Radio TEST Report

FCC ID: T39SLF10100

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

Issued Date : Jan. 18, 2007
Report No. : 0612062
Equipment : RF Module v4.0
Model Name. : SLF-10100

Applicant : SUNLIT System Technology Corp.
Address : 8F, No. 19, Lane 120, Sec. 1, Neihu Rd., Neihu Chiu Taipei, Taiwan 114, R.O.C.

Tested by:
Neutron Engineering Inc. EMC Laboratory
Data of Test:
Dec. 08, 2006 ~ Jan. 15, 2007

Testing Engineer : Rush Kao
(Rush Kao)

Technical Manager : Jeff Yang
(Jeff Yang)

Authorized Signatory : Andy Chiu
(Andy Chiu)

NEUTRON ENGINEERING INC.
No. 132-1, Lane 329, Sec. 2, Palain Rd., Shijr City, Taipei, Taiwan
TEL : (02) 2646-5426 FAX : (02) 2646-6815

NVLAP Lab Code: 200145-0 ilac-MRA TAF Testing Laboratory 0659

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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Neutron's laboratory quality assurance procedures are in compliance with the **ISO Guide 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

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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1. CERTIFICATION

Equipment : RF Module v4.0
Trade Name : 日晶科技股份有限公司 / Sunlit System Technology Corp. μ-Chip System Development
Model Name. : SLF-10100
Applicant : SUNLIT System Technology Corp.
Data of Test : Dec. 08, 2006 ~ Jan. 15, 2007
Test Item : ENGINEERING SAMPLE
Standards : FCC Part15, Subpart C / ANCI C63.4 : 2003

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-FCCP-1-0612062) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP and CNLA according to the ISO-17025 quality assessment standard and technical standard(s).

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15, Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247 (c)	Antenna conducted Spurious Emission	PASS	
15.247 (a)(1)	Hopping Channel Separation	PASS	
15.247 (b)(1)	Peak Output Power	PASS	
15.247 (c)	Radiated Spurious Emission	PASS	
15.247 (b)(1)	Number of Hopping Frequency	PASS	
15.247 (a)(1)	Dwell Time	PASS	
15.205	Restricted Bands	PASS	
15.203	Antenna Requirement	PASS	
1.1307 1.1310 2.1091 2.1093	RF Exposure Compliance	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 **C01/OS02** at the location of No.132-1, Lane 329, Sec. 2, Palain Road, Shijr City, Taipei, Taiwan.

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
C01	ANSI	150 KHz ~ 30MHz	1.94	

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	Ant. H / V	U，(dB)	NOTE
OS-01	ANSI	30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	H	3.60	
		200MHz ~ 1,000MHz	V	3.86	
		200MHz ~ 1,000MHz	H	3.94	
OS-02	ANSI	30MHz ~ 200MHz	V	2.48	
		30MHz ~ 200MHz	H	2.16	
		200MHz ~ 1,000MHz	V	2.50	
		200MHz ~ 1,000MHz	H	2.66	

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	RF Module v4.0
Trade Name	日晶科技股份有限公司 / Sunlit System Technology Corp. μ-Chip System Development
Model Name.	SLF-10100
Product Description	Operation Frequency: 2402-2477 MHz Modulation Type: FHSS Number Of Channel: 76, please refer to section 3.1.1 Antenna 9.26 dBi (Max). Please refer to section 3.1.2 Output Power: 20.38 dBm (Max.) The EUT is considered as an ITE/Computing Device. More details of EUT technical specification please refer to the User's Manual.
Power Supply	DC Voltage supplied from test fixture AC/DC adapter. AC I/P 100-120V, 50/60Hz 0.3A / DC O/P 5V, 1A
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.

3.1.1 Table of Carrier Frequencies

Channel List					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	26	2428	52	2454
01	2403	27	2429	53	2455
02	2404	28	2430	54	2456
03	2405	29	2431	55	2457
04	2406	30	2432	56	2458
05	2407	31	2433	57	2459
06	2408	32	2434	58	2460
07	2409	33	2435	59	2461
08	2410	34	2436	60	2462
09	2411	35	2437	61	2463
10	2412	36	2438	62	2464
11	2413	37	2439	63	2465
12	2414	38	2440	64	2466
13	2415	39	2441	65	2467
14	2416	40	2442	66	2468
15	2417	41	2443	67	2469
16	2418	42	2444	68	2470
17	2419	43	2445	69	2471
18	2420	44	2446	70	2472
19	2421	45	2447	71	2473
20	2422	46	2448	72	2474
21	2423	47	2449	73	2475
22	2424	48	2450	74	2476
23	2425	49	2451	75	2477
24	2426	50	2452		
25	2427	51	2453		

3.1.2 Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	JOYMAX	IPX-MUR9SAXX-423	Patch	U. FL	9
2	Yagi	PA1-2450CSA	Patch	U. FL	6
3	-	-	Printed	U. FL	9.26

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	CH00 (2402 MHz)
Mode 2	CH38 (2440 MHz)
Mode 3	CH75 (2477 MHz)

For Conducted Test	
Final Test Mode	Description
Mode 2	CH38 (2440 MHz)

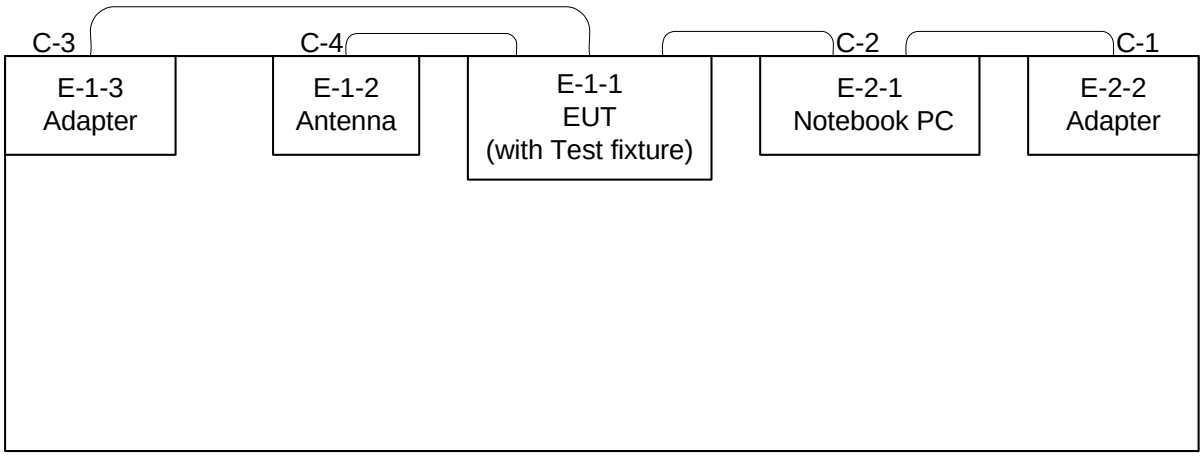
For Radiated Test	
Final Test Mode	Description
Mode 1	CH00 (2402 MHz)
Mode 2	CH38 (2440 MHz)
Mode 3	CH75 (2477 MHz)

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 power parameters of FHSS.

Test software Version	Test program: Sunlit Demo RD		
Frequency	2402 MHz	2440 MHz	2477 MHz
Power Parameters	Def.	Def.	Def.

3.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



C-1 DC Power Line
C-2 RS-232 Cable
C-3 DC Power Line
C-4 Antenna Cable (PAI)/
Antenna Cable (Dipole)/
Antenna Cable (IPX)

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 ID	Series No.	Note
E-1	RF Module v4.0	日揚科技股份有限公司 / Sunlit System Technology Corp.	SLF-10100	T39SLF10100	N/A	EUT
E-2	Notebook PC	DELL	D600	DOC	7T390 A03	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	1.8M	DC power cable
C-2	NO	NO	1.8M	RS-232
C-3	NO	NO	1.8M	DC power cable
C-4	YES	NO	18CM	Antenna Cable
C-4	YES	NO	8CM	Antenna Cable
C-4	YES	NO	8CM	Antenna Cable

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in『Length』column.

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

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

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

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	60.00	50.00	FCC

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 AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	Rolf Heine	NNB-2/16Z	98083	Jul. 31, 2007
2	Pulse Limiter	Electro-Metrics	EM-7600	112644	Nov. 28, 2007
3	Test Cable	N/A	C01	N/A	Nov. 28, 2007
4	EMI Test Receiver	R&S	ESCI	100082	Feb. 01, 2007

Remark: ” N/A” denotes No Model Name. , Serial No. or No Calibration specified.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

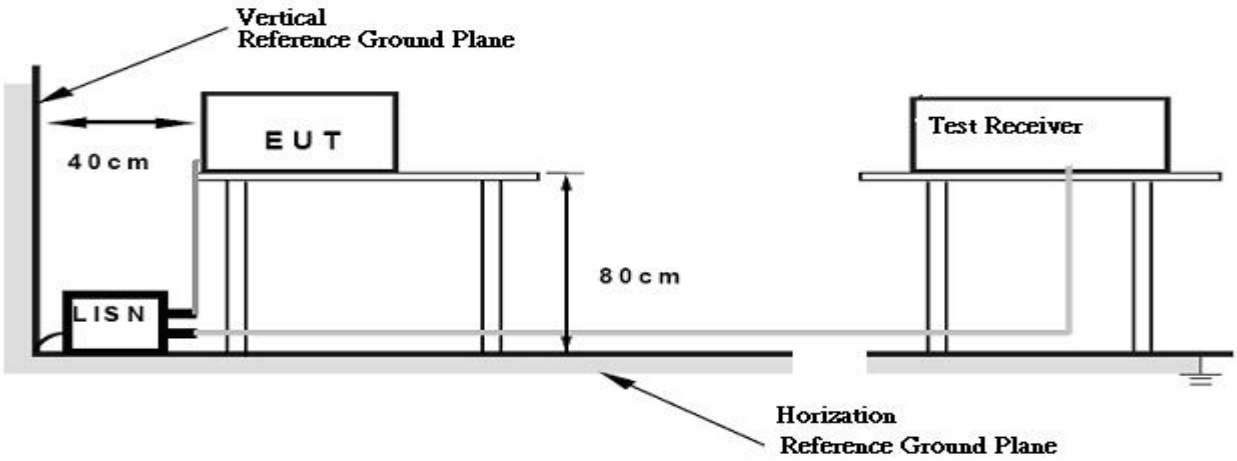
4.1.3 TEST PROCEDURE

a. The EUT was placed 0.4 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 has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

4.1.7 **TEST RESULTS**

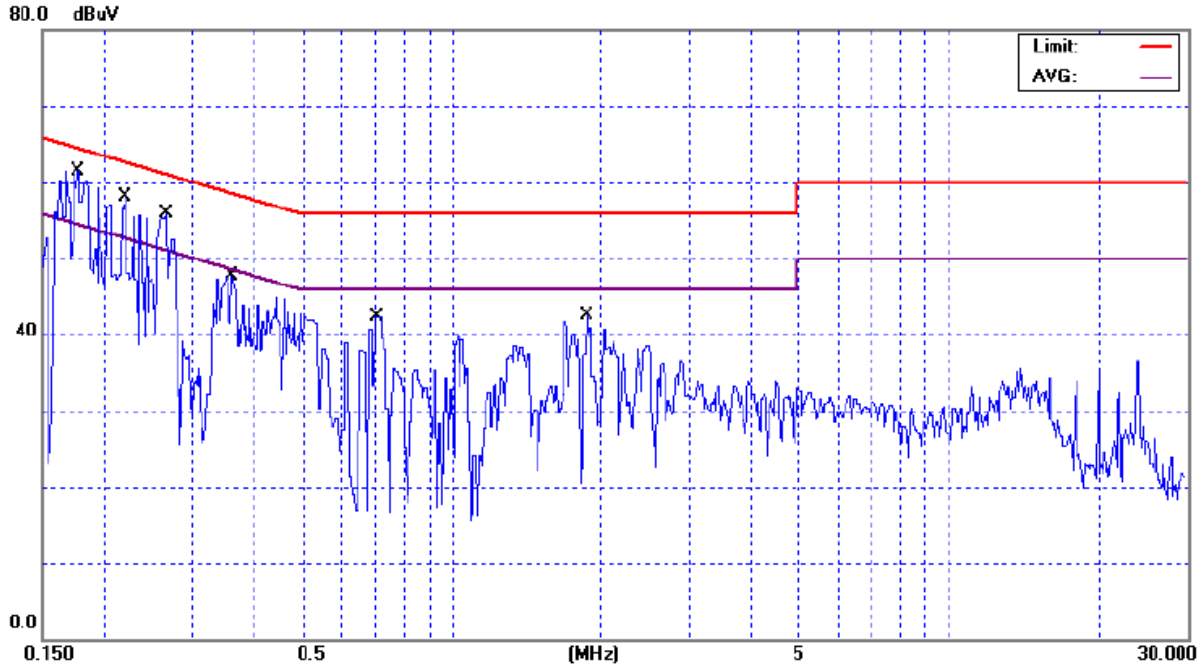
EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	26 ˚C	Relative Humidity：	55 %
Pressure：	1010 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: IPX-MUR9SAXX-423 (ANT1)		

Freq. (MHz)	Terminal L/N	Measured(dBuV)		Limits(dBuV)		Margin (dB)	Note
		QP-Mode	AV-Mode	QP-Mode	AV-Mode		
0.18	Line	60.53	41.08	64.61	54.61	-4.08	(QP)
0.22	Line	52.18	27.63	62.79	52.79	-10.61	(QP)
0.27	Line	55.41	46.32	61.24	51.24	-4.92	(AV)
0.36	Line	42.22	22.54	58.70	48.70	-16.48	(QP)
0.72	Line	38.08	18.38	56.00	46.00	-17.92	(QP)
1.88	Line	32.54	12.45	56.00	46.00	-23.46	(QP)

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。



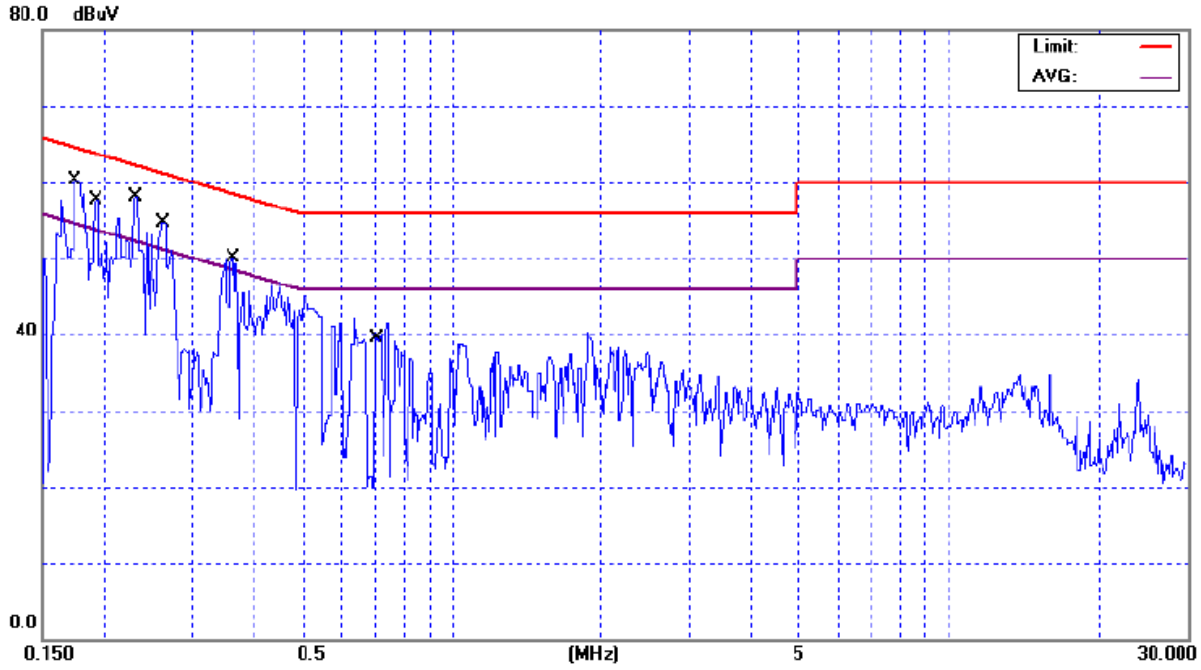
EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	26 ˚C	Relative Humidity：	55 %
Pressure：	1010 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: IPX-MUR9SAXX-423 (ANT1)		

Freq. (MHz)	Terminal L/N	Measured(dBuV)		Limits(dBuV)		Margin (dB)	Note
		QP-Mode	AV-Mode	QP-Mode	AV-Mode		
0.17	Neutral	61.76	47.19	64.84	54.84	-3.08	(QP)
0.19	Neutral	48.85	25.63	63.92	53.92	-15.07	(QP)
0.23	Neutral	48.64	22.11	62.38	52.38	-13.74	(QP)
0.26	Neutral	56.42	49.47	61.35	51.35	-1.88	(AV)
0.36	Neutral	45.23	23.37	58.68	48.68	-13.45	(QP)
0.71	Neutral	39.48	20.61	56.00	46.00	-16.52	(QP)

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。



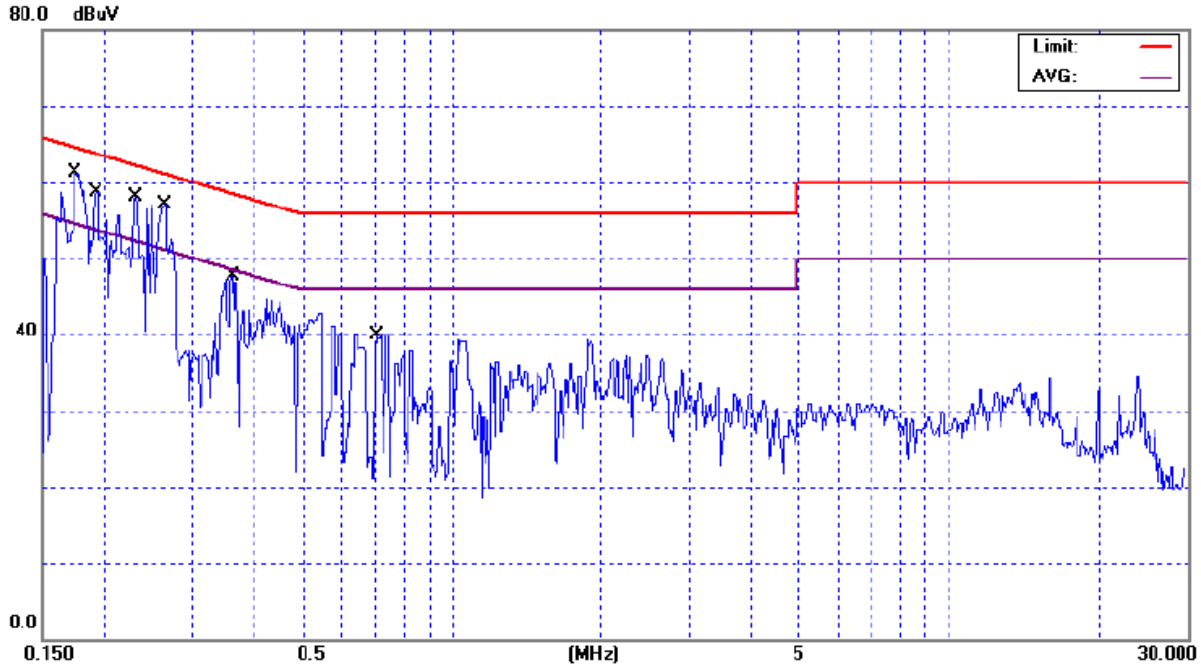
EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	26 ˚C	Relative Humidity：	55 %
Pressure：	1010 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: PA1-2450CSA (ANT2)		

Freq. (MHz)	Terminal L/N	Measured(dBuV)		Limits(dBuV)		Margin (dB)	Note
		QP-Mode	AV-Mode	QP-Mode	AV-Mode		
0.17	Line	62.00	47.50	64.84	54.84	-2.84	(QP)
0.19	Line	49.27	25.83	63.92	53.92	-14.65	(QP)
0.23	Line	48.80	22.47	62.38	52.38	-13.58	(QP)
0.26	Line	56.63	49.27	61.35	51.35	-2.08	(AV)
0.36	Line	44.98	23.10	58.68	48.68	-13.70	(QP)
0.71	Line	39.21	20.73	56.00	46.00	-16.79	(QP)

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。



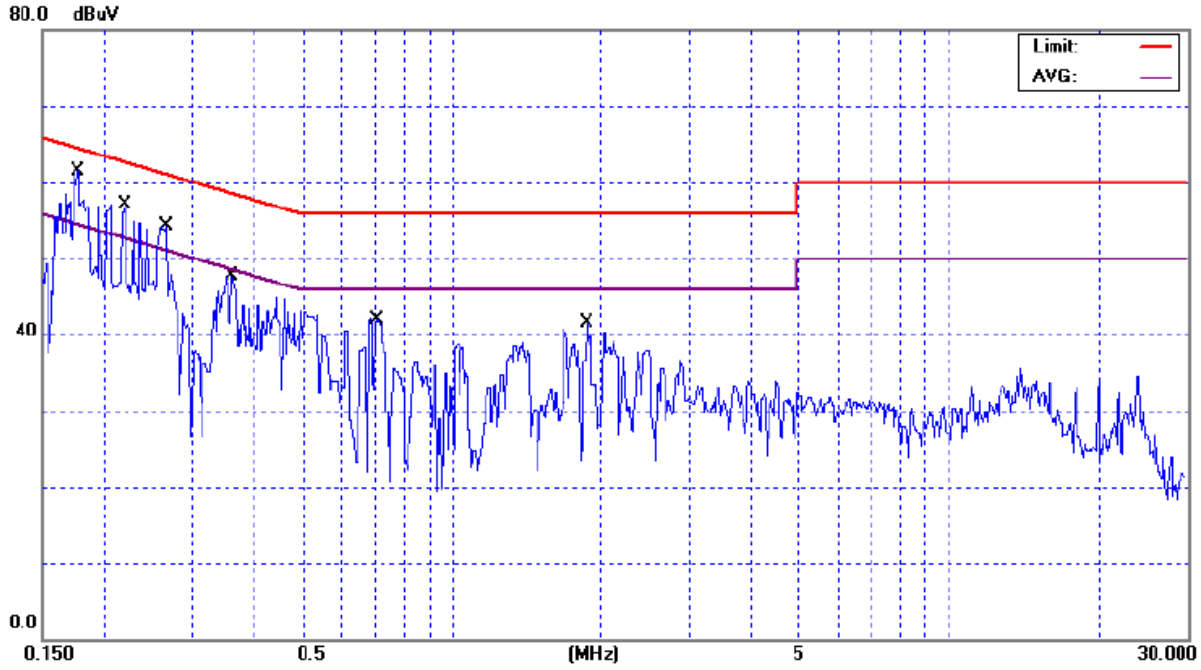
EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	26 ˚C	Relative Humidity：	55 %
Pressure：	1010 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: PA1-2450CSA (ANT2)		

Freq. (MHz)	Terminal L/N	Measured(dBuV)		Limits(dBuV)		Margin (dB)	Note
		QP-Mode	AV-Mode	QP-Mode	AV-Mode		
0.18	Neutral	60.81	43.59	64.61	54.61	-3.80	(QP)
0.22	Neutral	52.68	27.07	62.79	52.79	-10.11	(QP)
0.27	Neutral	54.73	44.58	61.24	51.24	-6.51	(QP)
0.36	Neutral	42.92	22.74	58.70	48.70	-15.78	(QP)
0.72	Neutral	38.28	18.78	56.00	46.00	-17.72	(QP)
1.88	Neutral	32.60	12.71	56.00	46.00	-23.40	(QP)

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。



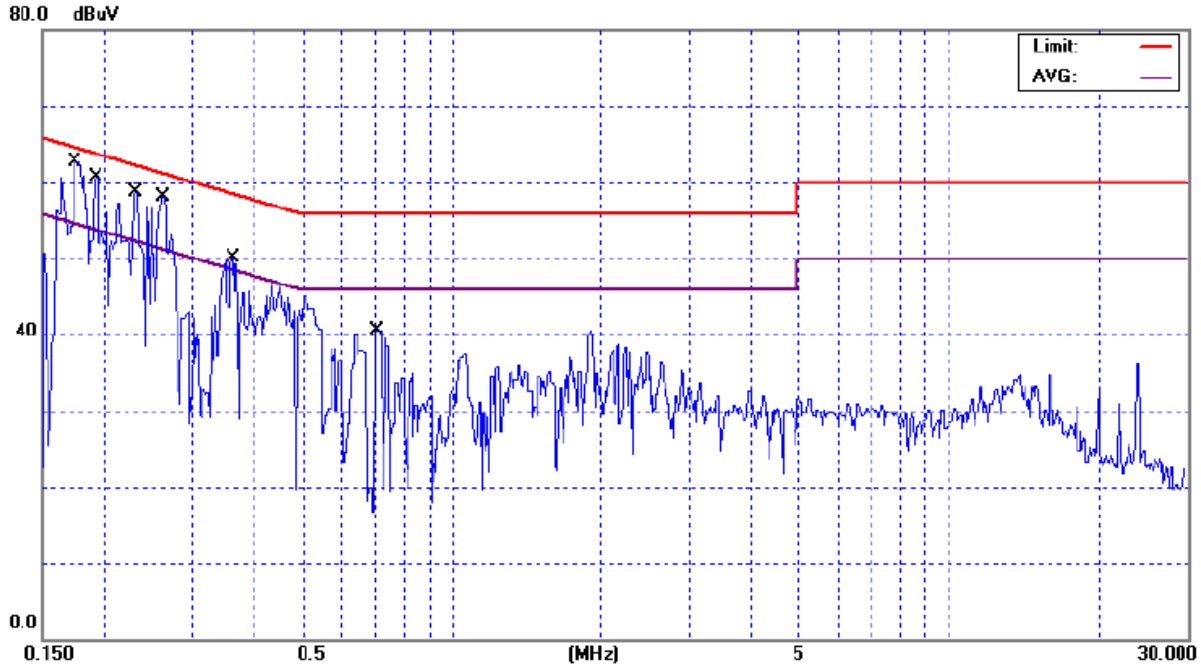
EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	26 ˚C	Relative Humidity：	55 %
Pressure：	1010 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: Dipole (ANT3)		

Freq. (MHz)	Terminal L/N	Measured(dBuV)		Limits(dBuV)		Margin (dB)	Note
		QP-Mode	AV-Mode	QP-Mode	AV-Mode		
0.17	Line	62.35	47.34	64.84	54.84	-2.49	(QP)
0.19	Line	49.66	25.90	63.92	53.92	-14.26	(QP)
0.23	Line	49.11	23.41	62.38	52.38	-13.27	(QP)
0.26	Line	57.31	49.62	61.35	51.35	-1.73	(AV)
0.36	Line	45.24	23.49	58.68	48.68	-13.44	(QP)
0.71	Line	39.63	20.49	56.00	46.00	-16.37	(QP)

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。



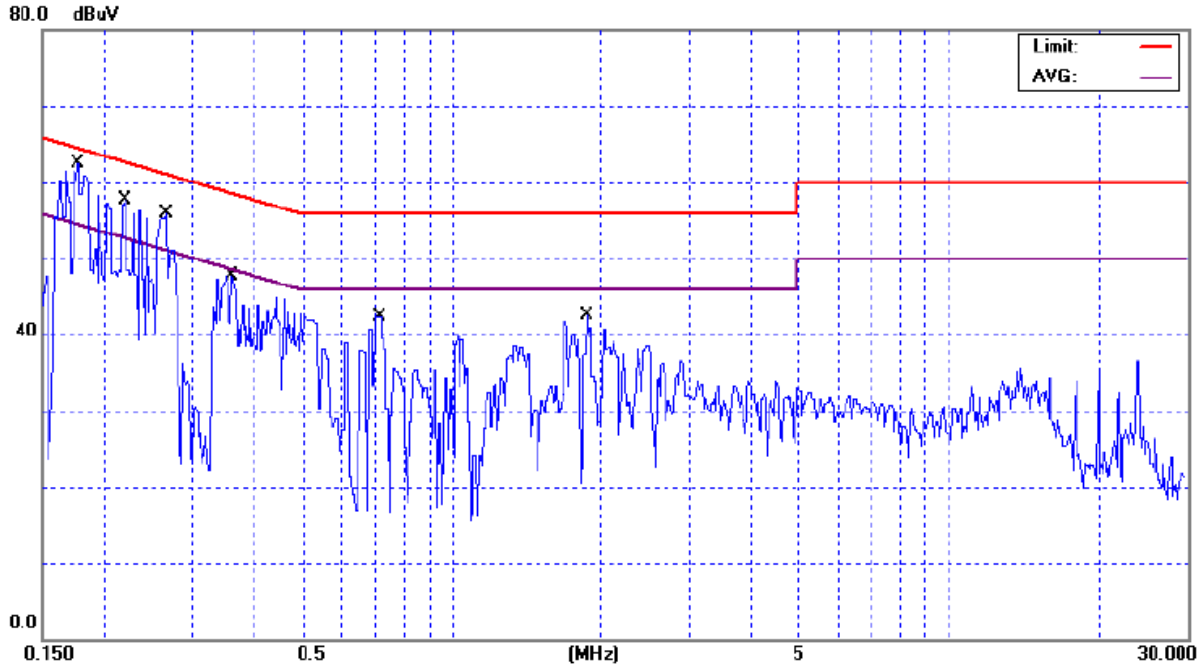
EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	26 ˚C	Relative Humidity：	55 %
Pressure：	1010 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: Dipole (ANT3)		

Freq. (MHz)	Terminal L/N	Measured(dBuV)		Limits(dBuV)		Margin (dB)	Note
		QP-Mode	AV-Mode	QP-Mode	AV-Mode		
0.18	Neutral	60.18	42.32	64.60	54.60	-4.42	(QP)
0.22	Neutral	52.21	27.40	62.75	52.75	-10.54	(QP)
0.27	Neutral	54.35	44.23	61.25	51.25	-6.90	(QP)
0.36	Neutral	43.34	22.47	58.68	48.68	-15.34	(QP)
0.72	Neutral	38.64	18.42	56.00	46.00	-17.36	(QP)
1.88	Neutral	32.44	12.52	56.00	46.00	-23.56	(QP)

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。



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 on15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80	60	74	54

Notes:

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

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

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

4.2.2 MEASUREMENT INSTRUMENTS LIST AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Log-Bicon Antenna	MESS-ELEKTRONIK	VULB 9160	3058	Nov. 28, 2007
2	Test Cable	N/A	10M_OS02	N/A	Nov. 28, 2007
3	Test Cable	N/A	OS02-1/-2/-3	N/A	Nov. 28, 2007
4	Pre-Amplifier	Anritsu	MH648A	M09961	Nov. 28, 2007
5	EMI Test Receiver	R&S	ESCI	100082	Feb. 01, 2007
6	Antenna Mast	Chance Most	CMTB-1.5	N/A	N/A
7	Turn Table	Chance Most	CMTB-1.5	N/A	N/A
8	Loop Ant	EMCO	6502	00042960	Jan. 13, 2008

Remark: ” N/A” denotes No Model Name. / Serial No. and No Calibration specified.

Spectrum Parameter	**Setting**
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (other emission)	100KHz / 100KHz for peak

Receiver Parameter	**Setting**
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

4.2.3 TEST PROCEDURE

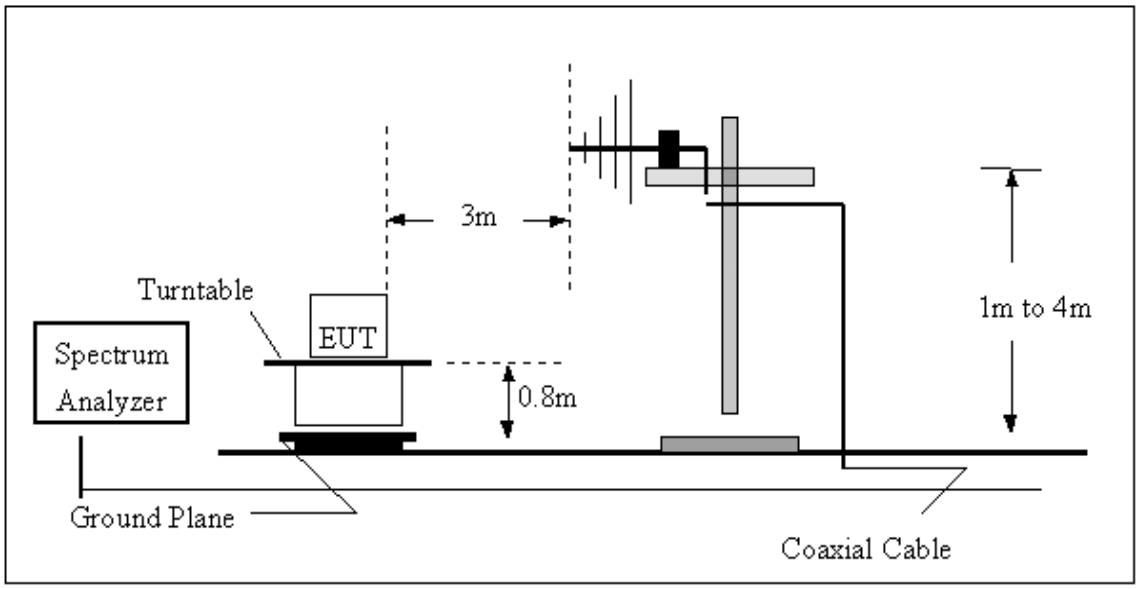
a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m open area test site. The table was rotated 360 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

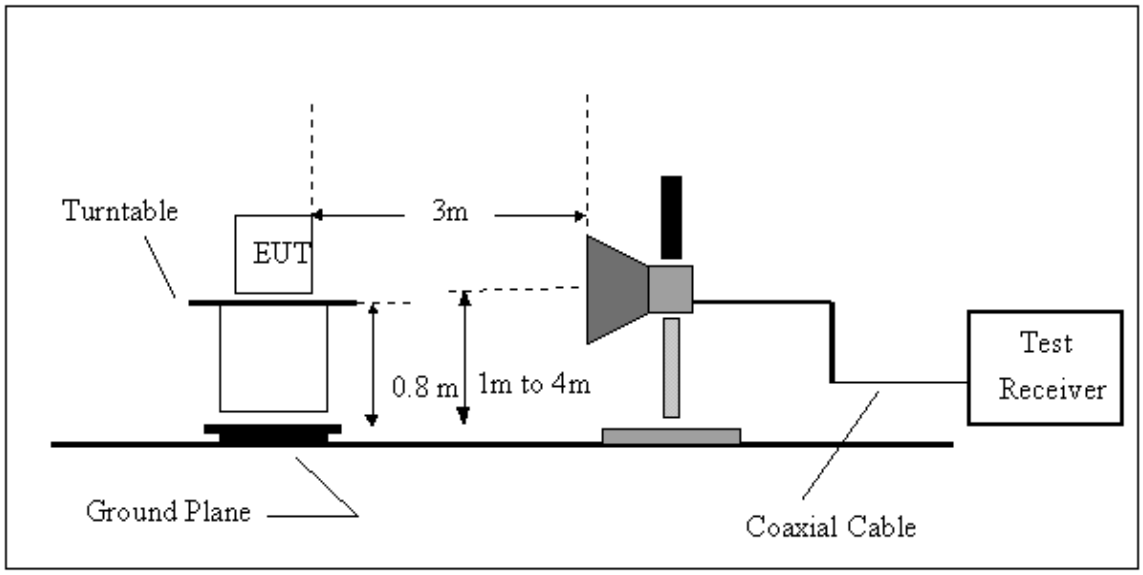
No deviation

4.2.5 TEST SETUP

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) 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 9kHz and 30MHz**

EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	24 ˚C	Relative Humidity：	74 %
Pressure：	1017 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: IPX-MUR9SAXX-423 (ANT1)		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
-	-	-	-	-	-	-	-

Remark：

(1) 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。

(2) 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.

(3) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission 。

(4) 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.

(5) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
Distance extrapolation factor = 40 log (specific distance / test distance) (dB);
Limit line = specific limits (dBuV) + distance extrapolation factor.

EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	24 ˚C	Relative Humidity：	74 %
Pressure：	1017 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: PA1-2450CSA (ANT2)		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
-	-	-	-	-	-	-	-

Remark：

(1) 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 ◦

(2) 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.

(3) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission ◦

(4) 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.

(5) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
Distance extrapolation factor = 40 log (specific distance / test distance) (dB);
Limit line = specific limits (dBuV) + distance extrapolation factor.

EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	24 ˚C	Relative Humidity：	74 %
Pressure：	1017 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: Dipole (ANT3)		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
-	-	-	-	-	-	-	-

Remark：

(1) 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。

(2) 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.

(3) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission 。

(4) 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.

(5) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
Distance extrapolation factor = 40 log (specific distance / test distance) (dB);
Limit line = specific limits (dBuV) + distance extrapolation factor.

4.2.8 **TEST RESULTS-Between 30MHz and 1000MHz**

EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	24 ˚C	Relative Humidity：	74 %
Pressure：	1017 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: IPX-MUR9SAXX-423 (ANT1)		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
37.60	V	40.72	-6.50	34.22	40.00	- 5.78	QP
94.02	V	45.42	-9.57	35.85	43.50	- 7.65	QP
600.36	V	32.88	2.61	35.49	46.00	- 10.51	QP
697.36	V	31.13	5.06	36.19	46.00	- 9.81	QP
734.22	V	28.87	5.48	34.35	46.00	- 11.65	QP
901.06	V	29.34	7.76	37.10	46.00	- 8.90	QP

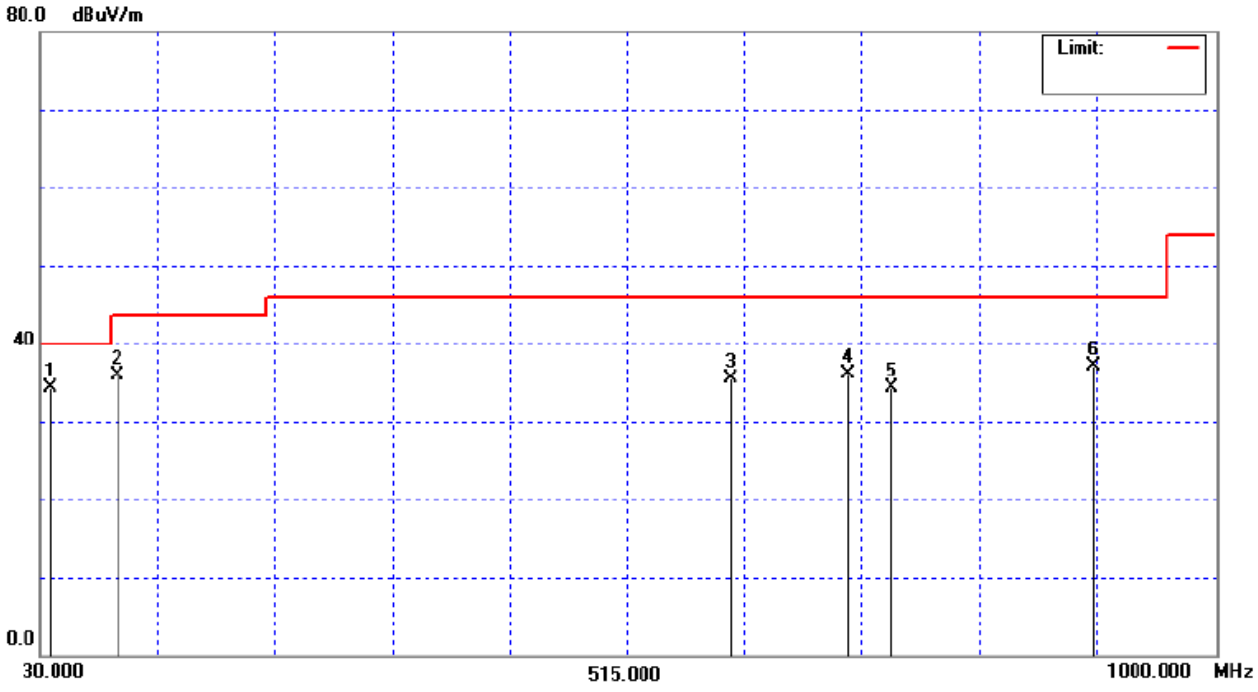
Remark：

(1) 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。

(2) 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.

(3) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission 。

(4) 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.



EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	24 ˚C	Relative Humidity：	74 %
Pressure：	1017 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: IPX-MUR9SAXX-423 (ANT1)		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
187.34	H	39.92	-7.05	32.87	43.50	- 10.63	QP
600.36	H	32.24	2.61	34.85	46.00	- 11.15	QP
697.66	H	30.32	5.07	35.39	46.00	- 10.61	QP
734.22	H	30.31	5.48	35.79	46.00	- 10.21	QP
756.56	H	27.36	5.70	33.06	46.00	- 12.94	QP
901.06	H	29.52	7.76	37.28	46.00	- 8.72	QP

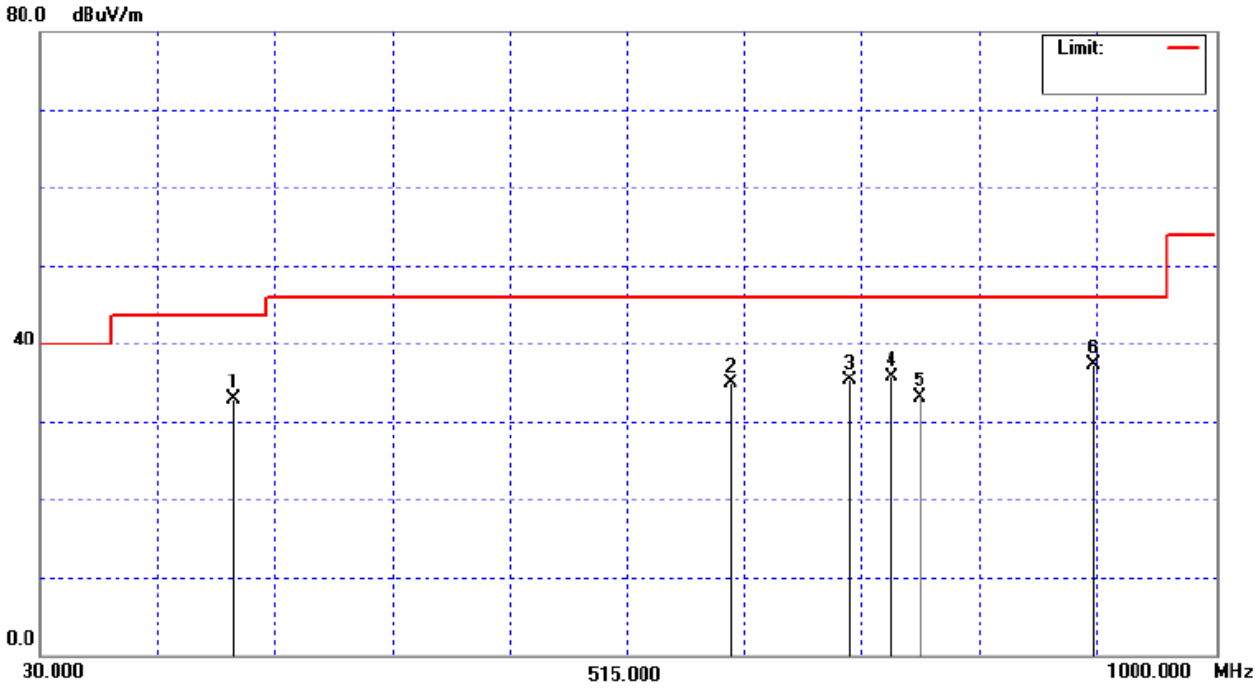
Remark：

(1) 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。

(2) 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.

(3) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission 。

(4) 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.



EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	24 ˚C	Relative Humidity：	74 %
Pressure：	1017 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: PA1-2450CSA (ANT2)		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
37.60	V	41.84	-6.50	35.34	40.00	- 4.66	QP
94.02	V	45.92	-9.57	36.35	43.50	- 7.15	QP
600.36	V	31.88	2.61	34.49	46.00	- 11.51	QP
697.36	V	29.13	5.06	34.19	46.00	- 11.81	QP
734.22	V	27.87	5.48	33.35	46.00	- 12.65	QP
901.06	V	30.34	7.76	38.10	46.00	- 7.90	QP

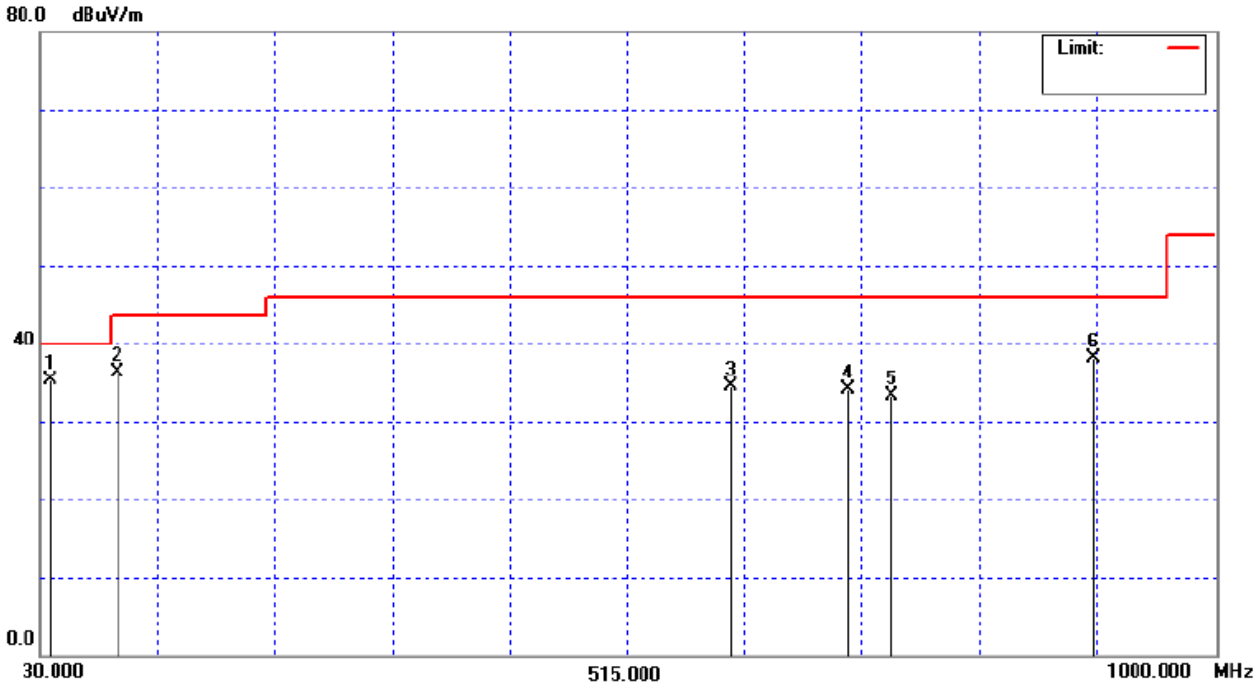
Remark：

(1) 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。

(2) 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.

(3) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission 。

(4) 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.



EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	24 ˚C	Relative Humidity：	74 %
Pressure：	1017 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: PA1-2450CSA (ANT2)		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
187.34	H	40.48	-7.05	33.43	43.50	- 10.07	QP
600.36	H	32.98	2.61	35.59	46.00	- 10.41	QP
697.66	H	30.02	5.07	35.09	46.00	- 10.91	QP
734.22	H	30.11	5.48	35.59	46.00	- 10.41	QP
756.56	H	25.36	5.70	31.06	46.00	- 14.94	QP
901.06	H	31.12	7.76	38.88	46.00	- 7.12	QP

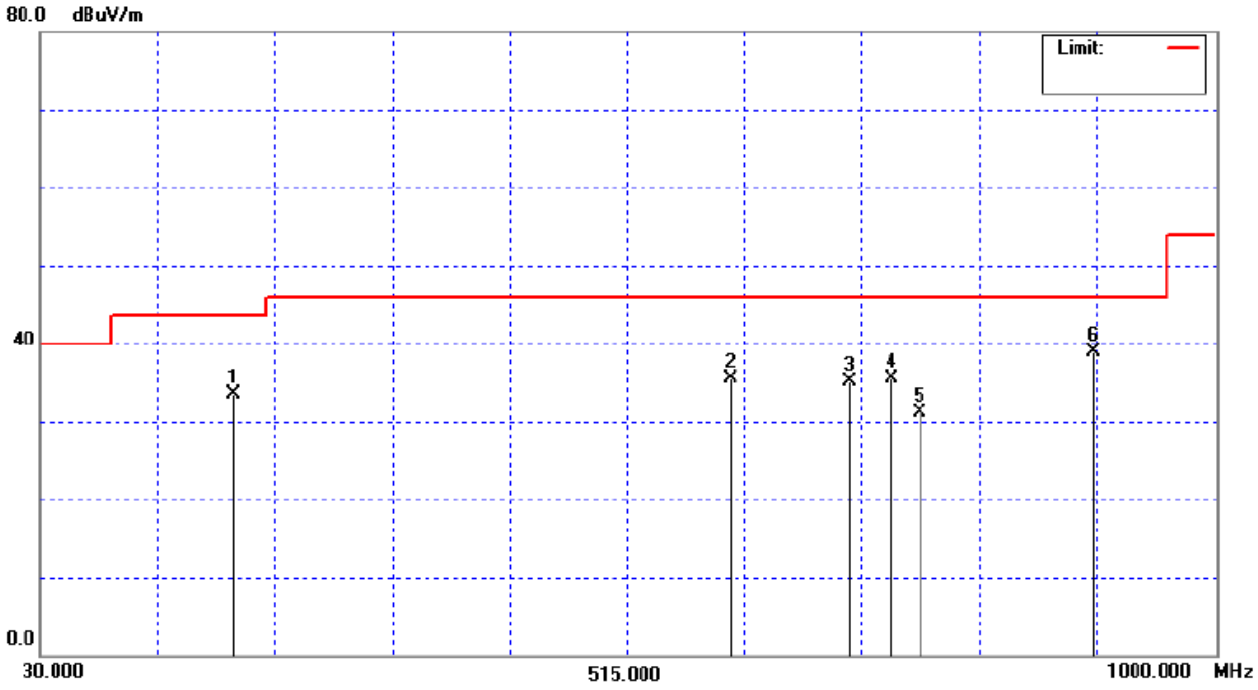
Remark：

(1) 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。

(2) 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.

(3) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission 。

(4) 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.



EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	24 ˚C	Relative Humidity：	74 %
Pressure：	1017 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: Dipole (ANT3)		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
37.76	V	42.45	-6.51	35.94	40.00	- 4.06	QP
94.02	V	47.12	-9.57	37.55	43.50	- 5.95	QP
600.36	V	34.88	2.61	37.49	46.00	- 8.51	QP
697.36	V	27.13	5.06	32.19	46.00	- 13.81	QP
734.22	V	27.87	5.48	33.35	46.00	- 12.65	QP
901.06	V	32.34	7.76	40.10	46.00	- 5.90	QP

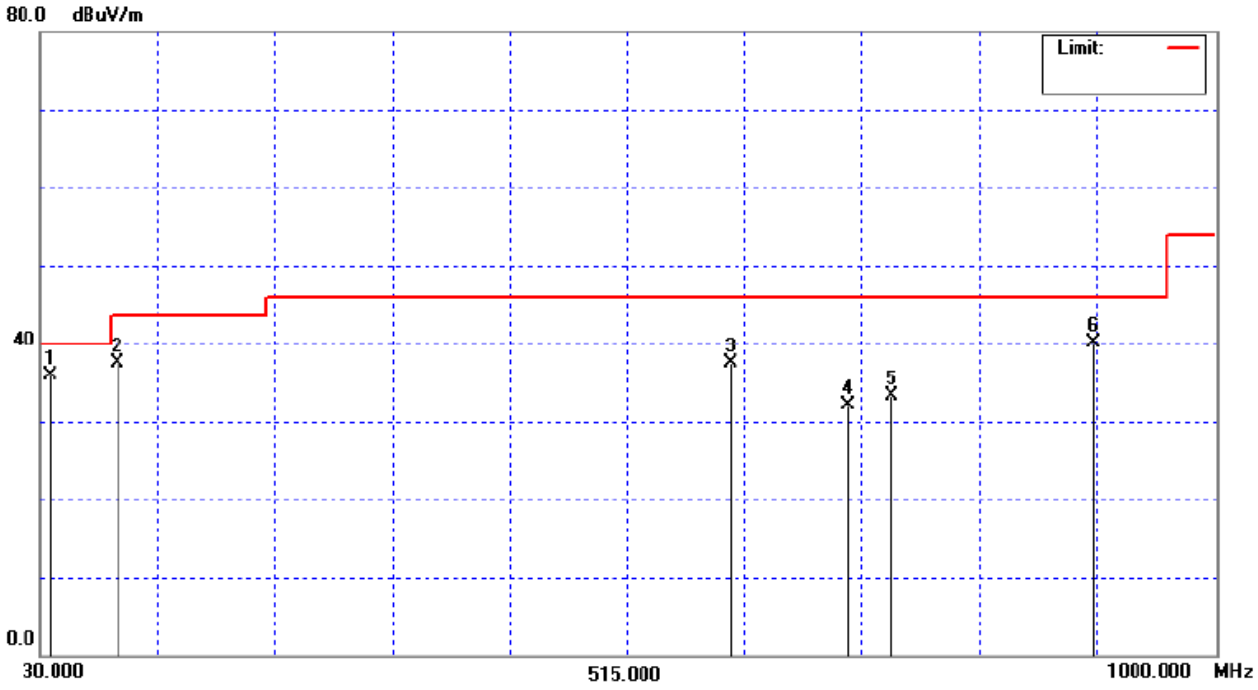
Remark：

(1) 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。

(2) 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.

(3) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission 。

(4) 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.



EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	24 ˚C	Relative Humidity：	74 %
Pressure：	1017 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: Dipole (ANT3)		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
187.14	H	39.46	-7.03	32.43	43.50	- 11.07	QP
600.36	H	33.48	2.61	36.09	46.00	- 9.91	QP
697.36	H	31.03	5.06	36.09	46.00	- 9.91	QP
734.22	H	29.11	5.48	34.59	46.00	- 11.41	QP
755.56	H	24.37	5.69	30.06	46.00	- 15.94	QP
901.06	H	32.12	7.76	39.88	46.00	- 6.12	QP

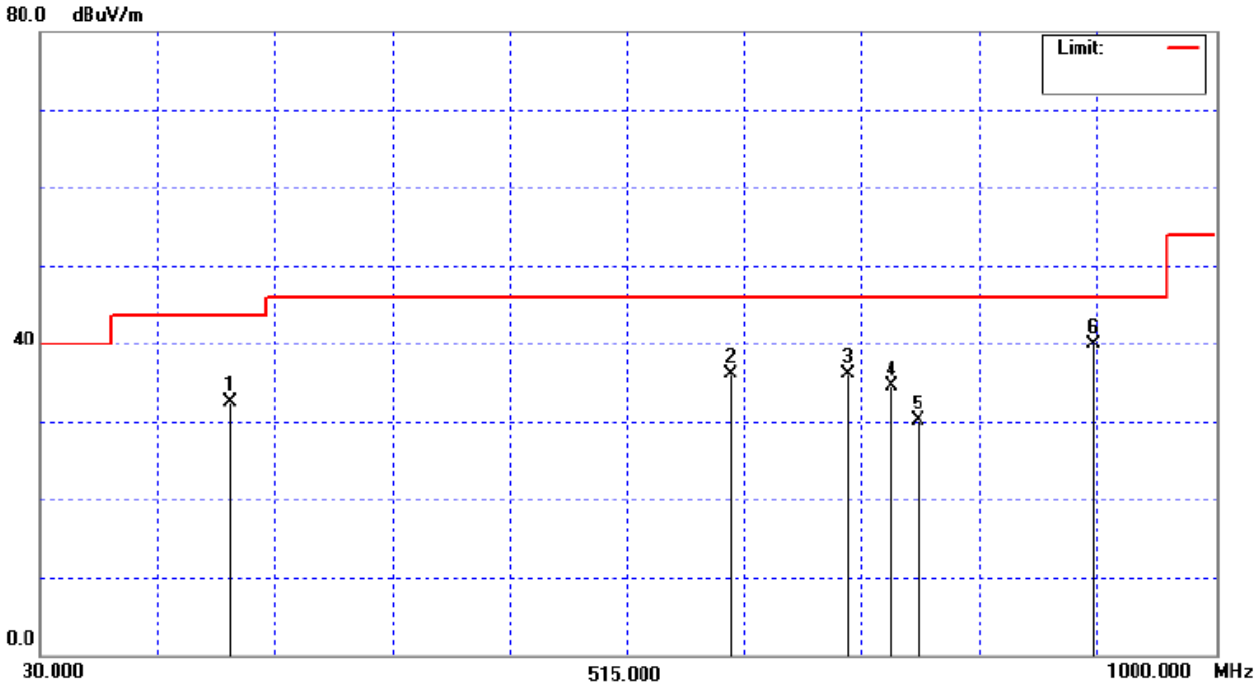
Remark：

(1) 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。

(2) 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.

(3) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission 。

(4) 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.



4.2.9 **TEST RESULTS-Above 1000MHz~10th Harmonic**

EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ° C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH00 (2402 MHz)		
Note：	Antenna: IPX-MUR9SAXX-423 (ANT1)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2388.80	V	32.70	22.91	30.77	63.47	53.68	74.00	54.00	X/E
2402.00	V	79.97	50.96	30.83	110.80	81.79			X/F
4804.30	V	45.60	32.59	1.23	46.83	33.82	74.00	54.00	X/H
7206.32	V	42.07	33.89	7.29	49.36	41.18	74.00	54.00	X/H
9608.24	V	43.04	31.90	10.43	53.47	42.33	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

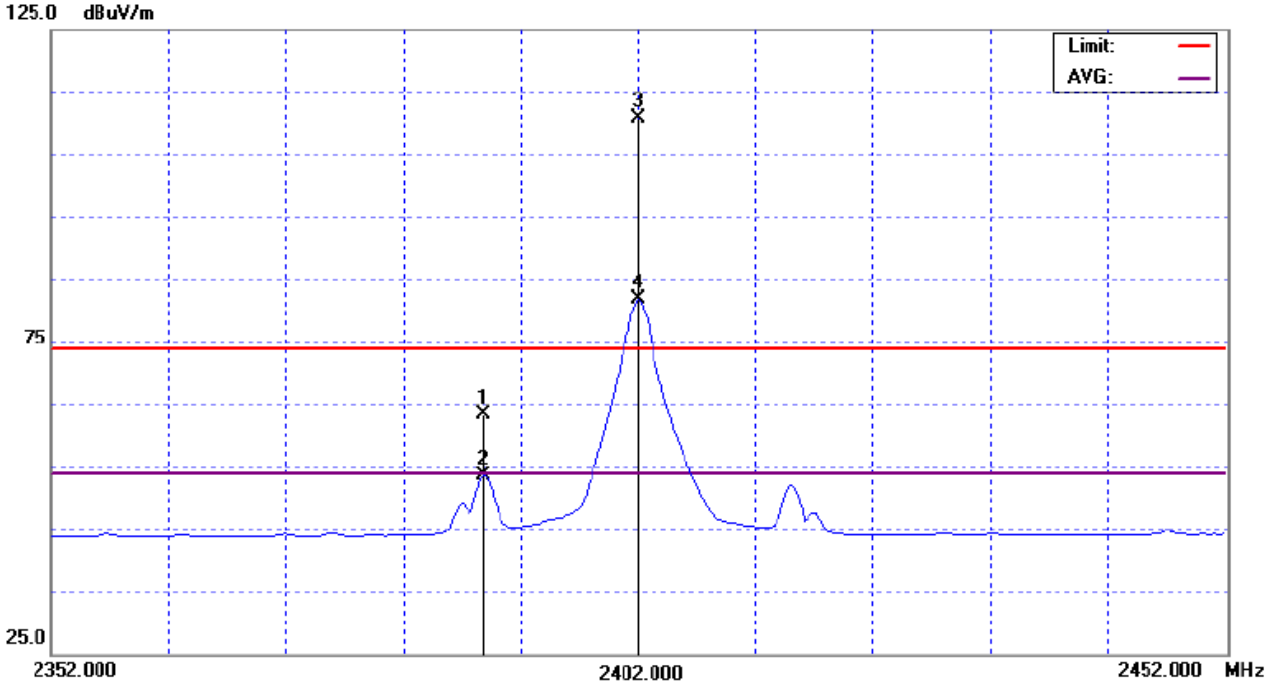
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

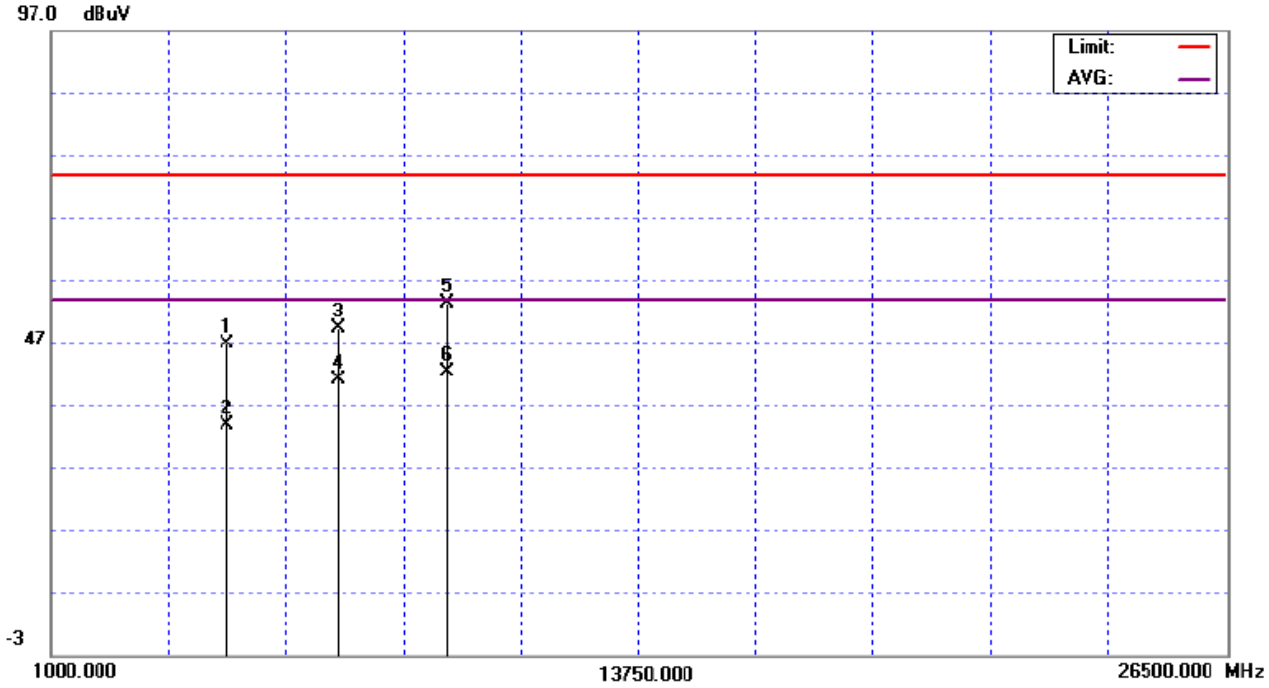
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(6) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

CH00 (2402 MHz)(Above 1000 MHz, Vertical)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH00 (2402 MHz)		
Note：	Antenna: IPX-MUR9SAXX-423 (ANT1)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2388.80	H	31.89	22.14	30.77	62.66	52.91	74.00	54.00	X/E
2402.00	H	81.22	51.50	30.83	112.05	82.33			X/F
4804.08	H	40.95	31.03	1.23	42.18	32.26	74.00	54.00	X/H
7206.16	H	48.91	36.23	7.29	56.20	43.52	74.00	54.00	X/H
9608.98	H	41.12	30.47	10.43	51.55	40.90	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

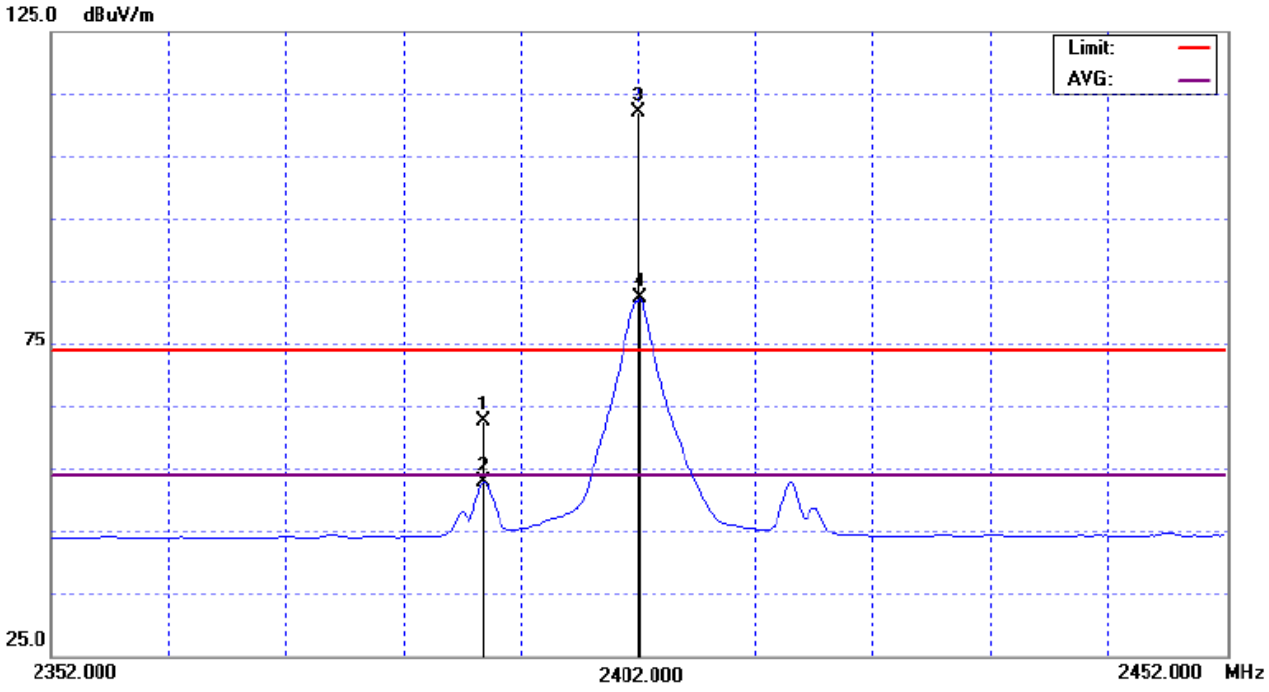
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

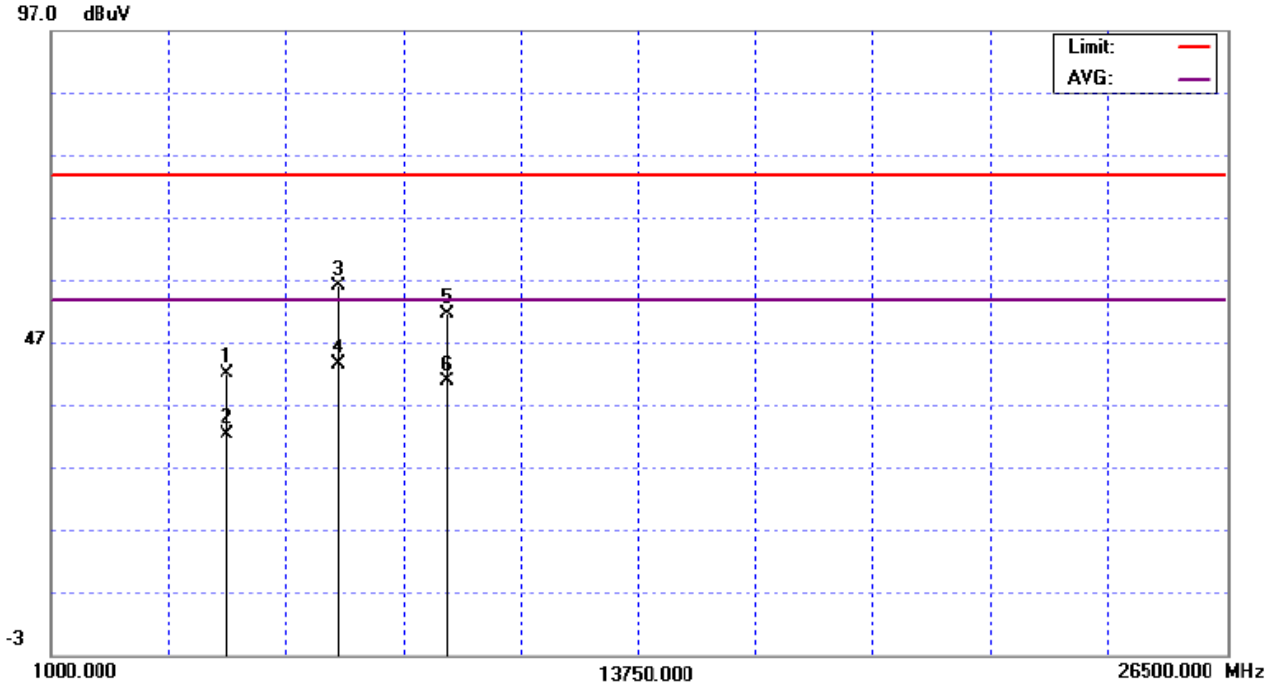
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(6) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

CH00 (2402 MHz)(Above 1000 MHz, Horizontal)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH00 (2402 MHz)		
Note：	Antenna: PA1-2450CSA (ANT2)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2388.90	V	30.50	20.71	30.77	61.27	51.48	74.00	54.00	X/E
2402.00	V	76.97	48.56	30.83	107.80	79.39			X/F
4804.80	V	43.29	31.47	1.23	44.52	32.70	74.00	54.00	X/H
7206.32	V	40.67	33.30	7.29	47.96	40.59	74.00	54.00	X/H
9608.24	V	42.42	31.06	10.43	52.85	41.49	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

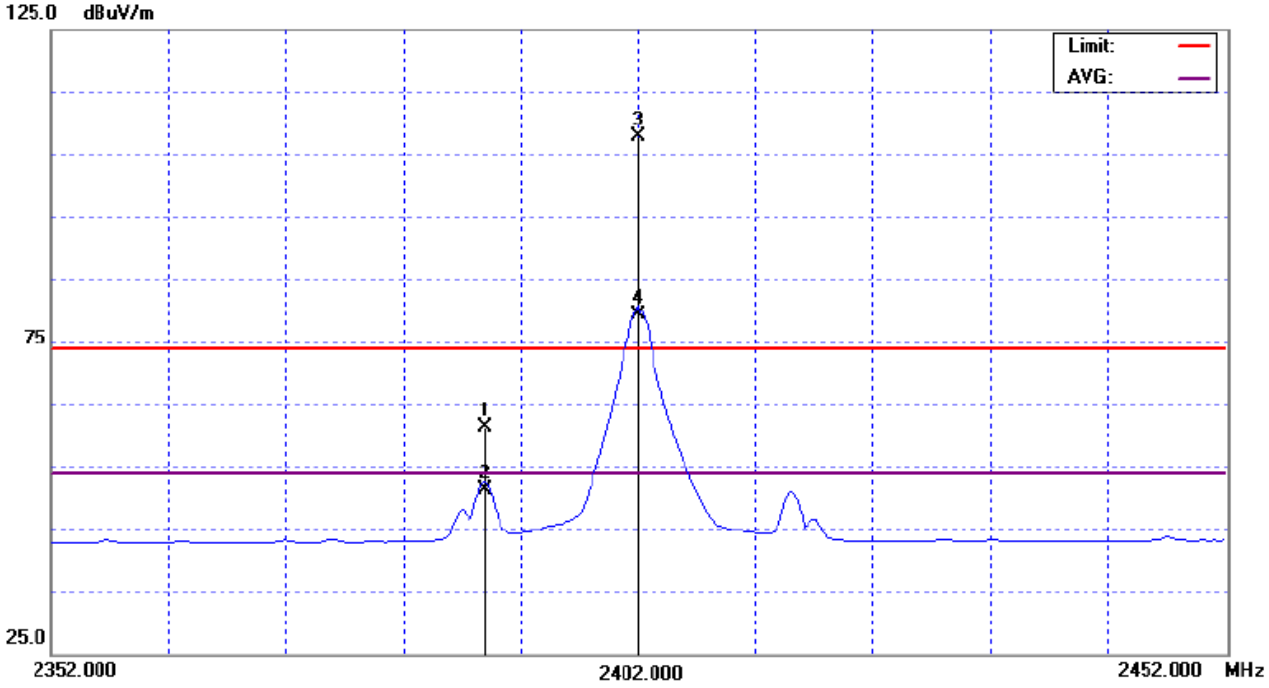
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

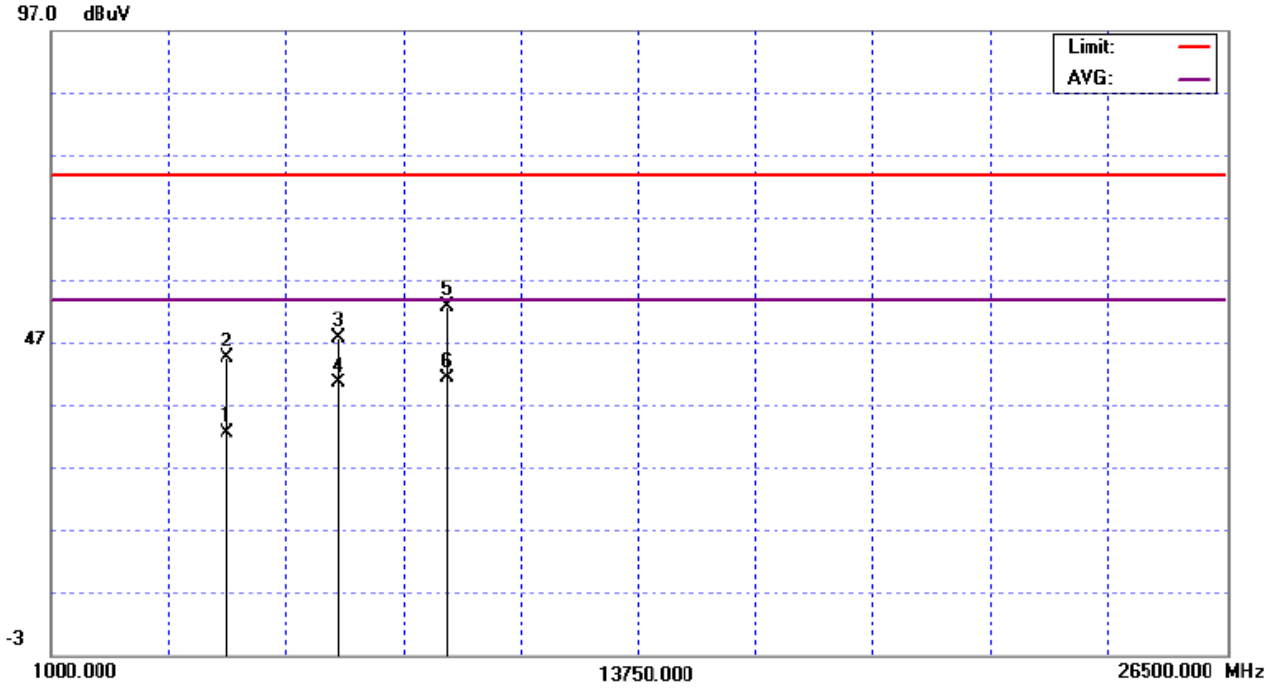
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(6) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

CH00 (2402 MHz)(Above 1000 MHz, Vertical)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH00 (2402 MHz)		
Note：	Antenna: PA1-2450CSA (ANT2)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2388.90	H	24.09	15.97	30.77	54.86	46.74	74.00	54.00	X/E
2402.00	H	67.52	43.90	30.83	98.35	74.73			X/F
4804.08	H	40.95	31.03	1.23	42.18	32.26	74.00	54.00	X/H
7206.16	H	48.91	36.23	7.29	56.20	43.52	74.00	54.00	X/H
9608.98	H	41.12	30.47	10.43	51.55	40.90	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

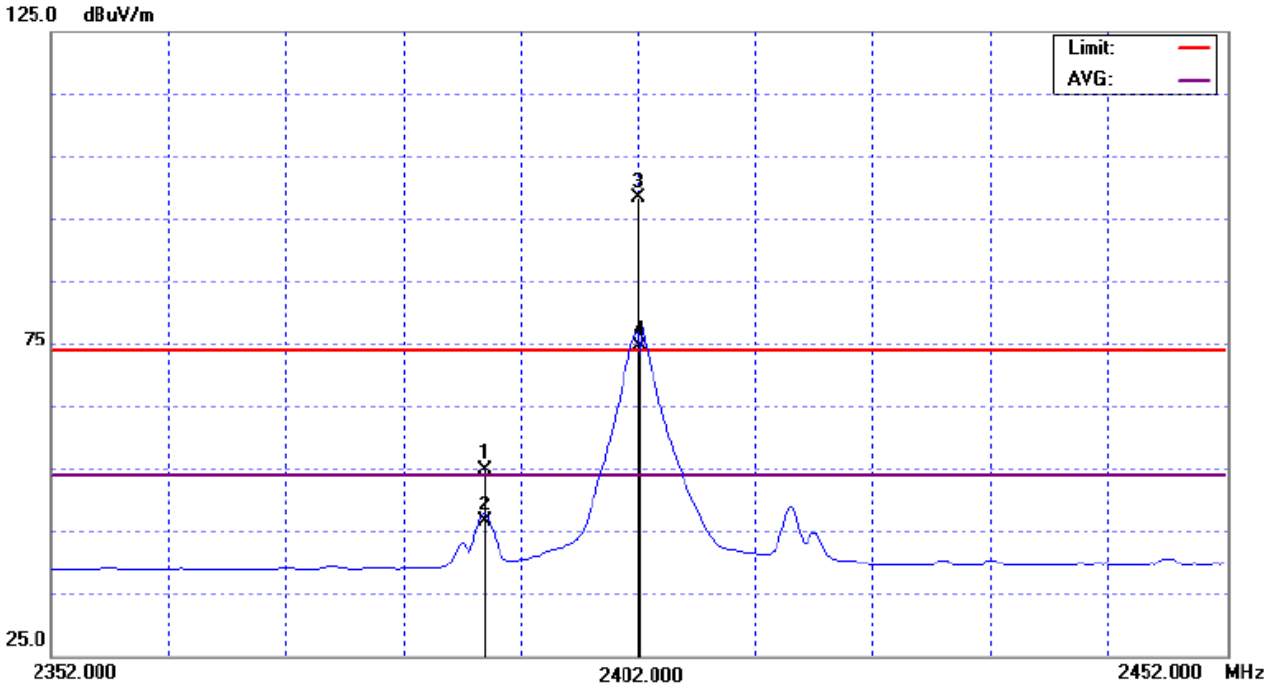
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

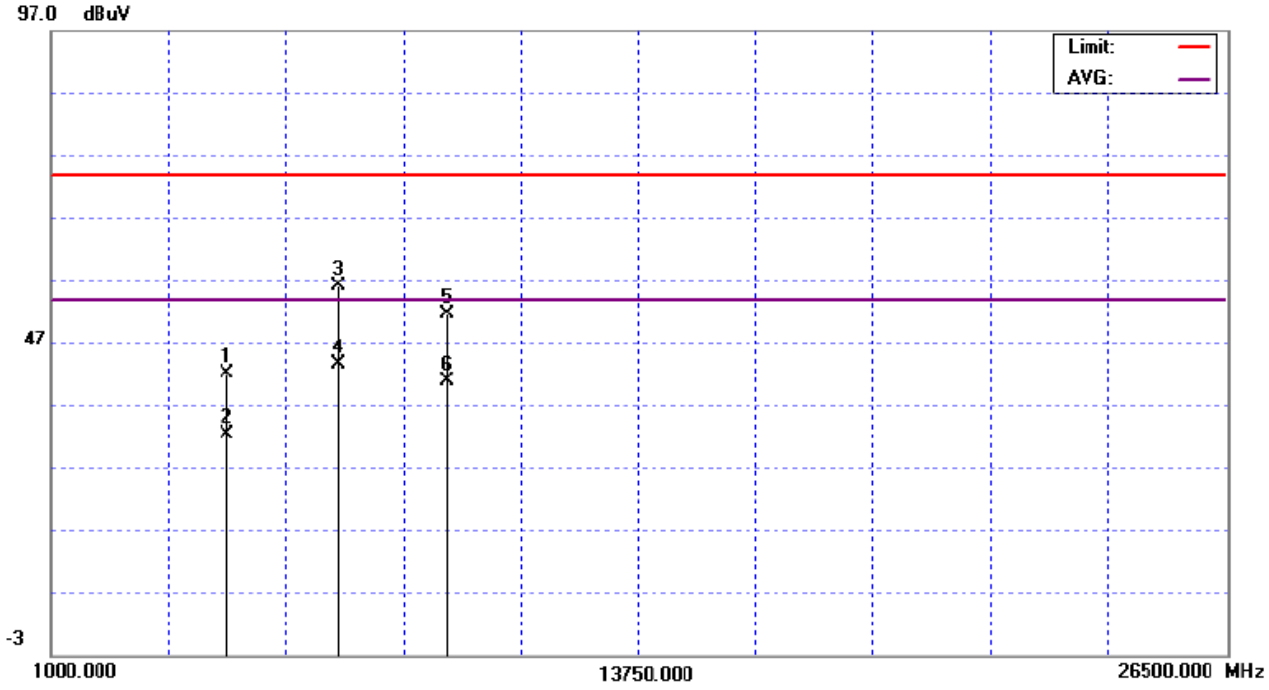
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(6) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

CH00 (2402 MHz)(Above 1000 MHz, Horizontal)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH00 (2402 MHz)		
Note：	Antenna: Dipole (ANT3)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2389.00	V	26.97	17.54	30.77	57.74	48.31	74.00	54.00	X/E
2402.00	V	70.51	45.21	30.83	101.34	76.04			X/F
4804.80	V	43.29	31.47	1.23	44.52	32.70	74.00	54.00	X/H
7206.32	V	40.67	33.30	7.29	47.96	40.59	74.00	54.00	X/H
9608.24	V	42.42	31.06	10.43	52.85	41.49	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

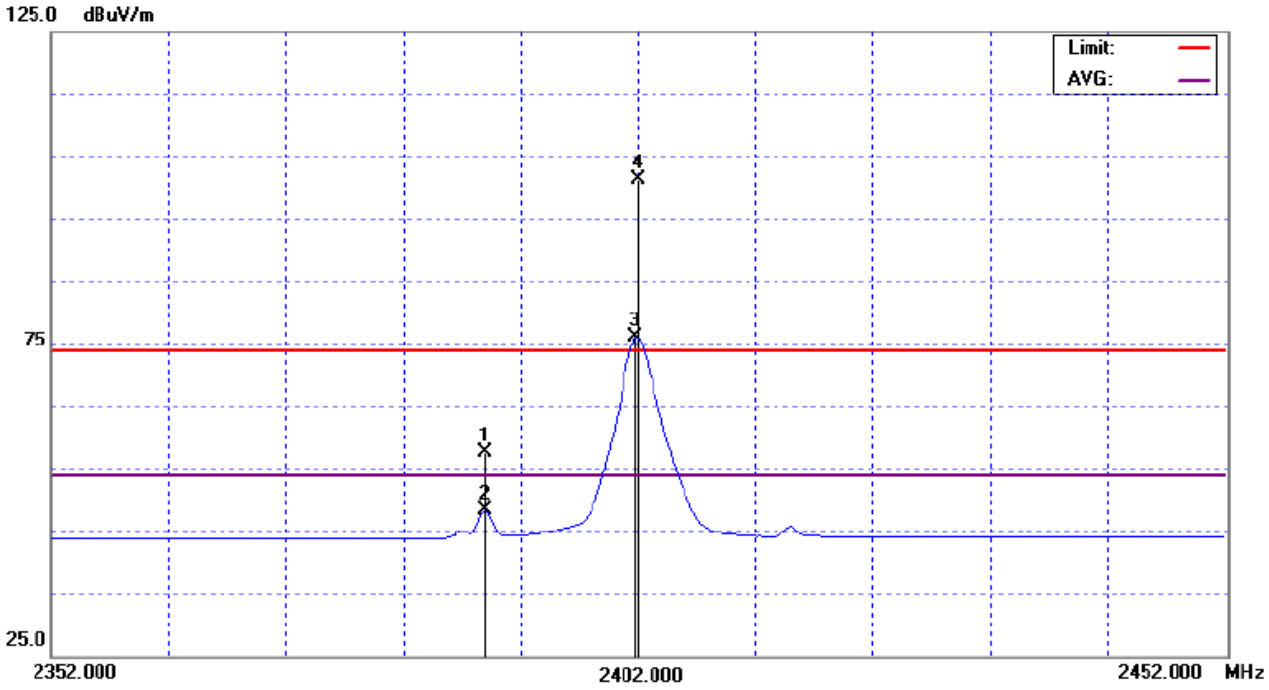
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

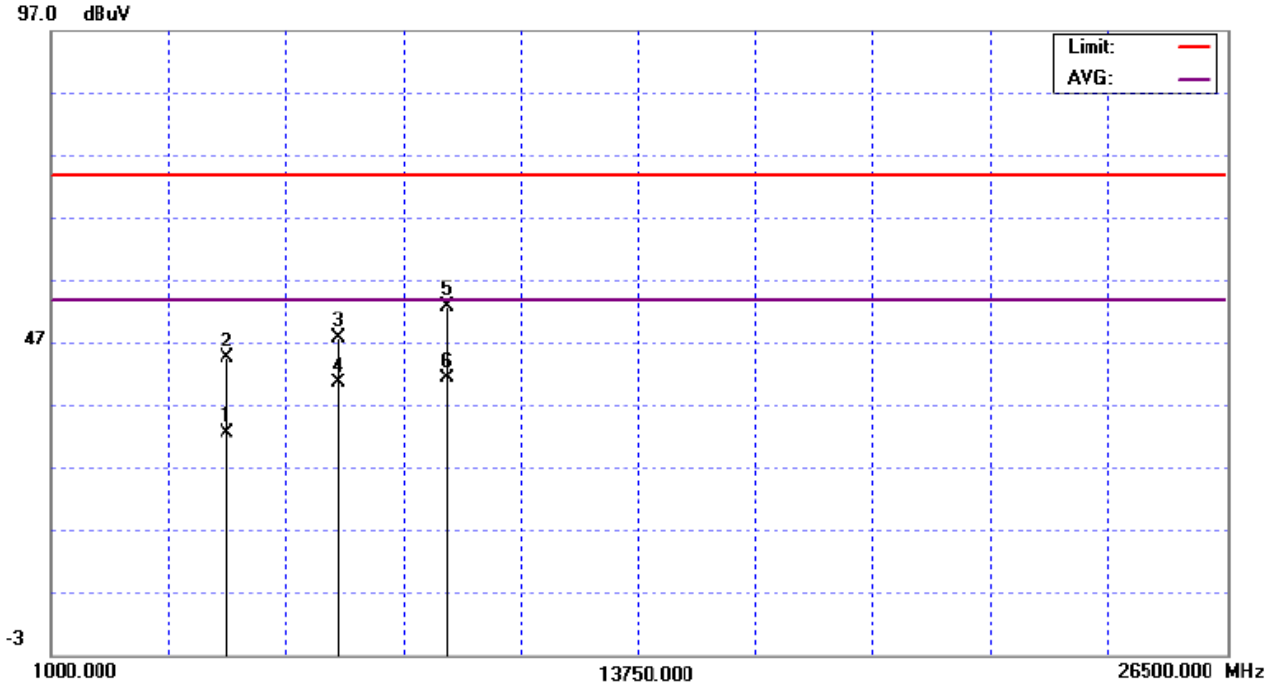
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(6) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

CH00 (2402 MHz)(Above 1000 MHz, Vertical)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH00 (2402 MHz)		
Note：	Antenna: Dipole (ANT3)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2389.00	H	38.67	23.12	30.77	69.44	53.89	74.00	54.00	X/E
2402.00	H	83.28	52.67	30.83	114.11	83.50			X/F
4804.80	H	43.29	31.47	1.23	44.52	32.70	74.00	54.00	X/H
7206.32	H	40.67	33.30	7.29	47.96	40.59	74.00	54.00	X/H
9608.24	H	42.42	31.06	10.43	52.85	41.49	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

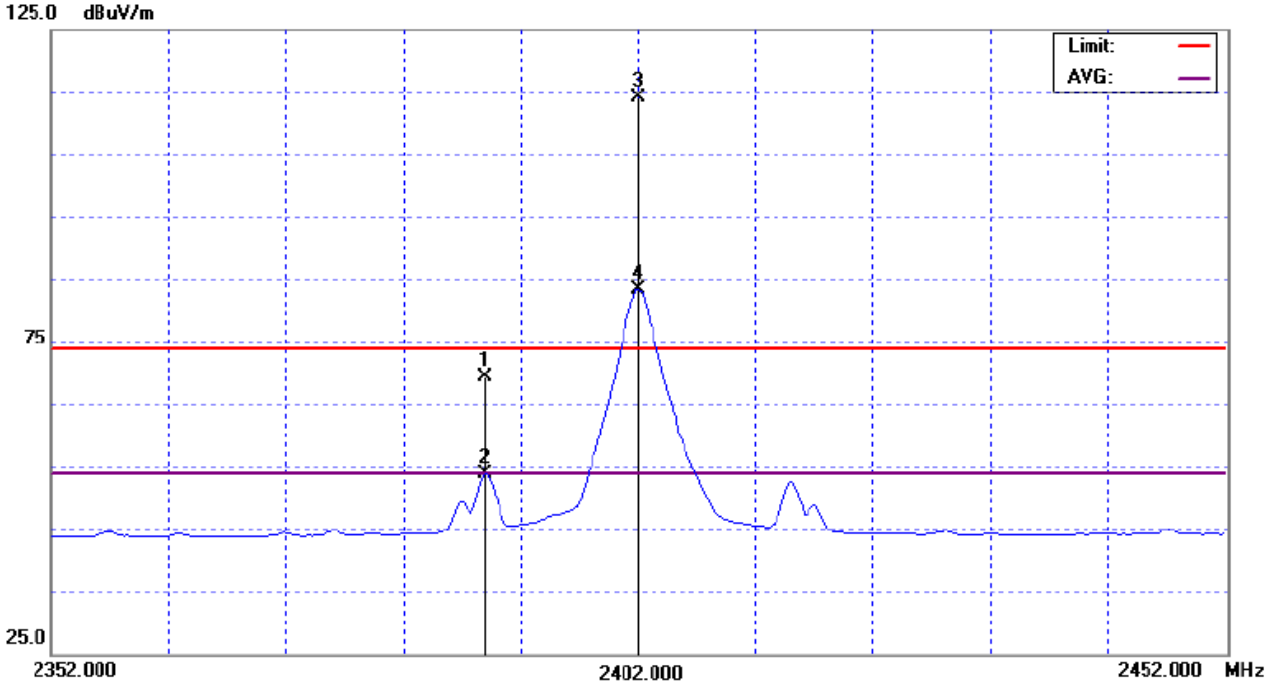
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

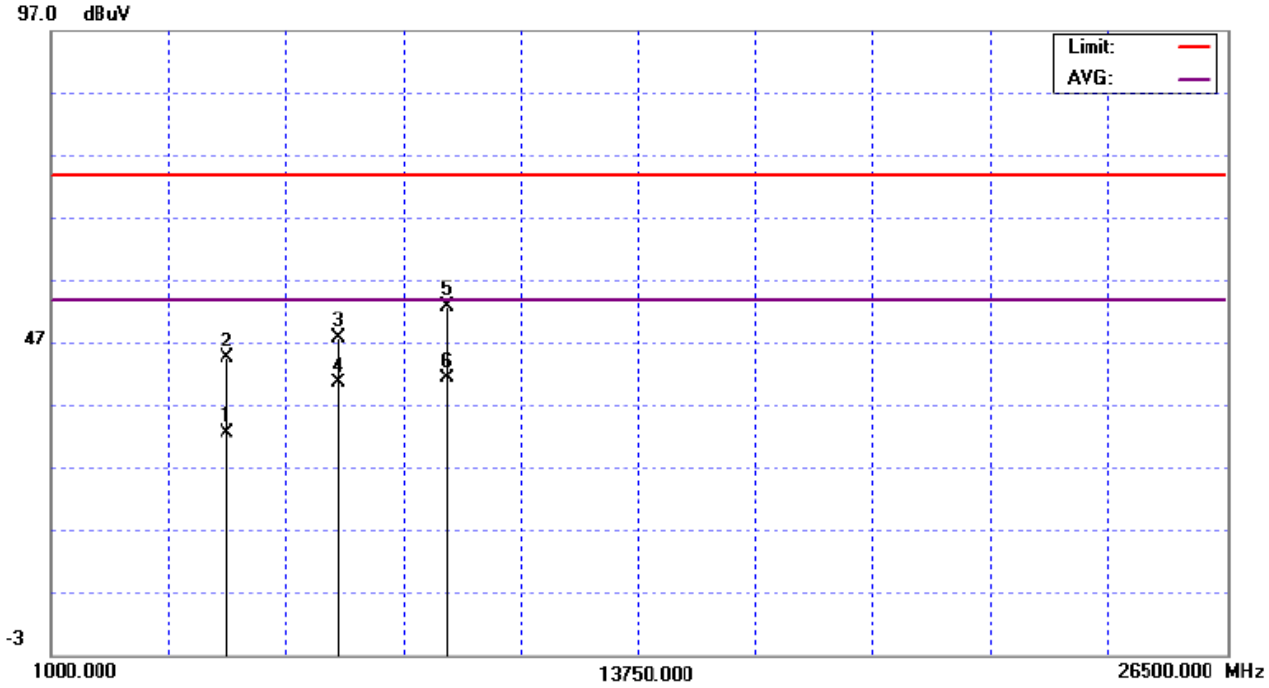
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(6) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

CH00 (2402 MHz)(Above 1000 MHz, Horizontal)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: IPX-MUR9SAXX-423 (ANT1)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2440.00	V	87.38	55.12	31.01	118.39	86.13			X/F
4880.00	V	49.49	36.98	1.43	50.92	38.41	74.00	54.00	X/H
7320.53	V	42.82	30.40	7.65	50.47	38.05	74.00	54.00	X/H
9761.30	V	41.56	29.25	10.56	52.12	39.81	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

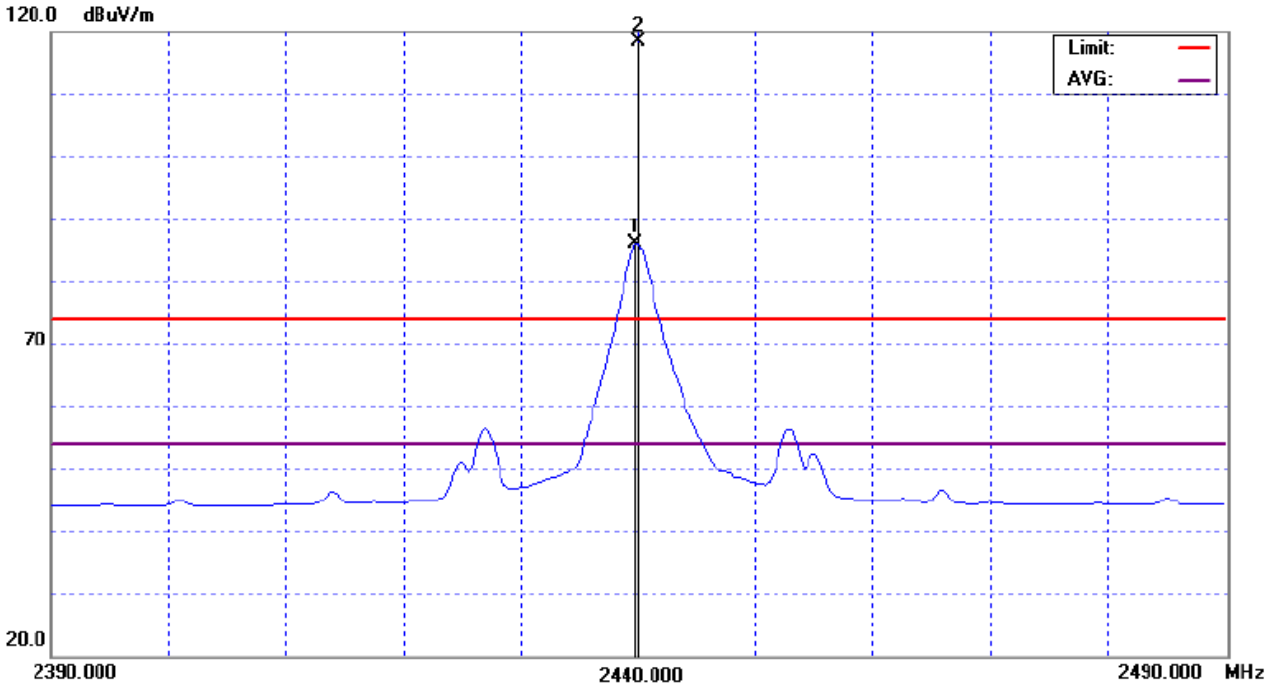
(3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

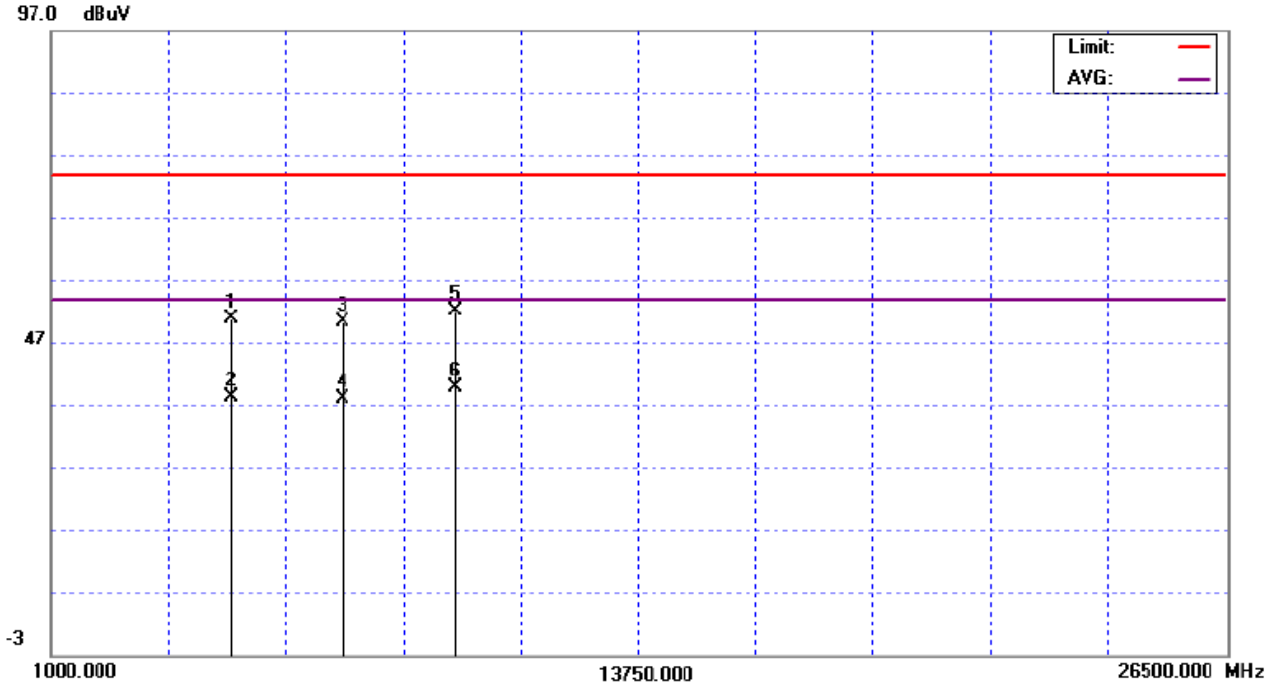
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

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

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

CH38 (2440 MHz)(Above 1000 MHz, Vertical)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: IPX-MUR9SAXX-423 (ANT1)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2440.00	H	90.62	57.37	31.01	121.63	88.38			X/F
4880.00	H	48.83	36.89	1.43	50.26	38.32	74.00	54.00	X/H
7320.02	H	48.55	36.75	7.65	56.20	44.40	74.00	54.00	X/H
9760.29	H	41.90	32.39	10.56	52.46	42.95	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

(4) 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.

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

(6) EUT Orthogonal Axes：
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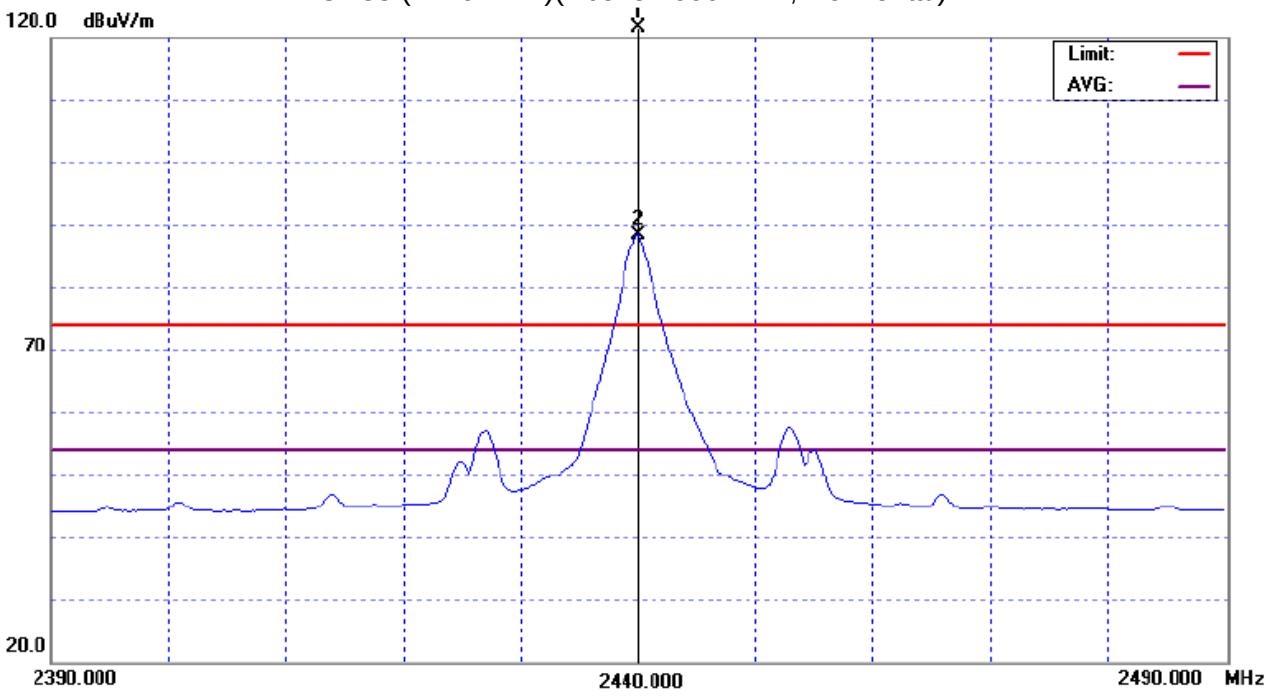
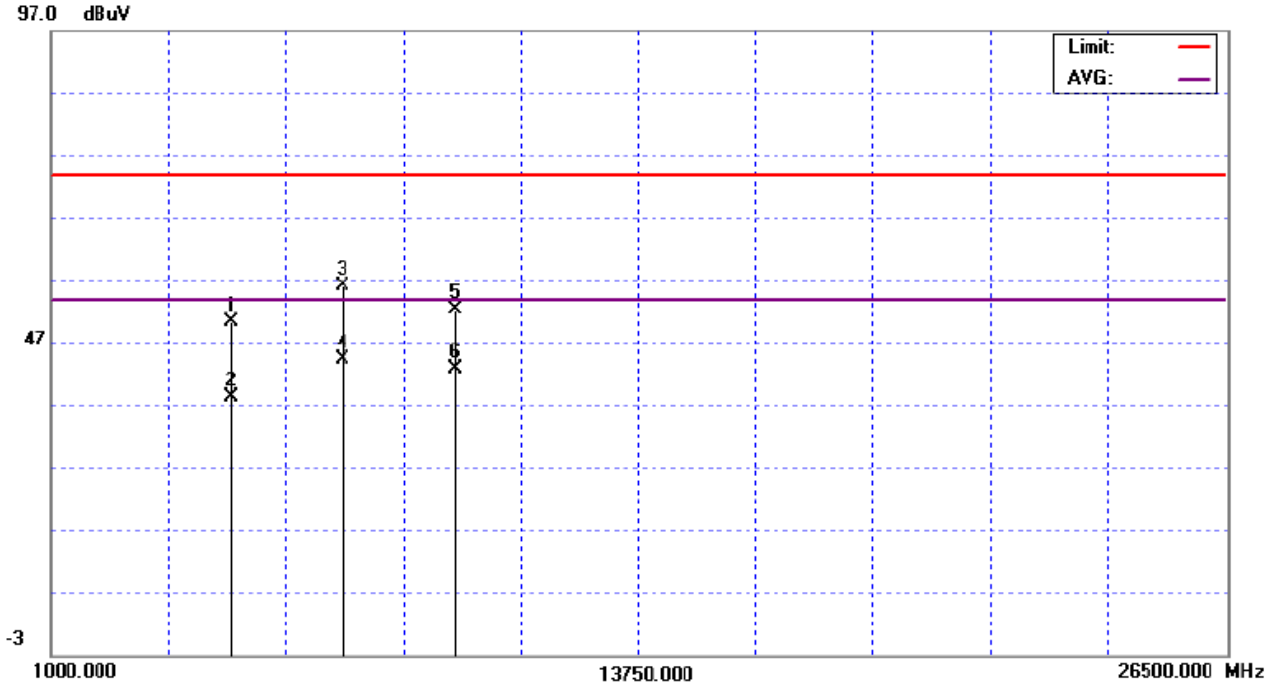
CH38 (2440 MHz)(Above 1000 MHz, Horizontal)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: PA1-2450CSA (ANT2)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2440.00	V	85.68	53.42	31.01	116.69	84.43			X/F
4880.00	V	48.83	36.89	1.43	50.26	38.32	74.00	54.00	X/H
7320.02	V	48.55	36.75	7.65	56.20	44.40	74.00	54.00	X/H
9760.29	V	41.90	32.39	10.56	52.46	42.95	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

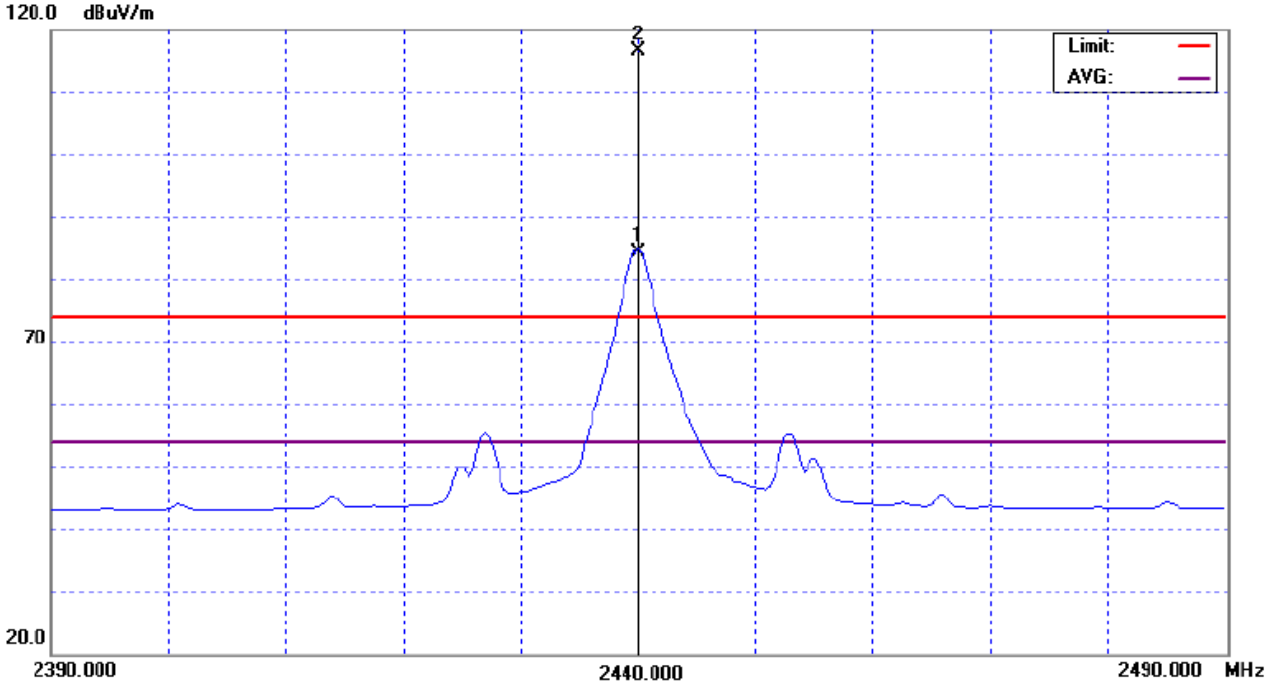
(3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

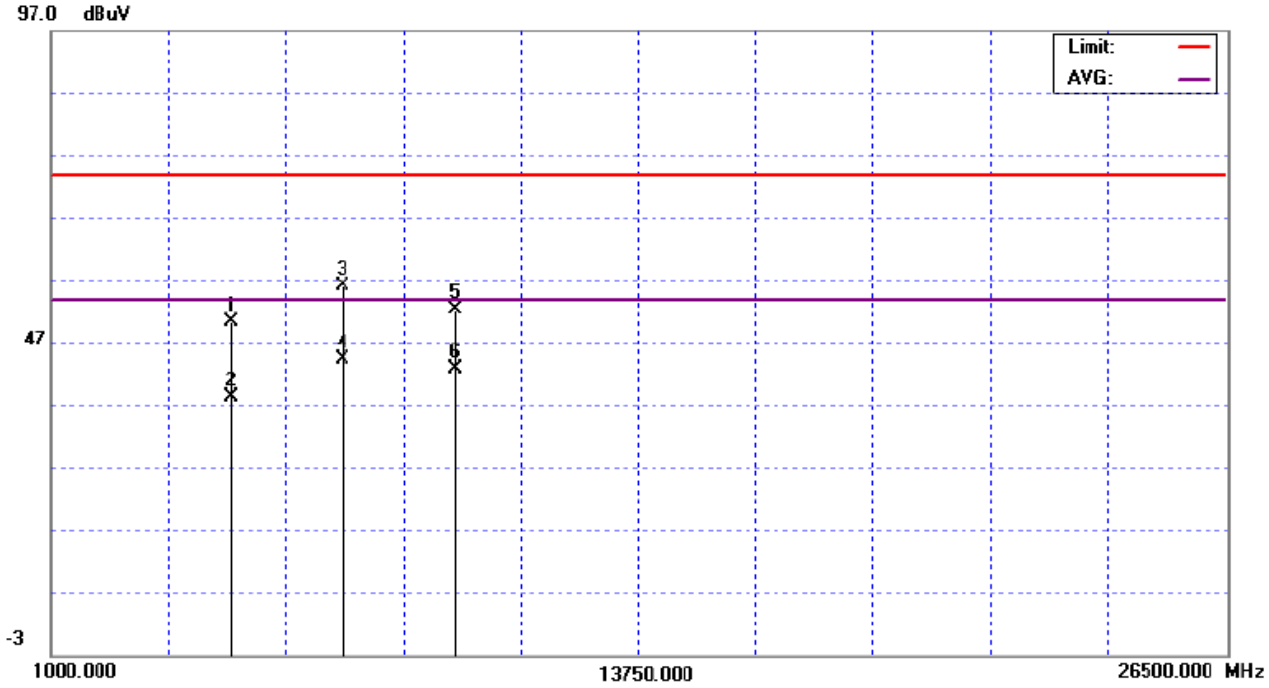
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

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

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

CH38 (2440 MHz)(Above 1000 MHz, Vertical)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: PA1-2450CSA (ANT2)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2440.10	H	74.12	47.37	31.01	105.13	78.38			X/F
4880.00	H	48.83	36.89	1.43	50.26	38.32	74.00	54.00	X/H
7320.02	H	48.55	36.75	7.65	56.20	44.40	74.00	54.00	X/H
9760.29	H	41.90	32.39	10.56	52.46	42.95	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

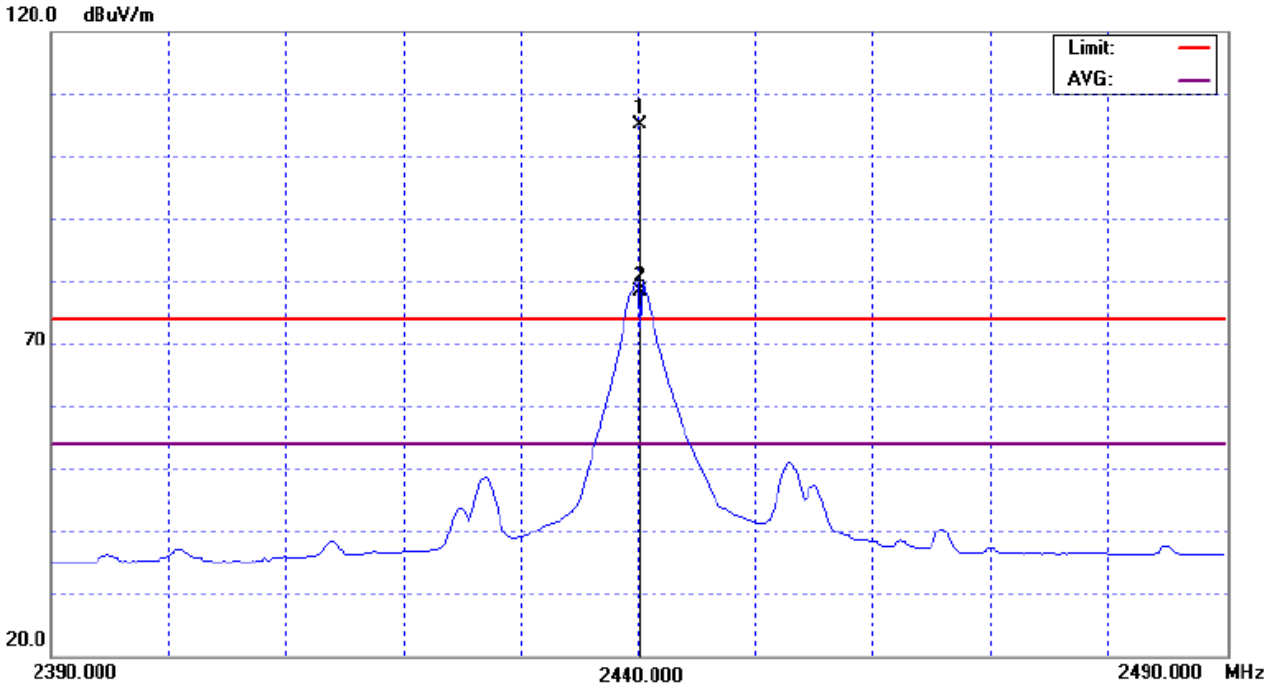
(3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

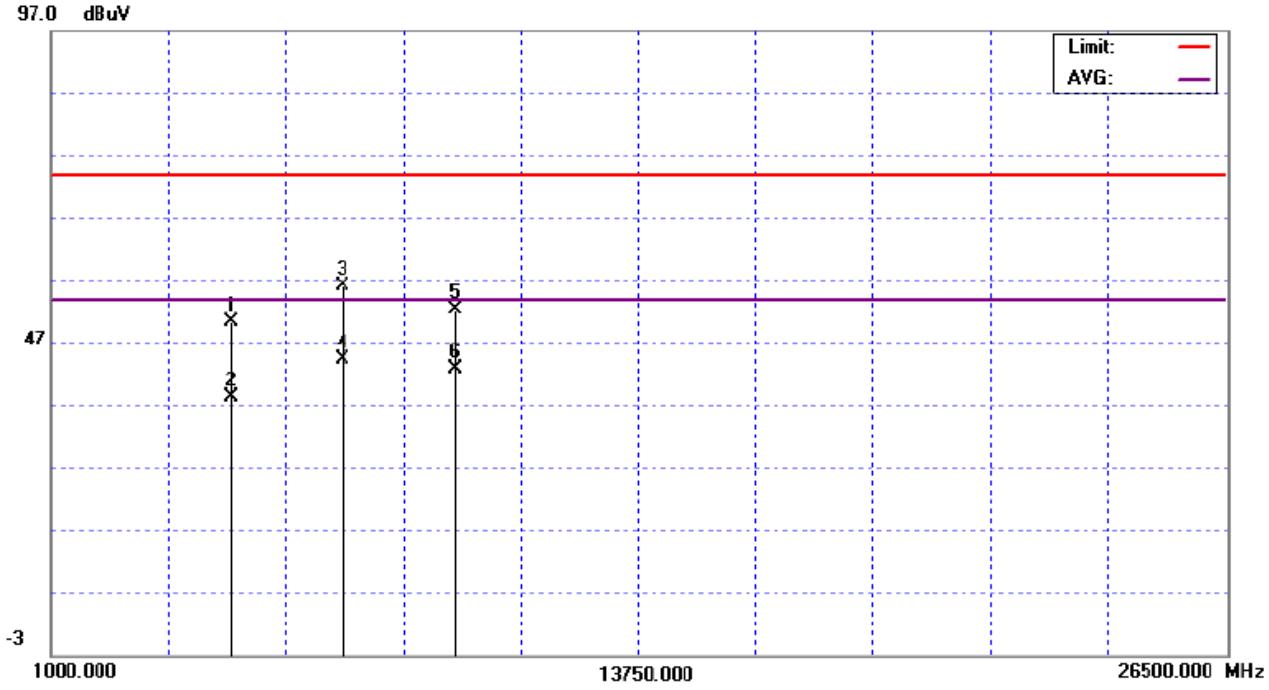
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

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

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

CH38 (2440 MHz)(Above 1000 MHz, Horizontal)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: Dipole (ANT3)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2440.00	V	77.00	48.56	31.01	108.01	79.57			X/F
4804.08	V	40.95	31.03	1.23	42.18	32.26	74.00	54.00	X/H
7206.16	V	48.91	36.23	7.29	56.20	43.52	74.00	54.00	X/H
9608.98	V	41.12	30.47	10.43	51.55	40.90	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

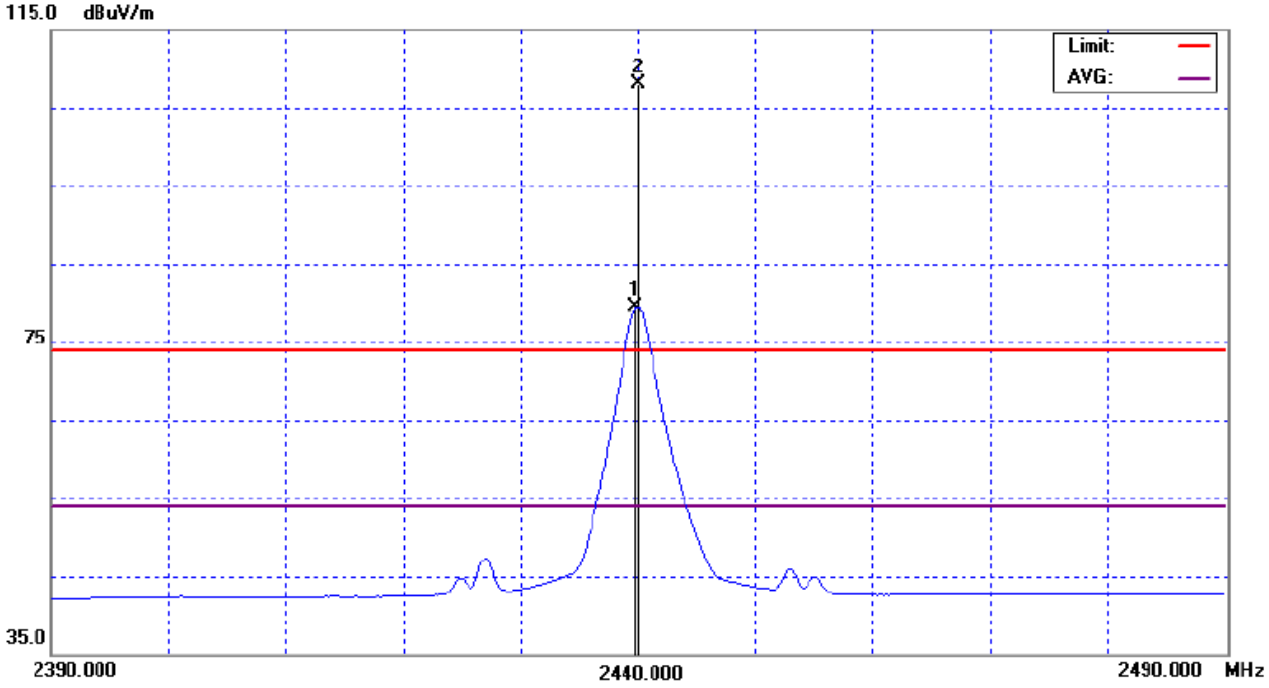
(3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

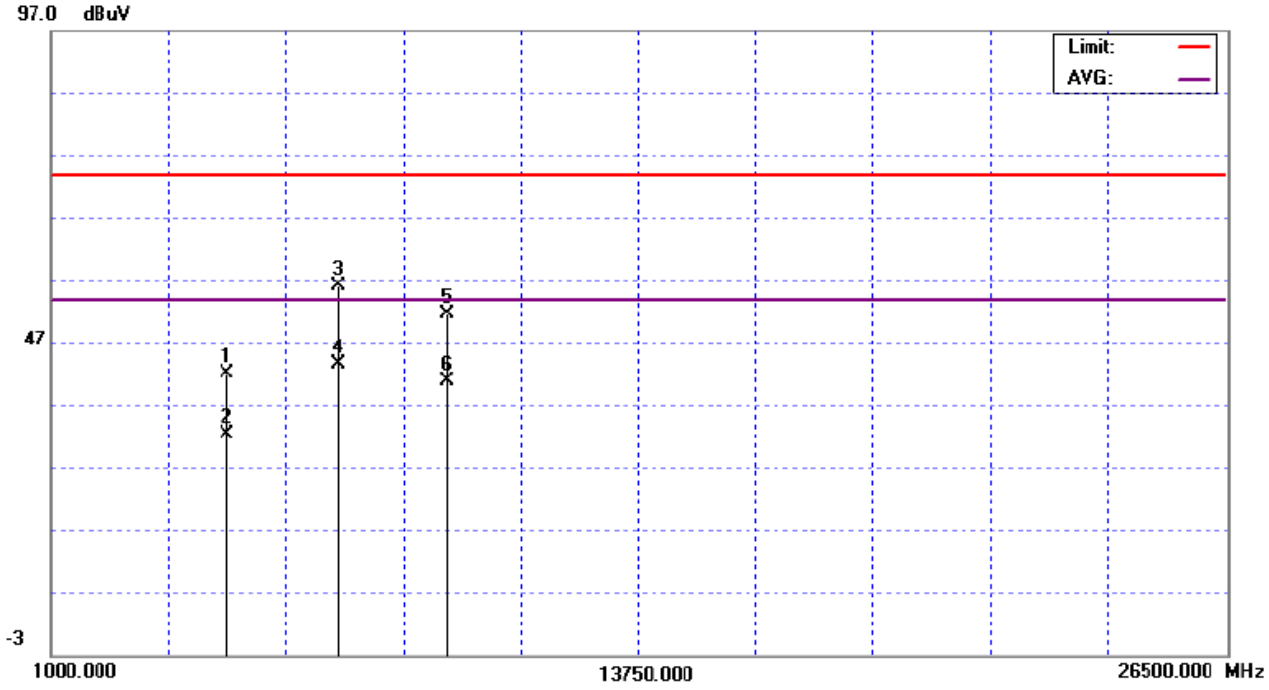
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

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

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

CH38 (2440 MHz)(Above 1000 MHz, Vertical)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH38 (2440 MHz)		
Note：	Antenna: Dipole (ANT3)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2440.00	H	93.32	58.71	31.01	124.33	89.72			X/F
4880.00	H	48.83	36.89	1.43	50.26	38.32	74.00	54.00	X/H
7320.02	H	48.55	36.75	7.65	56.20	44.40	74.00	54.00	X/H
9760.29	H	41.90	32.39	10.56	52.46	42.95	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

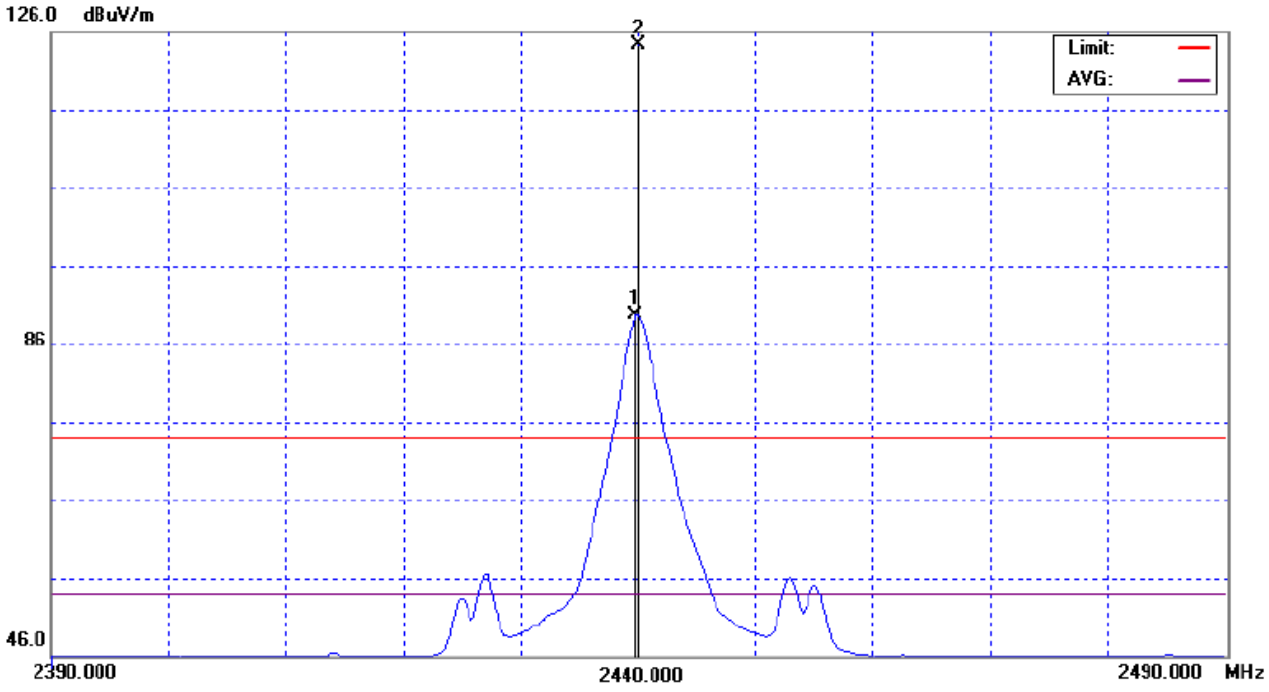
(3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

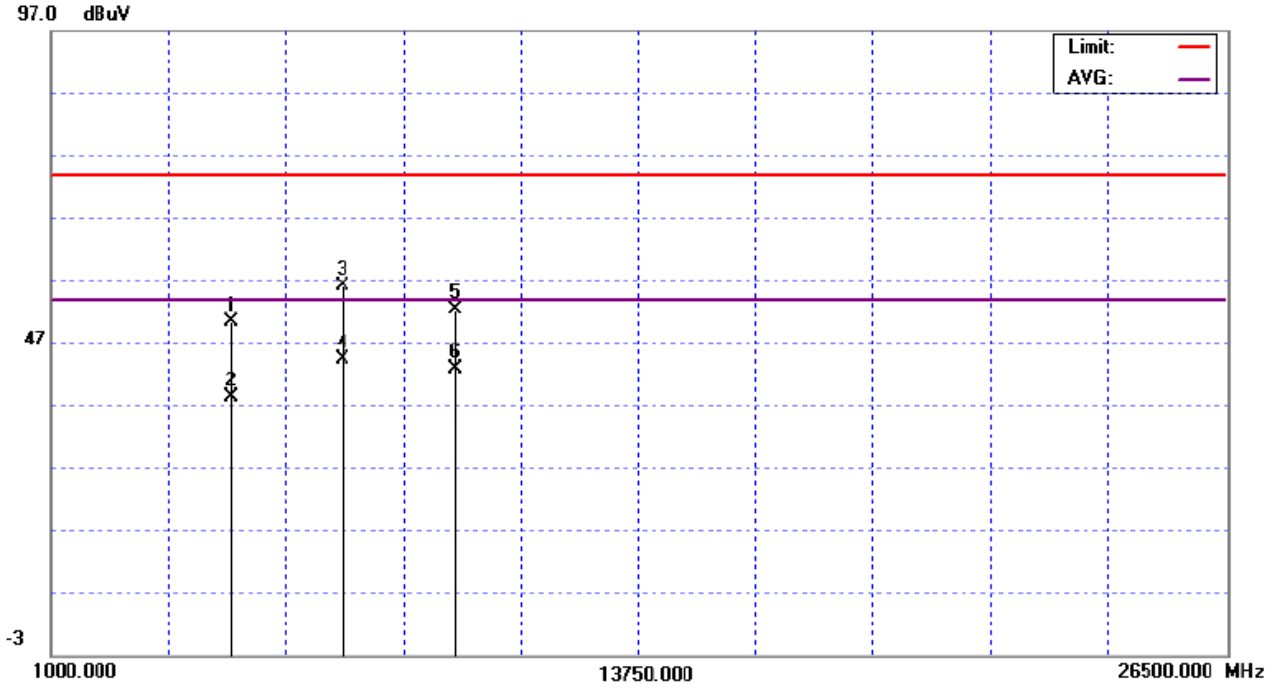
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

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

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

CH38 (2440 MHz)(Above 1000 MHz, Horizontal)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH75 (2477 MHz)		
Note：	Antenna: IPX-MUR9SAXX-423 (ANT1)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2477.00	V	77.00	48.37	31.19	108.19	79.56			X/F
2490.10	V	32.54	17.96	31.25	63.79	49.21	74.00	54.00	X/E
4954.00	V	46.75	35.06	1.63	48.38	36.69	74.00	54.00	X/H
7431.00	V	43.09	31.00	8.00	51.09	39.00	74.00	54.00	X/H
9908.00	V	42.76	30.85	10.68	53.44	41.53	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

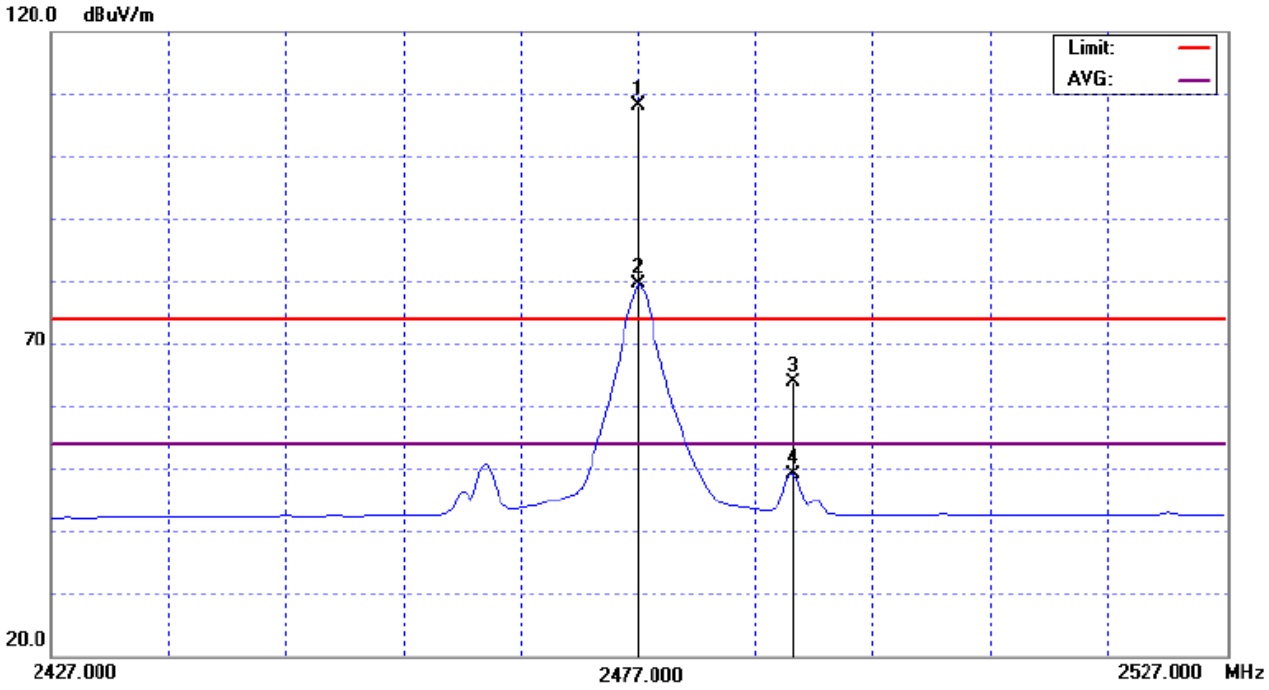
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

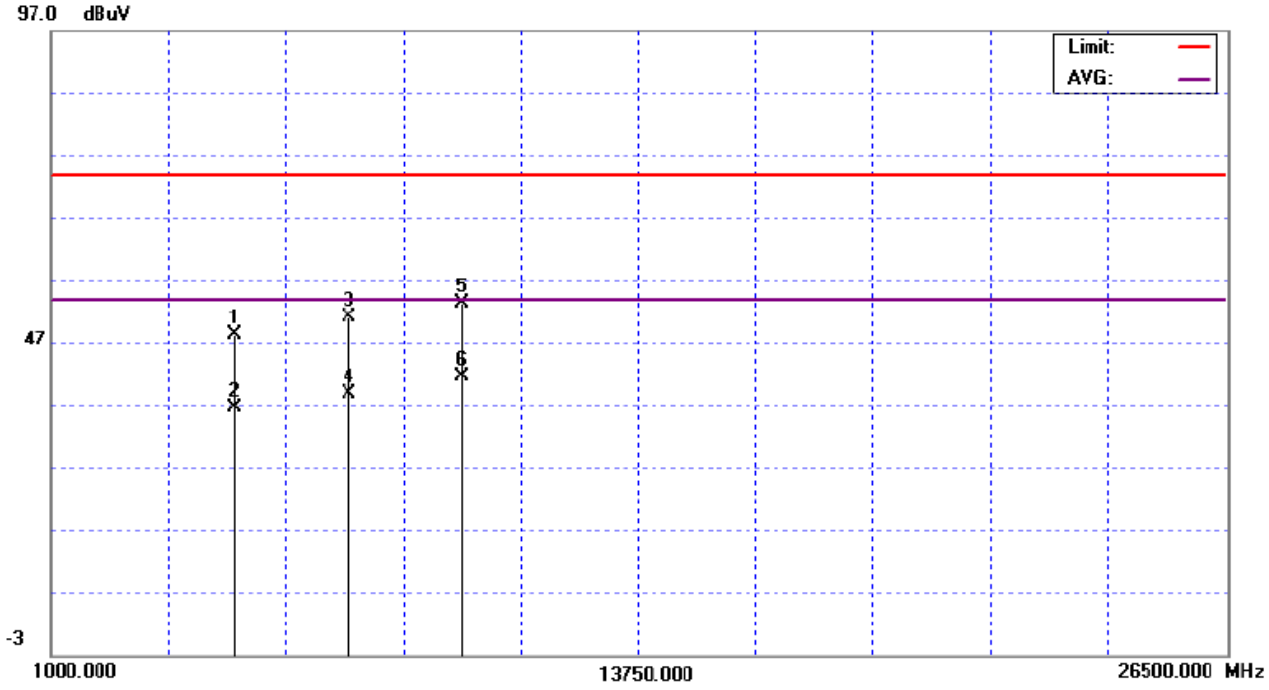
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(6) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

CH75 (2477 MHz)(Above 1000 MHz, Vertical)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH75 (2477 MHz)		
Note：	Antenna: IPX-MUR9SAXX-423 (ANT1)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2477.00	H	79.50	49.79	31.19	110.69	80.98			X/F
2489.90	H	37.03	20.14	31.25	68.28	51.39	74.00	54.00	X/E
4954.06	H	46.00	33.96	1.63	47.63	35.59	74.00	54.00	X/H
7431.08	H	42.12	30.37	8.00	50.12	38.37	74.00	54.00	X/H
9908.01	H	42.90	30.26	10.68	53.58	40.94	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

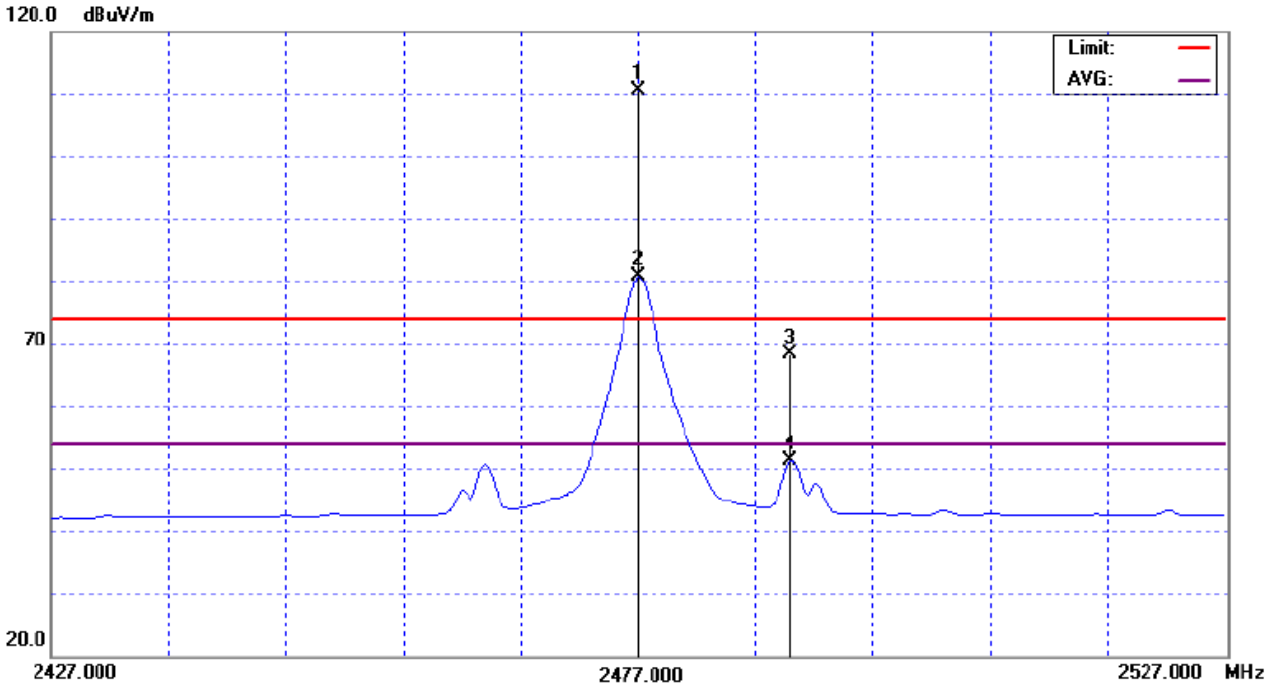
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

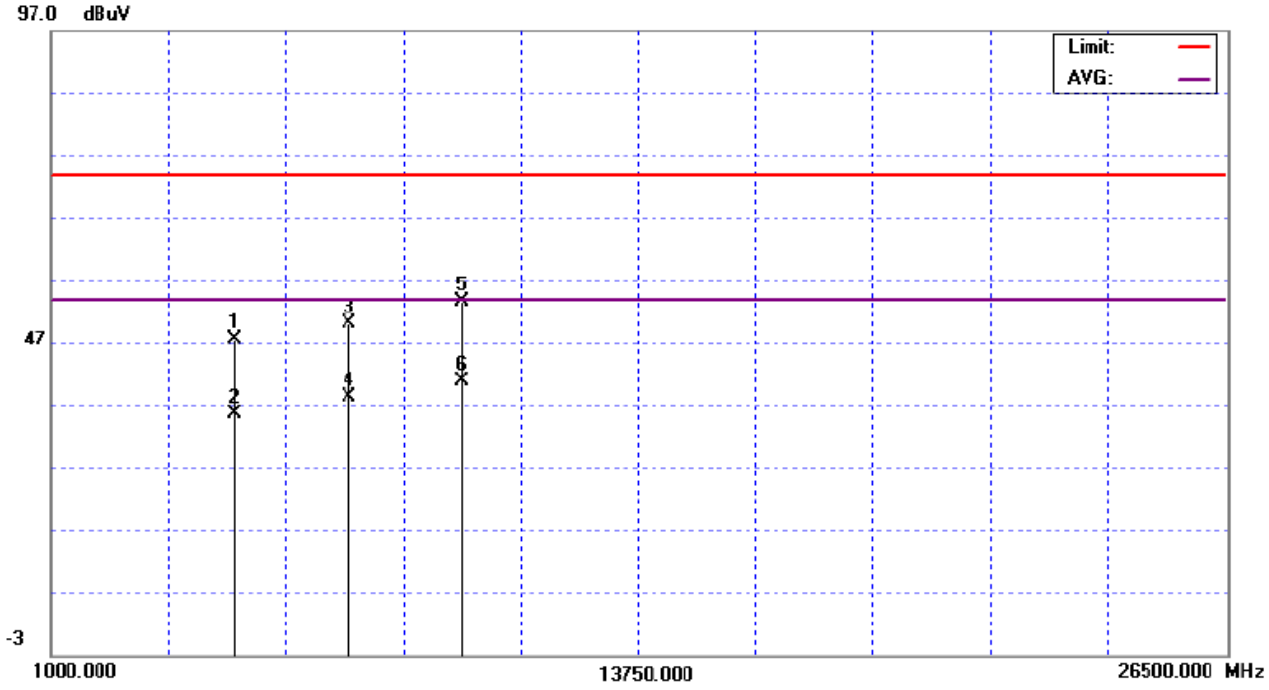
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(6) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

CH75 (2477 MHz)(Above 1000 MHz, Horizontal)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH75 (2477 MHz)		
Note：	Antenna: PA1-2450CSA (ANT2)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2477.00	V	76.00	48.37	31.19	107.19	79.56			X/F
2490.10	V	32.54	17.96	31.25	63.79	49.21	74.00	54.00	X/E
4954.34	V	46.44	34.86	1.63	48.07	36.49	74.00	54.00	X/H
7431.40	V	41.09	30.69	8.00	49.09	38.69	74.00	54.00	X/H
9908.17	V	43.41	30.71	10.68	54.09	41.39	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

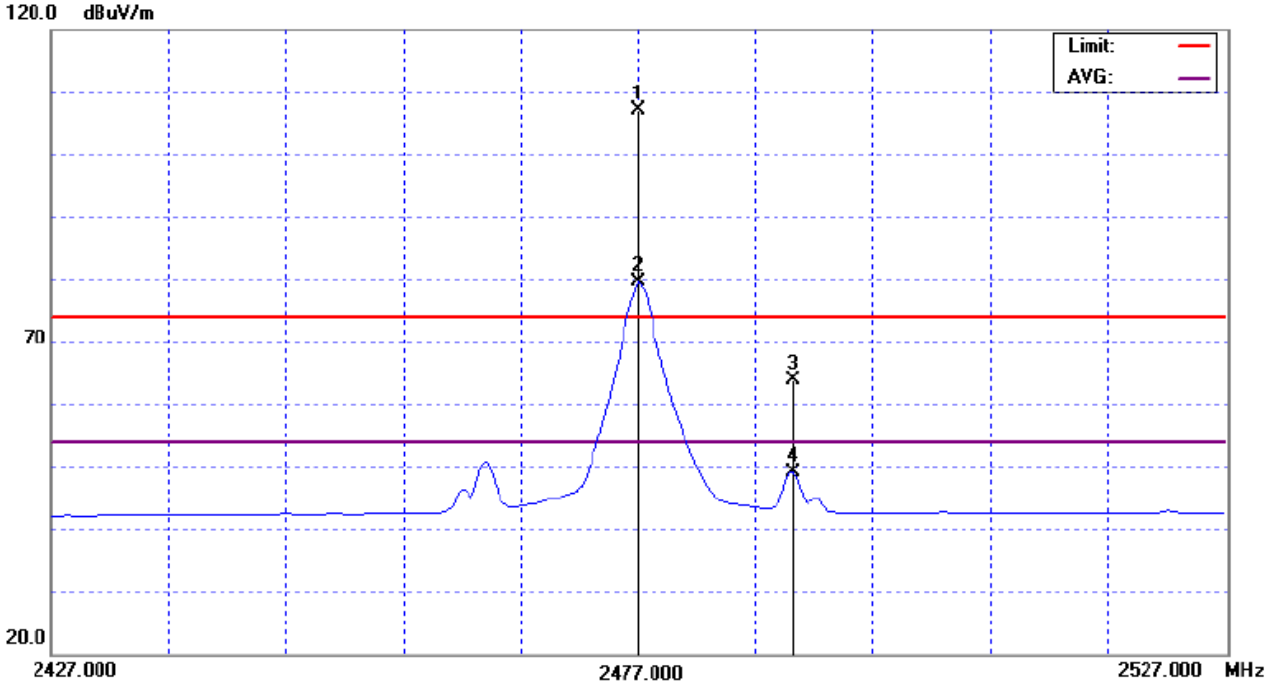
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

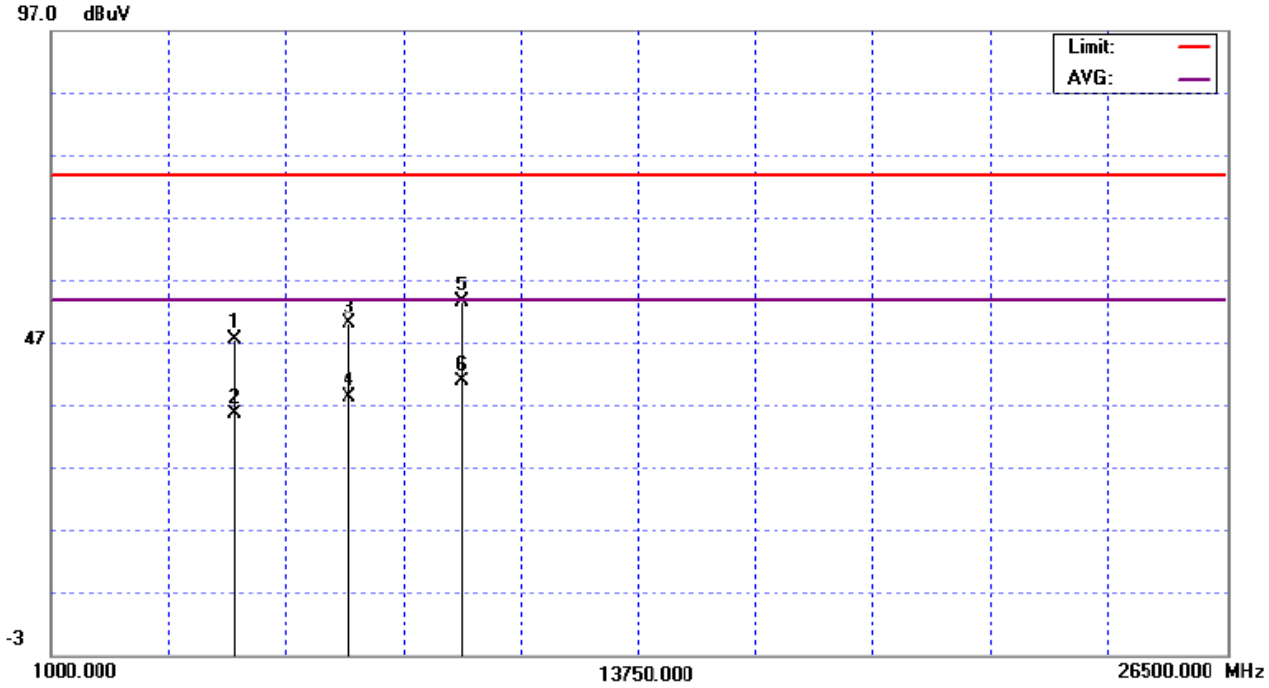
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(6) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

CH75 (2477 MHz)(Above 1000 MHz, Vertical)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH75 (2477 MHz)		
Note：	Antenna: PA1-2450CSA (ANT2)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2477.00	H	67.20	47.49	31.19	98.39	78.68			X/F
2489.80	H	29.03	18.14	31.25	60.28	49.39	74.00	54.00	X/E
4954.06	H	46.00	33.96	1.63	47.63	35.59	74.00	54.00	X/H
7431.08	H	42.12	30.37	8.00	50.12	38.37	74.00	54.00	X/H
9908.01	H	42.90	30.26	10.68	53.58	40.94	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

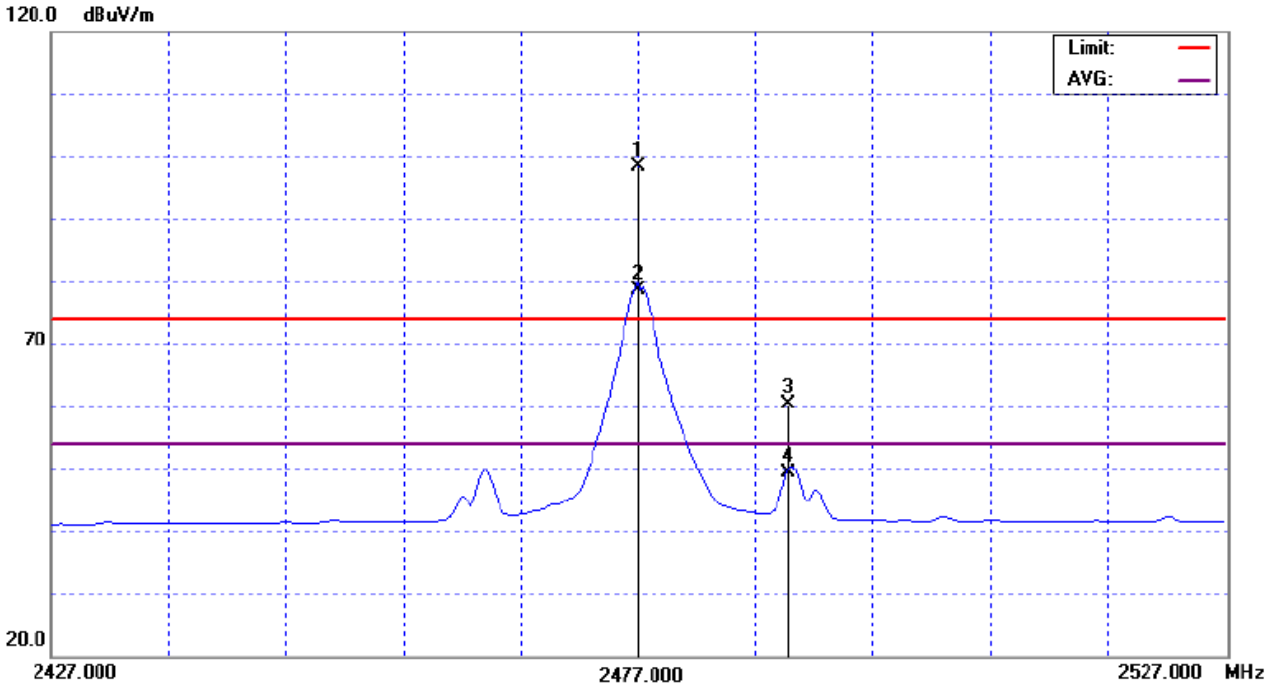
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

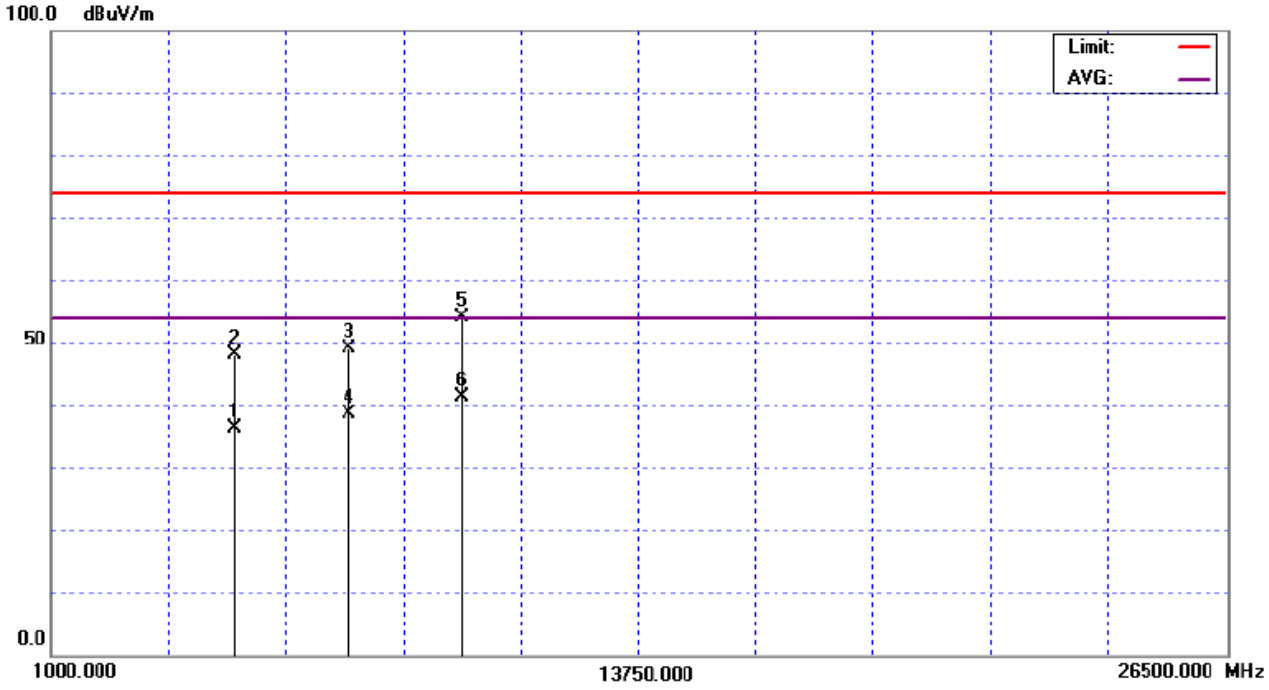
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(6) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

CH75 (2477 MHz)(Above 1000 MHz, Horizontal)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH75 (2477 MHz)		
Note：	Antenna: Dipole (ANT3)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2477.00	V	68.72	44.23	31.19	99.91	75.42			X/F
2489.00	V	23.00	14.66	31.25	54.25	45.91	74.00	54.00	X/E
4954.00	V	46.75	35.06	1.63	48.38	36.69	74.00	54.00	X/H
7431.00	V	43.09	31.00	8.00	51.09	39.00	74.00	54.00	X/H
9908.00	V	42.76	30.85	10.68	53.44	41.53	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

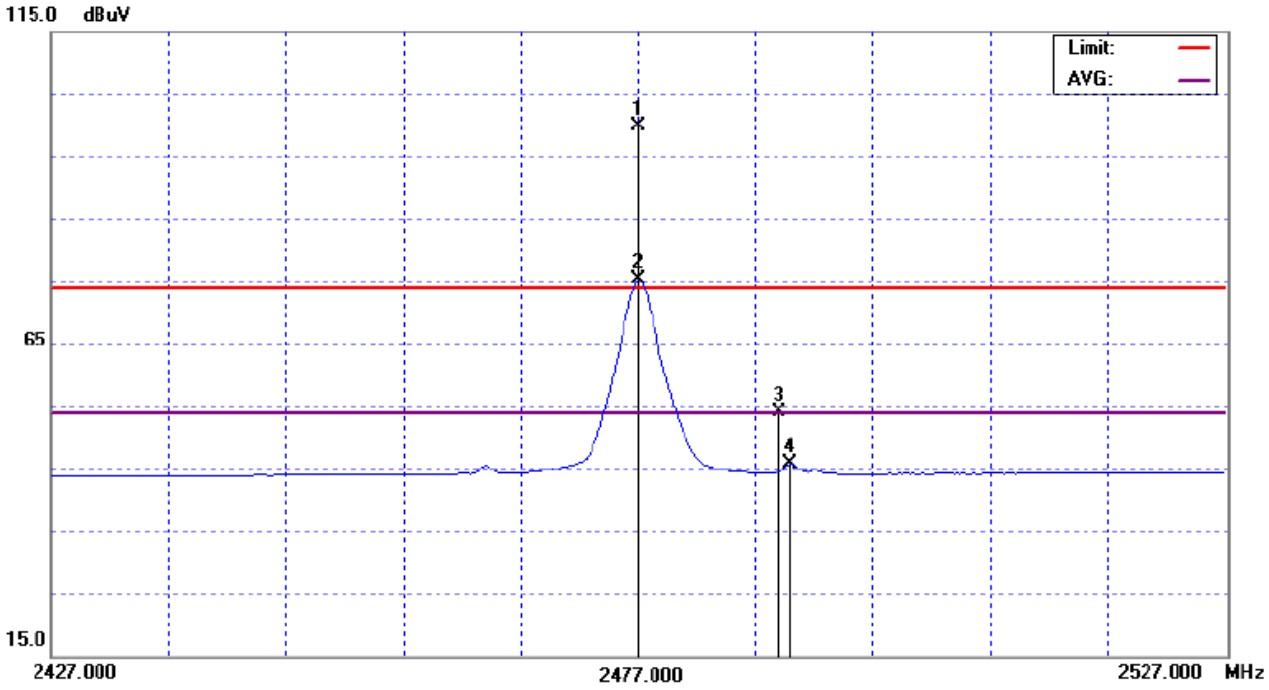
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

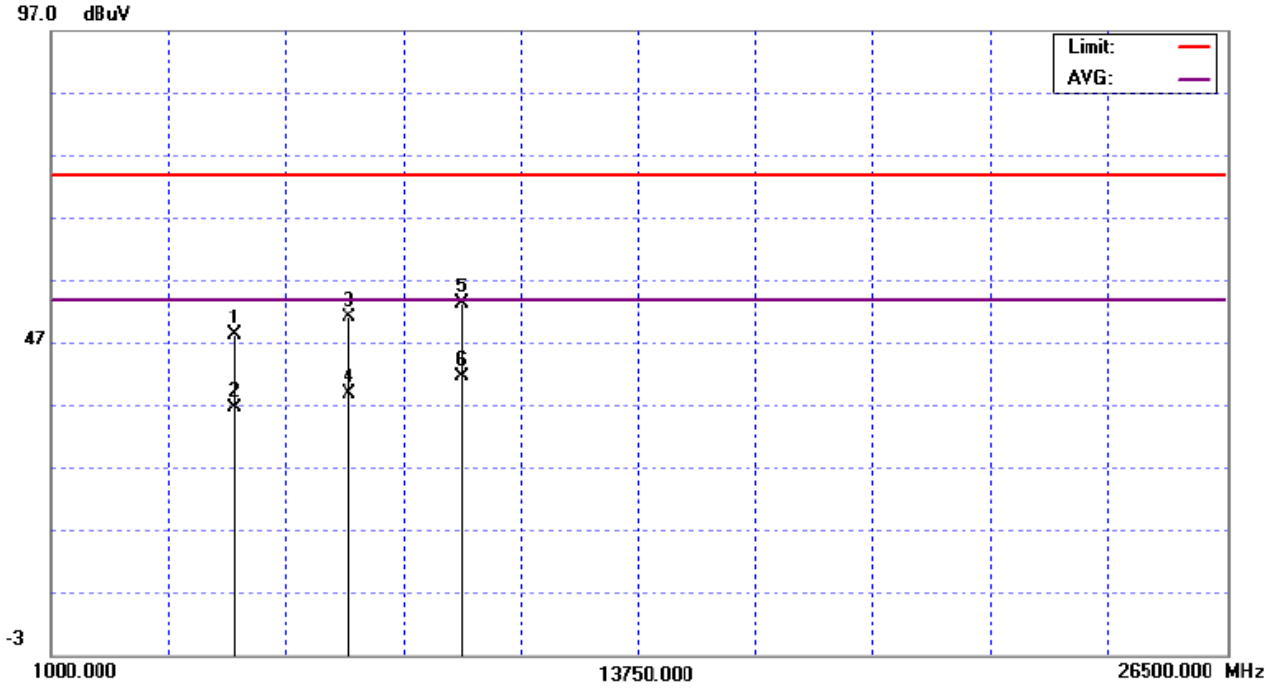
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(6) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

CH75 (2477 MHz)(Above 1000 MHz, Vertical)





EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	25 ˚C	Relative Humidity：	60 %
Pressure：	1009 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode：	CH75 (2477 MHz)		
Note：	Antenna: Dipole (ANT3)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2477.00	H	81.77	51.80	31.19	112.96	82.99			X/F
2489.90	H	30.40	20.30	31.25	61.65	51.55	74.00	54.00	X/E
2245.14	H	51.36	39.16	-4.52	46.84	34.64	74.00	54.00	X/H
4953.98	H	49.37	37.58	1.63	51.00	39.21	74.00	54.00	X/H
7431.12	H	40.11	29.80	8.00	48.11	37.80	74.00	54.00	X/H

Remark：

(1) 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。

(2) 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.)

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

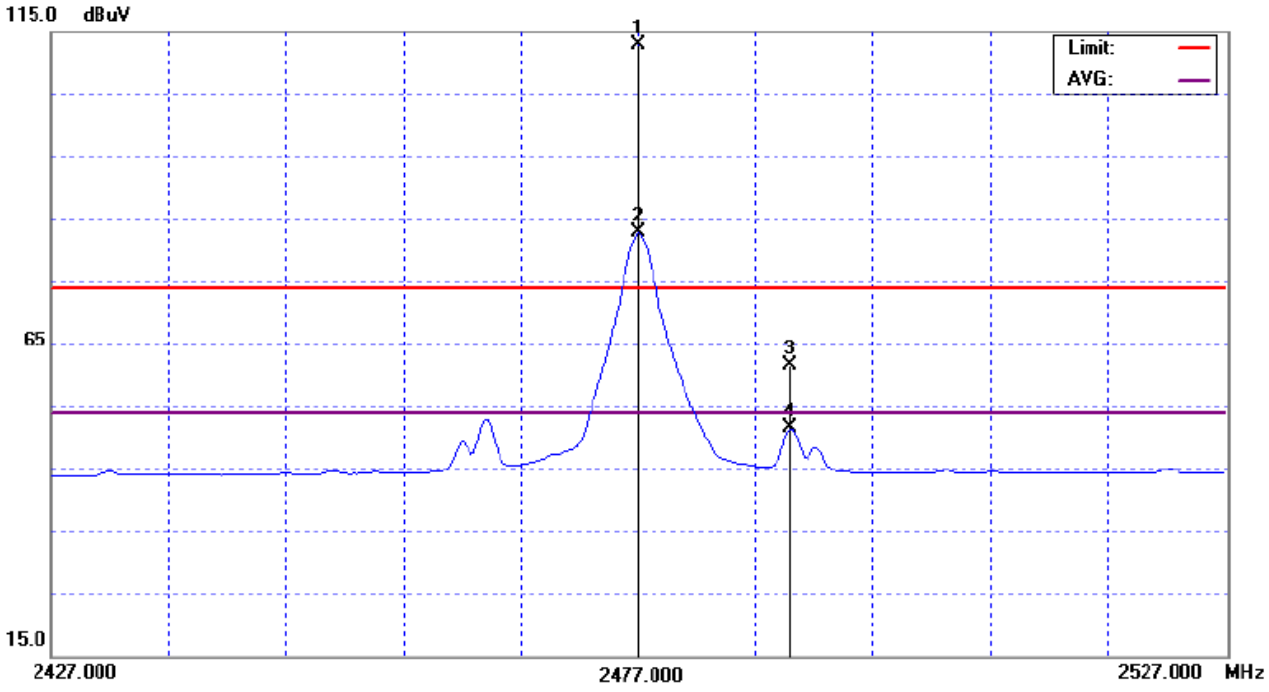
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

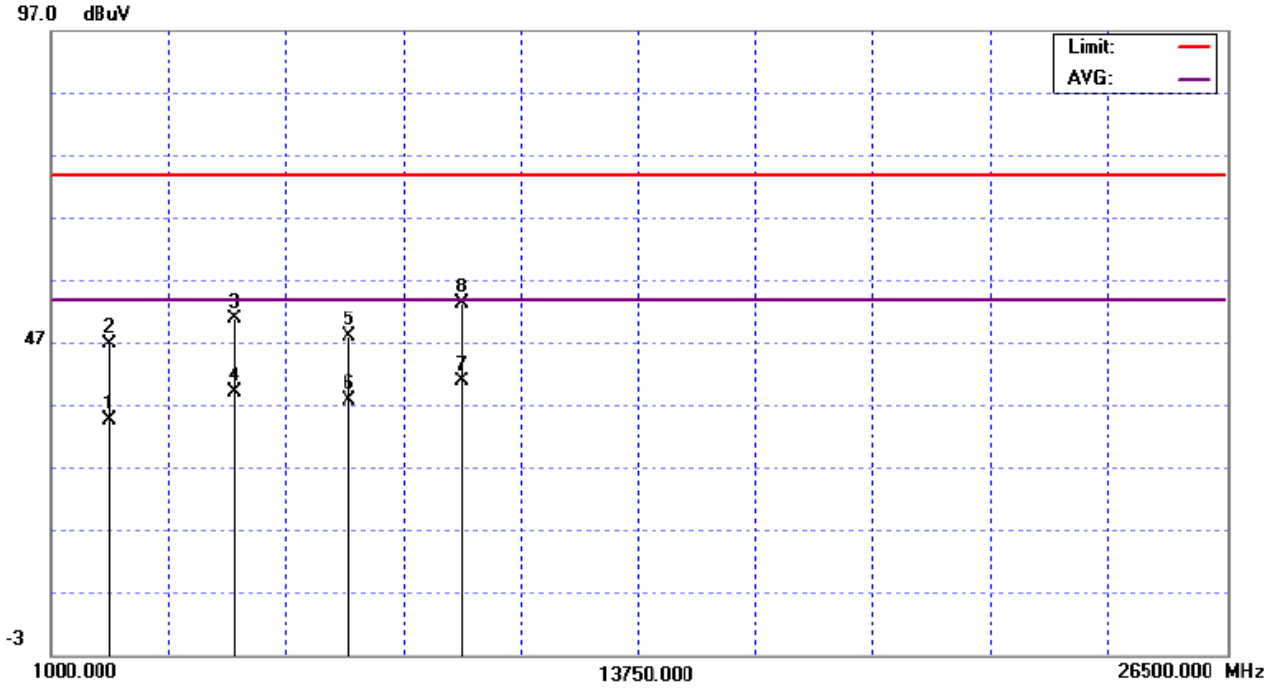
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(6) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

CH75 (2477 MHz)(Above 1000 MHz, Horizontal)





5. 20dB BANDWITH TEST and Channel Separation Measurement

5.1 APPLIED PROCEDURES / LIMIT

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

5.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 08, 2008

Remark: ” N/A” denotes No Model Name. , Serial No. or No Calibration specified.

The following table is the setting of Spectrum Analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth or Channel Separation
RB	30 kHz (20dB Bandwidth) / 100 kHz (Channel Separation)
VB	100 kHz (20dB Bandwidth) / 300 kHz (Channel Separation)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

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. The resolution bandwidth of 30 kHz and the video bandwidth of 100 kHz were utilised for 20 dB bandwidth measurement
c. The resolution bandwidth of 100 kHz and the video bandwidth of 300 kHz were utilised for channel separation measurement.

5.1.3 DEVIATION FROM STANDARD

No deviation.

5.1.4 TEST SETUP

5.1.5 EUT OPERATION CONDITIONS

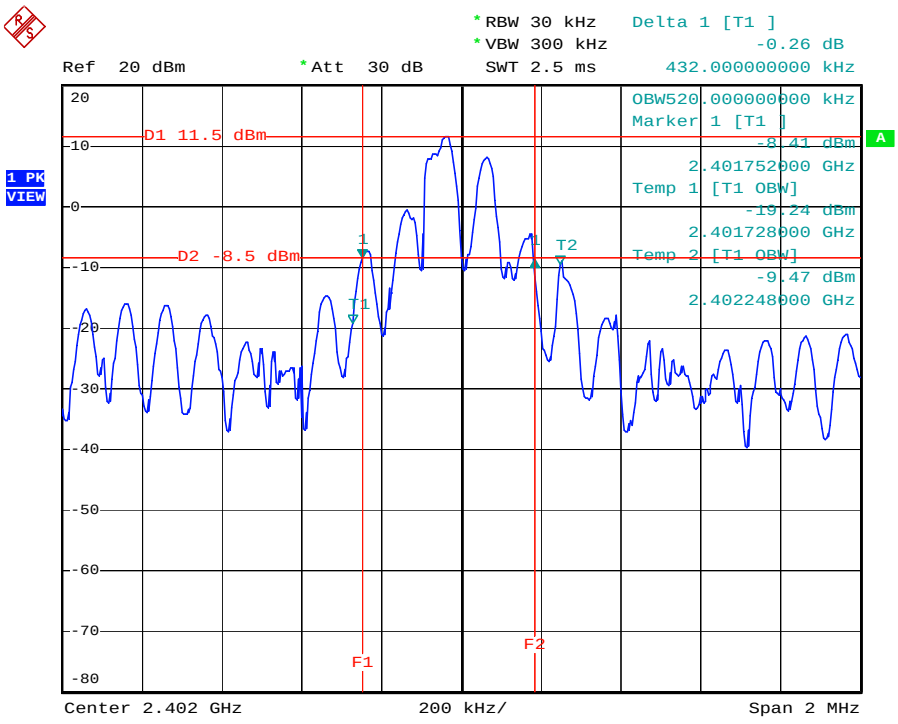
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.6 TEST RESULTS

EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	27 ˚C	Relative Humidity：	58 %
Pressure：	1014 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	CH00 (2402 MHz), CH38 (2440 MHz), CH75 (2477 MHz)		

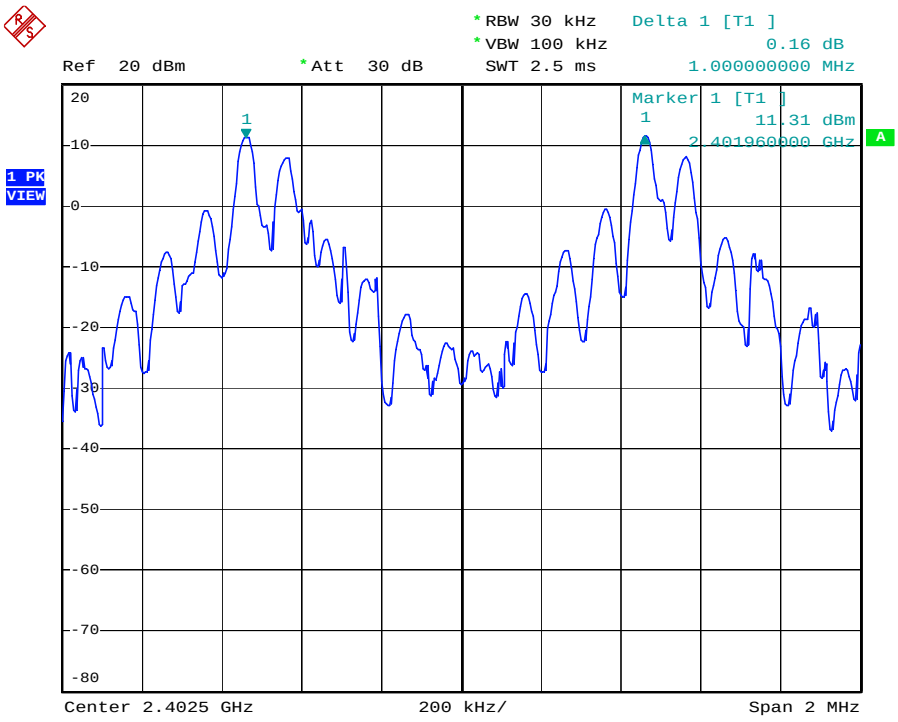
Test Channel	Frequency (MHz)	20dB Bandwidth (kHz)	Separation (MHz)
CH00	2402	432.00	1.00
CH38	2440	340.00	1.00
CH75	2477	440.00	1.00

CH00 (2402 MHz)
20dB Bandwidth



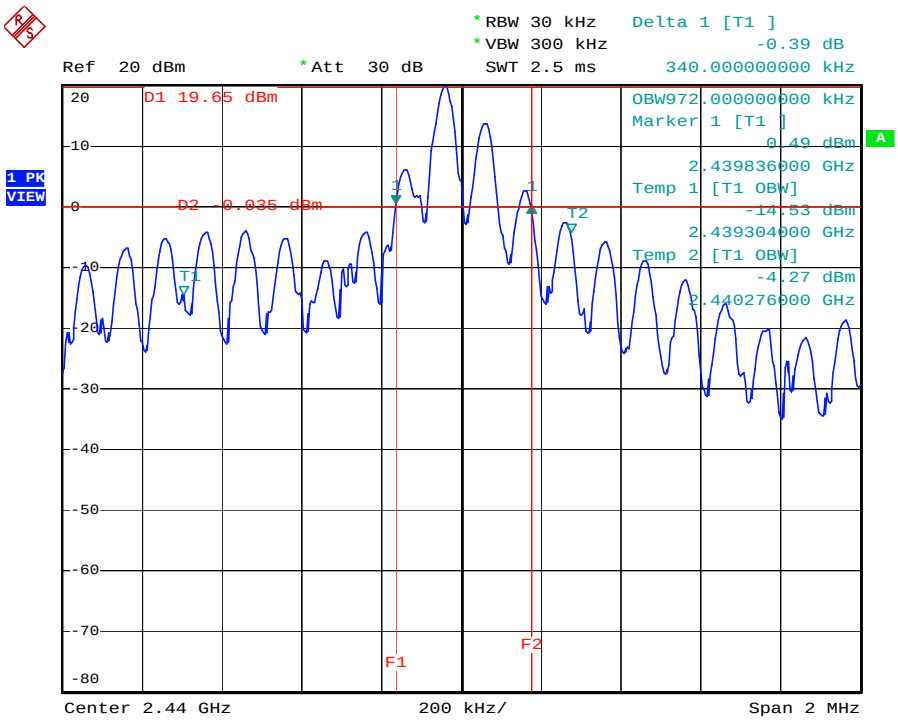
Date: 8.JAN.2007 13:20:39

Channel Separation



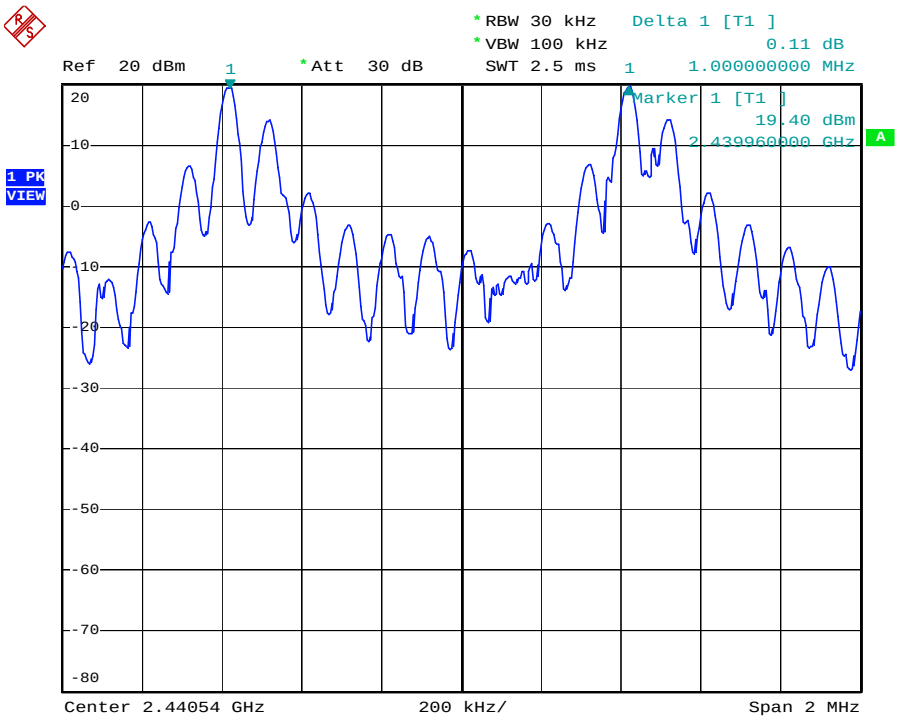
Date: 8.JAN.2007 13:25:56

CH00 (2440 MHz)
20dB Bandwidth



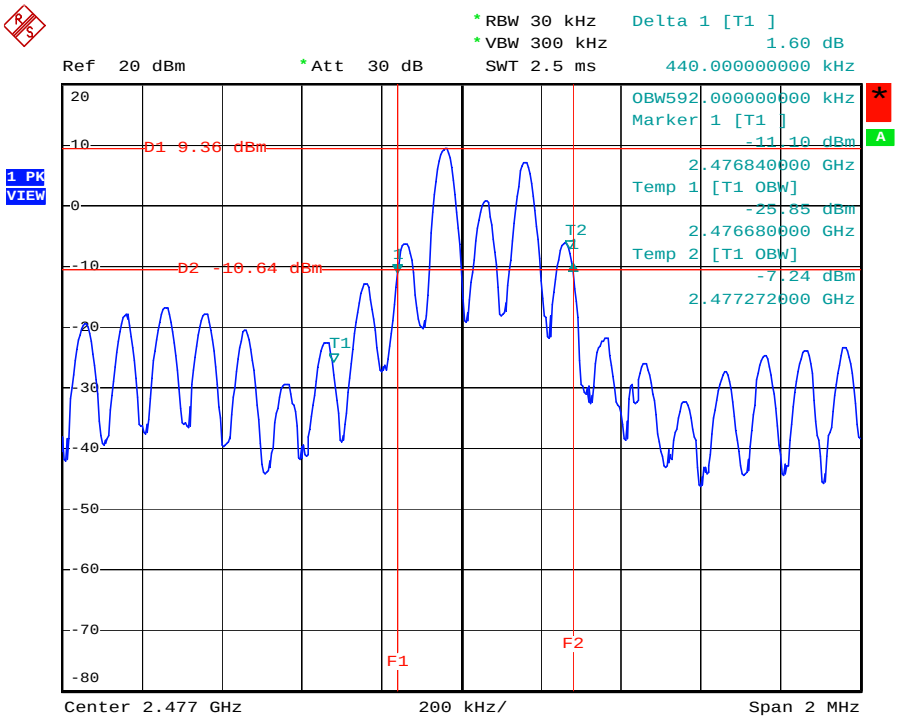
Date: 8.JAN.2007 13:47:45

Channel Separation



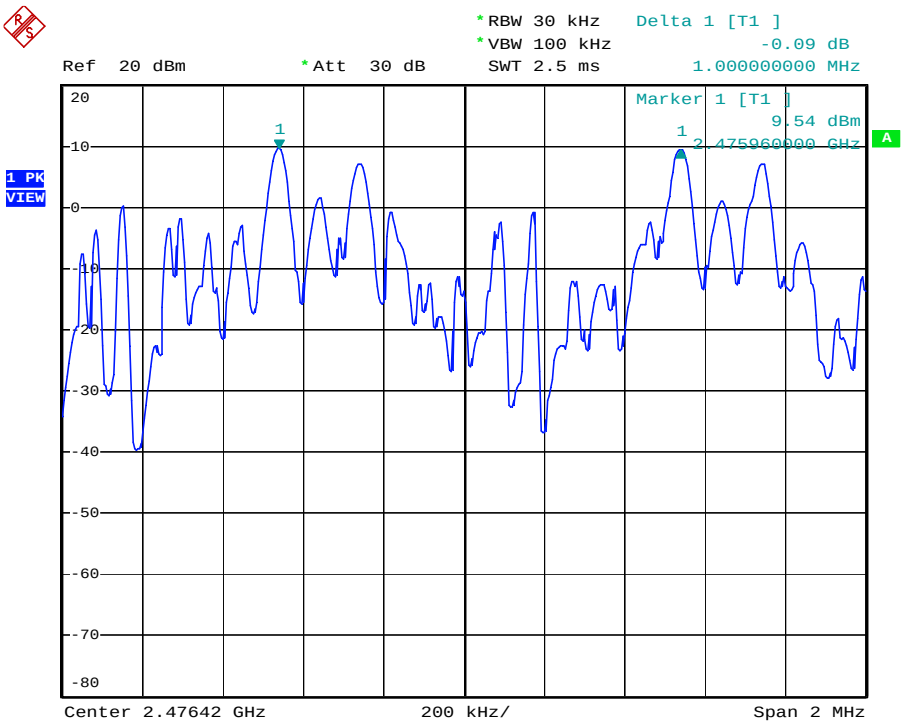
Date: 8.JAN.2007 13:51:25

CH00 (2477 MHz)
20dB Bandwidth



Date: 8.JAN.2007 13:43:07

Channel Separation



Date: 8.JAN.2007 13:44:31

6. Number of Hopping Channel

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C			
Section	Test Item	Frequency Range (MHz)	Result
15.247 (a)(1)(ii)	Number of Hopping Channel	2400-2483.5	PASS

6.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 08, 2008

Remark: ” N/A” denotes No Model Name. , Serial No. or No Calibration specified.

Spectrum Parameters	**Setting**
Attenuation	Auto
Span Frequency	> Operating Frequency Range
RB	100 kHz
VB	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

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 Setting : RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

6.1.3 DEVIATION FROM STANDARD

No deviation.

6.1.4 TEST SETUP

6.1.5 EUT OPERATION CONDITIONS

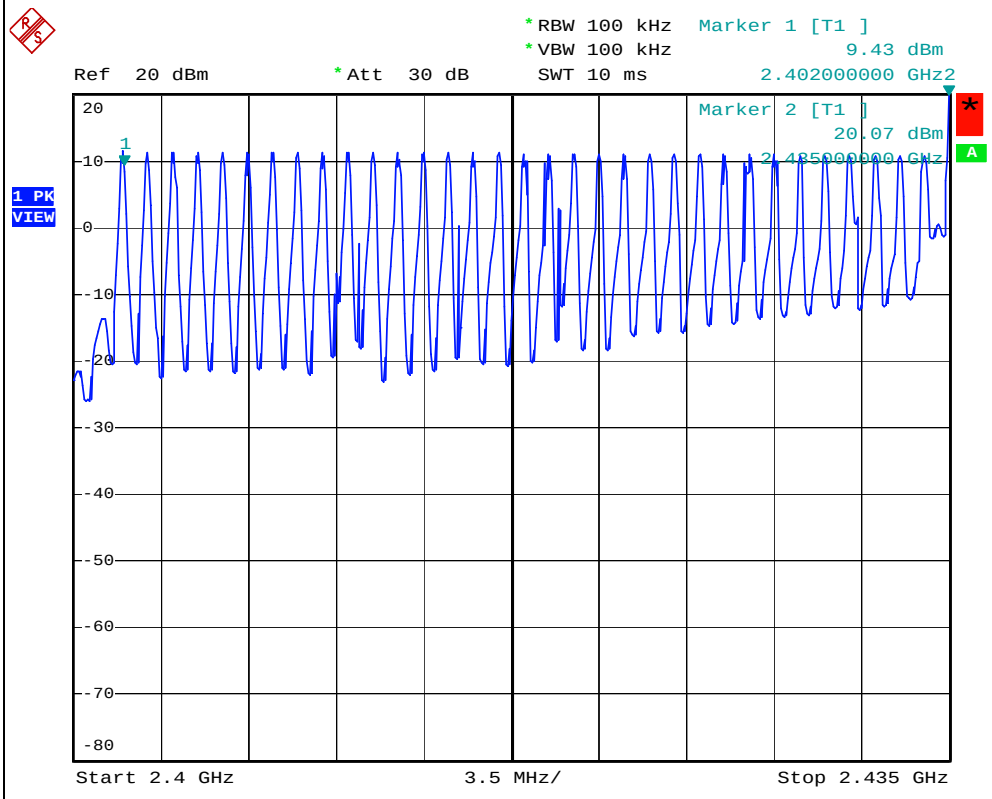
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.6 TEST RESULTS

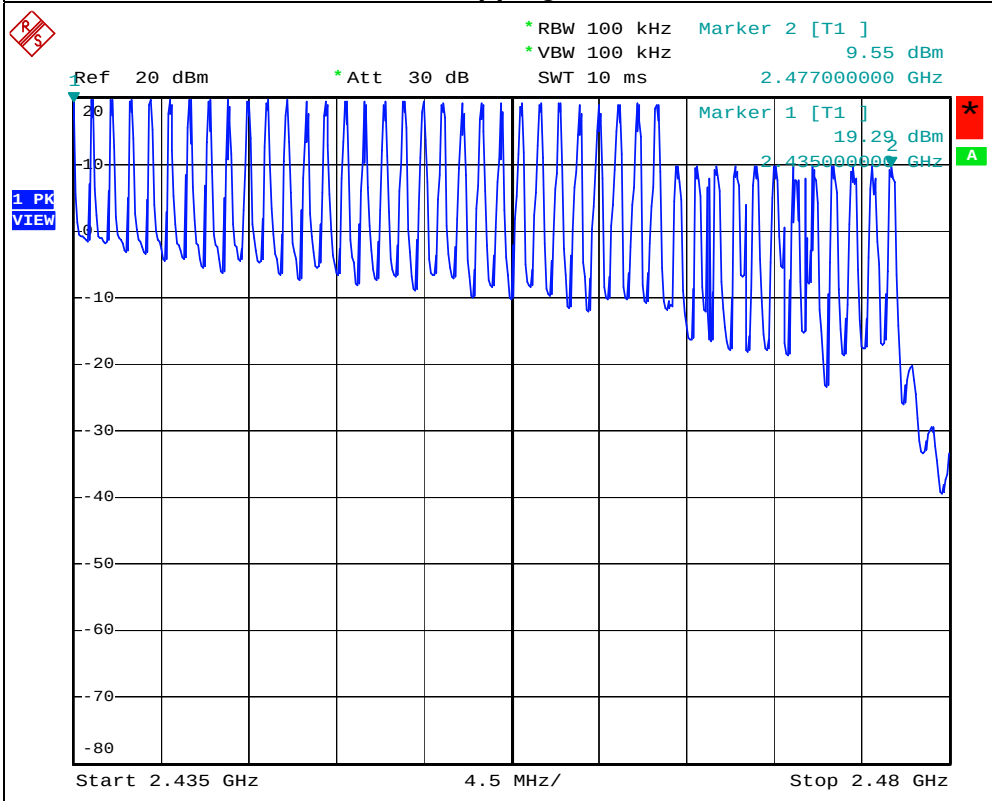
EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	27 ˚C	Relative Humidity：	58 %
Pressure：	1014 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	CH00 (2402 MHz), CH38 (2440 MHz), CH75 (2477 MHz)		

Modulation Type	Channel No.	Frequency (MHz)	Hopping Ch. (Channels)	Min. Limit (Channels)	Test Result
FHSS	0~75	2402~2477	76	15	Complies

Hopping Channels



Hopping Channels



Date: 8.JAN.2007 14:09:39

7. PEAK OUTPUT POWER TEST

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247 (b)(1)	Peak Output Power	1 watt or 30dBm (at least 75 hopping channel)	2400-2483.5	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	Jan. 08, 2008

Remark: ” N/A” denotes No Model Name. , Serial No. or No Calibration specified.

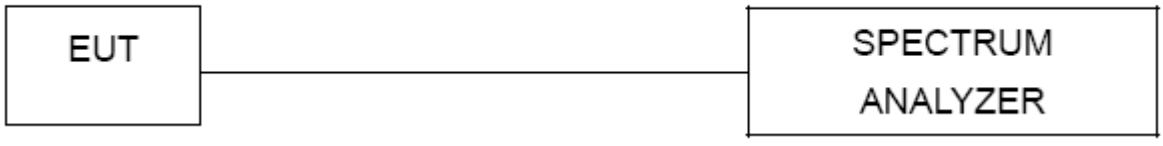
7.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
b. Spectrum Setting : RBW= 3MHz, VBW= 3MHz, 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.

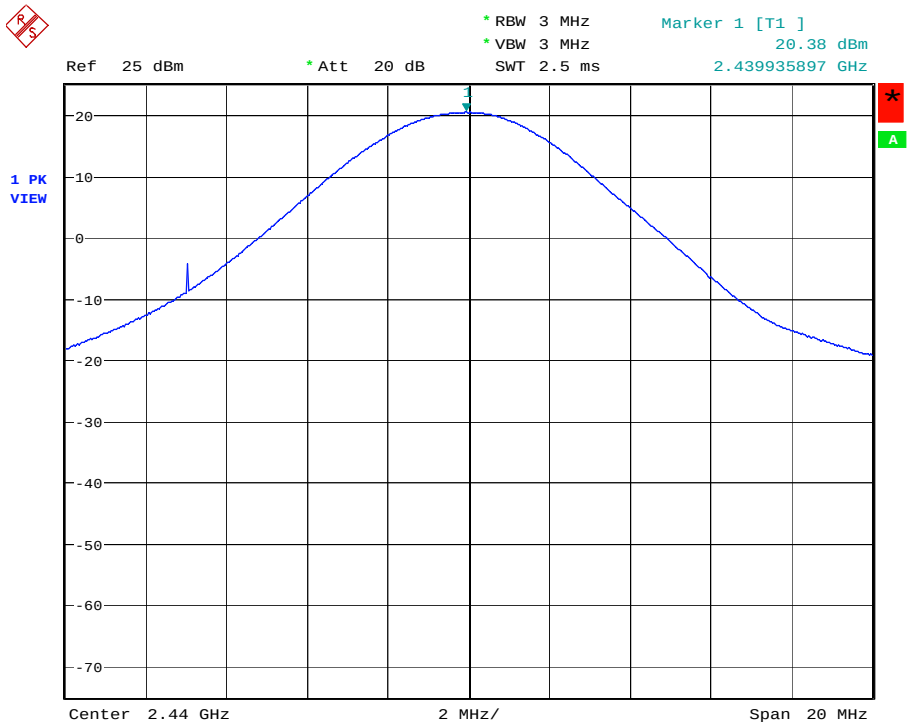
7.1.6 TEST RESULTS

EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	27 ˚C	Relative Humidity：	58 %
Pressure：	1014 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	CH00 (2402 MHz), CH38 (2440 MHz), CH75 (2477 MHz)		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH00	2402	11.95	30	1
CH38	2440	20.38	30	1
CH75	2477	9.80	30	1

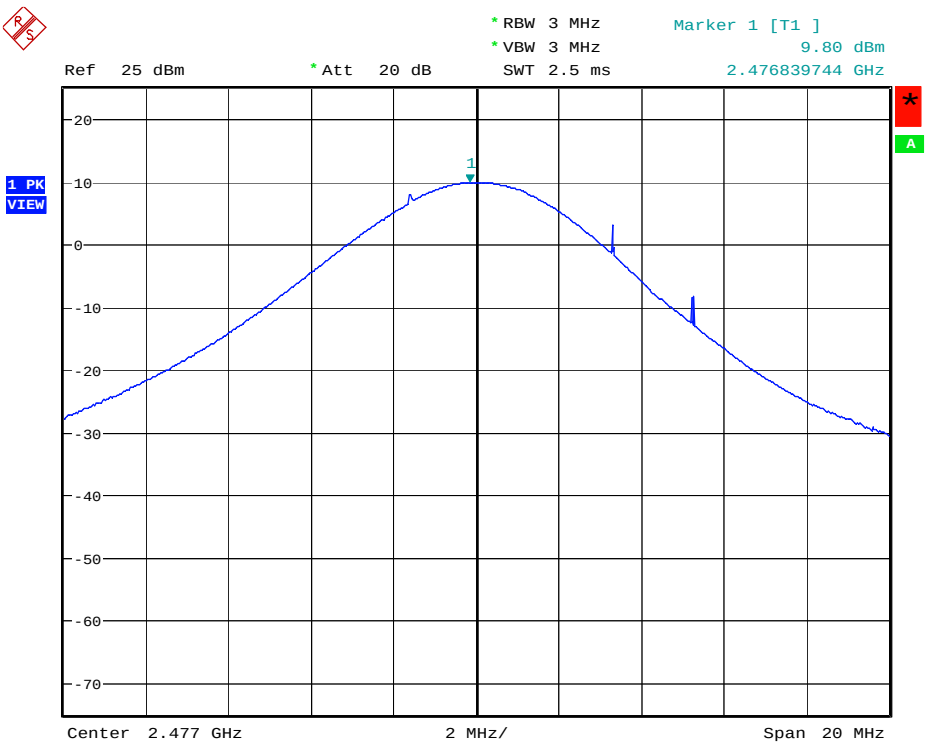
CH00 (2402 MHz)

CH38 (2440 MHz)



Date: 24.JAN.2007 15:09:27

CH75 (2477 MHz)



Date: 24.JAN.2007 15:15:42

8. ANTENNA CONDUCTED SPURIOUS EMISSION

8.1 APPLIED PROCEDURES / LIMIT

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), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
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

8.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 08, 2008

Remark: ” N/A” denotes No Model Name. , Serial No. or No Calibration specified.

The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (other emission)	100 KHz /100 KHz for Peak

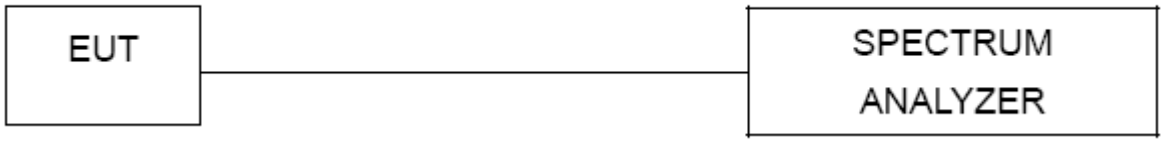
8.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
b. Spectrum Setting : RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms.

8.1.3 DEVIATION FROM STANDARD

No deviation.

8.1.4 TEST SETUP



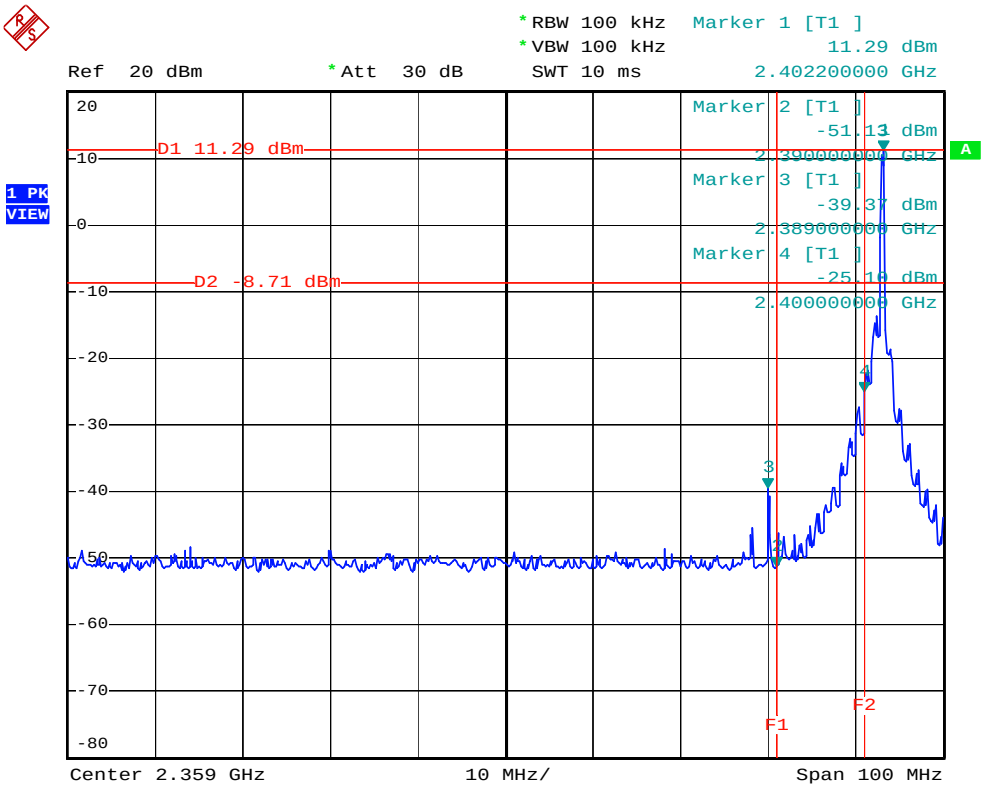
8.1.5 EUT OPERATION CONDITIONS

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

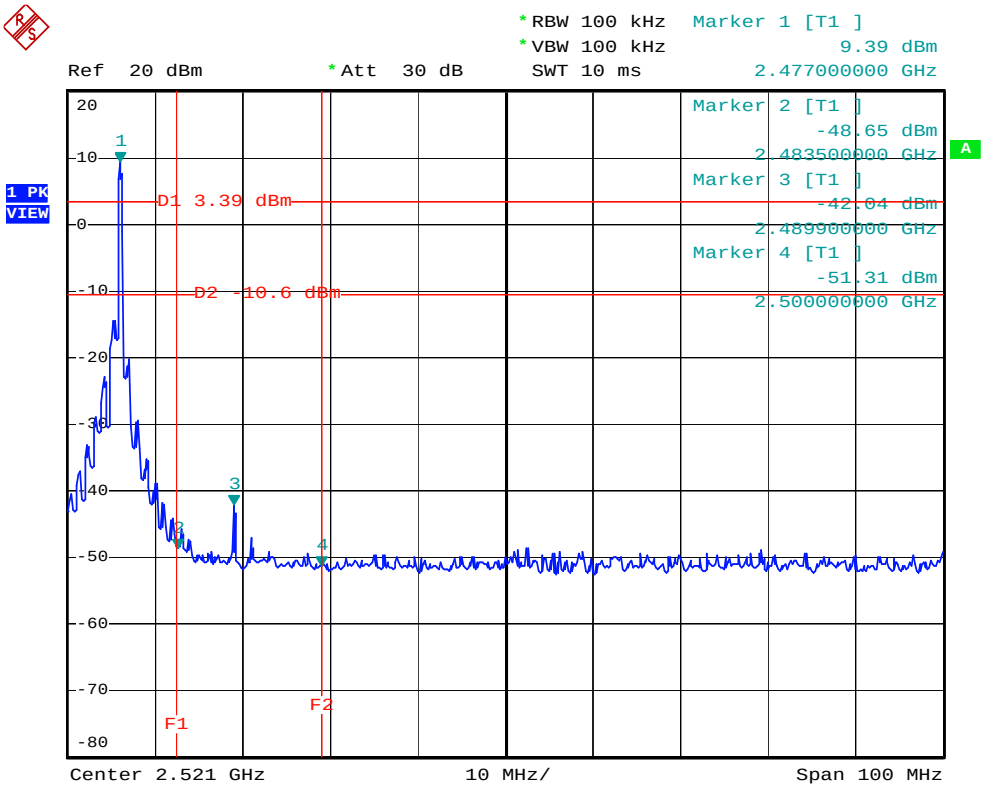
EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	27 ˚C	Relative Humidity：	58 %
Pressure：	1014 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	CH00 (2402 MHz), CH38 (2440 MHz), CH75 (2477 MHz)		

CH00 (2402 MHz) Lower



Date: 8.JAN.2007 13:21:46

CH75 (2477 MHz) Upper



Date: 8.JAN.2007 13:39:46

9. Maximum Permissible Exposure (MPE)

9.1 APPLIED PROCEDURES / LIMIT

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm^2)	Averaging Time $\|E\|^2$,$\|H\|^2$or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm^2)	Averaging Time $\|E\|^2$,$\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

9.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&s	FSP40	100129	Jan. 08, 2008

Remark: ” N/A” denotes No Model Name. , Serial No. or No Calibration specified.

9.1.2 MPE CALCULATION METHOD

E (V/m) $= \frac{\sqrt{30 \times P \times G}}{d}$ Power Density: *Pd* (W/m²) $= \frac{E^2}{377}$

E = Electric field (V/m)
P = Peak RF output power (W)
G = EUT Antenna numeric gain (numeric)
d = Separation distance between radiator and human body (m)
The formula can be changed to

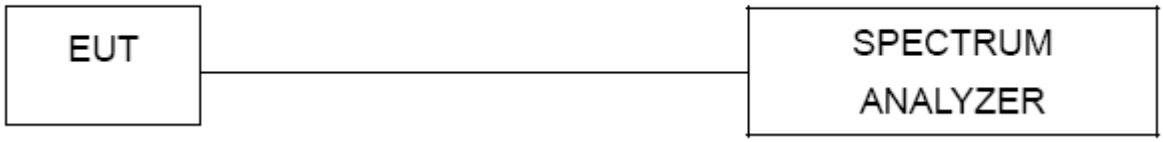
Pd $= \frac{30 \times P \times G}{377 \times d^2}$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

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：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	27 ° C	Relative Humidity：	58 %
Pressure：	1014 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	CH00 (2402 MHz), CH38 (2440 MHz), CH75 (2477 MHz)		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
9.26	8.433	19.3900	86.8960	0.145865	1	Complies

10. DWELL TIME

10.1 APPLIED PROCEDURES / LIMIT

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

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	Jan. 08, 2008

Remark: ” N/A” denotes No Model Name. , Serial No. or No Calibration specified.

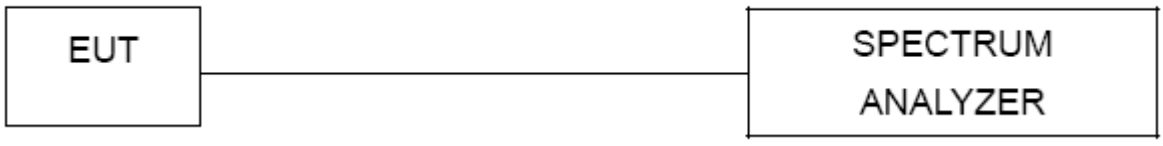
10.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
b. Spectrum Setting : RBW= 100KHz, VBW=100KHz, Sweep time = Auto.
c. Use a video trigger with the trigger level set to enable triggering only on full pulses.
d. Sweep Time is more than once pulse time.
e. Set the center frequency on any frequency would be measure and set the frequency span to zero span
f. Measure the maximum time duration of one single pulse.

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.

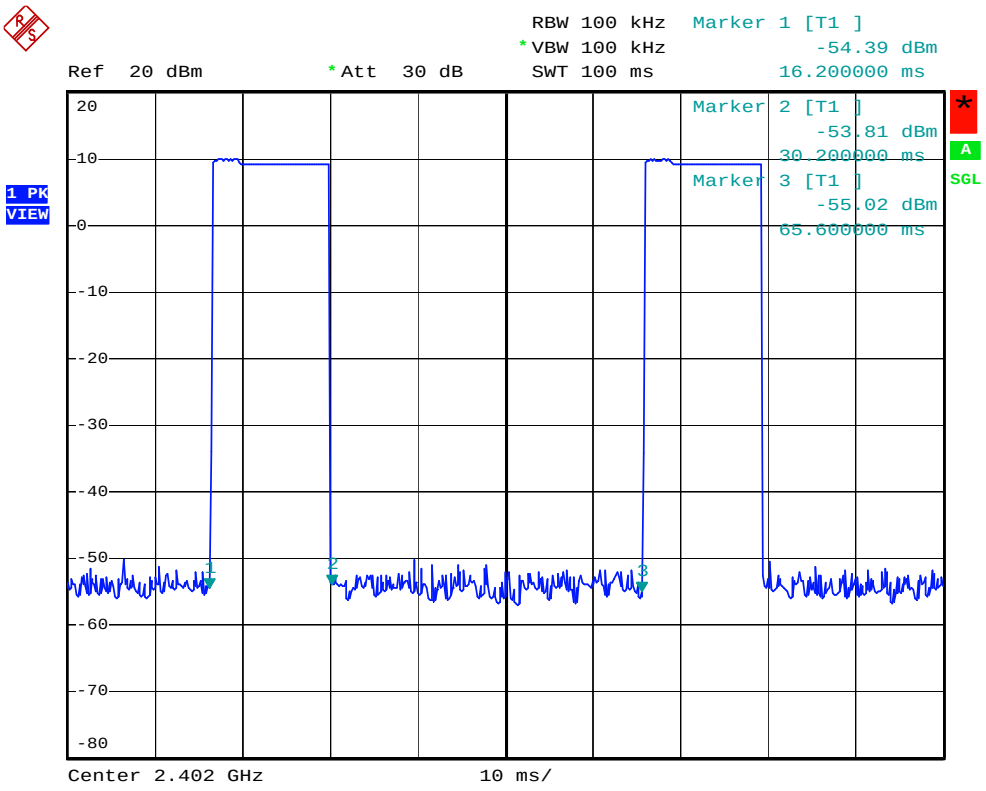
10.1.6 TEST RESULTS

EUT：	RF Module v4.0	Model Name. ：	SLF-10100
Temperature：	27 °C	Relative Humidity：	58 %
Pressure：	1014 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	CH00 (2402 MHz), CH38 (2440 MHz), CH75 (2477 MHz)		

Note: Dwell time＝time slot length * hop rate / number of hopping channels * period

Occupancy Time of Frequency Hopping System
Test Time Period: 0.4*76=30.4sec，Hopping Times Within 1sec: 6/300msec=0.02 hops/msec.
A) 2402MHz The Maximum Occupancy Time Within 30.4sec: (14000μs*20) / (76*30.4)= 112msec.
B) 2440MHz The Maximum Occupancy Time Within 30.4sec: (14100μs*20) / (76*30.4)= 112.8msec.
C) 2477MHz The Maximum Occupancy Time Within 30.4sec: (14000μs*20) / (76*30.4)= 112msec.
Test Result: The Average Occupancy Time of Each Highest，Middle and Lowest Channel Is Less Than 0.4sec，And Corresponds to The Standard.
PS: (1) From Bluetooth Specification, It Hops 1640 Times in 1sec。The Average Occupancy Time of Each 79 Channels is 1600/79 Times, Therefore, We Calculate The Maximum Occupancy Time (worse cars) As Below:
A) 2402Mhz The Occupancy Time of Each Pulse is 0.4msec，The Maximum Occupancy Time within 31.6sec is 0.4msec*1640/79*31.6=289.056msec.
B) 2441MHz The Occupancy Time of Each Pulse is 0.4msec，The Maximum Occupancy Time within 31.6sec is 0.4msec*1640/79*31.6=289.056msec.
C) 2480MHz The Occupancy Time of Each Pulse is 0.4msec，The Maximum Occupancy Time within 31.6sec is 0.4msec*1640/79*31.6=289.056msec.
Test Result: The Maximum Occupancy Time of Each Highest，Middle and Lowest Channel Is Less Than 0.4sec，And Corresponds to The Standard.

CH00 (2402 MHz)



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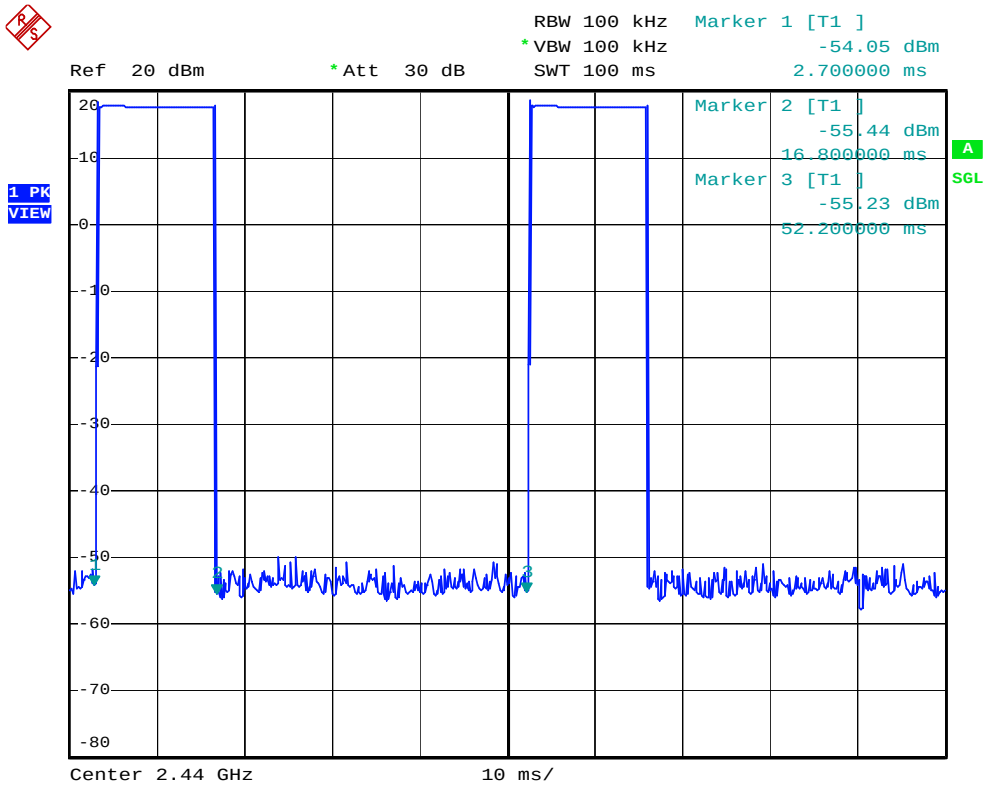
CH38 (2440 MHz)



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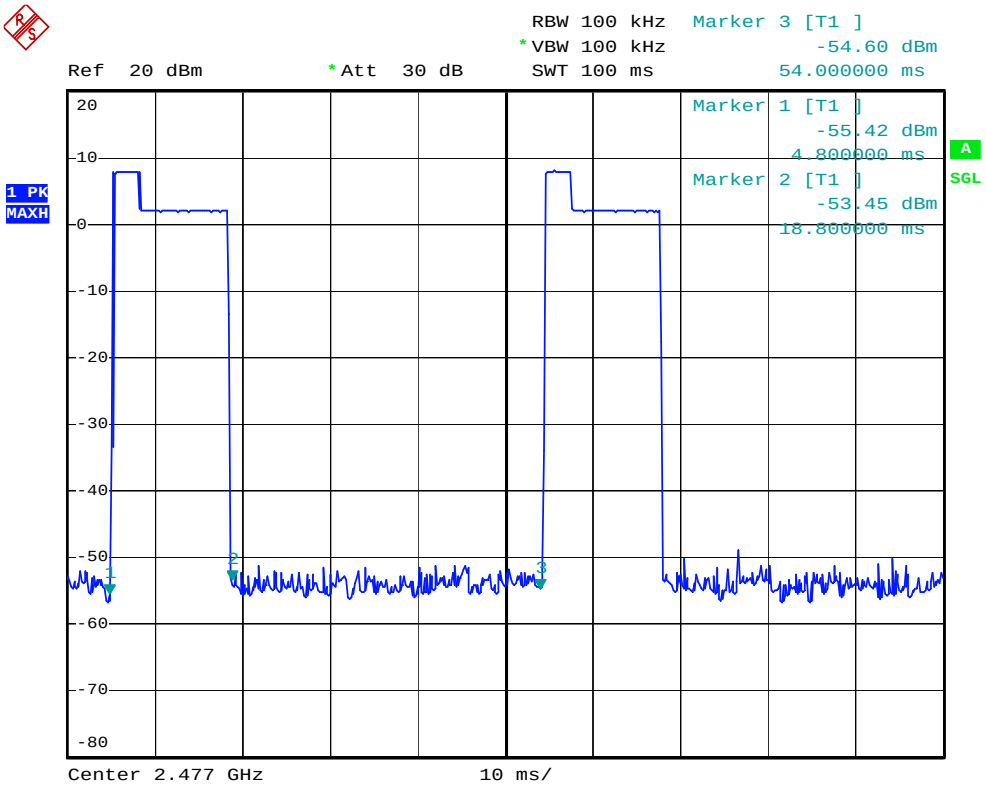
CH75 (2477 MHz)



Date: 8.JAN.2007 13:36:59

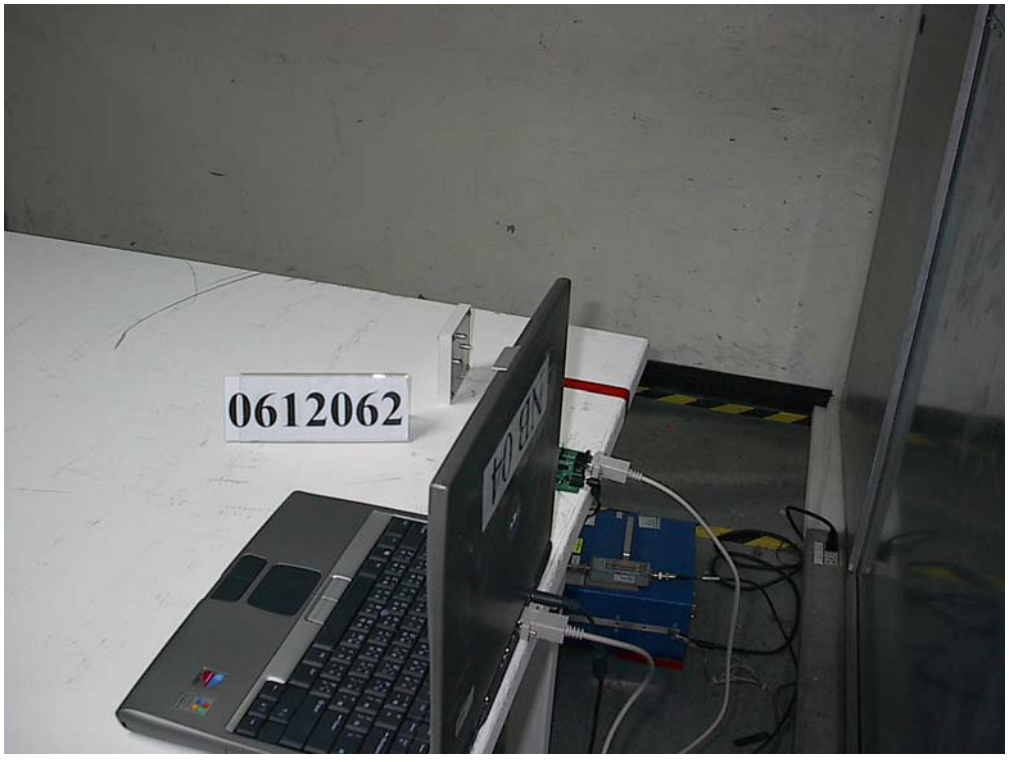
11. EUT TEST PHOTO

Conducted Measurement Photos

Antenna: IPX-MUR9SAXX-423 (ANT1)

Conducted Measurement Photos

Antenna: PA1-2450CSA (ANT2)



Conducted Measurement Photos

Antenna: Dipole (ANT3)

Radiated Measurement Photos

Radiated Emission Test Set-up, Frequency Between 30-1000MHz

Antenna: IPX-MUR9SAXX-423 (ANT1)

Radiated Measurement Photos

Radiated Emission Test Set-up, Frequency Between 30-1000MHz

Antenna: PA1-2450CSA (ANT2)

Radiated Measurement Photos

Radiated Emission Test Set-up, Frequency Between 30-1000MHz

Antenna: Dipole (ANT3)

Radiated Measurement Photos

Radiated Emission Test Set-UP, Frequency Above 1000MHz

Antenna: IPX-MUR9SAXX-423 (ANT1)

Radiated Measurement Photos

Radiated Emission Test Set-UP, Frequency Above 1000MHz

Antenna: PA1-2450CSA (ANT2)

Radiated Measurement Photos

Radiated Emission Test Set-UP, Frequency Above 1000MHz

Antenna: Dipole (ANT3)