FCC TEST REPORT

For

MID

Model Number: PC617

FCC ID	:	YW5-JH201011617V
Reference No.	:	CT10102426-S-F
Applicant	:	Shenzhen Firstview Electronic Co. Ltd.
Address	:	3-4/F, Block B, Huafeng 1st Technology ZoneBaoan Main Road, Baoan District, Shenzhen, China
Prepared By	:	Shenzhen CCE Test Electronic Co., Ltd.
Address	:	21F., COFCO Property Group Center, 3th Area of Baoan, Shenzhen, China
Telephone	:	+86-755-33128901
Date of Test	:	November 01, 2010

CONTENTS

1. TEST SUMMARY

Test Items	Test Requirement	Test Method	Test Results
Conducted Emission (150KHz to 30MHz)	FCC PART 15.107	ANSI C63.4: 2009	PASS
Radiated Emission (30MHz to 1GHz)	FCC PART 15.109	ANSI C63.4: 2009	PASS

2. TEST LABORATORY AND FACILITY INFROMATION

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC – Registration No.: 752051**

  Accurate Technology Co., Ltd. has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 752051, June 02, 2008.

2.1. Test Location

All Emissions tests were performed at:-

Accurate Technology Co., Ltd. at F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.,

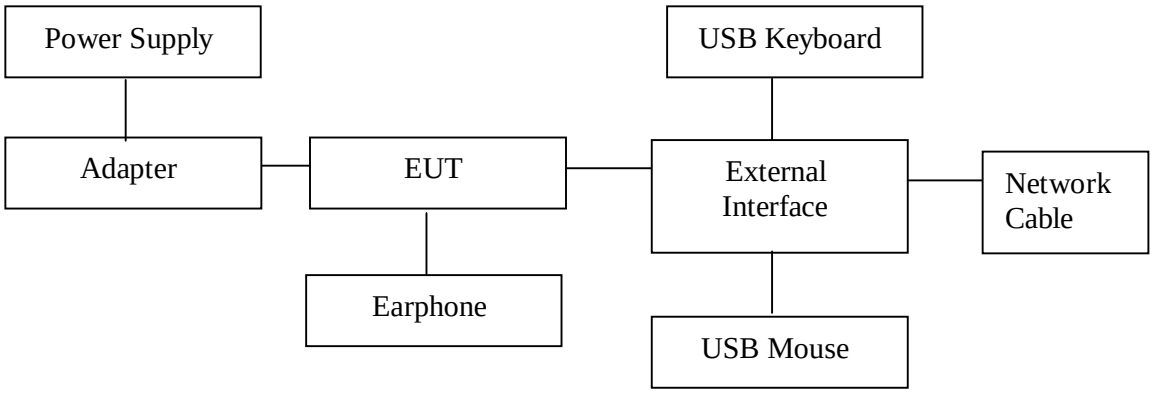
Science & Industry Park, Nanshan, Shenzhen, 518057, China.

3. GENERAL INFORMATION

3.1. EUT Description

Product	:	MID
Model No.	:	PC617
Technical Data:	:	Adapter Input: 100-240V AC, 0.5A,50/60Hz Adapter Output: 9V DC, 1500mA
Applicant	:	Shenzhen Firstview Electronic Co. Ltd.
Manufacturer	:	Shenzhen Firstview Electronic Co. Ltd.

3.2. Block Diagram of EUT Configuration



3.3. Test Conditions

Temperature:23-26 ℃
Relative Humidity: 51-58%

3.4. Standards Applicable for Testing

The customer requested FCC tests for a MID.
The standards used were FCC Part 15 Subpart B.

4. TEST EQUIPMENT USED

Equipment list for measuring the radiated disturbance						
No.	**Type of instrument**	**Model**	**MFG**	**Serial No.**	**Last Cal. Date**	**Calibration Interval**
1	EMI Test Receiver	ESCS30	R&S	100307	2010.03.29	12 Months
2	EMI Test Receiver	ESPI3	R&S	101526	2010.03.29	12 Months
3	Spectrum Analyzer	E7405A	Agilent	MY45115511	2010.03.29	12 Months
4	Pre-Amplifier	CBLU1183540-01	R&S	3791	2010.03.29	12 Months
5	Bi-Log Antenna	VULB9163	Schwarz-beck	9163-323	2010.03.29	12 Months
6	Loop Antenna	FMZB1516	Schwarz-beck	1516131	2010.03.29	12 Months
7	Horn Antenna	BBHA9120D	Schwarz-beck	9120D-655	2010.03.29	12 Months
8	Horn Antenna	BBHA9170	Schwarz-beck	9170-359	2010.03.29	12 Months
9	Signal Generator	SML01	R&S	101161	2010.03.29	12 Months
Equipment list for measuring the conducted disturbance						
No.	**Type of instrument**	**Model**	**MFG**	**Serial No.**	**Last Cal. Date**	**Calibration Interval**
1	EMI Test Receiver	ESCS30	R&S	100307	2010.03.29	12 Months
2	EMI Test Receiver	ESPI3	R&S	100396	2010.03.29	12 Months
3	LISN	ESH3-Z5	R&S	100305	2010.03.29	12 Months
4	LISN	ESH3-Z5	R&S	100310	2010.03.29	12 Months

Support Equipment:			
Equipment	**Brand Name**	**Model**	**Serial No.**
USB Keyboard	Dell	-	/
USB Mouse	Dell	-	/

5. CONDUCTED EMISSION TEST

5.1. Test Standard and Limit

5.1.1. Test standard

FCC Part 15.107

5.1.2.Test Method

Base on ANSI C63.4:2009

5.1.3. Limits of disturbance voltage at the mains terminal (Class B)

Frequency	Maximum RF Line Voltage (dBmV)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

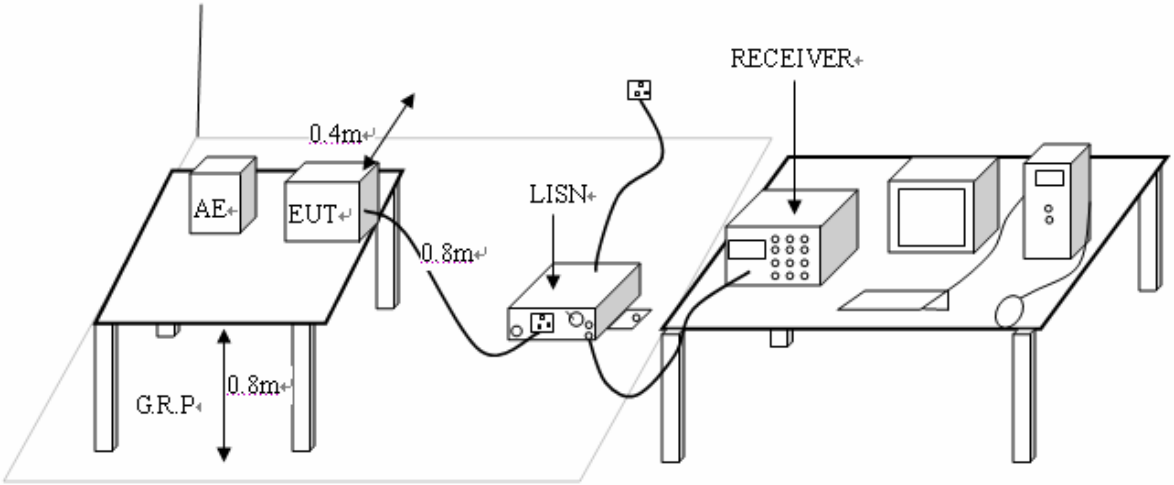
* Decreasing linearly with logarithm of the frequency

5.2. Test Procedure

1. The EUT was connected with power supply by adapter and placed on a table.
2. The EUT received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
3. The EUT was tested according to ANSI C63.4:2009.The frequency spectrum from 150 kHz to 30MHz was investigated.
4. The maximized peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

5.3. Test Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.4:2009, The specification used in this report was the FCC Part15 Paragraph 15.107 limits.



5.4. Test Data

Live Line:

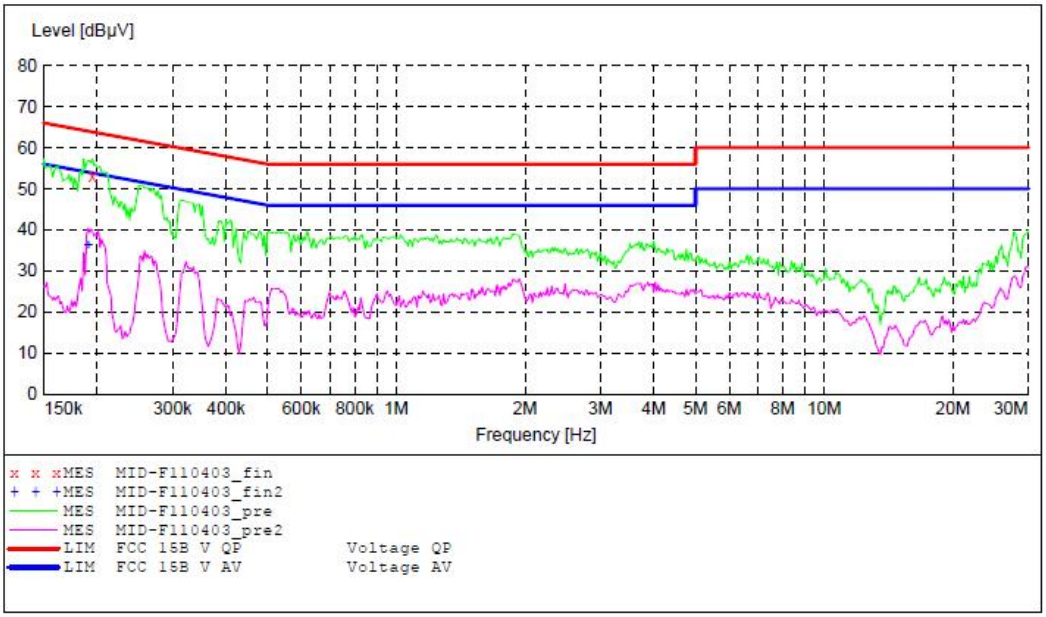
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

```
EUT:                    MID M/N:PC617
Manufacturer:           Fisrtview
Operating Condition:    Working
Test Site:              1#Shielding Room
Operator:               Star
Test Specification:     L 120V/60Hz
Comment:
Start of Test:          11/4/2010 / 9:20:58AM
```

SCAN TABLE: "V 150K-30MHz fin"

```
  Short Description:              _SUB_STD_VTERM2 1.70
  Start      Stop       Step      Detector  Meas.     IF       Transducer
  Frequency  Frequency  Width               Time      Bandw.
  150.0 kHz  30.0 MHz   0.8 %     QuasiPeak 1.0 s     9 kHz    NSLK8126 2008
                                  Average
```



MEASUREMENT RESULT: "MID-F110403_fin"

```
11/4/2010  9:23AM
   Frequency     Level  Transd  Limit  Margin  Detector  Line   PE
         MHz      dBµV      dB   dBµV      dB

    0.195000     53.00    11.2     64    10.8  QP        L1     GND
```

MEASUREMENT RESULT: "MID-F110403_fin2"

```
11/4/2010  9:23AM
   Frequency     Level  Transd  Limit  Margin  Detector  Line   PE
         MHz      dBµV      dB   dBµV      dB

    0.190500     36.30    11.2     54    17.7  AV        L1     GND
```

Neutral Line:

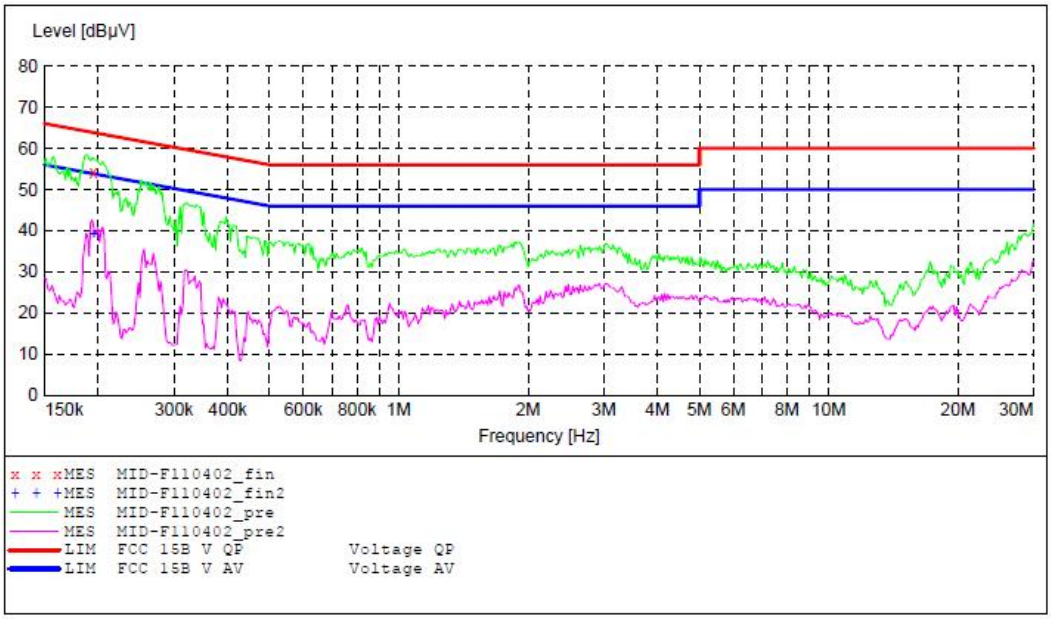
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

```
EUT:                  MID M/N:PC617
Manufacturer:         Fisrtview
Operating Condition:  Working
Test Site:            1#Shielding Room
Operator:             Star
Test Specification:   N 120V/60Hz
Comment:
Start of Test:        11/4/2010 / 9:18:10AM
```

SCAN TABLE: "V 150K-30MHz fin"

```
Short Description:                _SUB_STD_VTERM2 1.70
Start      Stop       Step        Detector  Meas.     IF       Transducer
Frequency  Frequency  Width                 Time      Bandw.
150.0 kHz  30.0 MHz   0.8 %       QuasiPeak 1.0 s     9 kHz    NSLK8126 2008
                                  Average
```



MEASUREMENT RESULT: "MID-F110402_fin"

```
11/4/2010  9:20AM
   Frequency     Level  Transd  Limit  Margin  Detector  Line    PE
         MHz      dBµV      dB   dBµV      dB

    0.195000     54.10    11.2     64     9.7  QP        N       GND
```

MEASUREMENT RESULT: "MID-F110402_fin2"

```
11/4/2010  9:20AM
   Frequency     Level  Transd  Limit  Margin  Detector  Line    PE
         MHz      dBµV      dB   dBµV      dB

    0.195000     39.00    11.2     54    14.8  AV        N       GND
```

6. RADIATED EMISSION TEST

6.1. Test Standard and Limit

6.1.1. Test Standard

FCC Part 15.109

6.1.2.Test Method

Base on ANSI C63.4:2009

6.1.3.Test Frequency Range

30MHz to 1GHz

6.1.4. Limits of Radiated Disturbances at 3m Distance

FREQUENCY MHz	FIELD STRENGTHS LIMITS dB(㎶/m)
30 ~ 88	40.0
88 ~ 216	43.5
216 ~ 960	46.0
Above 960	54.0

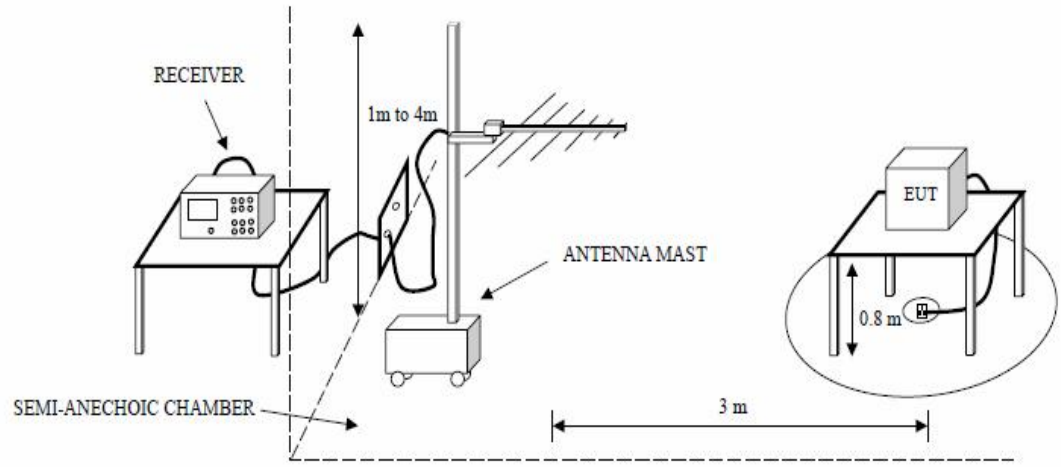
Note: The lower limit shall apply at the transition frequency.

6.2. Test Procedure

1. The EUT was connected with PC and placed on a non-conductive turntable. Maximizing procedure was performed on the six (6) highest emissions to ensure EUT is compliant with all installation combinations.
2. All data was recorded in the peak and average detection mode.
3. The EUT was under normal mode during the final qualification test and the configuration was used to represent the worst case results.

6.3. Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.4:2009, The specification used in this report was the FCC Part15 B limits.
The EUT was placed on the test table in working mode.



6.4. Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in the field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on ANSI C63.4:2009, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Accurate Technology Co., Ltd. is ±3.0 dB.

6.5. Spectrum Analyzer Setup

According to FCC Part15 Paragraph 15.109 Rules, the system was tested to 1000 MHz.

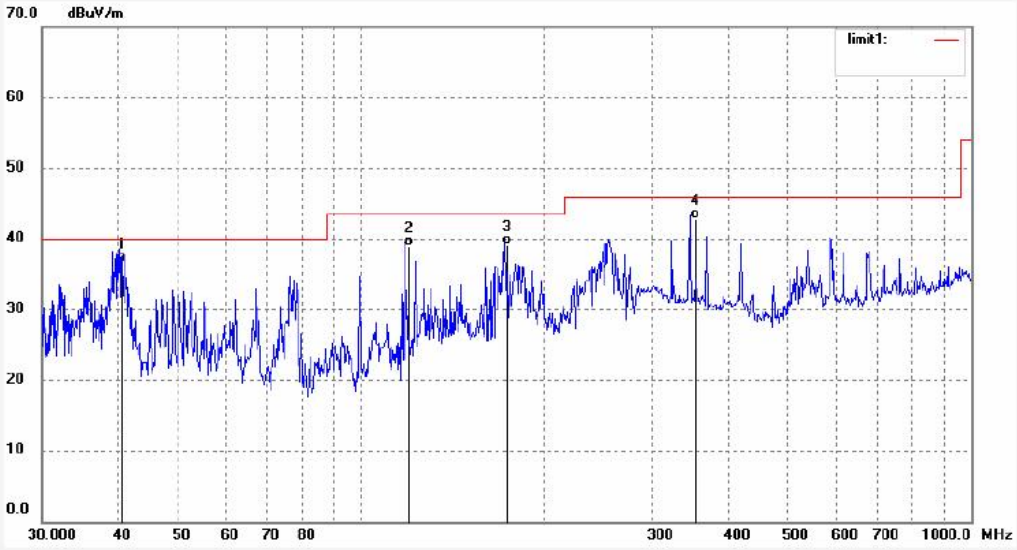
Start Frequency:	30 MHz
Stop Frequency:	1000 MHz
Sweep Speed:	Auto
IF Bandwidth:	100 kHz
Video Bandwidth:	120 MHz
Quasi-Peak Adapter Bandwidth:	120 kHz
Quasi-Peak Adapter Mode:	Normal
Resolution Bandwidth:	1MHz

6.6. Test Data

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.:	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2010/11/04
Temp.(C)/Hum.(%) 25 C / 50 %	Time: 12:36:26
EUT: MID	Engineer Signature: Mason
Mode:	Distance: 3m
Model: PC617	
Manufacturer:	

Note:

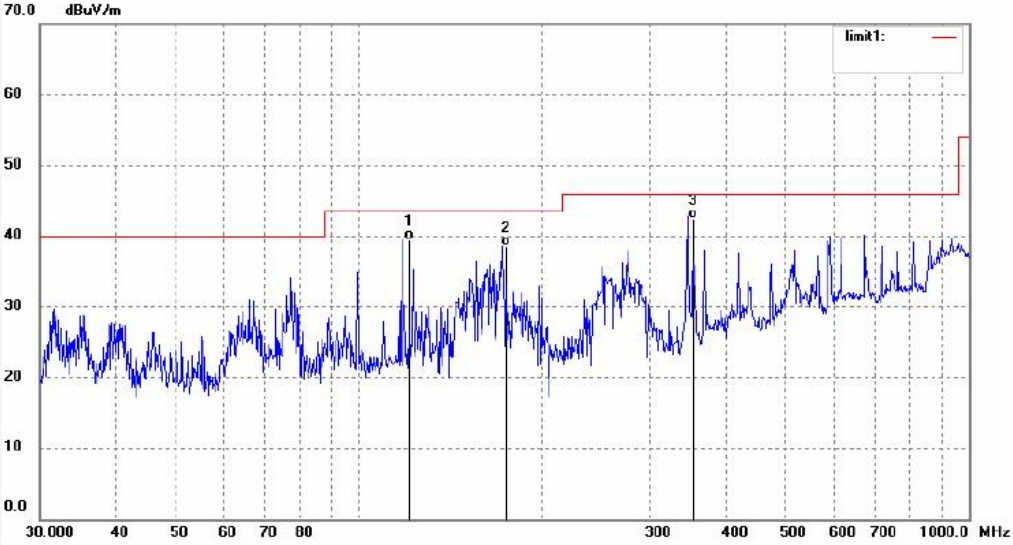


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	40.7505	20.36	16.29	36.65	40.00	-3.35	QP			
2	119.9952	24.23	14.67	38.90	43.50	-4.60	QP			
3	174.9970	23.42	15.75	39.17	43.50	-4.33	QP			
4	349.9970	22.05	20.78	42.83	46.00	-3.17	QP			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.:	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2010/11/04
Temp.(C)/Hum.(%) 25 C / 50 %	Time: 12:59:34
EUT: MID	Engineer Signature: Mason
Mode:	Distance: 3m
Model: PC617	
Manufacturer:	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	120.0021	24.88	14.67	39.55	43.50	-3.95	QP			
2	174.9922	22.80	15.75	38.55	43.50	-4.95	QP			
3	349.9940	21.73	20.78	42.51	46.00	-3.49	QP			

APPENDIX: EUT PHOTOS AND TEST SETUP PHOTOS

Photo 1Component View of EUT

Photo 2 Appearance View of EUT

Photo 3 Appearance View of EUT

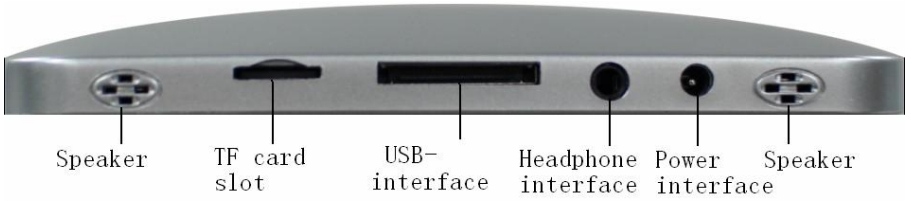


Photo 4 Open View of EUT

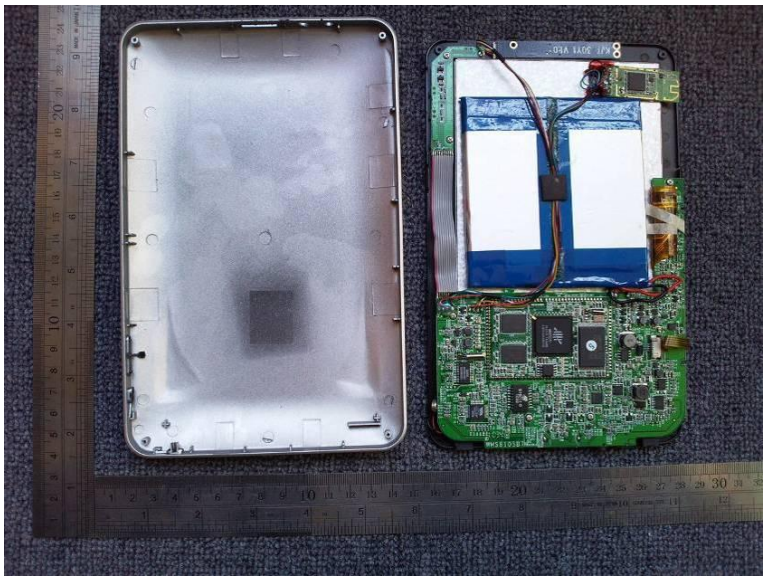


Photo 5 Front View of PCB (Main Board)

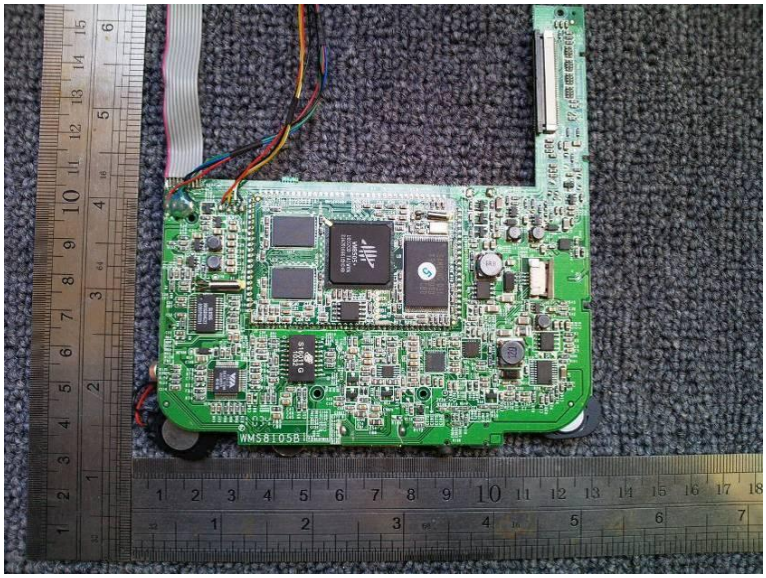


Photo 6 Back View of PCB (Main Board)

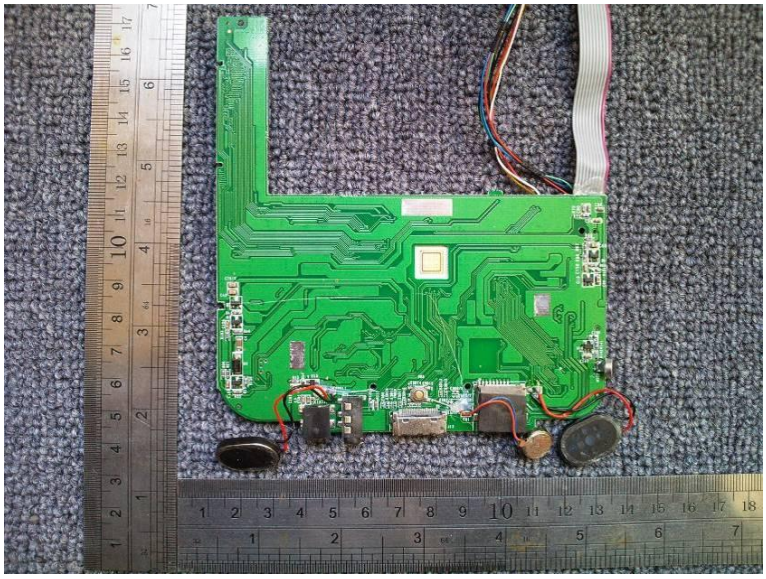


Photo 7 Front View of PCB (Camera)

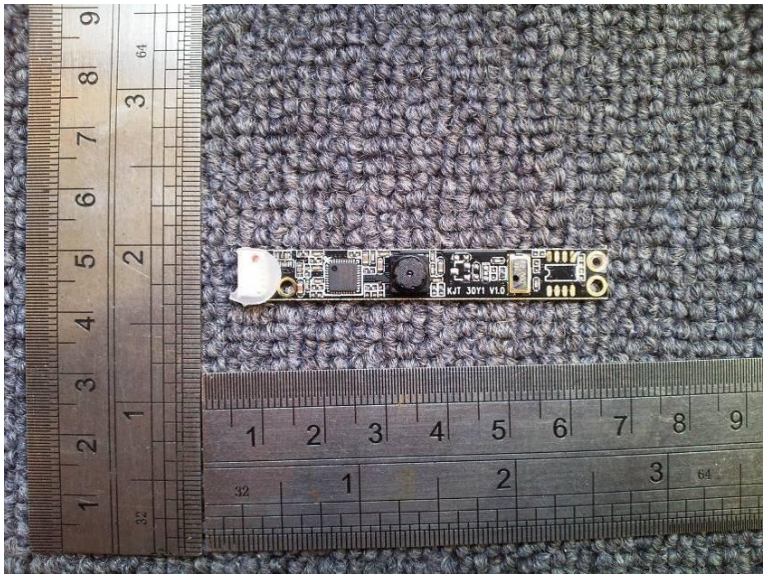


Photo 8 Back View of PCB (Camera)

Photo 9 Front View of PCB (External Interface Adapter)

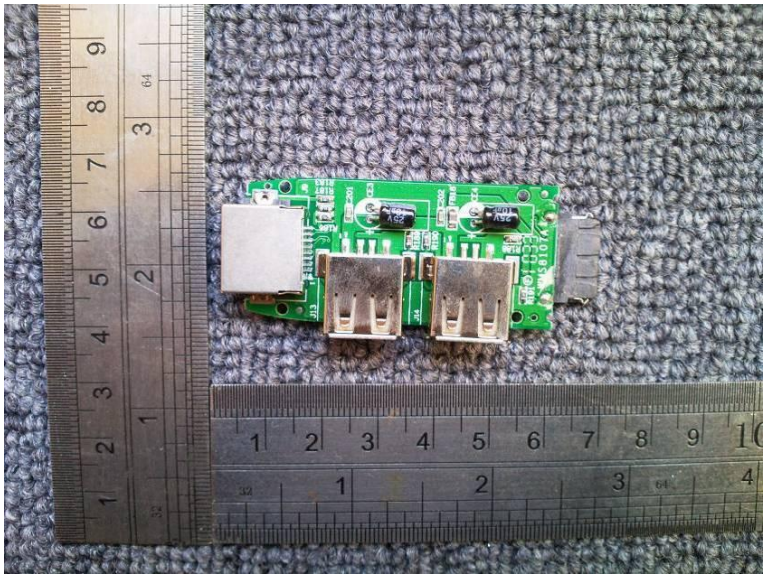


Photo 10 Back View of PCB (External Interface Adapter)

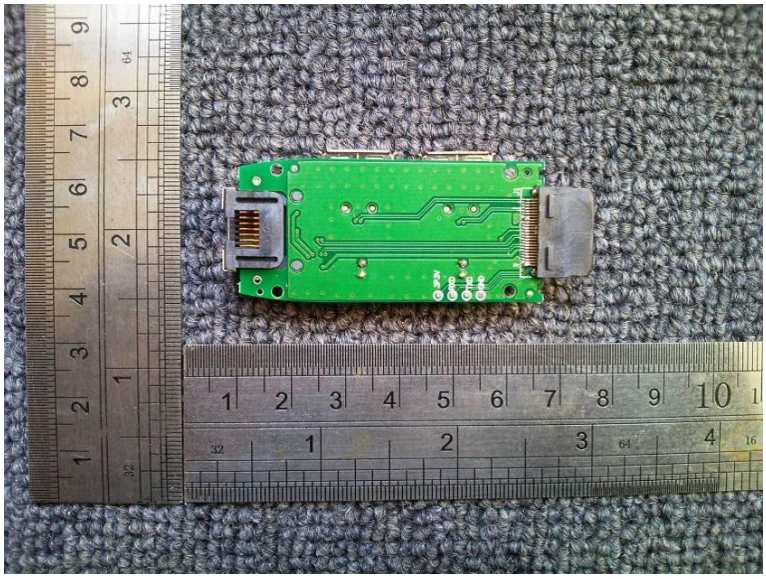


Photo 11 Appearance View of Adapter

Photo 12 Appearance View of Adapter

Photo 13 Front View of PCB (Adapter)

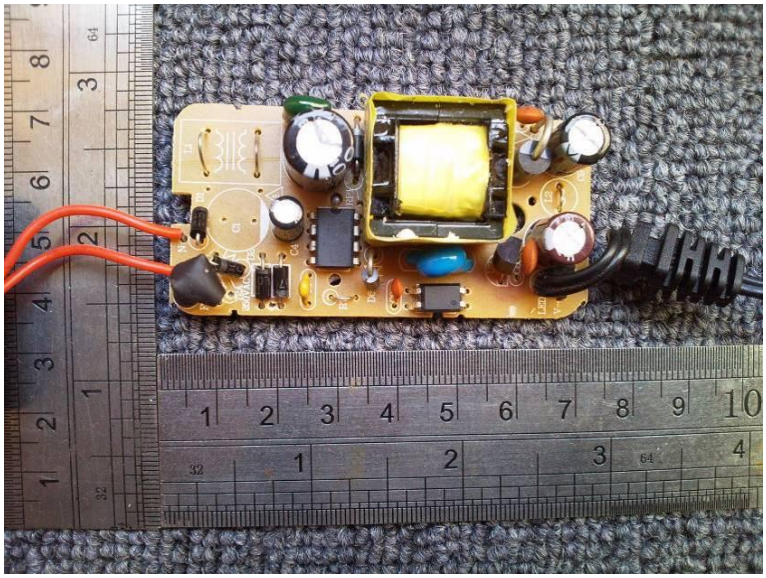


Photo 14 Back View of PCB (Adapter)

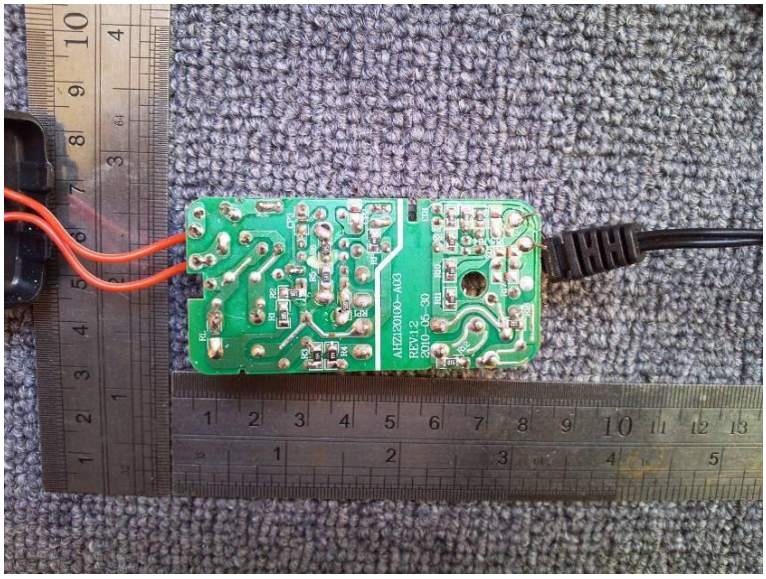


Photo 15 Radiation Emission Test View

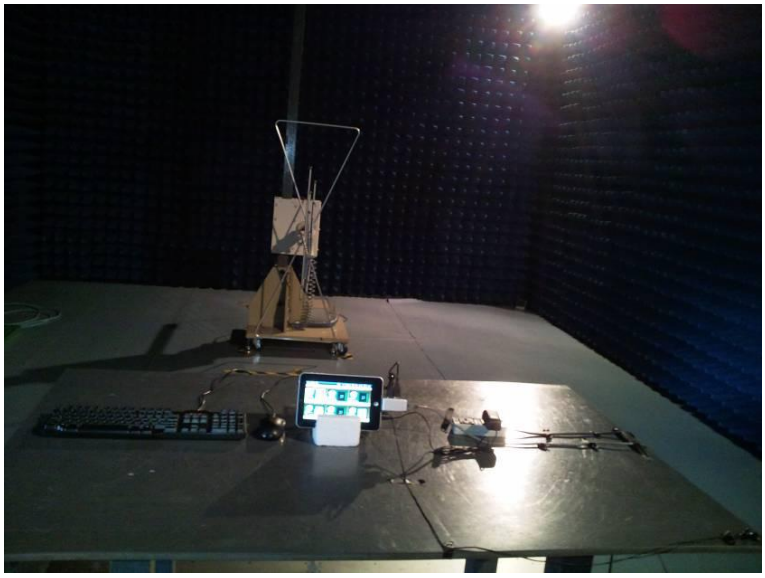


Photo 16 Conducted Emission Test View

7. FCC ID LABEL

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The Label must not be a stick-on paper. The Label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Proposed Label Location on EUT
EUT Bottom View/proposed FCC Mark Location