



ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT
CERTIFICATION TO FCC PART 15 REQUIREMENTS

for

UNINTENTIONAL RADIATOR

433.92 MHz RECEIVER

MODEL: 200.0149

FCC ID NO: NATMIRD433

REPORT NO: 04U2633-1

ISSUE DATE: MARCH 30, 2004

Prepared for

**SMARTIRE SYSTEM INC.
#150 13151 VANIER PLACE
RICHMOND, BC V6V2J1
CANADA**

Prepared by

**COMPLIANCE ENGINEERING SERVICES, INC.
561 F MONTEREY ROAD
MORGAN HILL, CA 95037
TEL: 408-463-0885
FAX: 408-463-0888**



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1. VERIFICATION OF COMPLIANCE

COMPANY NAME : SMARTIRE SYSTEMS, INC.
#150 13151 VANIER PLACE
RICHMOND, BC V6V2J1 CANADA

CONTACT PERSON : ROBERT PATTERSON

EUT DESCRIPTION : 433.92 MHz RECEIVER

MODEL NAME/NUMBER : 200.0149

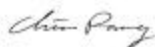
DATE TESTED : 03/30/2004

REPORT NUMBER : 04U2633-1

TYPE OF EQUIPMENT	SECURITY EQUIPMENT (UNINTENTIONAL RADIATOR)
EQUIPMENT TYPE	433.92 MHz SUPER HETERPDYNE RECEIVER
MEASUREMENT PROCEDURE	ANSI 63.4 / 2001
LIMIT TYPE	CERTIFICATION
FCC RULE	CFR 47, PART 15.109

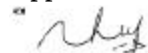
The above equipment was tested by Compliance Engineering Services, Inc. for compliance with the requirements set forth in CFR 47, PART 15. This said equipment in the configuration described in this report shows that maximum emission levels emanating from equipment are within the compliance requirements.

Tested By:



CHIN PANG
EMC TECHNICIAN
COMPLIANCE CERTIFICATION SERVICES

Approved & Released By:



THU CHAN
EMC SUPERVISOR
COMPLIANCE CERTIFICATION SERVICES

2. PRODUCT DESCRIPTION

The SmarTire Receiver 200.0149 is a 433.92MHz super heterodyne receiver used in the SmarTire motorcycle Receiver. It receives wireless signals transmitted from the sensor modules mounted inside the tires of the automobile. The signal is demodulated by the receiver and processed by a microprocessor. The status of the tire pressure is then displayed.

3. TEST FACILITY

The 3 meter open area test site and conducted measurement facility used to collect the radiated data is located at 561F Monterey Road, Morgan Hill, California, U.S.A. A detailed description of the test facilities was submitted to the Commission on May 27, 1994.

The measuring instrument which was utilized in performing the tests documented herein has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment which is traceable to recognized national standards.

4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 561F Monterey Road, Morgan Hill, California, USA. The sites are constructed in conformance with the requirements of ANSI C63.4, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.



No part of this report may be used to claim or imply product endorsement by NVLAP or any agency of the US Government.

5. MEASUREMENT EQUIPMENT USED

TEST EQUIPMENT LIST				
Name of Equipment	Manufacturer	Model No.	Serial No.	Due Date
Bilog Antenna	SUNOL SCIENCES	JB1	A121003	12/22/04
EMI Receiver	HP	8542E	3942A00280	11/210/04
RF Filter Section	HP	85420E	3705A00256	11/21/04

6. MEASUREMENT EQUIPMENT USED

SETUP FOR DIGITAL DEVICE TESTS

SUPPORT EQUIPMENT

Not applicable, EUT is tested alone with 12Vdc car battery.

I/O CABLES

Not applicable, EUT is tested alone with 12Vdc car battery.

TEST SETUP

Not applicable, EUT is tested alone with 12Vdc car battery.

7. TEST CONFIGURATION

Turn on the EUT and set all the wires are placed on the turn table to their maximum length to simulate the worse emission conditions.

8. TESTS CONDUCTED

CFR 47, 15.109 RADIATED EMISSION TESTS	CONDUCTED AT 3 METERS
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9. RADIATED EMISSION TEST PROCEDURE

The EUT and all other support equipment are placed on a wooden table 80 cm above the ground screen. Antenna to EUT distance is 3 meters. During the test, the table is rotated 360 degrees to maximize emissions and the antenna is positioned from 1 to 4 meters above the ground screen to further maximize emissions. The antenna is polarized in both vertical and horizontal positions.

Monitor the frequency range of interest at a fixed antenna height and EUT azimuth. Frequency span should be small enough to easily differentiate between broadcast stations and intermittent ambients. Rotate EUT 360 degrees to maximize emissions received from EUT. If emission increases by more than 1 dB, or if another emission appears that is greater by 1 dB, return to azimuth where maximum occurred and perform additional cable manipulation to further maximize received emission.

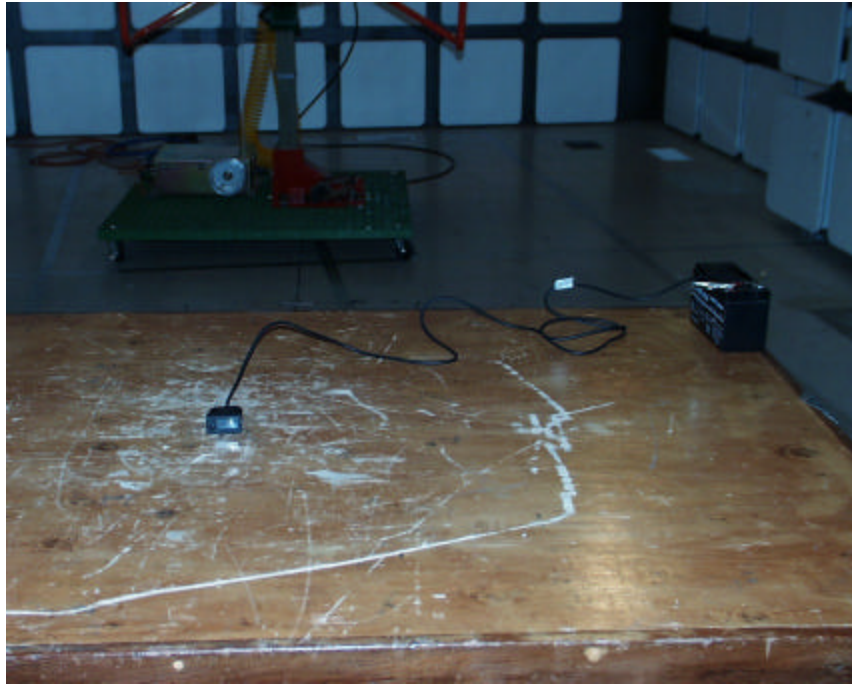
Move antenna up and down to further maximize suspected highest amplitude signal. If emission increased by 1 dB or more, or if another emission appears that is greater by 1dB or more, return to antenna height where maximum signal was observed and manipulate cables to produce highest emissions, noting frequency and amplitude.

10. EQUIPMENT MODIFICATIONS

To achieve compliance to FCC section 15.109, the following change(s) were made during compliance testing:

NOT APPLICABLE

11. TEST CONFIGURATION PHOTOS (Radiated Emission Test)



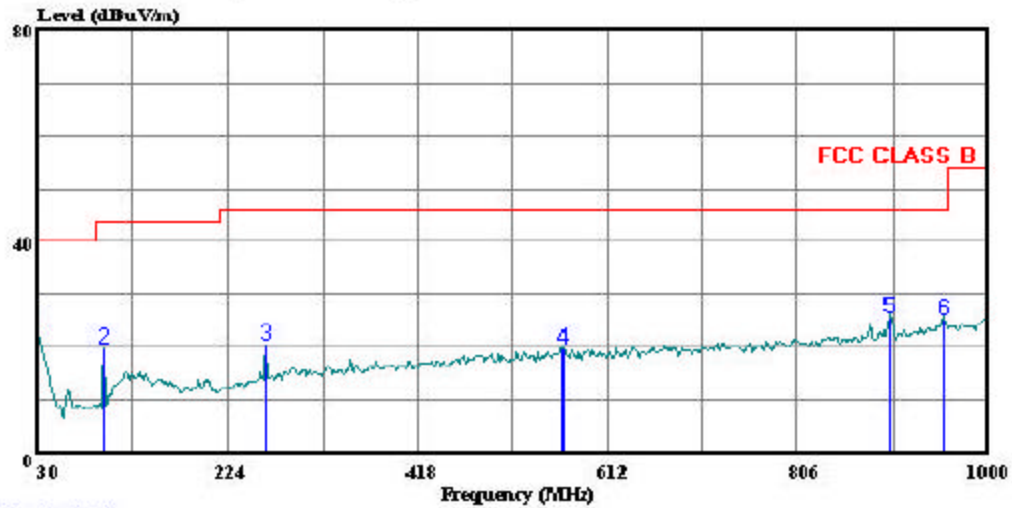
RADIATED EMISSION DATA

Vertical polarization



561F Monterey Road
San Jose, CA 95131
Tel: (408) 463-0888
Fax: (408) 463-0885

Data#: 15 File#: smartire_2633.EMIDate: 03-30-2004 Time: 11:49:36



(Auxiliary ATC)

Trace: 10

Ref Trace:

Condition: FCC CLASS B VERTICAL
Test Operator: : Chin Pang
Project #: : 04U2633-1
Company: : Smartire Systems Inc.
EUT: : Smartire Motorcycle Receiver
Model No: : 200-0149
Configuration: : EUT Only
Target of Test: : FCC Class B
Mode of Operation: Receiving

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			Read		Limit	Over
	Freq	Remark	Level	Factor	Level	Line
	MHz		dBuV	dB	dBuV/m	dBuV/m
1	30.000	Peak	27.33	-4.99	22.34	40.00
2	96.930	Peak	37.65	-18.04	19.61	43.50
3	261.830	Peak	32.99	-12.59	20.40	46.00
4	566.410	Peak	26.90	-7.23	19.67	46.00
5	899.120	Peak	27.92	-2.39	25.53	46.00
6	956.350	Peak	26.97	-1.58	25.39	46.00

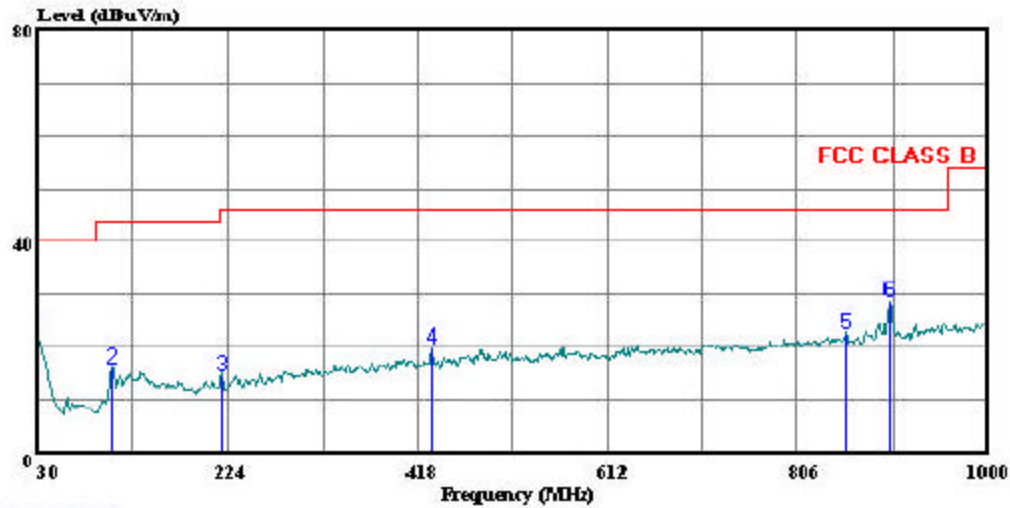
NOTE: No other emissions were detected above system noise floor up to 2GHz.

Horizontal polarization



561F Monterey Road
San Jose, CA 95131
Tel: (408) 463-0888
Fax: (408) 463-0885

Data#: 16 File#: smartire_2633.EMI Date: 03-30-2004 Time: 11:51:24



(Auxiliary ATC)

Trace: 11

Ref Trace:

Condition: FCC CLASS B HORIZONTAL
Test Operator: : Chin Pang
Project #: : 04U2633-1
Company: : Smartire Systems Inc.
EUT: : Smartire Motorcycle Receiver
Model No: : 200-0149
Configuration: : EUT Only
Target of Test: : FCC Class B
Mode of Operation: Receiving

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	Freq	Remark	Read		Limit	Over
			Level	Factor		
	MHz		dBuV	dB	dBuV/m	dB
1	30.000	Peak	26.86	-4.99	21.87	40.00 -18.13
2	105.660	Peak	31.50	-15.48	16.02	43.50 -27.48
3	219.150	Peak	28.84	-14.43	14.41	46.00 -31.59
4	431.580	Peak	28.98	-9.34	19.64	46.00 -26.36
5	855.470	Peak	25.77	-3.28	22.49	46.00 -23.51
6	900.090	Peak	31.03	-2.35	28.68	46.00 -17.32

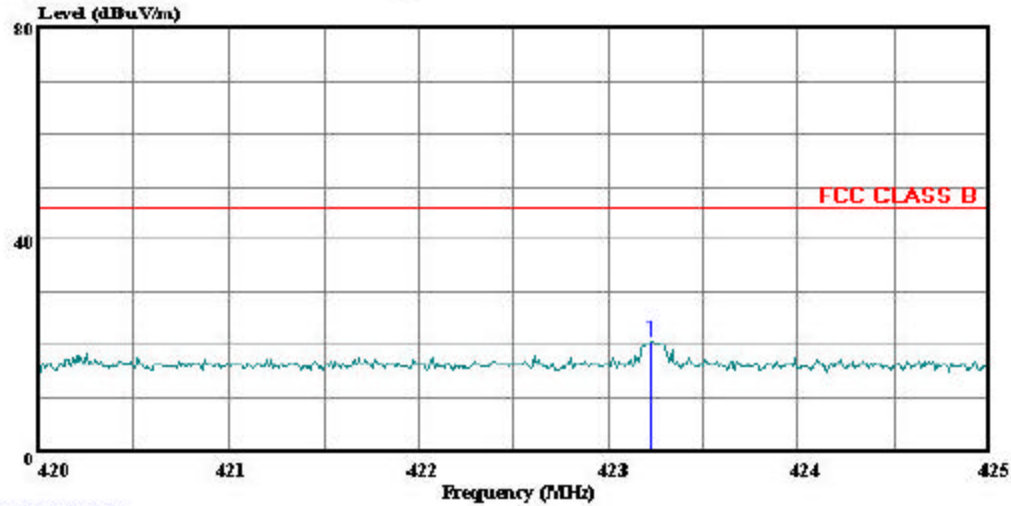
NOTE: No other emissions were detected above system noise floor up to 2GHz

Horizontal polarization (Fundamental Frequency)



561F Monterey Road
San Jose, CA 95131
Tel: (408) 463-0888
Fax: (408) 463-0885

Data#: 14 File#: smartire_2633.EMI Date: 03-30-2004 Time: 11:45:19



(Auxiliary ATC)

Trace: 13

Ref Trace:

Condition: FCC CLASS B HORIZONTAL
Test Operator: : Chin Pang
Project #: : 04U2633-1
Company: : Smartire Systems Inc.
EUT: : Smartire Motorcycle Receiver
Model No: : 200-0149
Configuration: : EUT Only
Target of Test: : FCC Class B
Mode of Operation: Receiving

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	Freq	Remark	Read Level	Factor	Level	Limit	Over
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	423.220	Peak	30.19	-9.52	20.67	46.00	-25.33

END OF REPORT