



**Nemko Test Report:** 6L0175RUS1

**Applicant:** Allflex-Boulder  
2820 Wilderness Place, Suite A  
Boulder, CO 80301  
USA

**Equipment Under Test:  
(E.U.T.)** RS200-V2

**In Accordance With:** **FCC Part 15, Subpart C, Paragraph 15.209**  
General Limits For Low Power Transmitters

**Tested By:** Nemko USA Inc.  
802 N. Kealy  
Lewisville, TX 75057  
USA

**Authorized By:**

A handwritten signature in black ink, appearing to read 'Abe Cox', written over a vertical red line.

Abe Cox, Key Account Manager

**Date:** July 14, 2006

*EQUIPMENT: RS200-V2*

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**Table Of Contents**

**Section 1. Summary Of Test Results..... 3**

**Section 2. General Equipment Specification ..... 5**

**Section 3. Radiated Emissions ..... 7**

**Section 4. Occupied Bandwidth..... 10**

**Section 5. Test Equipment List ..... 12**

**ANNEX A TEST DIAGRAMS..... 13**

EQUIPMENT: RS200-V2

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**Section 1. Summary Of Test Results**

Manufacturer: Allflex

Model No.: RS200-V2

Serial No.: 206251999

General: **All measurements are traceable to national standards.**

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 15, Subpart C for low power devices. All tests were conducted using measurement procedure ANSI C63.4-2003. Radiated Emissions were made on an open area test site.

- |                                     |                            |                                     |                     |
|-------------------------------------|----------------------------|-------------------------------------|---------------------|
| <input checked="" type="checkbox"/> | New Submission             | <input checked="" type="checkbox"/> | Production Unit     |
| <input type="checkbox"/>            | Class II Permissive Change | <input type="checkbox"/>            | Pre-Production Unit |

THIS TEST REPORT RELATES ONLY TO THE ITEM(S) TESTED.

THE FOLLOWING DEVIATIONS FROM, ADDITIONS TO, OR EXCLUSIONS FROM THE TEST SPECIFICATIONS HAVE BEEN MADE.

See " Summary of Test Data".



**NVLAP LAB CODE: 100426-0**

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This report applies only to the items tested.

*EQUIPMENT: RS200-V2*

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**Summary Of Test Data**

<b>NAME OF TEST</b>	<b>PARA. NO.</b>	<b>RESULT</b>
Powerline Conducted Emissions	15.207	NA
Radiated Emissions	15.209	Complies
Occupied Bandwidth	Not Specified	NA

This device is battery powered.

*EQUIPMENT: RS200-V2*

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## Section 2. General Equipment Specification

**Frequency Range:** 134.2 Fixed

**Operating Frequency(ies) of Sample:** 134.2 kHz

**20 dB Bandwidth** 3.67 kHz

**Integral Antenna**

**Yes**

**No**

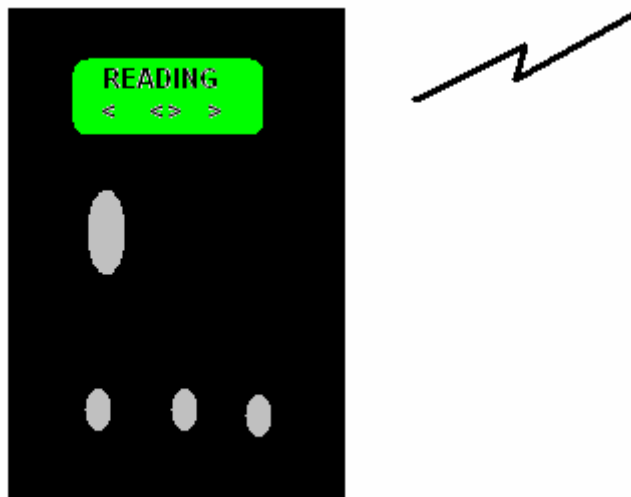
*EQUIPMENT: RS200-V2*

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### Description of DUT

Handheld battery powered passive transponder reading device.

### System Diagram



EQUIPMENT: RS200-V2

**Section 3. Radiated Emissions**

NAME OF TEST: Radiated Emissions	PARA. NO.: 15.209
TESTED BY: David Light	DATE: 12 July 2006

**Minimum Standard:** The field strength of emissions from the device shall not exceed the following limits.

Fundamental (MHz)	Field Strength (µV/m)	Field Strength (dBµV)
0.009 - 0.490	2400/F(kHz) @ 300m	—
0.490 - 1.705	24000/F(kHz) @ 30m	—
1.705 - 30	30 @ 30m	—
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above 960	500	54.0

**Test Results:** Complies. The worst-case emission level is dBµV/m @ 3m at MHz. This is dB below the specification limit.

**Measurement Data:** (Procedure ANSI C63.4-2003)

**Maximizing Emission Levels:**

For hand held equipment or equipment that may be mounted in a variety of positions, the E.U.T. was tested on three orthogonal axis to determine orientation of worst-case emission levels. Below 30 MHz an active loop antenna is used at a fixed height of 1 meter. The loop is rotated about it's vertical axis to obtain worst-case results.

**Spectrum Searched:**

The spectrum was searched from the lowest frequency generated in the E.U.T. up to 1000 MHz, or the 10<sup>th</sup> harmonic of the fundamental emission.

**Near-Field Measurement:**

Emissions below 30 MHz are measured in the near-field and an extrapolation factor of 40 dB per decade is used to determine the 10m limit.

Example: Measurement Distance = 10m  
 Specification Distance = 300m

10m Limit: Specified limit (at 300m) -  $(40 \text{ Log } \frac{10}{300})$

Thus for measurement at 10m the specified limit is increased by 59 dB.





*EQUIPMENT: RS200-V2*

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**Radiated Photographs (Worst Case Configuration)**



EQUIPMENT: RS200-V2

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**Section 4. Occupied Bandwidth**

NAME OF TEST: Occupied Bandwidth	PARA. NO.: N/A
TESTED BY: David Light	DATE: 12 July 2006

**Minimum Standard:** Not specified.

**Test Results:** The 99% power occupied bandwidth is 3.67 kHz.

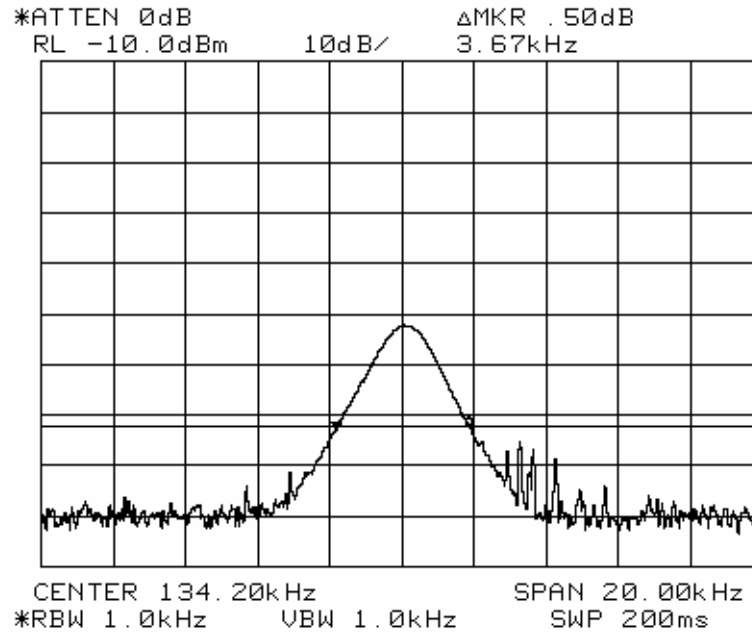
**Measurement Data:** See attached graph(s).

**Method of Measurement:**

A spectrum analyzer was used to measure the 99% power occupied bandwidth of the fundamental emission. This value is used as the bandwidth for the emission designator.

EQUIPMENT: RS200-V2

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EQUIPMENT: RS200-V2

**Section 5. Test Equipment List**

Nemko ID	Description	Manufacturer Model Number	Serial Number	Calibration Date	Calibration Due
1464	Spectrum analyzer	Hewlett Packard 8563E	3551A04428	01/14/05	01/15/07
1484	Cable	Storm PR90-010-072	N/A	08/26/05	08/26/06
1485	Cable	Storm PR90-010-216	N/A	08/26/05	08/26/06
1140	ACTIVE LOOP ANTENNA	A.H. SYSTEMS SAS-200/562B	213	03/09/06	03/09/08

**Nemko USA**

FCC PART 15, SUBPART C  
PARAGRAPH 15.209  
PROJECT NO.: 6L0175RUS1

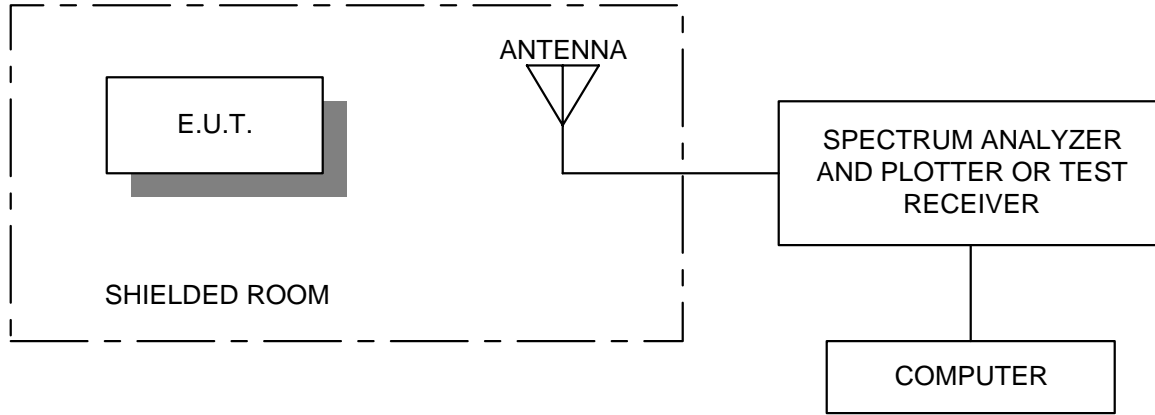
*EQUIPMENT: RS200-V2*

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**ANNEX A**  
**TEST DIAGRAMS**

EQUIPMENT: RS200-V2

**Radiated Prescan**



**Test Site For Radiated Emissions**

