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# FCC TEST REPORT

**REPORT NO.:** RF110317E06

**MODEL NO.:** MAS100

**FCC ID :** ZDX-MAS100

**RECEIVED:** Mar. 17, 2011

**TESTED:** Mar. 29 to Apr. 18, 2011

**ISSUED:** May 23, 2011

**APPLICANT :** Brinno Incorporated.

**ADDRESS :** 9F., No75, Zhouzi St., Taipei city 11493 Taiwan.

**ISSUED BY:** Bureau Veritas Consumer Products Services (H.K.)  
Ltd., Taoyuan Branch Hsin Chu Laboratory

**LAB ADDRESS:** No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen,  
Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF110317E06	Original release	May 23, 2011



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## 1 CERTIFICATION

**PRODUCT:** Motion Active Sensor  
**BRAND NAME:** brinno  
**MODEL NO:** MAS100  
**TEST SAMPLE:** ENGINEERING SAMPLE  
**APPLICANT:** Brinno Incorporated.  
**TESTED:** Mar. 29 to Apr. 18, 2011  
**STANDARDS:** **FCC Part 15, Subpart C (Section 15.231)**  
ANSI C63.4-2003  
ANSI C63.10-2009

The above equipment (model: MAS100) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**PREPARED BY :** Carol Liao , **DATE:** May 23, 2011  
( Carol Liao, Specialist )

**APPROVED BY :** May Chen , **DATE:** May 23, 2011  
( May Chen, Deputy Manager )

## 2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C (Section 15.231)			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
15.207	AC Power Conducted Emission	NA	Power supply is 3Vdc from batteries.
15.209 15.231(b)	Radiated Emission Test	PASS	Meet the requirement of limit. Minimum passing margin is -17.0dB at 2603.60MHz.
15.231(c)	Emission Bandwidth Measurement	PASS	Meet the requirement of limit.
15.231(a)	De-activation	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

### 2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Radiated emissions	30MHz ~ 1000MHz	3.94 dB
	1GHz ~ 18GHz	2.49 dB
	18GHz ~ 40GHz	2.70 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .

### 3 GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT</b>	Motion Active Sensor
<b>MODEL NO.</b>	MAS100
<b>FCC ID</b>	ZDX-MAS100
<b>POWER SUPPLY</b>	3Vdc (batteries)
<b>MODULATION TYPE</b>	GFSK
<b>CARRIER FREQUENCY</b>	433.92MHz
<b>NUMBER OF CHANNEL</b>	1
<b>ANTENNA TYPE</b>	PCB printing antenna with 0dBi gain
<b>ANTENNA CONNECTOR</b>	NA
<b>DATA CABLE</b>	NA
<b>I/O PORTS</b>	NA
<b>ACCESSORY DEVICES</b>	NA

**NOTE:**

1. The device has no video signal transmission in the wireless channel
2. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

### 3.2 DESCRIPTION OF TEST MODES

One channel was provided to this EUT.

CHANNEL	FREQUENCY
1	433.92MHz

### 3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO					DESCRIPTION
	RE ≥ 1G	RE < 1G	PLC	EB	DT	
-	√	√	NOTE	√	√	-

Where **RE ≥ 1G**: Radiated Emission above 1GHz      **RE < 1G**: Radiated Emission below 1GHz  
**PLC**: Power Line Conducted Emission      **EB**: 20dB Bandwidth measurement  
**DT**: Deactivation Time measurement

**NOTE**: No need to concern of Conducted Emission due to the EUT is powered by batteries.

#### RADIATED EMISSION TEST (ABOVE 1 GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and XYZ axis.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
1	1	GFSK

#### RADIATED EMISSION TEST (BELOW 1 GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and XYZ axis.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
1	1	GFSK

#### EMISSION BANDWIDTH MEASUREMENT:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
1	1	GFSK



**DEACTIVATION TIME MEASUREMENT:**

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
1	1	GFSK

**TEST CONDITION:**

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE <sup>≥</sup> 1G	20deg. C, 61%RH, 1021 hPa	DC 3V	Evan Huang
RE<1G	20deg. C, 61%RH, 1021 hPa	DC 3V	Evan Huang
EB	20deg. C, 61%RH, 1021 hPa	DC 3V	Evan Huang
DT	20deg. C, 61%RH, 1021 hPa	DC 3V	Evan Huang

### **3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS**

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC Part 15, Subpart C (15.231)**

**ANSI C63.4-2003**

**ANSI C63.10-2009**

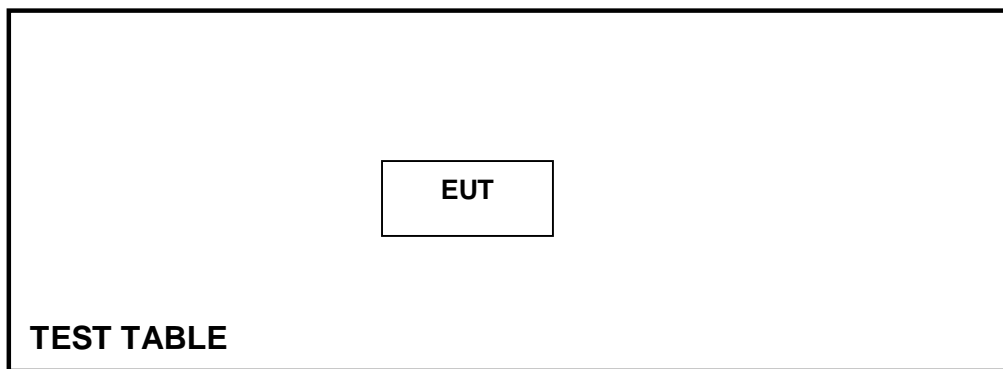
All test items have been performed and recorded as per the above standards.

**NOTE:** The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

### **3.4 DESCRIPTION OF SUPPORT UNITS**

The EUT has been tested as an independent unit.

### **3.5 CONFIGURATION OF SYSTEM UNDER TEST**



## 4 TEST PROCEDURE AND RESULT

### 4.1 RADIATED EMISSION MEASUREMENT

#### 4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

According to 15.231(b) the field strength of emissions from intentional radiators operated under these frequencies bands shall not exceed the following:

Fundamental Frequency (MHz)	Field Strength of Fundamental		Field Strength of Spurious	
	uV/meter	dBuV/meter	uV/meter	dBuV/meter
40.66 ~ 40.70	2250	67.04	225	48.04
70 ~ 130	1250	61.94	125	41.94
130 ~ 174	1250 ~ 3750	61.94 ~ 71.48	125 ~ 375	41.94 ~ 51.48
174 ~ 260	3750	71.48	75	37.50
260 ~ 470	3750 ~ 12500	71.48 ~ 81.94	375 ~ 1250	51.48 ~ 61.94
Above 470	12500	81.94	1250	61.94

**NOTE:**

- Where F is the frequency in MHz, the formula for calculating the maximum permitted fundamental field strengths are as follows: for the band 130-174 MHz, uV/m at 3 meters =  $56.81818(F)-6136.3636$ ; for the band 260-470 MHz, uV/m at 3 meters =  $41.6667(F)-7083.3333$ . The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level.
- The above field strength limits are specified at a distance of 3meters. The tighter limits apply at the band edges.

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009 ~ 0.490	$2400/F(\text{kHz})$	300
0.490 ~ 1.705	$24000/F(\text{kHz})$	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

**NOTE:**

- The lower limit shall apply at the transition frequencies.
- Emission level (dBuV/m) =  $20 \log$  Emission level (uV/m).
- As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

#### 4.1.2 TEST INSTRUMENT

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Spectrum Analyzer	FSP40	100036	Dec. 08, 2010	Dec. 07, 2011
Agilent PSA Spectrum Analyzer	E4446A	MY46180622	May 12 , 2010	May 11 , 2011
HP Pre_Amplifier	8449B	300801923	Nov. 01, 2010	Oct. 31, 2011
ROHDE & SCHWARZ Test Receiver	ESCS30	847124/029	Sep. 03, 2010	Sep. 02, 2011
SCHWARZBECK TRILOG Broadband Antenna	VULB 9168	138	Apr. 28, 2010	Apr. 27, 2011
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 17, 2010	Dec. 16, 2011
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 17, 2011	Jan. 16, 2012
RF Switches	EMH-011	1001	NA	NA
RF CABLE (Chaintek)	Sucoflex 104+ Sucoflex 106	RF104-101+R F106-101	Aug. 24, 2010	Aug. 23, 2011
RF Cable	8DFB	STCCAB-30M- 1GHz	NA	NA
Software	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
CT Antenna Tower & Turn Table	NA	NA	NA	NA

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, preamplifier (model: 8449B) and Spectrum Analyzer (model: FSP40) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in Open Site No. C.
4. The FCC Site Registration No. is 656396.
5. The VCCI Site Registration No. is R-1626.
6. The CANADA Site Registration No. is IC 7450G-3.

#### 4.1.3 TEST PROCEDURE

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10-meter open field site. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using the quasi-peak method or average method as specified and then reported in Data sheet peak mode and QP mode.

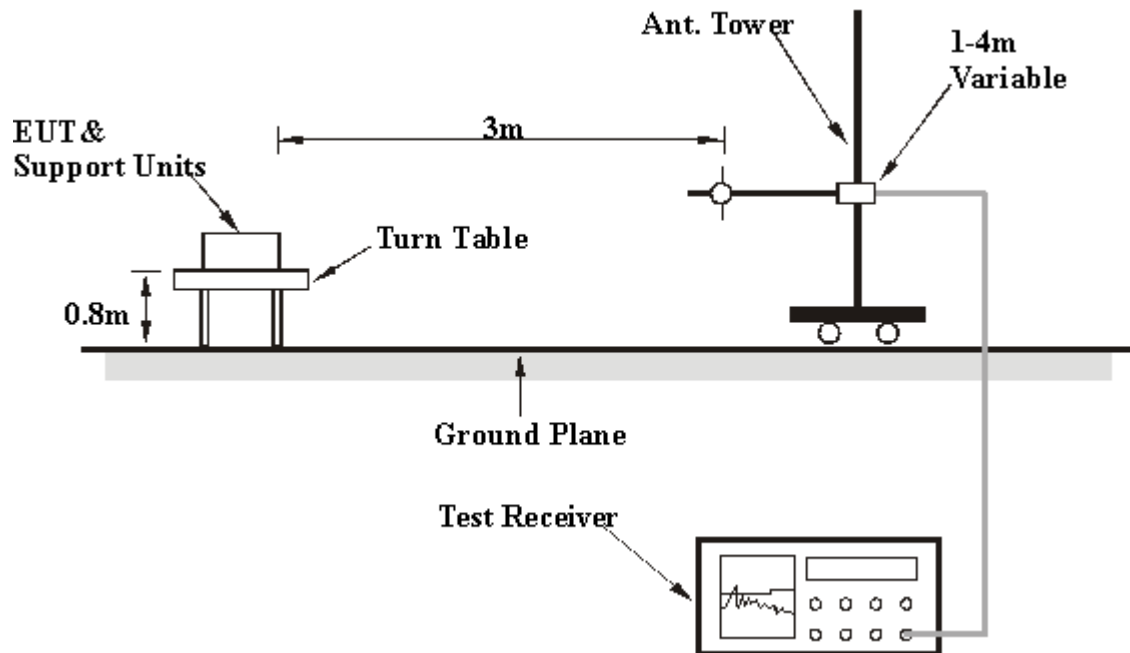
**NOTE:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.1.5 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

#### 4.1.6 EUT OPERATING CONDITION

Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.

#### 4.1.7 TEST RESULTS

##### ABOVE 1GHz DATA

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 5GHz
INPUT POWER	3Vdc	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 61%RH 1021hPa	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2603.60	60.9 PK	80.8	-19.9	1.35 H	152	28.96	31.94
2	2603.60	43.8 AV	60.8	-17.0	1.35 H	152	11.86	31.94
3	3471.46	54.9 PK	80.8	-25.9	1.02 H	180	21.89	33.01
4	3471.46	37.8 AV	60.8	-23.0	1.02 H	180	4.79	33.01
5	4339.43	58.7 PK	80.8	-22.1	1.00 H	182	23.66	35.04
6	4339.43	41.6 AV	60.8	-19.2	1.00 H	182	6.56	35.04
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2603.72	55.0 PK	80.8	-25.8	1.18 V	278	23.06	31.94
2	2603.72	37.9 AV	60.8	-22.9	1.18 V	278	5.96	31.94
3	3471.63	52.6 PK	80.8	-28.2	1.16 V	249	19.59	33.01
4	3471.63	35.5 AV	60.8	-25.3	1.16 V	249	2.49	33.01
5	4339.62	51.7 PK	80.8	-29.1	1.04 V	321	16.66	35.04
6	4339.62	34.6 AV	60.8	-26.2	1.04 V	321	-0.44	35.04

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. The average value = peak value + 20log(Duty cycle) Where the duty factor is calculated from following formula:  

$$20 \log (\text{Duty cycle}) = 20 \log (5 \times 2.8\text{ms} / 100 \text{ ms}) = -17.1 \text{ dB}$$

Please see page 19 for plotted duty.



### BELOW 1GHz WORST-CASE DATA

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	3Vdc	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 61%RH 1021hPa	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*433.92	72.02 PK	100.83	-28.81	1.79 H	173	52.5	19.52
2	*433.92	54.92 AV	80.83	-25.91	1.79 H	173	35.4	19.52
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*433.92	65.52 PK	100.83	-35.31	1.00 V	242	46.0	19.52
2	*433.92	48.42 AV	80.83	-32.41	1.00 V	242	28.9	19.52

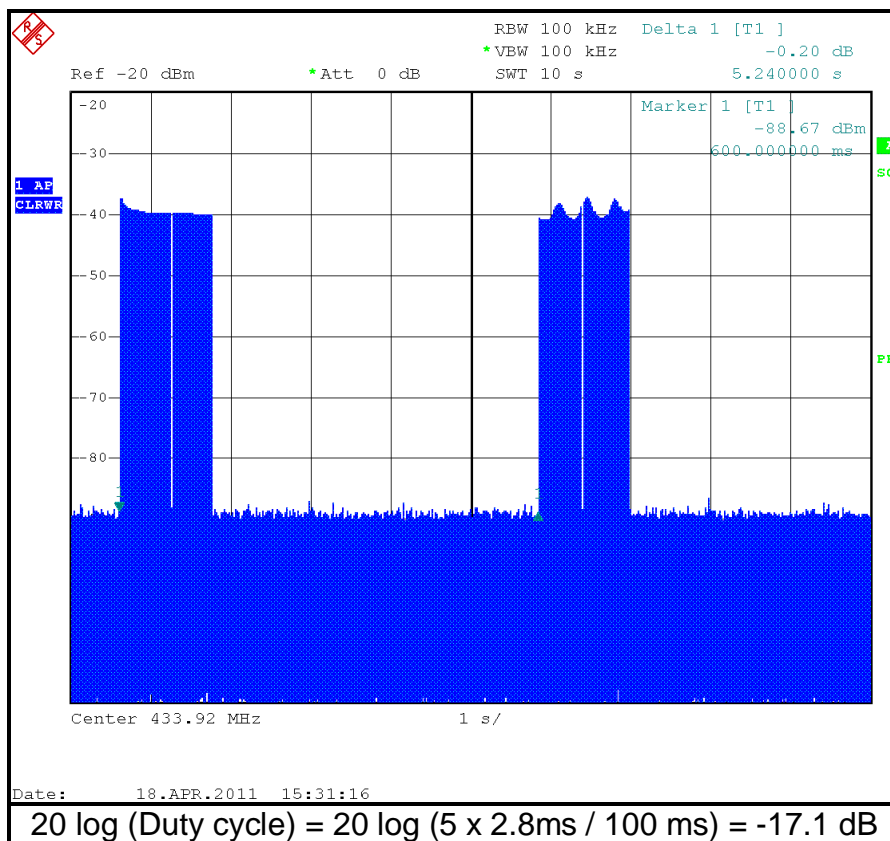
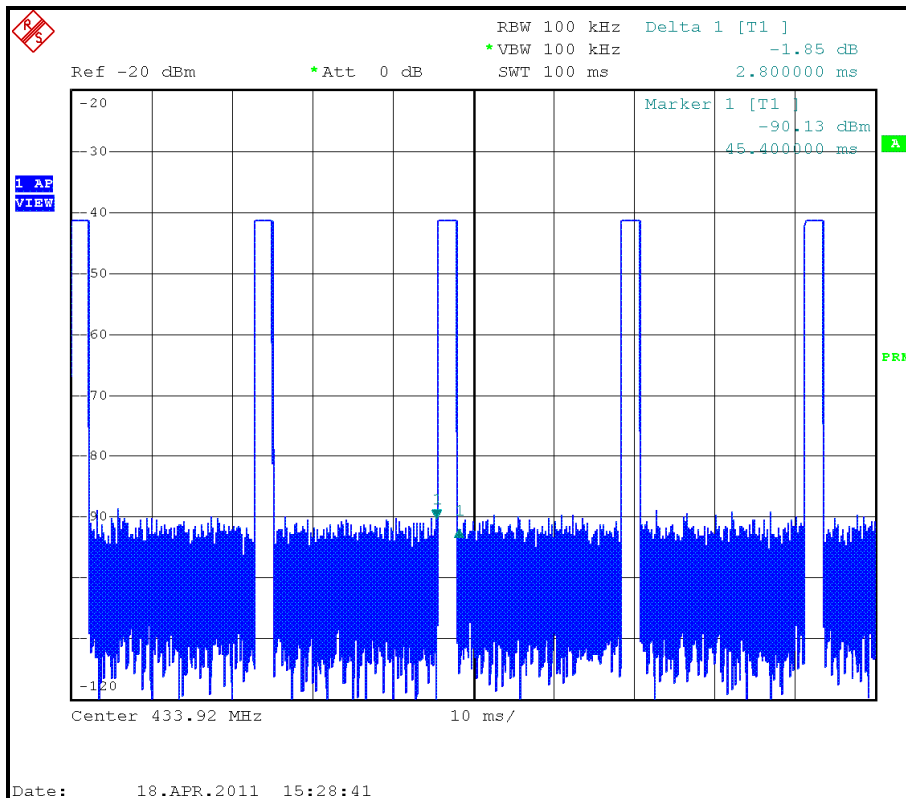
**REMARKS:** 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).  
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
3. The other emission levels were very low against the limit.  
4. Margin value = Emission level – Limit value.  
5. The average value = peak value + 20log(Duty cycle) Where the duty factor is calculated from following formula:  
 $20 \log (\text{Duty cycle}) = 20 \log (5 \times 2.8\text{ms} / 100 \text{ ms}) = -17.1 \text{ dB}$

Please see page 19 for plotted duty.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	3Vdc	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20deg. C, 61%RH 1021hPa	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	217.23	15.9 QP	46.0	-30.1	1.20 H	20	3.79	12.13
2	259.27	19.1 QP	46.0	-26.9	1.00 H	204	4.78	14.32
3	289.24	15.6 QP	46.0	-30.4	1.00 H	342	0.04	15.57
4	519.36	22.3 QP	46.0	-23.7	1.63 H	124	0.49	21.83
5	578.19	24.2 QP	46.0	-21.8	1.84 H	286	0.40	23.77
6	866.35	27.2 QP	46.0	-18.8	1.00 H	89	-0.44	27.67
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	217.34	15.3 QP	46.0	-30.7	1.20 V	20	3.19	12.13
2	258.90	18.3 QP	46.0	-27.7	1.00 V	204	4.03	14.30
3	288.56	15.0 QP	46.0	-31.0	1.00 V	342	-0.57	15.54
4	518.90	21.7 QP	46.0	-24.3	1.63 V	124	-0.08	21.81
5	577.23	23.4 QP	46.0	-22.6	1.84 V	286	-0.29	23.73
6	865.90	26.3 QP	46.0	-19.7	1.00 V	89	-1.34	27.67

**REMARKS:** 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).  
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
3. The other emission levels were very low against the limit.  
4. Margin value = Emission level – Limit value.



## 4.2 20dB OCCUPIED BANDWIDTH MEASUREMENT

### 4.2.1 LIMITS OF EMISSION BANDWIDTH MEASUREMENT

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for device operating above 70 MHz and below 900 MHz.

FUNDAMENTAL FREQUENCY (MHz)	LIMIT OF EMISSION BANDWIDTH (kHz)
433.92	1084.80

### 4.2.2 TEST INSTRUMENT

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100037	Sep. 08, 2010	Sep. 07, 2011

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

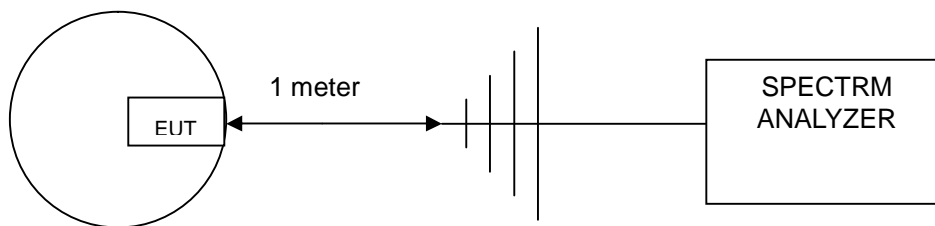
### 4.2.3 TEST PROCEDURE

- The EUT was placed on the turn table.
- The signal was coupled to the spectrum analyzer through an antenna.
- Set the resolution bandwidth to 10 kHz and video bandwidth to 30 kHz then select Peak function to scan the channel frequency.
- The emission bandwidth was measured and recorded.

#### 4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.2.5 TEST SETUP



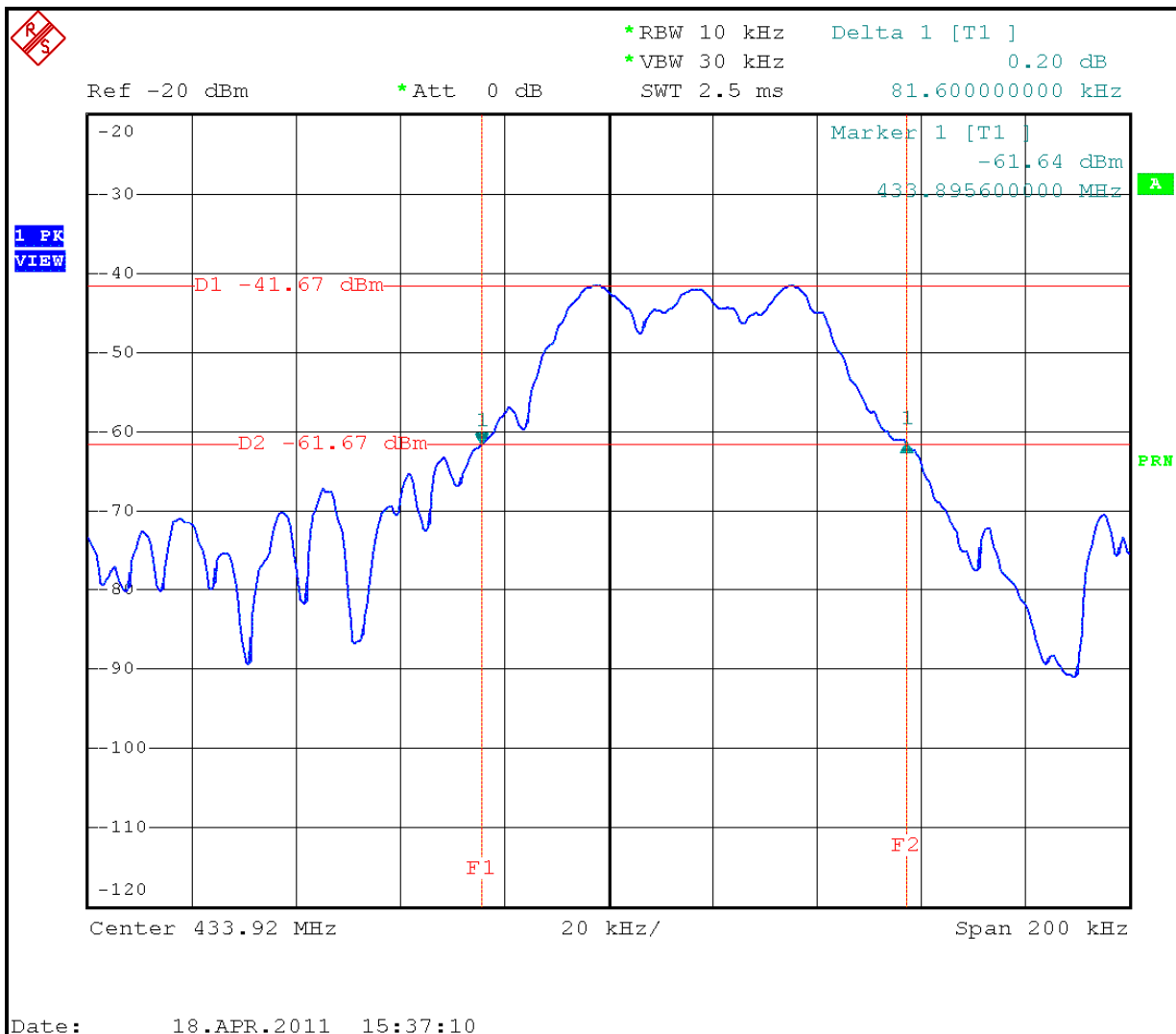
#### 4.2.6 TEST RESULTS

FREQUENCY (MHz)	20dB BANDWIDTH (kHz)	MAXIMUM LIMIT (kHz)	PASS/FAIL
433.92	81.6	1084.80	PASS

The plot of test result is attached as below.



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### 4.3 DEACTIVATION TIME

#### 4.3.1 LIMITS OF DEACTIVATION TIME MEASUREMENT

15.231 (a)(1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

15.231 (a)(2) A transmitter activated automatically shall cease transmission within 5 seconds after activation.

#### 4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100037	Sep. 08, 2010	Sep. 07, 2011

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

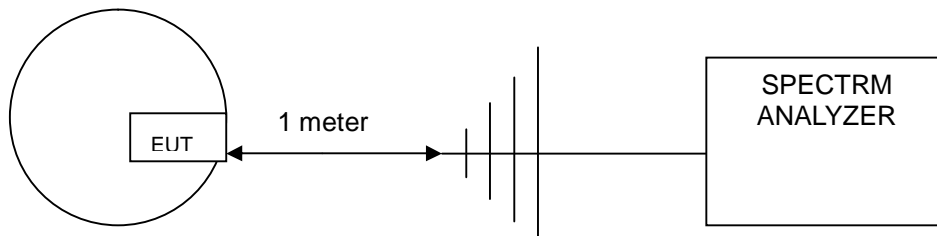
#### 4.3.3 TEST PROCEDURES

- The EUT was placed on the turning table.
- The signal was coupled to the spectrum analyzer through an antenna.
- Set the resolution bandwidth to 100kHz and video bandwidth to 100kHz. The spectrum analyzer was turned to the centre frequency of the transmitter's and the analyzer's marker function was used to determine the duration of transmission.
- The transmission duration was measured and recorded.

#### 4.3.4 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.3.5 TEST SETUP



#### 4.3.6 TEST RESULTS

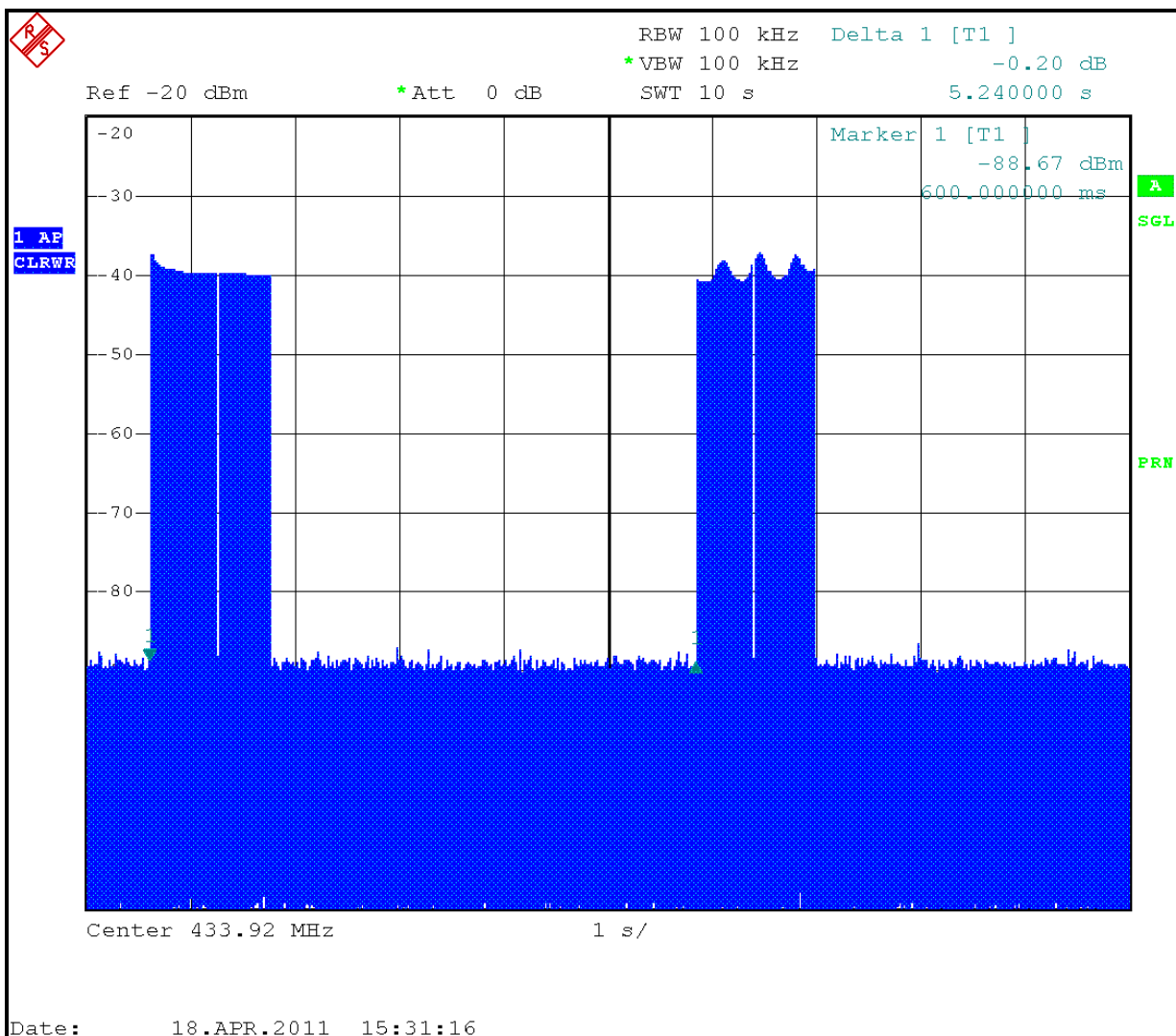
PUSH BUTTON	FREQUENCY (MHz)	MAXIMUM LIMIT (sec)	PASS/FAIL
1	433.92	5	PASS

The plots of test results are attached as below.





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## 5 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

## 6 INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: [www.adt.com.tw/index.5.phtml](http://www.adt.com.tw/index.5.phtml). If you have any comments, please feel free to contact us at the following:

**Linko EMC/RF Lab**

Tel: 886-2-26052180

Fax: 886-2-26051924

**Hsin Chu EMC/RF Lab**

Tel: 886-3-5935343

Fax: 886-3-5935342

**Hwa Ya EMC/RF/Safety/Telecom Lab**

Tel: 886-3-3183232

Fax: 886-3-3185050

**Web Site:** [www.adt.com.tw](http://www.adt.com.tw)

The address and road map of all our labs can be found in our web site also.



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## **7 APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB**

No any modifications are made to the EUT by the lab during the test.

**--- END ---**