

**DELTA NETWORK PTE LTD****FCC CERTIFICATION  
TEST REPORT**

Prepared For :	DELTA NETWORK PTE LTD 21 Bukit Batok Crescent #23-72 Wcega Tower, Singapore 658065
Product Name:	ALVO Smartpad
Trade Name	DELTA
Model :	ALVO SmartPAD 2, ALVO Smartpad
FCC ID	Z6PALVOSMARTPAD2
Prepared By :	DongGuan Precise Testing Service Co.,Ltd.
	F616A Room, 6th Floor, Meixin Business Center, Dongcheng Middle Road, Dongguan, Guangdong, China
Test Date:	Apr.18, 2012 ~ Apr.19, 2012
Date of Report :	Apr.20, 2012
Report No.:	PT1201135040E



---

## contents

<b>contents</b> .....	<b>2</b>
<b>1 TEST CERTIFICATION</b> .....	<b>3</b>
<b>2 GENERAL INFORMATION</b> .....	<b>4</b>
2.1. SUMMARY OF TEST RESULTS .....	4
2.2. EUT DESCRIPTION.....	4
2.3. ACCESSORIES OF EUT .....	5
2.4. ASSISTANT EQUIPMENT USED FOR TEST .....	5
2.5. BLOCK DIAGRAM OF EUT CONFIGURATION FOR TEST .....	5
2.6. TEST ENVIRONMENT CONDITIONS.....	6
2.7. TEST LABORATORY.....	6
2.8. MEASUREMENT UNCERTAINTY .....	6
<b>3 RADIATED EMISSION</b> .....	<b>7</b>
3.1. TEST EQUIPMENT.....	7
3.2. BLOCK DIAGRAM OF TEST SETUP .....	7
3.3. LIMITS.....	8
3.4. TEST PROCEDURE .....	8
3.5. TEST RESULT .....	9
<b>4 POWER LINE CONDUCTED EMISSION</b> .....	<b>18</b>
4.1. TEST EQUIPMENT.....	18
4.2. BLOCK DIAGRAM OF TEST SETUP .....	18
4.3. LIMITS.....	18
4.4. TEST PROCEDURE .....	19
4.5. TEST RESULT .....	19
<b>5 PHOTOGRAPHS OF THE TEST CONFIGURATION</b> .....	<b>24</b>
<b>6 PHOTOGRAPHS OF EUT</b> .....	<b>27</b>



# 1 TEST CERTIFICATION

**Product:** ALVO Smartpad

**Model:** ALVO SmartPAD 2, ALVO Smartpad

**Trade Mark:** DELTA

**FCC ID :** Z6PALVOSMARTPAD2

**Applicant:** DELTA NETWORK PTE LTD  
21 Bukit Batok Crescent #23-72 Wcega Tower, Singapore 658065

**Factory:** DELTA NETWORK PTE LTD  
21 Bukit Batok Crescent #23-72 Wcega Tower, Singapore 658065

**Tested Date:** Apr.18, 2012 ~ Apr.19, 2012

**Test Standard Used:** FCC Rules and Regulations Part 15 Subpart B: 2010

**Test procedure used:** ANSI C63.4:2009

### We Declare:

The equipment described above is tested by DongGuan Precise Testing Service Co.,Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and DongGuan Precise Testing Service Co.,Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

**After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.**

Prepared by :         Jones Song          
Assistant

Reviewer : :         Hellen xiao          
Supervisor

Approved & Authorized Signer :         Jacky Ou          
Jacky Ou / Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval

of DongGuan Precise Testing Service Co., Ltd.



## 2 GENERAL INFORMATION

### 2.1. SUMMARY OF TEST RESULTS

The EUT have been tested according to the applicable standards as referenced below.		
Description of Test Item	Standard	Results
Radiated Emission	FCC Part 15: 15.109 ANSI C63.4: 2009	PASS
Power Line Conducted Emission	FCC Part 15: 15.107 ANSI C63.4: 2009	PASS

### 2.2. EUT DESCRIPTION

EUT* Name	: ALVO Smartpad
Model Number	: ALVO SmartPAD 2, ALVO Smartpad
Difference of Model number	: Same Motherboard, except for different model names and appearance
EUT function description	: Please reference user manual of this device
Power supply	: DC 3.7V from internal battery and DC 5V from external power adapter
Trade mark	: DELTA
FCC ID	: Z6PALVOSMARTPAD2
Radio Technology	: IEEE802.11b/g/n
FCC Operation frequency	: IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 2422MHz—2452MHz
Antenna Type	: Patch Antenna, 3dBi maximum gain
Date of Receipt	: 2012/04/16
Sample Type	: Series production

Note1: EUT is the ab. of equipment under test.

Note2: This test report is only for non-wireless functions of this EUT, for wireless function of this EUT was tested and reported in another FCC ID report for this device.



## 2.3. ACCESSORIES OF EUT

Description of Accessories	Manufacturer	Model number or Type	Other
USB Cable	/	/	1m, Unshielded
Earphone	/	/	1.5m, Unshielded
Power Adapter	Shenzhen Huoniu Technology Co.,Ltd.	HND050200E	1.5m

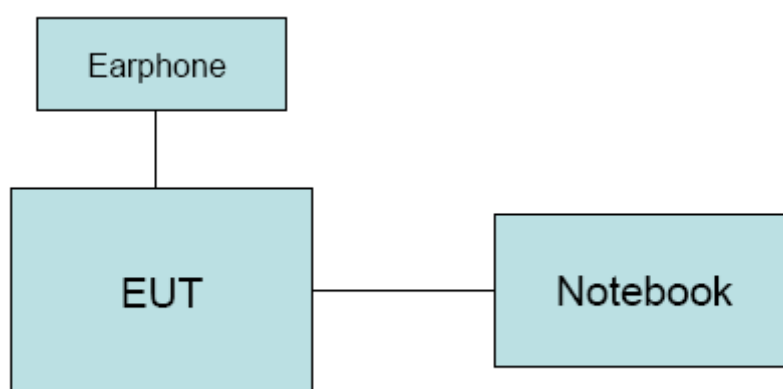
## 2.4. ASSISTANT EQUIPMENT USED FOR TEST

Description of Assistant equipment	Manufacturer	Model number or Type	Other
Notebook	Lenovo	X61S	/
USB Memory Disk	Kingston	U12 4GB	/
SD Card	Kingston	SD 4GB	/

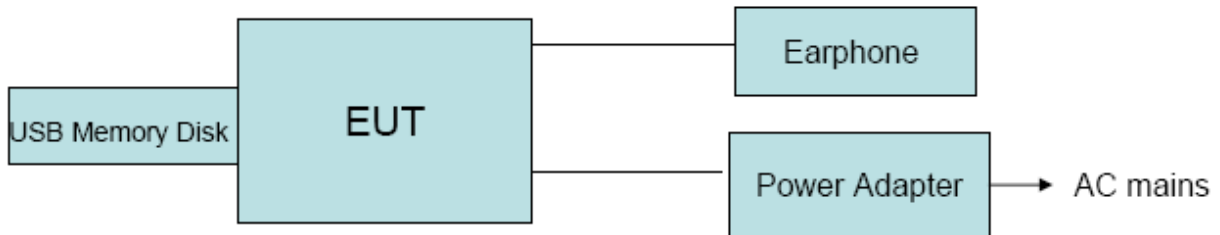
## 2.5. BLOCK DIAGRAM OF EUT CONFIGURATION FOR TEST

This EUT have many functions and use configuration, according exploratory test, below test mode and configuration representation typical use configuration for this EUT and have worst emc performance.

- (1) Data transmitting mode: EUT transmit data with notebook though 1m long USB cable attached with EUT.



- (2) Playing mode: EUT reading 1080p movie from USB Memory Disk and playing it, all other non wireless function also exercised by built-in test software.



### 2.6. TEST ENVIRONMENT CONDITIONS

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25°C
Humidity range:	40-75%
Pressure range:	86-106kPa

### 2.7. TEST LABORATORY

Dongguan Dongdian Testing Service Co., Ltd  
 Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City,  
 Guangdong Province, China, 523808  
 Tel: +86-0769-22891499  
 FCC Registration Number: 270092

### 2.8. MEASUREMENT UNCERTAINTY

Item	MU	Remark
Uncertainty for Power point Conducted Emissions Test	2.42dB	
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	2.54dB	Polarize: V
	3.1dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	2.08dB	Polarize: H
	2.56dB	Polarize: V
Uncertainty for temperature	0.2°C	
Uncertainty for humidity	1%	
Uncertainty for DC and low frequency voltages	0.06%	

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

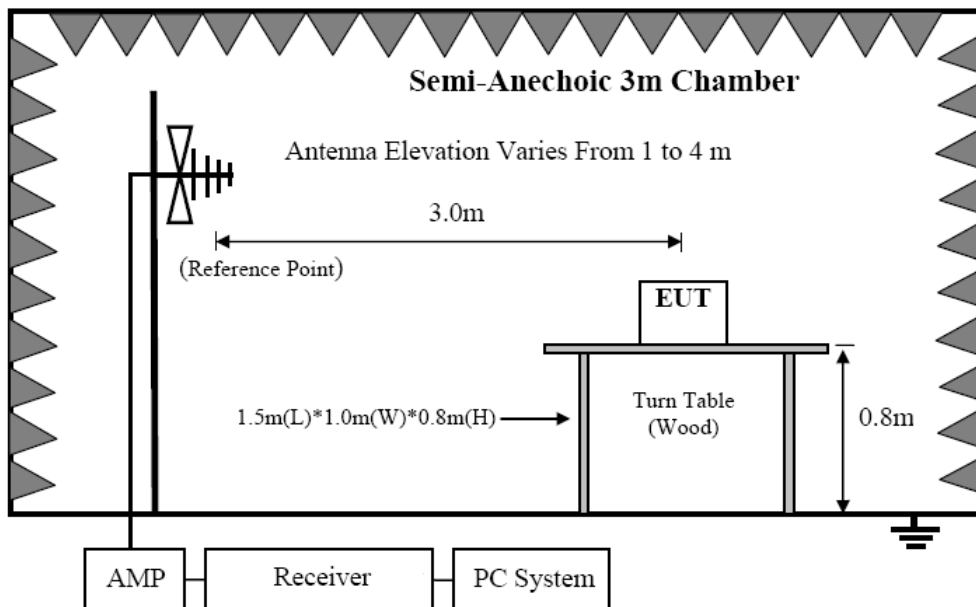
### 3 RADIATED EMISSION

#### 3.1. TEST EQUIPMENT

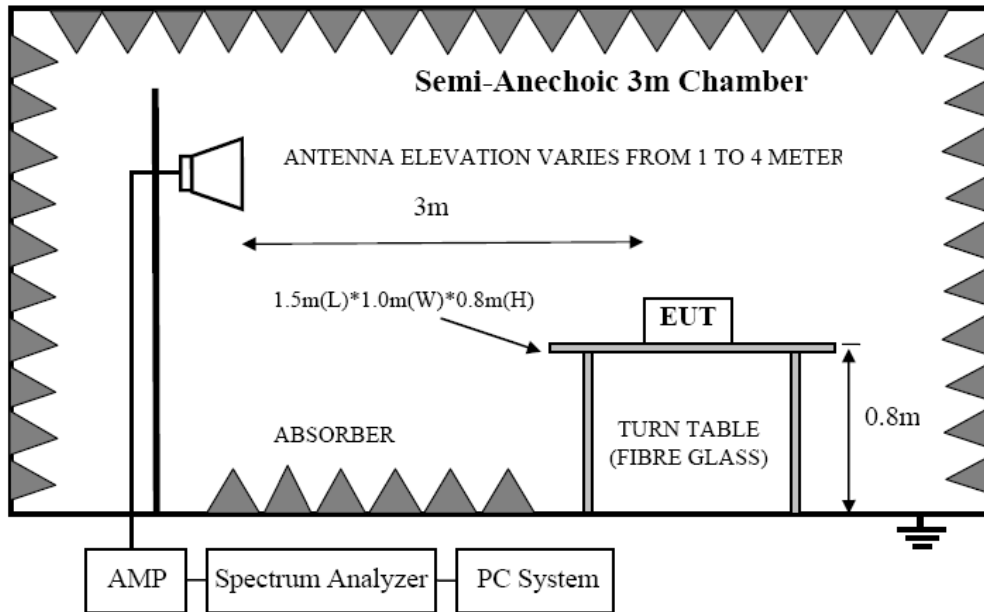
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	EMI Test Receiver	R&S	ESU8	100316	2011/11/23	1Y
2	Spectrum analyzer	R&S	FSU	1166.1660.26	2011/11/23	1Y
3	Trilog Broadband Antenna	Schwarzbeck	VULB9163	9163-462	2010/11/09	2 Y
4	Double Ridged Horn Antenna	R&S	HF907	100276	2011/01/16	2 Y
5	Pre-Amplifier	R&S	SCU-01	10049	2011/11/23	1Y
6	Pre-amplifier	A.H.	PAM0-0118	360	2011/12/20	1Y
7	RF Cable	R&S	R01	10403	2011/11/23	1Y
8	RF Cable	R&S	R02	10512	2011/11/23	1Y
9	Test software	R&S	EMC32	/	/	/

#### 3.2. BLOCK DIAGRAM OF TEST SETUP

In 3m Anechoic Chamber Test Setup Diagram for below 1GHz



In 3m Anechoic Chamber Test Setup Diagram for frequency above 1GHz



### 3.3. LIMITS

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V}/\text{m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	

### 3.4. TEST PROCEDURE

- (1) EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber.
- (2) Setup EUT and assistant system according to clause 2.5 and 8.2
- (3) Test antenna was located 3m from the EUT on an adjustable mast. Before pre-scan procedure was first performed in order to find prominent radiated emissions.
- (4) Rotated EUT through three orthogonal axes to determine the attitude of EUT arrangement that produces the highest emissions.





- (5) Spectrum frequency from 30MHz to 6GHz was investigated,
- (6) For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 2009 on Radiated Emission test.
- (7) For emissions from 30MHz to 1GHz, Quasi-Peak values were measured with EMI Receiver and the bandwidth of Receiver is 120 KHz.
- (8) For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz, VBW is set at 3MHz for Peak measure; RBW is set at 1MHz, VBW is set at 10Hz for Average measure.

### **3.5. TEST RESULT**

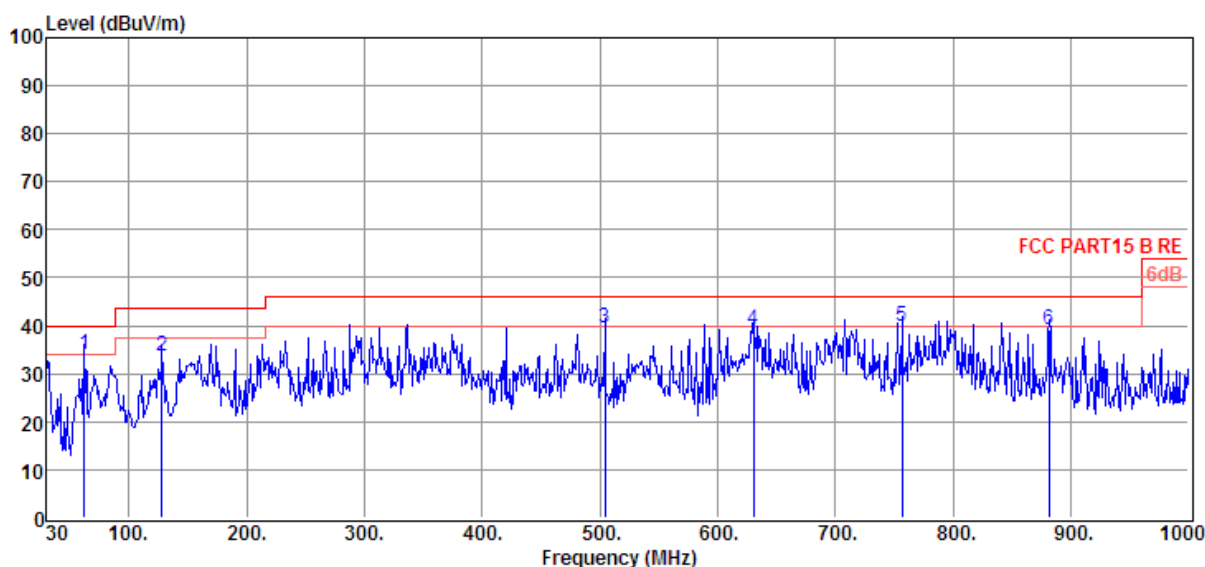
**PASS. (See below detailed test result)**



# Radiated Emission Test Result

**Test Site** : 3m Chamber E:\2012 Test Data\D\12Q0056  
**Test Date** : 2012-04-19 **Tested By** : TaTa Chen  
**EUT** : ALVO Smartpad **Model Number** : ALVO SmartPAD 2  
**Power Supply** : DC 5V from Adapter **Test Mode** : Playing mode  
**Condition** : Temp:24.5'C,Humi:55% **Antenna/Distance** : VULB 9163/3m/HORIZONTAL

Data: 3



Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	62.01	64.32	12.69	43.84	0.91	34.08	40.00	-5.92	QP	HORIZONTAL
2	127.97	67.32	8.93	43.75	1.29	33.79	43.50	-9.71	QP	HORIZONTAL
3	504.33	62.95	16.72	43.15	2.97	39.49	46.00	-6.51	QP	HORIZONTAL
4	630.43	60.53	18.55	43.09	3.35	39.34	46.00	-6.66	QP	HORIZONTAL
5	756.53	60.39	19.51	43.67	3.78	40.01	46.00	-5.99	QP	HORIZONTAL
6	881.66	57.87	20.93	43.84	4.14	39.10	46.00	-6.90	QP	HORIZONTAL

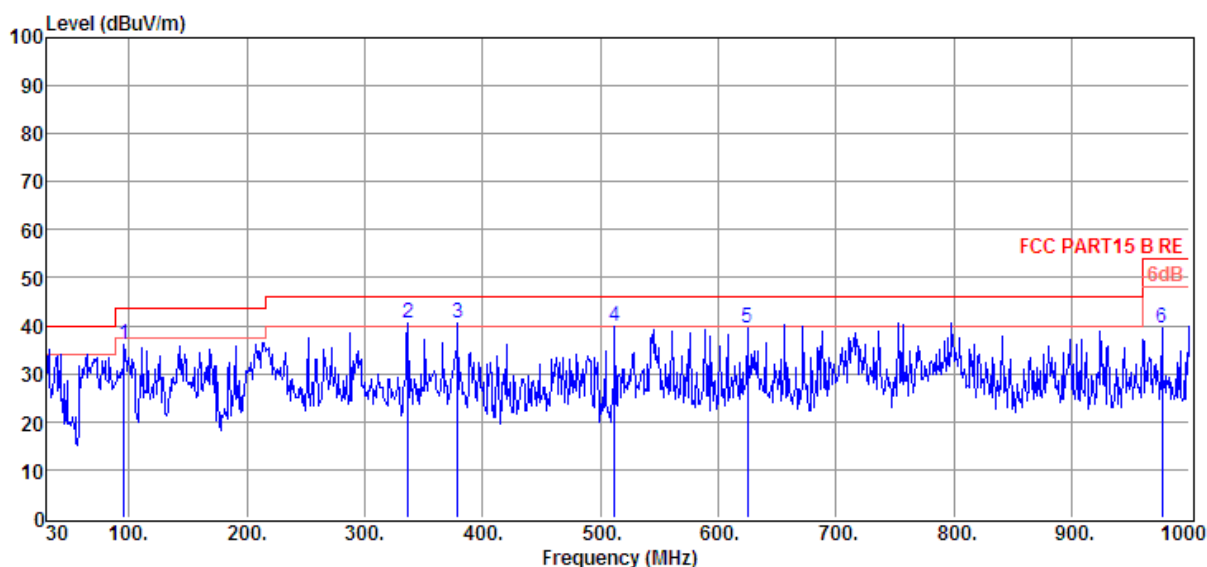
Note1: Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor



# Radiated Emission Test Result

**Test Site** : 3m Chamber E:\2012 Test Data\D\12Q0056  
**Test Date** : 2012-04-19 **Tested By** : TaTa Chen  
**EUT** : ALVO Smartpad **Model Number** : ALVO SmartPAD 2  
**Power Supply** : DC 5V from Adapter **Test Mode** : Playing mode  
**Condition** : Temp:24.5'C,Humi:55% **Antenna/Distance** : VULB 9163/3m/VERTICAL

Data: 4



Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	95.96	65.79	12.84	43.76	1.17	36.04	43.50	-7.46	QP	VERTICAL
2	336.52	67.88	13.96	43.65	2.30	40.49	46.00	-5.51	QP	VERTICAL
3	379.20	66.88	14.59	43.60	2.54	40.41	46.00	-5.59	QP	VERTICAL
4	512.09	63.30	16.87	43.13	2.98	40.02	46.00	-5.98	QP	VERTICAL
5	624.61	60.70	18.54	43.08	3.34	39.50	46.00	-6.50	QP	VERTICAL
6	976.72	57.68	21.58	44.08	4.41	39.59	54.00	-14.41	QP	VERTICAL

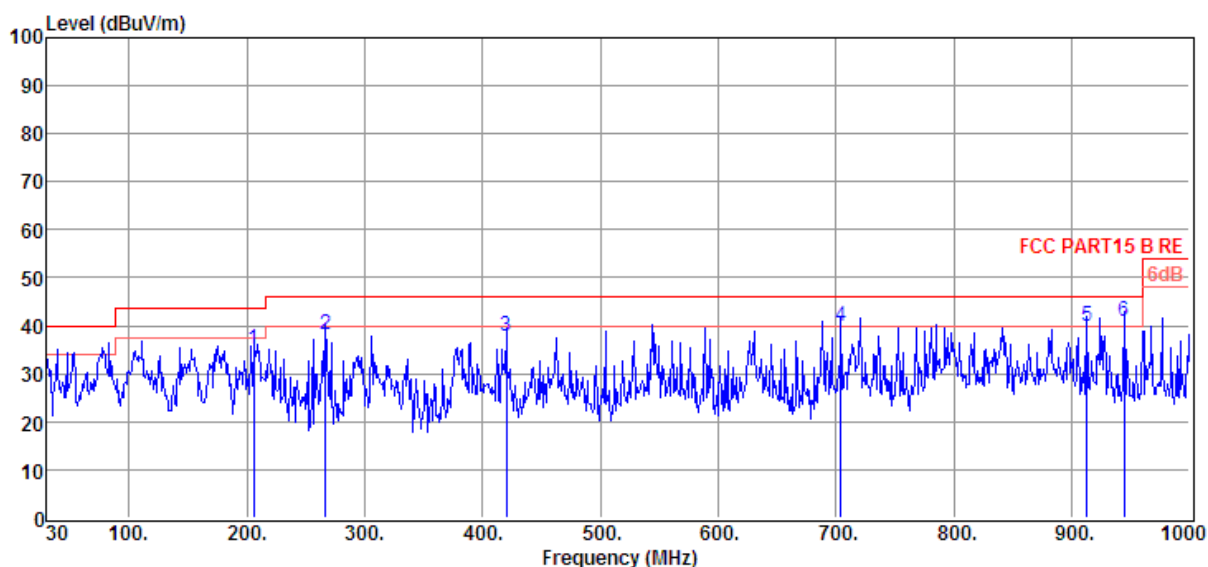
Note1: Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor



# Radiated Emission Test Result

**Test Site** : 3m Chamber E:\2012 Test Data\D\12Q0056  
**Test Date** : 2012-04-19 **Tested By** : TaTa Chen  
**EUT** : ALVO Smartpad **Model Number** : ALVO SmartPAD 2  
**Power Supply** : DC 3.7V **Test Mode** : Data Transmitting mode  
**Condition** : Temp:24.5'C,Humi:55% **Antenna/Distance** : VULB 9163/3m/VERTICAL

Data: 5



Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	205.57	66.24	10.70	43.71	1.76	34.99	43.50	-8.51	QP	VERTICAL
2	266.68	67.60	12.30	43.69	2.10	38.31	46.00	-7.69	QP	VERTICAL
3	419.94	63.05	15.47	43.52	2.63	37.63	46.00	-8.37	QP	VERTICAL
4	704.15	60.86	18.86	43.44	3.60	39.88	46.00	-6.12	QP	VERTICAL
5	912.70	58.54	21.17	43.98	4.19	39.92	46.00	-6.08	QP	VERTICAL
6	944.71	59.20	21.38	44.05	4.28	40.81	46.00	-5.19	QP	VERTICAL

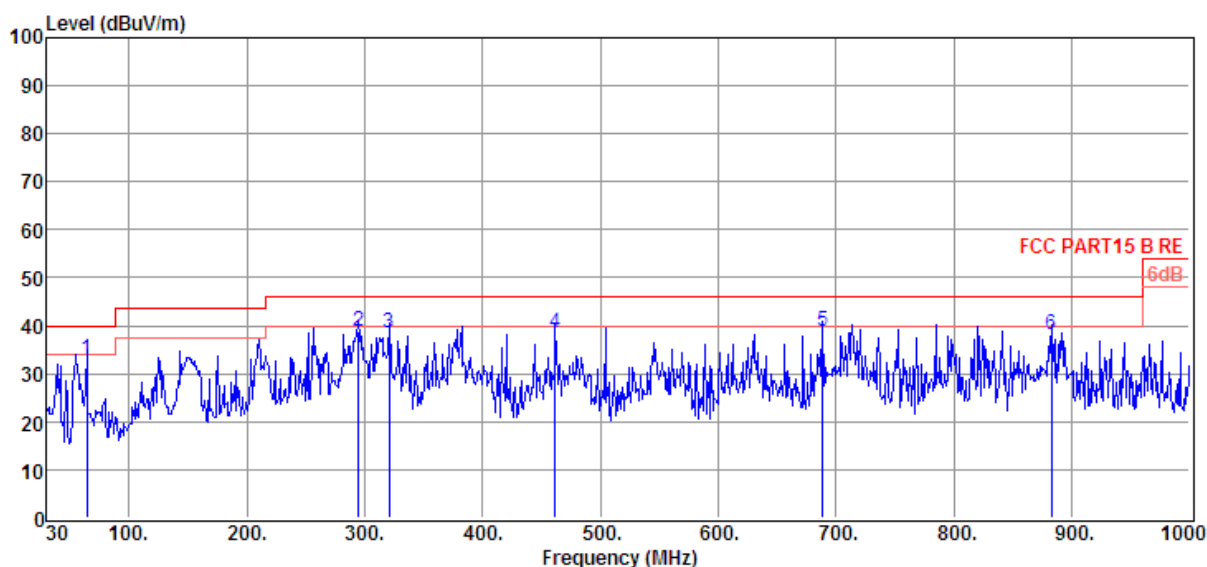
Note1: Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor



# Radiated Emission Test Result

**Test Site** : 3m Chamber E:\2012 Test Data\D\12Q0056  
**Test Date** : 2012-04-19 **Tested By** : TaTa Chen  
**EUT** : ALVO Smartpad **Model Number** : ALVO SmartPAD 2  
**Power Supply** : DC 3.7V **Test Mode** : Data Transmitting mode  
**Condition** : Temp:24.5'C,Humi:55% **Antenna/Distance** : VULB 9163/3m/HORIZONTAL

Data: 6



Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	63.95	65.22	10.71	43.83	0.93	33.03	40.00	-6.97	QP	HORIZONTAL
2	294.81	67.43	12.98	43.68	2.19	38.92	46.00	-7.08	QP	HORIZONTAL
3	321.00	66.66	13.33	43.66	2.25	38.58	46.00	-7.42	QP	HORIZONTAL
4	461.65	63.34	15.69	43.27	2.86	38.62	46.00	-7.38	QP	HORIZONTAL
5	688.63	59.74	18.77	43.28	3.57	38.80	46.00	-7.20	QP	HORIZONTAL
6	882.63	56.89	20.93	43.85	4.14	38.11	46.00	-7.89	QP	HORIZONTAL

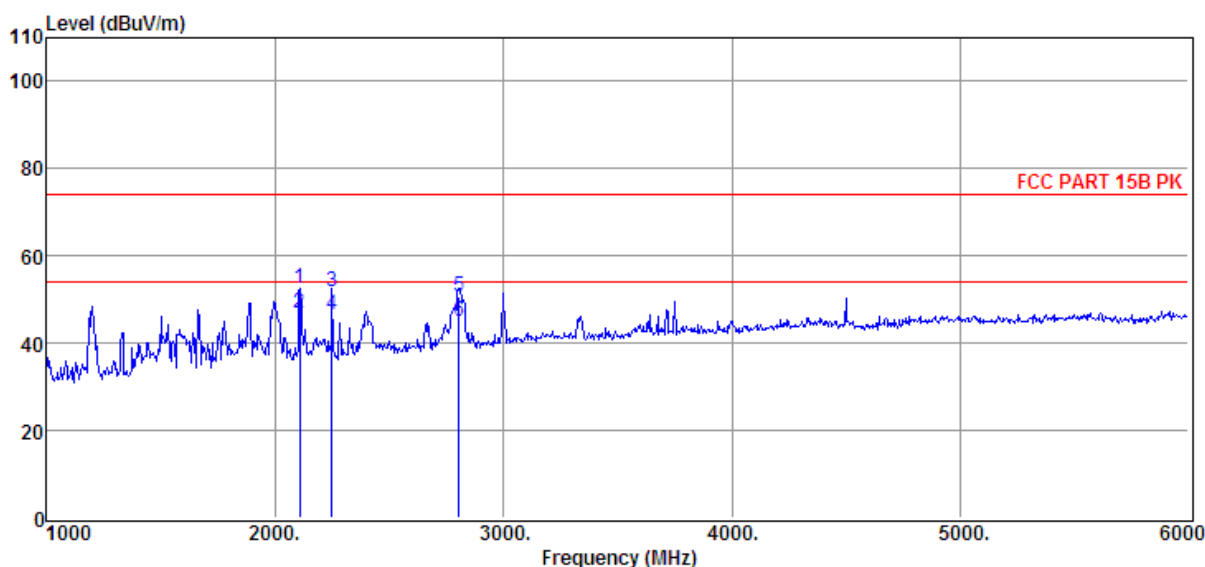
Note1: Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor



# Radiated Emission Test Result

**Test Site** : 3m Chamber E:\2012 Test Data\D\12Q0056  
**Test Date** : 2012-04-19 **Tested By** : TaTa Chen  
**EUT** : ALVO Smartpad **Model Number** : ALVO SmartPAD 2  
**Power Supply** : DC 5V from Adapter **Test Mode** : Playing mode  
**Condition** : Temp:24.5'C,Humi:55% **Antenna/Distance** : HF907 SN100276/3m/VERTICAL

Data: 3



Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2110.00	86.80	0.00	40.38	6.28	52.70	74.00	-21.30	Peak	VERTICAL
2	2110.00	80.84	0.00	40.38	6.28	46.74	54.00	-7.26	Average	VERTICAL
3	2250.00	85.80	0.00	40.35	6.52	51.97	74.00	-22.03	Peak	VERTICAL
4	2250.00	80.30	0.00	40.35	6.52	46.47	54.00	-7.53	Average	VERTICAL
5	2805.00	83.33	0.00	40.16	7.45	50.62	74.00	-23.38	Peak	VERTICAL
6	2805.00	77.59	0.00	40.16	7.45	44.88	54.00	-9.12	Average	VERTICAL

Note1: Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

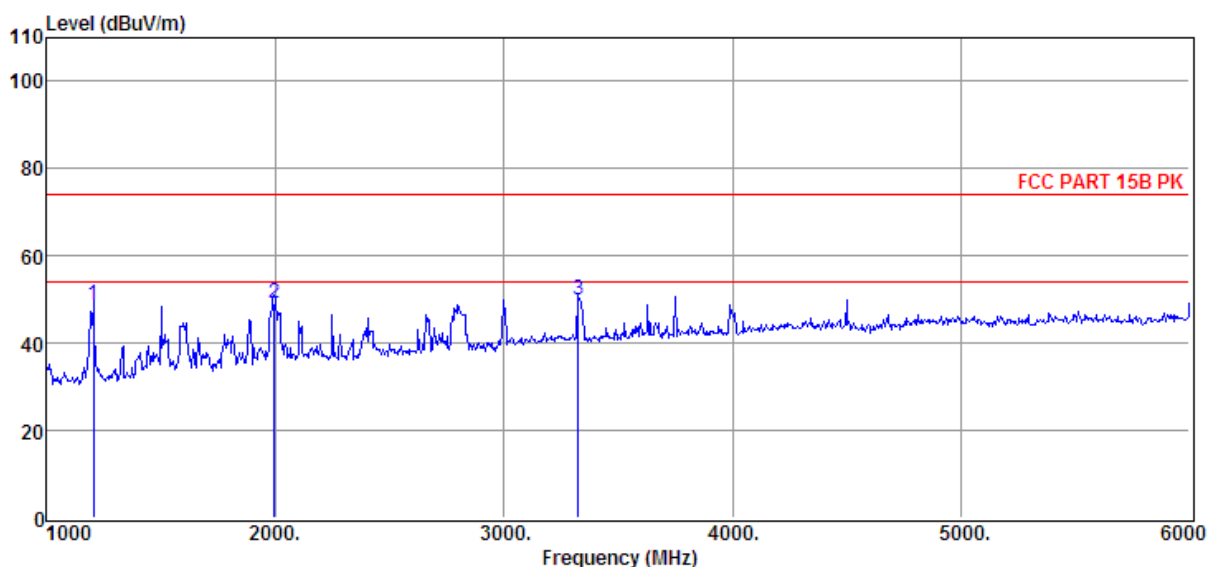
Note2: If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit



### Radiated Emission Test Result

**Test Site** : 3m Chamber E:\2012 Test Data\D\12Q0056  
**Test Date** : 2012-04-19 **Tested By** : TaTa Chen  
**EUT** : ALVO Smartpad **Model Number** : ALVO SmartPAD 2  
**Power Supply** : DC 5V from Adapter **Test Mode** : Playing mode  
**Condition** : Temp:24.5'C,Humi:55% **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL

Data: 4



Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	1205.00	84.49	0.00	40.69	4.94	48.74	74.00	-25.26	Peak	HORIZONTAL
2	1995.00	83.37	0.00	40.40	6.17	49.14	74.00	-24.86	Peak	HORIZONTAL
3	3325.00	81.72	0.00	39.89	8.02	49.85	74.00	-24.15	Peak	HORIZONTAL

Note1: Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

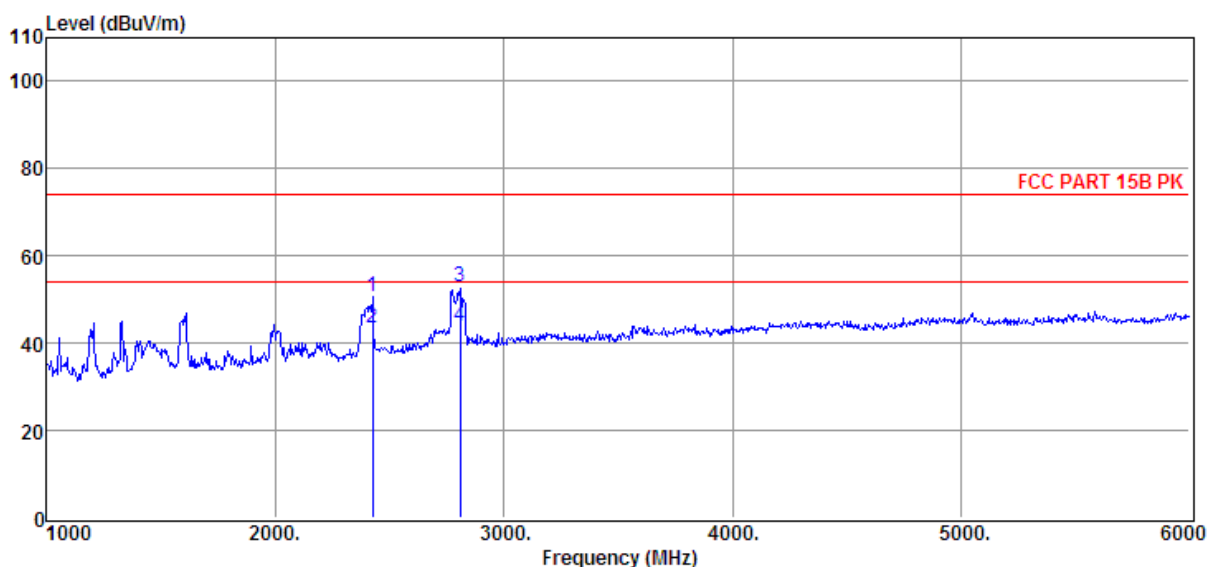
Note2: If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit



# Radiated Emission Test Result

**Test Site** : 3m Chamber E:\2012 Test Data\D\12Q0056  
**Test Date** : 2012-04-19 **Tested By** : TaTa Chen  
**EUT** : ALVO Smartpad **Model Number** : ALVO SmartPAD 2  
**Power Supply** : DC 3.7V **Test Mode** : Data Transmitting mode  
**Condition** : Temp:24.5'C,Humi:55% **Antenna/Distance** : HF907 SN100276/3m/VERTICAL

Data: 5



Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	2425.00	84.10	0.00	40.32	6.95	50.73	74.00	-23.27	Peak	VERTICAL
2	2425.00	76.98	0.00	40.32	6.95	43.61	54.00	-10.39	Average	VERTICAL
3	2810.00	85.51	0.00	40.16	7.46	52.81	74.00	-21.19	Peak	VERTICAL
4	2810.00	76.51	0.00	40.16	7.46	43.81	54.00	-10.19	Average	VERTICAL

Note1: Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Note2: If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit

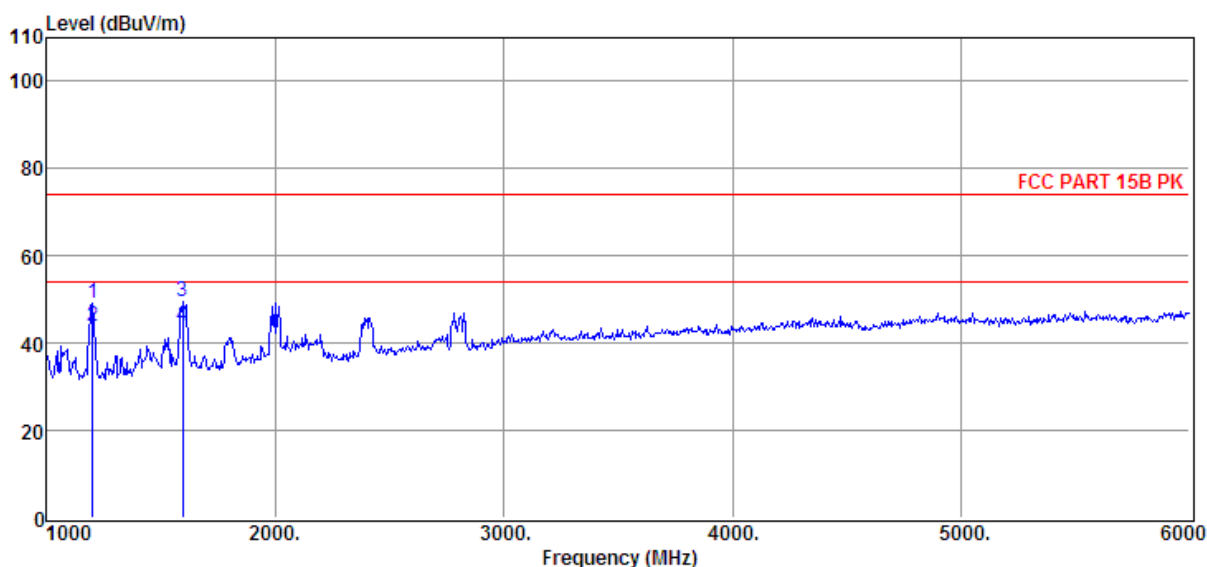




# Radiated Emission Test Result

**Test Site** : 3m Chamber E:\2012 Test Data\D\12Q0056  
**Test Date** : 2012-04-19 **Tested By** : TaTa Chen  
**EUT** : ALVO Smartpad **Model Number** : ALVO SmartPAD 2  
**Power Supply** : DC 3.7V **Test Mode** : Data Transmitting mode  
**Condition** : Temp:24.5'C,Humi:55% **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL

Data: 6



Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	1200.00	84.89	0.00	40.69	4.94	49.14	74.00	-24.86	Peak	HORIZONTAL
2	1200.00	79.56	0.00	40.69	4.94	43.81	54.00	-10.19	Average	HORIZONTAL
3	1595.00	84.71	0.00	40.49	5.35	49.57	74.00	-24.43	Peak	HORIZONTAL
4	1595.00	78.92	0.00	40.49	5.35	43.78	54.00	-10.22	Average	HORIZONTAL

Note1: Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

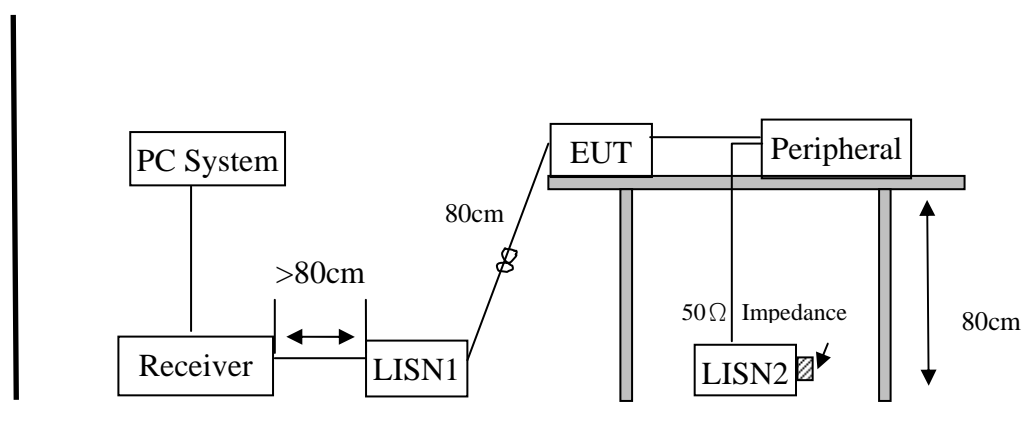
Note2: If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit

## 4 POWER LINE CONDUCTED EMISSION

### 4.1. TEST EQUIPMENT

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	R&S	ESU8	100316	2011/11/23	1 Year
2.	LISN 1	R&S	ENV216	101109	2011/11/23	1 Year
3.	LISN 2	R&S	ESH2-Z5	100309	2011/11/23	1 Year
4.	Pulse Limiter	R&S	ESH3-Z2	101242	2011/11/23	1 Year
5	Test software	R&S	EMC32	/	/	/

### 4.2. BLOCK DIAGRAM OF TEST SETUP



### 4.3. LIMITS

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

**NOTE:**

- (1) The lower limit shall apply at the transition frequencies.
- (2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
- (3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.



#### 4.4. TEST PROCEDURE

The EUT and Support equipment, if needed, was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor standing equipment, it is placed on the ground plane, which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

All support equipment power received from a second LISN.

The EUT test program was started. Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in Item 3.1 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

##### **Procedure of Final Test:**

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 10KHz.

#### 4.5. TEST RESULT

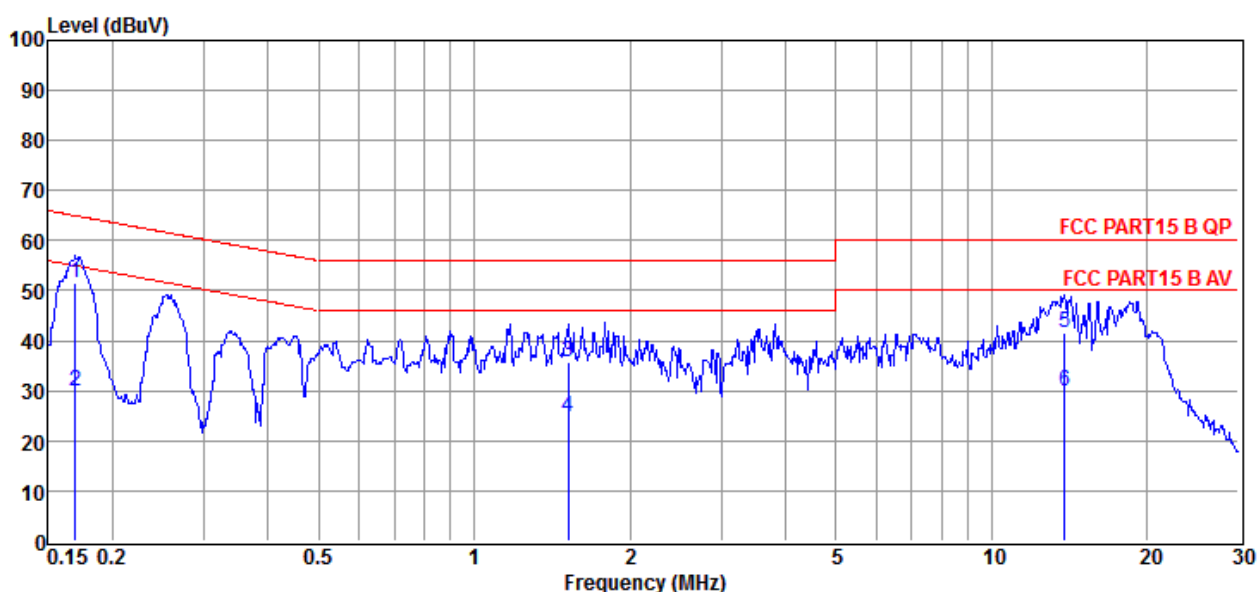
**PASS.** (See below detailed test result)



# Conducted Emission Test Result

**Test Site** : 1# Shield room E:\2012 Test Data\D\12Q0056  
**Test Date** : 2012-04-19 **Tested By** : Damon\_Hu  
**EUT** : ALVO Smartpad **Model Number** : ALVO SmartPAD 2  
**Power Supply** : DC 5V from adapter AC 120V/60Hz **Test Mode** : Playing Mode  
**Condition** : Temp:24.5°C,Humi:55% **LISN** : 2012 ENV216/LINE

Data : 1



Item (Mark)	Freq (MHz)	Read Level (dBμV)	LISN Factor (dB)	Cable Loss dB	Result Level (dBμV)	Limit Line (dBμV)	Over Limit (dB)	Detector	Phase
1	0.17	41.88	9.63	0.04	51.55	64.99	-13.44	QP	LINE
2	0.17	20.20	9.63	0.04	29.87	54.99	-25.12	Average	LINE
3	1.52	26.00	9.71	0.06	35.77	56.00	-20.23	QP	LINE
4	1.52	15.00	9.71	0.06	24.77	46.00	-21.23	Average	LINE
5	13.84	31.49	9.86	0.19	41.54	60.00	-18.46	QP	LINE
6	13.84	19.99	9.86	0.19	30.04	50.00	-19.96	Average	LINE

Note: 1. Result Level = Read Level +LISN Factor + Cable loss

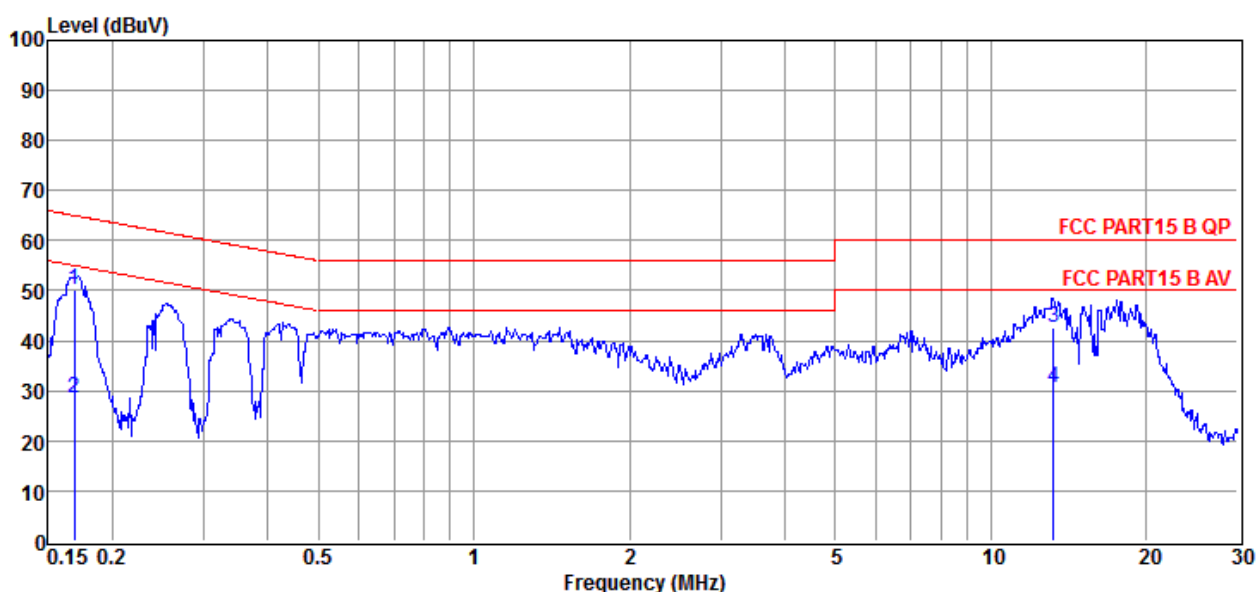
2. If QP Result comply with AV limit, AV Result is deemed to comply with AV limit



# Conducted Emission Test Result

**Test Site** : 1# Shield room E:\2012 Test Data\D\12Q0056  
**Test Date** : 2012-04-19 **Tested By** : Damon\_Hu  
**EUT** : ALVO Smartpad **Model Number** : ALVO SmartPAD 2  
**Power Supply** : DC 5V from adapter AC 120V/60Hz **Test Mode** : Playing Mode  
**Condition** : Temp:24.5°C,Humi:55% **LISN** : 2012 ENV216/NEUTRAL

Data : 2



Item (Mark)	Freq (MHz)	Read Level (dBμV)	LISN Factor (dB)	Cable Loss dB	Result Level (dBμV)	Limit Line (dBμV)	Over Limit (dB)	Detector	Phase
1	0.17	40.20	9.97	0.04	50.21	65.03	-14.82	QP	NEUTRAL
2	0.17	18.50	9.97	0.04	28.51	55.03	-26.52	Average	NEUTRAL
3	13.20	32.50	9.79	0.18	42.47	60.00	-17.53	QP	NEUTRAL
4	13.20	20.68	9.79	0.18	30.65	50.00	-19.35	Average	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Cable loss

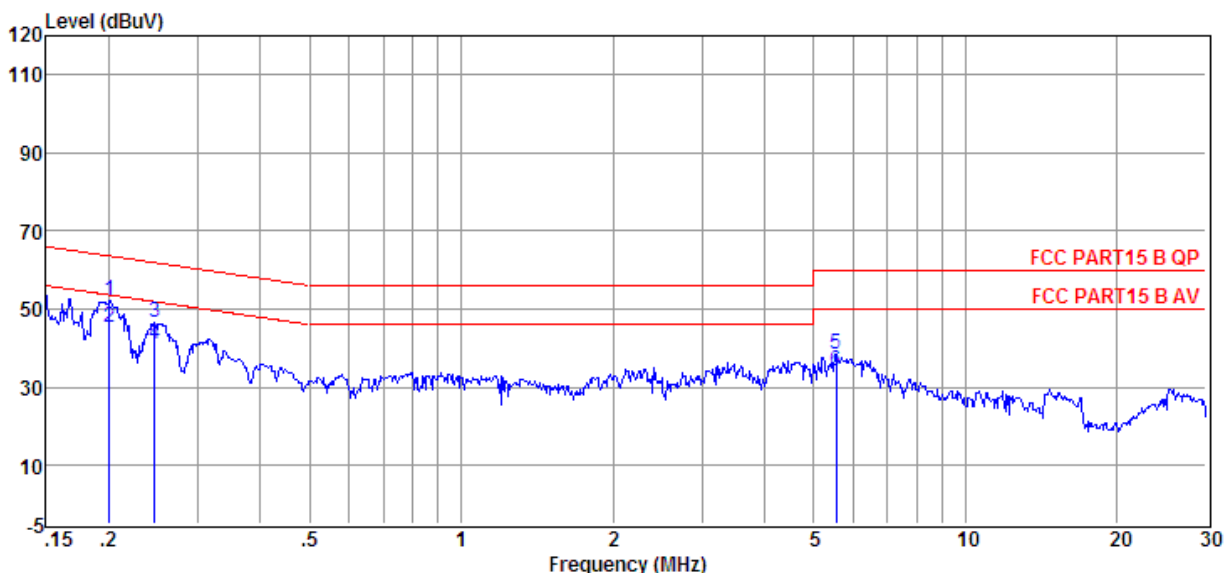
2. If QP Result comply with AV limit, AV Result is deemed to comply with AV limit



# Conducted Emission Test Result

**Test Site** : 1# Shield Room E:\2012 TEST DATA\D\12Q0056  
**Test Date** : 2012-04-19 **Tested By** : Damon\_Hu  
**EUT** : ALVO Smartpad **Model Number** : ALVO SmartPAD 2  
**Power Supply** : DC 3.7V **Test Mode** : Data Transmitting mode  
**Condition** : Temp:24.5'C,Humi:55% **LISN** : 2012 ENV216/NEUTRAL

Data : 42



Item (Mark)	Freq (MHz)	Read Level (dBμV)	LISN Factor (dB)	Cable Loss dB	Result Level (dBμV)	Limit Line (dBμV)	Over Limit (dB)	Detector	Phase
1	0.20	42.46	9.63	0.04	52.13	63.58	-11.45	QP	NEUTRAL
2	0.20	35.67	9.63	0.04	45.34	53.58	-8.24	Average	NEUTRAL
3	0.25	37.04	9.64	0.04	46.72	61.86	-15.14	QP	NEUTRAL
4	0.25	31.43	9.64	0.04	41.11	51.86	-10.75	Average	NEUTRAL
5	5.54	28.37	9.71	0.12	38.20	60.00	-21.80	QP	NEUTRAL
6	5.54	24.20	9.71	0.12	34.03	50.00	-15.97	Average	NEUTRAL

Note: 1. Result Level = Read Level + LISN Factor + Cable loss

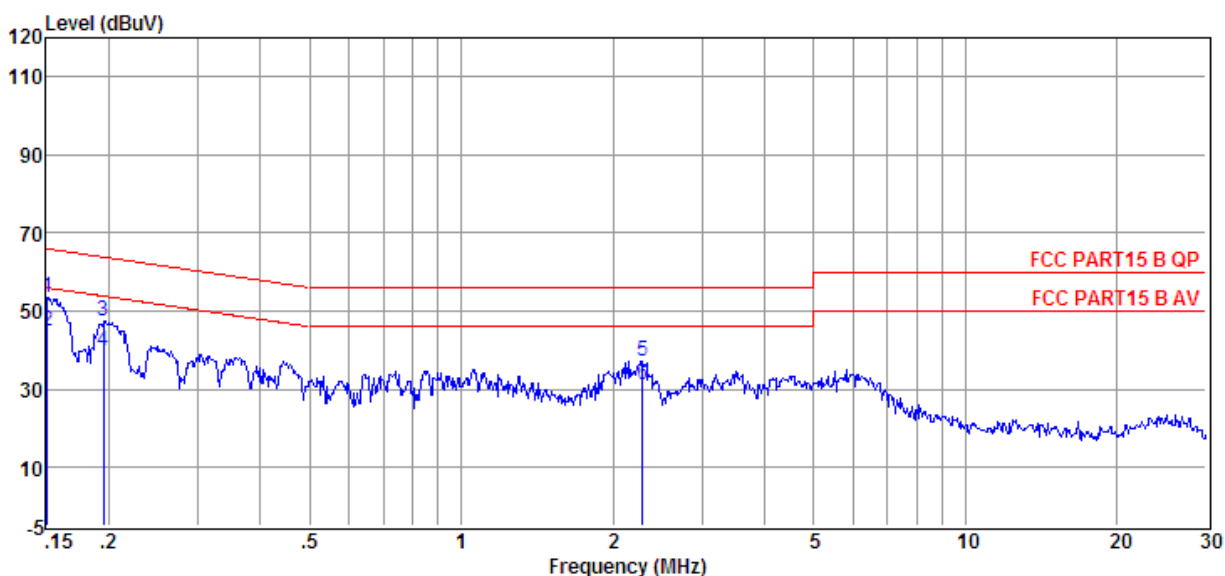
2. If QP Result comply with AV limit, AV Result is deemed to comply with AV limit



### Conducted Emission Test Result

**Test Site** : 1# Shield Room E:\2012 TEST DATA\D\12Q0056  
**Test Date** : 2012-04-19 **Tested By** : Damon\_Hu  
**EUT** : ALVO Smartpad **Model Number** : ALVO SmartPAD 2  
**Power Supply** : DC 3.7V **Test Mode** : Data Transmitting mode  
**Condition** : Temp:24.5'C,Humi:55% **LISN** : 2012 ENV216/LINE

Data : 43



Item (Mark)	Freq (MHz)	Read Level (dBμV)	LISN Factor (dB)	Cable Loss dB	Result Level (dBμV)	Limit Line (dBμV)	Over Limit (dB)	Detector	Phase
1	0.15	43.88	9.63	0.04	53.55	65.96	-12.41	QP	LINE
2	0.15	35.23	9.63	0.04	44.90	55.96	-11.06	Average	LINE
3	0.20	37.72	9.63	0.04	47.39	63.80	-16.41	QP	LINE
4	0.20	30.21	9.63	0.04	39.88	53.80	-13.92	Average	LINE
5	2.29	27.48	9.72	0.06	37.26	56.00	-18.74	QP	LINE
6	2.29	21.31	9.72	0.06	31.09	46.00	-14.91	Average	LINE

Note: 1. Result Level = Read Level +LISN Factor + Cable loss

2. If QP Result comply with AV limit, AV Result is deemed to comply with AV limit

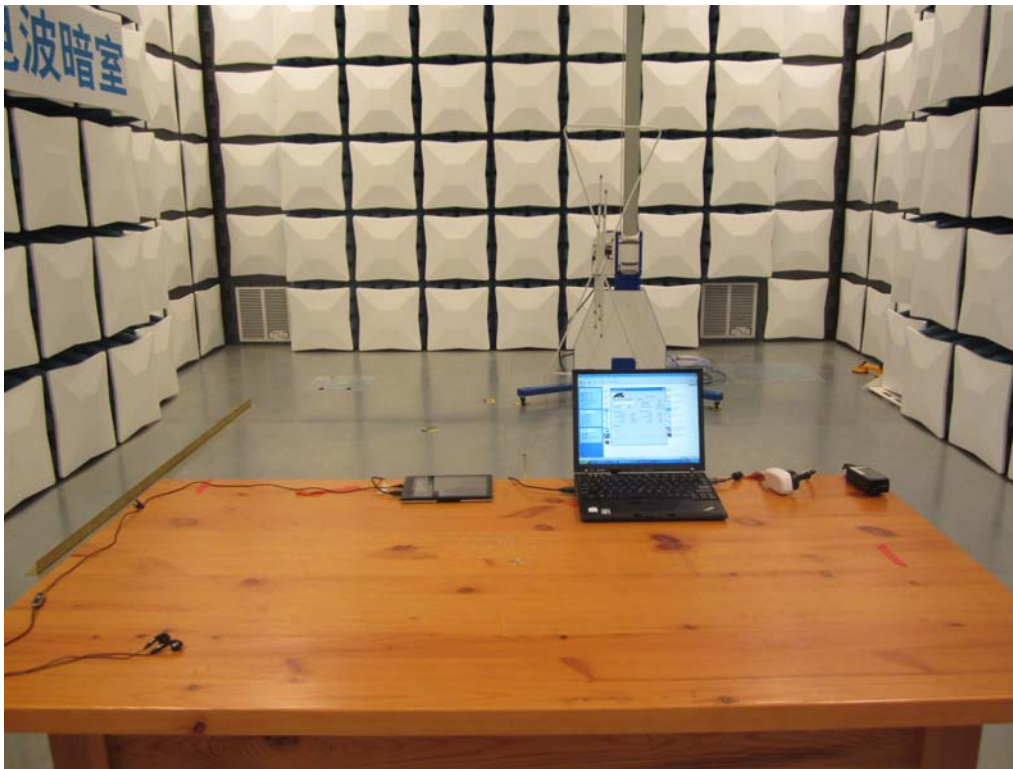


## 5 PHOTOGRAPHS OF THE TEST CONFIGURATION





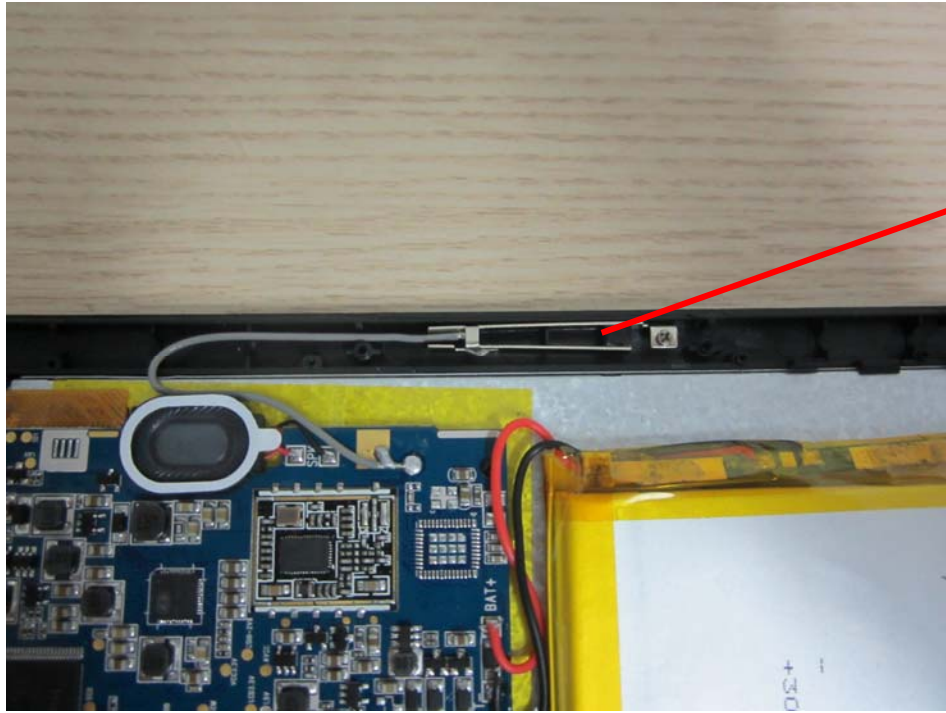




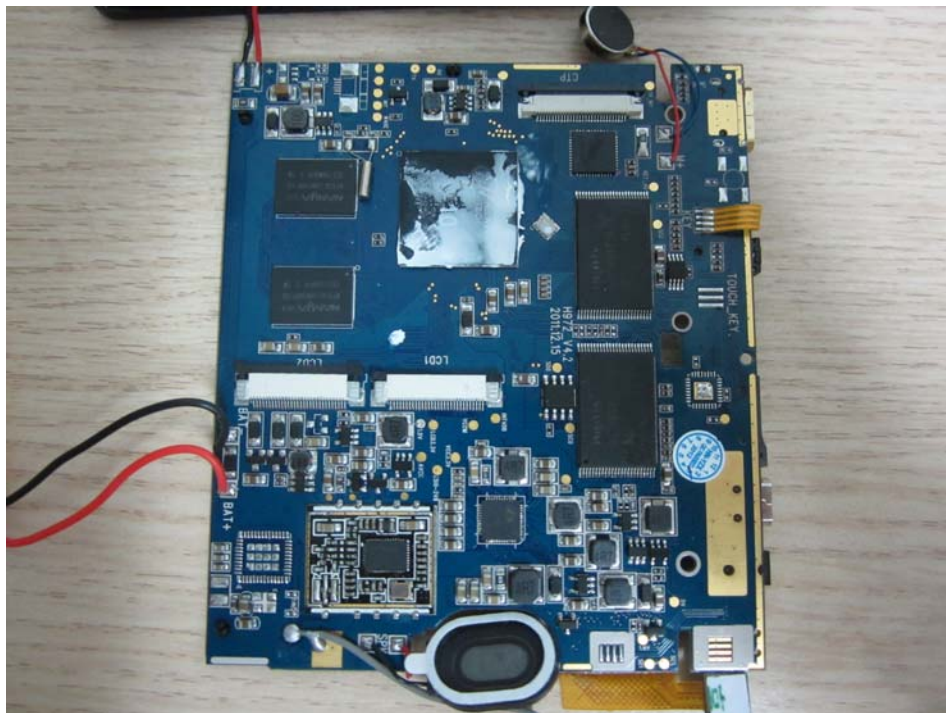
## 6 PHOTOGRAPHS OF EUT

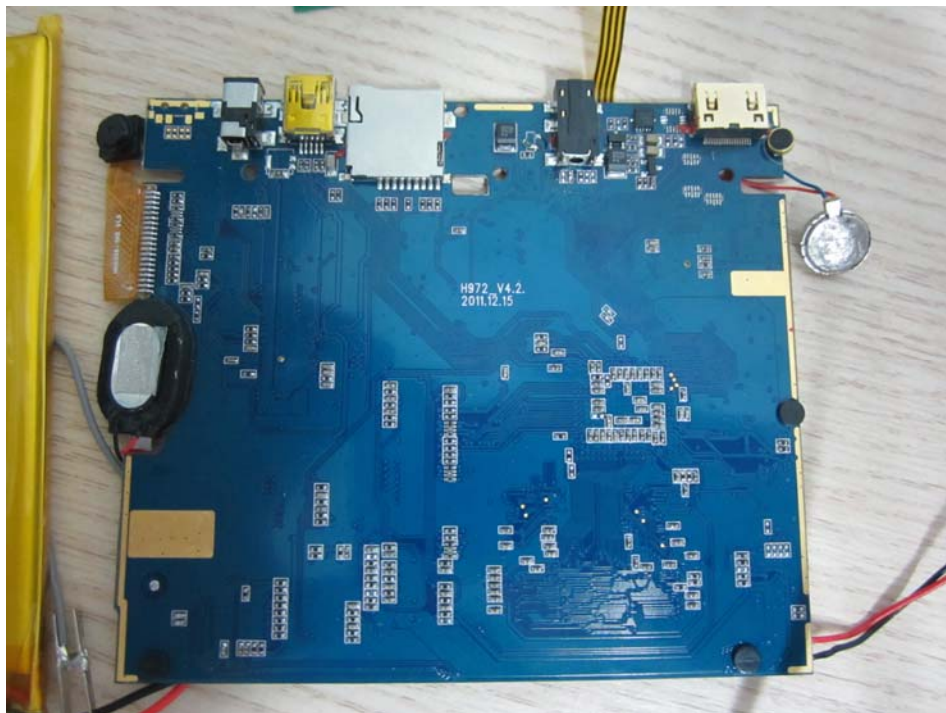
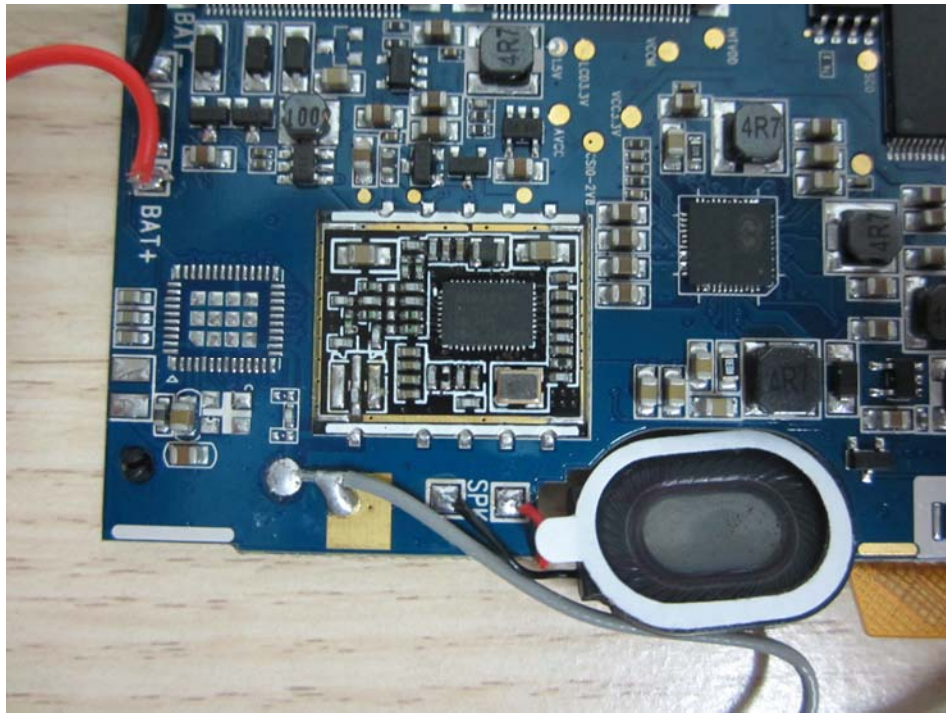


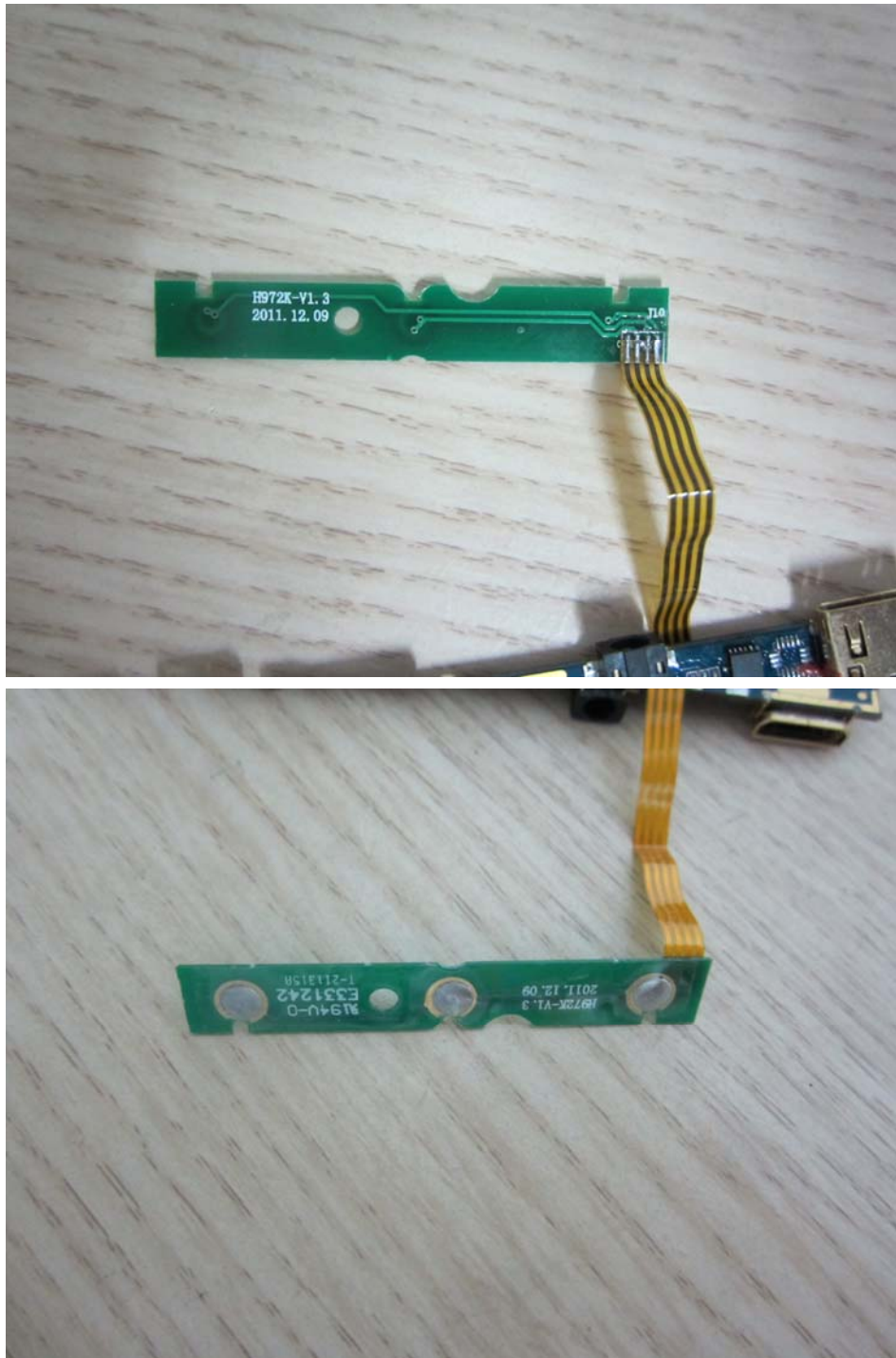


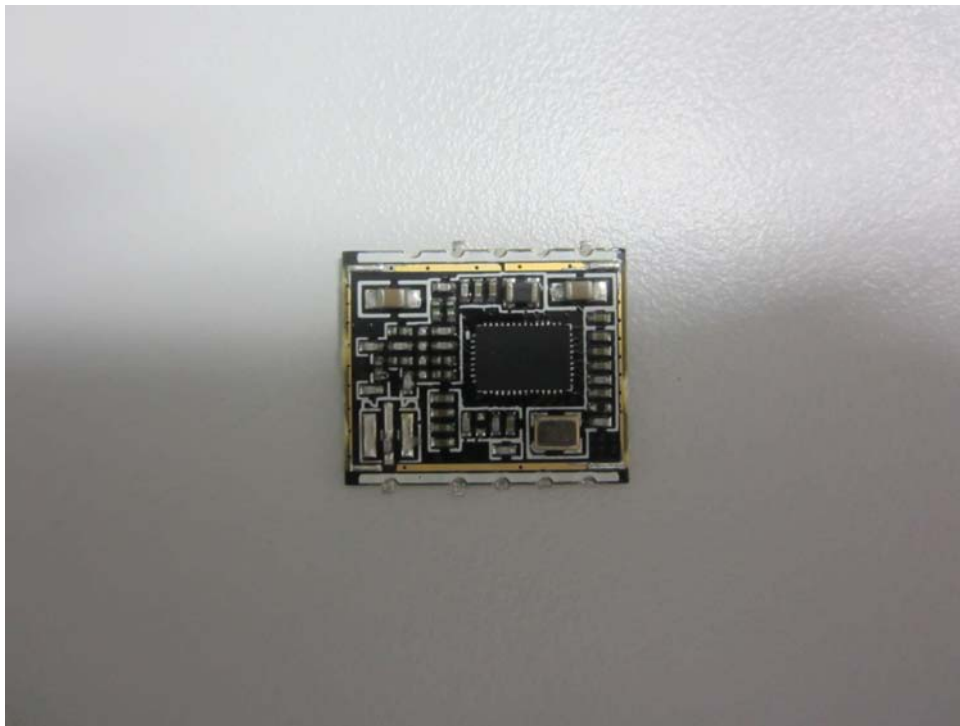
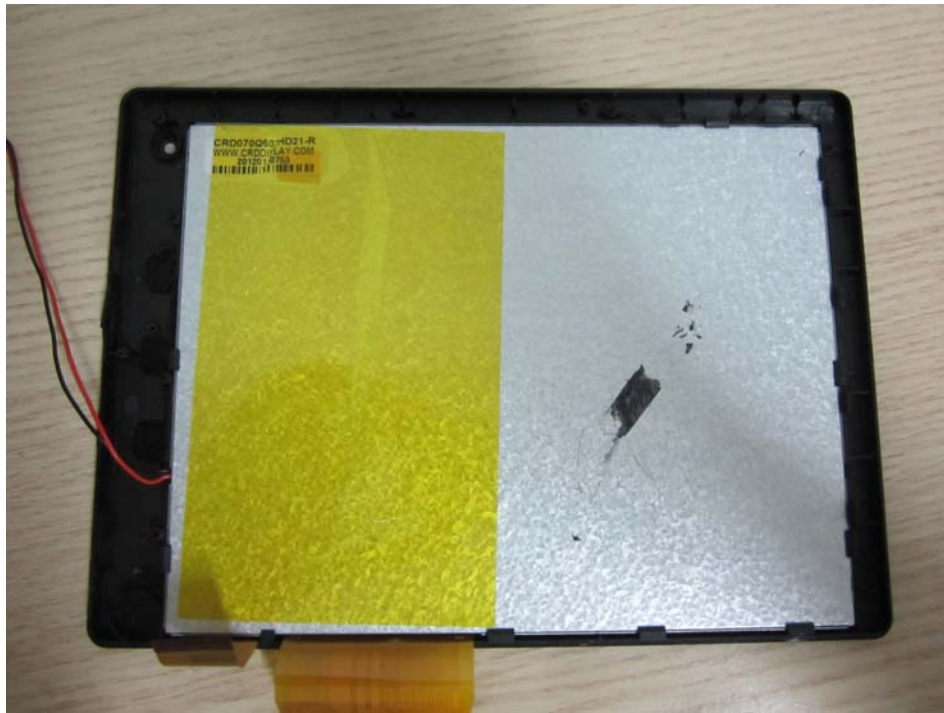


RF  
Antenna















END OF REPORT