FCC&IC Radio Test Report

FCC ID: 2AAGJDHTS514A

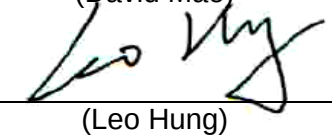
IC: 11154A-DHTS514A

This report concerns (check one): ■ **Original Grant** □ **Class I Change**

Issued Date	:	Dec. 03, 2013
Project No.	:	1310C090
Equipment	:	HOME THEATER SYSTEM
Model Name	:	DSW-S514
Applicant	:	Tymphany HK Limited
Address	:	Room 1307-8 Dominion Centre 43-59 Queen's Road East, WanChai, Hong Kong

Tested by: Neutron Engineering Inc. EMC Laboratory
Date of Receipt: Oct. 25, 2013
Date of Test: Oct. 25, 2013 ~ Dec. 02, 2013

Testing Engineer : 
(David Mao)

Technical Manager : 
(Leo Hung)

Authorized Signatory : 
(Steven Lu)

Neutron Engineering Inc.
No.3,Jinshagang 1st Road, ShiXia,
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Declaration

Neutron represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C**., or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
NEI-FICP-6-1310C090	Original Issue.	Dec. 03, 2013

1. CERTIFICATION

Equipment	:	HOME THEATER SYSTEM
Brand Name	:	DENON
Model Name	:	DSW-S514
Applicant	:	Tymphany HK Limited
Manufacture	:	D&M Holdings Inc.
Address	:	D&M Building, 2-1 Nissin-cho, Kawasaki-ku, Kawasaki-shi, Kanagawa, Japan
Factory Address	:	Premium Loudspeakers(Huizhou) Co.,Ltd. Tymphany Industrial Area, XinLian Village, XinXu Town, Huizhou City ,Guangdong,, P.R. China
Date of Test	:	Oct. 25, 2013 ~ Dec. 02, 2013
Test Item	:	ENGINEERING SAMPLE
Standard(s)	:	FCC Part15, Subpart E(15.407) / ANSI C63.4 : 2009; Canada RSS-210:2010 RSS-GEN Issue 3, Dec 2010 FCC KDB 789033 D01 General UNII Test Procedures v01r03 .

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.
The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FICP-6-1310C090) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

Test result included in this report is only for the 5.2G part of the subwoofer.

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart E/ Canada RSS-210:2010/ RSS-GEN Issue 3, Dec 2010				
Standard(s) Section		Test Item	Judgment	Remark
15.207	RSS-GEN 7.2.2	AC Power Line Conducted Emissions	PASS	
15.407(a)	RSS-210 A9.2(1)	26dB Spectrum Bandwidth	PASS	
15.407(a)	RSS-210 A9.2(1)	Maximum Conducted Output Power	PASS	
15.407(a)	RSS-210 A9.2(1)	Power Spectral Density	PASS	
15.407(a)	-	Peak Excursion	PASS	
15.407(a)	RSS-210 Annex 8 (A8.5)	Radiated Emissions	PASS	
15.407(b)	RSS-210 A9.2(1)	Band Edge Emissions	PASS	
15.407(g)	1 RSS-210 A1.1.4	Frequency Stability	PASS	
15.203	-	Antenna Requirements	PASS	

NOTE:

(1)" N/A" denotes test is not applicable in this test report

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **DG-C02/DG-CB03** at the location of No.3,Jinshagang 1st Road, ShiXia, Dalang Town, Dong Guan, China.523792
Neutron's test firm number for FCC: 319330
Neutron's test firm number for IC: 4428B-1

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**，where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**，providing a level of confidence of approximately **95**%.

A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U，(dB)	NOTE
DG-C02	CISPR	150 KHz ~ 30MHz	1.94	

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	Ant. H / V	U，(dB)	NOTE
DG-CB03	CISPR	9KHz~30MHz	V	3.79	
		9KHz~30MHz	H	3.57	
		30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	H	3.60	
		200MHz ~ 1,000MHz	V	3.86	
		200MHz ~ 1,000MHz	H	3.94	
		1GHz~18GHz	V	3.12	
		1GHz~18GHz	H	3.68	
		18GHz~40GHz	V	4.15	
		18GHz~40GHz	H	4.14	

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	HOME THEATER SYSTEM
Brand Name	DENON
Model Name	DSW-S514
Mode Different	N/A
Product Description	Operation Frequency: 5180MHz~5240MHz Modulation Type: QPSK Bit Rate of Transmitter: 100Kbps Antenna Designation / Antenna Gain(Peak): Please see note 3. Output Power (Max.): 8.00 dBm More details of EUT technical specification, please refer to the User's Manual.
Power Source	AC Mains
Power Rating	AC 120V/60Hz
Connecting I/O Port(s)	Please refer to the User's Manual.

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	5180	02	5240
03	5210		

3. Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
A	SMSC	DWAM83-TB	Printed	N/A	2.0
B	SMSC	DWAM83-TB	Printed	N/A	2.0

Only "one" antenna is selected for use at any one time, through the on-board Transmit-Receive / Diversity RF switch.

3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Test Mode	Description
Mode 1	TX Mode / CH01, CH02, CH03
Mode 2	TX Mode

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

For Conducted Test	
Final Test Mode	Description
Mode 2	TX Mode

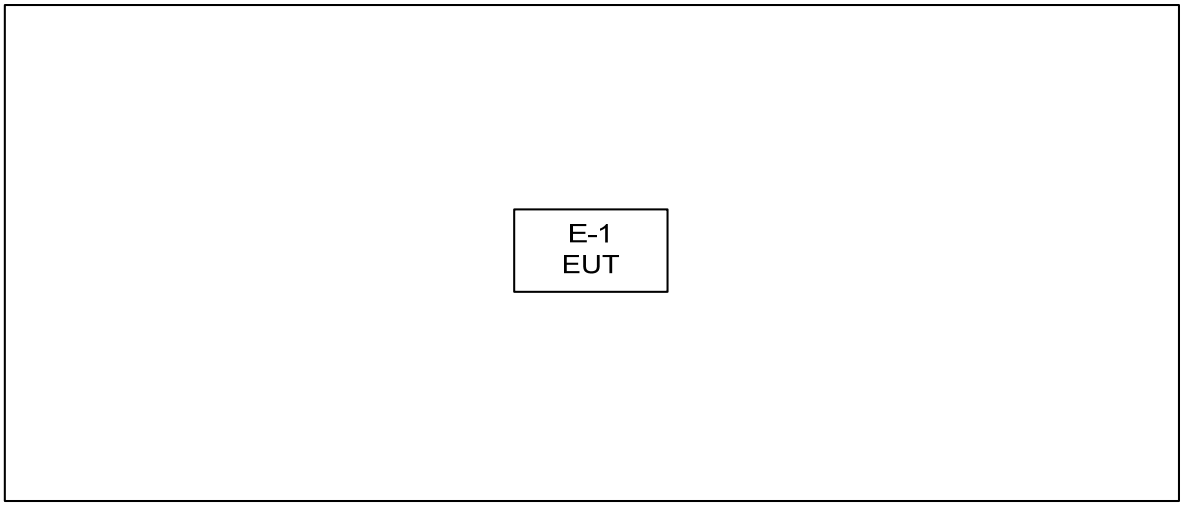
For Radiated Test	
Final Test Mode	Description
Mode 1	TX Mode / CH01, CH02, CH03

3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product

Test software version	GUI_Demo_01.05.29_8192		
Frequency	5180 MHz	5210MHz	5240 MHz
TX Mode	N/A	N/A	N/A

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.5 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.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC /IC ID	Series No.	Note
E-1	HOME THEATER SYSTEM	DENON	DSW-S514	2AAGJDHTS514A 11154A-DHTS514A	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note
-	-	-	-	

Note:

(1) The support equipment was authorized by Declaration of Confirmation.

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

4.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	EMCO	3816/2	00052765	Apr. 25, 2014
2	LISN	R&S	ENV216	100087	Nov.09, 2014
3	Test Cable	N/A	C_17	N/A	Mar.15, 2014
4	EMI TEST RECEIVER	R&S	ESCS30	826547/022	Apr. 25, 2014
5	50Ω Terminator	SHX	TF2-3G-A	08122902	Apr. 25, 2014

Remark: “N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

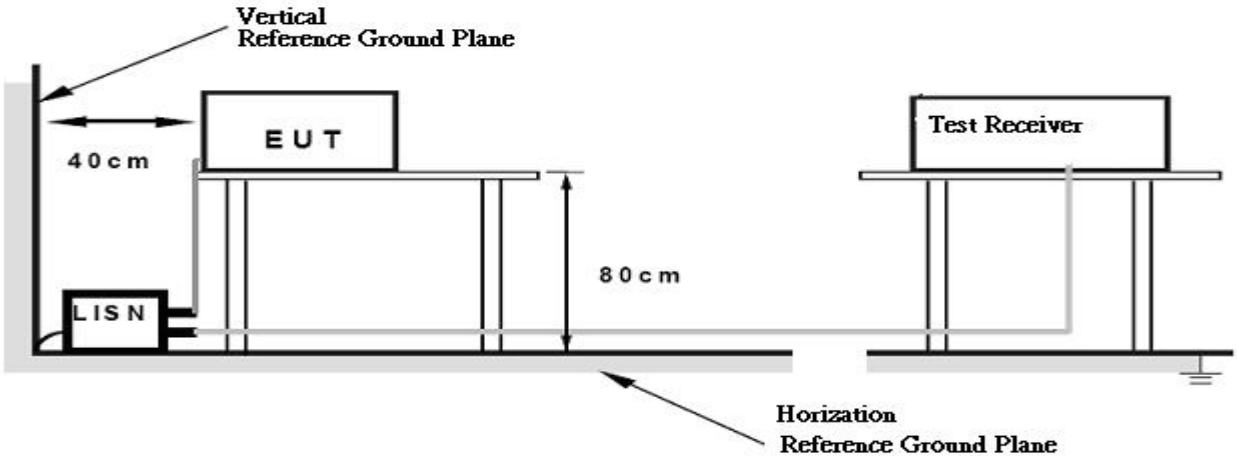
4.1.3 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



4.1.6 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it).
The EUT was programmed to be in continuously transmitting/TX Mode mode.

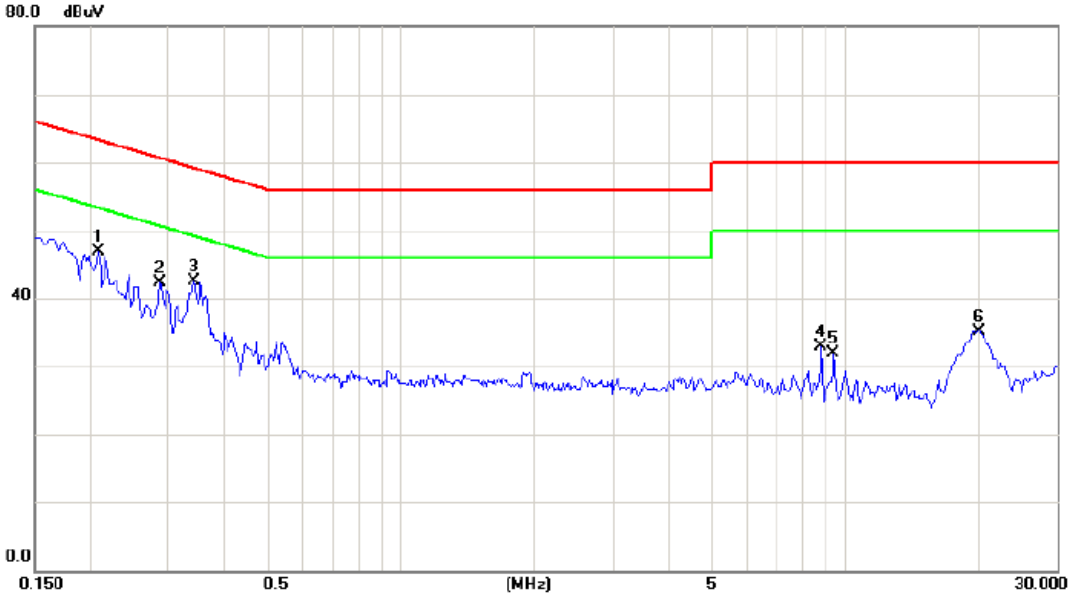
4.1.7 TEST RESULTS

Remark:

(1) All readings are QP Mode value unless otherwise stated AVG in column of『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform.In this case, a " * " marked in AVG Mode column of Interference Voltage Measured.

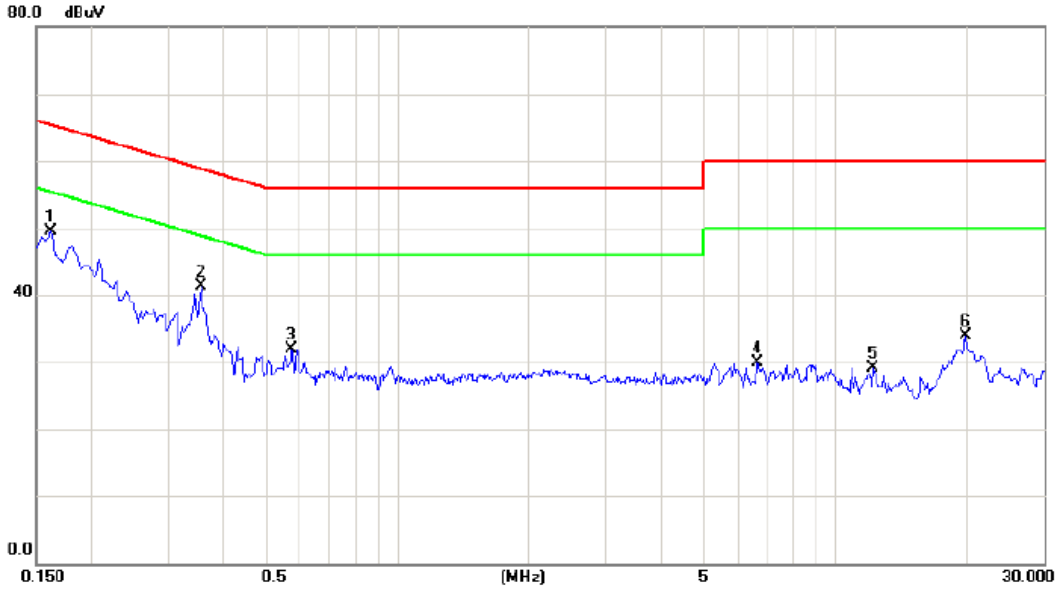
(2) Measuring frequency range from 150KHz to 30MHz.

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25 ℃	Relative Humidity:	58 %
Pressure:	1010hPa	Test Power :	AC 120V/60Hz
Test Mode :	TX Mode	Phase:	Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.2084	37.28	9.65	46.93	63.27	-16.34	peak	
2		0.2867	32.64	9.67	42.31	60.62	-18.31	peak	
3		0.3413	32.83	9.67	42.50	59.17	-16.67	peak	
4		8.8320	22.83	10.03	32.86	60.00	-27.14	peak	
5		9.4217	21.87	10.05	31.92	60.00	-28.08	peak	
6		20.0000	24.96	10.24	35.20	60.00	-24.80	peak	

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25 ℃	Relative Humidity:	58 %
Pressure:	1010hPa	Test Power :	AC 120V/60Hz
Test Mode :	TX Mode	Phase:	Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1617	39.84	9.70	49.54	65.38	-15.84	peak	
2		0.3570	31.67	9.73	41.40	58.80	-17.40	peak	
3		0.5756	22.25	9.74	31.99	56.00	-24.01	peak	
4		6.6406	19.91	10.00	29.91	60.00	-30.09	peak	
5		12.1991	18.81	10.34	29.15	60.00	-30.85	peak	
6		19.8515	23.44	10.39	33.83	60.00	-26.17	peak	

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a) & RSS-210 section 2.2 & Annex 8 (A8.5), then the 15.209(a) & RSS-Gen limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Notes

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-27	68.3
	-17	78.3

NOTE: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts)

4.2.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Apr. 25, 2014
2	Amplifier	HP	8447D	2944A09673	Apr. 25, 2014
3	Test Receiver	R&S	ESCI	100382	Apr. 25, 2014
4	Test Cable	N/A	C-01_CB03	N/A	Jul. 02, 2014
5	Antenna	ETS	3115	00075789	Apr. 25, 2014
6	Amplifier	Agilent	8449B	3008A02274	Apr. 25, 2014
7	Spectrum	Agilent	E4408B	US39240143	Nov. 09, 2014
8	Test Cable	HUBER+SUHNER	C-45	N/A	Apr. 30, 2014
9	Controller	CT	SC100	N/A	N/A
10	Horn Antenna	EMCO	3115	9605-4803	Apr. 25, 2014
11	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Apr. 25, 2014
12	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Oct. 22, 2014

Remark: “N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

4.2.3 TEST PROCEDURE

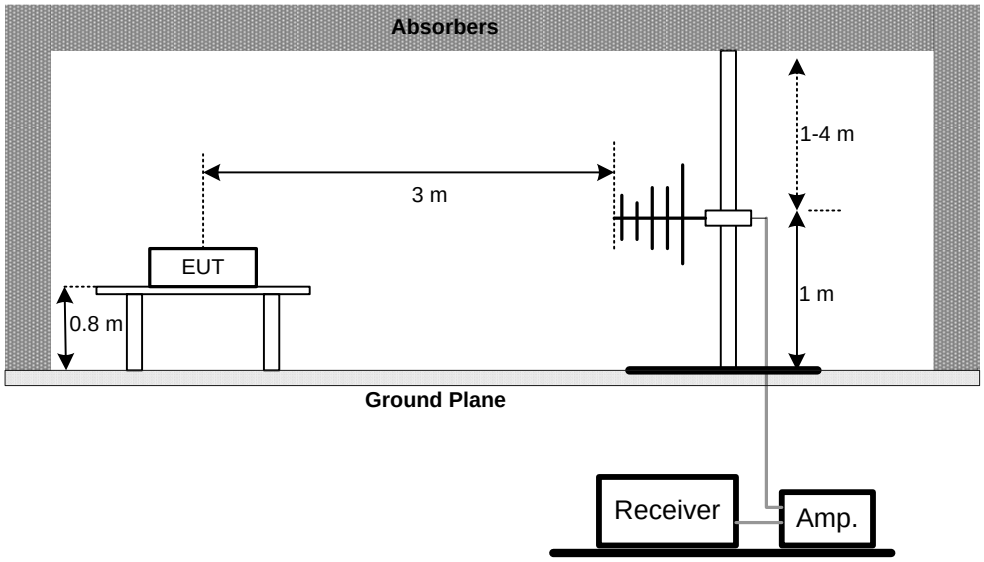
a. The measuring distance of at 1.5m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.4 DEVIATION FROM TEST STANDARD

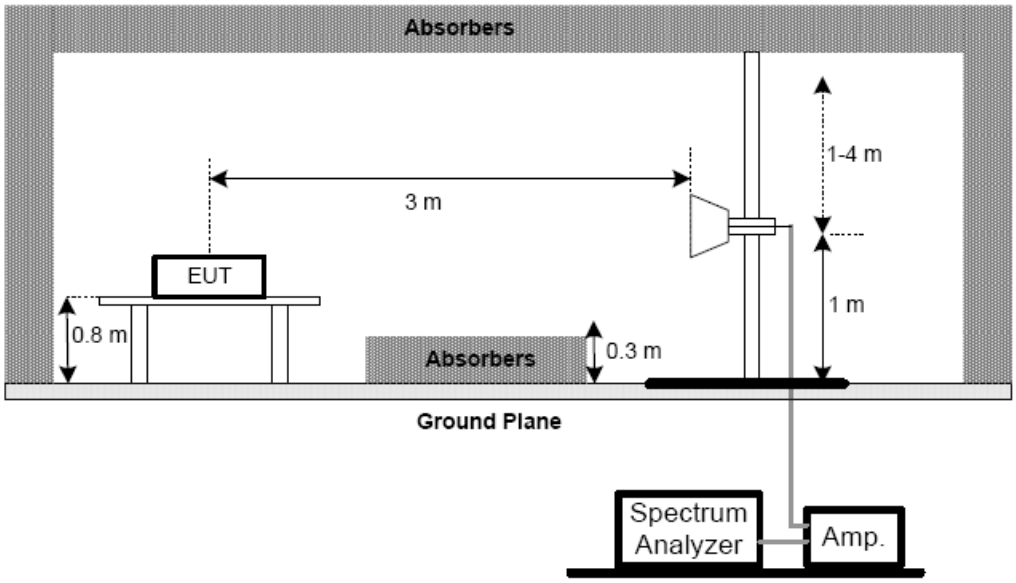
No deviation

4.2.5 TEST SETUP

Radiated Emission Test Set-Up Frequency30 - 1000MHz



Radiated Emission Test Set-Up Frequency Above 1 GHz



4.2.6 EUT OPERATING CONDITIONS

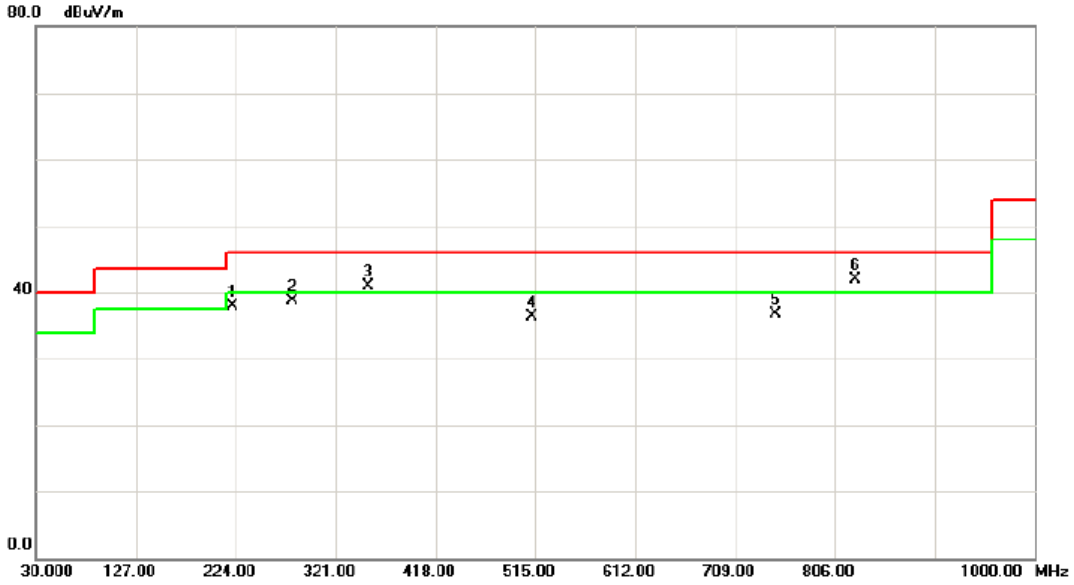
The EUT tested system was configured as the statements of **4.1.6** Unless otherwise a special operating condition is specified in the follows during the testing.

4.2.7 TEST RESULTS-BETWEEN 30MHZ - 1000MHZ

Remark:

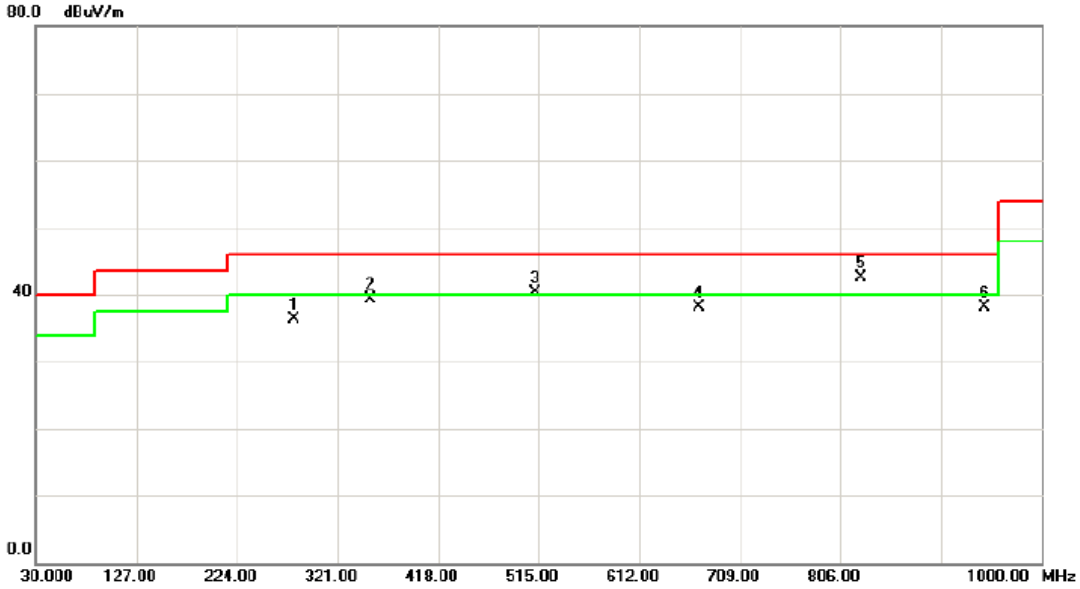
(1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz.
(2) All readings are Peak unless otherwise stated QP in column of『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn‘t perform.
(3) Measuring frequency range from 30MHz to 1000MHz.
(4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table.

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25℃	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX Mode 5180MHz		
Phase:	Vertical		



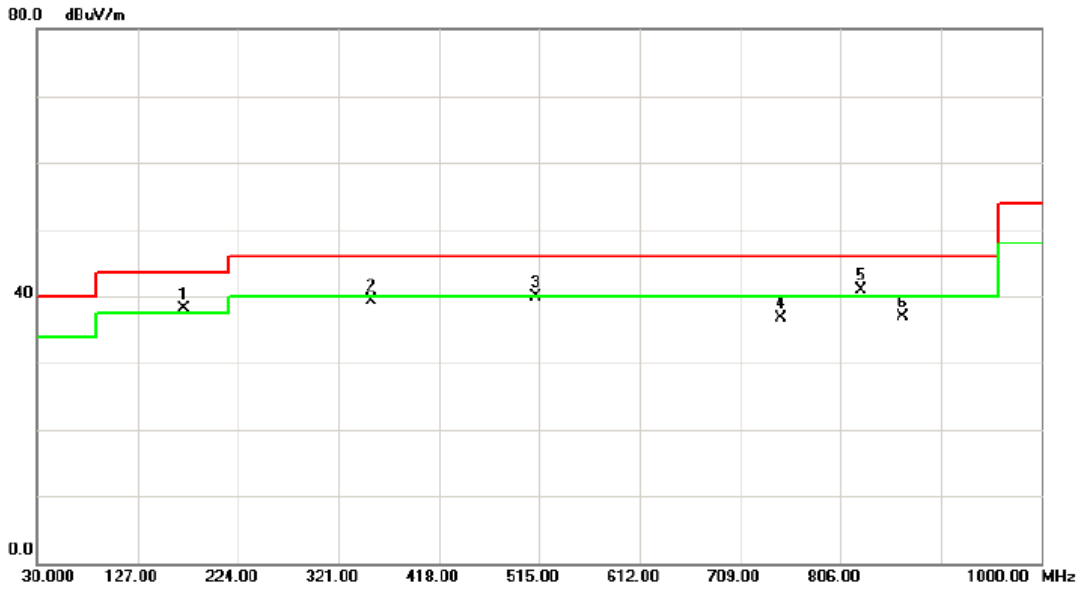
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		221.0900	52.78	-14.97	37.81	46.00	-8.19	peak	
2		279.2900	51.34	-12.63	38.71	46.00	-7.29	peak	
3	!	352.0400	52.25	-11.39	40.86	46.00	-5.14	peak	
4		512.0900	46.07	-9.69	36.38	46.00	-9.62	peak	
5		747.8000	41.60	-4.90	36.70	46.00	-9.30	peak	
6	*	826.3700	45.37	-3.40	41.97	46.00	-4.03	peak	

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25℃	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX Mode 5180MHz		
Phase:	Horizontal		



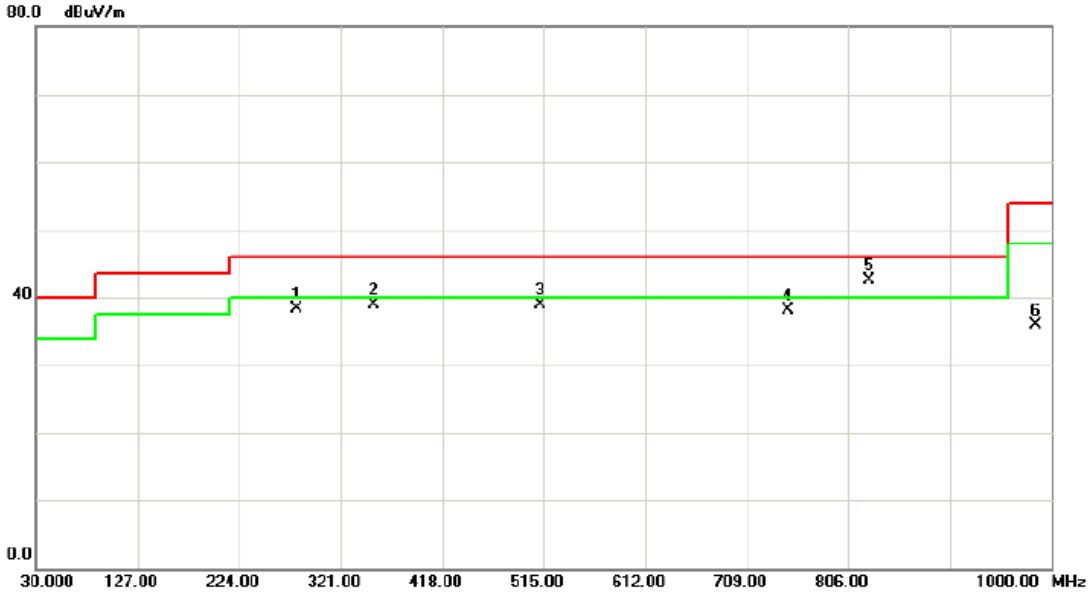
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		279.2900	48.84	-12.63	36.21	46.00	-9.79	peak	
2		352.0400	50.75	-11.39	39.36	46.00	-6.64	peak	
3	!	512.0900	50.07	-9.69	40.38	46.00	-5.62	peak	
4		669.2300	43.45	-5.28	38.17	46.00	-7.83	peak	
5	*	826.3700	45.87	-3.40	42.47	46.00	-3.53	peak	
6		944.7100	38.80	-0.60	38.20	46.00	-7.80	peak	

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25℃	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX Mode 5210MHz		
Phase:	Vertical		



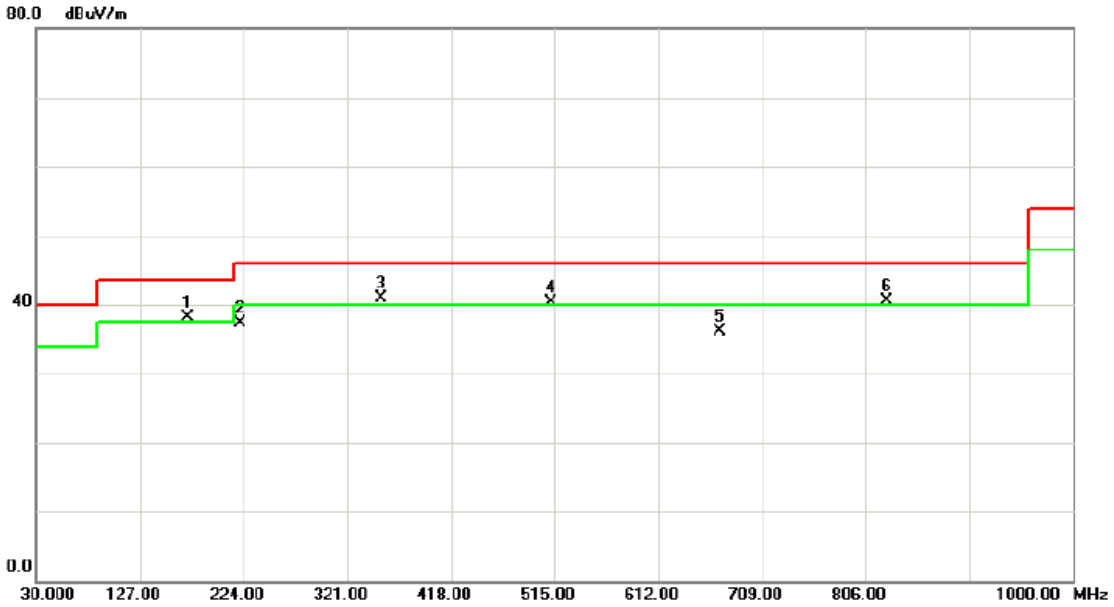
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	!	171.6200	50.75	-12.74	38.01	43.50	-5.49	peak	
2		352.0400	50.75	-11.39	39.36	46.00	-6.64	peak	
3		512.0900	49.57	-9.69	39.88	46.00	-6.12	peak	
4		747.8000	41.60	-4.90	36.70	46.00	-9.30	peak	
5	*	826.3700	44.37	-3.40	40.97	46.00	-5.03	peak	
6		866.1400	39.76	-2.89	36.87	46.00	-9.13	peak	

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25℃	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX Mode 5210MHz		
Phase:	Horizontal		



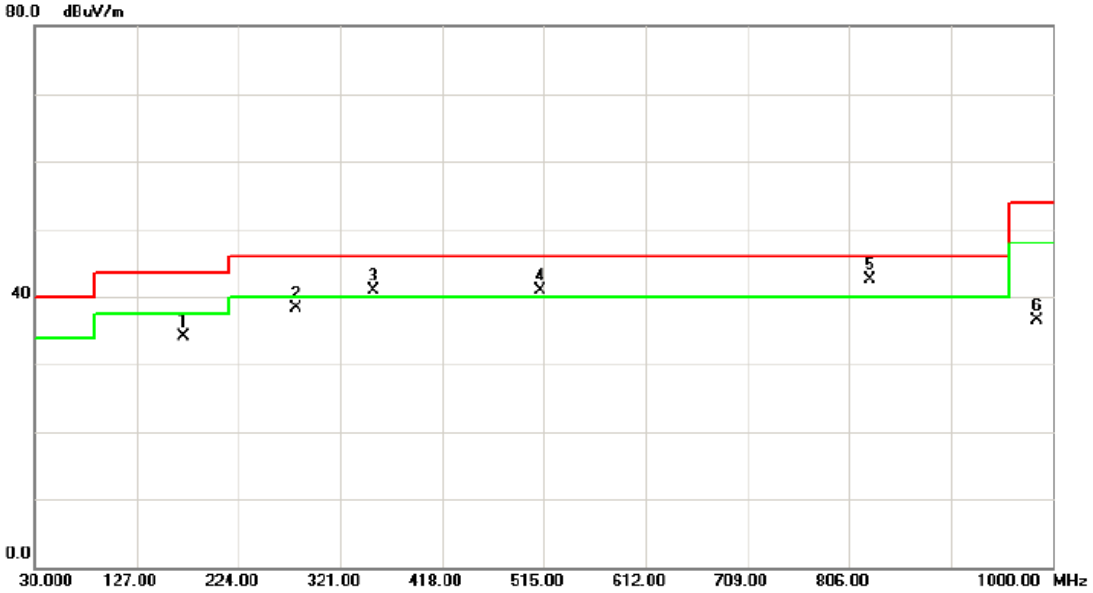
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		279.2900	50.84	-12.63	38.21	46.00	-7.79	peak	
2		352.0400	50.25	-11.39	38.86	46.00	-7.14	peak	
3		512.0900	48.57	-9.69	38.88	46.00	-7.12	peak	
4		747.8000	43.10	-4.90	38.20	46.00	-7.80	peak	
5	*	826.3700	45.87	-3.40	42.47	46.00	-3.53	peak	
6		984.4800	35.96	0.01	35.97	54.00	-18.03	peak	

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25℃	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX Mode 5240MHz		
Phase:	Vertical		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	!	171.6200	50.75	-12.74	38.01	43.50	-5.49	peak	
2		221.0900	52.28	-14.97	37.31	46.00	-8.69	peak	
3	*	352.0400	52.25	-11.39	40.86	46.00	-5.14	peak	
4	!	512.0900	50.07	-9.69	40.38	46.00	-5.62	peak	
5		669.2300	41.45	-5.28	36.17	46.00	-9.83	peak	
6	!	826.3700	43.87	-3.40	40.47	46.00	-5.53	peak	

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25℃	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX Mode 5240MHz		
Phase:	Horizontal		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		171.6200	46.75	-12.74	34.01	43.50	-9.49	peak	
2		279.2900	50.84	-12.63	38.21	46.00	-7.79	peak	
3	!	352.0400	52.25	-11.39	40.86	46.00	-5.14	peak	
4	!	512.0900	50.57	-9.69	40.88	46.00	-5.12	peak	
5	*	826.3700	45.87	-3.40	42.47	46.00	-3.53	peak	
6		984.4800	36.46	0.01	36.47	54.00	-17.53	peak	

4.2.8 TEST RESULTS - ABOVE 1000MHZ

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25°C	Relative Humidity :	58 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX Mode 5180MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.(dBuV/m)		Act.(dBm)		Limit(dBuV/m)		Limit(dBm)		Note
		Peak	AV		Peak	AV	Peak	AV	Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)									
5150.00	V	8.24	-0.37	42.72	50.96	42.35	-53.81	-62.42	68.30	54.00	-27.00	-41.30	X/E
5176.40	V	52.78	50.61	42.78	95.56	93.39	-9.21	-11.38					X/F
10360.15	V	30.98	21.29	16.03	47.01	37.32	-57.76	-67.45	68.30	54.00	-27.00	-41.30	X/H

Remark:

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency."F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .

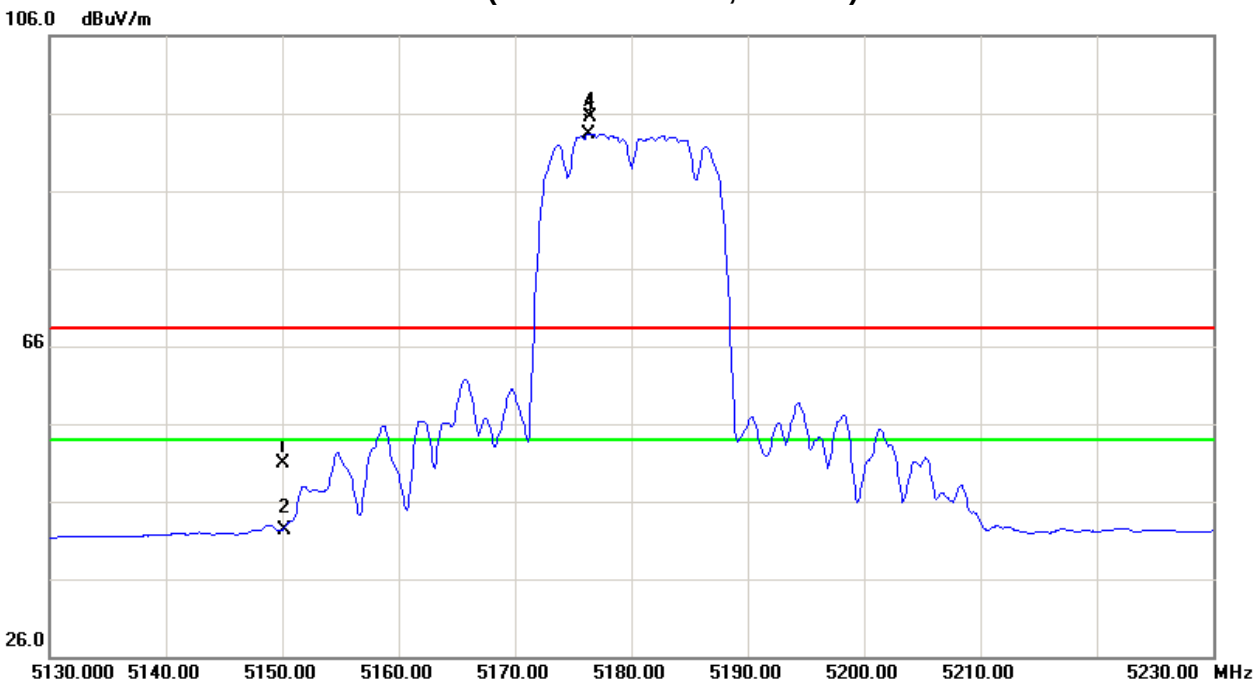
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

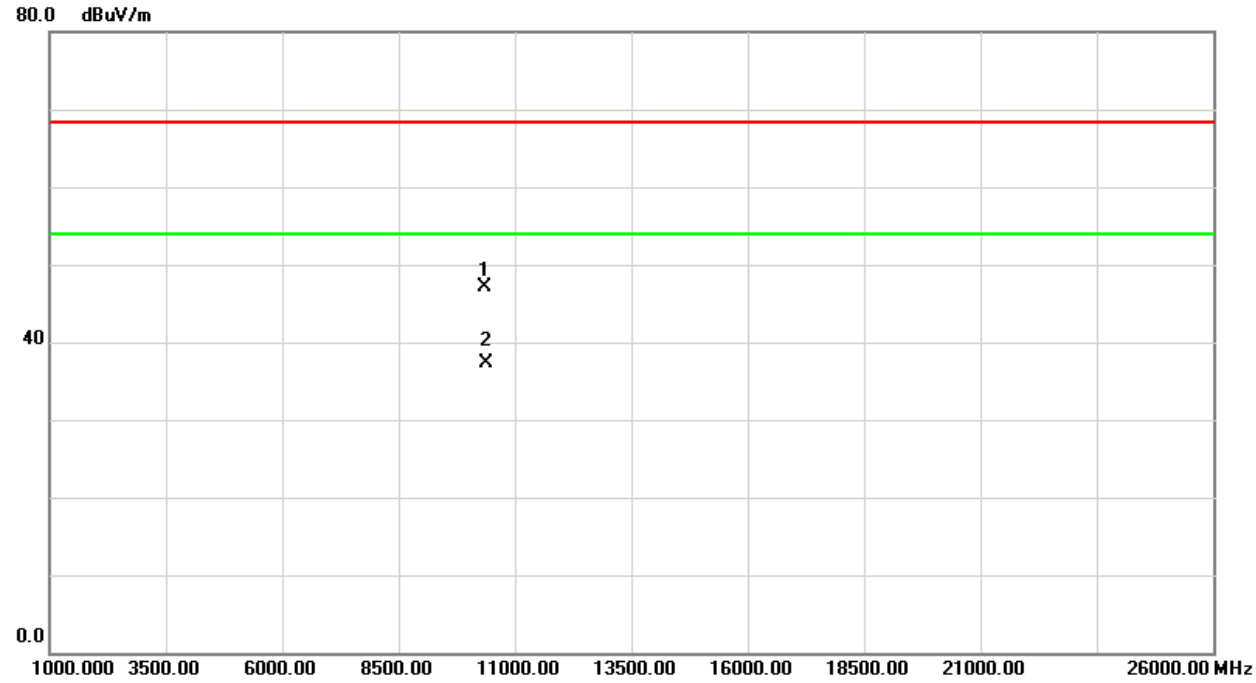
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes:
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis:X
CH01(Above 1000 MHz, Vertical)





EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25°C	Relative Humidity :	58 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX Mode 5180MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.(dBuV/m)		Act.(dBm)		Limit(dBuV/m)		Limit(dBm)		Note
		Peak	AV		Peak	AV	Peak	AV	Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)									
5150.00	H	8.66	0.13	42.72	51.38	42.85	-53.39	-61.92	68.30	54.00	-27.00	-41.30	X/E
5176.84	H	52.58	50.11	42.78	95.36	92.89	-9.41	-11.88					X/F
10360.56	H	32.43	21.92	16.03	48.46	37.95	-56.31	-66.82	68.30	54.00	-27.00	-41.30	X/H

Remark:

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency."F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .

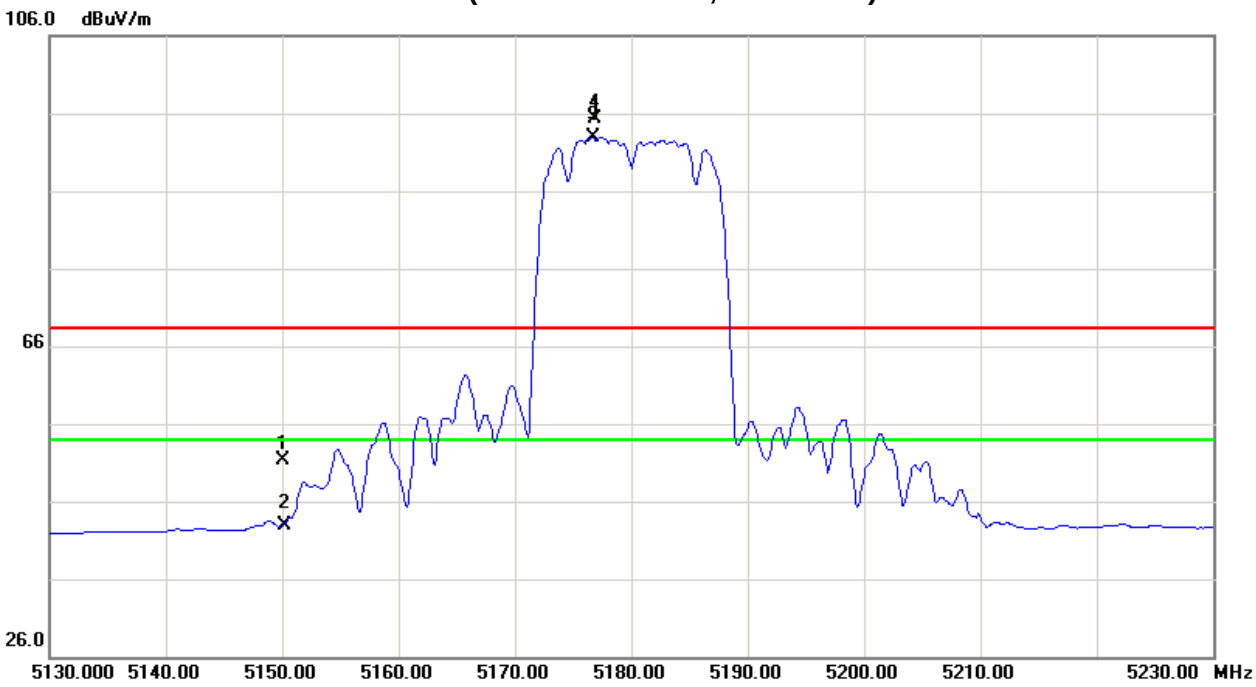
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

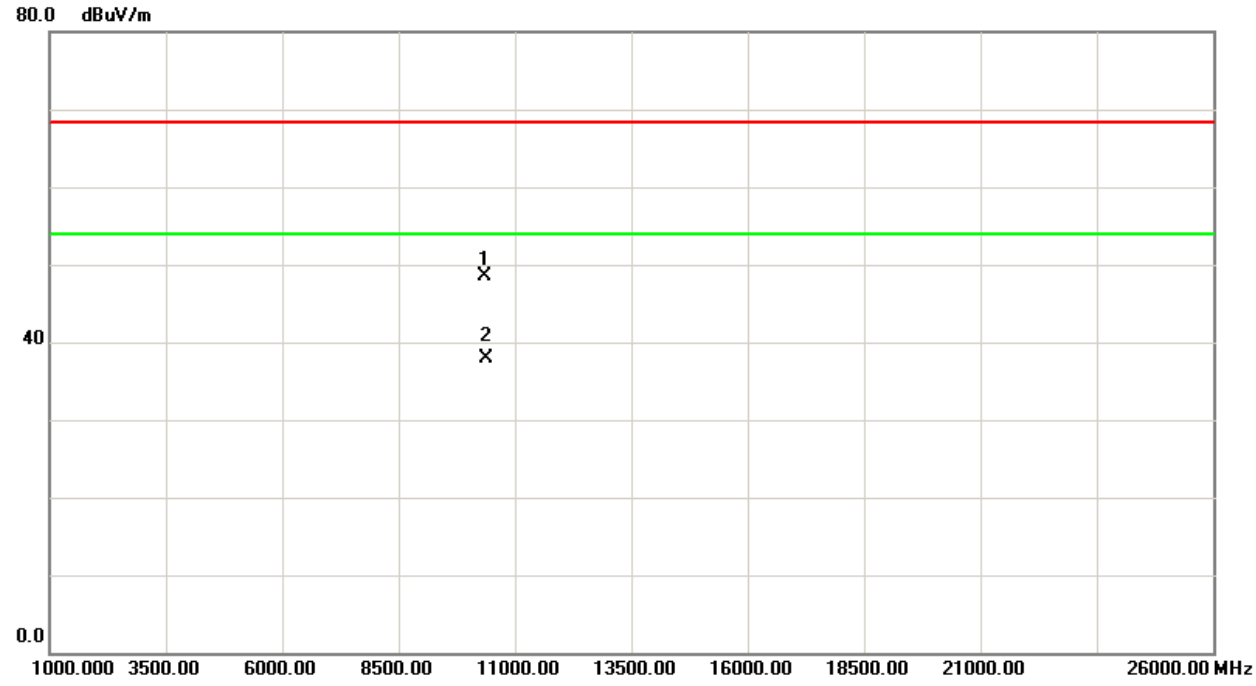
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes:
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis:X
CH01(Above 1000 MHz, Horizontal)





EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25°C	Relative Humidity :	58 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX Mode 5210MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.(dBuV/m)		Act.(dBm)		Limit(dBuV/m)		Limit(dBm)		Note
		Peak	AV		Peak	AV	Peak	AV	Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)									
5214.42	V	58.35	56.55	42.87	101.22	99.42	-3.55	-5.35					X/F
10419.25	V	30.87	19.37	15.93	46.80	35.30	-57.97	-69.47	68.30	54.00	-27.00	-41.30	X/H

Remark:

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency."F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .

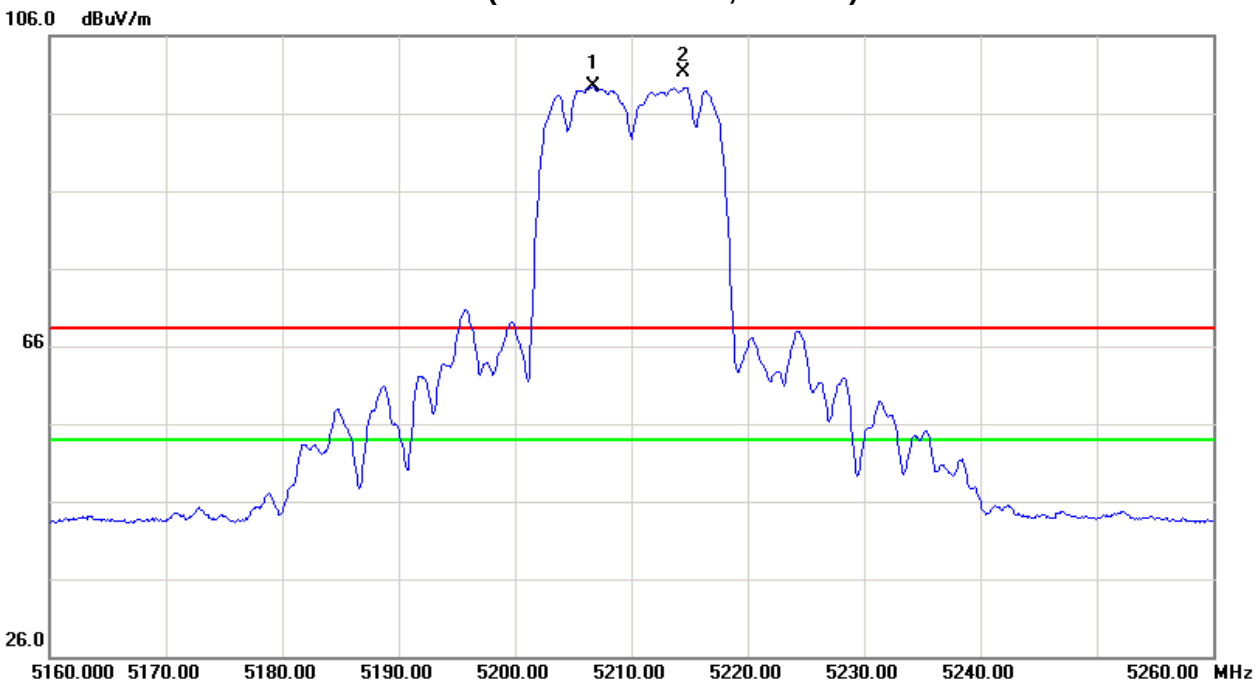
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

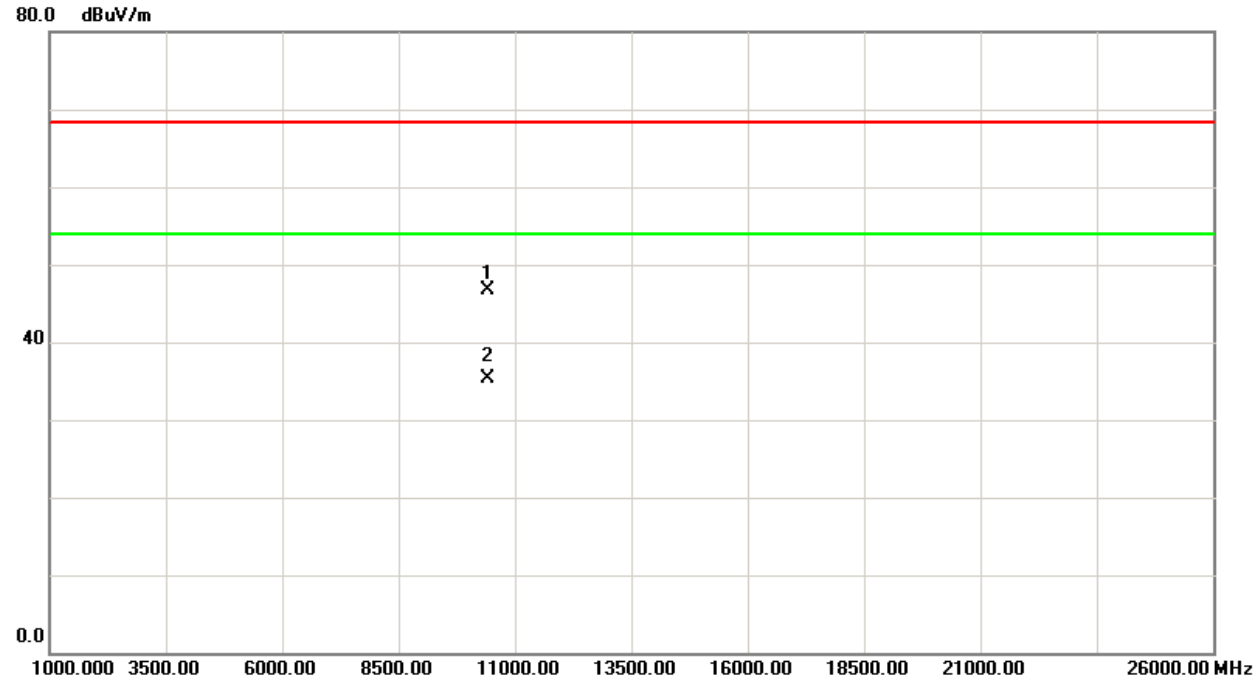
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes:
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis:X
CH02(Above 1000 MHz, Vertical)





EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25°C	Relative Humidity :	58 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX Mode 5210MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.(dBuV/m)		Act.(dBm)		Limit(dBuV/m)		Limit(dBm)		Note
		Peak	AV		Peak	AV	Peak	AV	Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)									
5212.90	H	52.47	50.42	42.87	95.34	93.29	-9.43	-11.48					X/F
10419.87	H	31.01	19.55	15.93	46.94	35.48	-57.83	-69.29	68.30	54.00	-27.00	-41.30	X/H

Remark:

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency."F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .

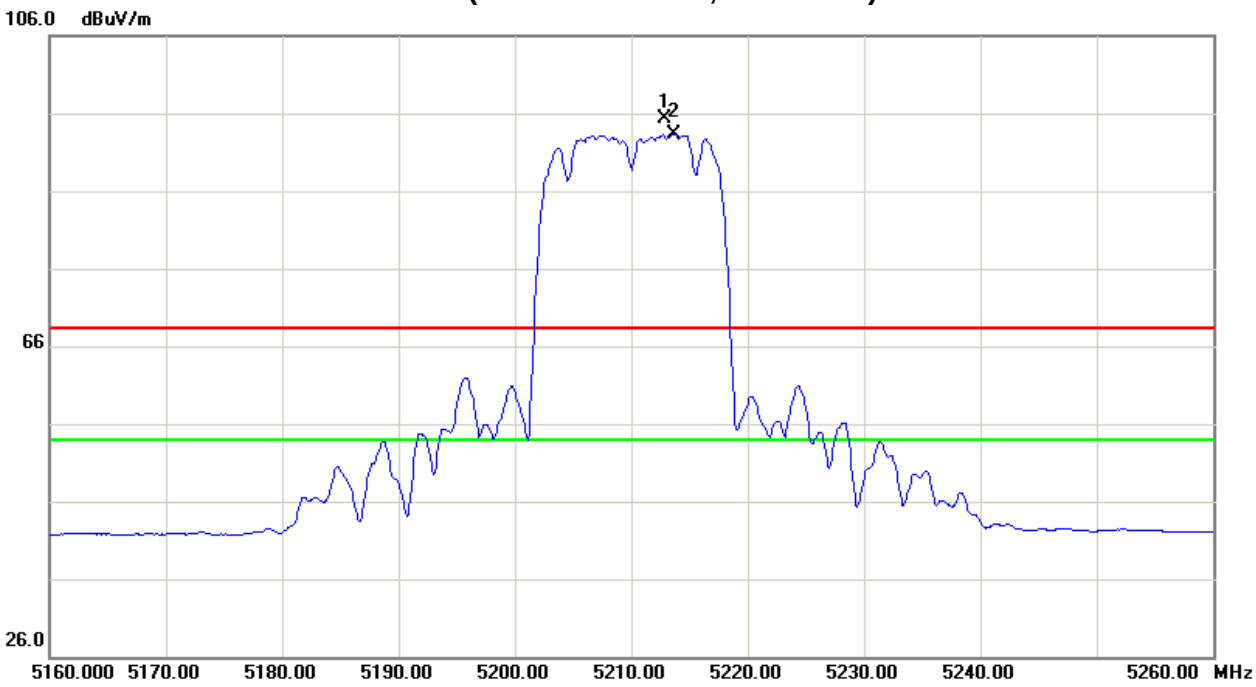
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

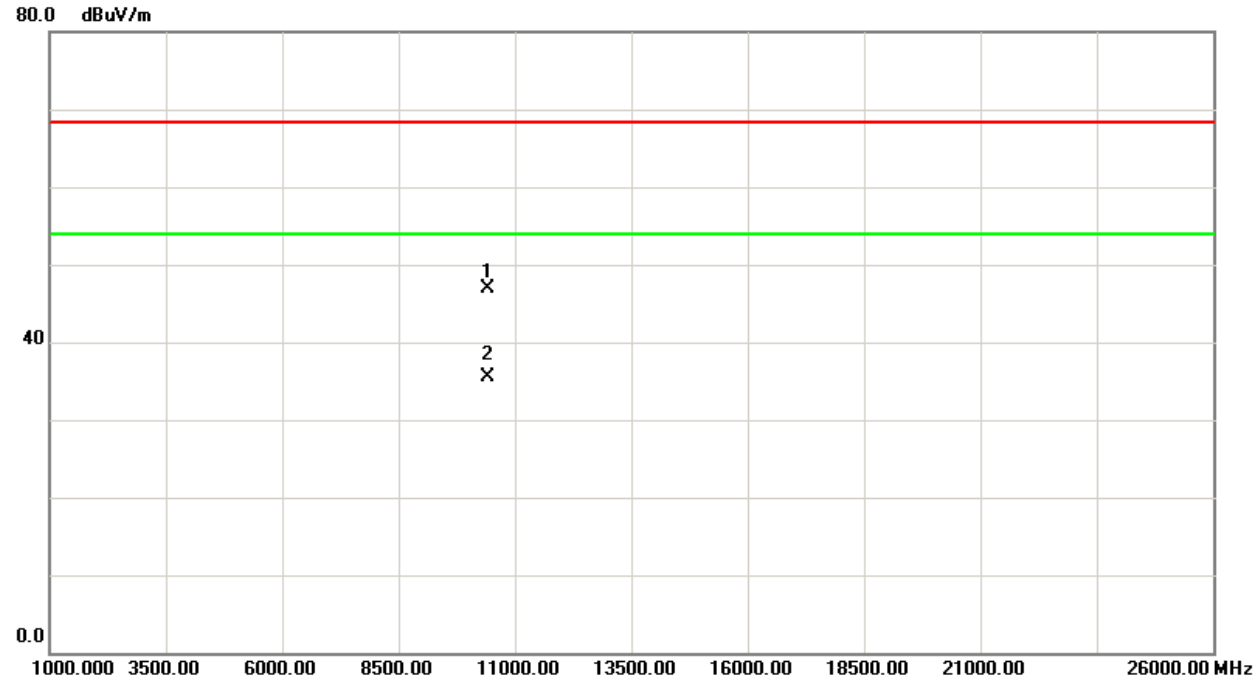
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes:
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis:X
CH02(Above 1000 MHz, Horizontal)





EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25°C	Relative Humidity :	52 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX Mode 5240MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.(dBuV/m)		Act.(dBm)		Limit(dBuV/m)		Limit(dBm)		Note
		Peak	AV		Peak	AV	Peak	AV	Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)									
5237.46	V	58.52	56.46	42.93	101.45	99.39	-3.32	-5.38					X/F
10480.87	V	32.95	21.01	15.85	48.80	36.86	-55.97	-67.91	68.30	54.00	-27.00	-41.30	X/H

Remark:

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency."F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .

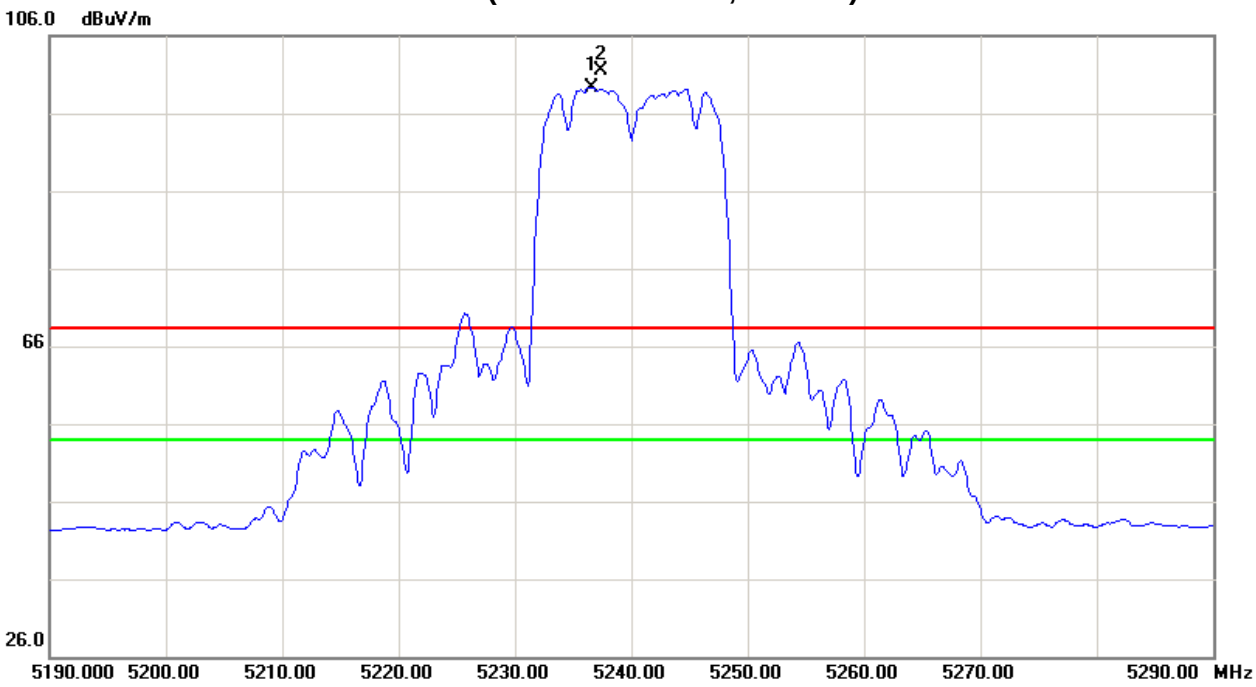
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

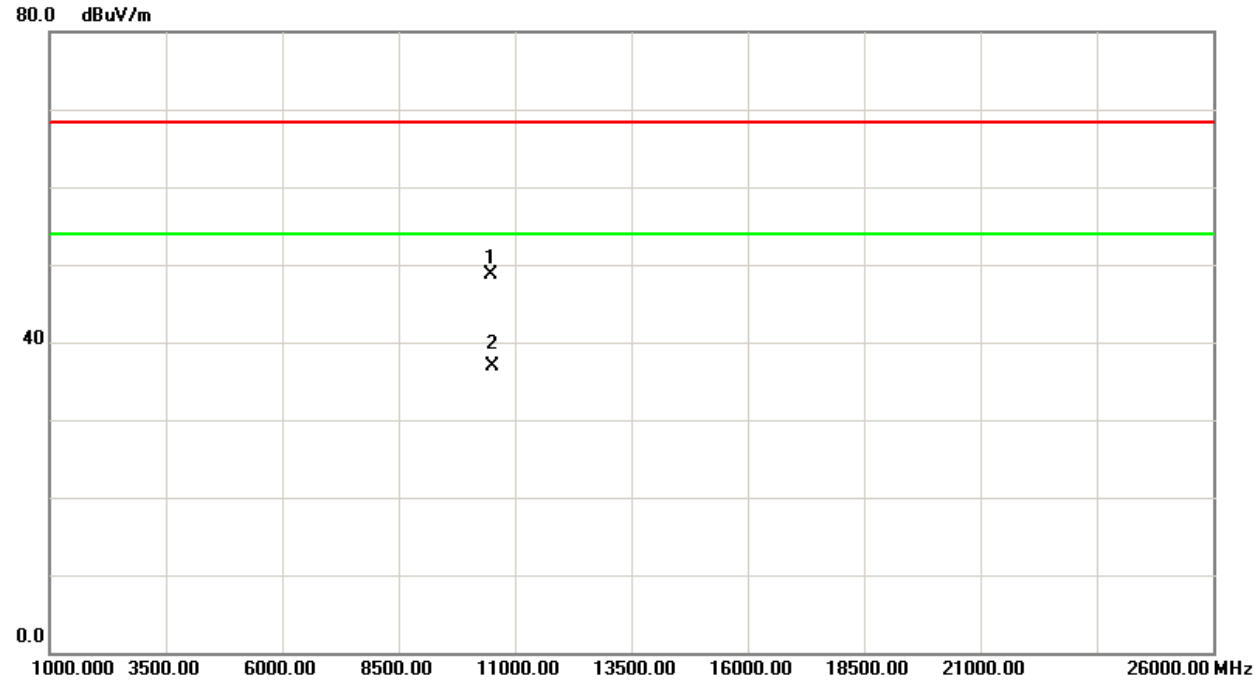
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes:
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis:X
CH03(Above 1000 MHz, Vertical)





EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25°C	Relative Humidity :	52 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX Mode 5240MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.(dBuV/m)		Act.(dBm)		Limit(dBuV/m)		Limit(dBm)		Note
		Peak	AV		Peak	AV	Peak	AV	Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)									
5237.32	H	54.02	52.07	42.93	96.95	95.00	-7.82	-9.77					X/F
10480.48	H	32.06	21.04	15.85	47.91	36.89	-56.86	-67.88	68.30	54.00	-27.00	-41.30	X/H

Remark:

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency."F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .

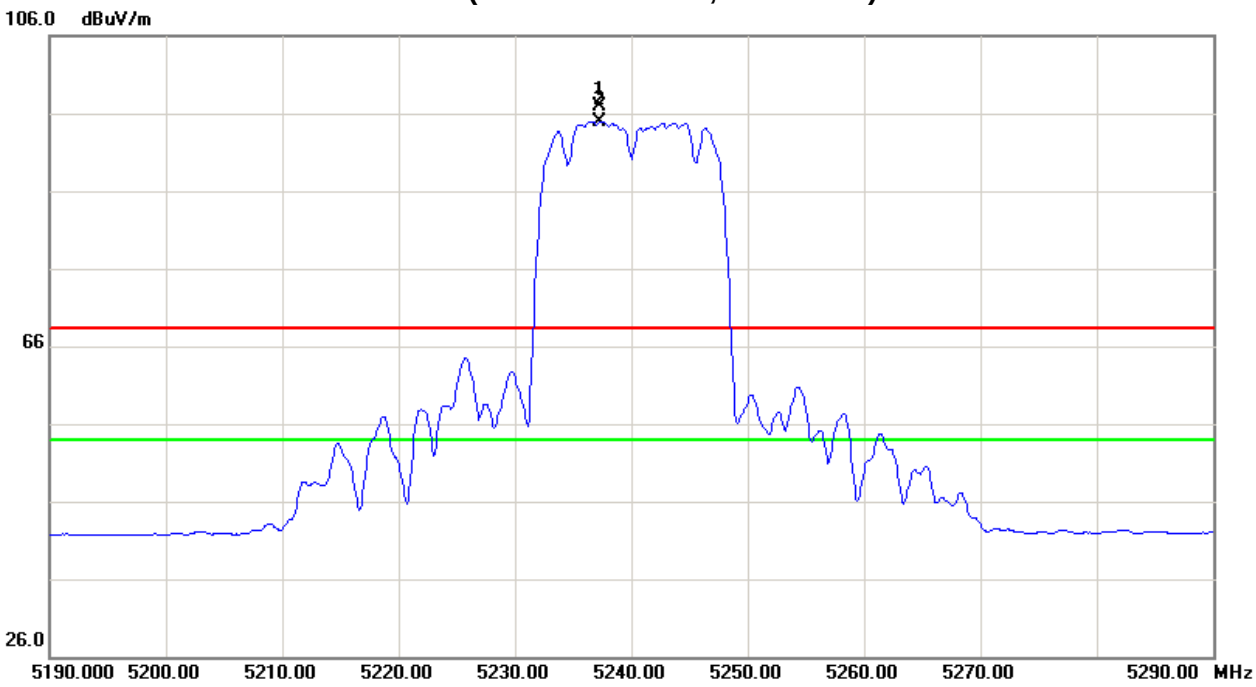
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

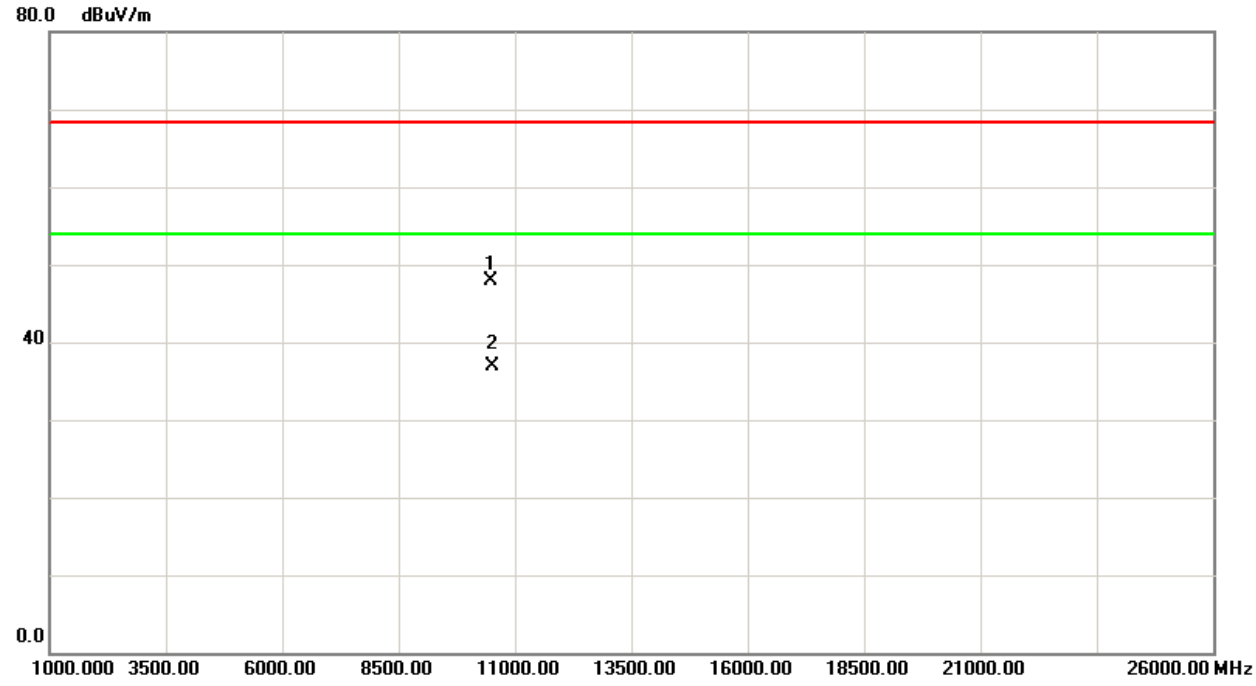
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes:
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis:X
CH03(Above 1000 MHz, Horizontal)





5. 26dB SPECTRUM BANDWIDTH

5.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E/ RSS-210: 2010			
Test Item	Limit	Frequency Range (MHz)	Result
26 dB Bandwidth	------	5150MHz~5250	PASS

5.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov. 09, 2014

Remark: “N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

5.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

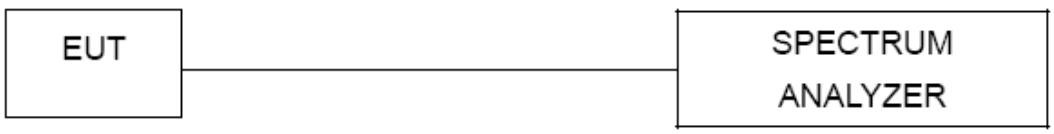
Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 26dB Bandwidth
RB	300 kHz
VB	1000 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

c. Measured the spectrum width with power higher than 26dB below carrier

5.1.3 DEVIATION FROM STANDARD

No deviation.

5.1.4 TEST SETUP



5.1.5 EUT OPERATION CONDITIONS

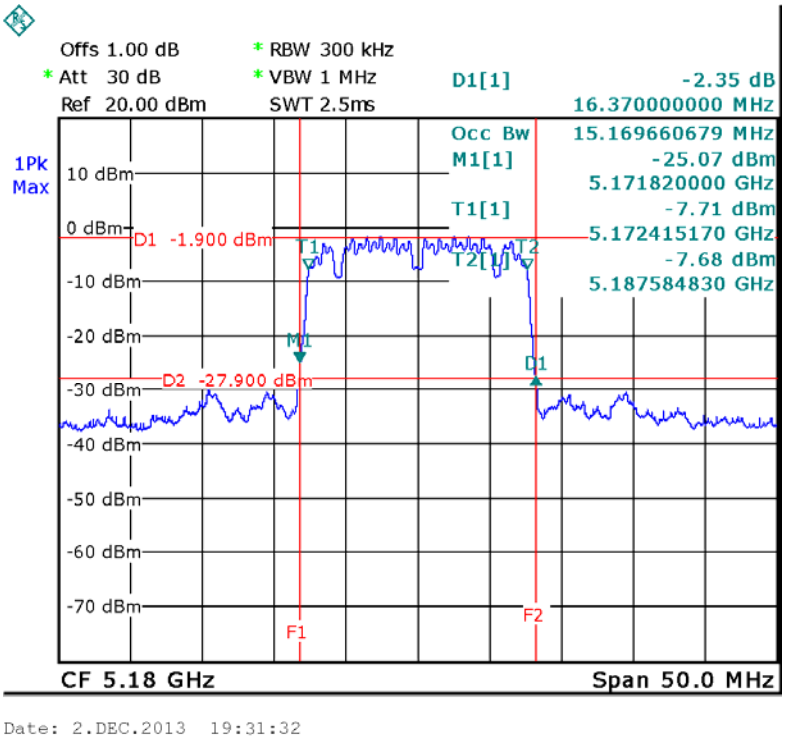
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.6 TEST RESULTS

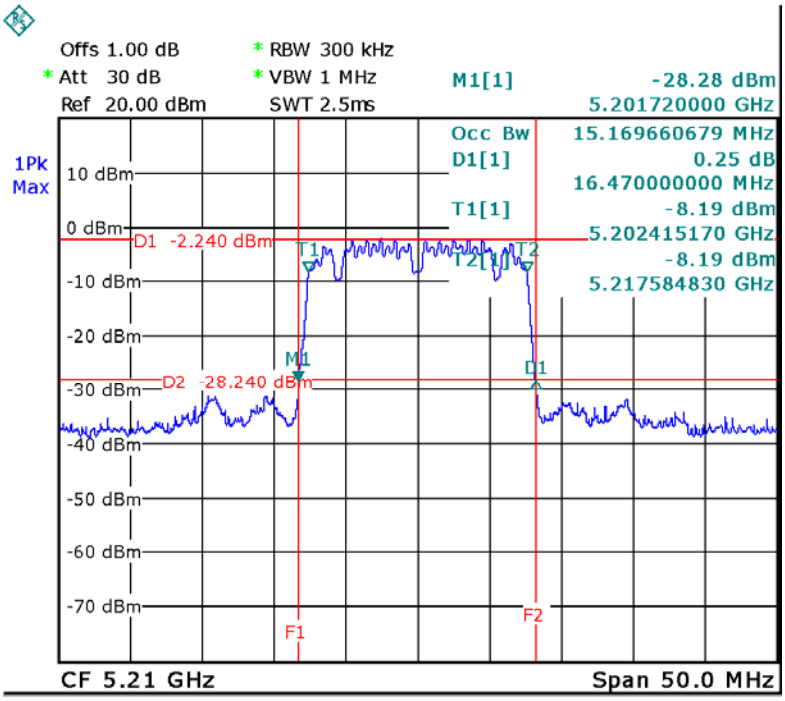
EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25°C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	TX Mode /CH01, CH02, CH03		

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH01	5180	16.37	15.17
CH02	5210	16.47	15.17
CH03	5240	16.37	15.17

CH01

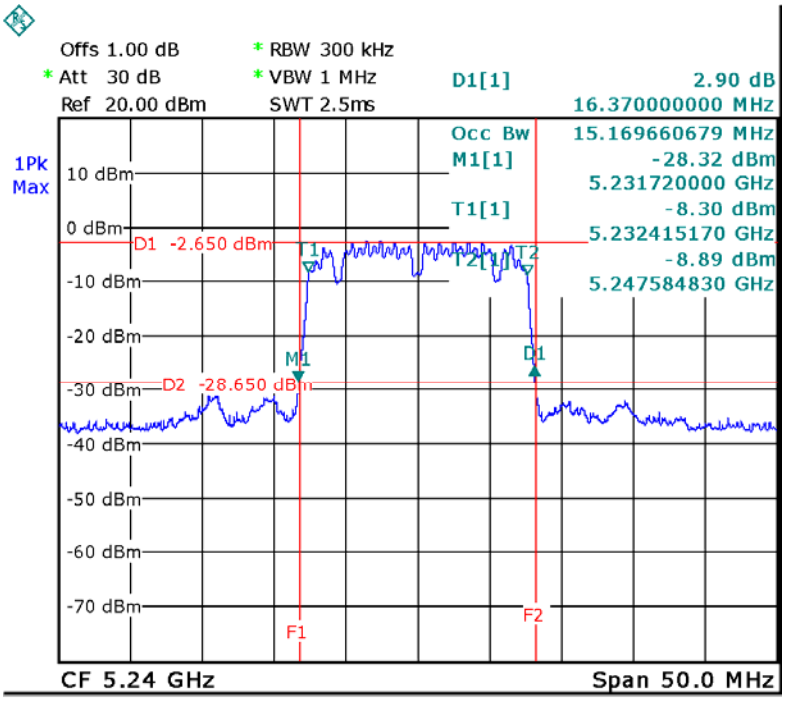


CH02



Date: 2.DEC.2013 19:34:28

CH03



Date: 2.DEC.2013 19:37:45

6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E/ RSS-210: 2010			
Test Item	Frequency Range (MHz)	Limit	Result
Conducted Output Power	5150 - 5250	not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log B,	PASS

Note: where "B" is the 26 dB emissions bandwidth in MHz.

6.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov. 09, 2014

Remark: "N/A" denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

6.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

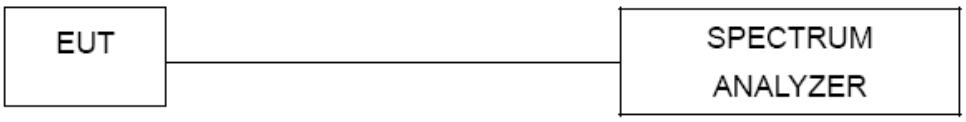
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	= 1 MHz.
VBW	⩾ 3 MHz.
Detector	RMS
Trace	Max Hold
Sweep Time	auto

b. Test was performed in accordance with method of KDB 789033 D01.

6.1.3 DEVIATION FROM STANDARD

No deviation.

6.1.4 TEST SETUP



6.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.6 TEST RESULTS

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25°C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	TX Mode/CH01, CH02, CH03		

Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	5180	8.00	17.00	0.0501
CH02	5210	6.58	17.00	0.0501
CH03	5240	6.67	17.00	0.0501

7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E/ RSS-210: 2010			
Test Item	Limit	Frequency Range (MHz)	Result
Antenna conducted Spurious Emission	-27 dBm/1MHz	5150 – 5250	PASS

7.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov.09.2014

Remark: “N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

7.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

Spectrum Parameter	Setting
Attenuation	Auto
RB	1000 kHz
VB	1000 kHz
Trace	Max Hold
Sweep Time	Auto

7.1.3 DEVIATION FROM STANDARD

No deviation.

7.1.4 TEST SETUP

7.1.5 EUT OPERATION CONDITIONS

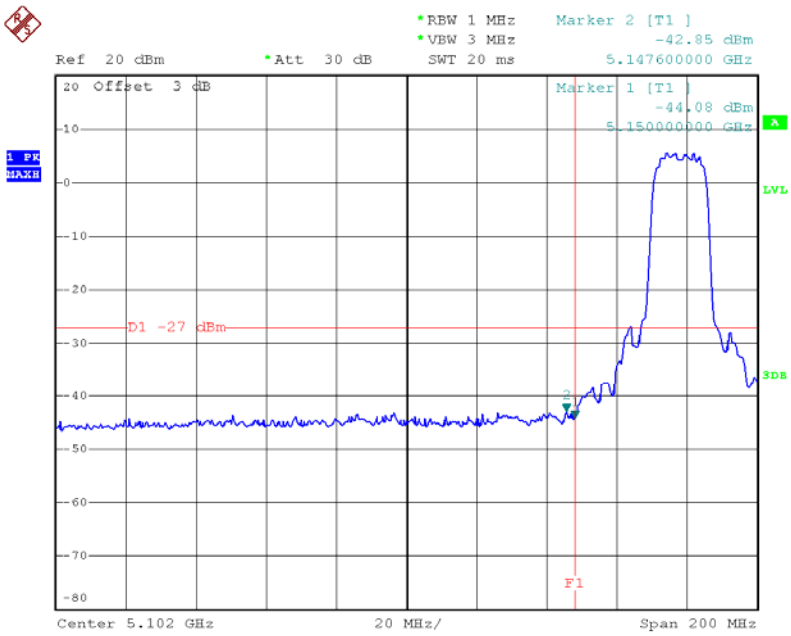
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

7.1.6 TEST RESULTS

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25°C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	TX Mode/ CH01, CH02, CH03		

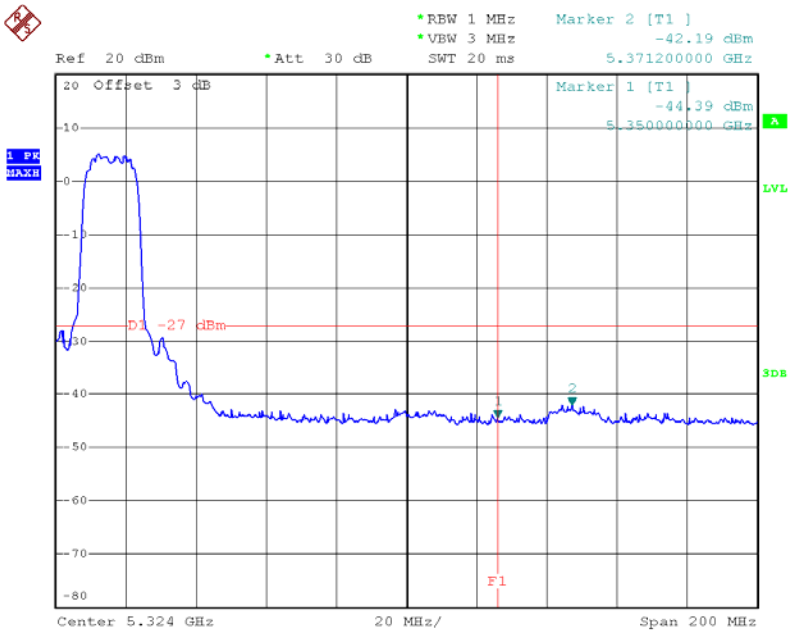
Channel of Worst Data: CH03			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5147.60	-42.85	5371.20	-42.19
Limit: -27 dBm/1MHz Result:PASS			
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH01



Date: 28.NOV.2013 20:02:34

TX mode CH03



Date: 28.NOV.2013 19:38:09

8. POWER SPECTRAL DENSITY TEST

8.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E/ RSS-210: 2010			
Test Item	Limit	Frequency Range (MHz)	Result
Power Spectral Density	4 dBm	5150 - 5250	PASS

8.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov.09.2014

Remark: “N/A” denotes no model name, serial no. or calibration specified.

8.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

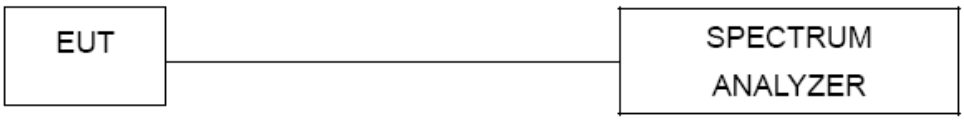
b.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	= 1 MHz.
VB	≥ 3 MHz.
Detector	RMS
Trace	Max Hold
Sweep Time	Auto

8.1.3 DEVIATION FROM STANDARD

No deviation.

8.1.4 TEST SETUP



8.1.5 EUT OPERATION CONDITIONS

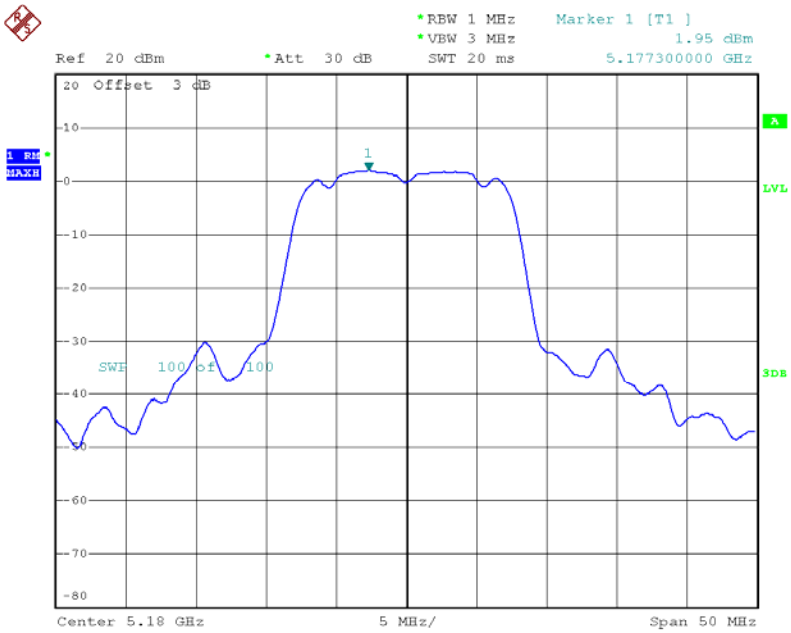
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

8.1.6 TEST RESULTS

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25°C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	TX Mode/CH01, CH02, CH03		

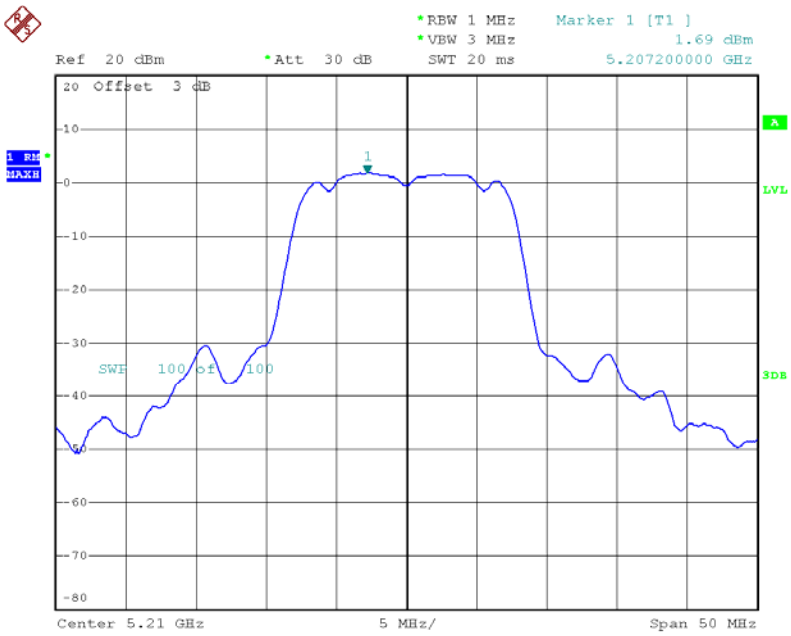
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	5180	1.95	4.00
CH02	5210	1.69	4.00
CH03	5240	1.34	4.00

CH01



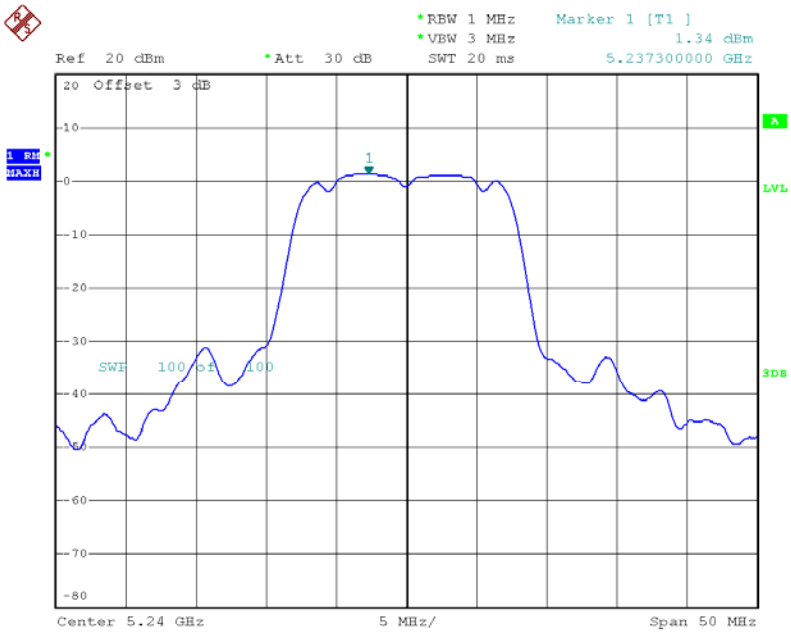
Date: 28.NOV.2013 19:46:23

CH02



Date: 28.NOV.2013 19:14:23

CH03



Date: 28.NOV.2013 19:24:51

9. PEAK EXCURSION MEASUREMENT

9.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E/ RSS-210: 2010			
Test Item	Limit	Frequency Range (MHz)	Result
Peak Excursion Measurement	13 dB	5150 - 5250	PASS

9.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov.09.2014

Remark: “N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

9.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	1000 kHz (Peak Trace) / 1000 kHz (Average Trace)
VB	3000 kHz (Peak Trace) / 3000 kHz (Average Trace)
Detector	Peak (Peak Trace) / RMS (Average Trace)
Trace	Max Hold
Sweep Time	60s

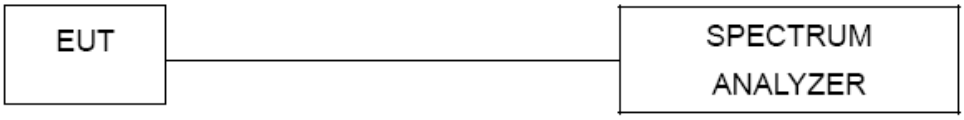
c. Peak Trace: Set RBW = 1 MHz, VBW ≥ 3 MHz with peak detector and maxhold settings.

d. Average Trace: set RBW = 1 MHz, VBW = 3 MHz with RMS detector and trace average across 100 traces in power averaging mode.

9.1.3 DEVIATION FROM STANDARD

No deviation.

9.1.4 TEST SETUP



9.1.5 EUT OPERATION CONDITIONS

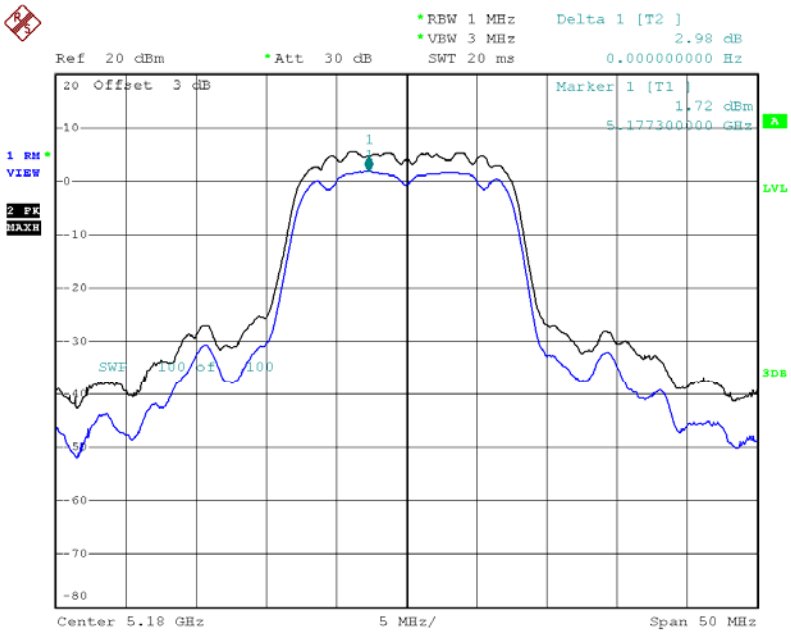
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

9.1.6 TEST RESULTS

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25°C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	TX Mode/CH01, CH02, CH03		

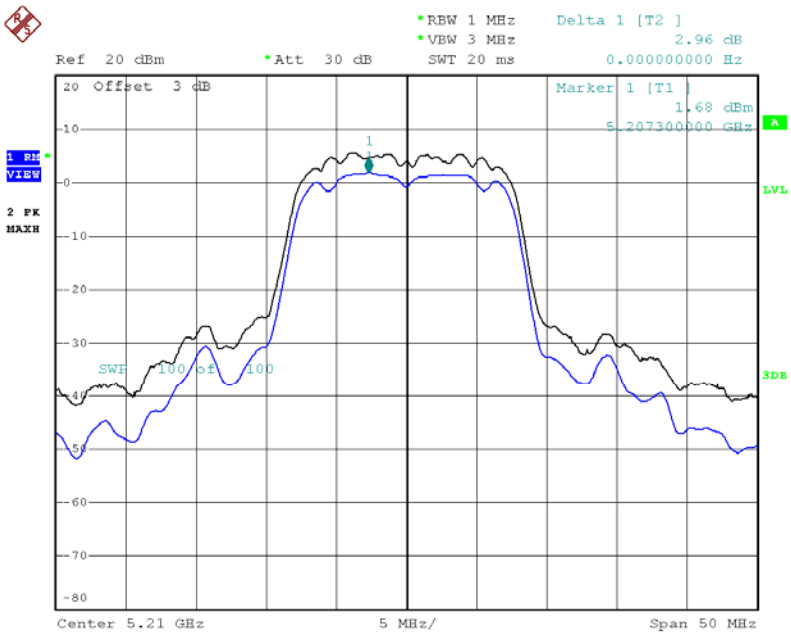
Test Channel	Frequency (MHz)	Peak Excursion (dB)	LIMIT (dB)
CH01	5180	2.98	13
CH02	5210	2.96	13
CH03	5240	3.05	13

CH01



Date: 28.NOV.2013 19:49:25

CH02



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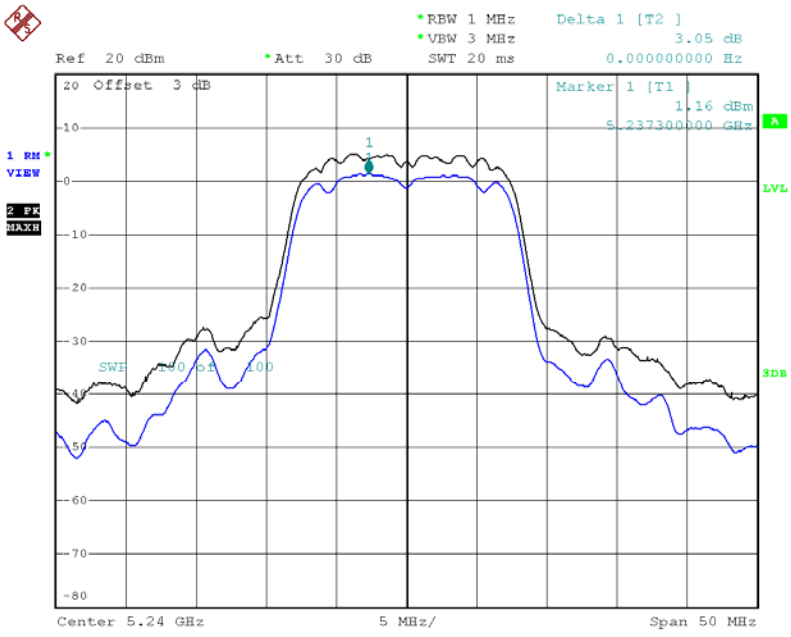
CH03



Date: 28.NOV.2013 19:30:10

10. FREQUENCY STABILITY MEASUREMENT

10.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E 15.407(g) / RSS-210 A1.1.4			
Test Item	Limit	Frequency Range (MHz)	Result
Frequency Stability	specified in the user's manual	5150 – 5250	PASS

10.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov. 09.2014
2	Precision Oven Tester	HOLINK	H-T-1F-D	BA03101701	May.25.2014

Remark: "N/A" denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

10.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RB	10 kHz
VB	10 kHz
Sweep Time	Auto

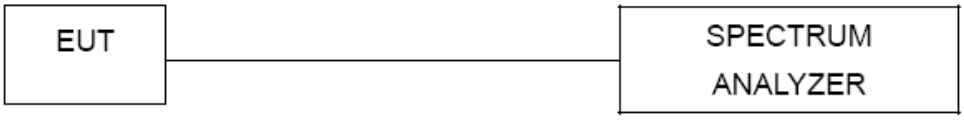
c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

d. user manual temperature is 0°C~45°C.

10.1.3 DEVIATION FROM STANDARD

No deviation.

10.1.4 TEST SETUP



10.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

10.1.6 TEST RESULTS

EUT:	HOME THEATER SYSTEM	Model Name :	DSW-S514
Temperature:	25°C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	TX Mode		

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5180
132	5180.002300
120	5180.002100
118	5180.002200
Max. Deviation (MHz)	0.002300
Max. Deviation (ppm)	0.44

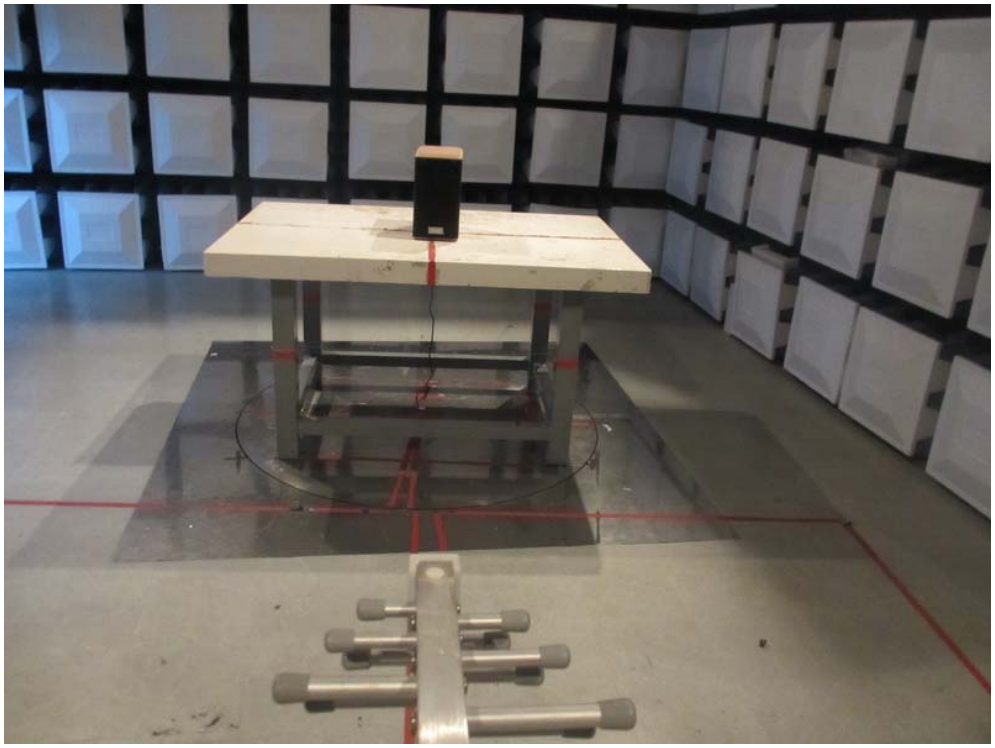
Temperature vs. Frequency Stability

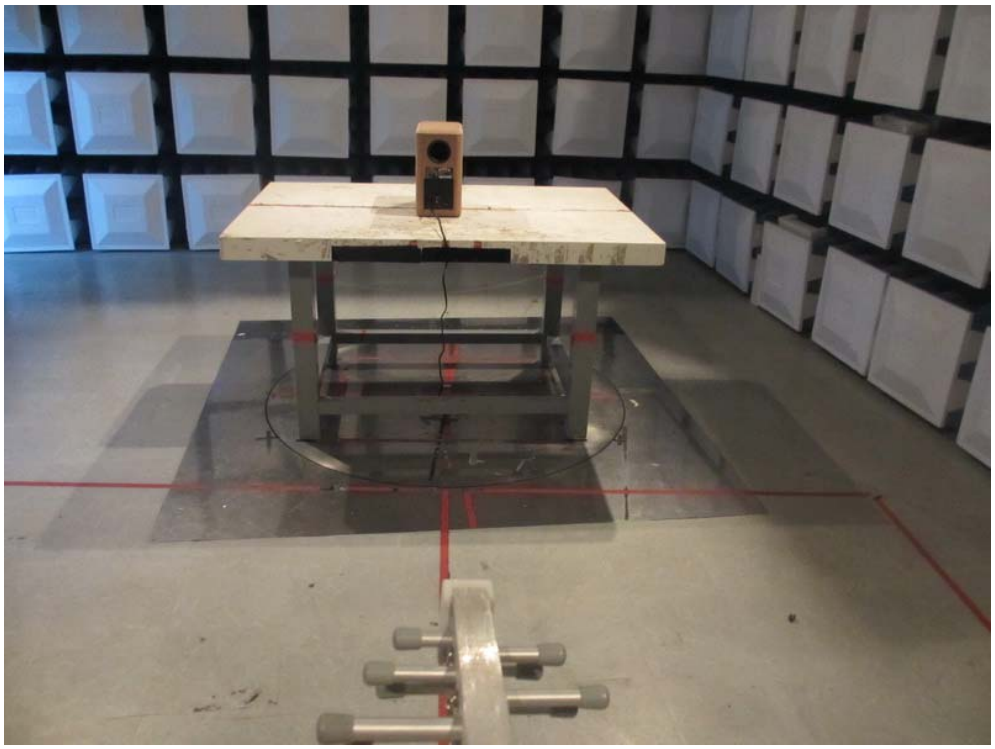
Temperature	Measurement Frequency (MHz)
(℃)	5180
-30	5180.002400
-20	5180.002500
-10	5180.002700
0	5180.002800
10	5180.002900
20	5180.003000
30	5180.003200
40	5180.003300
50	5180.003400
Max. Deviation (MHz)	0.003400
Max. Deviation (ppm)	0.66

11. EUT TEST PHOTO

Conducted Measurement Photos

Radiated Measurement Photos
30MHz~1GHz





Radiated Measurement Photos
Above 1000MHz