

APPLICATION FOR VERIFICATION
On Behalf of
Shenzhen Aoweishi Technology Co., Ltd

5.8GHz FPV Diversity Goggles
Model No.: SPX01

FCC ID: 2ACIM-SPX01

Prepared for : Shenzhen Aoweishi Technology Co., Ltd
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Report No. : ATE20151421
Date of Test : July 01-30, 2015
Date of Report : July 30, 2015

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Test Report Declaration

Applicant : Shenzhen Aoweishi Technology Co., Ltd
Manufacturer : Shenzhen Aoweishi Technology Co., Ltd
Product : 5.8GHz FPV Diversity Goggles
(A) Model No.: SPX01
(B) Rating: Input: DC 12V (Powered by Adapter)

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart B Class B & ANSI C63.4: 2014

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 : July 01, 2014-July 30, 2015
Date of Report : July 30, 2015

Prepared by : 
(Tim.zhang, Engineer)

Approved & Authorized Signer : 
(Sean Liu, Manager)

1. TEST RESULTS SUMMARY

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

2. GENERAL INFORMATION

2.1.Product of Device (EUT)

Product	:	5.8GHz FPV Diversity Goggles
Model No.	:	SPX01
Trade Mark	:	Flysight
Remark(s)	:	The EUT highest operating frequency provided by Manufacturer is 27MHz, the radiated emission measurement shall be made up to 1 GHz(Except for 5.8GHz RX mode).
Rating	:	DC 12V (Powered by Adapter) (Note: The adapter is a test sample of the laboratory which is not provided by the customer. The voltage range of the adapter provided by the laboratory is 120V)
Applicant Address	:	Shenzhen Aoweishi Technology Co., Ltd 6/F, Shenhui Tech Park, Mingzhu Branch Rd., Niulanqian, Longhua New District, ShenZhen, 518131, China
Manufacturer Address	:	Shenzhen Aoweishi Technology Co., Ltd 6/F, Shenhui Tech Park, Mingzhu Branch Rd., Niulanqian, Longhua New District, ShenZhen, 518131, China
Date of sample received	:	July 01, 2015
Date of Test	:	July 01-30, 2015

2.2.Accessory and Auxiliary Equipment

Notebook PC	:	Manufacturer: LENOVO M/N: 4290-RT8 S/N: R9-FW93G 11/08
LCD Monitor	:	Manufacturer: DELL M/N: 1704FPTt

2.3. Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen, May 10, 2004

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

2.4. Measurement Uncertainty

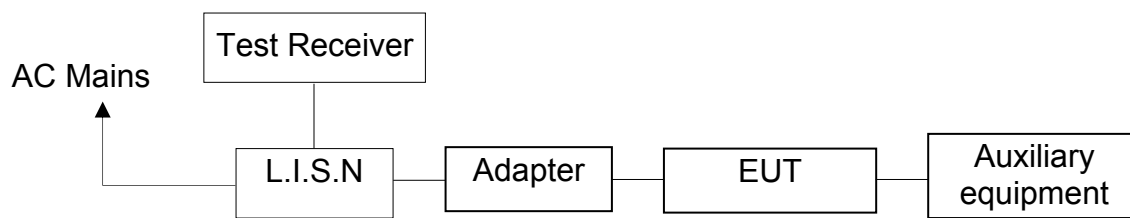
Conducted emission expanded uncertainty : U=2.23dB, k=2
Power disturbance expanded uncertainty : U=2.92dB, k=2
Radiated emission expanded uncertainty : U=3.08dB, k=2
(9kHz-30MHz)
Radiated emission expanded uncertainty : U=4.42dB, k=2
(30MHz-1000MHz)
Radiated emission expanded uncertainty : U=4.06dB, k=2
(Above 1GHz)

3. POWER LINE CONDUCTED MEASUREMENT

3.1. For Power Line Conducted Emission

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	100307	Jan.10, 2015	1 Year
2.	Test Receiver	Rohde & Schwarz	ESPI	100396/003	Jan.10, 2015	1 Year
3.	Test Receiver	Rohde & Schwarz	ESPI	101526/003	Jan.10, 2015	1 Year
4.	Test Receiver	Rohde & Schwarz	ESR	101817	Jan.10, 2015	1 Year
5.	L.I.S.N.	Schwarzbeck	NLSK8126	8126431	Jan.10, 2015	1 Year
6.	L.I.S.N.	Rohde & Schwarz	ESH3-Z5	100305	Jan.10, 2015	1 Year
7.	L.I.S.N.	Rohde & Schwarz	ESH3-Z5	100310	Jan.10, 2015	1 Year
8.	L.I.S.N.	Rohde & Schwarz	ESH3-Z6	100132	Jan.10, 2015	1 Year
9.	L.I.S.N.	Rohde & Schwarz	ESH3-Z6	100979	Jan.10, 2015	1 Year
10.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100305	Jan.10, 2015	1 Year
11.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100312	Jan.10, 2015	1 Year
12.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100815	Jan.10, 2015	1 Year
13.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283936	Jan.10, 2015	1 Year
14.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283933	Jan.10, 2015	1 Year
15.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan.10, 2015	1 Year
16.	VOLTAGE PROBE	Schwarzbeck	TK9416	N/A	Jan.10, 2015	1 Year
17.	RF CURRENT PROBE	Rohde & Schwarz	EZ-17	100048	Jan.10, 2015	1 Year
18.	8-Wire Impedance Stabilisation Network	Schwarzbeck	CAT5 8158	8158-0035	Jan.10, 2015	1 Year
19.	RF Coaxial Cable	SUHNER	N-2m	No.2	Jan.10, 2015	1 Year
20.	RF Coaxial Cable	SUHNER	N-2m	No.3	Jan.10, 2015	1 Year
21.	RF Coaxial Cable	SUHNER	N-2m	No.14	Jan.10, 2015	1 Year

3.2. Block Diagram of Test Setup



(EUT: 5.8GHz FPV Diversity Goggles)

3.3. Power Line Conducted Emission Measurement Limits (Class B)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15—0.50	66—56*	56—46*
0.50—5.00	56	46
5.00—30.0	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3.4. Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

3.4.1. 5.8GHz FPV Diversity Goggles (EUT)

Model Number: SPX01

Serial Number: N/A

Manufacturer: Shenzhen Aoweishi Technology Co., Ltd

3.5. Operating Condition of EUT

3.5.1. Setup the EUT and simulator as shown as Section 3.2.

3.5.2. Turn on the power of all equipment.

3.5.3. Let the EUT work in test mode (Camera, AV IN, HDMI IN) and measure it.

3.6. 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 DC 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: 2014 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.

3.7. Power Line Conducted Emission Measurement Results

PASS.

Test mode: Camera								
Test Port: AC Mains (AC 120V/ 60Hz)								
MEASUREMENT RESULT: "AOWE0012_fin"								
2015-7-29 9:17								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.520000	44.20	11.5	56	11.8	QP	L1	GND	
0.992000	40.50	11.6	56	15.5	QP	L1	GND	
12.917000	39.80	11.9	60	20.2	QP	L1	GND	
MEASUREMENT RESULT: "AOWE0012_fin2"								
2015-7-29 9:17								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.528000	36.70	11.5	46	9.3	AV	L1	GND	
2.711000	32.10	11.7	46	13.9	AV	L1	GND	
12.566000	32.00	11.9	50	18.0	AV	L1	GND	
MEASUREMENT RESULT: "AOWE0011_fin"								
2015-7-29 9:15								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.532000	42.10	11.5	56	13.9	QP	N	GND	
1.078000	36.10	11.6	56	19.9	QP	N	GND	
12.669500	37.00	11.9	60	23.0	QP	N	GND	
MEASUREMENT RESULT: "AOWE0011_fin2"								
2015-7-29 9:15								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.530000	35.20	11.5	46	10.8	AV	N	GND	
2.769500	31.00	11.7	46	15.0	AV	N	GND	
23.037500	32.90	12.0	50	17.1	AV	N	GND	

Test mode: AVI IN

Test Port: AC Mains (AC 120V/ 60Hz)

MEASUREMENT RESULT: "AOWE0009_fin"

2015-7-29 9:10

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.528000	45.10	11.5	56	10.9	QP	L1	GND
1.038000	40.20	11.6	56	15.8	QP	L1	GND
12.449000	39.80	11.9	60	20.2	QP	L1	GND

MEASUREMENT RESULT: "AOWE0009_fin2"

2015-7-29 9:10

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.532000	36.20	11.5	46	9.8	AV	L1	GND
2.706500	32.10	11.7	46	13.9	AV	L1	GND
12.575000	32.00	11.9	50	18.0	AV	L1	GND

MEASUREMENT RESULT: "AOWE0010_fin"

2015-7-29 9:12

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.532000	42.30	11.5	56	13.7	QP	N	GND
1.018000	37.90	11.6	56	18.1	QP	N	GND
12.741500	36.80	11.9	60	23.2	QP	N	GND

MEASUREMENT RESULT: "AOWE0010_fin2"

2015-7-29 9:12

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.530000	35.20	11.5	46	10.8	AV	N	GND
2.733500	31.80	11.7	46	14.2	AV	N	GND
23.042000	31.60	12.0	50	18.4	AV	N	GND

Test mode: HDMI IN								
Test Port: AC Mains (AC 120V/ 60Hz)								
MEASUREMENT RESULT: "AOWE0007_fin"								
2015-7-29 9:06								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.150000	31.50	10.3	66	34.5	QP	N	GND	
0.536000	41.20	11.5	56	14.8	QP	N	GND	
1.034000	38.20	11.6	56	17.8	QP	N	GND	
2.715500	36.70	11.7	56	19.3	QP	N	GND	
MEASUREMENT RESULT: "AOWE0007_fin2"								
2015-7-29 9:06								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.530000	35.40	11.5	46	10.6	AV	N	GND	
1.004000	32.30	11.6	46	13.7	AV	N	GND	
2.715500	32.00	11.7	46	14.0	AV	N	GND	
MEASUREMENT RESULT: "AOWE0008_fin"								
2015-7-29 9:08								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.516000	44.90	11.5	56	11.1	QP	L1	GND	
1.006000	40.90	11.6	56	15.1	QP	L1	GND	
12.336500	39.80	11.9	60	20.2	QP	L1	GND	
MEASUREMENT RESULT: "AOWE0008_fin2"								
2015-7-29 9:08								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.530000	36.70	11.5	46	9.3	AV	L1	GND	
2.724500	32.20	11.7	46	13.8	AV	L1	GND	
21.899000	32.20	12.0	50	17.8	AV	L1	GND	

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

The spectral diagrams are shown in the following pages.

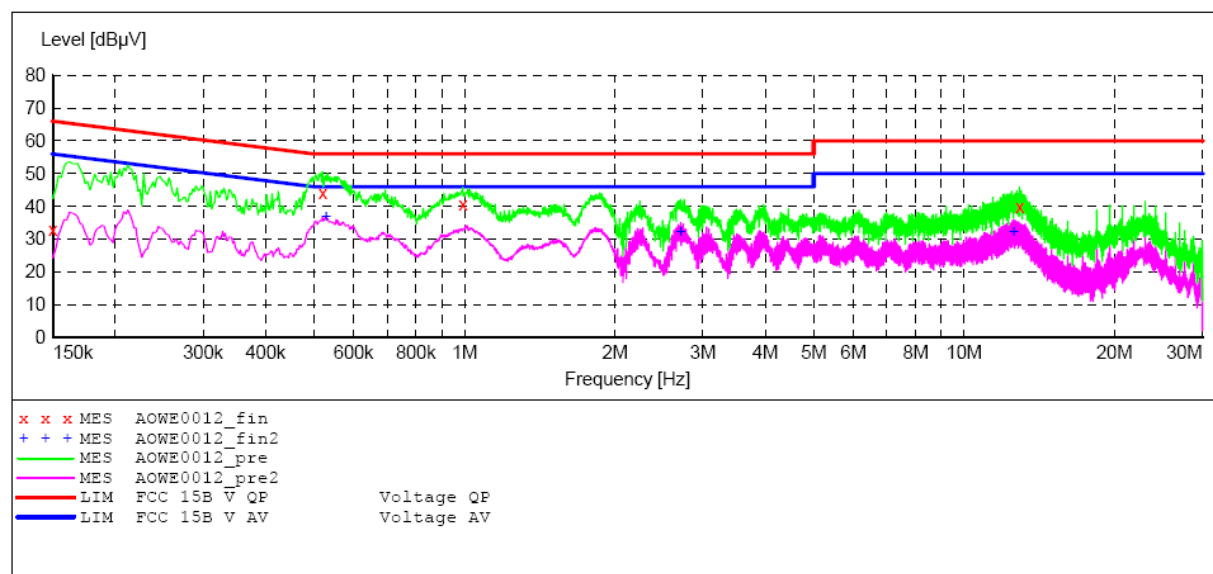
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: 5.8GHz FPV Diversity Goggles M/N:SPX01
 Manufacturer: AOWEISHI
 Operating Condition: Camera
 Test Site: 2#Shielding Room
 Operator: star
 Test Specification: L 120V/60Hz
 Comment: Report No.:ATE20151421
 Start of Test: 2015-7-29 / 9:15:50

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 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN(ESH3-Z5)
 Average



MEASUREMENT RESULT: "AOWE0012_fin"

2015-7-29 9:17

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.520000	44.20	11.5	56	11.8	QP	L1	GND
0.992000	40.50	11.6	56	15.5	QP	L1	GND
12.917000	39.80	11.9	60	20.2	QP	L1	GND

MEASUREMENT RESULT: "AOWE0012_fin2"

2015-7-29 9:17

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.528000	36.70	11.5	46	9.3	AV	L1	GND
2.711000	32.10	11.7	46	13.9	AV	L1	GND
12.566000	32.00	11.9	50	18.0	AV	L1	GND

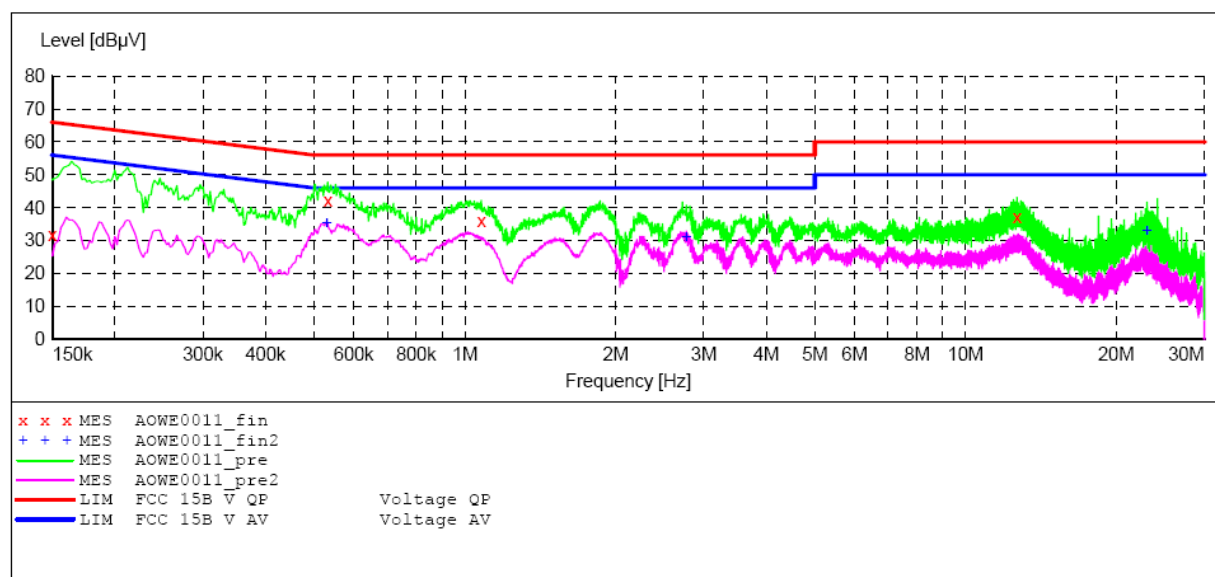
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: 5.8GHz FPV Diversity Goggles M/N:SPX01
 Manufacturer: AOWEISHI
 Operating Condition: Camera
 Test Site: 2#Shielding Room
 Operator: star
 Test Specification: N 120V/60Hz
 Comment: Report No.:ATE20151421
 Start of Test: 2015-7-29 / 9:13:15

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 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN(ESH3-Z5)
 Average



MEASUREMENT RESULT: "AOWE0011_fin"

2015-7-29 9:15

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.532000	42.10	11.5	56	13.9	QP	N	GND
1.078000	36.10	11.6	56	19.9	QP	N	GND
12.669500	37.00	11.9	60	23.0	QP	N	GND

MEASUREMENT RESULT: "AOWE0011_fin2"

2015-7-29 9:15

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.530000	35.20	11.5	46	10.8	AV	N	GND
2.769500	31.00	11.7	46	15.0	AV	N	GND
23.037500	32.90	12.0	50	17.1	AV	N	GND

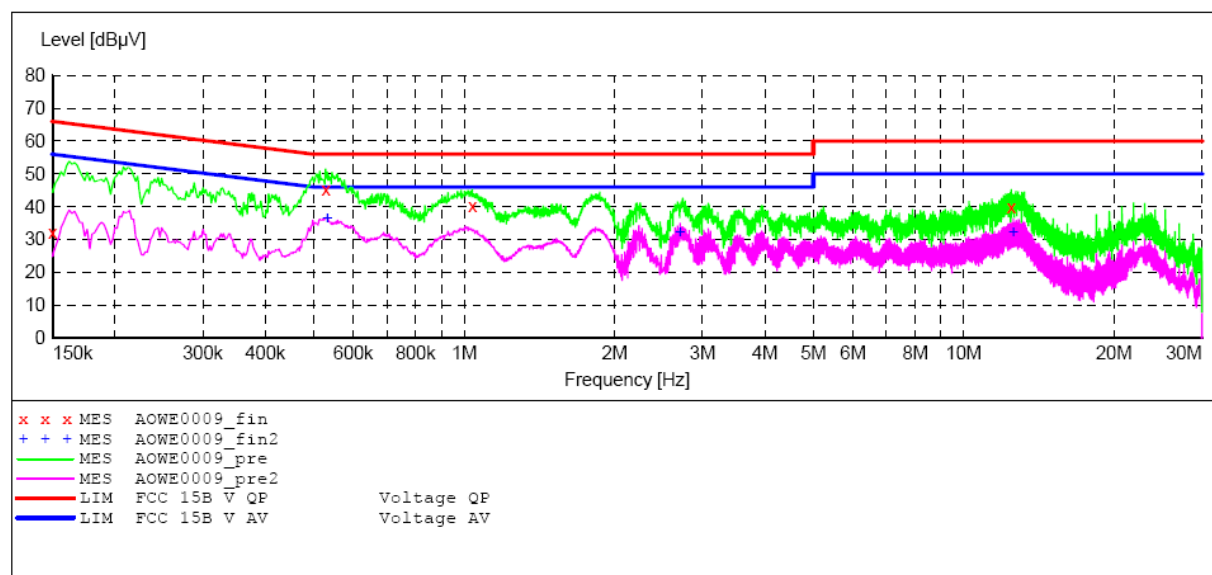
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: 5.8GHz FPV Diversity Goggles M/N:SPX01
 Manufacturer: AOWEISHI
 Operating Condition: AVI IN
 Test Site: 2#Shielding Room
 Operator: star
 Test Specification: L 120V/60Hz
 Comment: Report No.:ATE20151421
 Start of Test: 2015-7-29 / 9:08:44

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 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN (ESH3-Z5)
 Average



MEASUREMENT RESULT: "AOWE0009_fin"

2015-7-29 9:10

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.528000	45.10	11.5	56	10.9	QP	L1	GND
1.038000	40.20	11.6	56	15.8	QP	L1	GND
12.449000	39.80	11.9	60	20.2	QP	L1	GND

MEASUREMENT RESULT: "AOWE0009_fin2"

2015-7-29 9:10

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.532000	36.20	11.5	46	9.8	AV	L1	GND
2.706500	32.10	11.7	46	13.9	AV	L1	GND
12.575000	32.00	11.9	50	18.0	AV	L1	GND

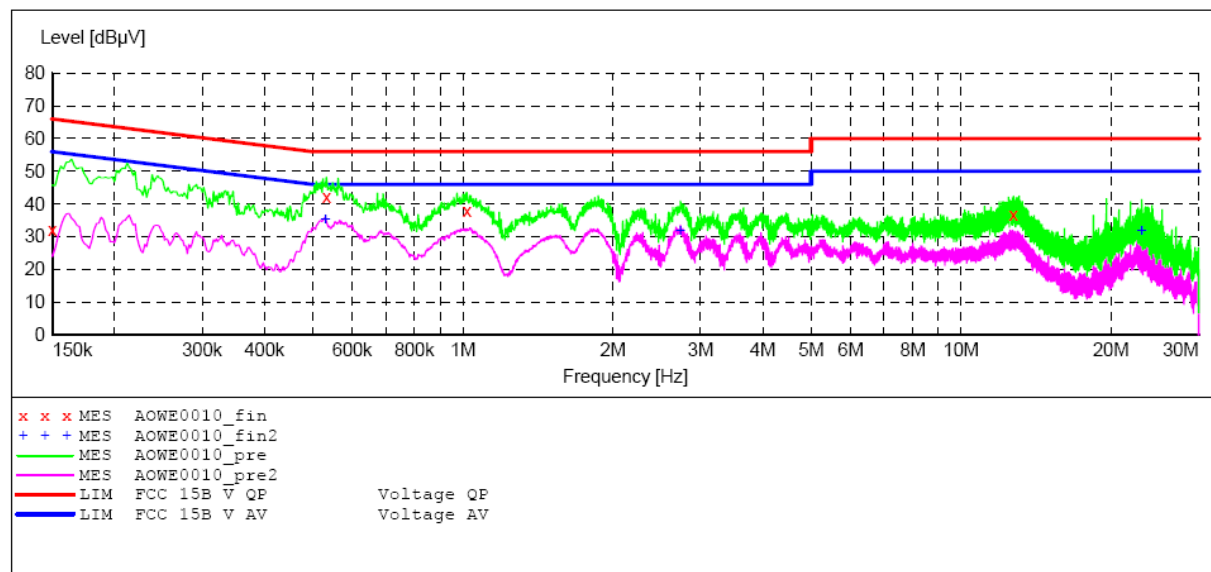
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: 5.8GHz FPV Diversity Goggles M/N:SPX01
 Manufacturer: AOWEISHI
 Operating Condition: AVI IN
 Test Site: 2#Shielding Room
 Operator: star
 Test Specification: N 120V/60Hz
 Comment: Report No.:ATE20151421
 Start of Test: 2015-7-29 / 9:10:43

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 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN (ESH3-Z5)
 Average



MEASUREMENT RESULT: "AOWE0010_fin"

2015-7-29 9:12

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.532000	42.30	11.5	56	13.7	QP	N	GND
1.018000	37.90	11.6	56	18.1	QP	N	GND
12.741500	36.80	11.9	60	23.2	QP	N	GND

MEASUREMENT RESULT: "AOWE0010_fin2"

2015-7-29 9:12

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.530000	35.20	11.5	46	10.8	AV	N	GND
2.733500	31.80	11.7	46	14.2	AV	N	GND
23.042000	31.60	12.0	50	18.4	AV	N	GND

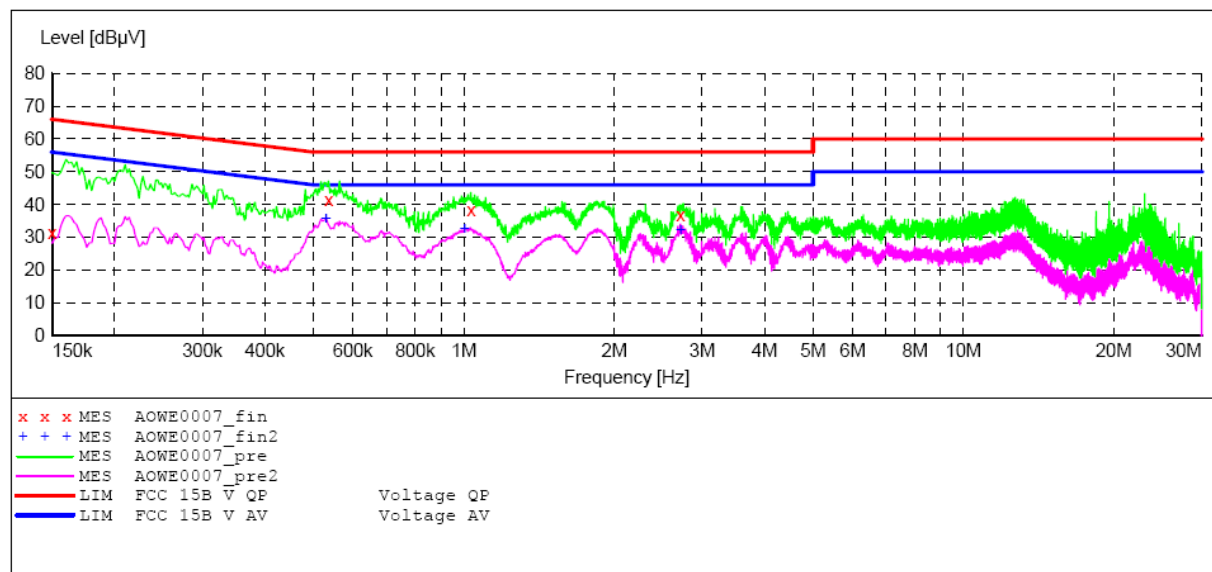
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: 5.8GHz FPV Diversity Goggles M/N:SPX01
 Manufacturer: AOWEISHI
 Operating Condition: HDMI IN
 Test Site: 2#Shielding Room
 Operator: star
 Test Specification: N 120V/60Hz
 Comment: Report No.:ATE20151421
 Start of Test: 2015-7-29 / 9:04:29

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 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN(ESH3-Z5)
 Average



MEASUREMENT RESULT: "AOWE0007_fin"

2015-7-29 9:06

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	31.50	10.3	66	34.5	QP	N	GND
0.536000	41.20	11.5	56	14.8	QP	N	GND
1.034000	38.20	11.6	56	17.8	QP	N	GND
2.715500	36.70	11.7	56	19.3	QP	N	GND

MEASUREMENT RESULT: "AOWE0007_fin2"

2015-7-29 9:06

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.530000	35.40	11.5	46	10.6	AV	N	GND
1.004000	32.30	11.6	46	13.7	AV	N	GND
2.715500	32.00	11.7	46	14.0	AV	N	GND

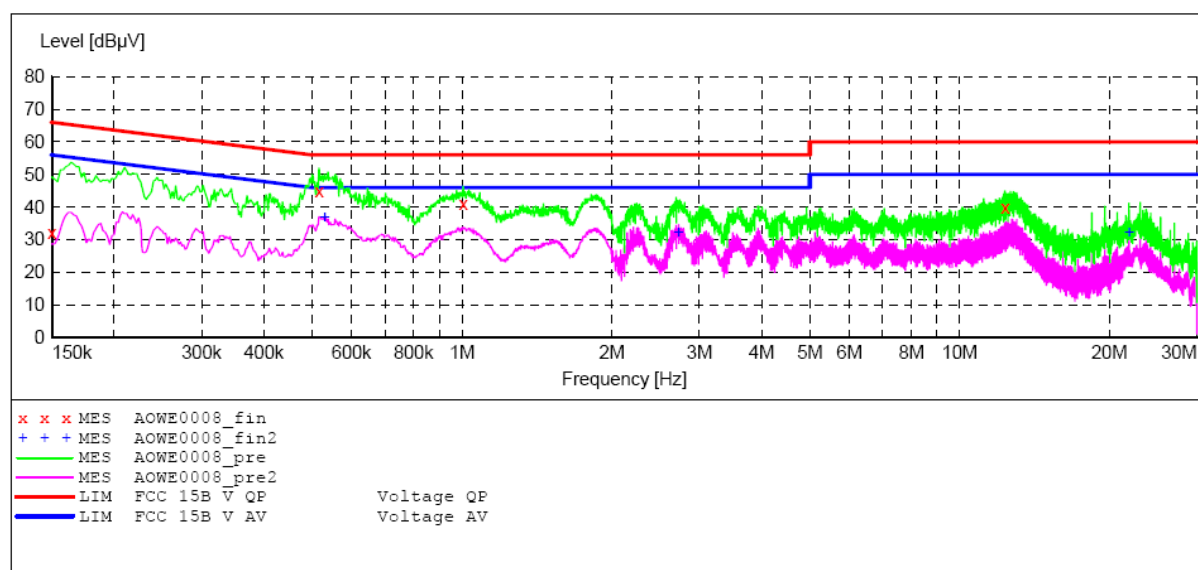
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: 5.8GHz FPV Diversity Goggles M/N:SPX01
 Manufacturer: AOWEISHI
 Operating Condition: HDMI IN
 Test Site: 2#Shielding Room
 Operator: star
 Test Specification: L 120V/60Hz
 Comment: Report No.:ATE20151421
 Start of Test: 2015-7-29 / 9:06:52

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 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN (ESH3-Z5)
 Average



MEASUREMENT RESULT: "AOWE0008_fin"

2015-7-29 9:08

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.516000	44.90	11.5	56	11.1	QP	L1	GND
1.006000	40.90	11.6	56	15.1	QP	L1	GND
12.336500	39.80	11.9	60	20.2	QP	L1	GND

MEASUREMENT RESULT: "AOWE0008_fin2"

2015-7-29 9:08

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.530000	36.70	11.5	46	9.3	AV	L1	GND
2.724500	32.20	11.7	46	13.8	AV	L1	GND
21.899000	32.20	12.0	50	17.8	AV	L1	GND

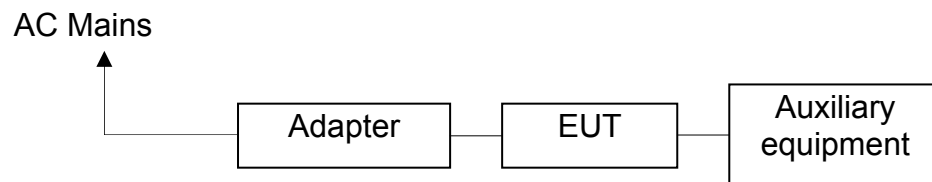
4. RADIATED EMISSION MEASUREMENT

4.1. For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan.10, 2015	1 Year
2.	Spectrum Analyzer	Rohde&Schwarz	FSV40	101495	Jan.10, 2015	1 Year
3.	Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan.10, 2015	1 Year
4.	Test Receiver	Rohde& Schwarz	ESPI	100396/003	Jan.10, 2015	1 Year
5.	Test Receiver	Rohde& Schwarz	ESPI	101526/003	Jan.10, 2015	1 Year
6.	Test Receiver	Rohde& Schwarz	ESR	101817	Jan.10, 2015	1 Year
7.	Bilog Antenna	Schwarzbeck	VULB9163	9163-194	Jan.15, 2015	1 Year
8.	Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan.15, 2015	1 Year
9.	Log.-Per.Antenna	Schwarzbeck	VUSLP 9111B	9111B-074	Jan.15, 2015	1 Year
10.	Biconical Broad Band Antenna	Schwarzbeck	VHBB 9124+BBA 9106	9124-617	Jan.15, 2015	1 Year
11.	Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan.15, 2015	1 Year
12.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan.15, 2015	1 Year
13.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1067	Jan.15, 2015	1 Year
14.	Vertical Active Monopole Antenna	Schwarzbeck	VAMP 9243	9243-370	Jan.15, 2015	1 Year
15.	RF Switching Unit+PreAMP	Compliance Direction	RSU-M2	38322	Jan.10, 2015	1 Year
16.	Pre-Amplifier	Agilent	8447D	294A10619	Jan.10, 2015	1 Year
17.	Pre-Amplifier	Rohde&Schwarz	CBLU11835 40-01	3791	Jan.10, 2015	1 Year
18.	50 Coaxial Switch	Anritsu Corp	MP59B	6200237248	Jan.10, 2015	1 Year
19.	50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan.10, 2015	1 Year
20.	RF Coaxial Cable	Schwarzbeck	N-5m	No.1	Jan.10, 2015	1 Year
21.	RF Coaxial Cable	Schwarzbeck	N-1m	No.6	Jan.10, 2015	1 Year
22.	RF Coaxial Cable	Schwarzbeck	N-1m	No.7	Jan.10, 2015	1 Year
23.	RF Coaxial Cable	SUHNER	N-3m	No.8	Jan.10, 2015	1 Year
24.	RF Coaxial Cable	RESENBERGER	N-3.5m	No.9	Jan.10, 2015	1 Year
25.	RF Coaxial Cable	SUHNER	N-6m	No.10	Jan.10, 2015	1 Year
26.	RF Coaxial Cable	RESENBERGER	N-12m	No.11	Jan.10, 2015	1 Year
27.	RF Coaxial Cable	RESENBERGER	N-0.5m	No.12	Jan.10, 2015	1 Year
28.	RF Coaxial Cable	SUHNER	N-2m	No.13	Jan.10, 2015	1 Year
29.	RF Coaxial Cable	SUHNER	N-0.5m	No.15	Jan.10, 2015	1 Year
30.	RF Coaxial Cable	SUHNER	N-2m	No.16	Jan.10, 2015	1 Year
31.	RF Coaxial Cable	RESENBERGER	N-6m	No.17	Jan.10, 2015	1 Year

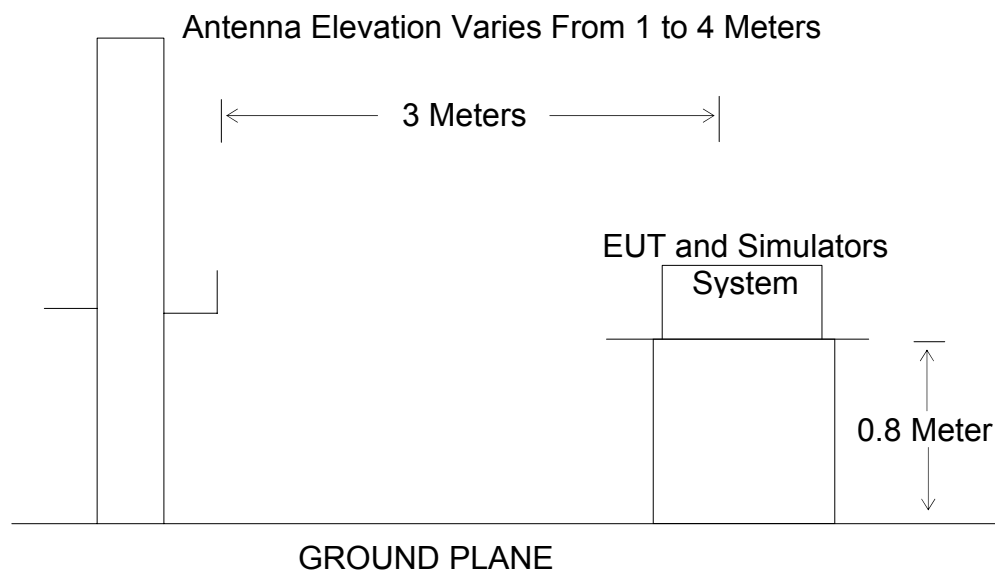
4.2. Block Diagram of Test Setup

4.2.1. Block diagram of connection between the EUT and simulators



(EUT: 5.8GHz FPV Diversity Goggles)

4.2.2. Anechoic Chamber Test Setup Diagram



4.3. Radiated Emission Limit (Class B)

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
960-1000	3	500	54.0

Remark: (1) Emission level $\text{dB}(\mu\text{V}) = 20 \log \text{Emission level } \mu\text{V/m}$.
 (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.

4.4.EUT Configuration on Measurement

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

4.4.1. 5.8GHz FPV Diversity Goggles (EUT)

Model Number: SPX01

Serial Number: N/A

Manufacturer: Shenzhen Aoweishi Technology Co., Ltd

4.5.Operating Condition of EUT

4.5.1.Setup the EUT and simulator as shown as Section 4.2.

4.5.2.Turn on the power of all equipment.

4.5.3.Let the EUT work in test mode (Camera, AV IN, HDMI IN) and measure it.

4.6.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: 2014 on radiated emission measurement.

The bandwidth of the EMI test receiver (R&S ESCS30) is set at 120kHz from 30MHz to 40GHz.

The frequency range from 30MHz to 40GHz is checked.

4.7.Radiated Emission Noise Measurement Result

PASS.

Model Number: SPX01 Test mode: Camera								
Horizontal	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	76.9256	56.73	-23.03	33.70	40.00	-6.30	QP
	2	329.4625	55.54	-15.41	40.13	46.00	-5.87	QP
	3	773.7614	47.04	-6.35	40.69	46.00	-5.31	QP
Vertical	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	117.2687	56.91	-21.26	35.65	43.50	-7.85	QP
	2	215.3616	56.46	-18.43	38.03	43.50	-5.47	QP
	3	809.9238	46.22	-5.72	40.50	46.00	-5.50	QP

Model Number: SPX01 Test mode: AV IN								
Horizontal	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	329.4624	55.30	-15.41	39.89	46.00	-6.11	QP
	2	493.5009	51.60	-12.30	39.30	46.00	-6.70	QP
	3	703.7314	48.41	-7.89	40.52	46.00	-5.48	QP
Vertical	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	116.4475	57.36	-21.25	36.11	43.50	-7.39	QP
	2	185.8143	58.07	-19.80	38.27	43.50	-5.23	QP
	3	809.9238	44.80	-5.72	39.08	46.00	-6.92	QP

Model Number: SPX01 Test mode: HDMI IN								
Horizontal	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	215.3616	56.14	-18.43	37.71	43.50	-5.79	QP
	2	428.7959	52.56	-13.55	39.01	46.00	-6.99	QP
	3	815.6352	44.74	-5.61	39.13	46.00	-6.87	QP
Vertical	No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	154.7856	60.35	-21.91	38.44	43.50	-5.06	QP
	2	215.3616	56.53	-18.43	38.10	43.50	-5.40	QP
	3	399.6981	54.49	-13.98	40.51	46.00	-5.49	QP

We tested Radiated Emission from 30MHz to 1GHz, the test data of radiated emissions lower than the permissible value 20 dB are not recorded.

The spectral diagrams are shown in the following pages.



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Site: 1# Chamber

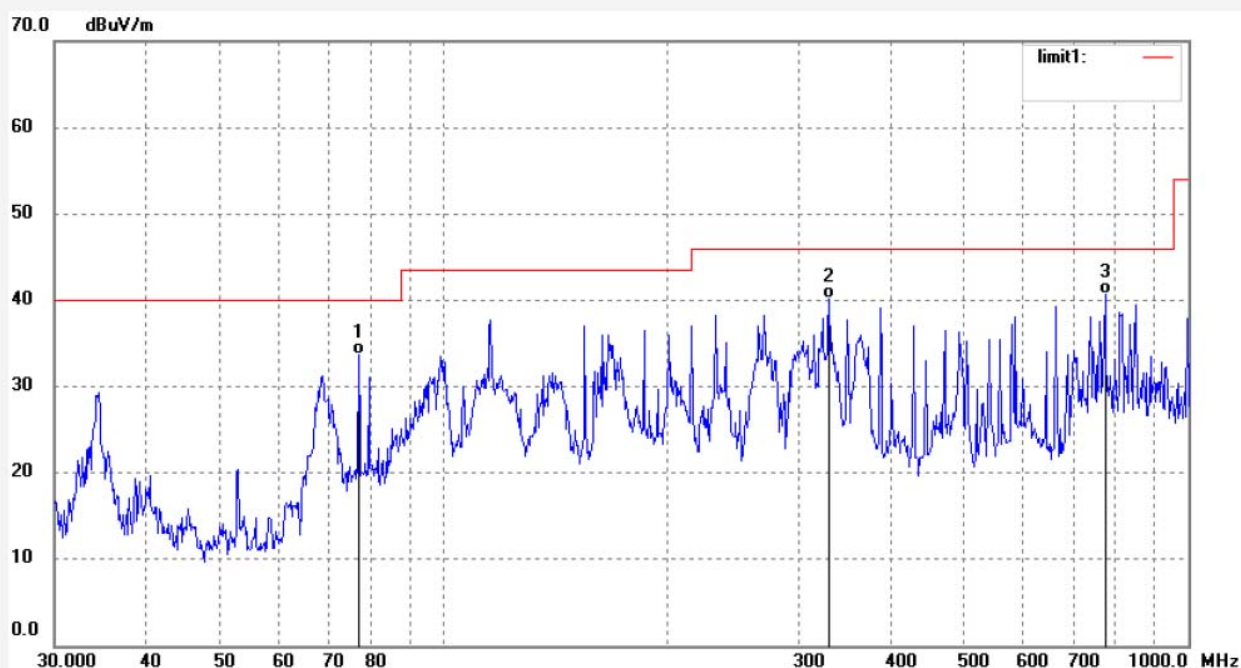
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: STAR2015 #1350
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 5.8GHz FPV Diversity Goggles
Mode: Camera
Model: SPX01
Manufacturer: AOWEISHI

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 15/07/29/
Time: 10/44/17
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20151421



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	76.9256	56.73	-23.03	33.70	40.00	-6.30	QP			
2	329.4625	55.54	-15.41	40.13	46.00	-5.87	QP			
3	773.7614	47.04	-6.35	40.69	46.00	-5.31	QP			



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Site: 1# Chamber

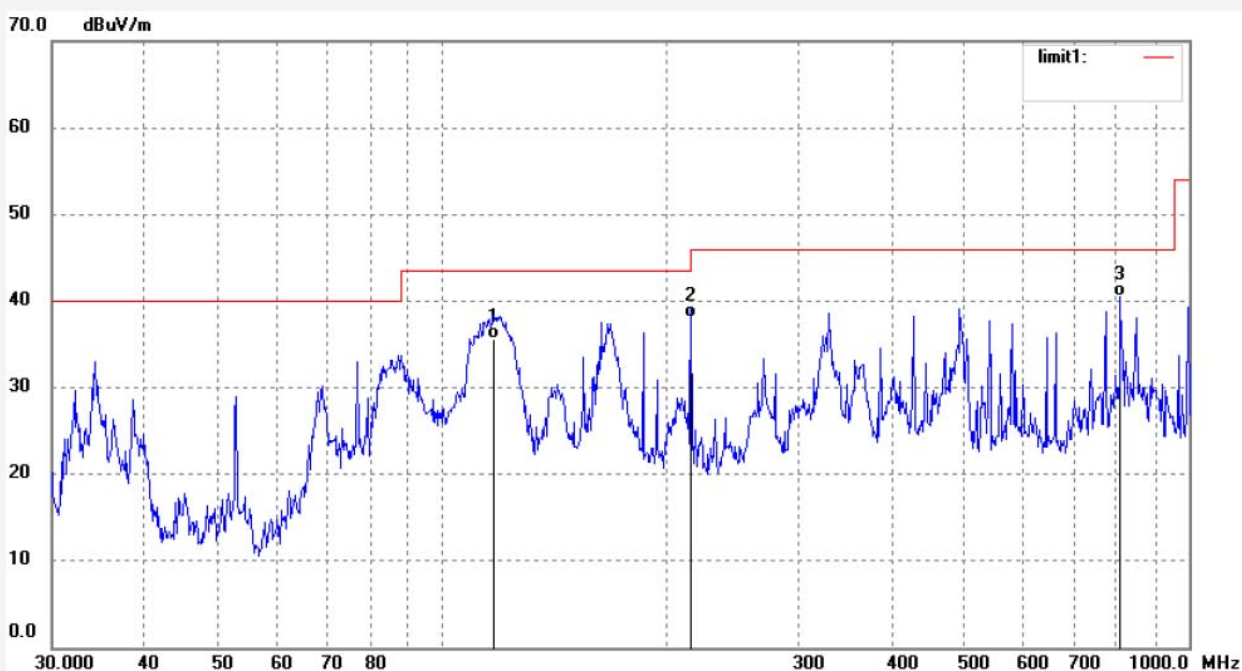
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: STAR2015 #1351
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 5.8GHz FPV Diversity Goggles
Mode: Camera
Model: SPX01
Manufacturer: AOWEISHI

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 15/07/29/
Time: 10/45/48
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20151421



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	117.2687	56.91	-21.26	35.65	43.50	-7.85	QP			
2	215.3616	56.46	-18.43	38.03	43.50	-5.47	QP			
3	809.9238	46.22	-5.72	40.50	46.00	-5.50	QP			



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Site: 1# Chamber

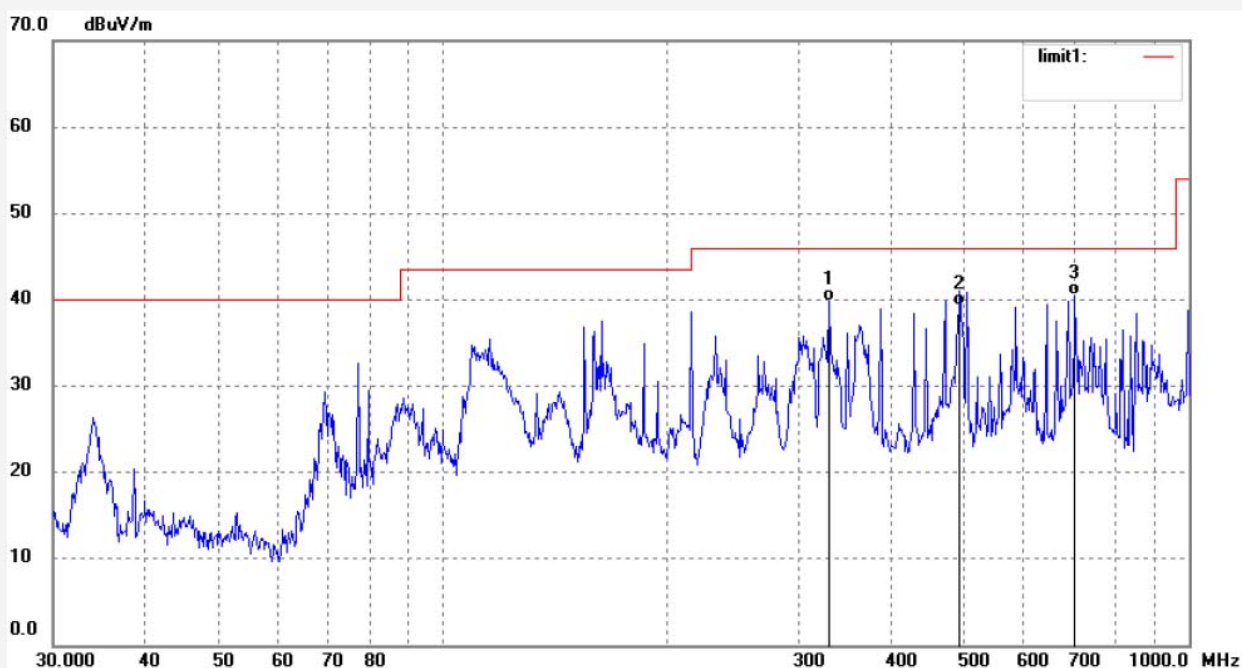
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: STAR2015 #1353
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 5.8GHz FPV Diversity Goggles
Mode: AV IN
Model: SPX01
Manufacturer: AOWEISHI

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 15/07/29/
Time: 10/50/18
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20151421



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	329.4624	55.30	-15.41	39.89	46.00	-6.11	QP			
2	493.5009	51.60	-12.30	39.30	46.00	-6.70	QP			
3	703.7314	48.41	-7.89	40.52	46.00	-5.48	QP			



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Site: 1# Chamber

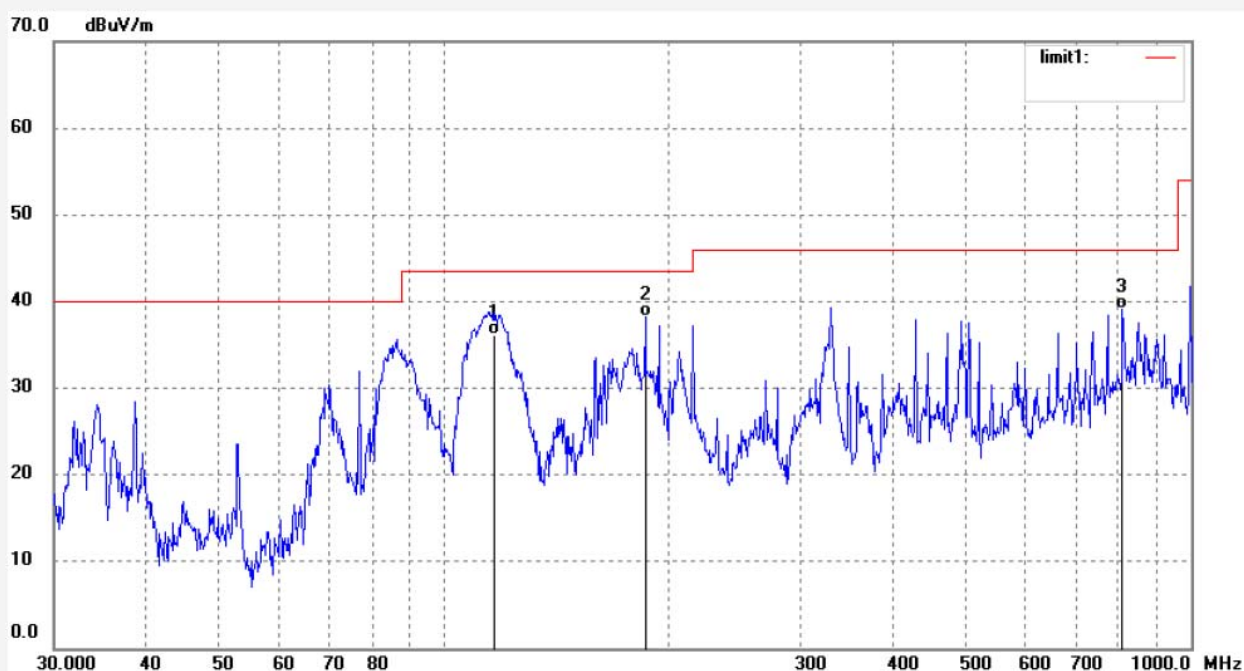
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: STAR2015 #1352
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 5.8GHz FPV Diversity Goggles
Mode: AV IN
Model: SPX01
Manufacturer: AOWEISHI

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 15/07/29/
Time: 10/47/46
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20151421



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	116.4475	57.36	-21.25	36.11	43.50	-7.39	QP			
2	185.8143	58.07	-19.80	38.27	43.50	-5.23	QP			
3	809.9238	44.80	-5.72	39.08	46.00	-6.92	QP			



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Site: 1# Chamber

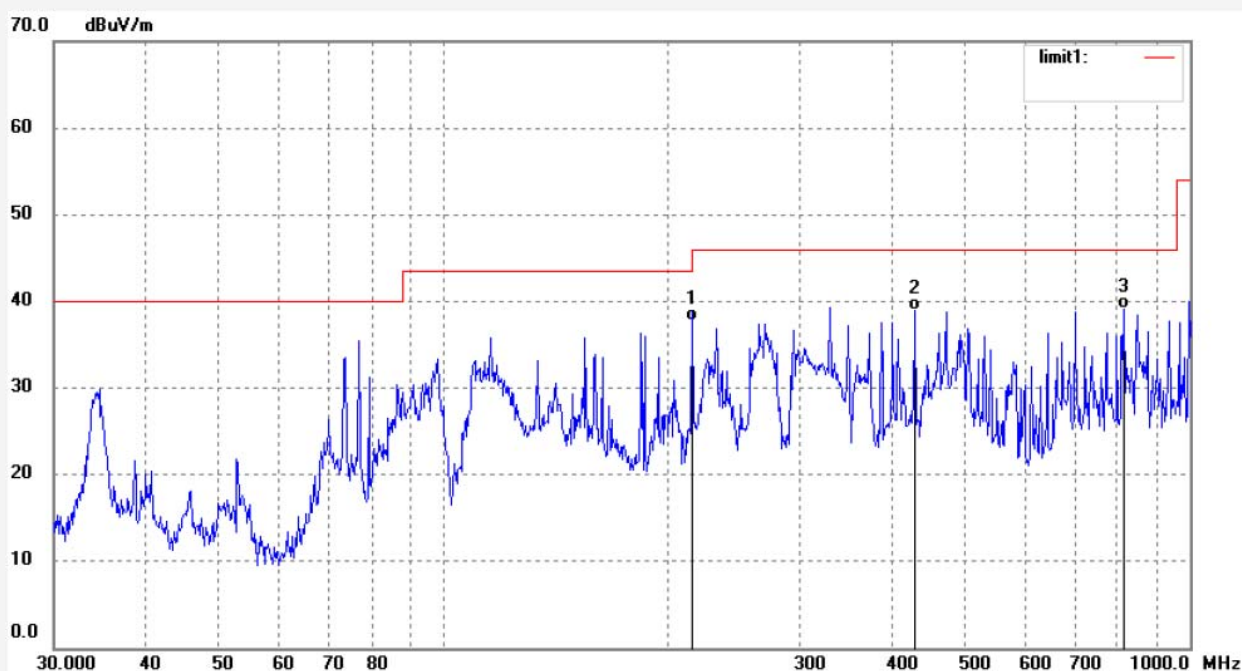
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: STAR2015 #1354
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 5.8GHz FPV Diversity Goggles
Mode: HDMI IN
Model: SPX01
Manufacturer: AOWEISHI

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 15/07/29/
Time: 10/52/44
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20151421



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	215.3616	56.14	-18.43	37.71	43.50	-5.79	QP			
2	428.7959	52.56	-13.55	39.01	46.00	-6.99	QP			
3	815.6352	44.74	-5.61	39.13	46.00	-6.87	QP			



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Site: 1# Chamber

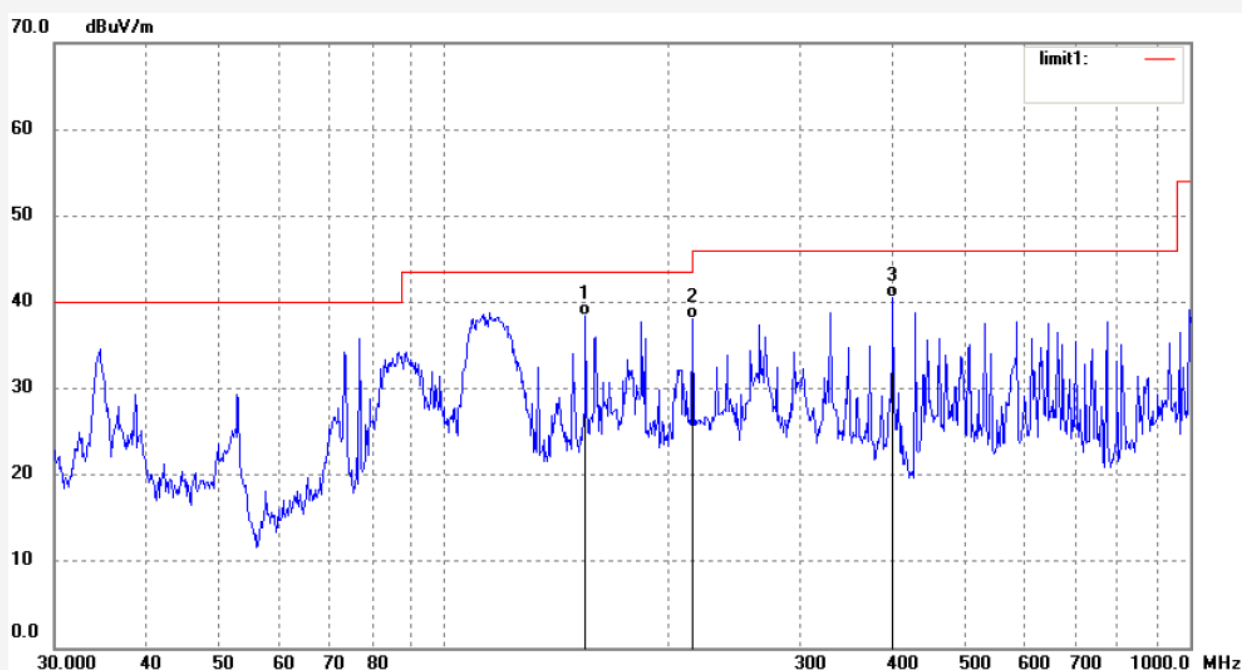
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: STAR2015 #1355
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 5.8GHz FPV Diversity Goggles
Mode: HDMI IN
Model: SPX01
Manufacturer: AOWEISHI

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 15/07/29/
Time: 10/54/05
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20151421



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	154.7856	60.35	-21.91	38.44	43.50	-5.06	QP			
2	215.3616	56.53	-18.43	38.10	43.50	-5.40	QP			
3	399.6981	54.49	-13.98	40.51	46.00	-5.49	QP			