

APPLICATION CERTIFICATION FCC Part 15B
On Behalf of
HONG KONG NATURAL SOUND ELECTRONICS LIMITED

MP4
Model No.: ID1829C, Eclipse-180

FCC ID: PWK-ID1829C

Prepared for : HONG KONG NATURAL SOUND ELECTRONICS
LIMITED
Address : FLAT/RM M 4/F CONTINENTAL MANSION 300
KING'S ROAD HONG KONG

Prepared by : ACCURATE TECHNOLOGY CO. LTD
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Report Number : ATE20122302
Date of Test : September 28-October 15, 2012
Date of Report : October 15, 2012

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Test Report Certification

Applicant : HONG KONG NATURAL SOUND ELECTRONICS LIMITED

Manufacturer : Shenzhen Natural Sound Electronics Co., Ltd.

EUT Description : MP4

(A) MODEL NO.: ID1829C, Eclipse-180

(B) SERIAL NO.: N/A

(C) POWER SUPPLY: DC 3.7V (Li-polymer battery) & DC 5V (Power by PC)

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart 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 limits. 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 : September 28-October 15, 2012

Prepared by :



(Apple Lv, Engineer)

Approved & Authorized Signer :



(Sean Liu, Manager)

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT	:	MP4
Model Number	:	ID1829C, Eclipse-180 (Note: These samples are same except for the appearance is difference. So we prepare the ID1829C for FCC test.)
Power Supply	:	DC 3.7V (Li-polymer battery) & DC 5V (Power by PC)
Highest operation frequency of the EUT:	:	107.9MHz
Applicant	:	HONG KONG NATURAL SOUND ELECTRONICS LIMITED
Address	:	FLAT/RM M 4/F CONTINENTAL MANSION 300 KING'S ROAD HONG KONG
Manufacturer	:	Shenzhen Natural Sound Electronics Co., Ltd.
Address	:	4 th Building, Xinyuan Industrial Zone, Gushu Village, Bao'an District, Shenzhen, China
Date of sample received	:	September 28, 2012
Date of Test	:	September 28-October 15, 2012

1.2. Accessory and Auxiliary Equipment

1.2.1. PC

Notebook PC : Manufacturer: SONY
M/N: PCG-663P
S/N: 28123170 7202526

1.2.2. Printer

Printer : Manufacturer: Canon
M/N: BJC-1000SP
S/N: N/A

1.3. Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC
The Registration Number is 752051

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, Changyuan New Material Port, Keyuan Rd.
Science & Industry Park, Nanshan, Shenzhen, Guangdong
P.R. China

1.4. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, 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)

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated date	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 8, 2012	Jan. 7, 2013
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 8, 2012	Jan. 7, 2013
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 8, 2012	Jan. 7, 2013
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 8, 2012	Jan. 7, 2013
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 8, 2012	Jan. 7, 2013
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 8, 2012	Jan. 7, 2013
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 8, 2012	Jan. 7, 2013
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 8, 2012	Jan. 7, 2013
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 8, 2012	Jan. 7, 2013
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 8, 2012	Jan. 7, 2013

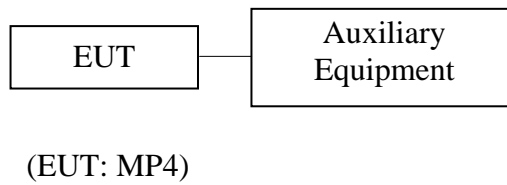
3. OPERATION OF EUT DURING TESTING

3.1.Operating Mode

The modes are used:

- 1) Playing
- 2) Transfer data
- 3) Camera playing
- 4) Charging
- 5) FM Radio

3.2.Configuration and peripherals



4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.107	Conducted Emission Test	Compliant
Section 15.109	Radiated Emission Test	Compliant

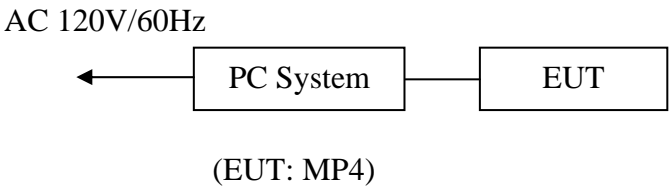
5. CONDUCTED EMISSION FOR FCC PART 15 SECTION

15.107(A)

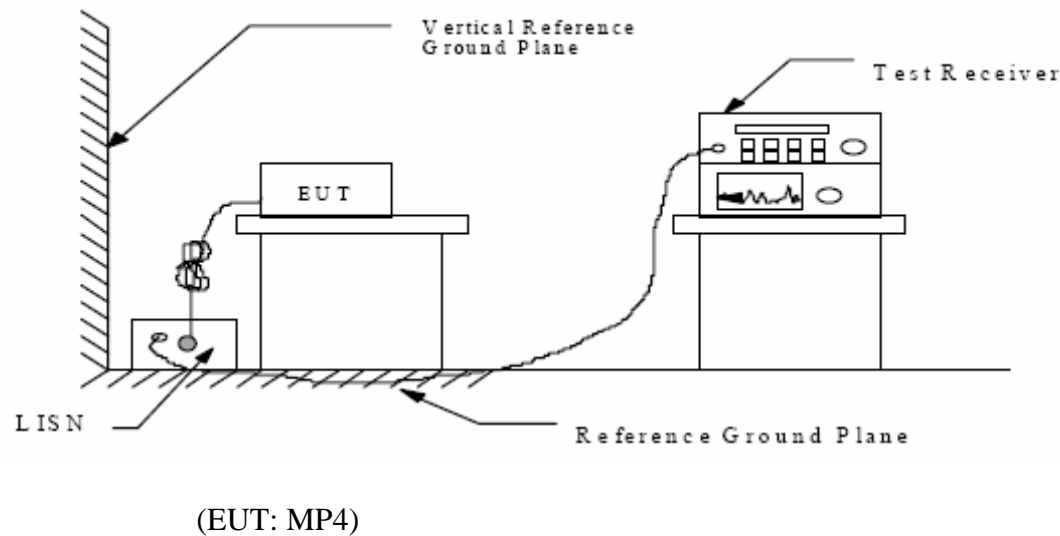
5.1. Block Diagram of Test Setup

5.1.1. Block diagram of connection between the EUT and simulators

5.1.1.1. For Transfer data and Charging



5.1.2. Shielding Room Test Setup Diagram



5.2.The Emission Limit

5.2.1.Conducted Emission Measurement Limits According to Section 15.107(a)

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

* Decreases with the logarithm of the frequency.

5.3.Configuration of EUT on Measurement

The following equipment are installed on the Conducted Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.3.1.MP4 (EUT)

Model Number : ID1829C
 Serial Number : N/A
 Manufacturer : Shenzhen Natural Sound Electronics Co., Ltd.

5.4.Operating Condition of EUT

5.4.1.Setup the EUT and simulator as shown as Section 5.1.

5.4.2.Turn on the power of all equipment.

5.4.3.Let the EUT work in modes (Charging, Transfer data) and measure it.

5.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2009 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

5.6. Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Date of Test:	October 9, 2012	Temperature:	25°C
EUT:	MP4	Humidity:	50%
Model No.:	ID1829C	Power Supply:	AC 120V/60Hz
Test Mode:	Charging	Test Engineer:	PEI

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.613500	32.70	12.0	56	23.3	QP	L1	GND
1.356000	35.30	11.8	56	20.7	QP	L1	GND
12.763500	47.20	11.2	60	12.8	QP	L1	GND
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
1.356000	30.70	11.8	46	15.3	AV	L1	GND
12.493500	45.80	11.2	50	4.2	AV	L1	GND
12.768000	47.30	11.2	50	2.7	AV	L1	GND
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.613500	32.70	12.0	56	23.3	QP	N	GND
1.563000	34.10	11.7	56	21.9	QP	N	GND
12.646500	47.00	11.2	60	13.0	QP	N	GND
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
12.574500	42.30	11.2	50	7.7	AV	N	GND
12.579000	45.20	11.2	50	4.8	AV	N	GND
12.849000	44.20	11.2	50	5.8	AV	N	GND

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

Date of Test:	October 9, 2012	Temperature:	25°C
EUT:	MP4	Humidity:	50%
Model No.:	ID1829C	Power Supply:	AC 120V/60Hz
Test Mode:	Transfer data	Test Engineer:	PEI

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.675618	33.80	11.9	56	22.2	QP	N	GND
1.556134	32.50	11.7	56	23.5	QP	N	GND
12.705153	38.50	11.2	60	21.5	QP	N	GND
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
11.824236	41.80	11.2	50	8.2	AV	N	GND
12.159314	42.00	11.2	50	8.0	AV	N	GND
12.705153	40.90	11.2	50	9.1	AV	N	GND
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.202358	43.40	11.2	64	20.1	QP	L1	GND
12.404453	47.90	11.2	60	12.1	QP	L1	GND
12.806998	46.60	11.2	60	13.4	QP	L1	GND
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
12.604118	43.70	11.2	50	6.3	AV	L1	GND
12.806998	43.00	11.2	50	7.0	AV	L1	GND
13.013142	45.70	11.2	50	4.3	AV	L1	GND

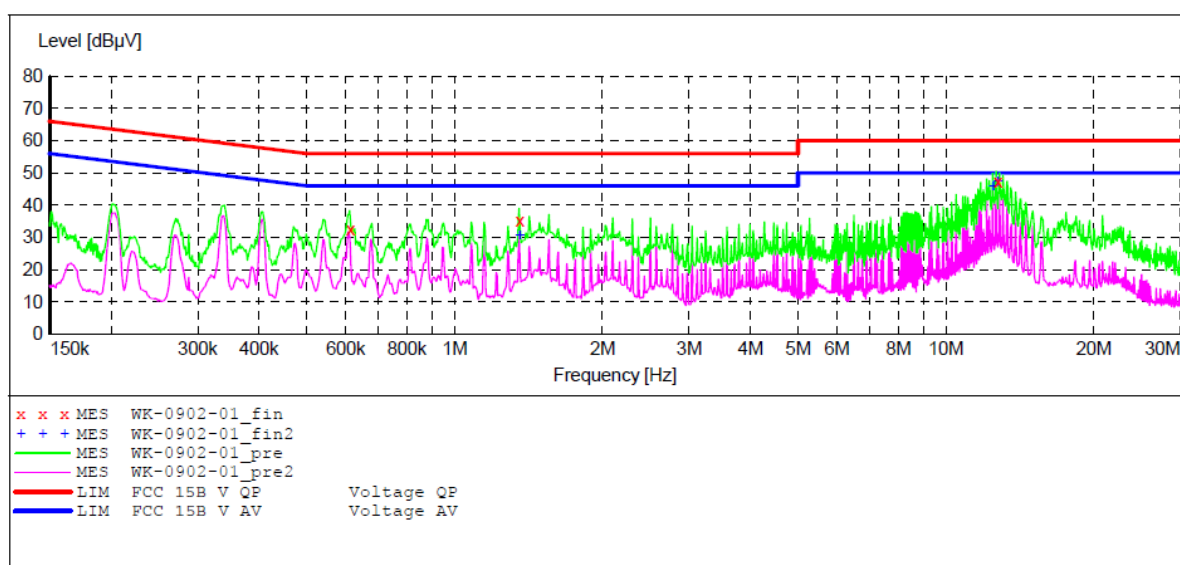
Emissions attenuated more than 20 dB below the permissible value are not reported.
The spectral diagrams are attached as below.

ACCURATE TECHNOLOGY CO., LTD**CONDUCTED EMISSION STANDARD FCC PART 15 B**

EUT: MP4 M/N:ID1829C
 Manufacturer: Natural Sound
 Operating Condition: Charging
 Test Site: 1#Shielding Room
 Operator: Bob
 Test Specification: L 120V/60Hz
 Comment: Mains port
 Report No.: ATE20122302

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: "WK-0902-01_fin"**

10/09/2012 10:16AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.613500	32.70	12.0	56	23.3	QP	L1	GND
1.356000	35.30	11.8	56	20.7	QP	L1	GND
12.763500	47.20	11.2	60	12.8	QP	L1	GND

MEASUREMENT RESULT: "WK-0902-01_fin2"

10/09/2012 10:16AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
1.356000	30.70	11.8	46	15.3	AV	L1	GND
12.493500	45.80	11.2	50	4.2	AV	L1	GND
12.768000	47.30	11.2	50	2.7	AV	L1	GND

ACCURATE TECHNOLOGY CO.,LTD**CONDUCTED EMISSION STANDARD FCC PART 15 B**

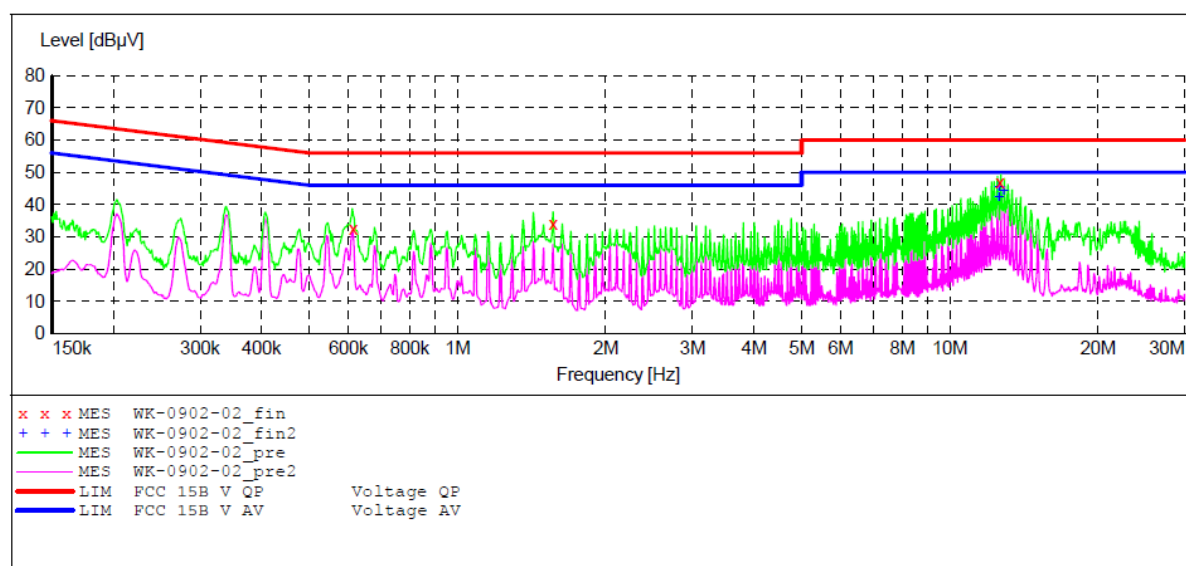
EUT: MP4 M/N:ID1829C
 Manufacturer: Natural Sound
 Operating Condition: Charging
 Test Site: 1#Shielding Room
 Operator: Bob
 Test Specification: N 120V/60Hz
 Comment: Mains port
 Report No.: ATE20122302

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

Short Description: _SUB_STD_VTERM2 1.70

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
Frequency 150.0 kHz	Frequency 30.0 MHz	Width 0.8 %	QuasiPeak	1.0 s	9 kHz	NSLK8126 2008

 Average

**MEASUREMENT RESULT: "WK-0902-02_fin"**

10/09/2012 10:23AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.613500	32.70	12.0	56	23.3	QP	N	GND
1.563000	34.10	11.7	56	21.9	QP	N	GND
12.646500	47.00	11.2	60	13.0	QP	N	GND

MEASUREMENT RESULT: "WK-0902-02_fin2"

10/09/2012 10:23AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
12.574500	42.30	11.2	50	7.7	AV	N	GND
12.579000	45.20	11.2	50	4.8	AV	N	GND
12.849000	44.20	11.2	50	5.8	AV	N	GND

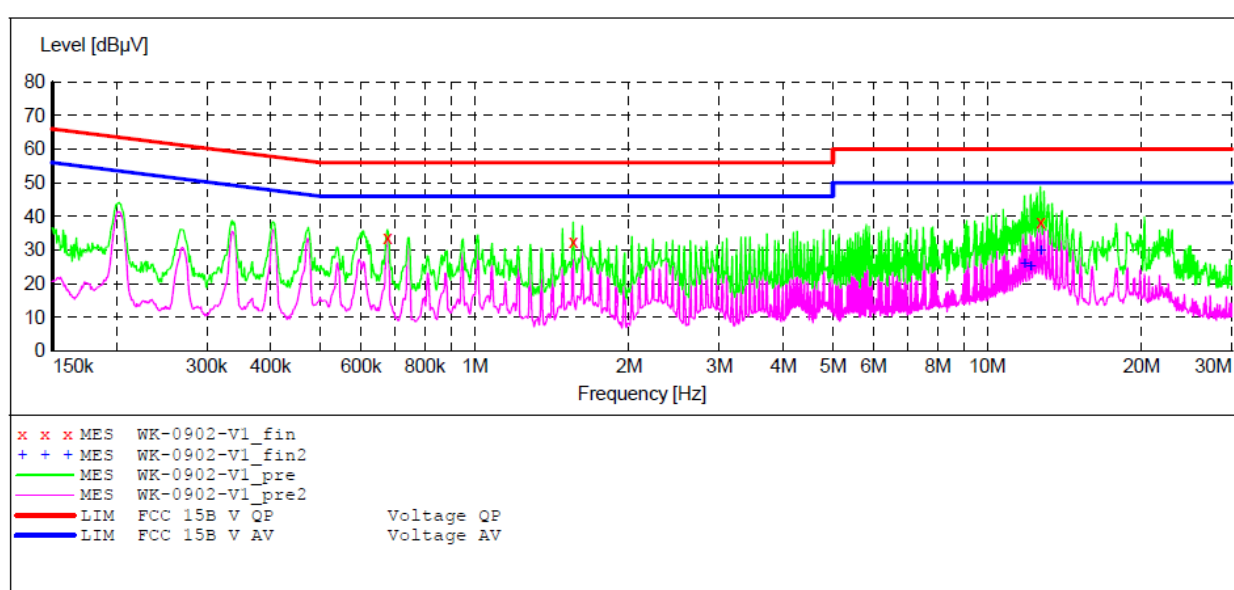
ACCURATE TECHNOLOGY CO.,LTD**CONDUCTED EMISSION STANDARD FCC PART 15B**

EUT: MP4 M/N:ID1829C
 Manufacturer: Natural Sound
 Operating Condition: Transfer data
 Test Site: 1#Shielding Room
 Operator: Bob
 Test Specification: N 120V/60Hz
 Comment: Mains port
 Report No.:ATE20122302

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

Short Description: _SUB_STD_VTERM2 1.70

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

**MEASUREMENT RESULT: "WK-0902-V1_fin"**

10/09/2012 5:09PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.675618	33.80	11.9	56	22.2	QP	N	GND
1.556134	32.50	11.7	56	23.5	QP	N	GND
12.705153	38.50	11.2	60	21.5	QP	N	GND

MEASUREMENT RESULT: "WK-0902-V1_fin2"

10/09/2012 5:09PM

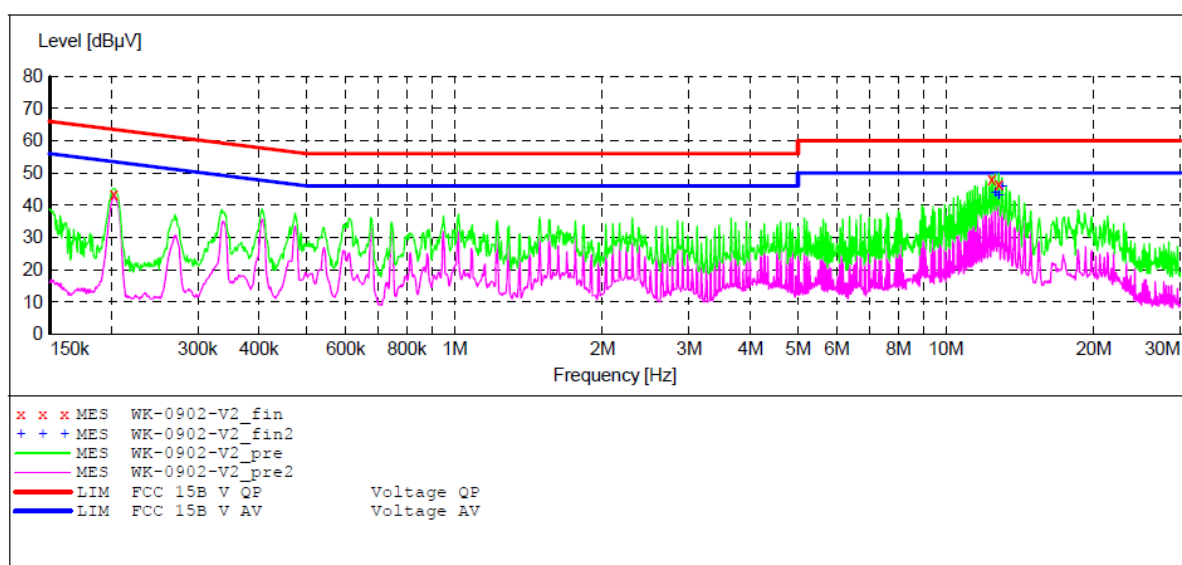
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
11.824236	41.80	11.2	50	8.2	AV	N	GND
12.159314	42.00	11.2	50	8.0	AV	N	GND
12.705153	40.90	11.2	50	9.1	AV	N	GND

ACCURATE TECHNOLOGY CO.,LTD**CONDUCTED EMISSION STANDARD FCC PART 15B**

EUT: MP4 M/N:ID1829C
 Manufacturer: Natural Sound
 Operating Condition: Transfer data
 Test Site: 1#Shielding Room
 Operator: Bob
 Test Specification: L 120V/60Hz
 Comment: Mains port
 Report No.: ATE20122302

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: "WK-0902-V2_fin"**

10/09/2012 5:14PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.202358	43.40	11.2	64	20.1	QP	L1	GND
12.404453	47.90	11.2	60	12.1	QP	L1	GND
12.806998	46.60	11.2	60	13.4	QP	L1	GND

MEASUREMENT RESULT: "WK-0902-V2_fin2"

10/09/2012 5:14PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
12.604118	43.70	11.2	50	6.3	AV	L1	GND
12.806998	43.00	11.2	50	7.0	AV	L1	GND
13.013142	45.70	11.2	50	4.3	AV	L1	GND

6. RADIATED EMISSION FOR FCC PART 15 SECTION 15.109(A)

6.1. Block Diagram of Test Setup

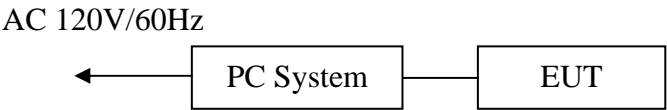
6.1.1. Block diagram of connection between the EUT and simulators

6.1.1.1. For playing & Camera playing & FM Radio



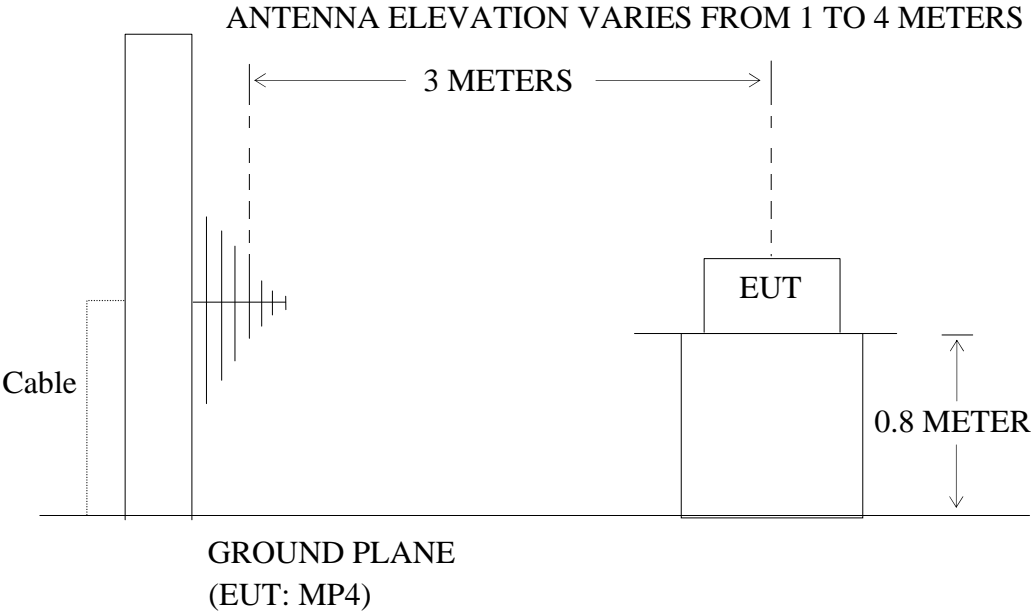
(EUT: MP4)

6.1.1.2. For Transfer data & Charging



(EUT: MP4)

6.1.2. Semi-Anechoic Chamber Test Setup Diagram



6.2.The Emission Limit For Section 15.109 (a)

6.2.1.Radiation Emission Measurement Limits According to Section 15.109 (a).

Frequency (MHz)	Limit	
	Field Strength of Quasi-peak Value (microvolts/m)	Field Strength of Quasi-peak Value (dBμV/m)
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

6.3.EUT Configuration on Measurement

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.3.1.MP4 (EUT)

Model Number : ID1829C
 Serial Number : N/A
 Manufacturer : Shenzhen Natural Sound Electronics Co., Ltd.

6.4.Operating Condition of EUT

6.4.1.Setup the EUT and simulator as shown as Section 6.1.

6.4.2.Turn on the power of all equipment.

6.4.3. Let the EUT work in (Playing, Transfer data, Camera playing, Charging, FM Radio) mode measure it.

6.5. 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 120kHz in 30-1000MHz

The frequency range from 30MHz to 1000MHz is checked.

6.6.The Emission Measurement Result

PASS.

Date of Test:	October 10-11, 2012	Temperature:	25°C
EUT:	MP4	Humidity:	50%
Model No.:	ID1829C	Power Supply:	DC 3.7V
Test Mode:	Playing	Test Engineer:	PEI

Frequency: 30-1000MHz								
Polarization								
Horizontal	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	216.1197	26.41	14.79	41.20	46.00	-4.80	QP
	2	322.5896	23.28	19.45	42.73	46.00	-3.27	QP
	3	389.9874	21.41	21.88	43.29	46.00	-2.71	QP
Vertical	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	216.1197	19.12	14.79	33.91	46.00	-12.09	QP
	2	285.2611	17.06	18.46	35.52	46.00	-10.48	QP
	3	322.5896	20.96	19.45	40.41	46.00	-5.59	QP

Date of Test:	<u>October 11, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>MP4</u>	Humidity:	<u>50%</u>
Model No.:	<u>ID1829C</u>	Power Supply:	<u>DC 5V</u>
Test Mode:	<u>Transfer data</u>	Test Engineer:	<u>PEI</u>

Frequency: 30-1000MHz								
Polarization								
Horizontal	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	402.5168	20.33	22.39	42.72	46.00	-3.28	QP
	2	582.1122	17.44	25.44	42.88	46.00	-3.12	QP
	3	716.2038	15.01	27.05	42.06	46.00	-3.94	QP
Vertical	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	441.0199	16.80	22.87	39.67	46.00	-6.33	QP
	2	511.1487	17.40	24.12	41.52	46.00	-4.48	QP
	3	582.1122	18.52	25.44	43.96	46.00	-2.04	QP

Date of Test:	<u>October 11, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>MP4</u>	Humidity:	<u>50%</u>
Model No.:	<u>ID1829C</u>	Power Supply:	<u>DC 3.7V</u>
Test Mode:	<u>Camera playing</u>	Test Engineer:	<u>PEI</u>

Frequency: 30-1000MHz								
Polarization								
Horizontal	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	285.2611	24.34	18.46	42.80	46.00	-3.20	QP
	2	428.7960	20.19	23.01	43.20	46.00	-2.80	QP
	3	757.6201	14.82	27.72	42.54	46.00	-3.46	QP
Vertical	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	216.1197	21.92	14.79	36.71	46.00	-9.29	QP
	2	236.7928	23.29	16.80	40.09	46.00	-5.91	QP
	3	285.2611	19.57	18.46	38.03	46.00	-7.97	QP

Date of Test:	<u>October 11, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>MP4</u>	Humidity:	<u>50%</u>
Model No.:	<u>ID1829C</u>	Power Supply:	<u>DC 5V</u>
Test Mode:	<u>Charging</u>	Test Engineer:	<u>PEI</u>

Frequency: 30-1000MHz								
Polarization								
Horizontal	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	230.2295	23.52	15.88	39.40	46.00	-6.60	QP
	2	347.2921	20.34	20.49	40.83	46.00	-5.17	QP
	3	402.5168	18.49	22.39	40.88	46.00	-5.12	QP
Vertical	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	93.9829	15.09	14.05	29.14	43.50	-14.36	QP
	2	441.0199	17.11	22.87	39.98	46.00	-6.02	QP
	3	511.1487	14.53	24.12	38.65	46.00	-7.35	QP

Date of Test:	<u>October 11, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>MP4</u>	Humidity:	<u>50%</u>
Model No.:	<u>ID1829C</u>	Power Supply:	<u>DC 3.7V</u>
Test Mode:	<u>FM Radio (88.1MHz)</u>	Test Engineer:	<u>PEI</u>

Frequency: 30-1000MHz								
Polarization								
Horizontal	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	88.1000	15.91	13.74	29.65	40.00	-10.35	QP
	2	120.6118	10.09	14.72	24.81	43.50	-18.69	QP
	3	320.3306	14.43	19.35	33.78	46.00	-12.22	QP
Vertical	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	88.1000	24.13	13.74	37.87	40.00	-2.13	QP
	2	130.7633	9.48	14.88	24.36	43.50	-19.14	QP
	3	175.6565	8.21	15.75	23.96	43.50	-19.54	QP
	4	324.8645	3.12	19.54	22.66	46.00	-23.34	QP

Date of Test:	<u>October 11, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>MP4</u>	Humidity:	<u>50%</u>
Model No.:	<u>ID1829C</u>	Power Supply:	<u>DC 3.7V</u>
Test Mode:	<u>FM Radio (98.1MHz)</u>	Test Engineer:	<u>PEI</u>

Frequency: 30-1000MHz								
Polarization								
Horizontal	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	98.1000	12.40	14.03	26.43	43.50	-17.07	QP
	2	121.0363	8.41	14.75	23.16	43.50	-20.34	QP
	3	177.5179	7.80	15.77	23.57	43.50	-19.93	QP
	4	320.3306	14.15	19.35	33.50	46.00	-12.50	QP
Vertical	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	98.1000	24.89	13.93	38.82	43.50	-4.68	QP
	2	132.6142	11.16	14.79	25.95	43.50	-17.55	QP
	3	175.6566	13.23	15.75	28.98	43.50	-14.52	QP
	4	324.8645	8.32	19.54	27.86	46.00	-18.14	QP

Date of Test:	<u>October 11, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>MP4</u>	Humidity:	<u>50%</u>
Model No.:	<u>ID1829C</u>	Power Supply:	<u>DC 3.7V</u>
Test Mode:	<u>FM Radio (107.9MHz)</u>	Test Engineer:	<u>PEI</u>

Frequency: 30-1000MHz								
Polarization								
Horizontal	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	107.9000	12.47	13.77	26.24	43.50	-17.26	QP
	2	115.2266	8.76	14.30	23.06	43.50	-20.44	QP
	3	320.3306	13.75	19.35	33.10	46.00	-12.90	QP
Vertical	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	107.9000	21.80	14.19	35.99	43.50	-7.51	QP
	2	133.0809	12.07	14.76	26.83	43.50	-16.67	QP
	3	174.4265	10.31	15.64	25.95	43.50	-17.55	QP
	4	324.8645	9.59	19.54	29.13	46.00	-16.87	QP

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain

3. The spectral diagrams are attached as below display the measurement of peak values.


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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.: Bob #3590

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: MP4

Mode: Charging

Model: ID1829C

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: DC 5V

Date: 12/10/13/

Time: 9/02/06

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	230.2295	23.52	15.88	39.40	46.00	-6.60	QP			
2	347.2921	20.34	20.49	40.83	46.00	-5.17	QP			
3	402.5168	18.49	22.39	40.88	46.00	-5.12	QP			



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Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Bob #3591

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: MP4

Mode: Charging

Model: ID1829C

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: DC 5V

Date: 12/10/13/

Time: 9/05/29

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	93.9829	15.09	14.05	29.14	43.50	-14.36	QP			
2	441.0199	17.11	22.87	39.98	46.00	-6.02	QP			
3	511.1487	14.53	24.12	38.65	46.00	-7.35	QP			



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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #3593

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: MP4

Mode: Transfer data

Model: ID1829C

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: DC 5V

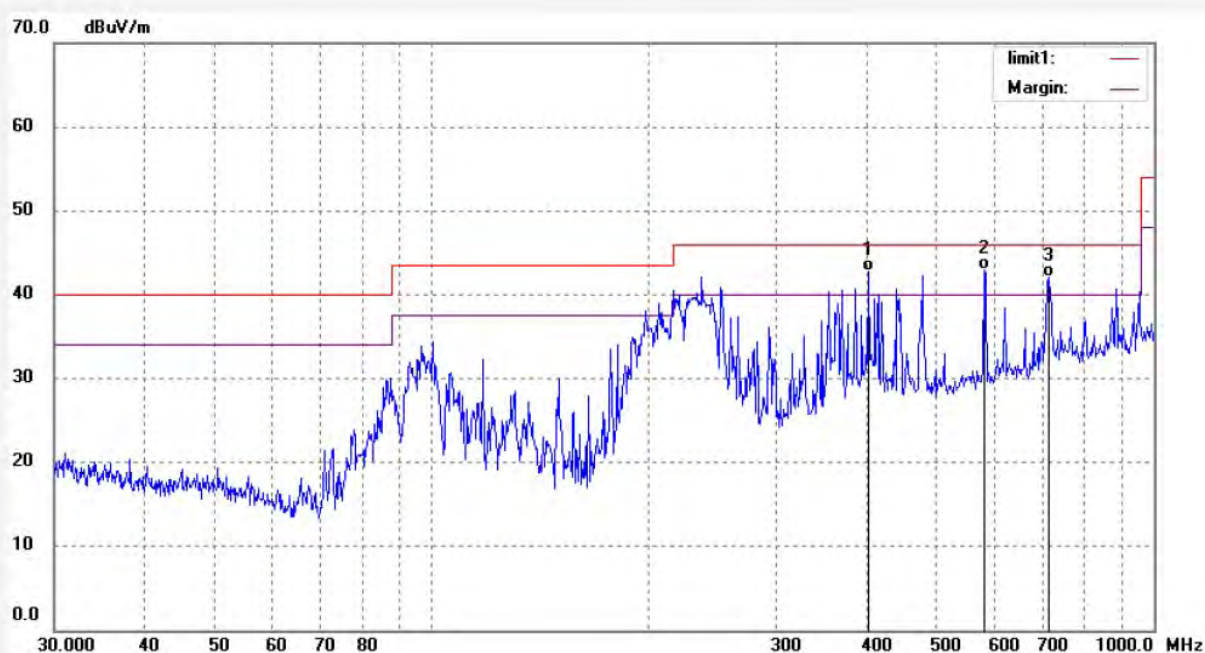
Date: 12/10/13/

Time: 9/11/26

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	402.5168	20.33	22.39	42.72	46.00	-3.28	QP			
2	582.1122	17.44	25.44	42.88	46.00	-3.12	QP			
3	716.2038	15.01	27.05	42.06	46.00	-3.94	QP			



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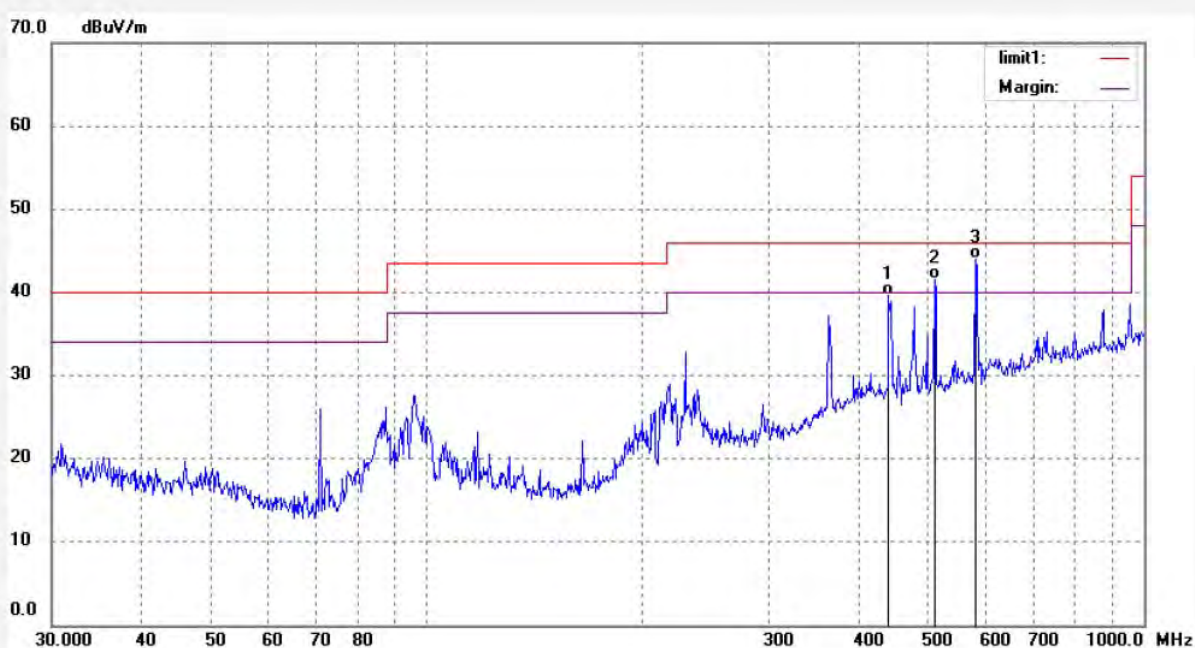
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Bob #3592
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MP4
Mode: Transfer data
Model: ID1829C
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: DC 5V
Date: 12/10/13/
Time: 9/08/19
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	441.0199	16.80	22.87	39.67	46.00	-6.33	QP			
2	511.1487	17.40	24.12	41.52	46.00	-4.48	QP			
3	582.1122	18.52	25.44	43.96	46.00	-2.04	QP			


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #3566

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: MP4

Mode: Playing

Model: ID1829C

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: DC 3.7V

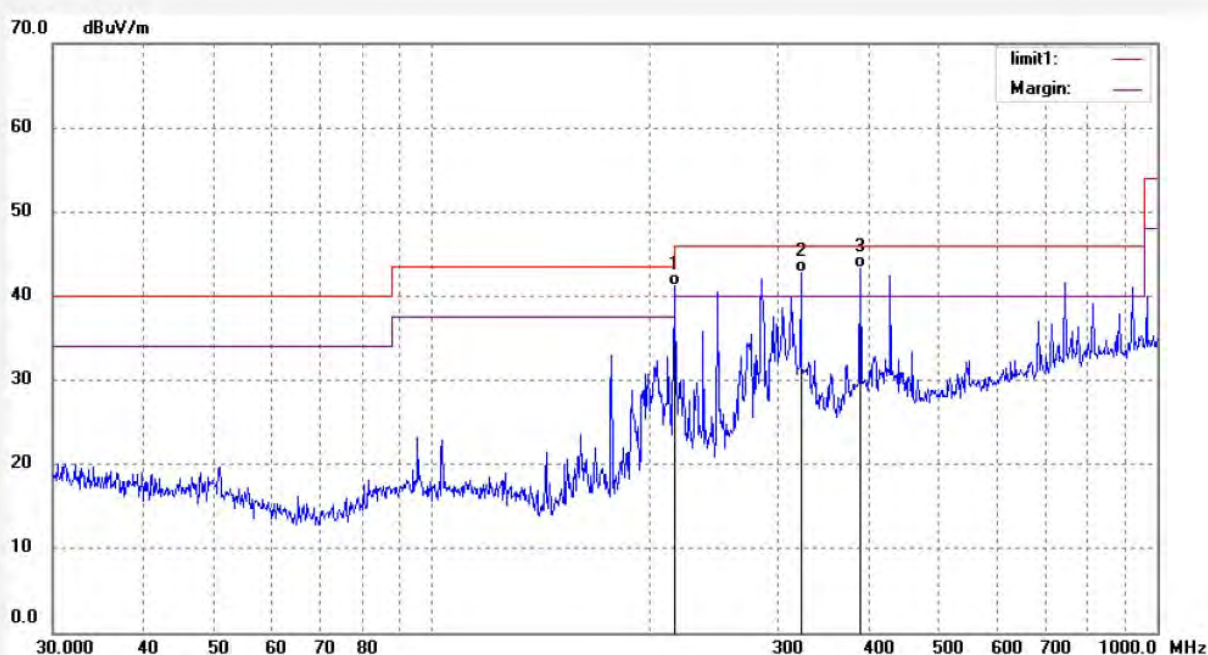
Date: 12/10/11/

Time: 9/19/13

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	216.1197	26.41	14.79	41.20	46.00	-4.80	QP			
2	322.5896	23.28	19.45	42.73	46.00	-3.27	QP			
3	389.9874	21.41	21.88	43.29	46.00	-2.71	QP			



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Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Bob #3565

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: MP4

Mode: Playing

Model: ID1829C

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: DC 3.7V

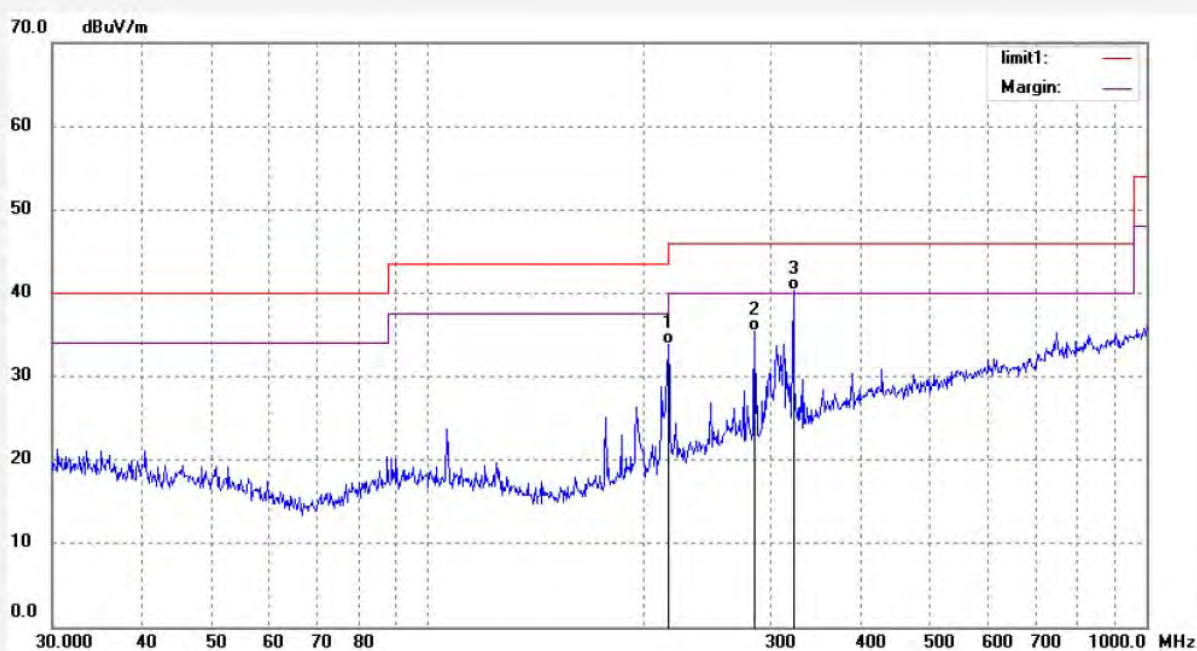
Date: 12/10/11/

Time: 9/16/28

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	216.1197	19.12	14.79	33.91	46.00	-12.09	QP			
2	285.2611	17.06	18.46	35.52	46.00	-10.48	QP			
3	322.5896	20.96	19.45	40.41	46.00	-5.59	QP			



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Site: 966 chamber
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Fax:+86-0755-26503396

Job No.: Bob #3568

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: MP4

Mode: Camera

Model: ID1829C

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: DC 3.7V

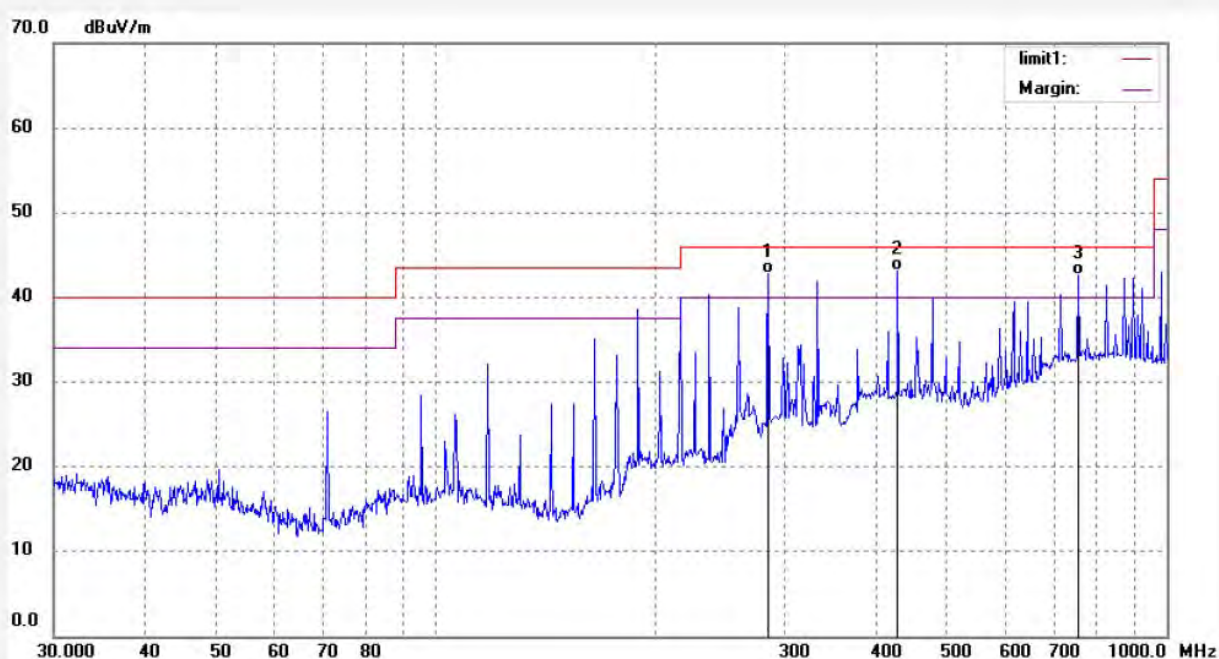
Date: 12/10/11/

Time: 9/21/57

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	285.2611	24.34	18.46	42.80	46.00	-3.20	QP			
2	428.7960	20.19	23.01	43.20	46.00	-2.80	QP			
3	757.6201	14.82	27.72	42.54	46.00	-3.46	QP			



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Site: 966 chamber

Tel:+86-0755-26503290

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Job No.: Bob #3569

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: MP4

Mode: Camera

Model: ID1829C

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: DC 3.7V

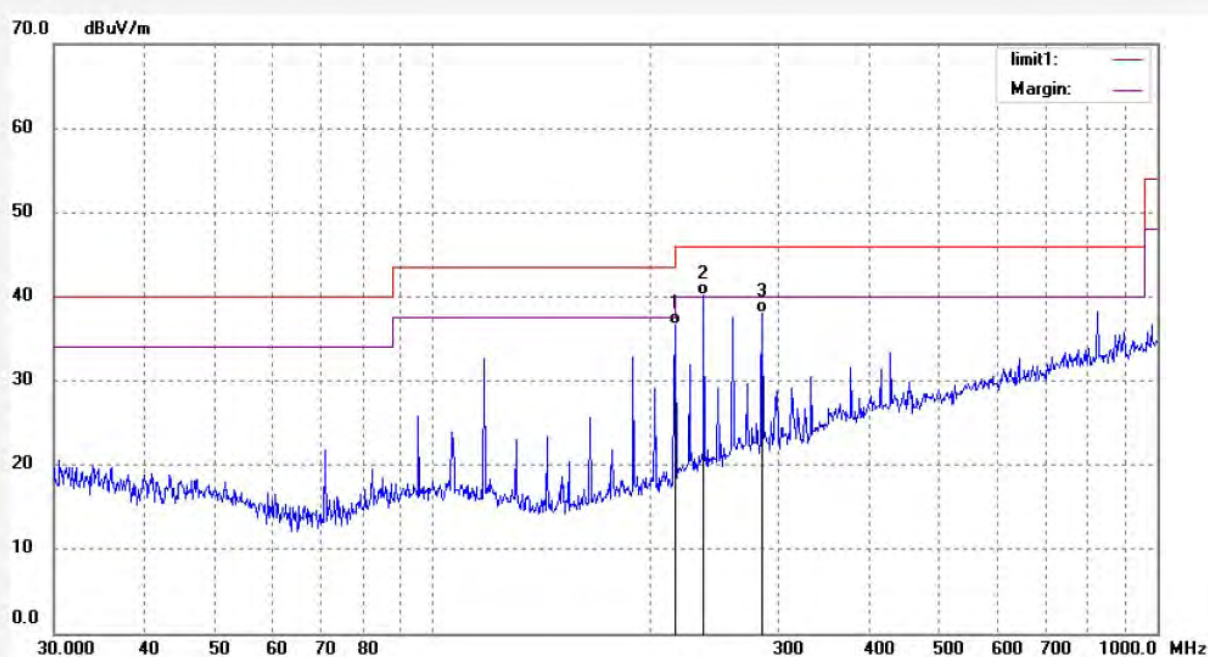
Date: 12/10/11/

Time: 9/23/08

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	216.1197	21.92	14.79	36.71	46.00	-9.29	QP			
2	236.7928	23.29	16.80	40.09	46.00	-5.91	QP			
3	285.2611	19.57	18.46	38.03	46.00	-7.97	QP			



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Site: 966 chamber

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Job No.: Bob #1782

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: MP4

Mode: FM 88.1MHz

Model: ID1829C

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: DC 3.7V

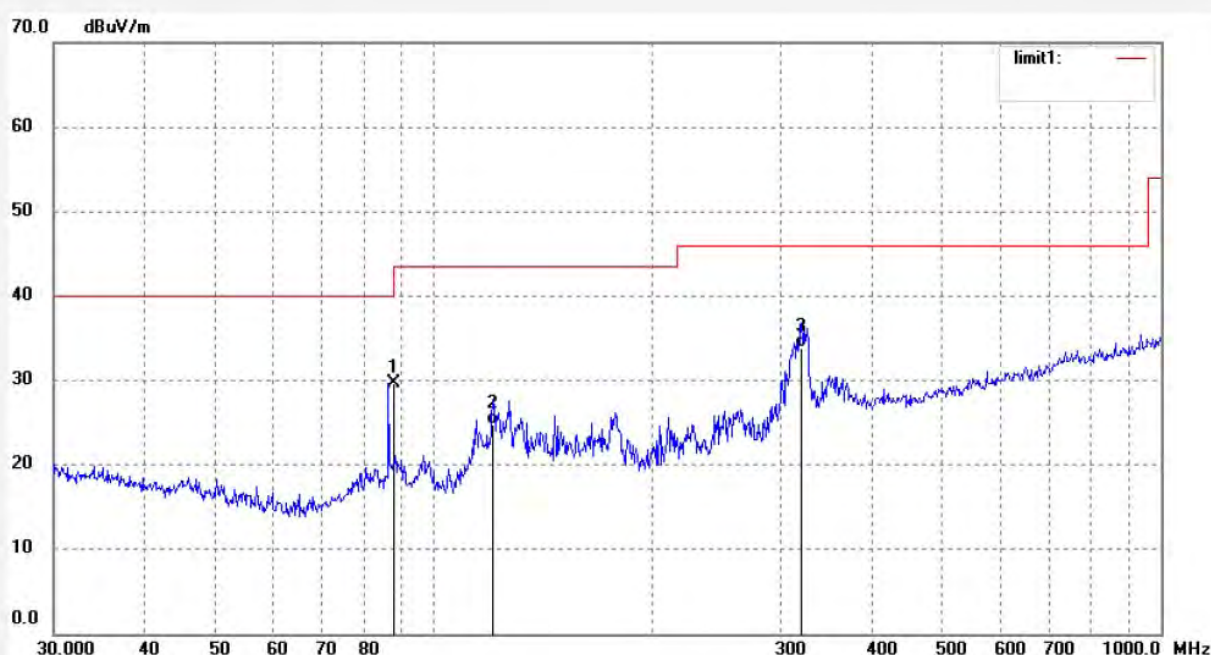
Date: 12/10/10/

Time: 18:37:18

Engineer Signature: Bob

Distance: 3m

Note: Report No.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	88.1000	15.91	13.74	29.65	40.00	-10.35	QP			
2	120.6118	10.09	14.72	24.81	43.50	-18.69	QP			
3	320.3306	14.43	19.35	33.78	46.00	-12.22	QP			



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Site: 966 chamber

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Fax:+86-0755-26503396

Job No.: Bob #1781

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: MP4

Mode: FM 88.1MHz

Model: ID1829C

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: DC 3.7V

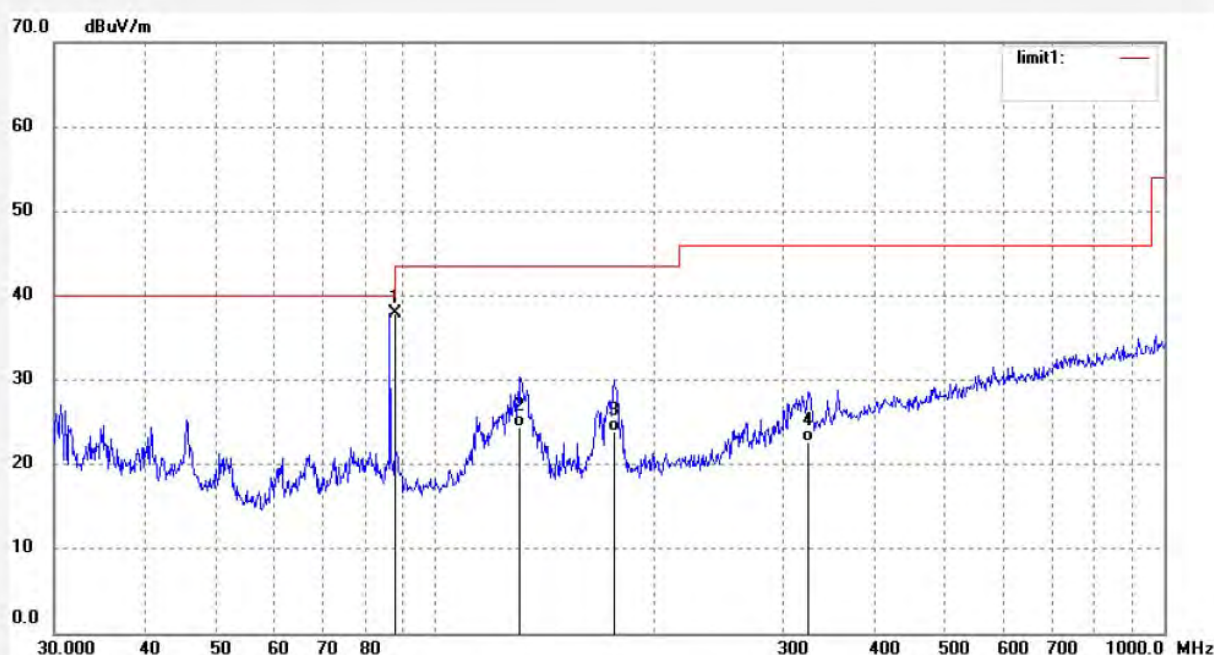
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Time: 18:35:06

Engineer Signature: Bob

Distance: 3m

Note: Report No.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	88.1000	24.13	13.74	37.87	40.00	-2.13	QP			
2	130.7633	9.48	14.88	24.36	43.50	-19.14	QP			
3	175.6565	8.21	15.75	23.96	43.50	-19.54	QP			
4	324.8645	3.12	19.54	22.66	46.00	-23.34	QP			



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Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Bob #1783

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: MP4

Mode: FM 98.1MHz

Model: ID1829C

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: DC 3.7V

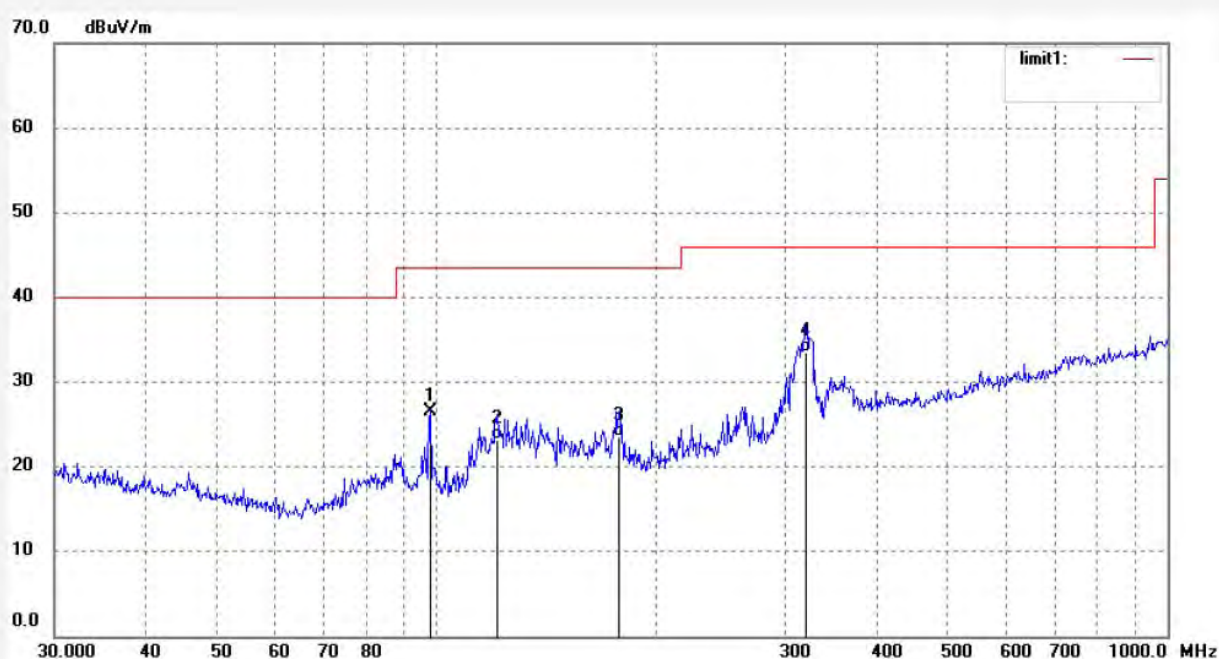
Date: 12/10/10/

Time: 18:42:14

Engineer Signature: Bob

Distance: 3m

Note: Report No.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	98.1000	12.40	14.03	26.43	43.50	-17.07	QP			
2	121.0363	8.41	14.75	23.16	43.50	-20.34	QP			
3	177.5179	7.80	15.77	23.57	43.50	-19.93	QP			
4	320.3306	14.15	19.35	33.50	46.00	-12.50	QP			



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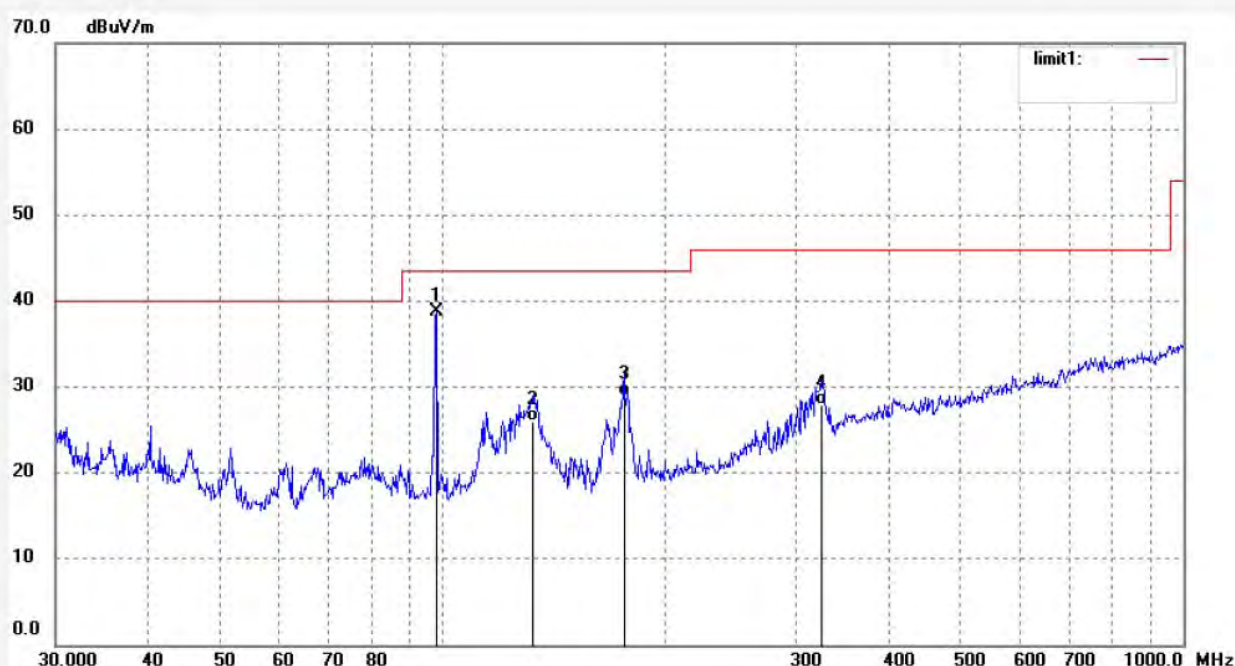
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Bob #1784
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 24 C / 48 %
EUT: MP4
Mode: FM 98.1MHz
Model: ID1829C
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: DC 3.7V
Date: 12/10/10/
Time: 18:44:25
Engineer Signature: Bob
Distance: 3m

Note: Report No.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	98.1000	24.89	13.93	38.82	43.50	-4.68	QP			
2	132.6142	11.16	14.79	25.95	43.50	-17.55	QP			
3	175.6566	13.23	15.75	28.98	43.50	-14.52	QP			
4	324.8645	8.32	19.54	27.86	46.00	-18.14	QP			



ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Bob #1786

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: MP4

Mode: FM 107.9MHz

Model: ID1829C

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: DC 3.7V

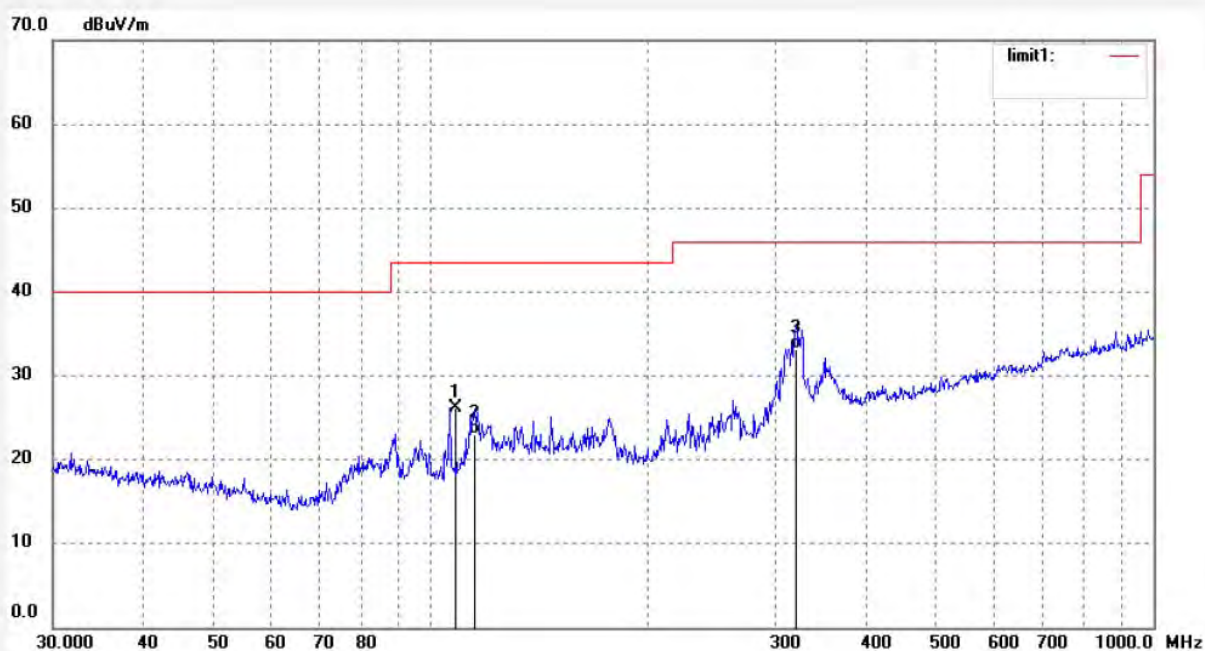
Date: 12/10/10/

Time: 18:50:28

Engineer Signature: Bob

Distance: 3m

Note: Report No.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	107.9000	12.47	13.77	26.24	43.50	-17.26	QP			
2	115.2266	8.76	14.30	23.06	43.50	-20.44	QP			
3	320.3306	13.75	19.35	33.10	46.00	-12.90	QP			



ACCURATE TECHNOLOGY CO., LTD.

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Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Bob #1785

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: MP4

Mode: FM 107.9MHz

Model: ID1829C

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: DC 3.7V

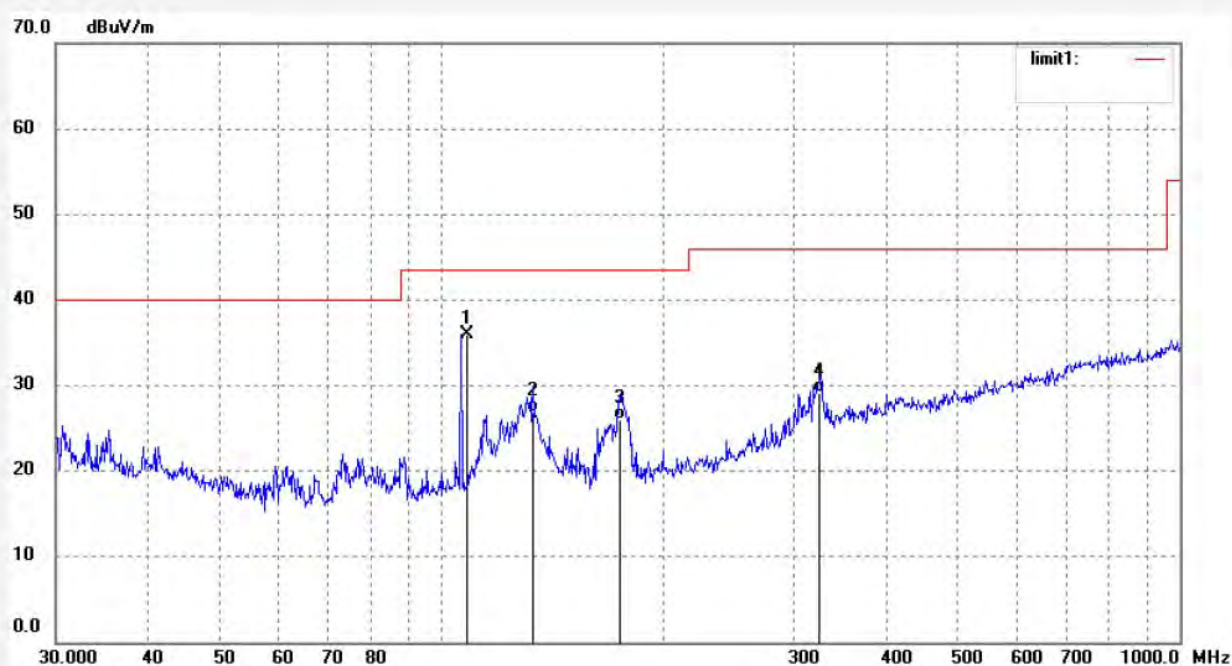
Date: 12/10/10/

Time: 18:47:32

Engineer Signature: Bob

Distance: 3m

Note: Report No.:ATE20122302



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	107.9000	21.80	14.19	35.99	43.50	-7.51	QP			
2	133.0809	12.07	14.76	26.83	43.50	-16.67	QP			
3	174.4265	10.31	15.64	25.95	43.50	-17.55	QP			
4	324.8645	9.59	19.54	29.13	46.00	-16.87	QP			