

FCC 47 CFR PART 15 SUBPART B TEST REPORT

for

Wireless 900MHz Speaker

Mode: SP4290A, SP4290B, AWS63, AWS6

Brand: Acoustic Research

Test Report Number: SZ111111B01-EF

Issued for

Uni-Art Precise Products Ltd 11-12/F, Yue Xiu Industrial Building, 87 Hung To Road, Kowloon, Hong Kong

Issued By:

Compliance Certification Services Inc.
Linkuo Laboratory
No.81-1, Lane 210, Bade 2nd Rd., Lujhu Township,
Taoyuan County 33841, Taiwan(R.O.C.)
TEL: 886-3-324-0332

FAX: 886-3-324-5235 E-Mail: service@ccsrf.com

Issued Date: November 16, 2011







Note: This report shall not be reproduced except in full, without the written approval of Compliance Certification Services Inc. This document may be altered or revised by Compliance Certification Services Inc. personnel only, and shall be noted in the revision section of the document. The client should not use it to claim product endorsement by TAF, A2LA, NIST or any government agencies. The test result of this report relate only to the tested sample identified in this report.

FCC ID: MVASP4292-001R

Revision History

Rev.	Issue No	Revisions	Effect Page	Revised By
00	SZ111111B01-EF	Initial Issue	ALL	Bella Ge

TABLE OF CONTENTS

1	TEST RESULT CERTIFICATION	4
2	EUT DESCRIPTION	5
3	TEST METHODOLOGY	
3.1.	DECISION OF FINAL TEST MODE	6
3.2.	EUT SYSTEM OPERATION	
4	SETUP OF EQUIPMENT UNDER TEST	7
4.1.	DESCRIPTION OF SUPPORT UNITS	7
4.2.	CONFIGURATION OF SYSTEM UNDER TEST	7
5	FACILITIES AND ACCREDITATIONS	8
5.1.	FACILITIES	
5.2.	ACCREDITATIONS	
5.3.	MEASUREMENT UNCERTAINTY	
6	CONDUCTED EMISSION MEASUREMENT	
6.1.	LIMITS OF CONDUCTED EMISSION MEASUREMENT	
6.2.	TEST INSTRUMENTS	
6.3.	TEST PROCEDURES	
6.4.	TEST SETUP	
6.5.	DATA SAMPLE	
6.6.	TEST RESULTS	
7	RADIATED EMISSION MEASUREMENT	
7.1.	LIMITS OF RADIATED EMISSION MEASUREMENT	
7.2.	TEST INSTRUMENTS	
7.3.	TEST PROCEDURES	_
7.4.	TEST SETUP	
7.5.	DATA SAMPLE	
7.6.	TEST RESULTS	. 19

1 TEST RESULT CERTIFICATION

Product:	Wireless 900MHz Speaker		
Model:	SP4290A, SP4290B, AWS63, AWS6		
Brand:	Acoustic Research		
Applicant:	Uni-Art Precise Products Ltd 11-12/F, Yue Xiu Industrial Building, 87 Hung To Road, Kowloon, Hong Kong		
Manufacturer:	Uni-Art Precise Products Ltd 11-12/F, Yue Xiu Industrial Building, 87 Hung To Road, Kowloon, Hong Kong		
Tested:	November 14~15, 2011		
Test Voltage:	AC120V/60Hz		

EMISSION			
Standard	Item	Result	Remarks
FCC 47 CFR Part 15 Subpart B	Conducted (Power Port)	PASS	Meet Class B limit
ANSI C63.4: 2009	Radiated	PASS	Meet Class B limit

Note: 1. The statements of test result on the above are decided by the request of test standard only; the measurement uncertainties are not factored into this compliance determination.

2. The information of measurement uncertainty is available upon the customer's request.

Deviation from Applicable Standard	
None	

The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved by:

Ethan Huang

Section Manager

Compliance Certification Service Inc.

Reviewed by:

Aven Zhou

Supervisor of Report Dept.

Aven zhou

Compliance Certification Service Inc.

2 EUT DESCRIPTION

Product	Wireless 900MHz Speaker
Model	SP4290A, SP4290B, AWS63, AWS6
Brand	Acoustic Research
Applicant	Uni-Art Precise Products Ltd
Housing material	Plastic
EUT Type	☐ Engineering Sample, ☑ Product Sample,☐ Mass Product Sample.
Serial Number	SZ111111B01-EF
EUT Power Rating	DC9V supplied by the adapter or 1.5Vx6 batteries
Adapter Manufacturer/ Model No.	SIL POWER SUPPLY / SSA-12W-09 US 090120F Input: 100-240V~50/60Hz, 0.5A Output: 9.0V-1200mA DC output cable: Unshielded, 1.70m
Received Date	November 11, 2011
EUT Max. Operating Frequency	900MHz

Report No: SZ111111B01-EF

I/O Port EUT

	I/O PORT TYPES	Q'TY	TESTED WITH	
1).	DC In Port	1	1	
2).	Audio In Port	1	1	

Model Difference

Model Name	Difference	Tested (Checked)
SP4290A	The two transmitters are identical except the external colour is different. The model SP4290A and AWS63 are	
SP4290B	identical, except the mode names are different for the market purpose; the model	
AWS63	SP4290B and AWS6 are identical, except the mode names are different for the market	
AWS6	purpose. 3. The model SP4290A has audio in port, but the model SP4290B has no audio in port.	

FCC ID : MVASP4292-001R Page 5 / 22

3 TEST METHODOLOGY

3.1. DECISION OF FINAL TEST MODE

The EUT was tested together with the above additional components, and a configuration, which produced the worst emission levels, was selected and recorded in this report.

Report No: SZ111111B01-EF

Pre-Test Mo	Pre-Test Mode				
	Conducted	Mode 1: Normal Link with adapter			
	Emission	Mode 2: Audio In with adapter			
Emission	Radiated	Mode 1: Normal Link with adapter			
Limoton	Emission	Mode 2: Audio In with adapter			
		Mode 3: Normal Link with Batteries			
		Mode 4: Audio In with Batteries			

After the preliminary scan, the following test mode was found to produce the highest emission level.

Final Test M	Final Test Mode		
Emission	Conducted Emission	Mode 1	
EIIIISSIOII	Radiated Emission	Mode 1	

Then, the above highest emission mode of the configuration of the EUT and cable was chosen for all final test items.

3.2. EUT SYSTEM OPERATION

- 1 Setup the EUT and simulators as shown on 4.2.
- 2 Turn on the power of all equipment.
- 3 Run the program to test.

Note: Test program is self-repeating throughout the test.

4 SETUP OF EQUIPMENT UNDER TEST

4.1. DESCRIPTION OF SUPPORT UNITS

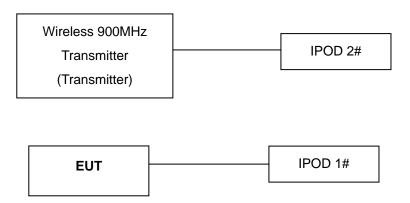
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Equipment	Model No.	Serial No.	FCC ID	Brand	Data Cable	Power Cord
1	IPOD 1#	A1285	YM908BYU3QX	N/A	iPod	Shielded 2.00m	N/A
2	IPOD 2#	A1285	YM913G7M3QS	N/A	iPod	N/A	N/A
3	Wireless 900MHz Transmitter (Transmitter)	AW850	N/A	MVASP3 791-001T	Acoustic Research	Unshielded 1.90m (Audio In Cable)	Unshielded 1.80m

Report No: SZ111111B01-EF

Note: Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.2. CONFIGURATION OF SYSTEM UNDER TEST



5 FACILITIES AND ACCREDITATIONS

5.1. FACILITIES

All measurement facilities used to collect the measurement data are located at No.81-1, Lane 210, Bade 2nd Rd., Lujhu Township, Taoyuan County 33841, Taiwan(R.O.C.)

Report No: SZ111111B01-EF

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR 22. All receiving equipment conforms to CISPR 16-1-1, CISPR 16-1-2, CISPR 16-1-3, CISPR 16-1-4, CISPR 16-1-5.

5.2. ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

Taiwan TAF USA A2LA

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada	Industry Canada
Norway	Nemko
Japan	VCCI
Taiwan	BSMI
USA	FCC

Copies of granted accreditation certificates are available for downloading from our web site, http://www.ccsrf.com

5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Uncertainty
Conducted emissions	9kHz~30MHz	+/- 3.18dB
	30MHz ~ 200MHz	+/- 3.79dB
Radiated emissions	200MHz ~1000MHz	+/- 3.62dB
	Above 1000MHz	+/- 5.04dB

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

Consistent with industry standard determining compliance with the limits shall be base on the results of the compliance measurement. Consequently the measure emissions being less than the maximum allowed emission result in this be a compliant test or passing test.

The acceptable measurement uncertainty value without requiring revision of the compliance statement is base on conducted and radiated emissions being less than U_{CISPR} which is 3.6dB and 5.2dB respectively. CCS values (called U_{Lab} in CISPR 16-4-2) is less than U_{CISPR} as shown in the table above. Therefore, MU need not be considered for compliance.

6 CONDUCTED EMISSION MEASUREMENT

6.1. LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

NOTE:

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

6.2. TEST INSTRUMENTS

	Conducted Emission Test Site									
Name of Equipment	Manufacturer	Manufacturer Model Number Serial Number Cal								
ESCI EMI TEST RECEIVE.ESCI	ROHDE&SCHWARZ	ESCI	100783	03/19/2011	03/19/2012					
LISN	SCHAFFNER	NNB42	2001/001	05/26/2011	05/26/2012					
LISN	EMCO	3825/2	8901-1459	03/19/2011	03/19/2012					
Temp. / Humidity Meter	VICTOR	VC230	N/A	03/31/2011	03/31/2012					
Test S/W	FARAD	EZ-EMC/ CCS-3A1-CE								

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. N.C.R = No Calibration Request.

6.3. TEST PROCEDURES (please refer to measurement standard or CCS SOP PA-031)

Report No: SZ111111B01-EF

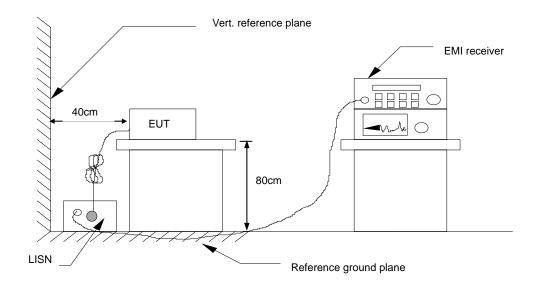
Procedure of Preliminary Test

- The EUT and support equipment, if needed, were set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor standing equipment, it is placed on the ground plane, which has a 12 mm non-conductive covering to insulate the EUT from the ground plane.
- All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- The test equipment EUT received DC9V power from the adapter, and the adapter received AC120V/60Hz main power, through a Line Impedance Stabilization Network (LISN), which was supplied power source and was grounded to the ground plane.
- The test program of the EUT was started. Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.
- The Receiver scanned from 150kHz to 30MHz for emissions in each of the test modes.
- During the above scans, the emissions were maximized by cable manipulation.
- The test mode(s) described in Item 3.1 were scanned during the preliminary test.
- After the preliminary scan, we found the test mode described in Item 3.1 producing the highest emission level.
- The worst configuration of EUT and cable of the above highest emission level were recorded for reference of the final test.

Procedure of Final Test

- EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.
- A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.
- The test data of the worst-case condition(s) was recorded.

6.4. TEST SETUP



 For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

6.5. DATA SAMPLE

Frequency (MHz)		Average Reading (dBuV)		QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Line (L1/L2)
X.XXXX	32.69	25.65	11.52	44.21	37.17	65.78	55.79	-21.57	-18.62	L1

Factor = Insertion loss of LISN + Cable Loss

Result = Quasi-peak Reading/ Average Reading + Factor

Limit = Limit stated in standard Margin = Result (dBuV) – Limit (dBuV)

L1 = Hot side L2 = Neutral side



Compliance Certification Services Inc.

Report No: SZ111111B01-EF

6.6. TEST RESULTS

Model No.	SP4290A	RBW,VBW	9 kHz
Environmental Conditions	22deg°C, 45% RH	Test Mode	Mode 1
Tested by	Sunday Hu	Line	L1

(The chart below shows the highest readings taken from the final data.)

Frequency	QuasiPeak	Average	Correction	QuasiPeak	Average	QuasiPeak		QuasiPeak	Average	Remark
(MHz)	Reading (dBuV)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Result (dBuV)	Limit (dBuV)	Limit (dBuV)	Margin (dB)	Margin (dB)	(Pass/Fail)
0.1620	33.07	16.91	11.52	44.59	28.43	65.36	55.36	-20.77	-26.93	Pass
0.1860	30.36	14.03	11.52	41.88	25.55	64.21	54.21	-22.33	-28.66	Pass
0.2660	27.27	9.97	11.52	38.79	21.49	61.24	51.24	-22.45	-29.75	Pass
0.3180	26.61	10.38	11.52	38.13	21.90	59.76	49.76	-21.63	-27.86	Pass
4.1220	15.71	3.09	11.64	27.35	14.73	56.00	46.00	-28.65	-31.27	Pass
11.5700	13.63	-0.63	12.11	25.74	11.48	60.00	50.00	-34.26	-38.52	Pass

NOTE: L1 = Line One (Live Line)

Model No.	SP4290A	RBW,VBW	9 kHz
Environmental Conditions	22deg°C, 45% RH	Test Mode	Mode 1
Tested by	Sunday Hu	Line	L2

(The chart below shows the highest readings taken from the final data.)

Frequency	QuasiPeak			QuasiPeak	•					Remark
(MHz)	Reading (dBuV)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Result (dBuV)	Limit (dBuV)	Limit (dBuV)	Margin (dB)	Margin (dB)	(Pass/Fail)
0.1620	31.83	16.14	11.52	43.35	27.66	65.36	55.36	-22.01	-27.70	Pass
0.2140	27.49	10.85	11.52	39.01	22.37	63.04	53.05	-24.03	-30.68	Pass
1.0140	20.07	11.94	11.52	31.59	23.46	56.00	46.00	-24.41	-22.54	Pass
2.5980	19.76	8.59	11.58	31.34	20.17	56.00	46.00	-24.66	-25.83	Pass
4.1500	19.28	7.70	11.64	30.92	19.34	56.00	46.00	-25.08	-26.66	Pass
17.8420	15.59	3.32	12.38	27.97	15.70	60.00	50.00	-32.03	-34.30	Pass

NOTE: L2 = Line Two (Neutral Line).

RADIATED EMISSION MEASUREMENT

7.1. LIMITS OF RADIATED EMISSION MEASUREMENT

Below 1GHz

FREQUENCY (MHz)	dBuV/m (At 10m)	dBuV/m (At 3m)
	Class A	Class B
30 ~ 88	39.00	40.00
88 ~ 216	43.50	43.50
216 ~ 960	46.00	46.00
960 ~ 1000	49.50	54.00

Report No: SZ111111B01-EF

Page 14 / 22

NOTE: (1) The lower limit shall apply at the transition frequencies.

(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).

Above 1GHz

Frequency	Class A (d	dBuV/m)	Class B (dBuV/m)		
(MHZ)	Average	Peak	Average	Peak	
Above 1000	60	80	54	74	

Notes: (1) The lower limit shall apply at the transition frequencies.

(2)Emission level (dBuV/m) = 20 log Emission level (uV/m).

(3)All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

7.2. TEST INSTRUMENTS

Below 1GHz

	Radiated Emission Test Site 966(1)									
Name of Equipment Manufacturer Model Number Serial Last Due Calibration Calibration										
Amplifier	Mini-Circuits	ZFL-1000LN	SF696200343	03/18/2011	03/18/2012					
Antenna	EMCO	3142B	9910-11436	03/19/2011	03/19/2012					
Turn Table	EMCO	2081-1.21	N/A	N.C.R	N.C.R					
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	N/A	08/02/2011	08/02/2012					
Test S/W	Test S/W FARAD EZ-EMC/ CCS-03A1									

Report No: SZ111111B01-EF

Above 1GHz

	Radiated Emission Test Site 966 (2)									
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration					
PSA Series Spectrum Analyzer	Agilent	E4446A	US44300399	03/19/2011	03/19/2012					
Amplifier	MITEQ	AM-1604-3000	1411843	03/18/2011	03/18/2012					
Turn Table	EMCO	2081-1.21	N/A	N.C.R	N.C.R					
Controller	СТ	N/A	N/A	N.C.R	N.C.R					
High Noise Amplifier	Agilent	8449B	3008A01838	03/18/2011	03/18/2012					
Bilog Antenna	SCHAFFNER	CBL6143	5082	06/03/2011	06/03/2012					
Horn Antenna	SCHWARZBECK	BBHA9120D	D286	03/19/2011	03/19/2012					
Loop Antenna	A、R、A	PLA-1030/B	1029	03/19/2011	03/19/2012					
Temp. / Humidity Meter	VICTOR	VC230	N/A	03/31/2011	03/31/2012					
Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R					
Test S/W	FARAD	LZ-RF / CCS-SZ-3A2								

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

^{2.} N.C.R = No Calibration Request.

7.3. TEST PROCEDURES (please refer to measurement standard or CCS SOP PA-031)

Procedure of Preliminary Test

• The equipment was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane. When the EUT is a floor standing equipment, it is placed on the ground plane which has a non-conductive covering to insulate the EUT from the ground plane.

Report No: SZ111111B01-EF

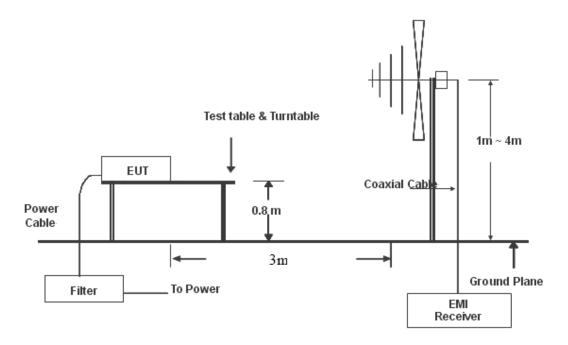
- Support equipment, if needed, was placed as per ANSI C63.4.
- All I/O cables were positioned to simulate typical usage as per ANSI C63.4.
- The test equipment EUT received DC9V power from the batteries or the adapter, and the adapter received AC120V/60Hz power source from the outlet socket under the turntable. All support equipment power received from another socket under the turntable.
- The antenna was placed at 3 meter away from the EUT as stated in ANSI C63.4.
 The antenna connected to the Spectrum Analyzer via a cable and at times a pre-amplifier would be used.
- The Analyzer / Receiver quickly scanned from 30MHz to 40GHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters (For Below 1GHz) or 1 meter (For Above 1GHz) above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- The test mode(s) described in Item 3.1 were scanned during the preliminary test:
- After the preliminary scan, we found the test mode described in Item 3.1 producing the highest emission level.
- The worst configuration of EUT and cable of the above highest emission level were recorded for reference of the final test.

Procedure of Final Test

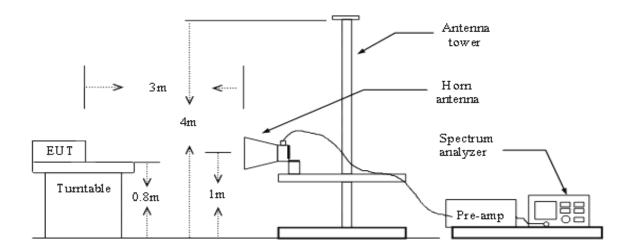
- EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test.
- The Analyzer / Receiver scanned from 30MHz to 40GHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 or 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- Recording at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and only Q.P. (For Below 1GHz) or Peak/Average (For Above 1GHz) reading is presented.
- The test data of the worst-case condition(s) was recorded.

TEST SETUP

Below 1GHz



Above 1GHz



For the actual test configuration, please refer to the related item - Photographs of the Test Configuration.

7.5. DATA SAMPLE

Below 1GHz

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
XXX.XXX	53.54	-18.84	34.70	40.00	-5.30	QP

Frequency (MHz) = Emission frequency in MHz

Reading (dBuV) = Uncorrected Analyzer / Receiver reading Correct Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain Result (dBuV/m) = Reading (dBuV) + Corr. Factor (dB/m)

Limit (dBuV/m) = Limit stated in standard

Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)

Q.P. = Quasi-peak Reading

Above 1GHz

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
XXXX.XXXX	55.54	4.56	60.10	74.00	-13.90	Peak
XXXX.XXXX	29.66	4.56	34.22	54.00	-19.78	AVG

Frequency (MHz) = Emission frequency in MHz

Reading (dBuV) = Uncorrected Analyzer / Receiver reading Correction Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain Result (dBuV/m) = Reading (dBuV) + Corr. Factor (dB/m)

Limit (dBuV/m) = Limit stated in standard

Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)

Peak = Peak Reading AVG = Average Reading

Calculation Formula

Margin (dB) = Result (dBuV/m) - Limits (dBuV/m)

Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)

7.6. TEST RESULTS

Below 1GHz

Model No.	SP4290A	Test Mode	Mode 1
Environmental Conditions	22°C, 45% RH	RBW,VBW	120 kHz
Antenna Pole	Vertical	Antenna Distance	3m
Detector Function	Quasi-peak	Tested by	Sunday Hu

(The chart below shows the highest readings taken from the final data.)

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
91.4333	52.01	-24.62	27.39	43.50	-16.11	QP
109.2167	48.24	-21.12	27.12	43.50	-16.38	QP
384.0500	38.17	-16.13	22.04	46.00	-23.96	QP
461.6500	50.60	-14.72	35.88	46.00	-10.12	QP
702.5333	33.80	-11.34	22.46	46.00	-23.54	QP
864.2000	33.99	-9.34	24.65	46.00	-21.35	QP

REMARKS: 1. QP= Quasi-peak Reading

2. The other emission levels were very low against the limit.

FCC ID : MVASP4292-001R Page 19 / 22

Model No.	SP4290A	Test Mode	Mode 1
Environmental Conditions	22°C, 45% RH	RBW,VBW	120 kHz
Antenna Pole	Horizontal	Antenna Distance	3m
Detector Function	Quasi-peak	Tested by	Sunday Hu

(The chart below shows the highest readings taken from the final data.)

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
93.0500	44.76	-24.29	20.47	43.50	-23.03	QP
207.8333	40.59	-21.32	19.27	43.50	-24.23	QP
288.6666	39.71	-19.45	20.26	46.00	-25.74	QP
461.6500	50.34	-14.72	35.62	46.00	-10.38	QP
560.2667	34.96	-12.64	22.32	46.00	-23.68	QP
996.7667	35.82	-7.73	28.09	54.00	-25.91	QP

REMARKS: 1. QP= Quasi-peak Reading

2. The other emission levels were very low against the limit.

Above 1GHz

Model No.	SP4290A	Test Mode	Mode 1
Environmental Conditions	24°C, 52% RH	RBW,VBW	1MHz, 1MHz
Antenna Pole	Vertical	Antenna Distance	3m
Detector Function:	Peak/AVG	Tested by	Sunday Hu

(The chart below shows the highest readings taken from the final data.)

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1383.3333	53.37	-10.36	43.01	74.00	-30.99	Peak
1825.0000	58.64	-10.05	48.59	74.00	-25.41	Peak
3041.6667	46.51	-5.86	40.65	74.00	-33.35	Peak
3175.0000	46.87	-5.55	41.32	74.00	-32.68	Peak
3650.0000	47.41	-3.82	43.59	74.00	-30.41	Peak
4641.6667	45.98	-1.53	44.45	74.00	-29.55	Peak

REMARKS:

- 1. The other emission levels were very low against the limit.
- 2. "--", means the average measurement was not performed when the measured peak data under the limit of average detection.
- 3. Peak= Peak Reading; AVG= Average Reading.

Model No.	SP4290A	Test Mode	Mode 1
Environmental Conditions	24°C, 52% RH	RBW,VBW	1MHz, 1MHz
Antenna Pole	Horizontal	Antenna Distance	3m
Detector Function:	Peak/AVG	Tested by	Sunday Hu

(The chart below shows the highest readings taken from the final data.)

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1383.3333	52.99	-10.36	42.63	74.00	-31.37	Peak
1825.0000	50.17	-10.05	40.12	74.00	-33.88	Peak
2966.6667	47.48	-6.19	41.29	74.00	-32.71	Peak
3300.0000	47.61	-5.28	42.33	74.00	-31.67	Peak
3883.3333	47.06	-3.75	43.31	74.00	-30.69	Peak
4433.3333	46.45	-2.18	44.27	74.00	-29.73	Peak

REMARKS:

- 1. The other emission levels were very low against the limit.
- 2. "--", means the average measurement was not performed when the measured peak data under the limit of average detection.
- 3. Peak= Peak Reading; AVG= Average Reading.