



R041-10-103303-1A- DM

RADIO TEST REPORT

According to the standard(s):

FCC Part 15

Equipment under test:

WORKABOUT PRO (7527C-G2)
 + WA9005 + BT + RA2041
 + RFID MODULE UHF-CA3-A5-G2 or
 RFID MODULE UHF-CA3-AC5-XMOD
 +AC WALL ADAPTOR (PSA15R-050P)

(FCC ID: GM3UHFCA3AC5
 IC ID: 2739-UHFCA3AC5)


Company:

PSION TEKLOGIX

Diffusion: Mr BARRY

(Company: PSION TEKLOGIX)

Number of pages: 11 including 1 annexe

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NAME OF THE EQUIPMENT UNDER TEST (E.U.T.) : WORKABOUT PRO (7527C-G2)
+ WA9005 (SCANNER)
+ BT + RA2041 (WIFI)
+ RFID MODULE UHF-CA3-A5-G2 or
RFID MODULE UHF-CA3-AC5-XMOD
+AC WALL ADAPTOR (PSA15R-050P)

FCC ID: GM3UHFCA3AC5
IC ID: 2739-UHFCA3AC5

Serial number : /

P/N : /

Software version : /

MANUFACTURER'S NAME : PSION TEKLOGIX

APPLICANT'S ADDRESS:

Company : PSION TEKLOGIX

Address : Parc de la Duranne - 135 rue René Descartes - BP 421000 -
13591 AIX EN PROVENCE
FRANCE

Person(s) present during the tests : Mr BARRY

Responsible : Mr BARRY

DATE(S) OF TESTS : June 25th of 2010

TESTS LOCATION(S) : Emitech Grand Sud laboratory in Vendargues
FCC Registration number: 8127-19

TESTS SUPERVISOR(S) : NONE

TESTS OPERATOR(S) : David MONTAULON

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1. INTRODUCTION

This document submits the results of radiated measurements tests performed on the equipment /WORKABOUT PRO (7527C-G2)+ WA9005 (SCANNER) + BT + RA2041 (WIFI)+ RFID MODULE UHF-CA3-A5-G2 or RFID MODULE UHF-CA3-AC5-XMOD +AC WALL ADAPTOR (PSA15R-050P) (denominated hereafter E.U.T.: equipment under test) according to document(s) listed below. Subject of this test is to compare radiated emissions from both antenna of RFID module (difference between module UHF-CA3-A5-G2 and module UHF-CA3-AC5-XMOD) for Class II permissive change.

2. REFERENCE DOCUMENT(S)

FCC Part 15	Code of Federal Regulations Title 47 – Telecommunications Chapter 1 – Federal Communications Commission Part 15 – Radio frequency devices Subpart C – Intentional Radiators
ANSI C 63.4 (2003)	American National Standard for Methods of measurement of Radio-Noise from low-voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

3. EQUIPMENT UNDER TEST CONFIGURATION

Product description:

FCC ID: GM3UHFCA3AC5 or IC ID: 2739-UHFCA3AC5 including RFID Module UHF-CA3-A5-G2 or RFID Module UHF-CA3-AC5-XMOD

Utilization: RFID TAG reader

Antenna type: Incorporated antenna (dipole for UHF-CA3-A5-G2 and circular for UHF-CA3-AC5-XMOD)

Antenna gain: 1.9 dBi for UHF-CA3-A5-G2 and 2.5 dBi for UHF-CA3-AC5-XMOD (declared by customer)

Operating frequency range: 902 MHz (Rfid), 2402 MHz (Bluetooth), 2462 MHz (Wifi)

Number of channels: 50 for RFID, 75 for Bluetooth and Wifi

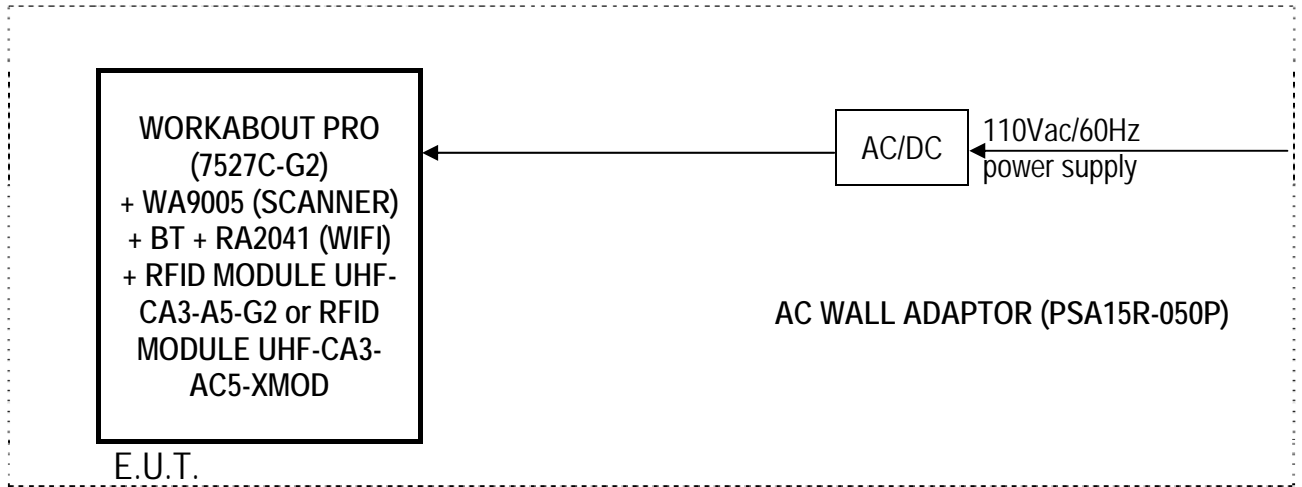
Channel spacing: 200 kHz for RFID

Power source: 5 Vdc (stand alone) or mains voltage (with ac adaptor)

Power level and frequency range are not user adjustable

Equipment modifications applied during tests: No

4. EQUIPMENT UNDER TEST CONFIGURATION SCHEME



5. SUMMARY OF TEST RESULTS

Tests designation	Results satisfying?	Comments
EMISSION Radiated electric field measurement – sections 15.209 and 15.247	YES	Carrier level for RFID emission is very similar (less than 1.5 dB)

N.P.: Not Performed.

N.A.: Not Applicable.

6. RADIATED ELECTRIC FIELD MEASUREMENT

Standard: FCC part 15.247 and 15.209: 2008

Test method: ANSI C63.4:2003

Test configuration:

Frequency band	Tested side	Resolution bandwidth	Video bandwidth	Detection mode	E.U.T. height
30MHz-1GHz	Front side (RFID Module UHF-CA3-AC5-XMOD)	100kHz	300kHz	Peak	80cm
1GHz-18GHz	Front side (RFID Module UHF-CA3-AC5-XMOD)	1MHz	3MHz	Peak and average	80cm
30MHz-1GHz	Front side (RFID Module UHF-CA3-A5-G2)	100kHz	300kHz	Peak	80cm
1GHz-18GHz	Front side (RFID Module UHF-CA3-A5-G2)	1MHz	3MHz	Peak and average	80cm

Test method deviation: RFID and Bluetooth are in permanent emission, measurements are done in peak detection (worst case).

Measuring distance: 3 metres

Test equipment list:

CATEGORY	BRAND	TYPE	N° EMITECH
Antenna	Emco	3115	1053
Antenna	Electro-Metrics	BIA-30HF	1107
Antenna	Rohde & Schwarz	HL223	1137
Cable	Câbles & Connetiques	N-1.5m	4201
Cable		N-1m	2701
Cable	C&C	N-6m	5015
Filter	Micro-Tronics	HPM 11630	4392
Filter	Micro-tronics	HPM 15162	5457
Preamplifier	Microwave	C005180F-4B1	2165
Receiver	Agilent Technologies	E7405A	2161
Shielded enclosure	RAY PROOF	C.GS3	1123
Software	Nexio	BAT EMC	0000

BAT-EMC software version: V3.5.0.2

Results: See Graph(s) hereafter.

Radiated electric emission (measurement)

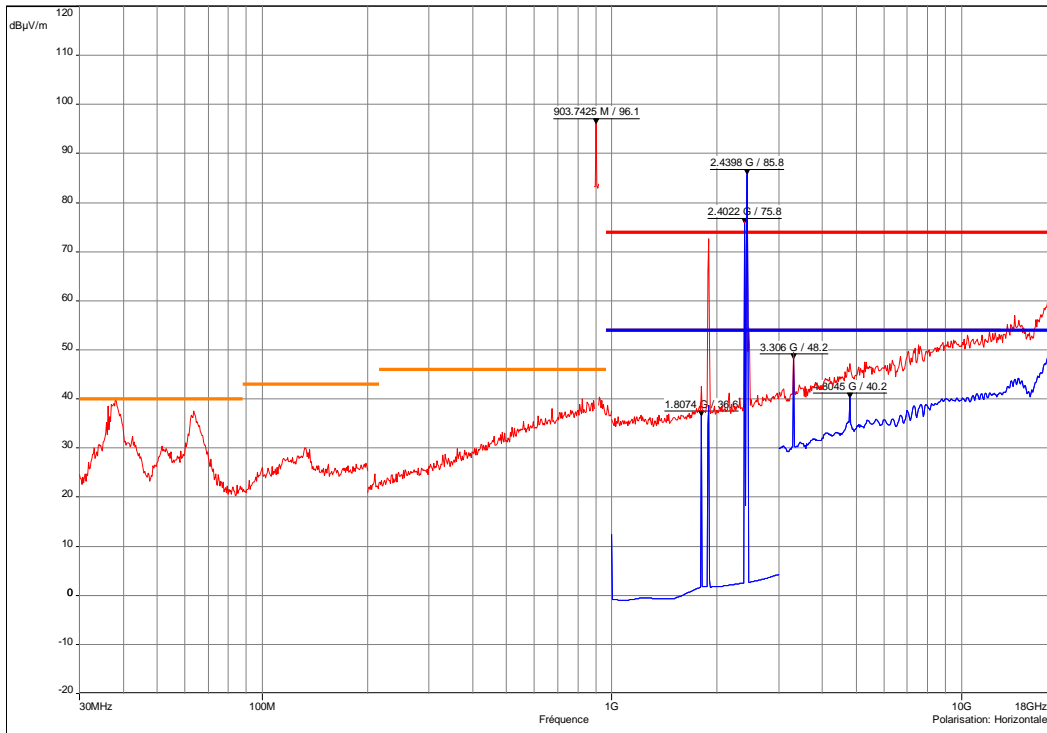
Front side (RFID Module UHF-CA3-AC5-XMOD)

Classe: B of the standard

Detection: Peak

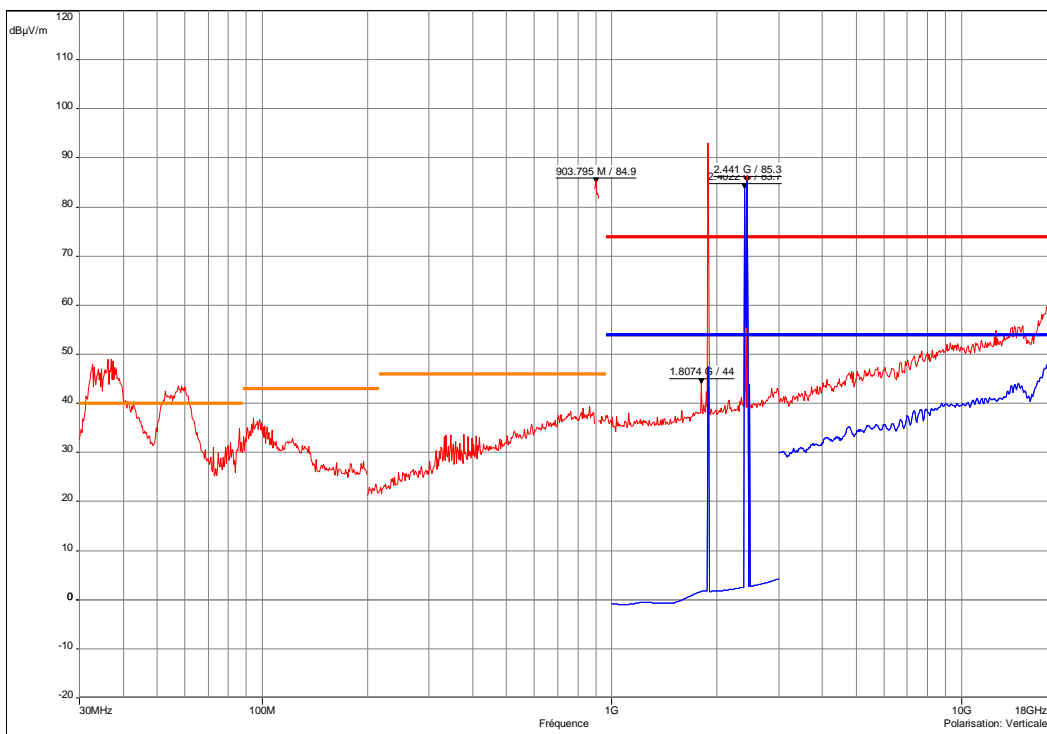
25/06/2010

- C.E.M. (civil)/FCC Part.15 générales - Classe:B - Moyenne/3.0m/
- C.E.M. (civil)/FCC Part.15 générales - Classe:B - QCrête/3.0m/
- C.E.M. (civil)/FCC Part.15 générales - Classe:B - Crête/3.0m/
- Mes.Peak (Horizontale)
- Mes.Avg (Horizontale)



Face avant - 25/06/2010 10:05 - 912

- C.E.M. (civil)/FCC Part.15 générales - Classe:B - Moyenne/3.0m/
- C.E.M. (civil)/FCC Part.15 générales - Classe:B - QCrête/3.0m/
- C.E.M. (civil)/FCC Part.15 générales - Classe:B - Crête/3.0m/
- Mes.Peak (Verticale)
- Mes.Avg (Verticale)



Face avant - 25/06/2010 10:05 - 912

Not listed frequencies around 1800MHz is due to ambient DCS

Radiated electric emission (measurement)

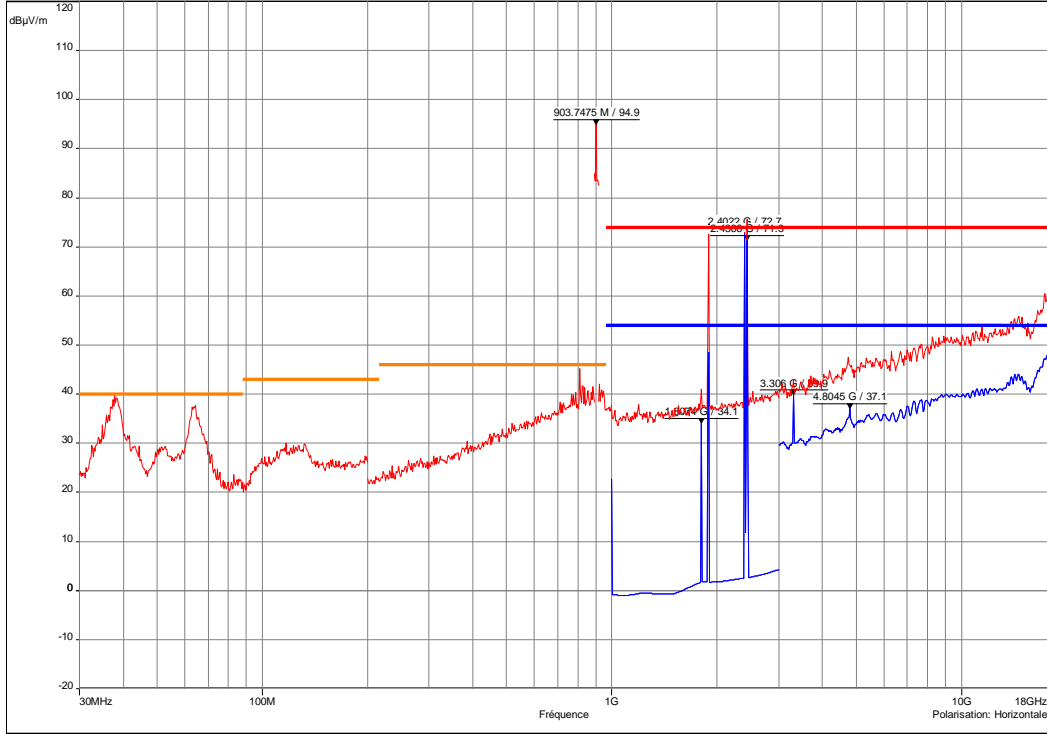
Front side (RFID Module UHF-CA3-A5-G2)

Classe: B of the standard

Detection: Peak

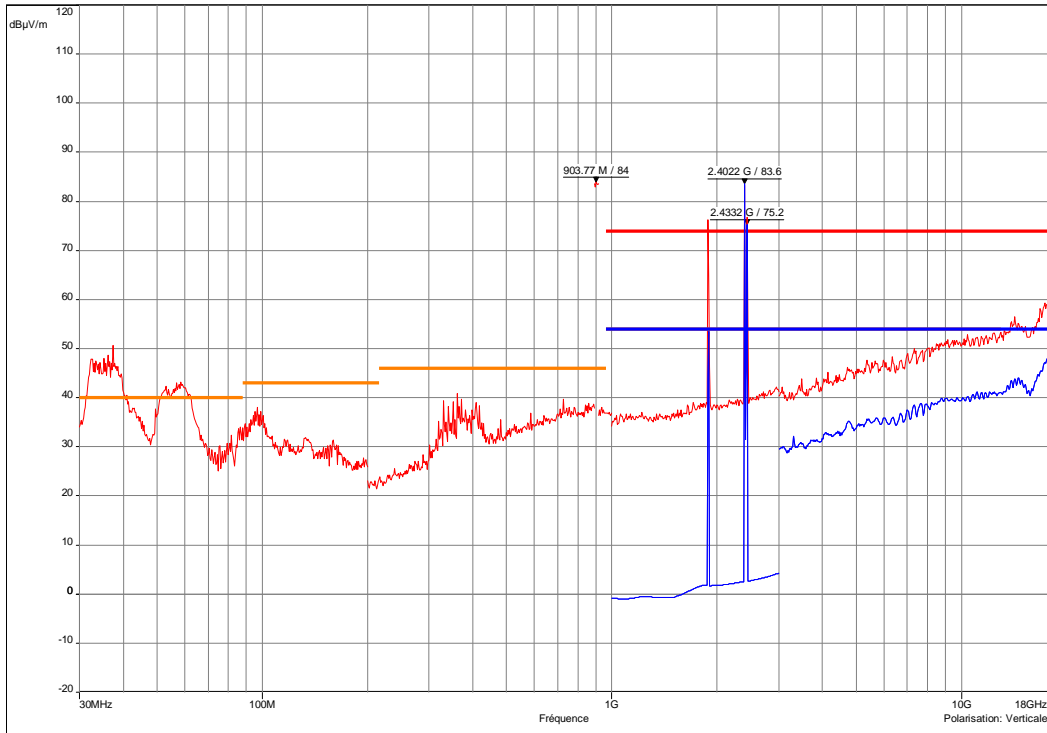
25/06/2010

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- C.E.M. (civil)/FCC Part.15 générales - Classe:B - QCrête/3.0m/
- C.E.M. (civil)/FCC Part.15 générales - Classe:B - Crête/3.0m/
- Mes.Peak (Horizontale)
- Mes.Avg (Horizontale)



Face avant / RFID MOD UHF-868 UHF (old antenna) - 25/06/2010 12:20 - 915

- C.E.M. (civil)/FCC Part.15 générales - Classe:B - Moyenne/3.0m/
- C.E.M. (civil)/FCC Part.15 générales - Classe:B - QCrête/3.0m/
- C.E.M. (civil)/FCC Part.15 générales - Classe:B - Crête/3.0m/
- Mes.Peak (Verticale)
- Mes.Avg (Verticale)



Face avant / RFID MOD UHF-868 UHF (old antenna) - 25/06/2010 12:20 - 915

Not listed frequencies around 1800MHz is due to ambient DCS

End of report – 1 annex to be forwarded

ANNEX 1: PHOTOGRAPH(S)

EQUIPEMENT UNDER TEST (E.U.T.) PHOTOGRAPH(S)

WORKABOUT PRO (7527C-G2)+ WA9005 (SCANNER) + BT + RA2041 (WIFI)+ RFID
MODULE UHF +AC WALL ADAPTOR (PSA15R-050P)

<p>E.U.T. Photograph(s)</p>	
<p>E.U.T. ac adaptor</p>	

E.U.T. ac adaptor

