

# APPLICATION CERTIFICATION

On Behalf of  
Swiss Tech Acquisitions, LLC

Personal Recorder  
Model No.: 13071R

FCC ID: ORH13071R

Prepared for : Swiss Tech Acquisitions, LLC

Address : 30725 Solon Industrial Parkway, Solon, Ohio, United States,  
44139

Prepared by : Accurate Technology Co., Ltd.  
Address : F1, Bldg. A&D, Changyuan New Material Port, Keyuan Rd.,  
Science & Industry Park, Nanshan District, Shenzhen  
518057, P.R. China  
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Report No. : ATE20140062  
Date of Test : January 20, 2014  
Date of Report : January 26, 2014

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## Test Report Certification

Applicant : Swiss Tech Acquisitions, LLC  
Manufacturer : Provide Ltd.  
EUT Description : Personal Recorder  
(A) MODEL NO.: 13071R  
(B) SERIAL NO.: N/A  
(C) POWER SUPPLY: DC 3V

Measurement Procedure Used:


### **FCC Rules and Regulations Part 15 Subpart B Class B ANSI C63.4: 2009**

The device described above is tested by Accurate Technology Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B Class B limits both radiated and conducted emissions. The measurement results are contained in this test report and Accurate Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Accurate Technology Co., Ltd.

Date of Test : January 20, 2014

Prepared by :   
(Engineer )

Approved & Authorized Signer :   
Manager)

## 1. TEST RESULTS SUMMARY

Test Items	Test Standard	Test Results
Power Line Conducted Emission	FCC Part 15 Subpart B	N/A
Radiated Emission	FCC Part 15 Subpart B	Pass

Remark: "N/A" means "Not applicable"

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

EUT	:	Personal Recorder
Model Number	:	13071R
Power Supply	:	DC 3V
Operation Frequency	:	315MHz
Trade Name	:	
Applicant	:	Swiss Tech Acquisitions, LLC
Address	:	30725 Solon Industrial Parkway, Solon, Ohio, United States, 44139
Manufacturer	:	Provide Ltd.
Address	:	3D, Florida Mansion, 9-11 Cleveland Street, Causeway Bay, Hong Kong
Date of sample received	:	January 17, 2014
Date of Test	:	January 20, 2014

## 2.2. Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC  
The Registration Number is 253065  
Listed by FCC  
The Registration Number is 752051

Listed by Industry Canada  
The Registration Number is 5077A-1  
Listed by Industry Canada  
The Registration Number is 5077A-2

Accredited by China National Accreditation Committee for Laboratories  
The Certificate Registration Number is L3193

Name of Firm : Accurate Technology Co., Ltd.  
Site Location : F1, Bldg. A&D, Changyuan New Material Port, Keyuan Rd.  
Science & Industry Park, Nanshan District, Shenzhen  
518057, P.R. China

## 2.3. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Power Disturbance Expanded Uncertainty = 2.92 dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2  
(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42dB, k=2  
(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2  
(Above 1GHz)

### 3. MEASURING DEVICE AND TEST EQUIPMENT

#### 3.1. For Radiated Emission Measurement

Kind of equipment	Manufacturer	Type	S/N	Calibrated date	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 11, 2014	Jan. 10, 2015
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 11, 2014	Jan. 10, 2015
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 11, 2014	Jan. 10, 2015
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 11, 2014	Jan. 10, 2015
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 15, 2014	Jan. 14, 2015
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 15, 2014	Jan. 14, 2015
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 15, 2014	Jan. 14, 2015
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 15, 2014	Jan. 14, 2015
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 11, 2014	Jan. 10, 2015
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 11, 2014	Jan. 10, 2015

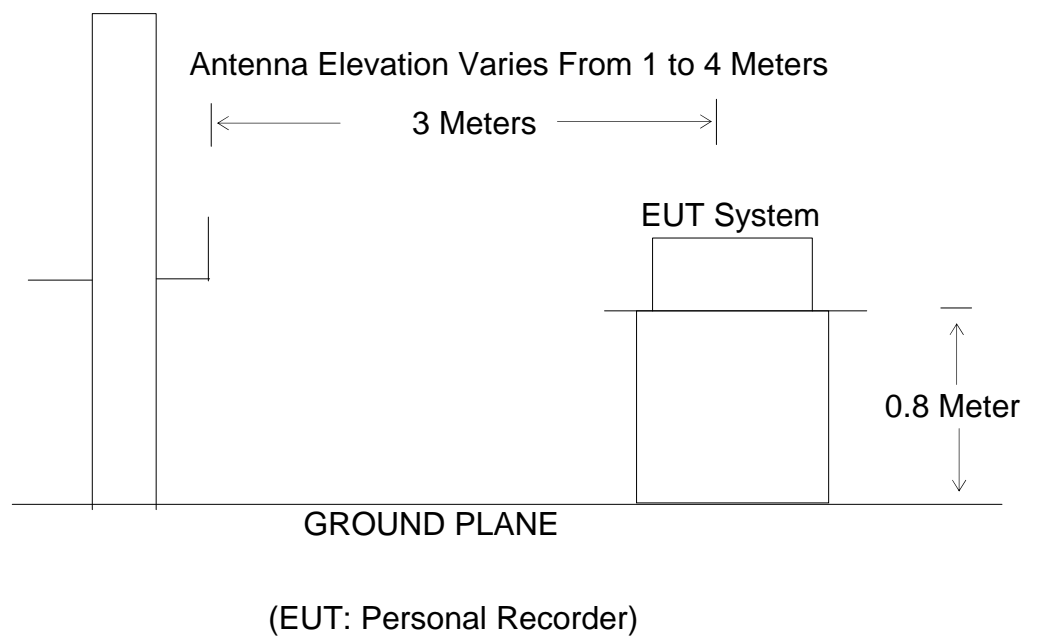
## 4. RADIATED EMISSION MEASUREMENT

### 4.1. Block Diagram of Test

#### 4.1.1. Block diagram of connection between the EUT and simulators



#### 4.1.2. Block diagram of test setup (In chamber)



## 4.2.Radiated Emission Limit (Class B)

All emanations from a class B device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

Frequency MHz	Distance Meters	Field Strengths Limit	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V/m})$
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0

Remark: (1) Emission level  $\text{dB}(\mu\text{V}) = 20 \log$  Emission level  $\mu\text{V/m}$ .  
(2) The smaller limit shall apply at the cross point between two frequency bands. (3) Distance is the distance in meters between the measuring instrument antenna and the closest point of any part of the device or system.

## 4.3.EUT Configuration on Test

Test equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

### 4.3.1. Personal Recorder (EUT)

Model Number : 13071R  
Serial Number : N/A  
Manufacturer : Provide Ltd.

## 4.4.Operating Condition of EUT

4.4.1.Setup the EUT and simulator as shown as Section 4.1.

4.4.2.Turn on the power of all equipment.

4.4.3.Let the EUT work in RX mode measure it.

## 4.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated emission measurement.

The bandwidth of test receiver is set at 120 kHz in 30-1000 MHz, and 1 MHz in 1000-4000 MHz.

The frequency range from 30 MHz to 4000 MHz is checked.

#### 4.6.The Field Strength of Radiation Emission

##### PASS.

The frequency range 30MHz to 4000MHz is investigated.

Date of Test:	January 20, 2014	Temperature:	25°C
EUT:	Personal Recorder	Humidity:	50%
Model No.:	13071R	Power Supply:	DC 3V
Test Mode:	RX	Test Engineer:	Pei

##### Results of Receive mode: PASS (<1000MHz)

Frequency (MHz)	Reading (dB $\mu$ V/m)	Factor Corr. (dB)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
312.5482	32.11	-8.94	23.17	46.00	-22.83	Vertical
833.0126	27.90	0.58	28.48	46.00	-17.52	
313.6482	42.30	-8.92	33.38	46.00	-12.62	Horizontal
833.0127	36.14	0.58	36.72	46.00	-9.28	

##### Results of Receive mode: PASS (>1000MHz)

Frequency (MHz)	Reading(dB $\mu$ V/m)		Factor (dB) Corr.	Result(dB $\mu$ V/m)		Limit(dB $\mu$ V/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
-	-	-	-	-	-	-	-	-	-	Vertical
-	-	-	-	-	-	-	-	-	-	Horizontal

The frequency range from 30MHz to 4000MHz is investigated.

Note: Emissions attenuated more than 20 dB below the permissible value are not reported.  
The spectral diagrams are attached as below.

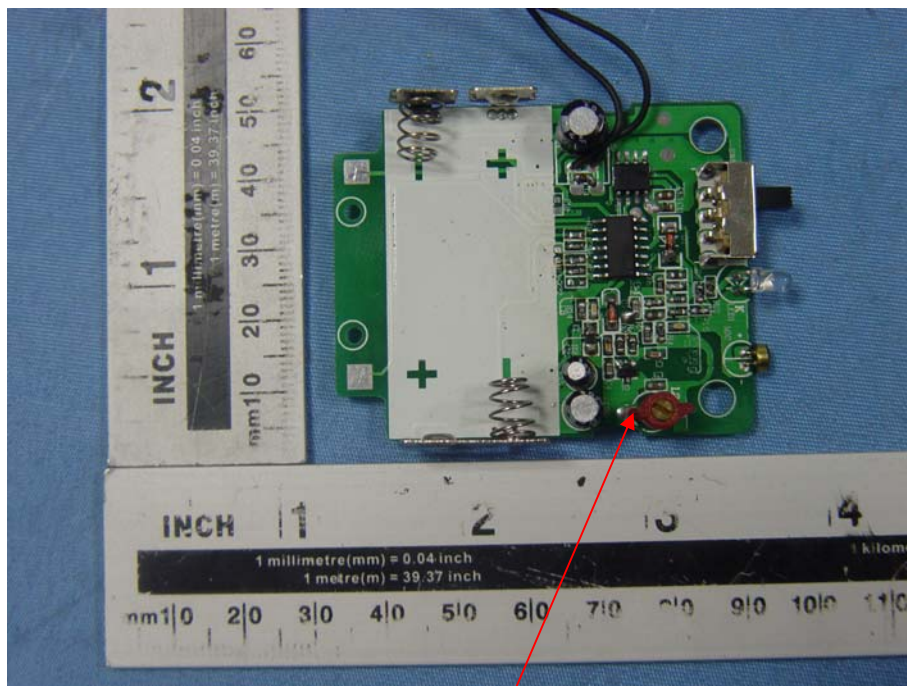
## 5. ANTENNA REQUIREMENT

### 5.1.The Requirement

According to Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

### 5.2.Antenna Construction

Device is equipped with unique antenna, which isn't displaced by other antenna. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna

**ACCURATE TECHNOLOGY CO., LTD.**

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: star #5483

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 48 %

EUT: Personal Recorder

Mode: RX

Model: 13071R

Manufacturer: Provide Ltd.

Polarization: Horizontal

Power Source: DC 3V

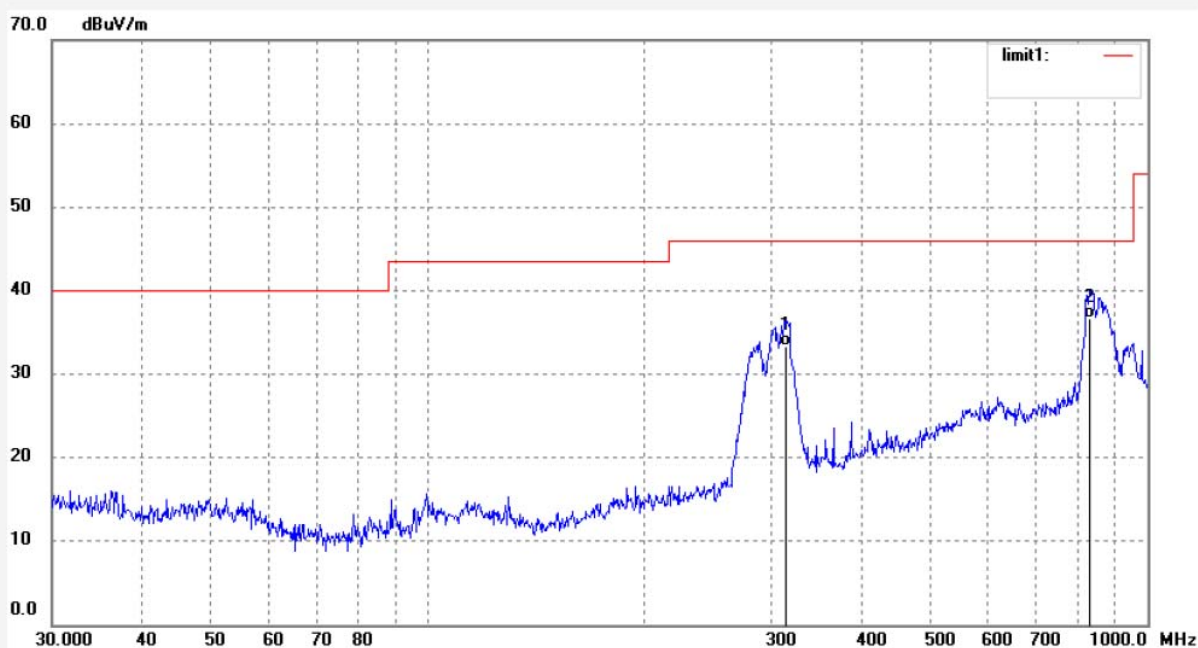
Date: 14/01/20/

Time: 9/04/52

Engineer Signature:

Distance: 3m

Note: Report No.:ATE20140062



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	313.6482	42.30	-8.92	33.38	46.00	-12.62	QP			
2	833.0127	36.14	0.58	36.72	46.00	-9.28	QP			

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: star #5484

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 48 %

EUT: Personal Recorder

Mode: RX

Model: 13071R

Manufacturer: Provide Ltd.

Polarization: Vertical

Power Source: DC 3V

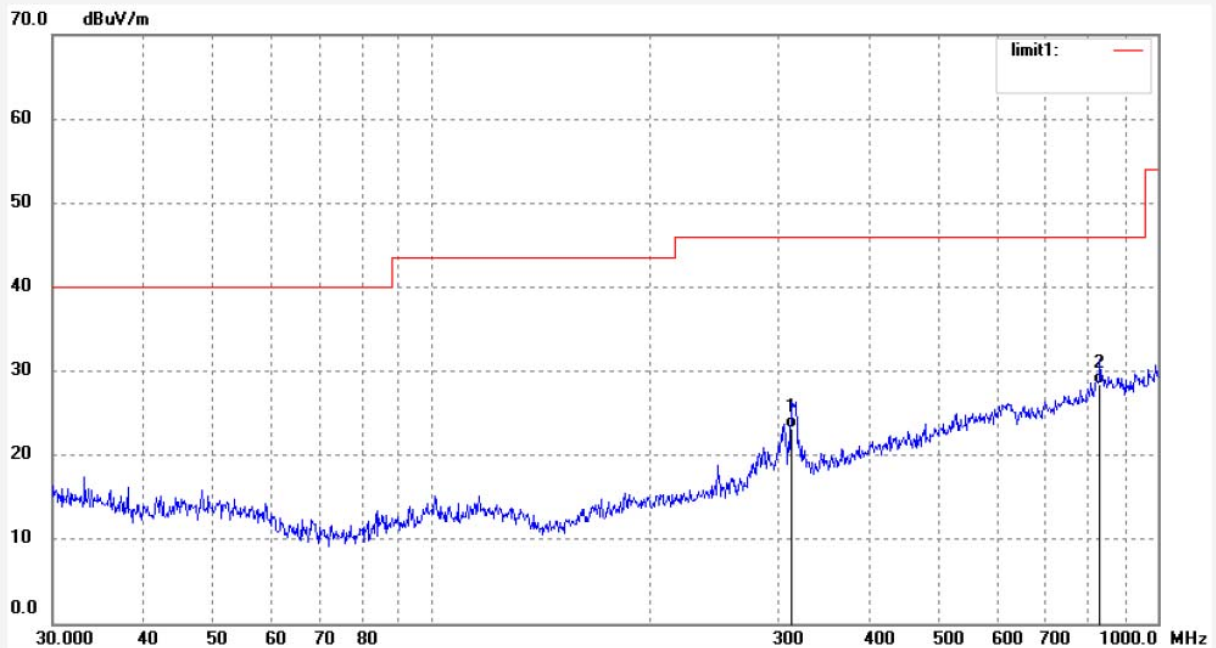
Date: 14/01/20/

Time: 9/08/22

Engineer Signature:

Distance: 3m

Note: Report No.:ATE20140062



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	312.5482	32.11	-8.94	23.17	46.00	-22.83	QP			
2	833.0126	27.90	0.58	28.48	46.00	-17.52	QP			

**ACCURATE TECHNOLOGY CO., LTD.**

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Site: 2# Chamber

Tel:+86-0755-26503290

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Job No.: star #5485

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 48 %

EUT: Personal Recorder

Mode: RX

Model: 13071R

Manufacturer: Provide Ltd.

Polarization: Horizontal

Power Source: DC 3V

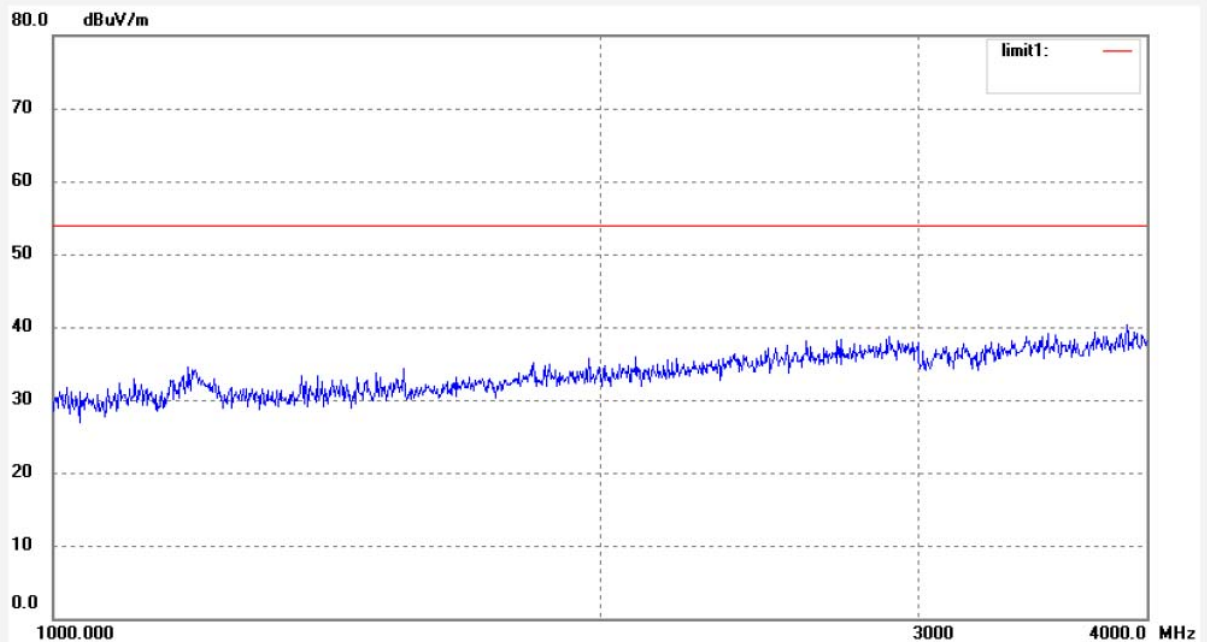
Date: 14/01/20/

Time: 9/12/57

Engineer Signature:

Distance: 3m

Note: Report No.: ATE20140062



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: star #5486

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 48 %

EUT: Personal Recorder

Mode: RX

Model: 13071R

Manufacturer: Provide Ltd.

Polarization: Vertical

Power Source: DC 3V

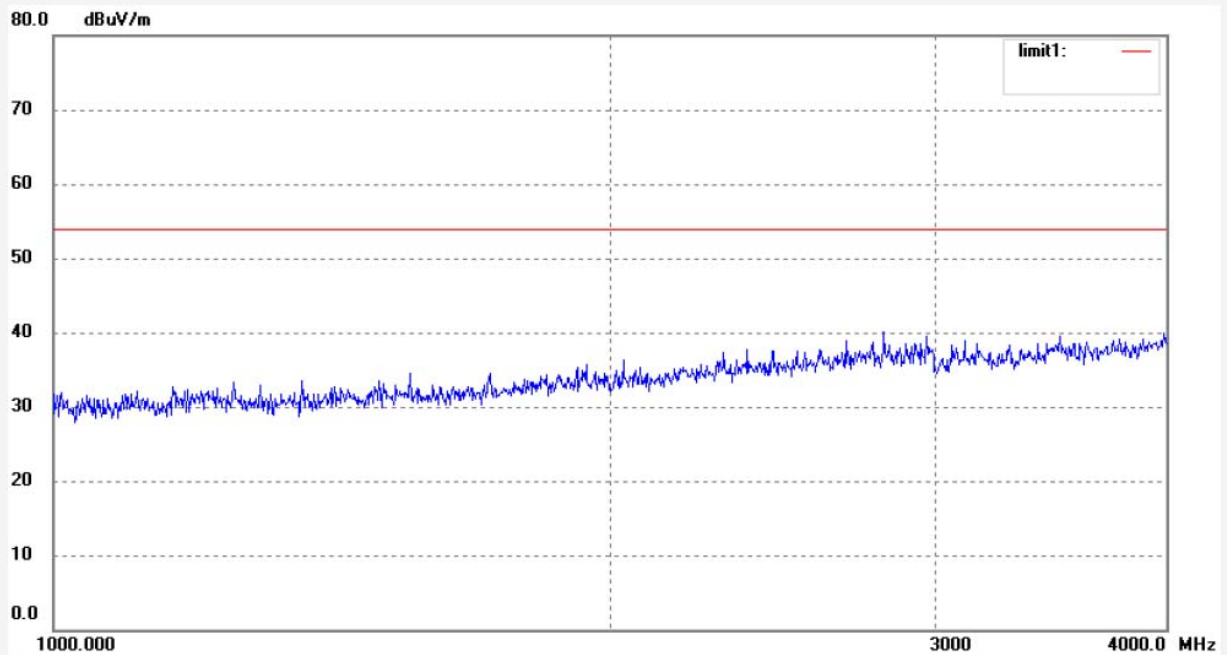
Date: 14/01/20/

Time: 9/17/46

Engineer Signature:

Distance: 3m

Note: Report No.:ATE20140062



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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