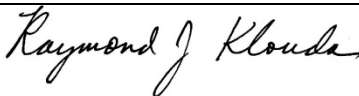


**Engineering Test Report No. 2101887-01**

|                      |                                                                                                                                                                                                                                                                                     |                                                                            |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Report Date          | August 11, 2021                                                                                                                                                                                                                                                                     |                                                                            |
| Manufacturer Name    | Chamberlain Group Inc                                                                                                                                                                                                                                                               |                                                                            |
| Manufacturer Address | 60523<br>Oak Brook, IL 60523                                                                                                                                                                                                                                                        |                                                                            |
| Model No.            | 001D9525-1-IND                                                                                                                                                                                                                                                                      |                                                                            |
| Date Received        | August 4, 2021                                                                                                                                                                                                                                                                      |                                                                            |
| Test Dates           | August 4, 2021 to August 10, 2021                                                                                                                                                                                                                                                   |                                                                            |
| Specifications       | FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.247<br>FCC "Code of Federal Regulations" Title 47, Part 15, Subpart 15B<br>Innovation, Science, and Economic Development Canada, RSS-247<br>Innovation, Science, and Economic Development Canada, RSS-GEN |                                                                            |
| Test Facility        | Elite Electronic Engineering, Inc.<br>1516 Centre Circle,<br>Downers Grove, IL 60515                                                                                                                                                                                                | FCC Reg. Number: 269750<br>IC Reg. Number: 2987A<br>CAB Identifier: US0107 |
| Signature            |                                                                                                                                                                                                    |                                                                            |
| Tested by            | Javier Cardenas                                                                                                                                                                                                                                                                     |                                                                            |
| Signature            |                                                                                                                                                                                                   |                                                                            |
| Approved by          | Raymond J. Klouda,<br>Registered Professional Engineer of Illinois – 44894                                                                                                                                                                                                          |                                                                            |
| PO Number            | 4900076318                                                                                                                                                                                                                                                                          |                                                                            |

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

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Elite Electronic Engineering Incorporated certifies that the information contained in this report was obtained under conditions which meet or exceed those specified in the FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.247 and Innovation, Science, and Economic Development Canada, RSS-247 and RSS-GEN test specifications. The data presented in this test report pertains to the EUT on the test date(s) specified. Any electrical or mechanical modifications made to the EUT subsequent to the specified test date will serve to invalidate the data and void this certification. This report must not be used to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the Federal Government.

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## 1. Report Revision History

| Revision | Date        | Description                                               |
|----------|-------------|-----------------------------------------------------------|
| –        | 24 AUG 2021 | Initial Release of Engineering Test Report No. 2101887-01 |
|          |             |                                                           |

## 2. Introduction

### 2.1. Scope of Tests

This document presents the results of a series of RF emissions tests that were performed on a Chamberlain Group Inc Main/Control PCB Transceiver (hereinafter referred to as the Equipment Under Test (EUT)). The EUT was manufactured and submitted for testing by Chamberlain Group Inc located in Oak Brook, IL.

### 2.2. Purpose

The test series was performed to determine if the EUT meets the RF emission requirements of the FCC "Code of Federal Regulations" Title 47, Part15, Subpart 15B, Section 15.107 and 15.109 for Receivers and Part 15, Subpart C, Sections 15.247 for a Frequency Hopping Spread Spectrum intentional radiator operating within the 902-928MHz band.

The test series was also performed to determine if the EUT meets the RF emission requirements of the Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-Gen and Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-247 for a Frequency Hopping Spread Spectrum intentional radiator operating within the 902-928MHz band.

Testing was performed in accordance with ANSI C63.10-2013.

### 2.3. Identification of the EUT

The EUT was identified as follows:

| EUT Identification       |                                                                          |
|--------------------------|--------------------------------------------------------------------------|
| Product Description      | Main/Control Transceiver used in an industrial operator, Model IHSL24UL. |
| Model/Part No.           | 001D9525-1-IND                                                           |
| S/N                      | NA                                                                       |
| Device Type              | Frequency Hopping Transmission Device and Receiver                       |
| Band of Operation        | Tx: 902-928MHz ; Receiver: 310-390, 433.3-434.54; 902-928MHz             |
| Conducted Output Power   | 11.24dBm                                                                 |
| 20dB Bandwidth           | 150.8kHz                                                                 |
| Occupied Bandwidth (99%) | 192.13kHz                                                                |
| Size of EUT              | 64cm Height × 61cm Width × 33.4cm Depth                                  |

The EUTs listed above were used throughout the test series.

## 3. Power Input

The EUT obtained 115V 60Hz power via a 3-wire, 1-meter, unshielded power cord.

## 4. Grounding

The EUT was connected to ground through the third wire of its input power cord.

## 5. Support Equipment

No support equipment was submitted for testing.

## 6. Interconnect Leads

No interconnect leads were used during the tests.

## 7. Modifications Made to the EUT

No modifications were made to the EUT during the testing.

## 8. Modes of Operation

The EUT and all peripheral equipment were energized. The unit was programmed to transmit in one of the following modes:

| Mode                    | Description                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------|
| Continuous Transmission | CW<br>- 902.259MHz<br>- 914.760MHz<br>- 926.760MHz<br>Modulated<br>- 902.259MHz<br>- 914.760MHz<br>- 926.760MHz |
| Frequency Hopping       | Transmitting and hopping to channel frequencies in a pseudo random order                                        |
| Motor Running           | Motor running continuously at 80% of maximum speed                                                              |
| Rx                      | Receiving in one of the following bands/frequencies:<br>- 310-390MHz<br>- 433.3-434.54MHz<br>- 902-928MHz       |

## 9. Test Specifications

The tests were performed to selected portions of, and in accordance with the FCC "Code of Federal Regulations" Title 47, Part 15, Subpart 15B, Section 15.107 and 15.109 for Receivers and Part 15, Subpart C, Sections 15.247 for a Frequency Hopping Spread Spectrum intentional radiator operating within the 902-928MHz band and Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-Gen and Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-247 for a Frequency Hopping Spread Spectrum intentional radiator operating within the 902-928MHz band test specifications.

- Federal Communications Commission "Code of Federal Regulations", Title 47, Part 15, Subpart C
- Federal Communications Commission "Code of Federal Regulations", Title 47, Part 15, Subpart B
- ANSI C63.4-2014, "American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40 GHz"
- ANSI C63.10-2013, "American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices"
- Federal Communications Commission Office of Engineering and Technology Laboratory Division, Guidance For Compliance Measurements On Digital Transmission Systems, Frequency Hopping Spread Spectrum System, and Hybrid System Devices Operating Under Section 15.247 April 2, 2019 KDB 558074 D01v05r02
- RSS-247 Issue 2, February 2017, "Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSS) and License-Exempt Local Area Network (LE-LAN) Devices"
- RSS-Gen Issue 5, March 2019, Amendment 1, Innovation, Science, and Economic Development Canada, "Spectrum Management and Telecommunications, Radio Standards Specification, General

## Requirements for Compliance of Radio Apparatus

### 10. Test Plan

No test plan was provided. Instructions were provided by personnel from Chamberlain Group Inc and used in conjunction with the FCC "Code of Federal Regulations" Title 47, Part 15, Subpart 15B, Section 15.107 and 15.109 for Receivers and Part 15, Subpart C, Sections 15.247 for a Frequency Hopping Spread Spectrum intentional radiator operating within the 902-928MHz band FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.247 and Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-Gen and Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-247 for a Frequency Hopping Spread Spectrum intentional radiator operating within the 902-928MHz band, and ANSI C63.4-2014 specifications.

### 11. Deviation, Additions to, or Exclusions from Test Specifications

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

### 12. Laboratory Conditions

| Ambient Parameters   | Value    |
|----------------------|----------|
| Temperature          | 22°C     |
| Relative Humidity    | 28%      |
| Atmospheric Pressure | 1014.7mb |

### 13. Summary

The following EMC tests were performed and the results are shown below:

| Test Description                                   | Requirements                   | Test Methods         | Results  |
|----------------------------------------------------|--------------------------------|----------------------|----------|
| Conducted Emissions Test (Unintentional Radiators) | FCC 15B 15.107<br>ISED RSS-GEN | ANSI C63.4:<br>2014  | Conforms |
| Radiated Emissions Test                            | FCC 15B 15.109<br>ISED RSS-GEN | ANSI C63.4:<br>2014  | Conforms |
| Transmitter Conducted Emissions Test (AC Mains)    | FCC 15B 15.207<br>ISED RSS-GEN | ANSI C63.10:<br>2013 | Conforms |
| 20dB Bandwidth                                     | FCC 15C 15.247<br>ISED RSS-247 | ANSI C63.10:<br>2013 | Conforms |
| Occupied Bandwidth (99%)                           | FCC 15C 15.247<br>ISED RSS-247 | ANSI C63.10:<br>2013 | Conforms |
| Carrier Frequency Separation                       | FCC 15C 15.247<br>ISED RSS-247 | ANSI C63.10:<br>2013 | Conforms |
| Number of Carrier Channels                         | FCC 15C 15.247<br>ISED RSS-247 | ANSI C63.10:<br>2013 | Conforms |
| Average Time of Occupancy                          | FCC 15C 15.247<br>ISED RSS-247 | ANSI C63.10:<br>2013 | Conforms |
| Maximum Peak Conducted Output Power                | FCC 15C 15.247<br>ISED RSS-247 | ANSI C63.10:<br>2013 | Conforms |
| Effective Isotropic Radiated Power (EIRP)          | FCC 15C 15.247<br>ISED RSS-247 | ANSI C63.10:<br>2013 | Conforms |
| Duty Cycle Factor Measurements                     | FCC 15C 15.247<br>ISED RSS-247 | ANSI C63.10:<br>2013 | —        |
| Spurious Radiated Emissions                        | FCC 15C 15.247<br>ISED RSS-247 | ANSI C63.10:<br>2013 | Conforms |
| Band-Edge Compliance                               | FCC 15C 15.247<br>ISED RSS-247 | ANSI C63.10:<br>2013 | Conforms |

## 14. Sample Calculations

For Powerline Conducted Emissions:

The resultant voltage level (VL) is a summation in decibels (dB) of the receiver meter reading (MTR) and the cable loss factor (CF).

$$\text{Formula 1: VL (dBuV) = MTR (dBuV) + CF (dB).}$$

For Radiated Emissions:

The resultant field strength (FS) is a summation in decibels (dB) of the receiver meter reading (MTR), the antenna correction factor (AF), and the cable loss factor (CF). If an external preamplifier is used, the total is reduced by its gain (-PA). If a distance correction (DC) is required, it is added to the total.

$$\text{Formula 1: FS (dBuV/m) = MTR (dBuV) + AF (dB/m) + CF (dB) + (- PA (dB)) + DC (dB)}$$

To convert the Field Strength dBuV/m term to uV/m, the dBuV/m is first divided by 20. The Base 10 AntiLog is taken of this quotient. The result is the Field Strength value in uV/m terms.

$$\text{Formula 2: FS (uV/m) = AntiLog [(FS (dBuV/m))/20]}$$

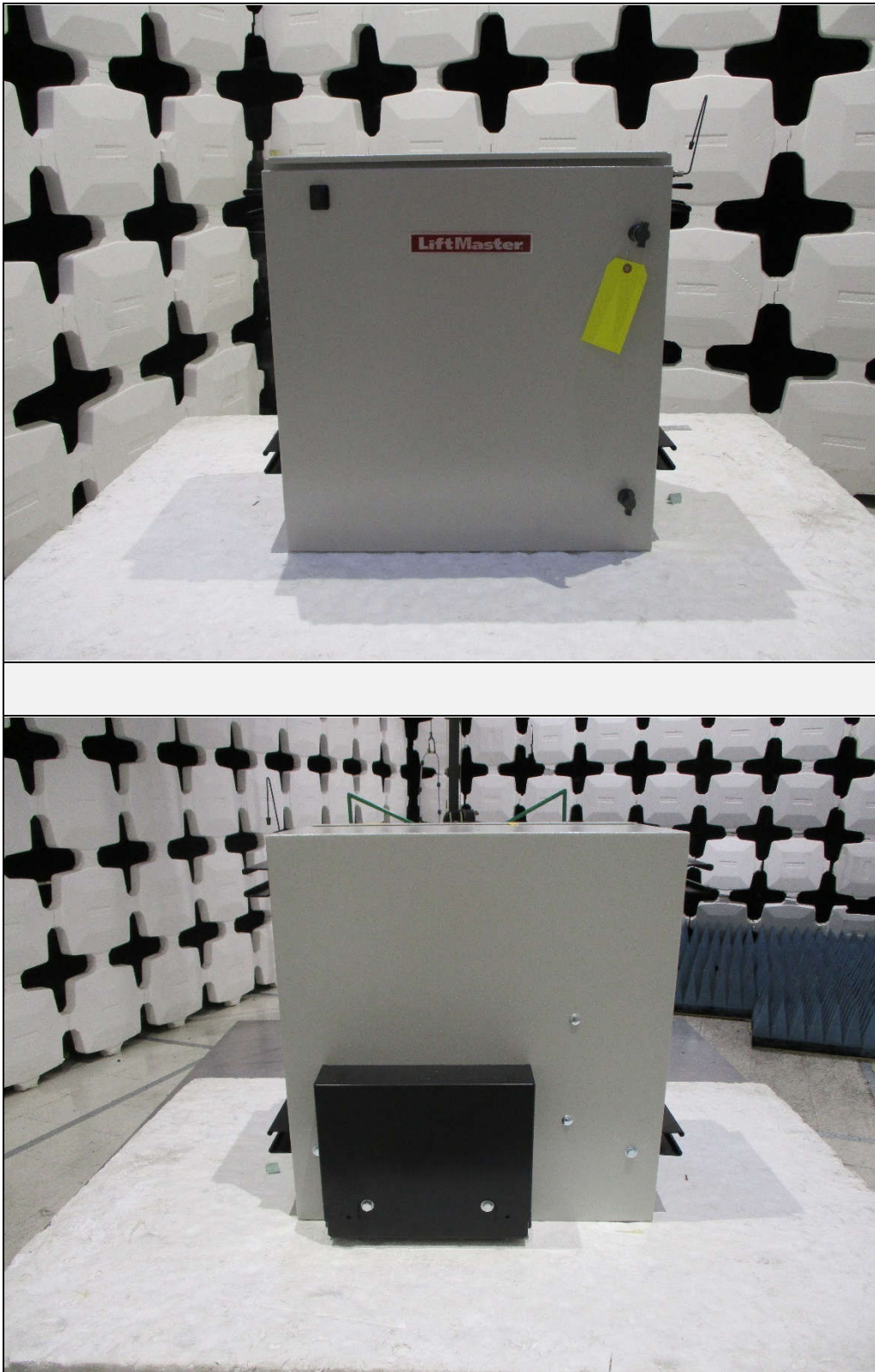
## 15. Statement of Conformity

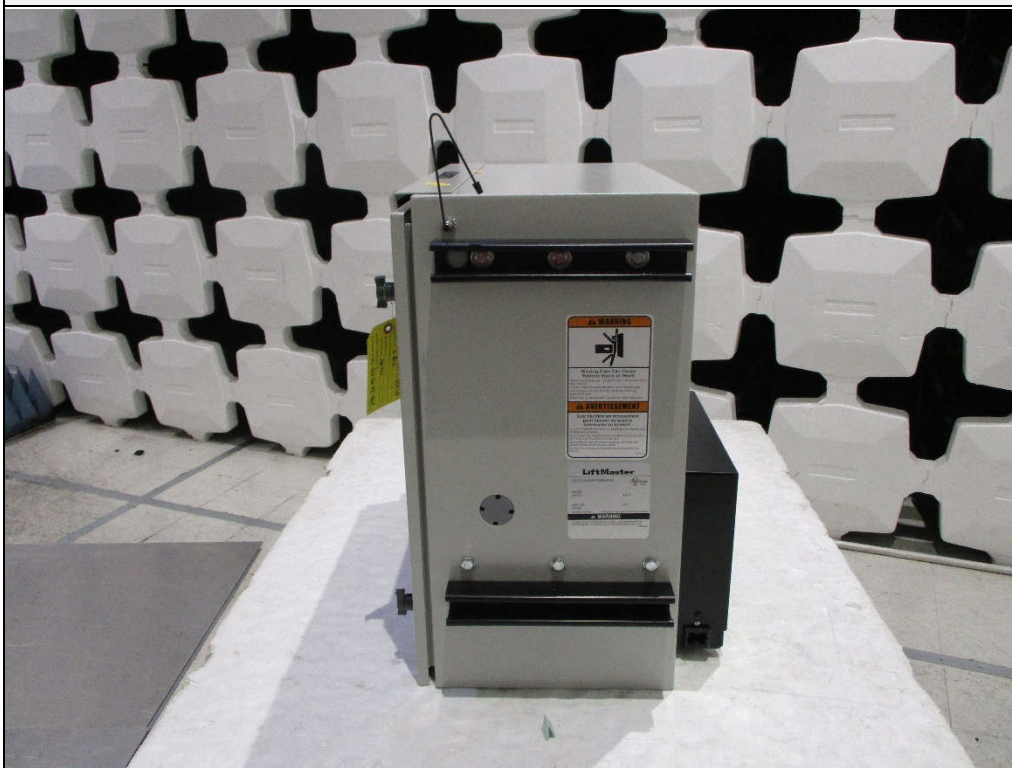
The Chamberlain Group Inc Main/Control PCB Transceiver, Model No. 001D9525-1-IND, did fully conform to the selected requirements of FCC "Code of Federal Regulations" Title 47, Part15, Subpart 15B, Section 15.107 and 15.109 for Receivers and Part 15, Subpart C, Sections 15.247 for a Frequency Hopping Spread Spectrum intentional radiator operating within the 902-928MHz band and Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-Gen and Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-247 for a Frequency Hopping Spread Spectrum intentional radiator operating within the 902-928MHz band.

## 16. Certification

Elite Electronic Engineering Incorporated certifies that the information contained in this report was obtained under conditions which meet or exceed those specified in the FCC "Code of Federal Regulations" Title 47, Part15, Subpart 15B, Section 15.107 and 15.109 for Receivers and Part 15, Subpart C, Sections 15.247 for a Frequency Hopping Spread Spectrum intentional radiator operating within the 902-928MHz band and Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-Gen and Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-247 for a Frequency Hopping Spread Spectrum intentional radiator operating within the 902-928MHz band test specifications. The data presented in this test report pertains to the EUT on the test date specified. Any electrical or mechanical modifications made to the EUT subsequent to the specified test date will serve to invalidate the data and void this certification.

## 17. Photographs of EUT





## 18. Equipment List

| Eq ID | Equipment Description           | Manufacturer    | Model No.                | Serial No. | Frequency Range | Cal Date  | Due Date  |
|-------|---------------------------------|-----------------|--------------------------|------------|-----------------|-----------|-----------|
| APW14 | PREAMPLIFIER                    | PLANAR          | PE2-35-120-5R0-10-12-SFF | PL22671    | 1-20GHz         | 9/24/2020 | 9/24/2021 |
| CDW5  | DESKTOP COMPUTER                | ELITE           | PENTIUM 4                | 006        | 3.8GHZ          | N/A       |           |
| CDZ3  | LAB WORKSTATION                 | ELITE           | LWS-10                   |            | WINDOWS 10      | CNR       |           |
| GRB0  | 1MHZ, LISN SIGNAL CHECKER       | ELITE           | LISNCHKR1M               | 1          | 1MHZ            | 6/17/2021 | 6/17/2023 |
| NTA4  | BILOG ANTENNA                   | TESEQ           | 6112D                    | 46660      | 20-2000GHZ      | 10/5/2020 | 10/5/2021 |
| NWQ2  | DOUBLE RIDGED WAVEGUIDE ANTENNA | ETS LINDGREN    | 3117                     | 66659      | 1GHZ-18GHZ      | 4/7/2020  | 4/7/2022  |
| PLF1  | CISPR16 50UH LISN               | ELITE           | CISPR16/70A              | 001        | .15-30MHz       | 4/8/2021  | 4/8/2022  |
| PLF3  | CISPR16 50UH LISN               | ELITE           | CISPR16/70A              | 003        | .15-30MHz       | 4/8/2021  | 4/8/2022  |
| RBG0  | EMI ANALYZER                    | ROHDE & SCHWARZ | ESW44                    | 101533     | 10HZ-44GHZ      | 3/2/2021  | 3/2/2022  |
| RBG2  | EMI ANALYZER                    | ROHDE & SCHWARZ | ESW44                    | 101591     | 2HZ-44GHZ       | 3/11/2021 | 3/11/2022 |
| T1N7  | 10DB 20W ATTENUATOR             | NARDA           | 766-10                   | ---        | DC-4GHZ         | 3/25/2020 | 3/25/2022 |
| T2DS  | 20DB, 25W ATTENUATOR            | WEINSCHL        | 46-20-34                 | BS0916     | DC-18GHZ        | 4/2/2020  | 4/2/2022  |
| T2S7  | 20DB 25W ATTENUATOR             | WEINSCHL        | 46-20-34                 | BU8139     | DC-18GHZ        | 3/10/2020 | 3/10/2022 |
| XLT37 | 5W, 50 OHM TERMINATION          | JFW INDUSTRIES  | 50T-199 N M              | ---        | DC-18 GHZ       | 6/8/2021  | 6/8/2023  |
| XPQ7  | HIGH PASS FILTER                | K&L MICROWAVE   | 4IH30-1804/T10000-0      | 5          | 1.8-10GHZ       | 2/3/2021  | 2/3/2023  |

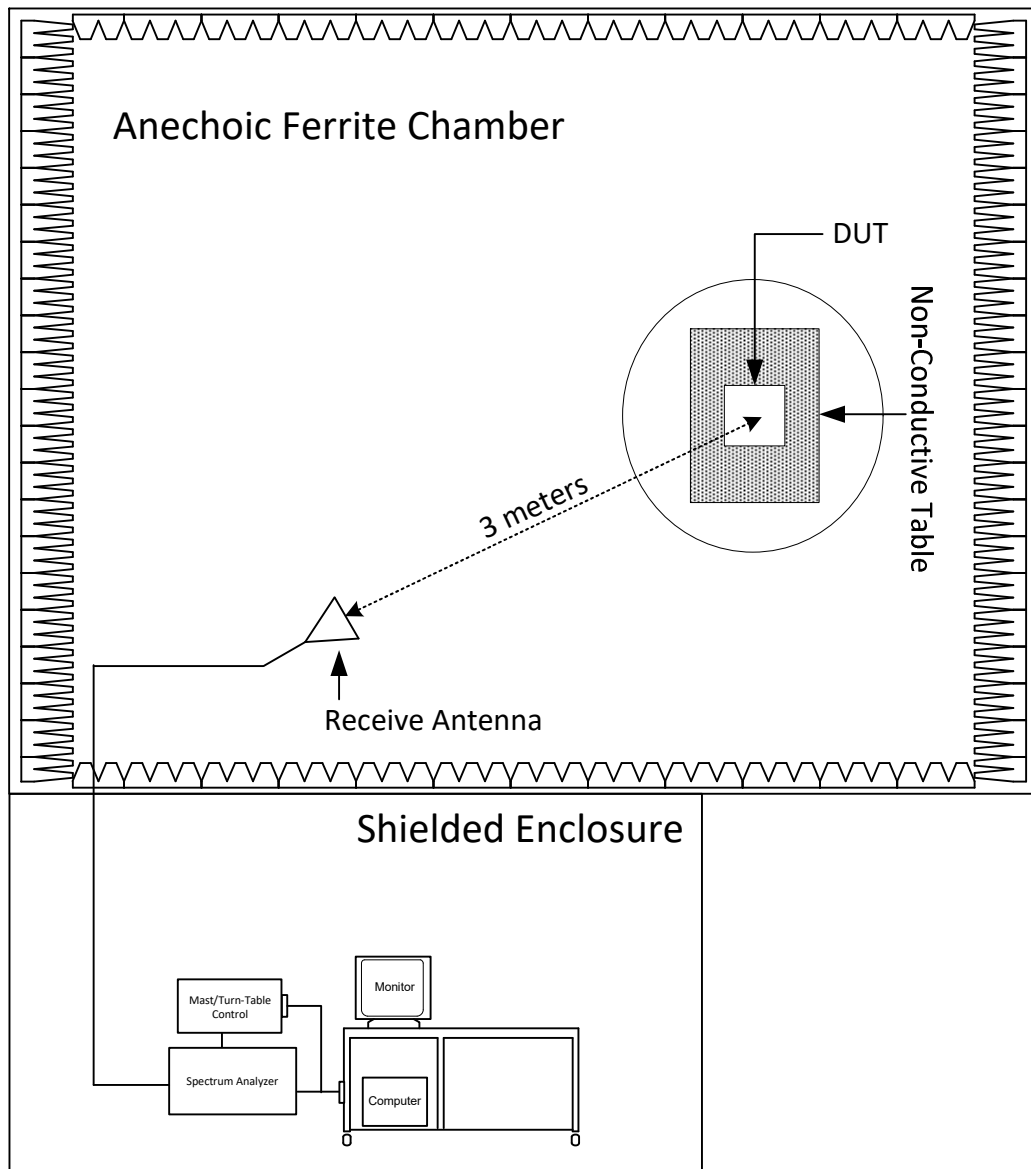
N/A: Not Applicable

I/O: Initial Only

CNR: Calibration Not Required

NOTE 1: For the purpose of this test, the equipment was calibrated over the specified frequency range, pulse rate, or modulation prior to the test or monitored by a calibrated instrument.

## 19. Block Diagram of Test Setup



Radiated Measurements Test Setup

## 20. Conducted Emissions Test (Unintentional Radiators)

| Test Information |                              |
|------------------|------------------------------|
| Manufacturer     | Chamberlain Group Inc        |
| Product          | Main/Control PCB Transceiver |
| Model            | 001D9525-1-IND               |
| Serial No        | NA                           |
| Mode             | Motor Running and Rx         |

| Test Setup Details |                    |
|--------------------|--------------------|
| Setup Format       | Tabletop           |
| Height of Support  | NA                 |
| Type of Test Site  | Shielded Enclosure |
| Test site used     | R14ML              |
| Note               | None               |

| Requirements                                                                                                                                                      |                                  |         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------|
| All radio frequency voltages on the power lines for any frequency or frequencies of an unintentional radiator shall not exceed the limits in the following table: |                                  |         |
| Frequency of Emission<br>(MHz)                                                                                                                                    | Conducted Limits<br>(dB $\mu$ V) |         |
|                                                                                                                                                                   | Quasi-peak                       | Average |
| 0.15-05                                                                                                                                                           | 66 to 56*                        | 56-46*  |
| 0.5-5                                                                                                                                                             | 56                               | 46      |
| 5-30                                                                                                                                                              | 60                               | 50      |

\*Decreases with the logarithm of the frequency

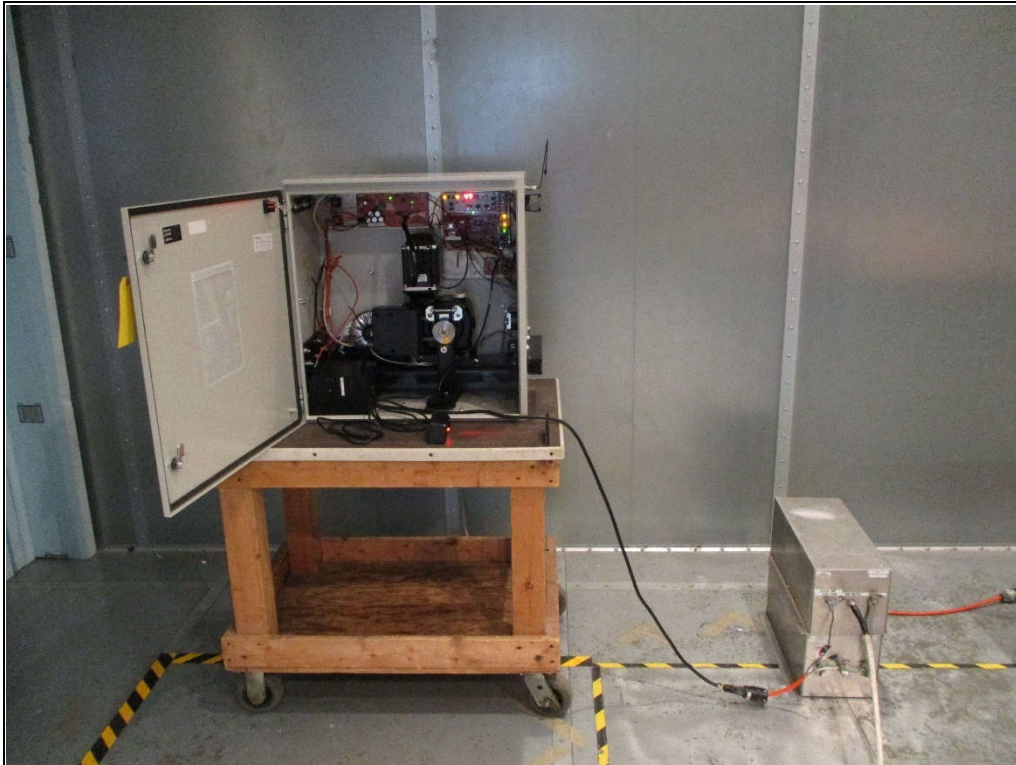
### Procedures

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

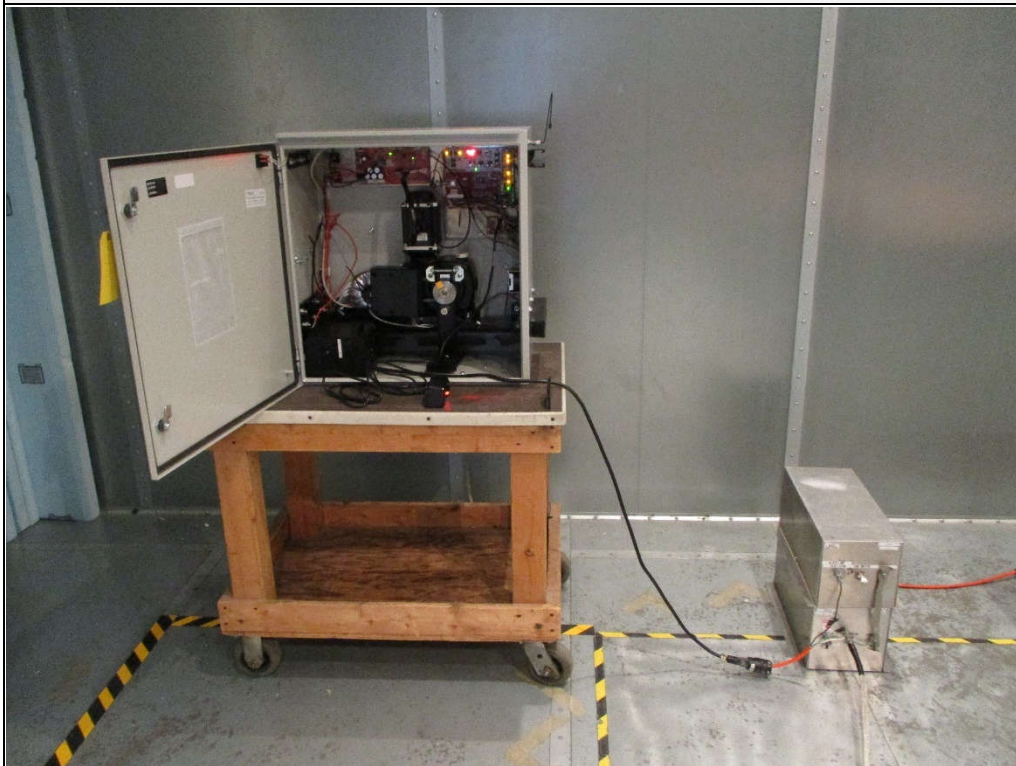
- 1) The EUT was operated in the Motor Running mode.
- 2) Measurements were first made on the 120V, 60Hz high line.
- 3) The frequency range from 150 kHz to 30 MHz was broken up into smaller frequency sub-bands.
- 4) Conducted emissions measurements were taken on the first frequency sub-band using a peak detector.
- 5) The data thus obtained was then searched by the computer for the highest levels. Any emissions levels that were within 10dB of the average limit were then measured again using both a quasi-peak detector and an average detector. (If no peak readings were within 10dB of the average limit, quasi-peak and average readings were taken on the highest emissions levels measured during the peak detector scan.)
- 6) Steps (4) and (5) were repeated for the remainder of the frequency sub-bands until the entire frequency range from 150kHz to 30MHz was investigated. The peak trace was automatically plotted. The plot also shows quasi-peak and average readings that were taken on discrete frequencies. A table showing the quasi-peak and average readings was also generated. This tabular data compares the quasi-peak and average conducted emissions to the applicable conducted emissions limits.
- 7) Steps (3) through (6) were repeated on the 120V, 60Hz neutral line.
- 8) Steps (2) through (7) were repeated with the EUT operated in the Rx mode.

### Measurement Uncertainty

| Measurement Type                                      | Expanded Measurement Uncertainty |
|-------------------------------------------------------|----------------------------------|
| Conducted disturbance (mains port) (150 kHz – 30 MHz) | 2.7                              |



Test Setup for RF Conducted Emissions (AC Mains)



Test Setup for RF Conducted Emissions (AC Mains)

## FCC Part 15 Subpart B Conducted Emissions Test

### Significant Emissions Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Motor Running  
 Line Tested : High  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : Motor running at 80%  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 10:41:02 AM  
 Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

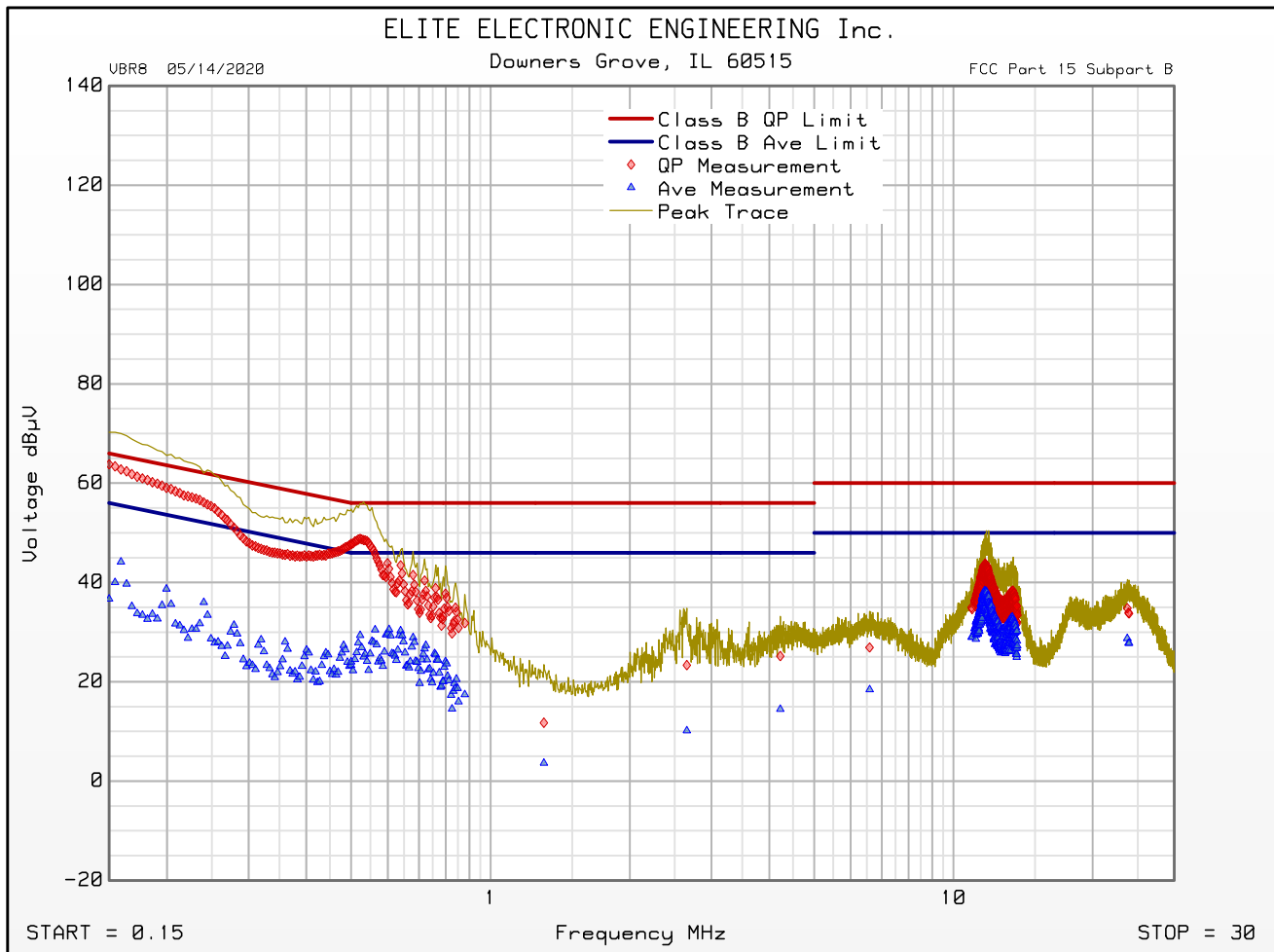
| Freq<br>MHz | Quasi-peak<br>Level<br>dBμV | Quasi-peak<br>Limit<br>dBμV | Excessive<br>Quasi-peak<br>Emissions | Average<br>Level<br>dBμV | Average<br>Limit<br>dBμV | Excessive<br>Average<br>Emissions |
|-------------|-----------------------------|-----------------------------|--------------------------------------|--------------------------|--------------------------|-----------------------------------|
| 0.150       | 63.8                        | 66.0                        |                                      | 36.7                     | 56.0                     |                                   |
| 0.500       | 47.8                        | 56.0                        |                                      | 24.0                     | 46.0                     |                                   |
| 0.523       | 48.8                        | 56.0                        |                                      | 29.3                     | 46.0                     |                                   |
| 0.799       | 37.8                        | 56.0                        |                                      | 24.1                     | 46.0                     |                                   |
| 1.304       | 11.7                        | 56.0                        |                                      | 3.6                      | 46.0                     |                                   |
| 2.655       | 23.3                        | 56.0                        |                                      | 10.2                     | 46.0                     |                                   |
| 4.225       | 25.2                        | 56.0                        |                                      | 14.5                     | 46.0                     |                                   |
| 6.589       | 26.9                        | 60.0                        |                                      | 18.4                     | 50.0                     |                                   |
| 11.709      | 43.8                        | 60.0                        |                                      | 38.2                     | 50.0                     |                                   |
| 23.756      | 34.8                        | 60.0                        |                                      | 28.7                     | 50.0                     |                                   |

## FCC Part 15 Subpart B Conducted Emissions Test

### Cumulative Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Motor Running  
 Line Tested : High  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : Motor running at 80%  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 10:41:02 AM



Emissions Meet QP Limit  
 Emissions Meet Ave Limit

## FCC Part 15 Subpart B Conducted Emissions Test

### Significant Emissions Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Motor Running  
 Line Tested : Neutral  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : Motor running at 80%  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 11:02:04 AM  
 Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

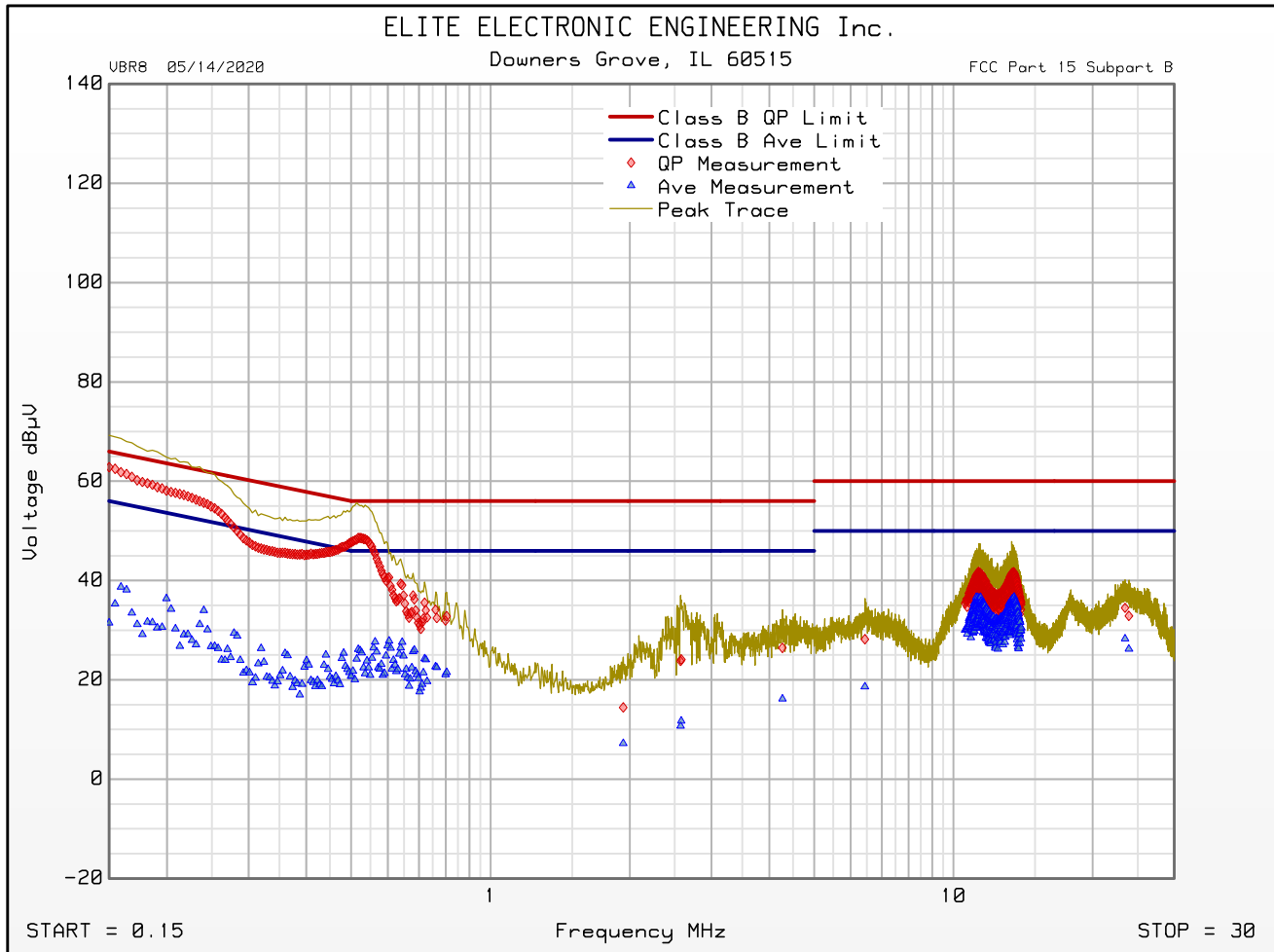
| Freq MHz | Quasi-peak Level dBμV | Quasi-peak Limit dBμV | Excessive Quasi-peak Emissions | Average Level dBμV | Average Limit dBμV | Excessive Average Emissions |
|----------|-----------------------|-----------------------|--------------------------------|--------------------|--------------------|-----------------------------|
| 0.150    | 62.8                  | 66.0                  |                                | 31.4               | 56.0               |                             |
| 0.209    | 57.7                  | 63.3                  |                                | 30.3               | 53.3               |                             |
| 0.218    | 57.2                  | 62.9                  |                                | 29.1               | 52.9               |                             |
| 0.500    | 47.7                  | 56.0                  |                                | 20.8               | 46.0               |                             |
| 0.518    | 48.6                  | 56.0                  |                                | 26.1               | 46.0               |                             |
| 0.804    | 32.8                  | 56.0                  |                                | 21.5               | 46.0               |                             |
| 1.934    | 14.4                  | 56.0                  |                                | 7.2                | 46.0               |                             |
| 2.583    | 24.1                  | 56.0                  |                                | 11.7               | 46.0               |                             |
| 4.270    | 26.4                  | 56.0                  |                                | 16.1               | 46.0               |                             |
| 6.436    | 28.2                  | 60.0                  |                                | 18.6               | 50.0               |                             |
| 11.363   | 41.7                  | 60.0                  |                                | 36.2               | 50.0               |                             |
| 23.486   | 34.5                  | 60.0                  |                                | 28.3               | 50.0               |                             |

## FCC Part 15 Subpart B Conducted Emissions Test

### Cumulative Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Motor Running  
 Line Tested : Neutral  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : Motor running at 80%  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 11:02:04 AM



Emissions Meet QP Limit  
 Emissions Meet Ave Limit

## FCC Part 15 Subpart B Conducted Emissions Test

### Significant Emissions Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Rx  
 Line Tested : High  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : 310-390MHz  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 11:15:10 AM  
 Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

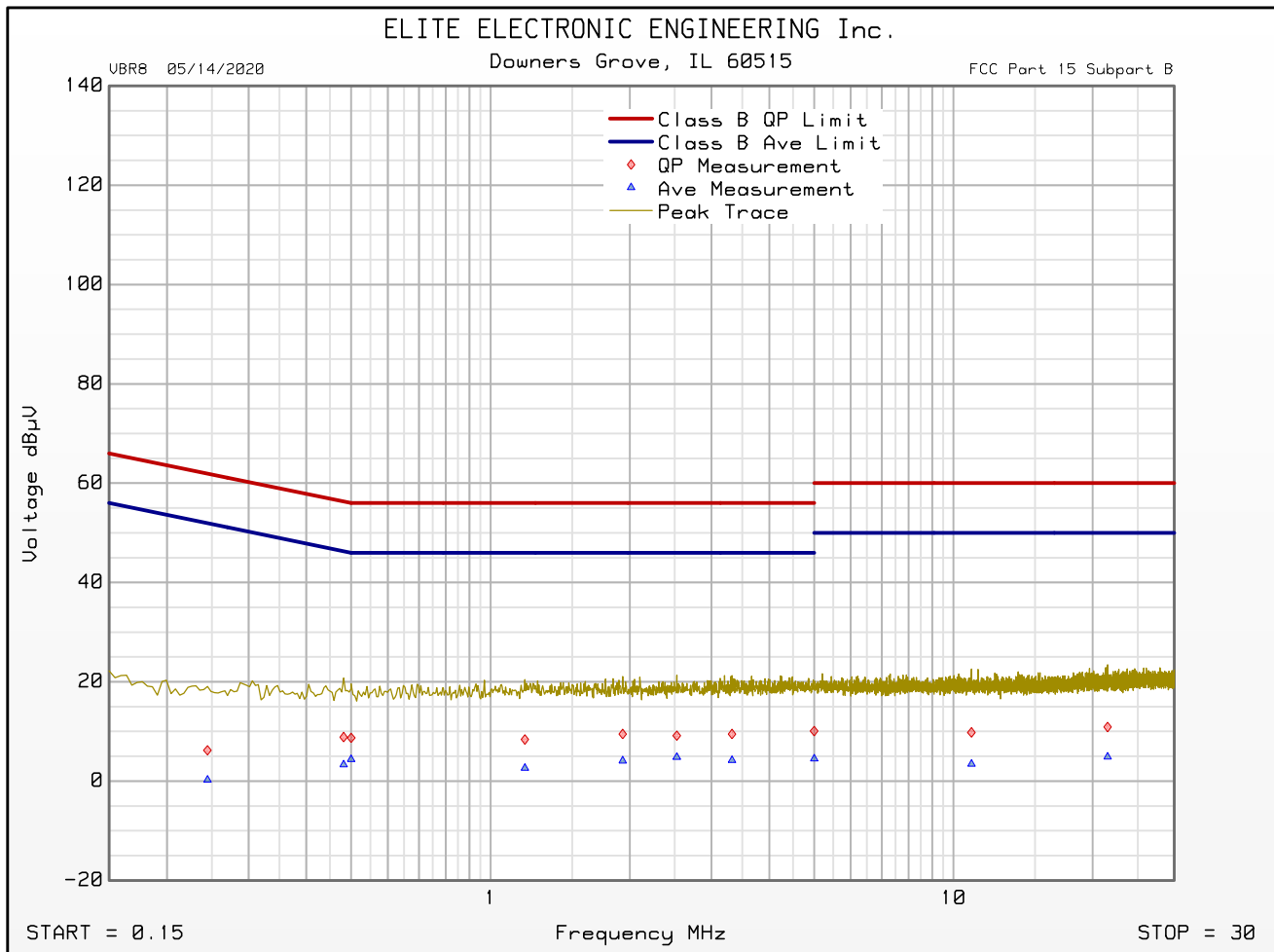
| Freq MHz | Quasi-peak Level dBμV | Quasi-peak Limit dBμV | Excessive Quasi-peak Emissions | Average Level dBμV | Average Limit dBμV | Excessive Average Emissions |
|----------|-----------------------|-----------------------|--------------------------------|--------------------|--------------------|-----------------------------|
| 0.245    | 6.2                   | 61.9                  |                                | 0.2                | 51.9               |                             |
| 0.500    | 8.7                   | 56.0                  |                                | 4.4                | 46.0               |                             |
| 1.186    | 8.4                   | 56.0                  |                                | 2.6                | 46.0               |                             |
| 1.930    | 9.5                   | 56.0                  |                                | 4.1                | 46.0               |                             |
| 2.525    | 9.2                   | 56.0                  |                                | 4.8                | 46.0               |                             |
| 5.000    | 10.1                  | 56.0                  |                                | 4.5                | 46.0               |                             |
| 10.935   | 9.8                   | 60.0                  |                                | 3.4                | 50.0               |                             |
| 21.529   | 10.9                  | 60.0                  |                                | 4.9                | 50.0               |                             |

## FCC Part 15 Subpart B Conducted Emissions Test

### Cumulative Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Rx  
 Line Tested : High  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : 310-390MHz  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 11:15:10 AM



Emissions Meet QP Limit  
 Emissions Meet Ave Limit

## FCC Part 15 Subpart B Conducted Emissions Test

### Significant Emissions Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Rx  
 Line Tested : Neutral  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : 310-390MHz  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 11:10:06 AM  
 Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

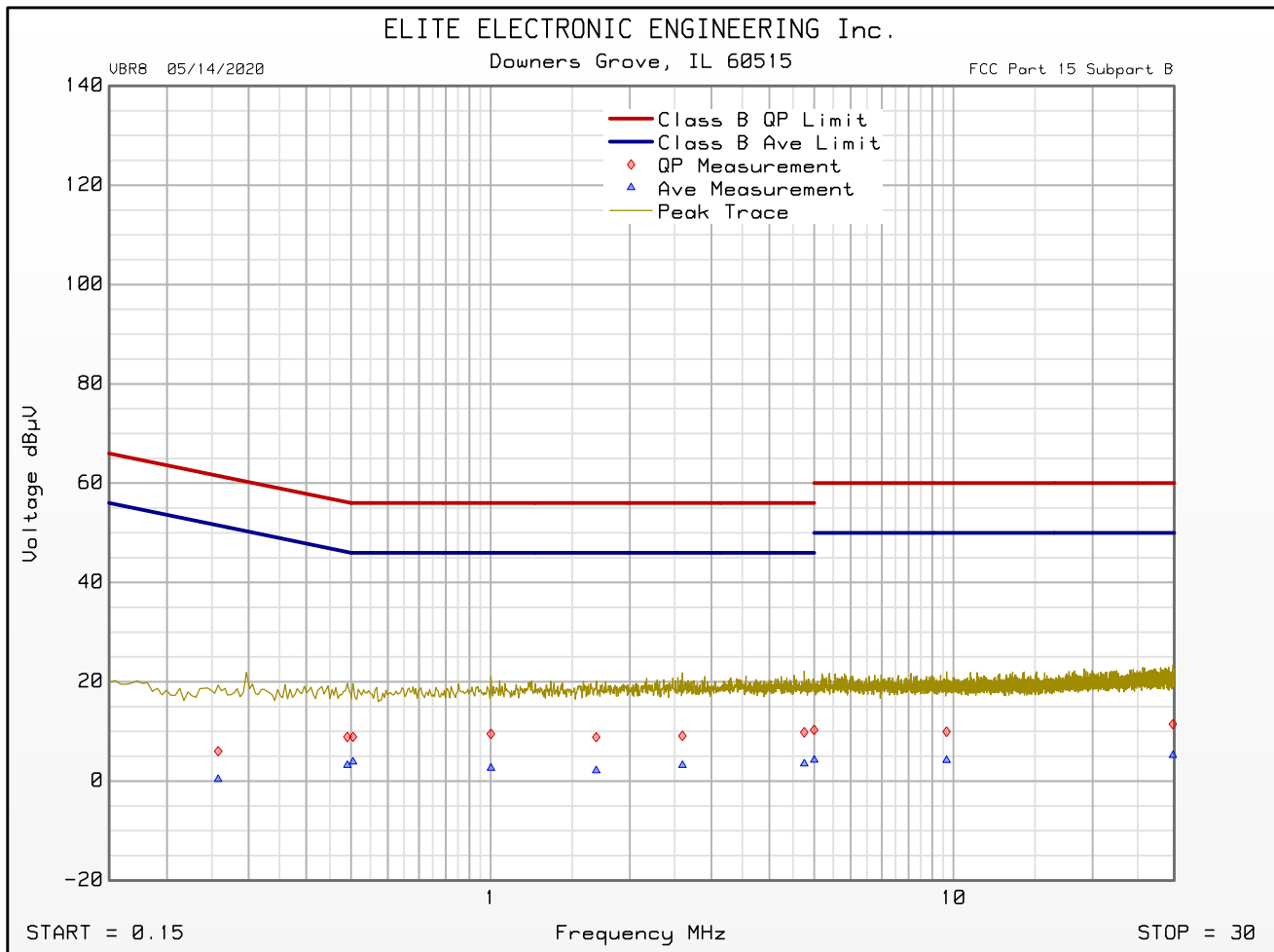
| Freq MHz | Quasi-peak Level dBμV | Quasi-peak Limit dBμV | Excessive Quasi-peak Emissions | Average Level dBμV | Average Limit dBμV | Excessive Average Emissions |
|----------|-----------------------|-----------------------|--------------------------------|--------------------|--------------------|-----------------------------|
| 0.258    | 6.0                   | 61.5                  |                                | 0.4                | 51.5               |                             |
| 0.491    | 8.9                   | 56.2                  |                                | 3.2                | 46.2               |                             |
| 0.505    | 8.9                   | 56.0                  |                                | 3.9                | 46.0               |                             |
| 1.002    | 9.5                   | 56.0                  |                                | 2.6                | 46.0               |                             |
| 1.691    | 8.8                   | 56.0                  |                                | 2.1                | 46.0               |                             |
| 2.597    | 9.1                   | 56.0                  |                                | 3.2                | 46.0               |                             |
| 5.000    | 10.3                  | 56.0                  |                                | 4.3                | 46.0               |                             |
| 9.666    | 9.9                   | 60.0                  |                                | 4.2                | 50.0               |                             |
| 29.786   | 11.5                  | 60.0                  |                                | 5.2                | 50.0               |                             |

## FCC Part 15 Subpart B Conducted Emissions Test

### Cumulative Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Rx  
 Line Tested : Neutral  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : 310-390MHz  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 11:10:06 AM



Emissions Meet QP Limit  
 Emissions Meet Ave Limit

## FCC Part 15 Subpart B Conducted Emissions Test

### Significant Emissions Data

VBR8 05/14/2020

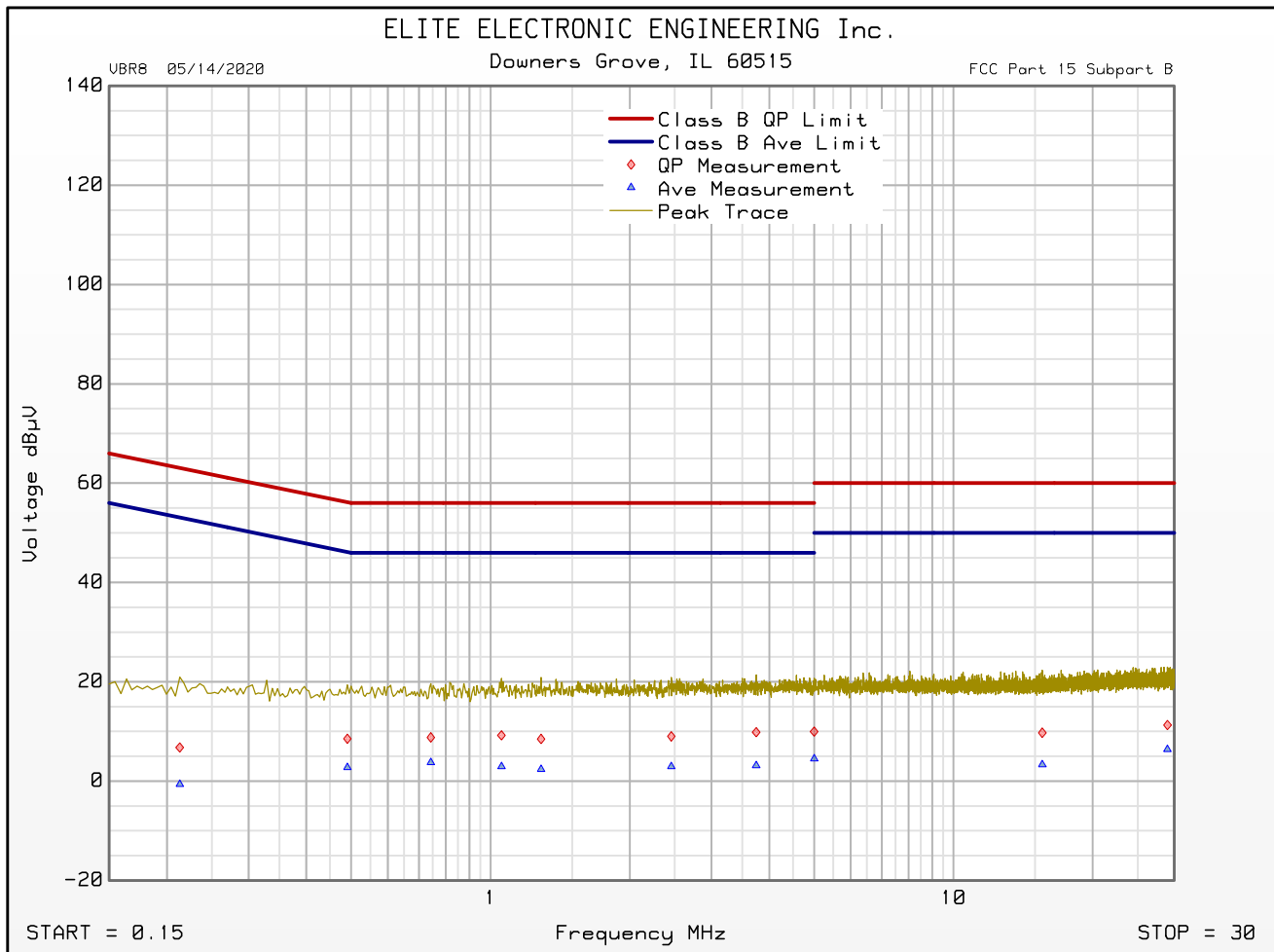
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Rx  
 Line Tested : High  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : 433.3-434.54MHz  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 11:25:13 AM  
 Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

| Freq MHz | Quasi-peak Level dBμV | Quasi-peak Limit dBμV | Excessive Quasi-peak Emissions | Average Level dBμV | Average Limit dBμV | Excessive Average Emissions |
|----------|-----------------------|-----------------------|--------------------------------|--------------------|--------------------|-----------------------------|
| 0.213    | 6.8                   | 63.1                  |                                | -0.7               | 53.1               |                             |
| 0.491    | 8.5                   | 56.2                  |                                | 2.7                | 46.2               |                             |
| 0.743    | 8.8                   | 56.0                  |                                | 3.7                | 46.0               |                             |
| 1.056    | 9.2                   | 56.0                  |                                | 2.9                | 46.0               |                             |
| 1.286    | 8.5                   | 56.0                  |                                | 2.4                | 46.0               |                             |
| 2.457    | 9.0                   | 56.0                  |                                | 3.0                | 46.0               |                             |
| 5.000    | 10.0                  | 56.0                  |                                | 4.5                | 46.0               |                             |
| 15.561   | 9.7                   | 60.0                  |                                | 3.3                | 50.0               |                             |
| 28.999   | 11.3                  | 60.0                  |                                | 6.4                | 50.0               |                             |

# FCC Part 15 Subpart B Conducted Emissions Test Cumulative Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
DUT Revision : ---  
Serial Number : NA  
DUT Mode : Rx  
Line Tested : High  
Scan Step Time [ms] : 30  
Meas. Threshold [dB] : -10  
Notes : 433.3-434.54MHz  
Test Engineer : J. Cardenas  
Limit : Class B  
Test Date : Aug 04, 2021 11:25:13 AM



Emissions Meet QP Limit  
Emissions Meet Ave Limit

## FCC Part 15 Subpart B Conducted Emissions Test

### Significant Emissions Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Rx  
 Line Tested : Neutral  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : 433.3-434.54MHz  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 11:32:10 AM  
 Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

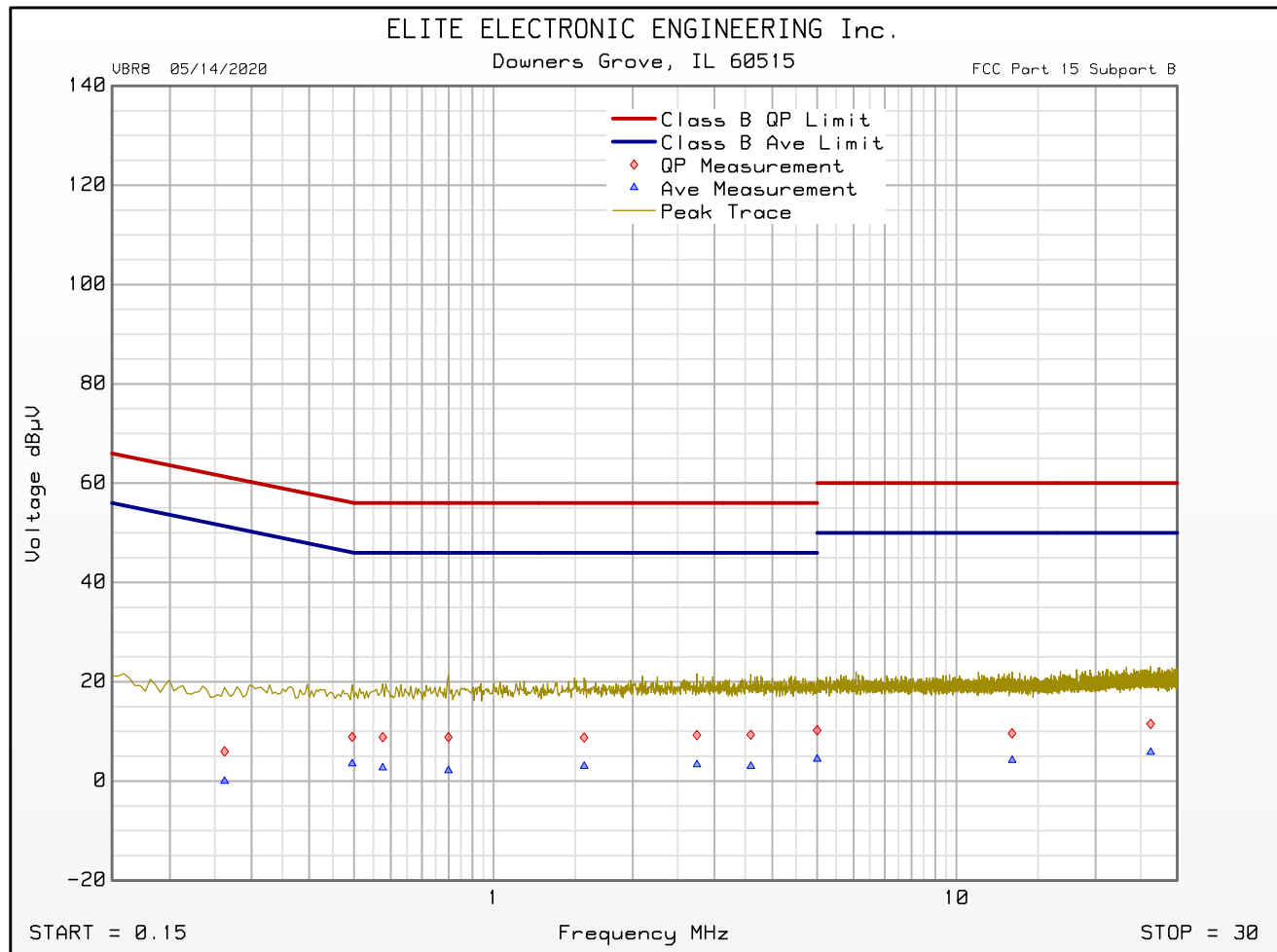
| Freq MHz | Quasi-peak Level dBμV | Quasi-peak Limit dBμV | Excessive Quasi-peak Emissions | Average Level dBμV | Average Limit dBμV | Excessive Average Emissions |
|----------|-----------------------|-----------------------|--------------------------------|--------------------|--------------------|-----------------------------|
| 0.263    | 6.0                   | 61.4                  |                                | 0.0                | 51.4               |                             |
| 0.495    | 8.9                   | 56.1                  |                                | 3.5                | 46.1               |                             |
| 0.577    | 8.8                   | 56.0                  |                                | 2.7                | 46.0               |                             |
| 0.799    | 8.8                   | 56.0                  |                                | 2.1                | 46.0               |                             |
| 1.570    | 8.8                   | 56.0                  |                                | 3.0                | 46.0               |                             |
| 2.750    | 9.3                   | 56.0                  |                                | 3.3                | 46.0               |                             |
| 5.000    | 10.2                  | 56.0                  |                                | 4.4                | 46.0               |                             |
| 13.190   | 9.6                   | 60.0                  |                                | 4.2                | 50.0               |                             |
| 26.276   | 11.5                  | 60.0                  |                                | 5.8                | 50.0               |                             |

## FCC Part 15 Subpart B Conducted Emissions Test

### Cumulative Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Rx  
 Line Tested : Neutral  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : 433.3-434.54MHz  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 11:32:10 AM



Emissions Meet QP Limit  
 Emissions Meet Ave Limit

## FCC Part 15 Subpart B Conducted Emissions Test

### Significant Emissions Data

VBR8 05/14/2020

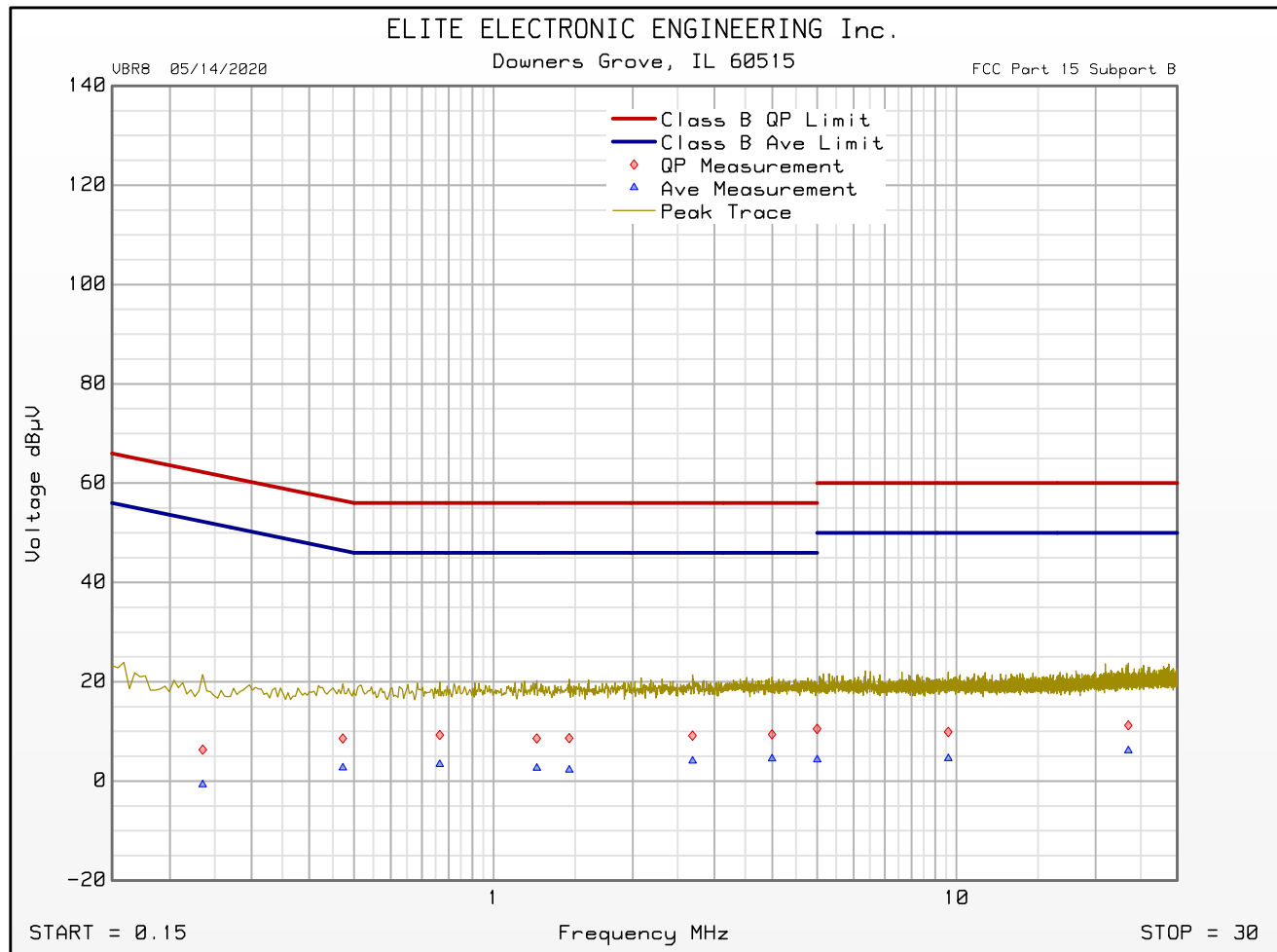
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Rx  
 Line Tested : High  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : 902-928MHz  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 11:54:16 AM  
 Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

| Freq MHz | Quasi-peak Level dBμV | Quasi-peak Limit dBμV | Excessive Quasi-peak Emissions | Average Level dBμV | Average Limit dBμV | Excessive Average Emissions |
|----------|-----------------------|-----------------------|--------------------------------|--------------------|--------------------|-----------------------------|
| 0.236    | 6.3                   | 62.3                  |                                | -0.7               | 52.3               |                             |
| 0.473    | 8.6                   | 56.5                  |                                | 2.7                | 46.5               |                             |
| 0.766    | 9.3                   | 56.0                  |                                | 3.4                | 46.0               |                             |
| 1.240    | 8.6                   | 56.0                  |                                | 2.6                | 46.0               |                             |
| 1.457    | 8.7                   | 56.0                  |                                | 2.3                | 46.0               |                             |
| 2.691    | 9.1                   | 56.0                  |                                | 4.1                | 46.0               |                             |
| 5.000    | 10.5                  | 56.0                  |                                | 4.3                | 46.0               |                             |
| 9.599    | 9.9                   | 60.0                  |                                | 4.6                | 50.0               |                             |
| 23.513   | 11.2                  | 60.0                  |                                | 6.1                | 50.0               |                             |

# FCC Part 15 Subpart B Conducted Emissions Test Cumulative Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
DUT Revision : ---  
Serial Number : NA  
DUT Mode : Rx  
Line Tested : High  
Scan Step Time [ms] : 30  
Meas. Threshold [dB] : -10  
Notes : 902-928MHz  
Test Engineer : J. Cardenas  
Limit : Class B  
Test Date : Aug 04, 2021 11:54:16 AM



Emissions Meet QP Limit  
Emissions Meet Ave Limit

## FCC Part 15 Subpart B Conducted Emissions Test

### Significant Emissions Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Rx  
 Line Tested : Neutral  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : 902-928MHz  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 11:38:57 AM  
 Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

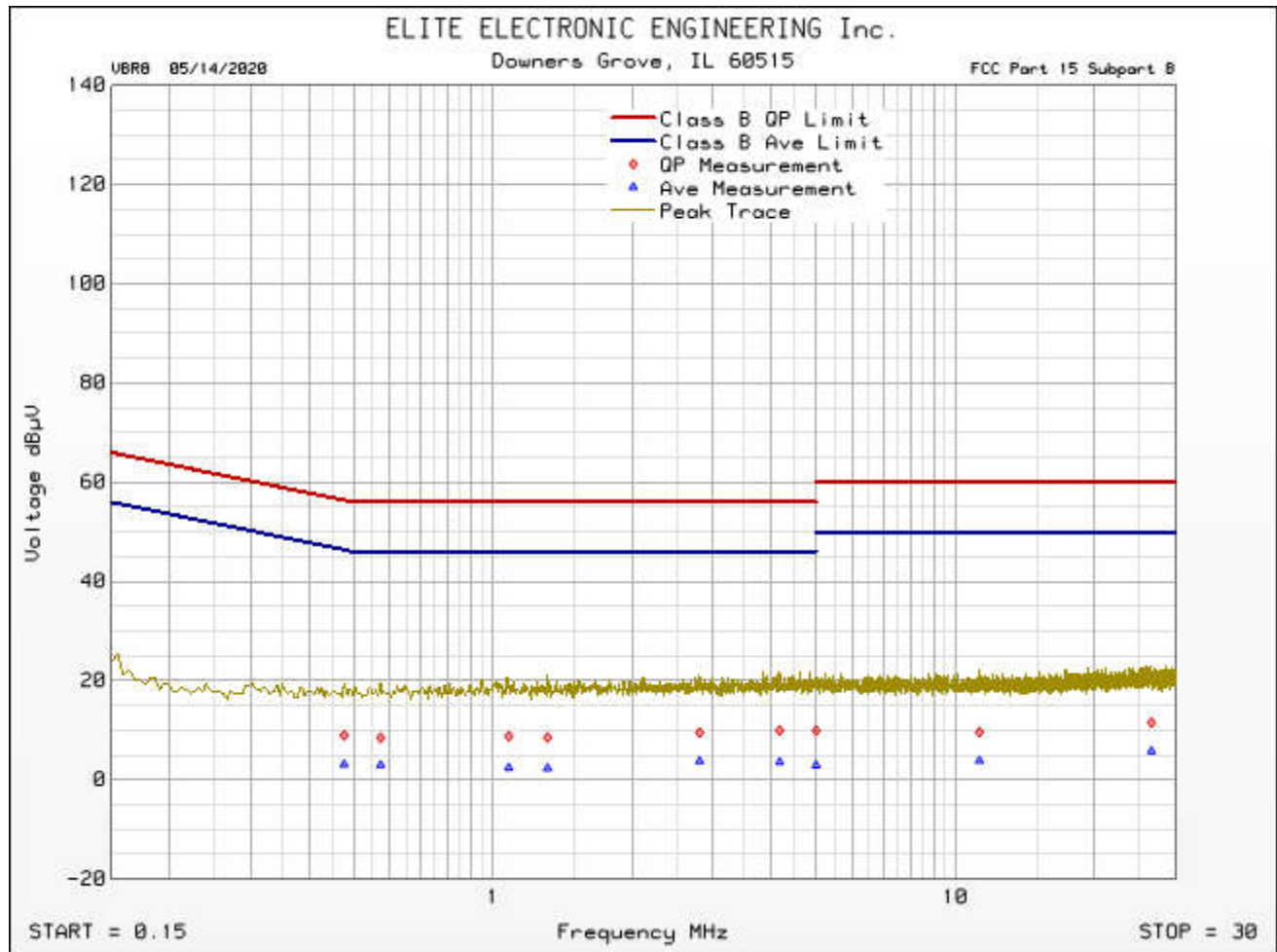
| Freq MHz | Quasi-peak Level dBμV | Quasi-peak Limit dBμV | Excessive Quasi-peak Emissions | Average Level dBμV | Average Limit dBμV | Excessive Average Emissions |
|----------|-----------------------|-----------------------|--------------------------------|--------------------|--------------------|-----------------------------|
| 0.477    | 9.1                   | 56.4                  |                                | 3.2                | 46.4               |                             |
| 0.572    | 8.5                   | 56.0                  |                                | 3.1                | 46.0               |                             |
| 1.083    | 8.9                   | 56.0                  |                                | 2.5                | 46.0               |                             |
| 1.313    | 8.6                   | 56.0                  |                                | 2.4                | 46.0               |                             |
| 2.799    | 9.6                   | 56.0                  |                                | 3.9                | 46.0               |                             |
| 4.171    | 10.0                  | 56.0                  |                                | 3.7                | 46.0               |                             |
| 5.000    | 10.0                  | 56.0                  |                                | 3.0                | 46.0               |                             |
| 11.277   | 9.7                   | 60.0                  |                                | 3.9                | 50.0               |                             |
| 26.555   | 11.6                  | 60.0                  |                                | 5.8                | 50.0               |                             |

## FCC Part 15 Subpart B Conducted Emissions Test

### Cumulative Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Rx  
 Line Tested : Neutral  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : 902-928MHz  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 11:38:57 AM



Emissions Meet QP Limit  
 Emissions Meet Ave Limit

## 21. Radiated Emissions Test (Unintentional Radiators)

| Test Information |                              |
|------------------|------------------------------|
| Manufacturer     | Chamberlain Group Inc        |
| Product          | Main/Control PCB Transceiver |
| Model            | 001D9525-1-IND               |
| Serial No        | NA                           |
| Mode             | Motor Running and Rx         |

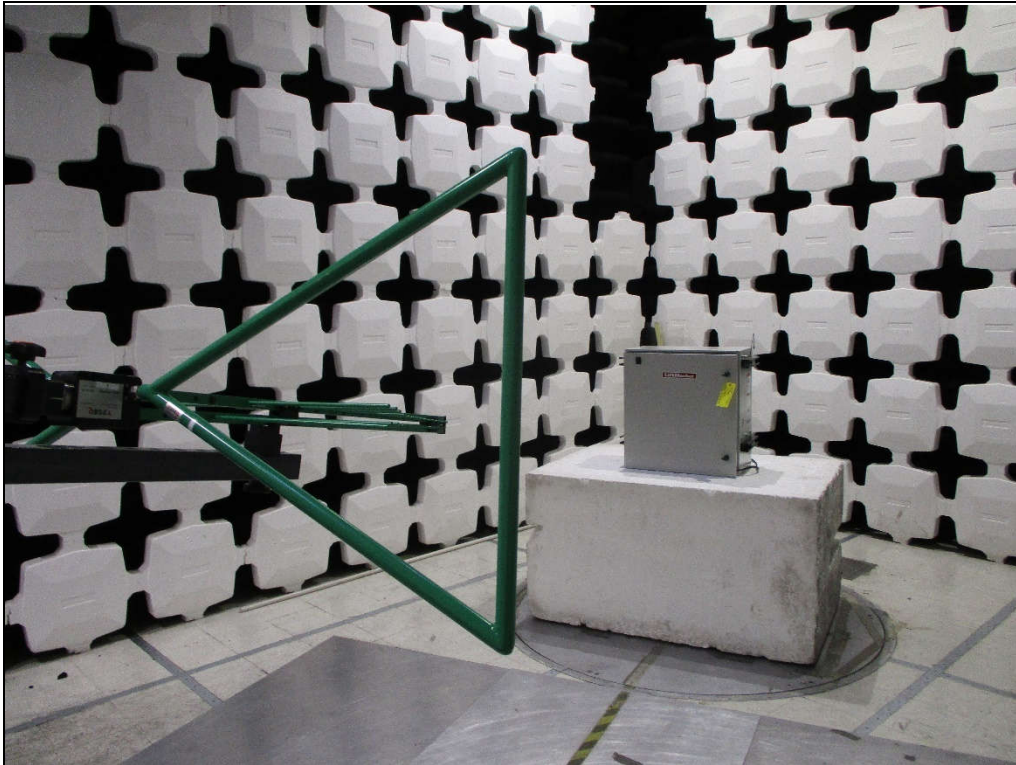
| Test Setup Details                     |                                                                                                                                                               |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Setup Format                           | Tabletop                                                                                                                                                      |
| Height of Support                      | NA                                                                                                                                                            |
| Type of Test Site                      | Semi-Anechoic Chamber                                                                                                                                         |
| Test site used                         | Room 29                                                                                                                                                       |
| Type of Antennas Used                  | Below 1GHz: Bilog (or equivalent)<br>Above 1GHz: Double-ridged waveguide (or equivalent)                                                                      |
| Highest Internal Frequency of the EUT: | 928MHz                                                                                                                                                        |
| Highest Measurement Frequency:         | 5GHz                                                                                                                                                          |
| Notes                                  | The cables were manually maximized during the preliminary emissions sweeps.<br>The cable arrangement which resulted in the worst-case emissions was utilized. |

| Requirements                                                                                                                           |                       |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| The field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values: |                       |
| Frequency of Emission (MHz)                                                                                                            | Field Strength (μV/m) |
| 30-88                                                                                                                                  | 100                   |
| 88-216                                                                                                                                 | 150                   |
| 216-960                                                                                                                                | 200                   |
| Above 960                                                                                                                              | 500                   |

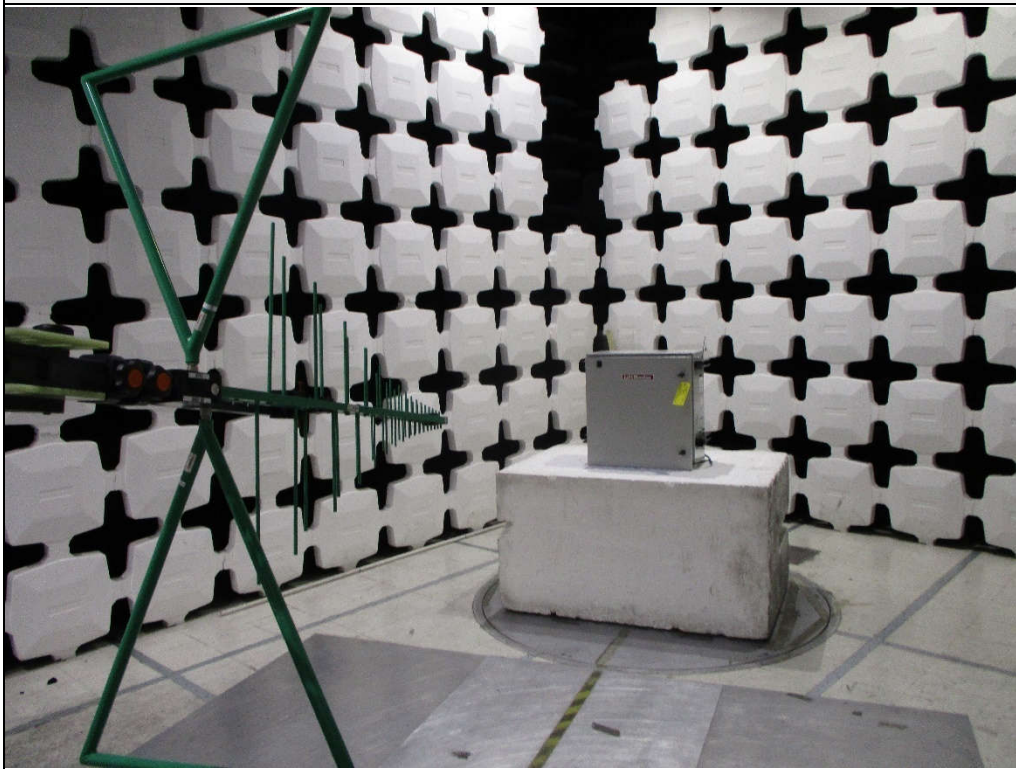
| Procedures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Since a quasi-peak detector and an average detector requires a long integration times, it is not practical to automatically sweep through the quasi-peak and average levels. Therefore, radiated emissions from the EUT were first scanned using a peak detector and automatically plotted. The frequencies where significant emission levels were noted were then remeasured using the quasi-peak detector or average detector.</p> <p>The EUT was placed on a non-conductive stand. The broadband measuring antenna was positioned at a 3 meter distance from the EUT. The frequency range from 30MHz to 1GHz was investigated using a peak detector function with the bilog antenna at several heights, horizontal and vertical polarization, and with several different orientations of the EUT with respect to the antenna. The frequency range from 1GHz to Max Frequency Tested was investigated using a peak detector function with the double ridged waveguide antenna at several heights, horizontal and vertical polarization, and with several different orientations of the EUT with respect to the antenna. The maximum levels for each antenna polarization were plotted.</p> <p>Final radiated emissions were performed on all significant broadband and narrowband emissions found in the exploratory sweeps using the following methods:</p> |

| Procedures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1) Measurements from 30MHz to 1GHz were made using a quasi-peak detector and a broadband bilog antenna. Measurements above 1GHz were made using an average detector and a broadband double ridged waveguide antenna.</li> <li>2) To ensure that maximum or worst case, emission levels were measured, the following steps were taken: <ol style="list-style-type: none"> <li>a) The EUT was rotated so that all sides were exposed to the receiving antenna.</li> <li>b) Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured.</li> <li>c) The measuring antenna was raised and lowered from 1 to 4 meters for each antenna polarization to maximize the readings.</li> <li>d) For hand-held or body-worn devices, the EUT was rotated through three orthogonal axes to determine which orientation produces the highest emission relative to the limit.</li> </ol> </li> </ol> |

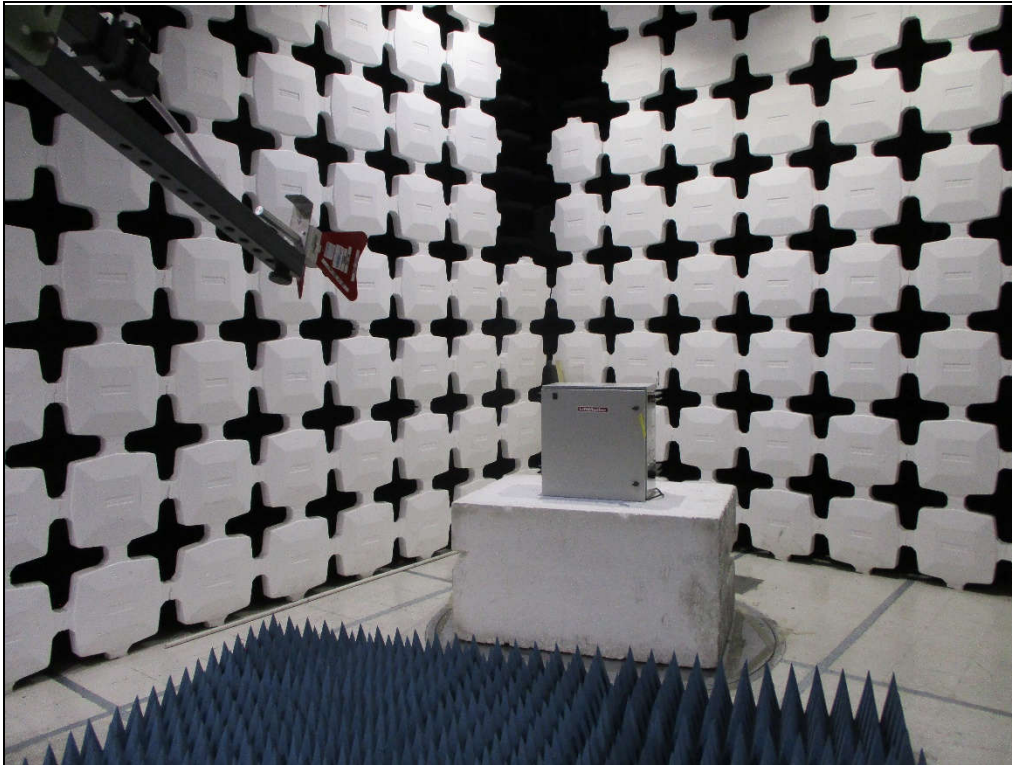
| Measurement Uncertainty                                                                                               |                                  |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Measurement Type                                                                                                      | Expanded Measurement Uncertainty |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz) | 4.3                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (1 GHz – 6 GHz)     | 3.1                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (6 GHz – 18 GHz)    | 3.2                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (18 GHz – 26.5 GHz) | 3.3                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (26.5 GHz – 40 GHz) | 3.4                              |



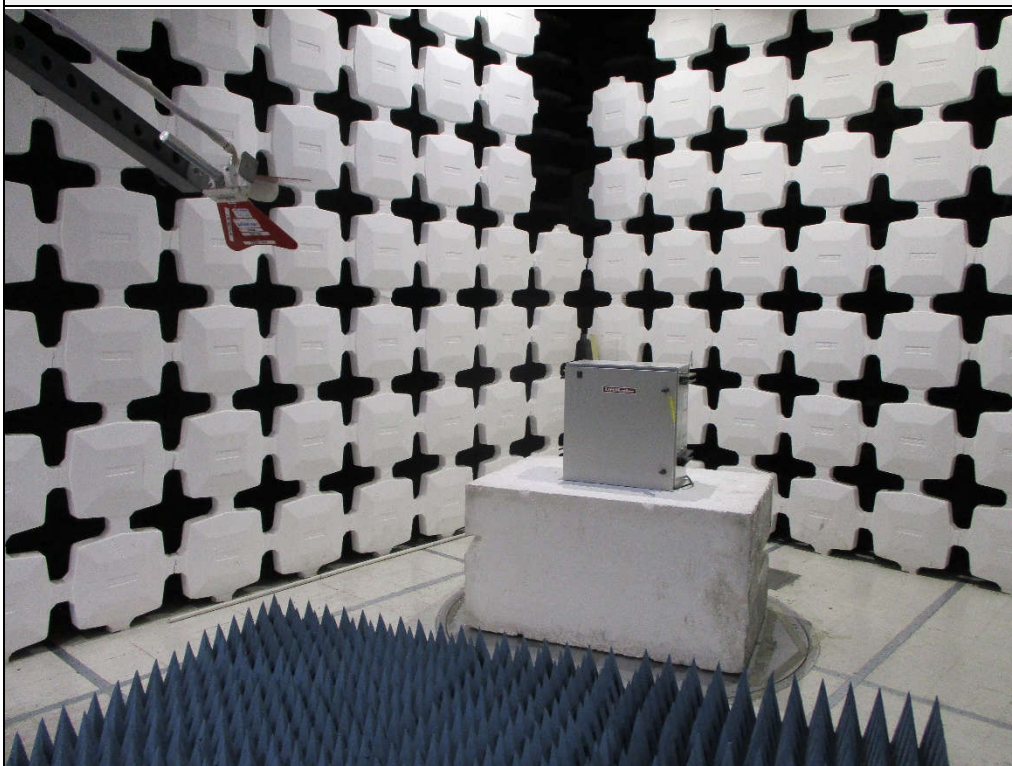
Test Setup for Radiated Emissions: 30MHz to 1GHz, Horizontal Polarization



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



Test Setup for Radiated Emissions: 1GHz to 5GHz, Horizontal Polarization



Test Setup for Radiated Emissions: 1GHz to 5GHz, Vertical Polarization



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

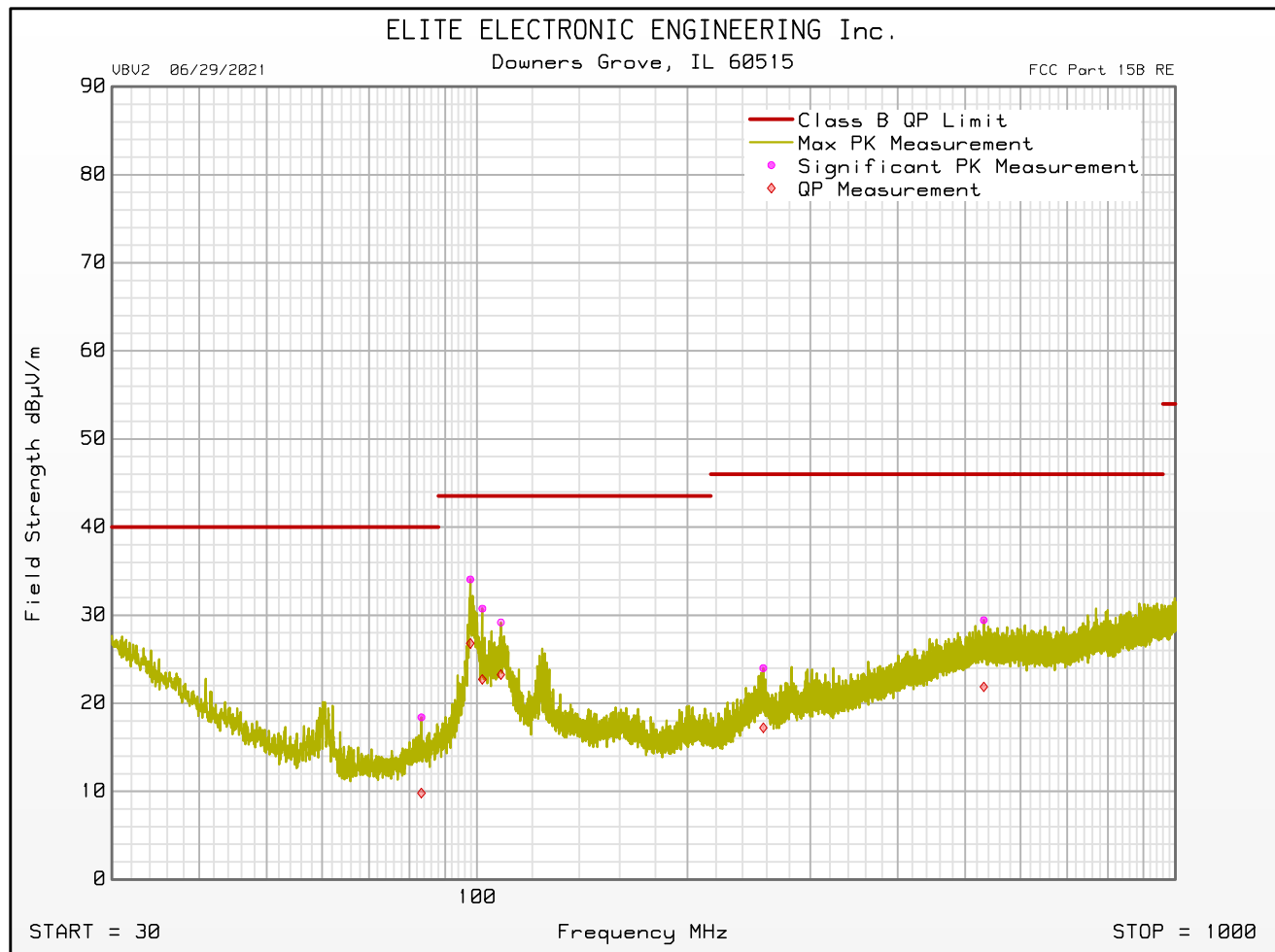
Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Motor Running  
Turntable Step Angle (°): 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 120 kHz  
Prelim Dwell Time (s) : 0.0001  
Notes : Motor running at 80%  
Test Engineer : J. Cardenas  
Test Date : Aug 09, 2021 12:46:35 PM

| Freq<br>MHz | Peak<br>Mtr<br>Rdg<br>dBuV | QP<br>Mtr<br>Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Peak<br>Total<br>dBuV/m | QP<br>Total<br>dBuV/m | QP<br>Limit<br>dBuV/m | QP<br>Lim<br>Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>QP<br>Level |
|-------------|----------------------------|--------------------------|--------------------|------------------|------------------|--------------------|-------------------------|-----------------------|-----------------------|------------------------|------------|------------------|-----------|--------------------------|
| 30.180      | 4.9                        | -2.4                     | 24.9               | 0.0              | 0.4              | 0.0                | 30.1                    | 22.8                  | 40.0                  | -17.2                  | Vertical   | 120              | 270       |                          |
| 44.040      | 14.3                       | 8.0                      | 17.5               | 0.0              | 0.4              | 0.0                | 32.1                    | 25.9                  | 40.0                  | -14.1                  | Vertical   | 120              | 315       |                          |
| 47.880      | 15.1                       | 8.0                      | 15.8               | 0.0              | 0.4              | 0.0                | 31.3                    | 24.2                  | 40.0                  | -15.8                  | Vertical   | 120              | 315       |                          |
| 60.540      | 15.5                       | 9.4                      | 12.4               | 0.0              | 0.4              | 0.0                | 28.3                    | 22.2                  | 40.0                  | -17.8                  | Vertical   | 200              | 315       |                          |
| 63.540      | 11.4                       | 4.8                      | 12.3               | 0.0              | 0.4              | 0.0                | 24.0                    | 17.5                  | 40.0                  | -22.5                  | Vertical   | 120              | 90        |                          |
| 83.220      | 4.3                        | -4.3                     | 13.7               | 0.0              | 0.4              | 0.0                | 18.4                    | 9.8                   | 40.0                  | -30.2                  | Horizontal | 200              | 315       |                          |
| 97.780      | 17.2                       | 9.9                      | 16.5               | 0.0              | 0.4              | 0.0                | 34.1                    | 26.8                  | 43.5                  | -16.7                  | Horizontal | 340              | 270       |                          |
| 101.740     | 13.3                       | 5.3                      | 17.0               | 0.0              | 0.4              | 0.0                | 30.7                    | 22.7                  | 43.5                  | -20.8                  | Horizontal | 200              | 225       |                          |
| 108.160     | 11.2                       | 5.3                      | 17.5               | 0.0              | 0.4              | 0.0                | 29.2                    | 23.3                  | 43.5                  | -20.3                  | Horizontal | 200              | 270       |                          |
| 200.380     | 6.8                        | 0.4                      | 15.4               | 0.0              | 0.8              | 0.0                | 23.0                    | 16.6                  | 43.5                  | -26.9                  | Vertical   | 200              | 0         |                          |
| 256.920     | 4.4                        | -2.4                     | 18.9               | 0.0              | 0.8              | 0.0                | 24.0                    | 17.2                  | 46.0                  | -28.8                  | Horizontal | 120              | 135       |                          |
| 531.600     | 3.5                        | -4.1                     | 24.8               | 0.0              | 1.1              | 0.0                | 29.4                    | 21.9                  | 46.0                  | -24.1                  | Horizontal | 200              | 90        |                          |
| 938.580     | 2.9                        | -4.3                     | 26.9               | 0.0              | 1.5              | 0.0                | 31.4                    | 24.2                  | 46.0                  | -21.8                  | Vertical   | 340              | 45        |                          |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

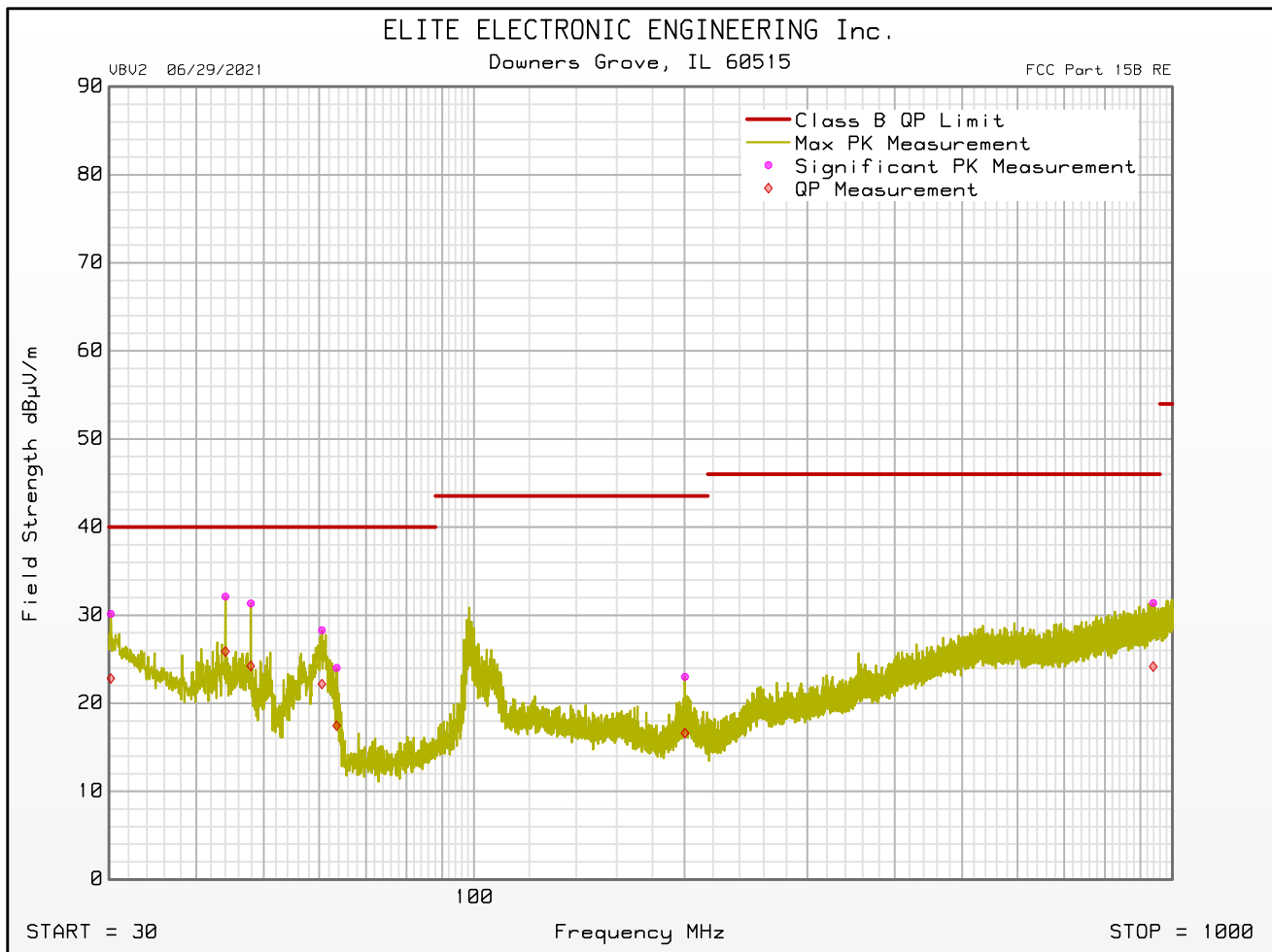
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Motor Running  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : Motor running at 80%  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 12:46:35 PM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Motor Running  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : Motor running at 80%  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 12:46:35 PM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Motor Running  
Turntable Step Angle (°): 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 1 MHz  
Prelim Dwell Time (s) : 0.0001  
Notes : Motor running at 80%  
Test Engineer : J. Cardenas  
Test Date : Aug 10, 2021 12:23:09 PM

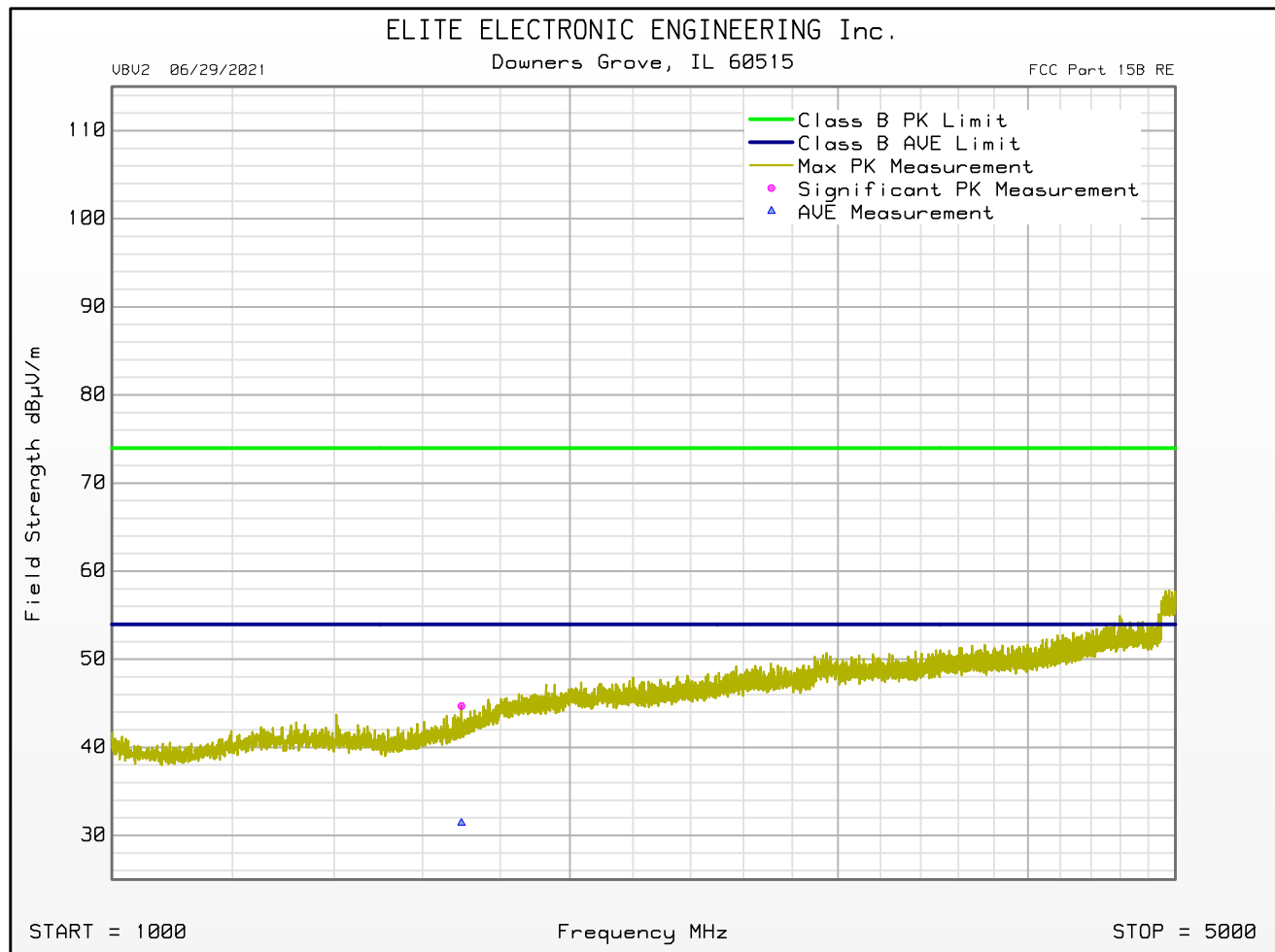
| Freq<br>MHz | Peak<br>Mtr Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Peak<br>Total<br>dBuV/m | Peak<br>Limit<br>dBuV/m | Peak<br>Lim Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>Peak<br>Level |
|-------------|-------------------------|--------------------|------------------|------------------|--------------------|-------------------------|-------------------------|-----------------------|------------|------------------|-----------|----------------------------|
| 1237.000    | 12.5                    | 29.0               | 0.0              | 1.8              | 0.0                | 43.3                    | 74.0                    | -30.7                 | Vertical   | 200              | 180       |                            |
| 1697.000    | 12.9                    | 29.7               | 0.0              | 2.1              | 0.0                | 44.7                    | 74.0                    | -29.3                 | Horizontal | 340              | 180       |                            |
| 1983.500    | 14.7                    | 31.8               | 0.0              | 2.3              | 0.0                | 48.8                    | 74.0                    | -25.2                 | Vertical   | 200              | 45        |                            |
| 2723.000    | 15.3                    | 32.5               | 0.0              | 2.8              | 0.0                | 50.5                    | 74.0                    | -23.5                 | Vertical   | 200              | 225       |                            |
| 3595.000    | 16.2                    | 33.1               | 0.0              | 3.3              | 0.0                | 52.5                    | 74.0                    | -21.4                 | Vertical   | 120              | 135       |                            |
| 4898.500    | 20.7                    | 34.2               | 0.0              | 3.8              | 0.0                | 58.7                    | 74.0                    | -15.3                 | Vertical   | 120              | 90        |                            |

| Freq<br>MHz | Average<br>Mtr Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Average<br>Total<br>dBuV/m | Average<br>Limit<br>dBuV/m | Average<br>Lim Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>Average<br>Level |
|-------------|----------------------------|--------------------|------------------|------------------|--------------------|----------------------------|----------------------------|--------------------------|------------|------------------|-----------|-------------------------------|
| 1237.000    | -0.8                       | 29.0               | 0.0              | 1.8              | 0.0                | 30.0                       | 54.0                       | -24.0                    | Vertical   | 200              | 180       |                               |
| 1697.000    | -0.4                       | 29.7               | 0.0              | 2.1              | 0.0                | 31.4                       | 54.0                       | -22.6                    | Horizontal | 340              | 180       |                               |
| 1983.500    | 0.5                        | 31.8               | 0.0              | 2.3              | 0.0                | 34.7                       | 54.0                       | -19.3                    | Vertical   | 200              | 45        |                               |
| 2723.000    | 1.4                        | 32.5               | 0.0              | 2.8              | 0.0                | 36.6                       | 54.0                       | -17.3                    | Vertical   | 200              | 225       |                               |
| 3595.000    | 2.1                        | 33.1               | 0.0              | 3.3              | 0.0                | 38.5                       | 54.0                       | -15.5                    | Vertical   | 120              | 135       |                               |
| 4898.500    | 7.3                        | 34.2               | 0.0              | 3.8              | 0.0                | 45.2                       | 54.0                       | -8.7                     | Vertical   | 120              | 90        |                               |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

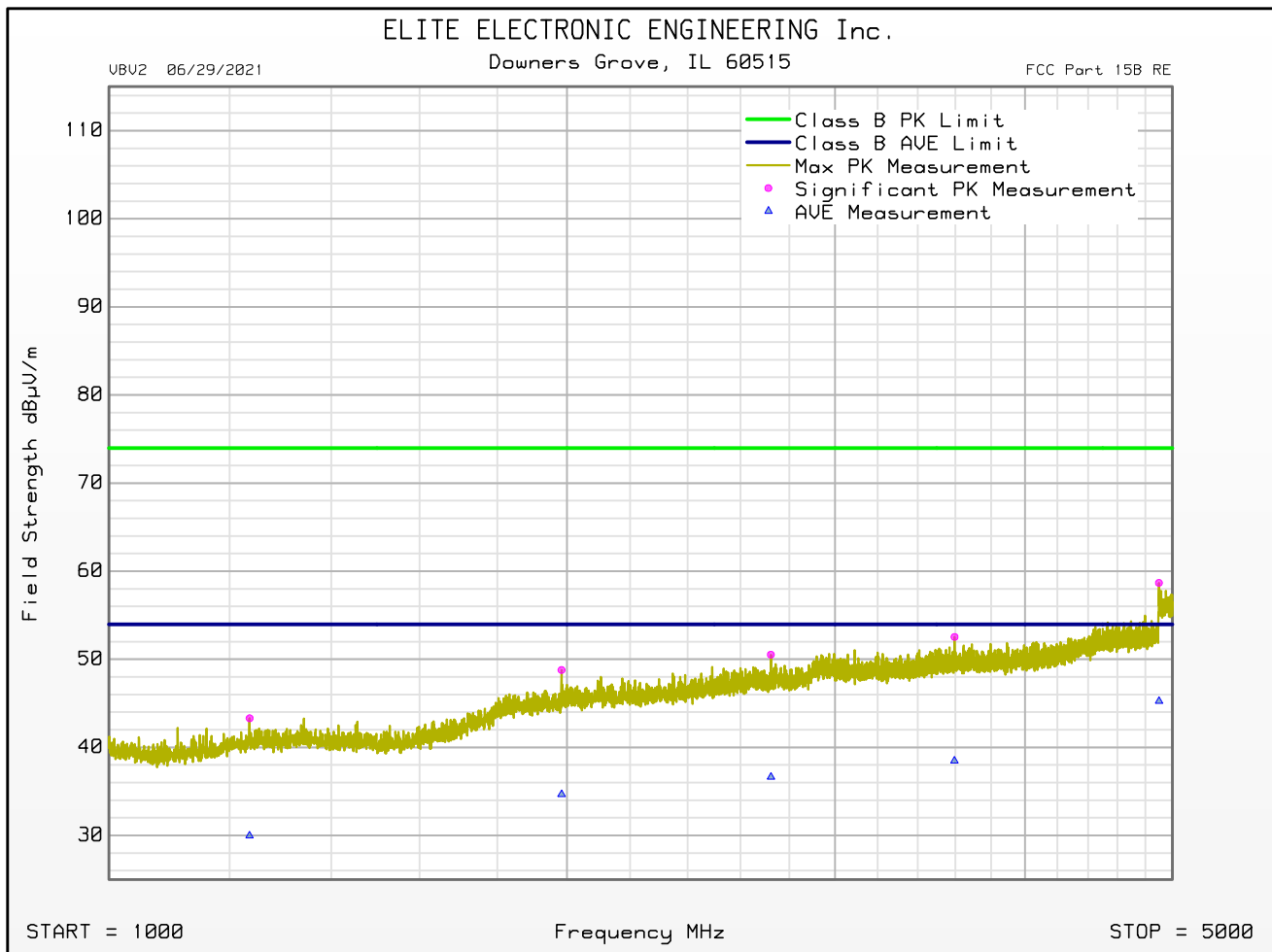
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Motor Running  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : Motor running at 80%  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 12:23:09 PM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Motor Running  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : Motor running at 80%  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 12:23:09 PM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

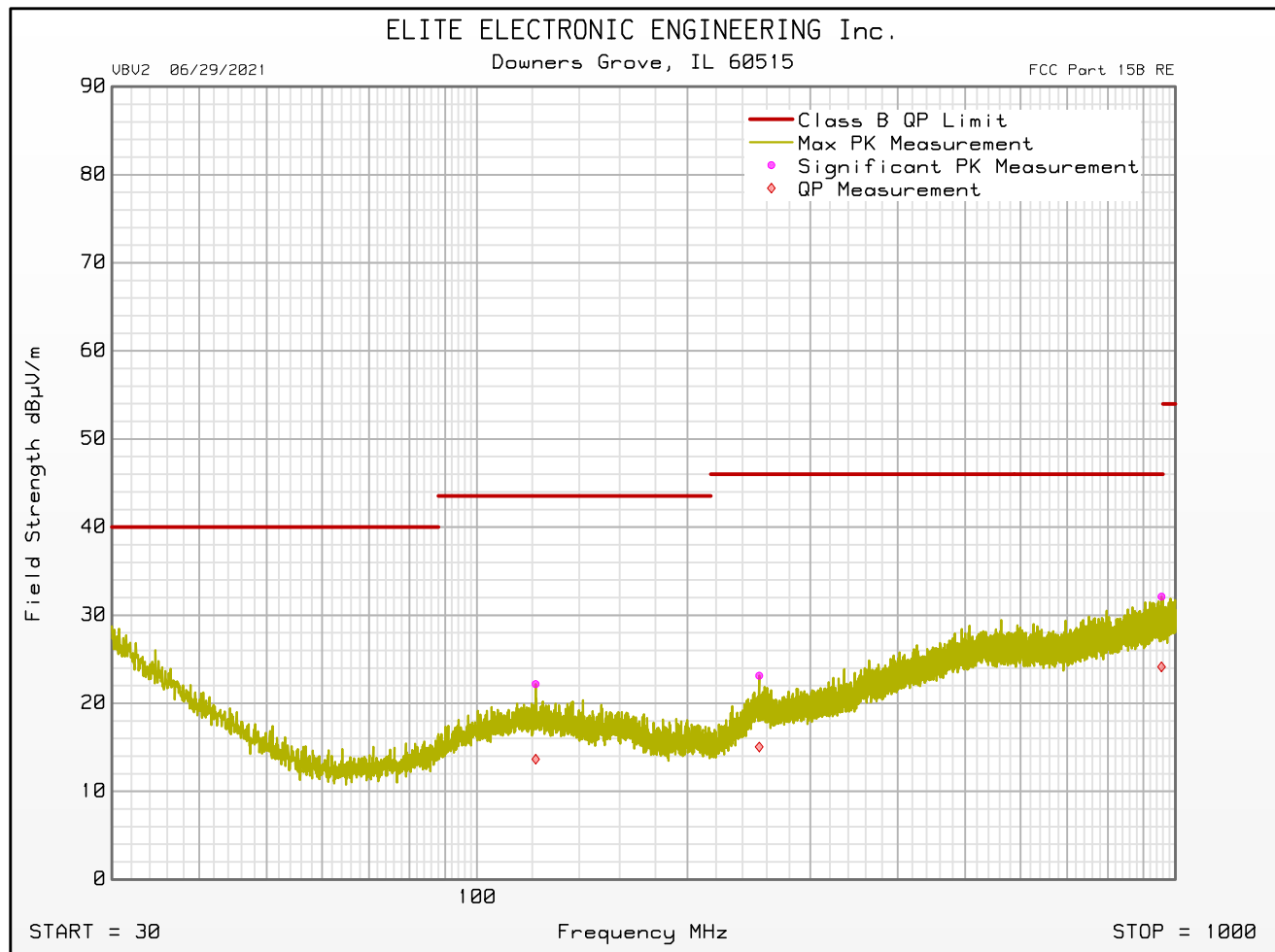
Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°) : 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 120 kHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 902.259MHz  
Test Engineer : J. Cardenas  
Test Date : Aug 09, 2021 09:01:54 AM

| Freq<br>MHz | Peak<br>Mtr<br>Rdg<br>dBuV | QP<br>Mtr<br>Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Peak<br>Total<br>dBuV/m | QP<br>Total<br>dBuV/m | QP<br>Limit<br>dBuV/m | QP<br>Lim<br>Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>QP<br>Level |
|-------------|----------------------------|--------------------------|--------------------|------------------|------------------|--------------------|-------------------------|-----------------------|-----------------------|------------------------|------------|------------------|-----------|--------------------------|
| 30.660      | 4.6                        | -2.7                     | 24.6               | 0.0              | 0.4              | 0.0                | 29.6                    | 22.3                  | 40.0                  | -17.7                  | Vertical   | 340              | 135       |                          |
| 93.940      | 4.4                        | -4.4                     | 15.9               | 0.0              | 0.4              | 0.0                | 20.6                    | 11.9                  | 43.5                  | -31.7                  | Vertical   | 120              | 45        |                          |
| 121.300     | 3.4                        | -5.1                     | 18.2               | 0.0              | 0.5              | 0.0                | 22.2                    | 13.7                  | 43.5                  | -29.9                  | Horizontal | 120              | 225       |                          |
| 253.500     | 3.6                        | -4.5                     | 18.8               | 0.0              | 0.8              | 0.0                | 23.1                    | 15.0                  | 46.0                  | -31.0                  | Horizontal | 120              | 270       |                          |
| 519.180     | 4.2                        | -4.2                     | 24.4               | 0.0              | 1.1              | 0.0                | 29.7                    | 21.3                  | 46.0                  | -24.7                  | Vertical   | 200              | 225       |                          |
| 955.080     | 3.5                        | -4.5                     | 27.1               | 0.0              | 1.5              | 0.0                | 32.1                    | 24.1                  | 46.0                  | -21.9                  | Horizontal | 200              | 135       |                          |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

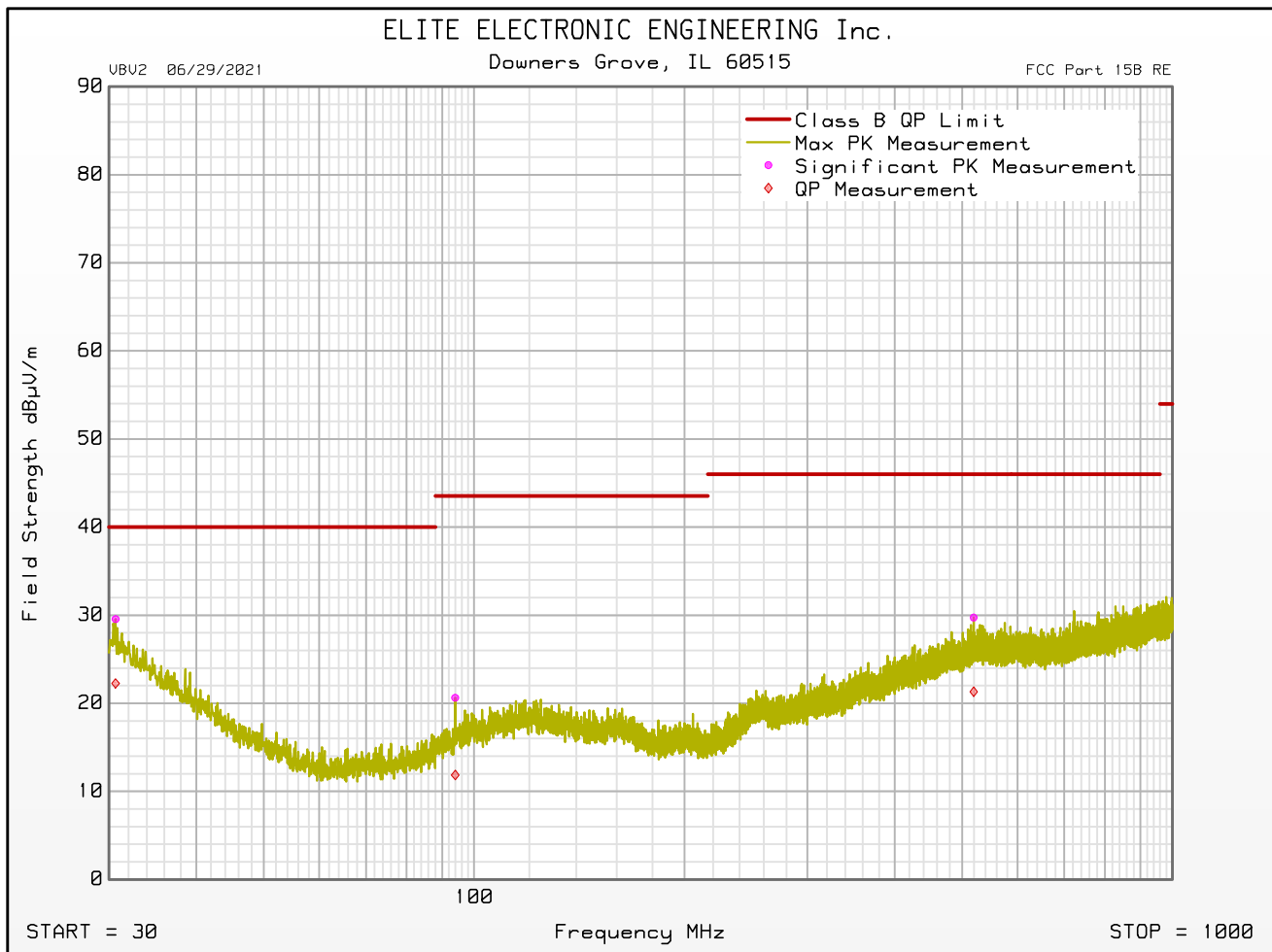
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 902.259MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 09:01:54 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 902.259MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 09:01:54 AM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°): 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 1 MHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 902.259MHz  
Test Engineer : J. Cardenas  
Test Date : Aug 10, 2021 09:01:08 AM

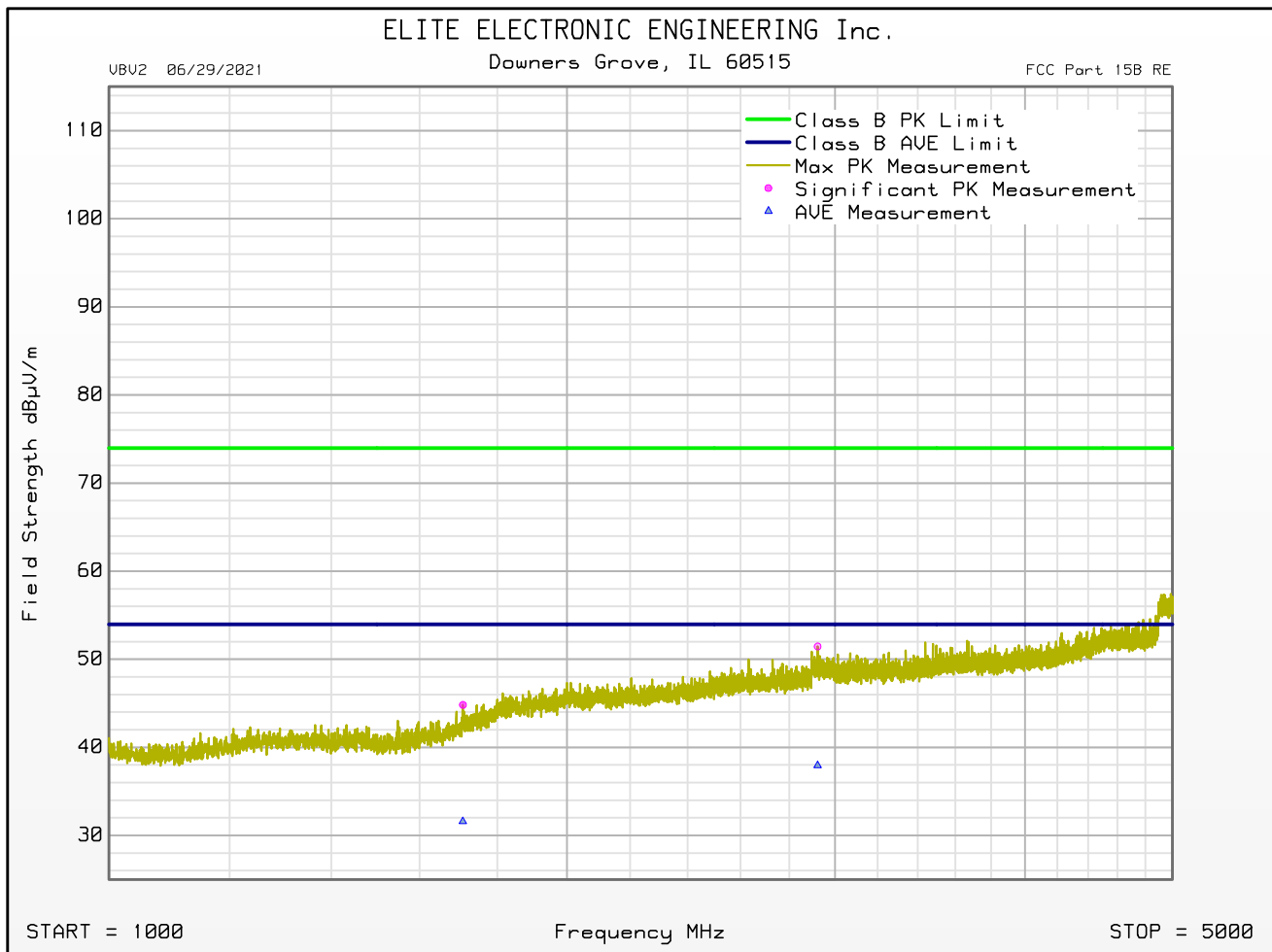
| Freq MHz | Peak Mtr Rdg dBuV | Ant Fac dB/m | Amp Fac dB | Cbl Fac dB | Dist Corr dB | Peak Total dBuV/m | Peak Limit dBuV/m | Peak Lim Mrg dB | Ant Pol    | Mast Ht cm | Azim ° | Excessive Peak Level |
|----------|-------------------|--------------|------------|------------|--------------|-------------------|-------------------|-----------------|------------|------------|--------|----------------------|
| 1284.500 | 11.9              | 29.0         | 0.0        | 1.8        | 0.0          | 42.8              | 74.0              | -31.2           | Vertical   | 200        | 45     |                      |
| 1708.500 | 12.9              | 29.8         | 0.0        | 2.1        | 0.0          | 44.8              | 74.0              | -29.2           | Horizontal | 340        | 315    |                      |
| 2140.500 | 14.3              | 31.8         | 0.0        | 2.4        | 0.0          | 48.5              | 74.0              | -25.5           | Vertical   | 340        | 315    |                      |
| 2922.500 | 15.9              | 32.6         | 0.0        | 2.9        | 0.0          | 51.4              | 74.0              | -22.5           | Horizontal | 200        | 315    |                      |
| 3675.000 | 16.4              | 33.2         | 0.0        | 3.3        | 0.0          | 52.9              | 74.0              | -21.1           | Vertical   | 340        | 0      |                      |
| 4898.500 | 20.4              | 34.2         | 0.0        | 3.8        | 0.0          | 58.4              | 74.0              | -15.6           | Vertical   | 340        | 225    |                      |

| Freq MHz | Average Mtr Rdg dBuV | Ant Fac dB/m | Amp Fac dB | Cbl Fac dB | Dist Corr dB | Average Total dBuV/m | Average Limit dBuV/m | Average Lim Mrg dB | Ant Pol    | Mast Ht cm | Azim ° | Excessive Average Level |
|----------|----------------------|--------------|------------|------------|--------------|----------------------|----------------------|--------------------|------------|------------|--------|-------------------------|
| 1284.500 | -0.8                 | 29.0         | 0.0        | 1.8        | 0.0          | 30.0                 | 54.0                 | -24.0              | Vertical   | 200        | 45     |                         |
| 1708.500 | -0.3                 | 29.8         | 0.0        | 2.1        | 0.0          | 31.6                 | 54.0                 | -22.4              | Horizontal | 340        | 315    |                         |
| 2140.500 | 0.5                  | 31.8         | 0.0        | 2.4        | 0.0          | 34.7                 | 54.0                 | -19.2              | Vertical   | 340        | 315    |                         |
| 2922.500 | 2.4                  | 32.6         | 0.0        | 2.9        | 0.0          | 37.9                 | 54.0                 | -16.0              | Horizontal | 200        | 315    |                         |
| 3675.000 | 2.1                  | 33.2         | 0.0        | 3.3        | 0.0          | 38.6                 | 54.0                 | -15.4              | Vertical   | 340        | 0      |                         |
| 4898.500 | 7.2                  | 34.2         | 0.0        | 3.8        | 0.0          | 45.1                 | 54.0                 | -8.9               | Vertical   | 340        | 225    |                         |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

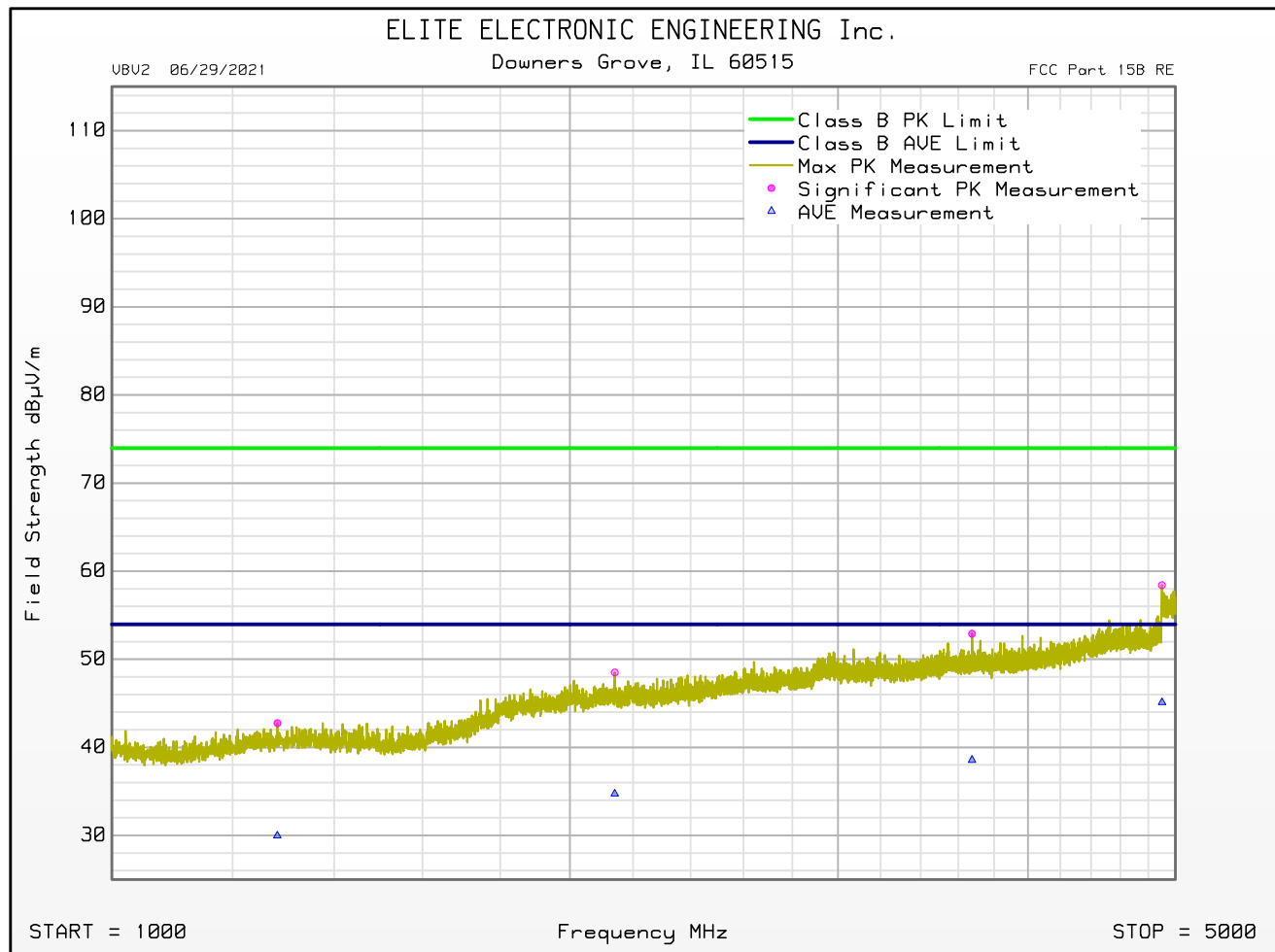
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 902.259MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 09:01:08 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 902.259MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 09:01:08 AM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

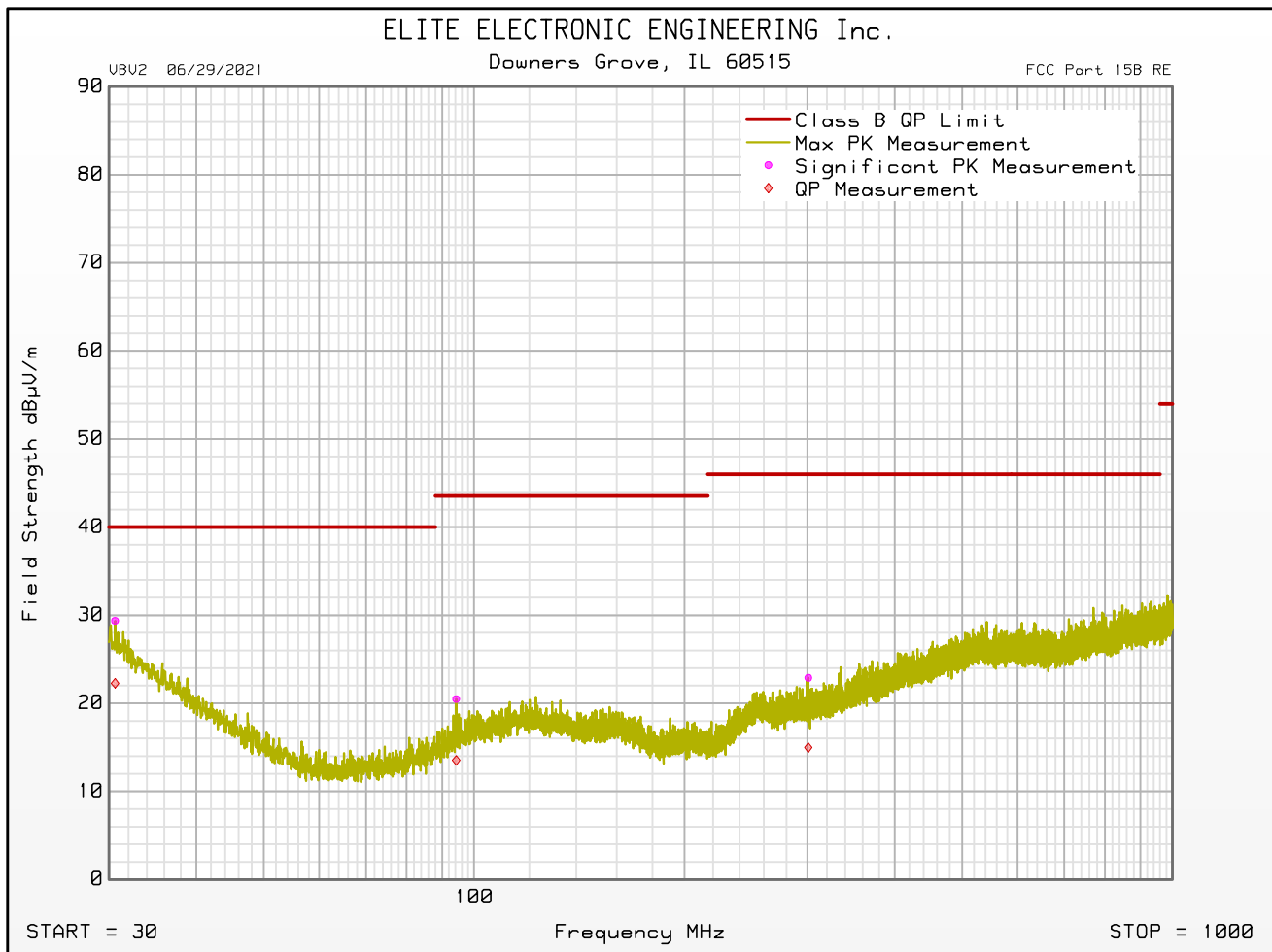
Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°): 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 120 kHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 914.760MHz  
Test Engineer : J. Cardenas  
Test Date : Aug 09, 2021 09:19:03 AM

| Freq<br>MHz | Peak<br>Mtr<br>Rdg<br>dBuV | QP<br>Mtr<br>Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Peak<br>Total<br>dBuV/m | QP<br>Total<br>dBuV/m | QP<br>Limit<br>dBuV/m | QP<br>Lim<br>Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>QP<br>Level |
|-------------|----------------------------|--------------------------|--------------------|------------------|------------------|--------------------|-------------------------|-----------------------|-----------------------|------------------------|------------|------------------|-----------|--------------------------|
| 30.600      | 4.4                        | -2.7                     | 24.6               | 0.0              | 0.4              | 0.0                | 29.4                    | 22.3                  | 40.0                  | -17.7                  | Horizontal | 120              | 135       |                          |
| 94.240      | 4.2                        | -2.8                     | 15.9               | 0.0              | 0.4              | 0.0                | 20.5                    | 13.5                  | 43.5                  | -30.0                  | Horizontal | 340              | 225       |                          |
| 120.760     | 2.9                        | -5.1                     | 18.2               | 0.0              | 0.5              | 0.0                | 21.6                    | 13.6                  | 43.5                  | -29.9                  | Vertical   | 120              | 90        |                          |
| 300.960     | 3.0                        | -4.9                     | 19.2               | 0.0              | 0.8              | 0.0                | 22.9                    | 15.0                  | 46.0                  | -31.0                  | Horizontal | 120              | 90        |                          |
| 526.380     | 3.4                        | -4.2                     | 24.7               | 0.0              | 1.1              | 0.0                | 29.3                    | 21.6                  | 46.0                  | -24.4                  | Vertical   | 120              | 0         |                          |
| 888.240     | 3.7                        | -4.7                     | 26.6               | 0.0              | 1.5              | 0.0                | 31.8                    | 23.4                  | 46.0                  | -22.6                  | Vertical   | 340              | 315       |                          |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

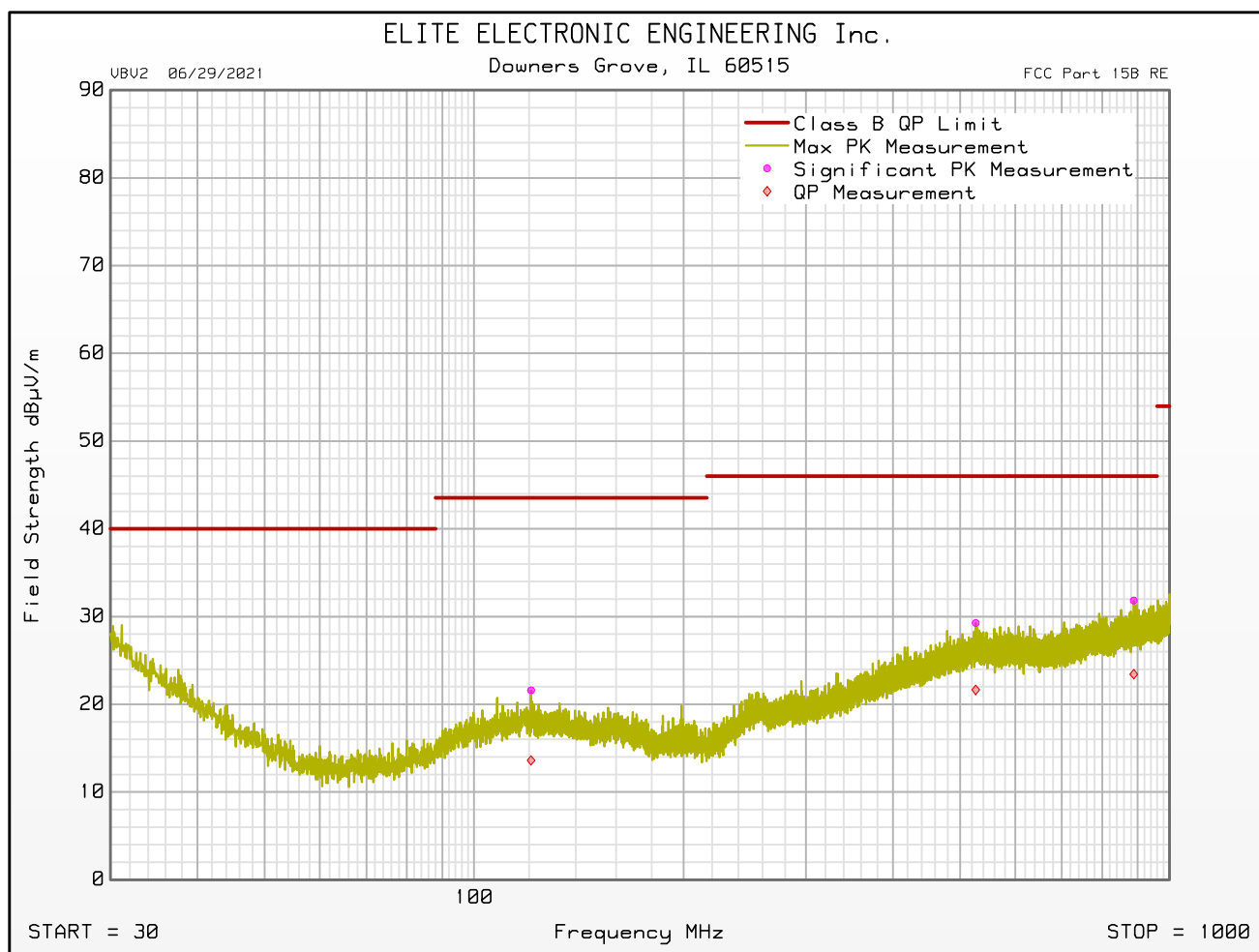
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 914.760MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 09:19:03 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 914.760MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 09:19:03 AM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°) : 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 1 MHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 914.760MHz  
Test Engineer : J. Cardenas  
Test Date : Aug 10, 2021 09:17:10 AM

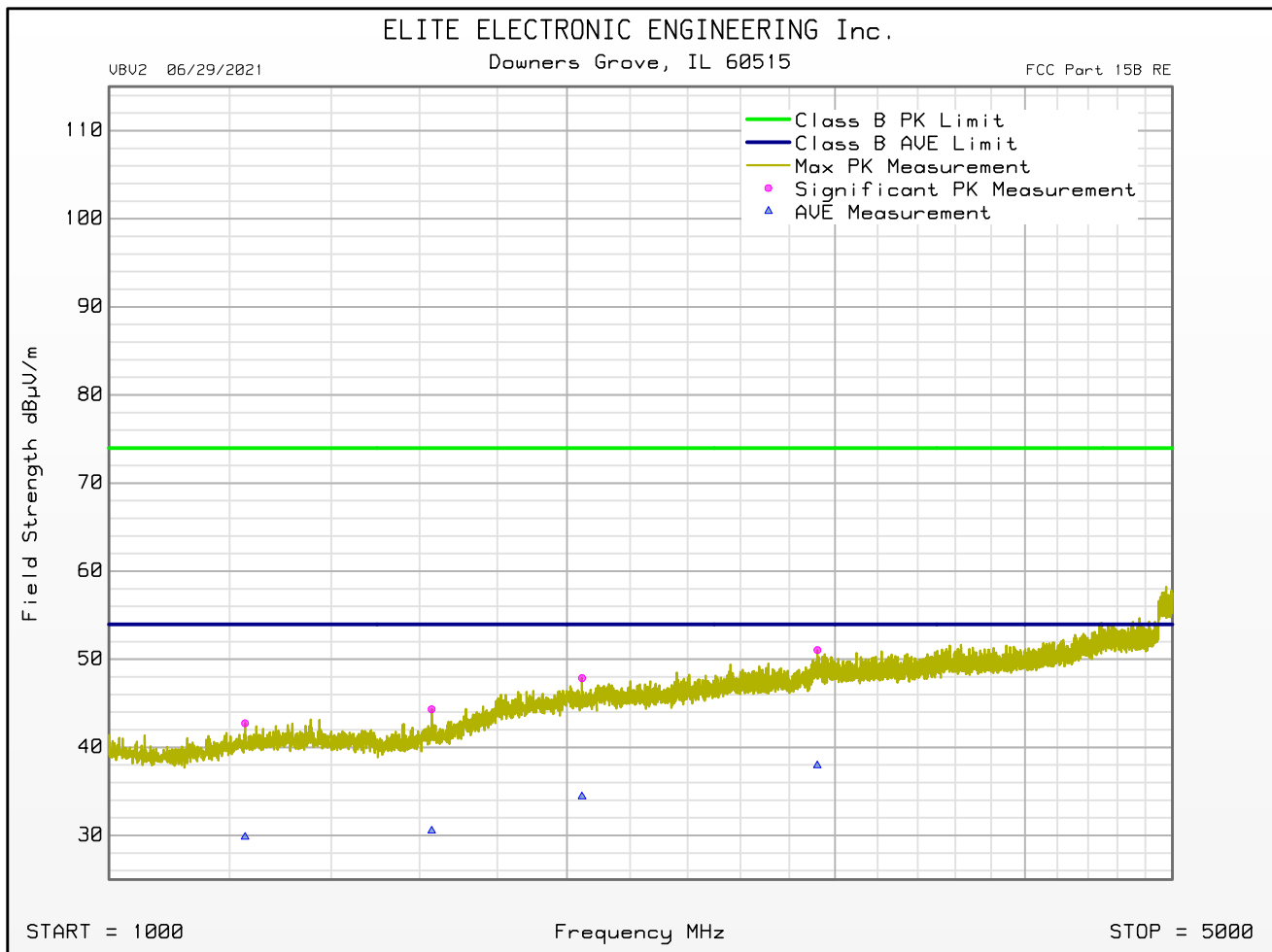
| Freq<br>MHz | Peak<br>Mtr Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Peak<br>Total<br>dBuV/m | Peak<br>Limit<br>dBuV/m | Peak<br>Lim Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>Peak<br>Level |
|-------------|-------------------------|--------------------|------------------|------------------|--------------------|-------------------------|-------------------------|-----------------------|------------|------------------|-----------|----------------------------|
| 1228.500    | 12.1                    | 28.9               | 0.0              | 1.7              | 0.0                | 42.7                    | 74.0                    | -31.2                 | Horizontal | 340              | 0         |                            |
| 1629.500    | 13.4                    | 28.9               | 0.0              | 2.1              | 0.0                | 44.3                    | 74.0                    | -29.7                 | Horizontal | 200              | 180       |                            |
| 2046.000    | 13.8                    | 31.8               | 0.0              | 2.3              | 0.0                | 47.9                    | 74.0                    | -26.1                 | Horizontal | 200              | 315       |                            |
| 2921.500    | 15.5                    | 32.6               | 0.0              | 2.9              | 0.0                | 51.0                    | 74.0                    | -22.9                 | Horizontal | 340              | 0         |                            |
| 3393.500    | 15.7                    | 32.9               | 0.0              | 3.2              | 0.0                | 51.8                    | 74.0                    | -22.2                 | Vertical   | 340              | 45        |                            |
| 4965.000    | 20.9                    | 34.2               | 0.0              | 3.8              | 0.0                | 58.8                    | 74.0                    | -15.2                 | Vertical   | 120              | 45        |                            |

| Freq<br>MHz | Average<br>Mtr Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Average<br>Total<br>dBuV/m | Average<br>Limit<br>dBuV/m | Average<br>Lim Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>Average<br>Level |
|-------------|----------------------------|--------------------|------------------|------------------|--------------------|----------------------------|----------------------------|--------------------------|------------|------------------|-----------|-------------------------------|
| 1228.500    | -0.8                       | 28.9               | 0.0              | 1.7              | 0.0                | 29.8                       | 54.0                       | -24.1                    | Horizontal | 340              | 0         |                               |
| 1629.500    | -0.4                       | 28.9               | 0.0              | 2.1              | 0.0                | 30.5                       | 54.0                       | -23.4                    | Horizontal | 200              | 180       |                               |
| 2046.000    | 0.3                        | 31.8               | 0.0              | 2.3              | 0.0                | 34.4                       | 54.0                       | -19.6                    | Horizontal | 200              | 315       |                               |
| 2921.500    | 2.4                        | 32.6               | 0.0              | 2.9              | 0.0                | 37.9                       | 54.0                       | -16.0                    | Horizontal | 340              | 0         |                               |
| 3393.500    | 1.9                        | 32.9               | 0.0              | 3.2              | 0.0                | 38.0                       | 54.0                       | -16.0                    | Vertical   | 340              | 45        |                               |
| 4965.000    | 7.1                        | 34.2               | 0.0              | 3.8              | 0.0                | 45.1                       | 54.0                       | -8.9                     | Vertical   | 120              | 45        |                               |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

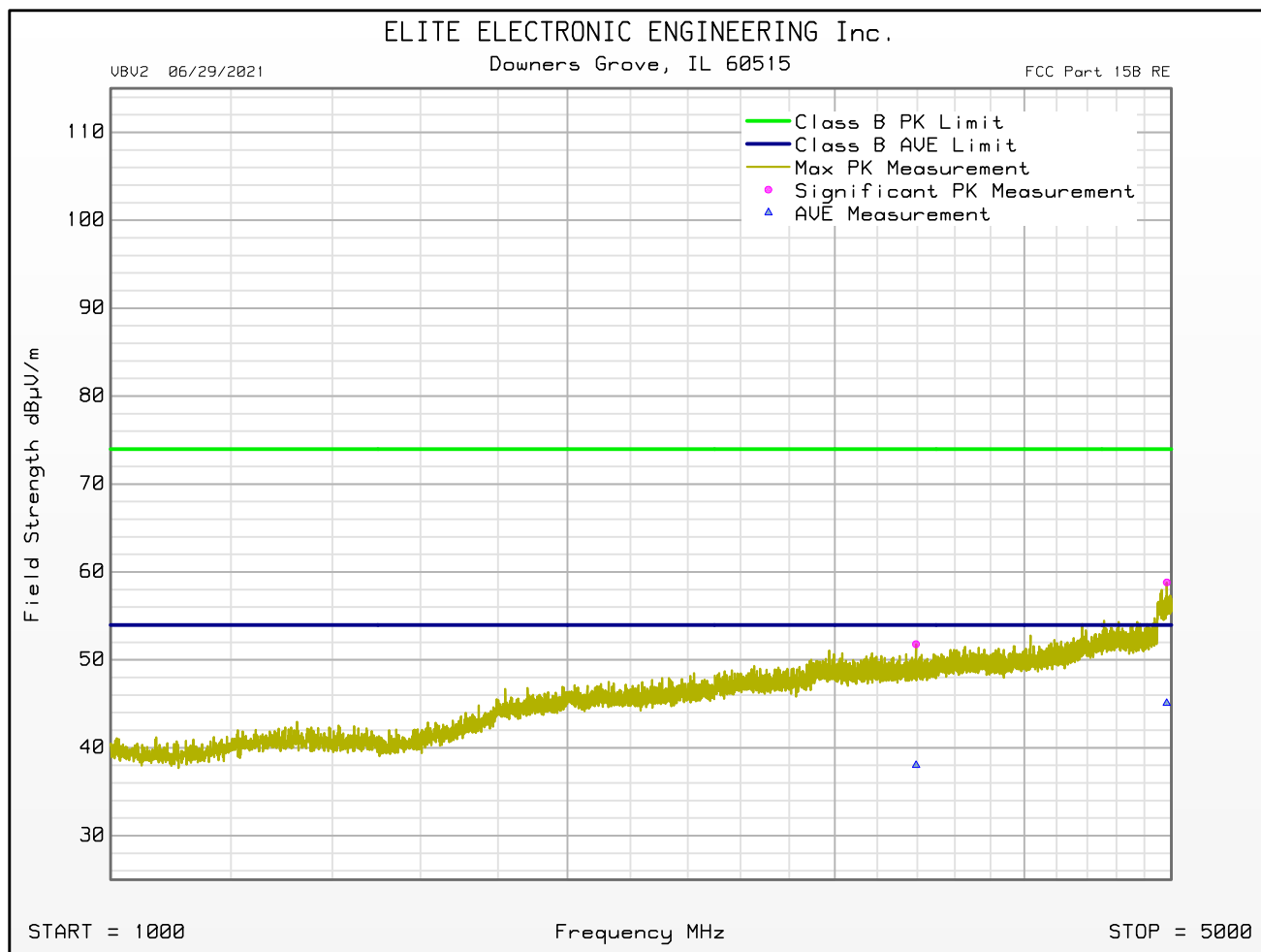
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 914.760MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 09:17:10 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 914.760MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 09:17:10 AM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

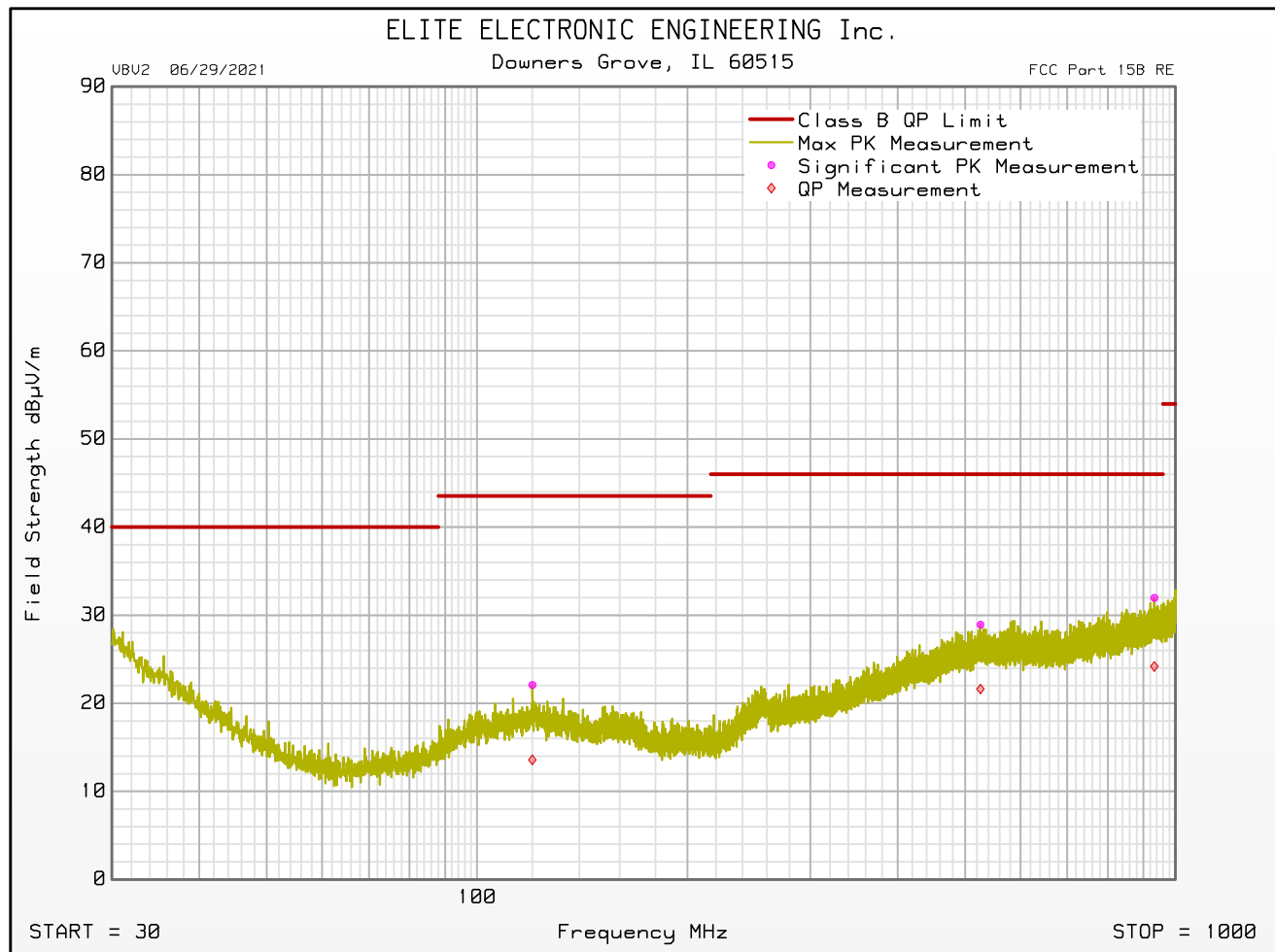
Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°): 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 120 kHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 926.760MHz  
Test Engineer : J. Cardenas  
Test Date : Aug 09, 2021 09:35:16 AM

| Freq<br>MHz | Peak<br>Mtr<br>Rdg<br>dBuV | QP<br>Mtr<br>Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Peak<br>Total<br>dBuV/m | QP<br>Total<br>dBuV/m | QP<br>Limit<br>dBuV/m | QP<br>Lim<br>Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>QP<br>Level |
|-------------|----------------------------|--------------------------|--------------------|------------------|------------------|--------------------|-------------------------|-----------------------|-----------------------|------------------------|------------|------------------|-----------|--------------------------|
| 30.240      | 4.4                        | -2.7                     | 24.8               | 0.0              | 0.4              | 0.0                | 29.6                    | 22.5                  | 40.0                  | -17.5                  | Vertical   | 200              | 180       |                          |
| 54.300      | 3.6                        | -4.2                     | 13.5               | 0.0              | 0.4              | 0.0                | 17.5                    | 9.7                   | 40.0                  | -30.3                  | Vertical   | 200              | 180       |                          |
| 119.980     | 3.4                        | -5.1                     | 18.2               | 0.0              | 0.5              | 0.0                | 22.1                    | 13.6                  | 43.5                  | -29.9                  | Horizontal | 120              | 135       |                          |
| 304.200     | 2.8                        | -5.0                     | 19.2               | 0.0              | 0.8              | 0.0                | 22.8                    | 15.0                  | 46.0                  | -31.0                  | Vertical   | 120              | 270       |                          |
| 525.720     | 3.1                        | -4.2                     | 24.7               | 0.0              | 1.1              | 0.0                | 28.9                    | 21.6                  | 46.0                  | -24.4                  | Horizontal | 120              | 315       |                          |
| 932.880     | 3.6                        | -4.2                     | 26.9               | 0.0              | 1.5              | 0.0                | 32.0                    | 24.2                  | 46.0                  | -21.8                  | Horizontal | 120              | 315       |                          |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

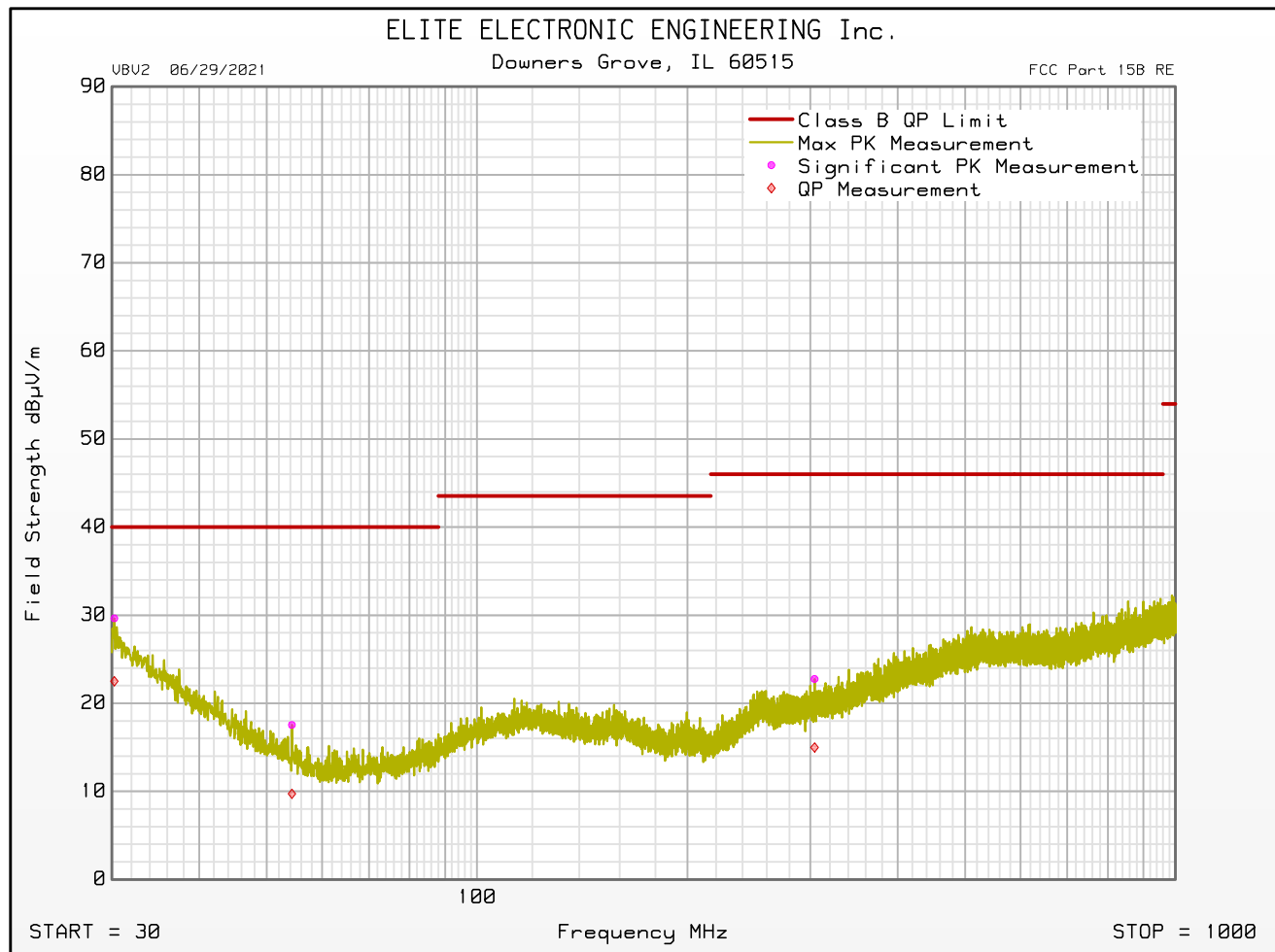
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 926.760MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 09:35:16 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 926.760MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 09:35:16 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 926.760MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 09:31:07 AM

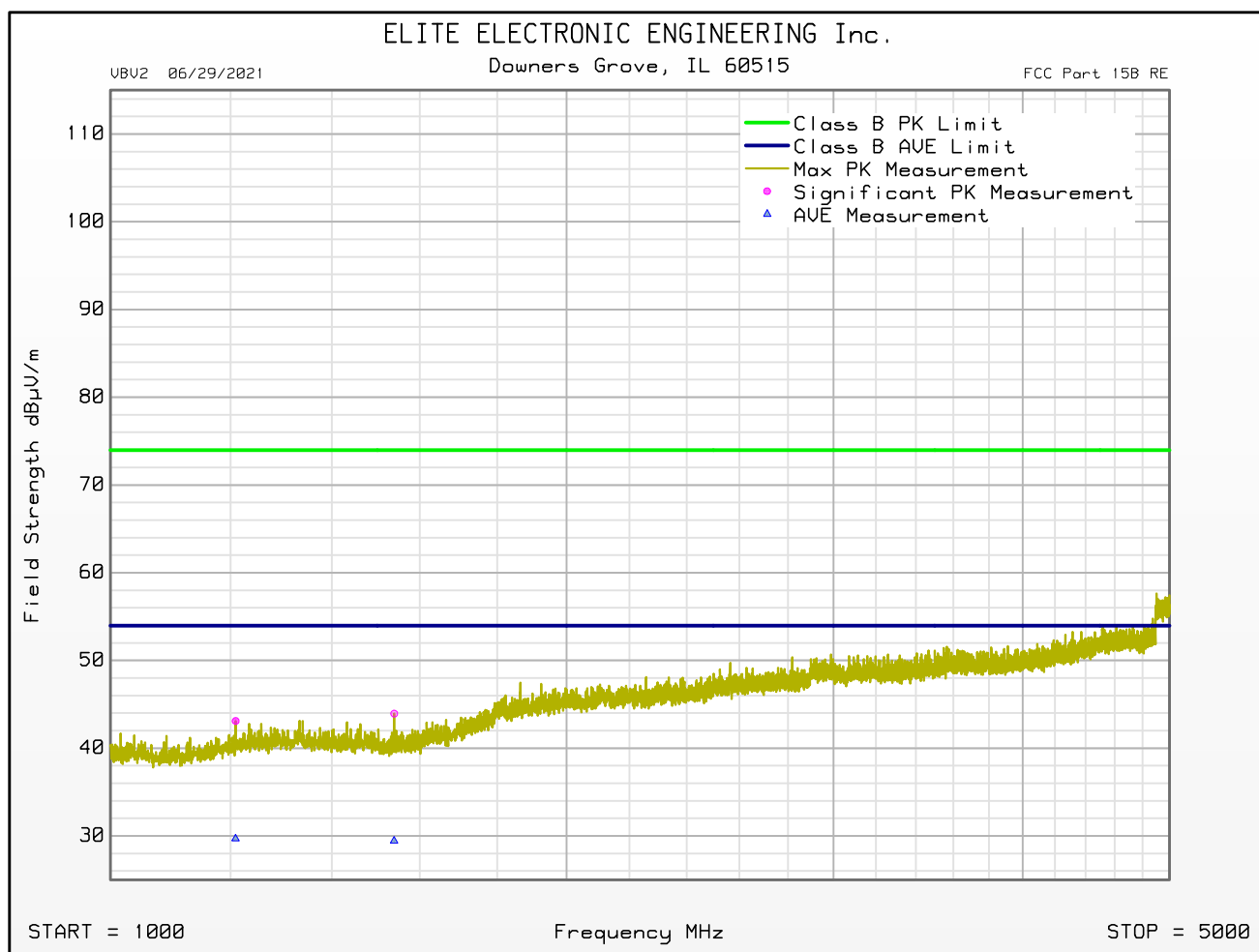
| Freq MHz | Peak Mtr Rdg dBuV | Ant Fac dB/m | Amp Fac dB | Cbl Fac dB | Dist Corr dB | Peak Total dBuV/m | Peak Limit dBuV/m | Peak Lim Mrg dB | Ant Pol    | Mast Ht cm | Azim ° | Excessive Peak Level |
|----------|-------------------|--------------|------------|------------|--------------|-------------------|-------------------|-----------------|------------|------------|--------|----------------------|
| 1209.500 | 12.7              | 28.7         | 0.0        | 1.7        | 0.0          | 43.1              | 74.0              | -30.9           | Horizontal | 340        | 90     |                      |
| 1539.000 | 13.8              | 28.2         | 0.0        | 2.0        | 0.0          | 43.9              | 74.0              | -30.0           | Horizontal | 120        | 270    |                      |
| 2008.500 | 13.7              | 32.0         | 0.0        | 2.3        | 0.0          | 48.0              | 74.0              | -26.0           | Vertical   | 120        | 225    |                      |
| 2841.000 | 15.8              | 32.6         | 0.0        | 2.9        | 0.0          | 51.2              | 74.0              | -22.8           | Vertical   | 200        | 180    |                      |
| 3566.000 | 16.0              | 33.1         | 0.0        | 3.2        | 0.0          | 52.3              | 74.0              | -21.7           | Vertical   | 120        | 0      |                      |
| 4943.500 | 20.7              | 34.2         | 0.0        | 3.8        | 0.0          | 58.6              | 74.0              | -15.4           | Vertical   | 120        | 180    |                      |

| Freq MHz | Average Mtr Rdg dBuV | Ant Fac dB/m | Amp Fac dB | Cbl Fac dB | Dist Corr dB | Average Total dBuV/m | Average Limit dBuV/m | Average Lim Mrg dB | Ant Pol    | Mast Ht cm | Azim ° | Excessive Average Level |
|----------|----------------------|--------------|------------|------------|--------------|----------------------|----------------------|--------------------|------------|------------|--------|-------------------------|
| 1209.500 | -0.7                 | 28.7         | 0.0        | 1.7        | 0.0          | 29.7                 | 54.0                 | -24.3              | Horizontal | 340        | 90     |                         |
| 1539.000 | -0.7                 | 28.2         | 0.0        | 2.0        | 0.0          | 29.4                 | 54.0                 | -24.5              | Horizontal | 120        | 270    |                         |
| 2008.500 | 0.6                  | 32.0         | 0.0        | 2.3        | 0.0          | 34.8                 | 54.0                 | -19.2              | Vertical   | 120        | 225    |                         |
| 2841.000 | 1.4                  | 32.6         | 0.0        | 2.9        | 0.0          | 36.8                 | 54.0                 | -17.2              | Vertical   | 200        | 180    |                         |
| 3566.000 | 2.0                  | 33.1         | 0.0        | 3.2        | 0.0          | 38.4                 | 54.0                 | -15.6              | Vertical   | 120        | 0      |                         |
| 4943.500 | 7.1                  | 34.2         | 0.0        | 3.8        | 0.0          | 45.1                 | 54.0                 | -8.9               | Vertical   | 120        | 180    |                         |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

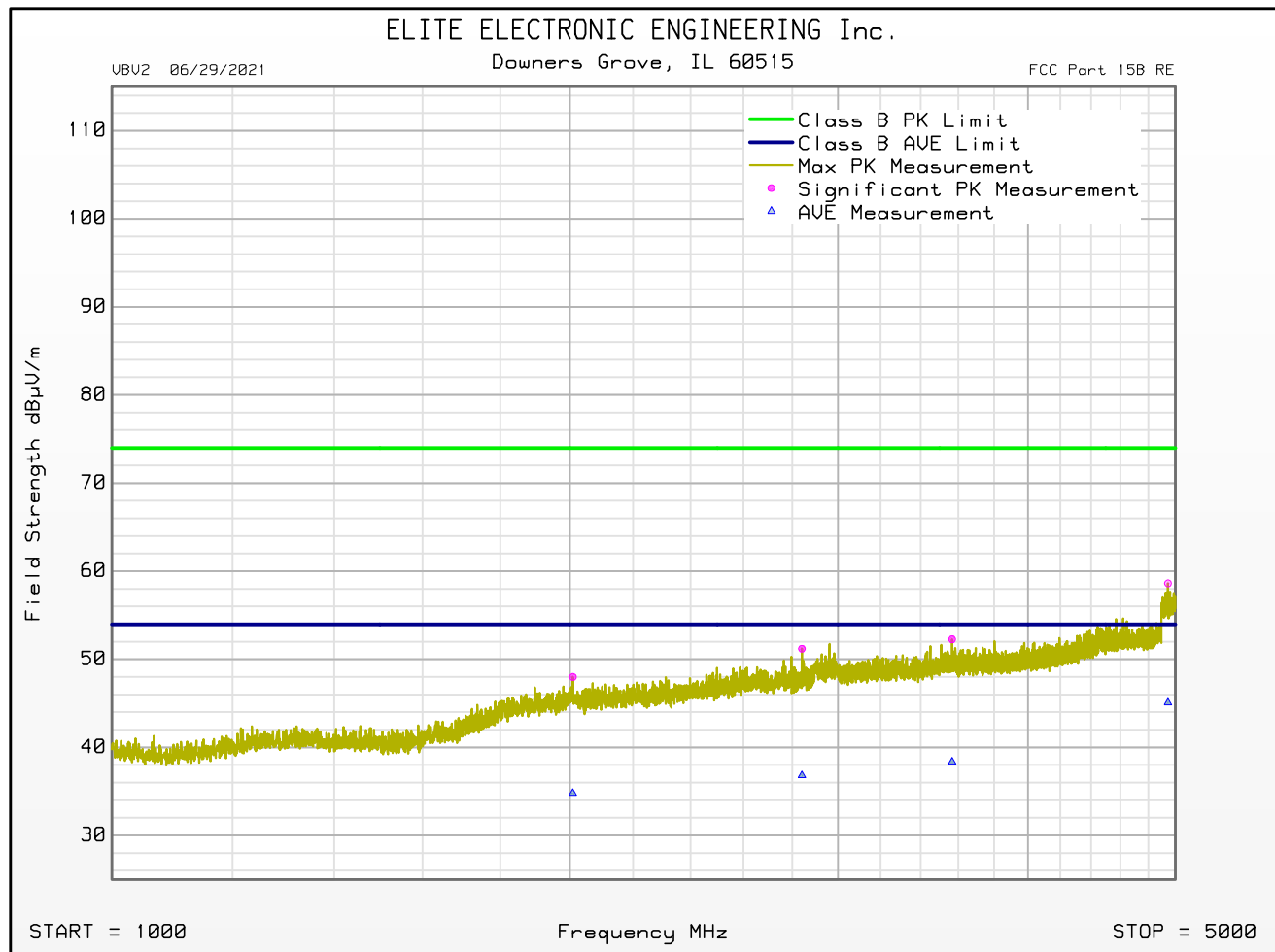
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 926.760MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 09:31:07 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 926.760MHz  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 09:31:07 AM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

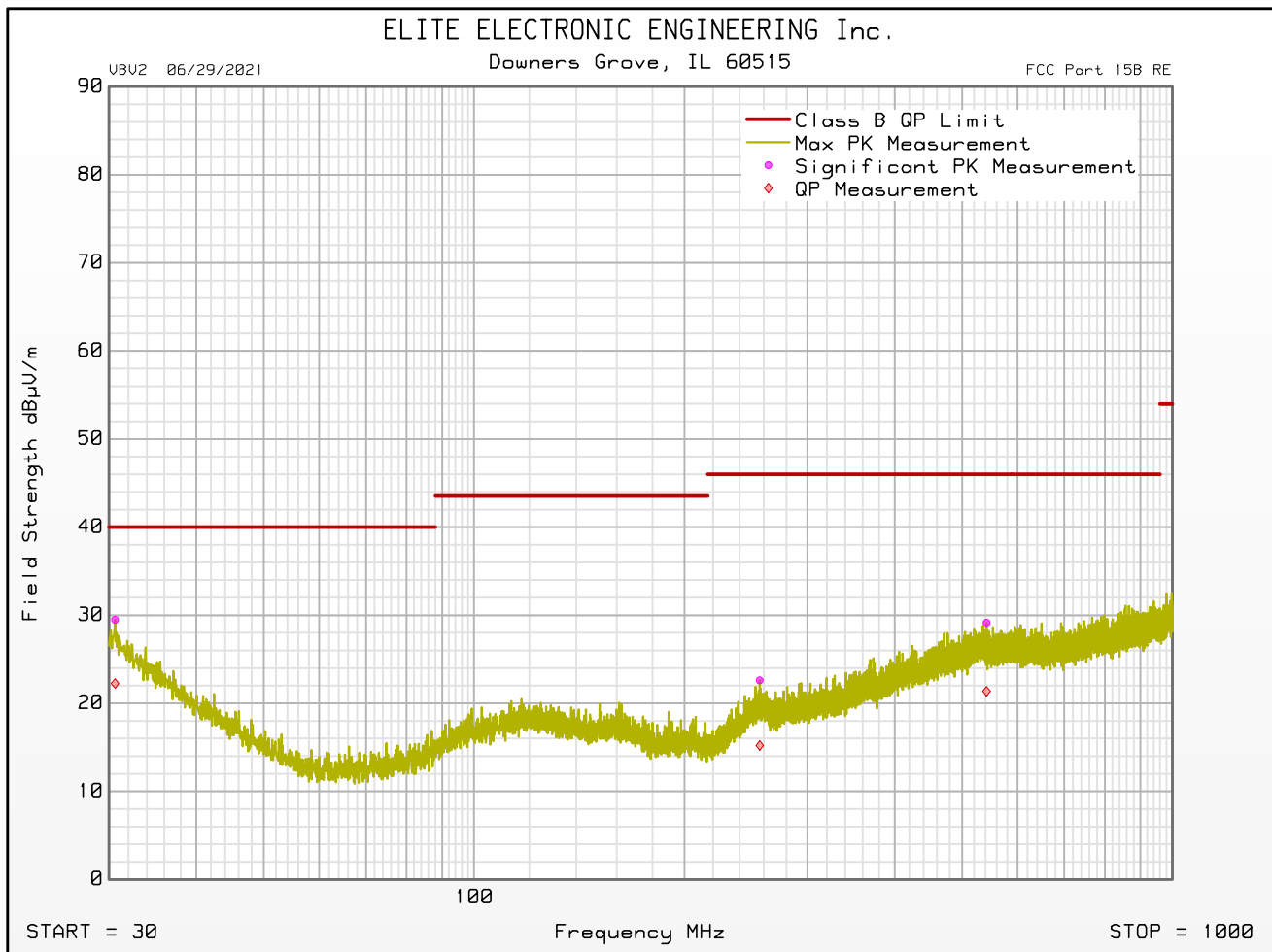
Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°) : 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 120 kHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 433.3-434.54MHz Low Ch  
Test Engineer : J. Cardenas  
Test Date : Aug 09, 2021 09:59:03 AM

| Freq<br>MHz | Peak<br>Mtr<br>Rdg<br>dBuV | QP<br>Mtr<br>Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Peak<br>Total<br>dBuV/m | QP<br>Total<br>dBuV/m | QP<br>Limit<br>dBuV/m | QP<br>Lim<br>Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>QP<br>Level |
|-------------|----------------------------|--------------------------|--------------------|------------------|------------------|--------------------|-------------------------|-----------------------|-----------------------|------------------------|------------|------------------|-----------|--------------------------|
| 30.600      | 4.5                        | -2.7                     | 24.6               | 0.0              | 0.4              | 0.0                | 29.5                    | 22.2                  | 40.0                  | -17.8                  | Horizontal | 340              | 45        |                          |
| 53.880      | 3.3                        | -4.1                     | 13.7               | 0.0              | 0.4              | 0.0                | 17.3                    | 10.0                  | 40.0                  | -30.0                  | Vertical   | 120              | 0         |                          |
| 118.060     | 3.6                        | -5.1                     | 18.2               | 0.0              | 0.5              | 0.0                | 22.2                    | 13.5                  | 43.5                  | -30.0                  | Vertical   | 200              | 225       |                          |
| 256.440     | 3.0                        | -4.4                     | 18.9               | 0.0              | 0.8              | 0.0                | 22.6                    | 15.2                  | 46.0                  | -30.8                  | Horizontal | 340              | 270       |                          |
| 541.740     | 3.3                        | -4.5                     | 24.7               | 0.0              | 1.1              | 0.0                | 29.1                    | 21.4                  | 46.0                  | -24.6                  | Horizontal | 340              | 45        |                          |
| 944.460     | 3.6                        | -4.4                     | 27.0               | 0.0              | 1.5              | 0.0                | 32.2                    | 24.1                  | 46.0                  | -21.9                  | Vertical   | 200              | 225       |                          |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

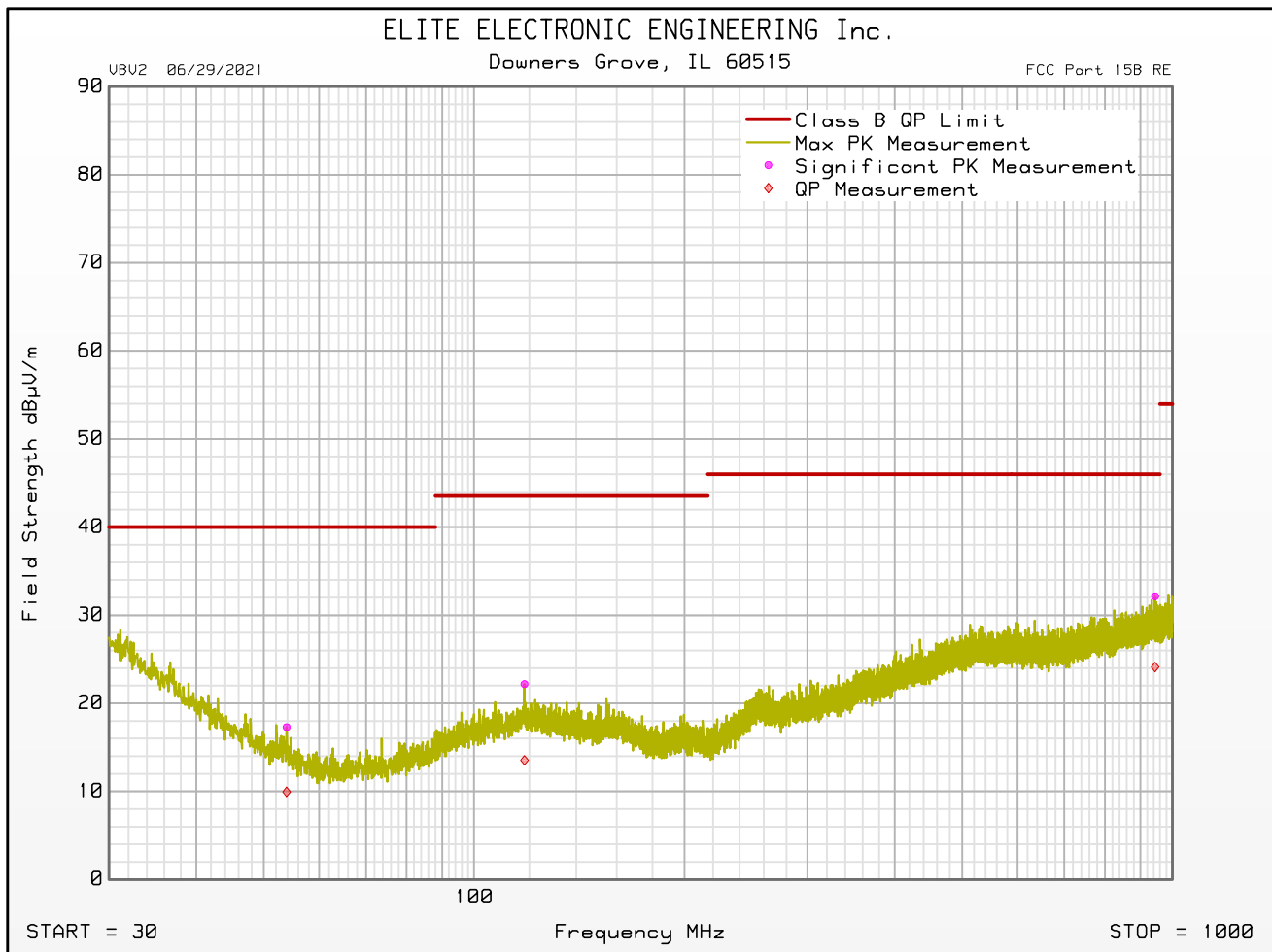
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 433.3-434.54MHz Low Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 09:59:03 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 433.3-434.54MHz Low Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 09:59:03 AM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°) : 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 1 MHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 433.3-434.54MHz Low Ch  
Test Engineer : J. Cardenas  
Test Date : Aug 10, 2021 10:05:59 AM

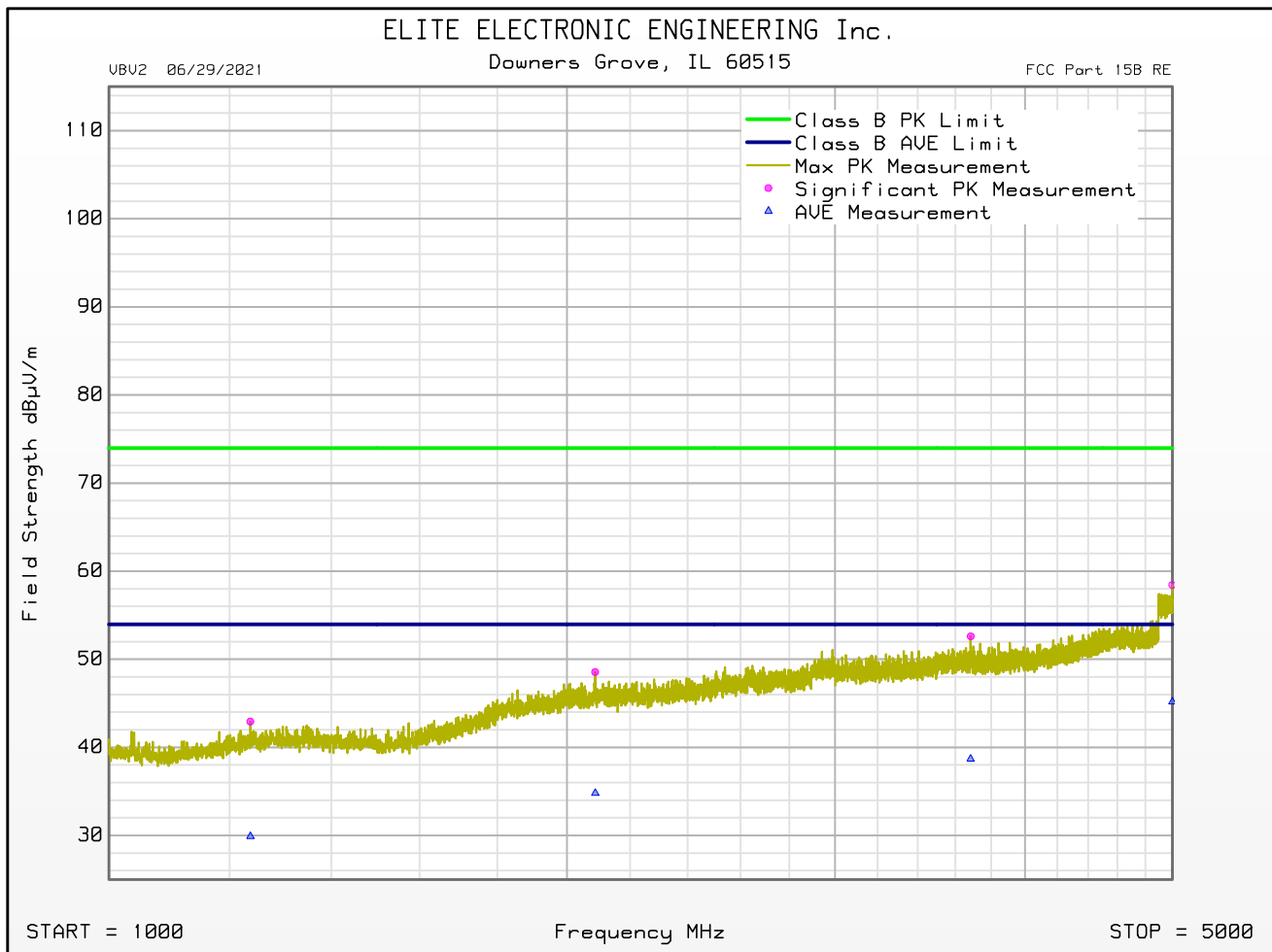
| Freq<br>MHz | Peak<br>Mtr Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Peak<br>Total<br>dBuV/m | Peak<br>Limit<br>dBuV/m | Peak<br>Lim Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>Peak<br>Level |
|-------------|-------------------------|--------------------|------------------|------------------|--------------------|-------------------------|-------------------------|-----------------------|------------|------------------|-----------|----------------------------|
| 1238.500    | 12.1                    | 29.0               | 0.0              | 1.8              | 0.0                | 42.9                    | 74.0                    | -31.1                 | Horizontal | 340              | 0         |                            |
| 1693.000    | 12.6                    | 29.6               | 0.0              | 2.1              | 0.0                | 44.3                    | 74.0                    | -29.6                 | Vertical   | 120              | 0         |                            |
| 2087.000    | 14.2                    | 32.0               | 0.0              | 2.4              | 0.0                | 48.5                    | 74.0                    | -25.4                 | Horizontal | 340              | 225       |                            |
| 2902.500    | 15.2                    | 32.6               | 0.0              | 2.9              | 0.0                | 50.6                    | 74.0                    | -23.3                 | Vertical   | 200              | 90        |                            |
| 3684.000    | 16.1                    | 33.2               | 0.0              | 3.3              | 0.0                | 52.6                    | 74.0                    | -21.4                 | Horizontal | 200              | 0         |                            |
| 4999.000    | 20.5                    | 34.1               | 0.0              | 3.8              | 0.0                | 58.4                    | 74.0                    | -15.5                 | Horizontal | 200              | 90        |                            |

| Freq<br>MHz | Average<br>Mtr Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Average<br>Total<br>dBuV/m | Average<br>Limit<br>dBuV/m | Average<br>Lim Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>Average<br>Level |
|-------------|----------------------------|--------------------|------------------|------------------|--------------------|----------------------------|----------------------------|--------------------------|------------|------------------|-----------|-------------------------------|
| 1238.500    | -0.9                       | 29.0               | 0.0              | 1.8              | 0.0                | 29.9                       | 54.0                       | -24.1                    | Horizontal | 340              | 0         |                               |
| 1693.000    | -0.5                       | 29.6               | 0.0              | 2.1              | 0.0                | 31.2                       | 54.0                       | -22.7                    | Vertical   | 120              | 0         |                               |
| 2087.000    | 0.5                        | 32.0               | 0.0              | 2.4              | 0.0                | 34.8                       | 54.0                       | -19.2                    | Horizontal | 340              | 225       |                               |
| 2902.500    | 2.4                        | 32.6               | 0.0              | 2.9              | 0.0                | 37.9                       | 54.0                       | -16.1                    | Vertical   | 200              | 90        |                               |
| 3684.000    | 2.2                        | 33.2               | 0.0              | 3.3              | 0.0                | 38.7                       | 54.0                       | -15.3                    | Horizontal | 200              | 0         |                               |
| 4999.000    | 7.2                        | 34.1               | 0.0              | 3.8              | 0.0                | 45.2                       | 54.0                       | -8.8                     | Horizontal | 200              | 90        |                               |

# FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

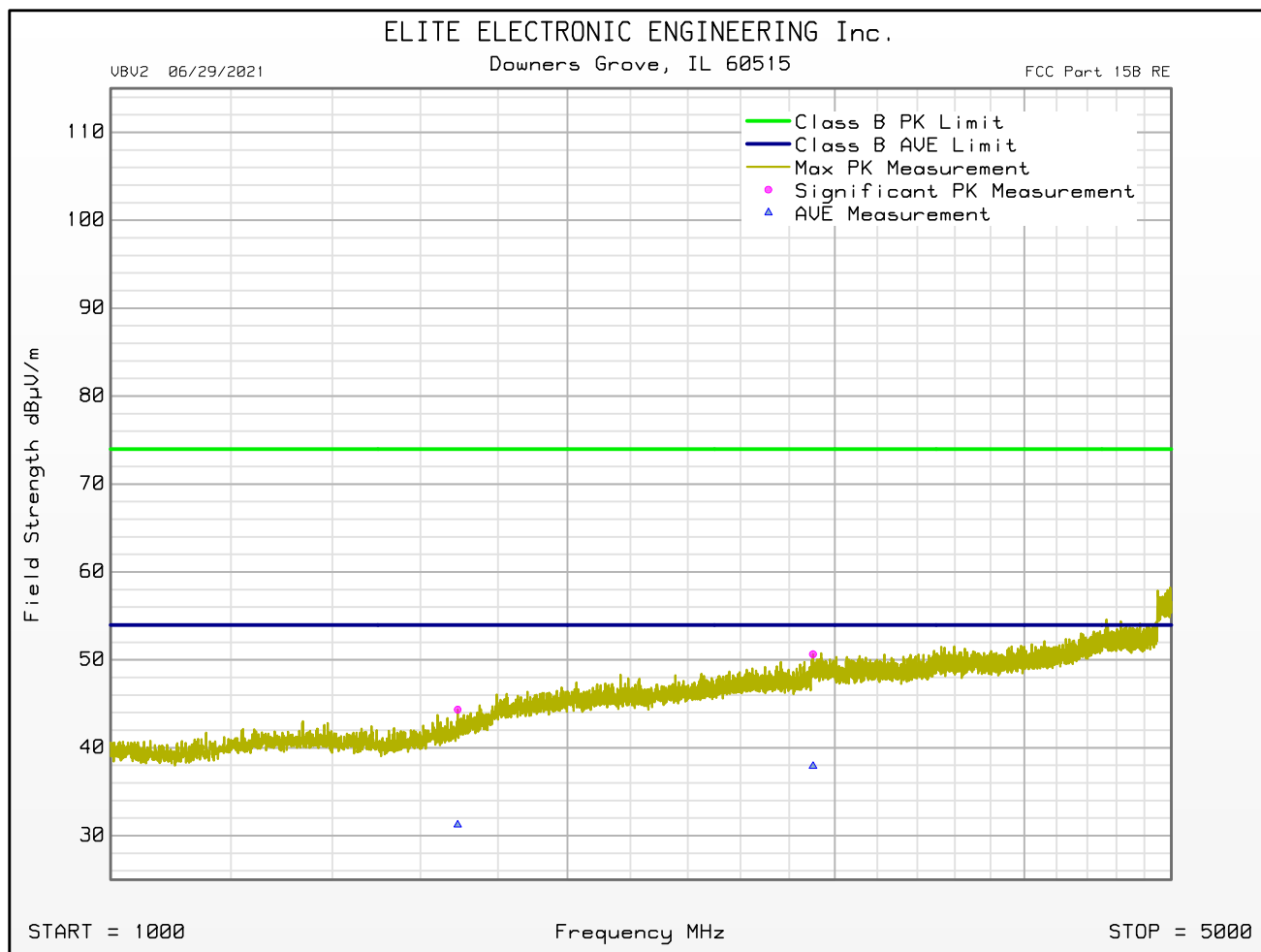
|                          |                            |
|--------------------------|----------------------------|
| Manufacturer             | : Chamberlain Group Inc    |
| Model                    | : 001D9525-1-IND           |
| Serial Number            | : NA                       |
| DUT Mode                 | : Rx                       |
| Turntable Step Angle (°) | : 45                       |
| Mast Positions (cm)      | : 120, 200, 340            |
| Antenna Polarization     | : Horizontal               |
| Scan Type                | : Stepped Scan             |
| Test RBW                 | : 1 MHz                    |
| Prelim Dwell Time (s)    | : 0.0001                   |
| Notes                    | : 433.3-434.54MHz Low Ch   |
| Test Engineer            | : J. Cardenas              |
| Test Date                | : Aug 10, 2021 10:05:59 AM |



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 433.3-434.54MHz Low Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 10:05:59 AM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

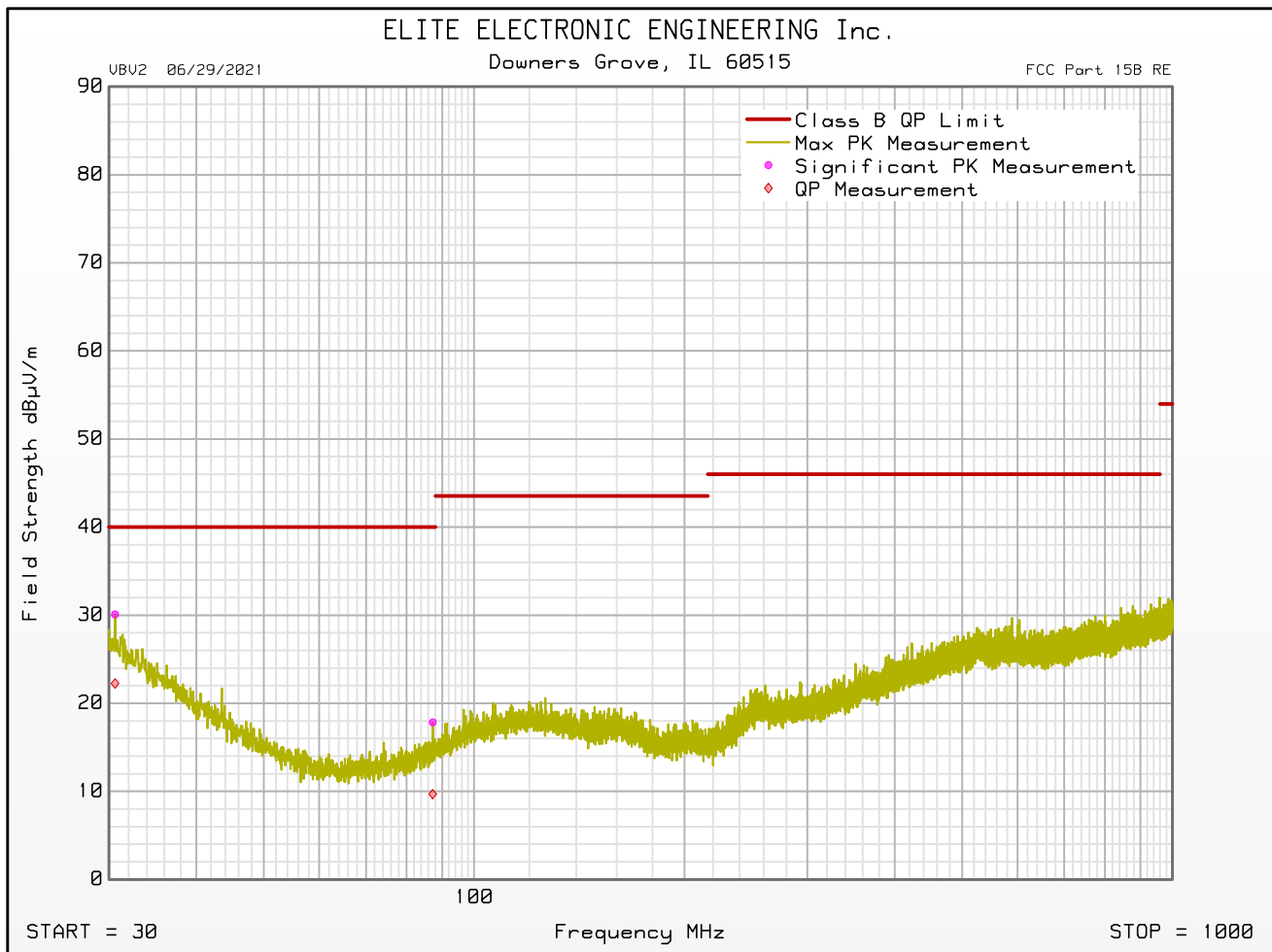
Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°): 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 120 kHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 433.3-434.54MHz High Ch  
Test Engineer : J. Cardenas  
Test Date : Aug 09, 2021 10:17:31 AM

| Freq<br>MHz | Peak<br>Mtr<br>Rdg<br>dBuV | QP<br>Mtr<br>Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Peak<br>Total<br>dBuV/m | QP<br>Total<br>dBuV/m | QP<br>Limit<br>dBuV/m | QP<br>Lim<br>Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>QP<br>Level |
|-------------|----------------------------|--------------------------|--------------------|------------------|------------------|--------------------|-------------------------|-----------------------|-----------------------|------------------------|------------|------------------|-----------|--------------------------|
| 30.600      | 5.1                        | -2.7                     | 24.6               | 0.0              | 0.4              | 0.0                | 30.1                    | 22.2                  | 40.0                  | -17.8                  | Horizontal | 200              | 225       |                          |
| 87.240      | 3.0                        | -5.1                     | 14.4               | 0.0              | 0.4              | 0.0                | 17.8                    | 9.7                   | 40.0                  | -30.3                  | Horizontal | 200              | 45        |                          |
| 120.700     | 2.4                        | -5.1                     | 18.2               | 0.0              | 0.5              | 0.0                | 21.1                    | 13.6                  | 43.5                  | -29.9                  | Vertical   | 200              | 315       |                          |
| 299.340     | 2.6                        | -4.9                     | 19.1               | 0.0              | 0.8              | 0.0                | 22.5                    | 15.0                  | 46.0                  | -31.0                  | Vertical   | 340              | 315       |                          |
| 535.680     | 3.1                        | -4.5                     | 24.8               | 0.0              | 1.1              | 0.0                | 29.0                    | 21.5                  | 46.0                  | -24.5                  | Vertical   | 200              | 225       |                          |
| 958.020     | 3.7                        | -4.6                     | 27.1               | 0.0              | 1.5              | 0.0                | 32.3                    | 24.1                  | 46.0                  | -21.9                  | Vertical   | 340              | 45        |                          |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

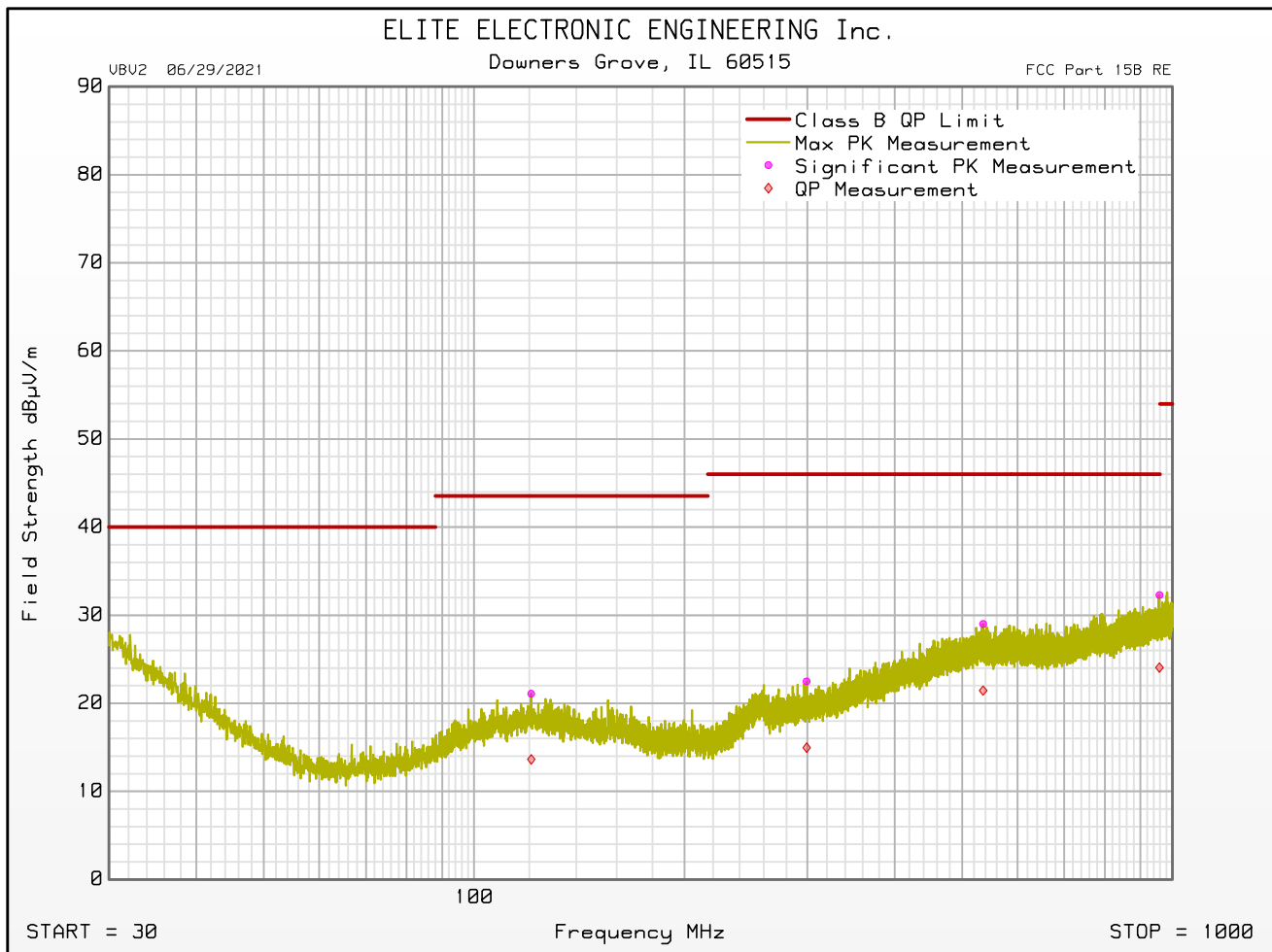
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 433.3-434.54MHz High Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 10:17:31 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 433.3-434.54MHz High Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 10:17:31 AM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°) : 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 1 MHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 433.3-434.54MHz High Ch  
Test Engineer : J. Cardenas  
Test Date : Aug 10, 2021 10:34:18 AM

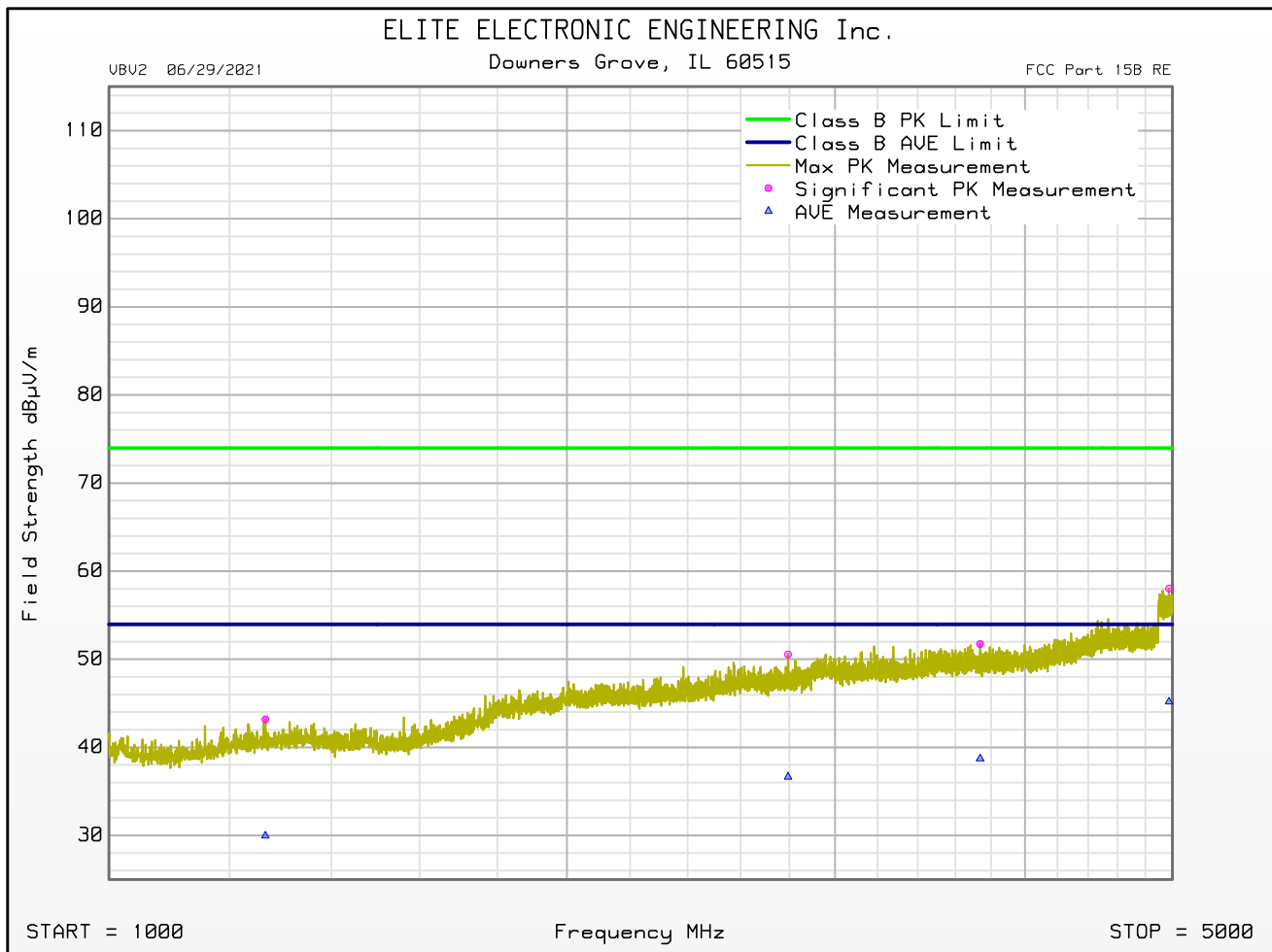
| Freq MHz | Peak Mtr Rdg dBuV | Ant Fac dB/m | Amp Fac dB | Cbl Fac dB | Dist Corr dB | Peak Total dBuV/m | Peak Limit dBuV/m | Peak Lim Mrg dB | Ant Pol    | Mast Ht cm | Azim ° | Excessive Peak Level |
|----------|-------------------|--------------|------------|------------|--------------|-------------------|-------------------|-----------------|------------|------------|--------|----------------------|
| 1267.000 | 12.3              | 29.1         | 0.0        | 1.8        | 0.0          | 43.2              | 74.0              | -30.8           | Horizontal | 120        | 90     |                      |
| 1691.500 | 12.7              | 29.6         | 0.0        | 2.1        | 0.0          | 44.4              | 74.0              | -29.6           | Vertical   | 200        | 315    |                      |
| 2009.000 | 13.7              | 32.0         | 0.0        | 2.3        | 0.0          | 47.9              | 74.0              | -26.1           | Vertical   | 120        | 315    |                      |
| 2794.500 | 15.3              | 32.4         | 0.0        | 2.8        | 0.0          | 50.6              | 74.0              | -23.4           | Horizontal | 120        | 180    |                      |
| 3737.000 | 15.2              | 33.2         | 0.0        | 3.3        | 0.0          | 51.7              | 74.0              | -22.2           | Horizontal | 200        | 90     |                      |
| 4974.000 | 20.1              | 34.2         | 0.0        | 3.8        | 0.0          | 58.0              | 74.0              | -16.0           | Horizontal | 120        | 90     |                      |

| Freq MHz | Average Mtr Rdg dBuV | Ant Fac dB/m | Amp Fac dB | Cbl Fac dB | Dist Corr dB | Average Total dBuV/m | Average Limit dBuV/m | Average Lim Mrg dB | Ant Pol    | Mast Ht cm | Azim ° | Excessive Average Level |
|----------|----------------------|--------------|------------|------------|--------------|----------------------|----------------------|--------------------|------------|------------|--------|-------------------------|
| 1267.000 | -0.9                 | 29.1         | 0.0        | 1.8        | 0.0          | 30.0                 | 54.0                 | -24.0              | Horizontal | 120        | 90     |                         |
| 1691.500 | -0.5                 | 29.6         | 0.0        | 2.1        | 0.0          | 31.3                 | 54.0                 | -22.7              | Vertical   | 200        | 315    |                         |
| 2009.000 | 0.6                  | 32.0         | 0.0        | 2.3        | 0.0          | 34.8                 | 54.0                 | -19.1              | Vertical   | 120        | 315    |                         |
| 2794.500 | 1.4                  | 32.4         | 0.0        | 2.8        | 0.0          | 36.7                 | 54.0                 | -17.3              | Horizontal | 120        | 180    |                         |
| 3737.000 | 2.1                  | 33.2         | 0.0        | 3.3        | 0.0          | 38.7                 | 54.0                 | -15.3              | Horizontal | 200        | 90     |                         |
| 4974.000 | 7.2                  | 34.2         | 0.0        | 3.8        | 0.0          | 45.2                 | 54.0                 | -8.8               | Horizontal | 120        | 90     |                         |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

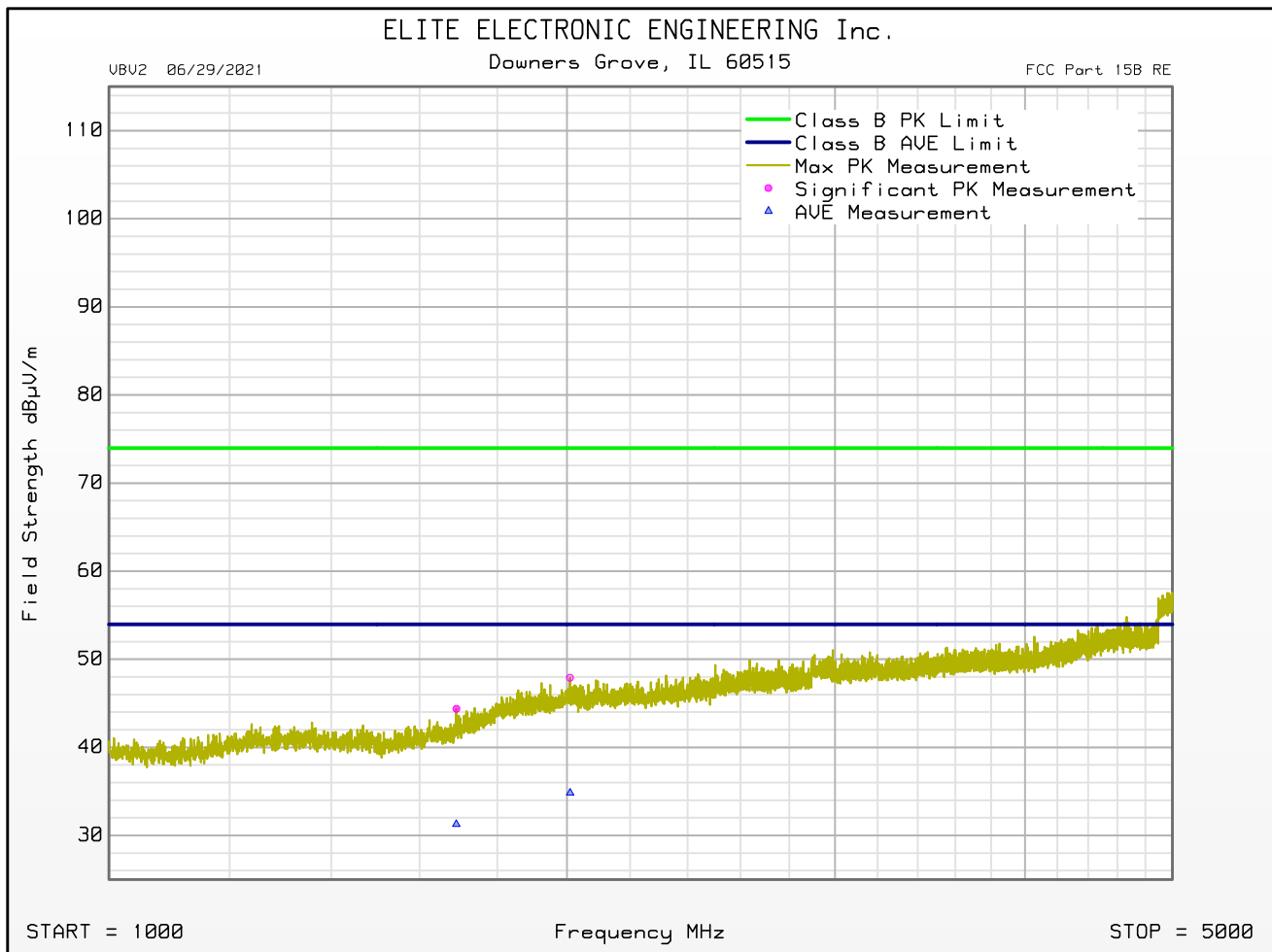
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 433.3-434.54MHz High Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 10:34:18 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 433.3-434.54MHz High Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 10:34:18 AM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

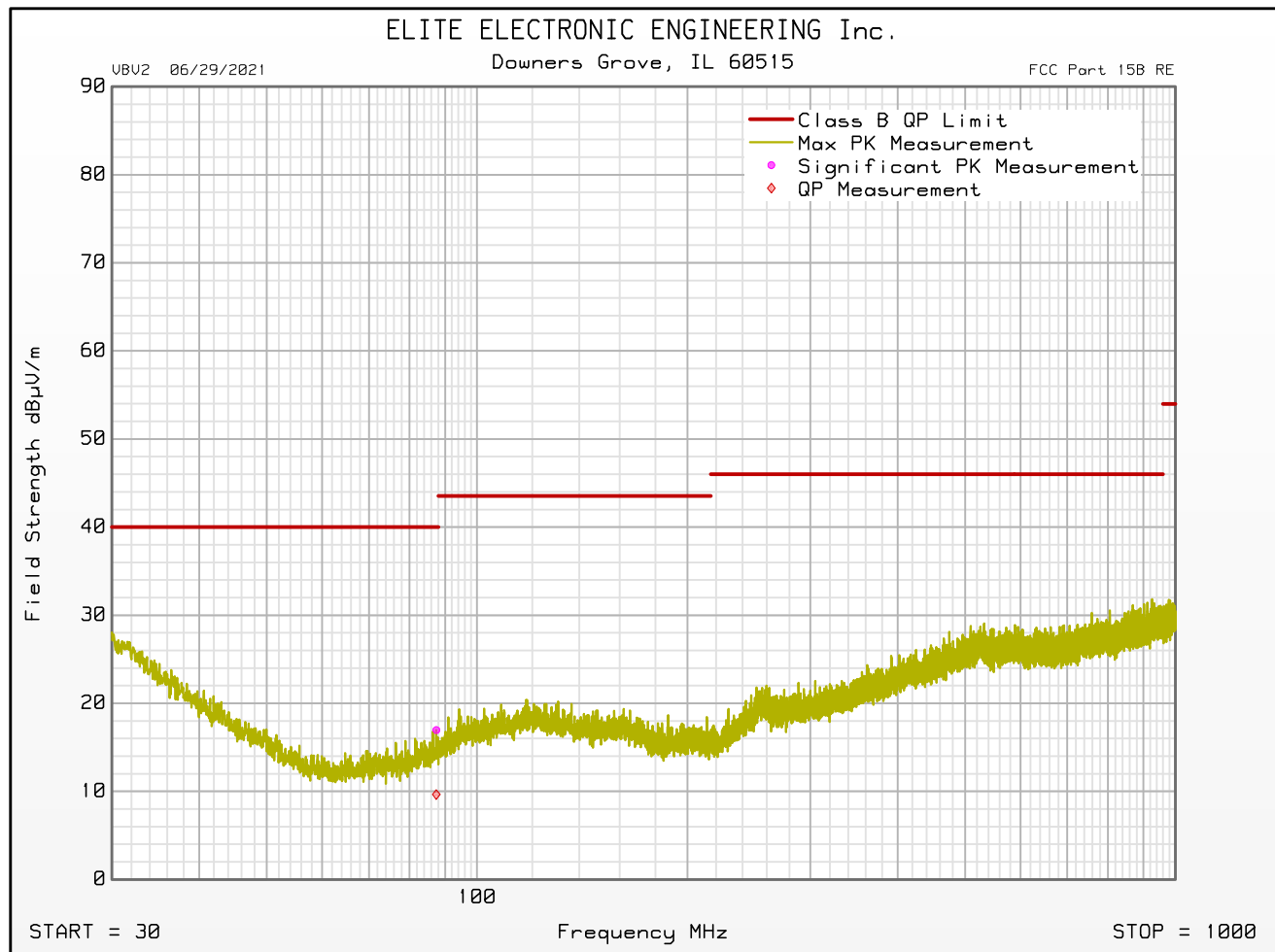
Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°): 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 120 kHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 310-390MHz Low Ch  
Test Engineer : J. Cardenas  
Test Date : Aug 09, 2021 10:36:26 AM

| Freq<br>MHz | Peak<br>Mtr<br>Rdg<br>dBuV | QP<br>Mtr<br>Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Peak<br>Total<br>dBuV/m | QP<br>Total<br>dBuV/m | QP<br>Limit<br>dBuV/m | QP<br>Lim<br>Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>QP<br>Level |
|-------------|----------------------------|--------------------------|--------------------|------------------|------------------|--------------------|-------------------------|-----------------------|-----------------------|------------------------|------------|------------------|-----------|--------------------------|
| 30.060      | 6.0                        | -2.7                     | 25.0               | 0.0              | 0.4              | 0.0                | 31.4                    | 22.7                  | 40.0                  | -17.3                  | Vertical   | 120              | 225       |                          |
| 87.420      | 2.1                        | -5.2                     | 14.5               | 0.0              | 0.4              | 0.0                | 17.0                    | 9.7                   | 40.0                  | -30.3                  | Horizontal | 120              | 135       |                          |
| 118.240     | 2.1                        | -5.1                     | 18.2               | 0.0              | 0.5              | 0.0                | 20.7                    | 13.5                  | 43.5                  | -30.0                  | Vertical   | 120              | 180       |                          |
| 310.620     | 3.0                        | -4.9                     | 19.3               | 0.0              | 0.8              | 0.0                | 23.2                    | 15.2                  | 46.0                  | -30.8                  | Vertical   | 340              | 315       |                          |
| 527.040     | 3.2                        | -4.2                     | 24.7               | 0.0              | 1.1              | 0.0                | 29.1                    | 21.7                  | 46.0                  | -24.3                  | Vertical   | 200              | 0         |                          |
| 957.300     | 3.3                        | -4.5                     | 27.1               | 0.0              | 1.5              | 0.0                | 31.9                    | 24.1                  | 46.0                  | -21.9                  | Vertical   | 340              | 135       |                          |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

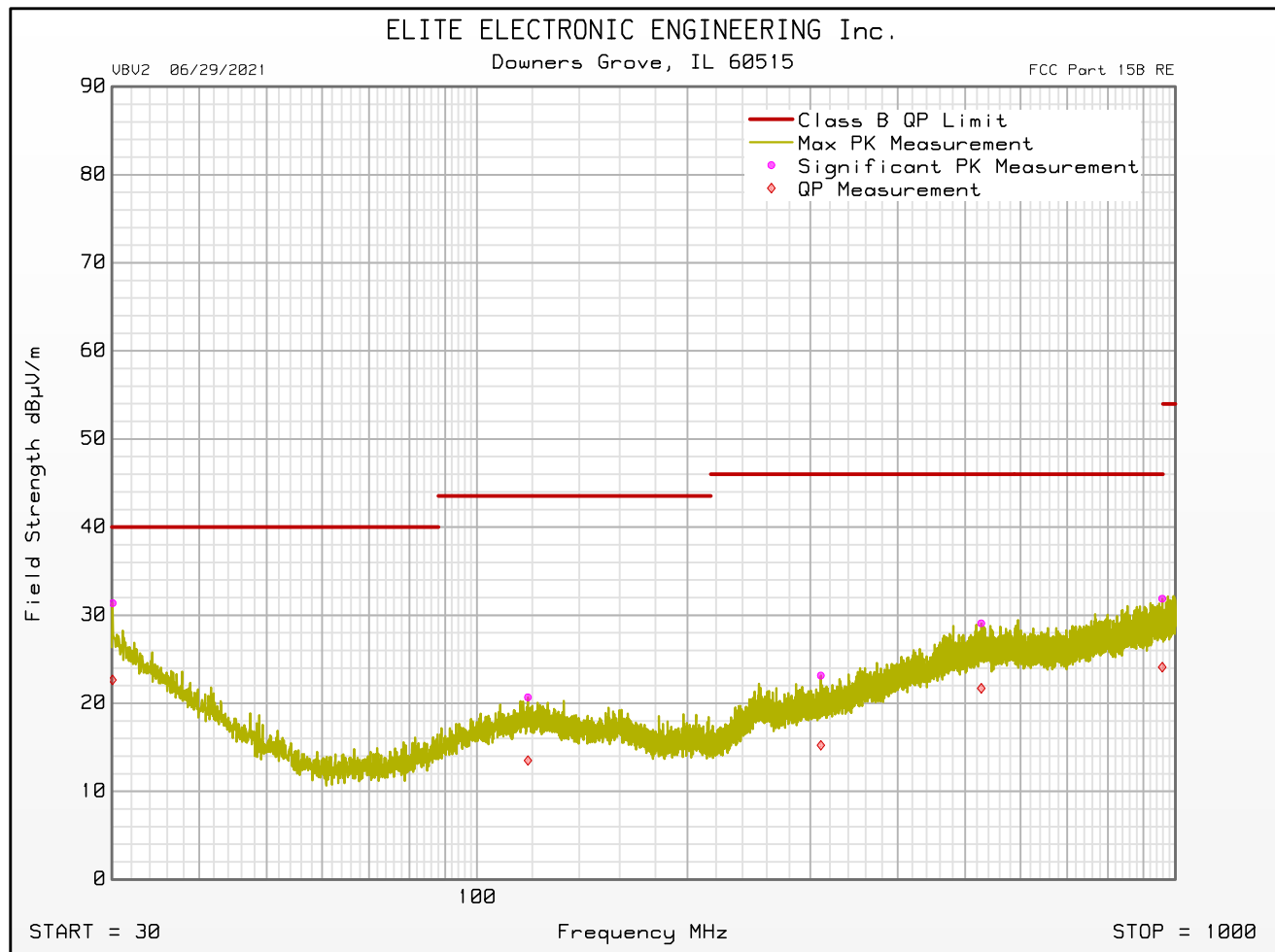
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz Low Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 10:36:26 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz Low Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 10:36:26 AM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°) : 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 1 MHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 310-390MHz Low Ch  
Test Engineer : J. Cardenas  
Test Date : Aug 10, 2021 10:47:51 AM

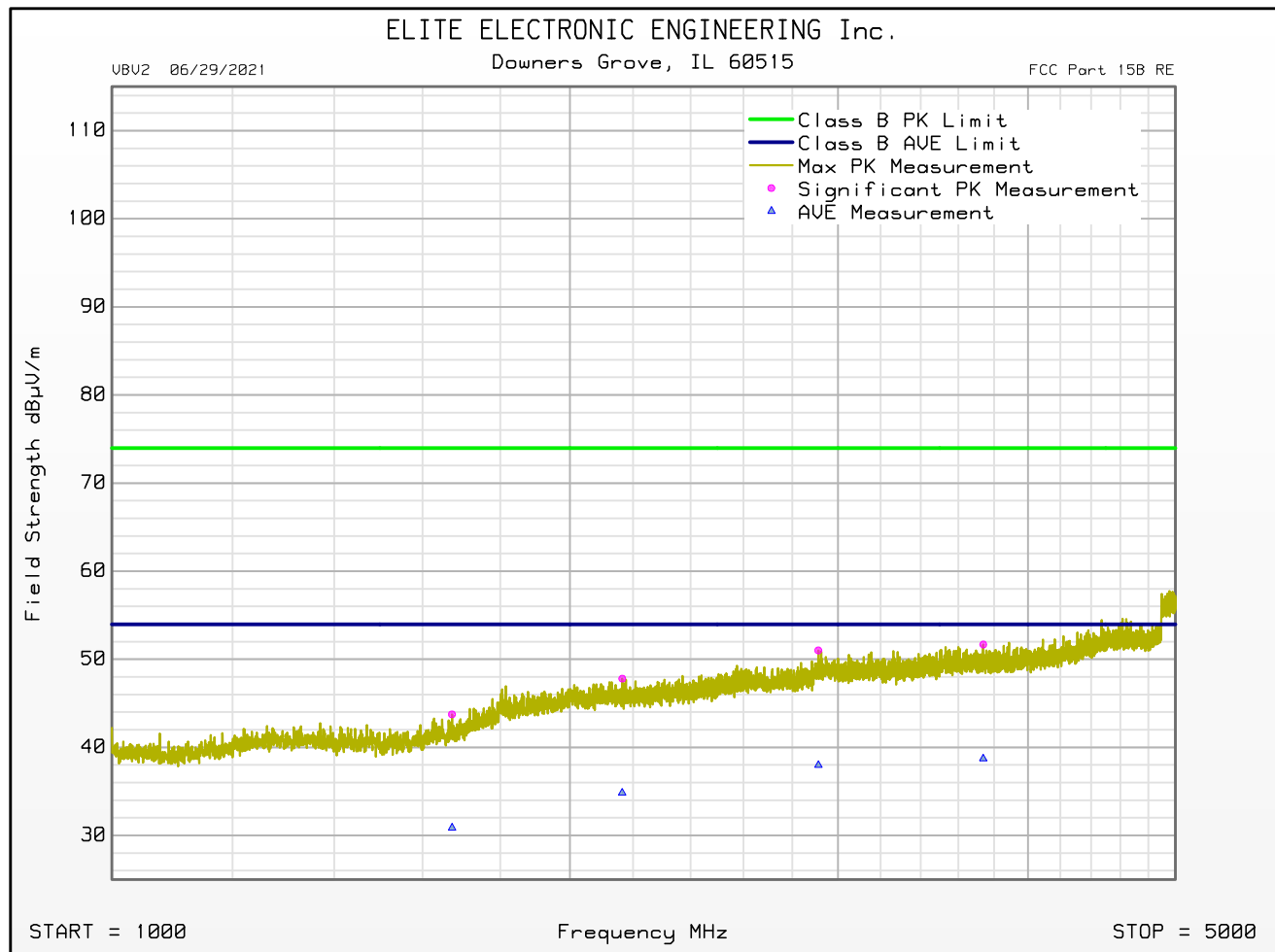
| Freq MHz | Peak Mtr Rdg dBuV | Ant Fac dB/m | Amp Fac dB | Cbl Fac dB | Dist Corr dB | Peak Total dBuV/m | Peak Limit dBuV/m | Peak Lim Mrg dB | Ant Pol    | Mast Ht cm | Azim ° | Excessive Peak Level |
|----------|-------------------|--------------|------------|------------|--------------|-------------------|-------------------|-----------------|------------|------------|--------|----------------------|
| 1289.500 | 11.9              | 29.0         | 0.0        | 1.8        | 0.0          | 42.7              | 74.0              | -31.3           | Vertical   | 200        | 225    |                      |
| 1673.000 | 12.3              | 29.4         | 0.0        | 2.1        | 0.0          | 43.7              | 74.0              | -30.2           | Horizontal | 340        | 135    |                      |
| 2164.500 | 13.6              | 31.8         | 0.0        | 2.4        | 0.0          | 47.8              | 74.0              | -26.2           | Horizontal | 200        | 45     |                      |
| 2912.500 | 15.5              | 32.6         | 0.0        | 2.9        | 0.0          | 51.0              | 74.0              | -23.0           | Horizontal | 120        | 135    |                      |
| 3738.000 | 15.1              | 33.2         | 0.0        | 3.3        | 0.0          | 51.7              | 74.0              | -22.3           | Horizontal | 120        | 225    |                      |
| 4980.000 | 20.6              | 34.2         | 0.0        | 3.8        | 0.0          | 58.6              | 74.0              | -15.4           | Vertical   | 200        | 225    |                      |

| Freq MHz | Average Mtr Rdg dBuV | Ant Fac dB/m | Amp Fac dB | Cbl Fac dB | Dist Corr dB | Average Total dBuV/m | Average Limit dBuV/m | Average Lim Mrg dB | Ant Pol    | Mast Ht cm | Azim ° | Excessive Average Level |
|----------|----------------------|--------------|------------|------------|--------------|----------------------|----------------------|--------------------|------------|------------|--------|-------------------------|
| 1289.500 | -0.9                 | 29.0         | 0.0        | 1.8        | 0.0          | 29.9                 | 54.0                 | -24.1              | Vertical   | 200        | 225    |                         |
| 1673.000 | -0.6                 | 29.4         | 0.0        | 2.1        | 0.0          | 30.9                 | 54.0                 | -23.1              | Horizontal | 340        | 135    |                         |
| 2164.500 | 0.6                  | 31.8         | 0.0        | 2.4        | 0.0          | 34.8                 | 54.0                 | -19.1              | Horizontal | 200        | 45     |                         |
| 2912.500 | 2.5                  | 32.6         | 0.0        | 2.9        | 0.0          | 38.0                 | 54.0                 | -16.0              | Horizontal | 120        | 135    |                         |
| 3738.000 | 2.2                  | 33.2         | 0.0        | 3.3        | 0.0          | 38.7                 | 54.0                 | -15.3              | Horizontal | 120        | 225    |                         |
| 4980.000 | 7.2                  | 34.2         | 0.0        | 3.8        | 0.0          | 45.2                 | 54.0                 | -8.8               | Vertical   | 200        | 225    |                         |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

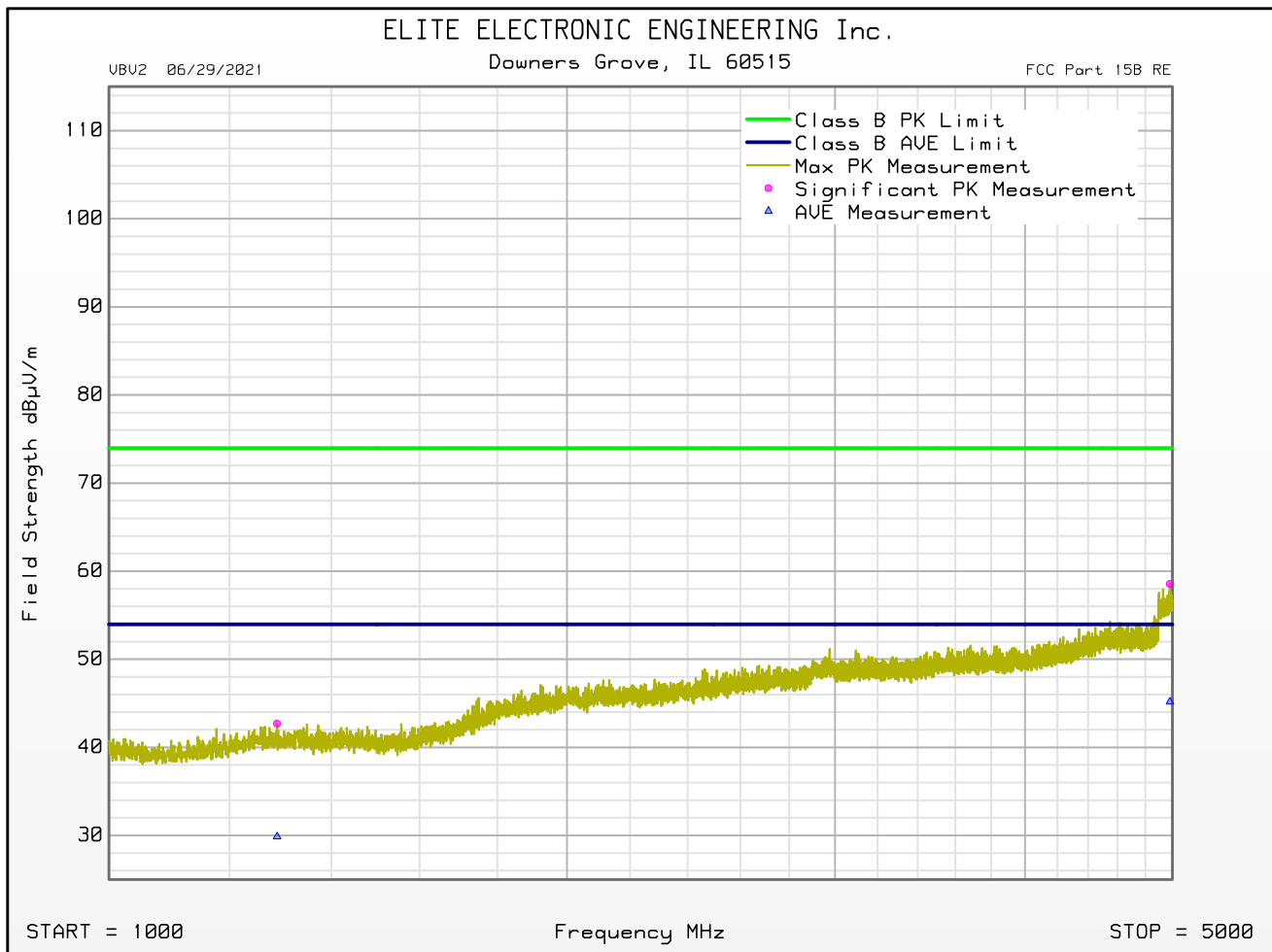
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz Low Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 10:47:51 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz Low Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 10:47:51 AM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

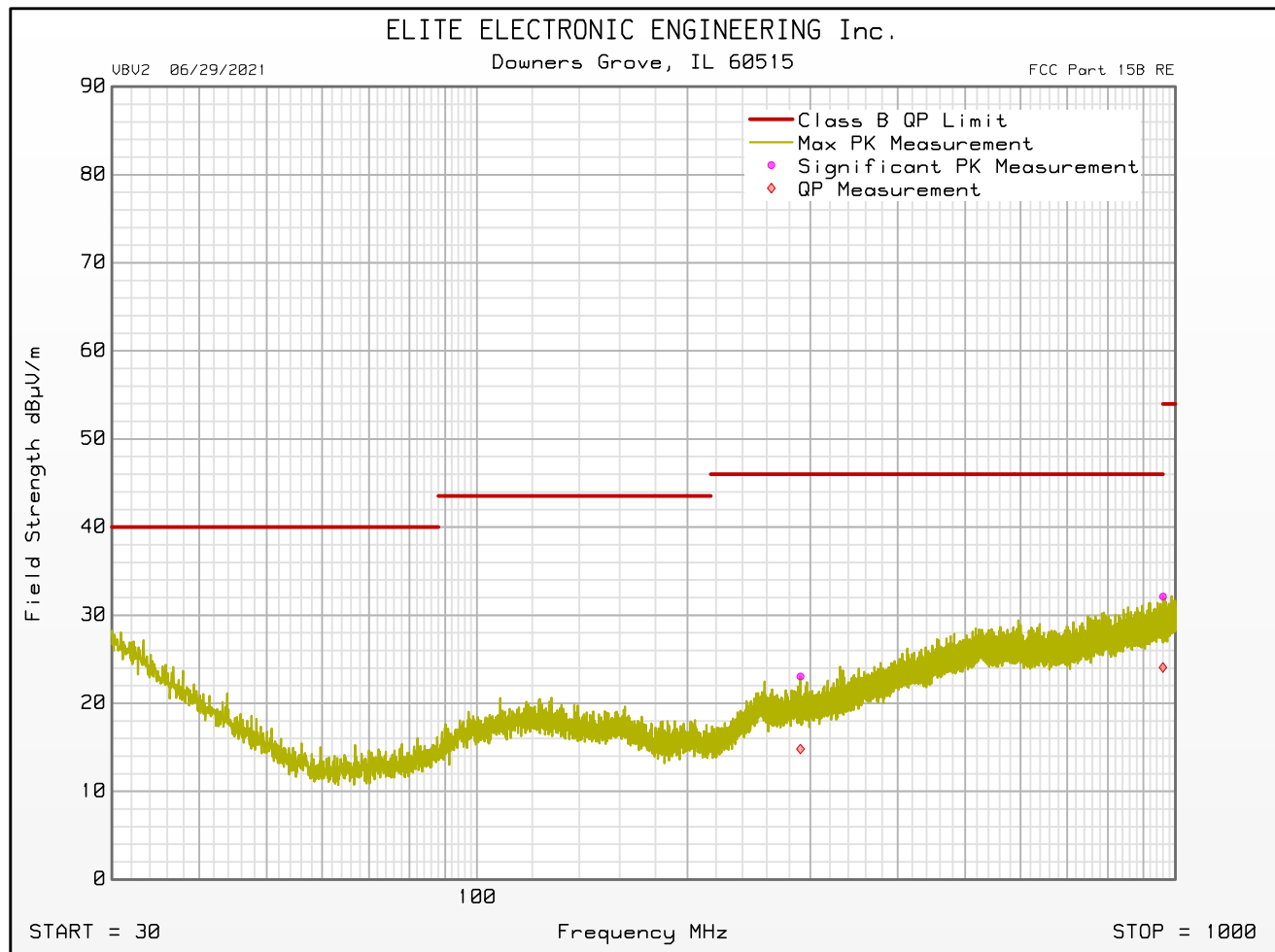
Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°): 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 120 kHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 310-390MHz Mid Ch  
Test Engineer : J. Cardenas  
Test Date : Aug 09, 2021 11:01:45 AM

| Freq<br>MHz | Peak<br>Mtr<br>Rdg<br>dBuV | QP<br>Mtr<br>Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Peak<br>Total<br>dBuV/m | QP<br>Total<br>dBuV/m | QP<br>Limit<br>dBuV/m | QP<br>Lim<br>Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>QP<br>Level |
|-------------|----------------------------|--------------------------|--------------------|------------------|------------------|--------------------|-------------------------|-----------------------|-----------------------|------------------------|------------|------------------|-----------|--------------------------|
| 30.000      | 4.4                        | -2.6                     | 25.0               | 0.0              | 0.4              | 0.0                | 29.8                    | 22.7                  | 40.0                  | -17.3                  | Vertical   | 340              | 180       |                          |
| 86.520      | 2.7                        | -4.8                     | 14.3               | 0.0              | 0.4              | 0.0                | 17.3                    | 9.8                   | 40.0                  | -30.2                  | Vertical   | 340              | 135       |                          |
| 107.860     | 4.0                        | -2.2                     | 17.5               | 0.0              | 0.4              | 0.0                | 21.9                    | 15.7                  | 43.5                  | -27.8                  | Vertical   | 120              | 45        |                          |
| 290.460     | 3.4                        | -4.9                     | 18.9               | 0.0              | 0.8              | 0.0                | 23.0                    | 14.8                  | 46.0                  | -31.2                  | Horizontal | 200              | 90        |                          |
| 530.280     | 4.3                        | -4.2                     | 24.9               | 0.0              | 1.1              | 0.0                | 30.3                    | 21.8                  | 46.0                  | -24.2                  | Vertical   | 200              | 45        |                          |
| 959.700     | 3.5                        | -4.6                     | 27.1               | 0.0              | 1.5              | 0.0                | 32.1                    | 24.1                  | 46.0                  | -21.9                  | Horizontal | 120              | 225       |                          |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

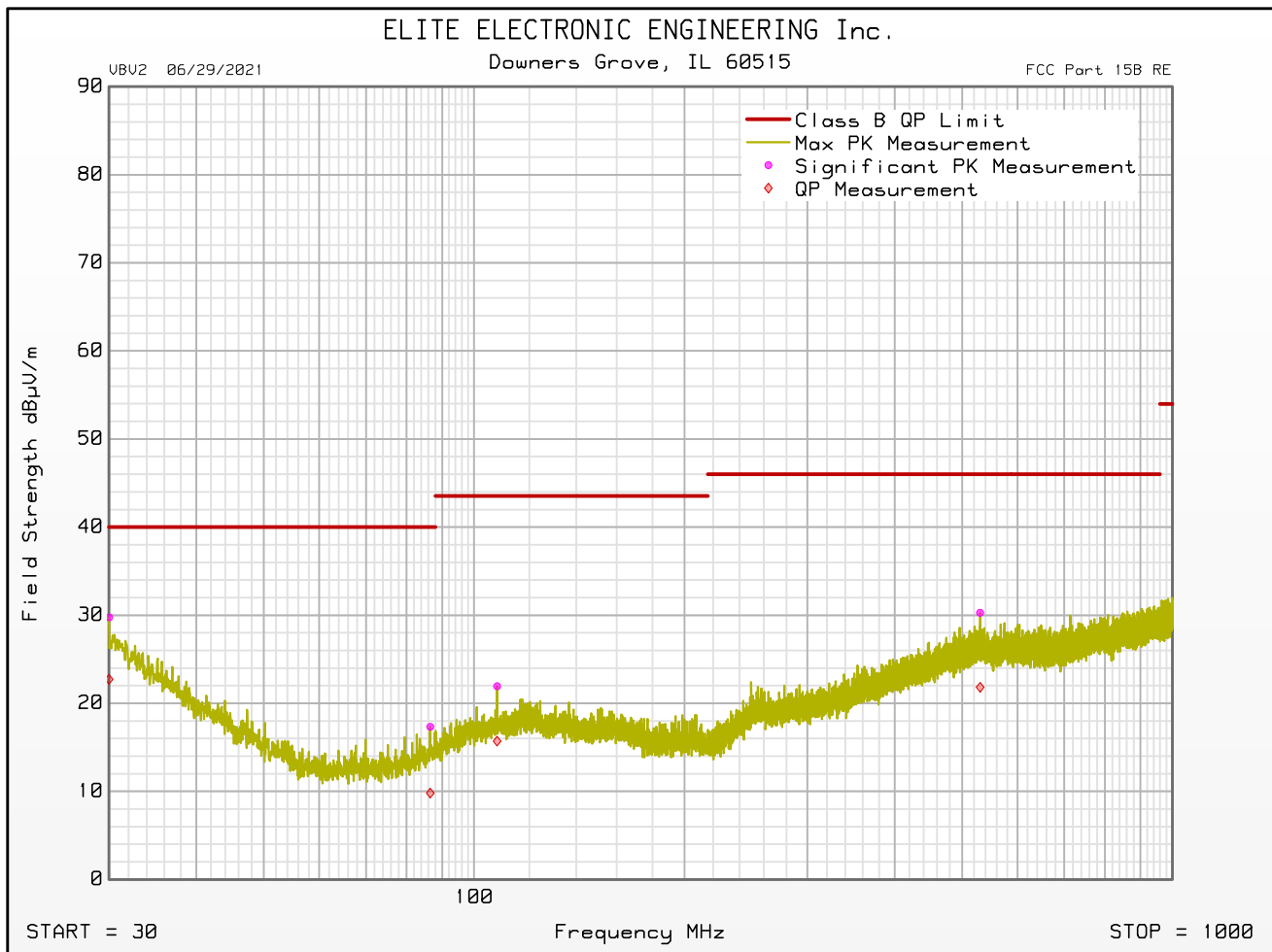
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz Mid Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 11:01:45 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz Mid Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 11:01:45 AM





## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
Serial Number : NA  
DUT Mode : Rx  
Turntable Step Angle (°) : 45  
Mast Positions (cm) : 120, 200, 340  
Scan Type : Stepped Scan  
Test RBW : 1 MHz  
Prelim Dwell Time (s) : 0.0001  
Notes : 310-390MHz Mid Ch  
Test Engineer : J. Cardenas  
Test Date : Aug 10, 2021 11:21:27 AM

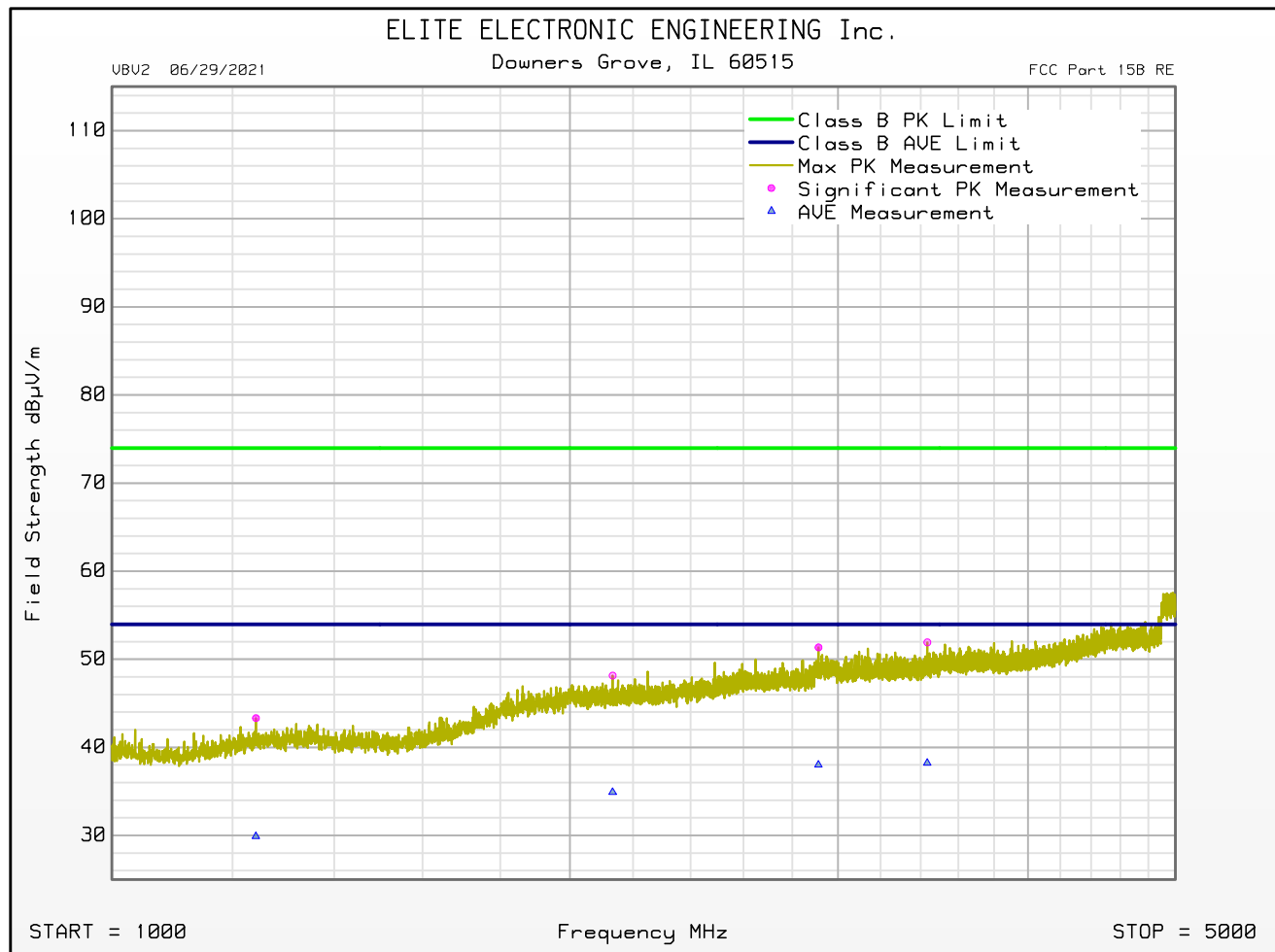
| Freq MHz | Peak Mtr Rdg dBuV | Ant Fac dB/m | Amp Fac dB | Cbl Fac dB | Dist Corr dB | Peak Total dBuV/m | Peak Limit dBuV/m | Peak Lim Mrg dB | Ant Pol    | Mast Ht cm | Azim ° | Excessive Peak Level |
|----------|-------------------|--------------|------------|------------|--------------|-------------------|-------------------|-----------------|------------|------------|--------|----------------------|
| 1243.500 | 12.4              | 29.1         | 0.0        | 1.8        | 0.0          | 43.3              | 74.0              | -30.7           | Horizontal | 200        | 45     |                      |
| 1699.500 | 13.1              | 29.7         | 0.0        | 2.1        | 0.0          | 44.9              | 74.0              | -29.1           | Vertical   | 200        | 135    |                      |
| 2133.500 | 13.9              | 31.9         | 0.0        | 2.4        | 0.0          | 48.2              | 74.0              | -25.8           | Horizontal | 340        | 180    |                      |
| 2913.000 | 15.8              | 32.6         | 0.0        | 2.9        | 0.0          | 51.3              | 74.0              | -22.6           | Horizontal | 120        | 0      |                      |
| 3434.500 | 15.8              | 32.9         | 0.0        | 3.2        | 0.0          | 51.9              | 74.0              | -22.1           | Horizontal | 200        | 45     |                      |
| 4978.500 | 20.8              | 34.2         | 0.0        | 3.8        | 0.0          | 58.7              | 74.0              | -15.2           | Vertical   | 120        | 0      |                      |

| Freq MHz | Average Mtr Rdg dBuV | Ant Fac dB/m | Amp Fac dB | Cbl Fac dB | Dist Corr dB | Average Total dBuV/m | Average Limit dBuV/m | Average Lim Mrg dB | Ant Pol    | Mast Ht cm | Azim ° | Excessive Average Level |
|----------|----------------------|--------------|------------|------------|--------------|----------------------|----------------------|--------------------|------------|------------|--------|-------------------------|
| 1243.500 | -1.0                 | 29.1         | 0.0        | 1.8        | 0.0          | 29.9                 | 54.0                 | -24.1              | Horizontal | 200        | 45     |                         |
| 1699.500 | -0.3                 | 29.7         | 0.0        | 2.1        | 0.0          | 31.5                 | 54.0                 | -22.5              | Vertical   | 200        | 135    |                         |
| 2133.500 | 0.6                  | 31.9         | 0.0        | 2.4        | 0.0          | 34.9                 | 54.0                 | -19.1              | Horizontal | 340        | 180    |                         |
| 2913.000 | 2.5                  | 32.6         | 0.0        | 2.9        | 0.0          | 38.0                 | 54.0                 | -16.0              | Horizontal | 120        | 0      |                         |
| 3434.500 | 2.1                  | 32.9         | 0.0        | 3.2        | 0.0          | 38.2                 | 54.0                 | -15.8              | Horizontal | 200        | 45     |                         |
| 4978.500 | 7.3                  | 34.2         | 0.0        | 3.8        | 0.0          | 45.2                 | 54.0                 | -8.8               | Vertical   | 120        | 0      |                         |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

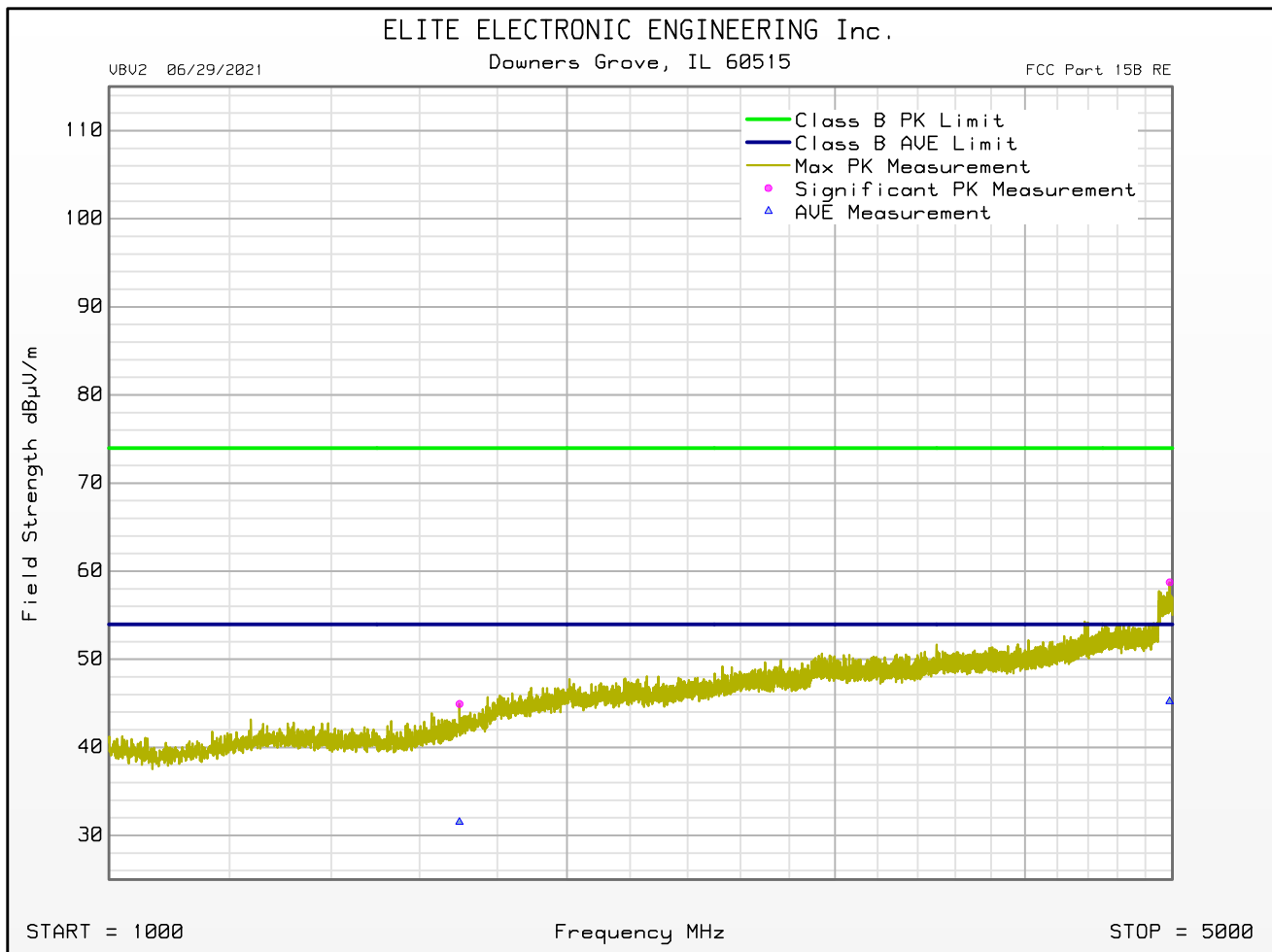
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz Mid Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 11:21:27 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz Mid Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 11:21:27 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

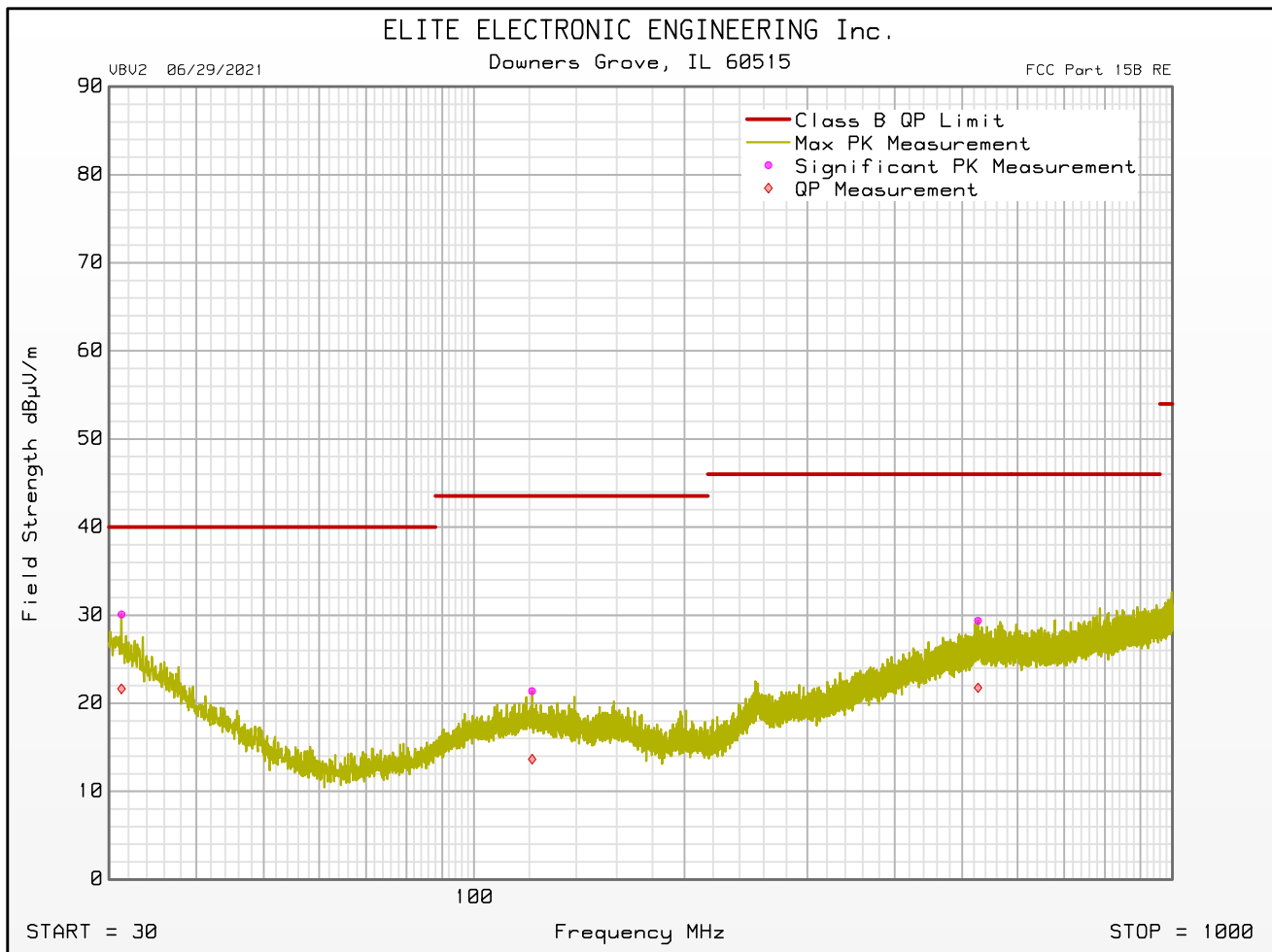
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz High Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 12:26:38 PM

| Freq<br>MHz | Peak<br>Mtr<br>Rdg<br>dBuV | QP<br>Mtr<br>Rdg<br>dBuV | Ant<br>Fac<br>dB/m | Amp<br>Fac<br>dB | Cbl<br>Fac<br>dB | Dist<br>Corr<br>dB | Peak<br>Total<br>dBuV/m | QP<br>Total<br>dBuV/m | QP<br>Limit<br>dBuV/m | QP<br>Lim<br>Mrg<br>dB | Ant<br>Pol | Mast<br>Ht<br>cm | Azim<br>° | Excessive<br>QP<br>Level |
|-------------|----------------------------|--------------------------|--------------------|------------------|------------------|--------------------|-------------------------|-----------------------|-----------------------|------------------------|------------|------------------|-----------|--------------------------|
| 31.260      | 5.5                        | -2.9                     | 24.2               | 0.0              | 0.4              | 0.0                | 30.1                    | 21.7                  | 40.0                  | -18.3                  | Horizontal | 340              | 135       |                          |
| 87.780      | 2.6                        | -5.0                     | 14.6               | 0.0              | 0.4              | 0.0                | 17.5                    | 9.9                   | 40.0                  | -30.1                  | Vertical   | 340              | 225       |                          |
| 121.060     | 2.7                        | -5.1                     | 18.2               | 0.0              | 0.5              | 0.0                | 21.4                    | 13.7                  | 43.5                  | -29.9                  | Horizontal | 200              | 180       |                          |
| 307.740     | 2.5                        | -5.0                     | 19.3               | 0.0              | 0.8              | 0.0                | 22.6                    | 15.1                  | 46.0                  | -30.9                  | Vertical   | 120              | 225       |                          |
| 526.680     | 3.5                        | -4.1                     | 24.7               | 0.0              | 1.1              | 0.0                | 29.4                    | 21.8                  | 46.0                  | -24.2                  | Horizontal | 200              | 180       |                          |
| 919.320     | 3.5                        | -4.2                     | 26.5               | 0.0              | 1.5              | 0.0                | 31.5                    | 23.8                  | 46.0                  | -22.2                  | Vertical   | 120              | 0         |                          |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

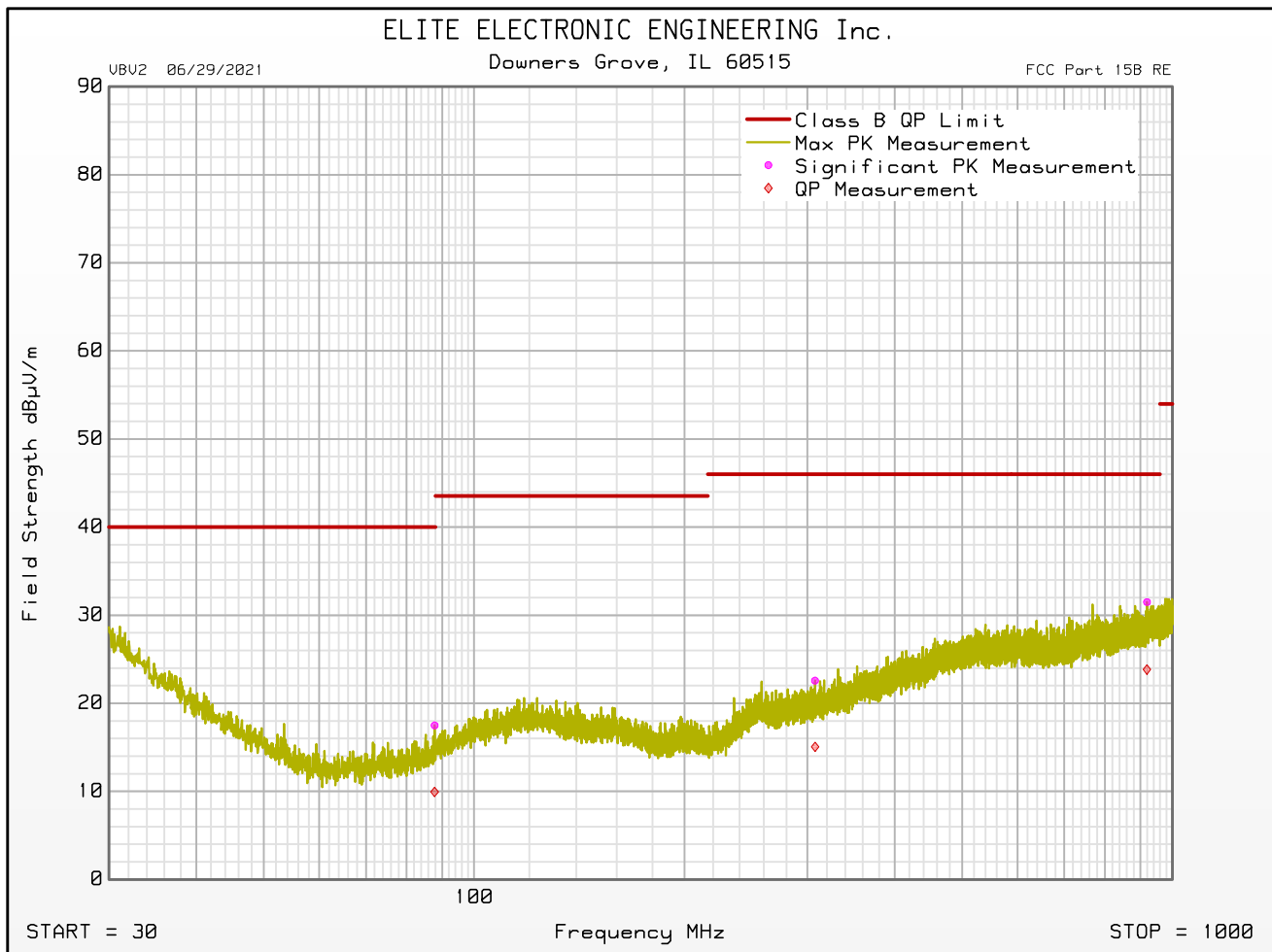
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz High Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 12:26:38 PM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 120 kHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz High Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 09, 2021 12:26:38 PM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz High Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 11:51:33 AM

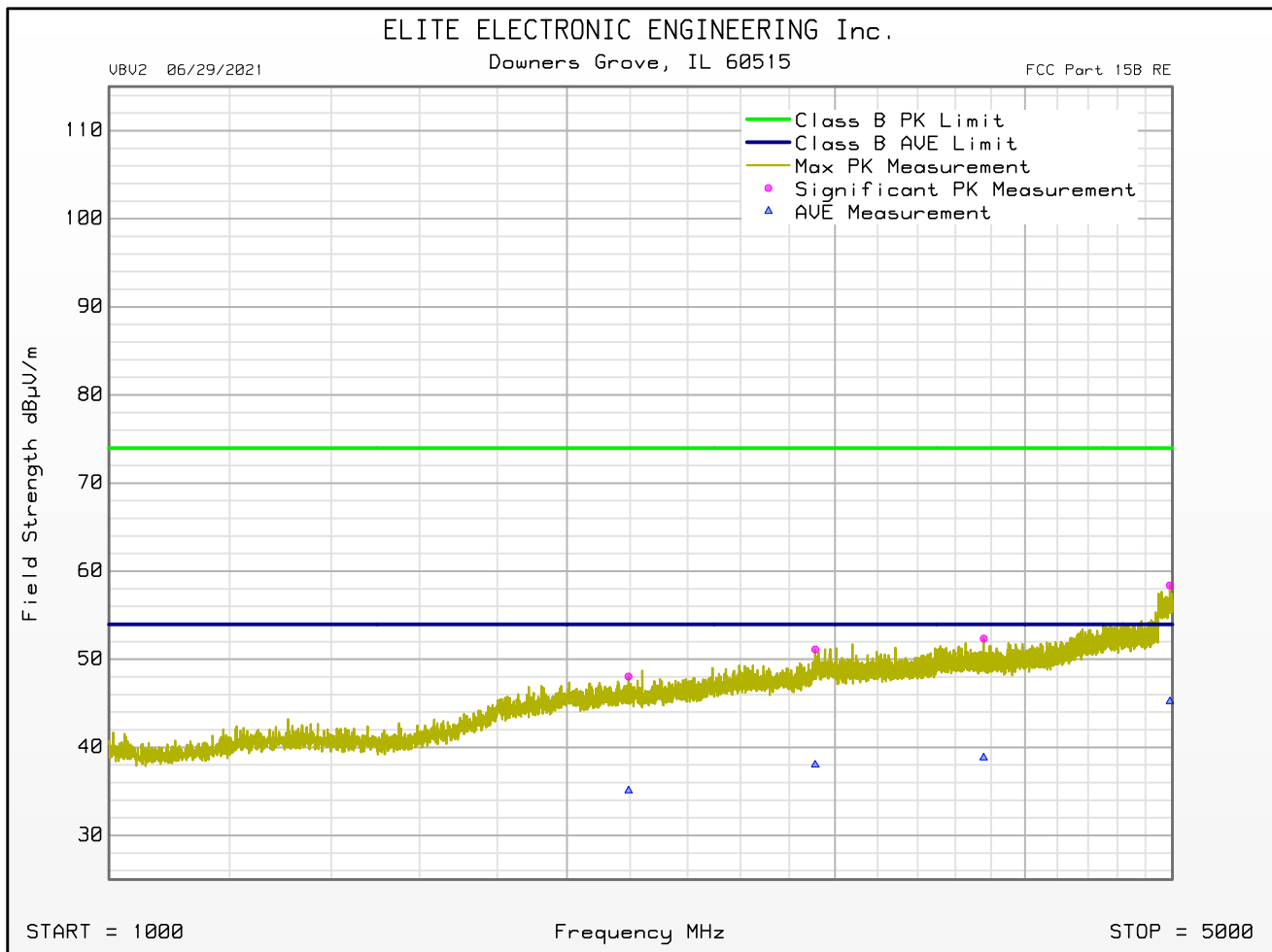
| Freq MHz | Peak Mtr Rdg dBuV | Ant Fac dB/m | Amp Fac dB | Cbl Fac dB | Dist Corr dB | Peak Total dBuV/m | Peak Limit dBuV/m | Peak Lim Mrg dB | Ant Pol    | Mast Ht cm | Azim ° | Excessive Peak Level |
|----------|-------------------|--------------|------------|------------|--------------|-------------------|-------------------|-----------------|------------|------------|--------|----------------------|
| 1302.000 | 12.3              | 28.9         | 0.0        | 1.8        | 0.0          | 43.1              | 74.0              | -30.9           | Vertical   | 200        | 315    |                      |
| 1678.000 | 12.5              | 29.5         | 0.0        | 2.1        | 0.0          | 44.1              | 74.0              | -29.9           | Vertical   | 120        | 225    |                      |
| 2195.000 | 13.6              | 32.0         | 0.0        | 2.4        | 0.0          | 48.0              | 74.0              | -25.9           | Horizontal | 340        | 45     |                      |
| 2912.000 | 15.6              | 32.6         | 0.0        | 2.9        | 0.0          | 51.1              | 74.0              | -22.9           | Horizontal | 120        | 45     |                      |
| 3757.500 | 15.8              | 33.3         | 0.0        | 3.3        | 0.0          | 52.3              | 74.0              | -21.6           | Horizontal | 340        | 270    |                      |
| 4980.500 | 20.4              | 34.2         | 0.0        | 3.8        | 0.0          | 58.4              | 74.0              | -15.6           | Horizontal | 340        | 0      |                      |

| Freq MHz | Average Mtr Rdg dBuV | Ant Fac dB/m | Amp Fac dB | Cbl Fac dB | Dist Corr dB | Average Total dBuV/m | Average Limit dBuV/m | Average Lim Mrg dB | Ant Pol    | Mast Ht cm | Azim ° | Excessive Average Level |
|----------|----------------------|--------------|------------|------------|--------------|----------------------|----------------------|--------------------|------------|------------|--------|-------------------------|
| 1302.000 | -0.8                 | 28.9         | 0.0        | 1.8        | 0.0          | 29.9                 | 54.0                 | -24.0              | Vertical   | 200        | 315    |                         |
| 1678.000 | -0.6                 | 29.5         | 0.0        | 2.1        | 0.0          | 31.0                 | 54.0                 | -23.0              | Vertical   | 120        | 225    |                         |
| 2195.000 | 0.7                  | 32.0         | 0.0        | 2.4        | 0.0          | 35.1                 | 54.0                 | -18.9              | Horizontal | 340        | 45     |                         |
| 2912.000 | 2.5                  | 32.6         | 0.0        | 2.9        | 0.0          | 38.0                 | 54.0                 | -16.0              | Horizontal | 120        | 45     |                         |
| 3757.500 | 2.2                  | 33.3         | 0.0        | 3.3        | 0.0          | 38.8                 | 54.0                 | -15.2              | Horizontal | 340        | 270    |                         |
| 4980.500 | 7.3                  | 34.2         | 0.0        | 3.8        | 0.0          | 45.2                 | 54.0                 | -8.8               | Horizontal | 340        | 0      |                         |

## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

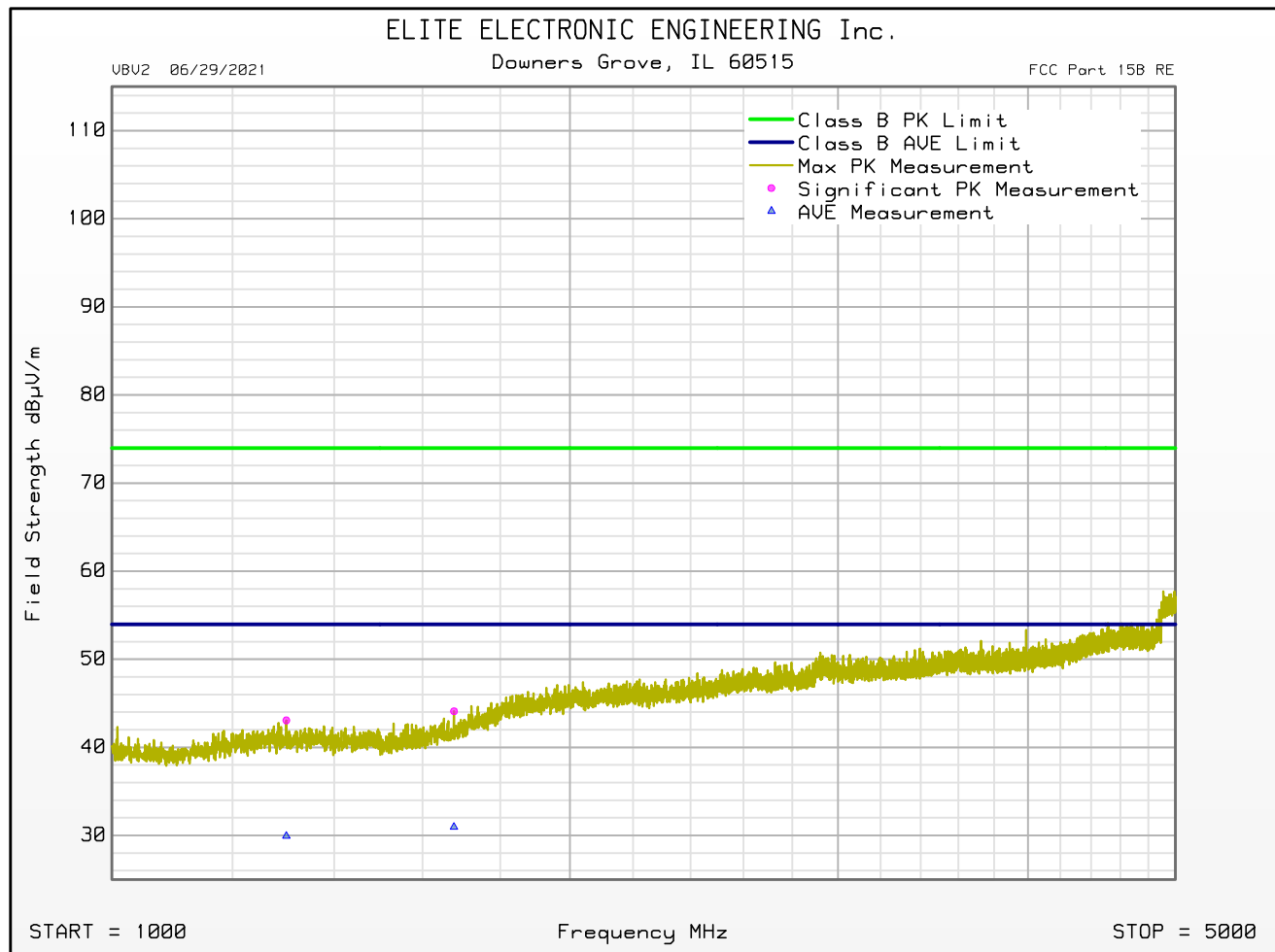
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Horizontal  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz High Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 11:51:33 AM



## FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 06/29/2021

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 Serial Number : NA  
 DUT Mode : Rx  
 Turntable Step Angle (°): 45  
 Mast Positions (cm) : 120, 200, 340  
 Antenna Polarization : Vertical  
 Scan Type : Stepped Scan  
 Test RBW : 1 MHz  
 Prelim Dwell Time (s) : 0.0001  
 Notes : 310-390MHz High Ch  
 Test Engineer : J. Cardenas  
 Test Date : Aug 10, 2021 11:51:33 AM



## 22. Transmitter Conducted Emissions Test (AC Mains)

| Test Information |                              |
|------------------|------------------------------|
| Manufacturer     | Chamberlain Group Inc        |
| Product          | Main/Control PCB Transceiver |
| Model            | 001D9525-1-IND               |
| Serial No        | NA                           |
| Mode             | Frequency Hopping            |

| Test Setup Details |                    |
|--------------------|--------------------|
| Setup Format       | Tabletop           |
| Height of Support  | NA                 |
| Type of Test Site  | Shielded Enclosure |
| Test site used     | R14ML              |
| Note               | None               |

| Requirements                                                                                                                                                    |                            |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------|
| All radio frequency voltages on the power lines for any frequency or frequencies of an intentional radiator shall not exceed the limits in the following table: |                            |         |
| Frequency of Emission<br>(MHz)                                                                                                                                  | Conducted Limits<br>(dBμV) |         |
|                                                                                                                                                                 | Quasi-peak                 | Average |
| 0.15-05                                                                                                                                                         | 66 to 56*                  | 56-46*  |
| 0.5-5                                                                                                                                                           | 56                         | 46      |
| 5-30                                                                                                                                                            | 60                         | 50      |

| Procedures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The interference on each power lead of the EUT was measured by connecting the measuring equipment to the appropriate meter terminal of the Line Impedance Stabilization Network (LISN). The meter terminal of the LISN not under test was terminated with 50 ohms.</p> <ol style="list-style-type: none"> <li>1) The EUT was operated in the Frequency Hopping mode.</li> <li>2) Measurements were first made on the 120V, 60Hz high line.</li> <li>3) The frequency range from 150 kHz to 30 MHz was broken up into smaller frequency sub-bands.</li> <li>4) Conducted emissions measurements were taken on the first frequency sub-band using a peak detector.</li> <li>5) The data thus obtained was then searched by the computer for the highest levels. Any emissions levels that were within 10dB of the average limit were then measured again using both a quasi-peak detector and an average detector. (If no peak readings were within 10dB of the average limit, quasi-peak and average readings were taken on the highest emissions levels measured during the peak detector scan.)</li> <li>6) Steps (4) and (5) were repeated for the remainder of the frequency sub-bands until the entire frequency range from 150kHz to 30MHz was investigated. The peak trace was automatically plotted. The plot also shows quasi-peak and average readings that were taken on discrete frequencies. A table showing the quasi-peak and average readings was also generated. This tabular data compares the quasi-peak and average conducted emissions to the applicable conducted emissions limits.</li> <li>7) Steps (3) through (6) were repeated on the 120V, 60Hz neutral line.</li> </ol> |

| Measurement Uncertainty                               |                                  |
|-------------------------------------------------------|----------------------------------|
| Measurement Type                                      | Expanded Measurement Uncertainty |
| Conducted disturbance (mains port) (150 kHz – 30 MHz) | 2.7                              |

## FCC Part 15 Subpart B Conducted Emissions Test

### Significant Emissions Data

VBR8 05/14/2020

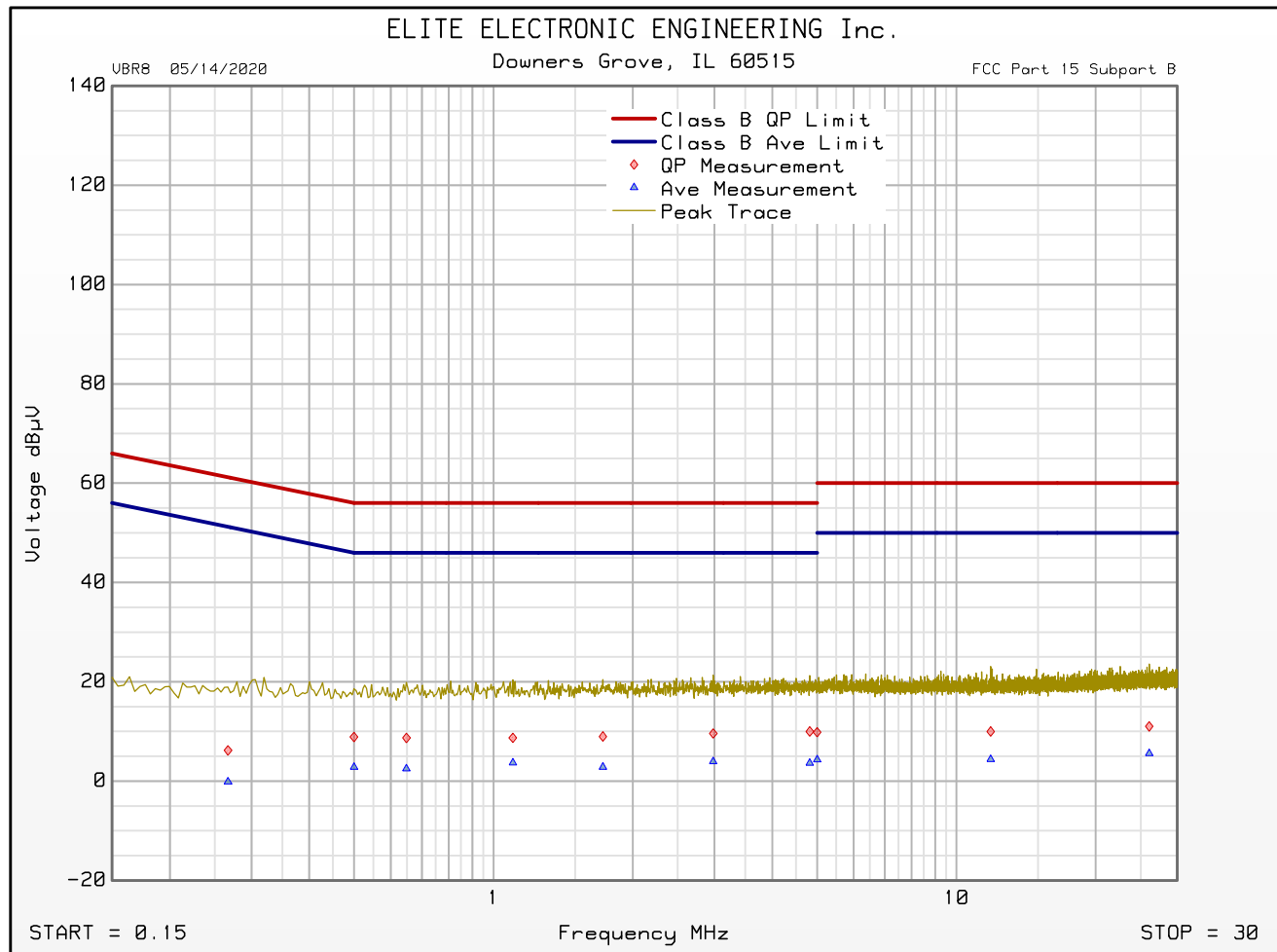
Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Frequency Hopping  
 Line Tested : High  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : None  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 12:31:04 PM  
 Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

| Freq MHz | Quasi-peak Level dBμV | Quasi-peak Limit dBμV | Excessive Quasi-peak Emissions | Average Level dBμV | Average Limit dBμV | Excessive Average Emissions |
|----------|-----------------------|-----------------------|--------------------------------|--------------------|--------------------|-----------------------------|
| 0.267    | 6.2                   | 61.2                  |                                | -0.1               | 51.2               |                             |
| 0.500    | 8.9                   | 56.0                  |                                | 2.8                | 46.0               |                             |
| 0.649    | 8.7                   | 56.0                  |                                | 2.5                | 46.0               |                             |
| 1.101    | 8.7                   | 56.0                  |                                | 3.7                | 46.0               |                             |
| 1.723    | 9.0                   | 56.0                  |                                | 2.8                | 46.0               |                             |
| 2.984    | 9.6                   | 56.0                  |                                | 3.9                | 46.0               |                             |
| 4.823    | 10.0                  | 56.0                  |                                | 3.6                | 46.0               |                             |
| 5.000    | 9.9                   | 56.0                  |                                | 4.3                | 46.0               |                             |
| 11.858   | 10.0                  | 60.0                  |                                | 4.4                | 50.0               |                             |
| 26.092   | 11.0                  | 60.0                  |                                | 5.6                | 50.0               |                             |

# FCC Part 15 Subpart B Conducted Emissions Test Cumulative Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
Model : 001D9525-1-IND  
DUT Revision : ---  
Serial Number : NA  
DUT Mode : Frequency Hopping  
Line Tested : High  
Scan Step Time [ms] : 30  
Meas. Threshold [dB] : -10  
Notes : None  
Test Engineer : J. Cardenas  
Limit : Class B  
Test Date : Aug 04, 2021 12:31:04 PM



Emissions Meet QP Limit  
Emissions Meet Ave Limit

## FCC Part 15 Subpart B Conducted Emissions Test

### Significant Emissions Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Frequency Hopping  
 Line Tested : Neutral  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : None  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 12:37:08 PM  
 Data Filter : Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

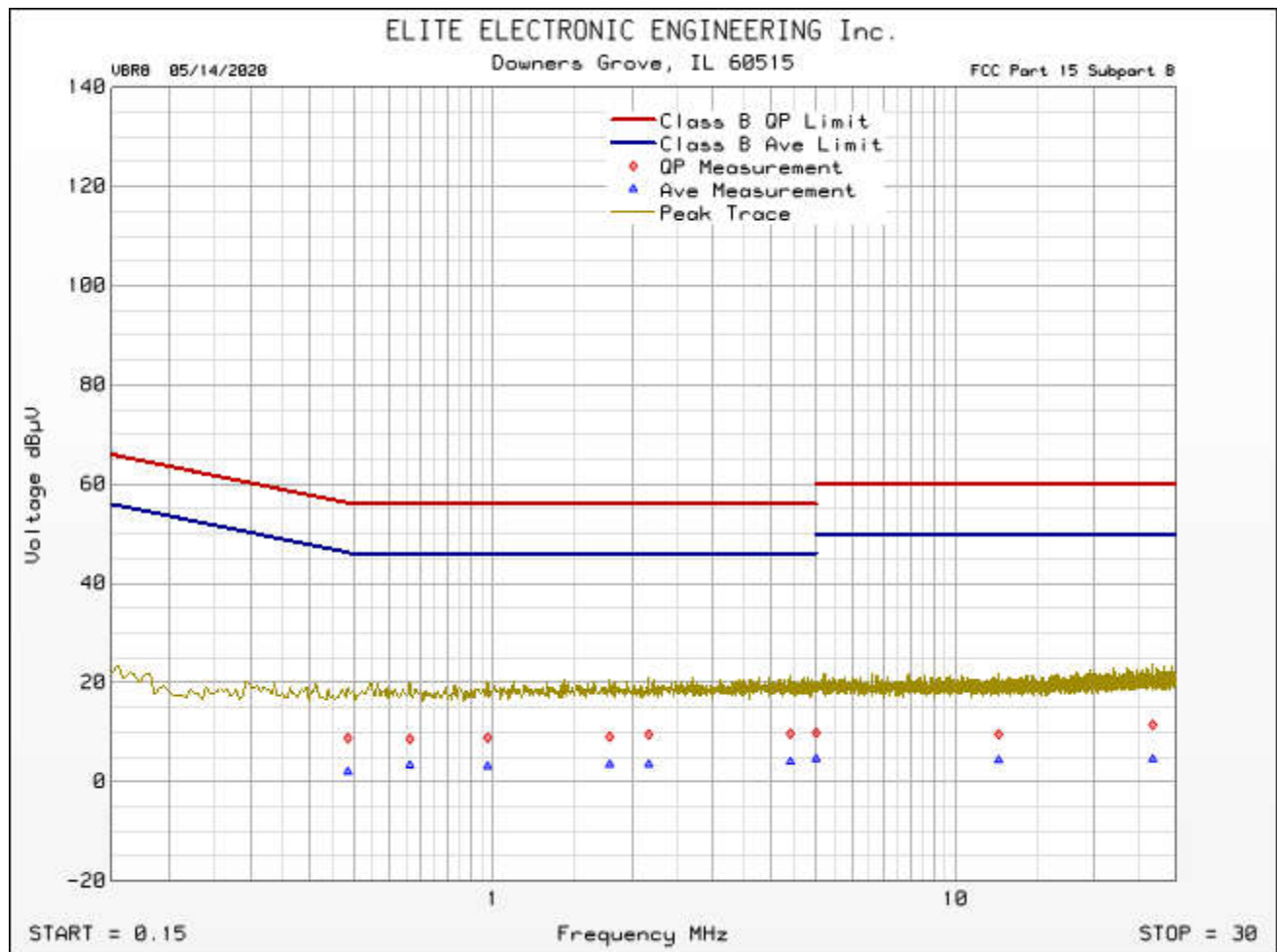
| Freq MHz | Quasi-peak Level dBμV | Quasi-peak Limit dBμV | Excessive Quasi-peak Emissions | Average Level dBμV | Average Limit dBμV | Excessive Average Emissions |
|----------|-----------------------|-----------------------|--------------------------------|--------------------|--------------------|-----------------------------|
| 0.486    | 8.9                   | 56.2                  |                                | 2.1                | 46.2               |                             |
| 0.662    | 8.7                   | 56.0                  |                                | 3.4                | 46.0               |                             |
| 0.975    | 9.0                   | 56.0                  |                                | 3.2                | 46.0               |                             |
| 1.790    | 9.1                   | 56.0                  |                                | 3.5                | 46.0               |                             |
| 2.174    | 9.6                   | 56.0                  |                                | 3.6                | 46.0               |                             |
| 5.000    | 10.0                  | 56.0                  |                                | 4.7                | 46.0               |                             |
| 12.407   | 9.7                   | 60.0                  |                                | 4.4                | 50.0               |                             |
| 26.731   | 11.6                  | 60.0                  |                                | 4.6                | 50.0               |                             |

## FCC Part 15 Subpart B Conducted Emissions Test

### Cumulative Data

VBR8 05/14/2020

Manufacturer : Chamberlain Group Inc  
 Model : 001D9525-1-IND  
 DUT Revision : ---  
 Serial Number : NA  
 DUT Mode : Frequency Hopping  
 Line Tested : Neutral  
 Scan Step Time [ms] : 30  
 Meas. Threshold [dB] : -10  
 Notes : None  
 Test Engineer : J. Cardenas  
 Limit : Class B  
 Test Date : Aug 04, 2021 12:37:08 PM



Emissions Meet QP Limit  
 Emissions Meet Ave Limit

## 23. 20dB Bandwidth

| Test Information |                              |
|------------------|------------------------------|
| Manufacturer     | Chamberlain Group Inc        |
| Product          | Main/Control PCB Transceiver |
| Model            | 001D9525-1-IND               |
| Serial No        | NA                           |
| Mode             | Continuous Transmission      |

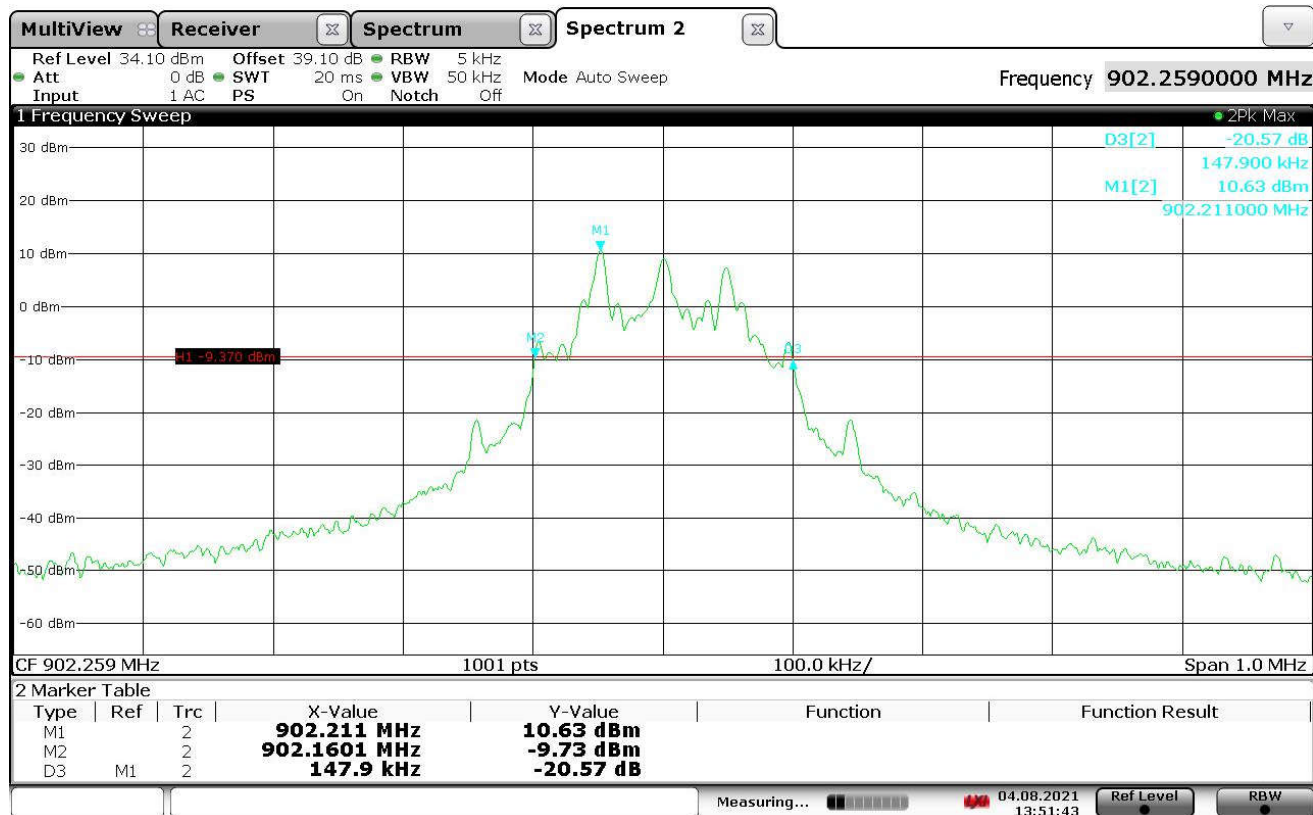
| Test Setup Details    |                   |
|-----------------------|-------------------|
| Setup Format          | Tabletop          |
| Height of Support     | NA                |
| Measurement Method    | Antenna Conducted |
| Type of Test Site     | EMC Workbench     |
| Test site used        | NA                |
| Type of Antennas Used | NA                |
| Notes                 | None              |

| Requirements                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------|
| Systems using frequency hopping techniques, operating in the 902-928MHz band, are allowed a maximum 20dB bandwidth of 500kHz. |

| Procedures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The antenna port of the EUT was connected to the spectrum analyzer through 40dB of attenuation.</p> <p>With the hopping function disabled, the EUT was allowed to transmit continuously. The frequency hopping channel was set separately to low, middle, and high hopping channels. The resolution bandwidth (RBW) was set to 1% to 5% of the 20 dB BW. The span was set to approximately 2 to 5 times the 20 dB bandwidth.</p> <p>The 'Max-Hold' function was engaged. The analyzer was allowed to scan until the envelope of the transmitter bandwidth was defined. The analyzer's display was plotted using a 'screen dump' utility.</p> |

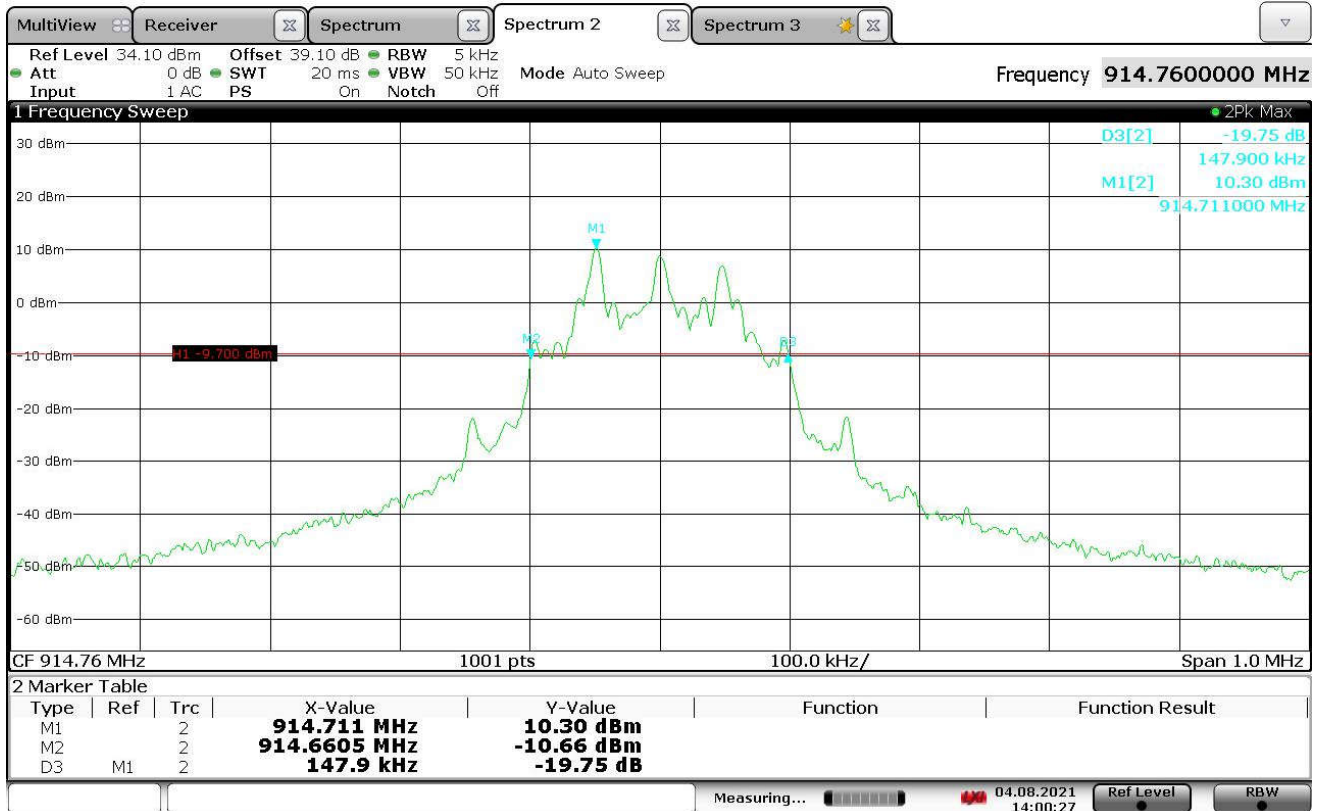
| Measurement Uncertainty                                                                                               |                                  |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Measurement Type                                                                                                      | Expanded Measurement Uncertainty |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz) | 4.3                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (1 GHz – 6 GHz)     | 3.1                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (6 GHz – 18 GHz)    | 3.2                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (18 GHz – 26.5 GHz) | 3.3                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (26.5 GHz – 40 GHz) | 3.4                              |

| Test Details      |                         |
|-------------------|-------------------------|
| Manufacturer      | Chamberlain Group Inc   |
| Model             | 001D9525-1-IND          |
| S/N               | NA                      |
| Mode              | Continuous Transmission |
| Carrier Frequency | 902.259MHz              |
| Parameters        | 20dB BW = 147.9kHz      |
| Notes             | None                    |



13:51:44 04.08.2021

| Test Details      |                         |
|-------------------|-------------------------|
| Manufacturer      | Chamberlain Group Inc   |
| Model             | 001D9525-1-IND          |
| S/N               | NA                      |
| Mode              | Continuous Transmission |
| Carrier Frequency | 914.760MHz              |
| Parameters        | 20dB BW = 147.9kHz      |
| Notes             | None                    |



14:00:28 04.08.2021