Engineering Test Report No. 2004737-01		
Report Date	April 29, 2021	
Manufacturer Name	The Chamberlain Group, Inc.	
Manufacturer Address	300 Windsor Dr Oak Brook, IL 60523	
Model No.	CAPAC	
Date Received	April 2, 2021	
Test Dates	April 2 - 12, 2021	
Specifications	FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.247 FCC “Code of Federal Regulations” Title 47, Part 15, Subpart B Innovation, Science, and Economic Development Canada, RSS-247 Innovation, Science, and Economic Development Canada, RSS-GEN	
Test Facility	Elite Electronic Engineering, Inc. 1516 Centre Circle, Downers Grove, IL 60515	FCC Reg. Number: 269750 IC Reg. Number: 2987A
Signature		
Tested by	Tylar Jozefczyk	
Signature		
Approved by	Raymond J. Klouda, Registered Professional Engineer of Illinois – 44894	
PO Number	4900072391	

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 dates 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.

Table of Contents

1. Report Revision History

Revision	Date	Description
–	05 MAY 2021	Initial Release of Engineering Test Report No. 2004737-01

2. Introduction

2.1. Scope of Tests

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

2.2. Purpose

The test series was performed to determine if The Chamberlain Group, Inc. Access Control Hub, FCC ID: HBW9620, meets the Permissive Change requirements of the FCC "Code of Federal Regulations" Title 47, Part 15, Subpart C, Sections 15.247.

The test series was also performed to determine if The Chamberlain Group, Inc. Access Control Hub, ISED UPN: 2666A-9620, meets the Permissive Change 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 Transmitters.

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	Access Control Hub
Model/Part No.	CAPAC
Device Type	Digitally Modulated Transmission Device
Band of Operation	2400 – 2483.5MHz (FCC ID: HBW99586)
Software/Firmware Version	1.0
Rated Output Power	0.66W (28.22dBm)
Antenna Type	PCB Trace
Manufacturer Supplied [1] Antenna Gain (dBi)	1dBi
Size of EUT	6.5 in x 3.4 in
Emission Classification	G1D (802.11b), W7D (802.11g/n)
Product FCC ID & ISED UPN Number	FCC ID: HBW9620 ISED UPN: 2666A-9620

[1] Antenna gain is supplied by the manufacturer and Elite is not responsible for the accuracy of the antenna gain.

The EUT listed above was used throughout the test series.

3. Power Input

The EUT obtained 120VAC power via a 2 wire, 1 meter AC plug.

4. Grounding

The EUT was not connected to ground.

5. Support Equipment

The EUT was submitted for testing along with the following support equipment:

Description	Model #	S/N
Laptop	N/A	N/A

6. Interconnect Leads

The following interconnect cables were submitted with the test item:

Lead	Description
USB	Connects laptop to EUT to control transmitter frequencies
Ethernet Cable	Used as a load for the Ethernet port

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
Idle	The EUT was powered on and had all radios in an idle mode.
Wi-Fi	The EUT was powered on and was programmed to transmit at an 802.11b/g/n channel.

For the Class 2 Permissive Change testing, the following combination of factors were used:

Mode	Description
802.11b (CCK 11Mbps)	- 2412MHz (TX Power Index = 102) - 2437MHz (TX Power Index = 100) - 2462MHz (TX Power Index = 99)
802.11g (OFDM 54Mbps)	- 2412MHz (TX Power Index = 96) - 2437MHz (TX Power Index = 94) - 2462MHz (TX Power Index = 93)
802.11n (MCS7)	- 2412MHz (TX Power Index = 92) - 2437MHz (TX Power Index = 90) - 2462MHz (TX Power Index = 89)

9. Test Specifications

The tests were performed to selected portions of, and in accordance with, the following 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 The Chamberlain Group, Inc. and used in conjunction with 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 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	24.1°C
Relative Humidity	35%
Atmospheric Pressure	1006.09mb

13. Summary

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

Test Description	Requirements	Test Method	Results
Receiver Conducted Emissions (AC Mains)	FCC 15B 15.107 ISED RSS-GEN	ANSI C63.4:2014	Conforms
Receiver Radiated Emission	FCC 15B 15.107 ISED RSS-GEN	ANSI C63.4:2014	Conforms
Transmitter Conducted Emissions (AC Mains)	FCC 15B 15.207 ISED RSS-GEN	ANSI C63.10:2013	Conforms
Effective Isotropic Radiated Power (EIRP)	FCC 15C 15.247 ISED RSS-247	ANSI C63.10:2013	Conforms
Case Spurious Radiated Emissions	FCC 15C 15.247 ISED RSS-247	ANSI C63.10:2013	Conforms
Band-Edge Compliance	FCC 15C 15.247 ISED RSS-247	ANSI C63.10:2013	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).

Formula 1: VL (µV) = MTR (dBµV) + 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.

Formula 1: FS (dBµV/m) = MTR (dBµV) + AF (dB/m) + CF (dB) + (- PA (dB)) + DC (dB)

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

Formula 2: FS (µV/m) = AntiLog [(FS (dBµV/m))/20]

15. Statement of Conformity

The Chamberlain Group, Inc. Access Control Hub, Model No. CAPAC, Serial No. 0008, did fully conform to the Class II Permissive Change requirements of FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.247 and Innovation, Science, and Economic Development Canada, RSS-247.

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 Part 15, Subpart C, Section 15.247 and Innovation, Science, and Economic Development Canada, RSS-247 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.

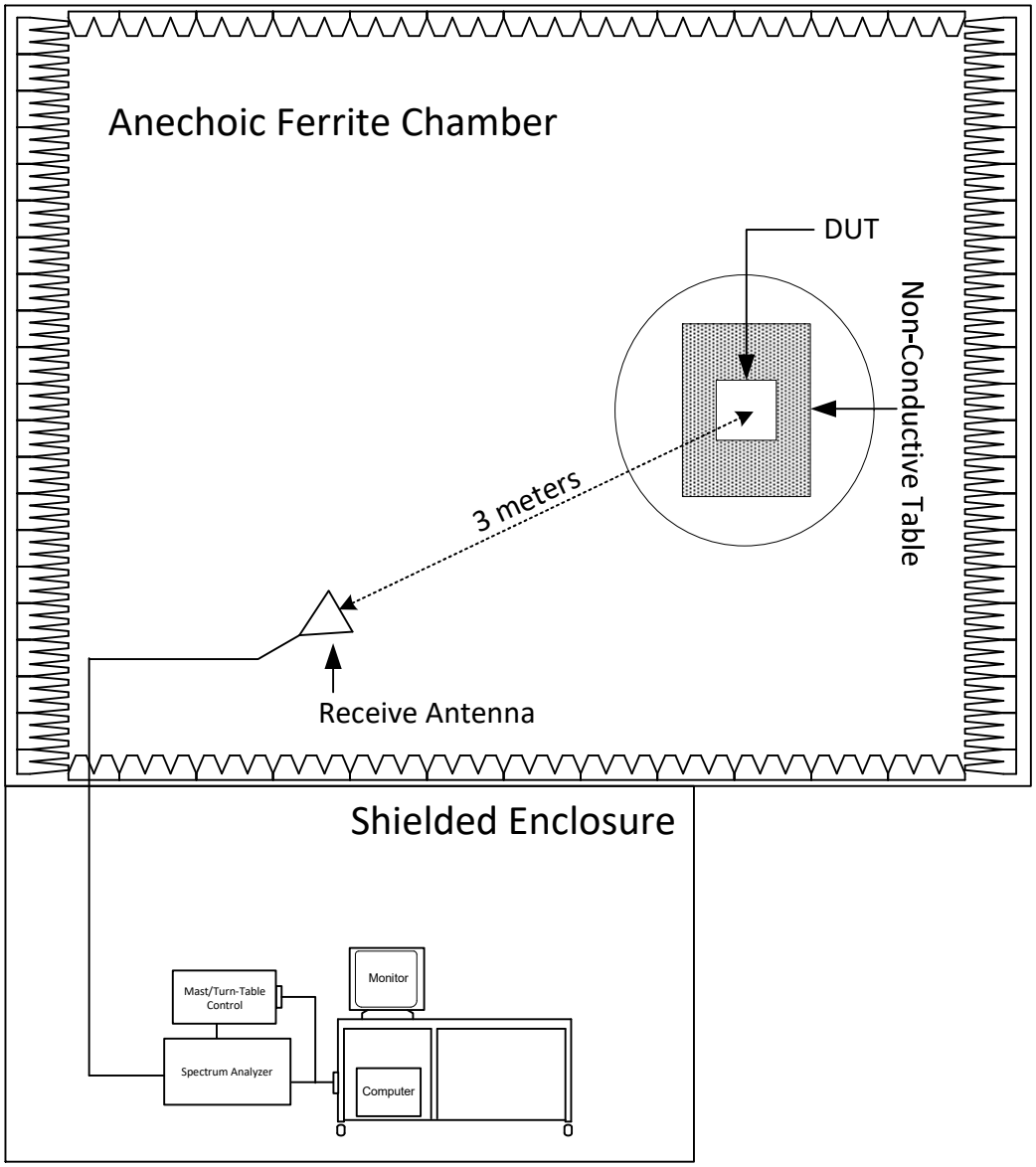
17. Photographs of EUT

18. Equipment List

Eq ID	Equipment Description	Manufacturer	Model No.	Serial No.	Frequency Range	Cal Date	Due Date
APW0	PREAMPLIFIER	PLANAR ELECTRONICS	PE2-30-20G20R6G	PL2926/0646	20GHZ-26.5GHZ	9/24/2020	9/24/2021
APW3	PREAMPLIFIER	PLANAR ELECTRONICS	PE2-35-120-5R0-10-12	PL2924	1GHZ-20GHZ	3/11/2021	3/11/2022
CDU4	LAPTOP COMPUTER	HP				N/A	
CDW5	DESKTOP COMPUTER	ELITE	PENTIUM 4	006	3.8GHZ	N/A	
CDZ4	LAB WORKSTATION	ELITE	LWS-10		WINDOWS 10	CNR	
GRB0	1MHZ, LISN SIGNAL CHECKER	ELITE	LISNCHKR1M	1	1MHZ	1/13/2021	1/13/2023
MEA3	MICRO-OHM METER	KEITHLEY	580	772667	10UOHM-200KOHM	6/4/2020	6/4/2021
NHG0	STANDARD GAIN HORN ANTENNA	NARDA	638	---	18-26.5GHZ	NOTE 1	
NSDS1	UNIVERSAL SPHERICAL DIPOLE SOURCE	AET	USDS-H	AET-1116		NOTE 1	
NTA3	BILOG ANTENNA	TESEQ	6112D	32853	25-1000MHz	10/20/2020	10/20/2021
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
R21F	3M ANECHOIC CHAMBER NSA	EMC TEST SYSTEMS	3M ANECHOIC		30MHZ-18GHZ	3/14/2021	3/14/2022
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
RM14ML	ROOM 14 (LARGE CHAMBER)	LINDGREN ENCLOSURES	120DB	---	100MHZ-18GHZ	N/A	
SHC2	Power Supplies	HENGFU	HF60W-SL-24	A11372702	24V	NOTE 1	
VBR8	CISPR EN FCC CE VOLTAGE.exe					N/A	
VBV2	CISPR EN FCC ICES RE.EXE	ELITE	CISPR EN FCC ICES RE.EXE	---	---	N/A	
WKA1	SOFTWARE, UNIVERSAL RCV EMI	ELITE	UNIV_RCV_EMI	1	---	I/O	
XLT41	5W, 50 OHM TERMINATION	JFW INDUSTRIES	50T-199 N M	---	DC-18 GHZ	12/13/2019	12/13/2021
XPR0	HIGH PASS FILTER	K&L MICROWAVE	11SH10-4800/X20000	001	4.8-20GHZ	9/6/2019	9/6/2021

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. Receiver Conducted Emissions (AC Mains)

EUT Information	
Manufacturer	The Chamberlain Group, Inc.
Product	Access Control Hub
Model No.	CAPAC
Mode	Idle

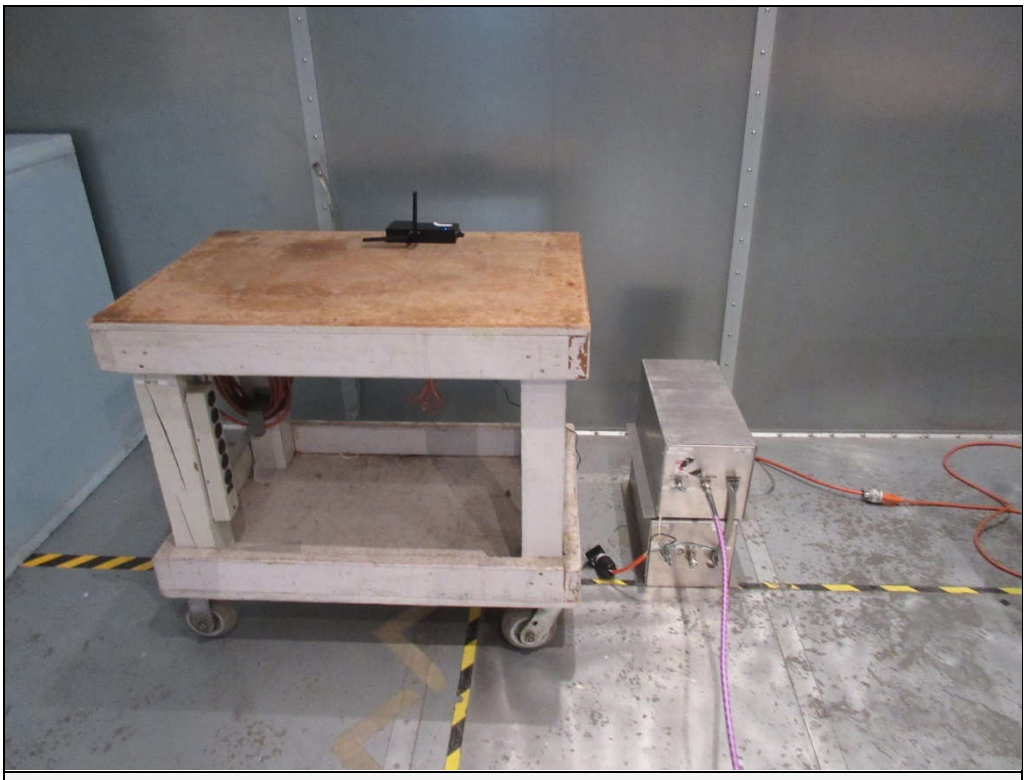
Test Setup Details	
Setup Format	Tabletop
Type of Test Site	Reverberation Chamber
Test Site Used	Room 14
Note	N/A

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

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 table below.

Conducted Emissions Limits		
Frequency of Emission (MHz)	Conducted Limits (µV)	
	Quasi-Peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50
* Decreases with the logarithm of the frequency		

Procedure
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 Idle mode. 2) Measurements were first made on the 120VAC high line. 3) The frequency range from 150kHz to 30MHz 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 120VAC return line.



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
Model	:	CAPAC
DUT Revision	:	1.0
Serial Number	:	N/A
DUT Mode	:	IDLE
Line Tested	:	120VAC 60HZ HIGH LINE
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-10
Notes	:	
Test Engineer	:	T. Jozefczyk
Limit	:	Class B
Test Date	:	Apr 07, 2021 09:59:37 AM
Data Filter	:	Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

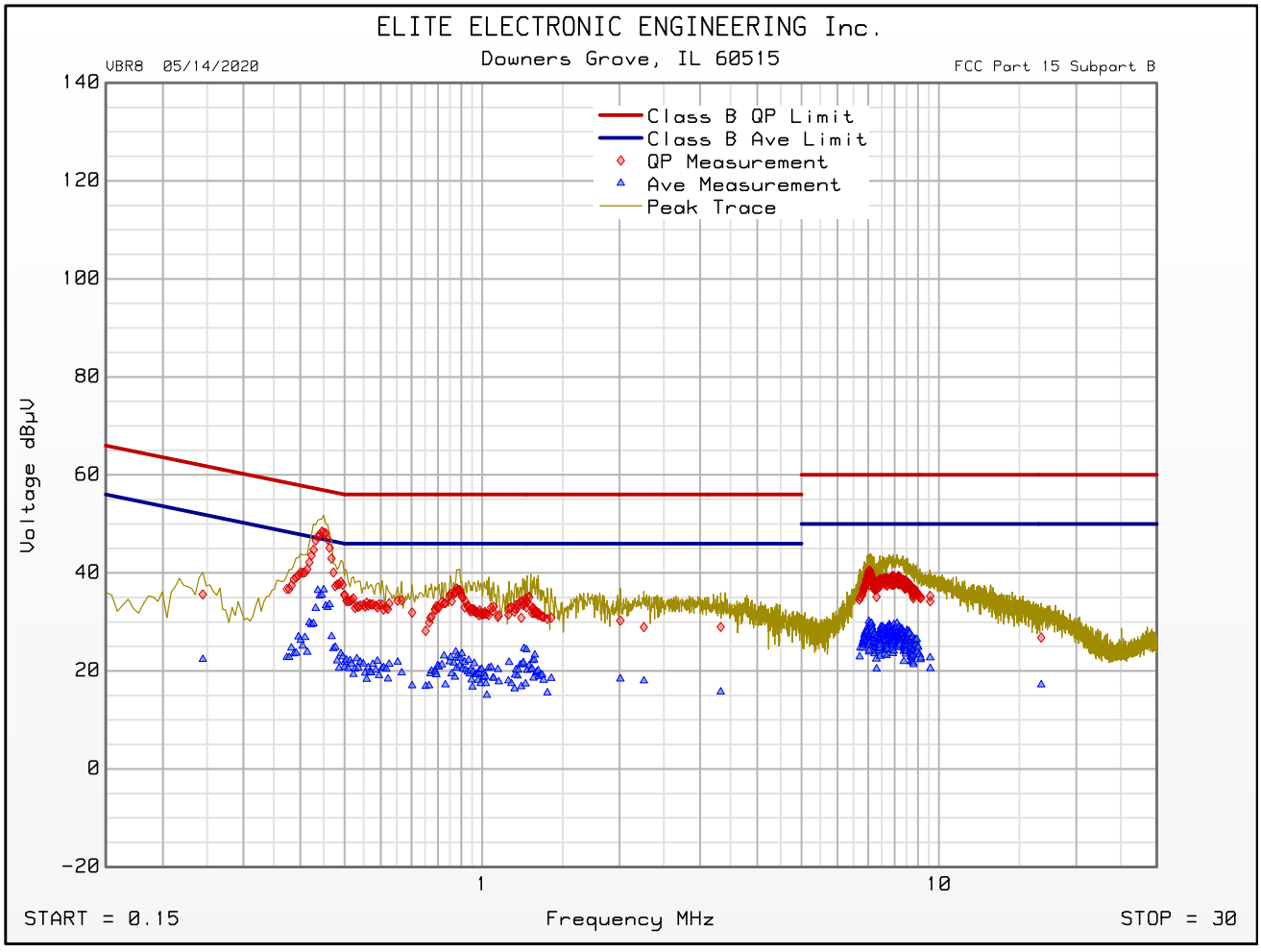
Freq MHz	Quasi-peak Level dBµV	Quasi-peak Limit dBµV	Excessive Quasi-peak Emissions	Average Level dBµV	Average Limit dBµV	Excessive Average Emissions
0.245	35.6	61.9		22.4	51.9	
0.446	48.4	57.0		35.5	47.0	
0.500	35.4	56.0		20.7	46.0	
0.880	36.8	56.0		20.6	46.0	
1.268	35.1	56.0		21.1	46.0	
2.007	30.3	56.0		18.4	46.0	
3.329	29.0	56.0		15.7	46.0	
7.048	40.4	60.0		27.4	50.0	
9.567	35.3	60.0		22.7	50.0	
16.750	26.8	60.0		17.2	50.0	

FCC Part 15 Subpart B Conducted Emissions Test

Cumulative Data

VBR8 05/14/2020

Manufacturer	:	CHAMBERLAIN
Model	:	CAPAC
DUT Revision	:	1.0
Serial Number	:	N/A
DUT Mode	:	IDLE
Line Tested	:	120VAC 60HZ HIGH LINE
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-10
Notes	:	
Test Engineer	:	T. Jozefczyk
Limit	:	Class B
Test Date	:	Apr 07, 2021 09:59:37 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
Model	:	CAPAC
DUT Revision	:	1.0
Serial Number	:	N/A
DUT Mode	:	IDLE
Line Tested	:	120VAC 60HZ NEUTRAL LINE
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-10
Notes	:	
Test Engineer	:	T. Jozefczyk
Limit	:	Class B
Test Date	:	Apr 07, 2021 09:44:30 AM
Data Filter	:	Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

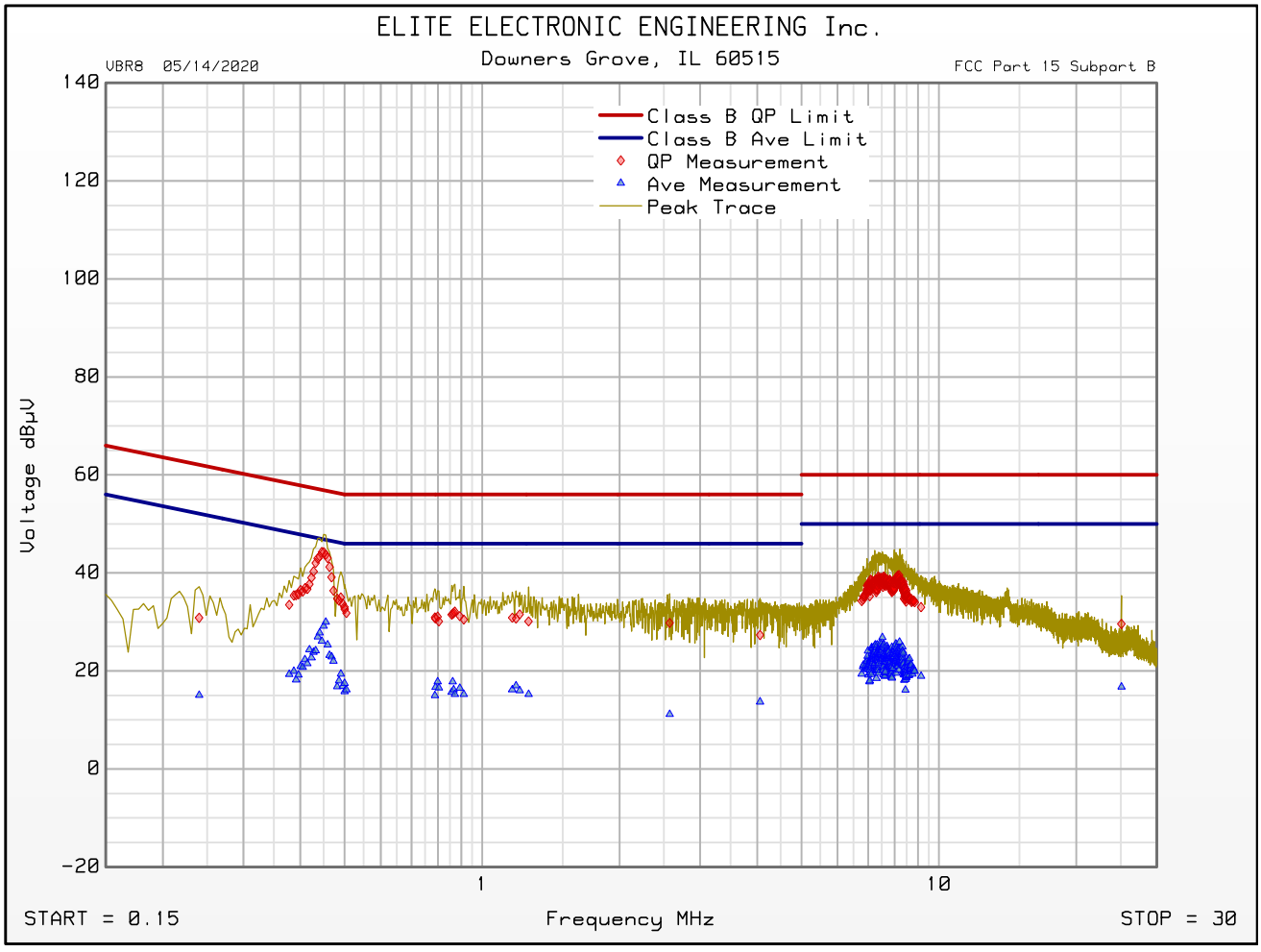
Freq MHz	Quasi-peak Level dBµV	Quasi-peak Limit dBµV	Excessive Quasi-peak Emissions	Average Level dBµV	Average Limit dBµV	Excessive Average Emissions
0.240	30.8	62.1		15.0	52.1	
0.450	44.2	56.9		29.2	46.9	
0.500	32.6	56.0		15.8	46.0	
0.871	32.1	56.0		15.3	46.0	
1.264	30.1	56.0		15.2	46.0	
2.574	29.8	56.0		11.1	46.0	
4.058	27.3	56.0		13.7	46.0	
8.182	39.5	60.0		24.5	50.0	
9.140	33.0	60.0		18.9	50.0	
25.084	29.6	60.0		16.7	50.0	

FCC Part 15 Subpart B Conducted Emissions Test

Cumulative Data

VBR8 05/14/2020

Manufacturer	:	CHAMBERLAIN
Model	:	CAPAC
DUT Revision	:	1.0
Serial Number	:	N/A
DUT Mode	:	IDLE
Line Tested	:	120VAC 60HZ NEUTRAL LINE
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-10
Notes	:	
Test Engineer	:	T. Jozefczyk
Limit	:	Class B
Test Date	:	Apr 07, 2021 09:44:30 AM



Emissions Meet QP Limit
Emissions Meet Ave Limit

21. Receiver Radiated Emissions

EUT Information	
Manufacturer	The Chamberlain Group, Inc.
Product	Access Control Hub
Model No.	CAPAC
Serial No.	0008
Mode	Idle

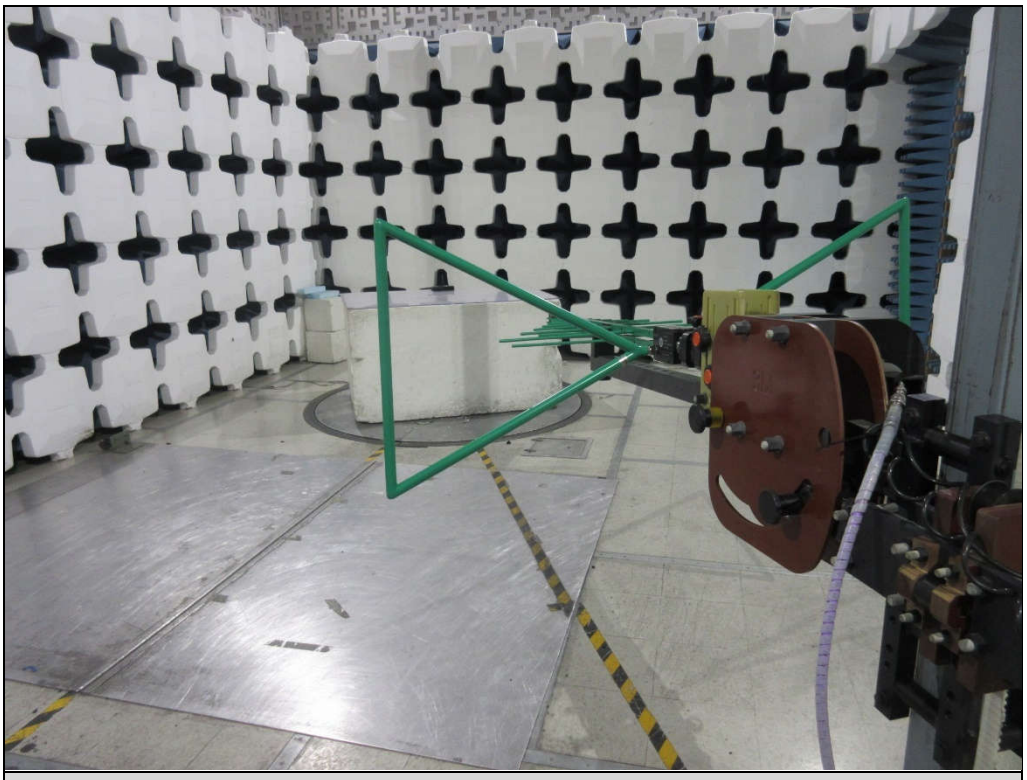
Test Setup Details	
Setup Format	Tabletop
Type of Test Site	Semi-Anechoic Chamber
Test Site Used	Room 21
Type of Antennas Used	Below 1GHz: Bilog (or equivalent) Above 1GHz: Double-ridged waveguide (or equivalent)
Highest Internal Frequency of the EUT	2.4GHz
Highest Measurement Frequency	18GHz
Notes	The cables were manually maximized during the preliminary emissions sweeps. The cable arrangement which resulted in the worst-case emissions was utilized.

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

Requirements
The field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values in the table below.

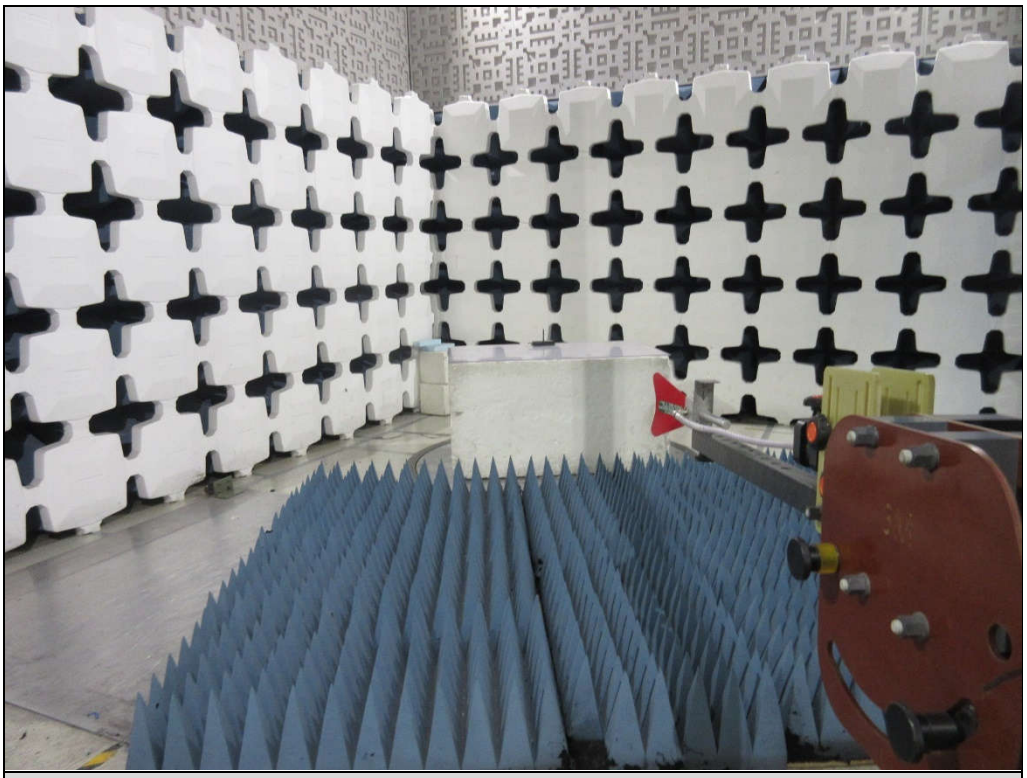
Radiated Emissions Limits		
Frequency of Emission (MHz)	Field Strength (µV/m)	Field Strength (dBµV/m)
30 – 88	100	40
88 – 216	150	43.5
216 – 960	200	46
Above 960	500	54

Procedures
Testing was performed with the antenna of the EUT in place. Since a quasi-peak detector and an average detector require 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. 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 18GHz 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. Final radiated emissions were performed on all significant broadband and narrowband emissions found in the exploratory sweeps using the following methods: 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. 2) To ensure that maximum or worst case, emission levels were measured, the following steps were taken: a) The EUT was rotated so that all sides were exposed to the receiving antenna. b) Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured. c) The measuring antenna was raised and lowered from 1 to 4 meters for each antenna polarization to maximize the readings. 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.

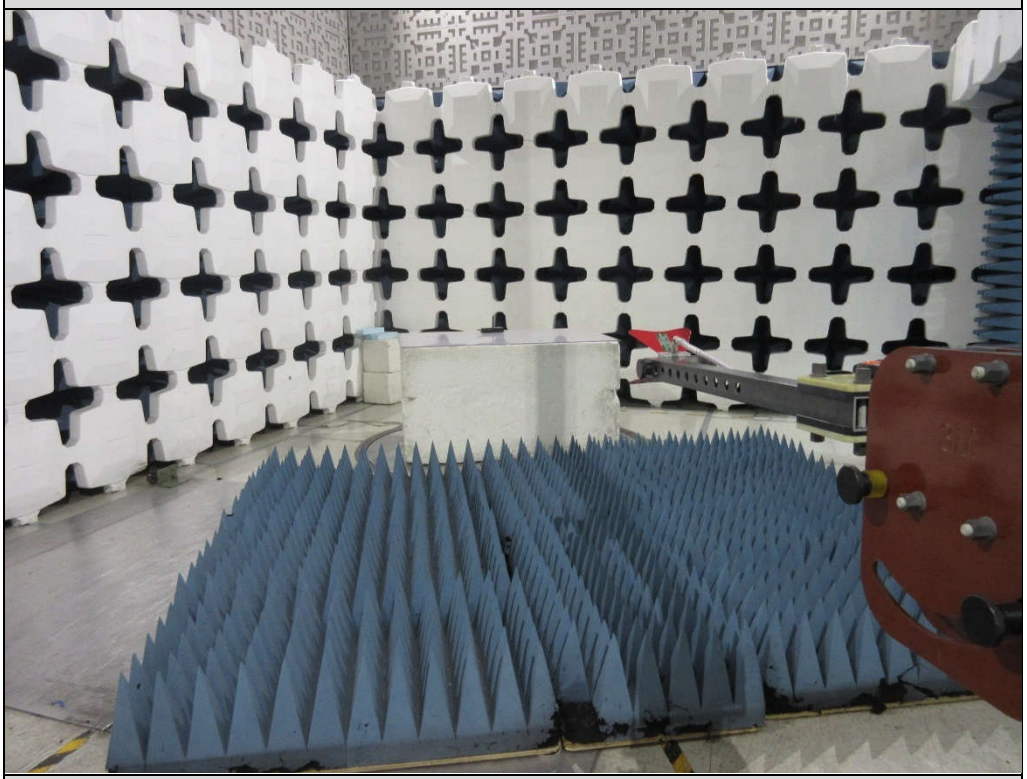


Test Setup for Radiated Emissions: 30MHz to 1GHz, Horizontal Polarization

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



Test Setup for Radiated Emissions: 1GHz to 18GHz, Horizontal Polarization

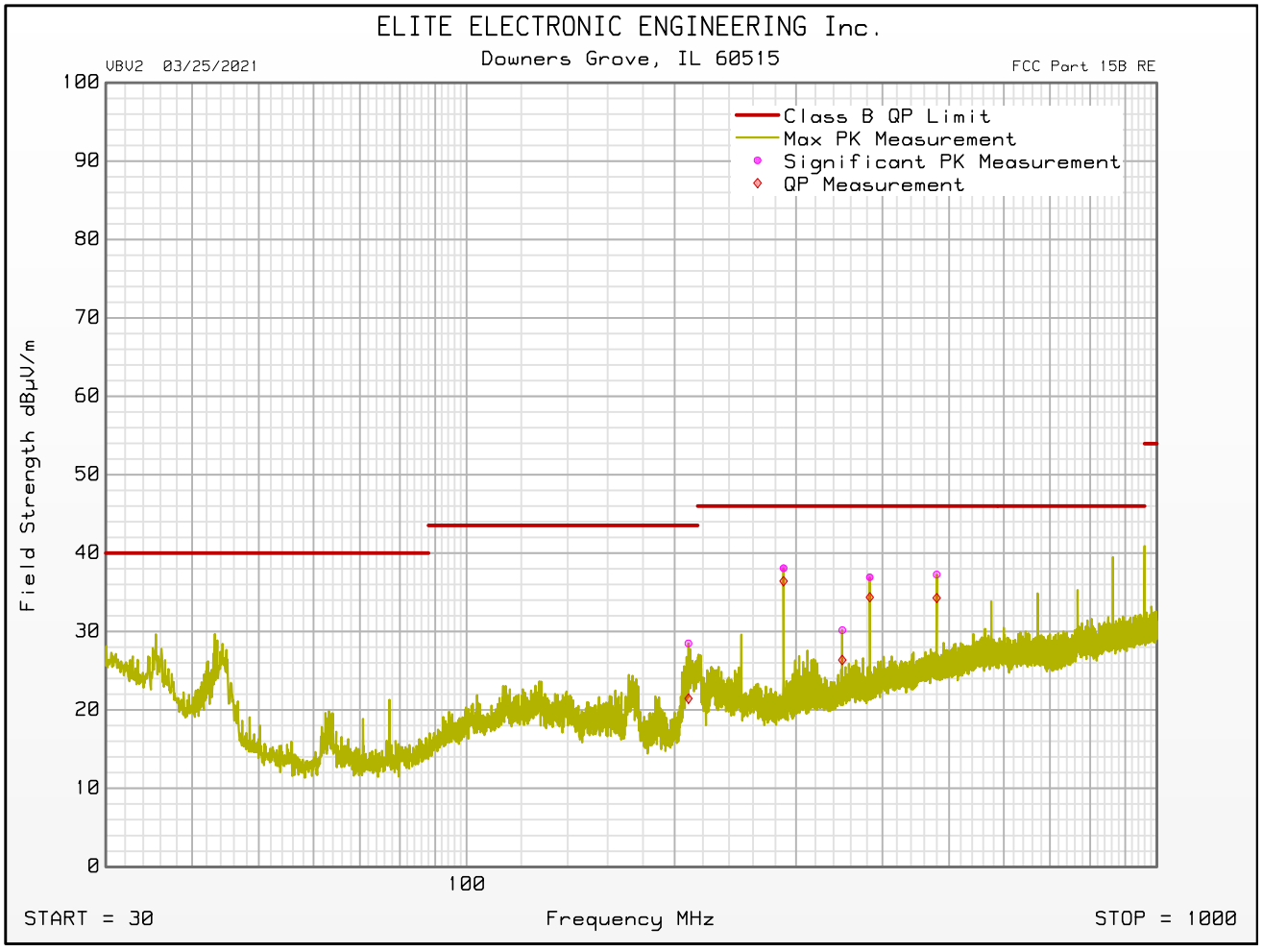


Test Setup for Radiated Emissions: 1GHz to 18GHz, Vertical Polarization

FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 03/25/2021

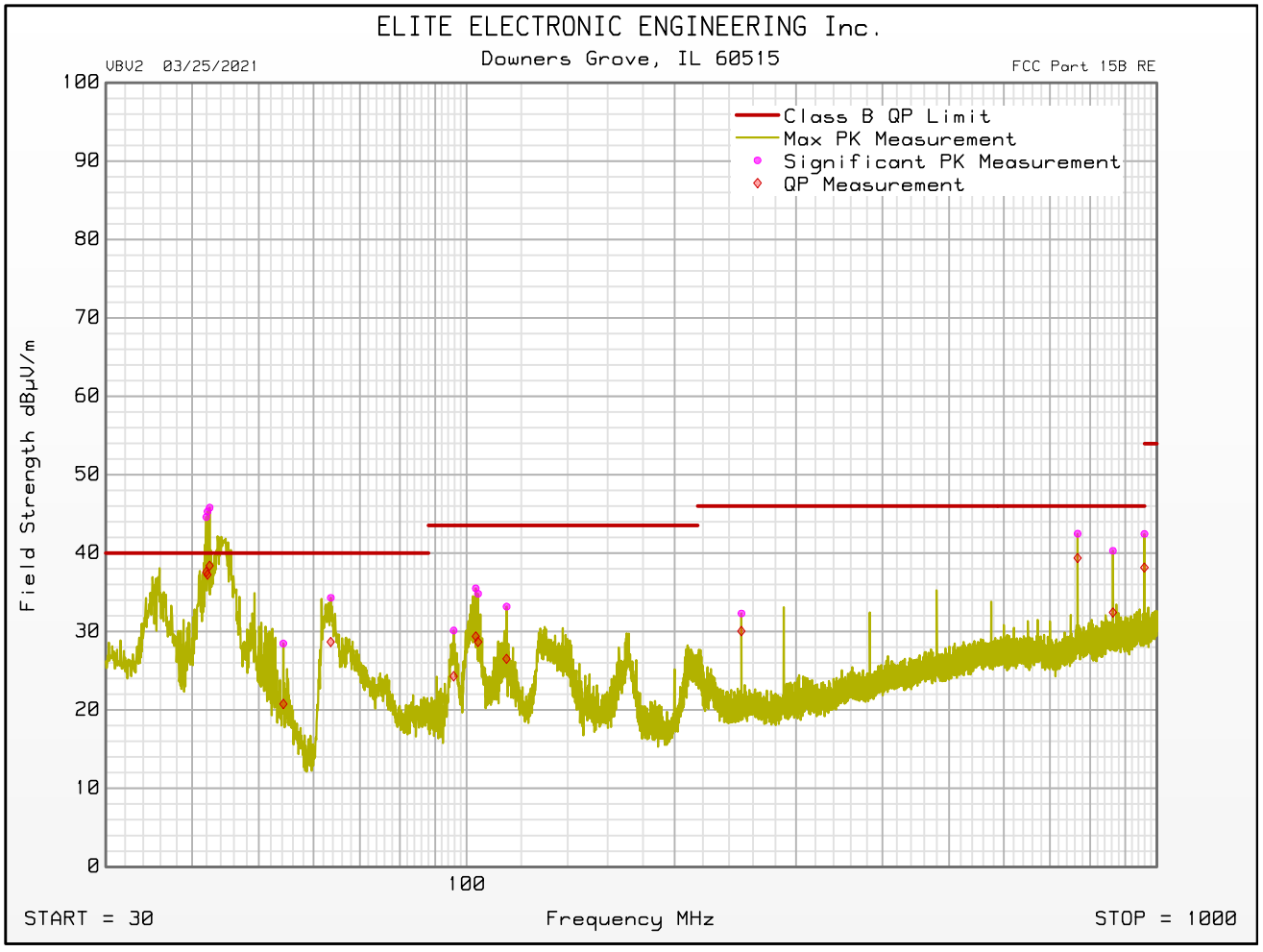
Manufacturer	:	CHAMBERLAIN
Model	:	CAPC
Serial Number	:	N/A
DUT Mode	:	IDLE
Turntable Step Angle (°)	:	45
Mast Positions (cm)	:	120, 200, 340
Antenna Polarization	:	Horizontal
Scan Type	:	Stepped Scan
Test RBW	:	120 kHz
Prelim Dwell Time (s)	:	0.0001
Notes	:	120VA 60HZ
Test Engineer	:	T. Jozefczyk
Test Date	:	Apr 02, 2021 09:44:56 AM



FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 03/25/2021

Manufacturer	:	CHAMBERLAIN
Model	:	CAPC
Serial Number	:	N/A
DUT Mode	:	IDLE
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	:	120VA 60HZ
Test Engineer	:	T. Jozefczyk
Test Date	:	Apr 02, 2021 09:44:56 AM



FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 03/25/2021

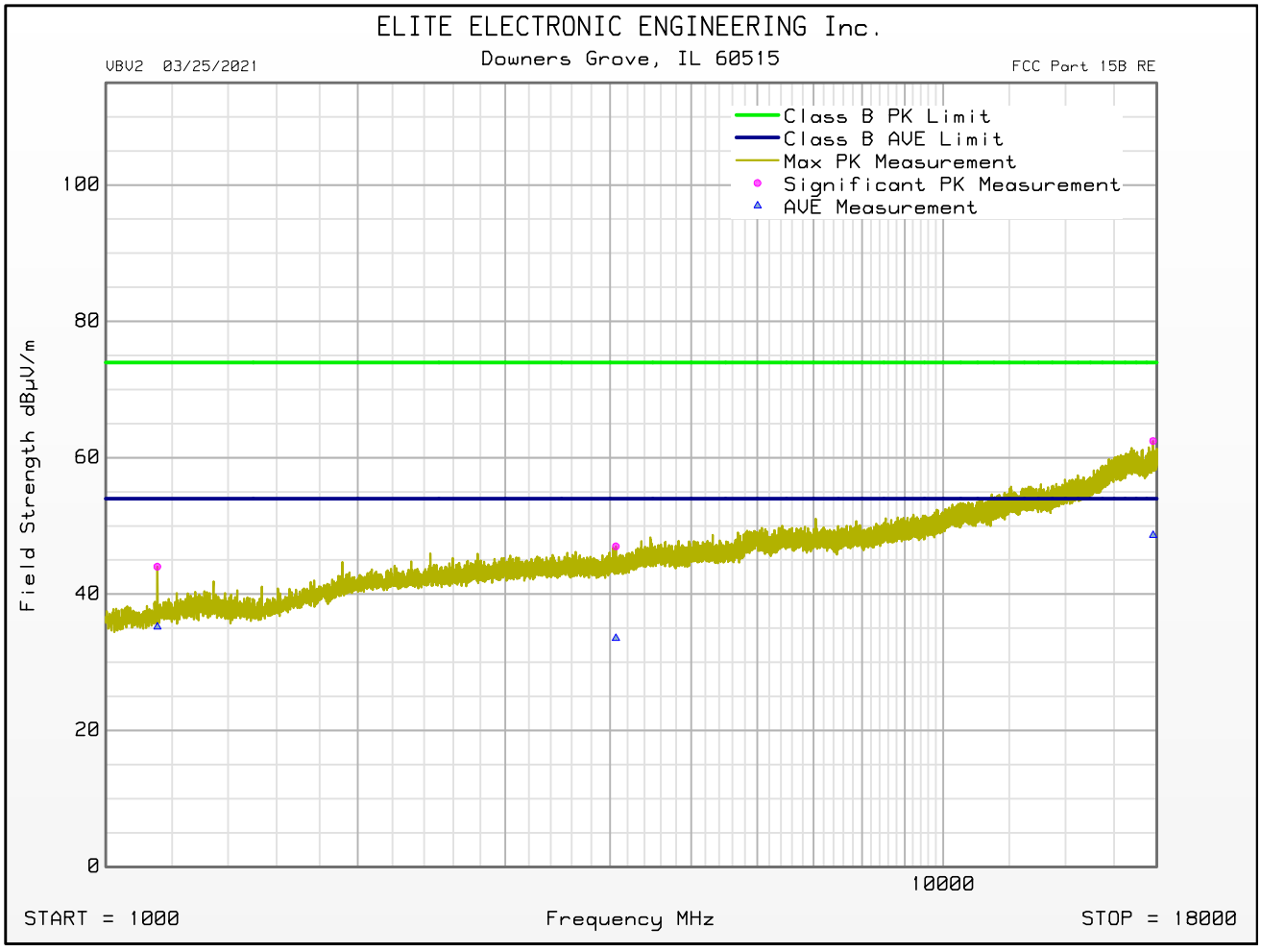
Manufacturer	:	CHAMBERLAIN
Model	:	CAPC
Serial Number	:	N/A
DUT Mode	:	IDLE
Turntable Step Angle (°)	:	45
Mast Positions (cm)	:	120, 200, 340
Scan Type	:	Stepped Scan
Test RBW	:	120 kHz
Prelim Dwell Time (s)	:	0.0001
Notes	:	120VA 60HZ
Test Engineer	:	T. Jozefczyk
Test Date	:	Apr 02, 2021 09:44:56 AM

Freq MHz	Peak Mtr Rdg dBuV	QP Mtr Rdg dBuV	Ant Fac dB/m	Amp Fac dB	Cbl Fac dB	Dist Corr dB	Peak Total dBµV/m	QP Total dBµV/m	QP Limit dBµV/m	QP Lim Mrg dB	Ant Pol	Mast Ht cm	Azim °
41.940	26.1	19.1	17.9	0.0	0.6	0.0	44.6	37.6	40.0	-2.4	V	120	270
42.120	26.9	18.9	17.8	0.0	0.6	0.0	45.3	37.3	40.0	-2.7	V	120	270
42.420	27.6	20.2	17.6	0.0	0.6	0.0	45.8	38.4	40.0	-1.6	V	120	270
54.240	14.8	7.1	13.1	0.0	0.6	0.0	28.5	20.8	40.0	-19.2	V	200	45
63.540	21.4	15.7	12.3	0.0	0.7	0.0	34.3	28.7	40.0	-11.3	V	200	90
95.740	13.2	7.4	16.1	0.0	0.8	0.0	30.1	24.3	43.5	-19.2	V	120	135
103.060	17.4	11.2	17.3	0.0	0.9	0.0	35.5	29.4	43.5	-14.1	V	120	135
103.840	16.6	10.5	17.4	0.0	0.9	0.0	34.8	28.7	43.5	-14.8	V	120	135
114.220	13.9	7.2	18.4	0.0	0.9	0.0	33.2	26.5	43.5	-17.0	V	120	135
209.500	12.0	4.9	15.3	0.0	1.2	0.0	28.5	21.4	43.5	-22.1	H	200	315
250.020	12.5	10.3	18.5	0.0	1.3	0.0	32.3	30.1	46.0	-15.9	V	120	225
287.760	17.9	16.3	18.7	0.0	1.4	0.0	38.1	36.4	46.0	-9.6	H	120	45
349.980	8.2	4.4	20.4	0.0	1.6	0.0	30.2	26.4	46.0	-19.6	H	120	45
383.700	14.2	11.7	21.0	0.0	1.7	0.0	36.9	34.4	46.0	-11.6	H	120	90
479.700	12.1	9.1	23.2	0.0	1.9	0.0	37.3	34.3	46.0	-11.7	H	120	315
767.460	14.2	11.1	25.9	0.0	2.4	0.0	42.5	39.4	46.0	-6.6	V	200	0
863.460	11.5	3.7	26.3	0.0	2.5	0.0	40.3	32.4	46.0	-13.6	V	340	0
959.100	12.9	8.6	27.0	0.0	2.5	0.0	42.5	38.2	46.0	-7.8	V	120	225

FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 03/25/2021

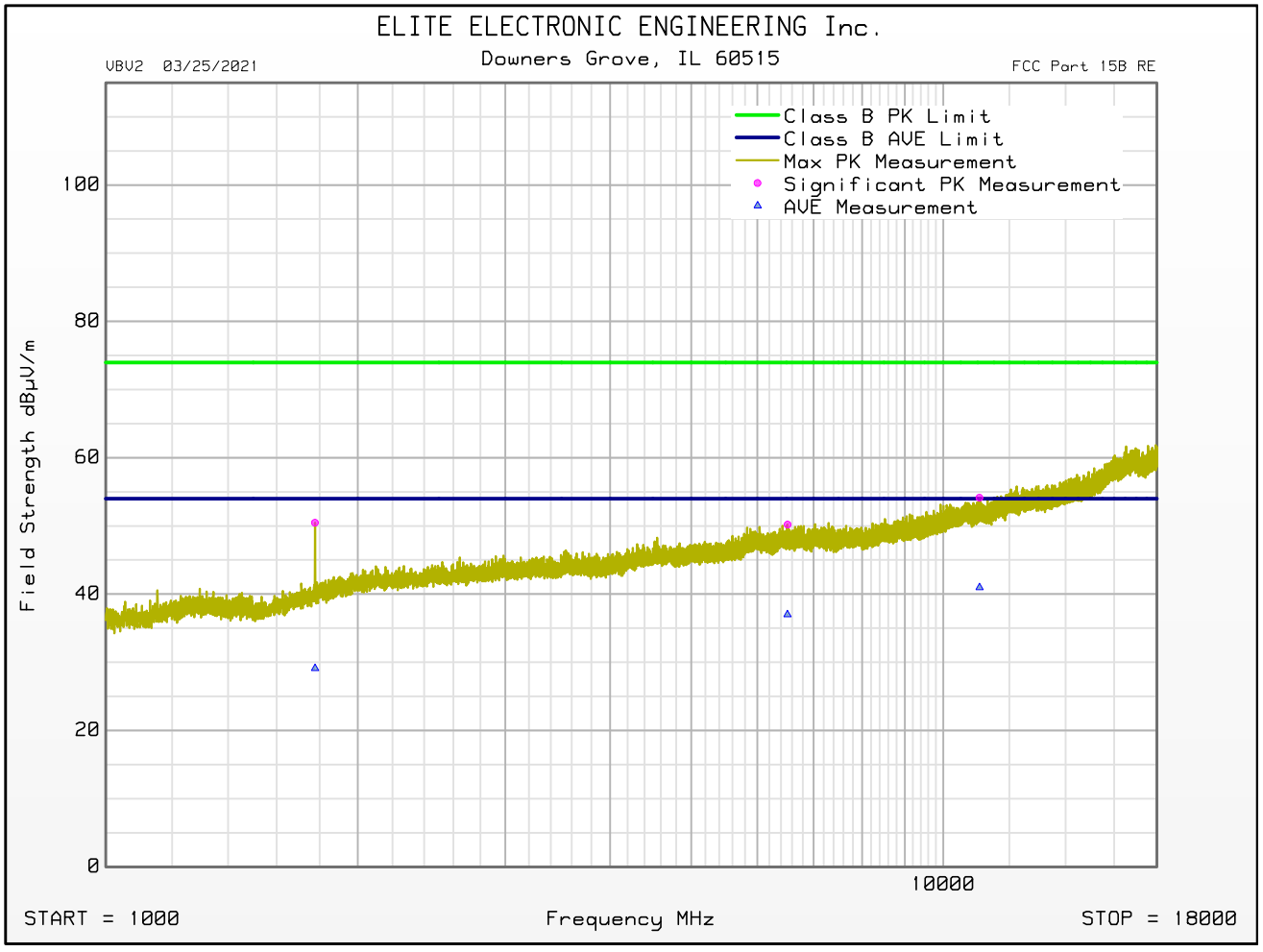
Manufacturer	:	CHAMBERLAIN
Model	:	CAPC
Serial Number	:	N/A
DUT Mode	:	IDLE
Turntable Step Angle (°)	:	45
Mast Positions (cm)	:	120, 200, 340
Antenna Polarization	:	Horizontal
Scan Type	:	Stepped Scan
Test RBW	:	1 MHz
Prelim Dwell Time (s)	:	0.0001
Notes	:	120VA 60HZ
Test Engineer	:	T. Jozefczyk
Test Date	:	Apr 02, 2021 03:46:32 PM



FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 03/25/2021

Manufacturer	:	CHAMBERLAIN
Model	:	CAPC
Serial Number	:	N/A
DUT Mode	:	IDLE
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	:	120VA 60HZ
Test Engineer	:	T. Jozefczyk
Test Date	:	Apr 02, 2021 03:46:32 PM



FCC Part 15B Class B Radiated RF Emissions Test

SW ID/Rev: VBV2 03/25/2021

Manufacturer	:	CHAMBERLAIN
Model	:	CAPC
Serial Number	:	N/A
DUT Mode	:	IDLE
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	:	120VA 60HZ
Test Engineer	:	T. Jozefczyk
Test Date	:	Apr 02, 2021 03:46:32 PM

Freq MHz	Peak Mtr Rdg dBuV	Ant Fac dB/m	Amp Fac dB	Cbl Fac dB	Dist Corr dB	Peak Total dBµV/m	Peak Limit dBµV/m	Peak Lim Mrg dB	Ant Pol	Mast Ht cm	Azim °	Excessive Peak Level
1152.000	55.0	28.3	-42.3	3.0	0.0	44.0	74.0	-30.0	H	200	315	
1777.500	57.6	30.5	-41.1	3.4	0.0	50.5	74.0	-23.5	V	200	225	
4066.000	48.6	33.5	-40.4	5.3	0.0	47.0	74.0	-27.0	H	340	270	
6518.500	47.9	36.0	-40.5	6.8	0.0	50.2	74.0	-23.8	V	120	315	
11049.000	47.7	37.9	-40.5	9.0	0.0	54.1	74.0	-19.8	V	200	315	
17814.000	48.7	41.9	-39.8	11.7	0.0	62.5	74.0	-11.5	H	120	0	

Freq MHz	Ave. Mtr Rdg dBuV	Ant Fac dB/m	Amp Fac dB	Cbl Fac dB	Dist Corr dB	Ave. Total dBµV/m	Ave. Limit dBµV/m	Ave. Lim Mrg dB	Ant Pol	Mast Ht cm	Azim °	Excessive Average Level
1152.000	46.2	28.3	-42.3	3.0	0.0	35.2	54.0	-18.8	H	200	315	
1777.500	36.2	30.5	-41.1	3.4	0.0	29.1	54.0	-24.9	V	200	225	
4066.000	35.1	33.5	-40.4	5.3	0.0	33.5	54.0	-20.5	H	340	270	
6518.500	34.7	36.0	-40.5	6.8	0.0	37.0	54.0	-17.0	V	120	315	
11049.000	34.6	37.9	-40.5	9.0	0.0	41.0	54.0	-13.0	V	200	315	
17814.000	34.9	41.9	-39.8	11.7	0.0	48.6	54.0	-5.4	H	120	0	

22. Transmitter Conducted Emissions (AC Mains)

EUT Information	
Manufacturer	The Chamberlain Group, Inc.
Product	Access Control Hub
Model No.	CAPAC
Mode	Wi-Fi

Test Setup Details	
Setup Format	Tabletop
Type of Test Site	Reverberation Chamber
Test Site Used	Room 14
Note	N/A

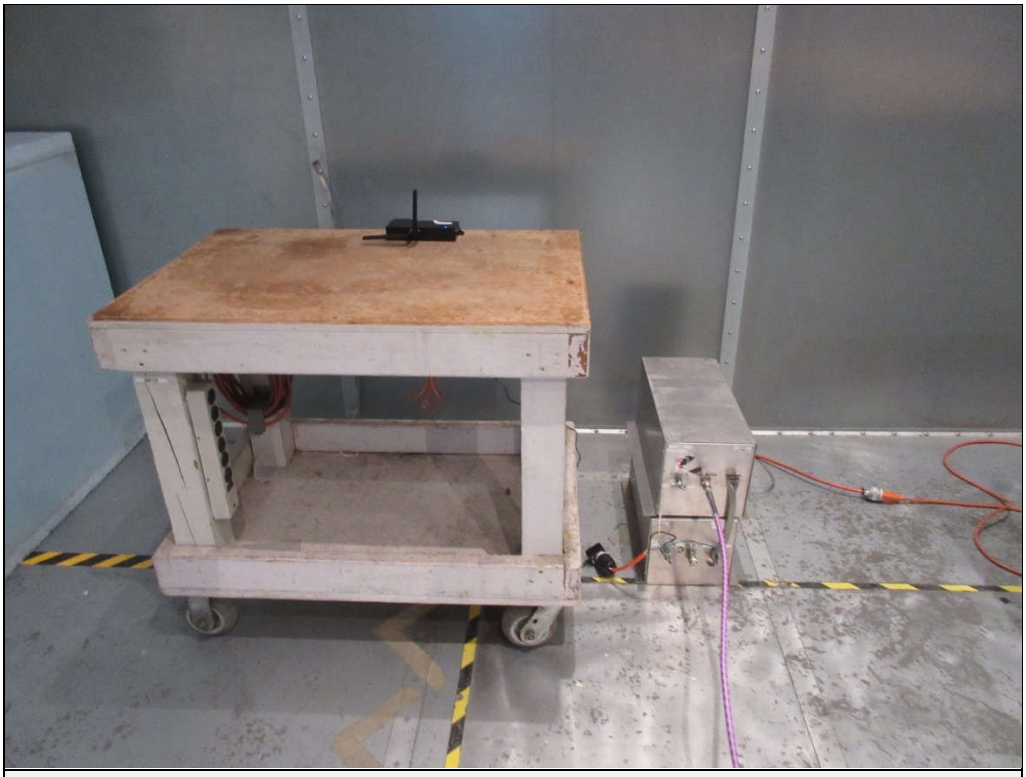
Measurement Uncertainty	
Measurement Type	Expanded Measurement Uncertainty
Conducted disturbance (mains port) (150 kHz – 30 MHz)	2.7

Conducted Emissions Limits		
Frequency (MHz)	Conducted limit (dBµV)	
	Quasi-Peak	Average
0.15 – 0.5	66 – 56 *	56 – 46 *
0.5 – 5	56	46
5 – 30	60	50

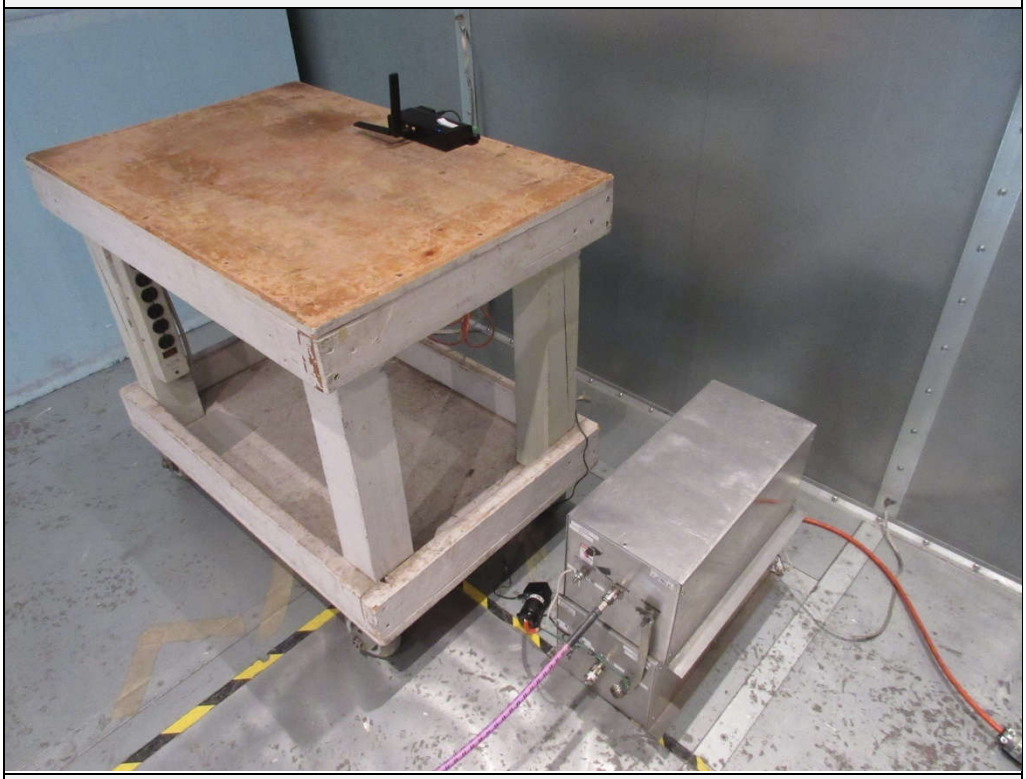
* Decreases with the logarithm of the frequency.

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

Procedure
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 Wi-Fi mode. 2) Measurements were first made on the 120VAC high line. 3) The frequency range from 150kHz to 30MHz 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 120VAC return line.



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
Model	:	CAPAC
DUT Revision	:	1.0
Serial Number	:	N/A
DUT Mode	:	TX
Line Tested	:	120VAC 60HZ HIGH LINE
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-10
Notes	:	
Test Engineer	:	T. Jozefczyk
Limit	:	Class B
Test Date	:	Apr 07, 2021 10:21:10 AM
Data Filter	:	Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

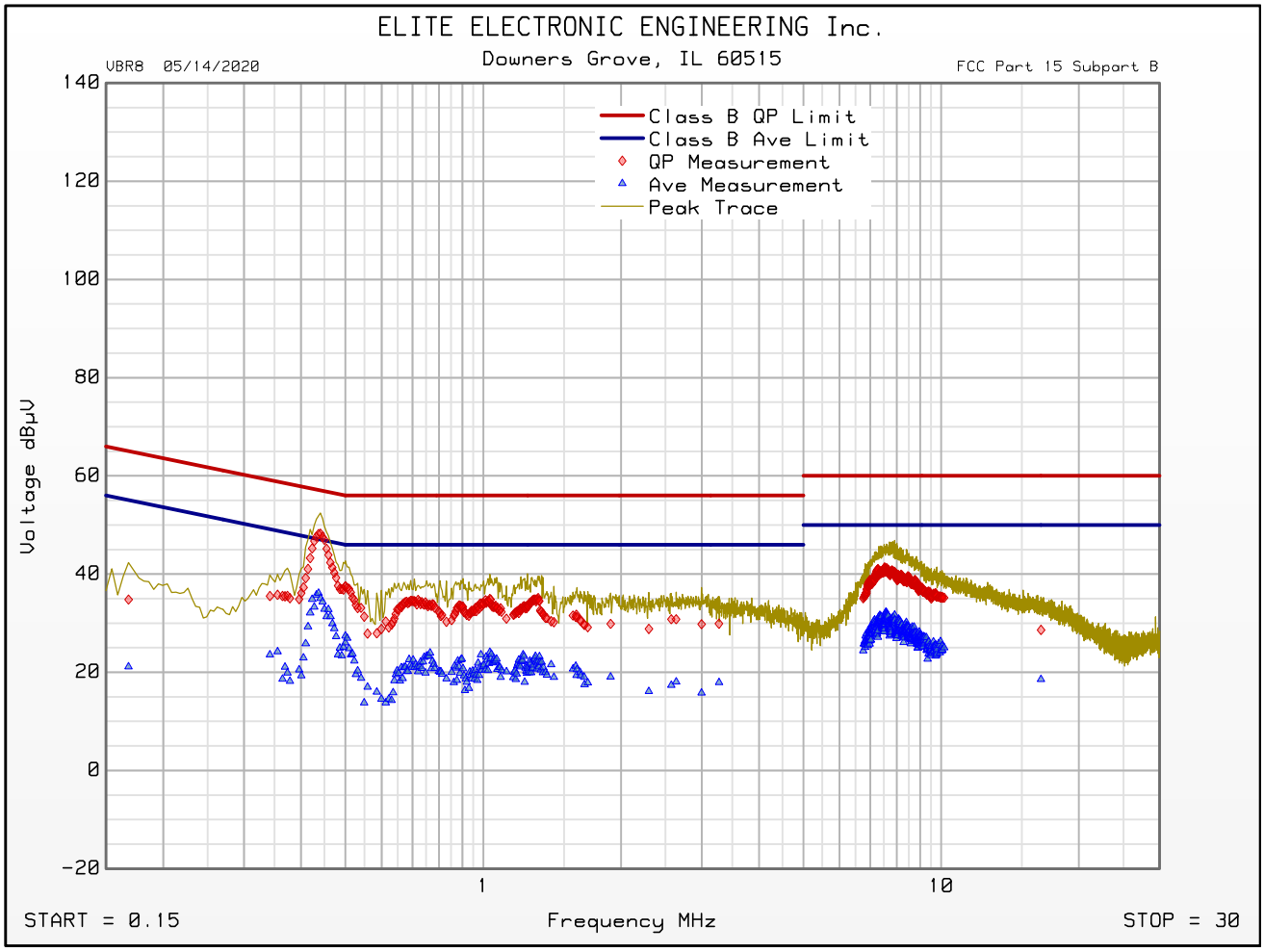
Freq MHz	Quasi-peak Level dBµV	Quasi-peak Limit dBµV	Excessive Quasi-peak Emissions	Average Level dBµV	Average Limit dBµV	Excessive Average Emissions
0.168	34.8	65.1		21.1	55.1	
0.441	48.2	57.0		35.1	47.0	
0.500	37.5	56.0		27.4	46.0	
1.033	34.9	56.0		24.1	46.0	
1.318	35.1	56.0		22.3	46.0	
2.637	30.8	56.0		18.1	46.0	
3.271	29.9	56.0		17.9	46.0	
7.525	41.3	60.0		29.6	50.0	
9.126	36.9	60.0		25.8	50.0	
16.529	28.6	60.0		18.5	50.0	

FCC Part 15 Subpart B Conducted Emissions Test

Cumulative Data

VBR8 05/14/2020

Manufacturer	:	CHAMBERLAIN
Model	:	CAPAC
DUT Revision	:	1.0
Serial Number	:	N/A
DUT Mode	:	TX
Line Tested	:	120VAC 60HZ HIGH LINE
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-10
Notes	:	
Test Engineer	:	T. Jozefczyk
Limit	:	Class B
Test Date	:	Apr 07, 2021 10:21:10 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
Model	:	CAPAC
DUT Revision	:	1.0
Serial Number	:	N/A
DUT Mode	:	TX
Line Tested	:	120VAC 60HZ NEUTRAL LINE
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-10
Notes	:	
Test Engineer	:	T. Jozefczyk
Limit	:	Class B
Test Date	:	Apr 07, 2021 10:36:22 AM
Data Filter	:	Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

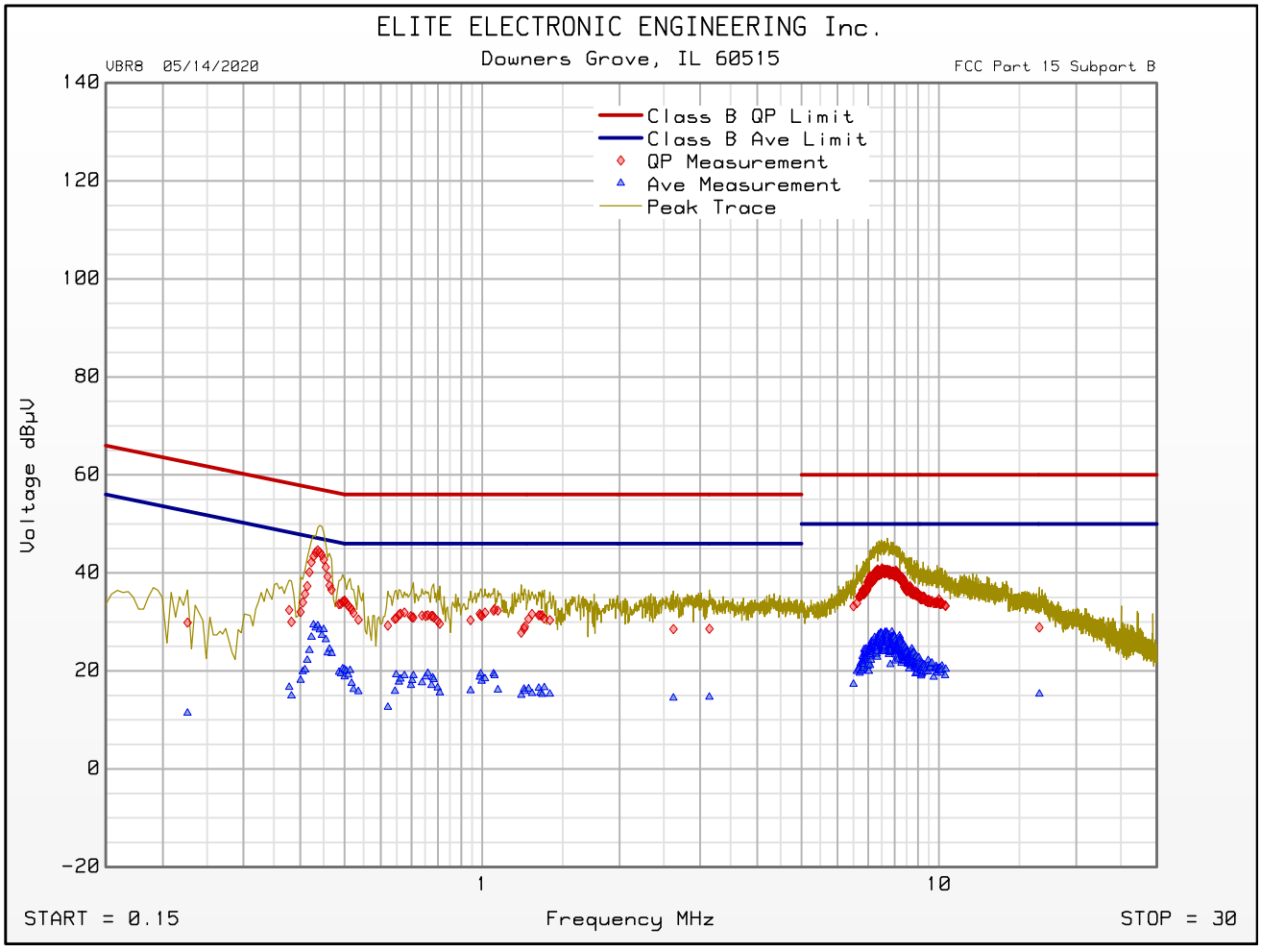
Freq MHz	Quasi-peak Level dBµV	Quasi-peak Limit dBµV	Excessive Quasi-peak Emissions	Average Level dBµV	Average Limit dBµV	Excessive Average Emissions
0.227	29.8	62.6		11.4	52.6	
0.437	44.6	57.1		29.2	47.1	
0.500	34.1	56.0		20.2	46.0	
1.065	32.6	56.0		19.1	46.0	
1.286	31.6	56.0		15.4	46.0	
2.624	28.5	56.0		14.5	46.0	
3.145	28.6	56.0		14.6	46.0	
7.507	41.0	60.0		24.3	50.0	
9.144	35.2	60.0		19.0	50.0	
16.588	28.9	60.0		15.3	50.0	

FCC Part 15 Subpart B Conducted Emissions Test

Cumulative Data

VBR8 05/14/2020

Manufacturer	:	CHAMBERLAIN
Model	:	CAPAC
DUT Revision	:	1.0
Serial Number	:	N/A
DUT Mode	:	TX
Line Tested	:	120VAC 60HZ NEUTRAL LINE
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-10
Notes	:	
Test Engineer	:	T. Jozefczyk
Limit	:	Class B
Test Date	:	Apr 07, 2021 10:36:22 AM



Emissions Meet QP Limit
Emissions Meet Ave Limit

23. Effective Isotropic Radiated Power (EIRP)

EUT Information	
Manufacturer	The Chamberlain Group, Inc.
Product	Access Control Hub
Model No.	CAPAC
Mode	Wi-Fi

Test Setup Details	
Setup Format	Tabletop
Measurement Method	Radiated
Type of Test Site	Semi-Anechoic Chamber
Test Site Used	Room 21
Type of Antenna Used	Double-Ridged Waveguide
Notes	N/A

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

Requirements
The output power shall not exceed 4W (36dBm).

Procedures
The EUT was placed on the non-conductive stand and set to transmit. A double ridged waveguide antenna was placed at a test distance of 3 meters from the EUT. The resolution bandwidth (RBW) of the spectrum analyzer was set to greater than the 6dB bandwidth. The EUT was maximized for worst case emissions (or maximum output power) at the measuring antenna. The maximum meter reading was recorded. The peak power output was measured for the low, middle, and high channels. The equivalent power was determined from the field intensity levels measured at 3 meters using the substitution method. To determine the emission power, a dipole antenna (double ridged waveguide antenna for all measurements above 1GHz) was then set in place of the EUT and connected to a calibrated signal generator. The output of the signal generator was adjusted to match the received level at the spectrum analyzer. The signal level was recorded. The reading was then corrected to compensate for cable loss (and antenna gain for all measurements above 1GHz), as required. The peak power output was calculated for low, middle, and high hopping frequencies.

Test Details	
Manufacturer	The Chamberlain Group, Inc.
EUT	Access Control Hub
Model No.	CAPAC
Mode	Wi-Fi – 802.11b
Result	Output Power = 0.17W (22.38dBm)
Notes	N/A

Freq. (MHz)	Ant Pol	Wide BW Meter Reading (dBuV)	Matched Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2412.00	H	81.53	19.55	5.58	2.76	22.38	36.00	-13.62
2412.00	V	80.02	18.33	5.58	2.76	21.15	36.00	-14.85
2437.00	H	80.73	18.81	5.45	2.77	21.49	36.00	-14.51
2437.00	V	80.53	18.87	5.45	2.77	21.55	36.00	-14.45
2462.00	H	79.84	17.97	5.46	2.79	20.64	36.00	-15.36
2462.00	V	79.78	18.14	5.46	2.79	20.82	36.00	-15.18

Test Details	
Manufacturer	The Chamberlain Group, Inc.
EUT	Access Control Hub
Model No.	CAPAC
Mode	Wi-Fi – 802.11g
Result	Output Power = 0.66W (28.22dBm)
Notes	N/A

Freq. (MHz)	Ant Pol	Wide BW Meter Reading (dBuV)	Matched Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2412.00	H	84.89	22.91	5.58	2.76	25.74	36.00	-10.26
2412.00	V	84.59	22.90	5.58	2.76	25.72	36.00	-10.28
2437.00	H	86.99	25.07	5.45	2.77	27.75	36.00	-8.25
2437.00	V	84.88	23.22	5.45	2.77	25.90	36.00	-10.10
2462.00	H	87.42	25.55	5.46	2.79	28.22	36.00	-7.78
2462.00	V	85.59	23.95	5.46	2.79	26.63	36.00	-9.37

Test Details	
Manufacturer	The Chamberlain Group, Inc.
EUT	Access Control Hub
Model No.	CAPAC
Mode	Wi-Fi – 802.11n
Result	Output Power = 0.408W (26.11dBm)
Notes	N/A

Freq. (MHz)	Ant Pol	Wide BW Meter Reading (dBuV)	Matched Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2412.00	H	84.78	22.80	5.58	2.76	25.63	36.00	-10.37
2412.00	V	83.73	22.04	5.58	2.76	24.86	36.00	-11.14
2437.00	H	85.35	23.43	5.45	2.77	26.11	36.00	-9.89
2437.00	V	84.13	22.47	5.45	2.77	25.15	36.00	-10.85
2462.00	H	82.91	21.04	5.46	2.79	23.71	36.00	-12.29
2462.00	V	76.72	15.08	5.46	2.79	17.76	36.00	-18.24

24. Case Spurious Radiated Emissions

EUT Information	
Manufacturer	The Chamberlain Group, Inc.
Product	Access Control Hub
Model No.	CAPAC
Mode	Wi-Fi

Test Setup Details	
Setup Format	Tabletop
Measurement Method	Radiated
Type of Test Site	Semi-Anechoic Chamber
Test Site Used	Room 21
Type of Antennas Used	Above 1GHz: Double-ridged waveguide (or equivalent)
Notes	The cables were manually maximized during the preliminary emissions sweeps. The cable arrangement which resulted in the worst-case emissions was utilized.

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

Procedure

Radiated measurements were performed in a 32ft. x 20ft. x 14ft. high shielded enclosure. The shielded enclosure prevents emissions from other sources, such as radio and TV stations from interfering with the measurements. All powerlines and signal lines entering the enclosure pass through filters on the enclosure wall. The powerline filters prevent extraneous signals from entering the enclosure on these leads.

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

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

1) For all harmonics not in the restricted bands, the following procedure was used:
   a) The field strength of the fundamental was measured using a double ridged waveguide antenna. The waveguide antenna was positioned at a 3 meter distance from the EUT. The EUT was placed on a 1.5 meter high non-conductive stand. A peak detector with a resolution bandwidth of 100 kHz was used on the spectrum analyzer.
   b) The field strengths of all of the harmonics not in the restricted band were then measured using a double-ridged waveguide antenna. The waveguide antenna was positioned at a 3 meter distance from the EUT. The EUT was placed on a 1.5 meter high non-conductive stand. A peak detector with a resolution bandwidth of 100 kHz was used on the spectrum analyzer.
   c) To ensure that maximum or worst case emission levels at the fundamental and harmonics were measured, the following steps were taken when measuring the fundamental emissions and the spurious emissions:
      i) The EUT was rotated so that all of its sides were exposed to the receiving antenna.
      ii) Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured.
      iii) The measuring antenna was raised and lowered for each antenna polarization to maximize the readings.
      iv) In instances where it was necessary to use a shortened cable between the measuring antenna and the spectrum analyzer. The measuring antenna was not raised or lowered to ensure maximized readings, instead the EUT was rotated through all axis to ensure the maximum readings were recorded for the EUT.
   d) All harmonics not in the restricted bands must be at least 20dB below levels measured at the fundamental. However, attenuation below the general limits specified in §15.209(a) is not required.
2) For all emissions in the restricted bands, the following procedure was used:
   a) The field strengths of all emissions below 1GHz were measured using a bi-log antenna. The bi-log antenna was positioned at a 3 meter distance from the EUT. The EUT was placed on an 80cm high non-conductive stand. A peak detector with a resolution bandwidth of 100 kHz was used on the spectrum analyzer.
   b) The field strengths of all emissions above 1GHz were measured using a double-ridged waveguide antenna. The waveguide antenna was positioned at a 3 meter distance from the EUT. The EUT was placed on a 1.5 meter high non-conductive stand. A peak detector with a resolution bandwidth of 1MHz was used on the spectrum analyzer.
   c) To ensure that maximum or worst case emission levels were measured, the following steps were taken when taking all measurements:
      i) The EUT was rotated so that all of its sides were exposed to the receiving antenna.
      ii) Since the measuring antenna is linearly polarized, both horizontal and vertical field components

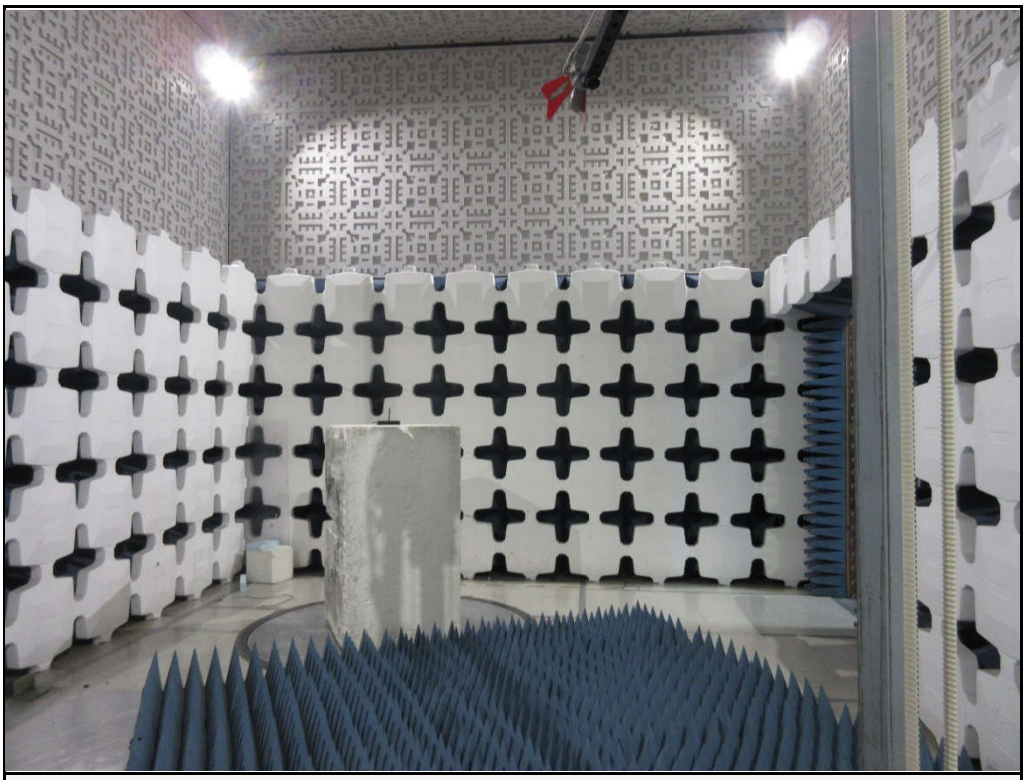
were measured.

iii) The measuring antenna was raised and lowered for each antenna polarization to maximize the readings.

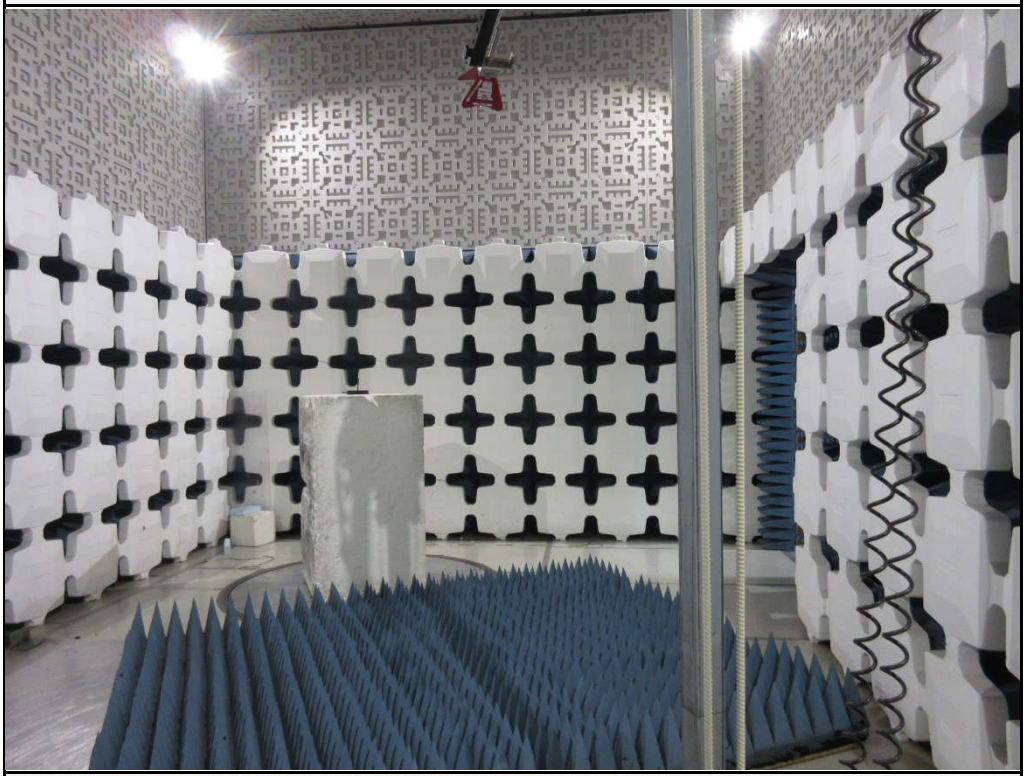
iv) In instances where it was necessary to use a shortened cable between the measuring antenna and the spectrum analyzer. The measuring antenna was not raised or lowered to ensure maximized readings, instead the EUT was rotated through all axis to ensure the maximum readings were recorded for the EUT.

d) For all radiated emissions measurements above 1GHz, the peak readings must comply with the §15.35(b) limits. §15.35(b) states that when average radiated emissions measurements are specified, there also is a limit on the peak level of the radiated emissions. The limit on the peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. Therefore, all peak readings above 1GHz must be no greater than 20dB above the limits specified in §15.209(a).

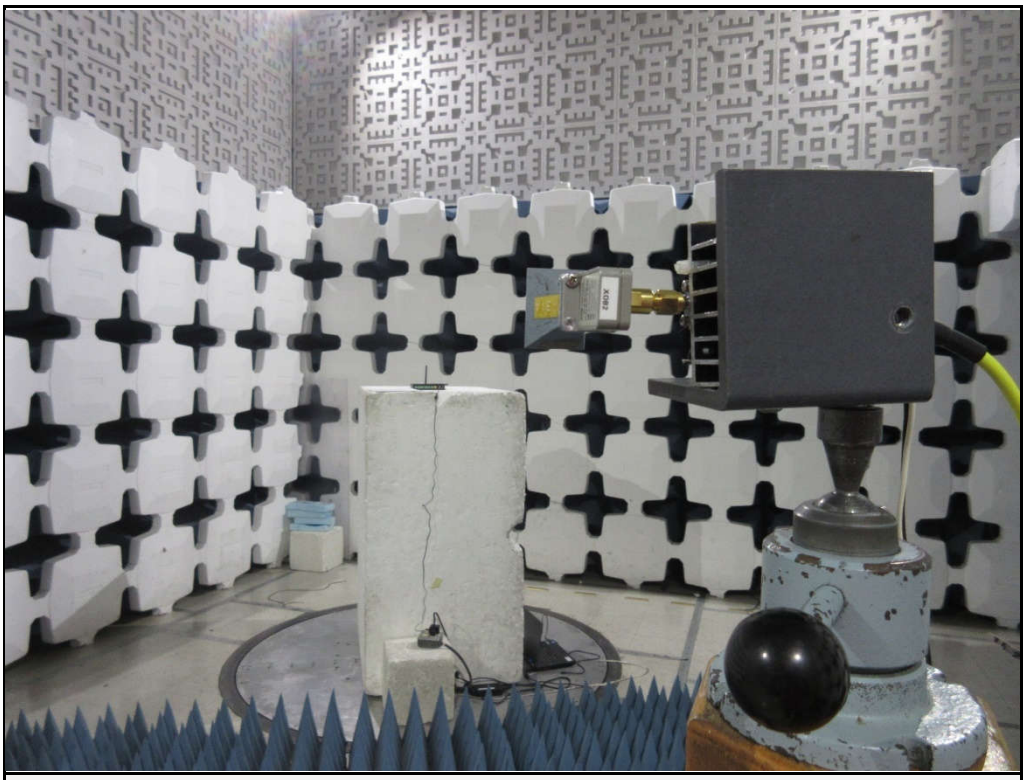
e) Next, for all radiated emissions measurements above 1GHz, the resolution bandwidth was set to 1MHz. The analyzer was set to linear mode with a 10Hz video bandwidth in order to simulate an average detector. An average reading was taken.



Test Setup for Spurious Radiated Emissions, 1 – 18GHz – Antenna Polarization Horizontal

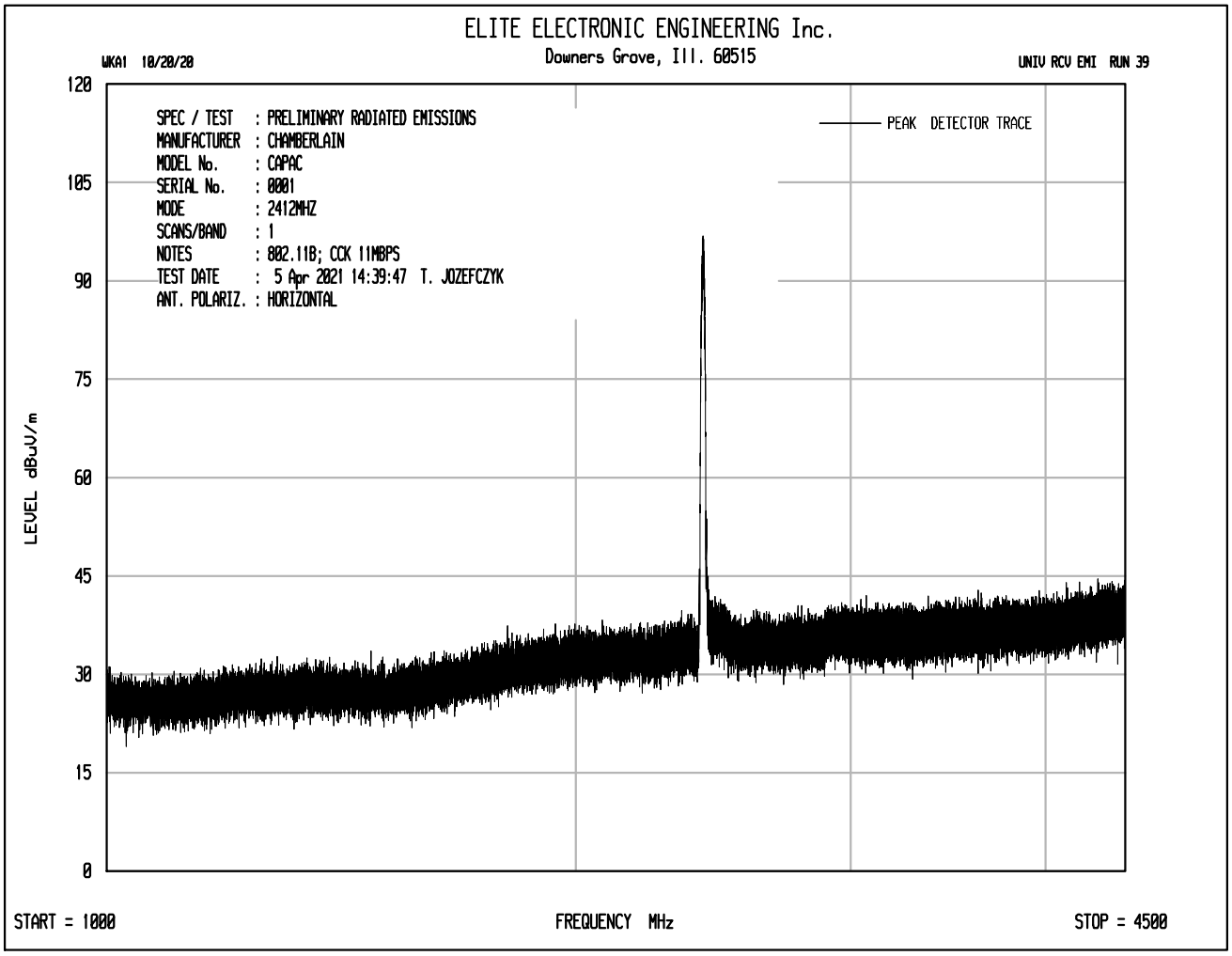


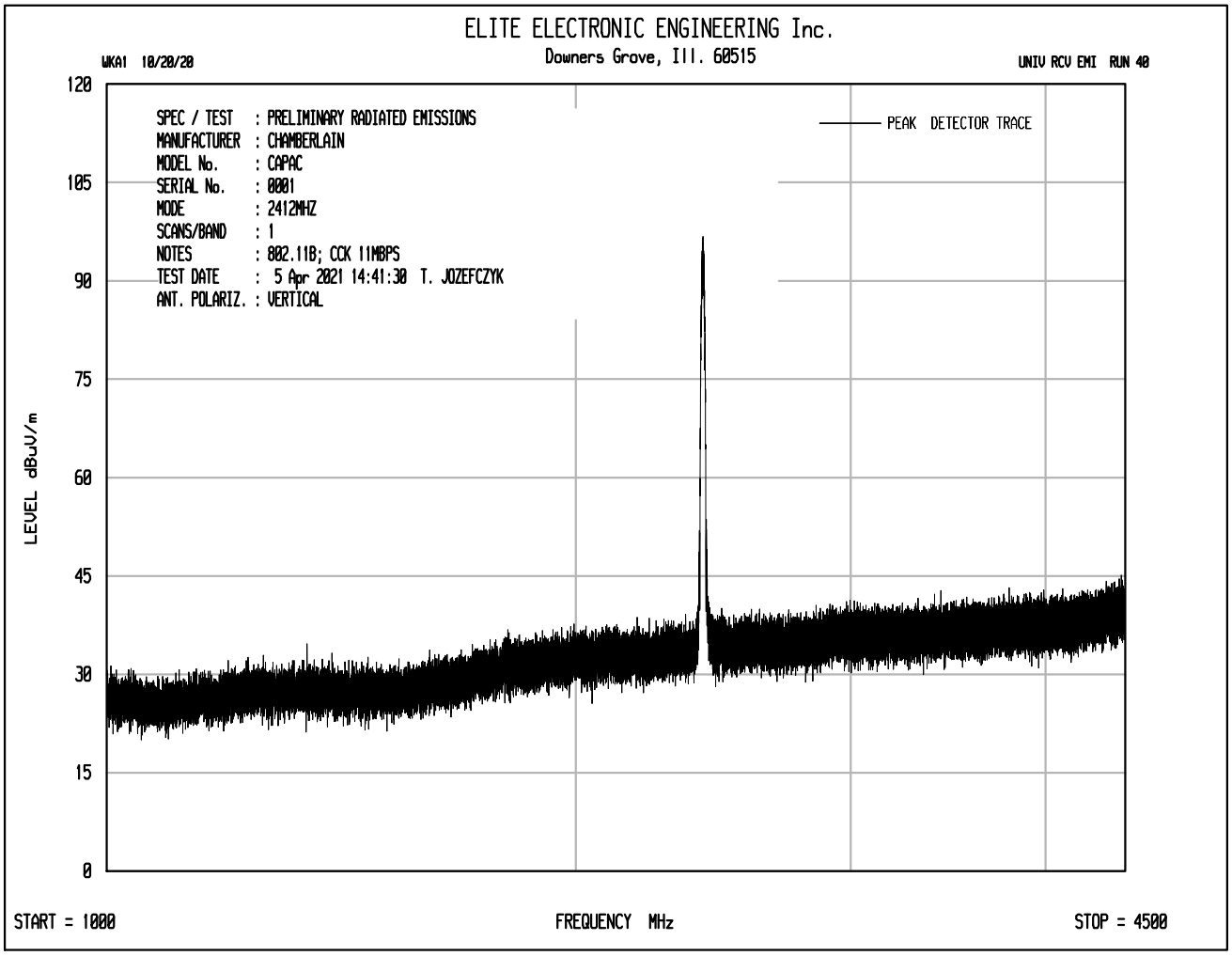
Test Setup for Spurious Radiated Emissions, 1 – 18GHz – Antenna Polarization Vertical

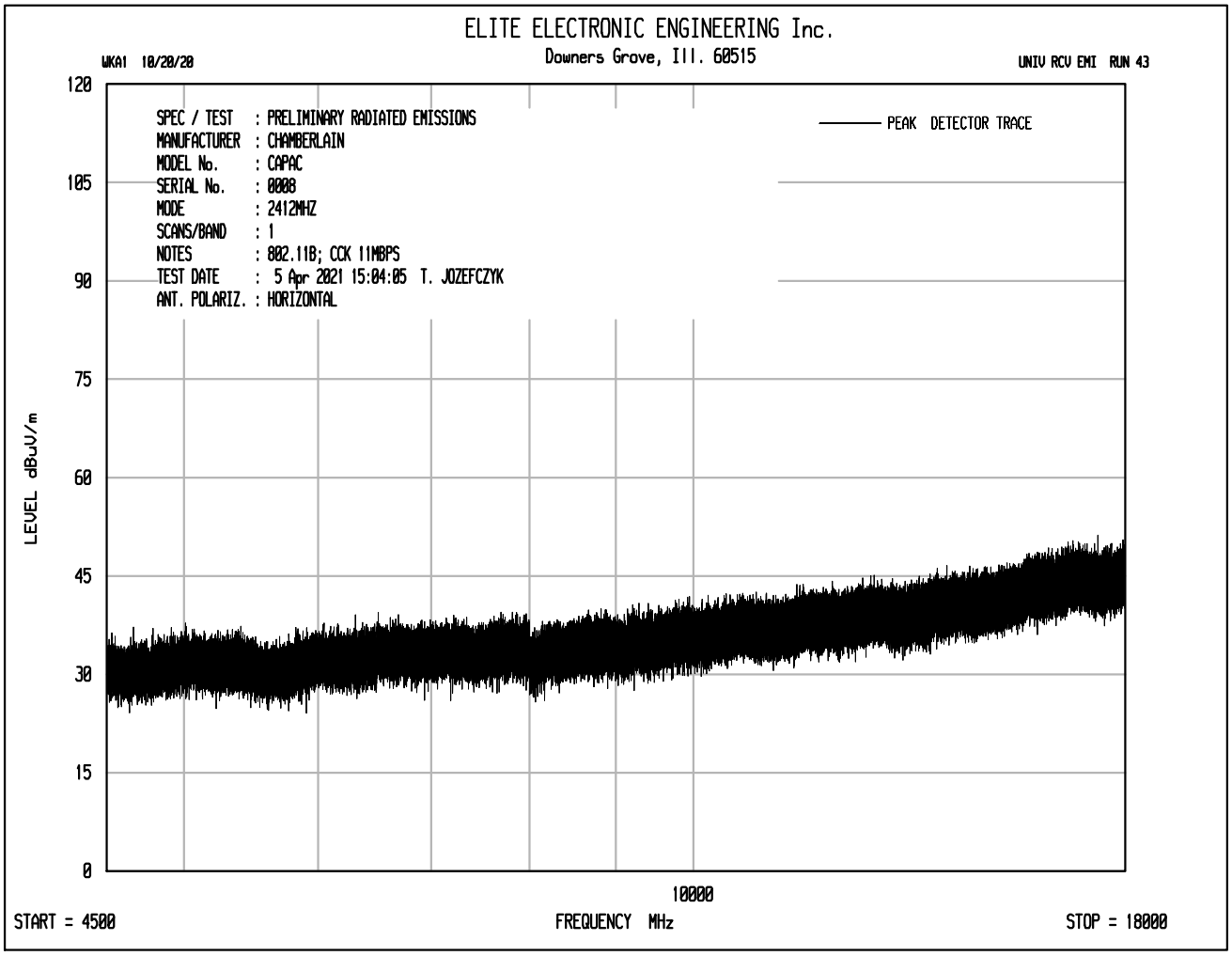


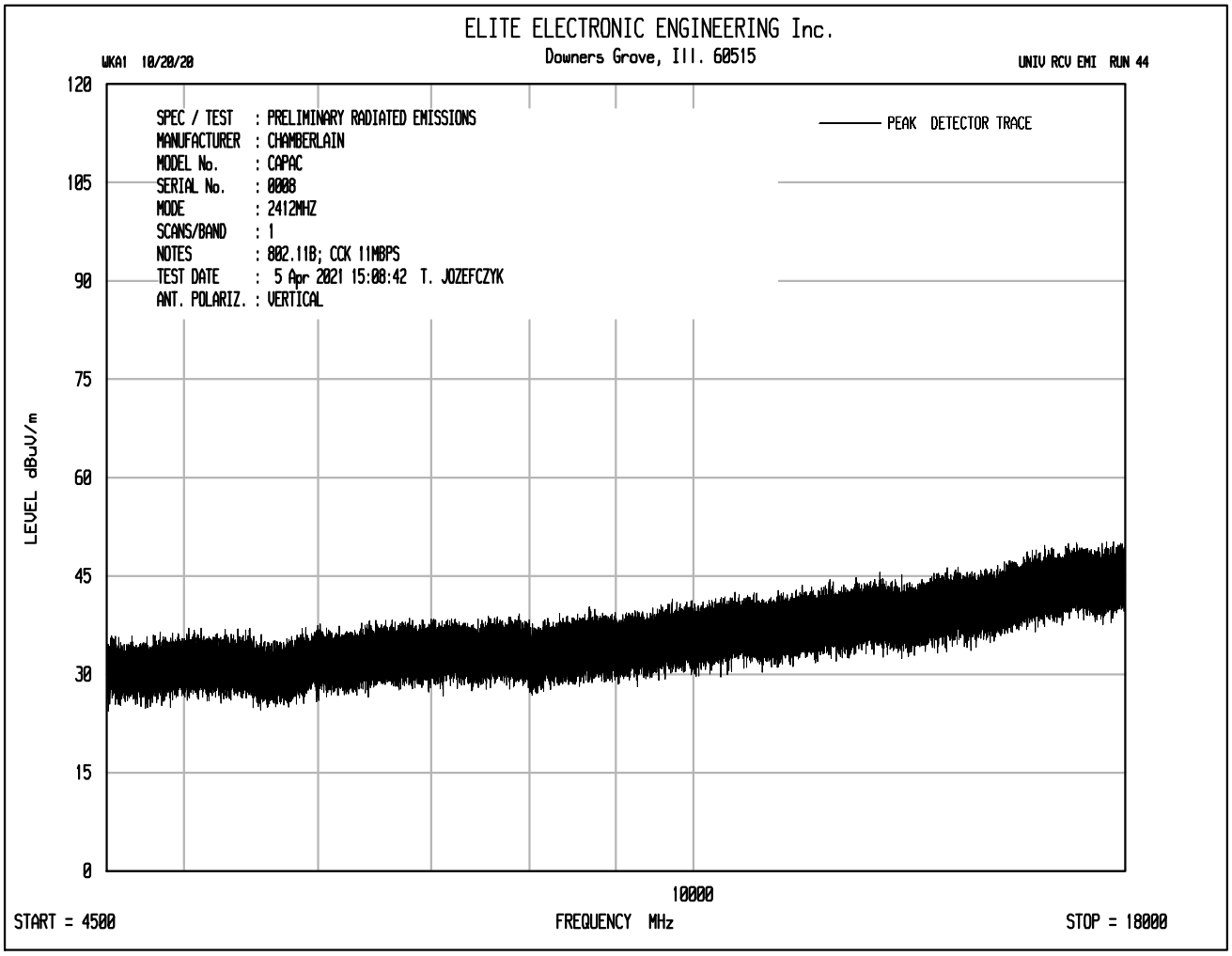
Test Setup for Spurious Radiated Emissions, 18 – 25GHz – Antenna Polarization Horizontal

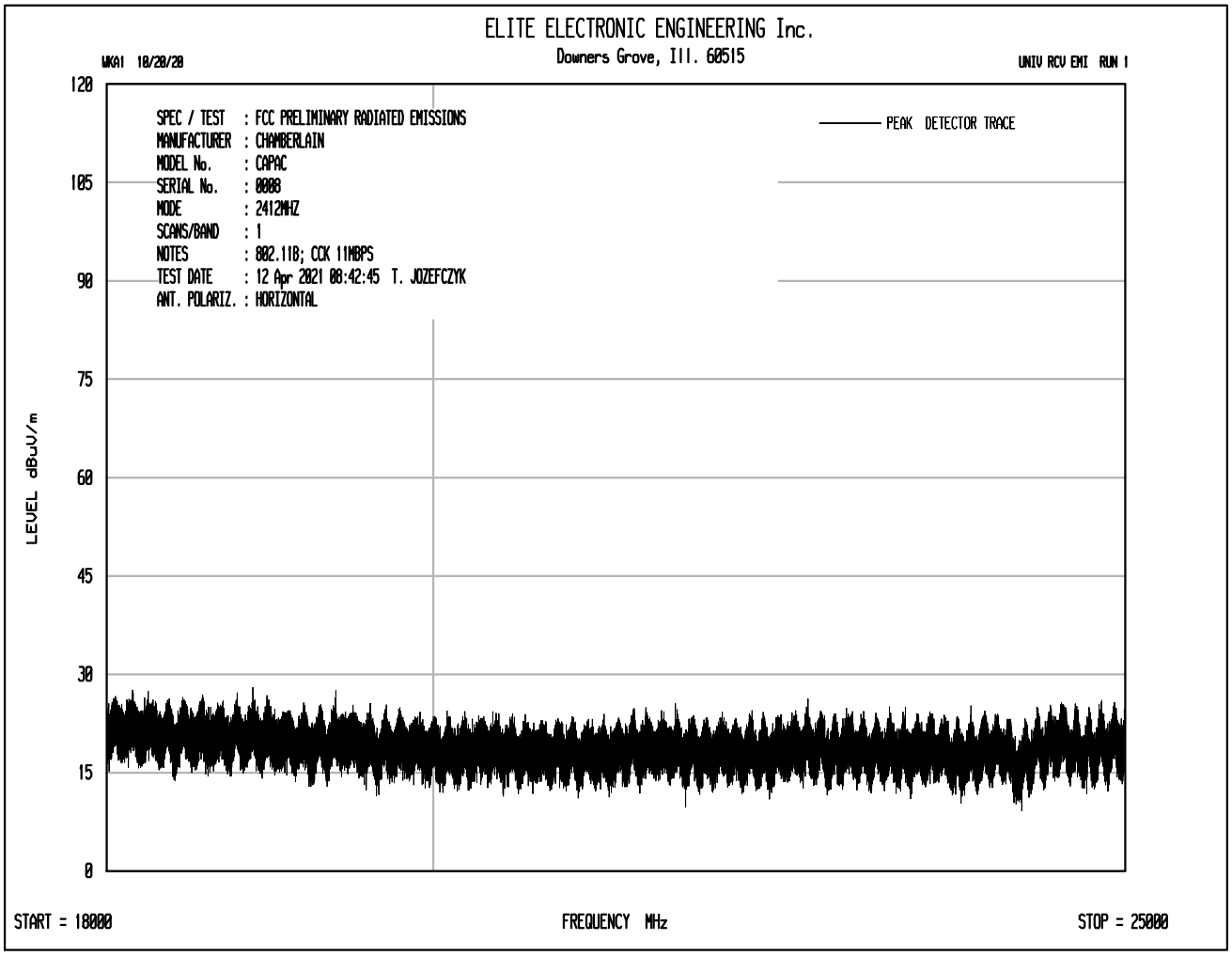
Test Setup for Spurious Radiated Emissions, 18 – 25GHz – Antenna Polarization Vertical

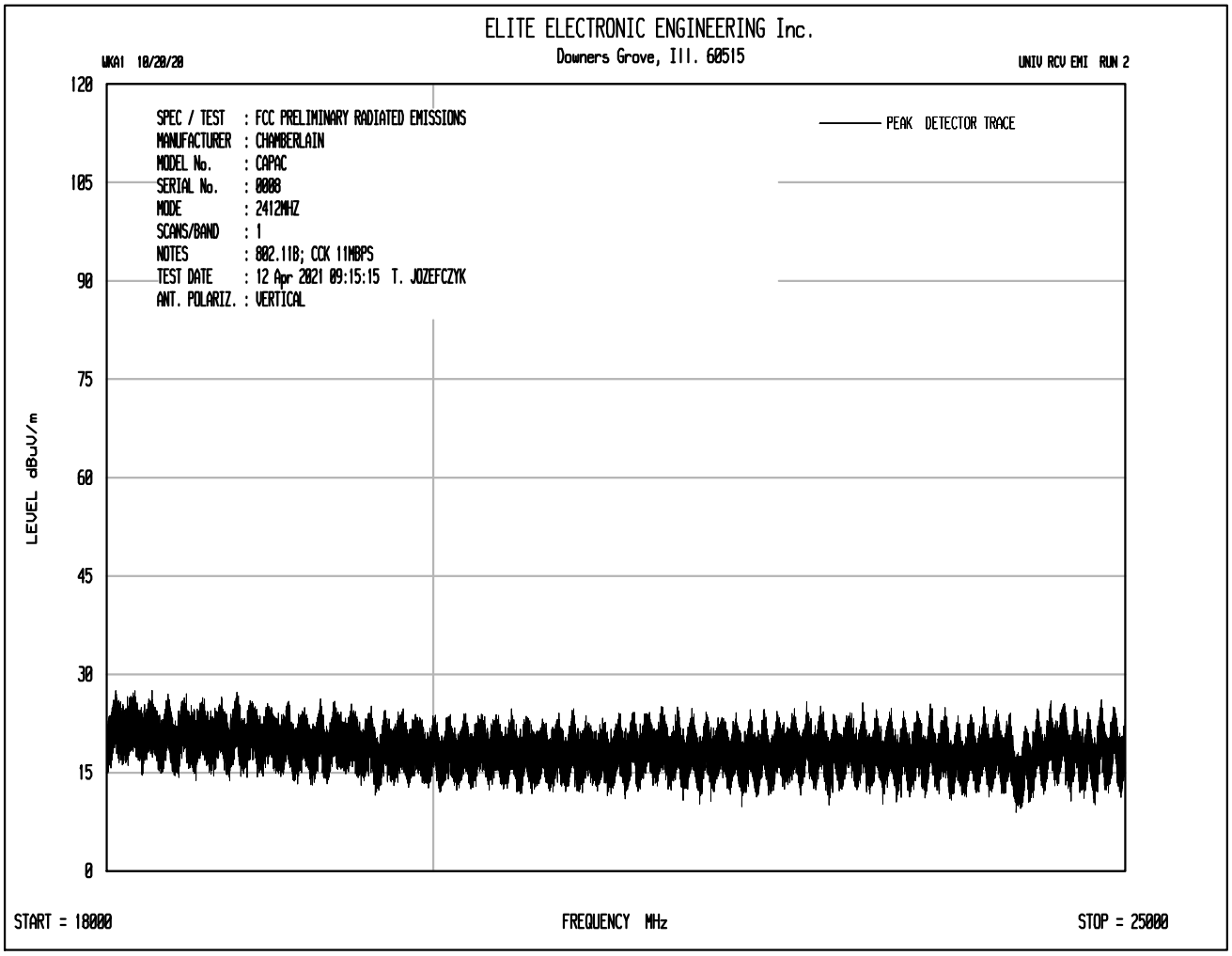

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 39
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0001
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 5 Apr 2021 14:39:47 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

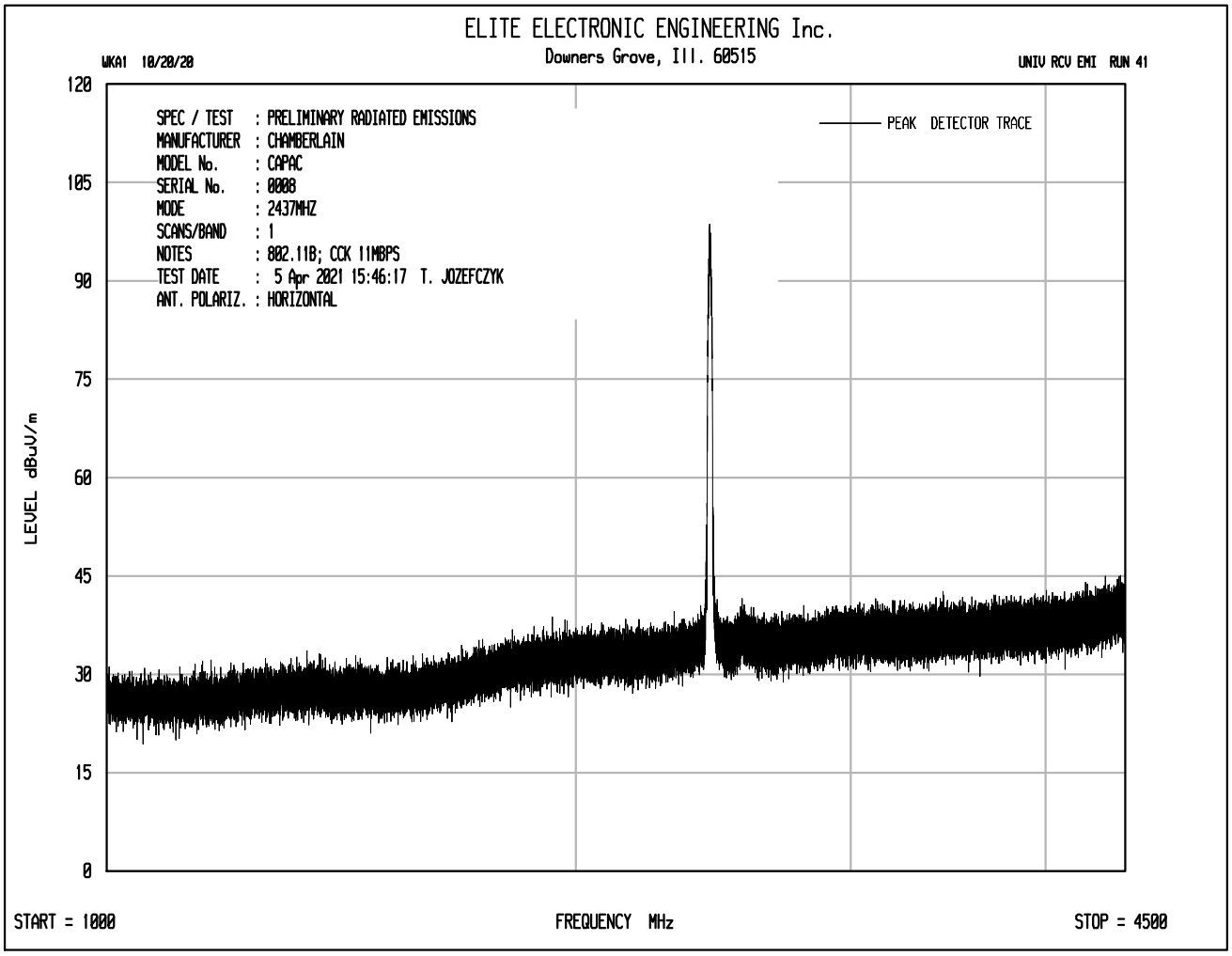

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 40
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0001
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 5 Apr 2021 14:41:30 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

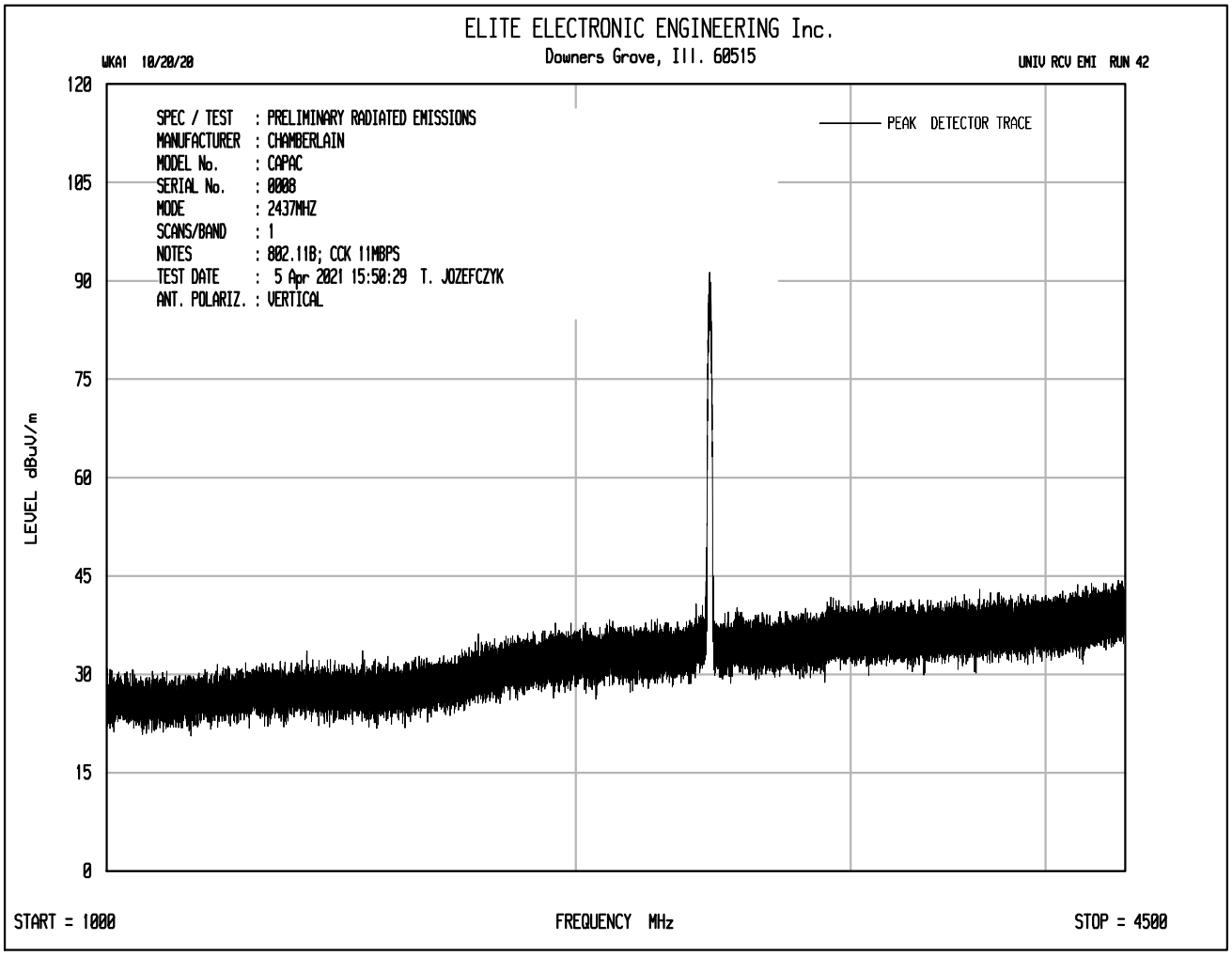

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 43
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 5 Apr 2021 15:04:05 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

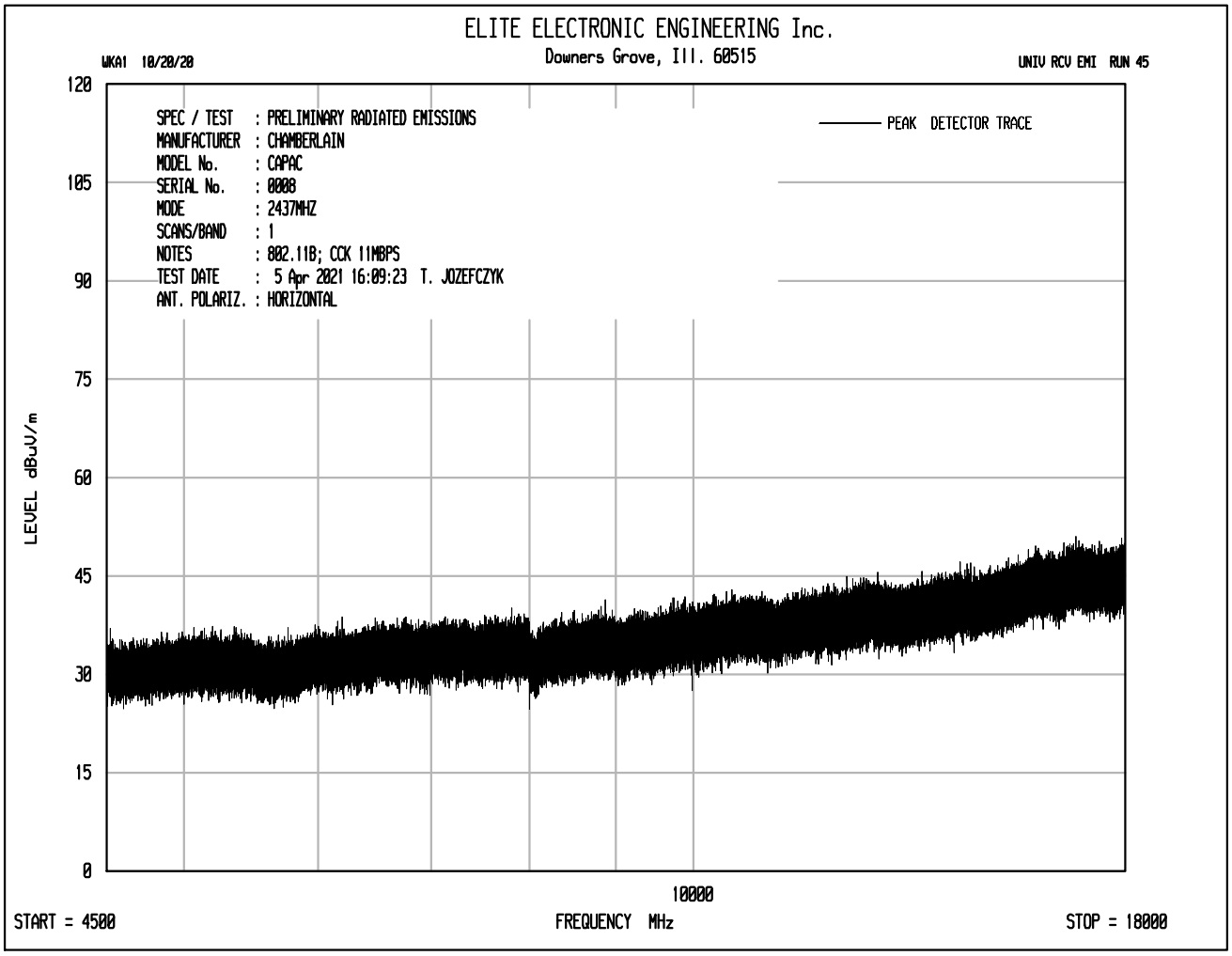

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 44
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 5 Apr 2021 15:08:42 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

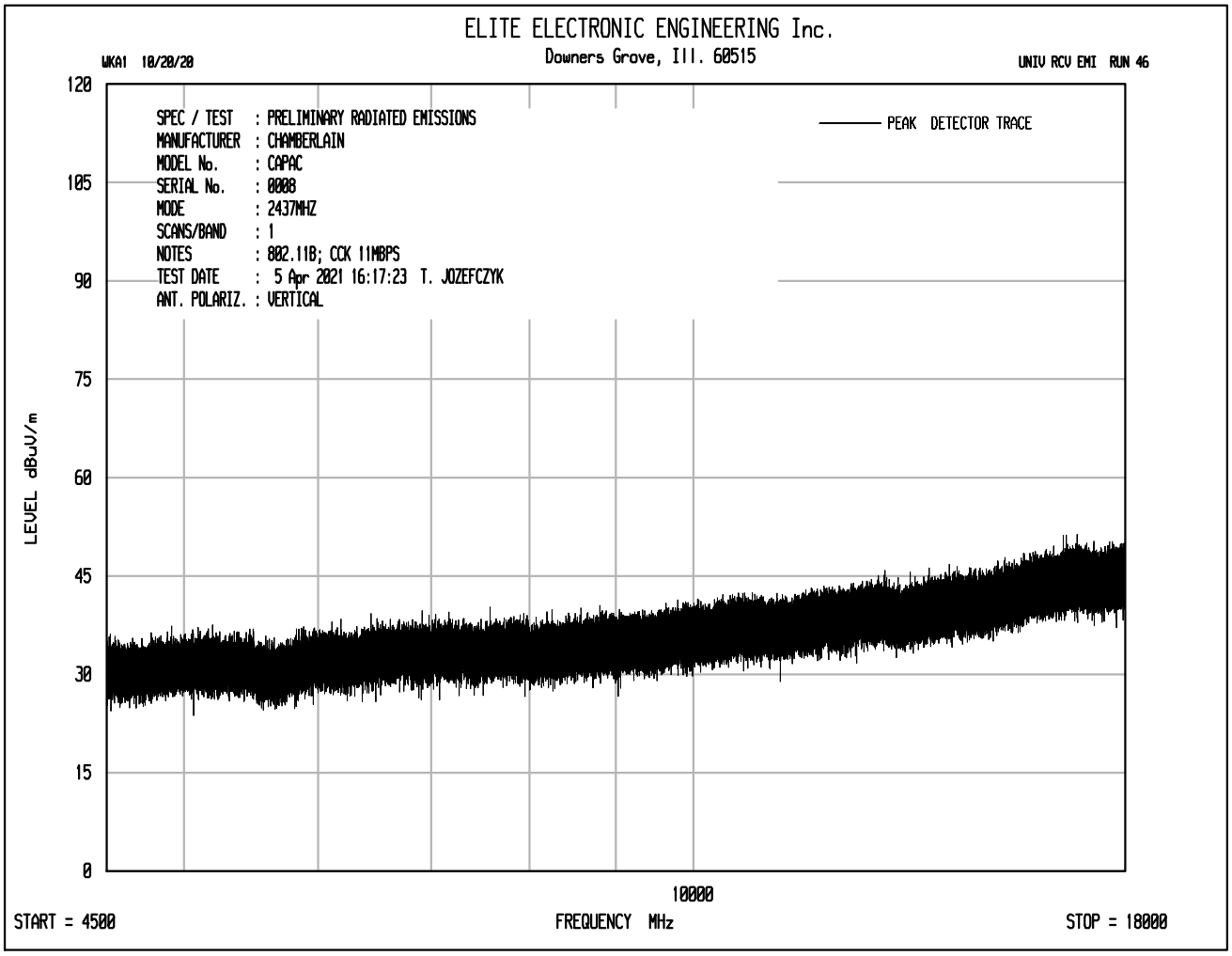

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 1
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 12 Apr 2021 08:42:45 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

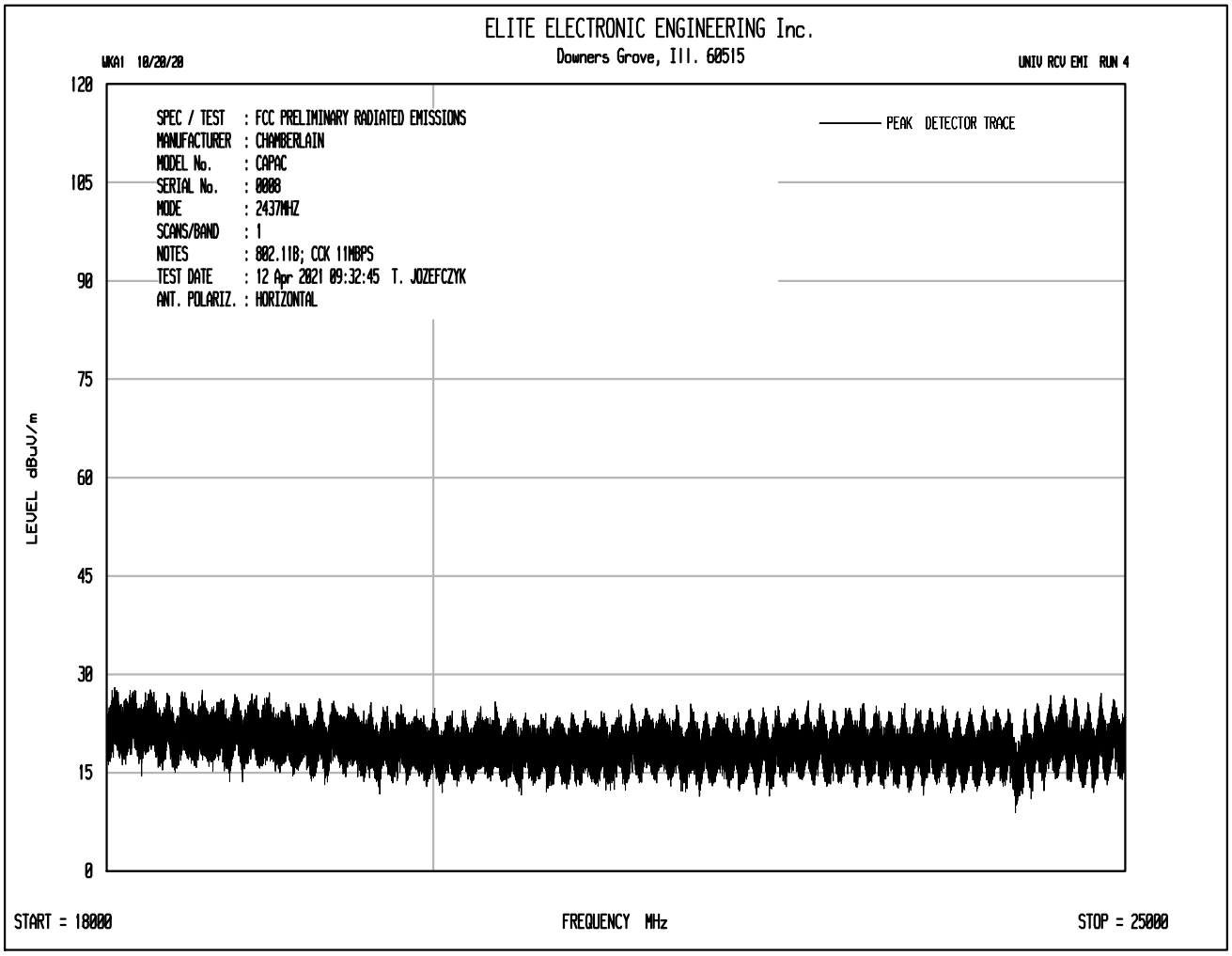

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 2
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 12 Apr 2021 09:15:15 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

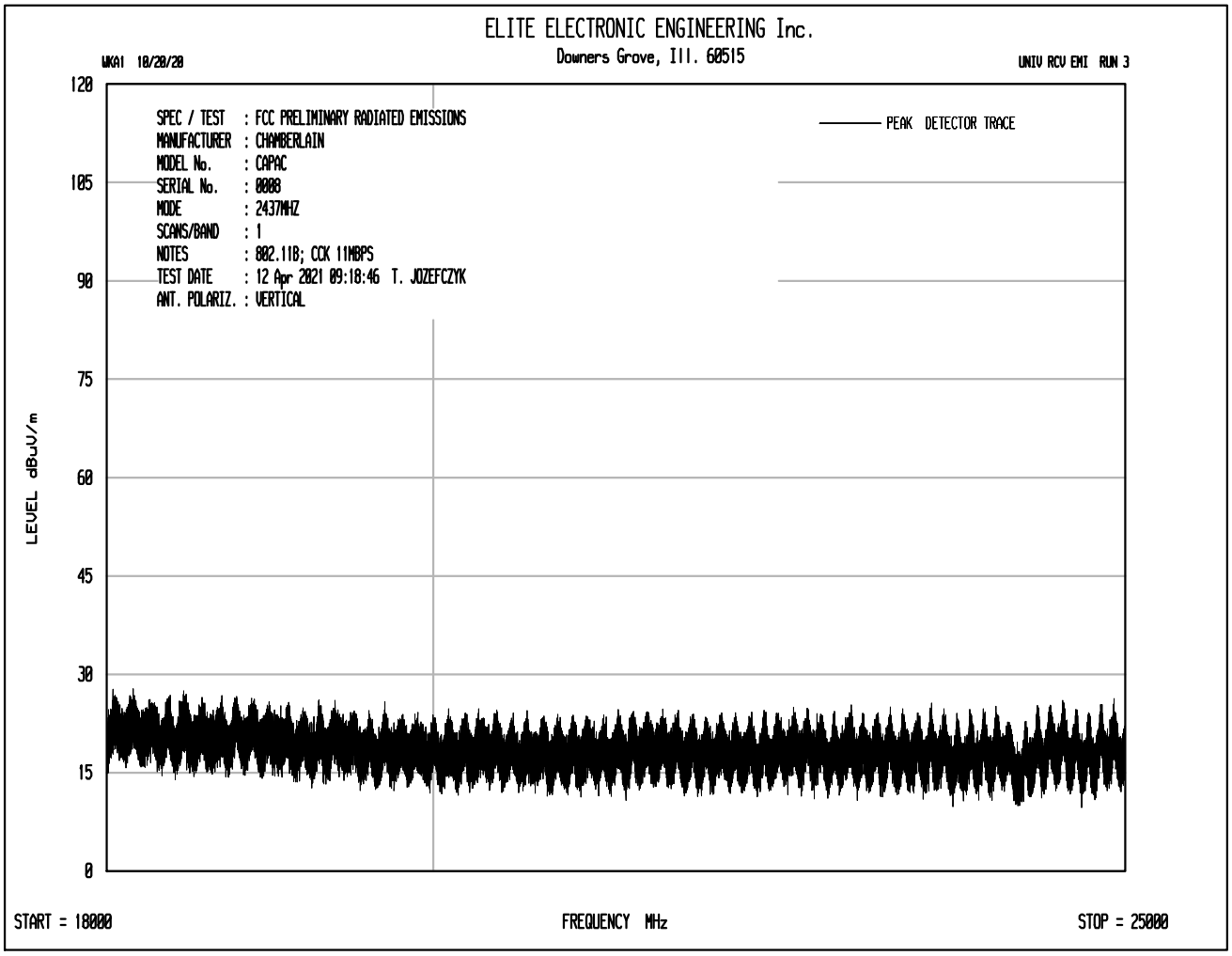

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 41
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2437MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 5 Apr 2021 15:46:17 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

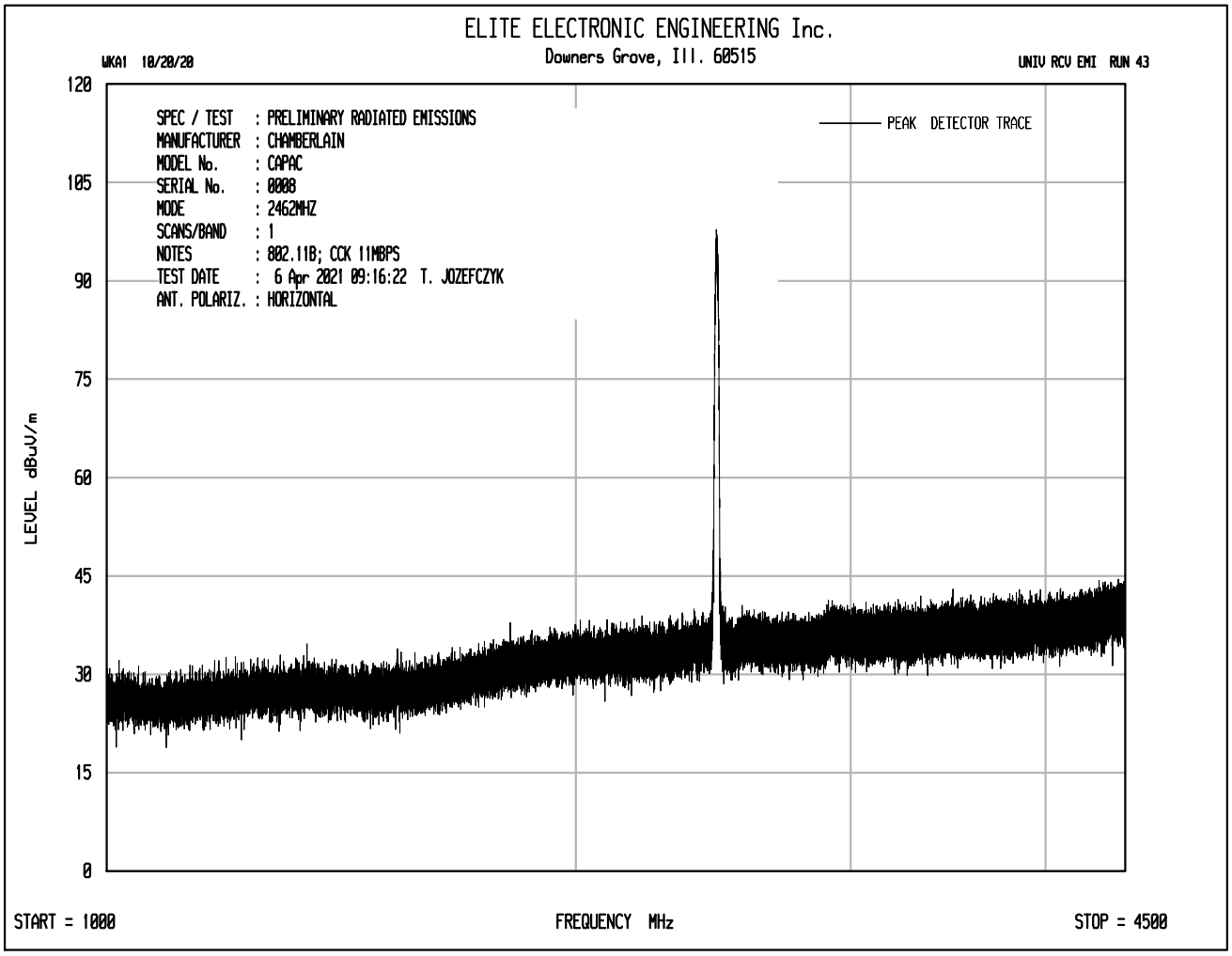

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 42
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2437MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 5 Apr 2021 15:50:29 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

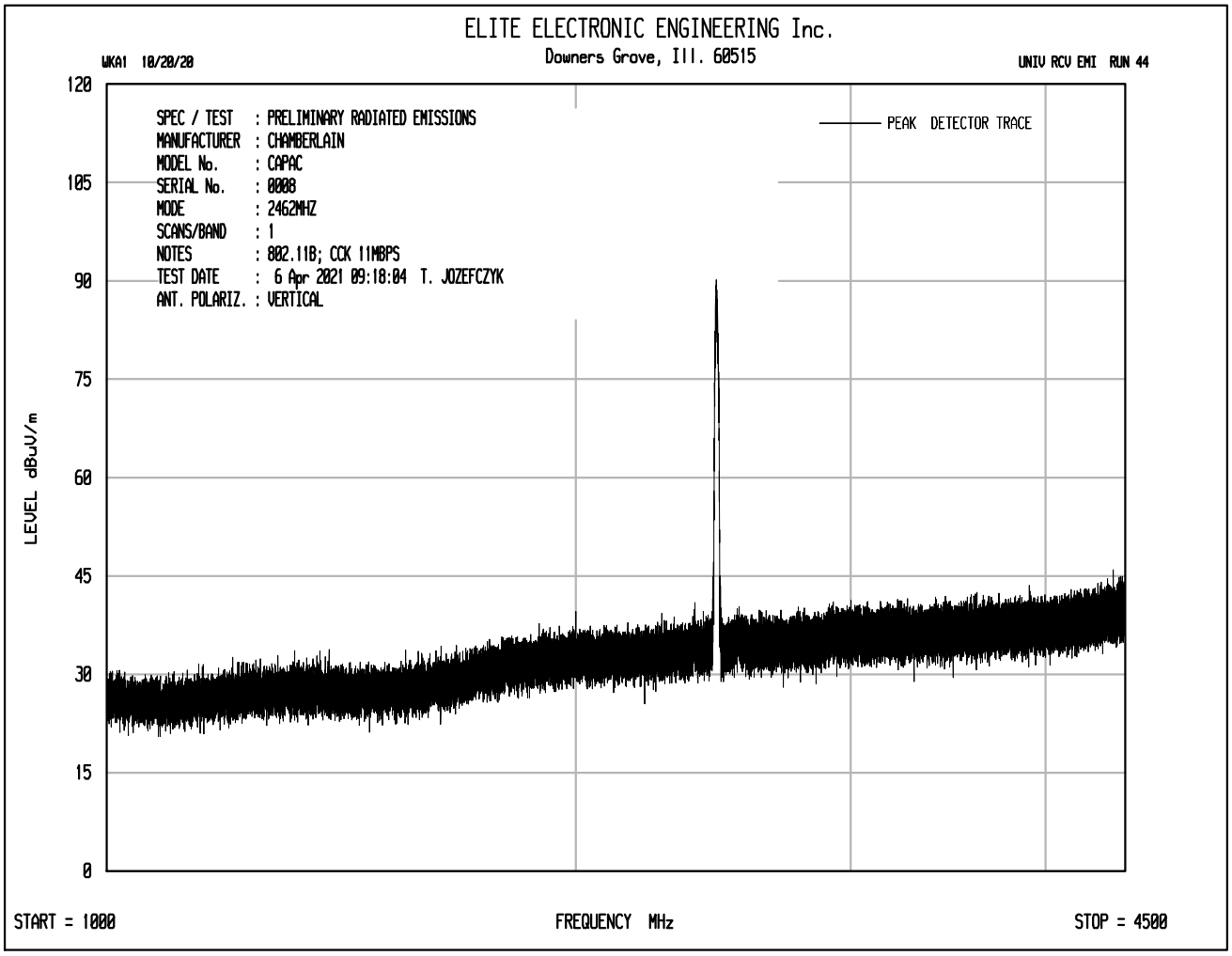

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 45
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2437MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 5 Apr 2021 16:09:23 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

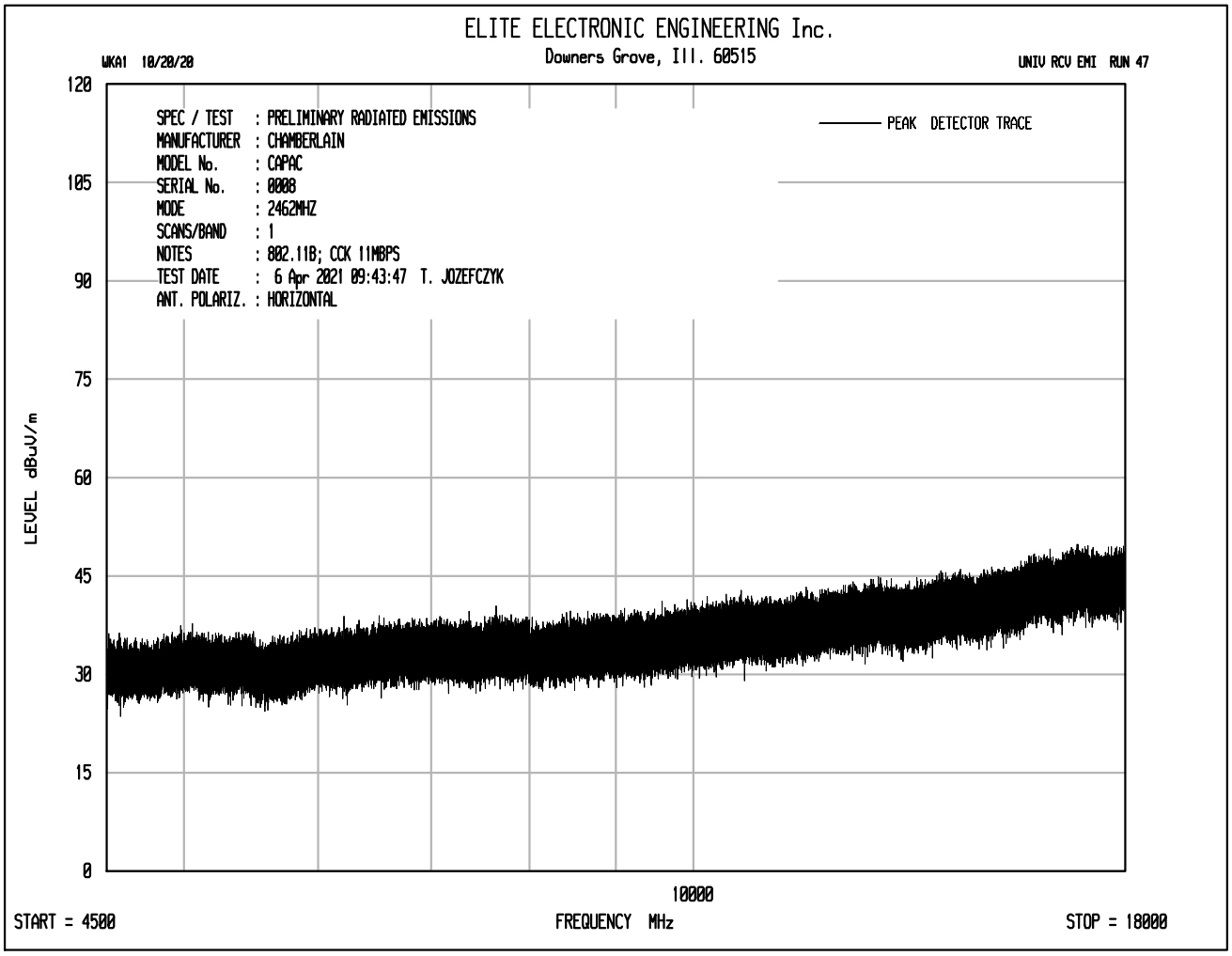

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 46
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2437MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 5 Apr 2021 16:17:23 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

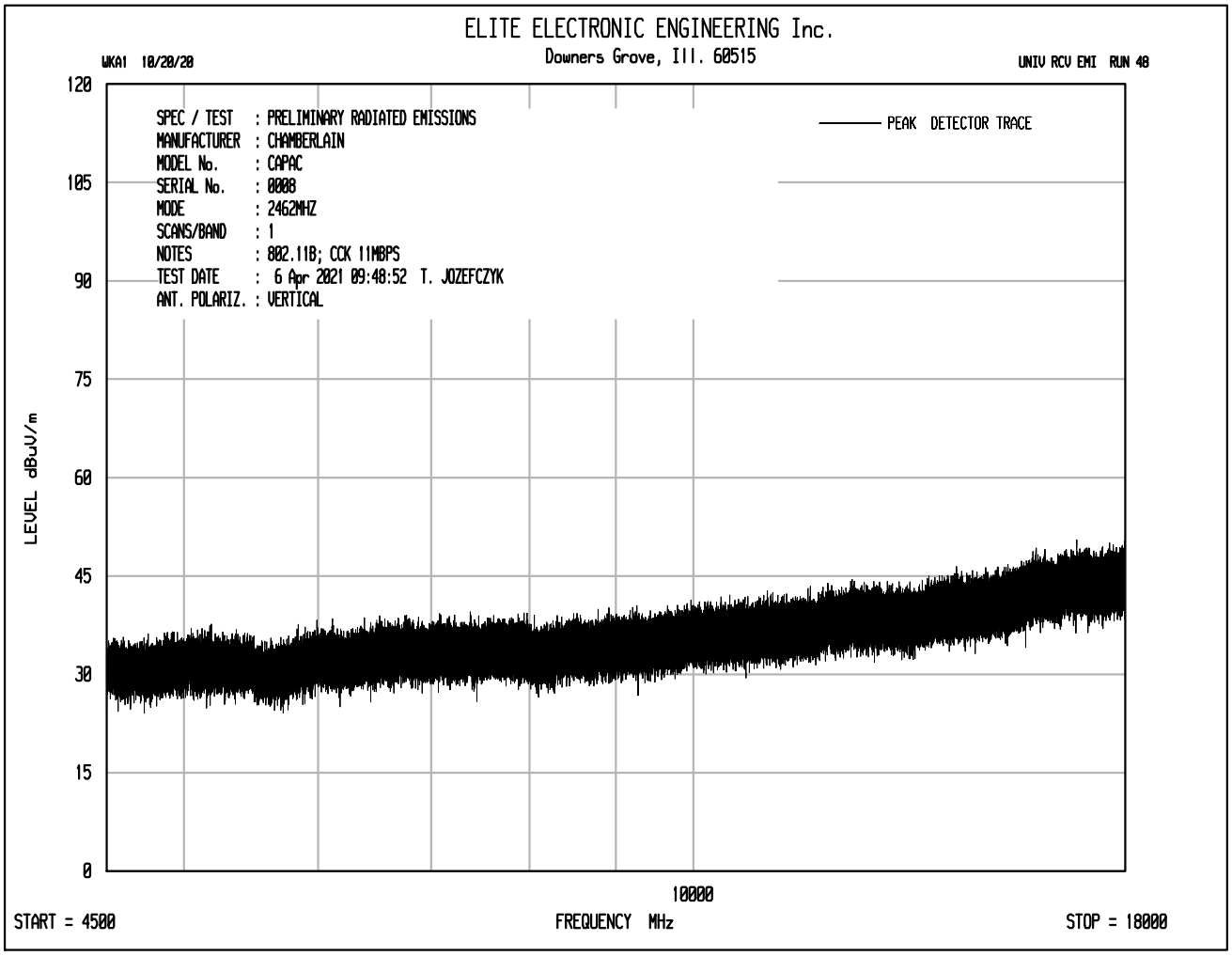

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 4
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2437MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 12 Apr 2021 09:32:45 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

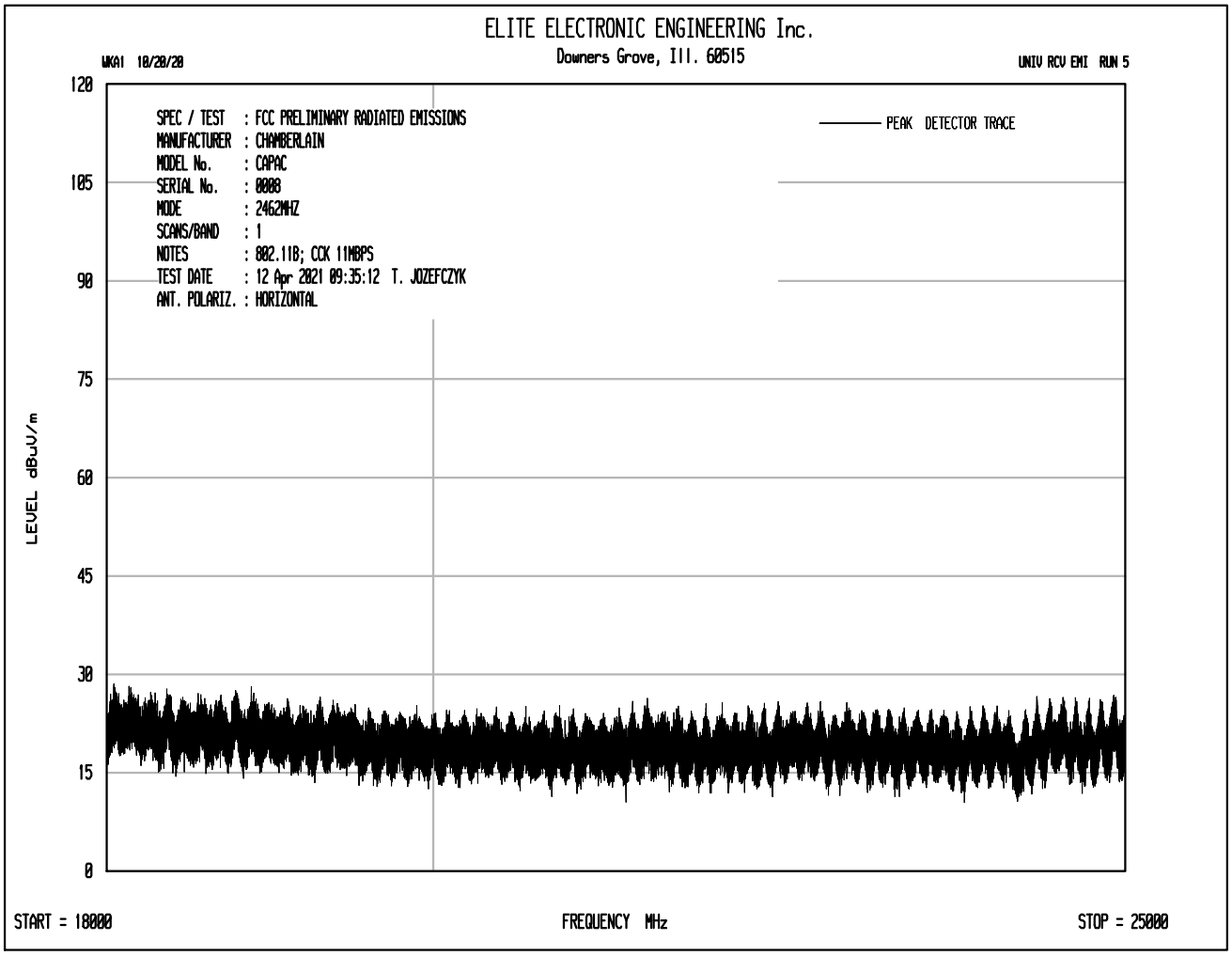

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 3
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2437MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 12 Apr 2021 09:18:46 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

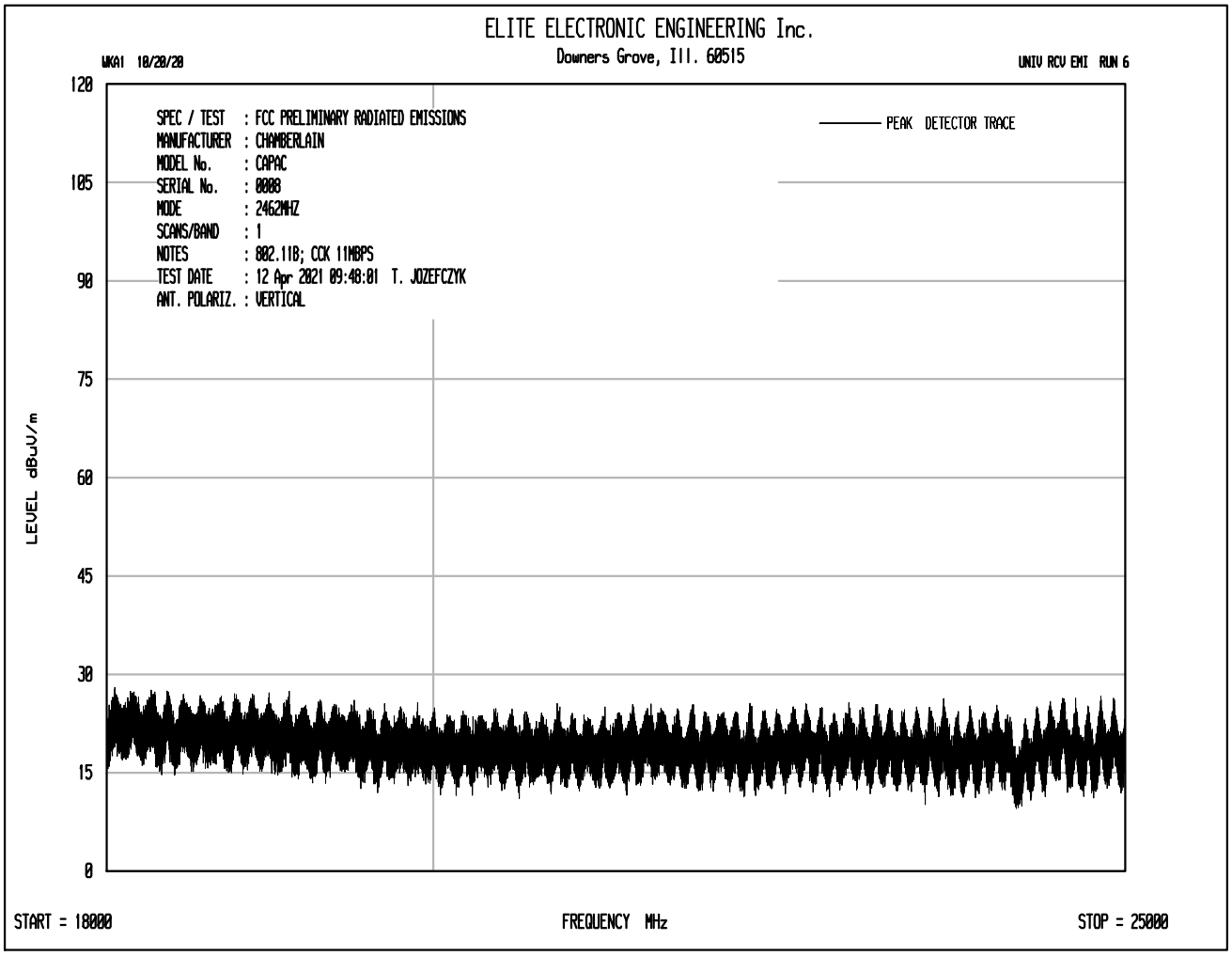

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 43
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2462MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 6 Apr 2021 09:16:22 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

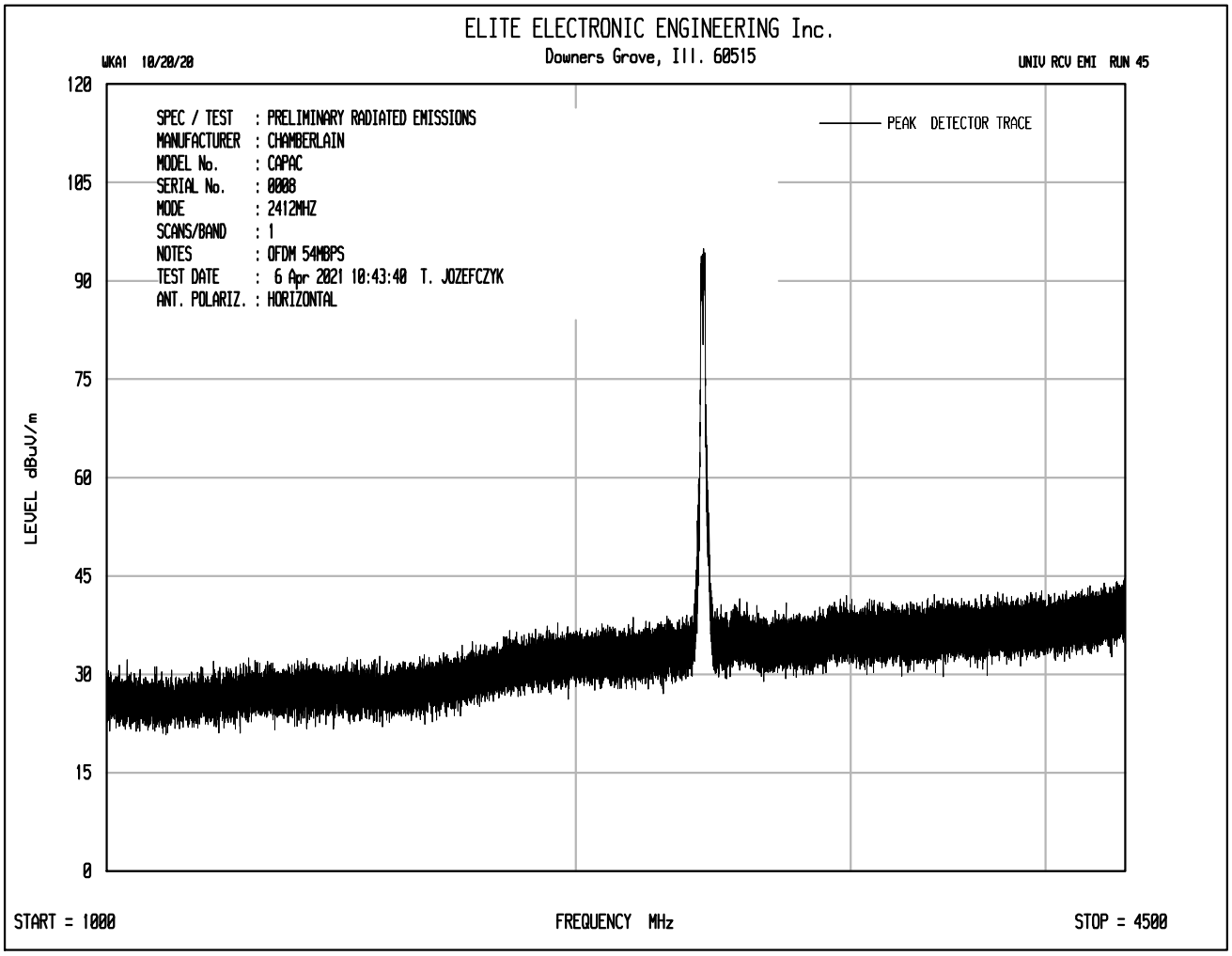

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 44
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2462MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 6 Apr 2021 09:18:04 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

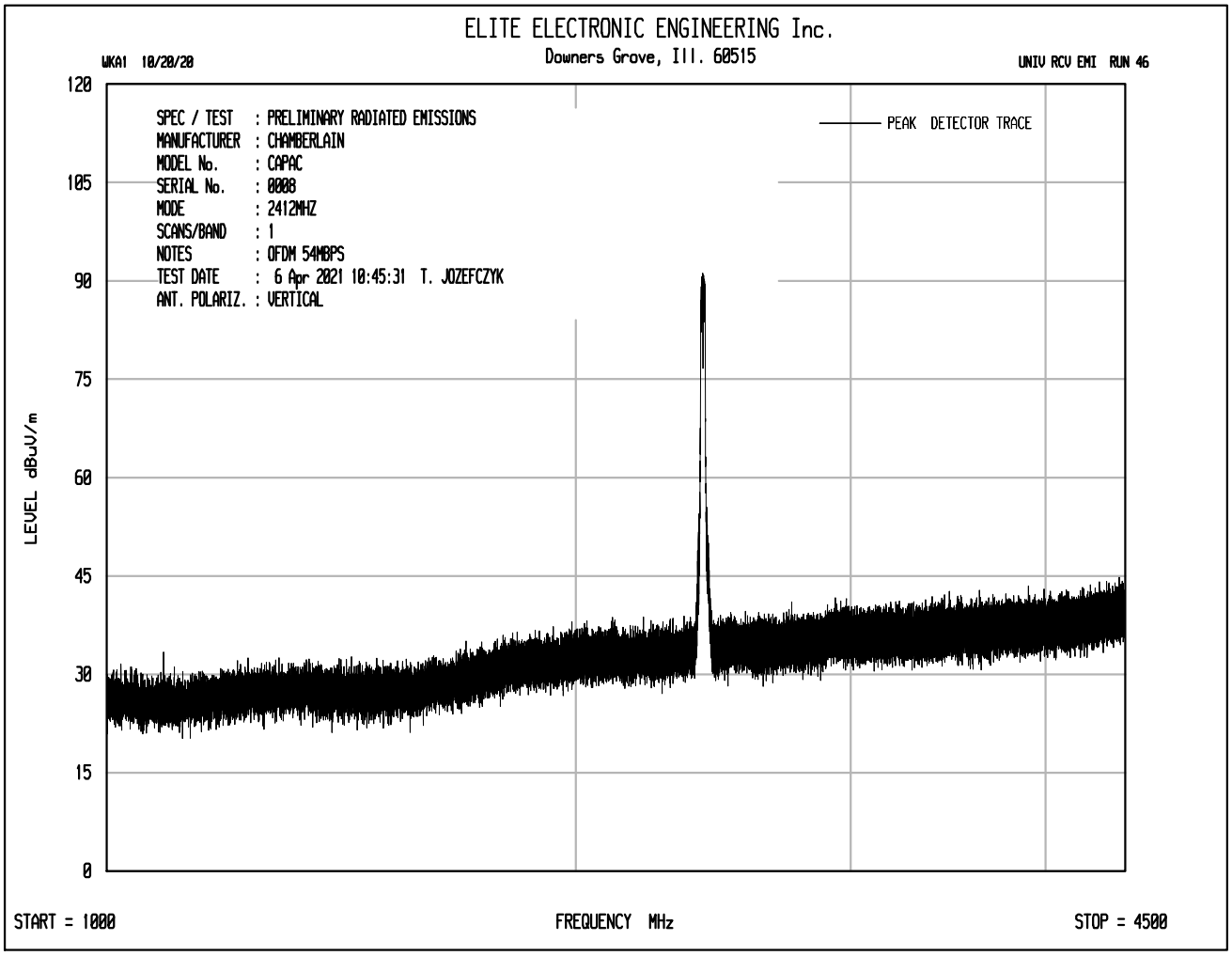

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 47
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2462MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 6 Apr 2021 09:43:47 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

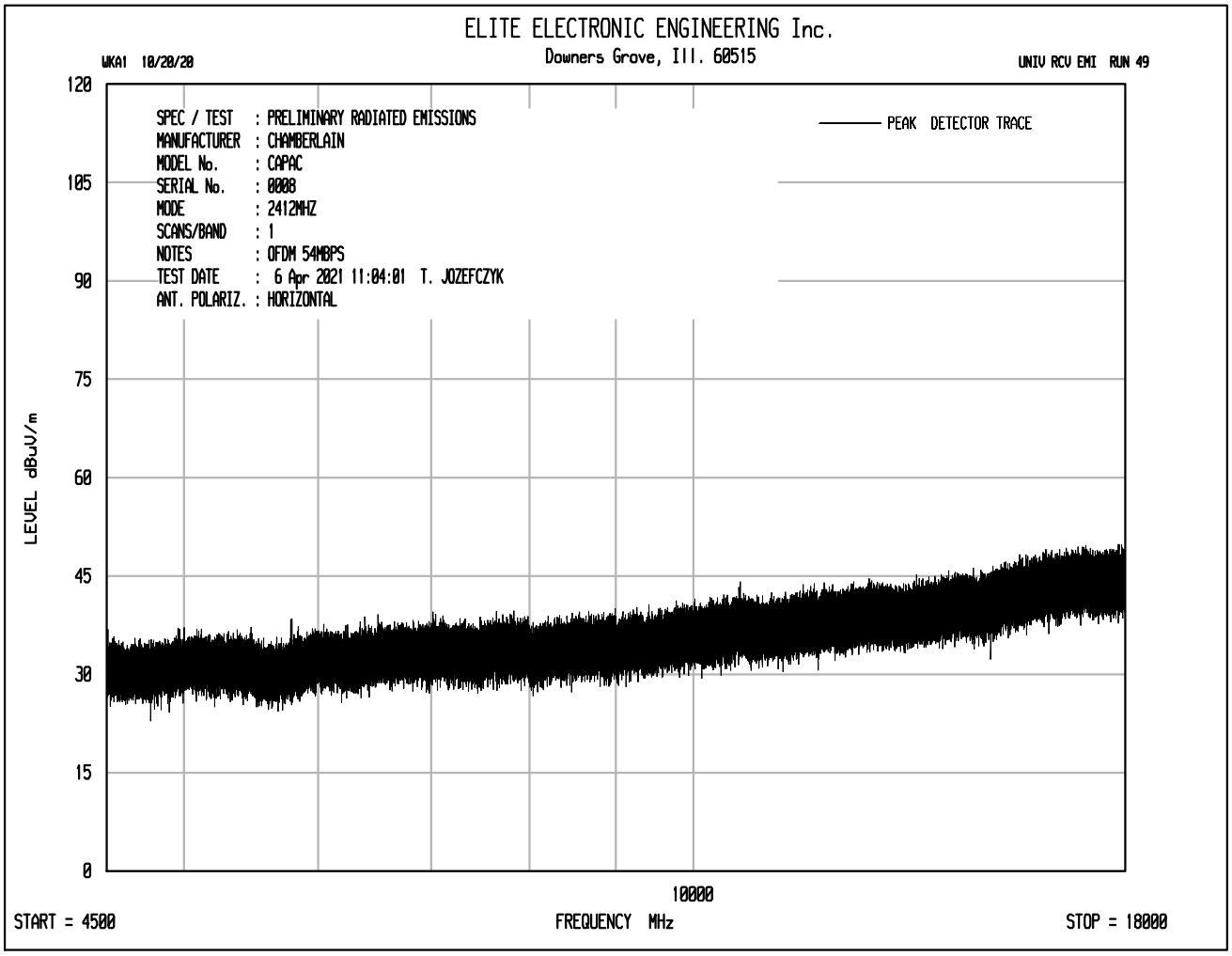

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 48
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2462MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 6 Apr 2021 09:48:52 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

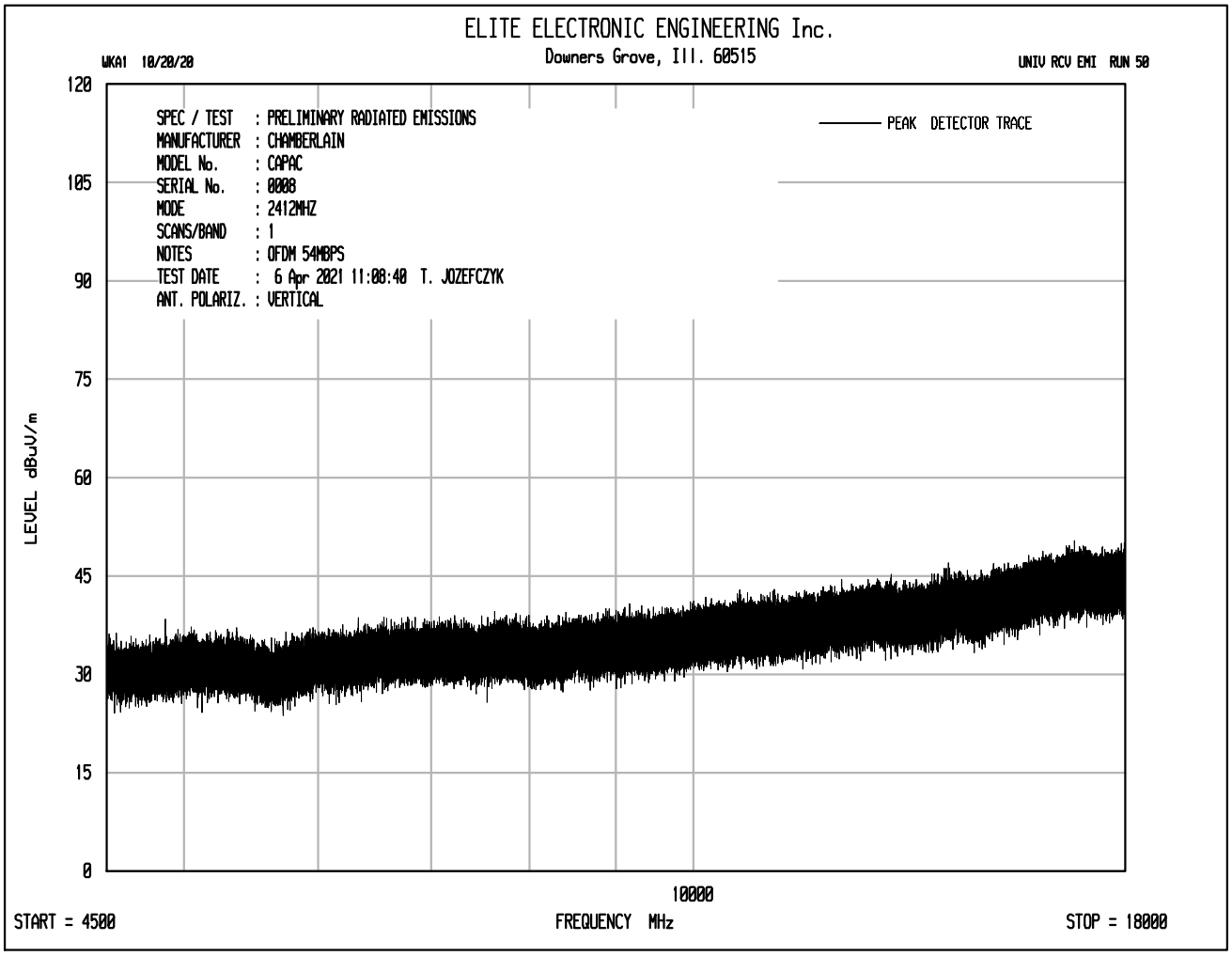

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 5
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2462MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 12 Apr 2021 09:35:12 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

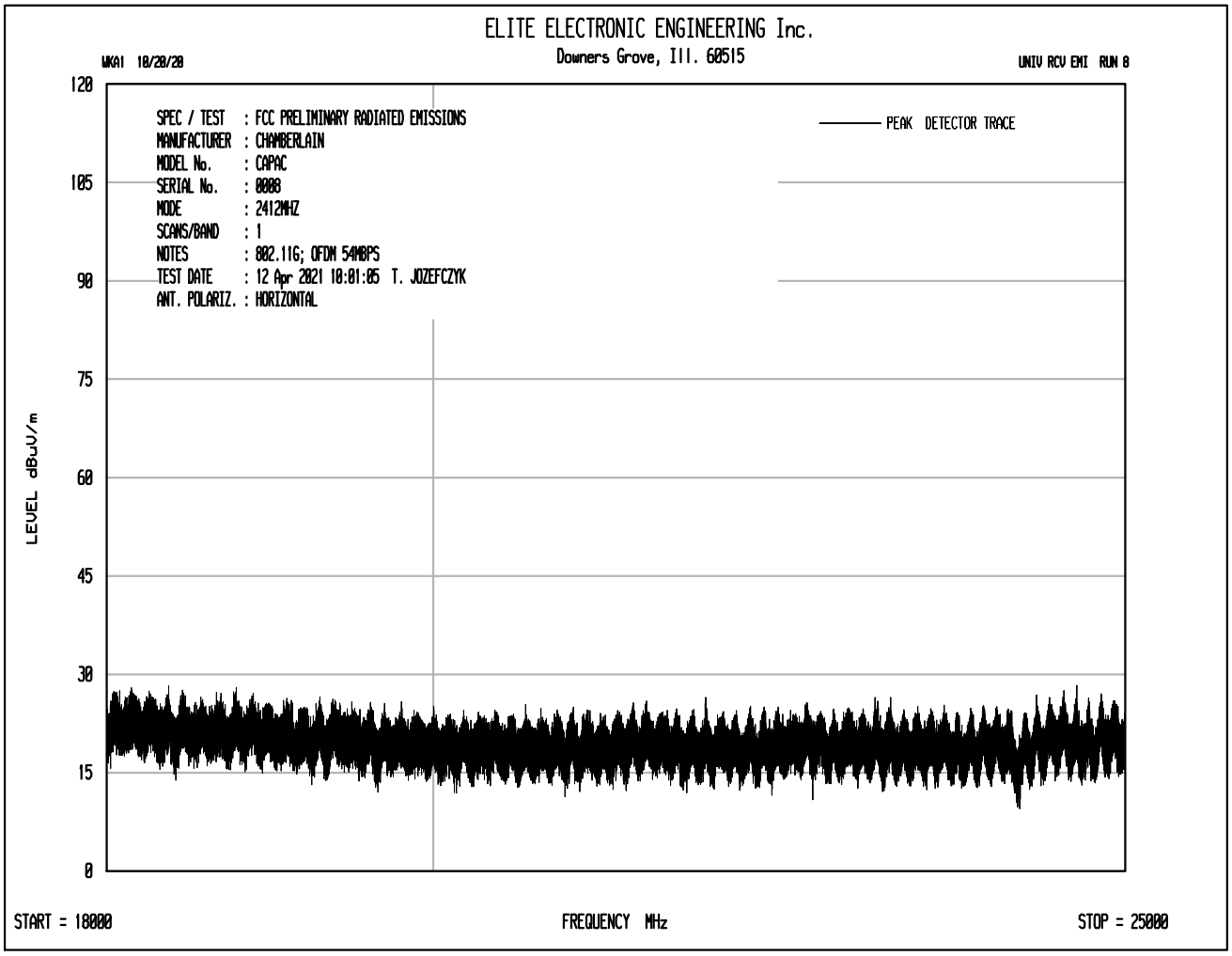

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 6
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2462MHZ
SCANS/BAND : 1
NOTES : 802.11B; CCK 11MBPS
TEST DATE : 12 Apr 2021 09:48:01 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

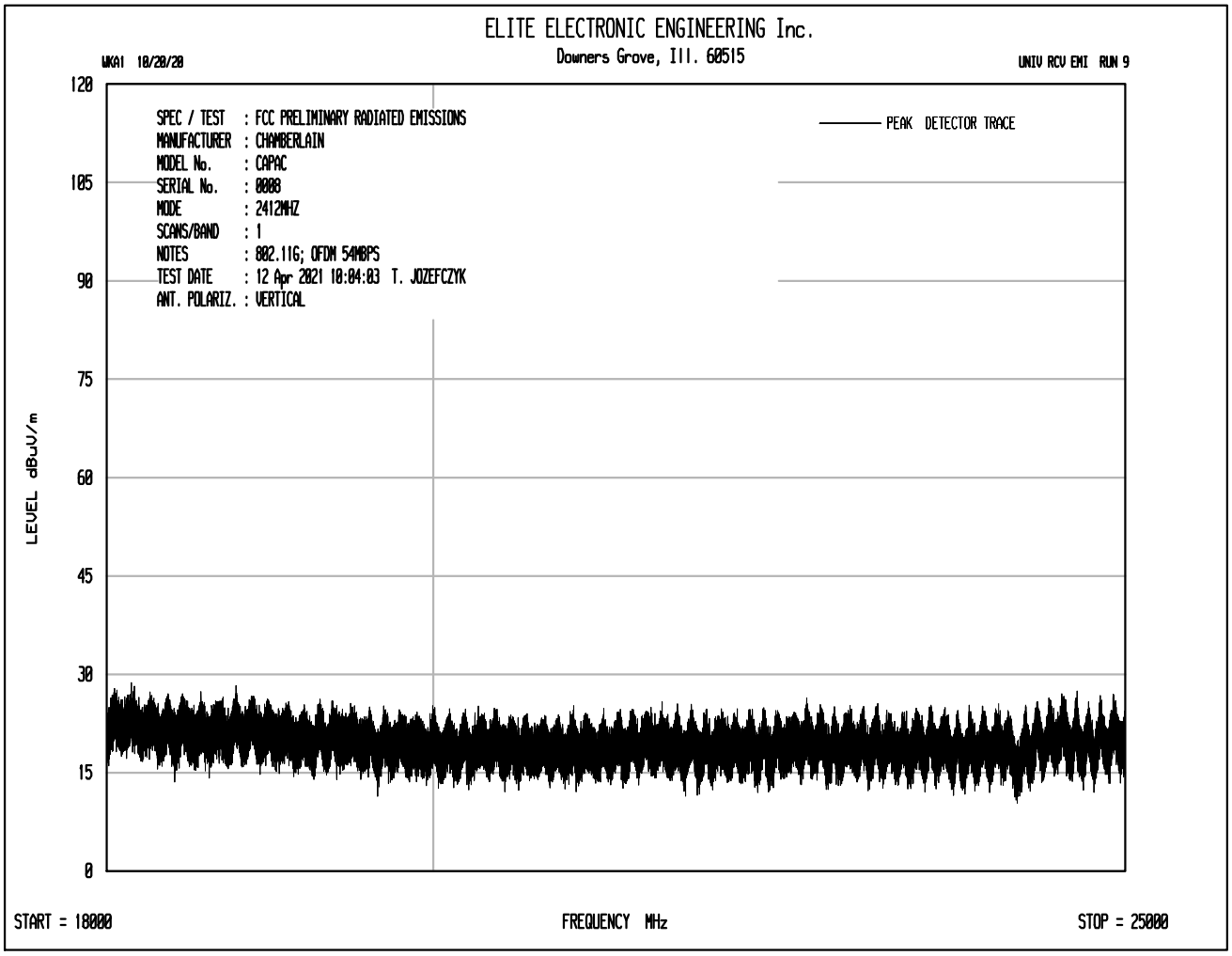

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 45
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : OFDM 54MBPS
TEST DATE : 6 Apr 2021 10:43:40 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

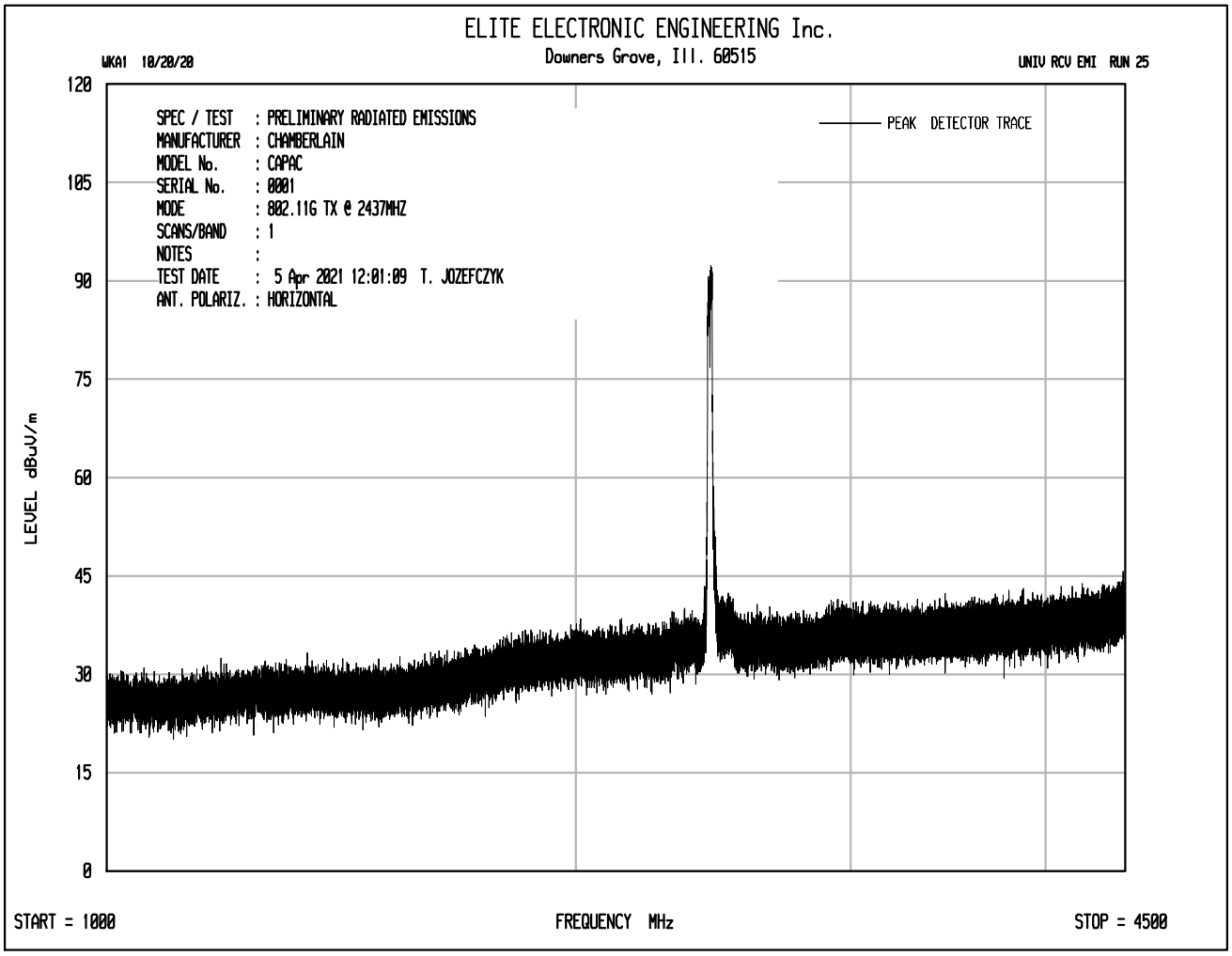

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 46
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : OFDM 54MBPS
TEST DATE : 6 Apr 2021 10:45:31 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

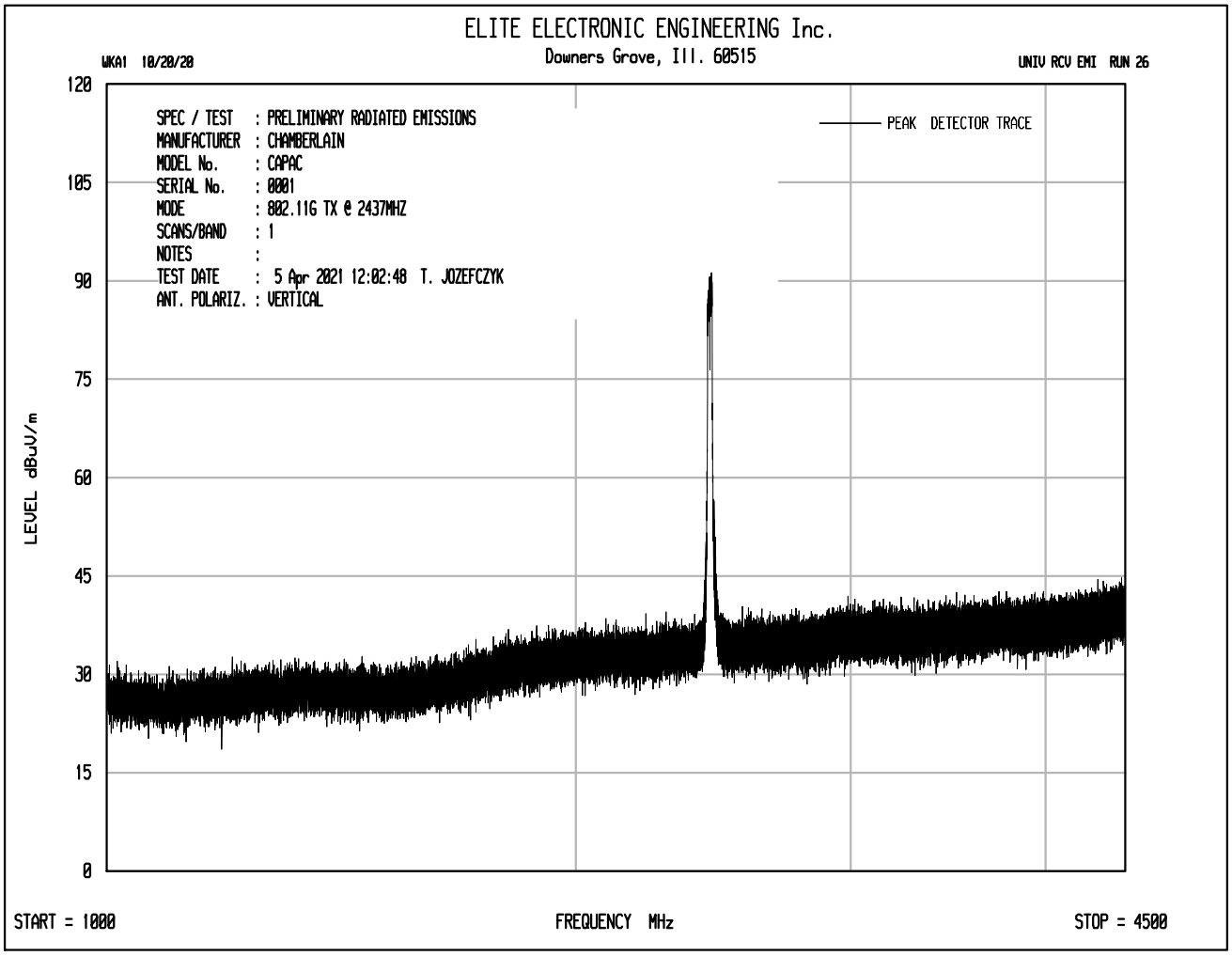

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 49
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : OFDM 54MBPS
TEST DATE : 6 Apr 2021 11:04:01 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

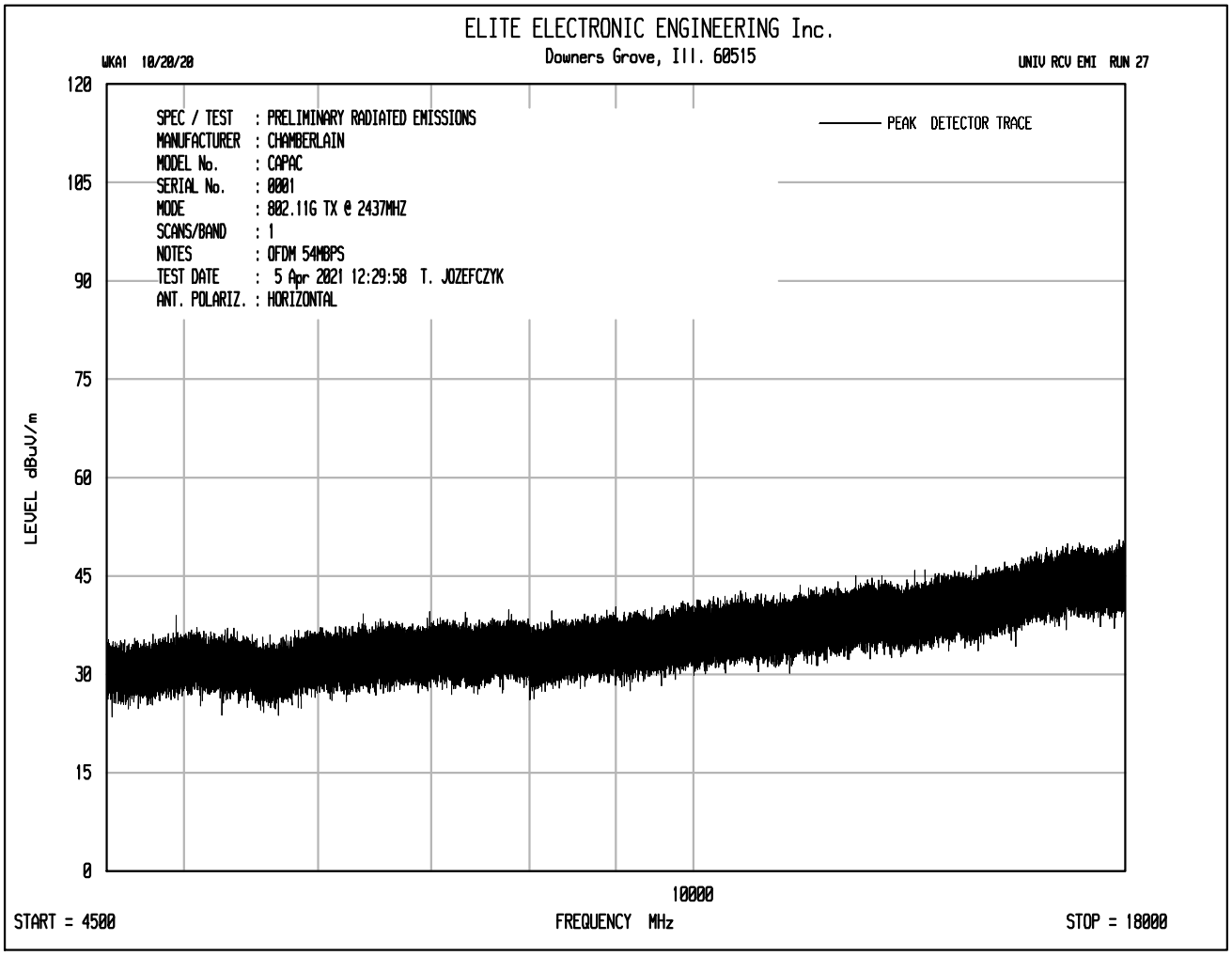

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 50
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : OFDM 54MBPS
TEST DATE : 6 Apr 2021 11:08:40 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

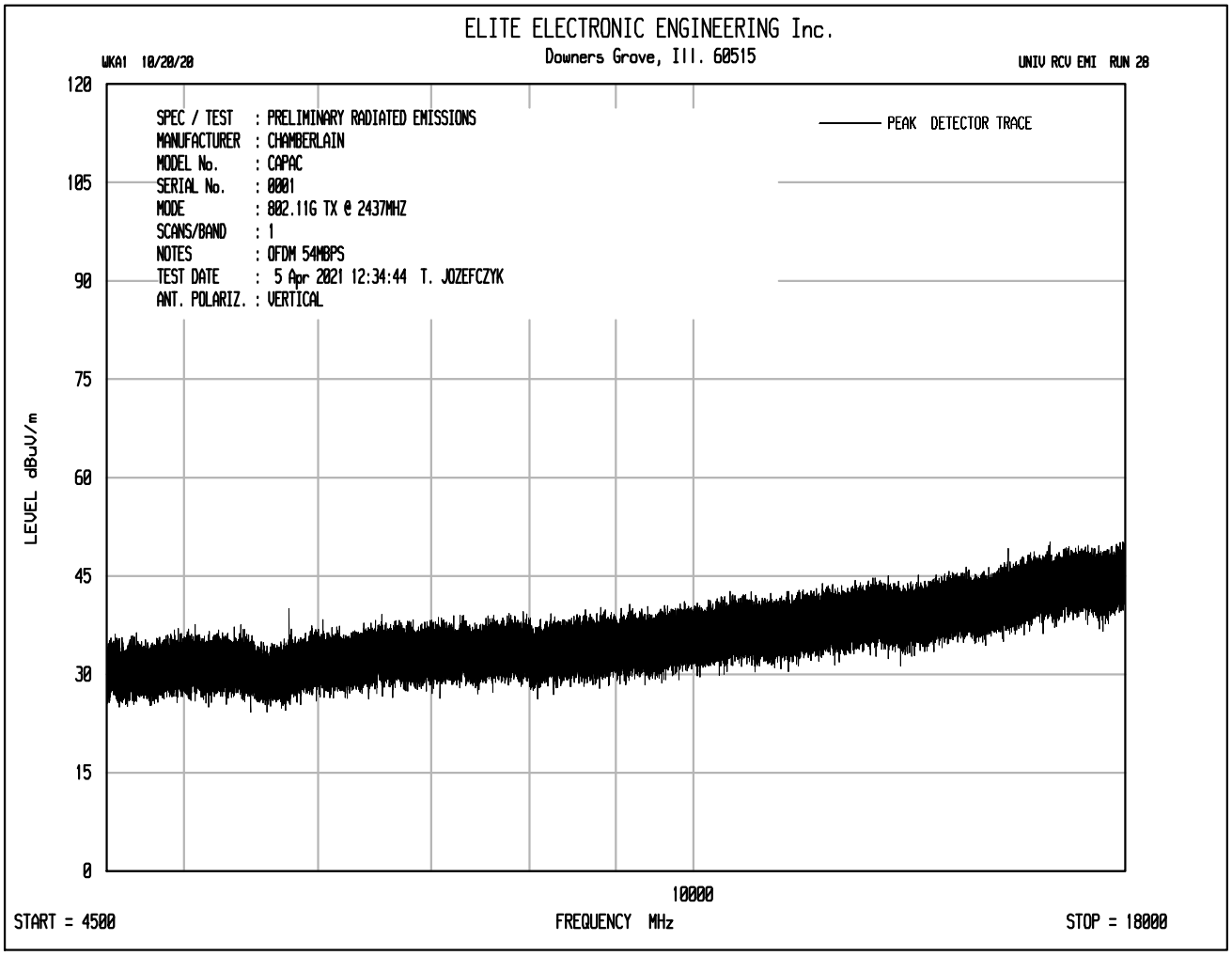

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 8
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : 802.11G; OFDM 54MBPS
TEST DATE : 12 Apr 2021 10:01:05 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

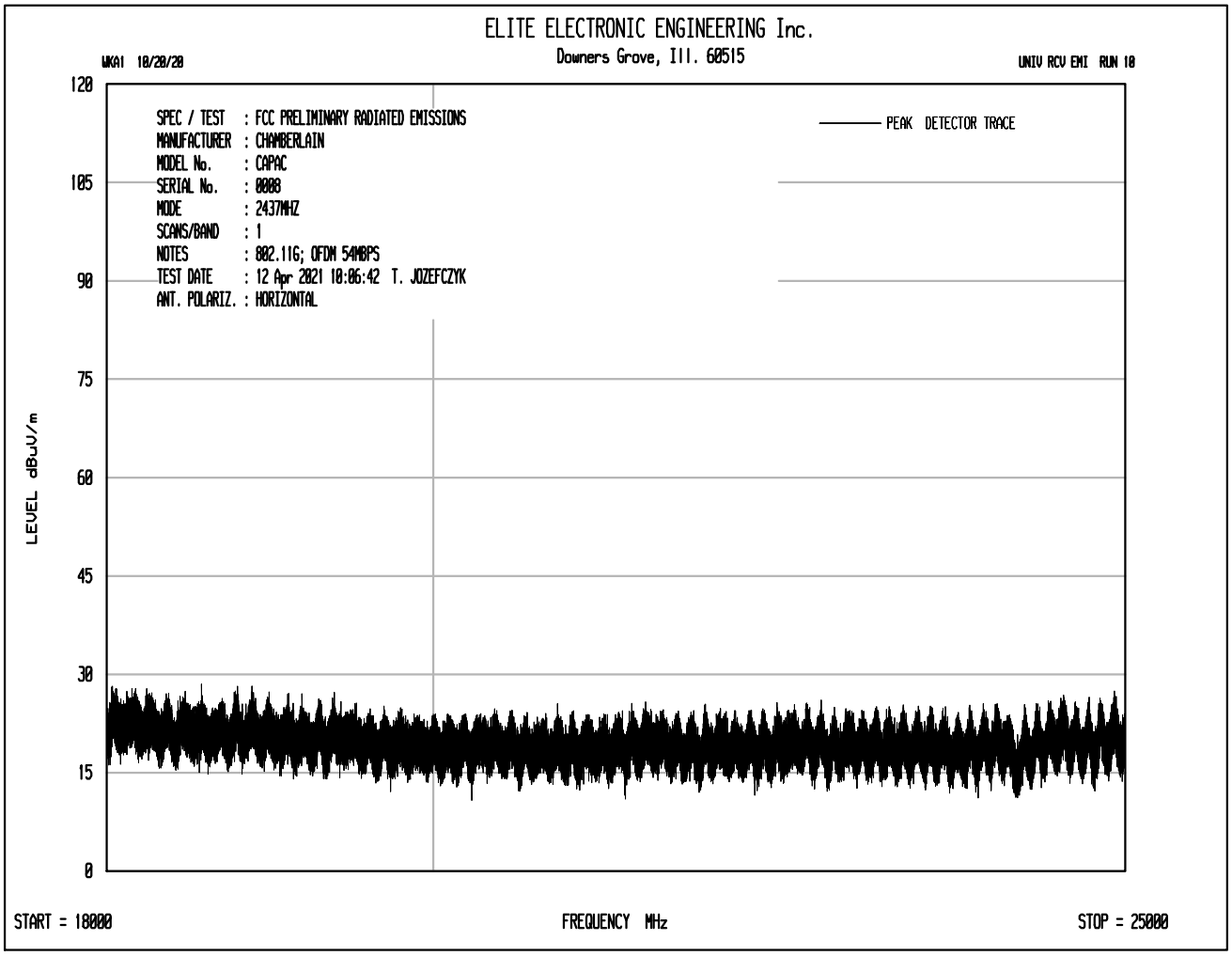

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 9
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : 802.11G; OFDM 54MBPS
TEST DATE : 12 Apr 2021 10:04:03 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

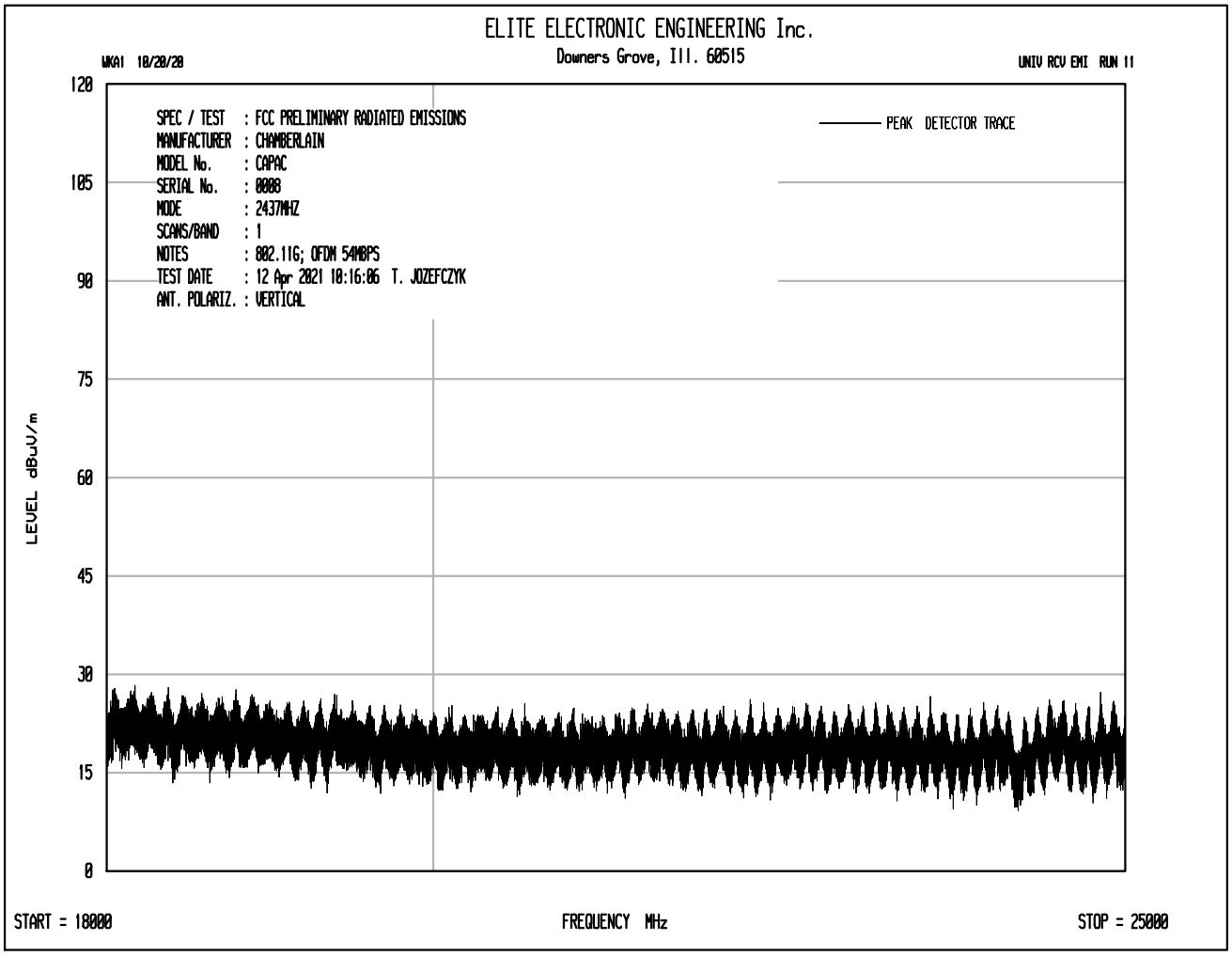

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 25
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0001
MODE : 802.11G TX @ 2437MHZ
SCANS/BAND : 1
NOTES :
TEST DATE : 5 Apr 2021 12:01:09 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

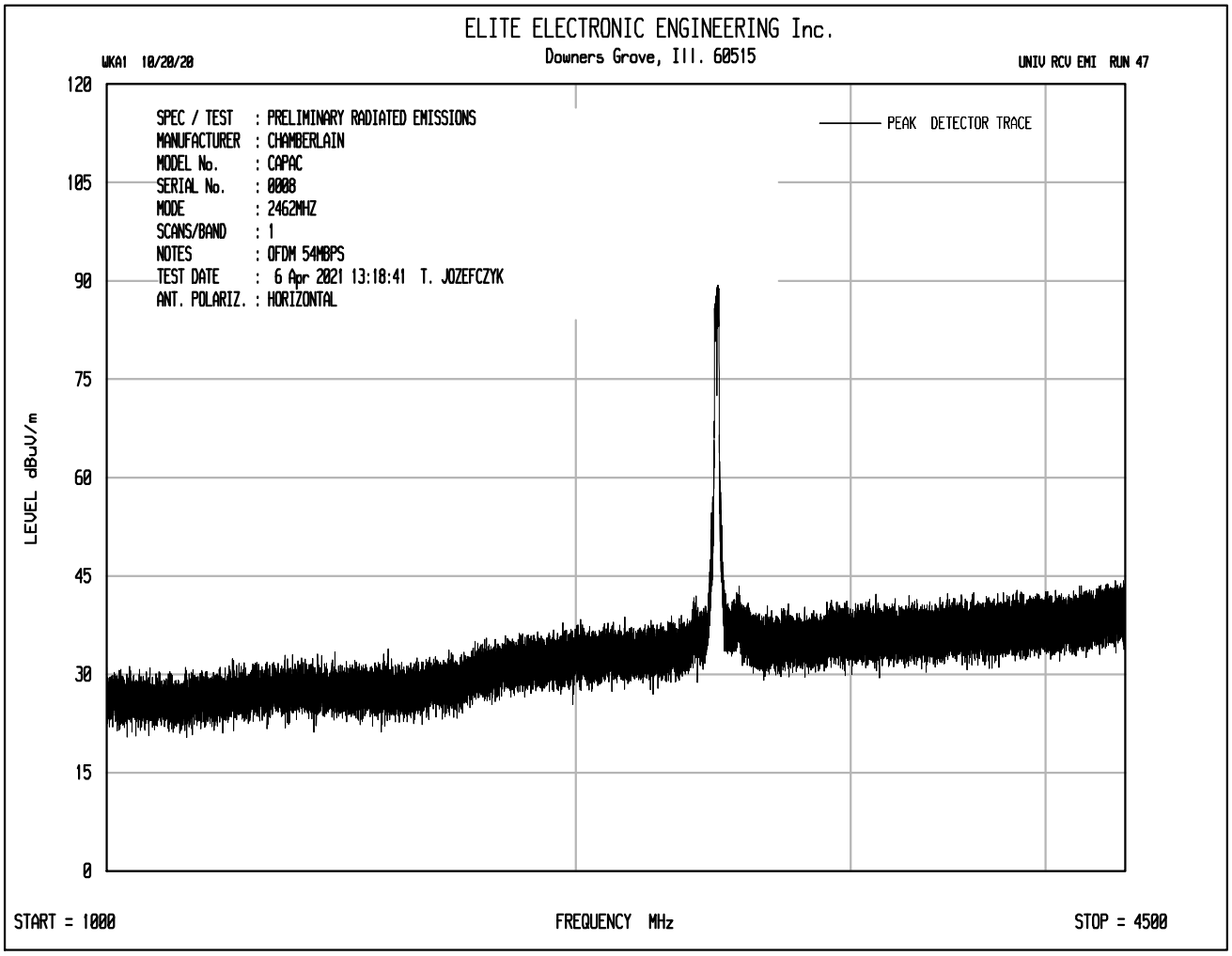

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 26
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0001
MODE : 802.11G TX @ 2437MHZ
SCANS/BAND : 1
NOTES :
TEST DATE : 5 Apr 2021 12:02:48 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

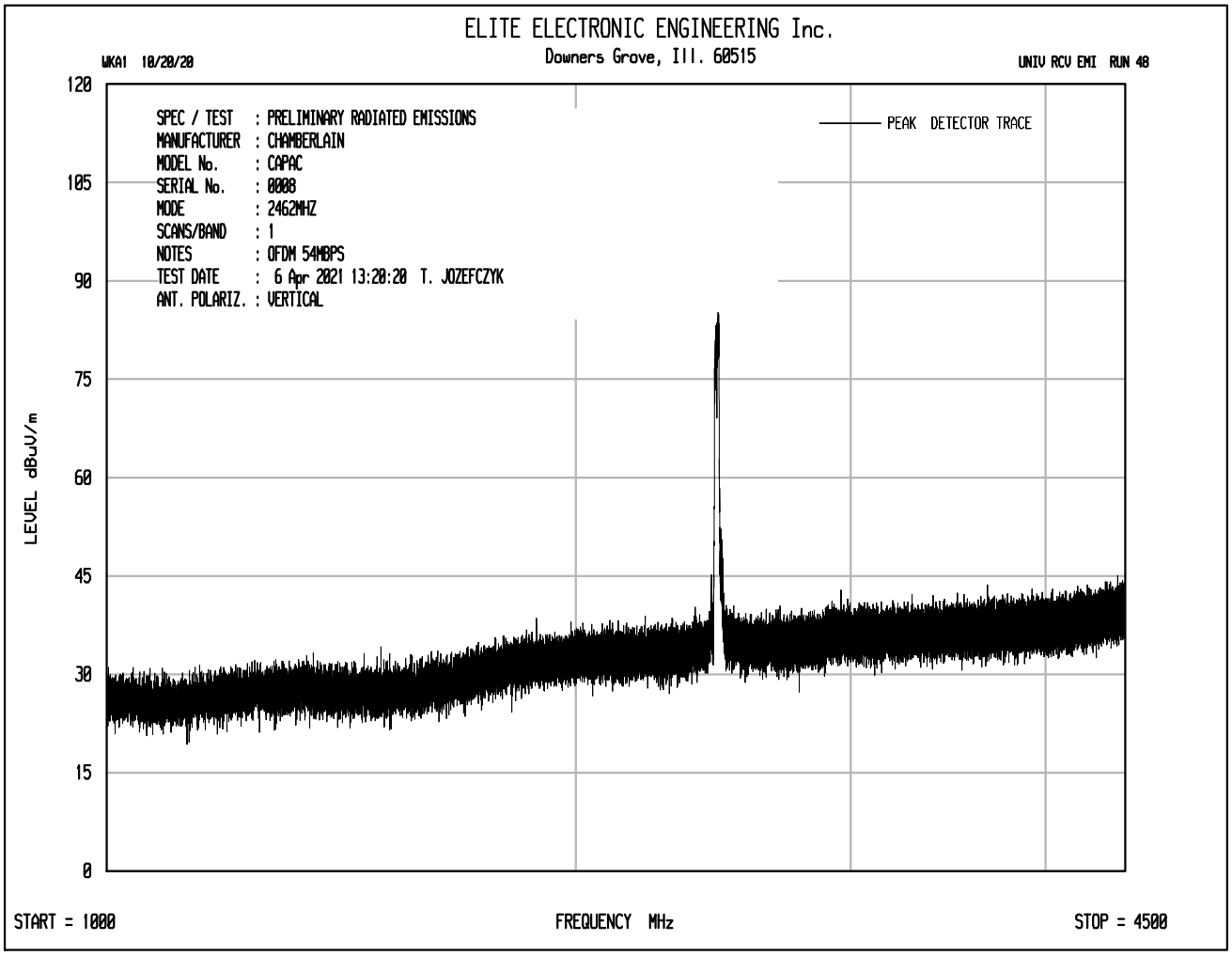

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 27
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0001
MODE : 802.11G TX @ 2437MHZ
SCANS/BAND : 1
NOTES : OFDM 54MBPS
TEST DATE : 5 Apr 2021 12:29:58 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

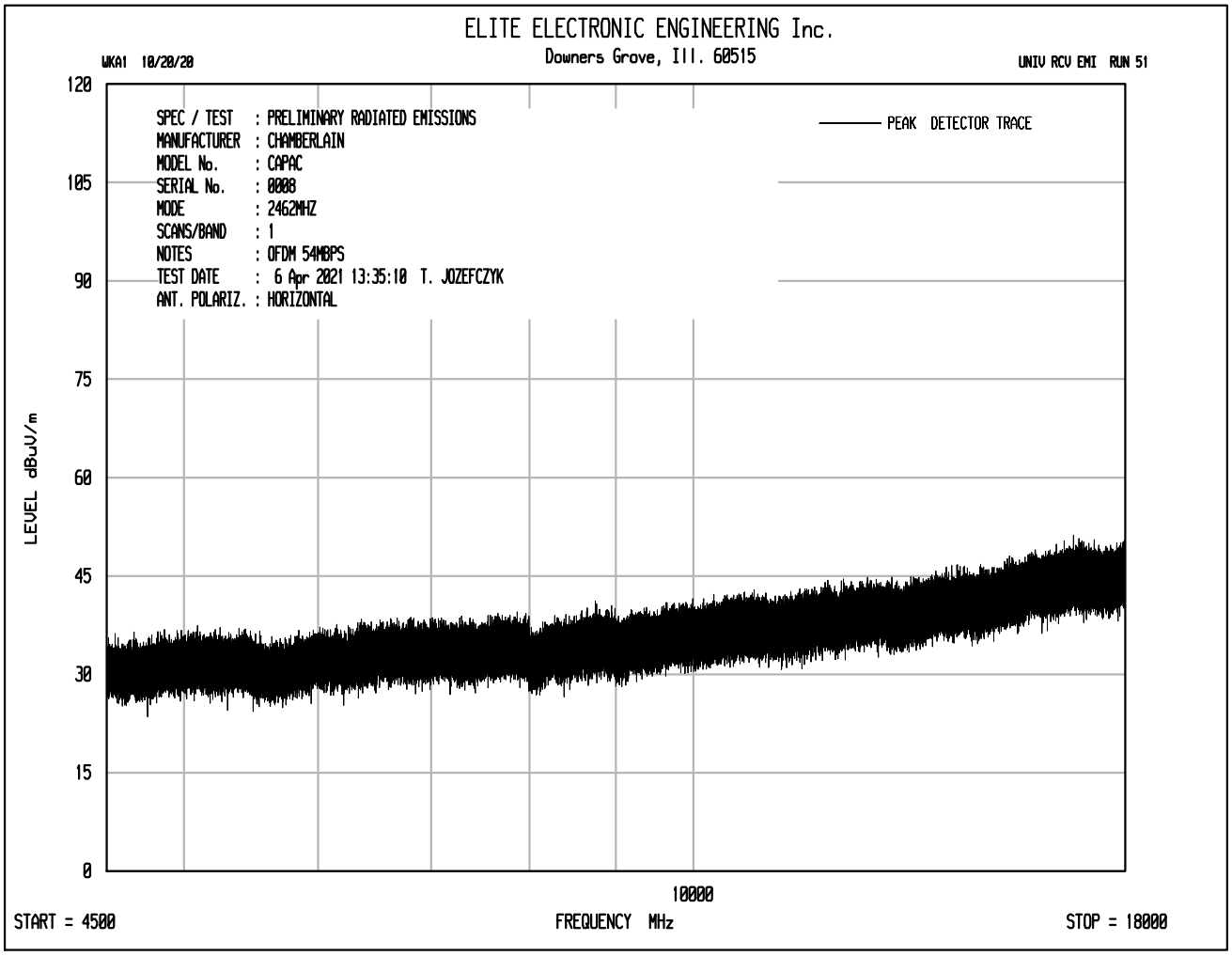

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 20
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0001
MODE : 802.11G TX @ 2437MHZ
SCANS/BAND : 1
NOTES : OFDM 54MBPS
TEST DATE : 5 Apr 2021 12:34:44 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

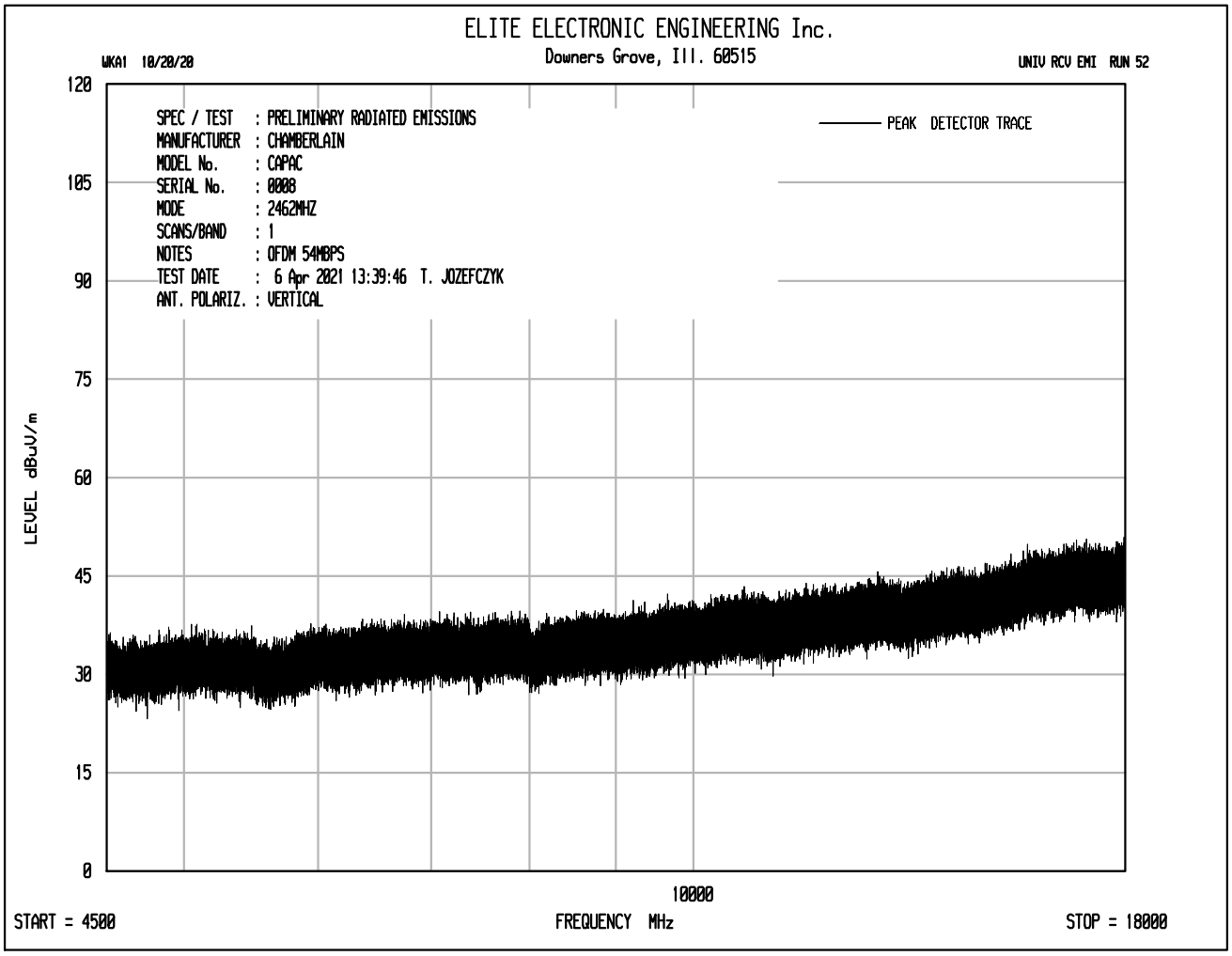

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 10
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2437MHZ
SCANS/BAND : 1
NOTES : 802.11G; OFDM 54MBPS
TEST DATE : 12 Apr 2021 10:06:42 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

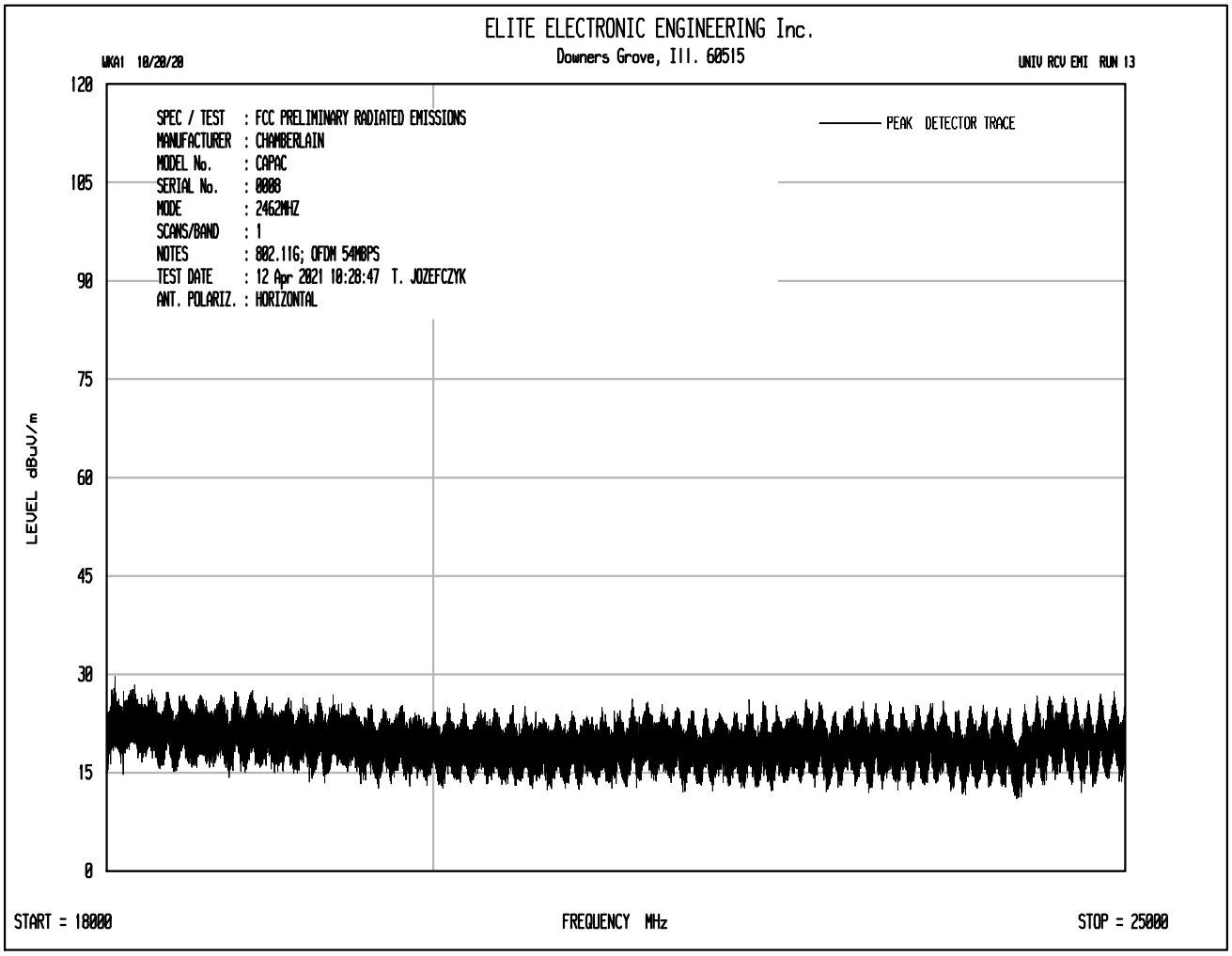

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 11
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2437MHZ
SCANS/BAND : 1
NOTES : 802.11G; OFDM 54MBPS
TEST DATE : 12 Apr 2021 10:16:06 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

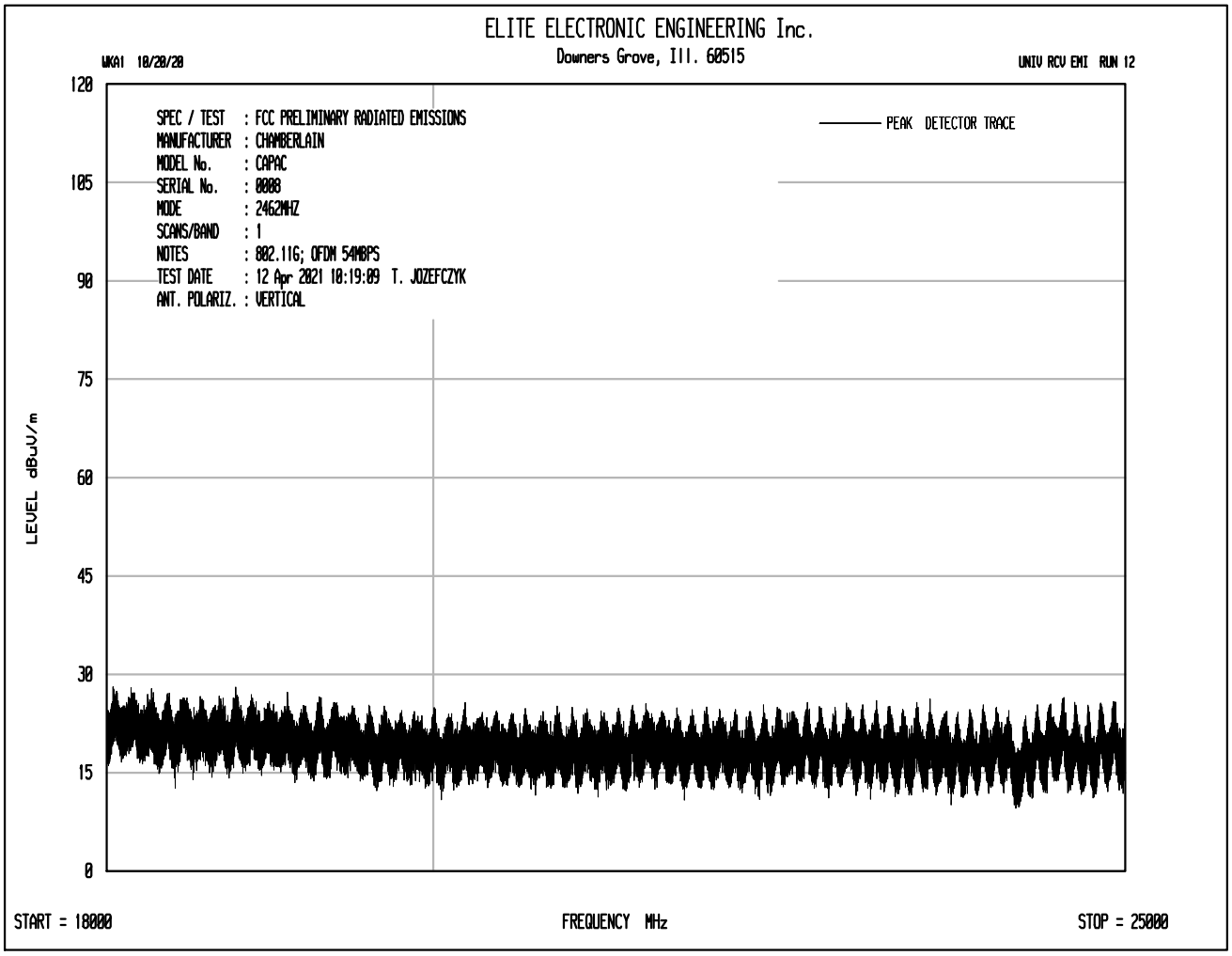

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 47
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2462MHZ
SCANS/BAND : 1
NOTES : OFDM 54MBPS
TEST DATE : 6 Apr 2021 13:18:41 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

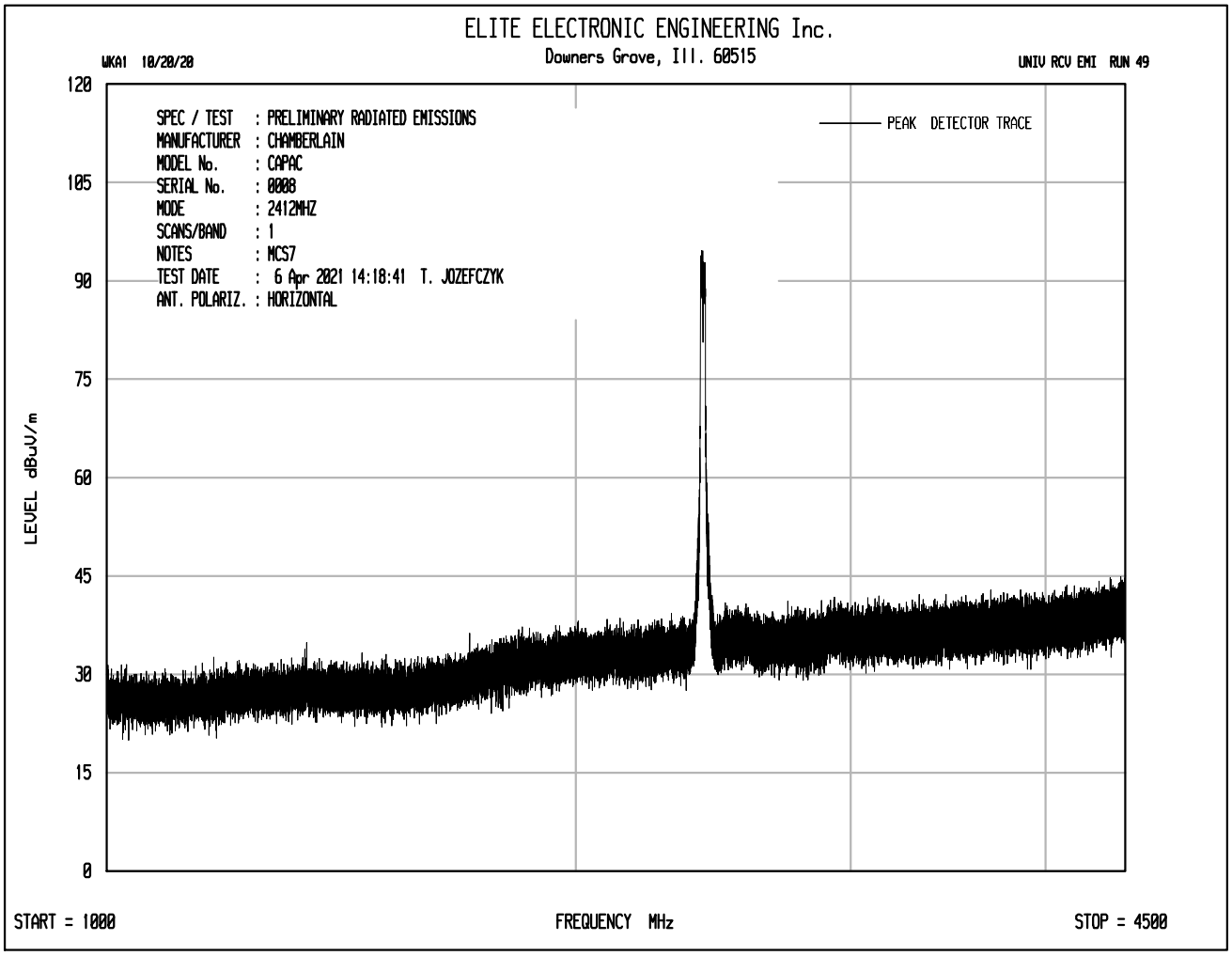

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 48
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2462MHZ
SCANS/BAND : 1
NOTES : OFDM 54MBPS
TEST DATE : 6 Apr 2021 13:20:20 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

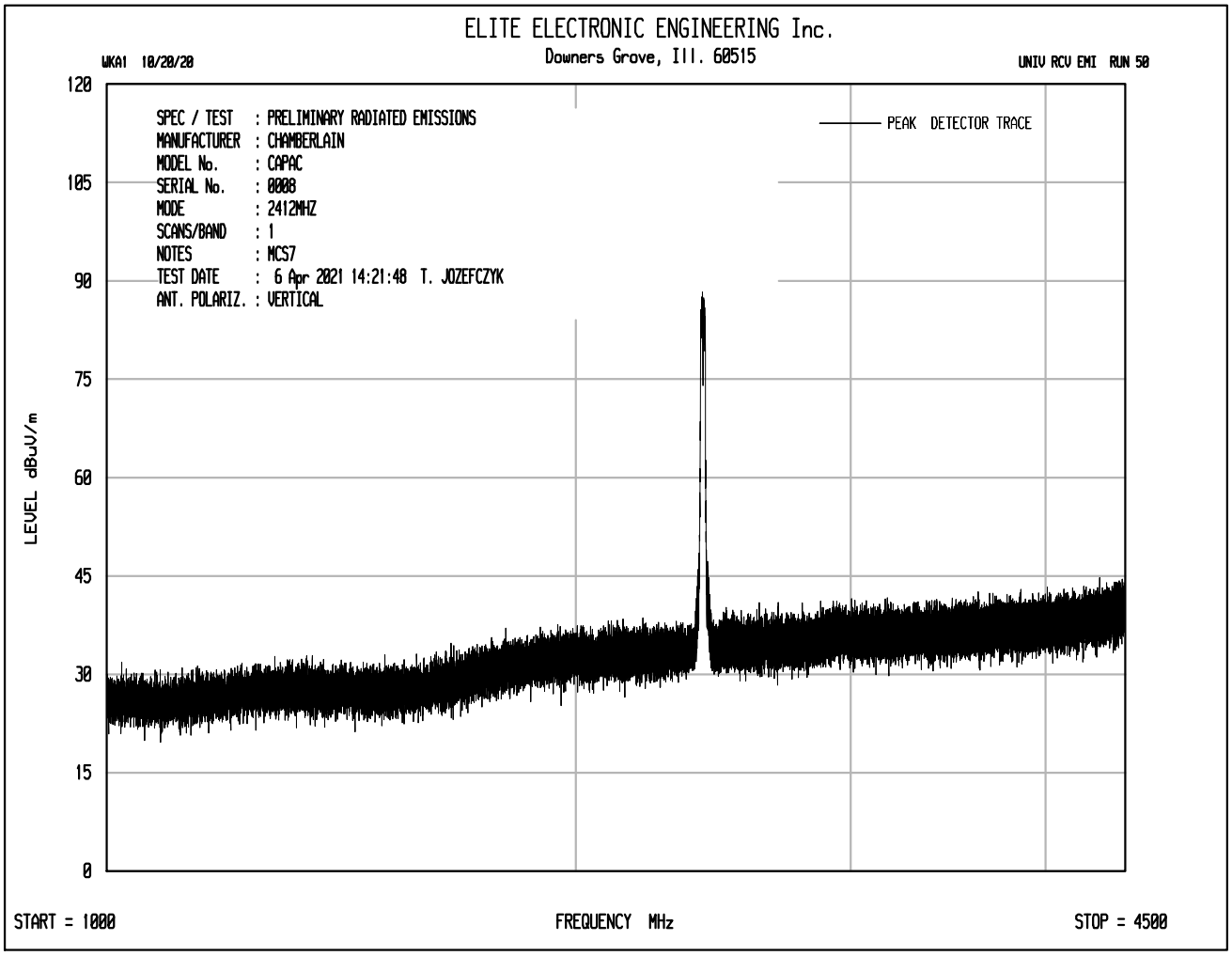

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 51
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2462MHZ
SCANS/BAND : 1
NOTES : OFDM 54MBPS
TEST DATE : 6 Apr 2021 13:35:10 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

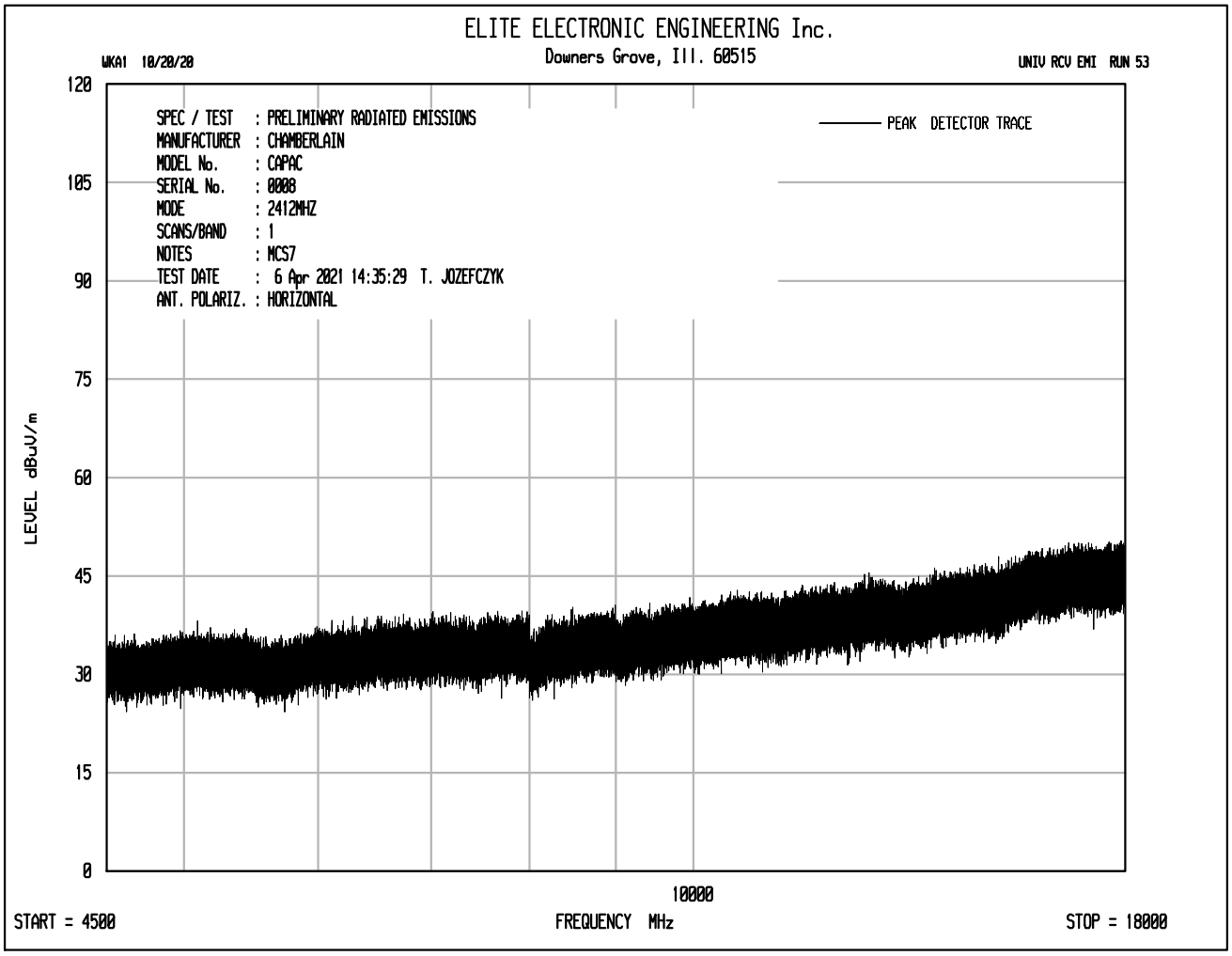

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 52
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2462MHZ
SCANS/BAND : 1
NOTES : OFDM 54MBPS
TEST DATE : 6 Apr 2021 13:39:46 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000

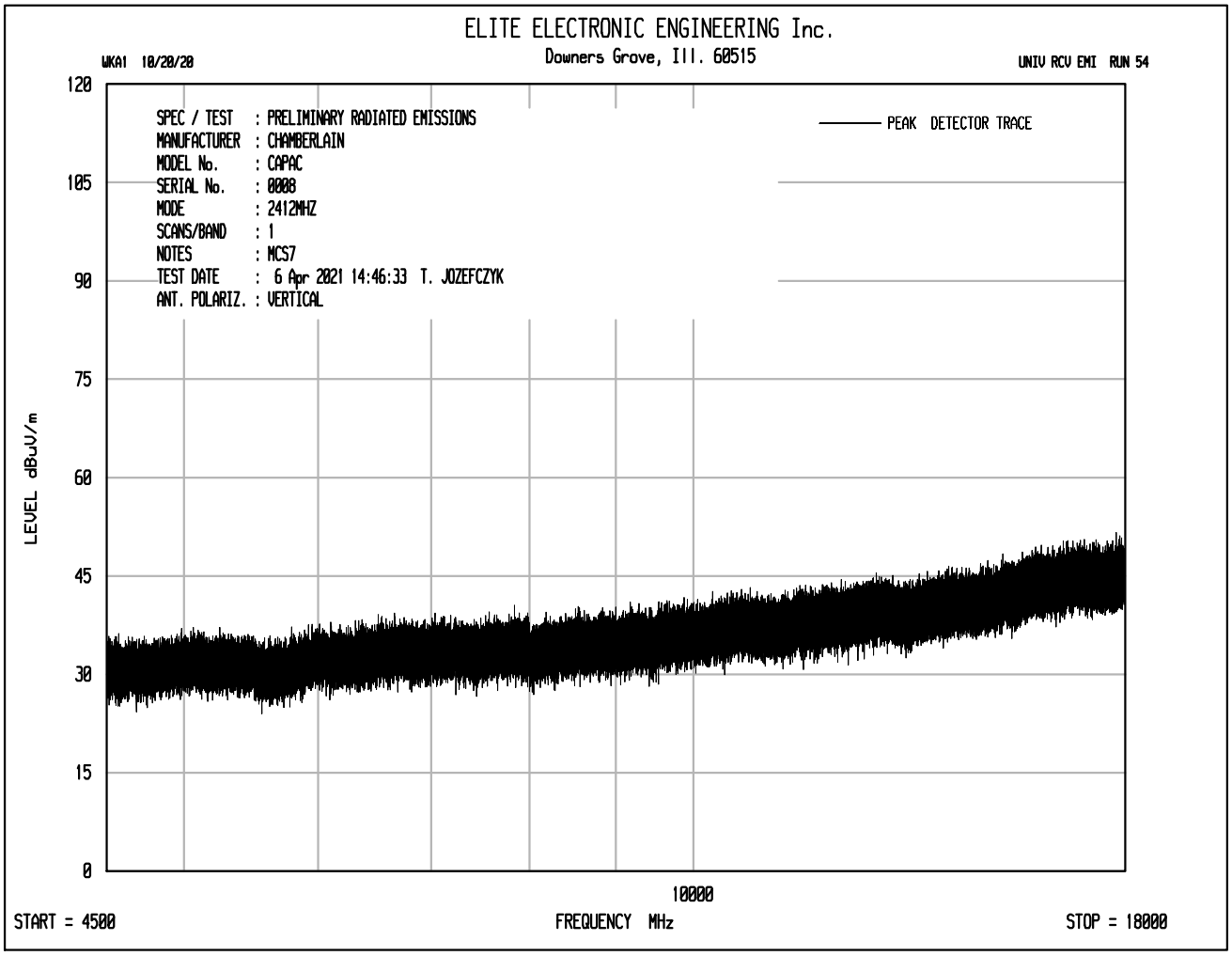

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 13
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2462MHZ
SCANS/BAND : 1
NOTES : 802.11G; OFDM 54MBPS
TEST DATE : 12 Apr 2021 10:28:47 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

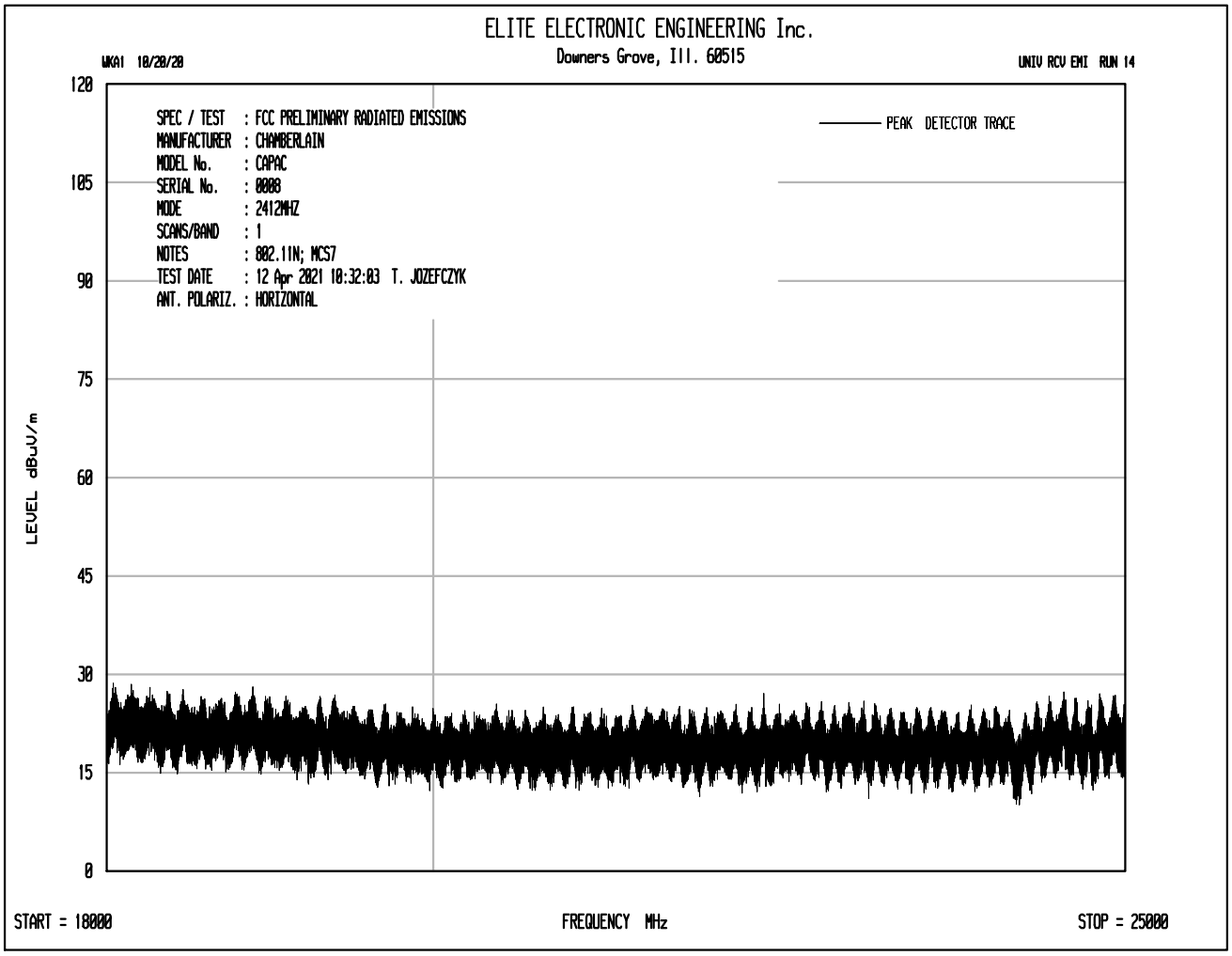

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 12
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2462MHZ
SCANS/BAND : 1
NOTES : 802.11G; OFDM 54MBPS
TEST DATE : 12 Apr 2021 10:19:09 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000

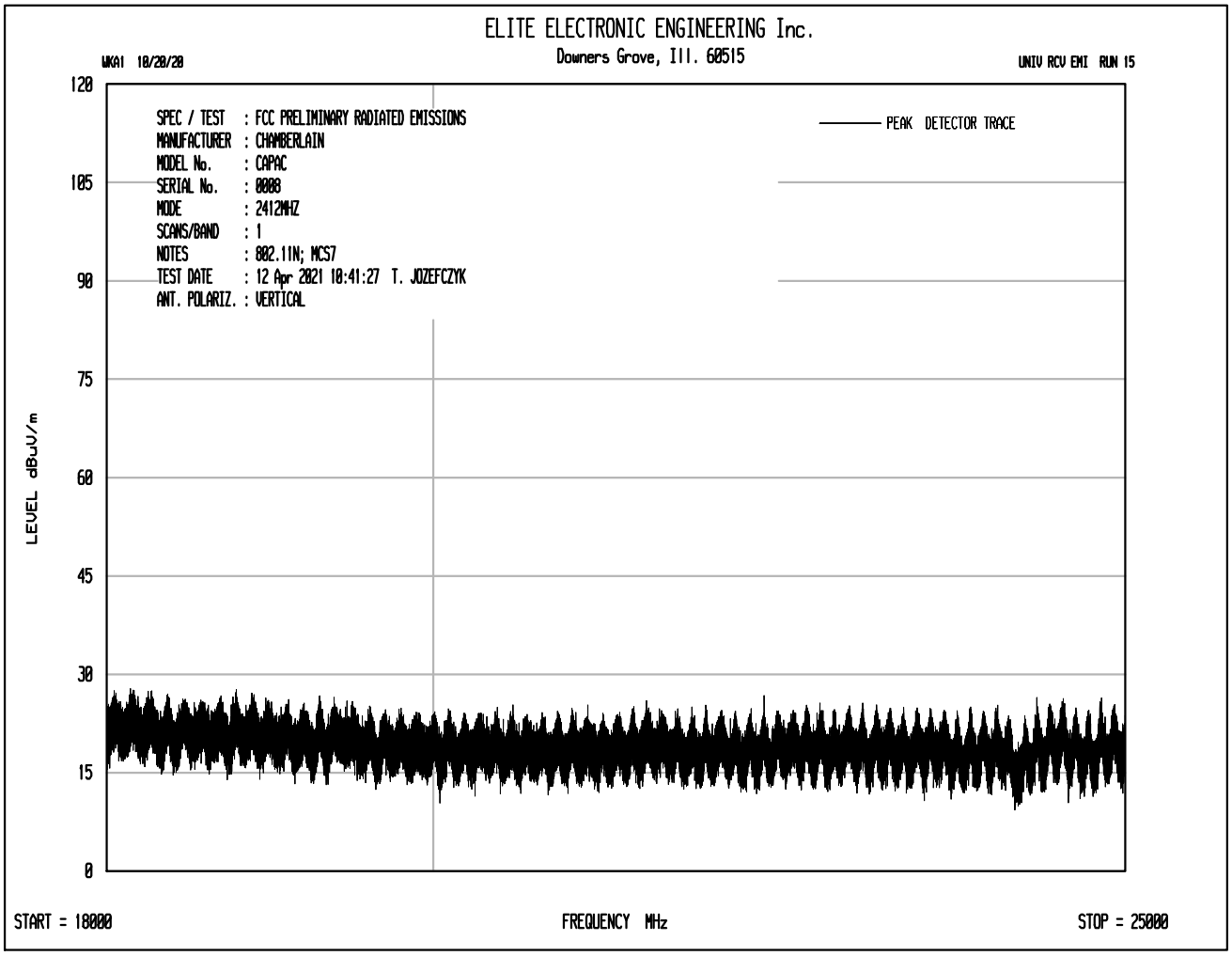

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 49
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : MCS7
TEST DATE : 6 Apr 2021 14:18:41 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

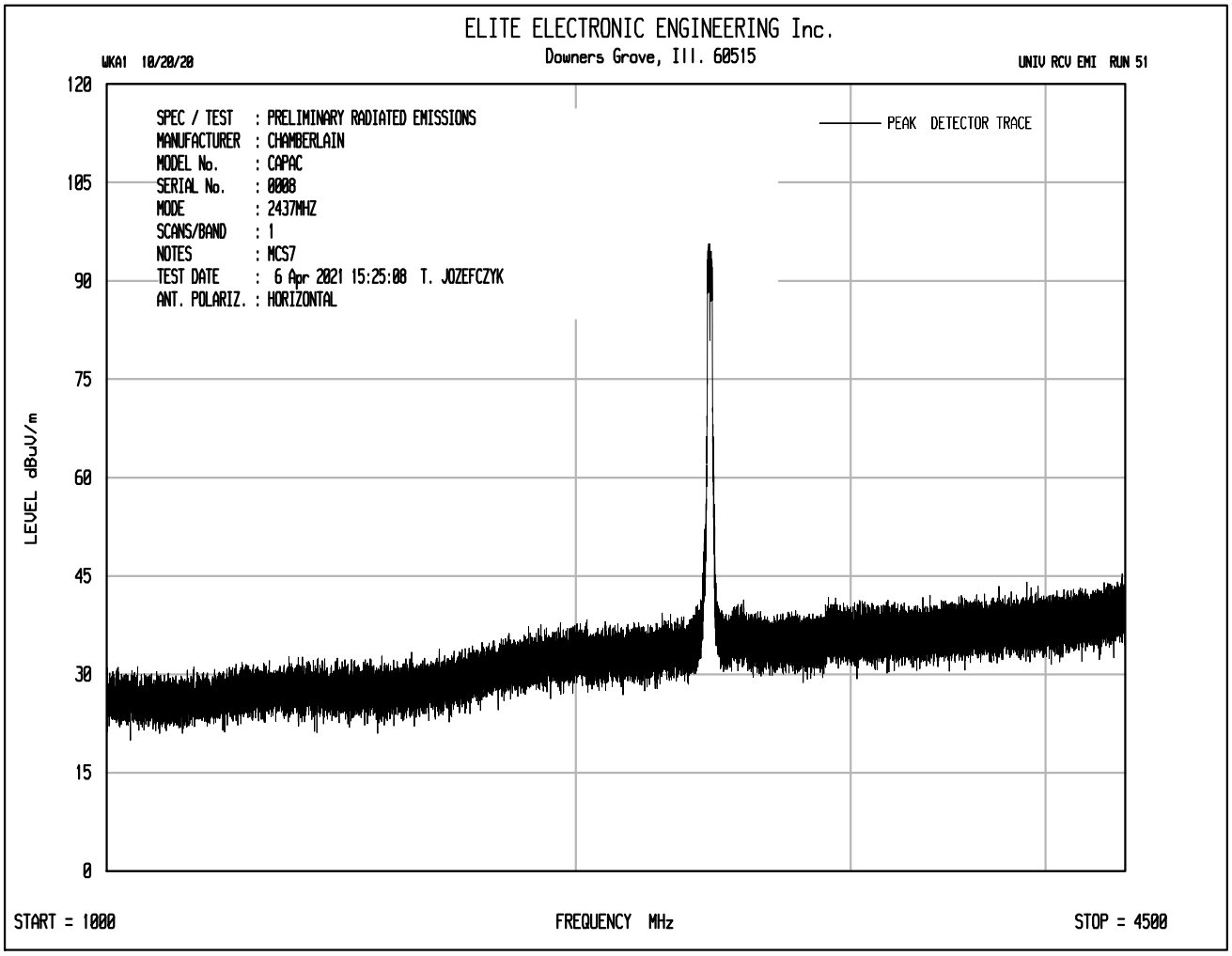

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 50
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : MCS7
TEST DATE : 6 Apr 2021 14:21:48 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500

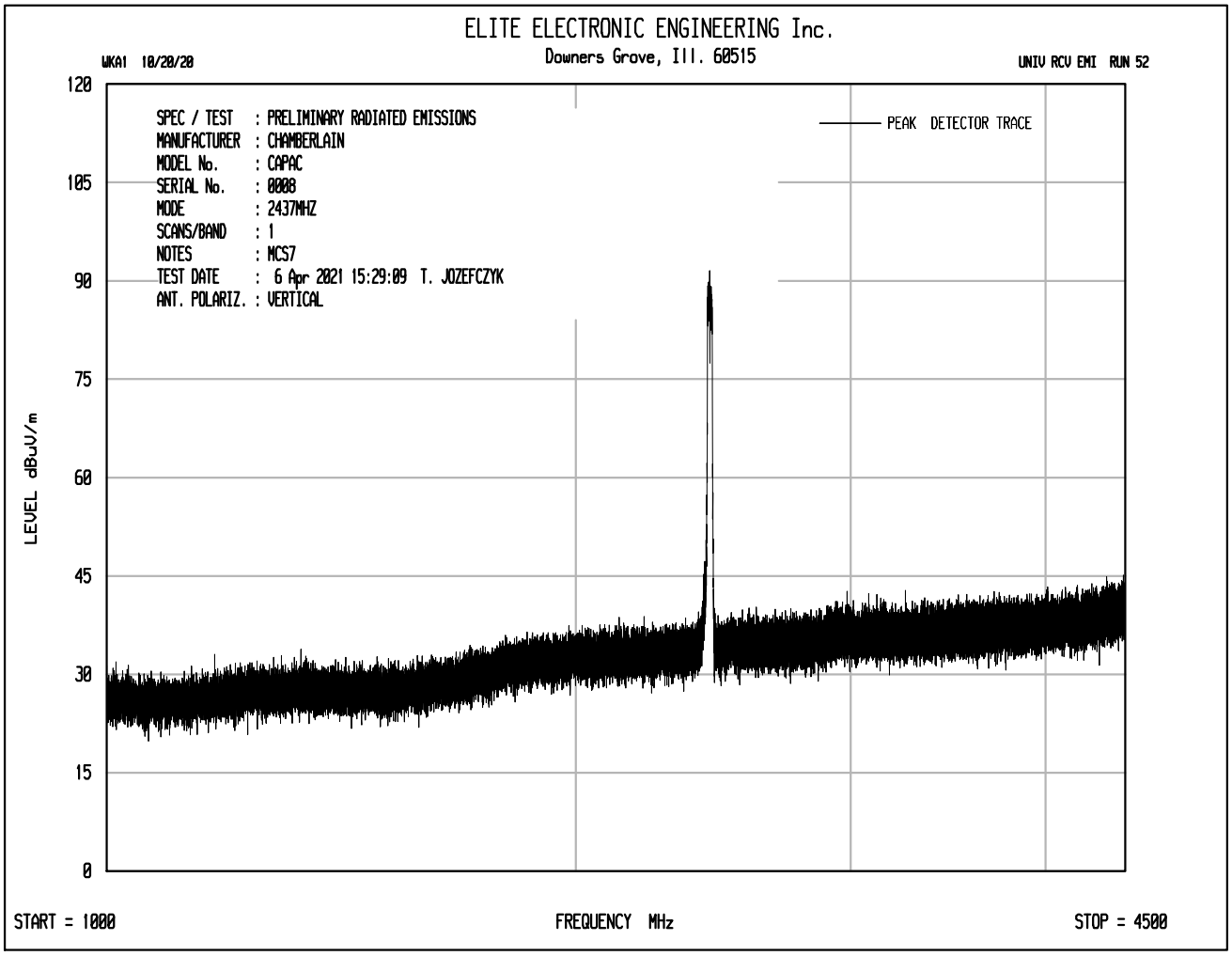

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 53
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : MCS7
TEST DATE : 6 Apr 2021 14:35:29 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 54
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : MCS7
TEST DATE : 6 Apr 2021 14:46:33 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
10000
START = 4500
FREQUENCY MHz
STOP = 18000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 14
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : 802.11N; MCS7
TEST DATE : 12 Apr 2021 10:32:03 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 15
SPEC / TEST : FCC PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2412MHZ
SCANS/BAND : 1
NOTES : 802.11N; MCS7
TEST DATE : 12 Apr 2021 10:41:27 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 18000
FREQUENCY MHz
STOP = 25000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 51
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2437MHZ
SCANS/BAND : 1
NOTES : MCS7
TEST DATE : 6 Apr 2021 15:25:08 T. JOZEFCZYK
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 10/20/20
UNIV RCV EMI RUN 52
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : CHAMBERLAIN
MODEL No. : CAPAC
SERIAL No. : 0008
MODE : 2437MHZ
SCANS/BAND : 1
NOTES : MCS7
TEST DATE : 6 Apr 2021 15:29:09 T. JOZEFCZYK
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 4500