Engineering Test Report No. 2202994-02		
Report Date	May 30, 2023	
Manufacturer Name	Accutech Security	
Manufacturer Address	10125 S 52nd Street Franklin, WI 53132	
Test Item Name Model No.	Patient Egress Monitoring Controller LC1400T	
Date Received	May 18, 2023	
Test Dates	May 18 & 19, 2023	
Specifications	FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C Innovation, Science, and Economic Development Canada, RSS-GEN Innovation, Science, and Economic Development Canada, RSS-102	
Test Facility	Elite Electronic Engineering, Inc. 1516 Centre Circle, Downers Grove, IL 60515	FCC Reg. Number: 269750 IC Reg. Number: 2987A CAB Identifier: US0107
Signature		
Tested by	Tylar Jozefczyk	
Signature		
Approved by	Raymond J. Klouda, Registered Professional Engineer of Illinois – 44894	
PO Number	P028437	

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, Innovation, Science, and Economic Development Canada, RSS-GEN, and Innovation, Science, and Economic Development Canada, RSS-102 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
–		Initial Release of Engineering Test Report No. 2202994-02

2. Introduction

2.1. Scope of Tests

This document presents the results of a series of RF emissions tests that were performed on the Accutech Security Patient Egress Monitoring Controller (hereinafter referred to as the Equipment Under Test (EUT)). The EUT was manufactured and submitted for testing by Accutech Security located in Franklin, WI.

2.2. Identification of the EUT

The EUT was identified as follows:

EUT Identification	
Product Description	Patient Egress Monitoring Controller
Model/Part No.	LC1400T
Serial No.	N/A
Size of EUT	13.25” x 2.50” x 2.25”
Software/Firmware Version	2.0
Antenna Type	Ferrite with windings and tuning circuit
Antenna Gain (dBi) [1]	6
Occupied Bandwidth (99% CBW)	1.29kHz
Emission Classification	N/A
FCC ID Number ISED Certification Number	FCC ID: JM7-HWHY-662022 IC: 2683A-662022
Note 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 15VDC power via an AC/DC Wall Wart Power Adapter, which receives 120VAC 60Hz power.

4. Grounding

The EUT was not connected to ground.

5. Support Equipment

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

Item	Description
Laptop	Used to put EUT into the correct transmitter frequency

6. Interconnect Leads

The following interconnect cable was submitted with the test item:

Item	Description
22/6 Conductor	Connected to keypad connection/door contact connection

7. Modifications Made to the EUT

No modifications were made to the EUT during the testing.

8. Mode of Operation

The EMC tests were performed with the EUT operating in the test mode described below.

8.1. Tx

The EUT was powered on and set to transmit at 137kHz.

9. Test Specifications

The tests were performed to selected portions of, and in accordance with, the test specifications:

- Federal Communications Commission "Code of Federal Regulations", Title 47, Chapter I, Subchapter A, Part 15, Subpart C – “Intentional Radiators”
- 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 40GHz”
- ANSI C63.10-2013 – “American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices”
- Radio Standards Specifications RSS-Gen Issue 5, Amendment 2 (February 2021) – “General Requirements for Compliance of Radio Apparatus”
- Radio Standards Specifications RSS-102 Issue 5, Amendment 1 (February 2021) – “Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)”
- Radio Standards Specifications SPR-002 Issue 2 (October 2022) – “Supplementary Procedure for Assessing Compliance of Equipment Operating from 3 kHz to 10 MHz with RSS-102”

10. Test Plan

No test plan was provided. Instructions were provided by personnel from Accutech Security and used in conjunction with the FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Innovation, Science, and Economic Development Canada, RSS-GEN, Innovation, Science, and Economic Development Canada, RSS-102, and ANSI C63.10-2013 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

The ambient parameters of the laboratory during testing were as follows:

Ambient Parameters	Value
Temperature	23.9°C
Relative Humidity	28%
Atmospheric Pressure	1018.6mb

13. Summary

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

Test Description	Requirements	Test Method	Result
Transmitter Conducted Emissions	FCC 15.207 RSS-GEN Section 8.8	ANSI C63.10:2013	Conforms
Occupied Bandwidth (99%)	RSS-GEN Section 6.7	ISED RSS-GEN	Conforms
Spurious Radiated Emissions	FCC 15.209 RSS-GEN Section 8.9	ANSI C63.10:2013	Conforms
Pulse Nerve Stimulation	RSS-102 Section 4	SPR-002	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 (dBµV) = 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]

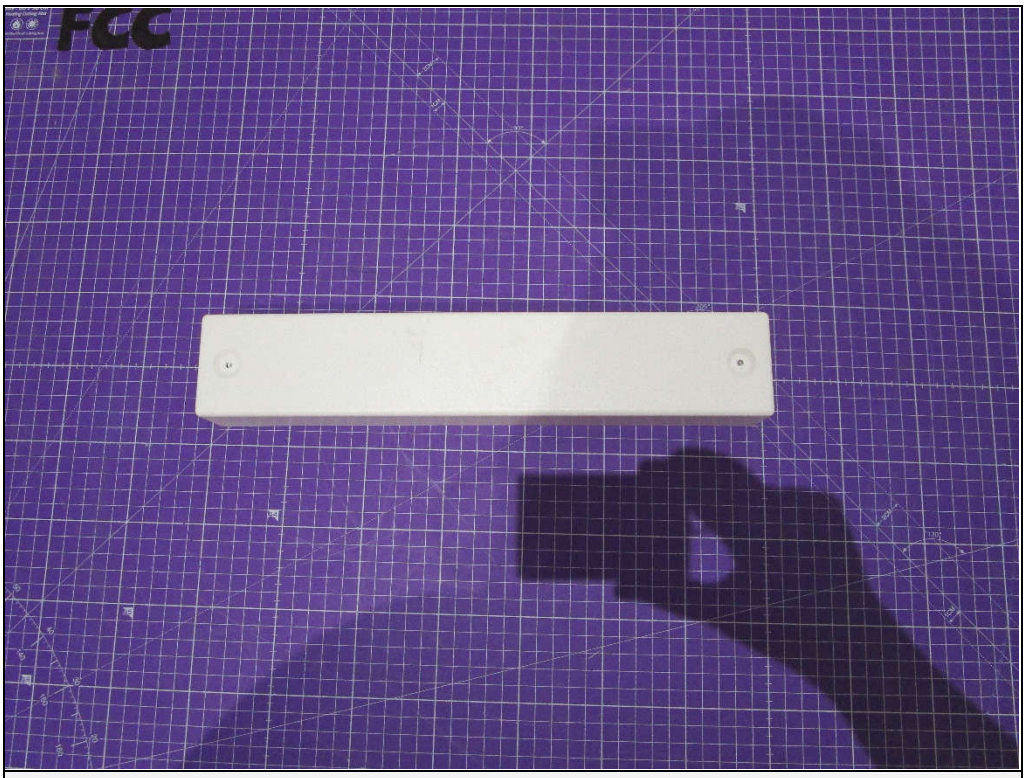
15. Statement of Conformity

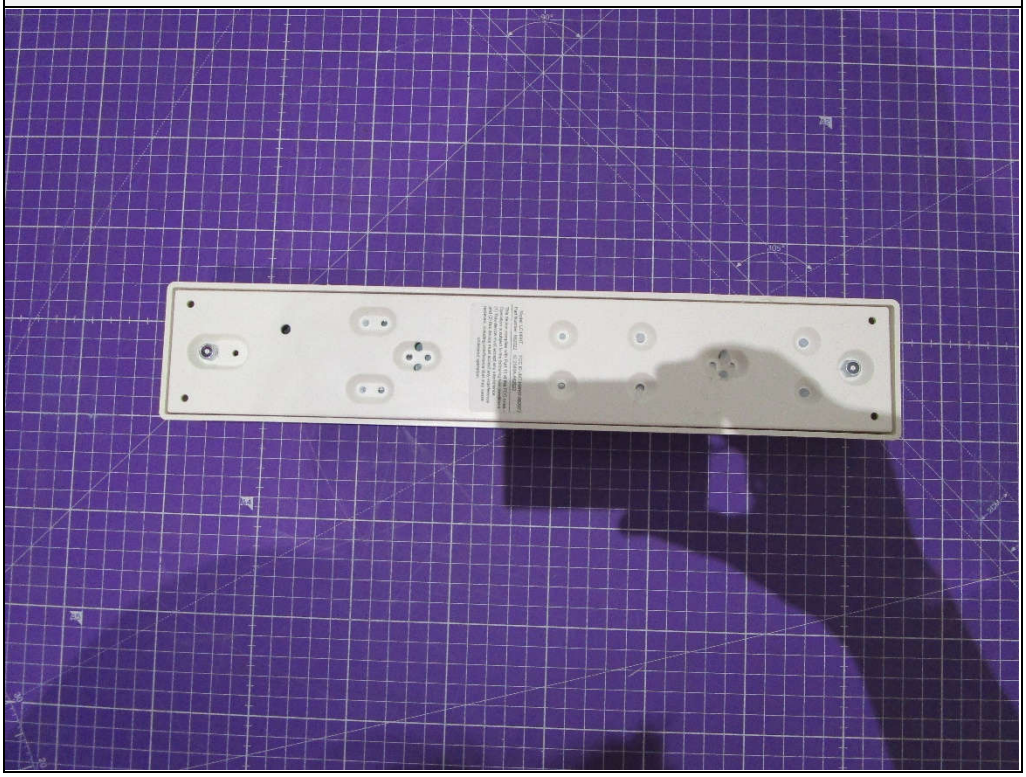
The Accutech Security Patient Egress Monitoring Controller (Model No. LC1400T, Serial No. N/A) did fully conform to the selected requirements of FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Innovation, Science, and Economic Development Canada, RSS-GEN, and Innovation, Science, and Economic Development Canada, RSS-102.

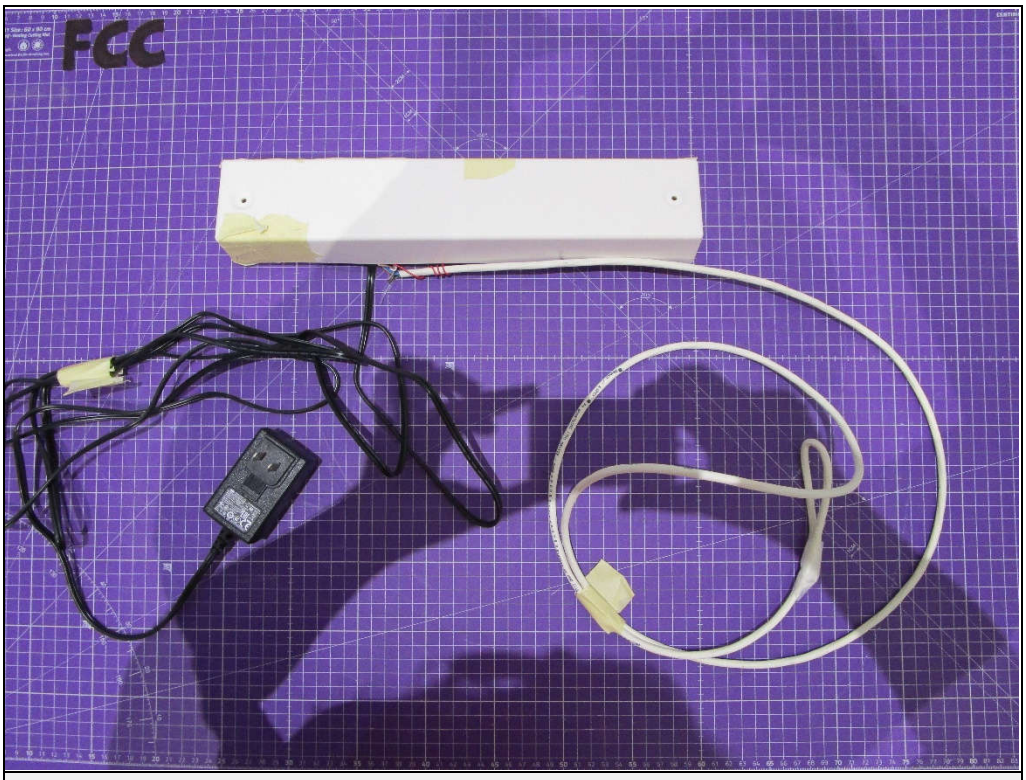
16. Certification

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, Innovation, Science, and Economic Development Canada, RSS-GEN, and Innovation, Science, and Economic Development Canada, RSS-102 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



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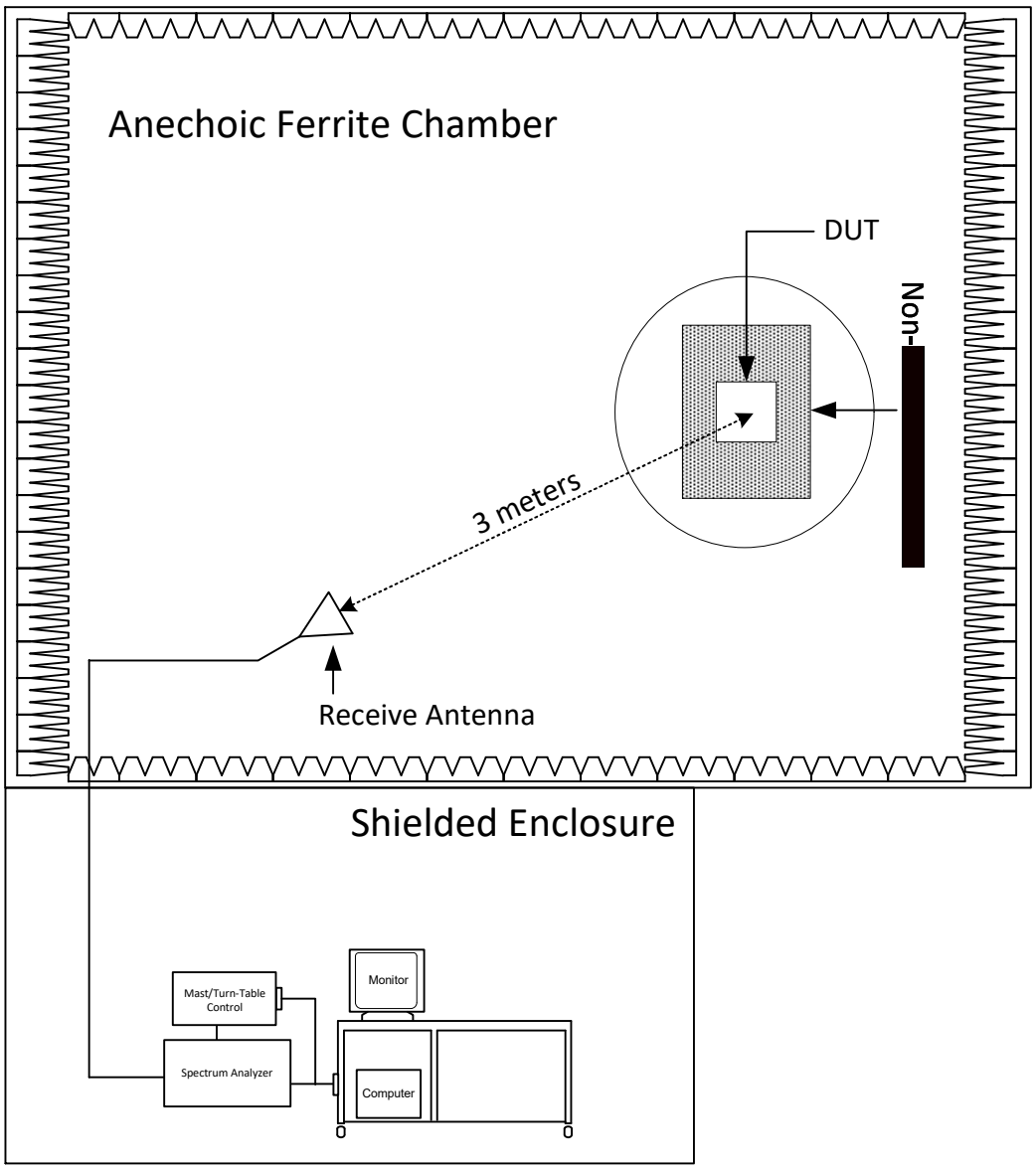
18. Equipment List

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	9/21/2022	9/21/2023
CDY0	WORKSTATION	ELITE	WORKSTATION		WINDOWS 7	N/A	
CDZ3	LAB WORKSTATION	ELITE	LWS-10		WINDOWS 10	CNR	
GRB0	1MHZ, LISN SIGNAL CHECKER	ELITE	LISNCHKR1M	1	1MHZ	12/6/2022	12/6/2024
GSD6	SIGNAL GENERATOR	ROHDE & SCHWARZ	SMB100A	115255	9KHZ-6GHZ	8/25/2022	8/25/2023
NLC2	5" LOOP ANTENNA	EMCO	7603	9907-2217	0.03-50KHZ	NOTE 1	
NLS0	24" ACTIVE LOOP ANTENNA	EMCO	6502	89979	10KHZ-30MHZ	4/4/2023	4/4/2025
PEHP0	COMPACT E/H FIELD METER	NARDA	EHP-200AC	180ZX30180	3KHZ-30MHZ	2/27/2023	2/27/2025
PLF1	CISPR16 50UH LISN	ELITE	CISPR16/70A	001	.15-30MHz	4/7/2023	4/7/2024
PLF3	CISPR16 50UH LISN	ELITE	CISPR16/70A	003	.15-30MHz	4/7/2023	4/7/2024
R23P	ROOM 23			001	---	CNR	
R29F	3M ANECHOIC CHAMBER NSA	EMC TEST SYSTEMS	3M ANECHOIC		30MHZ-18GHZ	3/25/2022	5/25/2023
RBG2	EMI ANALYZER	ROHDE & SCHWARZ	ESW44	101591	2HZ-44GHZ	4/10/2023	4/10/2024
RBG4	EMI ANALYZER	ROHDE & SCHWARZ	ESW44	103007	2HZ-44GHZ	12/8/2022	12/8/2023
T1N5	10DB 20W ATTENUATOR	NARDA	766-10	---	DC-4GHZ	1/5/2022	1/5/2024
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	
XLTK	5W, 50 OHM TERMINATION	JFW INDUSTRIES	50T-052	---	DC-2GHZ	1/5/2022	1/5/2024

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. Transmitter Conducted Emissions

Test Information	
Manufacturer	Accutech Security
Product	Patient Egress Monitoring Controller
Model No.	LC1400T
Serial No.	N/A
Mode	Tx

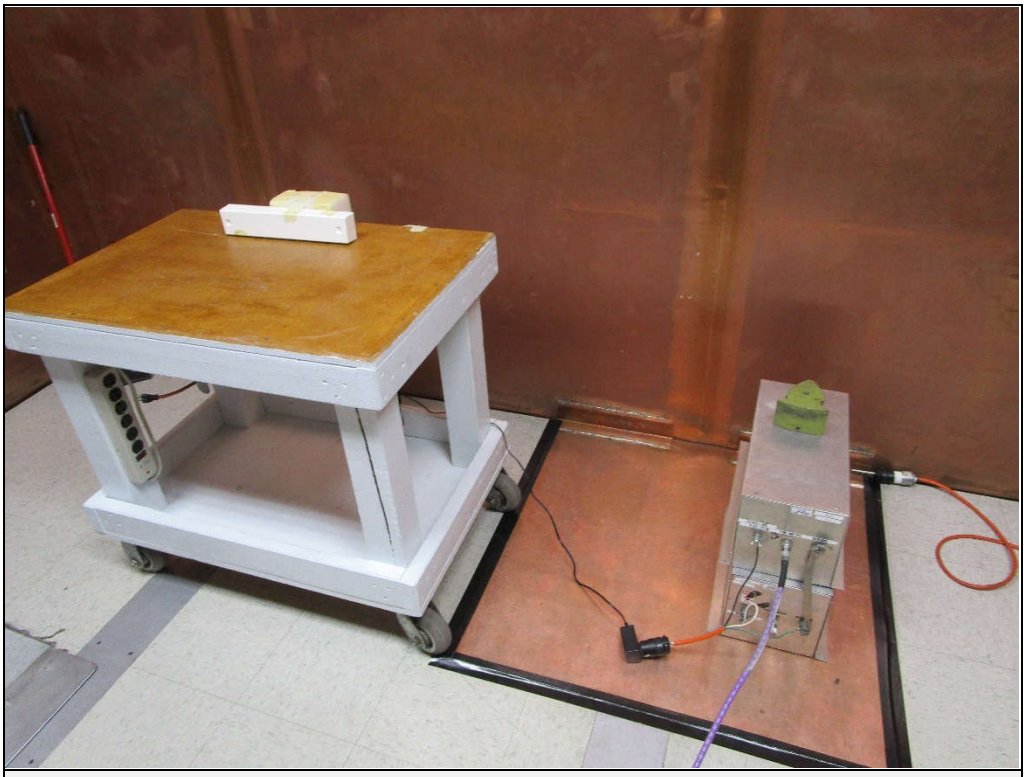
Test Setup Details	
Setup Format	Tabletop
Height of Support	N/A
Type of Test Site	Semi-Anechoic Chamber
Test Site Used	R29F
Notes	

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 intentional radiator shall not exceed the limits in the following table:

Transmitter Conducted Emissions Limits		
Frequency of Emission (MHz)	Conducted Limits (dBµV)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56*	56-46*
0.5 – 5	56	46
5 – 30	60	50
* The lower limit shall apply at the transition frequencies.		

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 Tx 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. 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 (dBµV) = MTR (dBµV) + CF (dB) 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)

Test Setup for RF Conducted Emissions (AC Mains)

FCC Part 15 Subpart B 2017-2022 Conducted Emissions Test

Significant Emissions Data

VBR8 01/04/2023

Manufacturer	:	ACCUTECH
Model	:	LC1400T
DUT Revision	:	1.0
Serial Number	:	
DUT Mode	:	TX @ 137KHZ
Line Tested	:	120VAC 60HZ HIGH LINE
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-10
Notes	:	None
Test Engineer	:	T. Jozefczyk
Limit	:	Class B
Test Date	:	May 18, 2023 01:43:22 PM
Data Filter	:	Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

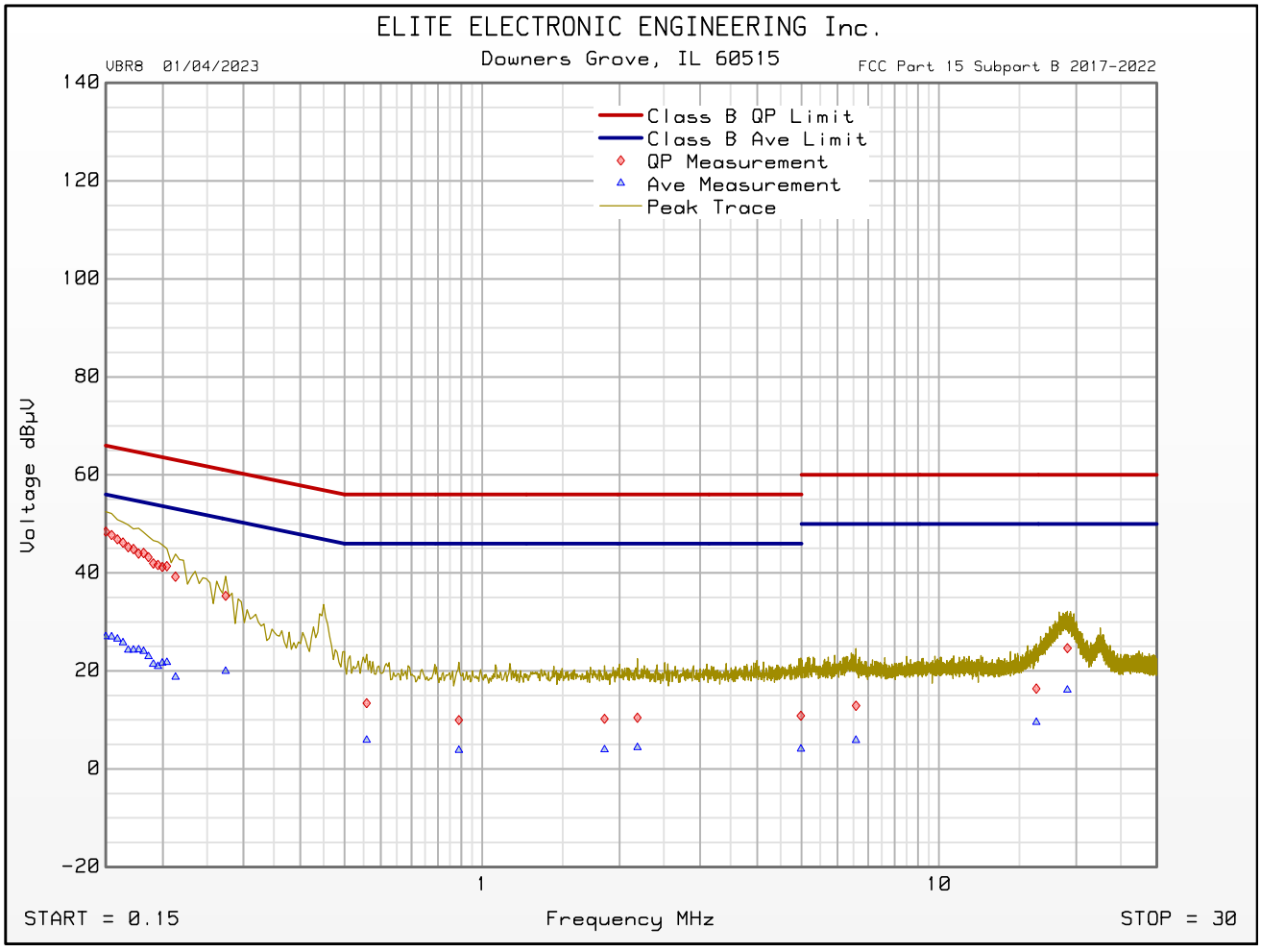
Freq MHz	Quasi-peak Level dBµV	Quasi-peak Limit dBµV	Excessive Quasi-peak Emissions	Average Level dBµV	Average Limit dBµV	Excessive Average Emissions
0.150	48.4	66.0		27.0	56.0	
0.275	35.3	61.0		19.9	51.0	
0.559	13.4	56.0		5.9	46.0	
0.889	10.0	56.0		3.8	46.0	
1.853	10.2	56.0		4.0	46.0	
2.187	10.4	56.0		4.4	46.0	
4.985	10.8	56.0		4.0	46.0	
6.584	12.9	60.0		5.9	50.0	
16.335	16.4	60.0		9.5	50.0	
19.117	24.6	60.0		16.1	50.0	

FCC Part 15 Subpart B 2017-2022 Conducted Emissions Test

Cumulative Data

VBR8 01/04/2023

Manufacturer	:	ACCUTECH
Model	:	LC1400T
DUT Revision	:	1.0
Serial Number	:	
DUT Mode	:	TX @ 137KHZ
Line Tested	:	120VAC 60HZ HIGH LINE
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-10
Notes	:	None
Test Engineer	:	T. Jozefczyk
Limit	:	Class B
Test Date	:	May 18, 2023 01:43:22 PM



Emissions Meet QP Limit
Emissions Meet Ave Limit

FCC Part 15 Subpart B 2017-2022 Conducted Emissions Test

Significant Emissions Data

VBR8 01/04/2023

Manufacturer	:	ACCUTECH
Model	:	LC1400T
DUT Revision	:	1.0
Serial Number	:	
DUT Mode	:	TX @ 137KHZ
Line Tested	:	120VAC 60HZ NEUTRAL LINE
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-10
Notes	:	None
Test Engineer	:	T. Jozefczyk
Limit	:	Class B
Test Date	:	May 18, 2023 01:37:54 PM
Data Filter	:	Up to 80 maximum levels detected with 6 dB level excursion threshold over 10 dB margin below limit

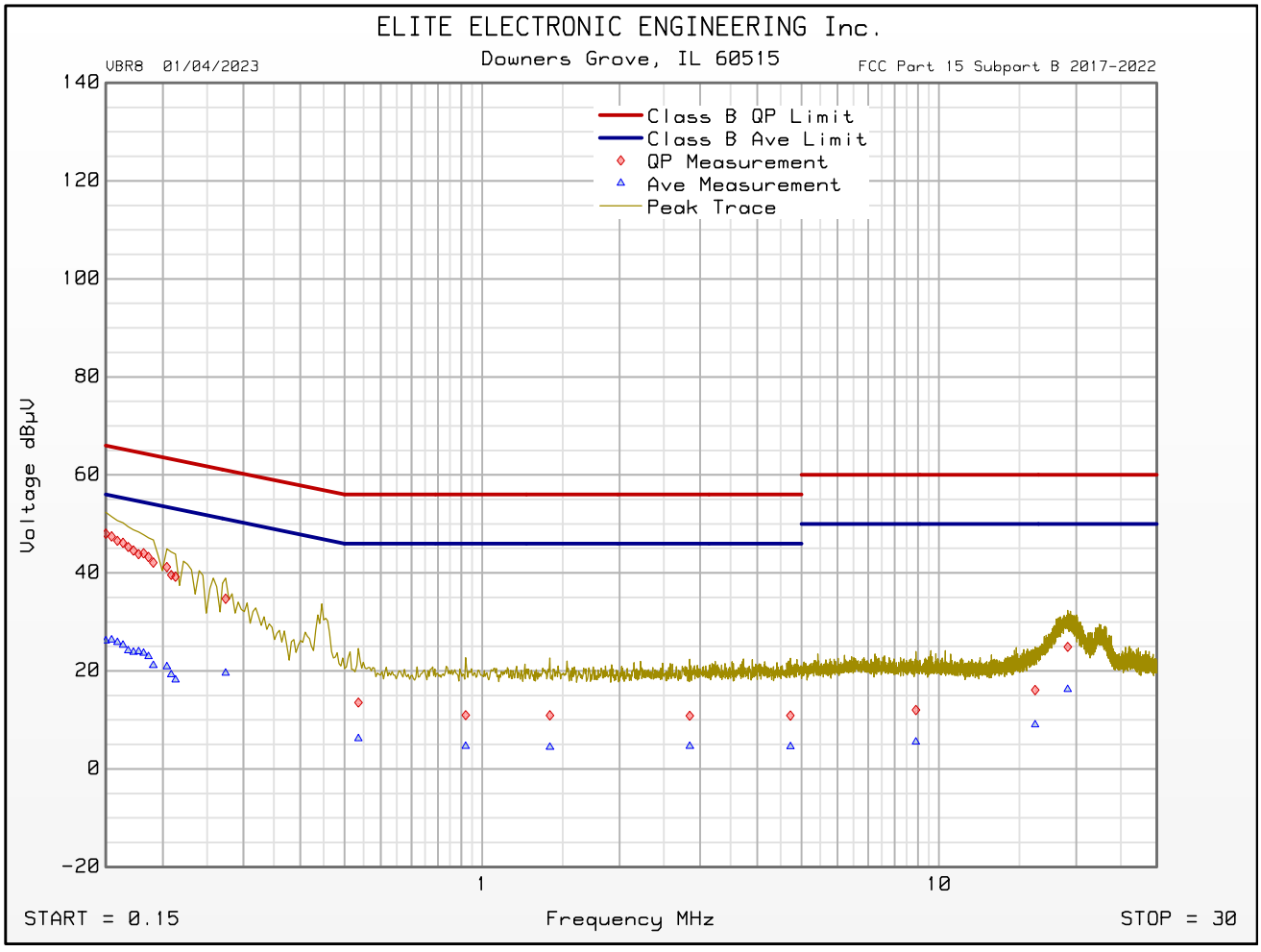
Freq MHz	Quasi-peak Level dBµV	Quasi-peak Limit dBµV	Excessive Quasi-peak Emissions	Average Level dBµV	Average Limit dBµV	Excessive Average Emissions
0.150	48.0	66.0		26.2	56.0	
0.275	34.7	61.0		19.6	51.0	
0.536	13.5	56.0		6.2	46.0	
0.921	11.0	56.0		4.6	46.0	
1.408	10.9	56.0		4.4	46.0	
2.849	10.8	56.0		4.6	46.0	
4.729	10.9	56.0		4.5	46.0	
8.906	12.0	60.0		5.5	50.0	
16.245	16.1	60.0		9.0	50.0	
19.148	24.9	60.0		16.2	50.0	

FCC Part 15 Subpart B 2017-2022 Conducted Emissions Test

Cumulative Data

VBR8 01/04/2023

Manufacturer	:	ACCUTECH
Model	:	LC1400T
DUT Revision	:	1.0
Serial Number	:	
DUT Mode	:	TX @ 137KHZ
Line Tested	:	120VAC 60HZ NEUTRAL LINE
Scan Step Time [ms]	:	30
Meas. Threshold [dB]	:	-10
Notes	:	None
Test Engineer	:	T. Jozefczyk
Limit	:	Class B
Test Date	:	May 18, 2023 01:37:54 PM



Emissions Meet QP Limit
Emissions Meet Ave Limit

21. Occupied Bandwidth (99%)

EUT Information	
Manufacturer	Accutech Security
Product	Patient Egress Monitoring Controller
Model No.	LC1400T
Serial No.	N/A
Mode	Tx

Test Setup Details	
Setup Format	Tabletop
Height of Support	N/A
Measurement Method	Radiated
Type of Test Site	Semi-Anechoic Chamber
Test Site Used	R29F
Type of Antenna Used	Loop (or equivalent)
Notes	

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

Procedure
The EUT was setup inside the chamber. The EUT was allowed to transmit continuously. The resolution bandwidth (RBW) was set to 1% to 5% of the actual occupied / x dB bandwidth, the video bandwidth (VBW) was set 3 times greater than the RBW, and the span was set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency. 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.

Test Details	
Manufacturer	Accutech Security
EUT	Patient Egress Monitoring Controller
Model No.	LC1400T
Serial No.	N/A
Mode	Tx
Frequency Tested	137kHz
Result	OBW = 1.29kHz
Notes	

22. Spurious Radiated Emissions

EUT Information	
Manufacturer	Accutech Security
Product	Patient Egress Monitoring Controller
Model No.	LC1400T
Serial No.	N/A
Mode	Tx

Test Setup Details	
Setup Format	Tabletop
Height of Support	N/A
Type of Test Site	Semi-Anechoic Chamber
Test Site Used	R29F
Type of Antennas Used	Loop (or equivalent)
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

Requirements

Per FCC 15.209(a), the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F (kHz)	300
0.490 – 1.705	2400/F (kHz)	30
1.705 – 30	30	30
30 – 88	100 [1]	3
88 – 216	150 [1]	3
216 – 960	200 [1]	3
Above 960	500	3

Note 1: Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54 – 72MHz, 76 – 88MHz, 174 – 216MHz, or 470 – 806MHz. However, operation within these frequency bands is permitted under other sections of this part.

Per RSS-Gen, Section 8.9, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

General Field Strength Limits at Frequencies below 30MHz		
Frequency	Magnetic Field Strength (H-Field) (µA/m)	Measurement Distance (m)
9 – 490kHz [1]	6.37/F (kHz)	300
490 – 1705kHz	63.7/F (kHz)	30
1.705 – 30MHz	0.08	30

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

Procedure

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

The measuring antenna was positioned at a 3 meter distance from the test item. The frequency range from 100kHz to 30MHz was investigated using a peak detector function with the active loop antenna in both the horizontal and vertical polarization. The maximum levels for each antenna polarization were plotted.

Final radiated emissions were performed at a test distance of 3 meters on all significant emissions found in the preliminary sweeps using the following methods:

1) Measurement from 100kHz to 150kHz were made using a peak detector with a 200Hz bandwidth and an active loop antenna, while measurements from 150kHz to 30MHz were made using a peak detector with a 9kHz bandwidth. (15.35(a) allows for the use of a peak detector to show compliance with the emissions limits as long as the correct bandwidth is used.)
2) Per 15.31(f)(2), for frequencies below 30MHz, measurements may be performed at a distance closer than that specified in the regulations. When performing measurements at a closer distance that specified, the results shall be extrapolated to the specified distance:
    i. For this testing, the field strength at the fundamental was measured for 3 meters, 2 meters, and 1 meter test distances.
    ii. The extrapolation factor (N) was determined from the formula below.

$$N = 20 \log\left(\frac{E_1/E_2}{d_1/d_2}\right)$$

Where:

N = distance extrapolation factor in dB/decade of distance.
E_1 = field strength at measurement distance closest to the radiating source (µV/m).
E_2 = field strength at measurement distance farthest from the radiating source (µV/m).
d_1 = measurement distance closest to the radiating source.
d_2 = measurement distance farthest from the radiating source.

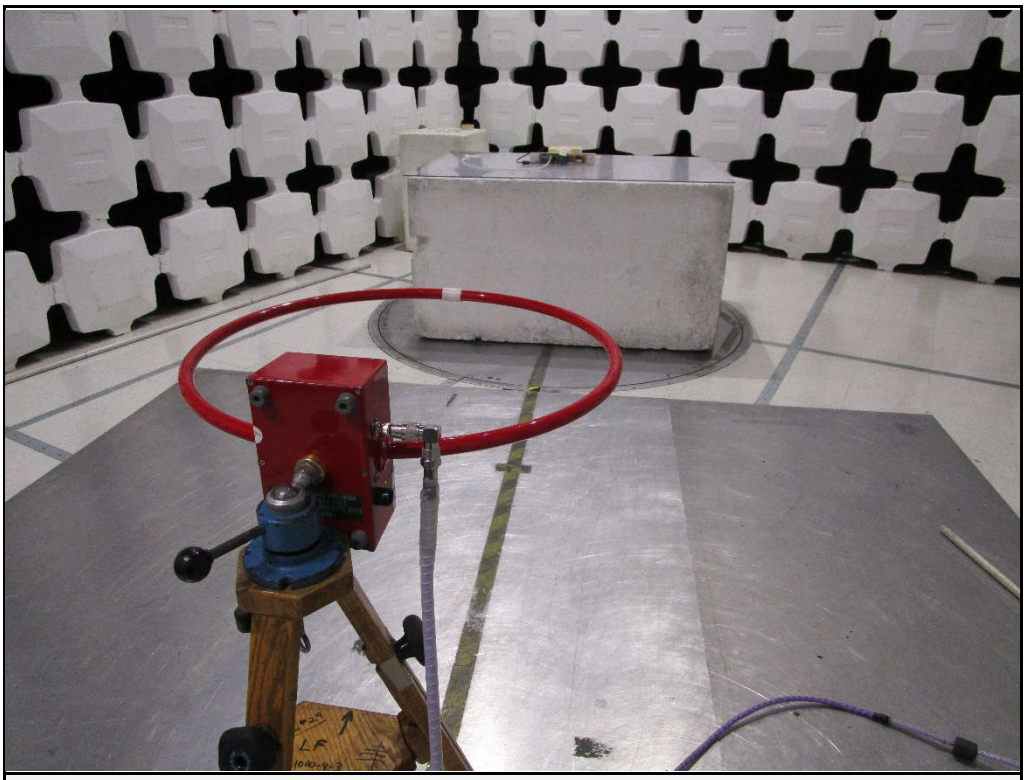
    iii. The distance correction factor (DC) was then calculated using N.

$$DC = -N \log\left(\frac{d_{limit}}{d_{measure}}\right)$$

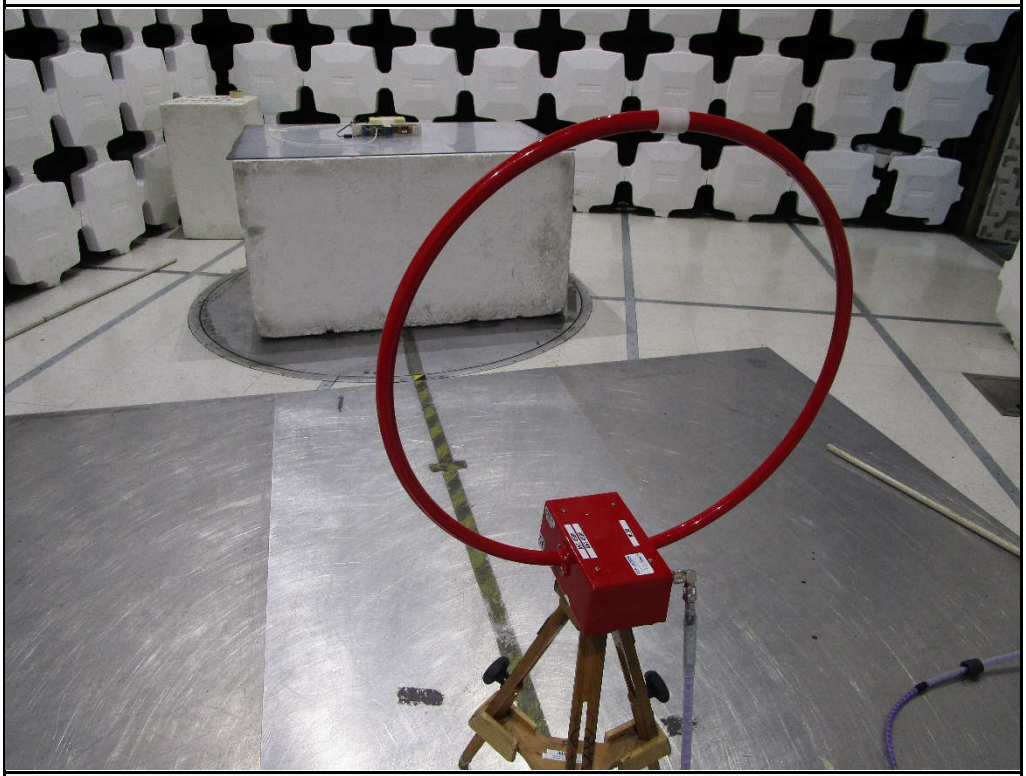
Where:

d_{limit} = distance specified for the limit.
$d_{measure}$ = distance for measurement.

3) 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 pre-amplifier is used, the total is reduced by its gain (-PA). If a distance correction (DC) is required, it is added to the total.
4) To ensure that maximum or worst case, emission levels were measured, the following steps were taken.
    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.



Test Setup for Spurious Radiated Emissions, 10kHz – 30MHz – Antenna Polarization Horizontal



Test Setup for Spurious Radiated Emissions, 10kHz – 30MHz – Antenna Polarization Vertical

Test Details	
Manufacturer	Accutech Security
EUT	Patient Egress Monitoring Controller
Model No.	LC1400T
Serial No.	N/A
Mode	Tx
Frequency Tested	137kHz
Notes	Test Distance = 3 meters; N = 50.66

Freq. (kHz)	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dB/m)	Pre Amp (dB)	Dist. Corr. (dB)	Total (dBµV/m)	Total (µV/m)	Limit (µV/m)	Specified Test Distance (meters)	Margin (dB)
137	H	93.47		0.25	10.65	0.00	-101.32	3.06	1.42	17.52	300.00	-21.81
137	V	92.54		0.25	10.65	0.00	-101.32	2.13	1.28	17.52	300.00	-22.74
274	H	43.67	Ambient	0.25	10.65	0.00	-101.32	-46.75	0.00	8.76	300.00	-65.60
274	V	42.98	Ambient	0.25	10.65	0.00	-101.32	-47.44	0.00	8.76	300.00	-66.29
411	H	40.69	Ambient	0.25	10.70	0.00	-101.32	-49.67	0.00	5.84	300.00	-65.00
411	V	41.33	Ambient	0.25	10.70	0.00	-101.32	-49.03	0.00	5.84	300.00	-64.36
548	H	37.45	Ambient	0.25	10.73	0.00	-50.66	-2.23	0.77	43.80	30.00	-35.06
548	V	37.69	Ambient	0.25	10.73	0.00	-50.66	-1.99	0.80	43.80	30.00	-34.82
685	H	35.10	Ambient	0.25	10.72	0.00	-50.66	-4.59	0.59	35.04	30.00	-35.48
685	V	35.84	Ambient	0.25	10.72	0.00	-50.66	-3.85	0.64	35.04	30.00	-34.74
822	H	33.81	Ambient	0.25	10.73	0.00	-50.66	-5.87	0.51	29.20	30.00	-35.18
822	V	34.04	Ambient	0.25	10.73	0.00	-50.66	-5.64	0.52	29.20	30.00	-34.95
959	H	32.41	Ambient	0.25	10.75	0.00	-50.66	-7.25	0.43	25.03	30.00	-35.22
959	V	32.15	Ambient	0.25	10.75	0.00	-50.66	-7.51	0.42	25.03	30.00	-35.48
1096	H	31.00	Ambient	0.25	10.77	0.00	-50.66	-8.64	0.37	21.90	30.00	-35.45
1096	V	31.07	Ambient	0.25	10.77	0.00	-50.66	-8.57	0.37	21.90	30.00	-35.38
1233	H	30.12	Ambient	0.25	10.79	0.00	-50.66	-9.50	0.33	19.46	30.00	-35.28
1233	V	30.13	Ambient	0.25	10.79	0.00	-50.66	-9.49	0.34	19.46	30.00	-35.27
1370	H	28.27	Ambient	0.25	10.80	0.00	-50.66	-11.33	0.27	17.52	30.00	-36.20
1370	V	28.75	Ambient	0.25	10.80	0.00	-50.66	-10.85	0.29	17.52	30.00	-35.72

Total (dBµV/m) = Meter Reading + CBL Fac. + Ant. Fac. + Pre Amp

Test Details	
Manufacturer	Accutech Security
EUT	Patient Egress Monitoring Controller
Model No.	LC1400T
Serial No.	N/A
Mode	Tx
Frequency Tested	137kHz
Notes	Test Distance = 3 meters; N= 50.66

Freq. (kHz)	Ant Pol	Meter Reading (dBµV)	Ambient	CBL Fac (dB)	Ant Fac (dBS/m)	Pre Amp (dB)	Dist. Corr. (dB)	Total (dBµA/m)	Total (µA/m)	Limit (µAV/m)	Specified Test Distance (meters)	Margin (dB)
137	H	93.47		0.25	-40.85	0.00	-101.32	-48.44	0.00	0.05	300.00	-21.79
137	V	92.54		0.25	-40.85	0.00	-101.32	-49.37	0.00	0.05	300.00	-22.72
274	H	43.67	Ambient	0.25	-40.85	0.00	-101.32	-98.25	0.00	0.02	300.00	-65.58
274	V	42.98	Ambient	0.25	-40.85	0.00	-101.32	-98.94	0.00	0.02	300.00	-66.27
411	H	40.69	Ambient	0.25	-40.80	0.00	-101.32	-101.17	0.00	0.02	300.00	-64.98
411	V	41.33	Ambient	0.25	-40.80	0.00	-101.32	-100.53	0.00	0.02	300.00	-64.34
548	H	37.45	Ambient	0.25	-40.77	0.00	-50.66	-53.73	0.00	0.12	30.00	-35.04
548	V	37.69	Ambient	0.25	-40.77	0.00	-50.66	-53.49	0.00	0.12	30.00	-34.80
685	H	35.10	Ambient	0.25	-40.78	0.00	-50.66	-56.09	0.00	0.09	30.00	-35.46
685	V	35.84	Ambient	0.25	-40.78	0.00	-50.66	-55.35	0.00	0.09	30.00	-34.72
822	H	33.81	Ambient	0.25	-40.77	0.00	-50.66	-57.37	0.00	0.08	30.00	-35.16
822	V	34.04	Ambient	0.25	-40.77	0.00	-50.66	-57.14	0.00	0.08	30.00	-34.93
959	H	32.41	Ambient	0.25	-40.75	0.00	-50.66	-58.75	0.00	0.07	30.00	-35.20
959	V	32.15	Ambient	0.25	-40.75	0.00	-50.66	-59.01	0.00	0.07	30.00	-35.46
1096	H	31.00	Ambient	0.25	-40.73	0.00	-50.66	-60.14	0.00	0.06	30.00	-35.43
1096	V	31.07	Ambient	0.25	-40.73	0.00	-50.66	-60.07	0.00	0.06	30.00	-35.36
1233	H	30.12	Ambient	0.25	-40.71	0.00	-50.66	-61.00	0.00	0.05	30.00	-35.26
1233	V	30.13	Ambient	0.25	-40.71	0.00	-50.66	-60.99	0.00	0.05	30.00	-35.25
1370	H	28.27	Ambient	0.25	-40.70	0.00	-50.66	-62.83	0.00	0.05	30.00	-36.18
1370	V	28.75	Ambient	0.25	-40.70	0.00	-50.66	-62.35	0.00	0.05	30.00	-35.70

Total (dBµV/m) = Meter Reading + CBL Fac. + Ant. Fac. + Pre Amp

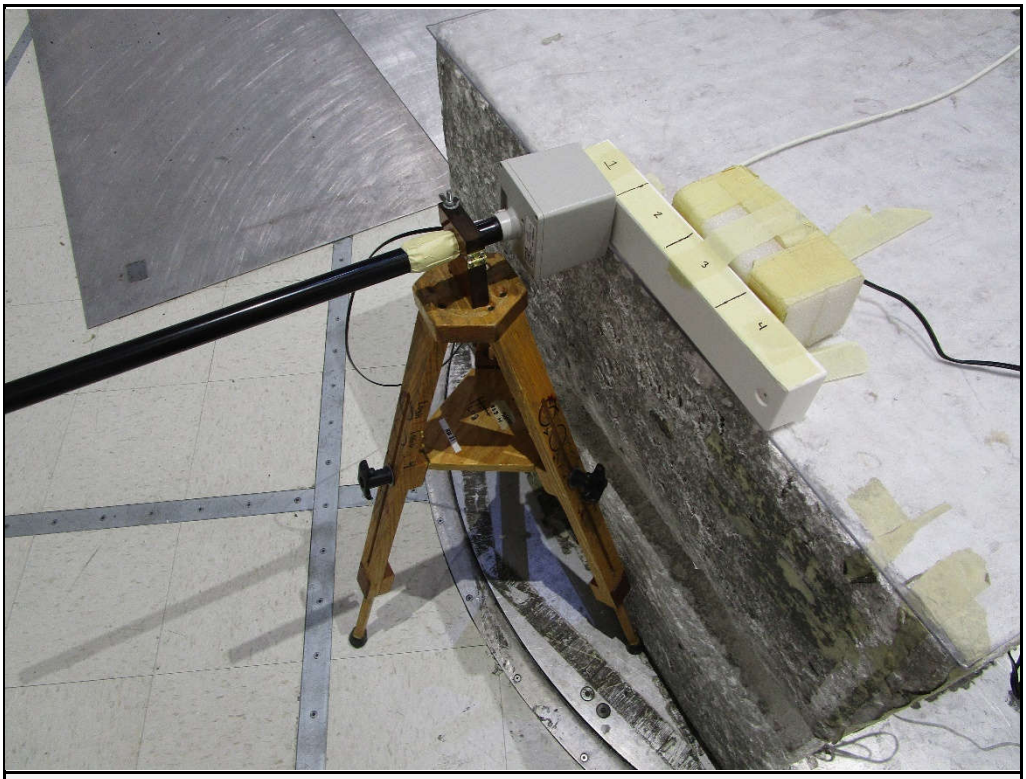
23. Pulse Nerve Stimulation

EUT Information	
Manufacturer	Accutech Security
Product	Patient Egress Monitoring Controller
Model No.	LC1400T
Serial No.	N/A
Mode	Tx

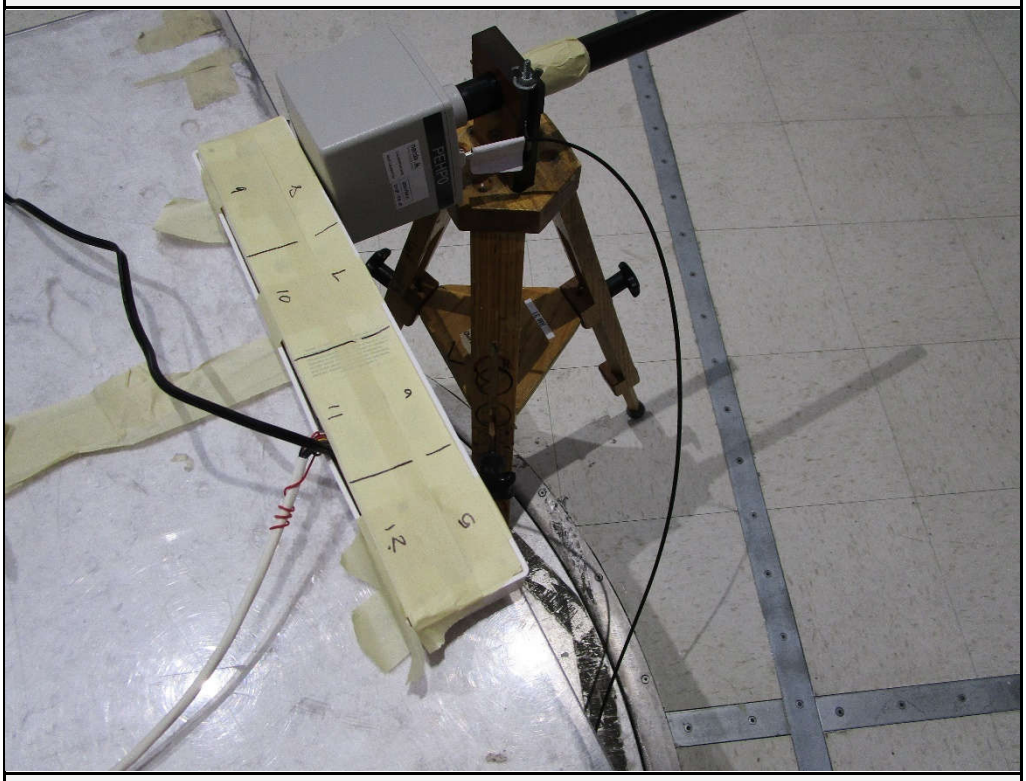
Test Setup Details	
Setup Format	Tabletop
Height of Support	N/A
Type of Test Site	Semi-Anechoic Chamber
Test Site Used	R29F
Field Strength Limit	170 V/m rms (Controlled Environment) 180 A/m rms (Controlled Environment)
Distance Limit	0cm
Notes	Data for Electric Field Measurements can be found on pages 30 through 44. Data for Magnetic Field Measurements can be found on pages 45 through 59.

Requirement
Per RSS-Gen, licensed and license-exempt radio apparatus must meet the radio frequency exposure compliance requirements of RSS-102. Per Table 6 of RSS-102, the RF field strength limits for a transmitter operating in the frequency range of 3kHz to 10MHz and in a controlled use environment shall not exceed 170V/m rms and 180 A/m rms based on nerve stimulus.

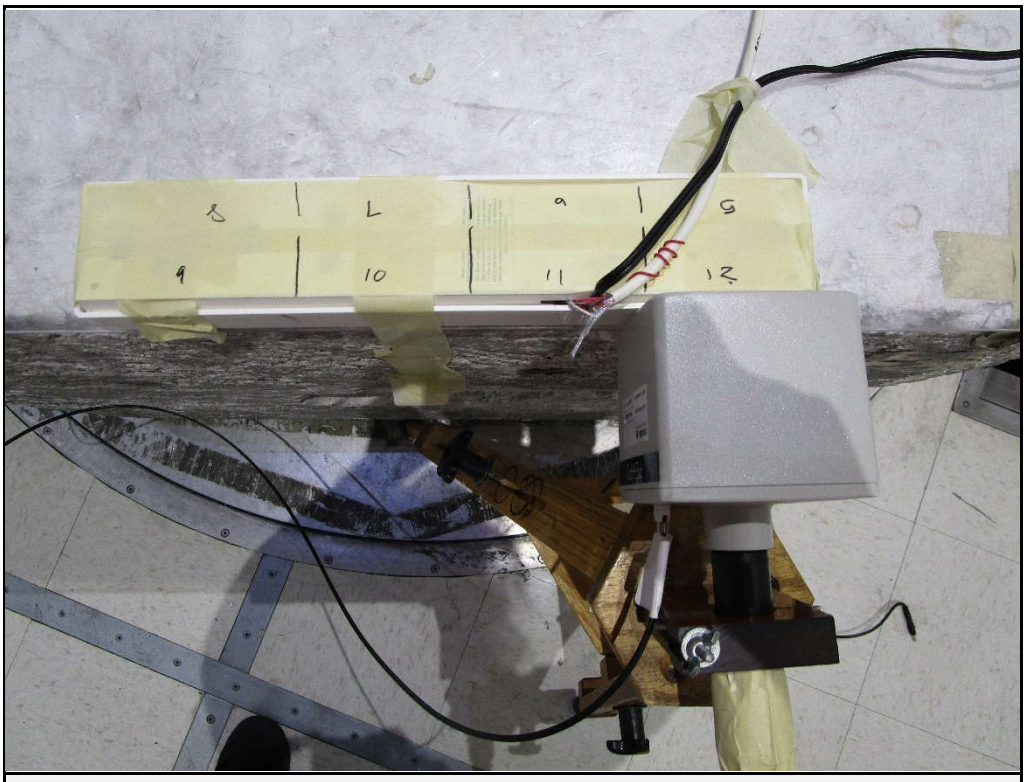
Procedure
1) Per Section 6.1 of SPR-002, the direct measurement against the RSS-102 nerve stimulation limits method was used. The maximum measured field strength was located and compared to the limits of RSS-102. 2) The guidance of Annex E.4 of SPR-002 for wall-mounted devices was used. 3) The measurement probe was mounted at a height of 80cm and placed 0cm away. 4) The EUT was scanned over the probe with orientation focused on the area where the body would come into contact with the EUT. This shall be considered the compliance distance. 5) The maximum measured fiend strength readings were recorded and compared to the limits of RSS-102.



EUT Orientation – Front (Position 1 – 4)

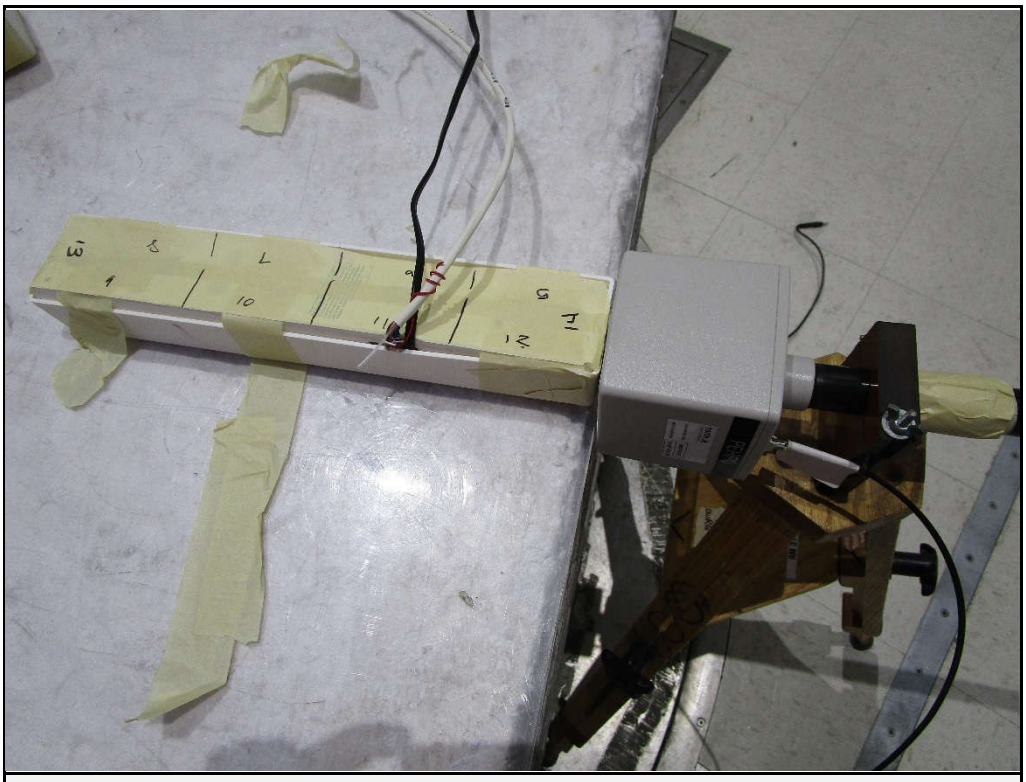


EUT Orientation – Left (Position 5 – 8)



EUT Orientation – Right (Position 9 – 12)

EUT Orientation – Top (Position 13)



EUT Orientation – Bottom (Position 14)

RSS-102: Radio Frequency (RF) Exposure Compliance Test

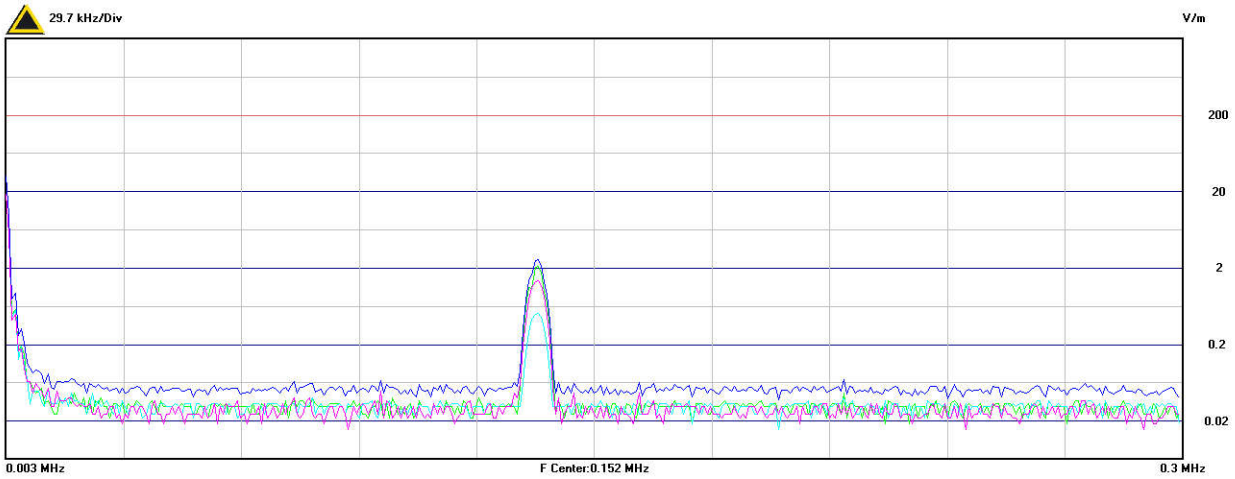
Test Group Summary

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Test personnel : Tylar Jozefczyk
Results : The Emissions were Compliant
Date : 5/22/2023 10:37:37 AM

Side Tested	Maximum Frequency Range	Maximum Peak Frequency	Maximum Peak Emissions (V/m)	Field Strength Limit (V/m)	Excessive Emissions
P1	3kHz – 300kHz	0.003MHz	31.776	170	
P2	3kHz – 300kHz	0.003MHz	31.592	170	
P3	3kHz – 300kHz	0.003MHz	31.442	170	
P4	3kHz – 300kHz	0.003MHz	31.4	170	
P5	3kHz – 300kHz	0.003MHz	31.653	170	
P6	3kHz – 300kHz	0.003MHz	31.727	170	
P7	3kHz – 300kHz	0.003MHz	31.568	170	
P8	3kHz – 300kHz	0.003MHz	31.5	170	
P9	3kHz – 300kHz	0.003MHz	31.573	170	
P10	3kHz – 300kHz	0.003MHz	31.427	170	
P11	3kHz – 300kHz	0.003MHz	31.532	170	
P12	3kHz – 300kHz	0.003MHz	31.694	170	
P13	3kHz – 300kHz	0.003MHz	31.476	170	
P14	3kHz – 300kHz	0.003MHz	31.73	170	

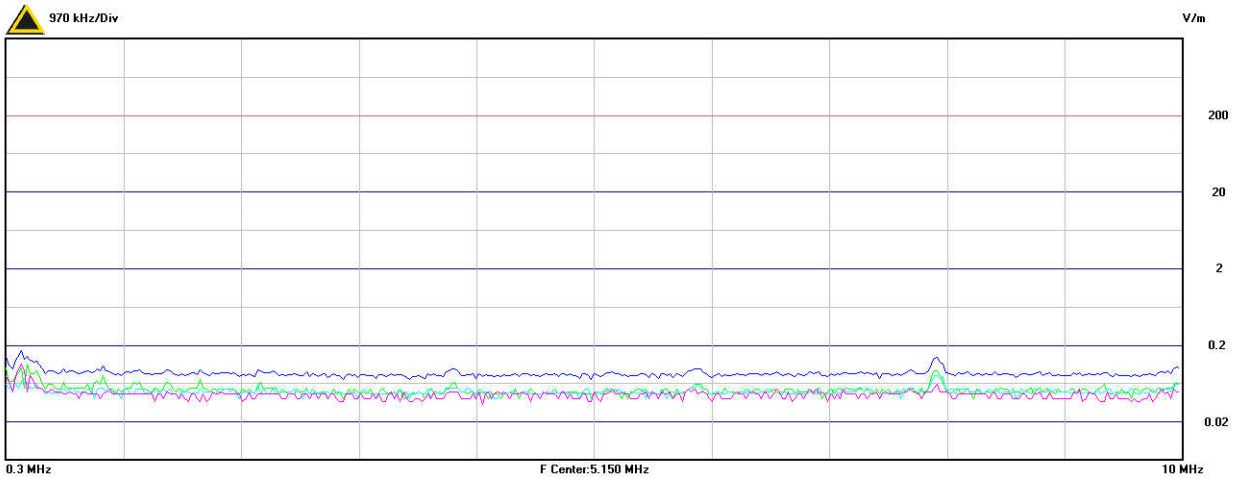
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P1
Freq Range : 3kHz – 300kHz
Max Peak : 31.776 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:25 AM
Results : The Emissions were Compliant



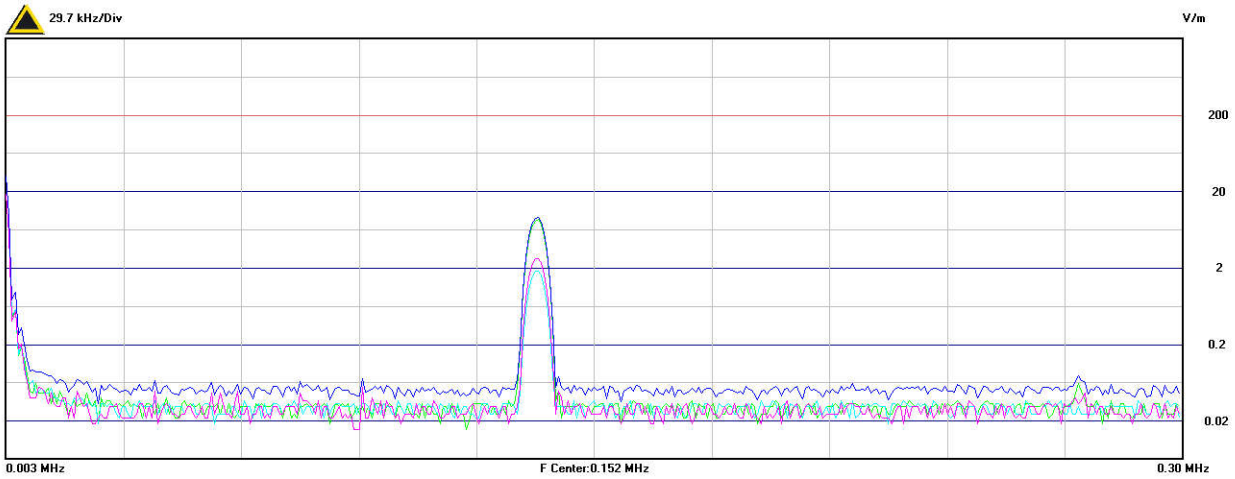
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P1
Freq Range : 300kHz – 10MHz
Max Peak : 0.1695 V/m @ 0.425MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:26 AM
Results : The Emissions were Compliant



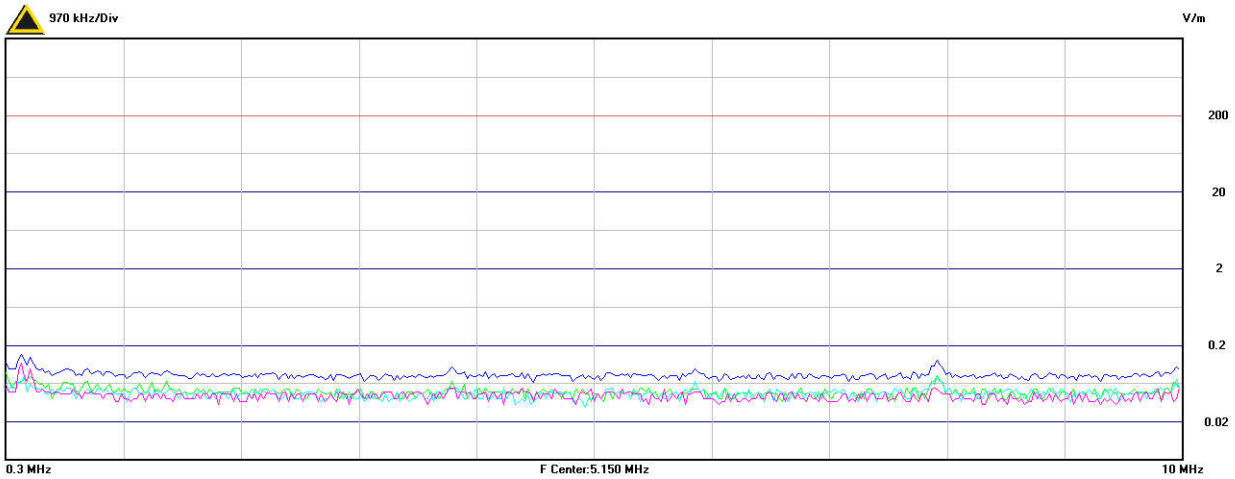
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P2 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.592 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:27 AM
Results : The Emissions were Compliant



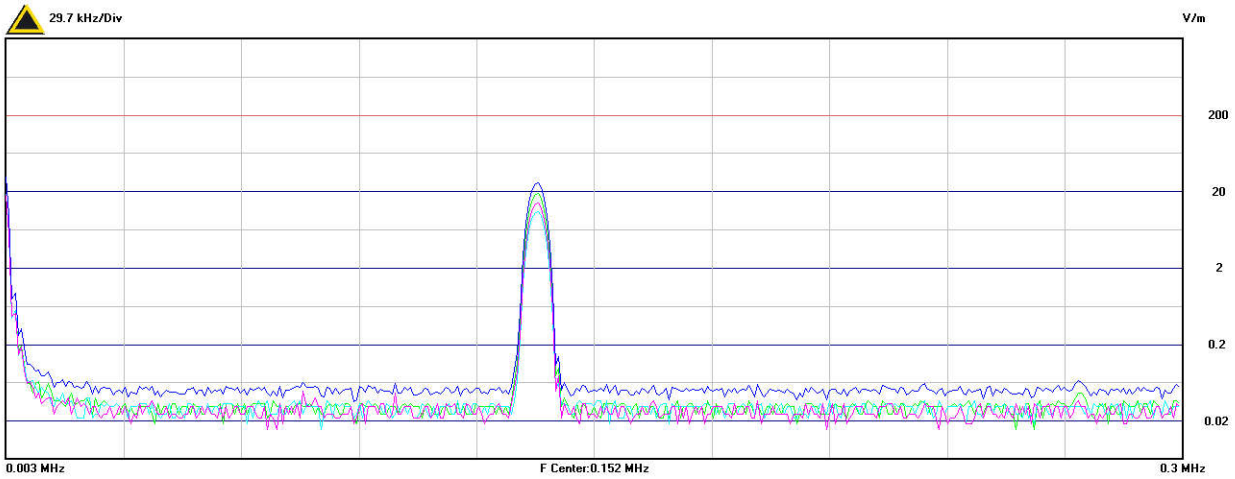
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P2 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.1521 V/m @ 0.425MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:27 AM
Results : The Emissions were Compliant



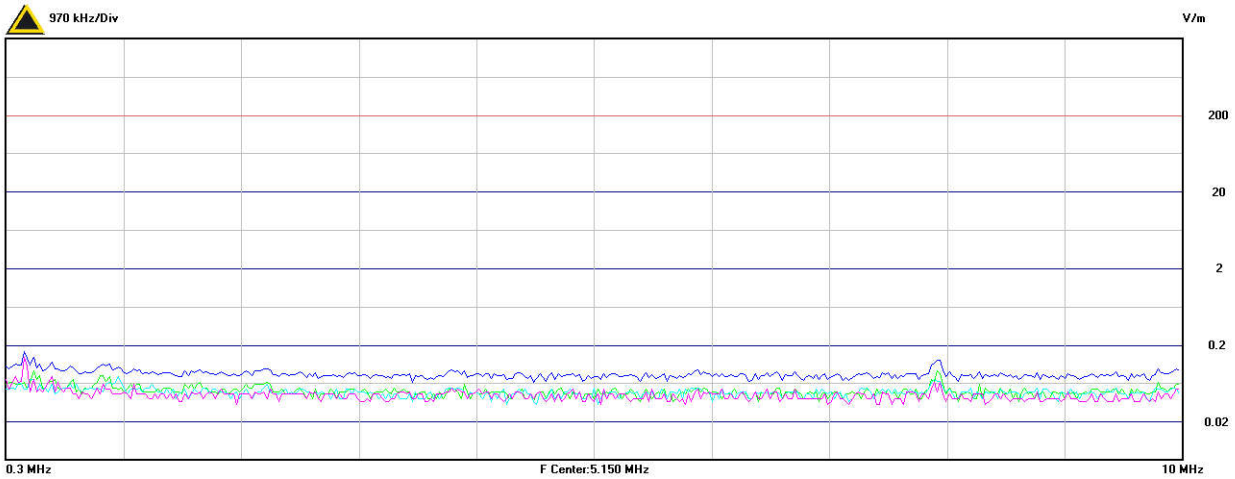
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P3 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.442 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:28 AM
Results : The Emissions were Compliant



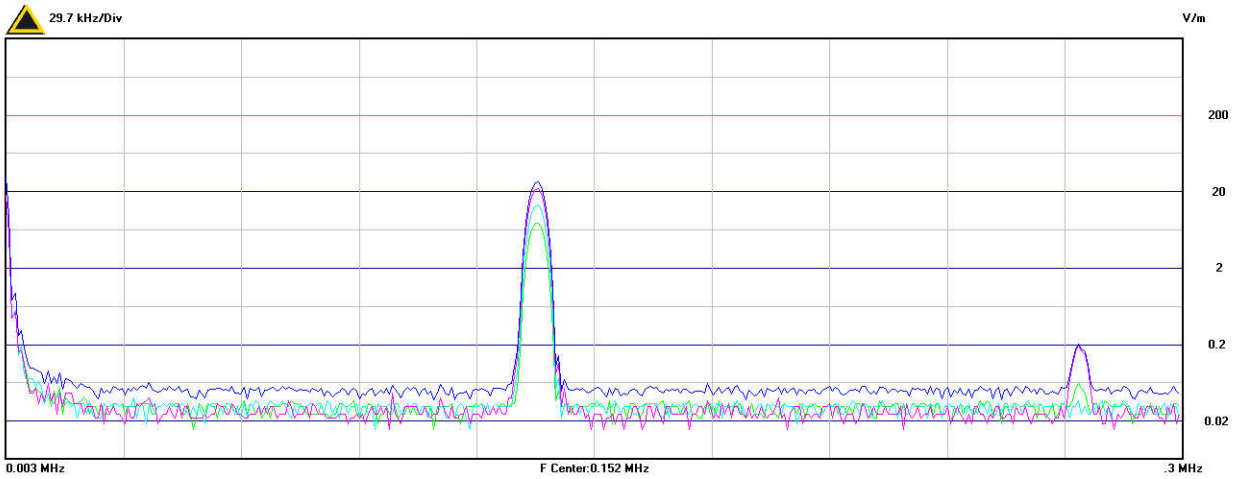
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P3 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.164 V/m @ 0.45MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:29 AM
Results : The Emissions were Compliant



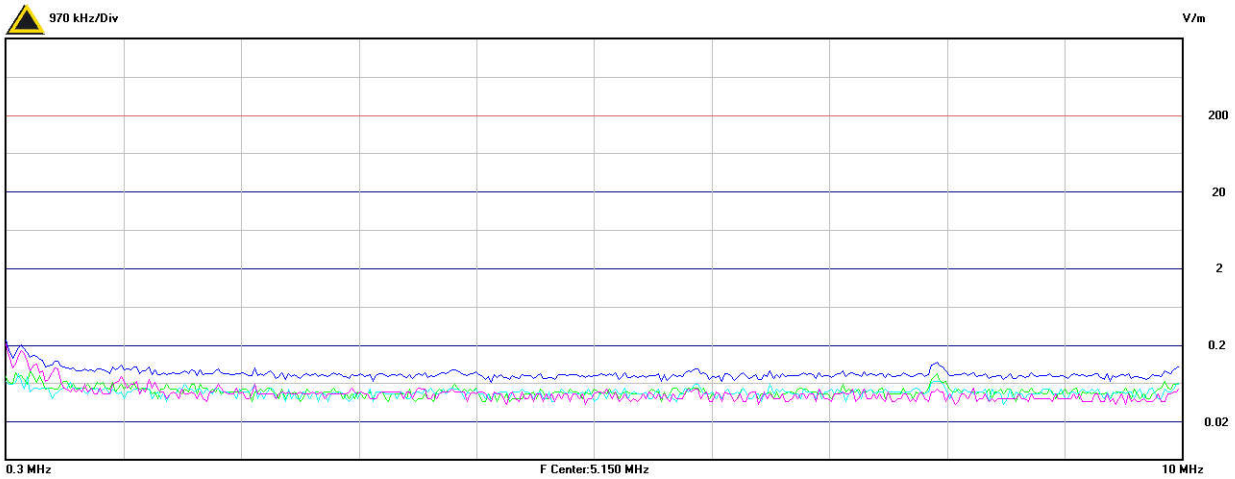
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P4 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.4 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:30 AM
Results : The Emissions were Compliant



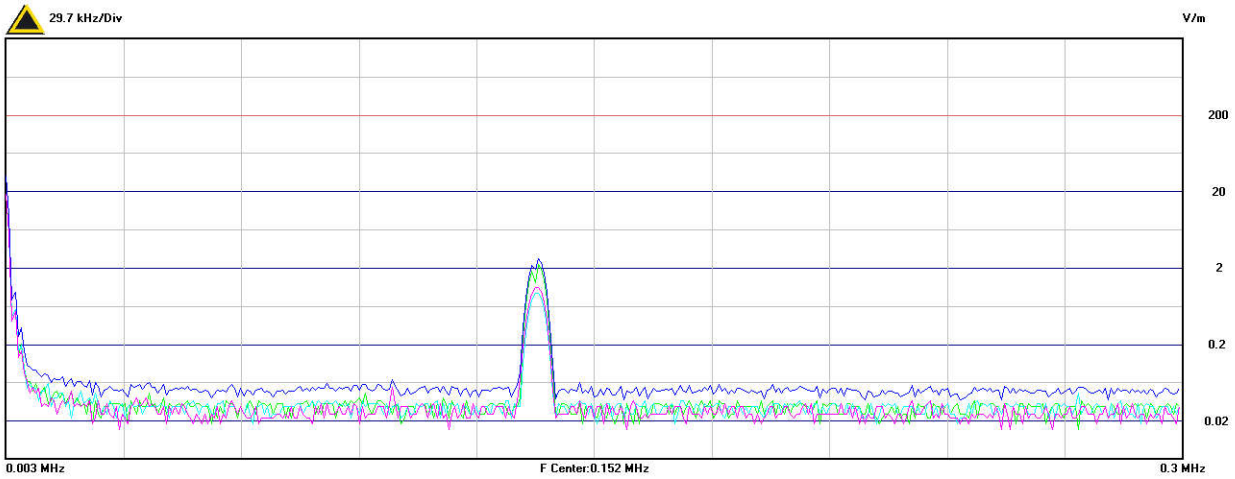
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P4 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.2366 V/m @ 0.3MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:30 AM
Results : The Emissions were Compliant



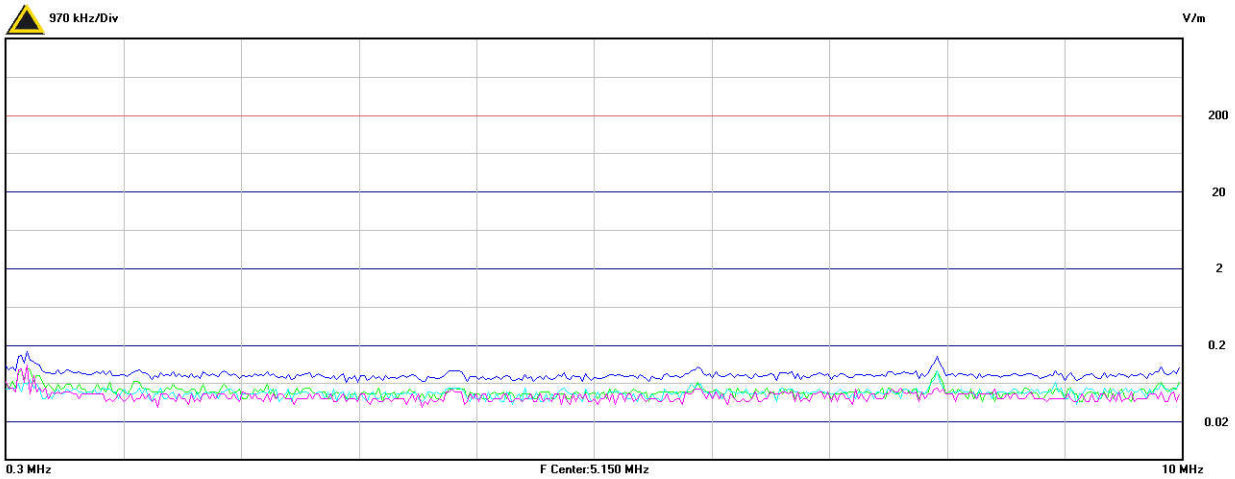
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P5 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.653 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:31 AM
Results : The Emissions were Compliant



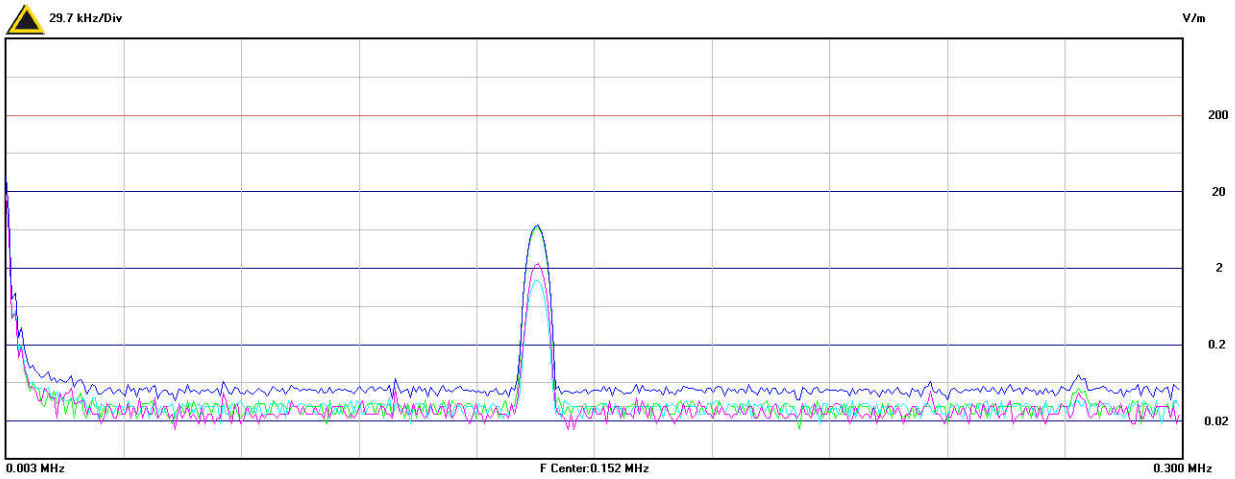
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P5 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.1649 V/m @ 0.475MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:31 AM
Results : The Emissions were Compliant



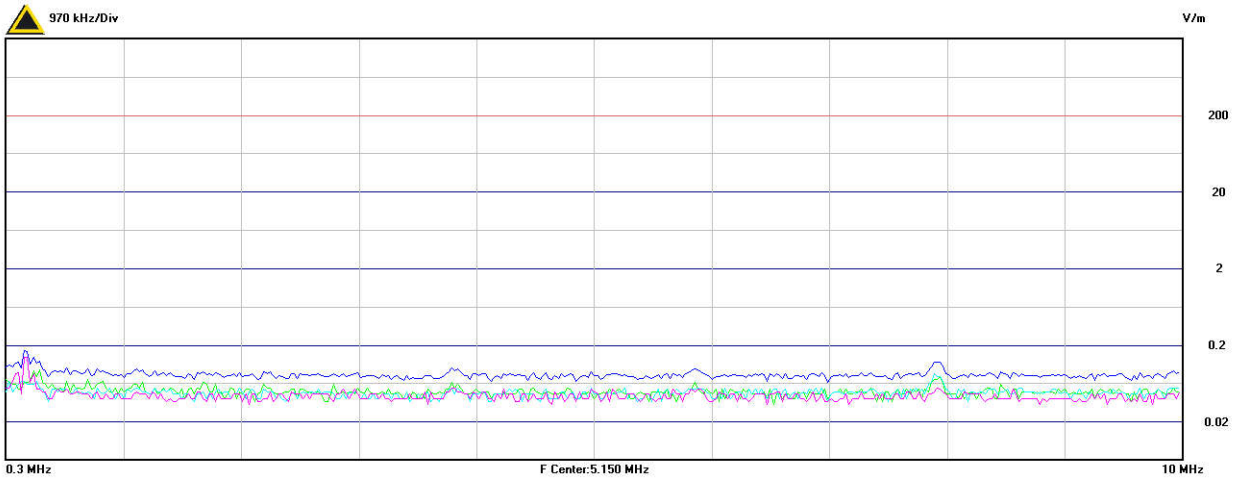
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P6 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.727 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:32 AM
Results : The Emissions were Compliant



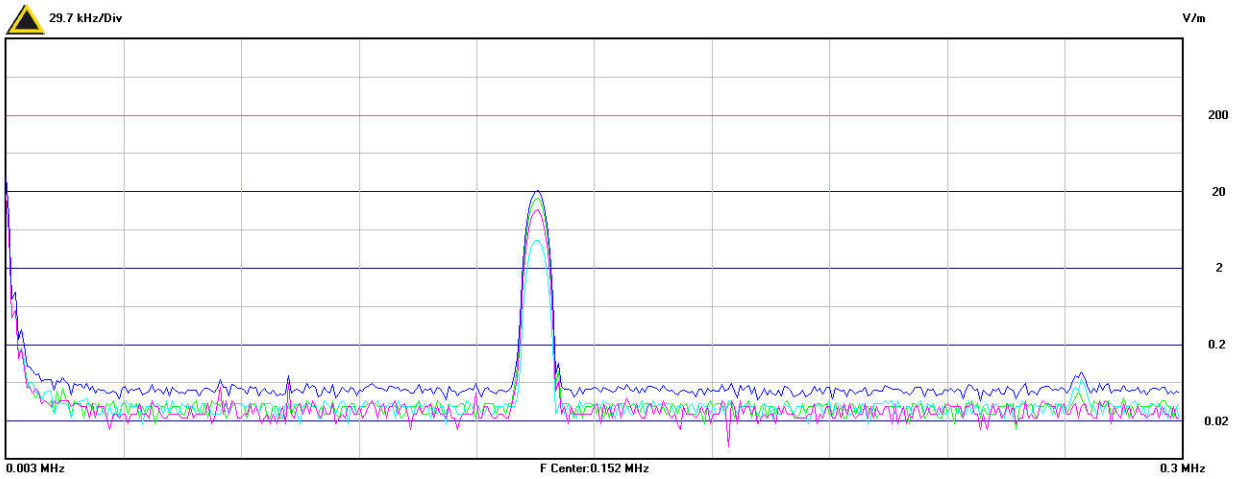
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P6 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.1697 V/m @ 0.45MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:33 AM
Results : The Emissions were Compliant



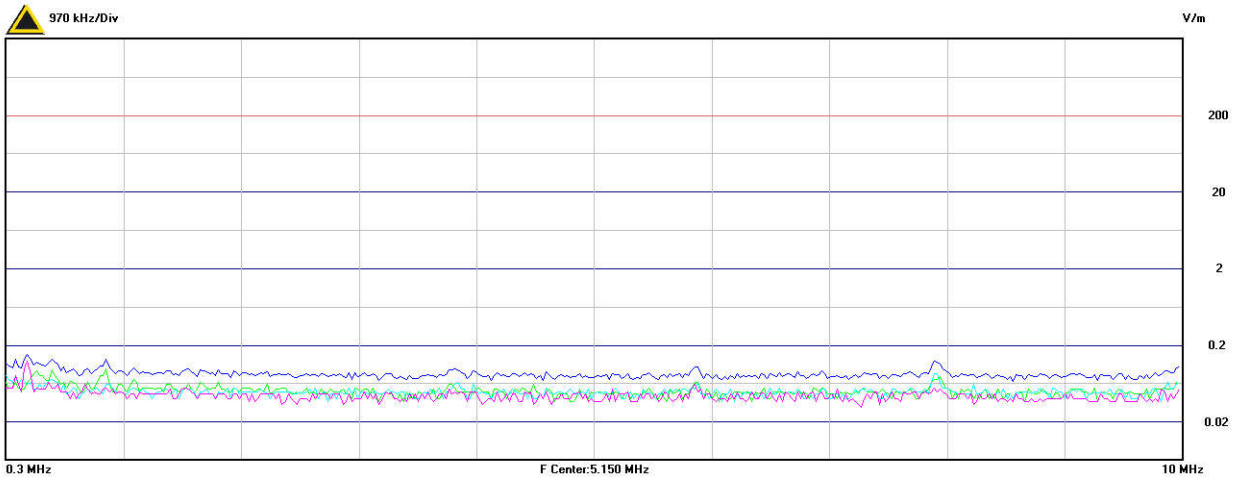
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P7 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.568 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:34 AM
Results : The Emissions were Compliant



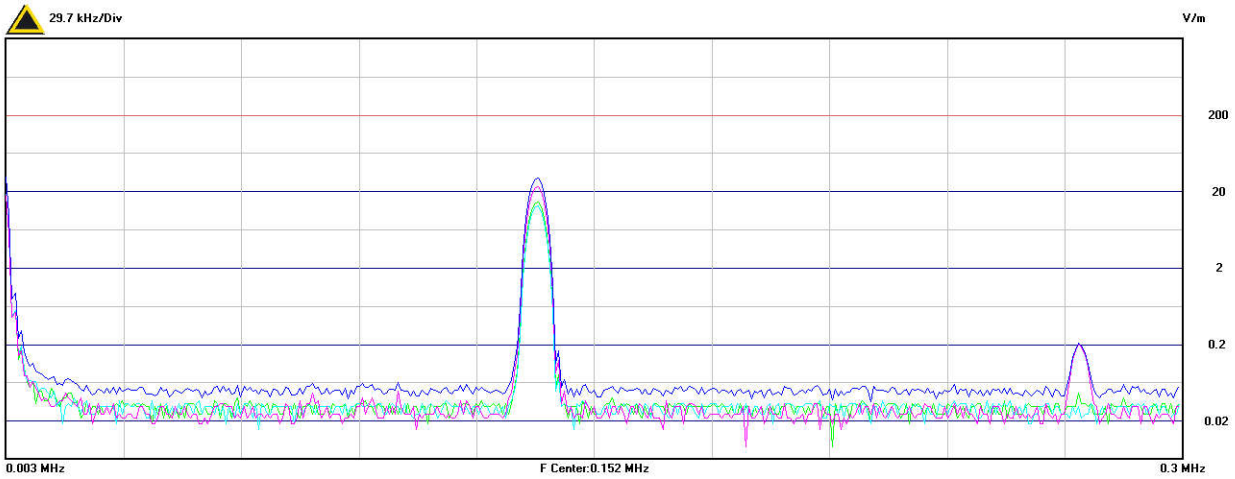
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P7 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.1544 V/m @ 0.475MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:34 AM
Results : The Emissions were Compliant



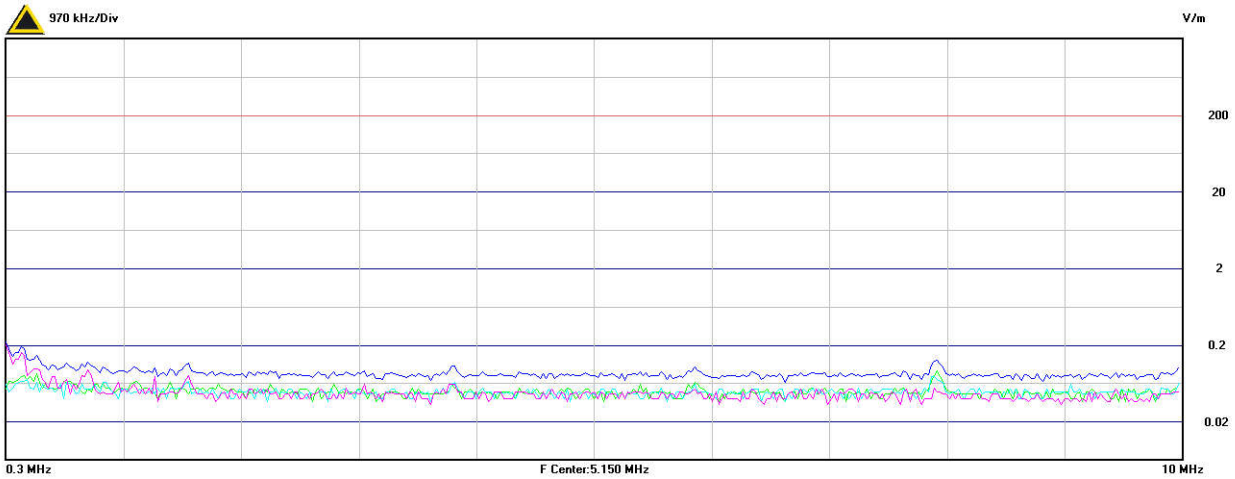
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P8 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.5 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:35 AM
Results : The Emissions were Compliant



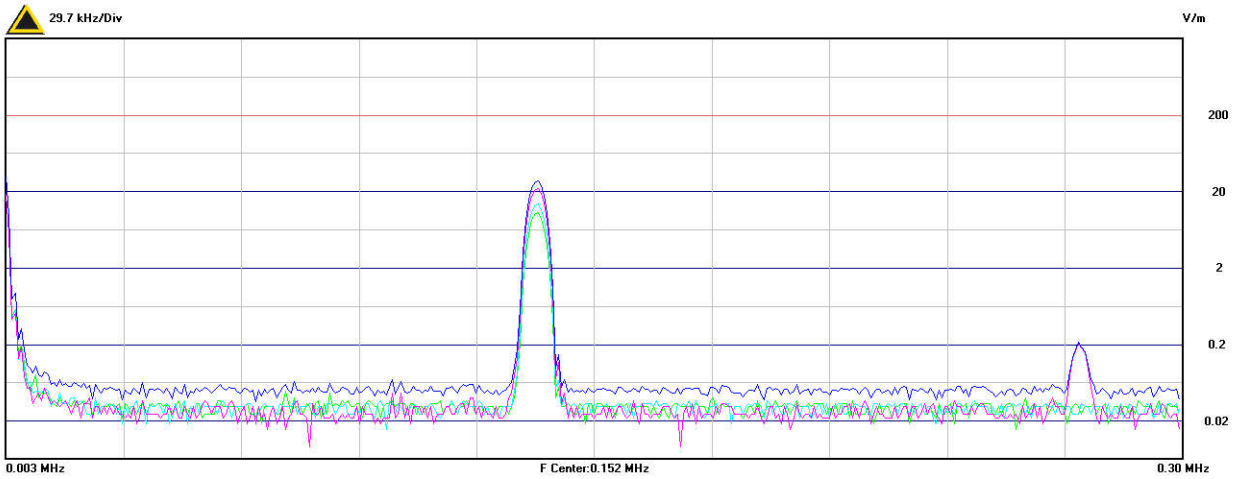
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P8 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.222 V/m @ 0.3MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:36 AM
Results : The Emissions were Compliant



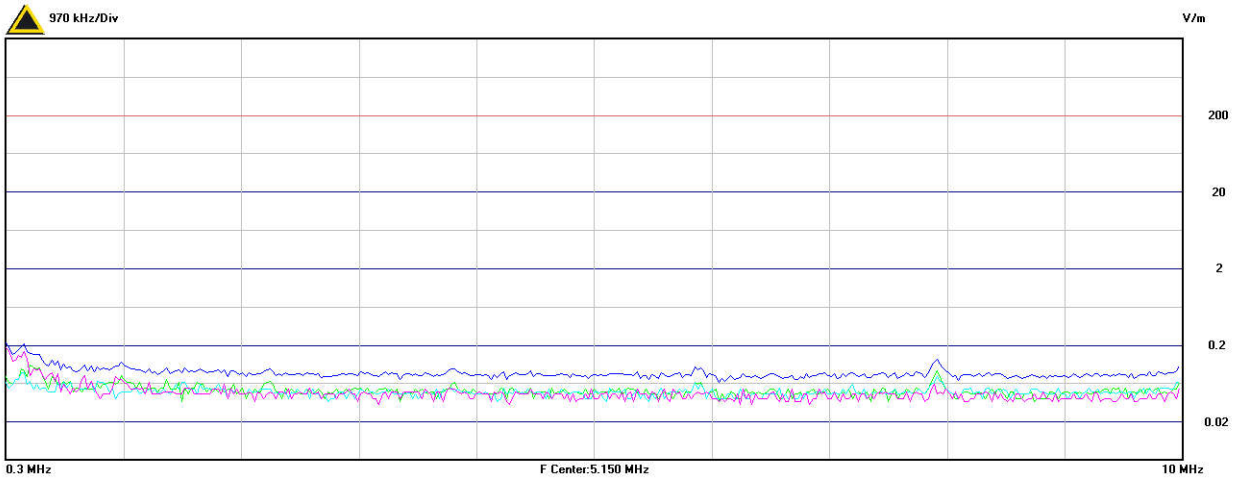
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P9 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.573 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:37 AM
Results : The Emissions were Compliant



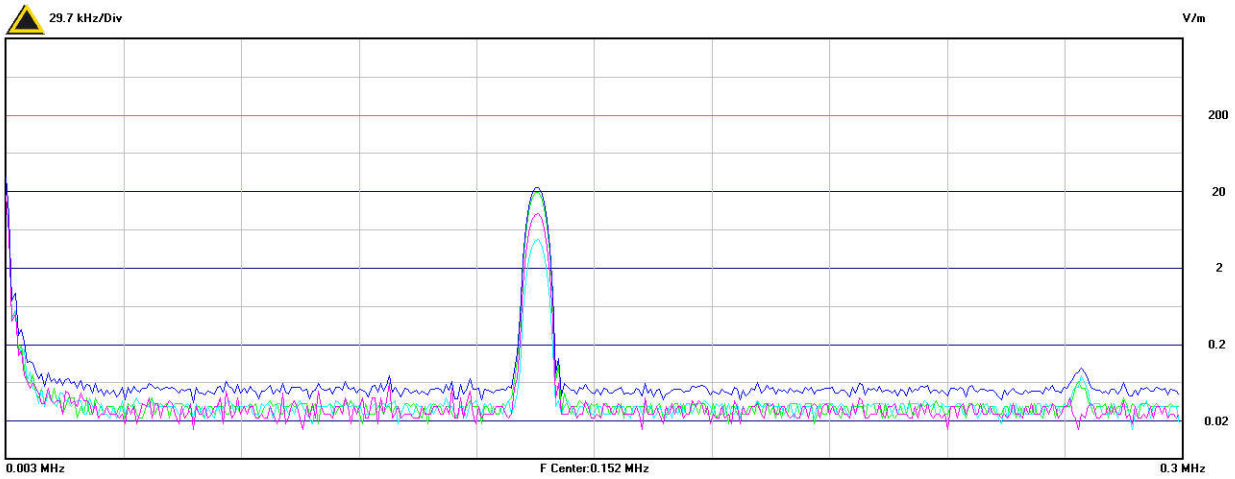
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P9 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.2135 V/m @ 0.3MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:37 AM
Results : The Emissions were Compliant



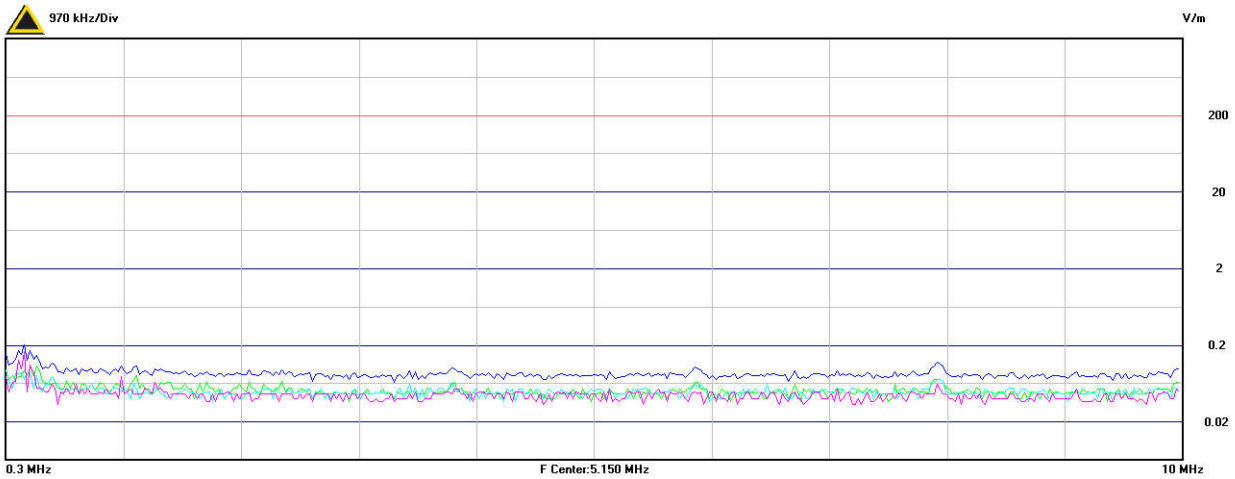
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P10 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.427 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:18 AM
Results : The Emissions were Compliant



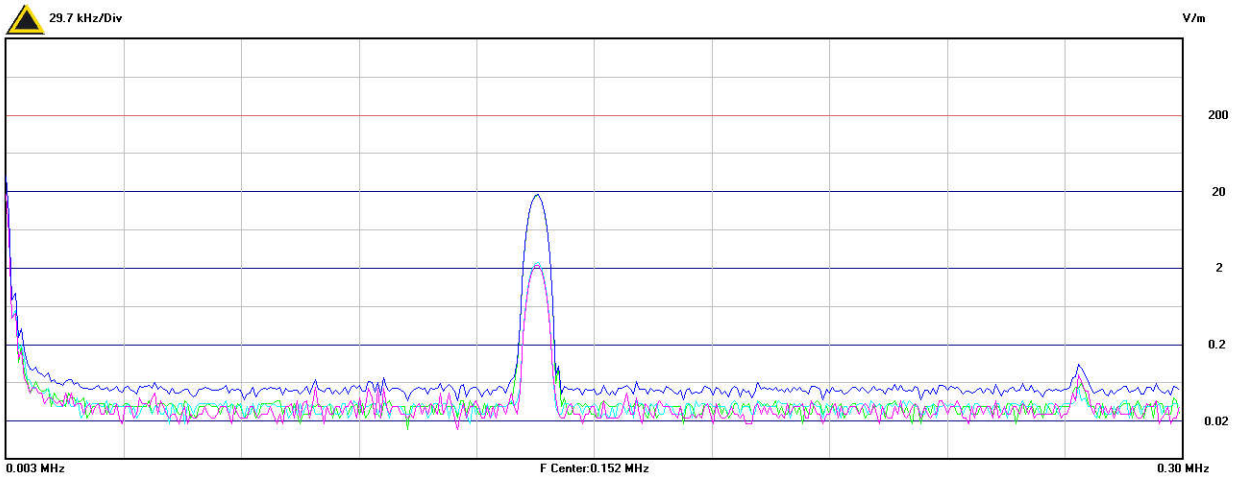
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P10 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.2009 V/m @ 0.45MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:19 AM
Results : The Emissions were Compliant



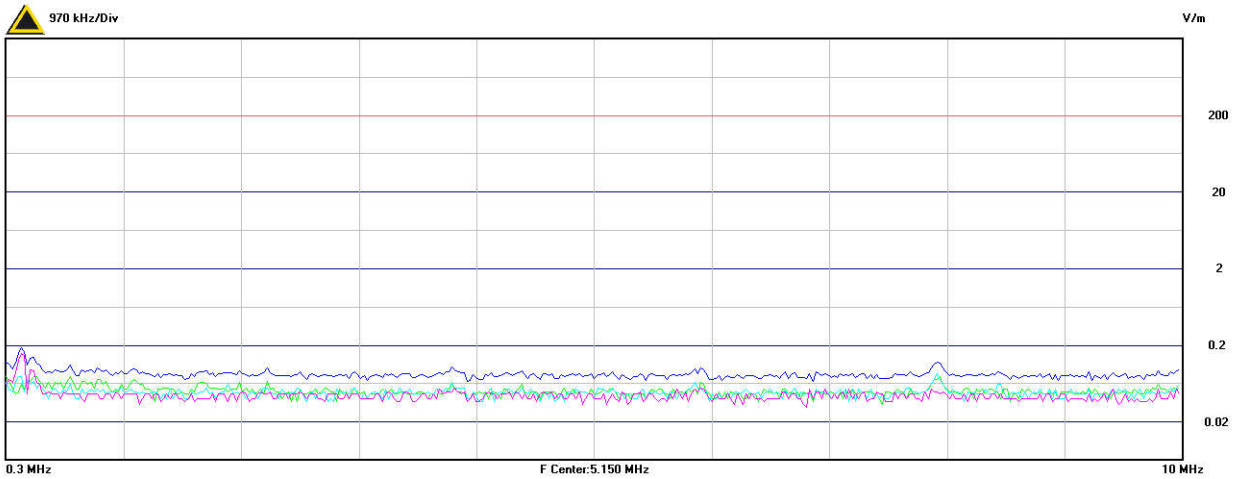
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P11 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.532 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:20 AM
Results : The Emissions were Compliant



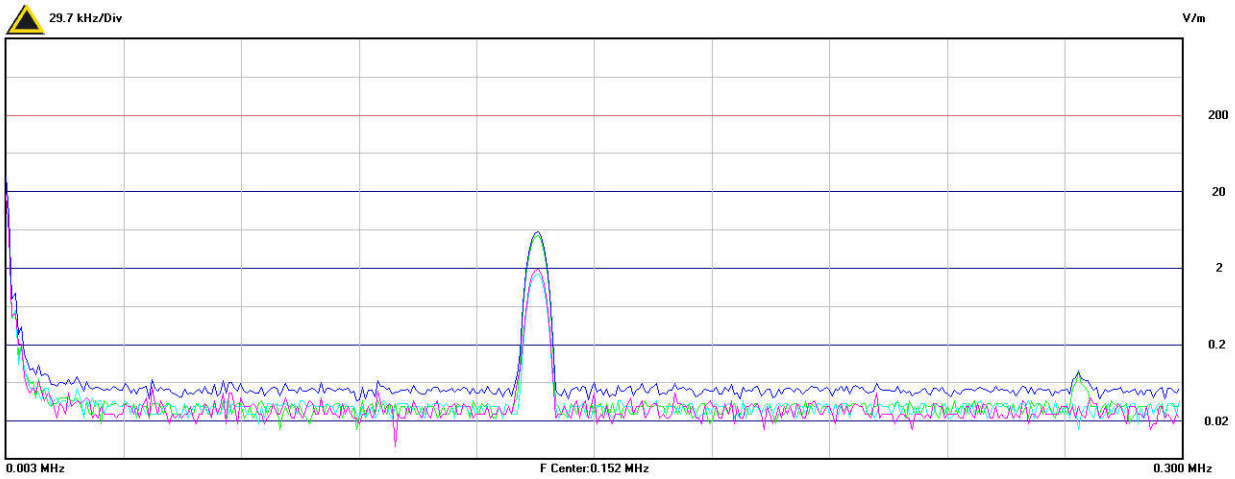
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P11 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.1855 V/m @ 0.425MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:20 AM
Results : The Emissions were Compliant



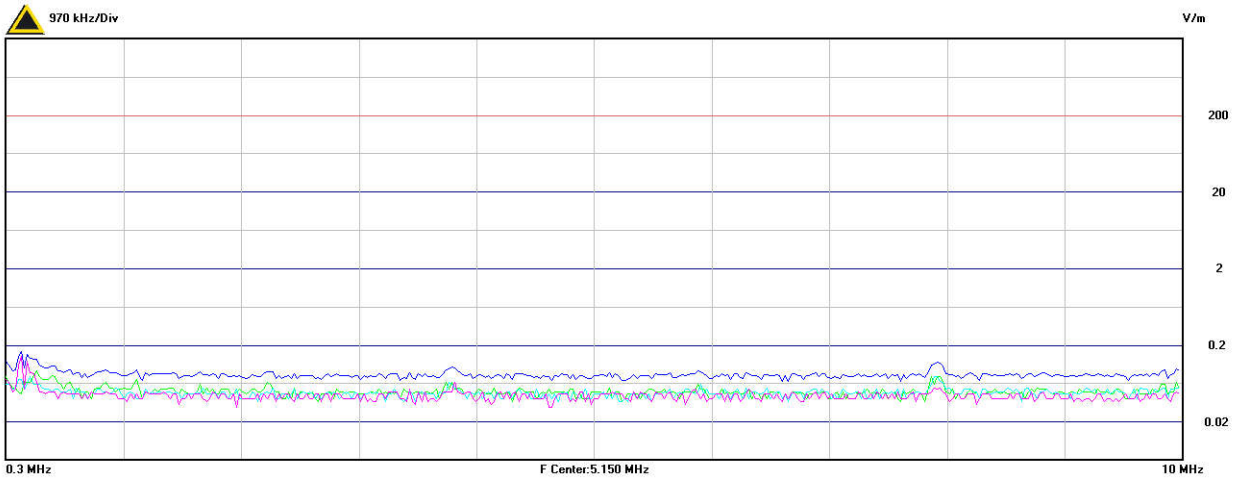
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P12 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.694 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:21 AM
Results : The Emissions were Compliant



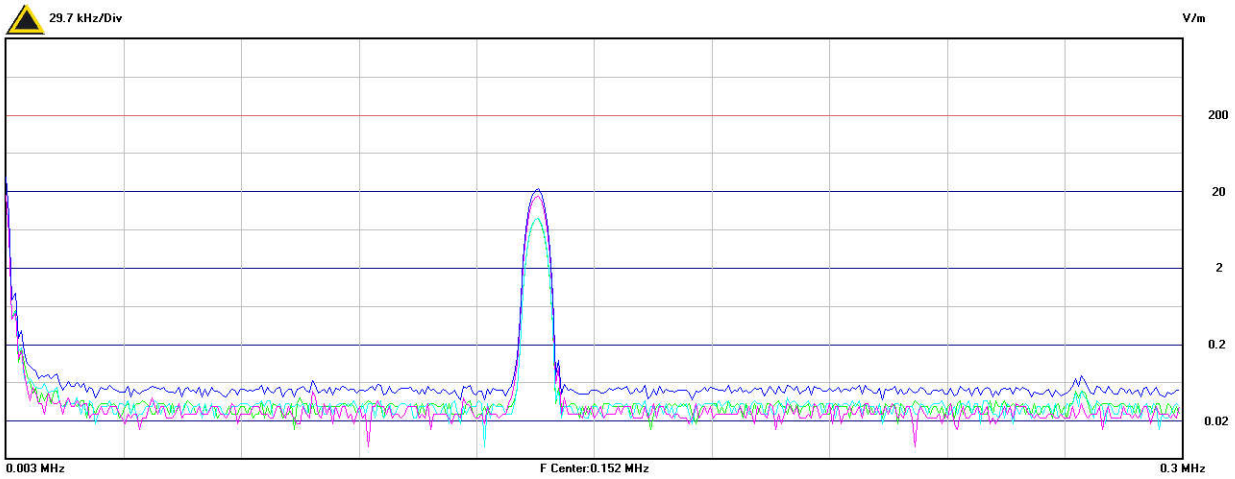
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P12 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.1674 V/m @ 0.425MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:22 AM
Results : The Emissions were Compliant



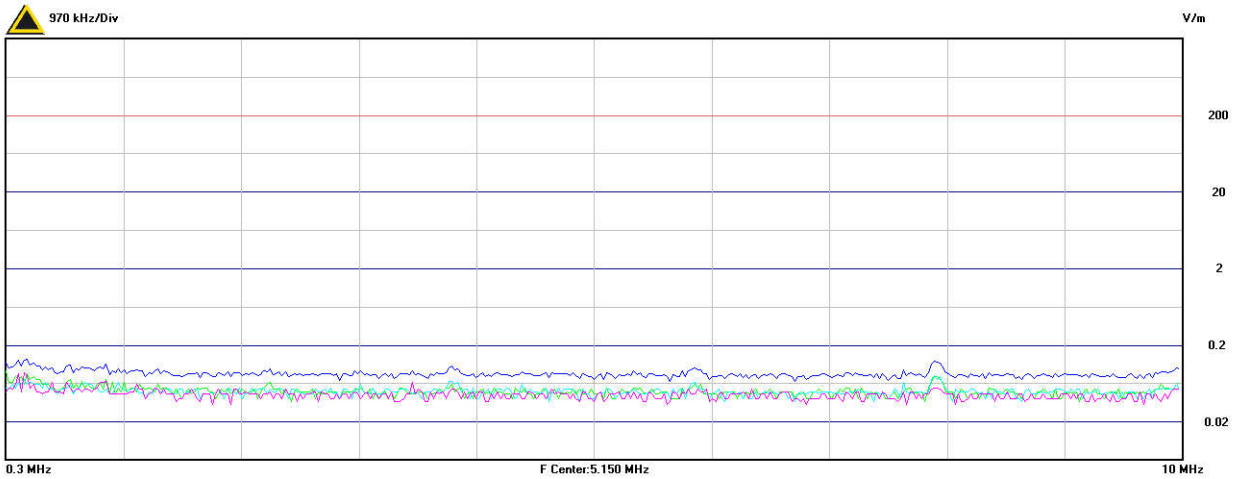
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P13 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.476 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:23 AM
Results : The Emissions were Compliant



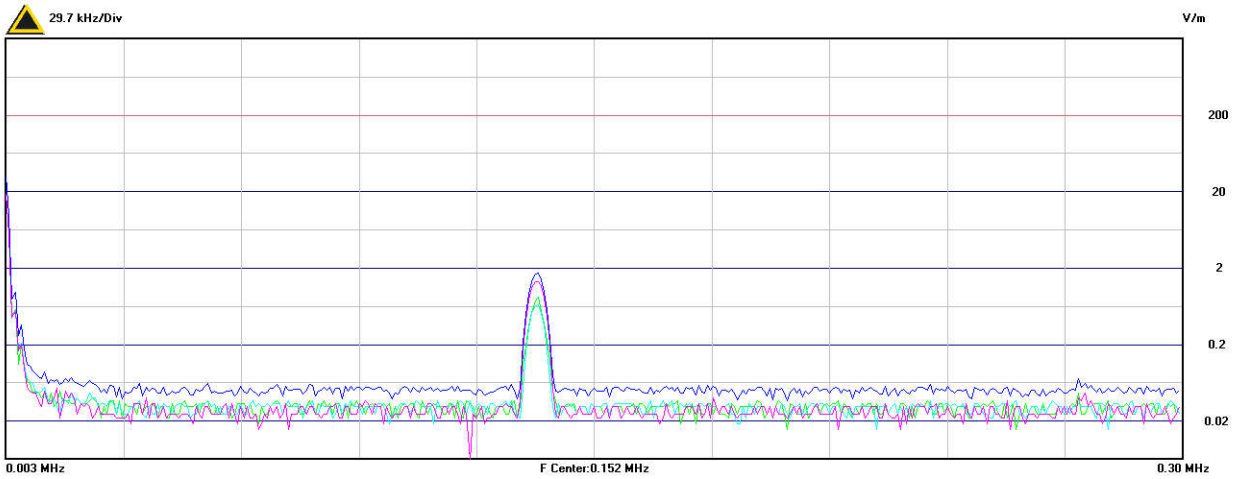
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P13 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.1328 V/m @ 0.475MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:23 AM
Results : The Emissions were Compliant



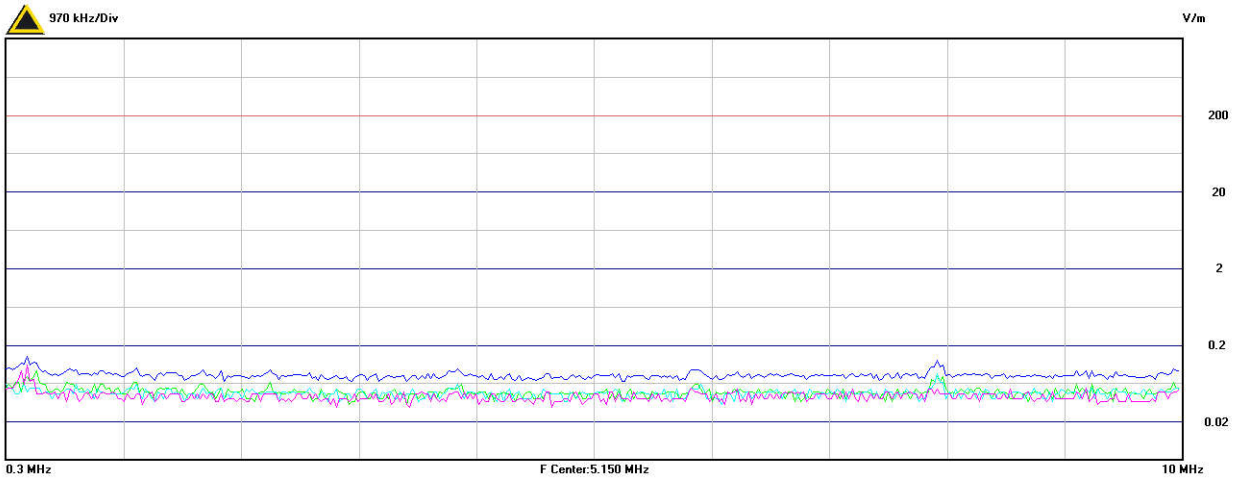
RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P14 E 1
Freq Range : 3kHz – 300kHz
Max Peak : 31.73 V/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:24 AM
Results : The Emissions were Compliant



RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P14 E 2
Freq Range : 300kHz – 10MHz
Max Peak : 0.1458 V/m @ 0.475MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:24 AM
Results : The Emissions were Compliant



RSS-102: Radio Frequency (RF) Exposure Compliance Test

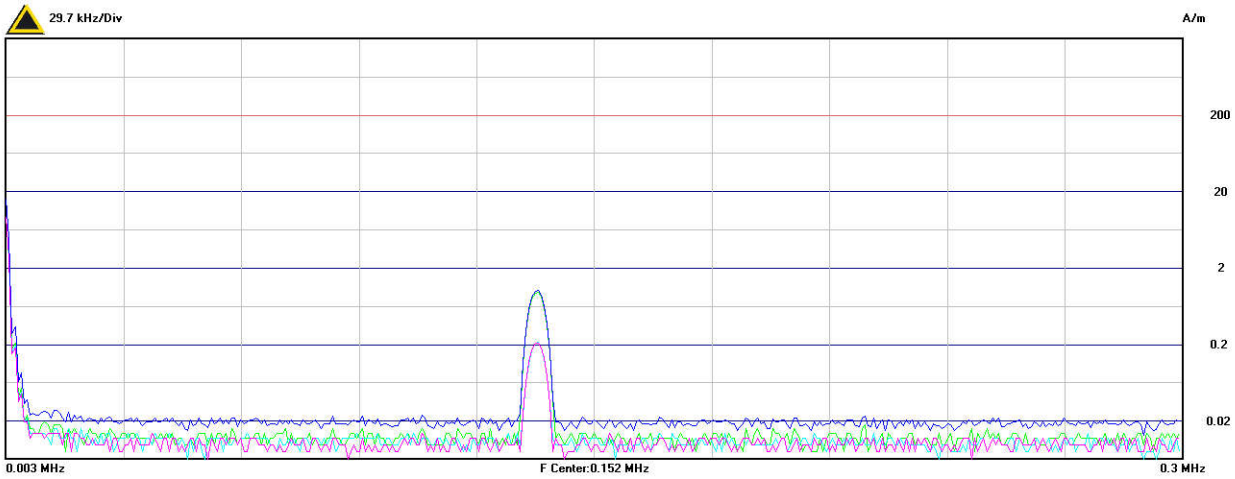
Test Group Summary

Manufacturer : Accutech Security
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Test personnel : Tylar Jozefczyk
Results : The Emissions were Compliant
Date : 5/22/2023 10:37:38 AM

Side Tested	Maximum Frequency Range	Maximum Peak Frequency	Maximum Peak Emissions (A/m)	Field Strength Limit (A/m)	Excessive Emissions
P1	3kHz – 300kHz	0.003MHz	15.945	180	
P2	3kHz – 300kHz	0.003MHz	15.918	180	
P3	3kHz – 300kHz	0.003MHz	15.916	180	
P4	3kHz – 300kHz	0.003MHz	15.959	180	
P5	3kHz – 300kHz	0.003MHz	16.059	180	
P6	3kHz – 300kHz	0.003MHz	16.027	180	
P7	3kHz – 300kHz	0.003MHz	15.993	180	
P8	3kHz – 300kHz	0.003MHz	15.998	180	
P9	3kHz – 300kHz	0.003MHz	15.995	180	
P10	3kHz – 300kHz	0.003MHz	15.963	180	
P11	3kHz – 300kHz	0.003MHz	15.984	180	
P12	3kHz – 300kHz	0.003MHz	15.982	180	
P13	3kHz – 300kHz	0.003MHz	16.018	180	
P14	3kHz – 300kHz	0.003MHz	16.034	180	

RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech Security
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P1
Freq Range : 3kHz – 300kHz
Max Peak : 15.945 A/m @ 0.003MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:26 AM
Results : The Emissions were Compliant



RSS-102: Radio Frequency (RF) Exposure Compliance Test

Manufacturer : Accutech Security
Model Number : LC1400T
Serial Number : N/A
Mode : Tx
Side Tested : P1
Freq Range : 300kHz – 10MHz
Max Peak : 0.9387 A/m @ 0.3MHz
Test personnel : Tylar Jozefczyk
Date : 5/22/2023 10:37:26 AM
Results : The Emissions were Compliant