FCC TEST REPORT

for

Avision Technology (changzhou)Co., Ltd.

MID

Model Number: AP-7S118, M-7S448,AP-7S448, TM-7S228,TM-7S338,AP-7S228,AP-7S338, AP-9S575,TM-9S575,AP-9S775,TM-9S775

FCC ID: 2AARJ-AP7S118

Prepared for	:	Avision Technology (changzhou)Co., Ltd.
Address	:	No.28 Xinsi Road, Xinbei District, Changzhou,Jiangsu China
Prepared by	:	Shenzhen Easy Test Electronic Products Co. Ltd.
Address	:	Unit 1914, No.1 Tairan Ninth Road, Chegongmiao, Futian, Shenzhen, China P.C. 518040 Tel: +86 755 8378 2883 Fax: +86 755 8378 1887

Report No.	:	13ETS-073517F-1
Date of Test	:	Jul. 23~29, 2013
Date of Report	:	Jul. 30, 2013

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Test Report Declaration

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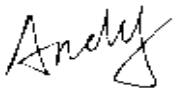
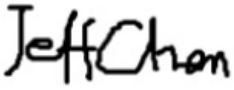
Applicant: **Address:**	Avision Technology (changzhou)Co., Ltd. No.28 Xinsi Road, Xinbei District, Changzhou, Jiangsu, China		
Manufacturer: **Address:**	Avision Technology (changzhou)Co., Ltd. No.28 Xinsi Road, Xinbei District, Changzhou, Jiangsu, China		
E.U.T:	MID		
Model Number:	AP-7S118, M-7S448,AP-7S448,TM-7S228,TM-7S338,AP-7S228, AP-7S338,AP-9S575,TM-9S575,AP-9S775,TM-9S775		
Trade Name:	------	**Serial No.:**	------
Date of Receipt:	Jun. 18, 2013	**Date of Test:**	Jul. 23~29, 2013
Test Specification:	FCC Part 15, Subpart B: Oct. 1, 2012 ANSI C63.4:2009		
Test Result:	The equipment under test was found to be compliance with the requirements of the standards applied.		

Issue Date: Jul. 30, 2013

Tested by:	Reviewed by:	Approved by:
		
Andy Gao / Engineer	Jade Yang/ Supervisor	Jeff Chen / Manager

Other Aspects:

None.

Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under test

1. GENERAL PRODUCT INFORMATION

1.1. Product Function

Refer to Technical Construction Form and User Manual.

1.2. Description of Device (EUT)

Description	:	MID
M/N	:	AP-7S118, M-7S448,AP-7S448,TM-7S228, TM-7S338,AP-7S228,AP-7S338,AP-9S575, TM-9S575,AP-9S775,TM-9S775
Power Input	:	DC 5V from adapter input AC 120V/60Hz
Power	:	10W
CPU speed	:	1.2GHz

1.3. Independent Operation Modes

The basic operation modes are:

1.3.1. Data transmitting +TF card playing

1.4. Test Supporting System

1.4.1. Notebook:

Manufacturer: Lenovo
M/N: Lenovo G475
S/N: GB14477457

1.4.2. TF Card:

Manufacturer: TOSHIBA
M/N: SD-C02G
S/N: 003

1.4.3. Adapter:

Manufacturer: Avision
M/N: RS-E2000
Input: AC 100~240V 50/60Hz Output: DC 5V/2A

1.5. Difference between Model Numbers

Note: The products are different for the outlook color.

2. TEST SITES

2.1. Test Facilities

Lab Qualifications : Certificated by Industry Canada
Registration No.: 9868A
Date of registration: December 8, 2011

Certificated by FCC, USA
Registration No.: 370994
Date of registration: February 21, 2012

Name of Firm : Keyway Testing Technology Co., Ltd.

Site Location : Baishun Industrial Zone, Zhangmutou Town,
Dongguan, Guangdong, China

2.2. List of Test and Measurement Instruments

2.2.1. For conducted emission at the mains terminals test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCI	101156	May 9,13	May 9,14
Artificial Mains Network	Rohde&Schwarz	ENV216	101315	May 9,13	May 9,14
Artificial Mains Network (AUX)	Rohde&Schwarz	ENV216	101314	May 9,13	May 9,14
RF Cable	FUJIKURA	3D-2W	944 Cable	May 9,13	May 9,14

2.2.2. For radiated emission test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCI	101156	May 9,13	May 9,14
Bilog Antenna	ETS-LINDGREN	3142D	00135452	May 20,13	May 20,14
Spectrum Analyzer	Agilent	8593E	3911A04271	May 9,13	May 9,14
3m Semi-anechoic Chamber	ETS-LINDGREN	966	KW01	May 9,13	May 9,14
Signal Amplifier	SONOMA	310	187303	May 9,13	May 9,14
RF Cable	IMRO	IMRO-400	966 Cable 1#	May 9,13	May 9,14
MULTI-DEVICE Controller	ETS-LINDGREN	2090	126913	N/A	N/A
Antenna Holder	ETS-LINDGREN	2070B	00109601	N/A	N/A

2.2.3. For radiated emission test (Above 1GHz)

EMI Test Receiver	Rohde&Schwarz	ESCI	101156	May 9,13	May 9,14
Horn Antenna	DAZE	ZN30701	11003	May 11,13	May 11,14
Spectrum Analyzer	Agilent	8593E	3911A04271	May 9,13	May 9,14
3m Semi-anechoic Chamber	ETS-LINDGREN	966	KW01	May 20,13	May 20,14
Signal Amplifier	DAZE	ZN3380C	11001	May 9,13	May 9,14
RF Cable	IMRO	IMRO-400	966 Cable 1#	May 9,13	May 9,14
MULTI-DEVICE Controller	ETS-LINDGREN	2090	126913	N/A	N/A
Antenna Holder	ETS-LINDGREN	2070B	00109601	N/A	N/A

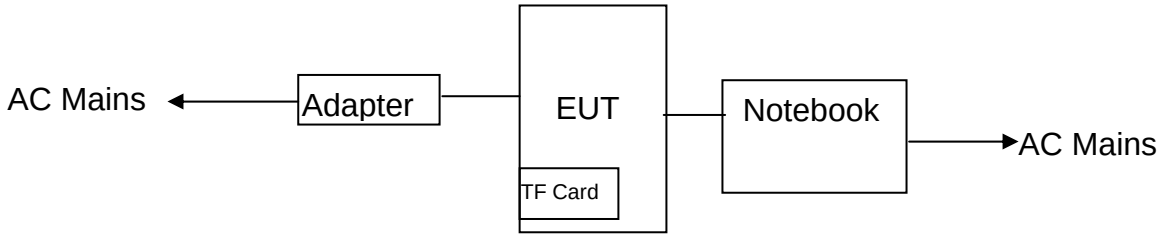
3. TEST SET-UP AND OPERATION MODES

3.1. Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

3.2. Block Diagram of Test Set-up

System Diagram of Connections between EUT and Simulators



(EUT: MID)

3.3. Test Operation Mode and Test Software

Refer to Test Setup in clause 4.

3.4. Special Accessories and Auxiliary Equipment

None.

3.5. Countermeasures to Achieve EMC Compliance

None.

4. EMISSION TEST RESULTS

4.1. Conducted Emission at the Mains Terminals Test

Result	**:**	**Pass**
Test Procedure	:	ANSI C63.4:2009
Frequency Range	:	0.15 to 30 MHz
Test Site	:	Shielded Room 944
Limits	:	FCC Part 15, Subpart B: Oct. 1, 2012

Test Setup

Date of Test	:	Jul. 23, 2013
M/N	:	AP-7S118
Input Voltage	:	DC 5V from adapter input AC 120V/60Hz
Operation Mode	:	Data transmitting +TF card playing

The EUT was put on a wooden table which was 0.8 m high above the ground and connected to the AC mains through the Artificial Mains Network (AMN). Where the mains cable supplied by the manufacture was longer than 0.8 m, the excess was folded back and forth parallel to the cable at the centre so as to form a bundle no longer than 0.4 m.

The EUT was kept 0.4 m from any other earthed conducting surface. Both sides of AC line were checked to find out the maximum conducted emission levels according to the test procedure during the conducted emission test.

The frequency range from 150 kHz to 30 MHz was investigated.

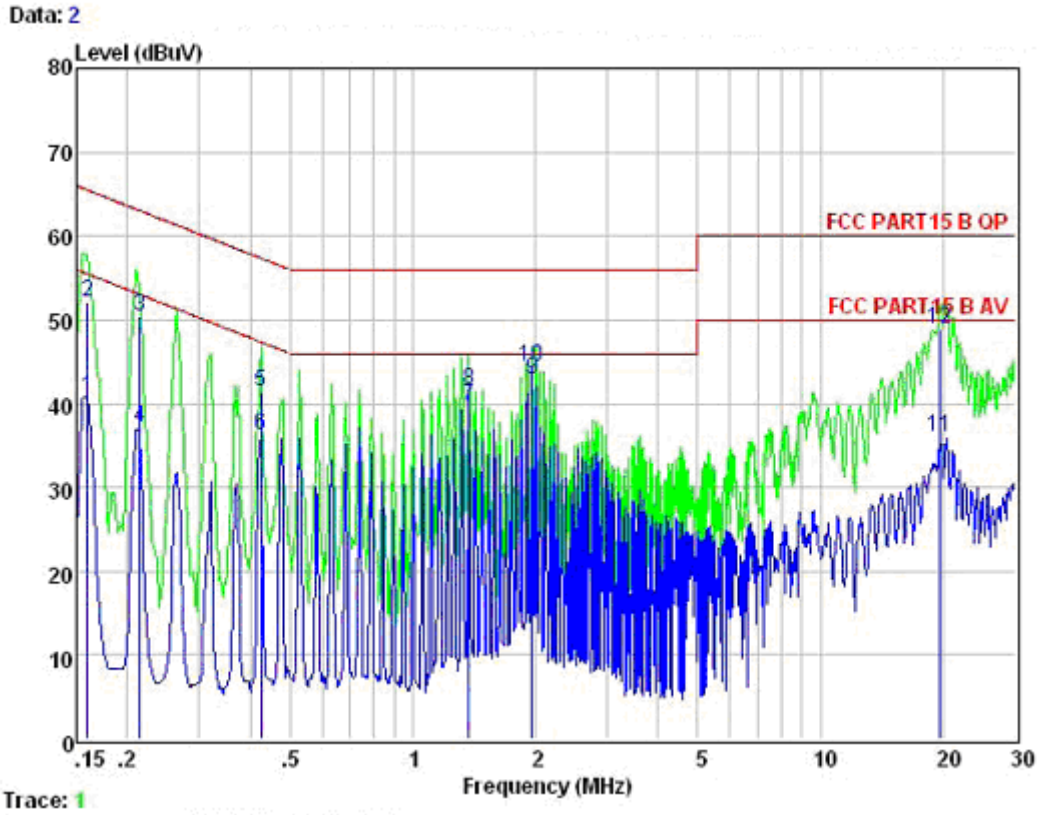
The bandwidth of the test receiver was set at 9 kHz.

The test data of the worst case condition(s) was reported on the following page. All the scanning waveforms were attached within Appendix I.

Note: Measurement Uncertainty: ±2.6 dB at a level of confidence of 95%.

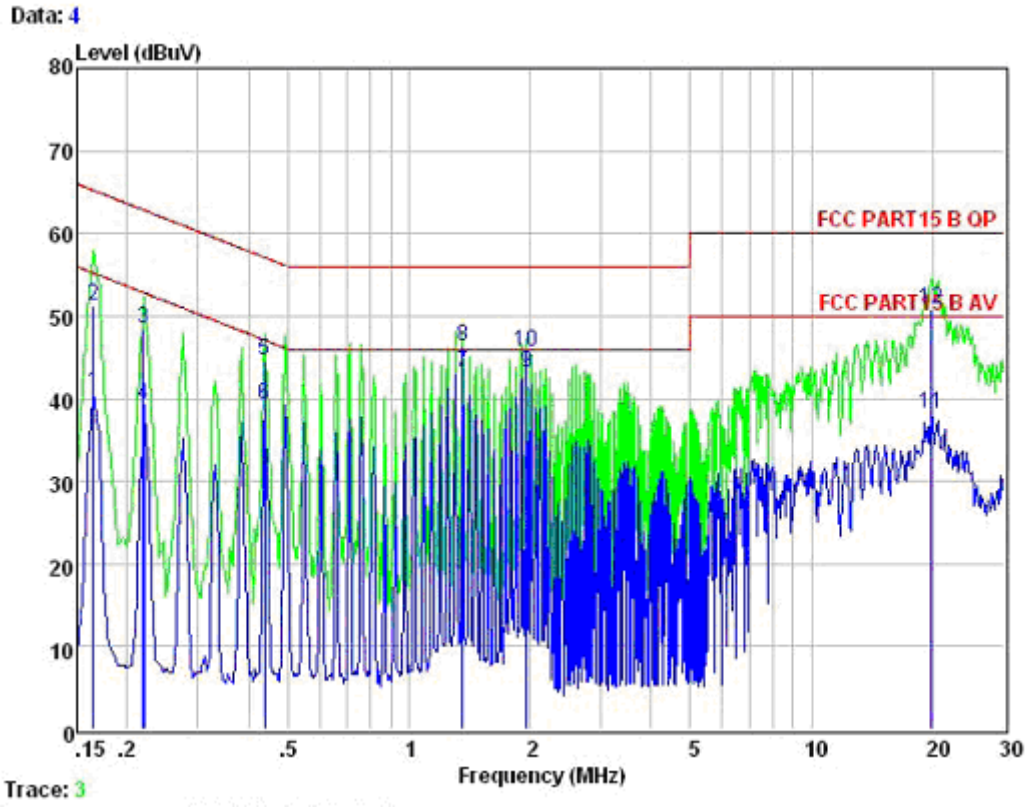
Test Data

Test Line: LINE



	Freq	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	
1	0.160	40.80	55.47	-14.67	Average
2	0.160	52.10	65.47	-13.37	QP
3	0.215	50.40	63.01	-12.61	QP
4	0.215	37.02	53.01	-15.99	Average
5	0.426	41.40	57.33	-15.93	QP
6	0.426	36.29	47.33	-11.04	Average
7	1.374	39.68	46.00	-6.32	Average
8	1.374	41.60	56.00	-14.40	QP
9	1.959	42.80	46.00	-3.20	Average
10	1.959	44.40	56.00	-11.60	QP
11	19.635	36.11	50.00	-13.89	Average
12	19.635	48.80	60.00	-11.20	QP

Test Line: NEUTRAL



	Freq	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	
1	0.165	40.75	55.21	-14.46	Average
2	0.165	51.20	65.21	-14.01	QP
3	0.219	48.40	62.86	-14.46	QP
4	0.220	39.15	52.83	-13.68	Average
5	0.440	44.70	57.07	-12.37	QP
6	0.440	39.30	47.07	-7.77	Average
7	1.359	43.03	46.00	-2.97	Average
8	1.359	46.40	56.00	-9.60	QP
9	1.959	43.06	46.00	-2.94	Average
10	1.959	45.70	56.00	-10.30	QP
11	19.845	38.25	50.00	-11.75	Average
12	19.845	50.80	60.00	-9.20	QP

4.2. Radiated Emission Test

Result	**:**	**Pass**
Test Procedure	:	ANSI C63.4:2009
Frequency Range	:	30 to 12000 MHz
Test Site	:	966 Chamber
Limits	:	FCC Part 15, Subpart B: Oct. 1, 2012

Test Setup

Date of Test	:	Jul. 23, 2013
M/N	:	AP-7S118
Input Voltage	:	DC 5V from adapter input AC 120V/60Hz
Operation Mode	:	Data transmitting +TF card playing

The EUT was placed on a turn table which was 0.8 m above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 m away from the receiving antenna which was mounted on an antenna tower. The measuring antenna moved up and down to find out the maximum emission level. It moved from 1 m to 4 m for both horizontal and vertical polarizations.

The EUT was tested in the Chamber Site. It was pre-scanned with a Peak detector from the spectrum, and all the final readings from the test receiver were measured with the Quasi-Peak detector.

The bandwidth of the EMI test receiver is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz.

The frequency range from 30MHz to 10th harmonic (13GHz) are checked.

For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

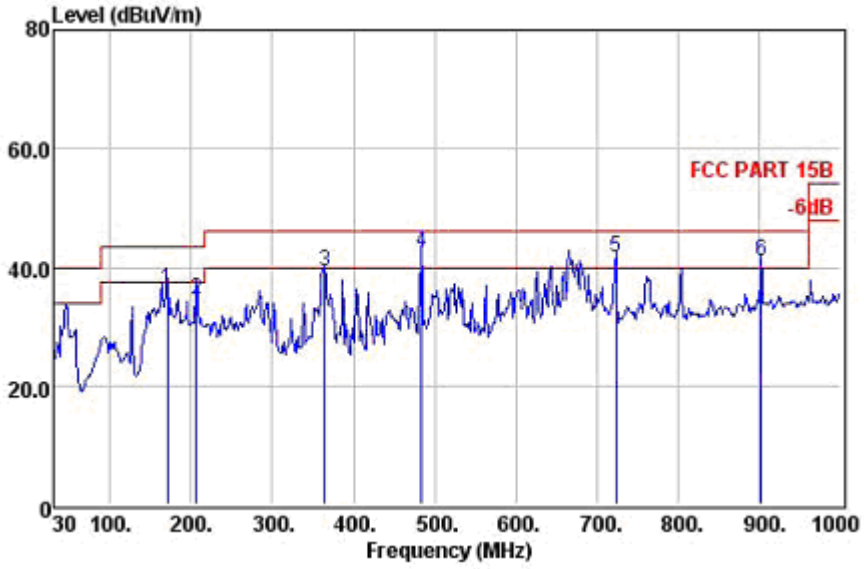
The test data of the worst case condition(s) was reported on the following pages.

Notes: 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading-Preamp Factor.

2. Measurement Uncertainty: ±3.2 dB at a level of confidence of 95%.

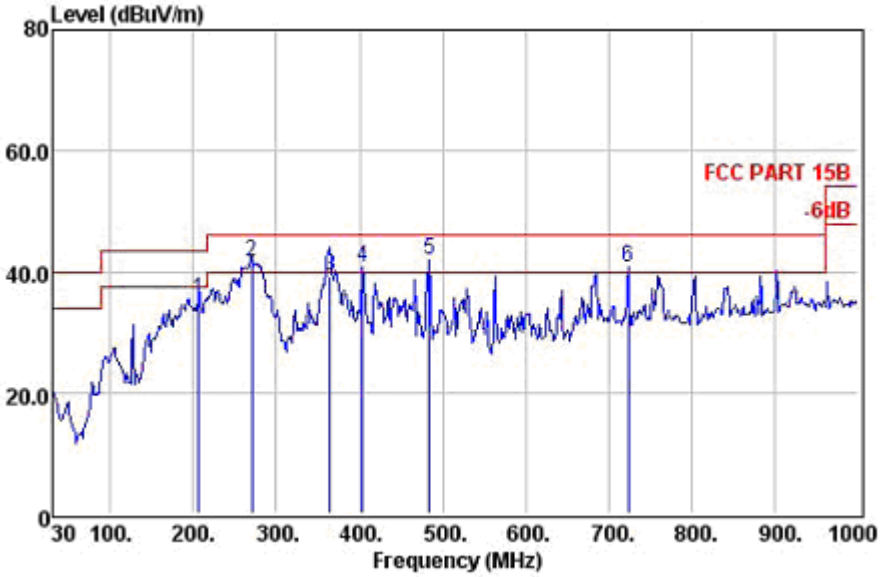
Test Data

Antenna Polarization: Vertical



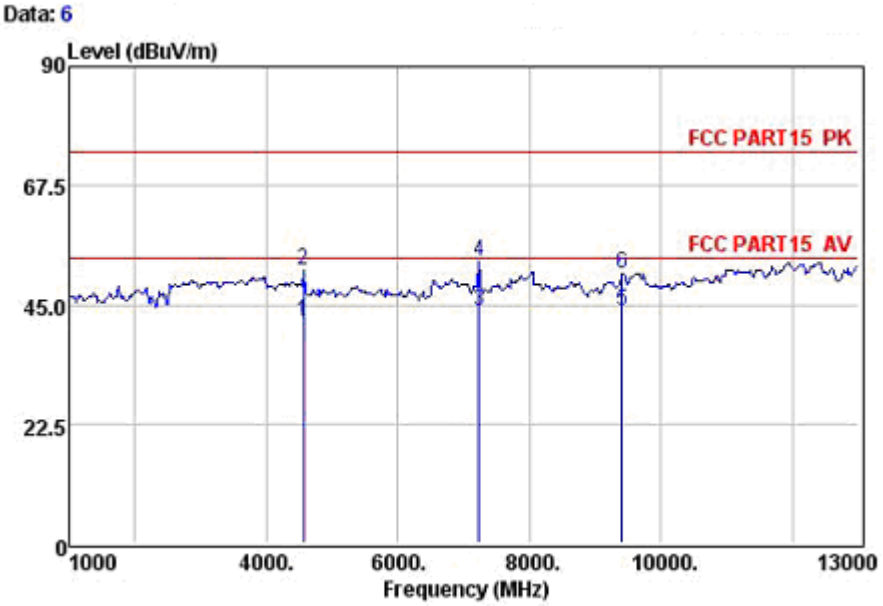
		Freq	Preamp Factor	Read Level	Cable Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
		MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1		170.65	31.19	56.00	1.30	10.12	36.23	43.50	-7.27	QP
2		206.54	31.09	52.91	1.46	11.31	34.59	43.50	-8.91	QP
3		364.65	30.61	51.58	2.18	16.14	39.29	46.00	-6.71	QP
4	!	483.96	30.59	52.04	2.77	18.44	42.66	46.00	-3.34	QP
5	!	723.55	30.65	45.75	3.96	22.56	41.62	46.00	-4.38	QP
6	!	903.00	30.04	42.23	4.84	24.08	41.11	46.00	-4.89	QP

Antenna Polarization: Vertical



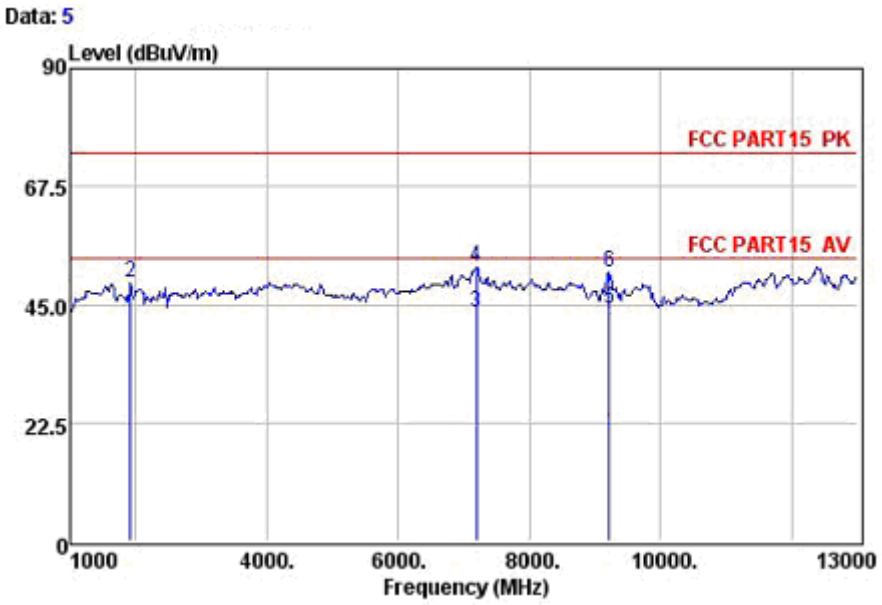
		Freq	Preamp Factor	Read Level	Cable Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
		MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1		206.54	31.09	53.83	1.46	11.31	35.51	43.50	-7.99	QP
2	!	270.56	30.95	57.89	1.78	12.98	41.70	46.00	-4.30	QP
3		364.65	30.61	51.50	2.18	16.14	39.21	46.00	-6.79	QP
4	!	403.45	30.63	52.62	2.37	16.41	40.77	46.00	-5.23	QP
5	!	483.96	30.59	51.39	2.77	18.44	42.01	46.00	-3.99	QP
6	!	723.55	30.65	44.87	3.96	22.56	40.74	46.00	-5.26	QP

Polarization: Vertical



	Freq	Preamp Factor	Read Level	Cable Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4570.00	27.35	25.21	11.45	32.37	41.68	54.00	-12.32	Average
2	4570.00	27.35	34.94	11.45	32.37	51.41	74.00	-22.59	Peak
3	7239.00	27.95	17.93	16.61	37.30	43.89	54.00	-10.11	Average
4	7239.00	27.95	27.20	16.61	37.30	53.16	74.00	-20.84	Peak
5	9415.00	28.57	17.55	16.91	37.90	43.79	54.00	-10.21	Average
6	9415.00	28.57	24.74	16.91	37.90	50.98	74.00	-23.02	Peak

Polarization: Horizontal



	Freq	Preamp Factor	Read Level	Cable Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	1918.00	26.18	34.32	6.26	27.88	42.28	54.00	-11.72	Average
2	1918.00	26.18	41.36	6.26	27.88	49.32	74.00	-24.68	Peak
3	7188.00	27.94	17.67	16.61	37.28	43.62	54.00	-10.38	Average
4	7188.00	27.94	26.27	16.61	37.28	52.22	74.00	-21.78	Peak
5	9228.00	28.49	18.01	16.90	37.67	44.09	54.00	-9.91	Average
6	9228.00	28.49	24.96	16.90	37.67	51.04	74.00	-22.96	Peak

5. PHOTOGRAPHS OF TEST SET-UP

Please see annex.

6. PHOTOGRAPHS OF THE EUT

Please see annex.

-------END-------