



A Test Lab Techno Corp.

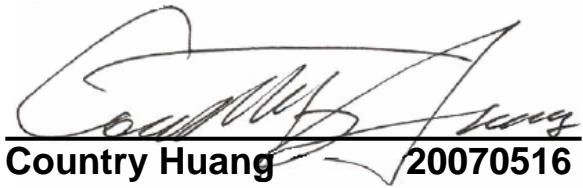
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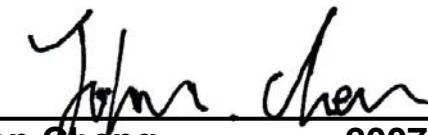
P15B Measurement Report



Report No.	: 0702FE11
Applicant	: GoPass Technology Corp.
Manufacturer Name	: GoPass Technology Corp.
Product Model	: AVL-900, AVL-9xx, GPS-9xx
Product Type	: GPS Tracker
FCC ID	: UBHAVL9X
Dates of Test	: Feb. 06 ~ 07, Apr. 13 ~ 16, May. 16, 2007
Test Specification	: Part 15 Subpart B
Location of Test Lab.	: Chang-an Lab.

1. The test operations have to be performed with cautious behavior, the test results are as attached.
2. The test results are under chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
3. The measurement report has to be written approval of A Test Lab Techno Corp. It may only be reproduced or published in full.


Country Huang 20070516
Measurement Center Manager


John Cheng 20070516
Testing Engineer



CERTIFICATION

We here by verify that:

The test data, data evaluation, test procedures and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4:2003. All test were conducted by **A Test Lab Techno Corp. No.140-1, Chang-an St., Bade City, Tao-Yuan County 334, Taiwan (R.O.C.)** Also, we attest to the accuracy of each.

We further submit that the energy emitted by the sample EUT tested as described in the report is in compliance with Class B radiated and conducted emission limit of FCC Rules Part 15 Subpart B (15.107 & 15.109).

EUT : GPS Tracker

Applicant : GoPass Technology Corp.
17F.,866-1 Chung-Cheng Road, Chung Ho City,
Taipei, Taiwan (R.O.C.)

Manufacturer : GoPass Technology Corp.
17F.,866-1 Chung-Cheng Road, Chung Ho City,
Taipei, Taiwan (R.O.C.)

Model No : AVL-900, AVL-9xx, GPS-9xx

Approved by :

Country Huang

Prepared by :

John Cheng

A Test Lab Techno Corp.

No.140-1, Chang-an St., Bade City, Tao-Yuan County 334, Taiwan (R.O.C.)
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Contents

1. GENERAL	4
1.1 Description of Equipment under Test (EUT).....	4
1.2 Introduction.....	4
1.3 Summary of Tests.....	4
1.4 Description of Support Equipment	5
1.5 Configuration of System under Test	6
1.6 Test Procedure	8
1.7 General Test Condition.....	8
2. Conducted Emissions Requirements.....	9
2.1 General & Setup:.....	9
2.2 Test Equipment List:	9
2.3 Test Configuration:	10
2.4 Test condition:.....	11
2.5 Conducted Emissions Limits:	11
2.6 Measurement Data of Conducted Emissions:.....	12
3. Radiated Emissions Requirements.....	27
3.1 Final radiation measurements were made on a three-meter:	27
3.2 Test Equipment List:	29
3.3 Test Configuration:	30
3.4 Test condition:.....	32
3.5 Radiated Emissions Limits:	32
3.6 Measurement Data of Radiated Emissions:.....	33
Appendix A - EUT Test SETUP	75
Appendix B - Block Diagram	77
Appendix C - EUT Photographs	78



1. GENERAL

1.1 Description of Equipment under Test (EUT)

Applicant : **GoPass Technology Corp.**
17F.,866-1 Chung-Cheng Road, Chung Ho City, Taipei, Taiwan (R.O.C.)

Manufacturer Name : GoPass Technology Corp.
Product Model : AVL-900, AVL-9xx, GPS-9xx
Product Type : GPS Tracker
Power Type : Powered by DC Adaptor (DC12V)
Frequency of Channel : GSM 850 Band (TX: 824 MHz – 849 MHz / RX: 869 MHz – 894 MHz)
GSM 1900 Band (TX: 1850 MHz – 1910 MHz / 1930 MHz – 1990 MHz)
Type of Antenna : Detachable antenna

During testing the EUT was operated at Tx or Rx mode for each emission measured. This was done in order to ensure that maximum emission levels were attained.

1.2 Introduction

The following measurement report is submitted on behalf of **GoPass Technology Corp.** In support of a Class B certification in accordance with Part2 Subpart J and Part 15 Subpart A And B of the Commission's and Regulations.

1.3 Summary of Tests

47 CFR Part 15 Subpart B			
Reference	Test	Results	Note
15.107	Conducted Emission Limits	PASS	
15.109	Radiated Emissions Limits	PASS	



1.4 Description of Support Equipment

<u>Computer</u>	: DELL
Model No.	: PP20L
Serial No.	: UF230 A03
FCC ID	: E2KWM3945ABC
<u>Keyboard</u>	: DELL
Model No.	: SK-8115
Serial No.	: MY-0DJ325-71619-7113-1366
FCC ID	: FCC DOC
<u>Monitor</u>	: DELL
Model No.	: E177FPc
Serial No.	: CN-0FJ179-64180-6BT-4LYS
FCC ID	: FCC DOC
<u>Mouse</u>	: DELL
Model No.	: M056U0A
Serial No.	: F1F026E1
FCC ID	: FCC DOC
<u>Printer</u>	: EPSON
Model No.	: C60
Serial No.	: DR3K041323
FCC ID	: FCC DOC

1.5 Configuration of System under Test

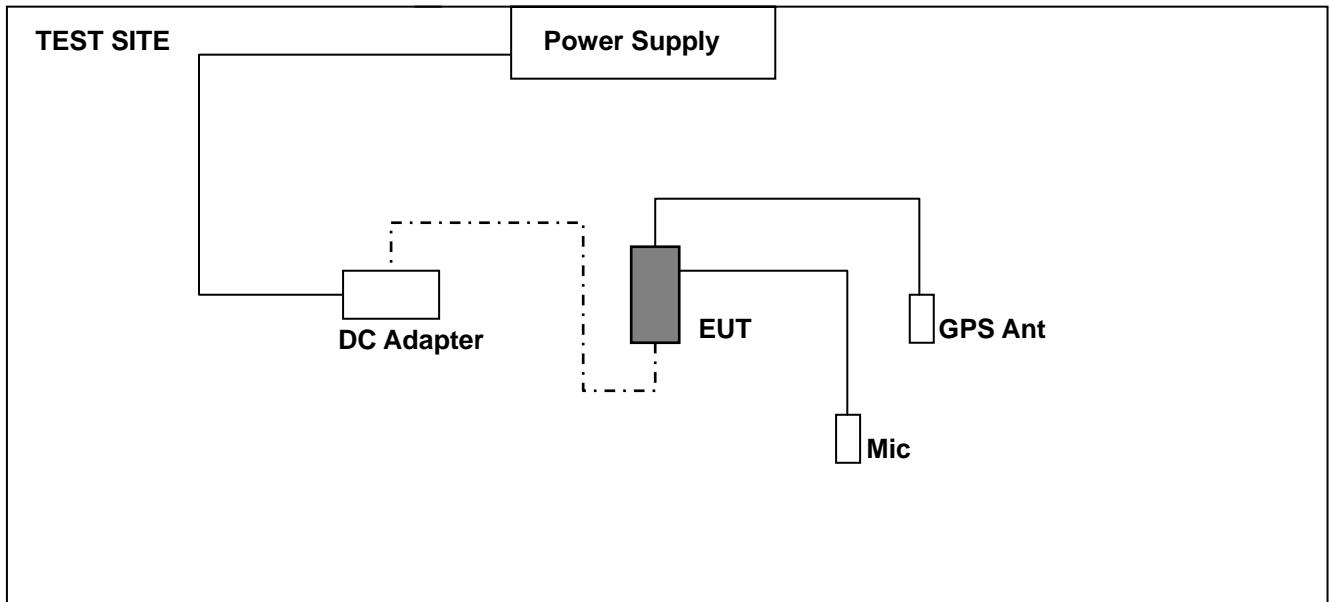


Figure 1. Configuration of System Under Test for DC Adapter

During testing (LINK & Stand by Mode) the EUT (GPS Tracker) was connected dc output of DC adapter. EUT (GPS Tracker)'s Mic port connected to microphone and GPS antenna port was connected to GPS antenna Turn on GPS Receiver.

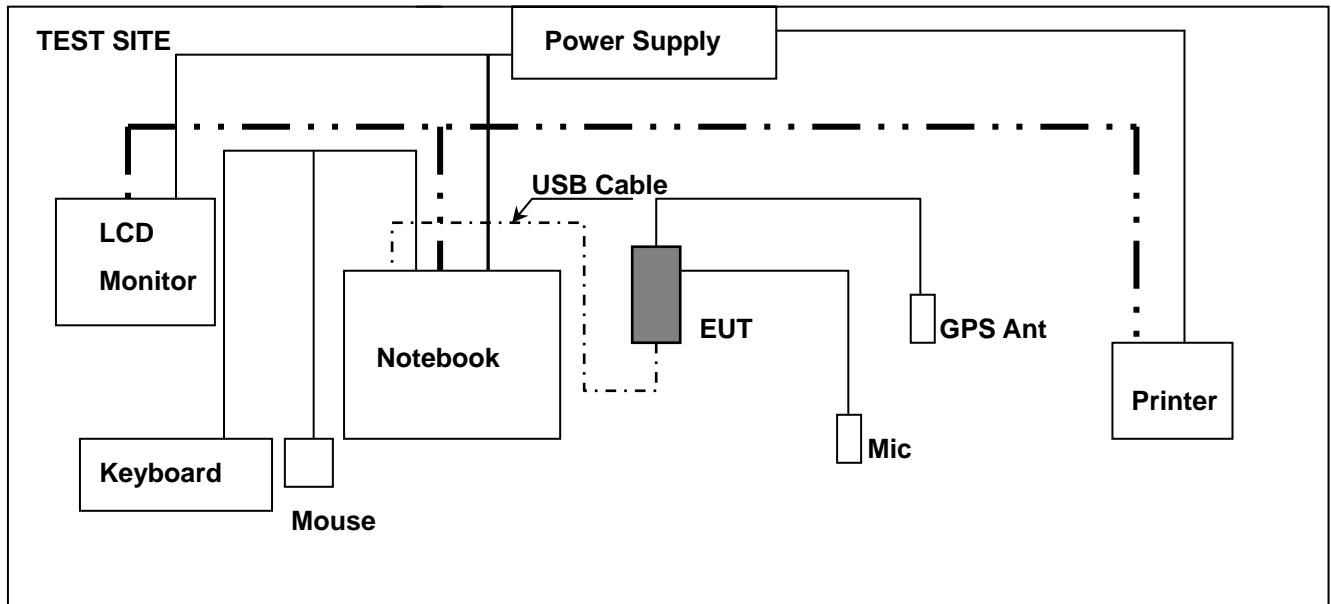


Figure 2. Configuration of System Under Test for PC USB Link

During testing (LINK & Stand by Mode) the EUT (GPS Tracker)'s Mic port connected to microphone and GPS antenna port was connected to GPS antenna and turn on GPS Receiver.

EUT (GPS Tracker)'s mini USB port connected to AE's Notebook.

A mouse was connected to the USB port of Notebook. And a keyboard & printer were connected to the USB ports of Notebook. An external LCD monitor connected the VGA port on AE' Notebook.



1.6 Test Procedure

All measurements contained in this report were performed according to the techniques described in Measurement procedure ANSI C63.4-2003 "Measurement of un-Intentional Radiators."

1.7 General Test Condition

The conditions under which the EUT operates were varied to determine their effect on the equipment's emission characteristics. The final configuration of the test system and the mode of operation used during these tests were chosen as that which produced the highest emission levels. However, only those conditions which the EUT was considered likely to encounter in normal use were investigated. The system's radiated and conducted emissions were investigated while the computer alternately transferred data to the EUT as well as to the monitor and printer. Using a test program which sent a continuous data and transferred data to and from the EUT was proven to worst case emissions. The system's physical layout and cabling was randomly arranged to ensure that maximum emission levels were attained.



2. Conducted Emissions Requirements

2.1 General & Setup:

The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the back wall and at least 1 meter from the sidewall.

Power was fed to the EUT from the public utility power grid through a line filter and EMCO Model 3162/2 SH Line Impedance Stabilization Networks (LISN). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPR quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.

The spectrum was scanned from 150 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in paragraph 2.6.

2.2 Test Equipment List:

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Advantest	R3132	160300103	Mar. 23, 2007	Mar. 23, 2008
Test Receiver	R&S	ESCI	100367	May. 03, 2006	May. 02, 2007
LISN	EMCO	3816/2 SH	00060110	May. 03, 2006	May. 02, 2007
LISN	EMCO	3816/2 SH	00060110	May. 03, 2006	May. 02, 2007
Transient Limiter	ELECTRO-METRICS	EM-7600	777	Jun. 26, 2006	Jun. 26, 2007

2.3 Test Configuration:

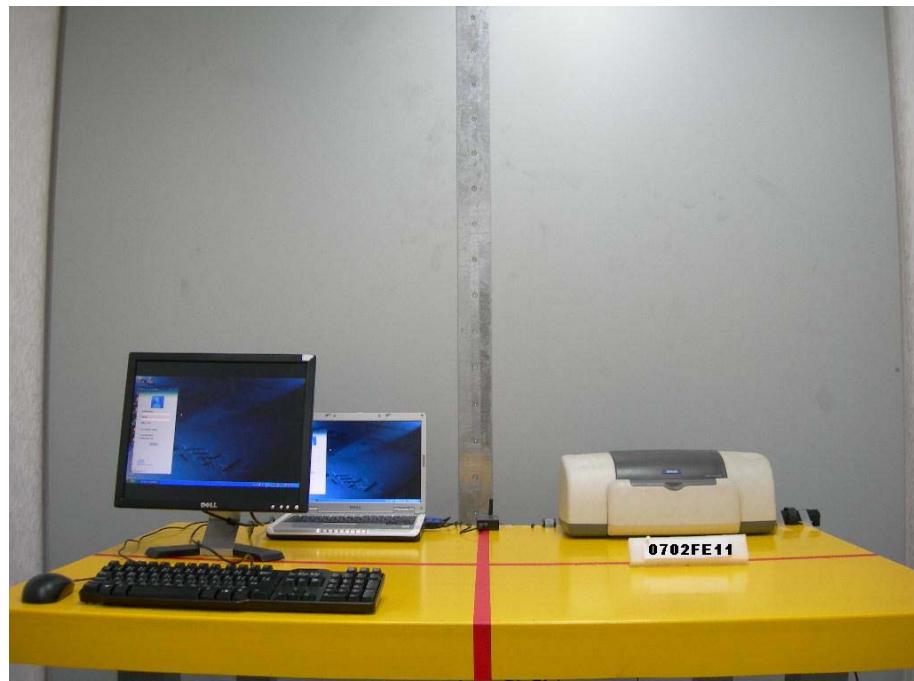


Figure 3. Front View of the Test Configuration



Figure 4. Rear View of the Test Configuration



2.4 Test condition:

EUT tested in accordance with the specifications given by the Manufacturer, and exercised in the most unfavorable manner.

2.5 Conducted Emissions Limits:

Frequency range (MHz)	Limits (dBuV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5.0	56	46
5.0 to 30	60	50



2.6 Measurement Data of Conducted Emissions:

2.6.1 Conducted Emissions (Subpart B)

The following table show a summary of the highest emissions of power line conducted emissions to the HOT and NATURAL conductor of the EUT power.

Applicant : GoPass Technology Corp.
Model No : AVL-900
EUT : GPS TRACKER
Test Mode : PC USB Link
Test Date : 04/13/2007

Notes:

1. L1: One end & Ground L2: The other end & Ground
2. Height of table on which the EUT was placed: 0.8 m.
3. The Quasi-Peak Value have already met the Average Value Limit showed on above limits.
4. The above test results are obtained under the normal condition.

Conducted Emission Measurement

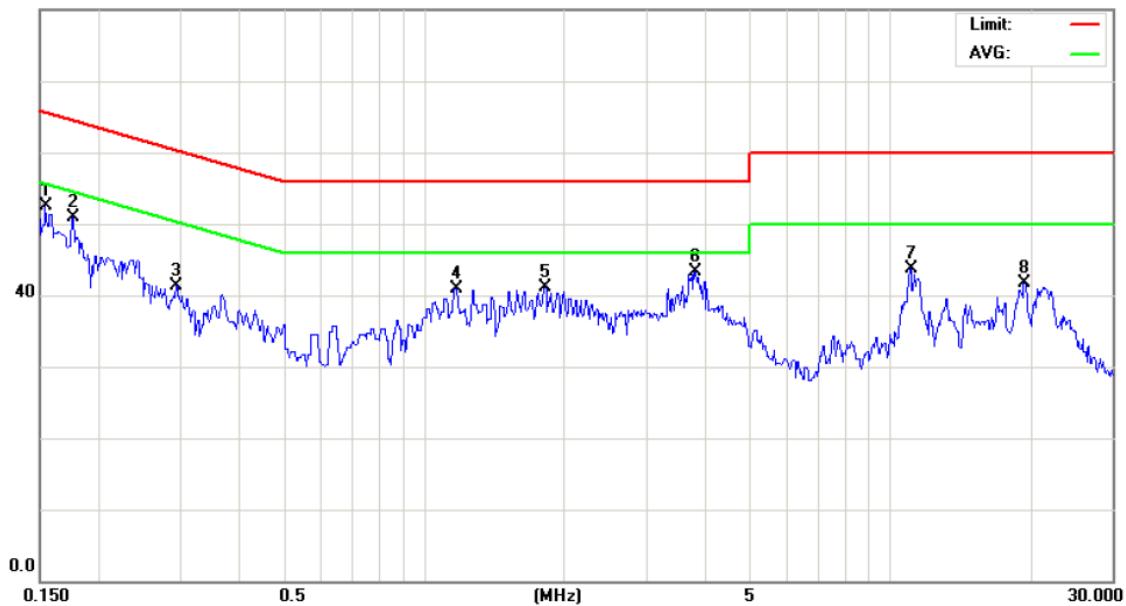
File : AVL-900 conduction(04-16)

Data : #1

Date: 2007/04/13

Time: 上午 10:22:21

80.0 dBuV



Site: 966半電波暗室

Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 110V/60Hz

Humidity: 55 %

EUT: Vehicel Tracking

M/N: AVL-900

Mode:

Note: GPS Link

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV	dB			
1	0.1542	42.74	9.73	52.47	65.77	-13.30	peak		
2	0.1759	41.08	9.74	50.82	64.67	-13.85	peak		
3	0.2938	31.46	9.76	41.22	60.41	-19.19	peak		
4	1.1749	31.04	9.80	40.84	56.00	-15.16	peak		
5	1.8139	31.23	9.82	41.05	56.00	-14.95	peak		
6 *	3.8119	33.44	9.95	43.39	56.00	-12.61	peak		
7	11.0500	33.59	10.11	43.70	60.00	-16.30	peak		
8	19.3500	31.46	10.27	41.73	60.00	-18.27	peak		

*:Maximum data

x:Over limit

!:over margin

●Reference Only

Conducted Emission Measurement

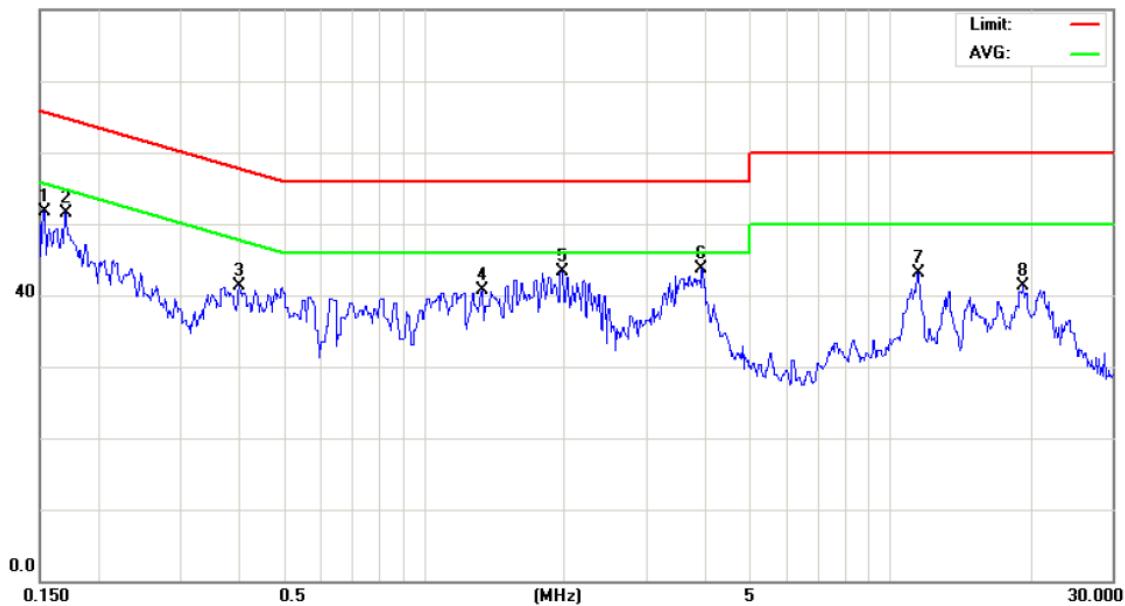
File : AVL-900 conduction(04-16)

Data : #2

Date: 2007/04/13

Time: 上午 10:31:32

80.0 dBuV



Site: 966半電波暗室

Phase: **L2**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 110V/60Hz

Humidity: 55 %

EUT: Vehicel Tracking

M/N: AVL-900

Mode:

Note: GPS Link

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
			MHz	dBuV	dB	dBuV	dB		
1	0.1527	42.02	9.73	51.75	65.85	-14.10		peak	
2	0.1696	41.70	9.73	51.43	64.98	-13.55		peak	
3	0.4004	31.54	9.78	41.32	57.84	-16.52		peak	
4	1.3366	30.92	9.82	40.74	56.00	-15.26		peak	
5	1.9758	33.46	9.85	43.31	56.00	-12.69		peak	
6	*	3.9378	33.71	9.98	43.69	56.00	-12.31	peak	
7	11.4496	32.95	10.12	43.07	60.00	-16.93		peak	
8	19.3000	31.06	10.27	41.33	60.00	-18.67		peak	

*:Maximum data

x:Over limit

!:over margin

●Reference Only



2.6.2 Conducted Emissions (Subpart B)

The following table show a summary of the highest emissions of power line conducted emissions to the HOT and NATURAL conductor of the EUT power.

Applicant	: GoPass Technology Corp.
Model No	: AVL-900
EUT	: GPS TRACKER
Test Mode	: Link Mode GSM 850 CH128 (Local Frequency: 824.2 MHz)
Test Date	: 04/16/2007

Notes:

1. L1: One end & Ground L2: The other end & Ground
2. Height of table on which the EUT was placed: 0.8 m.
3. The Quasi-Peak Value have already met the Average Value Limit showed on above limits.
4. The above test results are obtained under the normal condition.

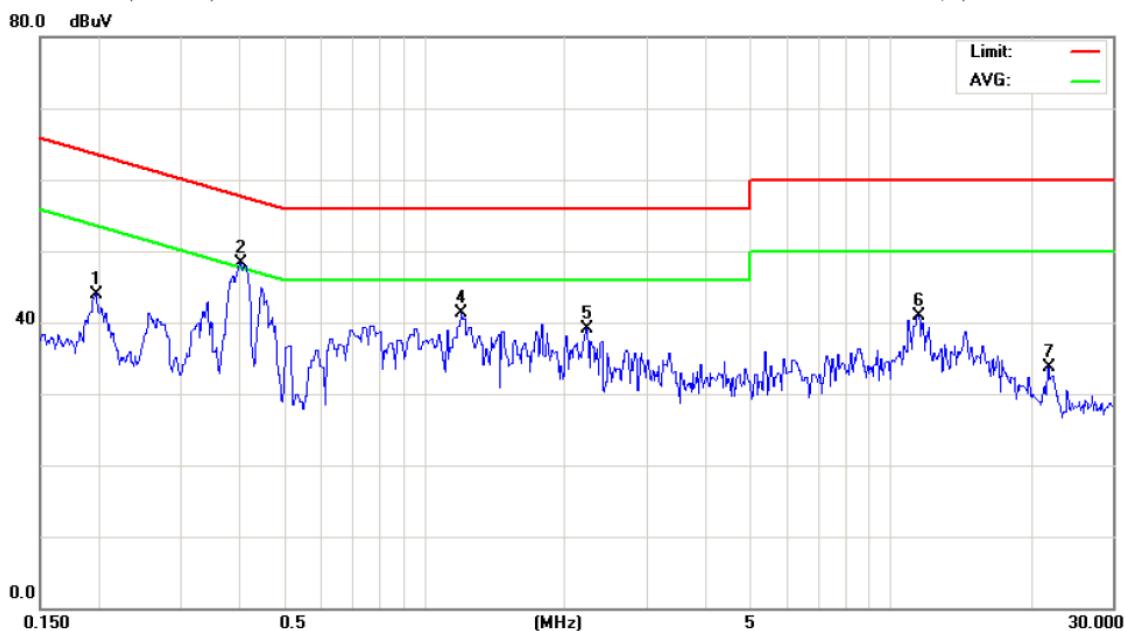
Conducted Emission Measurement

File : AVL-900(GSM850)

Data : #1

Date: 2007/04/16

Time: 下午 01:35:40



Site 966半電波暗室

Phase: L1

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 110V/60Hz

Humidity: 55 %

EUT: Vehicle Tracking

M/N: AVL-900

Mode: GSM850

Note: CH128

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dB _{uV}	dB	dB _{uV}	dB			
1		0.1976	34.18	9.74	43.92	63.71	-19.79	peak	
2	*	0.4020	38.61	9.78	48.39	57.81	-9.42	peak	
3		0.4020	20.29	9.78	30.07	47.81	-17.74	AVG	
4		1.2020	31.47	9.81	41.28	56.00	-14.72	peak	
5		2.2280	29.30	9.88	39.18	56.00	-16.82	peak	
6		11.4500	30.78	10.12	40.90	60.00	-19.10	peak	
7		21.7500	23.26	10.35	33.61	60.00	-26.39	peak	

*:Maximum data x:Over limit !:over margin

●Reference Only

Conducted Emission Measurement

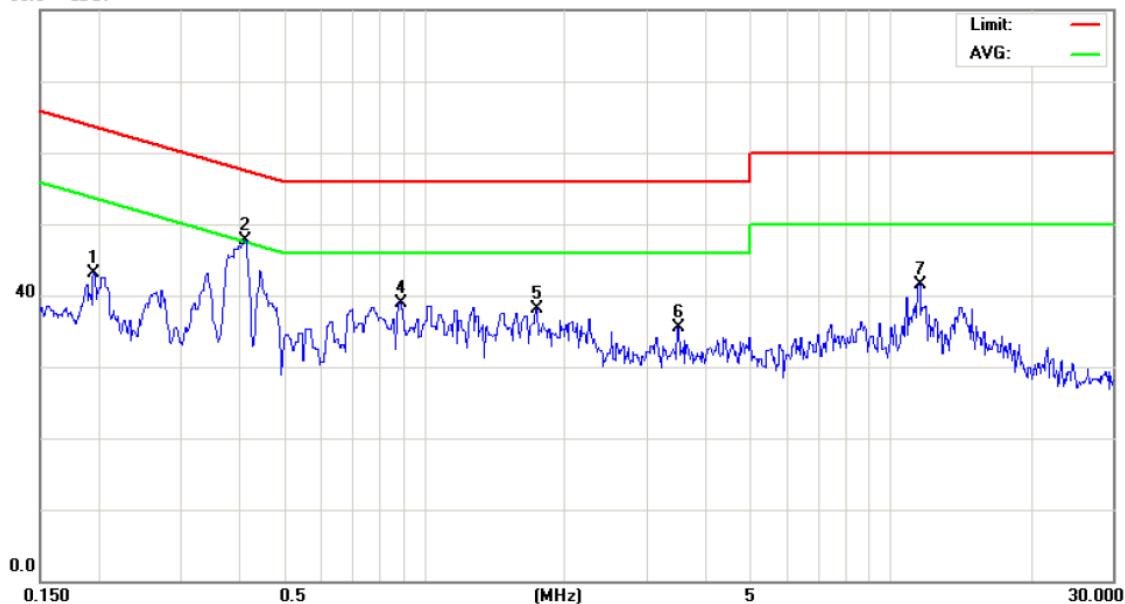
File :AVL-900(GSM850)

Data :#2

Date: 2007/04/16

Time: 下午 01:42:38

80.0 dBuV



Site 966半電波暗室

Phase: **L2**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 110V/60Hz

Humidity: 55 %

EUT: Vehicle Tracking

M/N: AVL-900

Mode: GSM850

Note: CH128

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
MHz		dBuV	dB	dBuV	dBuV	dB			
1	0.1955	33.36	9.74	43.10	63.80	-20.70	peak		
2 *	0.4125	37.94	9.78	47.72	57.60	-9.88	peak		
3	0.4125	24.12	9.78	33.90	47.60	-13.70	AVG		
4	0.8870	29.09	9.80	38.89	56.00	-17.11	peak		
5	1.7420	28.20	9.82	38.02	56.00	-17.98	peak		
6	3.4970	25.57	9.95	35.52	56.00	-20.48	peak		
7	11.5000	31.29	10.12	41.41	60.00	-18.59	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only



2.6.3 Conducted Emissions (Subpart B)

The following table show a summary of the highest emissions of power line conducted emissions to the HOT and NATURAL conductor of the EUT power.

Applicant	: GoPass Technology Corp.
Model No	: AVL-900
EUT	: GPS TRACKER
Test Mode	: Link Mode GSM 1900 CH512 (Local Frequency: 1850.2 MHz)
Test Date	: 04/16/2007

Notes:

1. L1: One end & Ground L2: The other end & Ground
2. Height of table on which the EUT was placed: 0.8 m.
3. The Quasi-Peak Value have already met the Average Value Limit showed on above limits.
4. The above test results are obtained under the normal condition.

Conducted Emission Measurement

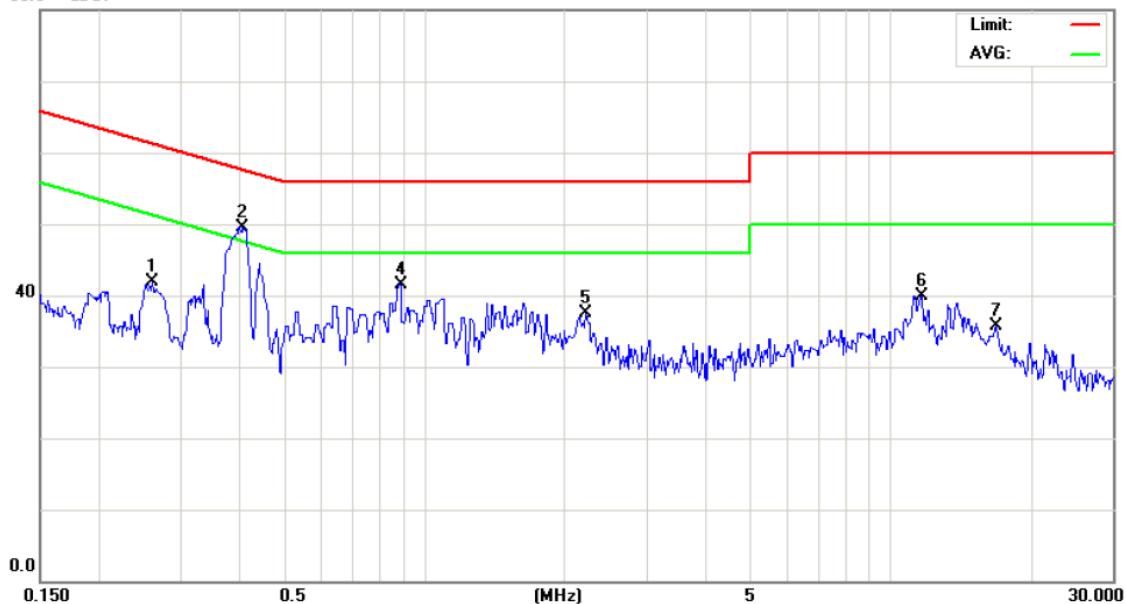
File :AVL-900(PCS1900)

Data :#7

Date: 2007/04/16

Time: 下午 02:07:03

80.0 dBuV



Site 966半電波暗室

Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 110V/60Hz

Humidity: 55 %

EUT: Vehicle Tracking

M/N: AVL-900

Mode: PCS1900

Note: CH512

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
MHz		dBuV	dB	dBuV	dBuV	dB			
1	0.2599	32.06	9.75	41.81	61.43	-19.62	peak		
2 *	0.4083	39.77	9.78	49.55	57.68	-8.13	peak		
3	0.4083	21.02	9.78	30.80	47.68	-16.88	AVG		
4	0.8870	31.71	9.80	41.51	56.00	-14.49	peak		
5	2.2190	27.63	9.88	37.51	56.00	-18.49	peak		
6	11.6500	29.73	10.12	39.85	60.00	-20.15	peak		
7	16.8000	25.52	10.25	35.77	60.00	-24.23	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

Conducted Emission Measurement

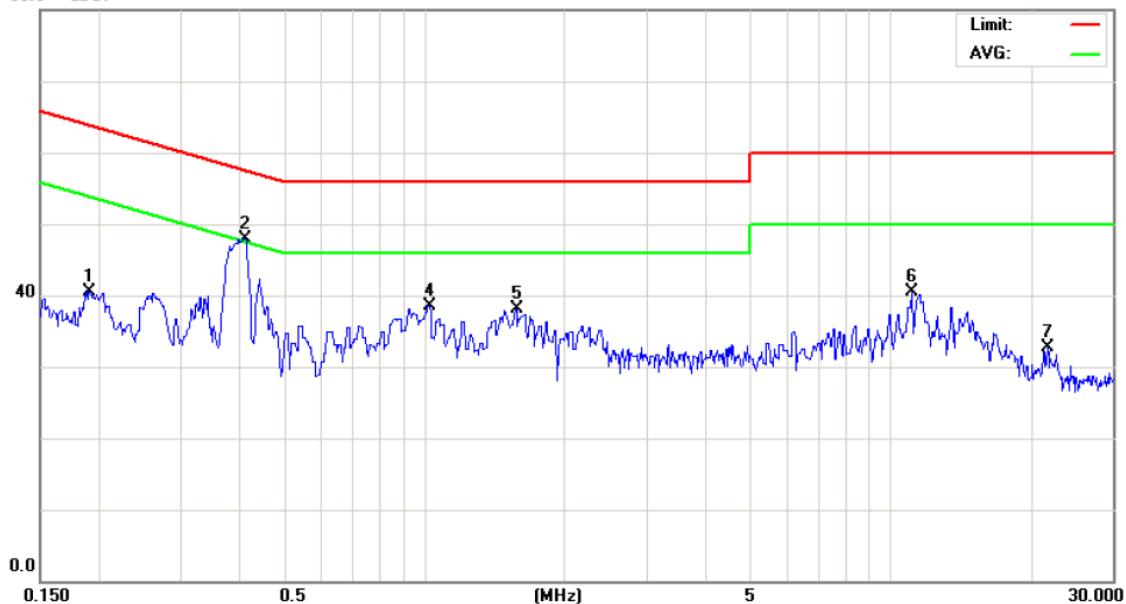
File :AVL-900(PCS1900)

Data :#8

Date: 2007/04/16

Time: 下午 02:12:31

80.0 dB_uV



Site 966半電波暗室

Phase: **L2**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 110V/60Hz

Humidity: 55 %

EUT: Vehicle Tracking

M/N: AVL-900

Mode: PCS1900

Note: CH512

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dB _u V	dB	dB _u V	dB			
1		0.1906	30.80	9.74	40.54	64.01	-23.47	peak	
2	*	0.4125	38.18	9.78	47.96	57.60	-9.64	peak	
3		0.4125	24.52	9.78	34.30	47.60	-13.30	AVG	
4		1.0220	28.68	9.80	38.48	56.00	-17.52	peak	
5		1.5710	28.37	9.81	38.18	56.00	-17.82	peak	
6		11.1000	30.38	10.11	40.49	60.00	-19.51	peak	
7		21.7000	22.41	10.35	32.76	60.00	-27.24	peak	

*:Maximum data

x:Over limit

!:over margin

●Reference Only



2.6.4 Conducted Emissions (Subpart B)

The following table show a summary of the highest emissions of power line conducted emissions to the HOT and NATURAL conductor of the EUT power.

Applicant	: GoPass Technology Corp.
Model No	: AVL-900
EUT	: GPS TRACKER
Test Mode	: Link Mode GSM 850 CH128 (Local Frequency: 824.2 MHz) & GPRS Data Link
Test Date	: 04/16/2007

Notes:

1. L1: One end & Ground L2: The other end & Ground
2. Height of table on which the EUT was placed: 0.8 m.
3. The Quasi-Peak Value have already met the Average Value Limit showed on above limits.
4. The above test results are obtained under the normal condition.

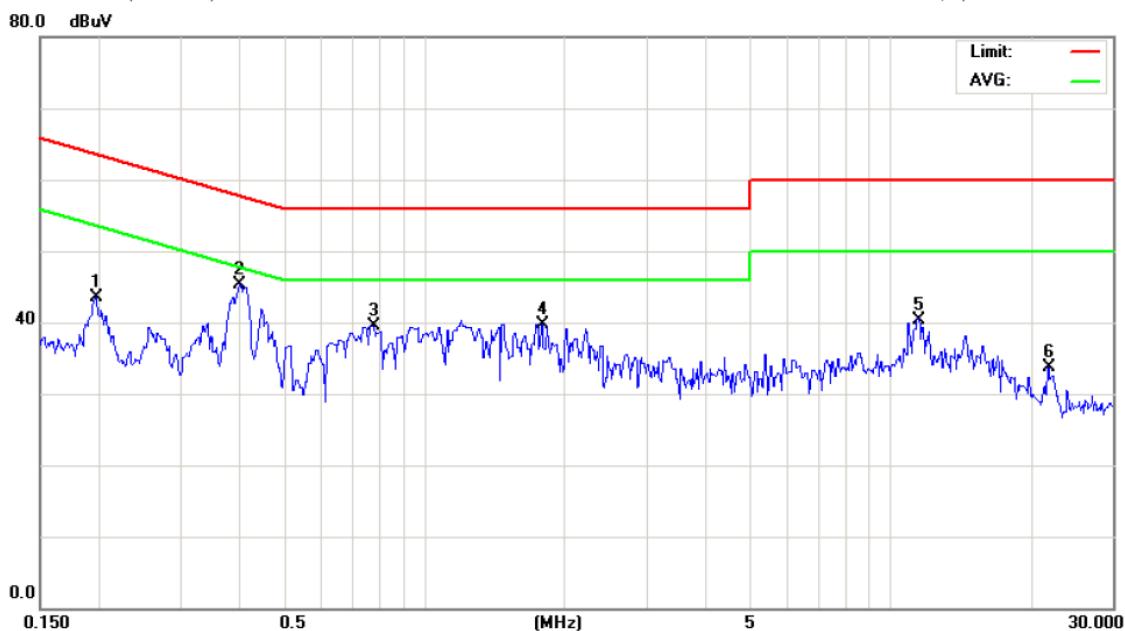
Conducted Emission Measurement

File : AVL-900(GSM850)GPRS

Data : #1

Date: 2007/04/16

Time: 下午 01:03:22



Site 966半電波暗室

Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 110V/60Hz

Humidity: 55 %

EUT: Vehicle Tracking

M/N: AVL-900

Mode: GSM850 (GPRS)

Note: CH128

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
			MHz	dBuV	dB	dBuV	dB		
1	0.1975	33.68	9.74	43.42	63.71	-20.29	peak		
2 *	0.4017	35.61	9.78	45.39	57.82	-12.43	peak		
3	0.7790	29.78	9.80	39.58	56.00	-16.42	peak		
4	1.7866	29.84	9.82	39.66	56.00	-16.34	peak		
5	11.4497	30.28	10.12	40.40	60.00	-19.60	peak		
6	21.7500	23.26	10.35	33.61	60.00	-26.39	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

Conducted Emission Measurement

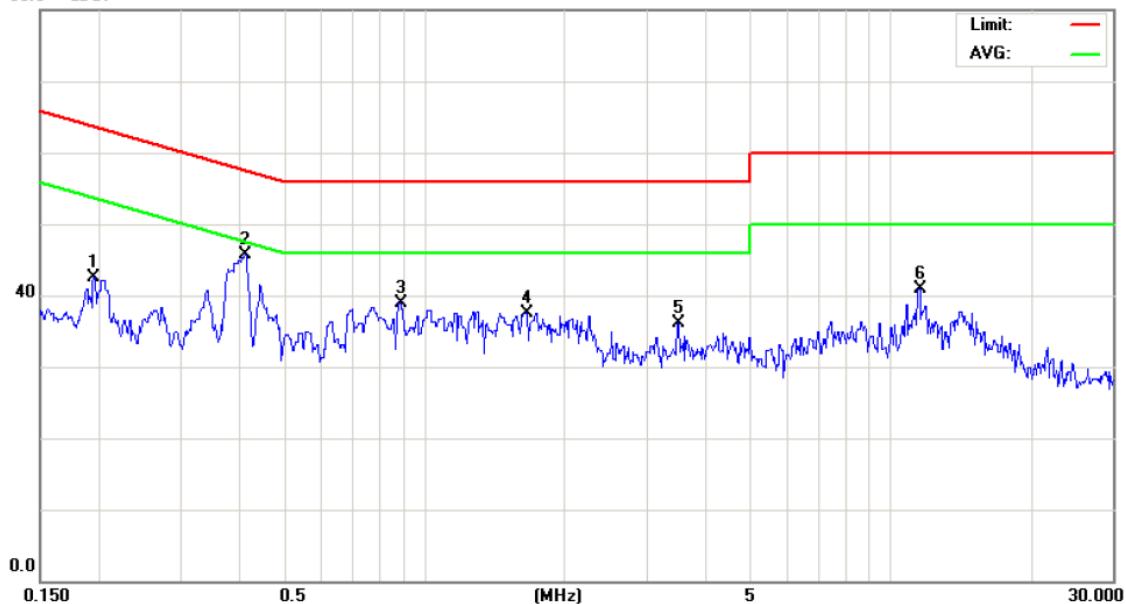
File :AVL-900(GSM850)GPRS

Data :#2

Date: 2007/04/16

Time: 下午 01:05:18

80.0 dB_uV



Site 966半電波暗室

Phase: **L2**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 110V/60Hz

Humidity: 55 %

EUT: Vehicle Tracking

M/N: AVL-900

Mode: GSM850 (GPRS)

Note: CH128

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dB _u V	dB	dB _u V	dB			
1		0.1955	32.86	9.74	42.60	63.80	-21.20	peak	
2	*	0.4122	35.94	9.78	45.72	57.60	-11.88	peak	
3		0.8870	29.09	9.80	38.89	56.00	-17.11	peak	
4		1.6609	27.76	9.83	37.59	56.00	-18.41	peak	
5		3.4969	26.08	9.94	36.02	56.00	-19.98	peak	
6		11.5000	30.79	10.12	40.91	60.00	-19.09	peak	

*:Maximum data x:Over limit !:over margin

●Reference Only



2.6.5 Conducted Emissions (Subpart B)

The following table show a summary of the highest emissions of power line conducted emissions to the HOT and NATURAL conductor of the EUT power.

Applicant	: GoPass Technology Corp.
Model No	: AVL-900
EUT	: GPS TRACKER
Test Mode	: Link Mode GSM 1900 CH512 (Local Frequency: 1850.2 MHz) & GPRS Data Link
Test Date	: 04/16/2007

Notes:

1. L1: One end & Ground L2: The other end & Ground
2. Height of table on which the EUT was placed: 0.8 m.
3. The Quasi-Peak Value have already met the Average Value Limit showed on above limits.
4. The above test results are obtained under the normal condition.

Conducted Emission Measurement

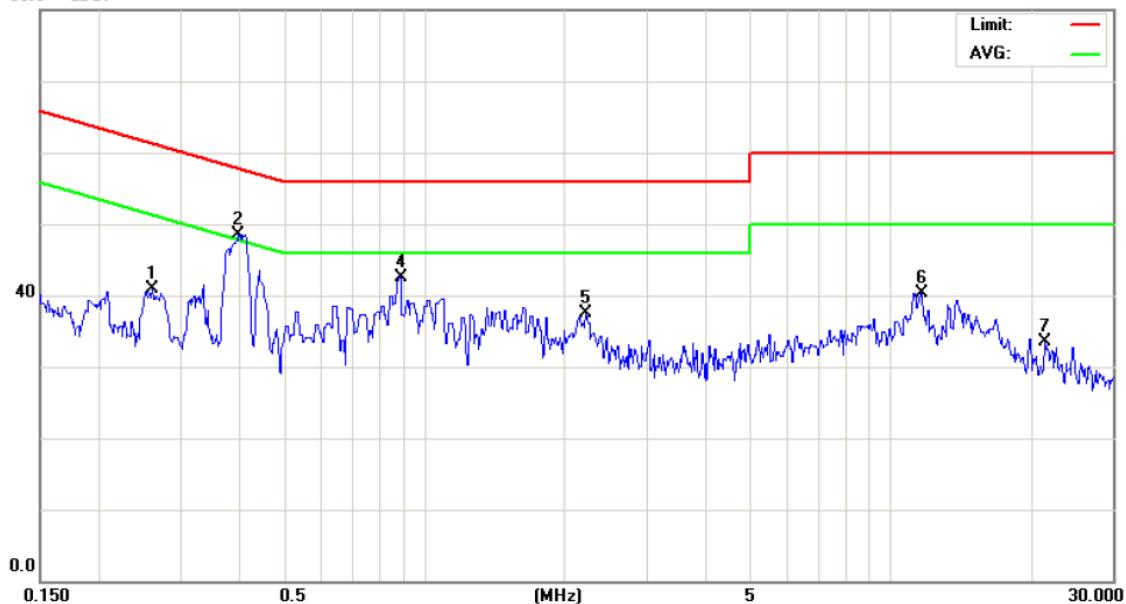
File :AVL-900(PCS1900)GPRS

Data :#7

Date: 2007/04/16

Time: 下午 02:35:44

80.0 dBuV



Site 966半電波暗室

Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 110V/60Hz

Humidity: 55 %

EUT: Vehicle Tracking

M/N: AVL-900

Mode: PCS1900(GPRS)

Note: CH512

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
			MHz	dBuV	dB	dBuV	dB		
1		0.2599	31.06	9.75	40.81	61.43	-20.62	peak	
2	*	0.3996	38.79	9.78	48.57	57.86	-9.29	peak	
3		0.3996	23.89	9.78	33.67	47.86	-14.19	AVG	
4		0.8870	32.71	9.80	42.51	56.00	-13.49	peak	
5		2.2189	27.63	9.88	37.51	56.00	-18.49	peak	
6		11.6500	30.23	10.12	40.35	60.00	-19.65	peak	
7		21.3998	23.21	10.32	33.53	60.00	-26.47	peak	

*:Maximum data x:Over limit !:over margin

●Reference Only

Conducted Emission Measurement

File :AVL-900(PCS1900)GPRS

Data :#8

Date: 2007/04/16

Time: 下午 02:38:27

80.0 dB_uV



Site 966半電波暗室

Phase: **L2**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 110V/60Hz

Humidity: 55 %

EUT: Vehicle Tracking

M/N: AVL-900

Mode: PCS1900(GPRS)

Note: CH512

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
			MHz	dB _u V	dB	dB _u V	dB		
1		0.2046	31.53	9.74	41.27	63.42	-22.15	peak	
2		0.2620	31.57	9.75	41.32	61.36	-20.04	peak	
3	*	0.4122	37.68	9.78	47.46	57.60	-10.14	peak	
4		0.4122	23.65	9.78	33.43	47.60	-14.17	AVG	
5		1.6157	28.25	9.82	38.07	56.00	-17.93	peak	
6		6.1999	25.71	10.09	35.80	60.00	-24.20	peak	
7		11.6998	28.57	10.12	38.69	60.00	-21.31	peak	

*:Maximum data

x:Over limit

!:over margin

●Reference Only



3. Radiated Emissions Requirements

3.1 Final radiation measurements were made on a three-meter:

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to working & Measurements spectrum range from 30 MHz to 26.5 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 120 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

A nonconductive material surrounded the EUT to supporting the EUT for standing on tree orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna (mode VULB9163) at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna (model BBHA9120D&9170) was used in frequencies 1 – 26.5 GHz at a distance of 3 or 1 meter. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20dB/decade).

For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts per meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro colts per meter (dBuV/m).

The actual field intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

$$(1) \text{Amplitude (dBuV/m)} = \text{FI (dBuV)} + \text{AF (dBuV)} + \text{CL (dBuV)} - \text{Gain (dB)}$$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

$$(2) \text{Actual Amplitude (dBuV/m)} = \text{Amplitude (dBuV)} - \text{Dis(dB)}$$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

(a) For fundamental frequency :

Transmitter Output < +30dBm

(b) For spurious frequency :

Spurious emission limits = fundamental emission limit /10



3.2 Test Equipment List:

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4408B	MY45107753	Apr. 27, 2006	Apr. 26, 2007
Pre Amplifier	Agilent	8449B	3008A02237	May. 03, 2006	May. 02, 2007
Pre Amplifier	Agilent	8447D	2944A10961	Aug. 07, 2006	Aug. 07, 2007
Test Receiver	R&S	ESCI	100367	May. 03, 2006	May. 02, 2007
Biconilog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	Jun. 26, 2006	Jun. 25, 2007
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	Jun. 26, 2006	Jun. 25, 2007
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	May. 02, 2006	May. 01, 2007
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120E	0899	Jul. 29, 2006	Jul. 29, 2007

3.3 Test Configuration:



Figure 5. Front View of the Test Configuration



Figure 6. Rear View of the Test Configuration



Figure 7. Front View of the Test Configuration

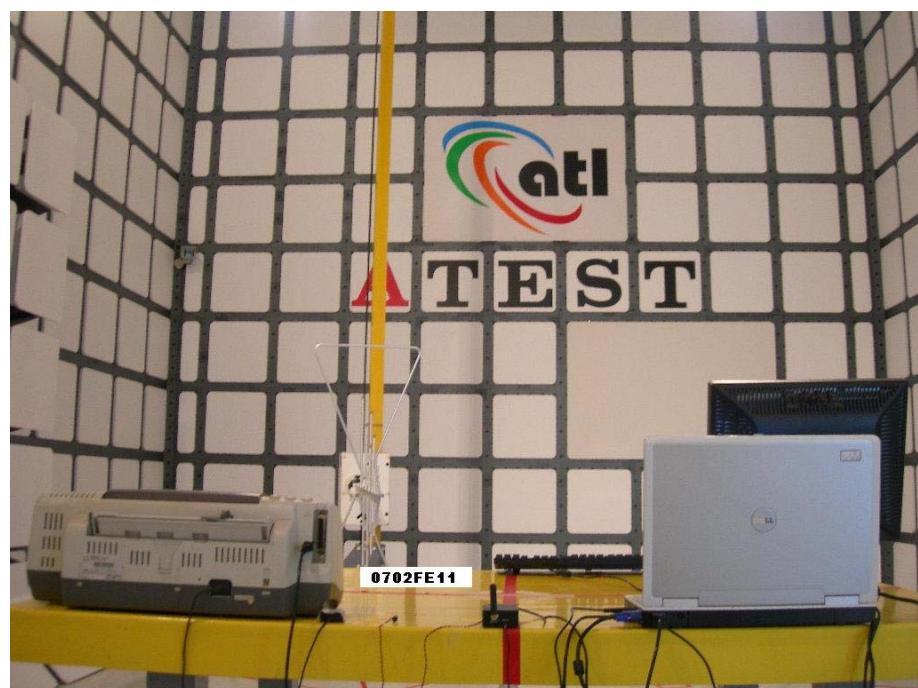


Figure 8. Rear View of the Test Configuration



3.4 Test condition:

EUT tested in accordance with the specifications given by the manufacturer, and exercised in the most unfavorable manner.

3.5 Radiated Emissions Limits:

Frequency range (MHz)	Peak(dBuV)
30 to 88	40
88 to 216	43.5
216 to 960	46
Above 960	54



3.6 Measurement Data of Radiated Emissions:

3.6.1 Open Field Radiated Emissions (Subpart B)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following.

Applicant : GoPass Technology Corp.

Model No : AVL-900

EUT : GPS TRACKER

Test Mode : Stand by

Test Date : 02/07/2007 ~ 05/16/2007

Please refer to next pager of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor
(Auto calculate in spectrum analyzer)

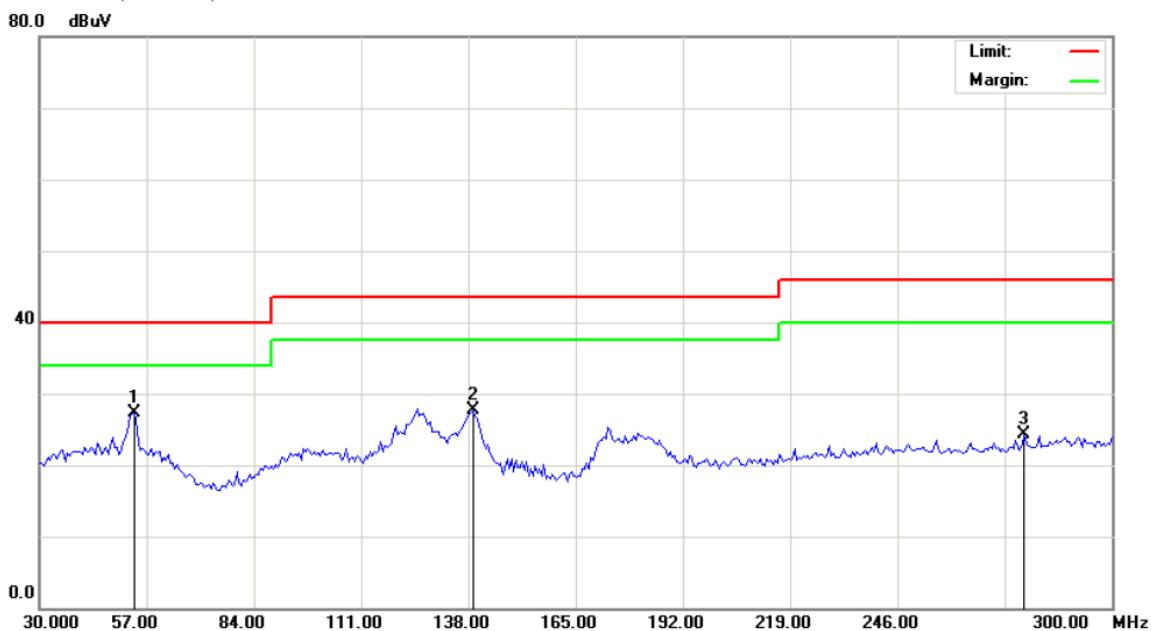
Radiated Emission Measurement

File :AVL-900(FCC Limit)

Data :#1

Date: 07/02/07/

Time: 18:25:46



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: GPS Tracker

Distance: 3m

M/N: AVL-900

Mode:

Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV	dB			
1	*	53.7599	39.58	-12.20	27.38	40.00	-12.62	peak	
2		139.0800	44.07	-16.28	27.79	43.50	-15.71	peak	
3		277.8599	34.78	-10.57	24.21	46.00	-21.79	peak	

*:Maximum data x:Over limit !:over margin

●Reference Only

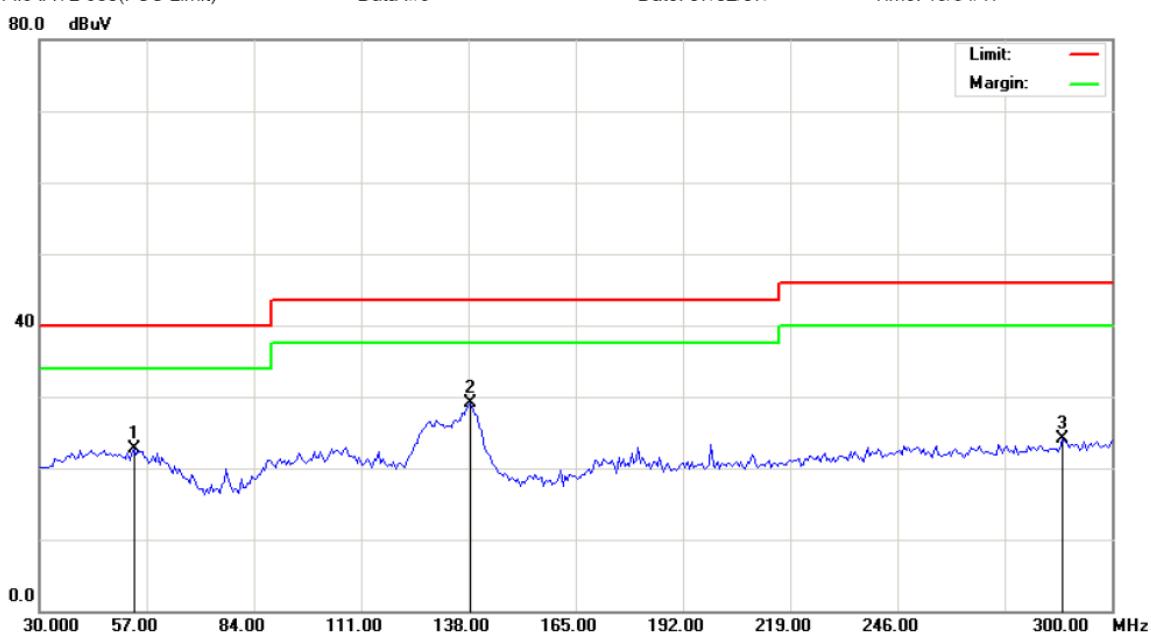
Radiated Emission Measurement

File :AVL-900(FCC Limit)

Data :#3

Date: 07/02/07/

Time: 18:34:17



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: GPS Tracker

Distance: 3m

M/N: AVL-900

Mode:

Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV	dB			
1	53.7599	34.88	-12.20	22.68	40.00	-17.32	peak		
2 *	138.5399	45.29	-16.24	29.05	43.50	-14.45	peak		
3	287.5799	34.30	-10.15	24.15	46.00	-21.85	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

Radiated Emission Measurement

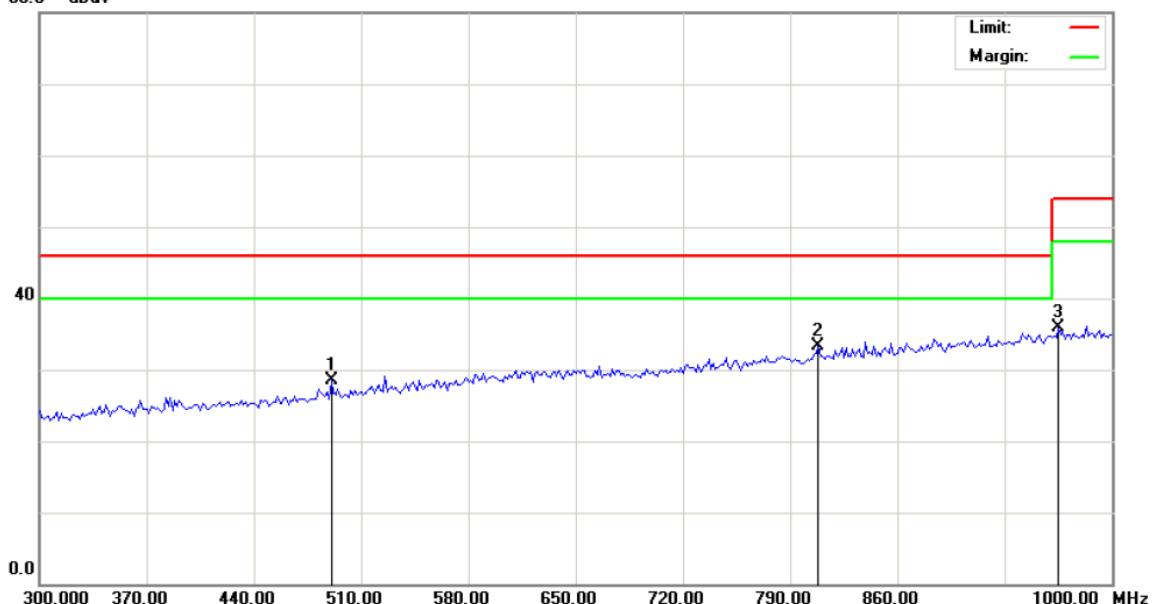
File :AVL-900(FCC Limit)

Data :#2

Date: 07/02/07/

Time: 18:30:02

80.0 dBuV



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: GPS Tracker

Distance: 3m

M/N: AVL-900

Mode:

Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV	dB			
1		490.3999	35.70	-7.26	28.44	46.00	-17.56	peak	
2	*	808.2000	35.08	-1.82	33.26	46.00	-12.74	peak	
3		965.0000	35.14	0.68	35.82	54.00	-18.18	peak	

*:Maximum data x:Over limit !:over margin

●Reference Only

Radiated Emission Measurement

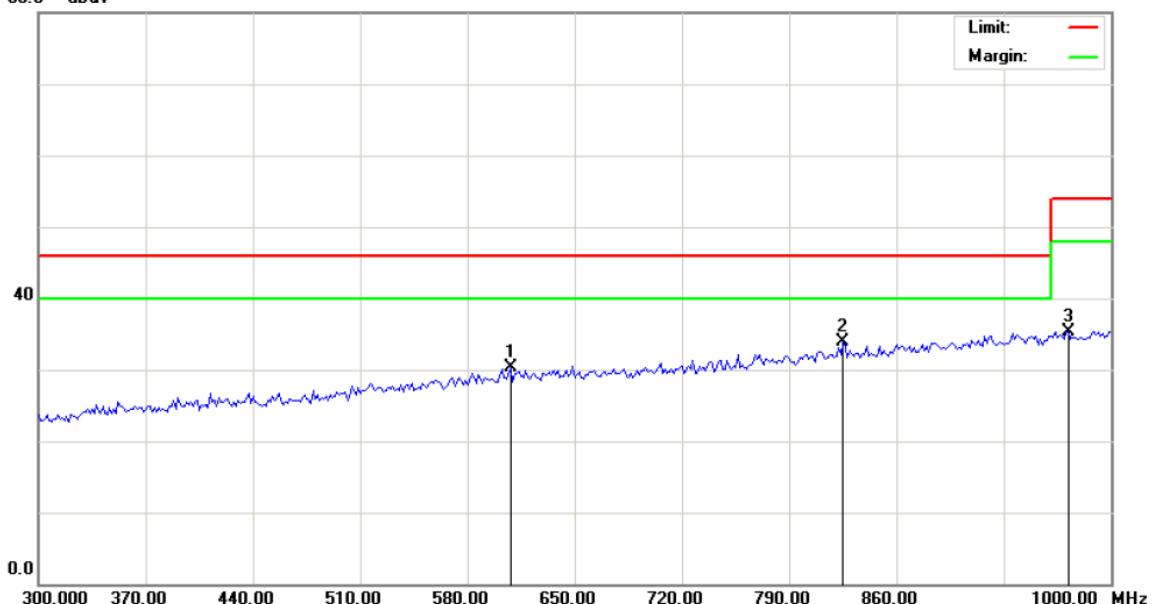
File :AVL-900(FCC Limit)

Data :#4

Date: 07/02/07/

Time: 18:38:33

80.0 dBuV



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: GPS Tracker

Distance: 3m

M/N: AVL-900

Mode:

Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV	dB			
1		608.0000	34.99	-4.60	30.39	46.00	-15.61	peak	
2	*	825.0000	35.33	-1.42	33.91	46.00	-12.09	peak	
3		972.0000	34.64	0.69	35.33	54.00	-18.67	peak	

*:Maximum data x:Over limit !:over margin

●Reference Only

Radiated Emission Measurement

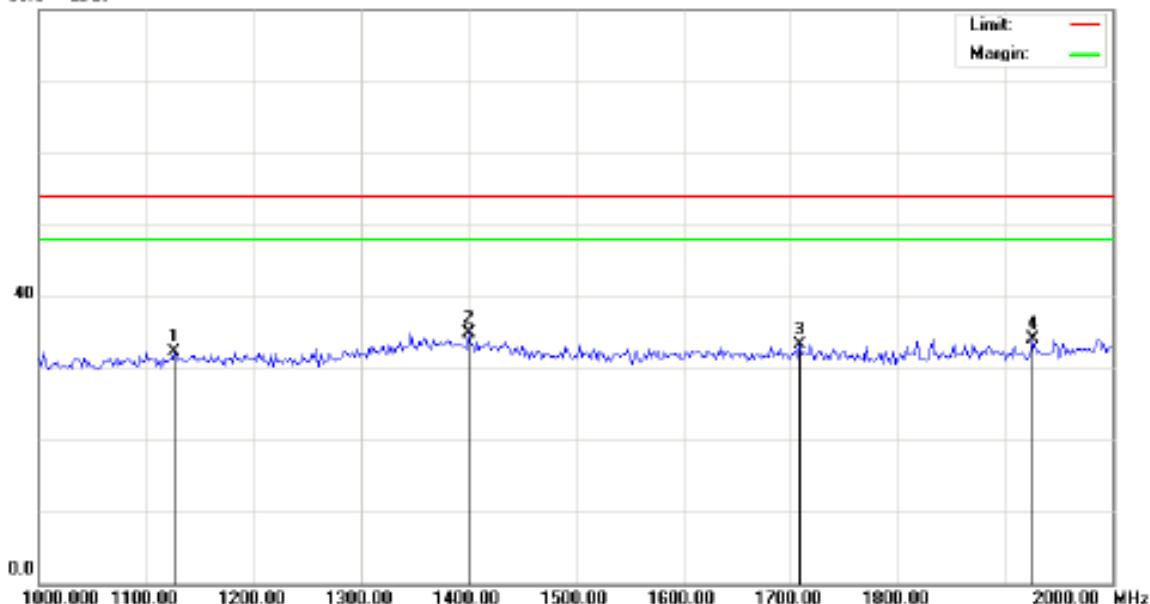
File: AVL-900(FCC Limit)

Data #6

Date: 2007/5/16

Time: 下午 07:04:01

80.0 dBuV



Site Polarization: **Vertical** Temperature: 22 °C

Limit: FCC Class B 3M Radiation Power: Humidity: 60 %

EUT: Vehicle Tracking Distance: 3m

M/N: AVL-900

Mode:

Note: stand by

No.	Mk.	Reading Level	Correct Factor	Measure- ment	Limit	Over	Antenna Height	Table Degree		
		MHz	dBuV	dB	dBuV	dB	Detector	cm	degree	Comment
1		1126.000	27.99	4.33	32.32	54.00	-21.68	peak		
2	*	1400.000	30.25	4.73	34.98	54.00	-19.02	peak		
3		1708.000	28.18	5.19	33.37	54.00	-20.63	peak		
4		1926.000	28.60	5.51	34.11	54.00	-19.89	peak		

*:Maximum data x:Over limit !:over margin

•Reference Only

Radiated Emission Measurement

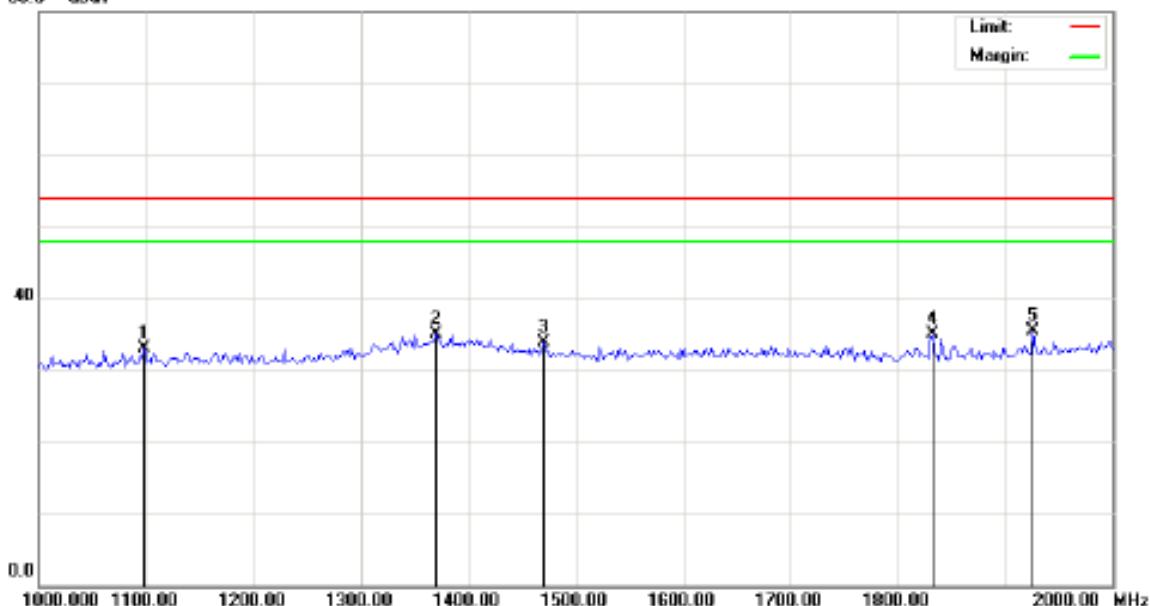
File: AVL-900(FCC Limit)

Data #6

Date: 2007/5/16

Time: 下午 07:04:30

80.0 dBuV



Site Polarization: **Horizontal** Temperature: 22 °C

Limit: FCC Class B 3M Radiation Power: Humidity: 60 %

EUT: Vehicle Tracking Distance: 3m

M/N: AVL-900

Mode:

Note: stand by

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1		1098.000	28.75	4.28	33.03	54.00	-20.97	peak		
2		1370.000	30.33	4.69	35.02	54.00	-18.98	peak		
3		1470.000	29.07	4.84	33.91	54.00	-20.09	peak		
4		1832.000	29.66	5.37	35.03	54.00	-18.97	peak		
5	*	1926.000	30.04	5.51	35.55	54.00	-18.45	peak		

*:Maximum data x:Over limit !:over margin

•Reference Only



3.6.2 Open Field Radiated Emissions (Subpart B)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following

Applicant : GoPass Technology Corp.
Model No : AVL-900
EUT : GPS Tracker
Test Mode : Link Mode GSM 850 CH128 (Local Frequency: 824.2 MHz)
Test Date : 02/07/2007 ~ 05/16/2007

Please refer to next page of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor
(Auto calculate in spectrum analyzer)

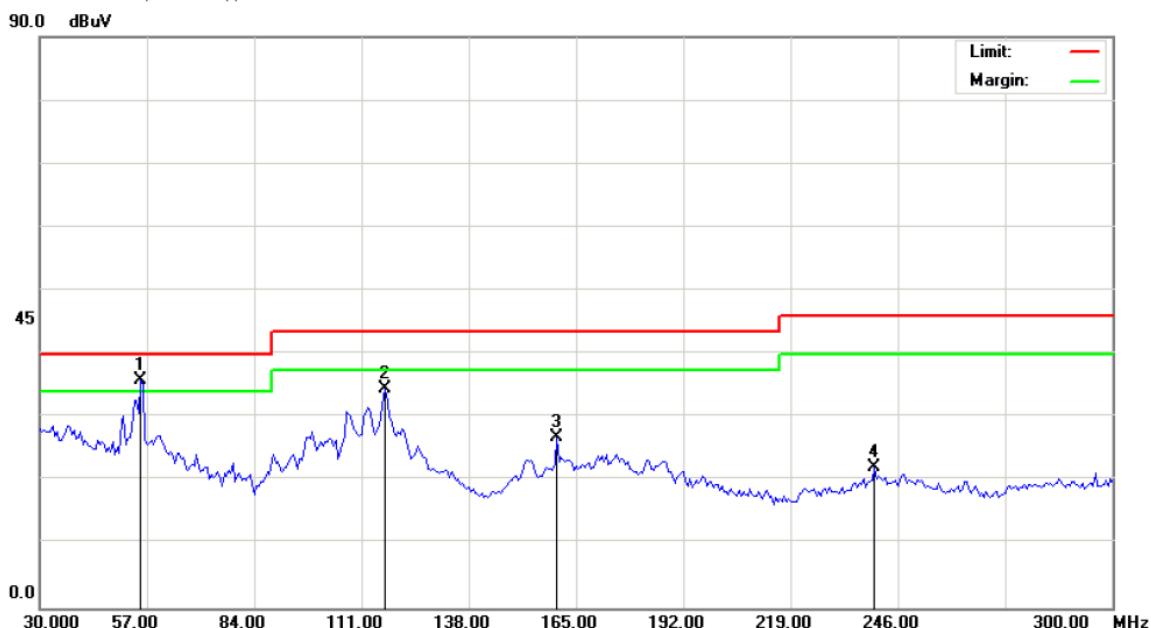
Radiated Emission Measurement

File :301489EMI(GSM850)(FCC Li

Data :#1

Date: 2007/02/07

Time: 20:12:18



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode:

Note: CH128(824.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1	*	55.3800	40.32	-4.40	35.92	40.00	-4.08	peak		
2		116.9398	44.70	-10.15	34.55	43.50	-8.95	peak		
3		160.1399	40.24	-13.39	26.85	43.50	-16.65	peak		
4		240.0600	32.39	-10.26	22.13	46.00	-23.87	peak		

*:Maximum data x:Over limit !:over margin

•Reference Only

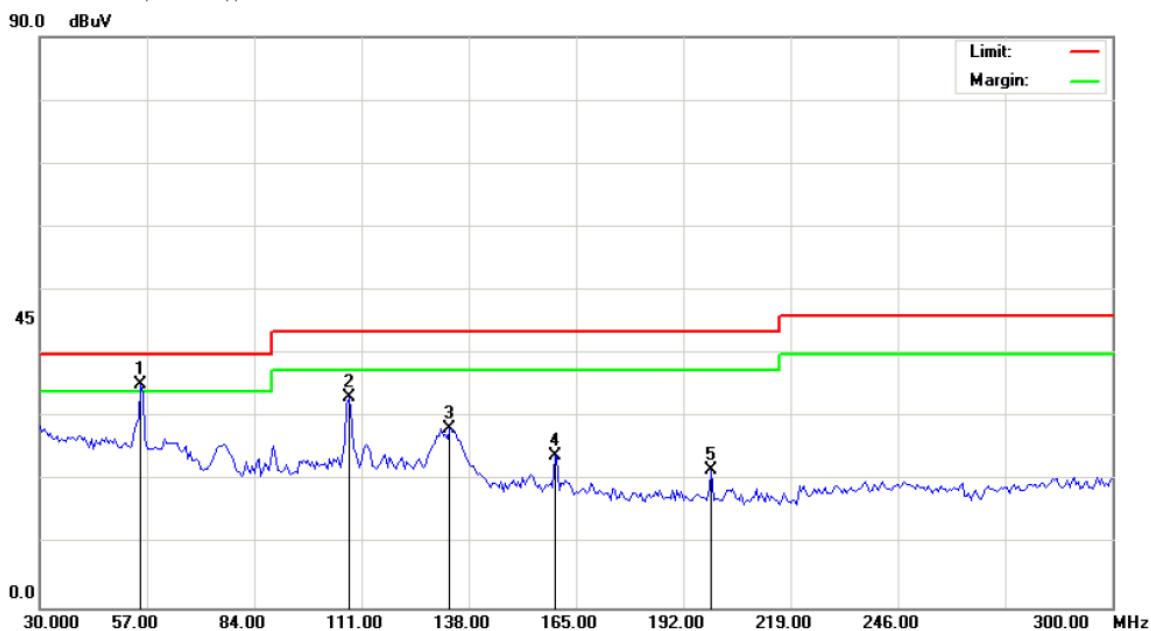
Radiated Emission Measurement

File :301489EMI(GSM850)(FCC Li

Data :#3

Date: 2007/02/07

Time: 20:19:24



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode:

Note: CH128(824.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1	*	55.3800	39.52	-4.40	35.12	40.00	-4.88	peak		
2		107.7600	41.51	-8.24	33.27	43.50	-10.23	peak		
3		133.1399	41.30	-13.02	28.28	43.50	-15.22	peak		
4		159.5997	37.38	-13.42	23.96	43.50	-19.54	peak		
5		199.0200	33.36	-11.75	21.61	43.50	-21.89	peak		

*:Maximum data x:Over limit !:over margin

•Reference Only

Radiated Emission Measurement

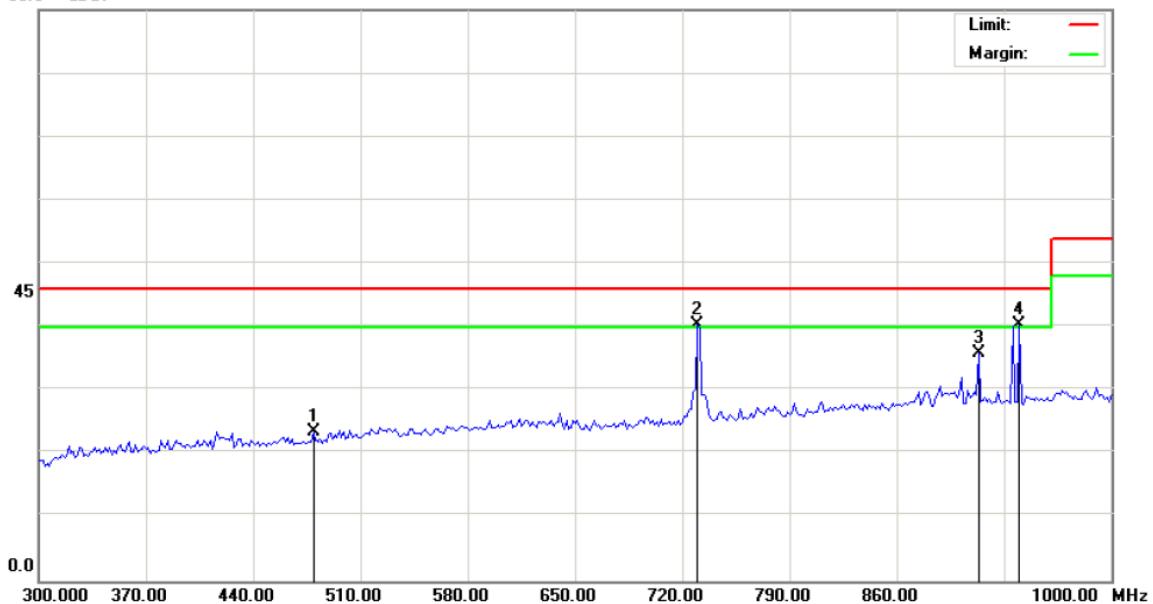
File :301489EMI(GSM850)(FCC Li

Data :#2

Date: 2007/02/07

Time: 20:16:33

90.0 dBuV



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode:

Note: CH128(824.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1		479.1999	31.03	-7.50	23.53	46.00	-22.47	peak		
2	!	729.7998	43.81	-3.47	40.34	46.00	-5.66	peak		
3		913.2000	36.07	-0.10	35.97	46.00	-10.03	peak		
4	*	939.7998	40.03	0.37	40.40	46.00	-5.60	peak		

*:Maximum data x:Over limit !:over margin

•Reference Only

Radiated Emission Measurement

File :301489EMI(GSM850)(FCC Li

Data :#4

Date: 2007/02/07

Time: 20:21:24

90.0 dBuV



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode:

Note: CH128(824.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1		417.6000	31.66	-7.95	23.71	46.00	-22.29	peak		
2		640.2000	32.78	-4.38	28.40	46.00	-17.60	peak		
3		729.7998	39.36	-3.47	35.89	46.00	-10.11	peak		
4	*	939.7998	37.22	0.37	37.59	46.00	-8.41	peak		

*:Maximum data x:Over limit !:over margin

•Reference Only



Radiated Emission Measurement

File: 301489EMI(GSM850)(FCC LI

Data #5

Date: 2007/5/16

Time: 下午 06:46:24

80.0 dBuV



Site: Polarization: **Vertical** Temperature: 22 °C
Limit: FCC Class B 3M Radiation Power: Humidity: 60 %
EUT: Vehicle Tracking Distance: 3m
M/N: AVL-900
Mode:
Note: CH128(824.2MHz)LINK

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		1136.000	27.75	4.34	32.09	54.00	-21.91	peak			
2	*	1358.000	29.86	4.67	34.53	54.00	-19.47	peak			
3		1618.000	28.02	5.05	33.07	54.00	-20.93	peak			
4		1840.000	28.93	5.38	34.31	54.00	-19.69	peak			

*:Maximum data x:Over limit !:over margin

•Reference Only

Radiated Emission Measurement

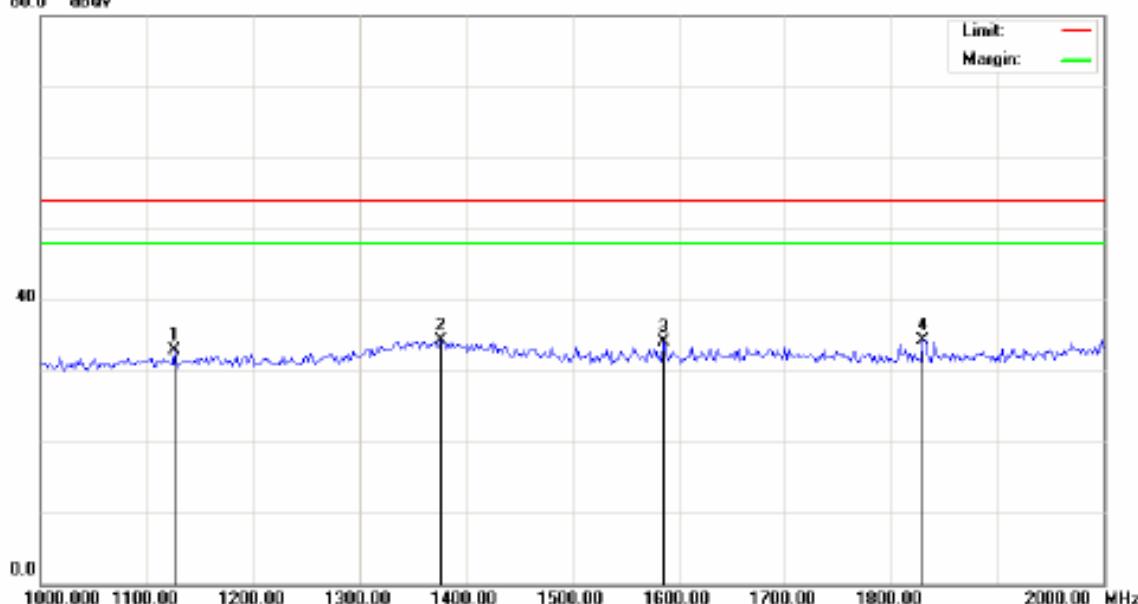
File: 301489EMI(GSM850)(FCC LI

Data #6

Date: 2007/5/16

Time: 下午 06:46:51

80.0 dBuV



Site: Polarization: **Horizontal** Temperature: 22 °C

Limit: FCC Class B 3M Radiation Power: Humidity: 60 %

EUT: Vehicle Tracking Distance: 3m

M/N: AVL-900

Mode:

Note: CH128(824.2MHz)LINK

No.	Mk.	Reading	Correct	Measure-	Limit	Over	Antenna	Table		
		Freq.	Level	Factor					Comment	
		MHz	dBuV	dB	dBuV	dB	Detector	cm	degree	
1		1126.000	28.65	4.33	32.98	54.00	-21.02	peak		
2		1376.000	29.53	4.70	34.23	54.00	-19.77	peak		
3		1586.000	29.00	5.01	34.01	54.00	-19.99	peak		
4	*	1830.000	28.93	5.37	34.30	54.00	-19.70	peak		

*:Maximum data x:Over limit !:over margin

•Reference Only



3.6.3 Open Field Radiated Emissions (Subpart B)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following.

Applicant : GoPass Technology Corp.
Model No : AVL-900
EUT : GPS Tracker
Test Mode : Link Mode GSM 1900 CH512 (Local Frequency: 1850.2 MHz)
Test Date : 02/06/2007 ~ 05/16/2007

Please refer to next pager of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor
(Auto calculate in spectrum analyzer)

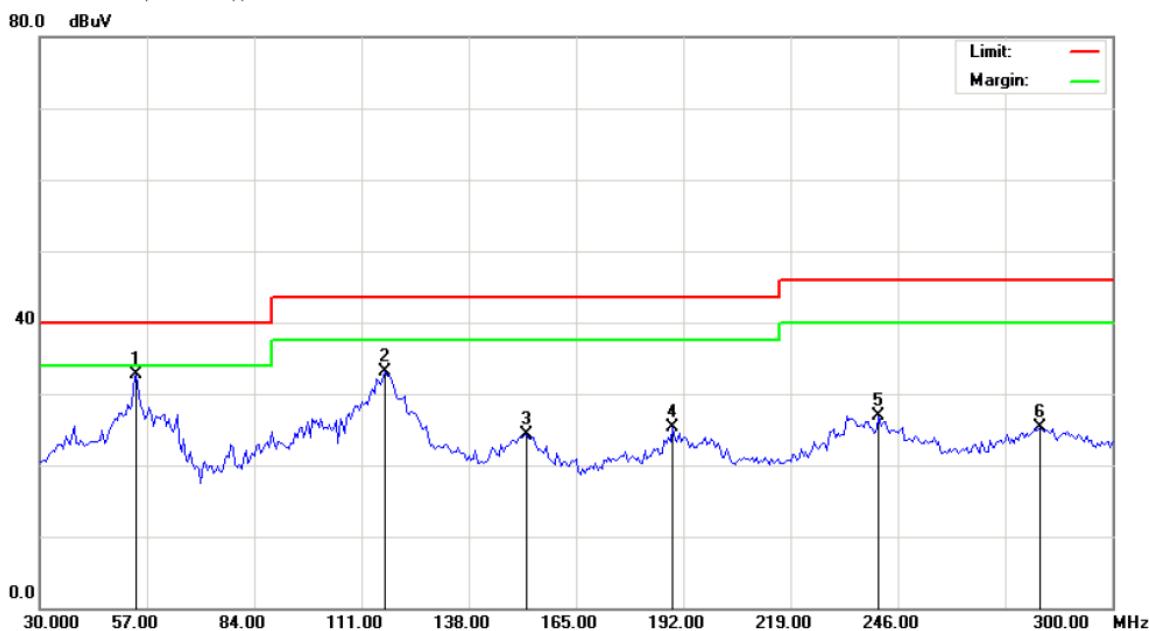
Radiated Emission Measurement

File :301489EMI(PCS1900)(FCC L

Data :#1

Date: 2007/02/06

Time: 23:04:13



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode:

Note: CH512(1850.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1	*	54.2999	44.92	-12.21	32.71	40.00	-7.29	peak		
2		116.9399	46.76	-13.68	33.08	43.50	-10.42	peak		
3		152.5800	40.32	-15.95	24.37	43.50	-19.13	peak		
4		189.3000	38.72	-13.43	25.29	43.50	-18.21	peak		
5		241.1399	38.25	-11.39	26.86	46.00	-19.14	peak		
6		281.6399	35.76	-10.38	25.38	46.00	-20.62	peak		

*:Maximum data

x:Over limit

!:over margin

•Reference Only

Radiated Emission Measurement

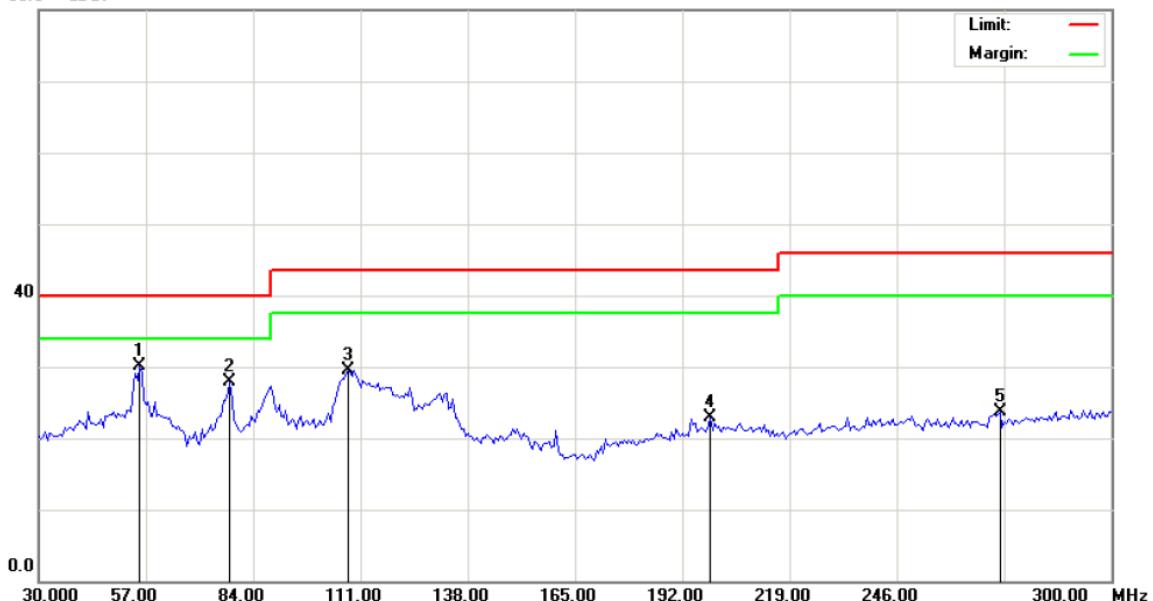
File :301489EMI(PCS1900)(FCC L

Data :#3

Date: 2007/02/06

Time: 23:15:14

80.0 dBuV



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode:

Note: CH512(1850.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1	*	55.3800	42.37	-12.24	30.13	40.00	-9.87	peak		
2		78.0600	44.71	-16.79	27.92	40.00	-12.08	peak		
3		107.7600	41.85	-12.32	29.53	43.50	-13.97	peak		
4		199.0200	36.10	-13.16	22.94	43.50	-20.56	peak		
5		271.9200	34.55	-10.88	23.67	46.00	-22.33	peak		

*:Maximum data

x:Over limit

!:over margin

•Reference Only

Radiated Emission Measurement

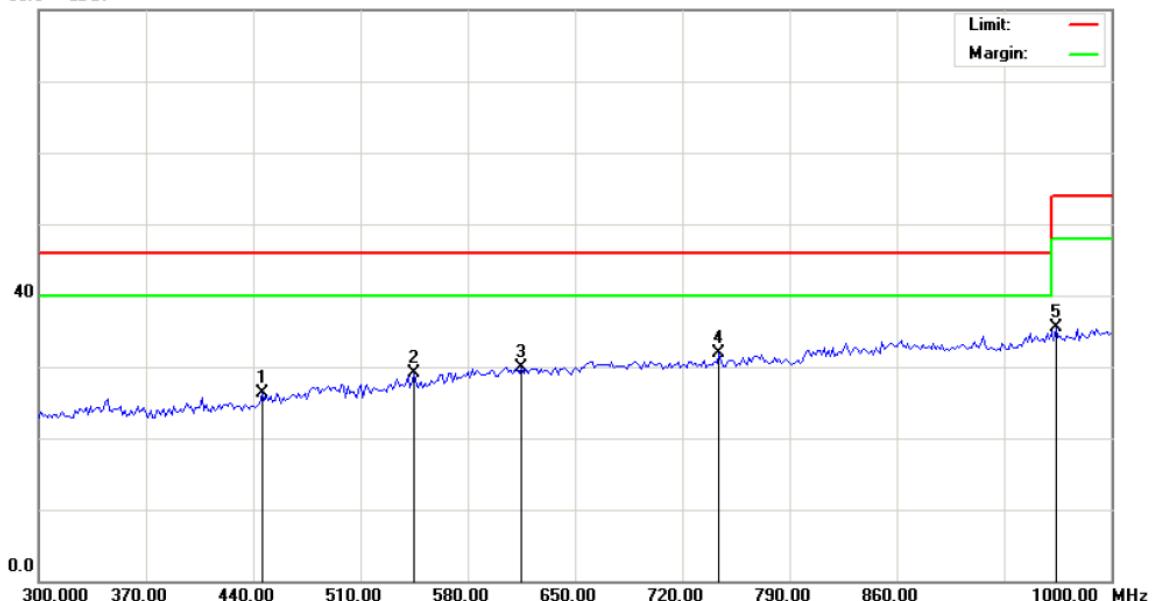
File :301489EMI(PCS1900)(FCC L

Data :#2

Date: 2007/02/06

Time: 23:11:30

80.0 dBuV



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode:

Note: CH512(1850.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1		445.6000	34.35	-8.05	26.30	46.00	-19.70	peak		
2		545.0000	35.09	-6.06	29.03	46.00	-16.97	peak		
3		615.0000	34.38	-4.40	29.98	46.00	-16.02	peak		
4	*	743.7998	34.98	-3.15	31.83	46.00	-14.17	peak		
5		963.6000	34.82	0.61	35.43	54.00	-18.57	peak		

*:Maximum data

x:Over limit

!:over margin

•Reference Only

Radiated Emission Measurement

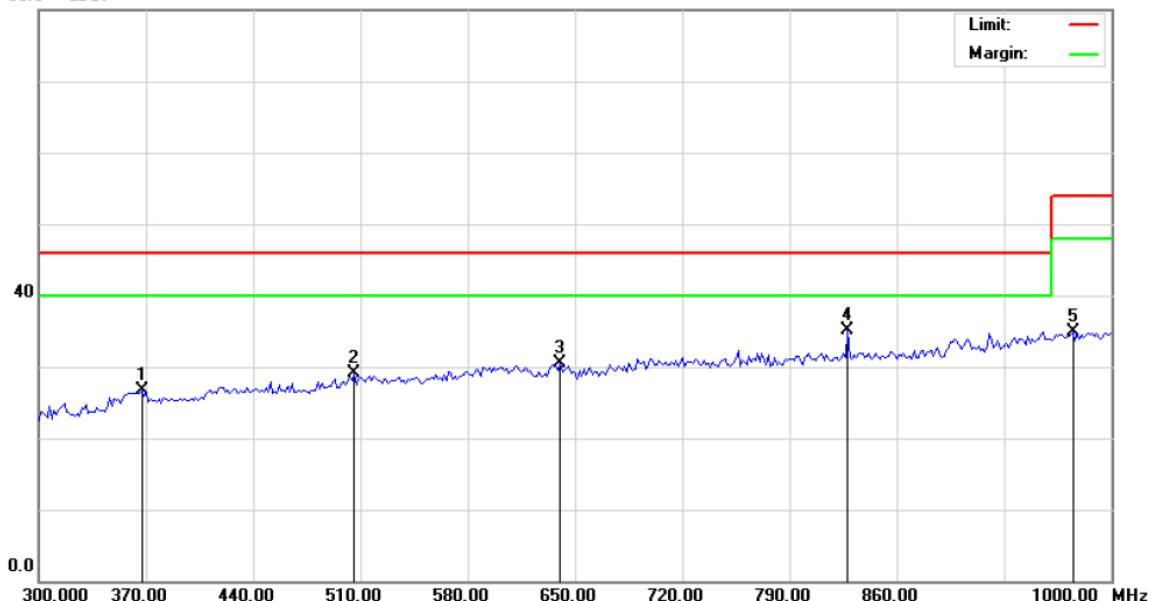
File :301489EMI(PCS1900)(FCC L

Data :#4

Date: 2007/02/06

Time: 23:24:52

80.0 dBuV



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode:

Note: CH512(1850.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1		367.1999	35.28	-8.66	26.62	46.00	-19.38	peak		
2		505.8000	35.80	-6.74	29.06	46.00	-16.94	peak		
3		640.2000	35.04	-4.46	30.58	46.00	-15.42	peak		
4	*	827.7998	36.64	-1.54	35.10	46.00	-10.90	peak		
5		974.7998	34.23	0.65	34.88	54.00	-19.12	peak		

*:Maximum data x:Over limit !:over margin

•Reference Only



Radiated Emission Measurement

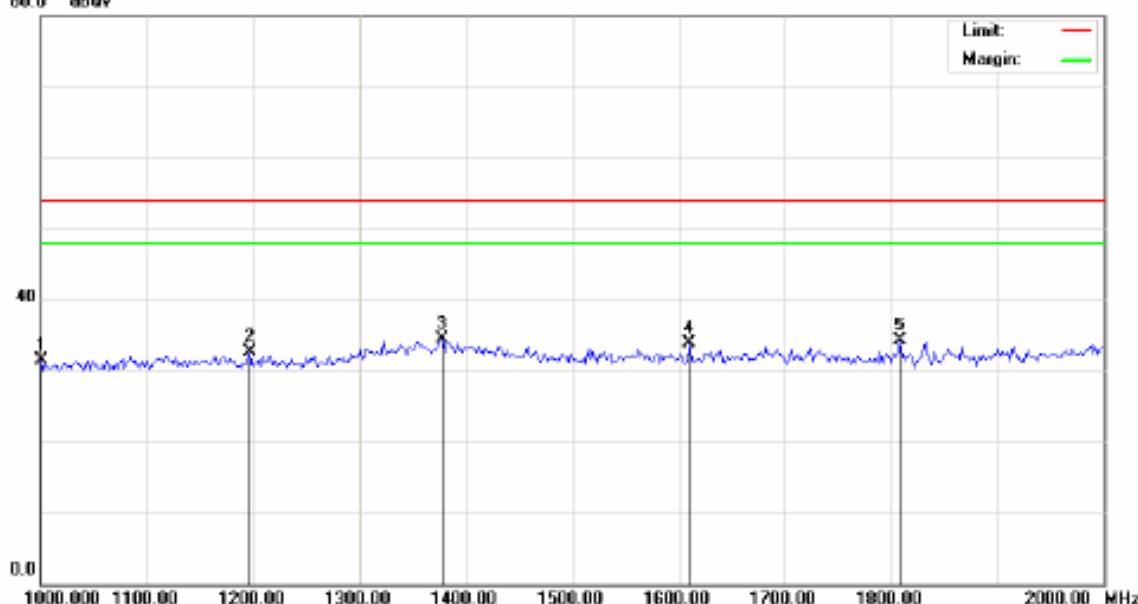
File: 301489EMI(PCS1900)(FCC L

Data #5

Date: 2007/5/16

Time: 下午 06:48:30

80.0 dBuV



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode:

Note: CH512(1850.2MHz)LINK

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1		1000.000	27.37	4.14	31.51	54.00	-22.49	peak			
2		1198.000	28.26	4.43	32.69	54.00	-21.31	peak			
3	*	1378.000	29.72	4.70	34.42	54.00	-19.58	peak			
4		1610.000	28.80	5.04	33.84	54.00	-20.16	peak			
5		1808.000	28.92	5.34	34.26	54.00	-19.74	peak			

*:Maximum data x:Over limit !:over margin

•Reference Only

Radiated Emission Measurement

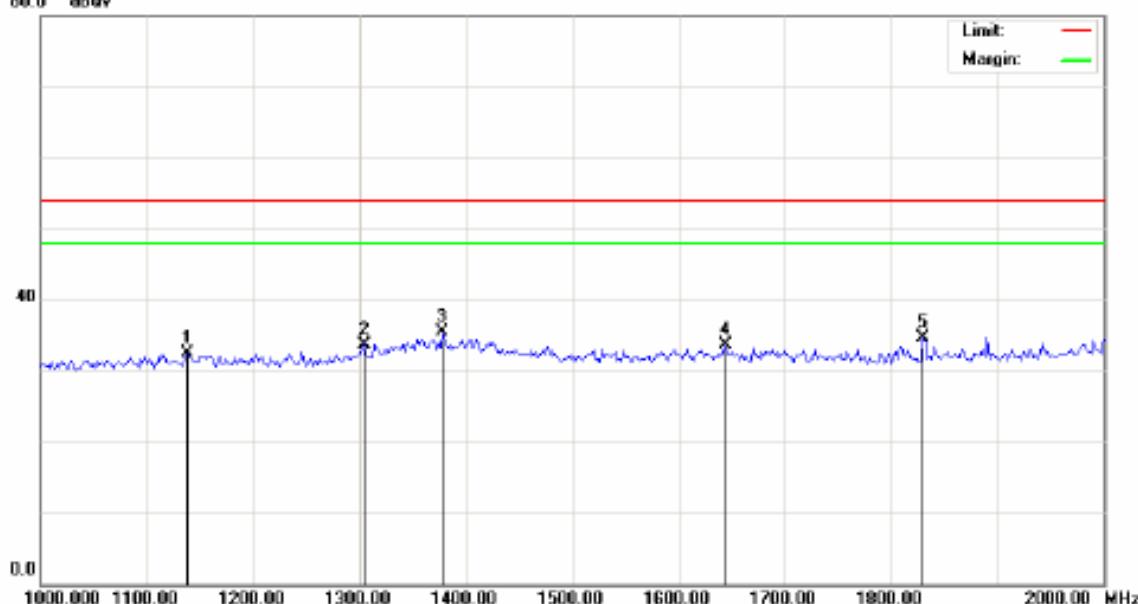
File: 301489EMI(PCS1900)(FCC L

Data #6

Date: 2007/5/16

Time: 下午 06:48:50

80.0 dBuV



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode:

Note: CH512(1850.2MHz)LINK

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1		1138.000	28.15	4.34	32.49	54.00	-21.51	peak			
2		1304.000	29.21	4.59	33.80	54.00	-20.20	peak			
3	*	1378.000	30.80	4.70	35.50	54.00	-18.50	peak			
4		1644.000	28.70	5.09	33.79	54.00	-20.21	peak			
5		1830.000	29.41	5.37	34.78	54.00	-19.22	peak			

*:Maximum data x:Over limit !:over margin

•Reference Only



3.6.4 Open Field Radiated Emissions (Subpart B)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following

Applicant : GoPass Technology Corp.
Model No : AVL-900
EUT : GPS Tracker
Test Mode : Link Mode GSM 850 CH128 (Local Frequency: 824.2 MHz) & GPRS Data Link
Test Date : 02/07/2007 ~ 05/16/2007

Please refer to next page of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor
(Auto calculate in spectrum analyzer)

Radiated Emission Measurement

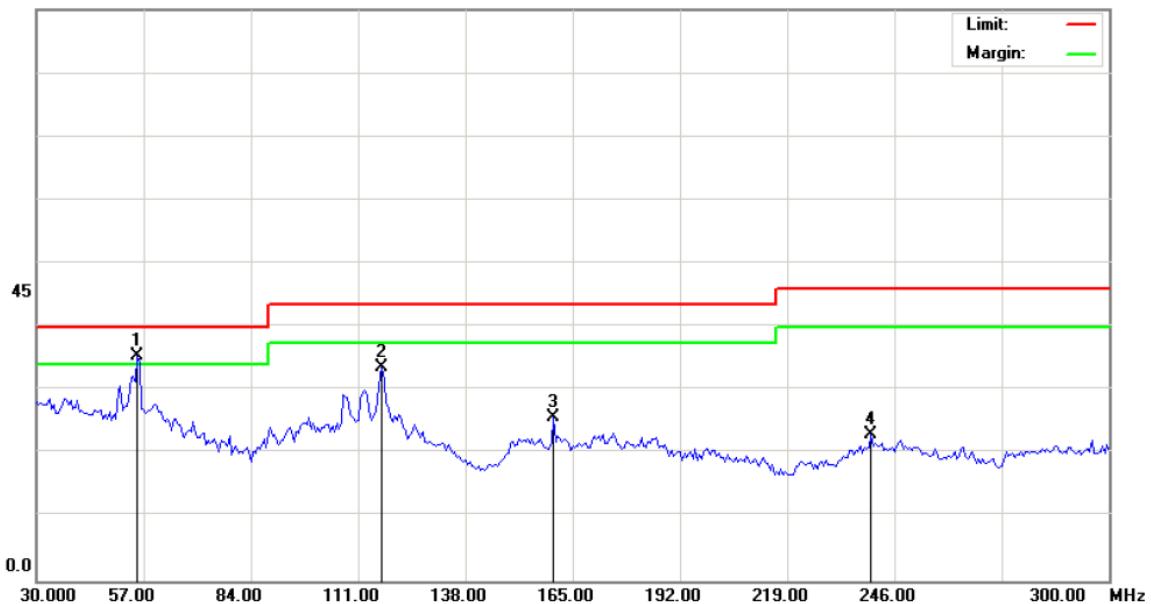
File :301489EMI(GSM850)(FCC Li

Data :#1

Date: 2007/02/07

Time: 20:12:18

90.0 dBuV



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPRS

Note: CH128(824.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1	*	55.3800	39.82	-4.40	35.42	40.00	-4.58	peak		
2		116.9398	43.70	-10.15	33.55	43.50	-9.95	peak		
3		160.1399	39.24	-13.39	25.85	43.50	-17.65	peak		
4		240.0600	33.39	-10.26	23.13	46.00	-22.87	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

Radiated Emission Measurement

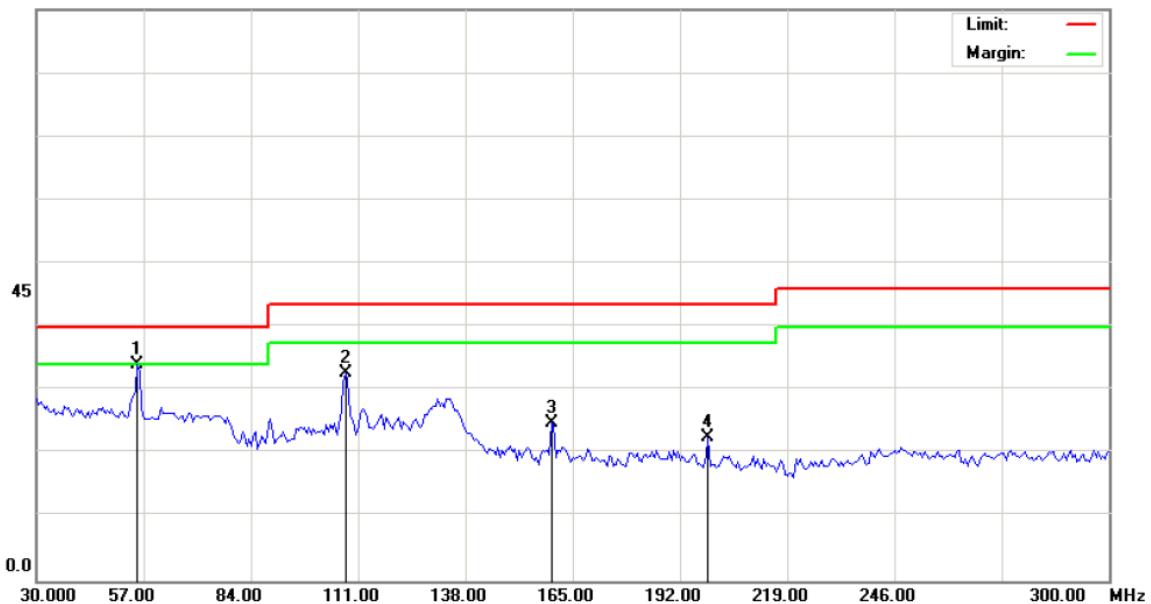
File :301489EMI(GSM850)(FCC Li

Data :#3

Date: 2007/02/07

Time: 20:19:24

90.0 dBuV



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPRS

Note: CH128(824.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1	*	55.3800	38.52	-4.40	34.12	40.00	-5.88	peak		
2		107.7600	41.01	-8.24	32.77	43.50	-10.73	peak		
3		159.5997	38.38	-13.42	24.96	43.50	-18.54	peak		
4		199.0200	34.36	-11.75	22.61	43.50	-20.89	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

Radiated Emission Measurement

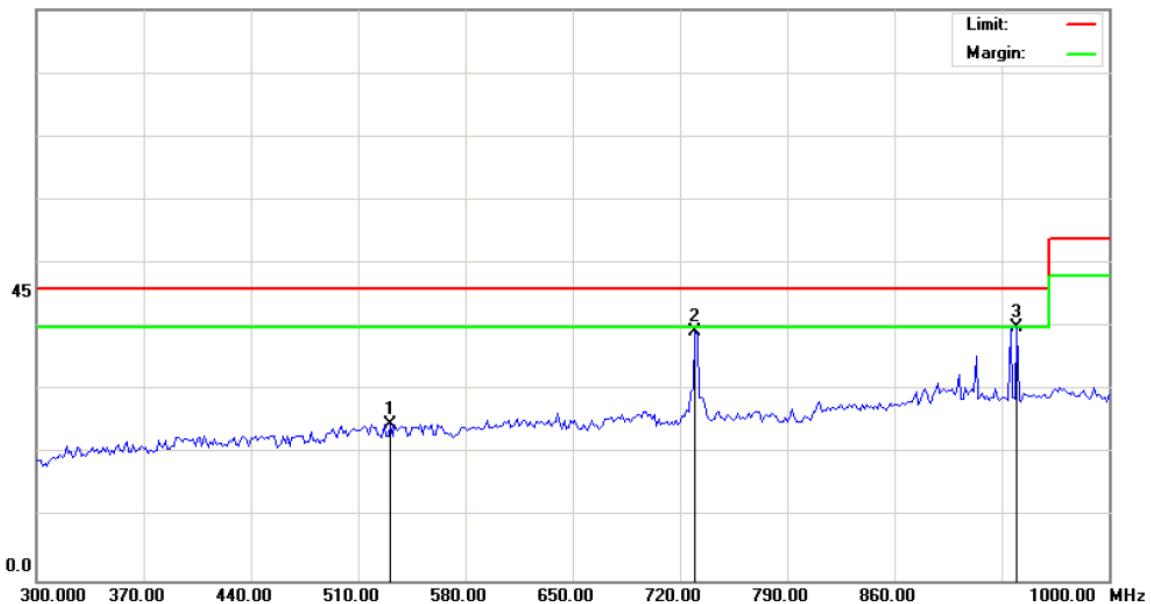
File :301489EMI(GSM850)(FCC Li

Data :#2

Date: 2007/02/07

Time: 20:16:33

90.0 dBuV



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPRS

Note: CH128(824.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1		531.0000	30.84	-6.22	24.62	46.00	-21.38	peak		
2		729.7998	42.81	-3.47	39.34	46.00	-6.66	peak		
3	*	939.7998	39.53	0.37	39.90	46.00	-6.10	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

Radiated Emission Measurement

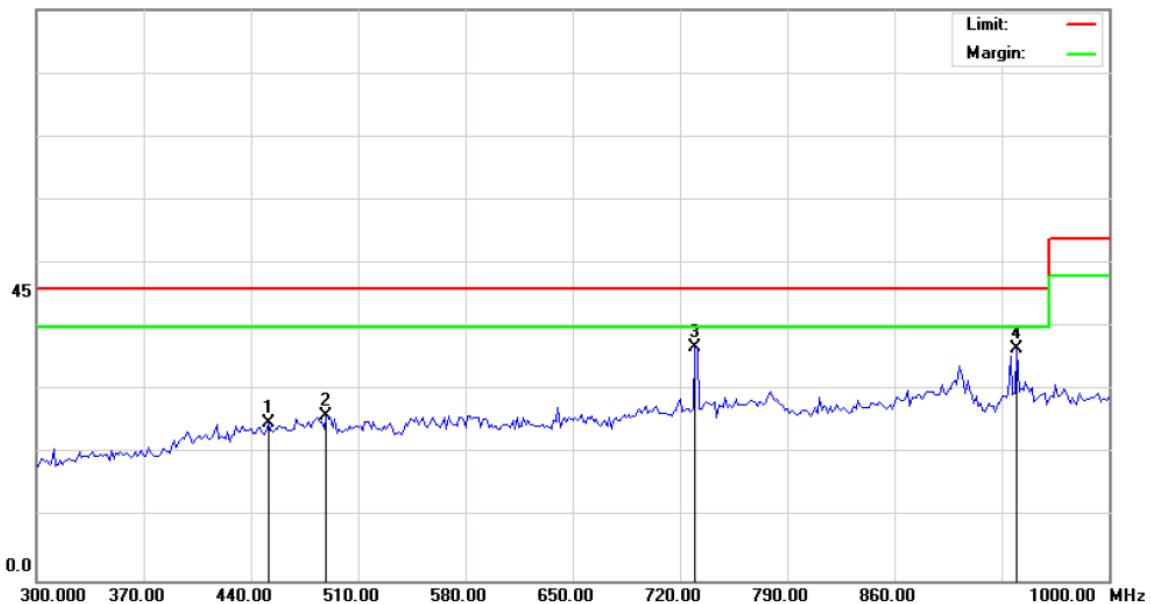
File :301489EMI(GSM850)(FCC Li

Data :#4

Date: 2007/02/07

Time: 20:21:24

90.0 dBuV



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPRS

Note: CH128(824.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1		451.1999	32.80	-8.02	24.78	46.00	-21.22	peak		
2		489.0000	33.19	-7.22	25.97	46.00	-20.03	peak		
3	*	729.7998	40.36	-3.47	36.89	46.00	-9.11	peak		
4		939.7998	36.22	0.37	36.59	46.00	-9.41	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only



Radiated Emission Measurement

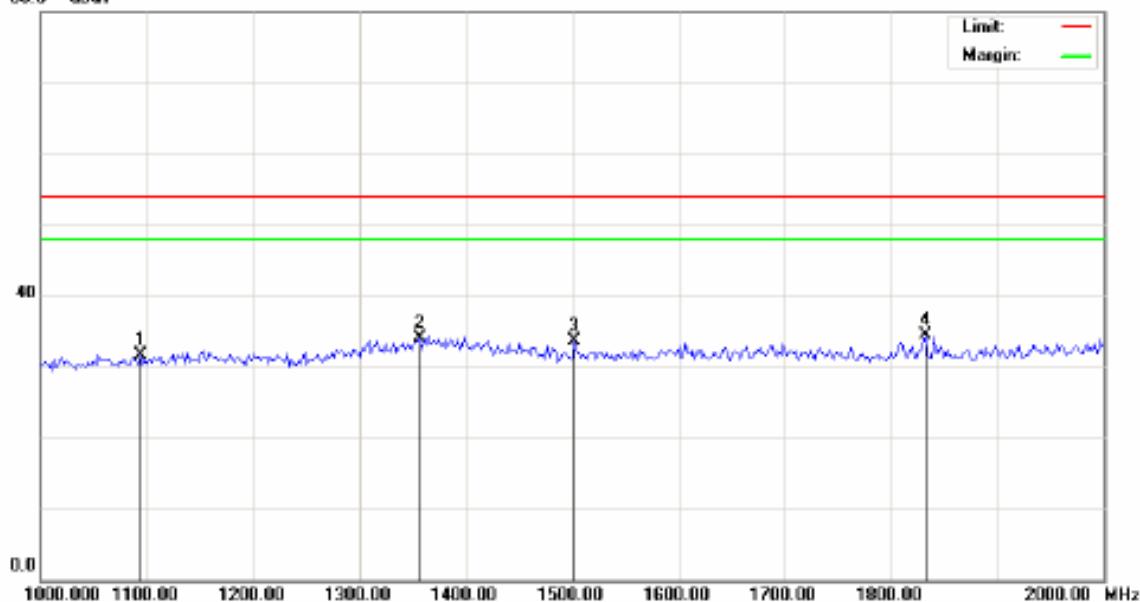
File :301489EMI(GSM850)(FCC LI)

Data #5

Date: 2007/5/16

Time: 下午 06:45:11

80.0 dBuV



Site: Polarization: **Vertical** Temperature: 22 °C
Limit: FCC Class B 3M Radiation Power: DC12V Humidity: 60 %
EUT: Vehicle Tracking Distance: 3m
M/N: AVL-900
Mode: GPRS
Note: CH128(824.2MHz)LINK

No.	Mk.	Freq. MHz	Reading	Correct	Measure-	Limit	Over	Antenna Height cm	Table Degree	Comment
			Level dBuV	Factor dB	ment dBuV					
1		1094.000	27.48	4.28	31.76	54.00	-22.24	peak		
2		1356.000	29.48	4.67	34.15	54.00	-19.85	peak		
3		1502.000	28.77	4.88	33.65	54.00	-20.35	peak		
4	*	1832.000	29.18	5.37	34.55	54.00	-19.45	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

Radiated Emission Measurement

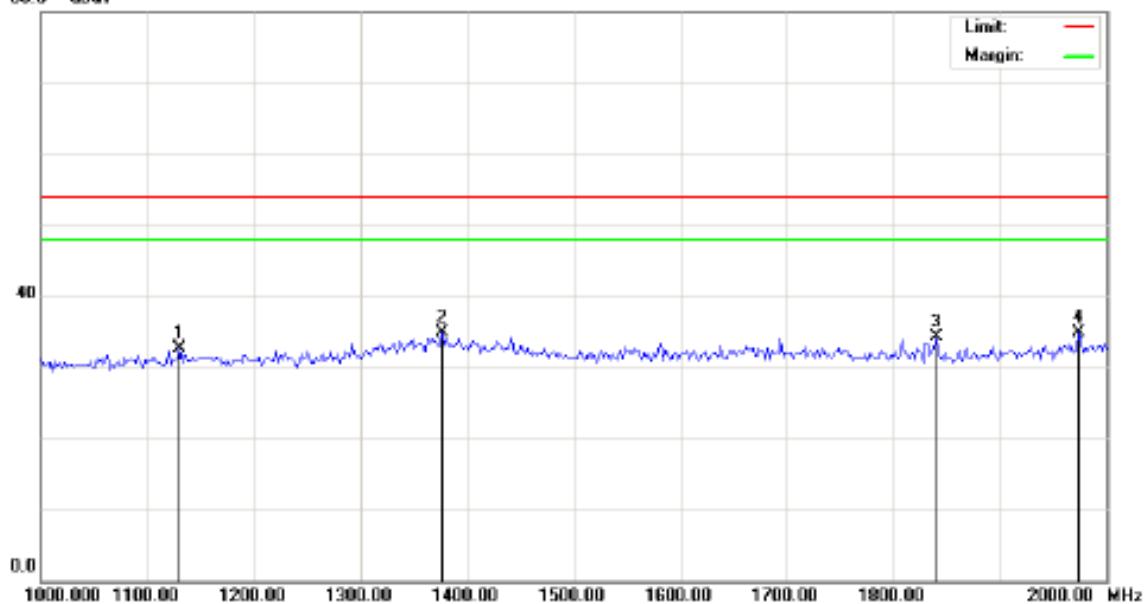
File :301489EMI(GSM850)(FCC LI)

Data #6

Date: 2007/5/16

Time: 下午 06:45:43

80.0 dBuV



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPRS

Note: CH128(824.2MHz)LINK

No.	Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit dBuV	Over dB	Antenna Height cm	Table Degree	Comment
			dBuV	dB	dBuV					
1		1130.000	28.40	4.33	32.73	54.00	-21.27	peak		
2		1376.000	30.19	4.70	34.89	54.00	-19.11	peak		
3		1840.000	28.87	5.38	34.25	54.00	-19.75	peak		
4	*	1974.000	29.33	5.58	34.91	54.00	-19.09	peak		

*:Maximum data x:Over limit !:over margin

•Reference Only



3.6.5 Open Field Radiated Emissions (Subpart B)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following.

Applicant : GoPass Technology Corp.
Model No : AVL-900
EUT : GPS Tracker
Test Mode : Link Mode GSM 1900 CH512 (Local Frequency: 1850.2 MHz) & GPRS Data Link
Test Date : 02/06/2007 ~ 05/16/2007

Please refer to next pager of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor
(Auto calculate in spectrum analyzer)

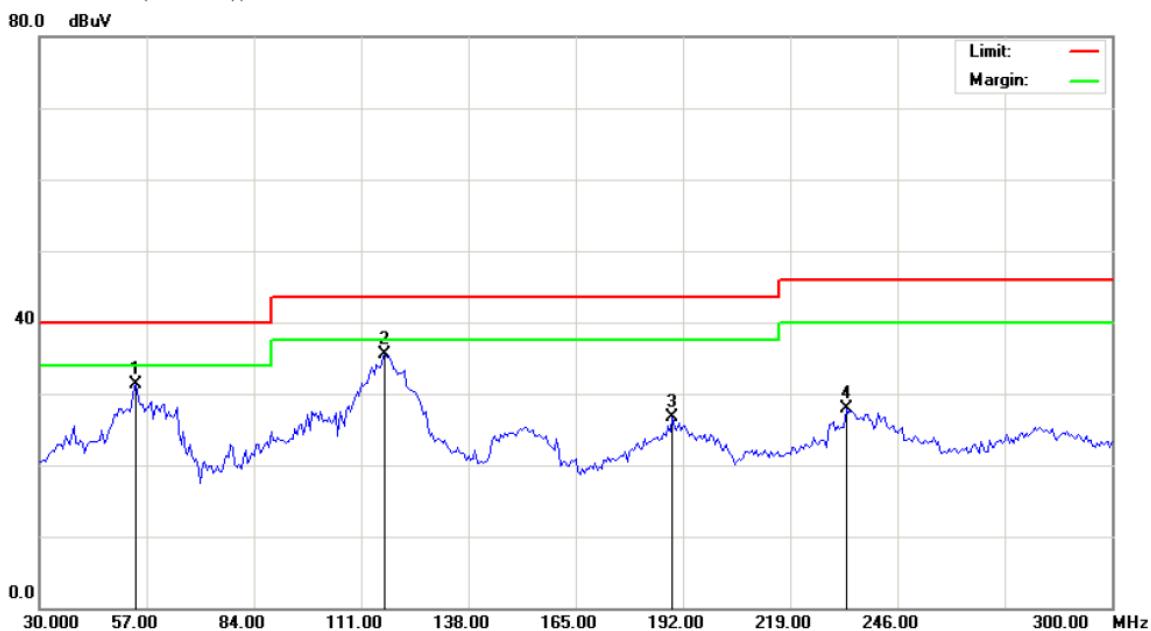
Radiated Emission Measurement

File :301489EMI(PCS1900)(FCC L

Data :#1

Date: 2007/02/06

Time: 23:04:13



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPRS

Note: CH512(1850.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1		54.2999	43.42	-12.21	31.21	40.00	-8.79	peak		
2	*	116.9398	49.26	-13.68	35.58	43.50	-7.92	peak		
3		189.3000	40.22	-13.43	26.79	43.50	-16.71	peak		
4		233.0398	39.62	-11.78	27.84	46.00	-18.16	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

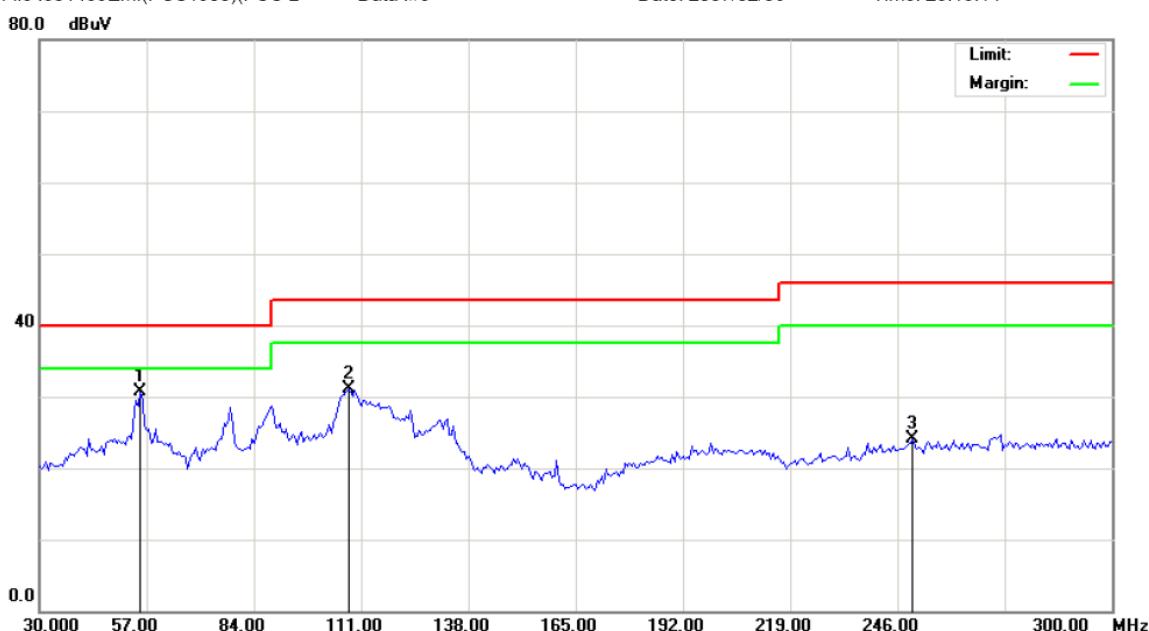
Radiated Emission Measurement

File :301489EMI(PCS1900)(FCC L

Data :#3

Date: 2007/02/06

Time: 23:15:14



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPRS

Note: CH512(1850.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1	*	55.3800	42.87	-12.24	30.63	40.00	-9.37	peak		
2		107.7600	43.35	-12.32	31.03	43.50	-12.47	peak		
3		249.7800	34.87	-10.84	24.03	46.00	-21.97	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

Radiated Emission Measurement

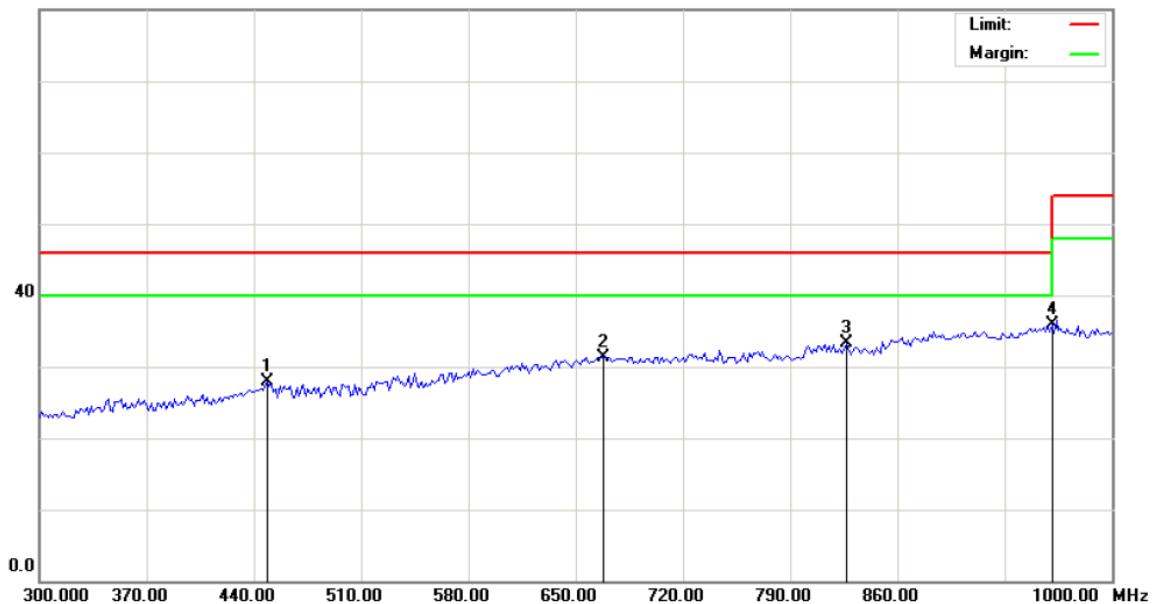
File :301489EMI(PCS1900)(FCC L

Data :#2

Date: 2007/02/06

Time: 23:11:30

80.0 dBuV



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPRS

Note: CH512(1850.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1		448.3999	36.01	-8.12	27.89	46.00	-18.11	peak		
2		668.2000	35.68	-4.34	31.34	46.00	-14.66	peak		
3	*	826.3999	34.72	-1.48	33.24	46.00	-12.76	peak		
4		960.7998	35.42	0.47	35.89	54.00	-18.11	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

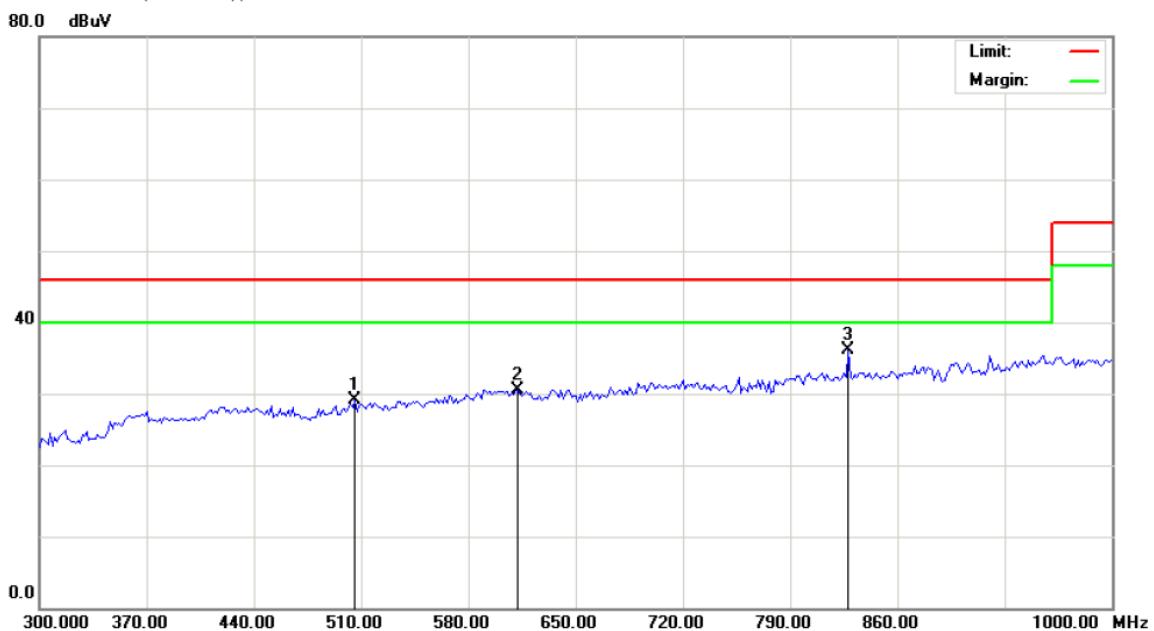
Radiated Emission Measurement

File :301489EMI(PCS1900)(FCC L

Data :#4

Date: 2007/02/06

Time: 23:24:52



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPRS

Note: CH512(1850.2MHz)LINK

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dB	Detector	cm	degree	
1		505.8000	35.80	-6.74	29.06	46.00	-16.94	peak		
2		612.2000	35.10	-4.52	30.58	46.00	-15.42	peak		
3	*	827.7998	37.64	-1.54	36.10	46.00	-9.90	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

Radiated Emission Measurement

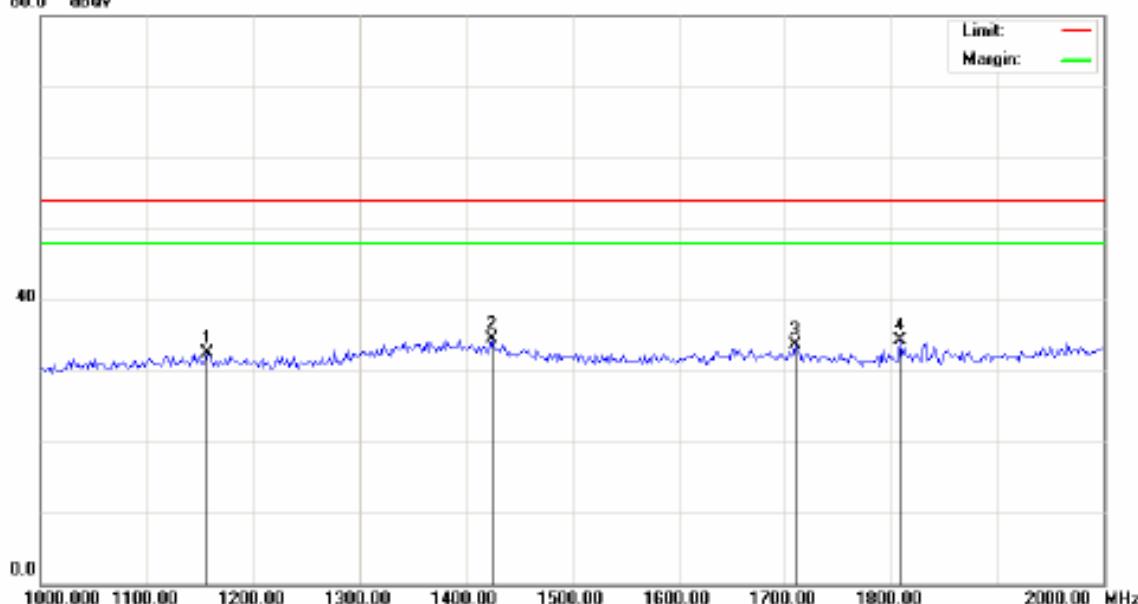
File: 301489EMI(PCS1900)(FCC L

Data #5

Date: 2007/5/16

Time: 下午 06:47:22

80.0 dBuV



Site: Polarization: **Vertical** Temperature: 22 °C

Limit: FCC Class B 3M Radiation Power: DC12V Humidity: 60 %

EUT: Vehicle Tracking Distance: 3m

M/N: AVL-900

Mode: GPRS

Note: CH512(1850.2MHz)LINK

No.	Mk.	Reading	Correct	Measure-	Limit	Over	Antenna	Table		
		Freq.	Level	Factor					Comment	
		MHz	dBuV	dB	dBuV	dB	Detector	cm	degree	
1		1156.000	28.05	4.37	32.42	54.00	-21.58	peak		
2	*	1424.000	29.76	4.77	34.53	54.00	-19.47	peak		
3		1710.000	28.43	5.19	33.62	54.00	-20.38	peak		
4		1808.000	29.00	5.34	34.34	54.00	-19.66	peak		

*:Maximum data x:Over limit !:over margin

•Reference Only

Radiated Emission Measurement

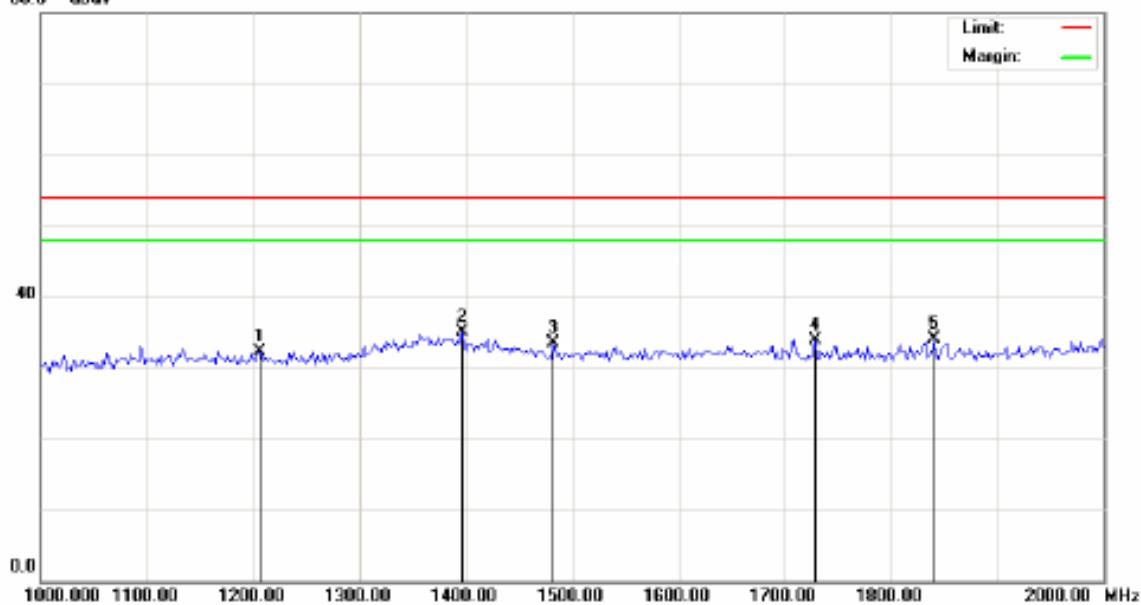
File : 301489EMI(PCS1900)(FCC L)

Data #6

Date: 2007/5/16

Time: 下午 06:47:46

60.0 dBuV



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPRS

Note: CH512(1850.2MHz)LINK

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Detector	Table Height cm	Table Degree degree	Comment
1		1206.000	27.92	4.44	32.36	54.00	-21.64	peak			
2	*	1396.000	30.44	4.73	35.17	54.00	-18.83	peak			
3		1482.000	28.60	4.85	33.45	54.00	-20.55	peak			
4		1728.000	28.76	5.22	33.98	54.00	-20.02	peak			
5		1840.000	28.72	5.38	34.10	54.00	-19.90	peak			

*:Maximum data x:Over limit !:over margin

•Reference Only



3.6.6 Open Field Radiated Emissions (Subpart B)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following

Applicant : GoPass Technology Corp.
Model No : AVL-900
EUT : GPS Tracker
Test Mode : PC USB Link & GPS Link Mode
Test Date : 04/13/2007 ~ 05/16/2007

Please refer to next page of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor
(Auto calculate in spectrum analyzer)

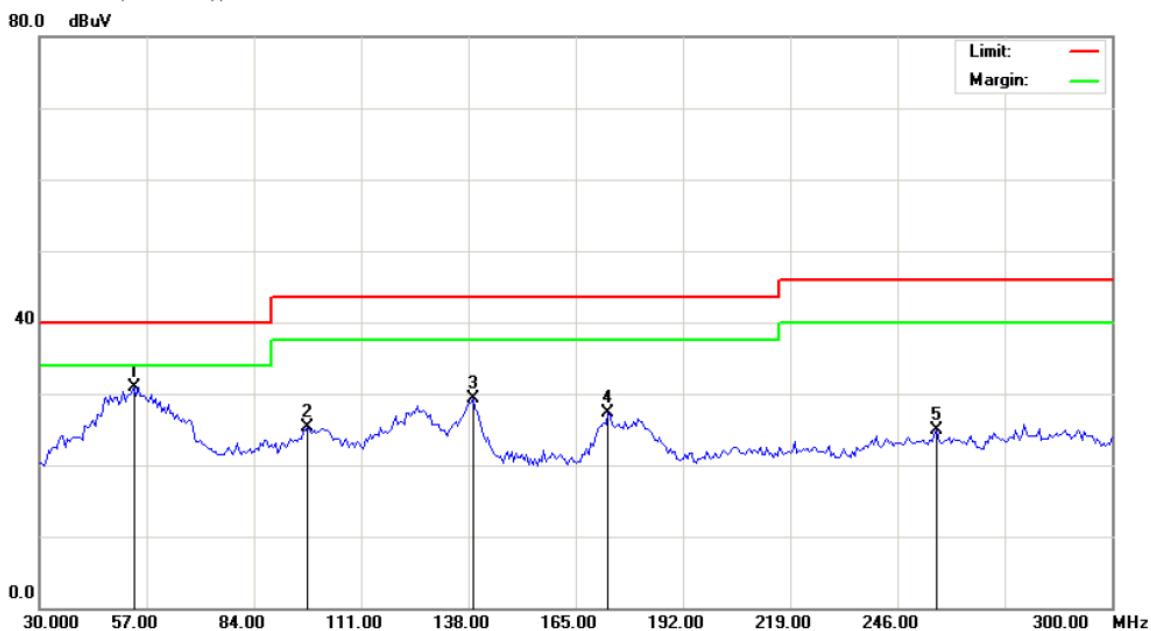
Radiated Emission Measurement

File :AVL-900(FCC Limit)(GPS m

Data :#1

Date: 07/04/13/

Time: 18:25:46



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPS Link

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1	*	53.7599	43.07	-12.19	30.88	40.00	-9.12	peak		
2		97.5000	37.18	-11.90	25.28	43.50	-18.22	peak		
3		139.0800	45.57	-16.28	29.29	43.50	-14.21	peak		
4		173.0997	42.16	-14.93	27.23	43.50	-16.27	peak		
5		255.7196	36.10	-11.16	24.94	46.00	-21.06	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

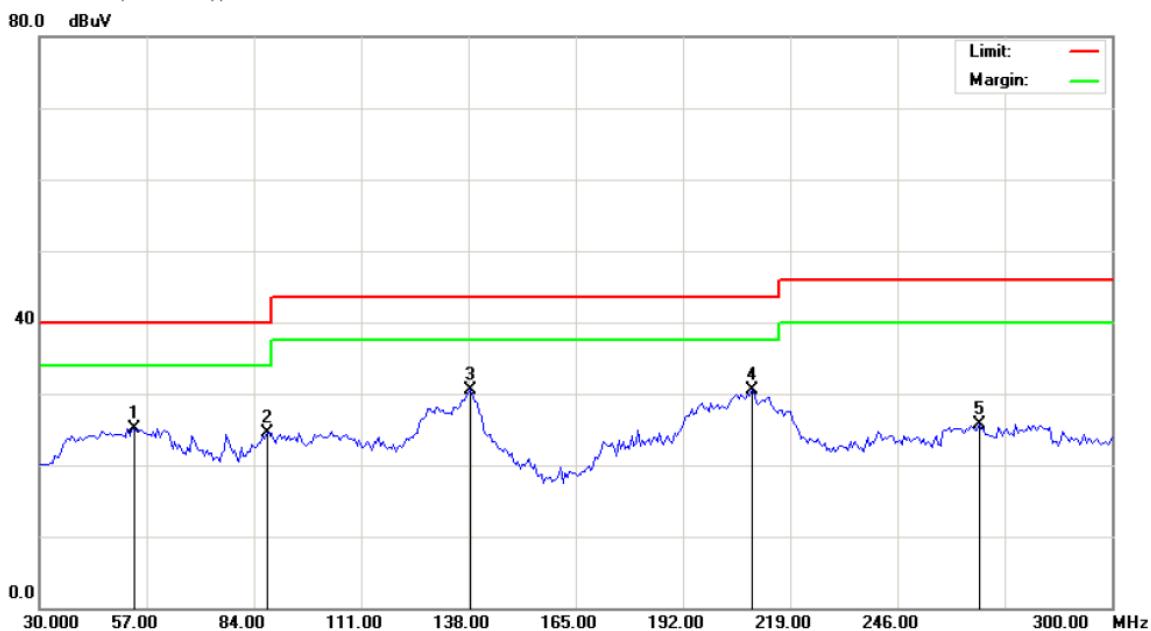
Radiated Emission Measurement

File :AVL-900(FCC Limit)(GPS m

Data :#3

Date: 07/04/13/

Time: 18:34:17



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPS Link

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1		53.7599	37.37	-12.19	25.18	40.00	-14.82	peak		
2		87.2399	38.61	-14.04	24.57	40.00	-15.43	peak		
3	*	138.5398	46.79	-16.24	30.55	43.50	-12.95	peak		
4		209.2800	43.29	-12.82	30.47	43.50	-13.03	peak		
5		266.5199	36.69	-11.00	25.69	46.00	-20.31	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

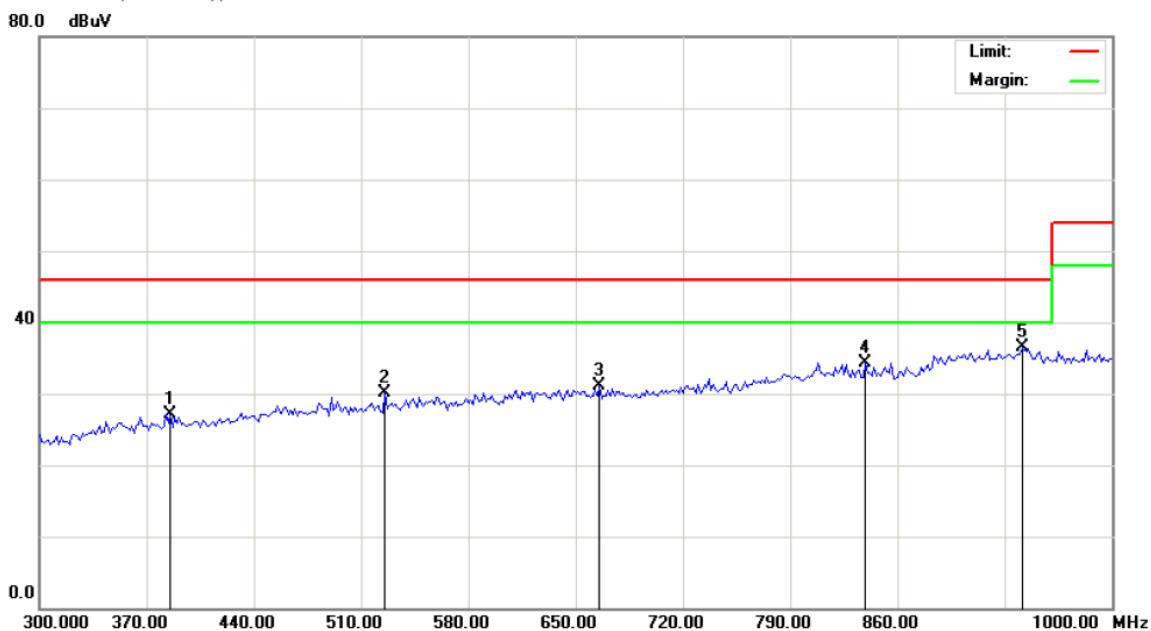
Radiated Emission Measurement

File :AVL-900(FCC Limit)(GPS m

Data :#2

Date: 07/04/13/

Time: 18:30:02



Site

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPS Link

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		385.3999	35.67	-8.55	27.12	46.00	-18.88	peak			
2		525.3999	36.55	-6.51	30.04	46.00	-15.96	peak			
3		665.3999	35.47	-4.46	31.01	46.00	-14.99	peak			
4		839.0000	35.81	-1.42	34.39	46.00	-11.61	peak			
5	*	941.2000	36.31	0.28	36.59	46.00	-9.41	peak			

*:Maximum data x:Over limit !:over margin

●Reference Only

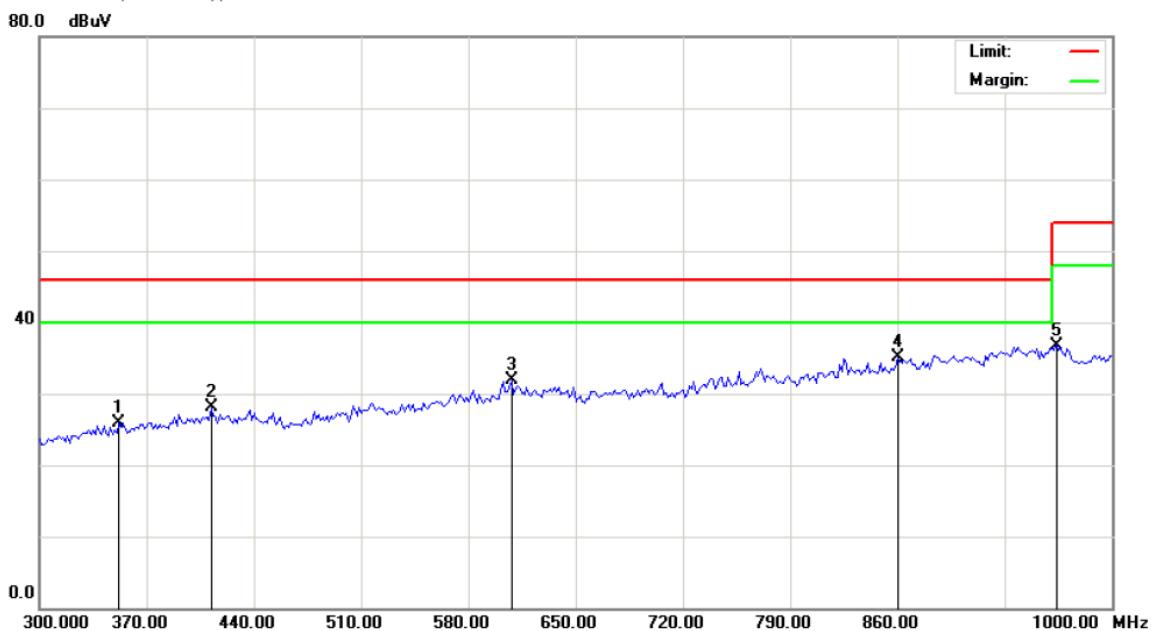
Radiated Emission Measurement

File :AVL-900(FCC Limit)(GPS m

Data :#4

Date: 07/04/13/

Time: 18:38:33



Site

Polarization: **Horizontal**

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPS Link

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree
1		351.8000	34.85	-8.90	25.95	46.00	-20.05	peak		
2		412.0000	36.34	-8.24	28.10	46.00	-17.90	peak		
3		608.0000	36.49	-4.60	31.89	46.00	-14.11	peak		
4	*	860.0000	36.09	-1.03	35.06	46.00	-10.94	peak		
5		963.6000	36.19	0.61	36.80	54.00	-17.20	peak		

*:Maximum data x:Over limit !:over margin

●Reference Only

Radiated Emission Measurement

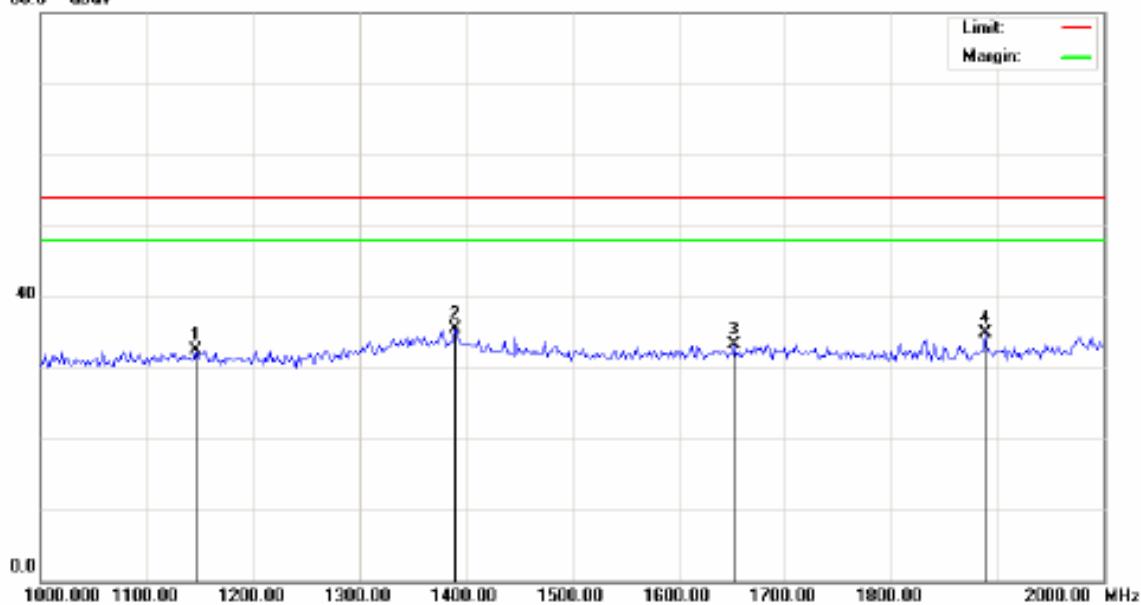
File :AVL-900(FCC Limit)(GPS m

Data #5

Date: 2007/5/16

Time: 下午 06:50:00

60.0 dBuV



Site

Polarization: *Vertical*

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power: DC12V

Humidity: 60 %

EUT: Vehicle Tracking

Distance: 3m

M/N: AVL-900

Mode: GPS Link

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Detector	Table Height cm	Table Degree degree	Comment
1		1146.000	28.21	4.36	32.57	54.00	-21.43	peak			
2	*	1390.000	30.83	4.72	35.55	54.00	-18.45	peak			
3		1652.000	28.20	5.10	33.30	54.00	-20.70	peak			
4		1888.000	29.40	5.45	34.85	54.00	-19.15	peak			

*:Maximum data x:Over limit !:over margin

•Reference Only