



Neutron Engineering Inc.

FCC/IC Radio Test Report

FCC ID: PAB2LFS002

IC: 10556A-2LFS002

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

Issued Date : Nov. 14, 2012
Project No. : 1206C089A
Equipment : Scuderia FS1 Air
Model Name : 2LFS002
Applicant : Logic3 plc
Address : Rhodes Way, Watford, WD24 4YW, UK
Manufacturer : Dongguan Kenwin Digital Technology Limited
Address : No.8, Lin Chang Lu, Pinshan 188 Industry District, Tang Xia Town, Dongguan City, Guangdong Province, China.

Tested by:

Neutron Engineering Inc. EMC Laboratory

Date of Receipt: Sep. 11, 2012

Date of Test:

Sep. 11, 2012 ~ Nov. 13, 2012

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Declaration

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

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Table of Contents	Page
1 . CERTIFICATION	5
2 . SUMMARY OF TEST RESULTS	6
2.1 TEST FACILITY	7
2.2 MEASUREMENT UNCERTAINTY	7
3 . GENERAL INFORMATION	8
3.1 GENERAL DESCRIPTION OF EUT	8
3.2 DESCRIPTION OF TEST MODES	10
3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING	11
3.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	12
3.5 DESCRIPTION OF SUPPORT UNITS (RADIATED MODE)	13
4 . EMC EMISSION TEST	14
4.1 CONDUCTED EMISSION MEASUREMENT	14
4.1.1 POWER LINE CONDUCTED EMISSION LIMITS	14
4.1.2 MEASUREMENT INSTRUMENTS LIST AND SETTING	14
4.1.3 TEST PROCEDURE	15
4.1.4 DEVIATION FROM TEST STANDARD	15
4.1.5 TEST SETUP	15
4.1.6 EUT OPERATING CONDITIONS	15
4.1.7 TEST RESULTS	16
4.2 RADIATED EMISSION MEASUREMENT	19
4.2.1 RADIATED EMISSION LIMITS	19
4.2.2 MEASUREMENT INSTRUMENTS LIST ANS SETTING	20
4.2.3 TEST PROCEDURE	21
4.2.4 DEVIATION FROM TEST STANDARD	21
4.2.5 TEST SETUP	22
4.2.6 EUT OPERATING CONDITIONS	23
4.2.7 TEST RESULTS (BELOW 30MHZ)	24
4.2.8 TEST RESULTS (BETWEEN30 – 1000 MHZ)	25
4.2.9 TEST RESULTS (ABOVE 1000 MHZ)	32
5 . BANDWIDTH TEST	56
5.1 APPLIED PROCEDURES / LIMIT	56
5.1.1 MEASUREMENT INSTRUMENTS LIST	56
5.1.2 TEST PROCEDURE	56
5.1.3 DEVIATION FROM STANDARD	56
5.1.4 TEST SETUP	57
5.1.5 EUT OPERATION CONDITIONS	57
5.1.6 TEST RESULTS	58



Table of Contents	Page
6 . MAXIMUM OUTPUT POWER TEST	62
6.1 APPLIED PROCEDURES / LIMIT	62
6.1.1 MEASUREMENT INSTRUMENTS LIST	62
6.1.2 TEST PROCEDURE	62
6.1.3 DEVIATION FROM STANDARD	62
6.1.4 TEST SETUP	62
6.1.5 EUT OPERATION CONDITIONS	62
6.1.6 TEST RESULTS	63
7 . ANTENNA CONDUCTED SPURIOUS EMISSION	64
7.1 APPLIED PROCEDURES / LIMIT	64
7.1.1 MEASUREMENT INSTRUMENTS LIST	64
7.1.2 TEST PROCEDURE	64
7.1.3 DEVIATION FROM STANDARD	64
7.1.4 TEST SETUP	64
7.1.5 EUT OPERATION CONDITIONS	64
7.1.6 TEST RESULTS	65
8 . POWER SPECTRAL DENSITY TEST	75
8.1 APPLIED PROCEDURES / LIMIT	75
8.1.1 MEASUREMENT INSTRUMENTS LIST	75
8.1.2 TEST PROCEDURE	75
8.1.3 DEVIATION FROM STANDARD	75
8.1.4 TEST SETUP	75
8.1.5 EUT OPERATION CONDITIONS	75
8.1.6 TEST RESULTS	76
9 . EUT TEST PHOTO	80



1. CERTIFICATION

Equipment : Scuderia FS1 Air
Brand Name : Logic3
Model Name : 2LFS002
Applicant : Logic3 plc
Factory : Dongguan Kenwin Digital Technology Limited
Address : No.8, Lin Chang Lu, Pinshan 188 Industry District, Tang Xia Town, Dongguan City,
Guangdong Province, China.
Date of Test : Sep. 11, 2012 ~ Nov. 13, 2012
Test Item : ENGINEERING SAMPLE
Standards : FCC Part15, Subpart C(15.247) / ANSI C63.4 : 2009 / Canada RSS-210:2010

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FICP-2-1206C089A) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP and TAF according to the ISO-17025 quality assessment standard and technical standard(s).

Test result included in this report is only for the 802.11b/g approval part of the product.



2. SUMMARY OF TEST RESULTS

FCC Part15 (15.247) , Subpart C / RSS-210: 2010				
Standard	Section	Test Item	Judgment	Remark
RSS-GEN 7.2.2	15.207	Conducted Emission	PASS	
RSS-210 A8.5	15.247 (d)	Antenna conducted Spurious Emission	PASS	
RSS-210 A8.2(a)	15.247 (a)(2)	6dB Bandwidth	PASS	
RSS-210 A8.4(4)	15.247 (b)	Peak Output Power	PASS	
RSS-210 A8.2(b)	15.247 (e)	Power Spectral Density	PASS	
-	15.203	Antenna Requirement	PASS	
RSS-210 Annex 8 (A8.5)	15.247(d)	Transmitter Radiated Emissions FCC Limit: Table 15.209 RSS-210 Limit: Table 3	PASS	
RSS- Gen 7.2.3	Note(1)	Receiver Radiated Emissions RSS-210 Limit: Table 3	PASS	

Test procedures according to the technical standards:

NOTE:

- (1) "N/A" denotes test is not applicable in this test report
- (2) The test follows FCC KDB Publication No,558074(Measurement Guidelines of DTS)



2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **DG-C02/DG-CB03** at the location of No.3,Jinshagang 1st Road, ShiXia, Dalang Town, Dong Guan, China.523792

Neutron's test firm number for FCC 319330

Neutron's test firm number for IC 4428B-1

2.2 MEASUREMENT UNCERTAINTY

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

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

A. Conducted Measurement :

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

B. Radiated Measurement :

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



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Scuderia FS1 Air	
Brand Name	Logic3	
Model Name	2LFS002	
Model Difference	N/A	
Product Description	The EUT is a Scuderia FS1 Air.	
	Operation Frequency:	2412~2462 MHz
	Modulation Type:	802.11b:CCK, DQPSK, DBPSK 802.11g:OFDM
	Bit Rate of Transmitter	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps
	Number of Channel	11 CH, Please see Note 3. (please see page 9)
	Antenna Designation:	Please see Note 4.
	Antenna Gain(Peak)	(please see page 9)
	Output Power:	802.11b: 16.56 dBm 802.11g: 18.49 dBm
	Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.	
Power Source	AC Mains	
Power Rating	I/P: AC 100-240V 50/60Hz	
Connecting I/O Port(s)	Please refer to the User's Manual	

Note:

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



2. CH 01 – CH 11 for 802.11b, 802.11g

Channel List							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

3.

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	SENLING	SLB-400010270	Integral	U.FL	2
2	SENLING	SLB-400010270	Integral	U.FL	2
3	N/A	N/A	Printed	N/A	0

Note: The EUT is considered two different ANT types, Integral ANT(MHF port 50 Ohm connector) test item is testing and recording in test report, Printed ANT is not used (Used capacitance disable).



3.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description
Mode 1	TX Mode NOTE (1)
Mode 2	WIFI

The EUT system operated these modes (Li-Polymer battery: H12GT201A) is found to be the worst case during the pre-scanning test as following (H12GT201A) of Radiated/Conducted Emission:

For Conducted Test	
Final Test Mode	Description
Mode 2	WIFI

For Radiated Test	
Final Test Mode	Description
Mode 1	TX Mode NOTE (1)

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) 802.11b mode: DBPSK (1Mbps)
802.11g mode: OFDM (6Mbps)
For radiated emission tests, the highest output powers were set for final test.
- (3) The EUT is considered a portable unit; it was pre-tested on the positioning of each 3 axis. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.



3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

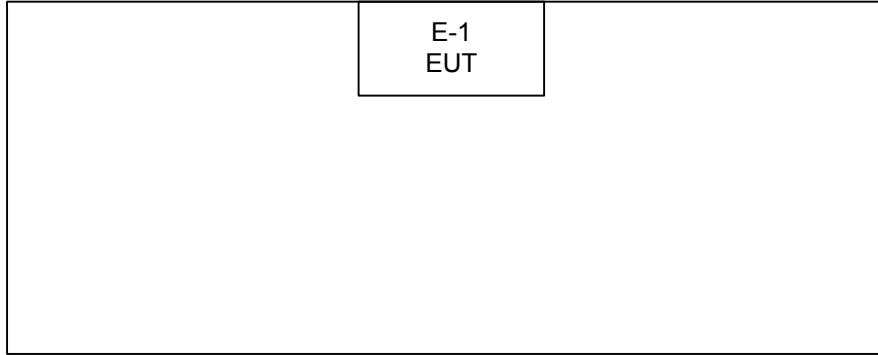
During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final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

Test software Version	N/A		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b DSSS	N/A	N/A	N/A
IEEE 802.11g OFDM	N/A	N/A	N/A

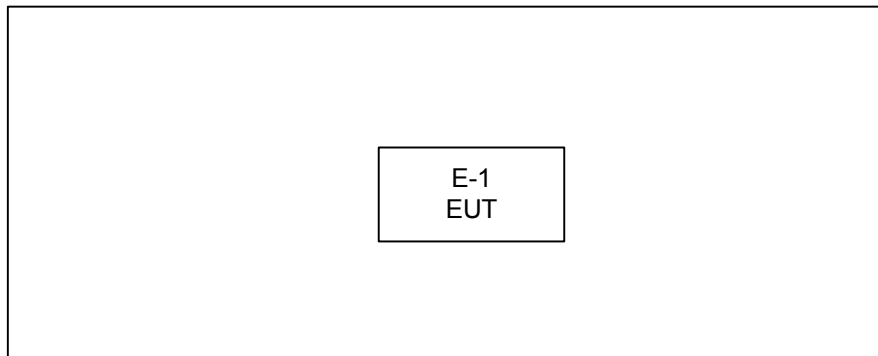


3.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Conducted:



Radiated :





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/IC ID	Series No.	Note
E-1	Scuderia FS1 Air	Logic3	2LFS002	PAB2LFS002 / 10556A-2LFS002	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note
--	--	--	--	

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in m 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	EMCO	3816/2	00052765	May.04.2013
2	LISN	R&S	ENV216	100087	May.04.2013
3	Test Cable	N/A	C_17	N/A	Mar.28.2013
4	EMI TEST RECEIVER	R&S	ESCS30	826547/022	May.04.2013
5	50Ω Terminator	SHX	TF2-3G-A	08122902	May.04.2013

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

All calibration period of Equipment List is One Year.

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

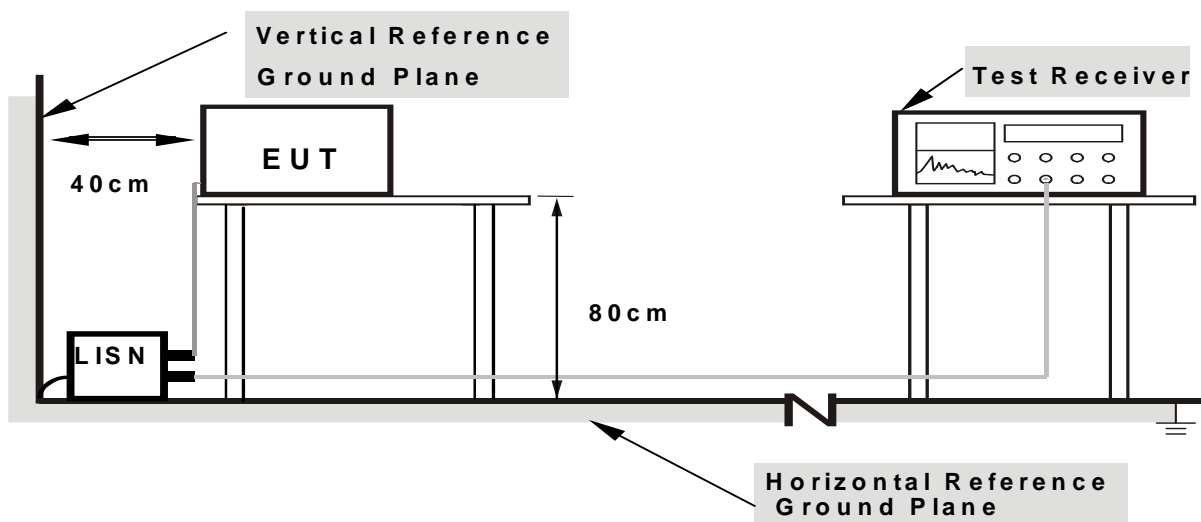
4.1.3 TEST PROCEDURE

- The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 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.
- 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.
- LISN at least 80 cm from nearest part of EUT chassis.
- 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



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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.

The EUT was programmed to be in continuously transmitting mode.



4.1.7 TEST RESULTS

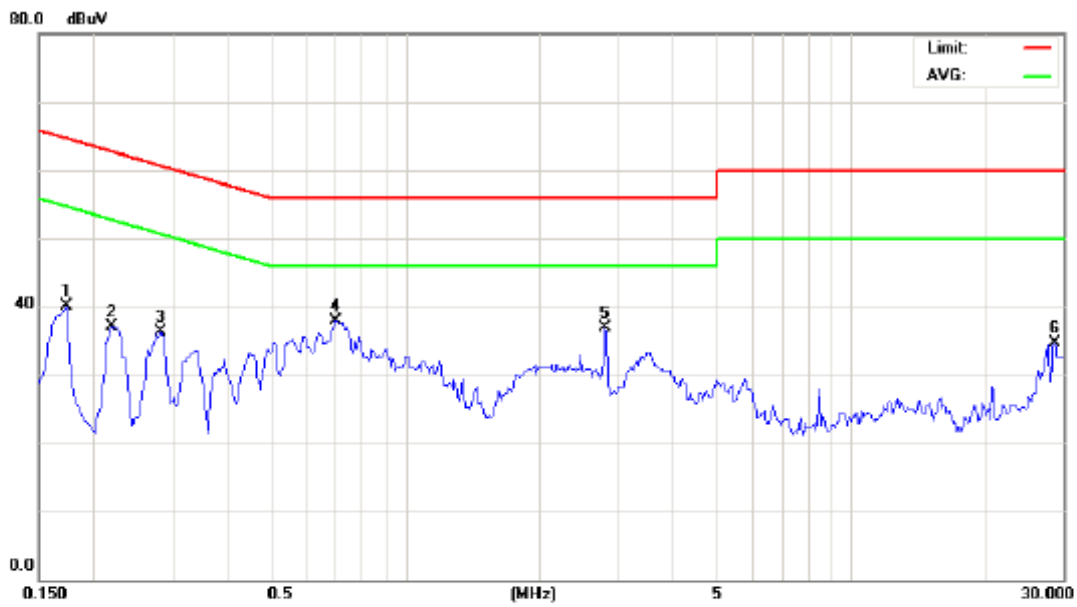
Remark

- (1) All readings are QP Mode value unless otherwise stated AVG in column of『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a “ * ” marked in AVG Mode column of Interference Voltage Measured.
- (2) Measuring frequency range from 150KHz to 30MHz.



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E.U.T :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	67 %
Pressure :	1009 hPa	Test Power :	AC 120V/60Hz
Test Mode :	WIFI	Phase:	Line

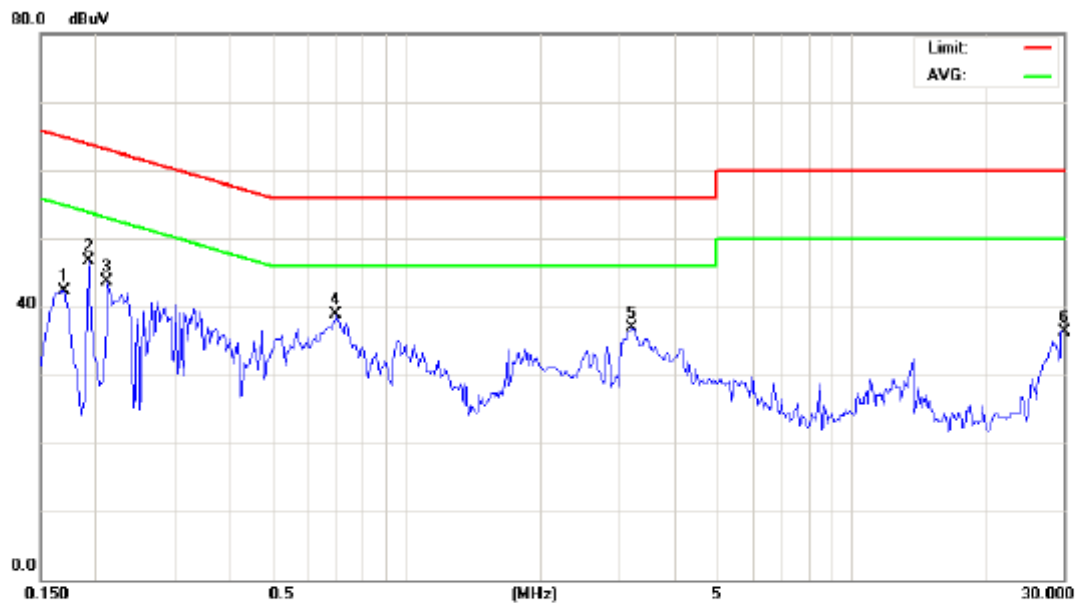


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1731	30.20	9.85	40.05	64.81	-24.76	peak	
2		0.2184	27.29	9.85	37.14	62.88	-25.74	peak	
3		0.2816	26.56	9.84	36.40	60.77	-24.37	peak	
4	*	0.6973	28.04	9.83	37.87	56.00	-18.13	peak	
5		2.8090	27.10	9.89	36.99	56.00	-19.01	peak	
6		28.6030	24.22	10.55	34.77	60.00	-25.23	peak	



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E.U.T :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	67 %
Pressure :	1009 hPa	Test Power :	AC 120V/60Hz
Test Mode :	WIFI	Phase:	Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1693	32.46	9.85	42.31	64.99	-22.68	peak	
2		0.1922	36.82	9.85	46.67	63.94	-17.27	peak	
3		0.2116	33.76	9.85	43.61	63.14	-19.53	peak	
4	*	0.6935	29.04	9.83	38.87	56.00	-17.13	peak	
5		3.2070	26.96	9.94	36.90	56.00	-19.10	peak	
6		30.0000	25.76	10.62	36.38	60.00	-23.62	peak	



4.2 RADIATED EMISSION MEASUREMENT

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

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), 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)	(dBuV/m) (at 3m)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower



4.2.2 MEASUREMENT INSTRUMENTS LIST AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	May.25.2013
2	Amplifier	HP	8447D	2944A09673	May.04.2013
3	Test Receiver	R&S	ESCI	100382	May.04.2013
4	Test Cable	N/A	C-01_CB03	N/A	Jul.01.2013
5	Antenna	ETS	3115	00075789	May.25.2013
6	Amplifier	Agilent	8449B	3008A02274	May.04.2013
7	Spectrum	Agilent	E4408B	US39240143	Nov.25.2012
8	Test Cable	HUBER+SUHNER	C-45	N/A	May.02.2013
9	Controller	CT	SC100	N/A	N/A
10	Active Loop Antenna	R&S	HFH2-Z2	830749/020	May.04.2013
11	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Oct.12.2013
12	Horn Antenna	EMCO	3115	9605-4803	May.25.2013

Remark: " N/A" denotes No Model Name / Serial No. and No Calibration specified.
All calibration period of Equipment List is One Year.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz for PK/AVG detector
Start ~ Stop Frequency	90kHz~110kHz for QP detector
Start ~ Stop Frequency	110kHz~490kHz for PK/AVG detector
Start ~ Stop Frequency	490kHz~30MHz for QP detector
Start ~ Stop Frequency	30MHz~1000MHz for QP detector



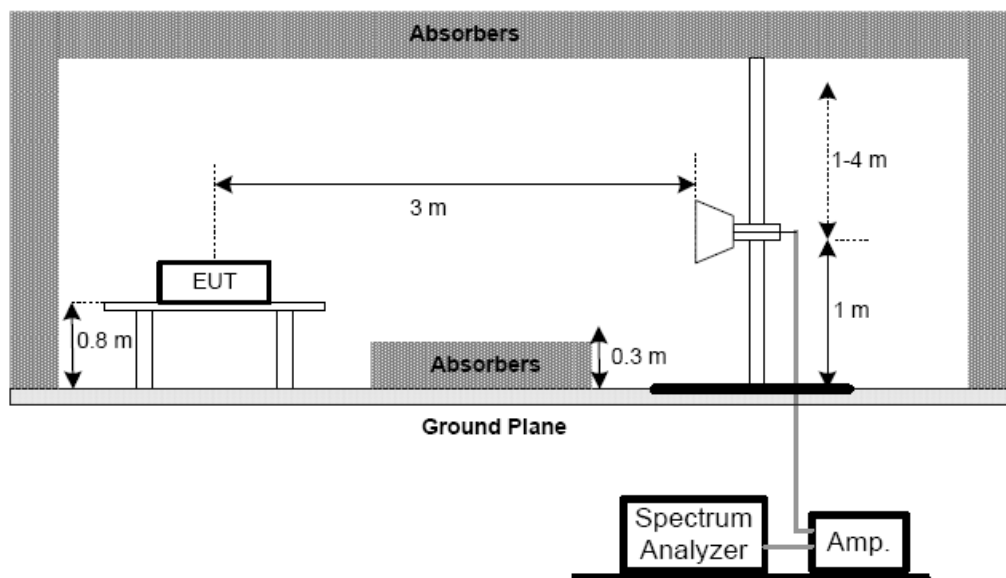
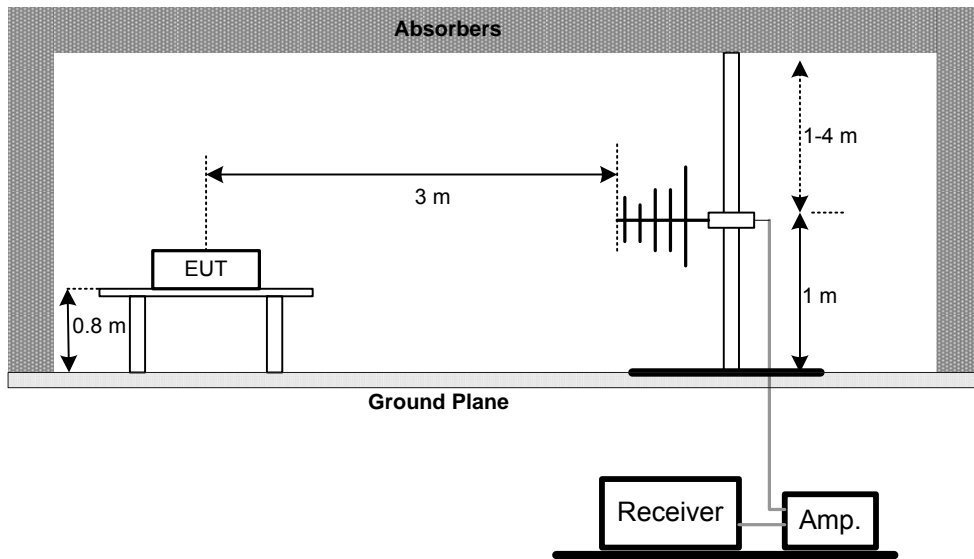
4.2.3 TEST PROCEDURE

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

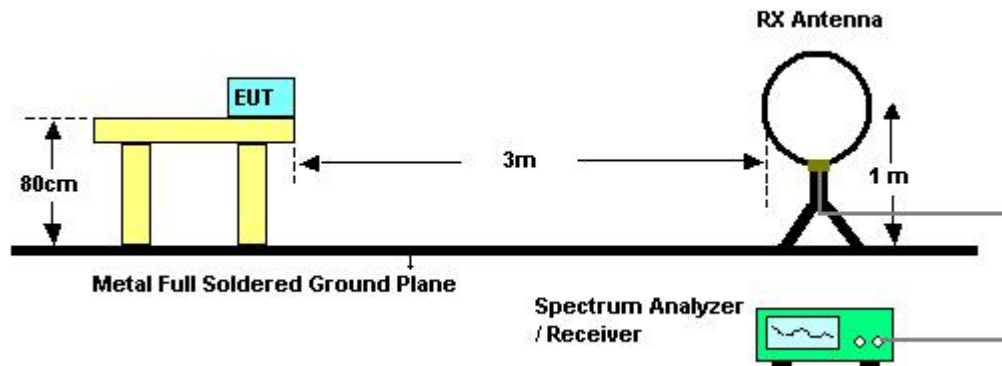
4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



(C) For radiated emissions below 30MHz



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 (BELOW 30MHZ)

EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	26 °C	Relative Humidity :	53 %
Pressure :	1010 Pa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX 2412MHz		

Freq. (MHz)	Ant. 0°/90°	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
0.0093	0°	28.02	24.30	52.32	128.23	-75.91	AVG
0.0093	0°	32.47	24.30	56.77	148.23	-91.46	PK
0.0268	0°	22.35	23.87	46.22	119.04	-72.82	AVG
0.0268	0°	25.81	23.87	49.68	139.04	-89.36	PK
0.0349	0°	20.54	23.36	43.90	116.75	-72.85	AVG
0.0349	0°	23.95	23.36	47.31	136.75	-89.44	PK
0.0592	0°	19.25	22.22	41.47	112.16	-70.69	AVG
0.0592	0°	23.19	22.22	45.41	132.16	-86.75	PK
0.2075	0°	22.86	20.49	43.35	101.26	-57.92	AVG
0.2075	0°	25.64	20.49	46.13	121.26	-75.14	PK
1.4752	0°	27.31	19.55	46.86	64.23	-17.36	QP

Freq. (MHz)	Ant. 0°/90°	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
0.0098	90°	18.56	24.30	42.86	127.78	-84.92	AVG
0.0098	90°	21.64	24.30	45.94	147.78	-101.84	PK
0.0347	90°	15.79	23.37	39.16	116.80	-77.64	AVG
0.0347	90°	18.39	23.37	41.76	136.80	-95.04	PK
0.0485	90°	21.74	22.50	44.24	113.89	-69.65	AVG
0.0485	90°	24.61	22.50	47.11	133.89	-86.78	PK
0.0774	90°	21.28	21.85	43.13	109.83	-66.70	AVG
0.0774	90°	24.12	21.85	45.97	129.83	-83.86	PK
0.3680	90°	21.98	20.12	42.10	96.29	-54.19	AVG
0.3680	90°	24.29	20.12	44.41	116.29	-71.88	PK
1.5480	90°	25.61	19.55	45.16	63.81	-18.65	QP

Remark :

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



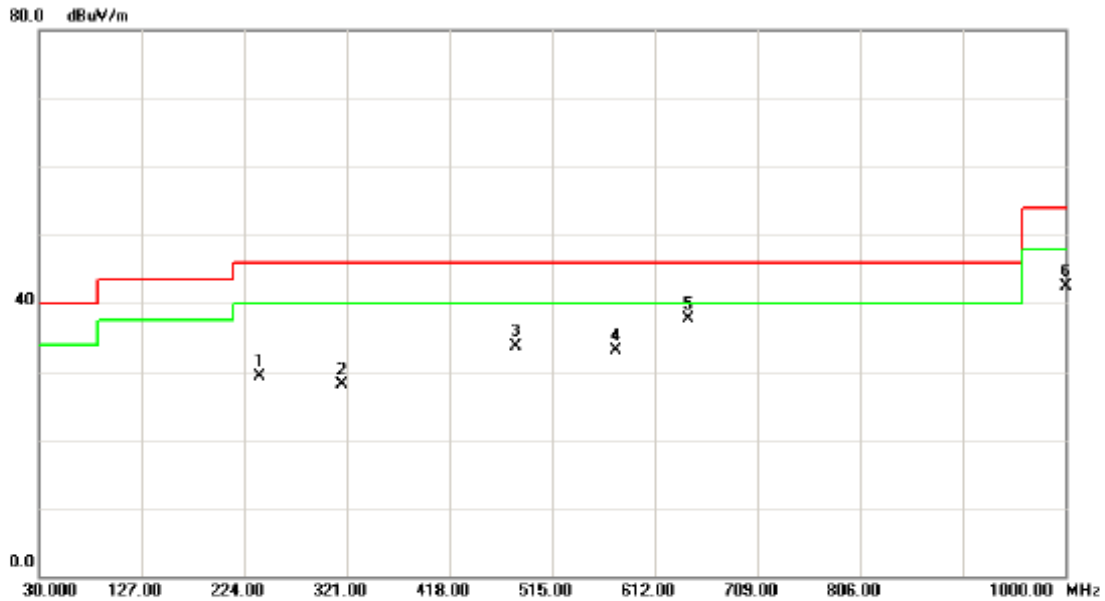
4.2.8 TEST RESULTS (BETWEEN 30 – 1000 MHZ)

Remark :

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



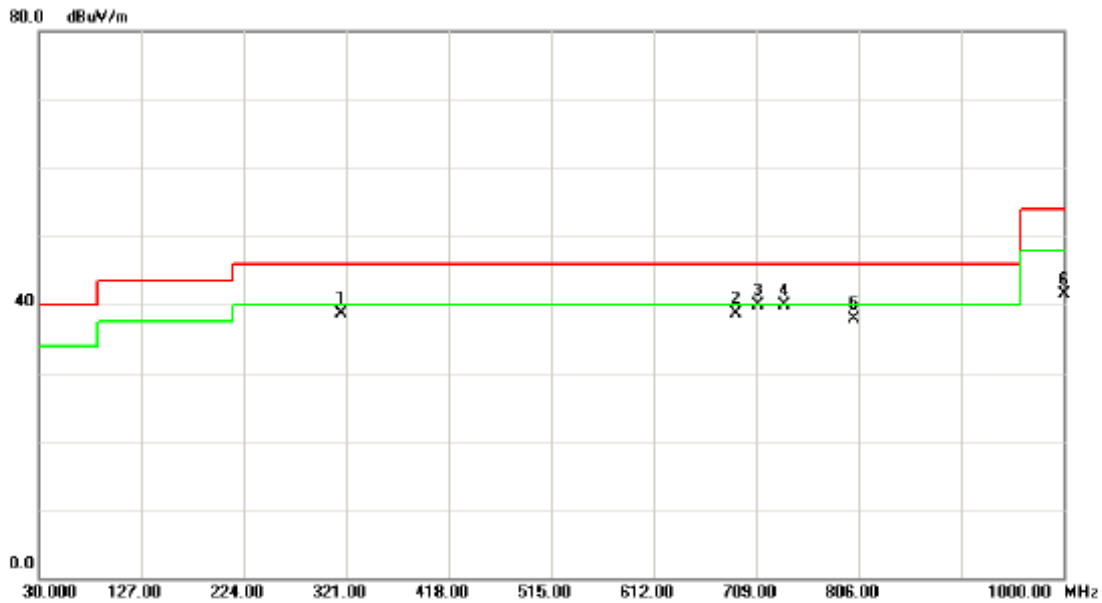
EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B Mode 2412MHz	Polarization:	Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		238.5500	45.11	-15.74	29.37	46.00	-16.63	peak	
2		316.1500	40.47	-12.29	28.18	46.00	-17.82	peak	
3		481.0500	42.29	-8.63	33.66	46.00	-12.34	peak	
4		575.6250	39.11	-6.03	33.08	46.00	-12.92	peak	
5	*	643.5250	42.50	-4.79	37.71	46.00	-8.29	peak	
6		1000.000	42.90	-0.33	42.57	54.00	-11.43	peak	



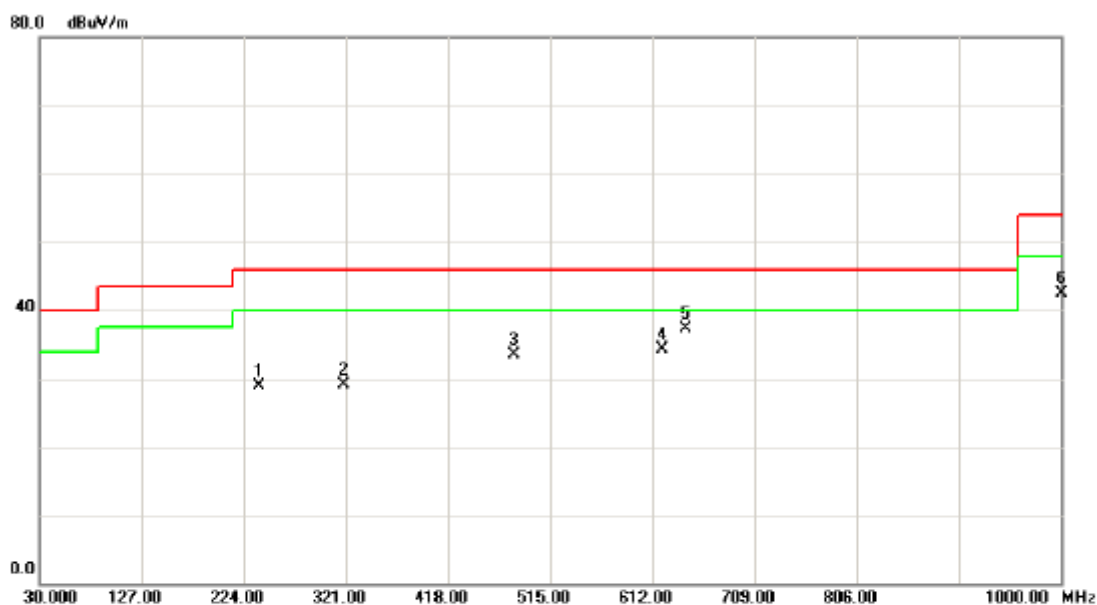
E.U.T :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B Mode 2412MHz	Polarization:	Horizontal



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	316.1500	50.98	-12.29	38.69	46.00	-7.31	peak	
2	689.6000	43.45	-4.65	38.80	46.00	-7.20	peak	
3	711.4250	44.54	-4.56	39.98	46.00	-6.02	peak	
4 *	735.6750	44.35	-4.36	39.99	46.00	-6.01	peak	
5	801.1500	41.56	-3.60	37.96	46.00	-8.04	peak	
6	1000.000	41.74	-0.33	41.41	54.00	-12.59	peak	



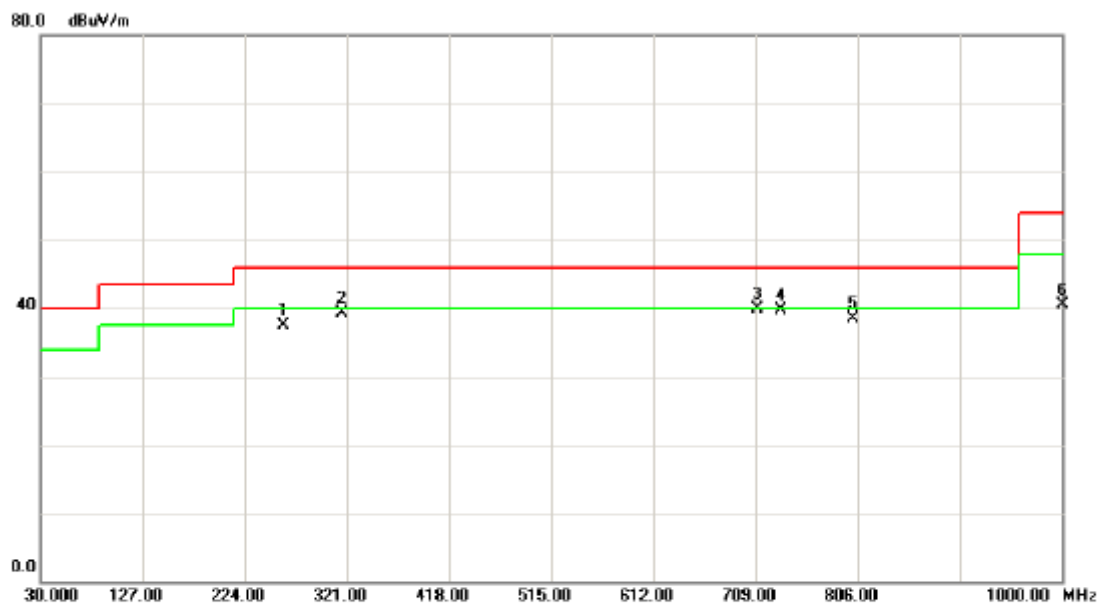
EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B Mode 2437MHz	Polarization:	Vertical



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	238.5500	44.61	-15.74	28.87	46.00	-17.13	peak	
2	318.5750	41.31	-12.23	29.08	46.00	-16.92	peak	
3	481.0500	42.14	-8.63	33.51	46.00	-12.49	peak	
4	621.7000	39.41	-5.13	34.28	46.00	-11.72	peak	
5 *	643.5250	42.09	-4.79	37.30	46.00	-8.70	peak	
6	1000.000	42.93	-0.33	42.60	54.00	-11.40	peak	



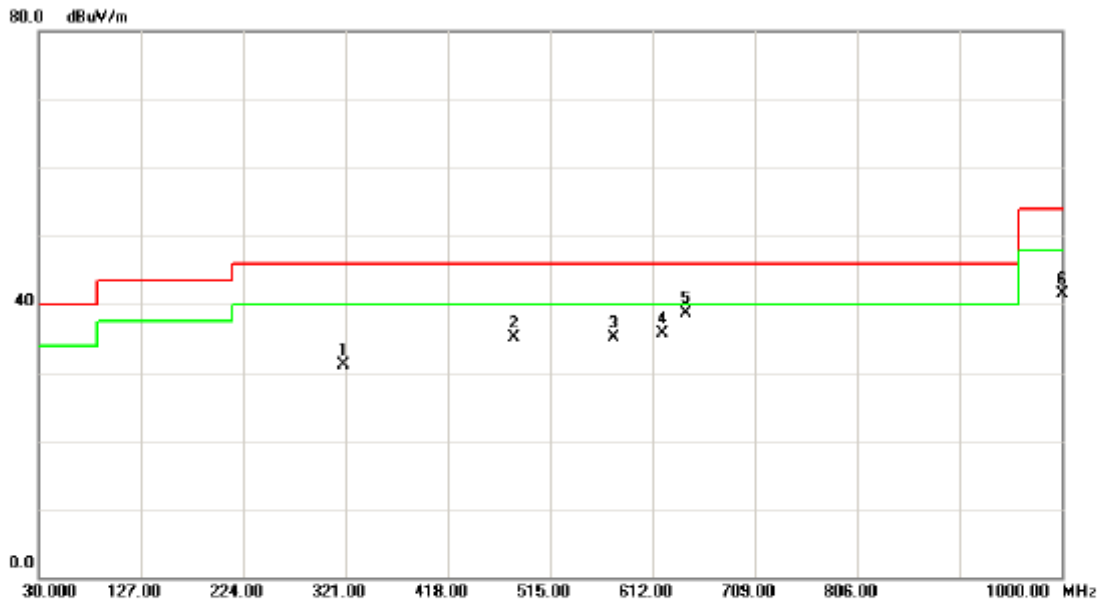
E.U.T :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B Mode 2437MHz	Polarization:	Horizontal



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	260.3750	51.92	-14.36	37.56	46.00	-8.44	peak	
2	316.1500	51.59	-12.29	39.30	46.00	-6.70	peak	
3 *	711.4250	44.54	-4.56	39.98	46.00	-6.02	peak	
4	733.2500	44.08	-4.39	39.69	46.00	-6.31	peak	
5	801.1500	42.01	-3.60	38.41	46.00	-7.59	peak	
6	1000.000	40.85	-0.33	40.52	54.00	-13.48	peak	



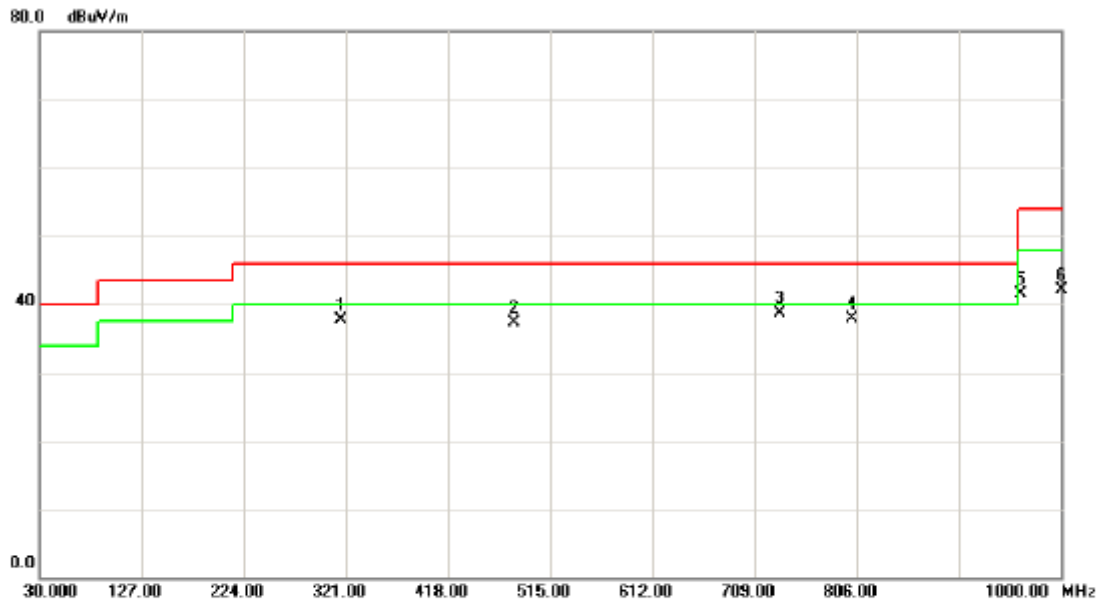
EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B Mode 2462MHz	Polarization:	Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		318.5750	43.31	-12.23	31.08	46.00	-14.92	peak	
2		481.0500	43.64	-8.63	35.01	46.00	-10.99	peak	
3		575.6250	41.12	-6.03	35.09	46.00	-10.91	peak	
4		621.7000	40.91	-5.13	35.78	46.00	-10.22	peak	
5	*	643.5250	43.59	-4.79	38.80	46.00	-7.20	peak	
6		1000.000	41.93	-0.33	41.60	54.00	-12.40	peak	



E.U.T :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B Mode 2462MHz	Polarization:	Horizontal



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	316.1500	50.09	-12.29	37.80	46.00	-8.20	peak	
2	481.0500	45.96	-8.63	37.33	46.00	-8.67	peak	
3 *	733.2500	43.08	-4.39	38.69	46.00	-7.31	peak	
4	801.1500	41.51	-3.60	37.91	46.00	-8.09	peak	
5	961.2000	42.64	-1.10	41.54	54.00	-12.46	peak	
6	1000.000	42.35	-0.33	42.02	54.00	-11.98	peak	



4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX B MODE 2412MHz		

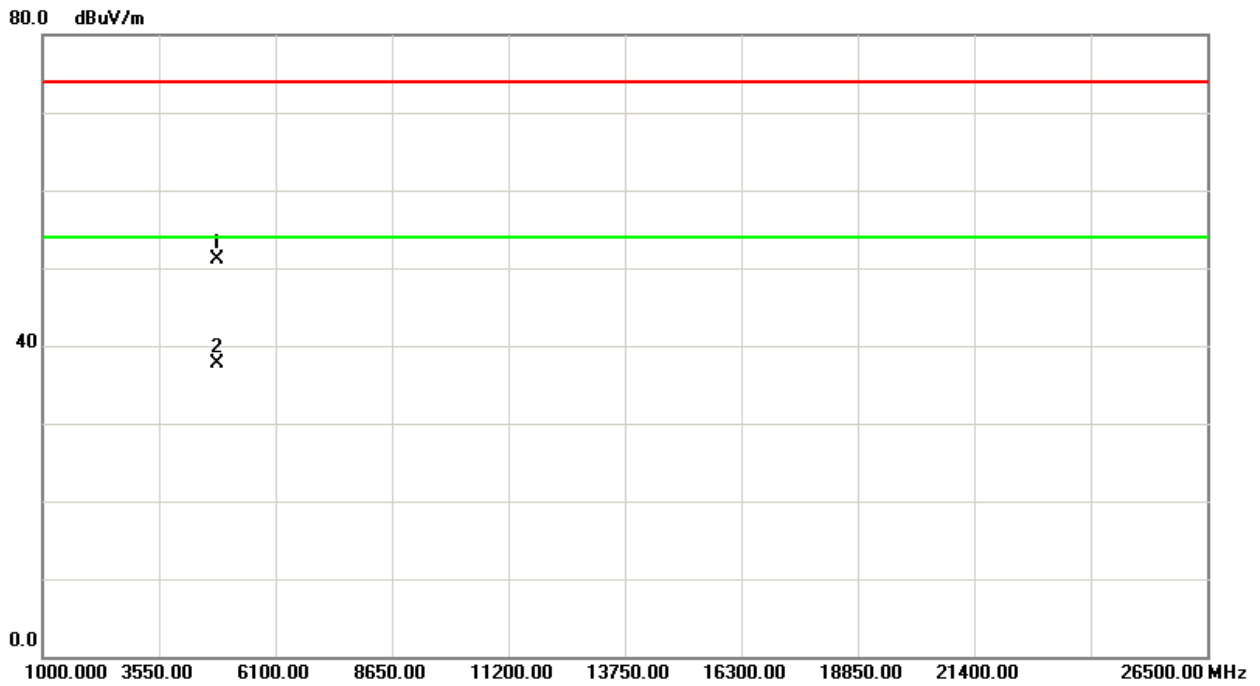
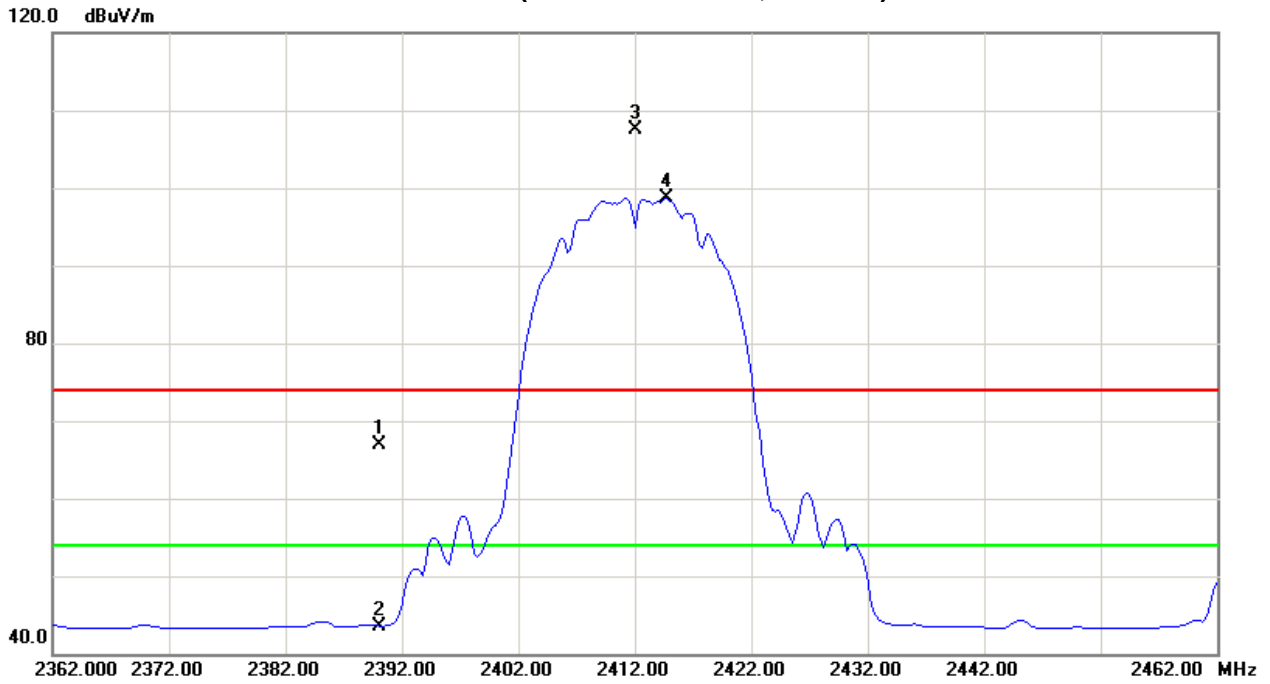
Freq. (MHz)	Ant.Pol. H/V	Reading		Ant/CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	V	34.59	11.27	32.28	66.87	43.55	74.00	54.00	X/E
2412.00	V	75.23	66.37	32.26	107.49	98.63			X/F
4824.05	V	44.93	31.57	6.19	51.12	37.76	74.00	54.00	X/H

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 Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH01 (Above 1000 MHz, Vertical)





EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX B MODE 2412MHZ		

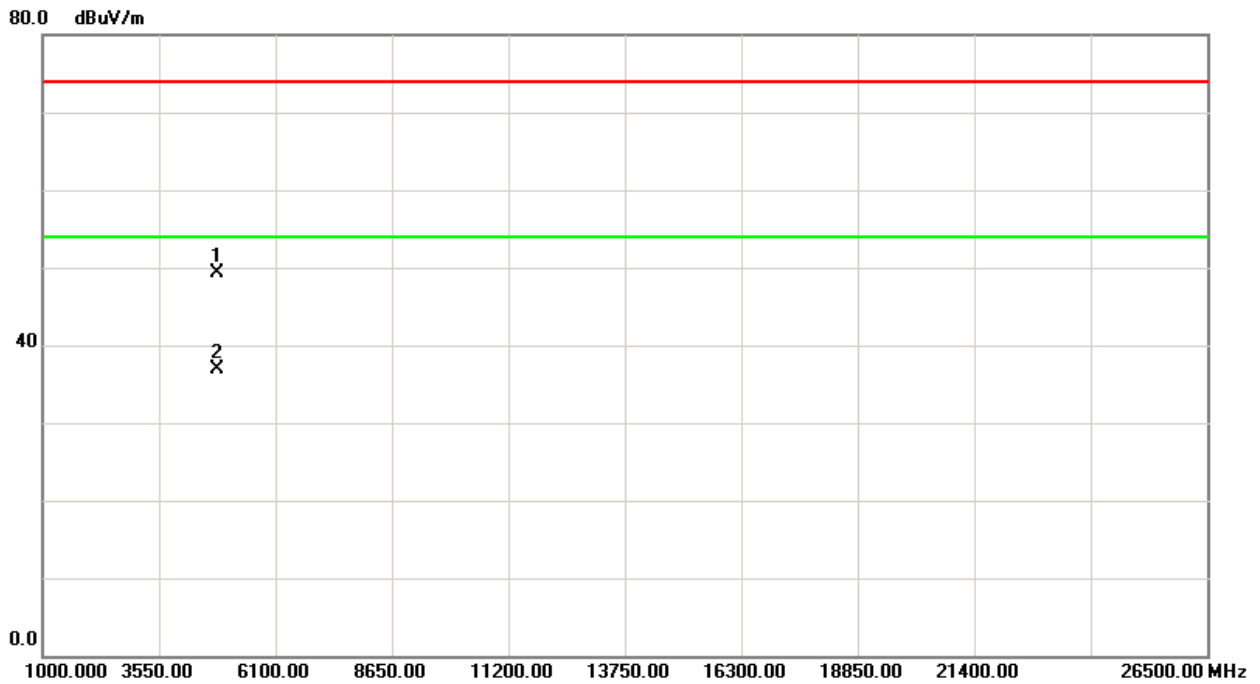
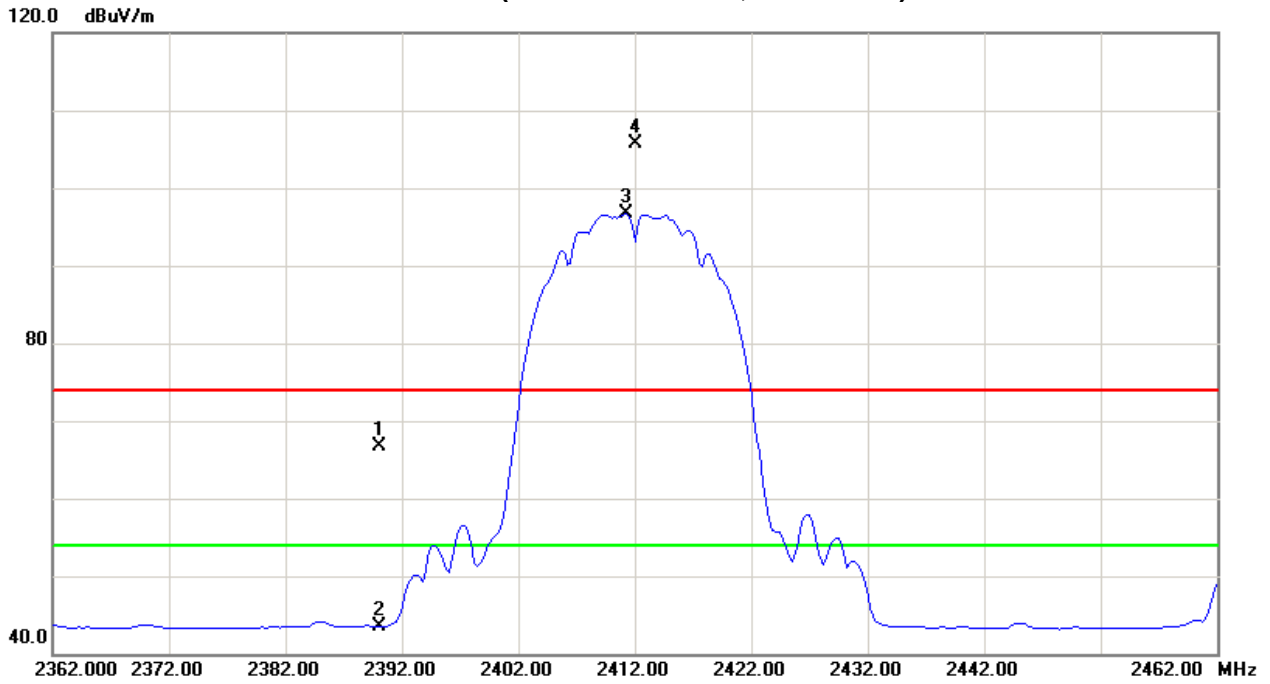
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	34.51	11.22	32.28	66.79	43.50	74.00	54.00	X/E
2412.00	H	73.42	64.37	32.26	105.68	96.63			X/F
4823.69	H	43.18	30.62	6.19	49.37	36.81	74.00	54.00	X/H

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 Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH01 (Above 1000 MHz, Horizontal)





EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX B MODE 2437MHz		

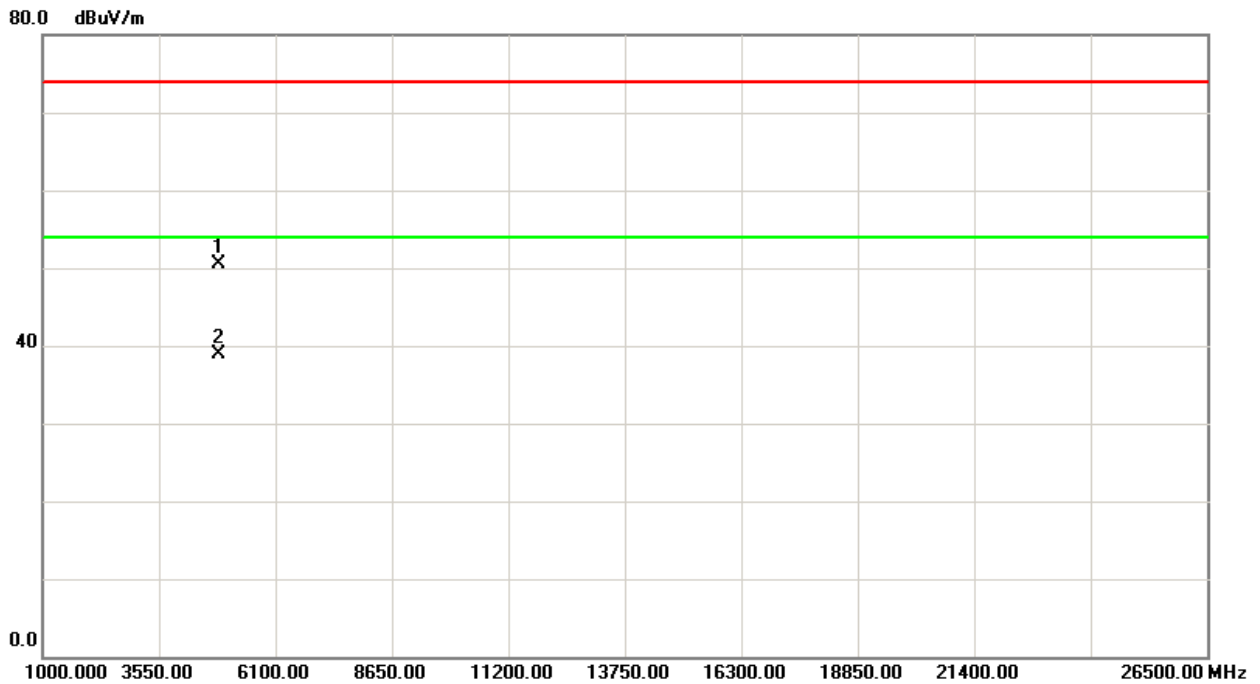
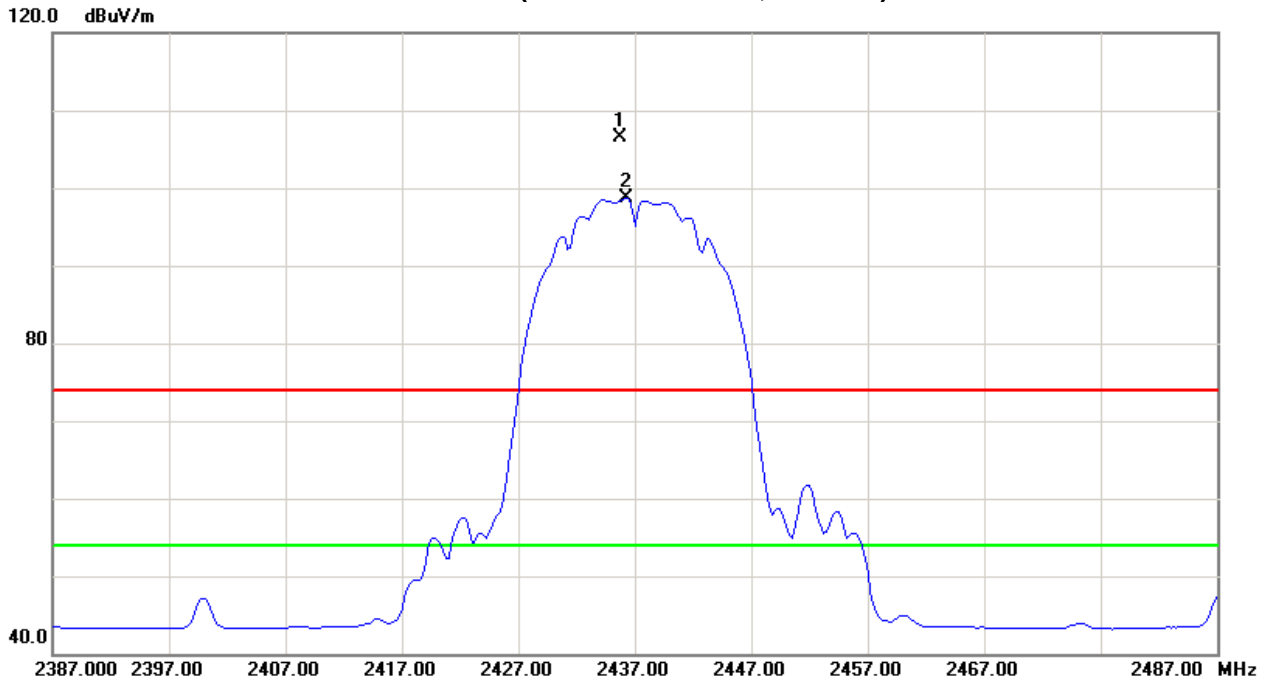
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2435.75	V	74.28	66.42	32.23	106.51	98.65			X/F
4874.28	V	44.17	32.51	6.39	50.56	38.90	74.00	54.00	X/H

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 Axis :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH06 (Above 1000 MHz, Vertical)





EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX B MODE 2437MHz		

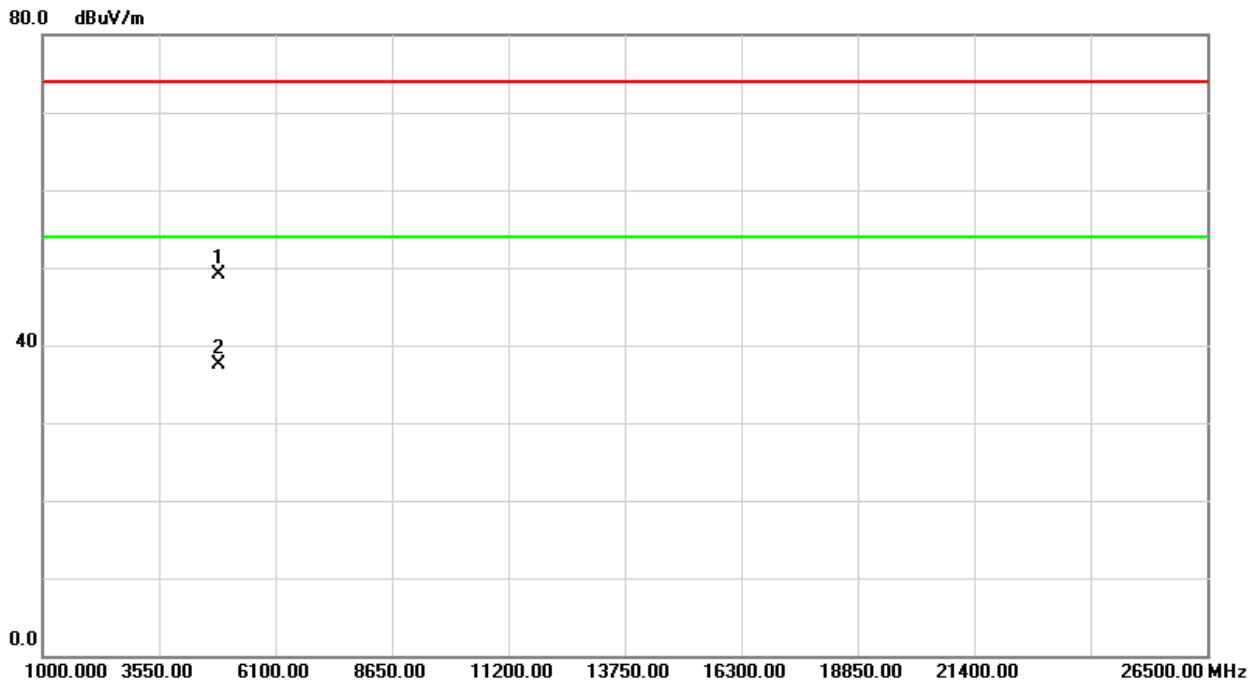
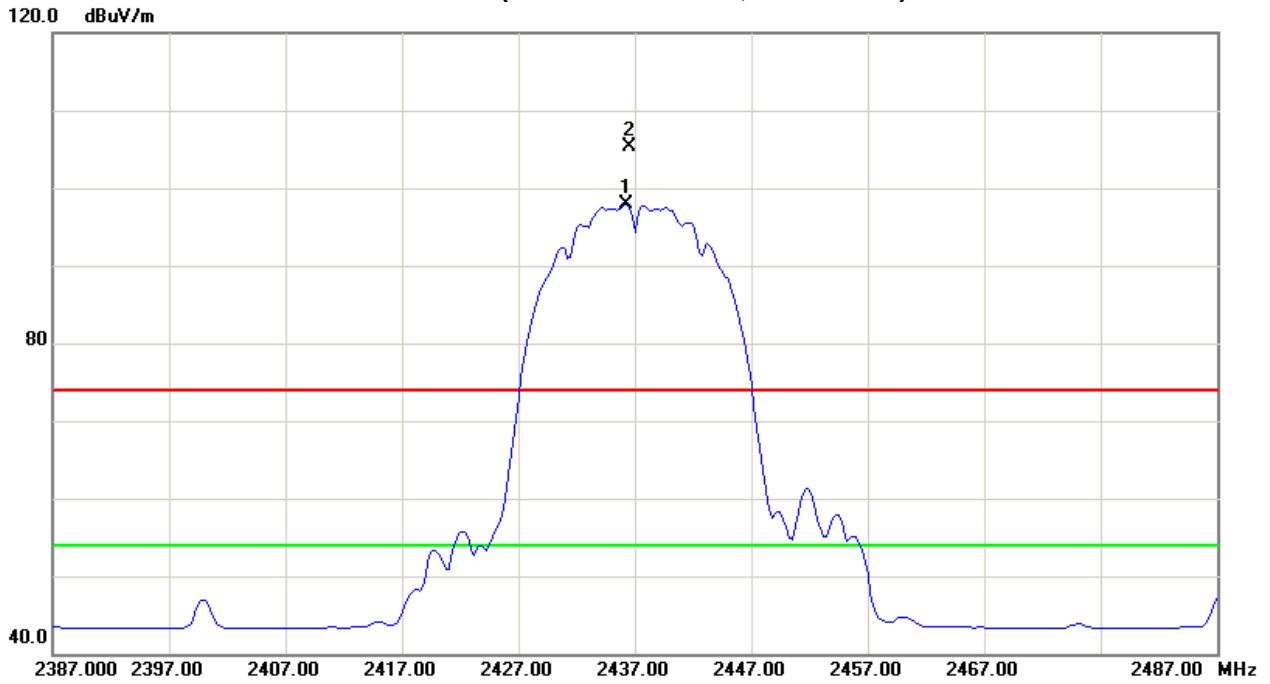
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2436.25	H	73.12	65.61	32.23	105.35	97.84			X/F
4874.52	H	42.65	31.13	6.39	49.04	37.52	74.00	54.00	X/H

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 Axis :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH06 (Above 1000 MHz, Horizontal)





EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX B MODE 2462MHz		

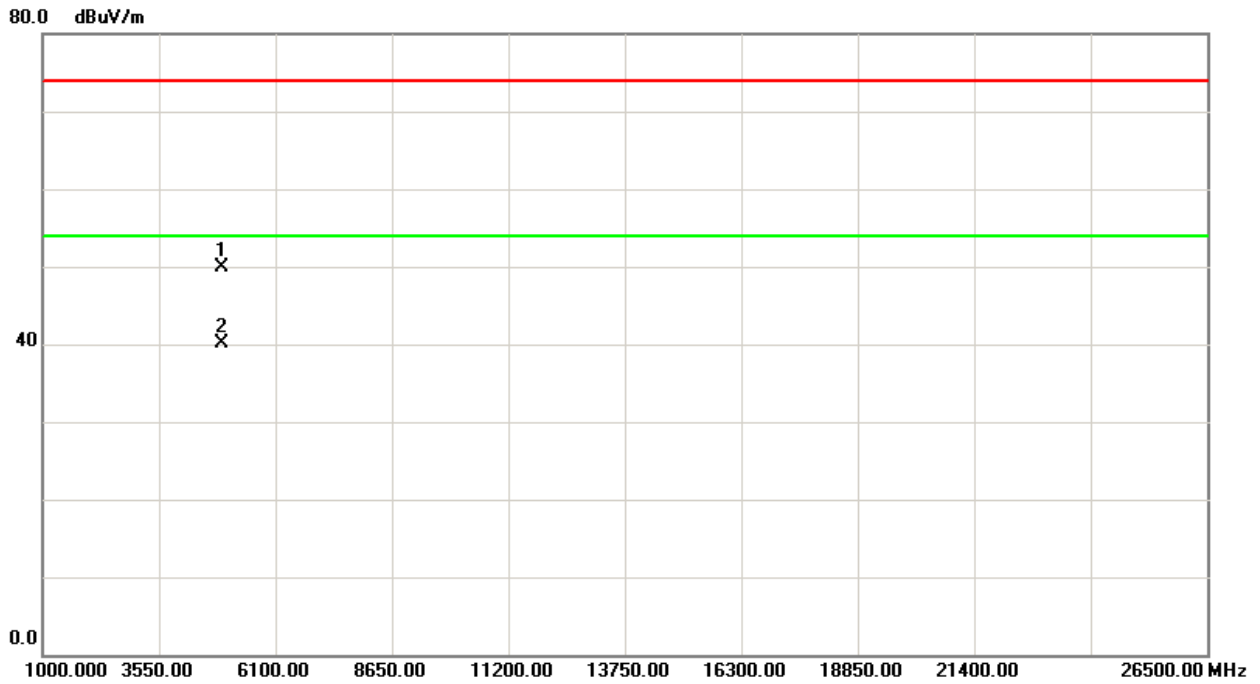
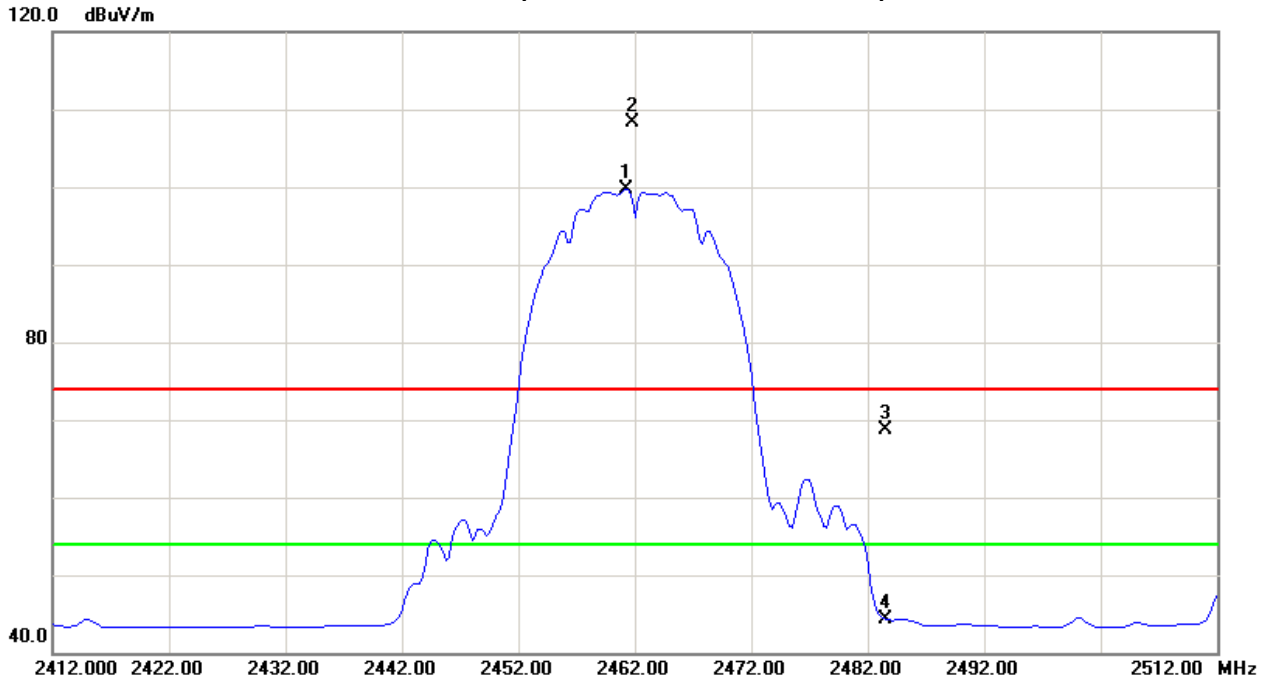
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2461.75	V	76.17	67.52	32.20	108.37	99.72			X/F
2483.50	V	36.54	12.17	32.17	68.71	44.34	74.00	54.00	X/E
4924.06	V	43.22	33.58	6.59	49.81	40.17	74.00	54.00	X/H

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 Axis :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH11 (Above 1000 MHz, Vertical)





EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX B MODE 2462MHz		

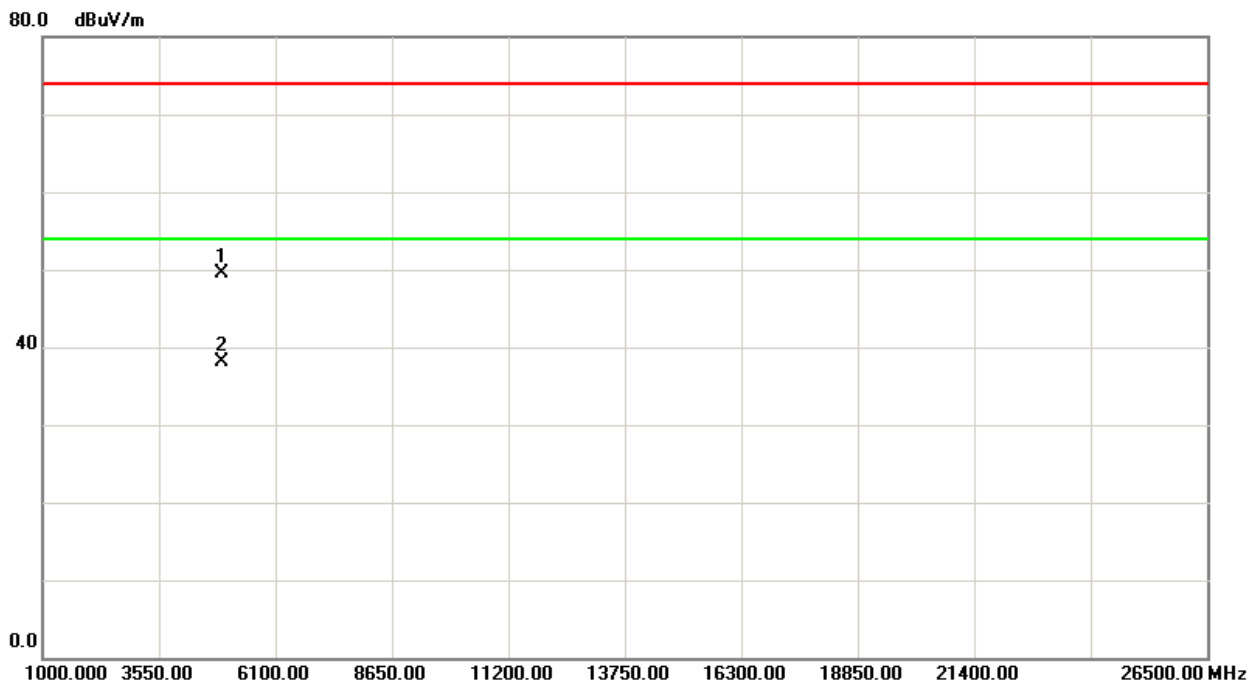
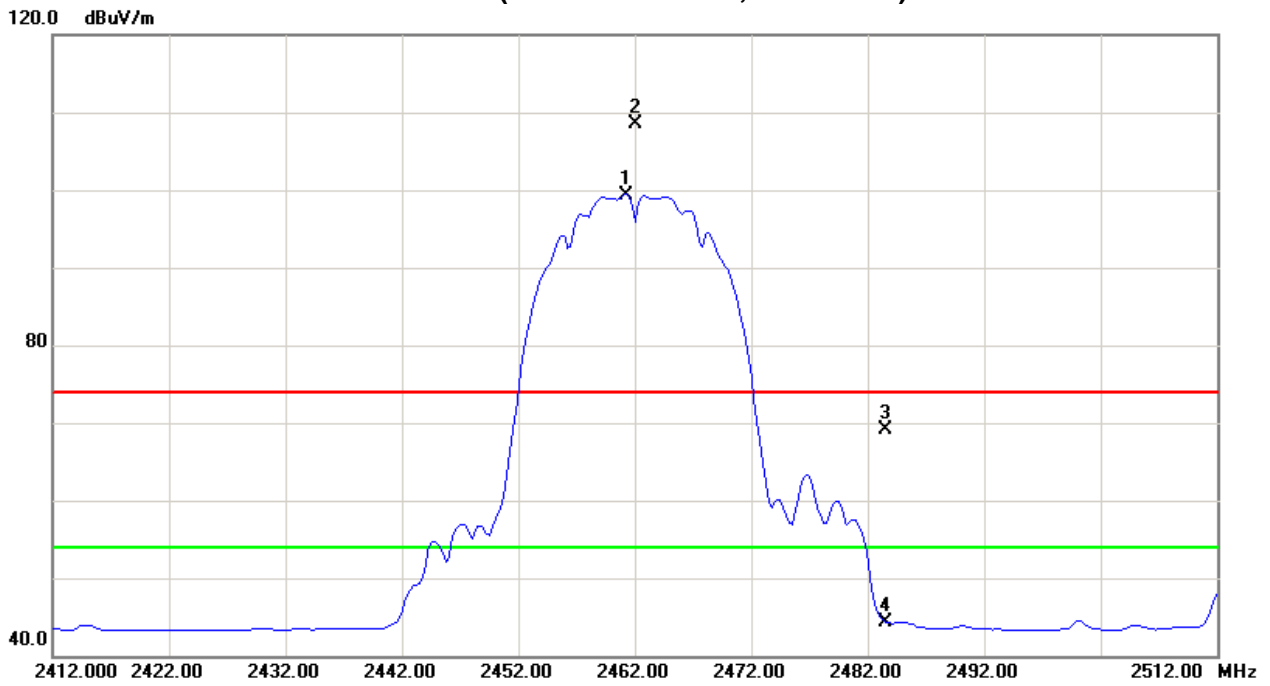
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2461.25	H	76.26	67.20	32.20	108.46	99.40			X/F
2483.50	H	36.95	12.20	32.17	69.12	44.37	74.00	54.00	X/E
4924.35	H	42.85	31.42	6.59	49.44	38.01	74.00	54.00	X/H

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 Axis :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH11 (Above 1000 MHz, Horizontal)





EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX G MODE 2412MHz		

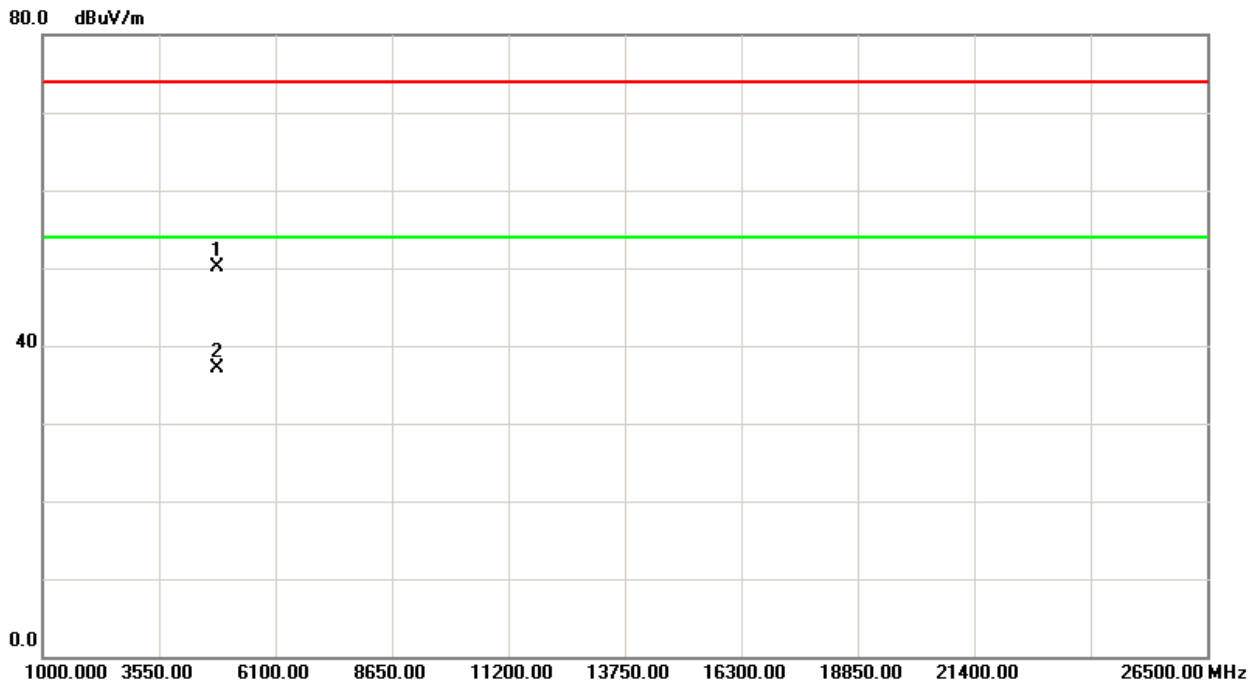
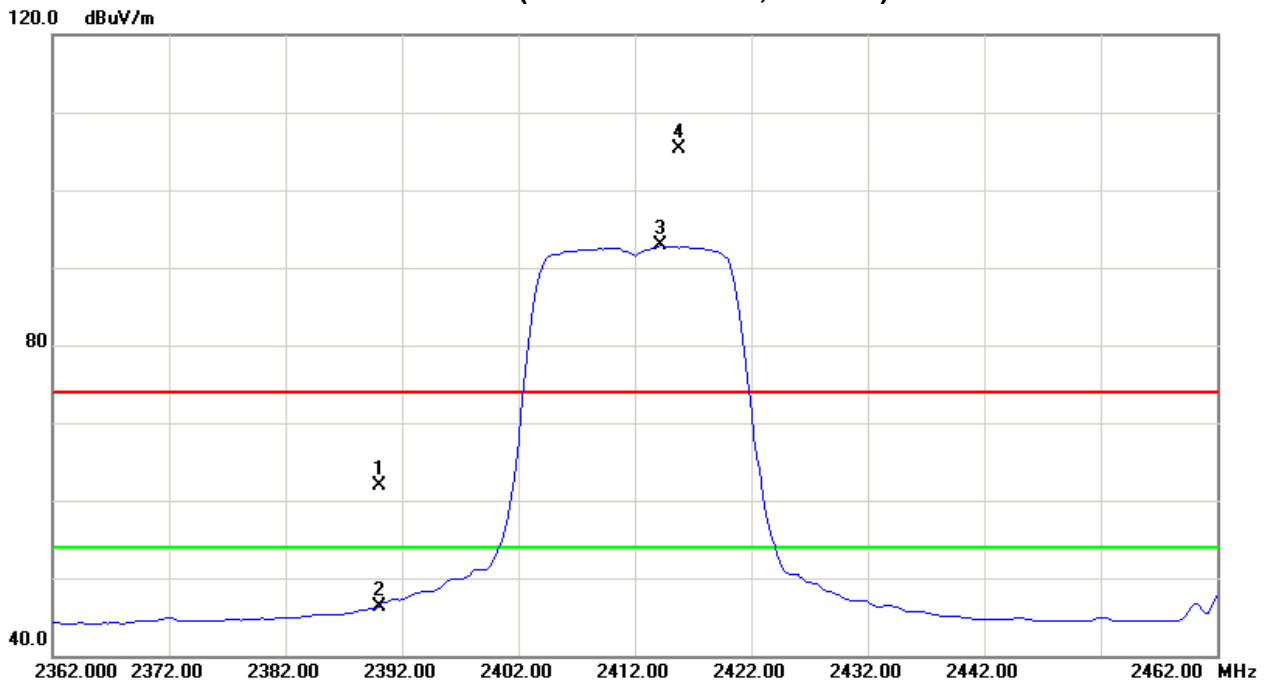
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	29.57	14.06	32.28	61.85	46.34	74.00	54.00	X/E
2414.25	V	73.13	60.57	32.25	105.38	92.82			X/F
4824.12	V	43.87	31.00	6.19	50.06	37.19	74.00	54.00	X/H

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 Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH01 (Above 1000 MHz, Vertical)





EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX G MODE 2412MHz		

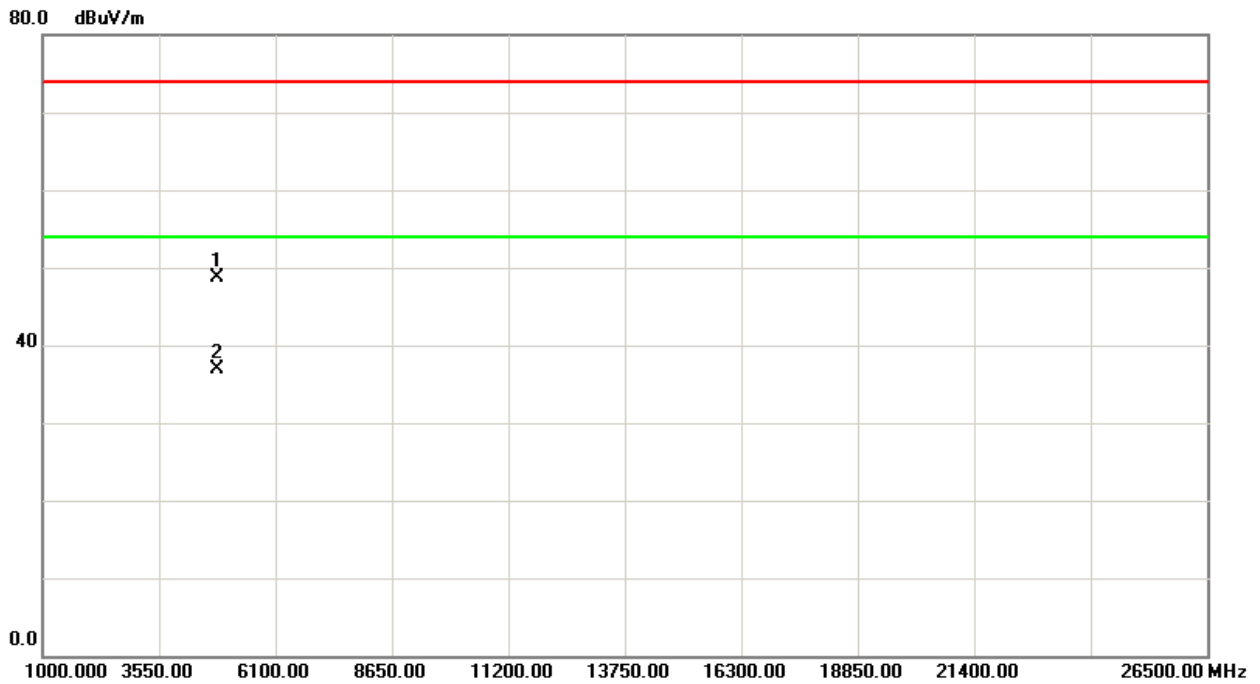
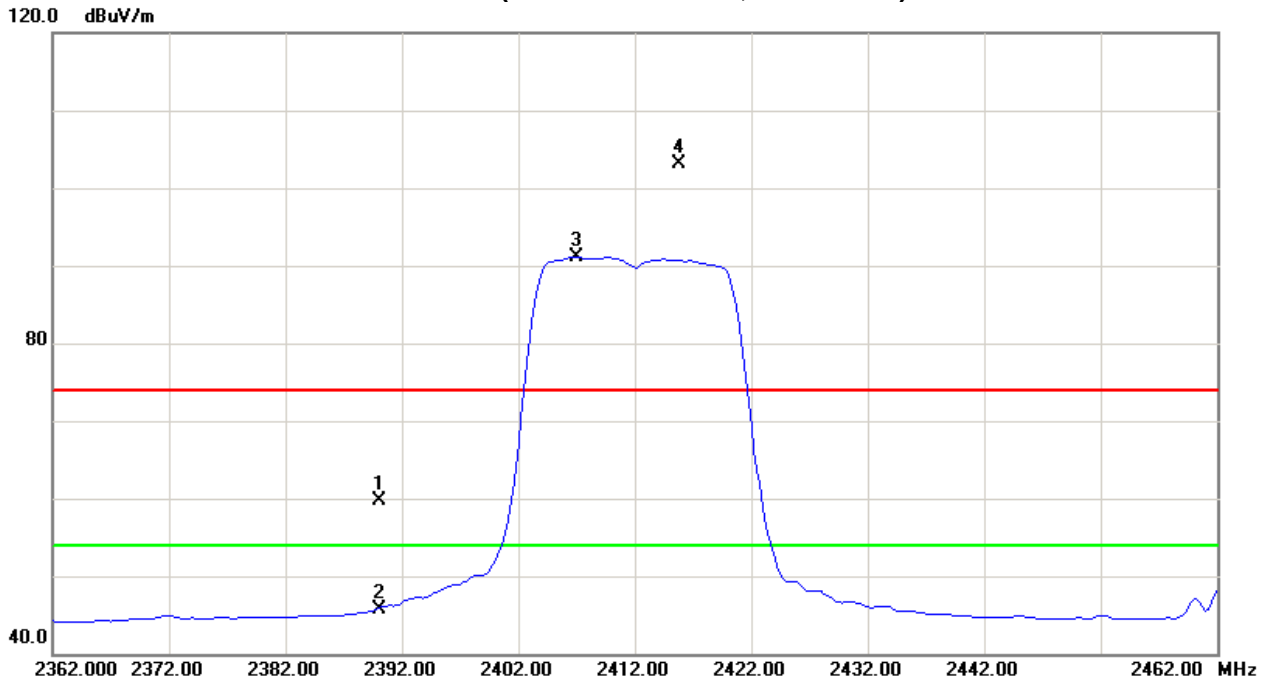
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	27.51	13.38	32.28	59.79	45.66	74.00	54.00	X/E
2415.75	H	70.95	58.92	32.26	103.21	91.18			X/F
4823.69	H	42.46	30.62	6.19	48.65	36.81	74.00	54.00	X/H

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 Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH01 (Above 1000 MHz, Horizontal)





EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX G MODE 2437MHz		

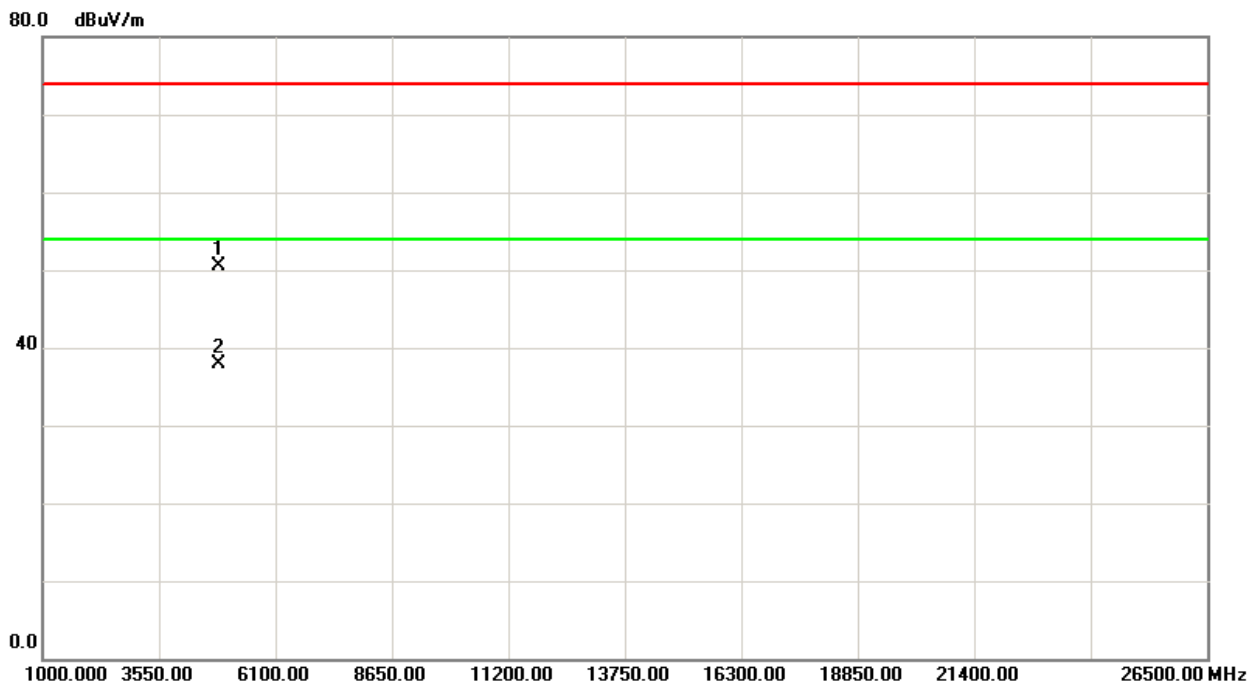
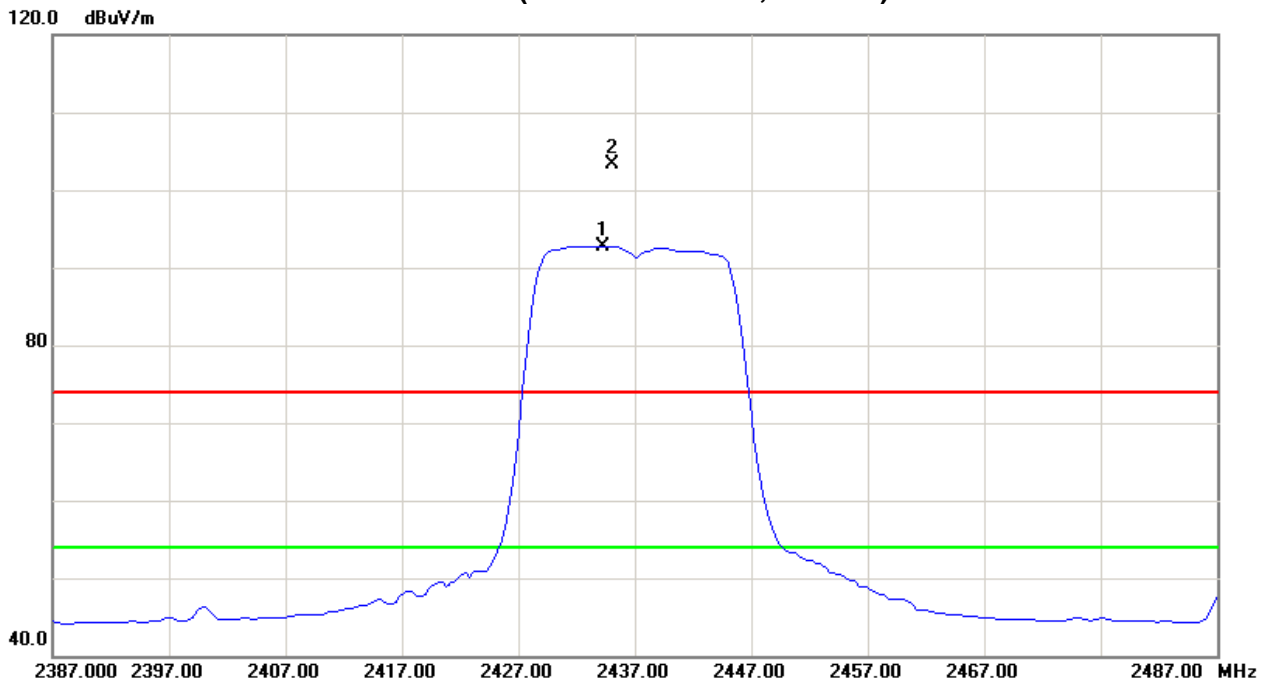
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2434.25	V	71.06	60.53	32.23	103.29	92.76			X/F
4874.28	V	44.17	31.51	6.39	50.56	37.90	74.00	54.00	X/H

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 Axis :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH06 (Above 1000 MHz, Vertical)





EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX G MODE 2437MHz		

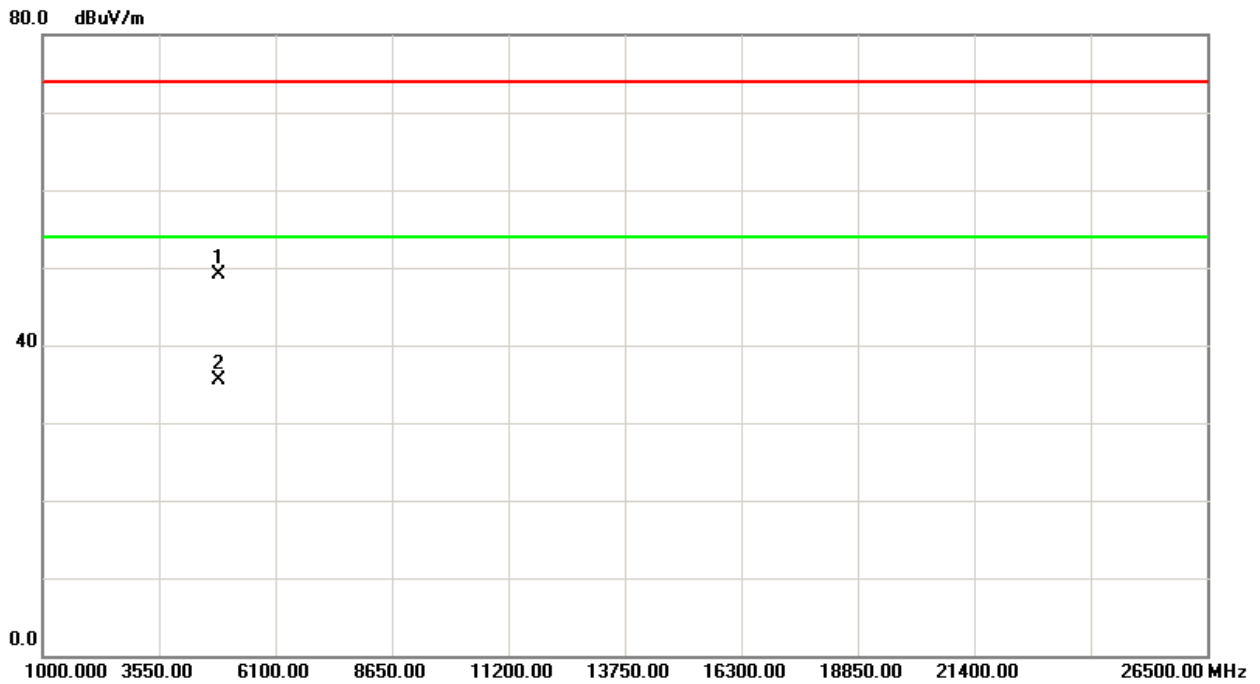
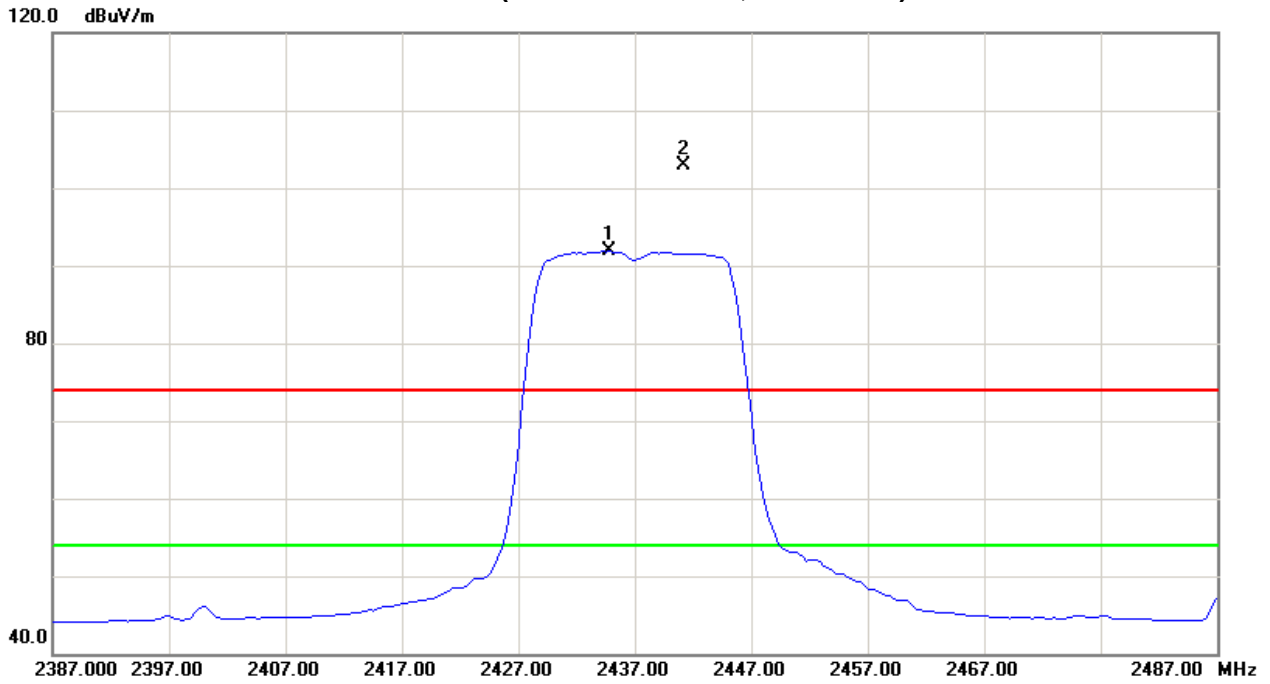
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2434.75	H	70.64	59.62	32.23	102.87	91.85			X/F
4874.38	H	42.65	29.13	6.39	49.04	35.52	74.00	54.00	X/H

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 Axis :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH06 (Above 1000 MHz, Horizontal)





EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX G MODE 2462MHz		

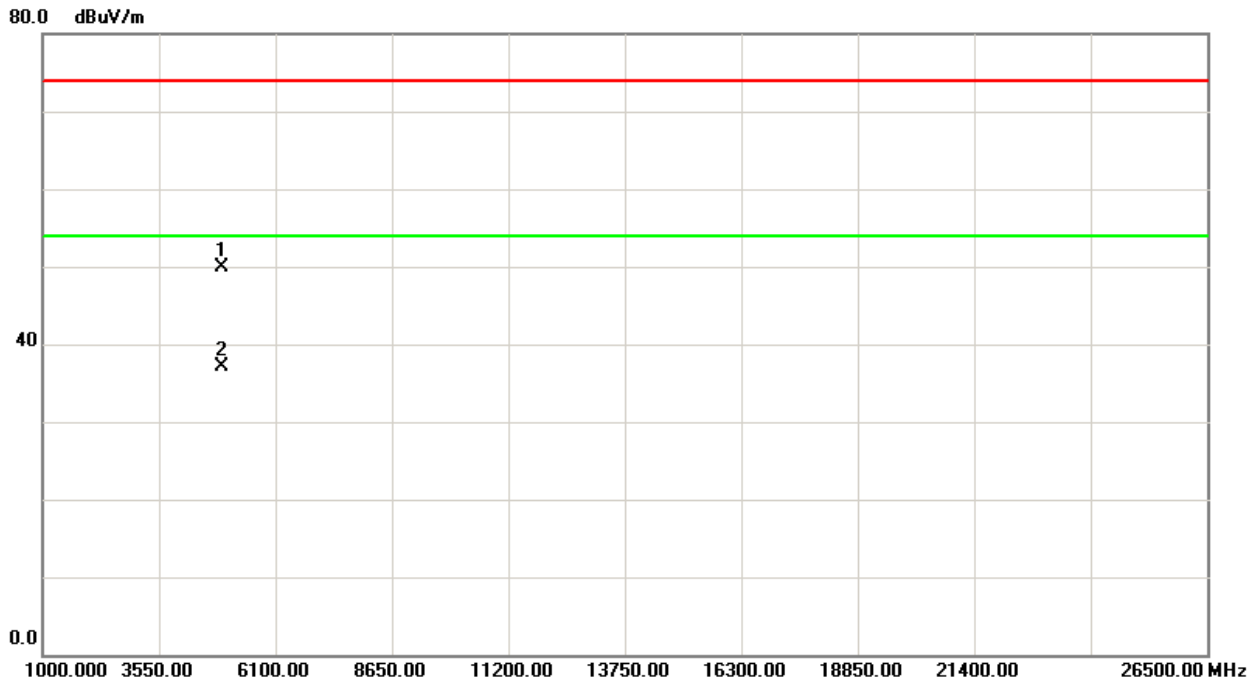
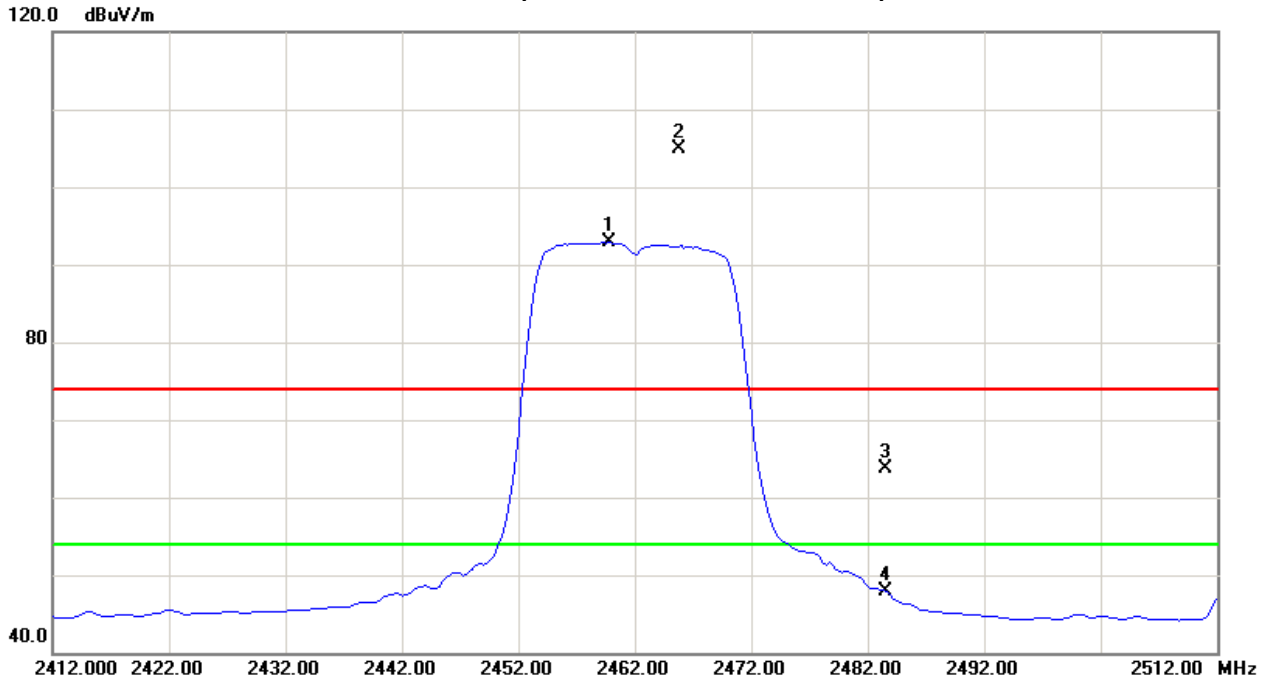
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2459.75	V	72.64	60.62	32.20	104.84	92.82			X/F
2483.50	V	31.58	15.73	32.17	63.75	47.90	74.00	54.00	X/E
4924.06	V	43.22	30.58	6.59	49.81	37.17	74.00	54.00	X/H

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 Axis :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH11 (Above 1000 MHz, Vertical)





EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	25 °C	Relative Humidity :	58 %
Pressure :	1010 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX G MODE 2462MHz		

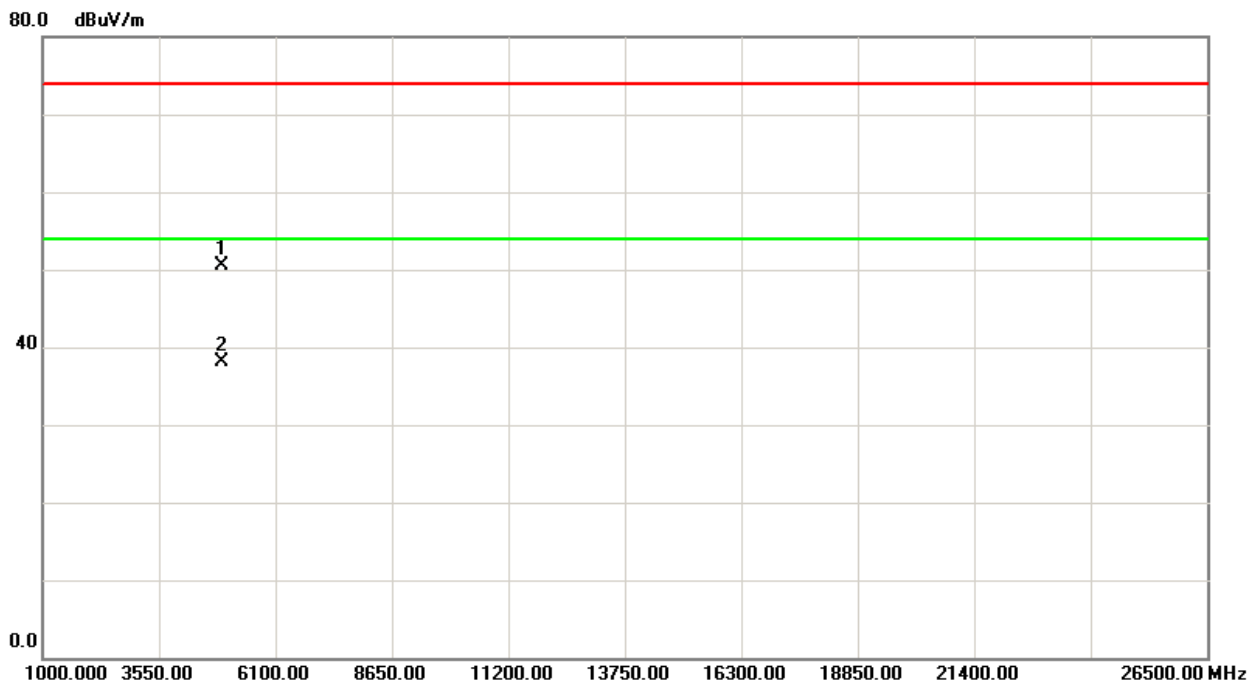
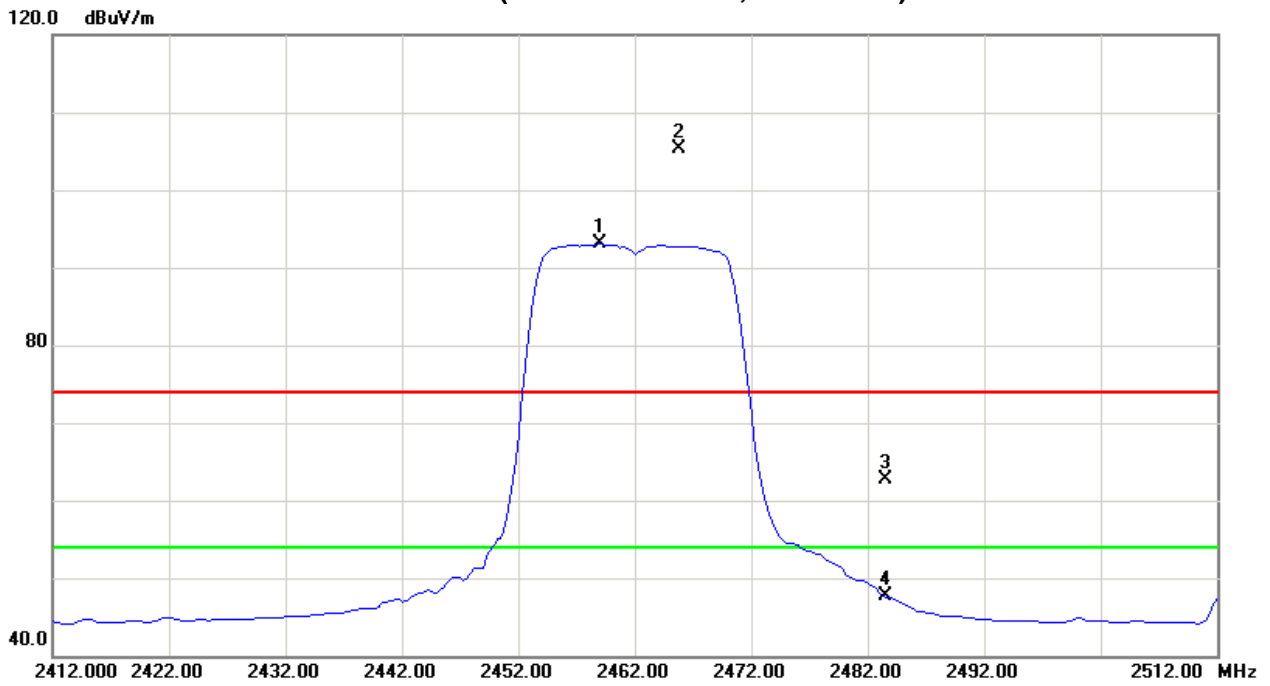
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2459.00	H	73.02	60.86	32.20	105.22	93.06			X/F
2483.50	H	30.46	15.63	32.17	62.63	47.80	74.00	54.00	X/E
4924.26	H	43.85	31.42	6.59	50.44	38.01	74.00	54.00	X/H

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 Axis :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH11 (Above 1000 MHz, Horizontal)





5. BANDWIDTH TEST

5.1 Applied procedures / limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS

5.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 04, 2013

Remark: " N/A" denotes No Model Name. , Serial No. or No Calibration specified.
All calibration period of Equipment List is One Year.

5.1.2 TEST PROCEDURE

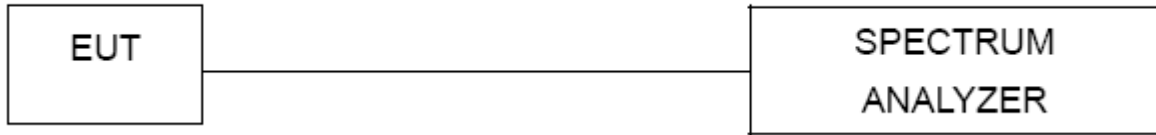
- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting : RBW= 300KHz, VBW=1MHz, Sweep time = 2.5 ms.

5.1.3 DEVIATION FROM STANDARD

No deviation.



5.1.4 TEST SETUP



5.1.5 EUT OPERATION CONDITIONS

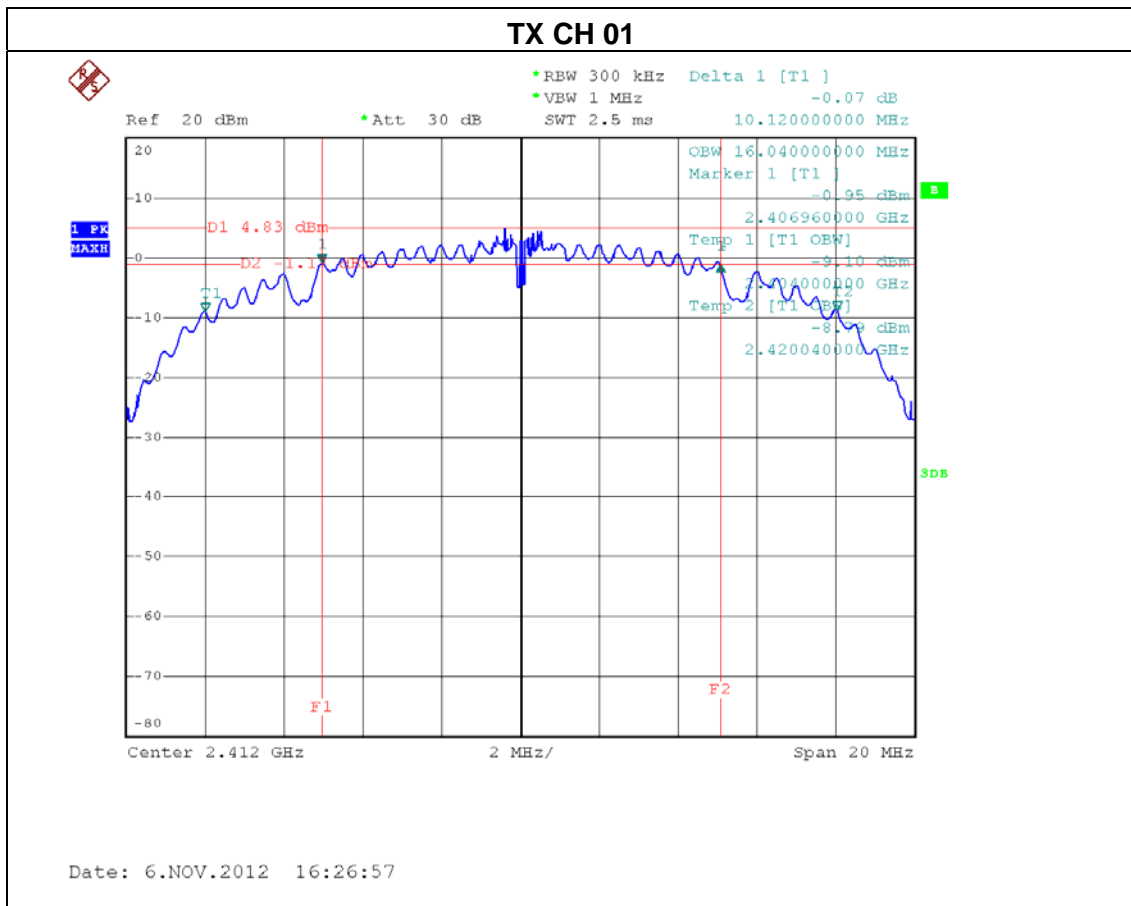
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

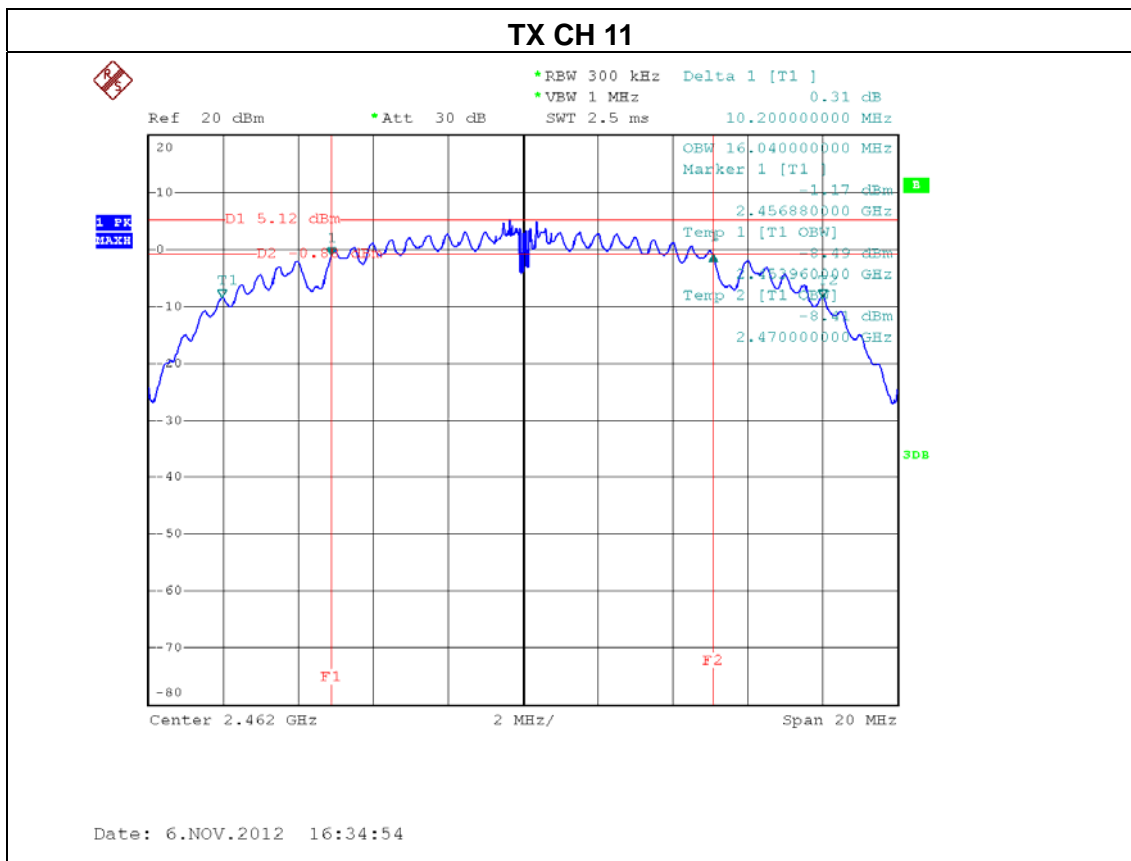
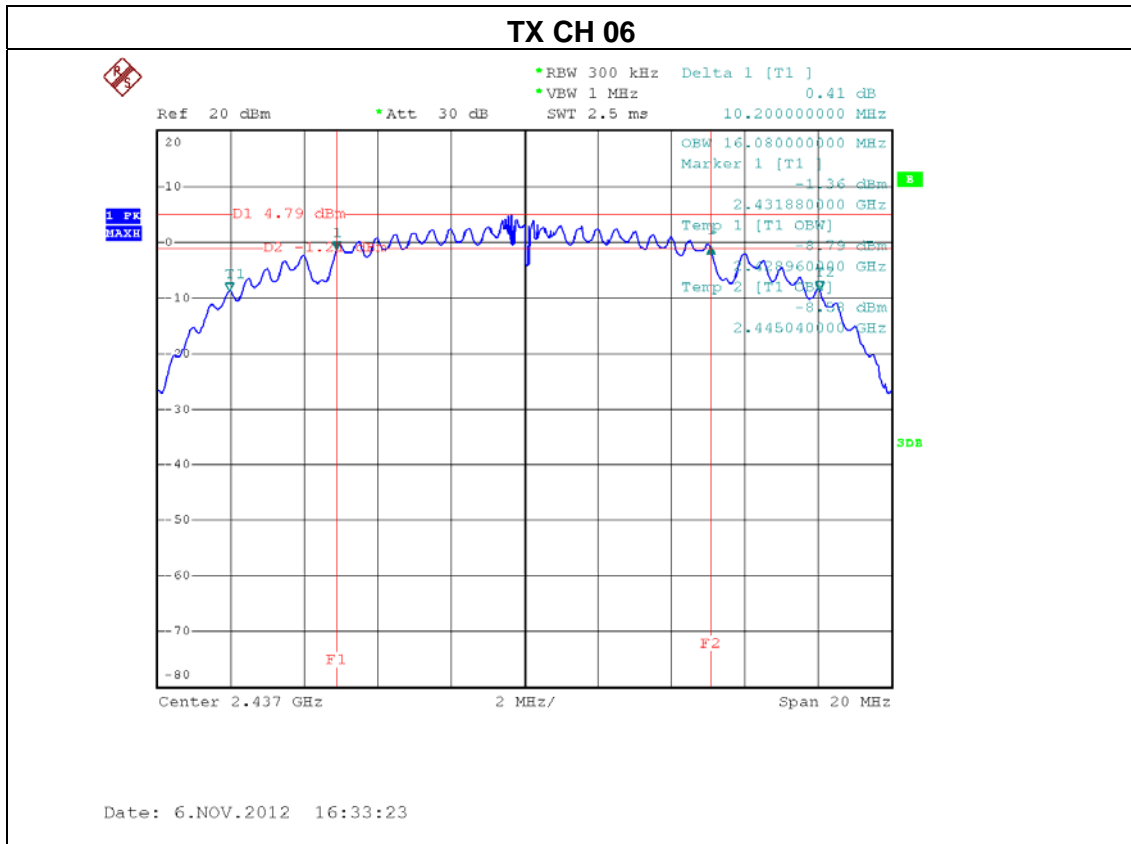


5.1.6 TEST RESULTS

EUT :	Scuderia FS1 Air	Model Name. :	2LFS002
Temperature :	24 °C	Relative Humidity :	60 %
Pressure :	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE /CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	99% Occupied BW (MHz)
CH01	2412	10.12	16.04
CH06	2437	10.20	16.08
CH11	2462	10.20	16.04

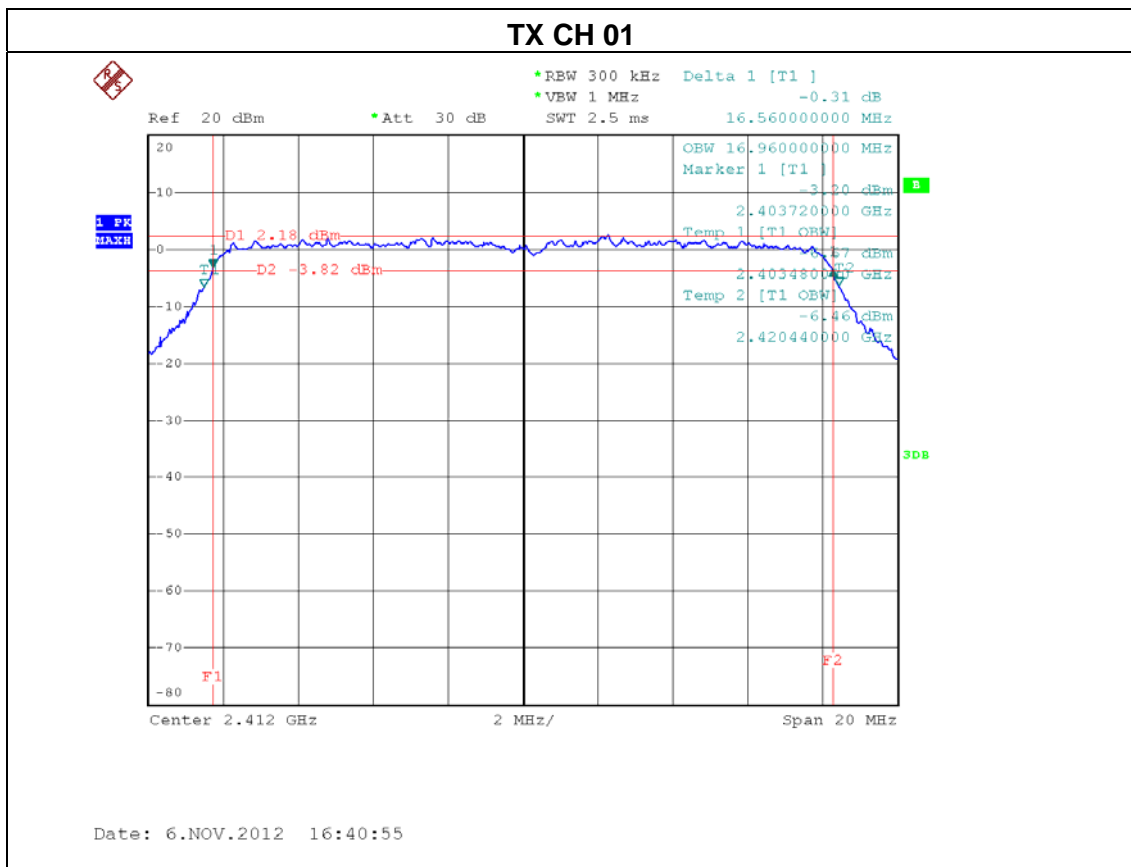


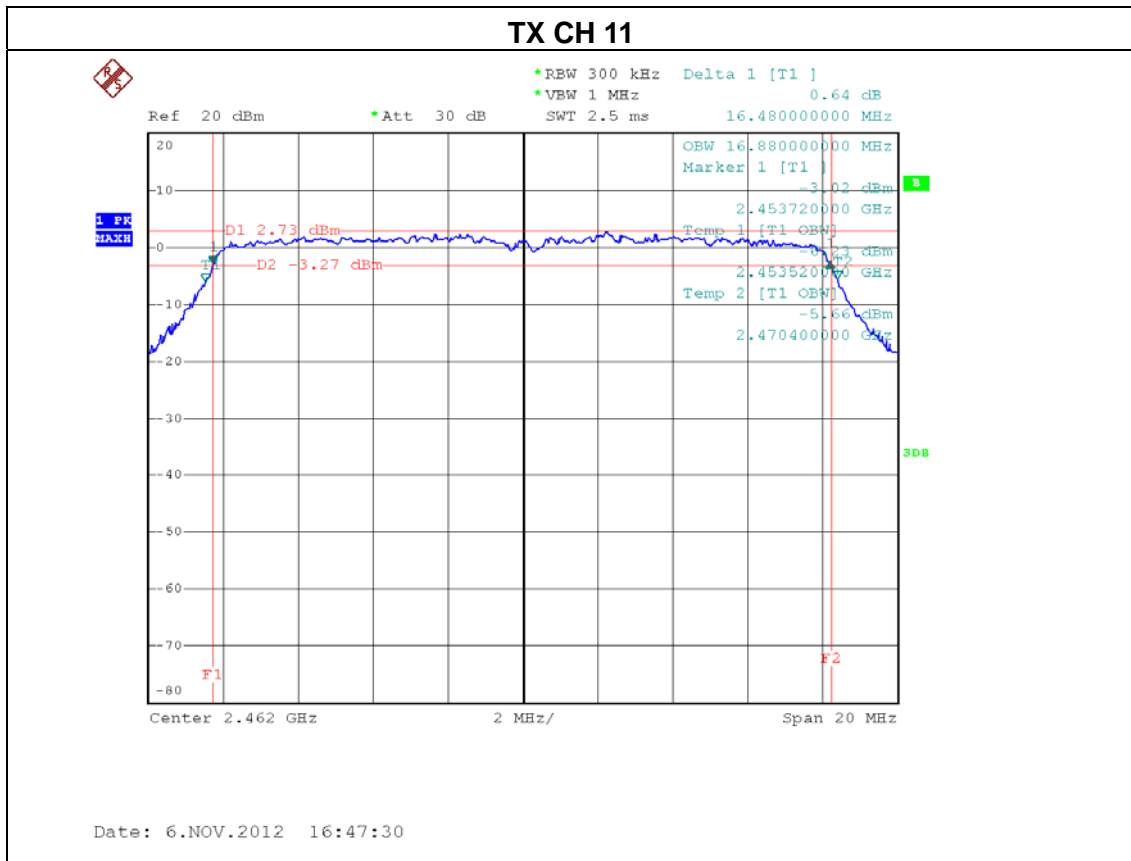
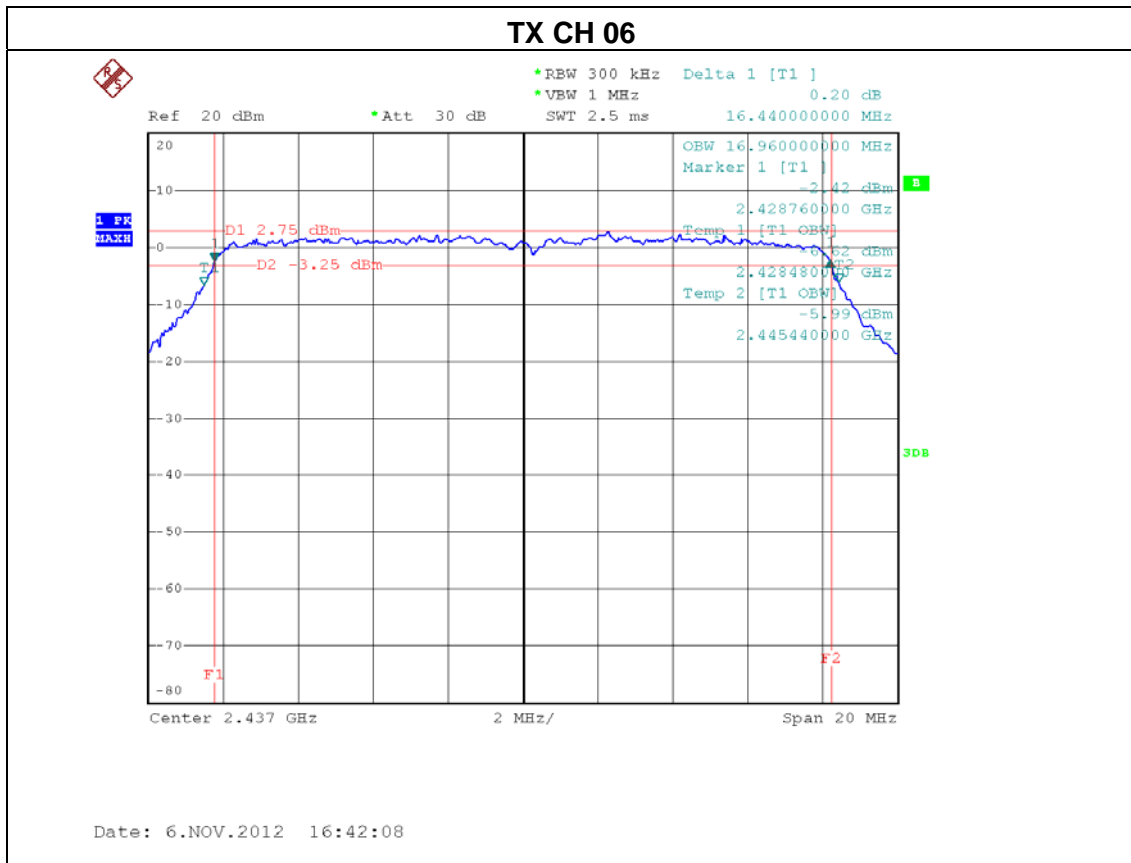




EUT :	Scuderia FS1 Air	Model Name. :	2LFS002
Temperature :	24 °C	Relative Humidity :	60 %
Pressure :	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	99% Occupied BW (MHz)
CH01	2412	16.56	16.96
CH06	2437	16.44	16.96
CH11	2462	16.48	16.88







6. MAXIMUM OUTPUT POWER TEST

6.1 Applied procedures / limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Maximum Output Power	1 watt or 30dBm	2400-2483.5	PASS

6.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	P-series Power meter	Agilent	N1911A	MY45100473	Apr.28.2013
2	Wireband Power sensor	Agilent	N1921A	MY51100041	Apr.28.2013

Remark: " N/A" denotes No Model Name. , Serial No. or No Calibration specified.
 All calibration period of Equipment List is One Year.

6.1.2 TEST PROCEDURE

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

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 :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	24 °C	Relative Humidity :	60 %
Pressure :	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE /CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412 MHz	15.94	30	1
CH06	2437 MHz	16.30	30	1
CH11	2462 MHz	16.56	30	1

EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	24 °C	Relative Humidity :	60 %
Pressure :	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412 MHz	18.23	30	1
CH06	2437 MHz	18.32	30	1
CH11	2462 MHz	18.49	30	1



7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 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

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. 05, 2013

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

All calibration period of Equipment List is One Year.

7.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting : RBW= 100KHz, VBW=300KHz, Sweep time = 10 ms.

7.1.3 DEVIATION FROM STANDARD

No deviation.

7.1.4 TEST SETUP



7.1.5 EUT OPERATION CONDITIONS

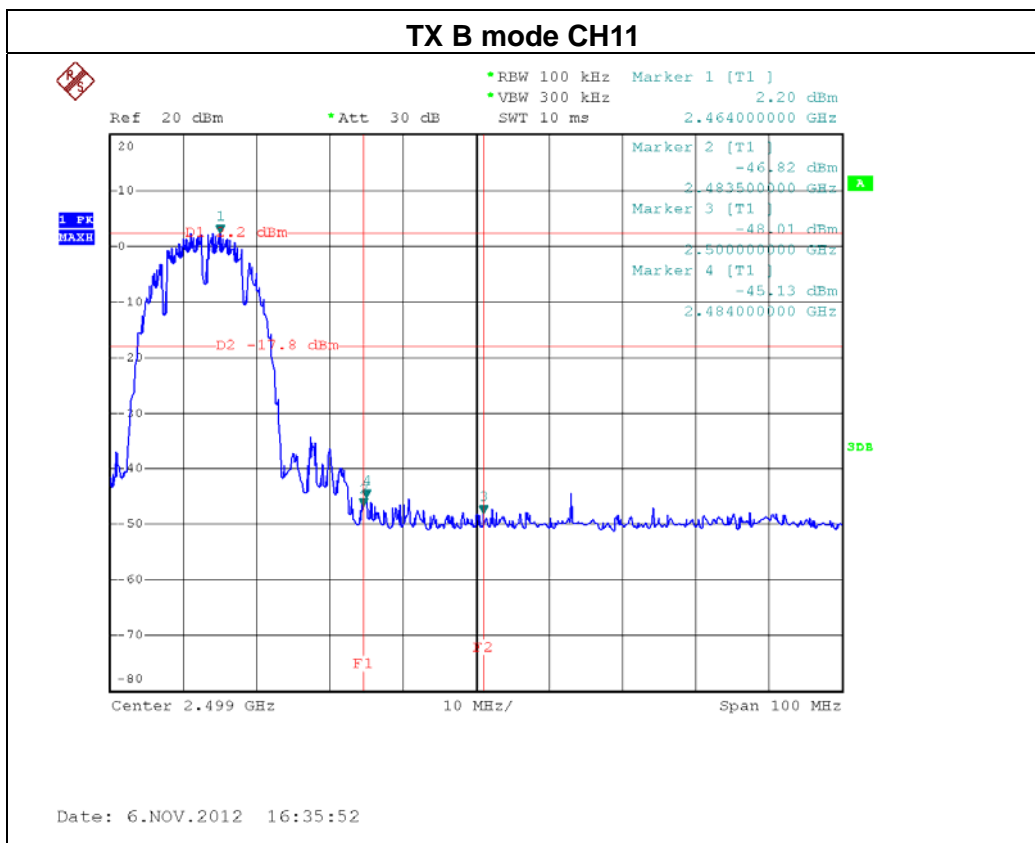
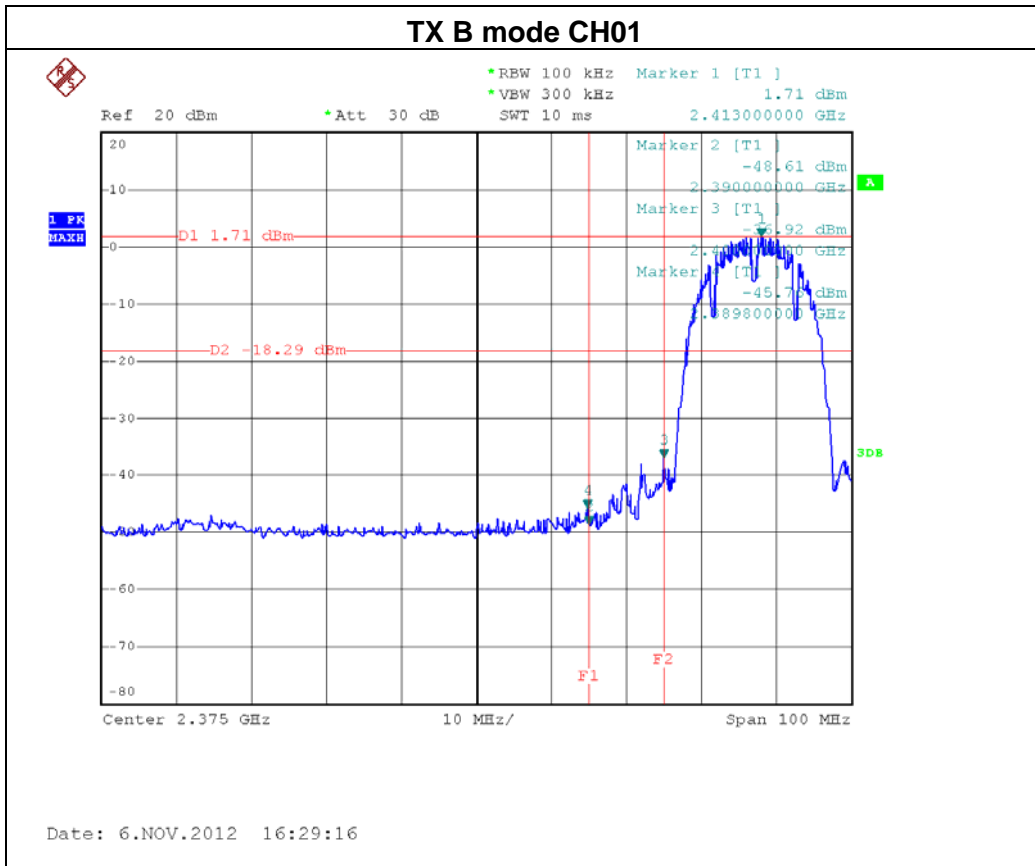
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

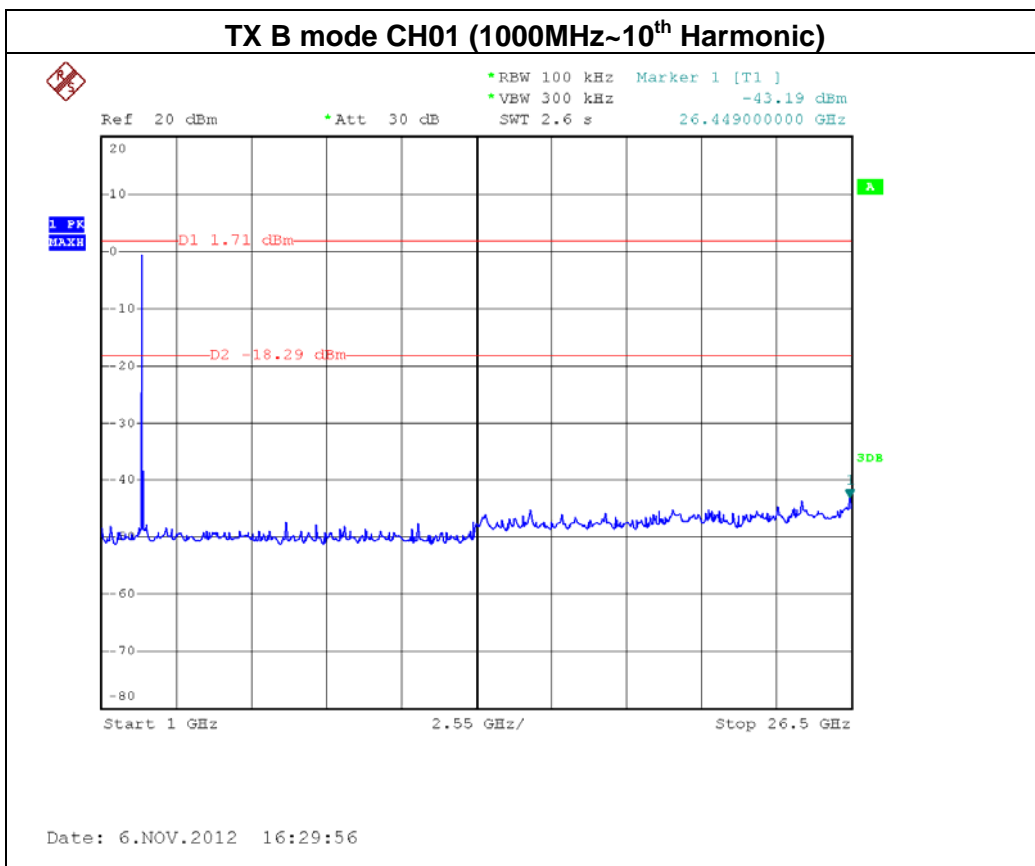
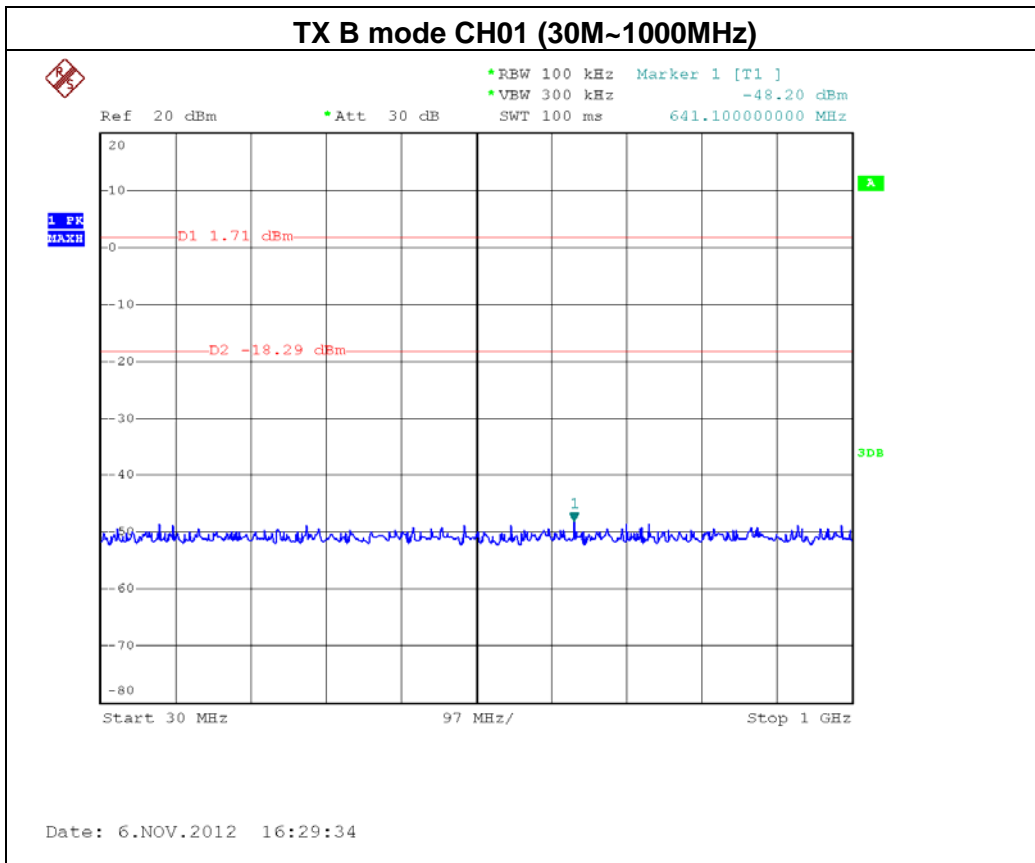


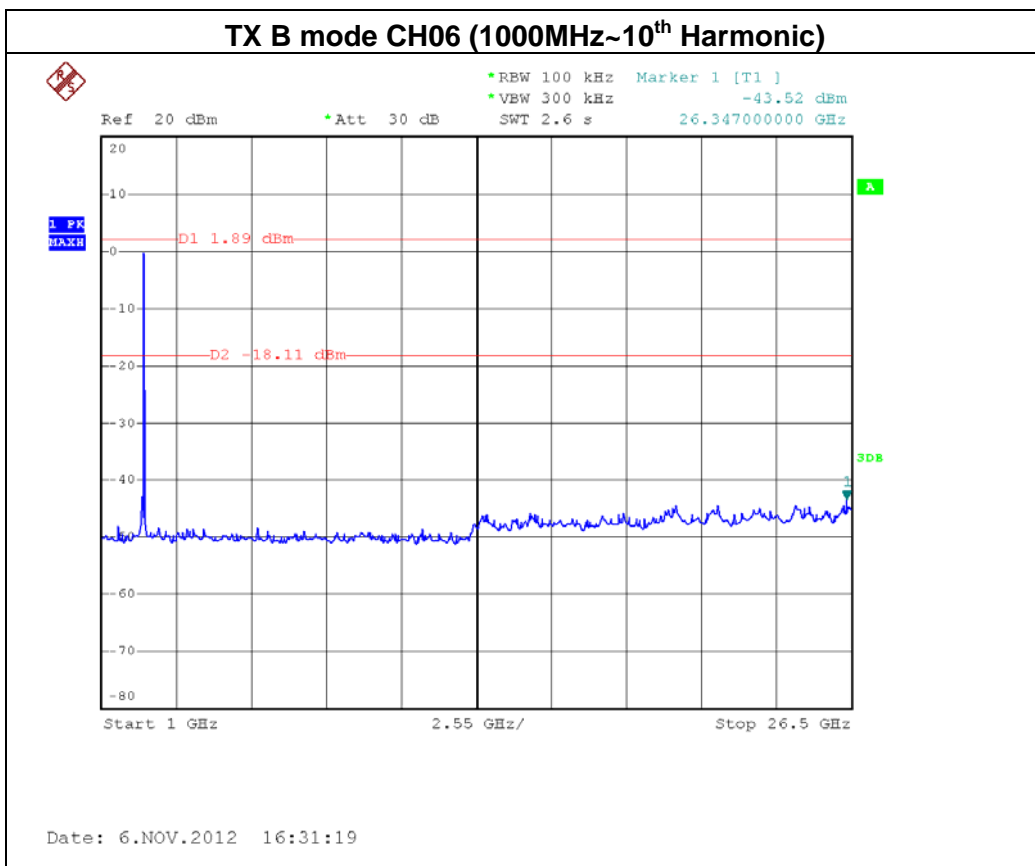
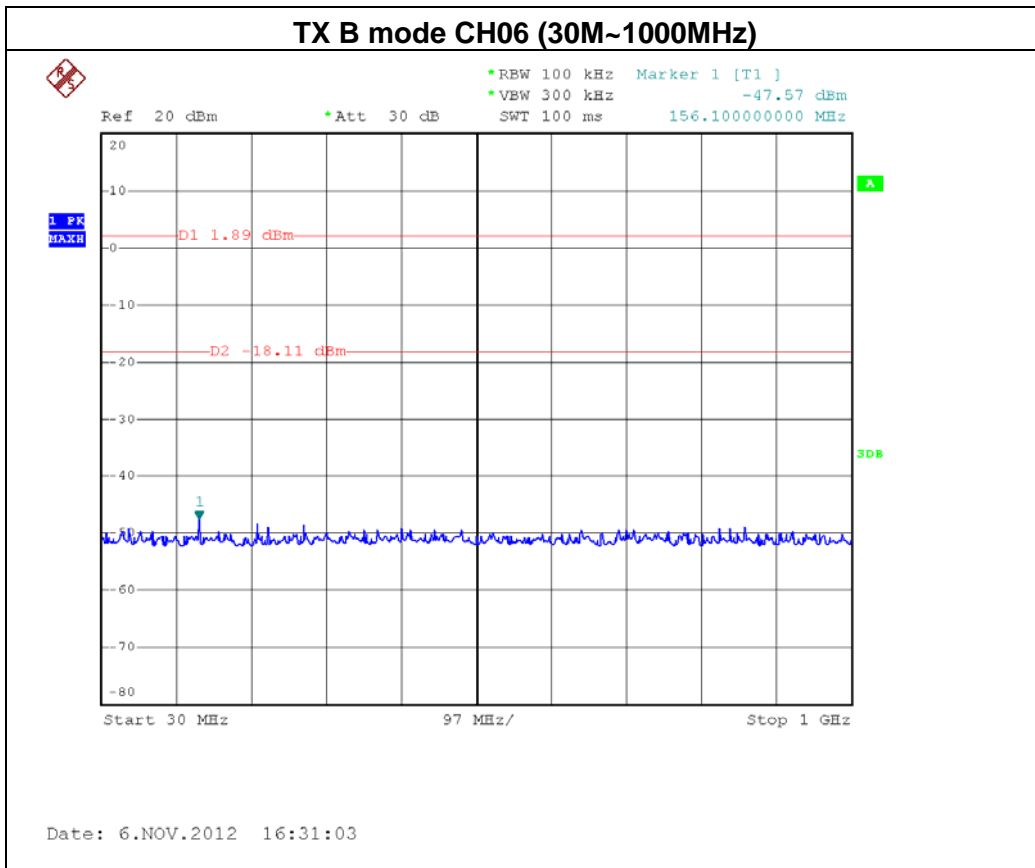
7.1.6 TEST RESULTS

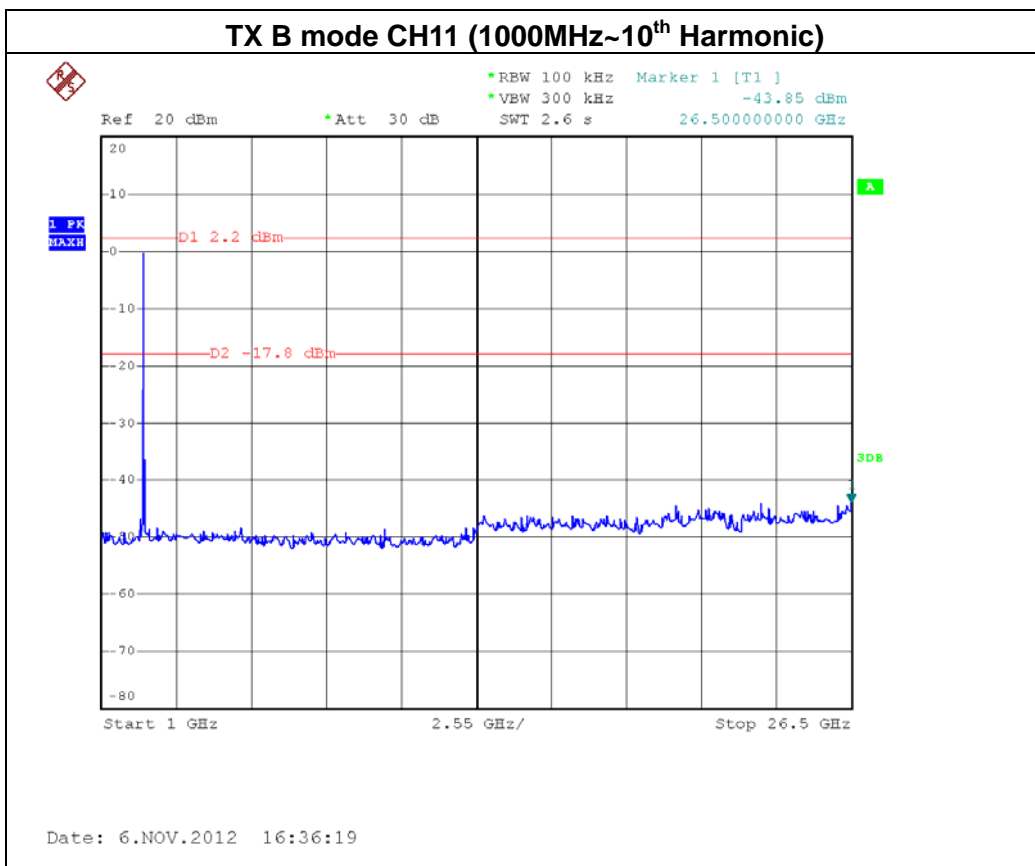
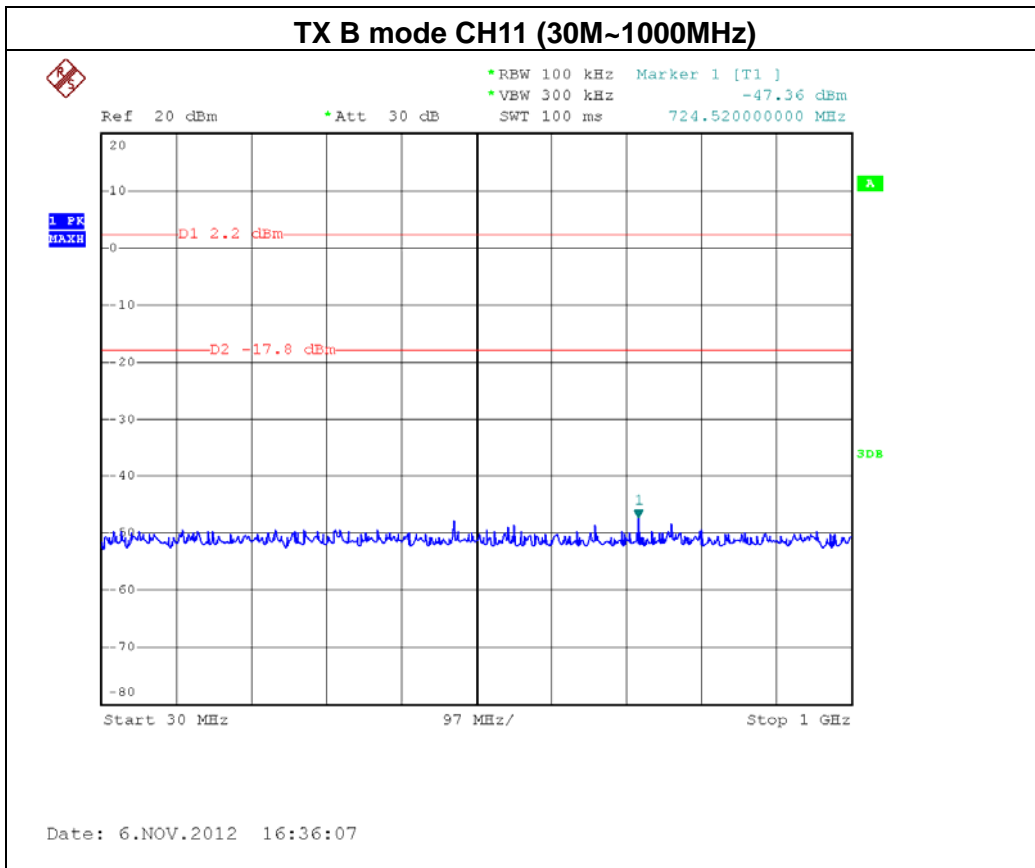
EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	24 °C	Relative Humidity :	60 %
Pressure :	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE /CH01, CH06 , CH11		

Channel of Worst Data: CH01			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2400.00	-36.92	2484.00	-45.13
Result			
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.			











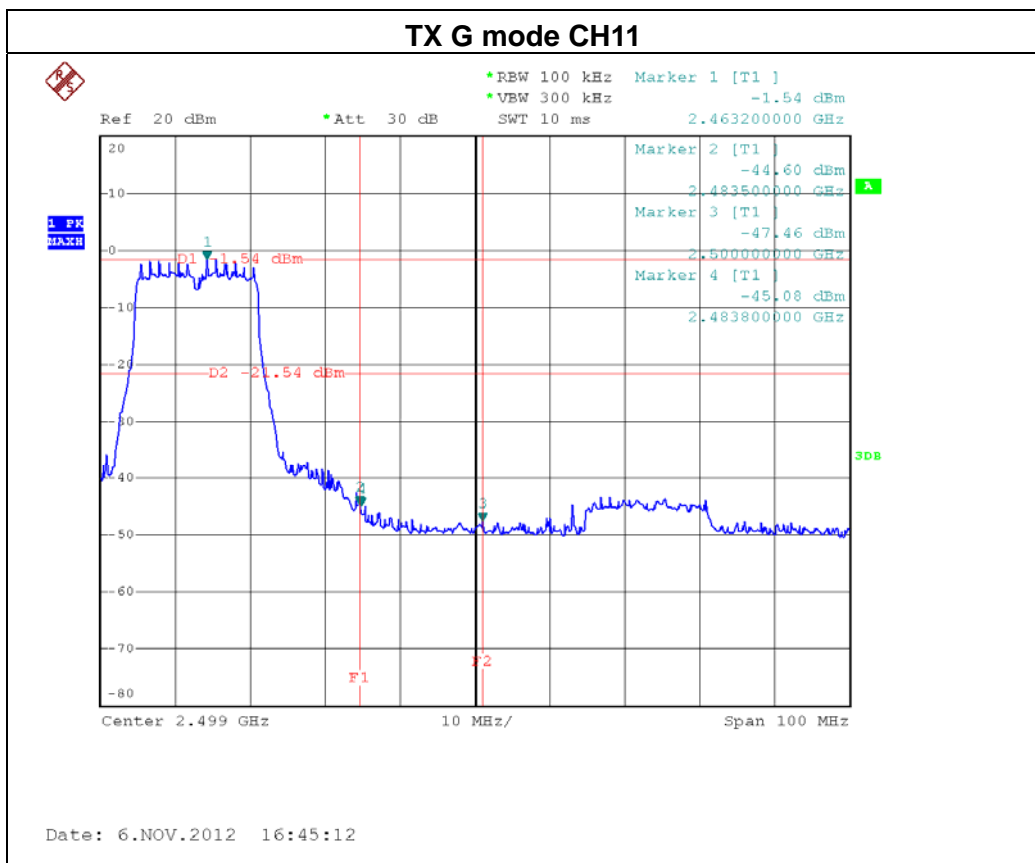
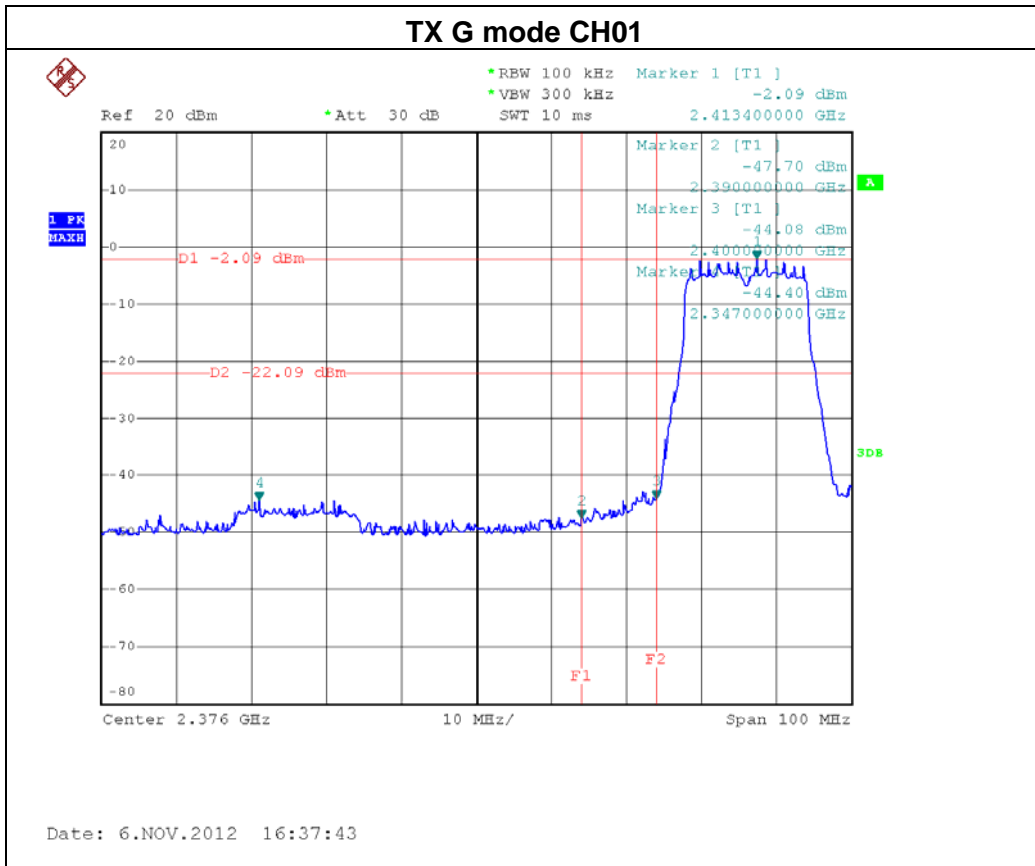
EUT :	Scuderia FS1 Air	Model Name :	2LFS002
Temperature :	24 °C	Relative Humidity :	60 %
Pressure :	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE / CH01, CH06 , CH11		

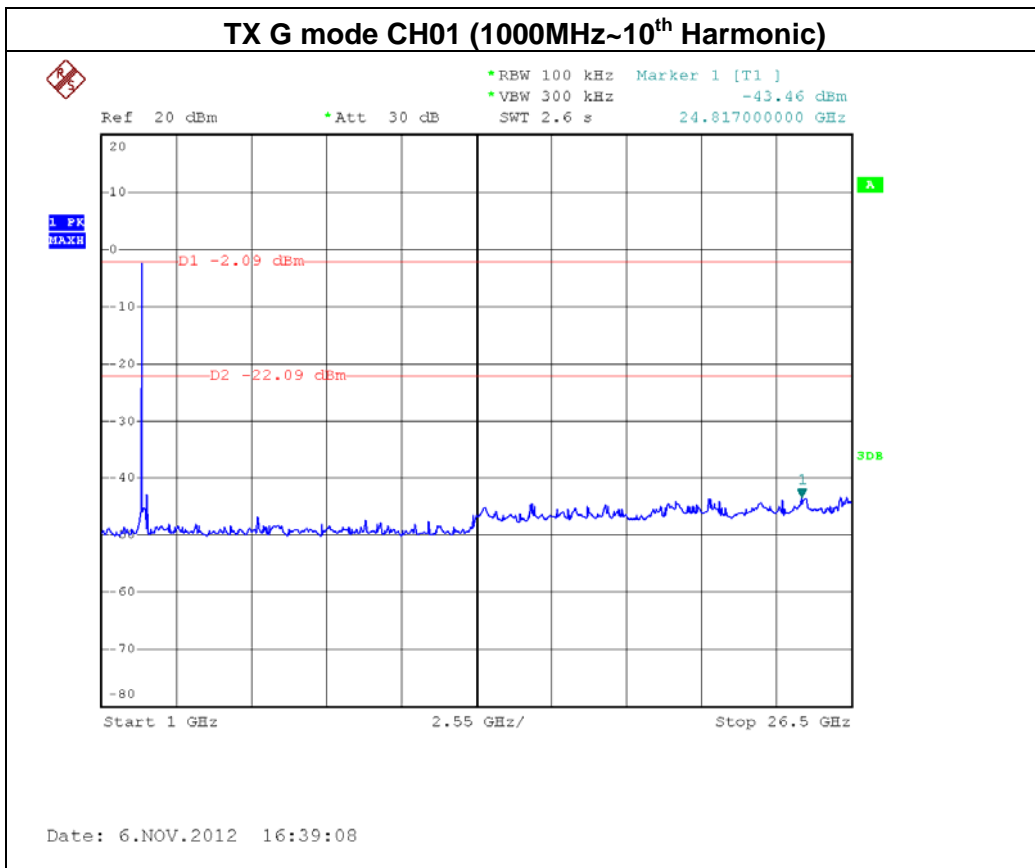
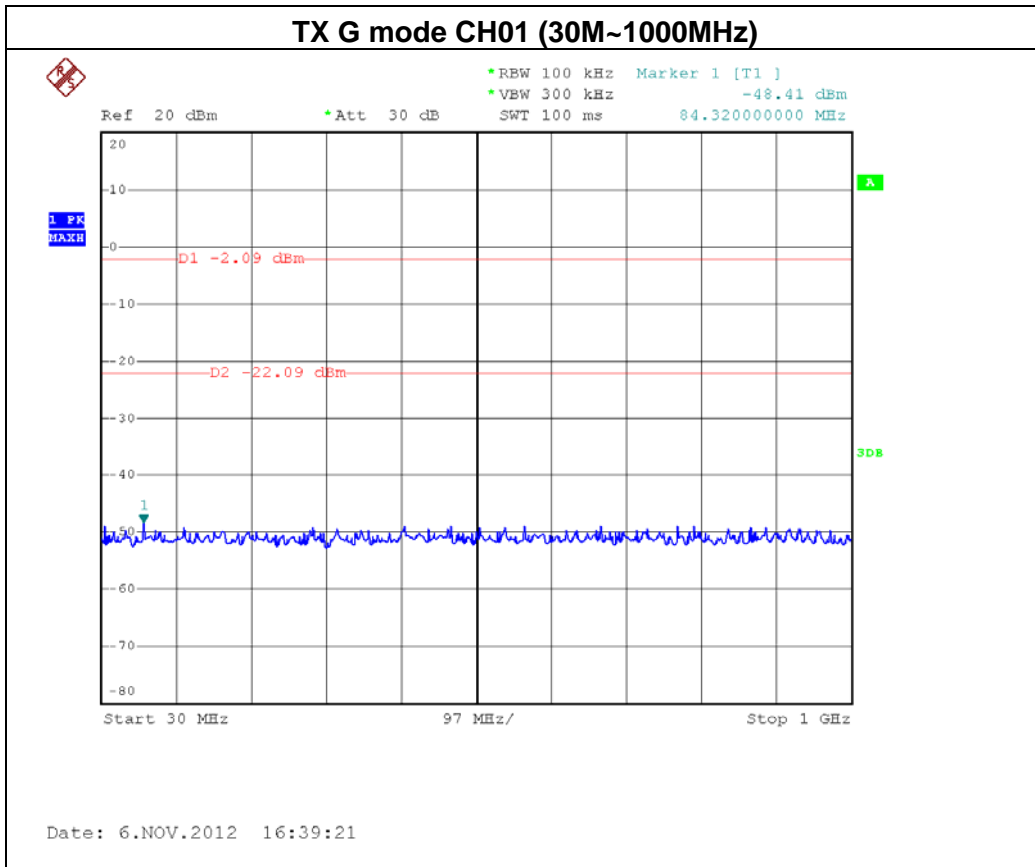
Channel of Worst Data: CH01

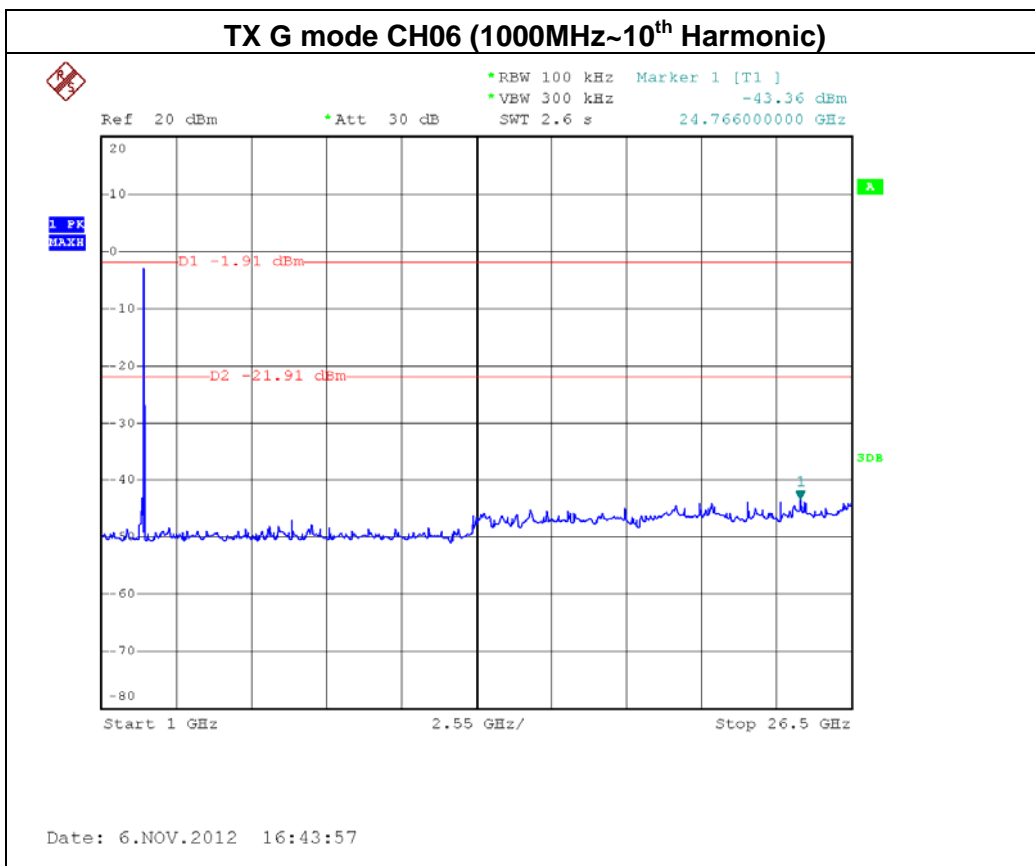
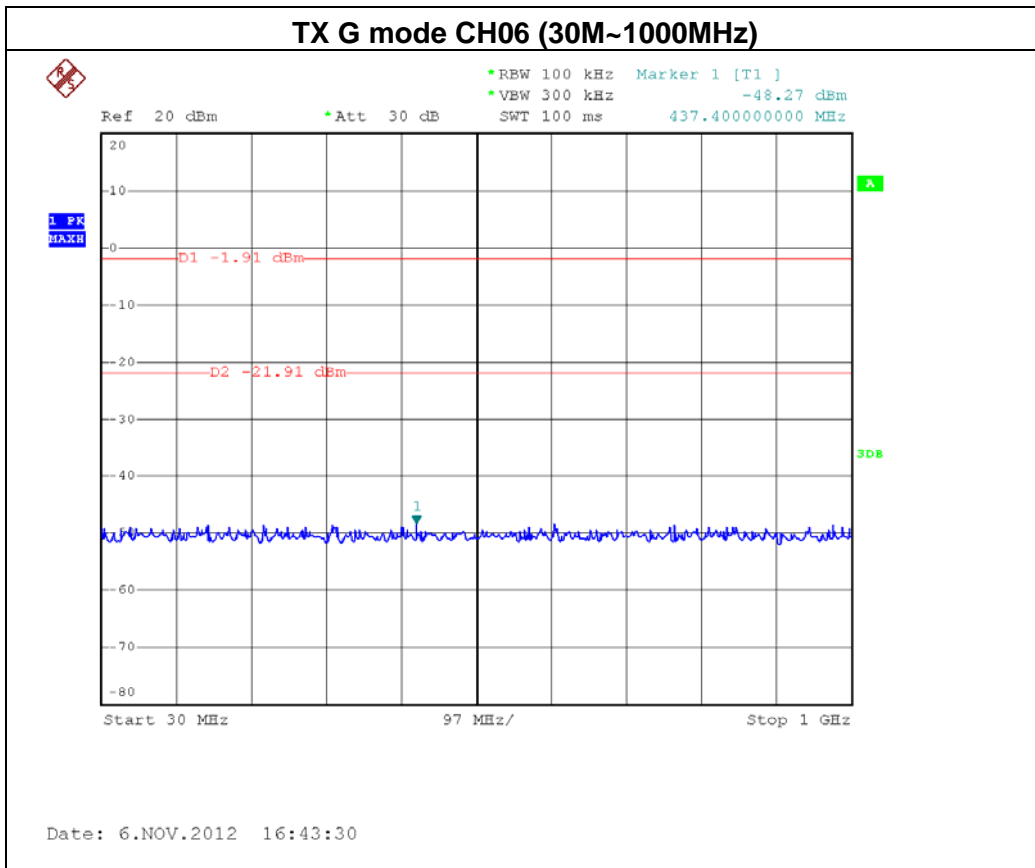
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2400.00	-44.08	2483.50	-44.60

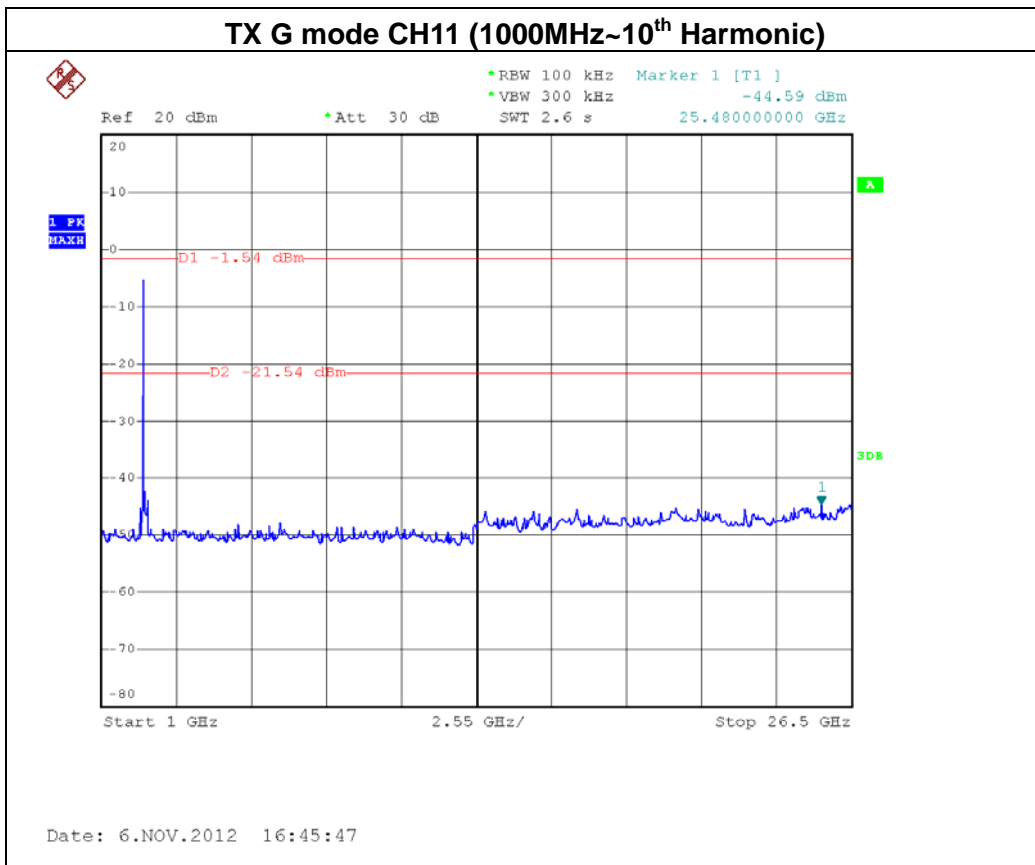
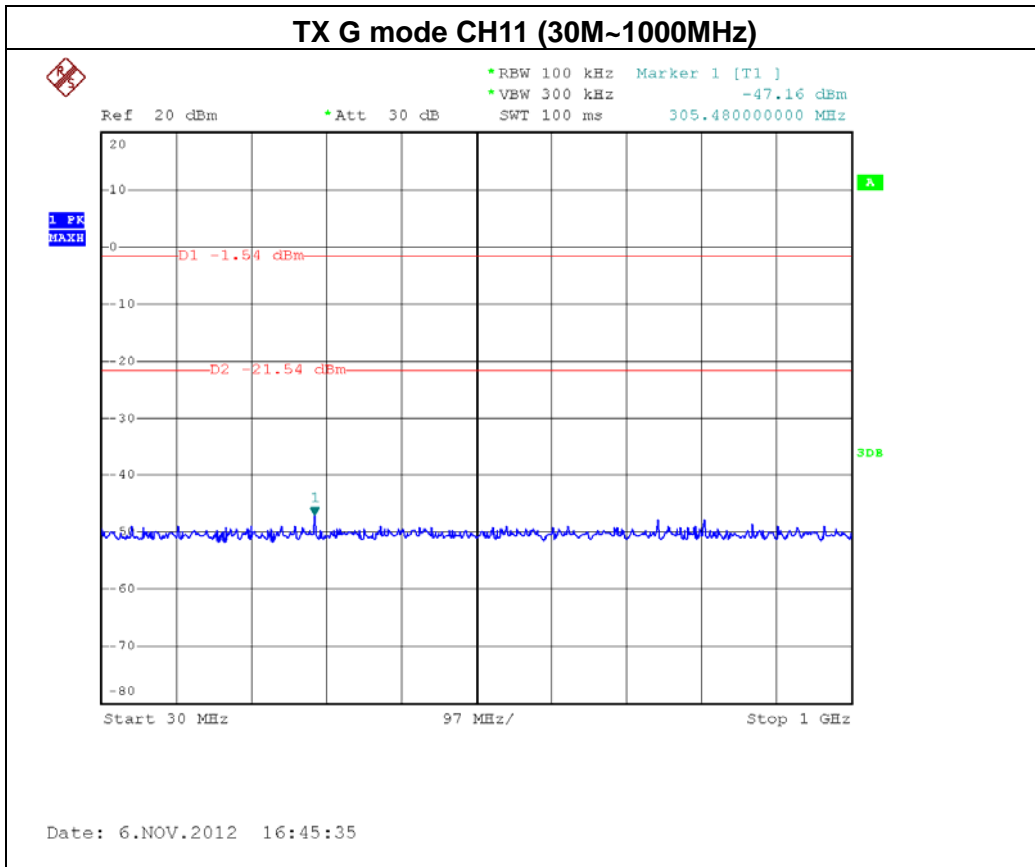
Result

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.











8. POWER SPECTRAL DENSITY TEST

8.1 Applied procedures / limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e)	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

8.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 05, 2013

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

8.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting : RBW=100KHz, VBW=300 KHz, Sweep time = 2.5 ms.

8.1.3 DEVIATION FROM STANDARD

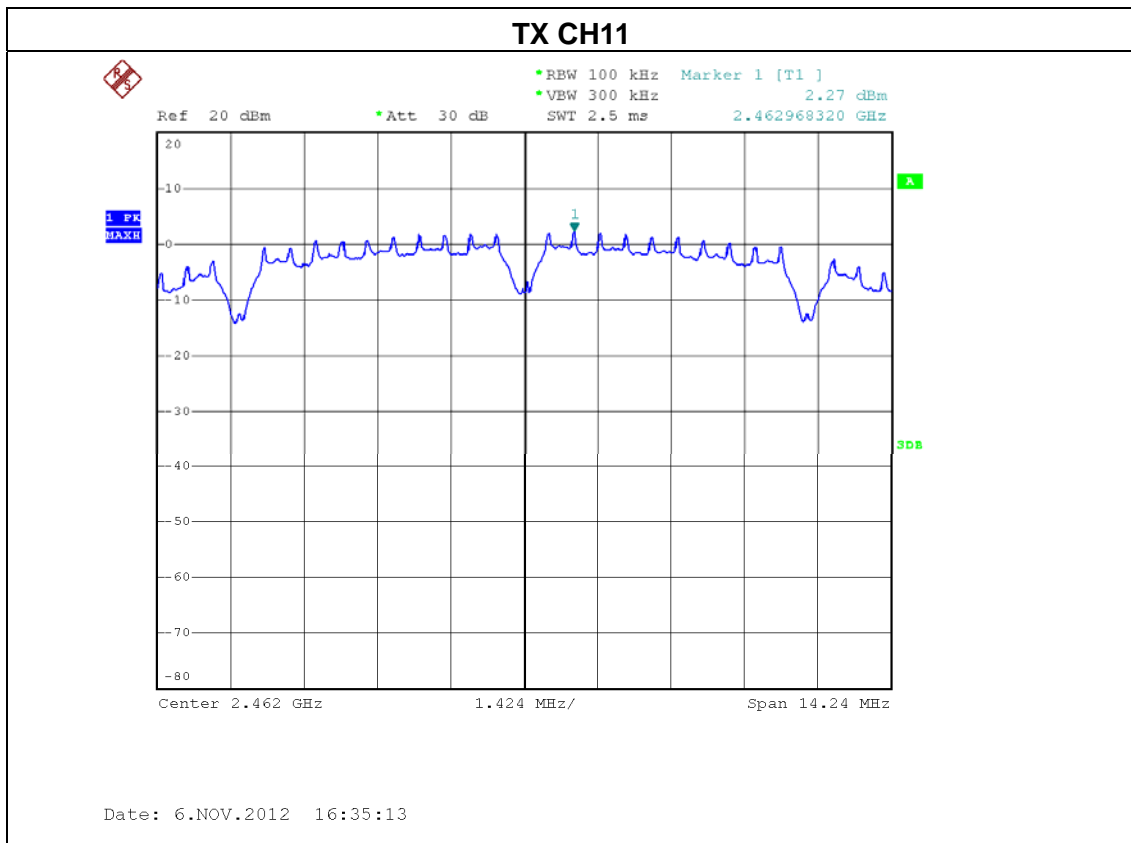
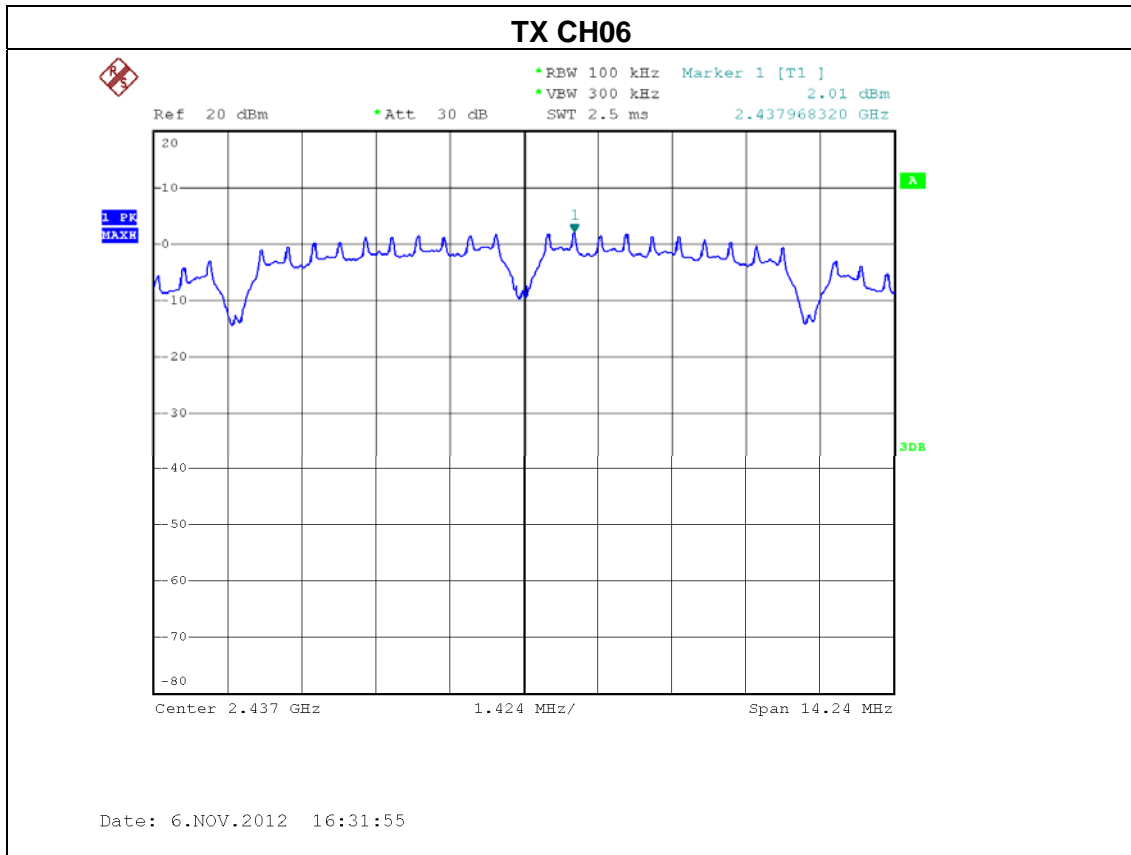
No deviation.

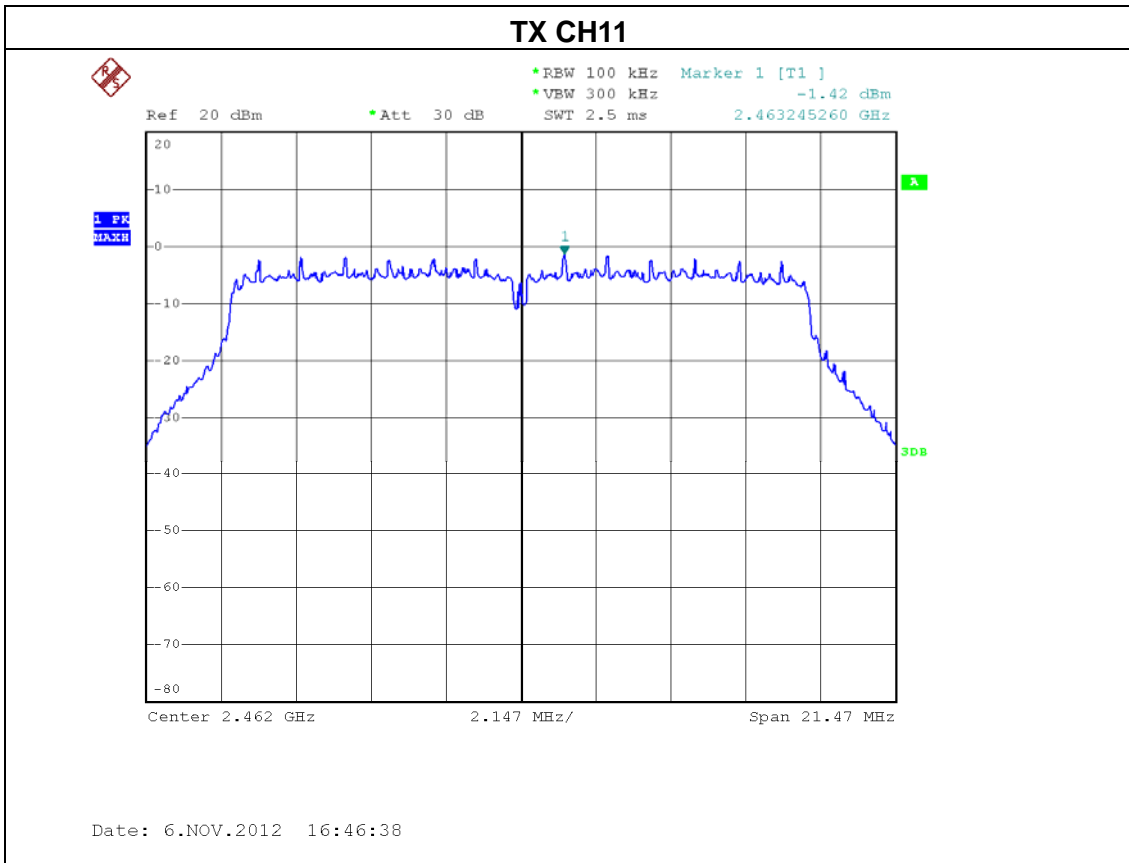
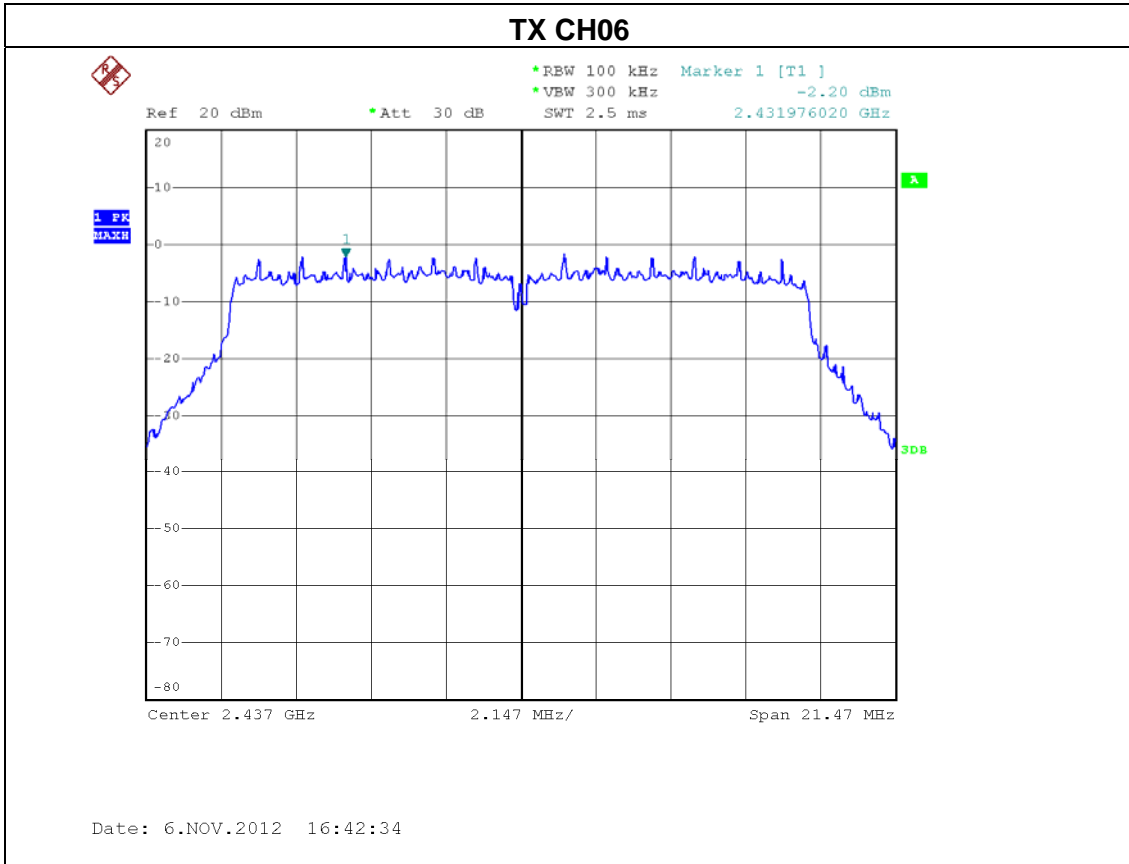
8.1.4 TEST SETUP



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.

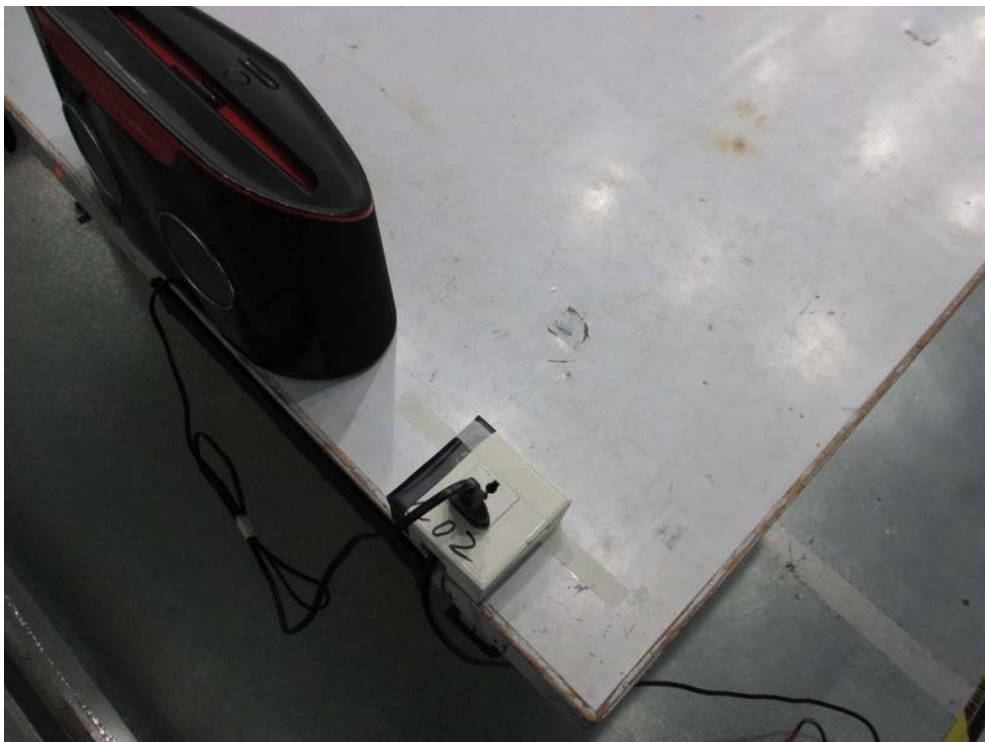




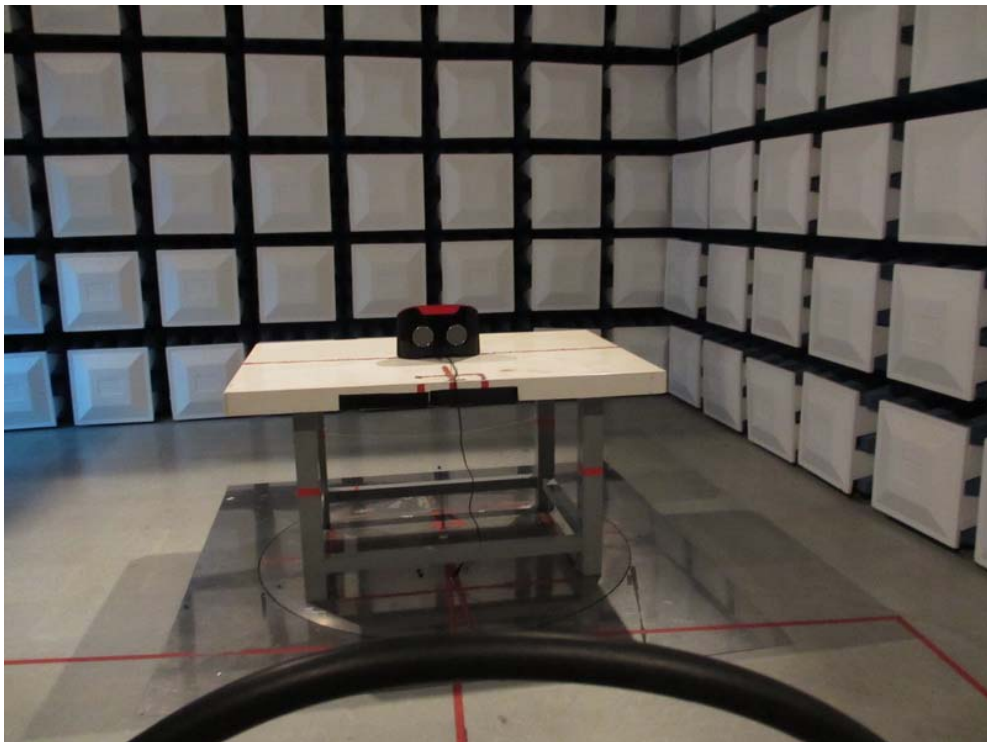
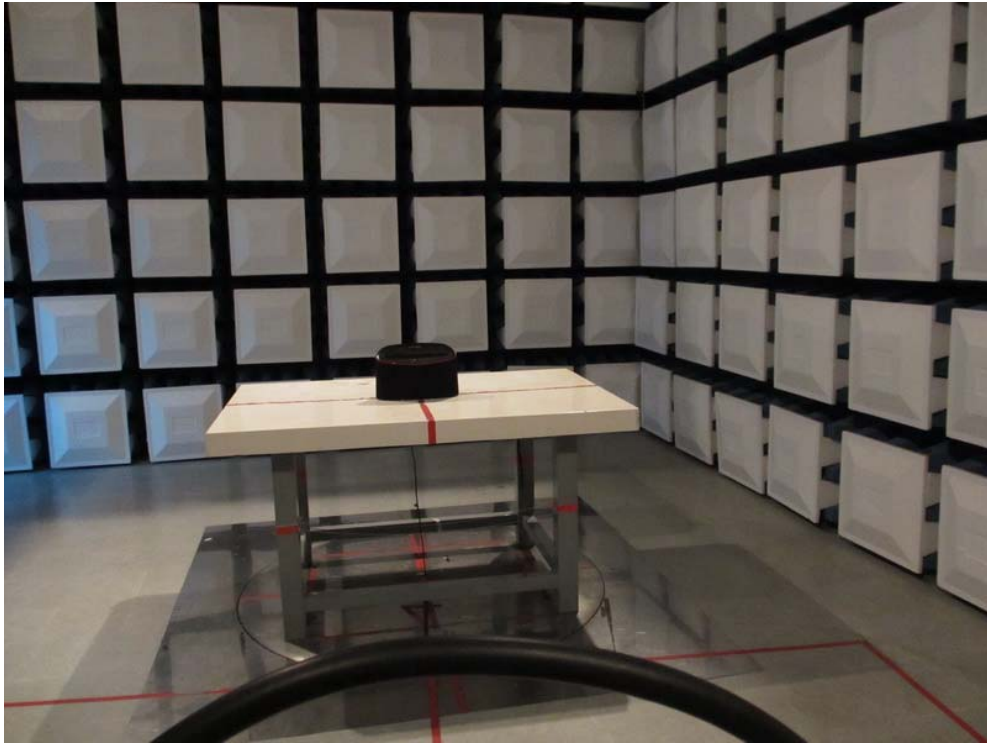


9. EUT TEST PHOTO

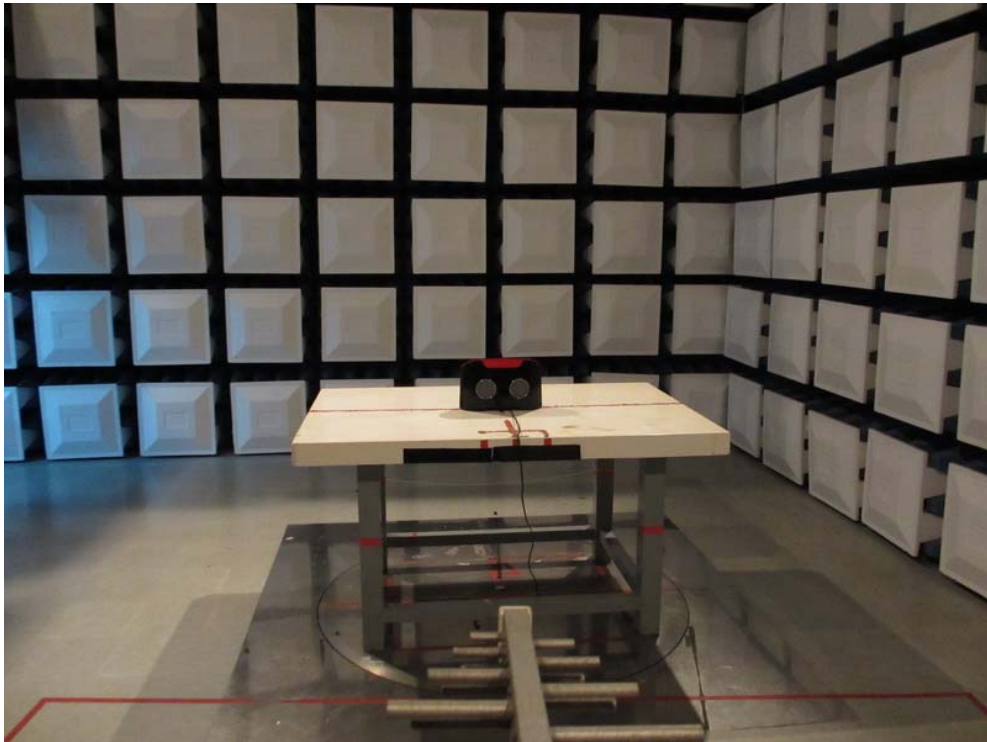
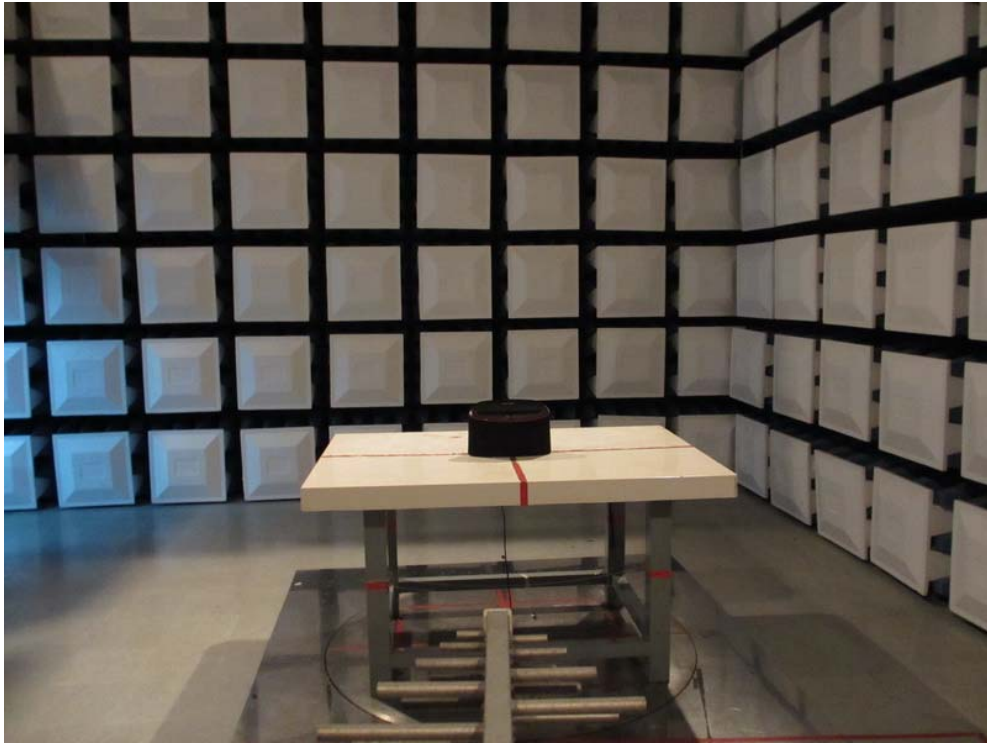
Conducted Measurement Photos



**Radiated Measurement Photos
9K~30MHz**



**Radiated Measurement Photos
30M~1000MHz**



**Radiated Measurement Photos
Above 1000MHz**

