FCC PART 15, SUBPART B and C
TEST REPORT

for

HANDPAD TRANSMITTER

MODEL: HT 1

Prepared for

SIDEREAL TECHNOLOGY
6040 NORTH CUTTER CIRCLE, #302
PORTLAND, OREGON 97217

Prepared by:_____

KYLE FUJIMOTO

Approved by:_____

MICHAEL CHRISTENSEN

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114 OLINDA DRIVE
BREA, CALIFORNIA 92823
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DATE: JUNE 25, 2005

	REPORT BODY	APPENDICES					TOTAL
		A	***B***	***C***	***D***	***E***	
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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, NIST or any other agency of the U.S. Government.

Device Tested:	Handpad Transmitter Model: HT 1 S/N: N/A
Product Description:	See Expository Statement.
Modifications:	The EUT was not modified during the testing.
Manufacturer:	Sidereal Technology 6040 North Cutter Circle, #302 Portland, Oregon 97217
Test Date:	June 6, 2005
Test Specifications:	EMI requirements CFR Title 47, Part 15 Subpart B; and Subpart C, Sections 15.205, 15.209, and 15.231
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 operates on battery power only and cannot be plugged into the AC public mains.
2	Radiated RF Emissions, 10 kHz - 4400 MHz	Complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.231.
3	-20 dB Bandwidth of the Fundamental	Complies with the limits of Subpart C, sections 15.231 [c].

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Handpad Transmitter Model: HT 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, 15.209, and 15.231.

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

Sidereal Technology

Dan Gray President

Compatible Electronics, Inc.

Kyle Fujimoto Test Engineer
Michael Christensen Lab Manager

2.4 Date Test Sample was Received

The test sample was received prior to its qualification testing on June 6, 2005.

2.5 Disposition of the Test Sample

The test sample has not been returned to Sidereal Technology as of the date of this test 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
PCB	Printed Circuit Board
TX	Transmit
RX	Receive

3. APPLICABLE DOCUMENTS

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

SPEC	TITLE
CFR Title 47, Part 15	FCC Rules – Radio frequency devices (including digital devices)
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

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

Setup and operation of the equipment under test.

Specifics of the EUT and Peripherals Tested

The Handpad Transmitter Model: HT 1 (EUT) was tested as a stand alone unit and tested in three orthogonal axis. The EUT was continuously transmitting.

The antenna is soldered to the EUT's PCB.

After the EUT is activated by pressing the button, the transmission will cease operation once the button is released.

The final radiated data was taken in the mode described above. Please see Appendix E for the data sheets.

4.1.1 Cable Construction and Termination

There were no external cables on the EUT

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
HANDPAD TRANSMITTER (EUT)	SIDEREAL TECHNOLOGY	HT 1	N/A	**TEDHT1**

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Radiate Emissions Data Capture Program	Compatible Electronics	2.0	N/A	N/A	N/A
Emissions Program	Compatible Electronics	2.3 (SR19)	N/A	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08784	June 16, 2004	June 16, 2005
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	3701A22279	June 16, 2004	June 16, 2005
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	June 16, 2004	June 16, 2005
Preamplifier	Com Power	PA-103	1582	February 3, 2005	Feb. 3, 2006
Biconical Antenna	Com Power	AB-900	15250	March 11, 2005	Mar. 11, 2006
Log Periodic Antenna	Com Power	AL-100	16202	February 17, 2005	Feb. 17, 2006
Computer	Hewlett Packard	D5251A 888	US74458128	N/A	N/A
Monitor	Hewlett Packard	D5258A	DK74889705	N/A	N/A
Loop Antenna	Com-Power	AL-130	17089	September 3, 2004	Sept. 3, 2005
Horn Antenna	Antenna Research	DRG-118/A	1053	January 16, 2004	Jan. 16, 2006
Microwave Preamplifier	Com-Power	PA-122	25195	February 25, 2005	Feb. 25, 2006
EMI Receiver	Rohde & Schwarz	ESIB40	100172	October 28, 2004	Oct. 28, 2005

5.3 EMI Test Equipment Continued

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Antenna Mast	Com-Power	AM-100	N/A	N/A	N/A
Turntable	Com-Power	TT-100	N/A	N/A	N/A
Antenna Mast	EMCO	2090	9609-1176	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 operates on battery power 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 Preamplifiers Model: PA-103 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 was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer and EMI Receiver record the highest measured reading over all the sweeps.

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

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
9 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 4.40 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. 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.

7.1.3 Radiated Emissions (Spurious and Harmonics) Test (continued)

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 final test data. The final qualification data sheets are located in Appendix E.

Test Results:

The EUT complies with the limits of CFR Title 47, Part 15, Subpart B; and Subpart C, section 15.205, 15.209 and 15.231 for radiated emissions.

7.2 Bandwidth of the Fundamental

The -20 dB bandwidth was checked to see that it was within 0.25% of the fundamental frequency for the EUT. Data sheets of the –20 dB bandwidth are located in Appendix E.

Test Results:

The EUT complies with the limits of CFR Title 47, Part 15, Subpart C, section 15.231 [c].

8. CONCLUSIONS

The Handpad Transmitter Model: HT 1 meets all of the Class B specification limits defined in CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.231.

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

Radio-Frequency Technologies (Competent Body)

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC 15.231 or FCC Class B 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.

No modifications were made to the EUT during the testing.

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Handpad Transmitter
Model: HT 1
S/N: N/A

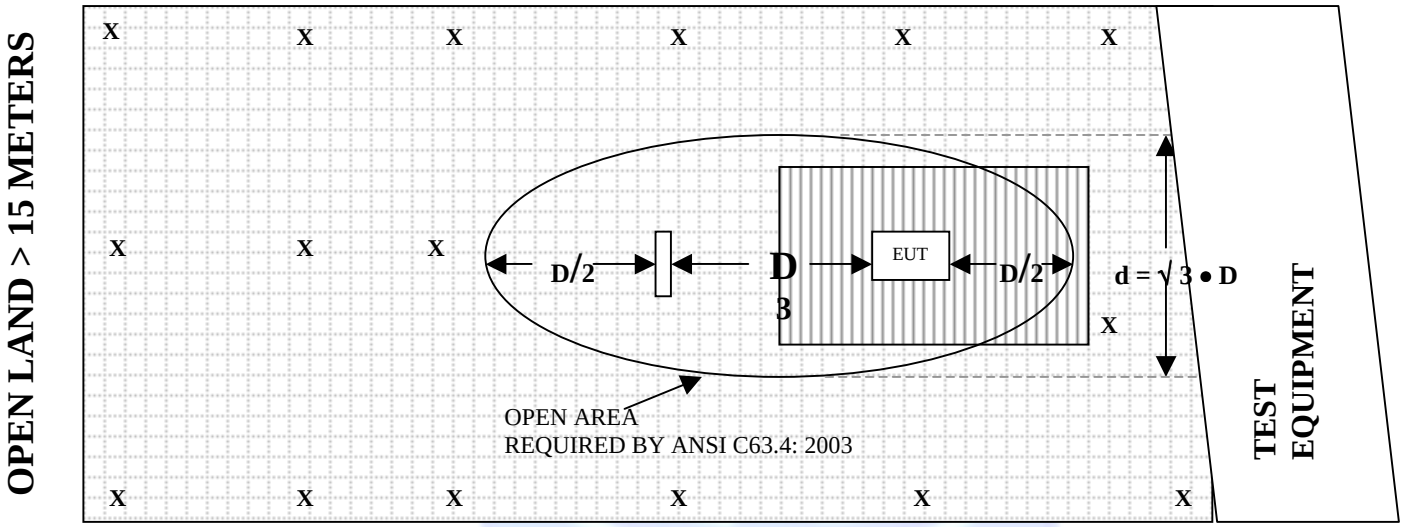
There were no additional models covered under this report.

APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

FIGURE 1: PLOT MAP AND LAYOUT OF RADIATED TEST SITE

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: MARCH 11, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	10.90	120	13.10
35	10.90	125	12.40
40	10.90	140	11.90
45	10.30	150	11.80
50	11.40	160	13.30
60	10.40	175	15.40
70	7.40	180	14.60
80	6.20	200	15.70
90	8.20	250	16.50
100	10.10	300	19.20

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16202

CALIBRATION DATE: FEBRURY 17, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	12.70	700	19.20
400	13.70	800	19.40
500	16.00	900	21.50
600	16.50	1000	23.50

COM-POWER PA-103

PREAMPLIFIER

S/N: 1582

CALIBRATION DATE: FEBRUARY 3, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	33.2	300	33.0
40	33.0	350	32.8
50	33.1	400	32.8
60	33.0	450	32.8
70	33.2	500	32.5
80	33.2	550	32.5
90	33.1	600	32.4
100	33.2	650	32.4
125	33.1	700	32.3
150	33.0	750	32.2
175	33.0	800	32.2
200	33.0	850	32.4
225	33.0	900	31.8
250	33.0	950	32.3
275	32.9	1000	32.0

COM-POWER PA-122

MICROWAVE PREAMPLIFIER

S/N: 25195

CALIBRATION DATE: FEBRUARY 25, 2005

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	31.45	6.0	31.35
1.1	31.34	6.5	31.10
1.2	31.29	7.0	30.54
1.3	31.28	7.5	29.72
1.4	31.25	8.0	29.22
1.5	31.21	8.5	28.75
1.6	31.14	9.0	28.67
1.7	31.07	9.5	29.14
1.8	31.12	10.0	30.12
1.9	31.04	11.0	29.30
2.0	31.20	12.0	29.86
2.5	31.56	13.0	30.57
3.0	32.17	14.0	29.90
3.5	32.56	15.0	30.14
4.0	32.51	16.0	31.13
4.5	32.52	17.0	29.97
5.0	32.33	18.0	28.77
5.5	31.60		

ANTENNA RESEARCH DRG-118/A

HORN ANTENNA

S/N: 1053

CALIBRATION DATE: JANUARY 16, 2004

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	24.4	10.0	38.7
1.5	25.2	10.5	39.0
2.0	28.2	11.0	38.9
2.5	28.5	11.5	41.3
3.0	30.1	12.0	40.5
3.5	31.0	12.5	40.0
4.0	31.2	13.0	40.2
4.5	31.9	13.5	40.5
5.0	33.2	14.0	41.6
5.5	33.7	14.5	44.8
6.0	34.3	15.0	41.4
6.5	35.0	15.5	39.2
7.0	36.7	16.0	39.4
7.5	37.3	16.5	40.9
8.0	37.1	17.0	42.6
8.5	37.3	17.5	45.1
9.0	37.7	18.0	41.7
9.5	38.6		

COM-POWER AL-130

LOOP ANTENNA

S/N: 17089

CALIBRATION DATE: SEPTEMBER 3, 2004

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-40.8	10.7
0.01	-40.9	10.6
0.02	-41.8	9.7
0.05	-42.0	9.5
0.07	-41.5	10.0
0.1	-41.7	9.8
0.2	-44.1	7.4
0.3	-41.6	9.9
0.5	-41.5	10.0
0.7	-41.4	10.1
1	-41.0	10.5
2	-40.6	10.9
3	-40.8	10.7
4	-41.0	10.5
5	-40.4	11.1
10	-40.7	10.8
15	-41.6	9.9
20	-41.3	10.2
25	-43.0	8.5
30	-42.6	8.9

FRONT VIEW

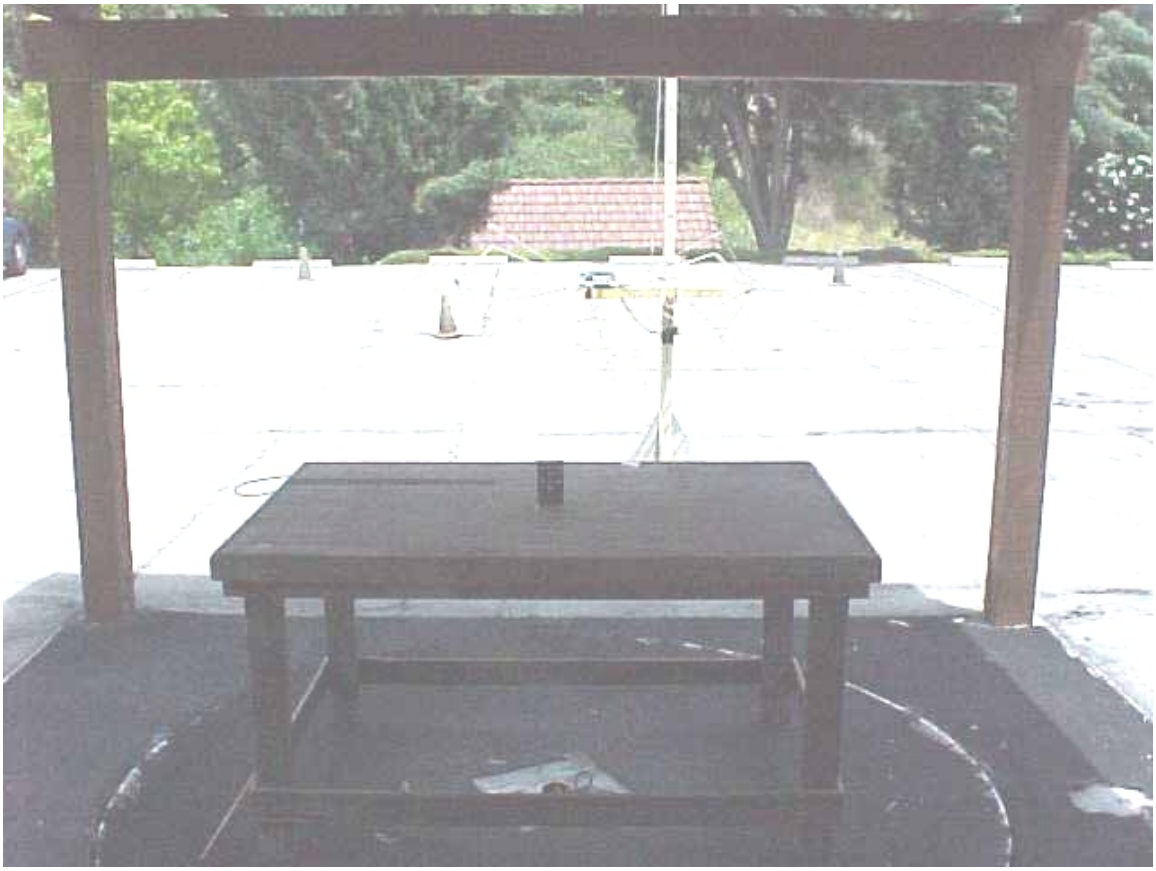
SIDEREAL TECHNOLOGY
HANDPAD TRANSMITTER
MODEL: HT 1
FCC SUBPART B AND C – RADIATED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

SIDEREAL TECHNOLOGY
HANDPAD TRANSMITTER
MODEL: HT 1
FCC SUBPART B AND C – RADIATED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



FRONT VIEW

SIDEREAL TECHNOLOGY
HANDPAD TRANSMITTER
MODEL: HT 1
FCC SUBPART B AND C – RADIATED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

SIDEREAL TECHNOLOGY
HANDPAD TRANSMITTER
MODEL: HT 1
FCC SUBPART B AND C – RADIATED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

RADIATED EMISSIONS

DATA SHEETS

FCC 15.231
Sidereal Technology
Handpad Transmitter
Model: HT 1

Date: 06/06/05
Lab: B
Tested By: Kyle Fujimoto

Duty Cycle: 48.339% - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
433.92	78.89	V	100.8	-21.91	Peak	1	90	
433.92	72.58	V	80.8	-8.22	Avg	1	90	
867.84	46.01	V	80.8	-34.79	Peak	1.5	225	
867.84	39.7	V	60.8	-21.1	Avg	1.5	225	
1301.76	37.42	V	74	-36.58	Peak	1	270	
1301.76	31.11	V	54	-22.89	Avg	1	270	
1735.7	44.16	V	80.8	-36.64	Peak	3.22	90	
1735.7	37.85	V	60.8	-22.95	Avg	3.22	90	
2169.6	43.63	V	80.8	-37.17	Peak	2.92	0	
2169.6	37.32	V	60.8	-23.48	Avg	2.92	0	
2603.52	43.96	V	80.8	-36.84	Peak	3.21	180	
2603.52	37.65	V	60.8	-23.15	Avg	3.21	180	
3037.44	42.4	V	80.8	-38.4	Peak	1.21	180	
3037.44	36.09	V	60.8	-24.71	Avg	1.21	180	
3471.36	47.11	V	80.8	-33.69	Peak	2.19	180	
3471.36	40.8	V	60.8	-20	Avg	2.19	180	
3905.28	43.74	V	74	-30.26	Peak	2.68	180	
3905.28	37.43	V	54	-16.57	Avg	2.68	180	
4339.2	40.51	V	74	-33.49	Peak	2.08	180	
4339.2	34.2	V	54	-19.8	Avg	2.08	180	

FCC 15.231
Sidereal Technology
Handpad Transmitter
Model: HT 1

Date: 06/06/05
Lab: B
Tested By: Kyle Fujimoto

Duty Cycle: 48.339% - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
433.92	79.59	H	100.8	-21.21	Peak	1	90	
433.92	73.28	H	80.8	-7.52	Avg	1	90	
867.84	51.71	H	80.8	-29.09	Peak	1.5	225	
867.84	45.4	H	60.8	-15.4	Avg	1.5	225	
1301.76	38.61	H	74	-35.39	Peak	2.98	225	
1301.76	32.3	H	54	-21.7	Avg	2.98	225	
1735.7	49.97	H	80.8	-30.83	Peak	3.88	0	
1735.7	43.66	H	60.8	-17.14	Avg	3.88	0	
2169.6	45.57	H	80.8	-35.23	Peak	3.21	45	
2169.6	39.26	H	60.8	-21.54	Avg	3.21	45	
2603.52	42.86	H	80.8	-37.94	Peak	2.86	225	
2603.52	36.55	H	60.8	-24.25	Avg	2.86	225	
3037.44	45.49	H	80.8	-35.31	Peak	2.98	225	
3037.44	39.18	H	60.8	-21.62	Avg	2.98	225	
3471.36	52.78	H	80.8	-28.02	Peak	2.91	225	
3471.36	46.47	H	60.8	-14.33	Avg	2.91	225	
3905.28	45.91	H	74	-28.09	Peak	2.31	135	
3905.28	39.6	H	54	-14.4	Avg	2.31	135	
4339.2	47	H	74	-27	Peak	2.55	225	
4339.2	40.69	H	54	-13.31	Avg	2.55	225	

FCC 15.231
Sidereal Technology
Handpad Transmitter
Model: HT 1

Date: 06/06/05
Lab: B
Tested By: Kyle Fujimoto

Duty Cycle: 48.339% - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
433.92	63.99	V	100.8	-36.81	Peak	1	90	
433.92	57.68	V	80.8	-23.12	Avg	1	90	
867.84	48.71	V	80.8	-32.09	Peak	1	225	
867.84	42.4	V	60.8	-18.4	Avg	1	225	
1301.76	38.85	V	74	-35.15	Peak	2.19	180	
1301.76	32.54	V	54	-21.46	Avg	2.19	180	
1735.7	47.05	V	80.8	-33.75	Peak	2.69	135	
1735.7	40.74	V	60.8	-20.06	Avg	2.69	135	
2169.6	44.53	V	80.8	-36.27	Peak	2.78	90	
2169.6	38.22	V	60.8	-22.58	Avg	2.78	90	
2603.52	46.06	V	80.8	-34.74	Peak	3.1	45	
2603.52	39.75	V	60.8	-21.05	Avg	3.1	45	
3037.44	46.51	V	80.8	-34.29	Peak	2.28	90	
3037.44	40.2	V	60.8	-20.6	Avg	2.28	90	
3471.36	50.41	V	80.8	-30.39	Peak	1.67	90	
3471.36	44.1	V	60.8	-16.7	Avg	1.67	90	
3905.28	45.58	V	74	-28.42	Peak	1.2	90	
3905.28	39.27	V	54	-14.73	Avg	1.2	90	
4339.2	45.82	V	74	-28.18	Peak	1.99	270	
4339.2	39.51	V	54	-14.49	Avg	1.99	270	

FCC 15.231
Sidereal Technology
Handpad Transmitter
Model: HT 1

Date: 06/06/05
Lab: B
Tested By: Kyle Fujimoto

Duty Cycle: 48.339% - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
433.92	75.99	H	100.8	-24.81	Peak	1	90	
433.92	69.68	H	80.8	-11.12	Avg	1	90	
867.84	51.6	H	80.8	-29.2	Peak	1	225	
867.84	45.29	H	60.8	-15.51	Avg	1	225	
1301.76	37.92	H	74	-36.08	Peak	2.27	270	
1301.76	31.61	H	54	-22.39	Avg	2.27	270	
1735.7	48.49	H	80.8	-32.31	Peak	2.34	225	
1735.7	42.18	H	60.8	-18.62	Avg	2.34	225	
2169.6	47.69	H	80.8	-33.11	Peak	3.01	45	
2169.6	41.38	H	60.8	-19.42	Avg	3.01	45	
2603.52	44.59	H	80.8	-36.21	Peak	2.69	270	
2603.52	38.28	H	60.8	-22.52	Avg	2.69	270	
3037.44	46.06	H	80.8	-34.74	Peak	1.29	0	
3037.44	39.75	H	60.8	-21.05	Avg	1.29	0	
3471.36	51.45	H	80.8	-29.35	Peak	2.1	225	
3471.36	45.14	H	60.8	-15.66	Avg	2.1	225	
3905.28	46.02	H	74	-27.98	Peak	2.11	0	
3905.28	39.71	H	54	-14.29	Avg	2.11	0	
4339.2	45.37	H	74	-28.63	Peak	1.67	225	
4339.2	39.06	H	54	-14.94	Avg	1.67	225	

FCC 15.231

Sidereal Technology
Handpad Transmitter
Model: HT 1

Date: 06/06/05
Lab: B
Tested By: Kyle Fujimoto

Duty Cycle: 48.339% - Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
433.92	76.49	V	100.8	-24.31	Peak	1	90	
433.92	70.18	V	80.8	-10.62	Avg	1	90	
867.84	36.51	V	80.8	-44.29	Peak	1	225	
867.84	30.2	V	60.8	-30.6	Avg	1	225	
1301.76	38.78	V	74	-35.22	Peak	2.16	0	
1301.76	32.47	V	54	-21.53	Avg	2.16	0	
1735.7	49.93	V	80.8	-30.87	Peak	2.07	270	
1735.7	43.62	V	60.8	-17.18	Avg	2.07	270	
2169.6	47.33	V	80.8	-33.47	Peak	2.75	270	
2169.6	41.02	V	60.8	-19.78	Avg	2.75	270	
2603.52	43.68	V	80.8	-37.12	Peak	2.59	180	
2603.52	37.37	V	60.8	-23.43	Avg	2.59	180	
3037.44	44.2	V	80.8	-36.6	Peak	1.48	270	
3037.44	37.89	V	60.8	-22.91	Avg	1.48	270	
3471.36	50.62	V	80.8	-30.18	Peak	1.51	0	
3471.36	44.31	V	60.8	-16.49	Avg	1.51	0	
3905.28	44.53	V	74	-29.47	Peak	1.68	225	
3905.28	38.22	V	54	-15.78	Avg	1.68	225	
4339.2	44.31	V	74	-29.69	Peak	1.4	270	
4339.2	38	V	54	-16	Avg	1.4	270	

FCC 15.231
Sidereal Technology
Handpad Transmitter
Model: HT 1

Date: 06/06/05
Lab: B
Tested By: Kyle Fujimoto

Duty Cycle: 48.339% - Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
433.92	72.79	H	100.8	-28.01	Peak	1	315	
433.92	66.48	H	80.8	-14.32	Avg	1	315	
867.84	46.91	H	80.8	-33.89	Peak	1	225	
867.84	40.6	H	60.8	-20.2	Avg	1	225	
1301.76	36.18	H	74	-37.82	Peak	2.7	270	
1301.76	29.87	H	54	-24.13	Avg	2.7	270	
1735.7	43.12	H	80.8	-37.68	Peak	3.16	270	
1735.7	36.81	H	60.8	-23.99	Avg	3.16	270	
2169.6	46	H	80.8	-34.8	Peak	3.8	90	
2169.6	39.69	H	60.8	-21.11	Avg	3.8	90	
2603.52	44.64	H	80.8	-36.16	Peak	3.75	225	
2603.52	38.33	H	60.8	-22.47	Avg	3.75	225	
3037.44	45.48	H	80.8	-35.32	Peak	3.24	180	
3037.44	39.17	H	60.8	-21.63	Avg	3.24	180	
3471.36	50.12	H	80.8	-30.68	Peak	2.6	180	
3471.36	43.81	H	60.8	-16.99	Avg	2.6	180	
3905.28	46.63	H	74	-27.37	Peak	1.87	135	
3905.28	40.32	H	54	-13.68	Avg	1.87	135	
4339.2	47.52	H	74	-26.48	Peak	2.04	180	
4339.2	41.21	H	54	-12.79	Avg	2.04	180	

COMPATIBLE ELECTRONICS

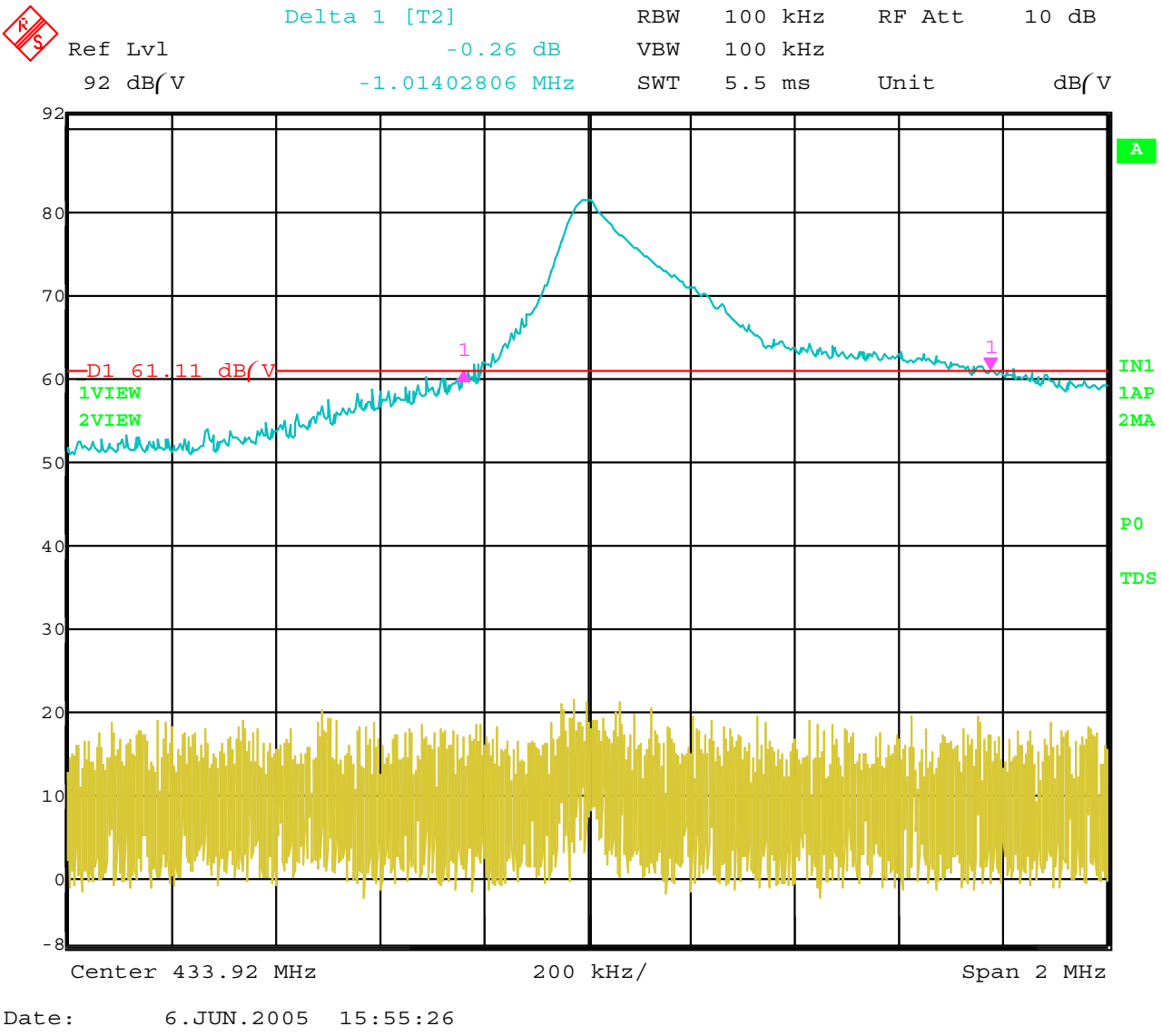
Test Location : Compatible Electronics
Customer : Sidereal Technology
Manufacturer : Sidereal Technology
Eut name : Handpad Transmitter
Model : HT 1
Serial # : N/A
Specification : FCC B and AS/NZS 4268
Distance correction factor (20 * log(test/spec) : 0.00
Test Mode : VERTICAL AND HORIZONTAL POLARIZATIONS
TEST RANGE: 10 kHz TO 4.4 GHz - Qualification Scan
Note Readings are Floor Level to meet ANSI C63.4 Requirements
TESTED BY: Kyle Fujimoto

Page : 1/1
Date : 6/06/2005
Time : 10:55:34
Lab : A
Test Distance : 3.0 Meters

Pol	Freq	Rdng	Cable loss	Ant factor	Amp gain	Cor'd rdg = R	Limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV	dBuV/m	dB
1V	132.913	40.80	3.13	12.13	33.07	23.00	43.50	-20.50
2V	160.030	41.00	3.24	13.30	33.00	24.55	43.50	-18.95
3V	180.030	34.60	3.36	14.60	33.00	19.57	43.50	-23.93
4V	200.030	38.70	3.60	15.70	33.00	25.00	43.50	-18.50
5V	220.030	37.20	3.76	16.04	33.00	24.00	46.00	-22.00
6H	867.870	40.90	6.74	20.85	32.18	36.31	46.00	-9.69

-20 dB BANDWIDTH

DATA SHEET



Bandwidth 20 dB of the Fundamental