



FCC Certification Test Report

FCCID: OYE-MTF10

MILLER EDGE

RF LINK

WLL REPORT# 13314-01 Rev 1

April 16, 2014

Revised June 13, 2014

Prepared for:

**Miller Edge
300 N Jennersville Road
West Grove, PA 19390**

Prepared By:

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



Testing Certificate AT-1448

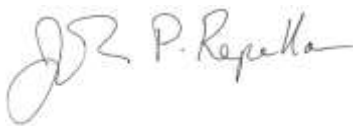
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Prepared by:



John P. Repella
Compliance Engineer

Reviewed by:



Steven D. Koster
Vice President

Abstract

This report has been prepared on behalf of Miller Edge to support the attached Application for Equipment Authorization. The test report and application are submitted for an Intentional Radiator under Part 15.249 (10/2013) of the FCC Rules. This Certification Test Report documents the test configuration and test results for Miller Edge RF Link.

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 ACLASS under Certificate AT-1448 as an independent FCC test laboratory.

The Miller Edge RF Link complies with the limits for an Intentional Radiator device under FCC Part 15.249.

Revision History	Reason	Date
Rev 0	Initial Release	April 16, 2014
Rev 1	Corrected typographical errors added 910MHz bandwidth plot	June 13, 2014 JR

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1 Introduction

1.1 Compliance Statement

The Miller Edge RF Link complies with the limits for an Intentional Radiator device under FCC Part 15.249 (10/2012).

1.2 Test Scope

Tests for radiated emissions were performed. All measurements were performed in accordance with FCC Part 15.247 and 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:	Miller Edge 300 N Jennersville Road West Grove, PA 19390
Purchase Order Number:	Signed quotation serves as the PO
Quotation Number:	67832B

1.4 Test Dates

Testing was performed on the following date(s):	2/3/14, 3/11/14-3/12/14, 3/31/14, 4/3/14
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1.5 Test and Support Personnel

Washington Laboratories, LTD	John P. Repella, James Ritter, John Reidell
Customer Representative	Dan Laskey

1.6 Abbreviations

A	A mpere
ac	a lternating current
AM	A mplitude Modulation
Amps	A mperes
b/s	b its per second
BW	B and W idth
CE	C onducted E mission
cm	c entimeter
CW	C ontinuous W ave
dB	d eci B el
dc	d irect current
EMI	E lectromagnetic I nterference
EUT	E quipment U nder T est
FM	F requency M odulation
G	g iga - prefix for 10^9 multiplier
Hz	H ertz
IF	I ntermediate F requency
k	k ilo - prefix for 10^3 multiplier
LISN	L ine I mpedance S tabilization N etwork
M	M ega - prefix for 10^6 multiplier
m	m eter
μ	m icro - prefix for 10^{-6} multiplier
NB	N arrow b and
QP	Q uasi- P eak
RE	R adiated E missions
RF	R adio F requency
rms	r oot- m ean- s quare
SN	S erial N umber
S/A	S pectrum A nalyzer
V	V olt

2 Equipment Under Test

2.1 EUT Identification & Description

Miller Edge designs and manufactures safety “edges” for use on industrial doors, such as shipping doors, airplane hangars, and access gates. One type of edge uses air movement or pressure to activate a switch that indicates that the edge has encountered an obstruction. This switch is usually connected to the motor controller, which would then stop and/or reverse the movement of the door, preventing injury and damage. These new products replace the switch wiring with an RF interface, similar to a garage door opener keyfob. The transmitter is installed inside the existing air switch devices, and the receiver is mounted near the motor controller.

Table 1: Device Summary

ITEM	DESCRIPTION
Manufacturer:	Miller Edge
FCC ID:	OYE-MTF10
Model(s):	AW12-RF, AW14-RF, PS20-RF
FCC Rule Parts:	§15.249
Frequency Range:	910-920MHz
Maximum Output Power:	35846.4μV/m @ 3 meters (919.44MHz)
Modulation:	FSK
Occupied Bandwidth:	236.2kHz
Keying:	automatic
Type of Information:	Data
Number of Channels:	1
Power Output Level	Fixed
Antenna Connector	None
Antenna Type	Internal
Interface Cables:	None
Power Source & Voltage:	Battery
TX Spurious	391.8μV/m @ 3 meters (2337.44MHz)

2.2 Test Configuration

The Miller Edge RF Link was configured with the 910MHz & 920MHz transmitter constantly on. A sample operating normally was used to determine the EUT duty cycle.

2.3 Testing Algorithm

The Miller Edge RF Link was programmed for continuous operation by the vendor. Under normal conditions there are no user accessible settings. The unit is simply plugged in to the battery pack to operate.

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 ACLASS under Certificate AT-1448 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. The basis for uncertainty calculation uses ANSI/NCSL Z540-2-1997 (R2012) with a type B evaluation of the standard uncertainty. Elements contributing to the standard uncertainty are combined using the method described in Equation 1 to arrive at the total standard uncertainty. The standard uncertainty is multiplied by the coverage factor to determine the expanded uncertainty which is generally accepted for use in commercial, industrial, and regulatory applications and when health and safety are concerned (see Equation 1 and Equation 2). A coverage factor was selected to yield a 95% confidence in the uncertainty estimation.

Equation 1: Standard Uncertainty

$$u_c = \pm \sqrt{\frac{a^2}{div_a^2} + \frac{b^2}{div_b^2} + \frac{c^2}{div_c^2} + \dots}$$

Where u_c = standard uncertainty

a, b, c,.. = individual uncertainty elements

Div_{a, b, c} = the individual uncertainty element divisor based on the probability distribution

Divisor = 1.732 for rectangular distribution

Divisor = 2 for normal distribution

Divisor = 1.414 for trapezoid distribution

Equation 2: Expanded Uncertainty

$$U = ku_c$$

Where U = expanded uncertainty

k = coverage factor

$k \leq 2$ for 95% coverage (ANSI/NCSL Z540-2 Annex G)

u_c = standard uncertainty

The measurement uncertainty complies with the maximum allowed uncertainty from CISPR 16-4-2. Measurement uncertainty is not used to adjust the measurements to determine compliance. The expanded uncertainty values for the various scopes in the WLL accreditation are provided in Table 2 below.

Table 2: Expanded Uncertainty

Scope	Standard(s)	Expanded Uncertainty
Conducted Emissions	CISPR11, CISPR22, CISPR14, FCC Part 15	± 2.63 dB
Radiated Emissions	CISPR11, CISPR22, CISPR14, FCC Part 15	± 4.55 dB

2.7 Test Equipment

Table 3 shows a list of the test equipment used for measurements along with the calibration information.

Table 3: Test Equipment List

Test Name: Radiated Emissions		Test Date: 04/03/2014	
Asset #	Manufacturer/Model	Description	Cal. Due
644	SUNOL SCIENCES CORPORATION - JB1 925-833-9936	BICONALOG ANTENNA	1/17/2016
71	HP - 85685A	PRESELECTOR RF	1/9/2015
802	HP - 8568B	SPECTRUM ANALYZER	1/9/2015
69	HP - 85650A	ADAPTER QP	1/9/2015
4	ARA - DRG-118/A	ANTENNA DRG 1-18GHZ	2/20/2015
770	MEGAPHASE - EM18-NK5S1-600	50 FT HIGH FREQUENCY CABLE 1 - 18GHZ	7/5/2014
627	AGILENT - 8449B	AMPLIFIER 1-26GHZ	5/13/2014
731	MEGAPHASE - TM40-K1K5-36	RF CABLE 1M 2-9M TO 2-9M RA ONE END	5/14/2014
528	AGILENT - E4446A	ANALYZER SPECTRUM	4/28/2014

3 Test Results

3.1 Duty Cycle Correction

Measurements may be adjusted where pulsed RF is utilized to find the average level associated with a quantity. This calculation is applied to limits for pulsed licensed and unlicensed devices.

- For Unlicensed Intentional Radiators under 47CFR Part 15, all duty cycle measurements compared to a 100 millisecond period
- i.e. duty cycle = on time/100, milliseconds
- The EUT under normal operating conditions has 8.76mS on time per 100mS. This result is a 21.14dB Duty Cycle Correction.
- $DCC = 20 \cdot \log(8.76e-3/100e-3) = 21.14\text{dB}$

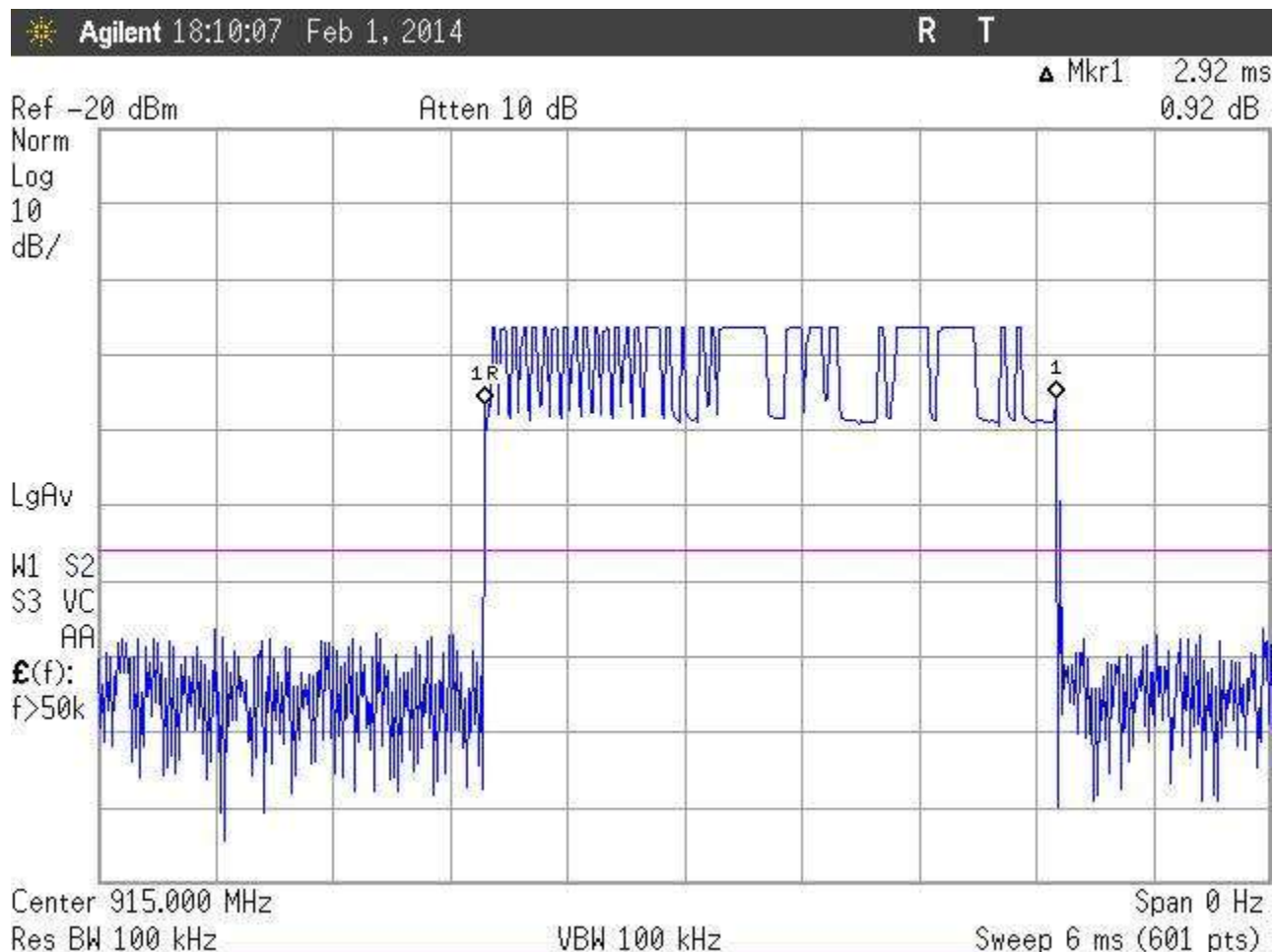


Figure 1: Duty Cycle (Single Burst)

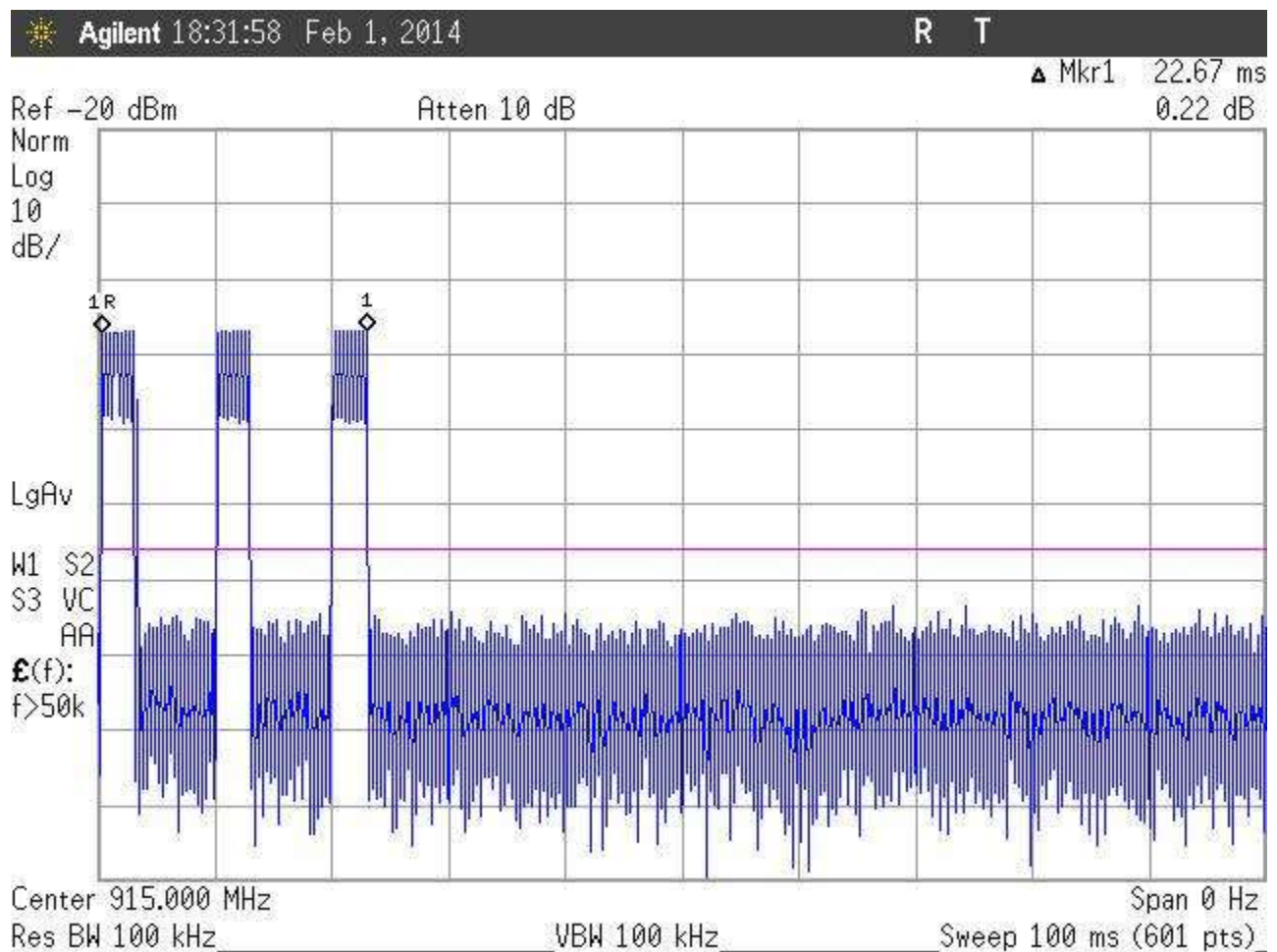


Figure 2: Duty Cycle (TX on time in 100ms)

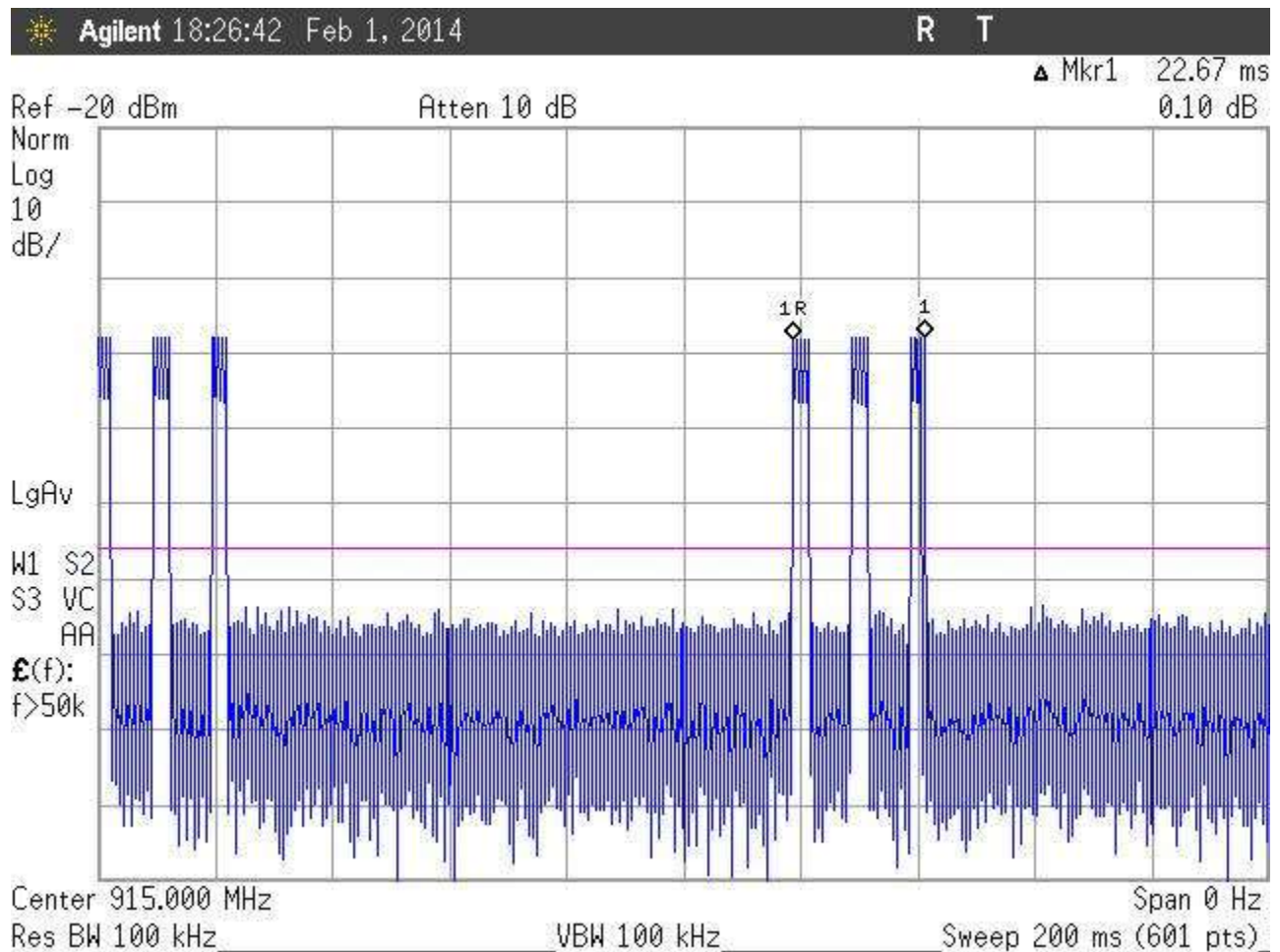


Figure 3: Duty Cycle (Worst Case)

3.2 Occupied Bandwidth: (FCC Part §2.1049)

Occupied bandwidth was performed by coupling the output of the EUT to the input of a spectrum analyzer. Table 4 provides a summary of the Occupied Bandwidth Results.

Table 4: Occupied Bandwidth Results

Frequency	Bandwidth	Limit	Pass/Fail
910MHz	234.9kHz	N/A	Pass
920MHz	236.2kHz	N/A	Pass

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

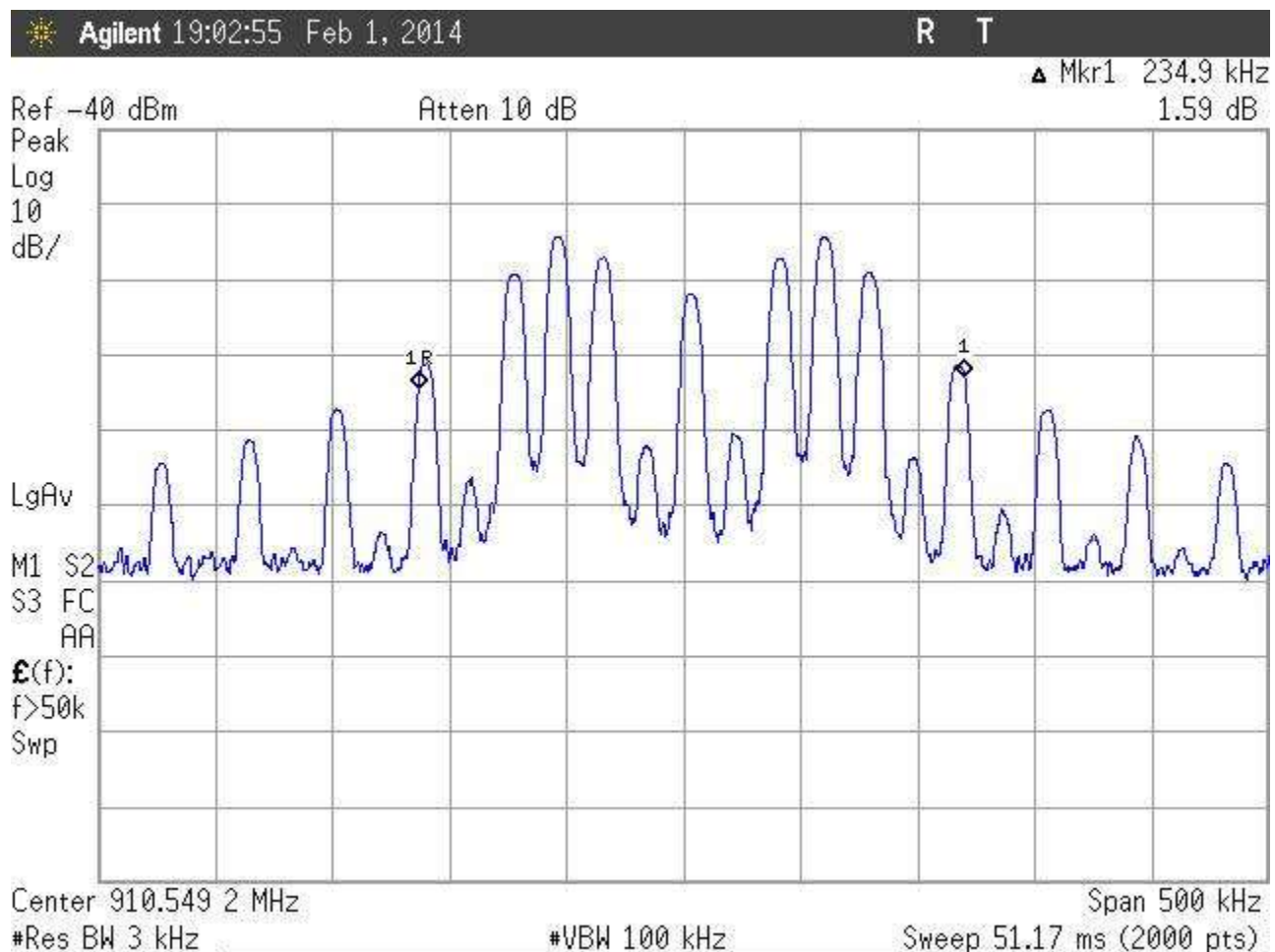


Figure 4: Occupied Bandwidth -910MHz

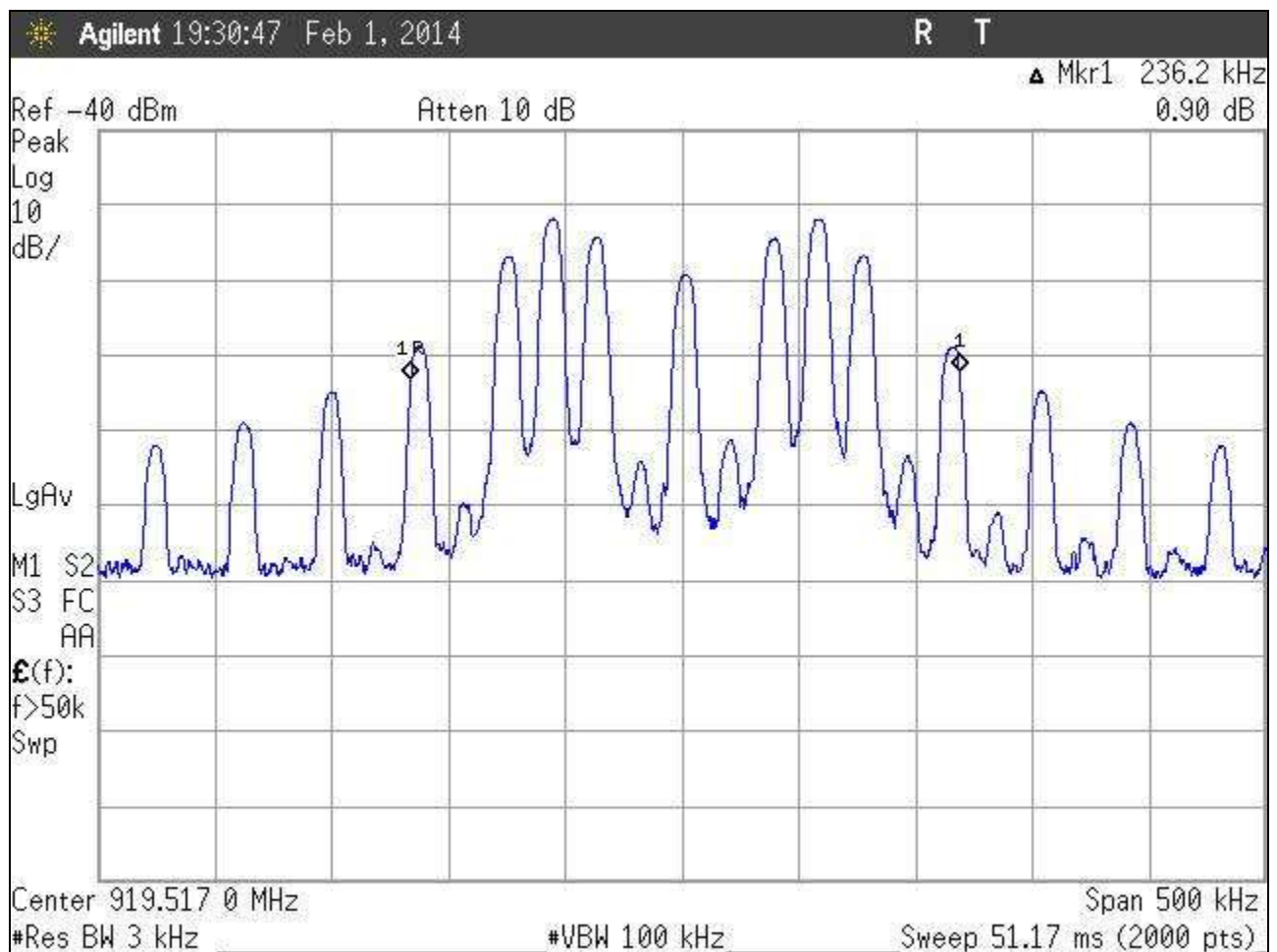


Figure 5: Occupied Bandwidth- 920 MHz

3.3 Radiated Emissions: (FCC Part §2.1053, RSS210 A2.9)

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

Table 5: 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

3.3.1 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. Readings under 1000MHz were performed using a Peak Detector function.

The unit was examined in three orthogonals.

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
 Amplifier Gain: GdB
 Electric Field (Corr Level): EdBμV/m = VdBμV + AFdB/m + CCdB + DCCdB - GdB

Table 6: Radiated Emission Test Data (Fundamental)

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comm
AW14-RF 910MHz									
EUT Flat									
910.45	V	135.00	1.00	57.40	26.0	14791.1	50000.0	-10.6	
910.45	H	180.00	1.00	61.70	26.0	24266.1	50000.0	-6.3	
EUT Side									
910.45	V	180.00	1.00	54.20	26.0	10232.9	50000.0	-13.8	
910.45	H	45.00	1.00	56.60	26.0	13489.6	50000.0	-11.4	
EUT Upright									
910.51	V	135.00	1.00	57.30	26.0	14621.8	50000.0	-10.7	
910.51	H	180.00	1.00	58.90	26.0	17579.2	50000.0	-9.1	
AW14-RF 920MHz									
919.44	V	180.00	1.00	56.60	26.1	13628.4	50000.0	-11.3	
919.44	H	180.00	1.00	65.00	26.1	35846.4	50000.0	-2.9	
EUT Side									
919.44	V	185.00	1.00	59.30	26.1	18597.1	50000.0	-8.6	
919.44	H	45.00	1.00	64.30	26.1	33070.8	50000.0	-3.6	
EUT Upright									
919.44	V	190.00	1.00	61.70	26.1	24515.8	50000.0	-6.2	
919.44	H	180.00	1.00	61.90	26.1	25086.8	50000.0	-6.0	

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Duty Cycle Corr (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comments
EUT Flat										
1838.87	V	90.00	3.05	64.67	-8.0	0.0	684.4	5000.0	-17.3	Peak
1838.87	V	90.00	3.05	63.77	-8.0	21.1	54.4	500.0	-19.3	Average
2758.77	V	180.00	3.10	62.01	-3.5	0.0	838.7	5000.0	-15.5	Peak
2758.77	V	180.00	3.10	60.78	-3.5	21.1	64.1	500.0	-17.8	Average
3677.80	V	0.00	3.11	51.49	-1.0	0.0	332.7	5000.0	-23.5	Peak
3677.80	V	0.00	3.11	46.93	-1.0	21.1	17.3	500.0	-29.2	Average
1839.02	H	45.00	2.93	66.85	-8.0	0.0	879.8	5000.0	-15.1	Peak
1839.02	H	45.00	2.93	66.10	-8.0	21.1	71.1	500.0	-16.9	Average
2758.63	H	325.00	3.67	56.29	-3.5	0.0	434.1	5000.0	-21.2	Peak
2758.63	H	325.00	3.67	54.13	-3.5	21.1	29.8	500.0	-24.5	Average
3678.02	H	235.00	1.94	49.22	-1.0	0.0	256.3	5000.0	-25.8	Peak
3678.02	H	235.00	1.94	43.90	-1.0	21.1	12.2	500.0	-32.2	Average
EUT Upright										
1839.18	V	125.00	3.22	71.35	-7.9	0.0	1488.5	5000.0	-10.5	Peak
1839.18	V	125.00	3.22	70.78	-7.9	21.1	122.8	500.0	-12.2	Average
2758.33	V	100.00	2.22	59.56	-3.2	0.0	656.5	5000.0	-17.6	Peak
2758.33	V	100.00	2.22	57.91	-3.2	21.1	47.8	500.0	-20.4	Average
3677.91	V	135.00	2.17	51.96	-1.0	0.0	352.4	5000.0	-23.0	Peak
3677.91	V	135.00	2.17	48.87	-1.0	21.1	21.8	500.0	-27.2	Average
1839.17	H	100.00	3.01	69.13	-7.9	0.0	1152.7	5000.0	-12.7	Peak
1839.17	H	100.00	3.01	68.21	-7.9	21.1	91.4	500.0	-14.8	Average
2758.43	H	15.00	3.00	61.54	-3.2	0.0	824.6	5000.0	-15.7	Peak
2758.43	H	15.00	3.00	60.19	-3.2	21.1	62.2	500.0	-18.1	Average
3678.26	H	135.00	2.13	51.96	-1.0	0.0	352.4	5000.0	-23.0	Peak
3677.91	H	135.00	2.13	49.13	-1.0	21.1	22.4	500.0	-27.0	Average

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comm
AW12-RF 910MHz									
EUT Flat									
910.44	V	90.00	1.00	40.00	26.0	1995.3	50000.0	-28.0	
910.44	H	45.00	1.00	51.20	26.0	7244.4	50000.0	-16.8	
EUT Side									
910.44	V	180.00	1.00	45.90	26.0	3935.5	50000.0	-22.1	
910.44	H	80.00	1.00	45.20	26.0	3630.8	50000.0	-22.8	
EUT Upright									
910.44	V	170.00	1.00	49.60	26.0	6025.6	50000.0	-18.4	
910.44	H	350.00	1.00	45.80	26.0	3890.5	50000.0	-22.2	
AW12-RF 920MHz									
919.46	V	0.00	1.00	42.30	26.1	2627.0	50000.0	-25.6	
919.46	H	80.00	1.00	52.60	26.1	8599.2	50000.0	-15.3	
EUT Side									
919.46	V	235.00	1.00	50.50	26.1	6752.4	50000.0	-17.4	
919.46	H	180.00	1.00	46.30	26.1	4163.5	50000.0	-21.6	
EUT Upright									
919.46	V	135.00	1.00	51.30	26.1	7403.8	50000.0	-16.6	
919.46	H	0.00	1.00	50.00	26.1	6374.7	50000.0	-17.9	

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Duty Cycle Correction (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comments
EUT Flat										
1839.18	V	90.00	2.93	70.42	-7.9	0.0	1337.8	5000.0	-11.5	Peak
1839.18	V	90.00	2.93	69.69	-7.9	21.1	108.3	500.0	-13.3	Average
EUT Side										
1839.17	V	90.00	3.01	72.38	-7.9	0.0	1675.8	5000.0	-9.5	Peak
1839.17	V	90.00	3.01	71.67	-7.9	21.1	136.1	500.0	-11.3	Average
EUT Upright										
1839.17	V	90.00	3.06	70.76	-7.9	0.0	1390.7	5000.0	-11.1	Peak
1839.17	V	90.00	3.06	70.22	-7.9	21.1	115.1	500.0	-12.8	Average
EUT Side										
1839.17	V	90.00	3.01	72.38	-7.9	0.0	1675.8	5000.0	-9.5	Peak
1839.17	V	90.00	3.01	71.67	-7.9	21.1	136.1	500.0	-11.3	Average
EUT Side										
2758.37	V	335.00	2.41	58.53	-3.2	0.0	583.1	5000.0	-18.7	Peak
2758.37	V	335.00	2.41	56.52	-3.2	21.1	40.8	500.0	-21.8	Average
EUT Side										
3677.88	V	110.00	2.15	56.84	-1.0	0.0	618.0	5000.0	-18.2	Peak
3677.88	V	110.00	2.15	54.99	-1.0	21.1	44.0	500.0	-21.1	Average
EUT Side										
1839.17	H	180.00	3.52	75.10	-7.9	0.0	2292.1	5000.0	-6.8	Peak
1839.17	H	180.00	3.52	74.41	-7.9	21.1	186.5	500.0	-8.6	Average
EUT Side										
2758.37	H	180.00	3.64	57.51	-3.2	0.0	518.5	5000.0	-19.7	Peak
2758.37	H	180.00	3.64	56.04	-3.2	21.1	38.6	500.0	-22.3	Average
EUT Side										
3677.88	H	180.00	3.68	50.96	-1.0	0.0	314.0	5000.0	-24.0	Peak
3677.88	H	180.00	3.68	48.00	-1.0	21.1	19.7	500.0	-28.1	Average

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comm
PS20-RF 910MHz									
EUT Flat									
910.46	V	180.00	1.00	48.40	26.0	5248.1	50000.0	-19.6	
910.46	H	45.00	1.00	50.70	26.0	6839.1	50000.0	-17.3	
EUT Side									
910.46	V	235.00	1.00	50.10	26.0	6382.6	50000.0	-17.9	
910.46	H	45.00	1.00	46.50	26.0	4217.0	50000.0	-21.5	
EUT Upright									
910.46	V	270.00	1.00	45.90	26.0	3935.5	50000.0	-22.1	
910.46	H	75.00	1.00	46.30	26.0	4121.0	50000.0	-21.7	
PS20-RF 920MHz									
919.46	V	145.00	1.00	50.90	26.1	7070.6	50000.0	-17.0	
919.46	H	80.00	1.00	53.40	26.1	9428.8	50000.0	-14.5	
EUT Side									
919.46	V	235.00	1.00	54.10	26.1	10220.2	50000.0	-13.8	
919.46	H	90.00	1.00	53.10	26.1	9108.7	50000.0	-14.8	
EUT Upright									
919.46	V	235.00	1.00	51.00	26.1	7152.5	50000.0	-16.9	
919.46	H	90.00	1.00	48.00	26.1	5063.6	50000.0	-19.9	

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Duty Cycle Corr (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comments
EUT Flat										
1821.24	H	0.00	1.76	80.16	-8.2	0.0	3979.6	5000.0	-2.0	pk
1821.24	H	0.00	1.76	80.16	-8.2	21.1	350.6	500.0	-3.1	Ave
2731.67	H	0.00	1.70	66.95	-3.6	0.0	1478.3	5000.0	-10.6	pk
2731.67	H	0.00	1.70	66.95	-3.6	21.1	130.2	500.0	-11.7	Ave
3642.22	H	10.00	2.80	60.64	-1.3	0.0	924.0	5000.0	-14.7	pk
3642.22	H	10.00	2.80	60.64	-1.3	21.1	81.4	500.0	-15.8	Ave
EUT Flat										
1821.24	V	10.00	2.55	78.83	-8.2	0.0	3414.6	5000.0	-3.3	pk
1821.24	V	10.00	2.55	78.83	-8.2	21.1	300.8	500.0	-4.4	Ave
2731.67	V	0.00	2.59	66.42	-3.6	0.0	1390.8	5000.0	-11.1	pk
2731.67	V	0.00	2.59	66.42	-3.6	21.1	122.5	500.0	-12.2	Ave
3642.22	V	180.00	3.11	57.12	-1.3	0.0	616.1	5000.0	-18.2	pk
3642.22	V	180.00	3.11	57.12	-1.3	21.1	54.3	500.0	-19.3	Ave
EUT Side										
1821.24	H	180.00	2.34	78.88	-8.2	0.0	3434.3	5000.0	-3.3	pk
1821.24	H	180.00	2.34	78.88	-8.2	21.1	302.6	500.0	-4.4	Ave
2731.67	H	270.00	2.84	66.61	-3.6	0.0	1421.5	5000.0	-10.9	pk
2731.67	H	270.00	2.84	66.61	-3.6	21.1	125.2	500.0	-12.0	Ave
3642.22	H	150.00	2.89	59.10	-1.3	0.0	773.9	5000.0	-16.2	pk
3642.22	H	150.00	2.89	59.10	-1.3	21.1	68.2	500.0	-17.3	Ave
EUT Side										
1821.24	V	250.00	2.22	80.19	-8.2	0.0	3993.4	5000.0	-2.0	pk
1821.24	V	250.00	2.22	80.19	-8.2	21.1	351.8	500.0	-3.1	Ave
2731.67	V	0.00	2.40	69.41	-3.6	0.0	1962.3	5000.0	-8.1	pk
2731.67	V	0.00	2.40	69.41	-3.6	21.1	172.9	500.0	-9.2	Ave
3642.22	V	10.00	209.00	64.53	-1.3	0.0	1446.0	5000.0	-10.8	pk
3642.22	V	10.00	209.00	64.53	-1.3	21.1	127.4	500.0	-11.9	Ave
EUT Upright										
1821.24	H	290.00	2.87	78.41	-8.2	0.0	3253.5	5000.0	-3.7	pk
1821.24	H	290.00	2.87	78.41	-8.2	21.1	286.6	500.0	-4.8	Ave
2731.67	H	250.00	2.80	70.41	-3.6	0.0	2201.7	5000.0	-7.1	pk
2731.67	H	250.00	2.80	70.41	-3.6	21.1	194.0	500.0	-8.2	Ave
3642.22	H	180.00	2.88	59.97	-1.3	0.0	855.4	5000.0	-15.3	pk
3642.22	H	180.00	2.88	59.97	-1.3	21.1	75.4	500.0	-16.4	Ave
EUT Upright										
1821.24	V	10.00	1.26	79.23	-8.2	0.0	3575.6	5000.0	-2.9	pk
1821.24	V	10.00	1.26	79.23	-8.2	21.1	315.0	500.0	-4.0	Ave
2731.67	V	0.00	2.15	63.95	-3.6	0.0	1046.5	5000.0	-13.6	pk
2731.67	V	0.00	2.15	63.95	-3.6	21.1	92.2	500.0	-14.7	Ave
3642.22	V	90.00	2.41	57.89	-1.3	0.0	673.3	5000.0	-17.4	pk
3642.22	V	90.00	2.41	57.89	-1.3	21.1	59.3	500.0	-18.5	Ave

Table 7: Radiated Spurious Emission Test Data

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comm
39.30	V	0.00	1.00	14.50	15.5	31.8	100.0	-10.0	
49.73	V	0.00	1.00	14.00	9.0	14.2	100.0	-17.0	
57.19	V	0.00	1.00	15.90	8.0	15.6	100.0	-16.1	
72.87	V	0.00	1.00	10.90	9.5	10.4	100.0	-19.6	
114.39	V	0.00	2.50	6.90	15.0	12.5	150.0	-21.6	
142.99	V	0.00	2.30	6.30	14.4	10.9	150.0	-22.8	
238.34	V	0.00	2.00	10.40	13.6	15.8	200.0	-22.1	
650.30	V	0.00	2.80	8.20	22.6	34.7	200.0	-15.2	
39.51	H	0.00	2.25	9.50	15.4	17.5	100.0	-15.1	
49.73	H	0.00	2.00	10.50	9.0	9.5	100.0	-20.5	
57.19	H	0.00	3.00	14.30	8.0	13.0	100.0	-17.7	
72.87	H	0.00	2.50	10.40	9.5	9.8	100.0	-20.1	
114.39	H	0.00	1.00	7.90	15.0	14.0	150.0	-20.6	
142.99	H	0.00	4.00	6.20	14.4	10.8	150.0	-22.9	
238.34	H	0.00	1.00	11.70	13.6	18.3	200.0	-20.8	
650.30	H	0.00	1.50	8.10	22.6	34.3	200.0	-15.3	

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comm
1020.34	V	0.00	2.50	47.29	-9.7	75.5	500.0	-16.4	Peak
1020.34	V	0.00	2.50	23.39	-9.7	4.8	500.0	-40.3	Ave
1116.10	V	0.00	2.50	55.88	-8.6	230.2	500.0	-6.7	Peak
1116.10	V	0.00	2.50	24.18	-8.6	6.0	500.0	-38.4	Ave
1337.45	V	0.00	2.50	57.56	-7.5	317.3	500.0	-4.0	Peak
1337.45	V	0.00	2.50	33.33	-7.5	19.5	500.0	-28.2	Ave
1615.07	V	0.00	2.50	53.48	-7.1	208.4	500.0	-7.6	Peak
1615.07	V	0.00	2.50	35.39	-7.1	26.0	500.0	-25.7	Ave
2337.44	V	0.00	2.50	53.80	-1.9	391.8	500.0	-2.1	Peak
2337.44	V	0.00	2.50	45.72	-1.9	154.6	500.0	-10.2	Ave
2814.90	V	0.00	2.50	51.54	-1.5	319.0	500.0	-3.9	Peak
2814.90	V	0.00	2.50	36.65	-1.5	57.4	500.0	-18.8	Ave
1020.83	H	0.00	2.89	49.76	-9.7	100.4	500.0	-13.9	Peak
1020.83	H	0.00	2.89	33.20	-9.7	14.9	500.0	-30.5	Ave
1116.00	H	0.00	2.89	54.46	-8.6	195.4	500.0	-8.2	Peak
1116.00	H	0.00	2.89	34.20	-8.6	19.0	500.0	-28.4	Ave
1615.07	H	0.00	2.89	56.66	-7.1	300.5	500.0	-4.4	Peak
1615.07	H	0.00	2.89	36.63	-7.1	29.9	500.0	-24.5	Ave
2337.44	H	0.00	2.89	52.57	-1.9	340.1	500.0	-3.3	Peak
2337.44	H	0.00	2.89	44.14	-1.9	128.9	500.0	-11.8	Ave
2814.90	H	0.00	2.89	51.62	-1.5	321.9	500.0	-3.8	Peak
2814.90	H	0.00	2.89	34.78	-1.5	46.3	500.0	-20.7	Ave