VERIFICATION OF COMPLIANCE

This Verification of Compliance is hereby issued to the product designated below.

Product	SQF-SMS630
Model	SQF-SMSM4-256G-S9C
Brand	ADVANTECH
Applicant	Advantech Co. Ltd. No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 114, Taiwan, R.O.C.
Applicable Standard(s)	FCC 47 CFR Part 18 Subpart C ANSI C63.4-2009
Report No.	T150429L03-D
Test Laboratory	Compliance Certification Services Inc. No.81-1, Lane 210, Bade 2nd Rd., Lujhu Township, Taoyuan County 33841,Taiwan, R.O.C. Tel: +886-3-3240332/ Fax: +886-3-3245235

This device has been tested and found to comply with the stated standard(s), which is(are) required by the Federal Communications Commission. The test results are indicated in the test report and are applicable only to the tested sample identified in the report.

James Chan

James Chan / Section Manager of Linkou Laboratory
Date: May 6, 2015

程智科技股份有限公司
Compliance Certification Services Inc.

FCC 47 CFR PART 15 SUBPART B TEST REPORT

for

SQF-SMS630

MODEL: SQF-SMSM4-256G-S9C

Test Report Number:
T150429L03-D

Issued for

Advantech Co. Ltd.
No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 114, Taiwan, R.O.C.

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: May 6, 2015

Testing Laboratory
0363

ACCREDITED
TESTING CERT #0824.01

Revision History

Rev.		Issue Date		Revisions	Effect Page	Revised By
00		May 6, 2015		Initial Issue	All	Jessica Lan

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1 TEST RESULT CERTIFICATION

Product:	SQF-SMS630
Model:	SQF-SMSM4-256G-S9C
Brand:	ADVANTECH
Applicant:	**Advantech Co. Ltd.** No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 114, Taiwan, R.O.C.
Manufacturer:	**Advantech Co. Ltd.** No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 114, Taiwan, R.O.C.
Tested:	May 1 ~ 4, 2015
Test Voltage:	120VAC, 60Hz

EMISSION			
Standard	**Item**	**Result**	**Remarks**
FCC 47 CFR Part 15 Subpart B ICES-003 Issue 5: 2012 ANSI C63.4-2009	Conducted (Main Port)	PASS	Meet Class B limit
	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:

James Chan
Section Manager

Reviewed by:

Tank Wu
Section Manager

2 EUT DESCRIPTION

Product	SQF-SMS630
Brand Name	ADVANTECH
Model	SQF-SMSM4-256G-S9C
Applicant	Advantech Co. Ltd.
Identify Number	T150429L03
Received Date	April 29, 2015
EUT Power Rating	5VDC From PC

Note: 1. The Highest Frequency Generated of EUT is 27MHz

3 TEST METHODOLOGY

3.1. DECISION OF FINAL TEST MODE

1. The following test mode(s) were scanned during the preliminary test:

Pre-Test Mode
Mode 1: Full System

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

Final Test Mode		
Emission	Conducted Emission	**Mode 1 (2560 x 1600 Resolution)**
	Radiated Emission	**Mode 1 (2560 x 1600 Resolution)**

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

Remark: The EUT consumes power from host, which designed with AC power supply of rating 100-240VAC, 50/60Hz. For radiated emission evaluation, 230Vac/50Hz, 120Vac/60Hz and 100Vac/50Hz had been covered during the pre-test. The worst radiated emission 30MHz ~ 1GHz was found at 100Vac/50Hz and recorded in the applies test report.

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	The module device driver was exercised to play music.
4	EUT sends and receives data from Notebook PC at remote side via LAN Cable.
5	EUT will read data from hard disk and then writes the data into hard disk, same as external Hard Disk.
6	The EMI (File name: Burn In) test program was loaded from EUT and executed in ”Windows 7” mode.
7	EUT will sends “H” pattern to monitor, the monitor will show “H” pattern on the screen.
8	EUT sends “H” pattern to modem.
9	Repeat the above procedure (3) to (8).

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

4 SETUP OF EQUIPMENT UNDER TEST

4.1. DESCRIPTION OF SUPPORT UNITS

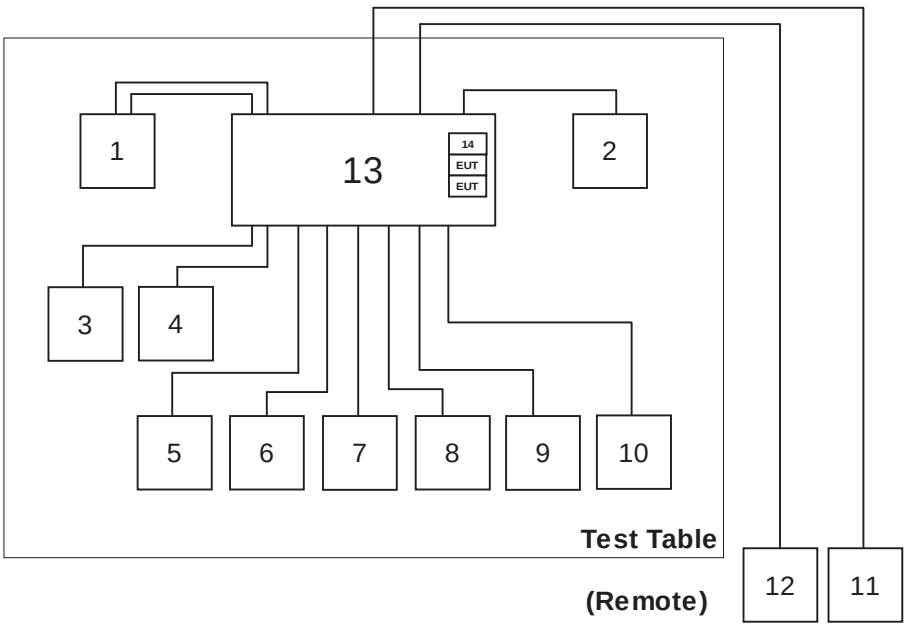
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Equipment	Model No.	Serial No.	FCC ID	Trade Name	Data Cable	Power Cord
1	LCD Monitor	3008WFP	CN-0XK290-71618-846-169L	FCC DoC	DELL	D-Sub Cable: Shielded, 1.8m with two cores Display Cable: Shielded, 1.8m	Unshielded, 1.8m
2	LCD Monitor	U2410	CN-OJ257M-72872-99N-OCTL	FCC DoC	DELL	HDMI Cable: Shielded, 1.8m	Unshielded, 1.8m
3	5.1 Amplifier	Z-5500	R805	FCC DoC	Logitech	Unshielded, 1.0m	Unshielded, 1.8m with a core
4	Modem	DM-1414	304012268	IFAXDM1414	ACEEX	Shielded, 1.8m	Unshielded, 1.8m with a core
5	USB Keyboard	SK-8115	CN-0DJ325-71616-93R-077W	FCC DoC	DELL	Unshielded, 1.8m with a core	N/A
6	USB Mouse	MO28UOL	4403438	FCC DoC	LENOVO	Shielded, 1.8m	N/A
7	Mouse (COM)	M-MM43	LZE95250096	FCC DoC	Logitech	Shielded, 1.8m	N/A
8	Multimedia Headset	ClearChat	N/A	FCC DoC	Logitech	Unshielded, 2.0m	N/A
9	USB External HDD	WDBACY5000ABK-PESN	WXF1E71PPDC7	FCC DoC	WD	Shielded, 1.5m	N/A
10	USB External HDD	WDBACY5000ABK-PESN	WX71A8193446	FCC DoC	WD	Shielded, 1.5m	N/A
11	Notebook PC (Remote)	ThinkPad T430u	PB-VZHMR 12/09	FCC DOC	LENOVO	LAN Cable: Unshielded, 10m	AC I/P: Unshielded, 1.8m DC O/P: Unshielded, 1.8m with a core
12	Notebook PC (Remote)	TP00013A	LR-9XH2K	FCC DOC	LENOVO	LAN Cable: Unshielded, 10m	AC I/P: Unshielded, 1.8m DC O/P: Unshielded, 1.8m with a core
13	Computer	DS-370	N/A	N/A	ADVANTECH	N/A	N/A
14	SIM Card	N/A	N/A	N/A	VIBO	N/A	N/A

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

4.2. CONFIGURATION OF SYSTEM UNDER TEST

1. LCD Monitor	2. LCD Monitor	3. 5.1 Amplifier
4. Modem	5. USB Keyboard	6. USB Mouse
7. Mouse (COM)	8. Multimedia Headset	9. USB External HDD
10. USB External HDD	11. Notebook PC	12. Notebook PC
13. Computer	14. SIM Card	--



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.

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 and CISPR 16-2-3.

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	150kHz~30MHz	± 2.1876
Radiated emissions	30~200MHz	± 3.8075
	200~1000MHz	± 3.7854
	1~8GHz	±2.5873
	8~18GHz	±2.6646
	18~26GHz	±2.9617
	26~40GHz	±3.4250

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

Consistent with industry standard (e.g. CISPR 22:2008, clause 11, Measurement Uncertainty) 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 3.4dB and 6.3dB 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 (dBuV)		Class B (dBuV)	
	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 Room # 1				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
EMI Test Receiver	R&S	ESCI	101300	08/31/2015
LISN	R&S	ENV216	101549	07/23/2015
LISN	FCC	FCC-LISN-50/250-1 6-2-07	06013	11/13/2015
ISN	TESEQ	ISN-T8	30842	07/30/2015
Current Probe	FCC	F-35	506	07/13/2015
ISN	FCC	FCC-TLISN-T2-02	20587	07/28/2015
Test S/W	EZ-EMC			

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)

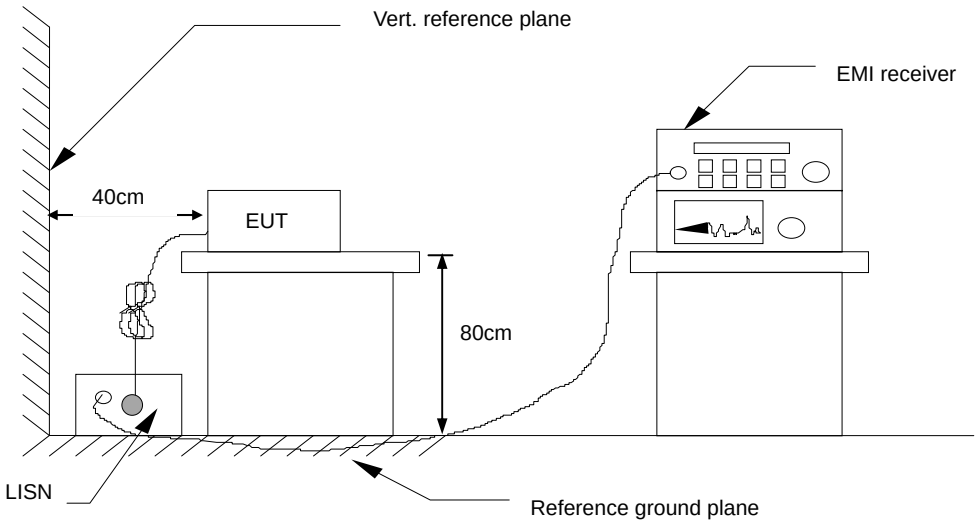
Procedure of Preliminary Test

- 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 installed by AC main power, through a Line Impedance Stabilization Network (LISN), which was supplied power source and was grounded to the ground plane.
- All support equipment power by from a second LISN.
- 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.

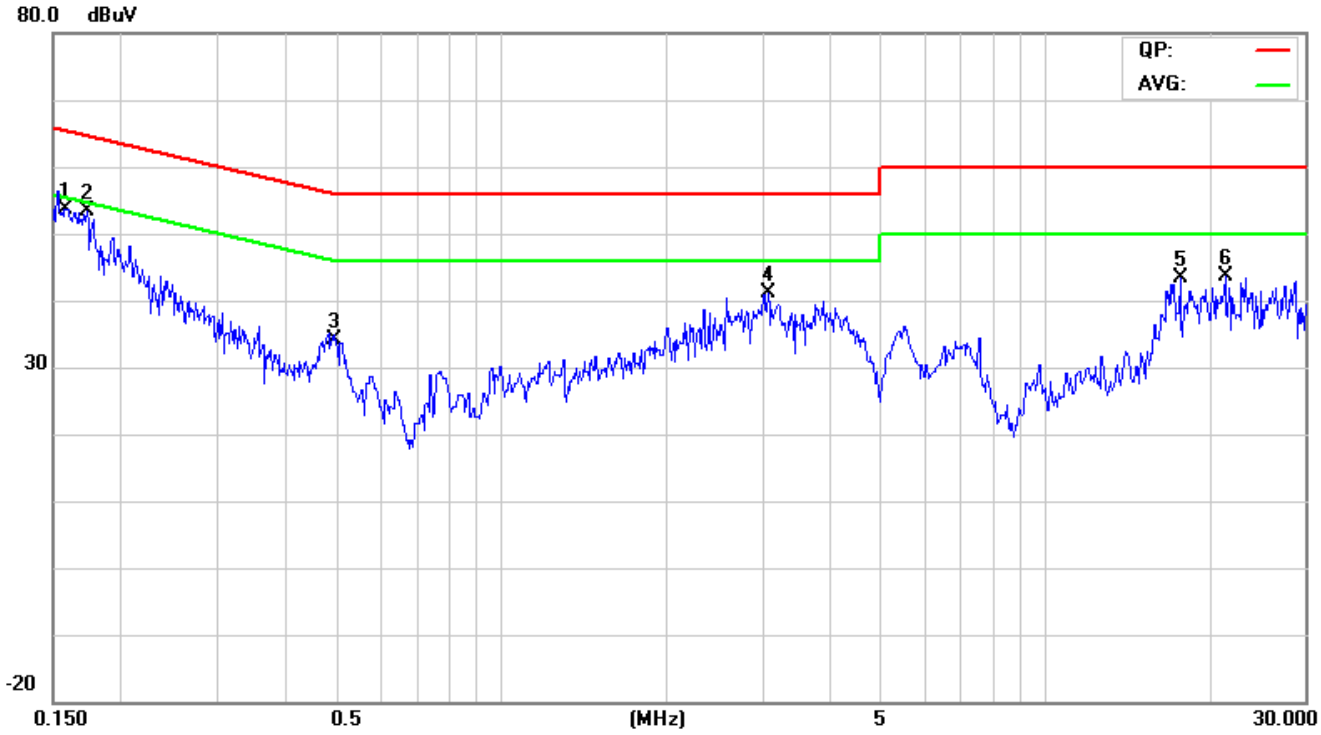
6.5. DATA SAMPLE:

Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak. limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
x.xx	43.95	33.00	10.00	53.95	43.00	56.00	46.00	-2.05	-3.00	Pass

Frequency (MHz) = Emission frequency in MHz
Reading (dBuV) = Uncorrected Analyzer/Receiver reading + Insertion loss of LISN, if it > 0.5 dB
Correction Factor (dB) = LISN Factor + Cable Loss
Result (dBuV) = Raw reading converted to dBuV and CF added
Limit (dBuV) = Limit stated in standard
Margin (dB) = Result (dBuV) – Limit (dBuV)

6.6. TEST RESULTS

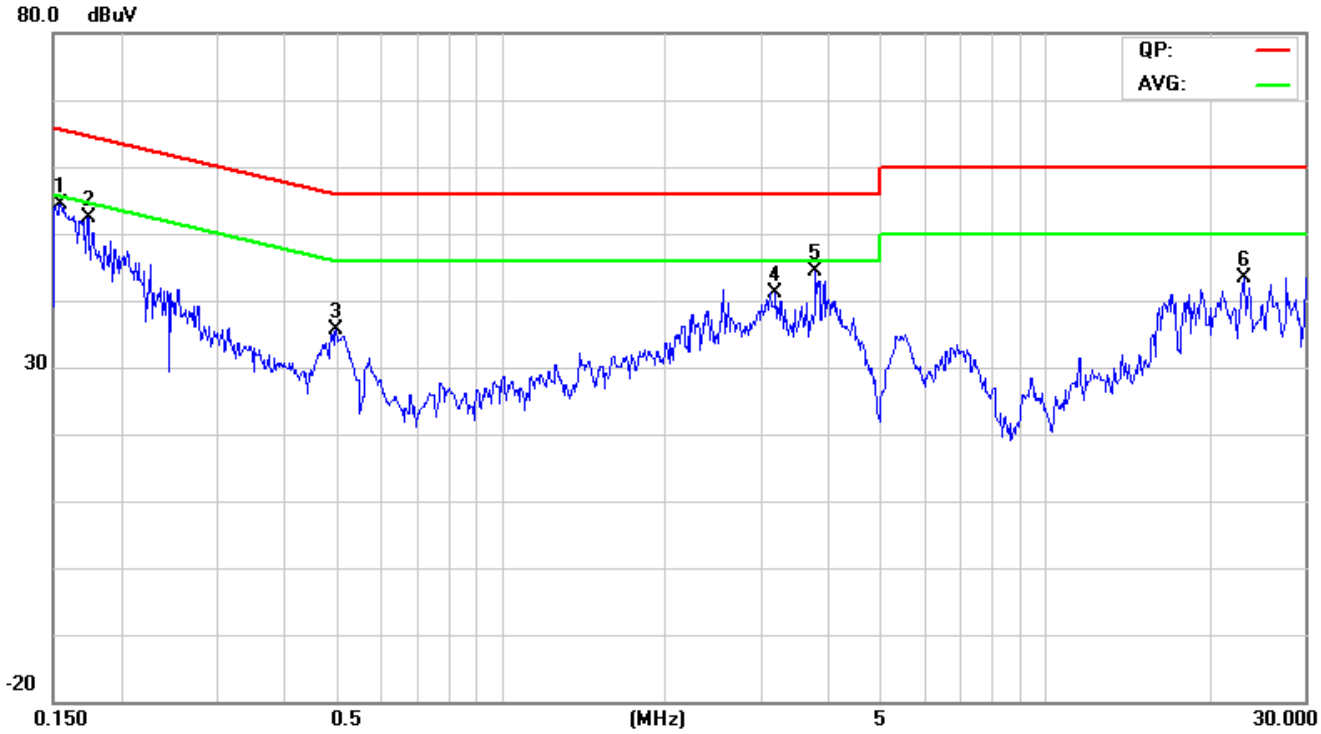
Model No.	SQF-SMSM4-256G-S9C	**6dB Bandwidth**	9 kHz
Environmental Conditions	25°C, 57% RH	**Test Mode**	Mode 1
Tested By	Nelson Tsai	**Line**	L1
Standard	FCC Class B Limit		



NO.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	(Pass/Fail)
1*	0.1577	41.39	27.33	9.91	51.30	37.24	65.58	55.58	-14.28	-18.34	Pass
2	0.1726	37.55	22.83	9.89	47.44	32.72	64.83	54.83	-17.39	-22.11	Pass
3	0.4811	21.03	12.20	9.90	30.93	22.10	56.32	46.32	-25.39	-24.22	Pass
4	3.0874	25.64	15.42	10.12	35.76	25.54	56.00	46.00	-20.24	-20.46	Pass
5	17.6000	21.42	12.95	10.63	32.05	23.58	60.00	50.00	-27.95	-26.42	Pass
6	21.3000	25.94	18.28	10.80	36.74	29.08	60.00	50.00	-23.26	-20.92	Pass

REMARKS: L1 = Line One (Live Line)

Model No.	SQF-SMSM4-256G-S9C	6dB Bandwidth	9 kHz
Environmental Conditions	25°C, 57% RH	Test Mode	Mode 1
Tested By	Nelson Tsai	Line	L2
Standard	FCC Class B Limit		



NO.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	(Pass/Fail)
1*	0.1542	42.56	27.63	9.84	52.40	37.47	65.77	55.77	-13.37	-18.30	Pass
2	0.1733	35.70	20.84	9.82	45.52	30.66	64.80	54.80	-19.28	-24.14	Pass
3	0.4964	21.30	12.95	9.83	31.13	22.78	56.06	46.06	-24.93	-23.28	Pass
4	3.1820	24.71	15.10	10.09	34.80	25.19	56.00	46.00	-21.20	-20.81	Pass
5	3.7715	24.15	15.86	10.13	34.28	25.99	56.00	46.00	-21.72	-20.01	Pass
6	23.1250	26.90	19.10	10.79	37.69	29.89	60.00	50.00	-22.31	-20.11	Pass

REMARKS: L2 = Line Two (Neutral Line)

7 RADIATED EMISSION MEASUREMENT

7.1. LIMITS OF RADIATED EMISSION MEASUREMENT

Below 1GHz (for digital device)

FREQUENCY (MHz)	dBuV/m (At 10m)	
	Class A	Class B
30 ~ 230	40	30
230 ~ 1000	47	37

Below 1GHz (for non-digital device)

Class A Radiated Emission limit at 10m (for others)

Frequency (MHZ)	Field Strength Limit (uV/m)Q.P.	Field Strength Limit (dBuV/m)Q.P.
30 - 88	90	39
88 - 216	150	43.5
216 – 960	210	46.4
Above 960	300	49.5

Class B Radiated Emission limit at 3m (for others)

Frequency (MHZ)	Field Strength Limit (uV/m)Q.P.	Field Strength Limit (dBuV/m)Q.P.
30 - 88	100	40
88 - 216	150	43.5
216 – 960	200	46
Above 960	500	54

Above 1GHz(for all device)

Frequency (MHZ)	Class A (dBuV/m) (At 10m)		Class B (dBuV/m) (At 3m)	
	Average	Peak	Average	Peak
Above 1000	49.5	69.5	54	74

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. The measurement above 1GHz is at close-in distances 3m,and determine the limit **L_2** corresponding to the close-in distance **d_2** by applying the following relation: **$L_2 = L_1 (d_1/d_2)$**, where **L_1** is the specified limit in microvolts per metre (**uV/m**) at the distance **d_1** (**10m**), **L_2** is the new limit for distance **d_2** (**3m**).
So the new Class A limit above 1GHz at 3m is as following table:

Frequency (MHZ)	Class A (dBuV/m) (At 3m)	
	Average	Peak
Above 1000	60	80

According to FCC Part 15.33 (b), for an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

Highest frequency generated or used in the device or in which the device operated or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5^{th} harmonic of the highest frequency or 40GHz, whichever is lower

7.2. TEST INSTRUMENTS

Open Area Test Site # 5				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Spectrum Analyzer	Agilent	E4411B	MY45119109	N.C.R
EMI Test Receiver	SCHAFFNER	SCR 3501	430	03/18/2016
Bilog Antenna	TESEQ	CBL 6112D	23190	08/20/2015
Pre-Amplifier	WIRELESS	FPA-6592G	060010	05/02/2016
Turn Table	CCS	CC-T-1F	N/A	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R
RF Switch	ANRITSU	MP59B	10877	05/02/2016
Test S/W	EZ-EMC			

3 Meter Chamber				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Spectrum Analyzer	Agilent	E4440A	MY46185957	01/18/2016
Pre-Amplifier	EMEC	EM01M26G	060570	07/28/2015
Pre-Amplifier	MITEQ	AMF-6F-260400-40-8P	985646	06/12/2015
Horn Antenna	EMCO	3115	9602-4659	06/10/2015
Low Loss Cable	Huber+Suhner	104PEA	20642/4PEA	08/18/2015
Low Loss Cable	Huber+Suhner	104PEA	30956/4PEA	08/18/2015
Turn Table	CCS	CC-T-1F	N/A	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R
Bore-Sight Antenna Tower	CCS	CCS-BORESIGHT	001	N.C.R
Test S/W	EZ-EMC			

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

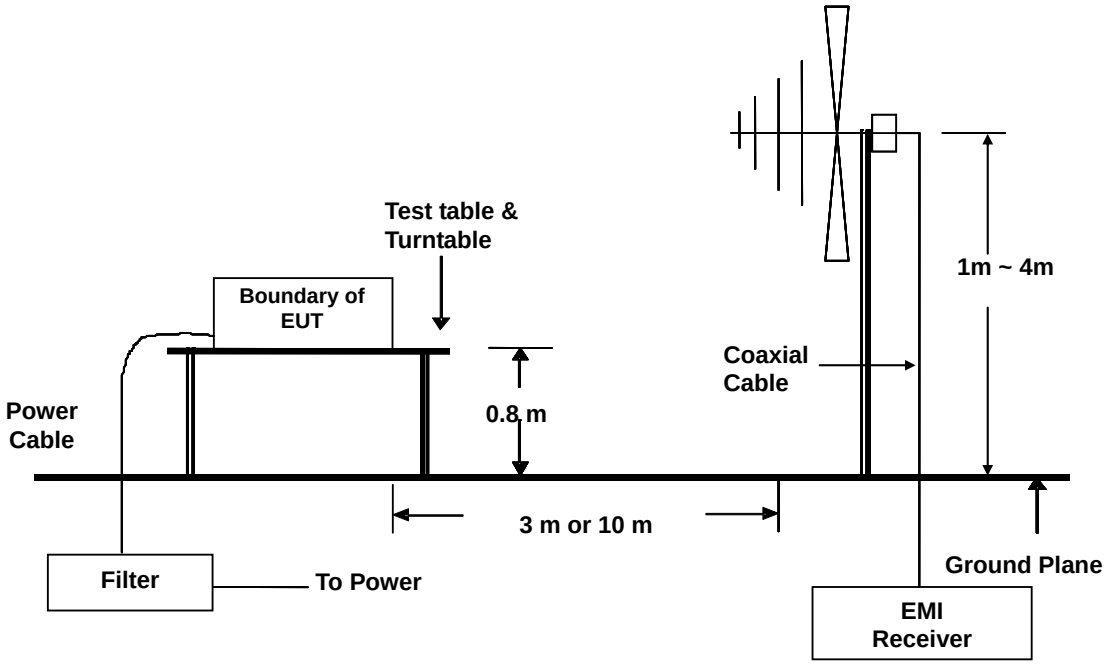
- The equipment was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane. When the EUT is a floor standing equipment, it is placed on the ground plane which has a 12 mm non-conductive covering to insulate the EUT from the ground plane.
- 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 EUT received AC 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 or 10 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 above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level (For Below 1GHz) and keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response (For Above 1GHz).
- 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

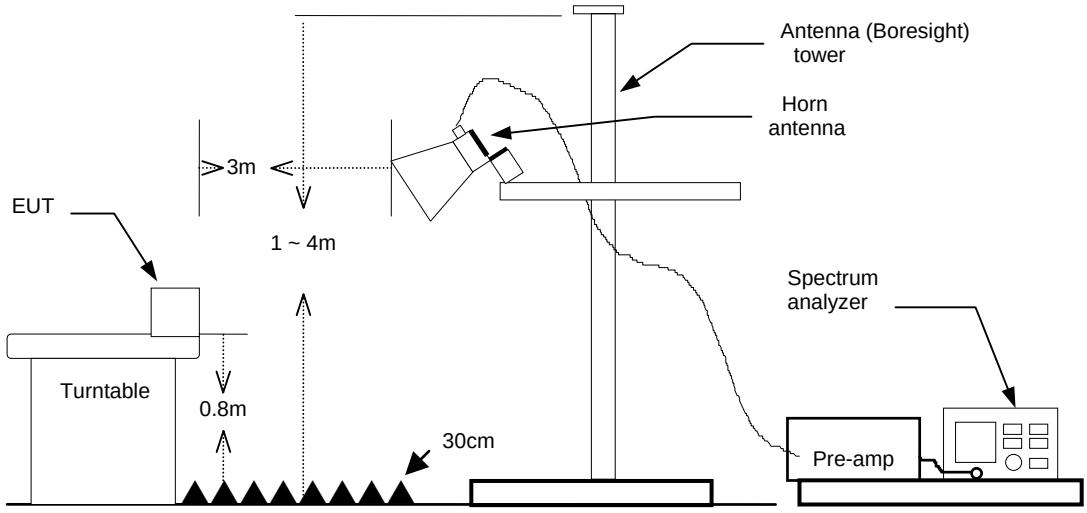
- EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test.
- The Analyzer / Receiver scanned from 30MHz to 40GHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the 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 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.

7.4. 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)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (◦)	Height (cm)	Remark
xx.xx	16.49	9.86	26.35	30.00	-3.65	116.00	101.00	QP

Above 1GHz

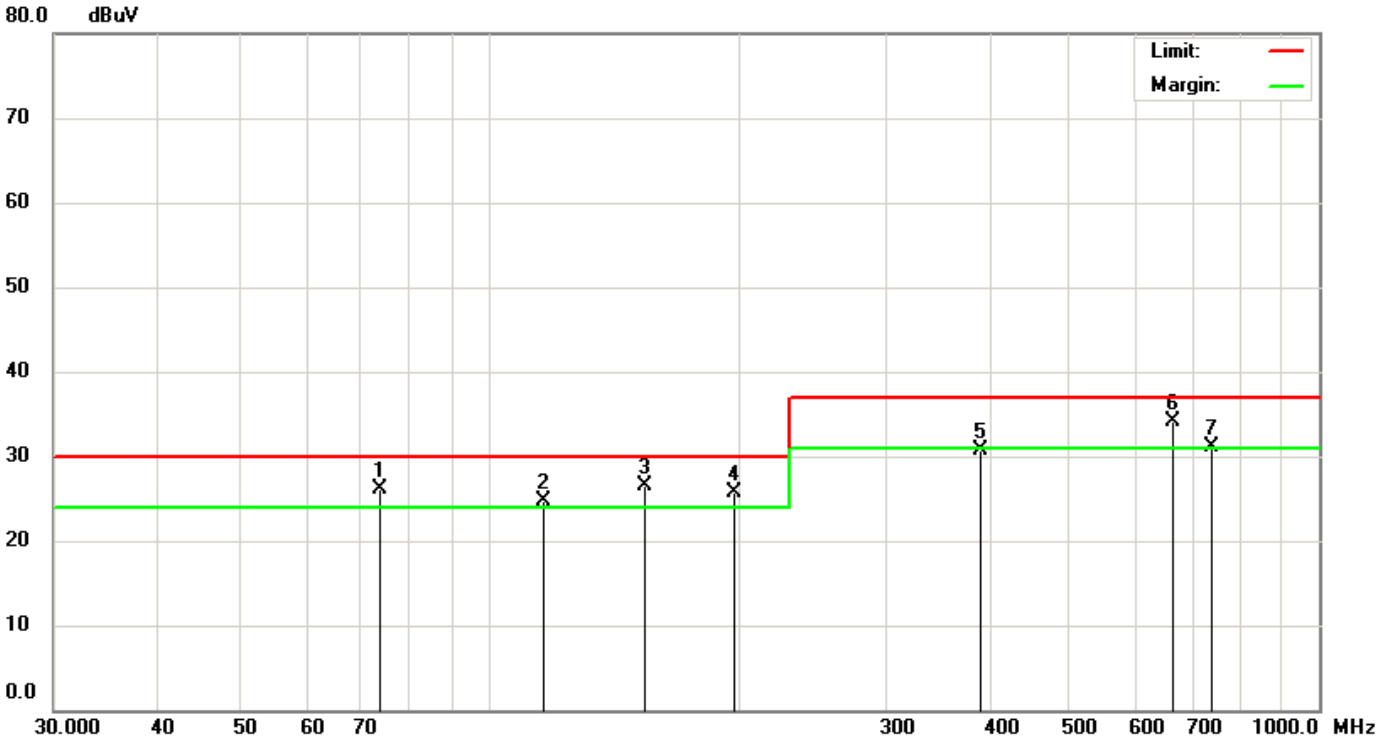
Frequency	Reading	Correction Factor	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)	
XX	54.08	-11.80	42.28	74.00	-31.72	100	185	peak
XX	34.80	-11.80	23.00	54.00	-31.00	100	185	AVG

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)
Q.P. = Quasi-Peak

7.6. TEST RESULTS

Below 1GHz

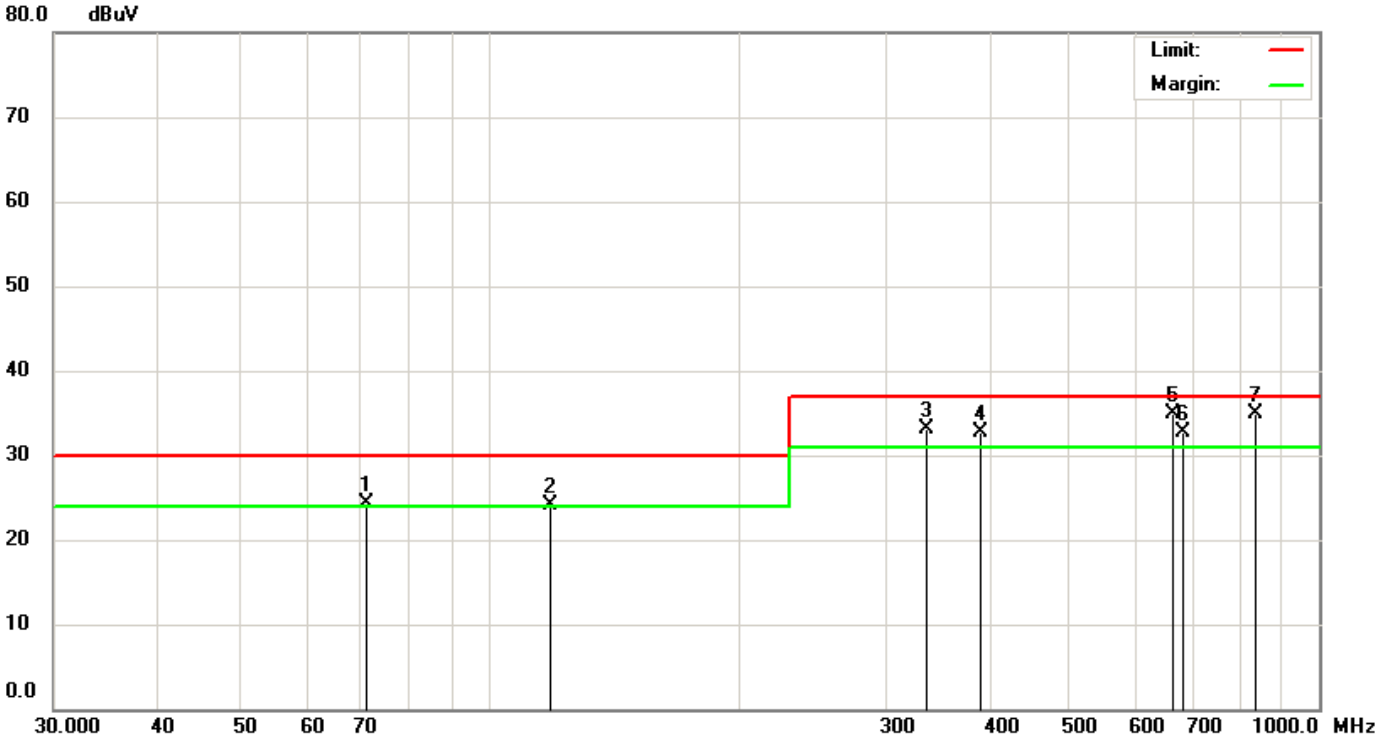
Model No.	SQF-SMSM4-256G-S9C	**Test Mode**	Mode 1
Environmental Conditions	20°C, 60% RH	**6dB Bandwidth**	120 kHz
Antenna Pole	Vertical	**Antenna Distance**	10m
Detector Function:	Quasi-peak.	**Tested By**	Nelson Tsai
Standard	FCC Class B with CISPR 22 Class B Limit		



No.	Frequency	Reading	Correction Factor	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)	
1	73.8250	46.29	-20.22	26.07	30.00	-3.93	100	151	QP
2	116.6750	38.80	-14.01	24.79	30.00	-5.21	100	240	QP
3	154.0062	41.90	-15.34	26.56	30.00	-3.44	100	76	QP
4	197.1750	41.55	-15.91	25.64	30.00	-4.36	100	52	QP
5	388.4150	38.74	-8.08	30.66	37.00	-6.34	282	158	QP
6	666.6755	35.70	-1.55	34.15	37.00	-2.85	182	158	QP
7	742.0750	31.02	0.05	31.07	37.00	-5.93	182	249	QP

REMARKS: 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.
2. The other emission levels were very low against the limit.

Model No.	SQF-SMSM4-256G-S9C	**Test Mode**	Mode 1
Environmental Conditions	20°C, 60% RH	**6dB Bandwidth**	120 kHz
Antenna Pole	Horizontal	**Antenna Distance**	10m
Detector Function:	Quasi-peak.	**Tested By**	Nelson Tsai
Standard	FCC Class B with CISPR 22 Class B Limit		

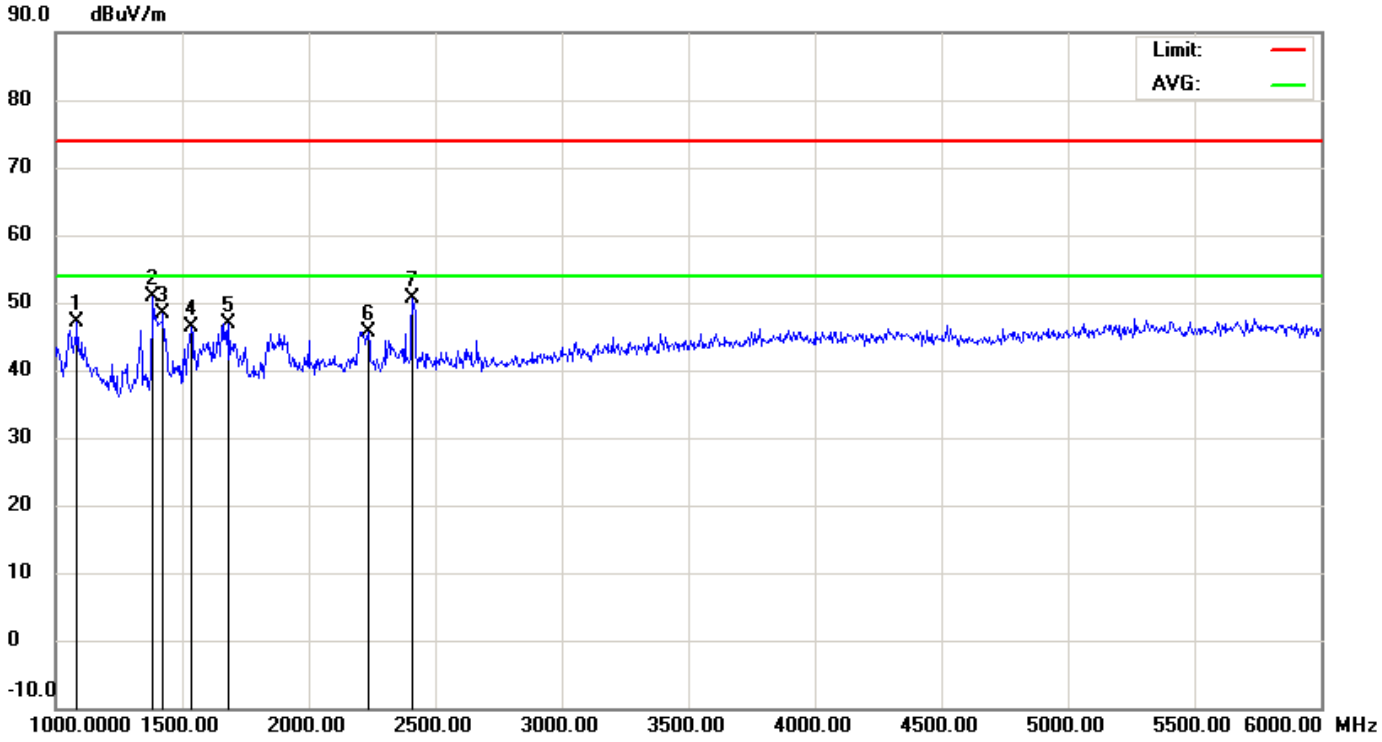


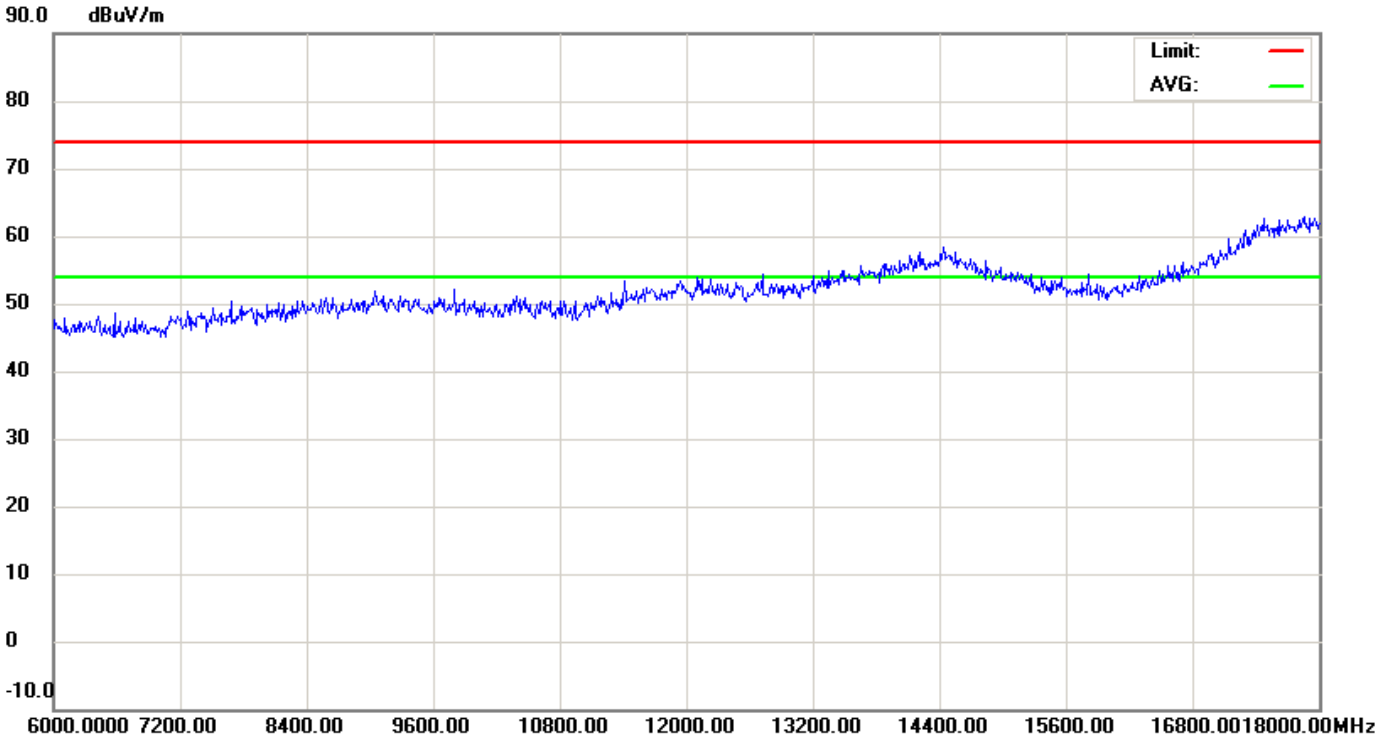
No.	Frequency	Reading	Correction Factor	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)	
1	71.2750	44.80	-20.44	24.36	30.00	-5.64	400	120	QP
2	118.7500	37.89	-13.85	24.04	30.00	-5.96	400	26	QP
3	337.0150	42.82	-9.76	33.06	37.00	-3.94	318	194	QP
4	388.3200	40.80	-8.08	32.72	37.00	-4.28	318	91	QP
5	666.6750	36.51	-1.55	34.96	37.00	-2.04	204	282	QP
6	684.4500	33.82	-1.16	32.66	37.00	-4.34	204	138	QP
7	838.4501	33.79	1.12	34.91	37.00	-2.09	105	274	QP

REMARKS: 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.
2. The other emission levels were very low against the limit.

Above 1GHz

Model No.	SQF-SMSM4-256G-S9C	Test Mode	Mode 1
Environmental Conditions	26°C, 56% RH	6dB Bandwidth	1 MHz
Antenna Pole	Vertical	Antenna Distance	3m
Highest frequency generated or used	27MHz	Upper frequency	1000MHz
Detector Function:	Peak/Average	Tested By	Nelson Tsai
Standard	FCC Class B Limit		



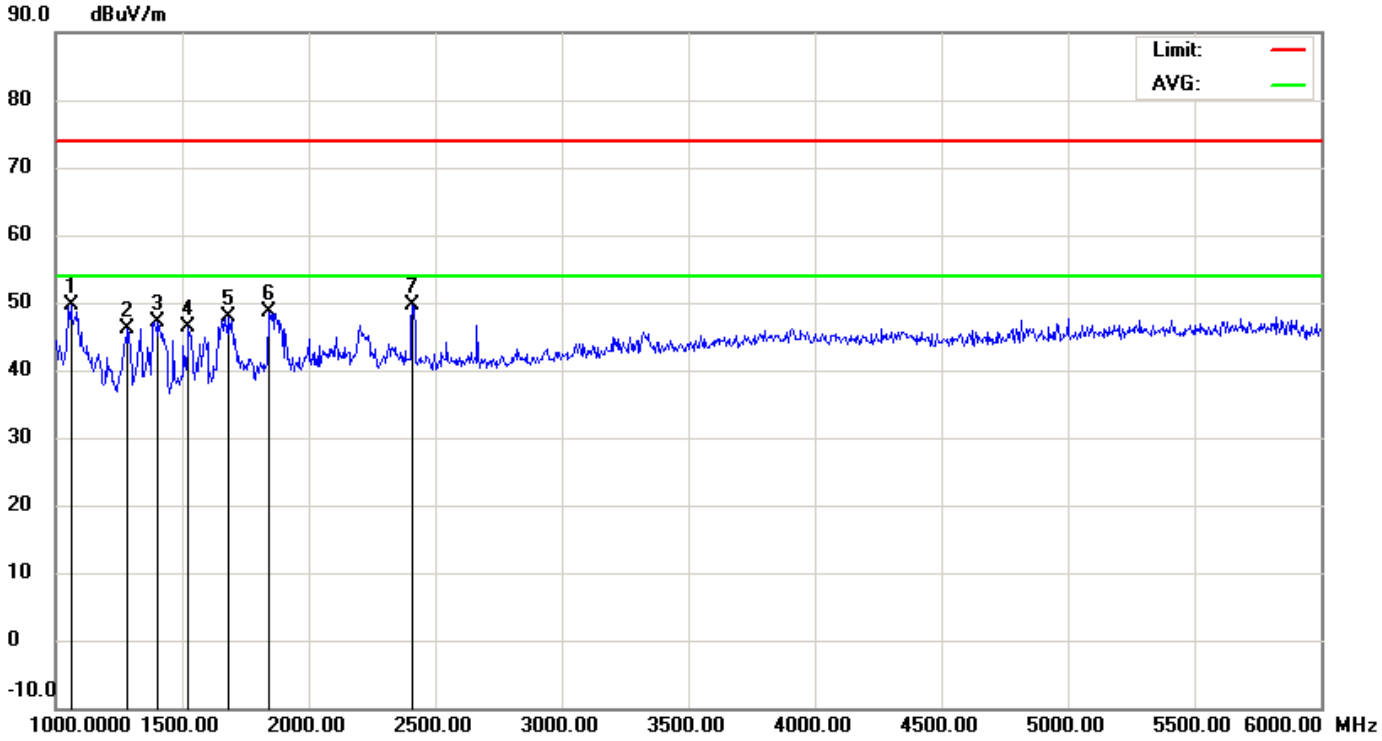


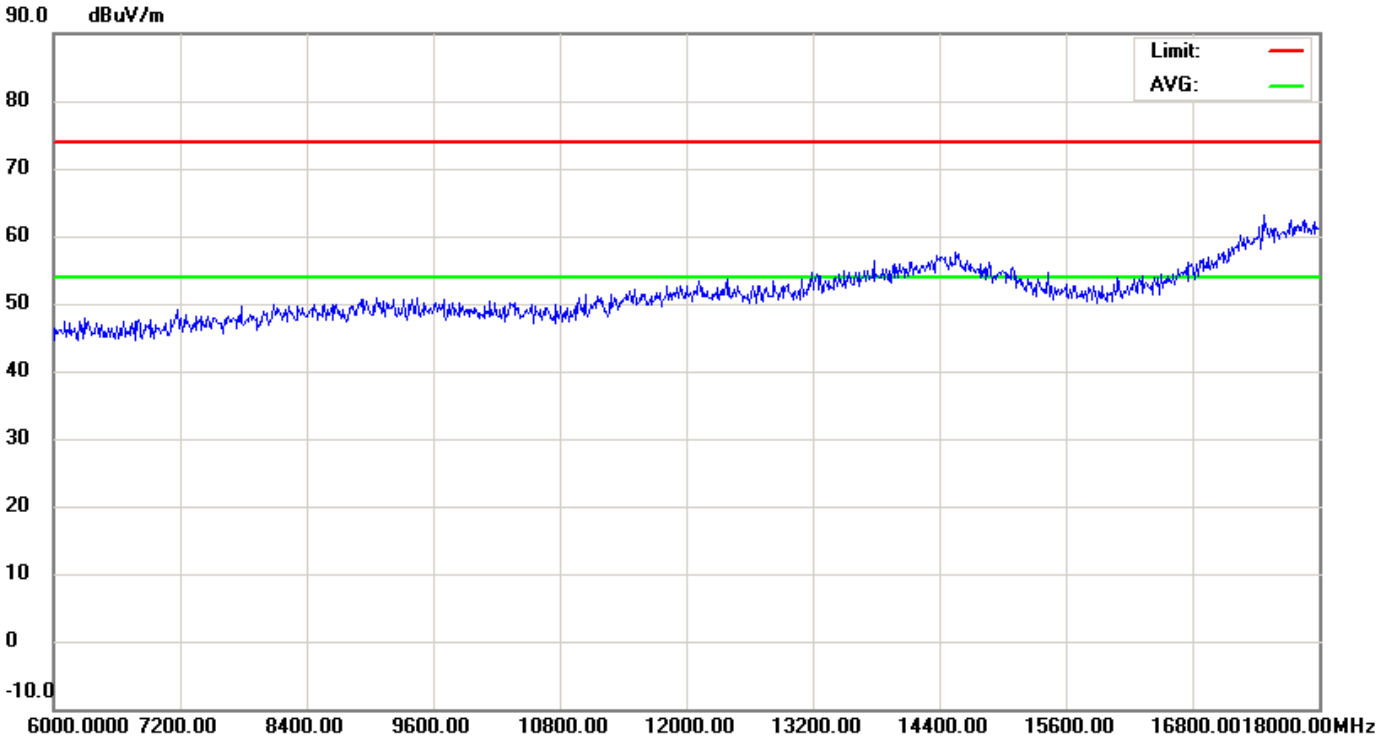
No.	Frequency	Reading	Correction Factor	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)	
1	1085.000	70.09	-23.07	47.02	74.00	-26.98	118	203	peak
2	1385.000	73.44	-22.56	50.88	74.00	-23.12	100	215	peak
3	1425.000	70.89	-22.50	48.39	74.00	-25.61	106	220	peak
4	1535.000	68.52	-22.15	46.37	74.00	-27.63	100	220	peak
5	1685.000	68.18	-21.20	46.98	74.00	-27.02	109	220	peak
6	2235.000	64.48	-18.73	45.75	74.00	-28.25	117	175	peak
7	2410.000	69.03	-18.39	50.64	74.00	-23.36	100	282	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.

Model No.	SQF-SMSM4-256G-S9C	Test Mode	Mode 1
Environmental Conditions	26°C, 56% RH	6dB Bandwidth	1 MHz
Antenna Pole	Horizontal	Antenna Distance	3m
Highest frequency generated or used	27MHz	Upper frequency	1000MHz
Detector Function:	Peak/Average	Tested By	Nelson Tsai
Standard	FCC Class B Limit		





No.	Frequency	Reading	Correction Factor	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)	
1	1060.000	72.79	-23.11	49.68	74.00	-24.32	100	215	peak
2	1285.000	68.93	-22.73	46.20	74.00	-27.80	121	243	peak
3	1400.000	69.64	-22.54	47.10	74.00	-26.90	100	235	peak
4	1525.000	68.65	-22.21	46.44	74.00	-27.56	109	255	peak
5	1680.000	69.20	-21.23	47.97	74.00	-26.03	100	228	peak
6	1840.000	68.81	-20.22	48.59	74.00	-25.41	118	255	peak
7	2410.000	68.01	-18.39	49.62	74.00	-24.38	100	166	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.

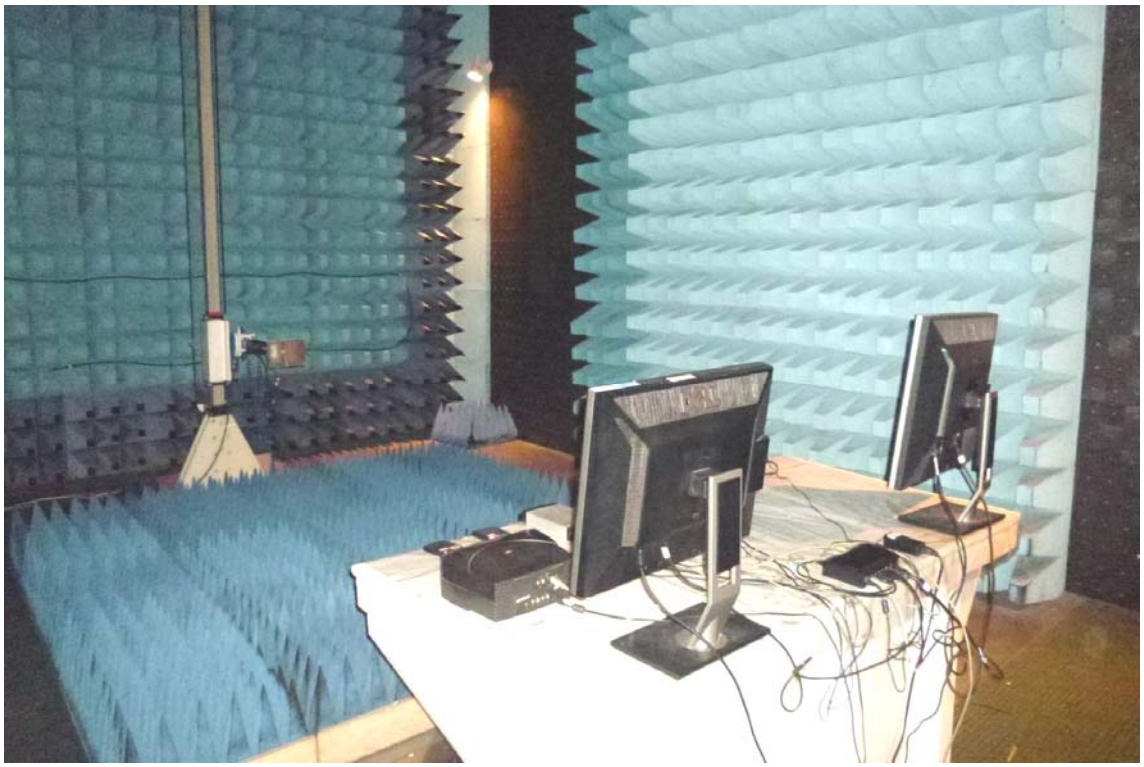
8 PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST

RADIATED EMISSION TEST

Below 1GHz

Above 1GHz



APPENDIX 1: PHOTOGRAPHS OF EUT

Refer to T150429L03 External Photographs.

PHOTOGRAPHS OF EUT