EXHIBIT 7 Test Report

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 $THIS\ REPORT\ SHALL\ NOT\ BE\ REPRODUCED\ EXCEPT\ IN\ FULL,\ WITHOUT\ THE\ WRITTEN\ APPROVAL\ OF\ PROFESSIONAL\ TESTING\ (EMI),\ INC.$



Certificate of Compliance

Applicant: SPIN-CAST, INC.

Applicant's Address: 5680 Randolph Blvd.

San Antonio, Texas 78233

Model: SCRC001

Serial Number: 005

Project Number: 01415-10

Test Dates: April 19, 2001

I, Jeffrey A. Lenk, for Professional Testing (EMI), Inc., being familiar with the FCC rules and test procedures have reviewed the test setup, measured data and this report. I believe them to be true and accurate.

The **SPIN-CAST INC.**, **SCRC001** was tested to and found to be in compliance with FCC Part 15 Subpart C for an Intentional Radiator.

The highest emissions generated by the above equipment are listed below:

	Frequency (MHz)	<u>Level (dBμV/m)</u>	<u>Limit (dBμV/m)</u>	Margin (dB)
Fundamental	418	79.9	80.3	-0.4
Spurious	2090	49.2	63.5	-14.3

Occupied Bandwidth

190 KHz measured at –20 dBC. Fundamental frequency is 418 MHz.

Jeffrey A. Lenk President

1.0 EUT Description

The Equipment Under Test (EUT) is a **Spin-Cast, Inc. SCRC001.** The **SCRC001** is a low power hand-held wireless remote transmitter designed to activate a remote controlled feeder. The SCRC001 is powered by 2 AA batteries. The transmission continues until the button is released. Once the button is released, the transmission stops instantly as power is removed from the entire circuit. The EUT operates at 418 MHz and is designed fro compliance with 47 CFR 15.231 of the FCC rules. Specific test requirements for this device include the following:

47 CFR 15.231
Fundamental Transmit Power
47 CFR 15.231& 15.205
Spurious Radiated Power
Occupied Bandwidth
(ANSI C63.4 used as Procedural Reference)
47 CFR 15.203
Antenna Requirement

The system tested consisted of the following:

Manufacturer & Model	<u>Serial #</u>	FCC ID #	Description
SPIN-CAST, INC., SCRC001	005	OXHSCSR001	SCRC001

1.1 EUT Operation

The **SCRC001** was tested with the transmit button continuously depressed, thus the SCRC001 was continuously transmitting.

2.0 Electromagnetic Emissions Testing

Professional Testing (EMI), Inc. (PTI), follows the guidelines of NIST for all uncertainty calculations, estimates and expressions thereof for EMC testing.

Radiated emission measurements were made of the Fundamental and Spurious Emission levels for the **SCRC001.** Measurements of the occupied bandwidth were also made for the equipment.

Measurements of the maximum emission levels for the fundamental and the spurious/harmonic emissions of the **SCRC001** were made at the Professional Testing "Open Field" Site #3, located in Round Rock, Texas to determine the radio noise radiated from the EUT. A "Description of Measurement Facilities" has been submitted to the FCC and approved pursuant to Section 2.948 of CFR 47 of the FCC rules.

Tests of the fundamental emissions for the device were performed to determine the worst case polarization of the device. The fundamental emissions of the device were measured with the device in its position of use and the measurement antenna was changed to both vertical and horizontal polarity to record the signal of highest intensity.

2.1 Test Procedure

The EUT was placed on a non-conductive table 0.8 meters above the ground plane. The table was centered on a motorized turntable which allows 360 degree rotation. For measurements of the fundamental signal, a measurement antenna was positioned at a distance of 3 meters as measured from the closest point of the EUT. For spurious/harmonic measurements above 1 GHz, the measurement antenna was placed 1 meter from the EUT. The radiated emissions were maximized by configuring the EUT, by rotating the EUT, and by raising and lowering the antenna from 1 to 4 meters.

A Spectrum Analyzer with peak detection was used to find the maximums of the radiated emissions during the variability testing. A drawing showing the test setup is given as Figure 1.

2.2 Test Criteria

The table below shows FCC Part 15.231 radiated limits for an intentional radiator operating at 418 MHz. In addition to these requirements, the EUT must meet the restricted emission band requirements of §15.205. The spurious measurements of the harmonic were performed to the 10th harmonic of the fundamental. The reference distance for each limit is also shown in this table:

	Test Distance	Field St	rength
Signal Type	(Meters)	$(\mu V/m)$	$(dB\mu V/m)$
Fundamental	3	10,333	80.3
(418 MHz)			
Spurious	3	1,033	60.3
(30 MHz - 1000 MHz)			
Spurious	1	1,500	63.5
(1 GHz - 4.2 GHz)			

2.3 Test Results

The radiated test data for the fundamental is included in Appendix A. Quasi-Peak detector has been used during the test. The radiated emission test data for the harmonics is included in Appendix B. The emissions were maximized at each frequency and the highest emissions identified were measured using peak detection. The radiated emissions generated by the **SCRC001** are below the FCC Part 15.231 and FCC Part 15.205 maximum emission criteria.

3.0 Occupied Bandwidth Measurements

Measurements of the occupied bandwidth of the fundamental emission, was performed to show compliance with FCC Part 15.231. The test procedure of ANSI C63.4 was utilized. All measurements were made in a controlled indoor environment in a configuration which did not present measurement distortion or ambient interference.

3.1 Test Procedure

The EUT was placed on a non-conductive table 0.8 meters above the floor. The table was rotated to an angle which presented the highest signal level. Peak detection was used for all tests. The occupied bandwidth was based on a –20dBC criteria (20 dB down either side of the emission from the nominal center of the emission). A drawing showing the test setup is given as Figure 1.

3.2 Test Criteria

Measurement of the occupied bandwidth was performed to verify that the occupied bandwidth was no wider than 0.25% of the center frequency.

3.3 Test Results

The occupied bandwidth test data is included in Appendix C. The measured occupied bandwidth for the fundamental frequency (418 MHz) is 190 kHz. This is less than the allowable occupied bandwidth of 1 MHz.

4.0 Antenna Requirement

An analysis of the **SCRC001** was performed to determine compliance with Section 15.203 of the Rules. This section requires specific handling and control of antennas used for devices subject to regulations under the Intentional Radiator portions of Part 15.

4.1 Evaluation Procedure

The structure and application of the **SCRC001** were analyzed with respect to the rules. The antenna for this unit is an internal antenna, which is soldered on to the main board and is not accessible by the user. An auxiliary antenna port is not present.

4.2 Evaluation Criteria

Section 15.203 of the rules states that the subject device must meet at least one of the following criteria:

- (a) Antenna is permanently attached to the unit.
- (b) Antenna must use a unique type of connector to attach to the EUT.
- (c) Unit must be professionally installed. Installer shall be responsible for verifying that the correct antenna is employed with the unit.

4.3 Evaluation Results

The **SCRC001** meets the criteria of this rule by virtue of having an internal antenna as part of the unit. The EUT is therefore compliant with §15.203.

5.0 Modifications to Equipment

There were no modifications made on the **SCRC001** during the performance of the test program in order to meet the FCC criteria.

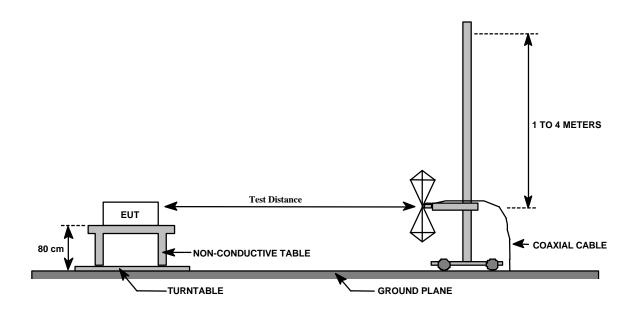
6.0 List of Test Equipment

A list of the test equipment utilized to perform the testing is given below. The date of calibration is given for each.

Electromagnetic Emissions Test Equipment

<u> </u>	Calibration
<u>Description</u>	<u>Due</u>
RF Pre-selector	November 2001
Log Periodic Antenna	November 2001
Amplifier	November 2001
Spectrum Analyzer	February 2002
Double Ridge Guide	June 2001
Broadband Pre-Amp	February 2002
10 meter Armored	March 2002
Biconical Antenna	November 2001
Site cables	November 2001
	Description RF Pre-selector Log Periodic Antenna Amplifier Spectrum Analyzer Double Ridge Guide Broadband Pre-Amp 10 meter Armored Biconical Antenna

FIGURE 1: Radiated Emissions Test Setup



Appendix A

Radiated Emissions Data Sheets

FCC ID#: OXHSCRC001

Radiated Data Sheet SPIN-CAST, INC. SCRC001

SERIAL #: 005 MEASUREMENT DISTANCE (m): 3

DATE: April 19, 2001 PROJECT #: 01415-10

Antenna Horizontal

Freq.	Antenna	Recorded	Amplifier	Antenna	Cable	Corrected	Limit	Margin
	Elevation	Level	Gain	Factor	Loss	Level		
(MHz)	(Meters)	(dBuV)	(dB)	(dB/M)	(dB)	(dBuV/M)	(dBuV/M)	(dB)
418.00	1.0	55.7	0.0	19.0	5.1	79.9	80.3	-0.4
836.00	1.0	36.1	38.8	23.5	7.8	28.7	60.3	-31.6

Antenna Vertical

Freq.	Antenna	Recorded	Amplifier	Antenna	Cable	Corrected	Limit	Margin
	Elevation	Level	Gain	Factor	Loss	Level		
(MHz)	(Meters)	(dBuV)	(dB)	(dB/M)	(dB)	(dBuV/M)	(dBuV/M)	(dB)
418.00	1.0	50.5	0.0	19.0	5.1	74.7	80.3	-5.6
836.00	1.0	34.2	38.8	23.5	7.8	26.8	60.3	-33.5

 $Corrected\ Level = Recorded\ Level + Antenna\ Factor + Cable\ Loss$

COMMENT: No other signals form 30 to 1000 MHz detectable.

TEST ENGINEER: Bob Ripley

FCC ID#: OXHSCRC001

Radiated Data Sheet SPIN-CAST, INC. SCRC001

SERIAL #: 005 MEASUREMENT DISTANCE (m): 1

DATE: April 19, 2001 PROJECT #: 01415-10

Antenna Horizontal

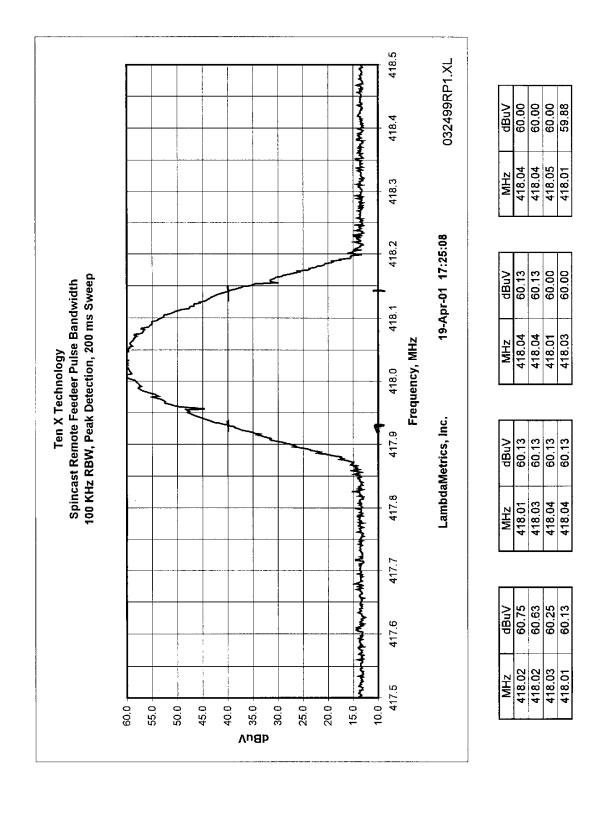
Freq.	EUT		Recorded		Antenna	Cable	Corrected	Limit	Margin
(MHz)	Dir (Deg.)	Elevation (Meters)	Level (dBuV)	Gain (dB)	Factor (dB/M)	Loss (dB)	Level (dBuV/M)	(dBuV/M)	(dB)
1254.00	0.0	1.0	20.7	22.4	24.6	2.0	24.9	63.5	-38.6
1672.00	200.0	1.0	25.8	22.6	26.3	2.3	31.8	63.5	-31.7
2090.00	270.0	1.0	32.9	23.4	28.2	2.6	40.2	63.5	-23.3
2508.00	45.0	1.0	22.6	23.2	29.0	2.9	31.3	63.5	-32.2
3762.00	220.0	1.0	24.5	23.6	32.5	3.7	37.0	63.5	-26.5

Antenna Vertical

Freq.	EUT Dir	Antenna Elevation	Recorded Level	Amplifier Gain	Antenna Factor	Cable Loss	Corrected Level	Limit	Margin
(MHz)	(Deg.)	(Meters)	(dBuV)	(dB)	(dB/M)	(dB)	(dBuV/M)	(dBuV/M)	(dB)
1254.00	270.0	1.0	27.8	22.4	24.6	2.0	32.0	63.5	-31.5
1672.00	330.0	1.0	32.1	22.6	26.3	2.3	38.1	63.5	-25.4
2090.00	20.0	1.0	41.9	23.4	28.2	2.6	49.2	63.5	-14.3
2508.00	92.0	1.0	25.9	23.2	29.0	2.9	34.6	63.5	-28.9
3762.00	80.0	1.0	25.8	23.6	32.5	3.7	38.3	63.5	-25.2

TEST ENGINEER: Bob Ripley

SPIN-CAST, INC. SCRC001 Occupied Bandwidth



PULSE TRAIN SPIN-CAST, INC. SCRC001

