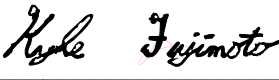


*FCC PART 15, SUBPART B and C
TEST REPORT**for***BattSwitch****MODEL: 1**

Prepared for

**EMBEDDED PROCESSOR DESIGNS, INC.
370 NORTH LOUISIANA AVENUE, SUITE A1
ASHEVILLE, NORTH CAROLINA 28806**Prepared by: **KYLE FUJIMOTO**Approved by: **MICHAEL CHRISTENSEN****COMPATIBLE ELECTRONICS INC.
114 OLINDA DRIVE
BREA, CALIFORNIA 92823
(714) 579-0500**

DATE: JANUARY 19, 2010

	REPORT BODY	APPENDICES					TOTAL
		<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	
PAGES	17	2	2	2	10	19	52

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B	Modifications to the EUT
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FIGURE	TITLE
1	Plot Map And Layout of Test Site – 3 Meters

GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced without the written permission of Compatible Electronics, unless done so in full.

This report must not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Device Tested: BattSwitch
Model: 1
P/N: 2130

Product Description: See Expository Statement

Modifications: The EUT was not modified in order to meet the specifications.

Manufacturer: Embedded Processor Designs
370 North Louisiana Avenue, Suite A1
Asheville, North Carolina 28806

Test Dates: Janaury 18 and 19, 2010

Test Specifications: EMI requirements
CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249

Test Procedure: ANSI C63.4: 2003

Test Deviations: The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz – 30 MHz	This test was not performed because the EUT is battery powered only and cannot be plugged into the AC public mains.
2	Radiated RF Emissions 10 kHz – 9300 MHz (Transmitter Portion)	Complies with the limits of CFR Title 47, Part 15, Subpart C, sections 15.205, 15.209, and 15.249 Highest reading in relation to spec limit: 50.6 dBuV @ 3611.52 MHz (*Uc = 6.51 dB)
3	Radiated RF Emissions 10 kHz – 9300 MHz (Digital and Receiver Portion)	Complies with the Class B limits of CFR Title 47, Part 15, Subpart B. Highest reading in relation to spec limit: 45.72 dBuV @ 903.101 MHz (*Uc = 2.11 dB)

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the BattSwitch, Model: 1. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 2003. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the Class B specification limits defined by CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, and 15.249.

Note: For the unintentional radiator portion of the test, the EUT was within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Embedded Processor Designs

David Thompson President

Compatible Electronics Inc.

Kyle Fujimoto Test Engineer

Michael Christensen Lab Manager, Brea Division

2.4 Date Test Sample was Received

The test sample was received prior to the date of testing.

2.5 Disposition of the Test Sample

The test sample has not yet been returned as of the date of this report.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network
N/A	Not Applicable

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this EMI Test Report.

SPEC	TITLE
FCC Title 47, Part 15 Subpart C	FCC Rules - Radio frequency devices (including digital devices) – Intentional Radiators
ANSI C63.4 2003	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz
FCC Title 47, Part 15 Subpart B	FCC Rules - Radio frequency devices (including digital devices) – Unintentional Radiators

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

The BattSwitch, Model: 1 (EUT) was tested as a stand alone unit in two orthogonal axis and placed at the center of the non-conductive table. The EUT was continuously transmitting or receiving depending on the test being performed.

It was determined that the emissions were at their highest level when the EUT was operating in the above configuration. The final emissions data was taken in this mode of operation and any cables were maximized. All initial investigations were performed with the measurement receiver in manual mode scanning the frequency range continuously. Photographs of the test setup are in Appendix D of this report.

4.1.1 Cable Construction and Termination

There were no external cables connected to the EUT.



5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT**5.1 EUT and Accessory List**

EQUIPMENT	MANUFACTURER	MODEL NUMBER	PART NUMBER	FCC ID
BATTSWITCH (EUT)	EMBEDDED PROCESSOR DESIGNS, INC.	1	2130	SWW2112S

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE
GENERAL TEST EQUIPMENT USED FOR ALL RF EMISSIONS TESTS					
Computer	Hewlett Packard	4530	US91912319	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08784	May 29, 2009	May 29, 2010
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	2648A14530	May 29, 2009	May 29, 2010
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	May 29, 2009	May 29, 2010
EMI Receiver	Rohde & Schwarz	ESIB40	100194	September 17, 2008	Sept. 17, 2010
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A
RF RADIATED EMISSIONS TEST EQUIPMENT					
Biconical Antenna	Com Power	AB-900	15250	February 23, 2009	Feb. 23, 2010
Log Periodic Antenna	Com Power	AL-100	16060	June 15, 2009	June 15, 2010
Preamplifier	Com-Power	PA-102	1017	January 6, 2010	Jan. 6, 2011
Loop Antenna	Com-Power	AL-130	17089	September 29, 2008	Sept. 29, 2010
Horn Antenna	Com-Power	AH-118	071175	June 27, 2008	June 27, 2010
Microwave Preamplifier	Com Power	PA-122	181921	March 12, 2009	March 12, 2010
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A

6. TEST SITE DESCRIPTION

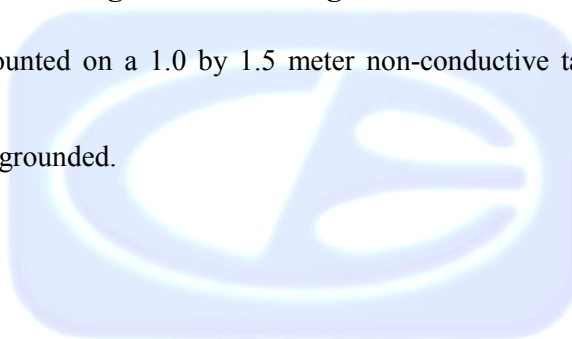
6.1 Test Facility Description

Please refer to section 2.1 and 7.1 of this report for EMI test location.

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was not grounded.



7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

7.1 RF Emissions

7.1.1 Conducted Emissions Test

The spectrum analyzer was used as a measuring meter. The data was collected with the spectrum analyzer in the peak detect mode with the "Max Hold" feature activated. The quasi-peak was used only where indicated in the data sheets. A transient limiter was used for the protection of the spectrum analyzer input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the spectrum analyzer. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for this test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4: 2003. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The conducted emissions from the EUT were maximized for operating mode as well as cable placement. The final data was collected under program control by the Compatible Electronics conducted emissions software in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave. The final qualification data is located in Appendix E.

Test Results:

This test was not performed because the EUT is battery powered only and cannot be plugged into the AC public mains.

7.1.2 Radiated Emissions (Spurious and Harmonics) Test

The spectrum analyzer and EMI Receiver were used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The Com Power Preamplifier Model: PA-102 was used for frequencies from 30 MHz to 1 GHz and the Com Power Microwave Preamplifier Model: PA-122 was used for frequencies above 1 GHz. The spectrum analyzer and EMI Receiver were used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps.

The quasi-peak adapter was used only for those readings which are marked accordingly on the data sheets.

The frequencies above 1 GHz were averaged manually by narrowing the video filter down to 10 Hz and putting the sweep time on AUTO on the EMI Receiver to keep the amplitude reading calibrated.

The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
10 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 9.3 GHz	1 MHz	Horn Antenna

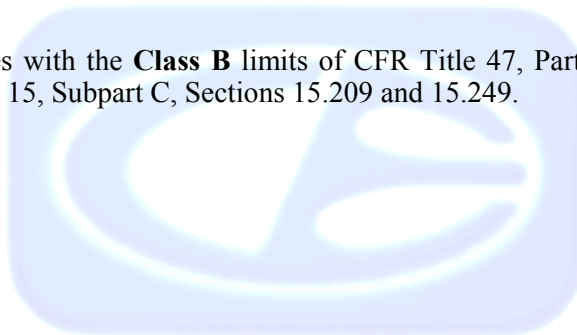
The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 2003. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT by the Radiated Emission Manual Test software. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results. The loop antenna was also rotated in the horizontal and vertical axis in order to ensure accurate results.

Radiated Emissions (Spurious and Harmonics) Test (con't)

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 3-meter test distance to obtain the final test data.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, Sections 15.209 and 15.249.



8. CONCLUSIONS

The BattSwitch Model: 1 (EUT) meets all of the specification limits defined in FCC Title 47, Part 15, Subpart C, sections 15.205, 15.209, and 15.249.

Note: For the unintentional radiator and receiver portion of the test, the EUT was within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B.



APPENDIX A***LABORATORY RECOGNITIONS***

LABORATORY RECOGNITIONS

Compatible Electronics has the following agency accreditations:

National Voluntary Laboratory Accreditation Program - Lab Code: 200528-0

Voluntary Control Council for Interference - Registration Numbers: R-983, C-1026, R-984 and C-1027

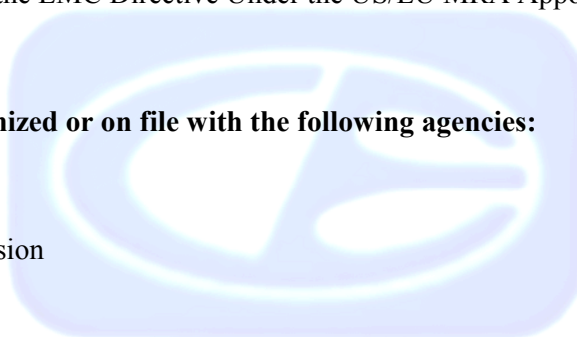
Bureau of Standards and Metrology Inspection - Reference Number: SL2-IN-E-1031

Conformity Assessment Body for the EMC Directive Under the US/EU MRA Appointed by NIST

Compatible Electronics is recognized or on file with the following agencies:

Federal Communications Commission

Industry Canada



APPENDIX B***MODIFICATIONS TO THE EUT***

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart B and FCC 15.249 specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

There were no modifications made to the EUT.



APPENDIX C***ADDITIONAL MODELS COVERED
UNDER THIS REPORT***

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

BattSwitch
Model: 1
P/N: 2130

ALSO APPROVED UNDER THIS REPORT:

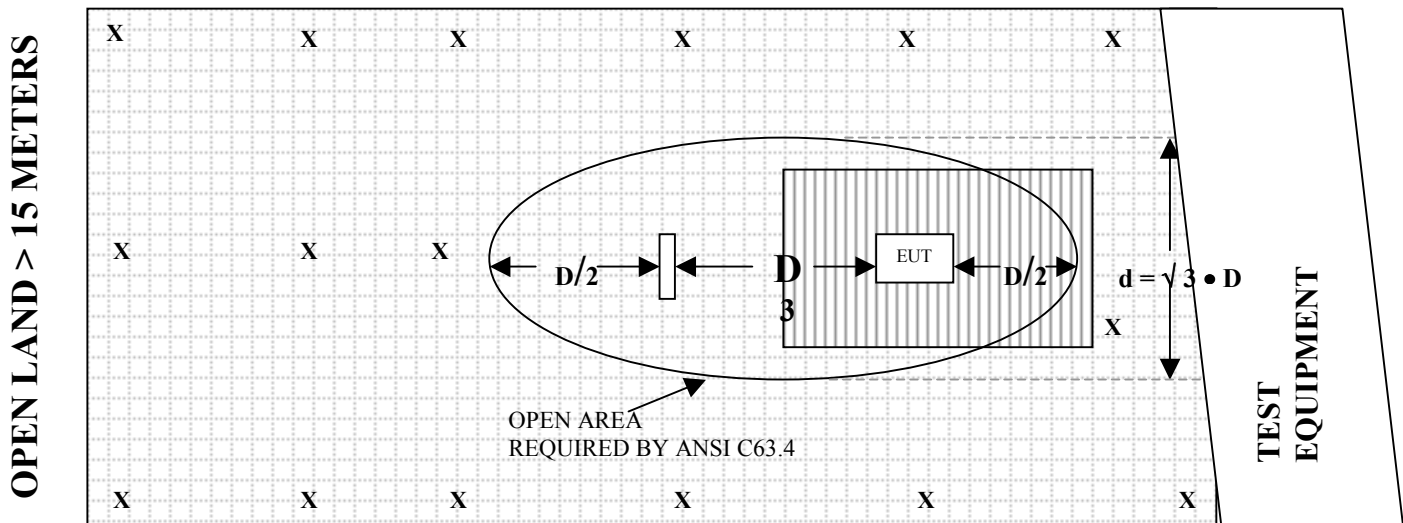
There were no additional models covered under this report.



APPENDIX D***DIAGRAMS, CHARTS, AND PHOTOS***

FIGURE 1: PLOT MAP AND LAYOUT OF RADIATED SITE – 3 METERS

OPEN LAND > 15 METERS



OPEN LAND > 15 METERS

X	= GROUND RODS		= GROUND SCREEN
D	= TEST DISTANCE (meters)		= WOOD COVER

COM-POWER AB-900

BICONICAL ANTENNA

S/N: 15250

CALIBRATION DATE: FEBRUARY 23, 2009

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	13.0	100	11.1
35	11.1	120	13.6
40	10.2	140	12.4
45	11.2	160	12.9
50	11.6	180	16.5
60	9.1	200	17.0
70	8.4	250	16.3
80	6.2	275	18.2
90	8.5	300	17.9

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16060

CALIBRATION DATE: JUNE 15, 2009

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	14.2	700	20.1
400	15.9	800	21.2
500	17.1	900	21.3
600	18.8	1000	22.3

COM POWER AH-118**HORN ANTENNA****S/N: 071175****CALIBRATION DATE: JUNE 27, 2008**

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	24.5	10.0	39.4
1.5	25.4	10.5	39.7
2.0	28.3	11.0	39.0
2.5	28.9	11.5	40.0
3.0	29.7	12.0	39.7
3.5	30.8	12.5	41.7
4.0	31.4	13.0	42.7
4.5	32.6	13.5	41.2
5.0	33.7	14.0	41.6
5.5	34.4	14.5	43.2
6.0	34.7	15.0	42.3
6.5	35.4	15.5	39.3
7.0	37.0	16.0	41.7
7.5	37.4	16.5	39.6
8.0	37.6	17.0	43.0
8.5	37.6	17.5	47.1
9.0	38.5	18.0	46.2
9.5	38.6		

COM-POWER PA-102**PREAMPLIFIER**

S/N: 1017

CALIBRATION DATE: JANUARY 6, 2010

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	38.3	300	38.2
40	38.4	350	38.1
50	38.2	400	38.5
60	38.2	450	38.0
70	38.3	500	37.9
80	38.1	550	38.2
90	38.2	600	38.2
100	38.3	650	37.7
125	38.2	700	38.3
150	38.3	750	38.3
175	38.3	800	37.4
200	38.1	850	37.5
225	38.2	900	37.6
250	38.3	950	37.4
275	38.2	1000	37.3

COM-POWER PA-122**PREAMPLIFIER****S/N: 181921****CALIBRATION DATE: MARCH 12, 2009**

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	36.46	10.0	35.06
1.5	35.36	10.5	34.82
2.0	34.76	11.0	33.12
2.5	34.94	11.5	34.33
3.0	34.59	12.0	34.75
3.5	34.55	12.5	33.94
4.0	34.25	13.0	35.50
4.5	33.89	13.5	34.89
5.0	34.22	14.0	36.56
5.5	34.81	14.5	36.06
6.0	35.74	15.0	36.67
6.5	36.51	15.5	36.84
7.0	36.66	16.0	34.31
7.5	35.72	16.5	35.11
8.0	33.28	17.0	35.35
8.5	33.11	17.5	34.11
9.0	34.71	18.0	33.88
9.5	35.50	18.5	32.20

COM-POWER AL-130**LOOP ANTENNA**

S/N: 17089

CALIBRATION DATE: SEPTEMBER 29, 2008

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-41.57	9.93
0.01	-42.06	9.44
0.02	-42.43	9.07
0.05	-42.50	9.00
0.07	-42.10	9.40
0.1	-42.03	9.47
0.2	-44.50	7.00
0.3	-41.93	9.57
0.5	-41.90	9.60
0.7	-41.73	9.77
1	-41.23	10.27
2	-40.90	10.60
3	-41.20	10.30
4	-41.30	10.20
5	-40.70	10.80
10	-41.10	10.40
15	-42.17	9.33
20	-42.00	9.50
25	-42.20	9.30
30	-43.10	8.40



FRONT VIEW

EMBEDDED PROCESSOR DESIGNS, INC.

BattSwitch

MODEL: 1

FCC SUBPART B AND C – RADIATED EMISSIONS

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400



REAR VIEW

EMBEDDED PROCESSOR DESIGNS, INC.

BattSwitch

MODEL: 1

FCC SUBPART B AND C – RADIATED EMISSIONS

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

APPENDIX E

DATA SHEETS

RADIATED EMISIONS

DATA SHEETS

FCC 15.249

Embedded Processor Designs, Inc.
BattSwitch
Model: 1, P/N: 2130

Date: 01/18/10
Labs: B and D
Tested By: Kyle Fujimoto

X-Axis - Transmit Mode - Low Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
902.88	80.45	V	94	-13.55	Peak	1	180	
1805.76	44.12	V	74	-29.88	Peak	1.25	135	
1805.76	39.79	V	54	-14.21	Avg	1.25	135	
2708.64	47.82	V	74	-26.18	Peak	1.35	155	
2708.64	43.41	V	54	-10.59	Avg	1.35	155	
3611.52	54.31	V	74	-19.69	Peak	1.28	135	
3611.52	51.32	V	54	-2.68	Avg	1.28	135	
4514.4	44.86	V	74	-29.14	Peak	1.25	155	
4514.4	33.43	V	54	-20.57	Avg	1.25	155	
5417.28	47.56	V	74	-26.44	Peak	1.35	155	
5417.28	33.94	V	54	-20.06	Avg	1.35	155	
6320.16	47.98	V	74	-26.02	Peak	1.55	175	
6320.16	34.81	V	54	-19.19	Avg	1.55	175	
7223.04	47.54	V	74	-26.46	Peak	1.28	190	
7223.04	35.96	V	54	-18.04	Avg	1.28	190	
8125.92	50.1	V	74	-23.9	Peak	1.69	125	
8125.92	37.57	V	54	-16.43	Avg	1.69	125	
9028.8	47.98	V	74	-26.02	Peak	1.58	125	
9028.8	36.44	V	54	-17.56	Avg	1.58	125	

FCC 15.249

Embedded Processor Designs, Inc.
 BattSwitch
 Model: 1, P/N: 2130

Date: 01/18/10
 Labs: B and D
 Tested By: Kyle Fujimoto

X-Axis - Transmit Mode - Low Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
902.88	87.71	H	94	-6.29	Peak	1	180	
1805.76	46.25	H	74	-27.75	Peak	1.35	155	
1805.76	43.84	H	54	-10.16	Avg	1.35	155	
2708.64	41.34	H	74	-32.66	Peak	1.25	135	
2708.64	31.56	H	54	-22.44	Avg	1.25	135	
3611.52	47.45	H	74	-26.55	Peak	1.25	135	
3611.52	41.54	H	54	-12.46	Avg	1.25	135	
4514.4	42.73	H	74	-31.27	Peak	1.35	155	
4514.4	29.54	H	54	-24.46	Avg	1.35	155	
5417.28	46.94	H	74	-27.06	Peak	1.25	135	
5417.28	32.43	H	54	-21.57	Avg	1.25	135	
6320.16	46.24	H	74	-27.76	Peak	1.35	155	
6320.16	34.15	H	54	-19.85	Avg	1.35	155	
7223.04	46.35	H	74	-27.65	Peak	1.56	156	
7223.04	35.31	H	54	-18.69	Avg	1.56	156	
8125.92	49.16	H	74	-24.84	Peak	1.25	135	
8125.92	37.31	H	54	-16.69	Avg	1.25	135	
9028.8	47.14	H	74	-26.86	Peak	1.35	155	
9028.8	36.43	H	54	-17.57	Avg	1.35	155	

FCC 15.249

Embedded Processor Designs, Inc.
 BattSwitch
 Model: 1, P/N: 2130

Date: 01/18/10
 Labs: B and D
 Tested By: Kyle Fujimoto

Y-Axis - Transmit Mode - Low Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
902.88	79.65	V	94	-14.35	Peak	1	180	
1805.76	44.46	V	74	-29.54	Peak	1.25	135	
1805.76	41.19	V	54	-12.81	Avg	1.25	135	
2708.64	45.65	V	74	-28.35	Peak	1.35	125	
2708.64	40.85	V	54	-13.15	Avg	1.35	125	
3611.52	49.72	V	74	-24.28	Peak	1.25	135	
3611.52	45.23	V	54	-8.77	Avg	1.25	135	
4514.4	45.77	V	74	-28.23	Peak	1.15	155	
4514.4	31.22	V	54	-22.78	Avg	1.15	155	
5417.28	49.37	V	74	-24.63	Peak	1.25	135	
5417.28	36.32	V	54	-17.68	Avg	1.25	135	
6320.16	47.63	V	74	-26.37	Peak	1.25	155	
6320.16	34.65	V	54	-19.35	Avg	1.25	155	
7223.04	48.44	V	74	-25.56	Peak	1.35	165	
7223.04	35.46	V	54	-18.54	Avg	1.35	165	
8125.92	50.86	V	74	-23.14	Peak	1.54	175	
8125.92	37.49	V	54	-16.51	Avg	1.54	175	
9028.8	48.84	V	74	-25.16	Peak	1.35	155	
9028.8	36.42	V	54	-17.58	Avg	1.35	155	

FCC 15.249

Embedded Processor Designs, Inc.
 BattSwitch
 Model: 1, P/N: 2130

Date: 01/18/10
 Labs: B and D
 Tested By: Kyle Fujimoto

Y-Axis - Transmit Mode - Low Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
902.88	84.25	H	94	-9.75	Peak	1	180	
1805.76	43.97	H	74	-30.03	Peak	1.25	135	
1805.76	41.03	H	54	-12.97	Avg	1.25	135	
2708.64	49.64	H	74	-24.36	Peak	1.35	155	
2708.64	47.45	H	54	-6.55	Avg	1.35	155	
3611.52	53.15	H	74	-20.85	Peak	3	225	
3611.52	50.6	H	54	-3.4	Avg	3	225	
4514.4	46.59	H	74	-27.41	Peak	1.25	135	
4514.4	34.78	H	54	-19.22	Avg	1.25	135	
5417.28	49.32	H	74	-24.68	Peak	1.35	155	
5417.28	40.24	H	54	-13.76	Avg	1.35	155	
6320.16	50.99	H	74	-23.01	Peak	1.25	135	
6320.16	41.55	H	54	-12.45	Avg	1.25	135	
7223.04	48.91	H	74	-25.09	Peak	1.35	155	
7223.04	35.91	H	54	-18.09	Avg	1.35	155	
8125.92	49.31	H	74	-24.69	Peak	1.25	155	
8125.92	37.42	H	54	-16.58	Avg	1.25	155	
9028.8	48.12	H	74	-25.88	Peak	1.25	135	
9028.8	36.34	H	54	-17.66	Avg	1.25	135	

FCC 15.249

Embedded Processor Designs, Inc.
 BattSwitch
 Model: 1, P/N: 2130

Date: 01/18/10
 Labs: B and D
 Tested By: Kyle Fujimoto

X-Axis - Transmit Mode - Middle Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
918.337	74.74	V	94	-19.26	Peak	1	180	
1836.67	35.82	V	74	-38.18	Peak	1	135	
1836.67	26.05	V	54	-27.95	Avg	1	135	
2755.01	36.88	V	74	-37.12	Peak	1.25	135	
2755.01	24.41	V	54	-29.59	Avg	1.25	135	
3673.35	39.97	V	74	-34.03	Peak	1.35	145	
3673.35	27.39	V	54	-26.61	Avg	1.35	145	
4591.69	42.65	V	74	-31.35	Peak	1.45	135	
4591.69	29.61	V	54	-24.39	Avg	1.45	135	
5510.02	45.82	V	74	-28.18	Peak	1.05	145	
5510.02	32.96	V	54	-21.04	Avg	1.05	145	
6428.36	47.68	V	74	-26.32	Peak	1.15	135	
6428.36	34.59	V	54	-19.41	Avg	1.15	135	
7346.7	46.81	V	74	-27.19	Peak	1.25	155	
7346.7	35.07	V	54	-18.93	Avg	1.25	155	
8265.03	49.49	V	74	-24.51	Peak	1.35	155	
8265.03	37.44	V	54	-16.56	Avg	1.35	155	
9183.37	47.61	V	74	-26.39	Peak	1.25	155	
9183.37	35.93	V	54	-18.07	Avg	1.25	155	

FCC 15.249

Embedded Processor Designs, Inc.
 BattSwitch
 Model: 1, P/N: 2130

Date: 01/18/10
 Labs: B and D
 Tested By: Kyle Fujimoto

X-Axis - Transmit Mode - Middle Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
918.337	83.44	H	94	-10.56	Peak	1	180	
1836.67	35.82	H	74	-38.18	Peak	1	135	
1836.67	26.05	H	54	-27.95	Avg	1	135	
2755.01	37.09	H	74	-36.91	Peak	1.25	155	
2755.01	23.91	H	54	-30.09	Avg	1.25	155	
3673.35	41.09	H	74	-32.91	Peak	1.25	135	
3673.35	26.99	H	54	-27.01	Avg	1.25	135	
4591.69	42.22	H	74	-31.78	Peak	1.35	155	
4591.69	29.63	H	54	-24.37	Avg	1.35	155	
5510.02	42.82	H	74	-31.18	Peak	1.45	155	
5510.02	32.69	H	54	-21.31	Avg	1.45	155	
6428.36	46.81	H	74	-27.19	Peak	1.55	135	
6428.36	34.34	H	54	-19.66	Avg	1.55	135	
7346.7	47.73	H	74	-26.27	Peak	1.35	155	
7346.7	35.11	H	54	-18.89	Avg	1.35	155	
8265.03	48.58	H	74	-25.42	Peak	1.45	135	
8265.03	37.12	H	54	-16.88	Avg	1.45	135	
9183.37	48.43	H	74	-25.57	Peak	1.35	155	
9183.37	35.91	H	54	-18.09	Avg	1.35	155	

FCC 15.249

Embedded Processor Designs, Inc.
 BattSwitch
 Model: 1, P/N: 2130

Date: 01/18/10
 Labs: B and D
 Tested By: Kyle Fujimoto

Y-Axis - Transmit Mode - Middle Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
918.337	75.14	V	94	-18.86	Peak	1	180	
1836.67	35.34	V	74	-38.66	Peak	1.25	135	
1836.67	22.14	V	54	-31.86	Avg	1.25	135	
2755.01	36.76	V	74	-37.24	Peak	1.35	155	
2755.01	24.39	V	54	-29.61	Avg	1.35	155	
3673.35	39.97	V	74	-34.03	Peak	1.25	155	
3673.35	27.38	V	54	-26.62	Avg	1.25	155	
4591.69	42.21	V	74	-31.79	Peak	1.35	165	
4591.69	29.61	V	54	-24.39	Avg	1.35	165	
5510.02	44.86	V	74	-29.14	Peak	1.25	135	
5510.02	32.98	V	54	-21.02	Avg	1.25	135	
6428.36	47.48	V	74	-26.52	Peak	1.26	155	
6428.36	34.63	V	54	-19.37	Avg	1.26	155	
7346.7	47.91	V	74	-26.09	Peak	1.32	151	
7346.7	35.04	V	54	-18.96	Avg	1.32	151	
8265.03	49.97	V	74	-24.03	Peak	1.25	135	
8265.03	37.44	V	54	-16.56	Avg	1.25	135	
9183.37	47.81	V	74	-26.19	Peak	1.32	125	
9183.37	35.85	V	54	-18.15	Avg	1.32	125	

FCC 15.249

Embedded Processor Designs, Inc.
 BattSwitch
 Model: 1, P/N: 2130

Date: 01/18/10
 Labs: B and D
 Tested By: Kyle Fujimoto

Y-Axis - Transmit Mode - Middle Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
918.337	81.94	H	94	-12.06	Peak	1	180	
1836.67	37.04	H	74	-36.96	Peak	1	180	
1836.67	22.49	H	54	-31.51	Avg	1	180	
2755.01	39.41	H	74	-34.59	Peak	1	180	
2755.01	24.97	H	54	-29.03	Avg	1	180	
3673.35	42.29	H	74	-31.71	Peak	1	180	
3673.35	28.92	H	54	-25.08	Avg	1	180	
4591.69	42.55	H	74	-31.45	Peak	1.25	135	
4591.69	29.72	H	54	-24.28	Avg	1.25	135	
5510.02	46.15	H	74	-27.85	Peak	1.25	175	
5510.02	33.71	H	54	-20.29	Avg	1.25	175	
6428.36	47.61	H	74	-26.39	Peak	1.45	195	
6428.36	34.39	H	54	-19.61	Avg	1.45	195	
7346.7	47.78	H	74	-26.22	Peak	1.55	205	
7346.7	35.41	H	54	-18.59	Avg	1.55	205	
8265.03	49.66	H	74	-24.34	Peak	1.25	135	
8265.03	37.12	H	54	-16.88	Avg	1.25	135	
9183.37	47.63	H	74	-26.37	Peak	1.35	155	
9183.37	35.91	H	54	-18.09	Avg	1.35	155	

FCC 15.249

Embedded Processor Designs, Inc.
BattSwitch
Model: 1, P/N: 2130

Date: 01/18/10
Labs: B and D
Tested By: Kyle Fujimoto

X-Axis - Transmit Mode - High Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
927.185	73.6	V	94	-20.4	Peak	1	180	
1854.37	36.73	V	74	-37.27	Peak	1.25	135	
1854.37	27.15	V	54	-26.85	Avg	1.25	135	
2781.56	36.91	V	74	-37.09	Peak	1.35	155	
2781.56	24.52	V	54	-29.48	Avg	1.35	155	
3708.74	39.13	V	74	-34.87	Peak	1.45	165	
3708.74	27.24	V	54	-26.76	Avg	1.45	165	
4635.93	42.42	V	74	-31.58	Peak	1.25	135	
4635.93	29.99	V	54	-24.01	Avg	1.25	135	
5563.11	45.96	V	74	-28.04	Peak	1.35	155	
5563.11	32.89	V	54	-21.11	Avg	1.35	155	
6490.3	47.85	V	74	-26.15	Peak	1.55	175	
6490.3	34.33	V	54	-19.67	Avg	1.55	175	
7417.48	46.85	V	74	-27.15	Peak	1.28	190	
7417.48	35.49	V	54	-18.51	Avg	1.28	190	
8344.67	48.64	V	74	-25.36	Peak	1.69	125	
8344.67	37.17	V	54	-16.83	Avg	1.69	125	
9271.85	47.61	V	74	-26.39	Peak	1.58	125	
9271.85	35.89	V	54	-18.11	Avg	1.58	125	

FCC 15.249

Embedded Processor Designs, Inc.
 BattSwitch
 Model: 1, P/N: 2130

Date: 01/18/10
 Labs: B and D
 Tested By: Kyle Fujimoto

X-Axis - Transmit Mode - High Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
927.185	78.64	H	94	-15.36	Peak	1	180	
1854.37	36.47	H	74	-37.53	Peak	1	180	
1854.37	23.82	H	54	-30.18	Avg	1	180	
2781.56	38.46	H	74	-35.54	Peak	1	90	
2781.56	24.64	H	54	-29.36	Avg	1	90	
3708.74	38.85	H	74	-35.15	Peak	1	135	
3708.74	27.04	H	54	-26.96	Avg	1	135	
4635.93	41.83	H	74	-32.17	Peak	1.25	155	
4635.93	30.02	H	54	-23.98	Avg	1.25	155	
5563.11	47.53	H	74	-26.47	Peak	1.35	175	
5563.11	34.31	H	54	-19.69	Avg	1.35	175	
6490.3	47.81	H	74	-26.19	Peak	1.65	185	
6490.3	34.31	H	54	-19.69	Avg	1.65	185	
7417.48	46.24	H	74	-27.76	Peak	1.28	190	
7417.48	35.42	H	54	-18.58	Avg	1.28	190	
8344.67	49.03	H	74	-24.97	Peak	1.69	125	
8344.67	37.31	H	54	-16.69	Avg	1.69	125	
9271.85	47.18	H	74	-26.82	Peak	1.58	125	
9271.85	35.86	H	54	-18.14	Avg	1.58	125	

FCC 15.249

Embedded Processor Designs, Inc.

BattSwitch

Model: 1, P/N: 2130

Date: 01/18/10

Labs: B and D

Tested By: Kyle Fujimoto

Y-Axis - Transmit Mode - High Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
927.185	75.5	V	94	-18.5	Peak	1	180	
1854.37	40.01	V	74	-33.99	Peak	1.25	135	
1854.37	32.43	V	54	-21.57	Avg	1.25	135	
2781.56	36.65	V	74	-37.35	Peak	1.35	155	
2781.56	24.76	V	54	-29.24	Avg	1.35	155	
3708.74	41.72	V	74	-32.28	Peak	1.25	135	
3708.74	27.61	V	54	-26.39	Avg	1.25	135	
4635.93	42.76	V	74	-31.24	Peak	1.35	155	
4635.93	30.01	V	54	-23.99	Avg	1.35	155	
5563.11	46.82	V	74	-27.18	Peak	1.45	265	
5563.11	32.92	V	54	-21.08	Avg	1.45	265	
6490.3	46.84	V	74	-27.16	Peak	1.55	175	
6490.3	34.28	V	54	-19.72	Avg	1.55	175	
7417.48	46.86	V	74	-27.14	Peak	1.28	190	
7417.48	35.42	V	54	-18.58	Avg	1.28	190	
8344.67	49.63	V	74	-24.37	Peak	1.69	125	
8344.67	37.14	V	54	-16.86	Avg	1.69	125	
9271.85	47.78	V	74	-26.22	Peak	1.58	125	
9271.85	35.83	V	54	-18.17	Avg	1.58	125	

FCC 15.249

Embedded Processor Designs, Inc.

BattSwitch

Model: 1, P/N: 2130

Date: 01/18/10

Labs: B and D

Tested By: Kyle Fujimoto

Y-Axis - Transmit Mode - High Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
927.185	76.8	H	94	-17.2	Peak	1	180	
1854.37	40.28	H	74	-33.72	Peak	1.25	135	
1854.37	23.21	H	54	-30.79	Avg	1.25	135	
2781.56	37.04	H	74	-36.96	Peak	1.25	155	
2781.56	24.54	H	54	-29.46	Avg	1.25	155	
3708.74	40.65	H	74	-33.35	Peak	1.35	155	
3708.74	27.13	H	54	-26.87	Avg	1.35	155	
4635.93	43.21	H	74	-30.79	Peak	1.55	165	
4635.93	29.72	H	54	-24.28	Avg	1.55	165	
5563.11	44.83	H	74	-29.17	Peak	1.56	175	
5563.11	33.51	H	54	-20.49	Avg	1.56	175	
6490.3	46.88	H	74	-27.12	Peak	1.55	175	
6490.3	34.31	H	54	-19.69	Avg	1.55	175	
7417.48	47.06	H	74	-26.94	Peak	1.28	190	
7417.48	35.44	H	54	-18.56	Avg	1.28	190	
8344.67	48.65	H	74	-25.35	Peak	1.69	125	
8344.67	37.34	H	54	-16.66	Avg	1.69	125	
9271.85	50.06	H	74	-23.94	Peak	1.58	125	
9271.85	35.91	H	54	-18.09	Avg	1.58	125	

FCC Class B

Embedded Processor Designs, Inc.
BattSwitch
Model: 1, P/N: 2130

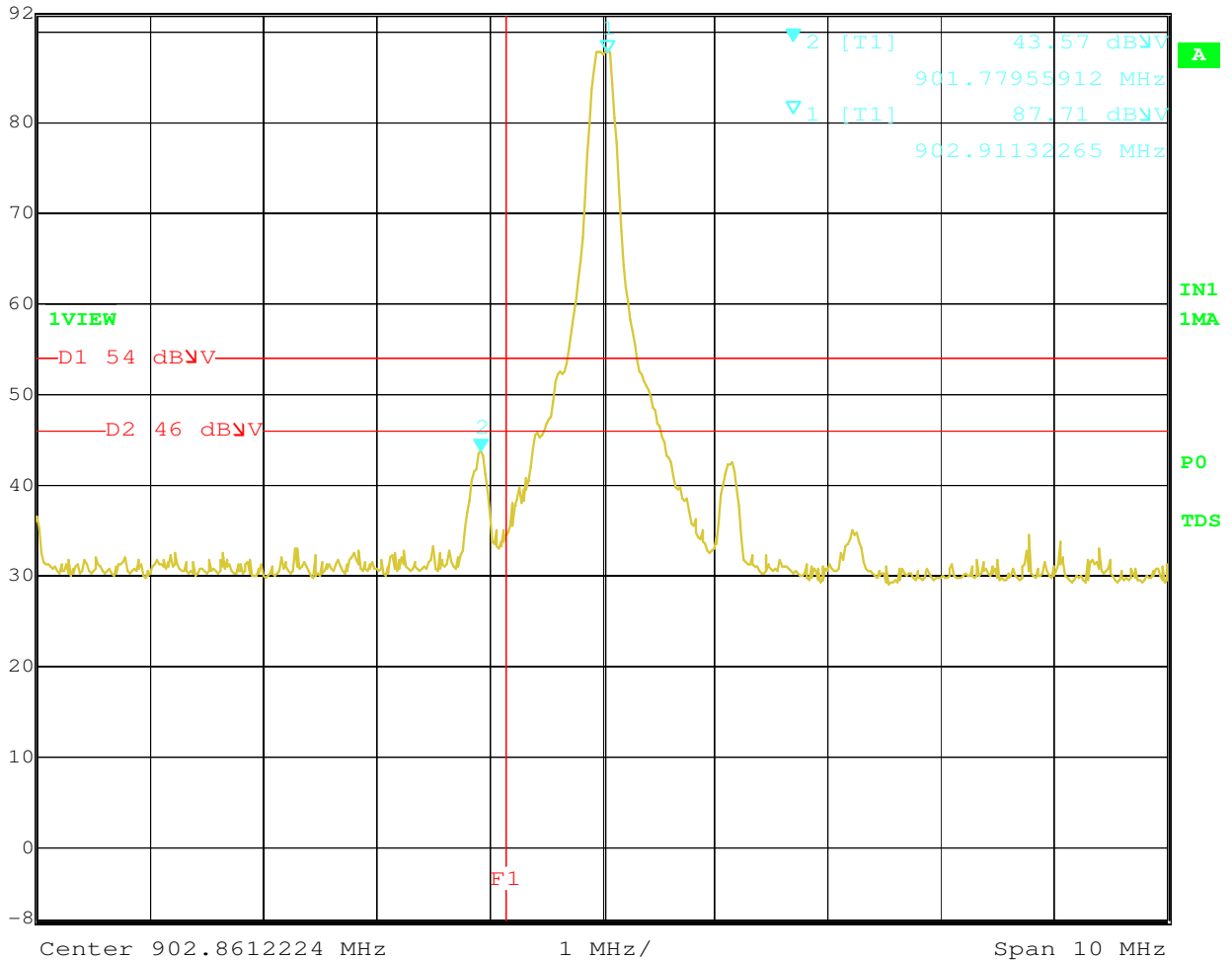
Date: 01/18/10
Labs: B and D
Tested By: Kyle Fujimoto

Receive Mode - Tested at 3 Meters - Test Range: 30 MHz to 5000 MHz
Vertical and Horizontal Polarizations

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
903.096	44.56	H	46	-1.44	Peak	1	90	X-Axis
903.096	44.12	H	46	-1.88	QP	1	90	X-Axis
903.101	46.16	H	46	0.16	Peak	1	90	Y-Axis
903.101	45.72	H	46	-0.28	QP	1	90	Y-Axis
903.128	36.76	V	46	-9.24	Peak	1	90	X-Axis
903.13	35.28	H	46	-10.72	Peak	1	90	Y-Axis
918.577	35.15	V	46	-10.85	Peak	1	180	No Other Emissions
918.578	44.45	H	46	-1.55	Peak	1	90	Detected in Receive Mode
918.578	43.77	H	46	-2.23	QP	1	90	from 30 MHz to 5000 MHz
918.58	44.35	H	46	-1.65	Peak	1	90	for Both Vertical and
918.581	43.81	H	46	-2.19	QP	1	90	Horizontal Polarizations
918.585	35.55	V	46	-10.45	Peak	1	180	
927.425	44.01	H	46	-1.99	Peak	1	180	
927.425	43.56	H	46	-2.44	QP	1	90	
927.427	37.71	V	46	-8.29	Peak	1	180	
927.428	42.11	H	46	-3.89	Peak	1	180	
927.428	37.01	V	46	-8.99	Peak	1	90	

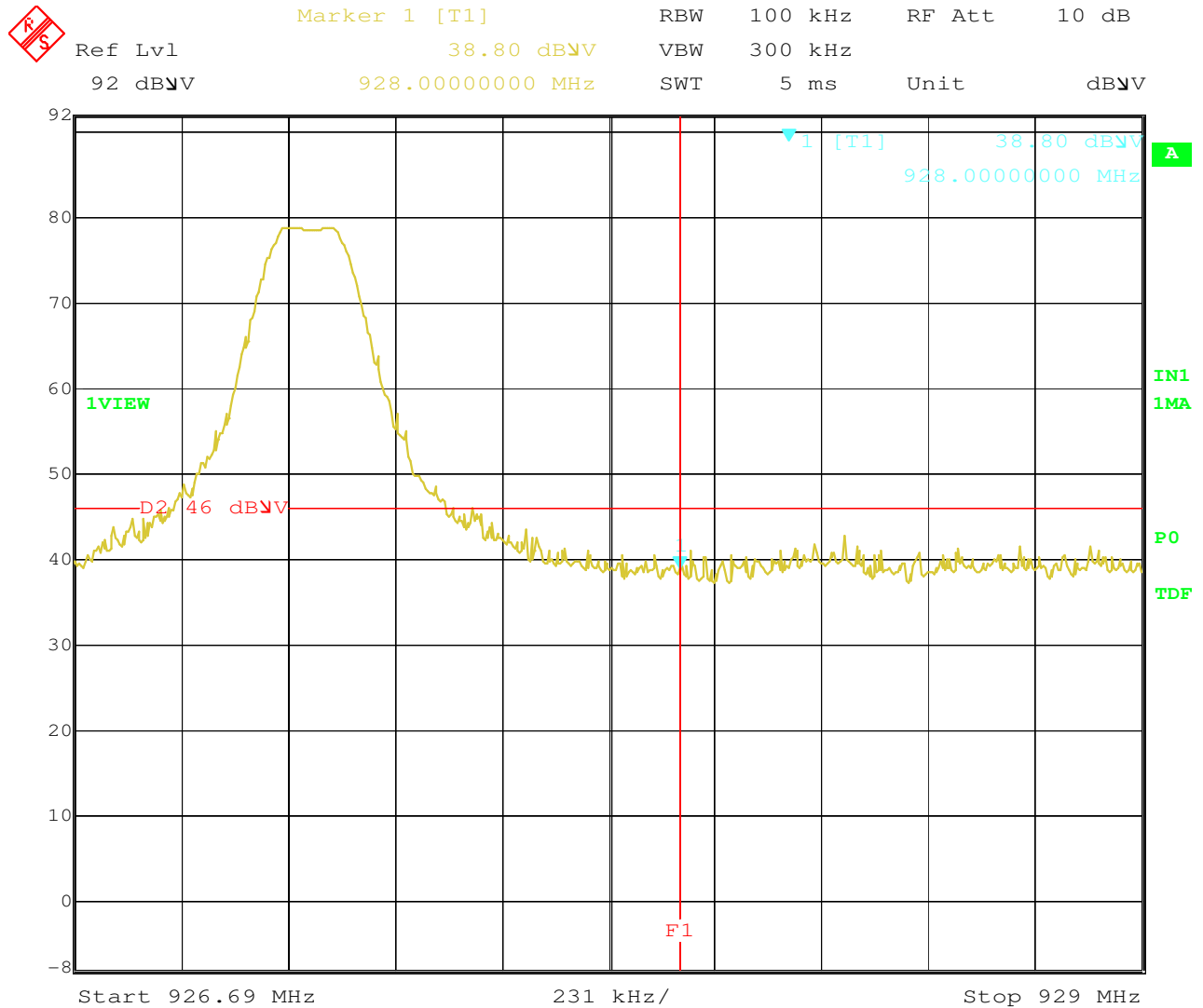


Marker 2 [T1] RBW 100 kHz RF Att 10 dB
Ref Lvl 43.57 dBμV VBW 300 kHz
92 dBμV 901.77955912 MHz SWT 5 ms Unit dBμV



Date: 18.JAN.2010 10:46:39

Band Edge – Low Channel – Horizontal Polarization – X-Axis –Worst Case



Date: 18.JAN.2010 13:52:24

Band Edge – High Channel – Horizontal Polarization – X-Axis – Worst Case

