

## **EXHIBIT VI.**

### **Test Report 1**

**New Certification Under Part 15.225**

**For Previously Certified, Intentional Radiator**

**FCC ID: TBO7525V1**

**Applicant: Applied RFID Solutions, Inc.**

**Model: AP1pro,**

**13.56 MHz – RFID - Intentional Radiator**

Prepared on Behalf of

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Exhibit VI

## Test Report for Part 15.225

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**Please note:**

Equipment list and test set up photos are located in Exhibit 7

Applicant: Applied RFID Solutions, Inc.

FCC ID: TBO7525V1

**TEST: Field Strength of Emissions Within the Band 13.553 – 13.567 MHz**

**Applicant:** Applied RFID Solutions, Inc.

**FCC ID:** TVO7525V1

**Model:** AP1pro

The Applied RFID Solutions AP1pro is a 13.56 MHz Intentional Radiator installed within a PSION Workabout Pro Model: 7525C with a previously approved Bluetooth Intentional Radiator. The Bluetooth Intentional Radiator was powered but not transmitting.

Minimum Standard Specified: Part 15.225 (a) Not to exceed 15,848 uV/m @ 30 m.

Test Results: The measured field strength @ 3m does not exceed the limit.

Authorization Procedure: Part 2.1046

Test Location: Spectrum OATS at Fluke Park II Test Date: 5/6/2005

Method of Measurement:

1. The output power level can not be adjusted by user.
2. The EUT was operated at the maximum nominal power.
3. There is only one channel of operation for this frequency band of 13.110 – 14.010 MHz.
4. EUT tested in 3 mutually orthogonally planes. Worse case appeared to be with the EUT standing Vertically, see photos of test setup in Exhibit 7
5. 40 dB / decade was used to extrapolate the limit from 3 meter to 30 meters.  
The stated Part 15.225 limit of 15484 uV/m converts to 84 dBuV/m [20Log(15848)].  
Adjusting for a 3 meter rather than a 30 meter measuring distance the level is increased 40 dB to 124 dBuV/m, (84 dBuV/m + 40dB).

**Maximum Measured Field Strength Level @ 3 meters**

Frequency MHz	SA reading dBuV	Cable loss	Active Loop Antenna Factor dBm	uV/m @3m	Corrected Reading dBuV	Limit @ 3 meters dBuV/m
13.56	43.42 (Peak)	.58	10.3	514.04	54.22	124
13.56	43.32 (QP)	.58	10.3	508.15	54.12	124
27.12	12.72 (Peak)	.60	9.10	13.21	22.42	124
27.12	12.60 (QP)	.60	9.10	13.03	22.30	124

Applicant: Applied RFID Solutions, Inc.

FCC ID: TBO7525V1

**TEST: Field Strength of Emissions Within the Bands  
13.410 - 13.553 and 13.567 - 13.710 MHz and  
13.110 - 13.410 and 13.710 - 14.010 MHz**

**Applicant:** Applied RFID Solutions, Inc.

**FCC ID:** TBO7525V1

**Model:** AP1pro

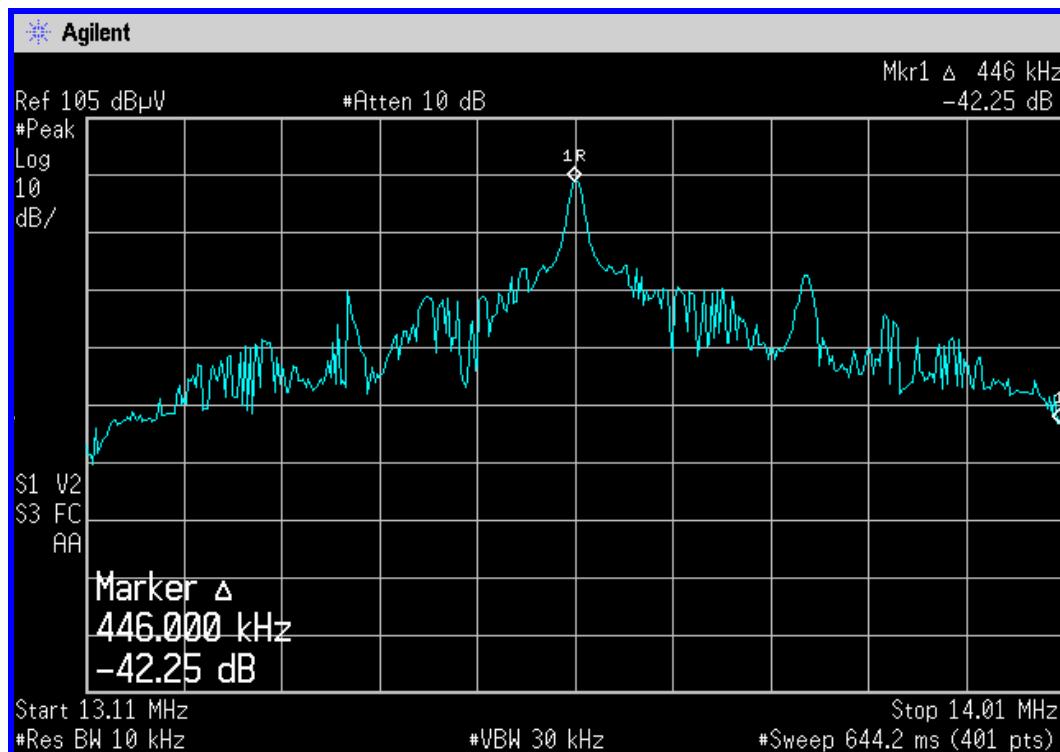
The Applied RFID Solutions AP1pro is a 13.56 MHz Intentional Radiator installed within a PSION Workabout Pro Model: 7525C with a previously approved Bluetooth Intentional Radiator. The Bluetooth Intentional Radiator was powered but not transmitting.

Minimum Standard Specified: Part 15.225 (b), Not to exceed 334 uV/m @ 30 m  
Part 15.225 (c), Not to exceed 106 uV/m @ 30 m

Test Results: The measured field strength does not exceed the limit

Test Location: Spectrum OATS at Fluke Park II Test Date: 5/6/2005

**Max-Hold Radiated Plot of Occupied Band from 13.11 to 14.01 MHz**



Applicant: Applied RFID Solutions, Inc.

FCC ID: TBO7525V1

**TEST: Field Strength of Emissions Outside the  
13.110 – 14.010 MHz Band**

**Applicant:** Applied RFID Solutions, Inc.

**FCC ID:** TBO7525V1

**Model:** AP1pro

The Applied RFID Solutions AP1pro is a 13.56 MHz Intentional Radiator installed within a PSION Workabout Pro Model: 7525C with a previously approved Bluetooth Intentional Radiator. The Bluetooth Intentional Radiator was powered but not transmitting.

Minimum Standard Specified: Part 15.225 (d), references Part 15.209 (a)

Test Results: The measured field strength does not exceed the limit

Authorization Procedure: Part 2.1046 Minimum Standard Specified:

Test Location: Spectrum OATS at Fluke Park II Test Date: 5/6/2005

Test Results: Equipment complies with standard

**Test Result Comments**

Measurements of the radiated emissions were made with the use of a preamplifier from 30 – 1000 MHz to investigate the harmonics and spurious emissions emanating from the AP1pro. Every harmonic of the fundamental frequency was individually examined with Vertical and Horizontal antenna polarization at <1 meter.

No radiated emissions above 30 MHz were measurable or observed within 20dB of the Part 15.209 (a) limits at 3 meters.

Applicant: Applied RFID Solutions, Inc.

FCC ID: TBO7525V1

## TEST Frequency Tolerance of the Carrier Signal

**Applicant:** Applied RFID Solutions, Inc.

**FCC ID:** TBO7525V1

**Model:** AP1pro

Minimum Standard: Part 15.225 (e), Limit +/- 0.01 % or 1356 Hz

The measurement data displays the frequency observed when the transmitter was first keyed following power up, a period of 15 - 30 seconds. This value was recorded and is reported below. Measurements at all temperatures showed within the initial 30 seconds, the transmitter measured within the permissible frequency tolerance of 0.01 %.

A Fluke 52 with two temperature probes connected was used during the measurements. The first probe was mechanically held in place in direct contact with the largest internal mass of the transmitter, adjacent to the reference crystal. The other probe was placed within the chamber at a location with good air circulation to accurately measure the internal chamber temperature for comparison the internal transmitter temperature at each temperature. The EUT temperature was allowed to "settle" for a minimum of 15 minutes at each reference temperature prior to the reported measurement.

Test Temperature	New fully charged battery used	Frequency Reading	Frequency Variation	Limit +/- 0.01 %
degrees C	DC Voltage	MHz	Hz	Hz
+50	3.3	13.560580	+580	1356
+40	3.3	13.560590	+590	1356
+30	3.3	13.560610	+610	1356
+25	3.3	13.560625	+635	1356
+20	3.3	13.560640	+640	1356
+10	3.3	13.560680	+680	1356
+0	3.3	13.560690	+690	1356
-10	3.3	13.560685	+685	1356
-20	3.3	13.560610	+610	1356
Test date	5/9/05	Maximum Variation =	+/- 110 Hz	Compliant

A new fully charged battery was used during the temperature tests as required by 15.225(e).

*Please Note: The Applied RFID Solution PCB operates from a regulated 3.3V DC supply (+/- 5%) tolerance. The RFID PCB never sees the host 3.9 VDC battery voltage. The Psion host documentation we have does not specify the operating end point voltage of the battery. We know that once the battery voltage drops below a threshold set by Psion in the host platform, at which point it can no longer supply 3.3 VDC power to the RFID PCB, the power is shut off. Accordingly the EUT cannot transmit below 3.3 VDC, (+/- 5%) in actual use. Grantee advises that software prohibits RFID operation if the host handheld is inserted into the charging cradle.*

**Temp.vs Freq. Stability -20 to +50 C**