/m) = (56.81818 x f) - 6136.3636
- for 260-470 MHz: field strength (μV/m) = (41.6667 x f) - 7083.3333

FCC §15.231 (b)

The limits on the field strength of the spurious emissions in the above table are based on the fundamental frequency of the intentional radiator. Spurious emissions shall be attenuated to the average (or, alternatively, CISPR quasi-peak) limits shown in this table or to the general limits shown in [§ 15.209](#), whichever limit permits a higher field strength

RSS-GEN 8.9 Table 6 – General Field Strength Limits at Frequencies below 30MHz.

| Frequency (MHz)               | Magnetic field strength (H-Field) (μA/m) | Measurement distance (meters) |
|-------------------------------|------------------------------------------|-------------------------------|
| 9 - 490 kHz <sup>Note 1</sup> | 6.37/F (F in kHz)                        | 300                           |
| 490 - 1705 kHz                | 63.7/F (F in kHz)                        | 30                            |
| 1.705 - 30 MHz                | 0.08                                     | 30                            |

**Note 1:** The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

**Note 2:** The limits in CFR 47, Part 15, Subpart C, paragraph 15.209(a), are identical to those in RSS-Gen section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as report in the table) using free space impedance of 377 Ohms.

FCC §15.209 (a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

| 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                                | 30                            |
| 30-88           | 100 **                            | 3                             |
| 88-216          | 150 **                            | 3                             |
| 216-960         | 200 **                            | 3                             |
| Above 960       | 500                               | 3                             |

\*\* Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.

FCC §15.209 (b) In the emission table above, the tighter limit applies at the band edges.

FCC §15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

| MHz                                                                                 | MHz                 | MHz           | GHz         |
|-------------------------------------------------------------------------------------|---------------------|---------------|-------------|
| 0.090-0.110                                                                         | 16.42-16.423        | 399.9-410     | 4.5-5.15    |
| <sup>1</sup> 0.495-0.505                                                            | 16.69475-16.69525   | 608-614       | 5.35-5.46   |
| 2.1735-2.1905                                                                       | 16.80425-16.80475   | 960-1240      | 7.25-7.75   |
| 4.125-4.128                                                                         | 25.5-25.67          | 1300-1427     | 8.025-8.5   |
| 4.17725-4.17775                                                                     | 37.5-38.25          | 1435-1626.5   | 9.0-9.2     |
| 4.20725-4.20775                                                                     | 73-74.6             | 1645.5-1646.5 | 9.3-9.5     |
| 6.215-6.218                                                                         | 74.8-75.2           | 1660-1710     | 10.6-12.7   |
| 6.26775-6.26825                                                                     | 108-121.94          | 1718.8-1722.2 | 13.25-13.4  |
| 6.31175-6.31225                                                                     | 123-138             | 2200-2300     | 14.47-14.5  |
| 8.291-8.294                                                                         | 149.9-150.05        | 2310-2390     | 15.35-16.2  |
| 8.362-8.366                                                                         | 156.52475-156.52525 | 2483.5-2500   | 17.7-21.4   |
| 8.37625-8.38675                                                                     | 156.7-156.9         | 2690-2900     | 22.01-23.12 |
| 8.41425-8.41475                                                                     | 162.0125-167.17     | 3260-3267     | 23.6-24.0   |
| 12.29-12.293                                                                        | 167.72-173.2        | 3332-3339     | 31.2-31.8   |
| 12.51975-12.52025                                                                   | 240-285             | 3345.8-3358   | 36.43-36.5  |
| 12.57675-12.57725                                                                   | 322-335.4           | 3600-4400     | -2          |
| 13.36-13.41                                                                         |                     |               |             |
| <sup>1</sup> Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. |                     |               |             |
| <sup>2</sup> Above 38.6                                                             |                     |               |             |

RSS-GEN 8.10(c) Unwanted emissions that fall into restricted frequency bands listed in table 7 shall comply with the limits specified in table 5 and 6.

| MHz                 | MHz                   | GHz           |
|---------------------|-----------------------|---------------|
| 0.090 - 0.110       | 149.9 - 150.05        | 9.0 - 9.2     |
| 0.495 - 0.505       | 156.52475 - 156.52525 | 9.3 - 9.5     |
| 2.1735 - 2.1905     | 156.7 - 156.9         | 10.6 - 12.7   |
| 3.020 - 3.026       | 162.0125 - 167.17     | 13.25 - 13.4  |
| 4.125 - 4.128       | 167.72 - 173.2        | 14.47 - 14.5  |
| 4.17725 - 4.17775   | 240 – 285             | 15.35 - 16.2  |
| 4.20725 - 4.20775   | 322 - 335.4           | 17.7 - 21.4   |
| 5.677 - 5.683       | 399.9 - 410           | 22.01 - 23.12 |
| 6.215 - 6.218       | 608 - 614             | 23.6 - 24.0   |
| 6.26775 - 6.26825   | 960 - 1427            | 31.2 - 31.8   |
| 6.31175 - 6.31225   | 1435 - 1626.5         | 36.43 - 36.5  |
| 8.291 - 8.294       | 1645.5 - 1646.5       | Above 38.6    |
| 8.362 - 8.366       | 1660 - 1710           |               |
| 8.37625 - 8.38675   | 1718.8 - 1722.2       |               |
| 8.41425 - 8.41475   | 2200 - 2300           |               |
| 12.29 - 12.293      | 2310 - 2390           |               |
| 12.51975 - 12.52025 | 2483.5 - 2500         |               |
| 12.57675 - 12.57725 | 2655 - 2900           |               |
| 13.36 - 13.41       | 3260 – 3267           |               |
| 16.42 - 16.423      | 3332 - 3339           |               |
| 16.69475 - 16.69525 | 3345.8 - 3358         |               |
| 16.80425 - 16.80475 | 3500 - 4400           |               |
| 25.5 - 25.67        | 4500 - 5150           |               |
| 37.5 - 38.25        | 5350 - 5460           |               |
| 73 - 74.6           | 7250 - 7750           |               |
| 74.8 - 75.2         | 8025 – 8500           |               |
| 108 – 138           |                       |               |

**Note 1:** Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

FCC §15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

## **TEST PROCEDURE**

General Radiated Spurious Emissions: ANSI C63.10 Sections 6.3 thru 6.6

Radiated emissions restricted frequency bands: ANSI C63.10 Subclause 6.10.5, 11.12.1

Fundamental emission output power of periodic transmitters: ANSI C63.10 Subclause 7.6

## **RESULTS**

### 9.1.1. FUNDAMENTAL MEASUREMENTS

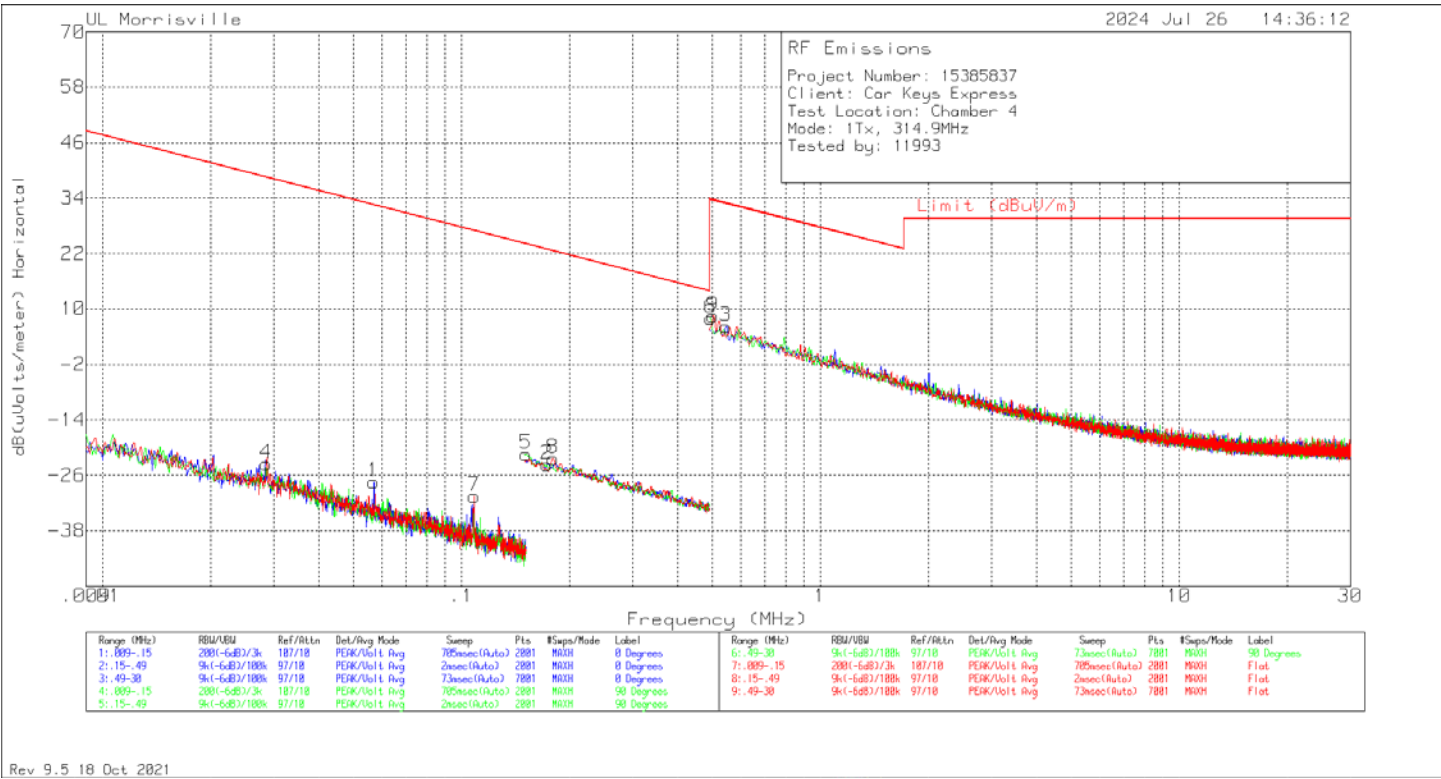
Project Number: 15385837  
Client: Car Keys Express  
Test Location: Chamber 4  
Mode: 1Tx, Various  
Tested by: 11993  
Date: 2024-07-26

| Frequency (MHz) | Meter Reading (dBuV) | Det | 159203 (dB/m) | Gain/Loss (dB) | DCCF   | Corrected Reading (dBuV/m) | 15.231(b) Limit (dBuV/m) | Pk Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|---------------|----------------|--------|----------------------------|--------------------------|-------------------|-------------|----------------|-------------|----------|
| <b>ASK</b>      |                      |     |               |                |        |                            |                          |                   |             |                |             |          |
| 314.89451       | 59.83                | Pk  | 20            | 2.7            | 0      | 82.53                      | -                        | 95.62             | -13.09      | 123            | 102         | H        |
| 314.89451       | 59.83                | Pk  | 20            | 2.7            | -15.48 | <b>67.05</b>               | 75.62                    | -                 | -8.57       | 123            | 102         | H        |
| 314.88402       | 39.69                | Pk  | 20            | 2.7            | 0      | 62.39                      | -                        | 95.62             | -33.23      | 50             | 154         | V        |
| 314.88402       | 39.69                | Pk  | 20            | 2.7            | -15.48 | 46.91                      | 75.62                    | -                 | -28.71      | 50             | 154         | V        |
|                 |                      |     |               |                |        |                            |                          |                   |             |                |             |          |
| 433.91101       | 49.02                | Pk  | 22.6          | 3.1            | 0      | 74.72                      | -                        | 100.83            | -26.11      | 262            | 121         | V        |
| 433.91101       | 49.02                | Pk  | 22.6          | 3.1            | -15.55 | <b>59.17</b>               | 80.83                    | -                 | -21.66      | 262            | 121         | V        |
| 433.91201       | 44.24                | Pk  | 22.6          | 3.1            | 0      | 69.94                      | -                        | 100.83            | -30.89      | 161            | 365         | H        |
| 433.91201       | 44.24                | Pk  | 22.6          | 3.1            | -15.55 | 54.39                      | 80.83                    | -                 | -26.44      | 161            | 365         | H        |
| <b>FSK</b>      |                      |     |               |                |        |                            |                          |                   |             |                |             |          |
| 314.85904       | 39.82                | Pk  | 20            | 2.7            | 0      | 62.52                      | -                        | 95.62             | -33.1       | 53             | 133         | V        |
| 314.85904       | 39.82                | Pk  | 20            | 2.7            | -9.34  | 53.18                      | 75.62                    | -                 | -22.44      | 53             | 133         | V        |
| 314.86304       | 59.25                | Pk  | 20            | 2.7            | 0      | 81.95                      | -                        | 95.62             | -13.67      | 297            | 105         | H        |
| 314.86304       | 59.25                | Pk  | 20            | 2.7            | -9.34  | <b>72.61</b>               | 75.62                    | -                 | -3.01       | 297            | 105         | H        |
|                 |                      |     |               |                |        |                            |                          |                   |             |                |             |          |
| 433.88304       | 50.95                | Pk  | 22.6          | 3.1            | 0      | 76.65                      | -                        | 100.83            | -24.18      | 259            | 124         | V        |
| 433.88304       | 50.95                | Pk  | 22.6          | 3.1            | -9.31  | <b>67.34</b>               | 80.83                    | -                 | -13.49      | 259            | 124         | V        |
| 433.88953       | 45.46                | Pk  | 22.6          | 3.1            | 0      | 71.16                      | -                        | 100.83            | -29.67      | 155            | 369         | H        |
| 433.88953       | 45.46                | Pk  | 22.6          | 3.1            | -9.31  | 61.85                      | 80.83                    | -                 | -18.98      | 155            | 369         | H        |

Pk – Peak Detector

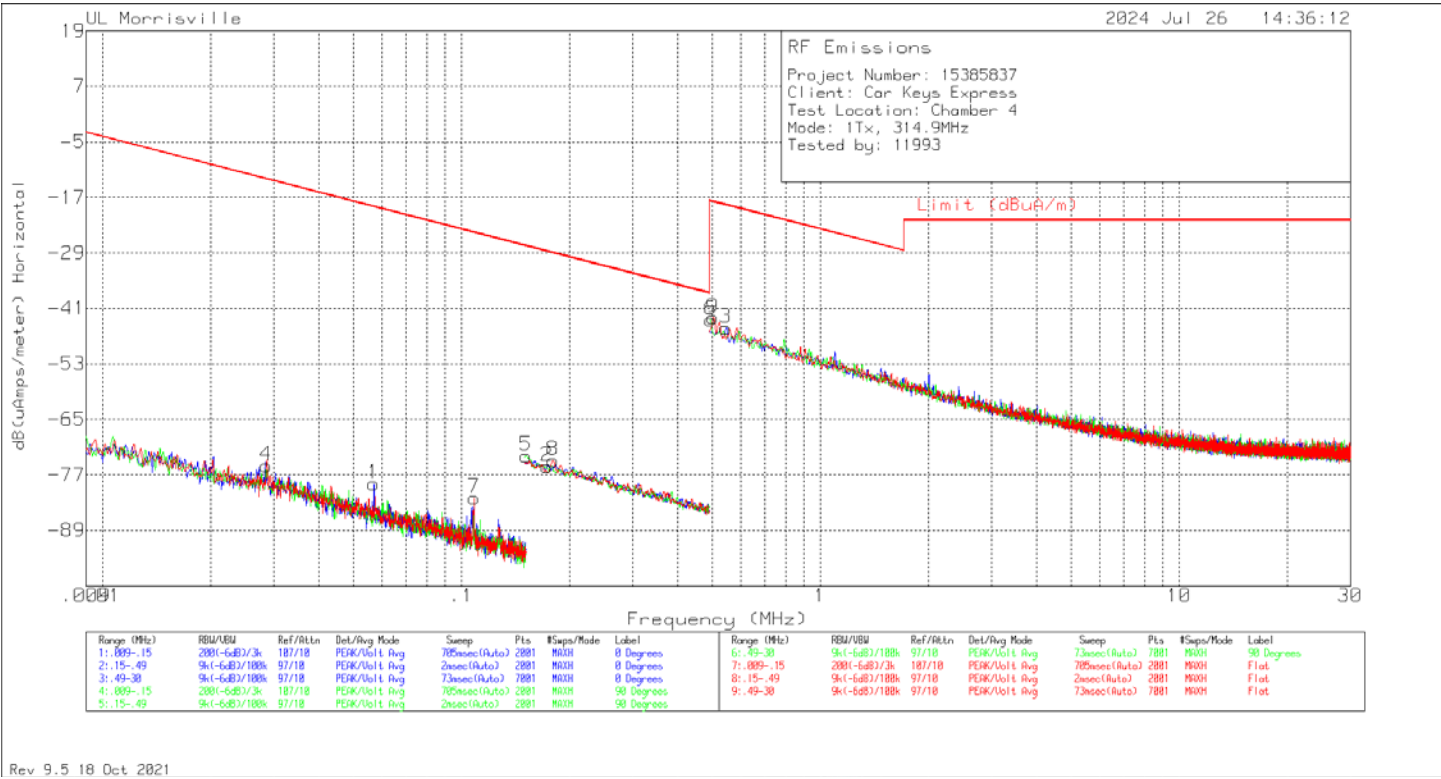
9.1.2. HARMONICS AND TX SPURIOUS EMISSIONS BELOW 30MHZ

ASK 314.9



| Marker | Frequency (MHz) | Meter Reading (dBUV) | Det | 135144 (dBUV/m) | Gain/Loss (dB) | Dist. Corr. Factor (dB) | Corrected Reading dB(uVolts/meter) | Limit (dBUV/m) | Margin (dB) | Azimuth (Degs) | Loop Angle |
|--------|-----------------|----------------------|-----|-----------------|----------------|-------------------------|------------------------------------|----------------|-------------|----------------|------------|
| 4      | .02853          | 42.74                | Pk  | 13.6            | .1             | -80                     | -23.56                             | 38.5           | -62.06      | 0-360          | 90 degs    |
| 1      | .057            | 40.9                 | Pk  | 11.6            | .1             | -80                     | -27.4                              | 32.49          | -59.89      | 0-360          | 0 degs     |
| 7      | .10854          | 38.3                 | Pk  | 11.1            | .1             | -80                     | -30.5                              | 26.89          | -57.39      | 0-360          | Flat       |
| 5      | .15136          | 47.37                | Pk  | 11.1            | .1             | -80                     | -21.43                             | 24             | -45.43      | 0-360          | 90 degs    |
| 2      | .17312          | 45.1                 | Pk  | 11.1            | .1             | -80                     | -23.7                              | 22.84          | -46.54      | 0-360          | 0 degs     |
| 8      | .17992          | 46.4                 | Pk  | 11.1            | .1             | -80                     | -22.4                              | 22.5           | -44.9       | 0-360          | Flat       |
| 6      | .49422          | 36.77                | Pk  | 11.1            | .1             | -40                     | 7.97                               | 33.73          | -25.76      | 0-360          | 90 degs    |
| 9      | .50265          | 37.25                | Pk  | 11.1            | .1             | -40                     | 8.45                               | 33.58          | -25.13      | 0-360          | Flat       |
| 3      | .54481          | 35.1                 | Pk  | 11.1            | .1             | -40                     | 6.3                                | 32.88          | -26.58      | 0-360          | 0 degs     |

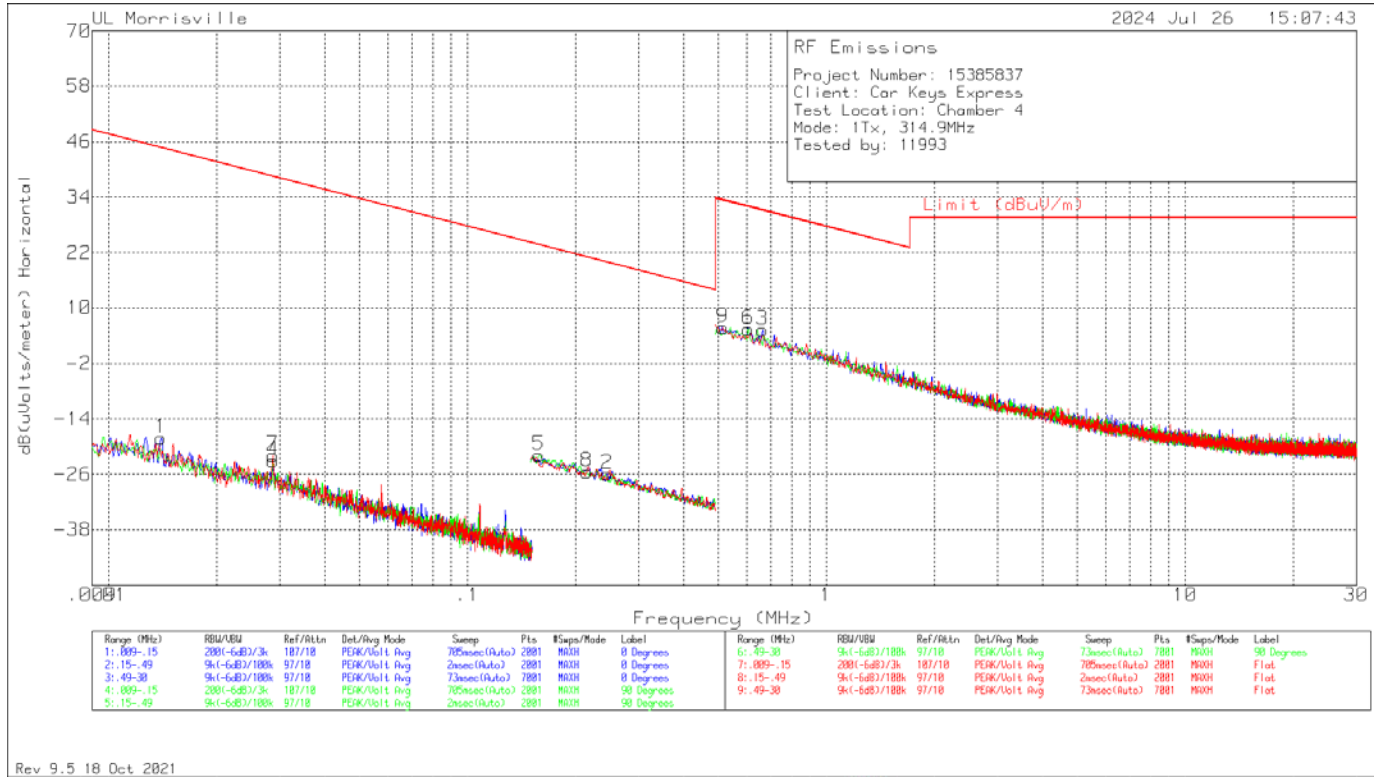
Pk - Peak detector



| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 135144 (dBuV/m) | Gain/Loss (dB) | Dist. Corr. Factor (dB) | Corrected Reading dB(uAmps/meter) | Limit (dBuA/m) | Margin (dB) | Azimuth (Degs) | Loop Angle |
|--------|-----------------|----------------------|-----|-----------------|----------------|-------------------------|-----------------------------------|----------------|-------------|----------------|------------|
| 4      | .02853          | 42.74                | Pk  | -37.9           | .1             | -80                     | -75.06                            | -13            | -62.06      | 0-360          | 90 degs    |
| 1      | .057            | 40.9                 | Pk  | -39.9           | .1             | -80                     | -78.9                             | -19.01         | -59.89      | 0-360          | 0 degs     |
| 7      | .10854          | 38.3                 | Pk  | -40.4           | .1             | -80                     | -82                               | -24.61         | -57.39      | 0-360          | Flat       |
| 5      | .15136          | 47.37                | Pk  | -40.4           | .1             | -80                     | -72.93                            | -27.5          | -45.43      | 0-360          | 90 degs    |
| 2      | .17312          | 45.1                 | Pk  | -40.4           | .1             | -80                     | -75.2                             | -28.66         | -46.54      | 0-360          | 0 degs     |
| 8      | .17992          | 46.4                 | Pk  | -40.4           | .1             | -80                     | -73.9                             | -29            | -44.9       | 0-360          | Flat       |
| 6      | .49422          | 36.77                | Pk  | -40.4           | .1             | -40                     | -43.53                            | -17.77         | -25.76      | 0-360          | 90 degs    |
| 9      | .50265          | 37.25                | Pk  | -40.4           | .1             | -40                     | -43.05                            | -17.92         | -25.13      | 0-360          | Flat       |
| 3      | .54481          | 35.1                 | Pk  | -40.4           | .1             | -40                     | -45.2                             | -18.62         | -26.58      | 0-360          | 0 degs     |

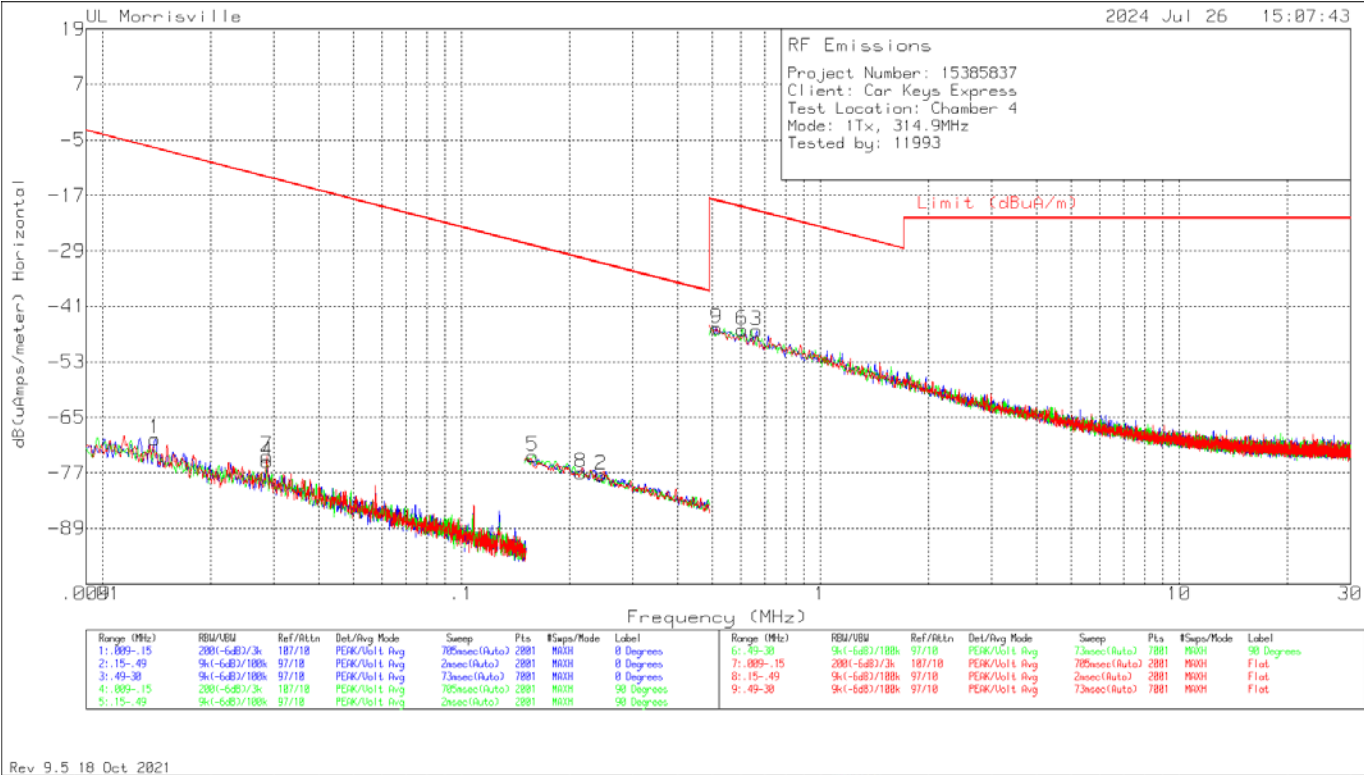
Pk - Peak detector

FSK 314.9



| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 135144 (dBuV/m) | Gain/Loss (dB) | Dist. Corr. Factor (dB) | Corrected Reading dB(uVolts/meter) | Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Loop Angle |
|--------|-----------------|----------------------|-----|-----------------|----------------|-------------------------|------------------------------------|----------------|-------------|----------------|------------|
| 1      | .01397          | 45.07                | Pk  | 16.7            | .1             | -80                     | -18.13                             | 44.7           | -62.83      | 0-360          | 0 degs     |
| 7      | .02867          | 44.39                | Pk  | 13.6            | .1             | -80                     | -21.91                             | 38.46          | -60.37      | 0-360          | Flat       |
| 4      | .02874          | 43.32                | Pk  | 13.6            | .1             | -80                     | -22.98                             | 38.44          | -61.42      | 0-360          | 90 degs    |
| 5      | .15816          | 46.85                | Pk  | 11.1            | .1             | -80                     | -21.95                             | 23.62          | -45.57      | 0-360          | 90 degs    |
| 8      | .21494          | 43.34                | Pk  | 11.1            | .1             | -80                     | -25.46                             | 20.96          | -46.42      | 0-360          | Flat       |
| 2      | .24469          | 42.83                | Pk  | 11.1            | .1             | -80                     | -25.97                             | 19.83          | -45.8       | 0-360          | 0 degs     |
| 9      | .5153           | 34.6                 | Pk  | 11.1            | .1             | -40                     | 5.8                                | 33.36          | -27.56      | 0-360          | Flat       |
| 6      | .60594          | 34.11                | Pk  | 11.2            | .1             | -40                     | 5.41                               | 31.96          | -26.55      | 0-360          | 90 degs    |
| 3      | .66286          | 33.83                | Pk  | 11.2            | .2             | -40                     | 5.23                               | 31.18          | -25.95      | 0-360          | 0 degs     |

Pk - Peak detector

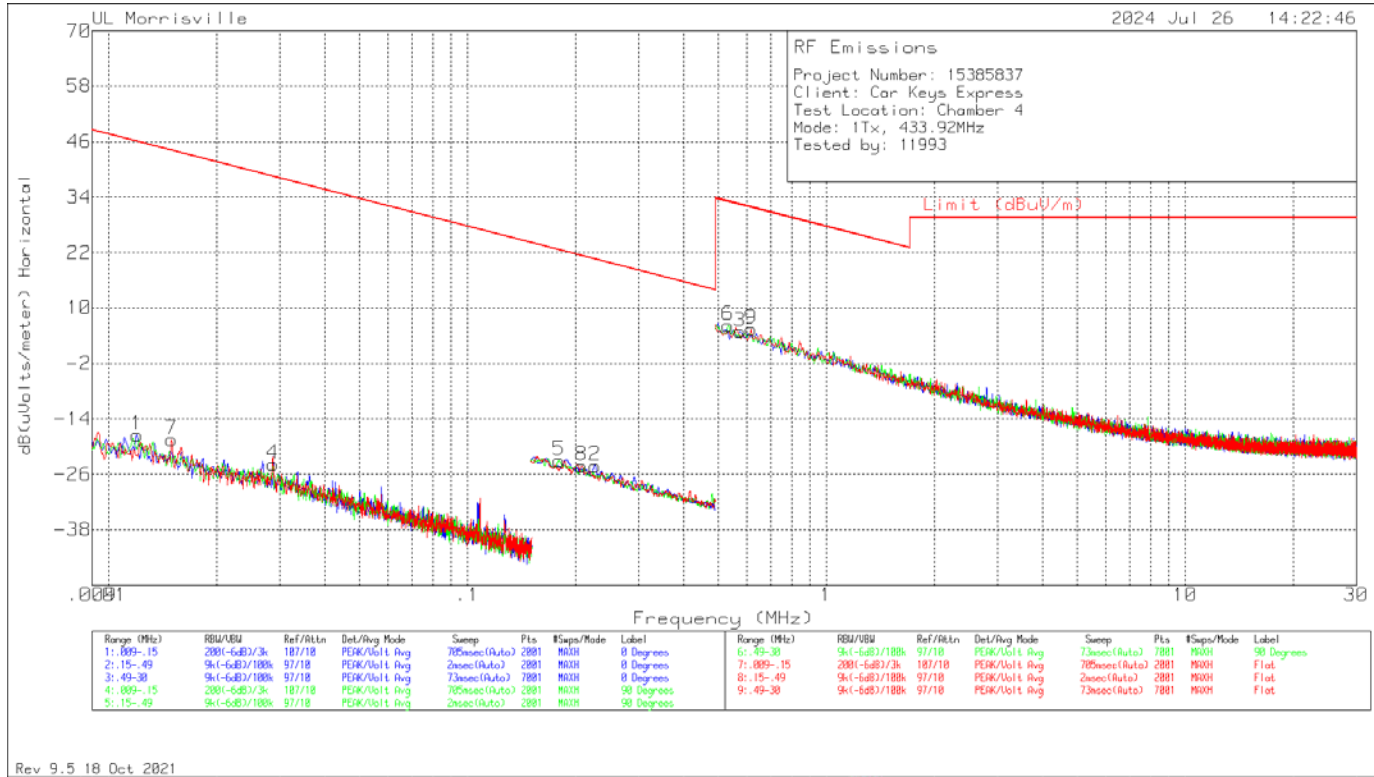


Trace Markers

| Marker | Frequency (MHz) | Meter Reading (dBUV) | Det | 135144 (dBUV/m) | Gain/Loss (dB) | Dist. Corr. Factor (dB) | Corrected Reading dB(uAmps/meter) | Limit (dBUA/m) | Margin (dB) | Azimuth (Degs) | Loop Angle |
|--------|-----------------|----------------------|-----|-----------------|----------------|-------------------------|-----------------------------------|----------------|-------------|----------------|------------|
| 1      | .01397          | 45.07                | Pk  | -34.8           | .1             | -80                     | -69.63                            | -6.8           | -62.83      | 0-360          | 0 degs     |
| 7      | .02867          | 44.39                | Pk  | -37.9           | .1             | -80                     | -73.41                            | -13.04         | -60.37      | 0-360          | Flat       |
| 4      | .02874          | 43.32                | Pk  | -37.9           | .1             | -80                     | -74.48                            | -13.06         | -61.42      | 0-360          | 90 degs    |
| 5      | .15816          | 46.85                | Pk  | -40.4           | .1             | -80                     | -73.45                            | -27.88         | -45.57      | 0-360          | 90 degs    |
| 8      | .21494          | 43.34                | Pk  | -40.4           | .1             | -80                     | -76.96                            | -30.54         | -46.42      | 0-360          | Flat       |
| 2      | .24469          | 42.83                | Pk  | -40.4           | .1             | -80                     | -77.47                            | -31.67         | -45.8       | 0-360          | 0 degs     |
| 9      | .5153           | 34.6                 | Pk  | -40.4           | .1             | -40                     | -45.7                             | -18.14         | -27.56      | 0-360          | Flat       |
| 6      | .60594          | 34.11                | Pk  | -40.3           | .1             | -40                     | -46.09                            | -19.54         | -26.55      | 0-360          | 90 degs    |
| 3      | .66286          | 33.83                | Pk  | -40.3           | .2             | -40                     | -46.27                            | -20.32         | -25.95      | 0-360          | 0 degs     |

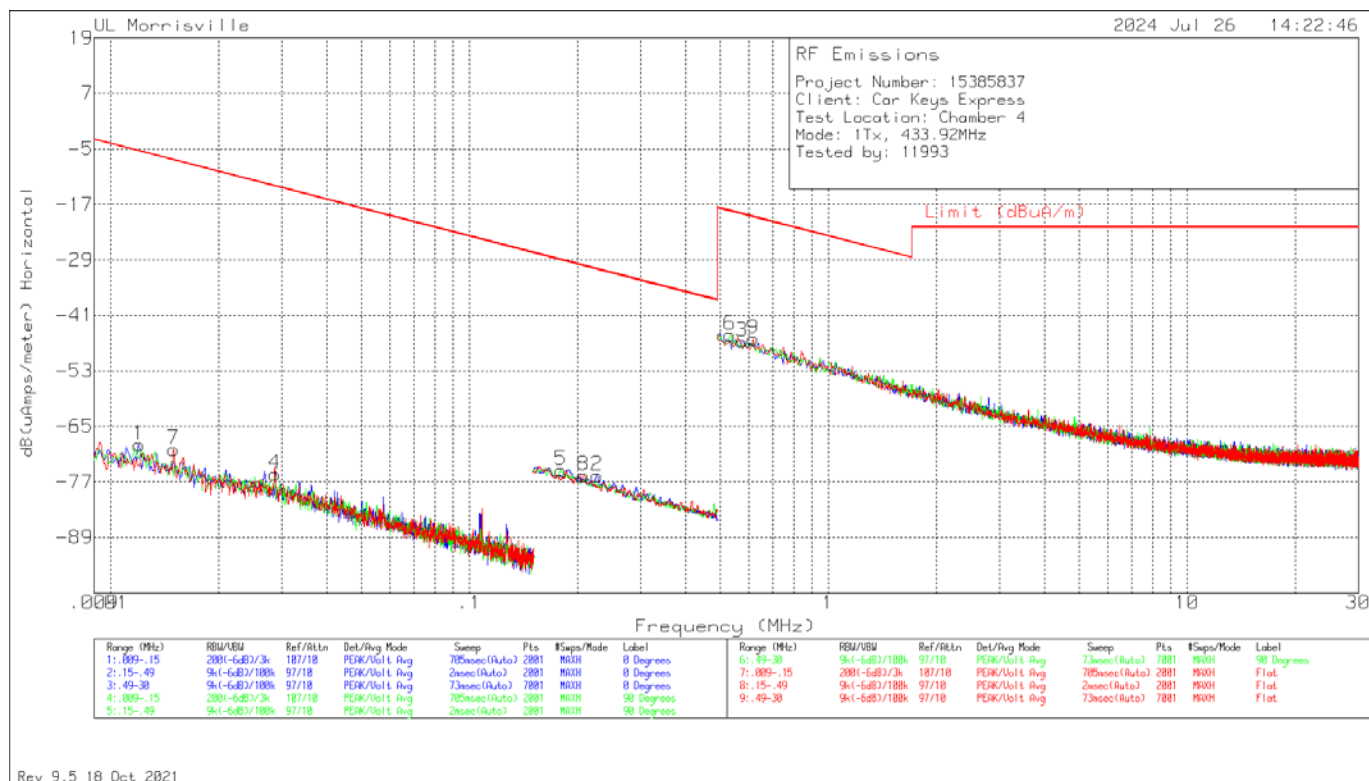
Pk - Peak detector

**ASK 433.92**



| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 135144 (dBuV/m) | Gain/Loss (dB) | Dist. Corr. Factor (dB) | Corrected Reading dB(uVolts/meter) | Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Loop Angle |
|--------|-----------------|----------------------|-----|-----------------|----------------|-------------------------|------------------------------------|----------------|-------------|----------------|------------|
| 1      | .01198          | 44.77                | Pk  | 17.6            | .1             | -80                     | -17.53                             | 46.03          | -63.56      | 0-360          | 0 degs     |
| 7      | .01496          | 45.25                | Pk  | 16.2            | .1             | -80                     | -18.45                             | 44.1           | -62.55      | 0-360          | Flat       |
| 4      | .02867          | 42.44                | Pk  | 13.6            | .1             | -80                     | -23.86                             | 38.46          | -62.32      | 0-360          | 90 degs    |
| 5      | .17967          | 45.77                | Pk  | 11.1            | .1             | -80                     | -23.03                             | 22.51          | -45.54      | 0-360          | 90 degs    |
| 8      | .20823          | 44.62                | Pk  | 11.1            | .1             | -80                     | -24.18                             | 21.23          | -45.41      | 0-360          | Flat       |
| 2      | .22701          | 44.67                | Pk  | 11.1            | .1             | -80                     | -24.13                             | 20.48          | -44.61      | 0-360          | 0 degs     |
| 6      | .53216          | 35.02                | Pk  | 11.1            | .1             | -40                     | 6.22                               | 33.08          | -26.86      | 0-360          | 90 degs    |
| 3      | .57432          | 33.66                | Pk  | 11.1            | .1             | -40                     | 4.86                               | 32.42          | -27.56      | 0-360          | 0 degs     |
| 9      | .61648          | 34.07                | Pk  | 11.2            | .1             | -40                     | 5.37                               | 31.81          | -26.44      | 0-360          | Flat       |

Pk - Peak detector

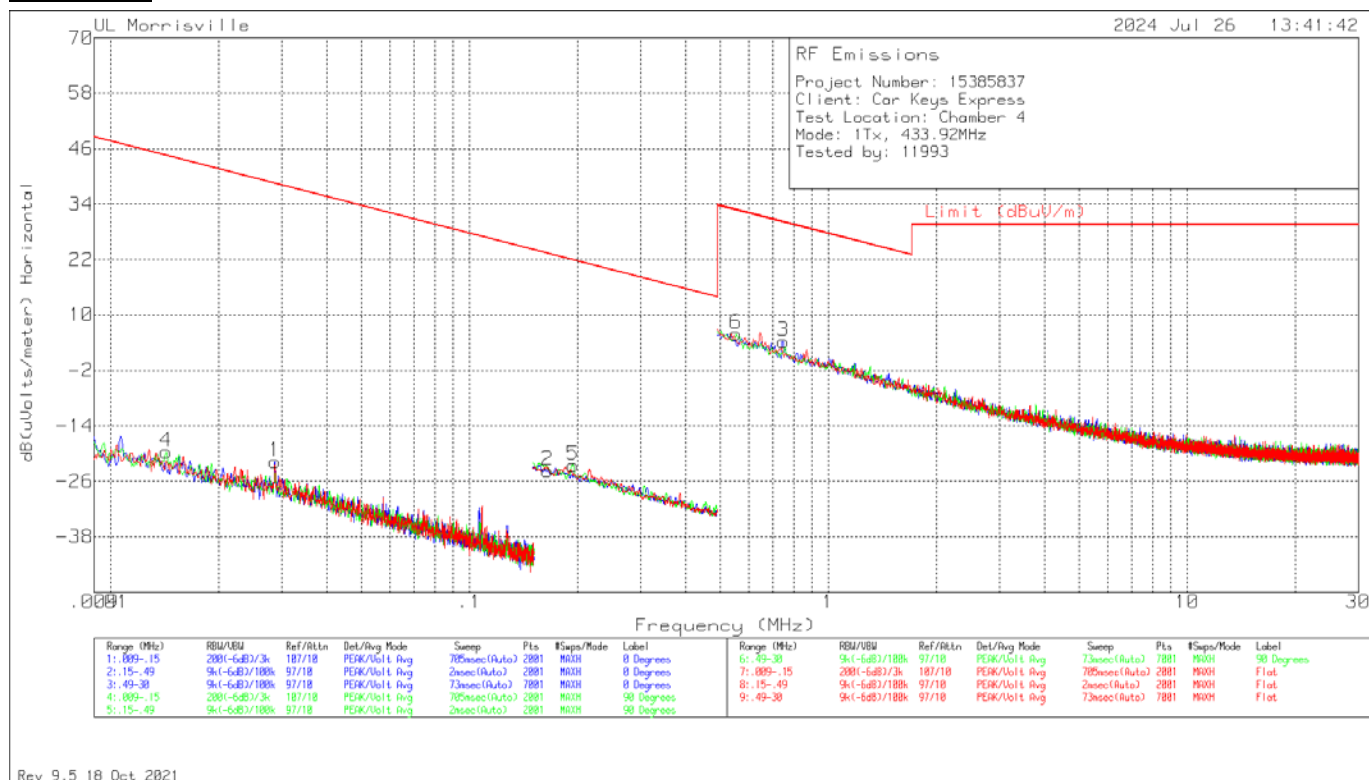


## Trace Markers

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 135144 (dBuV/m) | Gain/Loss (dB) | Dist. Corr. Factor (dB) | Corrected Reading dB(uAmps/meter) | Limit (dBuA/m) | Margin (dB) | Azimuth (Degs) | Loop Angle |
|--------|-----------------|----------------------|-----|-----------------|----------------|-------------------------|-----------------------------------|----------------|-------------|----------------|------------|
| 1      | .01198          | 44.77                | Pk  | -33.9           | .1             | -80                     | -69.03                            | -5.47          | -63.56      | 0-360          | 0 degs     |
| 7      | .01496          | 45.25                | Pk  | -35.3           | .1             | -80                     | -69.95                            | -7.4           | -62.55      | 0-360          | Flat       |
| 4      | .02867          | 42.44                | Pk  | -37.9           | .1             | -80                     | -75.36                            | -13.04         | -62.32      | 0-360          | 90 degs    |
| 5      | .17967          | 45.77                | Pk  | -40.4           | .1             | -80                     | -74.53                            | -28.99         | -45.54      | 0-360          | 90 degs    |
| 8      | .20823          | 44.62                | Pk  | -40.4           | .1             | -80                     | -75.68                            | -30.27         | -45.41      | 0-360          | Flat       |
| 2      | .22701          | 44.67                | Pk  | -40.4           | .1             | -80                     | -75.63                            | -31.02         | -44.61      | 0-360          | 0 degs     |
| 6      | .53216          | 35.02                | Pk  | -40.4           | .1             | -40                     | -45.28                            | -18.42         | -26.86      | 0-360          | 90 degs    |
| 3      | .57432          | 33.66                | Pk  | -40.4           | .1             | -40                     | -46.64                            | -19.08         | -27.56      | 0-360          | 0 degs     |
| 9      | .61648          | 34.07                | Pk  | -40.3           | .1             | -40                     | -46.13                            | -19.69         | -26.44      | 0-360          | Flat       |

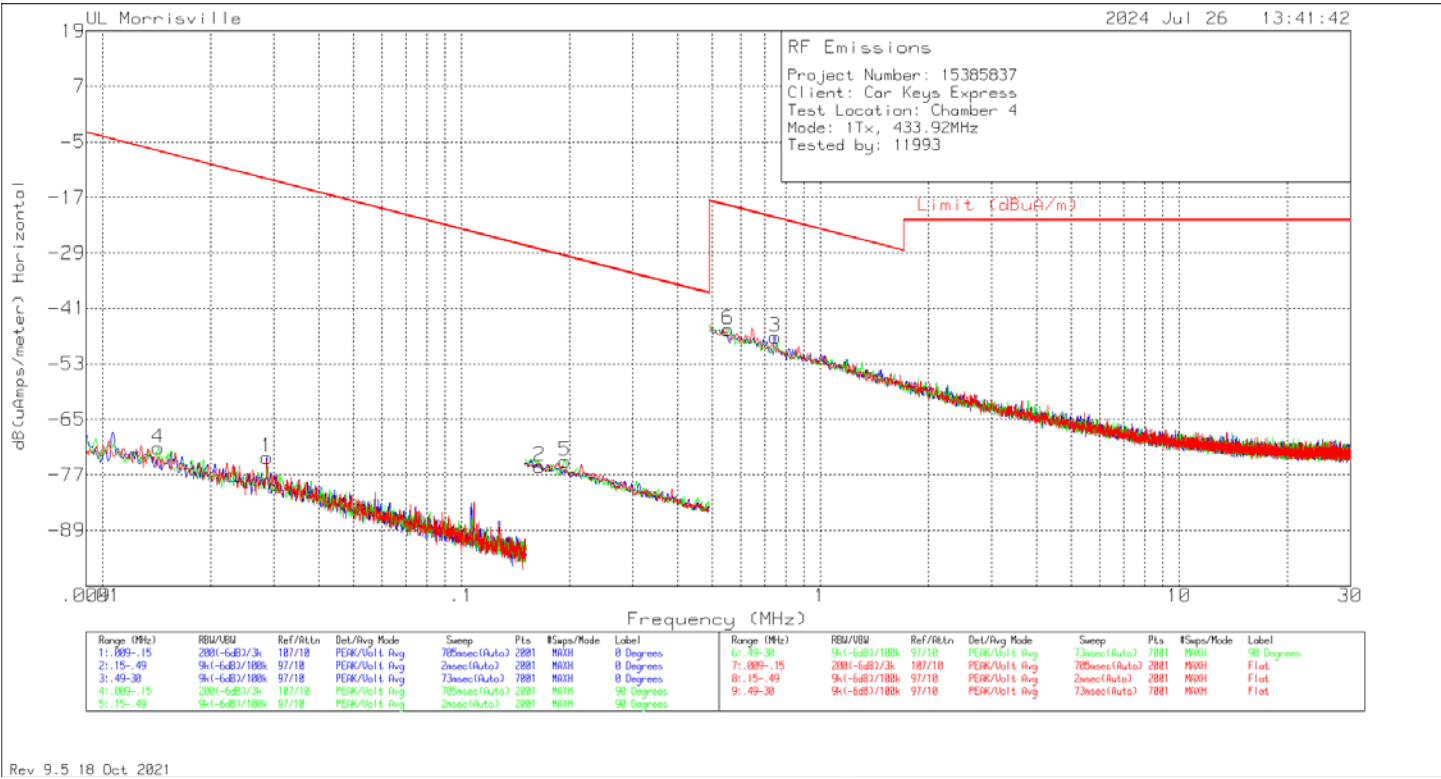
Pk - Peak detector

# FSK 433.92



| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 135144 (dBuV/m) | Gain/Loss (dB) | Dist. Corr. Factor (dB) | Corrected Reading dB(uVolts/meter) | Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Loop Angle |
|--------|-----------------|----------------------|-----|-----------------|----------------|-------------------------|------------------------------------|----------------|-------------|----------------|------------|
| 4      | .01425          | 43.61                | PK  | 16.6            | .1             | -80                     | -19.69                             | 44.53          | -64.22      | 0-360          | 90 degs    |
| 1      | .02867          | 44.51                | PK  | 13.6            | .1             | -80                     | -21.79                             | 38.46          | -60.25      | 0-360          | 0 degs     |
| 2      | .16496          | 45.07                | PK  | 11.1            | .1             | -80                     | -23.73                             | 23.26          | -46.99      | 0-360          | 0 degs     |
| 5      | .19454          | 46.2                 | PK  | 11.1            | .1             | -80                     | -22.6                              | 21.82          | -44.42      | 0-360          | 90 degs    |
| 6      | .55324          | 34.68                | PK  | 11.1            | .1             | -40                     | 5.88                               | 32.75          | -26.87      | 0-360          | 90 degs    |
| 3      | .74718          | 32.9                 | PK  | 11.2            | .2             | -40                     | 4.3                                | 30.14          | -25.84      | 0-360          | 0 degs     |

PK - Peak detector

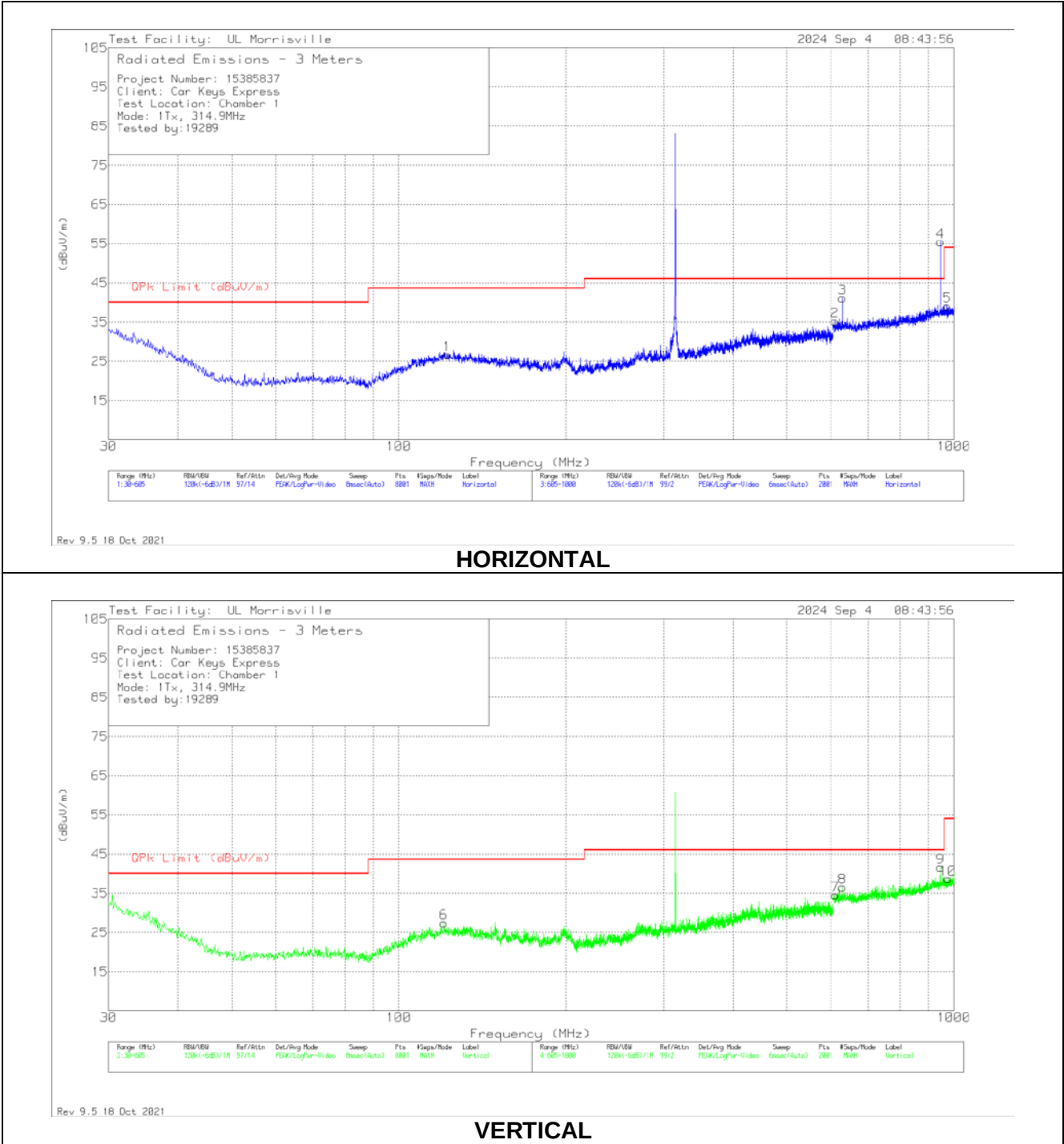


| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 135144 (dBuV/m) | Gain/Loss (dB) | Dist. Corr. Factor (dB) | Corrected Reading dB(uAmps/meter) | Limit (dBuA/m) | Margin (dB) | Azimuth (Degs) | Loop Angle |
|--------|-----------------|----------------------|-----|-----------------|----------------|-------------------------|-----------------------------------|----------------|-------------|----------------|------------|
| 4      | .01425          | 43.61                | Pk  | -34.9           | .1             | -80                     | -71.19                            | -6.97          | -64.22      | 0-360          | 90 degs    |
| 1      | .02867          | 44.51                | Pk  | -37.9           | .1             | -80                     | -73.29                            | -13.04         | -60.25      | 0-360          | 0 degs     |
| 2      | .16496          | 45.07                | Pk  | -40.4           | .1             | -80                     | -75.23                            | -28.24         | -46.99      | 0-360          | 0 degs     |
| 5      | .19454          | 46.2                 | Pk  | -40.4           | .1             | -80                     | -74.1                             | -29.68         | -44.42      | 0-360          | 90 degs    |
| 6      | .55324          | 34.68                | Pk  | -40.4           | .1             | -40                     | -45.62                            | -18.75         | -26.87      | 0-360          | 90 degs    |
| 3      | .74718          | 32.9                 | Pk  | -40.3           | .2             | -40                     | -47.2                             | -21.36         | -25.84      | 0-360          | 0 degs     |

Pk - Peak detector

9.1.3. HARMONICS AND TX SPURIOUS EMISSIONS BELOW 1GHz

ASK 314.9



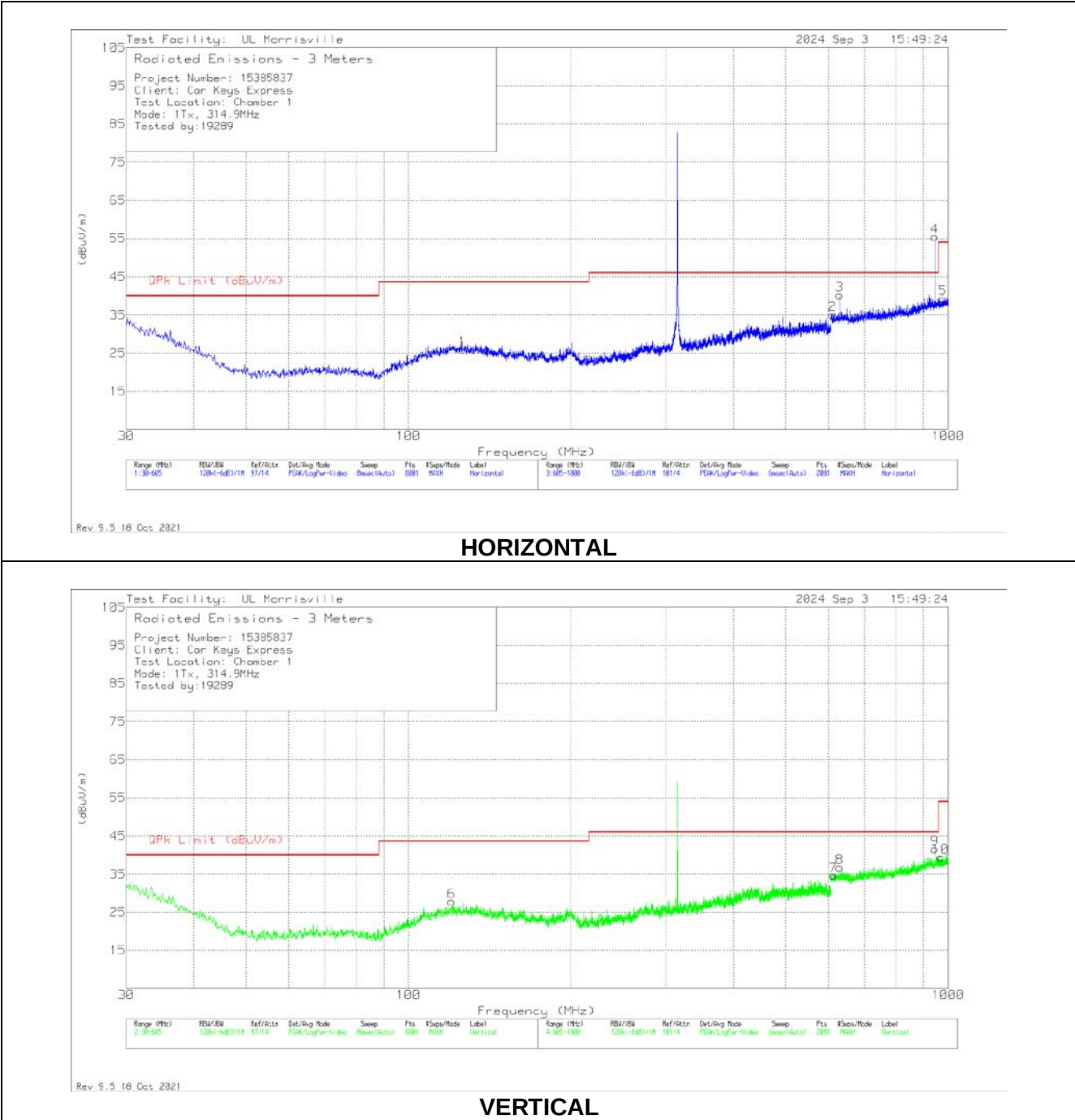
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 90629 (dB/m) | Gain/Loss (dB) | Pad (dB) | Filter (dB) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | 15.231(b) Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|--------------|----------------|----------|-------------|----------------------------|--------------------|--------------------------|-------------|----------------|-------------|----------|
| 1      | * 122.2875      | 27.68                | Pk  | 20           | -30.9          | 9.9      | 0           | 26.68                      | 43.52              |                          | -16.84      | 0-360          | 399         | H        |
| 6      | * 120.5625      | 27.92                | Pk  | 20           | -30.4          | 9.9      | 0           | 27.42                      | 43.52              |                          | -16.1       | 0-360          | 100         | V        |
| 2      | * 609.9375      | 26.41                | Pk  | 25           | -28.4          | 9.9      | 2.4         | 35.31                      | 46.02              |                          | -10.71      | 0-360          | 399         | H        |
| 5      | * 973.3375      | 25.42                | Pk  | 29           | -25.8          | 9.9      | .6          | 39.12                      | 53.97              |                          | -14.85      | 0-360          | 299         | H        |
| 7      | * 611.5175      | 25.75                | Pk  | 25           | -28.4          | 9.9      | 2.3         | 34.55                      | 46.02              |                          | -11.47      | 0-360          | 199         | V        |
| 10     | * 975.115       | 24.95                | Pk  | 29           | -25.8          | 9.9      | .6          | 38.65                      | 53.97              |                          | -15.32      | 0-360          | 199         | V        |
| 3      | 629.6875        | 32.34                | Pk  | 25.8         | -28.5          | 9.9      | 1.6         | 41.14                      | -                  | 55.62                    | -14.48      | 0-360          | 299         | H        |
| 8      | 629.6875        | 27.77                | Pk  | 25.8         | -28.5          | 9.9      | 1.6         | 36.57                      | -                  | 55.62                    | -19.05      | 0-360          | 100         | V        |
| 4      | 944.67842       | 41.53                | Qp  | 28.9         | -26            | 9.9      | .7          | 55.03                      | -                  | 55.62                    | -0.59       | 14             | 144         | H        |
| 9      | 944.7           | 28.14                | Pk  | 28.9         | -26            | 9.9      | .7          | 41.64                      | -                  | 55.62                    | -13.98      | 0-360          | 298         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

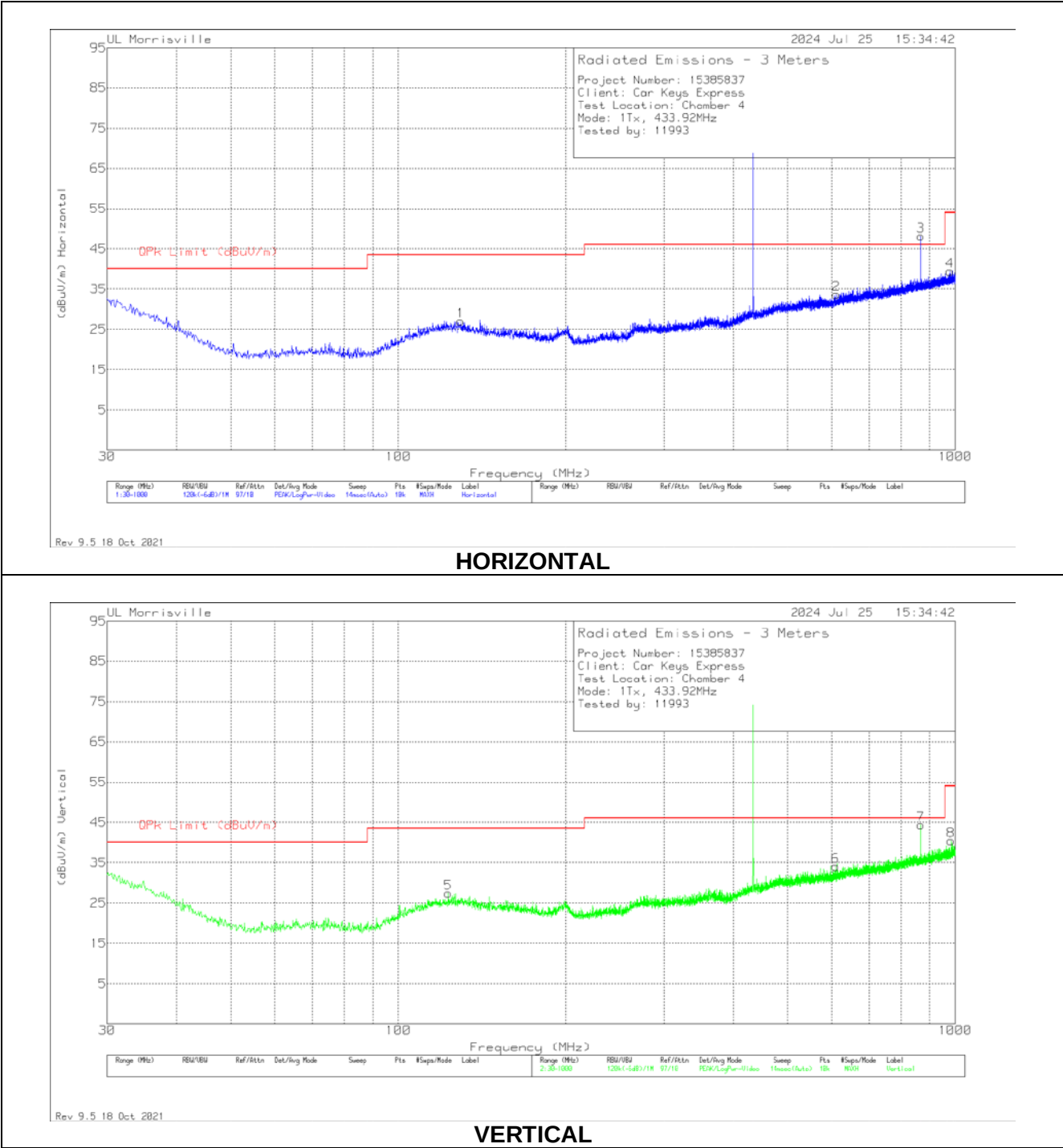
FSK 314.9



| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 90629 (dB/m) | Gain/Loss (dB) | Pad (dB) | Filter (dB) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | 15.231(b) Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|--------------|----------------|----------|-------------|----------------------------|--------------------|--------------------------|-------------|----------------|-------------|----------|
| 1      | * 126.025       | 26.79                | Pk  | 20.1         | -30.7          | 9.9      | 0           | 26.09                      | 43.52              | -                        | -17.43      | 0-360          | 200         | H        |
| 6      | * 120.3469      | 28.52                | Pk  | 19.9         | -30.5          | 9.9      | 0           | 27.82                      | 43.52              | -                        | -15.7       | 0-360          | 100         | V        |
| 2      | * 610.135       | 26.45                | Pk  | 25           | -28.6          | 9.9      | 2.4         | 35.15                      | 46.02              | -                        | -10.87      | 0-360          | 399         | H        |
| 5      | * 978.275       | 25.4                 | Pk  | 29.1         | -25.6          | 9.9      | .6          | 39.4                       | 53.97              | -                        | -14.57      | 0-360          | 199         | H        |
| 7      | * 612.7025      | 25.68                | Pk  | 25.1         | -28.3          | 9.9      | 2.3         | 34.68                      | 46.02              | -                        | -11.34      | 0-360          | 101         | V        |
| 10     | * 968.9925      | 25.54                | Pk  | 29           | -25.7          | 9.9      | .7          | 39.44                      | 53.97              | -                        | -14.53      | 0-360          | 299         | V        |
| 3      | 629.6875        | 31.48                | Pk  | 25.8         | -28.5          | 9.9      | 1.6         | 40.28                      | -                  | 55.62                    | -15.34      | 0-360          | 299         | H        |
| 8      | 629.6875        | 28.03                | Pk  | 25.8         | -28.5          | 9.9      | 1.6         | 36.83                      | -                  | 55.62                    | -18.79      | 0-360          | 101         | V        |
| 4      | 944.76569       | 41.71                | Qp  | 28.9         | -26.1          | 9.9      | .7          | 55.11                      | -                  | 55.62                    | -0.51       | 176            | 154         | H        |
| 9      | 944.7           | 28.2                 | Pk  | 28.9         | -26            | 9.9      | .7          | 41.7                       | -                  | 55.62                    | -13.92      | 0-360          | 299         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
Pk - Peak detector

ASK 433.92

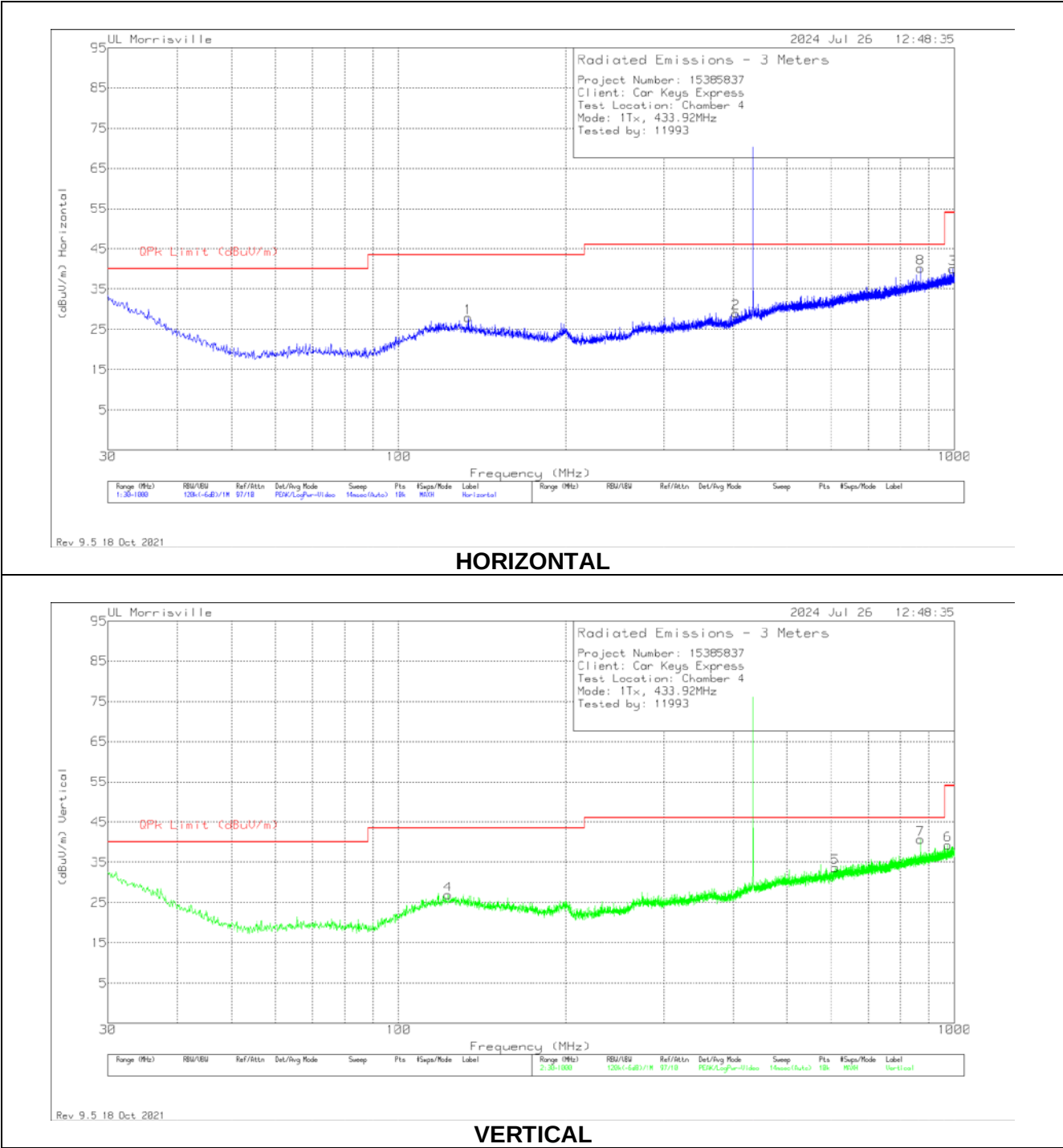


| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 90628 (dB/m) | Gain/Loss (dB) | Pad (dB) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | 15.231(b) Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|--------------|----------------|----------|----------------------------|--------------------|--------------------------|-------------|----------------|-------------|----------|
| 1      | * 129.425       | 28.35                | Pk  | 20           | -31.2          | 9.9      | 27.05                      | 43.52              | -                        | -16.47      | 0-360          | 300         | H        |
| 2      | * 611.127       | 27.91                | Pk  | 25           | -29.2          | 10       | 33.71                      | 46.02              | -                        | -12.31      | 0-360          | 100         | H        |
| 4      | * 978.369       | 26.81                | Pk  | 29           | -26.4          | 10       | 39.41                      | 53.97              | -                        | -14.56      | 0-360          | 100         | H        |
| 5      | * 122.926       | 28.7                 | Pk  | 20           | -31.2          | 9.9      | 27.4                       | 43.52              | -                        | -16.12      | 0-360          | 100         | V        |
| 6      | * 609.769       | 28.29                | Pk  | 25           | -29.2          | 10       | 34.09                      | 46.02              | -                        | -11.93      | 0-360          | 200         | V        |
| 8      | * 983.219       | 27.54                | Pk  | 29.1         | -26.2          | 10       | 40.44                      | 53.97              | -                        | -13.53      | 0-360          | 200         | V        |
| 3      | 867.886         | 37.75                | Pk  | 27.9         | -27.5          | 10       | 48.15                      | -                  | 60.83                    | -12.68      | 0-360          | 100         | H        |
| 7      | 867.886         | 33.98                | Pk  | 27.9         | -27.5          | 10       | 44.38                      | -                  | 60.83                    | -16.45      | 0-360          | 100         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

FSK 433.92



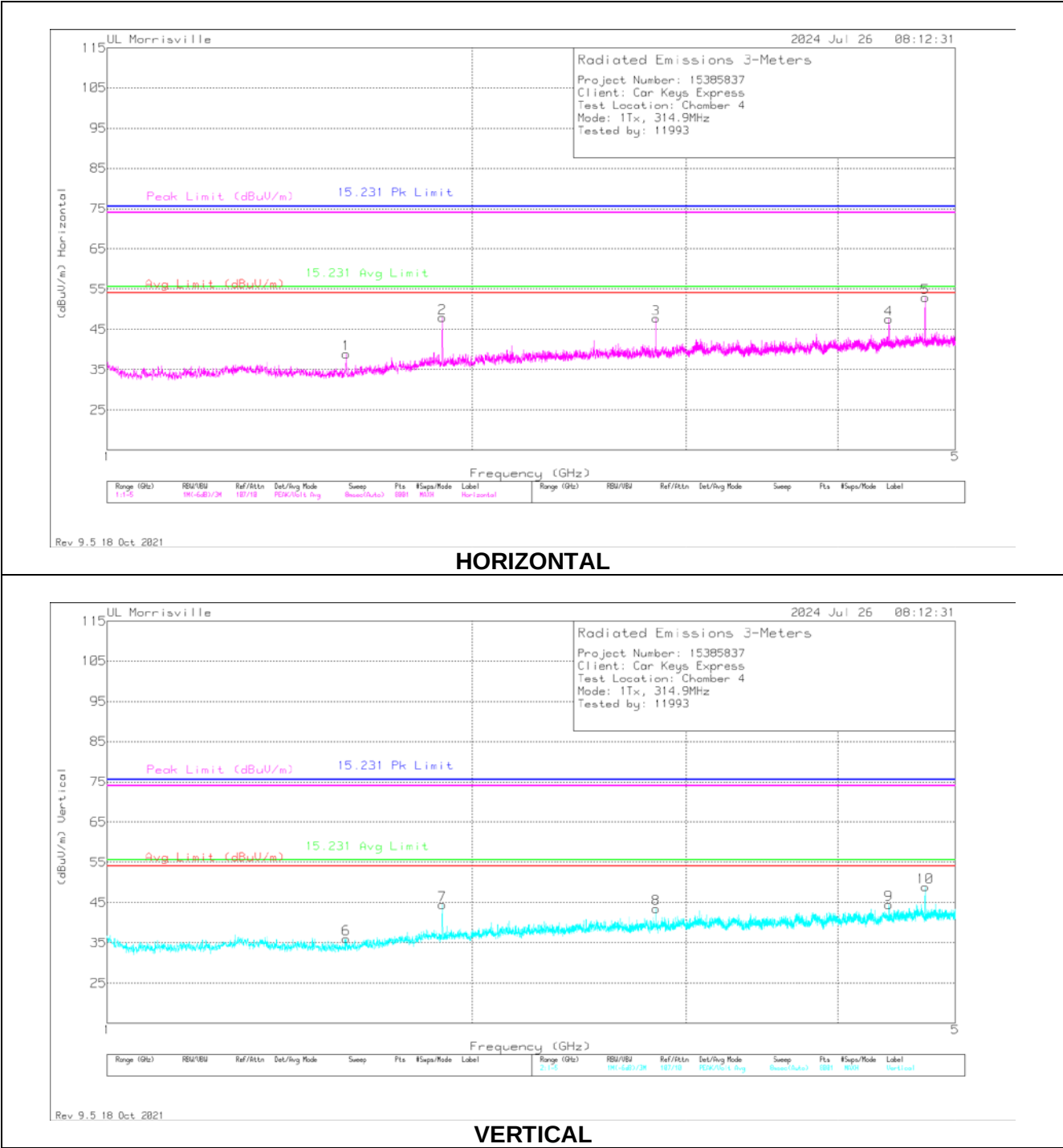
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 90628 (dB/m) | Gain/Loss (dB) | Pad (dB) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | 15.231(b) Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|--------------|----------------|----------|----------------------------|--------------------|--------------------------|-------------|----------------|-------------|----------|
| 1      | * 133.596       | 29.45                | Pk  | 19.8         | -31.2          | 9.9      | 27.95                      | 43.52              | -                        | -15.57      | 0-360          | 200         | H        |
| 2      | * 404.323       | 27.13                | Pk  | 21.8         | -29.8          | 9.9      | 29.03                      | 46.02              | -                        | -16.99      | 0-360          | 300         | H        |
| 3      | * 994.18        | 26.82                | Pk  | 29.3         | -26.1          | 10       | 40.02                      | 53.97              | -                        | -13.95      | 0-360          | 100         | H        |
| 4      | * 122.829       | 28.16                | Pk  | 20           | -31.2          | 9.9      | 26.86                      | 43.52              | -                        | -16.66      | 0-360          | 100         | V        |
| 5      | * 610.157       | 27.88                | Pk  | 25           | -29.2          | 10       | 33.68                      | 46.02              | -                        | -12.34      | 0-360          | 200         | V        |
| 6      | * 972.84        | 26.71                | Pk  | 29           | -26.4          | 10       | 39.31                      | 53.97              | -                        | -14.66      | 0-360          | 200         | V        |
| 8      | 867.9345        | 29.75                | Pk  | 27.9         | -27.5          | 10       | 40.15                      | -                  | 60.83                    | -20.68      | 0-360          | 100         | H        |
| 7      | 867.983         | 30.24                | Pk  | 27.9         | -27.5          | 10       | 40.64                      | -                  | 60.83                    | -20.19      | 0-360          | 100         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

9.1.4. HARMONICS AND TX SPURIOUS EMISSIONS ABOVE 1GHz

ASK 314.9



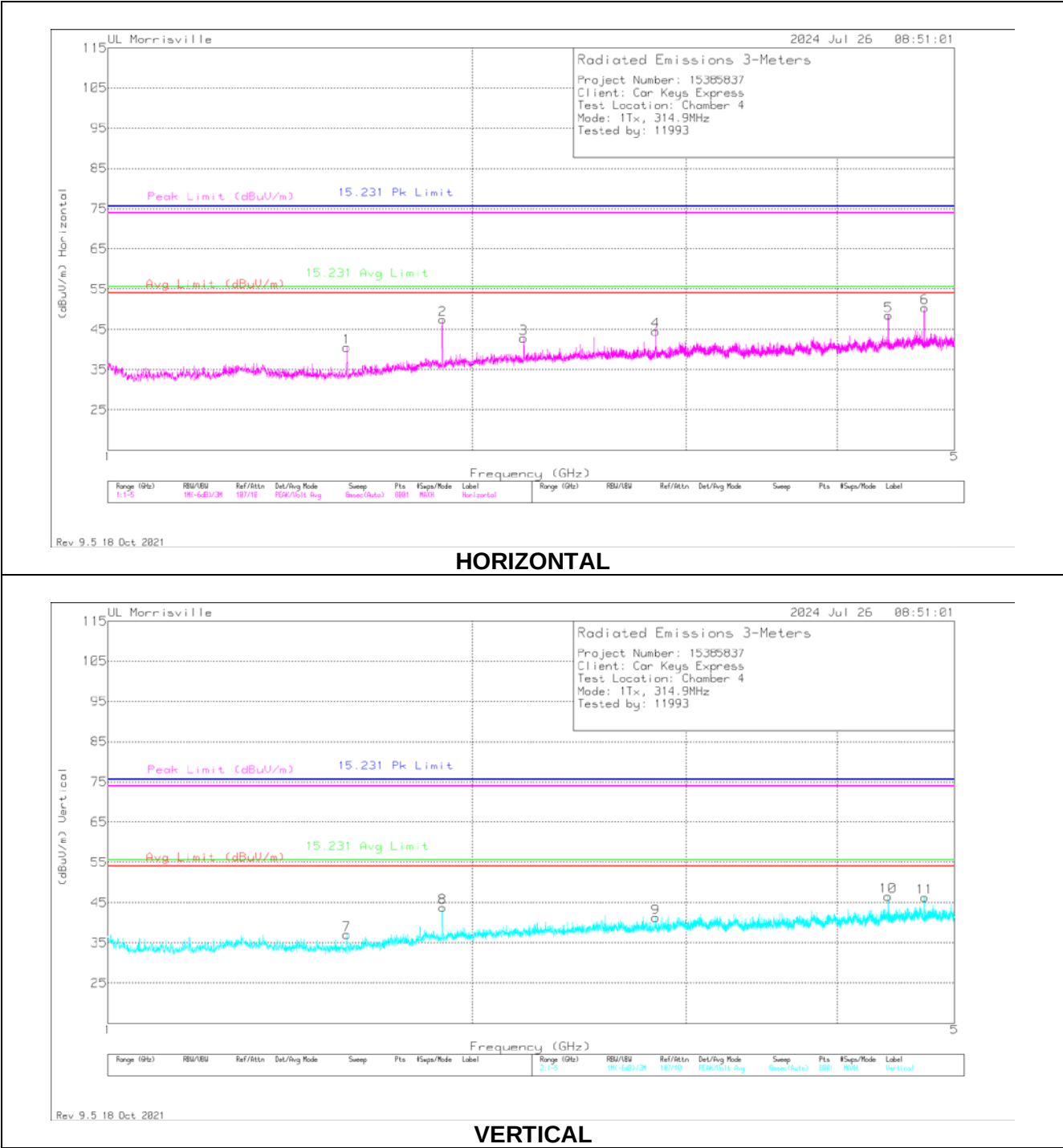
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 89509 ACF (dB/m) | Gain/Loss (dB) | Filter (dB) | DCCF   | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | 15.231 Avg Limit | Margin (dB) | 15.231 Pk Limit | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|----------------|-------------|--------|----------------------------|--------------------|-------------|---------------------|----------------|------------------|-------------|-----------------|----------------|----------------|-------------|----------|
| 1      | * 1.5745        | 46.5                 | Pk  | 27.8             | -36            | .6          | 0      | 38.9                       | 54                 | -15.1       | 74                  | -35.1          | -                | -           | -               | -              | 0-360          | 100         | H        |
| 3      | * 2.834         | 50.32                | Pk  | 32.4             | -35.4          | .4          | 0      | 47.72                      | 54                 | -6.28       | 74                  | -26.28         | -                | -           | -               | -              | 0-360          | 100         | H        |
| 5      | * 4.72346       | 51.55                | PK2 | 34.1             | -31.7          | .2          | 0      | 54.15                      | -                  | -           | 74                  | -19.85         | -                | -           | -               | -              | 204            | 109         | H        |
|        | * 4.72346       | 51.55                | PK2 | 34.1             | -31.7          | .2          | -15.48 | 38.67                      | 54                 | -15.33      | -                   | -              | -                | -           | -               | -              | 204            | 109         | H        |
| 6      | * 1.5745        | 43.59                | Pk  | 27.8             | -36            | .6          | 0      | 35.99                      | 54                 | -18.01      | 74                  | -38.01         | -                | -           | -               | -              | 0-360          | 200         | V        |
| 8      | * 2.834         | 46.12                | Pk  | 32.4             | -35.4          | .4          | 0      | 43.52                      | 54                 | -10.48      | 74                  | -30.48         | -                | -           | -               | -              | 0-360          | 400         | V        |
| 10     | * 4.7235        | 47.51                | PK2 | 34.1             | -31.7          | .2          | 0      | 50.11                      | -                  | -           | 74                  | -23.89         | -                | -           | -               | -              | 154            | 327         | V        |
|        | * 4.7235        | 47.51                | PK2 | 34.1             | -31.7          | .2          | -15.48 | 34.63                      | 54                 | -19.37      | -                   | -              | -                | -           | -               | -              | 154            | 327         | V        |
| 2      | 1.8895          | 52.61                | Pk  | 30.7             | -35.8          | .4          | 0      | 47.91                      | -                  | -           | -                   | -              | 55.62            | -7.71       | 75.62           | -27.71         | 0-360          | 100         | H        |
| 7      | 1.8895          | 49.17                | Pk  | 30.7             | -35.8          | .4          | 0      | 44.47                      | -                  | -           | -                   | -              | 55.62            | -11.15      | 75.62           | -31.15         | 0-360          | 400         | V        |
| 4      | 4.409           | 45.39                | Pk  | 33.7             | -32            | .5          | 0      | 47.59                      | -                  | -           | -                   | -              | 55.62            | -8.03       | 75.62           | -28.03         | 0-360          | 100         | H        |
| 9      | 4.409           | 42.3                 | Pk  | 33.7             | -32            | .5          | 0      | 44.5                       | -                  | -           | -                   | -              | 55.62            | -11.12      | 75.62           | -31.12         | 0-360          | 400         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

PK2 - Maximum Peak

FSK 314.9



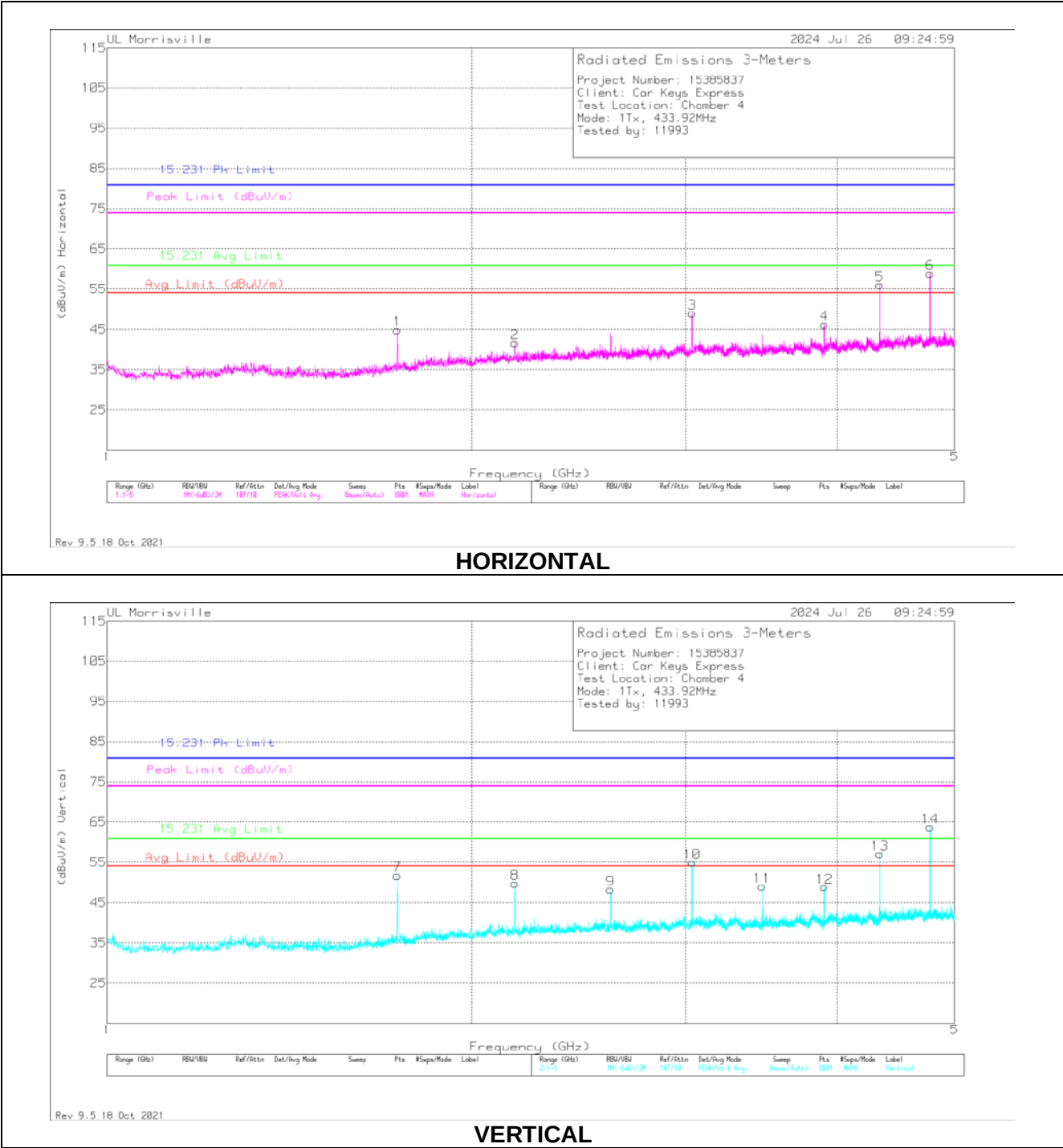
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 89509 ACF (dB/m) | Gain/Loss (dB) | Filter (dB) | DCCF  | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | 15.231 Avg Limit | Margin (dB) | 15.231 Pk Limit | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|----------------|-------------|-------|----------------------------|--------------------|-------------|---------------------|----------------|------------------|-------------|-----------------|----------------|----------------|-------------|----------|
| 1      | * 1.5745        | 48.15                | Pk  | 27.8             | -36            | .6          | 0     | 40.55                      | 54                 | -13.45      | 74                  | -33.45         | -                | -           | -               | -              | 0-360          | 100         | H        |
| 3      | * 2.204         | 46.64                | Pk  | 31.6             | -35.8          | .3          | 0     | 42.74                      | 54                 | -11.26      | 74                  | -31.26         | -                | -           | -               | -              | 0-360          | 100         | H        |
| 4      | * 2.8335        | 47.09                | Pk  | 32.4             | -35.4          | .4          | 0     | 44.49                      | 54                 | -9.51       | 74                  | -29.51         | -                | -           | -               | -              | 0-360          | 100         | H        |
| 6      | * 4.72386       | 49.38                | PK2 | 34.1             | -31.7          | .2          | 0     | 51.98                      | -                  | -           | 74                  | -22.02         | -                | -           | -               | -              | 20             | 100         | H        |
|        | * 4.72386       | 49.38                | PK2 | 34.1             | -31.7          | .2          | -9.34 | 42.64                      | 54                 | -11.36      | -                   | -              | -                | -           | -               | -              | 20             | 100         | H        |
| 7      | * 1.5745        | 44.61                | Pk  | 27.8             | -36            | .6          | 0     | 37.01                      | 54                 | -16.99      | 74                  | -36.99         | -                | -           | -               | -              | 0-360          | 400         | V        |
| 9      | * 2.8335        | 43.82                | Pk  | 32.4             | -35.4          | .4          | 0     | 41.22                      | 54                 | -12.78      | 74                  | -32.78         | -                | -           | -               | -              | 0-360          | 400         | V        |
| 11     | * 4.7235        | 43.67                | Pk  | 34.1             | -31.7          | .2          | 0     | 46.27                      | 54                 | -7.73       | 74                  | -27.73         | -                | -           | -               | -              | 0-360          | 200         | V        |
| 2      | 1.889           | 52.17                | Pk  | 30.7             | -35.8          | .4          | 0     | 47.47                      | -                  | -           | -                   | -              | 55.62            | -8.15       | 75.62           | -28.15         | 0-360          | 100         | H        |
| 8      | 1.889           | 48.51                | Pk  | 30.7             | -35.8          | .4          | 0     | 43.81                      | -                  | -           | -                   | -              | 55.62            | -11.81      | 75.62           | -31.81         | 0-360          | 400         | V        |
| 10     | 4.408           | 44.26                | Pk  | 33.7             | -32            | .6          | 0     | 46.56                      | -                  | -           | -                   | -              | 55.62            | -9.06       | 75.62           | -29.06         | 0-360          | 400         | V        |
| 5      | 4.4095          | 46.27                | Pk  | 33.7             | -32            | .5          | 0     | 48.47                      | -                  | -           | -                   | -              | 55.62            | -7.15       | 75.62           | -27.15         | 0-360          | 100         | H        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

PK2 - Maximum Peak

ASK 433.92



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 89509 ACF (dB/m) | Gain/ Loss (dB) | Filter (dB) | DCCF   | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | 15.231 Avg Limit | Margin (dB) | 15.231 PK Limit | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------|-------------|--------|----------------------------|--------------------|-------------|---------------------|----------------|------------------|-------------|-----------------|----------------|----------------|-------------|----------|
| 4      | * 3.9055        | 45.62                | Pk  | 33.3             | -32.8           | .2          | 0      | 46.32                      | 54                 | -7.68       | 74                  | -27.68         | -                | -           | -               | -              | 0-360          | 200         | H        |
| 5      | * 4.33919       | 56.39                | PK2 | 33.5             | -31.8           | .3          | 0      | 58.39                      | -                  | -           | 74                  | -15.61         | -                | -           | -               | -              | 12             | 256         | H        |
|        | * 4.33919       | 56.39                | PK2 | 33.5             | -31.8           | .3          | -15.55 | 42.84                      | 54                 | 11.16       | -                   | -              | -                | -           | -               | -              | 12             | 256         | H        |
| 6      | * 4.77302       | 57.9                 | PK2 | 34               | -31.6           | .4          | 0      | 60.7                       | -                  | -           | 74                  | -13.3          | -                | -           | -               | -              | 65             | 109         | H        |
|        | * 4.77302       | 57.9                 | PK2 | 34               | -31.6           | .4          | -15.55 | 45.15                      | 54                 | -8.85       | -                   | -              | -                | -           | -               | -              | 65             | 109         | H        |
| 12     | * 3.90524       | 50.34                | PK2 | 33.3             | -32.8           | .2          | 0      | 51.04                      | -                  | -           | 74                  | -22.96         | -                | -           | -               | -              | 201            | 284         | V        |
|        | * 3.90524       | 50.34                | PK2 | 33.3             | -32.8           | .2          | -15.55 | 35.49                      | 54                 | -18.51      | -                   | -              | -                | -           | -               | -              | 201            | 284         | V        |
| 13     | * 4.33915       | 57                   | PK2 | 33.5             | -31.8           | .3          | 0      | 59                         | -                  | -           | 74                  | -15            | -                | -           | -               | -              | 194            | 243         | V        |
|        | * 4.33915       | 57                   | PK2 | 33.5             | -31.8           | .3          | -15.55 | 43.45                      | 54                 | -10.55      | -                   | -              | -                | -           | -               | -              | 194            | 243         | V        |
| 14     | * 4.77303       | 61.14                | PK2 | 34               | -31.6           | .4          | 0      | 63.94                      | -                  | -           | 74                  | -10.06         | -                | -           | -               | -              | 70             | 104         | V        |
|        | * 4.77303       | 61.14                | PK2 | 34               | -31.6           | .4          | -15.55 | 48.39                      | 54                 | -5.61       | -                   | -              | -                | -           | -               | -              | 70             | 104         | V        |
| 1      | 1.7355          | 50.85                | Pk  | 29.5             | -35.9           | .5          | 0      | 44.95                      | -                  | -           | -                   | -              | 60.83            | -15.88      | 80.83           | -35.88         | 0-360          | 100         | H        |
| 7      | 1.7355          | 57.74                | Pk  | 29.5             | -35.9           | .5          | 0      | 51.84                      | -                  | -           | -                   | -              | 60.83            | -8.99       | 80.83           | -28.99         | 0-360          | 200         | V        |
| 2      | 2.1695          | 45.67                | Pk  | 31.6             | -35.9           | .3          | 0      | 41.67                      | -                  | -           | -                   | -              | 60.83            | -19.16      | 80.83           | -39.16         | 0-360          | 100         | H        |
| 8      | 2.1695          | 53.81                | Pk  | 31.6             | -35.9           | .3          | 0      | 49.81                      | -                  | -           | -                   | -              | 60.83            | -11.02      | 80.83           | -31.02         | 0-360          | 200         | V        |
| 9      | 2.6035          | 51.04                | Pk  | 32.6             | -35.8           | .4          | 0      | 48.24                      | -                  | -           | -                   | -              | 60.83            | -12.59      | 80.83           | -32.59         | 0-360          | 400         | V        |
| 3      | 3.0375          | 50.39                | Pk  | 33.1             | -35.2           | .7          | 0      | 48.99                      | -                  | -           | -                   | -              | 60.83            | -11.84      | 80.83           | -31.84         | 0-360          | 100         | H        |
| 10     | 3.03736         | 57.03                | PK2 | 33               | -35.2           | .7          | 0      | 55.53                      | -                  | -           | -                   | -              | -                | -           | 80.83           | -25.3          | 299            | 110         | V        |
|        | 3.03736         | 57.03                | PK2 | 33               | -35.2           | .7          | -15.55 | 39.98                      | -                  | -           | -                   | -              | 60.83            | -20.85      | -               | -              | 299            | 110         | V        |
| 11     | 3.4715          | 50.09                | Pk  | 32.8             | -34.3           | .5          | 0      | 49.09                      | -                  | -           | -                   | -              | 60.83            | -11.74      | 80.83           | -31.74         | 0-360          | 200         | V        |

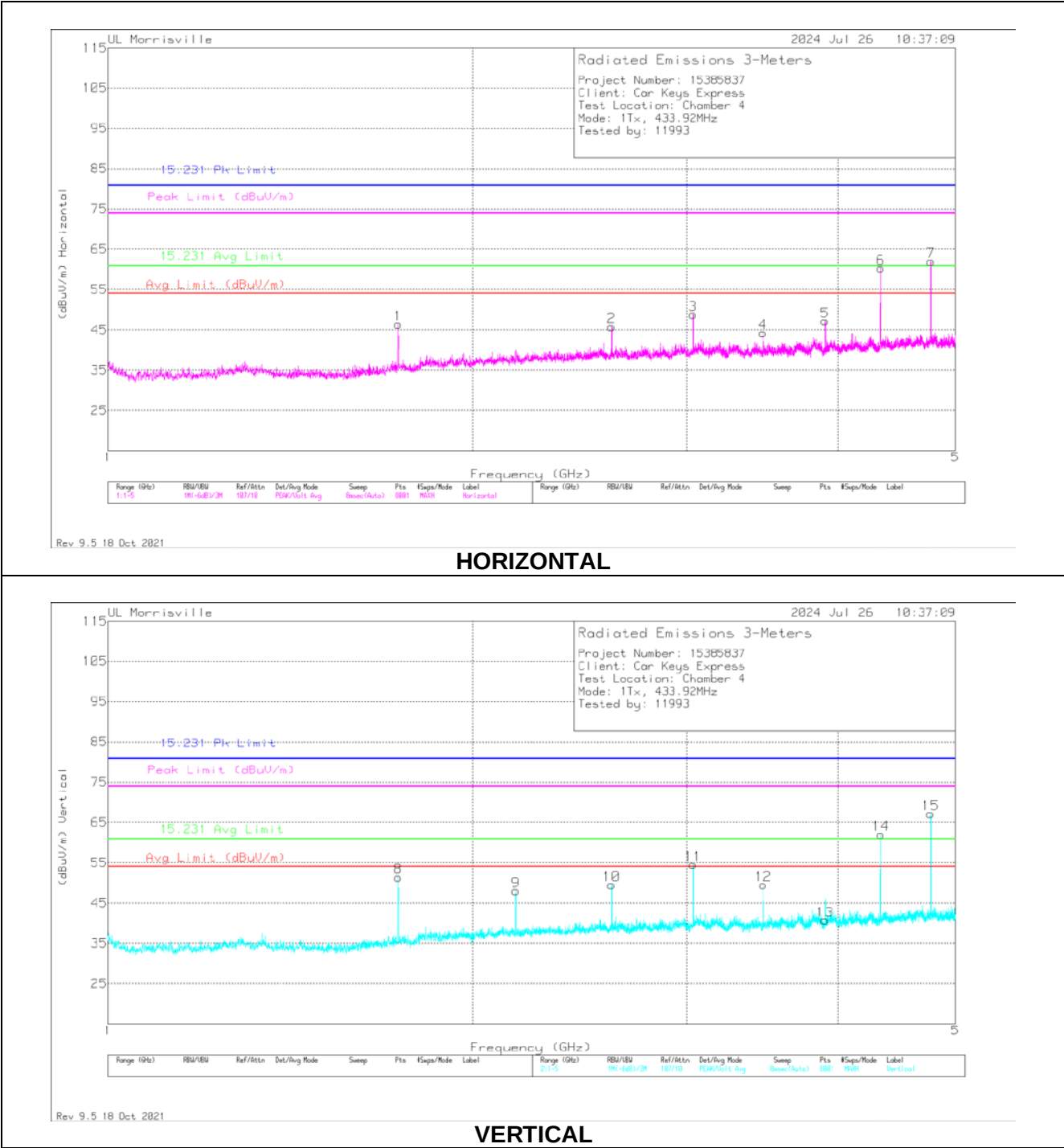
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

PK2 -: Maximum Peak

ADV - Linear Voltage Average

FSK 433.92



UL Morrisville

2024 Jul 26 10:37:09

Radiated Emissions 3-Meters

Project Number: 15385837

Client: Car Keys Express

Test Location: Chamber 4

Mode: ITx, 433.92MHz

Tested by: 11993

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 89509 ACF (dB/m) | Gain/Loss (dB) | Filter (dB) | DCCF  | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | 15.231 Avg Limit | Margin (dB) | 15.231 Pk Limit | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|----------------|-------------|-------|----------------------------|--------------------|-------------|---------------------|----------------|------------------|-------------|-----------------|----------------|----------------|-------------|----------|
| 5      | * 3.905         | 46.52                | Pk  | 33.3             | -32.8          | .2          | 0     | 47.22                      | 54                 | -6.78       | 74                  | -26.78         | -                | -           | -               | -              | 0-360          | 100         | H        |
| 6      | * 4.33888       | 60.48                | PK2 | 33.5             | -31.8          | .3          | 0     | 62.48                      | -                  | -           | 74                  | -11.52         | -                | -           | -               | -              | 14             | 256         | H        |
|        | * 4.33888       | 60.48                | PK2 | 33.5             | -31.8          | .3          | -9.31 | 53.17                      | 54                 | -8.3        | -                   | -              | -                | -           | -               | -              | 14             | 256         | H        |
| 7      | * 4.77278       | 61.45                | PK2 | 34               | -31.6          | .4          | 0     | 64.25                      | -                  | -           | 74                  | -9.75          | -                | -           | -               | -              | 60             | 234         | H        |
|        | * 4.77278       | 61.45                | PK2 | 34               | -31.6          | .4          | -9.31 | 54.94                      | 54                 | .94         | -                   | -              | -                | -           | -               | -              | 60             | 234         | H        |
| 13     | * 3.902         | 40.12                | Pk  | 33.3             | -32.9          | .2          | 0     | 40.72                      | 54                 | -13.28      | 74                  | -33.28         | -                | -           | -               | -              | 0-360          | 400         | V        |
| 14     | * 4.33934       | 59.17                | PK2 | 33.5             | -31.8          | .3          | 0     | 61.17                      | -                  | -           | 74                  | -12.83         | -                | -           | -               | -              | 1              | 258         | V        |
|        | * 4.33934       | 59.17                | PK2 | 33.5             | -31.8          | .3          | -9.31 | 51.86                      | 54                 | -2.14       | -                   | -              | -                | -           | -               | -              | 1              | 258         | V        |
| 15     | * 4.77274       | 63.77                | PK2 | 34               | -31.6          | .4          | 0     | 66.57                      | -                  | -           | 74                  | -7.43          | -                | -           | -               | -              | 59             | 126         | V        |
|        | * 4.77274       | 63.77                | PK2 | 34               | -31.6          | .4          | -9.31 | 57.26                      | 54                 | 3.27        | -                   | -              | -                | -           | -               | -              | 59             | 126         | V        |
| 1      | 1.7355          | 52.35                | Pk  | 29.5             | -35.9          | .5          | 0     | -                          | -                  | -           | -                   | -              | -                | -           | 80.83           | -34.38         | 0-360          | 100         | H        |
| 8      | 1.7355          | 57.34                | Pk  | 29.5             | -35.9          | .5          | 0     | -                          | -                  | -           | -                   | -              | -                | -           | 80.83           | -29.39         | 0-360          | 200         | V        |
| 9      | 2.17            | 52.03                | Pk  | 31.6             | -35.9          | .3          | 0     | -                          | -                  | -           | -                   | -              | -                | -           | 80.83           | -32.8          | 0-360          | 200         | V        |
| 2      | 2.6035          | 48.55                | Pk  | 32.6             | -35.8          | .4          | 0     | -                          | -                  | -           | -                   | -              | -                | -           | 80.83           | -35.08         | 0-360          | 300         | H        |
| 10     | 2.6035          | 52.35                | Pk  | 32.6             | -35.8          | .4          | 0     | -                          | -                  | -           | -                   | -              | -                | -           | 80.83           | -31.28         | 0-360          | 400         | V        |
| 3      | 3.0375          | 50.15                | Pk  | 33.1             | -35.2          | .7          | 0     | -                          | -                  | -           | -                   | -              | -                | -           | 80.83           | -32.08         | 0-360          | 100         | H        |
| 11     | 3.0375          | 55.96                | Pk  | 33.1             | -35.2          | .7          | 0     | -                          | -                  | -           | -                   | -              | -                | -           | 80.83           | -26.27         | 0-360          | 200         | V        |
| 4      | 3.471           | 45.21                | Pk  | 32.8             | -34.3          | .6          | 0     | -                          | -                  | -           | -                   | -              | -                | -           | 80.83           | -36.52         | 0-360          | 200         | H        |
| 12     | 3.472           | 50.54                | Pk  | 32.8             | -34.3          | .5          | 0     | -                          | -                  | -           | -                   | -              | -                | -           | 80.83           | -31.29         | 0-360          | 200         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

PK2 - Maximum Peak

## 10. SETUP PHOTOS

See R15385837-EP1 for Setup Photos.

**END OF TEST REPORT**