



Washington Laboratories, Ltd.

FCC Certification Test Report

**For the
Care Technologies, Inc.
AlertCare3**

QCKAC3TX

**WLL JOB# 8928
October 2005**

Prepared for:

**Care Technologies, Inc.
1325 Northmeadow Parkway
Roswell, GA 30076**

Prepared By:

**Washington Laboratories, Ltd.
7560 Lindbergh Drive
Gaithersburg, Maryland 20879**

**FCC Certification Test Report
for the
Care Technologies, Inc.
AlertCare3
QCKAC3TX**

October 2005

WLL JOB# 8928

Prepared by: Brian J. Dettling
Documentation Specialist

Reviewed by: Gregory M. Snyder
Chief EMC Engineer

Abstract

This report has been prepared on behalf of Care Technologies, Inc. to support the attached Application for Equipment Authorization. The test report and application are submitted for an Intentional Radiator under Part 15.249 of the FCC Rules and Regulations. This Certification Test Report documents the test configuration and test results for a Care Technologies, Inc. AlertCare3.

Testing was performed on an Open Area Test Site (OATS) of Washington Laboratories, Ltd, 7560 Lindbergh Drive, Gaithersburg, MD 20879. Site description and site attenuation data have been placed on file with the FCC's Sampling and Measurements Branch at the FCC laboratory in Columbia, MD. Washington Laboratories, Ltd. has been accepted by the FCC and approved by NIST NVLAP (NVLAP Lab Code: 200066-0) as an independent FCC test laboratory.

The Care Technologies, Inc. AlertCare3 complies with the limits for an Intentional Radiator device under FCC Part 15.249.

Table of Contents

Abstract	ii
1 Introduction	1
1.1 Compliance Statement	1
1.2 Test Scope	1
1.3 Contract Information	1
1.4 Test Dates	1
1.5 Test and Support Personnel	1
2 Equipment Under Test	2
2.1 EUT Identification & Description	2
2.2 Test Configuration	2
2.3 Testing Algorithm	2
2.4 Test Location	2
2.5 Measurements	2
2.5.1 References	2
2.6 Measurement Uncertainty	3
3 Test Equipment	4
4 Test Results	5
4.1 Occupied Bandwidth: (FCC Part §2.1049)	5
4.2 Radiated Spurious Emissions: (FCC Part §2.1053)	7
4.2.1 Test Procedure	7

List of Tables

Table 1. Device Summary	2
Table 2: Test Equipment List	4
Table 3. Occupied Bandwidth Results	6
Table 4. Radiated Emissions Limits	7
Table 5: Radiated Emission Test Data, Fundamental Power Level/Field Strength	8
Table 6: Radiated Emission Test Data, High Frequency Data: Unit Upright	9
Table 7: Radiated Emission Test Data, High Frequency Data: Unit Flat	9
Table 8: Radiated Emission Test Data, High Frequency Data: Unit on Side	11

List of Figures

Figure 4-1. Occupied Bandwidth	5
--------------------------------------	---

1 Introduction

1.1 Compliance Statement

The Care Technologies, Inc. AlertCare3 complies with the limits for an Intentional Radiator device under FCC Part 15.249.

1.2 Test Scope

Tests for radiated and conducted emissions were performed. All measurements were performed in accordance with the 2003 version of ANSI C63.4. The measurement equipment conforms to ANSI C63.2 Specifications for Electromagnetic Noise and Field Strength Instrumentation.

1.3 Contract Information

Customer:	Care Technologies, Inc. 1325 Northmeadow Parkway Roswell, GA 30076
-----------	--

Quotation Number:	62536
-------------------	-------

1.4 Test Dates

Testing was performed on the following date(s):	September 22, 2005
---	--------------------

1.5 Test and Support Personnel

Washington Laboratories, LTD	James Ritter
Client Representative	Shawn Yates

2 Equipment Under Test

2.1 EUT Identification & Description

The Care Technologies, Inc. AlertCare3 is part of a patient locator system for use in medical care facilities. It is snapped around the wrist of a patient while at the health care facility.

Table 1. Device Summary

ITEM	DESCRIPTION
Manufacturer:	Care Technologies, Inc.
FCC ID:	QCKAC3TX
Model:	AlertCare3
FCC Rule Parts:	§15.249
Frequency Range:	916.48MHz Fixed
Maximum Output Power:	<1mW
Modulation:	FSK
Occupied Bandwidth:	288.8 KHz (20 dB BW)
Keying:	Automatic
Type of Information:	Control
Power Output Level	Fixed
Antenna Type	Integral
Interface Cables:	N/A
Power Source & Voltage:	3 Vdc from battery

2.2 Test Configuration

The AlertCare3 was tested in a stand-alone configuration.

2.3 Testing Algorithm

The AlertCare3 was enabled so it could be operated in a continuous transmit mode.

Worst case emission levels are provided in the test results data.

2.4 Test Location

All measurements herein were performed at Washington Laboratories, Ltd. test center in Gaithersburg, MD. Site description and site attenuation data have been placed on file with the FCC's Sampling and Measurements Branch at the FCC laboratory in Columbia, MD. Washington Laboratories, Ltd. has been accepted by the FCC and approved by NIST NVLAP (NVLAP Lab Code: 200066-0) as an independent FCC test laboratory.

2.5 Measurements

2.5.1 References

ANSI C63.2 Specifications for Electromagnetic Noise and Field Strength Instrumentation

ANSI C63.4 American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

2.6 Measurement Uncertainty

All results reported herein relate only to the equipment tested. For the purposes of the measurements performed by Washington Laboratories, the measurement uncertainty is ± 2.3 dB. This has been calculated for a *worst-case situation* (radiated emissions measurements performed on an open area test site).

The following measurement uncertainty calculation is provided:

$$\text{Total Uncertainty} = (A^2 + B^2 + C^2)^{1/2}/(n-1)$$

where:

A = Antenna calibration uncertainty, in dB = 2 dB

B = Spectrum Analyzer uncertainty, in dB = 1 dB

C = Site uncertainty, in dB = 4 dB

n = number of factors in uncertainty calculation = 3

Thus, Total Uncertainty = $0.5 (2^2 + 1^2 + 4^2)^{1/2} = \pm 2.3$ dB.

3 Test Equipment

Table 2 shows a list of the test equipment used for measurements along with the calibration information.

Table 2: Test Equipment List

WLL Asset #	Manufacturer Model/Type	Function	Cal. Due
0073	HP 8568B	SPECTRUM ANALYZER	6/30/2006
0069	HP 85650A	QUASI-PEAK ADAPTER	6/30/2006
0125	SOLAR 8028-50-TS-BNC	LISN	10/1/2005
0126	SOLAR 8028-50-TS-BNC	LISN	10/1/2005
0073	HP 8568B	SPECTRUM ANALYZER	6/30/2006
0007	ARA LPB-2520	BICONILOG ANTENNA	12/15/2005
0074	HEWLETT-PACKARD 8593A	SPECTRUM ANALYZER	9/30/2005
0312	HEWLETT-PACKARD 8449B	MICROWAVE PREAMP	9/29/2005
0425	ARA DRG118/A	MICROWAVE HORN ANTENNA	10/31/2005
0026	EMCO 3110B	BICONICAL ANTENNA	12/10/2005
0029	EMCO 3146A	LOG PERIODIC ANTENNA	6/28/2006
0071	HP 85685A	RF PRESELECTOR	6/30/2006
0069	HP 85650A	QUASI-PEAK ADAPTER	6/30/2006

4 Test Results

4.1 Occupied Bandwidth: (FCC Part §2.1049)

Occupied bandwidth was performed by coupling the output of the EUT to the input of a spectrum analyzer. The coupling was performed via a small antenna placed near the EUT.

At full modulation, the occupied bandwidth was measured as shown:

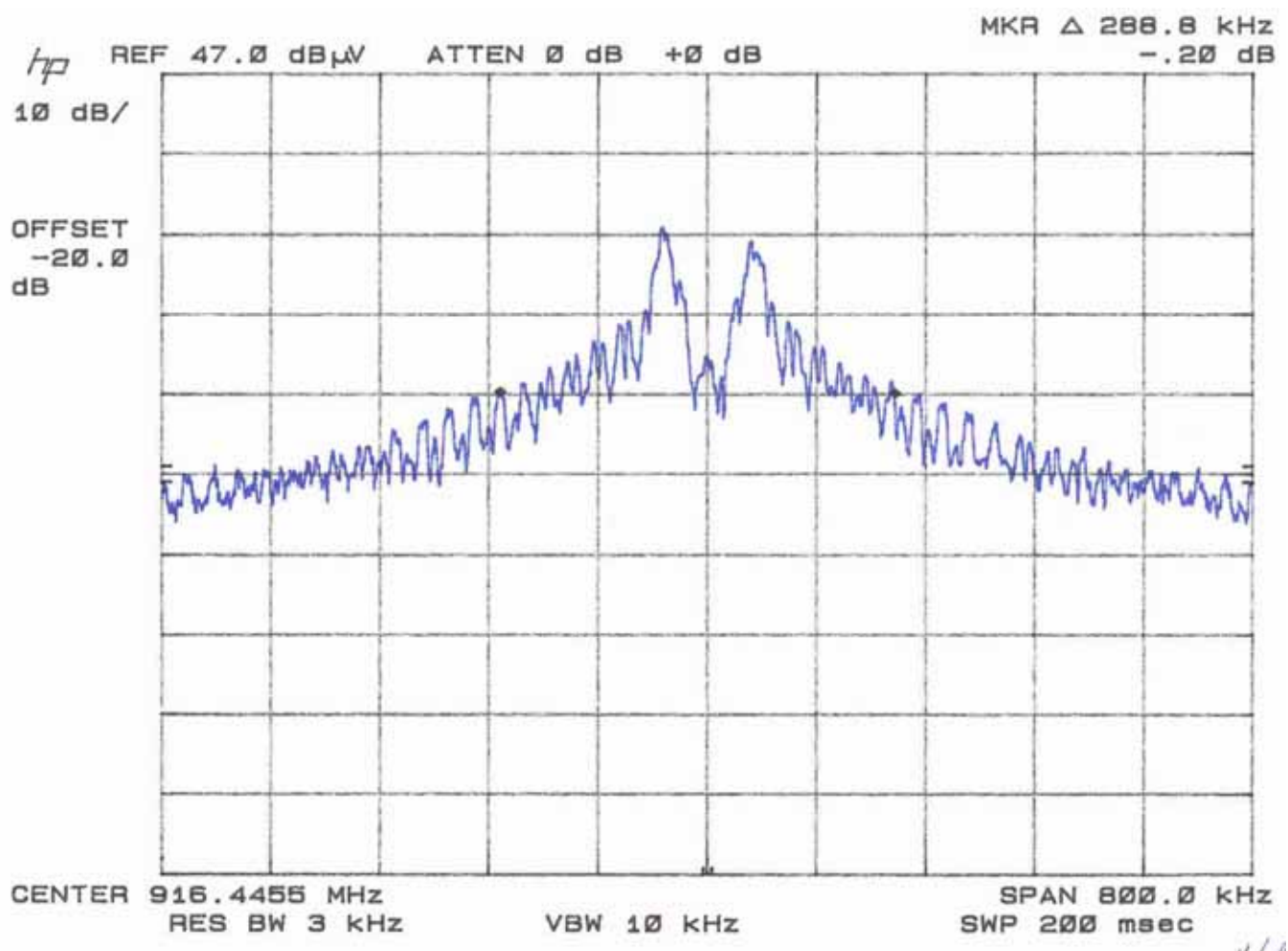


Figure 4-1. Occupied Bandwidth

Table 3 provides a summary of the Occupied Bandwidth Results.

Table 3. Occupied Bandwidth Results

Frequency	Bandwidth
916.48MHz	288.8kHz

4.2 Radiated Spurious Emissions: (FCC Part §2.1053)

The EUT must comply with the radiated emission limits of 15.249(a). The limits are as shown in the following table.

Table 4. Radiated Emissions Limits

Fundamental Frequency	Field Strength of Fundamental ($\mu\text{V/m}$)	Field Strength of Harmonics ($\mu\text{V/m}$)
902 – 928 MHz	50,000	500
2400 – 2483.5 MHz	50,000	500
5725 – 5875 MHz	50,000	500
24.00 – 24.25 GHz	250,000	2500

4.2.1 Test Procedure

The EUT was placed on motorized turntable for radiated testing on a 3-meter open field test site. The emissions from the EUT were measured continuously at every azimuth by rotating the turntable. Receiving antennas were mounted on an antenna mast to determine the height of maximum emissions. The height of the antenna was varied between 1 and 4 meters. The peripherals were placed on the table in accordance with ANSI C63.4-2003. Cables were varied in position to produce maximum emissions. Both the horizontal and vertical field components were measured.

The emissions were measured using the following resolution bandwidths:

Frequency Range	Resolution Bandwidth	Video Bandwidth
30MHz-1000 MHz	120kHz	>100 kHz
>1000 MHz	1 MHz	<30 Hz (Avg.) 1MHz (Peak)

Emissions were measured to the 10th harmonic of the transmit frequency. Worst case emission levels are reported.

The following is a sample calculation used in the data tables for calculating the final field strength of spurious emissions and comparing these levels to the specified limits.

Sample Calculation:

Spectrum Analyzer Voltage (SA Level): V dBμV

Antenna Factor (Ant Corr): AFdB/m

Cable Loss Correction (Cable Corr): CCdB

Duty Cycle Correction (Average) DCCdB (if applicable)

Amplifier Gain: GdB

Electric Field (Corr Level): $Ed_{\mu V/m} = V_{dB\mu V} + AF_{dB/m} + CC_{dB} + DCC_{dB} - G_{dB}$

Table 5: Radiated Emission Test Data, Fundamental Power Level/Field Strength

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (QP) (dBμV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Corr. Level (dBμV/m)	Corr. Level (μV/m)	Limit (μV/m)	Margin dB
Unit Upright										
916.378	V	280.0	1.5	25.7	21.3	7.0	53.9	498.2	50000.0	-40.0
916.378	H	270.0	1.0	31.7	21.3	7.0	59.9	994.0	50000.0	-34.0
Unit Flat										
916.378	H	10	2.8	32.1	21.3	7.0	60.3	1040.8	50000.0	-33.6
916.378	V	190	1.3	34.1	21.3	7.0	62.3	1310.3	50000.0	-31.6
Unit on Side										
916.378	H	100	2.8	25.4	21.3	7.0	53.6	481.2	50000.0	-40.3
916.378	V	0	1.5	33.4	21.3	7.0	61.6	1208.8	50000.0	-32.3

Table 6: Radiated Emission Test Data, High Frequency Data: Unit Upright

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (dBμV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amp Gain (dB)	Corr. Level (dBμV/m)	Corr. Level (μV/m)	Limit (μV/m)	Margin dB
Average											
1832.860	H	280.0	1.0	45.7	27.6	1.5	35.5	39.3	91.8	500.0	-14.7
2749.290	H	180.0	1.0	38.1	29.6	1.5	35.6	33.6	47.8	500.0	-20.4
3665.720	H	190.0	1.0	49.1	30.8	2.5	35.4	47.0	223.6	500.0	-7.0
4582.150	H	0.0	1.0	36.3	32.1	3.4	35.7	36.1	63.9	500.0	-17.9
5498.580	H	0.0	1.0	32.1	33.6	3.9	35.7	33.9	49.6	500.0	-20.1
6415.010	H	0.0	1.0	33.1	35.5	3.9	35.5	37.0	71.0	500.0	-17.0
7331.440	H	0.0	1.0	34.6	37.1	4.5	35.8	40.5	105.5	500.0	-13.5
8247.870	H	0.0	1.0	35.1	37.5	5.9	36.1	42.4	131.3	500.0	-11.6
9164.300	H	0.0	1.0	34.5	38.2	4.8	36.2	41.2	115.3	500.0	-12.7
1832.860	V	180.0	1.0	42.3	27.6	1.5	35.5	35.9	62.2	500.0	-18.1
2749.290	V	90.0	1.0	35.9	29.6	1.5	35.6	31.4	37.0	500.0	-22.6
3665.720	V	190.0	1.0	38.2	30.8	2.5	35.4	36.0	63.5	500.0	-17.9
4582.150	V	270.0	1.0	36.5	32.1	3.4	35.7	36.3	65.4	500.0	-17.7
5498.580	V	0.0	1.0	33.1	33.6	3.9	35.7	34.9	55.6	500.0	-19.1
6415.010	V	0.0	1.0	32.8	35.5	3.9	35.5	36.7	68.6	500.0	-17.3
7331.440	V	0.0	1.0	34.0	37.1	4.5	35.8	39.9	98.5	500.0	-14.1
8247.870	V	0.0	1.0	34.9	37.5	5.9	36.1	42.2	128.3	500.0	-11.8
9164.300	V	0.0	1.0	35.0	38.2	4.8	36.2	41.7	122.1	500.0	-12.2
Peak Data											
1832.860	H	280.0	1.0	51.3	27.6	1.5	35.5	44.9	176.8	5000.0	-29.0
2749.290	H	180.0	1.0	49.5	29.6	1.5	35.6	45.0	177.1	5000.0	-29.0
3665.720	H	190.0	1.0	54.5	30.8	2.5	35.4	52.3	414.0	5000.0	-21.6
4582.150	H	0.0	1.0	47.4	32.1	3.4	35.7	47.1	227.6	5000.0	-26.8
5498.580	H	0.0	1.0	40.1	33.6	3.9	35.7	41.9	124.6	5000.0	-32.1
6415.010	H	0.0	1.0	41.1	35.5	3.9	35.5	45.0	178.3	5000.0	-29.0
7331.440	H	0.0	1.0	44.1	37.1	4.5	35.8	50.0	315.0	5000.0	-24.0
8247.870	H	0.0	1.0	46.8	37.5	5.9	36.1	54.1	506.8	5000.0	-19.9
9164.300	H	0.0	1.0	45.9	38.2	4.8	36.2	52.6	426.9	5000.0	-21.4
1832.860	V	180.0	1.0	51.5	27.6	1.5	35.5	45.1	179.6	5000.0	-28.9
2749.290	V	90.0	1.0	46.2	29.6	1.5	35.6	41.7	121.0	5000.0	-32.3
3665.720	V	190.0	1.0	49.2	30.8	2.5	35.4	47.1	227.0	5000.0	-26.9
4582.150	V	270.0	1.0	45.9	32.1	3.4	35.7	45.7	191.7	5000.0	-28.3
5498.580	V	0.0	1.0	40.3	33.6	3.9	35.7	42.1	127.5	5000.0	-31.9
6415.010	V	0.0	1.0	40.1	35.5	3.9	35.5	44.0	158.9	5000.0	-30.0
7331.440	V	0.0	1.0	43.1	37.1	4.5	35.8	49.0	280.7	5000.0	-25.0
8247.870	V	0.0	1.0	44.8	37.5	5.9	36.1	52.1	401.2	5000.0	-21.9
9164.300	V	0.0	1.0	43.9	38.2	4.8	36.2	50.6	340.3	5000.0	-23.3

Table 7: Radiated Emission Test Data, High Frequency Data: Unit Flat

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (dBµV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amp Gain (dB)	Corr. Level (dBµV/m)	Corr. Level (µV/m)	Limit (µV/m)	Margin dB
Average											
1832.860	H	290.0	1.0	44.5	27.6	1.5	35.5	38.1	80.1	500.0	-15.9
2749.290	H	180.0	1.0	35.9	29.6	1.5	35.6	31.4	37.0	500.0	-22.6
3665.720	H	190.0	1.0	48.5	30.8	2.5	35.4	46.4	208.7	500.0	-7.6
4582.150	H	180.0	1.0	40.7	32.1	3.4	35.7	40.5	105.7	500.0	-13.5
5498.580	H	0.0	1.0	32.0	33.6	3.9	35.7	33.8	49.2	500.0	-20.1
6415.010	H	0.0	1.0	34.2	35.5	3.9	35.5	38.2	80.9	500.0	-15.8
7331.440	H	0.0	1.0	34.2	37.1	4.5	35.8	40.0	100.3	500.0	-14.0
8247.870	H	0.0	1.0	35.0	37.5	5.9	36.1	42.3	130.4	500.0	-11.7
9164.300	H	0.0	1.0	34.3	38.2	4.8	36.2	41.0	112.0	500.0	-13.0
1832.860	V	190.0	1.0	45.5	27.6	1.5	35.5	39.1	89.9	500.0	-14.9
2749.290	V	190.0	1.0	40.9	29.6	1.5	35.6	36.4	65.8	500.0	-17.6
3665.720	V	200.0	1.0	41.9	30.8	2.5	35.4	39.7	97.2	500.0	-14.2
4582.150	V	180.0	1.0	37.9	32.1	3.4	35.7	37.7	76.6	500.0	-16.3
5498.580	V	0.0	1.0	32.2	33.6	3.9	35.7	34.0	50.1	500.0	-20.0
6415.010	V	0.0	1.0	33.0	35.5	3.9	35.5	36.9	70.3	500.0	-17.0
7331.440	V	0.0	1.0	34.1	37.1	4.5	35.8	40.0	99.6	500.0	-14.0
8247.870	V	0.0	1.0	34.9	37.5	5.9	36.1	42.2	128.3	500.0	-11.8
9164.300	V	0.0	1.0	34.3	38.2	4.8	36.2	41.0	112.0	500.0	-13.0
Peak Data											
1832.860	H	290.0	1.0	50.1	27.6	1.5	35.5	43.7	152.7	5000.0	-30.3
2749.290	H	180.0	1.0	45.7	29.6	1.5	35.6	41.1	113.6	5000.0	-32.9
3665.720	H	190.0	1.0	52.4	30.8	2.5	35.4	50.3	327.0	5000.0	-23.7
4582.150	H	180.0	1.0	47.4	32.1	3.4	35.7	47.2	229.5	5000.0	-26.8
5498.580	H	0.0	1.0	44.2	33.6	3.9	35.7	46.0	199.5	5000.0	-28.0
6415.010	H	0.0	1.0	45.7	35.5	3.9	35.5	49.6	301.5	5000.0	-24.4
7331.440	H	0.0	1.0	44.6	37.1	4.5	35.8	50.5	334.0	5000.0	-23.5
8247.870	H	0.0	1.0	47.3	37.5	5.9	36.1	54.6	534.4	5000.0	-19.4
9164.300	H	0.0	1.0	47.6	38.2	4.8	36.2	54.3	519.8	5000.0	-19.7
1832.860	V	190.0	1.0	52.9	27.6	1.5	35.5	46.5	212.0	5000.0	-27.5
2749.290	V	190.0	1.0	48.9	29.6	1.5	35.6	44.3	164.2	5000.0	-29.7
3665.720	V	200.0	1.0	50.2	30.8	2.5	35.4	48.1	253.2	5000.0	-25.9
4582.150	V	180.0	1.0	47.4	32.1	3.4	35.7	47.1	227.6	5000.0	-26.8
5498.580	V	0.0	1.0	42.8	33.6	3.9	35.7	44.6	170.0	5000.0	-29.4
6415.010	V	0.0	1.0	43.6	35.5	3.9	35.5	47.5	237.8	5000.0	-26.5
7331.440	V	0.0	1.0	45.5	37.1	4.5	35.8	51.4	370.1	5000.0	-22.6
8247.870	V	0.0	1.0	45.2	37.5	5.9	36.1	52.4	417.7	5000.0	-21.6
9164.300	V	0.0	1.0	44.8	38.2	4.8	36.2	51.6	378.3	5000.0	-22.4

Table 8: Radiated Emission Test Data, High Frequency Data: Unit on Side

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (dBμV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amp Gain (dB)	Corr. Level (dBμV/m)	Corr. Level (μV/m)	Limit (μV/m)	Margin dB
Average											
1832.860	H	290.0	1.0	49.8	27.6	1.5	35.5	43.4	147.5	500.0	-10.6
2749.290	H	270.0	1.0	34.6	29.6	1.5	35.6	30.1	32.0	500.0	-23.9
3665.720	H	280.0	1.0	47.7	30.8	2.5	35.4	45.6	189.7	500.0	-8.4
4582.150	H	10.0	1.0	40.6	32.1	3.4	35.7	40.3	104.0	500.0	-13.6
5498.580	H	0.0	1.0	32.2	33.6	3.9	35.7	34.0	50.3	500.0	-20.0
6415.010	H	0.0	1.0	33.2	35.5	3.9	35.5	37.1	71.4	500.0	-16.9
7331.440	H	0.0	1.0	34.1	37.1	4.5	35.8	39.9	99.2	500.0	-14.1
8247.870	H	0.0	1.0	35.0	37.5	5.9	36.1	42.2	129.4	500.0	-11.7
9164.300	H	0.0	1.0	34.2	38.2	4.8	36.2	40.9	110.9	500.0	-13.1
1832.860	V	90.0	1.0	39.8	27.6	1.5	35.5	33.4	46.9	500.0	-20.6
2749.290	V	180.0	1.0	39.4	29.6	1.5	35.6	34.9	55.3	500.0	-19.1
3665.720	V	290.0	1.0	42.2	30.8	2.5	35.4	40.1	101.0	500.0	-13.9
4582.150	V	10.0	1.0	37.9	32.1	3.4	35.7	37.7	76.4	500.0	-16.3
5498.580	V	0.0	1.0	32.1	33.6	3.9	35.7	33.9	49.3	500.0	-20.1
6415.010	V	0.0	1.0	33.9	35.5	3.9	35.5	37.9	78.2	500.0	-16.1
7331.440	V	0.0	1.0	34.1	37.1	4.5	35.8	40.0	100.0	500.0	-14.0
8247.870	V	0.0	1.0	34.9	37.5	5.9	36.1	42.2	128.3	500.0	-11.8
9164.300	V	0.0	1.0	34.3	38.2	4.8	36.2	41.0	112.4	500.0	-13.0
Peak Data											
1832.860	H	290.0	1.0	54.8	27.6	1.5	35.5	48.4	262.7	5000.0	-25.6
2749.290	H	270.0	1.0	46.3	29.6	1.5	35.6	41.7	121.8	5000.0	-32.3
3665.720	H	280.0	1.0	52.3	30.8	2.5	35.4	50.2	323.6	5000.0	-23.8
4582.150	H	10.0	1.0	48.4	32.1	3.4	35.7	48.2	256.9	5000.0	-25.8
5498.580	H	0.0	1.0	43.3	33.6	3.9	35.7	45.1	180.0	5000.0	-28.9
6415.010	H	0.0	1.0	42.3	35.5	3.9	35.5	46.2	204.7	5000.0	-27.8
7331.440	H	0.0	1.0	44.6	37.1	4.5	35.8	50.4	332.1	5000.0	-23.6
8247.870	H	0.0	1.0	45.3	37.5	5.9	36.1	52.6	425.0	5000.0	-21.4
9164.300	H	0.0	1.0	45.0	38.2	4.8	36.2	51.8	387.1	5000.0	-22.2
1832.860	V	90.0	1.0	49.4	27.6	1.5	35.5	43.0	141.4	5000.0	-31.0
2749.290	V	180.0	1.0	48.2	29.6	1.5	35.6	43.7	153.0	5000.0	-30.3
3665.720	V	290.0	1.0	49.7	30.8	2.5	35.4	47.6	240.2	5000.0	-26.4
4582.150	V	10.0	1.0	46.7	32.1	3.4	35.7	46.5	210.5	5000.0	-27.5
5498.580	V	0.0	1.0	42.7	33.6	3.9	35.7	44.5	168.2	5000.0	-29.5
6415.010	V	0.0	1.0	45.3	35.5	3.9	35.5	49.2	289.9	5000.0	-24.7
7331.440	V	0.0	1.0	44.3	37.1	4.5	35.8	50.2	323.8	5000.0	-23.8
8247.870	V	0.0	1.0	46.3	37.5	5.9	36.1	53.6	476.8	5000.0	-20.4
9164.300	V	0.0	1.0	45.2	38.2	4.8	36.2	51.9	395.2	5000.0	-22.0