

# FCC Test Report

**Equipment** : Remote Controller  
**Model No.** : TR-020  
**FCC ID** : PAGTR-020  
**Standard** : 47 CFR FCC Part 15.231  
**Operating Band** : 315 MHz  
**Operation** : Manually operated within 5 sec  
**FCC Classification** : DSC  
**Applicant** : KAB Enterprise Co., Ltd.  
21F, -1, No.33, Sec. 1, Minsheng Rd., Banqiao Dist.,  
New Taipei City 220, Taiwan (R.O.C)  
**Manufacturer** : Verdant Electronics(Dong Guan) Co., Ltd.  
Langxie Administrative District, Qiaotou,  
Dongguan City, Guang Dong Sheng, China.

The product sample received on Apr. 23, 2013 and completely tested on May 14, 2013. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2009 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by:



Vic Hsiao / Supervisor



Testing Laboratory  
1190



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### Summary of Test Result

Conformance Test Specifications					
Report Clause	Ref. Std. Clause	Description	Measured	Limit	Result
1.1.2	15.203	Antenna Requirement	Antenna connector mechanism complied	FCC 15.203	Complied
3.1	15.207	AC Power-line Conducted Emissions	-	FCC 15.207	NA
3.2	15.231(c)	Emission Bandwidth	44.20 kHz	Fc(70~900MHz): BW ≤ fc x 0.25%	Complied
3.3	15.231(b)/(e)	Fundamental Emissions	[dBuV/m at 3m]: 54.46 (Margin 21.16dB) average	[dBuV/m at 3m]: average: 75.62	Complied
3.4	15.231(b)/(e)	Transmitter Radiated Unwanted Emissions	[dBuV/m at 3m]: 1575.000MHz 47.27 (Margin 6.73dB) - AV	FCC 15.231 (b)/(e) or FCC 15.209, whichever limit permits higher field strength.	Complied
3.5	15.231(a)/(e)	Operation Restriction	Operated time and silent time are less than limits.	Manually operated within 5 sec	Complied

NA = Not Applicable





# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

RF General Information					
Frequency Range (MHz)	Modulation	Ch. Frequency (MHz)	Channel Number	Fundamental Field Strength (dBuV/m)	Co-location
315	ASK	315	1	54.46	N/A

Note 1: Field strength performed average level at 3m.  
Note 2: Co-location, Co-location is generally defined as simultaneously transmitting (co-transmitting) antennas within 20 cm of each other.

### 1.1.2 Antenna Information

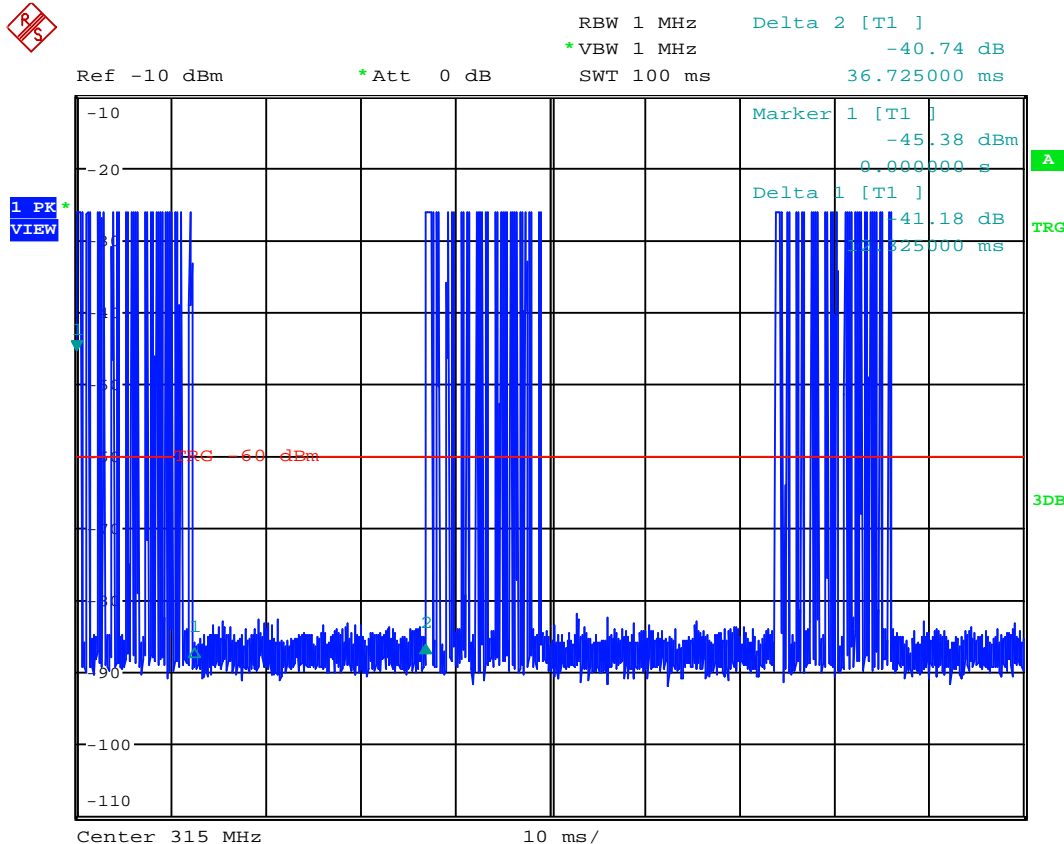
Antenna Category	
<input checked="" type="checkbox"/>	Integral antenna (antenna permanently attached)
<input type="checkbox"/>	External antenna (dedicated antennas) ; Unique antenna connector

### 1.1.3 Type of EUT

Identify EUT	
EUT Serial Number	N/A
Presentation of Equipment	<input checked="" type="checkbox"/> Production ; <input type="checkbox"/> Pre-Production ; <input type="checkbox"/> Prototype
Type of EUT	
<input checked="" type="checkbox"/>	Stand-alone
<input type="checkbox"/>	Combined (EUT where the radio part is fully integrated within another device) Combined Equipment - Brand Name / Model No.: ...
<input type="checkbox"/>	Plug-in radio (EUT intended for a variety of host systems) Host System - Brand Name / Model No.: ...
<input type="checkbox"/>	Other:

### 1.1.4 Test Signal Duty Cycle

Operated Mode for Worst Duty Cycle	
<input checked="" type="checkbox"/> Operated normally mode for worst duty cycle	
<input type="checkbox"/> Operated test mode for worst duty cycle	
Test Signal Duty Cycle (x)	Duty Cycle Correction Factor [dB] – (20 log x)
<input checked="" type="checkbox"/> 17.87%	14.96



RBW 1 MHz    Delta 2 [T1] -40.74 dB  
 \*VBW 1 MHz    Delta 1 [T1] -41.18 dB  
 Ref -10 dBm    \*Att 0 dB    SWT 100 ms    36.725000 ms  
 Marker 1 [T1] -45.38 dBm  
 Delta 1 [T1] -41.18 dBm  
 0.000000 s  
 36.725000 ms  
 TRG  
 3DB  
 1 PK VIEW  
 FCC -60 dBm  
 Center 315 MHz    10 ms/

Date: 14.MAY.2013 21:45:57

Duty cycle = On time 17.87ms bin (1430) / Total Time 100ms bin (8001) = 17.87%

If worst duty < 100%, average emission = peak emission + 20 log x

### 1.1.5 EUT Operational Condition

<b>Supply Voltage</b>	<input type="checkbox"/> AC mains	<input checked="" type="checkbox"/> DC	
<b>Type of DC Source</b>	<input type="checkbox"/> Internal DC supply	<input type="checkbox"/> External DC adapter	<input checked="" type="checkbox"/> Battery

## 1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ◆ 47 CFR FCC Part 15
- ◆ ANSI C63.10-2009

## 1.3 Testing Location Information

Testing Location				
<input checked="" type="checkbox"/>	HWA YA	ADD : No. 52, Hwa Ya 1 <sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.		
		TEL : 886-3-327-3456	FAX : 886-3-327-0973	
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-HY	Wei	22.1°C / 61%	30-Apr.-13 14-May-13
Radiated Emission	03CH02-HY	Daniel	24°C / 58%	04-May-13 08-May-13

## 1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

<b>Measurement Uncertainty</b>			
<b>Test Item</b>		<b>Uncertainty</b>	<b>Limit</b>
AC power-line conducted emissions		±2.26 dB	N/A
Emission bandwidth		±1.42 %	N/A
RF output power, conducted		±0.63 dB	N/A
Power density, conducted		±0.81 dB	N/A
Unwanted emissions, conducted	30 – 1000 MHz	±0.51 dB	N/A
	1 – 18 GHz	±0.67 dB	N/A
	18 – 40 GHz	±0.83 dB	N/A
	40 – 200 GHz	N/A	N/A
All emissions, radiated	30 – 1000 MHz	±2.56 dB	N/A
	1 – 18 GHz	±3.59 dB	N/A
	18 – 40 GHz	±3.82 dB	N/A
	40 – 200 GHz	N/A	N/A
Temperature		±0.8 °C	N/A
Humidity		±3 %	N/A
DC and low frequency voltages		±3 %	N/A
Time		±1.42 %	N/A
Duty Cycle		±1.42 %	N/A



## 2 Test Configuration of EUT




### 2.1 The Worst Case Modulation Configuration

Modulation Used for Conformance Testing	
Test Mode	Field Strength (dBuV/m at 3 m)
ASK-Transmit	54.46

### 2.2 Test Channel Frequencies Configuration

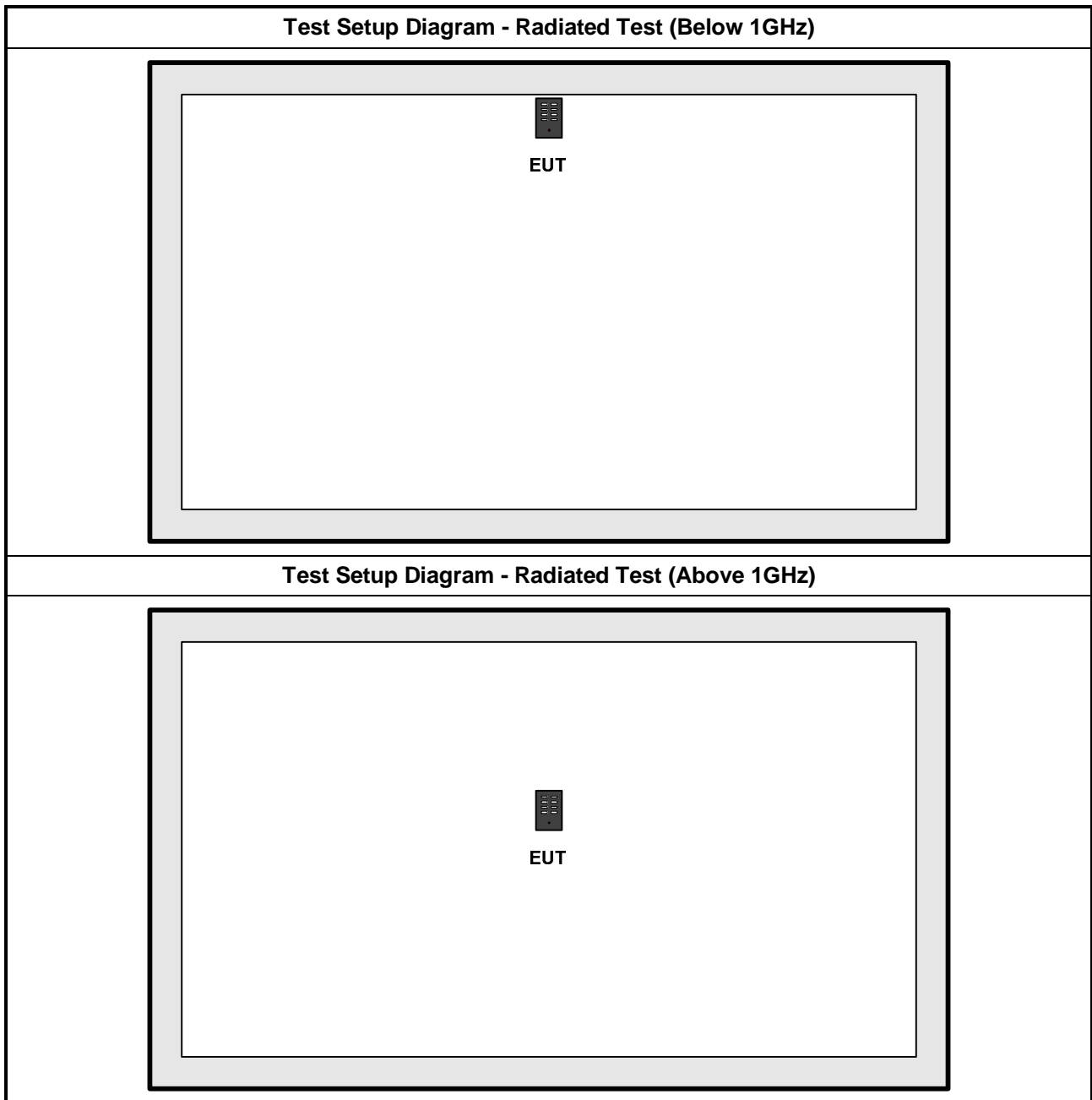
Test Channel Frequencies Configuration	
Test Mode	Test Channel Frequencies (MHz)
ASK-Transmit	315-(F1)

### 2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests			
<b>Tests Item</b>	Emission Bandwidth, Fundamental Emissions, Radiated Unwanted Emissions		
<b>Test Condition</b>	Radiated measurement		
<b>User Position</b>	<input type="checkbox"/> EUT will be placed in fixed position.		
	<input type="checkbox"/> EUT will be placed in mobile position and operating multiple positions. EUT shall be performed two orthogonal planes.		
	<input checked="" type="checkbox"/> EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions. EUT shall be performed two or three orthogonal planes. The worst planes is X.		
<b>Test Mode</b>	ASK-Transmit		
<b>Orthogonal Planes of EUT</b>	<b>X Plane</b>	<b>Y Plane</b>	<b>Z Plane</b>
			

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Operation Restriction (silent time and operated time)
<b>Test Condition</b>	Radiated measurement
<b>Test Mode</b>	Operated normally mode for worst duty cycle condition.

## 2.4 Test Setup Diagram



### 3 Transmitter Test Result

#### 3.1 AC Power-line Conducted Emissions

##### 3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: \* Decreases with the logarithm of the frequency.

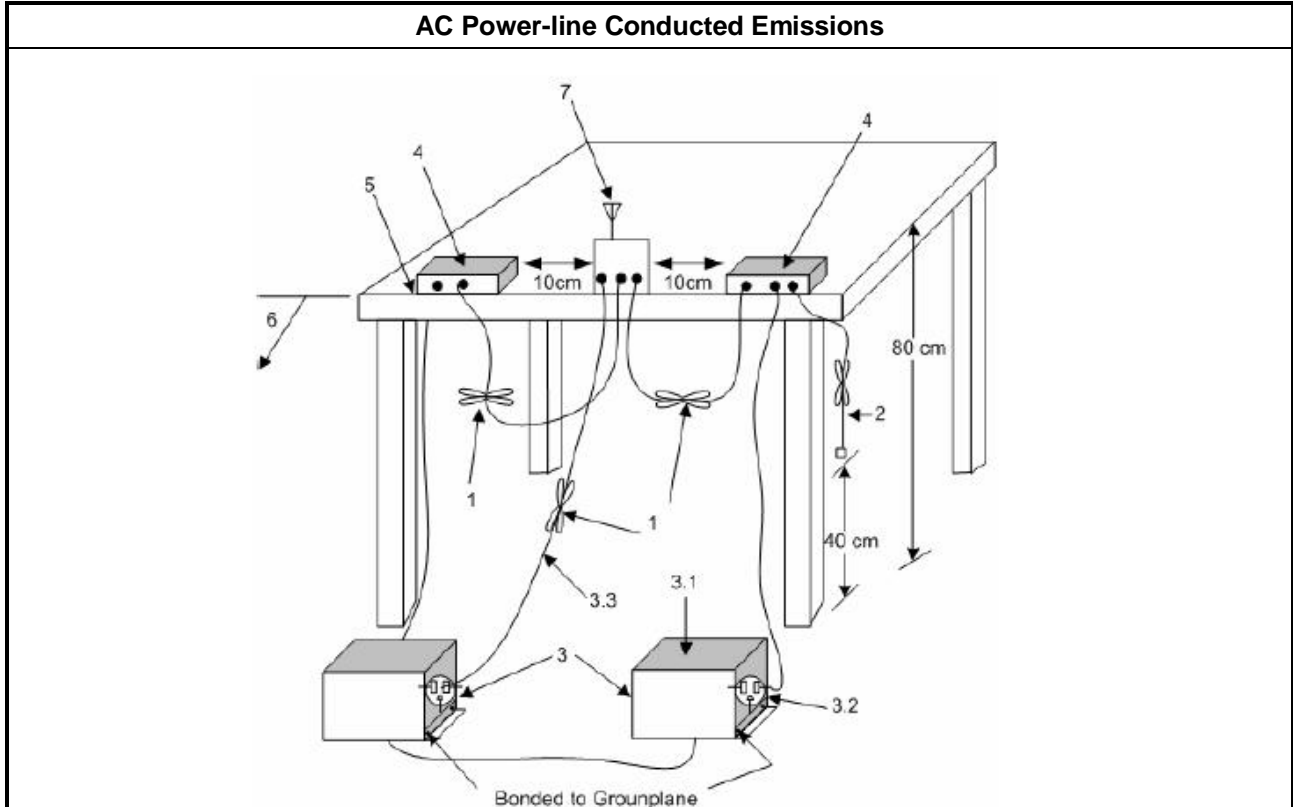
##### 3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

##### 3.1.3 Test Procedures

Test Method
<input checked="" type="checkbox"/> Refer as ANSI C63.10-2009, clause 6.2 for AC power-line conducted emissions.

##### 3.1.4 Test Setup





### **3.1.5 Test Result of AC Power-line Conducted Emissions**

The EUT is battery powered; there is no need to do this testing.

### 3.2 Emission Bandwidth

#### 3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
<input checked="" type="checkbox"/>	Emission bandwidth falls completely within authorized band.
<input checked="" type="checkbox"/>	$F_c(70\sim 900\text{MHz}): BW \leq f_c \times 0.25\%$
<input type="checkbox"/>	$F_c(>900\text{MHz}): BW \leq f_c \times 0.5\%$

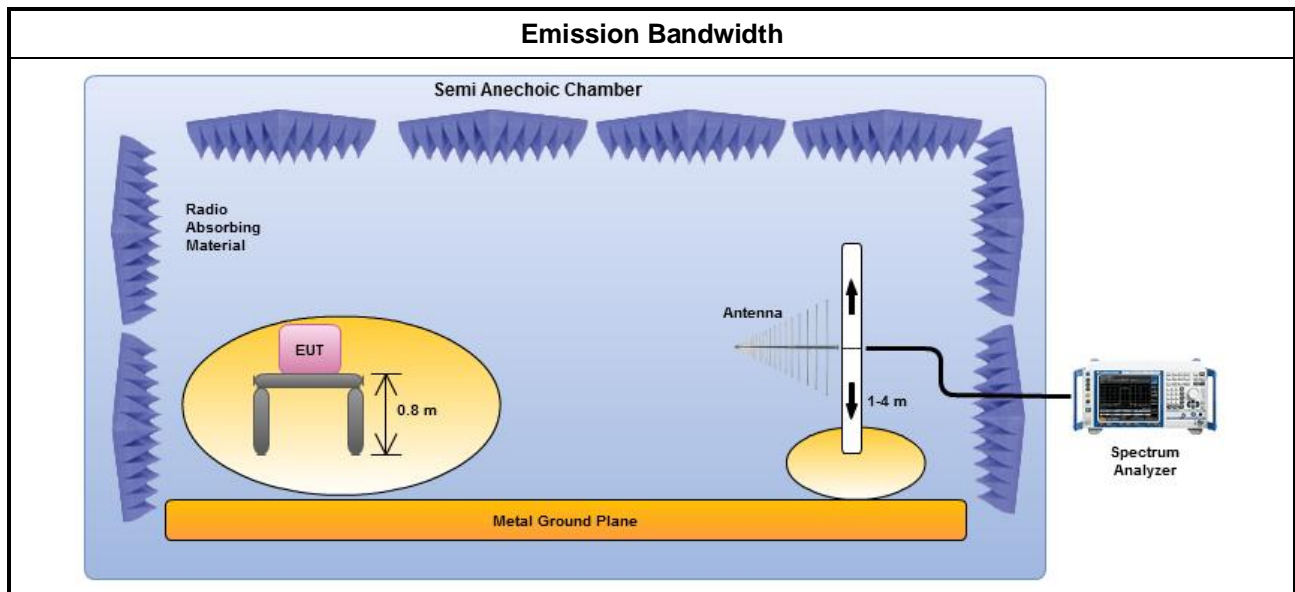
#### 3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

#### 3.2.3 Test Procedures

Test Method	
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for 20 dB emission bandwidth and 99% occupied bandwidth measurement.

#### 3.2.4 Test Setup





3.2.5 Test Result of Emission Bandwidth

Emission Bandwidth Result			
Modulation Mode	Frequency (MHz)	99% Bandwidth (kHz)	20dB BW (kHz)
ASK-Transmit	315	47.80	44.20
Limit		787.5	N/A
Result		Complied	





### 3.3 Fundamental Emissions

#### 3.3.1 Fundamental Emissions Limit

For manually operated within 5 sec, activated automatically within 5 sec, periodic transmissions		
Frequency Band (MHz)	Fundamental Limit (uV/m) at 3m	Fundamental Limit (dBuV/m) at 3m
40.66-40.70	2250	67
70-130	1250	61.9
130-174	1250-3750(**)	61.9-71.5
174-260	3750	71.5
260-470	3750-12500(**)	71.5-81.9
Above 470	12500	81.9

\*\*1. Linear interpolations, the formulas for calculating the maximum permitted fundamental field strengths are as follows:  
 (1) for the band 130 - 174 MHz,  $\mu\text{V/m}$  at 3 meters =  $56.81818 \times (\text{operating frequency, MHz}) - 6136.3636$ ;  
 (2) for the band 260 - 470 MHz,  $\mu\text{V/m}$  at 3 meters =  $41.6667 \times (\text{operating frequency, MHz}) - 7083.3333$ .  
 Based on the average value of the measured emissions.

For periodic transmissions (lower field strength)		
Frequency Band (MHz)	Fundamental Limit (uV/m) at 3m	Fundamental Limit (dBuV/m) at 3m
40.66-40.70	1000	60
70-130	500	54
130-174	500-1500(**)	54-63.5
174-260	1500	63.5
260-470	1500-5000(**)	63.5-74
Above 470	5000	74

\*\* 1. Linear interpolations, the formulas for calculating the maximum permitted fundamental field strengths are as follows:  
 (1) for the band 130 - 174 MHz,  $\mu\text{V/m}$  at 3 meters =  $22.72727 \times (\text{operating frequency, MHz}) - 2454.545$ ;  
 (2) for the band 260 - 470 MHz,  $\mu\text{V/m}$  at 3 meters =  $16.6667 \times (\text{operating frequency, MHz}) - 2833.3333$ .  
 Based on the average value of the measured emissions.

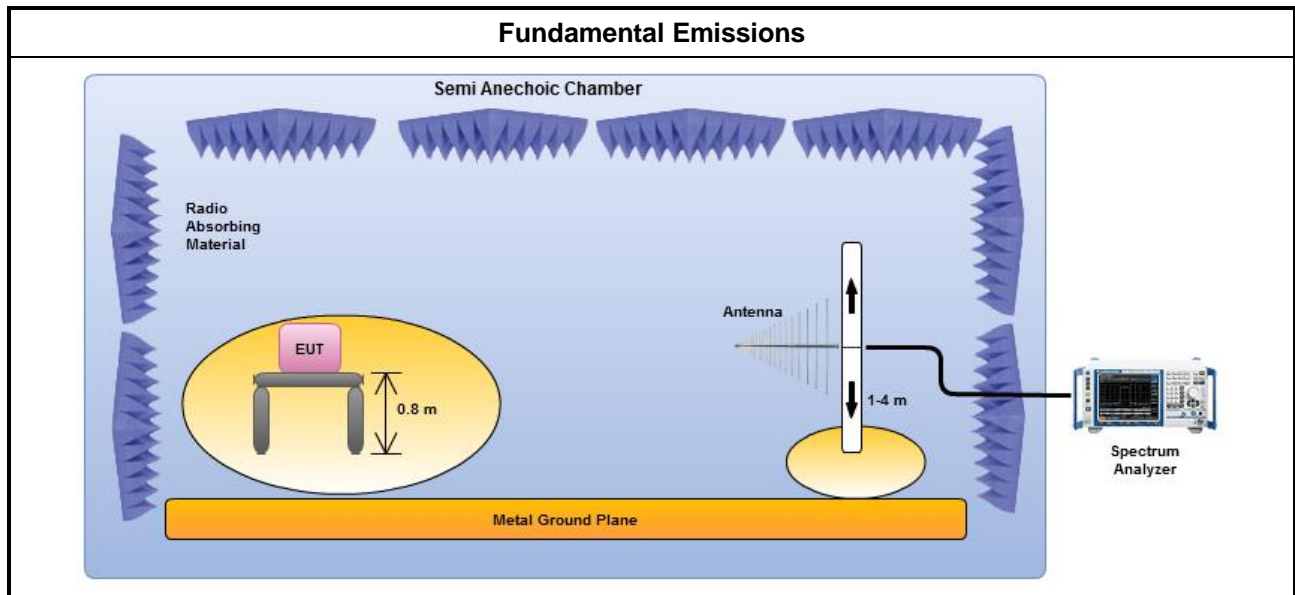
#### 3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

#### 3.3.3 Test Procedures

<input checked="" type="checkbox"/>	For the transmitter emissions shall be measured using following options below:
<input type="checkbox"/>	Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW) – Duty cycle $\geq$ 100%.
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions. Adjusted by a “duty cycle correction factor”, derived from $20 \log (\text{dwell time}/100 \text{ ms})$ . Average emission = peak emission + 20 log (duty cycle).
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
<input checked="" type="checkbox"/>	For radiated measurement, refer as ANSI C63.10, clause 6.5 for radiated emissions

### 3.3.4 Test Setup



### 3.3.5 Test Result of Fundamental Emissions

Field Strength of Fundamental Emissions Result					
Modulation Mode	Frequency (MHz)	Fundamental (dBuV/m)@3m	Margin (dB)	Limit (dBuV/m)@3m	Type
ASK-Transmit	315	69.42	26.20	95.62	peak
ASK-Transmit	315	54.46	21.16	75.62	average
<b>Result</b>		<b>Complied</b>			
Note 1: Measurement worst emissions of receive antenna polarization: Horizontal.					
Note 2: If duty cycle < 100%, average emission = peak emission + 20 log (duty cycle).					



### 3.4 Transmitter Radiated Unwanted Emissions

#### 3.4.1 Transmitter Radiated Unwanted Emissions Limit

For manually operated within 5 sec, activated automatically within 5 sec, periodic transmissions		
Unwanted emissions limit follow this table or the general limits FCC 15.209, whichever limit permits higher field strength.		
Frequency Band (MHz)	Spurious Limit (uV/m) at 3m	Spurious Limit (dBuV/m) at 3m
40.66-40.70	225	47
70-130	125	41.9
130-174	125-375(**)	41.9-51.5
174-260	375	51.5
260-470	375-1250(**)	51.5-61.9
Above 470	1250	61.9
**1. Linear interpolations, the formulas for calculating the maximum permitted fundamental field strengths are as follows: (1) for the band 130 - 174 MHz, $\mu\text{V/m}$ at 3 meters = $56.81818 \times (\text{operating frequency, MHz}) - 6136.3636$ ; (2) for the band 260 - 470 MHz, $\mu\text{V/m}$ at 3 meters = $41.6667 \times (\text{operating frequency, MHz}) - 7083.3333$ . Based on the average value of the measured emissions.		

For periodic transmissions (lower field strength)		
Unwanted emissions limit follow this table or the general limits FCC 15.209, whichever limit permits higher field strength.		
Frequency Band (MHz)	Spurious Limit (uV/m) at 3m	Spurious Limit (dBuV/m) at 3m
40.66-40.70	100	40
70-130	50	34
130-174	50-150(**)	34-43.5
174-260	150	43.5
260-470	150-500(**)	43.5-54
Above 470	500	54
** 1. Linear interpolations, the formulas for calculating the maximum permitted fundamental field strengths are as follows: (1) for the band 130 - 174 MHz, $\mu\text{V/m}$ at 3 meters = $22.72727 \times (\text{operating frequency, MHz}) - 2454.545$ ; (2) for the band 260 - 470 MHz, $\mu\text{V/m}$ at 3 meters = $16.6667 \times (\text{operating frequency, MHz}) - 2833.3333$ . Based on the average value of the measured emissions.		

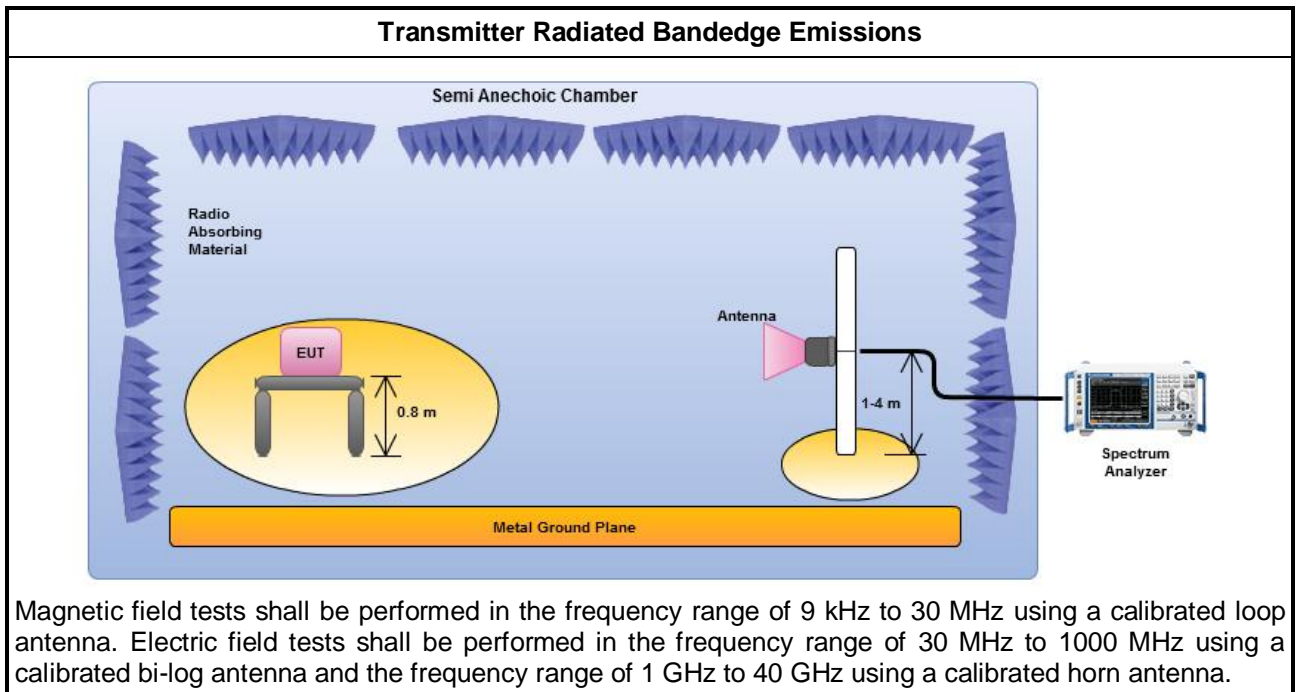
#### 3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.4.3 Test Procedures

Test Method – General Information	
<input checked="" type="checkbox"/>	The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.2.2 bandedge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
<input checked="" type="checkbox"/>	For the transmitter unwanted emissions shall be measured using following options below:
<input type="checkbox"/>	Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW) – Duty cycle $\geq$ 100%.
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions. Adjusted by a “duty cycle correction factor”, derived from $20\log(\text{dwell time}/100 \text{ ms})$ . Average emission = peak emission + 20 log (duty cycle).
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
<input checked="" type="checkbox"/>	For the transmitter bandedge emissions shall be measured using following options below:
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.2 for band-edge testing.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.3 for marker-delta method for band-edge measurements.
<input checked="" type="checkbox"/>	For radiated measurement.
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 6.4 for radiated emissions from below 30 MHz.
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 6.5 for radiated emissions from 30 MHz to 1000 MHz.
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 6.6 for radiated emissions from above 1 GHz.

### 3.4.4 Test Setup



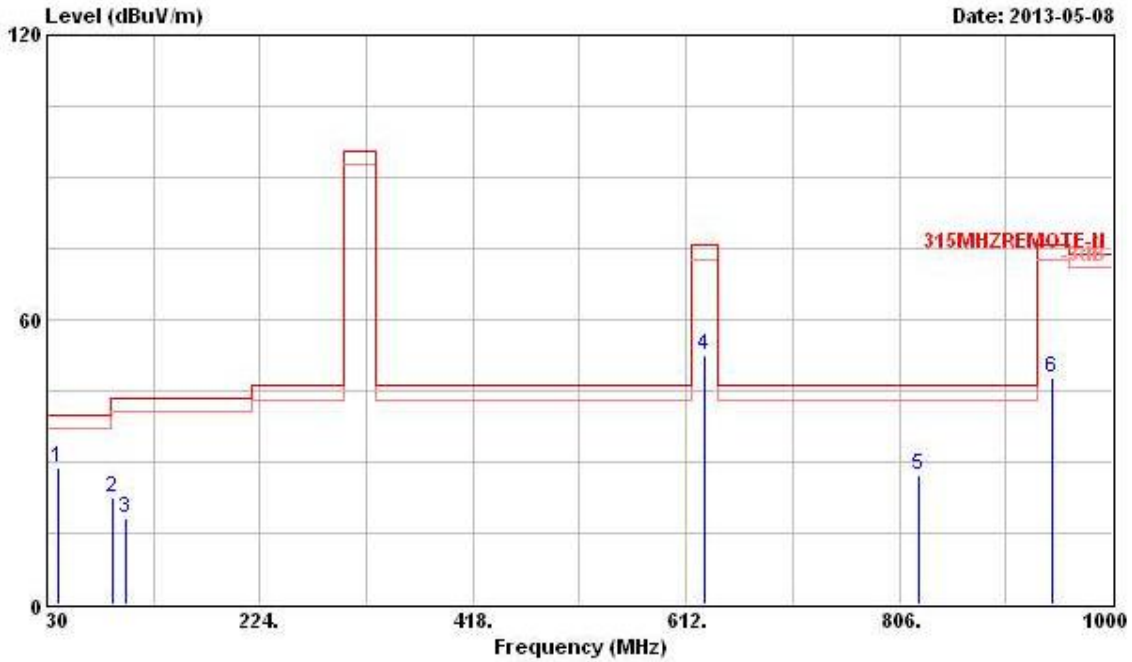
### 3.4.5 Transmitter Radiated Unwanted Emissions (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.



3.4.6 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Transmitter Radiated Unwanted Emissions (Below 1GHz)			
Operating Mode	1	Test Freq. (FX)	F1
Operating Function	ASK-Transmit	Polarization	V



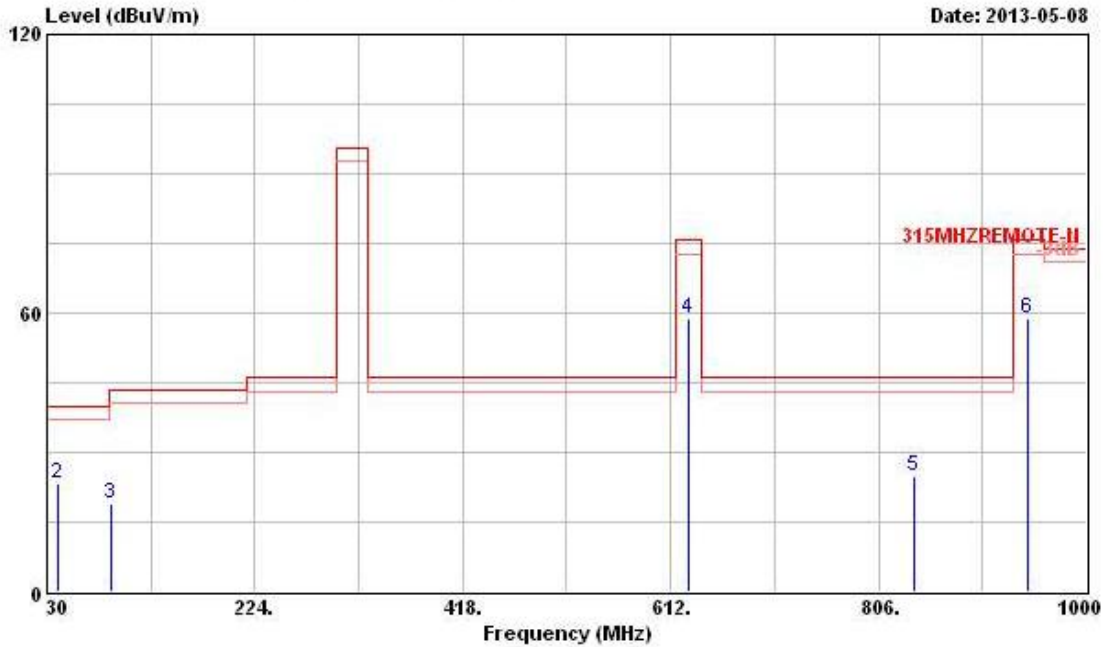
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB		cm	deg
1	30.670	28.92	-11.08	40.00	42.94	13.01	0.88	27.91	Peak	---	---
2	90.140	22.51	-20.99	43.50	39.56	9.50	1.34	27.89	Peak	---	---
3	101.780	18.08	-25.42	43.50	33.14	11.41	1.42	27.89	Peak	---	---
4	629.460	52.61	-23.01	75.62	57.53	19.79	3.81	28.52	Peak	---	---
5	824.430	27.28	-18.72	46.00	30.61	20.21	4.47	28.01	Peak	---	---
6	944.710	47.95	-27.67	75.62	49.59	21.13	4.80	27.57	Peak	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)  
 Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)  
 Note 4: If duty cycle < 100%, average emission = peak emission + 20 log (duty cycle).



Transmitter Radiated Unwanted Emissions (Below 1GHz)

Operating Mode	1	Test Freq. (FX)	F1
Operating Function	ASK-Transmit	Polarization	V



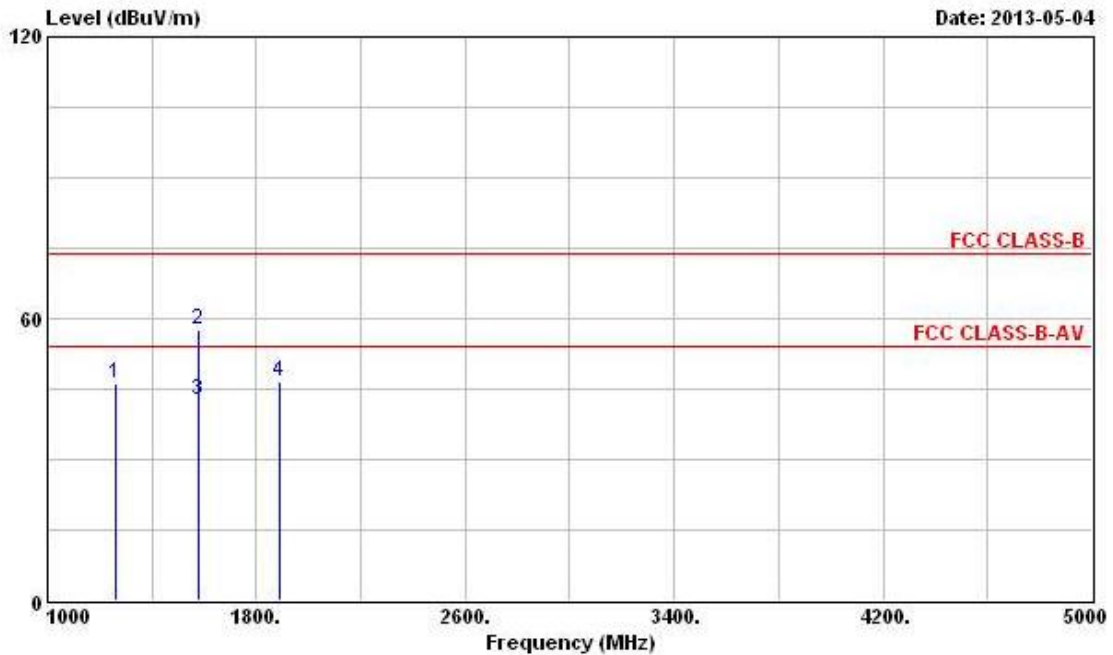
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	30.000	22.65	-17.35	40.00	33.63	16.22	0.78	27.98	Peak	---	---
2	40.670	23.37	-16.63	40.00	37.39	13.01	0.88	27.91	Peak	---	---
3	90.140	19.00	-24.50	43.50	36.05	9.50	1.34	27.89	Peak	---	---
4	629.460	58.96	-16.66	75.62	63.88	19.79	3.81	28.52	Peak	---	---
5	838.980	24.70	-21.30	46.00	27.99	20.18	4.50	27.97	Peak	---	---
6	944.710	58.78	-16.84	75.62	60.42	21.13	4.80	27.57	Peak	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)  
 Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)  
 Note 4: If duty cycle < 100%, average emission = peak emission + 20 log (duty cycle).



3.4.7 Transmitter Radiated Unwanted Emissions (Above 1GHz)

Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Operating Mode	1	Test Freq. (FX)	F1
Operating Function	ASK-Transmit	Polarization	V



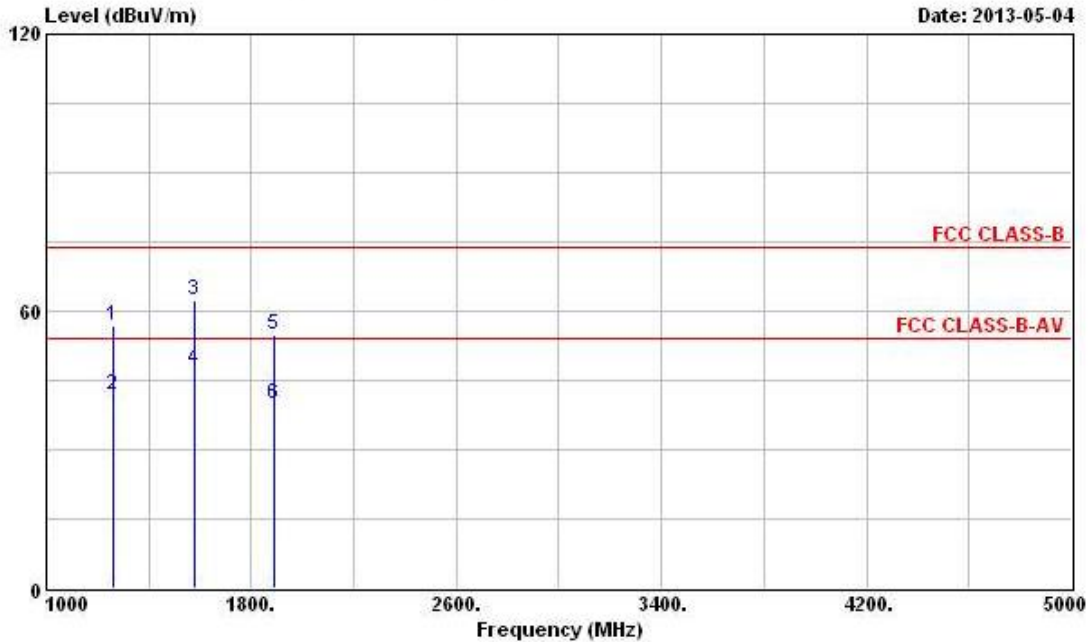
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	1260.000	46.04	-7.96	54.00	50.89	28.15	2.22	35.22	PK	---	---
2	1575.000	57.44	-16.56	74.00	61.02	28.80	2.43	34.81	Peak	---	---
3	1575.000	42.48	-11.52	54.00	46.06	28.80	2.43	34.81	Average	---	---
4	1890.000	46.57	-7.43	54.00	47.28	31.32	2.68	34.71	PK	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: Measurement receive antenna polarization: H (Horizontal), V (Vertical)  
 Note 3: For the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 4: If duty cycle < 100%, average emission = peak emission + 20 log (duty cycle).



Transmitter Radiated Unwanted Emissions (Above 1GHz)

Operating Mode	1	Test Freq. (FX)	F1
Operating Function	ASK-Transmit	Polarization	V



Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1	1260.000	56.88	-17.12	74.00	61.73	28.15	2.22	35.22	Peak	---	---
2	1260.000	41.92	-12.08	54.00	46.77	28.15	2.22	35.22	Average	---	---
3	1575.000	62.23	-11.77	74.00	65.81	28.80	2.43	34.81	Peak	---	---
4	1575.000	47.27	-6.73	54.00	50.85	28.80	2.43	34.81	Average	---	---
5	1890.000	54.95	-19.05	74.00	55.66	31.32	2.68	34.71	Peak	---	---
6	1890.000	39.99	-14.01	54.00	40.70	31.32	2.68	34.71	Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: Measurement receive antenna polarization: H (Horizontal), V (Vertical)  
 Note 3: For the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 4: If duty cycle < 100%, average emission = peak emission + 20 log (duty cycle).

### 3.5 Operation Restriction

#### 3.5.1 Operation Restriction Limit

Operation Restriction Limit	
<input checked="" type="checkbox"/>	Manually operated: manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 sec of being released.
<input type="checkbox"/>	Activated automatically: transmitter activated automatically shall cease transmission within 5 sec after activation.
<input type="checkbox"/>	Periodic transmissions: permitted with total transmission time of 2 sec per hour or less.
<input type="checkbox"/>	Periodic transmissions (lower field strength): each transmission is not greater than 1 sec and the silent period between transmissions is at least 30 times the duration of the transmission but in no case less than 10 sec.

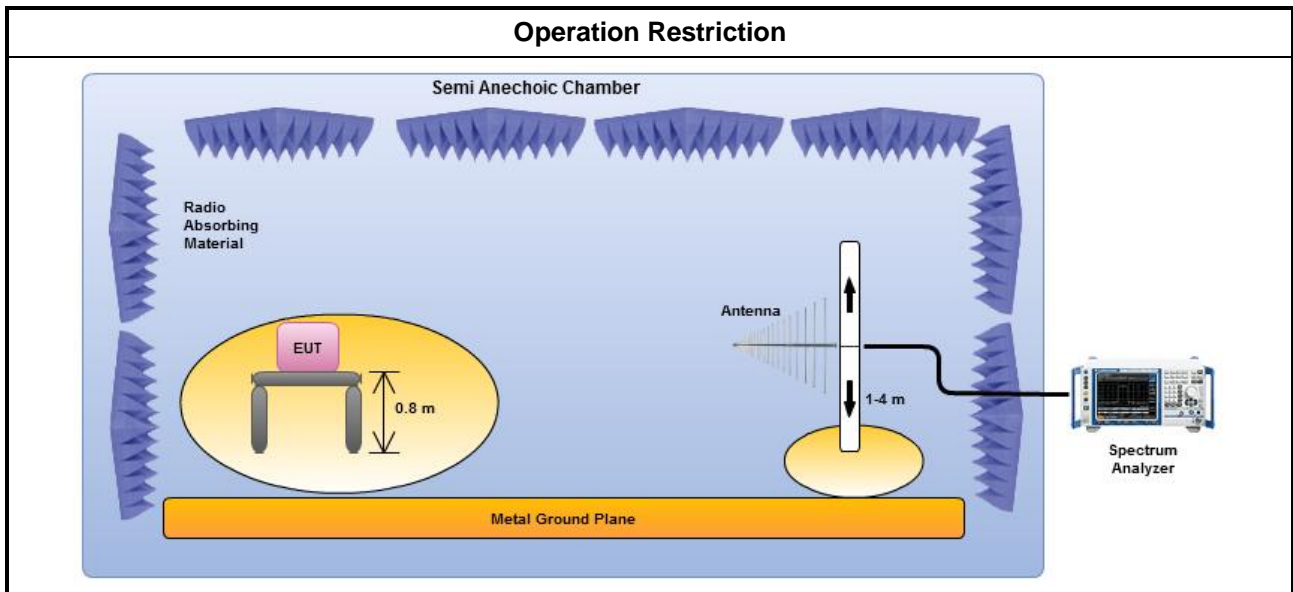
#### 3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report. Activated automatically within 5 sec

#### 3.5.3 Test Procedures

Test Method	
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 7.4 for periodic operation measurement.

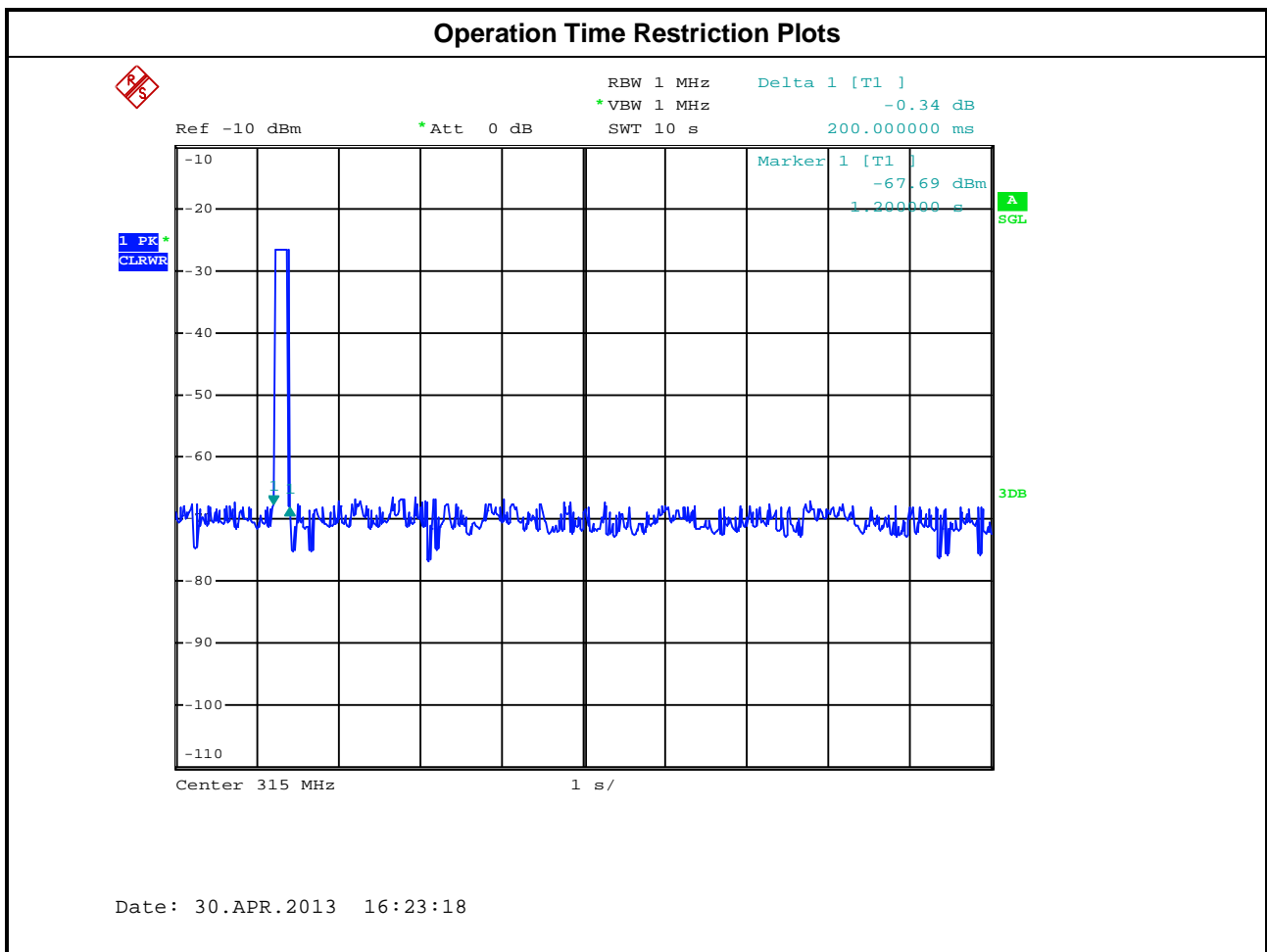
#### 3.5.4 Test Setup





### 3.5.5 Test Result of Operation Restriction

Operation Restriction Limit	
<input checked="" type="checkbox"/>	Manually operated: manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 sec of being released.
<input type="checkbox"/>	Activated automatically: transmitter activated automatically shall cease transmission within 5 sec after activation.
<input type="checkbox"/>	Periodic transmissions: permitted with total transmission time of 2 sec per hour or less.
<input type="checkbox"/>	Periodic transmissions (lower field strength): each transmission is not greater than 1 sec and the silent period between transmissions is at least 30 times the duration of the transmission but in no case less than 10 sec.







## 4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSP 40	100305	9KHz~40GHz	Mar. 20, 2013	Conducted (TH01-HY)
AC Power Source	G.W	APS-9102	EL920581	AC 0V ~ 300V	Jul. 02, 2012	Conducted (TH01-HY)
Temp. and Humidity Chamber	Giant Force	GTH-225-20-SP-SD	MAA1112-007	-20 ~ 100°C	Nov. 21, 2012	Conducted (TH01-HY)
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	Jun. 26, 2012	Conducted (TH01-HY)
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	Feb. 02, 2013	Conducted (TH01-HY)
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	Feb. 02, 2013	Conducted (TH01-HY)
RF Cable-2m	HUBER+SUHNER	SUCOFLEX_104	SN 345675/4	1GHz ~ 26.5GHz	NA	Conducted (TH01-HY)
RF Cable-3m	HUBER+SUHNER	SUCOFLEX_104	SN 345669/4	1GHz ~ 26.5GHz	NA	Conducted (TH01-HY)

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSP40	100593	9kHz ~ 40GHz	Sep. 14, 2012	Radiation (03CH02-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz ~ 1GHz 3m	May 10, 2012	Radiation (03CH02-HY)
Amplifier	Agilent	8447D	2944A11146	100kHz ~ 1.3GHz	Jul. 23, 2012	Radiation (03CH02-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	Nov. 10, 2012	Radiation (03CH02-HY)
RF Cable-high	SUHNER	SUCOFLEX106	03CH02-HY	1GHz ~ 40GHz	Mar. 05, 2013	Radiation (03CH02-HY)
Bilog Antenna	SCHAFFNER	CBL61128	2723	30MHz ~ 2GHz	Oct. 22, 2012	Radiation (03CH02-HY)
Turn Table	HD	DS 420	420/649/00	0~ 360 degree	N/A	Radiation (03CH02-HY)
Antenna Mast	HD	MA 240	240/559/00	1 ~ 4 m	N/A	Radiation (03CH02-HY)

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Loop Antenna	R&S	HFH2-Z2	860004/0001	9 kHz ~ 30 MHz	Jul. 03, 2012	Radiation (03CH02-HY)

Note: Calibration Interval of instruments listed above is two year.